Transportation Environmental Study Report G.W.P 214-00-00

Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Greenwood Road) County of Renfrew

# TRANSPORTATION ENVIRONMENTAL STUDY REPORT 

# Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Greenwood Road) County of Renfrew <br> G.W.P. 214-00-00 

## Class Environmental Assessment for Provincial Transportation Facilities - "Group B" Project

June 2018

Prepared for the Ministry of Transportation by:


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Reviewed by:


## The Public Record

This Transportation Environmental Study Report (TESR) has been prepared to document the recommended improvements, consultation undertaken, and potential environmental issues and mitigation measures associated with Highway 148 from Pembroke to immediately east of the Greenwood Road intersection.
This document is available at the following locations for a 30-day review period during normal business hours:

Township of Laurentian Valley<br>460 Witt Road, Clerk's Office<br>Pembroke, ON K8A 6W5<br>Pembroke Public Library<br>237 Victoria Street<br>Pembroke, ON K8A 4K5

County of Renfrew
9 International Drive, Clerk's Office
Pembroke, ON K8A 6W5

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## COMMENTS

We are interested in hearing any comments or concerns that you may have with the study. Comments must be received no later than August 10, 2018. Please send any comments or requests to either of the following:

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Notice first posted: July 12, 2018
Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

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| ACRONYMS AND ABBREVIATIONS |  |
| :--- | :--- |
| MTO | Ministry of Transportation, Ontario |
| EA | Environmental Assessment |
| CPR | Canadian Pacific Railway |
| TESR | Transportation Environmental Study Report |
| GWP | Group Work Project |
| RAU | Rural Arterial Undivided (Highway Classification) |
| AADT | Annual Average Daily Traffic |
| ADT | Average Daily Traffic |
| K | Vertical Curve (Measure) |
| R [A] | Radius [Spiral Curve Parameter] |
| MNRF | Ministry of Natural Resources and Forestry |
| PSW | Provincially Significant Wetland |
| PPS | Provincial Policy Statement |
| SAR | Species at Risk |
| ESA | Endangered Species Act |
| ROW | Right-of-Way |
| OTM | Ontario Traffic Manual (Book 7 - Temporary Conditions) |
| CSP | Corrugated Steel Pipe |
| MUT | Multi-Use Trail |
| PIC | Public Information Centre |
| MAC | Municipal Advisory Committee |
| PAC | Public Advisory Committee |
| OPSS | Ontario Provincial Standard Specification |
| OPSD | Ontario Provincial Standard Drawing |
| NSSP | Non Standard Special Provision |
| CCTV | Closed Circuit Television |

## Executive Summary

## Introduction

Highway 148 is a two-lane provincial highway that connects the City of Pembroke with the Ontario-Quebec provincial border. IBI Group was retained by the Ministry of Transportation (MTO) to undertake the preliminary design and Class Environmental Assessment (Class EA) study for improvements to Highway 148 from Pembroke to east of the Greenwood Road intersection (GWP 214-00-00).
The objective of this study is to review existing and future highway needs, including operational and safety improvements, pavement rehabilitation and active transportation.
This Transportation Environmental Study Report (TESR) documents the Class Environmental (EA) Study process undertaken for this study. The TESR includes a description of the project and the purpose; existing conditions; need and justification for improvements; development and evaluation of alternatives; and the consultation process. It also documents the recommended plan; anticipated environmental effects and proposed mitigation measures; and commitments to future work and monitoring.

## Class Environmental Assessment Process

The project has been carried out following the requirements of the MTO Class EA as a Group 'B' project. Group 'B' projects include major improvements to existing transportation facilities, including improvements that increase traffic capacity or cause a significant widening of the footprint beyond the existing highway and new or modified water crossings.

This study was initiated in April 2015 as part of a broader study for Highway 148 from Pembroke to the Québec border ( 5.0 km ). To expedite replacement of the former CPR bridge within the project limits, in July 2017 the overall study was broken into two separate projects:

- Highway 148 - West of Angus Campbell Drive to Greenwood Rd, 3.2 km (GWP 214-00-00)
- Highway 148 - Greenwood Road to the Québec Border, 1.8 km (GWP 239-00-00).

The study for the section of Highway 148 from Greenwood Road to the Québec Border was completed in Fall 2017. A separate Transportation Environmental Study Report (TESR) was prepared for this section and filed for public review on November 7, 2017.

## Public Consultation

The Class EA process targets notifying all interested parties of the project and providing an opportunity for input to the study and decision-making process. This was accomplished by presenting the project findings during key stages of the study to the public, and through ongoing discussions with agencies, stakeholders, First Nations, property owners and interested members of the public.

To ensure all interested members of the public and stakeholders were contacted, a consultation plan was developed at the beginning of the study and included the following:

- Notice of Study Commencement (April 2, 2015);
- Consultation with external agencies;
- Municipal Advisory Committee;
- Public Advisory Committee;
- Meetings with municipal staff and Council (City of Pembroke, Township of Laurentian Valley, and County of Renfrew);
- Communication with adjacent property owners;
- Two Public Information Centres (July 14, 2015 and July 6, 2017); and
- Notice of Study Completion (July 12, 2018).

Public input was received at two Public Information Centres and continuously during the study through emails, phone calls and letters.

## Evaluation of Alternatives

The development of alternatives began with identifying and evaluating a range of potential active transportation, access management, alternatives to meet the goal of improving the safety and operation of Highway 148, while minimizing impacts to the cultural environment, natural environment and access within the study limits.

Section 5.0 (Preliminary Design Alternatives) of the report describes the alternatives considered and the process used to identify the Recommended Plan.

## Recommended Plan

The Recommended Plan evolved through the development and evaluation of alternatives, with additional details being developed as the study progressed, as documented in this TESR.

The improvements in the Recommended Plan include:

- Highway 148 between Angus Campbell Drive and Drive In Road:
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (barrier curb with gutter, storm sewer upgrades) with a potential sidewalk as a municipal initiative;
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, this includes intersection improvements and profiles changes to the north approach.
- Highway 148 between Drive In Road and Greenwood Road:
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;

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- Revise the Greenwood Road intersection by tightening the westbound rightturn channel (reduce radius from 70 m to 45 m ) and extend the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.


### 1.0 Overview of Undertaking

### 1.1 Introduction

The Ministry of Transportation (MTO) retained IBI Group to undertake the preliminary design and Class Environmental Assessment (Class EA) study to undertake improvements on Highway 148 between Pembroke and Greenwood Road. This study reviewed existing and future highway needs, provides recommendations for operational and safety improvements and pavement rehabilitation. This study followed the planning process for Group "B" projects under the Class Environmental Assessment for Provincial Transportation Facilities (MTO 2000), which is approved under the Ontario Environmental Assessment Act, including the preparation of a Transportation Environmental Study Report (TESR).

### 1.1.1 Study Area

The study area extends for 3.2 km from approximately 160 m west of Angus Campbell Drive in the City Pembroke to east of the Greenwood Road intersection (Exhibit 1-1), and is located in the Township of Laurentian Valley, County of Renfrew. Highway 148 is a two-lane provincial highway that connects the City of Pembroke with the OntarioQuebec provincial border. Highway 148 was established in 1983 when Highway 62/Highway 17 was renumbered as part of the highway system. Within the study area, the highway is an urban cross-section from Angus Campbell Drive to west of the Walmart driveway entrance, transitioning to a rural cross-section with roadside ditches to Greenwood Road.

## Exhibit 1-1: Study Area



At the commencement of this Class EA, the study area consisted of Highway 148 between Pembroke and the Quebec border ( 5.0 km ). In 2017, it was determined that in order to expedite the removal replacement of the CPR bridge, the study would be broken into two separate Class EAs. The Class EA from Greenwood Road to the Quebec Border ( 1.8 km ) was completed as a separate Class EA (GWP 239-00-00) in Fall 2017.

### 1.2 Related Projects or Studies

The following related studies in the immediate vicinity of the study area, have been completed or are currently underway:

## a) Ministry of Transportation: Hazley Bay Bridge Structure Rehabilitation and Cross Culvert Replacement.

In 2011, a Detail Design Study and Class EA was completed for the rehabilitation of the Hazley Bay Bridge and the replacement of two centreline culverts, the repair of one centreline culvert, the lining of one centreline culvert, and the installation of three new entrance culverts on Highway 148 from Pembroke to the Quebec border. Replacements were subsequently undertaken under Contract 2011-4051 to culverts at Sta. 12+331 and Sta.13+078 within the study area, as well as place of rip-rap and concrete repairs at the culvert at Sta. 11+176.

## b) Ministry of Transportation: Preliminary Design and Class Environmental Assessment Highway 148 -Greenwood Road to the Quebec Border (GWP 239-00-00)

This study was initiated in conjunction with the current study, however was separated to advance the TESR. This study reviewed existing and future highway needs, and provides recommendations for operational and safety improvements, pavement rehabilitation and active transportation (including the Hazley Bay bridge crossing). The study also determined the most appropriate strategy for the rehabilitation, replacement, or removal of the Canadian Pacific Railway (CPR) bridge over the abandoned rail line crossing of Highway 148. The recommendations include:

- Replacement of the CPR Bridge with a recreational trail culvert to allow for a grade separated crossing of the future Algonquin Trail;
- Paved shoulders, 2.5 m wide to accommodate cyclists and to connect to the existing paved shoulders which were recently constructed in the realigned section of Highway 148 as part of the Des Allumettes Bridge project;
- New right-turn tapers at the approaches to Traxton Way and Hazley Bay Drive; and,
- Protect for a 1.0 m painted buffer in the shoulder if in the future Highway 148 is formally designated and signed as a cycling route by MTO.

Works at Hazley Bay Bridge will be limited to pavement resurfacing only with no structural modifications requiring in-water or channel bank work.

To accommodate traffic during removal of the former CPR the bridge and replacement with a recreational trail culvert, detouring traffic onto Municipal and County Roads for a duration of 2-3 weeks will occur.
Prior to implementing the detour, the pavement surface of both Hazley Bay Drive and Forest Park Road will be upgraded. Once the detour period is complete, the Ministry will close the Hazley Bay Drive/Forest Park Road connection. The method of closure is to be determined by the Township of Laurentian Valley.

The concluding Public Information Centre for this study was held in conjunction with the current study. The Class EA study for Highway 148 Greenwood Road to the Quebec Border (GWP 239-00-00) was completed in Fall 2017.

The Transportation Environmental Study Report was posted for a 30 day review ending December 7, 2017 and subsequently received EA Clearance to proceed into detail design and property acquisition in February 2018.

### 2.0 Environmental Assessment Process

### 2.1 Ontario Environmental Assessment Act

The MTO Class Environmental Assessment for Provincial Transportation Facilities was approved under the Ontario Environmental Assessment Act in 1999 and amended in 2000. The MTO Class EA defines groups of projects based on their complexity and activities, and delineates the environmental assessment process that must be followed to ensure compliance with the requirements of the MTO Class EA process. If a project follows the MTO Class EA process and its requirements are met for the project then Ontario Environmental Assessment Act requirements are fulfilled. The following principals underlie the Class EA process for Group A, B and C projects:

- Transportation engineering principals;
- Environmental protection principals;
- External consultation principals;
- Evaluation principals that are intended to achieve the best overall balance of these principals;
- Bump-up principals; and
- Environmental clearance principals to proceed.


### 2.2 Canadian Environmental Assessment Act

The Canadian Environmental Assessment Act, 2012 establishes the legislative basis for the federal environmental assessment process. An environmental assessment is required only for projects included in the list of "designated projects". A proponent is not required to complete the federal EA process if a project is not on this list. This project does not fall under the list of designated projects.

### 2.3 MTO Class Environmental Assessment Group 'B’ Requirements

This study is following the MTO Class EA process for Group 'B’ projects (Exhibit 2-1). Group ‘B' projects are major improvements to existing facilities. Types of projects include:

- Highway and freeway improvements that significantly increase capacity;
- New interchanges or modifications to existing interchanges;
- Major realignments;
- New or modified water crossings; and
- New service, maintenance or operation facilities.

The Class EA process for Group ‘B’ projects requires a TESR. The TESR documents the Class EA process undertaken. This includes the planning process that was followed

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to arrive at the recommended alternative, potential environmental impacts and mitigation and commitments for future work to be completed during detail design.

The TESR is made available to members of the public, external agencies, stakeholders and other interested parties for a 30-day review period. Interested persons are encouraged to review the TESR and provide comments by August 10, 2018.
The following individuals are available to discuss the TESR:

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Fax: 416-675-4620
Email: allan.ortlieb@ibigroup.com

Exhibit 2-1: Class Environmental Assessment Process for Group 'B' Projects


\subsection*{2.3.1 Part II Order Process}

During the 30 -day review period the public are welcome to express their concerns by contacting the MTO to discuss any issues and work toward their resolution. If, after consulting with MTO Project Team members, you have serious unresolved concerns, you have the right to request a Part II Order (bump-up). A Part II Order can only be
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requested for the project components addressed in the TESR. Requests should be directed to:

Minister of the Environment and Climate Change
77 Wellesley Street West, Floor 11
Toronto, ON, M7A 1L5
(Fax: 416-314-8452)
A Part II Order may lead to the preparation of an Individual Environmental Assessment. A copy of the request should also be forwarded to the MTO Project Team.

If there are no outstanding concerns at the end of the 30 day review period, the project will be considered to have met the requirements of the Class EA and will move forward into detail design.

\subsection*{3.0 Transportation Needs Assessment}

This section provides an overview of the generation, assessment and evaluation of the alternatives that were considered to meet the key study objectives.

\subsection*{3.1 Problem and Opportunity}

The problem is a need for safety and operational improvements, and pavement rehabilitation to Highway 148. Identified transportation issues within the corridor include:
- Pavement rehabilitation required;
- Access management does not meet current MTO standard with respect to minimum intersection spacing and maximum access density; and
- Limited or no facilities for pedestrians and cyclists along Highway 148.

The main objectives were comprised of:
- Identifying any corridor deficiencies and providing recommendations for improvements to enhance highway safety and traffic operations as part of the rehabilitation; and
- Investigate the need and feasibility of Active Transportation.

\subsection*{3.2 Alternatives to the Undertaking}

The Ontario Environmental Assessment Act requires that 'reasonable alternatives' be considered in addressing the identified deficiencies. This involves two levels of analysis. The Alternatives to the Undertaking considers a broad range of alternatives that could address the project needs. Once the best alternative is selected, the Alternative Methods of Carrying out the Undertaking is studied. For this project, six Alternatives to the Undertaking were identified (Exhibit 3-1).

Exhibit 3-1: Alternatives to the Undertaking
\begin{tabular}{|l|l|l|}
\hline \multicolumn{1}{|c|}{\begin{tabular}{c} 
ALTERNATIVE \\
SOLUTION
\end{tabular}} & \multicolumn{1}{c|}{ DESCRIPTION } & RECOMMENDATION \\
\hline Do Nothing & \begin{tabular}{l} 
- Continue to operate the highway in its \\
current form. \\
- Improvements are limited to on-going \\
maintenance of the existing road (i.e. \\
pavement rehabilitation)
\end{tabular} & Carry Forward \\
\hline \begin{tabular}{l} 
Limit \\
Development
\end{tabular} & \begin{tabular}{l} 
- \begin{tabular}{l} 
Restrict future development in the \\
area (planned develop only \\
marginally increases traffic demands)
\end{tabular} \\
\hline \begin{tabular}{l} 
Divert Travel \\
Demands
\end{tabular} \\
\hline - Divert existing and future traffic \\
demands to other corridors.
\end{tabular} & Not Carried Forward \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline ALTERNATIVE SOLUTION & DESCRIPTION & RECOMMENDATION \\
\hline Travel Demand Management (including Active Transportation) & \begin{tabular}{l}
- Change travel demand, reducing traffic volumes (i.e., promote more walking, cycling, transit, carpooling) \\
- Consider active facilities to improve pedestrian and cyclist safety.
\end{tabular} & Carried Forward \\
\hline Local Intersection and Operational Improvements & \begin{tabular}{l}
- Operational improvements such as new signals, turning lanes, signal timing and coordination, right-in/rightout). \\
- Design improvements to address/ mitigate current deficiencies.
\end{tabular} & Carry Forward \\
\hline Widening to 3-4 Lanes & - Increase corridor capacity by providing additional travel lanes on Highway 148, in conjunction with intersection improvements, cycling lanes and/or sidewalks, etc. & Carry Forward \\
\hline
\end{tabular}

In most cases the "Do Nothing" alternative does not address the primary objectives of the study; however was carried forward for further coarse screening of design alternatives to provide a baseline for comparison during the future evaluation stage. Of the remaining options, "Limiting Development" and/or "Diverting Travel Demands" were not considered feasible options to address the existing corridor deficiencies and therefore not carried forward.

The preferred planning solution incorporates the following elements:
- Consider intersection improvements (i.e. add/ extend turn lanes) to ensure all intersections operate satisfactorily within the 2034 year horizon;
- Look to consolidate accesses, where feasible, to reduce the number of conflict points and allow better right-of-way control; and
- Review the feasibility of accommodating cycling and pedestrian activities along the Highway 148 right-of-way.

\subsection*{4.0 Existing and Future Conditions}

\subsection*{4.1 Traffic and Transportation}

Highway 148 between Pembroke and Greenwood Road (Renfrew County Road 40) is a two-lane provincial King's highway. The orientation of the highway is considered eastwest by MTO and so for the purpose of this EA Study, the Highway 148 approaches at intersections are referred to as east and west while side streets are considered northsouth. The major intersections along the corridor are indicated in Exhibit 4-1.

The western terminus of Highway 148 is located approximately 160 m west of Angus Campbell Drive in the City of Pembroke. This 3.2 km segment of the highway between Pembroke and Greenwood Road has an Annual Average Daily Traffic (AADT) volume of 11,000 vehicles and is characterized by increased commercial activity and higher driveway density.
The posted speed limit varies along the highway as follows:
- \(50 \mathrm{~km} / \mathrm{h}\) - Pembroke to 220 m west of Robinson Lane
- \(60 \mathrm{~km} / \mathrm{h}-220 \mathrm{~m}\) west of Robinson Lane to 475 m east of Drive In Road
- \(80 \mathrm{~km} / \mathrm{h}-475 \mathrm{~m}\) east of Drive In Road to Greenwood Road

The Angus Campbell Drive, Walmart Access and Robinson Lane intersections are signalized. The other major intersections are stop controlled on the side street approaches. The existing lane configurations at the major intersections along the corridor are illustrated in Exhibit 4-2.

Existing peak hour traffic volumes along the corridor were established based on traffic data recorded at the major intersections along the corridor by MTO in 2012.
Representative 2015 traffic volumes were derived by applying traffic growth and seasonal adjustment factors to the 2012 data. This information was then supplemented with a 2015 traffic count at the Robinson lane intersection to capture additional traffic generated by the commercial development at this location, which was completed after the original 2012 data was collected.
Existing (2015) peak hour traffic volumes along the corridor are indicated in Exhibit 4-3.

Exhibit 4-1: Existing Side Road and Intersection Locations


IBI GROUP TRANSPORTATION ENVIRONMENTAL STUDY REPORT PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD)
COUNTY OF RENFREW
Prepared for Ministry of Transportation

Exhibit 4-2: Existing Lane Configurations


Exhibit 4-3: 2015 Traffic Volumes


\subsection*{4.1.1 Existing and Historic Traffic Volumes}

Intersection capacity analysis of the major intersections along Highway 148 indicates that the intersections are currently operating at acceptable levels of service during the weekday peak hours. However, vehicle queues in the through lanes along the highway occasionally block access to the turning lanes at the Angus Campbell Drive and Robinson Lane intersections during the peak periods.
A review of traffic control signal warrants for the Drive In Road intersection indicates that traffic signals are justified at the intersection under existing conditions.

Traffic signals are not warranted at the Greenwood Road intersection.
Turning movement count data was not made available for the Old Mill Road intersection. However, recorded side road traffic data indicate two-way traffic volumes of 21 vehicles and 16 vehicles, respectively, during the weekday morning and afternoon peak hours. This suggests that the volume of left-turning vehicles from Highway 148 at Old Mill Road is approximately \(1 \%\) (or \(3-8\) vehicles per hour) of the approaching volume during the peak periods. Based on the current design speed of \(100 \mathrm{~km} / \mathrm{h}\) along this section of Highway 148, the minimum warrant for an auxiliary left-turn lane would be met at a leftturn volume of \(5 \%\) of the advancing traffic stream. Given the relatively low turning volumes at the intersection, a full auxiliary left-turn lane is not recommended at this time. However, residents along Old Mill Road have expressed safety concerns related to vehicles waiting to turn left from the through lane being vulnerable to either rear-end collision or aggressive overtaking maneuvers on the shoulder by trailing vehicles. For this reason, consideration should be given to providing a left-turn slip-around lane at this location.

\subsection*{4.1.2 Safety Analysis}

Historical collision data was reviewed for the period between January 1, 2007 and December 31, 2011 to identify collision trends and over-representations at study intersections and along mainline sections of the highway. A total of 35 collisions were recorded along the study corridor during this five-year period, of which 27 involved property damage only and 8 resulted in injuries. There were no fatal collisions recorded during the period reviewed. Most of the injury collisions occurred in the 700 m section of Highway 148 between Dairy Road and Robinson Lane. It is notable that this section of the highway represents a transition zone between the rural conditions and higher operating speeds east of Dairy Road and the more urban section of the highway to the west which has a lower speed limit and higher driveway density. The dominant initial impact type along the corridor was rear-end collisions. The high concentration of intersections and private driveways along this section of the highway is considered a contributing factor in these collisions. Based on the above, it is recommended that a Two-Way Left-Turn Lane be evaluated as a potential option to help reduce the frequency of rear-end collisions.
In addition, concentrations of collisions were identified at the Greenwood Road and Old Mill Road intersections. A total of 10 collisions were recorded at the Greenwood Road intersection during the five-year period analyzed. The predominant collision type
involved eastbound left-turning vehicles failing to yield to opposing traffic. There was also one collision related to the merge from the right-turn channel heading to Pembroke. Further review of more recent data (January 2015 to mid-2017) indicates three additional collisions involving merging vehicles were recorded at this location. These records are consistent with the comments received from stakeholders and the general public regarding safety issues related to the merge condition at the intersection.
A total of fourteen collisions were recorded at the Old Mill Road intersection over the 10 year period between January 1, 2007 and December 31, 2016. The most common type of collision at this location was single vehicle collisions with wild animals, which was recorded five times over the period. From observations of the surrounding area, it is believed that deer crossings occur between the small wooded corridor along the east side of Old Mill Road and the fields on the south side of Highway 148. Low cost improvements such as vegetation clearing and driver warning signs should be considered at this location.

\subsection*{4.1.3 Active Transportation}

There are currently no formal facilities for pedestrian or cyclists along Highway 148, with the exception of a short section of paved shoulder that is provided between Angus Campbell Drive and the right-in/right-out access to the Pembroke Mall.
Highway 148 has been included in the County of Renfrew draft network of Active Transportation Routes and Trails as indicated in Exhibit 4-4.

Exhibit 4-4: Active Transportation Routes and Trails


Within the study area, Drive In Road (County Road 29) and Greenwood Road (County Road 40) are also designated as Active Transportation and Cycling Routes.

In 2010, Canadian Pacific Railway announced its intention to discontinue the 300 km long rail corridor between Smith Falls and Mattawa. The following year, the County of Renfrew, County of Lanark and Township of Papineau-Cameron formed a partnership with the intent of purchasing the abandoned rail corridor from CPR to create a recreational trail. The sale was approved in 2016 and a 218 km section of the corridor was transferred to the County of Renfrew, including the section which crosses Highway 148. The trail will be named the Algonquin Trail and the County is determining whether to accommodate both motorized (snowmobiles, ATVs, etc) and non-motorized use.
The proposed Algonquin Trail will run north of and parallel to this section of Highway 148. Connections between the proposed Algonquin Trail and the highway will be possible at Rankin Street, Drive In Road and Old Mill Road. Additional connections via private roadways such as Resmer Road and Dairy Road may also be possible.
Data on the volume of cyclists using the highway was not made available for this study, but representatives from local cycling groups have indicated that Highway 148 is travelled by both commuter and recreational cyclists. The highway is also used by cyclists travelling to/from Quebec, particularly to access the Cycloparc Pontiac Pacific Junction (PPJ) trail. The Cycloparc PPJ is a segregated mixed-use trail constructed in the old rail corridor of the PPJ railroad, which is open to cyclists and pedestrians between May 1 and October 15. Approximately 40 cyclists per day are estimated to travel along the trail during the cycling season, based on data published by Vélo Québec-a non-profit cycling advocacy group.
Traffic count data recorded at the major intersections along the corridor indicate generally low pedestrian volumes. The highest activity occurs at the Angus Campbell Drive Intersection where approximately 5-10 pedestrians travel through the intersection during the peak hours. Pedestrian activity at the other intersections is very low (<5 pedestrians/h). In spite of the lack of facilities, some pedestrian activity along the highway has been observed, particularly in the more urban section between Angus Campbell Drive and Drive In Road where commercial activity is highest. There is also likely latent pedestrian demand from the adjacent residential areas south of Highway 148 as residents have indicated that unofficial routes through private lands to the south are used to access the commercial developments due to the lack of formal pedestrian facilities along the highway.

\subsection*{4.1.4 Access Management}

A review of the existing entrances to Highway 148 between Angus Campbell Drive and Greenwood Road has been undertaken based on the standards outlined in the MTO Highway Access Management Guideline (December 2013).
Highway 148 is designated as a King's Highway by MTO and is classified as a Collector corridor from both a functional and access management perspective. The role of Collector corridors is to provide a balance between mobility and access but with mobility being the primary function. Collectors are typically either 2 or 4 lane undivided highways
with at-grade intersections and substantial access control. This means that access for new developments are to be from existing public roads or via a new public road connection, where possible. Existing legal private access connections are permitted to remain. However, a change in land use on a property may trigger a permanent closure of an access or a requirement to upgrade the existing access to meet the current minimum spacing, density, frontage and safety requirements.
The review of access management along the highway has been carried out in two parts. The first task involved an assessment of intersection spacing, private access density and the proximity of private accesses to major intersections with respect to the access management standards for Collector highways. Secondly, existing lot records and entrance permits were reviewed to identify any illegal entrances along the corridor.

\section*{a) Intersection Spacing}

The minimum intersection spacing standard for public roads or commercial/private roads on Collector Highways is 800 m . The existing spacing of intersections along Highway 148 is less than the minimum requirement, as indicated in Exhibit 4-5.
Exhibit 4-5: Existing Intersection Spacing
\begin{tabular}{|c|c|c|c|}
\hline \multirow{2}{*}{ SIDE ROAD } & \multirow{2}{|c|}{ SIDE ROAD } & \multicolumn{2}{|c|}{ INTERSECTION SPACING (M) } \\
\cline { 3 - 4 } & EXISTING & \begin{tabular}{c} 
MINIMUM SPACING \\
STANDARD
\end{tabular} \\
\hline Angus Campbell Drive & \begin{tabular}{c} 
Walmart Access \\
(Commercial)
\end{tabular} & 577 & 800 \\
\hline \begin{tabular}{c} 
Walmart Access \\
(Commercial)
\end{tabular} & Robinson Lane & 472 & 800 \\
\hline Robinson Lane & Resmer Road (Private) & 87 & 800 \\
\hline Resmer Road (Private) & Drive In Road & 297 & 800 \\
\hline Drive In Road & Dairy Road (Private) & 328 & 800 \\
\hline Dairy Road (Private) & Old Mill Road & 518 & 800 \\
\hline Old Mill Road & Greenwood Road & 754 & 800 \\
\hline
\end{tabular}

\section*{b) Existing Access Density}

The maximum private access density between side roads along collector highways is 6 access connections per km per side. Exhibit 4-6 indicates the number of existing accesses along each section of Highway 148 and the number of permitted accesses which has been calculated based on the access density standard. The maximum access density is currently exceeded along each section of Highway 148.

Exhibit 4-6: Existing Access Density
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow{2}{*}{\multicolumn{2}{|c|}{}} & \multicolumn{4}{|c|}{ ACCESS DENSITY } \\
\cline { 3 - 6 } & \multicolumn{2}{|c|}{ MTO STANDARD } & \multicolumn{2}{|c|}{\begin{tabular}{c} 
EXISTING \# OF \\
ACCESSES
\end{tabular}} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Access Density \\
(/km/side)
\end{tabular} & \begin{tabular}{c} 
Permitted \# of \\
Accesses per \\
Side (Rounded)
\end{tabular} & North Side & South Side \\
\hline \begin{tabular}{c} 
Angus \\
Campbell \\
Drive
\end{tabular} & \begin{tabular}{c} 
Walmart \\
Access
\end{tabular} & 6 & 3 & 14 & 8 \\
\hline \begin{tabular}{c} 
Walmart \\
Access
\end{tabular} & \begin{tabular}{c} 
Robinson \\
Lane
\end{tabular} & 6 & 2 & 8 & 10 \\
\hline \begin{tabular}{c} 
Robinson \\
Lane
\end{tabular} & \begin{tabular}{c} 
Resmer Road
\end{tabular} & 6 & 0 & 3 & 0 \\
\hline Resmer Road & Drive In Road & 6 & 1 & 10 & 9 \\
\hline Drive In Road & Dairy Road & 6 & 2 & 3 & 10 \\
\hline Dairy Road & Old Mill Road & 6 & 4 & 8 & 11 \\
\hline Old Mill Road & \begin{tabular}{c} 
Greenwood \\
Road
\end{tabular} & 6 & 4 & 8 & \\
\hline
\end{tabular}

\section*{c) Distance from Intersections}

The section of highway or side road that extends in each direction from an intersection is known as the Functional Intersection Area. On undivided highways, it is preferable to prohibit left-turns within the Functional Intersection Area as these turning movements can result in conflicts which impact the traffic operation, safety and capacity of the intersection. As such, MTO has established desirable offset spacing criteria for new private access connections in the vicinity of intersections. These offset distances are a function of the posted speed of the highway.
The number of existing access connections that are located within the Functional Intersection Area of each major intersection along the corridor is indicated in Exhibit
4-7.

\section*{Exhibit 4-7: Existing Accesses within the Functional Intersection Area of Major Intersections}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{INTERSECTION} & \multirow[b]{3}{*}{\[
\begin{aligned}
& \text { POSTED } \\
& \text { SPEED } \\
& \text { (KM/H) }
\end{aligned}
\]} & \multirow[t]{3}{*}{DESIRABLE OFFSET SPACING (M)} & \multicolumn{4}{|l|}{NUMBER OF ACCESSES WITHIN FUNCTIONAL INTERSECTION AREA} \\
\hline & & & \multicolumn{2}{|l|}{WESTBOUND} & \multicolumn{2}{|l|}{EASTBOUND} \\
\hline & & & Upstream & Downstream & Upstream & Downstream \\
\hline Angus Campbell Drive & 50 & 105 & 3 & 3 & 2 & 2 \\
\hline Walmart Access & 50 & 105 & 3 & 1 & 1 & 0 \\
\hline Robinson Lane & 60 & 130 & 3 & 2 & 5 & 0 \\
\hline Drive In Road & 60 & 130 & 3 & 6 & 5 & 4 \\
\hline Old Mill Road & 80 & 185 & 1 & 0 & 0 & 2 \\
\hline Greenwood Road & 80 & 185 & 0 & 5 & 4 & 1 \\
\hline
\end{tabular}

As identified in Exhibit 4-7, there are a number of existing private accesses located within the Functional Intersection Area of each of the major intersections along the study corridor. As a general rule, private access connections are not to be located within these areas. Existing access connections that do not meet the desirable offset criteria will be permitted to remain for their existing use. However, efforts to achieve the desirable offset spacing distance should be made as abutting lands are redeveloped.

\subsection*{4.1.5 Entrance Permit Review}

The MTO Access Management Policy permits only one access driveway for each residential property along Highway 148. Based on a review of entrances along the corridor, five properties were identified where as being non-compliant with current Ministry Policy. It is the Ministry's desire to close the second access to these properties as part of the future Highway 148 reconstruction project. Failing this approach, closure of the access may be made a condition of any future MTO permit associated with each property.

\subsection*{4.1.6 Forecasted Traffic Conditions (Year 2034)}

Traffic volumes along Highway 148 are expected to increase at an average rate of 1\% per year based on historical trends. Future traffic conditions at the 2034 horizon year of the study were derived by the application of the \(1 \%\) annual growth rate to the 2015 traffic volumes. In addition, traffic generated by the approved Traxton Way Subdivision-a proposed development consisting of 22 single-family detached homeswas included in the estimates of future traffic in the study area.
Exhibit 4-8 indicates estimated 2034 traffic volumes along the section of Highway 148 between Pembroke and Greenwood Road
Analysis of the study area intersections under 2034 traffic conditions indicates that the intersections will continue to operate at acceptable levels of service during the weekday
peak hours. However, the projected vehicle queue lengths in the through lanes at the Angus Campbell Drive and Robinson Lane intersections will continue to occasionally block access to adjacent turning lanes during the peak periods.

In addition, the analysis has assumed that traffic signals will be in place at the Drive In Road intersection in the future as they are warranted under existing conditions. This will result in vehicle queues in the eastbound through lanes occasionally blocking access to the eastbound right-turn lane at the intersection during the afternoon peak hour.

It is therefore recommended that the existing right turn lanes at the Angus Campbell Drive, Robinson Lane and Drive In Road identified above, be extended to allow vehicles to enter the turning lane sooner. Given that peak hour queue lengths along the highway are projected to be in excess of 150 m at some locations, it may not be feasible or advisable to extend the auxiliary turning lanes to the full length required to eliminate the blockages, as this would result in excessively long turning lanes that would have significant property and utility impacts. However, efforts should be made to extend the turning lanes where feasible to improve traffic operations and help reduce the impact of queued vehicles in the through lane blocking access to the adjacent turning lane.
A review of traffic operations at the Greenwood Road intersection indicates that the intersection will continue to operate at an acceptable level of service during the peak periods as a stop-controlled intersection. Further, the intersection does not meet the minimum warrants for signalization under 2034 traffic conditions.

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COUNTY OF RENFREW
Prepared for Ministry of Transportation

Exhibit 4-8: Future (2034) Traffic Volumes


\subsection*{4.1.7 Future Safety Analysis}

Predictive collision analysis was conducted for the existing intersections along Highway 148 under future "Do Nothing" conditions to estimate the number of excess collisions that would occur over the 20-year horizon period. The excess number of collisions is an indicator of an intersection's safety performance. If the excess number of collisions is greater than zero, the intersection has more collisions than would be expected, given its geometric and operating conditions. These excess collisions are then converted to a net present value (NPV) collision cost by multiplying the predicted number of collisions by the associated societal cost and then discounting the future costs to the 2014 base year of the study.

The results of the analysis indicate that the Greenwood Road intersection is predicted to have a moderate excess collision cost of approximately \(\$ 64,000\) over the 20-year horizon. Similarly, the intersection at Old Mill Road is predicted to have an excess property damage collision cost of \(\$ 25,300\) over the 20-year horizon period.
The economic justification for potential improvements to these intersections should be evaluated against the moderate excess collision costs at these two locations.

Predictive collision analysis was also carried out for the mainline segments of Highway 148 between Pembroke and Greenwood Road. The results of the analysis indicate that the mainline segments of the highway are predicted to have a negative NPV of excess total collisions.

Details of the traffic operations and safety analysis are provided in Appendix B (Traffic and Transportation).

\subsection*{4.1.8 Recommended Improvements}

Based on the results of the safety review and the assessment of existing and future traffic operations, the following main improvements were identified for further consideration in the study:
- Extend the eastbound right-turn lane at Angus Campbell Drive;
- Extend the westbound left-turn lane at Angus Campbell Drive;
- Extend the eastbound right-turn lane at Robinson Lane;
- Extend the eastbound right-turn lane at Drive In Road;
- Provide a two-way left-turn lane in the urban section;
- Signalize the Drive In Road intersection;
- Provide a left-turn slip-around lane at Old Mill Road; and
- Modify the Greenwood Road intersection to improve the merge condition for the southbound right-turn channel.

\subsection*{4.2 Highway Geometrics}

\section*{a) Horizontal Alignment}

Highway 148 between Pembroke and Greenwood Road is approximately 3.19 km in length. The horizontal alignment of this section of the highway includes five circular curves. Starting at the western limit of the highway in the City of Pembroke, the horizontal alignment begins with a tangent section through the Angus Campbell Drive intersection which transitions to a 349 m radius curve (Curve 1) just east of the intersection, which in turn is followed by a short tangent and then a larger radius curve of 873 m (Curve 2). This section of the highway has a posted speed limit of \(50 \mathrm{~km} / \mathrm{h}\) and a design speed of 70 \(\mathrm{km} / \mathrm{h}\). Both curves meet MTO design standards for the design speed. Simple spiral curves are provided on both ends of each curve to provide a transition between the tangents and the circular curve. These spiral curves are 45.72 m in length which corresponds to acceptable spiral parameter (A) values for the design speed.
Curve 2 is followed by a tangent section approximately 1.39 km in length from 232 m west of the Walmart Access signalized intersection to 27 m west of Dairy Road which then leads into a short circular curve with a radius of 873 m (Curve 3). Both the circular curve and the accompanying spiral curves are acceptable for the \(80 \mathrm{~km} / \mathrm{h}\) design speed along this section of the highway.
There is a 582 m radius circular curve (Curve 4) on the approach to the Old Mill Road intersection followed by a 167 m long tangent section and then another R582 m curve (Curve 5) in the reverse direction leading to the approach to the Greenwood Road intersection. The radius of the circular curves meets MTO design standards for the 100 \(\mathrm{km} / \mathrm{h}\) design speed, however, the length of the accompanying spiral curves ( 45.72 m ) is slightly substandard for the \(100 \mathrm{~km} / \mathrm{h}\) design speed in this section.
Details of the existing horizontal alignment of the highway are provided in Exhibit 4-9.
Exhibit 4-9: Existing Horizontal Alignment Details
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{EXISTING HORIZONTAL ALIGNMENT} & MTO STANDARD \({ }^{2}\) \\
\hline START STATION & \[
\begin{gathered}
\text { END } \\
\text { STATION }
\end{gathered}
\] & TYPE & \begin{tabular}{l}
LENGTH \\
(M)
\end{tabular} & RADIUS
(SPIRAL
PARAMETER) & MINIMUM CURVE RADIUS (SPIRAL PARAMETER) \\
\hline \multicolumn{6}{|c|}{Design Speed \(=70 \mathrm{~km} / \mathrm{h}(\) Posted Speed \(=50 \mathrm{~km} / \mathrm{h})\)} \\
\hline 10+000 & 10+181 & Tangent & 181.9 & & \\
\hline 10+181 & 10+227 & Spiral & 45.7 & A-126 & A-117 \\
\hline 10+227 & 10+287 & Curve 1 & 60.4 & \(\mathrm{R}=349\) & \(\mathrm{R}=190\) \\
\hline 10+287 & 10+333 & Spiral & 45.7 & A-126 & A-117 \\
\hline 10+333 & 10+365 & Tangent & 32.2 & & \\
\hline 10+365 & 10+411 & Spiral & 45.7 & A-200 & A-170 \\
\hline 10+411 & 10+451 & Curve 2 & 40.4 & \(\mathrm{R}=873\) & \(\mathrm{R}=190\) \\
\hline 10+451 & 10+497 & Spiral & 45.7 & A-200 & A-170 \\
\hline 10+497 & 10+983 & Tangent & 486.6 & & \\
\hline \multicolumn{6}{|c|}{Design Speed \(=80 \mathrm{~km} / \mathrm{h}\) (Posted Speed \(=60 \mathrm{~km} / \mathrm{h}\) )} \\
\hline 10+983 & 11+886 & Tangent & 903.0 & & \\
\hline 11+886 & 11+932 & Spiral & 45.7 & A-200 & A-130 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c||c|}
\hline \(11+932\) & \(11+948\) & Curve 3 & 15.9 & \(\mathrm{R}=873\) & \(\mathrm{R}=250\) \\
\hline \(11+948\) & \(11+994\) & Spiral & 45.7 & \(\mathrm{~A}-200\) & \(\mathrm{~A}-130\) \\
\hline \multicolumn{6}{|c|}{ Design Speed \(=100 \mathrm{~km} / \mathrm{h}\) (Posted Speed \(=80 \mathrm{~km} / \mathrm{h})\)} \\
\hline \(11+994\) & \(12+206\) & Tangent & 212.7 & & \\
\hline \(12+206\) & \(12+252\) & Spiral & 45.7 & \(\mathrm{~A}-163\) & \(\mathrm{~A}-190\) \\
\hline \(12+252\) & \(12+471\) & Curve 4 & 219.1 & \(\mathrm{R}=582\) & \(\mathrm{R}=420\) \\
\hline \(12+471\) & \(12+517\) & Spiral & 45.7 & \(\mathrm{~A}-163\) & \(\mathrm{~A}-190\) \\
\hline \(12+517\) & \(12+683\) & Tangent & 166.5 & & \(\mathrm{~A}-190\) \\
\hline \(12+683\) & \(12+729\) & Spiral & 45.7 & \(\mathrm{~A}-163\) & \(\mathrm{R}=420\) \\
\hline \(12+729\) & \(12+768\) & Curve 5 & 38.9 & \(\mathrm{R}=582\) & \(\mathrm{~A}-190\) \\
\hline \(12+768\) & \(12+814\) & Spiral & 45.7 & \(\mathrm{~A}-163\) & \\
\hline \(12+814\) & \(13+185\) & Tangent & 371.3 & & \\
\hline
\end{tabular}

Note 1: Existing Spiral Parameter (A-163) for Curve \(4 \& 5\) remains acceptable as a curve to tangent transition from a comfort and visual transition standpoint.
Note 2: MTO geometric design standards changed recently to use TAC Geometric Design Guide for Canadian Roads (TAC Manual) and MTO Design Supplement for TAC Geometric Design for Canadian Roads (2017).

\section*{b) Vertical Alignment}

A review of the vertical alignment of the highway has been carried out based on the existing topographic mapping of the highway. Starting at the western end of Highway 148 in the City of Pembroke, the vertical alignment of the highway rises at an approximate gradient of \(0.9 \%\) from a sag curve with a vertical curve value (K) of 50 into a crest curve with a K-value of 45 on the approach to the Angus Campbell Drive intersection. Both curves provide sufficient stopping sight distance for the \(70 \mathrm{~km} / \mathrm{h}\) design speed in this section.
East of Angus Campbell Drive, the highway continues to rise at a grade of 0.3\%-1.0\% to a high point located approximately 170 m to the east of the signalized Walmart Access intersection (approximate Station 10+900). The highway then follows a slight downgrade ( \(\leq 0.3 \%\) ) to approximately 200 m east of Drive In Road at which point the downgrade increases to \(0.5 \%-1.0 \%\) on the approach to a crest curve with a K value of 30 which is slightly substandard-a minimum \(K\) value of 35 is recommended for crest curves at the 80 \(\mathrm{km} / \mathrm{h}\) design speed along this section of the highway. The downgrade of the highway then increases to \(3.3 \%\) into a sag curve with a K value of 28 . The posted speed limit of the highway transitions from \(60 \mathrm{~km} / \mathrm{h}\) to \(80 \mathrm{~km} / \mathrm{h}\) at the west approach to the sag curve. Minimum K values of 30 and 45 are recommended for design speeds of \(80 \mathrm{~km} / \mathrm{h}\) and 100 \(\mathrm{km} / \mathrm{h}\), respectively. The K28 curve provides sufficient sight distance for a design speed of 76 km/h.

Following the sag curve, the highway continues on a slight downgrade ( \(\leq 0.3 \%\) ) for approximately 150 m before rising on the approach to the Old Mill Road intersection at a grade of \(0.5 \%-1.3 \%\) to a crest curve located approximately 400 m west of the Greenwood Road intersection. The crest curve has an approximate \(K\) value of 55 which is substandard for the \(100 \mathrm{~km} / \mathrm{h}\) design speed in this section.

The vertical alignment of the highway on the west approach to Greenwood Road is on a slight downgrade of \(\leq 0.3 \%\).
Details of the existing vertical curves along the highway are provided in Exhibit 4-10.

Exhibit 4-10: Existing Vertical Alignment Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{6}{|c|}{EXISTING VERTICAL ALIGNMENT} & MTO DESIGN STANDARDS \({ }^{4}\) \\
\hline PVI STATION (APPROX.) & GRADE IN & GRADE OUT & VERTICAL CURVE TYPE & \begin{tabular}{l}
LENGTH \\
(M)
\end{tabular} & K VALUE & MIN. K-VALUE \\
\hline \multicolumn{7}{|c|}{Design Speed \(=70 \mathrm{~km} / \mathrm{h}(\) Posted Speed \(=50 \mathrm{~km} / \mathrm{h})\)} \\
\hline 10+010 & -0.4\% & 0.9\% & Sag & 65 & 50 & 25 \\
\hline 10+097 & 0.9\% & -0.5\% & Crest & 64 & 45 & 25 \\
\hline 10+238 & -0.2\% & 0.7\% & Sag & 76 & 85 & 25 \\
\hline 10+890 & 0.6\% & -0.2\% & Crest & 60 & 80 & 25 \\
\hline \multicolumn{7}{|c|}{Design Speed \(=80 \mathrm{~km} / \mathrm{h}\) (Posted Speed \(=60 \mathrm{~km} / \mathrm{h}\) )} \\
\hline 11+726 & -0.0\% & -1.0\% & Crest & 140 & 150 & 35 \\
\hline 11+959 & -0.8\% & -3.3\% & Crest & 76 & 30 (Note 1) & 35 \\
\hline \multicolumn{7}{|c|}{Design Speed \(=100 \mathrm{~km} / \mathrm{h}\) (Posted Speed \(=80 \mathrm{~km} / \mathrm{h}\) )} \\
\hline 12+109 & -3.3\% & -0.5\% & Sag & 79 & 28 (Note 1) & 45 (Note 2) \\
\hline 12+430 & 1.0\% & 0.5\% & Crest & 52 & 100 & 70 \\
\hline 12+751 & 1.3\% & -0.2\% & Crest & 81 & 55 (Note 3) & 70 \\
\hline
\end{tabular}

Note 1: Equivalent to \(75 \mathrm{~km} / \mathrm{h}\) design standard (i.e. headlight control for sag).
Note 2: Desirable value based on headlight control (minimum K-25 based on comfort control standards) Note 3: Equivalent to \(93 \mathrm{~km} / \mathrm{h}\) design standard
Note 4: MTO geometric design standards changed recently to use TAC Geometric Design Guide for Canadian Roads (TAC Manual) and MTO Design Supplement for TAC Geometric Design for Canadian Roads (2017).
As noted above, there are currently three vertical curves below standard in the alignment of this section of Highway 148. However, the review of collision records for Highway 148 did not indicate any major safety concerns at the substandard locations.

\section*{c) Cross-Section}

The existing travel lanes along Highway 148 are generally \(3.50-3.75 \mathrm{~m}\) wide between Angus Campbell Drive and Drive In Road and at least 3.75 m wide in the section between Drive In Road and Greenwood Road. The width of the existing shoulders generally varies between 2.0 m and 3.0 m . A minimum width of 2.5 m is recommended based on the design speeds and traffic volumes along this section of the highway.
A review of existing pavement cross-fall and superelevation was carried out based on the available topographic mapping. Details of the existing pavement cross-fall along the tangent and curved sections of the highway are provided in Exhibit 4-11.
Exhibit 4-11: Existing Pavement Cross-Fall Details
\begin{tabular}{|c|c|c|c|c|c|}
\hline HIGHWAY SEGMENT & \begin{tabular}{c} 
ALIGNMENT \\
ELEMENT
\end{tabular} & \multicolumn{4}{|c|}{ PAVEMENT CROSS-FALL } \\
\hline LOCATION & & \begin{tabular}{c} 
EXISTING \\
RANGE
\end{tabular} & \begin{tabular}{c} 
EXISTING \\
AVERAGE
\end{tabular} & \begin{tabular}{c} 
DESIGN \\
STANDARD
\end{tabular} & \begin{tabular}{c} 
ACCEPTABLE \\
RANGE
\end{tabular} \\
\hline Sta. 10+000 to 10+151 & Tangent & \(0.3-4.4 \%\) & \(1.8 \%\) & \(2.0 \%\) & \(1.5-3.5 \%\) \\
\hline Curve 1 - R=349 m & Curve & \(2.0-6.8 \%\) & \(4.8 \%\) & \(4.8 \%\) & Note 1 \\
\hline Curve \(2-\mathrm{R}=873 \mathrm{~m}\) & Curve & \(2.5-5.4 \%\) & \(3.6 \%\) & \(3.0 \%\) & Note 1 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Sta. \(10+497\) to \(11+886\) & Tangent & \(0.0-3.3 \%\) & \(1.8 \%\) & \(2.0 \%\) & \(1.5-3.5 \%\) \\
\hline Curve 3 - R=873 m & Curve & \(2.2-3.2 \%\) & \(2.7 \%\) & \(3.5 \%\) & Note 1 \\
\hline Sta. \(12+024\) to \(12+176\) & Tangent & \(0.0-4.9 \%\) & \(2.3 \%\) & \(2.0 \%\) & \(1.5-3.0 \%\) \\
\hline Curve 4 - R582 & Curve & \(0.7-5.4 \%\) & \(3.2 \%\) & \(5.4 \%\) & Note 1 \\
\hline Sta. \(12+547\) to \(12+653\) & Tangent & \(1.6-3.1 \%\) & \(2.4 \%\) & \(2.0 \%\) & \(1.5-3.0 \%\) \\
\hline Curve 5 - R582 m & Curve & \(1.8-6.6 \%\) & \(4.2 \%\) & \(5.4 \%\) & Note 1 \\
\hline Sta. \(12+844\) to \(13+100\) & Tangent & \(0.4-3.3 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(1.5-3.0 \%\) \\
\hline
\end{tabular}
1. The existing superelevation on curves can remain less than the design standard provided the following conditions are met:
- There is no unusual accident experience, such as loss of control type that can be related to inadequate superelevation.
- The equivalent maximum speed for the existing superelevation is at least \(10 \mathrm{~km} / \mathrm{h}\) higher than the 85 th percentile speed.

The average pavement cross-fall values in the tangent sections of the highway are within acceptable tolerances, however, the range of existing values indicates significant variability. Similarly, the existing superelevation through curved sections of the highway is generally inconsistent. Cross-fall correction should be carried out as part of the resurfacing project to bring substandard sections to within the acceptable range.

\section*{d) Roadside Barriers}

Roadside barriers are provided at three locations along Highway 148 between Pembroke and Greenwood Road. A length of 3 -cable guide rail is provided as protection against the embankment adjacent to Ridge Drive. As well, 3-cable guide rails are provided along both sides of the highway in the vicinity of the crossing culvert (C2) just west of Old Mill Road.

Details of the existing guide rail protection along the corridor are provided in Exhibit 4-12.

\section*{Exhibit 4-12: Existing Roadside Barriers}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{6}{|c|}{ EXISTING ROADSIDE BARRIERS } \\
\hline NO. & STATION & STATION & SIDE & GUIDE RAIL TYPE & LENGTH (m) \\
\hline 1 & \(12+029\) & \(12+109\) & Left & 3CGR & 80 \\
\hline 2 & \(12+294\) & \(12+408\) & Left & 3CGR & 114 \\
\hline 3 & \(12+307\) & \(12+390\) & Right & 3CGR & 83 \\
\hline
\end{tabular}

\subsection*{4.3 Utilities}

Information on existing utilities along Highway 148 has been compiled based on record drawings provided by the individual utility companies. Composite utility plans indicating the approximate location of the utilities have been prepared and are provided in Appendix I (Utilities). The exact location of underground utilities should be confirmed during detailed design.

\subsection*{4.3.1 Hydro}

There are aerial power transmission and distribution lines along the entire length of Highway 148 from Pembroke to the Quebec border. The power lines, which are operated jointly by Hydro One and Hydro Pontiac, are supported by wooden poles. The overhead
power lines run along both sides of the highway from Pembroke to approximately 385 m west of the Greenwood Road intersection, at which point the line continues on the north side of the highway and across the Ottawa River into Quebec.

Ottawa River Power Corporation has indicated that they do not have any utility assets within the Highway 148 right-of-way.

\subsection*{4.3.2 Natural Gas}

Enbridge operates an intermediate pressure (steel) gas main along Highway 148 between Pembroke and Traxton Way. Starting at the western limit of Highway 148, there is a 150 mm diameter gas main which runs along the south side of the highway to the Angus Campbell Drive intersection and along the west side of Angus Campbell Drive. East of the intersection, the gas main runs along the south side of the highway at an approximate offset of 1 m from the south property line before crossing to the north side at a location approximately 260 m east of Angus Campbell Drive. At this point it is reduced to 100 mm diameter, crosses Highway 148 and continues along the north side of the highway an offset of approximately 1 m from the north property line before diverting outside of the right-of-way in the vicinity of the cul-de-sac along Ridge Drive. At this point, the 100 mm gas main continues along Ridge Drive and Old Mill Road, before again being routed along the north side of Highway 148 from Old Mill Road to Traxton Way.

In addition to the gas main crossing noted above, there are a number of other crossings and lateral services along this section of Highway 148:
- Rankin Street (west side) - 50 mm diameter
- 1043 Pembroke Street E - 25 mm diameter
- 1108 Pembroke Street E (plaza) - 25 mm and 100 mm diameter services
- Robinson Lane (west side) - 50 mm diameter
- Drive In Road (west side) - 100 mm diameter
- 1310 Pembroke Street E (crossing at Old Mill, east side) - 25 mm diameter

There are no high pressure gas pipelines located with the project limits.

\subsection*{4.3.3 Telecommunications}

Telecommunication service within the study area is provided by Bell Canada, Cogeco and NRTC Communications.

\section*{a) Bell Canada}

Bell Canada has underground cables and conduit along Highway 148 from Pembroke to approximately 340 m east of Old Mill Road. Starting at the western limit of the highway, the underground bell conduits are located along both sides of the highway up to Angus Campbell Drive. East of the intersection, the conduits run along the south side of the highway until they cross to the north side at a location approximately 160 m east of Dairy Road. From that point underground cables continue along the north side until they end east of Old Mill Road.

In addition to the main crossing noted above, there are cable and conduit crossings at a number of locations along the study corridor as indicated on the composite utility plans.

The Bell underground plant also includes: 40 pedestals, 8 maintenance holes, 2 Bell OPI boxes and 1 hand hole.

\section*{b) Cogeco}

Cogeco operates a mix of aerial and underground plant along Highway 148 between Pembroke and Old Mill Road. Underground cables are located along both sides of Highway 148 from west of the Angus Campbell Drive intersection to approximately 80 m east of the intersection. From that point, the underground cable continues along the south side of the highway to approximately 40m east of the main Walmart Access intersection before transitioning to overhead cables up to Drive In Road. East of Drive In Road, overhead cable lines continue along both sides of the Highway to approximately 160 m east of Dairy Road at which point the overhead lines then exit the Highway 148 right-ofway and continue east along Ridge Drive to Old Mill Road.

\section*{c) NRTC Communications}

NRTC Communications operates a mix of aerial and underground plant along Highway 148 between Angus Campbell Drive and the interprovincial bridge. Their service is provided primarily through aerial cables on the existing joint use hydro poles along the corridor. In addition, they own short sections of underground cables which cross the highway at the Drive In Road and Greenwood Road intersections.

\section*{d) Rogers}

Rogers has indicated that they do not currently own any plant within the Highway 148 study area.

\subsection*{4.3.4 Municipal Services (Watermain and Sanitary)}

There is an existing 300 mm diameter watermain along Highway 148 between Pembroke and Robinson Lane. The watermain is generally located along the north side of the highway. There is also a 250 mm diameter sanitary sewer along Highway 148 between Robinson Lane and 350 m west of the Walmart Access.
The Township of Laurentian Valley has indicated that they have no immediate plans to extend these facilities further east, however do need to accommodate several service connections. The requirement to extend either facility to serve development east of Robinson Lane should be re-confirmed during detail design. Any watermain and sanitary modifications are to be co-ordinated between the Township of Laurentian Valley and MTO and scheduled in advance of the proposed roadway improvements.

\subsection*{4.4 Land Use}

The study area is located within the City of Pembroke, Township of Laurentian Valley, and County of Renfrew. Along Highway 148, there are a range of commercial, retail, and residential land uses on either side of the road. These include two large commercial plazas located on the south side of Highway 148 between Angus Campbell Drive and Robinson Lane (i.e. Wal-Mart/Canadian Tire hub adjacent to the Pembroke Mall, and the Home Depot/Winners/Michaels/SportCheck hub abutting Robinson Lane). Within this section, the Township is also seeing an increase in conversions of residential dwellings to
commercial use or the addition of accessory commercial uses on properties within an existing dwelling.

Growth in the Pembroke area is likely to occur along this section of Highway 148. The area surrounding Drive-In Road has a high concentration of single-detached residential subdivision development, and there is future potential in this area for additional lots.
The County Official Plan does not set out land use designations for this area, but rather directs that the land use designations the Township of Laurentian Valley may apply. The following is a summary from the applicable sections of the Township of Laurentian Valley Official Plan (http://www.laurentianvalleytwsp.on.ca/departments/planning/official-plan/).

\subsection*{4.4.1 Township of Laurentian Valley Official Plan}

\section*{a) Commercial}

Land use on both sides of the Highway 148 corridor from Pembroke to the Greenwood Road junction, have traditionally been the focal points for a variety of commercial and service establishments in the Township. Development within this area is subject to site plan control, the criteria for which is set out in Section 7 of the Plan.

Permitted uses include those which are economically dependent on heavy flows of vehicular traffic for their livelihood such as automotive service stations, restaurants, coffee shops, gift shops, drive-in establishments, drive-in motels, motor inns, truck terminals, equipment dealers, building supply, nursery and garden sales and supply, and any other similar use that caters to the motoring public such as retail stores; convenience stores; personal service establishments; hotels; professional, business and/or financial offices; public uses; institutional uses; multiple residential dwellings; accessory residential dwelling unit(s) within commercial buildings; and existing single detached dwellings.

\section*{b) Suburban}

A portion of the lands located east of Highway 148 (north of the Greenwood Road junction) as well as lands west of the commercial area adjacent to the highway, are designated "Suburban" by the Township Official Plan. The Suburban designation is intended to attract a large share of new residential development over the planning horizon of this Plan. The majority of the lands in the Suburban designation are existing clusters of residential development and residential subdivisions approved on private individual wells and septic systems, although some of these areas are on communal services.
Permitted uses include residential uses (on either communal services or private on-site systems), seniors housing, institutional uses, local commercial uses, open space, parks, playgrounds, and athletic fields.

\section*{c) Provincially Significant Wetland}

Schedule C (Natural Heritage; Exhibit 4-13) of the Township Official Plan identifies areas north and south of Highway 148 (area shown in pink) as being within a Provincially Significant Wetland complex. Accordingly, the applicable policies of the Provincial Policy Statement (PPS) would guide development in and adjacent to these areas. Of note, the PPS provides that development and site alteration shall not be permitted in these areas
unless no negative impacts on the wetland or its ecological function have been demonstrated.

\section*{Exhibit 4-13: Provincially Significant Wetland}


\subsection*{4.5 Physiography and Soils}

The study area is located at the delta of the former glacial Ottawa River and Champlain Sea and situated within the Petawawa Sand Plain and the Ottawa Valley Clay Plains physiographic regions. It is underlain by deposits of sand, clay, and diamicton (poorly sorted sediments typically of glacial origin). The study area also includes a number of fluvial terraces. Sand deposits consist of late Pleistocene alluvial deposits and include deposits of clay, silt gravel and may contain organic remains. Clay deposits consist of massive to well-laminated fine-textured glaciomarine deposits and include deposits of silt and minor deposits of sand and gravel. Diamicton deposits consist of stone-poor sandy silt to silty sand-textured till on Paleozoic terrain. Soils include Uplands loamy sand, Renfrew sand complex, Rubicon sandy loam and Ste. Rosalie clay.

\subsection*{4.6 Fish and Fish Habitat}

This section summarizes fish and fish habitat within the study area. The full technical report can be found in Appendix C (Fish and Fish Habitat Assessment).
In total, five watercourse/culvert crossings exist with the study area and were assessed in detail. See Exhibit 4-14 for locations (all unnamed tributaries of the Ottawa River which supports both warm and cool water fish communities).
Exhibit 4-15 summarizes existing fish and fish habitat conditions. Watercourses at Culverts \(2-5\) support a warmwater fish community. The typical timing window for any inwater work is between July \(1^{\text {st }}\) and March \(31^{\text {stt }}\). Culvert 1 is to be managed similar to the preceding culverts, despite indirect fish habitat function.

Prepared for Ministry of Transportation
Exhibit 4-14: Location of Watercourse and Culverts

Exhibit 4-15: Existing Fish and Fish Habitat Conditions Summary Table
\begin{tabular}{|l|c|c|l|}
\hline WATERCOURSE & \begin{tabular}{c} 
FLOW/ \\
THERMAL \\
REGIME
\end{tabular} & \begin{tabular}{c} 
SUPPORTS \\
A FISHERY
\end{tabular} & FISH SPECIES PRESENT \\
\hline C1 (Sta. 11+176) & \begin{tabular}{c} 
Intermittent \\
(Warm)
\end{tabular} & Indirect & None \\
\hline C2 (Sta. 12+331) & \begin{tabular}{c} 
Permanent \\
(Warm)
\end{tabular} & Yes & White Sucker, Central Mudminnow \\
\hline C3 (Sta. 12+584) & \begin{tabular}{c} 
Permanent \\
(Warm)
\end{tabular} & Yes & \begin{tabular}{l} 
Brassy Minnow, Brook Stickleback, Creek \\
Chub
\end{tabular} \\
\hline C4 (Sta. 13+078) & \begin{tabular}{c} 
Permanent \\
(Warm)
\end{tabular} & Yes & Brook Stickleback, Central Mudminnow \\
\hline \begin{tabular}{c} 
C5 (Sta. 13+237 \\
formerly 10+051)
\end{tabular} & \begin{tabular}{c} 
Permanent \\
(Warm)
\end{tabular} & Yes & Brook Stickleback, Central Mudminnow \\
\hline
\end{tabular}

General observations of the watercourse crossings are detailed below:
- Crossing C1 (Sta. 11+176) is a concrete, open bottom culvert. Substrates are gravel and sand. Vegetation is woodland and shrub thicket.
- Crossing C2 (Sta. 12+33) is a concrete, open bottom culvert. Substrates are muck. Vegetation consists of phragmites.
- Crossing C3 (Sta. \(12+584\) ) is a concrete box culvert. Substrates are clay and muck. Vegetation is shrub thicket and cattails.
- Crossing C4 (Sta. 13+078) is high-density polyethylene. Substrates are clay and muck. Vegetation is woodland and cattails.
- Crossing C5 (Sta. 13+237, formerly Sta. 10+051) is a concrete, open bottom culvert. Substrates are clay and muck. Vegetation is woodland, shrub thicket and cattails.

\section*{Species at Risk (SAR) / Critical Habitat}

No SAR or critical habitat have been identified within the watercourses in the study area.

\subsection*{4.7 Wildlife and Terrestrial Habitat}

\subsection*{4.7.1 Vegetation}

There were a total of 52 plant species identified within the study area. There are small sporadic woodlands on the commercial and residential properties that line the study area. The woodlands are considered isolated features as there is no connectivity to other features in the larger countryside. The road ROWs are disturbed and have a variety of common successional weed species growing that are able to tolerate conditions associated with being adjacent to transportation routes. A complete list of species can be found in the technical report in Appendix D (Terrestrial Assessment).

There are a few unevaluated wetlands located along Highway 148, one on the west side of Greenwood Road. Others were considered to be associated with a watercourse and/or part of the ditches found adjacent to the highway. Highway 148 passes through the Hazley Bay/Lisk Bay wetland complex, a Provincially Significant Wetland (PSW). There are no vegetative Species at Risk (SAR) in the study area.

\subsection*{4.7.2 Wildlife and Wildlife Habitat}

\section*{a) Birds}

A total of nine bird species were identified within the study area:
- Black capped chickadee (Poecile atricapillus);
- Ruffled grouse (Bonasa umbellus);
- Rock pigeon (Columbia livia);
- Blue Jay (Cyanocitta cristata);
- American crow (Corvus brachyrhynchos);
- Common raven (Corvus corax);
- Redbreasted nuthatch (Sitta canadensis);
- European starling (Sturnus vulgaris); and
- Pine siskin (Carduelis pinus);

These birds are common birds for the area.

\section*{b) Mammals}

While no mammals were observed, numerous tracks were identified that included: red squirrel (Tamiasciurus hudsonicus), meadow vole (Microtus pennsylvanicus), raccoon (Procyon lotor) and red fox (Vulpes vulpes). A road mortality survey found evidence of black squirrel (Sciurus carolinensis).

Wildlife habitat in the study area is fragmented in part due to the proximity of the Town of Pembroke and urban development, highways, and agricultural lands. The MNRF-LIO database (2017) indicates a Stratum 2 deer yard located north of Highway 148 adjacent to the study area, as shown in Exhibit 4-16. This area contains approximately 30 ha of natural area and is a small part of the larger natural area and shoreline wildlife corridor in this part of the valley.

Exhibit 4-16: Deer Wintering Area


Note: Yellow hatched area is Stratum 2 Deer wintering area (MNRF, LIO, 2017)

\section*{c) Herpetozoa}

Amphibian surveys were conducted in the wetland areas adjacent to Highway 148. No amphibian nesting sites were found during field surveys. However, during the spring surveys for calling frogs, spring peeper was recorded.

The wetland area adjacent to the Highway 148/Greenwood Road intersection provides suitable habitat for snapping turtle and Blanding's turtle. Although no turtle nesting sites or attempts at nesting were observed along Highway 148 during field surveys undertaken by Nibblet Environmental Associates in June 2015, turtles have been observed nesting in the vicinity of the Hazley Bay/ Lisk Bay PSW and therefore potential nesting should be considered.

\section*{d) Significant Habitat}

No Areas of Natural and Scientific Interest (ANSI's) or significant valley lands, significant woodlands or environmentally significant areas were found within or adjacent to the study area. There is the Hazley Bay/Lisk Bay PSW and Highway 148 traverses through this wetland complex.

\section*{e) Species at Risk (SAR)}

There is suitable habitat within and adjacent the study area to support SAR (Exhibit 4-17)

\section*{Exhibit 4-17: Potential Species at Risk within and adjacent to the Study Area}
\(\left.\)\begin{tabular}{|l|l|l|l|}
\hline \multicolumn{1}{|c|}{ COMMON NAME } & \begin{tabular}{l} 
NATIONAL \\
STATUS*
\end{tabular} & \begin{tabular}{l} 
PROVINCIAL \\
STATUS**
\end{tabular} & \multicolumn{1}{|c|}{ HABITAT FOUND ON SUBJECT } \\
PROPERTY
\end{tabular}\(\left|\begin{array}{l}\text { Foraging habitats over urban and rural } \\
\text { area along route. }\end{array}\right|\)\begin{tabular}{l} 
Possible habitat exists in woodlands \\
north and south of Highway corridor.
\end{tabular} \right\rvert\, \begin{tabular}{l} 
Red-headed \\
Woodpecker
\end{tabular}\(\quad\) THR \(\quad\) SC \(\quad\) In adjacent mixed or deciduous forests \begin{tabular}{l} 
outside road allowance.
\end{tabular}\(|\)\begin{tabular}{l} 
In adjacent mixed and deciduous \\
forests outside of ROW.
\end{tabular}
*National Status Codes: Species of Concern (SC), Threatened Species (THR), Not At Risk (NAR) (COSEWIC, 2017)
**Provincial Status Codes: Species of Concern (SC), Threatened Species (THR), Endangered (END) (COSSARO, 2017)

\subsection*{4.8 Archaeology}

A Stage 1 Archaeological Assessment was conducted which included background research and a site visit to determine archaeological potential. There is one archeological site within 1 km of the study area ( 300 m approximately). The site is Pembroke PCP Boat Structure.

Most of the study area is disturbed, or possesses low/wet conditions and these lands do not have archaeological potential. There are some locations that do have archaeological potential and should be subject to a Stage 2 Archeological Assessment.
The property inspection documented that the Pembroke Pentecostal Cemetery is located within the study area. The modern physical boundaries of a cemetery are not a reliable indicator of its actual extent and there is potential for the presence of unmarked graves beyond the limits of the cemetery. Any construction work adjacent to a known cemetery must be preceded by a Stage 3 Cemetery Investigation. This work will be done in accordance with the S \& G and the regulations under the Funeral, Burial and Cremation Services Act. The full report is provided in Appendix E (Stage 1 Archaeological Assessment).

\subsection*{4.9 Cultural Heritage}

Highway 148 is a historic thoroughfare through the retention of a series of buildings and landscape features. The Champlain Trail Museum and Pioneer Village are located at the north end of the corridor. In places, 19th Century residential structures and landscape features (e.g., Pentecostal Cemetery and remnant agricultural complexes) are along the ROW. On the east side of the ROW are the western limits of the former rail ROW established in 1875.

There are four built heritage resources (BHR) and seven cultural heritage landscapes (CHL) within the study area (Exhibit 4-18).
Exhibit 4-18: Built Heritage Resources and Cultural Heritage Landscapes
\begin{tabular}{|l|l|l|}
\hline RESOURCE & \multicolumn{1}{|c|}{ TYPE } & \multicolumn{1}{c|}{ ADDRESS/LOCATION } \\
\hline BHR 1 & Residence/Commercial & 1027 Pembroke Street East \\
\hline BHR 2 & Residence & 1028 Pembroke Street East \\
\hline BHR 3 & Residence & 1173 Pembroke Street East \\
\hline BHR 4 & Commercial & 1227 Pembroke Street East \\
\hline CHL 1 & Museum & 1022 Pembroke Street East \\
\hline CHL 2 & Residential Complex & \begin{tabular}{l} 
No address. Located between 1105 and \\
1065 Pembroke Street East
\end{tabular} \\
\hline CHL 3 & Cemetery & 1135 Pembroke Street East \\
\hline CHL 4 & Residential Complex & 1145 Pembroke Street East \\
\hline CHL 5 & Residential Complex & 1124 Pembroke Street East \\
\hline CHL 6 & Residential Complex & 1211 Pembroke Street East \\
\hline CHL 7 & Agricultural Complex & 1244 Pembroke Street East \\
\hline
\end{tabular}

The full report is in Appendix F (Cultural Heritage Resource Assessment).

\subsection*{4.10 Drainage and Stormwater Management}

In the City of Pembroke, stormwater is managed through a storm sewer system. Existing storm sewers extend along the section of Highway 148 under study, from west of Angus Campbell Drive (Station 10+000) to 40 m east of the Walmart Access intersection at Station \(10+805\). The two main outlets for the storm sewer system are on the north side of the highway at Station 10+000 and at Station 10+510. The pipe sizes range from 300 mm to 1400 mm diameter. Further details of the existing drainage system are provided in the Drainage Design and Stormwater Management report in Appendix H.

In the rural area, roadside ditches/swales run along each side of the road and range from \(5-8\) metres in width and 0.2 to 0.5 metres in depth. Corrugated steel pipe culverts of varying diameters and lengths convey the stormwater under driveways and street entrances on both sides of the road. A summary of existing culverts is in Exhibit 4-19.

Exhibit 4-19: Summary of Existing Culverts
\begin{tabular}{|c|c|c|c|c|c|}
\hline CULVERT & LOCATION & AREA(ha) & TYPE & DIA \((\mathrm{m})\) & LENGTH \((\mathrm{m})\) \\
\hline C1 & \(11+176\) & 30.31 & RFO & \(1.22 \times 0.90\) & 31.2 \\
\hline C2 & \(12+331\) & 315.90 & NRF Box & \(2.4 \times 1.5\) & 28.5 \\
\hline C3 & \(12+584\) & 1.48 & Conc. Box & \(0.91 \times 0.61\) & 23.3 \\
\hline C4 & \(13+078\) & 7.51 & HDPE & 900 mm & 34.25 \\
\hline C5 & \(13+237\) & 8.23 & RFO & \(1.87 \times 1.1\) & 46.46 \\
\hline
\end{tabular}

A field investigation with Closed Circuit Television (CCTV) inspection of the existing storm sewer system was conducted by Clean Water Works Incorporated in October 2015, to assess the physical condition of the existing storm sewers. In total, 40 sewer segments (1288m) were inspected from a structural and operations/maintenance standpoint. Overall, the CCTV inspection found that the sewer is generally in good condition; however there a number segments that require replacement/ repair. Specifically, of the 40 items inspected, three (3) were determined to be structurally deficient requiring immediate repair/replacement while two (2) other were considered in fair condition. The results of the CCTV inspection and the specific items noted above requiring attention are summarized in Exhibit 4-20. Further details are documented in a sewer inspection report (available under separate cover) and the Drainage and Stormwater Management Report in Appendix H .

\section*{Exhibit 4-20: CCTV Inspection of Existing Storm Sewer System}

\section*{LOCATION}

SEGEMENTS SURVEYED
(STRUCTURALLY DEFICIENT)
\begin{tabular}{|c|c|c|}
\hline \[
\begin{aligned}
& \text { Pembroke } \\
& \text { Street } \\
& (10+000 \text { to } \\
& 10+235)
\end{aligned}
\] & \begin{tabular}{l}
- 6 segments (252.9m inspected) \\
- Overall: 9 deficiencies identified \\
- 1 segment structurally deficient \\
- 1 segment partially blocked requiring clean-up \\
- 1 segment containing gravel and encrustation deposits requiring clean-up and repair
\end{tabular} & \begin{tabular}{l}
BMH1 to MH6A ( 1400 mm ) \\
- 2 deficiencies within 37.1 m inspected \\
- Structurally deficient requiring immediate attention \\
- Surface corrosion of metal pipe with hole soil visible \\
- Needs pipe replacement
\end{tabular} \\
\hline Angus Campbell Drive & \begin{tabular}{l}
- 2 segments ( 69.5 m inspected) \\
- Overall: 6 deficiencies identified \\
- 1 segment structurally deficient \\
- Both segments found to have attached encrustation deposits requiring clean-up and repair
\end{tabular} & \begin{tabular}{l}
MH4 - MH5 (910mm) \\
- 4 deficiencies within 57.5 m inspected \\
- Fair structural condition \\
- Found attached encrustation deposits \\
- Needs pipe clean-up and repair
\end{tabular} \\
\hline Pembroke Street (10+270) & \begin{tabular}{l}
- 2 segments (2.0m inspected) \\
- Overall: 3 deficiencies identified \\
- Obstacle within structure requiring clean-up
\end{tabular} & \\
\hline Pembroke Street
\[
\begin{gathered}
(10+370 \text { to } \\
10+710)
\end{gathered}
\] & \begin{tabular}{l}
- 10 segments ( 463.5 m inspected) \\
- Overall: 8 deficiencies identified \\
- 1 segment structurally deficient \\
- 1 segment partially blocked requiring clean-up and repair \\
- 1 segment containing intruding pipe requiring immediate attention \\
- 1 segment contains longitudinal cracking and needs repair \\
- 3 segments containing settled deposits requiring clean-up
\end{tabular} & \begin{tabular}{l}
CBMH1106 to CBMH1102 ( 1200 mm ) \\
- 1 deficiency within 93.0 m inspected \\
- Structurally deficient requiring immediate attention \\
- Surface reinforcement exposed at one location \\
- Needs surface repair
\end{tabular} \\
\hline Highway 148 (11+100 to \(11+175\) ) & \begin{tabular}{l}
- 2 segments ( 77.5 m inspected) \\
- No concerns
\end{tabular} & \\
\hline Highway \(148(11+510\) to \(11+610\) ) & \begin{tabular}{l}
- 7 segments ( 153.7 m inspected) \\
- Overall: 8 deficiencies identified \\
- 1 segment partially blocked requiring clean-up and repair \\
- 2 segments contain settled deposits, including one at 40\% requiring clean-up
\end{tabular} & \begin{tabular}{l}
DICB01 to DIMH01 ( 300 mm ) \\
- 2 deficiencies within 10.0 m inspected \\
- Fair structural condition \\
- Found settled fine deposits and surface corrosion on metal pipe \\
- Needs clean-up and metal pipe rehabilitation
\end{tabular} \\
\hline Highway 148 (11+700 to \(11+925\) ) & \begin{tabular}{l}
- 11 segments (269.0m inspected) \\
- Overall: 17 deficiencies identified \\
- 1 segment structurally deficient \\
- 5 segments contain settled deposits requiring clean-up, including one at \(90 \%\) requiring clean-up/repair.
\end{tabular} & \begin{tabular}{l}
CBO2 to CBMH03 ( 300 mm ) \\
- 3 deficiencies within 17.5 m inspected \\
- Structurally deficient requiring immediate attention \\
- Found fine settled deposits and broken joint with visible soil \\
- Needs replacement
\end{tabular} \\
\hline
\end{tabular}
(1) For Segment ID refer to Existing Drainage Plan (SWM-01) in Drainage and Stormwater Management Report in Appendix H or CCTV Inspection Report.

\subsection*{4.11 Contamination}

There are several locations within the study area that have a high potential for subsurface impacts (Exhibit 4-21). The full report can be found in Appendix G.

\section*{Exhibit 4-21: Locations of Potential Environmental Concern}
\begin{tabular}{|l|l|}
\hline \multicolumn{1}{|c|}{\begin{tabular}{l} 
LOCATION (PROPERTY/ \\
ACTIVITY OF POTENTIAL \\
ENVIRONMENTAL CONCERN)
\end{tabular}} & \multicolumn{1}{c|}{ OBSERVATIONS } \\
\hline \begin{tabular}{l} 
1034 Pembroke Street East \\
(Former "Irving Oil" and four \\
former underground storage \\
tanks, UST).
\end{tabular} & \begin{tabular}{l} 
- Property previously occupied by a former gas station. \\
- Site listed as a hazardous waste generator in 2004 and \\
as a gas station. \\
- Strip mall plaza currently at this location.
\end{tabular} \\
\hline \begin{tabular}{l} 
1043 Pembroke Street East (Oil \\
Changers)
\end{tabular} & \begin{tabular}{l} 
- Property previously occupied by a former gas station. \\
- Property previously occupied by Sunoco. \\
- Registered as a hazardous waste generator for light \\
fuels for 2002, 2003 and 2004.
\end{tabular} \\
\hline \begin{tabular}{l} 
1409 Pembroke Street East \\
(Former Ultramar gas station \\
with two former USTs)
\end{tabular} & \begin{tabular}{l} 
- Property is vacant. \\
- Seven monitoring wells and a number of drums \\
suspected to contain soil cuttings and purged water \\
generated during the subsurface investigation completed \\
on the property.
\end{tabular} \\
\hline - Three monitoring wells on adjacent residential property.
\end{tabular}

\section*{5 Preliminary Design Alternatives}

Based on the review of technical studies, cross section and right-of-way elements along the corridor, environmental inventories (including natural, socio-economic, and cultural features), along with input received from agencies and public received at/prior to Public Information Centre No. 1, the Project Team identified the following areas of concern and/or improvement opportunities within the study area:
- Cross-Section: assess the feasibility of active transportation facilities and a TwoWay Left-Turn Lane;
- Drive In Road Intersection: Review traffic control alternatives to improve traffic operations and safety; and,
- Greenwood Road Intersection: Review design alternatives to improve the westbound right-turn merge condition.
This section outlines the improvement alternatives that were developed for Highway 148 in each of these areas. An evaluation of the design alternatives was undertaken using either a numerical evaluation or a reasoned argument method supported by a technical memorandum summarizing the development of alternatives, technical analysis and the selection of a preferred alternative. The findings in this regard are summarized below. Where appropriate, supporting analysis has been included in the report appendices.

\subsection*{5.1 Cross-section (Active Transportation and Two-Way Left-Turn Lane)}

Given the varying conditions along Highway 148, the study area has been divided into two sections to allow for the development and evaluation of design alternatives that are appropriate for each section. The two sections are:

\section*{Section 1 - Angus Campbell Drive to Drive In Road}

The section of Highway 148 between Angus Campbell Drive and Drive in Road is 1.76 km in length. The conditions along this section of the highway are considered to be more urban than the other sections of the highway due to the lower posted speed limits, higher traffic volumes, higher access density and increased commercial activity.

\section*{Section 2 - Drive In Road to Greenwood Road}

Section 2 of Highway 148 is 1.67 km in length and varies in characteristics between urban and rural. The highway is generally more urban in nature between Drive In Road and Dairy Road with numerous private access driveways and commercial properties. East of Dairy Road the conditions along the highway become more rural with higher operating speeds and increased spacing between intersections and private access driveways.
Cross-section alternatives have been developed and evaluated to determine the feasibility of active transportation facilities and a two-way left-turn lane (TWLTL) in each section.

\subsection*{5.1.1 Section 1: Angus Campbell Drive to Drive In Road}

\section*{a) Development of Alternatives}

\section*{Two-Way Left-Turn Lane}

From a traffic operations and safety perspective, a TWLTL was determined to be an appropriate and justifiable measure to introduce in Section 1 for the following reasons:
- Existing ADT of 11,000 vehicles is within the generally accepted range of 3,000 to 14,000 vehicles for TWLTL;
- Existing access density of 38 access connections per km meets the criteria of 20-55 total access connections per km;
- It will reduce the frequency of collisions involving left-turning vehicles, particularly rear-end collisions;
- It will improve the operational efficiency of the corridor by reducing delays caused by left-turning vehicles in the through lanes; and
- It provides continuity with the existing section of TWLTL provided along Pembroke Road East.

A copy of the Two-Way Left-Turn Lane Assessment is provided in Appendix B3 (Technical Memo - TWLTL).

\section*{Active Transportation}

The assessment of active transportation facilities concluded that, given the high operating speeds and traffic volumes, if an alternative route is not available, a separated cycling facility should be provided along this section of the highway. Therefore, three separated facility alternatives were considered and evaluated for Section 1:
- Bicycle Lanes;
- Multi-use Pathway; and
- Paved Shoulders.

Future sidewalks for pedestrians were also considered with the bicycle lane and multi-use pathway cross-section alternatives. In total, the following five cross section alternatives were considered for this segment of highway:
- Alternative 1: Multi-use pathway, sidewalk and two-way left-turn lane (urban)
- Alternative 2: Bike lanes, sidewalks and two-way left-turn lane (urban)
- Alternative 3: Sidewalks and two-way left-turn lane (urban)
- Alternative 4: Buffered paved shoulders (rural)
- Alternative 5: Do nothing

The Do Nothing option represents repaving of the highway without any operational or safety improvements.

\section*{b) Evaluation of Alternatives}

The evaluation of the five cross-section alternatives has been undertaken in two steps. Given that Alternatives 1 to 3 differ only in the type of active transportation facility provided, a preliminary evaluation of these three alternatives was carried out using a reasoned argument approach with the preferred alternative carried forward for further evaluation against Alternatives 4 and 5. This method allows for a greater focus on the active transportation criteria in the evaluation.

\section*{Step 1: Evaluation of Alternatives 1-3}

The focus of the evaluation of Alternatives \(1-3\) has been on the active transportation criteria as there is considered to be very little difference between the alternatives with respect to roadway capacity, traffic safety and impacts to the natural environment, as all three propose an urbanized cross-section with a TWLTL. A summary of the evaluation is provided in Exhibit 5-1.

\section*{Exhibit 5-1: Section 1 - Evaluation of Alternatives 1-3}

\section*{DESIGN ALTERNATIVE}

\section*{RECOMMENDATION}

\section*{Alternative 1: Multi-Use Path (MUP) on North Side, Sidewalk on South Side}
- Sidewalk is provided on one side only.
- Meets City of Pembroke objective of providing pedestrian connection to commercial areas on south side of the highway.
- Complies with County of Renfrew designation as an Active Transportation and Cycling Route.
- The MUP on the north side caters to all user types.
- The MUP meets the requirement for separated facility due to high traffic volumes and speeds.
- The MUP is not recommended due to the high frequency of driveways and interactions with pedestrians.
- Property Impact: Area of additional right-of-way \(=1,520 \mathrm{~m}^{2}\)
- Capital Cost \(=\$ 4.25\) million (not including MUP and sidewalk)

Alternative 2: , Bicycle Lanes and Sidewalks on Both Sides
- Sidewalks provided on both sides for pedestrians.
- Meets City of Pembroke objective of providing pedestrian connection to commercial areas
- Designated bicycle lanes to accommodate cyclists.
- Complies with County of Renfrew designation as an Active Transportation and Cycling Route.
- Designated bicycle lanes is the preferred facility type for cyclists given the existing conditions-traffic volumes, speeds, access density.

Not carried forward.

A MUP is not recommended along this section due to the high frequency of driveways.

Not carried forward.
Highest cost and largest impact to property of the three alternatives. There are no cycling facilities along Pembroke Street East to connect to. A parallel facility is planned for the CPR corridor.
- Bicycle lanes cater primarily to experienced cyclists.
- A parallel facility along the CPR corridor is being planned.
- Property Impact: Area of additional right-of-way \(=2,450 \mathrm{~m}^{2}\)
- Capital Cost =\$4.85 million (not including sidewalks)

\section*{Alternative 3: Sidewalks on Both Sides}
- Sidewalks provided on both sides for pedestrians.
- Meets City of Pembroke objective of providing pedestrian connection to commercial areas
- No facilities for cyclists
- Does not recognize County of Renfrew designation as an Active Transportation and Cycling Route
- Parallel active transportation facility available along CPR corridor
- Does not cater to experienced commuter cyclists
- Property Impact: Area of additional right-of-way \(=950 \mathrm{~m}^{2}\)
- Capital Cost \(=\$ 4.25\) million (not including sidewalks)

The results of the evaluation of Alternatives 1 to 3 indicate Alternative 3 as the recommended alternative to be carried forward for further evaluation against Alternatives 4 and 5. Alternative 3 provides for sidewalks and a TWLTL. Recognizing the corridor constraints and impacts of additional road widening to accommodate bike lanes, it is preferable to use of the CPR corridor as a parallel cycling route.

\section*{Step 2: Evaluation of Alternatives 3-5}

The second step of the evaluation process for Section 1 involved a detailed numerical evaluation of Alternatives 3-5. Four major categories of criteria were established for the evaluation: transportation/technical, socio-economic environment, natural environment and cost. Each category and criteria was assigned a numerical weighting based on the significance and priority of the criteria among the group. These weightings were discussed with Ministry staff prior to completion of the evaluation. The criteria and assigned weightings are indicated in Exhibit 5-2.
For each criteria, each of the options was assigned with a score ranging between 0 and 4, as follows:
- Unacceptable \(=0\)
- Least Desirable \(=1\)
- Less Desirable = 2
- Acceptable = 3
- Preferred \(=4\)

These scores, were then multiplied by the above weightings to provide an overall score for comparison among the options. The details of the evaluation of Options 3-5 are provided in Exhibit 5-3.
```

IBI GROUP TRANSPORTATION ENVIRONMENTAL STUDY REPORT

Exhibit 5-2: Evaluation Criteria and Weighting

| CRITERIA |  | CRITERIA <br> INDICATORS | UNIT OF MEASURE | WEIGHT |
| :--- | :--- | :--- | :--- | :---: |
| (\%) |  |  |  |  |

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HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD)
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Exhibit 5-3: Section 1 - Evaluation of Alternatives 3-5

| CRITERIA |  | INDICATORS | UNIT OF MEASURE | WEIGHTING | ALTERNATIVE 3 - SIDEWALKS +TWLTL | ALTERNATIVE 4 - BUFFERED PAVED SHOULDERS | ALTERNATIVE 5 - DO NOTHING (MILL AND OVERLAY ONLY) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SCORE (WEIGHTED SCORE) |  |  | SCORE (WEIGHTED SCORE) | SCORE (WEIGHTED SCORE) |
|  | Roadway Capacity and Level of Service |  | Ability to accommodate traffic demands | Level of Service, v/c ratio | 20\% | 4 - Preferred (0.80) <br> - TWLTL expected to reduce average vehicular delays by up to 49 seconds per turning vehicle <br> - Extension of turning lanes reduces delays due to lane blockage | $\begin{gathered} \hline 2 \text { - Less Desirable } \\ 0.40 \end{gathered}$ <br> - No TWLTL - no improvement to overall corridor delays <br> - Extension of turning lanes reduces delays due to lane blockage | $\begin{gathered} \hline 1 \text { - Least Desirable } \\ 0.20 \end{gathered}$ <br> - No improvement to traffic operations |
|  | Traffic Safety | Impact on road safety | Number and type of conflicts | 20\% | 4 - Preferred (0.80) <br> - TWLTL reduces frequency of collisions involving left-turning vehicles. <br> - Sidewalks improve safety for pedestrians. <br> - No improvement in safety for cyclists. | $\begin{gathered} 2 \text { - Less Desirable } \\ 0.40 \end{gathered}$ <br> - No improvement to vehicular safety <br> - No improvements to pedestrian safety <br> - Buffered paved shoulders improves safety for cyclists. | $\begin{gathered} 1 \text { - Least Desirable } \\ 0.20 \end{gathered}$ <br> - No improvement to road safety <br> - No improvement to pedestrian/cycling safety |
|  | Active <br> Transportation | Ability to accommodate pedestrians and/or cyclists/compliance with MTO Bikeways Manual | Type of facility provided | 5\% | 4 - Preferred (0.20) <br> - Sidewalks provided on both sides for pedestrians. <br> - Meets City of Pembroke objective of providing pedestrian connection to commercial areas <br> - No facilities for cyclists <br> - Does not recognize County of Renfrew designation as an Active Transportation and Cycling Route <br> - Parallel active transportation facility available along CPR corridor <br> - Does not cater to experienced commuter cyclists | $\begin{gathered} 3-\text { Acceptable } \\ 0.15 \end{gathered}$ <br> - No facilities for pedestrians <br> - Does not meet City of Pembroke objective of providing pedestrian access to commercial areas. <br> - Paved shoulders for cyclists <br> - Complies with County of Renfrew designation as an Active Transportation and Cycling Route <br> - Caters to experienced commuter cyclists <br> - Parallel facility available along CPR corridor for recreational cyclists and children | $\begin{gathered} 1 \text { - Least Desirable } \\ 0.05 \end{gathered}$ <br> - No facilities for pedestrians or cyclists. <br> - Does not meet the Active Transportation objectives of the County of Renfrew or City of Pembroke. |
|  | Geometry | Compliance with geometric standards | Number of geometric deficiencies | 5\% | 3 - Acceptable (0.15) <br> - Meets geometric design standards for horizontal and vertical alignment | 3 - Acceptable (0.15) <br> - Meets geometric design standards for horizontal and vertical alignment | 3 - Acceptable (0.15) <br> - Meets geometric design standards for horizontal and vertical alignment |
|  | Constructability | Potential impacts to traffic during construction | Delays, level of service | 5\% | 2 - Less Desirable (0.10) <br> - Moderate vehicle increase in vehicle delays due to reduced speed limit and short-term lane closures during sewer, road widening and paving work. | 3 - Acceptable (0.15) <br> - Minor vehicle delays due to reduced speed limit and short term lane closures during paving | 4 - Preferred (0.20) <br> - No impact |
|  | Traffic and Road Safety Scoring |  |  | 55\% | 2.05 | 1.25 | 0.80 |


| HIGHWAY 148 - WEST OF ANGUS CAMPBELL DRIVE TO DRIVE IN ROAD |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CRITERIA |  | INDICATORS | UNIT OF MEASURE | WEIGHTING | ALTERNATIVE 3 - SIDEWALKS +TWLTL | ALTERNATIVE 4 - BUFFERED PAVED SHOULDERS | ALTERNATIVE 5 - DO NOTHING <br> (MILL AND OVERLAY ONLY) |
|  |  |  |  |  | SCORE (WEIGHTED SCORE) | SCORE (WEIGHTED SCORE) | SCORE (WEIGHTED SCORE) |
|  | Property Impact | Impacts to existing property access | Number/type of access restriction | 3\% | 4 - Preferred (0.12) <br> - TWLTL improves access to existing properties | 3 - Acceptable (0.09) <br> - No change to vehicular access | 3 - Acceptable (0.09) <br> - No change to vehicular access |
|  |  | Additional Right-ofWay | Area (sq. m of additional ROW) | 7\% | $2 \text { - Less Desirable (0.14) }$ <br> - Minor impact to property - additional width required on south side adjacent to right-turn lanes <br> - Area of additional ROW $=950 \mathrm{~m}^{2}$ | 4 - Preferred (0.28) <br> - No property required | 4 - Preferred (0.28) <br> - No property required |
|  |  | Impacts during Construction | Number/type of access restriction | 5\% | 2 - Less Desirable (0.10) <br> - Moderate impacts during construction <br> - Contractor will be required to maintain access to properties during construction, however, there is the potential for short-term access restrictions due to construction activity at driveways: grading, curb and sidewalk installation, etc. | 3 - Acceptable (0.15) <br> - Minor impacts during construction <br> - Contractor will be required to maintain access to properties during construction. <br> - Short-term restrictions possible during paving operations | 3 - Acceptable (0.15) <br> - Minor impacts during construction <br> - Contractor will be required to maintain access to properties during construction. <br> - Short-term restrictions possible during paving operations |
|  | Archaeological and Cultural Heritage | Potential for loss of archaeological or built heritage features | Area of sites impacted | 5\% | 3 - Acceptable (0.15) <br> - Minor potential impact to areas of archaeological potential within the Right-ofWay due to widening, grading and boulevard modifications. <br> - Stage 3 Cemetery Investigation required for construction in the vicinity of the Pembroke Pentecostal Cemetery. | $3 \text { - Acceptable (0.15) }$ <br> - Negligible impact to areas of archaeological potential. <br> - Minimal impact to area in the vicinity of the Pembroke Pentecostal Cemetery. | 4 - Preferred (0.15) <br> - No impact |
|  | Socio-Cultural Environment Scoring |  |  | 20\% | 0.51 | 0.67 | 0.72 |
|  | Terrestrial | Impact on terrestrial species and habitats | Number of trees to be removed/area impacted | 1\% | 3 - Acceptable (0.03) <br> - Minor impact to Manitoba Maple woodland located on north side of highway just west of Robinson Lane due to grading. | 4 - Preferred (0.04) <br> - No impact | 4 - Preferred (0.04) <br> - No impact |
|  | Aquatic | Impact to watercrossing and wildlife habitat | Loss of Habitat/Area impacted | 1\% | 3 - Acceptable (0.03) <br> - No impact. Not a significant habitat. | 4 - Preferred (0.04) <br> - No impact | $4 \text { - Preferred (0.04) }$ <br> - No impact |
|  | Surface Drainage and Groundwater | Impacts on water quality, quantity and drainage facilities | Pavement Area, Drainage facilities, Area impacted | 3\% | 3 - Acceptable (0.09) <br> - Increased pavement area <br> - Improved drainage within ROW with new storm sewer system. | 2 - Less Desirable (0.06) <br> - Increased pavement area <br> - No improvements to drainage | 3 - Acceptable (0.09) <br> - No major impacts <br> - No improvements to drainage |
|  | Natural Environment Scoring |  |  | 5\% | 0.15 | 0.14 | 0.17 |

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| HIGHWAY 148 - WEST OF ANGUS CAMPBELL DRIVE TO DRIVE IN ROAD |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CRITERIA |  | INDICATORS | UNIT OF MEASURE | WEIGHTING | ALTERNATIVE 3 - SIDEWALKS +TWLTL | ALTERNATIVE 4 - BUFFERED PAVED SHOULDERS | ALTERNATIVE 5 - DO NOTHING (MILL AND OVERLAY ONLY) |
|  |  | SCORE (WEIGHTED SCORE) |  |  | SCORE (WEIGHTED SCORE) | SCORE (WEIGHTED SCORE) |
| $\begin{aligned} & 1 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Capital Cost |  | Capital <br> Construction Cost (including roadway \& utilities) | Present value (\$) | 20\% | 1 - Least Desirable (0.20) <br> - $\$ 4.25$ million <br> - Moderate construction cost - road widening, new storm sewer, pedestrian facilities and utility relocations. | 3 - Acceptable (0.60) <br> - $\$ 1.42$ million <br> - Lower construction cost - road widening for extension of right-turn lanes, modifications to existing intersections | 4 - Preferred (0.80) <br> - $\$ 1.08$ million <br> - Lowest cost alternative asphalt overlay only |
|  | Cost Scoring |  |  | 20\% | 0.20 | 0.60 | 0.80 |
| OVERALL SCORING/ RECOMMENDATION |  |  |  | 100\% | $2.91$ <br> Improves traffic operations and road safety. Provides sidewalks for pedestrians. Does not accommodate cyclists but parallel cycling facility available. Minor environmental impacts. Moderate construction cost. <br> RECOMMENDED | 2.66 <br> Does not improve traffic operations or road safety. Does not accommodate pedestrians. Minor environmental impacts. Moderate construction cost. | 2.49 <br> Does not address traffic operations or road safety. Does not provide facilities for pedestrians and cyclists. Minor environmental impacts. Lowest cost. |

## SCORING:

Unacceptable $=0 \quad$ Least Desirable $=1 \quad$ Less Desirable $=2 \quad$ Acceptable $=3 \quad$ Preferred $=4$

## c) Evaluation Summary and Rationale

Based on the results of the two-step evaluation process indicated above, Alternative 3 emerges as the preferred design cross-section alternative for Section 1: Angus Campbell Drive to Drive In Road. Alternative 3 achieves the objective of improving traffic operations and safety along the highway with the introduction of a TWLTL.
Alternative 3 also includes concrete sidewalks along both sides of the highway to address the need for pedestrian facilities in this developing section of the corridor. It should be noted that current provisions for sidewalks will be accommodated in the design as a municipal initiative. The space and grading required for the sidewalks can be designed for and protected in the detailed design and implementation stages of the Highway 148 project, until such time as the municipality wishes to proceed with implementation.


#### Abstract

Alternative 3 does not include specific facilities for cyclists. However, there is a parallel corridor to the north-the proposed Algonquin trail in the old CPR corridor-which will serve cyclists in the area. Furthermore, without existing or planned cycling facilities to connect to in Pembroke Street East (west of Angus Campbell Drive) it is difficult to justify designated cycling facilities along this section of the highway.


The preferred cross-section for Section 1 of Highway 148 is presented in Exhibit 5-4.

### 5.1.2 Section 2: Drive In Road to Greenwood Road

## a) Development of Alternatives

## Two-Way Left-Turn lane

An evaluation of existing conditions for Section 2 indicates that the section of Highway 148 between Drive In Road and Dairy Road meets the general criteria for a TWLTL based on daily traffic volumes, access density and land use conditions. However, Dairy Road is located just west of the $80 \mathrm{~km} / \mathrm{h}$ speed zone and as a result experiences 85th percentile speeds of $84 \mathrm{~km} / \mathrm{h}$ which exceeds the recommended $70 \mathrm{~km} / \mathrm{h}$ maximum speed for TWLTLs. For this reason, a TWLTL is not recommended in Section 2 and was not carried forward for consideration in the development of options.

## Active Transportation

The assessment of active transportation facilities for Section 2 concluded that given the high vehicle volumes ( $>10,000$ vehicles/day) and high operating speeds, if an alternative route is not available, a separated cycling facility should be provided along this section of the highway. In this regard, two separated facility types were considered and evaluated.

- Paved shoulders with buffer separation
- Multi-use pathway

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Exhibit 5-4: Section 1 Preferred Cross Section - Angus Campbell Drive to Drive In Road


## b) Evaluation Summary and Rationale

To minimize implementation costs and impacts to the natural environment, a paved shoulder (with buffer separation) is the preferred treatment for Section 2, should a cycling facility be deemed appropriate along the corridor.

However, since there is a planned parallel corridor to the north-the proposed CPR trailwhich will serve cyclists in the area, it is recommended that a 2.5 m paved shoulder be provided along this section of Highway 148 (not signed or designated as a cycling route). The paved shoulder will improve safety for cyclists alternatively using Highway 148 to connect to planned cycling facilities along Drive In Road (County Road 29) and Greenwood Road (County Road 40) by the County of Renfrew.
The preferred cross-section for Section 2 of Highway 148 is presented in Exhibit 5-5.

### 5.2 Drive In Road Intersection

## a) Development of Alternatives

The Highway 148/Drive In Road intersection is currently unsignalized with stop control on the Drive In Road approaches. An auxiliary left-turn lane on the northbound approach and a right-turn lane on the southbound approach are provided at the intersection.

MTO has received complaints from the public and local municipalities in recent years regarding delays and safety concerns at the intersection, particularly for vehicles attempting to enter the intersection from the south approach on Drive In Road. As noted in Section 4, the intersection meets the minimum warrants for signalization under existing traffic conditions.

Based on the above, the following traffic control alternatives have been considered and evaluated for the Drive In Road intersection:

- Alternative 1 - Do Nothing: Stop control on Drive In Road approaches and freeflow conditions would remain on Highway 148.
- Alternative 2 - All-Way Stop Control (AWSC): Stop control would be introduced on all approaches while maintaining the existing intersection geometry and lane configuration.
- Alternative 3 - Traffic Signals: An auxiliary left-turn lane on the eastbound approach and right-turn lane on the northbound approach would be added to the intersection under traffic signal control.
- Alternative 4 - Roundabout: Single-lane roundabout with inscribed circle diameter (ICD) of 39 m .

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Exhibit 5-5: Section 2 Preferred Cross Section - Drive In Road to Greenwood Road


## b) Evaluation of Alternatives

The evaluation of alternatives for the Drive In Road intersection was carried out through technical analysis of each option and documented in a series of memos and other correspondence over the course of the study, which are included in Appendix B4 (Highway 148 - Drive In Road Intersection Review - Interim Report). Based on the evaluation undertaken, Traffic Control Signals are recommended for the Drive In Road intersection.

## Alternative 1: Do Nothing

The Drive In Road intersection is currently operating at close to its theoretical capacity during the afternoon peak hour and the Ministry's minimum warrants for traffic signals are met. Maintaining the existing configuration and intersection control would result in significant delays to side street traffic with the anticipated growth in traffic along the corridor.

## Alternative 2: All-Way Stop Control

Introducing AWSC would result in a worsening of the overall operating condition of the intersection with increased average vehicular delays. AWSC is not recommended on roads with multi-lane approaches where a stopped vehicle on the right will obscure the stop sign. Furthermore, AWSC intersections are not typically encountered on provincial King's Highways. As such, drivers not familiar with the area would not expect to encounter this type of traffic control on Highway 148 which could lead to non-compliance at the stop signs. For these reasons, this alternative is not recommended as either a permanent or interim solution.

## Alternative 3: Traffic Signals

Traffic signals are justified at the intersection based on the Ministry's minimum warrants. The intersection is projected to continue to operate at acceptable levels of service at the 2034 horizon year of the study with traffic signals in place. An auxiliary left-turn lane is recommended on the eastbound approach to the intersection to oppose the existing westbound left-turn lane. An auxiliary right-turn lane is proposed on the northbound approach which will require widening along the east side of Drive In Road. This widening can be accommodated within the Ministry-owned property at 127 Drive In Road. Some additional property will be required on the other three corners to accommodate traffic signals and to provide adequate daylight triangles.

## Alternative 4: Roundabout

A single-lane roundabout would operate at an overall acceptable level of service at the study horizon year but would result in an increase in delays to traffic on the Highway 148 approaches to the intersection. A larger area of property would be required in the northeast and northwest quadrants of the intersection than what would be required for traffic signals.

## Recommendation: Carry Forward Alternative 3 - Traffic Signals

## c) Vertical Alignment

A review of the north approach to Drive In Road was also undertaken as part of the study. The section of Drive In Road north of Highway 148 is classified as a local road. It provides a connection to Burns Drive which is a private roadway serving the single family residences to the north. Peak hour traffic volumes are low with less than 25 vehicles (twoway) travelling along the roadway during the weekday peak hours.
The north leg of the Drive In Road intersection currently rises towards Highway 148 at a $10 \%$ gradient which is considered acceptable for the class of roadway and volumes of traffic it experiences. A review of sight lines confirmed that adequate sight distance to the new traffic signal heads can be achieved on the approach at the current grade. The resulting crest curve on the approach to the highway has a K value of 5 which corresponds to a design speed of $42 \mathrm{~km} / \mathrm{h}$.
The feasibility of adjusting the grade of the north approach was reviewed and it was determined that the grade could be reduced to $8 \%$ without significantly impacting the elevations of the CPR corridor or Burns Drive to the north. This adjustment would allow a crest curve with a $K$ value of 8 to be provided on the approach to the highway which corresponds to an improved design speed of $50 \mathrm{~km} / \mathrm{h}$. However, the required modifications to the roadside ditches and cut slopes would result in property along both sides of the roadway. Raising the profile any higher would result in significant impacts to Burns Drive to the north. Based on the above, an adjustment of the vertical alignment of Drive In Road north of Highway 148 is not recommended at this time for the following reasons:

- The existing (10\%) grade is considered acceptable for the class of roadway and volume of traffic.
- The existing north approach meets the minimum signal visibility distance for a design speed of $60 \mathrm{~km} / \mathrm{h}$. Lower operating speeds are anticipated given the steep upgrade of the approach.
- Adjusting the vertical alignment to $8 \%$ would provide only a moderate improvement to crest curvature and stopping sight distance- $50 \mathrm{~km} / \mathrm{h}$ design speed from $42 \mathrm{~km} / \mathrm{h}$ existing.
- In addition to the increased capital cost, adjusting the vertical alignment to 8\% is feasible but would result in impacts to property, utilities and vegetation.


## Recommendation: Maintain existing vertical alignment

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## Exhibit 5-6: Drive In Road - Profile Adjustment Alternative



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Exhibit 5-7: Drive In Road Profile Adjustment Alternative - Plan and Cross Section



### 5.3 Greenwood Road Intersection

The Highway 148/Greenwood Road intersection is an unsignalized T-intersection with the main approaches on Greenwood Road and the section of Highway 148 that leads to Pembroke. The minor approach consists of the section of Highway 148 that leads to the Quebec Border. Both right-turns at the intersection are channelized.
A review of the existing geometry at the intersection has revealed a number of areas where the design of the intersection does not fully comply with MTO design standards:

- The acceleration lane on Highway 148 upon exiting the westbound right-turn channel-Highway 148 to Highway 148 movement-is designed as a direct taper 152 m long. For a design speed of $100 \mathrm{~km} / \mathrm{h}$, a parallel lane of 210 m is required for highway volumes with less than 400 vehicles per hour;
- There are no pavement markings at the acceleration lane; and
- The southbound left-turn lane length is substandard.

Through the study consultation process, several comments were received from members of the public regarding safety concerns with the channelized westbound right-turn. These concerns relate to insufficient time for the right-turning vehicles to merge safely onto Highway 148 and near collisions caused by merging vehicles immediately decelerating and stopping in the though lane in order to make a left-turn into the Esso gas station. In addition, concerns were raised about delays for left-turning vehicles travelling from Pembroke to the Cotnam Island-Quebec Border section of Highway 148.

As noted in Section 4, a review of collision records for the intersection reveals that the number of collisions at the intersection are higher than would be predicted for this intersection configuration. However, only three collisions that could potentially be linked to the Esso driveway were recorded in the period between 2007 and 2015. Therefore, the public concerns regarding conflicts between vehicles turning into the Esso gas station and the through vehicles along Highway 148 do not appear to be significantly reflected in the collision data available.

## a) Development of Alternatives

A number of design alternatives were developed to address the design and safety issues identified at the intersection:

- Alternative 1: Modify the WBR channelization;
- Alternative 2: Replace existing channelization with a Smart Channel;
- Alternative 3: Remove WBR channelization;
- Alternative 4: Modify the southbound left-turn lane;
- Alternative 5: Signalize the intersection;
- Alternative 6: Convert the intersection to a roundabout; and
- Alternative 7: Modify the commercial access configuration.


## b) Evaluation of Alternatives

The seven design alternatives were screened and those that were considered technically feasible were carried forward for detailed evaluation. A description of each of the alternatives is provided below.

## Alternative 1: Modify the WBR channelization

Proposes reducing the existing curve radius of the channel and upgrading the merge from a direct taper to a full acceleration lane. This will provide more time for vehicles to merge onto the highway and also increases the distance between the exit gore to the Esso driveway.

## Alternative 2: Replace existing channelization with a Smart Channel

Replace existing channelization with an urban "smart channel' which does not provide an acceleration lane or taper. This treatment is more appropriate in low-speed urban
locations, particularly at signalized intersections. It would eliminate concerns related to the Esso driveway but would result in significant sight-line issues at the intersection.

## Alternative 3: Remove WBR channelization

Remove WBR channelization and combine left-right turning movements in a single lane at the stop-controlled approach to the intersection. This alternative eliminates the concerns related to the Esso driveway but results in increased delays and sub-standard sight-lines for right-turning vehicles on the approach.

## Alternative 4: Modify the southbound left-turn lane

The length of the existing left-turn lane is substandard. However, there were no reported rear-end collisions in the period analyzed so increasing the length of the lane does not appear to be necessary at this time. Furthermore, extending the lane would result in an overlap with the Esso driveways.

## Alternative 5: Signalize the intersection

Signalizing the intersection would reduce delays to left-turning vehicles. However, the intersection does not meet the minimum warrants for signalization.

## Alternative 6: Convert the intersection to a roundabout

Converting the roundabout would eliminate most of the issues identified at the intersection. However, the current MTO policy is to only consider roundabouts at intersections where signalization is warranted.
Alternative 7: Modify the commercial access configuration
Several alternatives for modifying existing commercial access driveways were considered, including:

- Implement raised median at the north Esso driveway: adverse business impacts to the Esso gas station and may encourage U-turns;
- Left-turn lane at the Esso Driveway: would require shortening the southbound left-turn lane which is already substandard; and
- Relocate Esso Driveways: would require property acquisition and could impact natural environment. Adverse business impacts for Esso.

Based on the initial screening, Alternatives 1 and 3 (modifying and removing the existing westbound right turn channelization, respectively) were carried forward for detailed evaluation against the Do Nothing option.
The detailed evaluation matrix for the design alternatives is provided in Exhibit 5-8.
Exhibit 5-8: Greenwood Intersection Road - Evaluation of Alternatives

| CRITERIA | DO NOTHING | ALTERNATIVE 1 - REDUCE RADIUS OF WBR CHANNEL AND PROVIDE STANDARD ACCELERATION LANE | ALTERNATIVE 3 REMOVE WBR CHANNEL |
| :---: | :---: | :---: | :---: |
| Intersection operations and safety | Negative: No improvements to intersection safety. | Positive: Reduced turn speed for WBR vehicles may reduce collision risk. <br> Increases decision time for drivers to merge. <br> Negative: Does not reduce collisions between SBL and NBR vehicles. | Negative: Increased delay for WBR drivers. <br> Negative: Does not reduce collisions between SBL and NBR vehicles. <br> Negative: Intersection sight distance concerns for the WBR movement. <br> Negative: Risk that further intersection upgrades may be required in the future. |
| Driveway safety | Negative: No improvements to driveway safety. | Positive: Reduces collision risk at the private driveway at the end of the existing taper. <br> Positive: Mitigates (but does not fully eliminate) concerns regarding drivers at the Esso driveway stopping immediately upon entering Highway 148. <br> Negative: Increases the number of driveways on the auxiliary lane. | Positive: Eliminates situations where drivers at the Esso driveway stop immediately upon entering Highway 148. |
| Cost | None | Medium | Low |
| Property Impacts | None | None | None |
| Business Impacts | None | None | None |
| Impacts to natural environment | None | Additional green space can be provided adjacent to the channel. | Additional green space can be provided adjacent to the channel. |


| Compliance <br> with design <br> standards | Not compliant <br> due to absence <br> of acceleration <br> lane. | No impact with respect to <br> design compliance. | Yes |
| :--- | :--- | :--- | :--- |
| RANKING | NOT <br> PREFERRED | ACCEPTABLE | NOT PREFERRED |

Recommendation: Carry Forward Alternative 1 - Based on the detailed evaluation, the recommended design alternative for the Greenwood Road intersection is to reduce the curve radius of the WBR intersection channel from $R=70 \mathrm{~m}$ to $R=45 \mathrm{~m}$. It is also recommended to improve traffic signage at the end of the WBR channel (e.g., provision of yield signs) and to provide pavement markings to separate the WBT lane and the WBR acceleration taper. This treatment is expected to somewhat mitigate operational and safety concerns associated with vehicles merging to quickly into the Highway 148 northbound lane, as well as increase the distance between the bullnose and the entrance to the Esso station.

The recommended design for the Greenwood Road intersection, which includes modifying the right-turn channel and providing a full acceleration lane, is presented in Exhibit 5-9. A copy of the technical memorandum which summarizes the detailed assessment of the Greenwood Road intersection is provided in Appendix B5 (Greenwood Road Intersection - Technical Memorandum).

Exhibit 5-9: Greenwood Road Intersection - Preferred Design Alternative


## 6 Consultation Process

### 6.1 Notice of Study Commencement

The Notice of Study Commencement (Appendix A1) was published, in both English and French, in The Pembroke Observer on April 2, 2015. The newspaper advertisement provided residents and stakeholders with information on how to participate actively in the study.

Members of the public adjacent to the study area were notified by Canada Post Unaddressed Ad mail. Technical agencies, utilities, stakeholders, and special interest groups were notified of this EA process by mail on March 30, 2015 by IBI Group. Members of Parliament, both Federal and Provincial, and First Nations were mailed letters on MTO letterhead. The notification letter included the Notice of Study Commencement and a response request sheet inviting participation in the Class EA. The list of agencies, First Nations and stakeholders noted are summarized in Exhibit 6-1. Complete mailing lists can be found in Appendix A6 (Agencies and First Nation Correspondence); and Appendix A7 (Public and Stakeholder Correspondence).
Exhibit 6-1: Summary of Agencies, First Nations and Stakeholders

| TYPE | AGENCYIFIRST NATION/STAKEHOLDER |
| :--- | :--- |
| Federal Agencies | - Ms. Cheryl Gallant, MP, Renfrew-Nipissing-Pembroke |
|  | - Environment Canada <br> - Canadian Transportation Agency <br> - Public Works and Government Services Canada |
| Provincial Agencies | - Mr. John Yakabuski, MPP, Renfrew-Nipissing-Pembroke <br> - Ministry of the Environment and Climate Change <br> - Ministry of Natural Resources and Forestry |
|  | - Ministry of Agriculture, Food and Rural Affairs <br> - Ministry of Indigenous Relations and Reconciliation <br> - Ministry of Tourism, Culture and Sport |
|  | - Ministere des Transports Quebec |
|  | - Ontario Provincial Police |


| TYPE | AGENCYIFIRST NATION/STAKEHOLDER |
| :--- | :--- |
|  | - Williams Treaty |
|  | - Métis Nation of Ontario |
| Stakeholders | - Timberline Snowmobile Club |
|  | - Snow Country Snowmobile Association |
|  | - Active Transportation Renfrew County |
|  | - Canadian Pacific Railway |
|  | - Ottawa Valley Railway |
|  | - Bell Canada |
|  | - Hydro One |
|  | - Ottawa River Power Corporation |
|  | - Brookfield Energy |
|  | - Enbridge Consumers Gas |

### 6.2 Public Information Centre \#1

The first Public Information Centre (PIC) was held to introduce the project and discuss the issues to be addressed by the Class EA. The PIC was jointly held with for sections of Highway 148 from west of Angus Campbell Drive to Greenwood Road, inclusive of the Greenwood Road intersection (GWP 214-00-00); and Greenwood Road to the Québec Border (GWP 239-00-00).

The Notice of Public Information Centre (PIC) \#1 was published in the Pembroke Observer on July 2 and 9, 2015. The PIC was a drop-in format where members of the project team were available to answer questions and address concerns. Approximately 44 individuals attended the PIC. The session was held as follows:

Date: $\quad$ Tuesday, July 14, 2015
Time: Information Display Drop In: 3:00 p.m. to 7:00 p.m.
Location: Travelodge, 900 Pembroke St. East, Pembroke
A copy of the notice and PIC \#1 exhibits are provided in Appendix A2 (Public Information Centre \#1). Key exhibits included:

- Study Purpose and Objectives
- Study Process and Schedule
- Class EA Process for Group B Projects
- Natural Environment
- Drainage and Hydrology
- Archaeology, Cultural Built Heritage, Contamination Overview
- Existing Highway 148 (Urban Section)
- Existing Highway 148 (Rural Section)
- Traffic Safety/ Collision History
- Existing Traffic Conditions
- Future Traffic Conditions
- Alternative Planning Solutions
- Preferred Planning Solution
- Summary of Design Alternatives to be Considered
- Evaluation Criteria
- Next Steps

A summary of comments received can be found in Exhibit 6-2. For a complete record of the written comments and concerns received, see Appendix A2.

## Exhibit 6-2: PIC \#1 Summary of Comments/Concerns

## PUBLIC COMMENTS RECEIVED (ISSUES AND PROBLEM AREAS) <br> RESPONSE (HOW ISSUE WILL BE ADDRESSED)

## Centre Turn Lane

- Supports turning lanes from Angus Campbell Drive to Dairy Road
- Need a turning lane on Highway 148 in front of property on Pembroke Street East.
- Urban Area should have turning lanes to access businesses.
- Turning left onto highway from 1244 Pembroke Street East difficult.
- Consider adding centre lane to the Highway 148-Greenwood Road intersection to city limits.
- Need a turning lane or three lanes beyond Dairy Road to the Quebec turnoff.
- Traffic volumes warrant consideration of road widening with extra lane(s) from Quebec intersection through to city limits.


## Drive In Road Intersection

- At Drive In Road, turning left or right is very dangerous (2 comments).
- Put in traffic lights at Drive In Road (5 comments).
- Temporary solution to Drive In Road and Highway 148 intersection is to put in a four way stop.


## Old Mill Road Intersection

- Risk of rear end collision when turning left onto Old Mill Road
- Slight curve in the highway on Pembroke St. East obstructs view of on-coming traffic


## Greenwood Road Intersection

- Need local intersection and operations improvements at Highway 148 and Greenwood Road intersection. Improve road markings and signs to indicate who has the right-of-way.
- Merge lane too short at Greenwood Road.
- Install roundabout at the Highway 148Greenwood Road intersection.
- A two-way centre left-turn lane is being considered in the design options for the section of Highway 148 between Angus Campbell and Drive In Road. Additional localized widening for turning lanes at specific intersections is also being considered.
- Extending the centre turn lane further east to Greenwood Road is not recommended given the higher operating speeds and fewer driveways along this section.
- The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.
- An option of providing a an all-way (fourway) stop at the Drive-In Road intersection as an interim measure until traffic signals can be implemented is not recommended
- The need for an exclusive left-turn lane at Old Mill Road is being reviewed as part of the study.
- Safety concerns at the Greenwood Road intersection, particularly related to the merging of vehicles from the Cotnam Island section of Highway 148 onto the urban section of the highway, have been noted and are being investigated as part of the study.


## Speed Limits

- Reduce speed immediately from current $80 \mathrm{~km} / \mathrm{h}$ down to at least $60 \mathrm{~km} / \mathrm{h}$ from $1 / 4$ mile east of 148 from Quebec through to current speed change at top of hill entering Pembroke.
- Urban area needs lower speed limit - 50 km/h.
- Speed limit should be $50 \mathrm{~km} / \mathrm{hr}$ from Greenwood Road to Drive In Road.
- Speed limits should be 50 km from Angus Campbell Drive to Quebec turnoff.


## Access Management

- Retain current driveway access for property on Pembroke Street East.


## Active Transportation

- Provide bike lanes.
- Provide sidewalks and bike lanes from Angus Campbell to Dairy Road.
- Provide sidewalks and bike lanes starting from where the speed limit drops to 50 km/hr.


## Drainage

- Drainage /Stormwater Management on Pembroke Street East.


## Other

- Wildlife crossing signs need to be posted (2 comments).
- Bury Hydro lines.
- The Ministry has recently reviewed the speed zones along Highway 148 and not proposing any changes to the existing speed zones.
- MTO is currently reviewing all private accesses along the highway. Any accesses not conforming to Ministry standards or considered unsafe may modified or closed.
- Sidewalks and bike lanes are some of the design options being considered along the section between Angus Campbell Drive and Dairy Road. Sidewalks are being considered as a municipal initiative.
- Improvements/upgrades to existing drainage will be considered and proposed where required.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

Exhibits 6-3 provides a summary of PIC \#1 comments received from stakeholder and agencies. A complete record is in Appendix A2.

## Exhibit 6-3: PIC \#1 Comments from Stakeholders and Agencies

| STAKEHOLDER/ <br> AGENCY | COMMENT |  |
| :--- | :--- | :--- |
| Hydro One | -Indicated that there are no Hydro One <br> Transmission (above 115 kV) facilities in the <br> subject area, and to contact <br> Zone4Scheduling@HydroOne.com to cover off <br> potential impact to any Hydro One Distribution <br> facilities (i.e. below 115 kV). <br> Requested that correspondence only be <br> forwarded electronically to the Environmental <br> Assessment Coordinator. • Acknowledged |  |
| Transport <br> Canada | Aknowledged |  |

### 6.3 Public Information Centre \#2

The second joint Public Information Centre (PIC) was held to allow the public and interest groups an opportunity to review and comment on the results of the evaluation of alternatives and to present the preferred alternative.
The Notice of Public Information Centre (PIC) \#2 was published in the Pembroke Observer on June 27 and 29, 2017. The PIC was a drop-in format where members of the project team were available to answer questions and address concerns. Approximately 60 individuals attended the PIC. The session was held as follows:

Date: $\quad$ Thursday, July 6, 2017
Time: Information Display Drop In: 3:00 p.m. to 7:00 p.m.
Location: Best Western, 1 International Drive, Pembroke
A copy of the notice and PIC \#2 exhibits are provided in Appendix A3 (Public Information Centre \#2). Key exhibits included:

- Study Purpose and Objectives
- Study Process / Class EA Process for Group B Projects
- Existing Conditions: Highway 148 (Urban Section)
- Existing Conditions: Highway 148 (Rural Section)
- Input Received at PIC \#1
- Improvement Alternatives Considered
- Cross-Section Alternatives
- Drive In Road Intersection
- Greenwood Road Intersection
- Summary of Recommended Improvements
- Plan and Profile Drawing
- Summary of Environmental Impacts and Mitigation
- Summary of Property Impacts
- Summary of Utility Impacts

A summary of comments received can be found in Exhibit 6-4. For a complete record of the written comments and concerns received, see Appendix A3.

## Exhibit 6-4: PIC \#2 Summary of Comments/Concerns

## PUBLIC COMMENTS RECEIVED (ISSUES RESPONSE (HOW ISSUE WILL BE

 AND PROBLEM AREAS)ADDRESSED)

Centre Turn Lane

- Given traffic congestion, it is not safe for vehicles to enter/exit business.
- Concerned with the turn lane at Robinson Lane approaching from the east, and traffic flow east and west from Robinson Lane to Greenwood Road.
- Concerned about head on collisions between traffic turning left into the subdivision and commercial areas.
- Provide additional lane or full shoulder to accommodate through vehicles having to stop behind vehicles turning left to Resmer
- A centre turn lane is being proposed on Highway 148 extending to Drive-In Road.
- Delays to eastbound through traffic blocked by vehicles turning left to Resmer Road are expected to be minimal. Further east, a centre turn lane is being proposed on Highway 148 extending to Drive-In Road.
- Extending the centre turn lane further east to Greenwood Road is not recommended given the higher operating speeds and fewer driveways along this section.

PUBLIC COMMENTS RECEIVED (ISSUES AND PROBLEM AREAS)
Road or properties between Robinson Road and Drive In Road.

- The turn lane should be extended coming into Pembroke to eliminate accidents in front of the fruit and vegetable stand.
- The left turn lane needs to be extended from Drive-In Road eastward to at least the middle of the incline where the speed limit drops from 80 to 60 coming into Pembroke on Highway 148.


## Drive In Road Intersection

- Agrees with the light (3 comments) and turning lane at Drive In Road


## Old Mill Road Intersection

- Concerned about access onto Old Mill Road. Significant amount of traffic on Highway 148 from the east. Old Mill Road services three subdivisions and on the other side of Highway 148, there is a new subdivision development.
- Have a left turn lane from Highway 148 onto Old Mill Road (13 comments).
- Improve signage (7 comments) e.g., hidden left hand turn in the Old Mill Road section.


## Greenwood Road Intersection

- Making a left turn from Highway 148 onto Greenwood Road is hazardous at peak periods.
- There is an issue with the left-hand turn from Highway 148 to Greenwood.
Concerned about truck traffic from Quebec going to the fibreboard plant and County Road 40.
- Traffic light should be provided at Highway 148 and Greenwood Road (7 comments).
- Consider a traffic circle at Highway 148 and Greenwood Road (3 comments).
- Supports proposed change to the Highway 148/Greenwood Road intersection. Further improve safety by cutting back trees that prevent drivers from seeing oncoming traffic on Greenwood Road.

RESPONSE (HOW ISSUE WILL BE ADDRESSED)

- Traffic signals are recommended to be installed at the Highway 148/Drive In Road intersection.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- A review of the intersection operations and collision history, indicates that the intersection does not meet the warrants for traffic signals (rural conditions). The Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met.
- Pavement markings to delineate the merge condition will be incorporated with modifications to the right turn channelization and pavement upgrades.
- In consultation with the County of Renfrew, the Ministry will look to cut back any vegetation within the existing right-of-way along Greenwood Road that may be limiting driver sight lines at the intersection.

| PUBLIC COMMENTS RECEIVED (ISSUES AND PROBLEM AREAS) | RESPONSE (HOW ISSUE WILL BE ADDRESSED) |
| :---: | :---: |
| Speed Limits <br> - Reduce speed limit (11 comments). | - The Ministry has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted and is not proposing any changes to the existing speed zones at this time. |
| Access Management <br> - Connect the two malls to the south of Highway 148, through the fields to eliminate lights and have a mall entrance from Drive In Road to the East End Mall. This would reduce traffic on Highway 148. | - Local road network configuration is a municipal planning responsibility and outside of the scope of this study. |
| Active Transportation <br> - Need identified bike lanes. <br> - Identify paved shoulders as bike/pedestrian use, as vehicles use the paved shoulders to pass left turning vehicles. <br> - Have paved shoulders from 1053 Pembroke Street East to Drive In Road. <br> - Municipality must put in a sidewalk from Drive In Road, west to Bell Street [Angus Campbell Drive]. | - The urban section with includes curb along the edge of pavement and an allowance for sidewalks along both sides of Highway 148 behind the curb, between Drive In Road and Angus Campbell Road. Provisions for sidewalks will be included in the design as a municipal initiative (responsibility of the Township of Laurentian Valley). <br> - The preferred cross-section between Angus Campbell Drive to Drive In Road (i.e. Option 3) was selected largely on the basis of improving traffic operations and safety along the highway with the introduction of a two way left turn lane (TWLTL), while protecting for pedestrian activity (via sidewalks by the municipality) along both sides of Highway 148. <br> - The highway right-of-way is very constrained and substantial property acquisitions would be required to accommodate on-road or off-road cyclist facilities within this section. Although this option does not include specific facilities for cyclists, there is a planned parallel corridor to the north-the proposed CPR trail-which will serve cyclists in the area. Without existing or planned cycling facilities to connect to in Pembroke Street East (west of Angus Campbell Drive) it is difficult to justify designated cycling facilities along this section of the highway. |
| Drainage <br> - There is runoff from Highway 148 coming into the entranceway of the driveway. | - The curb provided along Highway 148, in conjunction with the road improvements, is |

PUBLIC COMMENTS RECEIVED (ISSUES AND PROBLEM AREAS)
Would like to see a rain gutter to drain the ditches.

## Other

- Left-turn signal only off Highway 148 to Angus Campbell Drive.
- Provide an advanced green at Drive In Road to accommodate traffic heading west
- Ensure the traffic lights at Drive In Road (e.g., upper and lower Drive In Road) operate on the same cycle.
- Fiddlefest occurs every Labour Day and traffic is heavy for two weeks.

RESPONSE (HOW ISSUE WILL BE ADDRESSED)
expected to address concerns in this regard.

- Signal phasing (including Highway 148 Rankin/ Angus Glen intersection) and signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- A traffic management plan will be prepared during detail design to ensure that property access is maintained and traffic delays are minimized during construction.

Exhibits 6-5 provides a summary of PIC \#2 comments received from stakeholders and agencies. A complete record is in Appendix A3.

## Exhibit 6-5: PIC \#2 Comments from Stakeholders and Agencies

| STAKEHOLDER/ AGENCY | COMMENT | RESPONSE |
| :---: | :---: | :---: |
| Ottawa Valley <br> Cycling and Active <br> Transportation Alliance (OVCATA) | West of Angus Campbell Drive to Drive In Road <br> - Option 1 (boulevard cycling facility adjacent to sidewalk): Why was this option not favoured? <br> - Preferred Option 3 (active transportation allowance excluded): Provisions for cyclists for an in boulevard shared multi-use facility where pedestrians and cyclists share an asphalt pathway on both sides of the road. Suggest this remains in place until MTO can obtain adequate ROW to provide separate facilities for cyclists and pedestrians. <br> - OVCATA is reviewing Renfrew County Road 51 and Highway 148 as a consideration for the designation of the Voyager Cycle Route which will connect the Trans Canada Trail between North Bay and Ottawa. <br> Drive In Road to Greenwood Road | - The preferred cross-section between Angus Campbell Drive to Drive In Road (i.e. Option 3) was selected largely on the basis of improving traffic operations and safety along the highway with the introduction of a two way left turn lane (TWLTL), while protecting for pedestrian activity (via sidewalks by the municipality) along both sides of Highway 148. The highway right-of-way is very constrained and substantial property acquisitions would be required to accommodate onroad or off-road cyclist facilities within this section. Although this option does not include specific facilities for cyclists, there is a planned parallel corridor to the north-the proposed CPR trailwhich will serve cyclists in the area. Without existing or planned cycling facilities to connect to in Pembroke Street |


|  | - MTO proposal doesn't include a leftturn lane onto Old Mill Road. Vehicles use the paved shoulder to pass cars on the right when they are stopped to turn left. This is a safety hazard for active transportation users occupying the paved shoulder. OVCATA requests a left turn lane be provided <br> - Requests the speed limit be reduced to $60 \mathrm{~km} / \mathrm{h}$. Propose the speed reduction occur at the Greenwood Road/Highway 148 intersection, with speed reduction being on the easterly Highway 148 approach and southerly approach on Greenwood Road. <br> - Acknowledge the Active Transportation opportunity on the rail bed. However cyclists require a cycling facility along Highway 148 for access to commercial businesses. <br> - Suggest paved shoulder include a buffer (e.g., rumble strip with skip pattern). <br> General <br> - Can it be assumed that signage proposals will be presented with final design? <br> - OVCATA would like to review proposed signage for this project. | East (west of Angus Campbell Drive) it is difficult to justify designated cycling facilities along this section of the highway. <br> - Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided. <br> - The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones. <br> - The Ministry is not in favour of implementing rumble strips along edge of driving lane in conjunction with the fully paved shoulder treatment, particularly given the adjacent residential properties. <br> - Signage design will be undertaken during the detail design stage of the project |
| :---: | :---: | :---: |
| Voyageur Cycling Working Group | - Supports paved shoulders from Drive In Road and Greenwood Road. Recommend consideration be given for providing a paved shareduse pathway between Angus Campbell Drive and Drive In Road. | - See comments above |
| Hydro-Pontiac | - Does the project include the modification or displacement of the electric line or poles? If so, what is the timeline to complete this? | - It is anticipated that that a number of hydro poles could be impacted by the proposed modifications and will likely |


|  | - HPI will need to shut down the generating station in Waltham. During the shutdown, will there being any compensation for lost revenues? <br> - Do you need to work inside the danger zone of the wire? | require relocation (i.e. approx. 23 poles). Details in this regard and working constraints will be resolved through subsequent design phases. |
| :---: | :---: | :---: |
| Transport Canada | - Does not require receipt of all Environmental Assessment notifications. <br> - Proponents should self-assess whether their project will interact with federal property and/or waterway, or require approval and/or authorization under any Acts administered by Transport Canada. | - Acknowledged |
| Ministry of Tourism, Culture and Sport (MTCS) | - Submitted a letter detailing the Environmental Assessment screening process and had a request for the technical heritage studies prior to issuing the Notice of Completion. | - Acknowledged |
| City of Pembroke | - Interested in having a sidewalk installed, at the City's cost, from the most westerly point of Highway 148 to Angus Campbell Drive. Presently installing a sidewalk on the west side of Angus Campbell Drive and we would like the new sidewalk on Pembroke Street East to connect to that new Angus Campbell Drive sidewalk. Requesting a concrete sidewalk be installed. | - Acknowledged |
| County of Renfrew | - The County of Renfrew has a good understanding of the project and would like to be kept informed of the project's process. | - Acknowledged |

### 6.4 Municipal Advisory Committee

A Municipal Advisory Committee (MAC) was established to bring together representatives from the Township of Laurentian Valley, Renfrew County, and City of Pembroke to provide an opportunity to participate in the study development. The MAC met on two occasions: May 27, 2015 and November 23, 2016.

## a) Municipal Advisory Committee \#1 - May 27, 2015

The first MAC was held to introduce the study and receive feedback on concerns within the corridor, the status of adjacent development proposals, and expectations regarding the extent of improvements to be considered. Discussions focused on:

- Traffic Congestion and Safety (e.g., Greenwood Road intersection);
- Active Transportation;
- Property access
- Future development;
- Servicing and Utilities; and
- Public comments received.

Minutes are in Appendix A4 (Municipal Advisory Committee Meetings).

## b) Municipal Advisory Committee \#2 - November 23, 2016

The second MAC was held to discuss the preliminary recommendations and preferred alternative. Discussions focused on:

- Active Transportation network and connections
- Traffic volumes
- Future development;
- Two-way left turn, taper and auxiliary lanes; and
- Signals at Drive In Road.

Minutes are in Appendix A4.

### 6.5 Public Advisory Committee

A Public Advisory Committee (PAC) was established to bring together representatives of stakeholder groups and the public, with a potential interest in the undertaking, in order to provide an opportunity to participate in the study. The PAC met on two occasions: May 27, 2015 and November 23, 2016.
a) Public Advisory Committee \#1 - May 27, 2015

The first PAC was held to introduce the study, summarize existing and future conditions and present the alternatives to be considered. Discussions focused on:

- Traffic volumes;
- Road safety, configurations and extensions;
- The need for more active transportation infrastructure in the study corridor;
- Poor drainage; and
- Development proposals.

Minutes are in Appendix A5 (Public Advisory Committee Meetings).

## b) Public Advisory Committee \#2 - November 23, 2016

This second PAC was held to discuss the preliminary recommendations and preferred alternative. Discussions focused on:

- Potentially designating Highway 148 as a cycling route;
- Placement of cycling facilities;
- Two-way left turn, taper and auxiliary lanes; and
- Construction timing.


## Minutes are in Appendix A5.

### 6.6 Property Acquisition and Driveway Closures

On June 21, 2017, letters were mailed to property owners along Highway 148 directly impacted by either a requirement for additional right-of-way or an intended driveway closure where multiple driveways serve a residential property. Letters were mailed via Canada Post to 26 property owners directly affected. Owners were encouraged to contact the project team and/or meet one-on-one with Ministry staff on July $5^{\text {th }}, 2017$ to address any concerns. In total, eight owners contacted the Ministry for further details and were provided with the information requested by phone. Another three owners arranged to meet one-on-one with Ministry staff to discuss specific concerns. Concerned were noted and where practical mitigation considered. During the detail design, the Ministry will continue to work with property owners on an individual basis to address any concerns.

To mitigate concerns identified by the public regarding the Highway 148 - Old Mill Road intersection at/following PIC \#2, a left turn slip around treatment was added to the recommended plan. To accommodate the preferred alternative, the need for additional right-of-way was identified from four properties along Highway 148. In February 2018, letters were mailed to the four additional property owners directly affected specifying the property requirements and offering to meet one-on-one with Ministry staff.

### 6.7 Agency Consultation

Exhibit 6-6 provides a summary of consultation undertaken with external agencies, in addition to the comments received at the PICs. A complete record is in Appendix A6 (Agency and First Nations Correspondence).

## Exhibit 6-6: Agency Comments

| AGENCY | COMMENT |
| :--- | :--- |
| Fisheries and |  |
| Oceans Canada | -General information regarding the management of impacts to fish and <br> fish habitat and self-assessment tools (e.g. Operational Statements) <br> that enable you to determine Fisheries Act requirements are available <br> at DFO's "Working Near Water" website at www.dfo- <br>  <br> mpo.gc.ca/habitat. For all occurrence reports, or project proposals <br> where you have determined, following self-assessment, that you cannot <br> avoid impacts to fish and fish habitat, please submit to <br> fisheriesprotection@dfo-mpo.gc.ca. For general inquiries you can also <br> call 1855 852-8320.$\quad$ |


| AGENCY | COMMENT |
| :---: | :---: |
| Transport Canada | - All EA correspondence should go to EnviroOnt@tc.gc.ca. Provides links for further information for Navigation Protection Act, Railway Safety Act, Transportation of Dangerous Goods Act, and Aeronautics Act. |
| City of Pembroke | Sees two basic parts to this project as follows: <br> - Sound investments to maintain existing asset lifecycles; and <br> - Investments to "improve" the functionality of the asset. |
| Township of Laurentian Valley | - Responses were received by Township of Laurentian Valley Councillors James Sheedy and Keith Watt requesting be kept informed of the study. <br> - Extensive consultation was undertaken with the Township of Laurentian Valley. |
| County of Renfrew | - Expressed an interest in any traffic control measures, turning lanes, and active transportation measures to support a connection with the trail system in Quebec. <br> - Extensive consultation was undertaken with the County of Renfrew, and generally in conjunction with Township of Laurentian Valley Staff. |

### 6.8 First Nations Consultation

Comments were received by First Nations (Exhibit 6-7). All correspondence received is in Appendix A6 (Agency and First Nations Correspondence).

## Exhibit 6-7: First Nations Comments

| FIRST NATION | COMMENT |
| :--- | :--- | :--- |
| Alderville First <br> Nation | •The study is within Alderville First Nation Traditional and Treaty <br> Territory. <br> Keep apprised of any further developments and any archeological and <br> environmental impacts. |
| Mississaugas of <br> Scugog Island <br> First Nation | - Has no comments and no need for further contact. |
| Curve Lake First <br> Nation | -Project is situated within the Traditional Territory of Curve Lake First <br> Nation. It is incorporated within the Williams Treaties Territory and is <br> the subject of a claim under Canada's Specific Claims Policy. Should <br> contact Williams Treaty First Nations Claims Coordinator with a copy <br> of the proposal. <br> Concerned about archaeological findings and would like to be notified <br> of any discoveries. |

### 6.9 Public Consultation

The following is a summary of primary issues expressed by the public received throughout the study. The comments are in line with those received at the PICs:

- Centre Turn Lane: Provide centre turn lane on Highway 148 on the segment leading into Pembroke. Add turn lanes at intersections along Highway 148;
- Drive In Road Intersection: Provide traffic signals at the intersection of Highway 148 and Drive-In Road (complaints from the public and municipality regarding delays and safety concerns);
- Old Mill Road Intersection: Consider left turn lane on Highway 148 at Old Mill Road;
- Greenwood Road Intersection: Improve the channelized right turn and merge lane onto Highway 148 at Greenwood Road. Provide traffic signals and left turning lanes;
- Speed Limits: Reduce posted speed limits in the study area (speeds should be limited to $60 \mathrm{~km} / \mathrm{hr}$ );
- Access Management: Maintain property access;
- Active Transportation: Concerned about pedestrian and cycling safety. Provide paved shoulders for cyclists and pedestrian facilities in vicinity of commercial developments;
- Drainage: Address several specific drainage issues along Highway 148 (i.e. eliminate water ponding within roadside ditches); and,
- Other: Improve signal timing to better manage traffic congestion.

All correspondence received is in Appendix A7 (Public and Stakeholder Correspondence).

## 7 The Recommended Plan

### 7.1 Major Features of the Recommended Plan

The Recommended Plan for Highway 148 is illustrated on the drawings provided in Section 7.11. The plan is made up two main sections:

- Section 1: Angus Campbell Drive to Drive In Road
- Section 2: Drive In Road to Greenwood Road

In addition, intersection modifications are proposed at three locations as indicated on
Exhibit 7-1 below.
Exhibit 7-1: Location of Recommended Improvements


The proposed modifications to the highway are described below.

## a) Section 1: Angus Campbell Drive to Drive In Road

Section 1 of the recommended plan is from the western end of Highway 148 at the City of Pembroke limits—approximately 150 m west of Angus Campbell Drive-to Drive In Road. The recommended plan proposes widening of Highway 148 to provide a three-lane urbanized cross-section consisting of two 3.75 m wide travel lanes and a 4.0 m wide centre Two-Way Left-Turn Lane (TWLTL).
Exhibit 7-2 indicates a typical cross-section in Section 1 of Highway 148 illustrating the general location of the travel lanes, TWLTL and sidewalks at a location with an auxiliary right-turn lane.

Exhibit 7-2: Typical Cross-Section - Highway 148, Angus Campbell Drive to Drive In Road


In addition it is proposed that the following turning lanes be extended to allow turning vehicles to enter the lane sooner:

- Extend the eastbound right-turn lane at Angus Campbell Drive (existing parallel lane length $=25 \mathrm{~m}$; proposed $=70 \mathrm{~m}$ )
- Extend the westbound left-turn lane at Angus Campbell Drive (existing parallel lane length = 50 m ; proposed $=80 \mathrm{~m}$ );
- Extend the eastbound right-turn lane at Robinson Lane (existing parallel lane length = 60 m ; proposed = 95 m );
- Extend the eastbound right-turn lane at Drive In Road (existing parallel lane length = 40 m ; proposed = 60 m );

The proposed urbanized cross-section includes concrete curbs and allows for the introduction of sidewalks (as a municipal initiative) along this section of the highway. Drainage of the highway will be facilitated though a combination of existing sewers and new sewers with catch basins. Ditches are proposed behind the sidewalks in some locations along the corridor to allow for the drainage of existing properties. Minor modification of the vertical alignment of the highway is recommended in the section between Station 10+900 and Station 11+560 to allow for minimum longitudinal gradients of $0.3 \%$ to be achieved along the proposed curbs.
The existing right-of-way along Section 1 is approximately 26 m wide. Additional property will be required at some locations to accommodate the widened highway and ditches/swales behind the proposed sidewalks, as identified on the typical section above. The location and extent of additional property required to accommodate the recommended plan are indicated on the Recommended Plan drawings.

## b) Section 2: Drive In Road to Greenwood Road

In Section 2 of the recommended plan, from Drive In Road to Greenwood Road, Highway 148 will remain as a two lane highway with 3.75 m wide travel lanes. The plan proposes the addition of 2.5 m wide paved shoulders for cyclists which will provide a connection between the planned cycling facilities along Drive In Road (County Road 29) and Greenwood Road (County Road 40) by the County of Renfrew. The existing roadside ditches can generally remain in their current condition.

Localized widening of the highway is proposed in the vicinity of the Old Mill Road and Greenwood Road intersections as part of intersection modifications proposed at those two locations and described below.

## Drive In Road Intersection

Traffic signals are proposed at the Drive In Road intersection to improve traffic operations at the intersection. The proposed three lane cross-section west of Drive In Road will be extended to the intersection to allow for a left turn lane on the eastbound approach. The existing westbound left turn lane will remain but will be shifted so that it is centred on the highway and will oppose the eastbound left turn lane. In addition, an auxiliary right turn lane is proposed on the northbound approach to the intersection. This right-turn lane will be achieved by maintaining the west curb line on Drive In Road, shifting the centre line to the east and widening the approach along the east side. The recommended plan also proposes extending the existing eastbound right turn lane to help reduce the potential for blockage due to the projected queue of vehicles in the through lane by allowing vehicles to enter the turning lane sooner.

MTO currently owns the property in the southeast quadrant of the intersection, but additional property will need to be acquired at the other quadrants to provide $10 \mathrm{~m} \times 10 \mathrm{~m}$ daylight triangles.
Sidewalks are proposed on each corner of the intersection and will tie into the existing curbs and sidewalks on Drive In Road south of the intersection.

There are two access driveways on the north side of Highway 148 west of the intersection that will be closed as part of this project, as illustrated on the recommended plan drawings.

## Old Mill Road Intersection

A left-turn slip-around lane is proposed along Highway 148 at the Old Mill Road intersection to allow trailing vehicles to pass a vehicle waiting to turn left onto Old Mill Road. The slip-around lane is proposed to be 3.5 m wide and will be constructed to the right of the existing eastbound travel lane. It will consist of a 45 m long parallel lane section with 80 m approach and departure tapers. As a result of this widening, the ditch on the south side of the highway will be realigned and regraded. Additional property along the south side of the highway will be required, as indicated on the recommended plan drawings. The extent of grading has assumed a 3:1 slope on the fore slope of the ditch and $2: 1$ back slopes.

A right turn taper ( 80 m ) is proposed on the westbound approach to Old Mill Road. The ditch on the north side of the highway adjacent to the proposed right turn taper will be realigned and regraded.

## Greenwood Road Intersection

Modifications to the existing channelized right turn lane on the southbound approach (Highway 148 from Quebec) to the Greenwood Road intersection are proposed to improve traffic operations and safety related to the merging of vehicles at this location. The recommended plan will reduce the radius of the ramp from the existing 70 m to 45 m . A 150 m long right-turn taper is proposed on the approach to the ramp. In addition, an acceleration lane and taper is to be provided on the leaving end of the ramp to allow vehicles sufficient distance to accelerate before merging. The total acceleration lane length is 235 m consisting of a 155 m long parallel lane with an 80 m taper. Spiral curves (spiral parameter, $A=40$ ) are recommended on either end of the 45 m radius curve to provide a smooth transition between the curved section of the ramp and the tangent sections of the approach and acceleration lanes.

### 7.2 Design Criteria

The design of the highway will conform to the standards presented in the Geometric Design Standards for Ontario Highways (MTO), and recently adopted TAC Geometric Design Guide for Canadian Roads (TAC Manual) and MTO Design Supplement for TAC Geometric Design for Canadian Roads (2017). The design of the highway will conform to the standards presented in the Geometric Design Standards for Ontario Highways (MTO). The Ministry has indicated that there is no intention to adjust the posted speed limits along Highway 148 at this time, therefore the design criteria have been prepared on the basis of the existing posted speeds for the highway.
The design criteria for Section 1 and Section 2 are presented in Exhibit 7-3 and Exhibit 7-4 below.

Exhibit 7-3: Design Criteria for Highway 148 - Section 1

| DESIGN ELEMENT | DESIGN CRITERIA |  |
| :---: | :---: | :---: |
|  | WEST OF ANGUS CAMPBELL DRIVE TO 220 m WEST OF ROBINSON LANE | 220 m WEST OF ROBINSON LANE TO DRIVE IN ROAD |
| Highway Classification | UCU 70 | UCU 80 |
| Design Speed | $70 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ |
| Posted Speed | $50 \mathrm{~km} / \mathrm{h}$ | $60 \mathrm{~km} / \mathrm{h}$ |
| AADT (Ultimate) | 13,400 veh/hr | 13,400 veh/hr |
| No. of Through Lanes | 2 | 2 |
| Right of Way Width | 26 m (approximate) | 26 m (approximate) |
| Lane Widths | $\begin{gathered} \text { Through Lanes }=3.75 \mathrm{~m} \\ \text { Turning Lanes }=3.5 \mathrm{~m} \\ \text { Two-Way Left-Turn Lane }=4.0 \mathrm{~m} \end{gathered}$ | ```Through Lanes = 3.75 m Turning Lanes = 3.5 m Two-Way Left-Turn Lane = 4.0 m``` |
| Sidewalk Width | 2.0 m | 2.0 m |
| Minimum Stopping Sight Distance | 110 m | 135 m |
| Minimum Horizontal Radius | R-190 | R-250 |
| Minimum Gradient | 0.3\% | 0.3\% |
| Maximum Gradient | 6\%-12\% | 6\%-8\% |
| Cross-fall | 2.0\% | 2.0\% |
| Minimum Vertical Curve - Crest | $\mathrm{K}=25$ | $\mathrm{K}=35$ |
| Minimum Vertical Curve - Sag | $K=25$ | $K=30$ |

## Exhibit 7-4: Design Criteria for Highway 148 - Section 2

| DESIGN ELEMENT | DESIGN CRITERIA |  |
| :--- | :---: | :---: |
|  | DRIVE IN ROAD TO 145 M <br> EAST OF DAIRY ROAD | 145 M EAST OF DAIRY <br> ROAD TO GREENWOOD <br> ROAD |
| Highway Classification | RCU 80 | RCU 100 |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| Posted Speed | $60 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ |
| AADT (Ultimate) | $13,400 \mathrm{veh} / \mathrm{hr}$ | $13,400 \mathrm{veh} / \mathrm{hr}$ |
| No. of Through Lanes | 2 | 2 |
| Right of Way Width | $26 \mathrm{~m}-30.5 \mathrm{~m}$ | $30.5 \mathrm{~m}-42 \mathrm{~m}$ |
| Lane Widths | Through Lanes $=3.75 \mathrm{~m}$ | Through Lanes = 3.75 m |
| Shoulder Width | 2.5 m | Turning Lanes = 3.5 m |
| Minimum Stopping Sight Distance | 135 m | 2.5 m |
| Minimum Horizontal Radius | $\mathrm{R}-250$ | 185 m |
| Minimum Gradient | $0 \%$ | $\mathrm{R}-420$ |
| Maximum Gradient | $6 \%-8 \%$ | $0 \%$ |
| Cross-fall | $2.0 \%$ | $6 \%-8 \%$ |


| Minimum Vertical Curve - Crest | $\mathrm{K}=35$ | $\mathrm{~K}=70$ |
| :--- | :--- | :--- |
| Minimum Vertical Curve - Sag | $\mathrm{K}=30$ | $\mathrm{~K}=45$ |

In additional to the major features of the recommended plan outlined in Section 7.1 and the criteria outlined above, the following elements are of note:

- Rehabilitate existing pavement, including cross-fall correction throughout;
- Upgrade residential and commercial entrances to current MTO standards;
- Modify and upgrade the existing storm sewer system (including new sections of storm sewer, manholes, and catchbasins) within the commercial/ urban area; and,
- Clean-out and regrading of roadside ditches (including replacement of entrances culverts).
During detail design, guide rail will be reviewed and upgraded in accordance with the Highway Design Bulletin 2011-003 Guider Rail on Rehabilitation and Reconstruction Projects.

Utility relocations will be necessary to facilitate construction. No rail, pipeline, or river crossings are located with the project limits.

### 7.3 Highway Geometrics

## a) Horizontal and Vertical Alignment

The horizontal alignment of the highway is unchanged by the recommended plan. However, the vertical alignment of the highway will need to be adjusted in the section between Station 10+890 and 11+560 to achieve minimum longitudinal grades of $0.3 \%$ to allow for adequate drainage along the proposed curbs.

## b) Cross Section

Widening of Highway 148 between Angus Campbell Drive and Drive In Road is proposed to provide a continuous three lane cross section which will consist of two 3.75 m wide travel lanes and a centre two-way left-turn lane of 4.0 m width. Concrete barrier curbs with 0.4 m wide gutters (OPSD 600.010) are recommended along this section of the highway. Sidewalks ( 2.0 m wide) are to be protected for along both sides of the highway and implemented as a municipal initiative. A 1.5 m wide buffer should be provided between the face of curb and the proposed sidewalks where feasible. Sections where the 1.5 m buffer can be achieved are noted on the recommended plan drawings. In constrained sections the sidewalk can be constructed directly behind the curb.

Highway 148 between Drive In Road and Greenwood Road will remain as a two-lane highway with 3.75 m travel lanes. Paved shoulders ( 2.5 m wide) are proposed along this section to accommodate cyclists. MTO does not intend to mark or sign this section of the highway as a cycling route. However, paved shoulders are proposed recognizing that this section of the highway will provide a connection between two County of Renfrew roadsDrive In Road and Greenwood Road-that are designated as cycling routes and are intended to have paved shoulders in the future.

As noted in Section 4 above, substandard pavement cross-fall values were identified at some locations along the corridor. Cross-falls should be corrected to within acceptable tolerances where feasible as part of the roadway widening/repaving project.

### 7.4 Drainage

In general, stormwater from the urbanized section of Highway 148 between Angus Campbell Drive and Drive In Road will be treated by Oil Grit Separator (OGS) units before discharging to the receiving drainage systems. A total of four OGS units are proposed within Section 1. The OGS units should be designed to provide an Enhanced Level (80\% suspended solids removal) of protection. The sizing of the OGS units will be carried out during the detailed design stage.

The minor drainage system in Section 1 will be conveyed by a combination of existing and new storm sewers. The existing storm sewers are capable of accommodating the proposed condition flows generated within the right-of-way. The existing catch basins will need to be replaced or relocated as required to allow for the proposed road widening and improvements. New sewers are proposed in locations where there are no existing sewers to allow for the urbanization of the highway in this section and to safely convey the proposed roadway runoff during the design storm. All storm sewers will be designed to meet MTO standards and to provide sufficient capacity to convey the 10-year storm event. New catch basins will also be required in the new urbanized section of the highway to collect runoff from the paved areas.

It is anticipated that the quantity of runoff from the widened section of the roadway will not result in a significant increase in post-condition flow, and as such, specific techniques to reduce the quantity and rate of runoff are not considered warranted. The quantity of runoff resulting from major storms within the urban section will be conveyed to two existing low points as overland flow.

The two existing cross-drainage culverts within Section 1 have sufficient capacity to convey $115 \%$ of the 100-year design storm without overtopping the highway.

For the rural area of Highway 148 from Drive In Road to Greenwood Road, there will not be any change in the existing drainage strategy and roadway runoff will continue to be conveyed by ditches. The ditches will continue to provide stormwater quality controls.

Details of the proposed storm drainage system are provided in the Drainage Design and Stormwater Management Report in Appendix H.

### 7.5 Geotechnical

In March 2011, Stantec completed a pavement design report for this section of Highway 148 (GWP 239-00-00). The findings of the study indicate the asphalt thickness on Highway 148 varied from 120 mm to 240 mm with a mean thickness of 175 mm . To accommodate pavement rehabilitation, the following pavement rehabilitation options were considered:

- Option A: Partial depth removal and overlay consisting of 50 mm Partial Depth Asphalt removal, and 60mm Superpave 12.5 Asphalt Overlay
- Option B: Cold in place recycling consisting of 50 mm Partial Depth Asphalt removal, 100mm cold in place recycle, and 60mm Superpave 12.5 Asphalt Overlay

Based on an evaluation and the existing pavement condition, Option 1 the mill and overlay treatment was recommended for Highway 148. For the most part, this will result in a minor 10 mm grade raise on Highway 148.
Along Highway 148, between Angus Campbell Drive (Sta. 10+150) and the Pembroke Mall Entrance (Sta. 10+450), the frequency and severity of the distressed pavement is more extensive and severe, and the milling and placement of an additional lift is expected to be required (i.e. 80 mm milling $+2 \times 40 \mathrm{~mm}$ Superpave 12.5).
Additional recommendations are required for pavement widening and full depth excavation between Sta. 10+900 to Sta.11+030 to accommodate proposed profile adjustments/ lowering to ensure satisfactory longitudinal grade are provided along the future curb line.

### 7.6 Utilities

There is a need for utility relocations to accommodate the recommended plan, particularly in the urban section of Highway 148 between Angus Campbell Drive and Drive In Road. These relocations are anticipated due to conflicts with the widened roadway, proposed sidewalks, new traffic signal plant and realigned ditches. An estimate of the scope of potential utility relocations is provided in Exhibit 7-5 below. This estimate is based on existing utility information compiled from record drawings. A more thorough assessment of utility impacts should be carried out during the detailed design stage of the project based on verified utility locations.

Exhibit 7-5: Utility Impacts and Relocation Requirements

| UTILITY |  |
| :--- | :---: |
| Pembroke to Drive In Road |  |
| Hydro Poles | 11 |
| Gas main | 340 m |
| Underground Bell Conduit/Cable | 640 m |
| Underground cable | 170 m |
| Utility Pedestal | 4 |
| Bell Maintenance Hole | 2 |
| Drive In Road Intersection |  |
| Hydro Poles |  |
| Underground Bell Conduit/Cable | 11 |
| Relocate Utility Pedestal | 260 m |
| Old Mill Road Intersection | 2 |
| Hydro Poles | 2 |
| Underground Bell Conduit/Cable | 80 m |
| Gas main | 80 m |

### 7.7 Traffic Signals and Illumination

Traffic signals and partial illumination is to be provided at the intersection of Highway 148 and Drive In Road. These signals should be semi-actuated and provided with sideroad presence detector loops. The intersection is to include pedestrian push-button crossings and be designed based on the standards \& guidelines compliant with the most current Accessibility for Ontarians with Disabilities Act (AODA).

Standard advance warning signs will need to be installed along Highway 148 and sideroads notifying drivers approaching the intersection of the signals ahead.
Modifications will be required to traffic signals at Angus Campbell/ Rankin, Walmart Access, and Robinson Lane to accommodate minor widening (including sidewalk boulevard treatments) and grading. These signals are to be designed based on AODA standards \& guidelines (including auditable pedestrian signals). Temporary traffic signals will be required at these intersections.
Illumination currently in place on Highway 148 from Pembroke to the Walmart entrance (via luminaires on hydro poles along the south side of the roadway) is to be extended to Drive In Road (i.e. remainder of Section 1).

Partial Illumination at the Greenwood Road intersection is to be reinstated and additional lighting provided along the westbound acceleration/merge lane using 15.1 m steel, base mounted poles, complete with luminaire and 2.4 m bracket arm at 7.0 m offset.

### 7.8 Right-of-Way Requirements

The existing right-of-way along Highway 148 is approximately 26 m wide between Pembroke and Dairy Road. East of Dairy Road the right-of-way width increases to approximately 30.5 m . Additional width is provided at the Greenwood Road intersection to accommodate the existing right-turn channels.

Additional right-of way width will be required at certain locations along the urban section of the highway between Angus Campbell Drive and Drive In Road to accommodate the proposed roadway widening and new ditches/swales. In total, it is estimated that 0.26 ha of additional right-of-way will be required affecting 28 properties along Highway 148. These locations are highlighted on the Preliminary Design Plans in Section 7-10.

The proposed signalization of the Drive In Road intersection will require additional property on the southwest, northwest and northeast quadrants of the intersection to accommodate traffic signals and to provide adequate daylight triangles.
Additional property will also be required in the vicinity of the Old Mill Road intersection to accommodate the proposed right turn taper and left turn slip-around lane.

The property requirements will be confirmed and finalized during the detail design stage of the project.

### 7.9 Access Management

The MTO Access Management Policy permits only one access driveway for each residential property along Highway 148. Based on a review of entrances along the

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IBI GROUP TRANSPORTATION ENVIRONMENTAL STUDY REPORT
corridor, five properties are not in keeping with current Ministry Policy (refer to Preliminary Design Plans in Section 7-10). It is the Ministry's desire to close the second access to these properties as part of the future Highway 148 reconstruction project. The locations of the proposed access closures are indicated on the Preliminary Design Plan drawings. To date, two of the five property owners affected have signed back a letter confirming acceptance of the closure]
In addition to the above, closure of the commercial entrance at located immediately west of Drive In Road (1207 Pembroke Street E) will be required to accommodate reconfiguration and signalization of the Highway 148 - Drive In Road intersection.

\subsection*{7.10 Preliminary Design Plan/ Profile Plates}

Refer to the Plan Plates No. 1 to 11 and corresponding Profile Plates No. 1-1 to 11-1 herein for recommended improvements to Highway 148 between Pembroke and Greenwood Road.





















SCALE:



\section*{8 Environmental Impacts, Mitigation and Commitments}

\subsection*{8.1 Vegetation}

Within the study area there are small sporadic woodlands on the commercial and residential properties along the corridor. The woodlands are considered isolated features as there is no connectivity to other features in the larger countryside. Within the Highway 148 right-of-way, plantings largely consist of successional weed species and herbaceous vegetation that are tolerant and typical of roadsides within Eastern Region,

To accommodate the recommended improvements:
- Vegetation on the north side of Greenwood Road is to be cut back within right-ofway to maintain driver sight lines and visibility to/from the Highway 148 Greenwood Road intersection.
- Vegetation along the south side of Highway 148 and the north-east quadrant of the Highway 148 / Old Mill Road intersection is to be cut back within the proposed rightof way to improve driver visibility and accommodate both a right turn taper and left turn slip around lane at the intersection.

Elsewhere within the project limits, the impacts to vegetation are anticipated to be minor and related to excavation and/or soil disturbances within the Highway 148 right-of-way.
The following principles will be implemented to mitigate potential negative effects during construction:
- Minimization of vegetation removal;
- Protection of existing trees during the construction phase through the delineation of areas off limits to construction activity.

\subsection*{8.2 Wildlife}

Wildlife habitat disturbance within the study area will be limited to minimal disturbances of herbaceous, riparian and aquatic vegetation located in roadside area and ditches contained within the highway right-of-way. No changes to the alignment or major improvements are proposed that will result in direct habitat loss or degradation of the adjacent features. The maintenance of the roadway, road deicing, noise and traffic are already occurring and will continue with the road improvements. As such, minimal impacts on wildlife and associated habitat are anticipated as a result of the undertaking.
With that said, the following mitigation measures are recommended:
a) Conduct construction outside of Breeding Bird Season (April 15th-August 15th). If necessary in season, a bird biologist can check trees for the presence of active nests prior to cutting.
b) For construction within 30 m of the small wetland connected to the Hazley Bay/Lisk Bay Wetland Complex adjacent to the Highway 148-Greenwood Road intersection, and wetlands where turtles may cross and/or attempt nesting on the road shoulder:
- Conduct construction outside of turtle nesting season (April 1st - October 30th) or have a qualified biologist conduct roadside surveys to identify all active turtle nests in the development envelope and relocate these nests to similar habitat outside of the construction envelope.
- Install restrictive fencing (silt fence) at those locations to prevent nesting on the shoulders of the road and possible impacts on the nests, at a later date during construction and grading activities. Fencing is to be installed by May 1 of the construction year and prior to any construction activities, and remain in place during the construction period. Regular checks and maintenance is required especially in mid-June when turtle nesting is at its peak in this area.
c) Given the incidents of wildlife collisions in the vicinity of Old Mill Road, it is recommended to the following measures be implemented on Highway 148:
- Install deer crossing warning signage in advance of Old Mill Road; and,
- Right-of-way vegetation management/ clearing in the vicinity of Old Mill Road.

\subsection*{8.3 Aquatic Habitat}

The five watercourse/culvert crossings of Highway 148 within the study area either have the potential to support fish or fish habitat, however have a low sensitivity ranking. The watercourse crossing at Culvert C1 indirectly supports fish habitat, while watercourses at culverts C2 - C5 directly support tolerant forage fish species.

The proposed improvements within the vicinity of culvert C 1 will include minor pavement widening, installation of curb and gutter, storm sewer connection. The proposed work within the vicinity of culvert C 2 will include minor pavement widening, re-grading of granular sub-base; ditching, construction of paved shoulders. In the vicinity of culverts C3 and C4, the construction will consist of milling/paving and shoulder grading/paving (considered routine MTO works, as per Table 2 of the MTO/DFO/MNRF Protocol). While at culvert C5, the proposed improvement include a tightening of the channelized right turn and full depth pavement reconstruction. For the most part, all grading and will be outside of the watercourse crossing areas.

To mitigate for the harmful alteration of fish habitat, it is recommended that work in the immediate vicinity of these watercourses take place between July \(1^{\text {st }}\) and September \(30^{\text {th }}\), and the mitigation measures described in this section are implemented.

\section*{a) Soil Disturbance and Erosion and Sediment Control}

Standard erosion and sedimentation control measures must be followed during construction in the vicinity of culverts C1-C5, in accordance with Ontario Provincial Standard Specification (OPSS) 805 (Construction Specification for Temporary Erosion and Sediment Control Measures) to cover the installation, maintenance, monitoring and removal of the temporary erosion and sediment control measures and the removal of sediment accumulated by the control measures.
The following temporary erosion and sedimentation control measures will be implemented:
- The extent and duration that soils are exposed to the elements will be kept to the minimum area and time necessary to perform the work;
- Areas of riparian disturbances will be minimized and existing riparian vegetation will be retained, where feasible;
- Seed and mulch, tackifier, and/or erosion control blanket will be provided in areas of soil disturbance to provide adequate slope protection and long-term slope stabilization;
- Fiber roll flow check dams (will be placed at regular intervals in roadside ditches down-gradient from areas of soil disturbance to trap suspended sediments and reduce the erosive force of runoff; and
- Monitoring and maintenance of erosion and sedimentation control measures will take place during construction to ensure their effectiveness.
These environmental protection measures will be implemented prior to construction commencement/any soil disturbance and will remain in place until construction is complete and soils have been re-stabilized. This will greatly reduce the potential for soil erosion and impairment of surface water quality and fish habitat.

\section*{b) Contamination of Surface Water from Other Sources/Best Management Practices}

There is also the potential for contamination of surface water from sources other than sediment (i.e., spills or other materials/equipment). Best management/construction practices and control of all construction operations will be implemented during construction to reduce the potential for spills or other materials/equipment from entering the watercourses within the study area. The following measures will be employed:
- Storage, stockpiling and staging areas will be delineated prior to construction and inspected in accordance with the current MTO Construction Administration and Inspection Task Manual;
- In accordance with NSSP 0800A001 (Operational Constraint - Environmental Watercourse/Fisheries Protection - General), construction material, excess material, construction debris, and empty containers will be stored away from culverts. Equipment refueling, maintenance and washing activities will be conducted at a pre-determined site located at an adequate distance (minimum 30 m ) from culverts C1 - C5 in the study area to prevent the entry of petroleum, oil or lubricants (POL) or other deleterious substances (including any debris, waste, rubble or concrete material), or their release to the environment. Any material which inadvertently enters the watercourses will be removed by the Contractor in a manner satisfactory to the Contract Administrator; and,
- All spills that could potentially cause damage to the environment should be reported to the Spills Action Centre of the Ministry of Environment and Climate Change (MOECC) and to Fisheries and Oceans Canada (DFO). In the event of a spill, containment and clean-up will be completed quickly and effectively.

These environmental protection measures will greatly reduce the potential for surface water contamination from spills of POL and from other materials/equipment from entering the watercourses within the study area, and will provide a contingency in the event of an unforeseen event.

\subsection*{8.4 Sediment and Erosion Control Measures}

The Highway 148 improvements have the potential to suspend soil particles, resulting in the impairment of surface water quality. An increase in runoff may promote erosion downstream thus impairing water quality with sediments. Water quality treatment must be provided to maintain the existing quality of surface water within the study limits.

\section*{a) Sediment Control Plan}

In addition to measures outlined in Section 8.3.1 for work in the vicinity of culverts C 1 to C5, the following erosion and sedimentation control practices will serve to guide the design and implementation phase of the Erosion and Sedimentation Control Plan:
- Limit size of disturbed area,
- Limit duration of soil exposure,
- Retain existing vegetation where feasible,
- Limit slope, length and gradient of disturbed areas,
- Preserve overland sheet flow and micro-drainage (avoid concentrated channel flow),
- Break and redirect flows to lower gradients,
- Design and implement staged stripping,
- Prevent disturbance of previously stripped and stabilized parcels, and
- Stabilize stripped parcels with temporary vegetative controls.

Appropriate permanent/temporary erosion control measures to be considered in the design and implementation of the Erosion and Sedimentation Control Plan are:
- Hydro-seeding/Seed and Bonded Fibre Matrix - One step application of seed and hydraulic slurry with adhesive binder (provides permanent stabilization for moderate to steep slopes).
- Seed and Straw Mulch - Alternative two step application that will be applied to provide permanent/temporary vegetative stabilization of disturbed areas.
- Mulch (straw, wood etc.) - Used to provide temporary erosion protection of exposed slopes during over-wintering and for disturbed areas inactive for greater than 45 days.
- Sod - Utilized to provide quick permanent stabilization of disturbed areas. Applications include lateral ditches with gradients \(<5 \%\) and slopes with steep to moderate grades (i.e. 3\% to 5\%).
- Erosion Control Blanket - Applied as temporary/permanent erosion protection for slopes greater than 2:1 or as a ditch liner. For permanent applications, seed will be applied prior to installation.
- Aggregate Stone - Appropriate material, such as rip rap will be used to provide immediate permanent erosion protection of lateral ditches >5\% gradient; and along chute/spillways. Geotextile fabric will be applied prior to placement of any aggregate material.

\section*{b) Sediment Control}

The following elements should be included in the sediment control plan:
- Provision of a series of temporary interceptor/conveyor ditches to direct runoff to the siltation/watercourses;
- Provision of rock or flow checks within drainage swales/ditches; and
- Placement of a series of silt control fencing for the interception of sheet flow drainage.

All sediment control measures should not be removed until final stabilization of the site. In addition, any accumulated sediment shall be removed, as part of a maintenance program, from all control measures when accumulation reaches \(50 \%\) of the height or volume of the control structure.
- Environmental Inspection Process - As a component of erosion and sedimentation control, environmental inspections of the construction site will be conducted.
Environmental inspections will be conducted to assess the performance of erosion and sedimentation control measures and identify any required maintenance. The frequent inspections will also permit the identification of localized erosion and sedimentation control issues that require site specific attention.
- Implementation and Recommendation - A 200 m standby supply of prefabricated silt fence barrier, in addition to silt fence requirements, shall be maintained at the construction site prior to commencement of grading operations and throughout the duration of the contract.

Where interceptor ditches and/or subsurface drains are specified, they shall be constructed prior to commencement of any related cut or fill activities.

Cut and fill earth slopes and ditches, shall be treated with the specified cover material (seed and mulch, seed and erosion control blanket, seed and sod, rip rap, etc.) within 45 days from the commencement of the cut, fill or ditching operation. Commencement of a cut, fill or ditching operation shall be considered to have occurred when the original stabilizing cover has been removed, including grubbing, or has been covered with fill material.

Run-off from the site and stockpiles shall be controlled to the extent possible to minimize sediment entry to the adjacent watercourses.

Where dewatering is required, and where culverts are cleaned by hydraulic means, the effluent shall be discharged in a manner that prevents the entry of sediments to watercourses, or scouring and erosion at the outlet.
All erosion and sediment control measures will be clearly stated in the contract drawings and documents.

\subsection*{8.5 Businesses and Local Residents}

The study area is located within the Township of Laurentian Valley, County of Renfrew, and east limit of the City of Pembroke. Directly fronting Highway 148 are a range of commercial, retail, and residential land uses on either side of the road. The driveways serving these properties will be impacted during construction activities, however access to local businesses will be maintained at all times.

Property owners will be advised of any work that will restrict access to their property in advance of any operations. Should the Contactor require access onto private property, the Contractor will be required to contact the landowner and form an agreement. I

\subsection*{8.6 Air Quality}

Generation of dust, fumes, and odours may be created during construction by machinery working in the Highway 148 right-of-way. These fumes may degrade air quality in the immediate vicinity of the site.
In order to limit the amount of dust released during construction, the following mitigation measures should be implemented, as outlined in contract specifications:
- Watering to limit dust emissions from surfaces;
- Covering of excavated materials or fill materials stored on site; and
- Street cleaning to limit tracking of materials.

Odour and fume impacts will be minimized by ensuring that pollution devises on the equipment are operational and properly maintained as per the contact specifications.

\subsection*{8.7 Contamination and Waste}

There are several locations within the study area that have potential for subsurface contamination impacts within the Highway 148 right-of-way. Although additional right-ofway will not be required from properties identified in Exhibit 4-21, based on the findings of the Contamination Overview Study conducted for the study area, a subsurface investigation is recommended to be carried out in close proximity to the properties identified due to potential subsurface impacts that could be encountered during the construction of the highway improvements.
Furthermore, since the quality and source of fill material along Highway 148 is unknown, an assessment would be required where encountered as part of the construction activities prior to the reuse of any excavated and/or excess fill material.

There is the potential for soil and groundwater along Highway 148 to be impacted with sodium and chloride as a result of highway de-icing. Excess soil generated during construction should be assessed for salt-related impacts before being reused off-site. In addition, the quality of water generated during any construction dewatering activities should be assessed prior to being discharge to the environment.

\subsection*{8.8 Traffic Management and Control}

A detailed traffic management plan that provides work zones, roadway lane closure extents, and times is to be prepared. The traffic management plan will be reviewed by MTO to ensure that all traffic disruptions are minimized and congestion is within manageable and tolerable levels.
In general, two lanes along Highway 148 should remain open during construction activity. However, short-term lane closures may be required at times to facilitate the proposed repaving, sewer/utility work and the full depth reconstruction of some sections of the highway. Under these conditions, one lane of traffic with flagging by Traffic Control Persons (TCPs) should be maintained. Lane closures along the highway should be limited to off-peak hours only.

All open lanes should have a riding surface that is consistent with pre-construction materials to provide for the safe and continuous mobility of vehicles and cyclists. Vehicular access to all existing entrances, private approaches and side roads is to be maintained during construction.
Police assistance may be required to direct traffic at signalized intersections, when those intersections are adversely affected by construction operations.

\subsection*{8.9 Archaeology}

Parts of the study area are considered to retain archaeological potential. Where appropriate (i.e. beyond the existing footprint), these lands require Stage 2 property assessment by test-pit survey at 5 m intervals and pedestrian survey at 5 m intervals.
Although the Pembroke Pentecostal Cemetery will be avoided by the Highway 148 improvements, a Cemetery Investigation is to be undertaken in the right-of-way adjacent to the cemetery to confirm the presence or absence of unmarked graves prior to any proposed impacts. This will involve the controlled mechanical removal of topsoil under the supervision of a licensed archaeologist. The exposed soil will be shovel-shined and thoroughly examined for the presence of burial shafts.
Should the proposed work extend beyond the current study area then a further Stage 1 assessment should be conducted.

\subsection*{8.10 Cultural Heritage}

To accommodate the recommended improvements along Highway 148, three cultural heritage resources and one Built Heritage Resource identified within the study area will be directly impacted. These include:
- CHL4 Residential Complex (1145 Pembroke Street E)
- CLL 5 Residential Complex (1124 Pembroke Street E)
- CHL 6 Residential Complex (1211 Pembroke Street E)
- BHR 3 Residence (1173 Pembroke Street E)

At each location the potential impact consists of alteration due to removal of agricultural landscape features and construction of roadway, and soil disturbance due to grading. In each case, the impacts are minimal and will not impact substantial features of the landscape or heritage property.

Given the above, no property specific heritage impact assessment is required. During detail design consideration should be given to ensuring that post-construction landscaping should reflect the pre-construction condition of the resource.

If future work requires an expansion of the study area then a qualified heritage consultant will be contacted in order to confirm the impacts of the proposed work on potential heritage resources.

\subsection*{8.11 Noise}

Local residents and businesses may experience an increase in noise during construction. However, contractors will be required to abide by municipal noise bylaws and carry out activities in a manner that minimizes noise levels.

In the City of Pembroke, construction noise must cease between 9:00 pm and 7:00 am Monday to Saturday, and all day on Sunday and statutory holidays. Within the Township of Laurentian Valley, construction noise must cease between 11:00 pm to 7:00 am Monday to Saturday and 11:00 pm to 9:00 am on Sunday. A Noise By-Law Exception will need to be secured by the contractor for work outside this period.

\subsection*{8.12 Monitoring}

Recommended monitoring for this project includes compliance monitoring to ensure compliance with permit conditions, and also effectiveness monitoring to evaluate the performance of mitigation measures. The monitoring will also include the following:
- Construction monitoring by an independent environmental monitor to determine if any wildlife has been inadvertently trapped or are found within the construction areas during construction;
- Construction monitoring by an independent environmental monitor to ensure implementation and adherence to permit conditions;
- Monitoring the effectiveness of sediment and erosion control; and
- Monitoring the re-establishment of salvaged plantings that have been relocated during construction.

\subsection*{8.13 Summary of Identified Concerns, Mitigating Measures and Future Commitments}

\subsection*{8.13.1 Future Consultation}

Future consultation will be required during Detail Design, including permits and approvals from external agencies (federal and provincial), detailed environmental investigations regarding impacts and mitigation, and engineering investigations to confirm the final design.
Future consultation is expected to include notification of the start of Detail Design to the public and agencies, and an opportunity near the completion of the Detail Design for the public to review plans and ask questions about the final design and proposed mitigation measures (i.e. Public Information Centre). A summary of proposed future consultation is in Exhibit 8-1.
Exhibit 8-1: Summary of Future Consultation
\begin{tabular}{|c|c|}
\hline AGENCY & CONSULTATION TO BE UNDERTAKEN \\
\hline Fisheries and Oceans Canada (DFO) & \begin{tabular}{l}
- Fisheries mitigation and timing restrictions in contract package \\
- Requirements of current MTO/DFO/MNRF Fisheries Protocols
\end{tabular} \\
\hline Ministry of the Environment and Climate Change (MOECC) & - Prepare a Design and Construction Report for the Detail Design contract to be placed on the public record \\
\hline Ministry of Natural Resources and Forestry (MNRF) & \begin{tabular}{l}
- Confirm potential mitigation measures for impacts to Hazley/Lisk Bay PSW complex \\
- Confirm fisheries and terrestrial impacts and mitigation \\
- Endangered Species Act authorization/permit, if necessary \\
- Confirm habitat for Species-at-Risk are not negatively impacted by the Recommended Alternative \\
- Timing restrictions and other fisheries mitigation in contract package
\end{tabular} \\
\hline Ministry of Tourism, Culture, and Sport (MTCS) & \begin{tabular}{l}
- If necessary, identify and develop mitigation measures for potential impacts to identified cultural heritage landscape and areas of archaeological significance, if applicable \\
- Agreement with results of Stage 1/2 Archaeological Assessment
\end{tabular} \\
\hline Emergency service agencies (i.e., OPP, Fire, ambulance, etc.) & - Notify of start of Detail Design (i.e., staging etc.) and construction phases to minimize impacts to emergency response times during and after construction \\
\hline Utility companies & - Notify of start of Detail Design to confirm that potential conflict areas are properly identified and resolved \\
\hline
\end{tabular}

Other issues to be address during Detail Design include, but are not limited to:
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IBI GROUP TRANSPORTATION ENVIRONMENTAL STUDY REPORT
PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT
HIGHWAY }148\mathrm{ (PEMBROKE TO GREENWOOD ROAD)
COUNTY OF RENFREW
Prepared for Ministry of Transportation

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- Property concerns (including proximity to septic bed and/or well) and driveway closures through negotiations with individual property owners;
- Additional details of the Recommended Plan such as tree clearing requirements will be confirmed during Detail Design;
- Document results of additional Stage 2 Archaeological Assessment and Cemetery Investigation;
- Confirm noise protection and mitigation measures for construction during Detail Design;
- Confirm and further refine the preliminary geotechnical pavement recommendations of the Stantec Report (completed 2011).

A Summary of Environmental Concerns and Commitments is in Exhibit 8-2.

Prepared for Ministry of Transportation

\section*{Exhibit 8-2: Summary of Environmental Commitments and Concerns}
\begin{tabular}{|c|c|c|c|c|}
\hline I.D. \# & I.D \# SUBISSUES &  &  & MITIGATION/PROTECTION/MONITORING \\
\hline \multirow[t]{2}{*}{1. Highway Safety, Construction Traffic and Emergency Services Access} & 1.1 Traffic Impacts & Access disruptions/delays caused by lane closures. & Ontario Provincial Police, Emergency Management Services, School Boards, property owners, motorists travelling through the area & \begin{tabular}{l}
- Maintain a lane of traffic in each direction during construction. \\
- Stage construction activities to avoid/minimize traffic delays to residents, property owners and motorists travelling through the study area to the extent possible. \\
- Ensure no temporary road closures will be necessary within the study area during construction. \\
- Maintain access and egress to residences at all times during construction. \\
- Maintain access and egress for emergency response vehicles and school buses at all times during construction. \\
- Ensure any entrance modifications/upgrades are staged to reduce access restrictions to the extent possible.
\end{tabular} \\
\hline & 1.2 Utilities & Potential Utility Conflicts & Bell, Hydro One, Ottawa River Power Corporation, Brookfield Energy, Enbridge & - Locates will be undertaken if operations approach the location of buried services. \\
\hline 2. Cultural Heritage & 2.1 Loss of, or disturbance to, archaeological resources and/or built heritage resources & Potential disturbance/destruction during construction & Ministry of Tourism, Culture and Sport & \begin{tabular}{l}
- Should deeply buried archaeological resources be uncovered, the service provider shall immediately notify MTCS and MTO. \\
- Secure final archaeological clearance from the Ministry of Tourism, Culture and Sport prior to ground disturbance. \\
- Review the contract package during detail design to ensure that the environmental protection/ mitigation measures related to archaeological, built heritage and cultural landscape resources included in this PDR and developed during detail design are incorporated into the contract package.
\end{tabular} \\
\hline 3. Natural Heritage & 3.1 Potential Impacts to Migratory Birds & Potential destruction of nests, eggs and young prior to, and during construction. & Ministry of Natural Resources and Forestry & \begin{tabular}{l}
- Disturbance, clearing or disruption of vegetation where birds may be nesting should be completed outside the window of April 15 to August 15. \\
- In the event that these activities must be undertaken from April 15 to August 15, a nest screening survey will be conducted by a qualified avian biologist. \\
- Include an NSSP (Migratory Bird Protection - General) in the contract package to ensure that the Contractor does not destroy the active nests (nests with eggs or young birds), or wound or kill birds, of species protected under the Migratory Birds Convention Act, 1994 and/or Regulations under that Act. \\
- If an active nest is located, the Contract Administrator and the MTO Environmental Planner shall be contacted for further direction.
\end{tabular} \\
\hline
\end{tabular}


\section*{ITIGATION/PROTECTION/MONITORING}

Ensure the following mitigation strategies are implemented to minimize habitat loss:
- Minimize vegetation clearing and grubbing, and maintain existing forest cover when possible, within the identified vegetation community;
- Establish clearing timing constraints outside critical nesting and denning periods, or confirm lack of localized nesting and denning activity (particularly for species at risk) prior to initiating construction activity
- Establish appropriate buffers and protective exclusion measures, such as barriers/fences to ensure vegetation adjacent to the right-of-way is protected from mechanical damage;
- Minimize the extent of fill embankments to reduce vegetation clearing requirements;
- Minimize grading to retain natural topography, drainage patterns and associated vegetation;
- Ensure the re-establishment of native species along the right-of-way and permanent vegetative cover as soon as possible;
- Follow MTO technical guidelines;
- Adhere to Best Management Practices during construction;
- Establish erosion and sedimentation control plans such that sediments do not leave the right-of-way and influence adjacent forest groundcovers and surface waters; and,
- To the extent practical, Stormwater Management Planning can promote the maintenance of local drainage features to sustain the associated forest community.
Ensure standard temporary erosion and sedimentation control practices are followed during construction in the vicinity of the watercourses including:
- Placing straw bale flow checks at regular intervals in roadside ditches down gradient from areas of soi disturbance
- Installing silt fence along the margins of the watercourses where grading/soil disturbance will occur
- Minimizing the extent and duration that disturbed soils remain exposed to the elements;
- Placing conventional seeding and mulching and/or erosion control blanket in areas of soil disturbance; and
- Placing turbidity curtains in open water areas
- Develop long-term stormwater management measures during detail design including placing rip-rap lining in ditches with slopes greater than five percent; installing enhanced grassed swales along roadside ditches; and, installing permanent rock flow checks, where warranted by site conditions.

Prepared for Ministry of Transportation
\begin{tabular}{|c|c|c|c|c|}
\hline I.D. \# & I.D \# SUBISSUES & \begin{tabular}{l}
ISSUESI \\
CONCERN \\
POTENTIAL EFFECTS
\end{tabular} &  & MITIGATION/PROTECTION/MONITORING \\
\hline \multirow[t]{2}{*}{} & \begin{tabular}{l}
3.4 \\
Contamination of surface water
\end{tabular} & Potential for contamination from sources other than sediment during construction. & Ministry of Natural Resources and Forestry, Ministry of the Environment and Climate Change & \begin{tabular}{l}
- Employ good housekeeping practices and control all construction operations to prevent construction materials and debris from entering the watercourses. \\
- Prohibit the operation of equipment within the watercourses and their banks. \\
- Store construction material, excess material, construction debris and empty containers away from watercourses. \\
- Conduct equipment refuelling, maintenance and repair a sufficient distance from the watercourses to prevent the entry of contaminants to the watercourse. \\
- Contain and clean up spills quickly and effectively.
\end{tabular} \\
\hline & 3.5 Harmful alteration, disruption or destruction (HADD) of fish habitat & Potential impacts to fish habitat & Ministry of Natural Resources and Forestry & - Implement standard erosion and sedimentation control measures (see Section 8.4) during construction in the vicinity of the watercourses in order to mitigate any potential impacts on water quality and fish habitat located downstream and outside the study area. \\
\hline \multirow[t]{3}{*}{4. Human Health} & 4.1 Construction Noise & Potential noise impacts during construction. & Ministry of the Environment and Climate Change & \begin{tabular}{l}
- Special provisions to maintain equipment in good repair. \\
- Restricting the idling of equipment to the minimum necessary to perform the specified work.
\end{tabular} \\
\hline & 4.2 Air Quality & Potential dust and air quality impacts caused by construction and construction traffic. & Ministry of the Environment and Climate Change & \begin{tabular}{l}
- Special provisions to prevent unnecessary idling of equipment. \\
- Use of dust suppressants, where warranted.
\end{tabular} \\
\hline & \begin{tabular}{l}
4.3 \\
Management of excess materials and spills
\end{tabular} & Need for the management of excess materials and spills. & Ministry of the Environment and Climate Change & \begin{tabular}{l}
- Manage excess materials generated during construction in accordance with OPSS 180 (General Specification for the Management and Disposal of Excess Material) and MOE's Protocol for the Management of Excess Material in Road Construction and Maintenance. \\
- Report all spills that could potentially cause damage to the environment to the Spills Action Centre of the MOECC
\end{tabular} \\
\hline
\end{tabular}

\section*{Appendix A - Consultation}

Appendix A1 - Notice of Study Commencement

\title{
NOTICE OF STUDY COMMENCEMENT \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT \\ HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE) COUNTY OF RENFREW (G.W.P. 214-00-00)
}

\section*{PROJECT OVERVIEW}

The Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke (Approx. 160 m West of Angus Campbell Drive) to the inter-provincial crossing at Des Allumettes Bridge ( 5.0 km ).

The study will review existing and future highway needs, and provide recommendations for operational and safety improvements, pavement rehabilitation and active transportation (including the Hazley Bay bridge crossing). The study will also determine the most appropriate strategy for the rehabilitation, replacement, or removal of the Canadian Pacific Railway (CPR) bridge over the
 abandoned rail line crossing of Highway 148.

\section*{PROCESS}

This study will follow the approved planning process for a Group 'B' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000).

As part of the study, a Transportation Environmental Study Report (TESR) will be prepared and made available for a 30-day review period. Notices will be posted at that time to explain the review process and identify locations where the TESR will be available for review.

Two (2) Public Information Centres (PICs) are planned for this study. The date, time and location of the PICs will be advertised in local newspapers.

\section*{COMMENTS}

External agency and public consultation will take place throughout the study. We are interested in receiving your input at any point during the study. If you wish to submit comments, or be added to the study mailing list, please contact one of the project team members below

Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard
Postal Bag 4000
Kingston, ON K7L 5A3
Telephone: 613-540-5187
Toll-free: 1-800-267-0295
Fax: 613-540-5106
E-mail: Chris.Belanger@ontario.ca

Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Notice first posted: April 2, 2015
Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

\title{
AVIS DE DÉBUT D'ÉTUDE CONCEPTION PRÉLIMINAIRE ET ÉVALUATION ENVIRONNEMENTALE DE PORTÉE GÉNÉRALE \\ ROUTE 148 (DE PEMBROKE AU PONT DES ALLUMETTES) COMTÉ DE RENFREW (G.W.P. 214-00-00)
}

\section*{APERÇU DU PROJET}

Le Ministère des Transports de l'Ontario (MTO) a retenu les services de l'entreprise IBI Group pour entreprendre la conception préliminaire et une évaluation environnementale (EE) de portée générale de la route 148 de Pembroke au passage interprovincial au pont Des Allumettes ( \(5,0 \mathrm{~km}\) ).

L'étude permettra d'examiner les besoins actuels et à venir en autoroutes et de formuler des recommandations sur les améliorations à apporter aux opérations et à la sécurité, sur la réfection des chaussées et sur les modes de transport actifs (y compris la traversée de pont de la baie Hazley). L'étude servira en outre à déterminer la meilleure stratégie à suivre pour la réfection, le remplacement ou le démontage du pont du Chemin de fer Canadien Pacifique (CFCP) au-dessus du passage à niveau abandonné de la route 148.


\section*{PROCESSUS}

Cette étude sera conforme au processus de planification approuvé pour un projet du groupe « \(B\) » aux termes du document L'évaluation environnementale de portée générale pour les installations provinciales de transport (2000).

Dans le cadre de l'étude, un rapport d'étude environnementale sur les transports (REET) sera préparé et mis à la disposition du public pendant une période d'examen de 30 jours. Les avis seront affichés à ce moment-là afin d'expliquer le processus d'examen et de préciser les endroits où il sera possible d'examiner le REET.

Deux (2) centres d'information sont prévus pour cette étude. La date, l'heure et l'endroit des centres d'information seront annoncés dans les journaux locaux.

\section*{COMMENTAIRES}

Des consultations auprès d'organismes externes et du public auront lieu pendant l'étude. N'hésitez pas à nous faire connaître vos points de vue à tout moment pendant l'étude. Si vous souhaitez transmettre des commentaires ou être ajouté à la liste d'envoi de l'étude, veuillez communiquer avec les membres de l'équipe du projet ci-après :

\author{
M. Chris Belanger \\ Gestionnaire de projet, MTO \\ Ministère des Transports \\ 1355, boulevard John-Counter \\ Sac postal 4000 \\ Kingston (Ontario) K7L 5A3 \\ Téléphone : 613-540-5187 \\ Sans frais : 1-800-267-0295 \\ Télécopieur : 613-540-5106 \\ Courriel : Chris.Belanger@ontario.ca
}

\author{
M. Allan Ortlieb \\ Conseiller et gestionnaire de projet \\ IBI Group \\ 175, boulevard Galaxy, bureau 100 \\ Toronto (Ontario) M9W 0C9 \\ Téléphone : 416-798-5480 \\ Télécopieur : 416-675-4620 \\ Courriel : Allan.Ortlieb@ibigroup.com
}

Premier affichage de l'avis: Avril 2, 2015
Les commentaires et les renseignements recueillis aident le MTO à respecter les exigences de la Loi sur les évaluations environnementales de l'Ontario. Les renseignements seront recueillis conformément à la Loi sur l'accès à l'information et la protection de la vie privée de l'Ontario et la Loi sur l'accès à l'information du Canada. Exception faite des renseignements personnels, tous les commentaires formulés seront du domaine public. Si vous avez des besoins en matière d'accessibilité pour pouvoir participer à ce projet, veuillez communiquer avec l'un des membres de l'équipe du projet susmentionnés.

Planning and Design Section 1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187 1-800-267-0295
Fax: 613-540-5106

\section*{Ministère des Transports}

Section de la planification et de la conception 1355, boulevard John Counter CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

March 26, 2015

Mr. John Yakabuski, MPP
84 Isabella Street, Unit 6
Pembroke, ON K8A 5S5

Dear Mr. Yakabuski :
MINISTRY OF TRANSPORTATION
PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW G.W.P. 214-00-00

Please be advised that the Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Des Allumettes Bridge ( 5.0 km ). To comply with the Ontario Environmental Assessment Act this study is being conducted in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000).

As part of this study, agencies, stakeholders and members of the public with a potential interest in the Class EA are being contacted and given the opportunity to provide input to the study.
A Notice of Study Commencement is attached, which outlines the details of the study, and will be advertised in the Pembroke Daily Observer. Please complete and return the attached Notification Response Sheet if you would like to be kept informed about the study development.

If you have additional comments or questions, please feel free to contact the undersigned.

\section*{Sincerely}

Chris Belanger,
MTO Project Manager

\section*{CB/mr}

Encl. Notification Response Sheet Notice of Study Commencement
cc: \(\quad\) Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
Don Drackley, IBI Group
File GWP 214-00-00

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CP/Service de sacs 4000
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Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

March 26, 2015

Ms. Cheryl Gallant, MP
84 Isabella Street, 2nd Floor
Pembroke, ON K8A 5S5

Dear Ms. Gallant:

\section*{MINISTRY OF TRANSPORTATION}

PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW
G.W.P. 214-00-00

Please be advised that the Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Des Allumettes Bridge ( 5.0 km ). To comply with the Ontario Environmental Assessment Act this study is being conducted in accordance with the Group ' B ' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000).

As part of this study, agencies, stakeholders and members of the public with a potential interest in the Class EA are being contacted and given the opportunity to provide input to the study.
A Notice of Study Commencement is attached, which outlines the details of the study, and will be advertised in the Pembroke Daily Observer. Please complete and return the attached Notification Response Sheet if you would like to be kept informed about the study development.

If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger,
MTO Project Manager

\section*{CB/mr}

Encl. Notification Response Sheet Notice of Study Commencement
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager Sharon Westendorp, MTO
Don Drackley, IBI Group
File GWP 214-00-00

Planning and Design Section 1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187 1-800-267-0295
Fax: 613-540-5106

\section*{Ministère des Transports}

Section de la planification et de la conception 1355, boulevard John Counter CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

March 26, 2015

NAME
ORGANIZATION
ADDRESS

\section*{Dear NAME:}

\section*{MINISTRY OF TRANSPORTATION}

PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT
HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW
G.W.P. 214-00-00

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/mr
Encl. Notification Response Sheet Notice of Study Commencement
cc: Leslie Currie, MTO Aboriginal Liaison Officer Allan Ortieb, P.Eng, IBI Group Project Manager Sharon Westendorp, MTO Don Drackley, IBI Group File GWP 214-00-00

IBI GROUP
100-175 Galaxy Boulevard
Toronto ON M9W OC9 Canada
tel 4166791930 fax 4166754620
ibigroup.com

March 30, 2015

Name
Title
Company
Address

Dear:

\section*{MINISTRY OF TRANSPORTATION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW G.W.P. 214-00-00}

Please be advised that the Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Des Allumettes Bridge ( 5.0 km ). To comply with the Ontario Environmental Assessment Act this study is being conducted in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000).

As part of this study, agencies, stakeholders and members of the public with a potential interest in the Class EA are being contacted and given the opportunity to provide input to the study. A Notice of Study Commencement is attached, which outlines the details of the study, and will be advertised in the Pembroke Daily Observer. Please complete and return the attached Notification Response Sheet if you would like to be kept informed about the study development.
If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

\section*{IBI Group}

Allan Ortlieb, P.Eng.
Consultant Project Manager
AO/mr
Encl. Notification Response Sheet Notice of Study Commencement
cc: Chris Belanger, MTO

Appendix A2 - Public Information Centre \#1

\title{
NOTICE OF PUBLIC INFORMATION CENTRE \#1 PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE) COUNTY OF RENFREW (G.W.P. 214-00-00)
}

\section*{PROJECT OVERVIEW}

The Ministry of Transportation (MTO) and their consultant IBI Group have commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the inter-provincial crossing at Des Allumettes Bridge ( 5.0 km ).

The study will review existing and future highway needs, and provide recommendations for operational and safety improvements, pavement rehabilitation and active transportation (including the Hazley Bay bridge crossing). The study will also determined the most appropriate strategy for the rehabilitation, replacement, or removal of the Canadian Pacific Railway (CPR) bridge over the
 abandoned rail line crossing of Highway 148.

\section*{PROCESS}

This study will follow the approved planning process for a Group 'B' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout. A Transportation Environmental Study Report (TESR) will be prepared and made available for a 30-day review period, with notices posted at that time to explain the review process and identify locations where the TESR will be available for review.

\section*{PUBLIC INFORMATION CENTRE}

Two Public Information Centres (PIC) will be held in association with this study with the first PIC scheduled for:

Date: July 14, 2015
Time: 4:00 to 7:00 PM (open-house)
Location: Travelodge, 900 Pembroke St. East, Pembroke
Each PIC will consist of an informal drop-in centre with display boards. MTO staff and their consultant will be available to answer any questions.

\section*{COMMENTS}

We are interested in hearing any comments or concerns that you may have with the study. Please send any comments or requests to either of the following:

Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard
Postal Bag 4000
Kingston, ON K7L 5A3
Telephone: 613-540-5187
Toll-free: 1-800-267-0295
Fax: 613-540-5106
E-mail: Chris.Belanger@ontario.ca

Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

\title{
Ontario
}

\section*{APERÇU DU PROJET}

Le ministère des Transports (MTO) a mandaté le Groupe IBI pour entreprendre l'étude de la conception préliminaire et l'évaluation environnementale (ÉE) pour la réfection de la route 148, de Pembroke jusqu'au pont interprovincial des Allumettes ( 5 km ).

L'étude portera sur les besoins routiers actuels et futurs, et fournira des recommandations quant aux améliorations opérationnelles et de sécurité, à la réfection de la chaussée et au transport actif (comprend le pont traversant la baie Hazley). Elle permettra également de déterminer la stratégie la plus appropriée concernant la réfection, le remplacement ou le retrait du pont du Canadien Pacifique (CP) à l'intersection de la voie ferrée abandonnée et de la route 148.

\section*{PROCESSUS}


Cette étude suivra le processus de planification approuvé pour les projets du groupe «B » dans L'évaluation environnementale de portée générale pour les installations provinciales de transport (2000) et donnera à la population l'occasion de faire connaître son opinion tout au long du processus. Un rapport d'étude environnementale sur les transports (REET) sera préparé et soumis à l'examen de la population pendant 30 jours. Des avis seront publiés pour expliquer ce processus et indiquer les endroits où le REET pourra être consulté durant cette période.

\section*{SÉANCES D'INFORMATION PUBLIQUE}

Deux séances d'information publique seront tenues au sujet de cette étude. La première aura lieu :
Date : le 14 juillet 2015
Heure : de16 h à 19 h (portes ouvertes)
Lieu : Travelodge, 900, rue Pembroke Est, Pembroke
Ces séances auront lieu dans des centres d'information publique. La population pourra y prendre connaissance du projet grâce à des panneaux d'information. Des représentants du MTO et leur partenaire seront sur place pour répondre aux questions.

\section*{COMMENTAIRES}

Nous aimerions entendre vos commentaires et vos préoccupations au sujet de cette étude. Veuillez nous en faire part en écrivant à l'une des adresses ci-dessous:

\author{
M. Chris Belanger \\ Gestionnaire de projet, MTO \\ Ministère des Transports \\ 1355, boulevard John Counter \\ Sac postal 4000 \\ Kingston (Ontario) K7L 5A3 \\ Téléphone : 613 540-5187 \\ Sans frais : 1800 267-0295 \\ Télécopieur : 613 540-5106 \\ Courriel : Chris.Belanger@ontario.ca
}

\author{
M. Allan Ortlieb \\ Conseiller et gestionnaire de projet \\ Groupe IBI \\ 175, boulevard Galaxy, bureau 100 \\ Toronto (Ontario) M9W 0C9 \\ Téléphone : 416 798-5480 \\ Télécopieur : 416 675-4620 \\ Courriel : Allan.Ortlieb@ibigroup.com
}

\footnotetext{
Nous recueillons des commentaires et des renseignements sur ce projet afin d'aider le MTO à satisfaire aux exigences de la Loi sur les évaluations environnementales de l'Ontario. Les renseignements seront recueillis conformément à la Loi sur l'accès à l'information et la protection de la vie privée et à la Loi sur l'accès à l'information. Tous les commentaires, à l'exception des renseignements personnels, seront intégrés aux dossiers publics. Si vous avez des besoins particuliers en matière d'accessibilité pour pouvoir participer à ce projet, veuillez communiquer avec l'un des membres de l'équipe nommés plus haut.
}

Planning and Design Section 1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

June 26, 2015

Mr. John Yakabuski, MPP
84 Isabella Street, Unit 6
Pembroke, ON K8A 5S5

Ministère des Transports
Section de la planification et de la conception 1355, boulevard John Counter
CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
? Ontario
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

Dear Mr. Yakabuski :

\section*{MINISTRY OF TRANSPORTATION}

PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW
G.W.P. 214-00-00

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#1}

Please be advised that the Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Des Allumettes Bridge ( 5.0 km ). To comply with the Ontario Environmental Assessment Act this study is being conducted in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000).

You are invited to join staff from the Ministry of Transportation and its consultants at the first Public Information Centre (PIC) to introduce the study and gather feedback about the planned undertaking. An Agency session will be held from 3 to 4 p.m. in advance of the PIC. The Notice of Public Information Centre is attached, which outlines the details of this upcoming session, and will be advertised in the Pembroke Daily Observer on Thursday July 2 and 9, 2015.

If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

\section*{\(\mathrm{CB} / \mathrm{mr}\)}

Encl. Notice of PIC \#1
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
Don Drackley, IBI Group
File GWP 214-00-00

Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception 1355, boulevard John Counter
CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
\(\overbrace{}^{2}\) Ontario
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

June 26, 2015

Ms. Cheryl Gallant, MP
84 Isabella Street, 2nd Floor
Pembroke, ON K8A 5S5

Dear Ms. Gallant:

\section*{MINISTRY OF TRANSPORTATION}

PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT
HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW
G.W.P. 214-00-00

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Sincerely

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\section*{\(\mathrm{CB} / \mathrm{mr}\)}

Encl. Notice of PIC \#1
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager Sharon Westendorp, MTO
Don Drackley, IBI Group
File GWP 214-00-00

Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

Section de la planification et de la conception 1355, boulevard John Counter
CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

June 26, 2015

Name
Address

Dear :

\section*{INVITATION TO INTERESTED FIRST NATIONS COMMUNITIES}

\section*{MINISTRY OF TRANSPORTATION}

\section*{PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT \\ HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW G.W.P. 214-00-00 - NOTICE OF PUBLIC INFORMATION CENTRE \#1}

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Sincerely

Chris Belanger,
MTO Project Manager
\(\mathrm{CB} / \mathrm{mr}\)

Encl. Notice of PIC \#1
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
Don Drackley, IBI Group
File GWP 214-00-00

IBI GROUP
100-175 Galaxy Boulevard
Toronto ON M9W OC9 Canada
tel 4166791930 fax 4166754620
ibigroup.com

June 29, 2015

Name
Address

Dear:
MINISTRY OF TRANSPORTATION
PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), COUNTY OF RENFREW G.W.P. 214-00-00

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#1}

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

\section*{IBI Group}

Allan Ortlieb, P.Eng.
Consultant Project Manager
AO/mr
Encl. Notice of PIC \#1
cc: Chris Belanger, MTO


\section*{Highway 148, Pembroke to Quebec Border}

\author{
July 14, 2015 (4:00-7:00pm)
}
IB Preliminary Design and Class EA Study

\section*{HIGHWAY 148 - PUBLIC INFORMATION CENTRE NO. 1}

\section*{Welcome}

Welcome to the first Public Information Centre for the Highway 148 Preliminary Design and Class EA Study.

Please Sign-In on the attendance sheet provided.

\section*{Your input is important!}


Please review the display materials. If you have any questions or concerns, a representative from the Ministry of Transportation or the Consultant Project Team will be pleased to discuss them with you.
We encourage you to provide your comments in writing. Comments Sheets are available for your convenience and may be completed here or returned to IBI Group by July 31, 2015.


PEMBROKE


\section*{Study Purpose \& Objectives}

Primary Need: Pavement rehabilitation of Highway 148 from the City of
Pembroke to the Quebec border.

\section*{Main Objectives of the Study:}
- Identify any corridor deficiencies and provide recommendations for improvements to enhance highway safety and traffic operations as part of the rehabilitation.
- Develop and assess rehabilitation, replacement or removal options for the abandoned CPR structure on Highway 148.
- Investigate the need and feasibility of Active Transportation along Highway 148, including potential connection to the future recreational trail along the abandoned CPR corridor and crossing of Hazley Bay Bridge.

\section*{Study Process and Schedule}

The study is following the approved planning process for

Summary of Notices, Tasks
and Contact with the Public (tentative schedule) Group "B" projects under the Class Environmental Assessment for Provincial Transportation Facilities (MTO 2000), with the opportunity for public input throughout.

\section*{Planning and Preliminary Design}

To date, the following activities have been undertaken as part of the study:
- Completion of topographic survey and review of existing environmental conditions; and
- Assessment of traffic operations and transportation needs.

Upcoming work:
- Development and evaluation of alternative concepts;
- Preparation of a preferred preliminary design alternative; and,

\footnotetext{
Notice of Study Commencement (April 2015)

Assessment of Existing Conditions and Transportation Needs

Identification Alternative Solutions

Notice of PIC \#1

Public Information
Centre \#1 (July 2015)

Development and Assessment of Preliminary Design Alternatives and Environmental Effects
}
- Obtain public input and prepare study documentation.

\section*{Study Process and Schedule (Continued)}

Upon completion of the preliminary design, a Transportation Environmental Study Report (TESR) will be prepared and filed for public review.

There is opportunity at any time during the environmental assessment process for interested persons to provide comments and review outstanding issues. If after participating in this project, and at the conclusion of the study, you still have serious environmental concerns, you have the right to request a Part II order, asking the Minister of the Environment to reclassify the project as an Individual Environmental Assessment.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY: Comments and information regarding this study are being collected to assist MTO in meeting the requirements of the Ontario Environmental Assessment Act. Comments will be maintained on file for use during the study and may be included in study documentation. Information will be collected 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.

\section*{Class EA Process for Group B Projects}


\section*{Study Process}

Ministry of Transportation Ontario
Highway 148, Pembroke to Quebec Border

\section*{Natural Environment}
- There are no Areas of Natural \& Scientific Interest (ANSI), Environmental Significant Area's (ESA) within 120 m of the highway corridor.
- Portions of the provincially significant Hazley Bay/Lisk Bay wetland complex (PSW) are found within 30 m of the highway ROW.

- Amphibian breeding habitat has been identified in wetlands northwest and northeast of CPR bridge (i.e. snapping turtle).
- No species at risk were observed within the highway corridor.

\section*{Aquatic and Aquatic Habitat}
- All watercourses within the study area are coldwater aquatic habitats;
- Hazley Bay supports a wide diversity of fish and mussel species.
- Four Species at Risk (SAR) have been identified in the Ottawa River near the study area, including: Lake Sturgeon, American Eel, River Redhorse; and Hickorynut (mussels species).
- The habitat adjacent to Highway 148 generally consists of seasonally flooded, shallow habitats ideal as habitat for fish spawning and for juveniles.

\section*{Summary of Existing Conditions}

\section*{Drainage and Hydrology}
- There are currently six culverts that convey external flows across Highway 148. All existing culverts meet current design standards.
- Roadway drainage immediately east of Angus Campbell Drive is currently conveyed by storm sewers.
- The existing roadside ditches provide water quality/quantity control to Highway 148 runoff before discharging to receiving systems.
- Several areas of water ponding within existing ditches have been identified.
- There are four low points along Highway 148 which provide overland flow routes for major system runoff.
- A CCTV sewer inspection will be undertaken as part of this study


\section*{Summary of Existing Conditions}

\section*{Archaeology and Cultural Built Heritage}
- There are no designated heritage or listed properties within or adjacent to Highway 148 within the study.
- Neither the former CPR or Hazley Bay bridges retain heritage value.
- Previously undisturbed lands within and adjacent to the corridor have an elevated potential for archaeological resources.
- The Pembroke Pentecostal Cemetery, located adjacent to Highway 148, will require protection and avoidance.


\section*{Contamination Overview}
- In total, five properties along Highway 148, between Angus Campbell Drive and Greenwood Road, are identified as having a high potential for subsurface impacts (i.e. soil and/or groundwater contamination).
- No issues of potential environmental concern were identified along Highway 148 between County Road 40 and Des Allumettes Bridge crossing.

\section*{Summary of Existing Conditions}

\section*{Existing Highway 148 (Urban Section)}

West of Angus Campbell Drive to Greenwood Road (3.2 km)
- Existing 26-30m right-of-way width
- Prominently mixed commercial. development along the corridor.
- Posted speed varies \(50-80 \mathrm{~km} / \mathrm{h}\)
- There are three (3) signalized intersections. Traffic signals are warranted at Drive In Road.
- Vehicle queues block access to auxiliary lanes at signalized
 intersections.

Access Management: Does not meet current MTO standard with respect to minimum intersection spacing and maximum access density. Active Transportation: Currently limited or no facilities for pedestrians and cyclists along Highway 148.

\section*{Existing Transportation Conditions}

\section*{Existing Highway 148 (Rural Section)}

\section*{Greenwood Road to Des Allumettes Bridge (1.8 km)}
- Existing 45-60m right-of-way width
- \(80 \mathrm{~km} / \mathrm{h}\) posted speed
- Adjacent land use: single detached residential (subdivision)
- Numerous low volume unsignalized intersections
- Currently no facilities for pedestrians and cyclists along Highway 148.
- Operational and safety benefits may be realized by consolidating some of the crossing roads.


\section*{Existing Transportation Conditions}

\section*{Plan and Profile Drawing}

\section*{Traffic Safety/ Collision History}

Review of collision history (2007 to 2011) revealed 44 collisions over five year period [no fatalities].

In general:
- Concentration of turning collisions at Greenwood Road intersection.
- Collisions occur more frequently in the urbanized section than in the rural section.
- Several wild animal collisions recorded at the Old Mill Road.
- Rear end and turning collisions are over-represented, as well as the related driver action of 'following close'.
- Collisions under "rainy" and "wet' road conditions are also over-represented.

\section*{Collision Type}
(along Highway 148
within the study area)

5 Year Collision Summary


\section*{Existing Traffic Conditions}

Existing Peak AM \& PM Hour Traffic Volumes (2014)


Sideroad Daily Traffic Volumes (ADT)


Traffic Volumes along the rural section of Highway 148 (Greenwood Road to Quebec Border) are approximately 50\% of volumes within the urban section.

\section*{Existing Traffic Volumes}

\section*{Future Traffic Conditions}

\section*{2034 Traffic Projections}


Estimate 1\% year annual growth in background traffic, plus site generated traffic from proposed subdivsion on Traxton Way.

Generally, the corridor will operate satisfactorily; however eastbound and westbound vehicle queues will hamper access to adjacent turn lanes during peak hours and drivers will experience increased delays.

\section*{Future Traffic Volumes}

\section*{Alternative Planning Solutions}

The following alternative solutions were considered to mitigate existing deficiencies and accommodate future traffic growth on Highway 148.
\begin{tabular}{|c|c|c|}
\hline Alternative Solution & Description & Recommendation \\
\hline Do Nothing & \begin{tabular}{l}
- Continue to operate the highway in its current form. \\
- Improvements are limited to on-going maintenance of the existing road
\end{tabular} & Carry Forward \\
\hline Limit Development & - Restrict future development in the area. & Not Carried Forward (requires broader area study, beyond scope of current study) \\
\hline Divert Traffic Demands & - Divert existing and future traffic demands to other corridors. & Not Carried Forward \\
\hline Travel Demand Management (TDM) & - Change travel demand, reducing traffic volumes (i.e. promote more walking, cycling, transit, car pooling,) & Not Carried Forward as standalone alternative \\
\hline Local Intersection and Operational Improvements & \begin{tabular}{l}
- Operational improvements such as new signals, turning lanes, signal timing and coordination, right-in/right-out) \\
- Design improvements to address/mitigate current deficiencies.
\end{tabular} & Carry Forward \\
\hline Widening Highway 148 to 3-4 Lanes & - Increase corridor capacity by providing additional travel lanes on Highway 148, in conjunction with intersection improvements, cycling lanes and/or sidewalks, etc. & Carry Forward three lane option only for further review. \\
\hline
\end{tabular}

\section*{Preferred Planning Solution}
- Consider intersection improvements (i.e. add/ extend turn lanes, traffic signals, roundabouts, etc) to ensure all intersections operate satisfactorily within the 2034 year horizon.
- Consider adding centre left turn lane along Highway 148 (Urban Section).
- Look at consolidating accesses, where feasible, to reduce the number of conflict points and allow better right-of-way control.
- Review the feasibility of accommodating cycling and pedestrian activities along the Highway 148 right-of-way, including crossing of Hazley Bay Bridge and connection to the Des Allumettes Bridge.
- Review the need for structural improvement to the CPR bridge, recognizing the potential of a future recreational trail along the former CPR rail corridor.

\section*{Preferred Planning Solution}

\section*{CPR Bridge (Site No. 29-038)}
- 3 Span Rigid Frame - Constructed in 1956; rehabilitated in 1982 and repairs completed in 2008.
- Existing Cross-section: 3.75 m lane and 0.82 m shoulder widths along Highway 148 (with barrier curb and metal railing).
- Structure is in poor condition and approaching the end of its service life.
- Investigate options to:
- Rehabilitate existing bridge;
- Replace width recreational culvert ( \(4 \mathrm{~m} \times 4 \mathrm{~m}\) );
- Remove and provide an at-grade crossing (i.e. lower profile).


With each option, include a review of detouring requirements within and/or beyond existing right-of-way to accommodate construction.

\section*{Hazley Bay Bridge (Site No. 29-039)}
- 3 Span Rigid Frame - Constructed in 1956; last rehabilitated in 2011.
- Existing Cross-section: 3.75 m lane and 0.83 m shoulder widths along Highway 148.
- Review feasibility of options to accommodate cycle lanes or multi-use trail at bridge crossing, including:
- Maintain existing;
- Widening super-structure (without sub-structure widening);
- Widening existing bridge, including sub-structure;
- Separate pedestrian structure; and
- Replacement of existing bridge.


\section*{Summary of Design Alternatives to be Considered}

\section*{Problem and Opportunity}

\section*{Traffic Operations}
- Traffic queues block adjacent turn lanes at Angus Campbell Drive, Robinson lane and Drive In Road intersections.
- Traffic Signals Warranted at Drive In Road Intersection.

\section*{Design Alternatives}
- Extend existing turning lanes and/or provide new turn lanes.
- Consider a two-way centre left-turn lane along Highway 148 between Angus Campbell Drive and Dairy Road.
- Install traffic signals at Drive In Road.

\section*{Safety}
- Concentration of turning collisions at Greenwood Road.
- Wild animal collisions in vicinity of Old Mill Road.
- Rear-end and turning collisions are over-represented, (possibly due to density of driveways and intersections)
- Consider geometric improvements at Greenwood Road.
- Introduce improvements, including: vegetation trimming, fencing, lighting, and warning signs.
- Eliminate driveways where feasible. Consider centre turn lane.
- Improve intersection spacing by closing minor side streets.
- Eliminate redundant access driveways.
- Prohibit left-turns into and out of access connections.
- Investigate alternatives for multi-use trail/sidewalks/ cycling lanes within Highway 148 ROW and connections to adjacent planned active transportation corridors.
- Investigate alternative designs for future CPR trail crossing - atgrade intersection or culvert crossing.

\section*{Drainage}
- Control highway runoff within existing corridor
- Standing water in existing ditches.
- Consider urbanizing the section between Angus Campbell Drive and Dairy Road.
- Re-grade roadside ditches and upgrade driveway culverts to eliminate water ponding.

\section*{Evaluation Criteria}

\section*{The alternatives will be evaluated using the following criteria and a preferred alternative identified.}
\begin{tabular}{|c|c|}
\hline Criteria Group & Criteria \\
\hline Transportation/ Technical (Engineering Considerations) & \begin{tabular}{l}
- Roadway capacity and Level of Service \\
- Compliance with current design standards \\
- Active Transportation (i.e. connecting to existing/future facilities, safety) \\
- Bridge requirements \\
- Constructability
\end{tabular} \\
\hline Socio-economic and Cultural Environment & \begin{tabular}{l}
- Property requirements \\
- Property access \\
- Consistency with planning policies (i.e. future land use) \\
- Potential impacts to archaeology/ built heritage resources \\
- Noise
\end{tabular} \\
\hline Natural Environment & \begin{tabular}{l}
- Natural heritage resources (wildlife, vegetation) \\
- Aquatic species/watercourses \\
- Surface drainage
\end{tabular} \\
\hline Cost & \begin{tabular}{l}
- Capital roadway and structure costs \\
- Maintenance costs (i.e. life-cycle costs) \\
- Utility relocation costs \\
- Property costs
\end{tabular} \\
\hline
\end{tabular}

\section*{Next Steps}

The Project Team will:
- Confirm the preferred planning solution for Highway 148 taking into consideration the comments received at this Public Information Centre;
- Develop and evaluate design concepts for the preferred planning solution, and select the technically preferred alternative;
- Hold a second Public Information Centre to review findings of the study and the technically preferred design alternative;
- Finalize the preferred alternative; and,
- Prepare and file the Transportation Environmental Study Report (TESR) for public review.

\section*{HIGHWAY 148 - PUBLIC INFORMATION CENTRE NO. 1}

\section*{Thank you for your participation in this study.}

Please let us know of your feedback by filling out a comment sheet and returning it to the registration table.

If you have any questions about this study, feel free to ask any member of the Study Team.

Following this session comments may be directed to:

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Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Bes Allumettes Bridge) Public Information Centre \#1

Comment Sheet
The Ministry of Transportation has initiated the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Dis Allumettes Bridge ( 5.0 km ).
The purpose of this Public Information Centre is to gather input from the public on existing transportation challenges and priorities. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
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Sincerdy Appreciate the opportunity to comical. thad detailed discussion with Chis a Sharon so they have my thought.

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Temporary solution to Dive-h Rd - Highway 148 intersection - Four way step?

On Highway 148 as \(H\) crosses CeReal fine. Essented the integrity of this trail be maintained. Level crossing should not be considered an option.

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2) the Queue a Cent east treaffe sher cuts up drineieir \(\operatorname{Rd} \overline{\delta_{0}}\) access derwent tarn Hospatil. and on out to Now Hay 17.

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I like the sogestect idea of turning lines tram Angus Cambell to Dairy That would help with accidents

Also recognizing it is urban, a speed limit of 50 km would be better from the Greenwood Rd to Drive IN.

A stop light at Drive in Road would also help trufic congestion.
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Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
Mostly Concerned with traffic flow and DANGEROUS INTERSECTIONS.
Very Pleased to see plans for turning lanes AND TRAFRIC hÍNTS,

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Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Dis Allumettes Bridge) Public Information Centre \#1

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The Ministry of Transportation has initiated the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Les Allumettes Bridge ( 5.0 km ).
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LOCAL INTERSECTION AND OPERATIONS IMPROVEMENTS NEEDED IMMEDIATELY AT HIGHWAY 148 GREENWOOD ROAD INTER SECTION
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* impRovements to road markings and signs to CLEARLY INDICATE WHO HAS RIGHT OE WAY A IO WHO MUST YIELD TO THROUEM TRAFFIC - CURRENTLY ITS A DANGEROUS "RRER RR ALL" SITUATION!
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Drive over Mediat-causinc Damage to Cars Because Traffic is so heavy They Just \(W_{\text {a jo To }}\) To Ger off from lane of traffic.
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-need do mandan bus access
- CPR sturcture keep as trail access
- lights int \(148+\) dive in Rd?
- shone there be sidewalks statige \(50 k_{n} / \mathrm{h}\).
- during any rehabilitation access for school bus will meed \(L_{0}\) be maintained
- need to keep CPR to callow fur pedestrian/ cyclist/ out door enthersiest / nature farenimel access to avoid separation
- pict in controlled intersection and increase town lases of Drive In Rd
- side walk / cycle lanes should start
where we drop in speed to \(50 / \mathrm{kn} / \mathrm{h}\) to allow for seperctio..

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4) \(O G D C P R\) BRIDGE BEST ADDRESSED BY RECREATIONAL CLLLVEXT RATAEEX THOTH LEVEL CROssing Access.
5) TEDESTRIAN /CYCLING SAFETY ON TITS SECTION of ROAD 15 NONHEXISTVNT

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Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
(1) Drive Inn Rd turning either left or right is very dangerous.
 Limit
Wildlife crossing sign needs to be posted.

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Review draining ot initersectern of highomay 148 and ESTHER \(1 V\).

Presently during spring thew and rains weber
Know bank aw standing water frow Cotram of and user Ester is te dixies to River..

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Please complete the following information for our records (Please Print):


Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 31, 2015.

Mr. Chris Belanger MTO Project Manager Ministry of Transportation
1355 John Counter Boulevard
Postal Bag 4000
Kingston, ON K7L 5A3
Telephone: 613-540-5187
Toll-free: 1-800-267-0295
Fax: 613-540-5106
E-mail: Chris.Belanger@ontario.ca

Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Dis Allumettes Bridge) Public Information Centre \#1

Comment Sheet
The Ministry of Transportation has initiated the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Dis Allumettes Bridge ( 5.0 km ). The purpose of this Public Information Centre is to gather input from the public on existing transportation challenges and priorities. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
1 -Urban area nerds low. 5 peed limit - 50 km
二 -" "should have turning lawes to ares the buismess:-
3-Old bridge over train treckr needs to be Replace. to otter a trail (not as high)
4- side walk, o bike laves from Angus Cambell tree Dairy as a minimum
5- If New inter provincial bridge has bike r or side walks so should f he bridge into hazle bay


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If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 31, 2015.

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Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Dis Allumettes Bridge)
Public Information Centre \#1
Comment Sheet
The Ministry of Transportation has initiated the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Dis Allumettes Bridge ( 5.0 km ). The purpose of this Public Information Centre is to gather input from the public on existing transportation challenges and priorities. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
1) if Actie Transportation gets its wide Shoe lavers on 148 Wing are "allowances" being made for a recreational trail On abandoned CRR rail line-?
-side comonpits:
2) Why on board th) is the trail nor identified as "a potential" trail - it is noe a given yet "porentir" ainnectiven is ene thing but a "potential" future trail -may wot come into exist ewe -
3) board \$6-Caradian Topographic maps of the area identify all of the Quebec intersection area as "river bottom" - yeas a jo the Ministry of Enviredament was concerned about this designation When then did thor flood plain review/ planning -
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Please complete the following information for our records (Please Print):

\section*{Name:}

\section*{Address:}

\section*{Email:}

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If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 31, 2015.

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Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Des Allumettes Bridge)
Public Information Centre \#1
Comment Sheet
The Ministry of Transportation has initiated the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Les Allumettes Bridge ( 5.0 km ). The purpose of this Public Information Centre is to gather input from the public on existing transportation challenges and priorities. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
\[
\text { I CANTTWAIT } 20 \text { YEARS }
\]

WE NEED A QUICK FIX WE NEED A THREE LANE NOW THIRD LANE FOR LEFTTLURA ONLY
\(\qquad\) AND MERGING ON LANE
\(\qquad\) ONTO PEMBROKE ST. EAST

SPEED LIMIT OF WORM ANGUS DRIVE TO QUEBEC TURN OE F
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Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
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Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ontleb@ibigroup.com
\begin{tabular}{ll} 
From: & Allan Ortlieb \\
Sent: & Thursday, July 23, 2015 10:43 AM \\
To: & Marianne Radue \\
Subject: & FW: Hwy 148
\end{tabular}

See below PIC comment for filing and incorporation into PIC Summary.

Allan Ortlieb
Associate

IBI Group
100-175 Galaxy Blvd
Toronto ON M9W 0C9 Canada
tel 4166791930
direct 4167985480
fax 4166754620
email Allan.Ortlieb@IBIGroup.com
web http://www.ibigroup.com

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-----Original Message-----
From:
Sent: Tuesday, July 21, 2015 10:44 AM
To: chris.belanger@ontario.ca; Allan Ortlieb
Subject: Hwy 148

Hello,
I just opened the notice in the mail with regards to a study that was being conducted on highway 148 to pembroke.
We were away for some time which is why l've only seen the notice recently.
I hope in your study that you have looked into making the crossing of Drive In road/Burns drive and hwy148 safer.
Several accidents occur at this corner every year.
The wait on drive in road to turn left to go into pembroke is several minutes if traffic is busy, therefor impatient motorists are driving up the shoulder of the road to turn right on to hwy148, distracting drivers and blocking views. This occurs regularly. I once saw a transport drive up along side a small compact car.
This corner is just not safe and we try to avoid it if possible.
I am a mother of four future drivers and it scares me to think they could potentially be in a car accident a block away from our house.
I am told by the township that they, along with the city of pembroke, have been trying to lobby for a set of lights at his corner for years without luck and that it is our government that will not install them.
Please look into this area and recommend changes be made before someone is seriously injured.

Thank you,
\begin{tabular}{ll} 
From: & Allan Ortlieb \\
Sent: & Thursday, July 23, 2015 10:41 AM \\
To: & Marianne Radue \\
Subject: & FW: Highway 148 Pembroke to Allumette Bridge
\end{tabular}

PIC comment for filing and incorporation into summary.

\section*{Allan Ortlieb}

Associate
dd 4167985480
email Allan.Ortlieb@IBIGroup.com web www.ibigroup.com

\section*{IBI GROUP}

100-175 Galaxy Blvd
Toronto ON M9W 0C9 Canada
tel +14166791930 ext 65480 fax +14166754620

\section*{|B| Defining the cities of tomorrow}

NOTE: This email message/attachments may contain privileged and confidential information. If received in error, please notify the sender and delete this e-mail message.
NOTE: Ce courriel peut contenir de l'information privilégiée et confidentielle. Si vous avez recu ce message par erreur, veuillez le mentionner immédiatement à l'expéditeur et effacer ce courriel.
From:
Sent: Wednesday, July 15, 2015 1:25 PM
To: Allan Ortlieb
Subject: Highway 148 Pembroke to Allumette Bridge

\section*{Allan}

First may I thank you for hosting this opportunity for us to be aware of and part of the planning for future development of this roadway. As a resident I use if daily and often several times a day. If I may express some concerns:
1. Living near the new Allumette bridge I approach Pembroke with a merge lane at Greenwood road. The lane is short. Cars are approaching from the east and vehicles are at times, often at peak times, turning left to the ESSO Gas station. And, now there is a new entrance on the right to a private residence. Most often this congestion causes drivers to pass on the right and pass on the shoulder of the road. A proper turning lane here would add to safety.
2. The narrow bridge onto Cotnam's Island poses a challenge for myself as a cyclist and a walker as there is little room and unfortunately little tolerance for cyclists and pedestrians.'

In a perfect world these matters would be dealt with promptly and to my liking. May I remind myself of the scope of the issues that this entire region poses and that you will have much to attend to. It is however great to be invited to share with you my concerns,

Respectfully

\section*{Allan Ortlieb}

From:
Sent: Monday, July 27, 2015 8:19 PM
To:
Subject:
Attachments:
Allan Ortlieb; Chris.Belanger@ontario.ca
Hwy 148 Class EA comment sheet
Ron comment 2 001.jpg; Ron comment 1 001.jpg

\section*{Gentlemen}

Please find attached my comment sheet for this project. I will forward a paper copy by regular mail. During the previous EA, I did obtain several signatures from residents and businesses on highway 148 in support of hardened shoulders on Highway 148 if they are of any use to you and this project.
I believe what I am proposing is a benefit to users in both Ontario and Quebec as well as the tourism market. I also believe that "if you build it they will come" thereby advancing active transportation and thus physical fitness in Renfrew County and the promotion of future active transportation system in Renfrew Country as well.
I am in full support of the efforts by MTO to accommodate active transportation.


\section*{This proposed Alternative is dependant on current negotiations
between Cf and the County of fentrew delegation and
Their approul} Their approval.
This proposed attentive is my own personal opinion and At -This time is not the opinion of The Motive Transportation committee (Renfrewlounty) or Laurentian valley Policing
Committee
I believe thattirs Alternative is a unique opportunity for MTO To demonstrate Their Support of Active Transportation and open mindless with regard to safety and the consideration of atternatiud Solutions.
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Please complete the following information for our records (Please Print):


Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 31, 2015.

Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard
Postal Bag 4000
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Toll-free: 1-800-267-0295
Fax: 613-540-5106
E-mail: Chris.Belanger@ontario.ca

Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ortlieb@ ibigroup.com

\section*{Allan Ortlieb}

From:
Sent:
To:
Cc:
Subject:

Belanger, Chris (MTO) <Chris.Belanger@ontario.ca>
Monday, July 13, 2015 9:59 AM
Allan Ortlieb
Westendorp, Sharon (MTO); Belanger, Chris (MTO)
FW: Hwy 148

Hi Allan

Please draft a response regarding the follow email.

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

\section*{From:}

Sent: July 13, 2015 9:42 AM
To: Belanger, Chris (MTO)
Subject: Hwy 148
Dear Mr. Belanger,
I am writing in regards to the Highway 148 project. My neighbours and I have the following concerns we would like to present to you.

Number 1, We would like to see the speed limits reduced from the town limits to the inter-provincial crossing at Des Allumettes Bridge as well as along the Greenwood Road from Highway 17 before 148 intersection.

Number 2, We would like to see a traffic light at the Drive-in Road and Pembroke Street .

Number 3, We would like to see the removal of the CPR bridge over the abandoned crossing because of the traffic noise from transports gearing up for the hill.

I plan to attend the the open house on Tuesday July 14th.
Best Regards,

From:
Sent:
Tuesday, July 14, 2015 4:27 PM
To:
Cc:
Subject:
chris.belanger@ontario.ca; Allan Ortlieb
Highway 148 (Pembroke to Des Allumettes Bridge)

Dear Mr. Belanger and Mr. Ortlieb,
In our initial review, we can confirm that there are no Hydro One Transmission (above 115 kV ) Facilities in the subject area. Please note there may also be Hydro One Distribution facilities in your study area (ie. Distribution wires operating below 115 kV ). In order to cover off the impact to all Hydro One assests, please also forward your EA to the following email address:

\section*{Zone4Scheduling@HydroOne.com}

Please be advised that this is only a preliminary assessment based on current information. No further consultation with Hydro One Networks Inc. is required if no changes are made to the current information.

If you have any further questions or concerns, please feel free to contact me.

Regards,


This email and any attached files are privileged and may contain confidential information intended only for the person or persons named above. Any other distribution, reproduction, copying, disclosure, or other dissemination is strictly prohibited. If you have received this email in error, please notify the sender immediately by reply email and delete the transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or forwards) of the initial email.
\begin{tabular}{ll} 
From: & \\
To: & Allan Ortlieb; "Chris.Belanger@ontario.ca" \\
Subject: & NOTICE OF PUBLIC INFORMATION CENTRE \#1, HIGHWAY 148 (PEMBROKE TO DES ALLUMETTES BRIDGE), \\
& COUNTY OF RENFREWG.W.P. 214-00-00--- NEATS 39399 \\
Date: & Wednesday, July 29, 2015 10:44:19 AM \\
Attachments: & \begin{tabular}{ll} 
2015-06-29 MINISTRY OF TRANSPORT AT ION PRELIMI NARY DESI GN AND CLASS ENVIRONMENTAL, \\
& ASSESSMENT.PDF
\end{tabular}
\end{tabular}

Hello,

Please note that under the Canadian Environmental Assessment Act, 2012, Transport Canada is required to determine the likelihood of significant adverse environmental effects of projects that will occur on federal lands prior to exercising a power, performing a function or duty in relation to that project. To determine if the aforementioned applies, it is the responsibility of the project proponent to:
1. Review the Directory of Federal Real Property (http://www.tbs-sct.gc.ca/dfrp-rbif/) to determine if the project will potentially interact with any federal property; and
2. Review the list of Acts that Transport Canada administers and assists in administering that may apply to the project, available at: https://www.tc.gc.ca/eng/acts-regulations/acts.htm.

If a project will interact with a federal property and requires approval and/or authorization under any of the Transport Canada Acts, then correspondence should only be forwarded electronically to Environmental Assessment Coordinator at: EnviroOnt@tc.gc.ca - please ensure distribution lists are updated.

Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:

Navigation Protection Act (NPA) - the NPA applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: http://www.tc.gc.ca/eng/programs-621.html. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or (519) 383-1863.

Railway Safety Act (RSA) - the RSA provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Rail Safety Program is available at: https://www.tc.gc.ca/eng/railsafety/menu.htm. Enquiries can be directed to RailSafety@tc.gc.ca or (613) 998-2985.

Transportation of Dangerous Goods Act (TDGA) - the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous
goods to promote public safety. Additional information about the transportation of dangerous goods is available at: https://www.tc.gc.ca/eng/tdg/safety-menu.htm. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or (416) 973-1868.

Aeronautics Act - Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. Enquires can be directed to CASOSACO@tc.gc.ca or 1 (800) 305-2059 / (416) 952-0230.

If none of the aforementioned information applies to any of the projects under review, please ensure we are removed from the distribution list.

Thank you,

\section*{Summary of Public Information Centre \#1 Comments and Responses}
\begin{tabular}{|c|c|c|}
\hline & Comment Received & Response (Incorporated into individual letters) \\
\hline 1. & \begin{tabular}{l}
Stormwater management at \\
Speed Limits in Front of \(\square\) Pembroke Street East. \\
Would like to retain current driveway access Pembroke, Pembroke Street East.
\end{tabular} & \begin{tabular}{l}
Noted. The drainage along Highway 148 is being reviewed in the study. Improvements/upgrades to existing drainage will be considered and proposed where required. \\
The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones. \\
MTO is currently reviewing all private accesses along the highway. Existing legal accesses to properties will be retained. Any accesses found to be illegal or unsafe may be closed.
\end{tabular} \\
\hline 2. & \begin{tabular}{l}
Sincerely appreciate the opportunity to comment: Had detailed discussion with Chris and Sharon so they have my thoughts. \\
Ask for consideration of the following: Temporary solution to Drive In Road and Highway 148 intersection, a four way stop? \\
Highway 148 as it crosses CP Rail line. Essential the integrity of this trail be maintained. Level crossing should not be considered an option.
\end{tabular} & \begin{tabular}{l}
Noted. \\
An option of providing a an all-way (four-way) stop at the Drive-In Road intersection as an interim measure until traffic signals can be implemented has been considered and evaluated. All-way stop control is not recommended at this location for the following reasons: \\
- It would result in an increase in average delays to vehicles at the intersection. \\
- The intersection does not meet the Ministry's minimum requirements for all-way stop control based on traffic volumes and collision history. \\
- All-way stops are not recommended at intersections with multi-lane approaches where a stopped vehicle on the right will obscure the stop sign. \\
- All-way stop controlled intersections are not typical on King's Highways. As such, drivers not familiar with the area would not expect to encounter this type of traffic control on Highway 148 which could lead to non-compliance at the stop signs. \\
Previous work undertaken by MTO recommended replacing the CPR Bridge with a culvert crossing to accommodate the potential future trail along the CPR corridor. These recommendations are being reviewed as part of the current study and the results incorporated in the design for the highway.
\end{tabular} \\
\hline 3. & \begin{tabular}{l}
Need for a traffic light at the Drive In Road and old Highway 17 for so many reasons. Safety the big one, then traffic flow. \\
The Quebec and Ontario traffic shortcuts up Drive-In Road to access down own hospital and or out to the new Highway 17.
\end{tabular} & \begin{tabular}{l}
The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study. \\
The issue of traffic using municipal roads to travel between Highway 148 and Highway 17 is beyond the scope of the current EA study. This issue would need to be assessed as part of a regional traffic study.
\end{tabular} \\
\hline 4. & \begin{tabular}{l}
I like the idea of turning lanes from Angus Campbell Drive to Dairy Road. That would help with accidents. \\
Also recognizing it is urban, speed limit of \(50 \mathrm{~km} / \mathrm{hr}\) would be better from the Greenwood Road to Drive In Road. \\
A stop light at Drive In Road would also help traffic congestion.
\end{tabular} & \begin{tabular}{l}
Noted. A two-way centre left-turn lane is being considered in the design options for the section of Highway 148 between Angus Campbell and Drive In Road. \\
The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones. \\
The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.
\end{tabular} \\
\hline 5. & \begin{tabular}{l}
Mostly concerned with traffic flow and dangerous intersections. \\
Very pleased to see plans for turning lanes and traffic lights.
\end{tabular} & \begin{tabular}{l}
Noted. Improvements to traffic operations and safety are being considered in the design options for the highway. \\
Noted.
\end{tabular} \\
\hline
\end{tabular}
6. Local intersection and operations improvements needed immediately at Highway 148 and Greenwood Road intersection. Improvements to road markings and signs to clearly indicate who has right of way and who must yield to through traffic currently it's a dangerous "free for all" situation.
7. Currently I own a business along Highway 148 at present there is no turning lane - quite often causing clients to drive over the median - causing damage to cars because traffic is so heavy they just want to get off from lane of traffic.

There is also considerable water gathered at entrance which is MTO property causing considerable decay to asphalt because of sitting water - needs more drainage.

How long would construction take for a new highway as lengthy as construction has been known to cause business to fail?
8. Need to maintain bus access

CPR structure keep as trail access

Lights at Highway 148 and Drive In Road?

Should there be sidewalks starting at \(50 \mathrm{~km} / \mathrm{h}\) ?

During any rehabilitation access for school bus will need to be maintained.

Needs to keep CPR to allow for pedestrian/cyclist / outdoor enthusiast / nature for animal access to avoid separation.

Put in controlled intersection and increase turn lanes off Drive In Road.

Sidewalk/cycle lanes should start where the drop in speed to 50 \(\mathrm{km} / \mathrm{h}\) to allow for separation
9. Can reduce speed immediately from current \(80 \mathrm{~km} / \mathrm{h}\) down to at least \(60 \mathrm{~km} / \mathrm{h}\) from \(1 / 4\) mile east of Highway 148 to Quebec through to current speed change at top of hill entering Pembroke.

I live on Old Mill Road (Heritage) and dread making a left turn onto old Mill Road and risk of rear end collision is huge

Safety concerns at the Greenwood Road intersection, particularly related to the merging of vehicles from the Cotnam Island section of Highway 148 onto the urban section of the highway, have been noted and are being investigated as part of the study. Options for addressing the issues are being developed and evaluated.

A continuous two-way centre left-turn lane is being considered for the section of Highway 148 between Angus Campbell Drive and Drive In Road.

Noted. The drainage along Highway 148 is being reviewed in the study. Improvements/upgrades to existing drainage will be considered and proposed where required.

The length of the construction period is not known at this time and will be dependent on the scope of work to be carried out. The preliminary designs of which are still being developed as part of the study. Noted.

A previous study initiated by MTO recommended replacing the CPR bridge with a culvert crossing for the potential future trail along the CPR corridor. This option is being considered in the design for the highway.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. Sidewalks and bike lanes are some of the design options being considered along the section between Angus Campbell Drive and Dairy Road.

A comprehensive traffic management plan addressing the needs of all users of the highway during construction will be implemented during the construction stage of the project.

The County of Renfrew has proposed converting the CPR rail line into a trail but this proposal has not yet been approved or finalized.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. Sidewalks and bike lanes are some of the design options being considered along the section of the highway between Angus Campbell Drive and Dairy Road.

MTO is currently reviewing the speed zones along the highway to determine whether reductions to the posted speed limits are warranted

Noted. The need for an exclusive left-turn lane at Old Mill Road will be reviewed as part of the study.

Traffic volumes warrant consideration of road widening with extra lane(s) from Quebec intersection through to city limits

Old CPR bridge best addressed by recreational culvert rather than level crossing access

Pedestrian/cycling safety on the section in non-existent.
10. Drive-In Road turning left or right is very dangerous

Speed limit needs to be lowered
Wildlife crossing sign needs to be posted

Turning left onto highway from our property next to impossible.

The slight curve in the highway just east of our proper
bstructs view of on-coming traffic
11. Turning onto Old Mill from Highway 148 going east is dangerous. Need a turning lane or 3 lanes beyond dairy road to Quebec turnoff.
Can the hydro lines be buried as they are unsightly.
Bike lanes and maintaining CPR corridor are both essential

Need a solution form Drive In Road intersection (lights?)

Urbanization of road from Angus Campbell to beyond Dairy Road to Quebec turnoff - is preferable as this area gets built up. Thanks
12. Consider adding centre line to the 148-Greenwood Road intersection to city limits.

Install roundabout at the Highway 148-Greenwood Road intersection.

A continuous two-way centre left-turn lane is being considered for the section of Highway 148 between Angus Campbell Drive and Drive In Road Additional localized widening for turning lanes at specific intersections is also being considered.

Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.

Previous work undertaken by MTO recommended replacing the CPR Bridge with a culvert crossing to accommodate the potential future trail along the CPR corridor. These recommendations are being reviewed as part of the current study and the results incorporated in the design for the highway The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

MTO is currently reviewing the speed zones along the highway to determine whether reductions to the posted speed limits are warranted
A number of collisions with wild animals have been recorded in the vicinity of the Old Mill Road intersection. Deer crossing signs are being considered at this location.

Noted.

Noted.
Noted. The need for an exclusive left-turn lane at Old Mill Road will be reviewed as part of the study.

The scope of modifications to existing utilities will be reviewed with the affected companies once the preliminary design has been developed
Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

Noted.

Noted.

A roundabout option will be considered for the Greenwood Road intersection. However, the intersection does not meet the minimum warrants for traffic signals and the current MTO policy is to only consider roundabouts as an alternative for traffic signals. required
14. Traffic lights at Drive In Road would address many of the issues at that intersection
15. Urban area needs lower speed limit - \(50 \mathrm{~km} / \mathrm{h}\)

Urban Area should have turning lanes to access businesses
Old bridge over train tracks needs to be replaced to allow a trail (not as high?)
Sidewalks and bike lanes from Angus Campbell to Dairy as a minimum.If new inter provincial bridge has bike or sidewalks so should the bridge into Hazel Bay.
16. If active transportation gets it's wide shoulders on Highway 148 , why are allowances being made from recreational trail on abandoned CPR Rail Line?
Why on board \#4 is the trail not identified as a potential trail - it is not a given yet - potential connection is one thing but a potential future trail may not come into existence.

Board \#6 Canadian topography maps of the area identify all of the Quebec intersection area as river bottom - years ago the ministry of environment was concerned about the designation when they did their flood plain renewal planning
17. Can't wait 20 years.

Need a quick fix
We need a left turn lane
New design for exit lanes and merging lane.

Traffic lights at Drive In Road onto Pembroke Street East.

Speed limit of 50 km from Angus Campbell Drive to Quebec turnoff.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.

A continuous two-way centre left-turn lane is being considered for the section of Highway 148 between Angus Campbell Drive and Drive In Road.
Previous work undertaken by MTO recommended replacing the CPR Bridge with a culvert crossing to accommodate the potential future trail along the CPR corridor. These recommendations are being reviewed as part of the current study and the results incorporated in the design for the highway.
Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.
The proposed recreational trail on the old CPR line is a County of Renfrew initiative and is proposed to form part of the overall recreational trail network for the area. The active transportation facilities provided along Highway 148 are intended to accommodate both recreational and commuter users and to provide connections between the inter-provincial bridge and the trail/cycling networks on both sides of the river.

Noted. The County of Renfrew has proposed converting the CPR rail line into a trail but this proposal has not yet been approved or finalized.

Noted

\section*{Noted.}

Noted.
A continuous two-way centre left-turn lane is being considered for the section of Highway 148 between Angus Campbell Drive and Drive In Road
Safety concerns at the Greenwood Road intersection, particularly related to the merging of vehicles from the Cotnam Island section of Highway 148 onto the urban section of the highway, have been noted and are being investigated as part of the study. Options for addressing the issues are being developed and evaluated.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
18. First may I thank you for hosting this opportunity for us to be aware of and part of the planning for future development of this day. If I may express some concerns:

\section*{Preliminary Design and Class Environmental Assessmen} Highway 148 (Pembroke to Des Allumettes Bridge)
1. Living near the new Allumette bridge I approach Pembroke with a merge lane at Greenwood road. The lane is short. Cars are approaching from the east and vehicles are at imes, often at peak times, turning left to the ESSO Gas station. And, now there is a new entrance on the right to a private residence. Most often this congestion causes drivers to pass on the right and pass on the shoulder of the road. A proper turning lane here would add to safety.
2. The narrow bridge onto Cotnam`s Island poses a challenge The narrow bridge onto Cotnam s Island poses a challenge unfortunately little tolerance for cyclists and pedestrians.

In a perfect world these matters would be dealt with promptly and to my liking. May I remind myself of the scope of the issues that this entire region poses and that you will have much to attend to. It is however great to be invited to share with you \(m\)
19. I just opened the notice in the mail with regards to a study that was being conducted on Highway 148 to Pembroke. We were away for some time which is why I've only seen the notice recently. I hope in your study that you have looked into making the crossing of Drive In Road/ Burns drive and Highway 148 safer. Several accidents occur at this corner every year. The wait on Drive In Road to turn left to go into Pembroke is several minutes if traffic is busy, therefore impatient motorists are driving up the shoulder of the road to turn right on to Highway 148, distracting drivers and blocking views. This occurs regularly. I once saw a transport drive up alongside a small compact car. This corner is just not safe and we try to avoid it if possible. am a mother of four future drivers and it scares me to think they could potentially be in a car accident a block away from our house.I am told by the township that they, along with the city of Pembroke, have been trying to lobby for a set of lights at his corner for years without luck and that it is our government tha will not install them. Please look into this area and recommend changes be made before someone is seriously injured
20. Please find attached my comment sheet for this project. I will forward a paper copy by regular mail. During the previous EA, did obtain several signatures from residents and businesses on highway 148 in support of hardened shoulders on Highway 148 if they are of any use to you and this project.
- Provide centre turn lanes
- Reduce speed limit from end of centre turn lane to Greenwood Road intersection to 60km/h
- Increase right turn radius at Old Mill Road

Safety concerns at the Greenwood Road intersection, particularly related to the merging of vehicles from the Cotnam Island section of Highway 148 onto the urban section of the highway, have been noted and are being investigated as part of the study. Options for addressing the issues are being developed and evaluated.

Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study.

A continuous two-way centre left-turn lane is being considered for the section of Highway 148 between Angus Campbell Drive and Drive In Road
The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones

Pave all entrances and use rumble strips to separate vehicle lanes and AT lanes
- Construct 2 lane paved surface on CP rail bed from Campbell Drive to CP bridge
- Sufficient signage to direct AT users to CP rail bed; provide grade separation and connection between CP rail bed and Highway 148. Provide chicanes or grates to prevent motor vehicle use at crossing
believe what I am proposing is a benefit to users in both Ontario and Quebec as well as the tourism market. I also believe that "if you build it they will come" thereby advancing active transportation and thus physical fitness in Renfrew County and the promotion of future active transportation system in Renfrew County as well.
21. I am writing in regards to the Highway 148 project. My neighbours and I have the following concerns we would like to present to you.
- Number 1: We would like to see the speed limits reduced from the town limits to the inter-provincial crossing at Des Allumettes Bridge as well as along the Greenwood Road from Highway 17 before 148 intersection.
- Number 2: We would like to see a traffic light at the Drive-in Road and Pembroke Street
- Number 3: We would like to see the removal of the CPR bridge over the abandoned crossing because of the traffic noise from transports gearing up for the hill.
22. We live on Hazley Bay Drive, so we will be affected by the design of Highway 148 from Pembroke to des Allumettes Bridge. Since the former railway bed will, hopefully, be used as a recreational trail, it is hoped that the redesigned roadway from Pembroke to the bridge will incorporate wide paved shoulders or a dedicated bicycle lane. This will allow people to safely access the trail from the roadway
23. I know there has been a public information center already for highway 148...has the second one happened yet or do you know when it is?
24. In our initial review, we can confirm that there are no Hydro On Transmission (above 115 kV ) Facilities in the subject area Please note there may also be Hydro One Distribution facilities in your study area (ie. Distribution wires operating below 115 kV ). In order to cover off the impact to all Hydro One assets, please also forward your EA to the following
email address: Zone4Scheduling@HydroOne.com

The need for traffic signals at the intersection of Highway 148 \& Drive-In Road and intersection improvements elsewhere within the corridor will be reviewed as part of the current study

Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.

The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones

The Highway 148/Drive In Road intersection meets the minimum warrants for traffic signals based on existing traffic volumes. Design options for either a roundabout or traffic signal controlled intersection are being developed and evaluated as part of the current EA study

Opportunities to remove the CPR Bridge and lowering the profile of Highway 148 are being reviewed as part of the current study

Noted. Options for accommodating active transportation along Highway 148 are being developed and evaluated as part of the current study. This will include the possibility of accommodating bike lanes on Highway 148 (via paved shoulders or a dedicated bicycle lane) connecting to the inter-provincial bridge.

We appreciate your interest in the study and have added you to the mailing list for project notifications. As such, you will receive notice of the second public information centre once it has been scheduled.

Preliminary Design and Class Environmental Assessment

Please be advised that this is only a preliminary assessmen based on current information No further consultation with Hydro One Networks Inc. is required if no changes are made to the current information.

Comment received in response to PIC advertisement Add comment to tracking record
25. Under the Canadian Environmental Assessment Act, 2012 Transport Canada is required to determine the likelihood of significant adverse environmental effects of projects that will occur on federal lands....If a project will interact with a federal property and requires approval and/or authorization under any of the Transport Canada Acts, then correspondence should only tal Assessmen Coordinator at: EnviroOnt@tc.gc.ca

Appendix A3 - Public Information Centre \#2

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#2}

Preliminary Design and Class Environmental Assessment
Highway 148 from Pembroke to Greenwood Road (G.W.P. 214-00-00) and Highway 148 from Greenwood Road to the Quebec Border (G.W.P. 239-00-00) County of Renfrew

\section*{PROJECT OVERVIEW}

In April 2015, the Ministry of
Transportation (MTO) and their Consultant IBI Group commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the Quebec border ( 5.0 km ).
The study involves a review of the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation and active transportation. The study also includes determining the most appropriate strategy for the removal and replacement of the former Canadian Pacific Railway (CPR) bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. This bridge is nearing the end of its service life.

To expedite replacement of the bridge, the study has been broken into two separate projects. The recommended improvements
 associated with each project include:

Highway 148 - West of Angus Campbell Drive to Greenwood Road, 3.2 km (G.W.P. 214-00-00):
- Pavement rehabilitation throughout the study area;
- Urbanization and provision of a two-way left-turn lane between Angus Campbell Drive and Drive-In Road;
- Paved shoulders between Drive-In Road and Greenwood Road; and,
- Intersection improvements, including traffic signals at Drive-In Road.

Other improvements include entrance modifications/removals within the study limits.
Highway 148 - Greenwood Road to the Quebec Border, 1.8 km (G.W.P. 239-00-00):
- Pavement rehabilitation throughout the study area;
- Paved shoulders between Greenwood Road and the inter-provincial bridge; and
- Replacement of the former CPR bridge crossing at Highway 148 with a recreational trail culvert.

To accommodate the bridge removal, it is proposed to undertake a short term closure of Highway 148 at the CPR bridge and temporarily detour traffic onto municipal and county roads (Hazley Bay Drive, Forest Park Road, Beachburg Road, and Greenwood Road). As part of this work, Hazley Bay Drive and Forest Park Road will be resurfaced and a temporary connection provided between Hazley Bay Drive and Forest Park Road.

\section*{PROCESS}

These studies are following the approved planning process for a Group ' B ' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout. Two Transportation Environmental Study Reports (TESR) will be prepared and made available for a 30-day review period, with notices posted at that time to explain the review process and identify locations where the TESRs will be available.

\section*{PUBLIC INFORMATION CENTRE}

A second and final Public Information Centre (PIC) has been arranged to allow the public and interest groups an opportunity to review and comment on the results of the assessment and evaluation process, and to present the preferred alternative for the highway.
\begin{tabular}{ll} 
Date: & July 6, 2017 \\
Location: & Best Western Pembroke Inn \& Conference Centre \\
& 1 International Drive, Pembroke, ON \\
Time: & 4:00 p.m. to 7:00 p.m. (open-house)
\end{tabular}

The PIC will consist of an informal drop-in centre with display boards. MTO staff and their consultant will be available to answer any questions.

\section*{COMMENTS}

We are interested in hearing any comments or concerns that you may have with the study. Please send any comments or requests to either of the following:

\section*{Mr. Chris Belanger}

MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard, Postal Bag 4000
Kingston, ON K7L 5A3
tel: 613-540-5187
toll-free: 1-800-267-0295
fax: 613-540-5106
e-mail: Chris.Belanger@ontario.ca
Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

\section*{Mr. Allan Ortlieb}

Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W OC9
tel: 416-798-5480
fax: 416-675-4620
e-mail: Allan.Ortlieb@ibigroup.com

\title{
AVIS DE CONSULTATION PUBLIQUE № 2 \\ \\ Sur le projet et l'évaluation environnementale de portée générale
} \\ \\ Sur le projet et l'évaluation environnementale de portée générale
}

Route 148 de Pembroke au chemin Greenwood (G.W.P. 214-00-00) et Route 148 du chemin Greenwood à la frontière du Québec (G.W.P. 239-00-00) Comté de Renfrew

\section*{RÉSUMÉ DU PROJET}

Le ministère des Transports (MTO) et son expert-conseil, le Groupe IBI, ont entrepris en avril 2015 l'étude d'avant-projet sommaire et d'évaluation environnementale de portée générale de la route 148, de Pembroke à la frontière du Québec ( 5 km ).
Cette étude comporte une analyse des besoins routiers actuels et futurs et des recommandations relatives aux améliorations nécessaires en matière d'exploitation et de sécurité, de réfection de la chaussée et de transport actif. Elle traite également de la meilleure stratégie à adopter pour remplacer et démolir le viaduc qui traverse l'emprise désaffectée du chemin de fer Canadien Pacifique entre les chemins Greenwood et Hazley Bay. Ce viaduc approche de la fin de sa vie utile.
Afin d'accélérer le remplacement du viaduc, l'étude a été divisée en deux projets séparés. Les améliorations recommandées associées à chacun des projets comprennent :


Route 148 - de l'ouest du chemin Angus Campbell au chemin Greenwood, 3,2 km (G.W.P. 214-00-00) :
- Réfection de la chaussée dans toute la zone de l'étude;
- Urbanisation et construction dans les deux sens d'une voie de virage à gauche entre les chemins Angus Campbell et Drive-In;
- Asphaltage des accotements entre les chemins Drive-In et Greenwood;
- Amélioration de l'intersection du chemin Drive-In, y compris des feux de circulation.

Les autres améliorations comprennent la modification ou l'enlèvement des entrées dans la zone de l'étude.
Route 148 - du chemin Greenwood à la frontière du Québec, \(1,8 \mathrm{~km}\) (G.W.P. 239-00-00) :
- Réfection de la chaussée dans toute la zone de l'étude;
- Asphaltage des accotements entre le chemin Greenwood et le pont interprovincial;
- Remplacement par un ponceau destiné à un sentier récréatif de l'ancien viaduc de la route 148 qui traverse l'emprise désaffectée du chemin de fer Canadien Pacifique.
Pour permettre la démolition du viaduc, on songe à fermer pour une courte période de temps la route 148 à la hauteur du viaduc et à détourner temporairement la circulation vers des chemins municipaux et de comté (chemins Hazley Bay, Forest Park, Beachburg et Greenwood). Dans le cadre de ces travaux, la surface des chemins Hazley Bay et Forest Park sera refaite et ces chemins seront temporairement reliés.

\section*{PROCESSUS}

Le projet sera mené conformément à l'Évaluation environnementale de portée générale pour les installations provinciales de transport (2000) du MTO en tant que projet de catégorie B et les observations du public seront recueillies tout au long du processus. Un rapport d'étude environnementale pour les transports (REET) sera préparé pour chacun des deux projets et rendu disponible pour une période de consultation de 30 jours. Des avis seront alors affichés pour expliquer le processus de révision et pour indiquer les endroits où le REET pourra être consulté.

\section*{CONSULTATION PUBLIQUE}

Une deuxième consultation publique, définitive, aura lieu pour permettre au public et aux groupes d'intérêt de passer en revue et de commenter les résultats du processus d'évaluation et de proposer des détours.
\[
\begin{array}{ll}
\text { Date : } & \text { Ie } 6 \text { juillet } 2017 \\
\text { Endroit : } & \text { Best Western Pembroke Inn \& Conference Centre } \\
& \text { 1, chemin International, Pembroke (Ontario) } \\
\text { Heures: } & \text { de } 16 \mathrm{~h} \text { à } 19 \mathrm{~h} \text { (sans rendez-vous) }
\end{array}
\]

La consultation publique aura lieu de manière informelle dans un centre sans rendez-vous où seront affichés des panneaux de renseignements. Des membres du personnel du MTO et de son expert-conseil seront disponibles pour répondre à vos questions.

\section*{COMMENTAIRES}

Nous souhaiterions entendre tout commentaire que vous pourriez avoir au sujet de cette étude. Veuillez communiquer vos commentaires ou vos demandes à l'une des personnes suivantes:

\section*{M. Chris Bélanger}

Directeur du projet pour le MTO
Ministère des Transports
1355, boulevard John Counter, Sac postal 4000
Kingston (Ontario) K7L 5A3
tél. : 613 540-5187
sans frais : 1800 267-0295
téléc. : 613 540-5106
courriel : Chris.Belanger@ontario.ca
M. Allan Ortlieb

Directeur du projet pour l'expert-conseil
Groupe IBI
175, boulevard Galaxy, bureau 100
Toronto (Ontario) M9W 0C9
tél. : 416 798-5480
téléc. : 416 675-4620
courriel : Allan.Ortlieb@ibigroup.com

Nous recueillons les commentaires et les renseignements relatifs à cette étude afin de permettre au MTO de répondre aux exigences de la Loi sur les évaluations environnementales. Nous recueillerons ces renseignements conformément à la Loi sur l'accès à l'information et la protection de la vie privée et à la Loi sur l'accès à l'information. À l'exception des renseignements personnels, tous les commentaires ainsi recueillis feront partie du domaine public. Si votre participation à ce projet est soumise à des exigences d'accessibilité, veuillez communiquer avec l'un des membres de l'équipe du projet dont les coordonnées apparaissent ci-dessus.

June 23, 2017

Mr. John Yakabuski, MPP
84 Isabella Street, Unit 6
Pembroke, ON K8A 5S5

Dear Mr. Yakabuski :
MINISTRY OF TRANSPORTATION
PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT
HIGHWAY 148 FROM PEMBROKE TO GREENWOOD ROAD (G.W.P. 214-00-00); AND HIGHWAY 148 FROM GREENWOOD ROAD TO THE QUEBEC BORDER (G.W.P. 239-00-00), COUNTY OF RENFREW

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#2}

In April 2015, the Ministry of Transportation (MTO) and their Consultant IBI Group commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the Québec border ( 5.0 km ). The study involves a review of the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation, and active transportation. This study also includes determining the most appropriate strategy for the replacement and removal of the former Canadian Pacific Railway (CPR) bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. This bridge is nearing the end of its service life. To expedite its replacement, the study has been broken into two separate projects:
- Highway 148 - West of Angus Campbell Drive to Greenwood Road, inclusive of the Greenwood Road intersection, 3.2 km (GWP 214-00-00); and,
- Highway 148-Greenwood Road to the Québec Border, 1.8 km (GWP 239-00-00).

Both projects will continue to be undertaken in accordance with the Group 'B’ provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000), and separate Transportation Environmental Study Reports will be prepared for each project.
The Ministry has now completed the evaluation of alternatives and will be holding a second and final joint PIC to allow the public and interest groups an opportunity to review and comment on the results of the assessment and to present the preferred alternative for both projects.

We welcome you to join staff from the Ministry of Transportation and its consultants between 3 and 4 p.m. in advance of the PIC to review the details of the study. The attached PIC Notice outlines the details of this upcoming session.
If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely,

Chris Belanger,
MTO Project Manager

\section*{\(\mathrm{CB} / \mathrm{mr}\)}

Encl. Notice of PIC \#2
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00 and GWP 239-00-00

Ministère des Transports
Section de la planification et de la conception 1355, boulevard John Counter CP/Service de sacs 4000 Kingston (Ontario) K7L 5A3
Tél.: 613 540-5187
1-800-267-0295
Téléc. 613 540-5106

June 23, 2017

Ms. Cheryl Gallant, MP
84 Isabella Street, 2nd Floor
Pembroke, ON K8A 5S5

Dear Ms. Gallant:

\section*{MINISTRY OF TRANSPORTATION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT \\ HIGHWAY 148 FROM PEMBROKE TO GREENWOOD ROAD (G.W.P. 214-00-00); AND HIGHWAY 148 FROM GREENWOOD ROAD TO THE QUEBEC BORDER (G.W.P. 239-00-00), COUNTY OF RENFORTH}

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#2}

In April 2015, the Ministry of Transportation (MTO) and their Consultant IBI Group commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the Québec border ( 5.0 km ). The study involves a review of the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation, and active transportation. This study also includes determining the most appropriate strategy for the replacement and removal of the former Canadian Pacific Railway (CPR) bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. This bridge is nearing the end of its service life. To expedite its replacement, the study has been broken into two separate projects:
- Highway 148 - West of Angus Campbell Drive to Greenwood Road, inclusive of the Greenwood Road intersection, 3.2 km (GWP 214-00-00); and,
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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely,

Chris Belanger,
MTO Project Manager
CB/mr
Encl. Notice of PIC \#2
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager Sharon Westendorp, MTO
File GWP 214-00-00 and GWP 239-00-00

Name
Address

Dear:

\section*{INVITATION TO INTERESTED FIRST NATIONS COMMUNITIES}

\section*{MINISTRY OF TRANSPORTATION}

\section*{PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT}

HIGHWAY 148 FROM PEMBROKE TO GREENWOOD ROAD (G.W.P. 214-00-00); AND
HIGHWAY 148 FROM GREENWOOD ROAD TO THE QUEBEC BORDER (G.W.P. 239-00-00)

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#2}

In April 2015, the Ministry of Transportation (MTO) and their Consultant IBI Group commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the Québec border ( 5.0 km ). The study involves a review of the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation, and active transportation. This study also includes determining the most appropriate strategy for the replacement and removal of the former Canadian Pacific Railway (CPR) bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. This bridge is nearing the end of its service life. To expedite its replacement, the study has been broken into two separate projects:
- Highway 148 - West of Angus Campbell Drive to Greenwood Road, inclusive of the Greenwood Road intersection, 3.2 km (GWP 214-00-00); and,
- Highway 148 - Greenwood Road to the Québec Border, 1.8 km (GWP 239-00-00).

Both projects will continue to be undertaken in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000), and separate Transportation Environmental Study Reports will be prepared for each project.

The Ministry has now completed the evaluation of alternatives and will be holding a second and final joint PIC to allow the public and interest groups an opportunity to review and comment on the results of the assessment and to present the preferred alternative for both projects.
We welcome you to join staff from the Ministry of Transportation and its consultants between 3 and 4 p.m. in advance of the PIC to review the details of the study. The attached PIC Notice outlines the details of this upcoming session.

If you have additional comments or questions, please feel free to contact the undersigned.

\section*{Sincerely,}

Chris Belanger,
MTO Project Manager

Encl. Notice of PIC \#2
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00 and GWP 239-00-00

IBI GROUP
100-175 Galaxy Boulevard
Toronto ON M9W OC9 Canada
tel 4166791930 fax 4166754620
ibigroup.com

June 23, 2017

Agency Contact
Title
Company/ Agency
Address

Dear:
MINISTRY OF TRANSPORTATION
PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT
HIGHWAY 148 FROM PEMBROKE TO GREENWOOD ROAD (G.W.P. 214-00-00); AND HIGHWAY 148 FROM GREENWOOD ROAD TO THE QUEBEC BORDER (G.W.P. 239-00-00), COUNTY OF RENFREW

\section*{NOTICE OF PUBLIC INFORMATION CENTRE \#2}

In April 2015, the Ministry of Transportation (MTO) and their Consultant IBI Group commenced the Preliminary Design and Class Environmental (EA) Study for Highway 148 from Pembroke to the Québec border ( 5.0 km ). The study involves a review of the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation, and active transportation. This study also includes determining the most appropriate strategy for the replacement and removal of the former Canadian Pacific Railway (CPR) bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. This bridge is nearing the end of its service life and therefore to expedite its replacement, the study has been broken into two separate projects:
- Highway 148 - West of Angus Campbell Drive to Greenwood Road, inclusive of the Greenwood Road intersection, 3.2 km (GWP 214-00-00); and,
- Highway 148 - Greenwood Road to the Québec Border, 1.8 km (GWP 239-00-00).

Both projects will continue to be undertaken in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000), and separate Transportation Environmental Study Reports will be prepared for each project.

The Ministry has now completed the evaluation of alternatives and will be holding a second and final joint PIC to allow the public and interest groups an opportunity to review and comment on the results of the assessment and to present the preferred alternative for both projects.

We welcome you to join staff from the Ministry of Transportation and its consultants between 3 and 4 p.m. in advance of the PIC to review the details of the study. The attached PIC Notice outlines the details of this upcoming session.

If you have additional comments or questions, please feel free to contact the undersigned.

Sincerely,

\section*{IBI Group}

Agency Contact - June 23, 2017

Allan Ortlieb, P.Eng.
Consultant Project Manager DD 410-798-5480
allan.ortlieb@ibigroup.com

AO/mr
Encl. Notice of PIC \#2
cc: Chris Belanger, MTO Project Manager
Sharon Westendorp, MTO Environmental Planner


\section*{Highway 148, Pembroke to Quebec Border}

July 6, 2017 (4:00-7:00 pm)
\(\checkmark\) Preliminary Design and Class EA Study
\(|B|\) Public Information Centre No. 2

\section*{Welcome}

Welcome to the second Public Information Centre for the Highway 148 Preliminary Design and Class EA Study.
Please Sign-In on the attendance sheet provided.

\section*{Your input is important!}


Please review the display materials. If you have any questions or concerns, a representative from the Ministry of Transportation or the Consultant Project Team will be pleased to discuss them with you.
We encourage you to provide your comments in writing. Comment Sheets are available for your convenience and may be completed here or returned to IBI Group by July 20, 2017.

\section*{Study Limits}

To expedite removal and replacement of the former CPR bridge, the study has been broken into two separate studies:
- Highway 148 - West of Angus Campbell Drive to Greenwood Road, inclusive of Greenwood Road intersection, 3.2 km (GWP 214-00-00); and,
- Highway 148 - Greenwood Road to the Québec Border, 1.8 km (GWP 239-00-00)

\section*{Study Limit}
(Des Allumettes Bridge)

Hazley Bay Bridge


\section*{Study Purpose \& Objectives}

Pavement rehabilitation of Highway 148 from the City of Pembroke to the Quebec border, and the removal and replacement of the existing bridge over the abandoned CPR corridor.

\section*{Main Objectives of the Study:}
- Identify any corridor deficiencies and provide recommendations for improvements to enhance vehicular and pedestrian safety, and traffic operations, as part of the pavement rehabilitation.
- Develop and assess options for the currently abandoned CPR structure on Highway 148. The existing structure is approaching the end of it's service life and in need of removal.
- Investigate the need and feasibility of Active Transportation along Highway 148, including potential connection to the future recreational trail along the abandoned CPR corridor and crossing of Hazley Bay Bridge.

\section*{Study Process}

The study is being undertaken in accordance with Group " B " project under the Class Environmental Assessment for Provincial Transportation Facilities (MTO 2000). Upon completion of the preliminary design, a Transportation Environmental Study Report (TESR) will be prepared for each project (GWP 214-00-00 and GWP 239-00-00) and filed for public review.

There is opportunity at any time during the environmental assessment process for interested persons to provide comments and review outstanding issues.


\footnotetext{
FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY: Comments and information regarding this study are being collected to assist MTO in meeting the requirements of the Ontario Environmental Assessment Act. Comments will be maintained on file for use during the study and may be included in study documentation. Information will be collected 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.
}

\section*{Existing Conditions: Highway 148 (Urban Section)}

West of Angus Campbell Drive to Greenwood Road (3.2 km)
- Constrained right-of-way (26-30m)
- Prominently mixed commercial. development along the corridor.
- Posted speed varies 50-80 km/h.
- There are 3 signalized intersections. Traffic signals are warranted at Drive In Road.
- Vehicle queues block access to auxiliary lanes at signalized intersections.
- A CCTV sewer inspection reveals the need for storm sewer improvements.


Access Management: Does not meet current MTO standard with respect to minimum intersection spacing and maximum access density.
Active Transportation: Currently limited or no facilities for pedestrians and cyclists along Highway 148.

\section*{Existing Conditions: Highway 148 (Rural Section)}

\section*{Greenwood Road to Des Allumettes Bridge (1.8 km)}
- Land Use: single detached residential.
- \(80 \mathrm{~km} / \mathrm{h}\) posted speed.
- Low volume unsignalized intersections.
- Currently no facilities for pedestrians and cyclists along Highway 148.
- Hazley Bay/Lisk Bay wetland complex (Provincially Significant Wetland) within
 30 m of the highway right-of-way.
- CPR Bridge - Constructed in 1956. Structure is approaching the end of its service life.
- Two buried culverts either side of the existing CPR crossing to be replaced.
- Hazley Bay Bridge - Constructed in
 1956; last rehabilitated in 2011.

\section*{Input received at Public Information Centre No. 1}

Primary issues expressed by public and municipalities:
- Need to install traffic signals at Drive-In Road (complaints from the public and municipality regarding delays and safety concerns);
- Add turn lanes at intersections along Highway 148;
- Improve merge condition at Greenwood Road;
- Provide paved shoulders for cyclists;
- Reduce speed limits;
- Improve signal timing to better manage traffic congestion; and,
- Improve drainage (i.e. eliminate water ponding within roadside ditches);
- Maintain grade separated crossing at Highway 148 and trail connection to Highway 148; and,
- Provide pedestrian facilities in vicinity of commercial developments.

\section*{Improvement Alternatives Considered}
- Highway 148 Cross-Section:
- consider adding a continuous centre turn lane (urban section)
- assess the feasibility of active transportation facilities
- Intersection Improvements (i.e. add/extend turn lanes, traffic signals, roundabouts, etc).
- Access Management: Consolidate accesses where feasible, to reduce the number of conflict points and allow better right-of-way control. Driveways affected are shown on the Recommended Plan.
- Hazley Bay Bridge: Review the feasibility of accommodating cycling and pedestrian activities along the highway.
- Former CPR Bridge: Review structural needs, recognizing the potential of a future recreational trail along the former CPR corridor.

\section*{Cross-Section Alternatives}

Given the varying conditions along Highway 148, the study area has been divided into three sections:

\section*{Section 1 - Angus Campbell Drive to Drive In Road: Urban in nature and characterized by lower posted speed limits, higher traffic volumes, increased access density, and numerous commercial properties fronting the highway.}


Section 2 - Drive In Road to Greenwood Road: Urban in nature west of Dairy Road transitioning easterly to more rural with higher operating speeds and increased spacing between intersections and private access driveways.

Section 3 - Greenwood Road to the Quebec Border: more rural in nature and is characterized by lower traffic volumes and higher operating speeds 80 km/h posted speed limit.

\section*{Cross-Section Alternatives}

\section*{Section 1 - Angus Campbell Drive to Drive In Road:}

Two-Way Left Turn Lane (TWLTL) recommended within this section based on 11,000 veh/day, access density (38 per km). Expected to reduce rear end collisions, reduce delays, and provide continuity with section to the west.
Two step evaluation process. Initially evaluated the following Active Transportation (AT) options:
- Option 1 - Multi-Use Pathway, Sidewalk, TWLTL
- Option 2 - Bike Lanes, Sidewalks, and TWLTL
- Option 3 - Sidewalks and TWLTL (Preferred)

Secondly, compare preferred option with:
- Option 4 - Buffered Paved Shoulders,
- Option 5 - Do-Nothing (resurface only). Recommendation: Option 3 - Sidewalks (by municipality) and TWLTL.


This option is consistent with the cross-section to the west (City of Pembroke) and best addresses vehicular and pedestrian needs associated with development along the corridor.

\section*{Cross-Section Alternatives (continued)}

\section*{Section 2 - Drive In Road to Greenwood Road:}
- Urban fringe, transitioning from \(60 \mathrm{~km} / \mathrm{h}\) to \(80 \mathrm{~km} / \mathrm{h}\) posted speed.
- Adjacent development remains limited. Low pedestrian demands.
- Two-Way Left Turn Lane (TWLTL) not warranted.
- Any Active Transportation facility should be buffered given the high vehicle volumes and operating speeds.
- CPR trail to the north provides parallel/ alternative AT opportunity.

Options considered included:
- Option 1 - Multi-Use Pathway
- Option 2 - Fully Paved Shoulders
- Option 3 - Do-Nothing


Recommendation: Option 2 - Maintain rural section. Rehabilitate pavement and provide fully paved shoulders (not signed or painted as a cycling lane).

\section*{Cross-Section Alternatives (continued)}

\section*{Section 3 - Greenwood Road to the Quebec Border:}
- Rural section with \(80 \mathrm{~km} / \mathrm{h}\) posted speed.
- Limited development along corridor.
- Connection between CPR trail and Quebec trail system (i.e Cycloparc PPJ Trail) is desirable. Cycle lanes (if provided) should be buffered from traffic given the high vehicle volumes and operating speeds.

Options considered included:
- Option 1 - Multi-Use Pathway
- Option 2 - Fully Paved Shoulders
- Option 3 - Do-Nothing


Recommendation: Option 2 - Maintain rural section. Rehabilitate pavement and provide fully paved shoulders (2.5m).

\section*{Drive In Road Intersection}
- Unsignalized with stop control on the Drive In Road approaches.
- Currently operating at capacity during the PM peak hour and meets the minimum warrants for signalization under existing conditions.
- The Ministry has purchased the house in the south-west quadrant in anticipation of intersection improvements and traffic signals.
- Roundabout was considered but results in significantly more property impact and increases delays on Highway 148 approaches.
Recommendation: Improve intersection geometry and install traffic signals.


\section*{Greenwood Road Intersection}
- The Highway 148/Greenwood Road intersection is an unsignalized T-intersection.
- Operational and safety concerns have been identified associated with the westbound right turn channelization (i.e. traffic traveling from the Quebec border into Pembroke).
- Operational concerns related to a difficult merge, and 'near collisions' with traffic turning left into the (Esso) gas station [Ultramar gas station removed].
- An evaluation of seven options was undertaken, including: removing the channelization, signalizing the intersection, providing a roundabout, etc.
Recommendation: reduce radius of right-turn channel (to increase spacing between the ramp and gas station entrance) and extend the acceleration lane to beyond the gas station (to minimize potential conflict with merging traffic).


\section*{Access Management - Cotnam Island}
- There are a number of sideroads currently serving the residential areas on either side of Highway 148.
- The spacing of the sideroad connections do not meet current access standards.
- Several options were developed involving closing existing roads and consolidating the remaining access roads.


Option 1 - Consolidate Eileen/Esther Street intersections Option 2 - Consolidate all accesses to a new intersection, north of Eileen/Esther Street
Option 3 - Maintain Beckett View and Cotnam St. E T-intersections only
Option 4 - Do Nothing
Recommendation: Option 4 (Do Nothing) - property impacts and cost of geometric improvements associated with Options 1-3 can not be justified at this time. Cotnam Laneway functions as a private access lane and is being reviewed separately.

\section*{Hazley Bay Bridge (Site No. 29-039)}

Review feasibility of options to accommodate bike lanes or multi-use trail at bridge crossing.

The existing bridge connects two narrow spits of land and therefore a pedestrian bridge on separate alignment would be unnecessarily long and costly.

Options considered included:

- Option 1 - Widening super-structure only (1.02 m overhang);
- Option 2 - Widening existing bridge, including sub-structure ( 2.02 m deck and pier widening);
- Option 3 - Add sidewalk ( 1.5 m wood platform with steel brackets); and
- Option 4 - Do Nothing. Maintain existing 3.75 m lanes +0.83 m shoulder (increase shoulder width in conjunction with future bridge replacement).
Recommendation: Option 4 (Do Nothing) - The bridge will be replaced in approximately 20 years. Providing wider shoulders and replacement options for the bridge will be considered as part of the replacement evaluation.

\section*{CPR Bridge (Site No. 29-038)}

The existing bridge is nearing the end of it's service life. The following options were assessed:

Option 1 - Do Nothing;
Option 2 - Rehabilitate the existing structure;
Option 3a - New bridge;
Option 3b-Replace with recreational culvert;
 Option 4 - Remove and provide an at-grade crossing (i.e. lower profile).
Evaluation:
- Option 1 was eliminated due to the condition of the bridge;
- Options 2 and 3a were eliminated due to high capital and maintenance cost;
- Option 4 (at grade crossing) requires lowering of the highway by approx. 5 m . Profile introduces driver sight-distance concerns at the crossing and requires extensive staging/detouring. Option 4 is also less desirable from a safety perspective, and therefore eliminated.

Recommendation: Option 3b-4x4 concrete trail culvert with retaining wall, or \(4.65 \times 6.9 \mathrm{~m}\) Corrugated Steel Pipe Arch (approximately 30m length).

\section*{Recreational Trail Culvert}

In April 2016, Renfrew County acquired ownership of the discontinued CPR corridor from the Arnprior/Ottawa border in the south to the Renfrew/Papineau-Cameron border in the north.

As identified on the County's Active Transportation Routes and Trails Plan, a recreational trail is to be provided along the corridor. The intended users of the trail will be determined by Renfrew County. Renfrew County has requested that MTO provide for a grade separated trail crossing at Highway 148 and
 a connection to the highway.

\section*{Recommended Plan}


Highway 148, Pembroke to Quebec Border

\section*{Implementation Strategy}

Step 1 - Construct new culvert beneath existing bridge while maintaining traffic on Highway 148. Partially backfill around proposed \(4 \mathrm{~m} \times 4 \mathrm{~m}\) recreational culvert.


Step 2 - To accommodate removal of the existing bridge and lowering existing highway profile, three options were considered:
- Option 1 - Single lane detour on Highway 148 with temporary traffic signals.
- Option 2 - Close Highway 148 and detour traffic to municipal and county roads.
- Option 3 - Two lane detour along the existing highway [not carried forward due to higher construction costs and grading impacts beyond existing right-of-way].

\section*{Option 1 - Single lane detour with temporary signals}
- Construct single lane detour within the existing right-of-way and use temporary traffic signals to accommodate alternating one-way traffic flow during removal of the existing bridge.
- Lower the profile of Highway 148 on either side of the structure in multiple stages (with single lane operations and temporary traffic signal control).


\section*{HIGHWAY 148 - PUBLIC INFORMATION CENTRE NO. 2}

\section*{Option 1 - Single lane detour with temporary signals}

Stage 2 - Single Lane Alternating Traffic Flow (Summer Weekend PM Peak)


\section*{Option 2 - Detour Traffic to Municipal and County Roads}
- Temporarily connect Hazley Bay Drive to Forest Park Drive. Improve pavement condition and undertake isolated sections of roadway widening.
- Close Highway 148 at former CPR structure and detour traffic along Hazley Bay Drive, Forest Park Drive, Beachburg Road, and Greenwood Road to accommodate removal of the existing bridge (i.e. 2-3 weeks).
- Lower profile of Highway 148 approximately 1m. Majority of profile adjustment completed during short-term detour period. Final profile changes and paving will be achieved through single lane flagging operations on Highway 148.


\section*{Comparison of Implementation Options}
\begin{tabular}{|c|c|c|}
\hline & Option 1 & tion 2 \\
\hline Factor & Single lane detour with temporary traffic signals & Detour traffic to municipal and county roads \\
\hline Duration & \begin{tabular}{l}
-Requires longer construction period (i.e. additional 2-3 months). \\
-Unable to avoid seasonal traffic peaks.
\end{tabular} & -Reduces overall construction period (expected to be completed outside seasonal traffic peak period). \\
\hline Traffic Operations & -Significant traffic back-ups and delays can be expected along Highway 148 (queues will extend to/beyond Highway 148 - Greenwood Road intersection). & \begin{tabular}{l}
-Approximately 5500 veh/day of traffic detoured from Highway 148 \\
-Up to 7.5 km of out-of-way travel. \\
-Minimizes construction zone conflicts (i.e. cyclists, increased worker safety)
\end{tabular} \\
\hline Property Impacts/ Other & -Increases delay to traffic using Highway 148, including residents along Hazley Bay Drive. & \begin{tabular}{l}
-Temporary disruption to residents along proposed detour route (2-3 weeks). \\
-Requires isolated road improvements and temporary connection of Hazley Bay Drive to Forest Park Drive.
\end{tabular} \\
\hline Costs & -Higher cost (i.e. costly temporary shoring and traffic protection) & -Lower cost \\
\hline
\end{tabular}

\section*{Summary of Recommended Improvements (Sheet 1 of 2)}

\section*{Short-term}
1. Highway 148 between Greenwood Road to Inter-provincial Bridge, including:
- Replace the former CPR bridge with a \(4 \mathrm{~m} \times 4 \mathrm{~m}\) trail culvert. Lower the Highway 148 profile (approximately 1 m ) from Traxton Way to Hazley Bay Drive.
- Maintain a 2 lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders.
Protect for a 1.0 m buffer on paved shoulders for cyclists between the CPR rail corridor and the interprovincial bridge, as well as future pathway connections from Highway 148 to the proposed CPR trail.

\section*{2. Drive-In Road Intersection:}
- Install traffic signals. Widen the south leg of the intersection to accommodate a designated right-turn lane. Adjust the road profile on the north approach to the intersection.

\section*{Summary of Recommended Improvements (Sheet 2 of 2)}

\section*{Short-term}
3. Highway 148 between Drive-In Road and Greenwood Road:
- Maintain a 2 lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders.

\section*{Medium to Long-term}
4. Highway 148 between Drive-In Road and Greenwood Road:
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel (i.e. reduce from 70 m to 45 m radius) and extend the merge lane.
5. Highway 148 between Angus Campbell Drive and Drive In Road:
- Widen to provide a continuous Two-Way Left-Turn Lane (TWLTL).
- Urbanize cross-section—barrier curb with gutter; new storm sewer system to Drive In Road (potential sidewalk subject to funding from the Municipality).

\section*{Plan and Profile Drawing}

\section*{Summary of Environmental Impacts and Mitigation}

\section*{Fish and Fish Habitat}
- All proposed improvements on Highway 148 are outside of watercourse crossings and will not impact fish and fish habitat.
- Erosion and sediment control measures will be applied during construction and Best Management practices will be applied to reduce the potential of spills or other materials from entering the watercourses.

\section*{Terrestrial Habitat and Wildlife}
- There are no anticipated long-term impacts concerning the proposed improvements.
- Install sediment fencing along all wetlands and natural features prior to construction. If possible, undertake construction outside of breeding bird season and turtle nesting season.

\section*{Archaeology}
- Several areas along Highway 148 have archaeological potential, and require a Stage 2 property assessment by test-pit and pedestrian survey.
- The Pembroke Pentecostal Cemetery lands will be avoided by the Highway 148 improvements.

\section*{Summary of Property Impacts}
- To accommodate the recommended plan, there will be a requirement for MTO to acquire property at some locations along Highway 148.
- This property is required primarily to accommodate drainage features (swales/ditches) and grading adjustments behind the proposed sidewalks, as illustrated in the example cross-section below.


\section*{Summary of Utility Impacts}
- The recommended plan for Highway 148 will result in impacts to existing utility infrastructure along the corridor.
- Existing hydro poles, gas mains, underground bell/cable ducts and utility pedestals will be relocated or adjusted to accommodate the proposed modifications to the highway.
- Most of these relocations are required in Section 1 (Angus Campbell Drive to Drive In Road).

\section*{Thank you for your participation in this study.}

Please let us know of your feedback by filling out a comment sheet and returning it to the registration table. Following the PIC, comments may be directed to:

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Email: Allan.Ortlieb@ibigroup.com

The project team will finalize the preferred design alternative based on the comments received. Thereafter, Transportation Environmental Study Reports (TESR) will be prepared for each project (GWP 241-00-00 and GWP 239-00-00) and filed for public review.

MINISTRY OF TRANSPORTATION ry Design and Class Environmental Assessment genwood Road to Quebec Border) - G.W.P. 239-00-00 information Centre \#2 - July 6, 2017

Comment Sheet
. \(1 e\) Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Greenwood Road (County Road 40) to the Quebec Border.
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.

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Do you require a written response to your comments? Yes \(\square\) No 区

Please complete the following information for our records (Please Print):


Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 20, 2017.

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Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00
Public Information Centre \#2 - July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to Greenwood Road (County Road 40).
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Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
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On each case is usa a soured by pali that I had aigonaled net proceeded properly.

There is greatly increased traffic between Conger Compliell alvie and Neghury, 148 twhaning, to ivelsec. There are smigle cans turnon, buses loodeng and unloading, and trowed traffic accelerating, ti 80 KPH out the old mike Road intersection.

Pawing the right hand shoulder would only uncresoe the problem.

My opinion is that a properly designated
left lane for eastbound traffic from
Highway 148 onto coed mill Road is required.
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Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00

Public Information Centre \#2 - July 6, 2017
Comment Sheet
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Preliminary Design and Class Environmental Assessment Highway 148 (Greenwood Road to Quebec Border) - G.W.P. 239-00-00 Public Information Centre \#2 - July 6, 2017

Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Greenwood Road (County Road 40) to the Quebec Border.
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
I have lived on Ridge drive for 24 yrs with my wite and children, we have seen many neat misses at the corner of old Mill \(R d\) and Greenwood rod, including someone passing a school bus and almost hitting ou-child. Many pass on the right while wo are waiting to burn left ante old mull hd, and at great speeds. A designated left turn lane and the speed reduced to 60 Km to The Que rm is a must before a major accident happens. Its not just CarS, with the addition of tame Depot and 'Laurentian, Square, truck and Transport Arattic has increased dramadialy.
As you know most people drive over the speed limit, somort of the vehiches are doing Go KM by th a time Whey get to Old Mill lld.
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P. 1

Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Greenwood: Road) - G.W.P. 214-00-00
Public Information Centre \#2 - July 6, 2017
Comment Sheet Paye"(1) of 2
The Ministry of Transportation has been conducting the. Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for Improvements to Highway 148 from Pembroke to Greenwood Road (County Road 40).
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 enoterly to the annie Dm Rid This area has \(T\) a fir amount of peodeotion traffic and since the io contrattl out nod min temanes the shoulder of the vied \(x\) the pedootimin prod peso on the north side of the una at \(W_{A L \text { mART }}\) intersection light standards hove been poorly maintaried, and pood sod gliding all along from (L eco) all the way along people bt t. E. and soonwwid Rd. Then io a lit t of people That wall to walnut a Boston Ping fan the notices on Pombute st. East. event of \(10.00 \mathrm{pm} \rightarrow 100 \mathrm{im}\).


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Address:

\section*{Email:}

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Preliminary Design and Class Environmental Assessment
Highway 148 (Greenwood Road to Quebec Border) - G.W.P. 239-00-00
Public Information Centre \#2 - July 6, 2017
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THE LIGHTS AT DRIVE IN ARE URGENTM NEED. If THE PROLESS of GETING TMEM INSTALLED COULD BE SPEARED UP WOULD BE BeTter 3 to Syos is too long.

Do you require a written response to your comments? Yes \(\square\) No \(X\)
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1. DRIVERS MAIEING LEFT TURN FROM MWY 148 ONTO GREENWOOD RD TRAVELLING EAST HAVE TO CONTEND WITH 3 STREAMS OF TRAFFIC: WESTBOUND ON GREENWOOD FROM THE LEFT, ANS 2 EASTBOUND LANES ON THE RIGHT. THIS MAKES THE TURN VERY HAZARDOUS ESPECIALLY AT PEAK TIMES. THERE 15 NOTHING PROPOSES TO ADORES THIS PROBLEM.
2. I LIKE THE PROPOSES CHANEE TO THE \(148 / G R E E N N O D D\) INTERSECTION THAT WILL REDUCE NY IAS SPEED AND GIVE MORE ROOM TO MERGE WITH GREEWOQ1 RD. TRAFFIC. ALSO NERDS CONTINUITY LINE; SIMILAR TO BEACHBJRG RD/CRRERWOON INTERSECTION.
3. SAFETY AT TNE 14S/GREENWOOU IWTERJECTION COULD BE IMPROVES FURTHER BY CUTTING BACK TRES THAT PRESENT DRIVERS SEEING ONCOMING TRAFFIC ON GQEENWOOS RD.

THANKS.

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(1) Recomonerd thine lane at intersection of
 having to stop fou left turns at Resmen Road as their is a bot of traffic turning into The physio business, mattress store, as revel as residents on Burns Drive
(2) Advanced green at brive en trad traffic lights as heavy traffic from Quebec will cause. problems for traffic going enc " Turning left onto
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- You cant change an mind that the turn lane should be extended to at lease the reduced speed limit sign ( 60 km ) coming into Penubuke - to eliminate accidents in front of the Fruit ad Vegetable stand.
- Has anyone considwed connecting the two malls to the South Y 148 through the fields to eliminate one on two of the ligluts (use then ut Drive In Road instead?) a mall entrance from Dove In Road through to the East End Mall would drastically reduce volumes on (kg)

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LEFT TuRN Signal ONly off of 148 To Angus CampBell Drive

NEED BiKe LAWES - Need Idantieied BiKELANS
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1) sired complete arrangements proposed by the stivety and. I em pleased isth adrancemertis that have been presenter. My primary concerns are int the entry and exit, amemgemento for Old Mull Read exit and entry changes sugeseld. There are 19 residences pescriced by the 3 serbdisusions as their only choice for access, This entry onto Hwy 143 faces a traffic fer w from the east from Woos its from Ewber, from Brackiberrg area, Hwy 419, while
(Doter Roved and meath Hill). Brose Hwy 148 from our access rood in a new dewoloping bs in Suldiarion that url be requuseng acres at that point. To hour e no changes to the existing condition's at this entry crit does hot satisfy our needs from a point of Safety. Changes inthearea from Angus Comptrell Drives to the Quebec turnoff on 1 why 148 ares due to changes in deific flow for tho Mall areas, tho breve In Road area all of akee are indicators of the traffic flows conditions If for the ares rood. for the residents from oldie Road, and the need for changes for. wo, atthereg a paraller group, but our-neess are proportionally as great.
In my obsur rations and my experiences living at
my address collisung at that hove of served 3 accelerate to wicheaing o speed limits only to find several vehicles stopped vinutung to moke a left -hand turn onto old mill food. With no protrsion for by passing for on-rushing through trapper, star than to hose the pared section and pas the stepped vetuien on the graveled road e ride toter right curfuind by quend raidissa wary dengivens condition, whit h will net be unproved by the current suggested plan. My dictum would be to prove thrush tames with fecit and entry phovruins Wa te dian of the may its, at the location. This would provia the some condituins as currently proud at Dries Io Roads norw proposed to have a triffer light condition.
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Good display and information explaining up coming process. Gond interaction with MTO REPS available. Ho weser on one point 1 fully disagree with leaving Hwy 148 and Groconwoso road intersection as is. It needs a traffic circle for Hose exiting east into 6 reemword road.

Deary log trucks male that turn frequently and cannot dart out like a smaller reich. The trucks are heading to the MDF Plant on Whitewater Road and travel daily. lIdiA speak e to AlLAN (MTO) ard he stated the study reflects an 8 hour same issue of the left turn lance. Perhaps this is for an urbanavea and not a rural area. 1 reference the Town of ALMonte and Mattawa both small northern towns which wo ald receive less traffic than tues intersection and they do have a traffic eirch.
Farmers, cottagers, delivery trucks etc all frequent that intersection and have made similar comment as I have noted here.

1 respectfully request you re address thus conan and help this community for years to come- One. other point is the fact that the Hamlets of Brachbura and Wentmeaste having been growing over the past years and add a lot of traffic to 6 reenwood Road daily at all tiniss especially those heading to and from world.
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The intersection (a) 148 ; Greenwood Rd. need to be a traffic circle!

Do it once t do it right
Don't wait for a pile of deaths to Justify this
The present plan is improves traffic heading west. but does not improve any thing to the east. The way all
hediey thanks turn heavy tracks turn.
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- Paved Shoulders Should be identified as Bike/Pedertian Use - Paint is cheap
- LIVES ARE WOT

Vehicles as more liker use the paved Shoulders to Pass LEFT Turning Vechicles (Driveway ETC) Hence greater risk to pedestrians de cyclists.
- Turning lane from Drive in Rd to Campbell Dr long ourdouey
- Traffic Light (8) Drive-In Also Long Overdue.
- TRaFFic Light @ HWY 148 \& GREENWOOD SHOULD BE Provided Triggered By LEFT TURNing TrAffic
onLy! only!
- Speed Limit Reduced to \(60 \mathrm{~km} / \mathrm{hr}\).
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The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.

I am concerned with the design proposed for The intersection of Greenwood Road th Ae 148 . There is a real issue with the heft ( \(b\) ) ha twin fran 148 to Greemoody At is mostly connery Truch traffic coming out of Quebec going to the Fibolsoand plant of Comity Road 24.
In my opinion a troffic circle would be the most effiriout way of solving this sisue. hreakije that the cost factor is vela tively high but the safety of all vehicle trofficturning heft( 4 ( for outwoys the lessor.

Do you require a written response to your comments? Yes \(\square\)
Please complete the following information for our records (Please Print):


Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 20, 2017.

Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard
Postal Bag 4000
Kingston, ON K7L 5A3
Telephone: 613-540-5187
Toll-free: 1-800-267-0295
Fax: 613-540-5106
E-mail: Chris.Belanger@ontario.ca

Mr. Allan Ortlieb
Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
Telephone: 416-798-5480
Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00
Public Information Centre \#2 - July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to Greenwood Road (County Road 40).
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
(1) \(\square\) . FROM what I have SEEN TODAY IT APPEARS THERE WILL BE NO REAL CHANGE TO THE DISTANCE OF THE TURNING LANE FROM THE EAST SIDE OF ROBINSON LANE. MY CONCERN IS THE WIDTH OF THE SHOULDER ON THE "HOME DEPOT" SIDE OF THE ROAD. WE REQUIRE A FULL VEHICLE WITH SHOULDER TO AT LEAST THE SECOND HONE DEPOT ENTRANCE. I TURN FROM THE EAST BOUND LANE ACROSS THE TURNING LANE THOUSANDS OF TIMES AND THANE HAD HUNDREDS OF CLOSE CAUS FROM PEOPLE ACCELERATING FROM THE LIGHT OR JUST SPEEDING EAST THROUGH A GREEN LIGHT AT ROBINSON LANE. THE REASON I TANK A FUN VEHICLE WIDTH SHOULDERIS SO IMPRIANT 15 IT GIVES DRIVERS AN "ESCAPE" ROUTE AROUND VEHICLES. TURNING ON TO RESMER OR M \(T\) FR FEEDS. (DRAWING ATALHED)
(2) PLEASE CYCLE THE NEW LIGHTS AT DRIUE IN ROAD THAT ALE FOR DIRECTIONS /NCLUDIAK \(-\infty 2\)

ACCESSINL 148 FROM LOWER DRIVE IN ROAD. THE REASON I BRING THIS UP IS BECAUSE OF THE
WAY THE LIGHTS CYCLE AT RANKIN/ANGUS
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Do you require a written response to your comments? Yes \(X\) No \(\square\)
Please complete the following information for our records (Please Print):
Name:
Address:
Email: \(\qquad\)

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Prefibinary Design and Class Environmental Assessment
Highway 1 H8 (ca eenwqod Road to Quebec Border - G.M. 239-00-00
Public information Centre \# 2-July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Greenwood Road (County Road 40) to the Quebec Border.

The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.

SKETCH OF 148 FROM ROBINISON TO SECOND ENTRANCE TO HOME DEPOT.


Do you require a written response to your comments? Yes \(\square\) No \(\square\)
Please complete the following information for our records (Please Print):

\section*{Name:}


\section*{Address:}

\section*{Email:}

Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than Julv 20, 2017.

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MTO Project Manager
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Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Preliminary Design and Class Environmental Assessment
Highway 148 (Greenwood Road to Quebec Border) - G.W.P. 239-00-00
Public Information Centre \#2 - July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Greenwood Road (County Road 40) to the Quebec Border.
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
(1) I appreciate that trathic How may not warrael A but satety would warrant a trathe light as intersecten of Greenwood \(R d ; 148\). Turnuj left from 148 to Greenwood \(k d\) has become near impossible - and is very dangerous. - even moe so when a truck is tryens to make that turn.
(2) Re usuns Mizley Bay as detour:
- The rood as to u narrow - even if widened - for 2 trucks \(\omega\) pass
- The shower are too nowow in places to widen
- w.elenens road to accomm. detour wirer impact wildlife
-turtle nest m shoulder of load
- der crossing to river
- other wildlife crossing to aces revel
- mailhores must be moved to a safe location where residents can stop to get mail safely.
- please cower speed linin on detoder - to \(40 \mathrm{~km} / \mathrm{h}\) for safely of residents (and no air brakes). -speed bumps?
- need a police presence for residents F Fern Dr to get out and to prevent drunk dur using that route.
- please gie us lots ? Written notice so ar can leave our homes dung this time (for cmstructin s detour)
(3) Note -you mentor then is alternatur AT rout alms CPR like. It o not open "then are "no trespass' signs, so there un coo date yet oo r when AT access is available. I uts it may be open sum e day - but in the mean time
(4) It is Crucial that Hazley Bay aces to Fores Park be colossi after the 3 week pernod.
-and it has \(t\) be much that no are can
go around (or al least matrix a challenge)
(5) What about access for emenency velucles-how wee
Whey sot down Hagley Bay Rd deniers detour?
(5) What about access tor emergency velucles-how wee
They get down Hagley Bay Rd dens denom?
\(\qquad\)

Do you require a written response to your comments? Yes No \(\square\)
- at least an acknouledgenel they are nerved!
Please complete the following information for our records (Please Print): any commitment you


Information from the comment sheet will be tabulated and incorporated as part of the study documentation. Please place completed sheet into the comment box.

If you would like to take more time with your responses feel free to send us your comments via mail, email or fax no later than July 20, 2017.

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MTO Project Manager
Ministry of Transportation
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Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00

Public Information Centre \#2 - July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to Greenwood Road (County Road 40).
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
1) Wart stop light unstatlel at drum rim Rad.
2) Atop light at treenware \(R_{d} \times 148\) Rudy also
3) Enome-tar Harley Bay Du is closed off after conatuetion Completed.


Please complete the following information for our records (Please Print):


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Preliminary Design and Class Environmental Assessment
Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00
Public Information Centre \#2 - July 6, 2017
Comment Sheet
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Please provide comments concerning what you have seen today and any other transportation issues you are aware of.
- Speed limit should be lowered from 80 to 60
- The Harley Bay bridge should have a sidewall
- (adaption \#3 wooden)
- Traffic lights should be installed at the intersection of 148 . The merge lane is extremely dangerous. It is very hard to make leet turns on to Greenwood, Read
- At Francie Lane left tarns are very dangerous because, excessive speed. A sign should be posted indicated a left torn.


Mr. Chris Belanger
MTO Project Manager
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Fax: 416-675-4620
E-mail: Allan.Ortlieb@ibigroup.com

Preliminary Design and Class Environmental Assessment Highway 148 (Pembroke to Greenwood Road) - G.W.P. 214-00-00

Public Information Centre \#2 - July 6, 2017
Comment Sheet
The Ministry of Transportation has been conducting the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to Greenwood Road (County Road 40).
The purpose of this Public Information Centre is to gather input from the public on the preferred alternative. Please take a few minutes to complete this Comment Sheet. Your input is greatly appreciated.

Please provide comments concerning what you have seen today and any other transportation issues you are aware of.


Rd, so that being said, vellicles are

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\title{
OVCATA OTTAMN V MLIEY CCCLING AND \\ ACTIVE TRANSPORTATION ALLIANCE
}

581B Eady Rd. - Golden Lake, ON K0J 1X0-6137572223-infoaoveataca
July 19, 2017
IBI Group
VIA EMAIL
100-175 Galaxy Boulevard
Toronto ON
M9W 0C9
Attention: Mr. Allan Ortlieb, Consultant Project Manager

Re: Highway 148 (City of Pembroke to Quebec border) G.W.P. 239-00-00 and 214-00-00

\section*{PIC \# 2 Comments}

\section*{Dear Sir,}

On behalf of our over 200 member OVCATA group we appreciate the opportunity to submit the following comments provided to us from our member Ron Moss who did attend the PIC \#2.
1. Can it be assumed that signage proposals will be presented with the final design?
2. OVCATA would like to review proposed signage for this project.

\section*{GWP 214-00-00 West of Campbell Drive to Greenwood Road}

\section*{Section \#1 Campbell Drive to Drive In Road}

MTO Option 1 (active transportation allowance included).
The proposed facility considered was a one way in boulevard cycling facility and adjacent to concrete pedestrian sidewalk. This option was not preferred by MTO.
3. Why was this option not favoured?

MTO preferred Option 3 (active transportation allowance excluded)
4. As the preferred Option 3 excludes an allowance for cycle lanes but includes an allowance for sidewalks, provisions for cyclists are suggested by OVCATA for an in boulevard shared multiuse facility wherein pedestrians and cyclists share a proposed asphalt pathway on both sides of the roadway. This facility is suggested to remain in place until such time as adequate right of way width can be obtained by MTO in order to provide separated cycle and pedestrian facilities (sidewalk).

Hwy 148 Pembroke Street is a major connectivity link for The City of Pembroke, County of Renfrew, Voyageur Cycle Route, Route Verte in Quebec and MTO cycle network. At present Pembroke Street West (Renfrew County Road 51) from Pembroke west City Limits through to the Town of Petawawa has hardened or paved shoulders that are used frequently by cyclists. Currently Discovery Routes Trails Organization is reviewing Renfrew County Road 51 and Hwy 148 as a consideration for the designation of the Voyageur Cycle Route which will connect the Trans Canada Trail between North Bay and Ottawa locations.

\section*{Section 2 Drive In Road to Greenwood Road}
5. The MTO proposal does not include a left-hand turn lane onto Old Mill Road for vehicles. Vehicles approaching any vehicles that are turning left onto Old Mill Road will tend to pass them to their right thus occupying the paved shoulder area. This becomes a safety hazard for any active transportation users also occupying the paved shoulder at that time. In this regard OVCATA requests that a left hand turning lane be provided at this location in addition to the paved shoulders.
6. Due to the high traffic volume and the current speed limit of \(80 \mathrm{~km} / \mathrm{hr}\), OVCATA requests that the posted speed limit be reduced to \(60 \mathrm{~km} / \mathrm{hr}\). The speed limit reduction is proposed to be located at the Greenwood/Highway 148 intersection with speed reduction being on the easterly Highway 148 approach and southerly approach on Greenwood Road.
7. Active Transportation opportunity on rail bed as suggested by MTO is acknowledged by OVCATA however, cyclists will require cycling facility on Highway 148 for their access to commercial businesses located along the entire length of the Highway 148 project.
8. As this section is an important connection to the Route Verte in Quebec OVCATA suggests that paved shoulders include a buffer such as - rumble strip with skip pattern.

\section*{GWP 239-00-00 Greenwood Road to interprovincial bridge}

Once constructed the paved shoulders will certainly be used more by active transportation participants to access local businesses and access to connecting AT routes including the Route Verte in Quebec.
9. OVCATA suggests that as a safety precaution the paved shoulders include a buffer such as rumble strip with skip pattern as Highway 148 has a very high traffic volume and speed limits in the order of 60 and \(80 \mathrm{~km} / \mathrm{hr}\).
10. Presently we have observed vehicles parked on the side of the roadway while the vehicle owners appear to be fishing from the shoreline in that area. Parking in this area may be hazardous to all active transportation users as they may have to negotiate around these parked vehicles. OVCATA suggests that no parking signs be installed in the vicinity of Hazley Bay bridge.

In regards to the Recreational trail culvert OVCATA agrees with the proposed traffic detour proposal during the construction of the recreational culvert. OVCATA also agrees with the proposal to provide allowance for Trail access to Hwy 148 paved shoulders.
11. OVCATA suggests that barricades be installed on the access ramps to deter access by all vehicles including atvs and snow machines.

Thank you for your consideration of our comments.

Sincerely,


Ron Moss, Secretary
Is Theilheimer, Co-Chair
OVCATA


OVCATA
cc:
Mayor Mike LeMay City of Pembroke
Mayor Steve Bennett Laurentian Valley Township
Jennifer McCourt Discovery Routes Trails Organization
Marc Fortin MRC Pontiac

Mr. Chris Belanger
MTO Project Manager
Ministry of Transportation
1355 John Counter Boulevard, Postal Bag 4000
Kingston, ON K7L 5A3
Via email: Chris.Belanger@ontario.ca

\author{
Mr. Allan Ortlieb \\ Consultant Project Manager \\ IBI Group \\ 100-175 Galaxy Boulevard \\ Toronto, ON M9W OC9 \\ via email: Allan.Ortlieb@ibigroup.com
}

RE: Preliminary Design and Class Environmental Assessment Highway 148 from Pembroke to Greenwood Road (G.W.P. 214-00-00) and; Highway 148 from Greenwood Road to the Quebec Border (G.W.P. 239-00-00), County of Renfrew

Dear Mr. Belanger and Mr. Ortlieb,
This letter is in response to the Notice of Public Information Centre \#2 for the Design and Class EA for sections of Highway 148 in Renfrew County. On behalf of the Voyageur Cycling Route Working Group, I would like to thank you for the opportunity to provide comments for consideration at the design stage of the project.

The Voyageur Cycling Route is Ontario's next major cycling tourism experience that will span over 630km from Sudbury to the National Capital Region. The Véloroute Voyageur supports Ontario's Cycling Strategy to establish the Province as a premier cycle tourism destination while creating healthy, active and prosperous communities.

Partners involved with the development of the Voyageur Cycling Route have been active participants in the process the MTO has established to identify the provincial cycling network. Many of the municipal roads, provincial highways and local trails that have been designated as part of the Voyageur Cycling Route have been identified as candidates for the provincial cycling network currently under review by the MTO. We are eagerly awaiting MTO's final decision on the provincial cycling network later this year.

The Voyageur Cycling Route is a cycling route of provincial and national significance with direct connections to the Great Lakes Waterfront Trail, Trans Canada Trail and Quebec's La Route verte. We are working with stakeholders across Renfrew County to designate the Voyageur Cycling Route along the most feasible and appropriate route, utilizing existing infrastructure as much as possible. Highway 148 will be a critical connection in the network as the physical link to Quebec's renowned cycling network. The provision of fully paved shoulders from Drive-In Road to Greenwood Road and from Greenwood Road to the inter-provincial bridge will create a cycling facility that invites cyclists from Quebec to experience Ontario's growing network. This is a critical component to the development of a world-class cycling destination and we applaud MTO for including this provision. We would further recommend consideration be given for providing a paved shared-use pathway between Angus Campbell Drive and Drive-In Road as a facility to accommodate bicycle traffic.

Please include the Voyageur Cycling Route Working Group in future communications related to this project. Thank you, again, for this opportunity to provide commentary with respect to this project.

Sincerely,


Jennifer McCourt, Executive Director
Discovery Routes Trails Organization


Alan Korell, Chair
Voyageur Cycling Route Working Group
\(\begin{array}{ll}\text { CC } & \text { Julia Barnes, Senior Policy Advisor, MTO } \\ & \text { Peter Makula, Eastern Region, MTO } \\ \text { Ish Theilheimer, OVACTA, route development partner } \\ & \text { Melissa Marquardt, Ottawa Valley Tourist Association } \\ & \text { Stephanie Hessel, Ontario's Highlands Tourism Organization }\end{array}\)

From:
Sent:
To:
Subject:

Allan Ortlieb
Monday, July 17, 2017 11:38 AM
Marianne Alden-Radue
FW: Highway 148 intersection with Old Mill Road

\section*{From:}

Sent: Monday, July 17, 2017 11:36 AM
To: 'chris.belanger@ontario.ca' <chris.belanger@ontario.ca>; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: 'Ischruder@gmail.com' <Ischruder@gmail.com>
Subject: Highway 148 intersection with Old Mill Road

Hello Chris and Allan

Unfortunately I was unable to attend the information session on July \(6^{\text {th }}\) but I understand that written comments are welcome on this project until July \(20^{\text {th }}\).

I am a resident and I am deeply concerned about the hazards surrounding the intersection of Highway 148 and Old Mill Road. Making a left hand turn from Highway 148 onto Old Mill Road is very anxiety provoking and my family members and I have often experienced vehicles passing on the right on the gravel shoulder or tailgating as we've slowed down to make the corner. It appeared to me that the school transportation planners were equally concerned about this intersection as when our children where of an age to take the school bus, the bus would not stop for drop off facing east at this intersection and our children would have to stay on board until the end of the route where the bus would drop them off on the other side of the road (facing west) due to the hazards involved with stopping the bus and having children cross at this point.

I urge you to implement a designated left turn lane from Highway 148 onto Old Mill Road.

Other mitigation measures that would be helpful would be improved signage (i.e. hidden left hand turn) and reduced speed limit to \(60 \mathrm{~km} / \mathrm{hr}\) in this section of road.

Thank for accepting my submission. Please do not hesitate to contact me should you wish further information from me.

\begin{tabular}{ll} 
From: & Allan Ortlieb \\
Sent: & Monday, July 17, 2017 9:52 AM \\
To: & Marianne Alden-Radue \\
Subject: & FW: GWP 214-00-00 and GWP 239-00-00 \\
Importance: & High
\end{tabular}

From: Saint-Jean, Hugo [mailto:Hugo.Saint-Jean@brookfieldrenewable.com]
Sent: Monday, July 10, 2017 3:42 PM
To: Chris.belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: Vaillancourt, Luc <luc.Vaillancourt@brookfieldrenewable.com>; Leclerc, Laurent
<Laurent.Leclerc@brookfieldrenewable.com>
Subject: GWP 214-00-00 and GWP 239-00-00
Importance: High
Good afternoon Mrs. Belanger and Ortlieb,
I am representing Hydro-Pontiac (HPI) who as a joint transmission line on wooden poles with ORPC, Hydro-One and Bell along the highway 148. The transmission start at the bridge and is ending at the ORPC substation in Pembroke. Regarding both of your project, we need a little more information in order to give our comments:
- Does your project include the modification or displacement of the electric line or poles?
- If so, what is the timeline to complete this as it will required from HPI to completely shut down the generating station in Waltham?
- As well, if we need to shut down the generating station, will we be entitled to any form of compensation for the lost in production revenues?
- If it doesn't require any modification or displacement of the actual lines or poles, do you need to work inside the danger zone of the wire?

We would like to obtain this information in order to be able to give our comments on the project and to be able to put the appropriate safety measures in place.

If you have any questions, do not hesitate to contact me.

\section*{Regards.}

\section*{Hugo Saint-Jean}

Gestionnaire des terrains
Amérique du Nord
Énergie Brookfield
41, rue Victoria, Gatineau, QC J8X 2A1
T 819.561.2722 poste 2252 C 819.962-5573
Hugo.Saint-Jean ©energiebrookfield.com
www.energiebrookfield.com

\section*{Brookfield}

Ce message, y compris toutes ses pièces jointes, est peut-être privilégié et peut contenir des renseignements confidentiels destinés uniquement aux personnes dont le nom est indiqué ci-dessus. Si vous n'êtes pas le destinataire prévu ou sì vous avez reçu ce message par erreur, veuillez en aviser l'expéditeur immédiatement, en lui répondant par courriel. Veuillez aussi supprimer définitivement le message original de l'expéditeur, y compris toute pièce jointe, sans faire de copie. Merci.

\title{
IMMEDIATE ACTION REQUIRED TO OBTAIN A SAFER LEFT TURN OPTION ONTO OLD MILL ROAD FROM HIGHWAY 148
}

\section*{THE ISSUE}

Most of us have had near-misses over the years when stopped to make a left turn onto Old Mill Road from Hwy 148. We have all had vehicles pass us at significant rates of speed on the gravel to the right; screeching brakes and swerving by immediate following cars - or the car following them. There have been several rear-end collisions in recent years. Any rear-end collision has a high probability of pushing a stopped vehicle into the other lane, head-on into traffic driving at least \(80 \mathrm{~km} / \mathrm{hr}\).

There are 25 residences that require daily access to and from Old Mill Road. With 25 residences, there are at least 100 left turns a day onto Old Mill Road - or more than 35,000 left turns a year. With the highway veering to the right just before our intersection, drivers exiting Pembroke have a reduced line of sight to cars waiting to turn left, and the current speed limit increase to \(80 \mathrm{~km} / \mathrm{hr}\) from the top of the hill only makes matters worse. A car travelling @ 80km/hr covers more than 22 m per second. Even the slightest distraction means that the following car has little time to stop once a turning car comes into sight. And the second car behind has even less time to react.

The probability of a serious accident over the next few years is greater than your planners realize. But as residents, we live with the dangers daily, and we ask that you take our concerns and recommendations seriously. A number of residents move into the left lane when possible before making the turn to reduce the risk. Others, when faced with a long line of oncoming traffic, proceed to the gas station across from the Quebec turn and turn around rather than run the risk of being hit for behind.

The residents, visitors and school bus drivers using this intersection should not have to take these kinds of evasive actions to feel safe on a provincial highway.

For safety's sake, we need:
- A designated left turn lane from HWY 148 onto Old Mill Road
- The HWY 148 speed reduced from the current 80 km to 60 km per hour from just east of Cardinal Fruit stand through to Quebec Turn off
- Signage posted as you descend the hill from Pembroke towards Old Mill Road about a hidden left turn intersection ahead.

Please re-consider your planning options for this intersection and help us using it on a regular basis to avoid serious injury or death.
cc. John Yakabuski, MPP
john.yakabuski@pc.ola.org
Mr. Steve Bennett, Mayor, Laurentian Valley
sbennett@lvtownship.ca
\begin{tabular}{ll} 
From: & Allan Ortlieb \\
Sent: & Wednesday, July 19, 2017 11:39 PM \\
To: & Marianne Alden-Radue \\
Subject: & FW: Preliminary Design \& Class Environmental Assessment Highway 148 from Pembroke
\end{tabular}

From:
Sent: Wednesday, July 19, 2017 12:09 PM
To: Chris.Belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: john.yakabuski@pc.ola.org; sbennett@lvtownship.ca
Subject: Preliminary Design \& Class Environmental Assessment Highway 148 from Pembroke to Greenwood Road
(G.W.P.214-00-00)

Sirs:

My name is Old Mill Road in Laurentian Valley Township and I am sending you some comments on the proposed changed to Highway 148. We have been residents at our current address since 1985 and have been noticing an increase in the number of vehicles using this portion of Highway 148. More and more vehicles are passing us on the shoulder as we are waiting to make a left turn onto Old Mill Road that we focus as much on the traffic following us as we do the approaching traffic as we wait to make the turn.

Some measures that could be taken when these improvements are being made to improve the safety of this road would be the following:
1. A turn lane for vehicles turning left onto Old Mill Road from the Highway so vehicles aren't passing on the shoulder, vehicles that include police cars and a lot of larger trucks,
2. Reduce the speed limit increase to \(80 \mathrm{Km} / \mathrm{hr}\) to beyond the Old Mill turn off or perhaps even the Quebec turnoff and,
3. A notice of left turning traffic just beyond the Cardinal Fruit store to alert drivers to the potential of vehicles stopped or slowing down to make a left turn just beyond their line of sight.

Thank you for the opportunity to share my/our concerns.

From:
Sent:
To:
Subject:

Allan Ortlieb
Thursday, July 20, 2017 10:42 AM
Marianne Alden-Radue
FW: Highway 148 (Pembroke to Greenwood road) G.W.P. 214-00-00

From: Belanger, Chris (MTO) [mailto:Chris.Belanger@ontario.ca]
Sent: Thursday, July 20, 2017 10:15 AM
To: Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: Westendorp, Sharon (MTO) <Sharon.Westendorp@ontario.ca>
Subject: FW: Highway 148 (Pembroke to Greenwood road ) G.W.P. 214-00-00

Hi Allan

Here is another comment to address regarding old Mill Rd.

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

From:
Sent: July-17-17 12:30 PM
To: Belanger, Chris (MTO)
Cc:
Subject: Highway 148 (Pembroke to Greenwood road ) G.W.P. 214-00-00
We have been residents since 1982. At that time there were only four homes off Old Mill
Road, now there are twenty-five. The traffic volume on high-way 148 had increased
tremendously, as have the hazards of turning left onto Old Mill Road. The speed limit at the exit is \(80 \mathrm{Km} / \mathrm{Hr}\). and there have been many hair raising incidents of near rear end collisions, and many cars choosing the pass and the right on the soft shoulder. As a retired coroner I am only to well acquainted with the tragic results of such accidents. I strongly urge you to give serious consideration to providing a left turn lane and reducing the speed limit to \(60 \mathrm{~km} / \mathrm{hr}\). to the the Quebec turn off.

\section*{From: \\ Allan Ortlieb}

Sent: Monday, July 17, 2017 9:51 AM
To:
Subject:

Marianne Alden-Radue
FW: comments to the mailing and study of hwy 148 to the Inter-Provincial bridge in Renfrew County Ontario

From:
Sent: Thursday, July 13, 2017 12:56 PM
To: chris.belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: john.yakabuski@pc.ola.org; sbennett@lvtownship.ca
Subject: Fwd: comments to the mailing and study of hwy 148 to the Inter-Provincial bridge in Renfrew County Ontario

RE: Request for immediate action to obtain a safer LEFT TURN option onto OLD MILL ROAD FROM HIGHWAY 148

Hello,
I am a resident at \(\longrightarrow\) and I have a direct view and hearing of all activity at the intersection of Old Mill Road and Highway 148

I am forwarding the email that I sent to Allan Ortlieb at IBI group April 16, 2015 in regards to my concerns at that time in response to public safety at this intersection when a notice was sent out of a preliminary design and class environmental assessment of Hwy 148 from Pembroke to Greenwood road and Hwy 148 from Greenwood road to the Quebec border.

The last half of that email addressed my concerns and recommendations for the intersection of Hwy 148 and Old Mill Road and my personal experience with witnessing accidents and PERSONALLY BEING INVOLVED IN NEAR MISSES ON SEVERAL OCCASIONS as I was attempting to make a turn.

THIS HAS GOT TO STOP! No doubt there is ample OPP/Ministry etc. documentation available as to the frequency of accidents at this intersection to support our valid concerns for action. It was only a few weeks ago that I again witnessed an accident at this intersection involving a resident on my street, Ridge Drive!!

Presently and ongoing as a group of residents who live off this dangerous intersection at Hwy 148 and Old Mill Road we are seriously concerned for not only our safety as we are the ones frequently turning off this highway but also public safety in general.

We greatly need to be heard as you make changes to this stretch of highway to incorporate the following:
- A designated left turn lane from Hwy 148 onto Old Mill Road
- The Hwy 148 speed reduced from the current 80 km to 60 km per hour from just east of Cardinal Fruit stand through to the Quebec turn off.
- Signage posted as you descend the hill from Pembroke towards Old Mill Road about a hidden LEFT TURN intersection ahead.

Thank you for you time in receipt of my email and in drastic hope for CHANGE.

From:
Date: Thu, Apr 16, 2015 at 5:53 PM
Subject: Re: comments to the mailing and study of hwy 148 to the Inter-Provincial bridge in Renfrew County Ontario
To: Allan Ortlieb <Allan.Ortlieb@ibigroup.com>
Much appreciated..thank you!

On Thu, Apr 16, 2015 at 8:59 AM, Allan Ortlieb <Allan.Ortlieb @ibigroup.com> wrote:

Thank-you for your e-mail regarding existing traffic operations and potential improvements to Highway 148. We appreciate your suggestions regarding the need for traffic signals at the intersection of Highway 148 \& Drive-In Road and the need for a left turn lane on Highway 148 at Old Mill Road to improve traffic operations and safety. We will be looking at both these options in detail as part of the study. We have added you to the mailing list for the Highway 148 project to receive key project notices, including public information centres. Please feel free to continue providing comments during the course of the Environmental Assessment and thank you for your interest in this important project.

\section*{Allan Ortlieb}

Associate
dd 4167985480
email Allan.Ortlieb@IBIGroup.com web www.ibigroup.com

\section*{IBI GROUP}

100-175 Galaxy BIvd

Toronto ON M9W 0C9 Canada
tel +14166791930 ext 65480 fax +14166754620

\section*{From:}

Sent:
To:
Subject:
```

Allan Ortlieb
Monday, July 17, 2017 9:50 AM
Marianne Alden-Radue
FW: Highway 148-Concerns intersection of Old Mill Road

```

From:
Sent: Friday, July 14, 2017 7:37 AM
To: Chris.Belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: john.yakabuski@pc.ola.org; sbennett@lvtownship.ca
Subject: Highway 148 -Concerns intersection of Old Mill Road

Dear Mr. Chris Belanger and Mr. Allan Ortlieb
I am writing you in regards to the preliminary design of Hwy 148 from Pembroke to Greenwood Rd. We recently received some information regarding this proposal. As a resident of Old Mill Road, we turn at the intersection of Old Mill Rd daily and have concerns regarding the safety of this intersection. Since building our home in 2009, there have been several accidents and many many close calls at this intersection. As residents, we are very aware of the dangers. Even when signalling well in advance, other drivers often regularly come close to rear ending you or speed dangerously around you and almost side swipe you. The addition of paved shoulders will mean these vehicles will not slow down at all when passing on the right. It is only a matter of time before a more serious accident occurs.

We would like to express concerns about the intersection and feel that these should be addressed in the upcoming rehabilitation of this section of road. A few possible suggestions to improve the safety of this intersection would be:
1. The addition of a left turning lane to turn onto Old Mill Rd when coming from Pembroke.
2. A decrease in the speed from \(80 \mathrm{~km} / \mathrm{h}\) to \(60 \mathrm{~km} / \mathrm{h}\)
3. The addition of signage to indicate a turn

There are approximately 25 homes that have to make this turn regularly but many other residents in the area are also using this intersection to turn onto Old Mill Road as the community mailboxes are located on Old Mill Road.

The intersection is dangerous and efforts should be made to improve the safety of this intersection during the upcoming rehabilitation process. We look forward to hearing from you and to future plans and proposals to address the concerns of the residence in the area.

From:
Sent:
To:
Subject:

Allan Ortlieb
Monday, July 17, 2017 9:51 AM
Marianne Alden-Radue
FW: Hwy 148 Rehabilitation - Old Mill Road Intersection Concerns

From:
Sent: Thursday, July 13, 2017 12:13 AM
To: Chris.Belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: john.yakabuski@pc.ola.org; sbennett@lvtownship.ca
Subject: Hwy 148 Rehabilitation - Old Mill Road Intersection Concerns

Dear Mr. Chris Belanger and Mr. Allan Ortlieb

I am writing you in regards to the preliminary design of Hwy 148 from Pembroke to Greenwood Rd. We recently received some information regarding this proposal. As a resident of Heritage Place, we turn at the intersection of Old Mill Rd daily and have concerns regarding the safety of this intersection. Since building our home in 2010, there have been several accidents and many many close calls at this intersection. As residents, we are very aware of the dangers. Even when signalling well in advance, other drivers often regularly come close to rear ending you or speed dangerously around you and almost side swipe you. It is only a matter of time before a more serious accident occurs.

We would like to express concerns about the intersection and feel that these should be addressed in the upcoming rehabilitation of this section of road. A few possible suggestions to improve the safety of this intersection would be:
1. The addition of a left turning lane to turn onto Old Mill Rd when coming from Pembroke.
2. A decrease in the speed from \(80 \mathrm{~km} / \mathrm{h}\) to \(60 \mathrm{~km} / \mathrm{h}\)
3. The addition of signage to indicate a turn

There are approximately 25 homes that have to make this turn regularly but many other residents in the area are also using this intersection to turn onto Old Mill Road as the community mailboxes are located on Old Mill Road.

The intersection is dangerous and efforts should be made to improve the safety of this intersection during the upcoming rehabilitation process. We look forward to hearing from you and to future plans and proposals to address the concerns of the residence in the area.

Sincerely,

\author{
From: Allan Ortlieb \\ Sent: Monday, July 17, 2017 9:48 AM \\ To: Marianne Alden-Radue \\ Subject: FW: SAFER LEFT TURN OPTION ONTO OLD MILL ROAD FROM HIGHWAY 148 \\ (G.W.P.214-00-00)
}

\section*{Allan Ortlieb \\ Associate | Manager, Transportation Engineering \\ dd 4167985480 \\ IBI GROUP \\ 100-175 Galaxy Blvd \\ Toronto ON M9W OC9 Canada \\ tel +1 4166791930 ext 65480 fax +14166754620 \\ 이웅 \\ }

NOTE: This email message/attachments may contain privileged and confidential information. If received in error, please nolity the sender and delete this e-mail message
NOTE: Ce courriel peut contenir de l'information privilégiée et confidentielle. Si vous avez recu ce message par erreur, veuillez le mentionner immédiatement à l'expéditeur et effacer ce courriel

\section*{From:}

Sent: Sunday, July 16, 2017 5:20 PM
To: Chris.Belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: john.yakabuski@pc.ola.org; sbennett@lvtownship.ca
Subject: SAFER LEFT TURN OPTION ONTO OLD MILL ROAD FROM HIGHWAY 148 (G.W.P.214-00-00)

Dear Mr. Belanger and Mr. Ortlieb,
I am surprised and disappointed to discover the plan for "operational and safety improvements" in the subject project do not include a left turn lane from Highway 148 onto Old Mill Road.

Since I purchased my home on Heritage Place in 1991, the amount of traffic on Greenwood Road/Hwy 148 has increased by a very large factor. Turning left onto Old Mill Road has become dangerous. I have frequently had the squeal of tires behind me as people have been caught unawares that I am turning left. In addition, I have frequently been passed on the right by drivers going fast due to their impatience or their inability to stop in time.

An additional factor which makes left turns at this intersection dangerous is the posted speed limit. The left turn is hidden by the right hand curve in the road, and the vegetation at the bottom of the hill. My experience is that the majority of drivers are travelling faster than \(80 \mathrm{~km} / \mathrm{hr}\), and thus, a reduction in the posted speed limit would reduce the overall speed, and make turns safer.

In reality, left turns are a problem, in both directions, for the entire stretch of the Greenwood Road project; from the Hwy 148 - Greenwood Rd intersection (ESSO Station) to Angus Campbell Dr. (Bulk Barn plaza). I would suggest that anyone who drives this stretch on a regular basis knows this to be true.

I fully agree there is a need for a two way left turn lane at Drive-In Road. I do not see the logic, however, in not providing this safety feature at other dangerous intersections and businesses.

Sincerely,

\section*{From:}

\section*{Allan Ortlieb}

Sent: Monday, July 17, 2017 9:52 AM
To:
Marianne Alden-Radue
Subject:
FW: PIC 2 Comment from Land Owner 1173 Pembroke St E

From: Belanger, Chris (MTO) [mailto:Chris.Belanger@ontario.ca]
Sent: Wednesday, July 12, 2017 9:02 AM
To: Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: Westendorp, Sharon (MTO) <Sharon.Westendorp@ontario.ca>
Subject: PIC 2 Comment from Land Owner 1173 Pembroke St E
Hi Allan
I received a call yesterday from
\(\square\)
Please add him to our list of stakeholders.
He really had not concerns or comments, he just wanted to know the study results and impacts to his property.
I verbally went through the project with him, there is no need to write him back at this time, but he would like to be notified of any further developments regarding the project including when the TESR will be available for review.

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106
\begin{tabular}{ll} 
From: & Belanger, Chris (MTO) <Chris.Belanger@ontario.ca> \\
Sent: & Tuesday, July 04, 2017 8:02 AM \\
To: & Allan Ortlieb \\
Cc: & Westendorp, Sharon (MTO) \\
Subject: & FW: Highway 148 and Greenwood Road Project
\end{tabular}

FYI
-----Original Message-----
From
Sent: June-29-17 3:48 PM
To: Belanger, Chris (MTO)
Subject: Highway 148 and Greenwood Road Project

Hello
We live on Cotnam's Island, just off of Hwy 148, Eileen St. Did you know most people who live near us have no notice of this project directly from your mail out? Our son who lives on Greenwood road (at a location not affected by the construction) does.

Anyway, my concern is for traffic lights at the intersection of Greenwood road and Highway 148. If that break the budget, then move the lights from Drive In road to the other location.
The intersection has experienced many fatal accidents over the years, and one in particular had our daughter seriously hurt. There is a big problem to turn east on to Greenwood road, and all of the accidents are the result of this attempted turn. Truck traffic has to turn left there to go to the MDF board mill and I have seen where they get so impatient because of the steady stream of traffic coming from Pembroke going east that they just pull out at the slightest window of traffic flow. A lot of traffic going east turns left to go to Quebec, again not allowing the trucks to turn east. If you move the lights to Greenwood Road and 148, that would create a window in the traffic flow to allow the Drive In road people to do their left turn to go west on Hwy 148. Especially when you have the lights at Tim Horton's to break the flow going east.
Years back, I drove a tow truck and had to retrieve a Greyhound bus that had killed a couple of young ladies from La Passé that had made a mistake performing that particular left turn to go east on Greenwood road from Hwy 148. I do not want to see anymore carnage at that intersection.

Please spend some time studying this request.


Sent from my iPad

\section*{From:}
\begin{tabular}{ll} 
Sent: & Wednesday, July 05, 2017 9:22 PM \\
To: & Chris.Belanger@ontario.ca \\
Cc: & Allan Ortlieb \\
Subject: & G.W.P.214-00-00 and G.W.P.239-00-00
\end{tabular}

Dear Mr. Belanger,

Our household was pleased to see the planned pavement and rehabilitation projects for Angus Campbell Drive to Greenwood Road and to the Quebec border as outlined in the summary that was distributed. The upgrades will provide a welcome improvement to the traffic flow in this area. We were particularly pleased to see plan for paved shoulders as a number of cyclists and walkers use this area and it can be challenging when the traffic flow is heavy.

I would ask you to consider an addition to the plan if possible. When completed, the paved shoulders will end at the intersection of Greenwood Rd. and Hwy. 148 to Quebec. Approximately 800 m . to the east of this intersection a paved shoulder already exists, continuing to the Beachburg Rd. and access to the Beachburg peninsula. Would it be possible to add paved shoulders to this 800 m . stretch from the Greenwood Rd/Hwy. 148 junction east to join the already existing paved shoulders?

This would provide a safer active living corridor from Pembroke to the Beachburg/Westmeath area in addition to the corridor to the province of Quebec that will be provided in the current plan. It is worth noting that paved shoulders already exist for active living transport on the Quebec side of the border where Hwy 148 continues.

Thank you for your consideration,

\section*{From:}

Sent:
To:
Subject:

Thursday, June 29, 2017 10:49 AM
chris.belanger@ontario.ca; Allan Ortlieb
Highway 148 from Pembroke to Greenwood Rd (GWP 214-00-00)

Chris Belanger, Allan Ortlieb,

I have received notice of the review of the existing and future highway needs on Highway 148 West of Angus Campbell Drive to Greenwood Rd. and want to pass on my comments and concerns.

I have concerns with the current highway design, in particular the turn lane at Robinson Lane approaching from the east and traffic flow east and west from Robinson Lane to Greenwood Rd. The current design causes traffic congestion that is a detriment to our business.
Currently it is often not safe for vehicles to enter or exit our business due to traffic flow. We have had customers tell us this and are not supporting our business due to this.
I trust that a traffic study will be done to include both seasonal activity and time of day activity to determine the requirements.
Although I question the current highway design that was put in place to accommodate Laurentian Square businesses I expect that MTO has expertise in highway design that can best accommodate the current and anticipated future traffic flow. It appears to me that a 2 way left turning lane continuous in front of our property and traffic signals at Drive-In Road would be positive steps.


June 30, 2017

\author{
Mr. Chris Belanger \\ MTO Project manager \\ Ministry of Transportation \\ 1355 John Counter Boulevard, \\ Postal bag 4000, KINGSTON, Ontario \\ K7L 5A3 \\ Chris.Belanager@ontario.ca
}

\author{
Mr.Allan Ortlieb \\ Consultant Project manager \\ IBI Group \\ 100-175 Galaxy Boulevard, TOTONTO, Ontario \\ M9W0C9 \\ Allan.Ortlieb@ibigroup.com
}

Good morning Gentlemen,

Thank you for the correspondence concerning the Public Information Center \#2 for highway 148 to be held here in Pembroke on July 6 from 4 to 7 pm .

I wish to comment again on two aspects of this project:
1) GWP 214 -00-00 - bullet number 2: "Urbanization and provision of a two-way left-turn lane between Angus Campbell Drive and Drive-In Road.
- I do not think this is as good an idea as the one I have recommended to you previously which was that the left turn lane needs to be extended from Drive-In Road eastward to at least the middle of the incline where the speed limit drops from 80 to 60 coming into Pembroke on 148. \{Ideally the left turn lane should extend all the way to the Quebec turn off, to eliminate the multiple accidents that are occurring at the fruit and vegetable stand and at the turn off into Heritage Place.\} The reduced speed sign and the visibility on the incline of the lane make this a much more appropriate place to introduce a center lane turning lane if it is not extended to the Quebec turn off.
From the Drive-In Road to the incline, on the south side of the highway we have residences, a multi-unit apartment complex, a motel, a tv repair shop, an antique shop, a fruit and vegetable market, and an outdoor flea market. These are all generating turning traffic. On the north side of the highway: residences, a real estate office, an office complex ( formerly the Red Cross and The Renfrew County Health unit - and small buses for community living passengers- potentially high volume of vehicles leaving the extensive parking lot), 2 apartment complexes, a passenger coach bus lines company depot and a satellite /tv business with 6 or 7 employees. Added to this is the traffic entering 148 from Dairy Road are a number of residents from Burns Drive. The volume of traffic generated by these 3 units of space, at specific times of the day, are every bit as intense as any other place along this roadway going toward Pembroke. Therefore meriting a turning lane for safety and property protection.
My prediction is that this volume will increase even more in the near future and not moving to accommodate this volume now will mean more accidents that could be avoided by some design changes now while the equipment is here working any way.
2) GWP 239-00-00 - in the explanation text - in the re-surfacing of the municipal and county roads, will the road surfaces be totally rejuvenated or just resurfaced? I ask this because I am not sure
you are aware that the base under these roads is not of such a quality that it could withstand the high volumes of traffic that will be using them with just a new surface on top.

I hesitate to comment any more on your plans to install a bridge on 148 to replace the CPR one to accommodate a recreation trail that may or may not come into existence! You clearly know my position is that the users of that trail, if it ever happens, should bear all responsibility and expense of that structure......because if they did, the trail would not come into existence because they cannot afford it and therefore should not be accommodated. (Seems strange to me that you can act to accommodate this 'maybe-maybe not' activity but have appeared to hesitate to extend the turning lane by 300-350 meters for existing highway users' safety).

Thank you for the opportunity to have input.
Sincerely yours,

\section*{From:}

Sent:
To:
Subject:

Allan Ortlieb
Thursday, July 27, 2017 11:12 AM
Marianne Alden-Radue
FW: Road Improvements at 148 and Greenwood in Pembroke

From: Belanger, Chris (MTO) [mailto:Chris.Belanger@ontario.ca]
Sent: Thursday, July 27, 2017 11:10 AM
To: Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Cc: Westendorp, Sharon (MTO) <Sharon.Westendorp@ontario.ca>
Subject: FW: Road Improvements at 148 and Greenwood in Pembroke

Hi Allan

Here is another comment.

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

\section*{From:}

Sent: July 27, 2017 10:20 AM
To: Belanger, Chris (MTO)
Subject: Road Improvements at 148 and Greenwood in Pembroke

Hello, Hopefully traffic lights at this busy intersection are a priority. Thanks!

Sent from my BlackBerry 10 smartphone on the TELUS network.

Think "green," please consider the environment before printing this email.

\footnotetext{
Confidentiality and privacy notice: This email, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure, or distribution is prohibited. If you received this email and are not the intended recipient, please inform the sender by email reply and destroy all copies of the original message. This email and any emails sent to or from the Ottawa Catholic School Board may be transmitted or stored outside of Canada.
}
\begin{tabular}{ll} 
From: & Belanger, Chris (MTO) <Chris.Belanger@ontario.ca> \\
Sent: & Monday, July 17, 2017 9:12 AM \\
To: & Allan Ortlieb \\
Cc: & Westendorp, Sharon (MTO) \\
Subject: & FW: Highway 148 plans
\end{tabular}

Hi Allan

Please go ahead and provide the PIC information requested.

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

Sent: July-14-17 4:10 PM
To: Belanger, Chris (MTO)
Subject: Highway 148 plans
Hello Chris,
I just learned that there is a study with preliminary plans for updating the 148 highway between Quebec and Pembroke and down to Greenwood Road. I would like to receive the plans and documents and be added to your mailing list for future updates since I am a longtime heavy user of the roads in this area and look forward to seeing the future design improve upon the free flow of traffic with appropriate turning lanes with delayed or advanced turning lights at all signalled intersections.

Thanks, nice to see this problem area being addressed,

Ministère du Tourisme, de la Culture et du Sport

Unité des services culturels Direction des programmes et des services 401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tel: \(4163147182 \quad\) Tél: 4163147182
Fax: 4162121802 Téléc: 4162121802

July 14, 2017 (EMAIL ONLY)
Allan Ortlieb, Consultant Project Manager
IBI Group
100-175 Galaxy Boulevard
Toronto, ON M9W 0C9
E: allan.ortlieb@ibigroup.com
RE: MTCS File \#: 0002597 \& 0006998
Proponent: Ministry of Transportation
MTO File \#: GWP 214-00-00 \& GWP 239-00-00
Subject: Preliminary Design and Class Environmental Assessment Notice of Public Information Centre \#2
Highway 148 from Pembroke to Greenwood Road \& Highway 148 from Greenwood Road to the Quebec Border
Location: County of Renfrew, Ontario

\section*{Dear Allan Ortlieb:}

Thank you for providing the Ministry of Tourism, Culture and Sport (MTCS) with the Notice of Public Information Session for your project. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:
- Archaeological resources, including land-based and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

\section*{Project Summary}

Your project proposes to review the existing and future highway needs, recommendations for operational and safety improvements, pavement rehabilitation, and active transportation. The study also includes determining the most appropriate strategy for the replacement and removal of the former CPR bridge on Highway 148, between Greenwood Road and Hazley Bay Drive. Originally conceived as a single Environmental Assessment, the project has been split into two projects, focusing on Highway 148 from Pembroke to Greenwood Road (GWP 214-00-00) \& Highway 148 from Greenwood Road to the Quebec Border (GWP 239-00-00).

Please note that the Standards and Guidelines for Conservation of Provincial Heritage Properties (S\&G), prepared pursuant to Section 25.2 of the Ontario Heritage Act (OHA), came into effect on July 1, 2010. All Ontario government ministries and public bodies that are prescribed under Ontario Regulation 157/10 must comply with the S\&Gs. They apply to property that is owned or controlled by the Crown in right of Ontario or by a prescribed public body.

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Aboriginal communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Aboriginal
communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

\section*{Archaeological Resources}

Your EA project may impact archaeological resources and you should screen the project with the MTCS Criteria for Evaluating Archaeological Potential to determine if an archaeological assessment is needed. MTCS archaeological sites data are available at archaeologicalsites@ontario.ca. We note that the Public Information Centre materials indicate that several areas along Highway 148 have archaeological potential and require Stage 2 Archaeological Assessments to be completed. Archaeological assessments (AA) should be undertaken by an archaeologist licenced under the OHA, who is responsible for submitting the report directly to MTCS for review.

\section*{Built Heritage and Cultural Heritage Landscapes}

The Public Information Centre materials do not address Built Heritage and Cultural Heritage Landscapes under Environmental Impacts. The MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes should be completed to help determine whether your EA project may impact cultural heritage resources. The Clerk for the municipality can provide information on property registered or designated under the Ontario Heritage Act. Municipal Heritage Planners can also provide information that will assist you in completing the checklist. The draft MTO Ontario Heritage Bridge Guidelines for Provincially Owned Bridges screening criteria have also been established for cultural heritage evaluation of bridges under the Class EA for Provincial Transportation Facilities.

A Cultural Heritage Evaluation Report (CHER) is used to determine the cultural heritage value or interest of a potential Provincial Heritage Property. If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's Info Sheet \#5: Heritage Impact Assessments and Conservation Plans outlines the scope of HIAs. Please send the HIA to MTCS (and the local municipality as appropriate) for review, and make it available to local organizations or individuals who have expressed interest in heritage.

\section*{Environmental Assessment Reporting}

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MTCS whether any technical heritage studies will be completed for your EA project, and provide them to MTCS before issuing a Notice of Completion. If your screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank-you for consulting MTCS on this project: please continue to do so through the EA process, and contact me for any questions or clarification.

Sincerely,
Jeff Elkow
Heritage Planner
jeff.elkow@ontario.ca
Copied to: Chris Belanger, MTO Project Manager Sharon Westendorp, MTO Environmental Planner

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MTCS if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

\author{
From: \\ EnviroOnt <EnviroOnt@tc.gc.ca> \\ Sent: \\ Tuesday, June 27, 2017 9:07 AM \\ To: \\ Cc: \\ Subject: \\ Attachments: \\ Chris.Belanger@ontario.ca; Allan Ortlieb \\ Marianne Alden-Radue \\ NEATS 45083: Class EA - Preliminary Design for Hwy 148 from Pembroke to Quebec Border, County of Renfrew ON \\ TTW_HWY 148 Notice of PIC 2 2017-06-12.pdf
}

Greetings,
Thank you for your correspondence.
Please note Transport Canada does not require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess if their project:
1. Will interact with a federal property and/or waterway by reviewing the Directory of Federal Real Property, available at at www.tbs-sct.gc.ca/dfrp-rbif/; and
2. Will require approval and/or authorization under any Acts administered by Transport Canada* available at http://www.tc.gc.ca/eng/acts-regulations/menu.htm.

Projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project, will be subject to a determination of the likelihood of significant adverse envionrmental effects, per Section 67 of the Canadian Environmental Assessment Act, 2012.

If the aforementioned does not apply, the Environmental Assessment program should not be included in any further correspondence and future notifications will not receive a response. If there is a role under the program, correspondence should be forwarded electronically to: EnviroOnt@tc.gc.ca with a brief description of Transport Canada's expected role.
*Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:
- Navigation Protection Act (NPA) - the Act applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: http://www.tc.gc.ca/eng/programs621.html. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or by calling (519) 383-1863.
- Railway Safety Act (RSA) - the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: https://www.tc.gc.ca/eng/railsafety/menu.htm. Enquiries can be directed to RailSafety@tc.gc.ca or by calling (613) 998-2985.
- Transportation of Dangerous Goods Act (TDGA) - the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional information about the transportation of dangerous goods is available at: https://www.tc.gc.ca/eng/tdg/safety-menu.htm. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or by calling (416) 973-1868.
- Aeronautics Act - Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The Land Use In The Vicinity of Aerodromes publication recommends guidelines for and uses in the vicinity of aerodromes, available at: https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm. Enquires can be directed to CASOSACO@tc.pc.ca or by calling 1 (800) 305-2059 / (416) 952-0230.

Please advise if additional information is needed.
Thank you,
Environmental Assessment Program, Ontario Region
Transport Canada / Government of Canada / 4900 Yonge St., Toronto, ON M2N 6A5
EnviroOnt@tc.gc.ca / Facsimile : (416) 952-0514 / TTY: 1-888-675-6863
Programme d'évaluation environnementale, Région de l'Ontario
Transports Canada / Gouvernement du Canada / 4900, rue Yonge, Toronto, ON, M2N 6A5
EnviroOnt@tc.gc.ca / télécopieur: (416) 952-0514

From: Marianne Alden-Radue [mailto:marianne.alden-radue@ibigroup.com]
Sent: Tuesday, June 27, 2017 8:53 AM
Subject: Ministry of Transportation - Highway 148 Class Environmental Assessments: Notice of Public Information Centre \#2

Good Morning,
Please see the attached Notice of Public Information Centre \#2 for the Ministry of Transportation Highway 148 Class Environmental Assessments.

Regards,
Marianne

\section*{Marianne Alden-Radue MCIP RPP}

\section*{Environmental Planner}

\section*{IBI GROUP}

410 Albert Street, Suite 101
Waterloo ON N2L 3V3 Canada
tel +1 5195852255 ext 1107 fax +15195852269
이우웅


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\section*{Marianne Alden-Radue}
\begin{tabular}{ll} 
From: & Lauree Armstrong <larmstrong@lvtownship.ca> \\
Sent: & Monday, July 10, 2017 3:15 PM \\
To: & Marianne Alden-Radue; Mark Behm; Dean Sauriol; Debbie Robinson \\
Cc: & Chris.Belanger@ontario.ca; Allan Ortlieb \\
Subject: & RE: Ministry of Transportation: Preliminary Design and Class EA - Highway 148 from \\
& Pembroke to Greenwood Road and Greenwood Road to the Quebec Border
\end{tabular}

Thank you for the documentation. As discussed previously would it also be possible to get a list of the property owners who did meet with or had specific contact with about closing entrances or property acquisition so I can correlate that information with the drawings you sent and also our pending applications/queries.

Thanks.

Lauree

Lauree J. Armstrong, mcir, Rpp
Planner/Economic Development Officer/CEMC
Township of Laurentian Valley
460 Witt Road
Pembroke, ON K8A 6W5
(613) 735-6291 Ext. 203
www.lvtownship.ca

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From: Marianne Alden-Radue [mailto:marianne.alden-radue@ibigroup.com]
Sent: July-10-17 2:48 PM
To: drobinson@laurvall.on.ca; Mark Behm <mbehm@lvtownship.ca>; Dean Sauriol <dsauriol@lvtownship.ca>; Lauree Armstrong <larmstrong@lvtownship.ca>
Cc: Chris.Belanger@ontario.ca; Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>
Subject: Ministry of Transportation: Preliminary Design and Class EA - Highway 148 from Pembroke to Greenwood Road and Greenwood Road to the Quebec Border

\section*{Good Afternoon,}

Please find attached the Public Information Centre exhibits from the open-house held on Thursday July 6, 2017.

\section*{Regards,}

Marianne

\section*{Marianne Alden-Radue MCIP RPP}

Environmental Planner
IBI GROUP

\author{
From: Allan Ortlieb \\ Sent: Monday, July 10, 2017 1:43 PM \\ To: \\ Marianne Alden-Radue \\ Subject: FW: Notice of PIC\#2: Highway 148- Preliminary Design and Class Environmental Assessment
}

From: Belanger, Chris (MTO) [mailto:Chris.Belanger@ontario.ca]
Sent: Monday, June 26, 2017 1:26 PM
To: Steven Boland <SBoland@countyofrenfrew.on.ca>
Cc: Allan Ortlieb <Allan.Ortlieb@IBIGroup.com>; Westendorp, Sharon (MTO) <Sharon.Westendorp@ontario.ca>
Subject: RE: Notice of PIC\#2: Highway 148- Preliminary Design and Class Environmental Assessment
Hi Steve

I will send you a copy of the PIC boards on July \(6{ }^{\text {th }}\).

Regards'
Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

From: Steven Boland [mailto:SBoland@countyofrenfrew.on.ca]
Sent: June-26-17 11:56 AM
To: Belanger, Chris (MTO)
Subject: RE: Notice of PIC\#2: Highway 148- Preliminary Design and Class Environmental Assessment

Hello Chris,

Thanks for passing along this notice. I will not be able to attend the sessions as I will be on vacation. It is also unlikely that anyone else from this department will be able to attend due to other scheduled priorities at that time. However, as I believe we have a good understanding of the project our absence should not pose any issues. Please ensure that we are kept informed of the project's progress. It would also be appreciated if we could be sent copies of the presentation material and the TESR when they are available. In the meantime if you require additional information, please do not hesitate to contact me.

Regards,

Steve

Steven P. Boland, C.E.T. LEL
Director of Public Works \& Engineering
Department of Public Works \& Engineering


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From: Belanger, Chris (MTO) [mailto:Chris.Belanger@ontario.ca]
Sent: June-23-17 2:17 PM
To: Steven Boland
Subject: FW: Notice of PIC\#2: Highway 148- Preliminary Design and Class Environmental Assessment

\section*{Hi Steve}

I am inviting and encouraging both Municipal Staff and Council to come to our Public Information Centre regarding the Preliminary Design and Class Environmental Assessment for Highway 148 from Pembroke to Greenwood Road (G.W.P.214-00-00); and Highway 148 from Greenwood Road to the Quebec Border (G.W.P.239-00-00) in the County of Renfrew. Please pass this information on to your Council and Staff.

This is the second and final PIC, which has been arranged to allow the Council, Municipal Staff, the public, and interest groups an opportunity to review and comment on the results of the assessment and evaluation process, and to present the preferred alternative for the highway.

An additional session at 3:00pm has been arranged for Municipal Staff and Council prior to public arrival for discussion with both MTO and our consultant, IBI Group. Please feel free to attend either session.

The Public Session for the PIC will take place on July 6, 2017 from 4:00 to 7:00 pm at:
Best Western Pembroke Inn\& Conference Center
1 International Drive, Pembroke, ON

I have attached the Ontario Government Notice that will be circulated to newspapers in the surrounding study area.
The notice will be published in the Pembroke Observer on June 27th \& 29th. Additionally you and all other stakeholders on our contact list will be receiving the attached Ontario Government Notice in the mail.
Please feel free to pass on the attached notice as you see fit.
I am also sent this email to:

Dean Sauriol: (dsaurio! @laurvall.on.ca)
Douglas Sitland: (dsitland@pembroke.ca)

\author{
Regards' \\ Mr. Chris Belanger \\ Project Manager \\ Ministry of Transportation \\ Planning and Design Section \\ 1355 John Counter Boulevard \\ Postal Bag 4000 \\ Kingston, Ontario K7L 5A3 \\ Tel.: 613 540-5187 \\ 1-800-267-0295 \\ Fax: 613-540-5106
}

\author{
From: Belanger, Chris (MTO) <Chris.Belanger@ontario.ca> \\ Sent: Friday, July 07, 2017 12:41 PM \\ To: Colleen Sauriol \\ Cc: Chris Mantha; Allan Ortlieb \\ Subject: RE: Information Session RE: Highway 148
}

\section*{Hi Colleen}

I have told my consultant to provide the information to you.

Thank you for coming to our Public Information Session, I am happy to work with you to install the sidewalks as you have indicated.

\section*{Regards'}

Mr. Chris Belanger
Project Manager
Ministry of Transportation
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 540-5187
1-800-267-0295
Fax: 613-540-5106

From: Colleen Sauriol [mailto:csauriol@pembroke.ca]
Sent: July-07-17 9:07 AM
To: Belanger, Chris (MTO)
Cc: Chris Mantha
Subject: Information Session RE: Highway 148

Hi Chris: I was at the Information Session for the preliminary design of Highway 148 from Pembroke to Greenwood Road on July 6, 2017. I just wanted to reiterate that the City of Pembroke is still interested in having a sidewalk installed, at the City's cost, from the most westerly point of Highway 148 (in front of Pinewood Retirement Home - 1022 Pembroke Street East) to Angus Campbell Drive. The City is presently installing a sidewalk on the west side of Angus Campbell Drive and we would like the new sidewalk on Pembroke Street East to connect to that new Angus Campbell Drive sidewalk. The City is requesting a concrete sidewalk be installed.

Since Doug Sitland is no longer working with the City of Pembroke, Chris Mantha, Supervisor of Roads and Fleet will be your contact. His phone number is 613-735-6821 Ext. 1415 or by email at cmantha@pembroke.ca.

Finally, I had asked the lady at the sign-in table to provide me with an electronic copy of the information boards displayed at the public meeting. Would this be possible to receive? Thanks so much Chris. If you require further information, please do not hesitate to contact myself or Chris Mantha. Colleen

\section*{Colleen Sauriol}

Manager,
Planning and Building

\section*{Summary of Public Information Centre \#2 Comments and Responses (GWP 214-00-00)}
\begin{tabular}{|c|c|c|c|}
\hline\(\#\) & \multicolumn{1}{c|}{ Comment } \\
\hline 13 & \begin{tabular}{l} 
I residf \\
way from Pembroke. On three occasions, even though had signalled properly, there were serious \\
incidents.
\end{tabular} & - Pembroke, and regularly make left hand turns onto Old Mill Road on my \\
1. A driver, not realizing in time that I had signalled, careened to the left, crossed the oncoming \\
lane and smashed into the guardrail. \\
2. A large vehicle, at the last minute passed me on the right side at high speed causing cars, two \\
or three following behind, to collide. \\
3. Similarly, a car speeding behind me, even though I had properly signalled, passed illegally on \\
the right onto the gravel at the side of the road very abruptly and three cars behind collided.
\end{tabular} -

In each case the police were called and in the third case an ambulance had to be summoned. In each case I was assured by the police that I had signalled and proceeded properly.
There is greatly increased traffic between Angus Campbell Drive and Highway 148 turn off to Quebec. There are single cars turning, buses loading and unloading, and through traffic accelerating to \(80 \mathrm{~km} / \mathrm{h}\) at the Old Mill Road intersection. Paving the right hand shoulder will increase the problem. My opinion is that a properly designated left land for eastbound traffic from Highway 148 onto Old Mill Road is required.
14 The entrance to Old Mill Road is very dangerous with no turn lane, so please provide for it in the new plan. Also please reduce the speed to \(60 \mathrm{~km} / \mathrm{h}\).
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Miil Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

15 I have lived on Ridge Drive for 24 years with my wife and children. We have seen many near misses at the corner of Old Mill Road and Greenwood Road including someone passing a school bus and almost hitting our child. Many pass on the right while we are waiting to turn left onto Old Mill Road and at great speeds. A designated left turn lane and the speed reduced to 60 km to the Quebec turn is a must before a major accident happens. It's not just cars, with the addition of Home Depot and Laurentian Square, truck and transport traffic has increased dramatically. As you know most people drive over the speed limit, so most of the vehicles are doing 90 km by the time they get to Old Mill Road.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety bypass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

\section*{Response}

We appreciate you concerns regarding the need to accommodate pedestrians along Highway 148. For this reason we are proposing an urban section with includes curb along the edge of pavement and an allowance for sidewalks along both sides of Highway 148 behind the curb, between Drive In Road and Angus Campbell Road. Funding for the sidewalks is the responsibility of the Township of Laurentian Valley.

You noted concerns regarding runoff from the roadway spilling down your driveway. The curb provided along Highway 148, in conjunction with the road improvements, is expected to address concerns in this regard. The flush median will remain along Highway 148 on the west leg of the intersection. warrants for traffic signals; however the Ministry will continue to monitor intersection operations and conside further improvements (i.e. traffic signals or roundabout) if/when warrants are met.
- Pavement markings to delineate the merge condition will be incorporated with modifications to the right turn channelization and pavement upgrades.
- In discussions with the County of Renfrew, we will look to cut back any vegetation within the existing right-of-way along Greenwood Road that may be limiting driver sight lines at the intersection
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- \(\quad\) Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard

In my observations and my experiences living a
\(\qquad\)
\(\qquad\) ins 3 rear-end collisions at that location as vehicles accelerate to increasing speed limits only to find several vehicles stopped waiting to make a left-hand turn onto Old Mill Road. With no provision for by-passing for on-rushing through traffic, other than to leave the paved section and pass the stopped vehicles on the gravelled road side to the right confined by guard rails is a very dangerous condition, which will not be improved by the current suggested plan. My suggestion would be to provide through lanes with full exit and entry provisions both sides of the Hwy 148 at this location.
\begin{tabular}{|c|c|c|}
\hline \# & Comment & Response \\
\hline & This would provide the same conditions as currently provided at Drive-In Road, now proposed to have a traffic light condition. & \\
\hline 19 & \begin{tabular}{l}
Good display and information explaining upcoming process. Good interaction with MTO reps available. However one point I fully disagree with leaving Hwy 148 and Greenwood Road intersection as is. It needs a traffic circle for those exiting east onto Greenwood Road. \\
Heavy log trucks make that turn frequently and cannot dart out like a smaller vehicle. The trucks are heading to the MDF Plant on Whitewater road and travel daily. \\
I did speak to Allan (MTO) and he stated the study reflects an 8 hour same issue of the left turn lane. Perhaps this is for an urban area and not a rural area. \\
I reference the Town of Almonte and Mattawa both small northern towns which would receive less traffic than this intersection and they do have a traffic circle. \\
Farmers, cottagers, delivery trucks, etc. all frequent that intersection and have made similar comment as I have noted here. \\
I respectfully request you readdress this concern and help this community for years to come. One other point is the fact that the Hamlets of Beachburg and Westmeath having been growing over the past years and add a lot of traffic to Greenwood Road daily at all times especially those heading to and from work.
\end{tabular} & - Based on our review of the intersection operations and collision history, the intersection does not meet the warrants for traffic signals (rural conditions); however the Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met. \\
\hline 20 & \begin{tabular}{l}
The intersection at 148 and Greenwood Road needs to be a traffic circle. \\
Do it once and do it right. \\
Don't wait for a pile of deaths to justify this. \\
The present plan is improves traffic heading west but does not improve anything to the east. The way all heavy trucks turn.
\end{tabular} & - Based on our review of the intersection operations and collision history, the intersection does not meet the warrants for traffic signals (rural conditions); however the Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met. \\
\hline 21 & \begin{tabular}{l}
I am concerned with the design proposed for the intersection of Greenwood Road and Highway 148. There is a real issue with the left hand turn from 148 to Greenwood. It is mostly concerning truck traffic coming out of Quebec going to the Fibreboard plant and County Road 24. \\
In my opinion a traffic circle would be the most efficient way of solving this issue. I realize that the cost factor is relatively high but the safety of all vehicle traffic turning left far outweighs the cost.
\end{tabular} & - Based on our review of the intersection operations and collision history, the intersection does not meet the warrants for traffic signals (rural conditions); however the Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met. \\
\hline 22 & \begin{tabular}{l}
1. From what I have seen today it appears there will be no real change to the distance of the turning lane from the east side of Robinson Lane. My concern is the width of the shoulder on the Home Depot side of the road. We require a full vehicle width shoulder to at least the second Home Depot entrance. I turn from the eastbound lane across the turning lane thousands of times and have had hundreds of close calls from people accelerating from the light or just speeding east through a green light at Robinson Lane. The reason I think a vehicle width shoulder is so important is it gives drivers an "escape" route around vehicles turning onto Resmer or M \& R Feeds. \\
2. Please cycle the new lights at Drive In Road that for all directions including accessing Highway 148 from Lower Drive In Road. The reason I bring this up is because of the way the lights cycle at Rankin/Angus Campbell. The Rankin access is severely restricted. My recommendation is upper and lower Drive In Road are on the same cycle. [submitted a sketch]
\end{tabular} & - Resmer Road is a private access road. Given its proximity to Robinson Lane, eastbound vehicles turning left will need to cross the westbound left and through traffic. Westbound queues at the signalized intersection are greatest during the morning peak period, and generally do not extend beyond Resmer Road (located 70m west of Robinson Lane). As such, delays to eastbound through traffic blocked by vehicles turning left to Resmer Road are expected to be minimal. Further east, a centre turn lane is being proposed on Highway 148 extending to Drive-In Road. We have reached out to Laurentian Valley Township regarding the opportunity (i.e. legal right) to access your property via Drive In Road. \\
\hline -- & \begin{tabular}{l}
1. I appreciate that traffic flow may not warrant it but safety would warrant a traffic light at intersection of Greenwood Rd and 148. Turning left from 148 to Greenwood Rd has become near impossible - and is very dangerous - even more so when a truck is trying make that turn. \\
2. Reusing Hazley Bay as detour: \\
- The road is too narrow - even if widened - for 2 trucks to pass \\
- The shoulders are too narrow in places to widen \\
- Widening road to accommodate detour will impact wildlife
\end{tabular} & \begin{tabular}{l}
(Joint comment with WP 239-00-00) \\
- Based on our review of the intersection operations and collision history, the intersection does not meet the warrants for traffic signals (rural conditions); however the Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met.
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline \# & Comment & Response \\
\hline & \begin{tabular}{l}
- Turtles nest on shoulder of road \\
- Deer crossing to river \\
- Other wildlife crossing to access river \\
- Mailboxes must be moved to a safe location where residents can stop to get mail safely. \\
- Please lower speed limit on detour - to \(40 \mathrm{~km} / \mathrm{h}\) for safety of residents (and no air brakes) speed bumps? \\
- Need a police presence for residents of Fern Dr. to get out and to prevent drunk drivers using that route. \\
- Please give us lots of written notice so we can leave our homes during this time (for construction and detour). \\
3. Note: you mention there is alternative AT route along CPR line. It is not open and there are "no trespass" signs, so there is no date yet for when AT access is available. I u/s it may be open someday - but in the meantime. \\
4. It is crucial that Hazley Bay access to Forest Park be closed after the 3 week period - and it has to be such that no one can go around (or at least make it a challenge). \\
5. What about access for emergency vehicles - how will they get down Hazley Bay Rd during detour?
\end{tabular} & \begin{tabular}{l}
- Prior to implementing the detour, the condition of the Hazley Bay Drive and Forest Park Road will be upgraded. Minor widening will be necessary at these locations to allow trucks to navigate the curves. The extent of widening will be kept to a minimum to accommodate two trucks to passing, while limiting operating speeds. \\
- Impacts to aquatics species and wildlife will be mitigated to the extent possible during design and construction. \\
- Canada Post will be contacted during detail design regarding temporary or permanent relocation of the community mail boxes. Construction of a layby in the vicinity of the mail box will also be considered to allow residents to pull off the road to collect mail \\
- The Ministry will recommend to the Township of Laurentian Valley that a maximum \(50 \mathrm{~km} / \mathrm{h}\) speed limit be maintained on Hazley Bay Drive and Forest Park Road during the duration of the detour. \\
- Appropriate signage will be placed along the road to slow traffic, prohibit passing, and caution motorists about pedestrians. \\
- Residents will be notified well in advance of implementing the detour \\
- The Ministry will close the connection between Hazley Bay Drive/Forest Park Road once the detour period is complete. The Township of Laurentian Valley would determine the method of closure. \\
- Users of the road are required to yield the right of way to Emergency Services, and it not uncommon for these vehicles to negotiate through traffic flow.
\end{tabular} \\
\hline -- & \begin{tabular}{l}
1. Want stop light installed at Drive-In Road. \\
2. Stop light at Greenwood Road and Hwy 148 also. \\
3. Ensure Hazley Bay is closed off after construction complete.
\end{tabular} & \begin{tabular}{l}
(Joint comment with WP 239-00-00) \\
- The Ministry is recommending that traffic signals be installed at Highway 148 - Drive In Road intersection. \\
- Based on our review of the intersection operations and collision history, the intersection does not meet the warrants for traffic signals (rural conditions); however the Ministry will continue to monitor intersection operations and consider further improvements (i.e. traffic signals or roundabout) if/when warrants (MTO justification requirements or trigger points) are met. \\
- The Ministry will close the connection between Hazley Bay Drive/Forest Park Road once the detour period is complete. The Township of Laurentian Valley would determine the method of closure.
\end{tabular} \\
\hline 23 & Making a left turn onto Old Mill Road is very dangerous. The speed limit increases to \(80 \mathrm{~km} / \mathrm{h}\) shortly after Drive In Road, so that being said, vehicles are speeding up and over the crest of the same hill have to brake or pass on the right of the vehicle that is signalling left on Old Mill Road. I would like to see a left turning lane there, but if not, at least reduce the speed to \(60 \mathrm{~km} / \mathrm{h}\) until after the Quebec turn and pave shoulders of the road to eliminate stones being thrown onto vehicles waiting to make a left turn. & \begin{tabular}{l}
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided. \\
- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones. \\
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
\end{tabular} \\
\hline -- & \begin{tabular}{l}
General \\
1. Can it be assumed that signage proposals will be presented with final design? \\
2. OVCATA would like to review proposed signage for this project.
\end{tabular} & \begin{tabular}{l}
(Joint comment with WP 239-00-00) \\
- Signage design will be undertaken during the detail design stage of the project \\
- The preferred cross-section between Angus Campbell Drive to Drive In Road (i.e. Option 3) was selected largely on the basis of improving traffic operations and safety along the highway with the introduction of a two way left
\end{tabular} \\
\hline
\end{tabular}

West of Angus Campbell Drive to Drive In Road
1. Option 1 (boulevard cycling facility adjacent to sidewalk): Why was this option not favoured?
2. Preferred Option 3 (active transportation allowance excluded): Provisions for cyclists for an in boulevard shared multi-use facility where pedestrians and cyclists share an asphalt pathway on both sides of the road. Suggest this remains in place until MTO can obtain adequate ROW to provide separate facilities for cyclists and pedestrians.
3. OVCATA is reviewing Renfrew County Road 51 and Highway 148 as a consideration for the designation of the Voyager Cycle Route which will connect the Trans Canada Trail between North Bay and Ottawa.

\section*{Drive In Road to Greenwood Road}
1. MTO proposal doesn't include a left-turn lane onto Old Mill Road. Vehicles use the paved shoulder to pass cars on the right when they are stopped to turn left. This is a safety hazard for active transportation users occupying the paved shoulder. OVCATA requests a left turn lane be
provided
2. Requests the speed limit be reduced to \(60 \mathrm{~km} / \mathrm{h}\). Propose the speed reduction occur at the Greenwood Road/Highway 148 intersection, with speed reduction being on the easterly Highway 148 approach and southerly approach on Greenwood Road.
3. Acknowledge the Active Transportation opportunity on the rail bed. However cyclists require a cycling facility along Highway 148 for access to commercial businesses.
4. Suggest paved shoulder include a buffer (e.g., rumble strip with skip pattern).

\section*{Greenwood Road to Interprovincial Bridge}
1. Suggest paved shoulder include a buffer (e.g., rumble strip with skip pattern).
2. Observed vehicles parked on the side of the road, and it appears the owners are fishing off the bridge. This is hazardous for Active Transportation users to navigate around. Suggest no parking signs be posted in the vicinity of Hazley Bay Bridge.
3. Suggest barricades be installed on the recreational trail access ramps to deter access by snowmobiles and ATVs.
This letter is in response to the Notice of Public Information Centre \#2 for the Design and Class EA for sections of Highway 148 in Renfrew County. On behalf of the Voyageur Cycling Route Working Group, I would like to thank you for the opportunity to provide comments for consideration at the design stage of the project.
The Voyageur Cycling Route is Ontario's next major cycling tourism experience that will span over 630 km from Sudbury to the National Capital Region. The Veloroute Voyageur supports Ontario's Cycling Strategy to establish the Province as a premier cycle tourism destination while creating healthy, active and prosperous communities.
Partners involved with the development of the Voyageur Cycling Route have been active participants in the process the MTO has established to identify the provincial cycling network Many of the municipal roads, provincial highways and local trails that have been designated as part of the Voyageur Cycling Route have been identified as candidates for the provincial cycling network currently under review by the MTO. We are eagerly awaiting MTO's final decision on the provincial cycling network later this year.
The Voyageur Cycling Route is a cycling route of provincial and national significance with direct connections to the Great Lakes Waterfront Trail, Trans Canada Trail and Quebec's La Route
turn lane (TWLTL), while protecting for pedestrian activity (via sidewalks by the municipality) along both sides of Highway 148. The highway right-of-way is very constrained and substantial property acquisitions would be required to accommodate on-road or off-road cyclist facilities within this section. Although this option does not include specific facilities for cyclists, there is a planned parallel corridor to the north-the proposed CPR trailwhich will serve cyclists in the area. Without existing or planned cycling facilities to connect to in Pembroke Street East (west of Angus Campbell Drive) it is difficult to justify designated cycling facilities along this section of the highway.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- The Ministry is not in favour of implementing rumble strips along edge of driving lane in conjunction with the fully paved shoulder treatment, particularly given the adjacent residential properties.
- The Ministry will investigate the need for no parking signs to be posted in the vicinity of Hazley Bay Bridge.
- Details associated with the access ramps to connect to the future recreational trail along the former CPR corridor will be assessed during detail design, following implementation of the trail by the County.

\section*{(Joint comment with WP 239-00-00)}
- We appreciate your support of providing a paved shoulder treatment along Highway 148 between Drive In Road and Greenwood Road.
- The preferred cross-section between Angus Campbell Drive to Drive In Road (i.e. Option 3) was selected largely on the basis of improving traffic operations and safety along the highway with the introduction of a two way left turn lane (TWLTL), while protecting for pedestrian activity (via sidewalks by the municipality) along both sides of Highway 148. The highway right-of-way is very constrained and substantial property acquisitions would be required to accommodate on-road or off-road cyclist facilities within this section. Although this option does not include specific facilities for cyclists, there is a planned parallel corridor to the north-the proposed CPR trailwhich will serve cyclists in the area. Without existing or planned cycling facilities to connect to in Pembroke Street East (west of Angus Campbell Drive) it is difficult to justify designated cycling facilities along this section of the highway.

\section*{Ministry of Transportation}

Cycling Route working win stake and much as possible. Highway 148 will be a critical connection in the network as the physical link to Quebec's renowned cycling network.
The provision of fully paved shoulders from Drive-In Road to Greenwood Road and from Greenwood Road to the inter-provincial bridge will create a cycling facility that invites cyclists from Quebec to experience Ontario's growing network. This is a critical component to the development of a world-class cycling destination and we applaud MTO for including this provision. We would further recommend consideration be given for providing a paved shareduse pathway between Angus Campbell Drive and Drive-In Road as a facility to accommodate bicycle traffic.
Please include the Voyageur Cycling Route Working Group in future communications related to this project. Thank you, again, for this opportunity to provide commentary with respect to this project.
24 Unfortunately I was unable to attend the information session on July \(6^{\text {th }}\) but I understand that written comments are welcome on this project until July \(20^{\text {th }}\).
I am a resident a and I am deeply concerned about the hazards surrounding the intersection of Highway 148 and Old Mill Road. Making a left hand turn from Highway 148 onto Old Mill Road is very anxiety provoking and my family members and I have often experienced vehicles passing on the right on the gravel shoulder or tailgating as we've slowed down to make the corner. It appeared to me that the school transportation planners were equally concerned about this intersection as when our children were of an age to take the school bus, the bus would not stop for drop off facing east at this intersection and our children would have to stay on board until the end of the route where the bus would drop them off on the other side of the road (facing west) due to the hazards involved with stopping the bus and having children cross at this point.

I urge you to implement a designated left turn lane from Highway 148 onto Old Mill Road
Other mitigation measures that would be helpful would be improved signage (i.e. hidden left hand turn) and reduced speed limit to \(60 \mathrm{~km} / \mathrm{hr}\) in this section of road.

Thank for accepting my submission. Please do not hesitate to contact me should you wish further information from me.
Most of us have had near-misses over the years when stopped to make a left turn onto Old Mill Road from Hwy 148. We have all had vehicles pass us at significant rates of speed on the gravel to the right; screeching brakes and swerving by immediate following cars - or the car following them. There have been several rear-end collisions in recent years. Any rear-end collision has a high probability of pushing a stopped vehicle into the other lane, head-on into traffic driving at least \(80 \mathrm{~km} / \mathrm{hr}\).

There are 25 residences that require daily access to and from Old Mill Road. With 25 residences, there are at least 100 left turns a day onto Old Mill Road - or more than 35,000 left turns a year. With the highway veering to the right just before our intersection, drivers exiting Pembroke have a reduced line of sight to cars waiting to turn left, and the current speed limit increase to \(80 \mathrm{~km} / \mathrm{hr}\) from the top of the hill only makes matters worse. A car travelling @ 80km \(/ \mathrm{hr}\) covers more than 22 m per second. Even the slightest distraction means that the following car has little time to stop once a turning car comes into sight. And the second car behind has even less time to react.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety bypass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.
- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass eft turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

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- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

\section*{Comment}

But as residents, we live with the dangers daily, and we ask that you take our concerns and recommendations seriously. A number of residents move into the left lane when possible before making the turn to reduce the risk. Others, when faced with a long line of oncoming traffic, proceed to the gas station across from the Quebec turn and turn around rather than run the risk of being hit for behind.
The residents, visitors and school bus drivers using this intersection should not have to take these kinds of evasive actions to feel safe on a provincial highway.

\section*{For safety's sake, we need:}
- A designated left turn lane from HWY 148 onto Old Mill Road
- The HWY 148 speed reduced from the current 80 km to 60 km per hour from just east of Cardinal Fruit stand through to Quebec Turn off
- Signage posted as you descend the hill from Pembroke towards Old Mill Road about a hidden left turn intersection ahead.
Please re-consider your planning options for this intersection and help us using it on a regular basis to avoid se
off Old Mill Road in Laurentia Valley Township and I am sending you some comments on the proposed changed to Highway 148. We have been residents at our current address since 1985 and have been noticing an increase in the thmber passing us on as much on the traffic following us as we do the approaching traffic as we wait to make the turn.

Some measures that could be taken when these improvements are being made to improve the safety of this road would be the following:
1. A turn lane for vehicles turning left onto Old Mill Road from the Highway so vehicles aren't passing on the shoulder, vehicles that include police cars and a lot of larger trucks,
2. Reduce the speed limit increase to \(80 \mathrm{Km} / \mathrm{hr}\) to beyond the Old Mill turn off or perhaps even the Quebec turn-off and,
3. A notice of left turning traffic just beyond the Cardinal Fruit store to alert drivers to the potential of vehicles stopped or slowing down to make a left turn just beyond their line of sight.

\section*{27 We have been residents \\ since 1982. At that time there were only four homes off Old Mill}

Road, now there are twenty-five. The traffic volume on Highway 148 had increased tremendously, as have the hazards of turning left onto Old Mill Road. The speed limit at the exit is \(80 \mathrm{Km} / \mathrm{Hr}\) and there have been many hair raising incidents of near rear end collisions, and many cars choosing the pass and the right on the soft shoulder. As a retired coroner I am only too well acquainted with the tragic results of such accidents. I strongly urge you to give serious consideration to providing a left turn lane and reducing the speed limit to \(60 \mathrm{~km} / \mathrm{hr}\) to the Quebec turn off.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety bypass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety bypass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

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- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

\section*{Ministry of Transportation}

I am forwarding the email that I sent to Allan Ortlieb at IBI group April 16, 2015 in regards to my concerns at that time in response to public safety at this intersection when a notice was sent out of a preliminary design and class environmental assessment of Hwy 148 from Pembroke to Greenwood road and Hwy 148 from Greenwood road to the Quebec border

The last half of that email addressed my concerns and recommendations for the intersection of Hwy 148 and Old Mill Road and my personal experience with witnessing accidents and PERSONALLY BEING INVOLVED IN NEAR MISSES ON SEVERAL OCCASIONS as I was attempting to make a turn.

THIS HAS GOT TO STOP! No doubt there is ample OPP/Ministry etc. documentation available as to the frequency of accidents at this intersection to support our valid concerns for action. It was only a few weeks ago that I again witnessed an accident at this intersection involving a resident on my street, Ridge Drive!

Presently and ongoing as a group of residents who live off this dangerous intersection at Hwy 148 and Old Mill Road we are seriously concerned for not only our safety as we are the ones frequently turning off this highway but also public safety in general.

We greatly need to be heard as you make changes to this stretch of highway to incorporate the following:
- A designated left turn lane from Hwy 148 onto Old Mill Road
- The Hwy 148 speed reduced from the current 80 km to 60 km per hour from just east of Cardinal Fruit stand through to the Quebec turn off
- Signage posted as you descend the hill from Pembroke towards Old Mill Road about a hidden LEFT TURN intersection ahead

Thank you for your time in receipt of my email and in drastic hope for CHANGE
29 I am writing you in regards to the preliminary design of Hwy 148 from Pembroke to Greenwood Road. We recently received some information regarding this proposal. As a resident of Heritage Place, we turn at the intersection of Old Mill Road daily and have concerns regarding the safety of this intersection. Since building our home in 2010, there have been several accidents and many, many close calls at this intersection. As residents, we are very aware of the dangers. Even when signalling well in advance, other drivers often regularly come close to rear ending you or speed dangerously around you and almost side swipe you. It is only a matter of time before a more serious accident occurs.

We would like to express concerns about the intersection and feel that these should be addressed in the upcoming rehabilitation of this section of road. A few possible suggestions to improve the safety of this intersection would be:
1. The addition of a left turning lane to turn onto Old Mill Road when coming from Pembroke.
2. A decrease in the speed from \(80 \mathrm{~km} / \mathrm{h}\) to \(60 \mathrm{~km} / \mathrm{h}\)
3. The addition of signage to indicate a turn
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

\section*{Ministry of Transportation}
\#

\section*{Comment}
the are approximately 25 homes that have to make this turn regularly but many other resident are located on Old Mill Road.

The intersection is dangerous and efforts should be made to improve the safety of this intersection during the upcoming rehabilitation process. We look forward to hearing from you and to future plans and proposals to address the concerns of the residence in the area
30 I am writing you in regards to the preliminary design of Hwy 148 from Pembroke to Greenwood Road. We recently received some information regarding this proposal. As a resident of Heritage Place, we turn at the intersection of Old Mill Road daily and have concerns regarding the safety of this intersection. Since building our home in 2010, there have been several accidents and many, many close calls at this intersection. As residents, we are very aware of the dangers. Even when signalling well in advance, other drivers often regularly come close to rear ending you or speed dangerously around you and almost side swipe you. It is only a matter of time before a more serious accident occurs.

We would like to express concerns about the intersection and feel that these should be addressed in the upcoming rehabilitation of this section of road. A few possible suggestions to improve the safety of this intersection would be:
1. The addition of a left turning lane to turn onto Old Mill Rd when coming from Pembroke.
2. A decrease in the speed from \(80 \mathrm{~km} / \mathrm{h}\) to \(60 \mathrm{~km} / \mathrm{h}\)
3. The addition of signage to indicate a turn

There are approximately 25 homes that have to make this turn regularly but many other residents in the area are also using this intersection to turn onto Old Mill Road as the community mailboxes are located on Old Mill Road

The intersection is dangerous and efforts should be made to improve the safety of this intersection during the upcoming rehabilitation process. We look forward to hearing from you and to future plans and proposals to address the concerns of the residence in the area

31 I am surprised and disappointed to discover the plan for "operational and safety improvements" in the subject project do not include a left turn lane from Highway 148 onto Old Mill Road.

Since I purchased my home on Heritage Place in 1991, the amount of traffic on Greenwood Road/Hwy 148 has increased by a very large factor. Turning left onto Old Mill Road has become dangerous. I have frequently had the squeal of tires behind me as people have been caught unawares that I am turning left. In addition, I have frequently been passed on the right by drivers going fast due to their impatience or their inability to stop in time.

An additional factor which makes left turns at this intersection dangerous is the posted speed limit The left turn is hidden by the right hand curve in the road, and the vegetation at the bottom of the hill. My experience is that the majority of drivers are travelling faster than \(80 \mathrm{~km} / \mathrm{hr}\), and thus, a reduction in the posted speed limit would reduce the overall speed, and make turns safer.
- Although the left turn volumes and collision history do not meet th warrants (MTO justification requirements or trigger points) for a tandard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pas eft turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided.

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- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.
- Although the left turn volumes and collision history do not meet the warrants (MTO justification requirements or Although the left turn volumes and colision history do not meet the warrants (M laf justification requirements or
trigger points) for a standard left turn lane, the Ministry is prepared to provide a left turn slip around treatment on Highway 148 at Old Mill Road. This will provide an additional lane to allow through vehicles to safety by-pass left turn vehicles without using the shoulder. A fully paved shoulder treatment will still be provided


\section*{Ministry of Transportation}

In reality, left turns are a problem, in both directions, for the entire stretch of the Greenwood Road project; from the Hwy 148 - Greenwood Rd intersection (ESSO Station) to Angus Campbell Dr. (Bulk Barn plaza). I would suggest that anyone who drives this stretch on a regular basis know this to be true.

I fully agree there is a need for a two way left turn lane at Drive-In Road. I do not see the logic however, in not providing this safety feature at other dangerous intersections and businesses.
1) GWP 214 -00-00 - bullet number 2: "Urbanization and provision of a two-way left-turn lane between Angus Campbell Drive and Drive-In Road.
- I do not think this is as good an idea as the one I have recommended to you previously which was that the left turn lane needs to be extended from Drive-In Road eastward to at least the middle of the incline where the speed limit drops from 80 to 60 coming into Pembroke on 148.
\{Ideally the left turn lane should extend all the way to the Quebec turn off, to eliminate the multiple accidents that are occurring at the fruit and vegetable stand and at the turn off into Heritage Place.\} The reduced speed sign and the visibility on the incline of the lane make this a much more appropriate place to introduce a center lane turning lane if it is not extended to the Quebec turn off
From the Drive-In Road to the incline, on the south side of the highway we have residences, a multi-unit apartment complex, a motel, a tv repair shop, an antique shop, a fruit and vegetable market, and an outdoor flea market. These are all generating turning traffic. On the north side of the highway: residences, a real estate office, an office complex (formerly the Red Cross and The Renfrew County Health unit - and small buses for community living passengers- potentially high volume of vehicles leaving the extensive parking lot), 2 apartment complexes, a passenger coach bus lines company depot and a satellite/tv business with 6 or 7 employees. Added to this is the traffic entering 148 from Dairy Road are a number of residents from Burns Drive. The volume of traffic generated by these units of space, at specific times of the day, are every bit as intense as any other place along this roadway going toward Pembroke. Therefore meriting a turning lane for safety and property protection.
My prediction is that this volume will increase even more in the near future and not moving to accommodate this volume now will mean more accidents that could be avoided by some design changes now while the equipment is here working any way.
2) GWP 239-00-00 - in the explanation text - in the re-surfacing of the municipal and county roads, will the road surfaces be totally rejuvenated or just resurfaced? I ask this because I am not sure you are aware that the base under these roads is not of such a quality that it could withstand the high volumes of traffic that will be using them with just a new surface on top.

I hesitate to comment any more on your plans to install a bridge on 148 to replace the CPR one to accommodate a recreation trail that may or may not come into existence! You clearly know my position is that the users of that trail, if it ever happens, should bear all responsibility and expense of that structure......because if they did, the trail would not come into existence because they cannot afford it and therefore should not be accommodated. (Seems strange to me that you can act to accommodate this 'maybe-maybe not' activity but have appeared to hesitate to extend the turning lane by 300-350 meters for existing highway users' safety).
32 When completed, the paved shoulders will end at the intersection of Greenwood Rd. and Hwy. 148 to Quebec. Approximately 800 m . to the east of this intersection a paved shoulder already exists, continuing to the Beachburg Rd. and access to the Beachburg peninsula. Would it be possible to
- The Ministry of Transportation (MTO) has recently reviewed the speed zones along Highway 148 to determine whether reductions to the posted speed limits are warranted. At this time, the Ministry is not proposing any changes to the existing speed zones.
- Signing throughout the corridor will be reviewed as part of the detail design and will be brought up to standard.

\section*{(Joint comment with WP 239-00-00)}
- We recommend terminating the urban treatment and two way left turn lane treatment at future signalized intersection of Drive In intersection. Extending the urban treatment further east to Dairy Road is undesirable. With the limited space available between intersections, a centre median would essentially need to be painted as back to back left turns. The paved shoulder treatment would also be eliminated between the intersections which less desirable for cyclists wishing to connect to the designated cyclist route along Drive-In Road.
- Extending the TWLTL further east to Greenwood Road is not recommended given the higher operating speeds and fewer driveways along this section.
- Prior to implementing the detour, MTO (in consultation with the Township of Laurentian Valley) will upgrade the pavement surface of both Hazley Bay Drive and Forest Park Road. The Ministry will retain a geotechnical consultant during detail design and assess pavement needs for the short-term detour, as well as 20 year service life.
- Improvements within the section of Highway 148 between Greenwood Road and the inter-provincial bridge (including the recreational trail culvert) is being prioritized given the need to address the poor condition of the former CPR bridge.
- Our understanding is that a gravel shoulder exists along Greenwood Road between Highway 148 and Beachburg Road, (section of roadway owned by the County of Renfrew) other than a few locations where a paved shoulder is provided in conjunction with commercial entrances. With that said, we will pass along your

\section*{Ministry of Transportation}

\section*{Response}
add paved shoulders to this 800 m . stretc
33 I have received notice of the review of the existing and future highway needs on Highway 148 West of Angus Campbell Drive to Greenwood Rd. and want to pass on my comments and concerns I have concerns with the current highway design, in particular the turn lane at Robinson Lane approaching from the east and traffic flow east and west from Robinson Lane to Greenwood Rd The current design causes traffic congestion that is a detriment to our business.
Currently it is often not safe for vehicles to enter or exit our business due to traffic flow. We have had customers tell us this and are not supporting our business due to this.
I trust that a traffic study will be done to include both seasonal activity and time of day activity to determine the requirements.
Although I question the current highway design that was put in place to accommodate Laurentian Square businesses I expect that MTO has expertise in highway design that can best accommodate the current and anticipated future traffic flow. It appears to me that a 2 way left turning lane continuous in front of our property and traffic signals at Drive-In Road would be positive steps.
34 The intersection at Pembroke St., East/Angus Campbell Drive and offset by Rankin Street is no only badly marked, there is inappropriate signage and lights that are not set properly, which has created so many near accidents and accidents at this intersection.
1. The green light facing Rankin, although it is an advance green, it does not flash - causes a lot of confusion and there is no sign for those on Angus Campbell to know that it an advance green and, yes, they should simply know because they are looking at a red light, but they still advance, because there's no sign
2. Pembroke St., East has a lane that seems to have been created as a turning lane, though it's not the width of a car and no signs on it to indicate to turn, so rather useless and confusing

Please acknowledge this email as I want to ensure that someone is especially looking into the inappropriate light system that M.T.O. has at that intersection.
- As part of the current study we have completed a traffic study to assess the need for improvements along Highway 148. This study recognizes peak hour and seasonal demands, and recommends a centre turn lane along Highway 148 in the vicinity of your property. We appreciate your support for the centre turn lane along Highway 148 and traffic signals at Drive In Road
- We appreciate your concerns and will review the signal phasing and signing at the Highway 148 - Rankin/ Angus Glen intersection to ensure it meets current standards. As part of this review we will identify any improvements hat can enhance driver awareness
- The additional pavement on the south side of Highway 148, east of Angus Campbell is a paved shoulder and not intended as a right turn lane. This will be eliminated as part of the proposed improvements at the intersection and along Highway 148.

Additional comments were received from twelve (12) individuals at or in follow-up to the PIC (no response requested).

Appendix A4 - Municipal Advisory Committee Meetings

IBI GROUP
400-333 Preston Street
Ottawa ON K1S 5N4 Canada tel 6132251311 fax 6132259868

\section*{Minutes}
\begin{tabular}{|c|c|c|c|}
\hline TolAttention & Notes to File & Date & November 1, 2017 \\
\hline From & Justin Date & Project No & 37432 \\
\hline Subject & \multicolumn{3}{|l|}{Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies Municipal Advisory Committee Meeting No. 1 Travelodge Conference Centre 900 Pembroke Street East May 27, 2015 (2:00 PM - 4:00 PM)} \\
\hline Present & \multicolumn{3}{|l|}{\begin{tabular}{l}
Chris Belanger - MTO (Project Manager) \\
David Brake - MTO (Traffic) \\
Sharon Westendorp - MTO (Environmental) \\
Allan Ortlieb - IBI Group (Project Manager) \\
Justin Date - IBI Group (Highway/Traffic Engineering) \\
Steven Boland - County of Renfrew (Director of Public Works \& Engineering) \\
Douglas Sitland - City of Pembroke (Manager of Operations) \\
Lauree Armstrong - Township of Laurentian Valley (Planner) \\
Dean Sauriol - Township of Laurentian Valley (CAO) \\
Mark Behm - Township of Laurentian Valley (Public Works Manager)
\end{tabular}} \\
\hline Distribution & All present & & \\
\hline
\end{tabular}

1 Introduction \& Background
- A. Ortlieb opened the meeting and introduced the project.
- Introductions were then made of those in attendance.
- A. Ortlieb presented an overview of the project including:
- Project Scope
- Study Limits
- Status of Work Completed to date
- Project Schedule
- Summary of Traffic Operations
- Property Access
- Active Transportation
- CPR Bridge and Hazley Bay Bridge


Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
Municipal Advisory Committee Meeting No. 1
Travelodge Conference Centre
900 Pembroke Street East
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Item Discussed
Action By
indicated that IBI Group will review this issue as part of the study.
- S. Boland inquired whether the speed limit along Highway 148 would be changed. D. Brake indicated that MTO had carried out speed surveys along the highway but a speed limit assessment is not included in the scope of work of the current study. MTO has no plans to reduce the posted speed limit.
- S. Boland inquired whether a previous proposal for a longer-term option of extending Highway 148 to connect to Highway 17 will be considered in this study. C. Belanger indicated that a connection to Highway 17 will not be part of this current study but could be considered as part of a larger study in the future. This study will focus on the immediate needs of the corridor.
- D. Sauriol indicated that the Township of Laurentian Valley is concerned about traffic congestion along the corridor and is hoping that this study will provide solutions to some of the congestion and access issues.
- L. Armstrong indicated that the Township may be able to provide copies of preliminary traffic impact studies associated with previous development applications.

\subsection*{2.3 Active Transportation}
- S. Boland indicated that the County of Renfrew would prefer to see a culvert crossing at the CPR corridor and emphasized that it will be important that the culvert is sized to accommodate all users.
- S. Boland indicated that the County would like to see a paved shoulder connection from the proposed CPR trail to the Quebec border.
- A. Ortlieb inquired about the status and timeline of the CPR trail. S. Boland indicated that the CP Rail corridor between Smith Falls and Mattawa is to be abandoned.
Abandonment of the section from Smith to west of Cobden has been completed and the transfer of property to the County is being negotiated with CP. The hope is that the entire corridor will be acquired within the next 2 years. No decisions have been made on the future use of the corridor but there has been discussion of making it an Active Transportation corridor. A decision on the status of the trail is expected by the end of 2015 and implementation is expected within 5 years. The goal is to tie the project to the \(150^{\text {th }}\) anniversary of Confederation in 2017. A. Ortlieb noted that the future requirements of the CP corridor will impact the range of options to be considered in the EA study.
L. Armstrong

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
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\section*{Item Discussed}
- S. Boland noted that Paul Moreau (Director of Development and Property Department, County of Renfrew) has been directly involved in the discussions and negotiations related to the CPR corridor.
- C. Belanger inquired whether there are other plans for active transportation infrastructure in the area that would connect to Highway 148. S. Boland indicated that there are plans for improvements to Drive In Road to accommodate active transportation. As well, there is a desire to provide facilities along Greenwood Road towards Beachburg.
- M. Behm reported that many residents have expressed concern that there are no formal facilities between the commercial developments along Highway 148 and the adjacent residential areas. Some residents are currently accessing these developments via the fields behind the properties. C. Belanger indicated that the MTO does not consider sidewalks along Provincial highways unless a formal request for such facilities is received from the Municipality. As well, he noted that MTO does not pay for construction or maintenance of sidewalks.
- D. Sitland inquired whether the MTO would consider plowing sidewalks along Highway 148 with road plows. A. Ortieb indicated that it would be unlikely as there is usually a separation between the mountable curb and the sidewalk that would make it very difficult to plow both the road and sidewalk simultaneously.
- A. Ortlieb indicated that options for providing active transportation facilities at the Hazley Bay crossing would include widening the existing bridge, replacing the existing bridge or providing a separate structure. The latter two options would have significant cost and environmental impact implications. The study will assess whether the bridge can be widened enough to provide active transportation facilities. A preliminary review by IBI Group suggests that widening to provide up to 2 m shoulders may be possible. Any further widening would require modifications to the existing bridge foundations.

\subsection*{2.4 Property Access}
- D. Sauriol expressed concern about the impact of future accesses along the corridor, in particular the access to the future residential subdivision behind the Walmart property.
C. Belanger indicated that MTO will continue to allow access to the five properties along the existing laneway but access to the proposed residential development from Highway 148 will not be permitted.

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\subsection*{2.5 Future Developments}
- L. Armstrong provided information on future developments within the study area:
- The proposed development behind the Walmart is at concept plan level only. A previous application for a 325-unit mixed residential development was withdrawn. The adjacent property next to Robinson lane is owned by the same owner and also has development potential. The owner had proposed access to Highway 148 through connection to an existing private laneway but MTO has denied access. Access to both properties will have to be provided via the adjacent municipal roads. The timing of these developments is uncertain.
- A concept plan for a high-density residential development on the north side of Highway 148 had been received but the property owner has since died and the status of the development is unclear.
- A new subdivision (approximately 20 units) with direct access to highway 148 is proposed on Cotnam Island. It is expected to be completed within 5 years.
- The Traxton Way subdivision is expected to be completed in 5 years.
- There is additional development potential along Drive In Road that could be developed within a 20-year horizon.
- There is also increasing pressure from owners of single lots applying to convert the land use on their properties.

\subsection*{2.6 Servicing/Utilities}
- A. Ortlieb requested information on servicing and utilities.
L. Armstrong agreed to provide available site plan information. S. Boland to provide information for Drive In Road and D. Sitland to provide information from the City of Pembroke.
- A. Ortlieb inquired whether the existing sewer system on Highway 148 would be extended further east. L. Armstrong indicated that extension of the sewer would be driven by development needs. It is intended that the residential development behind Walmart be fully serviced.
- M Behm noted that some of the existing properties within the serviced area are still not connected. It may be prudent to consider providing lateral service connections at least up to the property line of these properties as part of any
L. Armstrong/ S. Boland/D. Sitland

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roadway modifications carried out on Highway 148.
IBI Group
- S. Boland recommended that representatives from Ottawa River Power or Brookfield Power be invited to join the Public Advisory Committee as their existing infrastructure may be affected. IBI Group to invite them to the next PAC meeting.
2.7 Consultation
- A. Ortlieb provided a summary of some of the public comments received to-date:
- Bike lanes and a trail culvert at the CPR crossing should be considered.
- Concern about the channelized right-turn lane at Green Wood Road intersection.
- Identified need for traffic signals at Drive In Road.
- Concern about traffic congestion.
- Centre two-way left-turn lane requested.
- Concern about pedestrian and cyclist safety.
- Need for left-turn lane at Old Mill Road.
- Specific drainage issues were noted.
- D. Sauriol inquired whether a presentation would be made to the municipal councils. A. Ortlieb indicated that a presentation to council is not planned before the first Public Information Centre (tentatively scheduled for end of June) but could be arranged prior to PIC No. 2. S. Westendorp noted that the PIC provides an opportunity to invite politicians and other officials to view the material prior to the public meeting.
- D. Sauriol indicated that the owner of had expressed concern to MTO that a left-turn lane is not provided at his access on Highway 148. C. Belanger to review earlier correspondence with
- D. Sauriol requested that a copy of the PowerPoint presentation be made available to the MAC members so that they can be shared with elected officials. C. Belanger agreed to check whether the slides can be released at this time.
C. Belanger
C. Belanger

3 Other Issues
- L. Armstrong noted that 2013 aerial photographs are currently available. D. Brake agreed to request the new
D. Brake

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
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\begin{tabular}{|ll|c|}
\hline \multicolumn{1}{|c|}{ Item Discussed } & Action By \\
\hline \(\mathbf{4}\) & photos from MTO Geomatics. & \\
\hline & Adjournment & \\
\hline
\end{tabular}

These minutes constitute our interpretation of the proceedings at the above meeting. Please notify Justin Date at idate@ibigroup.com concerning any errors or omissions by June 17, 2015, otherwise the minutes will be taken to be a true and accurate record of proceedings.

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\section*{Minutes}
\begin{tabular}{|c|c|c|c|}
\hline TolAttention & Notes to File & Date & January 13, 2017 \\
\hline From & Justin Date & Project No & 37432 \\
\hline Subject & \multicolumn{3}{|l|}{Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Study Municipal Advisory Committee Meeting No. 2 Best Western Inn \& Conference Centre 1 International Drive, Pembroke November 23 (1:30 p.m. - 3:30 p.m.)} \\
\hline Present & \multicolumn{3}{|l|}{\begin{tabular}{l}
Chris Belanger - MTO (Project Manager) \\
David Brake - MTO (Traffic) \\
Sharon Westendorp - MTO (Environmental) \\
Allan Ortlieb - IBI Group (Project Manager) \\
Justin Date - IBI Group (Highway/Traffic Engineering) \\
Steven Boland - County of Renfrew (Director of Public Works \& Engineering) \\
Michael Pinet - County of Renfrew (Manager of Infrastructure) \\
Douglas Sitland - City of Pembroke (Manager of Operations) \\
Lauree Armstrong - Township of Laurentian Valley (Planner) \\
Dean Sauriol - Township of Laurentian Valley (CAO) \\
Mark Behm - Township of Laurentian Valley (Public Works Manager)
\end{tabular}} \\
\hline
\end{tabular}

Distribution All present

\section*{1 Presentation}
A. Ortlieb provided members of the Committee with an update on the study progress and presented information on the following:
- Study Limits
- \(\quad\) Study Purpose and Objectives
- Issues raised during Public Information Centre No. 1
- Existing Conditions
- Improvement Alternatives Considered
- Summary of the Evaluation of Alternatives
- Summary of the Recommended Improvements
- Next Steps

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Study Municipal Advisory Committee Meeting No. 2 Best Western Inn \& Conference Centre 1 International Drive, Pembroke
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\begin{tabular}{l} 
Item Discussed \\
\begin{tabular}{|ll}
\hline (A copy of the PowerPoint presentation is attached to these minutes.) \\
\hline \(\mathbf{2} \quad\) General Discussion \\
The presentation was followed by a general discussion on the \\
recommended plan in each section of the highway: \\
\(\mathbf{2 . 1} \quad\)\begin{tabular}{l} 
Highway \\
Road
\end{tabular} \\
\hline
\end{tabular} \\
\hline
\end{tabular}
S. Boland inquired whether the 1.5 m boulevard area (between curb and sidewalk) shown on the typical cross-section drawing could be used for cyclists. A. Ortlieb indicated that this area cannot be used by cyclists as it is not continuous along Section 1. There is a need to place the sidewalk behind the curb in areas where there are property constraints.
S. Boland recommended that the Two-Way Left-Turn lane (TWLTL) be extended to Dairy Road. J. Date noted that the section of Highway 148 between Drive In Road and Dairy Road was considered for a TWLTL

IBI Group but it was deemed to be an unsuitable location due to the high travel speeds along this section- \(84 \mathrm{~km} / \mathrm{h}\) ( \(85^{\text {th }}\) percentile speed). TWLTL are not recommended at locations with operating speeds \(>70 \mathrm{~km} / \mathrm{h}\). It was agreed that further consideration would be given to extending the TWLTL to Dairy Road.
D. Sitland reported that the City of Pembroke is currently undertaking a program of connecting missing links in the City's pedestrian network. In this regard, the City intends to extend the sidewalk from Pembroke Street East along Angus Campbell Drive and would like to know whether they can proceed with implementation based on the recommended plan from the EA study. C. Belanger indicated that the Ministry would prefer the City to wait until detailed design has been completed but noted that since funding for this section of Highway 148 has not yet been secured, it could be some time before detail design is initiated. It was agreed that the City of Pembroke could proceed with the sidewalk work at the Angus Campbell Drive intersection but would provide a temporary asphalt surface in the interim. The City would pay for the sidewalk.
D. Sitland expressed concern about the potential for an increase in traffic volumes along Pembroke Street East due to the proposed traffic signals at Drive In Road. The City projects a future AADT of 21,000 vehicles. A. Ortlieb indicated that traffic signals are warranted at the intersection under existing conditions and noted that implementing the signals would create a safety issue.
M. Pinet inquired whether there could be a contribution from MTO towards the CPR trail since facilities for Active Transportation are not being provided in the urban section. C. Belanger indicated that it would be unlikely as MTO is only considering cycle facilities where there are facilities to connect to. Since there are currently no cycling facilities along Pembroke Street East, it is difficult to justify providing them along this section of Highway 148.

\section*{Highway 148, Pembroke to Quebec Border,} Preliminary Design and Class EA Study
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\section*{Item Discussed}
S. Boland inquired about the status of MTO's Active Transportation study and whether any funding would be available for Municipalities.
C. Belanger indicated that he had no information to provide at this time.
M. Pinet and L. Armstrong requested PDF copies of the draft

Recommended Plan drawings to review the proposed access closures. It was requested that these plans be kept confidential.
L. Armstrong noted that Resmer Road is a private roadway which could impact MTO's proposal to consolidate access at this location. IBI Group to review with MTO Corridor Management Section.
L. Armstrong requested further details of the property requirements in

IBI Group
Action By

IBI Group

IBI Group Section 1.

\subsection*{2.2 Highway 148 - Section 2 (Drive in Road to Greenwood Road)}
S. Boland inquired whether rumble strips could be provided between the edge of the travelled lane and the proposed paved shoulders along Section 2 , similar to what is currently provided along sections of Highway 17. He noted that cyclists are generally in favour of such treatment. C. Belanger indicated that rumble strips at this location would not be appropriate given the close proximity of residences-potential noise impact.
D. Sauriol inquired whether a roundabout was considered at the Greenwood Road intersection. A. Ortlieb indicated that the Ministry typically only considers roundabouts at intersections where traffic signals are warranted, which is not currently the case at Greenwood Road.

\subsection*{2.3 Highway 148 - Section 3 (Greenwood Road to Des Allumettes Bridge)}
M. Pinet indicated that the eastbound approach to Hazley Bay Drive would benefit from having a right-turn taper or auxiliary lane.
S. Boland inquired about the status of the Traxton Way Subdivision. L. Armstrong indicated that the development is draft approved and is working towards final approval. A traffic impact study for the development was submitted to MTO.
S. Boland reported that the County of Renfrew had completed a series of public open houses on the future use of the CPR Corridor. The consultation summary report is scheduled to go to City Council in early 2017. The County's preference is for a multi-use trail to be provided along the corridor, the details of which are still to be determined.
S. Boland noted that the County will need to provide MTO with details of the expected uses of the CPR corridor to ensure that the trail culvert can accommodate the County's needs-trail grooming equipment, maintenance vehicles, etc. A. Ortlieb noted that the \(4 \mathrm{~m} \times 4 \mathrm{~m}\) concrete culvert can accommodate standard maintenance vehicles.

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Item Discussed & Action By
\end{tabular}
D. Sauriol expressed concern about the ability of Hazley Bay Drive to accommodate heavy vehicles during the detour period given the narrow width of the roadway and curved alignment on the approach to Highway 148. A. Ortlieb indicated that truck turning simulations have been run to assess the impacts. In addition to re-establishing the connection between Hazley bay Drive and Forest Park Road, modifications would be required at the following intersections to accommodate truck turning movements:
- Highway 148/Hazley Bay Drive
- Hazley Bay Drive/Forest Park Road
- Forest Park Road/Beachburg Road

These modifications would be removed after the detour period unless the Municipality wished for them to remain (e.g. the connection between Hazley Bay Drive and Forest Park Road).
D. Sauriol inquired about possible rehabilitation of local roadways affected by the detour. C. Belanger indicated that MTO Geotechnical Section had reviewed the existing conditions of the roadways along the detour route and noted that sections of Hazley Bay Drive and Forest Park Road are in poor condition. Compensation could be provided if roads are damaged during the detour. This would require an inspection to be carried out before and after the detour to assess the level of compensation. Compensation could include repaving the top course of asphalt or contributing to the future repaving of the roadway by the Municipality.
D. Sauriol inquired about the duration of the detour. A. Ortlieb indicated that the current estimate is for the detour to be in place over a period of 2-3 weeks, but this would need to be revisited during the detailed design stage.
S. Boland inquired whether an incentive clause could be included in the construction contract to encourage the contractor to complete the CPR bridge work sooner and potentially shorten the detour period.
C. Belanger indicated that MTO no longer favours using incentive clauses, however, change proposals from the Contractor to shorten the construction period would be considered if feasible. C. Belanger added that scheduling the construction outside of the peak season (i.e. early spring or after Labour Day) could be possible to help reduce the impacts.
S. Boland inquired about the heavy vehicle percentage along Section 3 of Highway 148. A. Ortlieb indicated that the HV percentage is currently \(10 \%\) based on the data provided by MTO.
S. Boland noted that there may be opportunities to encourage truck traffic to take an alternate route during the detour period.
M. Pinet inquired about potential impacts to traffic exiting Beachburg Road at Greenwood Road during the detour. A. Ortlieb indicated that left-turning traffic from Beachburg Road will have to wait for gaps in the

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\begin{tabular}{l|l}
\hline Item Discussed & Action By
\end{tabular}
heavy Greenwood Road left-turn in order to make to the movement. Police assistance may be required at the intersection during the peak periods.

\subsection*{2.4 Consultation}
A. Ortlieb indicated that a letter informing residents of the possible detour had been drafted and was tentatively scheduled for distribution on Saturday, November 26 \({ }^{\text {th }}\). D. Sauriol recommended that the letter not be sent out before the Township Council is notified.

Following discussion, it was agreed that a closed meeting with Council would be arranged in December to allow members of the project team to brief Councillors on the detour proposal. D. Sauriol and MTO/IBI Group to coordinate possible dates for the meeting.
S. Boland inquired whether the PIC could be delayed to February or March. C. Belanger indicated that the Ministry is keen to proceed with detailed design of the CPR bridge replacement immediately following completion of the study. Any delays to the schedule would impact the detailed design and implementation stages.

\section*{3 Adjournment}

The meeting was adjourned at approximately 3:30 p.m.

These minutes constitute our interpretation of the proceedings at the above meeting. Please notify Justin Date at jdate@ibigroup.com concerning any errors or omissions, otherwise the minutes will be taken to be a true and accurate record of proceedings.

Appendix A5 - Public Advisory Committee Meetings

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ibigroup.com

\section*{Minutes}
\begin{tabular}{llll} 
TolAttention & \begin{tabular}{l} 
Notes to File
\end{tabular}\(\quad\)\begin{tabular}{l} 
Date \\
From
\end{tabular} & \begin{tabular}{l} 
June 1, 2015 \\
Sustin Date
\end{tabular} \\
& Project No & 37432
\end{tabular}

\section*{1 Introduction \& Background}
- A. Ortlieb opened the meeting and introduced the project.
- Introductions were then made of those in attendance.
- A. Ortlieb presented an overview of the project including:
- Project Scope
- Study Limits
- Status of Work Completed to date
- Project Schedule
- Summary of Traffic Operations
- Property Access
- Active Transportation
- CPR Bridge and Hazley Bay Bridge

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
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\begin{tabular}{|l|c|}
\hline Item Discussed & Action By \\
\hline (A copy of the PowerPoint presentation is attached to these minutes.) & \\
\hline
\end{tabular}

\section*{2 General Discussion}

The PowerPoint presentation was followed by a general discussion on the following topics:

\subsection*{2.1 Traffic}
- D. McCarthy inquired about the level of traffic growth along the corridor. J. Date indicated that traffic has grown at an average of \(1 \%\) per year in recent years.
- R. Moss inquired whether there have been any recorded bicycle collisions along the corridor. J. Date indicated that there were no recorded collisions involving cyclists from 2007 to 2011. D. Brake noted that this is the most recent collision information that MTO has at the moment.
- D. McCarthy noted that there have been recent collisions involving cyclists at the Drive In Road intersection and in the vicinity of the Des Allumettes Bridge.
- D. Brake inquired whether the OPP has jurisdiction over Highway 148. D. MacDougall indicated that it was previously the responsibility of OPP but had been recently transferred to the Pembroke Police Service.
- D. MacDougall indicated that he is in favour of a centre two-way left-turn lane along the urban section of the corridor, in particular in the vicinity of the Greenwood Road intersection, where vehicles waiting to turn left into the Esso gas station conflict with vehicles merging from the channelized right-turn lane at that location.
- D. MacDougall recommended extension of the existing right-turn acceleration lane with improved pavement markings at the southbound to westbound channelized right-turn merge at the Highway 148/Greenwood Road intersection.
- H. Liebtie inquired whether the extension of Robinson Lane further south would be inclulded as part of this study. C. Belanger indicated that it would not be considered in the study.
- H. Liebtie noted that traffic along the corridor tends to be heaviest on Thursdays and Fridays. Also, during peak hours trucks have been known to bypass the Drive In Road intersection by travelling along Wilson Road and Robinson Road to Greenwood Road.
- H. Liebtie indicated that there is a safety issue at the Drive In Road intersection caused by right-turning vehicles on the

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northbound approach moving around vehicles waiting to turn left thereby blocking their sight lines.
- D. MacDougall suggested that the traffic signals along Highway 148 be coordinated to improve traffic progression along the corridor. D. Brake indicated that the signals are semi-actuated but are not currently interconnected.
- D. MacDougall suggested that there is a need for a network review to provide additional north-south connections (eg. Southerly extension of Robinson Lane) to alleviate congestion by removing traffic which is using the highway as a link between north-south roads. D. Brake indicated that assessing the need for new road corridors would require a large Origin-Destination survey and/or Transportation Master Plan which is beyond the scope of the current study.

\subsection*{2.2 Active Transportation}
- R. Moss provided an Active Transportation plan for the area. D. McCarthy noted that the plan has been developed based on a trunk system with feeder routes. The locations of schools, employment, recreational facilities, tourist attractions, etc. were considered in the development of the network but MTO highways were generally not included.
- D. McCarthy indicated that providing Active Transportation facilities on Highway 148 to the inter-provincial bridge (Des Allumettes) is important because it would provide connections to the Pontiac Pacific Junction (PPJ) Cyclopark trail system in Quebec, which is a very popular destination for cyclists in the region. There are also plans to link this area to trails in Northern Ontario. D. McCarthy agreed to provide information on future Active transportation plans for the area.
- indicated that residents that live along the CPR line have not been properly consulted about the trail proposal. He is in favour of converting the CP corridor to a trail for pedestrians and cyclists but objects to the current plan to allow motorized vehicles (ATVs and Snowmobiles) to use the trail as these vehicles are currently creating safety and noise issues for residents. He noted that OPP currently recognizes the corridor as an unofficial trail but are unable to enforce because it isn't officially signed. He noted that there are alternative trails in the area for these users.
- D. McCarthy inquired about the types of Active Transportation Facilities being considered for Highway 148. D. Brake indicated that the types of facilities will be based on the Ontario Traffic Manual (Book 18) and the new MTO

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\section*{Item Discussed}

Bikeways Manual, which provide guidelines based on existing conditions along the corridor (speeds, traffic volumes, etc.).
- A. Ortlieb inquired about the types of cyclists in the study area. D. McCarthy indicated that there is a large number of commuter and recreational cyclists in the area. Recreational cyclists are generally nervous about cycling on Highway 148 and would favour off-road or boulevard facilities, such as multi-use pathways, whereas commuter cyclists ('thin tire' cyclists) tend to favour cycling on the roadway or paved shoulder. For example, commuter cyclists would likely continue to use the highway even with the CPR trail in place. City of Pembroke residents generally do not want to cycle in the City but prefer to use the outer trails. Popular cycling routes are between the City limits or Drive In Road and the inter-provincial crossing and Beachburg (via Greenwood Road).
- R. Moss indicated that Drive In Road residents are in favour of sidewalks along the highway and inquired whether sidewalks will be considered as part of this study. A. Ortlieb indicated that sidewalks will be considered in the development of options but he noted that the MTO currently does not fund sidewalk construction or maintenance, so whether sidewalks are included in the preferred plan will be dependent on a commitment from the Municipalities to fund them.
- D. McCarthy cited Petawawa Boulevard, in the Town of Petawa, as a good example of a similar corridor where sidewalks have been provided.
- D. McCarthy indicated that buffered paved shoulders would be a good option for cyclists along Highway 148.

\subsection*{2.3 Access}
- D. MacDougall inquired whether existing accesses along the highway would be consolidated. C. Belanger indicated that consolidation or elimination of access will be considered where feasible.

\subsection*{2.4 Drainage}
- D. MacDougall noted a few locations along the corridor that have experienced drainage issues in the recent past:
- The south side of Highway 148 between Home Depot and Dairy Road - Believes the ditches fill with water due to blockage downstream perhaps due to poorly maintained culverts. The issue may be exacerbated by poor grading of the ditches.
- Opposite Robinson Lane - Ponding experienced on the north

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Item Discussed
side of the highway. Trenches were recently dug to relieve the issue.

IBI Group

\subsection*{2.5 Proposed Developments}
- H. Liebtie indicated that he owns a significant amount of developable land behind Walmart and Home Depot.


He currently owns five properties as well as a single farm property that are currently accessed via a laneway that connects to Highway 148. MTO will not permit additional access onto Highway 148 for the new lots. As well, the City of Pembroke has not granted approval for connection to Angus Campbell Drive via Matheson Drive.
- H. Liebtie indicated that there are currently no development plans for the land behind Home Depot. He would be in favour of extending Robinson Lane to the south which would allow for development of the adjacent land.
- D. MacDougall noted that construction of the Taylor Subdivision is underway and inquired whether access to Highway 148 has been granted. R. Moss indicated that the development will be accessed via Drive In Road and there will not be direct access to the highway.
2.6 Other Issues
- R. Moss noted that overgrown vegetation at the Old Mill Road intersection is creating visibility issues for vehicles exiting from the side road.
- D. MacDougall noted that there is a recessed manhole cover in the travel lane on Highway 148 in the vicinity of the Bulk Barn store which is creating a safety hazard as motorists are moving out of the lane to avoid it.
- R. Moss inquired whether a noise report will be prepared as part of this study and whether noise attenuation will be considered. A. Ortlieb confirmed that a noise study will be conducted when options have been developed to compare against existing levels. Noise attenuation will be addressed/ recommended if warranted.
- R. Moss requested a copy of the project schedule.
A. Ortlieb indicated that the project schedule is only tentative at this stage.

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
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Item Discussed

\section*{3 Adjournment}
- The meeting was adjourned at approximately 7:40 p.m.

These minutes constitute our interpretation of the proceedings at the above meeting. Please notify Justin Date at idate@ibigroup.com concerning any errors or omissions by June 17, 2015, otherwise the minutes will be taken to be a true and accurate record of proceedings.

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Ottawa ON K1S 5N4 Canada tel 6132251311 fax 6132259868

\section*{Minutes}
\begin{tabular}{|c|c|c|}
\hline TolAttention & Notes to File Date & December 1, 2016 \\
\hline From & Justin Date Project No & 37432 \\
\hline Subject & Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies Public Advisory Committee Meeting No. 2 Best Western Inn \& Conference Centre 1 International Drive, Pembroke November 23, 2016 (5:00 p.m. - 7:00 p.m.) & \\
\hline Present & \begin{tabular}{l}
Chris Belanger - MTO (Project Manager) \\
David Brake - MTO (Traffic) \\
Sharon Westendorp - MTO (Environmental) \\
Allan Ortlieb - IBI Group (Project Manager) \\
Justin Date - IBI Group (Highway/Traffic Engineering) \\
Herb Liedtke \\
Ron Moss \\
Duane MacDougall
\end{tabular} & \\
\hline Distribution & Project File & \\
\hline
\end{tabular}

\section*{1 Introduction \& Background}
A. Ortlieb provided members of the Committee with an update on the study progress and presented information on the following:
- Study Limits
- Study Purpose and Objectives
- Issues raised during Public Information Centre No. 1
- Existing Conditions
- Improvement Alternatives Considered
- Summary of the Evaluation of Alternatives
- Summary of the Recommended Improvements
- Next Steps

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
Public Advisory Committee Meeting No. 2 Best Western Inn \& Conference Centre
1 International Drive, Pembroke
November 23, 2016 (5:00 p.m. - 7:00 p.m.)

\section*{Item Discussed \\ Action By}

\section*{2 General Discussion}

The PowerPoint presentation was followed by a general discussion on the project:
R. Moss indicated that Pembroke Street East has been designated as a cycling route by the City of Pembroke. He would like to see a similar designation applied to Highway 148 and signed as a bike route (share the road signs) with the intention of discouraging cyclists from using Highway 17. D. Brake indicated that this could be looked at during detailed design.
R. Moss noted that it is his understanding that there is an ongoing MTO study on Active Transportation (by MMM Group) that is considering a connection for cyclists between Highway 17 and Highway 148 via Pembroke Street East.
R. Moss indicated that he would like to see some form of active transportation facility be provided along the section between Angus Campbell Drive and Drive In Road. A. Ortlieb indicated that providing cycling facilities along this section was not feasible due to property constraints and difficult to justify given that there are no facilities along Pembroke Street East to connect to.
D. MacDougall indicated that the Two-Way Left-Turn Lane (TWLTL) should be extended to at least Dairy Road/Fruit and Vegetable stand. He noted that a number of accidents have occurred in recent years IBI Group (approximately 3 per year) related to vehicles turning to access the fruit and vegetable stand. A. Ortlieb indicated that this section would be reviewed again.
R. Moss inquired whether a left-turn lane was considered at Old Mill Road. J. Date indicated that the relatively low traffic volumes along Old Mill Road did not warrant providing a left-turn lane.
R. Moss noted that there are many logging trucks which travel along the section of Highway 148 between Greenwood Road and the interprovincial bridge which would potentially be detoured along Hazely Bay Drive. D. Brake indicated that trucks could be encouraged to take alternate routes during the detour period.
D. MacDougall inquired whether existing access paths to the CPR corridor could be used for the detour. A. Ortlieb indicated that the difference in elevation between the paths and the highway would require extensive shoring during construction that would be cost prohibitive and difficult to implement.
D. MacDougall indicated that he was generally happy with the plan presented, however, is concerned that the reduced radius of the rightturn channel at Greenwood Road may cause issues in the initial stages after implementation as drivers are accustomed to making the movement at a higher speed. D. Brake indicated that advisory speed signs will be provided at the modified channel to inform drivers of the

Highway 148, Pembroke to Quebec Border, Preliminary Design and Class EA Studies
Public Advisory Committee Meeting No. 2 Best Western Inn \& Conference Centre 1 International Drive, Pembroke
November 23, 2016 (5:00 p.m. - 7:00 p.m.)
\begin{tabular}{|l|l|}
\hline \multicolumn{1}{|c|}{ Item Discussed } & Action By \\
\hline reduced design speed. & \\
R. Moss inquired about the timing of construction. C. Belanger indicated \\
that the Ministry currently has funds in place to proceed with the \\
implementation of the recommended plan for the section of Highway \\
148 between Greenwood Road and the interprovincial bridge (including \\
the CPR bridge replacement) and the proposed signalization of Drive In \\
Road. As such, these projects will likely proceed within the next few \\
years. The other sections of the plan are not currently funded and would \\
take place in the longer term.
\end{tabular}

These minutes constitute our interpretation of the proceedings at the above meeting. Please notify Justin Date at idate@ibigroup.com concerning any errors or omissions, otherwise the minutes will be taken to be a true and accurate record of proceedings.

Appendix A6 - Agency and First Nations Correspondence

\section*{Agencies, Municipalities, First Nations}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & Title & Contact Name & Address & City, PR, PC & Email & Mailing* \\
\hline \multicolumn{7}{|l|}{FEDERAL AGENCIES} \\
\hline & & & 4900 Yonge Street & & & 1,3 \\
\hline Transport Canada - Ontario Region & Environmental Coordinator & & & North York, ON M2N 6A5 & EnviroOnt@tc.gc.ca & \\
\hline Canadian Transportation Agency & Enforcement Officer & & 4900 Yonge Street, Suite 300 & Toronto, ON M2N 6A5 & & 1,3 \\
\hline Environment Canada & Regional Director, Environmental Protection Operations & Ms. Esther Bobet & 4905 Dufferin Street & Toronto, ON M3H 5T4 & Esther.Bobet@ec.gc.ca & 1,3 \\
\hline Public Works and Government & & & & & & 1,3 \\
\hline Services Canada & Project Manager, Major Crown Projects & Ms. Patrice Deneault & 11 Laurier Street & Gatineau, QC K1A 0S5 & & \\
\hline Conservative Party of Canada & MP, Renfrew-Nipissing-Pembroke & Ms. Cheryl Gallant & 84 Isabella Street, 1st Floor & Pembroke, ON K8A 5S5 & & 2, 3 \\
\hline \multicolumn{7}{|l|}{PROVINCIAL AGENCIES} \\
\hline Ontario Progressive Conservative Party & Renfrew-Nipissing-Pembro & Mr. John Yakabuski & 84 Isabella Street, Unit 6 & Pembroke, ON K8A 5S5 & & 2, 3 \\
\hline Ministry of the Environment and & Environmental Resource Planner \& EA & Ms. Vicki Mitchell & 1259 Gardiners Road, Unit 3 & Kingston, ON K7P 3J6 & vicki.mitchell@ontario.ca & 1,3 \\
\hline Climate Change & Coordinator & & & & & \\
\hline Ministry of Natural Resources and & & Mr. Trevor Parker & 31 Riverside Drive & Pembroke, ON K8A 8R6 & trevor.parker@ontario.ca & 1,3 \\
\hline Forestry & District Planner (Acting) & & & & & \\
\hline Ministry of Agriculture, Food and Rural Affairs & Rural Planner & Mr. John O'Neill & Provincial Government Bldg 1st Flr, 59 Ministry Rd, PO Box 2004 & Kemptville, ON K0G 1J0 & & 1,3 \\
\hline Ministry of Indigenous Relations and & Director (Acting), Indigenous Relations & Ms. Heather Levecque & 160 Bloor Street East, 9th Floor & Toronto, ON M7A 2E6 & heather.levecque@ontario.ca & 1,3 \\
\hline Reconciliation & Branch & & & & & \\
\hline Ministry of Tourism, Culture and Sport & & Ms. Laura Hatcher & 401 Bay Street & Toronto, ON M7A 0A7 & & 1,3 \\
\hline & Heritage Planner & & & & laura.e.hatcher@ontario.ca & \\
\hline Ministry of Tourism, Culture and Sport & & Mr. Jeff Elkow & 401 Bay Street Suite 1700 & Toronto, ON M7A 0A7 & & \\
\hline & Heritage Planner & & & & jeff.elkow@ontario.ca & \\
\hline Ministere des Transports Quebec & Chef des Operations & Ms. Suzanne Roy & 1488, Route 148, C.P. 89 & Campbell's Bay, QC JOX 1K0 & & 1,3 \\
\hline Ontario Provincial Police & Detachment Commander & & 77 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline \multicolumn{7}{|l|}{REGIONAL AGENCIES} \\
\hline County of Renfrew & Warden & Ms. Jennifer Murphy & 9 International Drive & Pembroke, ON K8A 6W5 & Warden@countyofrenfrew.on.ca & 1,3 \\
\hline County of Renfrew & CAO & Mr. Jim Hutton & 9 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline County of Renfrew & Director of Public Works and Engineering & Mr. Steve Boland & 9 International Drive & Pembroke, ON K8A 6W5 & sboland@countyofrenfrew.on.ca & 1,3 \\
\hline County of Renfrew & Manager of Planning & Mr. Charles Cheesman & 9 International Drive & Pembroke, ON K8A 6W5 & ccheesman@countyofrenfrew.on.ca & 1,3 \\
\hline County of Renfrew & Director of Emergency Services & Mr. Michael Nolan & 9 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline County of Renfrew & Manager, Economic Development & Mr. Alastair Baird & 9 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline County of Renfrew & Manager of Infrastructure & Mr. Mike Pinet & 9 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline \multirow[t]{2}{*}{County of Renfrew} & Director of Development and Property Department & Mr. Craig Kelley & 9 International Drive & Pembroke, ON K8A 6W5 & & 1,3 \\
\hline & & & & & & 1,3 \\
\hline Renfrew County District School Board & Director of Education & Mr. Pino Buffone & 1270 Pembroke Street West & Pembroke, ON K8A 4G4 & & \\
\hline Renfrew County Catholic District & & & & & & 1,3 \\
\hline School Board & Director of Education & Ms. Michele Arbour & 499 Pembroke Street West & Pembroke, ON K9A 5P1 & & \\
\hline Renfrew County Joint Transportation Consortium & General Manager & Mr. Robert White & 999 Cecelia Street & Pembroke, ON K8B 1A4 & & 1,3 \\
\hline Conseil des écoles catholiques du Centre-Est & Directeur de l'éducation et secrétairetrésorier du Conseil & M. Réjean Sirois & 4000, rue Labelle & Ottawa, ON K1J 1A1 & & 1,3 \\
\hline Conseil des écoles publiques de l'Est de l'Ontario & Directeur de l'éducation et secrétairetrésorier du Conseil & Ms. Edith Dumont & 2445 St. Laurent Blvd. & Ottawa, ON K1G 4J8 & & 1,3 \\
\hline
\end{tabular}

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Township of Laurentian Valley

Township of Laurentian Valley Township of Laurentian Valley Fire Department

\section*{FIRST NATIONS}

Algonquins of Ontario Consultation
Office

Nation
Hiawatha First Nation
Curve Lake First Nation
Curve Lake First Nation
Curve Lake First Nation
Curve Lake First Nation
Alderville First Nation
Alderville First Nation
Beausoleil First Nation
Chippewas of Georgina Island
Williams Treaty First Nation
\begin{tabular}{|c|c|c|}
\hline Mayor & Mr. Mike LeMay & 1 Pembroke Street East \\
\hline Deputy Mayor/Councillor & Mr. Ron Gervais & 1 Pembroke Street East \\
\hline Councillor & Ms. Patrcia Lafreniere & 1 Pembroke Street East \\
\hline Councillor & Mr. John McCann & 1 Pembroke Street East \\
\hline Councillor & Mr. Andrew Plummer & 1 Pembroke Street East \\
\hline Councillor & Mr. Les Scott & 1 Pembroke Street East \\
\hline Councillor & Ms. Christine Reavie & 1 Pembroke Street East \\
\hline Manager- Planning, Building and Parking Authority & Ms. Colleen Sauriol & 1 Pembroke Street East \\
\hline Manager of Operations & Mr. Brian Lewis & 1 Pembroke Street East \\
\hline Supervisor of Roads and Fleet & Mr. Chris Mantha & 1 Pembroke Street East \\
\hline Economic Development Officer & Ms. Heather McConnell & 1 Pembroke Street East \\
\hline CAO & Mr. Terry Lapierre & 1 Pembroke Street East \\
\hline & Chief Daniel P.G. Herback & 273 Victoria Street \\
\hline Mayor & Mr. Steve Bennett & 460 Witt Road, R.R. \#4 \\
\hline Councillor & Ms. Jennifer Gauthier & 460 Witt Road, R.R. \#4 \\
\hline Councillor & Mr. Brian Hugli & 460 Witt Road, R.R. \#4 \\
\hline Councillor & Mr. George Hodgkinson & 460 Witt Road, R.R. \#4 \\
\hline Councillor & Mr. Keith Watt & 460 Witt Road, R.R. \#4 \\
\hline Councillor & Mr. Allan Wren & 460 Witt Road, R.R. \#4 \\
\hline CAO & Mr. Dean Sauriol & 460 Witt Road, R.R. \#4 \\
\hline Reeve & Ms. Debbie Robinson & 460 Witt Road, R.R. \#4 \\
\hline \multirow[t]{2}{*}{Planner, Economic Development Officer} & & 460 Witt Road, R.R. \#4 \\
\hline & Ms.Lauree Armstrong & \\
\hline \multirow[t]{2}{*}{Public Works Manager} & Mr. Mark Behm & 460 Witt Road, R.R. \#4 \\
\hline & & 460 Witt Road, R.R. \#4 \\
\hline
\end{tabular}

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1 Pembroke Street East


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460 Witt Road, R.R. \#4 460 Witt Road, R.R. \#

31 Riverside Drive, Suite 101
Ms. Janet Stavinga
Mr. J.E. Hunton Chief Kirby Whiteduck

Chief Greg Cowie
Chief Phyllis Williams Ms. Melissa Dokis Ms. Kaitlin Hill Mr. Nathaniel Cummings Chief James R. Marsden

Mr. Dave Simpson
Chief Roland Monague Chief Donna Big Canoe Karry Sandy-Mckenzie Att. Consultation Department
\(\begin{array}{ll}\text { Pembroke, ON K8A 3J5 } & 1,3 \\ \text { Pembroke, ON K8A 3J5 } & 1,3\end{array}\)
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\begin{tabular}{lr} 
& 1,3 \\
& 1,3 \\
csauriol@pembroke.ca & 1,3 \\
blewis@pembroke.ca & 1,3 \\
cmantha@pembroke.ca & 1,3 \\
& 1,3 \\
dherback@pembroke.ca & 1,3 \\
& 1,3 \\
& 1,3 \\
& 1,3 \\
& 1,3 \\
& 1,3 \\
awren@lvtownship.ca & 1,3 \\
dsauriol@lvtownship.ca & 1,3 \\
drobinson@lvtownship.ca & 1,3 \\
& \\
drobinson@lvtownship.ca & 1,3 \\
larmstrong@lvtownship.ca & 1,3 \\
mbehm@lvtownship.ca &
\end{tabular}

Pembroke, ON K8A 8R6
Prembroke, ON K8A 6W5 Pikwàkanagàn, ON KOJ 1X0 Curve Lake, ON KOL 1RO Curve Lake, ON KOL 1 RO Curve Lake, ON KOL 1 RO Alderville, ON KOK 2XO
2, 3 ConsultationClerk@curvelake.ca \(\quad 2,3\)
2, 3

Alderville, ON KOK 2XO
2,3

Christian Island ON L9M OA9
Sutton West, ON LOE 1R0
Barrie, ON L4M 2S7
Métis Nation of Ontario

\section*{*Mailing}

1 - IBI Group Letterhead
2 - MTO Letterhead - MP/MPP and First Nations
3 - "Ontario Government Notice (OGN)"

\section*{Notes}
a. City of Pembroke Council mailings will be sent in a single package to the attention of Nancy Rapin for distribution
b. The Township of Laurentian Valley Council mailings will be sent in a single package to the general office for distribution
c. Brian Lewis (Manager of Operations City of Pembroke) replaces Doug Sitland as primary contact for staff at the City of Pembroke

\title{
MINISTRY OF TRANSPORTATION
}

\section*{HIGHWAY 148 CLASS EA}

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline \multicolumn{5}{|l|}{\begin{tabular}{l}
The following tabulation is intended to summarize consultation activities with the public. All comments received, responses made and actions / commitments are detailed in this table with a complete communications record in the project file. Comments are in addition to Public Information Centre comments. \\
N/A - Not Applicable or No Response was Required
\end{tabular}} \\
\hline 2015-03-31 & Dave Simpson Alderville First Nation & Keep us apprised of any further developments and any archeological and environmental impacts (comments via letter) & & Added to mailing list. \\
\hline 2015-04-02 & Dave Mowat Consultation Specialist, Mississaugas of Scugog Island First Nation & Has no comments. No need for further contact (response sheet provided) & & Removed from mailing list. \\
\hline 2015-04-06 & \begin{tabular}{l}
Lauree Armstrong \\
Planner \\
Township of Laurentian Valley \\
Colleen Sauriol \\
Manager Planning, Building \\
and Parking Authority \\
City of Pembroke \\
Paul Moreau \\
Director Development and \\
Property Department \\
County of Renfrew
\end{tabular} & & \begin{tabular}{l}
On 2015-06-04 J. Date wrote could you please provide us with any information on proposed development plans for the area? This could include specific development proposals for properties along the Highway 148 corridor, or any other major developments planned in the surrounding area that might influence traffic volumes along the highway. \\
To date, we have received details of the Traxton Way Subdivision and have been made aware of a potential future residential development on land behind the Walmart property, but have not received any details on housing type or number of units for that development.
\end{tabular} & - \\
\hline 2015-04-07 & \begin{tabular}{l}
Lauree Armstrong \\
Planner \\
Township of Laurentian Valley
\end{tabular} & Acknowledge receipt of your email and advise that the Township will put together an information package on potential developments in Laurentian Valley and will forward to you likely sometime next week. & - & - \\
\hline 2015-04-07 & \begin{tabular}{l}
Paul Moreau \\
Director Development and Property Department County of Renfrew
\end{tabular} & Forwarding your message to Charles Cheesman, the Manager of Planning for the County of Renfrew. The Township of Laurentian Valley and City of Pembroke would have the most current information. & - & - \\
\hline 2015-04-07 & Mark Scott Environmental Management Analyst DFO & \begin{tabular}{l}
I'm no longer with the habitat branch but below is some information you may find helpful (comments via e-mail) \\
Fisheries and Oceans Canada has changed the way new project proposals (referrals), reports of potential Fisheries Act violations (occurrences) and information requests are managed in Central and Arctic Region (Alberta, Saskatchewan, Manitoba, Ontario, Nunavut and the Northwest Territories). Please be advised that general information regarding the management of impacts to fish and fish habitat and self-assessment tools (e.g. Operational Statements) that enable you to determine Fisheries Act requirements are available at DFO's "Working Near Water" website at www.dfompo.gc.ca/habitat. For all occurrence reports, or project proposals where you have determined, following self-assessment, that you cannot avoid impacts to fish and fish habitat, please submit to fisheriesprotection@dfo-mpo.gc.ca. For general inquiries you can also call 1855 852-8320
\end{tabular} & - & Removed from mailing list following PIC 1 (see below) \\
\hline
\end{tabular}

\title{
MINISTRY OF TRANSPORTATION
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HIGHWAY 148 CLASS EA

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline 2015-04-09 & Steven Boland CET Director of Public Works Renfrew County & Submitted a letter expressing an interest in continued involvement, particularly with respect to potential modifications to Drive-In Road (CR 29) and Greenwood Road (CR 40). Also expressed an interest in any traffic control measures, turning lanes, and active transportation measures to support a connection with the trail system in Quebec. & & Incorporated into study documentation \\
\hline \[
\begin{aligned}
& \text { 2015-04-10 } \\
& \text { MAC }
\end{aligned}
\] & Steven Boland Renfrew County & Received response sheet expressing interest to be part of Municipal Advisory Committee (MAC). & - & Added to the MAC list. \\
\hline 2015-04-10 & \begin{tabular}{l}
Lauree Armstrong \\
Planner \\
Township of Laurentian Valley
\end{tabular} & Would like to be kept informed. Would like direct involvement (response sheet provided) & & (already on mailing list) \\
\hline 2015-04-13 & Michael LeMay Mayor City of Pembroke & Would like to be kept informed (response sheet provided) & - & (already on mailing list) \\
\hline 2015-04-13 & Dr. Maureen Caren Renfrew County and District Health Unit & No concerns or comments. No need for further contact. (response sheet provided) & - & Removed from mailing list. \\
\hline 2015-04-13 & Katherine Kirzati Heritage Planner MTCS & Submitted a letter detailing cultural heritage resources, archeological resources and built heritage and cultural heritage landscapes. & - & Incorporated into study documentation \\
\hline 2015-04-13 & Renfrew County Joint Transportation Consortium 999 Cecelia Street Pembroke, ON K8B 1A4 & Would like to be kept informed (response sheet provided) & - & \\
\hline 2015-04-17 & Doug Sitland Manager of Operations City of Pembroke & \begin{tabular}{l}
Will be the primary contact for staff at the City of Pembroke (response sheet provided). A delegation of the City of Pembroke met with the Minister of Transportation to discuss the MTO connecting link program, the inequities that that program had created and the possibility of perpetuating those inequities with the planned improvements on Highway 148 under this project. The City of Pembroke sees two basic parts to this project as follows: \\
1. Sound investments to maintain existing asset lifecycles \\
2. Investments to "improve" the functionality of the asset [provided observations of the two basic parts].
\end{tabular} & \begin{tabular}{l}
On 2015-04-24 M. Radue responds just to clarify, we will be sending project notices to only you and not the other staff on our mailing list. We will still be sending notices to elected officials \\
Sent follow-up e-mail (2015-05-05) acknowledging receipt of comments and asking whether they received our attaching previous MAC invitation. Requested that they complete the MAC response form, identifying potential staff members to be part of the committee.
\end{tabular} & Incorporated into study documentation \\
\hline 2015-04-21 & Transport Canada EnviroOnt@tc.gc.ca & All EA correspondence should go to EnviroOnt@tc.gc.ca. Provides links for further information for Navigation Protection Act, Railway Safety Act, Transportation of Dangerous Goods Act, and Aeronautics Act. & - & Mailing list updated. Electronic Notification Only. \\
\hline 2015-04-22 & \begin{tabular}{l}
James Sheedy \\
Councillor \\
Township of Laurentian Valley
\end{tabular} & Would like to be kept informed. & - & (already on mailing list) \\
\hline 2015-04-17 & \begin{tabular}{l}
Doug Sitland \\
Manager of Operations \\
City of Pembroke
\end{tabular} & Our Mayor had requested one minor change to my initial comments. If you have not already put these into the official file, could you use this slightly amended version & & Replaced previous letter with amended version. \\
\hline 2015-04-29 & Keith Watt Councillor & Would like to be kept informed. & & (already on mailing list) \\
\hline
\end{tabular}

\title{
ITRY OF TRANSPORTATION
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HIGHWAY 148 CLASS EA

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline & Township of Laurentian Valley & & & \\
\hline \[
\begin{aligned}
& 2015-05-01 \\
& \text { MAC }
\end{aligned}
\] & \begin{tabular}{l}
Dean Sauriol, CAO \\
Township of Laurentian Valley \\
460 Witt Road, R.R \#4 \\
Pembroke, ON K8A 6W5
\end{tabular} & MTO received phone message - had not been aware of MAC invitation. [In follow-up phone conversation with IBI Group, 2015-05-05] The Township expects forward potential MAC representatives on May 11, 2015. & Sent follow-up e-mail (2015-05-05) to Dean Sauriol attaching previous correspondence and MAC response form. & (already on MAC list) \\
\hline \[
\begin{aligned}
& 2015-05-11 \\
& \text { MAC }
\end{aligned}
\] & \begin{tabular}{l}
Lauree Armstrong \\
Planner \\
Township of Laurentian Valley
\end{tabular} & \begin{tabular}{l}
In advance of MAC meeting provided letter dated May 11, 2015 detailing status of adjacent development plans / land parcels \\
In follow-up to MAC meeting provided details related to Pleasant View Municipal Drain \& Laurentian Valley East Municipal Drain over a series of e-mails 6/16/2015 and 6/17/2015
\end{tabular} & Sent e-mail acknowledging receipt of materials & (already on MAC list) \\
\hline \[
\begin{aligned}
& 2015-06-9 \\
& \text { MAC }
\end{aligned}
\] & Steven Boland Renfrew County & In follow-up to MAC meeting provided details related Active Transportation (including network map) and Roadway Drawings for County Road 29 (Drive In Road) approaching Highway 148 over a series of e-mails 6/9/2015 and 6/11/2015 & Sent e-mail acknowledging receipt of materials & (already on MAC list) \\
\hline 2015-07-17 & Mark Scott Environmental Management Analyst DFO & Please remove from mailing list. & & Removed from mailing list. \\
\hline 2015-08-12 & Chief Phyllis Williams Curve Lake First Nation & \begin{tabular}{l}
Project is situated within the Traditional Territory of Curve Lake First Nation. It is incorporated within the Williams Treaties Territory and is the subject of a claim under Canada's Specific Claims Policy. Should contact Kerry Sandy-Mackenzie Williams Treaty First Nations Claims Coordinator with a copy of the proposal. Concerned about archaeological findings and would like to be notified of any discoveries. \\
Further questions should be directed to Melissa Dokis and Nathanial Cummings.
\end{tabular} & & Added Kerry Sandy-Mackenzie, Melissa Dokis and Nathanial Cummings to the project mailing list \\
\hline 2015-10-07 & Kerry Sandy-MacKenzie Williams Treaty First Nation Claims Coordinator & & \begin{tabular}{l}
On 2015-10-07 C. Belanger wrote: Please be advised that the Ministry of Transportation (MTO) has retained IBI Group to undertake the Preliminary Design and Class Environmental Assessment (Class EA) Study to identify the need for improvements to Highway 148 from Pembroke to the Des Allumettes Bridge ( 5.0 km ). To comply with the Ontario Environmental Assessment Act this study is being conducted in accordance with the Group 'B' provisions of the Class Environmental Assessment for Provincial Transportation Facilities (2000). \\
We received correspondence from Chief Phyllis Williams of Curve Lake First Nation to notify you of this study and a Notice of Study Commencement is attached for your review. Please complete and return the attached \\
Notification Response Sheet if you would like to be kept informed about the study development.
\end{tabular} & - \\
\hline 2015-12-01 & \begin{tabular}{l}
Suzanne Roy \\
Ministère des Transports - CS \\
Campbell's Bay
\end{tabular} & - & On 2015-11-25 M. Radue wrote the Ontario Ministry of Transportation has undertaken a Class Environmental Assessment for Highway 148 from Pembroke Ontario to the Quebec Border (please see attached Notice of Study & - \\
\hline
\end{tabular}

\title{
STRY OF TRANSPORTATION
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\section*{HIGHWAY 148 CLASS EA}

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline & & & Commencement). I am seeking information concerning cycling volume and usage on the Quebec side of the border for our study. Is there anything available? & \\
\hline 2015-12-01 & \begin{tabular}{l}
Suzanne Roy \\
Ministère des Transports - CS \\
Campbell's Bay
\end{tabular} & \begin{tabular}{l}
Concerning the cycling volume, we have no data for this location. \\
Concerning the second point of the request (portrait of the general use from on our side), I included the index form of data included for the site 148050 which draws a portrait of the evolution of the flow of traffic between the border and the way of the golf course since 1975. Other information could be available according to our needs, you can communicate directly with monsieur Paul Baby, 819 7723107 ext.: 305 from MTQ.
\end{tabular} & & \\
\hline 2016-02-02 & \begin{tabular}{l}
Michael Pinet \\
Manager of Infrastructure \\
Public Works and Engineering \\
Department \\
County of Renfrew \\
mpinet@countyofrenfrew.on.ca
\end{tabular} & - & \begin{tabular}{l}
On 2016-02-23 A. Ortlieb sent: \\
As you are aware, the Ministry of Transportation is undertaking the Preliminary Design and \\
Class Environmental Assessment of Highway 148 from the Pembroke to the Quebec border. It is our understanding that the County of Renfrew wishes to develop and enhance the existing trail system and cycling routes in the vicinity of Highway 148. With regards to the abandoned CPR rail line, there is potential for active transportation and multi-use trails. I would appreciate of you could advise on the status of the CPR corridor and the County of Renfrew's vision for a trail (i.e. seasonal use of the corridor, timing of implementation, surface materials, restricted use, etc). If you have comments or questions, please feel free to contact the undersigned.
\end{tabular} & - \\
\hline 2016-02-09 & \begin{tabular}{l}
Steven Boland \\
Director of Public Works and \\
Engineering \\
County of Renfrew \\
sboland@countyofrenfrew.on.c \\
a
\end{tabular} & \begin{tabular}{l}
The county continues to move ahead with the negotiations to acquire the CPR corridor. However at this time the property still falls under the ownership of CP Rail. It is hoped that the negotiations will be concluded in the relatively near future to enable the property to be transferred to the County. \\
While the future use of the corridor has not yet been confirmed, it is anticipated that it will likely incorporate a multi-use trail system for use by cyclists, snowmobiles, ATVs, hikers, ect. As such the crossing of Highway 148 should provide for a grade separated crossing in the form of a bridge or culvert to carry the trail traffic under the roadway. The crossing will need to be designed to accommodate maintenance vehicles in the form of pick-up trucks, a snowmobile trail groomer and small dozer or backhoe. The crossing should also be designed in a way that provides a system of ramps by which trail users can move from the road to the trail without crossing the highway. It is not expected that service vehicles (i.e., cars and trucks) would have access from the road to the trial at this location. \\
The surface of the trail should be gravel that consists of Granular "M" or limestone screenings for the entire length of the existing track bed. Should it be determined
\end{tabular} & & - \\
\hline
\end{tabular}

MINISTRY OF TRANSPORTATION
HIGHWAY 148 CLASS EA

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline & & \begin{tabular}{l}
that a large corrugated steel structure is to be installed, a paved surface may be better suited at this location through the culvert. \\
The timing of work on the CP corridor, by the County, is still uncertain as it depends in large part on the timing of the land transfer. In addition, the County has committed to consulting with the local communities and residents regarding possible uses of the corridor. However it would be reasonable to anticipate some work would be underway within the next 1 to 5 years.
\end{tabular} & & \\
\hline 2016-03-24 & & Forward all requests to Melissa Dokis at MelissaD@curvelake.ca or Kaitlin Hill at ConsultationClerk@curvelake.ca & - & Melissa Dokis already on mailing list. Kaitlin Hill added, \\
\hline 2017-02-10 & Dean Sauriol CAO/Clerk Township of Laurentian Valley & - & On 2017-02-10 K. Moore (MTO) sent a letter detailing consultation and the EA process concerning the proposed detour. & - \\
\hline 2017-02-13 & Debbie Robinson
Reeve
Township of Laurentian Valley & \begin{tabular}{l}
[email addressed to K. Moore] \\
Thank you for the letter, it clearly identifies the issues and our discussion. As always, it was a pleasure speaking with you in Toronto. My sincere thanks for taking the time out of your very busy schedule to meet with me.
\end{tabular} & & \\
\hline 2017-06-23 & \begin{tabular}{l}
Steven Boland \\
Director of Public Works and \\
Engineering \\
County of Renfrew \\
sboland@countyofrenfrew.on.c \\
a
\end{tabular} & & \begin{tabular}{l}
On 2017-06-23 C. Belanger wrote: \\
I am inviting and encouraging both Municipal Staff and Council to come to our Public Information Centre regarding the Preliminary Design and Class Environmental Assessment for Highway 148 from Pembroke to Greenwood Road (G.W.P.214-00-00); and Highway 148 from Greenwood Road to the Quebec Border (G.W.P.239-00-00) in the County of Renfrew. Please pass this information on to your Council and Staff. \\
This is the second and final PIC, which has been arranged to allow the Council, Municipal Staff, the public, and interest groups an opportunity to review and comment on the results of the assessment and evaluation process, and to present the preferred alternative for the highway. \\
An additional session at 3:00pm has been arranged for Municipal Staff and Council prior to public arrival for discussion with both MTO and our consultant, IBI Group. Please feel free to attend either session. \\
The Public Session for the PIC will take place on July 6, 2017 from 4:00 to 7:00 pm at: Best Western Pembroke Inn\& Conference Centre, 1 International Drive, Pembroke, ON \\
I have attached the Ontario Government Notice that will be circulated to newspapers in the surrounding study area. The notice will be published in the Pembroke Observer on June 27th
\end{tabular} & - \\
\hline
\end{tabular}

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline & & & \begin{tabular}{l}
\& 29th. Additionally you and all other stakeholders on our contact list will be receiving the attached Ontario Government Notice in the mail. Please feel free to pass on the attached notice as you see fit.l am also sent this email to: \\
Dean Sauriol: (dsauriol@laurvall.on.ca) \\
Douglas Sitland: (dsitland@pembroke.ca)
\end{tabular} & \\
\hline 2017-06-26 & \begin{tabular}{l}
Steven Boland \\
Director of Public Works and \\
Engineering \\
County of Renfrew \\
sboland@countyofrenfrew.on.c \\
a
\end{tabular} & Thanks for passing along this notice. I will not be able to attend the sessions as I will be on vacation. It is also unlikely that anyone else from this department will be able to attend due to other scheduled priorities at that time. However, as I believe we have a good understanding of the project our absence should not pose any issues. Please ensure that we are kept informed of the project's progress. It would also be appreciated if we could be sent copies of the presentation material and the TESR when they are available. In the meantime if you require additional information, please do not hesitate to contact me. & On 217-06-26 C. Belanger responds I will send you a copy of the PIC boards on July \(6{ }^{\text {th }}\). & M. Alden-Radue emailed PIC exhibits to Steven Boland and Craig Kelly on 2017-07-10. \\
\hline 2017-06-27 & \begin{tabular}{l}
Craig Kelley \\
Director of Development and Property County of Renfrew
\end{tabular} & \begin{tabular}{l}
The County of Renfrew is now the owner/leasee or the CP rail corridor throughout the County of Renfrew borders, and it now forms the majority of the Ottawa Valley Rail Trail that extends from Smiths Falls in the south to near Mattawa in the north. \\
As you can imagine, and as you've be engaged in the past, your project that contemplates the removal and replacement of the bridge structure on Highway 148, between Greenwood Road and Hazley Bay Drive, affects our project immensely. \\
We would appreciate an opportunity to review and discuss your design plans and replacement suggestions outside of the scope of your open house scheduled for July \(6^{\text {th }}\) in Pembroke. If we could arrange a time suitable for everyone, we would be appreciative. Alternatively, if you are able to send us any information electronically ahead of time, that would also be welcomed.
\end{tabular} & & On 2017-07-10 M. Alden-Radue emailed the PIC exhibits to SBoland@countyofrenfrew.on.ca and CKelley@countyofrenfrew.on.ca \\
\hline 2017-06-27 & Transport Canada & Please note Transport Canada does not require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess their project. [Provides details on determining if an EA is impacting federal property]. & & \\
\hline 2017-07-06 & Jeff Elkow Heritage Planner MTCS & \begin{tabular}{l}
Thank you for providing the Notice of Public Information Centre \#2 (July 6, 2017) to the Ministry of Tourism, Culture and Sport for the following projects: \\
Preliminary Design and Class EA Hwy 148 from Pembroke to Greenwood Rd (G.W.P. 214-00-00); and Preliminary Design and Class EA Hwy 148 from Greenwood Rd to Quebec Border (G.W.P. 239-00-00) Please provide me with all the Public Information Centre materials once they are available for our review and comment?
\end{tabular} & \begin{tabular}{l}
On 2017-07-10 M. Alden-Radue emailed: \\
As per your request, please find attached the Public Information Centre exhibits.
\end{tabular} & \begin{tabular}{l}
M. Alden-Radue emailed PIC exhibits on 2017-07-10. \\
Added to the mailing list.
\end{tabular} \\
\hline 2017-07-07 & Colleen Sauriol Manager, Planning and Building City of Pembroke & I was at the Information Session for the preliminary design of Highway 148 from Pembroke to Greenwood Road on July 6, 2017. I just wanted to reiterate that the City of Pembroke is still interested in having a sidewalk installed, at the City's cost, from the most westerly point of Highway 148 (in front of Pinewood Retirement Home - 1022 Pembroke Street East) to Angus Campbell Drive. The & On 2017-07-07 C. Belanger responds I have told my consultant to provide the information to you. & Doug Sitland removed from the mailing list and replaced with Chris Mantha. \\
\hline
\end{tabular}

\title{
MINISTRY OF TRANSPORTATION
}

HIGHWAY 148 CLASS EA

\section*{Agency and First Nations Consultation Summary Table}
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (Category) See Below & Comment Summary & Date / Response & Actions / Commitments \\
\hline & & \begin{tabular}{l}
City is presently installing a sidewalk on the west side of Angus Campbell Drive and we would like the new sidewalk on Pembroke Street East to connect to that new Angus Campbell Drive sidewalk. The City is requesting a concrete sidewalk be installed. \\
Since Doug Sitland is no longer working with the City of Pembroke, Chris Mantha, Supervisor of Roads and Fleet will be your contact. His phone number is 613-735-6821 Ext. 1415 or by email at cmantha@pembroke.ca. \\
Finally, I had asked the lady at the sign-in table to provide me with an electronic copy of the information boards displayed at the public meeting. Would this be possible to receive? Thanks so much Chris. If you require further information, please do not hesitate to contact myself or Chris Mantha.
\end{tabular} & Thank you for coming to our Public Information Session, I am happy to work with you to install the sidewalks as you have indicated. & M. Alden-Radue emailed PIC exhibits to Colleen Sauriol and Chris Mantha on 2017-07-10. \\
\hline 2017-07-10 & \begin{tabular}{l}
Debbie Robinson, Mark Behm, Dean Sauriol \\
Lauree Armstrong \\
Township of Laurentian Valley
\end{tabular} & & & M. Alden-Radue emailed PIC exhibits on 2017-07-10. \\
\hline 2017-07-10 & \begin{tabular}{l}
Lauree Armstrong, Debbie Robinson, Dean Sauriol, Mark Behm \\
Township of Laurentian Valley
\end{tabular} & & On 2017-07-10 M. Alden emailed the PIC exhibits to drobinson@Ivtownship.ca, mbehm@Ivtownship.ca, dsauriol@Ivtownship.ca, and larmstrong@Ivtownship.ca. & 2017-07-10 \\
\hline 2017-07-17 & Lauree Armstrong, Planner Township of Laurentian Valley & Are we able to share these electronic copies with members of the public that were not able to attend the PIC2? & On 2017-07-17 C. Belanger responds: Yes please feel free to pass on the PIC information. & 2017-07-17 \\
\hline
\end{tabular}

\section*{Appendix A7 - Public and Stakeholder Correspondence}

CONTACT LIST - Highway 148 Preliminary Design and Class Environment Assessment
Pembroke to Greenwood Road GWP 214-00-00
Greenwood Road to the Quebec Border GWP 239-00-00

\section*{Stakeholders (excluding PACI MAC Committee Members, Public and Property Owners)}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Organization & Title & Contact Name & Address & City, PR, PC & Email & Mailing* \\
\hline \multicolumn{7}{|l|}{STAKEHOLDERS} \\
\hline M.T.S. Signalization & & Mr. Michel Larose & 15, rue de Varennes & Gatineau, QC J8T 8G5 & michel.larose@agencemts.com & 3 \\
\hline Pomerleau & Project Director & Mr. Eric Vallieres & 500, rue Saint-Jacques, 11e étage & Montréal, QC H2Y OA2 & eric.vallieres@pomerleau.ca & 3 \\
\hline HRK Consultation & Project Engineer & Mr. Antonio El-Achkar & 704, rue Lafrance & Gatineau, QC J8R 3P3 & antonio.el-achkar@videotron.ca & 3 \\
\hline Timberline Snowmobile Club & President & Mr. Albert Pescoskie & P.O. Box 824, R.R. \#7 & Pembroke, ON K8A 7M5 & timberline@snowcountryscsa.ca & 3 \\
\hline Snow Country Snowmobile Association & & Mr. Terry Vaudry & 40484 Highway 41 & Pembroke, ON K8A 6W5 & snowcountry@nrtco.net & 3 \\
\hline Active Transportation Renfrew County & & Mr. Ron Moss & 8 Ridge Drive & Pembroke, ON K8A 6W2 & rmoss@nrtco.net & 3 \\
\hline Ottawa Valley Cycling and Active Transportation Alliance & & Mr. Ron Moss & 581B Eady Road & Golden Lake, ON K0J 1X0 & rmoss@nrtco.net & 3 \\
\hline Ottawa Valley Cycling and Active Transportation Alliance & Co-Chair & Ish Theilheimer & 581B Eady Rd. & Golden Lake, ON KOJ JXO & info@ovcata.ca & 3 \\
\hline Discovery Routes Trails Organization & Executive Director & Jennifer McCourt & 205 Main Street & North Bay, ON P1B 1B2 & info@discoveryroutes.ca & 3 \\
\hline Discovery Routes Trails Organization & Chair, Voyageur Cycling Route Working Group & Alan Korell & 205 Main Street & North Bay, ON P1B 1B2 & info@discoveryroutes.ca & 3 \\
\hline The Physical Activity Network & & Ms. Shawna Babcock & & & sbabcock@kidactive.ca & 3 \\
\hline Canadian Pacific Railway & Specialist Public Works East & Li-Lian Lui & 700-1290 Central Parkway W. & Mississauga, ON L5C 4R3 & Li-Lian_Lui@cpr.ca & 3 \\
\hline Ottawa Valley Railway & General Manager & Mr. Daryl Duquette & 445 Oak Street East & North Bay, ON P1B 1A3 & & 3 \\
\hline \multicolumn{7}{|l|}{Utility Company} \\
\hline Bell Canada & Manager Right-of-Way Control Centre & Mr. John LaChapelle & Floor 5 Blue, 100 Borough Drive & Scarborough, ON M1P 4W2 & & 3 \\
\hline Bell Canada & Structures Manager & Ron Erickson & 469 Coventry Road & Ottawa On K1K 2C5 & & 3 \\
\hline Hydro One Networks Real Estate Services & & To Whom It May Concern & Box 4300 & Markham, ON L3R 5 Z5 & & 3 \\
\hline Hydro One Networks Transmission, Secondary Land Use Asset Management & & Claire Zhang & & & claire.zhang@HydroOne.com & 3 \\
\hline Ottawa River Power Corporation & President & Mr. Denis Montgomery & 283 Pembroke Street West, P.O. Box 1087 & Pembroke, ON K8A 6Y6 & & 3 \\
\hline Brookfield Energy & Director of Operations & & Brookfield Place, Suite 300 181 Bay Street & Toronto, ON M5J 2T3 & & 3 \\
\hline Brookfield Energy & Gestionnaire des terrains & Mr. Hugo Saint-Jean & 41, rue Victoria & Gatineau, QC J8X 2A1 & Hugo.Saint-Jean @energiebrookfield.com & 3 \\
\hline Enbridge Consumers Gas & & To Whom It May Concern & 400 Coventry Road & Ottawa, ON K1K 2C7 & & 3 \\
\hline
\end{tabular}

\section*{*Mailing}

3 - "Ontario Government Notice (OGN)"

\title{
MINISTRY OF TRANSPORTATION
}

HIGHWAY 148 CLASS EA
Public and Stakeholder Consultation Summary Table
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (redacted in TESR) & Comment Summary & Date / Response & Actions I Commitments \\
\hline \multicolumn{5}{|l|}{The following tabulation is intended to summarize consultation activities with the public. All comments received, responses made and actions / commitments are detailed in this table with a complete communications record in the project file. Comments are in addition to Public Information Centre, Detour, and Property / Entrance specific correspondence.} \\
\hline 2015-04-02 & & & \multicolumn{2}{|l|}{Notice of Study Commencement first published in the Pembroke Observer.} \\
\hline 2015-04-02 & & Received study notice. Would like the Project Team to consider a bike lane in the plans for the highway upgrade. If the CPR bridge is removed can a culvert be installed in the CPR rail bed is converted into a recreational path. Would like to be on the mailing list. & Sent e-mail response (2015-04-10) acknowledging receipt of comments and active transportation opportunities within the Highway 148 corridor will be reviewed. & Added to the mailing list. \\
\hline 2015-04-03 & & \begin{tabular}{l}
Would like to be added to the mailing list. \\
Provided follow-up comments including some related to the overall road network and beyond the scope of the current study. Those specific to the study include: improving the channelized right turn and merge lane onto Highway 148 at County Road 40; providing centre turn lane on Highway 148 on the segment leading into Pembroke; narrowing the pavement width on Drive In Road approaching Highway 148 to address driver visibility concerns (associated with vehicles turning right onto Highway 148 blocked by left turn vehicles); remove the CPR bridge; and address several specific drainage issues along Highway 148.
\end{tabular} & Sent e-mail response (2015-04-10) acknowledging receipt of comments. & Added to the mailing list. \\
\hline 2015-04-05 & & Family has lived at \(\square\) for 30 years. Have witnessed the increase in traffic over the years. In the past 3 years have difficulty exiting the driveway. & Sent e-mail response (2015-04-10) acknowledging receipt of comments. & Added to the mailing list. \\
\hline 2015-04-07 & & Has received the Notice of Study Commencement. A volunteer member of the Active Transportation Renfrew County. Has worked alongside the Count to establish infrastructure improvements throughout the County and believed the experience can be of assistance. Concerned about the development of big box stores on the east side of Pembroke and the impact on traffic along Highway 148. Concerned about pedestrian and cycling safety. & Sent response letter by e-mail (2015-04-10) acknowledging receipt of recent and previous correspondence, and willingness to discuss active transportation needs along the corridor as the project moves forward. & \\
\hline 2015-04-08 & & Would like to be added to the mailing list. & - & Added to the mailing list. \\
\hline 2015-04-11 & & Received study notice. Documented experience regarding existing traffic operations and potential improvements to Highway 148. Would like the Project Team to consider traffic signals at the intersection of Highway 148 \& Drive-In Road and left turn lane on Highway 148 at Old Mill Road to improve traffic operations and safety. & Sent e-mail response (2015-04-16) acknowledging receipt of comments, and indicating we will be looking at both the need options (i.e. traffic signals at the intersection of Highway 148 \& Drive-In Road and a left turn lane on Highway 148 at Old Mill Road) as part of the current study. & Added to the mailing list. \\
\hline 2015-04-13 & & Would like to be added to the mailing list (e-mail) & Sent e-mail response (2015-04-16) acknowledging receipt of request. & Added to the mailing list. \\
\hline \[
\begin{aligned}
& 2015-04-14 \\
& \text { PAC }
\end{aligned}
\] & & \begin{tabular}{l}
Received response sheet expressing interest to be part of Public Advisory Committee (PAC). \\
Provided e-mail in follow-up to PAC meeting reiterating concerns with respect to the CP trail (supports non-motorized use only). Thanked project team for hearing him out.
\end{tabular} & Acknowledged receipt follow-up comments (2015-07-14) & Added to the PAC list. \\
\hline
\end{tabular}

MINISTRY OF TRANSPORTATION
HIGHWAY 148 CLASS EA
Public and Stakeholder Consultation Summary Table
\begin{tabular}{|c|c|c|c|c|}
\hline Date & Submitter Name (redacted in TESR) & Comment Summary & Date / Response & Actions \(/\) Commitments \\
\hline \[
\begin{aligned}
& 2015-04-15 \\
& \text { PAC }
\end{aligned}
\] & & Received response sheet expressing interest to be part of Public Advisory Committee (PAC). & - & Added to the PAC list. \\
\hline \[
\begin{aligned}
& 2015-04-17 \\
& \text { PAC }
\end{aligned}
\] & & Received response sheet expressing interest to be part of Public Advisory Committee (PAC). & - & Added to the PAC list. \\
\hline \[
\begin{aligned}
& 2015-04-20 \\
& \text { PAC } \\
& 2015-07-09
\end{aligned}
\] & & \begin{tabular}{l}
Received response sheet expressing interest to be part of Public Advisory Committee (PAC). Also requested that Damien McCarthy (Co-Chair of AT Committee Renfrew County) also be invited. \\
Provided copy of Renfrew County Active Transportation Group map via e-mail on 2015-07-09, in addition to PPJ Trail/ Route Vert (Province of Quebec) map provided at PC meeting.
\end{tabular} & Acknowledged receipt of map (2015-07-14) & Added to the PAC list. \\
\hline \[
\begin{aligned}
& 2015-04-20 \\
& \text { PAC }
\end{aligned}
\] & & --see above -- & Sent invitation to be part of Public Advisory Committee (PAC). & \\
\hline 2015-05-02 &  & Received e-mail expressing concerns regarding the potential use of Hazley Bay Drive as a short term detour route for traffic during the future rehabilitation, replacement or removal of the CPR bridge along Highway 148. & Provided response acknowledging concerns rand noted we are currently studying options for the crossing and traffic staging within and/or beyond the existing corridor. No decisions have made at this time. The potential use of Hazley Bay Drive as a short term detour is only one of several options that will be considered. As part of the current study we are undertaking a detailed natural heritage assessment and the evaluation of options will recognize the environmental setting and condition of the roadway. & Added to the mailing list. \\
\hline 2015-05-20 & & \begin{tabular}{l}
Received e-mail expressing the following concerns/ suggestions for the highway: \\
- Provision of shoulder area for pedestrian and cyclist traffic which should be paved. This should include the railway and Hazley Bay bridges which are currently too narrow. \\
- Fewer controlled Highway access points such as one main intersection on Cotnam's Is and Hazley Bay Road which should have traffic lights favoring 148 and triggered by traffic on the side roads. Greenwood Road and Highway 148 should also have a light with left turning lanes at all lights. \\
- Extend sidewalks should on both sides to Home Depot development and any planned subdivisions in that area \\
- Speed limits in the study area should be limited to \(60 \mathrm{~km} / \mathrm{hr}\).
\end{tabular} & Incorporated comments into study & Added to the mailing list. \\
\hline 2015-04-02 & Snow Country & Currently we have no trails within the study area, however we are quite active in promoting use of the abandoned CP corridor as a multi-use recreational trail to the County of Renfrew. In our opinion, any planned work must include accommodation for potential use of this corridor as a multi-use recreational trail. Specifically, the CPR Bridge should either be rehabilitated or replaced with a culvert large enough to accommodate our industrial grooming equipment. We would also suggest that the Hazley Bay structure be widened to accommodate our use, as this would allow access to the Interprovincial Bridge and the Province of Quebec. This would also better accommodate other active transportation methods such as biking and pedestrian use. & Sent e-mail response (2015-04-10) acknowledging receipt of comments and indicated project will involve determination of the most appropriate strategy for the rehabilitation, replacement or removal of the CPR bridge, and the assessment of improvement options at the Hazley Bay Bridge crossing. & Added to the mailing list. \\
\hline
\end{tabular}

Appendix A8 - Notice of Study Completion

\title{
NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)
}

\section*{PROJECT OVERVIEW}

The Ministry of Transportation (MTO) retained IBI Group to undertake the Preliminary Design and Class Environmental (EA) Study for Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

Highway 148 between Angus Campbell Drive and Drive In Road:
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) and provide for sidewalk on both sides; and

- Install traffic signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

Highway 148 between Drive In Road and Greenwood Road:
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures

\section*{PROCESS}

This study followed the approved planning process for a Group 'B' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000). The Transportation Environmental Study Report (TESR) documents the proposed work, existing conditions and evaluation of impacts and proposed mitigation measures. The TESR will be available on July 12, 2018 for a 30 -day public review period. Interested persons are encouraged to review the TESR and provide comments by August 10, 2018. If, after consulting with MTO Project Team members, you have serious unresolved concerns, you have the right to request a Part II Order (bump-up). A Part II Order can only be requested for the project components addressed in the TESR. Requests should be directed to the Minister of the Environment and Climate Change (77 Wellesley Street West, Floor 11, Toronto, Ontario, M7A 1L5). A Part II Order may lead to the preparation of an Individual Environmental Assessment. A copy of the request should also be forwarded to the MTO Project Team at the addresses listed below. If there are no outstanding concerns at the end of the 30 day review period, the project will be considered to have met the requirements of the Class EA and will move forward into detailed design.

Copies of the TESR are available for review at the following locations during regular business hours:

\footnotetext{
Township of Laurentian Valley 460 Witt Road, Clerk's Office Pembroke, ON K8A 6W5
}

County of Renfrew
9 International Drive Clerk's Office
Pembroke, ON K8A 6W5

\author{
Pembroke Public Library \\ 237 Victoria Street \\ Pembroke, ON K8A 4K5
}

\section*{COMMENTS}

We are interested in hearing any comments or concerns that you may have with the study. Comments must be received no later than August 10, 2018. Please send any comments or requests to either of the following:

\author{
Mr. Chris Belanger \\ MTO Project Manager \\ Ministry of Transportation \\ 1355 John Counter Boulevard \\ Postal Bag 4000 \\ Kingston, ON K7L 5A3 \\ Telephone: 613-540-5187 \\ Toll-free: 1-800-267-0295 \\ Mr. Allan Ortlieb \\ Consultant Project Manager \\ IBI Group \\ 100-175 Galaxy Boulevard \\ Toronto, ON M9W 0C9 \\ Telephone: 416-798-5480 \\ Fax: 416-675-4620 \\ E-mail: Allan.Ortlieb@ibigroup.com \\ Fax: 613-540-5106 \\ E-mail: Chris.Belanger@ontario.ca
}

Notice first posted: July 12, 2018
Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record. If you have any accessibility requirements in order to participate in this project, please contact one of the project team members listed above.

\title{
AVIS DE REMISE D'ÉTUDE CONCEPTION PRÉLIMINAIRE ET ÉVALUATION ENVIRONNEMENTALE DE PORTÉE GÉNÉRALE ROUTE 148 (DE PEMBROKE À GREENWOOD ROAD) COMTÉ DE RENFREW (G.W.P. 214-00-00)
}

\section*{APERÇU DU PROJET}

Le ministère des Transports (MTO) a retenu les services d'IBI Group pour la conception préliminaire et l'évaluation environnementale de portée générale du projet lié au tronçon de la route 148 s'étendant de 60 m à l'ouest de l'Angus Campbell Drive, dans la ville de Pembroke, jusqu'à l'intersection avec la Greenwood Road, côté est, dans le comté de Renfrew. Le plan recommandé prévoit ce qui suit :
Tronçon de la route 148 situé entre l'Angus Campbell Drive et la Drive-in Road :
- Élargir la chaussée pour aménager une voie continue de virage à gauche dans les deux sens;
- Urbaniser la coupe transversale (bordure et caniveau, modernisation des égouts pluviaux) et aménager un trottoir des deux côtés;
- Installer des feux de signalisation à l'intersection de la route 148 et de la Drive-in Road, et améliorer l'intersection et modifier le profil de la bretelle d'accès nord.

Tronçon de la route 148 situé entre la Drive-in
 Road et la Greenwood Road :
- Conserver la coupe transversale rurale de deux voies. Remettre la chaussée en état et aménager des accotements asphaltés de 2,5 m de largeur;
- Modifier l'intersection avec la Greenwood Road en raccourcissant la voie de virage à droite en direction ouest et en prolongeant la voie d'insertion;
- Ajouter un couloir de virage à gauche sur l'Old Mill Road;
- Fermer des bretelles d'accès.

\section*{PROCÉDURE}

La présente étude fait suite au processus de planification approuvé pour un projet du groupe \(B\) conformément au document Class Environmental Assessment for Provincial Transportation Facilities (2000). Le rapport d'étude environnementale sur les transports (REET) décrit les travaux proposés, les conditions actuelles, ainsi que l'évaluation des répercussions et les mesures d'atténuation proposées. Le REET sera soumis à l'examen du public pour une période de 30 jours commençant le 12 juillet 2018. Les personnes intéressées peuvent étudier le REET et fournir leurs commentaires au plus tard le 10 août 2018. Si vous avez encore des inquiétudes sérieuses après avoir consulté les membres de l'équipe de projet du MTO, vous avez le droit de demander un arrêté prévu à la partie II (changement de catégorie), mais seulement pour les composantes du projet indiquées dans le REET. Ces demandes doivent être adressées au ministre de l'Environnement et de l'Action en matière de changement climatique (77, rue Wellesley Ouest, \(11^{\mathrm{e}}\) étage, Toronto (Ontario) M7A 1L5). Un arrêté prévu à la partie II peut entraîner la tenue d'une évaluation environnementale séparée. Une copie de la demande doit également être envoyée à l'équipe de projet du MTO aux adresses indiquées ci-dessous. En l'absence de questions en suspens à la fin de la période d'examen de 30 jours, le projet sera considéré comme étant conforme aux exigences de l'évaluation environnementale de portée générale et passera à l'étape de la conception détaillée.

Des exemplaires du REET sont disponibles pour examen aux endroits ci-dessous, aux heures d'ouverture habituelles:

Canton de Laurentian Valley
460 Witt Road, Clerk's Office Pembroke (Ontario) K8A 6W5

Comté de Renfrew
9 International Drive, Clerk's Office Pembroke (Ontario) K8A 6W5

Bibliothèque publique de Pembroke 237, rue Victoria Pembroke (Ontario) K8A 4K5

\section*{RÉTROACTION}

Vos commentaires et questions sur l'étude nous intéressent; ils doivent nous parvenir au plus tard le 10 août 2018. Veuillez les transmettre à l'une des adresses suivantes :
M. Chris Belanger

Chef de projet
Ministère des Transports
1355, boulevard John Counter
Sac postal 4000
Kingston (Ontario) K7L 5A3
Téléphone : 613 540-5187
Sans frais : 1800 267-0295
Télécopieur : 613 540-5106
Courriel : Chris.Belanger@ontario.ca
M. Allan Ortlieb

Expert-conseil en gestion de projet IBI Group
175, boulevard Galaxy, bureau 100
Toronto (Ontario) M9W 0C9
Téléphone : 416 798-5480
Télécopieur : 416 675-4620
Courriel : Allan.Ortlieb@ibigroup.com

Première publication : 12 juillet 2018
Les commentaires et les renseignements recueillis servent à aider le MTO à se conformer aux exigences de la Loi sur les évaluations environnementales de l'Ontario. Leur collecte se fera conformément à la Loi sur l'accès à l'information et la protection de la vie privée et à la Loi sur l'accès à l'information. À l'exception des renseignements personnels, tous les commentaires seront intégrés aux dossiers publics. Si vous avez besoin de mesures d'accessibilité en vue de participer à ce projet, veuillez communiquer avec l'un des membres de l'équipe du projet mentionnés ci-dessus.

Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
Tel.: 613 540-5187 1-800-267-0295
Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Mr. John Yakabuski, MPP
84 Isabella Street, Unit 6
Pembroke, ON K8A 5S5

Dear Mr. Yakabuski:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

This study followed the approved planning process for a Group 'B' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000). The Transportation Environmental Study Report (TESR) has been prepared to document the
planning and decision-making process that was followed during this study. The Notice of Study Submission (attached) provides the TESR viewing locations. A copy of the notice will be advertised in the Pembroke Daily Observer on Thursday, July \(12^{\text {th }}\) and Tuesday, July 17 \({ }^{\text {th }}, 2018\).

If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger,
MTO Project Manager
CB/ma
Encl. Notice of Study Submission
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Chief James R. Marsden
Alderville First Nation
P.O. Box 46, 11696 2nd Line Road

Alderville, ON KOK 2X0

Dear Chief Marsden:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

```

Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Mr. Dave Simpson
Alderville First Nation
P.O. Box 46, 11696 2nd Line Road

Alderville, ON KOK 2X0

Dear Mr. Simpson:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Ms. Janet Stavinga
Algonquins of Ontario Consultation Office
31 Riverside Drive, Suite 101
Pembroke, ON K8A 8R6

Dear Ms. Stavinga:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
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July 5, 2018

Chief Kirby Whiteduck
Algonquins of Pikwàkanagàn First Nation
1657A Mishomis Inamo
Pikwàkanagàn, ON K0J 1X0

Dear Chief Whiteduck:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Chief Mary McCue-King
Beausoleil First Nation
11 Ogemaa Miikaan
Christian Island, ON L9M 0A9

Dear Chief McCue-King:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Chief Donna Big Canoe
Chippewas of Georgina Island First Nation
1 R.R. \#2 Box N-13
Sutton West, ON LOE 1 R0

Dear Chief Big Canoe:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Chief Phyllis Williams Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, ON KOL 1R0

Dear Chief Williams:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Ms. Kaitlin Hill
Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, ON KOL 1R0

Dear Ms. Hill:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

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Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Ms. Melissa Dokis
Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, ON K0L 1R0

Dear Ms. Dokis:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
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- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
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Sincerely

Chris Belanger, MTO Project Manager

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Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
Tel.: 613 540-5187 1-800-267-0295
Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Mr. Nathaniel Cummings
Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, ON K0L 1R0

Dear Mr. Cummings:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

This study followed the approved planning process for a Group 'B' undertaking in accordance with the Class Environmental Assessment for Provincial Transportation Facilities (2000). The

Transportation Environmental Study Report (TESR) has been prepared to document the planning and decision-making process that was followed during this study. The Notice of Study Submission (attached) provides the TESR viewing locations. A copy of the notice will be advertised in the Pembroke Daily Observer on Thursday, July \(12^{\text {th }}\) and Tuesday, July 17 \({ }^{\text {th }}, 2018\).

If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Chief Laurie Carr Hiawatha First Nation
123 Paudash Street
Hiawatha, ON KOL 2G0

Dear Chief Carr:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Karry Sandy-Mckenzie
Williams Treaties First Nations
8 Creswick Court
Barrie, ON L4M 2S7

Dear Karry Sandy-Mckenzie :

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION \\ PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) \\ COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger, MTO Project Manager

CB/ma
Encl. Notice of Study Submission
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cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

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Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Métis Nation of Ontario
500 Old St. Patrick Street, Unit 3
Ottawa, ON K1N 9G4

Att. Consultation Department:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
- Add a slip around lane to accommodate left turns Old Mill Road; and,
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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger,
MTO Project Manager
CB/ma
Encl. Notice of Study Submission
cc: Leslie Currie, MTO Aboriginal Liaison Officer
Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

Planning and Design Section 1355 John Counter Boulevard Postal Bag 4000 Kingston, Ontario K7L 5A3
Tel.: 613 540-5187 1-800-267-0295
Fax: 613-540-5106

Ministère des Transports
Section de la planification et de la conception

July 5, 2018

Ms. Cheryl Gallant, MP
84 Isabella Street, 2nd Floor
Pembroke, ON K8A 5S5

Dear Ms. Gallant:

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class
Environmental Assessment (EA) of Highway 148 from 60 m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:

\section*{Highway 148 between Angus Campbell Drive and Drive In Road:}
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) provide for sidewalks on both sides of the roadway; and
- Install Traffic Signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
- Revise the Greenwood Road intersection by tightening the westbound right-turn channel and extending the merge lane;
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- Entrance closures.

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If you have additional comments or questions, please feel free to contact the undersigned.
Sincerely

Chris Belanger,
MTO Project Manager
CB/ma
Encl. Notice of Study Submission
cc: Allan Ortlieb, P.Eng, IBI Group Project Manager
Sharon Westendorp, MTO
File GWP 214-00-00

IBI GROUP
100-175 Galaxy Boulevard
Toronto ON M9W 0C9 Canada
tel 4166791930 fax 4166754620

July 9, 2018

Name
Title
Agency
Address

\section*{Dear Mr./Ms.:}

\section*{MINISTRY OF TRANSPORTATION - NOTICE OF STUDY SUBMISSION PRELIMINARY DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT HIGHWAY 148 (PEMBROKE TO GREENWOOD ROAD) COUNTY OF RENFREW (G.W.P. 214-00-00)}

The Ministry of Transportation has completed the Preliminary Design and Class Environmental Assessment (EA) of Highway 148 from 60m west of Angus Campbell Drive in the City Pembroke to immediately east of the Greenwood Road intersection, in the County of Renfrew. The recommended plan includes:
Highway 148 between Angus Campbell Drive and Drive In Road:
- Widen to provide a continuous Two-Way Left-Turn Lane;
- Urbanize the cross-section (curb with gutter, storm sewer upgrades) and provide for a sidewalk on both sides of the roadway; and
- Install traffic signals at the Highway 148/ Drive-In Road intersection, including intersection improvements and profile changes to the north approach.

\section*{Highway 148 between Drive In Road and Greenwood Road:}
- Maintain a two-lane rural cross-section. Rehabilitate the existing pavement and provide 2.5 m wide paved shoulders;
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If you have additional comments or questions, please feel free to contact the undersigned.

Name - July 9, 2018

Sincerely,

\section*{IBI Group}

Allan Ortlieb, P.Eng.
Consultant Project Manager
AO/ma
Encl. Notice of Study Submission
cc: \(\quad\) Chris Belanger, MTO Project Manager
Sharon Westendorp, MTO Environmental Planner

CONTACT LIST - Highway 148 Preliminary Design and Class Environment Assessment Pembroke to Greenwood Road GWP 214-00-00

\section*{Agencies, Municipalities, and First Nations}

\section*{Letter Notification with OGN attachment}
\begin{tabular}{|c|c|c|c|c|}
\hline & Title & Contact Name & Address & City, PR, PC \\
\hline \multicolumn{5}{|l|}{FEDERAL AGENCIES} \\
\hline Transport Canada - Ontario Region & Environmental Coordinator & & 4900 Yonge Street & North York, ON M2N 6A5 \\
\hline Canadian Transportation Agency & Enforcement Officer & & 4900 Yonge Street, Suite 300 & Toronto, ON M2N 6A5 \\
\hline Environment Canada & Regional Director, Environmental Protection Operations & Ms. Esther Bobet & 4905 Dufferin Street & Toronto, ON M3H 5T4 \\
\hline \multicolumn{5}{|l|}{Public Works and Government Services} \\
\hline Canada & Project Manager, Major Crown Projects & Ms. Patrice Deneault & 11 Laurier Street & Gatineau, QC K1A OS5 \\
\hline Conservative Party of Canada & MP, Renfrew-Nipissing-Pembroke & Ms. Cheryl Gallant & 84 Isabella Street, 1st Floor & Pembroke, ON K8A 585 \\
\hline \multicolumn{5}{|l|}{PROVINCIAL AGENCIES} \\
\hline Ontario Progressive Conservative Party & MPP, Renfrew-Nipissing-Pembroke & Mr. John Yakabuski & 84 Isabella Street, Unit 6 & Pembroke, ON K8A 555 \\
\hline Ministry of the Environment and Climate Change & Environmental Resource Planner \& EA Coordinator & Ms. Vicki Mitchell & 1259 Gardiners Road, Unit 3 & Kingston, ON K7P 3J6 \\
\hline & & Mr. Trevor Parker & 31 Riverside Drive & Pembroke, ON K8A 8R6 \\
\hline Ministry of Natural Resources and Forestry & District Planner (Acting) & & & \\
\hline Ministry of Agriculture, Food and Rural Affairs & Rural Planner & Mr. John O'Neill & Provincial Government Bldg 1st Flr, 59 Ministry Rd, PO Box 2004 & Kemptville, ON KOG 1J0 \\
\hline Ministry of Indigenous Relations and Reconciliation & Director (Acting), Indigenous Relations Branch & Ms. Heather Levecque & 160 Bloor Street East, 9th Floor & Toronto, ON M7A 2E6 \\
\hline Ministry of Tourism, Culture and Sport & Heritage Planner & Ms. Laura Hatcher & 401 Bay Street & Toronto, ON M7A 0A7 \\
\hline Ministry of Tourism, Culture and Sport & Heritage Planner & Mr. Jeff Elkow & 401 Bay Street Suite 1700 & Toronto, ON M7A 0A7 \\
\hline Ministere des Transports Quebec Ontario Provincial Police & Chef des Operations Detachment Commander & Ms. Suzanne Roy & 1488, Route 148, C.P. 89 77 International Drive & Campbell's Bay, QC JOX 1K0 Pembroke, ON K8A 6W5 \\
\hline \multicolumn{5}{|l|}{REGIONAL AGENCIES} \\
\hline County of Renfrew & Warden & Ms. Jennifer Murphy & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & CAO & Mr. Jim Hutton & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Director of Public Works and Engineering & Mr. Steve Boland & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Manager of Planning & Mr. Charles Cheesman & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Director of Emergency Services & Mr. Michael Nolan & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Manager, Economic Development & Mr. Alastair Baird & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Manager of Infrastructure & Mr. Mike Pinet & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline County of Renfrew & Director of Development and Property Department & Mr. Craig Kelley & 9 International Drive & Pembroke, ON K8A 6W5 \\
\hline Renfrew County District School Board & Director of Education & Mr. Pino Buffone & 1270 Pembroke Street West & Pembroke, ON K8A 4G4 \\
\hline Renfrew County Catholic District School & & & & \\
\hline Board & Director of Education & Ms. Michele Arbour & 499 Pembroke Street West & Pembroke, ON K9A 5P1 \\
\hline Renfrew County Joint Transportation Consortium & General Manager & Mr. Robert White & 999 Cecelia Street & Pembroke, ON K8B 1A4 \\
\hline Conseil des écoles catholiques du Centre-Est & Directeur de l'éducation et secrétairetrésorier du Conseil & M. Réjean Sirois & 4000, rue Labelle & Ottawa, ON K1J 1A1 \\
\hline Conseil des écoles publiques de l'Est de I'Ontario & Directeur de l'éducation et secrétairetrésorier du Conseil & Ms. Edith Dumont & 2445 St. Laurent Blvd. & Ottawa, ON K1G 4J8 \\
\hline
\end{tabular}

LOCAL AGENCIES
City of Pembroke
City of Pembroke
City of Pembroke
City of Pembroke
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City of Pembroke
City of Pembroke
City of Pembroke
City of Pembroke
City of Pembroke
City of Pembroke
City of Pembroke Fire Department
Township of Laurentian Valley
Township of Laurentian Valley
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Township of Laurentian Valley
Township of Laurentian Valley
Township of Laurentian Valley
Township of Laurentian Valley
Township of Laurentian Valley
Township of Laurentian Valley
Township of Laurentian Valley Fire
Department

\section*{FIRST NATIONS}

Algonquins of Ontario Consultation Office
Algonquins of Pikwàkanagàn First Nation
Hiawatha First Nation
Curve Lake First Nation
Curve Lake First Nation
Curve Lake First Nation
Curve Lake First Nation
Alderville First Nation
Alderville First Nation
Beausoleil First Nation
Chippewas of Georgina Island
Williams Treaty First Nation
Claims Coordinator
Métis Nation of Ontario
\begin{tabular}{lll} 
Mayor & Mr. Mike LeMay & 1 Pembroke Street East \\
Deputy Mayor/Councillor & Mr. Ron Gervais & 1 Pembroke Street East \\
Councillor & Ms. Patrcia Lafreniere & 1 Pembroke Street East \\
Councillor & Mr. John McCann & 1 Pembroke Street East \\
Councillor & Mr. Andrew Plummer & 1 Pembroke Street East \\
Councillor & Mr. Les Scott & 1 Pembroke Street East \\
Councillor & Ms. Christine Reavie & 1 Pembroke Street East \\
Manager- Planning, Building and Parking & Ms. Colleen Sauriol & 1 Pembroke Street East \\
Authority & & \\
Supervisor of Roads and Fleet & Mr. Chris Mantha & 1 Pembroke Street East \\
Manager of Operations & Mr. Brian Lewis & 1 Pembroke Street East \\
Economic Development Officer & Ms. Heather McConnell & 1 Pembroke Street East \\
CAO & Mr. Terry Lapierre & 1 Pembroke Street East \\
Mayor & Chief Daniel P.G. Herback & 273 Victoria Street \\
Councillor & Mr. Steve Bennett & 460 Witt Road, R.R. \#4 \\
Councillor & Ms. Jennifer Gauthier & 460 Witt Road, R.R. \#4 \\
Councillor & Mr. Brian Hugli & 460 Witt Road, R.R. \#4 \\
Councillor & Mr. George Hodgkinson & 460 Witt Road, R.R. \#4 \\
Councillor & Mr. Keith Watt & 460 Witt Road, R.R. \#4 \\
CAO & Mr. Allan Wren & 460 Witt Road, R.R. \#4 \\
Reeve & Mr. Dean Sauriol & 460 Witt Road, R.R. \#4 \\
Planner, Economic Development Officer & Ms. Debbie Robinson & 460 Witt Road, R.R. \#4 \\
Public Works Manager & Ms.Lauree Armstrong & 460 Witt Road, R.R. \#4 \\
& Mr. Mark Behm & 460 Witt Road, R.R. \#4
\end{tabular}

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Pembroke, ON K8A 6W5 Pembroke, ON K8A 6W5

31 Riverside Drive, Suite 101 1657A Mishomis Inamo
123 Paudash Street 22 Winookeedaa Road
22 Winookeedaa Road
22 Winookeedaa Road
22 Winookeedaa Road
P.O. Box 46, 11696 2nd Line Road Alderville, ON KOK 2 XO
P.O. Box 46, 11696 2nd Line Road Alderville, ON KOK 2X0

11 Ogemaa Miikaan Christian Island, ON L9M OA9 R.R. \#2 Box N-13 Sutton West, ON LOE 1RO

8 Creswick Court
500 Old St. Patrick Street, Unit 3

Pembroke, ON K8A 8R6 Pikwàkanagàn, ON KOJ 1XO
Hiawatha, ON KOL 2GO Curve Lake, ON KOL 1RO Curve Lake, ON KOL 1RO Curve Lake, ON KOL 1RO Curve Lake ON KOL 1RO Alderville ON KOK 2XO Barrie, ON L4M 2S7 Ottawa, ON K1N 9G4

\section*{*Mailing}

MTO Letterhead - MP/MPP and First Nations "Notice of Submission" Letter```

