

L.8 Council Presentations





Highway 401 Planning Study
from Cobourg to Colborne
GWP 4060-00-00

Nagle Road Interchange Study
GWP 4059-17-00

PIC 1 Council Presentation
Town of Cobourg
September 9, 2019





Highway 401 Planning Study
from Cobourg to Colborne
GWP 4060-00-00

Nagle Road Interchange Study
GWP 4059-17-00

PIC 1 Council Presentation
Township of Hamilton
September 10, 2019





Highway 401 Planning Study
from Cobourg to Colborne
GWP 4060-00-00

Nagle Road Interchange Study
GWP 4059-17-00

PIC 1 Council Presentation
Township Cramahe
September 17, 2019





Highway 401 Planning Study
from Cobourg to Colborne
GWP 4060-00-00

Nagle Road Interchange Study
GWP 4059-17-00

PIC 1 Council Presentation
Northumberland County
September 18, 2019



Highway 401 Planning Study
from Cobourg to Colborne
GWP 4060-00-00

Nagle Road Interchange Study
GWP 4059-17-00

PIC 1 Council Presentation
Township of Alnwick/Haldimand
September 19, 2019

Council Presentations

Town of Cobourg

September 9, 2019

Township of Hamilton

September 10, 2019

Township of Cramahe

September 17, 2019

Northumberland County

September 18, 2019

Township of Alnwick/Haldimand

September 19, 2019

Agenda

1 Study Areas, Study Process

2 Highway 401 Planning Study

3 Nagle Road Interchange Planning Study

4 Consultation

5 Schedule

6 Questions

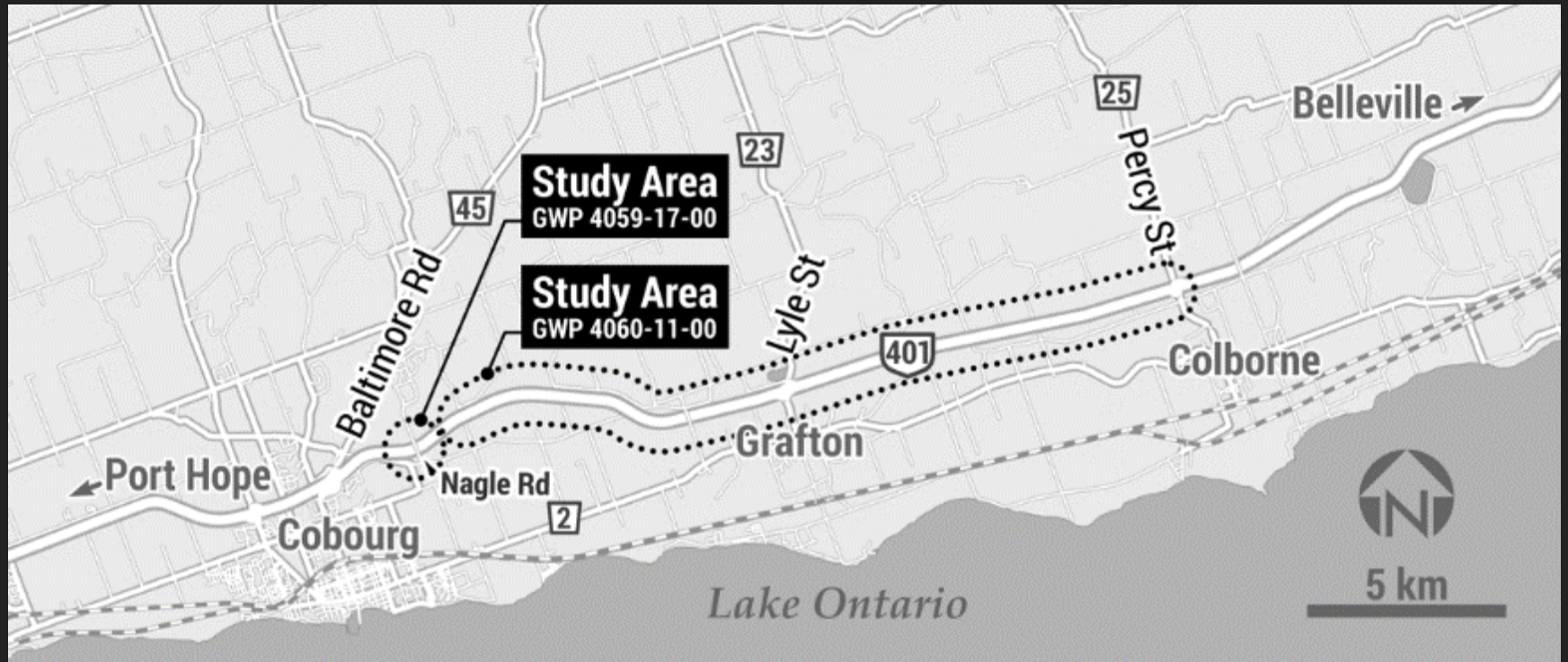
PIC 1 Council Presentation

Study Areas, Study Process

Study Areas

- The Ontario Ministry of Transportation (MTO) has retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for Highway 401 between Cobourg and Colborne
- The Ontario Ministry of Transportation (MTO) and the Town of Cobourg have retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for a new Highway 401 interchange near Nagle Road in the Town of Cobourg and the Township of Hamilton, in Northumberland County

Study Areas



Environmental Assessment Process

- Both studies are being carried out under the requirements of the Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)
- The studies fall within the scope of a Group “B” project, which includes highway improvements that provide/cause a significant modification in traffic access
- Both of the studies will share the same Public Information Centres (PIC) and Municipal Advisory Committees (MAC), however a separate TESR will be published for each study

Environmental Investigations & Studies

- Stage 1 Archaeological Assessment
- Cultural Heritage Studies
- Terrestrial Ecosystems Existing Conditions and Impact Assessments
- Fish and Fish Habitat Existing Conditions and Impact Assessments
- Noise Assessment
- Erosion and Sedimentation Overview Risk Assessment
- Air Quality and Greenhouse Gas Assessment
- Contamination Overview Study
- Groundwater Overview Study

PIC 1 Council Presentation

Highway 401 Planning Study

Problem & Opportunity

Problems

- Many of the bridges and culverts in the study area are nearing the end of their service life and will require rehabilitation and/or replacement in the near future
- The existing Highway 401 platform cannot accommodate the traffic staging required to rehabilitate or replace the bridges and structural culverts

Opportunities

- The study will assess the existing bridges and culverts in the study area and develop appropriate rehabilitation or replacement strategies to maintain the safe operation of the Highway 401 corridor for the current and future planning horizons
- For structural planning purposes the study will establish the ultimate Highway 401 footprints for future six and eight lanes, to address current and future transportation needs

Study Purpose

The purpose of the Highway 401 Planning Study is to identify a Recommended Plan that addresses current and future transportation needs in the study area as part of the Ministry's ongoing review of safety and operational needs for the provincial highway network.

- Rehabilitation and replacement of bridges and structural culverts
- Interchange modifications at Lyle Street and Percy Street
- Commuter parking lot expansions or relocations
- Establish the footprint of future six and eight lanes on Highway 401 to ensure appropriate design of bridge replacements

PIC 1 Alternatives

1. Danforth Road Bridge Improvement Alternatives
2. Gully Road Bridge Improvement Alternatives
3. Lyle Street Interchange Alternatives
4. Shelter Valley Road & Creek Culvert Improvement Alternatives
5. Vernonville Road Bridge Improvement Alternatives
6. Boyce Road Bridge Improvement Alternatives
7. Percy Street Interchange Alternatives
8. Highway 401 Alternatives
9. Drainage Improvements

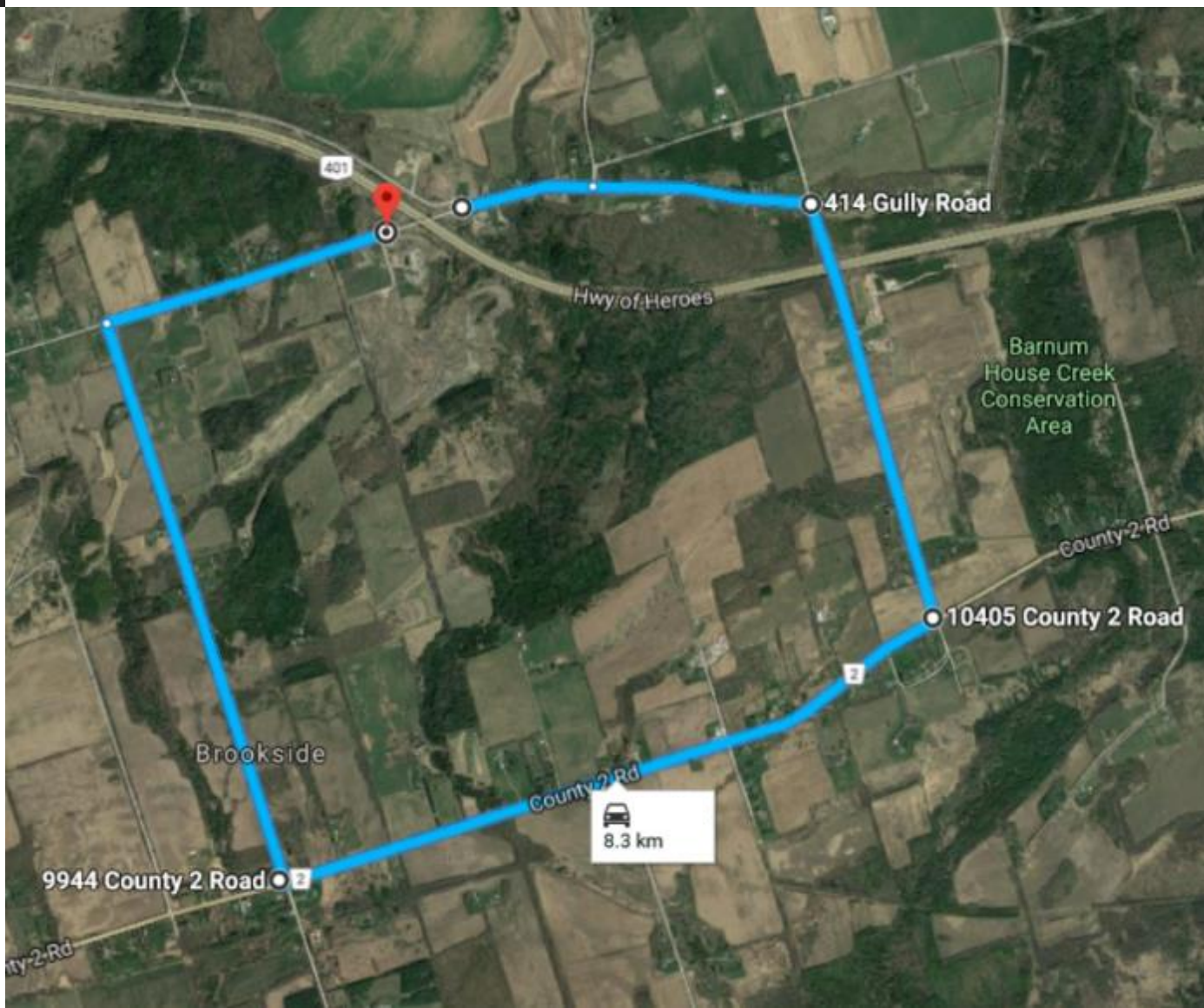
Lyle Street Alternative 1 - Diamond



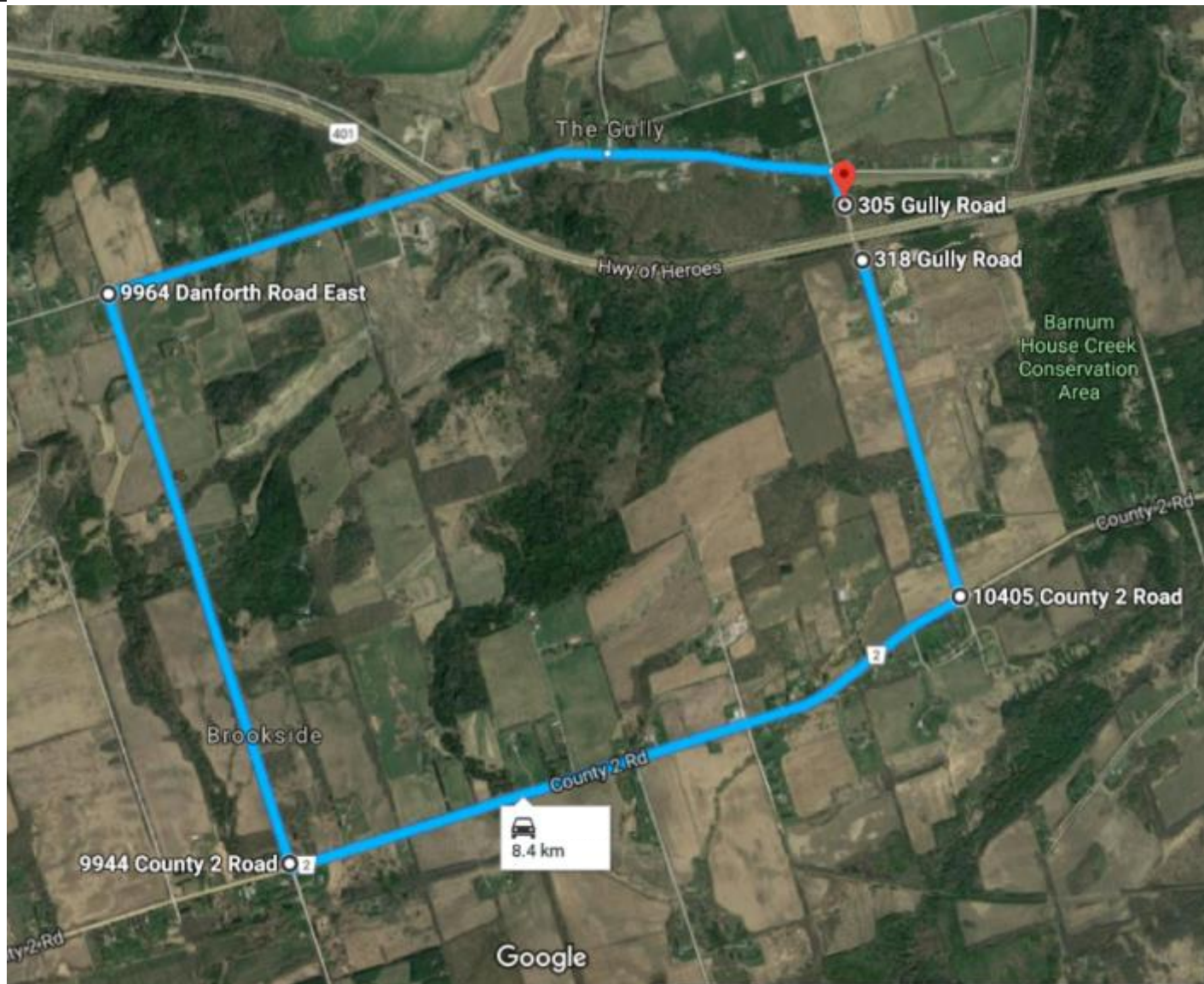
Lyle Street Alternative 2 – Parclo A4



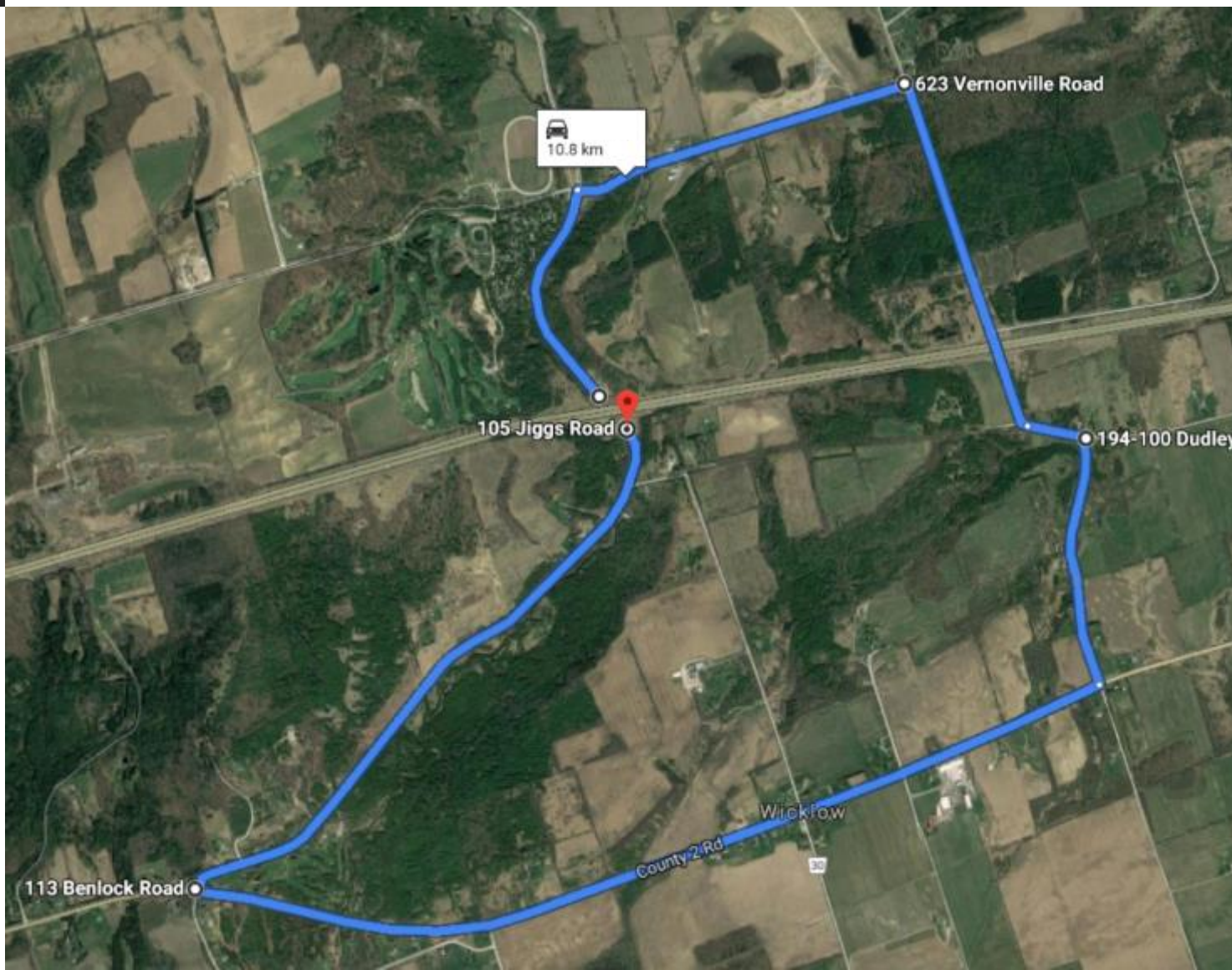
Potential Danforth Road Detour



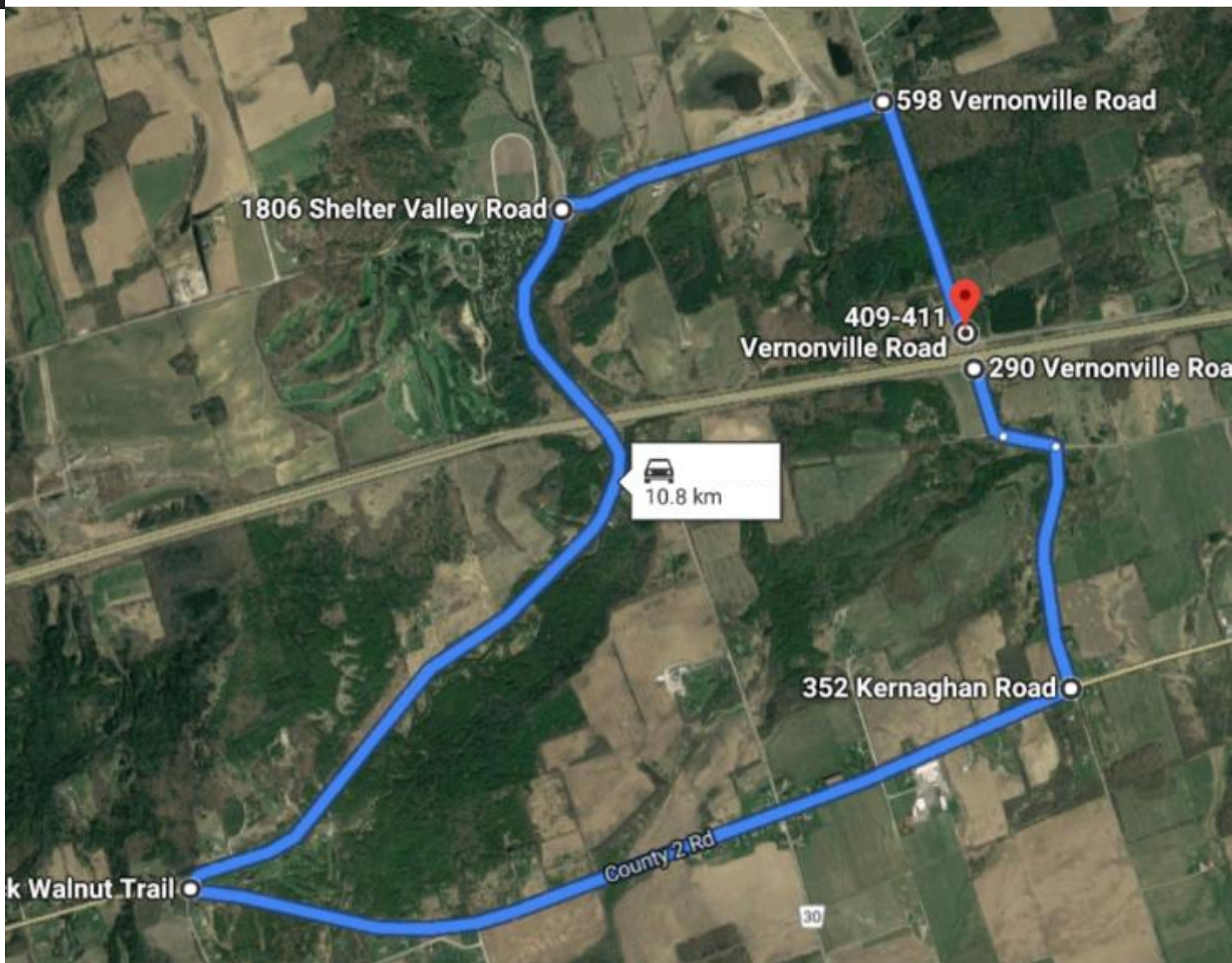
Potential Gully Road Detour



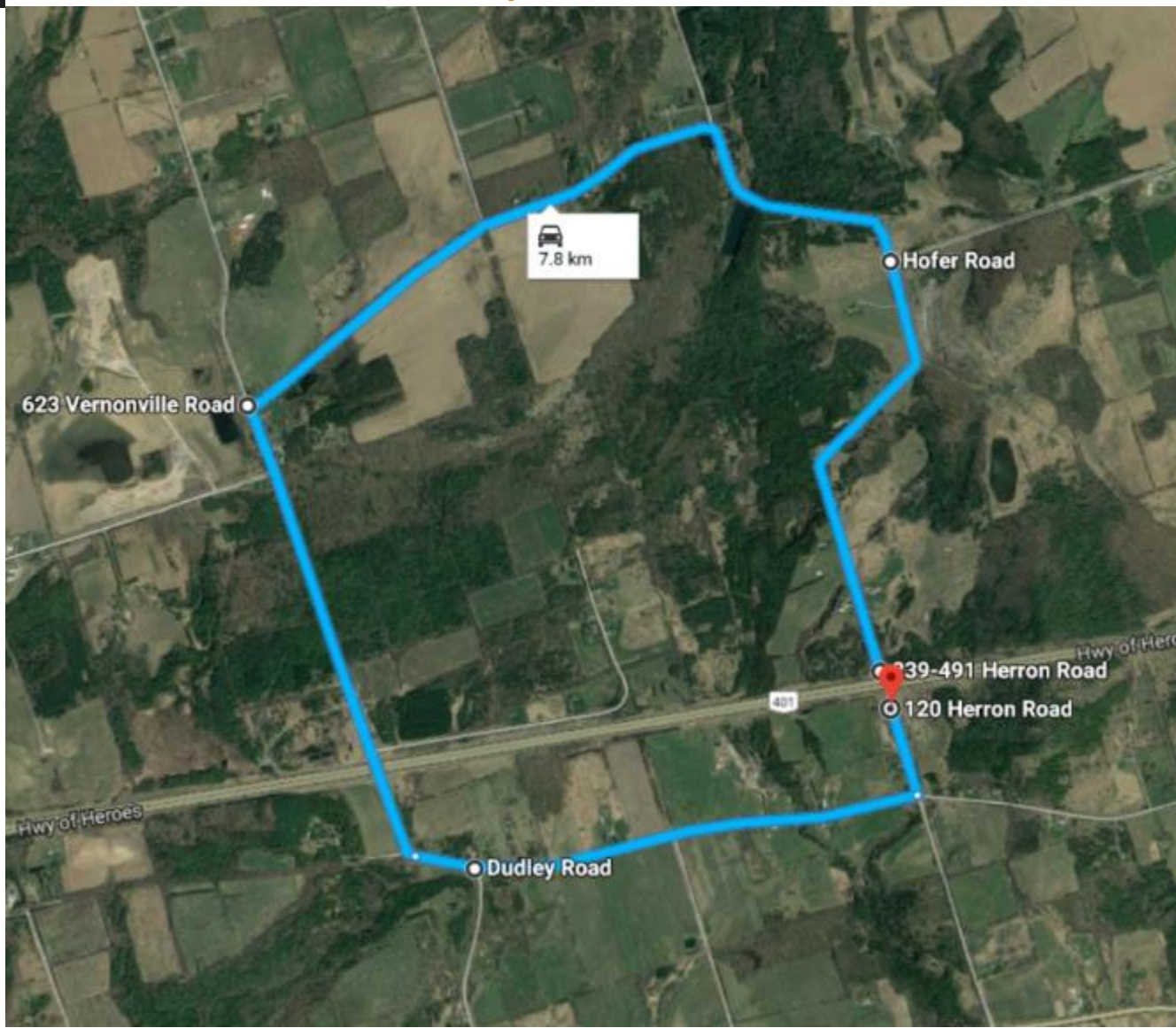
Potential Shelter Valley Road Detour



Potential Vernonville Road Detour



Potential Boyce Road Detour



Percy Street Alternatives

Alternative 1 - Diamond



Alternative 2 – Parclo A4



Alternative 3 – Parclo A2



PIC 1 Council Presentation

Nagle Road Interchange Study

Study Purpose

The purpose of the Nagle Road Interchange Study is to identify a Recommended Plan that addresses future transportation and planning needs in the study area.

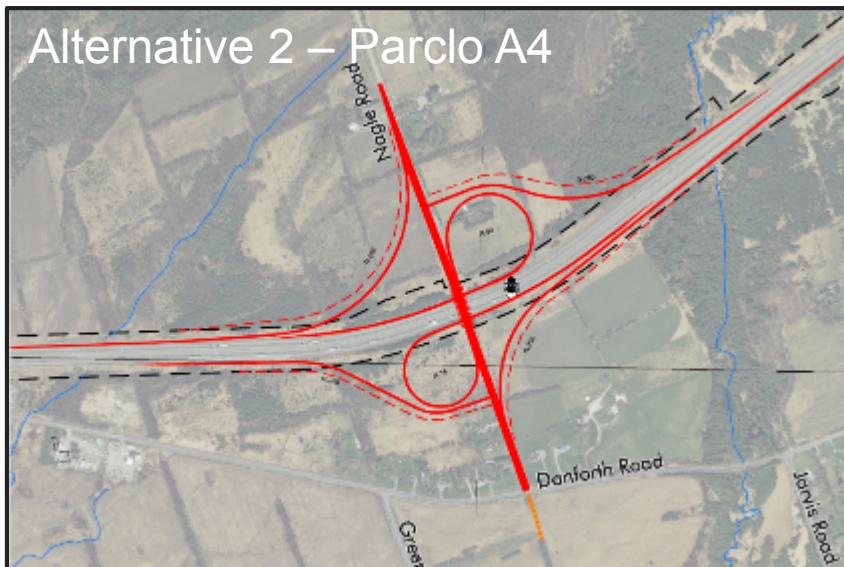
- New interchange in the vicinity of Nagle Road to provide access to the Cobourg East Community
- Rehabilitation or replacement of the existing Nagle Road bridge to accommodate the new interchange
- The proposed interchange is the Town of Cobourg's initiative as identified in the Towns of Cobourg's Transportation Master Plan (TMP) and Official Plan
- The Town of Cobourg is bearing the full cost associated with this preliminary design study

Problem & Opportunity

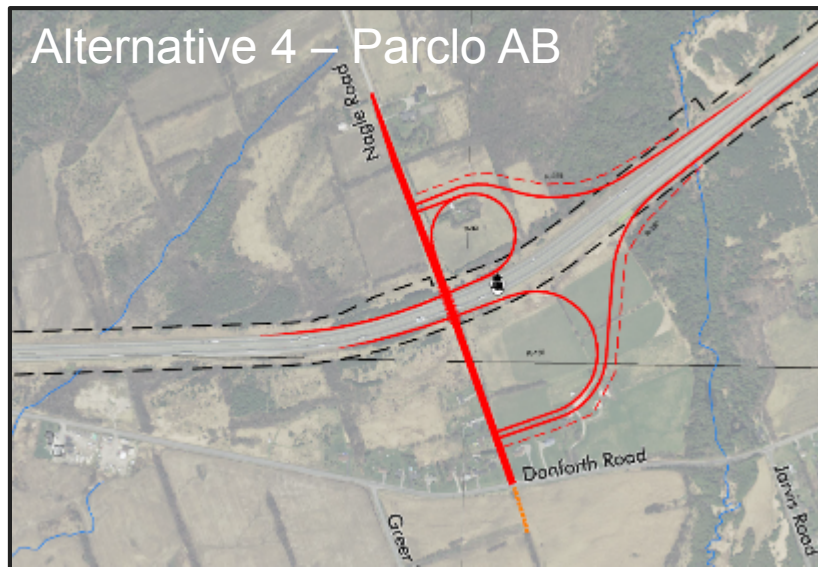
- The need for an interchange at Nagle Road with Highway 401 was identified in the Cobourg East Community Secondary Plan
- The proposed interchange supports the transportation objectives identified in Section 15.7 of the Town of Cobourg Official Plan (5 Year Review)

PIC 1 Alternatives

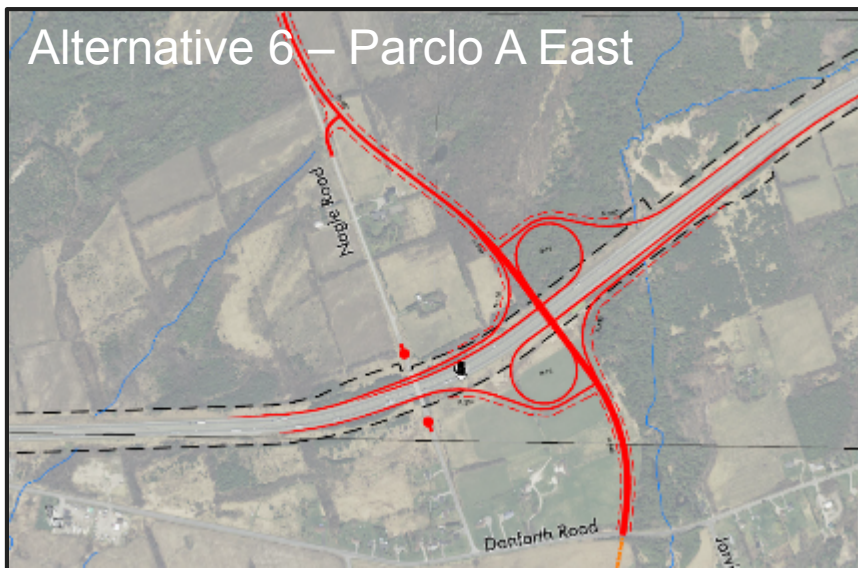
Alternative 2 – Parclo A4



Alternative 4 – Parclo AB



Alternative 6 – Parclo A East



Alternative 7 – Parclo BA East



PIC 1 Council Presentation

Consultation

Consultation

- Public Notices
- Project Website (www.highway401cobourgcolborne.ca)
- Public Information Centres (2)
- Indigenous Consultation
- Council Presentations
- Municipal Advisory Committee Meetings (2)
- Consultation with External Agencies
- *Transportation Environmental Study Reports* (TESR)
Public Review

Stakeholders

- Ministry of Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Lower Trent Conservation Authority
- Ganaraska Conservation Authority
- Town of Cobourg
- Hamilton Township
- Alnwich/Haldimand Township
- Cramahe Township
- Northumberland County
- Curve Lake First Nation
- Mississaugas of Scugog Island First Nation
- Mohawks of the Bay of Quinte
- Alderville First Nation
- Hiawatha First Nation
- Mississaugas of the New Credit First Union
- Métis Nation of Ontario
- Six Nations of the Grand River
- Williams Treaties First Nations

Issues and Concerns (MAC Meeting #1)

- Temporary traffic impacts on local roads (detours)
- Duration of road closures for bridge replacements
- Coordination of road closures
- Active transportation infrastructure at crossing roads
- Accommodation of LCVs at interchanges
- Traffic impacts on Nagle Road and the adjacent County road network
- Jurisdiction of Nagle Road with interchange (i.e. County Road?)

Other Comments and Considerations

- Interruptions to school bus routes
- Stormwater management considerations
- Noise and vibration impacts
- Air quality and greenhouse gas impacts (Sustainable Cobourg)
- Impacts to sensitive natural environment features (i.e., Brook Creek Environmental Constraint Area)
- Contamination of surface and groundwater
- Property impacts at Nagle Road
- Highly erodible soils
- Ongoing developments

PIC 1 Council Presentation

Schedule

Key Dates

Notice of Study Commencement	April-May 2018
Municipal Advisory Committee Meeting 1	May 16, 2019
Public Information Centre 1	September 18, 2019
Municipal Advisory Committee Meeting 2	March 2020 (tentative)
Public Information Centre 2	May 2020 (tentative)
Transportation Environmental Study Reports	August 2020 (tentative)

Public Information Centre 1

The PIC will be a drop-in format and is scheduled for:

- Date: September 18, 2019
- Location: Cobourg Lions Community Centre, 157 Elgin Street East, Cobourg, Ontario
- Time (public): 4 PM to 8 PM
- External Agency Meeting: 3 PM to 4 PM

Questions?



Nagle Road Interchange Study, GWP 4059-17-00

Town of Cobourg Council Presentation

January 16, 2023





Nagle Road Interchange Study, GWP 4059-17-00

Township of Hamilton Council Presentation

January 17, 2023





Nagle Road Interchange Study, GWP 4059-17-00

Northumberland County Public Works Committee Presentation

February 27, 2023





Agenda

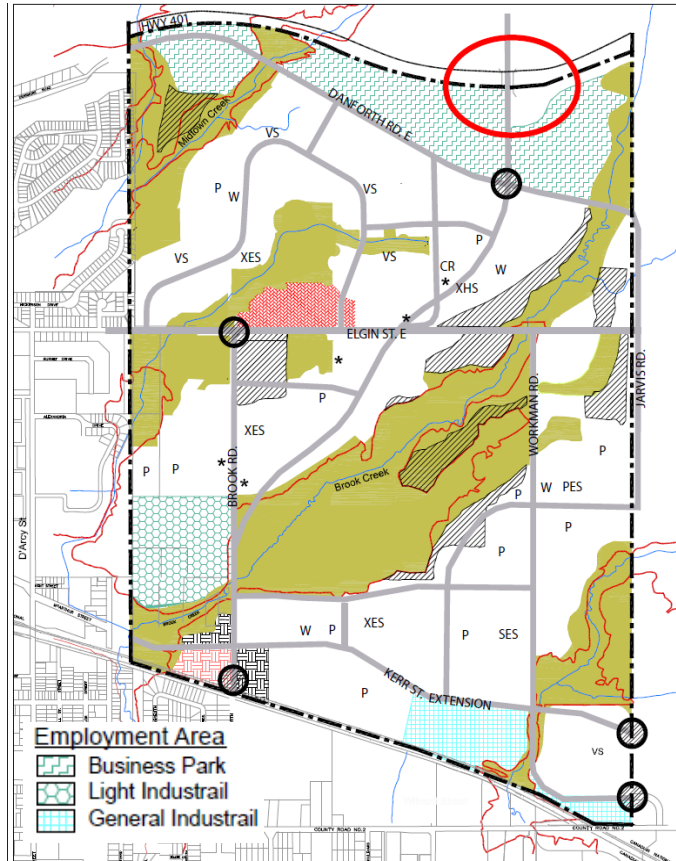
1. Study Background
2. Alternatives
3. Preferred Plan
4. Potential Detours
5. Consultation
6. Questions

Study Background

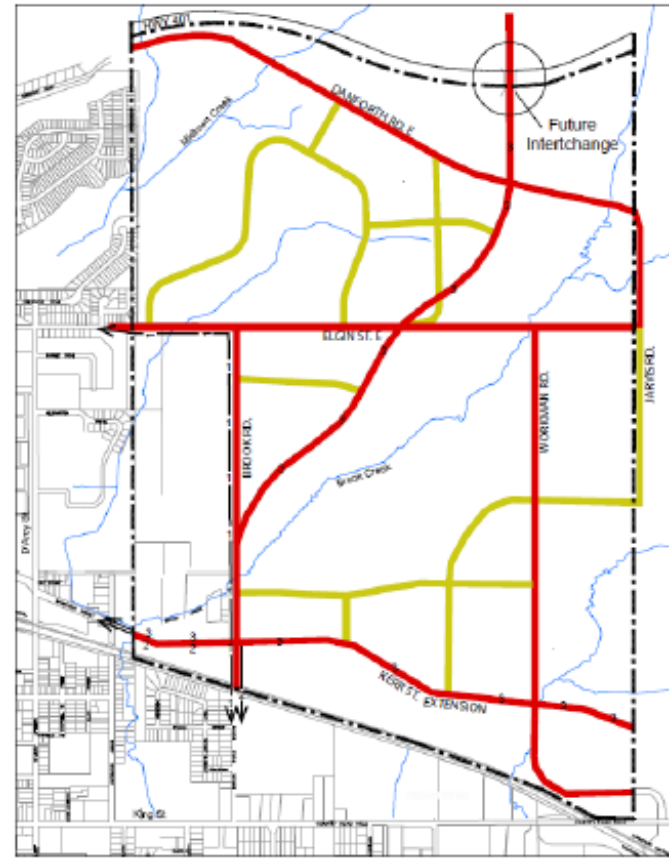
Study Background

- The need for an interchange at Nagle Road/Highway 401 was identified within the Cobourg East Community Secondary Plan (approved by the Town of Cobourg Council in 2005)
- The proposed interchange supports the transportation objectives identified within the Town of Cobourg Official Plan
- A 'potential future Highway 401 interchange' was identified at Nagle Road as part of the Township of Hamilton's Official Plan
- Initially this study was combined with the Highway 401 Cobourg to Colborne study; however, the schedules were separated to accommodate an in-person PIC for this study (when safe and practical)

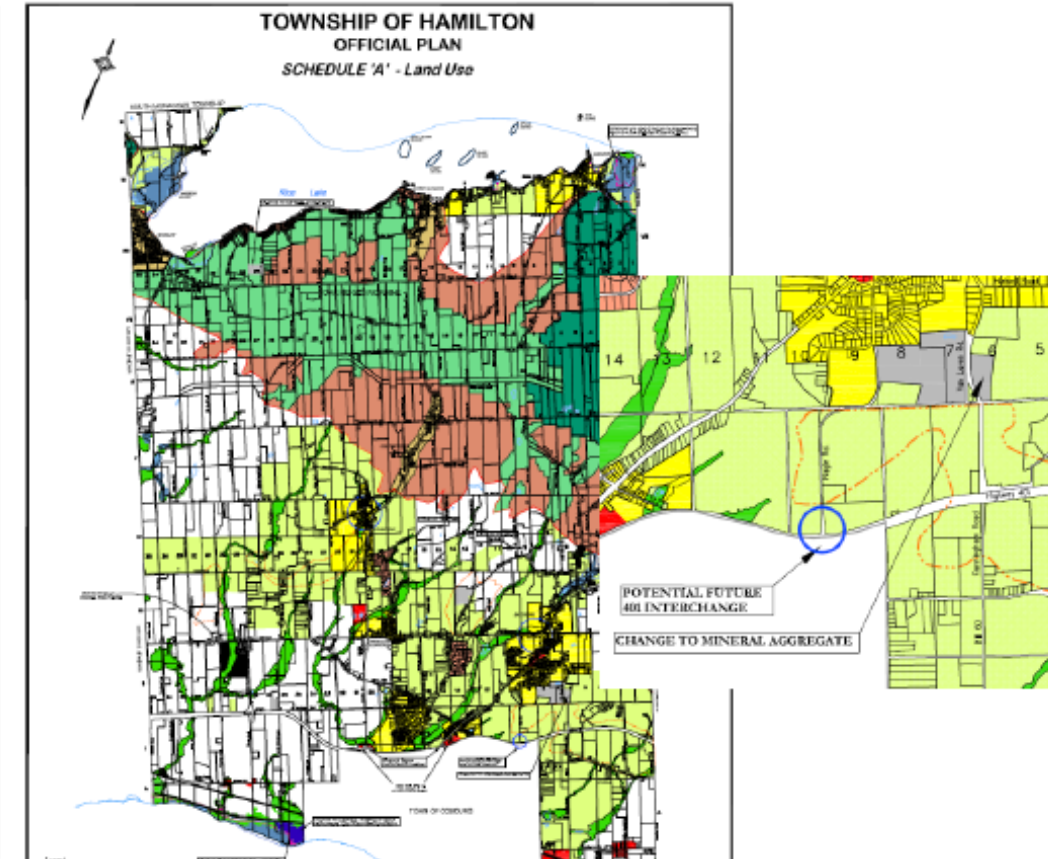
Study Background



Schedule X1 Land Use Plan
Cobourg East Community Secondary Plan
Official Plan Amendment No. 76
September 2019



Schedule X2 Movement Plan
Cobourg East Community Secondary Plan
Official Plan Amendment No. 76
September 2019



Schedule 'A' Land Use
Township of Hamilton Official Plan
November 2010

Study Purpose

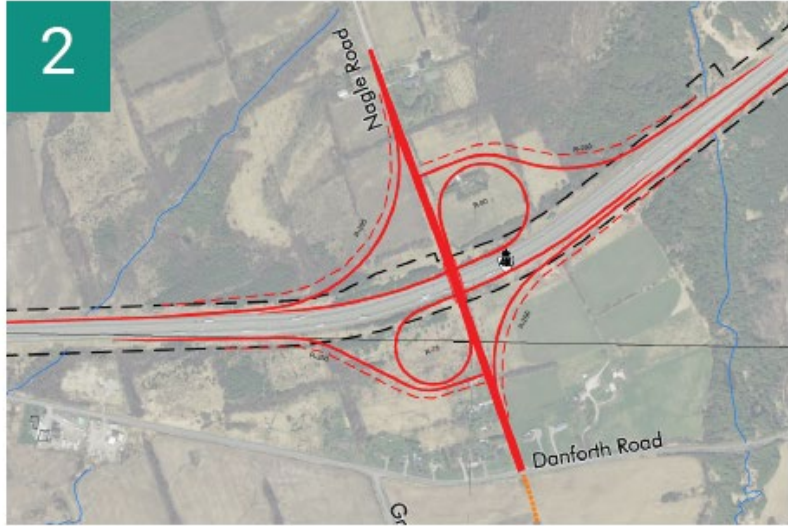
- The purpose of the study is to identify a Recommended Plan for a new interchange on Highway 401 and Nagle Road, to provide access to the planned Cobourg East Community development in the Town of Cobourg
- The study also includes an assessment of the existing Nagle Road bridge
 - The bridge is approaching the end of its service life and will need to be rehabilitated or replaced
 - Ultimately, the bridge will need to accommodate a future Highway 401 8-lane footprint
- The timing of construction is currently not known and will be dependent on development of the Cobourg East Community

Environmental Assessment Process

- The study is being carried out under the requirements of the Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)
- The study falls within the scope of a Group "B" project, which includes highway improvements that provide/cause a significant modification in traffic access

Alternatives

Alternatives (short list)



Alternatives (short list)

Following PIC 1, a hybrid interchange alternative (Parclo A2/Diamond) was developed to minimize initial property impacts on the south side of the interchange and to provide implementation flexibility to accommodate the adjacent development timing. This alternative was also carried forward for more detailed evaluation.

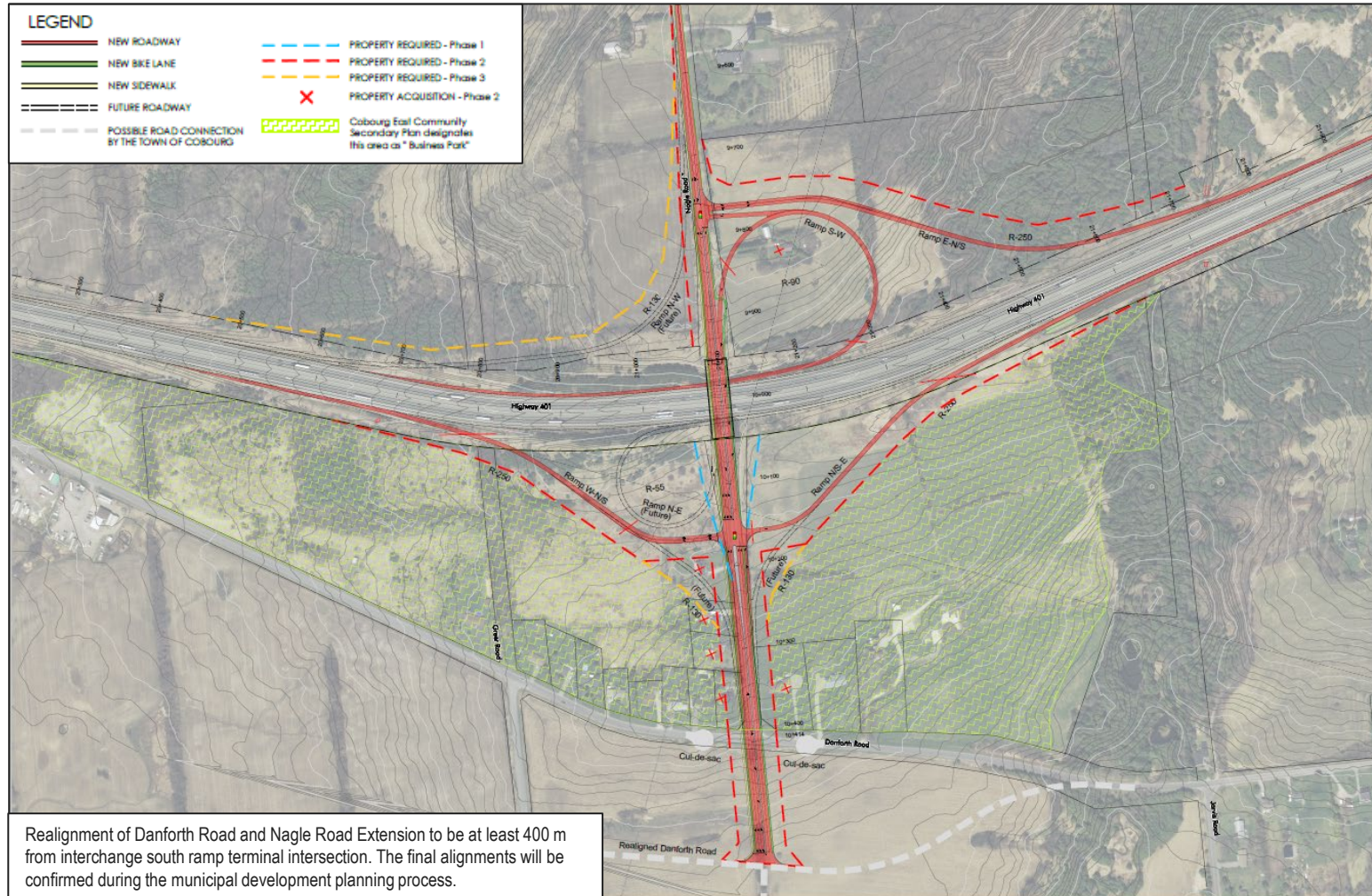


PIC 1 Feedback

- The bridge is a cycling route and should be bike friendly
- Protect agricultural land
- Avoid private property impacts
- Minimize impacts to cultural heritage resources
- Improve safety for school children (e.g., bus stops and shoulders)
- Accommodate pedestrians (e.g., streetlights and sidewalks)
- Avoid increases in traffic noise
- Avoid impacts to surface and groundwater
- Potential increases in traffic and/or large trucks within the residential area is a concern
- Potential impacts to fish populations and terrestrial species is a concern
- The Township of Hamilton and its residences need to be consulted further

Preferred Plan

Preferred Plan



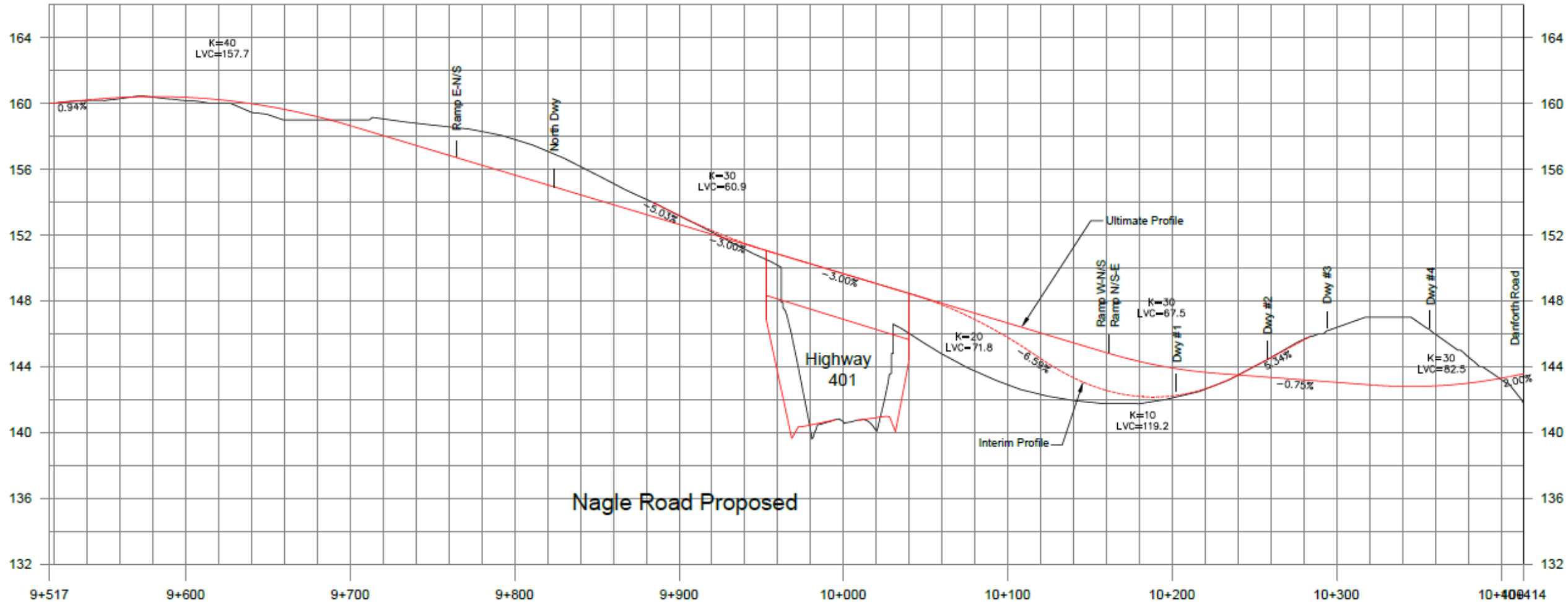
The Preferred Plan was selected because...

1. It maintains the existing alignment of Nagle Road
2. The interchange configuration provides sufficient capacity and Level of Service to accommodate the anticipated traffic demands generated from the planned Cobourg East Community development
3. The bridge can be replaced in advance of the interchange (if the bridge replacement is required before the development proceeds)
4. The interchange ramps can be constructed in phases to accommodate development as required
5. It impacts less private property and agricultural land compared to the alternatives located east of Nagle Road
6. It impacts a smaller area of wildlife habitat compared to the alternatives located east of Nagle Road
7. It avoids the known Environmental Protection Areas
8. It requires the fewest number of watercourse crossings (1)
9. It has a lower construction cost compared to other alternatives

Preferred Plan

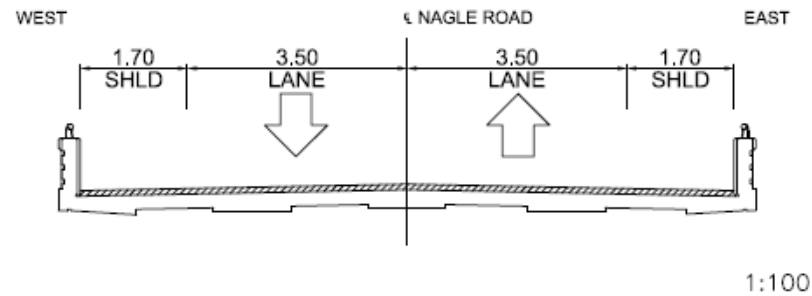
North

South

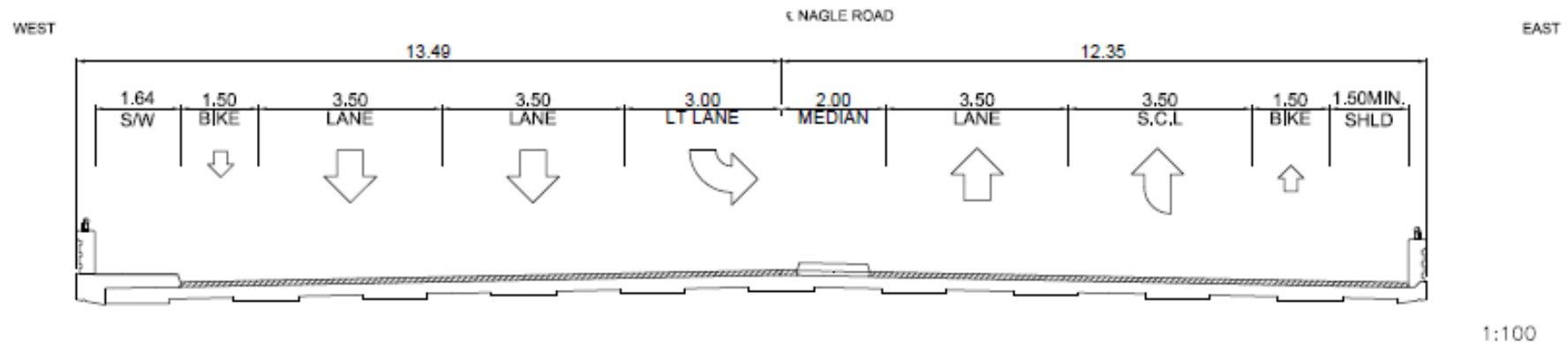


Preferred Plan

Nagle Road Bridge Cross Section
(Phase 1)



Nagle Road Bridge Cross Section
(Phase 2)



Facing North

Construction Phasing

The Preferred Plan will be constructed in several phases to accommodate bridge rehabilitation/replacement needs and development growth.

The following construction phases are anticipated at this time; however, the timing of each phase will be dependent on the bridge condition and the actual timing of development.

Phase	Construction	Responsibility (\$)
1) Bridge Replacement Phase	Replace bridge only with minor profile adjustments to connect the new bridge to existing Nagle Road. The bridge may be constructed as a 2-lane bridge only, with provisions for future widening.	Ministry of Transportation (MTO)
2) Cobourg East Development Phase	Widen bridge (including sidewalk and bicycle lanes), widen Nagle Road, construct interchange ramps (Parclo A2 on north side, Diamond on south side)	Town of Cobourg
3) Possible Future Construction Phase	Construct Ramp N-W and Ramp N-E (Parclo A4), modify Ramp N/S-E and Ramp N/S-W to single movements (S-E and S-W)	Possible future municipal initiative

Note: The Ministry is also considering rehabilitating the bridge so that it can be replaced when the interchange is constructed in the future.

Property Impacts

Location	Properties Impacted	Dwellings Impacted	Area (ha)
Hamilton Township	4 private 2 municipal	1	8.9
Town of Cobourg	8 private 1 municipal	5	7.3
Total	12 private 3 municipal	6	16.2

Potential Detours

Potential Overnight Detour



Closure Location

Highway 401 between
Division Street (CR45) and
Lyle Street (CR23)

Construction Activity

Nagle Road bridge demo

Proposed Detour Route

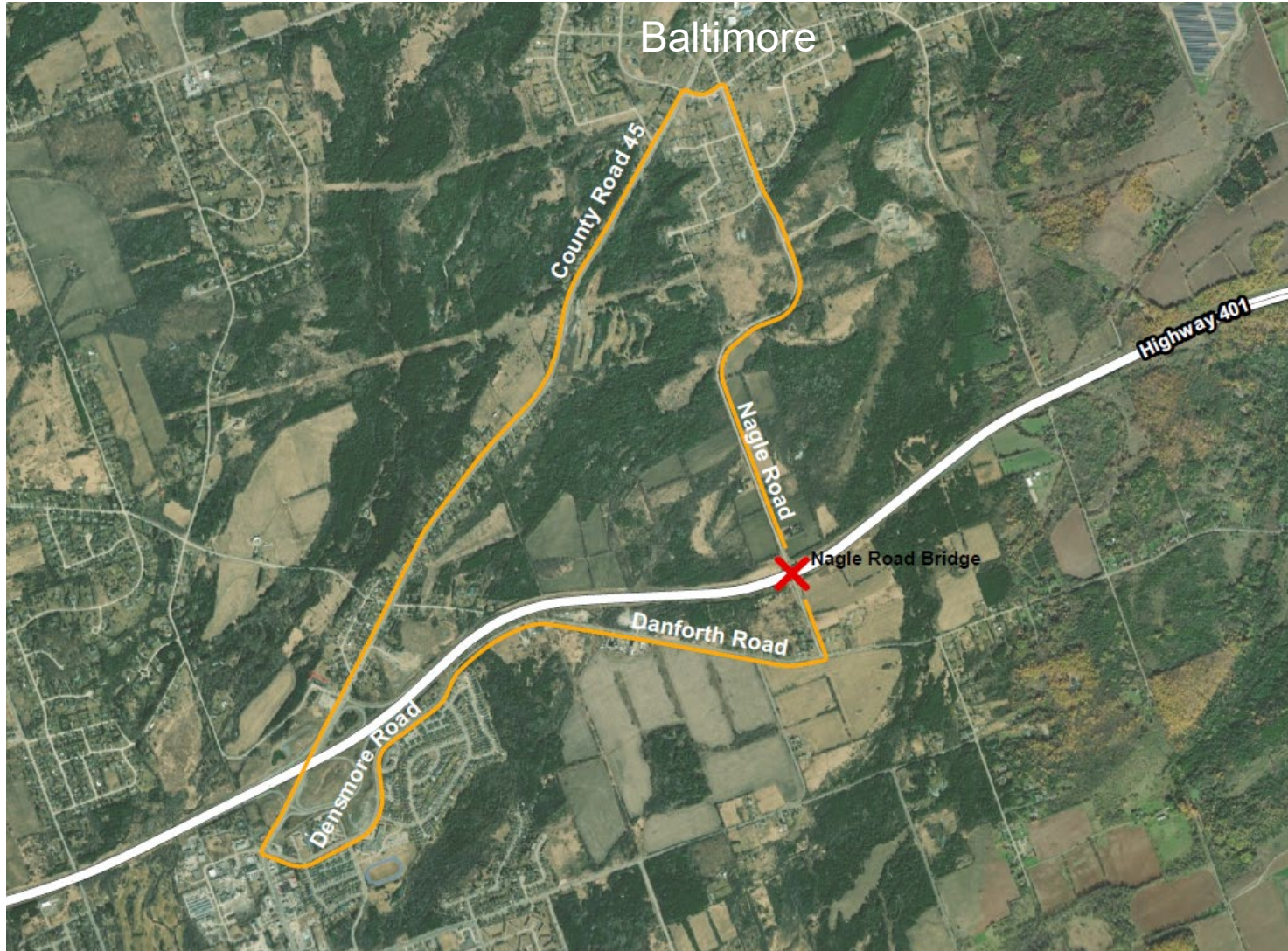
CR45, CR22, CR25 (EDR)

Likely Duration

14-18 hours (to be confirmed
during detail design)

Additional full closures may be required during the construction of the new bridge. The number and duration of those full closures will be confirmed during detail design.

Potential Long-term Detour



Closure Location

Nagle Road bridge at Highway 401

Construction Activity

Nagle Road bridge construction

Proposed Detour Route

CR45, Densmore Road, Danforth Road

Likely Duration

Up to 12 months (to be confirmed during detail design)

Consultation

Formal Consultation

- Public Notices
- Project Website (www.highway401cobourgcoborne.ca)
- Notice of Study Commencement
- Public Information Centres (2)
- Indigenous Consultation
- Council Presentations
- Municipal Advisory Committee Meetings (3)
- Consultation with External Agencies
- Transportation Environmental Study Reports (TESR)
Public Review

Stakeholders

- Ministry of Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Citizenship and Multiculturalism
- Lower Trent Conservation Authority
- Ganaraska Conservation Authority
- Town of Cobourg
- Township of Hamilton
- Northumberland County
- Métis Nation of Ontario
- Mohawks of the Bay of Quinte
- Williams Treaties First Nations Claims Coordinator
 - Curve Lake First Nation
 - Mississaugas of Scugog Island First Nation
 - Beausoleil First Nation
 - Georgina Island First Nation
 - Chippewas of Rama
 - Alderville First Nation
 - Hiawatha First Nation

Milestones

Council/Committee Presentations

- Hamilton Township CoW: January 10, 2023
- Town of Cobourg Council: January 16, 2023
- Northumberland County Public Works Committee: February 27, 2023

Public Information Centre 2 – January 18, 2023

- Evaluation of Alternatives and the Preferred Plan
- Anticipated environmental impacts and mitigation measures
- Impacted property owner meetings

Transportation Environmental Study Report

- 30-day public comment period
- Tentatively scheduled for Spring 2023

Questions