

Municipal Advisory Committee (MAC) Meeting # 1

Highway 401 Planning Study from Cobourg to Colborne
Preliminary Design & Class Environmental Assessment
GWP 4060-11-00 and Nagle Road Interchange Study GWP 4059-17-00

Assignment Number 4015-E-0033, / Stantec File 165001090 & 165001106

Date/Time: May 16, 2019 / 2:00 PM

Place: Cobourg Community Centre – Bea's Place Room

Next Meeting: TBD

Attendees:	Muhammad Waseem	MTO Project Manager
	Michael Sleeth	MTO Project Engineer
	Erin Pipe	MTO Environmental Planner
	Cheryl Tolles	MTO Corridor Management
	Terry Hoekstra	Town of Cobourg
	Mike Vilneff	Cobourg Fire Department, Fire Chief
	Laurie Wills	Town of Cobourg, Director of Public Works
	Gene Thompson	Cobourg Fire Department, Deputy Fire Chief
	Jennifer Current	Township of Alnwick/Haldimand, Senior Planner
	Dwayne Campbell	Northumberland County, Manager of Planning
	Denise Marshall	Northumberland County, Manager of Engineering
	Rob Franklin	Town of Cobourg, Manager of Planning
	Arthur Anderson	Township of Hamilton, CAO
	Ken Thajer	Ganaraska Conservation Authority, Planner
	Sandra Stothart	Township of Hamilton, Planner
	Leah Stephens	Lower Trent Conservation Authority, Planner
	Gage Comeau	Lower Trent Conservation Authority, Regulations Officer
	Dan Borowec	Northumberland County, Economic Development Officer
	Gregg Cooke	Stantec Project Manager
	Nevena Gazibara	Stantec Environmental Team Lead

Distribution: Project Team

Item:	Action:
1.	All attendees were introduced.
2.	Muhammad Waseem provided an introduction on the two studies being completed including background and need for projects.
3.	Terry Hoekstra provided additional information on the Town of Cobourg's Official Plan, future development plans including future local road connections to a possible future Nagle Road interchange.
4.	Gregg Cooke welcomed the municipal representatives and provided a presentation that included an overview of the study purpose and scope of projects and the environmental assessment processes being completed including the consultation programs. A copy of the presentation is attached.
5.	The scope of the two current studies includes: <ul style="list-style-type: none">• Rehabilitation and replacement of bridges and structural culverts

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Item:	Action:
<ul style="list-style-type: none">• Interchange modifications at Lyle Street and Percy Street• Commuter parking lot expansions and relocations• Establishing footprints of Highway 401 for six and eight lanes• A new interchange near Nagle Road and rehabilitation or replacement of the existing Nagle Road bridge to accommodate the new interchange and future Highway 401 widening	
6. Gregg Cooke provided an overview of the preliminary design alternatives that will be presented at the first Public Information Centre.	
7. The following questions were discussed during the meeting:	
a. Are the limits of the study areas based on municipal boundaries or interchange to interchange?	
<p>The limits of the study area are not based on municipal boundaries but rather have been set based on previous/other MTO contract limits along Highway 401.</p>	
b. Are certain interchange alternatives inherently safer than others?	
<p>Certain interchange configurations provide better safety features than others. For example, a Parclo B interchange has an exit from the highway to a loop ramp, which is less preferred when compared to a Parclo A or Diamond interchange. Safety features of interchange alternatives will be included in the evaluation of alternatives and ultimately in selecting a preferred plan.</p>	
c. Will the MTO consider traffic impacts on local roads as a result of the alternatives?	
<p>The project team is undertaking traffic studies as part of these two projects that will include potential changes to traffic patterns on local roads. The project team will share the results of the traffic studies with municipalities, upon request.</p>	
d. Can the Nagle Road bridge replacement be completed in 3 months if the road is closed?	
<p>Yes - the work can be completed within 3 months if Nagle Road is closed.</p>	
e. Will the closure of crossing roads be coordinated so that they are not all closed at the same time?	
<p>Closure of crossing roads will be coordinated to minimize impacts to traffic and access during construction.</p>	

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Item:	Action:
f. How will active transportation be considered in the study?	
	As part of these two projects, the team will be reviewing the municipal Transportation Master Plans and other planning documents to identify appropriate locations for active transportation facilities. The project team will also be collecting pedestrian and cyclist counts at all existing crossing roads in the study area.
g. When will this be constructed?	
	There is currently no set timeframe for the construction of this project. There are several stages that need to be passed before construction can start such as utility relocation, property acquisition, and completion of detail design. The structure replacements are planned to be completed first and the widening of the highway is a long-term plan.
h. Will LCVs be accommodated at interchanges?	
	For the sake of the planning study, where possible, a sufficient space around the interchanges will be protected for future LCV needs. However, LCV-compliant ramps will only be constructed where warranted.
8. The following comments were noted during the meeting:	
a. The fire department at the Township of Hamilton will require access to and across Highway 401 at/near Nagle Road.	
b. The Township of Hamilton is undertaking a commuter cycling plan and can share this information with the project team. Northumberland County can provide their cycling master plan to the project team. The Town of Cobourg noted that Nagle Road is designated as an active transportation corridor in their Official Plan.	
c. The Big Apple has future expansion plans. Northumberland County will provide expansion plans to the project team.	
d. The municipalities should make the project team aware of any known future developments.	
e. Lower Trent Conservation Authority can provide floodplain mapping for Barnum House Creek.	
f. Northumberland County would like to review any stormwater management plans developed as part of this project.	
g. It was noted that the presentation will be emailed to all MAC meeting invitees.	
	<i>Following the meeting, the presentation was emailed to all MAC invitees.</i>

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Item:	Action:
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9. Council presentations will be scheduled for Cobourg, Alnwick/Haldimand, Cramahe, and Northumberland County in advance of the PIC. Hamilton Township indicated that a presentation to Committee of the Whole is preferred, rather than Council.
10. The next MAC meeting will be held prior to the second PIC to discuss the evaluation of alternatives and the preferred plans.

The meeting adjourned at 3:30 PM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



Nevena Gazibara, B.Sc., MREM, ENV SP

Environmental Planner

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

Nagle Road Interchange Study
GWP 4059-17-00

Municipal Advisory
Committee Meeting 1
May 16, 2019

Agenda

1 Introductions

2 Study Purpose, Scope, Process, Phases

3 Preliminary Alternatives

4 Comments received

5 Schedule

6 Questions

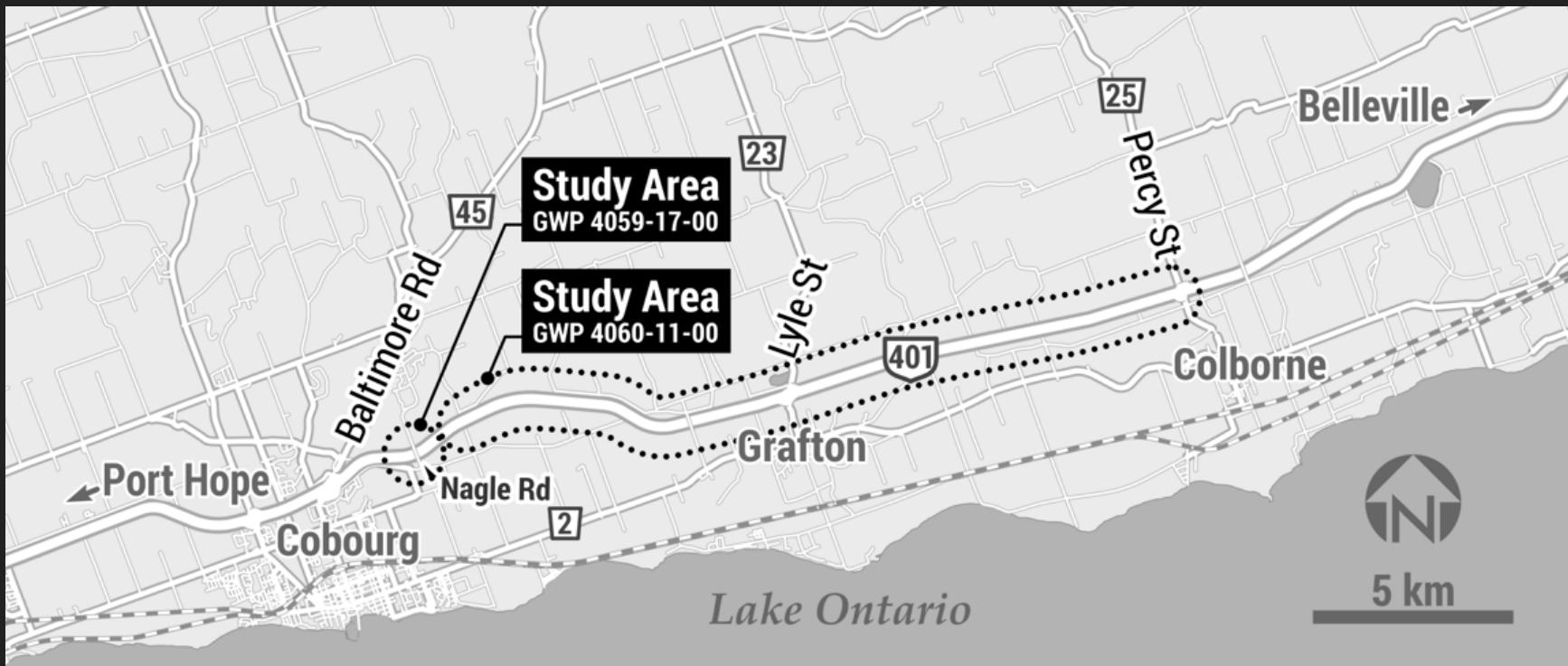
Highway 401

- The Ontario Ministry of Transportation (MTO) has retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study on Highway 401 between Cobourg and Colborne
- The purpose of the 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

Nagle Road

- 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 on Highway 401 for a new interchange near Nagle Road in the Town of Cobourg and the Township of Hamilton
- The purpose of the study is to identify a Recommended Plan that addresses future transportation and planning needs in the study area

Study Area



Highway 401

Problem

- Many of the structures in the study area are nearing the end of their service life and require rehabilitation or replacement

Opportunities

- Develop appropriate rehabilitation or replacement strategies to maintain the safe operation of the Highway 401 corridor for the current and future planning horizons
- Identify the ultimate footprint for the Highway 401 corridor to address current and future transportation needs

Nagle Road

- The need for an interchange at Nagle Road with Highway 401 was identified in the Cobourg East Community Secondary Plan
- Meets the objectives of the Transportation objectives identified in Section 15.7 of the Town of Cobourg Official Plan 2010 Five Year Review Consolidation, May 2018, which was adopted by Council and approved by the Ministry of Municipal Affairs and Housing and the Ontario Municipal Board in May 2017

Highway 401

- Rehabilitation and replacement of bridges and structural culverts
- Interchange modifications at Lyle Street and Percy Street
- Commuter parking lot expansions or relocations
- Future widening of Highway 401

Nagle Road

- 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 and future Highway 401 widening

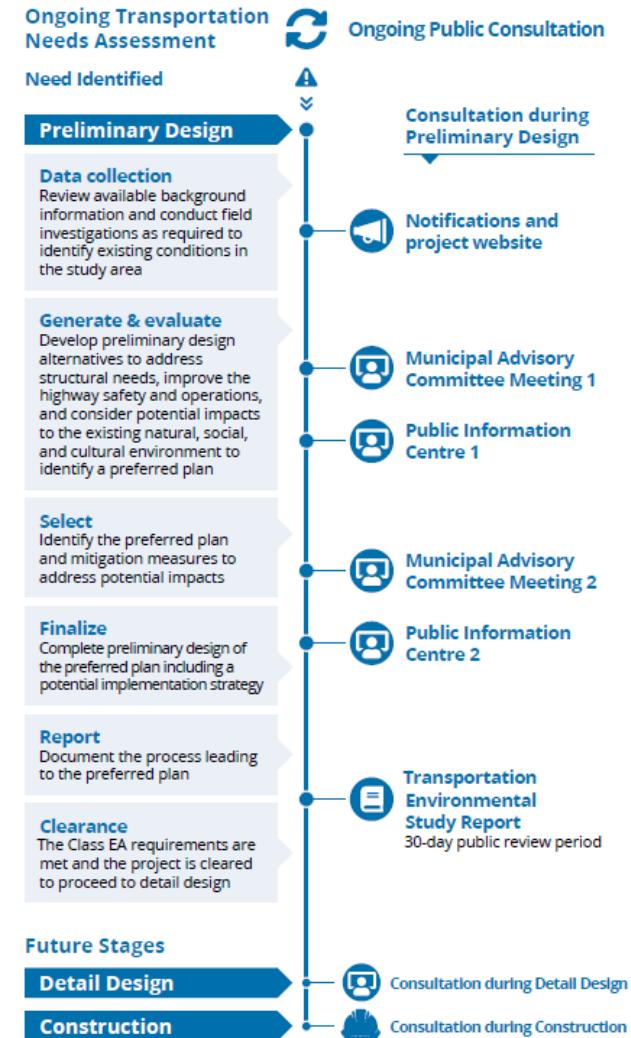
Environmental

- Undertake environmental investigations and studies
- Identify environmental conditions and constraints (information to be incorporated into evaluation of alternatives)
- Identify potential environmental impacts for the alternatives
- Identify environmental protection measures and mitigation strategies for the Recommended Plan
- Prepare *Transportation Environmental Study Reports* for 30-day public review
 - Highway 401 Planning Study, between Cobourg and Colborne
 - Nagle Road Interchange Study

Environmental Assessment

- 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

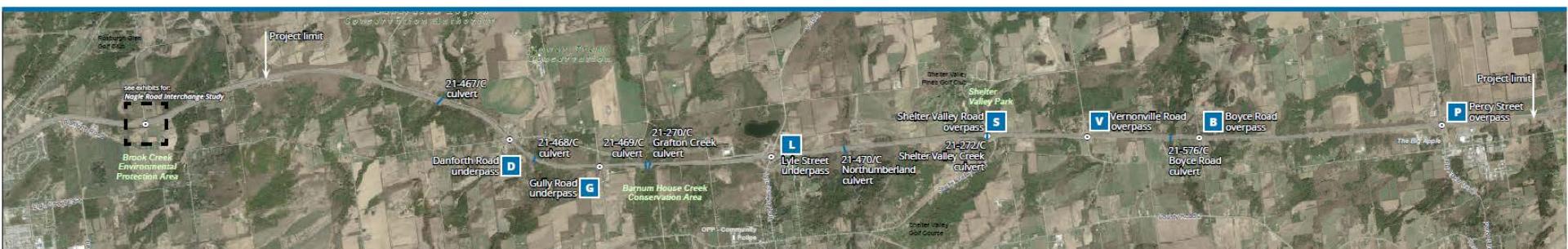
Class Environmental Assessment Process for Group 'B' Projects



Consultation

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

Project Overview



Bridge Improvements

The bridges within the study area are approaching the end of their service life and will need to be rehabilitated or replaced. Ultimately the bridges will need to accommodate future Highway 401 widening.

The following bridges are being assessed:

- ⊕ Danforth Road
- ⊕ Lyle Street
- ⊕ Gully Road Bridge
- ⊕ Shelter Valley Road Bridge
- ⊕ Boyce Road Bridge
- ⊕ Vernonville Road Bridge

⊕ for more details, see [Bridge Improvement alternatives](#)



Highway Improvements

The study includes Highway 401 widening alternatives to accommodate projected future traffic growth.

⊕ for more details, see
[Highway widening alternatives](#)



Interchange Improvements

Existing interchanges at Lyle Street and Percy Street will need to be reconfigured for projected future traffic growth and Highway 401 widening.

⊕ for more details, see:

- [Lyle Street Interchange alternatives](#)
- [Percy Street Interchange alternatives](#)



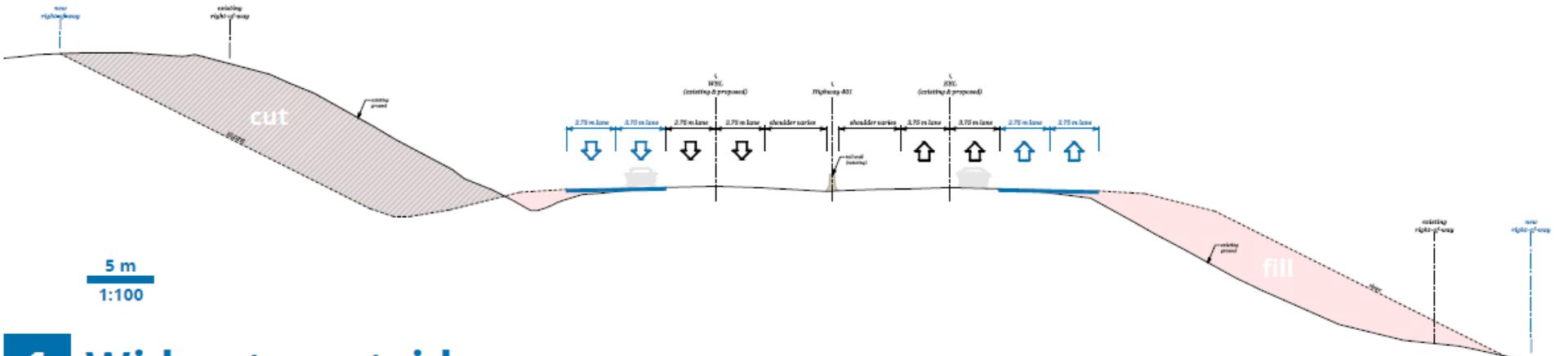
Drainage Improvements

Structural culverts within the study area are approaching the end of their service life and will need to be rehabilitated or replaced. Ultimately the culverts will need to accommodate the future Highway 401 widening.

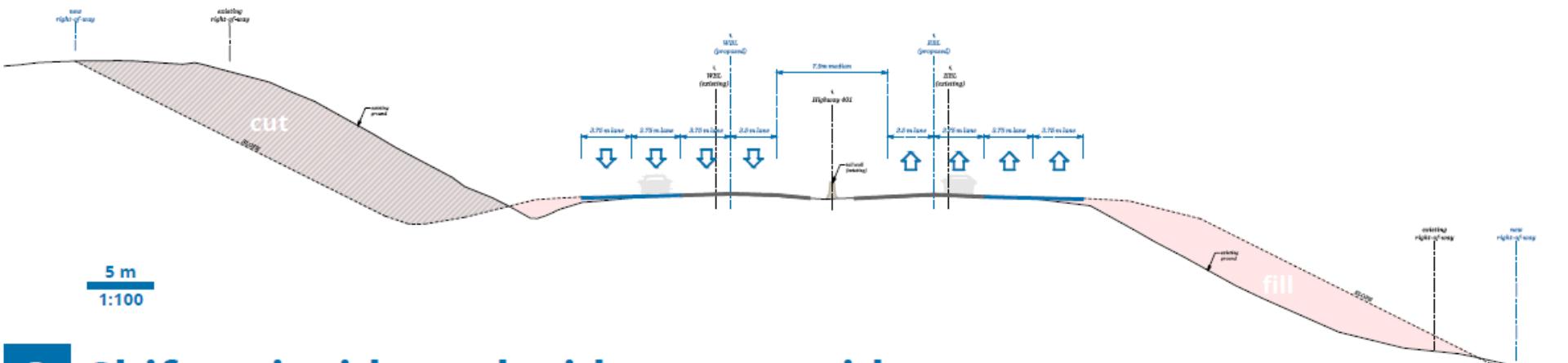
Culverts identified on the map above:

⊕ for more details, see [Drainage Improvements](#)

Highway 401

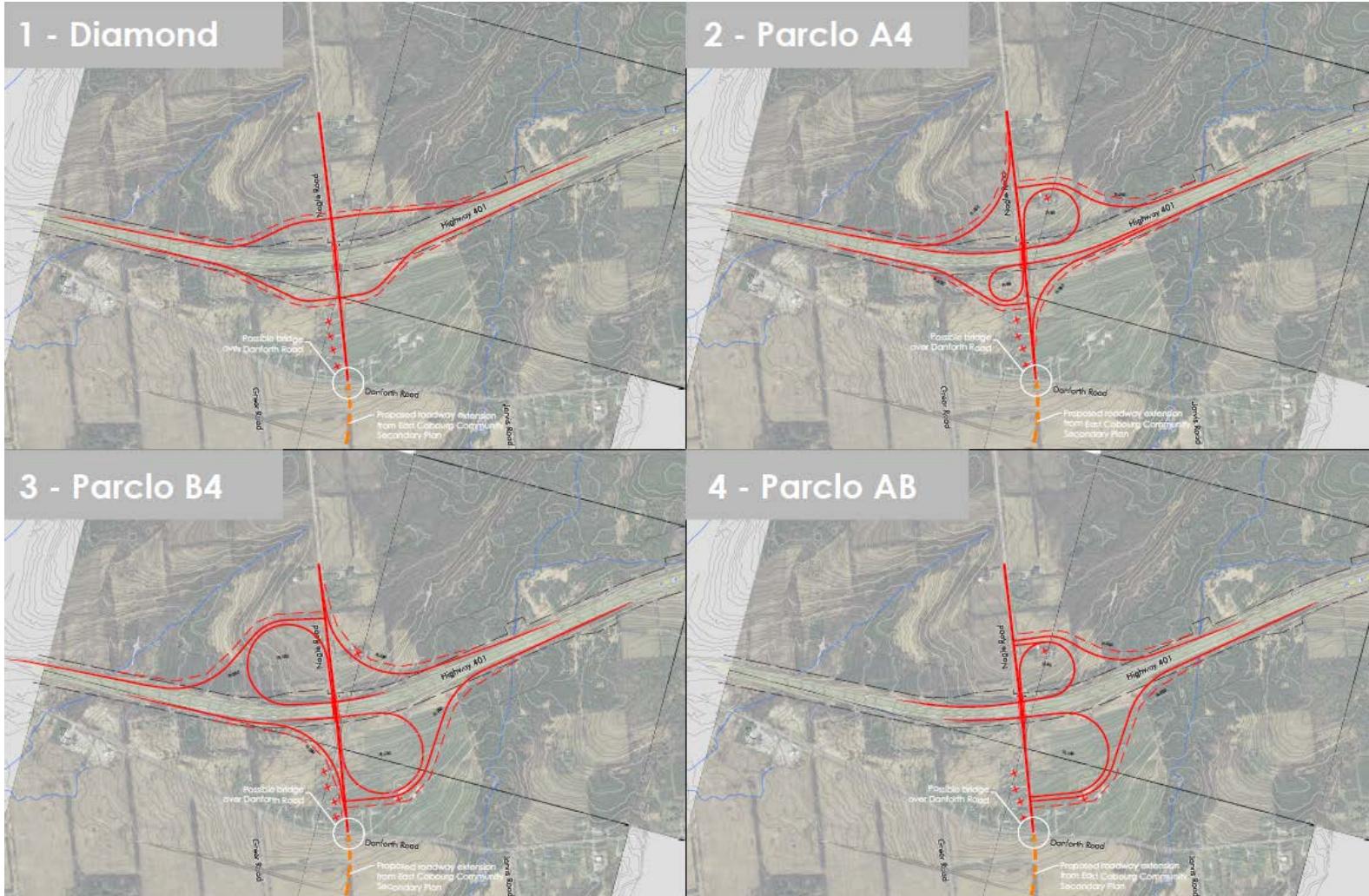


1 Widen to outside



2 Shift to inside and widen to outside

Nagle Road

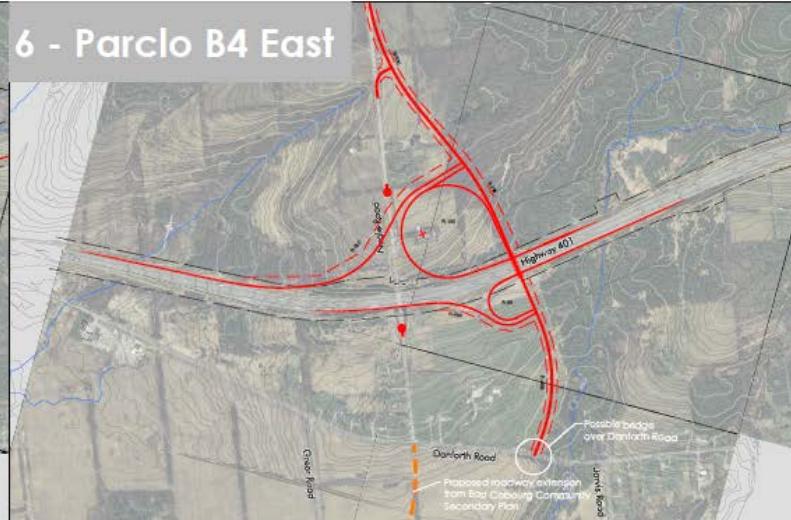


Nagle Road

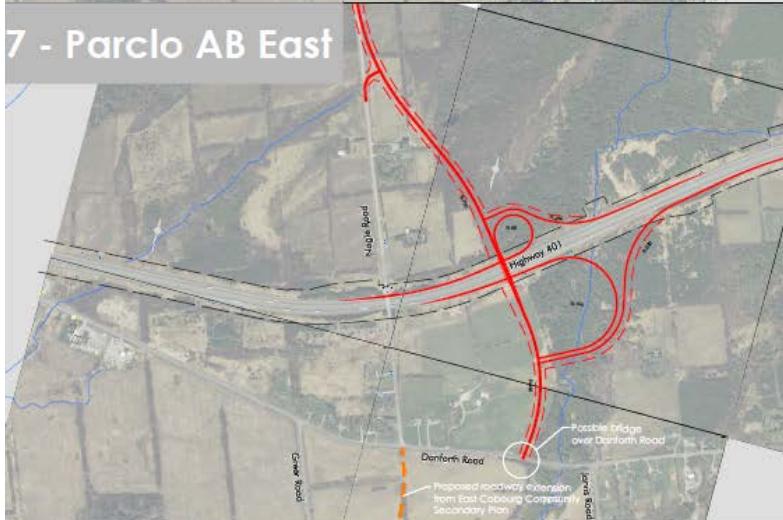
5 - Parclo A4 East



6 - Parclo B4 East



7 - Parclo AB East



Bridges

D

Danforth Road Bridge improvement strategies

new road
property required



500 m

1:4000

1 Replace on existing alignment



2 New alignment — north



3 New alignment — south



Bridges



Gully Road Bridge improvement strategies

— new road
- - - property required



500 m

1:4000

1 Replace on existing alignment



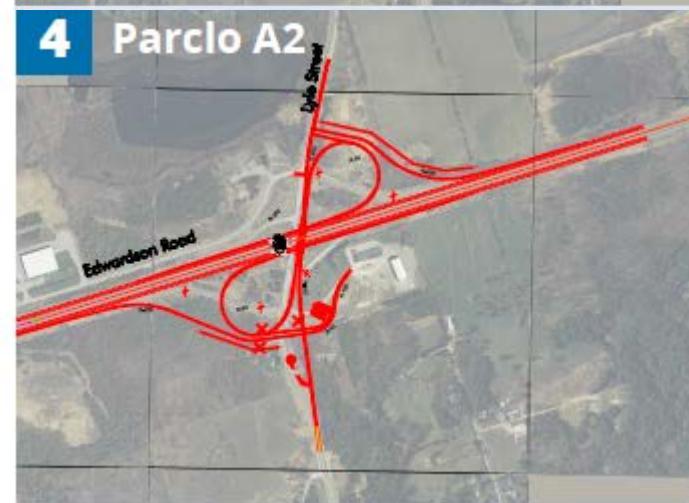
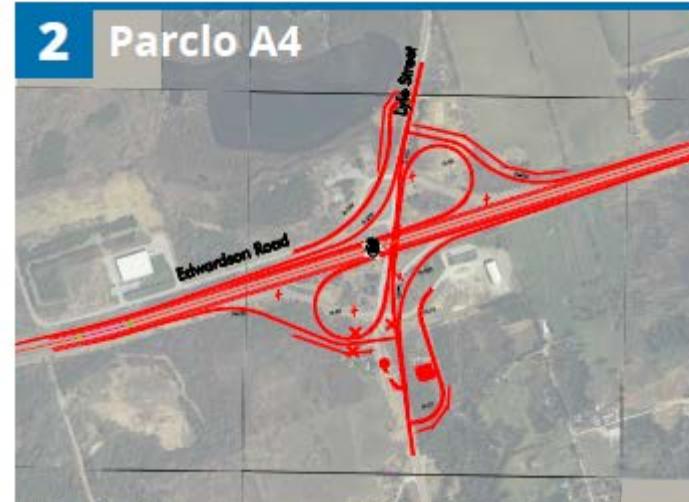
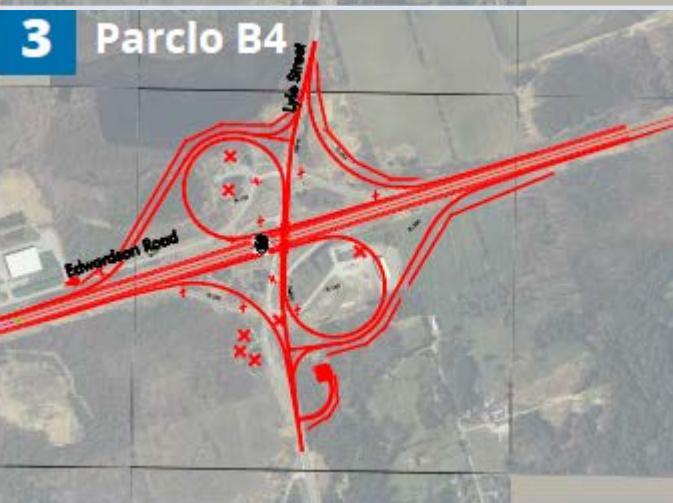
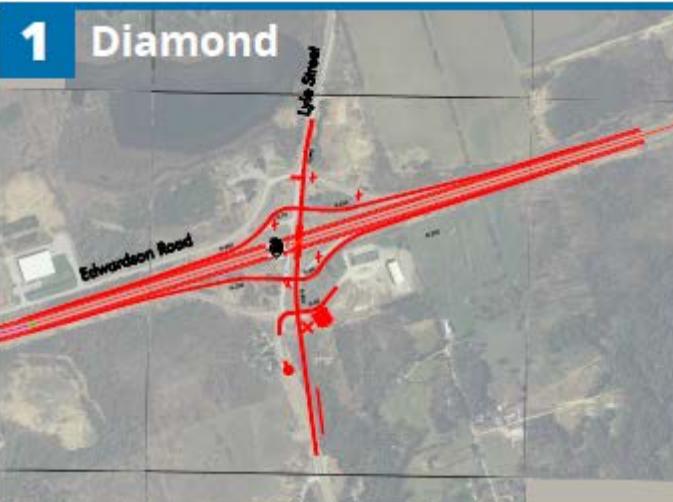
2 New alignment — west



3 New alignment — east



Lyle Street



Bridges



Shelter Valley Road & Creek Culvert improvement strategies

— new road
- - - property required



500 m

1:4000

1 Single bridge over road and creek



2 Culvert lining and new road bridge



3 New creek culvert and new road bridge



Bridges

B

Boyce Road Bridge improvement strategies



V

Vernonville Road Bridge improvement strategies



Percy Street



Drainage Culverts

There are six structural culverts in the study area. The following improvement strategies will be considered:

Culvert replacement

- ⊕ Long-term strategy
- ⊕ Accommodates interim (6-lane) Highway 401
- ⊕ Accommodates ultimate (8-lane) Highway 401
- ⊖ Culverts can be very long in high fill locations

Bridge replacement

- ⊕ Long-term strategy
- ⊕ Accommodates interim (6-lane) Highway 401
- ⊕ Accommodates ultimate (8-lane) Highway 401
- ⊕ Suitable for high fill locations

Culvert rehabilitation and extension

- ⊖ Not a long-term strategy
- ⊕ Potential short-term strategy
- ⊕ Accommodates interim (6-lane) Highway 401
- ⊖ Does not accommodate ultimate (8-lane) Highway 401
- ⊖ Culverts can be very long in high fill locations

Culvert rehabilitation and retaining walls

- ⊖ Not a long-term strategy
- ⊕ Potential short-term strategy
- ⊕ Accommodates interim (6-lane) Highway 401
- ⊖ Does not accommodate ultimate (8-lane) Highway 401
- ⊖ Requires retaining walls



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
- Alnwick/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

Issues and Concerns

- Interruptions to school bus routes
- Stormwater management concerns
- Noise and vibration impacts
- Impacts to sensitive natural environment features (i.e., Brook Creek Environmental Constraint Area)
- Contamination of surface and groundwater
- Collision, safety, property concerns at Nagle Road
- Active transportation infrastructure for cyclists along Nagle Road

Municipal Roadway Standards?

- Roadway Classification
- Posted Speed
- Design Speed
- Number of Lanes
- Lane Widths
- Bicycle Lanes
- Sidewalks
- Long Combination Vehicles

Key Dates

Notice of Study Commencement	April-May 2018
Municipal Advisory Committee Meeting 1	May 2019
Public Information Centre 1	September 2019
Municipal Advisory Committee Meeting 2	November 2019
Public Information Centre 2	January 2020
Transportation Environmental Study Reports	May-June 2020

Council Presentations

Township of Cramahe	Sep 3, 2019
Township of Alnwick/Haldimand	Sep 5, 2019
Town of Cobourg	Sep 9, 2019
Township of Hamilton	Sep 17, 2019
Northumberland County	Sep 18, 2019

Questions



Municipal Advisory Committee Meeting 2

Highway 401 Planning Study from Cobourg to Colborne (GWP 4060-11-00) / 165001090

Date/Time: April 15, 2020 / 1:00 PM

Place: Web Meeting

Next Meeting: N/A

Attendees: Denise Marshall, Northumberland County
Jennifer Current, Township of Alnwick-Haldimand
Heather Sadler, Township of Cramahe
Ken Thajer, Ganaraska Conservation Authority
Leah Stephens, Lower Trent Conservation Authority
Muhammad Waseem, MTO
Prabin Sharma, MTO
Erin Pipe, MTO
Cheryl Tolles, MTO

Gregg Cooke, Stantec
Diana Addley, Stantec
Tim Belliveau, Stantec

Distribution: All Attendees

Item:	Action:
1. Stantec noted that the purpose of this meeting was to present the Preliminary Preferred Plan, potential construction detour routes, potential impacts and mitigation measures, as well as the consultation activities being carried out as part of this study.	
2. The interim versus ultimate conditions were discussed. It was noted that interim condition relates to the planned 6-lane footprint of Highway 401, which includes modifications, such as structure rehabilitation and replacement, which may be completed between completion of the Class EA and implementation of the future 6-lane configuration, depending on the condition of structures and funding. The ultimate configuration relates to the additional modifications carried out in conjunction with future 8-laning.	
3. The Township of Alnwick-Haldimand noted that the cul-de-sac shown on the Preferred Plan for the Lyle Street Interchange provides suitable access to the existing properties on the west side of Lyle Street, and that there is a draft approved development that shows a new entrance in the vicinity of the cul-de-sac. The engineering work has not been completed for the site; however, the lot configurations have been established. Stantec and MTO confirmed that they are in receipt of the Grafton Heights location plan, and will review to ensure that this proposed entrance is not impacted. Stantec will identify the future entrance on a plan showing the preferred design and share with the Township for their review.	Stantec

Item:	Action:
<i>Post-Meeting Note –the plan was updated and shared with the Township of Haldimand.</i>	
4. It was asked whether emergency services are engaged on this project and have been provided an opportunity to comment on the proposed detour routes. Stantec noted that they were invited to attend today's meeting; however, none accepted the meeting invitation. It was noted that Stantec will follow up with these key stakeholders after this meeting to ensure that they have had a chance to review and comment on the information presented today and proposed detour routes.	Stantec
5. The timing of the road closures was discussed. It was noted that the construction activities/detours would be imposed at separate times to avoid significant impacts to traffic operations.	
6. The feasibility of presenting study information in advance of the upcoming Public Information Centre (PIC), tentatively scheduled for June 10, 2020, was discussed. It was noted that the Township of Cramahe has managed to continue with Council meetings using the Zoom meeting platform, as well as weekly Town Hall meetings. These events have been very well attended to date (approximately 28 attendees), and in some cases public attendance has been better than the traditional, in-person meetings. It was noted that the project team is invited to attend one of the Town Hall or Council meetings through these digital platforms to present study information.	
7. The Township of Alnwick-Haldimand had previously used the Zoom platform; however, for security reasons a new platform for public meetings is being planned for use. It was noted that a bylaw had been recently passed to allow for these types of virtual meetings. It was further noted that the new platform should be active and hosting public meetings within days/weeks, and that it will be suitable for the project team to present to Council virtually. The suitability of this new platform for public events/Town Halls is still being explored, although online Council presentations are an option. In the interim, today's presentation and proposed detour routes will be circulated to the Township's emergency services, public works department and Council members following this meeting.	Stantec
8. Stantec indicated that they will follow up today's meeting with an email, requesting any feedback on the information presented today, including detours routes.	Stantec
9. A copy of the presentation is attached to the meeting notes.	Stantec

April 15, 2020

Municipal Advisory Committee Meeting 2

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The meeting adjourned at 2:30 PM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



Diana Addley

Senior Environmental Planner

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Attachment: MAC Meeting 2 - Presentation
Proposed Detour Routes

c. Tim Burgess, Fire Chief, Township of Cramahe
Mark Diminie, Fire Chief, Township of Alnwick-Haldimand



Highway 401 Planning Study from Cobourg to
Colborne, GWP 4060-11-00

Municipal Advisory Committee Meeting 2

April 15, 2020





Agenda

1. Introductions
2. Study Overview
3. Preferred Plan
4. Potential Detours
5. Summary of Impacts
6. Consultation
7. Next Steps
8. Questions

Project Team

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Study Overview

Study Area

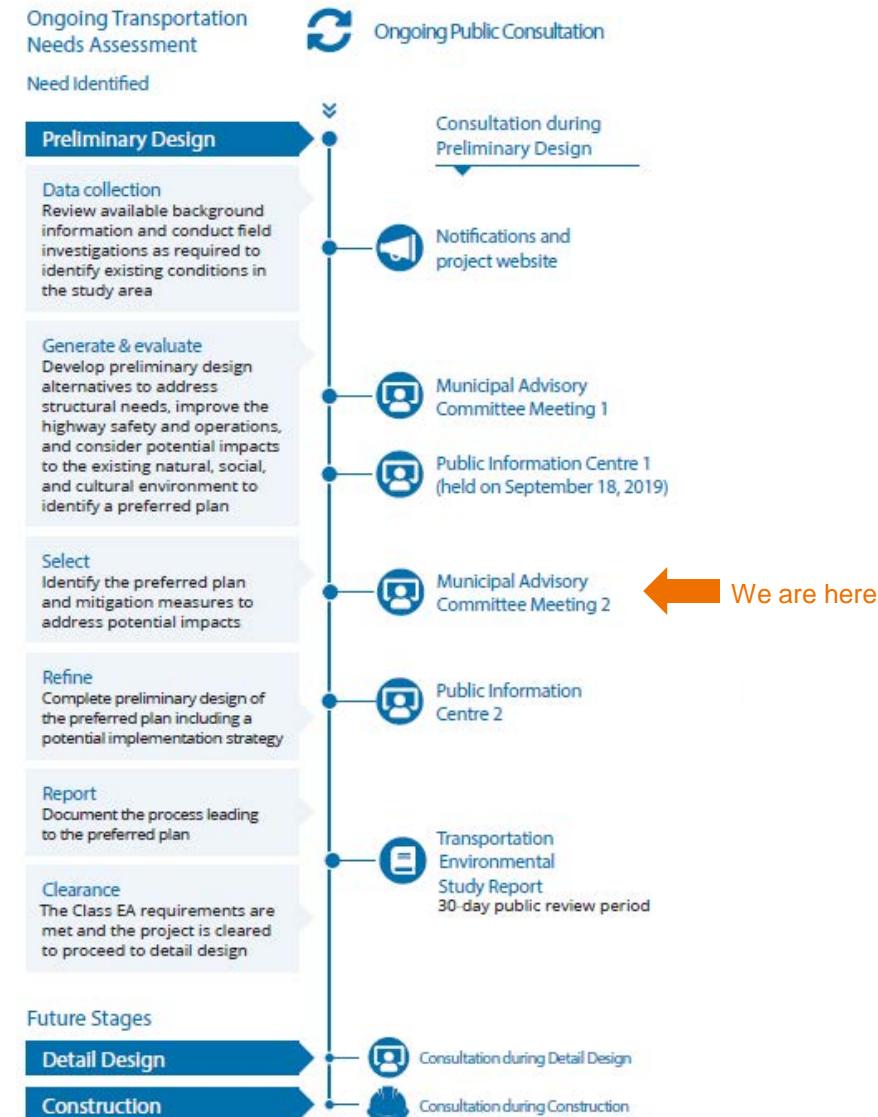


Study Purpose

- The purpose of the study is to identify a Recommended Plan that addresses current and future transportation needs for Highway 401, from 2 km east of Nagle Road to Percy Street (approximately 18 km)
- This Highway 401 Planning Study includes:
 - Replacement and/or rehabilitation of bridges and structural culverts
 - Interchange modifications at Lyle Street and Percy Street
 - Establishing the Highway 401 future footprint for interim 6-lanes and ultimate 8-lanes
 - Commuter parking lot expansions or relocations
- The timing of construction is currently not known

Environmental Assessment Process

- This 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



Preferred Plan

Design Standards

Road	Posted Speed	Design Speed	Notes
Highway 401	100 km/h	120 km/h	
Danforth Road	60 km/h	80 km/h	1.5 m wide shoulders to accommodate cyclists
Gully Road	70 km/h	90 km/h	
Lyle Street	80 km/h	80 km/h	Profile DS=80 km/h
Shelter Valley Road	70 km/h	90 km/h	1.5 m wide shoulders to accommodate cyclists
Vernonville Road	60 km/h	80 km/h	
Boyce Road	60 km/h	80 km/h	
Percy Street	60 km/h	80 km/h	1.5 m wide bicycle lanes through the interchange

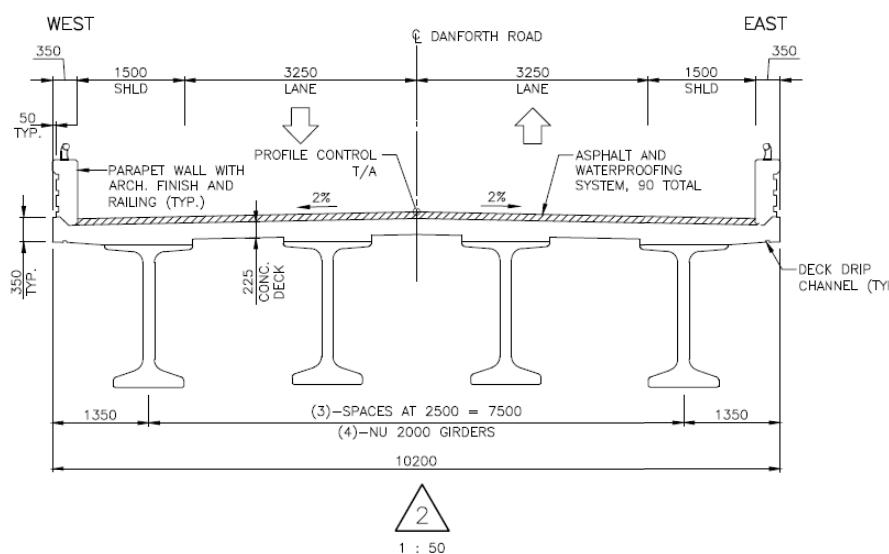
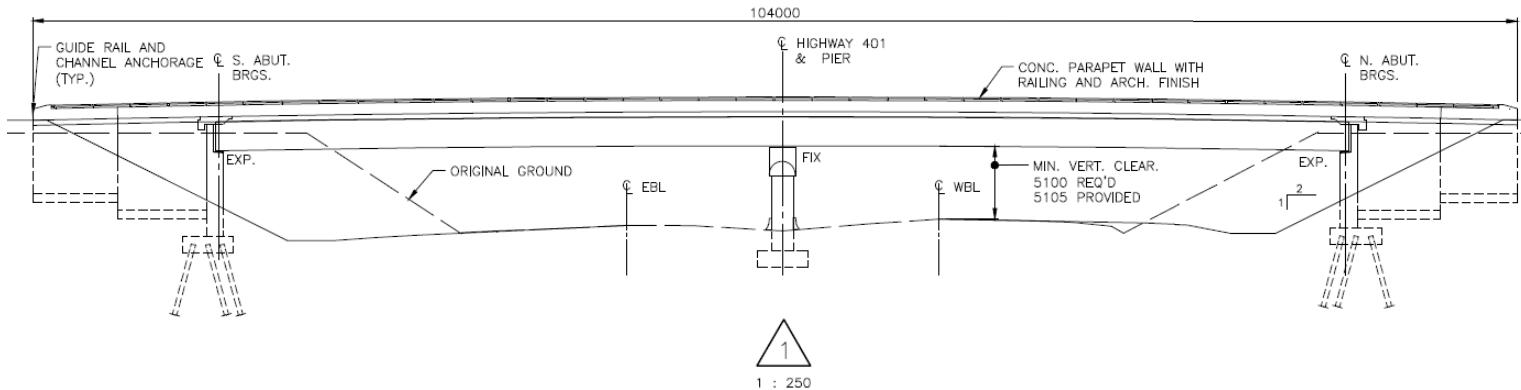
Summary of Structural Improvements

Structure	Interim Strategy	Ultimate Strategy
Culvert 21X-0467/CO	Replace (trenchless)	Rehabilitate
Danforth Road Underpass	Replace	Rehabilitate
Culvert 21X-0468/CO	Rehabilitate Add retaining walls	Replace (trenchless)
Gully Road Underpass	Replace	Rehabilitate
Culvert 21X-0469/CO	Line and Extend	Rehabilitate
Grafton Creek Culvert	Rehabilitate Add retaining walls	Replace with bridge
Lyle Street Underpass	Replace	Rehabilitate

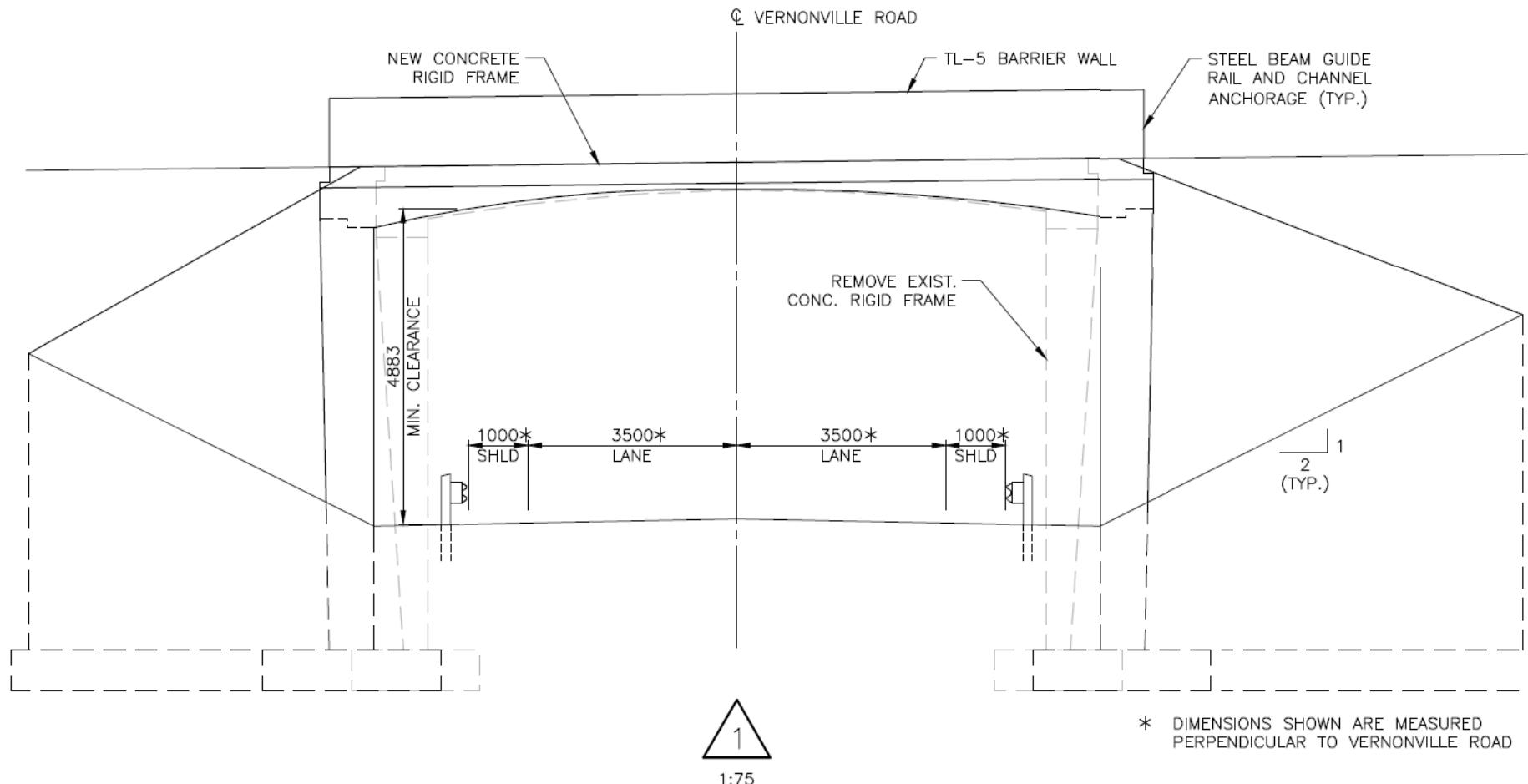
Summary of Structural Improvements

Structure	Interim Strategy	Ultimate Strategy
Northumberland Culvert	Replace (trenchless)	Rehabilitate
Shelter Valley Creek Culvert	Rehabilitate Add retaining walls	Replace with bridge
Shelter Valley Road Culvert	Rehabilitate	Replace with bridge
Vernonville Road Overpass	Rehabilitate and widen	Replace
Boyce's Road Culvert	Rehabilitate and strengthen Add retaining walls?	Replace (trenchless)
Boyce Road Overpass	Rehabilitate and widen	Replace
Percy Street Underpass	Replace	Rehabilitate

Typical Highway 401 Underpass

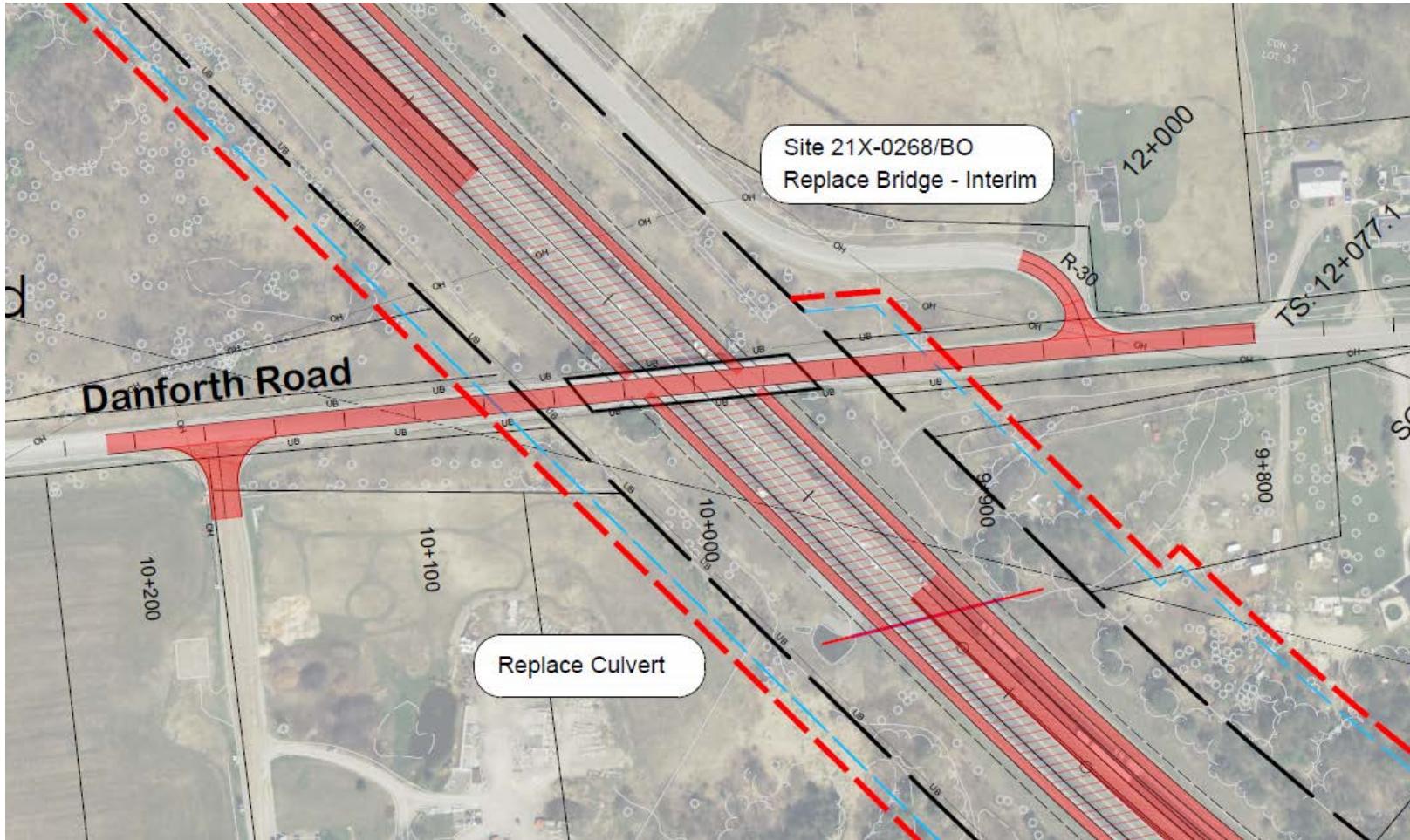


Typical Highway 401 Overpass



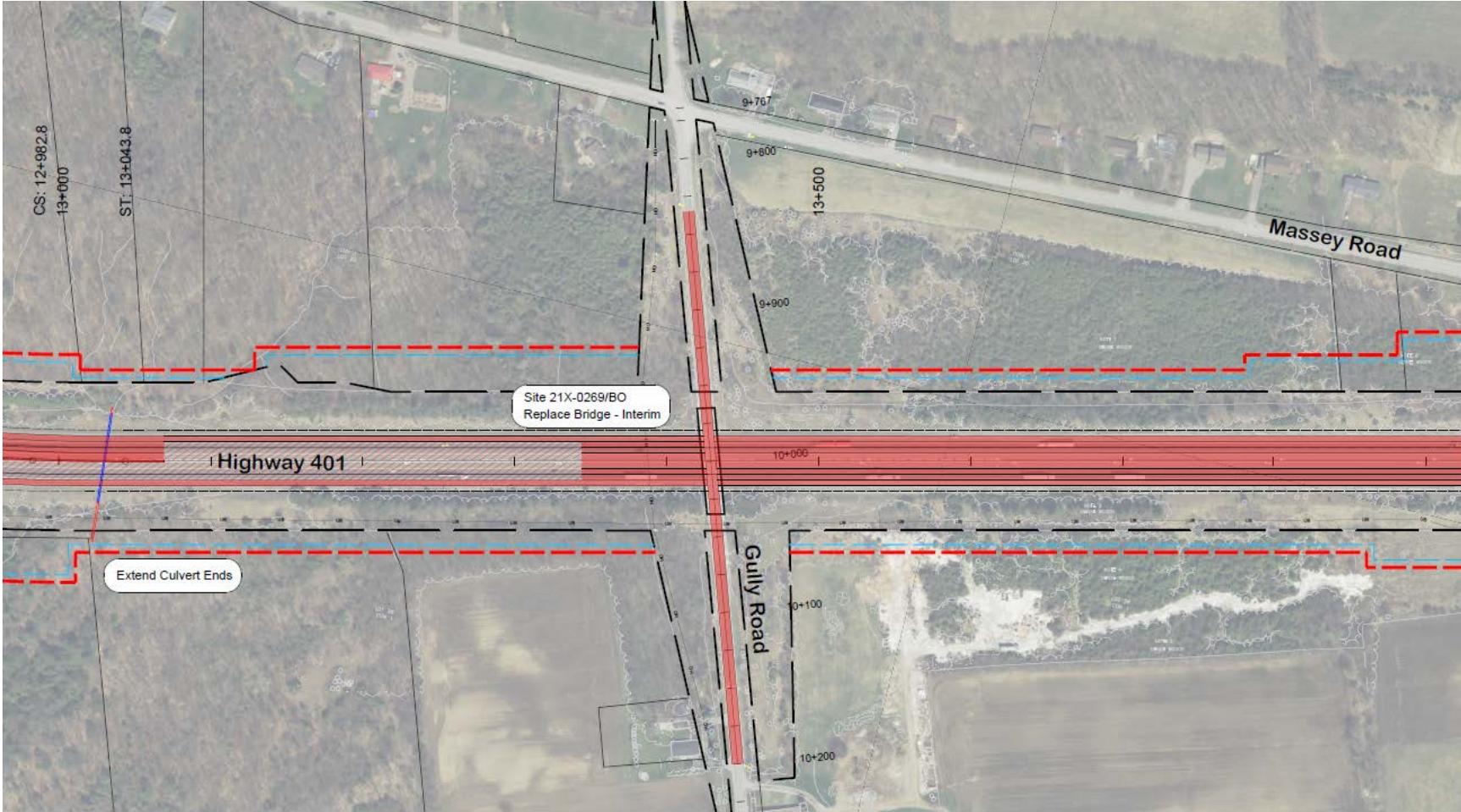
Preferred Plan

Danforth Road



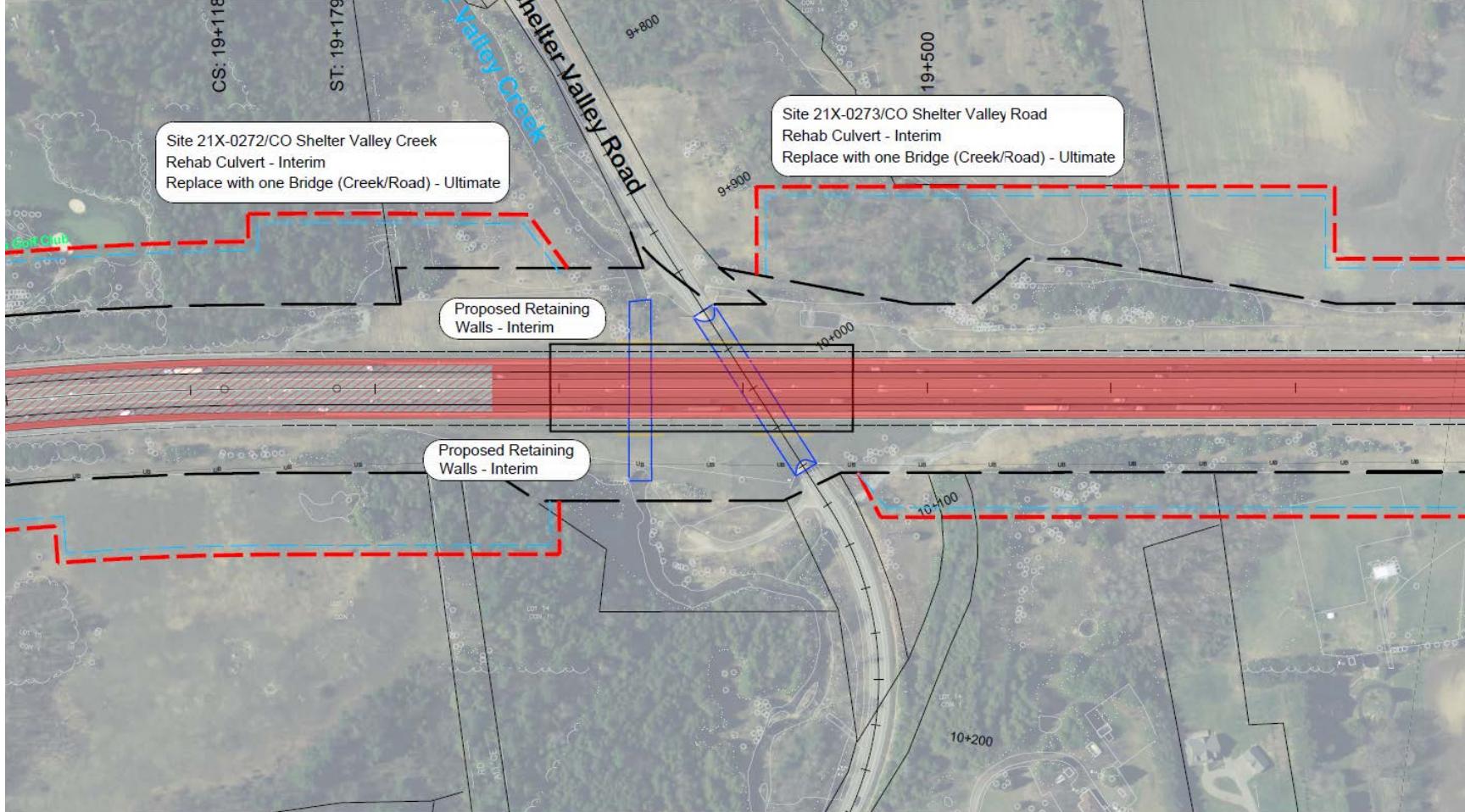
Preferred Plan

Gully Road



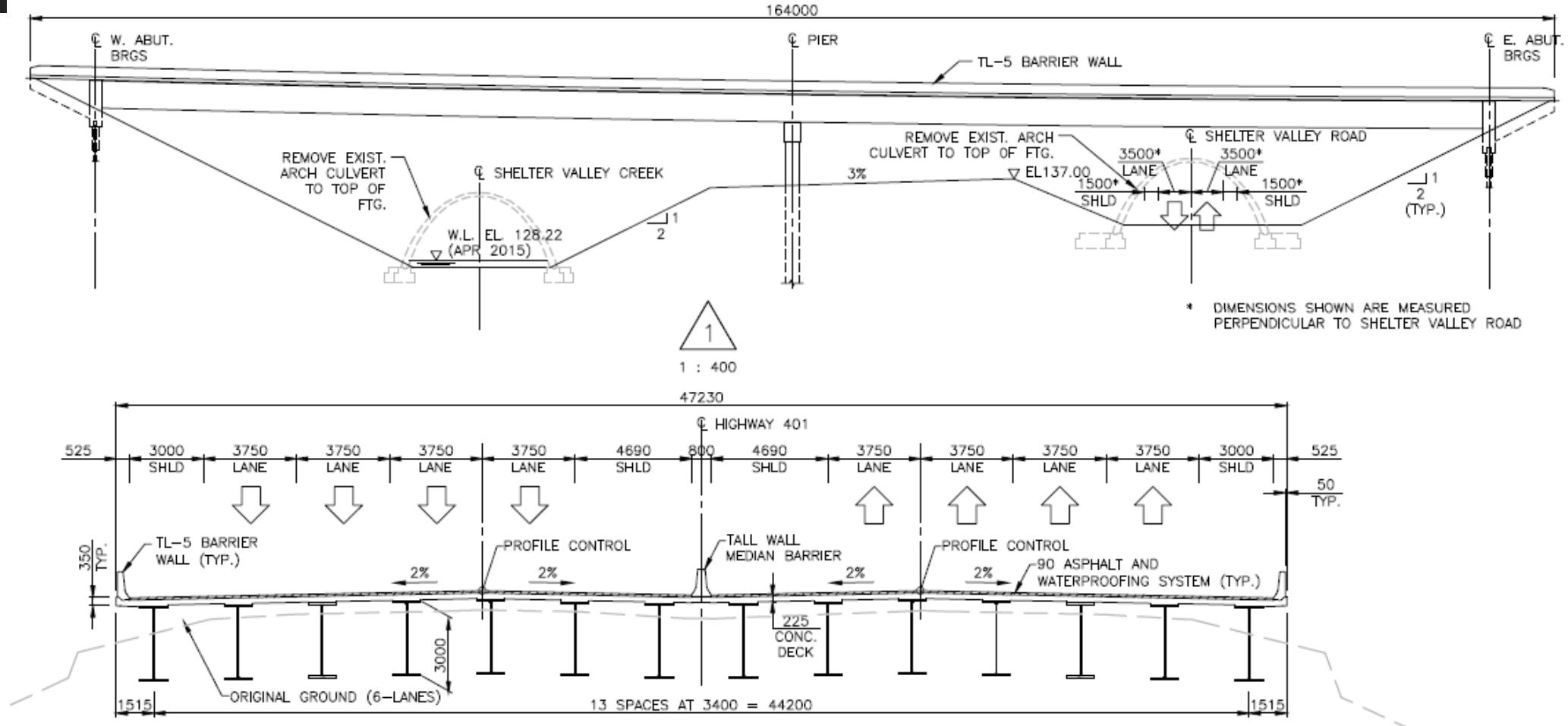
Preferred Plan

Shelter Valley



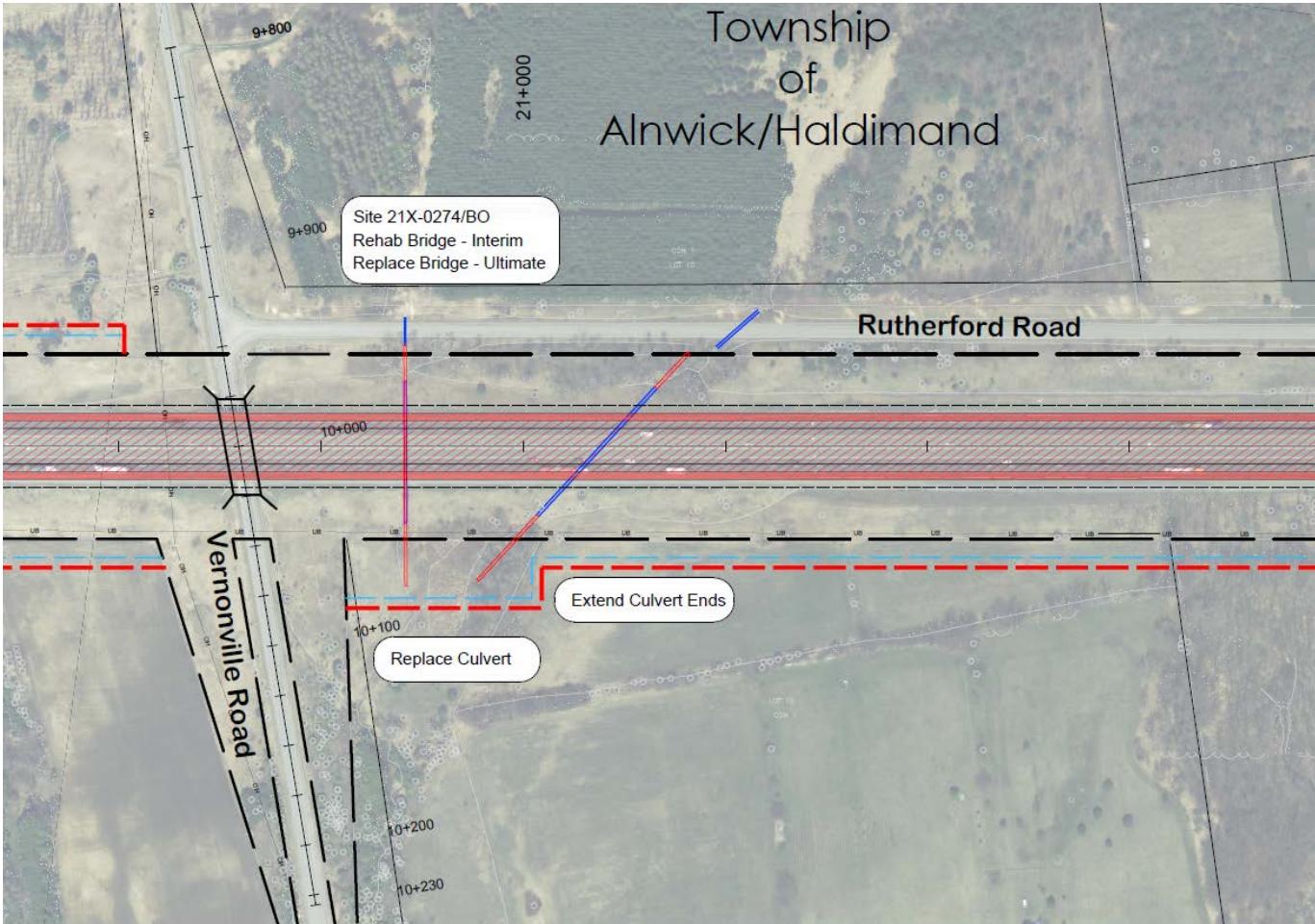
Preferred Plan

Shelter Valley



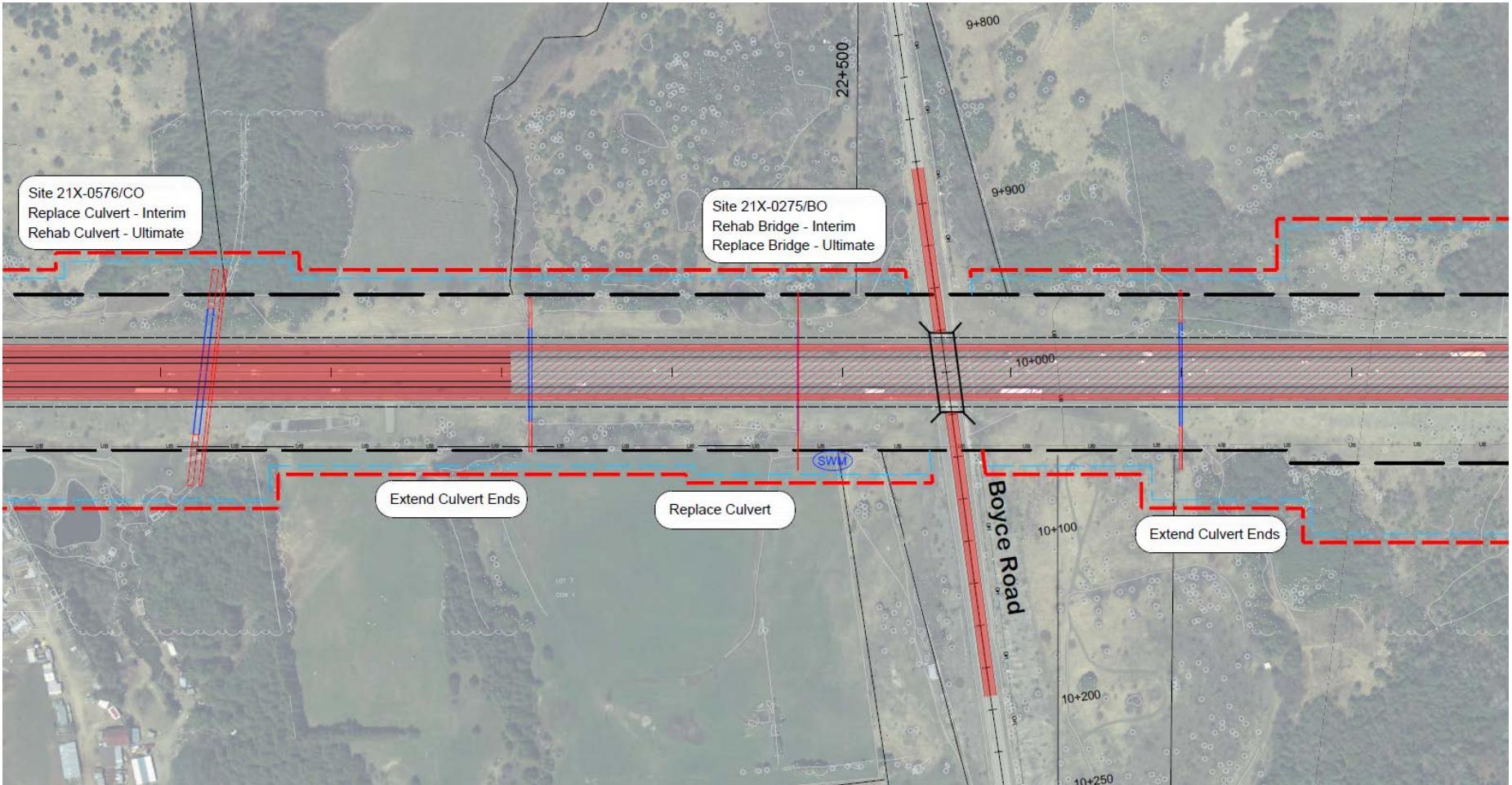
Preferred Plan

Vernonville Road



Preferred Plan

Boyce Road



Summary of Highway Improvements

1. Lyle Street interchange and carpool lot improvements
2. Percy Street interchange and carpool lot improvements
3. Highway 401 vertical curve improvements (sags and crests)
4. Highway 401 horizontal curve improvements at Gully curves
5. Future widening of Highway 401 to six lanes (interim)
6. Future widening of Highway 401 to eight lanes (ultimate)

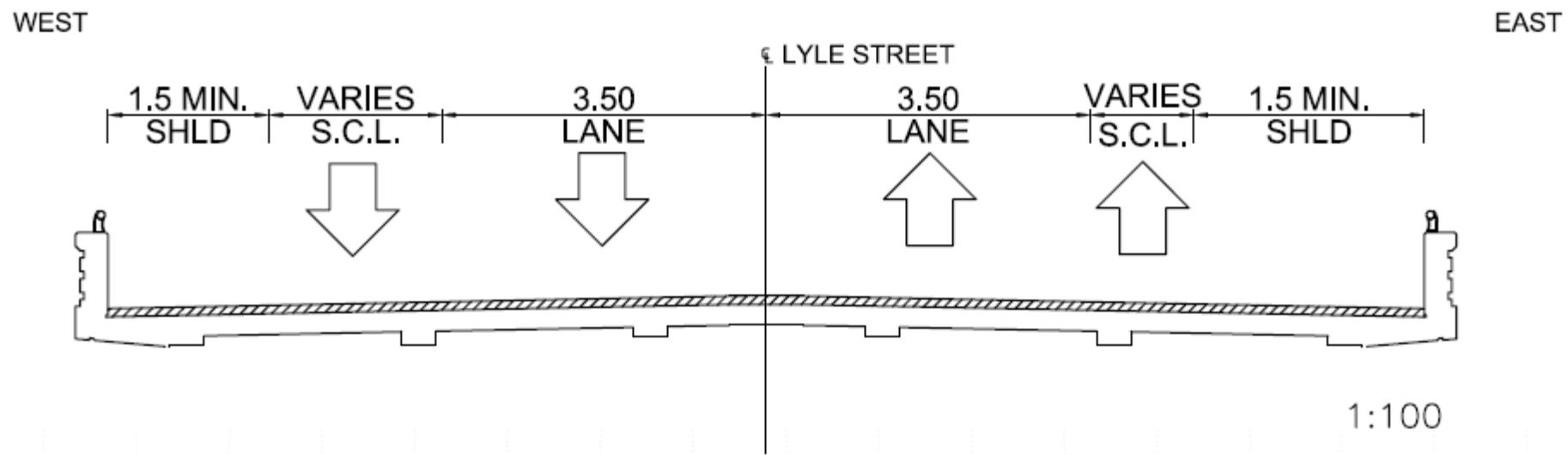
Preferred Plan

Lyle Street Interchange



Lyle Street Interchange

Site 21-271 Lyle Street Bridge

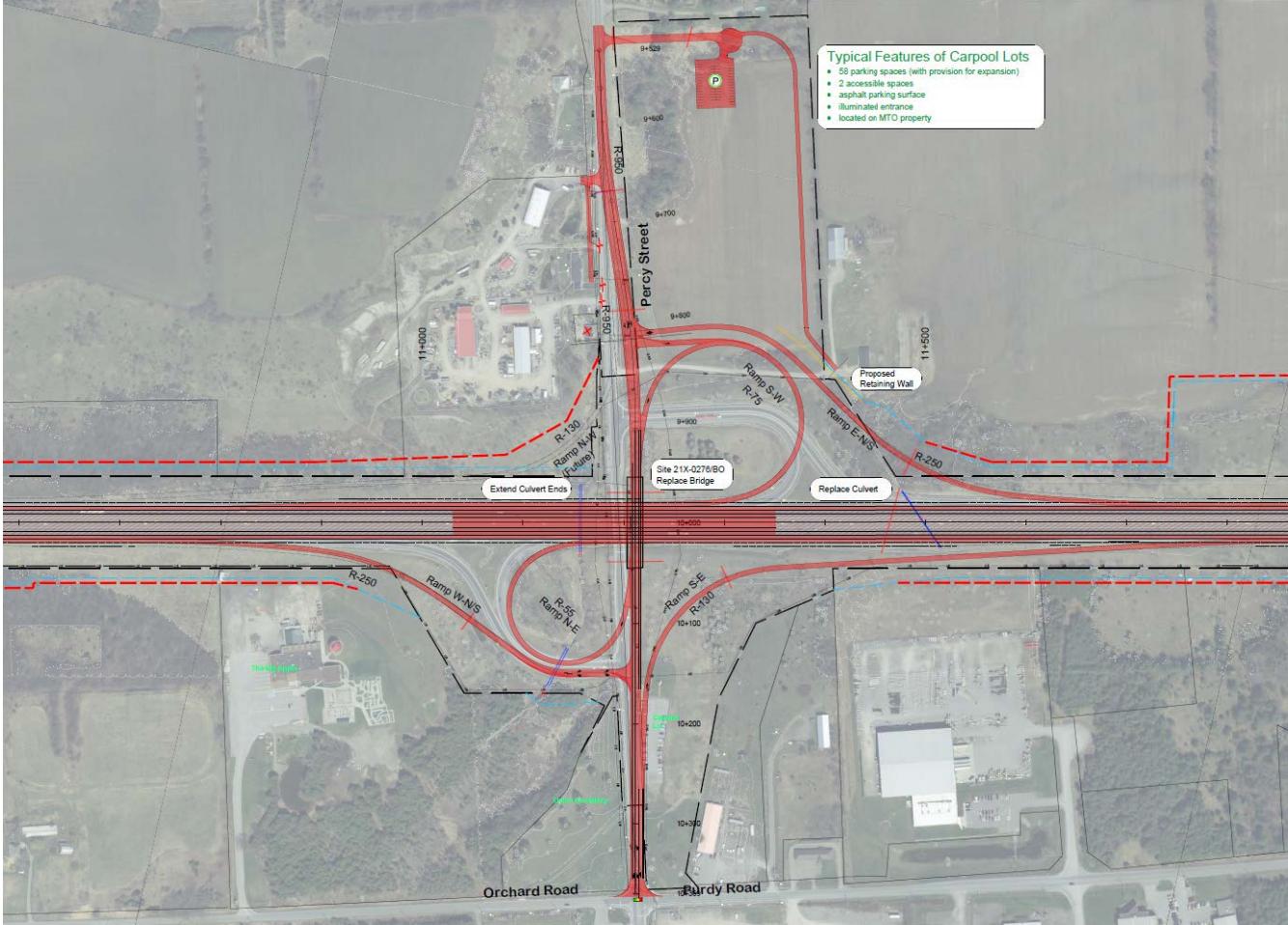


Lyle Street Interchange



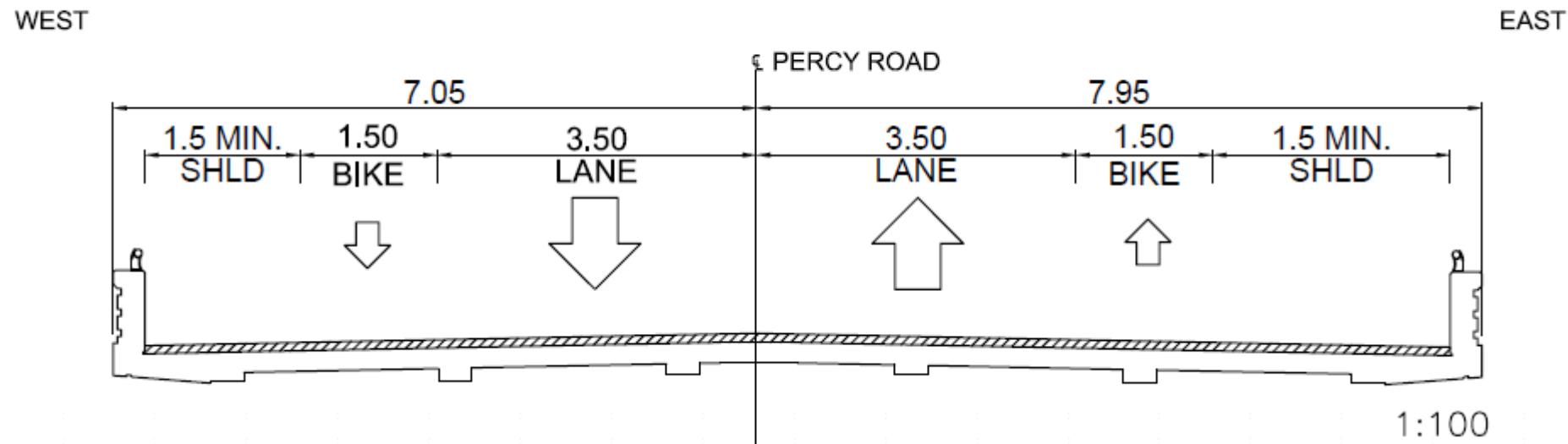
Preferred Plan

Percy Street Interchange



Percy Street Interchange

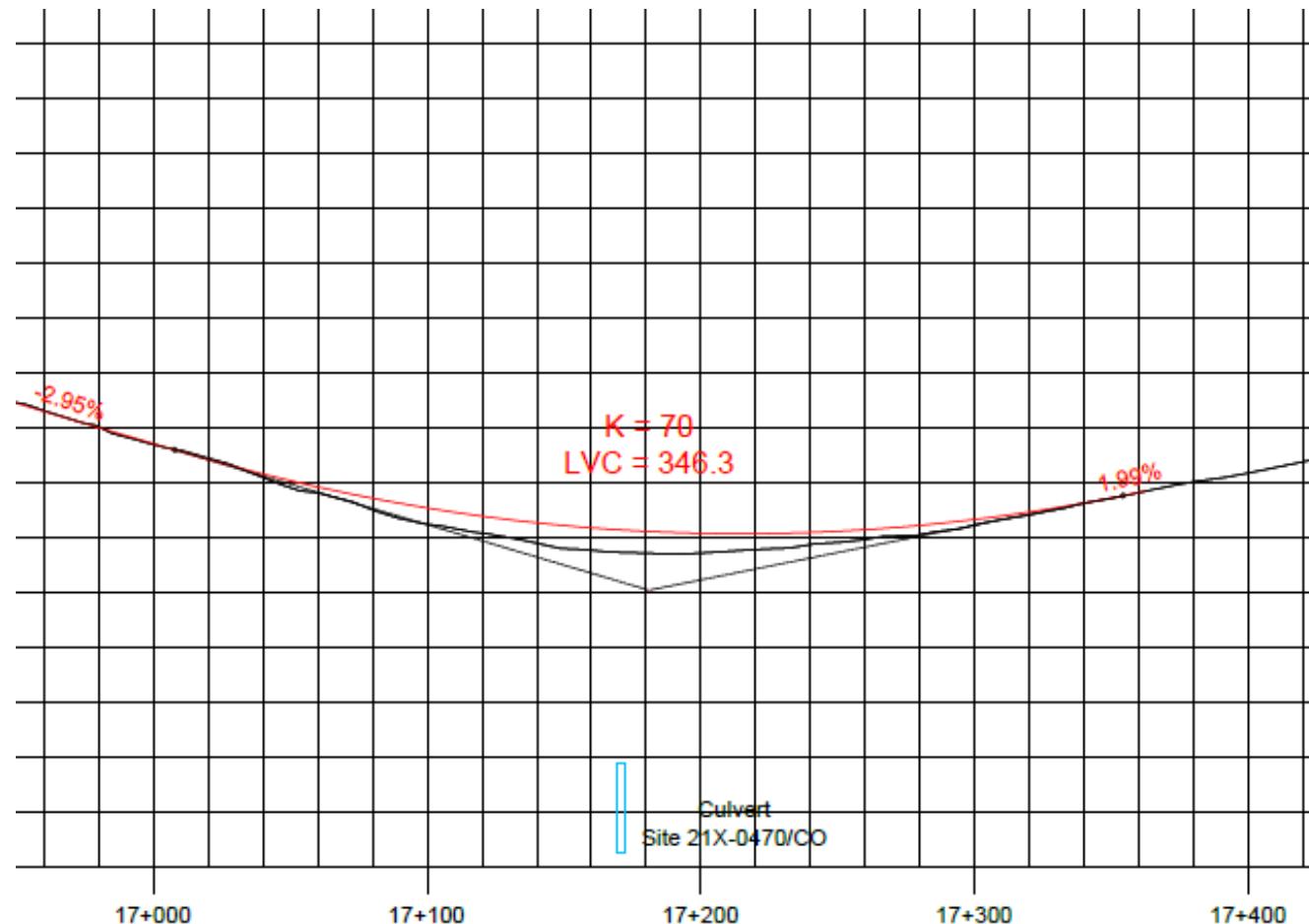
Site 21-276 Percy Street Bridge



Typical Vertical Curve Improvement

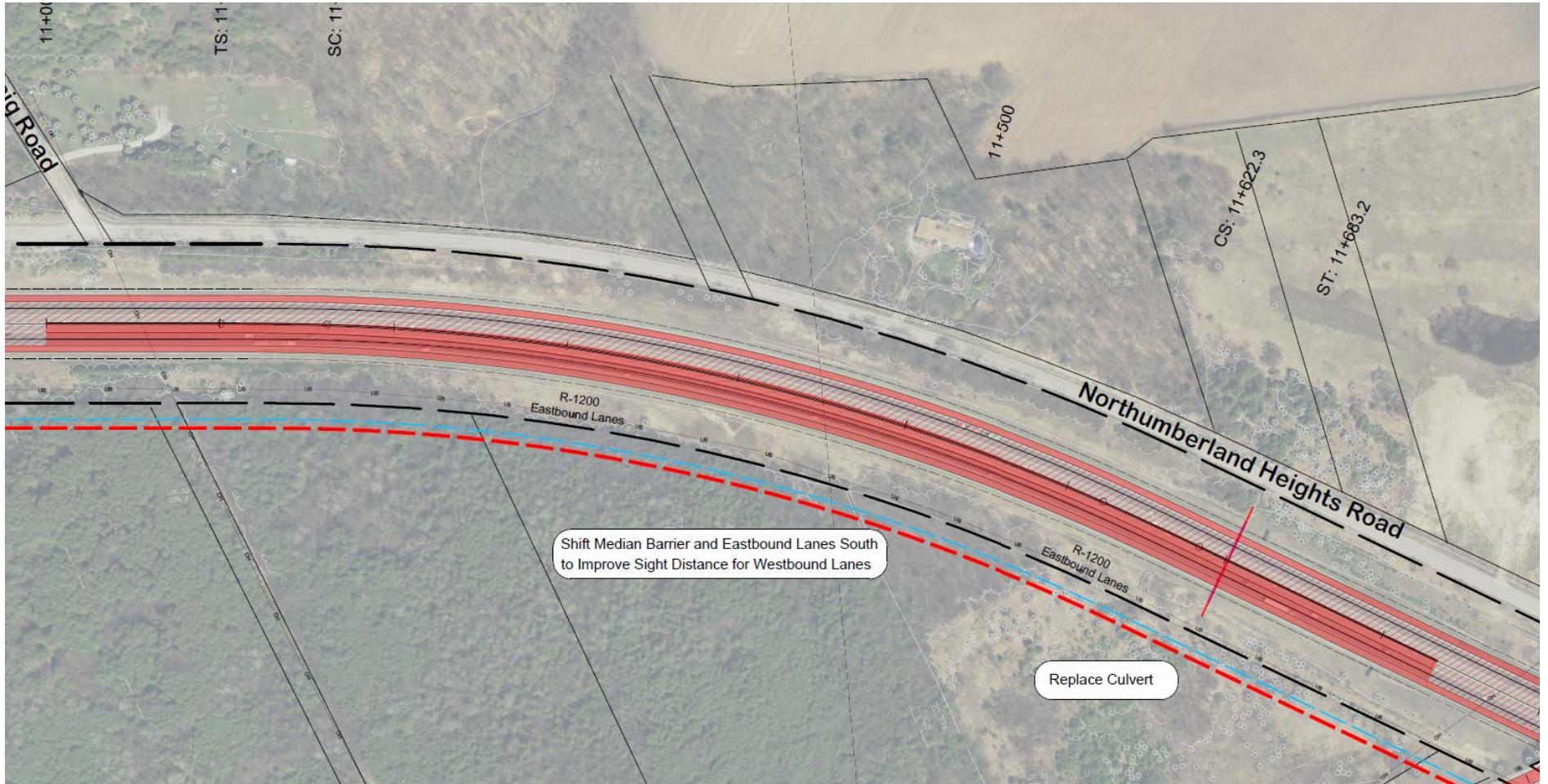


Typical Vertical Curve Improvement



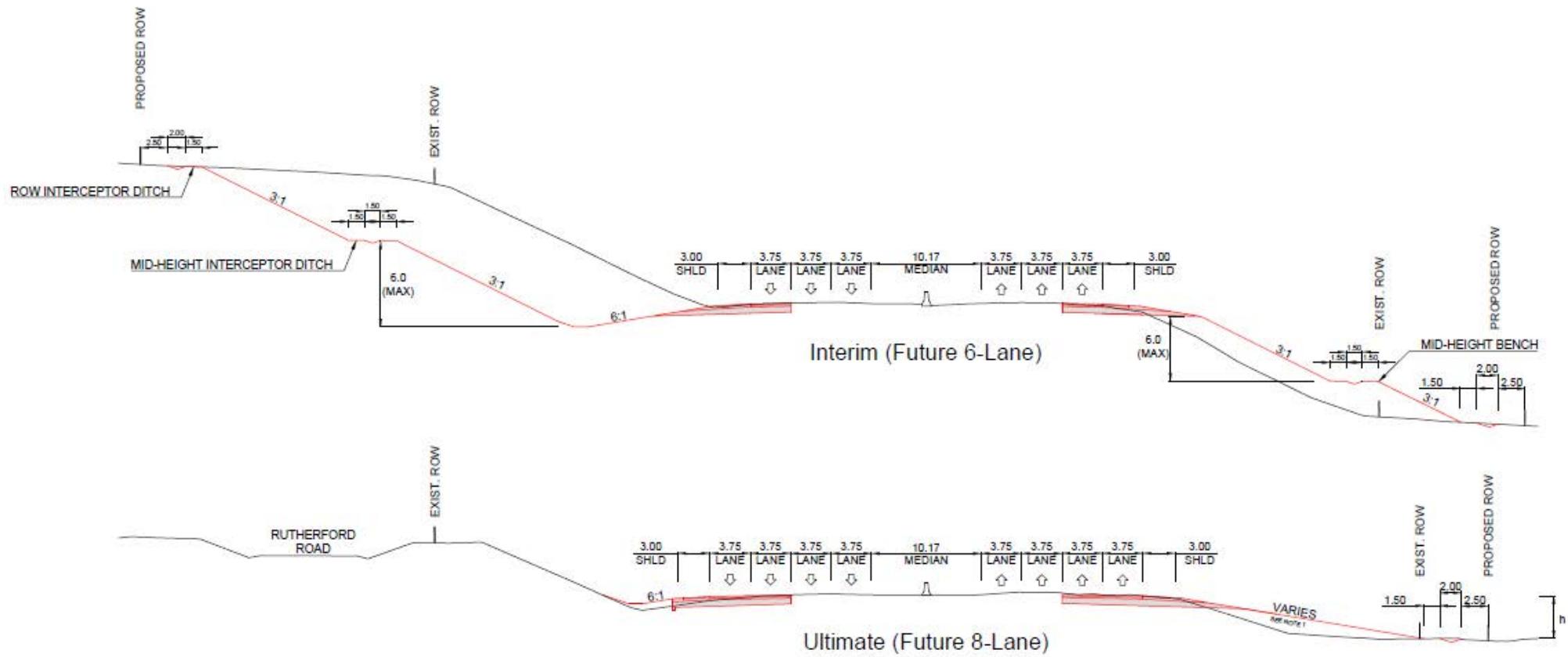
Preferred Plan

Typical Horizontal Curve Improvement



Preferred Plan

Typical Future Highway 401 Widening



Potential Detours

Potential Detours

Category	Approximate Duration	Typical Scenario
Overnight closure	12-18 hours	Highway 401 bridge demolition
Short-term closure	1-30 days	Interchange ramp closure
Long-term closure	1-4 months	Municipal road bridge closure

Potential Overnight Detours

Closure Location	Construction Activity	Detour Route
Highway 401 between Division Street (CR45) and Lyle Street (CR23)	Nagle Road bridge demo Danforth Road bridge demo Gully Road bridge demo	CR45, CR22, CR23
Highway 401 EB from Lyle Street (CR23) to Percy Street (CR25)	Lyle Street bridge demo	CR23, CR2, CR25
Highway 401 WB from Lyle Street (CR23) to Division Street (CR45)	Lyle Street bridge demo	CR23, CR22, CR45
Highway 401 EB from Percy Street (CR25) to CR30	Percy Street bridge demo	CR25, CR2, CR30
Highway 401 WB from Percy Street (CR25) to Lyle Street (CR23)	Percy Street bridge demolition	CR25, CR22, CR23

Potential Short-term Detours

Closure Location	Construction Activity	Detour Route
Lyle Street Interchange, Ramp N/S-E	Lyle Street realignment to the east	CR23, CR2, CR25
Lyle Street Interchange, Ramp W-N/S	New Ramp W-N/S	Division Street, CR2, CR23
Percy Street Interchange, Ramp N/S-E	New Ramp N-E	CR25, CR2, CR30
Percy Street Interchange, Ramp N/S-W	Percy Street realignment to the east	CR25, CR2, CR23
Percy Street Interchange, Ramp W-N/S	New Ramp W-N/S	CR23, CR2, CR25

Potential Long-term Detours

Closure Location	Construction Activity	Detour Route
Nagle Road bridge at Highway 401	Nagle Road bridge demo and construction	CR45, Densmore Road, Danforth Road
Danforth Road bridge at Highway 401	Danforth Road bridge demo and construction	Brookside Road, CR2, Gully Road
Gully Road bridge at Highway 401	Gully Road bridge demo and construction	CR2, Brookside Road, Danforth Road
Shelter Valley Road bridge at Highway 401	Shelter Valley Road bridge demo and construction	CR2, Vernonville Road, Telephone Road
Vernonville Road bridge at Highway 401	Vernonville Road bridge demo and construction	CR2, Shelter Valley Road, Telephone Road
Boyce Road bridge at Highway 401	Boyce Road bridge demo and construction	Dudley Road, Vernonville Road, Telephone Road

Summary of Impacts and Mitigation Measures

Summary of Impacts and Mitigation Measures

Preferred Plan

Environmental Factor	Proposed Mitigation Measure
Fish and Fish Habitat	Impacts to watercourses will be minimized to the extent possible. Opportunities to enhance fish habitat will be reviewed during detail design.
Trees/Vegetation	Vegetation and tree removals will be minimized to the extent possible.
Wildlife/Habitat	Opportunities to enhance wildlife connectivity and reduce risks associated with the highway will be reviewed during detail design. Targeted species surveys will be carried out for species that have the potential to be present.
Cultural Heritage	Impacts to properties having cultural heritage value will be further investigated during detail design. No construction activities will take place until the Ministry of Sport, Heritage, Tourism and Culture Industries has confirmed in writing that all archaeological licensing and technical review requirements have been satisfied.
Landscape/Views	Visual screening measures will be explored during detail design, in consultation with affected property owners. MTO will continue to consult with the Highway of Heroes Tree Campaign during detail design to explore opportunities for commemorative plantings.
Property	Negotiations with impacted property owners will be carried out after Environmental Clearance has been obtained.
Air Quality	An Air Quality Assessment is being completed in accordance with Provincial guidelines to assess the potential changes in local and regional air quality, and to determine if mitigation measures are required.
Noise	A Noise Assessment is being completed in accordance with Provincial guidelines to determine if measures are required to mitigate potential increases in traffic noise.
Traffic Operations	Advanced notification will be provided to affected residents in advance of construction activities. Detour and Staging Plans will be finalized during detail design.

Consultation

Formal Consultation

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

Stakeholders

- Ministry of Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Heritage, Sport, Tourism and Culture Industries
- Lower Trent Conservation Authority
- Ganaraska Conservation Authority
- Town of Cobourg
- Township of Hamilton
- Township of Alnwick/Haldimand
- Township of Cramahe
- 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

PIC 1 Feedback

- Potential impacts to private property
- Potential increases in noise
- Potential affects to fish/aquatic species
- Potential impacts to cultural heritage landscapes/property
- Suggestions to improve drainage
- Suggestions for wildlife and snow barriers

Next Steps

Next Steps

Council Presentations

- Tentatively scheduled for June 2020

Public Information Centre 2

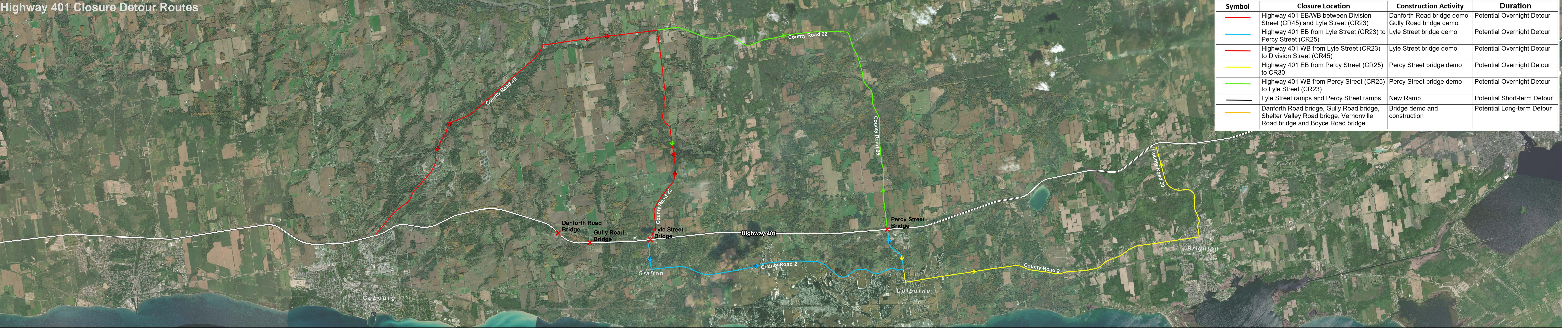
- Present the Evaluation of Alternatives and selection of Preferred Plan
- Tentatively scheduled for June 2020

Transportation Environmental Study Report

- 30-day public review period
- Tentatively scheduled for fall 2020

Questions

Highway 401 Closure Detour Routes



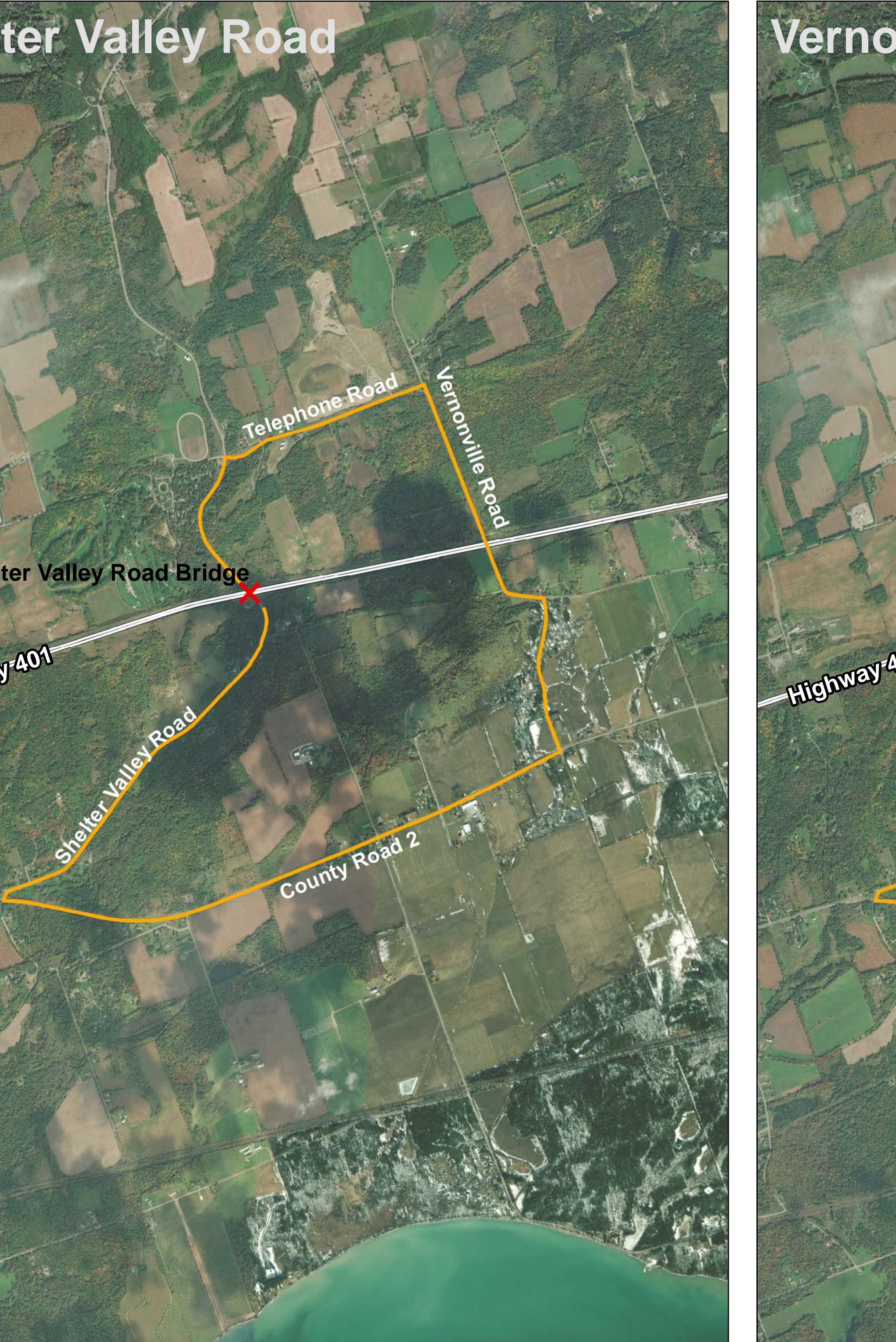
Danforth Road



Gully Road



Shelter Valley Road



Vernonville Road



Boyce Road



Percy Street



Lyle Street

