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CIMA+

Public Information Centre (PIC) 2

Municipal Class EA Study
For Coleraine Drive Grade Separation
PRESENTATION 1 - OVERVIEW

December 16, 2021 – January 21, 2022

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Land Acknowledgement

- We would like to acknowledge that the land on which we gather, and on which the Region of Peel operates, is part of the Treaty Lands and Territory of the Mississaugas of the Credit.
- For thousands of years, Indigenous peoples inhabited and cared for this land, and continue to do so today.
- In particular we acknowledge the territory of the Anishinbek, Huron-Wendat, Haudenosaunee and Ojibway/Chippewa peoples; and land that is home to the Metis; and most recently, the territory of the Mississaugas of the Credit.
- We are grateful to have the opportunity to work on this land, and by doing do, give our respect to it's first inhabitants.

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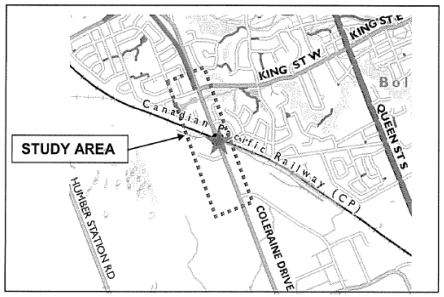
OVERVIEW SUMMARY (3 'W's)

WHAT?

Public Information Centre (PIC) #2 of ongoing Environmental Assessment (EA) Study

WHERE?

Coleraine Drive and CP Rail Crossing, south of Old Ellwood Drive, Town of Caledon, between Holland Drive and Harvest Moon Drive /King Street West



WHY?

- EA Study was initiated through the Region's Long Range Transportation Plan, to investigate grade separation options to serve anticipated traffic growth.
- PIC #1 identified four options. Options to raise or lower the rail grade were screened out. Options to raise or lower the road were carried forward for more detailed evaluation.
- This PIC #2 is presenting the results of this evaluation.

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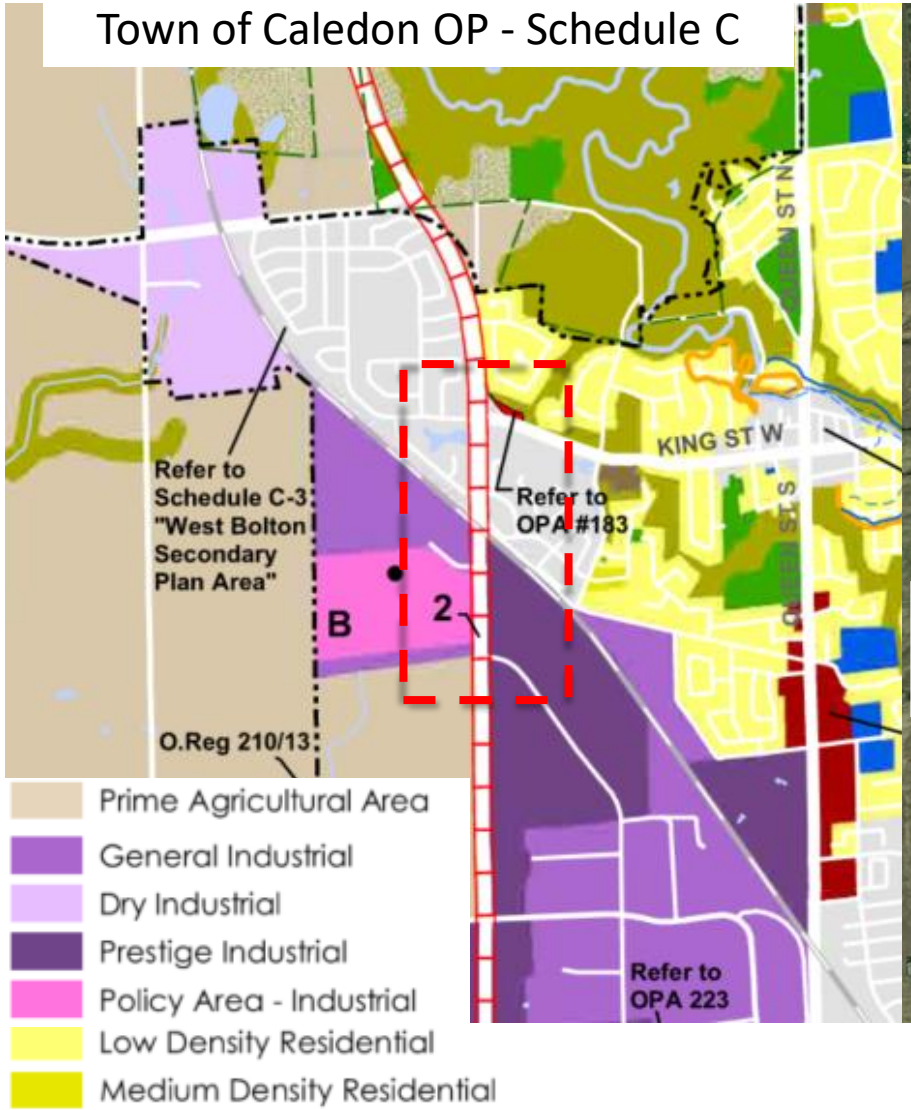
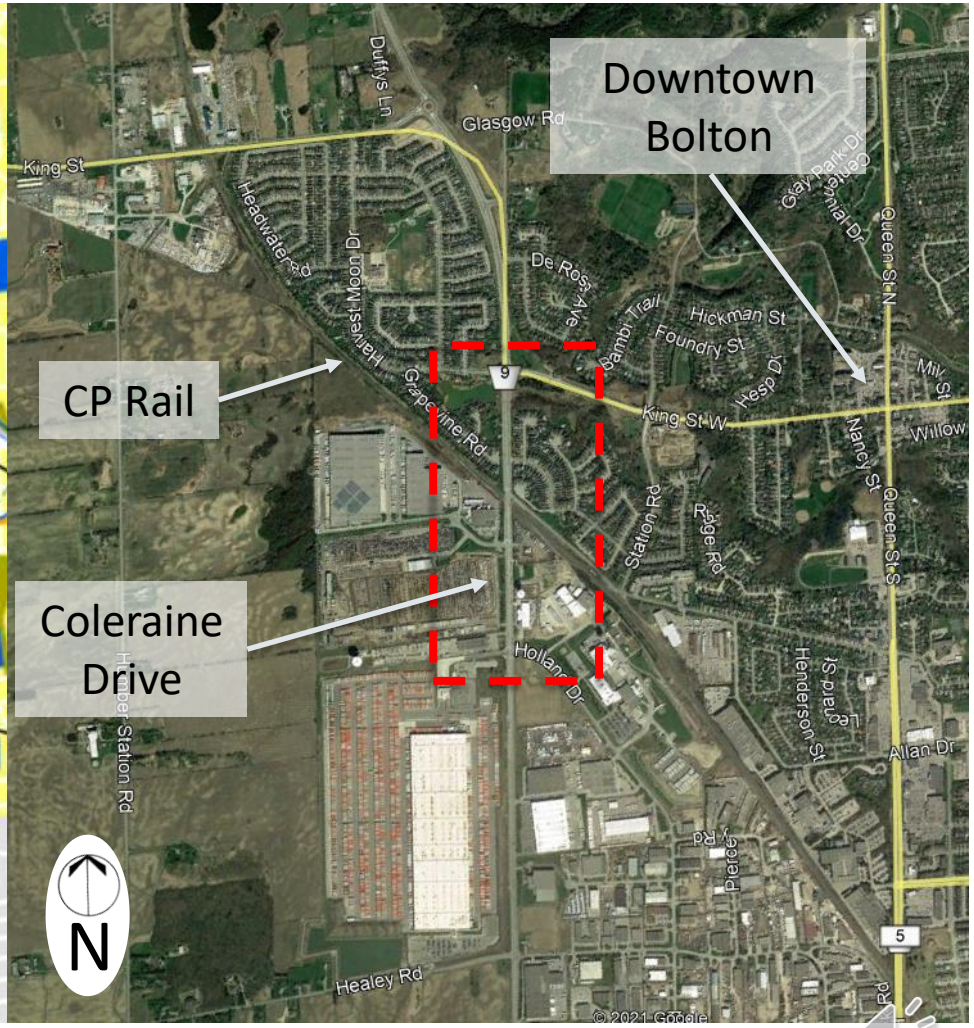
STUDY AREA





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PURPOSE AND OBJECTIVES

Study Purpose

- **Complete** a Municipal Class Environmental Assessment (Schedule 'C') and Preliminary Design for a grade separation of Coleraine Drive and the CP Rail, in Bolton.
- **Identify, define and evaluate** the existing and future transportation needs for the grade separation
- **Determine improvements** to accommodate those needs, including consideration of all modes: Active Transportation (pedestrians / cyclists) and Transit
- **Identify potential impacts** to the natural, social and economic environments as well as cultural heritage and archaeology

Objectives of PIC #2

- Re-introduce the project to the community and learn about **alternative design concepts** that address the identified problem
- Summarize the technical work completed in support of the study
- Summarize the **evaluation** of alternative design concepts
- Present the **preliminary preferred alternative** and anticipated mitigation measures
- Obtain your **input** and **answer any questions** you may have
- Discuss **next steps**

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STUDY PROCESS AND SCHEDULE

- The Municipal Class EA is a planning and design process approved by the Ministry of Environment, Conservation and Parks to meet the requirements of the Ontario Environmental Assessment Act.
- This Study is following the Class EA process for **Schedule 'C'** projects and will complete Phases 1 to 4 as outlined below:

WE ARE HERE

END OF THIS STUDY

Phase 1: Problem and Opportunity

- Inventory natural, social, and cultural environments
- Consider problems/ opportunities
- Establish study need and justification

Notice of Study Commencement
April 2016

Phase 2: Alternative Solutions

- Identify alternative solutions to address problems/ opportunities
- Consult with agencies and the public
- Confirm Preferred Solution

Public Information Centre #1
October 8, 2019

Phase 3: Alternative Design Concepts

- Develop, assess and evaluate design concepts
- Technical studies
- Consult with agencies and the public
- Confirm Preferred Design Concept

Public Information Centre #2
December 16, 2021

Phase 4: Environmental Study Report

- Prepare Environmental Study Report (ESR) to document decision-making process and public feedback
- Minimum 30-day public review period

Notice of Study Completion
Spring 2022

Phase 5: Implement

- Complete contract drawings and documents
- Proceed to construction and operation

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PROBLEM AND OPPORTUNITY STATEMENT

Problems

- An increase in motor vehicle and train traffic is projected for 2041 which is expected to result in queues generated at the at-grade crossing extending beyond the intersection of Coleraine Drive & King Street West/Harvest Moon Drive.
- This issue is expected to worsen as the frequency of trains during peak hours increases, particularly due to the planned extension of GO Train service to a new Bolton station.

Opportunities

- An opportunity to improve active transportation, recognize the importance of goods movement through the corridor, identify safety improvements and enhancing Peel's economic competitiveness.

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PIC #1 RECAP:
WHAT WE HEARD & ACTIVITES SINCE

Key PIC No. 1 Comments / Concerns:

- Preference for Road Under Rail however commentors understood the need to review all options
- Existing noise concerns and a request for noise attenuation barriers
- Concerns regarding the long time it would take to construct such large improvements
- Consider a pedestrian underpass from Ellwood Drive to Grapevine Road

Activities Since PIC #1:

- Responded to comments received
- Developed alternative design concepts
- Completed supporting studies

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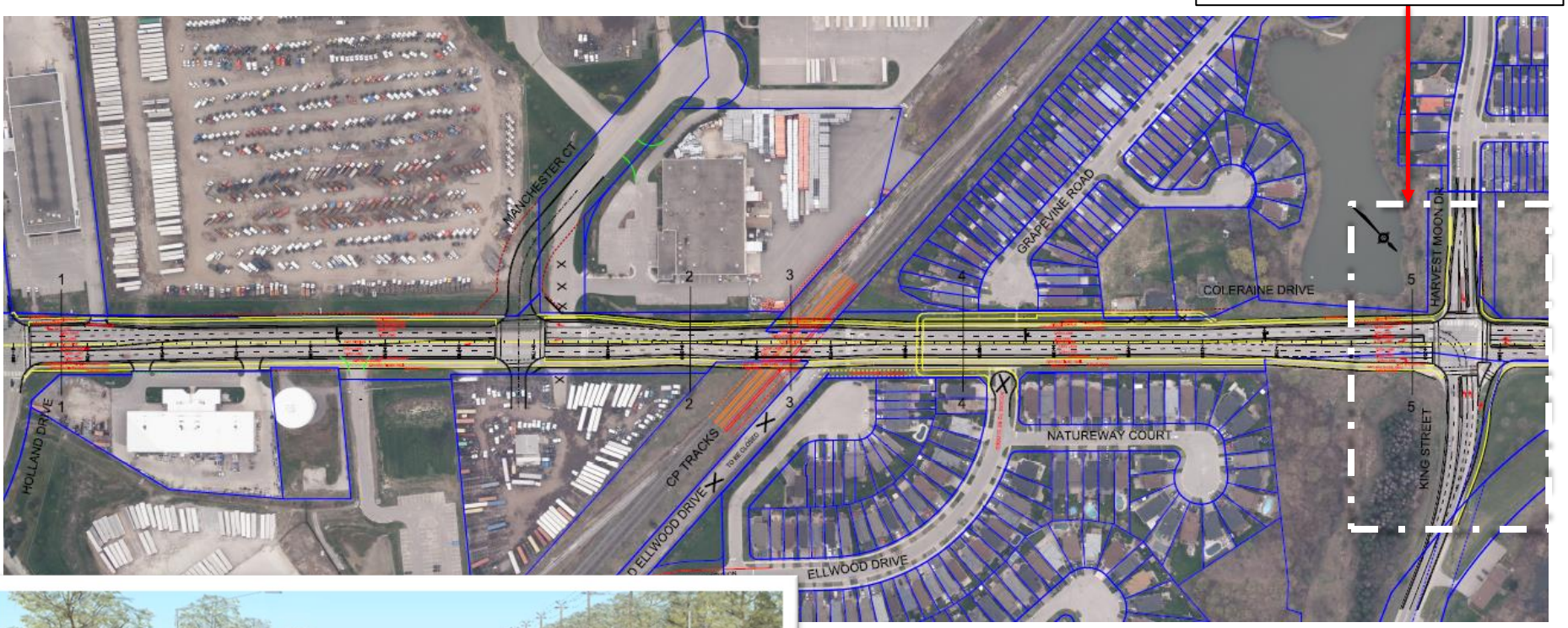
ALTERNATIVE DESIGN CONCEPTS

Two alternative design concepts have been developed:

1. **Road under Rail**

Intersection improvements considered separately



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ROAD UNDER RAIL (Alternative #1)
Looking South towards Ellwood Drive West

- Rail and a dedicated pedestrian & cycling bridge is provided over Coleraine Drive.

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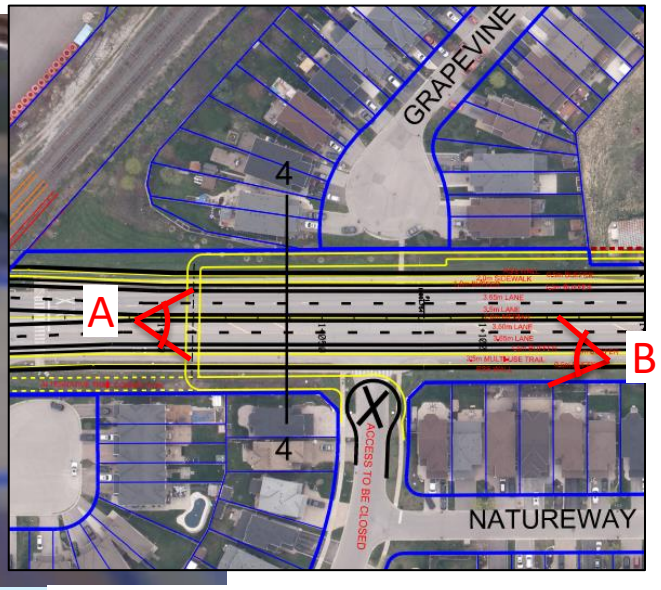
ROAD UNDER RAIL (Alternative #1)
Dedicated Active Transportation Bridge

Viewpoint B



Viewpoint A

- Dedicated Active Transportation (pedestrian and cyclists) bridge provides connection between Ellwood Drive West and Coleraine Drive and Grapevine Road

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ROAD UNDER RAIL (Alternative #1)
Looking North towards Ellwood Drive West

- Road cut under rail using retaining walls.
- Railings used for pedestrian safety.

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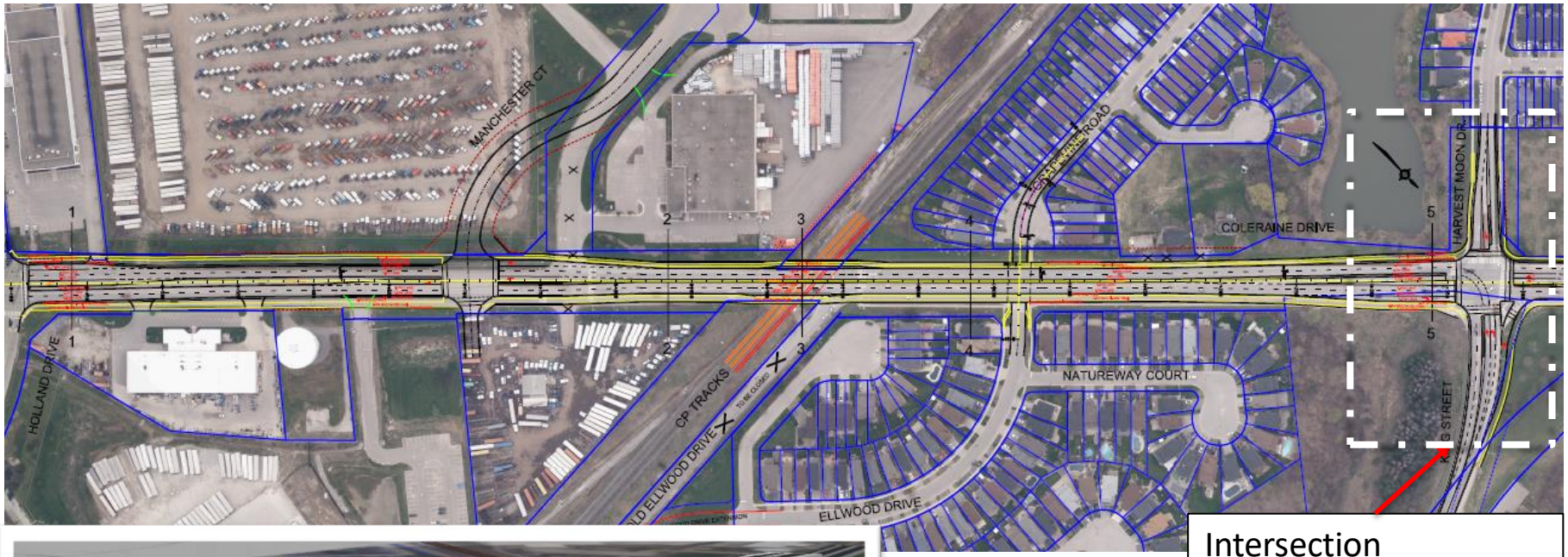
ALTERNATIVE DESIGN CONCEPTS

2. Road over Rail



Intersection improvements considered separately

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ROAD OVER RAIL (Alternative #2)
Looking South towards Ellwood Drive West

- Road elevated over rail using embankments on approach and bridge over rail lines.

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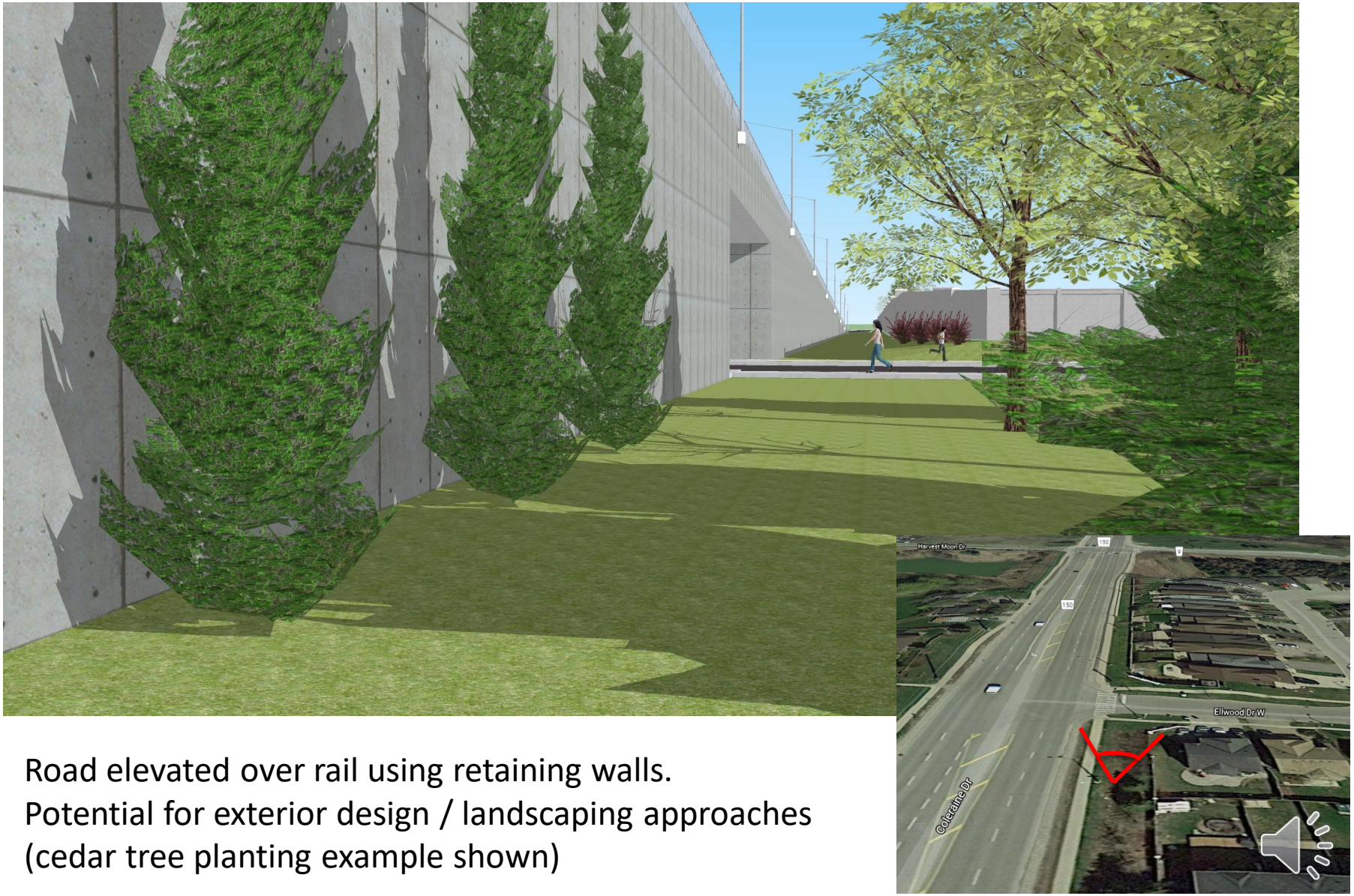
ROAD OVER RAIL (Alternative #2)
Looking North towards Ellwood Drive West



- Road elevated over rail using retaining walls.
- Potential for exterior design / landscaping approaches (cedar tree planting example shown)

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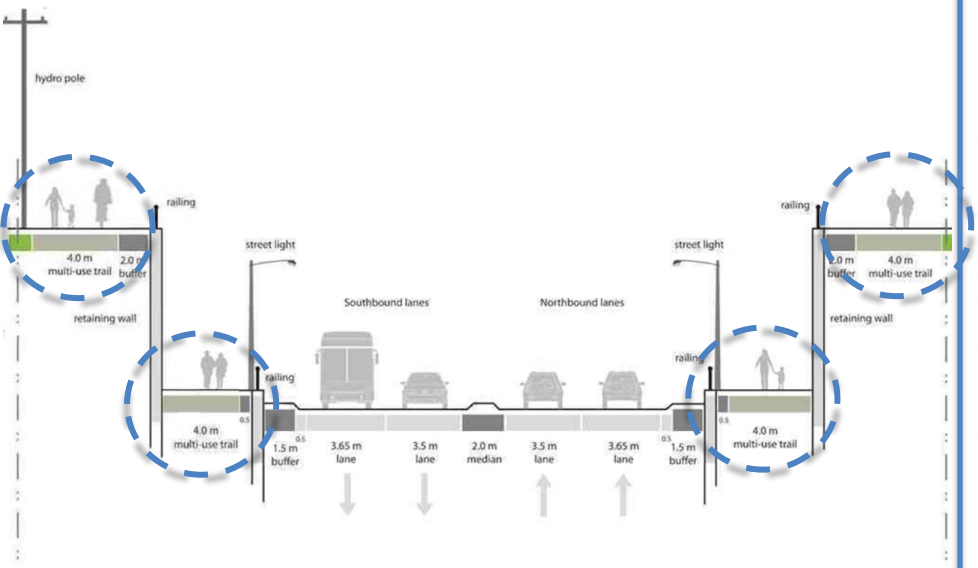
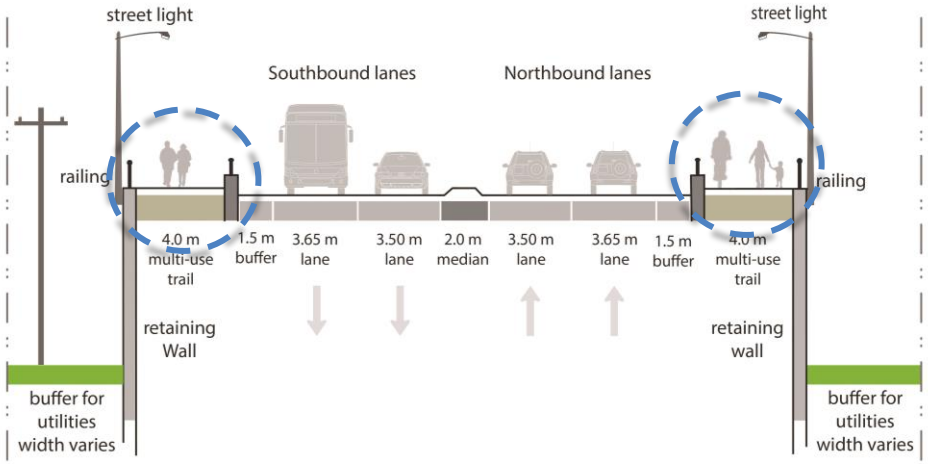
ALTERNATIVE DESIGN CONCEPTS
ACTIVE TRANSPORTATION

Road Under Rail



Road Over Rail



Both alternatives include 4.0 metre multi-use trails on both sides of the roadway

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EVALUATION SUMMARY

Road Under Rail

Road Over Rail

Stormwater Management and Groundwater	Road Under Rail will have significant drainage requirements (i.e., permanent pumping) and groundwater impacts. Road Under Rail configurations often encounter flooding.
Noise / Air Quality	Both alternatives will have similar noise/air quality impacts, after mitigation
Access, Property and Aesthetics	Both alternatives have similar property requirements. Road Over Rail is less aesthetically pleasing, however mitigation measures include exterior design. There will be shadow impacts
Constructability	Road Under Rail requires deep, difficult excavation (9 m) and a rail diversion
Cost	Road Under Rail is significantly more expensive ($56M) than Road Over Rail ($36M)

The evaluation of alternatives is further detailed in the supporting documentation available on the study website

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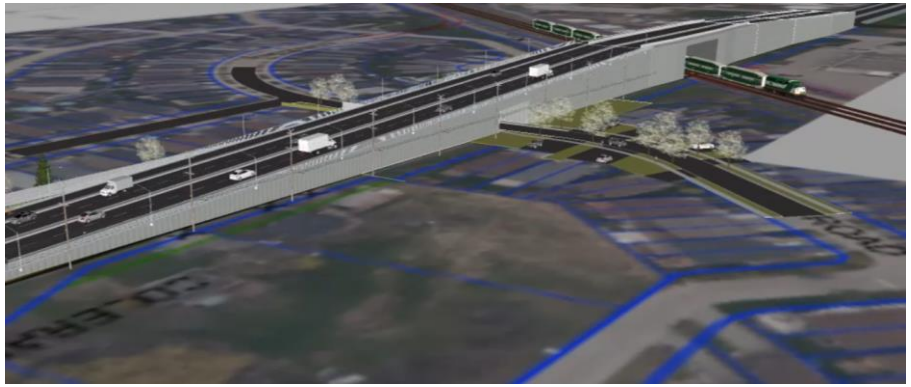
PRELIMINARY PREFERRED ALTERNATIVE

The preliminary preferred alternative is **Road Over Rail**.

- Road Under Rail is not preferred due to a much greater construction complexity (including a rail diversion), greater risk of groundwater impacts and higher cost by ~$20M.
- Noise impacts (with mitigation measures applied) and property requirements are similar for both options.



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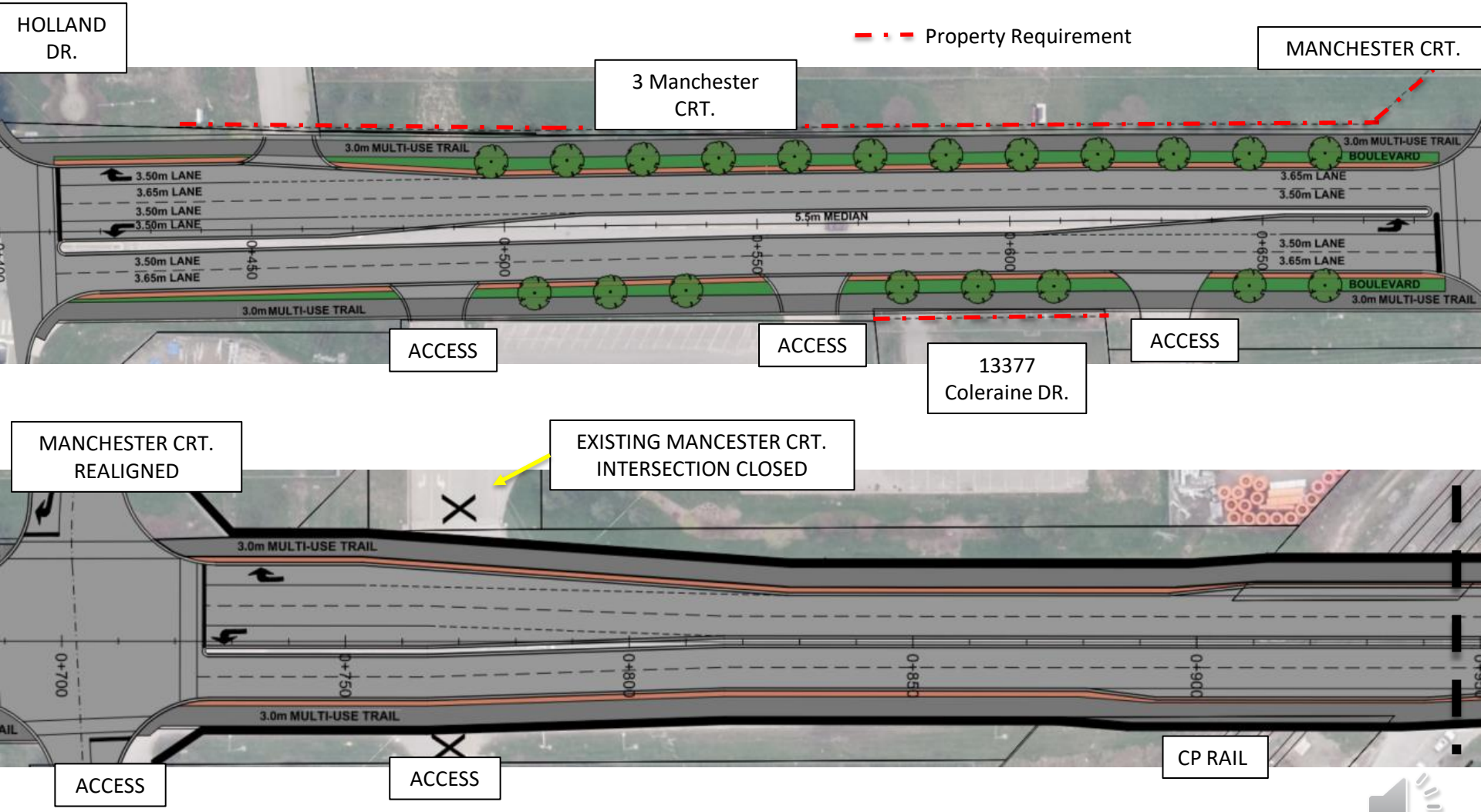
PRELIMINARY PREFERRED ALTERNATIVE PLAN: SOUTH OF RAIL CROSSING

N



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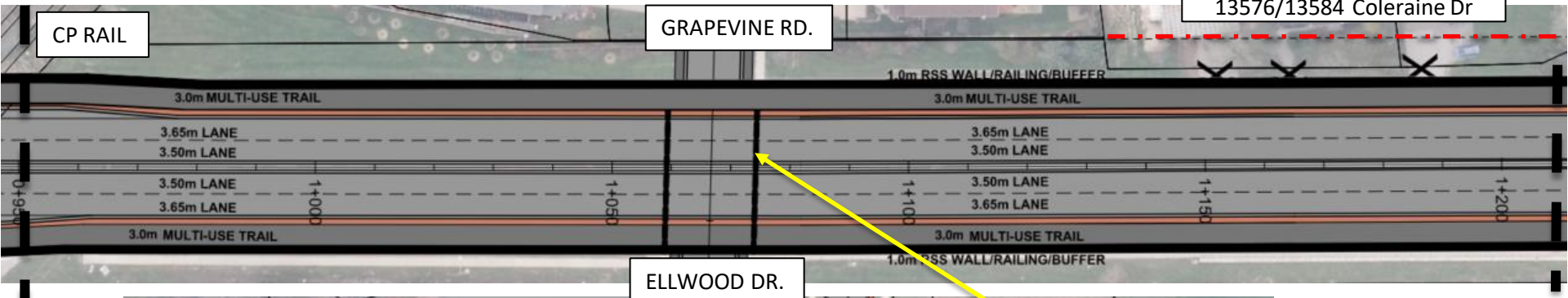
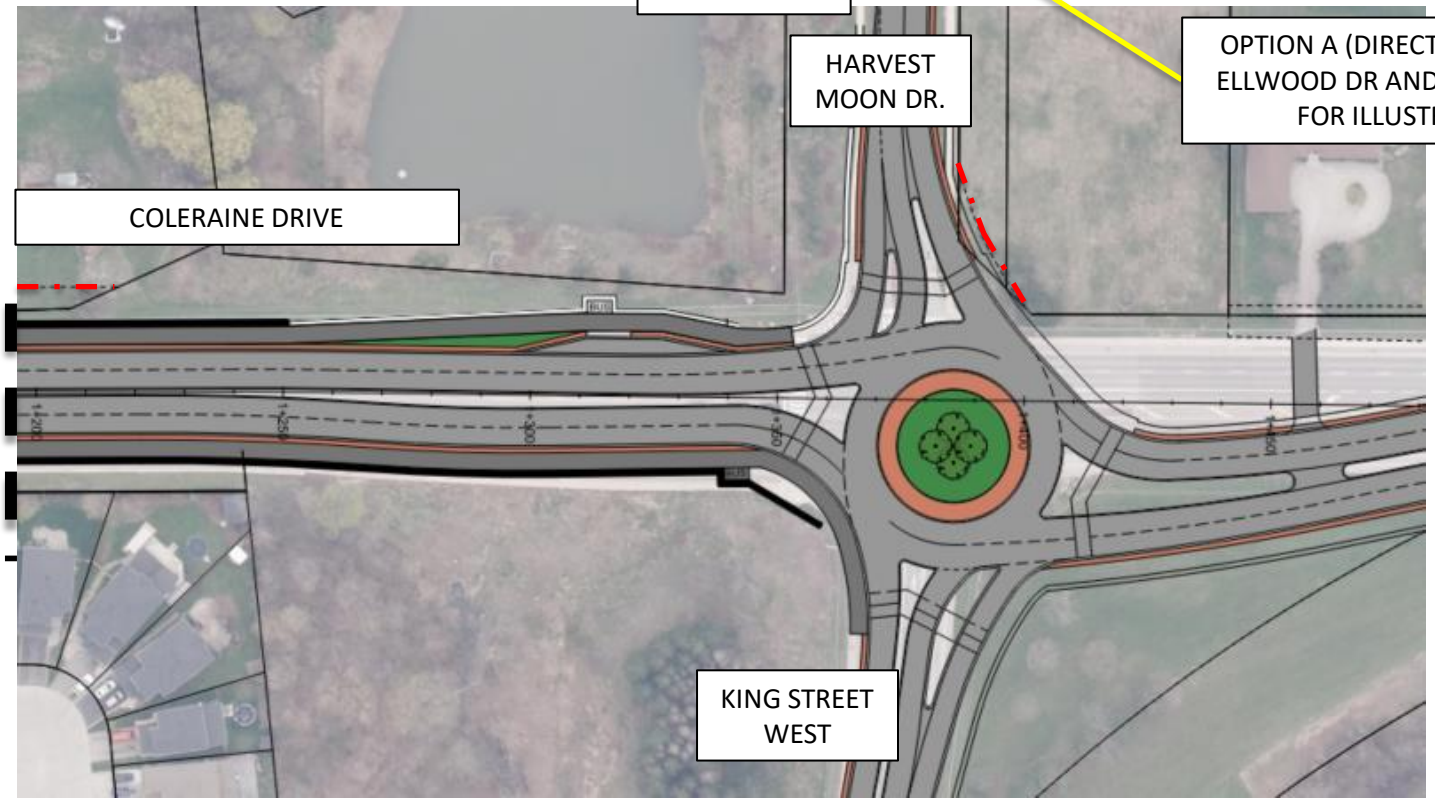
PRELIMINARY PREFERRED ALTERNATIVE PLAN: NORTH OF RAIL CROSSING

N





OPTION A (DIRECT CONNECTION BETWEEN ELLWOOD DR AND GRAPEVINE RD) SHOWN FOR ILLUSTRATION PURPOSES

Property Requirement

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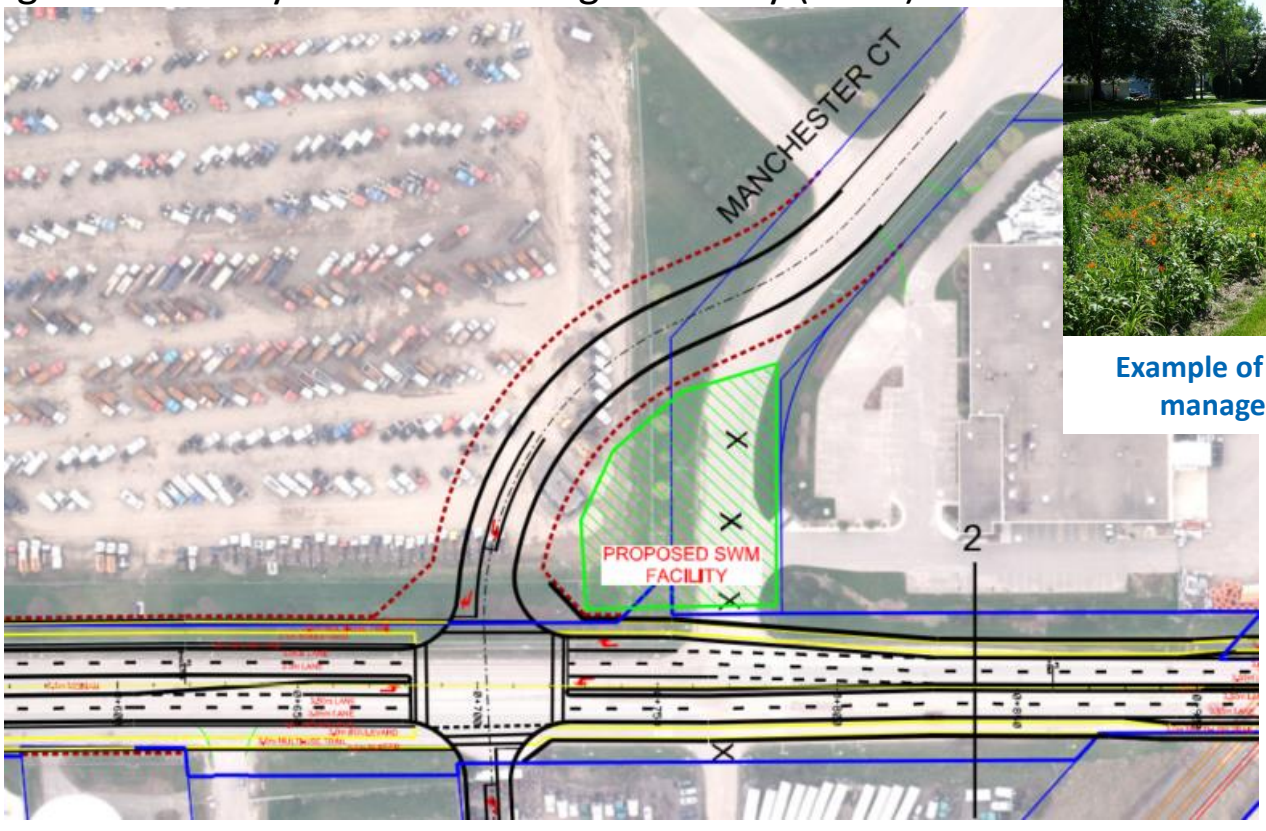
LOCAL ROAD MODIFICATIONS; MANCHESTER COURT

- Both alternatives will require modifications to local roads:
  - Manchester Court is realigned and connects with Coleraine Drive at a new intersection
  - Realignment varies slightly between the Road Over Rail and Road Under Rail options
  - Realignment provides an opportunity for a Low Impact Development (LID) stormwater management facility in the closed Right-of-Way (ROW)



Example of LID stormwater management facility

Image source: Google

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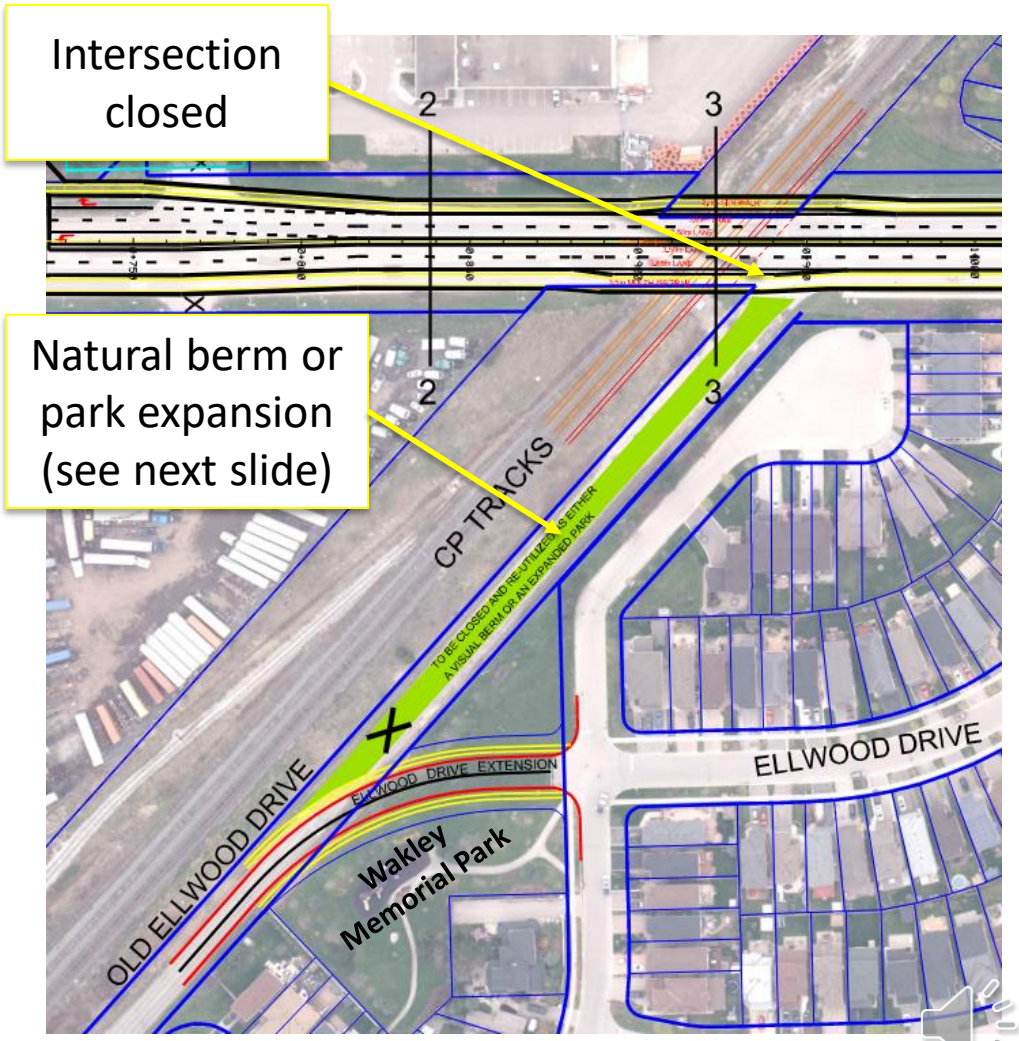
LOCAL ROAD MODIFICATIONS
BOTH ALTERNATIVES; OLD ELLWOOD DRIVE

- Both alternatives will require modifications to local roads:
  - New connection required as existing Old Ellwood Drive and Coleraine Drive intersection is closed.
  - New connection provided between Old Ellwood Drive and Ellwood Drive, using existing roadway allowance.
  - Disused Old Ellwood Drive Right-of-Way (ROW) to be used as natural berm or park expansion.



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LOCAL ROAD MODIFICATIONS
BOTH ALTERNATIVES; OLD ELLWOOD DRIVE

Removing a length of Old Ellwood Drive presents opportunity for neighbourhood enhancement options, such as:

Option A

Natural Berm

Option B

Park Expansion

Imagery source: Google Earth

We are seeking the public's thoughts on these options.
Please vote using the interactive tool on the project website.

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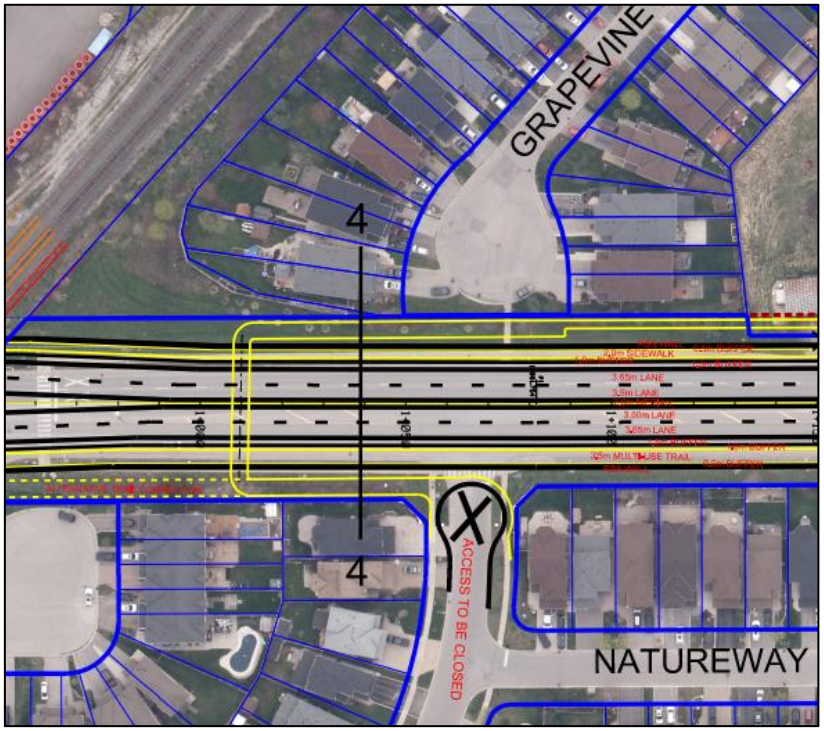
LOCAL ROAD MODIFICATIONS
ROAD UNDER RAIL; ELLWOOD DRIVE WEST

- For the Road Under Rail option:
  - A cul-de-sac is recommended on Ellwood Dr. West.
  - An Active Transportation connection (bridge) is provided over Coleraine Drive.

3D Rendering



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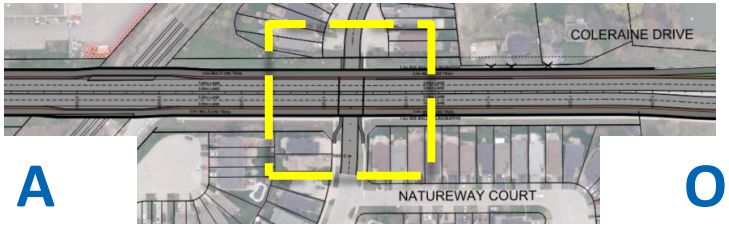
LOCAL ROAD MODIFICATIONS
ROAD OVER RAIL; ELLWOOD DRIVE



Option A

Connection between Ellwood Drive and Grapevine Road, accommodating all traffic. (projected volumes approx. 30 - 50 vehicles in the peak hour)

Option B

Cul-de-sac Ellwood Drive West and provide only an Active Transportation connection to Grapevine Road

We are seeking the public's thoughts on this option.
Please vote using the interactive tool on the project website.

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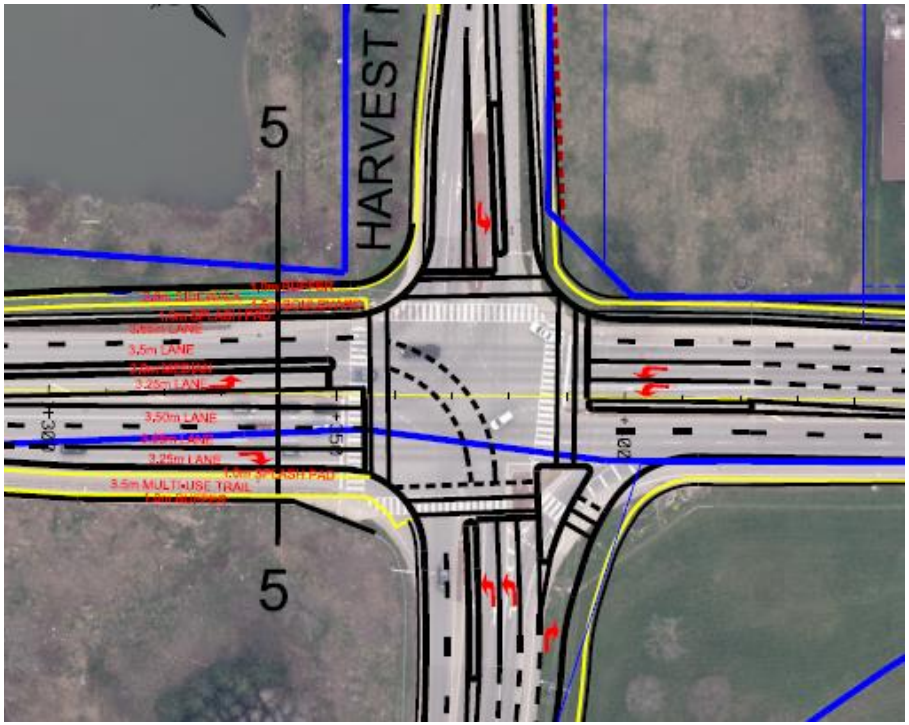
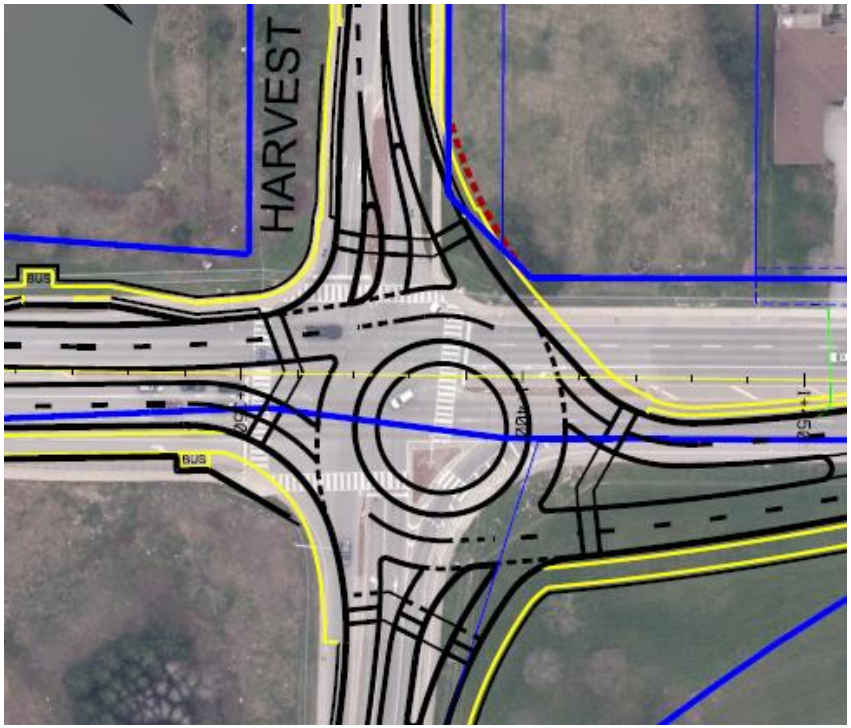
ALTERNATIVE DESIGN CONCEPTS FOR HARVEST MOON DR. / KING ST. & COLERAINE DR.

Two alternatives were considered for the intersection.



SIGNALIZED INTERSECTION IMPROVEMENTS



ROUNDABOUT

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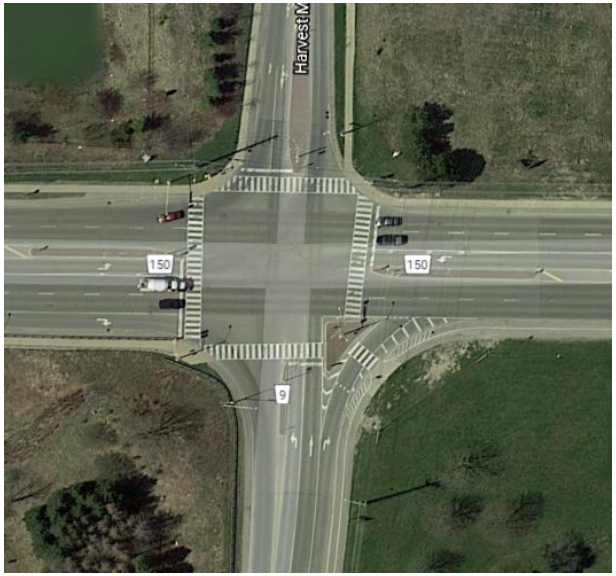
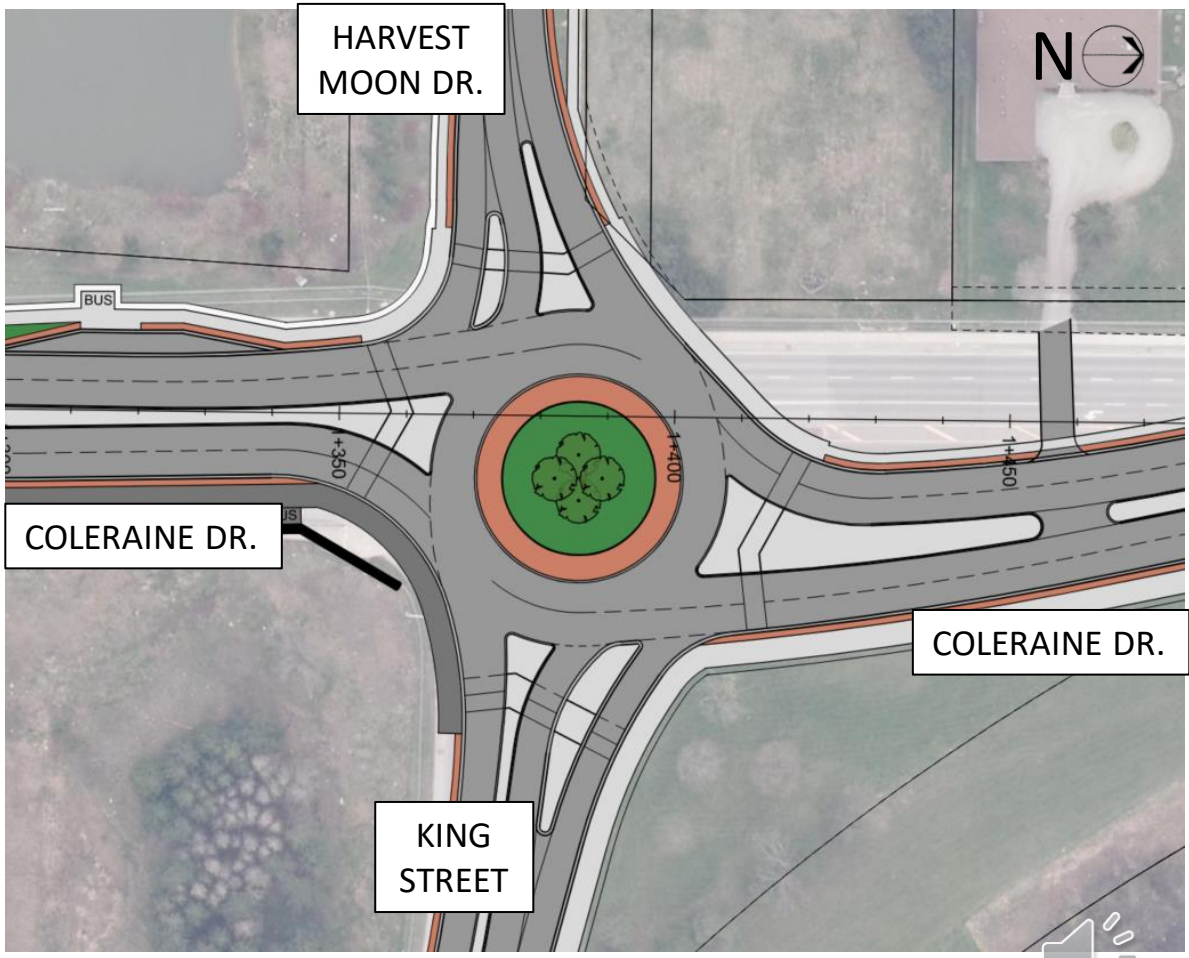
HARVEST MOON DR. / KING ST. & COLERAINE DR. INTERSECTION

Preliminary preferred intersection improvement = Roundabout



EXISTING



PROPOSED

The evaluation of alternatives is further detailed in the supporting documentation available on the study website

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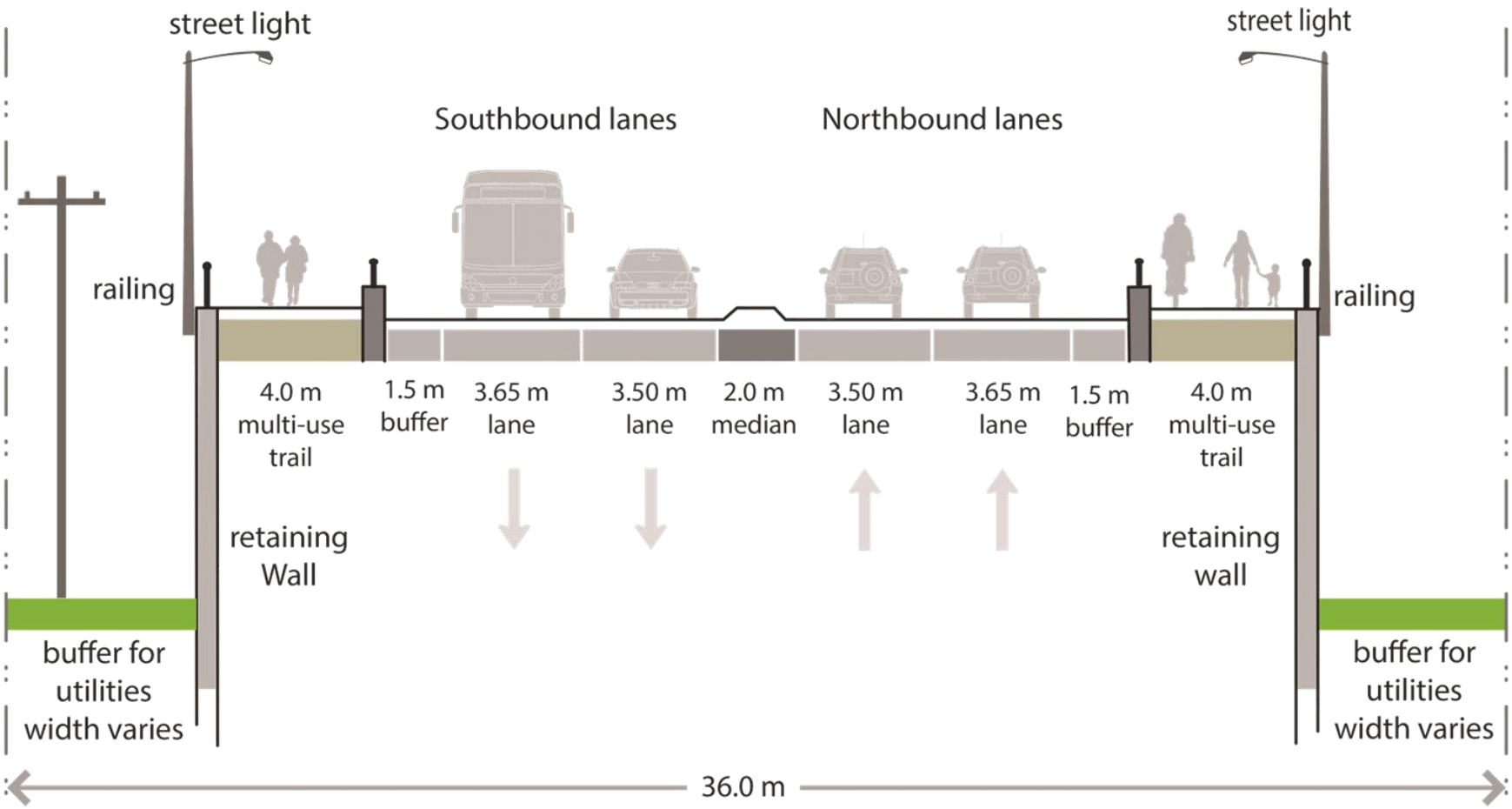
TYPICAL CROSS-SECTION ROAD OVER RAIL



Proposed Cross-section

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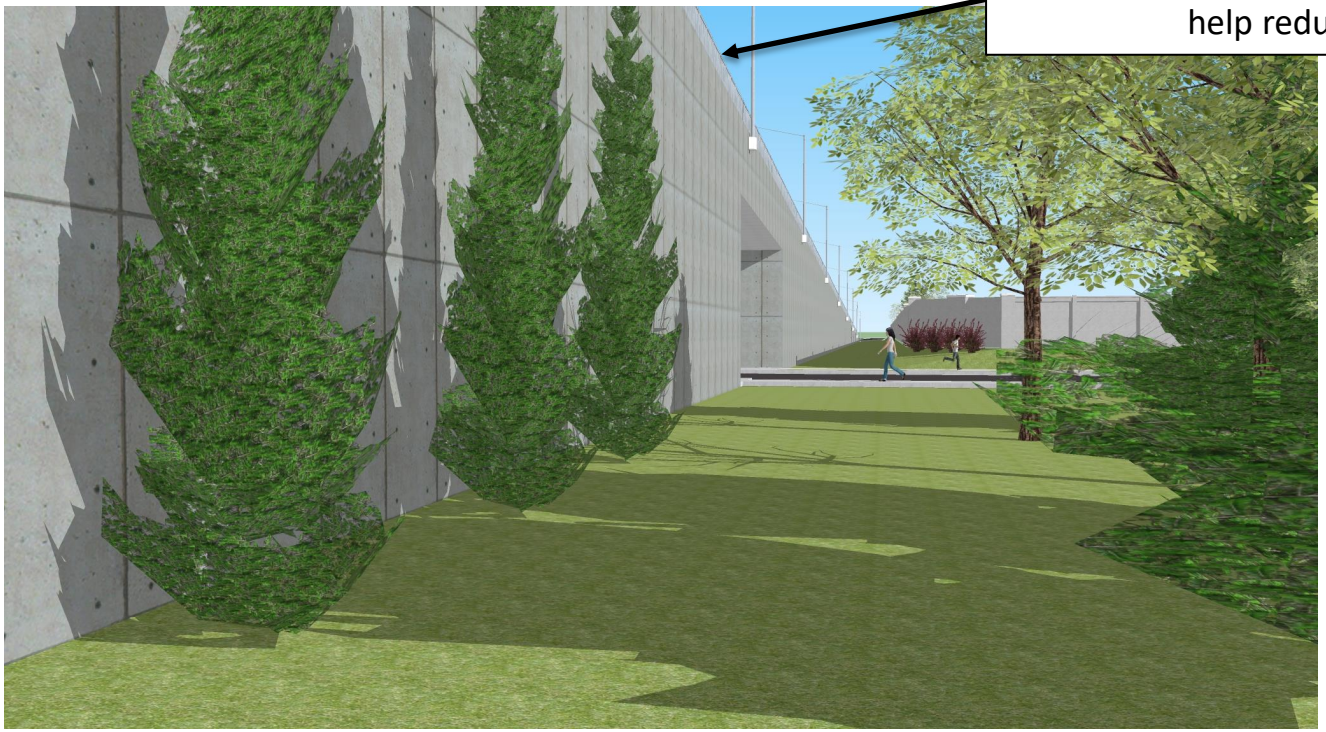
MITIGATION MEASURES



Concrete barriers on the elevated roadway will help reduce noise impacts

Landscaping opportunities Example: Wintergreen Cedar

- High retaining walls can provide opportunities for exterior design or landscaping such as trees, planters, murals or community message boards, and will be confirmed in Detailed Design.
- Other mitigation measures include 1.2 m concrete barriers (typically 0.8 m high) on the roadway to reduce noise impacts.

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NEXT STEPS

- Collect and respond to comments received, and tally results of the voting, to inform our decision on the "preferred alternative"
- Complete preliminary design of preferred alternative
- File Environmental Study Report (ESR) for EA approval, in 2022.
- The project will go to the detailed design in 2024, followed by property acquisitions and utility relocations. According to the 2021 Transportation Capital Budget, the construction of the project is scheduled to begin in 2029.

Please complete a comment sheet and submit all comments **by January 21:**

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ADDITIONAL

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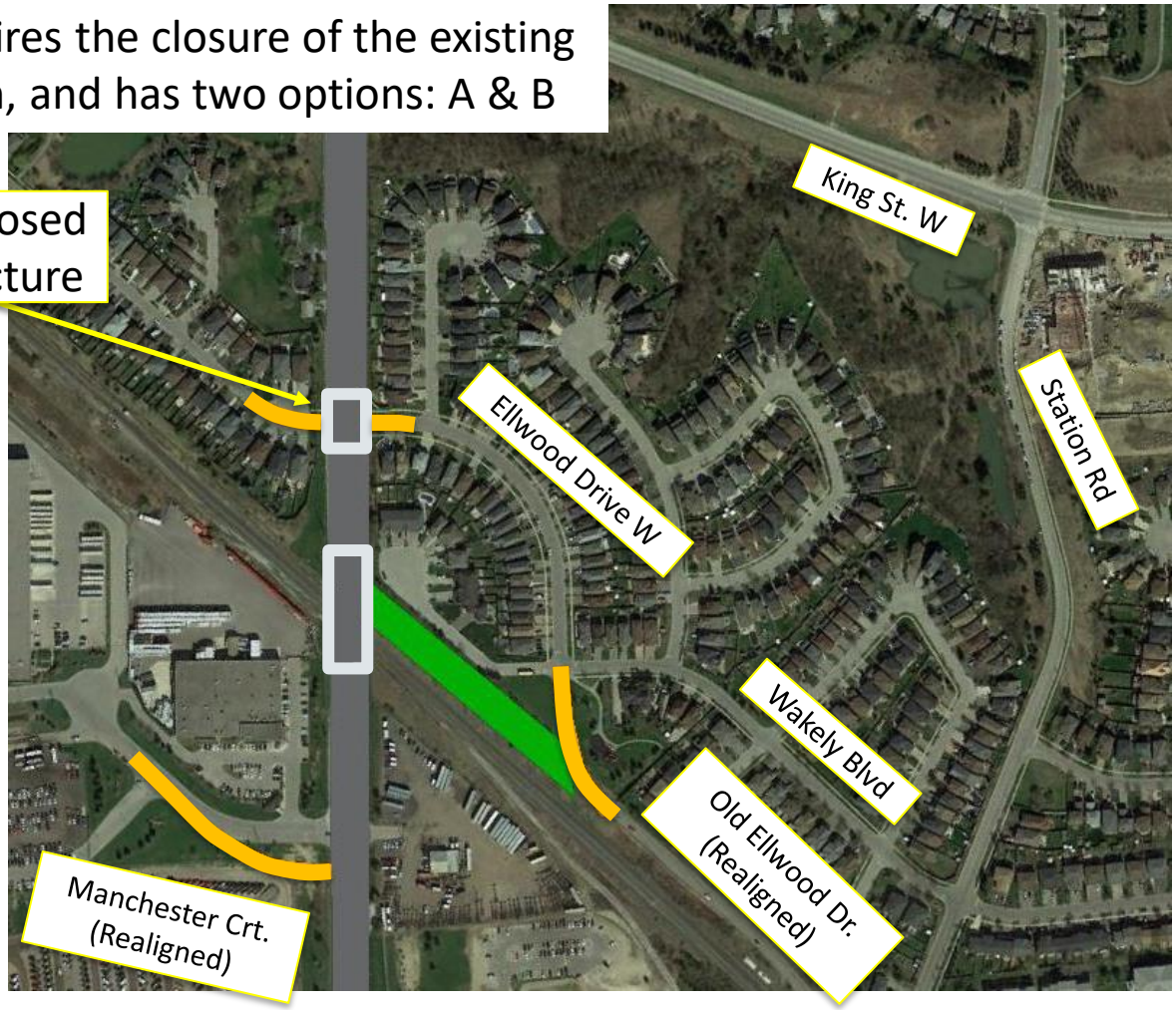
LOCAL ROAD MODIFICATIONS
ROAD OVER RAIL; OLD ELLWOOD DRIVE
OPTION A

The Road Over Rail option requires the closure of the existing Ellwood Drive West intersection, and has two options: A & B



Connection between Ellwood Drive and Grapevine Road accommodates all traffic.

We are seeking the public's thoughts on this option.
Please vote using the interactive tool on the project website.

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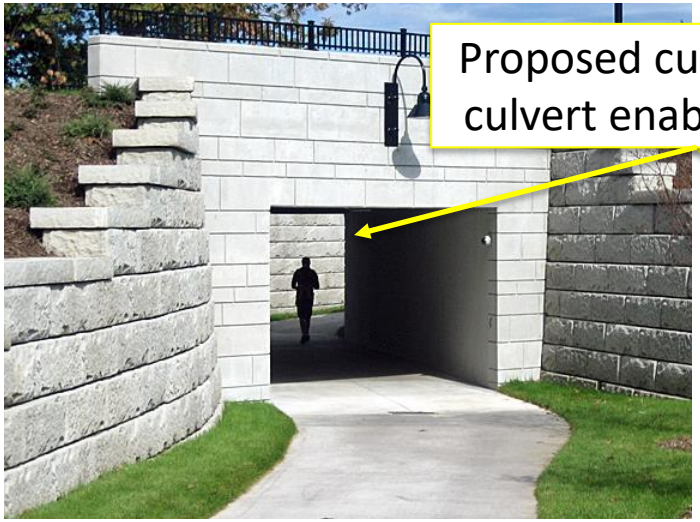
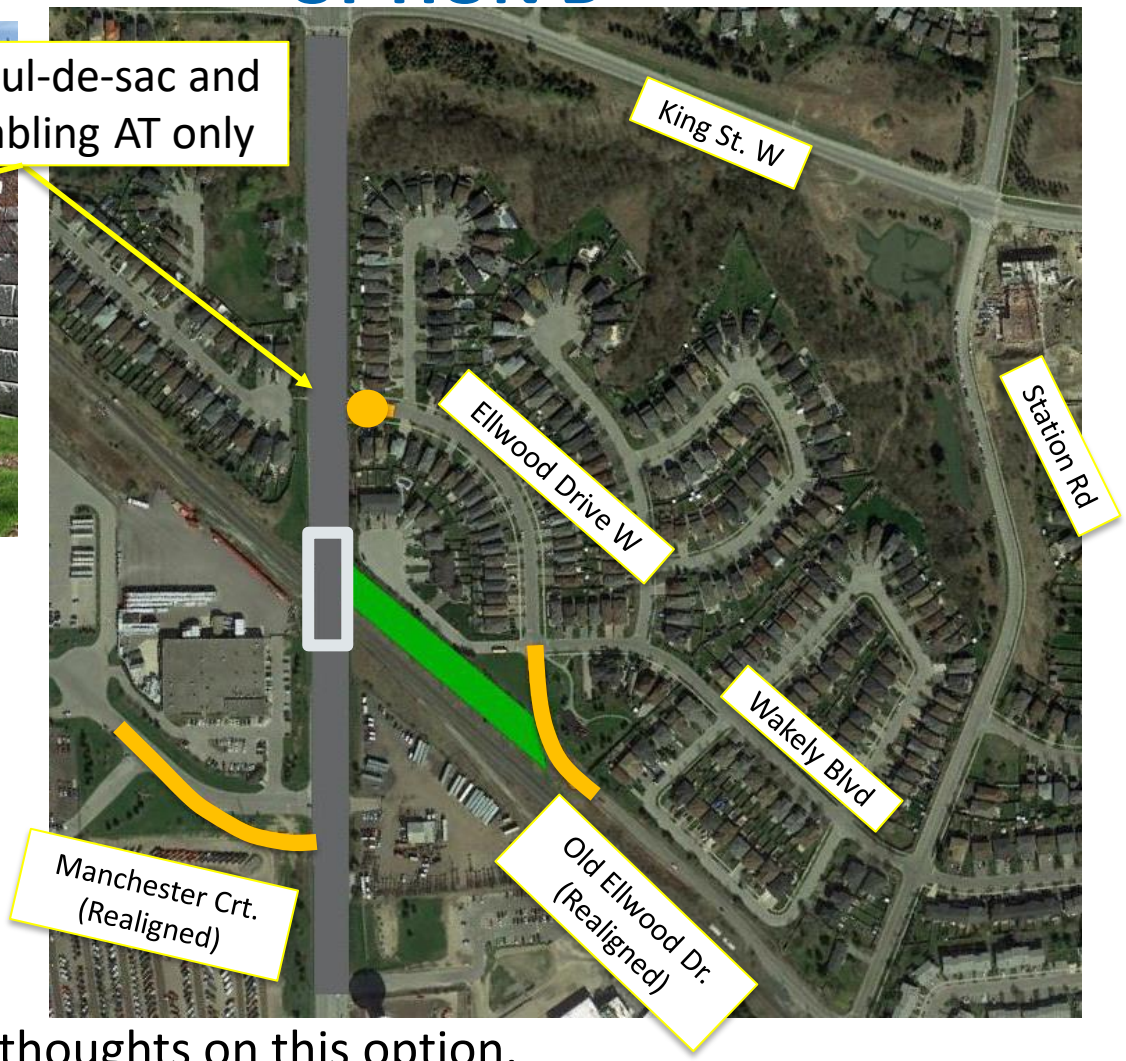
LOCAL ROAD MODIFICATIONS
ROAD OVER RAIL; OLD ELLWOOD DRIVE
OPTION B





Cul-de-sac Ellwood Drive West and provide only an Active Transportation connection to Grapevine Road

We are seeking the public's thoughts on this option.
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