Welcome to Online Open House #2

Elgin Mills Road / CN Railway Crossing
(Yonge Street to East of Newkirk Road)
City of Richmond Hill

Welcome to the second Online Open House for the Elgin Mills Road / CN Railway Crossing Environmental Assessment (EA) Study.

The reviewing and commenting period for Online Open House #2 is open from **Monday, March 11 to Monday, April 1, 2024.**

Purpose of Online Open House#2

- Share key feedback received to date
- Present the design approach, alternatives considered, evaluations and preliminary recommendations for the project
- Present the recommended preferred preliminary design
- Obtain your input about the project
- Next steps

How to navigate

- Click on the arrows at the bottom of your screen
- Use the navigation bar to the left of your screen to revisit any part of the Online Open House slides or to skip to a slide of interest to you
- Click the “Audio” button at the top right corner of the page to play audio for each slide

How to participate

- Click on the arrows at the bottom of your screen to get started and learn about the project. Some slides have areas to leave comments about the information presented. Enter your comments and press **SUBMIT** to send it to the project team
- You can also email your comments to the project team at **transportation@york.ca**

Contact information

Name:

Postal Code:

Email Address:

☐ Yes, I would like to join the mailing list to receive updates for the study

SUBMIT

Privacy Statement:
Please note your personal information (e.g. name, address, and phone number) is collected, maintained, and disclosed under the authority of the *Environmental Assessment Act* and the *Municipal Freedom of Information and Protection of Privacy Act* for transparency and consultation purposes.

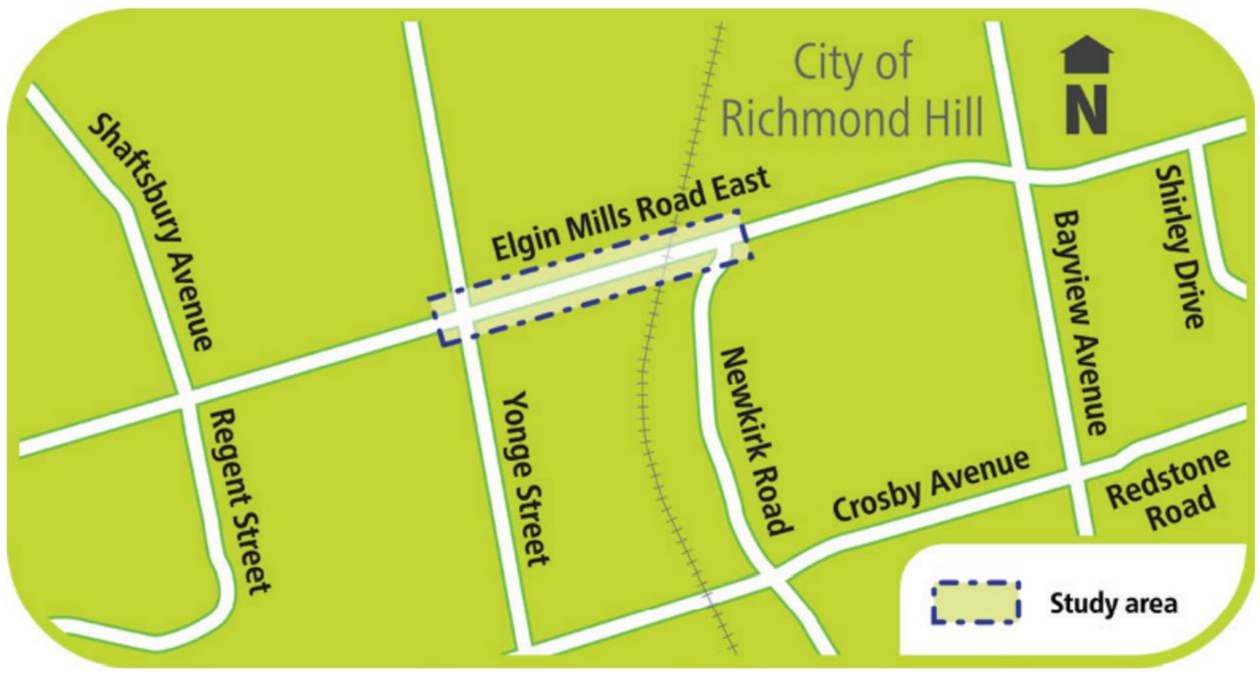
Personal information submitted will become part of a public record that is available to the general public unless it is requested that the personal information remain confidential.

NEXT

EA Process and Study Objectives

Project description

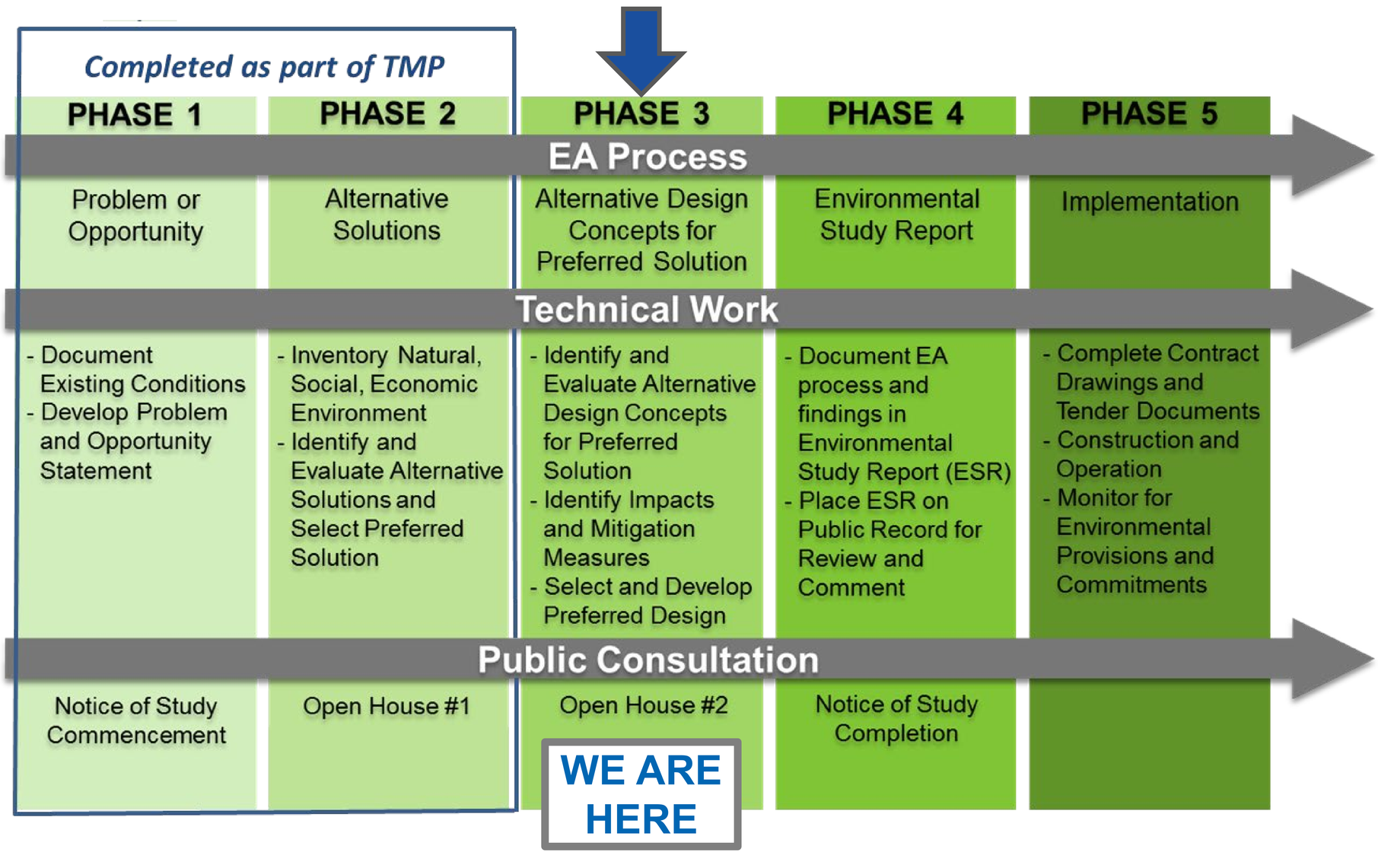
York Region is undertaking a transportation **Environmental Assessment (EA) Study** for improvements to Elgin Mills Road between Yonge Street and east of Newkirk Road, in the City of Richmond Hill.



Environmental Assessment (EA) process

An **Environmental Assessment (EA)** is a planning and approval process for municipal infrastructure projects, legislated by the *Ontario Environmental Assessment Act*. This study is being conducted as a Schedule 'C' project under the Municipal Class EA document (2023) and incorporates the Region's Transportation Master Plan (TMP) process. Public consultation is a key component of the EA process.

The study is currently in Phase 3 – Alternative design concepts for the preferred solution of the EA process.



NEXT

Community Outreach and What We Heard

Community Outreach

- Direct mail notices
- Newspaper notices
- Online open houses
- Project website (York.ca/ElginMillsStudy)
- York Region social media (Facebook, X)
- Stakeholder consultation
- Technical review agencies consultation
- Online survey
- Roadside signage

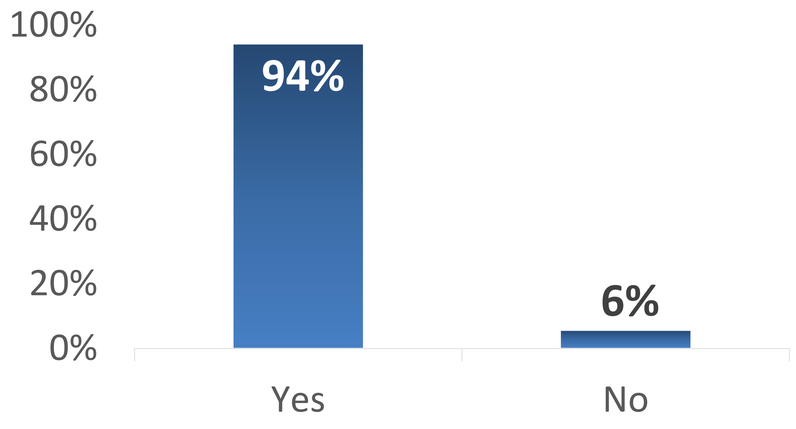
What we heard

Online Open House #1 Feedback

The first Online Open House (OH1) was held from Thursday, January 27 to Thursday, February 17, 2022 and saw 433 participants. The number of responses received varied per question.

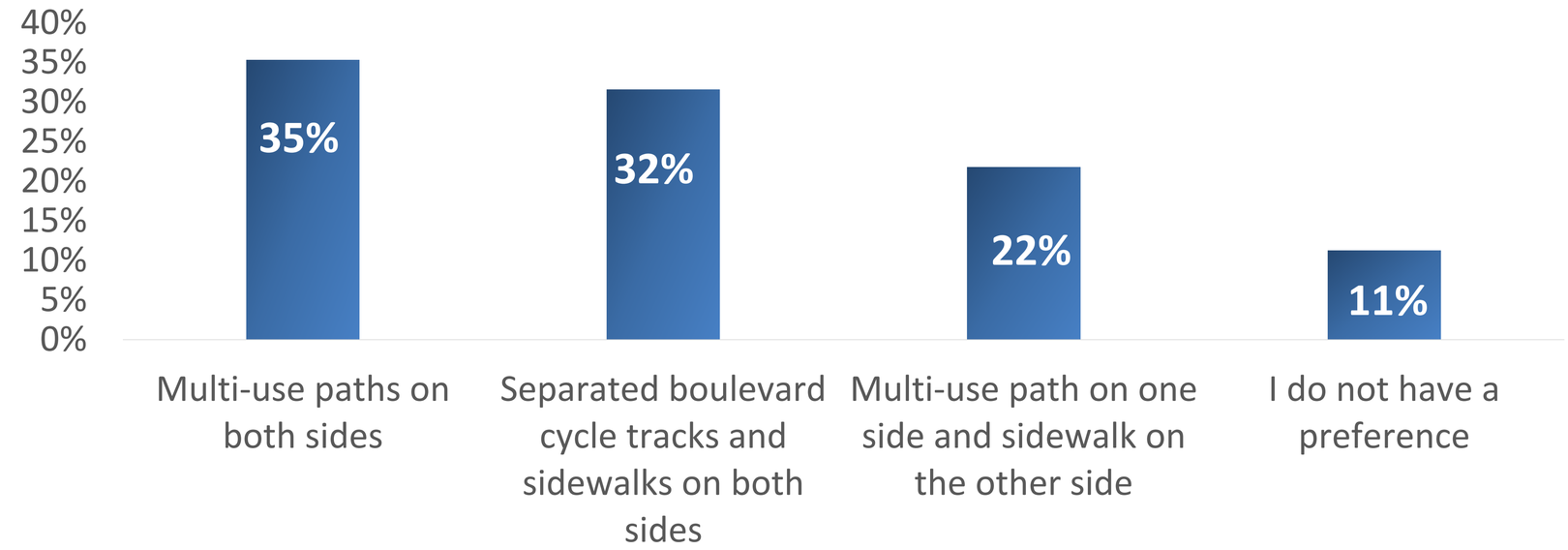
Do you agree with the recommendation to construct a rail grade separation structure and accommodate active transportation along the Elgin Mills Road corridor?

Percentage of respondents that agree with the recommendation



What is your preference for accommodating pedestrians and cyclists along Elgin Mills Road between Yonge Street and East of Newkirk Road?

Percentage of respondents that indicated a preference for active transportation facility type



Are there other items to consider when developing the grade separation alternatives (underpass and overpass)?

Underpass alternative (road would pass under the rail-line, requiring digging under the rail corridor)	Overpass alternative (road would pass over the rail-line, requiring a new bridge)
• Minimizes impacts on surrounding neighbourhoods • Less severe incline compared to an overpass for pedestrians and cyclists • More aesthetically pleasing - allows for better space for art, planters and lighting • High ground water; may have issues with drainage requiring actively pumping water from the water table • Concerns with water seepage and freezing along pedestrian paths (similar to Major Mackenize Drive and CN Line) • Flooding risk from heavy rainfall without flood risk mitigation • Seems claustrophobic, enclosed space • Relocate underground utilities, service mains and manhole boxes	• No residential homes immediately backing onto the railway crossing • Reduce walkability and cyclability • Potential issues with icy and slippery roads • Rerouting concerns • More disruptive for community theatre • Not aesthetically pleasing (eye sore) • Better opportunity to separate vehicles from pedestrians and cyclists on both sides of the roadway • Low risk of flooding • Most cost effective • Impacts to intersections with inclined road

NEXT

What We've Heard (continued)

What We've Heard

Online Open House #1 Feedback (continued)

General comments:

Rail crossing safety
- Level rail crossing is dangerous for cyclists
- Impatient drivers on the tracks between the rail crossing gates
- Emergency services are delayed with current congestion and train crossings

Active transportation
- Prioritize green infrastructure; support the walkability, cycling and safety of the corridor
- Steep inclines and pedestrian and cyclist ability to traverse, including mobility devices (e.g. wheel chairs, walkers, scooters)
- Safety concerns with dark and enclosed spaces
- Maintain existing pedestrian and cyclist connections

Accommodate future growth
- Substantial planned development will add to existing congestion
- Need to reduce car dependency and encourage other modes of travel

Affected businesses and residential Areas
- Residences and business impacts need to be considered (noise, visual aesthetics/obstructions, dust, air quality, construction, property values, etc.)

Winter maintenance and safety
- Steepness of road and visibility will be a concern during winter conditions
- Snow clearing operations need to be maintained

Construction
- Construction duration and traffic impacts; need for detour roads
- Construction should start earlier, why wait

Frequently Asked Questions

Why is construction starting in 2028? This should be completed sooner. How long will construction take?

The EA study is anticipated for completion in **2024**. An Environmental Study Report (ESR) will document the study's decision-making rational and consultation process and be made available for public review at the completion of the study.

The detailed design stage will follow and take two to three years to complete **(2024-2027)**. During detailed design the Region will finalize the design and property requirements, purchase required property, apply for and obtain all necessary permits and complete utility relocations. Construction drawings and documents will be prepared.

The Region's 2024 10-year Roads and Transit Capital Construction Program identifies construction commencing in **2028.** Construction is anticipated to take two to three construction seasons to complete. A detailed construction schedule will be prepared during detailed design.

The timing of improvements is subject to annual review and can change.

How much will this project cost to construct? How is it funded?

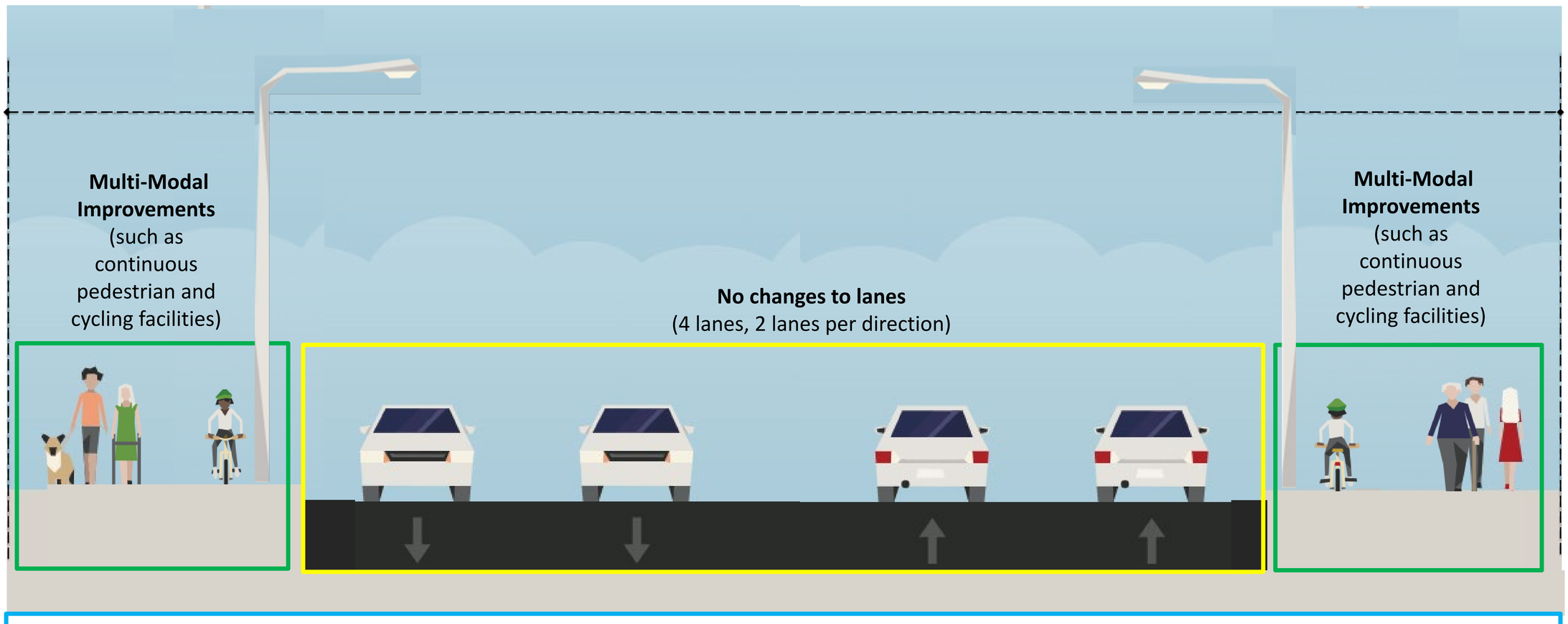
Preliminary cost estimates will be developed following this Online Open House, after the recommended design is confirmed and refined. Construction will largely be funded through development charges with a lesser portion paid through the tax levy.

NEXT

Preferred Solution

Following Online Open House #1, the preferred solution for the Elgin Mills Road / CN Railway Crossing was confirmed. The preferred solution is to **construct a rail grade separation structure that separates the road from the railway and accommodates active transportation** along the Elgin Mills corridor. This will:

- Address improvements at the CN Railway crossing
- Provide for separated active transportation (AT) facilities for pedestrians and cyclists
- Support Elgin Mills Road as a Frequent Transit Network
- Accommodate the safety, performance and operational efficiency for all modes of travel



Rail Grade Separation Structure
Improve CN Railway crossing and accommodate the safety, performance and operational efficiency for all modes

With the preferred solution confirmed, the next step was for the project team to develop and evaluate different design alternatives. The design alternative development, evaluations and recommendations determined how to best separate Elgin Mills Road from the level rail crossing, accommodate pedestrians and cyclists, and support all travel modes.

NEXT

Key Technical Studies

Key technical studies

The following technical studies are in progress or completed to inform the development of the design alternatives, evaluations and impact assessment of the proposed improvements:

- Transportation and traffic assessment
- Noise impact assessment
- Streetscape and Landscaping
- Natural heritage
- Stormwater management and drainage
- Structural Design
- Arborist / tree inventory
- Geotechnical investigations
- Sub-surface Utilities Investigations
- Archaeological assessment
- Hydrogeological investigations
- Cultural and built heritage assessment
- Contamination overview study

NEXT

Evaluation Criteria

Evaluation criteria

The following criteria was used to assess the Alternative Design Concepts:

Transportation service

- Reduce traffic congestion and delays
- Create a pedestrian-friendly environment
- Create a cyclist-friendly environment
- Improve public transit service
- Enhance safety at the rail crossing
- Increase safety for all travel modes
- Improve travel mode choice (making walking, cycling, and transit more desirable)
- Accommodate emergency services

Natural environment

- Protect designated natural areas
- Protect vegetation
- Protect wildlife
- Protect aquatic habitat
- Improve air quality
- Protect surface water and ground water
- Minimize effects on climate change
- Minimize flooding and erosion and protect slope stability

Social environment

- Minimize impacts to residential, institutional and recreational dwellings / properties
- Improve access to residential areas, institutional and recreational facilities
- Mitigate traffic on local streets
- Minimize traffic noise
- Preserve archaeological and cultural heritage features
- Improve visual aesthetics
- Improve community character

Infrastructure design and economic environment

- Minimize utility relocation
- Accommodate planned development and growth
- Minimize impacts and improve access to businesses and key employment areas
- Minimize property requirements
- Life cycle cost (maximize construction value, minimize operating costs)
- Minimize disruption due to construction
- Minimize constructability complexity

NEXT

Grade Separation – Existing Conditions and Design Considerations

Image Source: Yorkmaps.ca

Existing rail crossing conditions

- Rail corridor is currently serviced by CN Freight Rail, CN Corridor Maintenance, GO Commuter Rail and VIA Commuter Rail
- Vehicles are delayed at the crossing as they are required to stop for trains to cross, causing driver frustration – safety concerns for motorists due to potential conflicts with crossing trains
- Increased train frequency is expected and lengthy duration of train crossings (e.g., freight trains)
- Vehicle queues extend to adjacent intersections when crossing arms are lowered for passing trains
- Safety concerns for pedestrians at the existing CN Railway crossing
- Elgin Mills Road does not support cycling facilities at the crossing

Key design considerations

- High groundwater table and drainage requirements
- Existing flood vulnerable area and associated flood risks
- Newkirk Road/APOTEX entrance signalized intersection
- Ohio Road unsignalized intersection
- Existing pedestrian connections to the north and south
- Proximity between the rail crossing and residential homes and businesses
- Pedestrian and cyclist conditions, safety and comfort
- Inclined slopes and ability for all road users to traverse, especially during winter conditions
- Visual aesthetics / visual obstructions
- Opportunities for streetscaping / landscaping and public art
- Utilities (above and below ground and relocation requirements)
- Roadway geometrics and railway clearance requirements
- Constructability – ability to maintain road and rail traffic during construction (road and / or rail detours)
- Impact of construction to adjacent businesses
- Life cycle costs

NEXT

Grade Separation - Alternative Design Concepts

To determine how to best separate Elgin Mills Road from the level rail crossing and accommodate pedestrians and cyclists, the following alternative designs were considered and evaluated.

Alternatives

Alternative 1 – Maintain At-Grade Crossing

Elgin Mills Road crosses the CN rail tracks at the existing level crossing.

Existing Elgin Mills Road at-grade crossing East of Yonge Street.

Not carried forward

- Does not address the study objectives. The at-grade crossing cannot support current and future traffic demands. Traffic congestion and queues from the rail crossing impact access along the corridor, limit capacity and result in vehicle delays, including to emergency services and transit
- Safety concerns for pedestrian and cyclist conflicts at the rail crossing

Alternative 2 – Underpass

Elgin Mills Road is lowered under the CN rail tracks.

Underpass example: Major Mackenzie Drive east of Keele Street.

Alternative 3 – Overpass

Elgin Mills Road is raised above the CN rail tracks.

Overpass example: Bantry Road east of Yonge Street.

Carried forward

Both the Underpass and Overpass alternatives:

- Reduce delays as vehicles are no longer required to stop for each passing train
- Address the study objectives and support future traffic demands
- Improve safety for pedestrians, cyclists, transit users and motorists as conflicts with crossing trains are eliminated

Alternative 4– Hybrid (Lowering/Raising Rail)

- 4A: Hybrid Underpass - Raised rail with lowered Elgin Mills Road
- 4B: Hybrid Overpass - Lowered rail with raised Elgin Mills Road

Not carried forward

- The length of rail upstream and downstream of the Elgin Mills Road crossing required to accommodate a grade separation at Elgin Mills Road is too impactful as it will result in the potential re-grading of all adjacent properties along the length of rail that is modified
- Lowering the rail is also too impactful as the study area falls within a Flood Vulnerable Area and has a high groundwater table

NEXT

Grade Separation – Evaluation and Recommendations

Evaluation and recommendations

LEGEND | Most preferred | Less preferred | Least preferred |

CRITERIA	ALTERNATIVE 2: UNDERPASS	ALTERNATIVE 3: OVERPASS	SUMMARY
TRANSPORTATION SERVICES			
Reduce traffic congestion and delays			Both alternatives: • Eliminate delays and vehicle queues caused by at-grade train crossings at crossing gates, improving traffic operations and the capacity of Elgin Mills Road • Enhance the pedestrian and cyclist environment with dedicated facilities • Improve safety with the elimination of rail conflict points with road users (motorists, pedestrians, cyclists and transit) • Improve access for emergency vehicles with reduced congestion **Alternative 2 - Underpass is ranked as most preferred under Transportation Services** as it also reduces travel distance for pedestrians and cyclists and provides less steep inclines for all road users (motorists, pedestrians, cyclists and transit) approaching intersections when compared to the overpass.
Create a pedestrian-friendly environment			
Create a cyclist-friendly environment			
Improve public transit service			
Improve safety at the rail crossing			
Improve safety for all travel modes			
Improve mode choice			
Accommodate emergency services			
Summary of Transportation service	**Most preferred**	**Less preferred**	
NATURAL ENVIRONMENT			
Protect designated natural areas			Both alternatives: • Do not impact any designated natural areas or aquatic habitat and have minimal potential impact to wildlife vegetation habitat • Impact existing boulevard street trees / vegetation, requiring additional tree plantings/ landscaping • Improve air quality with the elimination of vehicle idling at the rail crossing and potential reduction in vehicle emissions by supporting more sustainable and reliable travel mode choices Alternative 2 – Underpass has two significant considerations for the natural environment, which are: 1) potential impacts to the groundwater system, and 2) potential flooding impacts from surface water. The underpass will require a permanent groundwater drainage system and potential depressurization of the Oak Ridges Aquifer Complex (ORAC). However, this impact can potentially be mitigated if the underpass is designed to be waterproof. When considering potential flooding impacts from surface water, it is noted the study area falls within an existing Flood Vulnerable Area. This results in significant flood risk to the Underpass and mitigation measures (e.g., a pumping station to address surface water) will not address the flood risk. As the flood risk is not mitigatable, **Alternative 2 - Underpass is not considered feasible**. **Alternative 3 - Overpass is ranked as most preferred under Natural Environment** as it does not require a permanent groundwater drainage system and does not increase the flood risk.
Protect vegetation			
Protect wildlife			
Protect aquatic habitat			
Improve air quality			
Protect surface water and ground water			
Minimize effects of climate change			
Minimize flooding and erosion and protect slope stability			
Summary of Natural Environment	**Least preferred**	**Most preferred**	
SOCIAL ENVIRONMENT			
Minimize impacts to residential, institutional and recreational dwellings/ properties			Both alternatives: • Improve access to surrounding land use with reduced traffic congestion and increased capacity • Require the permanent alignment of Elgin Mills Road be shifted further south and does not require property from residential lots • Does not impact any cultural features as none are identified in the corridor, but have minor potential impacts to properties that have archaeological potential **Alternative 2 - Underpass is ranked as most preferred under Social Environment,** although it is anticipated to have higher noise levels than Alternative 3 - Overpass (due to sound reflections against the sides of the underpass walls). The overpass structure will be 10-11 metres in height and create a visual obstruction in the community. Opportunities to provide additional street plantings and landscaping will be used as a screening buffer to improve the visual aesthetics of the corridor.
Improve access to residential areas, institutional and recreational facilities			
Mitigate traffic on local streets			
Minimize traffic noise			
Preserve archaeological and cultural heritage features			
Improve visual aesthetics			
Improve community character			
Summary of Social Environment	**Most preferred**	**Less preferred**	
INFRASTRUCTURE DESIGN AND ECONOMIC ENVIRONMENT			
Minimize utility relocation			Both alternatives: • Support approved development and planned growth in the study area • Impact commercial / industrial properties and utility easements when Elgin Mills Road is re-aligned to the south, but do not require residential property • Improve access to employment areas and cross-streets with reduced vehicle delays and queues from the crossing **Alternative 3 - Overpass is ranked as most preferred under infrastructure design and economic activity** as it has less complex utility impacts and relocations, moderate construction complexity (requiring temporary road detour but no rail detour, common construction materials and techniques), shorter construction duration and significantly lower capital, operating and maintenance costs when compared to Alternative 2 - Underpass.
Accommodate planned development and growth			
Minimize impacts and improve access to businesses and key employment areas			
Minimize property requirements			
Life cycle cost (maximize construction value, minimize operating costs)			
Minimize disruption due to construction			
Minimize constructability complexity			
Summary of Infrastructure Design and Economic Environment	**Least preferred**	**Most preferred**	
OVERALL SUMMARY			
RECOMMENDATION		**RECOMMENDED**	

Grade Separation – Evaluation and Recommendations (continued)

Alternative 3 - Overpass is <u>recommended</u>

This alternative mitigates vehicle queuing and delays caused by increased CN, GO and VIA Rail services; improving traffic operations and the capacity of Elgin Mills Road, including access for emergency services. It accommodates pedestrians and cyclists with continuous and dedicated facilities (e.g., multi-use paths) and eliminates rail crossing conflict points with all users. This alternative will create a visual obstruction due to the proposed height of the overpass and embankments, and result in pedestrians, cyclists, transit users and motorist travelling along an incline. Landscaping and streetscaping opportunities will be explored to improve the visual impacts. When compared to Alternative 2 – Underpass, Alternative 3 - Overpass is more cost-efficient, has less complex construction and construction duration, does not require a permanent groundwater drainage system or depressurization of the ORAC and does not result in a flood risk.

Share any comments on the recommendation to construct an overpass (raise Elgin Mills Road over the rail) or leave blank.

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NEXT

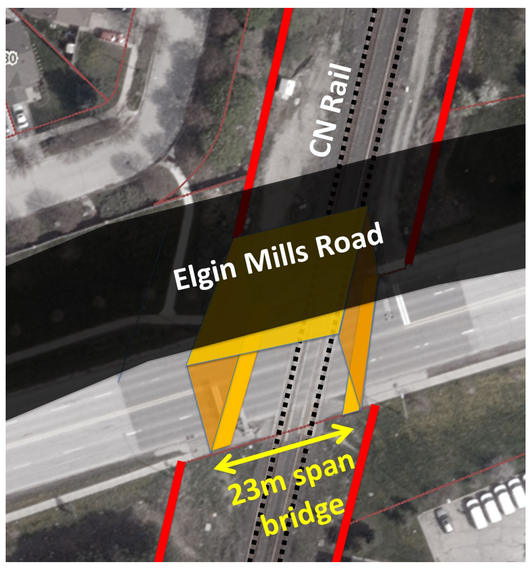
Grade Separation - Overpass Structure Alternatives

Overpass structure alternatives

CN is a critical stakeholder in the success of this project. The existing CN Rail right-of-way (ROW) is 36 metres with two existing railway tracks. CN have confirmed that while they currently have no plans for future rail expansion, they would like to protect their ROW for future expansion. The project team, in consultation with CN Rail, reviewed two main bridge alternatives for crossing the railway tracks:

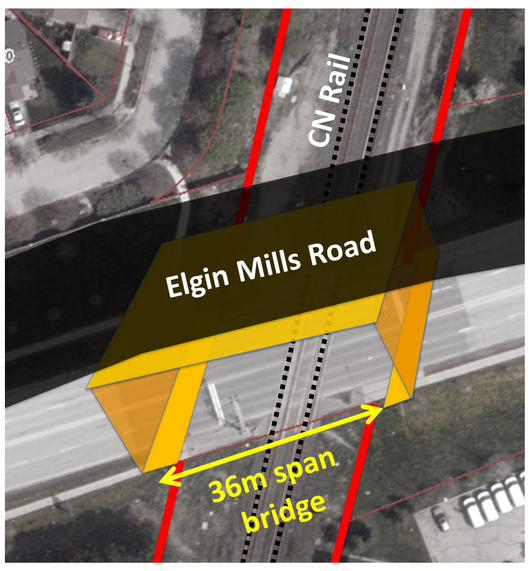
Overpass Alternative A – Partial Span (23 metre Bridge)

Overpass bridge carrying Elgin Mills Road spans 23 metres of the CN right-of-way. With this option, bridge abutments are proposed inside the CN Rail right-of-way. This option would accommodate the two existing railway tracks plus one additional railway track for future expansion and would meet all railway clearance requirements.



Overpass Alternative B – Full Span (36 metre Bridge)

Overpass bridge carrying Elgin Mills Road spans the full 36 metres CN right-of-way. With this option, bridge abutments are proposed outside the CN Rail right-of-way. This option would accommodate the two existing railway tracks and would not restrict any future rail expansion within CN's right-of-way. CN being a key stakeholder, the Region has throughout this study, consulted with CN on alternatives for the grade separation. This option was created in response to CN concerns regarding the placement of abutments within the CN ROW. The agency has indicated that in consultation with other Rail Authorities/Stakeholders, would not support an option that has infrastructure located within their Rail ROW, limiting their ability to expand in the future.



Both options maintain the same roadway cross section over the railway tracks (i.e. four lanes of traffic, multi-use path on both sides of the road). However, Option B results in a larger bridge with more impacts and a longer construction duration. A detailed evaluation of both options is provided.

NEXT

Grade Separation - Overpass Structure Alternatives (continued)

Overpass Structure Options

LEGEND | Most preferred | Less preferred | Least preferred

CRITERIA	OVERPASS ALTERNATIVE A – PARTIAL SPAN (23 METRES)	OVERPASS ALTERNATIVE B – FULL SPAN (36 METRES)	SUMMARY
TRANSPORTATION SERVICES			
• Reduce traffic congestion and delays • Create a pedestrian-friendly environment • Create a cyclist-friendly environment • Improve public transit service • Improve safety at the rail crossing • Improve safety for all travel modes • Improve mode choice • Accommodate emergency services	**Most preferred**	**Most preferred**	**Both alternatives are ranked as most preferred under transportation services** as there is no difference amongst the alternatives. Both alternatives maintain four travel lanes along Elgin Mills Road and accommodate dedicated and continuous active transportation facilities over the rail crossing.
NATURAL ENVIRONMENT			
• Protect designated natural areas • Protect vegetation • Protect wildlife • Protect aquatic habitat • Improve air quality • Protect surface water and ground water • Minimize effects of climate change • Minimize flooding and erosion and protect slope stability	**Most preferred**	**Most preferred**	**Both alternatives are ranked as most preferred under natural environment** as there is no / marginal difference amongst the alternatives as both alternatives will have a similar impact to the natural environment.
SOCIAL ENVIRONMENT			
• Minimize impacts to residential, institutional and recreational dwellings / properties • Improve access to residential areas, institutional and recreational facilities • Mitigate traffic on local streets • Minimize traffic noise • Preserve archaeological and cultural heritage features • Improve visual aesthetics • Improve community character	**Most preferred**	**Less preferred**	Both alternatives improve access and reduce congestion, have similar property impacts without requiring property from residential lots, and provide opportunities for additional street plantings and landscaping screening buffers to improve the visual aesthetics of the corridor. **Alternative A - Partial span (23 metres) is ranked as most preferred under Social Environment** as the highest point of the overpass structure is slightly lower than in Alternative B – Full span (36 metres), resulting in a reduced visual obstruction from the overpass west of the rail corridor.
INFRASTRUCTURE DESIGN AND ECONOMIC ENVIRONMENT			
• Minimize utility relocation • Accommodate planned development and growth • Minimize impacts and improve access to businesses and key employment areas • Minimize property requirements • Life cycle cost (maximize construction value, minimize operating costs) • Minimize disruption due to construction • Minimize constructability complexity	**Most preferred**	**Least preferred**	Both alternatives have similar utility impacts, property requirements and relocation requirements. Both alternatives also require re-grading of the Apotex Entrance and raises Newkirk Road at its intersection with Elgin Mills Road. Alternative B - Full span (36 metres) would accommodate the two existing railway tracks and would not restrict any future rail expansion within CN's right-of-way (CN have confirmed that while they currently have no plans for future rail expansion, they would like to protect their ROW for future expansion). For this alternative, bridge abutments are proposed outside of CN's right-of-way. When compared to Alternative A – Partial span (23 metres), Alternative B - Full span (36 metres) has greater capital, operating and maintenance costs to account for the larger bridge structures to span the full CN right-of-way, and will result in a longer construction duration. **Alternative A - Partial span (23 metres) is ranked as most preferred under infrastructure design and economic environment.** This alternative would accommodate the two existing railway tracks plus one additional railway track for future expansion and would meet all railway clearance requirements. For this alternative, bridge abutments are proposed inside CN's right-of-way. This alternative requires smaller bridge structures and will have lower capital, operating and maintenance costs, and reduced construction duration compared to Alternative B – Full span (36 metres).
OVERALL SUMMARY			
RECOMMENDATION	***Technically preferred*** **but not carried forward Not supported by CN**	**RECOMMENDED**	

Grade Separation - Overpass Structure Alternatives (continued)

Overpass Alternative A - Partial span (23 metres) is ***preferred*** but **not carried forward**

This alternative meets the study requirements, requires smaller bridge structures requiring a shorter construction duration, creates a lesser visual impact/obstruction, and has lower costs compared to Alternative B – Full span (36 metres). Although this alternative protects for some future rail expansion (up to one additional track), it restricts CN's ability to maximize future rail expansion within CN's right-of-way, and requires construction of bridge abutments within the CN's right-of-way. This alternative is not supported by CN Rail and is not carried forward.

Overpass Alternative B - Full span (36 metres) is recommended

Although this alternative requires larger bridge structures with a longer construction duration, creates a greater visual impact/obstruction, and has higher costs compared to Alternative A – Partial span (23 metres), CN Rail is supportive of Alternative B – Full span (36 metres). This alternative meets the study requirements, does not require the construction of bridge abutments within CN's right-of-way, and does not restrict any future rail expansion within CN's right-of-way.

Share any comments on the recommendation to have the overpass structure span the full CN rail right-of-way or leave blank.

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NEXT

Active Transportation - Alternative Design Concepts

Currently there are sidewalks located on the north and south boulevards and no cycling facilities along Elgin Mills Road.

To determine how to best accommodate pedestrians and cyclists along Elgin Mills Road between Yonge Street and east of Newkirk Road the following active transportation alternative designs were considered and evaluated.

Alternatives

Alternative 1

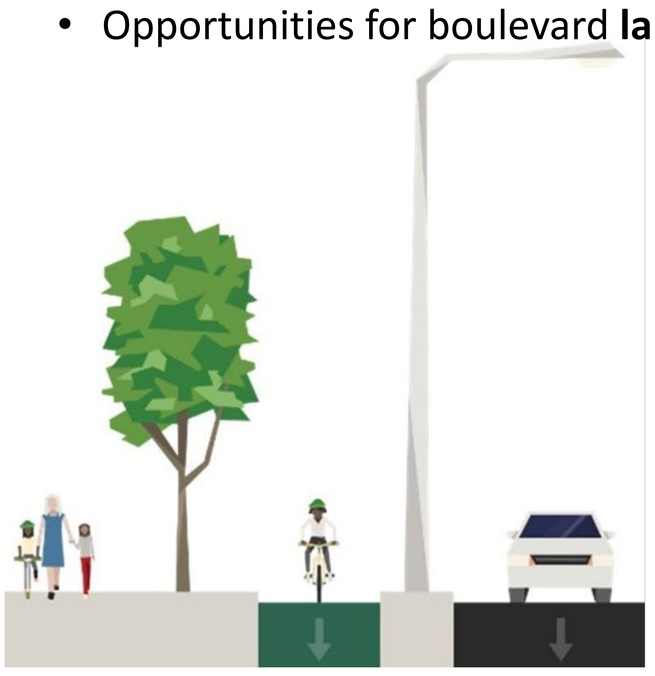
- **Sidewalk** on one side
- **Multi-use path (MUP)** on other side, shared space for pedestrians and cyclists to travel in both directions
- Opportunities for boulevard **landscaping**

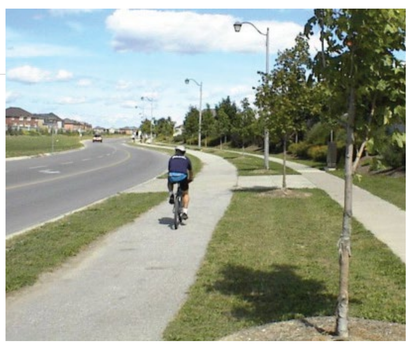
Sidewalk

Multi-use path

Alternative 2

- **Sidewalk** on both sides
- **Separated boulevard cycle tracks** on both sides, cyclists travel in same direction as vehicle traffic
- Opportunities for boulevard **landscaping**

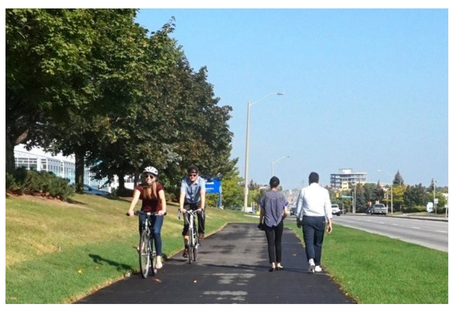




Boulevard cycle track and sidewalk

Alternative 3

- **Multi-use paths (MUP)** on both sides, shared space for pedestrians and cyclists to travel in both directions
- Opportunities for boulevard **landscaping**



Multi-use path

NEXT

Active Transportation - Evaluation and Recommendations

Evaluation and recommendations

LEGEND	Most preferred	Less preferred	Least preferred

CRITERIA	ALTERNATIVE 1 SIDEWALK ONE SIDE AND MULTI-USE PATH (MUP) OTHER SIDE	ALTERNATIVE 2 SIDEWALK AND BOULEVARD CYCLE TRACKS, BOTH SIDES	ALTERNATIVE 3 MULTI-USE PATHS, BOTH SIDES	SUMMARY
TRANSPORTATION SERVICES				
Reduce traffic congestion and delays Improve public transit service Accommodate emergency services				**Alternative 3 - Multi-use paths on both sides of the road is ranked as most preferred for transportation services** as it: • Separates pedestrian and cyclists from vehicles • Provides pedestrians and cyclists with direct access to land use / destinations in both boulevards • Cyclists can travel in both directions in either boulevard, reducing travel distance • Provides continuity in planned facilities along the Elgin Mills Road corridor beyond the immediate study area
Create a pedestrian-friendly environment Create a cyclist-friendly environment				
Improve safety at the rail crossing Improve safety for all travel modes Improve mode choice				
Summary of Transportation Service	**Least preferred**	**Less preferred**	**Most preferred**	
NATURAL ENVIRONMENT				
Protect surface water and ground water Minimize flooding and erosion and protect slope stability				**Alternative 1 - Sidewalk on one side of the road and multi-use paths on the other side is ranked as most preferred for natural environment.** Although all alternatives will have similar impacts to the natural environment, Alternative 1 has slightly softer surface area compared to Alternatives 2 and 3 since the sidewalk and multi-use path is of smaller width
Protect designated natural areas Protect vegetation Protect wildlife Protect aquatic habitat				
Improve air quality Minimize effects of climate change				
Summary of Natural Environment	**Most preferred**	**Least preferred**	**Less preferred**	
SOCIAL ENVIRONMENT				
Minimize impacts to residential, institutional and recreational dwellings / properties Improve access to residential areas, institutional and recreational facilities				**Alternative 3 - Multi-use paths on both sides of the road is ranked as most preferred for social environment.** Although all alternatives encourage active modes of transportation, accommodate streetscaping opportunities to enhance visual aesthetics and are not anticipated to impact archaeological or cultural heritage features, Alternative 3 provides direct access for pedestrians and cyclists to land uses / destination on both boulevards, while accommodating two-way travel, which minimizes cyclist travel distance to access businesses
Preserve archaeological and cultural heritage features				
Mitigate traffic on local streets Minimize traffic noise				
Improve visual aesthetics Improve community character				
Summary of Social Environment	**Least preferred**	**Less preferred**	**Most preferred**	
INFRASTRUCTURE DESIGN AND ECONOMIC ENVIRONMENT				
Minimize utility relocation Minimize disruption due to construction Minimize constructability complexity				**Alternative 3 - Multi-use paths on both sides of the road is ranked as most preferred for infrastructure design and economic activity.** Although all alternatives accommodate planned growth and have similar impacts due to construction when paired with the grade separation, Alternative 3 provides pedestrians and cyclists with direct access to businesses in both boulevards, minimizes cyclist travel distance with two-way facilities and has a slightly lower capital cost than Alternative 2.
Accommodate planned development and growth				
Minimize impacts and improve access to businesses and key employment areas Minimize property requirements				
Life cycle cost (maximize construction value, minimize operating costs)				
Summary of Infrastructure Design and Economic Activity	**Less preferred**	**Least preferred**	**Most preferred**	
OVERALL SUMMARY				
RECOMMENDATION			**RECOMMENDED**	

Active Transportation - Evaluation and Recommendations (continued)

Alternative 3 - Multi-use paths on both sides is <u>recommended</u>.

Although this alternative does not physically separate pedestrians from cyclists and has potential conflicts with two-way cyclist travel, it is recommended as it separates pedestrians and cyclists from vehicles, provides pedestrians and cyclists with access to adjacent lands/destinations in both boulevards, permits cyclist two-way travel which reduces travel distance, and provides continuity with planned MUPs along Elgin Mills Road beyond the immediate study area. The consistent MUP on both sides of Elgin Mills Road aids user recognition of potential conflict zones and increases safety in the corridor. This alternative also has a smaller footprint and lower capital costs than Alternative 2.

Share any comments on the recommendation to provide continuous multi-use paths on either side of Elgin Mills Road or leave blank

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Evaluation Summary

Evaluation summary

Grade Separation

Alternative 1 – Maintain At-Grade Crossing

Elgin Mills Road crosses the CN rail tracks at the existing level crossing.

Alternative 2 – Underpass

Elgin Mills Road is lowered under the CN rail tracks.

Alternative 3 – Overpass

Elgin Mills Road is raised above the CN rail tracks.

Recommended

Alternative 4– Hybrid (Lowering/Raising Rail)

- 4A: Hybrid Underpass - Raised rail with lowered Elgin Mills Road
- 4B: Hybrid Overpass - Lowered rail with raised Elgin Mills Road

Overpass Structure

Overpass Alternative A – Partial Span (23 metre Bridge)

Overpass bridge carrying Elgin Mills spans 23m of the CN Rail right-of-way. Bridge abutments are constructed inside the rail right-of-way.

Overpass Alternative B – Full Span (36 metre Bridge)

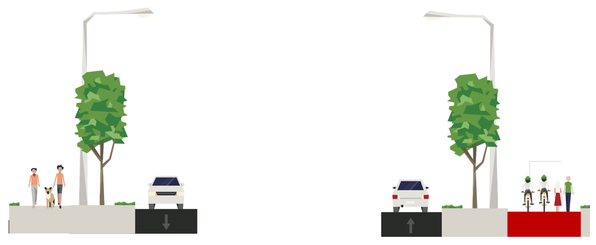
Overpass bridge carrying Elgin Mills spans the full 36m CN Rail right-of-way. Bridge abutments are constructed outside the rail right-of-way.

Recommended

Active Transportation Facility

Alternative 1

Sidewalk one side, multi-use path other side

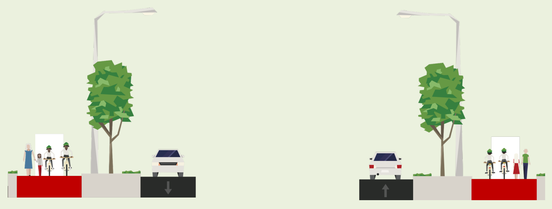


Alternative 2

Sidewalk and separated boulevard cycle tracks on both sides

Alternative 3

Multi-use paths on both sides of the road



Recommended

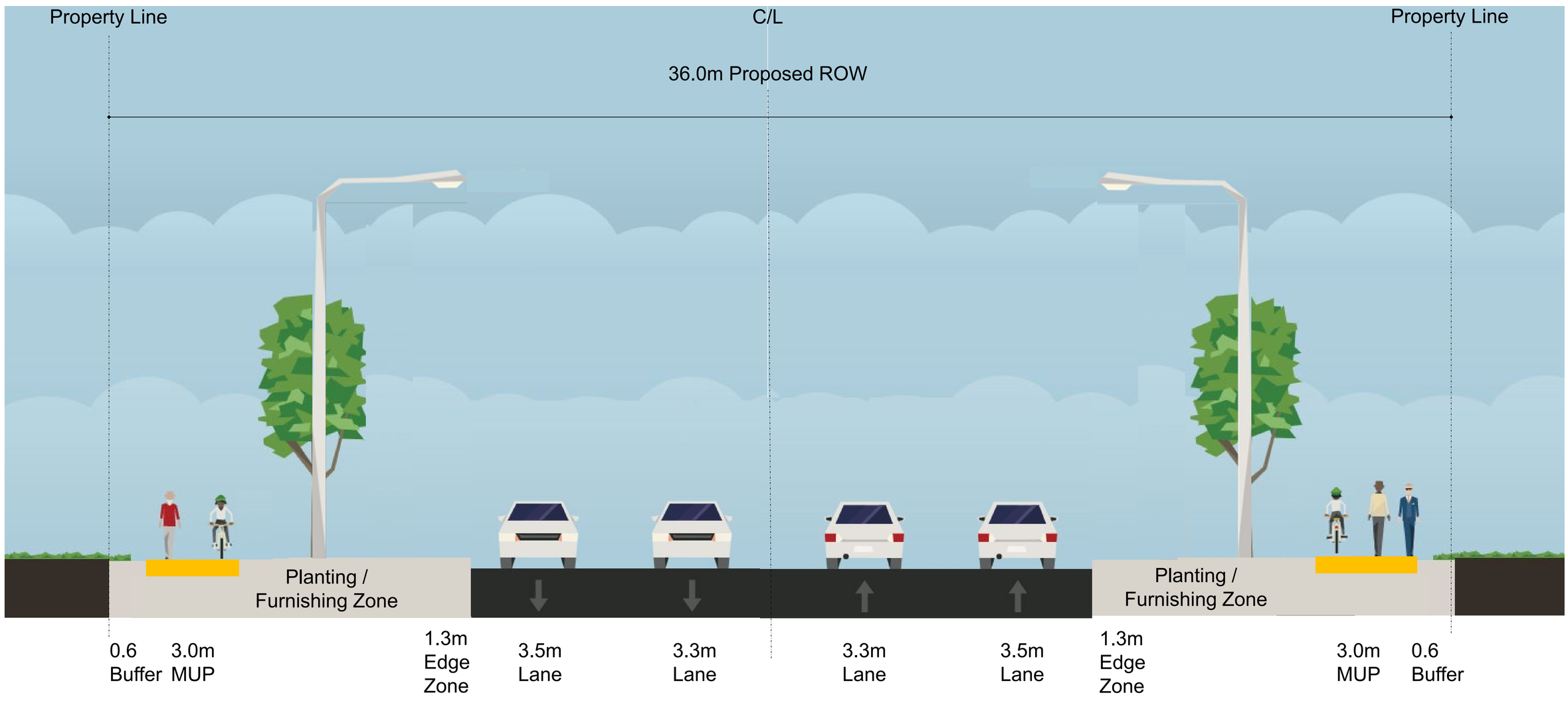
NEXT

Recommended Design

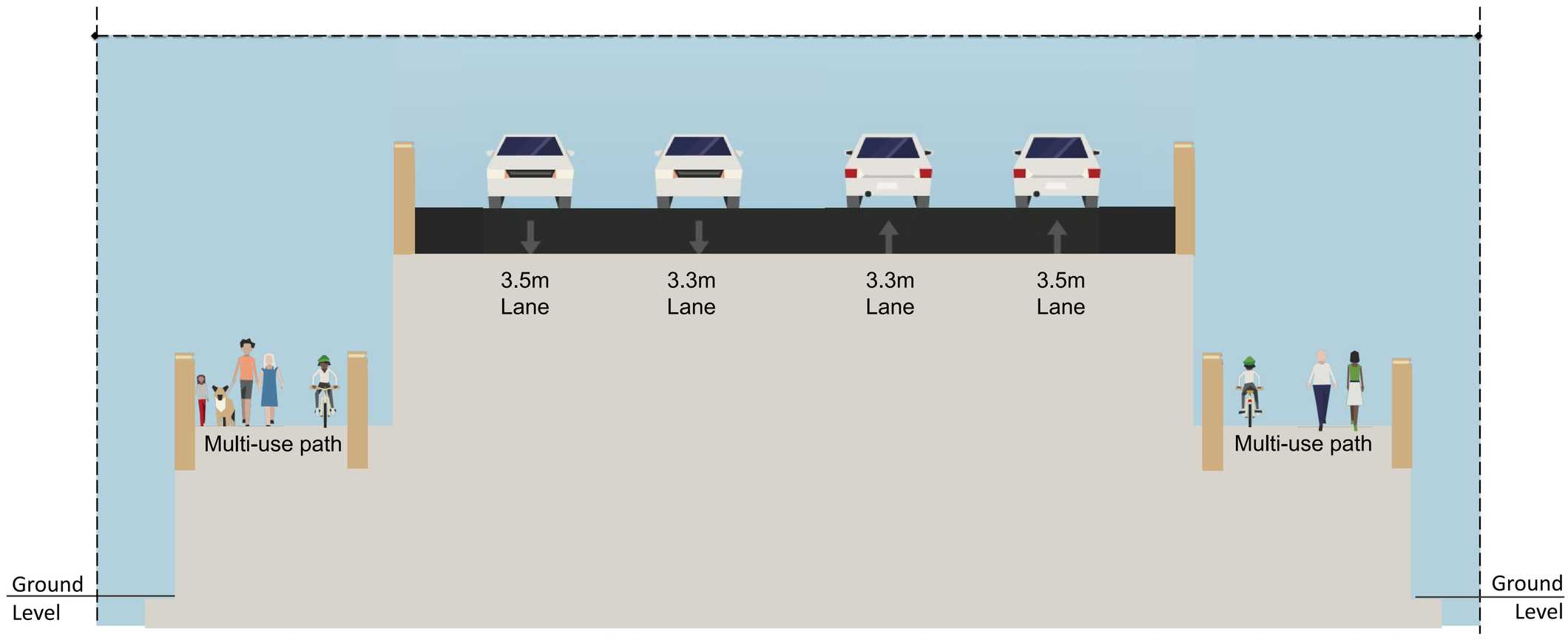
Recommended design - typical section

Key features of the Elgin Mills Road recommended design include:

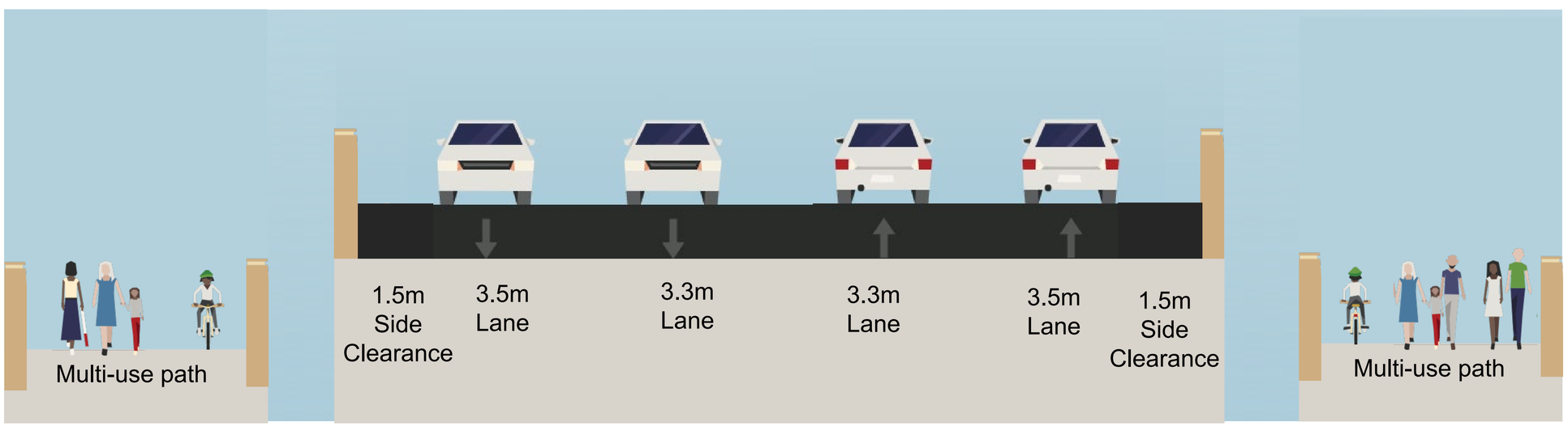
- Overpass (Elgin Mills Road is raised over the rail tracks), spanning the CN rail right-of-way
- Maintain existing four travel lanes (two in each direction)
- Active transportation bridges
- Multi-use paths on both sides, from Yonge Street to Newkirk Road
- Landscaping and street trees in both boulevards
- Streetlighting / illumination
- Cross-rides at intersections for pedestrian and cyclists. A crossride is dedicated space at an intersection, identified by unique pavement markings, for cyclists to legally ride their bicycle through an intersection without dismounting and may be located beside a pedestrian crosswalk or on its own.



Typical Section of Elgin Mills Road (at-grade level)



Typical Section of Overpass (Elgin Mills Road, grade raise approaching rail corridor)



Typical Section of Overpass Bridges At Rail Crossing (Elgin Mills Road Bridge and Two Active Transportation Bridges)

NEXT

Recommended Design (continued)

Intersection crossing treatment

Crossrides are proposed at signalized and unsignalized intersections to provide increased visibility and dedicated space to accommodate pedestrian and cyclist crossings.

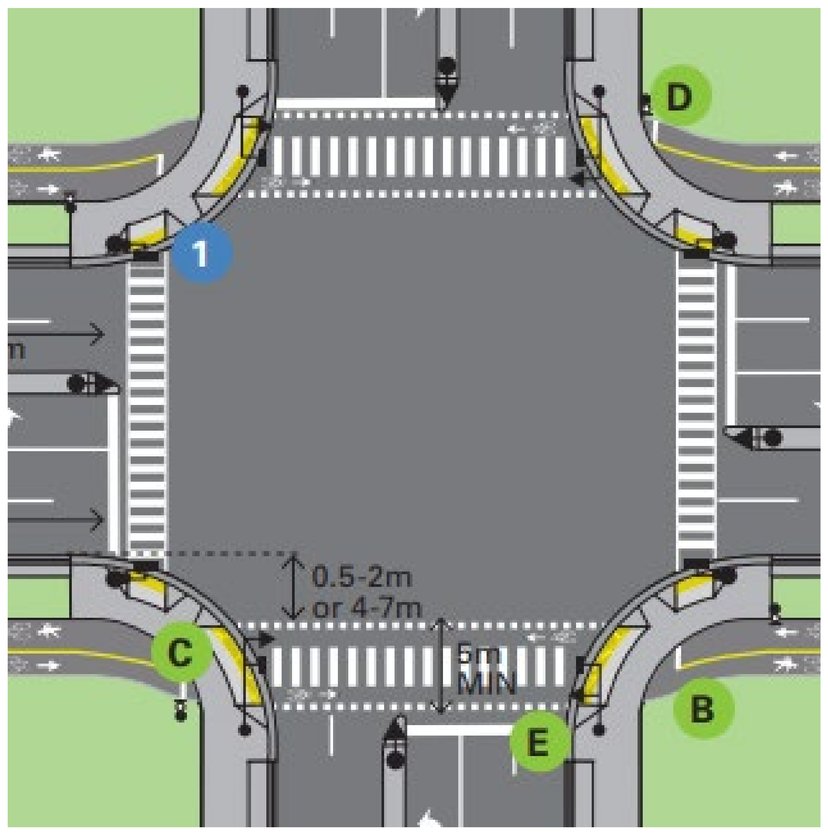


Image Source: York Region Planning and Design Guidelines for Pedestrian and Cyclist Facilities, Figure 5-7

Pedestrian and cyclist community connections

The overpass will require the closure of two existing community paths / connections. Pedestrians and cyclists will need to access the proposed multi-use paths from the Newkirk Road intersection and Old Hill Road community connection.

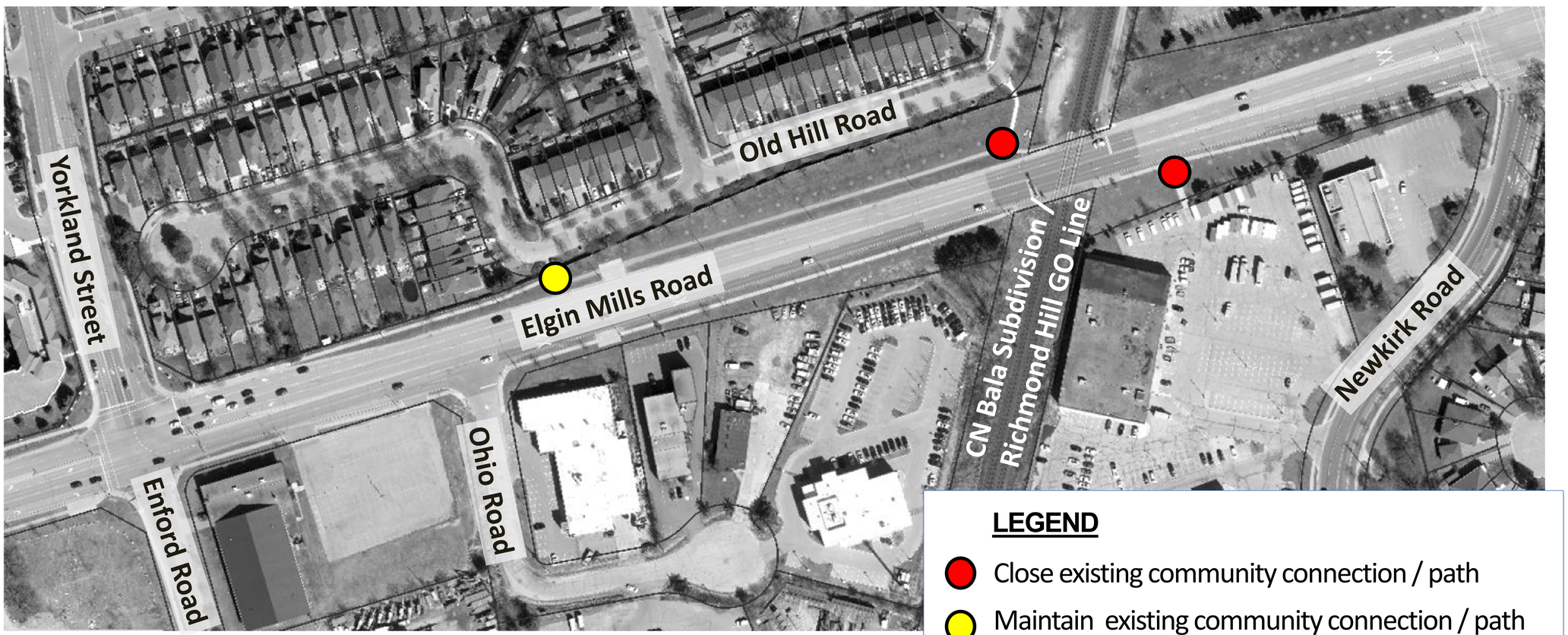


Image Source: Yorkmaps.ca

NEXT

Recommended Design (continued)

Noise impacts and mitigation

A noise impact assessment study was conducted to determine the noise levels from future traffic along Elgin Mills Road between Yonge Street and east of Newkirk Road because of the proposed overpass.

Image Source: Yorkmaps.ca

Legend
Existing Noise Barrier
Note: dBA represents decibels to measure noise.

Results

- The proposed overpass results in sound level changes ranging from 0.0 to 3.0 dBA, which is less than the 5.0 dBA threshold
- There are existing sound barriers in place in the locations where future noise levels will be above 60dBA

Noise mitigation (construction of new noise barriers) is not recommended as a result of the proposed improvements to Elgin Mills Road

Watercourse crossing – German Mills Creek

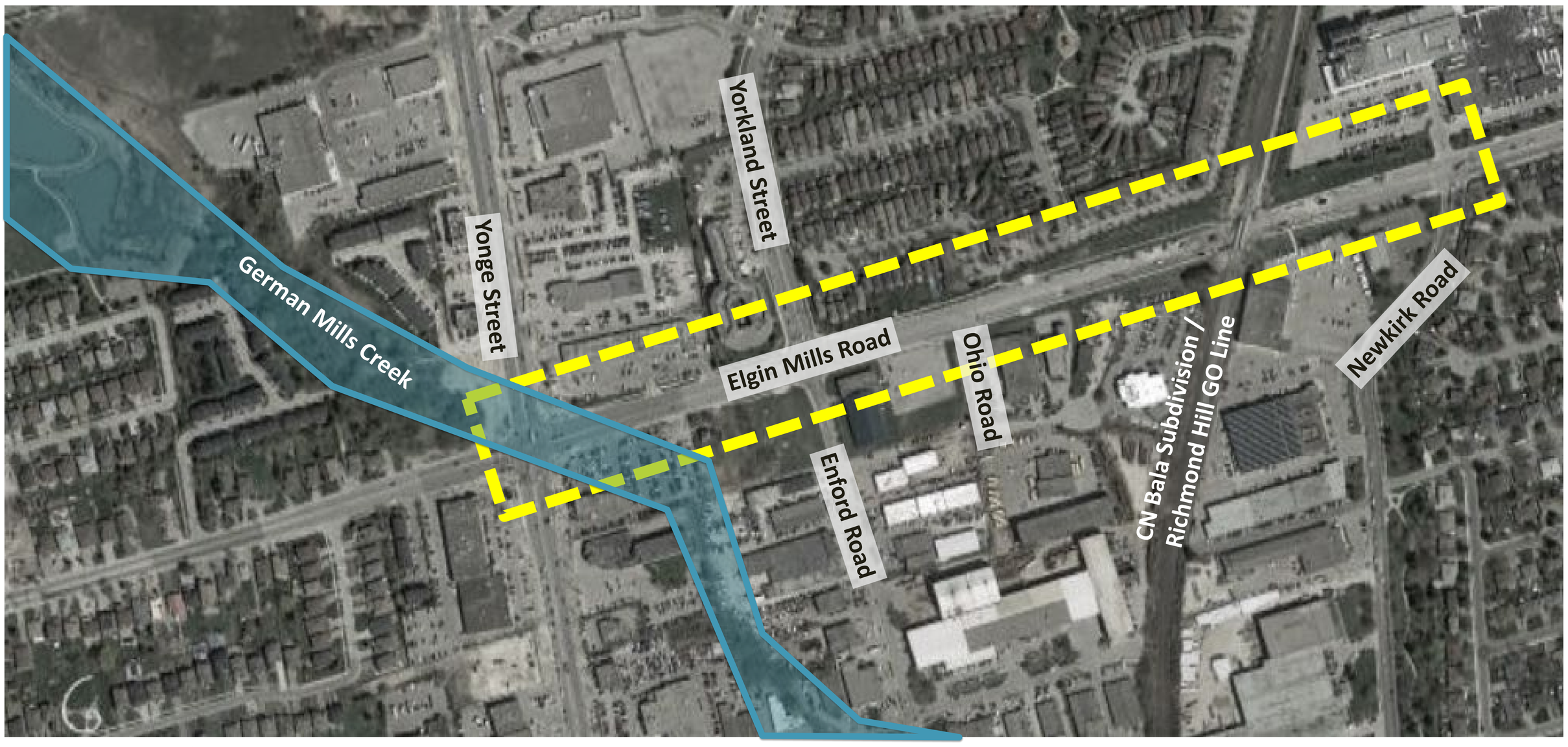


Image Source: Google Maps

German Mills Creek crosses Elgin Mills Road at its intersection with Yonge Street.

Improvements to the German Mills Creek crossing at the Elgin Mills Road / Yonge Street intersection were determined through the City of Richmond Hill's Flood Remediation Study, completed in 2016. The study identified a preferred design to remediate existing surface flooding in the area of Yonge Street and Elgin Mills Road flood vulnerable area. At the Elgin Mills Road / Yonge Street intersection, the study recommended the installation of a 5-metre-wide box culvert to accommodate German Mills Creek.

The recommendations from the City's 2016 Flood Remediation Study at German Mills Creek crossing are incorporated in this Elgin Mills Road / CN Railway Crossing EA study.

NEXT

Recommended Design – Design Drawings and Renderings

Recommended design drawing and renderings

Overpass Structure

The overpass design raises Elgin Mills Road over the Richmond Hill GO Rail corridor. Elgin Mills Road will gradually rise east of the Ohio Road intersection, with its highest point west of the rail corridor and then gradually descend back to the existing ground level at the Newkirk Road intersection. Separate active transportation (AT) bridges are proposed on both sides of the road to carry the multi-use paths over the rail corridor. The two separate AT bridges will be constructed at a lower elevation than Elgin Mills Road to allow for a more gradual incline for pedestrian and cyclist travel.

To obtain future CN Railway permits and approvals for construction, the recommended design for the bridges are planned to span the full CN railway right-of-way. The Region has consulted with CN Rail, the City of Richmond Hill and the Toronto Region and Conservation Authority (TRCA) on the recommended design of the overpass.

Landscaping Design

The overpass design will create a visual obstruction due to its proposed height. To improve the visual aesthetics of the corridor, an enhanced landscaping design is proposed. It includes landscaping and street trees along both boulevards to reinstate lands used for the temporary detour road during construction.

Future GO Station

The 2022 Regional Transportation Master Plan (TMP) Map 3 - 2051 Rapid Transit Network and the 2022 Regional Official Plan Map 10 - Rapid Transit Network identifies a “GO Rail Station subject to further study” at Elgin Mills Road along the Richmond Hill GO Rail Line. The need for a future GO Station at this location is subject to a separate study and is not within the scope of this EA.

As there is insufficient information at this time regarding the potential for a future GO station at Elgin Mills Road, the recommended design for Elgin Mills does not preclude a future GO station.

Click on the image to view the recommended design plan and profile drawing along Elgin Mills Road from Yonge Street to Newkirk Road.

Click on the image to view renderings of the overpass and the proposed landscape design.
The designs are conceptual and subject to change during future stages of the project.

Share any other comments on the Recommended Design or leave blank.

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NEXT

Project Timeline and Next Steps

Notice of Commencement and Online Survey #1
November 2021

Online Open House #1
January 2022

WE ARE HERE

Online Open House #2
March 2024

Notice of Completion and File ESR on Public Record
July 2024

Completed as part of the TMP

PHASE 1
Problem/ Opportunity

PHASE 2
Alternative Solutions

Confirm YR TMP Recommendations

PHASE 3
Alternative Design Concepts

Identify and Evaluate Alternative Design Concepts

PHASE 4
Environmental Study Report (ESR)

Document EA Process and Findings

Next steps

- Review feedback from the public
- Refine and confirm recommended design Concept
- Document study findings
- File the Environmental Study Report (ESR) for a public review period

Timing of improvements

Timing of improvements for Elgin Mills Road is identified in the Region's 2024 10-Year Roads and Transit Capital Construction Program and is subject to annual review.

The current recommendation is for construction to commence in 2028.

Contact Us

Your feedback is appreciated.

Please provide any additional comments on the **Elgin Mills Rd / CN Railway Crossing EA** study by entering them below or contact us by email or phone by **April 1, 2024.**

Comments:

SUBMIT

York Region, Public Works

transportation@york.ca

1-877-464-9675 ext.75000
TTY: 1-866-512-6228

Thank you for participating!

For more information visit us at:
york.ca/ElginMillsStudy