

WELCOME

To Public Information Centre #2 for

Gordon Street Improvements

(Between Edinburgh Road South and Lowes Road)

Municipal Class Environmental Assessment (Class EA) Study Schedule "B"

Please Sign In

and

Complete a Comment Sheet

Thursday, February 20, 2019 | 6pm to 8pm



Study Introduction

Purpose

Investigate needs for safety and operational improvements, considering:



Environmental Impacts

Social | Economic | Natural Environment



Transportation Needs

Drivers | Pedestrians | Cyclists | Transit



Community

Adjacent Land Uses | Community Growth



Traffic Management

Access Needs | Turning at Intersections

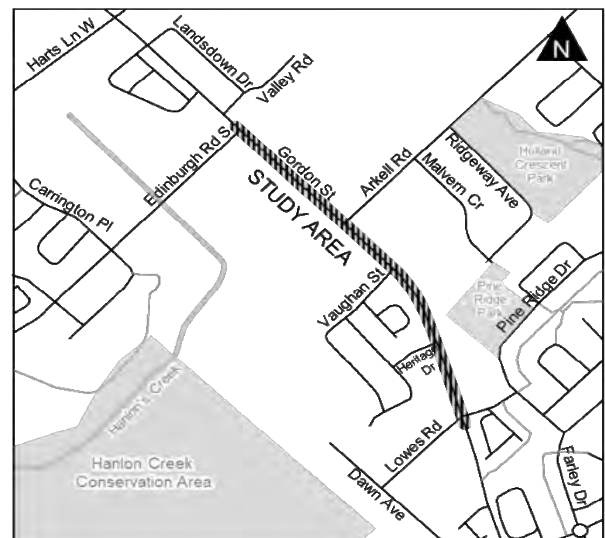


Public Input

Local Interests | Local Concerns

Study Area

Gordon Street and immediately adjacent lands between Edinburgh Road and Lowes Road



Class Environmental Assessment Process

Study Process

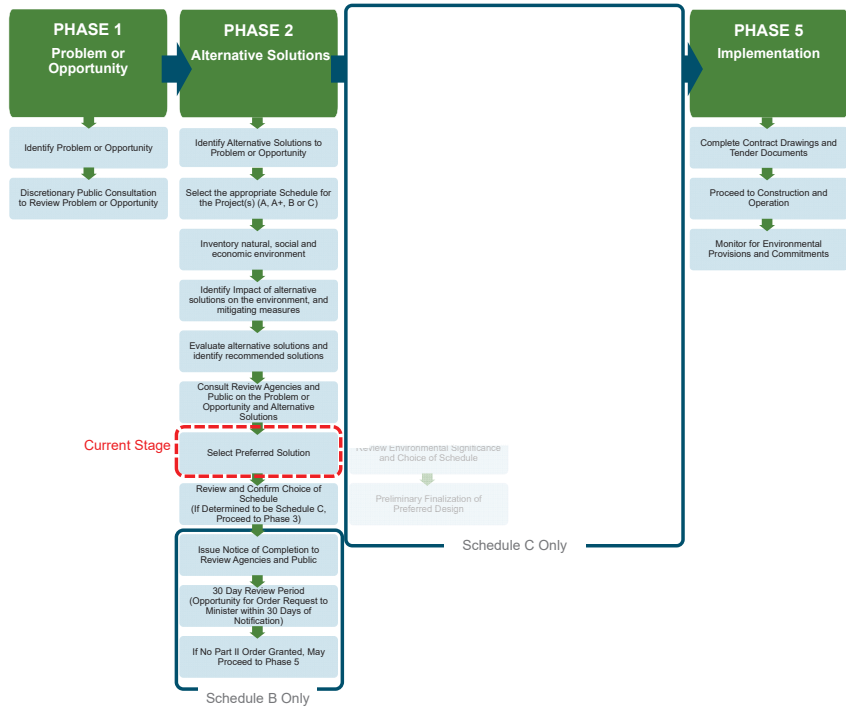
Following the Municipal Class Environmental Assessment (Class EA) Process:



Municipal Engineers Association (MEA)
Prepared and maintained by MEA



Schedule "B" Project
Concludes at the end of Phase 2



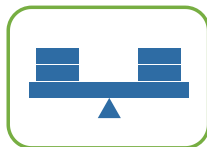
Direction from the Transportation Master Plan

Core Values

The City of Guelph has established 6 core values for transportation:



Safe



Equitable



Multi-modal
Connectivity



Environmentally
Sustainable



Supportive of
Land Use



Financially
Sustainable

Transportation Philosophies

The City of Guelph is exploring transportation options and philosophies to achieve these core values:

Complete Streets

Multi-Modal
Level of Service

Vision Zero

Resilience

Transportation Challenges and Opportunities

Existing Challenges



Traffic Volumes

Traffic volumes continue to increase with new developments in this area and other parts of the City.



Left Turns

Lack of dedicated left turn lanes causes: significant traffic delays during rush hours, and difficulty accessing private driveways.



Conflicts Between Cars and Bikes

Limited space to physically separate on-street cyclists from motorists.

Opportunities



Reduce Delays and Collisions

A continuous two-way left-turn lane (between Edinburgh Road and Lowes Road) could reduce traffic delays and collisions.



Improve Transit Mobility

Transit mobility on Gordon Street could be improved by making changes to help traffic move more smoothly.



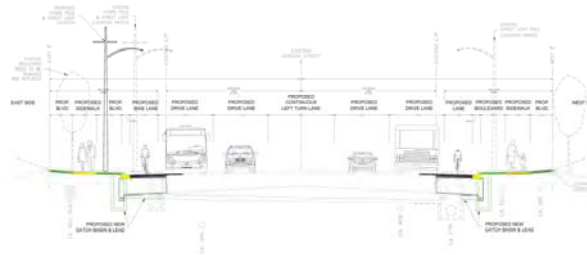
Separated Cycling Facilities

Cycling infrastructure can be improved by further separating vehicles, cyclists and motorists.

Alternative Solutions Considered

Option 1

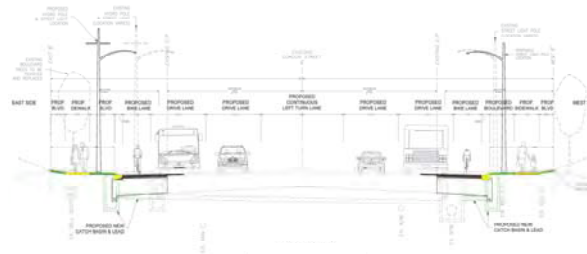
Existing Road Widened Each Side To Provide 4.0m
Continuous Left Turn Lane with Sidewalks and On-Street Bike Lanes Maintained



Approx. cost per Metre = \$925.00

Option 2

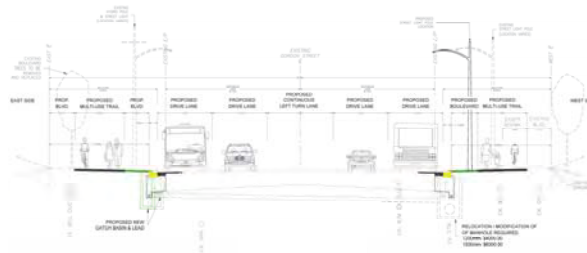
Existing Road Widened Each Side To Provide 5.0m
Continuous Left Turn Lane with Sidewalks and On-Street Bike Lanes Maintained



Approx. cost per Metre = \$1,010.00

Option 3

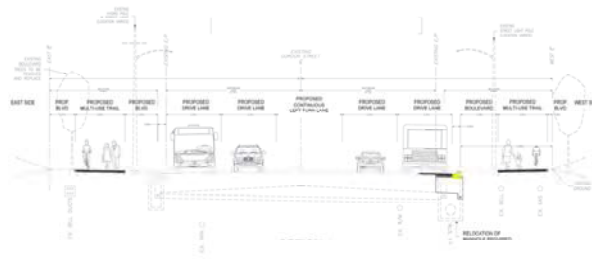
Existing Road Widened Each Side To Provide 4.0m
Continuous Left Turn Lane With 3.0m Multi-Use Trail On Each Side



Approx. cost per Metre = \$955.00

Option 4

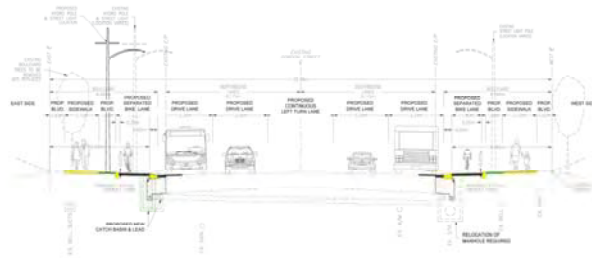
Existing Road Widened On West Side to Provide 4.0m Continuous Left Turn Lane With 3.0m Multi-Use Trail On Each Side



Approx. cost per Metre = \$760.00

Option 5

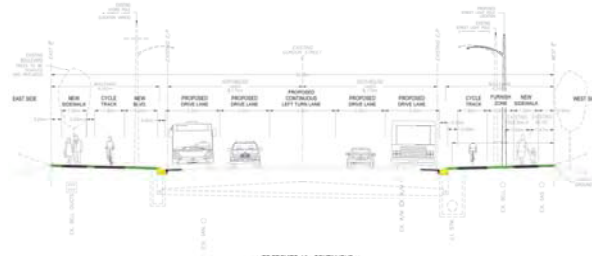
Existing Road Widened Each Side To Provide 4.0m Continuous Left Turn Lane With 1.80m Separated Bike Lane And 2.10m Sidewalks Both Sides



Approx. cost per Metre = \$1,036.00

Option 6

Existing Road Widened Each Side To Provide 4.0m Continuous Left Turn Lane With 1.8m Cycle Track On Each Side



Approx. cost per Metre = \$797.00

Public Feedback

Public Information Centre #1

Held October 2019

At The Salvation Army Guelph Citadel & Nursery School

52 Attendees

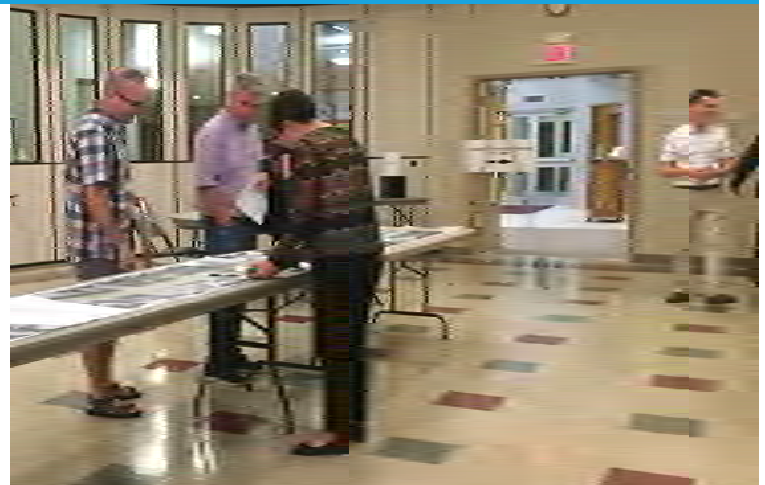
Drop-in format, with opportunity to speak with Study Team

42 Surveys Received

At the event and by email

14 Location-Based Comments Received

Location-specific comments placed on large plan of Study Area



PIC 1 Survey Respondent Profile

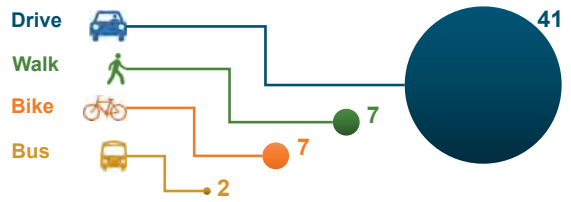
Residence

Where do you live?



Travel Mode

What is the travel mode you most often use on this section of Gordon Street?



Note: Some respondents use more than one mode

Frequency of Travel

How often do you travel on this section of Gordon Street?



Purpose of Travel

What is the general purpose of your travel on this section of Gordon Street?



Note: Some respondents have more than one purpose of travel

Public Feedback

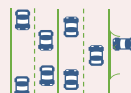
Top Concerns

Most identified concern

74% identified vehicles turning into properties, stopping through traffic as a top concern



48% identified inadequate gaps for exiting vehicles to turn onto Gordon Street as a top concern



19% identified busy intersections for pedestrians to cross as a top concern



67% identified through traffic being delayed by turning vehicles at intersection as a top concern



36% identified conflict between cyclists and auto drivers as a top concern



12% identified other issues as a top concern, including speeding, through traffic stops and lane changes due to stopped buses, left turns for cyclists, and bus shelter locations causing poor sightlines or high pedestrian traffic



Most Preferred Option

Option 4 was the most popular choice among respondents



Desired Changes



Turning Lanes

Improvements to function and safety of vehicles turning off and onto Gordon Street, and reduced delays for through traffic resulting from queued vehicles waiting to turn



Pedestrian Crossings

Addition of mid-block pedestrian crossings at mid-block transit stops



Cyclist Safety

Physical separation of cyclists from vehicles to reduce conflicts and improve comfort



Sightlines

Improved sightlines around bus stops and at skewed intersections



Speed

Reduced speeds along Gordon Street to improve safety



Construction

Limiting construction impacts on access and visibility of local businesses



Transit Services

Reduced delays for through traffic resulting from stopped transit vehicles, and reduced crowding at transit stops



Restricted Left Turns

Restricted left turns or addition of traffic control at Vaughan Street

Evaluation of Options

Evaluation Process and Criteria

Criteria	Sub-Criteria	Least Preferred	Most Preferred
Traffic Capacity, Operations and Safety 	Traffic Level-of-Service	Increased congestion	Reduced congestion
	Safety	No improvement to safety for users	Improved safety for all users
	Access Management	More difficulty accessing driveways and side roads	Improved access to driveways and side roads
	Transit	Loss of transit service, reduced access to transit stops, potential conflicts with other road users	transit service and access to transit stops maintained or enhanced, reduced conflicts with other road users
	Cycling	No improvement to existing facilities	Separated cycling facilities and pedestrian space
	Pedestrians	Loss of pedestrian space	Separated pedestrian space maintained
	Emergency Services	Increase to emergency response time	Potential reduction in emergency response time
Natural Environment 	Aquatic Species and Habitat	Significant impact to aquatic species or habitat	No impact to aquatic species or habitat
	Terrestrial Species and Habitat	Significant impact to terrestrial species or habitat	No impact to terrestrial species or habitat
	Floodplain	Expansion or construction in floodplain area	Improvements to floodplain storage
	Wetlands	Loss of or impact to wetlands	No loss of, or impact to, wetlands
	Trees and Landscaping	Loss of existing trees and landscaping	Improvements to trees and landscaping
	Wildlife	Significant impact to Species at Risk	Improvements to conditions for Species at Risk
	Contamination	Exposure of contaminated materials	Avoidance of contaminated materials
	Drainage	Impact on storm water management and increased drainage	Maintenance or improvements to existing storm water management and drainage

Evaluation Process and Criteria (continued)

Criteria	Sub-Criteria	Least Preferred	Most Preferred
Socio-Cultural Environment 	Cultural Heritage and Archaeology	Loss or impact to cultural heritage or archaeological sites	No impact to cultural heritage or archaeological sites
	Culture and Recreation	Loss or impact to cultural or recreational facilities	No impact to cultural or recreational facilities
	Businesses	Reduced access to businesses	Improved access to businesses
	Construction	Lengthy construction period with traffic delays and reduced access	Limited construction duration, traffic delays and access restrictions
	Streetscaping	Loss of Streetscaping space and elements (e.g. plantings, decorative paving materials, decorative streetlights)	Improvements to streetscaping elements (e.g. plantings, decorative paving materials, decorative streetlights)
	Air and Noise	Reduced air and noise emissions	Increased air and noise emissions
	Private Property	Avoidance of impacts to, or need for, private property	Need for private property
Economic Environment 	Utility Relocation – Above Ground	Large number of relocations	No relocations
	Utility Relocation – Underground	Large number of relocations	No relocations
	Capital Costs	Higher cost	Lower cost
	Operation and Maintenance Costs	Higher cost	Lower cost
Public Opinion 	Public Preference	Low preference	High preference

Evaluation of Impacts

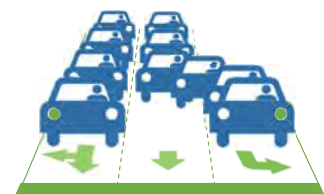
Traffic Capacity, Operations and Safety

Traffic Volumes

- All 6 Options provide efficient and safe movement of current and future traffic volumes
 - Centre turning lane and increased storage lengths reduces overall through lane congestion during the peak periods
 - Additional signal timing optimization will further improve intersection operations.

Safety

- All 6 Options offer improved safety
 - Centre-turning lane allows for more efficient turning to and from adjacent properties, reducing potential for collision
 - Increased storage lengths for turning vehicles will reduce amount of turning vehicles stopping in through traffic lanes
 - Widening/reconstruction will improve pavement condition



Access Management

All 6 Options maintain full left and right turn access

- Centre turning lane offers improved access
- Centre medians will be used near intersections to minimize turning conflicts

Evaluation of Impacts

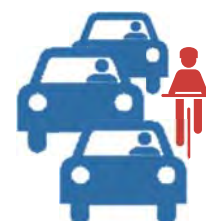
Traffic Capacity, Operations and Safety (continued)

Transit

- Options 3 and 4 offer the best performance, with transit service maintained and cyclists moved off-street, behind bus stops.
- Options 1 and 2 maintain transit service, but roadside is shared with cyclists, leading to potential conflicts.
- Options 5 and 6 are similar to Options 1 and 2, but also potentially limit access to transit stops.

Cycling

- Options 5 and 6 offers the best performance, with cycling facilities separated from vehicular traffic and pedestrians.
- Options 4 and 5 provide cycling facilities that are separated from vehicular traffic only, and shared with pedestrians.
- Options 1 and 2 retain on-road cycling facilities, not separated from vehicular traffic.



Pedestrians

- Options 1, 2, 5 and 6 provide separated sidewalks and offer the best performance for pedestrians.

Emergency Services

- All 6 Options offer potential for improved response times, with reduced conflicts and use of centre lane as emergency bypass.

Evaluation of Impacts

Natural Environment

Aquatic Species and Habitat

- No existing watercourses, culvert crossings or bridges

Terrestrial Species and Habitat

- No impacts to significant woodland areas or vegetation communities
- Vegetation removal limited to cultural woodland or cultural thicket communities

Wetlands

- No existing wetlands within or next to the corridor

Contamination

- No known contaminated lands affected by any of Options

Wildlife

- All Options widen road at existing deer crossing
- Opportunity for enhancement to crossing warning

Floodplain

- No floodplain impacts anticipated for any of Options

Trees and Landscaping

- All 6 Options require some tree removal:
 - Option 6 – 4 trees removed and replaced
 - Option 1 – 8 trees removed and replaced
 - Option 3 – 11 trees removed and replaced
 - Option 4 – 14 trees removed and replaced
 - Option 2 – 16 trees removed and replaced
 - Option 5 – 21 trees removed and replaced
- Trees along road side generally in poor condition due to salt from road maintenance

Drainage

- All 6 Options are similar
 - No impacts to floodplain anticipated
 - No storm water management (SWM) ponds will be included
 - Oil/grit separators being considered
 - Measures to reduce runoff being considered

Evaluation of Impacts

Social Environment

Cultural Heritage and Archaeology

- No anticipated impacts on matters of heritage interest

Culture and Recreation

- No anticipated impacts to cultural or recreational facilities

Businesses

- Temporary access impacts during construction similar for all 6 Options

Streetscaping

- All 6 Options offer opportunity for Streetscaping enhancements
 - Within the designated road allowance
 - Could include plantings, decorative paving materials, decorative streetlights, etc.

Construction

- Similar impacts for all 6 Options:
 - Traffic maintained by constructing one side at a time (i.e. west side, then east side, or vice versa), while maintaining traffic on existing pavement or newly constructed pavement
 - 3 stages of construction anticipated (between major intersections), approx. 3 months for each stage

Air and Noise

- All 6 Options have similar noise and emissions:
 - Reduced traffic delay and related vehicle idling result in reduced exhaust emissions
 - Road widening and resulting marginal increases in traffic volumes may cause limited increase in noise levels (1 to 2 dB)



Evaluation of Impacts

Social Environment (continued)

Private Property

- All 6 Options require private property to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at southeast corner of Gordon and Arkell:

Option	Total Area	Locations
1	190 m ²	1354, 1417, 1419, 1448 Gordon Street, Southeast corner at Lowes, Solstice Condos.
2	414 m ²	1354, 1388, 1408, 1417, 1419, 1448 Gordon Street, Southeast corner at Lowes, Solstice Condos.
3	254 m ²	1354, 1388, 1417, 1419, 1448 Gordon Street, Southeast corner at Lowes, Solstice Condos.

Option	Total Area	Locations
4	218 m ²	1354, 1417, 1419 Gordon Street, Southeast corner at Lowes.
5	369 m ²	1354, 1388, 1408, 1448 Gordon Street and SE corner Lowes, Solstice Condos.
6	445 m ²	1354, 1388, 1408, 1417, 1419, 1448 Gordon Street, Southeast corner at Lowes, Solstice Condos.

Evaluation of Impacts

Costs

Utility Impacts

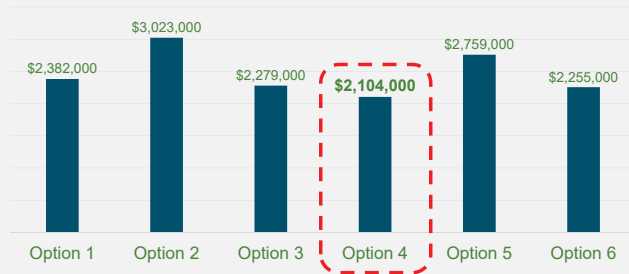
- Utility impacts vary for each Option:

Utility Relocation	Estimated Relocations					
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Hydro/ Communication	19 poles	23 poles	14 poles	9 poles	20 poles	12 poles
Traffic Signal	7 poles	11 poles	9 poles	11 poles	9 poles	8 poles
Street Light	11 poles	21 poles	14 poles	22 poles	15 poles	16 poles
Underground	No significant impacts to existing underground utilities anticipated, other than many minor relocations, adjustments to manholes, etc.					

Notes: All values approximate. Bolded values are Options with least impact

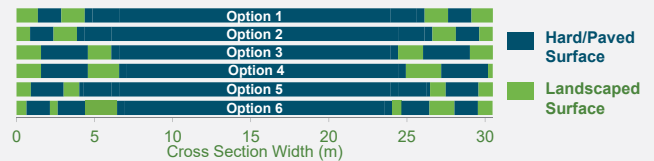
Initial Capital Costs

- Option 4 offers lowest capital cost:



Operation and Maintenance Costs

- Accounts snow removal, pavement repairs and landscaping
- Dependent on surface area to be maintained, and if facilities are separated/require separate snow plow
 - Option 1 has smallest increase in road width
 - Option 6 has additional costs due to bike and pedestrian facilities being separated from each other and roadway



Evaluation of Options

Evaluation

Summarized form of evaluation of 6 options considered

Scoring

- Most Preferred (4 pts)



- Least Preferred (0 pts..)



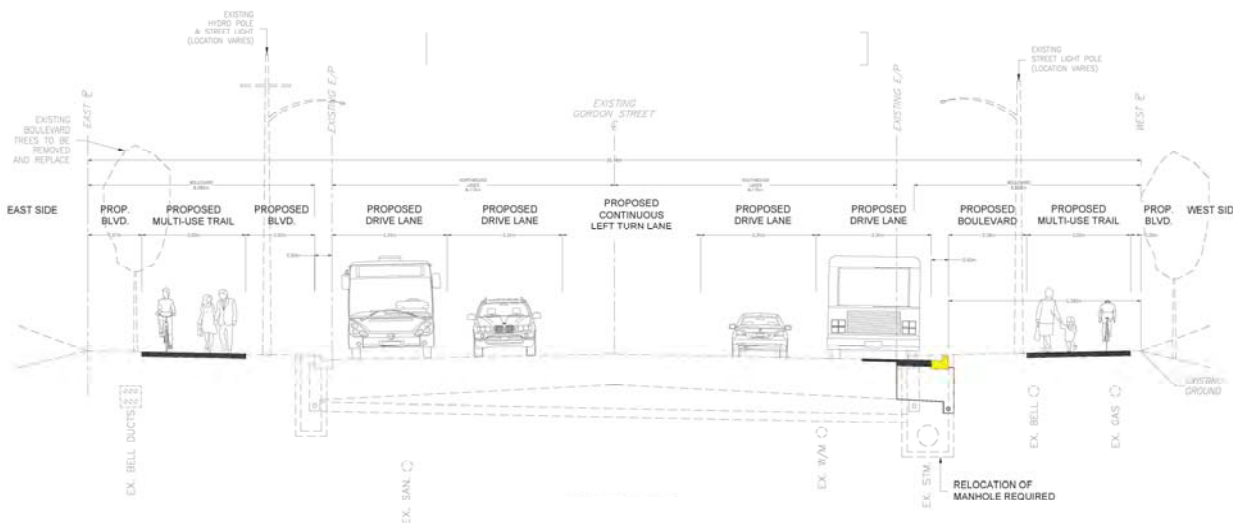
Top Score

Criteria	Sub-Criteria	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	
Traffic Capacity, Operations and Safety 	Traffic Level-of-Service (Existing Traffic)	●	●	●	●	●	●	
	Traffic Level-of-Service (Future Traffic)	●	●	●	●	●	●	
	Safety	●	●	●	●	●	●	
	Access Management	●	●	●	●	●	●	
	Transit	○	○	○	○	○	○	
	Cycling	○	○	○	○	○	○	
	Pedestrians	○	○	○	○	○	○	
	Emergency Services	●	●	●	●	●	●	
	Traffic Capacity, Operations And Safety Score		26	26	29	29	26	26
	Natural Environment 	Aquatic Species and Habitat	○	○	○	○	○	○
Terrestrial Species and Habitat		○	○	○	○	○	○	
Floodplain		○	○	○	○	○	○	
Wetlands		○	○	○	○	○	○	
Trees and Landscaping		○	○	○	○	○	○	
Wildlife		○	○	○	○	○	○	
Contamination		○	○	○	○	○	○	
Natural Environment Score		19	18	18	18	17	20	
Socio-Cultural Environment 	Cultural Heritage and Archaeology	○	○	○	○	○	○	
	Culture and Recreation	○	○	○	○	○	○	
	Businesses	○	○	○	○	○	○	
	Construction	○	○	○	○	○	○	
	Streetscaping	○	○	○	○	○	○	
	Air and Noise	○	○	○	○	○	○	
	Private Property	○	○	○	○	○	○	
Socio-Cultural Environment Score		16	13	15	16	11	11	
Economic Environment 	Utility Relocation – Above Ground	○	○	○	○	○	○	
	Utility Relocation – Underground	○	○	○	○	○	○	
	Capital Costs	○	○	○	○	○	○	
	Operation and Maintenance Costs	○	○	○	○	○	○	
	Economic Environment Score		12	6	9	11	5	5
OVERALL SCORE		73	63	71	74	59	62	
Capital Construction Cost		\$2.39M	\$3.02M	\$2.28M	\$2.10M	\$2.76M	\$2.26M	
Public Opinion 	Public Preference	○	○	○	○	○	○	

Preliminary Preferred Alternative: Option 4

Features

- Existing road widened on west side
- 4.0m continuous left turn lane
- 3.0m asphalt multi-use trail on each side
- Approx. cost per metre = \$760.00



Preliminary Preferred Alternative: Option 4

Other Enhancements

- Intersection turning movement enhancements
- Improved pavement markings for pedestrian and cyclist crossings
- Traffic signal timing optimization
- Transit queue jump lane north and south of Arkell intersection on the east side, with bus lay-by on the north side of Arkell Road
- Other improvements and enhancements to be revisited at detailed design stage of project which will closely follow this Class EA study
- Final detailed design will be presented to the public before construction



Thank You for Attending!

Submit your comments or request to join the study mailing list

Submit your questions or comments, or request to join the study mailing list today, or by contacting:

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Submit your comments today or to the above by **March 6, 2020**

Next Steps

Review all Public, stakeholders and agency comments after Public Information Centre #2

Prepare the Project Study File report with recommended Option, including identification of impacts and mitigation measures

Issue Notice of Study Completion and hold 30-day public review of the Project File Report

Proceed to Detailed Design and Construction Phases