



Yonge Street Reconstruction

Public Information Centre #1



October 11, 2023

Project Objectives

- Sanitary sewer replacement from Eighth Street to Fourth Street (600 m).
- Watermain replacement from Norene Street to Second Street (900 m).
- Surface feature improvements, including asphalt replacement from County Road 93 to King Street (2200 m) and cycling facility enhancements.
- Traffic signal improvements at Eighth and Fourth Street.
- Investigate options to improve traffic calming and reduce truck traffic along Fourth Street, including potential change to a one-way street.



Existing Conditions / Key Constraints

- Yonge Street is classified as an arterial road and is designated truck route. The project zone contains a combination of residential and commercial properties.
- 20 metre right-of-way from Hartman Street to King Street (which is less than the Town standard minimum arterial road right-of-way width of 30 m). This reduced right-of-way width eliminates the opportunity to implement an optimal solution for all parties (pedestrians, cyclists and motorists).
- High traffic volumes (>10,000 vehicles/day).
- Existing bicycle lanes do not meet the minimum design standards, as per the 2021 Ontario Traffic Manual Book – Cycling Facilities.
- Existing cycling facility lacks connectivity at King Street.
- The existing storm sewer is in satisfactory condition and does not require replacement. This storm sewer is aligned beneath the south curb and gutter, as such, as such, we propose to maintain the south curb line to reduce costs and impacts to existing users.

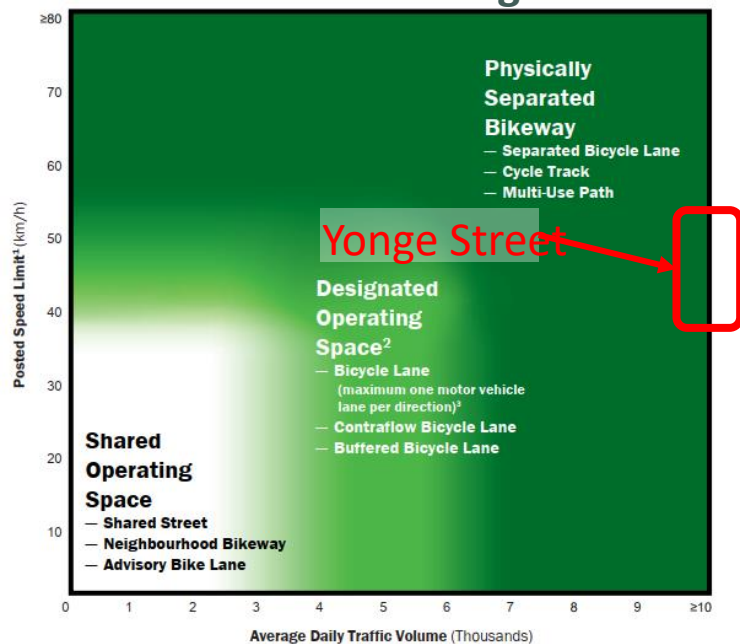


Option 1 – Do Nothing (reinstate to existing conditions)

- Reinstate bicycle lanes to original conditions (e.g. 1.5 m wide and no buffer) from County Road 93 to King Street.

Pros	Cons
<ul style="list-style-type: none"> Most cost effective Easiest to construct No additional maintenance cost 	<ul style="list-style-type: none"> Not compliant with OTM Book 18 design standards Lack of bicycle lane buffer is a safety concern
Cyclist Safety	Construction Cost
*	\$8.3 million

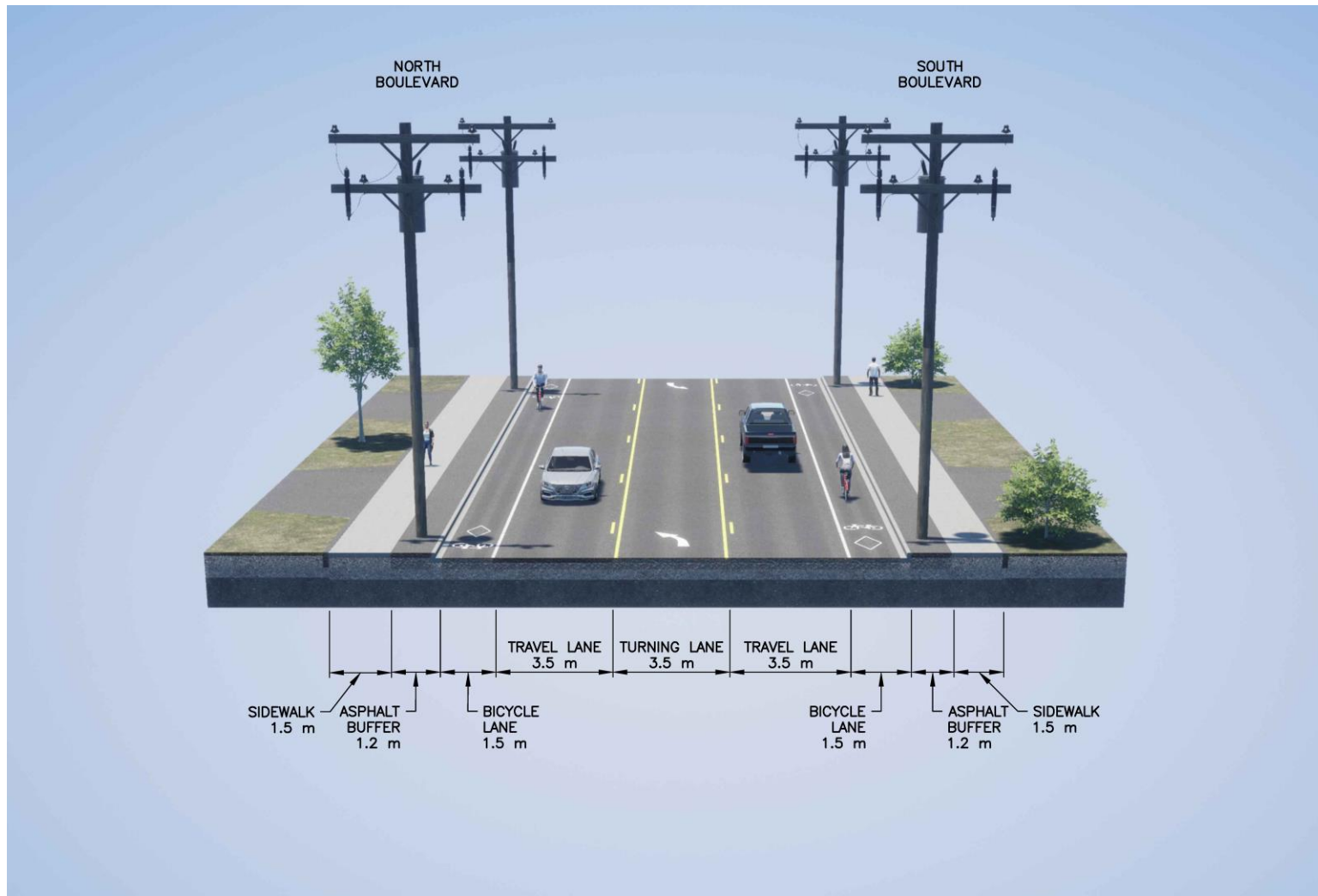
OTM Book 18 Cycling Facility Selection Nomogram



- Based on traffic volume and speed limits, Yonge Street requires a physically separated bikeway.



Option 1 – Cross Section



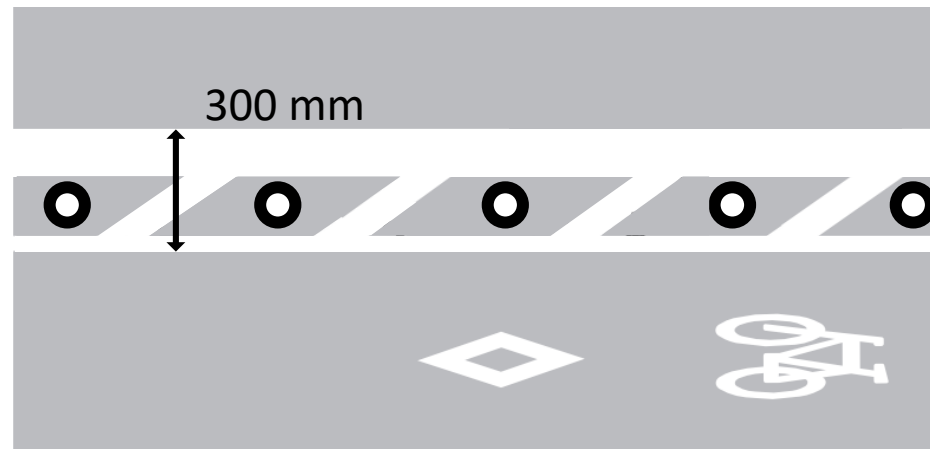
Cross Section – Do Nothing (reinstate to existing conditions)



Option 2 – Add 0.3 m Buffer With Flexible Bollards

- Add 0.3 m wide buffers with flexible bollards to improve safety on existing bicycle lanes.
- Reduce travel lanes to 3.3 m and 3.5 m centre turning lane and relocate curb to suit revised cross section.

Pros		Cons	
<ul style="list-style-type: none"> • Easy to construct • Meets OTM Book 18 design requirements • In accordance with Town of Midland Multi-Modal Transportation Master Plan 		<ul style="list-style-type: none"> • Requires the relocation of approximately 10 hydro poles • High maintenance effort and cost for flexible bollards • Does not provide protection during winter months (as bollards will be removed) 	
Cyclist Safety		Construction Cost	Maintenance Cost
**		\$9 million	\$75k/year



Option 2 – Add 0.3 m Buffer With Flexible Bollards Cont.

Flexible Bollards

- Only provide visual indicator for the bicycle and no physical protection.
- Can easily be damaged by vehicles.
- Must be removed during the winter months and reinstalled in the spring. Requires many labour hours to install and remove.

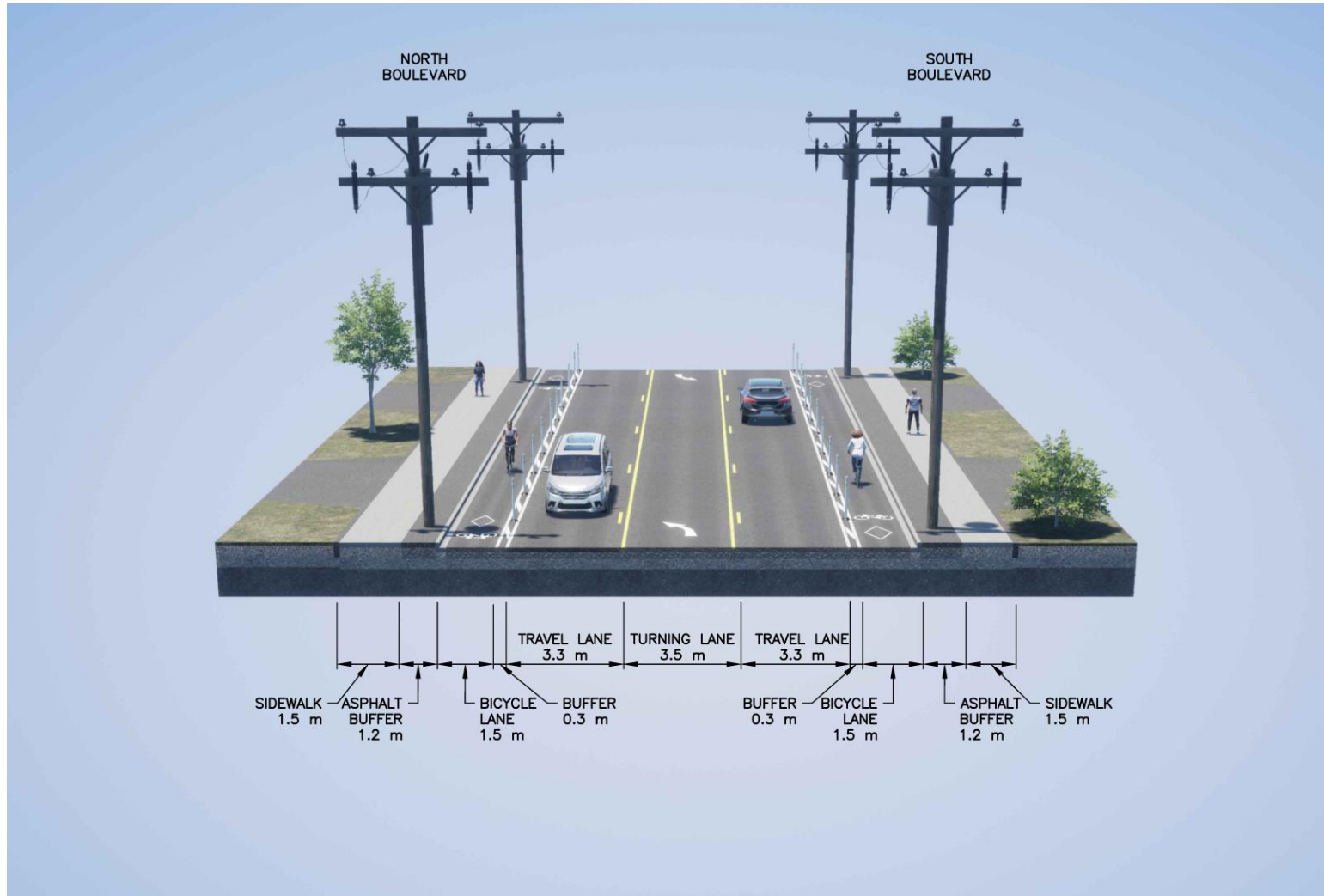


Hydro Pole Relocation

- Approximately, 10 hydro poles would require relocation to accommodate the flex bollards.



Option 2 – Add 0.3 m Buffer With Flexible Bollards



Cross Section – Buffer With Flex Bollards



Option 3a – Add Multi-use Path From County Road 93 to Eighth Street

- Add 4 m wide multi-use path to north side of Yonge Street from County Road 93 to Eighth Street.
- Reduce travel lanes to 3.3 m and 3.5 m centre turning lane and relocate north curb 3.4 m south to suit revised cross section.
- The right of way width is reduced from 26 m to 20 m at Hartman Street and thus the cross section is modified to accommodate.

Pros	Cons	
<ul style="list-style-type: none"> • Meets OTM Book 18 design requirements • Moves cyclists off the road and into the boulevard • Provides opportunity to add vegetation and plantings within the north boulevard (east of Eighth Street) 	<ul style="list-style-type: none"> • Requires minimum 6 hydro pole relocations • Requires storm sewer structure relocations • Combines pedestrians and cyclists on multi-use path • Cycling facility ends at Eighth Street (does not extend to King), which is not in accordance with Town of Midland Multi-Modal Transportation Master Plan • A multi-use path is generally not preferred where there are many driveways and intersections as it increases the chance for conflicts with vehicles 	
Cyclist Safety	Construction Cost	Maintenance Cost
***	\$9.5 million	\$25k/year



Option 3a – Add Multi-use Path From County Road 93 to Eighth Street Cont.

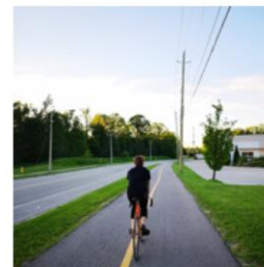
Cycling Connections

- A temporary shared cycling facility will be created on Eighth Street to connect cyclists to the bicycle lanes on Hugel Avenue by painting sharrows on the road.
- Permanent cycling facilities will be installed on Eighth Street through a future project.
- A connection to the Little Lake Park Bicycle Trail will be constructed.
- Cycling facility will be eliminated along Yonge Street from Eighth to King Street.



Hydro Pole Relocation

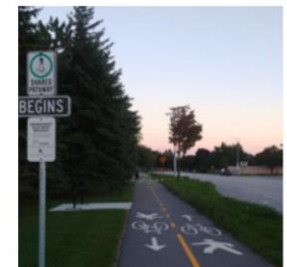
- Approximately, 6 hydro poles from Hartman Street to Eighth Street would require relocation to accommodate the multi-use path.



Multi-Use Path Separated by Grassy Boulevard, Waterloo



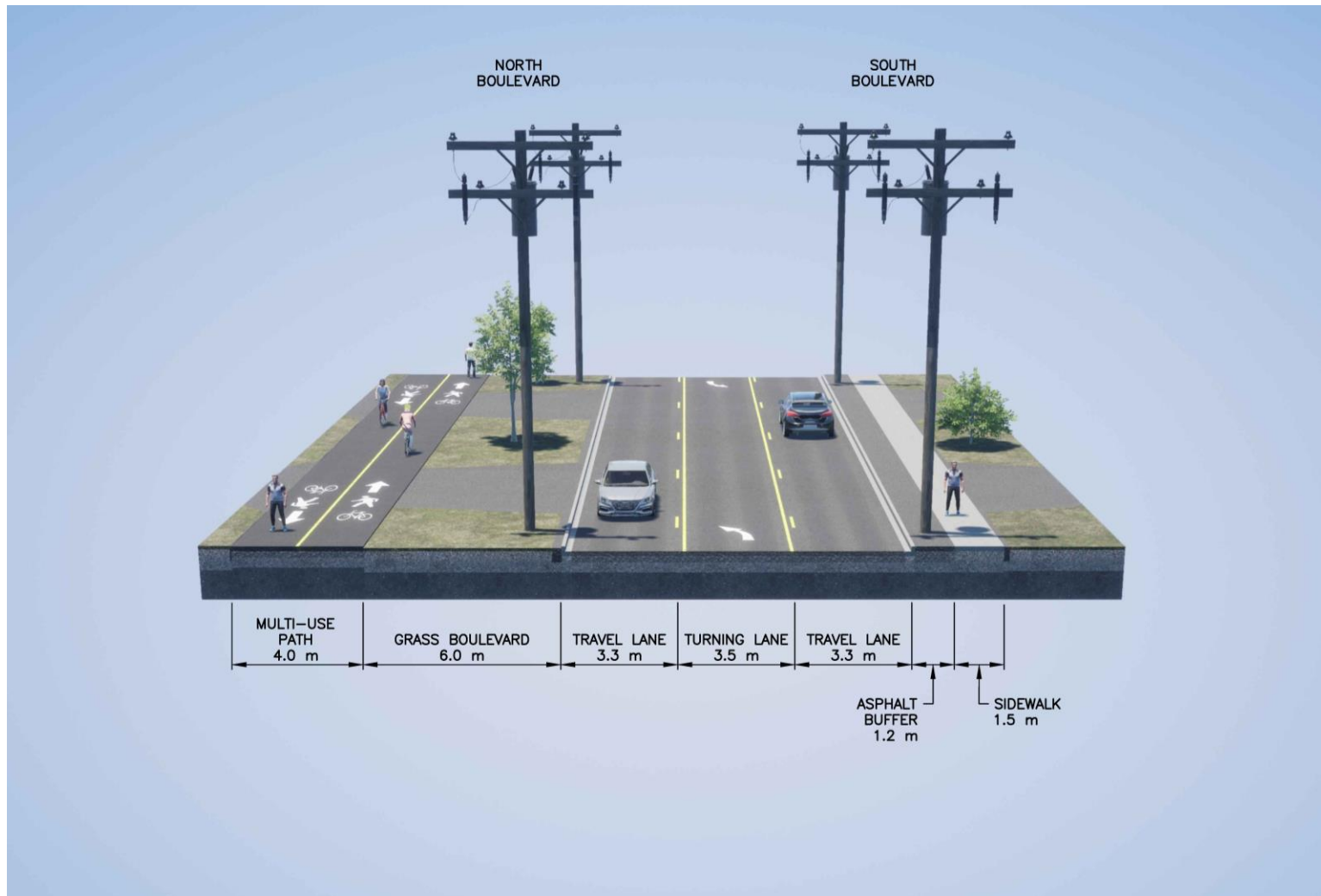
Multi-Use Path Separated by Grassy Boulevard, Richmond Hill



Multi-Use Path Separated by Grassy Boulevard, Newmarket



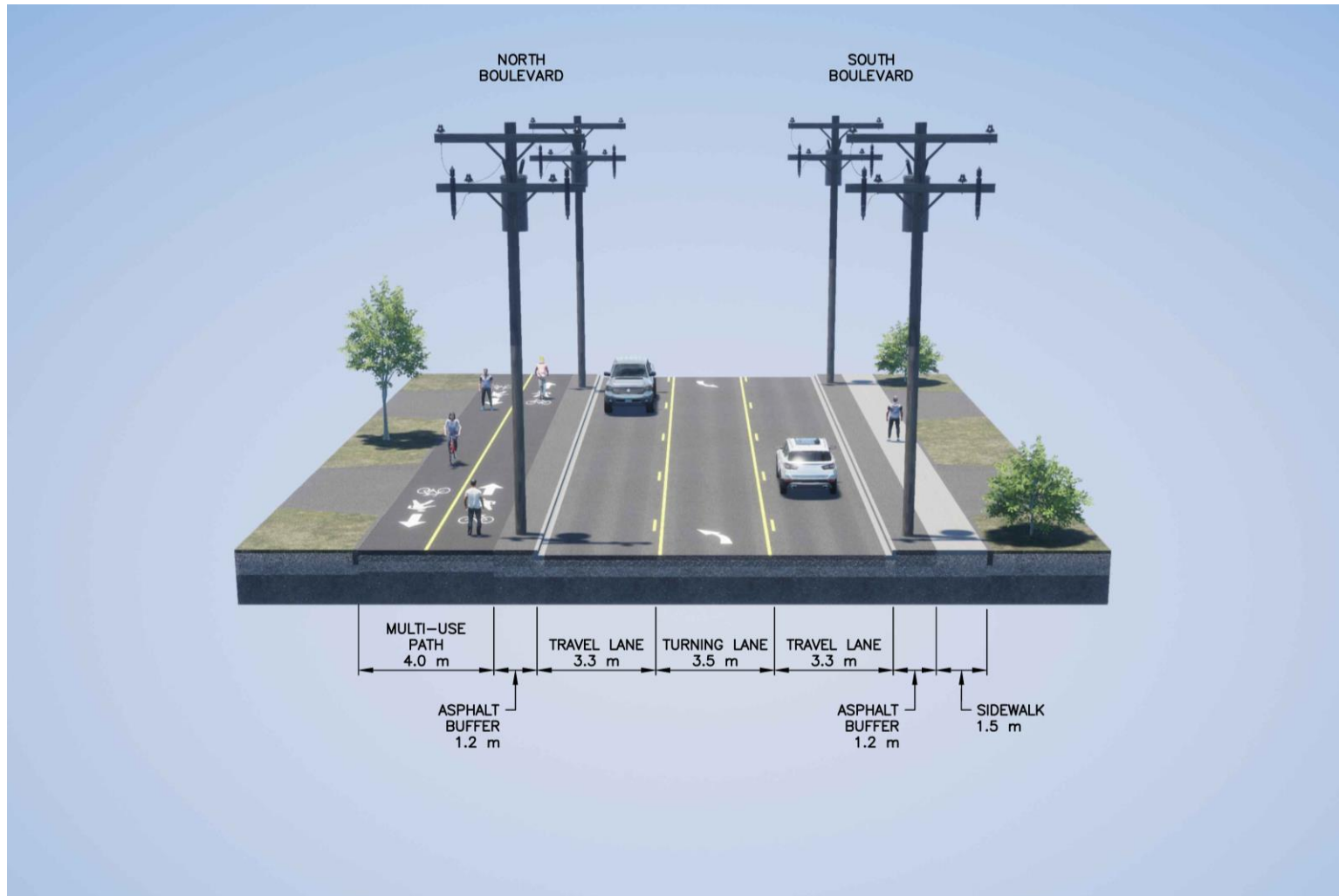
Option 3a – Cross Section



Cross Section - County Road 93 to Hartman Street



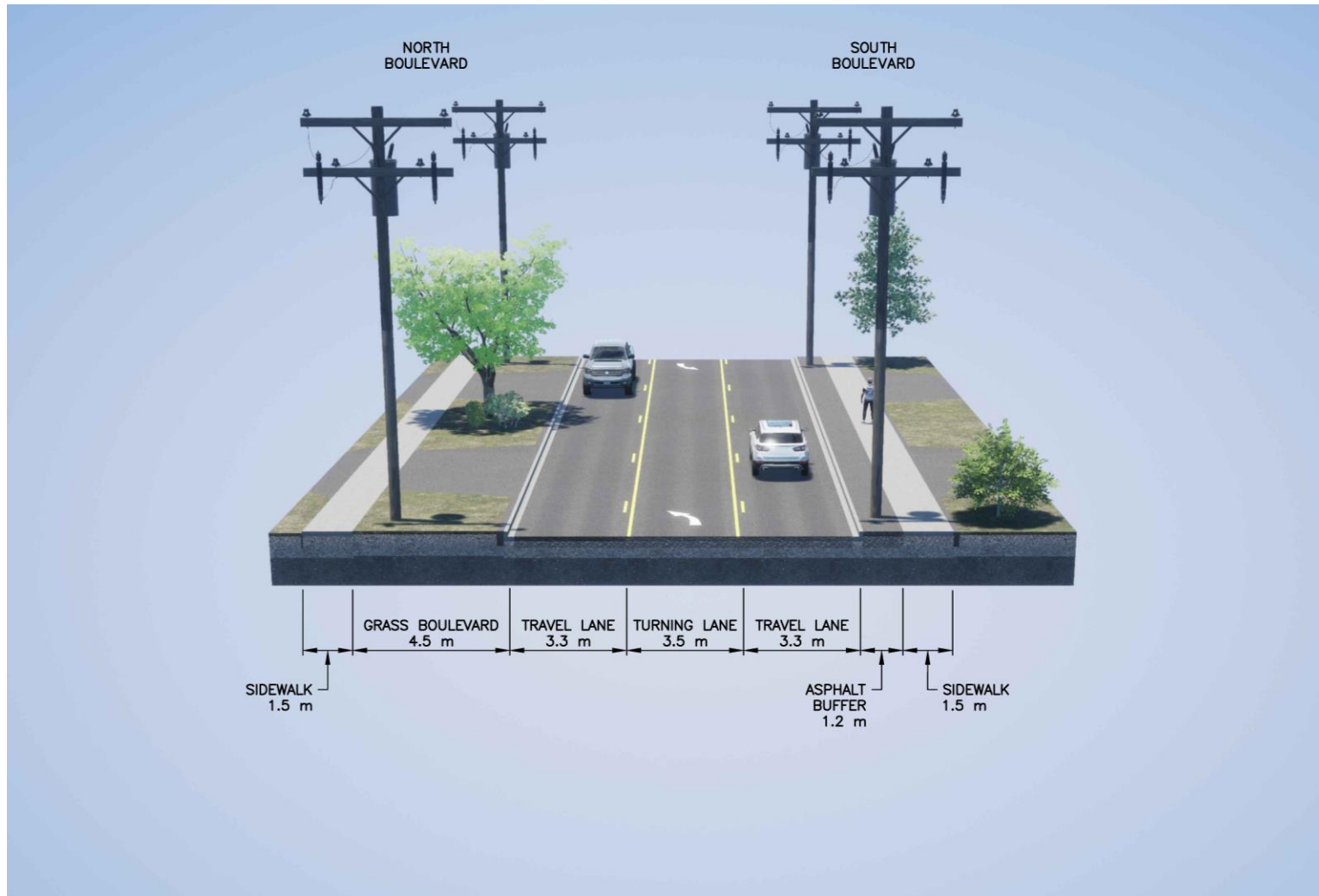
Option 3a – Cross Section



Cross Section - Hartman Street to Eighth Street



Option 3a – Cross Section



Cross Section - Eighth Street to King Street



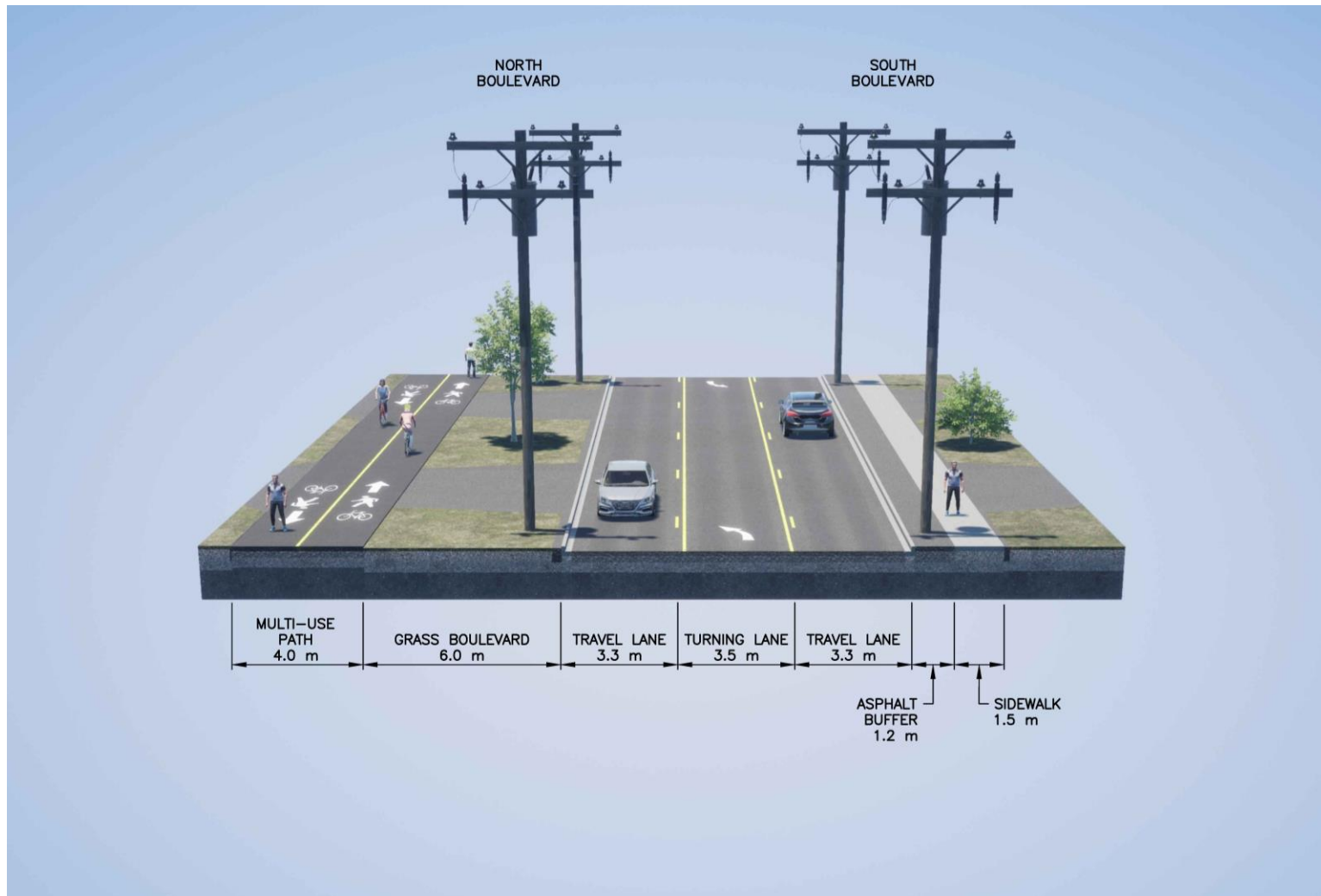
Option 3b – Add Multi-use Path From County Road 93 to King Street

- Similar to option 3a; however, includes cycling facilities from Eighth to King.
- Add 4 m multi-use path to north side of Yonge Street from County Road 93 to King Street.
- Relocate north curb 3.4 m south.
- Reduce travel lanes to 3.3 m and 3.5 m centre turning lane and relocate north curb to suit revised cross section.

Pros	Cons	
<ul style="list-style-type: none"> • Meets OTM Book 18 design requirements • Moves cyclists off the road and into the boulevard 	<ul style="list-style-type: none"> • Requires minimum 36 hydro pole relocations • Requires minimum 900 m gas main relocation (leading to project delays) • Requires storm sewer structure relocations • Combines pedestrians and cyclists on multi-use path • A multi-use path is generally not preferred where there are many driveways and intersections as it increases the chance for conflicts with vehicles 	
Cyclist Safety	Construction Cost	Maintenance Cost
***	\$11 million	\$40 k/year



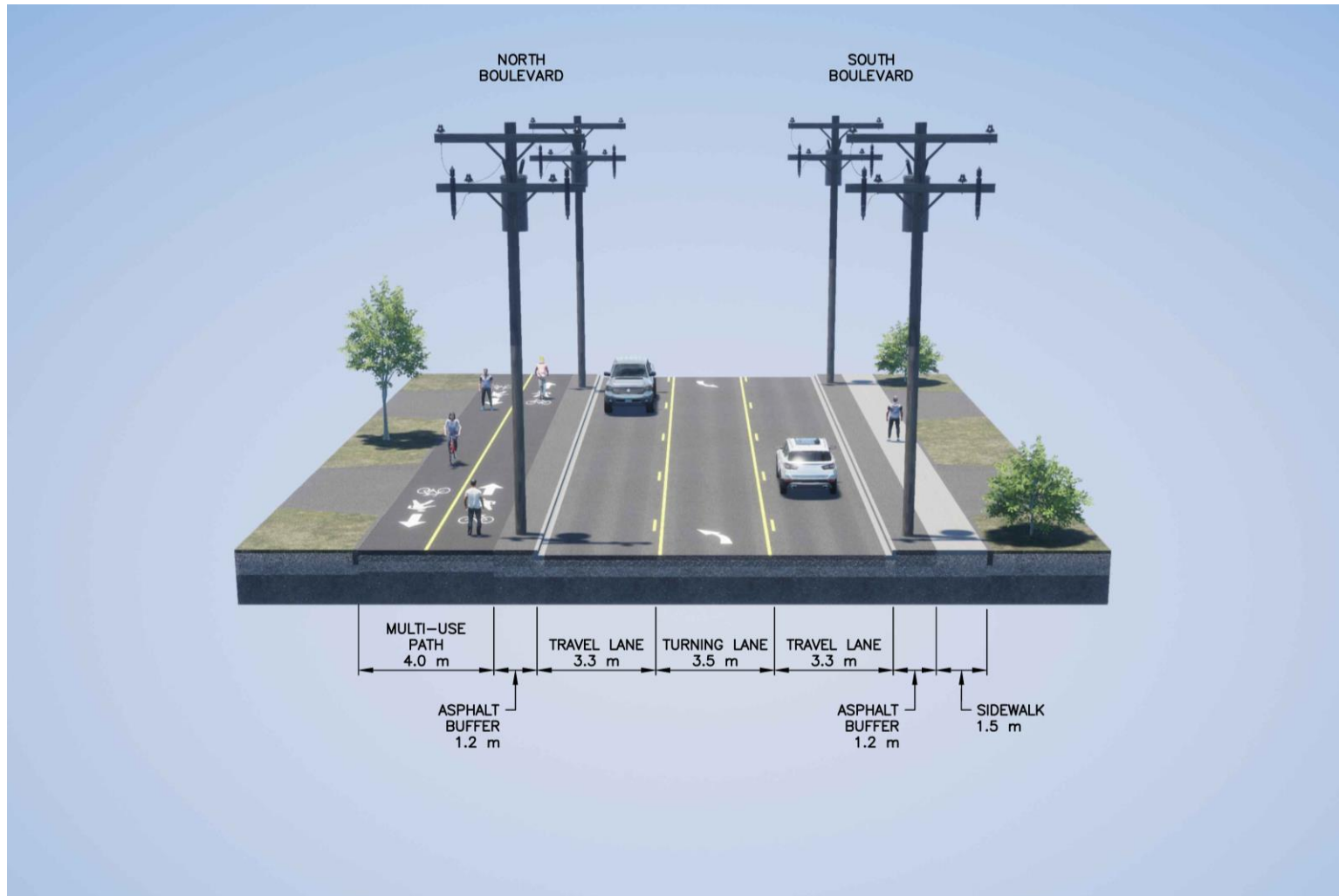
Option 3b – Cross Section



Cross Section - County Road 93 to Hartman Street



Option 3b – Cross Section



Cross Section - Hartman Street to King Street

