

# REIMAGINING YONGE STREET

## SHEPPARD AVENUE TO FINCH AVENUE



ENVIRONMENTAL ASSESSMENT STUDY

**PUBLIC OPEN HOUSE 3 – SEPTEMBER 29, 2016**



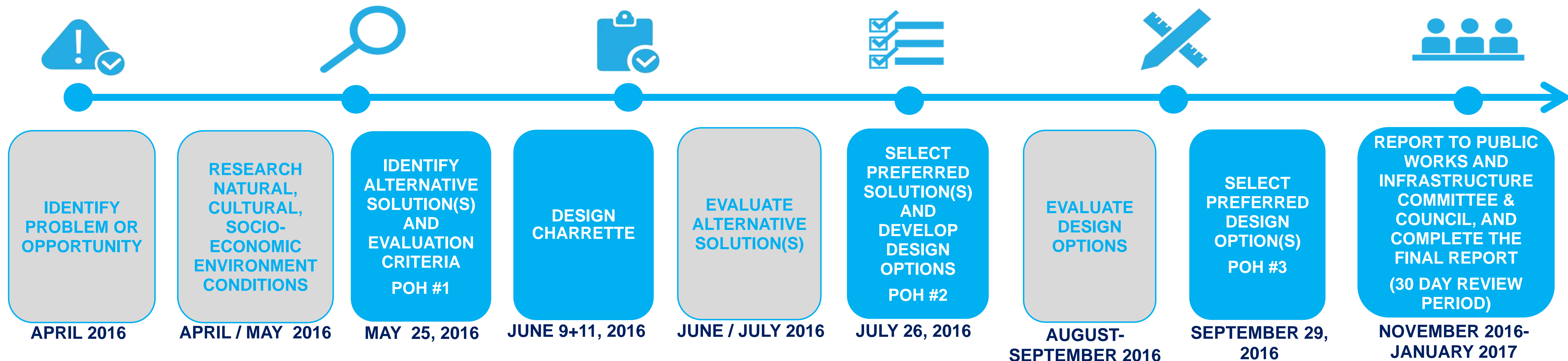
## Welcome to the third and final Public Open House for the REimagining Yonge Street from Sheppard Avenue to Finch Avenue Environmental Assessment Study.

The information displayed today and comment cards will be  
available online at

[www.toronto.ca/reimaginingyonge](http://www.toronto.ca/reimaginingyonge)

# THE PROJECT & STUDY PROCESS

This study is being carried out as a Schedule C project according to the Municipal Class Environmental Assessment (EA) process. This is an approved assessment approach for municipal infrastructure projects under the provincial *Environmental Assessment Act*.



**We are here** ↑

*There will be opportunities for public input throughout the study, and at the milestones shown in blue.*



# WHAT WE'VE DONE – CONSULTATION

**Notice of Study  
Commencement**  
(North York Mirror,  
May 12 and 19, 2016)



**Jane's Walk**  
(May 7, 2016)



**Public Open House 1**  
(May 25, 2016)



**Design Charrette**  
(June 9 and 11, 2016)



**On-line /  
On-Street  
Survey**

**1,084 Responses**



**Planners in Public Spaces**  
(July 18, 20, 21, 2016)

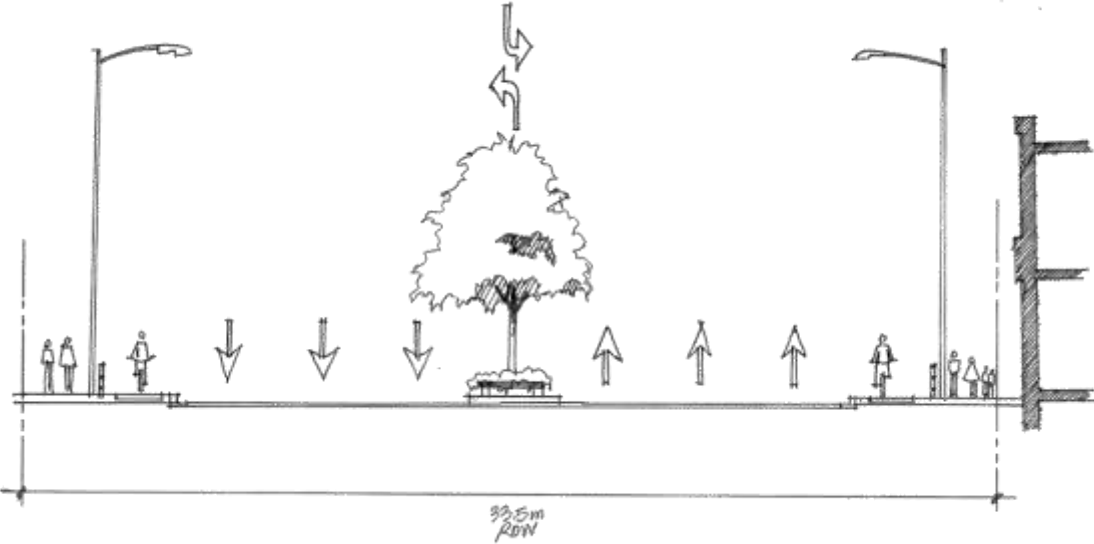
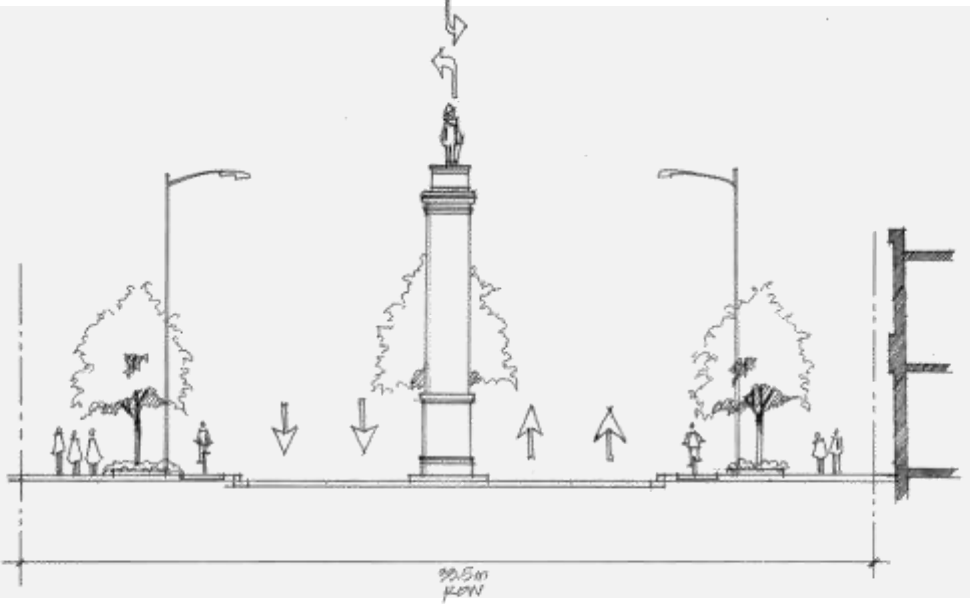
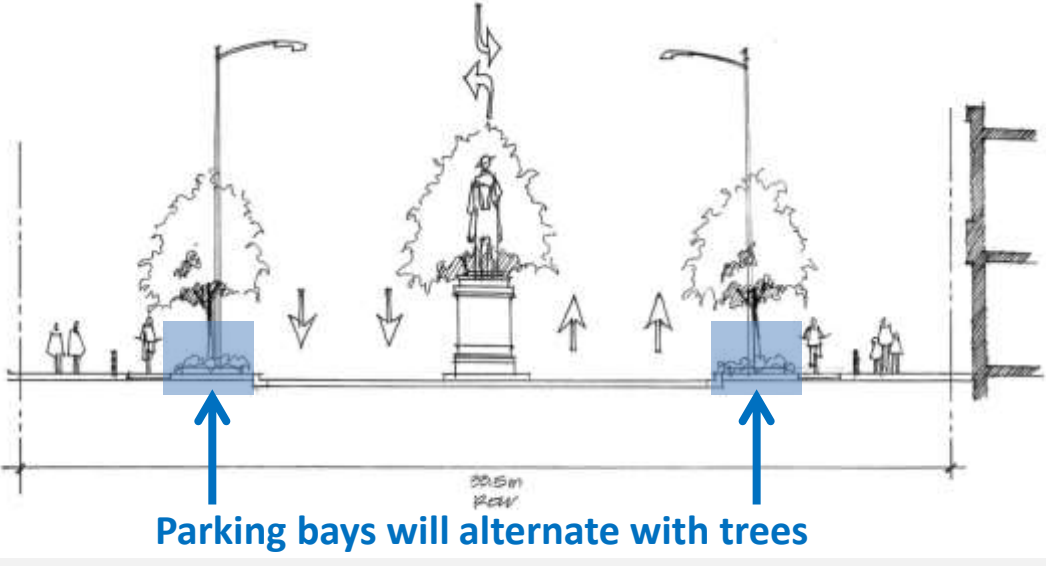
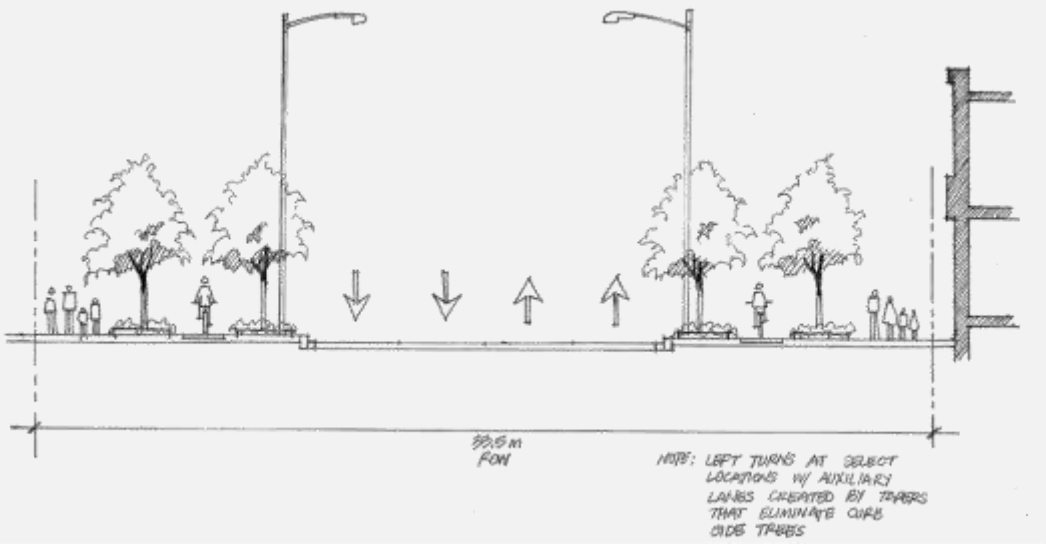


**Public Open House 2**  
(July 25, 2016)

**The following slides summarize the feedback we have received from the consultation activities completed to date.**



# RECAP: DESIGN OPTIONS FOR THE “TRANSFORM” ALTERNATIVE

Option	Cross Section	Number of Lanes	Design Elements
4A		6	<ul style="list-style-type: none"><li>• Pedestrian clearway below City guideline</li><li>• Separated bike facility adjacent to traffic lanes</li><li>• Landscaped median between intersections with left turn lanes where needed</li><li>• Balanced sidewalk widths east / west</li><li>• Off-peak parking in curb lanes</li><li>• Maximizes clear space for emergency vehicles</li></ul>
4B		4	<ul style="list-style-type: none"><li>• Separated bike facility adjacent to traffic lanes</li><li>• Landscaped median between intersections with left turn lanes where needed</li><li>• Balanced wider sidewalk widths east / west</li><li>• No on-street parking</li></ul>
4F		4	<ul style="list-style-type: none"><li>• Parking bays</li><li>• Separated bike facility adjacent to parking bays</li><li>• Landscaped median between intersections with left turn lanes where needed</li><li>• Wider sidewalks</li><li>• Reduced clear space for emergency vehicles</li></ul>
4G		4	<ul style="list-style-type: none"><li>• Double row of trees between intersections</li><li>• Separated bike facility between rows of trees</li><li>• Wider sidewalks</li><li>• At intersection approaches, single row of trees only</li><li>• No on-street parking</li><li>• Lane and curb alignment varies significantly</li></ul>



# WHAT WE'VE HEARD

## – TRANSFORM DESIGN OPTIONS

At the second Public Open House, people provided their feedback on the preliminary preferred alternative – Transform – and design options for Transform.







Comments on Design Option 4F

Strong support was received for the selection of the preliminary preferred alternative – “Transform”.

Stakeholders agreed with the Project Team’s assessment to remove Design Options 4C, 4D, 4E and 4H from further consideration.

**Feedback about the Design Options:**

- Positive feedback about reducing Yonge Street to 4-lanes.
- Positive feedback received about the landscaped median.
- Inquiries about the location of the cycle tracks (i.e. either adjacent to vehicular traffic or pedestrians).
- Inquiries about the potential traffic and parking impacts

Design Option 4A 	Design Option 4B 	Design Option 4F 	Design Option 4G 
<p>Most people did not support the 6 lane option:</p> <ul style="list-style-type: none"><li>- Unsafe for pedestrians</li><li>- Need wider sidewalks</li><li>- Yonge Street is still dominated by the car</li></ul>	<p>Most people liked 4B:</p> <ul style="list-style-type: none"><li>- Pedestrian friendly</li><li>- The landscaped median</li><li>- Sidewalk width is good</li><li>- Cycle track separation from the pedestrians</li></ul>	<p>Most people liked 4F:</p> <ul style="list-style-type: none"><li>- Includes something for everyone (pedestrians, cyclists, motorists)</li><li>- Parking bays are a good compromise</li></ul>	<p>Most people did not like 4G:</p> <ul style="list-style-type: none"><li>- Snow removal will be difficult based on the tree location</li><li>- Safety concerns removing the median</li><li>- Double row of trees is unnecessary</li><li>- The landscaped median is removed</li></ul>



# WHAT WE'VE HEARD

## – INTEGRATION OF PUBLIC SPACES

Attendees at Public Open House 2 were also asked to provide feedback about integrating three public spaces into the design: Joseph Shepard Federal Building, Mel Lastman Square and Olive Square.

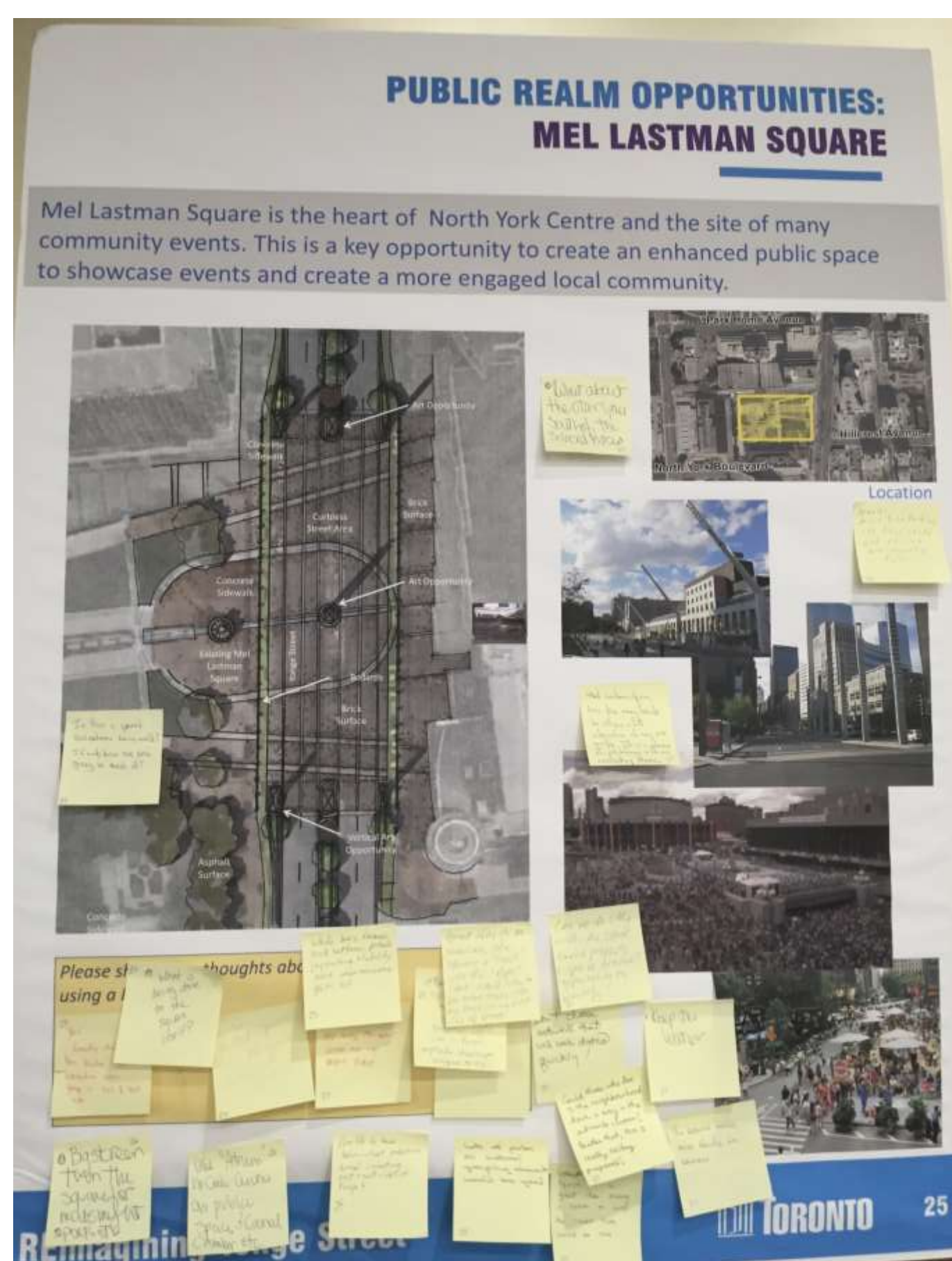


### Comments about Olive Square

- Support to integrate Olive Square and create a special design.
- Suggestion to design similar to Yorkville, Bloor or Queens Quay with cobblestone or granite.
- Suggestion to involve students with public art.
- Comment to include protected benches.
- Comment that paving stone is not ideal for maintenance.

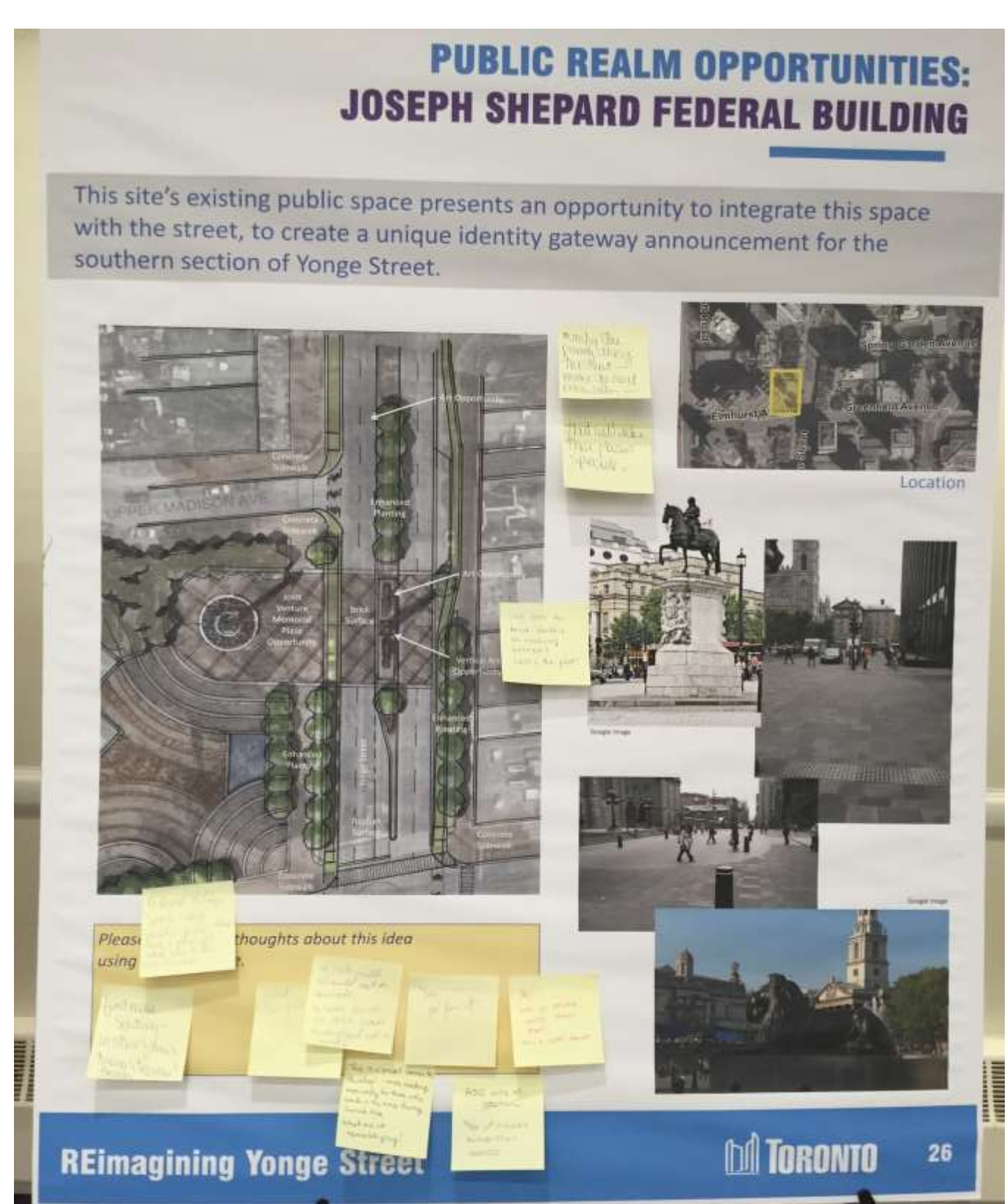
### General feedback about the Public Realm Opportunities:

- Support for integrating the three proposed locations.
- Stakeholders provided examples of great streets / public spaces in Europe and within the City to emulate.
- Support for different sidewalk treatments adjacent to these public spaces.
- Comments that a different road treatment could affect the response time of emergency vehicles.
- A few comments that the road treatment could encourage mid-block pedestrian crossings.



### Comments about Mel Lastman Square

- Support to showcase the Square as the heart of Yonge Street.
- Support to provide the Square with a 'human connection' to Yonge Street.
- Suggestion to include more street trees to provide shade in the summer.
- Comment to use artistic light poles that are designed for pedestrians and not vehicles.
- Comment to include bicycle parking.



### Comments about the Joseph Shepard Federal Building

- Support that the Federal Building is a special place and there are many opportunities for the public realm.
- Comment that this is a great location to develop into an enhanced public space.
- Suggestion to increase the seating.
- Comment that the sidewalk should not be concrete.
- Suggestion to add a fountain.
- Suggestion to add a memorial feature.



# RECAP: PROBLEM AND OPPORTUNITY STATEMENT

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North York Centre is one of four centres in the City focused on transit-based employment and residential growth. At its core is Yonge Street from Sheppard Avenue to north of Finch Avenue, envisioned as one of the city's primary pedestrian promenades with a vibrant urban environment that promotes walking, cycling and safe passage across the street.

Today the area is faced with challenges from inconsistent features such as sidewalks, pedestrian crossings and medians to lack of dedicated cycling facilities and concerns over traffic movement.

The City is looking at ways to create an attractive and consistent streetscape with design appropriate to the civic goals of the North York Centre that will serve people of all ages as they travel in and around the area for work, school and leisure.





# RECAP: BENEFITS OF THE TRANSFORM ALTERNATIVE

In recent years projects that increase the accessibility of streets for all users have become increasingly popular in North America. These projects have been shown to create a wide range of benefits.

## Healthy Living

- Cannon Street, Hamilton experienced a significant increase in cycle traffic<sup>4</sup>
- Queens Quay, Toronto saw an increase of **888%** in cyclists along the corridor after the installation of a cycle track<sup>4</sup>

## Safety

- Highway 7 in Markham - a 64% drop in collisions<sup>4</sup>
- Richmond and Adelaide Streets cycle track – comfort and safety of cyclists increased significantly<sup>4</sup>

## Economic Prosperity and Vibrancy

- The reconstruction of Euclid Ave in Cleveland, OH resulted in an increase in commercial and residential property values<sup>1</sup>
- Vanderbilt Ave, New York saw an increase in retail sales after reconstruction<sup>2</sup>
- Reconstruction of First and Second Avenues, New York City, resulted in a reduction in vacancy rates<sup>3</sup>
- King St, Kitchener: The number of restaurant patios increased from 5 to 16 after the completion of the street upgrade<sup>4</sup>

## Sustainability and Air Quality

- Highway 7 - 10% transit ridership increase<sup>4</sup>
- Davenport Rd, Waterloo - 300 new trees will absorb 7,000 kg of CO<sub>2</sub> annually<sup>4</sup>

Sources:

<sup>1</sup>Perk, Victoria, et al. "Capturing the Benefits of Complete Streets." (2015).

<sup>2</sup>New York City Department of Transportation. (2013). The Economic Benefits of Sustainable Streets . New York City: New York City DOT.

<sup>3</sup>New York City Department of Transportation. (2012). Measuring the Street: New Metrics for 21st Century Streets. New York City: New York City DOT.

<sup>4</sup>Smith Lea, N., Mitra, R., Hess, P., Quigley, B. & Loewen, N. (2016). Complete Street Transformations in the Greater Golden Horseshoe Region. Toronto: Clean Air Partnership. For more information: [www.tcat.ca](http://www.tcat.ca)



Bloor Street



John Street



Queens Quay

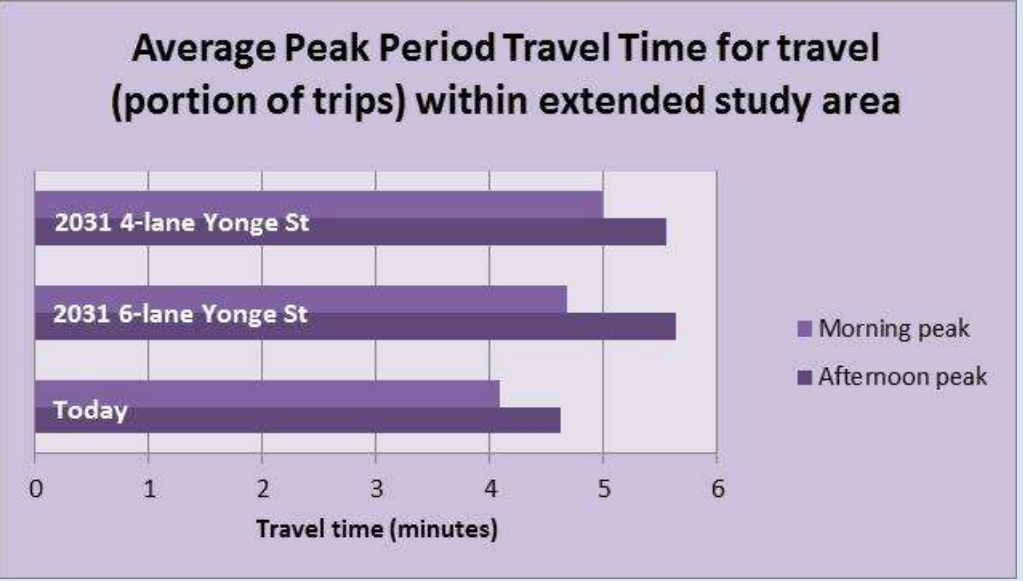


# TRANSPORTATION EFFECTS – 2031 HORIZON

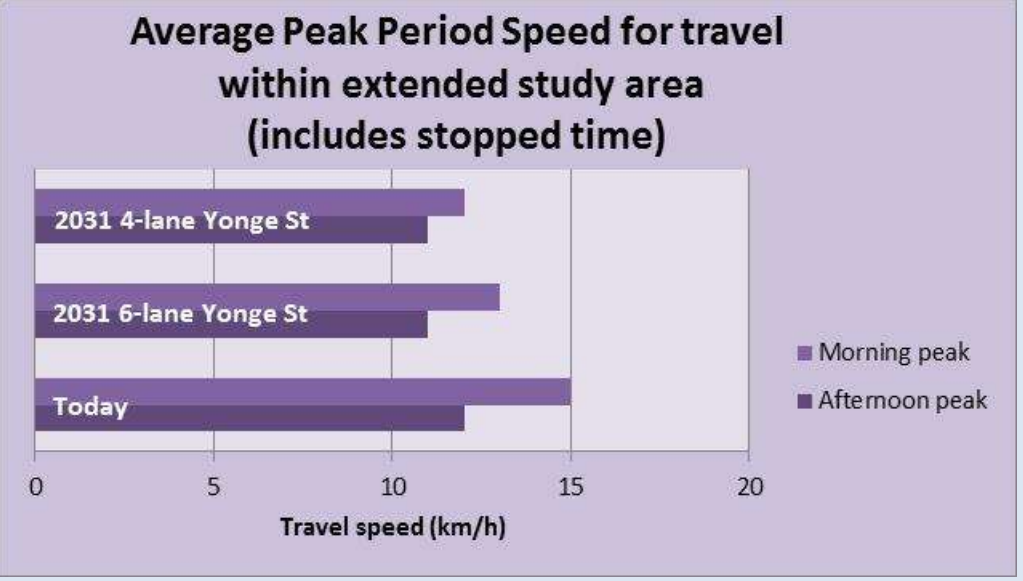
The effects of the design options on movement by all transportation modes are key considerations. We must plan for safe and efficient access and mobility for pedestrians, cyclists, cars, buses and trucks. A detailed traffic simulation model has been developed for this project, to address these issues. The model simulates movement for the weekday morning and afternoon peak periods, taking into account the planned development throughout the study area and the rest of the region. Additional detail is modelled within the Focus Study Area, between Doris Avenue and Beecroft Road. Conditions have been projected for the year 2031.

## Key Changes in Performance to 2031

### Time required to make an average trip within the study area



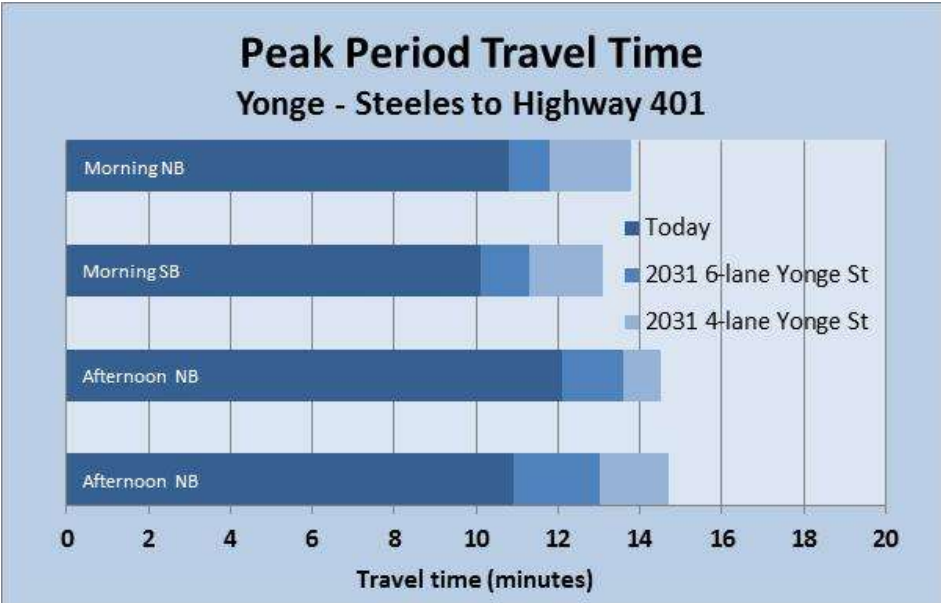
### Average speed within the study area



Some of the traffic currently using Yonge Street will use Beecroft Road and Doris Avenue instead with the reduction to 4 lanes on Yonge Street. This is consistent with the intended purpose of these roads.

Diversion to other roads is not projected to be significant.

The planned connection between Doris Avenue and Tradewind Avenue will complete the service road in this area, supporting more travel by this route. This connection has been included in the model – see board 19.



### The model parameters are conservative, in terms of:

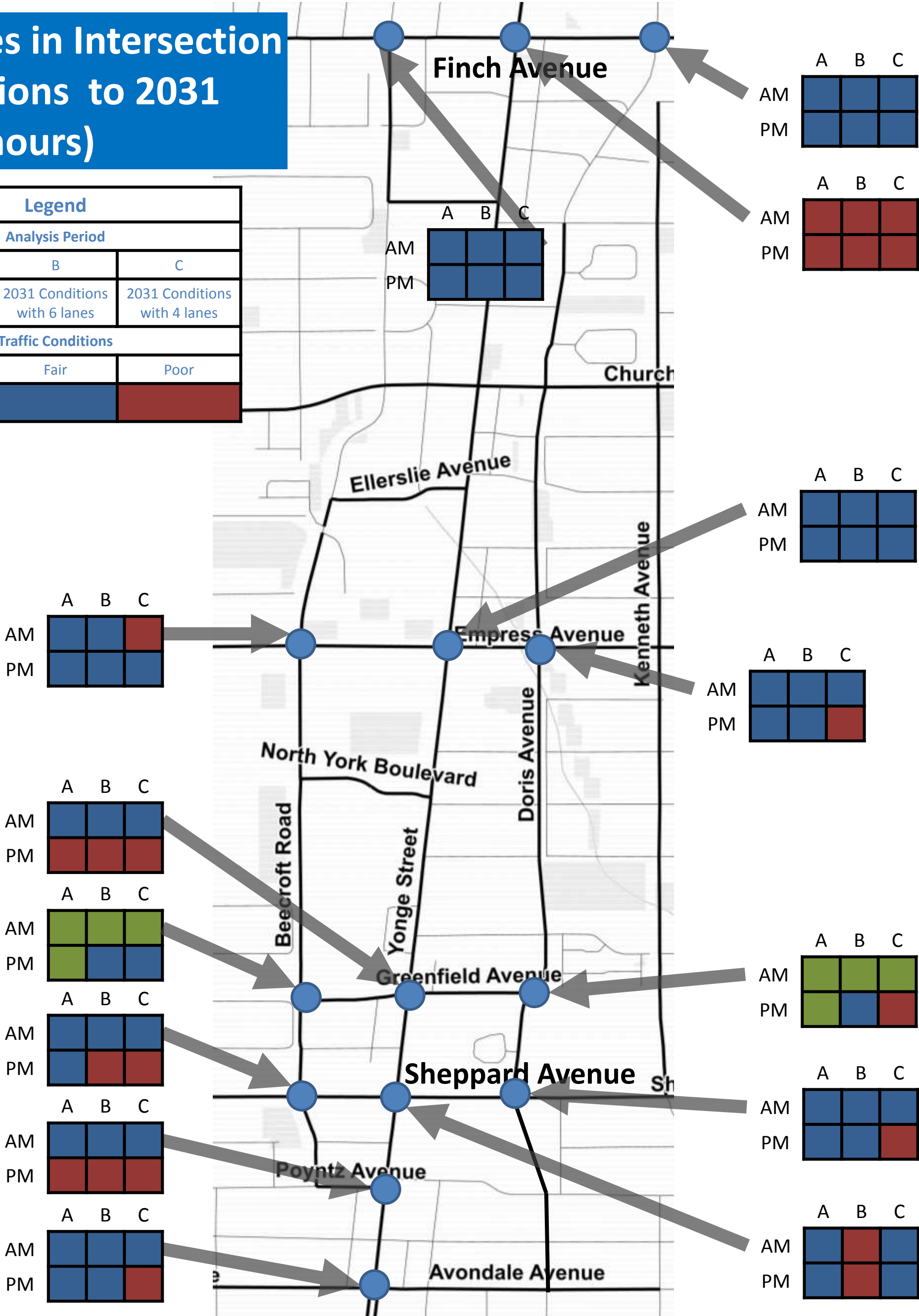
- Transit network: no subway extension or other potential future improvements to existing transit services in the study area were assumed (i.e. additional bus routes, increased service, etc.)
- Limited study area: trips could not divert beyond Bathurst Street or Bayview Avenue
- No additional shift of auto trips to bicycle, transit (i.e. subway, GO Bus) or other non-auto modes such as car-share

### A number of factors indicate that conditions in 2031 can be expected to be better than the model results to date:

- Shift to a pedestrian and cyclist-focused street design will promote greater use of these modes as well as transit, limiting increases in auto demand
- Exclusive turning lanes can be considered at select locations along Beecroft Road and Doris Avenue, based on planned monitoring over this 15-year period
- A small number of auto trips will divert across a broader area, beyond Bathurst and Bayview
- Increasing use of automated vehicles will improve the efficiency of traffic flow
- Transit network expansions can be expected to continue, which will help to minimize auto trips
- The approved Environmental Assessment (EA) for the extension of Beecroft Road to Drewry Avenue was not modelled and will help the distribution of traffic

## Changes in Intersection Operations to 2031 (peak hours)

Legend		
Analysis Period		
A	B	C
2016 conditions	2031 Conditions with 6 lanes	2031 Conditions with 4 lanes
Traffic Conditions		
Good	Fair	Poor

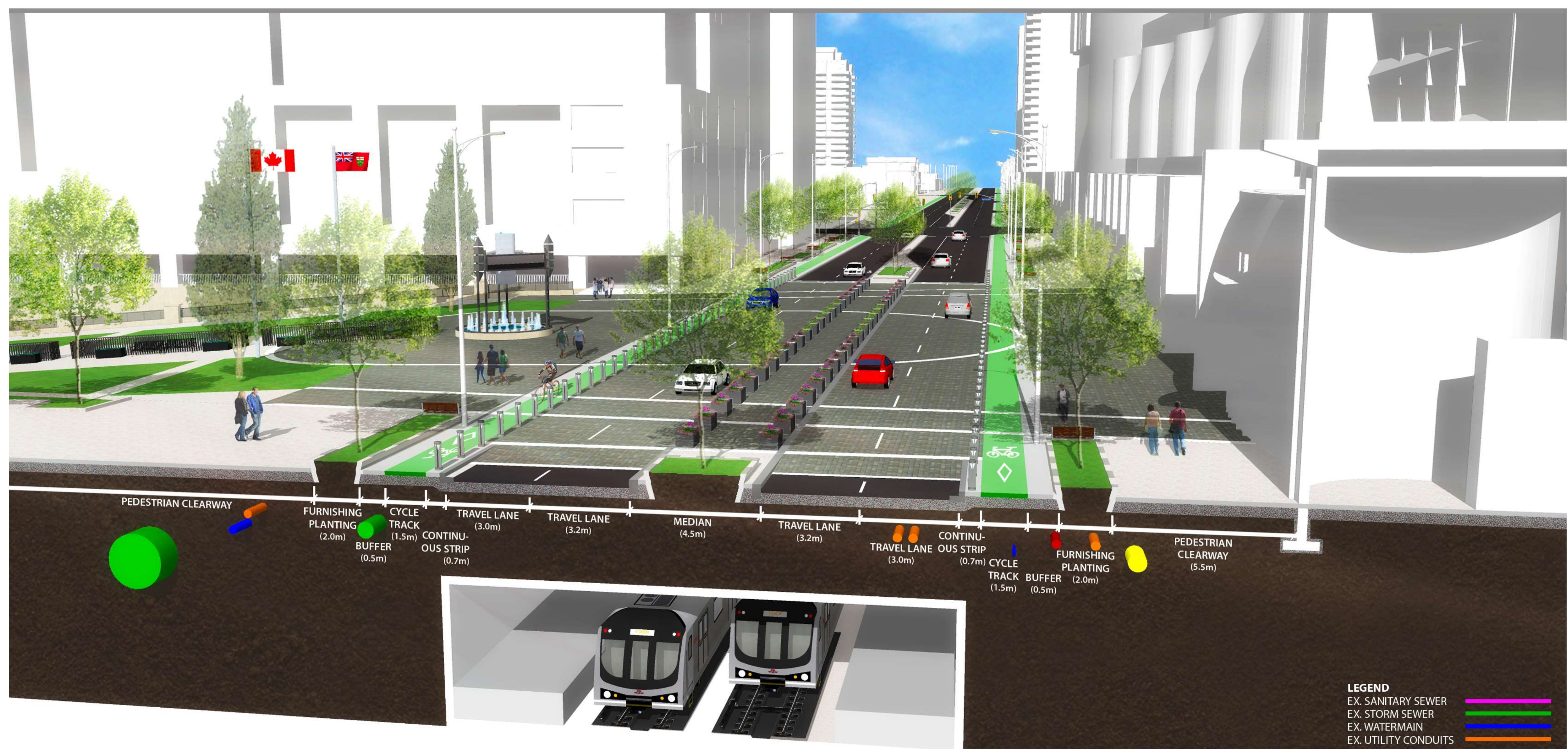




It is essential to understand how underground utilities relate to the proposed changes to the road surface – these two components must be coordinated.

We have mapped the underground utilities (and the subway infrastructure) and designed the street to ensure that there are no conflicts.

## Utilities under Mel Lastman Square



Utility	Major Impacts
Sewers	Raising/Lowering Manholes
Water	Raising/Lowering Valve Chambers and Relocation of Hydrants
Hydro	Raising/Lowering Vault Access and Relocation of Handwells
Telecom	Raising/Lowering Chambers
Gas	No Major Impacts Anticipated
TTC Subway	No Major Impacts Anticipated

### Did you know?

Wilket Creek is carried in 6 km of Storm Trunk Sewer under Yonge Street.





# CRITERIA FOR EVALUATION OF THE DESIGN OPTIONS

The criteria shown below were presented at Public Open House 2 for feedback, and were used to evaluate the Design Options.



## Accessibility, Mobility & Transportation Infrastructure

- Promotes effective movement of people and goods
- Transportation network capacity
- Parking capacity
- Intersection operations and Transportation efficiency
- Safety for users
- Effect on emergency services
- Adherence to City design standards and guidelines for transportation facilities
- Accessibility (Compliance with City’s Accessibility Standards and provincial guidelines)



## Natural Environment

- Maximizes opportunity for street tree planting in optimized urban condition that provides for the long term health of the trees
- Sustainability (example: reuse of stormwater)
- Climate Change



## Cycling and Walking

- Ability to introduce new cycling facilities
- Ability to improve pedestrian facilities



## Cultural Heritage & Built Heritage Resources

- Impacts on built heritage resources
- Impacts on cultural heritage landscapes



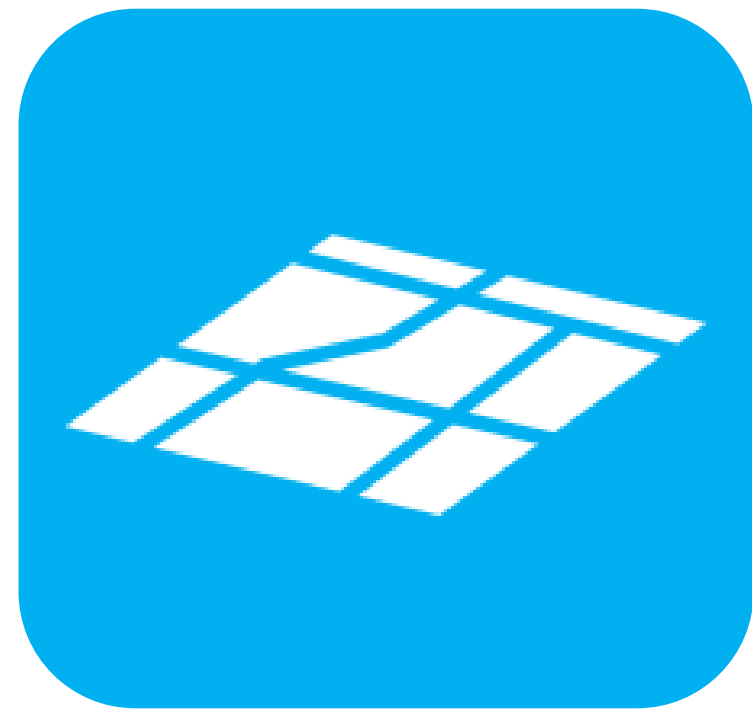
## Constructability & Utilities

- Transit, pedestrian, road, and bike mobility through the study and duration of disruption for each mode
- Number of construction stages and duration
- Number and scale of existing utilities affected
- Potential utility conflicts
- Effects on business during construction



## Costs

- Construction costs
- Life cycle costs
- Maintenance/operational costs for:
  - Roadway
  - Enhanced streetscape and canopy trees
  - Winter maintenance



## Planning: Vision and Identity

- Supports Yonge Street’s role as a special public space
- Encourages vibrant, mixed-use development
- Effects on business (e.g., retail)
- Impacts to Private Property



## Opportunities for Design Excellence

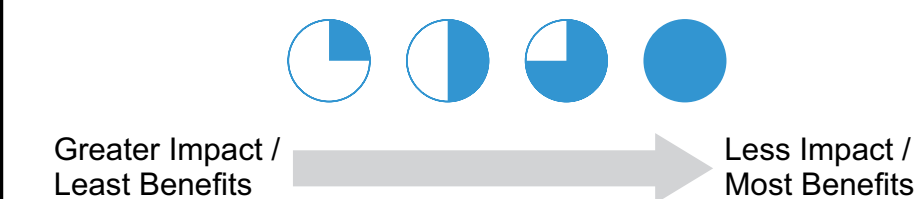
- Percentage of the right-of-way dedicated to public realm uses such as pedestrian facilities, public art, and street furniture
- Supports design excellence of infrastructure and streetscape. Enhances the attractiveness of urban environment and creates place-making opportunities
- Supports integration with public spaces
- Wind / Pedestrian comfort / Microclimate



# DESIGN OPTIONS EVALUATION RESULTS

The preliminary preferred alternative is Design Option 4B north of Sheppard Avenue and Design Option 4A south of Sheppard Avenue, reflecting the constraints and conditions in the corridor. This is shown on the next panel.

## Legend



Category / Criteria	Option 4A	Option 4B	Option 4F (parking bays)	Option 4G	Summary
<b>Accessibility, Mobility and Transportation Infrastructure</b> <ul style="list-style-type: none"><li>Promotes effective movement of people and goods</li><li>Transportation network capacity</li><li>Parking capacity</li><li>Intersection operations and Transportation efficiency</li><li>Safety for users</li><li>Effect on emergency services</li><li>Adherence to City design standards and guidelines for transportation facilities</li><li>Accessibility (Compliance with City's Accessibility Standards and provincial guidelines)</li></ul>	<ul style="list-style-type: none"><li>Off-peak on-street parking is maintained.</li><li>Number of vehicle lanes is maintained which has the potential for more vehicle conflicts.</li><li>Longer crossing distances for pedestrians and the need to increase signal timing at intersections.</li><li>The design meets the minimum required for pedestrian clearway.</li><li>GO Transit vehicles can be accommodated, while maintaining two lanes of vehicular traffic.</li></ul>	<ul style="list-style-type: none"><li>No on-street parking is provided.</li><li>Reduced crossing distances for pedestrians.</li><li>The design exceeds the minimum required for pedestrian clearway.</li><li>Accommodating GO Transit vehicles creates less effective movement for vehicles and buses.</li><li>Some impact on emergency service vehicles during peak periods.</li></ul>	<ul style="list-style-type: none"><li>Limited number of on-street parking is provided (approx. 10% of the existing supply).</li><li>Reduced crossing distances for pedestrians.</li><li>The design exceeds the minimum required for pedestrian clearway.</li><li>Accommodating GO Transit vehicles creates less effective movement for vehicular and buses.</li><li>Some impact on emergency service vehicles during peak periods.</li></ul>	<ul style="list-style-type: none"><li>Reduced crossing distances for pedestrians.</li><li>The intersection operations are affected by the limited left-turn lanes.</li><li>The design exceeds the minimum required for pedestrian clearway.</li><li>No median allows for greatest ease of movement for emergency service vehicles.</li><li>No median increases the crossing complexity for pedestrians.</li><li>Accommodating GO Transit buses creates less effective movement for vehicles along a 4-lane cross section.</li></ul>	Design Options 4B and 4F are equally preferred for the following reasons: <ul style="list-style-type: none"><li>Promotes effective movement of people by reducing crossing distances for pedestrians.</li><li>The design exceeds the City's minimum required for pedestrian clearway.</li><li>Mobility for all users and modes of transportation is integrated into Design Options 4B and 4F.</li><li>The transportation network capacity and modal shift that results from reducing the vehicle lanes to four lanes on Yonge Street can be accommodated on the service roads.</li><li>Emergency service vehicle impacts can be mitigated by use of the service roads and providing breaks in the median.</li><li>The road safety audit indicates the benefits of the median for pedestrians and motorists (i.e., eliminates head-on collisions, provides pedestrian refuge, reduces complexity of pedestrian crossings, etc.).</li></ul>
<b>Planning: Vision and Identity</b> <ul style="list-style-type: none"><li>Supports Yonge Street's role as a special public space</li><li>Encourages vibrant, mixed-use development</li><li>Effects on business (e.g., retail)</li></ul>	<ul style="list-style-type: none"><li>Provides new sidewalk and cycle facility.</li><li>Reduced sidewalk width.</li><li>Reduced number of street trees and planters.</li><li>Maintaining status quo of 6-lanes reduces vibrancy and opportunities for retail zone, patios, street furniture, etc.</li></ul>	<ul style="list-style-type: none"><li>Wider sidewalk area can generate pedestrian activity and interest in businesses.</li><li>Opportunity for street trees in the landscaped median (4B and 4F) and along Yonge Street.</li><li>Cycle traffic can have a positive impact on businesses.</li><li>Parking reduction may have a negative impact on businesses.</li><li>Opportunity to enhance the identity of the corridor for a retail zone, patios, street furniture, etc.</li></ul>	<ul style="list-style-type: none"><li>Wider sidewalk area can generate pedestrian activity and interest in businesses.</li><li>Opportunity for street trees in the landscaped median (4B and 4F) and along Yonge Street.</li><li>Cycle traffic can have a positive impact on businesses.</li><li>Parking reduction may have a negative impact on businesses.</li><li>Opportunity to enhance the identity of the corridor for a retail zone, patios, street furniture, etc.</li></ul>	<ul style="list-style-type: none"><li>Wider sidewalk area can generate pedestrian activity and interest in businesses.</li><li>Opportunity for street trees in the landscaped median (4B and 4F) and along Yonge Street.</li><li>Cycle traffic can have a positive impact on businesses.</li><li>Parking reduction may have a negative impact on businesses.</li><li>Opportunity to enhance the identity of the corridor for a retail zone, patios, street furniture, etc.</li></ul>	Design Options 4B, 4F and 4G are equally preferred for the following reasons: <ul style="list-style-type: none"><li>Wider sidewalk area and more pedestrian activity, which in turn can generate more interest in businesses.</li><li>Opportunities to create an identity for Yonge Street.</li><li>Potential to integrate retail / businesses' plans for patios into the design to create vibrancy.</li></ul>
<b>Opportunities for Design Excellence</b> <ul style="list-style-type: none"><li>Percentage of the right-of-way dedicated to public realm uses such as pedestrian facilities, public art, and street furniture</li><li>Supports design excellence of infrastructure and streetscape. Enhances the attractiveness of urban environment and creates place-making opportunities</li><li>Supports integration with public spaces</li><li>Wind / Pedestrian comfort / Microclimate</li></ul>	<ul style="list-style-type: none"><li>Limited opportunities for design excellence given the minimum pedestrian clearway, street furniture and amenities.</li><li>Lack of street trees.</li><li>On-street parking can affect views / sightlines for pedestrians.</li><li>Potential for the median but has limited value to pedestrians and cyclists.</li><li>Minimal opportunities to enhance streetscape design.</li></ul>	<ul style="list-style-type: none"><li>A wider sidewalk offers opportunities for design excellence, accessibility, street furniture and amenities.</li><li>Historic value of the median can be retained and expanded.</li><li>Street trees enhance the attractiveness of the design and provide shade for pedestrian comfort.</li><li>Offers opportunities to integrate public spaces.</li><li>The 4-lane cross section, street trees and median break up the scale of the street.</li><li>Opportunities to enhance streetscape design through paving, lighting, and hardscape.</li></ul>	<ul style="list-style-type: none"><li>A wider sidewalk offers opportunities for design excellence, accessibility, street furniture and amenities.</li><li>Historic value of the median can be retained and expanded.</li><li>On-street parking bays reduces the areas that can be dedicated for pedestrian clearway and street trees.</li><li>Street trees enhance the attractiveness of the design and provide shade for pedestrian comfort.</li><li>The 4-lane cross section, street trees and median break up the scale of the street.</li><li>Opportunities to enhance streetscape design through paving, lighting, and hardscape.</li></ul>	<ul style="list-style-type: none"><li>A wider sidewalk offers opportunities for design excellence, accessibility, street furniture and amenities.</li><li>Historic value of the median is lost, as the median is removed.</li><li>Street trees enhance the attractiveness of the design and provide shade for pedestrian comfort.</li><li>Eliminating the median affects the scale of the street.</li><li>Opportunities to enhance streetscape design through paving, lighting, and hardscape.</li></ul>	Design Option 4B is preferred for the following reasons: <ul style="list-style-type: none"><li>Opportunity to expand the median and retain its historic value along Yonge Street.</li><li>Street trees enhance the attractiveness of the design and provide shade for pedestrian comfort.</li><li>Street trees and the median break up the scale of the street, enhancing the user experience.</li><li>Lack of on-street parking provides clear sightlines for all users.</li><li>Design Options 4B, 4F and 4G have the best opportunities to integrate public spaces through shared streetscape design.</li></ul>
<b>Cycling and Walking</b> <ul style="list-style-type: none"><li>Ability to introduce new cycling facilities</li><li>Ability to improve pedestrian facilities</li><li>Ability to provide for secure separated cycling lanes / cycle track, and bike parking</li></ul>	<ul style="list-style-type: none"><li>Pedestrian clearway is limited in size given the large portion of the ROW dedicated to travel lanes.</li><li>Incorporates elevated cycling facilities along Yonge Street.</li><li>Constrained ROW affects design of the cycle track and eliminates separation of pedestrians.</li><li>Limited separation (buffer) for pedestrians and cyclists.</li><li>Least friendly for pedestrians and cyclists (source: road side safety audit).</li></ul>	<ul style="list-style-type: none"><li>Generous pedestrian clearway of 4.05 m enhances safety and accessibility for children and seniors.</li><li>Incorporates elevated cycling facilities along Yonge Street.</li><li>Separated cycle track and buffer offers the best level of service for pedestrians and cyclists.</li></ul>	<ul style="list-style-type: none"><li>Provides for a pedestrian clearway of 3.45 m which enhances safety and accessibility for children and seniors.</li><li>Incorporates cycling facilities along Yonge Street, separated from traffic.</li><li>Cycle track location has the potential for pedestrian and cyclist conflicts.</li></ul>	<ul style="list-style-type: none"><li>Approximately 3 m dedicated for the pedestrian clearway which enhances safety and accessibility for children and seniors.</li><li>Incorporates cycling facilities along Yonge Street, separated from traffic.</li><li>No median increases the risk for pedestrians completing mid-block crossings (i.e., need to cross 4-lanes).</li></ul>	Design Option 4B is preferred for the following reasons: <ul style="list-style-type: none"><li>All Design Options encourage and support active living which contributes to public health.</li><li>The wider pedestrian clearway enhances safety and accessibility for all users, including children and seniors.</li><li>Separated cycle track and buffer provides the best level of service for pedestrians and cyclists.</li></ul>
<b>Constructability and Utilities</b> <ul style="list-style-type: none"><li>Transit, pedestrian, road, and bike mobility through the study and duration of disruption for each mode</li><li>Number of construction stages and duration</li><li>Number and scale of existing utilities affected</li><li>Potential utility conflicts</li><li>Effects on business during construction</li><li>Impacts to Private Property</li></ul>	<ul style="list-style-type: none"><li>Impacts of subway infrastructure for footings and utility are under investigation for all Design Options.</li><li>Age of utilities along Yonge Street may create constructability implications.</li><li>All Design Options have the same potential to impact utilities based on the major reconstruction required.</li><li>It is anticipated that construction staging, including the duration of construction and number of stages will be the same for all Design Options.</li><li>The potential effects on businesses during construction are anticipated to be the same for all the Design Options.</li><li>For all Design Options, there is no physical impact to private property.</li></ul>	<ul style="list-style-type: none"><li>Impacts of subway infrastructure for footings and utility are under investigation for all Design Options.</li><li>Age of utilities along Yonge Street may create constructability implications.</li><li>All Design Options have the same potential to impact utilities based on the major reconstruction required.</li><li>It is anticipated that construction staging, including the duration of construction and number of stages will be the same for all Design Options.</li><li>The potential effects on businesses during construction are anticipated to be the same for all the Design Options.</li><li>For all Design Options, there is no physical impact to private property.</li></ul>	<ul style="list-style-type: none"><li>Impacts of subway infrastructure for footings and utility are under investigation for all Design Options.</li><li>Age of utilities along Yonge Street may create constructability implications.</li><li>All Design Options have the same potential to impact utilities based on the major reconstruction required.</li><li>It is anticipated that construction staging, including the duration of construction and number of stages will be the same for all Design Options.</li><li>The potential effects on businesses during construction are anticipated to be the same for all the Design Options.</li><li>For all Design Options, there is no physical impact to private property.</li></ul>	<ul style="list-style-type: none"><li>Impacts of subway infrastructure for footings and utility are under investigation for all Design Options.</li><li>Age of utilities along Yonge Street may create constructability implications.</li><li>All Design Options have the same potential to impact utilities based on the major reconstruction required.</li><li>It is anticipated that construction staging, including the duration of construction and number of stages will be the same for all Design Options.</li><li>The potential effects on businesses during construction are anticipated to be the same for all the Design Options.</li><li>For all Design Options, there is no physical impact to private property.</li></ul>	All Design Options are equally preferred for the following reasons: <ul style="list-style-type: none"><li>All Design Options have the same potential to impact utilities and the construction duration / staging is anticipated to be the same for all Design Options.</li></ul>
<b>Natural Environment</b> <ul style="list-style-type: none"><li>Maximizes opportunity for street tree planting in optimized urban condition that provides for the long term health of the trees</li><li>Sustainability (example: reuse of stormwater)</li><li>Climate Change</li></ul>	<ul style="list-style-type: none"><li>Extra vehicle lane limits opportunities for street trees.</li><li>Reduced street trees limits opportunities for evapotranspiration.</li><li>Reduced street trees contribute to heat island effect.</li></ul>	<ul style="list-style-type: none"><li>Opportunities for street tree planting along the pedestrian clearway and in the landscaped median.</li><li>Street trees support potential for evapotranspiration.</li></ul>	<ul style="list-style-type: none"><li>Opportunities for street tree planting along the pedestrian clearway and in the landscaped median.</li><li>Street trees support potential for evapotranspiration.</li></ul>	<ul style="list-style-type: none"><li>Where the ROW is wide, 4G provides the opportunity for a double row of street trees.</li><li>Street trees support potential for evapotranspiration.</li></ul>	Design Option 4G is preferred for the following reasons: <ul style="list-style-type: none"><li>Maximizes opportunities for street trees, as an additional row of street trees can be provided where the right-of-way is wide.</li><li>Infiltration techniques are limited for all Design Options by the subway infrastructure under Yonge Street.</li></ul>
<b>Cultural Heritage and Built Heritage Resources</b> <ul style="list-style-type: none"><li>Impacts on built heritage resources</li><li>Impacts on cultural heritage landscapes</li></ul>	<ul style="list-style-type: none"><li>Impacts to cultural heritage and built heritage resources are not anticipated given the work will be confined to the existing ROW.</li><li>Opportunity to integrate cultural facilities and landmarks into the roadway design is limited based on the 6-lane cross section.</li></ul>	<ul style="list-style-type: none"><li>Impacts to cultural heritage and built heritage resources are not anticipated given the work will be confined to the existing ROW. The potential impact to cultural heritage and built heritage resources is equal for Design Options 4B, 4F, and 4G.</li><li>Opportunity to integrate cultural facilities and landmarks into the roadway design and highlight cultural heritage locations.</li></ul>	<ul style="list-style-type: none"><li>Impacts to cultural heritage and built heritage resources are not anticipated given the work will be confined to the existing ROW. The potential impact to cultural heritage and built heritage resources is equal for Design Options 4B, 4F, and 4G.</li><li>Opportunity to integrate cultural facilities and landmarks into the roadway design and highlight cultural heritage locations.</li></ul>	<ul style="list-style-type: none"><li>Impacts to cultural heritage and built heritage resources are not anticipated given the work will be confined to the existing ROW. The potential impact to cultural heritage and built heritage resources is equal for Design Options 4B, 4F, and 4G.</li><li>Opportunity to integrate cultural facilities and landmarks into the roadway design and highlight cultural heritage locations.</li></ul>	Design Options 4B, 4F and 4G are equally preferred for the following reasons: <ul style="list-style-type: none"><li>All Design Options have the same opportunities to integrate cultural facilities and landmarks into the roadway design.</li><li>Potential impacts are not anticipated for any of the Design Options.</li></ul>
<b>Costs</b> <ul style="list-style-type: none"><li>Capital and Construction costs</li></ul>	<ul style="list-style-type: none"><li>High construction costs.</li></ul>	<ul style="list-style-type: none"><li>High construction costs.</li></ul>	<ul style="list-style-type: none"><li>Anticipated highest construction costs.</li></ul>	<ul style="list-style-type: none"><li>Anticipated highest construction costs.</li><li>No median to construct.</li></ul>	Design Options 4A and 4B are equally preferred for the following reasons: <ul style="list-style-type: none"><li>Capital and Construction Costs are less than 4F and 4G.</li></ul>
<b>Costs</b> <ul style="list-style-type: none"><li>Life cycle costs</li><li>Maintenance/operational costs for:<ul style="list-style-type: none"><li>Roadway</li><li>Enhanced streetscape and canopy trees</li><li>Winter maintenance</li></ul></li></ul>	<ul style="list-style-type: none"><li>Greater roadway results in more operational and maintenance costs for salting and plowing.</li><li>Fewer street trees and sidewalk planters' to maintain.</li><li>Median maintenance is required.</li></ul>	<ul style="list-style-type: none"><li>Less roadway to build and maintain results in less operational and maintenance costs.</li><li>More street trees and sidewalk planters' results in higher maintenance costs.</li><li>Median maintenance is required.</li></ul>	<ul style="list-style-type: none"><li>Less roadway to build and maintain results in less operational and maintenance costs.</li><li>More street trees and sidewalk planters' results in higher maintenance costs.</li><li>Median maintenance is required.</li><li>Need to maintain and plow the parking bays in the winter.</li></ul>	<ul style="list-style-type: none"><li>Less roadway to build and maintain results in less operational and maintenance costs.</li><li>More street trees and sidewalk planters' results in higher maintenance costs.</li><li>No median to maintain.</li></ul>	Design Option 4B is preferred for the following reasons: <ul style="list-style-type: none"><li>Cost to maintain the roadway is anticipated to be the same, except for 4F, which is anticipated to be more costly for winter maintenance.</li><li>Maintenance costs for the street trees and median is anticipated to be the same for Design Options 4B and 4F. Option 4G has the highest maintenance cost.</li><li>Maintenance of the median is anticipated to be the same for Design Options 4A, 4B and 4F.</li></ul>
<b>OVERALL</b>	<p>The 6-lane cross section in Design Option 4A limits opportunities to create a vision for Yonge Street; integrate public spaces; provides minimum pedestrian clearway; negatively affects design of the cycle track, and lacks street trees.</p>	<p>Design Option 4B provides opportunities to enhance the streetscape, dedicate a greater percentage of the road to all modes of transportation, offers opportunities to integrate public spaces and create an identity for Yonge Street and removes all parking on Yonge Street.</p>	<p>Design Option 4F provides opportunities to enhance the streetscape, dedicate a greater percentage of the road to all modes of transportation and provides limited on-street parking. The on-street parking reduces the amount of potential space for pedestrians and street trees.</p>	<p>Design Option 4G provides opportunities to enhance the streetscape, provides two-rows of street trees, however, the median and its historic value is lost, and this increases the complexity of pedestrian mid-block crossings.</p>	<b>Design Option 4B</b> is preliminary preferred for the following reasons: <ul style="list-style-type: none"><li>Provides the greatest opportunity for design excellence.</li><li>Creates a distinct and attractive identity for Yonge Street, addressing the City's vision for North York Centre.</li><li>Maximizes pedestrian space and increases crossings, which creates vibrancy, encourages an active lifestyle, and enhances safety.</li><li>Maintains acceptable intersection operations.</li><li>Some increase in vehicular traffic would be accommodated on the service roads (Donis Avenue and Beecroft Road).</li></ul>

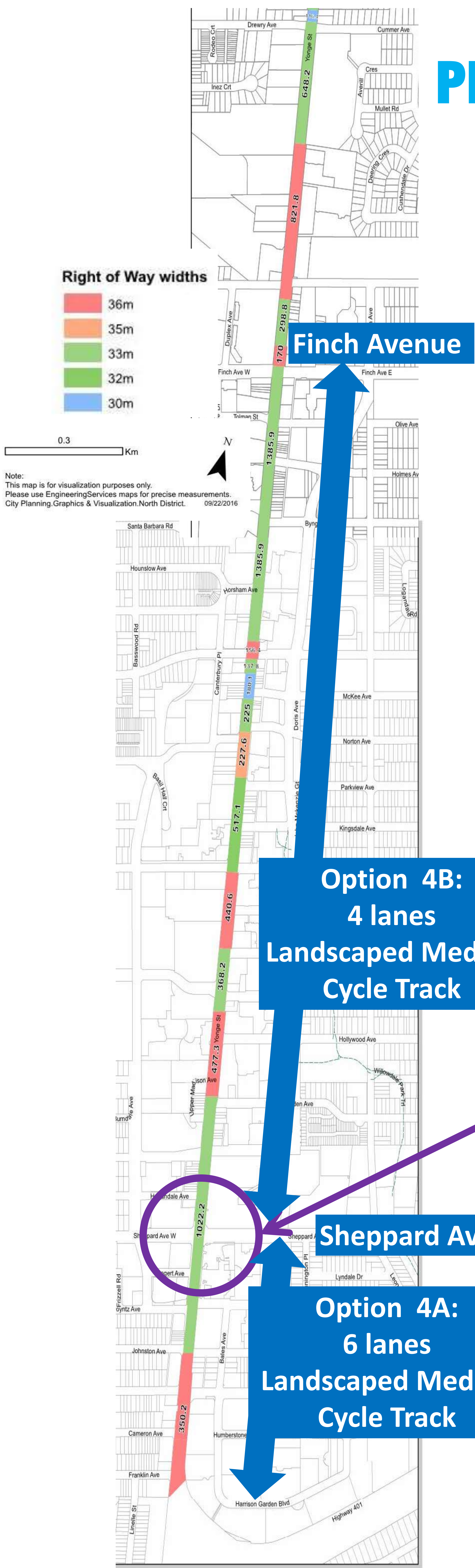
Footnote: The minimum pedestrian clearway refers to the minimums provided by City of Toronto's Pedestrian Projects Unit.



# PRELIMINARY PREFERRED DESIGN OPTIONS ALONG YONGE STREET

The available Right-of-Way (ROW) width varies along Yonge Street, as shown in the figure at left.

The preliminary preferred Design Options proposed along Yonge Street are shown in the figure at left.



Northbound and southbound left turns will be prohibited at Sheppard Avenue, and accommodated via the adjacent intersections.

*Please see the full-sized drawings of the corridor for other details including location of turning lanes, the landscaped median and the integration of public spaces.*

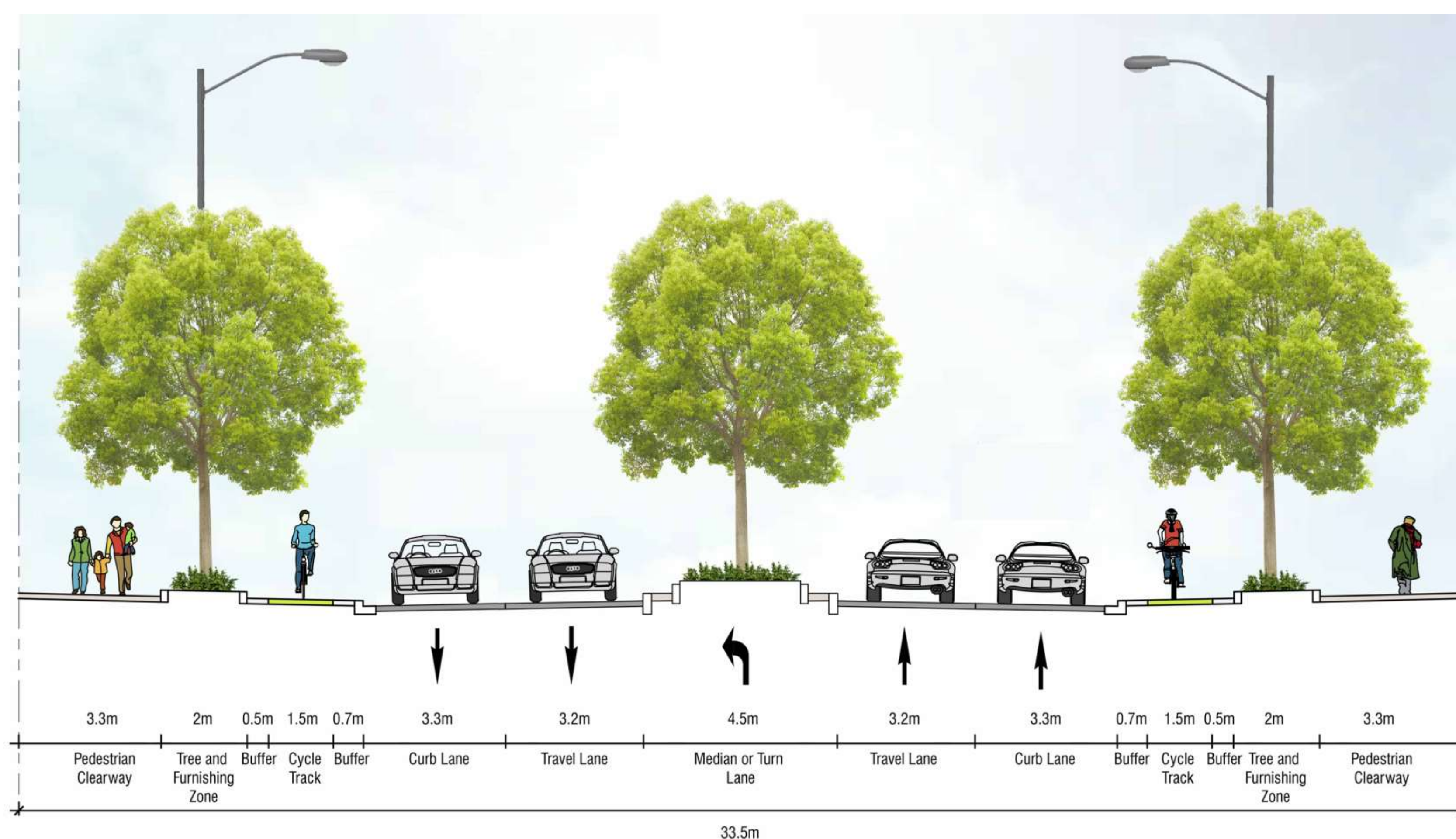


# PRELIMINARY PREFERRED DESIGN OPTION

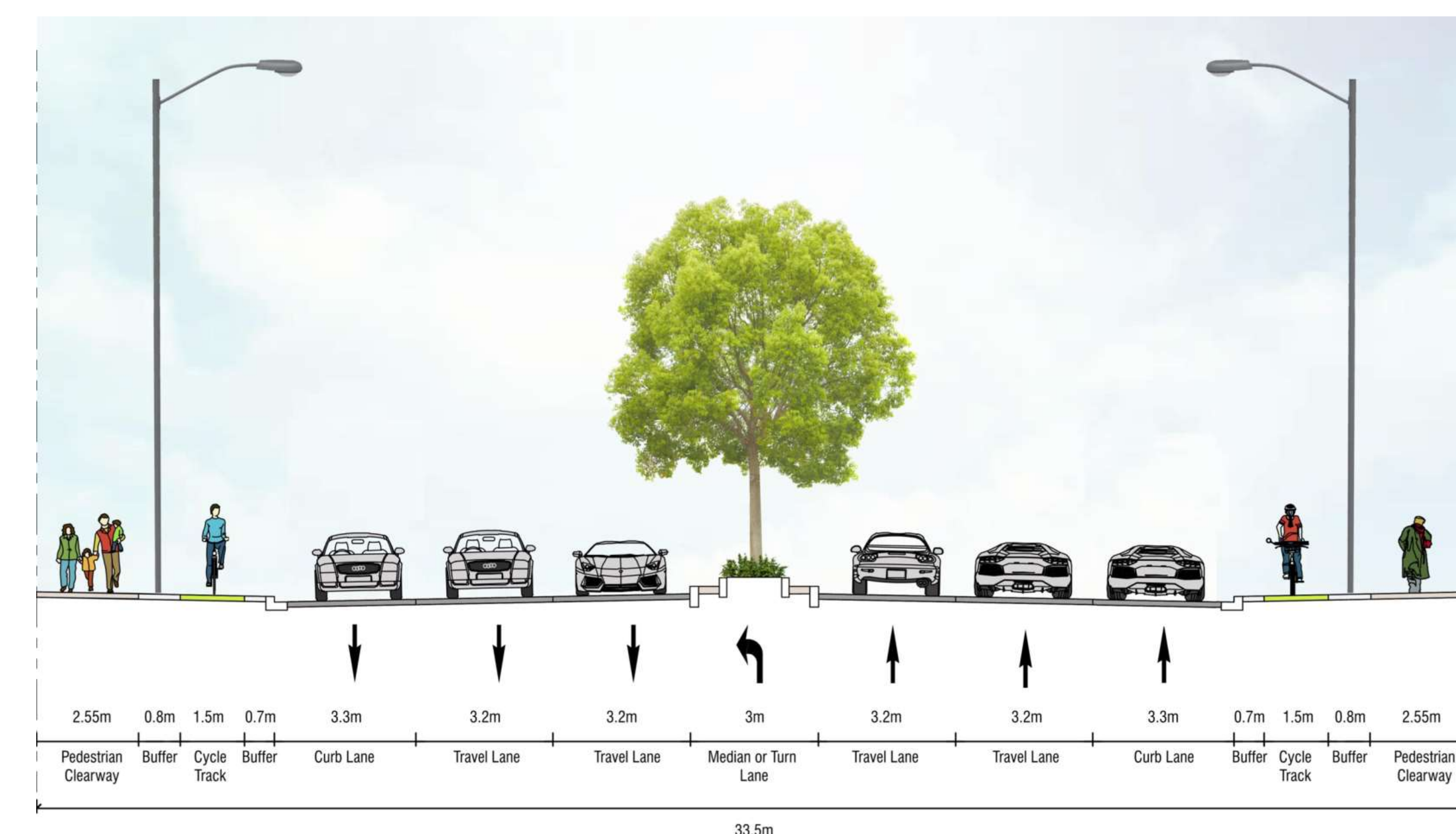
The preliminary preferred design options for Yonge Street are shown here in cross-section. Please also see the plan view on a separate board. The plan includes a reduction of Yonge Street from 6 to 4 lanes north of Sheppard Avenue, two new signalized intersections and extension of the landscaped median.

## Cross Sections

### North of Sheppard Avenue (4B)



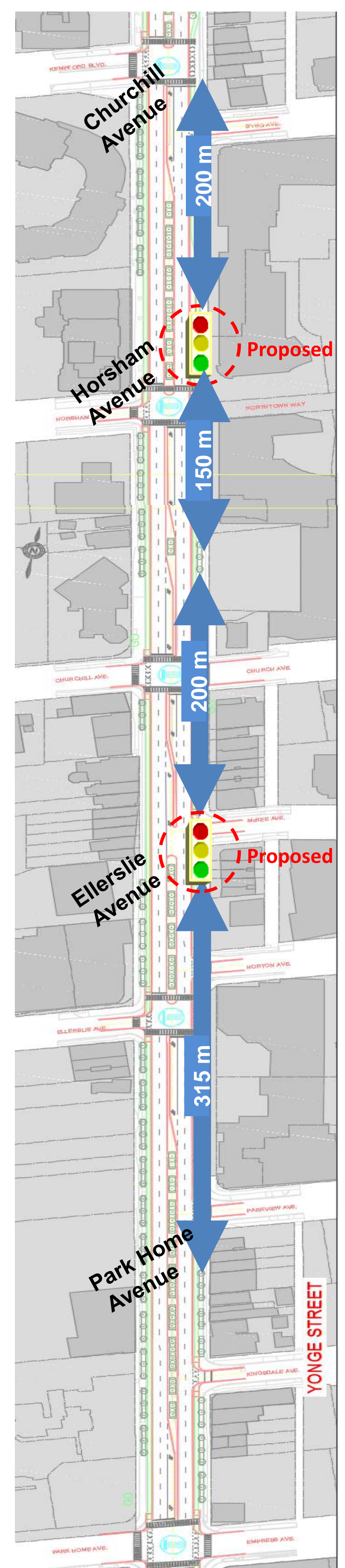
### South of Sheppard Avenue (4A)



Both preliminary preferred design options have a wider curb lane to accommodate buses.

## Two new signalized intersections

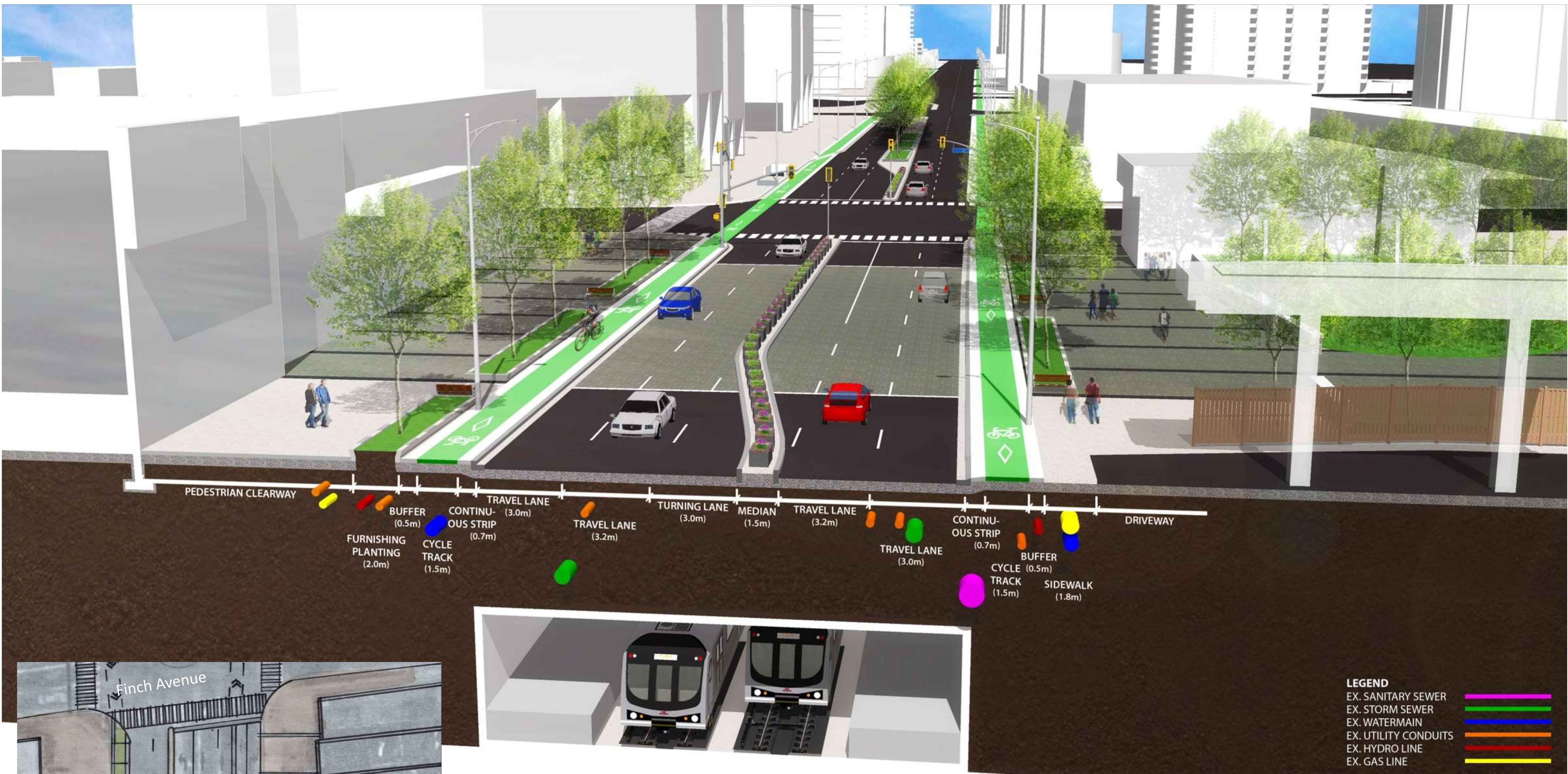
Two intersections are proposed to have traffic signals added – Horsham Avenue and Ellerslie Avenue. This will improve pedestrian access across the street.



*What do you like and/or dislike about the preferred design options? Use a post-it note to let us know.*

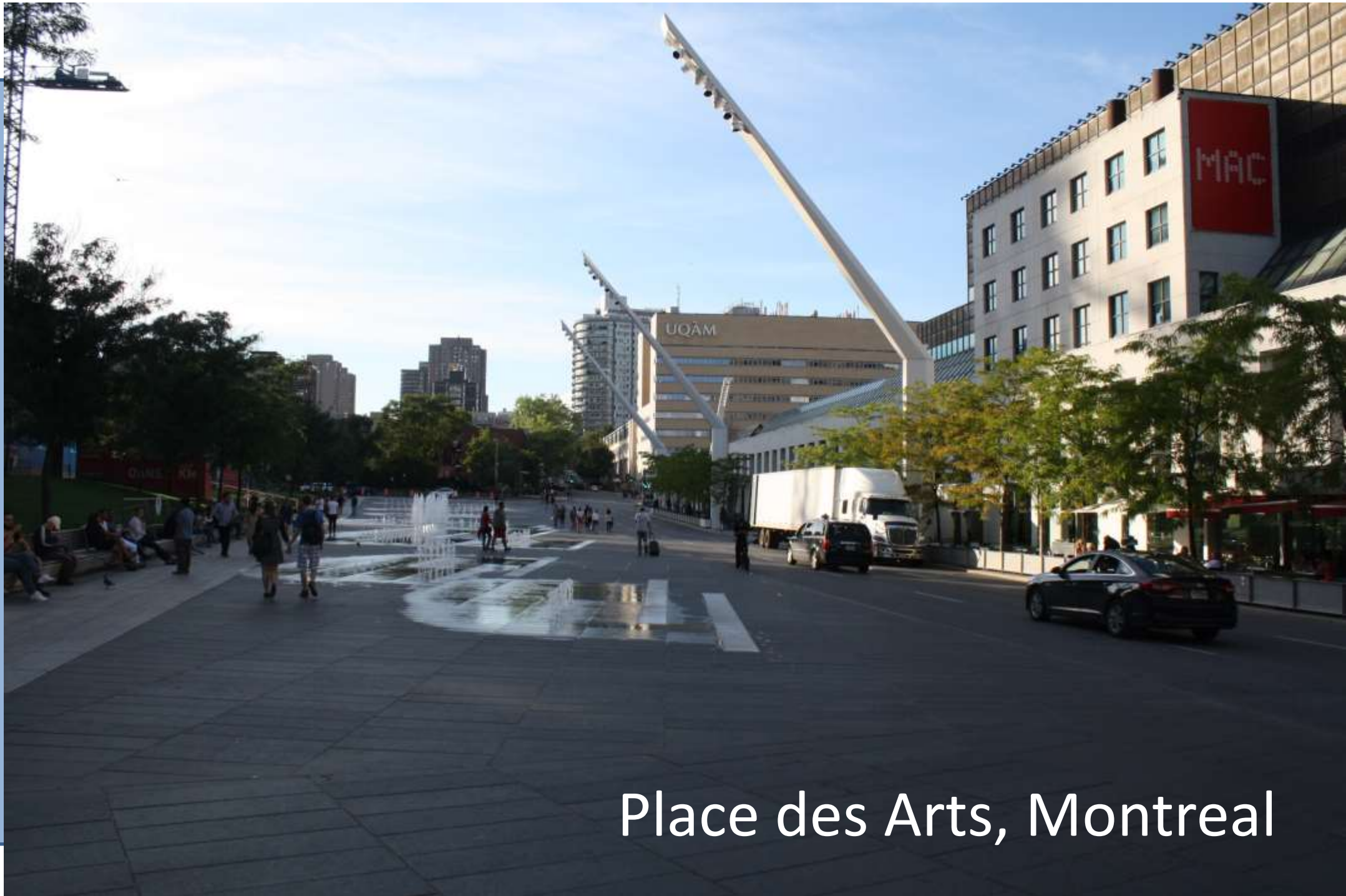
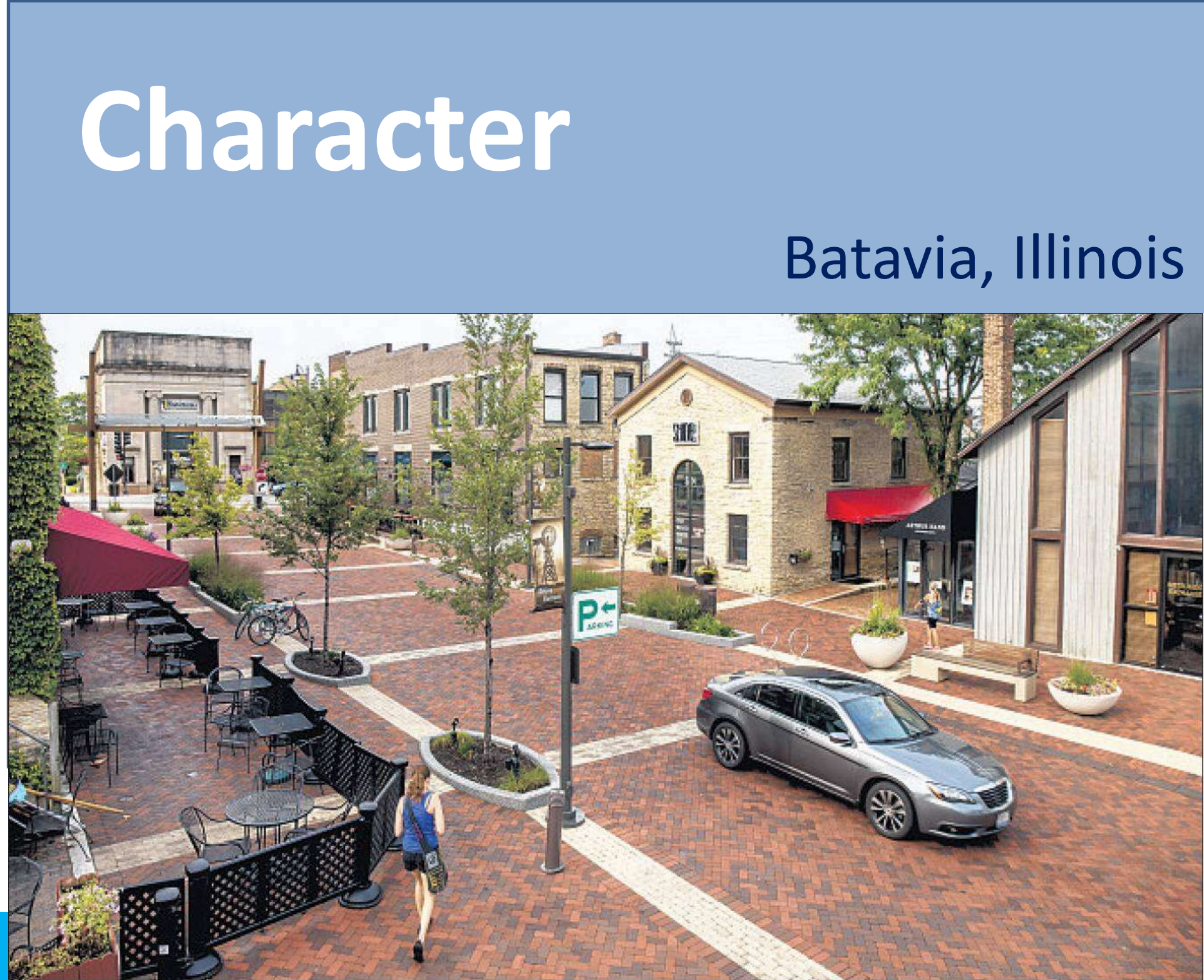


# OPPORTUNITIES TO INTEGRATE PUBLIC SPACES: OLIVE SQUARE



These are concepts only at this point. The design and materials will be defined during the detailed design phase, in order to ensure pedestrian safety and an appropriate maintenance plan.

What do you like and/or dislike? Use a post-it note to let us know.

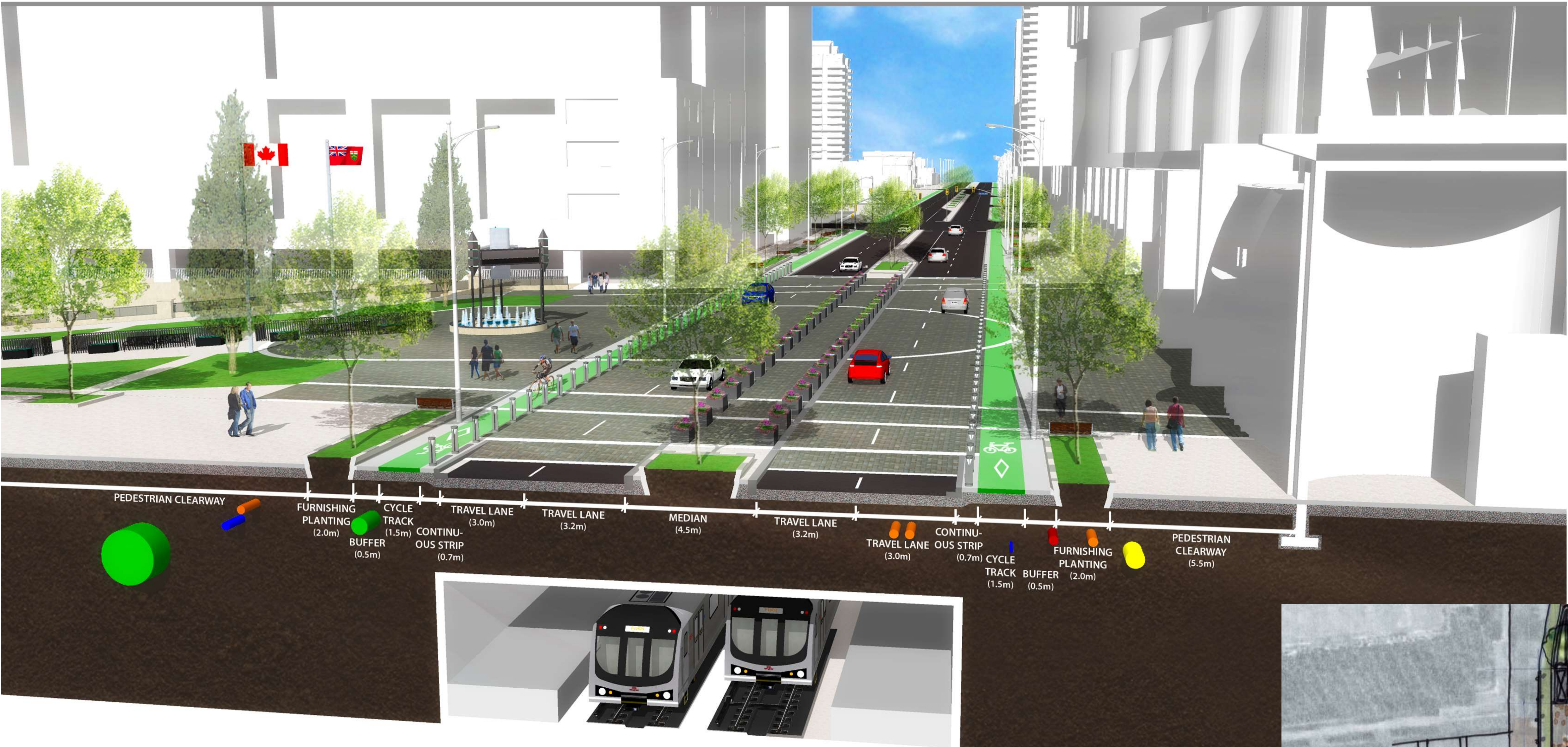




# OPPORTUNITIES TO INTEGRATE PUBLIC SPACES: MEL LASTMAN SQUARE

LEGEND

EX. SANITARY SEWER	
EX. STORM SEWER	
EX. WATERMAIN	
EX. UTILITY CONDUITS	
EX. HYDRO LINE	
EX. GAS LINE	



What do you like and/or dislike? Use a post-it note to let us know.

These are concepts only at this point. The design and materials will be defined during the detailed design phase, in order to ensure pedestrian safety and an appropriate maintenance plan.



## Character

Front Street, Toronto

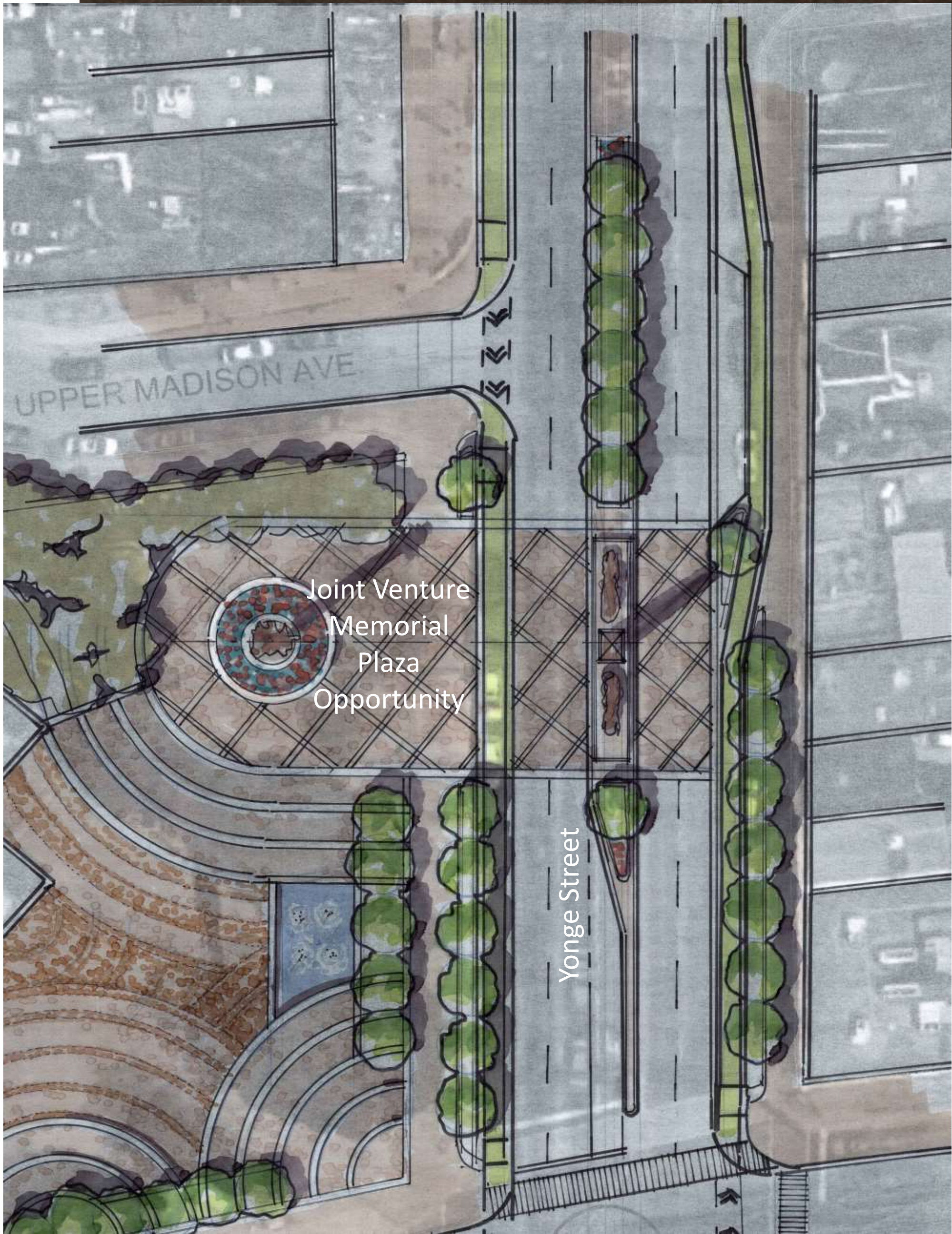
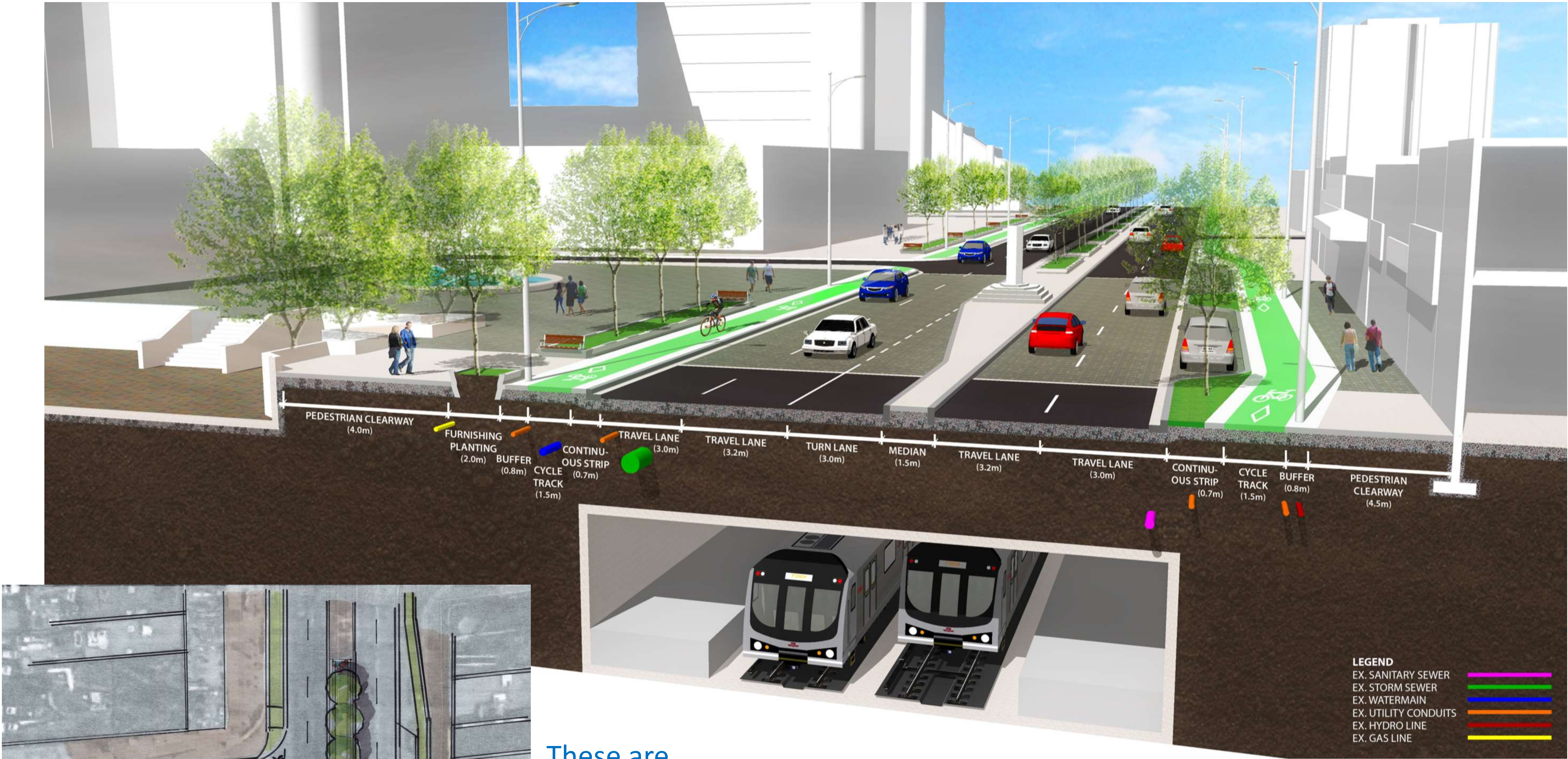


Place des Arts, Montreal





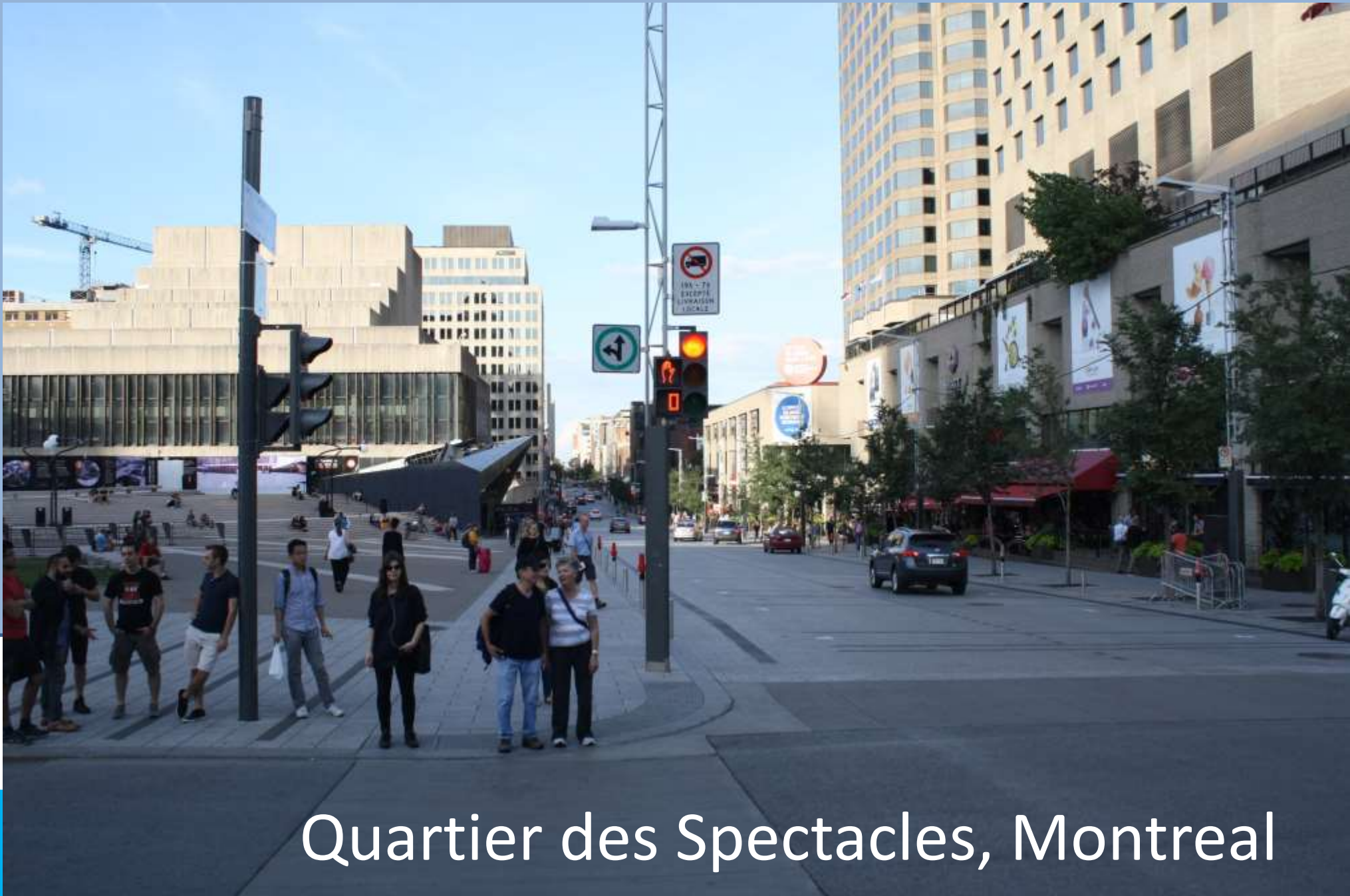
# OPPORTUNITIES TO INTEGRATE PUBLIC SPACES: JOSEPH SHEPARD FEDERAL BUILDING



These are concepts only at this point. The design and materials will be defined during the detailed design phase, in order to ensure pedestrian safety and an appropriate maintenance plan.

What do you like and/or dislike? Use a post-it note to let us know.

## Character



Boulevard Robert-Bourassa, Montreal





# TRAFFIC OPERATIONS STRATEGY

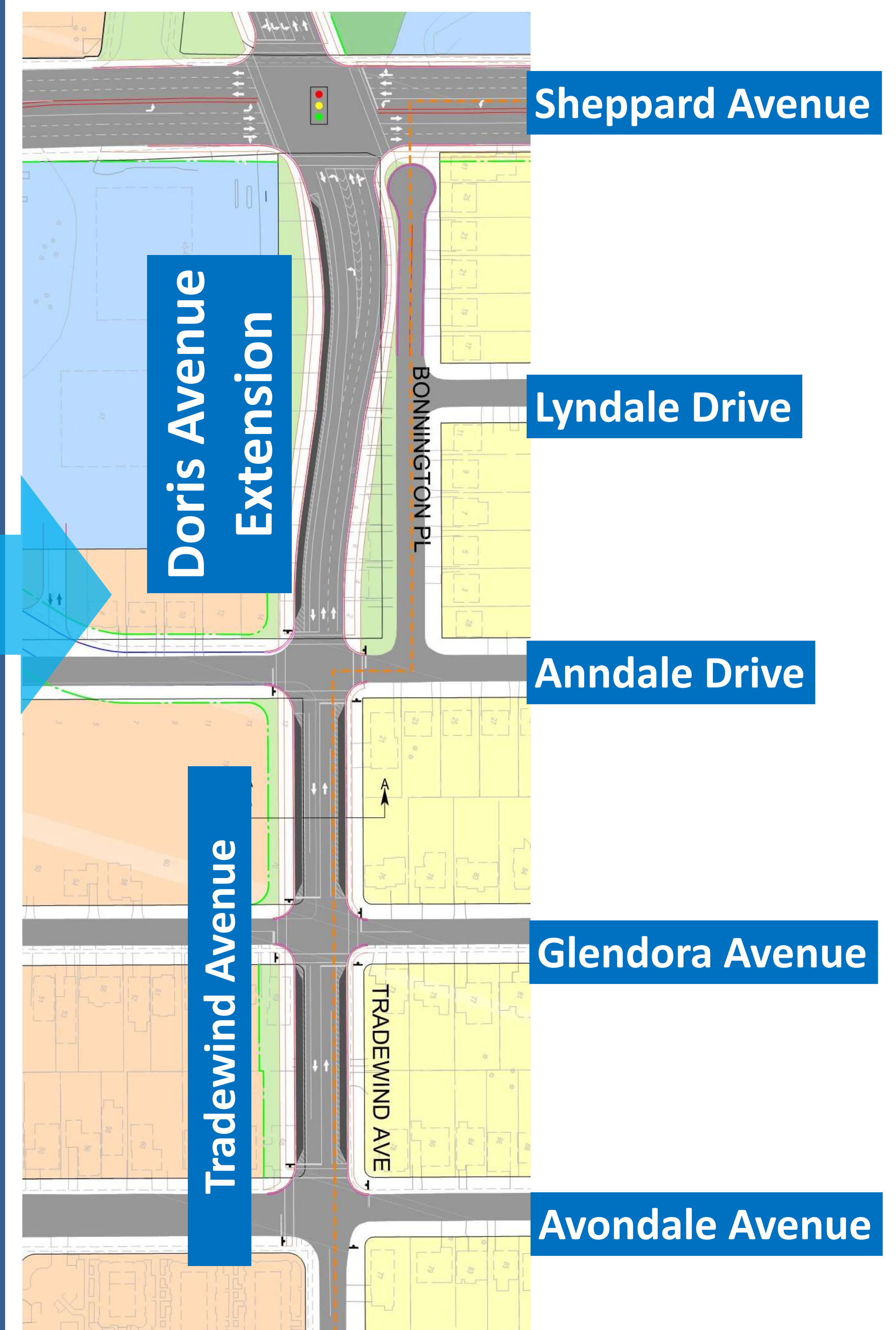
It is essential to implement a traffic operations strategy that keeps traffic moving through the study area, while also providing for the safety of all users. Key elements include signal operations, parking regulations, pavement markings and enforcement.

**Doris Avenue and Beecroft Road** will accommodate more of the traffic flowing through the study area. (A limited amount of traffic will also divert to other parallel streets, like Bayview Avenue, Willowdale Avenue and Bathurst Street.) An operations strategy for Doris Avenue and Beecroft Road will be developed to facilitate their increased role within the North York Centre.

The connection of Doris Avenue to Tradewind Avenue will assist in diverting traffic from Yonge Street. This project is proposed to be completed within the next 5 years.

The operations strategy for Doris Avenue and Beecroft Road will include:

- Adjustments to the periods when parking is permitted on-street, to facilitate greater throughput of traffic
- Addition of left-turn lanes where required and where practical
- Enhanced traffic signal coordination
- Minimizing signalized intersections and pedestrian crossings

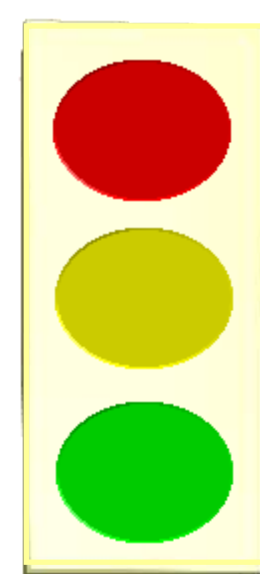


## Pavement Markings

Use of clear zone pavement markings to minimize intersection blockages



Credit: Universal Hub

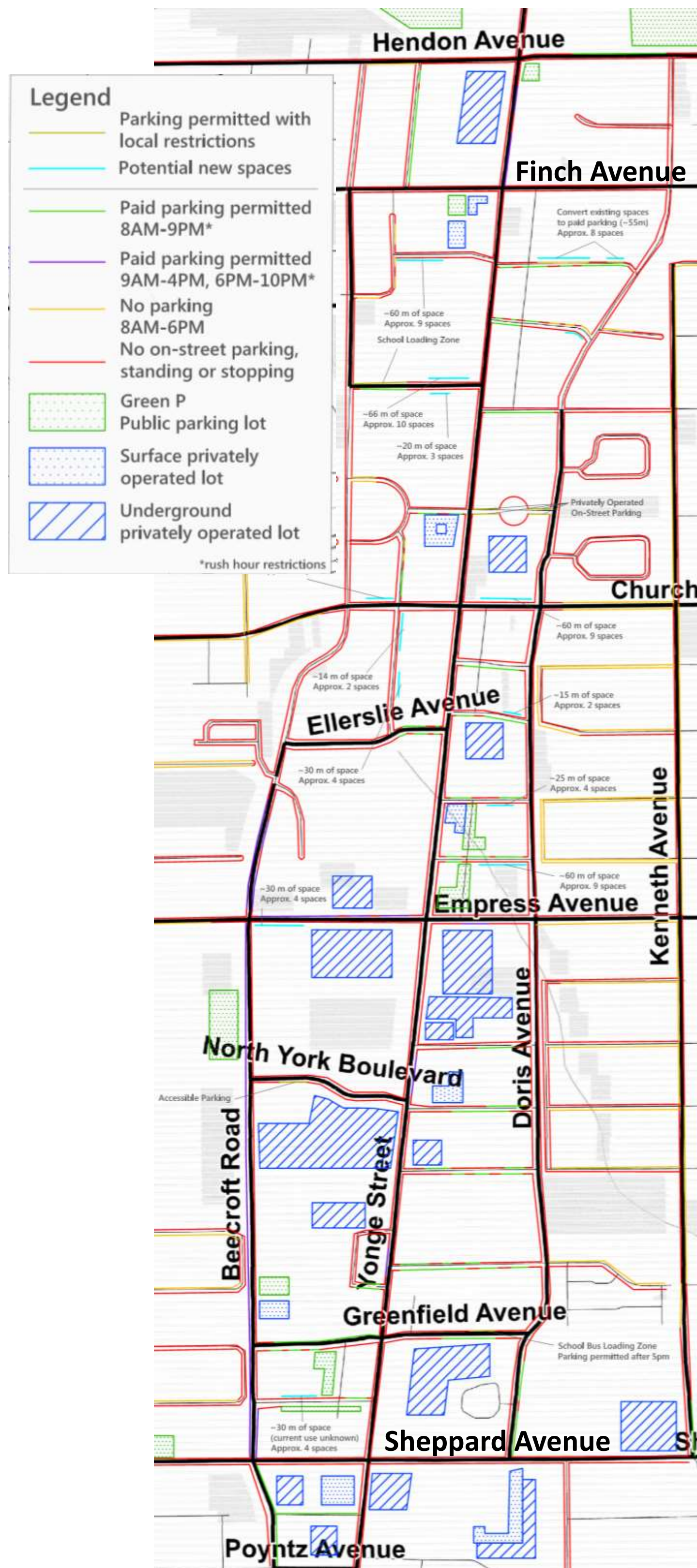


## Signals

- Changes to traffic signal operation/coordination to maximize the throughput of traffic on Yonge Street
- Transit Signal Priority on Finch Avenue and Sheppard Avenue will ensure reliability of east/west TTC buses.
- Prohibition of northbound and southbound left turns from Yonge Street onto Sheppard Avenue allows green time to be reallocated to other movements.



## Proposed New On-Street Parking Locations



Walk times to Yonge Street are 6 minutes or less.(approximately 325 meters).

# PARKING MITIGATION STRATEGY

Currently, only 5% of the total parking supply is located on Yonge Street and some intersecting streets.

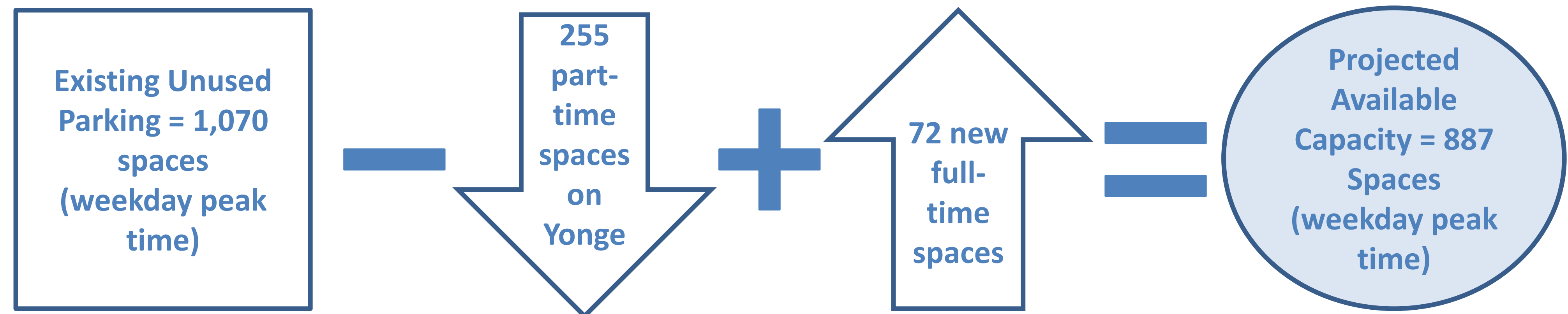
On Yonge Street, there are 255 parking spaces now (only during off-peak times). A reduction from 6 to 4 lanes means that no on-street parking would be provided on Yonge Street.

## Mitigating Measures

There is capacity available during the day for drivers to park in off-street facilities. At peak times, over 1,000 spaces are empty.

72 new on-street parking spaces can be added on side streets. Opportunities to increase parking on Doris Avenue and Beecroft Road could also be considered.

Adding these two numbers gives the following projection of available parking capacity at peak times:



Measures to help drivers find and safely access parking will also be beneficial:

- Consider an integrated electronic parking management system, in which available parking is highlighted to drivers via electronic messaging systems and apps
- Enhanced pedestrian crossings of Beecroft Road and Doris Avenue to facilitate access to the parking on these streets

Increasing use of automated vehicles and ride-share services are also expected to reduce parking demand in future.





# PEDESTRIAN FACILITIES AND BENEFITS

The preliminary preferred design option includes measures to enhance pedestrian access:

- Wider sidewalks
- Existing uneven sidewalks will be addressed
- Additional signalized crossings
- Extension of the median to provide a pedestrian refuge in the middle of the street
- Reduction from 6 to 4 traffic lanes reduces the distance pedestrians must cross

## Typical Intersection (Yonge and Finch)



The design must ensure that pedestrians and cyclists are not in conflict at intersections. An example is shown below.



Boulevard Maisonneuve, Montreal

## Benefits to Pedestrians

- Extension of the median is expected to enhance pedestrian safety when crossing the street
- The narrower road will have additional benefits for pedestrians:
  - Shorter crossing distance (an average of 2.5 meters) resulting in a crossing time reduction of approximately 2 seconds for both north-south and east-west crossing



# CYCLING FACILITIES

The preliminary preferred design option provides a dedicated cycle track on each side of the street. It also includes expanded bike parking.

## Cycle Tracks

Cycle tracks are raised slightly above the traffic lanes, to provide a distinctly separate lane for cyclists



## Bike Parking



Covered bike parking  
at transit stations



Bike-share stations



Additional bike parking  
throughout the study area



# CYCLING CONNECTIONS

The preliminary preferred design option provides a connection to the existing east/west trail north of Finch Avenue, along with other opportunities to connect to the City's Cycling Network Plan. (The connection to the south, across Highway 401, requires further consultation with the Ministry of Transportation.)

## Cycling Network Plan



## Quiet Streets Routes

Designed to create comfortable cycling routes on quieter residential streets. This can include signs, pavement markings, and traffic calming elements. There are several proposed Quiet Street routes within the Focus Study Area:

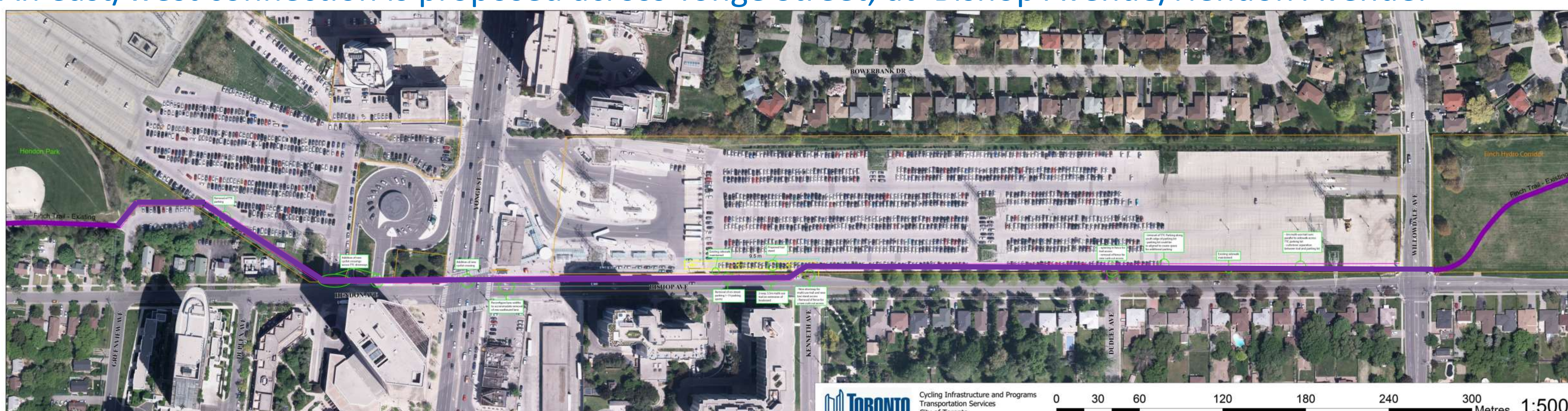
- Churchill Avenue / Church Avenue
  - North York Boulevard / Elmwood Avenue
  - Harlandale Avenue
  - Avondale Avenue / Florence Avenue
- The City is working to implement these changes as part of the project.



Example of a Quiet Street route at Shaw Street and Essex Street, City of Toronto

## Trail Connection north of Finch Avenue

An east/west connection is proposed across Yonge Street, at Bishop Avenue/Hendon Avenue.





# CONSTRUCTION MANAGEMENT STRATEGY

The construction management strategy will be responsive to the role of Yonge Street in the transportation network and in the community. The City of Toronto will work proactively to manage effects on local businesses and residents. The City will establish a **business liaison** during detailed design, and this relationship will continue throughout construction. Public consultation will continue through detailed design.

## Strategy elements:

- Maintain two lanes of traffic per direction as much as possible
- Most or all work would be completed during the day/evening
- Emergency access maintained during construction
- Safe pedestrian access maintained at all times
- Alternative routes for cyclists identified
- Outreach to the community before each stage of work begins
- Access to businesses maintained at all times



## Proposed Construction Stages

Construction is expected to be completed for a few blocks in each phase, following the stages shown below. The construction staging is preliminary and will be confirmed during Detailed Design.

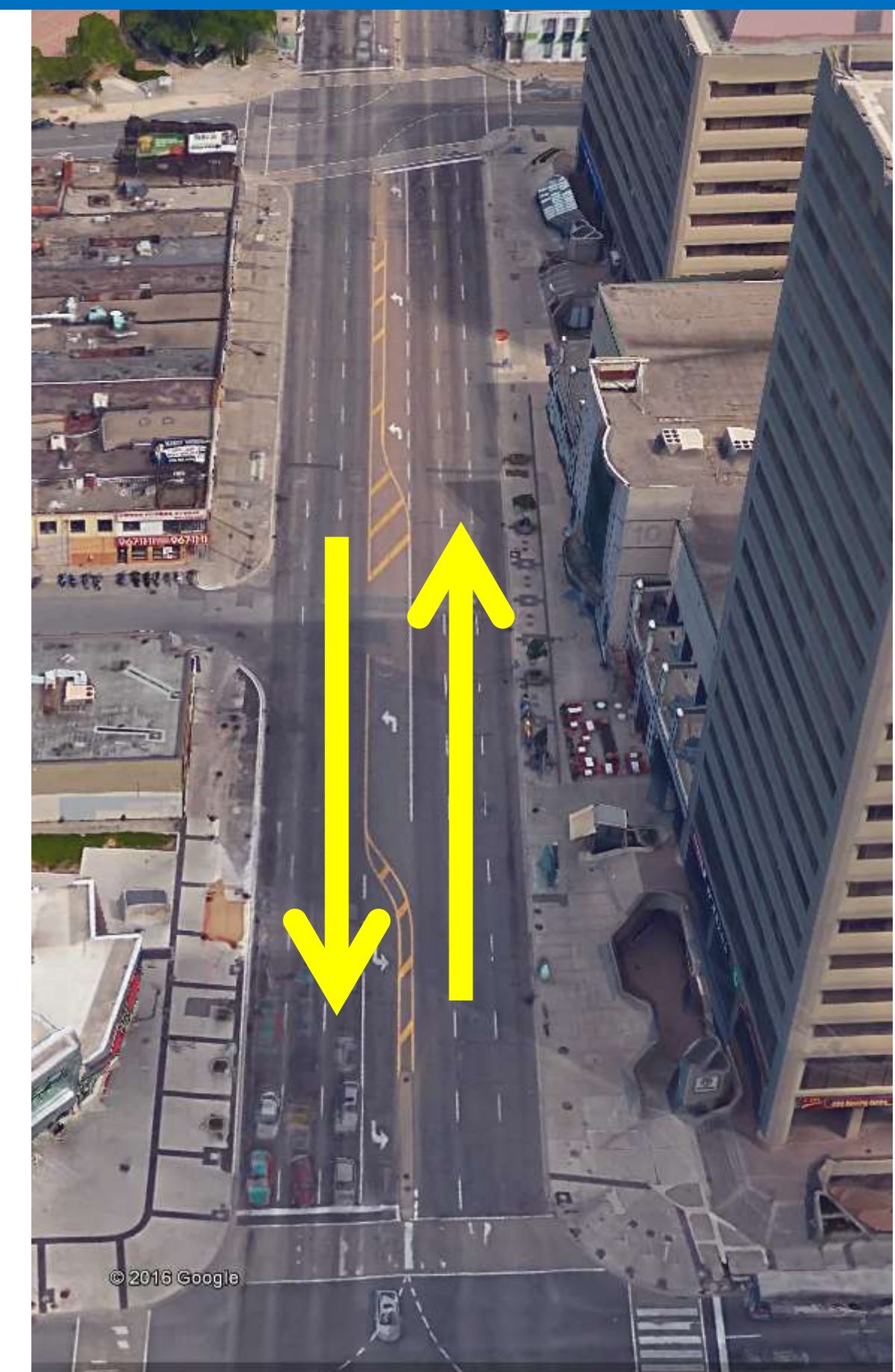
Stage 1: Shift Traffic to East, Reconstruct West Side



Stage 2: Shift Traffic to West, Reconstruct East Side



Stage 3: Re-open Northbound and Southbound Lanes



Construction is anticipated to begin in 2018, pending approvals and allocation of funding.



# POTENTIAL ENVIRONMENTAL EFFECTS AND PRELIMINARY MITIGATION MEASURES

The project team has identified potential issues / concerns and integrated environmental mitigation in the design of the preliminary preferred Design Option. The mitigation will be reviewed and developed in more detail during the next study phase (Detail Design).

Issues / Concerns and Potential Effect	Preliminary Mitigation Measures
Transportation	
Parking	<ul style="list-style-type: none"><li>Introduce on-street parking on side streets where possible.</li></ul>
Emergency Access	<ul style="list-style-type: none"><li>Notify local emergency service providers of construction staging, local detours and start of construction to minimize delay in emergency response times during and after construction.</li></ul>
Traffic Operations	<ul style="list-style-type: none"><li>Adjust / enhance signal timings on Doris Avenue and Beecroft Road to improve traffic progression.</li><li>A preliminary construction staging plan will be prepared to minimize impacts to the road users and ensure a safe work zone during the construction phase.</li><li>Advance signing of the construction zones will be provided.</li></ul>
Utilities	<ul style="list-style-type: none"><li>Ongoing discussions with utility providers to determine potential impacts.</li></ul>
Natural Environment	
Vegetation	<ul style="list-style-type: none"><li>Vegetation removals will be limited to those required for construction.</li><li>All activities, including equipment maintenance and refueling, shall be controlled to prevent entry of petroleum products or other deleterious substances into the natural environment.</li></ul>
Sustainability	<ul style="list-style-type: none"><li>Encourage the use of sustainable materials in the design.</li><li>Apply sustainability principles during Detail Design to encourage a sound, sustainable design.</li></ul>
Cultural Environment	
Archaeological Resources	<ul style="list-style-type: none"><li>If any archaeological resources / materials are encountered during construction, all work should be stopped and appropriate authorities (e.g. Ministry of Tourism, Culture and Sport) will be contacted.</li><li>It is recommended that a licenced archaeologist be on site during all sub-surface excavations within 10m of the Willowdale Cemetery to monitor construction activities.</li></ul>
Socio-Economic Environment	
Air Quality	<ul style="list-style-type: none"><li>Standard construction practices will be employed to minimize dust emissions.</li></ul>
Noise	<ul style="list-style-type: none"><li>Construction activities will be planned so as to abide by local noise bylaws. Noise bylaw exemptions will be sought, if required.</li><li>The Contractor will be required to maintain equipment in good operating condition to prevent unnecessary noise and restrict idling of equipment to the minimum to perform the work.</li></ul>
Waste Management	<ul style="list-style-type: none"><li>The Contractor shall not be permitted to reuse or dispose of any excess materials within the right-of-way unless specified in the contract.</li><li>Waste management shall be completed in accordance with the Environmental Protection Act (1999).</li></ul>
Property	<ul style="list-style-type: none"><li>Minimize access disruptions during construction.</li><li>Minimize nuisance impacts (e.g. noise, air quality) during construction.</li></ul>



# MONITORING PROGRAM TO BE IMPLEMENTED

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The City of Toronto will monitor a number of effects resulting from this project, to help in the planning process for other similar projects.

Effects to be monitored could include:

- Changes in retail and commercial activity
- Collision data (for pedestrians, cyclists and vehicles)
- Parking by time of day
- Transportation mode used by residents and visitors (walking, cycling, transit, driving)



The City will monitor post-construction traffic operations to verify the traffic modelling results and make any necessary adjustments to the network configuration or signal timings.

*Please use a post-it note to tell us what factors you would like to see the City monitor. We value your ideas!*



# NEXT STEPS

## After this Public Open House, the Project Team will:

- Review and respond to comments;
- Meet with stakeholders, external agencies, and the technical advisory committee, as necessary;
- Prepare the Environmental Study Report (ESR);
- City staff will prepare the staff report and present the report to the Public Works and Infrastructure Committee (PWIC) in November;
- Present the staff report to Council for approval in December;
- File the ESR for a 30-day public review period in December 2016 / January 2017; and,
- Initiate the Detailed Design Study in 2017 (dependent on approval of this EA Study).

**THANK YOU  
FOR ATTENDING  
TODAY'S PUBLIC  
OPEN HOUSE**

## STAY CONNECTED

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## Timeline of Upcoming Events



Construction is anticipated to begin in 2018, pending approvals and allocation of funding.

The information presented today will be available online at [www.toronto.ca/reimaginingyonge](http://www.toronto.ca/reimaginingyonge)