REIMAGING YONGE STREET CLASS ENVIRONMENTAL ASSESSMENT

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DEVELOPMENT AND ENHANCEMENT OF SUSTAINABLE URBAN TRANSPORTATION

The Project involves a redesign of Yonge Street, in the North York Centre, to become a complete street for the 21st century. Yonge Street is a major north-south arterial road.

The City of Toronto has a vision for Yonge Street, from Sheppard Avenue to Finch Avenue, as one of its primary promenades – a vibrant urban environment that promotes walking, cycling and safe passage across the street. While the North York Centre has been transforming into a transit-oriented and dynamic mixed-use area, the implementation of the vision for the street has not been fully achieved with this evolution. Inconsistent features, including sidewalks, pedestrian crossings and medians, and the lack of dedicated cycling facilities reduce the appeal of the street as a place for urban activity and present transportation challenges. Despite the opportunity created by the two subway lines and other regional transit services, movement by all modes of transportation continues to be an issue.

This environmental assessment study defined and evaluated opportunities to create an attractive multi-purpose promenade for North York Centre. As intensification proceeds in the Yonge Street area, it is important to define a consistent streetscape, in keeping with this goal and the civic nature of North York Centre. There is a need to re-design Yonge Street so that it functions both as an attractive place for urban activities and a street for the movement of people of all ages by all modes and for all trip purposes including work, school and leisure.

The design has resulted in a proposal for more than 2-kilometres of a re-imagined Yonge Street which includes:

• Dedicated one-way cycle tracks on each side of Yonge Street
• Widened sidewalks, to provide a consistent pedestrian clearway which meets or exceeds the City standard
• Reduction of one travel lane per direction (from a six-lane cross-section to a four-lane cross-section)
• Features to integrate three adjacent public spaces

The REimagining Yonge project contributes to the development and enhancement of sustainable urban transportation in the following ways:

• It provides a practical example of how all transportation modes can be balanced on a major arterial street, taking into account the needs of all stakeholder groups, including business, residents, emergency service providers and parking operators, and making the street safer and more accessible for all - resulting in a healthier environment and promoting active living and greater local economic activity.
• It demonstrates how place-making can be integrated into the design for an arterial street, to enhance the livability of the surrounding area, which supports social activity and equity.
• It demonstrates how planning and design for transportation, urban design and servicing can be integrated into a unified process which makes the end result more achievable, less disruptive to the street and more focused on multimodal mobility and place-making.

• In Toronto, it creates a beachhead or starting point for sustainable transportation in what was formerly a suburban environment. It extends the existing network of off-road bike trails into a route that is focused on commuters as well as recreational cyclists. This beachhead can be the springboard for further sustainability-focused transformations of the area network.

INNOVATION

REimagining Yonge has been innovative in terms of process, in the following ways:

• The entire Class Environmental Assessment process was completed in less than a year, through an innovative approach to decision-making. This approach included a number of collaborative working meetings with representatives of all affected departments, so we could plan the concept taking into account the entire life-cycle, including maintenance and operation needs. Public consultation was also approached via a multi-faceted, proactive program, including interactive design charrettes, outreach displays in buildings on the street, and participation in community events. Highlights of the consultation process and results are attached.

• Servicing and transportation were addressed together, which is an innovation in the Environmental Assessment process. This facilitated greater certainty in the design, leading to greater confidence in presenting results to the public and stakeholders. As the project proceeds into detailed design, this will facilitate faster resolution of issues with reduced risk for construction.

REimagining Yonge has also been innovative in terms of the design:

• It is believed that this is the only six-lane arterial street in Canada to be reworked into a complete street.

• The integration of public spaces into the design is also believed to be unique for an arterial. Illustrations of the public space designs are attached to this submission – for Lastman Square, Olive Square and the plaza in front of the Joseph Sheppard Federal Building.
TRANSFERABLE

Every city in Canada has streets like Yonge Street in North York Centre – an auto-centric street where multiple travel lanes are focused on moving cars efficiently and safely. This was the paradigm for all cities in the post-WWII era. With the very welcome focus on sustainability in the past decade, REimagining Yonge is a concrete demonstration of a paradigm which acknowledges that streets are places for people to live and play, for economic activity and for the natural environment, in addition to moving people.

Any city can take the principles, process and design elements from the REimagining Yonge project and tailor these to their local conditions and objectives. REimagining Yonge is a blueprint for sustainable street design – a key component in healthy communities.

The approach is highly transferable – this is based on a commitment to inclusive decision-making, and incorporation of factors from the outset which will shape the design of the street – specifically underground utilities and urban design.

The evaluation criteria used for the assessment of alternatives are also transferable, and an effective basis for sustainability-focused decisions. These have been designed to specifically address sustainable planning and design issues, through the inclusion of factors such as the means for retention and reuse of water, the assessment of the number of people moved (as opposed to vehicles) and the ability to accommodate future changes in use relating to shared mobility and automated vehicles.

The design includes many reproducible elements which are focused on sustainable mobility – from narrowed travel lanes to manage speed and reduce unnecessary pavement expenditures, to design of pedestrian clearways intended to accommodate vibrant and active street life, and inclusion of a planted median (and more street trees) to improve microclimate for pedestrians and provide additional pedestrian crossing protection.

PERFORMANCE RESULTS TO DATE

There are no performance results to date; the project is currently in detailed design.
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
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*.

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**

<table>
<thead>
<tr>
<th>Option</th>
<th>Cross Section</th>
<th>Number of Lanes</th>
<th>Design Elements</th>
</tr>
</thead>
</table>
| 4A     |               | 6               | • Pedestrian clearway below City guideline  
• Separated bike facility adjacent to traffic lanes  
• Landscaped median between intersections with left turn lanes where needed  
• Balanced sidewalk widths east / west  
• Off-peak parking in curb lanes  
• Maximizes clear space for emergency vehicles |
| 4B     |               | 4               | • Separated bike facility adjacent to traffic lanes  
• Landscaped median between intersections with left turn lanes where needed  
• Balanced wider sidewalk widths east / west  
• No on-street parking |
| 4F     |               | 4               | • Parking bays  
• Separated bike facility adjacent to parking bays  
• Landscaped median between intersections with left turn lanes where needed  
• Wider sidewalks  
• Reduced clear space for emergency vehicles |
| 4G     |               | 4               | • Double row of trees between intersections  
• Separated bike facility between rows of trees  
• Wider sidewalks  
• At intersection approaches, single row of trees only  
• No on-street parking  
• Lane and curb alignment varies significantly |
At the second Public Open House, people provided their feedback on the preliminary preferred alternative – Transform – and design options for Transform.

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.

<table>
<thead>
<tr>
<th>Design Option 4A</th>
<th>Most people did not support the 6 lane option:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Unsafe for pedestrians</td>
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<tr>
<td></td>
<td>- Need wider sidewalks</td>
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<td></td>
<td>- Yonge Street is still dominated by the car</td>
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</table>

<table>
<thead>
<tr>
<th>Design Option 4B</th>
<th>Most people liked 4B:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Pedestrian friendly</td>
</tr>
<tr>
<td></td>
<td>- The landscaped median</td>
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<tr>
<td></td>
<td>- Sidewalk width is good</td>
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<tr>
<td></td>
<td>- Cycle track separation from the pedestrians</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Design Option 4F</th>
<th>Most people liked 4F:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Includes something for everyone (pedestrians, cyclists, motorists)</td>
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<tr>
<td></td>
<td>- Parking bays are a good compromise</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Design Option 4G</th>
<th>Most people did not like 4G:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Snow removal will be difficult based on the tree location</td>
</tr>
<tr>
<td></td>
<td>- Safety concerns removing the median</td>
</tr>
<tr>
<td></td>
<td>- Double row of trees is unnecessary</td>
</tr>
<tr>
<td></td>
<td>- The landscaped median is removed</td>
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</tbody>
</table>
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.

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.

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.
RECAP: PROBLEM AND OPPORTUNITY STATEMENT

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\(^4\)
- Queens Quay, Toronto saw an increase of **888%** in cyclists along the corridor after the installation of a cycle track\(^4\)

**Safety**
- Highway 7 in Markham - a 64% drop in collisions\(^4\)
- Richmond and Adelaide Streets cycle track – comfort and safety of cyclists increased significantly\(^4\)

**Sustainability and Air Quality**
- Highway 7 - 10% transit ridership increase\(^4\)
- Davenport Rd, Waterloo - 300 new trees will absorb 7,000 kg of CO\(_2\) annually\(^4\)

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

Sources:

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Bloor Street
John Street
Queens Quay
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.

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
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

<table>
<thead>
<tr>
<th>Utility</th>
<th>Major Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewers</td>
<td>Raising/Lowering Manholes</td>
</tr>
<tr>
<td>Water</td>
<td>Raising/Lowering Valve Chambers and Relocation of Hydrants</td>
</tr>
<tr>
<td>Hydro</td>
<td>Raising/Lowering Vault Access and Relocation of Handwells</td>
</tr>
<tr>
<td>Telecom</td>
<td>Raising/Lowering Chambers</td>
</tr>
<tr>
<td>Gas</td>
<td>No Major Impacts Anticipated</td>
</tr>
<tr>
<td>TTC Subway</td>
<td>No Major Impacts Anticipated</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Accessibility, Mobility &amp; Transportation Infrastructure</th>
<th>Natural Environment</th>
<th>Cycling and Walking</th>
<th>Cultural Heritage &amp; Built Heritage Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Promotes effective movement of people and goods</td>
<td>• Maximizes opportunity for street tree planting in optimized urban condition that provides for the long term health of the trees</td>
<td>• Ability to introduce new cycling facilities</td>
<td>• Impacts on built heritage resources</td>
</tr>
<tr>
<td>• Transportation network capacity</td>
<td>• Safety for users</td>
<td>• Ability to improve pedestrian facilities</td>
<td>• Impacts on cultural heritage landscapes</td>
</tr>
<tr>
<td>• Parking capacity</td>
<td>• Effect on emergency services</td>
<td></td>
<td></td>
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<tr>
<td>• Intersection operations and Transportation efficiency</td>
<td>• Adherence to City design standards and guidelines for transportation facilities</td>
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<td></td>
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<tr>
<td>• Safety for users</td>
<td>• Accessibility (Compliance with City’s Accessibility Standards and provincial guidelines)</td>
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<table>
<thead>
<tr>
<th>Constructability &amp; Utilities</th>
<th>Costs</th>
<th>Planning: Vision and Identity</th>
<th>Opportunities for Design Excellence</th>
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</thead>
<tbody>
<tr>
<td>• Transit, pedestrian, road, and bike mobility through the study and duration of disruption for each mode</td>
<td>• Construction costs</td>
<td>• Supports Yonge Street’s role as a special public space</td>
<td>• Percentage of the right-of-way dedicated to public realm uses such as pedestrian facilities, public art, and street furniture</td>
</tr>
<tr>
<td>• Number of construction stages and duration</td>
<td>• Life cycle costs</td>
<td>• Encourages vibrant, mixed-use development</td>
<td>• Supports design excellence of infrastructure and streetscape. Enhances the attractiveness of urban environment and creates place-making opportunities</td>
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<tr>
<td>• Number and scale of existing utilities affected</td>
<td>• Maintenance/operational costs for:</td>
<td>• Effects on business (e.g., retail)</td>
<td>• Supports integration with public spaces</td>
</tr>
<tr>
<td>• Potential utility conflicts</td>
<td>- Roadway</td>
<td>• Impacts to Private Property</td>
<td>• Wind / Pedestrian comfort / Microclimate</td>
</tr>
<tr>
<td>• Effects on business during construction</td>
<td>- Enhanced streetscape and canopy trees</td>
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<td></td>
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<td></td>
<td>- Winter maintenance</td>
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### DESIGN OPTIONS EVALUATION RESULTS

#### Greater Impact / Least Benefits
- Design Option 4B: north of Sheppard Avenue and south of Design Option 4A
- \[ \text{Summary} \]

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### Category / Criteria

<table>
<thead>
<tr>
<th></th>
<th>Option 4A</th>
<th>Option 4B</th>
<th>Option 4F (parking bays)</th>
<th>Option 4G</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility, walkability and transportation</td>
<td></td>
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<tr>
<td>Pedestrian clearways</td>
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<tr>
<td>Footpath width</td>
<td></td>
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<td></td>
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<tr>
<td>Footpath surface</td>
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<tr>
<td>Separation from vehicles</td>
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<tr>
<td>Level of pedestrian safety</td>
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<tr>
<td>Level of pedestrian comfort</td>
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<tr>
<td>Level of pedestrian convenience</td>
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</table>

#### Legend
- Greater Impact / Least Benefits
- Less Impact / Most Benefits

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### Footnote

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

Victoria & Albert Museum, London

Character

Boulevard Robert-Bourassa, Montreal

Quartier des Spectacles, 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

**Signals**

- Changes to traffic signal operation/co-ordination 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.
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:

![Parking Mitigation Strategy Diagram]

**Existing Unused Parking**
- 1,070 spaces (weekday peak time)

**Projected Available Capacity**
- 887 Spaces (weekday peak time)

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.
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.

**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
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
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**

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.

**Quiet Streets Routes**

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).

<table>
<thead>
<tr>
<th>Issues / Concerns and Potential Effect</th>
<th>Preliminary Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
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<tr>
<td>Parking</td>
<td>• Introduce on-street parking on side streets where possible.</td>
</tr>
<tr>
<td>Emergency Access</td>
<td>• 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.</td>
</tr>
</tbody>
</table>
| Traffic Operations                   | • Adjust / enhance signal timings on Doris Avenue and Beecroft Road to improve traffic progression.  
• 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.  
• Advance signing of the construction zones will be provided. |
| Utilities                            | • Ongoing discussions with utility providers to determine potential impacts. |
| **Natural Environment**              |                                 |
| Vegetation                           | • Vegetation removals will be limited to those required for construction.  
• All activities, including equipment maintenance and refueling, shall be controlled to prevent entry of petroleum products or other deleterious substances into the natural environment. |
| Sustainability                       | • Encourage the use of sustainable materials in the design.  
• Apply sustainability principles during Detail Design to encourage a sound, sustainable design. |
| **Cultural Environment**             |                                 |
| Archaeological Resources             | • 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.  
• 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. |
| **Socio-Economic Environment**       |                                 |
| Air Quality                          | • Standard construction practices will be employed to minimize dust emissions. |
| Noise                                | • Construction activities will be planned so as to abide by local noise bylaws. Noise bylaw exemptions will be sought, if required.  
• 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. |
| Waste Management                     | • The Contractor shall not be permitted to reuse or dispose of any excess materials within the right-of-way unless specified in the contract.  
• Waste management shall be completed in accordance with the Environmental Protection Act (1999). |
| Property                             | • Minimize access disruptions during construction.  
• Minimize nuisance impacts (e.g. noise, air quality) during construction. |
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!
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).

Timeline of Upcoming Events

- Staff prepare report for Public Works and Infrastructure (PWIC)
- Report to Public Works and Infrastructure Committee
- Report to Council
- Complete the final environmental study report (30 day review period)
- Initiate and proceed to detail design

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