

## Attachment 4 2018 Comparison of "Transform Yonge" and "Enhance Yonge Transform Beecroft"

The "Enhance Yonge and Transform Beecroft" alternative solution was compared with the Stage 1 preliminary preferred alternative solution "Transform Yonge" to determine the preferred overall alternative:

1. Transform Yonge: full reconstruction of Yonge Street - reduction of travel lanes from six lanes to four lanes from Sheppard Avenue to Hendon Avenue/Bishop Avenue, wider boulevards, enhanced landscaped median, introduction of cycle tracks, integration with public spaces, wider sidewalks and enhanced pedestrian crossings to improve safety
2. Enhance Yonge and Transform Beecroft: full reconstruction of Yonge Street and Beecroft Road - addition of cycle tracks on Beecroft Road and reconstruction of Yonge Street with six travel lanes and some improvements to the sidewalks and road safety

A summary of how well each of the alternatives meets the objectives of the study, based on the problem/opportunity statement established early in the EA process, is provided below:

### *Does it create a vibrant urban environment?*

While both alternatives support a vibrant urban environment on Yonge Street by providing improved sidewalks and road safety, opportunities to enhance public spaces, and a north-south cycling facility in North York Centre, the "Transform Yonge" alternative provides the best support for vibrancy through wider sidewalks, and public realm enhancements on Yonge Street. In addition, the "Transform Yonge" alternative provides better opportunities to integrate with important public spaces along Yonge Street such as Mel Lastman Square.

The "Enhance Yonge and Transform Beecroft" alternative supports vibrancy by providing a more consistent streetscape for pedestrians on Yonge Street but with less space for public realm improvements. Limited sidewalk widenings on Yonge Street and Beecroft Road can be implemented, where possible.

### *Does it support mobility for all users?*

With much of the road network operating close to capacity, choosing to expand transportation choices is the preferred strategic direction. The "Transform Yonge" alternative best meets this goal, by creating a multimodal Yonge Street, accommodating cyclists and pedestrians close to their destinations including the subway. More sidewalk space will better serve people accessing TTC and GO buses. With the implementation of mitigating measures, traffic operations are anticipated to be manageable with the "Transform Yonge" alternative.

## **Pedestrian Impacts**

Measures are provided in both alternatives to improve safety on Yonge Street such as two new signalized crossings at Horsham Avenue and Ellerslie Avenue, an extended median which provides a pedestrian refuge and eliminates left-turns to/from unsignalized intersections (thereby reducing the number of collisions at these locations) and narrower side street crossings.

"Transform Yonge" would provide additional safety features such as wider sidewalks and shorter east/west crossing distances on Yonge St for pedestrians.

The "Enhance Yonge and Transform Beecroft" alternative provides less sidewalk width for pedestrian movement on Yonge Street.

## **Cycling Impacts**

The "Transform Yonge" alternative includes a cycling facility on Yonge Street providing easy access to key destinations in the North York Centre.

The "Enhance Yonge and Transform Beecroft" alternative includes a cycling facility on a parallel corridor (Beecroft Road) within a reasonable distance of Yonge Street (ranging from approximately 180 m to 280 m). East-west cycling connections between Beecroft Road and Yonge Street would be required with this alternative. Cycle tracks on Yonge Street or Beecroft Road could connect to existing and planned facilities as follows:

- Finch Hydro Corridor Multi-Use Trail Extension - an important multi-use trail that extends east-west across North York in Toronto.
- Willowdale Avenue - as identified in the Cycling Network Plan, bicycle lanes are proposed for Willowdale Avenue between Sheppard Avenue and Steeles Avenue.

Other Connections - The connection south of the study focus area, across Highway 401 requires further consultation with the Ontario Ministry of Transportation. Other connections to be considered include a north-south cycling facility on the future extension of Beecroft Road from Hendon Avenue to Steeles Avenue West. York Region proposes to introduce dedicated cycling facilities on Yonge Street north of Steeles Avenue.

## **Traffic Impacts**

Multi-modal transportation modelling using Aimsun was carried out based on the City's 2011 and 2031 planning horizon to assess the impact of the proposed changes to the study area. Analysis was undertaken to test alternatives against existing and future baseline 2031 conditions with various scenarios modelled for each alternative.

All traffic modelling scenarios were developed in consultation with the TTC and GO Transit and account for future planned service changes. The "Enhance Yonge and Transform Beecroft" alternative maintains the existing road network and travel lanes and as such, would operate similar to a "do nothing" scenario.

Detailed modelling of traffic conditions at horizons 2021 and 2031 indicate that only minimal changes to the network performance are expected with either the "Transform Yonge" and "Enhance Yonge and Transform Beecroft" alternatives. Performance measures for each alternative including change in travel time and change in average speed are shown in Table 1.

Performance Measure	Year	TRANSFORM YONGE			ENHANCE YONGE & TRANSFORM BEECROFT		
		Beecroft	Yonge	Doris	Beecroft	Yonge	Doris
Change in Travel Time * (Finch – Sheppard)  (minutes)	2021	+1	+1	+1	+1	+1	+1
	2031	+1	+2	+1	+1	+1.5	+1
Change in Average Speed in North York Centre*  (km/h)	2021	-1			-1		
	2031	-2			-1		
*AM peak period results are shown. Impacts for AM peak are more significant than PM peak.							

Table 1 - Results of performance measures for each alternative

The "Transform Yonge" alternative would involve a reduction in the existing traffic capacity however, traffic modelling demonstrates that the 2031 conditions with four lanes on Yonge Street are expected to be similar to the 2031 future background conditions (six lanes), particularly once optimized through the application of mitigation measures to improve traffic operations as described in the following section. The alternatives perform in a similar way for the following reasons:

- Much of the traffic delay occurs south of Sheppard Avenue where the number of traffic lanes is the same for both alternatives;
- There is unused capacity on the service roads Doris and Beecroft and on parallel arterial and collector streets. Some traffic will divert to Doris, Beecroft, Bathurst, Bayview or further away, balancing performance across the network;
- Planned development is the key factor influencing future traffic conditions in this area and traffic volumes are expected to increase by 3% in 2021 and 9% in 2031 due to population and employment growth; and

- Under Transform Yonge, some GO bus stops would be consolidated, minimizing the impact of passenger loading and unloading activities.

The "Enhance Yonge and Transform Beecroft" maintains the existing capacity on both Yonge Street and Beecroft and better supports the movement of vehicles. To ensure that future traffic operations continue to operate under satisfactory conditions with both the "Transform Yonge" and "Enhance Yonge and Transform Beecroft" alternatives, a number of key recommendations for traffic operations improvements are being made that can be grouped under three key initiatives as follows:

1. Improving traffic operations on Yonge Street;
2. Improving traffic operations on the service roads; and
3. Improving the connections to/from the service roads.

Such initiatives could be implemented for either alternative in both the near-term and long-term.

### **Curbside Activity**

The "Transform Yonge" alternative would require the removal of loading activities/deliveries, including pick-up/drop-off on Yonge Street. However, through detailed design, opportunities to include lay-bys for on-street parking will be explored (see Figure 1 for potential lay-by locations below). Further, rear laneways are currently available behind most businesses along Yonge Street to accommodate loading activities/deliveries. Where development has recently occurred on Yonge Street, on-site loading facilities have been secured by the City as part of the development process. Pick-up/drop-off activities can be accommodated on the side streets, and at strategic lay-by locations along Yonge Street.

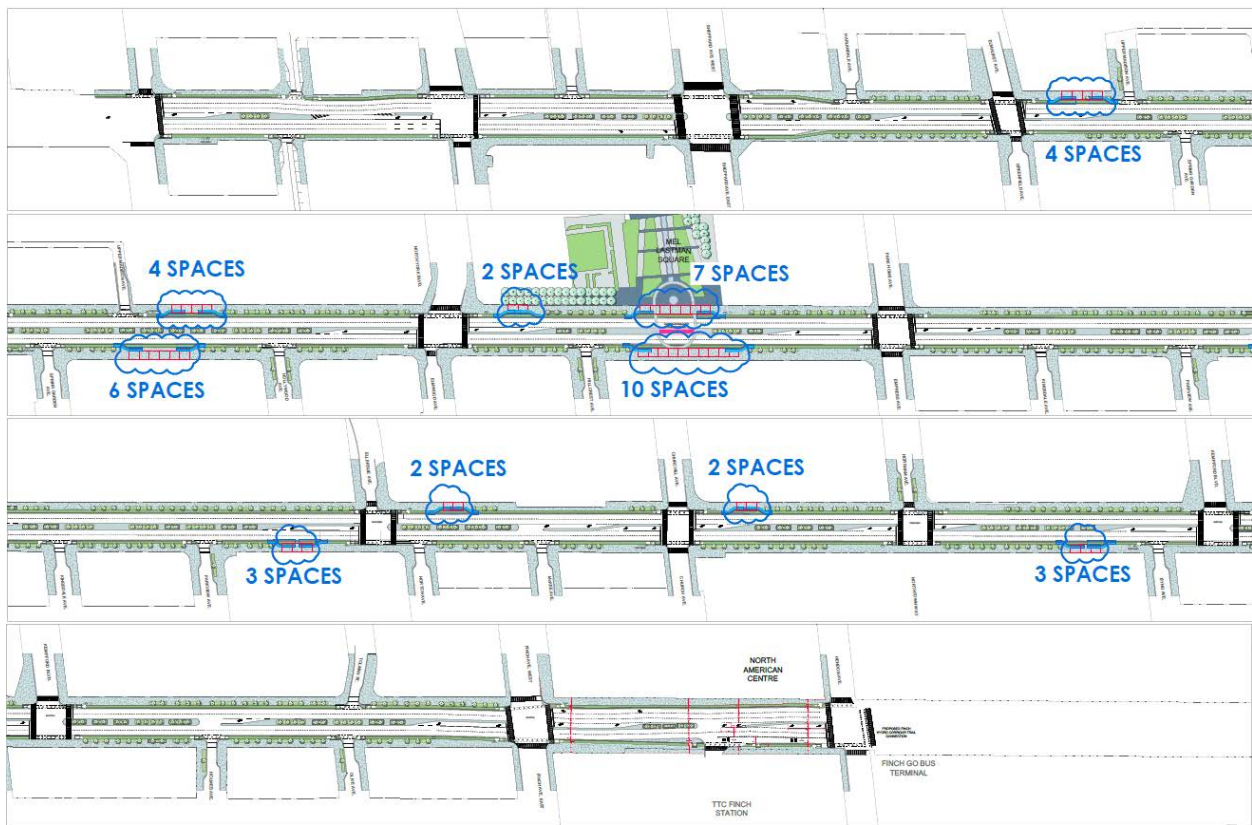


Figure 1: Potential on-street lay-by locations

The "Enhance Yonge and Transform Beecroft" maintains curbside activity allowing for loading activities/deliveries, including pick-up/drop, to occur from Yonge Street.

### *Parking*

The "Transform Yonge" alternative would result in the removal of up to 255 on-street parking spaces on Yonge Street (number of spaces depend upon on-street lay-by opportunities). To offset the removal of these parking spaces, 330 new on-street parking spaces would be introduced, primarily focused on the side streets and the North York service roads. This would increase the overall on-street parking supply in the study area by 75 spaces.

The "Enhance Yonge and Transform Beecroft" alternative does not result in any loss of parking. Additional full-time parking could be provided on side streets, and off-peak parking on Beecroft Road and/or Doris Avenue.

### *Does it create an attractive and consistent streetscape?*

The "Transform Yonge" alternative provides more opportunities for improving the streetscape on Yonge Street, creating an attractive pedestrian promenade with more street trees. There are no impacts to the streetscape on Beecroft Road with this alternative.

While the "Enhance Yonge and Transform Beecroft" alternative would result in an improved streetscape on Yonge Street, there would be fewer opportunities for wider sidewalks and street trees. There would be minimal improvements to the streetscape on Beecroft Road with this alternative. Removal of approximately 170 trees would be required on Beecroft Road but could be replaced at other locations within the community.

*Does it support economic activity?*

The "Transform Yonge" alternative creates a more attractive environment for ground-floor businesses by providing opportunities for restaurant patios and outdoor cafes that enhance vibrancy and attract more customers.

The "Enhance Yonge and Transform Beecroft" alternative provides minimal support for economic activity through the reconstruction of Yonge Street. While it maintains existing traffic capacity it does not offer other supports for business.

*How do the costs compare?*

The "Transform Yonge" alternative involves reconstruction of Yonge Street only. The estimated preliminary cost of the "Transform Yonge" alternative is \$51.1 million.

The "Enhance Yonge and Transform Beecroft" alternative includes a full reconstruction of both Yonge Street and Beecroft Road. The estimated preliminary cost of the "Enhance Yonge and Transform Beecroft" alternative is \$71.0 million.

## **Property and Construction Impacts**

There are no impacts on private property associated with the "Transform Yonge" alternative.

The "Enhance Yonge and Transform Beecroft" alternative does not result in any property impacts on Yonge Street. On Beecroft Road, there are no impacts on private property from Poyntz Avenue to Finch Avenue. Beecroft Road extends north of Finch Avenue as Greenview Avenue. This section, between Finch Avenue and Hendon Avenue, requires acquisition of five properties in order to accommodate the cross-section of the "Enhance Yonge and Transform Beecroft" alternative. The North York Centre Secondary Plan indicates a future extension of Beecroft Road to Drewry Avenue to complete the North York Centre North Service Road.

*How do the construction impacts compare?*

The "Transform Yonge" alternative includes a shorter construction duration. Reconstruction of Yonge Street is anticipated to be approximately two years.

With the "Enhance Yonge and Transform Beecroft" alternative, the duration of construction would be extended to up to four years with Yonge Street being reconstructed first followed by the reconstruction of Beecroft Road. This alternative

would impact traffic operations over a longer period and delay the introduction of cycling facilities in North York Centre.

## **Overall Recommendation**

Based on how each alternative addresses the objectives of the study and using the updated evaluation criteria and input received from the public and other stakeholders, two alternatives were identified as viable alternatives through the EA process.

While the "Enhance Yonge and Transform Beecroft" alternative is a viable option for addressing the study objectives, "Transform Yonge", identified during the Stage 1 phase of study, is being recommended as the overall preliminary preferred alternative as it:

- facilitates efficient movement of people, public transit, and general traffic through better utilization of North York Centre's road network;
- improves safety and reduces the number of people who are killed and seriously injured on the street in keeping with the City's Vision Zero Road Safety Plan;
- improves vibrancy of the streetscape in keeping with the economic importance of North York Centre; and
- addresses state-of-good repair along the corridor.

The "Transform Yonge" alternative will significantly enhance the public realm on Yonge Street, maintain adequate traffic operations, is the least costly of the two alternatives, and can be implemented over a shorter timeframe.

The estimated capital cost of constructing the secondary alternative "Enhance Yonge and Transform Beecroft" is \$85.2 million, including \$58.8 million for Yonge Street and \$26.4 million for Beecroft Road. The estimated cost includes detailed design, municipal servicing and utility relocations for both Yonge Street and Beecroft Road, as well as property acquisition costs associated with properties on the west side of Greenview Avenue.

A rendering of the preliminary preferred design for "Transform Yonge" in the vicinity of the Joseph Shepard Federal Building is shown below.

