IE19.11

REPORT FOR ACTION

yongeTOmorrow: Municipal Class Environmental Assessment on Yonge Street from Queen Street to College/Carlton Street

Date: December 18, 2020
To: Infrastructure and Environment Committee
From: General Manager, Transportation Services
Wards: 10 - Spadina Fort York, 11 - University Rosedale, 13 - Toronto Centre

SUMMARY

Yonge Street is Toronto's most iconic street and it plays a symbolic role in the cultural identity of Toronto. The section between Queen Street and Carlton / College Street has a distinct character within the broader downtown context – it has a high concentration of pedestrians, street-related retail, and entertainment uses. This area attracts a large number of events, visitors, and tourists.

While the number of pedestrians on Yonge Street has somewhat lessened during the COVID-19 pandemic, in the last several years, Yonge Street has been struggling to serve the growing pedestrian demand which has resulted from more people living and working downtown. There is overcrowding and insufficient clearway on some sections of sidewalk. The number of pedestrians on the street is expected to continue to grow due to a projected doubling in population and employment in the surrounding area by 2041 along with a continued mode shift towards walking. Without improvement, the sidewalks will become critically deficient, risk pedestrian safety, and deter significant economic and cultural investment.

Yonge Street also lacks space for seating, sidewalk cafes, and plantings which support enjoyment of the street as a destination. With a limited right-of-way of 20 metres there are many demands being placed on the street by people walking, cycling, and driving. Prioritization and management of the interactions between all modes **is** critical. Consideration must also be given to the operation of surface transit, as well as curbside activities like deliveries and ride hailing which support the local economy.

The Downtown Plan (TOcore) adopted by City Council in May 2018 identified Yonge Street as one of Toronto's Great Streets, a Cultural Corridor, and a Priority Retail Street. The goals set for Yonge Street in TOcore, along with consultation feedback, have guided the evaluation of alternatives for yongeTOmorrow and the prioritization of space within a physically limited public right-of-way.

yongeTOmorrow is a Municipal Class 'C' Environmental Assessment (EA) focused on the development and evaluation of design alternatives for Yonge Street from Queen Street to College / Carlton Street. A number of opportunities have been considered to increase pedestrian space and improve the way people move through and experience downtown Yonge Street.

This report summarizes the yongeTOmorrow EA process and the resulting Recommended Design Concept which proposes shifting the existing curb alignment to increase sidewalk widths by removing two driving lanes on Yonge Street from College / Carlton Street to Queen Street.

While the design of the street recommended through the yongeTOmorrow EA process would be consistent for the entire stretch, the study also evaluated various traffic operational strategies and proposes a flexible approach that would change the way the street functions from day to night. During the day, the one kilometre long stretch of Yonge Street between College / Carlton Street and Queen Street would be prioritized for people walking, cycling, and experiencing the street, while still providing for access and delivery routing needs through pedestrian priority zones, one-way and two-way driving access combined strategically to reduce traffic volumes. Overnight all blocks would have two-way driving access to support TTC night bus service, deliveries, and general traffic.

A cast iron watermain constructed in 1889 exists beneath Yonge Street from Queen Street to College / Carlton Street. This watermain is due for replacement and Yonge Street will need to be reconstructed to facilitate replacement of the watermain. There is an urgency to arrive at a long term design solution for Yonge Street so that road works can be bundled with the watermain replacement.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council endorse the Recommended Design Concept of the yongeTOmorrow Municipal Class Environmental Assessment outlined in Attachment 8 to the report (December 18, 2020) from the General Manager, Transportation Services.

2. City Council authorize the General Manager, Transportation Services to publish a Notice of Completion and file the Environmental Study Report for the yongeTOmorrow Schedule "C" Municipal Class Environmental Assessment on the public record for a minimum 30 days in accordance with the requirements of the Municipal Class Environmental Assessment Act.

FINANCIAL IMPACT

The estimated cost of future implementation of the recommended Design Concept is estimated at $70.5 million including detailed design, utility relocations, lighting, and watermain renewal. Construction would span three (3) years from approximately 2023 to 2025. Funding of $10.7 million from Section 37 Planning Act Reserve Funds is already included in the approved Transportation Services 2020 – 2029 Capital Budget and Plan. As per the stage gating process, as detailed design proceeds and there is more clarity on cost of implementation, the remaining funding for Transportation Services and Toronto Water will be requested for consideration through future budget processes, subject to overall funding priorities and coordination with other capital works.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On September 12, 2011, Toronto and East York Community Council requested that city staff report back on the feasibility of various recommendations in the KPMB/Greenberg Yonge Street Planning Study, Downtown Yonge BIA (DYBIA) Public Realm Strategy, and Downtown Yonge BIA Streetscape Guidelines.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.TE9.95

On November 29, 30 and December 1, 2011, City Council requested city staff report back to Council in the first quarter of 2012 with recommendations to implement public realm improvements outlined in the Downtown Yonge Street Planning Studies report.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.TE11.42

On October 2, 3 and 4, 2012, City Council directed city staff to work with the Downtown Yonge Business Improvement Area to advance the public realm recommendations in the Greenberg/KPMB Yonge Street Planning Study.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.TE18.16

On July 7, 8 and 9, 2015, City Council authorized Transportation Services to initiate a Functional Street Design Study for Yonge Street from Queen Street to Gerrard Street.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.TE7.64

On May 22, 23 and 24, 2018, City Council adopted the TOcore Downtown Parks and Public Realm Plan to serve as the vision for and guide to future review and implementation of the Downtown Plan.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PG29.5

On June 26, 27, 28 and 29, 2018, City Council authorized up to $4 million in additional 2018 funding to improve and accelerate the implementation of a Vision Zero lens to Toronto's cultural corridors including Yonge Street.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.EX35.26

On October 17, 2019, Infrastructure and Environment Committee received the "yongeTOmorrow: Municipal Class Environmental Assessment on Yonge Street from Queen Street to College/Carlton Street - Interim Update" for information. http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE8.11

COMMENTS

Background & Study Drivers:

A cast iron watermain constructed in 1889 exists beneath Yonge Street from Queen Street to College Street. This watermain is due for replacement and Yonge Street will need to be reconstructed to facilitate replacement of the water main. South of Gerrard Street, the last reconstruction of the road base took place in 1954 upon completion of the subway. Yonge Street was resurfaced in 2014 from College Street to the Esplanade to improve pavement conditions. There is an urgency to arrive at a long term design solution for Yonge Street so that road works can be bundled with the watermain replacement.

For over a century, Yonge Street has been an iconic destination in the heart of downtown Toronto for both residents and visitors.

In recent years, growth and technology have dramatically changed the look and feel of our city. Today Downtown Yonge is booming with development and activity during all hours and days of the week. There are more people using the street and their needs and priorities are shifting.

The area around Yonge Street is undergoing dramatic changes as a result of large numbers of new residential towers being built along and in close proximity to Yonge Street. The trend is continuing with numerous parcels under development or in the planning stages. There are approximately 20,000 residential units in towers over 15 storeys high within this area, with 10,000 new units in the pipeline based on current development applications made to the City. There are at least 2,800 hotel rooms, with 600 more being proposed.[1]

The commercial face of the street is responding to the influx of new residents, becoming more service-oriented, while increasing retail rents are resulting in more chain stores. Ryerson University’s expansion out to Yonge Street in 2014 has also changed the character, bringing more students out to Yonge Street and creating a highly animated zone between Ryerson facilities, Dundas subway station, the cinemas, Dundas Square, and the Eaton Centre.

For many years community stakeholders such as the Downtown Yonge Business Improvement Area (DYBIA) have been advocating for public realm improvements on Yonge Street to support the increasing residential and commercial growth, the number

[1] yongeTOmorrow Land Use Background Report.

of special events taking place in and around Yonge Dundas Square, and the volume of pedestrians using the street daily.

There has been an identified need to revitalize Yonge Street as a destination and for the public realm to support its role in the city as an economic and cultural hub. Stakeholder initiatives to date include:

- Streetscape Guidelines 2009 - DYBIA;
- Downtown Yonge Street Planning Study 2011 - DYBIA;
- Celebrate Yonge Lane Closure Pilot 2012- DYBIA;
- Yonge Love Report 2015 - DYBIA; and
- Great Streets Report 2018 - Ryerson City Building Institute.

In 2018, City Council adopted the Downtown Plan (also known as TOcore) and the Downtown Parks and Public Realm Plan. Together, these Plans provide a policy framework and vision for parks and public realm in the core. They identify Yonge Street as one of Toronto's Great Streets, a Cultural Corridor and a Priority Retail Street. The goals set for Yonge Street in TOcore are:

- Create a significant pedestrian destination supporting public life and retail vitality;
- Celebrate the cultural aspects of Yonge Street and enhance it as a place for regional festivals and parades as well as a place for day to day use by residents, visitors and workers;
- Design a unified streetscape that responds to the various neighbourhood character areas;
- Improve the streetscape for walking, transit stops, social gathering, public outdoor seating, café seating and landscaping;
- Improve the cycling experience; and
- Create a significant public space where Yonge Street meets the shoreline.

The design and operation of Yonge Street has remained unchanged since the early 1900s - a 20 metre right-of-way with 4 lanes of vehicular traffic (2 southbound and 2 northbound) occupying 12.6 metres and the remaining 3.7 metres on each side of the road shared by public realm elements (transit stops, subway entrances, waste receptacles, poles etc.) and pedestrians (Figure 1).

Figure 1. Looking north on Yonge Street from near Queen Street on January 12, 1929. Toronto Archives, S0071, Item 6569

Between 1996 and 2016, there was a 73% increase in population to 55,000 and a 43% increase in employment to over 225,000 with growth expected to continue.[2] Currently there are over 10,000 proposed condo units within the Study Area. City Planning expects 400 residents and jobs per hectare by 2031 and projections anticipate the current population and employment numbers to further double by 2041. This in turn would place increased demands on Yonge Street.

While the number of pedestrians on Yonge Street has somewhat lessened during the COVID-19 pandemic, in the last several years, the sidewalks on Yonge Street have daily volumes which exceed 100,000 pedestrians per day. Pedestrian movement is slowed due to crowding especially near Yonge-Dundas Square. 50-75% of people using the entire street are pedestrians[3] (Figure 2) while less than 25% of the right-of-way space is dedicated to pedestrian movement. Weekly pedestrian counts were studied over a four year period between 2014 and 2018 and pedestrian volumes are significant on Yonge Street throughout all 52 weeks of the year.[4]

[2] Bay Street Corridor and Church-Yonge Corridor, Statistics Canada. 2016 Census

[3] City of Toronto Traffic Signal Counts 2014-17

[4] Downtown Yonge BIA Pedestrian Counts 2014-18

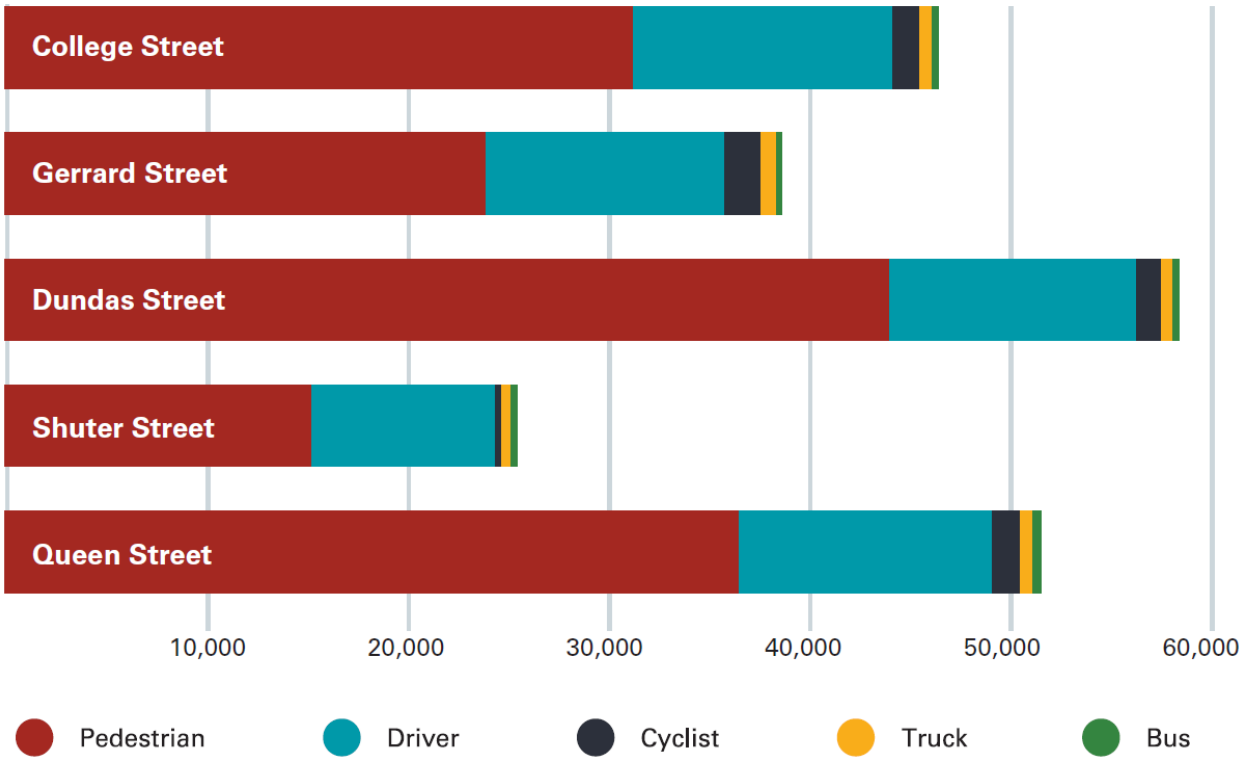

Figure 2. Mode Share on Yonge Street by intersection (2014-2017). Horizontal axis indicates total number of trips by intersection.

Between 1996 and 2016, there has also been a significant decrease in driving and an increase in alternative modes of transportation such as walking, cycling, and transit usage within the downtown area (Figure 3). Driving trips to the study area from within Toronto have decreased from 35% to 18%. Regional driving trips into the study area have decreased from 56% to 37%Total driving mode share including local and regional trips has decreased from 39% to 22%. Meanwhile, walking and cycling have doubled to 24% and 5% respectively.

These changes can be attributed to more people choosing to live within the core and improved regional transit service. It is expected that these mode shift trends will continue over the coming years.

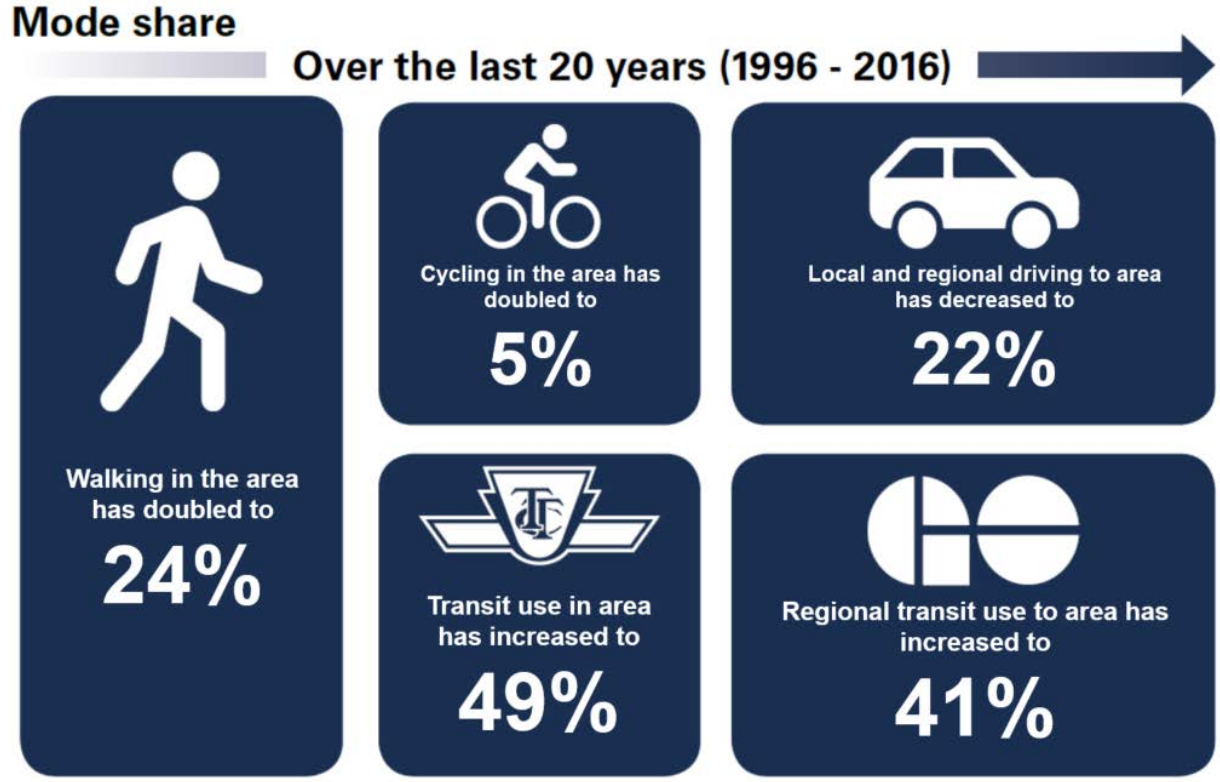

Figure 3. Changes in Mode Share 1996 to 2016 (Transportation Tomorrow Survey)

At this point, it is unknown how the COVID-19 pandemic and an increase in working from home will influence long term changes in travel patterns across the region and into the core. However, there is a significant residential population in the yongeTOmorrow Focus Area which continues to experience growth and these residents predominately walk, cycle, and take transit.

Study Overview

yongeTOmorrow has developed design alternatives and evaluated opportunities to improve pedestrian space and the way people move through and experience Yonge Street between College / Carlton Street and Queen Street. The study is being completed in accordance with the Schedule 'C' requirements of the Municipal Class Environmental Assessment (MCEA) process. A full summary of the study process and timelines can be found in Attachment 1.

The Focus Area, shown in Figure 4, is the geographic limit of design work for yongeTOmorrow and includes Yonge Street from College/Carlton Street to Queen Street. The Study Area is bound by University Avenue to the west, Jarvis Street to the east, Roxborough Avenue to the north, and King Street to the south. The Study Area indicates the geographic limits of data collection and public consultation for yongeTOmorrow.

The Study Area extends north to Roxborough in anticipation of a future EA study (Extended Focus Area/ Phase 2 EA, Figure 4) that will focus on the design of Yonge Street from College / Carlton Street to Davenport Road. Data collection has already

taken place under the yongeTOmorrow contract for this area to expedite delivery of the future EA which is expected to commence upon the completion of yongeTOmorrow.

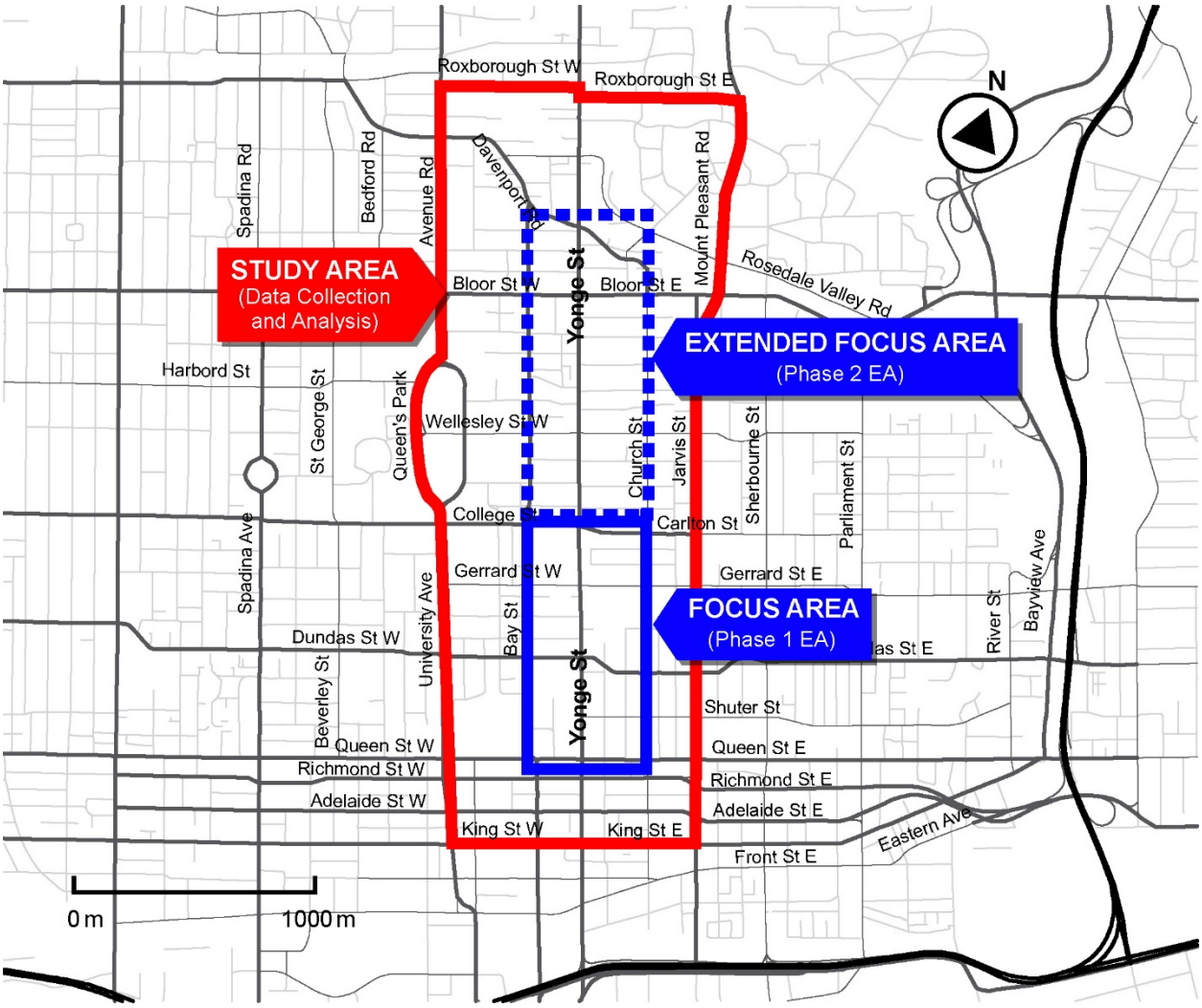

Figure 4. Map of Study Area & Focus Area

Existing Conditions:

The public right-of-way on Yonge Street is 20 metres wide from Queen Street to Gerrard Street (Figure 5) and 26 metres from Gerrard Street to College / Carlton Street (Figure 6). In general, there is zero building setback and adjacent building faces sit on the property line. While opportunities to secure setbacks through redevelopment of parcels on Yonge Street are being pursued, the fragmented ownership of the corridor will require that any design solution developed will need to fit within the existing right-of-way.

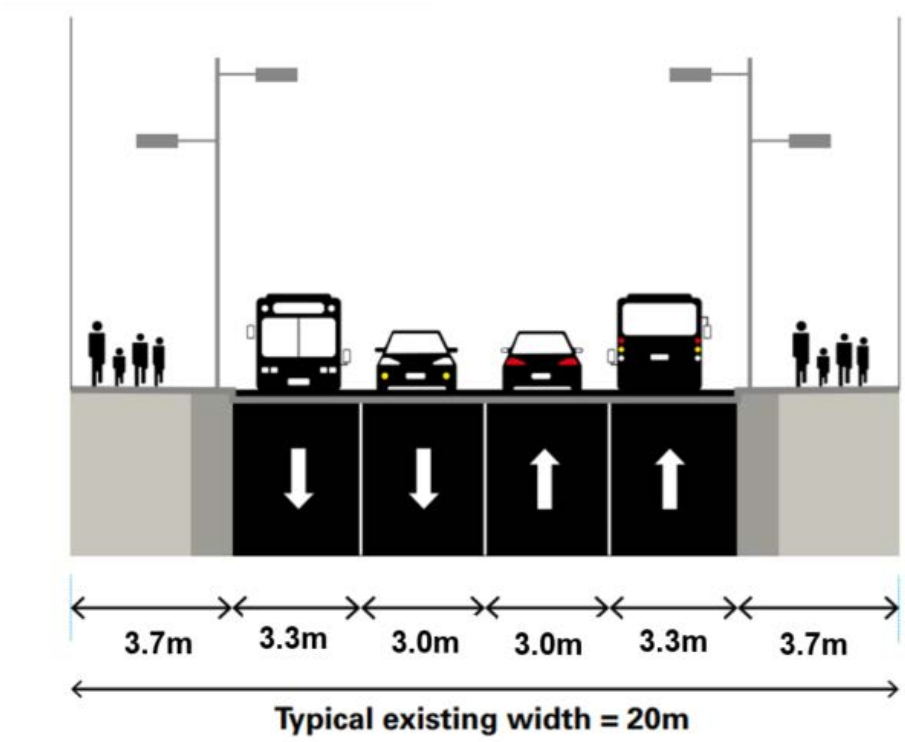

Figure 5. Typical Cross Section from Gerrard Street to Queen Street

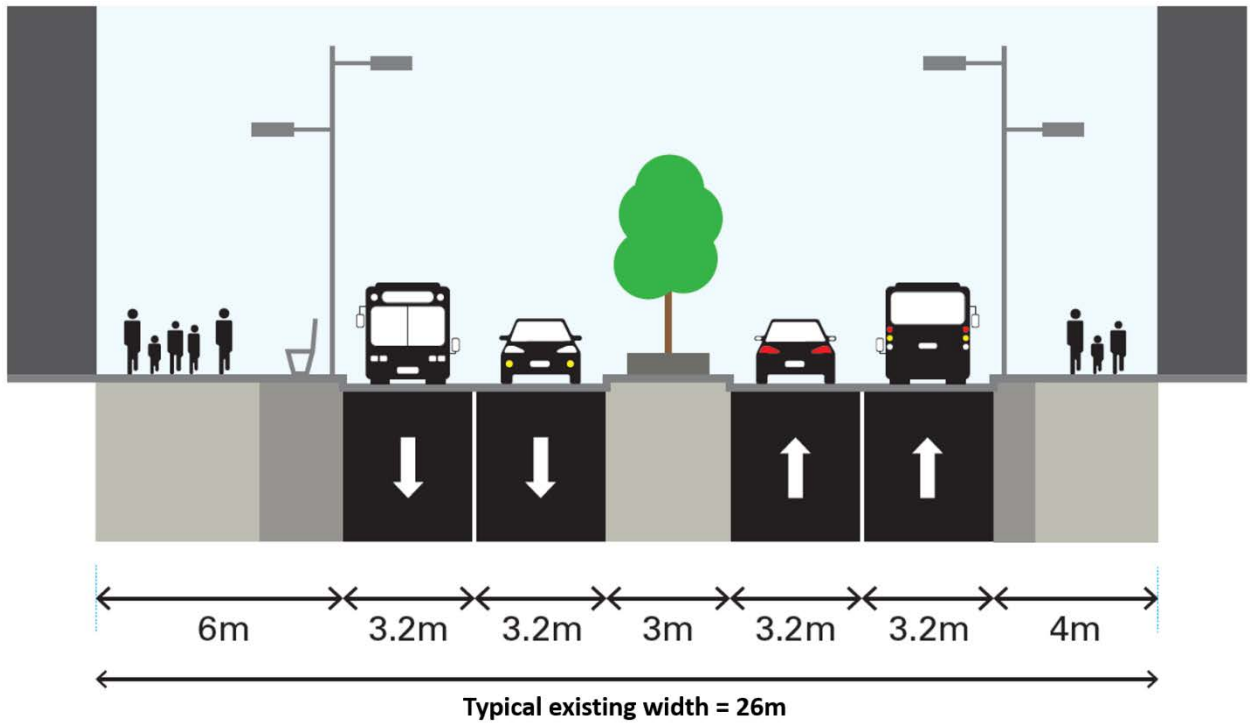

Figure 6. Typical Cross Section from College / Carlton Street to Gerrard Street

Tourism & Events:

Yonge Street has long been a street for events and entertainment. It was the site of the first Santa Clause Parade in 1905 and is now the official route for the Pride Parade, Festival of India, and St. Patrick's Day Parade. Yonge Street historically has hosted three annual running races, the Bike to Work Day Group Commute, and festivals like Open Streets.

Since the opening of Yonge-Dundas Square in 2002, the neighbourhood's importance as a tourism and entertainment zone has evolved. The square plays host to hundreds of events each year and includes major events like North by North East (NXNE), Illuminite, and Canada Day Celebrations.

The Eaton Centre, national flagship stores for many retailers, and theatres also draw visitors to the area. A 2014 Environics poll conducted by the Downtown Yonge BIA indicated that 28% of the pedestrian traffic in the Study Area are visitors to the area and a further 10% are tourists.

Surface Transit:

In addition to the Toronto Transit Commission (TTC) subway (Line 1 Yonge-University), Yonge Street is served by the 97B bus weekday mornings and afternoons every 30 minutes in a northbound and southbound direction. The 97B route runs from Queens Quay to Davisville Station and serves approximately 390 passengers on a typical weekday.

Yonge Street is also served by the 320 Night Bus when the subway (Line 1 Yonge-University) is not in operation overnight from approximately 1:00 am to 6:00 am. The 320 operates both northbound and southbound with headways of 3.5 minutes until 3:30 am Monday through Saturday and 15 minute headways at other times. On Sunday mornings, due to the late opening of the subway, the night bus runs for an additional 2 hours from 6:30 am to 8:30 am with 3 minute headways. This route serves approximately 1,400 passengers on a typical weeknight.

Public Consultation:

Consultation for yongeTOmorrow has engaged a broad range of residents, businesses, and stakeholders over three rounds of engagement. Below summarizes the content focus and consultation activities:

- **Round One** - Identification of problems/opportunities, study objectives and the long-list of alternatives.
- **Round Two** - Evaluation of alternatives and identification of the short-list and a preferred alternative solution.
- **Round Three** - Evaluation of design concepts and identification of the recommended design concept.

Below summarizes the consultation activities carried out to date:

- Seven Stakeholder Advisory Group Meetings: July 30, 2018, April 1, 2019, July 18, 2019, September 24, 2019, February 25, 2020, July 9, 2020, November 6, 2020 and December 9, 2020

- Project Launch Yonge-Dundas Square: May 3, 2019
- Three Public Events: 161 participants on May 9, 2019, 173 participants on November 21, 2019, and 206 participants on September 16, 2020
- Property and Business Focus Meeting January 14, 2020 (47 stakeholder attendees)
- Three On-line questionnaires (Responses: 3025 Round One, 3085 Round Two, 1,334 Round Three)
- Over 260 emails and phone calls logged (to date: December 10, 2020)
- Two presentations to the Design Review Panel (November 2019, September 17, 2020)
- 69 individual meetings with key stakeholders, businesses, property owners and property operators
- One presentation to the Toronto Accessibility Advisory Committee (December 1, 2020)

What We Heard:

Throughout consultation, feedback from stakeholders and members of the public provided the following key insights and priorities:

- Sidewalks feel overcrowded and congested;
- People often look for an alternate route instead of Yonge Street due to existing traffic congestion whether walking, cycling, and/or driving;
- Pedestrian experience needs to be improved and should be the priority of the street;
- Public safety is a top priority, encompassing both improving road safety, and design considerations to improve personal security;
- Vehicle access is needed to support local business operations;
- Public realm should support local area businesses;
- Street should be flexible for a variety of uses and changes in temporal demands (time related);
- Different opinions about how much space to allot for different transportation modes, uses and in what combination;
- Desire to make the area more attractive by adding greenery (trees / planters); and
- Yonge Street should support growing volume of people cycling.

Public consultation materials can be found in Attachments 2, 3, and 4 and a full summary of consultation activities and feedback can be found in Attachments 5, 6, and 7.

Design and Evaluation Process:

The process to arrive at the Recommended Design Concept consisted of 3 stages of design and evaluation.

Step 1 - **Long List Screening:** A Long List of alternatives (Attachment 2, Pg 28-33) were developed for the typical 20 metre right-of-way. These alternatives were evaluated using the project evaluation criteria and three Emerging Alternatives were identified in a report to Infrastructure and Environment Committee. These Emerging Alternatives were then confirmed as the Short List of Street Design Options: Pedestrian Priority, One-Way Driving Access and Two-Way Driving Access with cycling facilities on a parallel corridor

(Figure 7). These options were carried forward to the next phase of the EA for further refinement.

During the long list evaluation, it was determined that the existing four lane cross section ("do-nothing"), three lane cross sections, and cross sections with continuous cycle tracks did not adequately support project objectives within a 20 metre right-of-way and were not carried forward to the next round of design and evaluation.

Figure 7. The Short List of Street Design Options which best met project objectives and were carried forward to the next phase of study.

Step 2 - **Alternative Solutions:** Different geographic sections of the Focus Area have different priorities based on their adjacent uses, pedestrian volumes, and operational constraints. As such, four Alternative Solutions were developed by applying one of the three Street Design Options (Pedestrian Priority, One-Way Driving Access or Two-Way Driving Access) to each block of Yonge Street based on its local needs. Alternative 4 with cycling facilities on University Avenue was identified as the Preferred Alternative Solution.

Step 3 - Design Concepts: The Preferred Alternative (Alternative 4) was then developed into three Design Concepts: 4A, 4B and 4C. These three concepts evaluated different ways to operate Alternative 4, but all utilize the same physical design (a reduction of the existing four lane cross section to two lanes from College Street to Queen Street). The evaluation identified 4C as the Recommended Design Concept. After Round 3 of consultation refinements were made to 4C based on stakeholder feedback to form the Recommended Design Concept - 4D.

A more detailed description of the process and alternatives is outlined in Attachment 1.

The Recommended Design Concept - 4D

The Recommended Design Concept is composed of a physical design, for which EA approval is being recommended, along with a flexible operations approach that is not tied to the physical design.

Physical Design:

The recommended Design Concept proposes a consistent, yet flexible road design that can accommodate different operations and programming. The following design elements are consistent for the full length of the focus area from College **/** Carlton Street to Queen Street:

- 6.6 metre wide, two lane roadway with mountable curbs and vehicular unit paving;
- 2.7 metre wide furnishing, planting and café zone;
- 4.0 metre wide (minimum) pedestrian clearway with pedestrian unit paving.

The typical cross section from Gerrard Street to Queen Street is more constrained at 20m (Figure 8). From College **/** Carlton Street to Gerrard Street, the right-of-way is six metres wider than the rest of the corridor. The character of the adjacent properties is also less tourism and entertainment focused**.** Cycle tracks which provide links between the existing cycling facilities on College Street and Gerrard Street are recommended for this section (Figure 9).

The roadway and streetscape would look and feel the same and the road and streetscape design can accommodate Pedestrian Priority, One-Way or Two-Way operations from College **/** Carlton Street to Queen Street.

Flexibility was identified as a key priority during the study. The physical design recommended for construction as part of the Environmental Assessment process does not "lock-in" the future operations of any block. Operations can be adjusted based on the future needs of downtown Yonge Street.

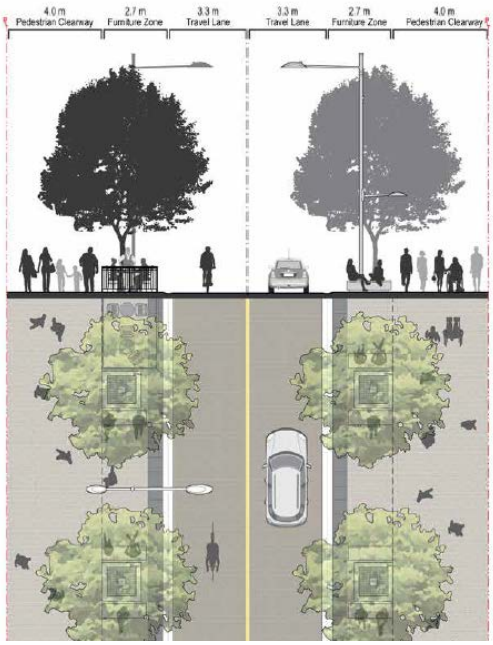

Figure 8. Typical Cross Section from Gerrard Street to Queen Street

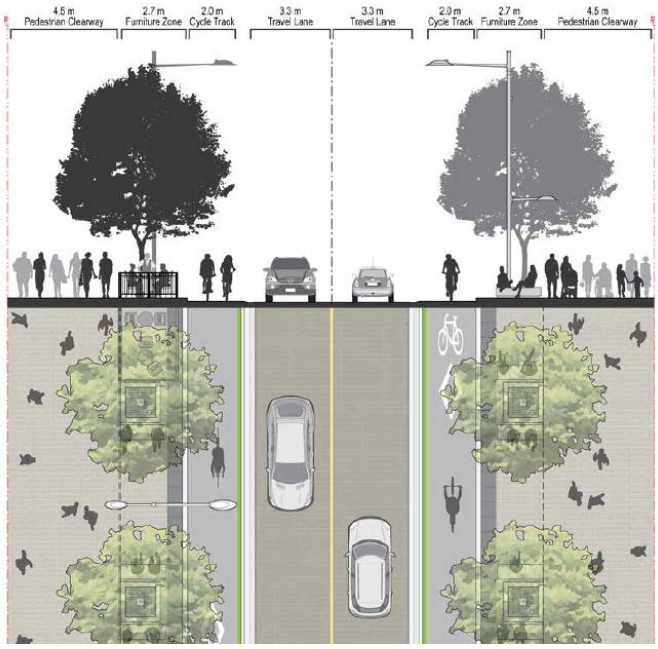

Figure 9. Typical Cross section from College Street to Gerrard Street

Attachment 8 provides a comprehensive plan of the physical design of 4D.

Flexible Operational Approach:

While the design of the street recommended through the yongeTOmorrow EA process would be consistent for the entire stretch, the study also evaluated various traffic operational strategies and proposes a flexible approach that would change the way the street functions from day to night. During the day, from College / Carlton Street to Queen Street, Yonge Street would be a place focused on the movement and experience of people walking, cycling, and connecting to transit, rather than a way to get through the downtown core by driving. Driving circulation during the daytime would provide vehicle access to support parking garages, loading, deliveries, ride hail, tour buses, Wheel-Trans and municipal services while maintaining a pedestrian focused streetscape.

The one-way driving blocks provide daytime access for those visiting or servicing a local property by car or truck, while keeping traffic volumes low to support a pedestrian friendly atmosphere. This extends the character of pedestrian priority blocks while accommodating local driving access (Figure 10).

Overnight (i.e. from 1:00 am to 6:00 am) all blocks would have two-way driving access open to support TTC night bus service, deliveries, and general traffic.

This operational recommendation is subject to further consultation and refinement throughout the detailed design process. Prior to construction completion, a report would be brought forward to Infrastructure and Environment Committee recommending by-law and traffic operational amendments necessary to implement an operational approach. As with all operational initiatives, the street would continue to be monitored and further adjustments could continue to be made as needed to maintain effective street operations.

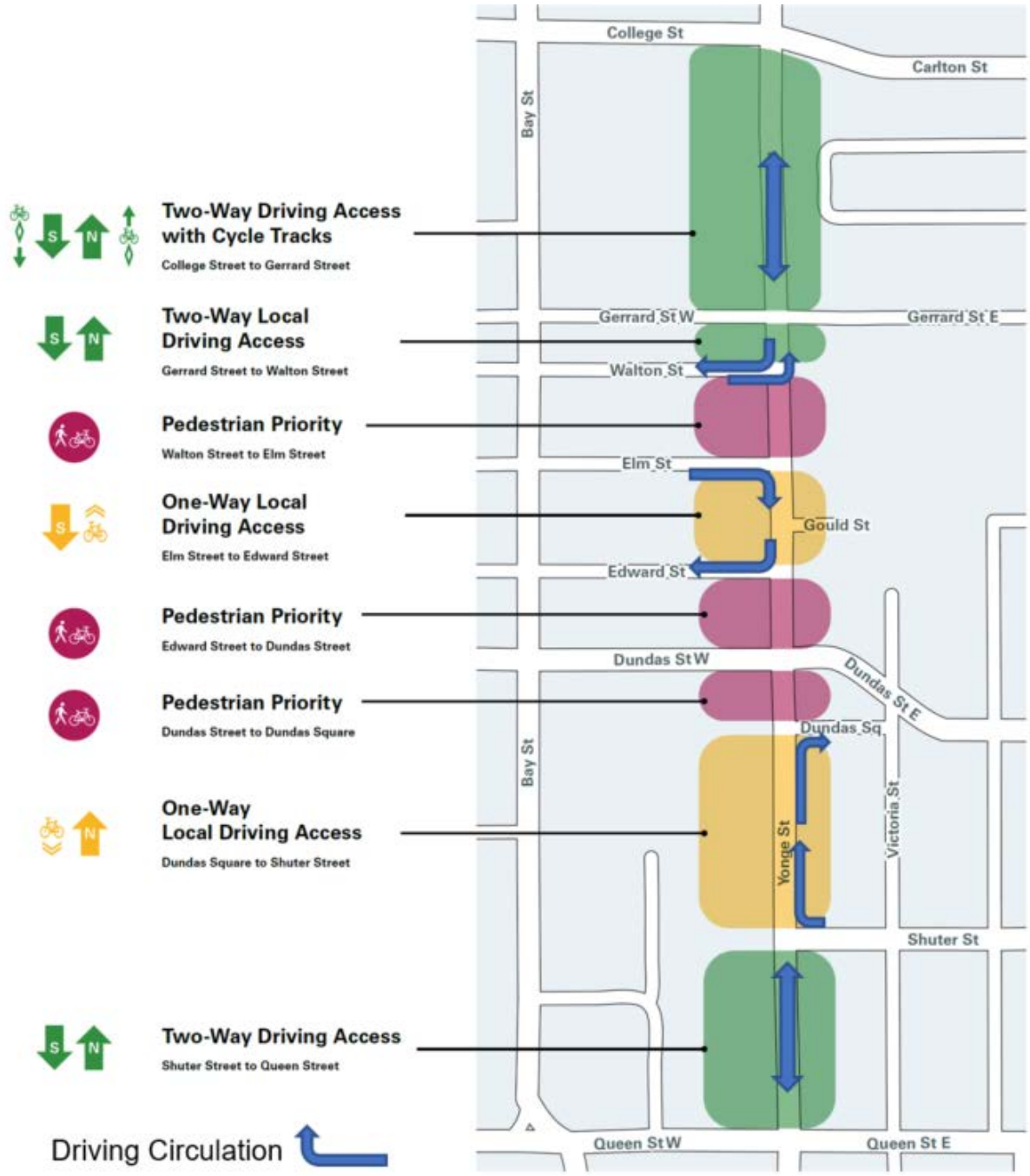

Figure 10. Diagram of Recommended Design Concept 4D Operational Approach

Key Issues:

COVID-19 Impacts and Responses:

Over the past eight months, COVID-19 has changed how many Torontonians use and prioritize space on city streets. Under the direction of Council, lane closures and other changes to city streets have been installed as part of the ActiveTO, CaféTO, and CurbTO programs to support social distancing.

Transportation Services is monitoring these temporary installations to identify challenges and opportunities in the short and long term. The yongeTOmorrow study has also asked stakeholders how their use of the street and priorities have changed in 2020 and has considered that feedback.

The yongeTOmorrow study continues to evaluate concepts by considering the needs of people using the street today and many years from now in a post-pandemic future. Yonge Street is not only a retail and economic hub but it also supports a significant residential community. The needs of local residents and businesses are important to consider during recovery. Both short and long term, yongeTOmorrow supports:

- More space for people walking and cycling;
- More space for outdoor cafés, vending and retail;
- Improving equity and experience for all who use city streets;
- More public space for residents in the core who have less access to parks and private outdoor space; and
- Creating a flexible and resilient street that can adapt to the City's needs now, and in the future.

Pedestrian Activity & Growth:

Pedestrians make up the majority of people using Yonge Street. On some sections of Yonge Street the pedestrian infrastructure does not meet the City’s guidelines for accessibility or pedestrian clearways and there is overcrowding. With populations in the area expected to double by 2041, the infrastructure will be critically deficient and may risk pedestrian safety.

Equity:

The Recommended Design Concept supports providing better transportation choices and experiences for all who use city streets and provides more public space for downtown residents.

Transportation Services is committed to building a transportation system that considers the needs of all groups regardless of race, class, or ability, and acknowledges that not everyone starts out with the same opportunities and mobility choices.

Economic Vitality of Retail Streets & Urban Destinations:

yongeTOmorrow is an opportunity for significant public realm enhancement and for downtown Yonge Street to become a premier urban destination for tourists and City residents. This type of investment may further catalyze significant economic and cultural investment in the Yonge corridor and may provide an opportunity for increased economic growth for the city.

Studies from across the UK, USA, and Toronto indicate that people walking and cycling visit more often and spend more per month on retail streets than those driving. Case

studies also show that reducing driving lanes to improve the walking and cycling experience attracts more visitors to retail streets.[5]

Data show that investment in improvements for people walking, cycling and taking transit is good for the economic health of a neighbourhood. Studies of Times Square in New York City also found that reducing vehicle lanes and investing in the pedestrian experience increased the number of visitors, the value of commercial properties, and advertising revenues, and also decreased commercial property vacancies.[6]

Alignment with the Vision Zero Road Safety Plan:

In June 2018, City Council authorized funding to achieve a higher level of road safety along the city's designated cultural corridors, including Yonge Street between Queens Quay and Davenport Road.

As a result, an In Service Road Safety Review (ISSR) and a Road Safety Audit (RSA) are being completed for the Yonge Street Cultural Corridor in coordination with yongeTOmorrow. The ISSR has identified existing areas for improvement and mitigative countermeasures that were considered to prioritize the safety of vulnerable road users by adding protected space for walking and cycling and reducing the number of driving lanes, driving speeds, car and truck volumes, corner radii and crossing distances.

Accessibility Considerations:

The following design considerations and features have been included to maintain and enhance accessibility on Yonge Street:

- Limiting continuous length of pedestrian priority zones to a maximum of 100 metres in total length (from the centre of a pedestrian priority zone**,** the maximum distance to a street with driving access is 50 metres);
- Mountable curbs to provide greater crossing opportunities in pedestrian priority zones for people using mobility aids;
- 4.0m wide pedestrian only clearways separated from the roadway by a 2.7m wide furnishing zone and 0.6 wide cane detectable tactile paving strip in a contrasting colour;
- Yellow tactile indicators to delineate transit stops waiting and boarding areas;
- Non-tumbled and bevel free pavers designed to be smoother under wheel and foot in pedestrian clearways;
- Tumbled pavers in roadway areas to provide increased audible warning of moving vehicles;
- All unit paving laid on a concrete base to prevent shifting and heaving; and
- Consistent light colour unit paving in pedestrian clearways with contrasting dark colour unit paving within the roadway to improve street legibility for people with low vision.

[5] Transport For London, New York City Department of Transportation, and Toronto Centre for Active Transportation

[6] Times Square Alliance and New York Department of Transportation

City and TTC staff worked closely to ensure accessibility was a key consideration in the design and that access for para-transit customers would be maintained. TTC staff initially had concerns with the ability of Alternative 4 to support Wheel-Trans operations. The introduction of local access blocks in Design Concepts addressed these concerns.

Many existing buildings and future developments fronting the pedestrian priority zones have major entrance points from other streets or portions of Yonge Street with driving access (Atrium on Bay, Eaton Centre and 10 Dundas). During the next phase of design**,** there will be continued discussion with Wheel-Trans staff to determine if additional accommodation**s** are required to support effective Wheel-Trans service and accessible drop offs.

Cycling Infrastructure:

The Cycling Network Plan identifies Yonge Street as a major corridor that presents opportunities to create City-wide connections.
The yongeTOmorrow EA has evaluated the appropriateness and feasibility of cycling infrastructure on Yonge Street by reviewing technical constraints, stakeholder feedback*,* and guiding policy*,* and does not recommend cycling infrastructure on Yonge Street between Gerrard Street and Queen Street where there is a 20 metre right-of-way, very high pedestrian volumes and a high concentration of tourism and events. As a result**,** University Avenue, Bay Street, and Church Street were evaluated for cycling infrastructure as part of the yongeTOmorrow EA process.

Feedback from Round 2 of consultation indicated that more consideration for cycling was desired. As a result, more consideration for cycling was added to the Recommended Design Concept by providing a protected cycle track on Yonge Street between College /Carlton Street and Gerrard Street where:

- The transportation right-of-way is six metres wider;
- Connections can be made to the existing cycling infrastructure on Gerrard Street which provides connectivity east-west and to existing cycling infrastructure on Sherbourne Street, some segments of Bay Street, and to the proposed (and currently temporary) cycling infrastructure on University Avenue (Figure 11);
- There are fewer tourism and entertainment uses; and
- Vehicle volumes are anticipated to be higher than the other blocks to the south due to the connectivity Gerrard Street provides to alternate vehicle routes.

Figure 11 Diagram of Existing Cycling Network and Recommended Connections

The Recommended Design Concept would encourage two-way cycling that yields to pedestrians along the full length of Yonge Street, between College / Carlton Street and Queen Street, including within the pedestrian priority zones and blocks with one way driving access. On blocks that would be one-way for motor vehicles, one lane would be shared by people driving and cycling in the same direction. The lane in the opposing direction it would function in a similar way to a contra-flow bike lane as motor vehicles would not have access to it (Attachment 9). People cycling would benefit from the reduced vehicle volumes and speeds.

Because of the high pedestrian volumes, frequent events, and tourism sites sharing the limited space on Yonge Street south of Gerrard Street, a separated, high volume, cycling facility is recommended on University Avenue.

Traffic Operations:

The Recommended Design Concept proposes to reduce driving access on Yonge Street from current conditions and reduce driving lanes on University Avenue[7]A multi-modal transportation model has been developed based on existing conditions and the City's 2031 planning horizon to assess the impact of the proposed changes to the Study

[7] Recommended lane configuration on University Avenue is similar to temporary operation currently in place as part of ActiveTO.

Area. Modelling was completed for the weekday morning peak hour, weekday afternoon peak hour, and weekend peak hour. The weekday afternoon peak hour represents the highest traffic volumes and represents the most conservative predicted travel times.

Figure 12 shows the estimated time it would take to drive north or south between College / Carlton Street and Queen Street during the afternoon rush hour. The bars compare driving times in 2018, in 2031, and in 2031 if the Recommended Design Concept were implemented.

The highest impacts are seen in the northbound direction on Jarvis Street (90 seconds), followed by Church Street (80 seconds) and in the southbound direction on University Avenue (70 seconds).

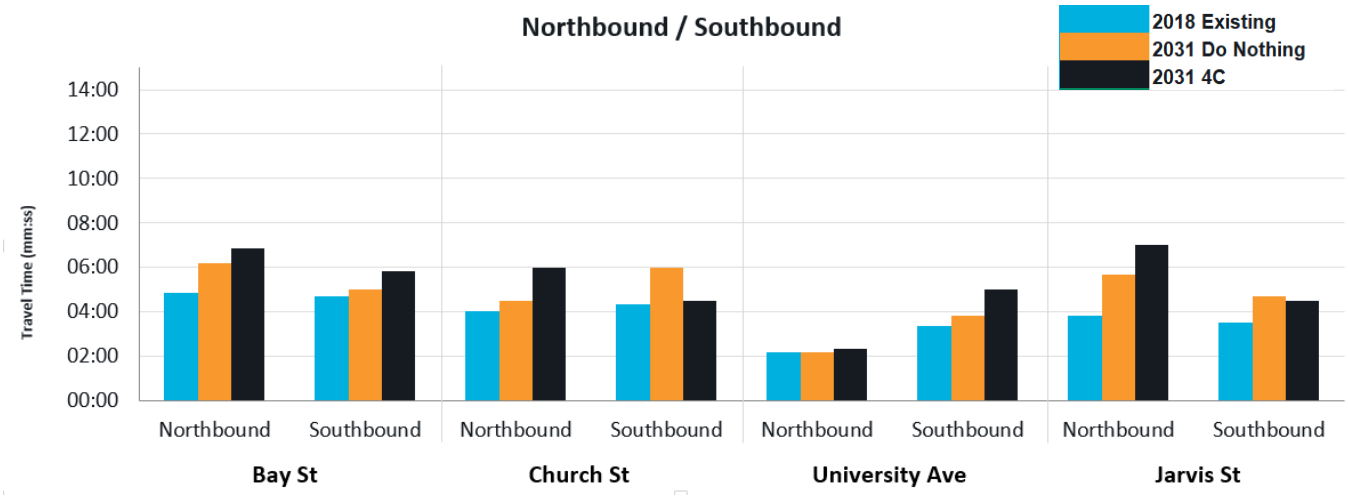

Figure 12. North-south driving travel times in minutes during afternoon rush-hour.

Figure 13 shows the estimated time it would take to drive east or west between University Avenue and Jarvis Street during the afternoon rush hour. The bars compare driving times in 2018, in 2031, and in 2031 if the Recommended Design Concept were implemented. The highest impacts are seen in the westbound direction on Queen Street (120 seconds), while Dundas Street (-70 seconds eastbound) and College Street (-50 seconds westbound) see no increase or a reduction in travel time. A full comparison of travel times between is shown in Figure 14.

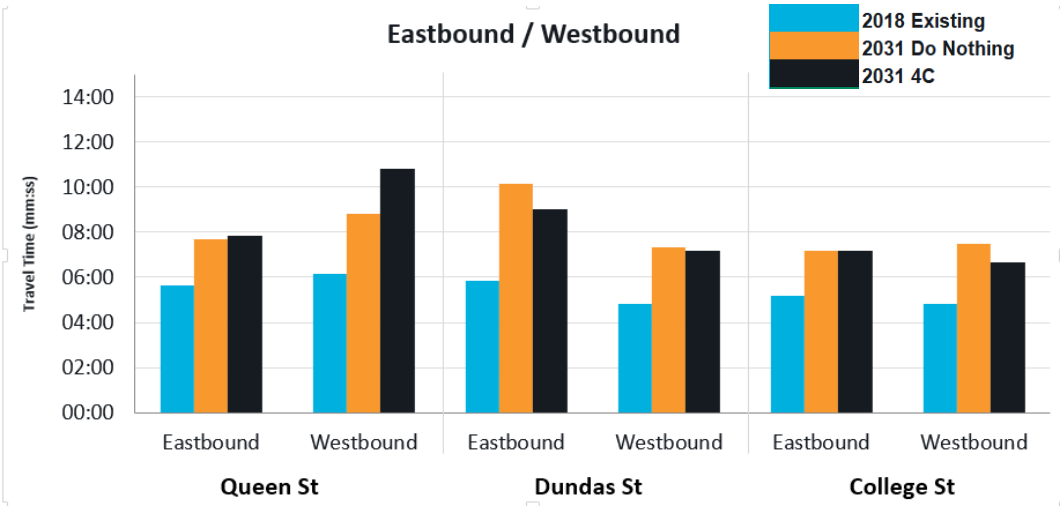

Figure 13. East-west driving travel times in minutes during afternoon rush-hour.

Street	Northbound / Eastbound				Southbound / Westbound			
	2018	2031	2031 4C	+/- (sec)	2018	2031	2031 4C	+/- (sec)
Bay St	04:50	06:10	06:50	+40	04:40	05:00	05:50	+50
Church St	04:00	04:30	06:00	+90	04:20	06:00	04:30	-90
University Ave	02:10	02:10	02:20	+10	03:20	03:50	05:00	+70
Jarvis St	03:50	05:40	07:00	+80	03:30	04:40	04:30	-10
Queen St	05:40	07:40	07:50	+10	06:10	08:50	10:50	+120
Dundas St	05:50	10:10	09:00	-70	04:50	07:20	07:10	-10
College	05:10	07:10	07:10	+0	04:50	07:30	06:40	-50

Figure 14. Comparison of estimated driving travel times during afternoon rush-hour.

Transit Impacts and Coordination:

TTC staff have been involved in the review of design alternatives and traffic modelling to assist in identifying issues and solutions to mitigate impacts of the Recommended Design Concept.

Based on input from TTC staff, all design concepts accommodate the operation of two way bus service when the subway is not in operation. This is both overnight (1:00 am to 6:00 am) and during daytime shutdowns when shuttle buses are required.

The 97B bus that currently uses Yonge Street during the day would be discontinued or re-routed. No changes are recommended to other daytime bus services or the 320 night bus. Subway replacement shuttle buses, streetcar routes, and subway services would also be unchanged.

The impacts to surface transit travel times across the neighbourhood have also been estimated using the Aimsun traffic model.

Figure 15 shows how long the traffic simulation model estimates it would take for buses to travel north or south between College / Carlton Street and Queen Street during the

afternoon rush hour. The highest increases for bus service are seen on Bay Street with an increase in the southbound direction of up to 40 seconds.

Figure 16 shows how long the traffic simulation model estimates it would take for streetcars to travel east or west between University Avenue and Jarvis Street in the afternoon rush hour. The highest increase is seen on Dundas Street at 40 seconds in the westbound direction. College / Carlton Street (-160 seconds eastbound) and Queen Street (-60 seconds westbound) would see reductions in travel time. Figure 17 provides a summary comparison of changes to transit travel times.

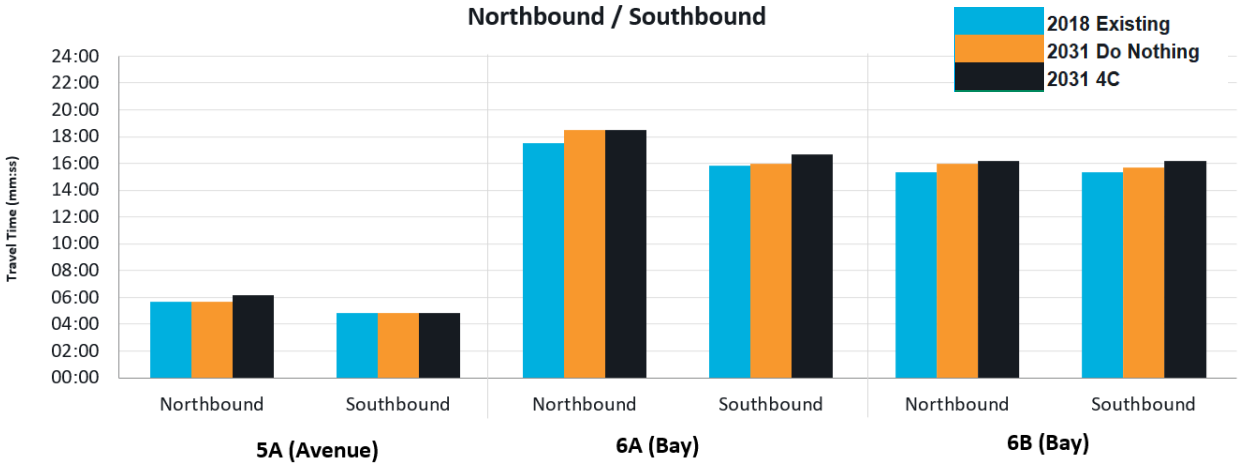

Figure 15. North-south bus travel times in minutes during afternoon rush-hour.

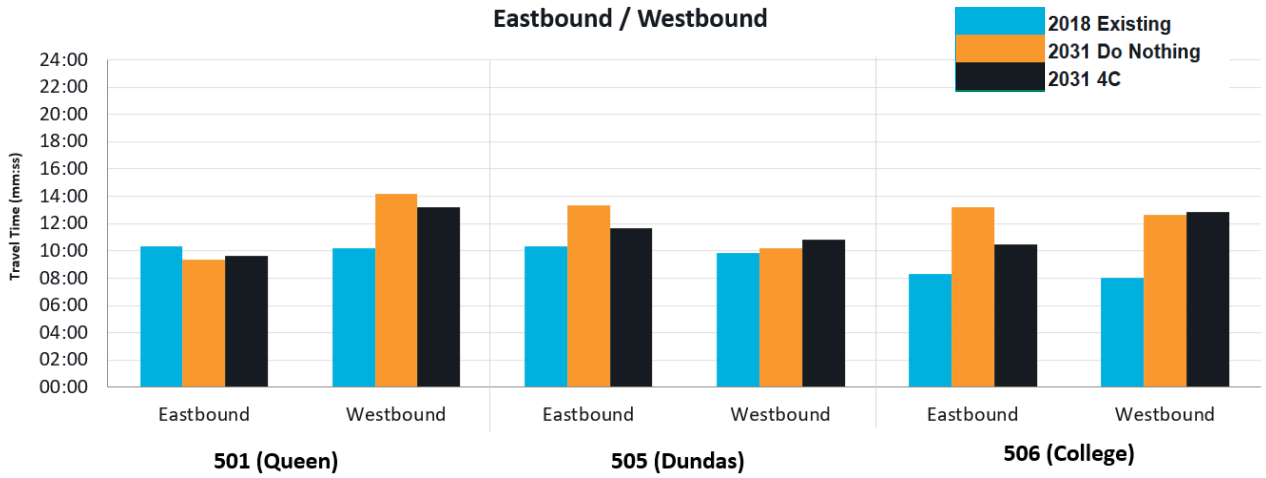

Figure 16. East-west streetcar travel time in minutes during afternoon rush-hour.

Route	Northbound / Eastbound				Southbound / Westbound			
	2018	2031	2031 4C	+/- (sec)	2018	2031	2031 4C	+/- (sec)
5A (Avenue)	05:40	05:40	06:10	+30	04:50	04:50	04:50	+0
6A (Bay)	17:30	18:30	18:30	+0	15:50	16:00	16:40	+40
6B (Bay)	15:20	16:00	16:10	+10	15:20	15:40	16:10	+30
501/502 (Queen)	10:20	09:20	09:40	+20	10:10	14:10	13:10	-60
505 (Dundas)	10:20	13:20	11:40	+10	09:50	10:10	10:50	+40
506 (College)	08:20	13:10	10:30	-160	08:00	12:40	12:50	+10

Figure 17. Comparison of estimated transit travel times during afternoon rush-hour.

The need for a second subway exit at Dundas Station has been raised by many stakeholders. Currently the TTC, City Planning, Ryerson University and developers are investigating opportunities for a second exit at Dundas Station. This process, along with improvements to other TTC subway infrastructure are separate from the yongeTOmorrow EA.

Transportation Services continues to coordinate with TTC on capital improvements planned for stations within the focus area, including the College Station renovations to improve subway platform access from concourse level.

Business Community Concerns - Customer and Goods Movement Access

Stakeholders from the business community have raised concerns about the economic impacts of reduced driving access on Yonge Street. Concerns were focused on goods movement and customer access.

Staff carried out numerous site walks, site observations, and over 60 individual interviews to understand property conditions as part of Round 2 of consultation. As a result, increased driving access was incorporated into the proposed Recommended Design Concept by providing one-way driving access from Elm Street to Edward Street.

In addition, the following design considerations and recommendations have been included to support goods movement and customer access on Yonge Street:

- Daytime driving access maintained to all parking garages, loading docks, driveways and rear lanes;
- Overnight driving access maintained on all sections of Yonge Street for goods movement;
- Provision of dedicated curbside activity areas on Yonge Street, Elm Street, Edward Street and Dundas Square for commercial and passenger loading. These zones have been located based on field observations, GIS ride-hail data, interviews, and location of adjacent tourism and entertainment sites;
- Limiting the length of pedestrian priority zones to 100m to provide convenient access for ride-hail and delivery services; and
- Provision of right turn egress from Eaton Centre parking garage at Yonge Street and Shuter Street to reduce rush hour queues to exit the garage.

Access to Parking:

Recommended Design Concept 4D maintains existing access to and from all off-street parking facilities. Increased delay accessing or exiting is a concern for local stakeholders. The Eaton Centre garage accessed from the Yonge Street and Shuter Street intersection and the associated traffic operations of Shuter Street and Victoria Street are of utmost concern for Cadillac Fairview. They have expressed significant concern that additional traffic restrictions in this area may have a major impact on the operations of the garage. To mitigate these concerns design concept 4D recommends permitting a westbound right turn out of the garage at the Yonge Street and Shuter Street intersection.

The Toronto Parking Authority has expressed concerns about access to and from Carpark 34 located at 20 Dundas Square (beneath Yonge-Dundas Square) which is accessed using Dundas Square from Yonge Street. No modifications are proposed to the existing operation of Dundas Square as part of yongeTOmorrow.

Figure 18. Example of automated gate in The Hague

Vehicle Management and Emergency Service Access:

To manage driving access a combination of design cues (such as materiality and roadway width) along with signage and automated gates (Figure 18) are recommended. Automated gates are proposed on each end of the pedestrian priority zones. The gates would be closed during the day (i.e. from 6:00 am to 1:00 am) and open overnight (i.e. from 1:00 am to 6:00 am) to allow overnight bus service along with access for general traffic.

The design concept and details such access gates and curbs have been proposed in consultation with Fire, Police, and Paramedic Services to ensure access would be maintained for emergency services.

Emergency service vehicles would be permitted to enter pedestrian priority zones as required. The gates would be partial roadway width - wide enough to visually discourage drivers, while still allowing emergency vehicles to pass.

Mountable curbs (Figure 19) would provide additional space for vehicles to pull off the roadway and make way for emergency service vehicles to pass.

Figure 19. Example of mountable curb in Guelph, Ontario.

Utilities:

Figure 20 shows the typical layout of existing utilities and the subway tunnel in relation to the Recommended Design Concept. The watermains must be replaced and it is recommended that both the watermains and hydro conduits be relocated away from the proposed street tree planting areas. Streetlighting and storm-sewer catch-basins would also need to be relocated along the new curb edge. It is also recommended that general street lighting and pedestrian-scale lighting be combined on the same pole to reduce the number of elements within the streetscape.

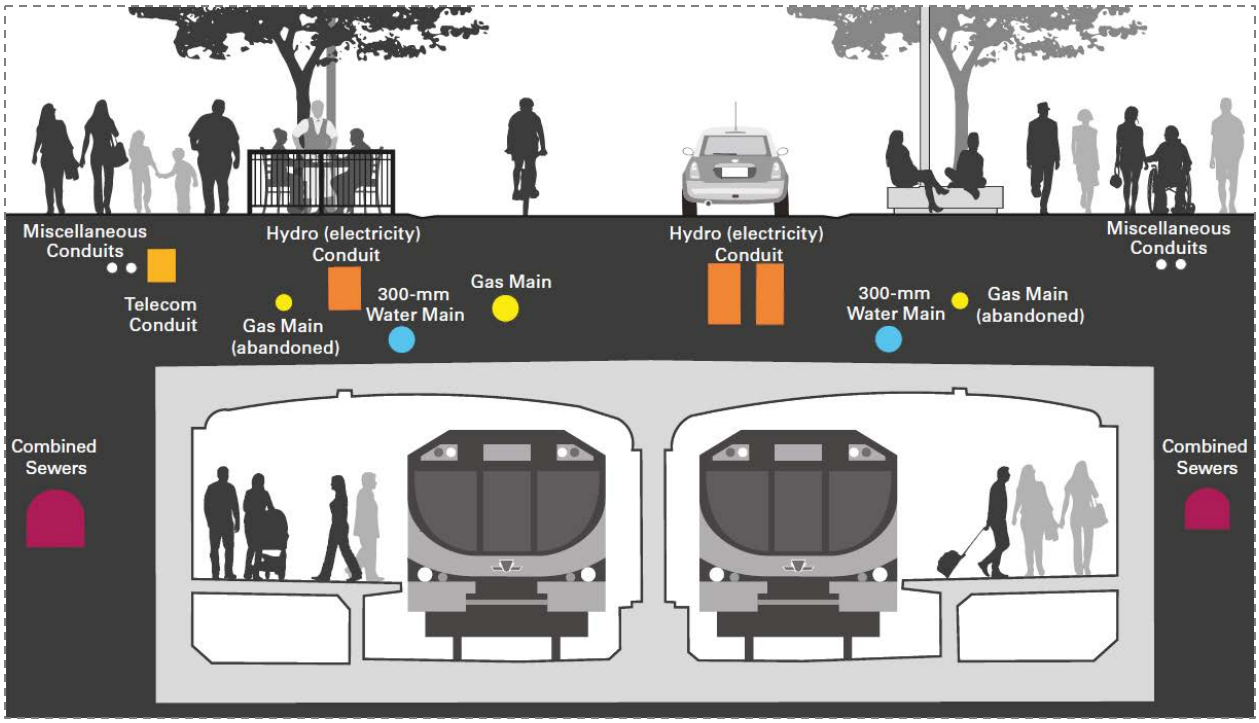

Figure 20. Typical cross section illustrating Recommended Design Concept in relation to existing utilities.

Maintenance and Programming:

It is recommended that enhanced operations strategies be considered during the detailed design process to support public realm activations, beautification, waste collection, cleaning, and bylaw enforcement, in collaboration with the local BIA. Following construction, an interim education strategy would also be needed to support the operational changes on Yonge Street. The street would be monitored post-implementation for any necessary operational or programming adjustments.

Street Activity:

The visibility and impacts of homelessness, drug use, and other social challenges in the downtown core have been raised repeatedly during the consultation process for the yongeTOmorrow EA. Transportation Services has engaged Shelter Support and Housing, Toronto Police Services, and Toronto Public Health among others to advise how physical changes to Yonge Street may influence and impact street activity and vulnerable members of the community.

This study does not recommend changes to social policy, social services or operational practices unrelated to road operations. These types of changes will require further study and action by relevant divisions as part of an initiative separate from the yongeTOmorrow EA.

Schedule and Next Steps:

Subject to Council approval, the Environmental Study Report will be finalized and submitted to the Ministry of the Environment Conservation and Parks (MOECP) and will be subject to a 30 day public review period.

Subject to approval of the EA, the next phase of the project will develop the detailed design of the Preferred Design Concept along with construction phasing and schedules. The next phase will also provide an opportunity to continue consultation with the community on the flexible operational strategy and considers post pandemic recovery needs. Prior to construction completion, a report will be brought forward for City Council for approval of necessary by-law amendments to enact the implementation of an operations strategy developed in consultation with stakeholders that is appropriate to the future near-term needs of downtown Yonge Street. As part of the detailed design process the City will also need to establish plans for operations, maintenance, and public realm programming.

Due to the condition of the existing watermain, it is recommended that detailed design take place from 2021 to 2022 and construction from 2023 to 2025. Timing is contingent upon funding approval and coordination with other capital works in the downtown core.

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SIGNATURE

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ATTACHMENTS

Attachment 1: yongeTOmorrow Study Process & Milestones
Attachment 2: yongeTOmorrow Public Drop in Event #1 Display Panels
Attachment 3: yongeTOmorrow Public Drop in Event #2 Display Panels
Attachment 4: yongeTOmorrow Public Event #3 - Virtual Meeting Briefing Panels
Attachment 5: yongeTOmorrow Public Consultation Summary Round 1
Attachment 6: yongeTOmorrow Public Consultation Summary Round 2
Attachment 7: yongeTOmorrow Public Consultation Summary Round 3
Attachment 8: yongeTOmorrow Recommended Physical Design - Roll Plan
Attachment 9: yongeTOmorrow One-Way Driving Access Block Circulation Diagram