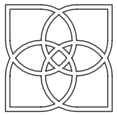
SOUTH YONGE STREET CORRIDOR

Streetscape Master Plan Study *Update*

Phase 1: Research, Inventory and Analysis

MARKHAM Richmond Hill VAUGHAN York Region

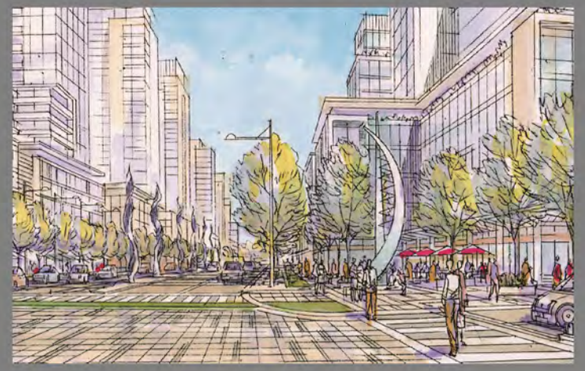
Consultant

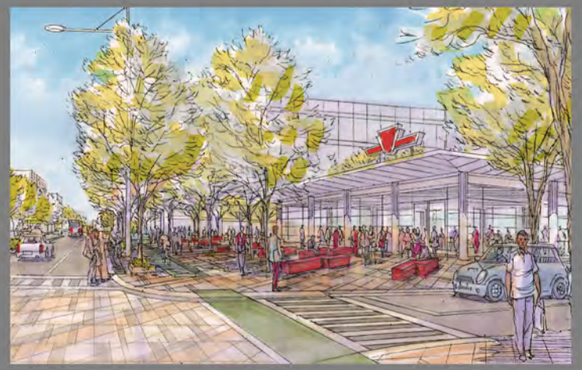


EDA
Collaborative Inc.

August 2021

TABLE OF CONTENTS





1

INTRODUCTION

1.0 INTRODUCTION

1.1 BACKGROUND AND STUDY PURPOSE

More than a decade ago, the need for a detailed streetscape plan for the Yonge Street corridor north of Steeles Avenue has been identified by York Region and was supported by the local municipalities including the City of Vaughan, the City of Markham and the City of Richmond Hill. Subsequently, EDA Collaborative Inc., having responded to an open RFP process, was engaged to prepare a Master Plan for the South Yonge Street Corridor Streetscape Master Plan. The 2012 South Yonge Street Corridor Streetscape Master Plan was well received and approved by Councils of York Region and the three participating municipalities. Notably, it also received the 2012 CSLA Regional Citation Award.

Over the past decade, the Region has implemented on-road cycling facility along some regional roads including Highway 7, Bathurst Street, Dufferin Street, Jane Street, Centre Street and sharrows on Davis Drive. Recent feedback was provided by local residents through a behavioural survey completed in 2015, together with a pilot project on Highway 7 in 2017 indicating that on-boulevard cycling facilities are more preferable as they were perceived to be safer with buffer protecting cyclist from vehicular traffic. Moreover, current studies undertaken by the Region such as Pedestrian and Cycling Planning and Design Guidelines and Designing Great Streets Guidelines do not recommend on-road cycling facilities , ,given the road typology of Yonge Street in this area, resulting in the evolution of support of on boulevard cycling facilities by York Region's active transportation standards. Being keenly aware of this new direction on implementing future cycling facilities, York Region has taken a bold initiative in issuing a RFP on November 20, 2019 for Updating the 2012 South Yonge Street Corridor Streetscape Master Plan to integrate harmoniously cycling facilities within with other pedestrian and streetscapes facilities within the boulevard. EDA Collaborative Inc. was selected to undertake this assignment.

As stated in the RFP, "The primary deliverable of the Work required is an update to the Streetscape Master Plan that involves the deletion of on-road bicycle lanes and integration of boulevard cycling facilities along the subject corridor of south Yonge Street, where reasonably possible, together with necessarily incidental modifications at associated intersections, all at reasonable cost and to the Region's satisfaction".

The updated Master Plan will need to take the followings into consideration:

- **Alignment:** To reflect Sustainable Mobility's new direction on cycling facilities to align with the 2019 Pedestrian and Cycling Design Guidelines;
- **Development:** Equips York Region, Markham, Vaughan, and Richmond Hill with an updated plan to leverage cohesive streetscape design and sustainable mobility through development;
- **Yonge Subway Extension**: Provide clear direction to Metrolinx on open space and streetscape infrastructure around stations.

The updated active transportation design will support and complement the Streetscape Master Plan for a Bold, Sustainable and Achievable streetscape, a Vision which has been re-endorsed by Project Core Team (PCT), while respecting key design principles, objectives and its functional relationship to adjacent buildings, existing and future neighbourhood context. Ultimately, the updated Streetscape Master Plan will serve to provide clear direction on the design and function of the public realm and the future public-private interface along the southern segment of the Yonge Street corridor in the Region.

The following cross-sections illustrate the Midblock at Yonge-Steeles District previously approved by Council with the other one proposed in the RFP.

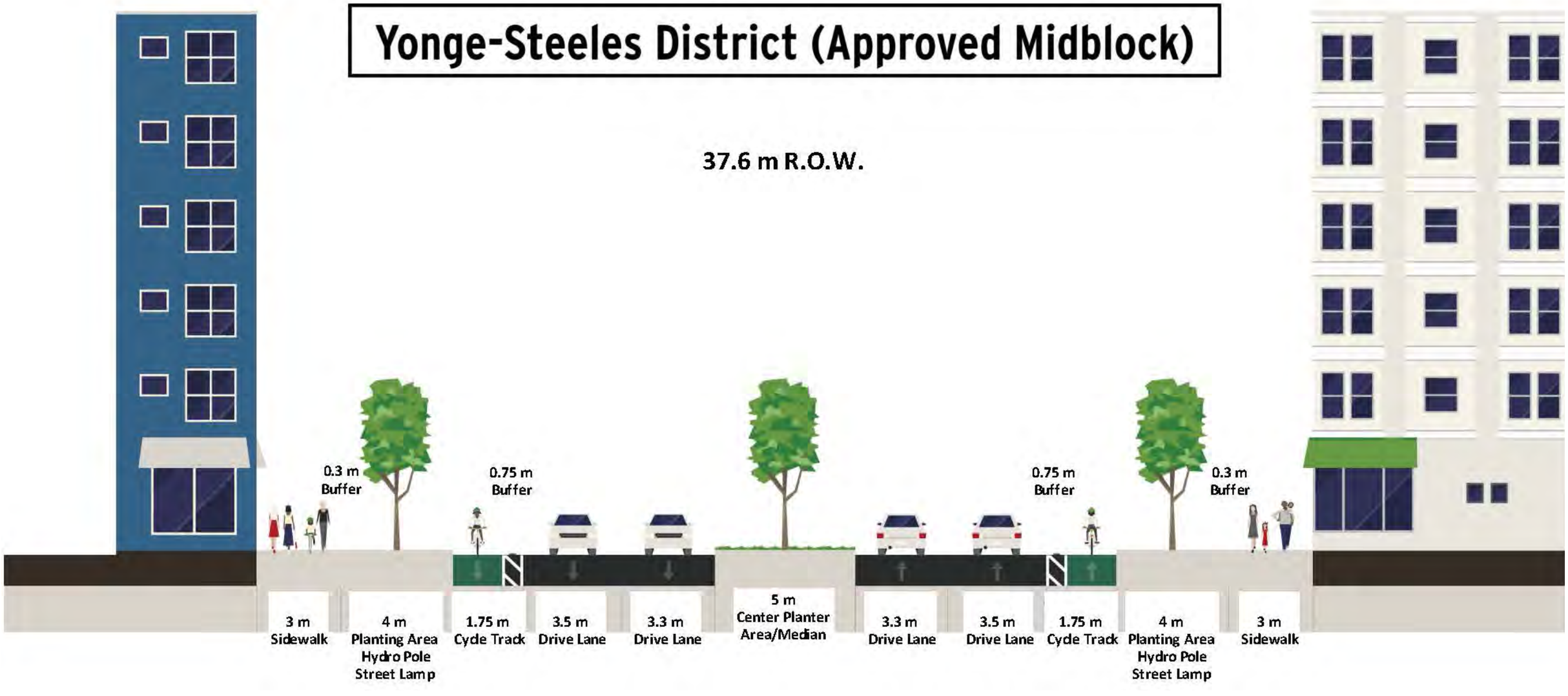


Figure 1: Yonge-Steeles District (Approved Midblock-2012 South Yonge Street Corridor Streetscape Master Plan)

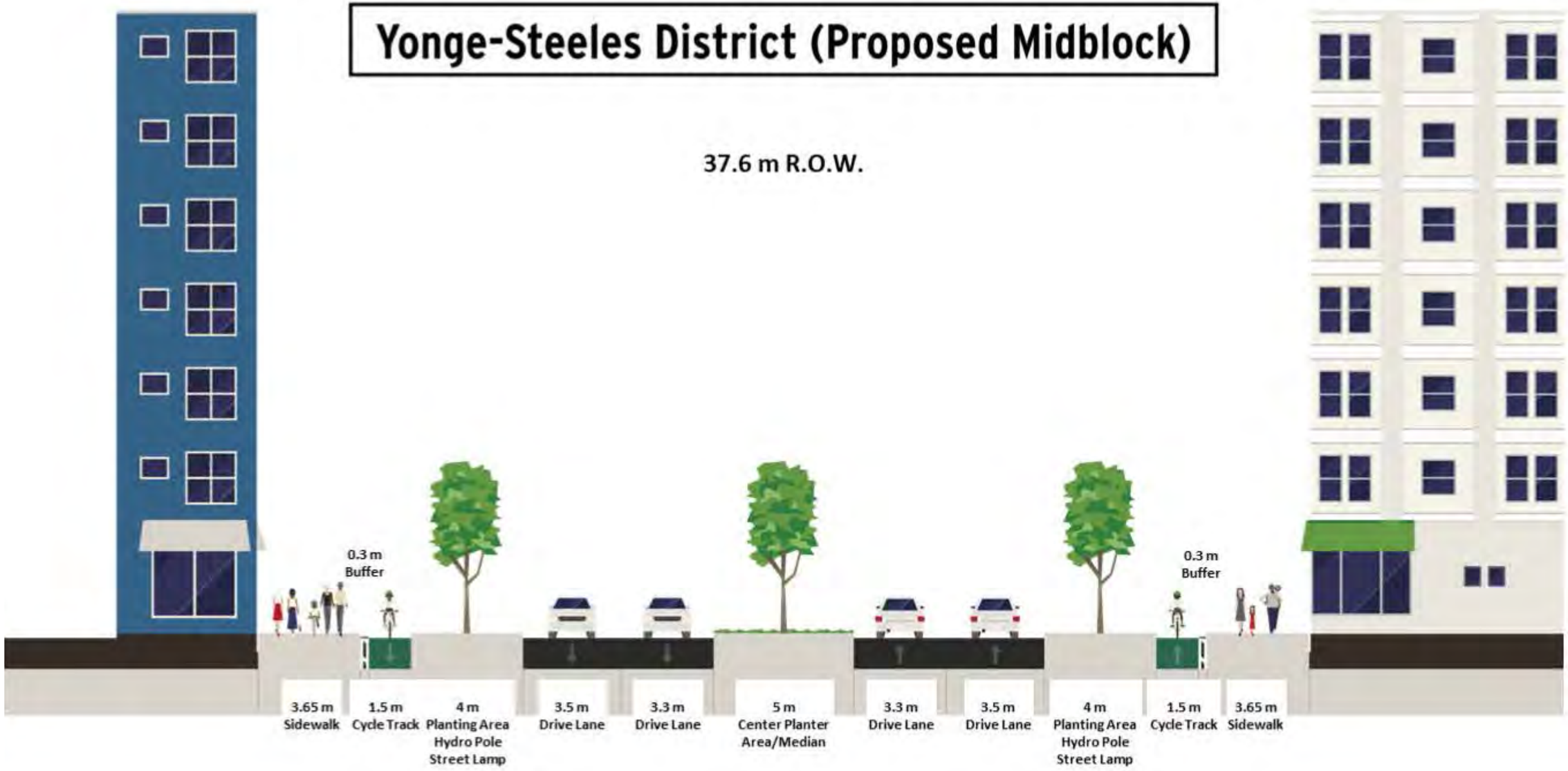


Figure 2: Yonge-Steeles District (Proposed Midblock-2020 South Yonge Street Corridor Streetscape Master Plan)

1.2 OBJECTIVES AND DESIGN PRINCIPLES

1.2.1 OBJECTIVES

To complement and strengthen the above Master Plan Update objectives, the Streetscape Master Plan Detail Design Guidelines and Standards will also be updated which will provide a finer level of details to the Streetscape Master Plan and integrate innovative design standards.

1.2.2 DESIGN PRINCIPLES

Streetscape Design Principles established in the original Master Plan will be adhered to and further developed. Users safety and security are fundamental to designing Streetscapes. Cycling facilities located within boulevards, separated from vehicular traffic, offer substantial benefits to cyclists from both safety and comfort perspectives. Separated facilities often reduce vehicle-related collisions. They also encourage cycling as a mode of transportation among a broader range of people, from an age, ability, and demographic perspective, increasing the overall number of cyclists and reducing the number of cars on the road. By locating cycling facilities within the boulevards important design decisions will need to be made, specifically with respect to:

- intersection and driveway design
- transit stop locations and cycling facilities interfaces
- street furniture, landscape development, and utility locations
- phasing and implementation
- drainage and all-season maintenance

1.3 STUDY AREA

1.3.1 STUDY AREA BOUNDARY

The Study area is defined by the following boundaries starting from south Yonge Street at Steeles Avenue to Garden Avenue just north of Highway 7:

- South Yonge Street is situated on the north side of the City of Toronto boundary line, straddling City of Vaughan, City of Markham, and extends into the City of Richmond Hill to Garden Avenue;
- Bounded by Yonge-Steeles Centre, Richmond Hill Centre and Langstaff Gateway , at each end of the corridor;
- For below ground, the Province is planning/engineering for the future Yonge Subway Extension from Finch Avenue to Richmond Hill Centre.

Figure 3: Study Area Boundary

1.3.2 CHARACTER AREAS

In the 2012 South Yonge Street Corridor Streetscape Master Plan, eight designated districts and thresholds were established. For the current assignment, seven districts would be in the scope of work excluding Richmond Hill Centre District/VivaNext Y2.1 as detailed below:

- Yonge and Steeles District;
- CN Rail Bridge Threshold;
- Clark Station District;
- Old Thornhill district;
- Don River Bridge Threshold;
- New Thornhill Village District;
- Highway 407 / Hydro Lands Threshold

The diagram below illustrates the eight districts. However, the one at Richmond Hill Centre is not included.

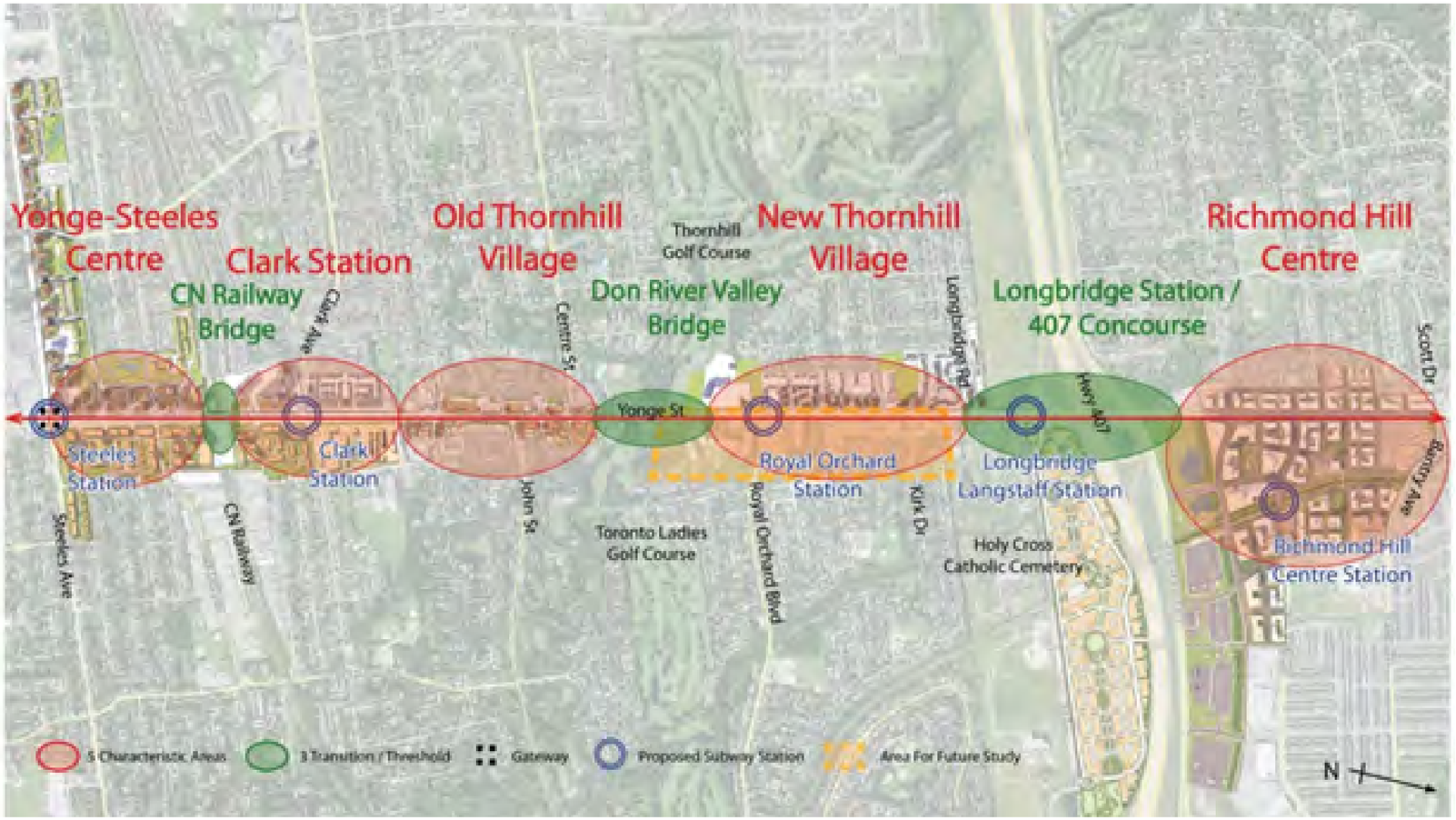


Figure 4:
Character Areas

1.3.3 VISUAL CONTEXT

Steeles Avenue and Yonge Street

Figure 5,6,7: Steeles Avenue and Yonge Street Visual Context

Clark Avenue and Yonge Street

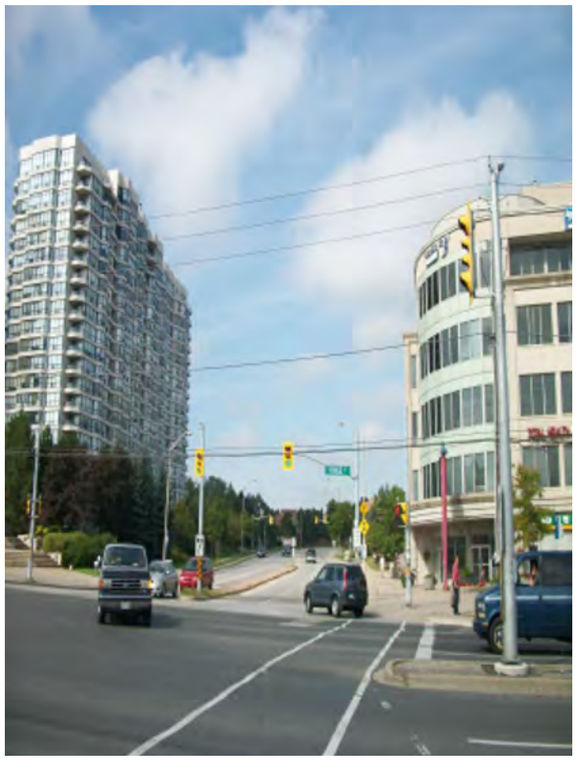


Figure 8,9,10: Clark Avenue and Yonge Street Visual Context

Old Thornhill Village

Figure 11,12: Old Thornhill Village Visual Context

Royal Orchard and Landstaff

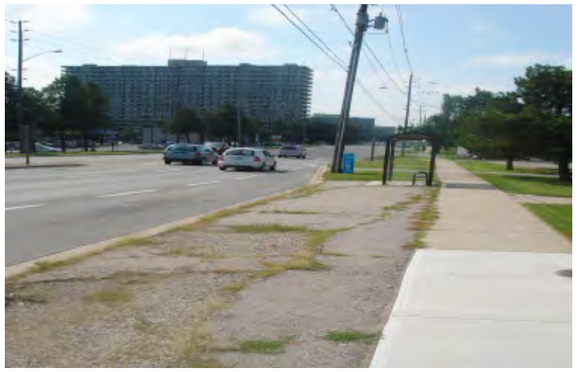


Figure 13,14,15,16: Royal Orchard and Landstaff Visual Context

Highway 407 ETR / Garden Avenue

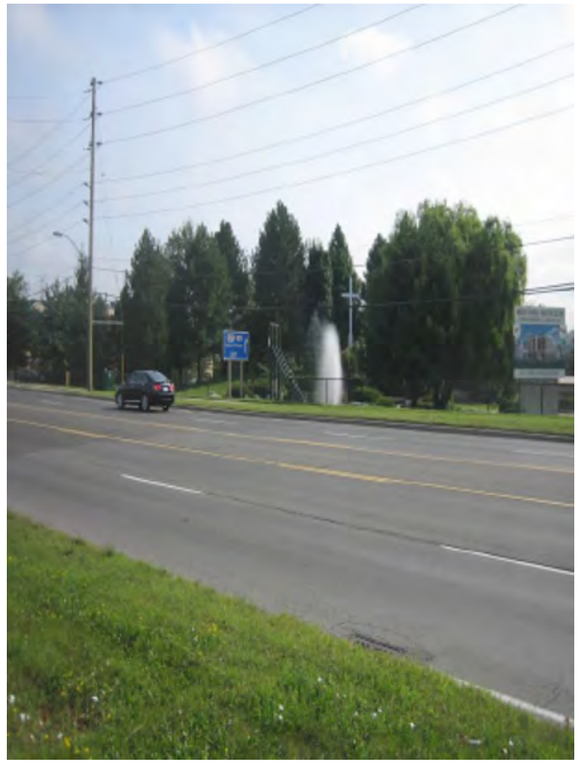


Figure 17, 18, 19: Highway 407 ETR / Garden Avenue Visual Context

1.4 STUDY PROCESS

Our Study Process consists of a systematic investigation of the followings:

1.4.1 STREETSCAPE DESIGN FRAMEWORK AND INTEGRATION

To maintain the design integrity of the original Streetscape Master Plan, all streetscape and urban design themes and elements as detailed in the original Master Plan will be recaptured, updated and documented, along with an updated account of new developments that have taken place since the completion of the original Master Plan, as a compelling Streetscape Design Frame Work within which other elements will be integrated and structured. Using the Streetscape Design Framework as the foundation, the corridor of space from the edge of drive lanes to the property boundary lines of adjacent properties will be redesigned to include landscape treatment of the landscape median separating the drive lane and the cycling facility, paving of the cycling facility and pedestrian walkways, integration of lighting and signage along the corridor all conforming to the current AODA design guidelines. Similar efforts will also be applied to corners of intersections.

1.4.2 ACTIVE TRANSPORTATION PLANNING AND DESIGN

Our transportation consultant will review existing site conditions and apply state-of-the-art technology into the preparation of a new alignment of the cycling facility within the boulevards of the corridor. Various width and existing conditions along the corridor will be carefully reviewed to develop a realistic and implementable alignment and locations of the new cycling facilities. Exemplary intersections will be examined and reviewed to establish practical and implementable conceptual traffic circulation and control options. Adjustment and modification to the above will be made, with input from our civil engineering consultant, to resolve potential conflicts. Throughout our Master Plan Updating process, York Region's Pedestrian and Cycling Planning and Design Guidelines will be applied.

1.4.3 ABOVE AND UNDERGROUND UTILITIES

All information on locations of various above and underground facilities will be compiled and documented by our civil engineering consultant from existing available base information. The proposed alignment and locations of the new cycling facility will be carefully reviewed and assessed to determine the extent of impacts they would have upon existing above and underground facilities. Recommendations on design modification will be made to derive at solutions which can accommodate all requirements.

1.4.4 LAND USE CHALLENGES AND URBAN CONTEXT

Our understanding and approach to addressing some of the key challenges is strengthen by our involvement in developing the original master plan. These include:

Character Areas: The Local Context

Ranging from a heritage downtown context in Thornhill to highway infrastructure in the Highway 407 Threshold area, the characteristics of the South Yonge Street Corridor vary broadly. Upholding the continuity of the streetscape treatment along the corridor while recognizing the unique character areas will be important to be maintained.

Right-of-way: Inconsistent and constrained in places

Related to the above, the road right-of-way changes between the character areas, being constrained in some of the more developed areas of Yonge Street, and the design must still respond accordingly. Bringing the bike lanes into the boulevard will likely not be achievable along the length of the corridor, and therefore, solutions to ensure a smooth transition between areas will be critical for the continuity of cycling infrastructure.

Parking Considerations

Parking configurations in the original plan were for lay-by parking only adjacent to development. There was no on-road, in order to maximize the flow of traffic and improve the operations and level of service of the right-of-way. With the relocation of the bike lanes into the boulevard, parking locations and configurations will need to be reviewed to ensure the safety and efficiency of all users.

Development is Underway: Consideration for the Future

Since the approval of the original master plan, the development of key parcels along Yonge Street has been underway – some of which are completed, and the streetscape treatments prescribed in the master plan have been implemented (e.g. Minto Developments) and Yonge and Colborne. With changes proposed to the plan to reflect updated standards developed by York Region, consideration for how changes may impact these areas will need to be had.

Hydro Infrastructure

The 2012 South Yonge Street Corridor Streetscape Master Plan identified the preference for burying the hydro poles to enable an accessible, seamless, and bold streetscape and pedestrian realm. The plan also recognized the exhorbitant cost of undergrounding and acknowledged and accommodated for aboveground hydro poles as a potential reality. The 2020 Streetscape Master Plan Update will review the implications of aboveground hydro poles with the relocation of the bike lanes to the boulevard.

Operating and Maintenance Costs, and Funding

Since the development of the 2012 South Yonge Street Corridor Streetscape Master Plan, a changing landscape of funding and financial incentives provision means a full review must be completed. With COVID – 19, of the funding options identified in the original Master Plan document are likely still relevant, while some have changed, and new funding streams may have come online. Additionally, a commitment from the provincial government to implement the Yonge Street Subway Extension Project generates another potential perspective to the funding equation.

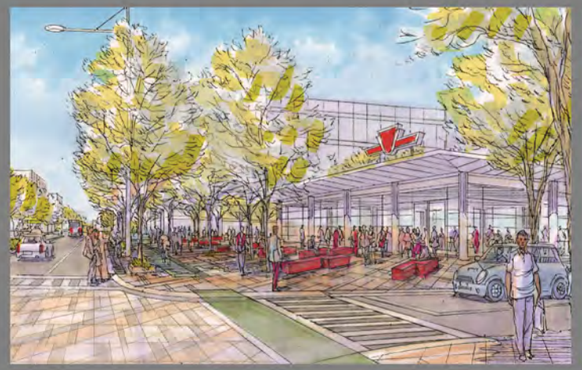
We will reconsider the policy level, financial considerations, incentives, “piggy-backing” of funding sources and other creative techniques together with realistic capital cost estimates and maintenance costs in developing the implementation strategy. Specifically, our Financial and Implementation consultant Sierra Planning and Management will undertake a review of all implementation and funding opportunities available at present and those coming forward in the future (as known) that can assist in advancing the implementation of the updated Streetscape Master Plan.

The estimates of the maintenance and operating costs need to be updated to reflect the required design changes for the South Yonge Street Corridor and increased unit pricing (as per the Canadian Price Index), as appropriate. Sierra will work closely with EDA and their consultant team and York Region to provide an update to the operating costs identified within the existing report, and capture any new amenities based on the updated design. The updated maintenance and operating costs will reflect the anticipated maintenance and operating program for enhanced streetscapes in York Region.

Lighting, Way-finding/Signage/Site Furniture and Public Art Policy

Our Resource Team members will review the implications of the new alignment and locations of the cycling facility and assess their impacts on each of the above item. New policy and technologies regarding the above will be identified and updated. However, the overall design themes of these elements will be retained to maintain the design integrity of the Master Plan.

The findings of the above will be integrated into our Master Plan Updating process.



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GATHER, REVIEW BACKGROUND REPORTS/ TRENDS & LEADING PRACTICE

2.0 GATHER, REVIEW BACKGROUND REPORTS/TRENDS & LEADING PRACTICE

Existing plans, reports, studies and design drawings within the study corridor were collected and analysed. Their implications on the preparation of the 2012 South Yonge Street Corridor Streetscape Master Plan Update are summarized in the following section. Trends and leading practice on planning, design and integration of active transportation, utilities infrastructure, barrier free pedestrian accessibility, lighting, street furniture and public arts policy with streetscape planning and design have been reviewed and documented in the following report. The following process has also been taken to achieve the above objectives.

2.1 APPROACH/BACKGROUND STUDIES/OUTCOME

2.1.1 APPROACH

Our overall Approach to this assignment is holistic and integrative, tapping into our knowledge gained from our work on the 2012 South Yonge Street Corridor Streetscape Master Plan. We will undertake our work through a series of Interactive Workshop sessions with PCT and our Resource Team members during different stage of the project such as:

- Collect, compile and analyze existing site conditions, both above and underground facilities, various width of the corridor and adjacent urban conditions to formulate the basis of evaluation of impacts created by the relocation of the bicycle lanes to the boulevard;
- Collect, compile and analyze existing background reports completed since 2012 including those listed in the RFP for the proposal call of this project to assess any impacts they would have upon our Updating of the South Yonge Street Corridor Streetscape Master Plan;
- Conduct site visits to observe and record any physical changes resulting from new developments along the Study Corridor site;
- Based on the above, a power point presentation was prepared to highlight the Background and Purpose of the Master Plan Update, Team members' roles and responsibilities and Summary of Opportunities and Challenges for the Start-Up Meeting and following Stakeholder Consultation Meetings;
- Input contributed by Project Core Team (PCT) will be fully integrated throughout our Master Planning process.

2.1.2 BACKGROUND STUDIES

The following background studies, Application Drawings, relevant reports and Hydro Underground Background Information have been identified and collected and opportunities and challenges have been summarized which will be integrated into the Master Plan Updating process.

- Phases 1 to 6 Reports and South Yonge Street Corridor and Streetscape Detailed Design Guide 2012 from the South Yonge Street Corridor Streetscape Master Plan 2012
- Designing Great Streets Guidelines 2019
- HSBM-DCSO2018-07-Cycling Constraint -2018
- HSBM-DCSO2019-02-Marking Conflict Zones Between Vehicles and Cyclists-2019
- York Region Pedestrian and Cycling Planning and Design Guidelines (2019)
- York Region Transportation Master Plan, (2016)
- York Region Landscape Design Manual (Draft)

Development Application Drawings

- SYSCSMP Development Applications/Development Application Drawings/SP-M-044-06 - World on Yonge/Interim Design.dwg
- SYSCSMP Development Applications/Development Application Drawings/SP-M-044-06 - World on Yonge/Ultimate Design.dwg
- SYSCSMP Development Applications/SYSCM_SPA_Approved & Current_04.02.2020.pdf
- SYSCSMP Development Applications/Development Application Drawings/SP-M-040-16 (SP.08.V.0147)_Yonge and Grandview_SRApr_Dwg.pdf
- SYSCSMP Development Applications/Development Application Drawings/SP-V-024-15_Ford Lincoln_SRApr.pdf

Relevant Reports

- City of Vaughan Official Plan 2010 and its implication for Yonge Street
- Metrolinx - 2041 Regional Transportation Plan – Final
- mmah-greater-golden-horseshoe-place-to-grow-english-15may2019

- York Region Official Plan 2009 and its implication for Yonge Street;
- York Region Water and Wastewater Master Plan 2009 and its implication for Yonge Street

Relevant Reports

- Report COW_Highway 7 and Jane Street VMC (May 3, 2016)
- Report_Viva Rapidway Project – H2-VMC Segment (April 11, 2013)
- Vaughan Metropolitan Centre Utility Master Plan (May 24, 2017)

2.2 PLANNING POLICY FRAMEWORK UPDATE

2.2.1 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE (2019)

The updated Growth Plan for the Greater Golden Horseshoe was prepared under the Places to Grow Act (2005), and came into effect on May 16th, 2019, replacing earlier prepared growth plans for the Greater Golden Horseshoe (GGH).

The Growth Plan provides a framework for implementing Ontario's vision for stronger, more prosperous communities through the management of growth within the GGH to 2041. The Growth Plan identifies 25 urban growth centres as regional focal points for population and employment growth, and encourages intensification throughout built-up areas, recognizes urban growth centres, intensification corridors and major transit station areas as key focal areas for development to accommodate intensification, and the promotion of a diverse and compatible land uses.

The Plan is focused on accommodating the forecasted growth within complete communities – that is communities that are well designed to provide an appropriate mix of jobs, services, public facilities, and a broad range of housing – to support health, wellness, and an improved quality of life. Complete communities support an increased modal share for transit and active transportation, pedestrian-friendly design, and compact built form to minimize the use of land and mitigate climate change. The Plan takes 'transit and sustainable travel mode first for major transportation infrastructure' lens on planning, with a regional vision to align future transit investment with strategic growth areas.

IMPLICATIONS FOR YONGE STREET

The Growth Plan for the Greater Golden Horseshoe set the foundation for growth management policy directions within Official Plan updates for York Region, City of Vaughan, Town of Richmond Hill and City of Markham. This Growth Plan also set the stage for the local municipalities to undertake detailed land use and urban design studies within the Yonge Street Corridor in order to plan for intensification within urban growth centres, intensification corridors (such as Yonge Street) and around major transit areas (such as Richmond Hill / Langstaff Gateway).

The Growth Plan identifies that a complete streets approach will be adopted for the planning, design, improvement and/or reconstruction of the existing and planned street network. The update to the Streetscape Master Plan will ensure that pedestrian and bicycle networks are integrated into the streetscape design, improving connections to and from nearby neighbourhoods to connect with Yonge Street, major transit areas and urban growth centres.

2.2.2 YORK REGION OFFICIAL PLAN (2019 OFFICE CONSOLIDATION)

York Region's Official Plan provides a framework for managing growth through policies for economic, environmental and community building initiatives. The policies are rooted in the Sustainability Triple Bottom Line – Sustainable Natural Environment, Healthy Communities, and Economic Vitality. Key objectives identified within the Official Plan specifically related to streets, include:

- To ensure streets support all modes of transportation including walking, cycling, transit, automobile use, and the efficient movement of goods; and
- To plan and protect urban and rural streets to accommodate transportation demands.

The Official Plan also speaks to a sustainable natural environment which can have implications to this Master Plan Update. As an example: that in the Urban Area and Towns and Villages, the

Regional Greenlands System shall be identified more specifically in local Official Plans and Secondary Plans, and integrated into community design. These plans shall contain policies and detail initiative that encourage remedial works and enhancement opportunities within the Regional Greenlands System

IMPLICATIONS FOR YONGE STREET

The Official Plan designates Yonge Street as a Regional Corridor, one of four within the Region, and the Richmond Hill / Langstaff Centre as a Regional Centre. Policies within the Official Plan that relate to these important areas, and specifically relate to the South Yonge Streetscape Master Plan Update, include:

- Policy 4.2.4: Requiring a mixed-use pedestrian environment that promotes transit use and their importance as destinations within the region;
- Policy 7.2.39 (c): Street improvement projects that consider the needs and requirements of all forms of transportation including walking, cycling, transit, automobiles, and goods movement; and
- Policy 7.2.39 (d): Priority according to the needs of pedestrians, cyclists and transit users and the integration of adjacent land uses in Regional Centres and Corridors, to promote these forms of transportation

The South Yonge Streetscape project will provide safe and accessible amenities for all forms of transportation, as identified in the policies of the Official Plan, with a focus on environmental, social, and economic sustainability.

2.2.3 CITY OF VAUGHAN OFFICIAL PLAN (2019 OFFICE CONSOLIDATION)

Vaughan's Official Plan provides a vision for transformation to guide the development of policies and land use planning in the city. The Plan is centred on eight goals:

1. Strong and Diverse Communities
2. A Robust and Prominent Countryside
3. A Diverse Economy
4. A Vibrant and Thriving Downtown
5. Moving Around without a Car
6. Design Excellence and Memorable Places
7. A Green and Sustainable City
8. Directing Growth to Appropriate Locations

Identified Intensification Areas within Vaughan will be the primary locations where the minimum of 45% of residential growth through intensification will be accommodated. Within the Official Plan, the area at the intersection of Yonge Street and Steeles Avenue is identified as a Primary Centre Intensification Area and the Historic Thornhill Centre is identified as a Local Centre Intensification Area; while the remaining sections of Yonge Street within the City of Vaughan are designated as Primary Intensification Corridors.

Well designed public spaces and pedestrian-friendly built form are central elements related to the public realm in all areas of intensification in Vaughan. Beyond this, the Official Plan lays out the following related to the areas of study for this assignment:

- Yonge – Steeles Primary Centre is prescribed to be focused around planned transit improvements, resulting in transit-oriented developments that include a mix of uses.
- Historic Thornhill Village Local Centre will be a mixed-use core for the surrounding residential community. Local centres are envisioned to be pedestrian-oriented in nature and be the focus for expressions of the local community's heritage and character.
- Yonge Street Intensification Corridor are to be designed to accommodate pedestrians and cyclists safely and comfortably, in addition to automobiles.

Additionally, the Official Plan includes policies specific to improvements on arterial rights-of-way, such as Yonge Street, shall be made to improve conditions for pedestrians, bicycles, and transit users, that prioritizes safe and efficient travel and create street cross-sections that are more pedestrian and transit friendly.

IMPLICATIONS FOR YONGE STREET

This document offers strong support for the Yonge Street Corridor Streetscape Master Plan. It identifies primary centres (Yonge Street and Steeles Avenue) and local centres (Thornhill Heritage District) and intensification corridors or links between these centres. As a result, variety, as well as continuity, along the corridor is provided with strong nodes and linkages.

2.2.4 CITY OF RICHMOND HILL OFFICIAL PLAN (2010)

The Richmond Hill Official Plan was completed in July 2010 and is currently in the process of being updated. The vision statement for the Official Plan is “Richmond Hill’s Official Plan – building a new kind of urban”. The Plan sets out a number of guiding principles related to complete communities, environment, economy, place-making and connectivity and mobility. The Official Plan places an emphasis on three themed approaches to land use planning including:

Environment First and Sustainability - This theme recognizes the Town’s natural heritage. Linkages between natural areas and the urban open space system within built-up areas shall be established as part of this system.

City-Building **–** this theme recognizes that the Town is in the process of transforming from a suburban into an urban place in a way that respects and enhances the Town’s unique character. Policies related to City-Building seek to guide the transformation through managed growth at an appropriate scale and intensity that reflects the local context.

A majority of the Town’s future growth will be concentrated at centres and corridors that are supported by public rapid transit and infrastructure, including the Richmond Hill Centre. Development in these areas will contain a balanced range of uses including employment, housing types and affordability, and community uses to service local needs. Within these centres and corridors, the overall urban structure will create a more pedestrian-oriented, mixed-use, compact urban form that promotes sustainability.

Place-Making – this theme focuses on place-making through the integration of design and land use policies. Policies accommodate intensification in a way that protects, promotes and enhances the Town’s unique character by promoting development at a human scale. Careful transitions and design features will balance areas of higher densities and concentrated uses, contributing to a comfortable, aesthetically pleasing public and private realm. Existing cultural and natural heritage features are promoted, as is the creation of more unique gathering spaces and focal points through connectivity and design excellence.

The urban structure framework identifies Richmond Hill Centre as part of the Richmond Hill / Langstaff Gateway Urban Growth Centre, shared with the Town of Markham. This area “will become a vibrant, urban mixed-use centre containing the greatest height and densities in the Town, focused around a major inter-modal Regional transit hub”.

IMPLICATIONS FOR YONGE STREET

The Richmond Hill Official Plan provides strong support for the Yonge Street Corridor Streetscape Master Plan. The Plan recognizes the need for density and height transitions to the existing community on the west side of Yonge Street. There is a strong recognition of the need for a connected urban open space system and the need for supportive public rapid transit. This Plan promotes a human scale of streetscape design.

It is important to note that a Secondary Plan for the Richmond Hill Centre is currently underway, the outcomes of which should be considered when developing the Streetscape Master Plan for South Yonge.

2.2.5 CITY OF MARKHAM OFFICIAL PLAN (2014)

The 2014 Official Plan for the City of Markham was adopted by Council in 2013 and approved by York Region on June 12, 2014. The document has been appealed to the Ontario Municipal Board (OMB) and is not yet fully in force. The Plan is structured on six strategic priorities:

- Managing Growth
- Improving Transportation and Transit
- Protecting the Natural Environment
- Providing Municipal Services
- Providing for Recreation and Cultural Services and Facilities, and Ensuring Public Safety
- Celebrating Diversity

Markham's urban growth centres, namely the Langstaff Gateway, as relevant to the South Yonge Streetscape Master Plan, will accommodate the majority of intensification with compact, vibrant development with a diversity of choices related to living, working, and enjoying culture. Yonge Street, identified as a Regional Corridor / Key Development Area by the City, is to be planned to function as an urban main street with compact, mixed-use development, and well-designed pedestrian-friendly and transit-oriented built form.

The Official Plan promotes balanced mobility options for all users – pedestrians, cyclists, and transit users, with streets designed to be human scale and context sensitive. Streetscapes are to be designed by promoting activity on the street, pedestrian comfort and safety, pedestrian and cycling amenities, street planting and landscaping, and on-road parking where required.

IMPLICATIONS FOR YONGE STREET

With increasing population and employment, it will be important to incorporate suitable land uses in specified intensification locations, such as the Langstaff Gateway and Yonge Street in general. Providing facilities to encourage all modes of transportation within and to/from these areas is a key direction provided for in the City's Official Plan.

Additionally, it is understood that the City of Markham is currently looking at the potential to include on-boulevard cycle facilities on some streets, particularly those in intensification areas (e.g. Langstaff Gateway), which have the potential to provide active transportation linkages with the facilities envisioned on Yonge Street.

2.2.6 COMPLETE COMMUNITIES

All of the plans and policies reviewed as part of Section 2.2 have a focus on developing complete communities – meaning places where homes, jobs, schools, community services, parks and recreation facilities are easily accessible. Complete communities are supportive of active transportation and climate change mitigation and can contribute to an improved quality of life for residents.

2.3 STREETSCAPE / URBAN DESIGN AND SPECIAL STUDIES

2.3.1 AODA Update

In the preparation of our Master Plan Update, latest version of AODA since 2010 will be recognized, reviewed and incorporated into our planning process. For details of our review and update see Section 2.7.2.

2.3.2 DESIGNING GREAT STREETS

Regional Streetscape Policy completed in 2001 has been amalgamated with Designing Great Streets Policy in 2019. Integration of the Context Sensitive Solutions (CSS) approach to road design and the Transportation Master Plan (2016) instituted the vision for transportation services in the York Region to 2041. It defines actions and policies to address road, transit and active transportation needs. The Designing Great Streets Guidelines (2019) as an update is consistent with direction and policies in the 2016 Transportation Master Plan.

The Guideline recognizes six street typologies to be used as the basis for developing the Context Solution Selection Guidelines for Regional streets in consultation with local municipalities. This master plan update will consider the
following three (3) road type, Urban Centre, Urban Avenue and Main Street, as they relate to the Yonge Street Corridor and the various adjacent community characters as outlined in the previous study (SYCMP, 2012):

The other key elements as noted in Designing Great Streets include Design Guidelines, Decision Making Process and Implementation strategies that will help guide the SYCMP Update.

It is also of note that the York Region Forest Management Plan is also an important related work which speaks to goals of the urban forest including canopy cover targets and combating the heat island effect.

2.3.3 MUNICIPAL STREETSCAPE POLICY AND DEVELOPMENT GUIDELINES

Various municipal streetscape policies and development guidelines as detailed in the 2012 Master Plan and their latest versions will be referred to throughout our Master Plan Update process. They are supportive in creating a streetscape that is safe, comfortable and conducive to active and healthy life style of all residents. Particularly important to this Master Plan Update are recent studies and design guidelines such as City of Vaughan 2019 Pedestrian and Bicycle Master Plan Update and Designing Great Streets Guidelines 2019 which will be reviewed and adapted into our planning process. In addition, current Municipal Streetscape Partnership Policy has established framework within which costs for on streetscape implementation can be shared. For details of this program, see Section 2.7.4 below.

2.3.4 URBAN DESIGN AND SPECIAL STUDIES

Within the Vaughan's Official Plan, the area at the intersection of Yonge Street and Steeles Avenue is identified as a Primary Centre Intensification Area and the Historic Thornhill Centre is identified as a Local Centre Intensification Area; while the remaining sections of Yonge Street within the City of Vaughan are designated as Primary Intensification Corridors. City of Vaughan Official Plan (2019 Office Consolidation) lays out the following related to urban design principles for the following areas:

- ***Yonge Street Intensification Corridor*** is to be designed to accommodate pedestrians and cyclists safely and comfortably, in addition to automobiles.
- ***Yonge – Steeles District:*** This Primary Centre is prescribed to be focused in transit-oriented developments that include a mix of uses.
- ***Historic Thornhill Village Local Centre:*** This area will be a mixed-use core for the surrounding residential community, envisioned to be pedestrian-oriented in nature and be the focus for expressions of the local community's heritage and character.

Additionally, the Official Plan includes policies specific to improvements on arterial rights-of-way, such as Yonge Street, shall be made to improve conditions for pedestrians, bicycles, and transit users, that prioritizes safe and efficient travel and create street cross-sections that are more pedestrian and transit friendly. A new Yonge and Steeles Corridor Secondary Plan and Streetscape Master Plan is being commissioned which will conceivably be integrated and complementary to the updating of South Yonge Street Corridor Streetscape Master Plan.

Langstaff Gateway, urban growth centres of City of Markham, is planned to accommodate the majority of intensification with compact, vibrant development with a diversity of choices related to living, working, and enjoying culture. Yonge Street, the City, is to be planned to function as an urban main street with compact, mixed-use development, and well-designed pedestrian-friendly and transit-oriented built form. Balanced mobility options for all users is promoted with streets designed to be human scale, comfortable and context sensitive.

While Richmond Hill is not within the scope of work, its location fronting onto the northern boundary of the study area needs to be considered contextually. It is envisioned that a majority of the Town's future growth will be concentrated at centres and corridors that are supported by public rapid transit and infrastructure, including the Richmond Hill Centre. Development in these areas will contain a balanced range of uses including employment, housing types and affordability, and community uses to service local needs. The Richmond Centre Secondary Plan is being undertaken which will conceivably strengthen these urban growth objectives in creating a more pedestrian-oriented, mixed-use, compact urban form that promotes sustainability.

Special Studies

Yonge Steeles Gateway District & Clark Station District

- Yonge Steeles Corridor Secondary Plan 2010 by Young and Wright / Vaughan 2010/Area Studied: Steeles Ave. to just south of Elgin Ave., West side of Yonge only
  Status: Yonge Steeles Corridor Secondary Plan is currently under appeal by landowners to the LPAT. David Marcucci, senior planner in Long Range Planning at the City is lead on this file. My understanding is that the landowners are required to conduct a Transportation and Servicing Capacity Study as next step. York Region Transportation Group (under Vi) is also involved in effort.
- Yonge Steeles Corridor Study September 2008 by du Toit Allsopp Hillier / Markham/Area Studied: Steeles Ave to just south of Elgin Ave., East side of Yonge Street
  Status: No new study has been completed

Old Thornhill Village District

- Thornhill Yonge Street Study 2005 by Urban Strategy Inc. / Markham & Vaughan / Area Studied: Elgin/Arnold – Thornhill Summit Way
  Status: No updates on this Study
- Thornhill Markham Heritage Conservation District Plan (2005) / Markham / Area Studied: Elgin/Arnold – Thornhill Summit Way east side of Yonge only)
- Thornhill Vaughan Heritage Conservation District Plan (2007) / Vaughan / Area Studied: Elgin/Arnold – Thornhill Summit Way west side of Yonge only)
  Status: No updates to the Thornhill Vaughan HC District Plan

Don Valley Threshold

Status: No study has been completed

New Thornhill Village District

- Yonge Steeles Corridor Secondary Plan, May 2010 by Young and Wright / Vaughan / Area Studied: Royal Orchard – Longbridge Road, west side of Yonge Street only)
  Status: Part of Yonge Steeles Corridor Secondary Plan which is under appeal to the LPAT

Richmond Hill Centre District

- Regional Centre Design and Land Use Study 2010 by Urban Strategies Inc. / Richmond Hill / Area studied: Hwy 7–Scott Drive / Bantry Ave.
- Ref: Richmond Hill Official Plan 2010, Area studied: Hwy 7 – North of South Yonge Street Corridor Boundary

Status: No other guidelines for the area have been prepared since 2012 South Yonge Street Corridor Streetscape Master Plan. However, the City Manager's office is developing the Richmond Hill Centre Secondary Plan.

Other Streetscape Related Work

Preliminary Design and Engineering (PDE) was conducted for the Yonge Subway North Extension by York Region Rapid Transit Corp in 2019, however this work has been uploaded to the province under Metrolinx. Metrolinx will be contacted for the latest update on the PDE and re-examination of scope for the Yonge subway extension.

2.4 TRANSPORTATION FRAMEWORK AND SPECIAL STUDIES

2.4.1 2041 REGIONAL TRANSPORTATION PLAN FOR THE GREATER TORONTO AND HAMILTON AREA (2018)

The 2041 Regional Transportation Plan (RTP) for the Greater Toronto and Hamilton Area was prepared by Metrolinx in March of 2018.

The document outlines the process Metrolinx has adopted to-date for the RTP and outlines the challenges facing the GTHA on both a local and global scale. Metrolinx set out a Vision of transportation in the GTHA by 2041 and identified 3 goals and 5 strategies (the latter of which each have a set of corresponding Priority Actions) to guide the process towards the Vision of an integrated multimodal transportation network in the GTHA enhancing quality of life and prosperity.

The RFP identified the advancement and completion of the planned frequent regional rapid transit network and achievement of complete walking / cycling networks with bike share programs in order to achieve the Vision.

The horizon year for the RTP is 2041. Projects within the South Yonge Street Streetscape study area that are 'In Development rapid transit projects' include the Highway 7 West BRT (some of which has since been completed) and the Yonge North Subway Extension. These would support connecting the Richmond Hill Centre (designated both as an 'Urban Growth Centre' and a 'Mobility Hub on Priority Transit Corridors and Subways') with the City of Toronto and intensification along the Yonge corridor (and Highway 7 corridor). In addition, Richmond Hill 15-minute GO Service is listed as part of 'Projects beyond 2041'.

Implementation of the RTP stresses coordination among partners, a regional mechanism to coordinate transportation planning and investment, and a regional approach to long-term funding. Implementation and funding are shared responsibilities of Metrolinx and its partners, including federal, provincial and municipal governments. Realizing the Vision will also require the involvement of the private sector, NGOs and other civic organizations, academic partners and the general public.

2.4.2 THE REGIONAL MUNICIPALITY OF YORK TRANSPORTATION MASTER PLAN (2016)

The Regional Municipality of York Transportation Master Plan (TMP) was completed in 2016 by York Region. The TMP outlines the policies, actions and recommended infrastructure improvements that are required to address transportation needs over the next three decades. It builds on previous TMP's and other documents including the Pedestrian and Cycling Master Plan. It identifies solutions to respond to York Region's transportation and mobility needs to 2041 as well as to take advantage of opportunities in York Region and the broader Greater Toronto Area.

To deliver an interconnected system of mobility, five objectives were developed:

1. Create a World Class Transit System
2. Develop a Road Network Fit for the Future
3. Integrate Active Transportation in Urban Areas
4. Maximize the Potential of Employment Areas
5. Make the Last Mile Work

Major initiatives that support the creation of a world class transit system include:

- Maximize the potential of Regional Express Rail
- Improve transit frequency and coverage through implementation of the Frequent Transit Network
- Complete Viva network (rapidways and new service corridors)
- Extend the Yonge North Subway to Richmond Hill Centre and study further subway expansions with partners
- Deliver the YRT/Viva 5-Year Service Plan
- Develop an implementation plan for the expansion of Park 'N' Ride facilities with transit connections to urban centres
- Support the freeway bus network and future provincial transitway corridors
- Improve service and fare integration with partner/neighbouring transit systems (e.g., GO Transit, TTC, Durham, Brampton)

Major initiatives that support the integration of active transportation in urban areas include:

- Accelerate active transportation infrastructure that connects communities to transit spines, major destinations and Regional Centres
- Support the last mile

- Complete gaps in sidewalks
- Develop a trails strategy to provide a network of greenways
- Build comfortable and convenient cycling infrastructure that appeals to a broad range of ages and abilities
- Work with MTO to make highway interchanges pedestrian and cycle friendly
- Complete Lake to Lake Cycling Route and Walking Trail and prioritize projects that support connectivity in urban areas

The TMP maintains the rapid transit corridors identified in the 2009 TMP (including Highway 7 and Yonge Street within the South Yonge Street Streetscape study area). Highway 7 was scheduled to be complete by 2019; it was completed in 2019. After the 2041 horizon, the TMP states that the Region expects to convert some or all Viva rapidways (i.e. bus rapid transit; BRT) into higher capacity light rail transit (LRT). The TMP reflects the 2015 Yonge Relief Network Study report to the Metrolinx Board of Directors recommending that the Yonge North Subway Extension project be advanced to 15% preliminary design and engineering.

2.5 ABOVE AND UNDERGROUND UTILITIES

A combination of above and underground utilities is present within the study area. A complete Subsurface Utility Investigation is underway with various utility companies servicing the York Region area to identify locations of existing utilities, both above and underground. Coordination with Alectra, Enbridge Gas, Bell, and Rogers, as well as the neighbouring municipalities will be required to develop a comprehensive base plan which is essential to understand the impacts of the design alternatives being explored. The existing hydro servicing along the Yonge Street corridor is predominantly connected via hydro poles located within the boulevard which contain other utilities as well such as Rogers and Bell. The extent of utility relocations will be contingent on the final Yonge Street corridor concept plan.

Implementation of the Streetscape Master Plan may present opportunities and constrains to the health conditions of existing vegetation and the selection of new plant materials. Relocating underground utilities during construction will impact existing street trees. At the same time, opportunities will be available to select the appropriate tree species that can be thrive very well within the physical framework of the new streetscape amenities zone, as indicated in this Updated Master Plan. Ultimate size of the trees will be an important consideration within the landscape design.

2.6 IMPLEMENTATION STRATEGY UPDATE

Since the development of the original South Yonge Streetscape Master Plan, the capacity of development and growth to fund streetscape enhancements is a changing and dynamic environment. This includes, but is not limited to, impacts of Bill 108 More Homes, More Choices Act (2019, currently under review) which is expected to impact funding envelopes and mechanisms of funding for municipalities through changes to the Planning Act and Development Charges Act specifically.

Many of the existing capital grant funding sources identified in the original Master Plan document will be monitored over the course of the project, given COVID-19 related stimulus spending by all levels of government, which may or may not have an impact on future spending in general, and public realm related spending specifically. Similarly, how construction-related activities and businesses will be impacted by the pandemic present a heightened concern for if, how and when the implementation of any development proposals is to take place over the next several years. The items and issues referenced above, and other factors relevant to implementation, will be reviewed and assessed by the Team as part of the project's Phase 5 work.

2.7 TRENDS & LEADING PRACTICE

2.7.1 EMERGING TRENDS IN MOBILITY

Recent innovations in mobility, brought about through the expansion of technology, are beginning to change the multimodal landscape. Several key innovations look to solve the "last mile" problem, by increasing the effective distance from transit stations that can be reached by individuals without cars. These include e-bikes, bike sharing, and micro-mobility platforms.

E-Bikes

Improvements in battery technology have increased the acceptance of various formats “e-bikes”, opening up cycling as a mode of transportation to individuals who might otherwise have driven. In their most basic from e-bikes are little more than standard bicycles with motor assist to help individuals with hills or other strenuous terrain, which can increase the age and ability range of cyclists. At the opposite end, larger e-bikes operate more similarly to mopeds, with increased vehicle weight and features like onboard turn signals, which operate almost exclusively under battery power. These devices can offer a mobility option to individuals who are physically unable to cycle or dramatically increase the available range to cyclists. The integration of e-bikes into existing cycling facilities is an emerging field, with regulation typically addressed at the municipal level. Some jurisdictions are restricting use to specific cycling facilities based on the weight or operating speed of the e-bikes, with safety being the chief concern.

Bike Sharing

Increasing widespread adoption of municipal or regional bike share programs builds off successes in Paris, London, and New York. These programs help increase the reach of transit stations by allowing individuals to ride “point to point” without having to return to the same point at the end of their trip. Operations, bike types, platforms, and technology range widely depending on the jurisdiction and program roll out. Bike share programs can increase the number of cyclists using facilities for both commuting and recreational purposes.

Micro-mobility Platforms

A catch-all term, micro-mobility platforms refers to individual transportation options that are not cars nor bikes. This would include, principally, e-scooters which have become more popular in Asia and the United States, with some limited adoption in Canada. These devices, which often operate point-to-point and are bookable for single uses, often leverage existing cycling facilities to facilitate easy travel. Scooters using bike lanes in US cities has become ubiquitous in markets where sharing companies (i.e. Bird and Lime) operate. Regulation of the use of cycling facilities by these devices is being addressed at both the provincial and municipal level, as jurisdiction changes depending on where within the right-of-way the cycling facilities are located.

Future Planned Cycling Connections

In order to accommodate north-south boulevard-located cycling facilities along Yonge Street, significant interventions are required at signalized intersections to accommodate separated crossings. During the process of reconstructing intersections to provide for separated north-south crossings it is important to also provide for future east-west crossings, as well as design the intersections to facilitate changes in direction by cyclists. This requires that municipal cycling plans be up-to-date to determine the intersections where these interfaces must be planned for, municipal standards for the location of the east-west cycling facilities within the right-of-way (are they on-road, curbside, or boulevard separated) be up-to-date, and that strategies are in place for the phased installation of cycling facilities (if Yonge Street construction precedes the introduction of a connecting east-west route).

2.7.2 COVID-19

Impacts of COVID-19

Since March 2020, Canada has been faced with many challenges in combating threats from COVID-19, a global pandemic. Countries from all over the world have responded to these challenging in implementing, within an unprecedented short period of time, safe access to public open spaces through constructing wider and safer cycling and pedestrian facilities. In Toronto has taken action to increase traffic calming measures, open up space for pedestrians and cyclists, close some streets, such as the Lakeshore Boulevard, on weekends and holidays, and speed up installation of bike lanes. These changes are to better facilitate physical distancing and make

it possible for everyone to safely access our roads and outdoor spaces.

To date the City of Toronto has implemented three programmes that support physical activities physical distancing requirements and promote economic recovery:

- CurbTO: Creates Curb Lane Zones and Temporary Parking and Pick-up Zone w/in curb lane normally designated for parking
- ActiveTO: Implemented Quiet Streets, Major Road closures and expanding the city's cycling network
- CaféTO: This is the newest element that expands new and existing frontage cafés and install new cafés w/in the curb lane (not in effect as of yet)

The reality is that in most municipalities, streets were designed to move cars. It is necessary to rethink and redesign them to move all people safely and comfortably. These changes are steps in the right direction in meeting varying mobility needs. This new trend will inform our team's planning process in updating of the South Yonge Street Corridor Streetscape Master Plan.

2.7.3 AODA GUIDELINES IMPLICATIONS

By complying with the Accessibility for Ontarians with Disabilities Act, we will ensure the Yonge Street Corridor becomes a public space that is open and welcoming to everyone, including people with diverse abilities. The preferred alignment must also meet the requirements of the Accessibility Standard for the Design of Public Spaces and seek opportunities to develop an inclusive design and create an innovative public space. Implications of the guidelines for our current assignment are as follows.

The Accessibility for Ontarians with Disabilities Act, 2005 (AODA) was prepared by the Government of Ontario, and became law on June 13, 2005 (Consolidated 2016). The goal is to achieve accessibility for all Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures and premises by January 1, 2025. In 2014, Access Ontario created 'A Guide to the Integrated Accessibility Standards Regulation'. Currently there are five separate AODA standards, of which this update will be employing the Design of Public Spaces (DOPS) Standard as it relates to public streetscape design. The DOPS Standard outlines the need for new construction and redevelopment of public spaces to be accessible for people with disabilities.

In order to make public and communal spaces more accessible the DOPS Standard addresses specific requirements for accessible outdoor paths of travel including sidewalks, ramps, stairs, curb ramps, rest areas and accessible pedestrian signals and accessible parking (on and off street). The DOPS Standard also covers the maintenance and restoration of public spaces to better serve the needs of all users, including children, seniors and parents with strollers, and people with a wide variety of disabilities.

All requirements within the AODA/DOPS will be recognized and incorporated into the Streetscape Master Plan Update for the Yonge Street Corridor with attention given to the followings:

Curb Ramps or Depressed Curbs: In order to reduce the need to step down from a curb to the roadway to cross at they should be designed with sufficiently wide and appropriately designed curb ramps and depressed curbs. A curb ramp or depressed curb is needed for people with physical disabilities or even people using shopping carts or strollers. To eliminate trip hazards (e.g., the section of curb between crosswalks), a fully depressed curb is needed especially in areas with high volumes of pedestrian traffic such as at transit stops or rapidways. Importantly, All curb ramps and depressed curb will conform with York Region's latest standards.

Tactile Walking Surface Indicators (TWSIS): The ability to move about one's environment with ease and confidence is essential

for full participation in the community. Many people who are blind, deafblind, or partially sighted use information available from the natural and built environment such as acoustics, tactile information and visual information to assist with wayfinding. Tactile walking surface indicators (TWSIS) are the flat-topped bumps detectable under foot.

Accessible Pedestrian Signals (APS): For persons with low or no vision an audible locator tone and a walk indicator tone should be used to indicate to when it is safe to cross the roadway and in which direction. APS may be activated automatically, or by push-button that has a tactile arrow aligning with the direction of crossing. This button vibrates when the pedestrian can cross for persons who are deafblind.

2.7.4 STREETSCAPE & URBAN DESIGN

EDA has successfully completed various projects ranging from Master Planning to Design and Implementation such as the Grand Band Main Street Streetscape Redevelopment, Yonge and Colborne Streetscape Redevelopment, Elgin Greenway Development in Sudbury, Ontario, City of Cornwall Downtown Streetscape Redevelopment Master Plan Strategy. Through these projects, experience on new trends on Streetscape and Urban Design was gained which will be applied to this assignment. Specifically, planning of cycling facilities on boulevard for Elgin Street, full integration of active transportation within streetscape development for the downtown of City of Cornwall are good example illustrating new trends and leading practice in safe and functional design of cycling facility, specification of pavements for both pedestrian and cycling facilities, plant materials installation techniques, irrigation, design and selection of light luminaires, site furniture, signage and public art installation. Recently, in addition to planning and designing safe, comfortable and functional pedestrian and cycling facilities, streetscape design has become a vehicle of “Story Telling” of unique sense of place and paying tribute to the natural and cultural heritage of the place where streetscape improvement take place.

2.7.5 LIGHTING, SITE FURNITURE, PUBLIC ART

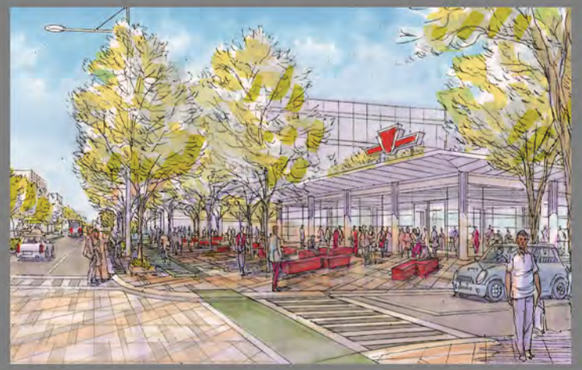
With the installation of installing cycle facility on boulevards instead on street, placement and installation of street light fixtures, site furniture and public art will be reviewed and adjusted to work in harmony with the all the elements such as streetscape and planting, pedestrian walkways, cycle facility and necessary buffering within the boulevard. Our Specialist Consultant team will work closely with our Core Team to achieve integrated and holistic solutions for the Master Plan Update.

In addition to current approach to public realm lighting, new approach to achieve objectives beyond dark sky, no glare and LED light luminaires will be further explored. Safety of pedestrians and cyclists will also be further explored and implemented.

2.7.6 IMPLEMENTATION STRATEGY

Municipal Streetscape Partnership Program

The Region currently has in place a cost-sharing program, known as the Municipal Streetscape Partnership Program, for streetscape projects on Regional roads to encourage partnerships with local municipalities for a higher level of streetscape design on these streets. This program has been employed for the projects completed at Yonge and Colborne Streets in Thornhill and the Richmond Hill Gateway at Yonge Street and Garden Avenue. There is also the potential to look at providing additional incentives, to developers for example, for improvements to the public realm along Yonge Street.



3

SITE INVESTIGATIONS, INVENTORY AND EVALUATION OF EXISTING SITE CONDITIONS

3.0 SITE INVESTIGATIONS, INVENTORY AND EVALUATION OF EXISTING SITE CONDITIONS

3.1 EXISTING PHYSICAL CONDITIONS

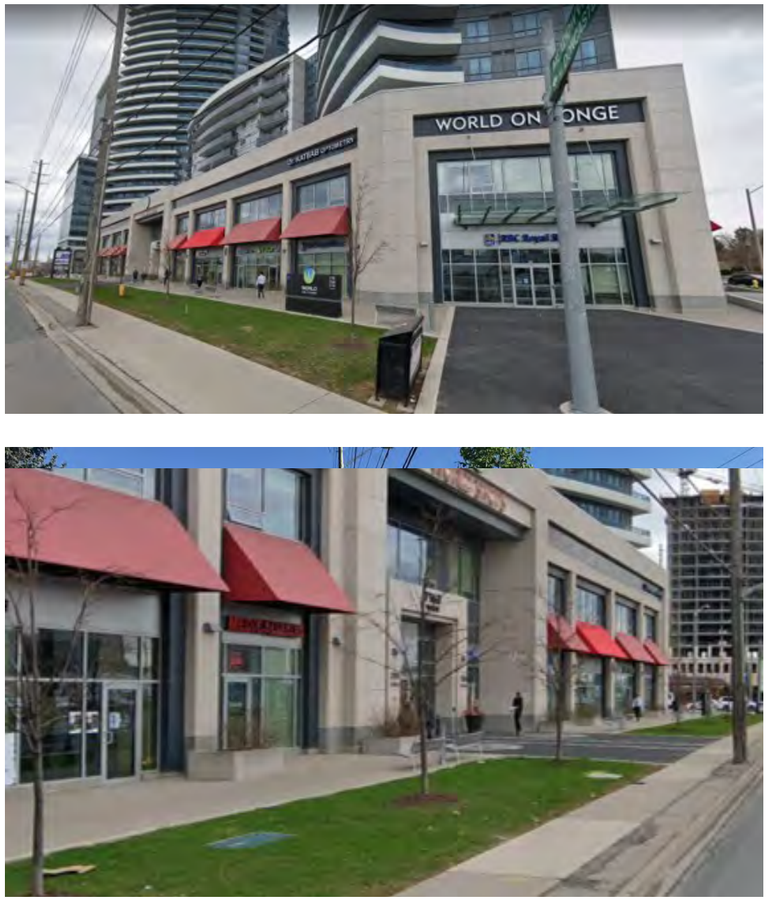
Our current site visits give us the opportunity to inspect existing physical conditions of the study corridor. A number of new mixed-use development consisting of commercial and high density residential have been completed with associated streetscape improvements along the Yonge Street frontage. It was observed that streetscape improvement of these developments. It was also observed that significant amount of streetscape improvements taking place on Yonge Street at and north of Garden Avenue, at the Gateway to Richmond Centre is generally conformed with the design guidelines of the 2012 South Yonge Street Corridor Streetscape Master Plan. The following photographs document

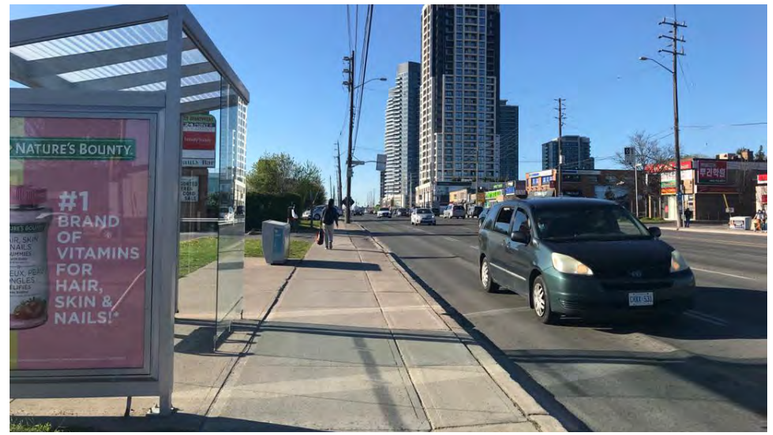
3.1.1 EXISTING CONDITIONS OF SOUTH YONGE STREET CORRIDOR SINCE 2012

New Commercial/Residential Development and Streetscape Implementation

World on Yonge: Interim Streetscape Construction Pre-dates 2012 South Yonge Street Corridor Streetscape Master Plan

World on Yonge pictures illustrate existing conditions which is interim streetscape construction and does not confirm with the 2012 South Yonge Street Corridor Streetscape Master Plan.





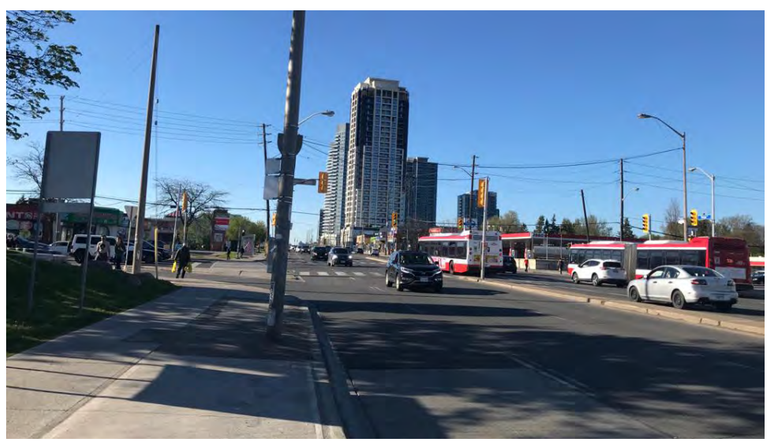
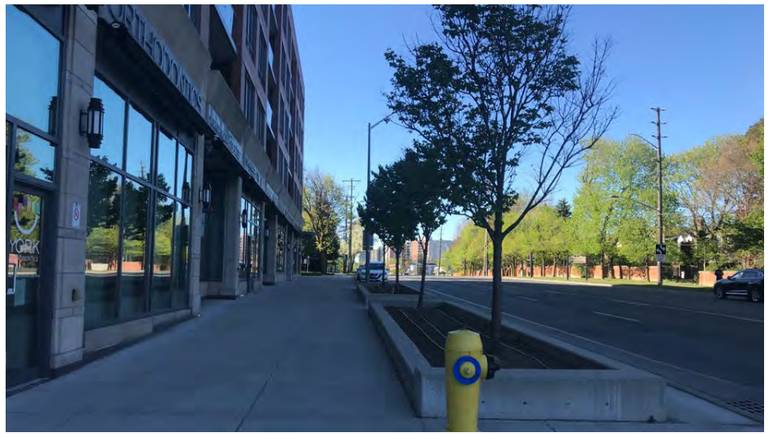


Figure 20, 21, 22, 23: World on Yonge

Minto Water Garden (7608 Yonge Street) North of Arnold Avenue



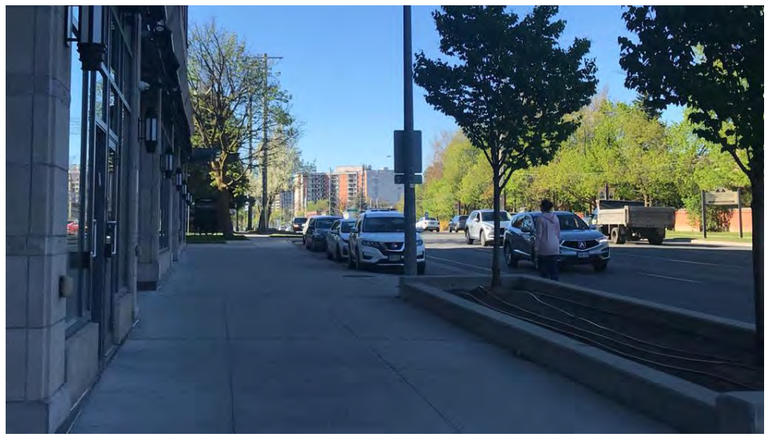


Figure 24, 25, 26, 27: Minto Water Garden

Yonge Street and Colborne Streetscape Improvements

EDA was engaged by the City of Markham to design and implement streetscapes on Yonge Street and Colborne Street in 2014. The project was completed in 2016 which illustrate the application of detailed design guidelines and standards, a component of the South Yonge Street Corridor Streetscape Master Plan completed in 2012.

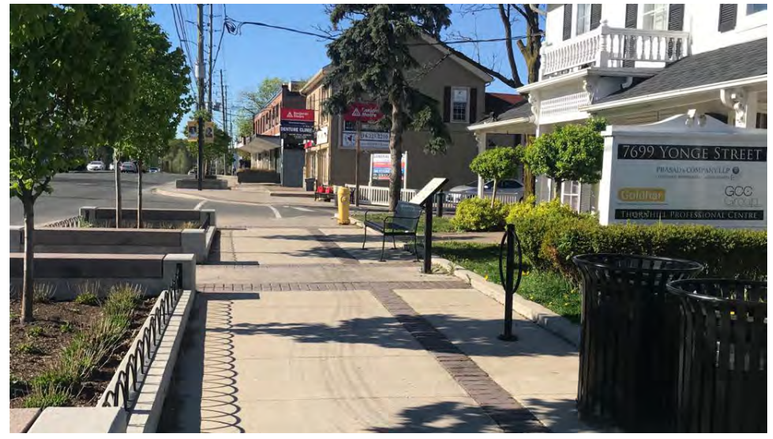


Figure 28, 29, 30, 31: Yonge Street and Colborne Streetscape Improvements

Boulevard Widths Update

In reviewing drawings available and making observations on our site visits, no new curbs were constructed beyond the 2012 alignment. It was also observed that all new developments were constructed within individual property boundaries within our study area. It is prudent to assume that widths of boulevard have also not been changed over the past decade which are indicated on Table 1.

Table 1: Yonge Street - Boulevard Widths

Cross Section	Location	Lane Configuration	Boulevard Width (m)		Notes
			West Side	East Side	
Steeles Avenue to Clark Avenue	Immediately North of Steeles	6-lane cross section + TWLTL	4.6	4.0	
	50m South of Woodward		6.0	4.0	
	Immediately South of Morgan Avenue	6-lane cross section + turn lane	6.5	5.4	
North of Clark to East Don River	Immediately North of Clark	6-lane + turn lane	3.6	7.3	
	50m North of Clark	6-lane + turn lane	7.5	7.5	
	50m South of Elgin	6-lane + turn lane	9	9	
	50m North of Centre	4-lane + TWLTL	6	7.5	
East Don River to Longbridge Road	Immediately North of East Don River	4-lane TWLTL	25	23	In front of golf course
	Immediately North of Royal Orchard	2-lane + LT lane	7.3	8.3	
	100m North of Thornhill Ave	4-lane + TWLT	8.7	8.7	
Longbridge Road/ Langstaff to Hwy 7	50m North of Long Bridge	2-lane + TWLTL	8.7	8.7	
	50m South of Langstaff (6-lane section merging to 4-lane to the south)	6-lane	6.0	3.8	
	Yonge @ 407	6-lane	unknown	unknown	
	140m north of Hwy-7 W-N/S Terminal	6-lane	11	2.9	north of intersection on east side – property boundary appears to overlap road

Notes:

1. Boulevard measured width measured from back of curb to property limits through use of regional aerial photography and property information.
   orthographic imagery: http://ww1.yorkmaps.ca/ArcGIS/services//WMS/YorkRegion_OrthoImages_WMS
   property boundaries: personal database file provided by York Region staff.
2. Boulevard width available varies throughout. Measurements taken at typical sections without right-turn lanes: reductions at signalized intersections due to turn lanes, median islands, etc. are typical.
3. Measurements are approximate.

3.1.2 SITE PLAN APPLICATIONS ALONG SOUTH YONGE STREET

Following Site Plan Applications along South Yonge Street have been received and processed:

- 7 Site Plan Applications primarily for high density residential developments (2 predated the 2012 SMP)
- Implication: 67% of streetscapes on this stretch of Yonge Street is implementable through development. It will be implemented through a phased approach when development proceeds.

Site Address	Municipality	SMP District Area
7171 Yonge Street	Markham	Yonge-Steeles
7120 Yonge Street	Vaughan	Yonge-Steeles
7089 Yonge Street	Markham	Yonge-Steeles
7584 Yonge Street	Vaughan	Old Thornhill

Table 2: Approved Applications

Site Address	Municipality	SMP District Area
8188 Yonge Street	Vaughan	New Thornhill
7714 Yonge Street	Vaughan	Old Thornhill
7200 Yonge Street	Vaughan	Yonge-Steeles

Table 3: Applications Under Review

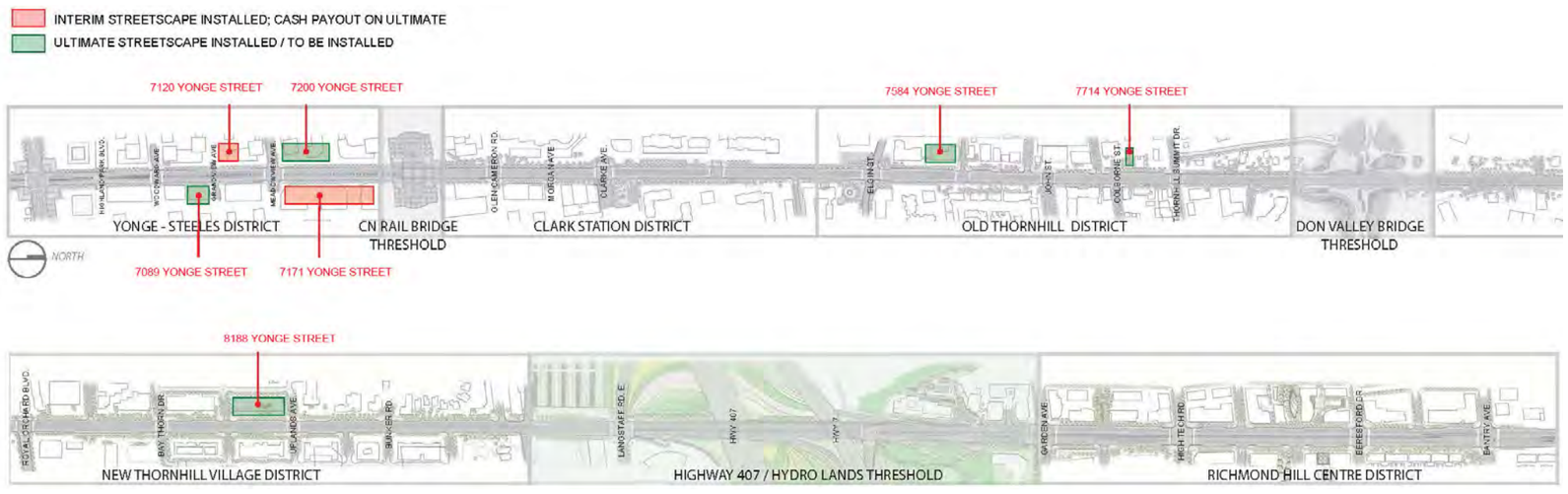


Figure 32: Location of Applications Approved and Under Review

3.1.3 OPPORTUNITIES AND CHALLENGES ON THE IMPLEMENTATION OF A CYCLING FACILITIES ON BOULEVARDS OF PROJECT SITE

Based on the above analyses and given the various widths of the existing R.O.W. throughout the study corridor, considerable opportunities are available for the installation of cycling facility on boulevards on both sides of Yonge Street where sufficient space is available. However at sections such as the Old Thornhill Village, Don River Threshold and Highway 407 / Hydro Land Threshold where width of the R.O.W. is constricted, innovative ways to create on boulevard cycling facility would be a challenge. Other opportunities of an on boulevard cycling facilities system are abundant: safety for cyclist and motorist and comfortable and enjoyable landscape experience for users are only a few to mention. Constraints would be equally considerable such as potential conflicts of the new cycle lane with existing above and below ground utilities, turnings at intersections, integration of bus stops and on street parking and etc. Our team view these opportunities and challenges in a most positive and creative way to achieve a new Streetscape that would resolve as much conflict as possible while capitalize on the physical and natural opportunities.

3.1.4 INFRASTRUCTURE

Site Services and Hydro Infrastructure

- A base plan is being compiled which will include all existing civil services (storm and sanitary sewers, watermains, hydrants, catch-basins, curbs, etc.), and utilities (hydro poles, light standards, transformers, pedestals, handwells, traffic signals, etc.). This base plan is essential in evaluating the alignment possibilities and the feasibility of each option. It can also be used to determine preliminary costs to implement each alternative.
- The relocation of any existing infrastructure often carries significant costs, as well as schedule implications. The extent of work associated with the alternatives evaluated must be weighed against the design benefits. Our approach will be to minimize the disturbance to existing utilities as much as possible while also exploring the possibility of burying utilities that are currently pole mounted, however this will have significant cost implications.
- It was observed that there is no mention of proposed upgrades or expansion projects for the water and wastewater network along the Yonge Street corridor in the York Region 2020 10-Year Water and Wastewater Construction program.

Lighting

- Lighting conceptual design as detailed in the original Master Plan documents will be applied and modified to comply to the new location of cycle facility on boulevards. It was observed that within the exceptions of the new streetscape construction taken place north of Garden Avenue on Yonge Street in Richmond Hill, the luminaires on Yonge Street have not been replaced which will allow considerable flexibility in implementing our proposed lighting conceptual for the study corridor.

3.2 EXISTING AND PROPOSED TRANSPORTATION SYSTEM REVIEW AND UPDATE

3.2.1 PEDESTRIAN AND CYCLING PLANNING & DESIGN GUIDELINES (2019)

As part of the 2016 York Region TMP Update, the Pedestrian and Cycling Plan Development Report* was a background report completed by IBI Group in 2018. It is a successor to York Region's first Pedestrian and Cycling Master Plan (PCMP) completed in 2008. Three of the five objectives stated in the TMP pertain to active transportation, including developing a road network fit for the future, integrating active transportation in urban areas, and making the last mile work.

The Pedestrian and Cycling Plan Development Report outlines the new types of cycling facilities and the updating of cycling facility types for Regional road corridors identified in the 2008 PCMP cycling network. The strategic cycling network includes proposed cycling facilities categorized as follows:

*The Pedestrian and Cycling Plan Development Report was an appendix to the York Region TMP. Authored by IBI in 2016 it was an update to the previous cycling master plan (2008) and informed the 2016 TMP.

- **Planned Capital Investment:** In keeping with on-going practice, the 10-year capital plan provides an opportunity to provide cycling facilities as roads are reconstructed.
- **Conceptual Region-Wide Trail System:** A regionally-connected network of active transportation spines that will form the backbone of the active transportation network and may include some on-road facilities along key routes.
- **Key Infill Corridors:** Links that are the primary new components of the strategic cycling network identified to enhance connectivity to key destinations, including regional centres & corridors, major transit hubs, and external cycling networks (i.e. outside of York Region).

Within the South Yonge Street Streetscape study area, Yonge Street is listed and illustrated as including proposed cycling facilities. Yonge Street is identified as a “Capital Road Project” South of Highway 7 / Highway 407, Yonge Street is identified as a “Capital Road Project” and north of Highway 7 / Highway 407 (to Major McKenzie Drive), Yonge Street is identified as a “Funded Transit Project.”

Published in 2018, this report, along with the Region’s other background studies, most importantly Designing Great Streets Guidelines, will be highly instrumental in guiding the project team in the process of the Streetscape Master Plan Update that involves the integration of boulevard cycling facilities along south Yonge Street. Key guidelines and design strategies provided in the report include the following:

- Operating space requirements for pedestrian and cyclists;
- Detailed cross sections for each type of facility;
- Intersection design and treatments;
- Pavement markings and signage;
- Interactions with transit facilities and treatments at driveways;
- Signal operations (for active transportation);
- Network amenities such as street furniture, fences & railings, traffic calming, wayfinding & bicycle parking;
- Maintenance related to pedestrian & cycling facilities.

Importantly, the guidelines provides a facility selection tool which helps planners and designers identify appropriate pedestrian and cycling facilities along various classifications of Regional roads and better serve the needs of the community.

3.2.2 YONGE NORTH SUBWAY EXTENSION (2020)

In May 2020, the provincial government and York Region announced a preliminary agreement and associated transit-oriented memorandum of understanding to move forward the Yonge North Subway Extension. The agreement provides a structured framework for the overall delivery of this project, including roles and responsibilities for funding, planning, delivering, operating and maintaining the Yonge North Subway Extension. The target completion date is 2029-30.

An updated business case is being prepared and will be presented to the Metrolinx Board in 2020. While Royal Orchard Station was previously removed from consideration for the project, it has been included again as part of the most recent work.

3.2.3 ONTARIO TRAFFIC MANUAL BOOK 12A – BICYCLE TRAFFIC SIGNALS (2018)

The Ontario Traffic Manual (OTM) Book 12 – Traffic Signals was most recently completed in 2012 and contains information about all aspects of traffic signal operation. OTM Book 12A – Bicycle Traffic Signals was completed in March 2018 and is intended as a companion to OTM Book 12 and therefore is to be used in conjunction with Book 12. In addition, OTM Book 12A is intended to be used in conjunction with OTM Book 18 – Cycling Facilities and OTM Book 15 – Pedestrian Crossing Facilities.

The purpose of OTM Book 12A is to provide practical guidance and application information on the planning, design and operation of intersections under traffic signal control through which bicycle traffic operates and to promote uniformity of approaches across Ontario.

Elements of focus include traffic signal timing, bicycle-specific signal timing, bicycle signal phasing, decision criteria, and bicycle detection.

3.2.4 ONTARIO TRAFFIC MANUAL BOOK 18 – CYCLING FACILITIES

The Ontario Traffic Manual (OTM) Book 18 – Cycling Facilities was developed by the Ontario Ministry of Transportation (MTO) in association with the Ontario Traffic Council (OTC), completed in December 2013. The purpose of OTM Book 18 is to provide practical guidance on the planning, design and operation of cycling facilities in Ontario. OTM Book 18 includes consolidated references to relevant material that is provided in other OTM Books as applicable to bicycle facility planning, design and traffic control.

In OTM Book 18, new guidance is provided on bike lane types, bike facility selection tools, illustrative designs, signs, and pavement markings. OTM Book 18 applies to on- and off-road facilities within the road right-of-way, however off-road trails through parks, ravines, Hydro corridors or open space are outside of its scope. OTM Book 18 is expected to be updated in 2020.

3.2.5 CITY OF VAUGHAN 2019 PEDESTRIAN AND BICYCLE MASTER PLAN UPDATE

As of June 2020, The City of Vaughan was finalizing the new city-wide Pedestrian and Bicycle Master Plan. The study builds on the 2007 Pedestrian and Bicycle Master Plan and the 2012 Transportation Master Plan. It outlines a strategic plan to “grow” walking, rolling and biking in Vaughan through the development of supportive municipal processes, policies and programs as well as a plan for the implementation of “all ages and abilities” infrastructure and connected network.

A pedestrian, cycling and multi-use recreational trails network implementation process was approved by City Council which includes pedestrian and cycling facilities on all arterial, major and minor collector roadways and each will be implemented through one or more of three process type

- Through development;
- As part of larger internal and external capital projects; and
- As standalone pedestrian and cycling projects

With respect to planned cycling network elements in the Study Area, local routes are identified on Centre Street and Clark Avenue West; each route is a proposed upgrade to what was included in the 2007 Pedestrian and Bicycle Master Plan. Parallel to Highway 407 on its south side, a secondary network route is identified as part of the larger multi-use recreational trail network, similar to the 2007 Pedestrian and Bicycle Master Plan. The closest north-south routes are Bathurst Street (identified as a regional route) and Atkinson Avenue and Hilda Avenue, both of which are identified as local routes.

3.2.6 FUTURE PLANNED CYCLING CONNECTIONS

In order to accommodate north-south boulevard-located cycling facilities along Yonge Street, significant interventions are required at signalized intersections to accommodate separated crossings. During the process of reconstructing intersections to provide for separated north-south crossings it is important to also provide for future east-west crossings, as well as design the intersections to facilitate changes in direction by cyclists. This requires that municipal cycling plans be up-to-date to determine the intersections where these interfaces must be planned for, municipal standards for the location of the east-west cycling facilities within the right-of-way (are they on-road, curbside, or boulevard separated) be up-to-date, and that strategies are in place for the phased installation of cycling facilities (if Yonge Street construction precedes the introduction of a connecting east-west route).

3.2.7 DESIGNING GREAT STREETS GUIDELINES 2019

In June, 2013, a context sensitive solutions (CSS) approach to road design was presented and approved by council to ensure the

full integration of boulevard and roadway design. This approach recognizes the unique character of the area and its land uses and shifts the focus to providing more varied mobility for pedestrians, cyclists and drivers alike. It also allows for better integration with existing community characteristics. The Transportation Master Plan (2016) responds to this CSS approach and institutes the vision for transportation services in the York Region to 2041. It defines actions and policies to address road, transit and active transportation needs. 1. The Designing Great Streets Guidelines (2019) as an update is consistent with direction and policies in the 2016 Transportation Master Plan.

The Guideline recognizes six street typologies to be used as the basis for developing the Context Solution Selection Guidelines for Regional streets in consultation with local municipalities 2. This master plan update will consider the following three (3) road type as they relate to the Yonge Street Corridor and the various adjacent community characters as outlined in the previous study (SYCMP, 2010):

- a) Urban Centre: Provides transit priority, active transportation and vehicular movement designed to support high density residential, mixed-use and institutional uses.
- b) Urban Avenue: Provides transit priority, active transportation and regional vehicular movement designed to support residential, commercial, mixed-use, institutional, and industrial uses.
- c) Main Street: Supports local transit connections, active transportation, and vehicular movement to support mixed-use, residential, commercial, institutional, open space and historical uses.

The other key elements as noted in Designing Great Streets include Design Guidelines, Decision Making Process and Implementation strategies that will help guide the SYCMP Update.

3.2.8 SUMMARY OF OPPORTUNITIES / CHALLENGES / KEY ISSUES

Based on the above findings and analyses, opportunities, challenges and key issues as presented to our team in the preparation of this Master Plan Update are summarized as follows:

Opportunities

1. Explore lessons learned on transportation design through the current pandemic:

- Shift from planning for vehicles to planning for all users
- Implement new designs from the York Region Pedestrian and Cycling Planning and Design Guidelines (2019)
- Encourage slower vehicle speeds with increased side-friction generated by curbs and landscaping with reduced lane widths
- Re-design streets to move people safely
- Provide for aging community and accessibility

2. Explore new Best Practices in LID, green/sustainable/ resilient design

3. Explore changing nature of development-related funding

Bill 108 impacts about 12 pieces of legislation and core to that are changes to the DC Act and Planning Act re: bonusing, parkland, and new CBC (Community Benefits Charge), etc.

Challenges

1. Integration and impacts of relocating cycling facility to boulevard

- Various ROW widths along the corridor; shift to in-boulevard facility increases space requirements; accessibility;
- Previously implemented streetscape through development;
- User expectations (pedestrians, cyclists, and drivers);
- Aboveground Utilities

2. Intersections (signalized/unsignalized) along Yonge will require more intervention than in previous plans;

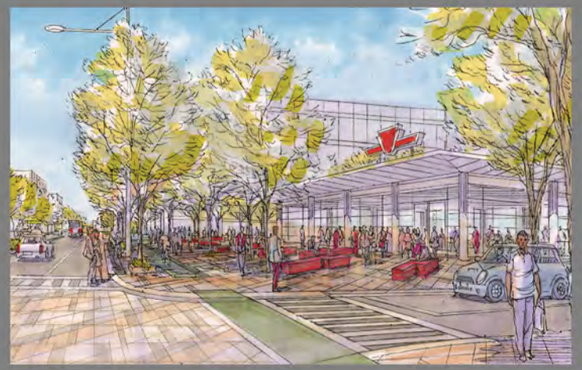
3. Maintaining existing drainage pattern from right of way boundaries to centre of the road;

4. Potential Impacts on Capital funding resulting from current pandemic crisis;

5. Prepare an achievable implementation strategy that could maintain continuity and design consistency throughout the study corridor.

Key Issues

- Confirm Vision established in the original study;
- Provide updates of background studies, long range plans such as Official Plans, Metrolinx plans for the Yonge Street Subway Extension, etc. that would affect our project;
- Flexibility on keeping the bicycle lanes within the boulevard throughout the study corridor;
- Undergrounding of hydro and utilities
- Post pandemic dynamic environment expected regarding capacity of Development (growth) to fund streetscape enhancement
- Impacts of Bill 108 expected to impact funding envelopes and mechanism of funding



4

COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT PLAN

4.0 COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT PLAN

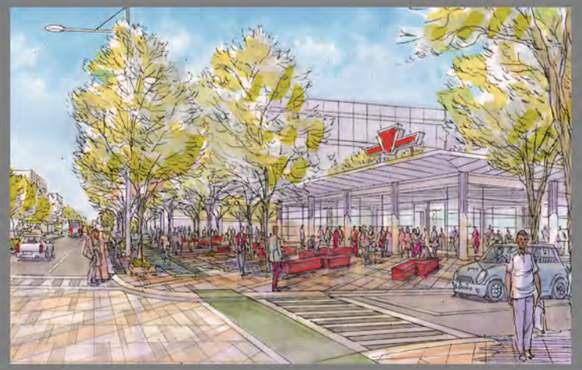
In order to obtain input from the Project Core Team (PCT) on the project, three consultation sessions were held online, using Webex. These groups were thematically different from one another and focused on somewhat different aspects of the streetscape plan. Group A was concerned primarily with safety and capital costs; Group B with streetscape and forestry issues; and Group C with planning and long-term maintenance concerns. Participants in the sessions were identified as follows:

Several days prior to the workshops, participants were provided with a list of 8 questions. Several of these were common to each of the three groups, while others were specific to the particular group's main areas of interest. (The list of questions asked of each group can be found in Phase 2 Report, Appendix 1)

The sessions were moderated by Jon Linton of TCI Management Consultants. After a brief contextual presentation as a 'refresher' to the project, the discussion questions were addressed in turn. Detailed notes of each session were taken by EDA. Each session lasted between 1.5 to 2 hours. All input received from participants will be reviewed, analysed and consolidated in the Phase 2 Report.

Capital Delivery, Corridor & Traffic Safety, Operations (Stakeholder Team A) (June 9, 2020)	Streetscape, Sustainable Mobility, Forestry (Stakeholder Team B) (June 10, 2020)	Long Term Planning, Transit, and Development (Stakeholder Team C) (June 9, 2020)
- Project Manager - Utilities Specialist - Manager Corridor Control and Safety - Road Operations - Road Operations - Corridor Control - Road Operations	- Project Manager, Streetscape - Program Manager, Natural Heritage and Forestry Services - Senior Transportation Specialist - Program Manager, Sustainable Mobility - Manager, Transportation Development Planning	- Project Manager, Streetscape - Traffic Signal Operations - Transit Facilities - Development Engineering - Planner, YRRTC

Table 4: Stakeholder Teams



5

SUMMARY AND CONCLUSIONS

5.0 SUMMARY AND CONCLUSIONS

5.1 INTEGRATED STREETSCAPE DEVELOPMENT

The above findings and analyses have crystalized the following streetscape master planning opportunities and challenges. Given the various widths of the existing R.O.W. throughout the study corridor, considerable opportunities are available for the installation of cycling facility on boulevards on both side of Yonge Street where sufficient space is available. Other challenges present to our team are the future integration and implementation of on boulevard cycling facility within some sections on Yonge Street where new streetscapes were implemented recently through construction of new commercial and residential developments. To meet the challenge presented at sections such as the Old Thornhill Village, Don River Threshold and Highway 407 / Hydro Land Threshold where width of the R.O.W. is constricted, innovative way to create on boulevard cycling facility must be developed. Other opportunities of an on boulevard cycle path system are abundant: safety for cyclist and motorist and comfortable and enjoyable landscape experience for users are only a few to mention. Challenges would be equally considerable such as potential conflicts of the new cycle lane with existing above and below ground utilities, turnings at intersections, integration of bus stops and on street parking and etc. Our team view these opportunities and challenges in the most positive and creative way to achieve a new Streetscape that would resolve as much conflict as possible while capitalize on the physical and natural opportunities throughout the study corridor.

5.2 ACTIVE TRANSPORTATION

Changes to the regulatory framework for bicycle travel in the province (through updates to the Ontario Traffic Manual) combined with updates to municipal, regional, and provincial transportation plans presents an opportunity to better integrate the proposed South Yonge Street streetscape master plan into the daily lives of people in the corridor. Improving the proposed cycling infrastructure, and tying it into local and regional plans and bicycle routes, will increase the usage of the cycling facilities by residents and visitors alike. An increased focused on the bicycle as a viable mode of travel, combined with a renewed emphasis on integrating cycling facilities into transit nodes and mobility hubs, will help improve the multimodal travel options for the corridor. Moreover, the importance of sustainable mobility will be stressed through providing spaces for alternative to the Single Occupancy Vehicle that is safe and comfortable.

5.3 ABOVE AND BELOW GROUND UTILITIES

As identified in the above report, above and below ground utilities are major elements to be considered in the updating of the Master Plan. Relocating these utilities are often costly and therefore needs to be carefully evaluated in the identification of a preferred cycling facility alignment within the study corridor.

5.4 IMPLEMENTATION AND FINANCIAL INCENTIVE PROGRAMMES

Sierra's work in Phase 5 will be focused on reconsidering the legislative framework, financial considerations, incentives, "piggy-backing" of funding sources and other creative techniques that will together provide an updated assessment of Funding Options for the project that can assist in advancing the implementation of the updated Streetscape Master Plan. Additionally, Sierra will work in collaboration with EDA and York Region to provide updated operating and maintenance costs to reflect the required design changes and any changes to unit pricing for the South Yonge Street Corridor.