

2.2 Legislative and Technical Framework

Current planning policies and all levels of government and technical standards and guidelines establish the essential framework for the development of an enhanced mobility network

The following is a summary of major technical, Provincial, Regional and Municipal planning policy and technical standards and guidelines that inform Regional roads and adjoining lands. Legislated policies and plans (such as official plans) need to be adhered to and technical standards need to be met, while guidelines provide detailed guidance on specific issues. Overall, the guidelines and recommendations contained in *Designing Great Streets* are intended to support achievement of the objectives identified in the documents in this Section. These legislative and technical documents should be referenced for further guidance on specific road network and design objectives.

Provincial Documents

Provincial Policy Statement (2014)

The *Provincial Policy Statement* (PPS) provides overall direction for planning and development in the Province of Ontario. All Regional and municipal decisions on planning matters must be consistent with the PPS.

The PPS calls for the efficient use and management of land and infrastructure and the protection of environment and resources. It provides support for a context-sensitive approach to road design, stating “transportation and land use considerations shall be integrated at all stages of the planning process” (Section 1.6.7.5). It also calls for land use patterns, densities and mixes that will reduce trip length and frequency and support alternative transportation modes. The use of active transportation, transit, transit-supportive development and the provision of connectivity among transportation modes is promoted.

The PPS also highlights the importance of coordination between municipalities and other levels of government, agencies and boards (Policy

1.2), as well as the coordination and co-location of public facilities such as schools, libraries and recreational facilities to improve accessibility by active and public transportation (Policy 1.6.5). It calls for strengthening the protection of provincially planned transportation corridors and the promotion of land use compatibility for lands adjacent to planned and existing corridors (Policy 1.6.8).

Places to Grow Act (2005) and the Growth Plan for the Greater Golden Horseshoe (2017)

Places to Grow is the provincial legislation pertaining to growth planning in Ontario. The *Growth Plan for the Greater Golden Horseshoe* outlines the Greater Golden Horseshoe’s (GGH) growth plan through 2041. It establishes population and employment targets for municipalities and identifies Urban Growth Centres and urban growth boundaries within the GGH. In conjunction with the *Greenbelt Plan (2005)*, it limits urban expansion, encouraging intensification in areas already built-up and with existing infrastructure. This intensification will result in more efficient use of land and resources and increased viability of transit and alternative modes of transportation. To conform to the Growth Plan, municipalities will accommodate expected growth, in part, through changes to roadway design and planning for adjacent land uses.

The Growth Plan also directs that “the transportation system within the GGH will be planned and managed to...offer a balance of transportation choices that reduces reliance upon the automobile and promotes transit and active transportation” (Section 3.2.2). Through the 2017 update to the Growth Plan, Ontario became the first province to adopt a policy on Complete Streets.

[Climate Change Strategy \(2015\) and Five-Year Climate Change Action Plan, 2016-2020 \(2016\)](#)

Climate Change Strategy identifies five sections that work together to help establish Ontario as a high productivity low carbon economy and society. The actions and initiatives outlined in each of the five sections are intended to reach the carbon emission reduction targets of 15 percent, 37 percent and 80 percent below 1990 levels by 2020, 2030 and 2050 respectively. Specific actions include building green infrastructure (Section 1.4), integrating climate change mitigation and adaptation considerations into government decision-making and infrastructure planning (Section 2.2), establishing reduced greenhouse gas emissions as an important factor in transportation and land use planning initiatives (Section 4.5) and integrating climate change adaptation considerations in infrastructure decision-making (Section 5.1).

The *Five-Year Climate Change Action Plan* builds on the *Climate Change Strategy* by setting the foundation to meet emission reduction targets by 2020, 2030 and 2050. The document intends to help reach the 2020 emission target of 15 percent below 1990 levels and also to establish the foundation to reach the 2030 and 2050 targets. Eight Action Areas are identified that includes transportation and land-use planning. Each Action Area contains strategies that are further expanded into individual actions, intentions and visions. Specific actions include supporting cycling by improving the commuter cycling network (Transportation 3.1), empowering municipalities to set green development standards (Land-Use Planning 1.1), and eliminating minimum parking requirements (Land-Use Planning 1.4).

[Accessibility for Ontarians with Disabilities Act \(2005, Consolidated 2016\)](#)

The *Accessibility for Ontarians with Disabilities Act, 2005* (AODA) promotes opportunities for persons with disabilities through identification, removal and prevention of barriers, and aims to increase access for people of all abilities. The Design of Public Spaces Standard under the AODA sets out technical requirements to help organizations make new and redeveloped public areas accessible,

including but not limited to exterior paths of travel, ramps, curbs, rest areas and on-street parking spaces.



The Growth Plan for the Greater Golden Horseshoe (2017) encourages intensification in already built up areas

[Ontario Transit Supportive Guidelines \(2012\)](#)

Ontario's *Transit Supportive Guidelines* contain strategies, guidelines, case studies and best practices related to transit-friendly land-use planning, urban design and transit operations. The intention of this document is to provide practitioners with the necessary tools, resources and knowledge to create transit supportive environments to increase transit ridership. Guidelines are provided for community structure (Section 1.1), creating complete streets (Section 2.2) and creating a transit-supportive urban form (Section 2.4). *Transit Supportive Guidelines* is not policy so professional judgment should be exercised when using this document.

[Ontario Freight Supportive Guidelines \(2016\)](#)

Ontario's *Freight Supportive Guidelines* recognizes the importance of a safe and efficient freight transportation system to maintain economic vitality. The guidelines presented in this document are intended to help governments and practitioners create safe and efficient freight-supportive communities through coordinated land-use, mobility planning, urban form, design,

operations and awareness of freight related needs. Guidelines are provided for improving integration between transportation and land-use planning (Section 2.4), specific site design for various land uses (Section 3.0), road design and operational guideline requirements, by-laws, policies and practices (Section 4.4) and best practices case studies (Section 6.0).

Metrolinx: Mobility Hub Guidelines

Mobility Hub Guidelines provides guidance and support for planning and development at mobility hubs in the Greater Toronto and Hamilton Area (GTHA). This document refers to [Metrolinx's The Big Move](#) (and its successor, the [2041 Regional Transportation Plan](#)) to identify all mobility hubs in the GTHA, and generally defines a mobility hub as a transit station including the surrounding area within an 800 metre radius. Furthermore, this document recognizes the importance of mobility hubs in improving economic vitality, creating a sense of place, creating sustainable urban forms and enabling and encouraging all modes of travel.

The purpose of this document is to provide practitioners with guidelines and resources for improving and developing mobility hubs, inspire the incorporation of mobility hubs in plans and planning activities, and to serve as a tool and resource. Specific guidelines are provided for clear mode share and transportation performance targets (Guidelines 2.1-2.2), complete and safe

streets (Guidelines 2.3-2.6), parking management and reduction (Guidelines 4.4-4.5) and creating a strong sense of place (Guidelines 6.1).

Regional Documents

York Region Official Plan (2010, Office Consolidation 2016)

The *York Region Official Plan* (ROP) outlines broad goals for growth management, the economy, environment and community within York Region. Key objectives are to:

- Direct a minimum of 40 percent residential intensification to built-up areas
- Develop enhanced mobility systems using a “people and transit first approach” to connect land use and transportation planning (Section 1.2)

Chapter five of the ROP addresses intensification, to be focused in York Region's centres and corridors. Chapter seven focuses on mobility, including pedestrian and cycling connections, transit and street design. According to the ROP, the typical road allowance for Regional roads is 36 to 45 metres.

The ROP identifies four Regional centres, which are Markham Centre, Newmarket Centre, Richmond Hill/Langstaff Gateway and Vaughan Metropolitan Centre. There are also four Regional corridors, which include sections of Yonge Street, Highway 7,



A rural road in York Region

Davis Drive and Green Lane East. The Regional Centres are expected to support the highest densities and greatest mix of land uses in York Region and should have an integrated mobility plan that considers all mobility choices.

The ROP emphasizes the encouragement of active transportation options through a variety of policies and initiatives. Section 7.2 outlines goals to create an active transportation system and programs, provide transit service convenient and accessible to all and ensure streets support all modes of transportation.

The ROP also calls for infrastructure design and construction sensitive to natural features and functions, avoiding key natural heritage and hydrologic features where possible (Section 2.1.12).

Other relevant objectives are to:

- Work with local municipalities to coordinate their infrastructure within Regional rights-of-way, including street lighting, sidewalks and cycling facilities
- Work with local municipalities, where necessary, to ensure sidewalks and street lighting are provided on both sides of all arterial and collector streets with transit
- Require local municipalities to adopt land use and site design policies promoting sustainable modes of transportation
- Ensure streets support all modes of transportation, including walking, cycling, transit and automobile use
- Plan and protect future urban and rural streets to accommodate transportation demands
- Require all new development applications to demonstrate that the development meets or exceeds the York Region Transit-Oriented Development Guidelines
- Promote sustainability and protect and enhance the natural heritage system
- Improve air quality, and mitigate and adapt to the impacts of climate change

[York Region Transportation Master Plan \(2016\)](#)

The future success of York Region as the number one destination within the GTHA for people to live, work and play is dependent on the Region's ability

to build an interconnected system of mobility. This update to the Transportation Master Plan (TMP) sets out the infrastructure and policy requirements to enable the Region to build and maintain such a system. This includes additional transit infrastructure, roads infrastructure and a system of sidewalks and trails to further enable active transportation.

The TMP, endorsed by Regional Council in June 2016, provides a 25-year outlook to respond to the following challenge:

To create an advanced interconnected system of mobility in the Greater Toronto and Hamilton Area (GTHA) in order to give York Region residents and businesses a competitive advantage, making York Region the best place to live, work and play in the GTHA.

To address this challenge, the TMP proposed a number of actions, policies and strategies driven by the following objectives:

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 for employment areas
5. Make the last mile work

Objective two (Develop a road network fit for the future) includes a section on the *Designing Great Streets* Strategy. This section highlights the *Designing Great Streets* typologies and the decision making process. These guidelines are a response to the strategy in the TMP.

Action items related to Designing Great Streets include:

- Review and update [York Region Road Design Guidelines](#), standards and processes to better integrate the context sensitive solutions toolbox and better serve community needs
- Integrate the Designing Great Streets Decision Making Process into capital planning and delivery

York Region Pedestrian and Cycling Planning & Design Guidelines

The *York Region Pedestrian and Cycling Planning & Design Guidelines* utilize the six road typologies outlined in *Designing Great Streets* to provide guidance and support for the design and construction of cycling and walking facilities. This illustrates pedestrian and cycling facility selection tools and cross sections for Regional road retrofit projects, reconstructed or new Regional roads.

Design guidelines are provided for:

- Pedestrian facilities
- Cycling facilities
- Multi-use paths
- Clearances
- Surface Course

The *York Region Pedestrian and Cycling Planning & Design Guidelines* are a valuable companion resource to *Designing Great Streets* and provide detailed guidance in the application of pedestrian and cycling facilities. It also supports *Designing Great Streets* by providing guidelines for intersection treatments.

York Region Road Design Guidelines (2016)

The *Regional Roads Design Guidelines* assist consultants and Regional staff in the preparation of design and construction tender packages for Regional road improvements and expansion projects. This document provides detailed design guidance, to complement the CSS approach outlined in *Designing Great Streets*. It also provides necessary tools for producing packages in conformance to York Region requirements. Specific design and information requirements are provided for:

- Cross-sections
- Driveways and entrances
- Electrical and signal design requirements
- Erosion and sediment control
- Horizontal control
- Intersections
- Pavement design
- Road-side safety requirements
- Sidewalks
- Storm Drainage
- Streetscape standards
- Street tree preservation and planting
- Traffic data analysis
- Traffic data and geometric design elements
- Utility coordination and relocation
- Vertical control



York Region is growing and accommodating new uses in urban and rural areas

Smart, Sustainable Streets, An Integrated Approach to Street Design (2016)

This manual creates a balanced and harmonious approach to the use of often constrained boulevard space where forestry, operations, corridor approvals, streetscape, active and sustainable transportation and traffic and electrical infrastructure are located together. This document outlines a balanced approach to active transportation design and supports and aligns with Vision 2051, York Region Official Plan and *Designing Great Streets*. (To access this document, please refer to York Region eDOCS #9303920 "Smart, Sustainable Streets, An Integrated Approach to Street Design". Alternatively, contact the Program Manager, Streetscaping.)

Regional Streetscape Policy (2001)

The *Regional Streetscape Policy* outlines minimum standard levels of treatment for a road hierarchy of Regional centres, corridors and roads to reinforce the role of the street as a place and an experience, while meeting the transportation needs of the community. To complement these streetscapes, the policy has designated entryway points and gateways to enhance a sense of arrival and place within the Region. The intent is to apply a high standard of design to the street to engage all modes of transportation including walking, cycling, automobile, truck and transit, creating a lively streetscape for a positive civic image.

Transit-Oriented Development Guidelines (2006)

York Region's *Transit-Oriented Development Guidelines* are used to shape development that is transit-supportive, pedestrian-friendly and well-designed. They assist in understanding and implementing the transit-oriented development elements included in the Regional Official Plan and other guiding policies and include a checklist to help assess how well a policy or project incorporates transit-oriented development elements.

Key transit-oriented development principles are outlined according to six themes:

1. Pedestrians - encourage access, safety and comfort

2. Parking - provide well-designed, attractive facilities putting transit first
3. Land use - attract the right type, intensity and mix of land uses
4. Built form - address transit through appropriate massing, density and height
5. Connections - link buildings and the spaces between them to transit
6. Implementation - apply transit-oriented development approaches throughout the planning process

Towards Great Regional Streets: Design Guidelines for 6-Lane Regional Roads (2008)

These policy and design guidelines apply to roads identified in the Region's 10 year Capital Plan for six lane widening in order to accommodate increased transit service, on-road cycling, improved streetscaping and heightened transportation demands. The guidelines recommend a right-of-way with two all-purpose travel lanes at 3.3 metres, a High Occupancy Vehicle (HOV) lane at 3.5 metres and a dedicated cycling lane at 1.5 metres per direction. The standard provides for a convertible six-lane cross-section allowing for an HOV or bike lane simply by adding or adjusting pavement markings and signing.

These guidelines inform *Designing Great Streets*, however do not prevail over it. In the case of any discrepancies between this and *Designing Great Streets*, *Designing Great Streets* takes precedence. These guidelines still apply for any standards or guidelines not covered by *Designing Great Streets*.

Municipal Documents

Each of the nine cities and towns within York Region identified centres and corridors as key areas for intensification and roadway improvements, in conformance with the York Region Official Plan. This section provides an overview of the existing municipal Official Plans and how they guide roadway design.

Town of Aurora: Official Plan (2010, Revised 2015)

Section 3.10 of the Aurora official plan addresses Transportation and the Mobility of People and

Goods. Due to scarce capacity on Aurora's roads, transportation improvements aim for a more balanced transportation system supporting transit, walking, cycling and cars. The official plan states arterial roads have a minimum right-of-way width of 26 to 36 metres, depending on anticipated traffic volumes, and a minimum of 36 metres where bicycle paths, street landscaping, centre boulevards and wider boulevards are proposed. Other guidelines for arterial roads include the requirement for sidewalks on both sides of the street, accommodation of transit and safe cycling where the Town's resources permit and pedestrian flow is light.

Town of East Gwillimbury: Official Plan (2010, Office Consolidation 2018)

The East Gwillimbury official plan identifies a number of pedestrian and transit-oriented centres and corridors that provide focal points for the highest densities in the municipality. Regional corridors in East Gwillimbury include Yonge Street and Green Lane and should have wider streets with a high level of streetscape design to create an attractive community edge and provide a pedestrian-scaled proportion to the right-of-way (Section 3.2.3.3). Section 3.3.1 addresses the design of the public realm and calls for streetscaping to promote ease of multi-modal travel and the placement of sidewalks to provide uninterrupted pedestrian movement to transit stops, commercial centres and all community amenities. The official plan promotes public transit and the compatibility of the transportation system with existing and future land uses (Section 7.2). It also emphasizes the provision of active transportation options, especially within the urban area (Section 7.2.2).

Town of Georgina: Official Plan (2016)

As one of the Region's most rural municipalities, the Town of Georgina has limited transit service, however its official plan encourages transit supportive community design measures in anticipation of future transit service. It requires arterial and collector roads to accommodate transit vehicles and amenities (Section 9.2.3.5). The primary network for active transportation in the Rural Area shall consist of cycling routes along

roadways and the trail system. Sidewalks and cycle trails are the primary system for pedestrian and cyclist movement within the Secondary Plan Areas (Section 9.2.4.1). Finally, consideration shall be given to the inclusion of bicycle lanes in rights-of-way for new or reconstructed arterial and collector roads (Section 9.2.4.7).

Township of King: King City Community Plan (2000, Amendment 54 to the Official Plan 1970); Nobelton Community Plan (2005, Amendment 57 to the Official Plan 1970) and Schomberg Community Plan (1998, Amendment 47 to the Official Plan 1970)

The King City Community Plan identifies planned land uses and includes a Transportation Strategy with objectives for the road network. In accordance with principles of transit-oriented design, collector and arterial roads shall be designed to accommodate transit facilities and subdivisions shall be designed to permit effective pedestrian access to transit routes (Section 8.4.2). It also describes a number of design principles relevant to the design of roadways, including the design of attractive streetscapes, core area enhancement and distinct gateways (Section 9.2).

The Nobelton Community Plan calls for the preservation of the existing character of the built environment as part of its Urban Design Policies (Section 4.2). The plan classifies the roads within Nobelton into Regional Arterial Roads, Township Roads and Local Roads and prescribes guidelines for each typology (Section 4.4.1). Guidelines for street design (Section 4.4.4), parking (Section 4.4.5) and pedestrian and cycling networks (Section 4.4.6) are also provided.

The Schomberg Community Plan classifies roads based on function (Section 4.2.2) that is further prescribed with guidance based on policies outlined in Section 4.2.3. Policies for parking facilities (Section 4.3), pedestrian and cycling circulation (Section 4.4) and public transit are also provided.

City of Markham: Official Plan (Region Approved 2014)

The Markham official plan calls for the

accommodation of future growth within the confines of a compact urban envelope (Section 2.1). Section 7 addresses transportation goals, objectives and policies, including promotion of environmentally sustainable travel choices, transit-supportive land use planning and adoption of a 'complete streets' philosophy (Section 7.1). Direction is given to design and construct roads to balance safety and the needs of all users, encourage a more compact urban form, enhance the quality of the streetscape and place increasing emphasis on moving people rather than vehicles (Section 7.1.3.6). The official plan also calls for better integration of land uses and connections with road design (Section 7.1.3.6 d). Transportation demand management and active transportation are key objectives and the official plan calls for support for walking and cycling as competitive mobility choices (Section 7.1.4.2).

Town of Newmarket: Official Plan (2006, Office Consolidation 2016)

The Newmarket Official Plan promotes the development of sustainable transportation improvements and encourages growth in support of a sustainable community (Section 1.3). The official plan recognizes the need to plan mutually supportive land uses and transportation networks and the need to improve walking, cycling and transit facilities (Section 1.3.4). It also strongly supports the development of the rapid transit system on Yonge Street and Davis Drive (Section 1.3.4). Intensification is linked with the creation of more transportation choices and urban design policies promote the principle of connectivity (Section 4.4 and 12.2.2). Specific guidance for the design of arterial roads prohibits on-street parking, requires sidewalks on both sides of the street and outlines streetscape design elements (Section 15.2 and 15.8). As part of the Official Plan, Newmarket's Urban Centre Secondary Plan provides guidance on streetscapes and boulevards with respect to elements that promote pedestrian amenity, comfort, convenience and safety (Section 7.3.6). It also recognizes how street network and block structure in Newmarket's Urban Centres will be planned to support active transportation and connectivity for all modes of transportation (Section 7.3.6). It further outlines how street network and block structure in Newmarket's

Urban Centres will be planned to support active transportation and connectivity for all modes of transportation (Section 8.2).

Town of Richmond Hill: Official Plan (2010, Office Consolidation 2017)

Guiding principles for municipal development laid out in the Richmond Hill's official plan, include the development of complete, integrated and vibrant communities and direction of growth to built-up areas (Section 2.2). The plan calls for transit and pedestrian-oriented development and the promotion of mobility, connectivity and accessibility throughout the Town (Section 2.2 and 3.5.1). Transit-oriented development and the integration of land uses and transportation planning is emphasized, especially in centres and corridors (Section 3.1.4 and 3.5.4). The Yonge Street and Highway 7 Regional corridors are identified as Regional rapid transit corridors which will accommodate a range of transportation modes and land uses, with prioritization given to public transit and active transportation (Section 3.5.1, 3.5.2 and 3.5.3).

City of Vaughan: Official Plan (2010, Office Consolidation 2017)

The City of Vaughan Official Plan, updated in 2010, includes the following major goals (Section 1.5):

- Moving around without a car
- Design excellence and memorable places
- A green and sustainable city
- Directing growth to appropriate locations

With regards to transportation, it focuses on strengthening pedestrian, bicycle and transit networks and systems over the next 25 years (Section 4). In addition, it expects to shift growth away from greenfield locations to promote intensification and reurbanization in built-up areas. Changes to street design and adjacent land uses will emphasize infill and intensification in select areas, streetscape improvements to make streets enjoyable and safe, and the accommodation of all modes of travel in an integrated fashion (Section 4.1). The City of Vaughan also has a Transportation Master Plan and Pedestrian and Bicycle Master Plan.

Town of Whitchurch-Stouffville: Official Plan 2000 (Office Consolidation 2017)

Section 5.2 of the Official Plan describes the Town's Transportation Plan. Section 5.2.3.1 states the primary system for pedestrian movement shall be the trail system and bicycle movement will be accommodated in the street right-of-way. Consideration shall be given for the inclusion of bicycle lanes in road rights-of-way for new and reconstructed arterial and collector roads. There is limited transit service in Whitchurch-Stouffville, though the OP states that the Town shall support transit supportive urban design measures, such as the accommodation of transit facilities in arterial and collector roads, and the design of subdivisions to permit effective transit routes and supportive pedestrian access (Section 5.2.4.3).

Key Technical Documents

Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (ITE, 2010)

Founded in a CSS approach, this document calls for multidisciplinary and collaborative road design processes. It identifies ways that CSS approaches can be applied, describes the principles and benefits of CSS, and provides guidance on selecting road typologies and the design of specific boulevard and roadway elements.

Global Street Design Guide (2016)

This guide is the first-ever worldwide standard for redesigning city streets to prioritize safety, pedestrians, transit and sustainable mobility for an urban century. Created with the input of 72 cities in 42 countries, this new manual presents 21 street typologies and 50 unique street and intersection transformations applicable worldwide. With over 40 case studies, the guide shows, in actionable terms, how to redesign streets to put people first. From moving more people with transit lanes, to dedicating space for vibrant economic activity like street vendors, this new global toolkit is applicable to a variety of contexts worldwide.

Urban Street Design Guide and Urban Bikeway Design Guide (NACTO, 2013)

These companion design guides respond to a growing need for urban streets to act as multi-modal, sustainable and functional public spaces. They outline key principles for designing streets that are catalysts for urban change. The *Urban Street Design Guide* details a variety of street typologies, design elements and design controls, including guidance for urban intersections. The strategic use of right sizing (or road diets) is explained in this guide and is encouraged in practice because it truly makes streets context sensitive. The *Urban Bikeway Design Guide* provides guidance on the design of bike lanes, bicycle boulevards, cycle tracks, intersections, signals, markings and signs.

Planning and Design for Pedestrians and Cyclists, A Technical Guide (2010)

This guide provides best practices, key concepts and guidance on the design of active transportation routes and facilities. It includes guidelines to promote active transportation for the following key elements:

- Paths and trails
- Walkways, bikeways, roadways and public spaces
- Lighting, signs and street furniture
- Public transit elements and access
- Maintenance and operations

Ontario Traffic Manual

The *Ontario Traffic Manual* provides guidance for road design and construction to ensure uniformity in traffic control devices and systems across Ontario. It promotes predictability and safety in road operations across Ontario that are consistent with the *Highway Traffic Act* and represent best practices. It consists of a number of books that provide detailed guidance on a range of traffic control devices and applications, including traffic signals, signs, pedestrian crossing facilities and bicycle facilities.

[Manual of Uniform Traffic Control Devices for Canada \(2014\)](#)

This manual specifies standards and guidelines for the preferred methods in the design, dimensions, installation, application and use of traffic control devices such as traffic signs, road markings and signals. It ensures all traffic control devices conform to a uniform national standard.

[Geometric Design Guide for Canadian Roads \(TAC\)](#)

The Transportation Association of Canada (TAC) is a national association promoting safe, secure, efficient, effective and environmentally and financially sustainable transportation services in support of Canada's social and economic goals. Its primary focus is on roadways and their strategic linkages and inter-relationships with other components of the transportation system. In urban areas, it focuses on the movement of people, goods and services and the relationship of roadways with land use patterns.

The *TAC Geometric Design Guide for Canadian Roads* provides information to assist designers with the decision making process for selecting the appropriate combination of features, dimensions and materials for a given design.

[Geometric Design Standards for Ontario Highways \(Ministry of Transportation\)](#)

This manual provides a common approach to road design for road authorities in Ontario. It provides guidance on the classification of roadways, analysis of existing facilities and proposed designs for their ability to carry traffic, and the design of horizontal and vertical alignments, cross-sections and intersections.

[Canadian Standards Association Standard C22.3 No. 1-15 Overhead Systems](#)

This standard applies to electric supply, communication lines and fenced supply stations. It provides direction on clearance, separation and spacing of overhead line components and



Dufferin Street in Vaughan has recently been redesigned to better accommodate multiple modes of transportation

relationships to each other, buildings and the ground. The clearances, separations and spacings specified are the basic values required for public safety and are not intended to address the limits of approach to electrical installations as specified in occupational health and safety regulations.

Ontario Provincial Standards Specifications and Drawings (2013)

The *Ontario Provincial Standards Specifications and Drawings* provide specifications for a range of elements and materials used in road construction.

Ontario Regional Common Ground Alliance – Best Practices (Version 8.0, 2014)

The Ontario Regional Common Ground Alliance promotes efficient and effective damage prevention for Ontario's vital underground infrastructure. It developed best practices through a collaborative approach. This document develops new, and improves existing, practices with regard to the planning, design and construction of utility corridors.

