

DOWNTOWN MOBILITY STRATEGY



APRIL 2018



ACKNOWLEDGEMENTS

We acknowledge that the City of Toronto is located on the traditional territory of the Huron-Wendat Confederacy, the Haudenasaunee Confederacy, the Mississaugas of New Credit First Nation, and the Métis people, and is home to many diverse Indigenous peoples.

The Downtown Mobility Strategy was developed as part of “TOcore: Planning Downtown.” TOcore is a comprehensive and integrated look at Toronto’s Downtown, its relationship to the City and region around it, and the planning framework governing growth, development and the provision of infrastructure. Informed by public and stakeholder consultation, this Strategy is the collaborative work of the following Divisions and Agencies:

- City Planning
- Transportation Services
- Economic Development & Culture
- Environment and Energy
- Fire Services
- Parks, Forestry and Recreation
- Toronto Transit Commission (TTC)
- Toronto Paramedic Services
- Toronto Parking Authority (TPA)
- Toronto Public Health

DOWNTOWN MOBILITY STRATEGY

APRIL 2018

PREAMBLE

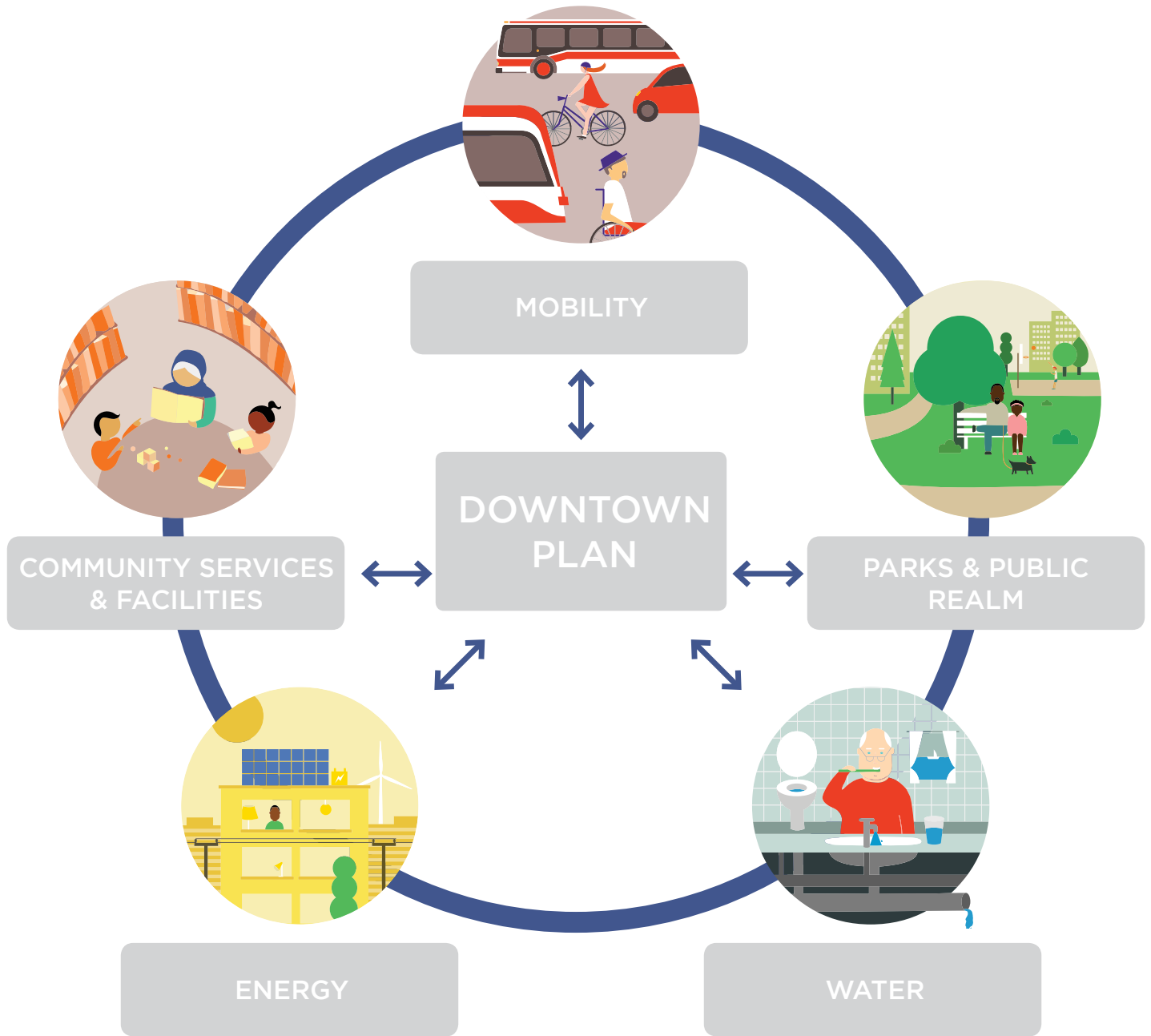
The Downtown Plan is a 25-year vision that sets the direction for the city centre as the cultural, civic, retail and economic heart of Toronto, and as a great place to live.

The Plan is a response to rapid growth in the core that is placing pressure on physical and social infrastructure. The Plan provides a renewed planning framework for 17 square kilometres—the whole of Downtown.

The Downtown Plan is supported by five infrastructure strategies:

- Downtown Parks and Public Realm Plan
- Downtown Community Services and Facilities Strategy
- Downtown Mobility Strategy
- Downtown Water Strategy
- Downtown Energy Strategy

These strategies set priorities for infrastructure investment, and guide implementation of the Downtown Plan, which encompasses the area from Bathurst Street to the Don River and from the waterfront to about the CP rail corridor/Rosedale Valley Road. Each strategy outlines a series of transformative ideas and actions intended to align infrastructure planning with long-term growth.



The Downtown Plan is supported by five infrastructure strategies that work together to implement the vision, goals, and policies of the Downtown Plan and ensure infrastructure planning is aligned with long-term growth

CONTENTS

EXECUTIVE SUMMARY	8
1. INTRODUCTION	12
2. CHALLENGES	14
3. MOBILITY AND PARKS & PUBLIC REALM: WORKING TOGETHER	24
4. PRIORITY ACTIONS	26
5. MOVING FORWARD	64
6. ALIGNED INITIATIVES	66

EXECUTIVE SUMMARY

The Downtown Mobility Strategy seeks to enable the growing numbers of residents, workers, students and visitors in the Downtown to travel safely, efficiently, and more sustainably, while also strengthening the city's economic competitiveness and environmental resiliency. It outlines a series of actions that work closely together with the Downtown Parks and Public Realm Plan to help align infrastructure planning with long-term growth.

The Strategy also supports and complements the rapid transit network planning initiatives currently underway at the city-wide and regional scale and is informed by, and builds on, several City transportation initiatives already underway in the Downtown, such as the Vision Zero Road Safety Plan and the 10-Year Cycling Network Plan.

Population and employment growth is putting tremendous pressure on transportation and transit infrastructure in the Downtown, especially on key Downtown streets, where many different uses and users are competing for limited space in the street right-of-way.

It is not feasible to expand or widen our Downtown streets, so it is fundamentally important to better prioritize and allocate the limited amount of right-of-way space available to create more complete networks for all modes, encourage a shift toward more sustainable travel modes, and make more efficient use of road space, in order to help achieve the transportation, public realm, environmental, economic, and public health long-term city-building objectives of the Downtown Plan.

The Downtown Mobility Strategy details the following priority actions:

1. COMPLETE STREETS:

- Undertake a Street Typology Study for key Downtown streets to identify street typologies and modal priorities. This would incorporate:
 - Complete Streets Guidelines
 - Curbside Management Strategy
 - Sidewalk Cafés and Marketing Displays Review
 - Emergency vehicle needs
- Initiate a Shared Streets Program to identify potential streets as candidates for a ‘shared street’ re-design

2. WALKING:

- Undertake Downtown-focused pedestrian safety improvements as part of the Vision Zero Road Safety Plan, including physical and operational safety improvements at busy intersections (e.g., Bay/Queen, Gardiner ramps, etc.) and neighbourhood safety improvements around schools, community facilities, libraries, etc.
- Undertake a Pedestrian Priority Corridor Study to develop a new vision for a network of streets that re-allocates more space in the right-of-way for pedestrians (e.g., Bay, Front, Yonge)
- Undertake a Pedestrian Priority Area Study to develop a new vision for areas that prioritize pedestrians (e.g., Kensington, Distillery, Union)
- Develop a Pedestrian Special Events Strategy to accommodate events that generate high-surge volumes of pedestrians (e.g., around Rogers Centre, Air Canada Centre, Theatre District, etc.)
- Build new PATH extensions and improve connections to off-street trail system
- Continue implementing the Toronto 360 Wayfinding Strategy

3. CYCLING:

- Continue implementing initiatives already planned as part of the 10-Year Cycling Network Plan
- Advance additional initiatives from the Long-Term Cycling Network Plan:
 - Renew: upgrade existing pilots to permanent cycling infrastructure (i.e., Richmond St., Adelaide St.)
 - Grow: Extend existing lanes (i.e., Richmond, Adelaide, Bloor)
 - Connect: Undertake a corridor study for a significant north-south corridor (i.e., University, Bay, Yonge)
- Undertake bicycle safety initiatives at key locations in the Downtown as part of the Vision Zero Road Safety Plan.
- Complete and implement the Bicycle Parking Strategy
- Implement mechanisms for securing and funding additional Bike Share infrastructure (with TPA)

4. PUBLIC TRANSIT:

- Review lessons-learned from King Street Transit Pilot
- Undertake a Downtown Transit Area Study to develop a long-term vision and plan for surface transit improvements needed to accommodate growth within and near the Downtown to improve transit reliability, reduce transit travel times, and increase transit ridership, including:
 - increasing service on existing surface routes,
 - changing surface transit route structures,
 - adding new surface transit routes in areas of growth (including upgraded capacity for a north-south route on the east side),
 - exploring a range of priority measures on some surface transit routes, depending on the existing and planned context.
- Undertake ongoing targeted physical and operational improvements along busy surface transit routes to address service bottlenecks (e.g. Bathurst-Fleet-Lakeshore)
- Implement strategies identified in the TTC's Ridership Growth Strategy

5. MOTOR VEHICLES:

- Implement the Curbside Management Strategy
- Promote off-peak delivery using alternative delivery methods such as bicycles and smaller delivery vehicles within the Downtown
- Implement pilot project to encourage and facilitate innovative freight delivery methods (off-hours deliveries, remote consolidation centres, etc.)
- Investigate changing parking by-law to require parking spaces that satisfy TPA's size requirements
- Include multi-modal facilities in TPA parking facilities
- Incorporate new features into street designs to support other road users (e.g., conduits for wiring within the Downtown Film Precinct to support film industry; plug-in locations for tour buses)

1. INTRODUCTION

This Downtown Mobility Strategy seeks to enable the growing numbers of residents, workers, students and visitors in Downtown to travel safely, efficiently, and more sustainably, while also strengthening the city's economic competitiveness and environmental resiliency. Working in tandem with the Downtown Parks and Public Realm Plan, it is primarily about addressing transportation needs within a growing Downtown. It also supports and complements rapid transit network infrastructure planning initiatives at the city-wide and regional scale.

Downtown is the heart of transportation activity in the City of Toronto and the surrounding region. Union Station is the regional rail and transit hub, and also serves international travellers through its close proximity to Billy Bishop Toronto City Airport and the UP Express rail link to Toronto Pearson International Airport. The Line 1 Yonge–University and Line 2 Bloor–Danforth TTC subways corridors are important north-south and east-west transit backbones, complemented by a grid network of busy streetcar and bus routes. The Downtown street network itself is a well-connected grid, primarily comprising short, compact blocks and vibrant, attractive streetscapes. The street network is used for walking and cycling and by personal vehicles, transit vehicles, delivery vehicles and emergency vehicles.

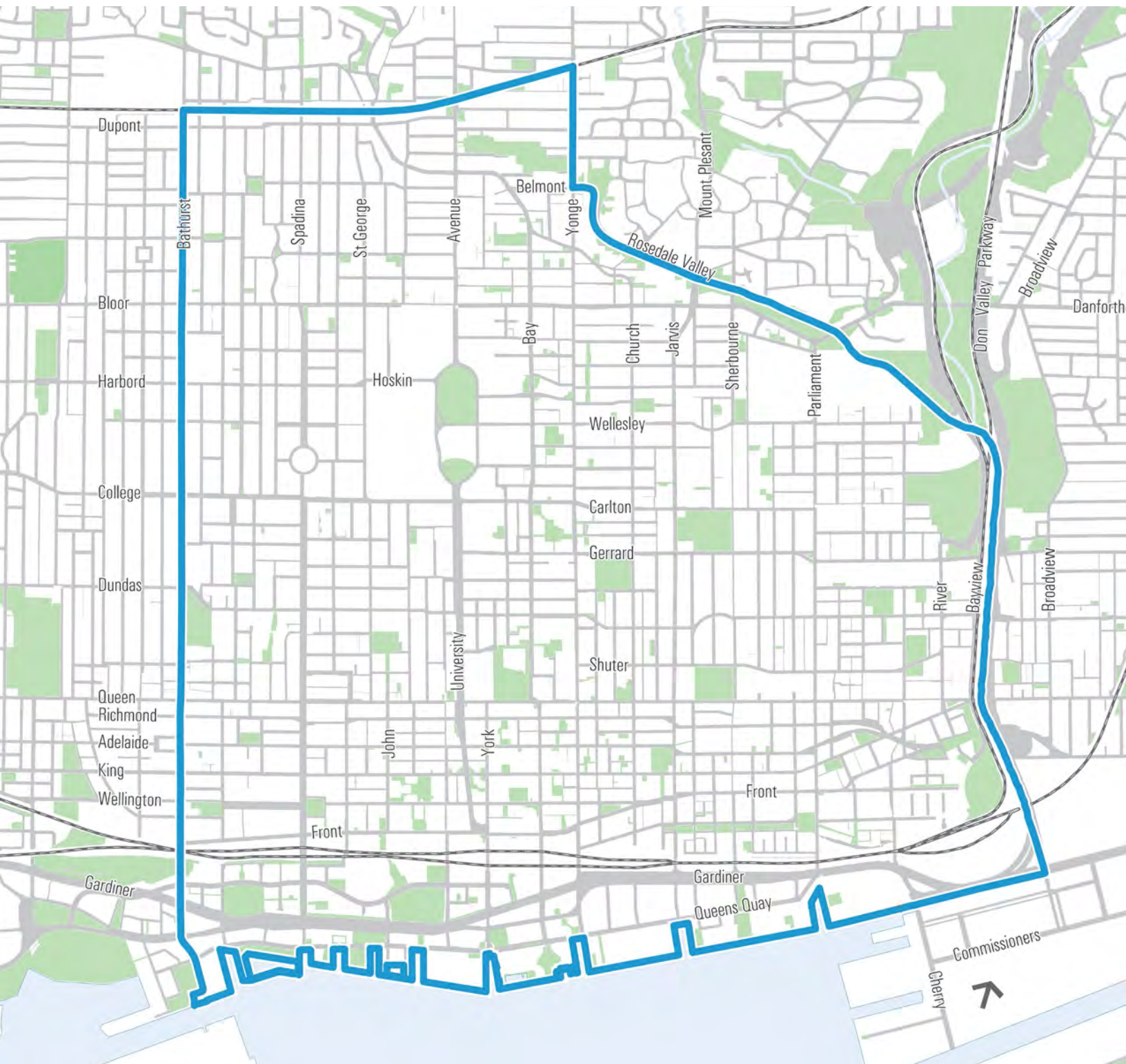


Figure 1: TOcore Study Area is bounded by Bathurst Street to the west, the Don River to the east, the CP rail corridor/ Rosedale Valley Road to the north, and the Waterfront to the south

2. CHALLENGES



The purpose of the Downtown Plan is to ensure growth continues to positively contribute to Toronto's Downtown as a great place to live, work, learn, play and invest. The major challenges from a transportation perspective are described in the following section.



Many different users and uses competing for space at King & Yonge

POPULATION AND EMPLOYMENT GROWTH

Population and employment growth in the Downtown is putting tremendous pressure on transportation and transit infrastructure. The 2041 population and employment projections estimate that Downtown will grow from 238,000 in 2016 to 475,000+ residents and from 500,000 to 850,000+ jobs. This does not include the growing numbers of daily visitors such as students, shoppers and tourists. This growth will significantly increase demand for travel into, out of, and within the Downtown by all modes.

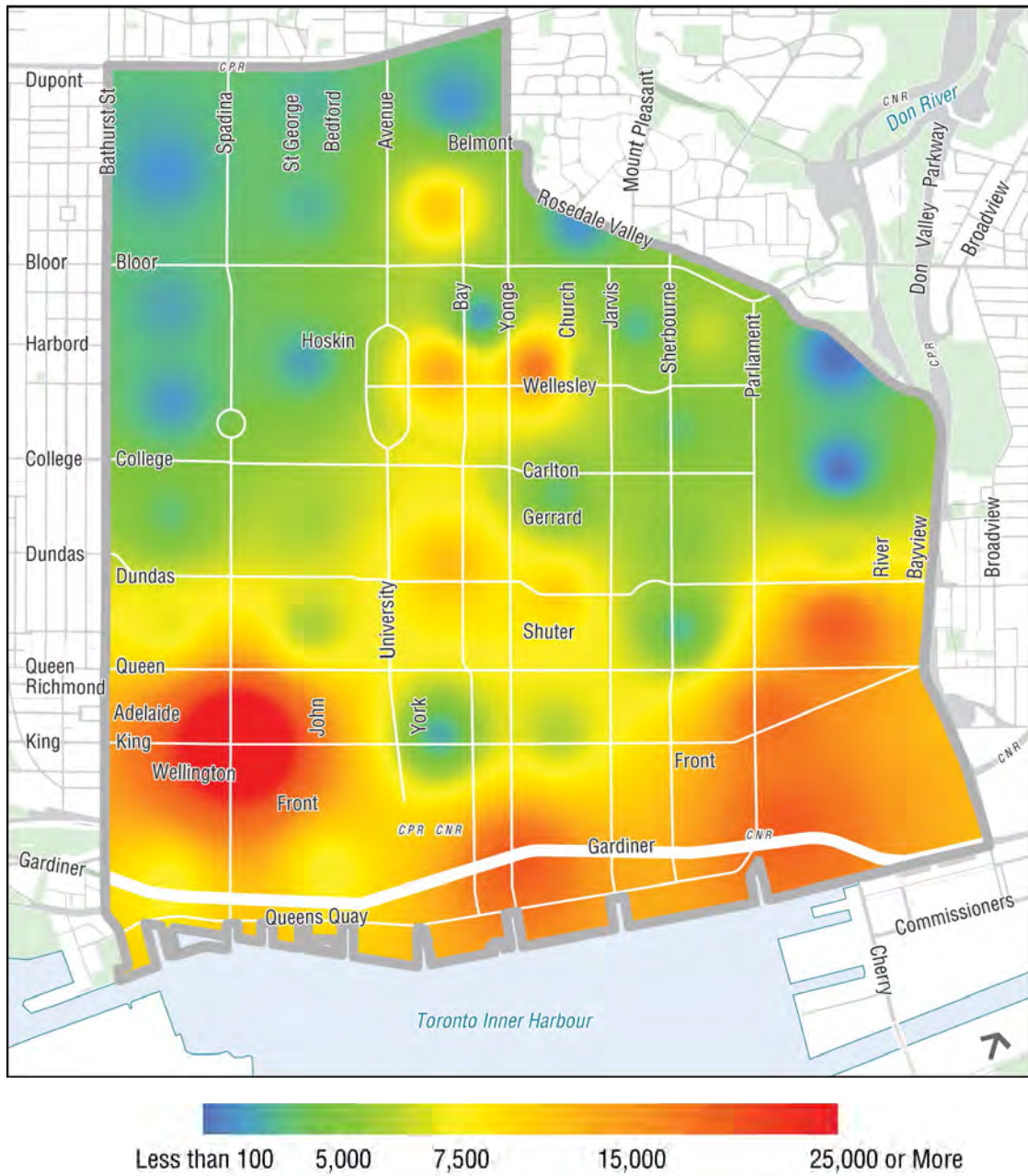


Figure 2: Projected residential population change in the Downtown (2011-2041)
 Source: Toronto City Planning Division, Research and Information, October 2016

INCREASING DEMAND FOR WALKING, CYCLING AND SURFACE TRANSIT

The overwhelming majority of people living in the Downtown walk, cycle or take transit to get to work—nearly half of households don't even own a car (TTS 2011). There has been a significant increase in the number of residents living Downtown who walk and cycle to their places of employment in the Downtown. Streetcar routes serving Downtown have had increased ridership as a result of new residential intensification both within the Downtown and beyond. Downtown streets are also used for vehicle traffic including for goods delivery and emergency services.

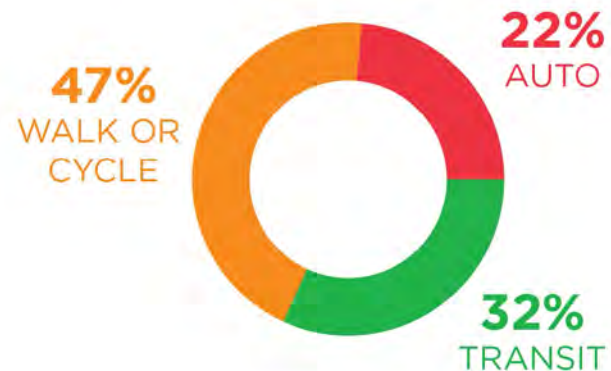


Figure 3: How Downtown Residents Travel to Work
Source: Adapted from Transportation Tomorrow Survey (TTS), City of Toronto, 2016

FIXED ROAD CAPACITY

Downtown streets have a limited amount of right-of-way space and it is not feasible to expand or widen them. We need to understand how to better use and allocate the limited amount of space available. More people are walking and cycling, streetcars are stuck in traffic, and there is a growing demand for public space improvements to support public life, including patios or parkettes. While peak hour traffic volumes into the Downtown remain relatively stable, outbound volumes in the morning have slightly increased due to some residents commuting to areas outside of the Downtown. Temporary uses, such as for construction, add further demands on the limited road space.

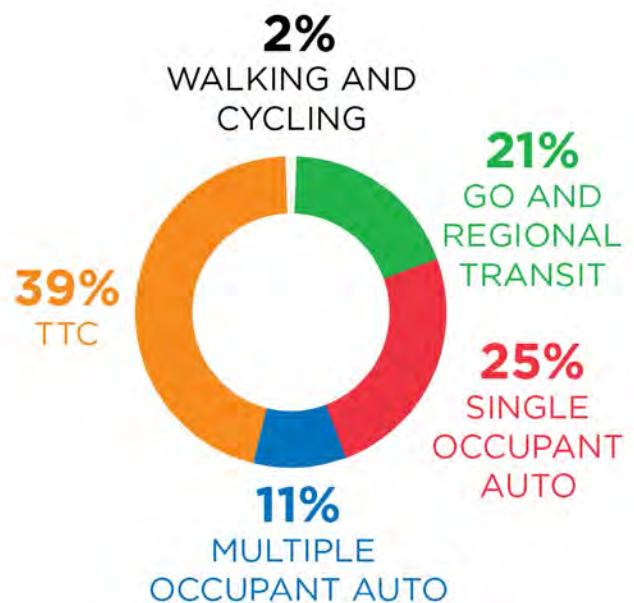


Figure 4: Mode of Travel—Inbound Person Trips (7:00 am to 10:00 am) 2016

Source: Adapted from City of Toronto Cordon Count, 2016

SAFETY

Downtown streets must be safe and universally accessible for people of all ages and abilities, especially the most vulnerable: children, seniors and people with disabilities. How we design our streets, and how safe people feel using them, impacts how people choose to get around. The more comfortable people feel walking and cycling the more people will choose to walk and cycle. Nowhere else in the city is this more apparent than Downtown where the concentration and volume of pedestrians and cyclists moving around on our streets is the highest in the city.

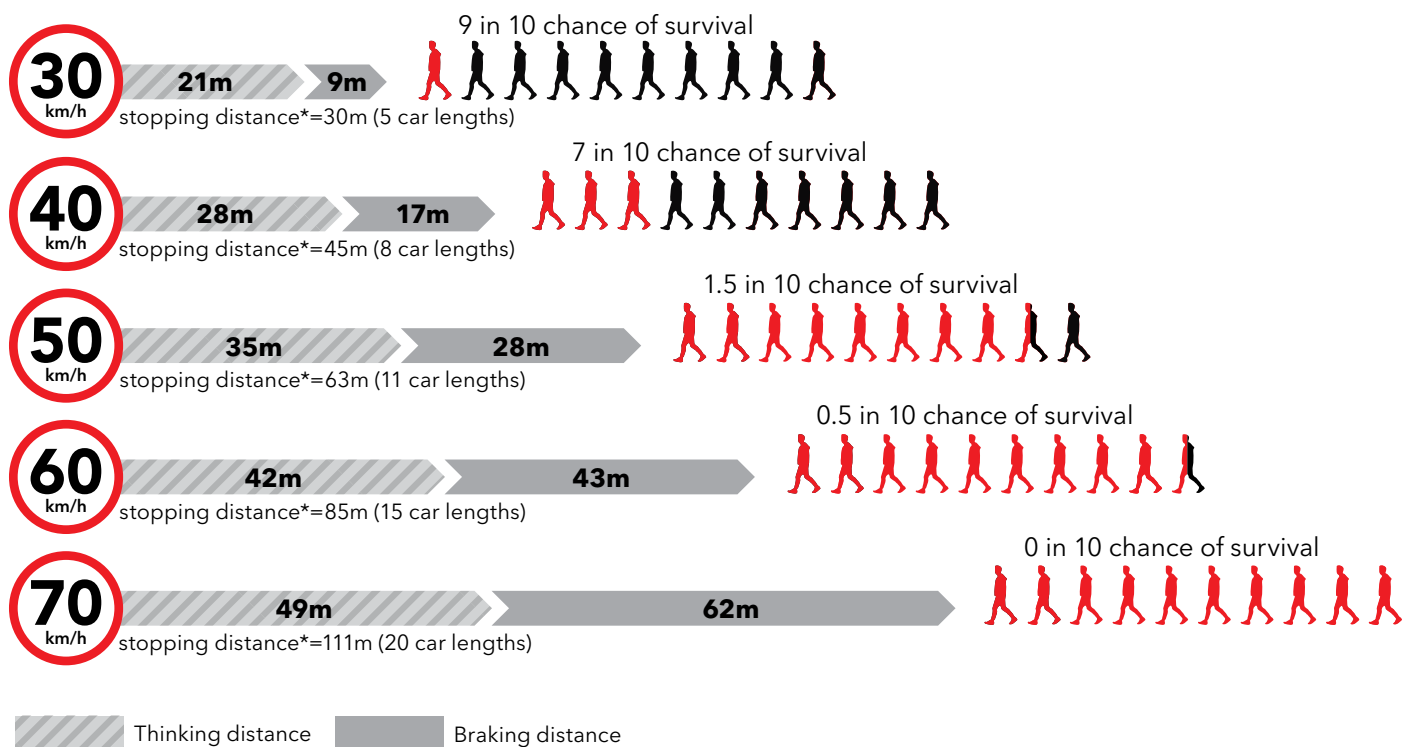


Figure 5: Higher motor vehicle speeds directly correlate with slower driver reaction time and increased risk of serious injury or death to vulnerable users upon collision

Source: [Toronto Complete Streets Guidelines](#)

HEALTHY LIFESTYLES

Chronic diseases are the leading cause of death and disability in Toronto. Physical activity has been shown to reduce mortality of chronic diseases such as heart attacks, strokes, diabetes and some types of cancers including colon and breast cancer. According to the City of Toronto [Road to Health Report \(2012\)](#), levels of walking and cycling to work were estimated to prevent about 120 deaths each year. Public transit not only reduces vehicle emissions that contribute to a range of adverse health outcomes, people using public transit also tend to walk more in order to get to and from the public transit network, and to transfer between routes.

CLIMATE CHANGE AND RESILIENCE

Transportation has long been associated with environmental impacts, such as the production of greenhouse gases, creating air pollutants and contributing to stormwater runoff. About 280 deaths and 1,100 hospitalizations arise annually from exposure to traffic-related air pollution emitted within Toronto. Through TransformTO, the City has adopted several long-term goals, among them: 75% of trips under 5 kilometres will be active trips and all vehicles be low or zero-emissions by 2050.

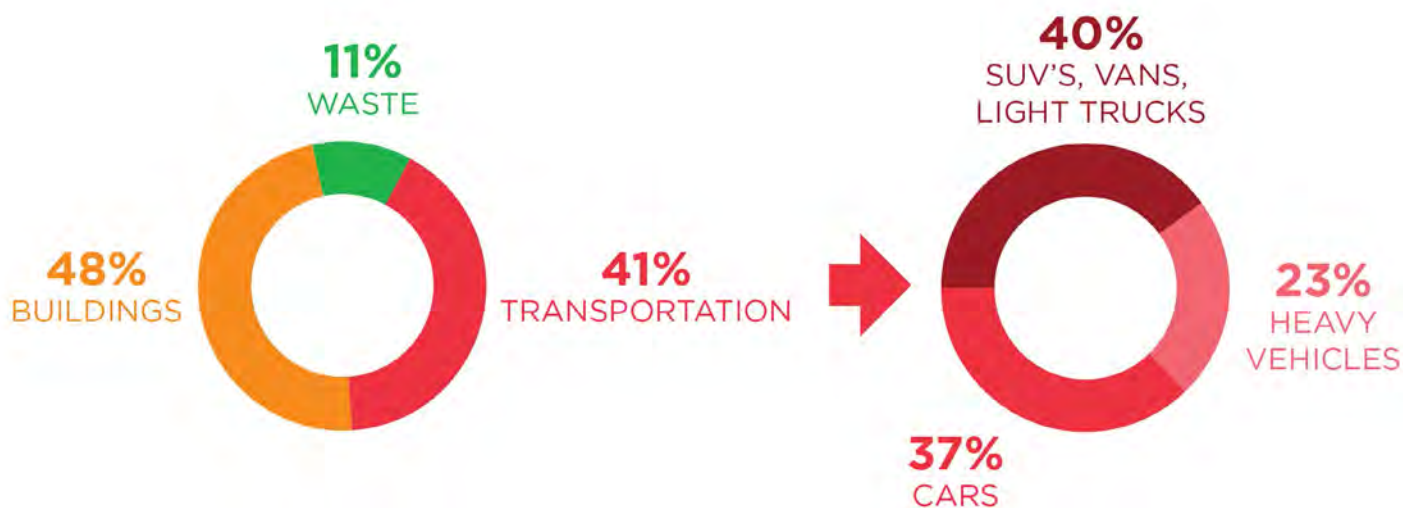


Figure 6: Toronto's Greenhouse Gas Emissions 2013

Source: Adapted from [TransformTO Community Engagement Report 2016](#)

NEW TECHNOLOGIES AND BEHAVIOURS

How and why we choose to travel will change over time. Rapidly evolving technologies are likely to influence new commuting and mobility patterns. Technology will continue to enable more flexible work schedules, working from alternate locations and a more simplified process of ride sourcing.

While new technologies such as automated or electric vehicles are appealing, they won't solve the city's transportation challenges and may even cause congestion to increase, if not properly regulated.

3. MOBILITY AND PARKS & PUBLIC REALM: WORKING TOGETHER

It is important that the Downtown Mobility Strategy and the Downtown Parks and Public Realm Plan be read together. These two planning documents are intended to be implemented in a coordinated way to bring about integrated improvements to public space and mobility networks as Downtown grows

Like the Mobility Strategy, the Parks & Public Realm Plan (PPRP) is one of the Infrastructure Strategies that helps support the implementation of the Downtown Plan to provide a blueprint for aligning growth and infrastructure in the Downtown over the next 25 years.

The PPRP outlines a vision and framework for achieving an expanded, connected and improved parks and public realm network in the Downtown to support future population and employment growth. It is organized around Five Transformative Ideas to re-imagine, grow and connect the networks of public spaces in Downtown, which include parks, streets and other open spaces:

1. **The Core Circle:** re-imagining the valleys, bluffs and islands encircling downtown as a fully inter-connected landscape system and immersive experience.
2. **Great Streets:** amplifying the unique characteristics of Downtown's most emblematic streets and making them outstanding civic spaces and connectors.
3. **Shoreline Stitch:** re-connecting the Downtown to its waterfront across transportation corridors and linking the east and west portions of the Core Circle landscapes.

4. **Park Districts:** expanding, improving and connecting neighbourhood parks and public spaces to create a focus for everyday community life.

5. **Local Places:** re-designing under-utilized and sometimes over-looked local public spaces to better support public life and expand the utility of our parks and public realm network.

The PPRP works together with all the Infrastructure Strategies, but works most closely with the Mobility Strategy primarily on the subject of Downtown streets. Streets are some of the most important public spaces in the Downtown, comprising a significant amount of the total land area. Streets also form a fundamental part of the transportation system, enabling people and goods to move and circulate efficiently. Making Downtown streets more complete involves striving to achieve both mobility and placemaking objectives outlined in the Mobility Strategy and the PPRP.

It is important that both Strategies be read together to achieve the integrated planning of public space and mobility networks.

4. PRIORITY ACTIONS

COMPLETE STREETS

Priority Actions

- Undertake a Street Typology Study for key Downtown streets to identify street typologies and modal priorities. This would make use of:
 - Complete Streets Guidelines
 - Curbside Management Strategy
 - Downtown Parks and Public Realm Plan
 - Streetscape Manual
 - Emergency vehicle needs
 - Other Priority Actions from this Strategy
- Initiate a Shared Streets Program to identify potential streets as candidates for a 'shared street' re-design

Streets are the most fundamental element of the Downtown transportation system and serve both as corridors for movement and as important public spaces. As the Downtown continues to grow, competition for limited space in the street right-of-way will increase. It is not feasible to expand or widen Downtown streets, so we need to understand how to better prioritize and allocate the limited amount of space available on our streets to use them more efficiently.

There is no single way to make a street complete. It depends on numerous factors according to the character and context of each street, with some uses prioritized over others. While every user or use may not be accommodated on every street, the overall objective is to create well-functioning networks that provide safe access and efficient

operation for all street activities and functions, especially the needs of vulnerable users and people with lower mobility or disabilities.

Downtown streets will become more 'complete' gradually over time through a variety of initiatives including: the development review process, area planning studies, environmental assessments, capital and maintenance construction projects, and other street improvement initiatives.

Create well-functioning networks that provide safe access and efficient operation for all street activities and functions

REFLECT CURRENT AND FUTURE USES

Understanding the roles and relationships of Downtown streets with their surrounding existing and planned contexts is a critical step in the ‘complete streets’ approach. In the past, plans to enhance networks for different modes of travel have been developed somewhat in isolation. This has resulted in some streets being identified as priorities for multiple modes.

To help resolve these conflicts, a comprehensive Street Typology Study will be undertaken for key Downtown streets. The study will use the City’s Complete Streets Guidelines to help identify priority networks and key outstanding network gaps for various users and determine a range of street typologies for key Downtown streets, based on their existing and planned contexts. Street typologies are intended to be a starting point in the ‘complete streets’ design approach that establish key transportation and place-making priorities to inform how a street should be designed. Examining the trade-offs required in establishing priority networks for each mode, the Street Typology Study will result in one consistent map covering priority networks for all modes.

Space along the roadway adjacent to the curb is also limited, but in high demand. The City is developing a Curbside Management Strategy to better manage curbside operations Downtown. One of the key strategies emerging from this work is the identification of specific areas for particular users, such as taxi and ridesharing parking, coach loading and parking, film vehicle parking, and shared courier/delivery loading zones. Other strategies will include better managing of on-street and off-street Toronto Parking Authority public parking, and pricing of curbside space. The latter would encourage efficient use, through smaller vehicles or shorter times, and giving priority to the users who need it most.

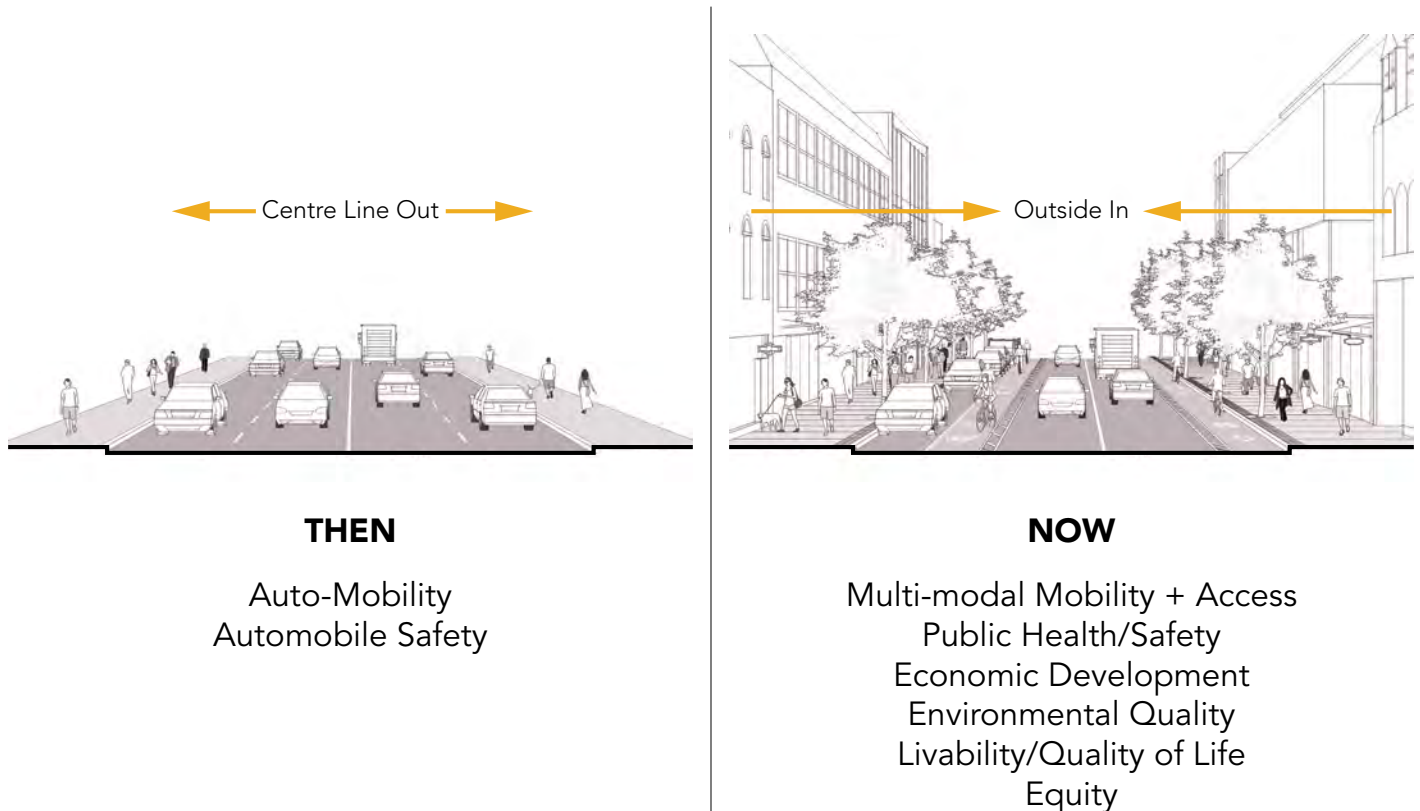


Figure 7: Our design goals for streets have changed to reflect our evolving city-building priorities.
Source: [Toronto Complete Streets Guidelines](#). Adapted from Michael Flynn (for NYC DOT)

The Street Typology Study will result in one consistent map covering priority networks for all modes

PRIORITIZE ROAD SPACE

Some transportation modes use road space to move people more efficiently than others. Walking, cycling, and surface transit are far more space-efficient than cars, especially for moving large numbers of people.

Higher density modes will be promoted through the use of priority measures that consider the needs and safety of each mode, depending on the context. Higher density modes are those which require less space per passenger (Figure 8). Promoting these modes will more efficiently move increasing numbers of people and goods and support sustainable and efficient operations. Further measures to encourage more efficient use and higher auto occupancy will also be implemented.

The adoption of a comprehensive road pricing program should also be considered to encourage efficient use of roadways. This will help to discourage uses that could be accommodated elsewhere and reduce the amount of space taken up by motor vehicles and construction activities.

Comprehensive planning for festivals and other special events should consider safety and mobility impacts on other users and uses of the rights-of-way and incorporate mitigation measures and clear communications with the public. Such events are important to the city and are enjoyed by both local residents and visitors; however, they can have a significant impact on mobility by blocking important transit routes or bike facilities.

Walking, cycling, and surface transit can move people far more efficiently than cars

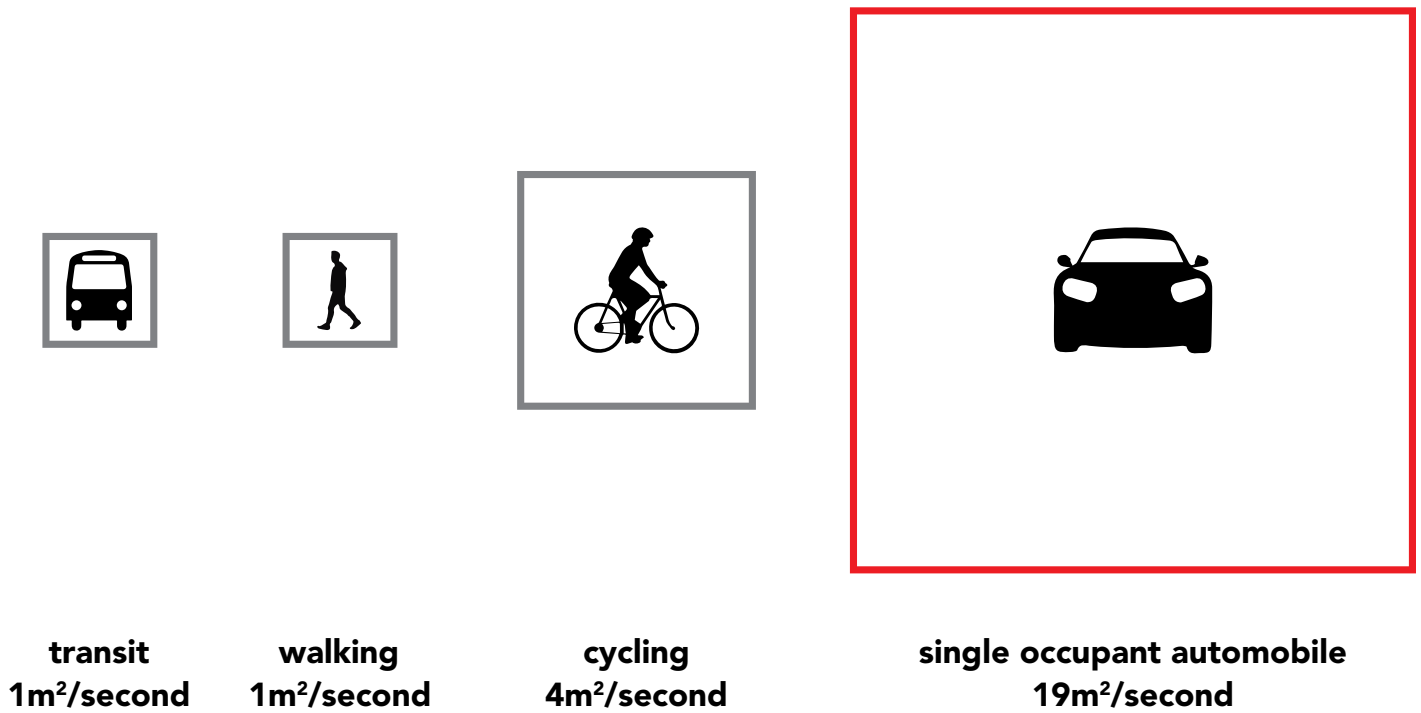


Figure 8: Walking, cycling and transit are more space-efficient for moving people than cars.

Source: [Toronto Complete Streets Guidelines](#). Adapted from Litman, T. August 2015. "Evaluating Complete Streets"

INCREASE SPACE FOR LINGERING

As Downtown grows, streets increasingly function as public gathering spaces. This use will be supported by adding various elements to create vibrant, attractive, safe and green streets for people to enjoy. Increasing space for lingering adds vitality and diversity to our streets and contributes to making the Downtown a desirable place to live, work and visit, and should be encouraged where feasible.

Many other users occupy road space in the Downtown including tour buses, food trucks and special events, which contribute a positive economic impact. These activities will be supported by identifying locations for their use and potential infrastructure improvements.

**The public gathering space
function of streets will be
supported**



Figure 9: Yorkville Avenue in Yorkville.

Source: "Yorkville" by [tracer.ca](https://www.tracer.ca/) is licensed under CC BY-NC-ND 2.0

IMPROVE SAFETY FOR ALL USERS

Safe access for all users especially the most vulnerable, children and seniors, is central to the concept of complete streets. Although Toronto is among the safest big cities in North America, more can be done.

The City recently adopted its Vision Zero Road Safety Plan, a city-wide strategy to eliminate transportation-related fatalities and serious injuries. The Vision Zero approach is based on the principle that no loss of life is acceptable on our streets. People will always make mistakes and so the transportation system needs to be designed and operated to compensate for human error in order to eliminate fatalities and serious injuries. Education and enforcement campaigns are also important. As the Downtown continues to grow, more people will be using the streets, increasing the likelihood of conflicts.

The need to protect all road users extends to protecting people from others who are trying to do them harm. There have been several recent incidents in other countries where vehicles have been used as weapons. Hostile vehicle mitigation strategies should be implemented to protect people without negatively impacting mobility. Measures might include event road closures and special barriers or bollards.

The transportation system needs to be designed and operated to compensate for human error

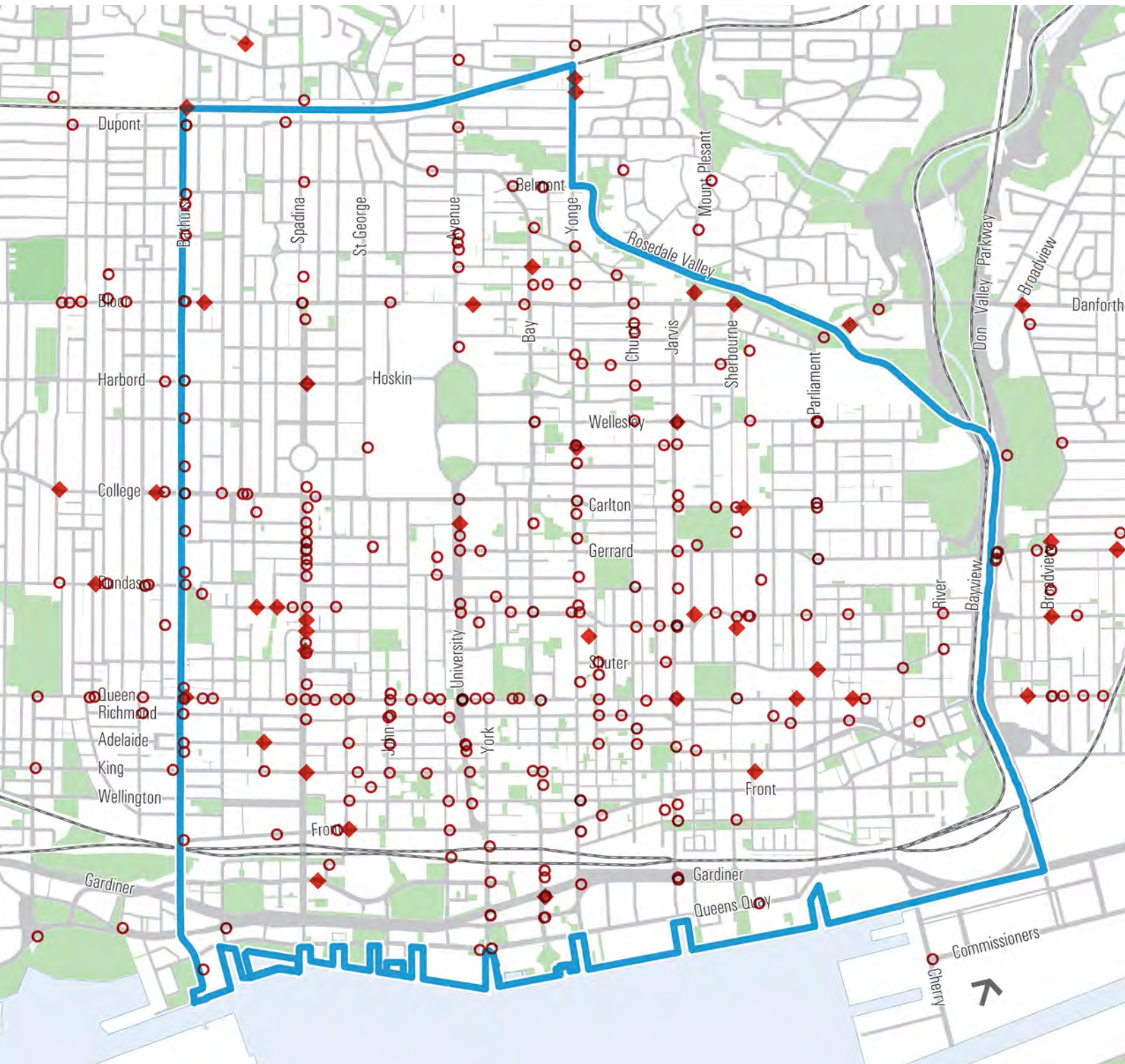


Figure 10: Pedestrian Collisions 2006-2016
Data Source: Toronto Police Service

◆ Fatal Injury ○ Major Injury

INCREASE FLEXIBILITY AND ADAPTABILITY

Streets need to be designed to be flexible and adaptable in order to respond to dynamic and rapidly evolving demands on their use.

Flexibility allows the road system to respond to short-term events. Every day construction, filming activities, special events, collisions and other incidents cause sudden spikes in demand or limit available road space. The XOTO program encourages film productions to reduce their community impacts by adopting leaner and greener techniques. This will be supported through the addition of infrastructure, such as conduits for wiring, which would reduce the amount of equipment required on the street.

Adaptability allows the road system to accommodate changing patterns over the medium and long term. Mobility technology is evolving rapidly and we must be prepared to respond: electric vehicles have gained a small but significant market share; autonomous vehicles are expected to reach market within the next five to 10 years; transportation network companies have disrupted the taxi industry; and other technologies with similarly disruptive impacts may yet emerge.

**Mobility technology is evolving
rapidly and we must be
prepared to respond**

WALKING

Priority Actions:

- Undertake Downtown-focused pedestrian safety improvements as part of the Vision Zero Road Safety Plan, including:
 - Physical and operational improvements at busy intersections such as reducing crossing distances, improving pedestrian space on corners, improving visibility and enhancing crosswalk design
 - Addressing lack of pedestrian crossings and routes, where they are missing in the network, in order to improve pedestrian connections
 - Giving consideration to designating areas with heavy pedestrian volumes as Community Safety Zones
- Identify a Pedestrian Priority Network, in coordination with the Street Typology Study
- Undertake a Pedestrian Priority Corridor Study to develop a new vision for the streets identified as part of the Pedestrian Priority Network that re-allocates more space in the right-of-way for pedestrians
- Undertake a Pedestrian Priority Area Study to develop a new vision that prioritizes pedestrians in areas of intensive pedestrian use
- Identify target pedestrian clearway widths and desired setbacks to accommodate movement and a range of pedestrian amenities
- Review the development application and building permit application processes and identify improvements to clarify tools and ensure desired setbacks are achieved, secured and enforced in perpetuity
- Develop a Pedestrian Special Events Strategy to accommodate events that generate high-surge volumes of pedestrians
- Build new PATH extensions and improve connections to the off-street trail system
- Continue implementing the Toronto 360 Wayfinding Strategy

Downtown is already the walking heart of the City. Everyone in the Downtown is a pedestrian at some point in their journey. When people are walking they experience their city in a unique way. Walking is enjoyable, healthy and affordable, and helps to build a sense of community.

There is a dense, grid network of vibrant and walkable streets Downtown, complemented by an array of public and private laneways, mid-block pedestrian connections, as well as the extensive underground PATH system. There is also a network of attractive off-street walking routes and trails within Downtown parks and along the Waterfront and Don Valley.

In identifying a pedestrian priority network for the Downtown, four objectives must be met:

- **Increase space for walking**
- **Enhance the public realm**
- **Remove barriers**
- **Improve connections to other modes**

**Everyone in the Downtown is
a pedestrian at some point in
their journey**

INCREASE SPACE FOR WALKING

While streets are the backbone of the pedestrian network in the Downtown, certain streets have a higher priority for moving pedestrians, and need wider sidewalks with unobstructed pedestrian clearways. On some streets these can be achieved incrementally through building setbacks on new developments. On others, additional studies will be needed to explore how the entire street right-of-way can be redesigned to provide more pedestrian space. Although achieving complete streets goes beyond basic state-of-good-repair work, cost savings may be realized by aligning and co-ordinating with capital construction projects that impact Downtown streets.

There are places where the pedestrian experience should be prioritized. This may be due to land use mix, pedestrian volumes, anticipated growth, transit volumes, and walking routes to major destinations. In areas where pedestrians are to be prioritized over other travel modes, improvements will be considered such as wider sidewalks through larger building setbacks or repurposing space from other uses, lighting, seating, removing clutter, enforcing pedestrian clearways, providing a higher level of animation of the public realm, and adding street trees to improve micro-climatic conditions.

Designating a street as a pedestrian priority does not necessarily need to apply at all times of day. Time limited street festivals and events such as

Open Streets encourage people to actively explore the city. Sporting events or concerts can result in thousands of people trying to leave a venue simultaneously. Better methods of accommodating these sudden waves of pedestrian demand should be explored through the development of a Pedestrian Special Events Strategy.

Around rapid transit stations, the underground PATH system supplements sidewalk capacity, provides shelter in inclement weather and offers access to many retail shopping venues. These high-quality connections to transit are important, particularly to Union Station where each arriving GO Train may deliver over 2,000 people to the sidewalks and walkways around the station. The PATH also provides useful direct connections between office buildings, and additional pedestrian capacity in areas removed from rapid transit stations. However, it is important that the PATH does not compromise the function of the street as the main place for pedestrian activity.

Laneways offer a unique opportunity to augment the street-oriented pedestrian network by providing additional walking routes, without impacting the primary use of lanes for access and servicing. Many Business Improvement Areas have recognized their potential as pedestrian friendly spaces in their public realm master plans.

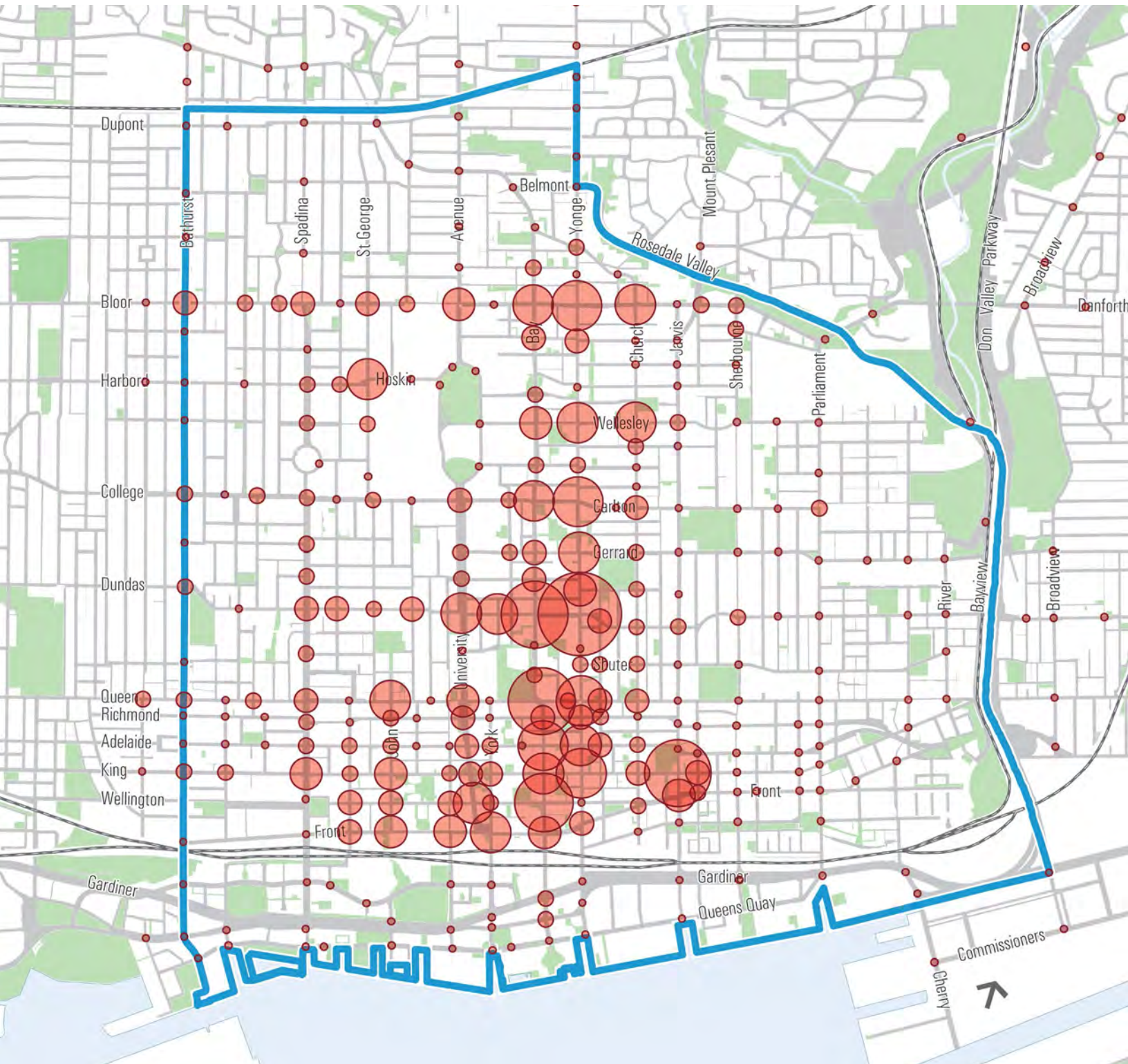
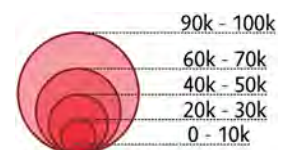


Figure 11: Total 24 Hour Pedestrian Counts at Signalized Intersections

Source: TOcore Phase 1: Taking Stock Transportation Summary Brief, (2015)



ENHANCE THE PUBLIC REALM

Pedestrians experience the city in a different way than cyclists, transit riders or drivers. Individual control allows for more spontaneous exploration of spaces, which enhances Toronto's economic and social vitality. Creating more places for people will encourage more people to walk, for both recreation and transportation purposes.

Enhancements to improve accessibility, comfort, convenience and safety will ensure that walking is the first choice of mode for trips throughout the Downtown. This includes improving the connectivity and safety of walking routes to local neighbourhood destinations such as schools, community centres and libraries. Improvements may also include adding new pedestrian amenities and street furniture such as benches and street trees. Pedestrians are the safety priority in street design as they are the most vulnerable and have the highest rates of fatalities among road users.

The Downtown Parks and Public Realm Plan identifies several actions that would promote pedestrian activity and urban vitality on a number of streets. In particular, emblematic streets will be identified as Great Streets and have their unique qualities amplified to make them outstanding civic places and connectors.

Public realm enhancements will ensure that walking is the first choice for trips

REMOVE BARRIERS

There are several significant physical and psychological barriers that make it difficult for people on foot or bicycle to access the Waterfront and the Don Valley Ravine system. Physical barriers include the existing transportation infrastructure, such as the Gardiner Expressway and the rail corridor, as well as topographical challenges with accessing the Don Valley Ravine. Although improvements have been made in recent years, additional pedestrian and cyclist bridges, tunnels or other connections are needed to create a more fully integrated and connected pedestrian network to access all Downtown areas.

Part of making Downtown easier to navigate on foot is about providing clear and simple signage with maps and wayfinding information to help people navigate between important destinations. This is especially important for visitors to the city who may be unfamiliar with their surroundings.

The Downtown Parks and Public Realm Plan proposes a framework for creating an expanded and improved system of parks and open spaces within the Downtown. This framework identifies a number of new connections between the street network and the parks and trails system. In addition to extending the parks and open space system into the urban fabric, these connections would serve to extend the pedestrian and cycling networks into the parks and open space system. These valuable connections would help overcome a number of physical barriers to active transportation, and unlock additional space for travel by active modes.

Clear and simple signage will help people navigate Downtown

IMPROVE CONNECTIONS TO OTHER MODES

Transit users are all pedestrians at some point in their trip. Union Station is the regional transit hub, and produces a significant number of pedestrian trips. Improving the walking routes on streets and the underground PATH connections that lead to and from Union Station is essential as even more people use the station for city-wide and regional transit trips.

It is also important to improve pedestrian access to other rapid transit stations in the Downtown, including TTC subway stations, as well as future GO RER and SmartTrack stations. More space for pedestrians is needed on streets surrounding stations and on those that lead directly to and from station entrances. Also, more pedestrian space should be a priority on Downtown streets with existing and future surface transit routes, which also attract a significant amount of pedestrian activity.

**More space is needed for
pedestrians on streets
near transit**

CYCLING

Priority Actions:

- Continue implementing initiatives already planned as part of the 10-Year Cycling Network Plan
- Advance additional initiatives from the Long-Term Cycling Network Plan:
 - **Renew:** Upgrade existing pilots to permanent cycling infrastructure (Richmond, Adelaide)
 - **Grow:** Extend existing lanes (Richmond, Adelaide, Bloor)
 - **Connect:** Undertake a new corridor study for a significant north-south corridor (University, Bay, Yonge)
- Undertake bicycle safety initiatives at key locations in the Downtown as part of the Vision Zero Road Safety Plan
- Complete and implement the Bicycle Parking Strategy
- Implement mechanisms for securing and funding additional Bike Share infrastructure (with TPA)

Cycling is a great way to get around the Downtown. It's fast, convenient, space-efficient, low-cost, environmentally sustainable and healthy. As the Downtown grows, and the number of cyclists increases, there must be continued investment in cycling infrastructure to grow, connect and renew the network to improve safety, comfort and convenience. End-of-trip bicycle infrastructure and facilities also must be improved by adding significant amounts of new on-street post-and-ring bicycle parking and

improving bicycle parking within new developments and at public buildings, such as at Union Station and within Toronto Parking Authority facilities.

The City's Cycling Network consists of a mix of bike lanes, cycle tracks, multi-use trails within the boulevard, off-street multi-use trails and Quiet Street routes. Central to building a long-term Downtown cycling network is increasing the supply of bicycle parking and expanding Bike Share Toronto.

Cycling is fast, convenient, space-efficient, low-cost, environmentally sustainable and healthy

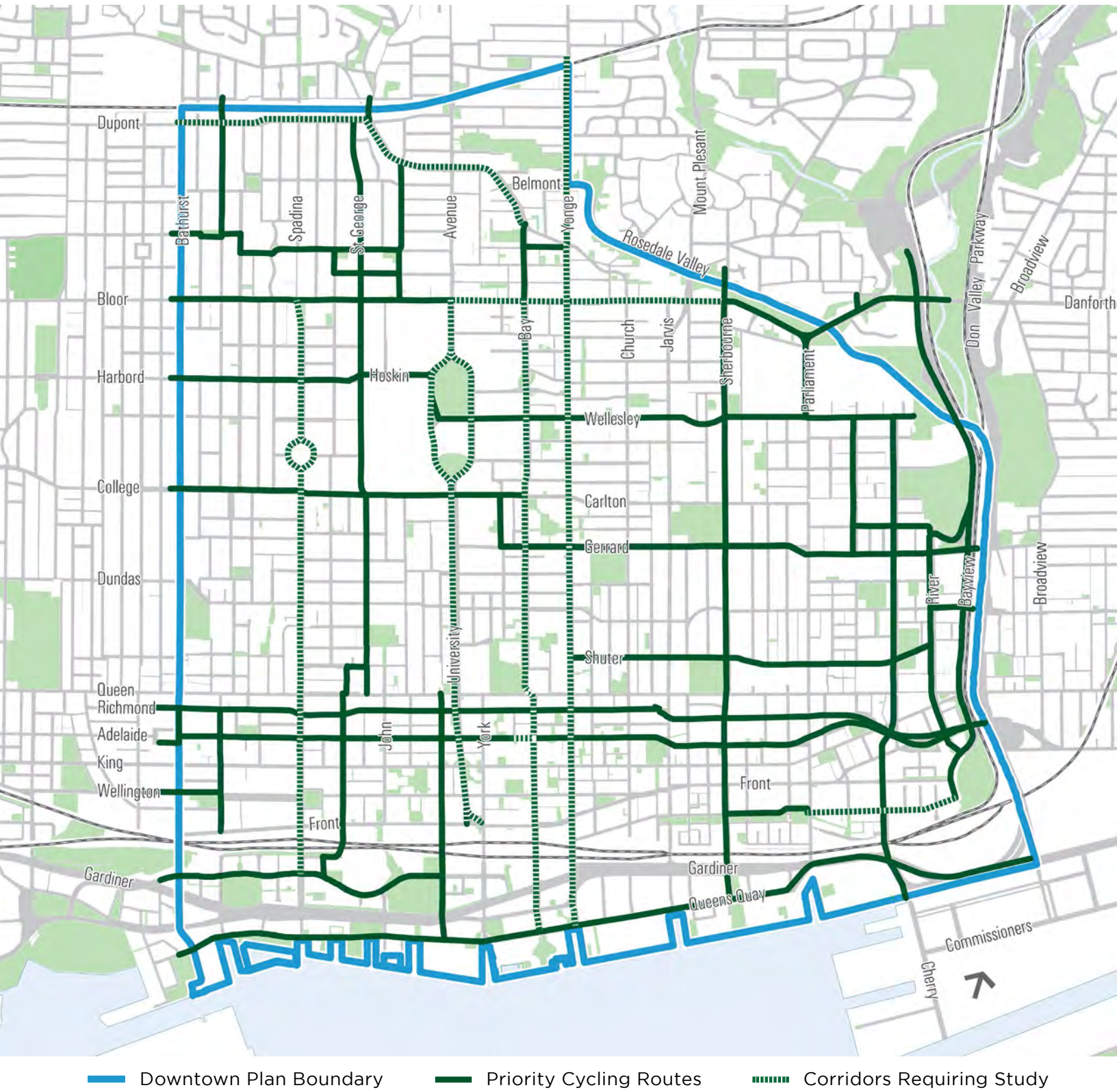


Figure 12: Downtown Long-Term Cycling Network Plan

RENEW

Standards for bike lanes and cycling wayfinding systems have evolved since the City first started building its cycling network. To make sure the City's cycling infrastructure is of a uniformly high quality, investments need to be made to ensure a state-of-good-repair of routes. This may include the addition of new markings at intersections or the addition of painted buffers. Other investments may improve existing infrastructure, such as increasing the degree of separation between cyclists and other road users, enhancing wayfinding and pavement markings or improving Quiet Street routes through the addition of traffic calming measures.

Investments need to be made to ensure a state-of-good-repair of cycling routes

CONNECT

A key consideration in developing the cycling network is to create cycling conditions that are safe, direct, comfortable, attractive and convenient. To maximize the usefulness of these routes, they should connect to workplaces, schools, recreation areas, transit and other important community destinations. Providing these connections will encourage a wide variety of individuals to cycle, but bike parking must be provided.

Connections between cycling facilities extend their usefulness and multiply the number of destinations that cyclists can reach. Existing corridors, such as Richmond/Adelaide and Bloor, should be extended to connect to new destinations.

Significant amounts of bicycle infrastructure will be added to the network, including on-street post-and-ring bicycle parking facilities, more end-of-trip bicycle facilities, and improved bicycle parking in new developments and public facilities. Transit stations will be targeted to better integrate cycling with transit. To that end, the TTC has installed self-service bicycle repairs stops at several subway stations.

As cycling becomes more popular, it may become necessary to shift long-term bike parking off-street so as to not monopolize space within the road rights-of-way. The design of these facilities should ensure that cycling remains an attractive mode of travel and should consider safety when mixing cars and bikes, retrofitting costs and security.

Transit stations will be targeted in order to better integrate cycling with transit

GROW

To encourage the growth of this sustainable mode, the network will be expanded and enhanced. The City's 10-year Cycling Network Plan identifies a series of city-wide cycling routes and includes an associated capital spending plan. Through the development of the preliminary cycling priority network depicted in Figure 12, additional routes were identified for future study and implementation beyond the 10-year timeframe. When identifying potential priority corridors, consideration should be given to cycling volumes, locations of major trip attractors, network coverage, overcoming barriers, safety and network connectivity.

Bike Share Toronto provides convenient opportunities for short-term and impromptu bicycle trips by residents and visitors. Bike share represents a low-cost opportunity to increase access to and from transit stations and other significant destinations. Additional bike share locations will be added and existing locations enlarged to provide greater connectivity and capacity. Mechanisms for securing and funding additional bike share infrastructure will be explored.

The cycling network will be expanded and enhanced

PUBLIC TRANSIT

Priority actions:

- Review lessons-learned from King Street Transit Pilot
- Undertake a Downtown Transit Area Study to develop a long-term vision and plan for surface transit improvements needed to accommodate growth within and near the Downtown to improve transit reliability, reduce transit travel times, and increase transit ridership, including:
 - increasing service on existing surface routes,
 - changing surface transit route structures,
 - adding new surface transit routes in areas of growth (including upgraded capacity for a north-south route on the east side),
 - exploring a range of priority measures on some surface transit routes, depending on the existing and planned context.
- Undertake ongoing targeted physical and operational improvements along busy surface transit routes to address service bottlenecks (e.g. Bathurst–Fleet–Lakeshore)
- Implement strategies identified in the TTC’s Ridership Growth Strategy



Figure 13: Exclusive transit lanes are one example of transit priority which has been effective for high-frequency and high-volume routes.

Source: [Toronto Complete Streets Guidelines](#)

Public transit is the backbone of the Downtown transportation system. As Downtown and nearby neighbourhoods continue to grow, there will be more demand on already busy transit routes. On a typical weekday, about 810,000 transit trips are made in and out of Downtown. Surface transit can be an extremely efficient way to move large numbers of people, but most Downtown streetcar and bus routes operate in mixed traffic, slowing trips and reducing reliability.

The last expansion of the subway system into and through the Downtown was in 1978. Several new rapid transit lines are currently being planned and are critical to supporting long-term growth of the Downtown, including the Relief Line subway, SmartTrack, GO Regional Express Rail (RER), and the Waterfront LRT.

It is important that the surface transit and rapid transit networks serving the Downtown work together as an integrated and connected system. The focus of the public transit Priority Actions is to achieve the following objectives:

- **Enhance rapid transit access**
- **Co-ordinate with development**
- **Improve transit customer experience**
- **Complete Downtown Area Transit Study**
- **Prioritize surface transit**
- **Enhance connections to and from transit**

Public transit is the backbone of the Downtown transportation system

ENHANCE RAPID TRANSIT ACCESS

In the short-term, some of the growing demand for transit will be accommodated through surface transit priority measures and increased service. However, new rapid transit lines will be needed to maintain adequate transit service for the Downtown. A Rapid Transit Network Plan, intended in part to address this need, is being developed as part of the Official Plan Review. The Plan will encourage the proactive identification of routes through the Downtown as each new development increases the challenge of locating an alignment for a new line.

Union Station is the hub of the GO Rail and VIA Rail networks and plays a critical role in facilitating trips into and out of the Downtown. Roughly 250,000 passengers pass through the station on a typical weekday. The station's importance is expected to increase with the significant planned investments in the GO RER network and SmartTrack, and the proposed high-speed rail and high-frequency rail services. Regional rail services, which are anticipated to evolve from the current predominantly peak-direction, peak-period service, to a high frequency, all-day, two-way electrified service on most GO Rail corridors, must be protected and enhanced. Measures to spread the growing demand across multiple stations will also be explored.

Union Station plays a critical role in facilitating trips into and out of the Downtown

CO-ORDINATE WITH DEVELOPMENT

The City is undertaking a number of rapid transit studies regarding the construction of new stations in the Downtown to support future growth. Integrating the new stations with existing or new developments is critical. Higher density, mixed-use developments should be located closest to stations and integrated with the station to provide easy access. Approved alignments for future rapid transit investments should inform the City's site plan application process. Co-ordination among developers, TTC and City Planning should continue to ensure transit infrastructure is protected.

Infrastructure that facilitates connections between surface transit and grade-separated transit networks should also be protected to ensure seamless connections, preserving the TTC's integrated network. Opportunities may exist to incorporate station retrofits and other elements of the subway infrastructure into adjacent development projects that would mitigate the impact of construction on the public realm.

Integrating new transit stations with developments is critical

**IMPROVE THE TRANSIT
CUSTOMER EXPERIENCE**

As Downtown continues to grow, it will be necessary to move more people and goods within the street network. Since transit can move a very large number of people in a relatively small space, it is important to shift more people from cars to transit to ensure good mobility in and around Downtown in the future. Enhancements to existing transit services will add capacity, and improve travel reliability in the short term. However, to attract people to transit over the longer term, transit must represent an attractive alternative. This means enhancing the quality of transit service by increasing its frequency, speed, reliability and comfort to ensure that it can compete with travel by automobile.

Downtown is an attractive destination at all times of the day. Enhancing transit services in the late evening and overnight should be considered to better serve these travel markets and ensure Toronto can compete in the emerging 24-hour economy.

Enhancements to existing transit services will add capacity, and improve travel reliability

UNDERTAKE A DOWNTOWN TRANSIT AREA STUDY

In the absence of new rapid transit lines, surface transit routes serving the growing Downtown and surrounding areas have experienced a significant increase in transit demand. Recent development proposals have also generated requests for new north-south surface transit capacity in the eastern Downtown, as well as connections from the Downtown into the Port Lands.

The TTC, in partnership with the City, will undertake a Downtown Transit Area Study to develop a long-term vision and plan for surface transit improvements needed to support planned growth within and near the Downtown to improve transit reliability, reduce transit travel times, and increase transit ridership.

Enhancements could include increasing service on existing routes, changing route structures, adding new routes in areas of growth (including upgraded capacity for a north-south route on the east side), and exploring a range of surface transit priority measures on key routes, depending on the existing and planned context.

**Surface transit improvements
are needed to support planned
growth within and near the
Downtown**

PRIORITIZE SURFACE TRANSIT

Many factors contribute to the unreliability of surface transit services operating in mixed-traffic in the downtown, including: competing for space within the right-of-way with other road users, left-turning vehicles, signal timing and general vehicle traffic volumes. Surface transit, when appropriately prioritized, is the most effective and efficient way to move large numbers of people on city streets.

A range of measures to improve surface transit are being tested as part of the King Street Transit Pilot, the busiest surface transit corridor in the entire City. The pilot prioritizes streetcars by restricting through traffic movements at key intersections, as well providing bumped-out far-side streetcar stops in the curb lane to allow safe and direct passenger boarding.

The effects of the pilot are being comprehensively monitored to better understand the range of benefits and impacts. Other surface transit corridors in the Downtown will need further study to better understand what range of transit priority measures are appropriate for each route, depending on its context. Potential surface transit priority measures could include transit signal priority at key intersections, extended peak hour stopping and turning restrictions, on-street parking restrictions, curbside management strategies or, where feasible, reserved or dedicated lanes. It is anticipated that each surface transit route will require its own tailored approach and strategy.

Surface transit, when appropriately prioritized, is the most effective and efficient way to move large numbers of people on city streets

ENHANCE CONNECTIONS TO AND FROM TRANSIT

Connections to and from transit greatly affect its attractiveness. Transit entrances should be clearly marked, brightly lit and clean, and stations should have strong connections to the cycling network, the PATH network and other pedestrian routes.

Walking connections between transit and destinations along the waterfront, particularly Billy Bishop Toronto City Airport and the Jack Layton Ferry Terminal, should be improved by implementing attractive and comfortable pedestrian realms and enhancing signage to the transit stops to encourage more transit use. The 509 Harbourfront route, which operates in a dedicated streetcar right-of-way from Union Station to Bathurst Street, has frequent all-day streetcar service and is the primary public transit option for Billy Bishop Toronto City Airport. Along with the 510 Spadina route, it also provides services to and from the Jack Layton Ferry Terminal and its scheduled service to the Toronto Islands.

Implementing attractive and comfortable pedestrian realms around transit stops will encourage transit use

MOTOR VEHICLES

Priority Actions:

- Implement the Curbside Management Strategy
- Promote off-peak delivery and use of alternative delivery methods like bicycles and smaller delivery vehicles within the Downtown
- Implement a pilot project to encourage and facilitate innovative freight delivery methods (off-hours deliveries, remote consolidation centres, etc.).
- Investigate changing parking by-laws to require parking spaces that satisfy TPA's size requirements
- Include multi-modal facilities in TPA parking facilities
- Incorporate new features into street designs to support other road users (e.g. conduits for wiring within the Downtown Film Precinct to support film industry; plug-in locations for tour buses)

Motor vehicles also play an important role in the Downtown, providing a range of functions including emergency response, service delivery, goods movement, and personal transport. The growing competition for road space also slows down motor vehicles, reducing the efficiency of the network.

Wherever and whenever possible, people should be encouraged to walk, cycle and take transit. However, this shift is more challenging or not possible for some users and certain uses such as emergency response, goods movement and service delivery. Personal motor vehicles cannot

move enough people within the available space to provide a sufficient level of mobility as Downtown grows. To ensure a well-functioning city, personal travel and other functions that can shift to alternative modes, should be encouraged to do so. In all cases, we should strive to use road space more efficiently by sizing vehicles and operations to the urban environment.

The priority objectives for managing vehicle traffic and parking are to support core functions such as emergency vehicles and goods movement, facilitate a shift to more sustainable travel and rethink parking.

Personal motor vehicles alone cannot move enough people within the available space to provide a sufficient level of mobility as Downtown grows

SUPPORT CORE FUNCTIONS

Streets play a critical role in providing essential access for emergency response, goods movement and service delivery. These functions cannot be easily facilitated by other modes. As such, a core network of streets must be maintained to serve these functions. Frequently these functions are provided by larger vehicles, which typically accelerate and decelerate more slowly than cars and require more space for turns. Measures will be introduced to encourage vehicles to be sized for the urban environment, such as restricting vehicle size in some areas or using road geometry to direct them to designated routes. When considering designated routes for motor vehicles, factors to be considered include the location of emergency service stations, hospitals and building service access points, although all essential accesses will be maintained.

Roadway designs must provide an adequate amount of passable space for emergency response vehicles. Consideration should be given to introducing flexible space wherever possible, such as mountable bike lane buffers, to help emergency vehicles move through the arterial road network.

Efficient goods movement is essential to the prosperity and livability of the city. The continued shift towards just-in-time deliveries and the more recent rise of online shopping have changed the ways goods are delivered. All new developments should be encouraged to incorporate on-site loading, servicing and pick-up/drop-off areas. Preferred goods movement routes in the Downtown should be identified and measures introduced to encourage their adoption by the goods movement industry.

Council recently directed staff to conduct a city-wide Freight and Goods Movement Study. The study will identify innovative freight delivery methods that recognize the unique challenges of goods movement in and around the Downtown.

Roadway designs must provide an adequate amount of passable space for emergency response vehicles

FACILITATE A SHIFT TO MORE SUSTAINABLE TRAVEL

Council recently adopted a strategy for a low-carbon future as part of TransformTO. It aims to realize a low-carbon Toronto by 2050 which reduces greenhouse gas emissions by 80% relative to 1990 levels through such measures as making 100 per cent of transportation options, including public transit and personal vehicles, use low or zero-carbon energy sources, and increasing the active transportation mode share to 75 per cent for trips under five kilometres city-wide.

To reduce auto dependency, Travel Demand Management initiatives also should be implemented. Possible actions to consider include:

- Economic incentives for efficient use of road space, such as road pricing or dynamic parking pricing
- Specific incentives for the use of smaller vehicles, including cargo bikes, or specific penalties for using large vehicles
- Support for bike and car share systems
- Shifting permitted delivery times away from peak traffic periods or providing incentives to conduct deliveries during off-peak times

Travel Demand Management initiatives should be implemented to reduce auto dependency

RETHINK PARKING

Downtown has a significant supply of public and private parking. Public parking is a mix of on- and off-street parking managed by the Toronto Parking Authority, while private parking is all off-street. This abundant supply tends to support auto dependence and auto-based commuting. It also occupies a significant amount of land which could be put to other, more beneficial uses.

Short-term parking spaces for loading and unloading rental, car share and ride share vehicles will be required for residents in vertical communities, who are less likely to own cars. The rise of vehicle-sharing and Private Transportation Companies (PTCs), coupled with limited or non-existent visitor parking in buildings, has created on-street pick-up/drop-off challenges that impede other street users. To address this, developers will be encouraged to provide a pool of public, off-street auto parking in new developments that can be shared by residents, workers, visitors and the

surrounding community.

To further support vehicle-sharing and PTCs, and to ensure the flexibility of the parking supply, the City and Toronto Parking Authority will need to work together to revise parking space dimension requirements. Over time, the Toronto Parking Authority's facilities could evolve into community transportation hubs and include space for other transportation infrastructure such as car sharing, shared retail deliveries/couriers, taxi stands, bicycle parking and sharing stations, electric car charging infrastructure, among others.

The Residential Parking Permit and Accessible Parking Permit programs should be reviewed to identify measures to mitigate their impacts on other road users. Today, the prices of Residential Parking Permits do not reflect the limited supply of curbside space and Accessible Parking Permits have been associated with serious abuse. Both of these programs contribute to traffic issues and support continued auto dependence.

The rise of vehicle-sharing and Private Transportation Companies has created pick-up/drop-off challenges for residents in vertical communities

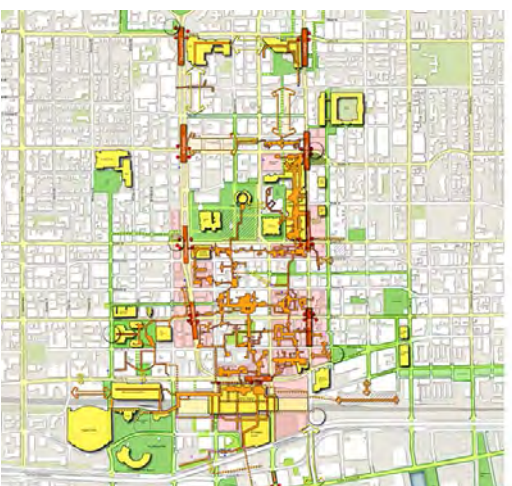
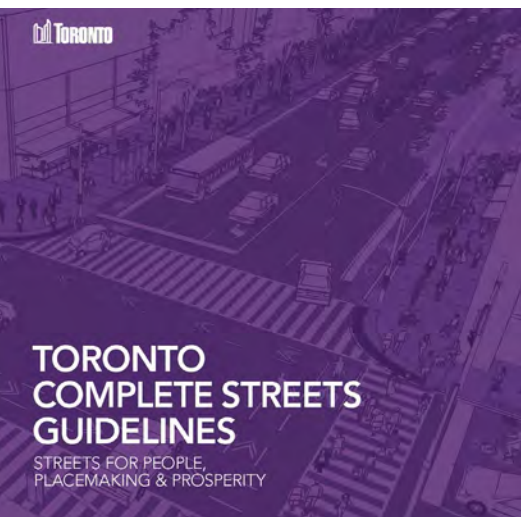
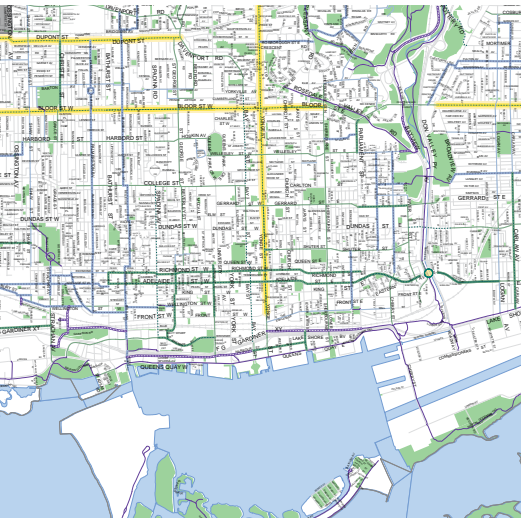
5. MOVING FORWARD

The Mobility Strategy describes a number of specific Priority Actions which should be undertaken in order to achieve the objectives of the Downtown Plan. However, further consultation and collaboration with City and agency partners will be needed to advance many of the Priority Actions identified in the Strategy, including the following steps:

- Co-ordinate Mobility Priority Actions with other Infrastructure Strategies, especially the Parks & Public Realm Plan
- Identify City staff resource needs
- Undertake additional technical review and feasibility analysis
- Refine design concepts
- Review infrastructure costs
- Identify range of implementation tools to secure infrastructure (development review process, EAs, corridor studies, etc.)
- Align with infrastructure investment opportunities across other Divisions and Agencies
- Invite and consider additional public and stakeholder feedback
- Determine implementation timing, including potential 'quick wins' initiatives
- Ensure ongoing co-ordination with the City's 10-year Capital Infrastructure Plans

These important steps shouldn't preclude certain Priority Actions from proceeding. For example, the Street Typology Study, identified in the Complete Streets section, is one of the most important Priority Actions and should commence as soon as possible, since it fundamentally helps inform several other Priority Actions.

6. ALIGNED INITIATIVES



VISION ZERO ROAD SAFETY PLAN

The Vision Zero Road Safety Plan is a comprehensive five-year (2017–2021) action plan focused on reducing traffic-related fatalities and serious injuries on Toronto’s streets, with over 50 safety measures across six emphasis areas.

The Vision Zero Road Safety Plan is a bold pledge to improve safety across our city using a data-driven and targeted approach, focusing on the locations where improvements are most needed. The Plan addresses safety for the most vulnerable users of our transportation system—pedestrians, school children, older adults and cyclists. Based on factors that contribute to serious injury and fatality crashes, the plan will also focus on aggressive and distracted driving, and safety for motorcyclists.

The City is committed to Vision Zero and accepts its fundamental message: fatalities and serious injuries on our roads are preventable, and we must strive to reduce traffic-related deaths and injuries to Zero.

Downtown has the largest concentration and volume of pedestrians and cyclists moving around on our streets. And as Downtown continues to grow, increasingly more people will be walking and cycling, making it even more important to ensure our Downtown streets are safe for all users.

COMPLETE STREETS GUIDELINES

Streets aren't just for moving people and goods, but also are also important public spaces where people meet, socialize and share experiences. Toronto's streets play a vital role in creating a sense of place, a safer and more universally-accessible city, healthy and active travel choices, green infrastructure and economic prosperity. How our streets are designed reflects our city's values. How our streets look, feel and function should demonstrate how we want our city to be shaped, especially in the Downtown.

Toronto's Complete Streets Guidelines outlines a refined approach for street design—a 'complete streets' approach that considers different and competing roles. This 'complete streets' approach reinforces that streets should safely accommodate all users—pedestrians, cyclists, transit services and motor vehicles—and also support and enhance local neighbourhood context and character. It's about making streets that are safe, beautiful and vibrant places with efficient links in a multi-modal transportation network.

The Guidelines build upon the vision for streets outlined in the City's Official Plan and are guided by three high-level city-building objectives: designing streets for people, designing streets for placemaking and designing streets for economic prosperity. This collaborative, multi-disciplinary approach to street design considers the needs of all people using streets—pedestrians, cyclists, transit users, and drivers. It's an approach that also prioritizes the safety of the most vulnerable—children, seniors and people with disabilities.

By seeking innovative ways to make Toronto's streets work for all uses and users we can achieve the benefits of road safety, expanded mobility choices, social and environmental health and a more attractive public realm.

Toronto's Complete Streets Guidelines represent some of the latest best practices that guide how the City and other jurisdictions approach complete streets. The Guidelines will help decision-makers, practitioners and communities make more informed choices when prioritizing the competing demands for space on city streets. The Guidelines are currently being used to inform a variety of street-related projects and initiatives Downtown.



Figure 14: This 'complete streets' approach reinforces that streets should safely accommodate all users—pedestrians, cyclists, transit services and motor vehicles—and also support and enhance local neighbourhood context and character

YONGE STREET EA STUDY: QUEEN STREET TO COLLEGE/ CARLTON STREETS

Yonge Street is Toronto's premiere "main street", a vibrant Downtown corridor where thousands of people visit, live, work, play and learn. The Yonge Street EA study will develop and review design options intended to improve streetscaping and increase pedestrian space, along with other possibilities to improve the way people move through and enjoy Yonge Street between Queen Street and College/Carlton Street.

This study is being carried out as a Schedule 'C' Municipal Class Environmental Assessment (EA) and will consider many possible changes to various elements of Yonge Street including: increasing sidewalk widths; reducing number of vehicle lanes; redesigning intersections and laneway connections; making some sections pedestrian-only; improving accessibility for people with disabilities; installing cycling facilities; improving pedestrian crossing opportunities; enhancing street furniture; changing landscaping; reviewing street furniture elements, lighting, and signage; expanding opportunities for public art and cultural activities.

The Study is evaluating the challenging trade-offs between alternatives of what is physically able to fit within the limited width of the City's right-of-way (i.e. public property) on Yonge Street. The Project Team is working with experts, stakeholders and the public to develop and evaluate the alternatives and design options.

Figure 15: Looking down on the scramble crossing at Yonge Street and Dundas Street



TORONTO 360 WAYFINDING STRATEGY

Wayfinding enables people to orient themselves and navigate from place to place with ease. Wayfinding is more than just signs. Working together with other elements of the public realm such as street furniture and public art, it includes names, landmarks, conventions, maps and new media. It contributes to making a city more “legible” for residents, commuters and tourists alike. The creation of a multi-modal wayfinding system is a goal of the City’s Walking Strategy and supports walking to unlock multi-modal transportation in the city.

This two-year program includes consultation with stakeholders and the public, detailed graphic and product design, sign prototyping, an update of vehicular destination signage policies, recommendations for a digital strategy and the implementation of a pilot project in the Financial District within Downtown.



Figure 16: A variety of pedestrian wayfinding elements

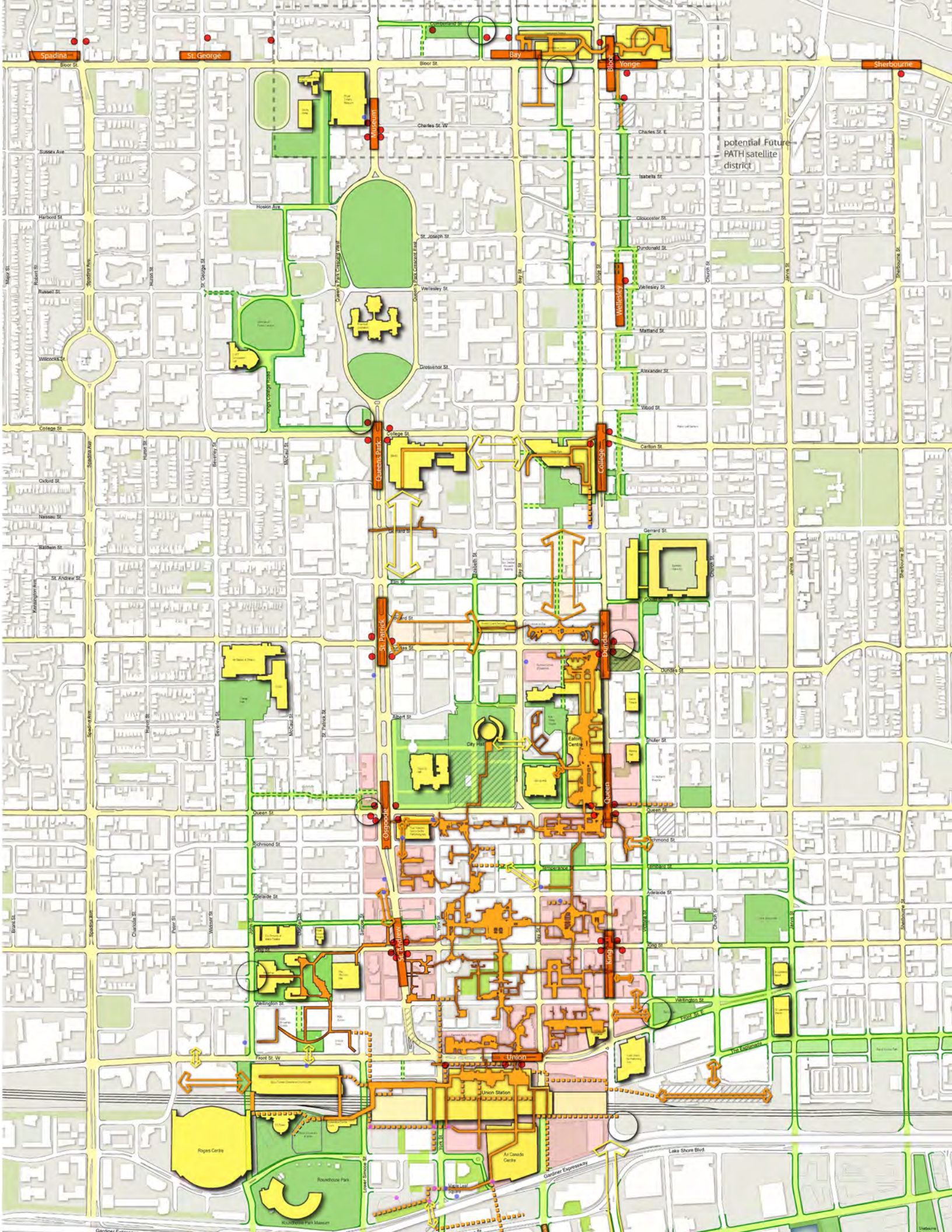
PATH MASTER PLAN

The PATH Master Plan establishes a vision, planning objectives and recommendations to shape the growth and enhancement of the PATH pedestrian network over the next 25 to 30 years.

From its beginnings in the late 1960s, the PATH system has continued to grow and increase in popularity as a very well-used pedestrian network that offers convenience and year-round climate-controlled comfort to those travelling in the downtown. The original focus was on accommodating the rush-hour demands of downtown commuters, with direct underground connections to Union Station and five other subway stops and on providing services geared to meeting the lunch-time and shopping needs of workers. However, as the PATH system has grown, so has the variety of its clientele and the range of amenities offered them, particularly as a result of more housing and residents locating in the downtown area, especially surrounding the Financial District. Consequently, the levels of weekday off-peak and weekend use have been increasing, along with changes to the types of trip purpose. People can now shop for groceries in the PATH as well access a range of cultural and entertainment activities as well as services.

The community-building role of the PATH network has become increasingly important, as the population of the Downtown has expanded and a growing number of individuals and families use the PATH network as part of their daily lives. The PATH network helps achieve the City's planning goals for the Downtown and is included in the policies of the Official Plan in order to more proactively manage and direct the growth of this distinct and internationally recognized feature of Downtown and to maximize its contribution to the life of the city.

Figure 17: PATH Master Plan Map



CYCLING NETWORK 10-YEAR PLAN

In June 2016, Council approved a Cycling Network 10-Year Plan to “connect, grow and renew” infrastructure for Toronto’s cycling routes.

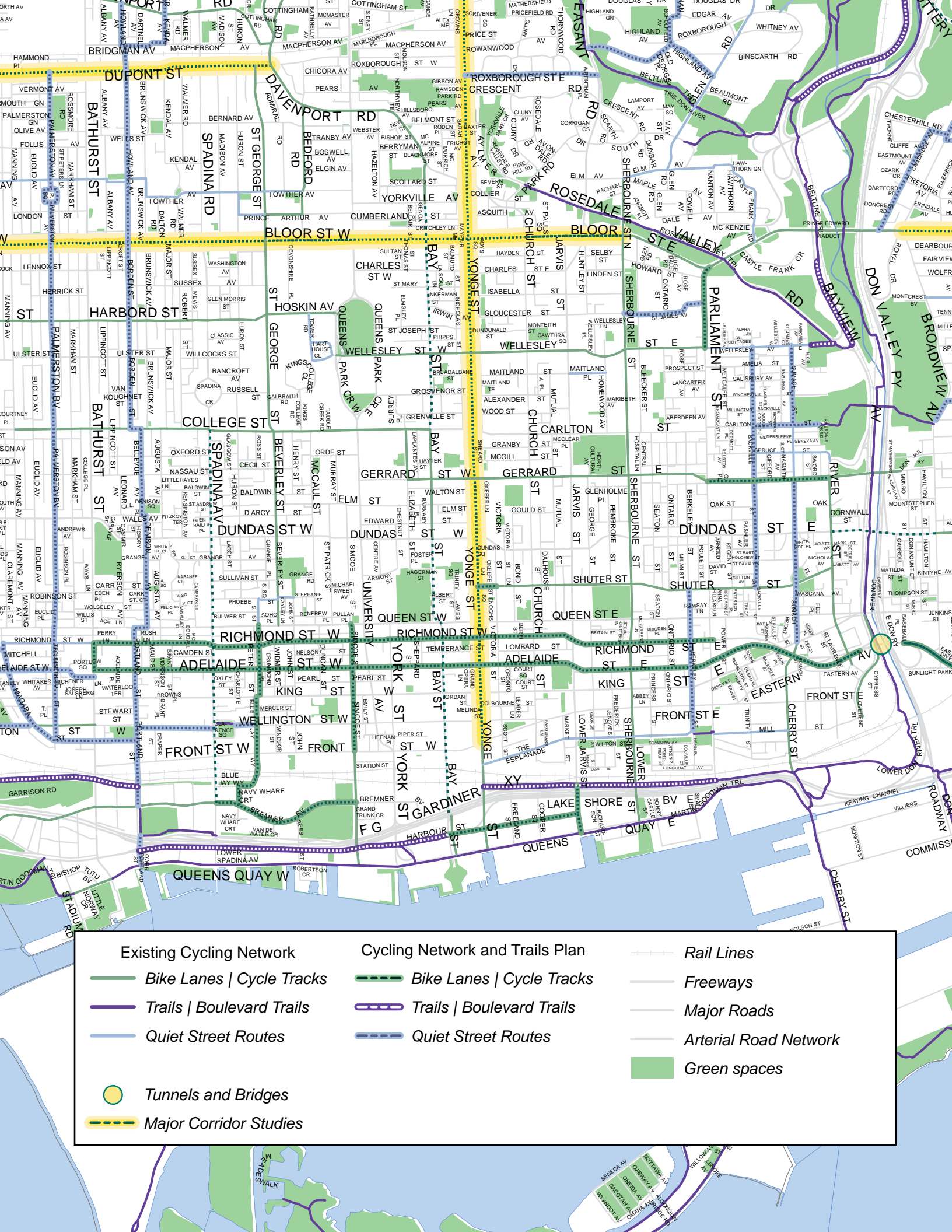
The Cycling Network Plan serves as a comprehensive roadmap and work plan, outlining the City’s planned investments in cycling infrastructure over the period to 2025.

The plan identifies opportunities for cycling infrastructure investments in every part of Toronto. It includes recommendations for cycle tracks or bike lanes on fast, busy streets and recommendations for traffic calmed routes with cycling wayfinding on quiet streets.

The Cycling Network Plan also includes recommendations for new boulevard trails, adjacent to fast busy streets where cycling may be less comfortable in the roadway. The Plan identifies areas where tunnels or bridges may be studied to cross major barriers.

Many of the cycling routes in the Downtown recommended in the 2001 Bike Plan have been installed. The goal of the Cycling Network 10-Year Plan is to further enhance the existing network Downtown by adding new routes, and enhancing existing routes.

Figure 18: Cycling Network 10-Year Plan



BLOOR STREET BIKE LANES: SHAW STREET TO AVENUE ROAD

In May 2016, Council approved the implementation of a pilot project to install and evaluate bike lanes on a portion of Bloor Street West. The design objectives of the pilot were to improve safety and reduce risk for all road users and minimize impacts to curbside operations. The pilot was installed in late August 2016 with separated bike lanes (cycle tracks) on Bloor Street West from Shaw Street (east of Ossington Avenue) to Avenue Road.

Prior to installing the pilot, Bloor Street was a heavily used travel corridor, carrying approximately 24,000 vehicles per day and 3,300 cyclists. With an average of 22 collisions involving cyclists each year in the section between Shaw Street and Avenue Road, this area represented a documented safety concern.

The pilot project has allowed the City to demonstrate and study the impacts and benefits of bike lanes on Bloor Street. Extensive monitoring and evaluation has been carried out and was reported to the Public Works and Infrastructure Committee (PWIC) on October 18, 2017.

In November 2017, City Council approve maintaining the eastbound and westbound cycle tracks on Bloor Street West, from Shaw Street to Avenue Road, as a permanent installation, including making changes to the design that will improve safety and operations.



Figure 19: Bloor Street bike lanes provide dedicated space for cyclists

BICYCLE PARKING STRATEGY

In June 2016, Council approved a Cycling Network 10-Year Plan to connect, grow and renew cycling routes over the decade ahead. This plan includes a parallel investment in bicycle parking, and a commitment to develop a Bicycle Parking Strategy.

The purpose of the Bicycle Parking Strategy is to:

- Develop a shared vision for bicycle parking and security among providers and users
- Spread and clarify responsibility for the provision of bicycle parking
- Increase knowledge of priority areas for investment
- Plan the City of Toronto's efforts in building and managing its bicycle parking assets

The provision of bicycle parking is a shared responsibility of many public agencies and private land owners. Recognizing that, the City is working with private and public providers of bicycle parking to develop the strategy.

Regardless of who provides it, bicycle parking is a fundamental need at both ends of bicycle trips, and all cycling destinations along the way. Demand is increasing for bicycle parking as people cycle more, so a multi-faceted and proactive approach is needed. The Bicycle Parking Strategy is employing a user-centric approach to remove barriers to cycling. When convenient and secure, bicycle parking helps make it easy for people to choose cycling.

The development of the Bicycle Parking Strategy is expected to be complete by 2019 and will be implemented alongside the Cycling Network Plan, to 2025.



Figure 20: A bicycle parking corral in an on-street parking space on College Street

ON-STREET BIKEWAY DESIGN GUIDELINES

The City is currently developing an On-Street Bikeway Design Guidelines document to be completed in 2018. The guidelines are intended to provide support for practitioners in the implementation of the cycling network city-wide. The document will focus on cycling facility design, implementation and operation within the context of Toronto specific street conditions.

These guidelines are intended to complement other City and Provincial documents including the Toronto Complete Streets Guidelines, Toronto's Multi-Use Trail Design Guidelines, the City of Toronto 10-Year Cycling Network Plan, Ontario Traffic Manual Book 18, and others. They are being developed in consultation with City divisions and external agencies to ensure consideration for all needs within the roadway and to ensure the design of different types of cycling routes respond to the surrounding local context.

Figure 21: Rendering of cycling facilities for Complete Streets Guidelines



RELIEF LINE PROJECT ASSESSMENT

The City of Toronto and the TTC are planning for the Relief Line, a future rapid transit line that would connect Downtown Toronto to the Line 2 Bloor–Danforth subway east of the Don River. It will assist in relieving crowding on the Line 1 Yonge–University subway and the Bloor–Yonge interchange station, while also providing riders with more travel options.

In July 2016, City Council approved a Pape/ Eastern/Queen alignment for the Relief Line, with the exception of a local segment, located generally between the GO Rail corridor and Queen Street. In May 2017, City Council approved the Carlaw alignment for the local segment. Council also approved the location of 8 stations along the route.

As the next important step towards realizing the project, City Council has authorized commencement of the Transit Project Assessment Process (TPAP) that advances planning and design work.

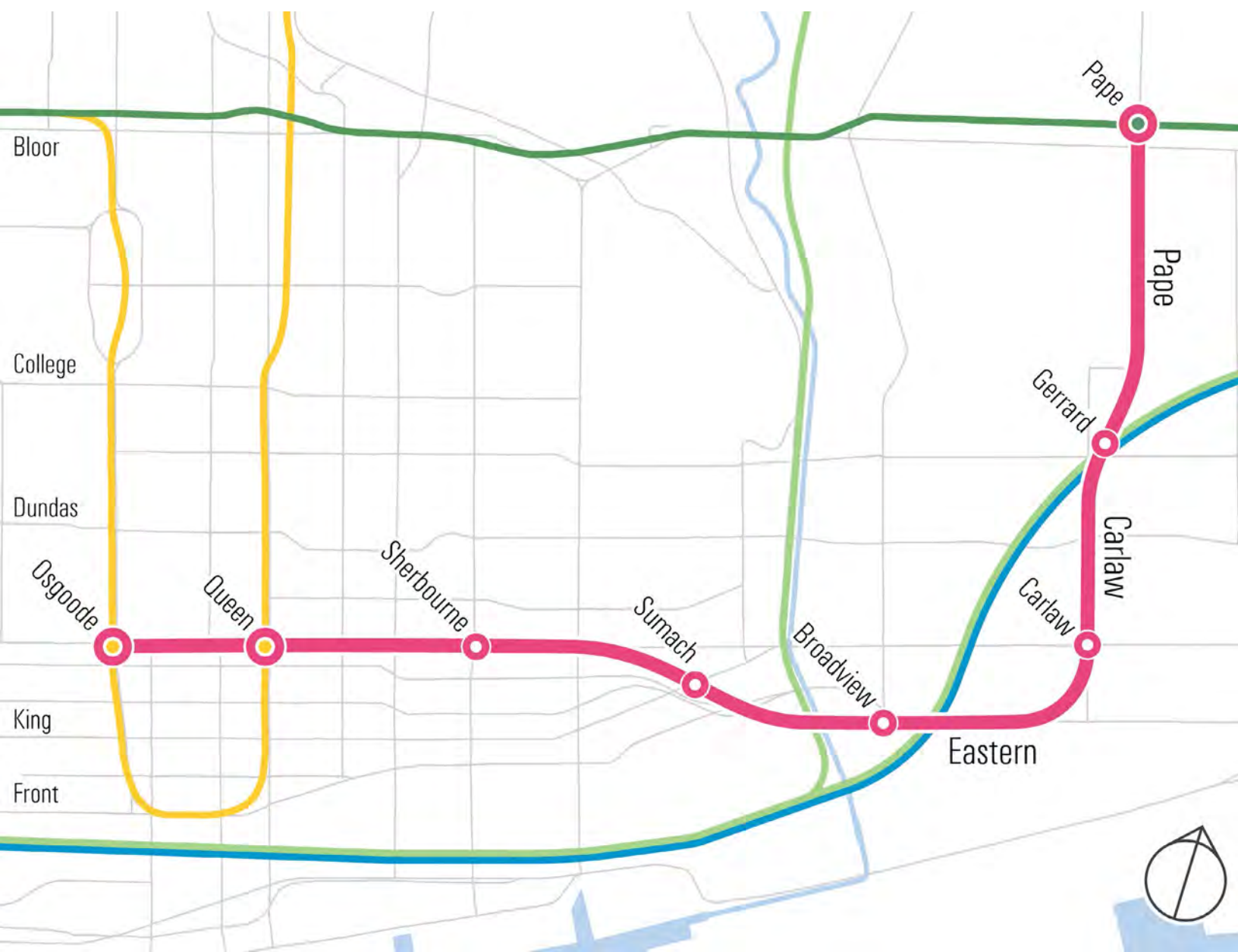


Figure 22: Alignment of Relief Line (south)

NEW GO REGIONAL EXPRESS RAIL PROGRAM/ SMARTTRACK STATIONS

The City is working in partnership with Metrolinx and the Toronto Transit Commission (TTC) on eight new SmartTrack/GO RER stations within Toronto. These new stations build upon Metrolinx's Regional Express Rail (RER) program, which includes increased service on five of the existing GO Rail Corridors. Six new SmartTrack stations are being planned along the Kitchener, Lakeshore East and Stouffville Rail Corridors at the following locations:

- Finch Avenue East, between Kennedy Road and Midland Avenue
- Lawrence Avenue East, between Kennedy Road and Midland Avenue
- Gerrard Street East at Carlaw Avenue
- East Harbour, between the Don River and Eastern Avenue
- King Street West, at Liberty Village
- St. Clair Avenue West, between Weston Road and Old Weston Road

In addition, Metrolinx is planning two new GO RER stations in Toronto along the Barrie Rail Corridor at the following locations:

- Spadina Avenue at Front Street
- Bloor Street West, between Lansdowne Avenue and Symington Avenue

SmartTrack makes better use of existing GO rail tracks to provide additional transit options within Toronto.

SmartTrack includes:

- Rapid transit along 3 GO rail corridors (Kitchener, Lakeshore East, Stouffville) and along Eglinton Avenue West (Eglinton West LRT)
- 14 rail stations and 10 LRT stops, when the existing/planned rail stations and the Eglinton West LRT are taken into account

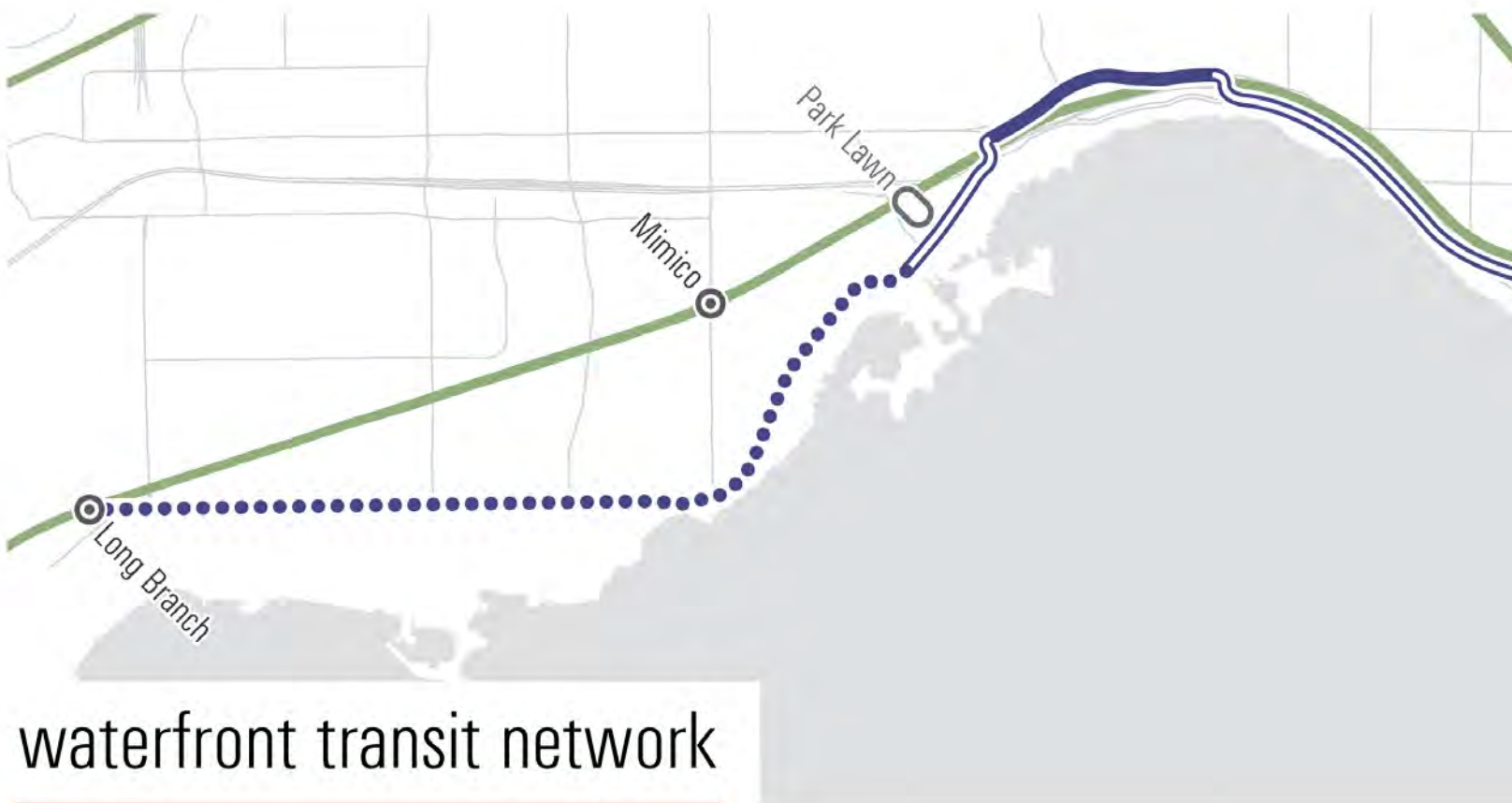
SmartTrack benefits:

- Better use of the existing rail infrastructure along these GO rail corridors in Toronto
- More rapid transit for Toronto residents and businesses
- All-day two-way service, with more frequent trains during peak periods and every 15 minutes during off-peak periods
- Faster and quieter electric trains
- Fare integration

WATERFRONT LRT

Toronto's waterfront is currently undergoing a significant transformation, with rapid growth in many precincts along the water's edge including Mimico, Humber Bay Shores, Liberty Village, Fort York, King/Spadina, City Place, South Core, and King/Parliament. Significant growth in several more precincts along the waterfront is either underway or planned, including Lower Yonge, Keating, Port Lands, South of Eastern, and the emerging East Bayfront and West Don Lands neighbourhoods. With this growth, a number of key recreational and cultural destinations have continued to expand along the waterfront, further contributing to demand for transit.

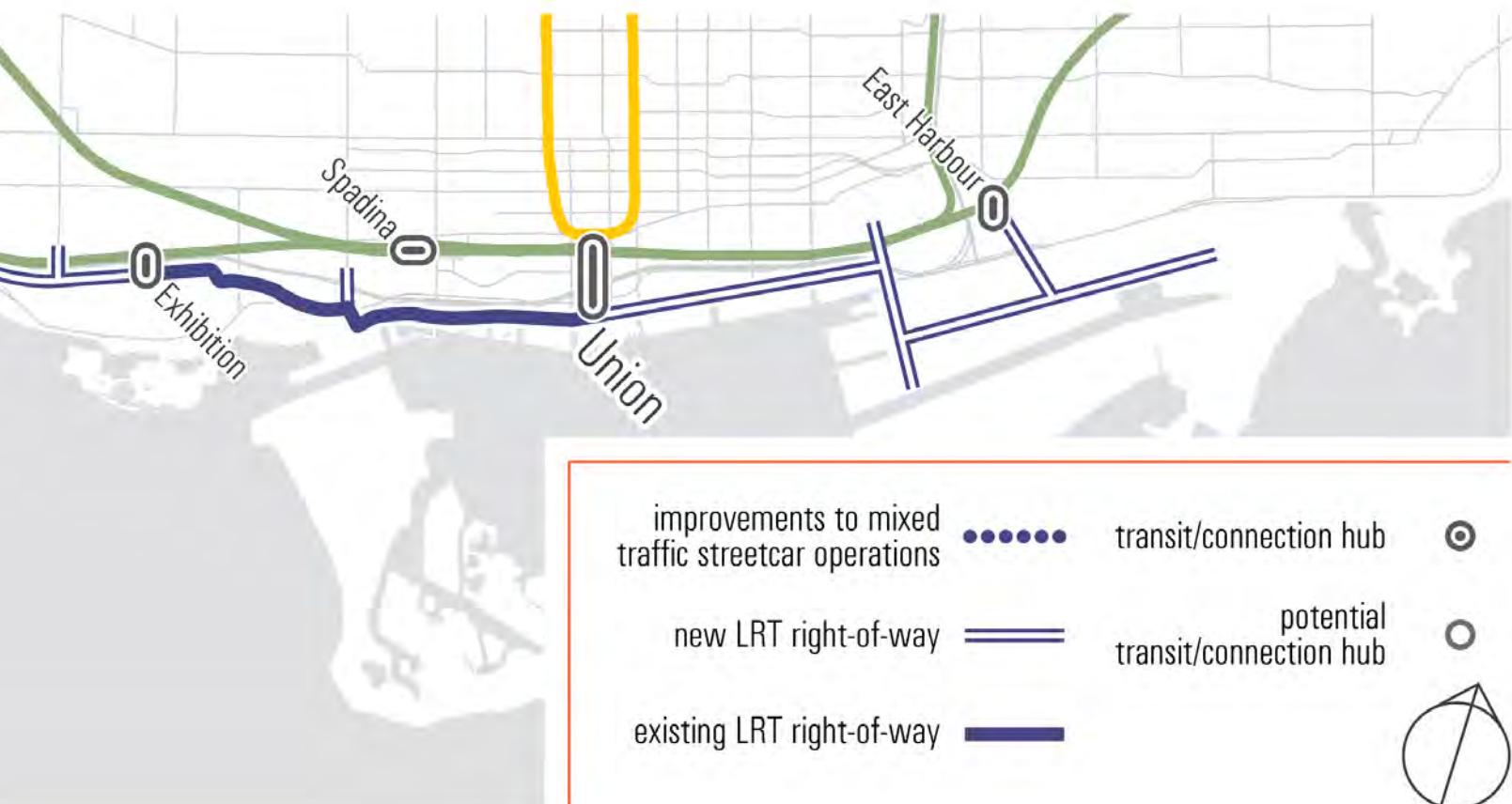
The City of Toronto, in partnership with the Toronto Transit Commission and Waterfront Toronto has completed the Waterfront Transit "Reset" study. The study involved a two-phase, comprehensive assessment of needs and options for transit improvements for the waterfront area between Long Branch in the west and Woodbine



waterfront transit network

Avenue in the east. Phase 1 was completed in 2016 and Phase 2 was completed in 2018, which included a recommended solution for the waterfront transit network to 2041.

The Waterfront Transit Network, with light rail transit as its main component, is a resilient plan that can adapt to 21st century mobility and placemaking trends. On January 31, 2018, City Council endorsed that upcoming updates to the Official Plan be made in accordance with the recommended network plan, and authorized funding requests and further study and design of areas of the network according to priority. One priority segment within Downtown—the Union Station–Queens Quay Link and extension of light rail transit to the East Bayfront—requires further focused work to arrive at a complete sustainable mobility solution, as this is the busiest portion of the network. This work will be underway in 2018 with city staff to report back to Council by mid-2019, and then to move quickly to implement the solution.

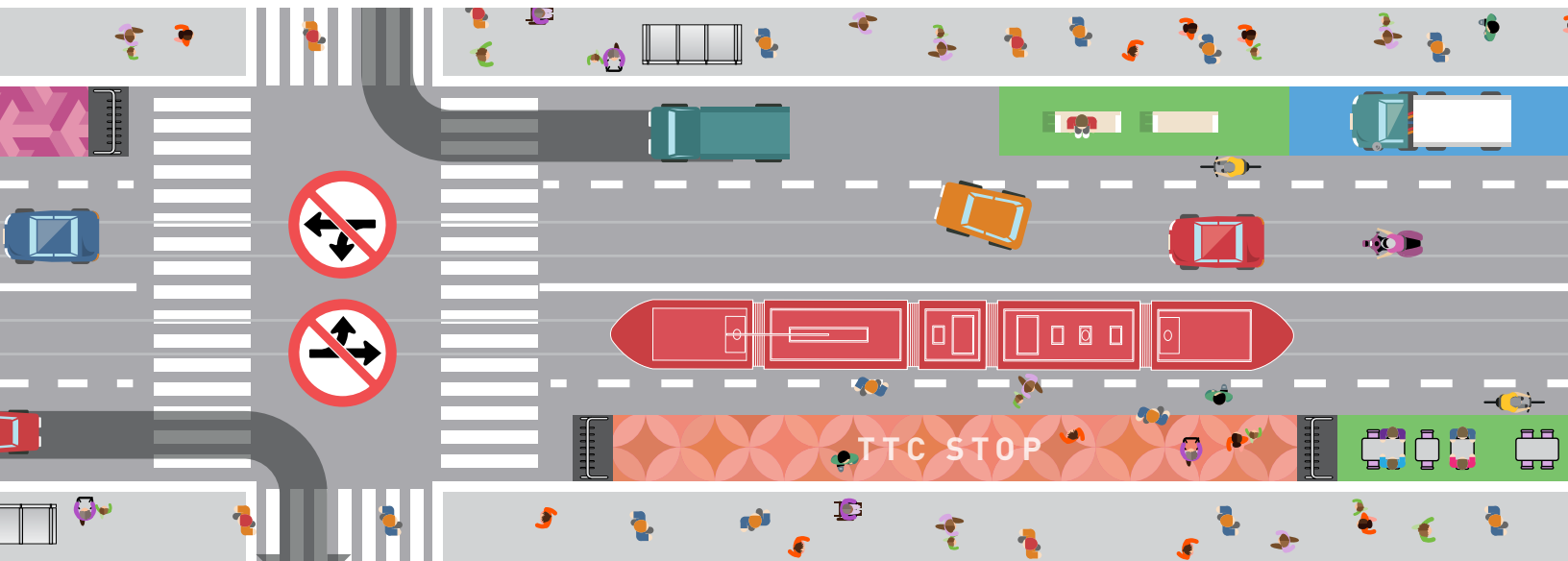


KING STREET TRANSIT PILOT: BATHURST STREET TO JARVIS STREET

King Street is an important east-west spine in the Downtown for housing, jobs, culture, heritage, entertainment, and retail. It runs through the largest concentration of jobs in the entire country. The neighbourhoods along King Street have experienced tremendous residential and employment growth in the past ten years, and will continue to grow in the future, creating additional transit ridership pressures.

King Street is the busiest surface transit corridor in the entire city—carrying more than 65,000 riders each weekday. It is the third busiest transit corridor overall in the City, behind only Line 1 Yonge–University Subway and Line 2 Bloor–Danforth Subway. But streetcar service on King has been slow, unreliable, and erratic, with unpredictable travel times, especially during rush hours, but also sometimes during the late evening and weekends. The TTC estimates that the line is currently about 20% overcapacity. The City and the TTC have already made several operational improvements to King Street. All have helped improve streetcar service to some degree, but there are limits to what minor operational improvements achieve.

The King Street Transit Pilot is changing how King Street works by discouraging non-local vehicle traffic on King Street, reducing the amount of



traffic competing for road space with streetcars and giving priority to streetcars. The primary objective is to improve transit reliability, speed and capacity. The King Street Transit Pilot will explore ideas for how to redesign King Street to move people more efficiently on transit, support business and economic prosperity, and improve public space.

The pilot area is between Bathurst Street and Jarvis Street, where surface transit is prioritized while maintaining local traffic access. The “Everyone is King—Design Build Competition” is creating a series of attractive curb-lane public spaces on King Street for all to enjoy.

A pilot project helps the City try out new ideas, quickly and cost-effectively, and learn what works and what doesn’t. It offers an opportunity to have discussions with stakeholders and the public.

The pilot will be monitored over a 12-month period and city staff will report back to Council in late 2018 on how the pilot may move towards more permanent infrastructure and how lessons learned could inform improvements to other surface transit routes in the Downtown.

Figure 23: Conceptual block design for King Street Transit Pilot



TTC RIDERSHIP GROWTH STRATEGY (TGS) 2018-2022

The recently released TTC Ridership Growth Strategy (RGS), with all its components, is an extension of the new TTC Corporate Plan 2018-2022. While the Corporate Plan sets a high-level direction for the TTC over the next five years and beyond, the RGS is more detailed and translates this direction into tangible actions and improvements.

The RGS builds on the three strategic Critical Paths presented in Section B of the RGS 2018-2022 preliminary report that flow directly from the new TTC Corporate Plan 2018-2022:

1. Move more customers, more reliably
2. Make taking public transit seamless
3. Innovate for the long term

The RGS Action Plan 2018-2022 outlines focused initiatives the TTC will pursue over the next five years to grow its ridership. They vary in scope and scale from analysis to implementation and from incremental improvements of current service to transformational programs designed to attract new customers to transit. The RGS Work Plan 2018 provides a detailed annual work schedule for the actions within each initiative.

The RGS helps make transit a more viable travel option in the Downtown and across the rest of the City.

OFFICIAL PLAN REVIEW OF TRANSPORTATION POLICIES

The ongoing review of the transportation policies in the Official Plan launched in 2013. The key objectives are to:

1. **Review and refine the existing transportation policies** in Toronto's Official Plan.
2. **Make Toronto's Official Plan provide more direction** by establishing decision-making criteria to inform how transportation infrastructure decisions, and especially transit expansion decisions, should be made.
3. **Establish Toronto's transportation priorities** based on that decision-making framework.
4. **Develop the City of Toronto's feedback to Metrolinx** on their next wave of priority projects and on Torontonians' opinion on Metrolinx funding. [Completed]
5. **Provide greater clarity to public and private sector partners** on the direction of the City's transportation infrastructure investment.

The review has been divided into two approval streams with the first set of policy amendments having been adopted in 2014. The second set, which includes policies related to transit, is still underway. In this second stage, a framework is being developed to provide a consistent and transparent approach to the task of identifying a recommended long-term comprehensive rapid transit network plan. This plan will guide the development of the City's rapid transit network by identifying priority projects for implementation.

CITY-WIDE CONGESTION MANAGEMENT PLAN

Travel demand continues to rise in the City of Toronto as the population increases and our economy grows. Existing road infrastructure is not able to keep pace with this increase in travel demand—in fact it is impractical to build enough roads to comfortably accommodate this demand. The resulting situation—where travel demand exceeds the capacity of the transportation network—is traffic congestion.

Each area of the city has different factors that contribute to traffic congestion, and the Downtown is no different. Roads in one area may be affected by issues related to parking and stopping or construction work zones; others by infrastructure bottlenecks that decrease road capacity; and still others by traffic signals that could be better coordinated with existing traffic flow. Traffic in all parts of the city can be affected by poor weather conditions, special events, collisions and other unexpected traffic incidents.

The City of Toronto's first Congestion Management Plan (CMP) was originally prepared for the period 2014–2018, and has now been updated for the period of 2016–2020. The CMP's objective is to better manage congestion (e.g. reduce delays, reduce the number of stops, etc.) and improve safety through innovation and technology that will maximize the efficiency, reliability and sustainability of the road network for all users while reducing the impacts on the environment.

The City of Toronto Congestion Management Plan 2016–2020 pays special attention to the needs of all travellers—pedestrians, cyclists, public transit users and drivers—as well as goods movement and emergency services. It is important to ensure that the projects identified in the Congestion Management Plan consistently address the needs of these road users. To accomplish this, the City has developed a Vision Statement and goals for the Congestion Management Plan.

The overall Vision of the Plan is: “Through innovation and technology, maximize the safety, efficiency, reliability and sustainability of the transportation network for all users while reducing the impact on the environment.”

Through innovation and technology, maximize the safety, efficiency, reliability and sustainability of the transportation network for all users while reducing the impact on the environment

CURBSIDE MANAGEMENT STRATEGY

Curbside space—the access point between the road and the sidewalk—is increasingly in high-demand for a number of competing users including motor vehicle drivers, cyclists, transit, taxis, motor-coaches, couriers, other goods movement operators, parking (including accessible parking), Wheel-Trans, filming, food trucks, local businesses and emergency services. These demands have increased with the recent rise in e-commerce and associated delivery systems.

First identified as a part of the Congestion Management Plan, the objective of the Curbside Management Strategy (CMS) is to provide the strategies and tools necessary to effectively manage curbside space in a way that supports mobility and access for people and goods. Particularly in the dense Downtown core, it is critical to prioritize curbside uses that support the robust economic activity of the area while effectively managing related impacts on traffic movement.

The CMS is intended to be both a high-level policy approach to guide future decision making around issues that impact curbside allocation, as well as an implementation plan for one area of Downtown.

At a policy level, the CMS is made up of three guiding principles: mobility matters, safe and reliable access, and communication of value to all. It also contains eight policies covering the following themes: appropriate street use, equitable user priority, accessibility needs, effectiveness, value, efficiency, safety, and reduction of use.

The CMS implementation plan has identified 18 tactics (quick wins, as well as short- and medium-term initiatives) that the Transportation Services Division proposes to undertake to improve how curbside space is managed immediately and over the next several years, as follows:

Quick Wins

- Stands for Taxicabs at Hydrants Pilot
- Convert 'Advisory' Courier Loading Zones to Designated Delivery Vehicle Parking Zones
- Designate Motorcycle/Scooter Parking Zones
- Explore Delivery Vehicle Staging Zones (by Permit Only) through a Pilot
- Explore Automated Parking Enforcement Methods
- Facilitate Taxi Patron Drop-off Areas

Short-term Tactics (0-2 Years)

- Support the Expanded Use of Off-Peak Deliveries
- Improve Curbside Signage Legibility
- Improve Messaging of Stopping, Pick-up/Drop-off, Loading & Deliveries and Parking Regulations and Promote Off-Street Parking
- Improving Communication, Monitoring and Enforcement of Motor Coach Parking and Loading Zones
- Explore Changes to Commercial Laneways to Support Off-Street Loading and Deliveries in Key Areas
- Promote Appropriate Use of Accessible Parking Permits
- Explore Curbside Needs of Accessibility Community
- Develop a Freight and Goods Movement

Medium-term Tactics (3-5 Years)

- Explore a Courier/Delivery Vehicle Permit
- Explore Variable Pricing Options
- Rationalize Motor Coach Parking
- Rationalize Taxi Stand Placement
- Advance Automated Parking Enforcement Methods

FREIGHT & GOODS MOVEMENT STRATEGY

Toronto's evolution as a world-class city rests on the ability of its infrastructure to carry people, goods and services across the City in an efficient manner. The City's vision as detailed in the Official Plan supports the development of a robust goods movement sector, as goods movement is vital to the City's continued economic health and competitiveness. The opportunity to develop a Plan that details our objectives in building a strong goods movement sector is key to keeping Toronto a preferred destination for commercial, residential, and recreational development.

The City's Official Plan calls for a Complete Streets approach to mobility for all road users, including those associated with goods movement. This presents an opportunity to envision major roads in the City as part of a streamlined distribution system for goods throughout the City and across the region. Where the City's railway and roadway networks interface, the identification of freight facilities and distribution centres furthers the vision of a City that achieves a balanced approach to the movement of goods with the movement of people. Recent growth in both jobs and population highlight the need to attain this balance.

The City of Toronto is experiencing unprecedented growth, evidenced on our streets by everyday traffic congestion and increased demands on curb space attributable to the rise of e-commerce and associated delivery systems. Given these demands and the proliferation of new technologies in the goods movement industry as well as in curbside management, there is a need to assess the current state of goods movement and develop a City-wide plan to ensure the efficient and effective movement of goods in the City of Toronto now and in the future. With a focus on safety, sustainability, and innovation, a

City-wide Freight and Goods Movement Strategy will provide an opportunity to support the City's Official Plan and allow for manageable growth for the City on all fronts.

The Freight and Goods Movement Strategy will consist of a cohesive policy direction and a program of actions including specific initiatives for implementation in the short, medium and long term to ensure the City can best manage the current and future demands of the freight industry in light of Toronto's brisk growth and development and changing street environment. This will include a vision and key principles, goals and objectives, as well as the consideration of freight network, technological opportunities, social and environmental impacts, and an implementation plan.

AUTOMATED VEHICLES

The introduction of automation into commercial and passenger vehicles is an exciting development in urban transportation. By assisting the human component in driving with vehicle automation, conventional wisdom is that traffic safety will improve, there will be greater access to mobility for those who do not or cannot drive, and efficiencies in the transportation network will be realized through improved traffic management.

The City's Transportation Services Division is currently implementing its 3-Year Automated Vehicles Work Plan which will direct the City's staff to further investigate the role automated vehicles will play within the transportation system. This Work Plan will help the City's various divisions prepare for automated vehicles and for the changes that may arise with the deployment of these vehicles in Toronto.

In June 2016, the City of Toronto formed a staff interdivisional working group on automated vehicles to collaborate the efforts of the various divisions on preparing the City for the arrival of automated vehicles.

SMART COMMUTE

Smart Commute Toronto-Central is a program of the City of Toronto and Metrolinx. It is part of a network of Smart Commute associations across the GTHA. Smart Commute Toronto Central works with employers and commuters in the Downtown to find sustainable commuting solutions to reduce congestion in Toronto, improve air quality, combat climate change and improve people's daily commutes. Smart Commute works with employers or property managers to help deliver customized programs that help employees commute more sustainably and also works directly with commuters to help them find healthy, sustainable and cost-effective ways of getting into work each day.

