

SAFETY AND ACTIVE TRANSPORTATION TOUR

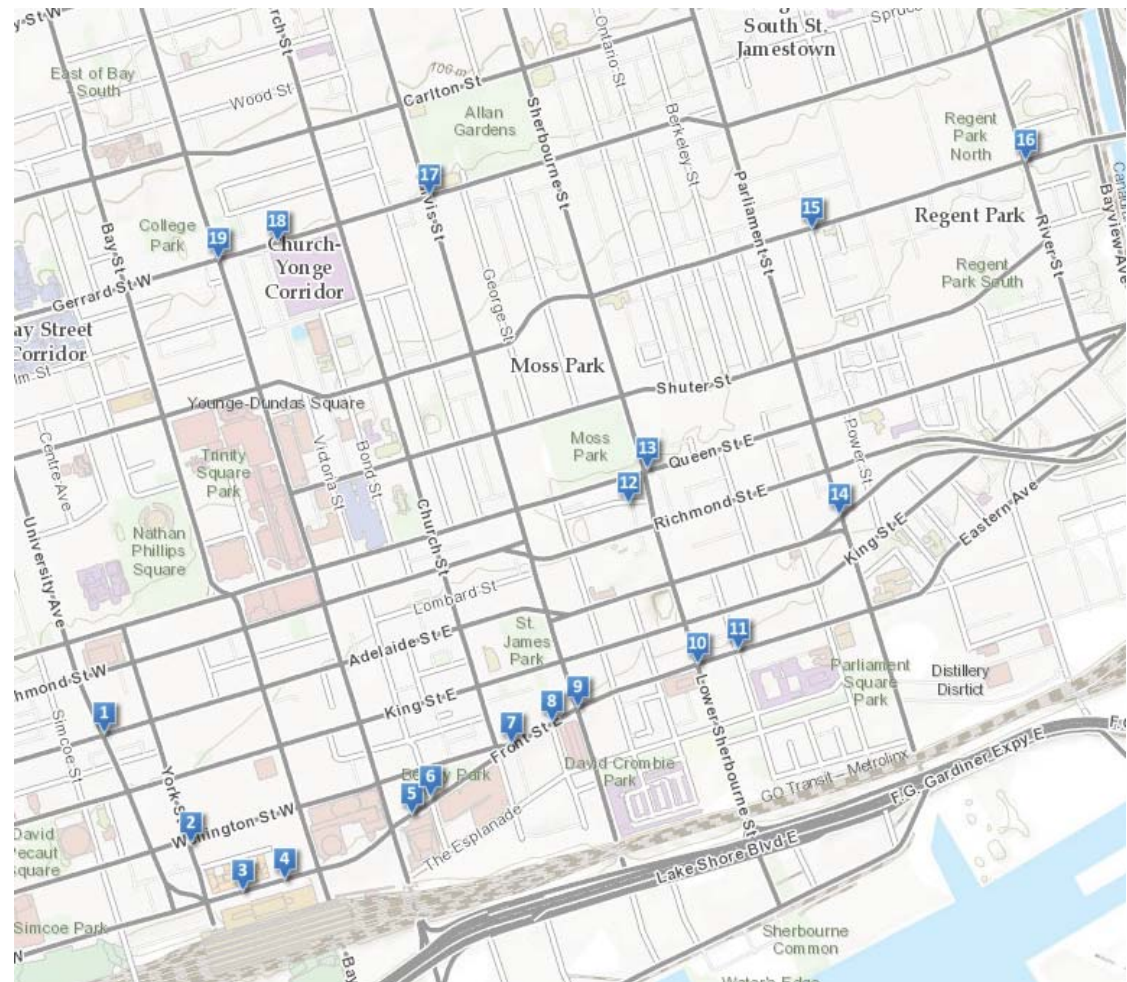


ACCESS THE TOUR ONLINE HERE: <http://arcg.is/2kRoOJd>

Over the past several years, the City of Toronto has been making improvements to city streets to increase safety and promote active transportation. This tour showcases a broad variety of these improvements, all of which were included in the Safety and Active Transportation Workshop for the Transportation Association of Canada's (TAC) September 2016 Conference. The tour is approximately 7 km long and should take just over an hour and a half. If this sounds too long, the tour can be shortened simply by choosing to pass on a couple of spots (such as 15 and 16).

Remember to follow along with the online story map at: <http://arcg.is/2kRoOJd>

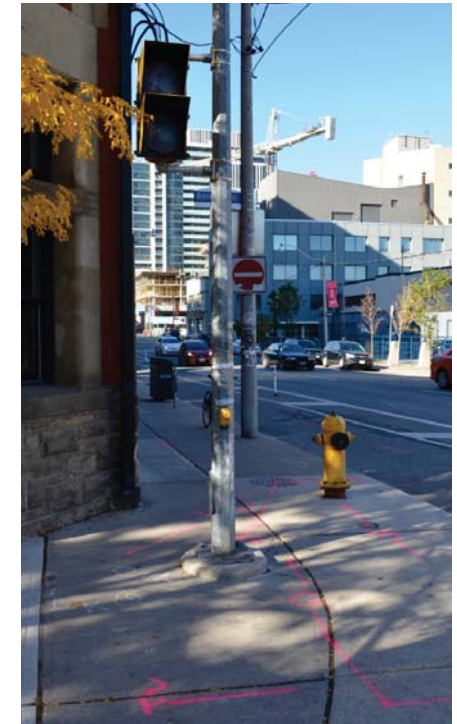
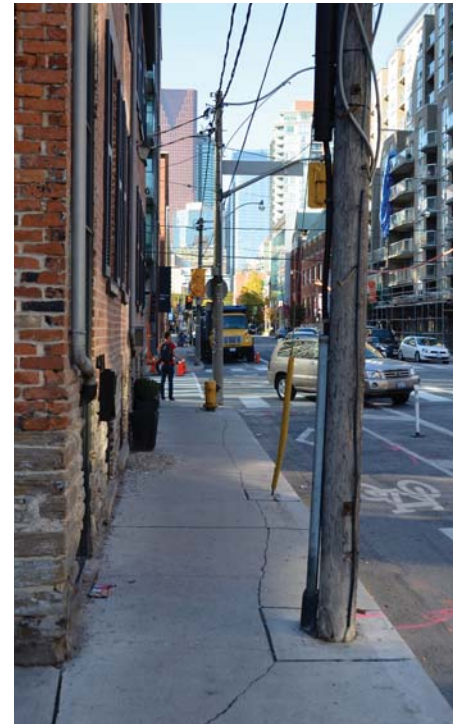
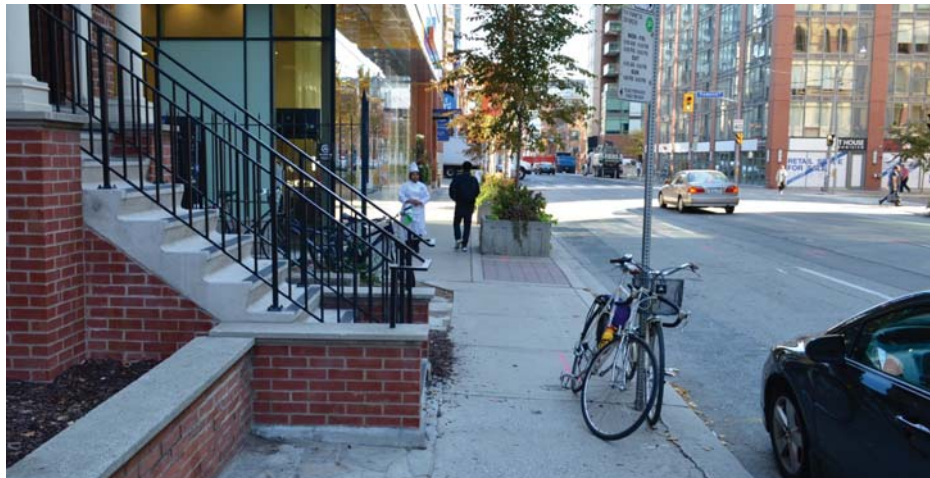
Make sure to also check out the City of Toronto's Road Safety Plan here: <https://tinyurl.com/TORoadsafetyplan>



1 Adelaide Street - Cycle Tracks and Future Complete Street

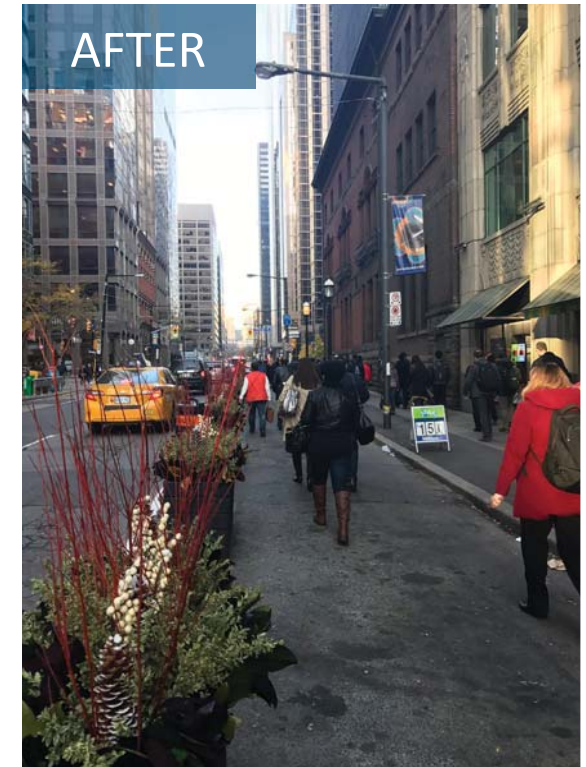
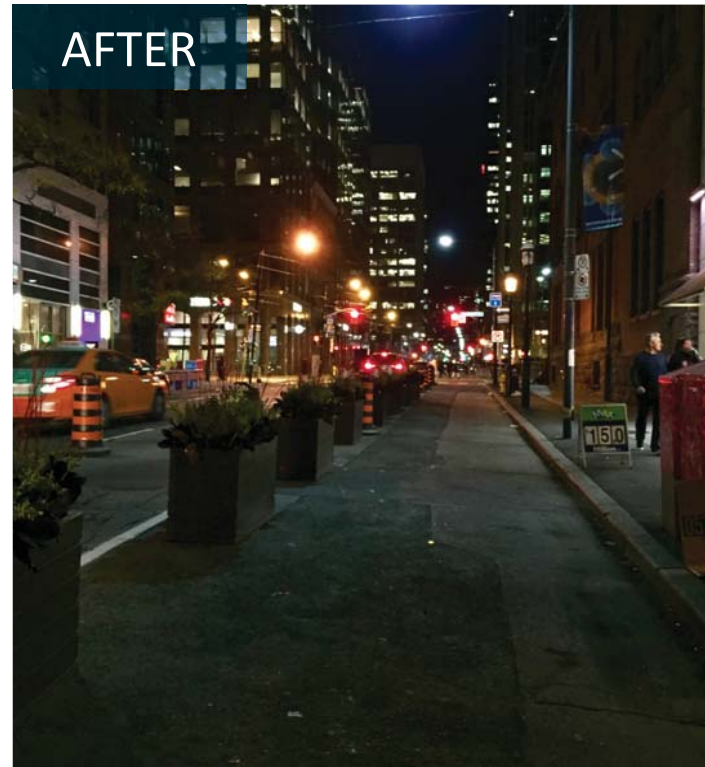
In 2014, cycle tracks were installed on Richmond and Adelaide Streets as a pilot project. Since then, they have expanded 3.3 km from Bathurst to Parliament Street. At the same time, Adelaide has wide lanes and narrow cluttered sidewalks between Jarvis and Parliament, all remnants of the area's industrial past. With the addition of bike lanes and potential for future improvements, Adelaide is an ideal candidate for a complete streets rebuild.

The local Business Improvement Area (BIA) and George Brown College have prepared a master plan for the area that includes a number of streetscape improvements. Transportation Services has also identified the need for resurfacing, performing utility upgrades, implementing revised lane width guidelines and a couple of priority intersections for safety improvements. Several existing development applications would be encouraged or required to contribute to additional improvements, including installing street trees and setbacks for wider sidewalks.



2 York Street - Interim Streetscape Transformation

Pedestrian volumes along the York Street corridor continue to grow due to the expanded capacities of the commuter train and subway connections at Union Station. As a result, the City planned to implement pedestrian improvements, including wider sidewalks and the removal of traffic lanes on York Street. However, conflicts with underground infrastructure have delayed construction indefinitely. Thus, in response to the immediate need for increased pedestrian capacity, the Public Realm Section was inspired by New York City's use of interim solutions of paint and landscape elements to temporarily assume underutilized road space. Widened boulevards are to be painted out along the east side of York Street and the north side of Front Street, while crosswalks are to be widened and crossing distances reduced to improve pedestrian safety and optimize intersection efficiency.



3 Union Plaza - Front Street Mid-block Revitalization

Union Station, the main subway station that feeds the Yonge-University subway line was renovated to increase platform capacity and improve underground path connections between the station and the downtown core. During construction, Front Street was closed as the entire right-of-way required reconstruction. The City seized this opportunity to improve street level safety and operations.

Before

In the past, narrow crosswalks with long crossing distances at intersections made crossing difficult, particularly for those with mobility impairments. Stepped planters in the median created poor sight-lines and were designed to discourage crossing. However, unsafe pedestrian crossing still occurred.

After

The plaza is now a pedestrian friendly two lane cross-section with lay-bys. Front Street underwent a road diet, with bump-outs installed at intersections. A curb-less median was also constructed to allow easier and safer pedestrian crossing, with planters installed to discourage illegal parking and U-turns. Six-metre-wide zebra crossings were implemented to accommodate large pedestrian volumes, while sharrows were installed to improve cycling safety.



4 Union Station - Front Street Revitalization

Before

Front Street was a six lane cross-section with a centre median and the main Union Station entrance was between crosswalks at mid-block. Vehicle pick-up and drop-off areas blocked pedestrian mid-block crossings, while multi-lane traffic resulted in dangerously high vehicle speeds.



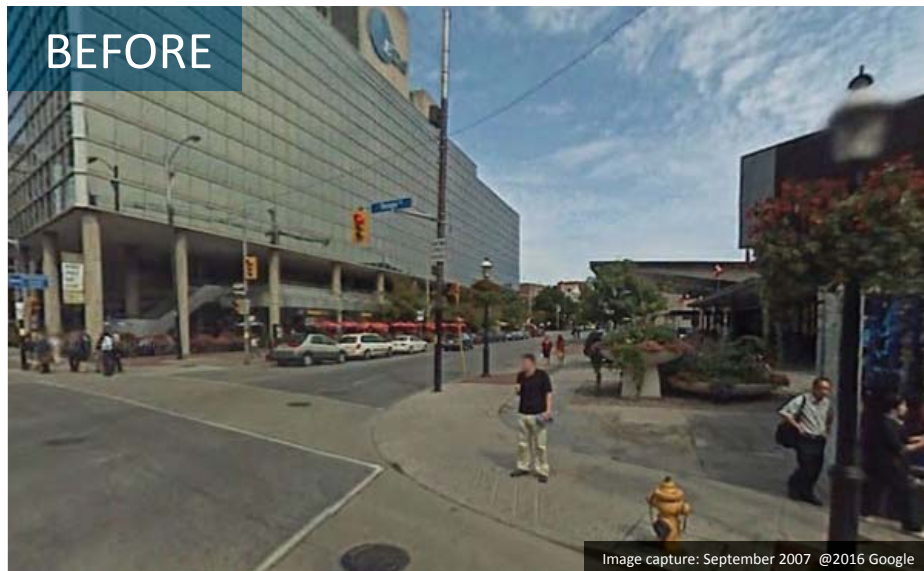
After

Front Street is now a two-lane cross-section with a flush, curb-less street and an elevated road section at midblock. Pavers and material colours increase driver awareness, while the plaza space is available for programming and events.



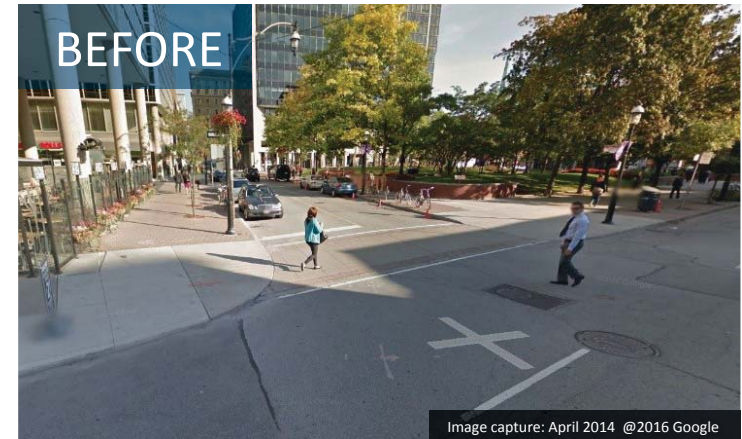
5 Sony Centre Sidewalk Widening

The below pictured photos demonstrate the curb realignment and sidewalk widening that were the focus of this project. Initially, the south curb east of the intersection was very wide and resulted in a narrow sidewalk along the lay-by. A widened sidewalk and rolled curbs now allow pedestrians to walk across the entire plaza, as well as on the lay-by when it's not in use. The rolled curb improves accessibility for passenger drop-offs and the widened sidewalk with pavers over the tree infrastructure provided the opportunity to reinstate six Linden trees as per the original heritage landscape plan.



6 Scott Street - Flexible Street

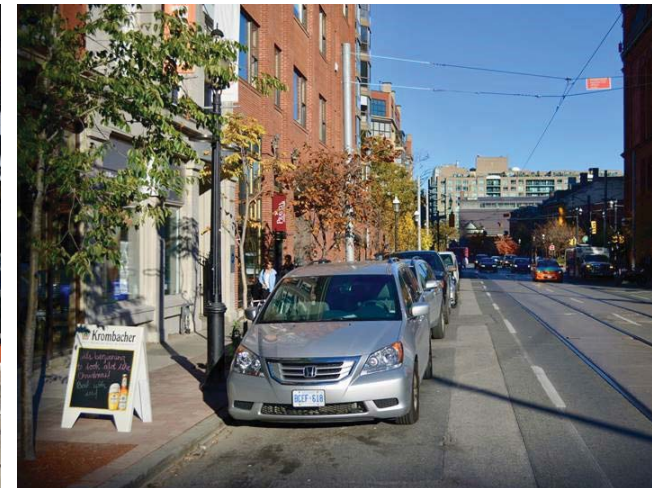
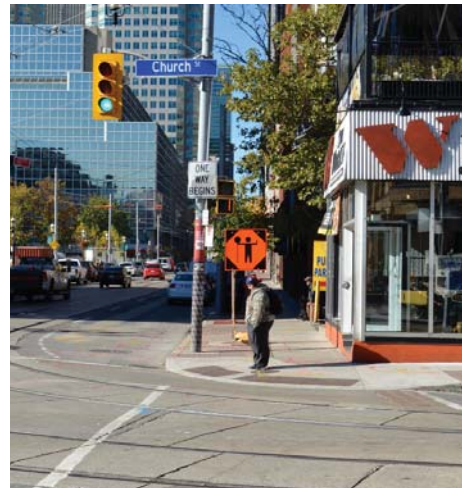
In 2012, it was identified that Berczy Park was in need of a major renovation. Many of the surfaces needed restoration and the trees and green spaces were damaged from overuse. Because Scott Street was a relatively wide road with very little vehicular traffic, park designers worked with the Public Realm Section to transform the street by narrowing the road, widening the sidewalk on the east side, removing curbs and re-allocating the freed up space to the park. Removing curbs created a flush street with an elevated road to slow down traffic and maximize pedestrian safety. Stormwater management provided by the curbs is now delivered by trench drains. Street trees were planted to extend the perceived boundaries of the park and pavers were installed in the roadbed and boulevard. The project aimed to create a highly accessible shared street that maximizes the perceived size of the park and can be easily repurposed for special events.



7 Wellington Street - Road Narrowing

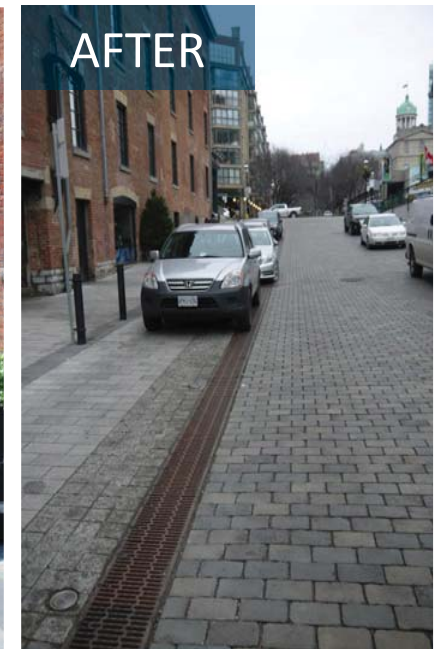
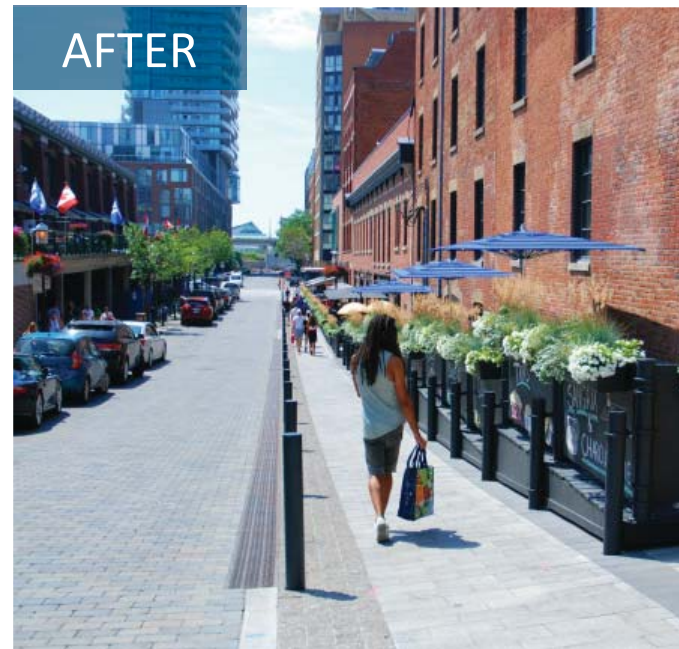
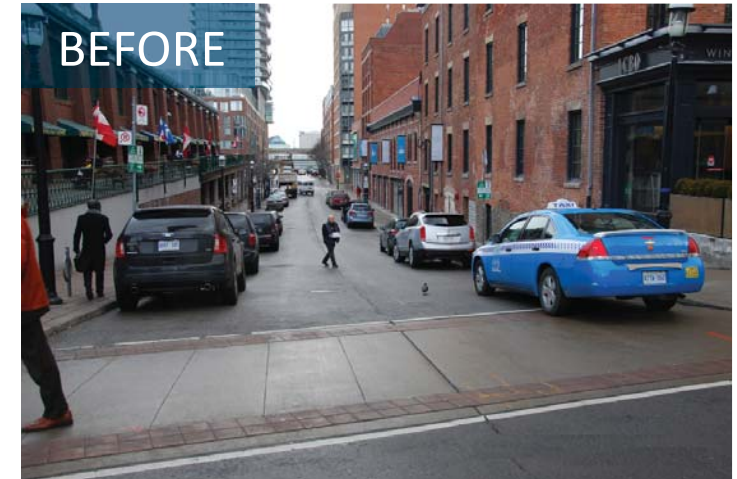
In 2017, Wellington Street will be undergoing a major transformation between Church Street and Yonge Street. Planned road resurfacing, utility upgrades and TTC track replacement present an ideal opportunity for the implementation of a complete streets transformation. A variety of improvements will be introduced, including:

- A curbside streetcar track will allow for a single pole and arm on one side of the street, removing the need for poles on both sides and freeing up pedestrian clearway
- A curbside streetcar stop, improving safety by removing the need to cross a lane of traffic to board/exit a streetcar
- A boulevard between six and seven metres in width for street furniture and greenery
- A 2.8 metre pedestrian clearway
- A lay-by for short term parking and drop-offs
- A continuous soil trench wide enough to accommodate a double row of trees
- Improved traffic flow, reduced pedestrian crossing distances and increased pedestrian space at the Church and Wellington Street intersection



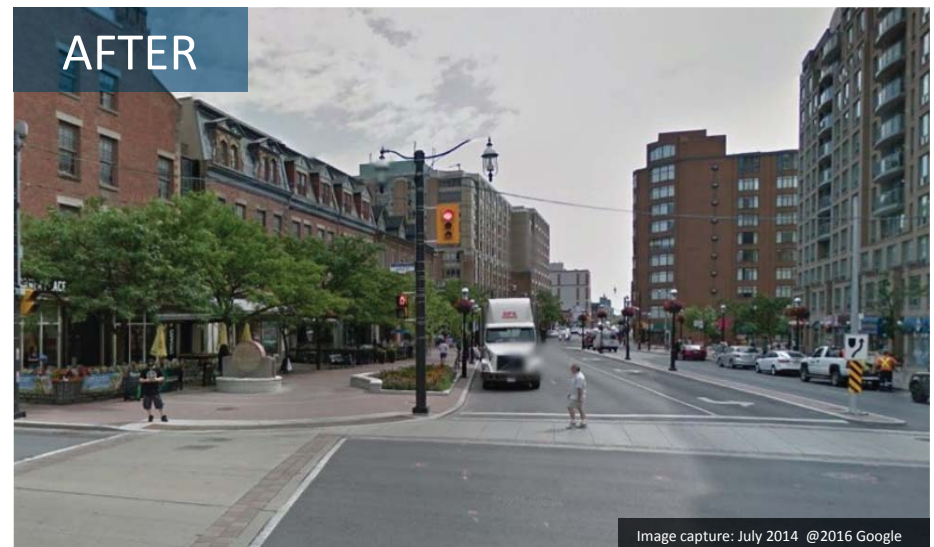
8 Market Street - Flexible Street

Market Street is Toronto's first flexible street. It is unique – not a woonerf and not a pedestrian-only street, but an innovative curb-less street design that slows traffic down, improves accessibility and increases pedestrian safety. It can accommodate a dynamic range of activities, with the capacity to adapt to different seasons, days of the week or times a day. The street abuts St. Lawrence Market, a heavily pedestrianized and historic part of Toronto that boasts a plethora of restaurants, shops and boutiques, making it an ideal location for this initiative. Also included in the design are outdoor café patio spaces and vibrant retail frontages, which use movable bollards as fence posts, avoiding the need for attaching temporary patio fences to the sidewalk. The catalyst for this partnership project was City Staffer Mark Van Elsberg, who advocated for a new type of street, new construction details and new ways to finance and secure maintenance agreements with multiple partners.



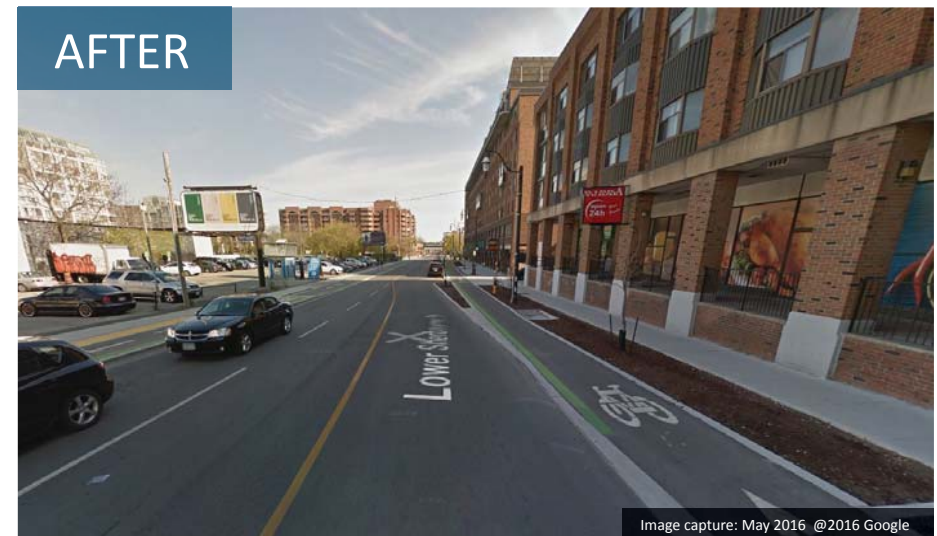
9 Jarvis Street and Front Street East - Slip Lane Removal and Median

Jarvis St. was undergoing planned resurfacing – this provided an opportunity to introduce reduced lane widths and narrow the wide curb lanes at Jarvis Street and Front Street. The after photo displays the north east curb which has been widened to reduce pedestrian crossing distances and provide new planting and seating opportunities. A new median was installed to improve lighting and reflect the same treatment as the west side of the intersection.



10 Sherbourne Cycle Track South of King - Phase Two

The second phase of the Sherbourne cycle track introduced a raised cycle track (flush with sidewalks) south of King Street. Planned reconstruction for this section of Sherbourne Street allowed for the relocation of curbs and enhancement of the cycle track to address localized conditions. This section of road has a number of retail frontages that relied on street-front loading and a few that relied on adjacent street parking spaces. To accommodate these retail frontages, cycle tracks were installed on the inside of the loading zones, allowing delivery vehicles to park without impeding cyclists. The existing triangular spaces on either side of the parking areas were transformed into planting areas large enough to support street trees, and the sidewalk on the east side was pushed to the edge of the right-of-way. Future redevelopment on this frontage will be set back to accommodate the extra boulevard required for a pedestrian clearway and to introduce furniture zones with street trees.



11 Pan/ParaPanAm Games Promenade Improvements

As part of the Pan/ParaPanAM Games promenade plan, road resurfacing on Front Street East at Princess Street provided an opportunity to create bump-outs and other streetscape improvements at local intersections. Fire Services was consulted about proposed improvements on station property, with renderings of the proposed design and rough costing provided to the Fire Chief and Facilities Staff by Transportation Services. All station improvements were funded and constructed by Fire Services, while bump-outs were constructed by Transportation Services and will be maintained by the Local Business Improvement Area.

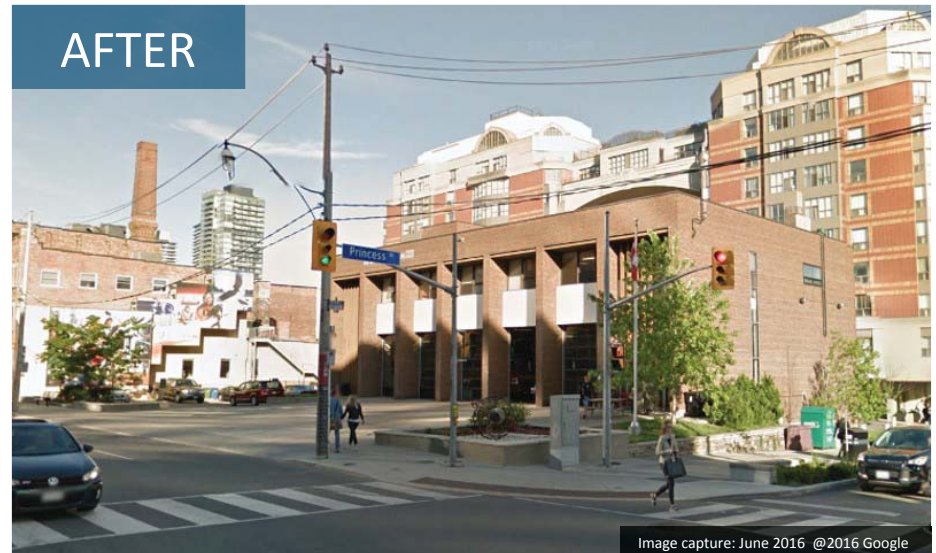
RENDERING



BEFORE



AFTER



12 Britain Street - Boulevard Parking Removal

Prior to improvements, Britain Street had boulevard parking with no pedestrian infrastructure. There were numerous curb cuts and private road frontages, as well as safety issues due to illegal activities occurring between parked cars. Following an intensive design and community consultation process, the City implemented a revitalization of Britain Street. This process introduced increased street parking, better sidewalks and several streetscape improvements. The project was completed with road resurfacing and sidewalk improvements. Adjacent property owners have adopted and will maintain the planting areas depicted in the after photos.



13 Sherbourne Cycle Track North of King - Phase One

In 2013, the City completed a corridor retrofit on Sherbourne Street that included two cycle track solutions. The first was the installation of a buffered bike lane north of King Street during planned resurfacing. This required clear delineation from the sidewalk to ensure safe use of space by pedestrians and cyclists. The existing double row of pavers along the curb was retrofitted with black unigranite pavers which create a visual and tactile border. The cycle track slopes towards the existing roadbed with a rolled curb and swale. Each block provides a small lay-by for Wheel-Trans and accessible drop-offs, while TTC bus stops were designed to be elevated with full curbs. Yellow tactile domes provide clear delineation of where transit riders should wait to allow cyclists to pass unimpeded.



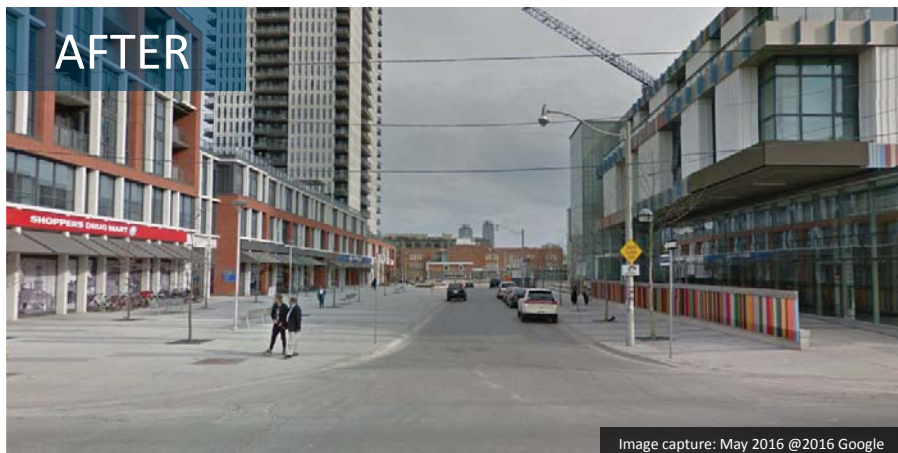
14 Adelaide Street East and Parliament Street - Right Turn Channel Removal

Prior to 2007, there was a right turn channel at Adelaide Street East and Parliament Street that was controlled by a 'yield to pedestrian' sign and flanked by a TTC bus stop. In 2011, Transportation Services removed the channelized right turn lane and created a parkette. This parkette is currently maintained by the City's innovative Orphaned Space program, which provides ongoing horticulture maintenance where there are no other partners. Adelaide's four travel lanes remained, merging into three lanes immediately west of the intersection. In 2016, the City piloted the Adelaide cycle track, which reduced the entire road to three lanes. In 2018, the City is planning to review lane widths on the street with ambitions of expanding the boulevards. This review will also explore options for expanding sidewalks, enhancing cycling infrastructure and adding furniture zones wide enough to accommodate trees.



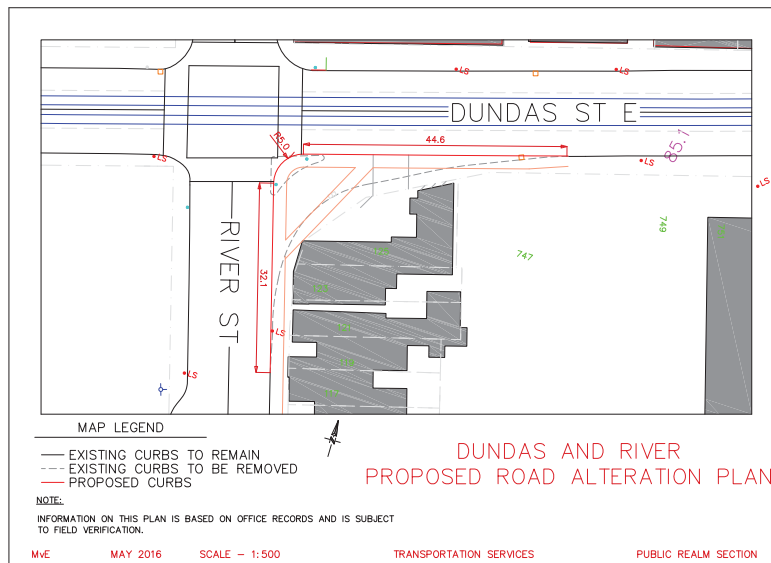
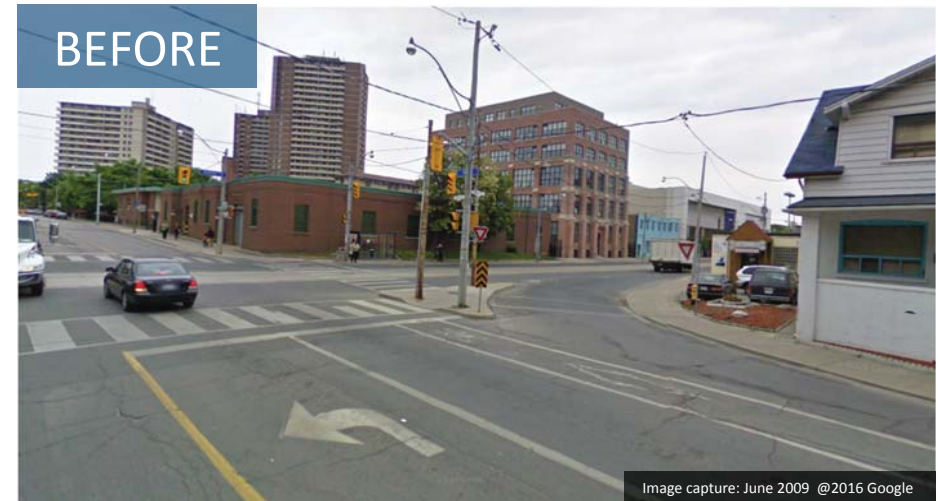
15 Regent Park Revitalization - Flexible Street

Regent Park Boulevard was originally envisioned as a venue for local festivals and special events. When the master plan was first presented to stakeholders, many were not comfortable with proposed mountable curbs, and thus the design chosen was a six-inch curb along both sides of the street. However, planners had designed the adjacent buildings to avoid any vehicle access on the street, meaning there were no ramps/driveways along the street - forcing pedestrians with mobility challenges to travel to the end of the block to cross the roadway. This proved to be problematic as the intent was to utilize the entire boulevard for special events. Fortunately, a rolled curb was adopted just prior to construction and was integrated into the final design. New developments have now been completed on either side of the revitalized street. The space is pedestrian friendly and used for community events.



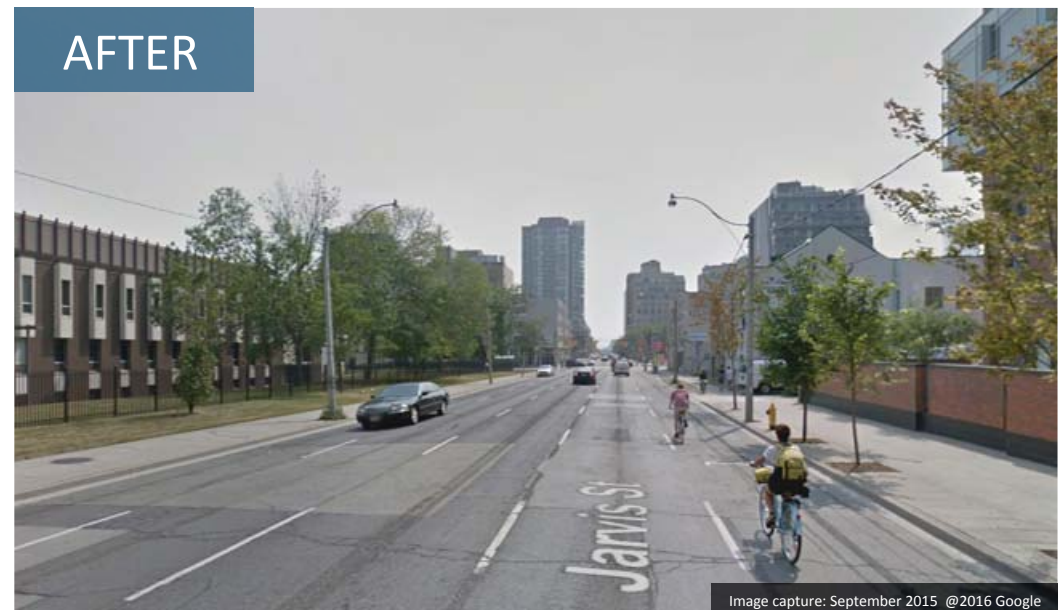
16 Dundas Street and River Street - Channelized Right Turn Lane

The removal of the channelized right turn lane at Dundas and River Streets in 2016 was completed with planned road resurfacing of River Street. The right turn channel was removed to facilitate the addition of an Accessible Pedestrian Signal. Formerly known as audible pedestrian signals, they advise pedestrians with low or no vision when they have the right-of-way to cross at a signalized intersection and in which direction they may cross the intersection. The City conducted extensive consultations with nearby property owners to develop acceptable landscaping for the newly created real estate. During construction, the existing pole on the traffic island had to be temporarily moved to the side of the channel. A temporary wooden pole is providing service to the construction site on the southwest side of the street and will be removed by 2018.



17 Jarvis Street - Bike Lanes

Before 2009, Jarvis Street operated with two vehicular lanes in each direction, while a fifth lane served as a reversible center commuter traffic lane. Between 2009 and 2011, the City explored the possibility of removing the reversible lane and narrowing the road in order to widen sidewalks and plant street trees. During this process, however, adding bicycle lanes in lieu of the fifth travel lane was identified as a safety priority, this was implemented at a cost of \$60,000. In 2011, a new Council voted to remove the bicycle lanes and reinstate the reversible commuter lane; because the original poles that controlled the reversible lane could no longer be used, this reinstatement cost upwards of \$300,000. Because Jarvis Street removed as a north-south cycling connection in the downtown, there was a successful push for cycle tracks on Sherbourne Street.



18 Gerrard Street - Complete Street Transformation

Road reconstruction on Gerrard Street allowed for the implementation of streetscape improvements in partnership with the local Business Improvement Area (BIA) and Ryerson University. Parking on the street was shifted from the north side to the south to accommodate a Wheel-Trans drop off point for Ryerson students and to facilitate easier access to the university. The sidewalks were also widened and street trees, which are now irrigated and maintained by BIA, were relocated to planting beds enlarged to the width of the banding strip (i.e. double row of pavers). New seating along the planting bed provides amenity and discourages pedestrian cut through, while bump-outs reduce pedestrian crossing distance at midblock.



19 Gerrard Street and Yonge Street - Curbside Patio

Recent liquor licensing changes now allow restaurant staff to serve across the sidewalk and have reduced the need for fencing enclosures on patios. As a result, curbside patios can now be constructed. The licence changes ensure that all new patios will maintain straight and navigable pedestrian pathways along building faces. Pedestrians will also benefit from canopied weather protection. Patios are required to be retractable to maximize pedestrian clearways when not in use. The licence changes must accommodate streetscape elements such as hydro poles, fire hydrants and trees.

