QUEEN STREET CORRIDOR STUDY REPORT

VILLAGE OF BOLTON
FINAL REPORT

MARCH 25, 2019

TOWN OF CALEDON

DILLON CONSULTING


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1.0 INTRODUCTION

In the summer of 2016, the Town of Caledon retained Dillon Consulting Limited to undertake the Queen Street Corridor Study, centred in the historic Village of Bolton. The study area includes an area of approximately 10km along Regional Road 50/Queen Street (between Emil Kolb Parkway to Mayfield Road), Regional Road 9/King Street (between Coleraine Drive to the Humber Valley Trail). The project was delivered in three (3) distinct phases as outlined below:

PHASE 1: Getting Started, Existing Conditions, Initial Consultation

Phase 1 focused on initiating the Bolton Queen Street Corridor Study, reviewing of existing policy issues, and soliciting ideas for the study through public consultation.

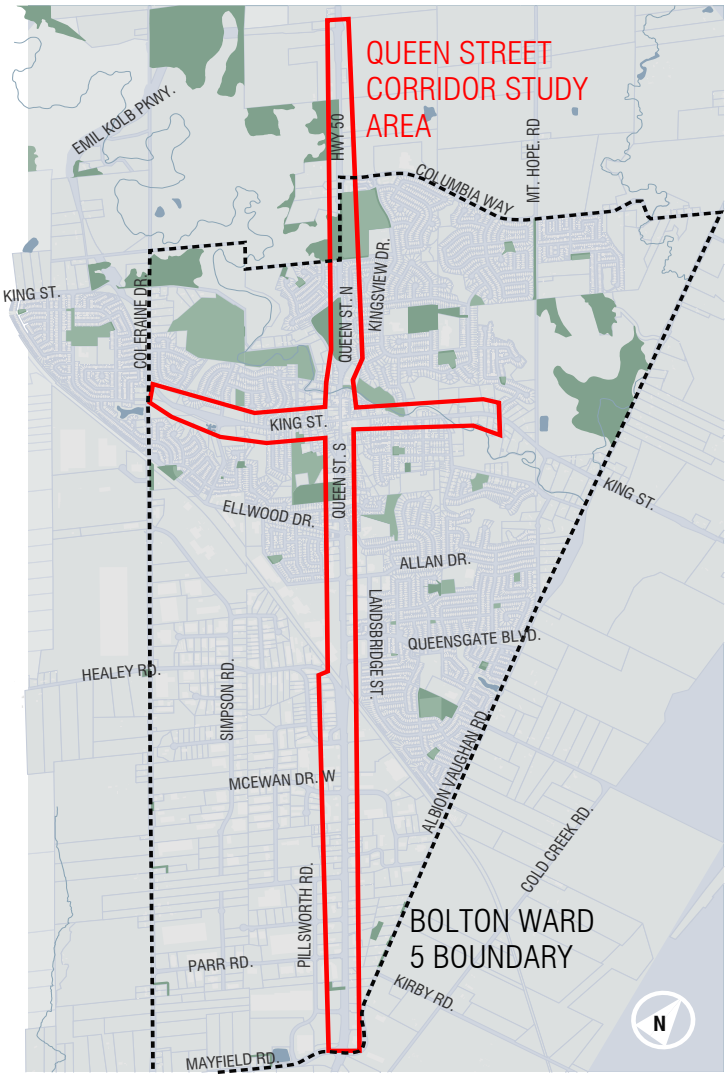
PHASE 2: Scenario Development & Design Refinement

Phase 2 focused on the development of consultation based design plans and policy scenarios for the Bolton Queen Street Corridor Area.

PHASE 3: Refined Design Selection & Presentation

Phase 3 focused on the selection and justification of the finalized design plan and associated policies for the Bolton Queen Street Corridor Study. The final study deliverables will be used as research material to inform the Town's current Official Plan Review.

The overall study included significant stakeholder and public consultation. The project website was used to continuously provide information for stakeholders and the public throughout the course of the study, particularly at project milestones. The visualizations and 3 dimensional (3D) flythrough videos provided a unique lens for rethinking the corridor and its adjacent lands and future growth potentials.



Study Area Key Map

This study was led by the Town's Policy and Sustainability Division, and will be regarded as a research assignment in support of future policy development. Although it is not a statutory report, the findings will be used as a resource in determining the future direction and aspirations for the public and private realm in the corridor area. As the Region and Town look to renew infrastructure along this Corridor, this study will help to provide a vision that includes community streetscape improvements and the potential of redevelopment along the corridor, thereby offering a framework for transformation until 2041.

The results of this study have yielded options that the Town and Region can review to assist in guiding future capital works and potential land use changes along the corridor. The outcome of this study encourages considering both options as they pertain to the local context and funds available. Section 6.0 of this report outlines the Design Concepts which are thematically organized into two (2) categories, Active Transportation Scenario and Public Realm Scenario.

The Active Transportation Scenario showcases advanced cycling and pedestrian movement through site specific locations of the corridor. The options presented are based upon the contextual constraints and are positioned to work in association with the current curb alignment. These can be seen as final or phased options to improve the current streetscape.

The Public Realm Scenario builds upon the Active Transportation Scenario, and also includes advanced environmental conditions that are realized through urban design and landscape architectural elements. These elements allow for greener streets, more inviting and safe active transportation, better relationships to street facing commercial areas and more sustainable design practices. This scenario will also require rethinking the current curb alignment and change the ROW configuration in certain locations. As a phased response, the Public Realm Scenario options can be regarded as an ultimate solution over time.

1.1 PURPOSE - THE NEED FOR STUDY

The Village of Bolton was originally settled in 1822 and has become the most densely populated settlement area in the Town of Caledon. Its long history has brought a diversity of development through Bolton, with particular emphasis along the Queen Street Corridor. Within the study area the Corridor and adjacent lands represent a variety of time periods in planning, architecture and town building. This disconnected experience is particularly felt by pedestrians and cyclists, resulting in uncomfortable and sometimes dangerous active transportation. The overall streetscape does not support a “complete streets” model which can advance multi-modal networks. The Corridor exhibits traits that are environmentally and aesthetically challenging and unpleasing, and does not take advantage of strategic gateway opportunities and notable identifiable features which can help in defining a sense of place.

The current contextual pressure on the Corridor and surrounding lands has also raised the need for change. With growth forecasts by the Provinces Growth Plan, supported by the Town Council and Region of Peel, Bolton will see dramatic residential and employment growth. Much of this growth will be centred upon the Queen Street Corridor as the main arterial road connecting the Village. The Bolton Transportation Master Plan (endorsed by Caledon Council on September 15, 2015 and by Peel Regional Council on September 24, 2015,) has also amended the Traffic By-law to restrict heavy truck traffic to the Bolton Arterial Road Bypass (Emil Kolb Parkway). These transformative developments have begun to change the physical and policy framework of the Corridor itself. It begins to set the stage for Queen Street to become a more inviting public space which allows for places of movement and places of static activity.

New Potential Requires a New Approach...

Over the years many studies had been initiated to help bring improvements to the Corridor and other parts of Bolton. The Town of Caledon initiated this study to help convey new ideas and a new way. Part of the scope of this study was to not only create a revitalized vision for the corridor, but to do so in a way that works with the existing study findings and policies for study area to also provide a new way to experience this vision, bringing new technology to an engaging public and stakeholder consultation process. Therefore the Queen Street Corridor Study was scoped to be a different than many of the previous planning studies for the area, and aimed to create a two-way dialogue through digital media, 3D modelling and visualization tools.

1.2 DEVELOPING IDEAS FOR A BETTER QUEEN STREET

The general findings of the overall study area along with a more specific look at previous studies and best practices helped generate early assumptions of what was required to see an improved Queen Street Corridor. Several themes and topics continued to dominate the goals and objectives of the study. The importance of Queen Street becoming a much improved corridor that supports economic development, active transportation, future transit improvements, housing options, celebrating cultural heritage, and creating community vibrancy underpinned much of the discussion with the Town, Region and TRCA. These assumptions were further supported by the stakeholder groups and the public.

It was crucial that the Queen Street Corridor Study helped to educate and inform all involved about the importance of improvements to streetscape design, active transportation (walking and cycling), and encouring multi-modal transportation. This transparency through engagement helped to announce the intent to inspire change along the corridor as well as create an added knowledge of the existing issues affecting the Queen Street Corridor during this and following studies.

From the outset it was important to have regard for the Bolton Special Policy Area, Heritage Conservation District and the concerns of the Downtown BIA. 3D modelling and the website played an important role in maintaining transparency in the development of each of the Scenarios.

What is a Streetscape?

Streetscape refers to urban roadway design and conditions as they impact street users and nearby residents. Streetscaping recognizes that streets are places where people engage in various activities, including but not limited to motor vehicle travel. Streetscapes are an important component of the public realm (public spaces where people interact), which helps to define a community's aesthetic quality, identity, economic activity, health, social cohesion and opportunity, not just its mobility.
(TDM Encyclopedia)

What is Active Transportation?

Active transportation refers to any form of human-powered transportation – walking, cycling, using a wheelchair, in-line skating or skateboarding.
(Public Health Agency of Canada)

What is Multi-Modal?

Streets must be designed to serve different modes and provide multiple mobility options for its users. Multimodal streets offer people options for safe, attractive, and convenient travel by foot, by cycle, on transit, as well as in motorized vehicles.
(Global Designing Cities Initiative)

Examples of integrated Active Transportation and Multi-Modal Networks along Streetscapes


King St

2.0 EXISTING CONDITIONS

2.1 ROAD TYPOLOGIES

Through our initial analysis, four typical road typologies were determined to represent the corridor in each of the areas within the study area. The cross section of the road begins as a more rural roadway and transitions gradually to a more urban downtown environment and then becomes an arterial right-of-way with shifting land uses. Refer to ***Figure 1*** (pg. 9) to see the breakdown of the four different road typologies within the study area.

Rural Highway

The rural highway typology is the first typology and it commences at the roundabout between Highway 50 and Emil Kolb Parkway and runs southward until after Centennial Drive at the Humber River Bridge. It has been recently reconstructed and the quality of the pavement is relatively good. The roadway has a distinctly wide right-of-way and little to no pedestrian infrastructure in the immediate north end. Sidewalks begin south of Columbia Way on the east side adjacent to the new residential development, the Caledon Centre for Recreation and Wellness, and Albion-Bolton District Park. At Bolton Heights Road the sidewalk shifts to the west side of the road. There are wide paved shoulders which could be used by cyclists if needed. On either side of the shoulder there are wide grassed boulevards and this particular stretch fluctuates between two lanes in either direction to one in either direction with intermittent right, left and centre turning lanes. The adjacent uses are largely agricultural and open space, and residential prior to entering Downtown Bolton which amplifies the feeling of openness in addition to the already wide right-of-way.

Downtown Core

Moving southward from the rural highway typology, the streetscape begins to narrow and exhibit evidence of aesthetic treatments between Centennial Dr. and the Humber River Bridge. Prior to entering Downtown there are stamped concrete unit paving boulevards with a decorative colour, armourstone retaining walls, and coniferous street trees lining the corridor on one side. It is at this point that the right-of-way begins to narrow as the corridor gradually travels downhill towards the Downtown. Bolton's Downtown consists of Queen Street North and Queen Street South between Centennial Drive and Elizabeth Street and King Street between Coleraine Drive and Old King Road.

There are several conditions which comprise this particular typology. Generally the right-of-way is very narrow, especially when travelling through historic Downtown Bolton. Along Queen Street North there is a feeling of enclosure because the buildings sit at the lot lines and face the sidewalk on either side of the road. There are two lanes of traffic, one in each direction and on street parking on either side of the road between the Humber River Bridge and King Street. The sidewalks, as well as the intersection at King and Queen Streets, have recently been redone with coloured concrete. Queen Street south shifts from the tight right-of-way to one that is more open with fewer buildings set farther back as the road climbs the hill out of the valley. There are sidewalks on both side of Queen Street at this point.

The King Street portion of the downtown core varies from the Queen Street condition. The portions which intersect and are within close proximity to the Queen Street intersection are similar with buildings abutting the right-of-way. In either direction as the road moves further away from the intersection it transitions to residential with one lane of traffic in each direction, a wider setback from the property line and sidewalks on both sides of the road. King Street West has on street parking in some areas, and widens again between Deer Valley Drive and Coleraine Drive with a wide right-of-way and no buildings adjacent to the property line. King Street East is one lane of traffic in either direction, and a centre turning lane from Queen Street until Humber Lea Road. This stretch is largely residential east of Queen Street to Old King Road with housing and sidewalks on both sides, and no on street parking.

Highway Commercial

The Highway Commercial typology is most prevalent between Elizabeth Street to the railway corridor. The streetscape transitions as Queen Street South becomes Highway 50 up the hill out of the river valley. There are two lanes of traffic in either direction. In this preliminary stretch there are aesthetic treatments on the east side of the road with coloured concrete and decorative planters set beside the sidewalk and patterned retaining wall. The other side of the road also has a sidewalk but is largely open with only vegetation adjacent to the right-of-way. This condition occurs until the road reaches the top of the bank. At this point the road moves through a small portion of residential as well as the Albion & Bolton Community Centre and Fairgrounds. There are sidewalks on both sides of the road. The road right-of-way widens to include a central turning lane.

Commercial activity occurs between Ellwood Drive East and Side Road 5. In this stretch the roadway remains the same with two lanes of traffic in either direction and a central turning lane. There is an intermittent network of sidewalks which are staggered on either side of the road on approach to the bridge over the railway. There is little to no street trees or streetscaping elements along this section and the buildings are set further back from the road as parking lots abut the road right-of-way. Multiple driveways also create a hazardous environment for pedestrians.

Highway Employment

Highway employment occurs south of the railway corridor, terminating at Mayfield Road. There are still two lanes of traffic in either direction with a central turning lane. The right-of-way is very wide in this portion, with large swaths of grass boulevard bounding both sides of the road. The sidewalks occur intermittently on both sides of the road and are also set very far back from the edge of curb. There are little to no street trees or streetscaping along this section. The right-of-way is open and can feel exposed.

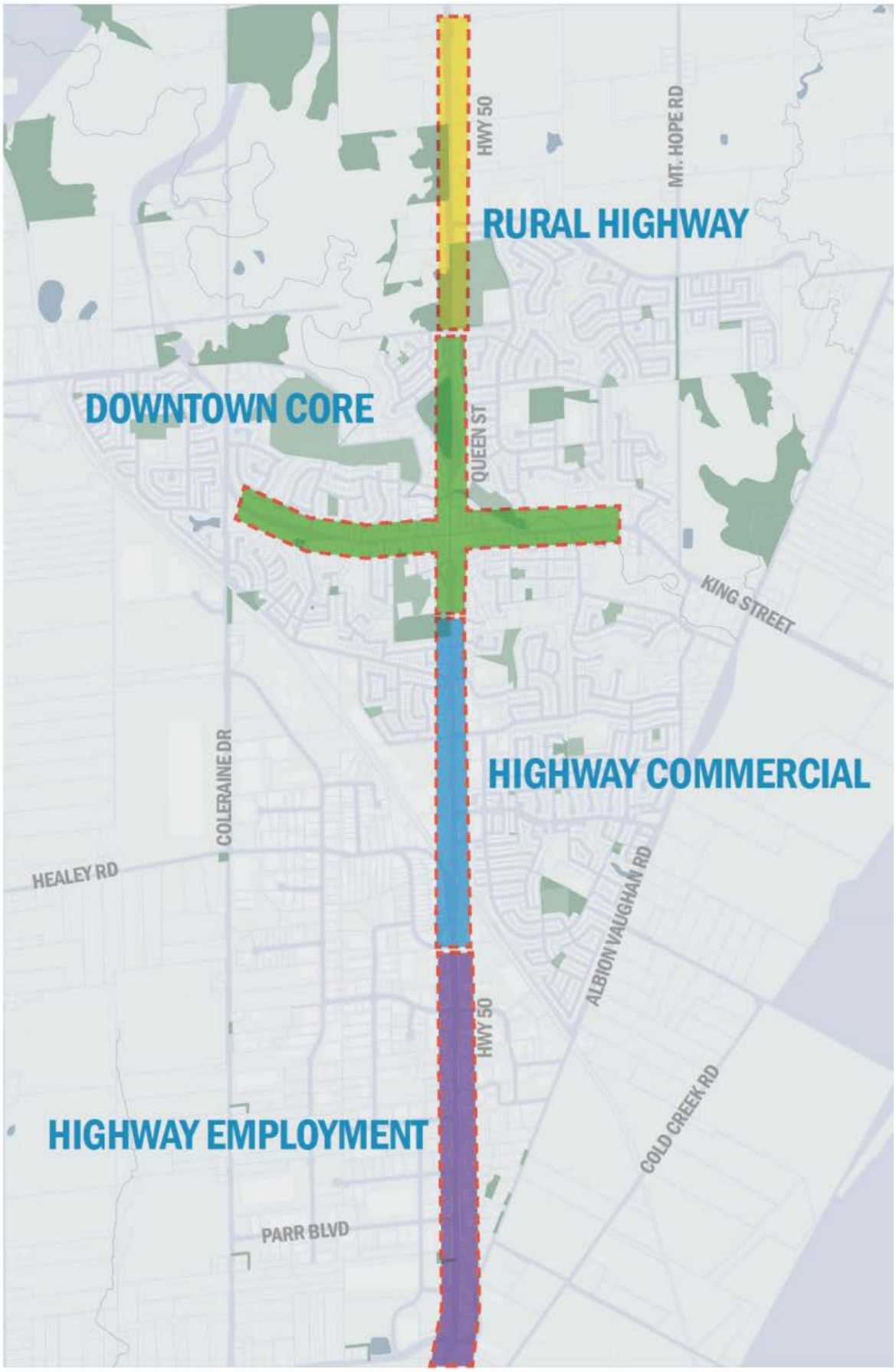


FIGURE 1
Study Area Limit and
Thematic Organization of Existing Conditions

2.2 EMIL KOLB PARKWAY

The Emil Kolb Parkway was opened in 2015 as a bypass to relocate truck traffic and cut down the amount of heavy vehicles travelling through Bolton's Historic Downtown. It is approximately 4.2 kilometres long and connects to Coleraine Drive at the roundabout at Highway 50,which heads south to Mayfield Road. Within this corridor there are two two-lane roundabouts. Currently, there is a multi-use trail between King Street West/Harvest Moon Drive and the Humber River Valley Heritiage Trail.

2.3 SURROUNDING LAND USES

As with the changing streetscape and roadway condition through the four typologies, there is also a transition from north to south along Highway 50 and Queen Street and east to west along King Street. Refer to ***Appendix A*** for Land Use Plans for Bolton. Land uses identified in Appendix A are specific to the Zoning By-law and are also common terms used in planning generalizations.

North of Downtown

This area is largely comprised of land uses that are lower in density and more rural in nature. In the northern edge of the study area there is a transition from urban to rural properties and uses. There are active agricultural uses in this area, mostly lower density residential, open spaces including the Caledon Centre for Recreation and Wellness, environmental areas, and some commercial and industrial uses. The current settlement area boundary for Bolton runs along Highway 50 in this area and the northerly settlement boundary limit is Columbia Way. The land uses for this area are listed below:

- *Prime Agricultural Area*
  Lands with Canada Land Inventory Class 1 through 3 soils and any associated pockets of Class 4 through 7 soils which exhibit characteristics of ongoing agricultural uses. Development opportunities include agricultural, agriculture-related, and on-farm diversified uses . These partiucular lands are not subject to either the Greenbelt Plan or Oak Ridges Moraine Conservation Plan.

- *Environmental Policy Area (EPA)*
  The EPA includes all Natural Core Areas and Corridors in the Town of Caledon. New development is prohibited except for permitted uses.

- *Open Space Policy Area*
  Includes public and private lane that are not designated within the EPA. The primary function includes intensive and non-intensive recreation uses. This includes conservation areas, municipal parks and trails.

- *Bolton North Hill Commercial*
  These lands shall be used for a food supermarket and ancillary retail purposes such as apparel, convenience and grocery stores, clinics, limited offices, personal services, pharmacies, banking, hair salons, dry cleaning and restaurants.

- *Low Density Residential*
  Lands which are residential in nature which are primarily single-detached dwellings.

- *High Density Residential*
  Uses permitted are any residential building typologies that are within the 45-97 unit per net hectare range.

Downtown (Including King Street)

There is also a mix of residential and mixed use densities, including low density residential/office commercial within the Downtown. This mix of land uses and building types creates a higher density core along Queen Street, in contrast to a more "Ontario Cottage" like experience along King Street. The downtown core is the historic portion of Bolton and is quite small compared to the other areas. Within the core there is also an EPA, the Bolton Special Policy Area and low density residential. The downtown is also the focus of the ***Bolton Heritage Conservation District*** (approved by the OMB in 2018), which manages change to the historic character of the core, incluidng specific design guidelines to development and public spaces. Additional land uses within the Downtown Core area are listed below:

- *General Commercial*
  This applies to core areas and permit a wide range of retail and service uses including: accommodation, apparel, automotive, clinic, convenience, department store, furniture, grocery, hardware, office, personal care services, pharmacy, office commercial, restaurants etc.

- *Institutional*
  This designation includes permitted uses such as schools, hospitals, government buildings, senior citizens homes, day cares, cemeteries and places of worship. etc.

- *Medium Density Residential*
  Lands used will be mainly residential with emphasis on medium density type development including walk-up apartments, townhomes etc. Office or commercial may be permitted.

- *Low Density Residential/Office Commercial*
  This designation acts as a mechanism to preserve existing historic homes and help to buffer adjacent low density residential areas. The lands shall include a single detached dwelling with an accessory apartment, mixed-uses such as dwelling units and offices or similar compatible non-retail activities.

South of Downtown

This particular area shows the transition from the core and residential to a more commercial area. The uses after the Downtown Core start with EPA where the road crosses over a ravine, and move past the Open Space Policy Area (OSPA) where the Albion & Bolton Community Centre and Fairgrounds are located west of Highway 50. There is also some lower density residential prior to the full transition to commercial and industrial once past Ellwood Drive. Additional land uses found in this zone include:

- *Bolton South Hill Commercial*
  Generally the uses within this designation are non-food retail stores and typically any uses found in the General Commercial designation are permitted in the Bolton South Hill Commercial area, except for automotive or ancillary residential uses.

- *Prestige Industrial*
  This designation features uses located with no outside storage within enclosed buildings which are at prominent locations along major roads. Uses such as manufacturing/fabricating/processing etc., warehousing, laboratories, computer and data processing, research and development, corporate offices, industrial offices, open space and recreational facilities, day cares and other commercial uses.

South of Railway

The area south of the railway corridor represents the final transition from largely commercial to mostly industrial and employment uses.

- *Community Shopping Centre Commercial*
  This designation applies to large sites for provision of a large variety of retail, service, office and commercial uses are concentrated. Uses outlined in the General Commercial designation are permitted in this area, however motor vehicle uses, accommodations and ancillary residential uses are discouraged. Uses pertaining to community service are welcomed including day cares, libraries, and theatres or similar.

- *Bolton Highway 50 Commercial Area*
  This area is where automotive related uses are permitted as well as commercially-related recreational uses. Large scale business and professional offices are allowed as well as high quality prestige industrial uses are permitted. Also, uses permitted in the Highway Commercial designation which provide services for the travelling public are also permitted in this area including: tourist accommodations, automotive, recreation, or restaurants.

- *General Industrial*
  The General Industrial land use designation permits all uses listed in Prestige Industrial, but also includes the remainder of industrial uses such as: transportation terminals, contractor's yards, automotive uses, and accessory outdoor storage.

- *Special Residential*
  The special residential area noted for the area north of Mayfield Road, east of Highway 50 and west of the Albion-Vaughan Line is considered an interim land use. Development requires an amendment to the Town of Caledon Official Plan through the preparation of a Secondary Plan as well as other relevant studies. Currently it permits medium density residential uses per Section 5.10.4.5.12.2.1 a) of the Town of Caledon Official Plan.

- *Rural Lands*
  Goal is to protect the quality of life, the distinct open landscape, the environment, the cultural heritage attributes and maintain the aspects of the community considered vital to Caledon's rural areas.


taste of Bolton.
every 4th saturday
EXCEPT FOR LOCAL DELIVERIES
Elizabeth Street

2.4 OPPORTUNITIES & CONSTRAINTS ANALYSIS

General Observations

In looking at the Queen Street Highway 50 corridor there are many opportunities as well as constraints and they vary depending on the area. Refer to ***Figure 2*** (pg. 15) to see the overall Opportunities and Constraints Analysis diagram. The Downtown Core has the most constraints both physically and in policy. The area is influenced by several overlapping policies including the Bolton Heritage Conservation District Boundary, the Bolton BIA Boundary, and the Bolton Special Policy Area. There are fewer constraints as the corridor moves both north and south to where the study area terminates. In these zones there are wider right-of-ways and more space between the buildings and the edge of the road.

Along Highway 50, there are gaps in the active transportation network, mainly sidewalks which start and stop and alternate on either sides of Highway 50. Of the whole study area, King Street has the most infrastructure with sidewalks on both sides which stretch from one side of the study area to the other. In the areas where the right-of-way narrows, the layout of the roadway is also affected and there are limited options for rethinking what the streetscape looks like. King Street is also a unique ROW which transitions from the Downtown at Queen Street, into a very hospitable “Ontario Cottage” like road, which further transforms to a more “Suburban” quality.

There is an opportunity to strengthen the active transportation network through a primary cycling route and closing gaps with sidewalks. Throughout the corridor there are also opportunities to provide streetscaping improvements that respond to the context. There are also opportunities to facilitate intensification along the corridor. Finally there is an opportunity to provide gateway treatments along the corridor at Mayfield Road, McEwan Drive, at the bridge north of Downtown Bolton and at the Highway 50 roundabout. Five areas were identified as areas to focus further, more detailed opportunities and constraints analyses and they are described in the sections following with corresponding ***Figures 3 – 7*** (pg. 16 - 25).

FIGURE 2
Overall Opportunities and Constraints Diagram


EMIL KOLB PKWY.
HWY 50
RURAL
MT. HOPE RD
COLUMBIA WAY
KING ST.
COLERAINE DR.
BOLTON HERITAGE CONSERVATION DISTRICT BOUNDARY (UNDER APPEAL)
SUBURBAN
QUEEN ST. N
KINGSVIEW DR.
BOLTON BIA BOUNDARY
COTTAGE SUBURBAN
URBAN
KING ST.
COTTAGE SUBURBAN
BOLTON SPECIAL POLICY AREA
KING ST.
QUEEN ST. S
ELLWOOD DR.
ALLAN DR.
LANGSBRIDGE ST.
QUEENSGATE BLVD.
Property has Development Application Currently Under Review
HEALEY RD.
SIMPSON RD.
BOLTON COMMUNITY SHOPPING CENTRE COMMERCIAL AREA
MCEWAN DR. W
ALBION VAUGHAN RD.
COLD CREEK RD.
PILLSWORTH RD.
PARR RD.
KIRBY RD.
MAYFIELD RD.
N
Legend
Zone
Viewpoint
Gateway Potential
Special Policy Area
Environmental Policy Areas (EPA)
Constraint
Existing Active Transportation
Active Transportation Improvements Needed
Existing Pedestrian Connections
Pedestrian Connection Improvements
Streetscaping: Urban / Cottage Suburban
Streetscaping: Suburban
Streetscaping: Rural
Infill Opportunities

King & Queen Streets

In Downtown Bolton, constraints are higher than in any other part of the Highway 50 corridor. The right-of-way is constrained with existing buildings bordering the road with little to no setback. A significant portion of the built features in this area are subject to the Heritage Conservation District (HCD). At times there are high volumes of traffic moving through this space and there is a need to maintain the lane configuration.

Through changes within the roadway itself there are opportunities to accommodate a primary active transportation route along Queen Street on the east side. Throughout this Downtown Core there are opportunities for further streetscape enhancements including planting street trees for shade, improved microclimate and visual interest as well as decorative plantings which generally are provided for in historic downtowns such as these. There are opportunities to improve secondary pedestrian and cycling connections to close the gaps and locate improved infrastructure and signage on both sides of Queen and King Streets. This should include consideration of wider sidewalks (min. 2m) and cycling lanes. At the intersection of Queen and King Streets, there is an opportunity to improve the crossing and to enhance the intersection with a decorative paving treatment, highlighting this particular node as a gateway for the Downtown. The intersection is the entrance and exit to Downtown Bolton.

FIGURE 3a
Existing Massing and Air Photo

As the downtown is nearly all built up, there are limited opportunities for infill. Any potential opportunities that do exist are likely subject to the Heritage Conservation District and the Special Policy Area policies for the area. The fast food café and associated parking lot property may be underutilized. Having a parking lot adjacent to the street detracts from the feeling of enclosure that a downtown streetscape typically provides, as well as protection from the elements and improved aesthetics for visitors. Providing for intensification at this location has the potential to deliver a higher and better use.

King Street & Queen Street

Legend

- Primary Active Transportation Route
- Pedestrian Connection Improvements
- Crossing Improvements
- Streetscape Improvements: Urban
- Gateway Potential: Paving
- Streetscape Improvements
- Crossing Improvements
- Primary Cycling Route
- Pedestrian / Cycling Connections

FIGURE 3b
Opportunities and Constraints Analysis

Allan Drive & Highway 50

This part of Bolton's commercial strip has many opportunities. The right-of-way is quite wide along this stretch and the buildings are set further back from the road. Through this part of the corridor, it is envisioned that the primary cycling route be maintained on the east side of the road. Secondary pedestrian and cycling connections should be improved or developed where there are gaps along the intersecting streets into the neighbouring communities. The pedestrian environment along this stretch is also quite open and exposed. This creates an opportunity to provide streetscaping elements such as street trees to help protect and improve the microclimate for pedestrians. Trees and other plantings provide shade in the summer time and help with wind and blowing snow in the wintertime. They also reduce the amount of pollution in the surrounding area.

FIGURE 4a
Existing Massing and Air Photo

Both sides of the road currently house mostly low rise commercial developments which are separated from the road by an expansive parking lot. Much of the existing pedestrian corridor is disjointed due to multiple driveways, which are hazardous to people using the sidewalks. When redevelopment occurs these commercial areas provide an opportunity to create a better streetscape and public realm through a rethinking of the layout of the parcel. These areas also present opportunities for mixed use infill developments that provide a location for commercial, retail and office space, as well as residential units above the ground floor to accommodate future population growth. With intensification and redevelopment of the parcels, driveways can be consolidated and parking lots can be moved to the rear of the site allowing for an improved public realm.

Existing intersections have the opportunity to be improved for enhanced pedestrian safety as well as for wayfinding. Also, because the development block is quite lengthy, there is potential to create a mid-block crossing to provide pedestrians and cyclists with a safe crossing from one side of the street to the other and to deter illegal crossing. This new crossing could be enhanced using a special paving treatment to denote its significance as a retail district and to announce that there is potential for non-motorized crossing at this point.

Allan Drive & Highway 50

Legend

- Primary Active Transportation Route
- Pedestrian Connection Improvements
- Crossing Improvements
- Streetscape Improvements: Suburban
- Gateway Potential: Paving
- Infill Opportunities
- Streetscape Improvements
- Crossing Improvements
- Primary Cycling Route
- Pedestrian / Cycling Connections

FIGURE 4b
Opportunities and Constraints Analysis

Highway 50 over Rail Corridor

Further south a section of the study area crosses the rail corridor. This particular zone does have grading constraints from the bridge approach and the bridge itself crossing over the railway. The primary cycling route remains on the east side of Highway 50 with an improved secondary pedestrian and cycling connection located on the west side. It is envisioned that streetscaping improvements such as street trees, signage and street furniture are continued south leading to the bridge over the railway. During consultation the public expressed their concern about pedestrians and cyclists crossing over the rail corridor safely using this bridge. Currently there is no pedestrian infrastructure on the east side of the bridge and there is a narrow sidewalk on the west side. The roadway is bounded on either side with barrier walls and there is no separation for pedestrians from active lanes of traffic. When the lifespan of the bridge reaches its end there is an opportunity to reconstruct it to better accommodate all modes of traffic. Interim active transportation solutions would entail reduction of a full travel lane to accommodate separated two-way cycling, preferably along the east side (northbound) lanes. From a traffic management perspective, this solution poses tremendous challenges to congestion, therefore creating added emphasis to advance bridge replacement and create integrated active transportation connections across the Rail Corridor. There is also an opportunity for this bridge to be constructed using interesting architectural styling that could be characterized as iconic to create another gateway as visitors travel to and from Bolton.

There is a vacant parcel to the east of the railway bridge, south of Side Road 5. An application for low to medium density development is currently is currently under review for this vacant parcel. Such development could also help to provide a buffer between the road and railway and the existing stable, low density residential neighbourhood to the north east.

FIGURE 5a
Existing Massing and Air Photo

Highway 50 Over Rail Corridor

Legend

- Primary Active Transportation Route
- Pedestrian Connection Improvements
- Streetscape Improvements: Suburban
- Gateway Potential: Iconic
- Infill Opportunities
- Streetscape Improvements
- Crossing Improvements
- Primary Cycling Route
- Pedestrian / Cycling Connections

FIGURE 5b
Opportunities and Constraints Analysis

McEwan & Highway 50

The area surrounding the McEwan Drive East and Highway 50 intersection represents the shift from the mostly commercial area north of the railway corridor to more of an employment area with a mix of commercial and industrial uses. The right-of-way at this point is very wide. It is surrounded by several big box retailers and associated 'smart centre' uses. There is an attempt at streetscaping but it isn't continuous along the corridor and is associated mainly with landscaped areas for the retailers.

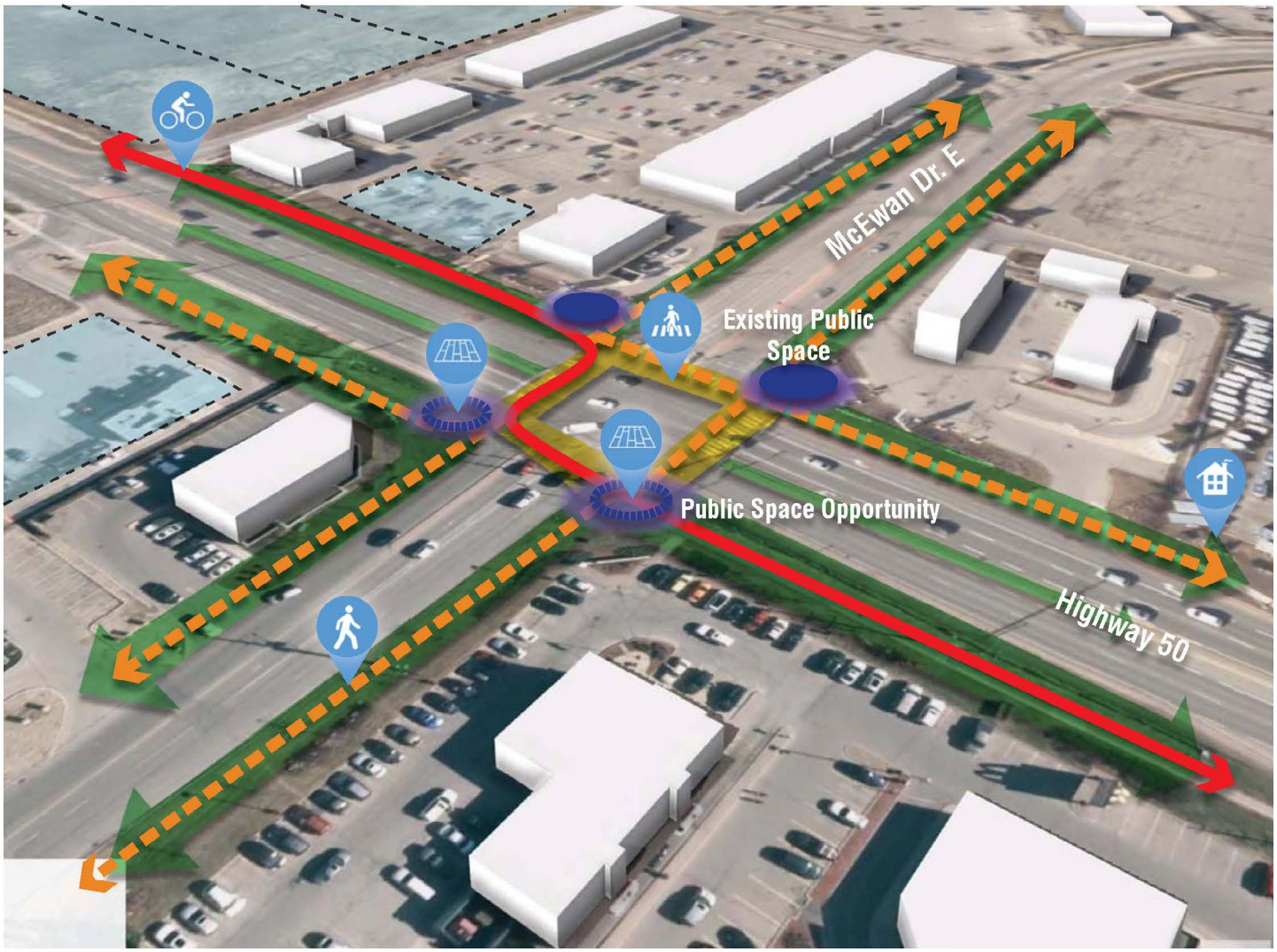
It is proposed that the primary cycling route cross over to the western side of Highway 50 at this intersection in order to better aligne with the location of the GO station south of Mayfield Road. In order to assist in the providing near seamless flow for cyclists priority linkages to the Primary Cycling Route should be assisted by "cross-rides", which highlight the intended connection. This is particularly important when the Route moves from either east to west sides of Highway 50. This is one of the few areas where there are existing sidewalks along both sides of Highway 50. However past this specific snapshot there are gaps west of Healey Road and east of Hopcroft Road on the east side. There are also sidewalks leading into the big box retailer complex on the east side of Highway 50 along McEwan Drive East. There are no sidewalks running along McEwan Drive West so there is an opportunity to fill in these gaps in the active transportation network. Planting street trees, providing furnishings at strategic locations, and providing directional signage can also be implemented to improve the pedestrian environment.

On the east side of Highway 50 there are small existing public plazas with decorative planting, seating, waste receptacles and even a shade trellis. There is an opportunity to mimic this treatment and provide similar experiences for visitors on the opposite sides of the road. Having the four corners of the intersection treated in a more aesthetic way could help to identify this area as another potential gateway.

FIGURE 6a
Existing Massing and Air Photo

There is Intensification potential north of the intersection on both sides of the road. There is a vacant lot on the east side of Highway 50, north of the retail complex which has enormous potential for redevelopment, as it is a blank slate. On the opposite side of the road there is also potential to infill in the large grassed boulevard area as well as in the parking lot which faces Highway 50 adjacent to the current fast food restaurant. This would help to enclose the streetscape, provide visual interest, and increase the comfort of pedestrians. It is also proposed that a planted median be introduced to separate the traffic, provide visual interest, and assist in the capture and mitigation of stormwater in the roadway. The infill could accommodate commercial, retail, office, services etc. in keeping in line with the land use plan for the area. It is not envisioned that residential occur in this area as it is largely industrial and reserved for employment uses.

McEwan & Highway 50



Legend

- Primary Active Transportation Route
- Pedestrian Connection Improvements
- Crossing Improvements
- Streetscape Improvements: Suburban
- Gateway Potential: Rest Area / Public Space
- Infill Opportunities
- Streetscape Improvements
- Crossing Improvements
- Primary Cycling Route
- Pedestrian / Cycling Connections

FIIGURE 6b
Opportunities and Constraints Analysis

Mayfield & Highway 50

The last focus area is the terminus of the study area at the opposite end; the intersection of Mayfield Road and Highway 50. Again the constraints are much less intense in this area as there are some vacant parcels and the right-of-way is very wide. In this area there is a sidewalk running the length of the parcel to the northeast of the intersection which results in a dead end at the driveway to the north and just before the intersection on the south. This strands pedestrians and forces them to walk across a deep vegetated swale in order to reach the intersection. There is no sidewalk connection on the opposite side of the road. The primary cycling route is planned to continue south on the west side of the corridor where it would cross the road and connect to the GO bus parking lot that is south of Mayfield Road. The secondary pedestrian and cycling connection is proposed to be implemented on the east side of Highway 50 in order to provide equal facilities across the corridor, filling in the gaps and completing the pedestrian network.

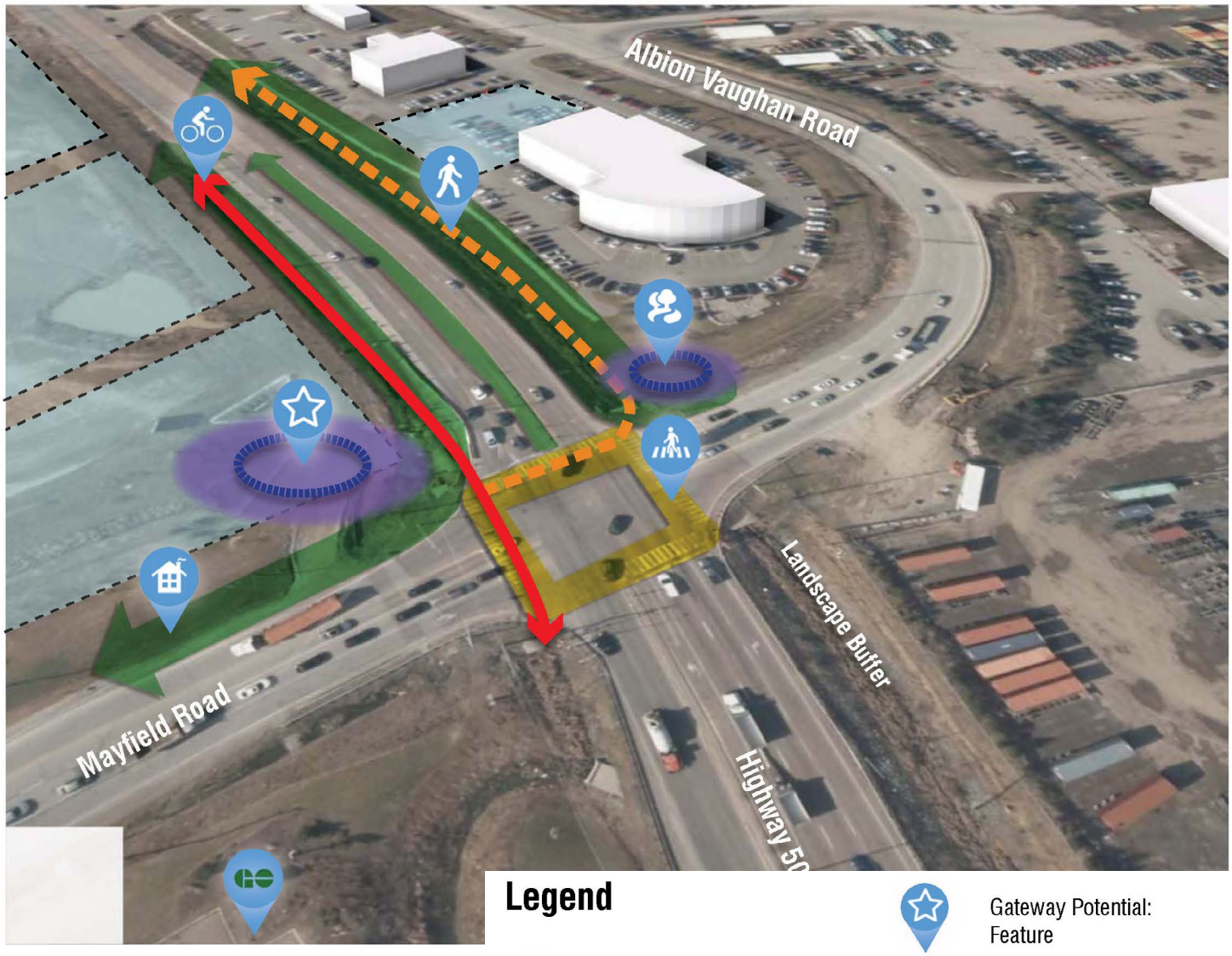
The planted median would start here in order to create a visual separation between directions of traffic as well as create a more aesthetically pleasing streetscape. It could also assist in the mitigation of stormwater management by capturing and storing water in situ. There is also the option of enhancing and bolstering the landscaped stormwater areas on either side of the road, transforming them into bioswales or rain gardens for improved and more efficient uptake of stormwater during a rain event.

As this is the very edge of the boundary for Bolton, it is most appropriate that there be a highly visible gateway feature. Currently there is a small gateway treatment at the northwest corner of the intersection. It is however not large enough to capture attention. This gateway announces the Town of Caledon, without mention of Bolton. This feature can be improved, made larger, and can reference the historic Village of Bolton as well. A smaller feature can be echoed on the opposite site of the road so that both directions will be able to see and distinguish the feature.

FIGURE 7a
Existing Massing and Air Photo

There is a large parcel to the west of Highway 50 that has a high level of redevelopment and infill potential. The Official Plan has designated the parcel for Prestige Industrial, which is the most appropriate use for that parcel. It is located at the intersection of two major roads, it is highly visible and it is located at a gateway into Bolton's employment area. Architecturally this building should have high caliber finishes and landscaping in order to be in line with the policies outlined in the OP. There is also the opportunity for infill, especially in the parking lot, on the east side of Highway 50 as the buildings transition into redevelopment.

Mayfield Road & Highway 50



Legend

- Primary Active Transportation Route
- Pedestrian Connection Improvements
- Crossing Improvements
- Streetscape Improvements: Suburban
- Gateway Potential: Landscaping
- Gateway Potential: Feature
- GO Station
- Infill Opportunities
- Streetscape Improvements
- Crossing Improvements
- Primary Cycling Route
- Pedestrian / Cycling Connections

FIGURE 7b
Opportunities and Constraints Analysis

3.0 PLANNING FRAMEWORK

There are preexisting planning policies that have gone into shaping this document. Provincial Plans form the structure and the regional and local plans help to inform the basis for many of the decisions made regarding the potential opportunities and proposed interventions in the Highway 50 Queen Street Corridor.

3.1 PLACES TO GROW

"The Places to Grow Act, 2005 provides for the establishment of growth plans for specific geographic areas within the Province of Ontario." The Growth Plan for the Greater Golden Horseshoe was borne from the Places to Grow Act, 2005. The Growth Plan guides decisions regarding planning and infrastructure related to successful and sustainable community building. Some examples include: downtown revitalization, creating complete communities, providing a variety of housing options for diverse needs, curbing suburban sprawl protecting viable agricultural land as well as our green spaces, and improving transportation networks.

Places to Grow is the Ontario government's program to plan for growth and development in a way that supports economic prosperity, protects the environment and helps communities achieve a high quality of life across the province.

3.2 PEEL REGION OFFICIAL PLAN

The Region of Peel Official Plan is the primary long range strategic land use policy document for the Region of Peel. The purpose of the Plan is to:

- *Provide a holistic approach to planning through a sustainable development framework.*
- *Provide Regional Council with guidance on long-term regional strategic policies, sustainable management of growth and development that has regard for environmental protection, sustainable management of resources.*
- *Interpreting and applying Provincial direction with the context of the Region of Peel.*
- *Provide a long term strategy for the Region for specific objectives and land use policies contained in the area municipal official plans which must conform to the Regional Plan.*
- *Recognize the division between the different centres and how they are unique. Brampton and Mississauga are quite urban versus Caledon which is more rural in its makeup.*
- *Recognize needed environmental protection and management measures to ensure environmental sustainability.*
- *Recognize the importance of protecting and enriching Peel's natural and cultural heritage.*
- *Provide a safe and health community for those living and working in Peel.*
- *Maintain and enhance the fiscal sustainability of the Region.*

"The Places to Grow Act, 2005 provides for the establishment of growth plans for specific geographic areas within the Province of Ontario." The Growth Plan for the Greater Golden Horseshoe was borne from the Places to Grow Act, 2005. The Growth Plan guides decisions regarding planning and infrastructure related to successful and sustainable community building. Some examples include: downtown revitalization, creating complete communities, providing a variety of housing options for diverse needs, curbing suburban sprawl protecting viable agricultural land as well as our green spaces, and improving transport

The Region Official Plan (ROP) is a long-term plan used to assist the Region in managing growth and development. The main purpose of the Plan is to:

- *Provide Regional Council with a long-term regional strategic policy framework for guiding growth and development in Peel while having regard for protecting the environment, managing the renewable and non-renewable resources, and outlining a regional structure that manages this growth within Peel in the most efficient manner.*
- *Interpret and apply the intent of Provincial legislation and polices within a Regional context using the authority delegated or assigned to the Region from the Government of Ontario.*

3.3 TOWN OF CALEDON OFFICIAL PLAN

Caledon's Official Plan outlines in detail at a local level how the municipality will provide uses and services to its community. The Plan dictates the preparation of zoning and other bylaws to implement land use policies. The Plan also directs councils, committees, the Town and other groups which have authority within the Town. The Official Plan also serves as a guide for local residents and businesses. All lands within the Town of Caledon boundaries are subject to the policies within the Plan. The current community of Bolton comprises Ward 5 for the Town of Caledon.

The Town of Caledon Official Plan is a statement of principles, goals, objectives and policies intended to guide future land use, physical development and change, and the effects on the social, economic, and natural environment within the Town of Caledon.

3.4 TOWN WIDE DESIGN GUIDELINES

The scope of the Comprehensive (TWDG) focuses on establishing design and policy guidance for the built environment in the public, semi-public and private realms. The Guidelines provide design direction at the Town scale and for the range of settlements within the Town, in the areas of urban design, site layout, landscape architecture and architecture.

The Guidelines also identify suitable opportunities for development to ensure compatibility and a sense of place. References to policies, regulations, and area specific guidelines and design initiatives will be made, where relevant.

Several design a components are provided guidance through this document, including the overall public realm, residential areas, mixed use commercial areas and employment lands. This study has reviewed and has regard for the outcomes of the TWDG.

3.5 CALEDON TRANSPORTATION MASTER PLAN

The Town of Caledon has completed the Caledon Transportation Master Plan (CTMP), a strategic planning document designed to identify and address the transportation needs of the Town to the year 2031. Building on the directions articulated in the Town of Caledon Official Plan (OP) and the Peel Region Long Range Transportation Plan (LRTP), the CTMP establishes the goals, strategies and initiatives necessary to achieve the municipality's future transportation vision. The CTMP integrates municipal transportation planning with environmental assessment objectives and land use planning, ultimately providing for a transportation system that is sustainable, integrated and encourages a healthy and active lifestyle.

The CTMP plays an important part of the Queen Street Corridor Study, has it has defined the need for an integrated multi-modal network for Bolton. All outcomes of this study must support the CTMP and its long-term vision for improving mobility in Caledon.

3.8 BOLTON TRANSPORTATION MASTER PLAN

Due to expected significant population and employment growth in the near future, the Town of Caledon created the Bolton Transportation Master Plan as an effective strategic tool to guide the development of transportation infrastructure and programs to maintain the current high quality of life in downtown Bolton and the Community as a whole. Goals were to: support current and future municipal planning objectives by optimizing transportation capacity; identify opportunities for improved transit; articulate a Bolton core transportation vision; reduce truck traffic in the downtown core while also supporting trucks servicing businesses in Bolton; exploring opportunities for enhanced public realm and active transportation facilities; and, proactively engaging affected stakeholders to collaboratively solve issues to improve quality of life.

The purpose of the Bolton Transportation Master Plan (BTMP) is to identify transportation deficiencies and address transportation and road network concerns in the Study Area (See Map) to support municipal planning goals for the short, medium and long term. A comprehensive multi-modal transportation master planning process will be undertaken, including consultation with the public.

3.7 "WALK + ROLL" REGION OF PEEL SUSTAINABLE TRANSPORTATION STRATEGY

On February 22nd, 2018, Peel Regional Council approved the Sustainable Transportation Strategy (STS) and its accompanying five year Active Transportation and Transportation Demand Management implementation plans (ATIP and TDMIP, respectively). The STS is the result of extensive consultation efforts, involving the public, local municipalities, and other stakeholders from across the Region.

The Regional population is expected to grow by 40 per cent by 2041. Recognizing that this growth must be accommodated in a way that supports sustainable transportation rather than prioritizing single-occupancy vehicles, the STS is a comprehensive document that will act as a roadmap towards a future where environmental, societal and economic sustainability are priorities. Building off of the 2012 Active Transportation Plan and the 2004 Transportation Demand Management Plan, the STS outlines policies, programs and infrastructure projects in order to enable and encourage the development of a transportation system where 50 per cent of peak period trips are made by sustainable modes by 2041. For the purposes of the STS, the sustainable mode share consists of cycling, walking, transit, carpooling and telework.

Supported by the Town's CTMP, Walk + Roll is creating a new framework to integrate active transportation throughout the Region of Peel. This work will give further support for the vision of Queen Street to be a multi-modal design as the study develops the strategy, implementation plan and management plan, by 2022.

3.8 BOLTON URBAN DESIGN GUIDELINES

The Bolton Urban Design Guidelines were developed as a companion document to the Bolton Community Improvement Plan. The Guidelines provide additional guidance for community improvement by identifying design principles and guidelines with respect to streetscape, built form, site access, signage and open spaces.

It is the intent of the Town that the CIP and the Urban Design Guidelines will achieve the community's vision of a prosperous core that is integrated with surrounding commercial services and employment lands.

3.9 OTHER BACKGROUND PLANS

The following is an extensive list of previous studies which have also been undertaken in the area or further informed this document:

Provincial

- *Ministry of Transportation Cycling Strategy (2013)*
- *Ontario Ministry of Transportation Transit Supportive Guidelines (2012)*
- *GTA West Corridor Environmental Assessment (2012)*

Regional

- *Strategic Goods Movement Network Study (2013)*
- *Peel Region Long Range Transportation Plan (LRTP) Update (2012 Draft)*
- *Region of Peel Road Characterization Study (2011)*
- *Peel Region Active Transportation Study (2011)*
- *Peel Region Transportation Demand Management (TDM) Plan (2008)*

Municipal

- *Bolton Downtown Core Public Parking Study (2004)*
- *Bolton-Regional Road 50 (RR50): Landscape Plan Master Plan (2002)*
- *Bolton Residential Expansion Study (BRES) (2012)*
- *Bolton Special Policy Area Flood Risk Assessment and Planning Justification Report (draft 2015)*
- *Caledon Industrial/Commercial Design Guidelines (2002)*
- *Caledon Intensification Strategy (draft 2015)*
- *Caledon Transportation Needs Study Update (2009)*
- *South Bolton: Shopping Centre Design Guidelines (2002)*
- *Village of Bolton Heritage Conservation District (HCD) Plan (2016)*

4.0 CONSULTATION

Public consultation is an integral part of the Bolton Queen Street Corridor Study. In general, the consultation for Bolton Queen Street Corridor was designed to be an open dialogue with stakeholders and the public throughout the course of the study. There were various forums used to connect as well as a continual forum and at key milestones during the life of the project. Stakeholders were approached at the outset after meeting with the Town of Caledon for project initiation and direction. The stakeholder sessions were followed up with various open forum type events where information was presented to garner collaboration and feedback for consideration in the design scenarios. The Town also initiated a project website to post project information and updates and to receive feedback digitally.

4.1 STAKEHOLDER OUTREACH

There was one introductory consultation session with identified stakeholder groups. The project was introduced to the group, and preliminary findings were presented. After the informal presentation there was an open forum for open discussion about issues and opportunities along the Bolton Queen Street Corridor. The following stakeholders were included in the preliminary discussions:

- *Bolton Business Improvement Area (BIA) Committee*
- *Heritage Caledon Committee*
- *Agency Advisory Group (AAG)*
- *Town of Caledon Staff*

4.2 PUBLIC OPEN HOUSE 1

Information gathered from the initial meetings and stakeholder sessions was distilled to generate material to present to the general public during Public Open House #1 which took place on September 21, 2016 at Ellwood Memorial Public School. The project was introduced to participants and preliminary findings from the initial analysis were presented. Participants were notified of the upcoming Design Charrette as well as pre-work associated with the event. After the presentation there was an open forum for discussion about issues, opportunities and other project related feedback.

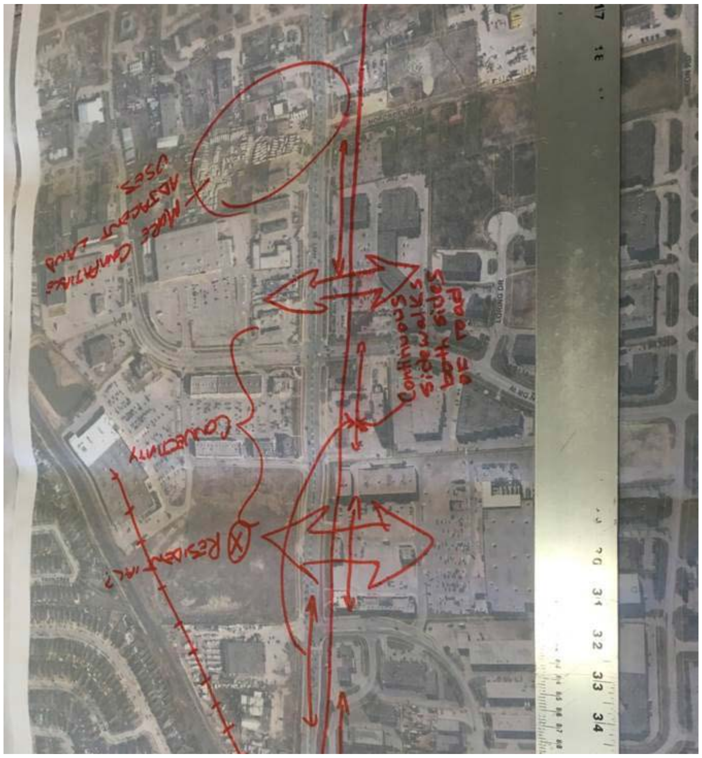
4.3 DESIGN CHARRETTE & WORKSHOP

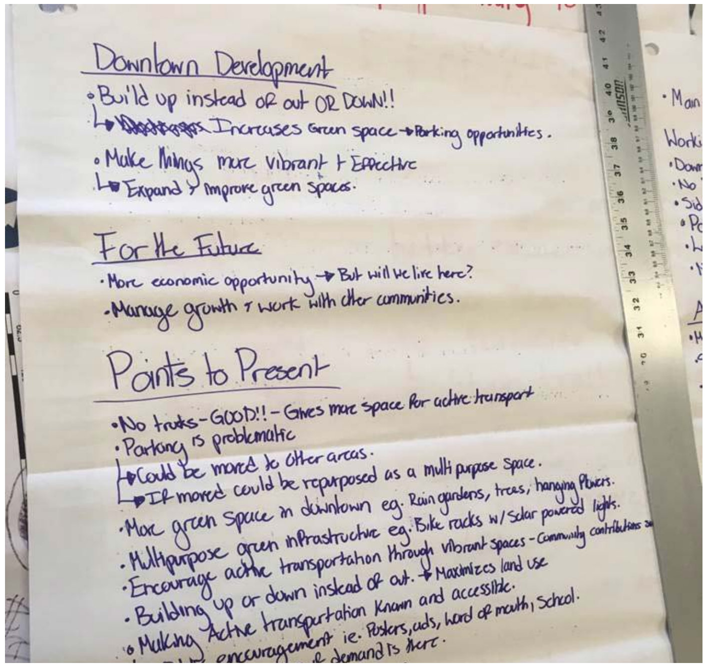
Following Public Open House #1, a Design Charette and Workshop was held on November 30, 2016 at the Caledon Seniors Centre. The purpose of the Design Charrette was to ask the participants to think about the space and the possibilities of what could happen by providing different options. Information gathered during the previous Public Open House was used to refine the analysis and precedent study for the Bolton Queen Street Corridor. During the presentation, the project work to date was presented including an updated fly-through animation. The precedent study depicted potential interventions which could occur at strategic points along the roadway.

During the second half of the evening the Design Charrette exercise was held. Facilitators were prepped beforehand with facilitation guide documents to help them lead meaningful discussions and encourage participation in hands-on diagramming exercise. The facilitation guides had proposed timelines, suggestions for questions to stimulate discussion, and other helpful pieces of information. The goal for the diagramming was to help provide qualitative and quantitative direction to the scenario options in the next phase of the project. The information from the Design Charrette and Workshop into findings which digitized input received during the evening on the maps and verbally during the reporting back portion of the evening.

This session was very highly attended with one large group attending from the secondary school which created a diverse sampling of feedback from stakeholder and the general public.

RIGHT
Photos from Design Charrette




Downtown Development
• Build up instead of out OR DOWN!!
Increases Green space → Parking opportunities.
• Make things more vibrant + Effective
Expand + improve green spaces.
For the Future
• More economic opportunity → But will we live here?
• Manage growth + work with other communities.
Points to Present
• No trucks - GOOD!! - Gives more space for active transport
• Parking is problematic
Could be moved to other areas.
If moved could be repurposed as a multi purpose space.
• More green space in downtown eg. Rain gardens, trees, hanging flowers.
• Multipurpose green infrastructure eg. Bike racks w/ solar powered lights.
• Encourage active transportation through vibrant spaces - Community contributions
• Building up or down instead of out. → Maximizes land use
• Making Active transportation known and accessible.
encouragement ie. Posters, ads, word of mouth, School.

4.4 PUBLIC OPEN HOUSE 2

The Charrette Findings were utilized to fine tune and develop scenarios for the corridor including existing conditions, an option which focused on active transportation, and an option which focus on the public realm. This information was used to craft the material for Public Open House #2 which was held on September 28, 2017 at the Caledon Seniors Centre. There was a brief presentation to start the meeting which reintroduced the project and existing conditions, and outlined the work completed to date. The findings from the previous Design Charrette were shared including photographs from the evening and a consolidation of what was recorded as 2D schematic diagram maps. 2D cross sections were also presented to illustrate the existing conditions of the corridor across two different typology areas and the two scenarios associated with them. The options were also developed into visually interactive videos which were available to experience using Virtual Reality (VR) headsets during the session and played for a brief moment on screen during the presentation. In addition to the graphics, there was also a plan presented which outlined the proposed conceptual land uses for the corridor.

Following the presentation and the opportunity for participants to experience the VR video models there was a discussion about the current proposed scenarios. Afterwards, next steps were presented which outlined that information received would assist in refining the concepts further, and that it would be synthesized and summarized into a final report which would then be brought to Council / Planning Committee.

RIGHT
Photos from Public Open House #2 with Virtual Reality Component


EXIT


DISCUSSION + NEXT STEPS

5.0 PRECEDENTS STUDY

The purpose of the precedent study was to identify visual examples of proposed interventions for the different design scenarios in the Bolton Queen Street Corridor Study. The precedents shown are not intended to supersede any previous work currently in place and will work with current findings from those studies. The examples in the following sections are meant to describe and depict the various precedents that inspired the proposed design scenarios.

PUBLIC REALM PRECEDENT OPPORTUNITIES

For the Bolton Queen Street Corridor there are two different categories for looking at precedents for improvement. The first is what is within the public right-of-way - the land that falls between property lines on either side of the road - as well as what is within the roadway. Public realm includes the makeup of the roadway, active transportation facilities, streetscaping improvements, and addition of / improvements to public spaces. Below is a discussion and display of imagery to depict the public realm along the Bolton Queen Street Corridor in order to achieve a mixed-use arterial corridor.

BELOW
Example of Mixed Use Arterial Corridor

Multi-Modal and Active Transportation Streets

It is envisioned that the Bolton Queen Street Corridor will accommodate and support the movement of all modes of transportation, harmonizing motorized and non-motorized traffic volumes. A *multi-modal corridor* is a space that can easily and efficiently accommodate several modes of transportation including: active transportation, vehicular transportation and transit. *Active transportation* is any human powered, self-propelled mode of transportation which includes: walking, cycling, running, roller blading, skateboarding etc.

Infrastructure which facilitates multi-modal movement should have designated spaces for the different modes such as sidewalks, bike lanes, cycle tracks or multi-use paths. Failing this, there could be signage and pavement markings to notify users that roadways are shared. The level of use should be a consideration, will it be more active or passive and could a switch to an asymmetrical condition be utilized to better distribute the volumes of multi-modal traffic in certain areas. The following images display different ways to create the multi-modal mix.

Parking

For the most part, the issue of parking is limited to the downtown core only. The remainder of the right-of-way focuses on movement rather than gathering and much of the parking is provided for the businesses in dedicated off-road lots. The Downtown Core currently accommodates parking on both sides of Queen Street. There were discussions on whether or not this is still feasible or desired granted that there is on and off-street parking provided behind businesses and along King Street. If there is a need for parking, then are there ways to improve how it is organized and what kinds of treatments can be used to enhance the space. The use of different paving and street trees could help with the aesthetics of parking, creating of angled parking versus traditional parallel parking are interesting ways of approaching on street parking. For parking lots, interventions such as landscape screening can be used to minimize visual intrusion of parking lots as well as site servicing and loading from the street.

Sustainability & Microclimate

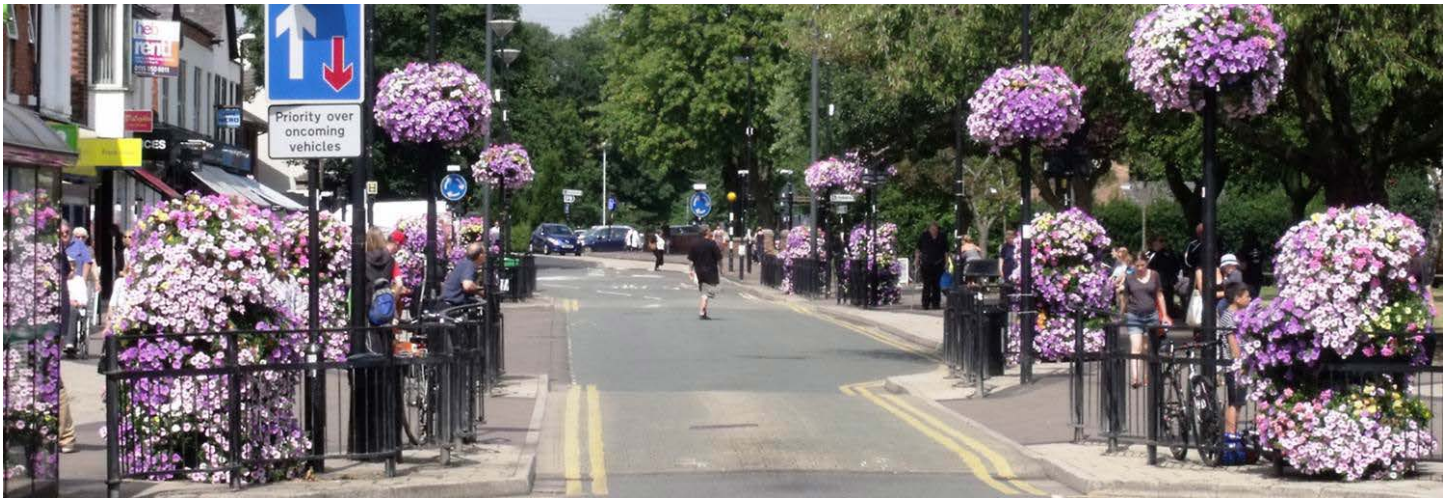
Throughout the corridor there are many opportunities to institute techniques for sustainable design which will improve the micro-climate. These Low Impact Design (LID) techniques help to slow and store stormwater on site, alleviating pressures on the local utilities such as sewers etc. Certain things like bioswales and rain gardens as well as street trees help to improve the micro-climate within the roadway. Integration of better measures to improve climate change resiliency can be used in new roadway construction. Ensuring tees reach maturity and are in good health will create better environment conditions for year round use of the street.

Signage & Wayfinding

One of the more visual ways to unite the design of an area is through a coordinated signage program. Entry signage to announce arrival into a designated area, wayfinding and directional signage to inform users of location and areas of interest, and interpretive signage to tell the story of the natural and cultural heritage of the area all comprise a coordinated signage program. A coordinated program will help to unite all the areas throughout the corridor.

Planting

There are unique ways to integrate planting into the roadway corridor depending on the context. Shade trees help to shield the public realm from the full strength of the sun and curb the affect that wind has on the corridor. Ornamental trees can also provide shade as well as visual interest. Planters can be used to infill vegetation which can be aesthetically pleasing as well as provide LID benefits. Hanging baskets and smaller planters can create impressive pops of colour along the road right-of-way at spots that are in need of highlighting.

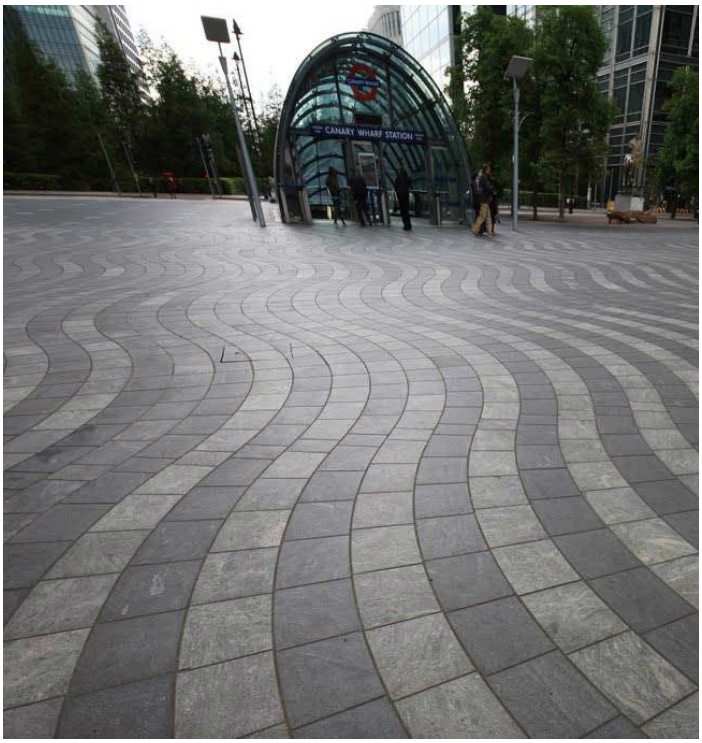


Furnishings

Along the corridor as well as in improved public spaces and new spaces, there is the opportunity to provide a consistent palette of modern and durable furnishings such as benches and seating areas, bicycle parking options, traffic mitigation such as bollards etc. Furnishings help to improve the aesthetics and the animation of an area and provide a more hospitable environment for active transportation users.

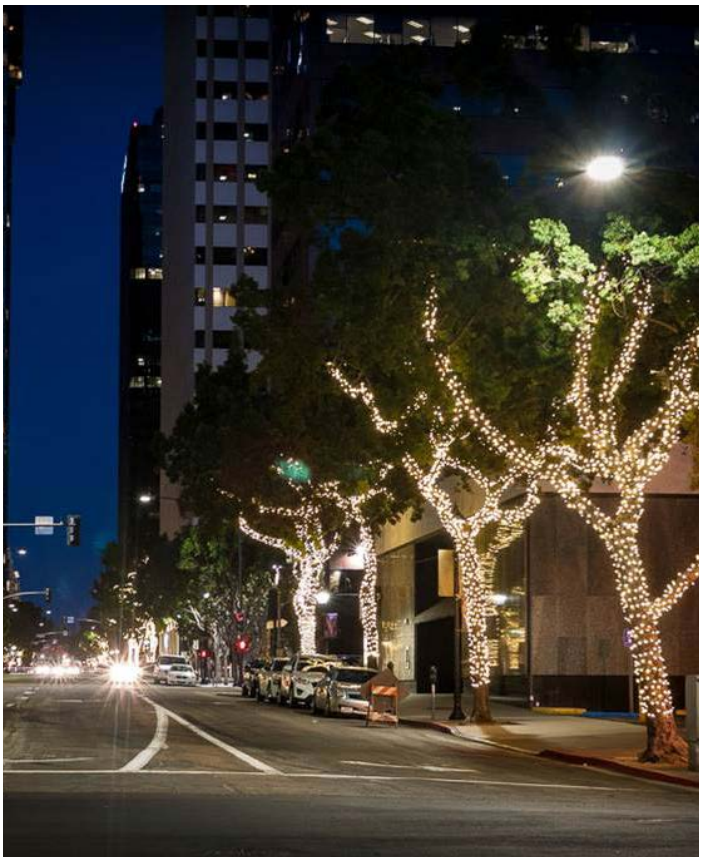
Paving

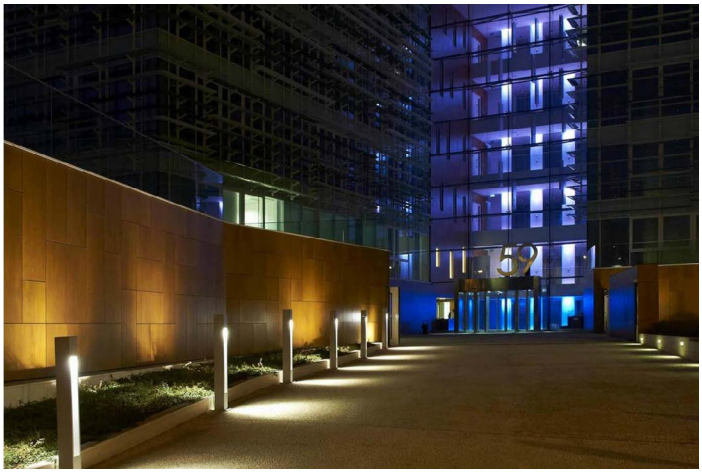
Key public spaces provide a canvas for unique and interesting paving treatments. These public spaces include small public plazas, formal areas in existing parks and at key intersections to denote special areas.



Lighting

Different levels of lighting treatments improve the visual quality and sense of comfort and safety for users during different hours throughout the day as well as during the winter months. They can also change the aesthetic environment through the use of unique and interesting fixtures and different colours. It can be applied at the vehicular as well as pedestrian level along the corridor, to highlight key public spaces, and to highlight interesting buildings.



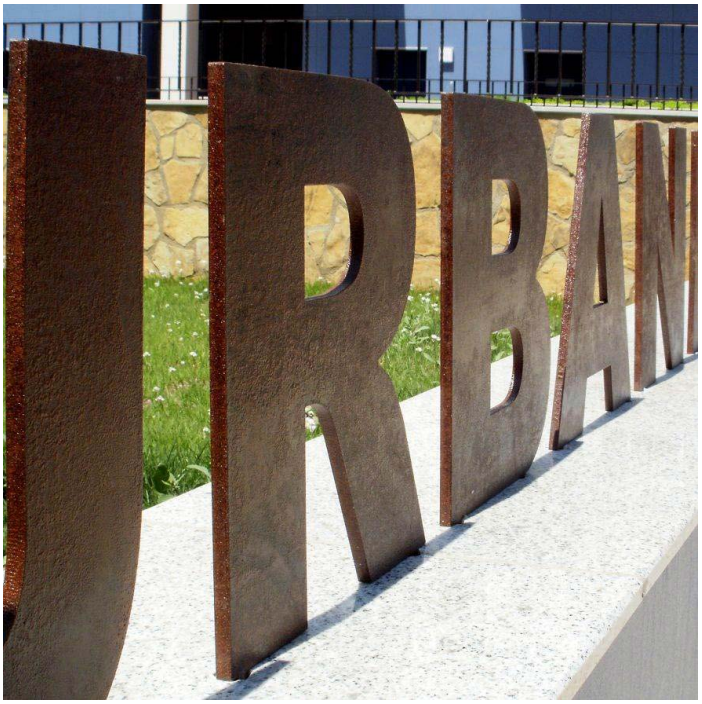


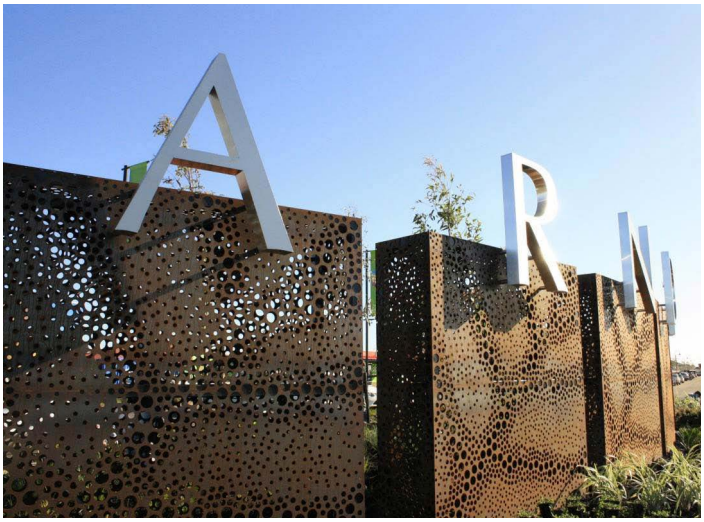
Pedestrian Bridge

The issue of the railway corridor poses an interesting opportunity to consider a pedestrian and cycling connection over the railway corridor. This can be done through reconstruction of the existing bridge to accommodate all modes, or adding a separate structure adjacent to the existing bridge to carry the active transportation volumes. This new bridge presents the option of having a visually interesting and iconic feature as an informal gateway between the more industrial and employment portion of the Bolton Queen Street Corridor and the more commercial and urban sections north of the railway.

Gateway Features & Public Art

Gateways announce entry into a particular space. They indicate that a visitor is entering into an area that has significance. Features such as public art, landscaping, architectural and water features can all be utilized to delineate a gateway for a particular area. The public art can be used in the gateway or elsewhere in the area. Thematic art commissions can help to build community identity and strengthen the sense of place.





PRIVATE REALM PRECEDENT OPPORTUNITIES

Outside the public right-of-way are private uses that exist along the corridor. These vary in nature as was discussed in earlier sections of this report. There are different opportunities for redevelopment in these particular areas and uses to help transform the corridor over time into the proposed vision.

Neighbourhood Scale Infill

According to the Growth Plan, the Region of Peel is one of the areas set to receive both population and employment increases as we plan for growth in our cities. Much of the growth will be focused on intensification in existing urban centres and built up areas and curbing sprawl and unsustainable development. One way to intensify is through infill development which can be developed through all manner of land uses. The first is neighbourhood scale, infilling onto vacant lots, splitting or subdividing existing larger parcels into smaller ones, severing properties to accommodate more growth are all examples. For the Town of Bolton the developments should be sympathetic to the context and neighbouring properties so that they reflect the character of the area.

High Density Infill

In areas that can accommodate more people and larger buildings, there can be higher density infill. This can take the form of townhouses, and low to medium rise apartment or condo style developments. These structures are able to accommodate more population for a smaller footprint and help to increase the overall density of the area which will help to achieve growth targets set out by the province in the Growth Plan.

Connections to the Street

Through these residential developments there are opportunities to create breaks in the parcel fabric and building faces to allow the public to permeate into the surrounding neighbourhood. Options are to create mid-block connections such as parks and laneways from the roadway to parcels and streets on either side of the corridor. They present more places for public space greening, planting, furnishings and areas for people to use in their communities.

Mixed Use Commercial

As areas transition, there are more opportunities to create a diverse range of uses in addition to existing ones. Mixed uses provide residents, employees and visitors with more options for personal services, programs and retailing opportunities. They also provide the option of variety in design aesthetics of the streetscape. The infill should be of an appropriate scale with integrated streetscape design as well as landscaping features, in order to fit in with its adjacent context.

Office & Employment

Existing employment parcels are quite large and are often underutilized with an abundance of parking, buildings that are not associated with the street, and underwhelming streetscape and internal landscaping treatments. There are opportunities here to remedy that with infill in the industrial area through interesting architectural design that are facing the street. Landscaping can help connect the streetscape with the building face and can help attenuate stormwater on site through use of LID techniques in and around parking facilities.

6.0 DESIGN CONCEPTS

Following the discussions during the consultation events, and the overall response to the precendents study, the feedback received was utilized, and interventions were formulated for the corridor as a whole. In addition to the Corridor Plan, two scenarios were developed and these were explored and illustrated at specific cross sections throughout the corridor. Through the robust participation of public and stakeholders during the design charrette, the design team was able to generate two scenarios which encapsulate the findings from this important consultation event. The findings truly represent a collaborative approach to decision making. Our findings from the design charrette yielded two scenarios which can described possible phased and integrated approaches to design change along the corridor. The *Active Transportation Scenario* prioritizes the implementation of connective active transportation infrastructure for both cyclists and pedestrian along the entire corridor. The *Public Realm Scenario* builds upon the Active Transportation Scenario and creates an inviting environmental condition, improving user experience and comfort, while also creating a more aesthetical and sustainable streetscape. Both scenarios adapt to contextual needs along the corridor, and are described in further detail in section 6.2 and 6.3.

These two scenarios include an approach which favours active transportation and another that favours public realm centric improvements. The two scenarios presented have the ability to be interchangeable along the corridor depending on the adjacent uses and local context and availability of funding resources at the time of redevelopment. The scenarios can also be applied as a phased approach in some areas with the active transportation scenario as the interim and the public realm scenario as full buildout.

6.1 CORRIDOR PLAN

The Corridor Plan outlines the general interventions throughout the corridor including gateway treatments, potential infill development and schematic building footprints, reorganization of parking, parkland and proposed new open spaces, introduction of active transportation along Queen Street / Highway 50 as well as new linkages, existing. These interventions are depicted in ***Figure 8a-e.***

Gateway treatments of varying degrees are outlined at key locations in the corridor starting at the roundabout and ending at Mayfield Road, and at key intersections including Bolton Heights Road, the Humber River Bridge, King Street East, Elizabeth Street, the new development between Allan Drive and Ellwood Drive, and potentially on the new pedestrian bridge over the railway corridor. These would vary in their intensity of design ranging from simply landscaping treatments to larger installations including architectural elements, lighting, water features, interesting grading and public art.

Conceptual Land Uses for the the Queen Street Corridor has been provided by the Town, and are described in *Appendix A*. Proposed infill development is shown in specific areas which are already supported through the conceptual land use designations, or are vacant or underutilized. Land uses identified in this plan have helped to inform the *Design Concepts* and supporting *Digital Fly-Through Collection*. In these areas of redevelopment, schematic building footprints and indication of heights are shown as well as the provision of parking. More specifically in the Downtown, parking is reorganized showing no on-street parking along Queen Street, only in behind. Infill south of Downtown looks to break up large existing industrial lots to introduce a finer grain of internal road network for improved connections. This also looks to intensify development along the roadway and infill behind buildings on underutilized lots. Note suggestive buildngs are based upon conceptual building siting and massing assumptions. These are not to be considered as actual development building infill. Each site will undergo a development application process, through the Town of Caledon, when development/ redevelopment is deemed necessary by the owner.

As properties come up for redevelopment there is an

CORRIDOR PLAN - FIGURE 8A

BOLTON - QUEEN STREET CORRIDOR STUDY - TOWN OF CALEDON
DESIGN CHARETTE - CENTENNIAL DRIVE TO EMIL KOLB PKWY

ADDITIONAL NOTES

1. major gateways entering Village
2. NO parking on Queen Street
3. cycling lanes
4. wider sidewalks
5. res/commercial mixed use infill
6. connections into Humber Valley
7. parking in rear blocks
8. major new public space in Village

HUMBER RIVER VALLEY

ELLWOOD MEMORIAL PUBLIC SCHOOL

POSSIBLE CYCLING LANES / PAVED SHOULDER

CYCLE TRACK

POSSIBLE CYCLING LANES / PAVED SHOULDER

FAIRGROUNDS

BRIDGE UPGRADE/ GATEWAY

CIVIC SQUARE

INTERSECTION UPGRADE/ GATEWAY

DALE ST
BEAVER AVE
BEAVER CRT
KINGSVIEW DR
CRESTWOOD RD
LITTLE CRT
HUMBER LEA RD
SHERIN CRT
FOREST CRT
BIRCHVIEW CRES
ALBERT ST
VICTORIA ST
JAMES ST
CHERRY LANE
HEMLOCK ST
MEADOWVALE CRT
BELL AIR DR
MILL ST
ELM ST
CHAPEL ST
LYDIA CRT
HAINES DR
NORTON BLVD
DOWNEY DR
LEAVENS CRT
QUEEN ST N
QUEEN ST S
CENTENNIAL DR
GLASGOW RD
ANN ST
NANCY ST
ELIZABETH ST
SHORE ST
OAK ST
ELLWOOD DR W
MARTHA ST
PEARL ST
SACKVILLE ST
HESP DR
CONNAUGHT CRES

LEGEND

- potential infill footprint
- land
- oposed open spaces
- cultural core area
- active core area
- gateways
- ing parking
- park
- no
- ycling track
- ycling lanes
- and sidewalk
- ages
- c
- c
- trail
- internal circulation
- link

CORRIDOR PLAN FIGURE 8B

BOLTON - QUEEN STREET CORRIDOR STUDY - TOWN OF CALEDON
DESIGN CHARETTE - ELLWOOD DRIVE TO CENTENNIAL DRIVE

0 62.5 125 250 375 500 Meters

ADDITIONAL NOTES

1. new ped. bridge at rail tracks
2. mix of cycling infrastructure
3. buildings closer to the street
4. periodic public spaces at street
5. parking in the side or rear
6. complete commercial renewal
7. res/commercial mixed use infill

ELLWOOD MEMORIAL PUBLIC SCHOOL

ELLWOOD MIXED USE RENEWAL

POSSIBLE CYCLING LANES / PAVED SHOULDER

CYCLE TRACK

NEW BRIDGE GATEWAY

HUSKY CAMPUS

PUBLIC COURTYARDS

INTERSECTION GATEWAY

BELL AIR DR
MELLOW CRES
ROYAL TERRACE CRES
KING ARTHURS CRT
FOUNTAINBRIDGE DR
PRESCOTT DR
CORSHAM PL
WHITBREAD AVE
QUEENSGATE BLVD
WOOD CIR
HANTON CRES
MCCREARY TRAIL
SHEARDOWN TRAIL
ERNEST BIASON BLVD
ELLWOOD DR E
ALLAN DR
SMITH CRT
LANDSBRIDGE ST
JOLLEY CRT
STELLA CRES
LYDIA CRT
DOWNEY DR
LEAVENS CRT
QUEEN ST S
HWY 50
FIFTH SIDE RD
SHORE ST
ELLWOOD DR W
MARTHA ST
OAK ST
PEARL ST
WILTON DR
LEONARD ST
WILLIAM ST
HENDERSON ST
MARTHA CRES
STEPHEN DR
RIDGE RD
RAIL LINE RR
HARDWICK RD
HEALEY RD
POLENTA CRES

LEGEND

- gateways
- parking
- no parking
- ycling track
- ycling lanes
- and sidewalk ages
- trail
- internal circulation
- potential infill footprint
- land
- oposed open spaces
- active core area

0 62.5 125 250 375 500 Meters

CORRIDOR PLAN - FIGURE 8C

BOLTON - QUEEN STREET CORRIDOR STUDY - TOWN OF CALEDON
DESIGN CHARETTE - RAIL CORRIDOR TO ELLWOOD DRIVE

ADDITIONAL NOTES

1. intersection gateway at McEwan
2. bioswales along street
3. new ped. bridge over rail tracks
4. office/retail mixed use infill
5. cycle track
6. sidewalk connection to south

ERNEST BIASON BLVD
PAVIN CRES
ALBIWOODS TRAIL
LADY GODIVA DR
FRUSTAC TRAIL
SHEARDOWN TRAIL
MCCREARY TRAIL
HANTON CRES
LANDSBRIDGE ST
STELLA CRES
RAIL LINE RR
FIFTH SIDE RD
COMMERCIAL RD
MCEWAN DR E
INDUSTRIAL RD
HWY 50
HARDWICK RD
HEALEY RD
MCEWAN DR W
LORING DR
NIXON RD
PILLSWORTH RD

INTERSECTION GATEWAY

CYCLE TRACK
SIDEWALK
CONNECTION

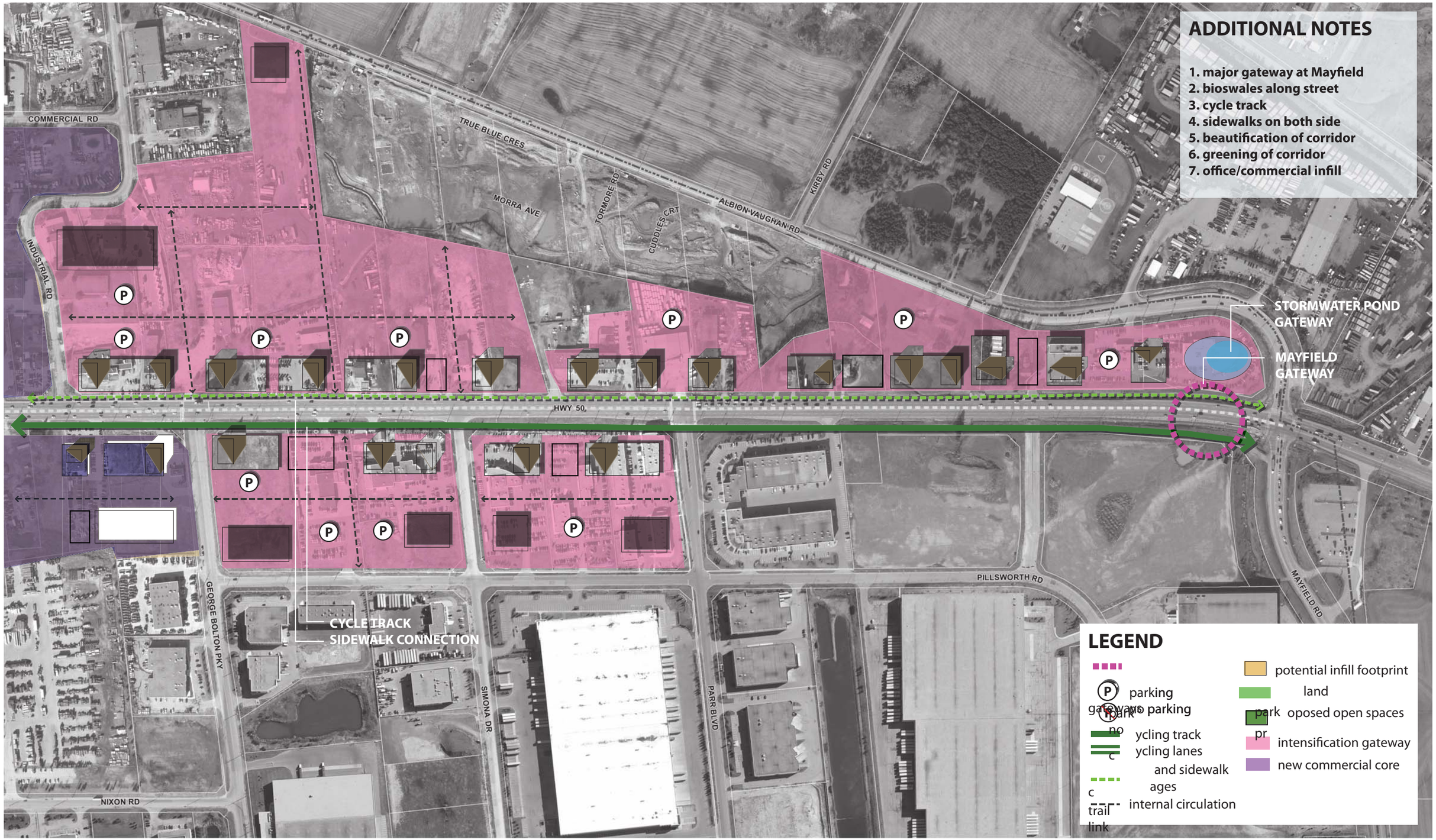
LEGEND

- gateways
- parking / no parking
- cycling track
- cycling lanes
- sidewalk and sidewalk connections
- internal circulation
- trail link
- potential infill footprint
- parkland / proposed open spaces
- active core area
- intensification gateway
- new commercial core

0 62.5 125 250 375 500 Meters

CORRIDOR PLAN - FIGURE 8D

BOLTON - QUEEN STREET CORRIDOR STUDY - TOWN OF CALEDON
DESIGN CHARETTE - GEORGE BOLTON PKWY. TO RAIL CORRIDOR



CORRIDOR PLAN - FIGURE 8E

BOLTON - QUEEN STREET CORRIDOR STUDY - TOWN OF CALEDON
DESIGN CHARETTE - MAYFIELD RD. TO GEORGE BOLTON PKWY.

opportunity to gain open space through the design process. The Corridor Plan also denotes areas where, in association with new development, there are opportunities to provide new privately owned, publically accessible open space that faces out onto the Queen Street / Highway 50 corridor.

Lastly, the Corridor Plan outlines the proposed implementation of the active transportation network, showing where there is a dedicated cycle track versus cycling lanes due to constraints. The cycle track is proposed north of the Humber River to Columbia Way connecting the stable residential neighbourhood to the corridor, and south of Queens Gate Boulevard, continuing on to Mayfield Road. Cycling lanes are shown throughout and leading into the Downtown between the Humber River and Queensgate Boulevard as these areas have a narrower right-of-way, are more constrained and have more areas of interest on either side of the road. Stemming from this main active transportation spine are secondary connections in the form of trails and sidewalk linkages into the communities on either side which helps to connect the network not only north-south but east-west throughout the Bolton corridor.

The suggestion of locating a commuter rail station on the south side of rail line on the East side of Queen Street/Highway 50 was raised during the public consultation process, as this location was seen as in support of the adjacent residential, commercial and industrial uses. However, the rail feasibility study completed by Metrolinx and endorsed by both the Region of Peel and Town of Caledon Councils has already identified a preferred location adjacent to King St. and Humber Station Rd. Taking these overall interventions, six locations were chosen to explore through cross sections. Through these cross sections the two scenarios are illustrated and discussed in the sections following. The progression of existing conditions, to active transportation to public realm scnearios are depicted in ***Figures 9-14.***

6.2 ACTIVE TRANSPORTATION SCENARIO

The active transportation scenario looks at largely maintaining the current configuration of the roadway. The approach uses simple changes to the corridor to advance the goals of introducing active transportation along the Queen Street corridor.

Where the cycle-track is proposed, the design works within the existing public right-of-way where it is at its widest to provide a dedicated cycle-track for commuter and recreational cycling as well as provision of sidewalk facilities for pedestrians.

In areas where there are more constraints such as in the Downtown and at the rail corridor, the interventions are more involved to accommodate the new facilities. The cross sections for the Downtown also investigate an asymmetrical roadway alignment versus the traditional symmetrical layout for more variation.

As further work is completed, through additional studies and the EA process to prelude any major road reconstruction, cycling and pedestrian features to support active transportation should be considered. This would include the location of cycling racks and storage, benches and receptacles, as well as lighting, and wayfinding/signage. Site furnishings and amenities must be determined on a more detailed level and be contextually aligned, as the corridor is highly diverse.

6.3 PUBLIC REALM SCENARIO

In contrast to the active transportation scenario, the public realm priority approach also looks to advancing active transportation goals along the corridor while at the same time making significant improvements to the public realm and improving the aesthetics of the streetscape. These interventions include: landscaping treatments, more intensive planting such as street trees, dedicated planting beds/planters, street furniture, signage, and other formalized treatments to support the adjacent uses.

This scenario looks to make changes to the width and composition of the roadway. There is a more aggressive shift from the existing condition in some locations to advance the vision for the corridor and fully realize the streetscape and public realm beautification.

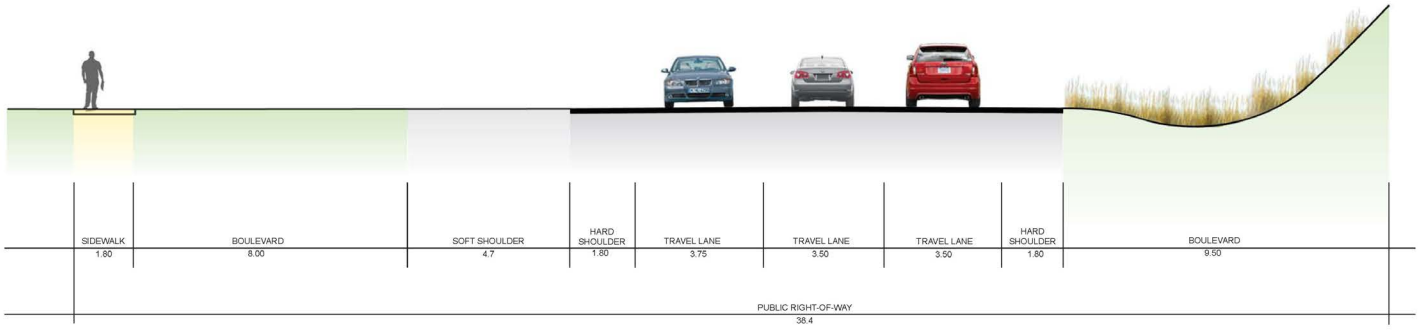


FIGURE 9a
Existing Cross Section Between Emil Kolb Parkway and the Downtown Core

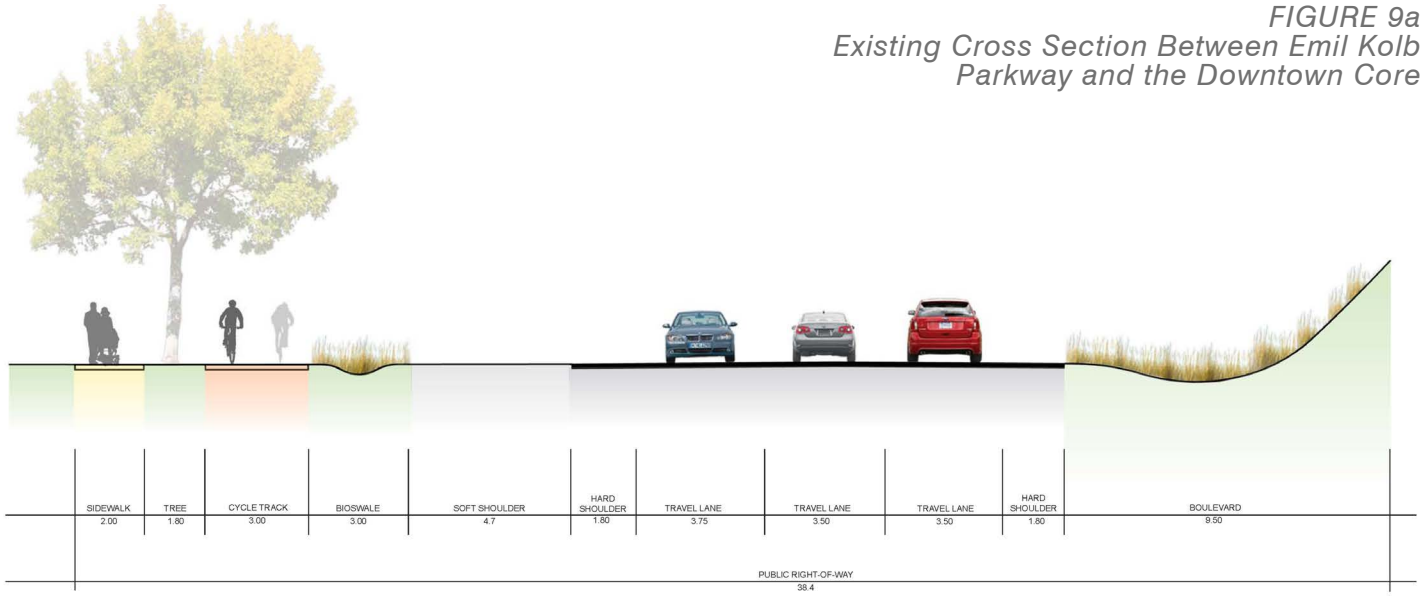


FIGURE 9b
Active Transportation Priority Scenario Cross Section Between Emil Kolb Parkway and the Downtown Core

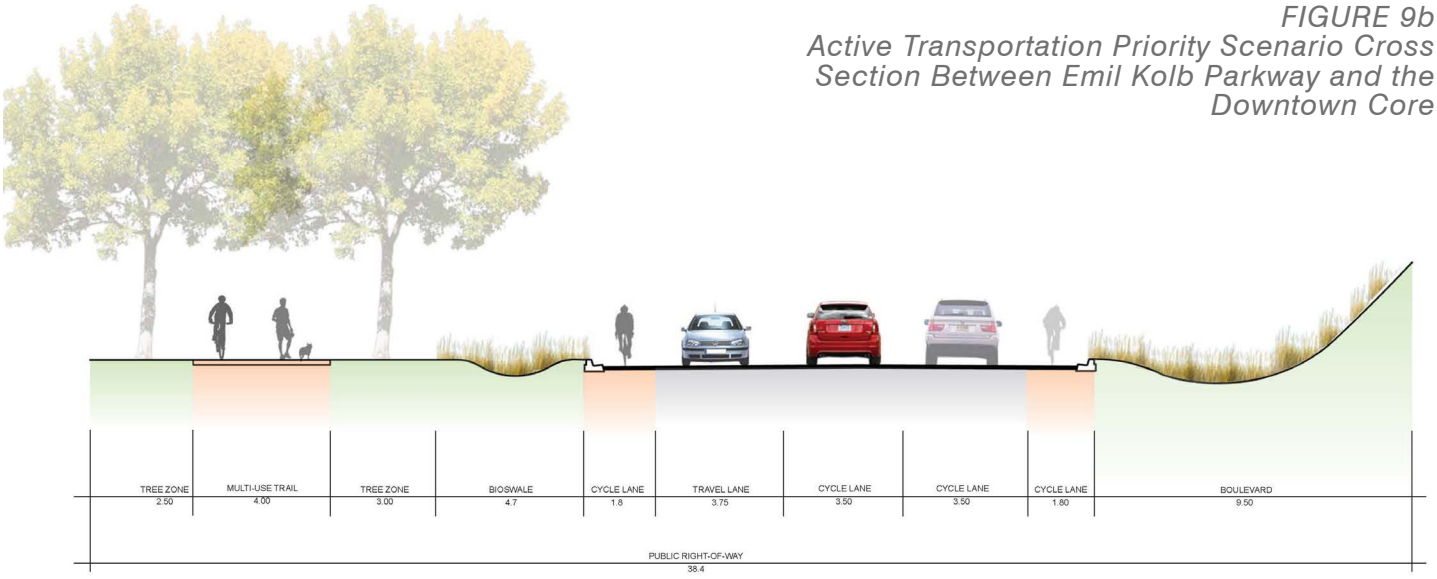


FIGURE 9c
Public Realm Priority Scenario Cross Section Between Emil Kolb Parkway and the Downtown Core

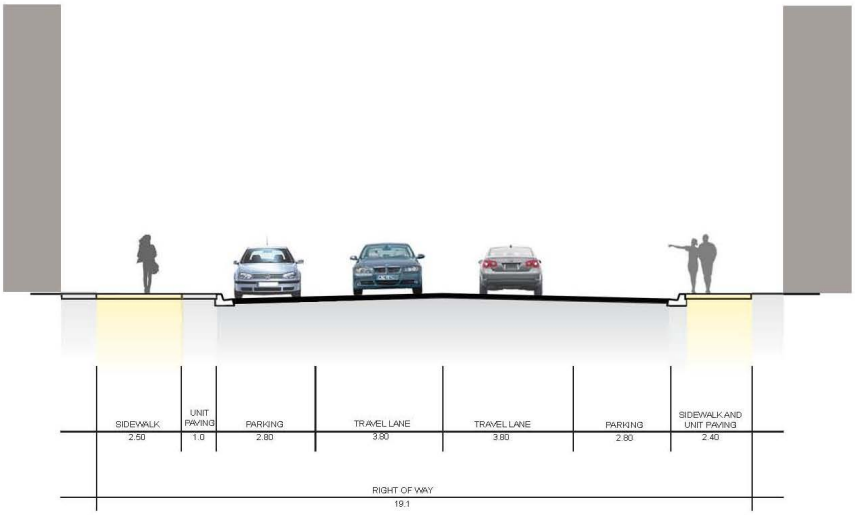


FIGURE 10a
Existing Cross Section in the Downtown Core

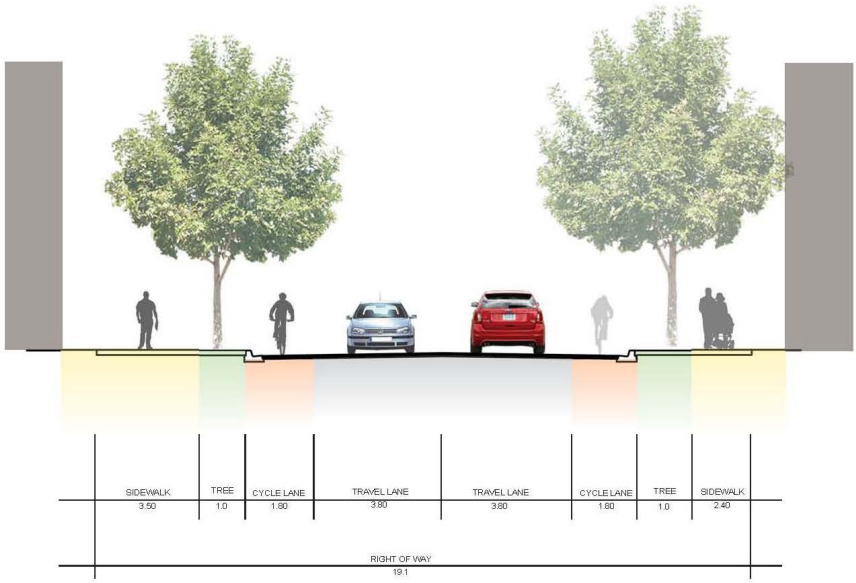


FIGURE 10b
Active Transportation Priority Scenario Cross Section in the Downtown Core

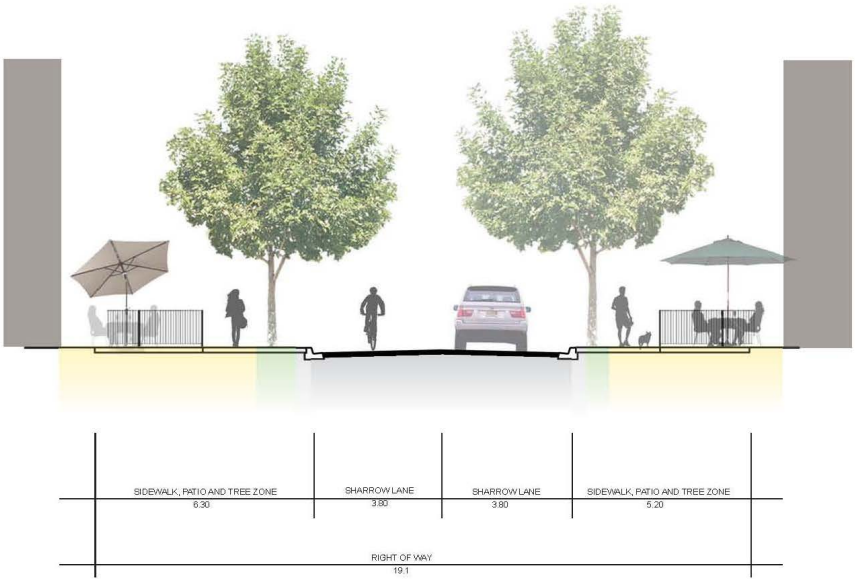


FIGURE 10c
Public Realm Priority Scenario Cross Section in the Downtown Core

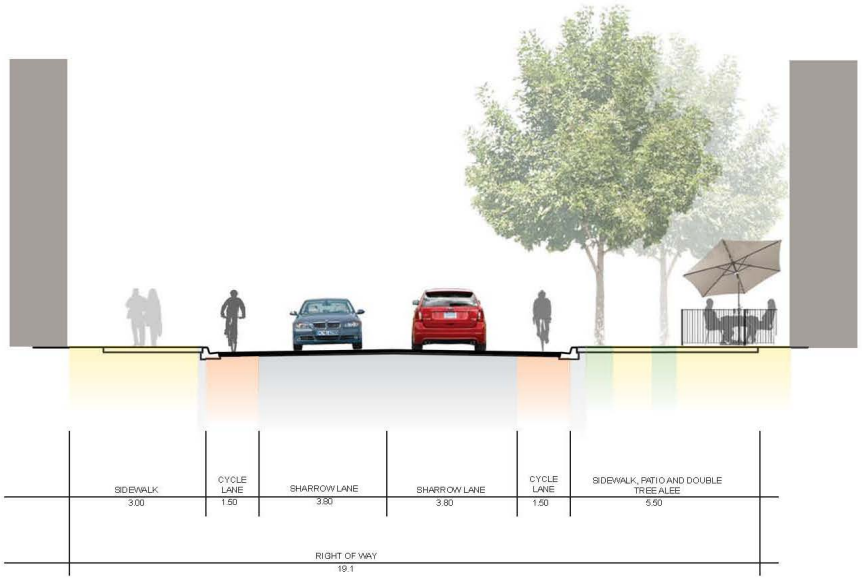


FIGURE 10d
Asymmetrical Active Transportation Priority Scenario Cross Section in the Downtown Core

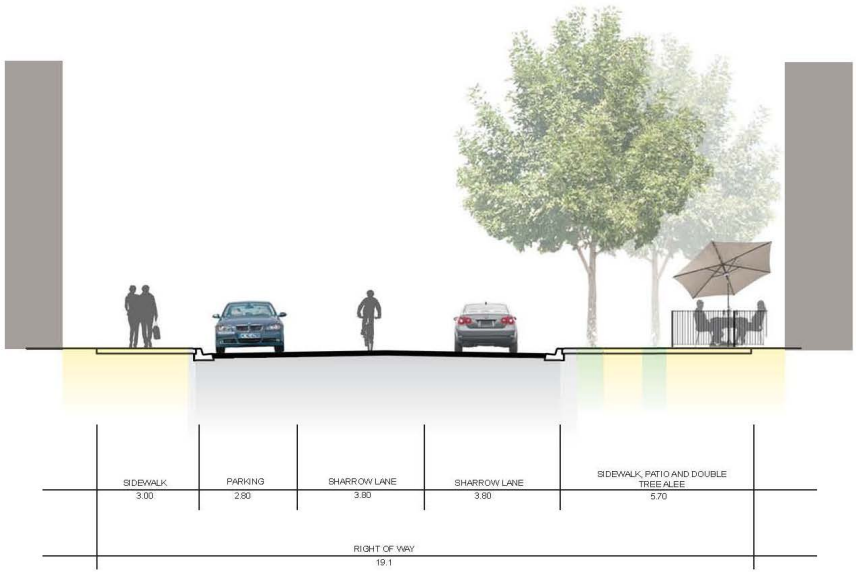


FIGURE 10e
Asymmetrical Public Realm Priority Scenario Cross Section in the Downtown Core

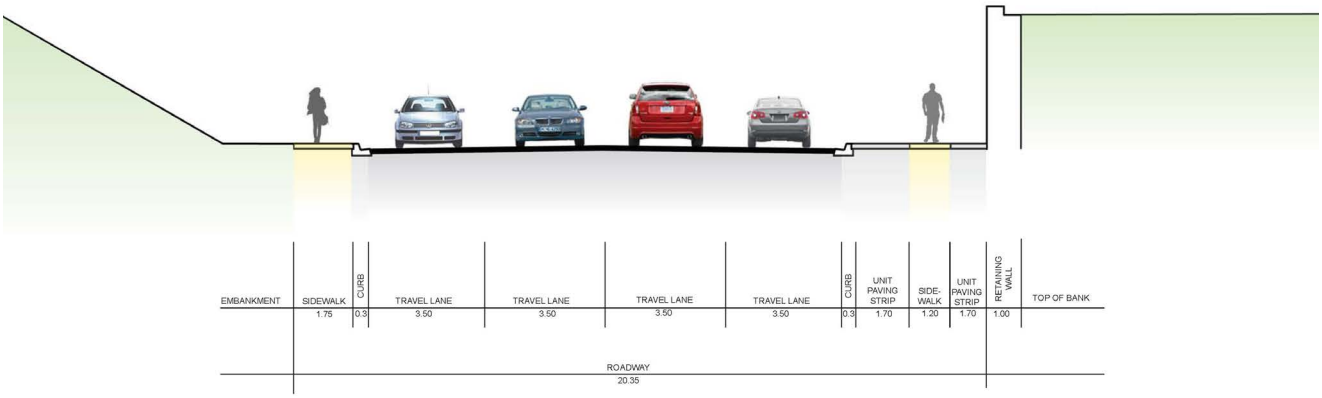


FIGURE 11a
Existing Cross Section South of Elizabeth Street

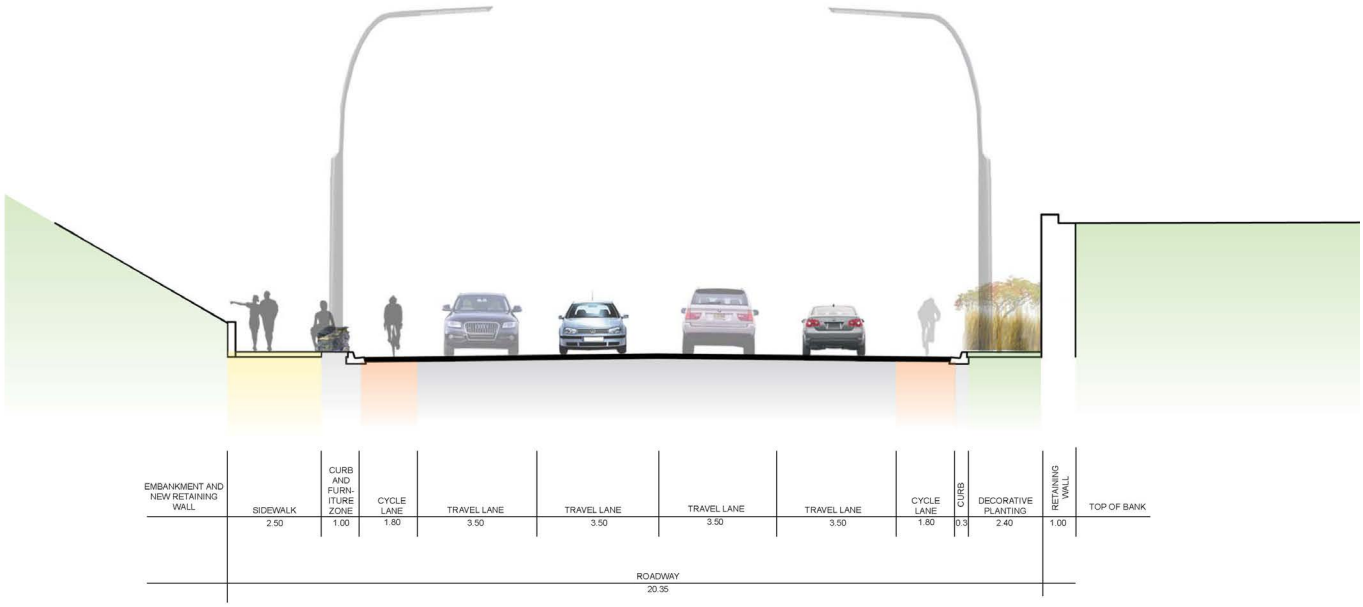


FIGURE 11b
Active Transportation Priority Scenario
Cross Section South of Elizabeth Street

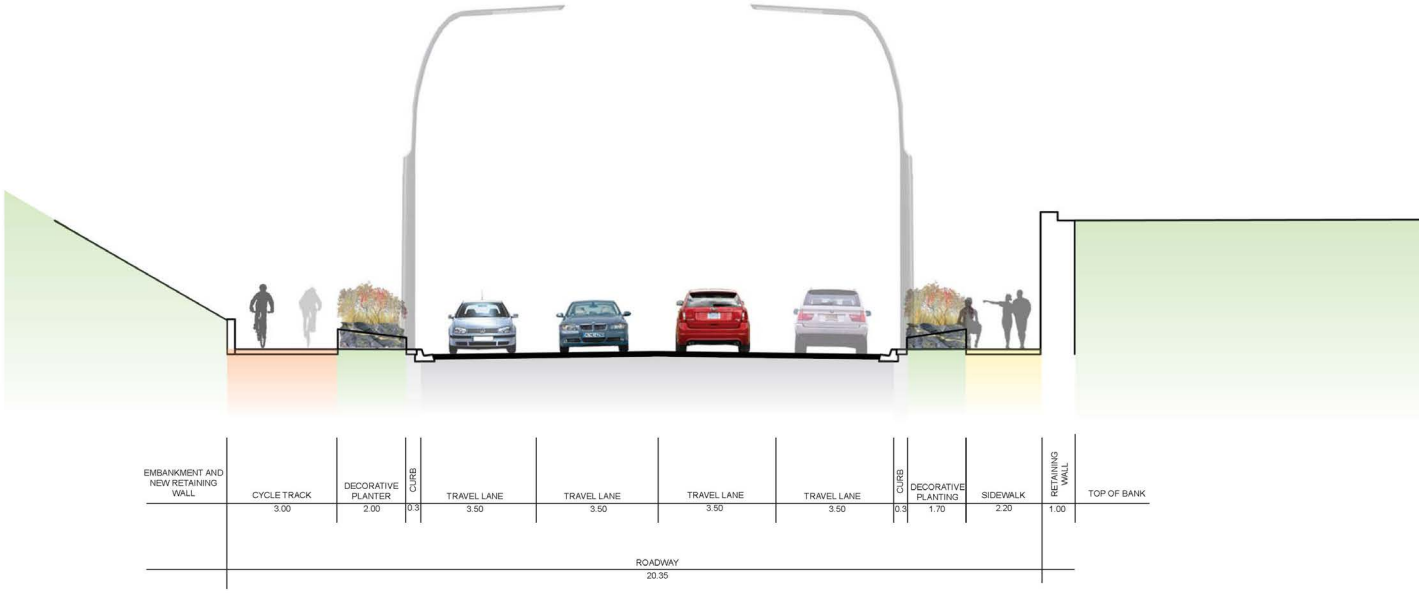


FIGURE 11c
Public Realm Priority Scenario
Cross Section South of Elizabeth Street

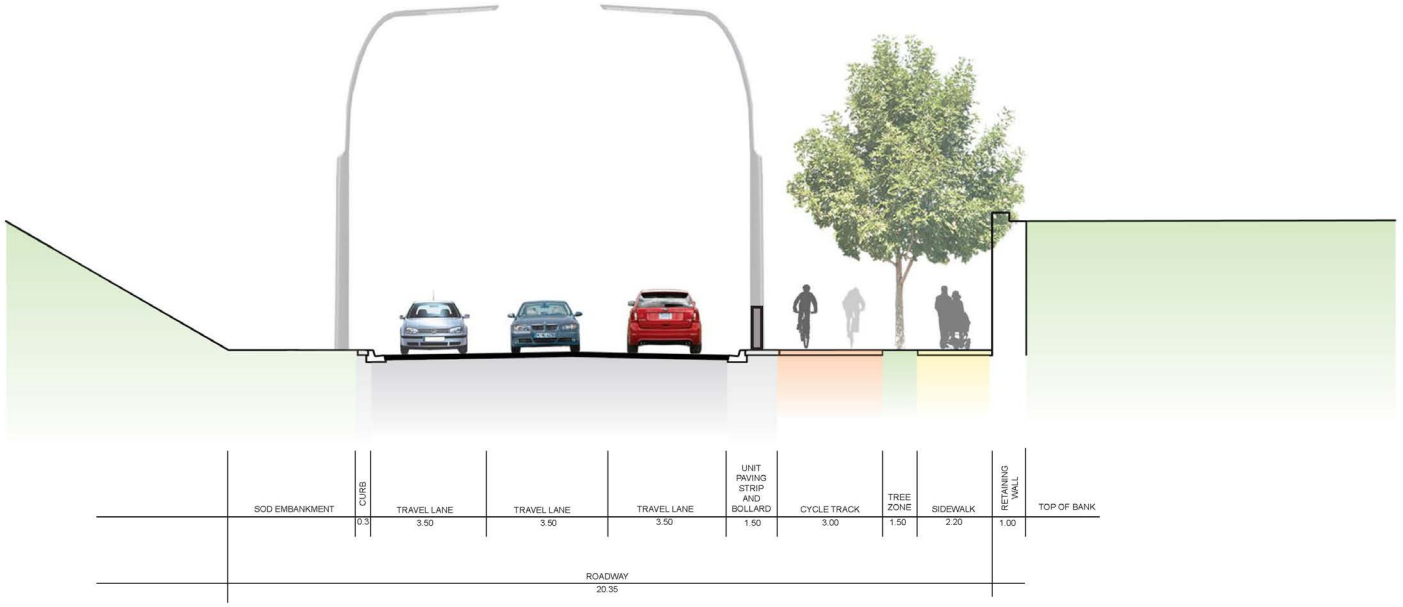


FIGURE 11d
Asymmetrical Active Transportation Priority
Scenario Cross Section South of Elizabeth Street

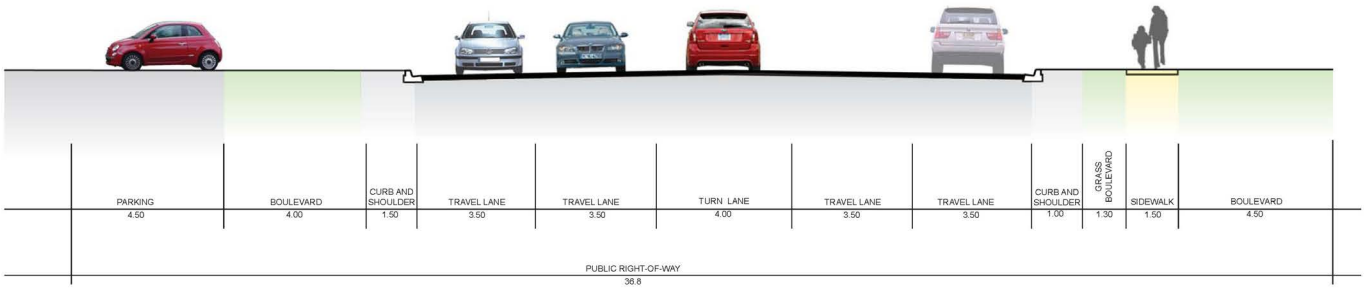


FIGURE 12a
Existing Cross Section Between Railway Bridge and Ellwood Drive

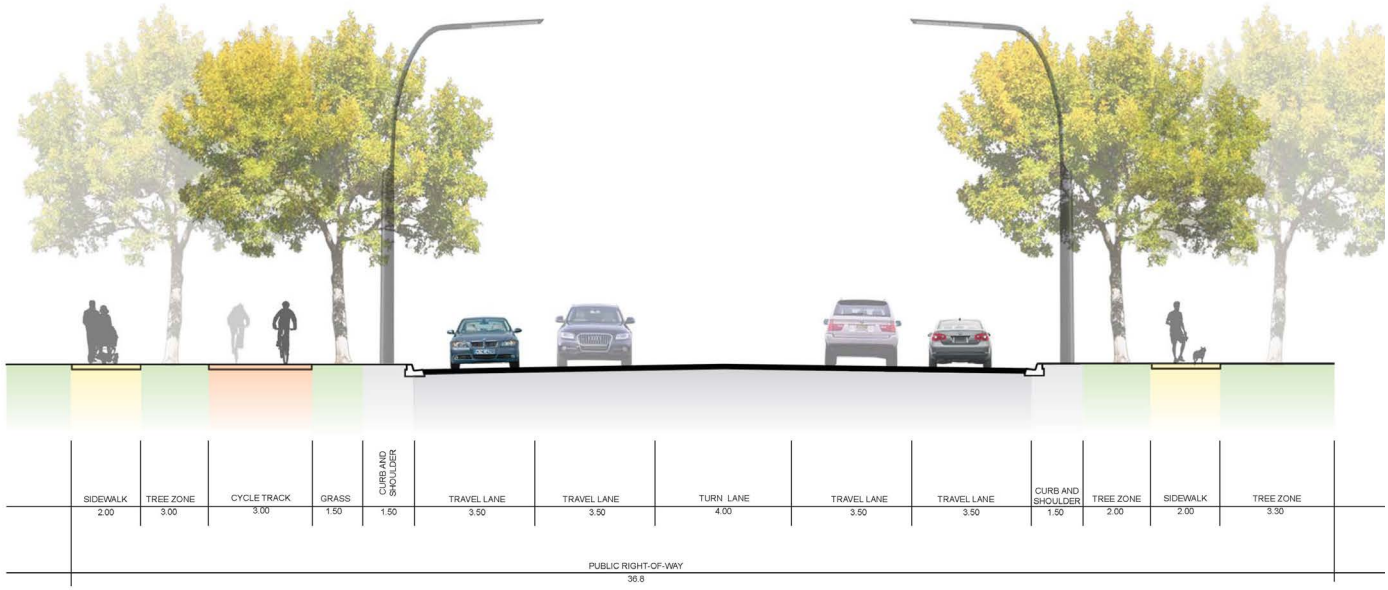


FIGURE 12b
Active Transportation Priority Scenario
Cross Section Between Railway Bridge and Ellwood Drive

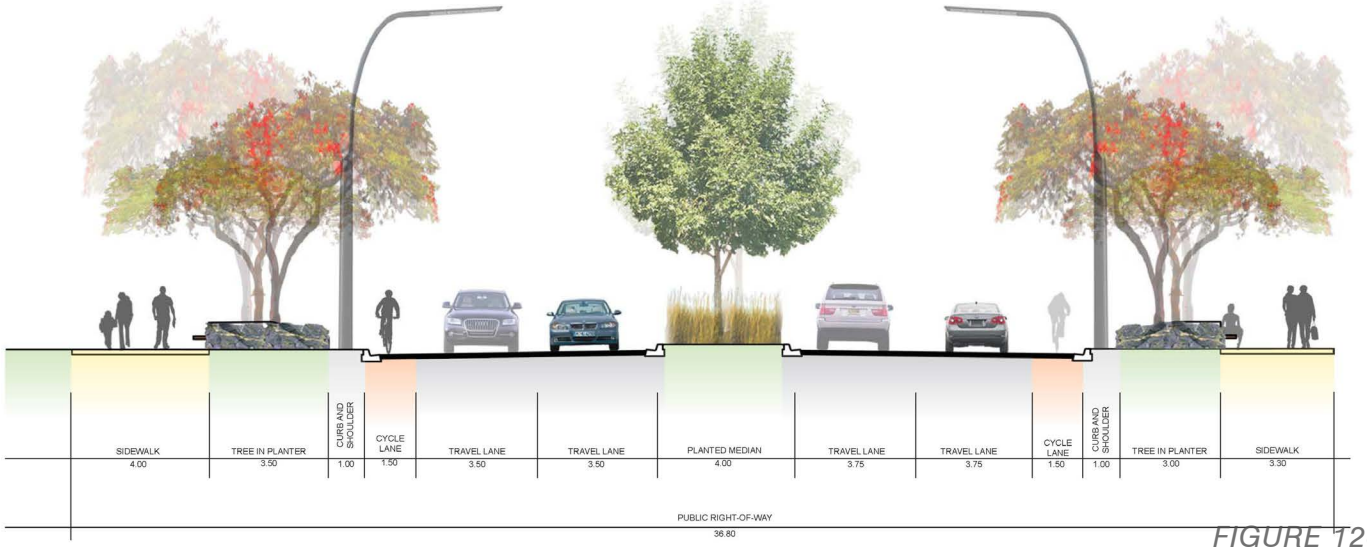


FIGURE 12c
Public Realm Priority Scenario
Cross Section Between Railway Bridge and Ellwood Drive

FIGURE 13a
Existing Cross Section at Railway Bridge

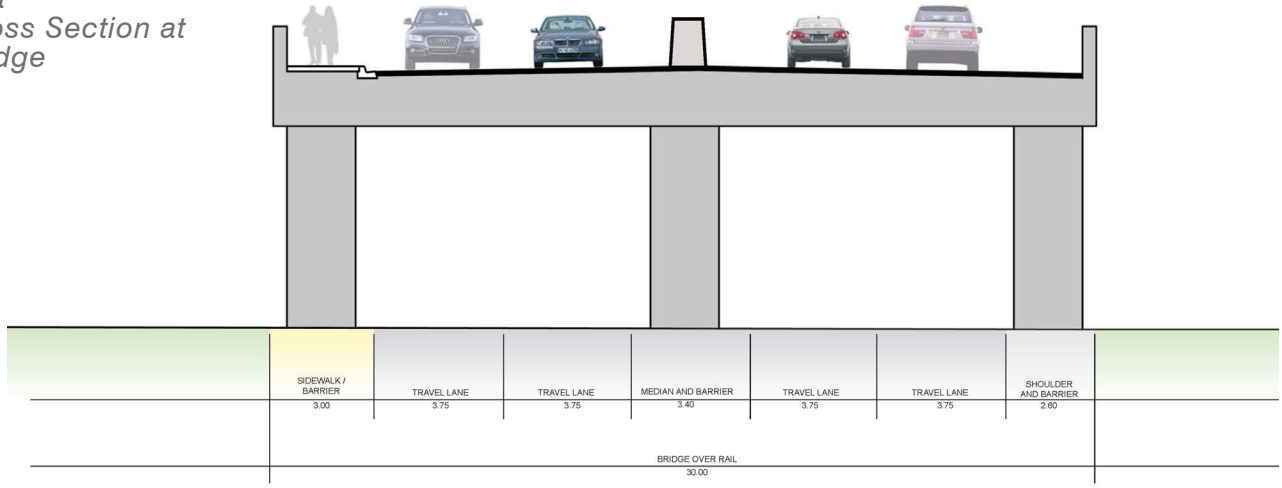


FIGURE 13b
Active Transportation Priority Scenario at Railway Bridge

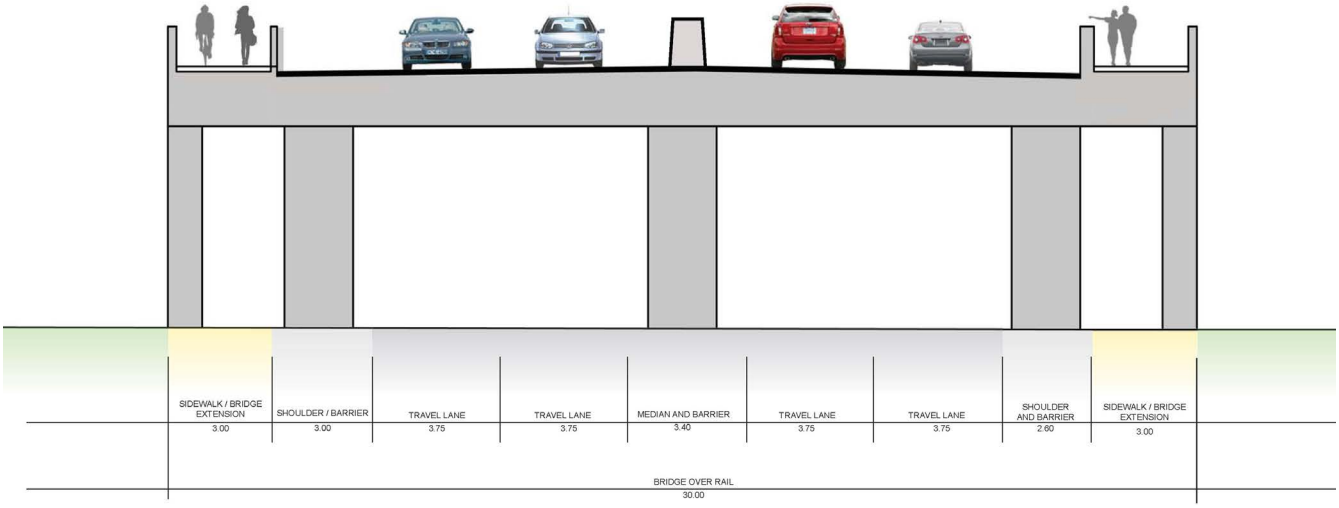
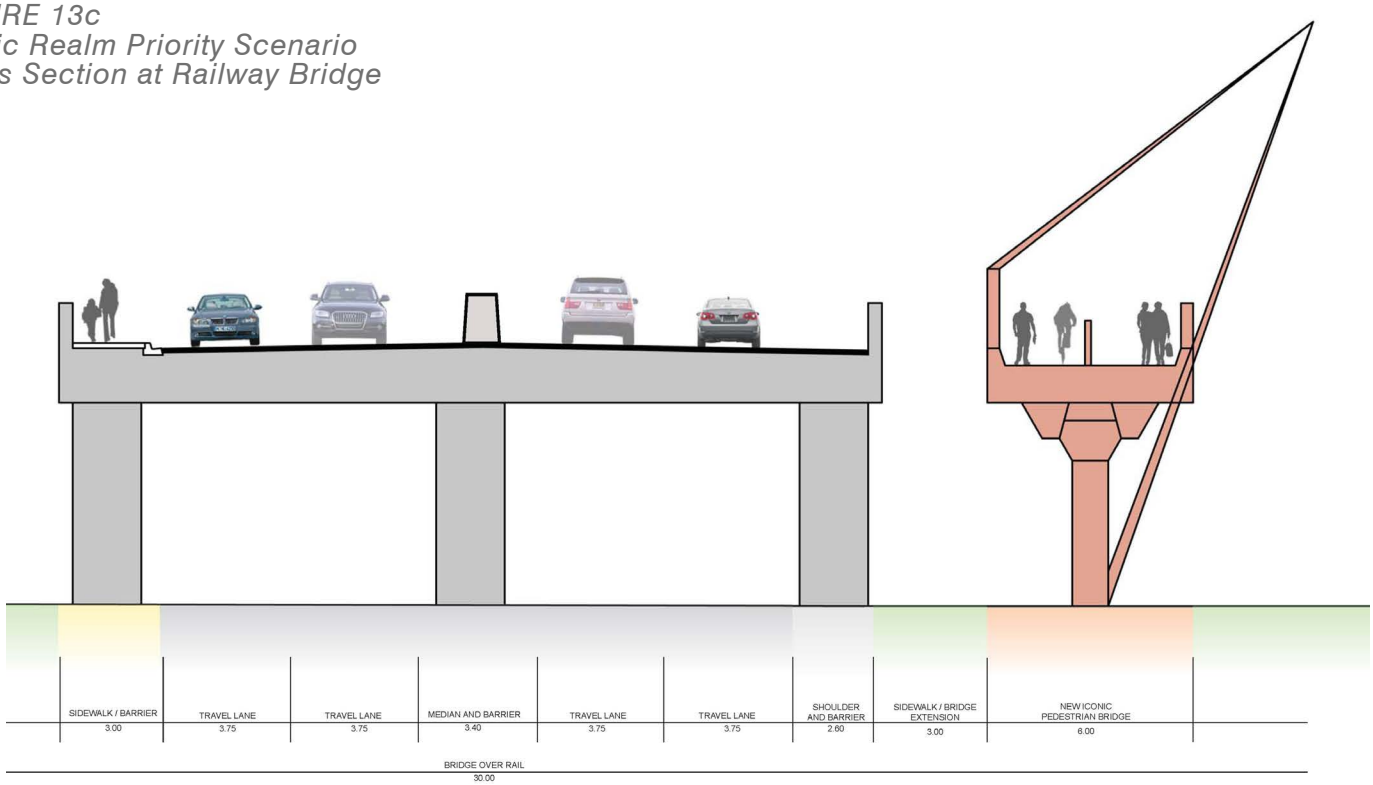


FIGURE 13c
Public Realm Priority Scenario Cross Section at Railway Bridge



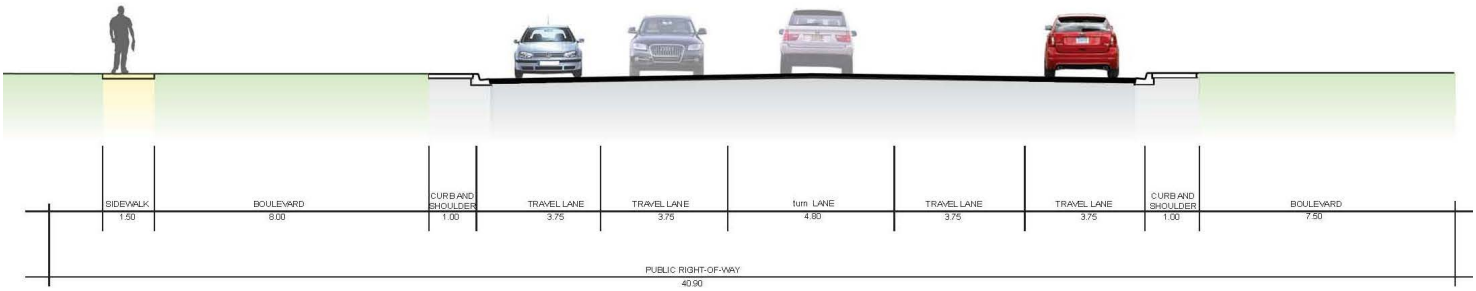


FIGURE 14a
Existing Cross Section Between George Bolton Parkway and Mayfield Road

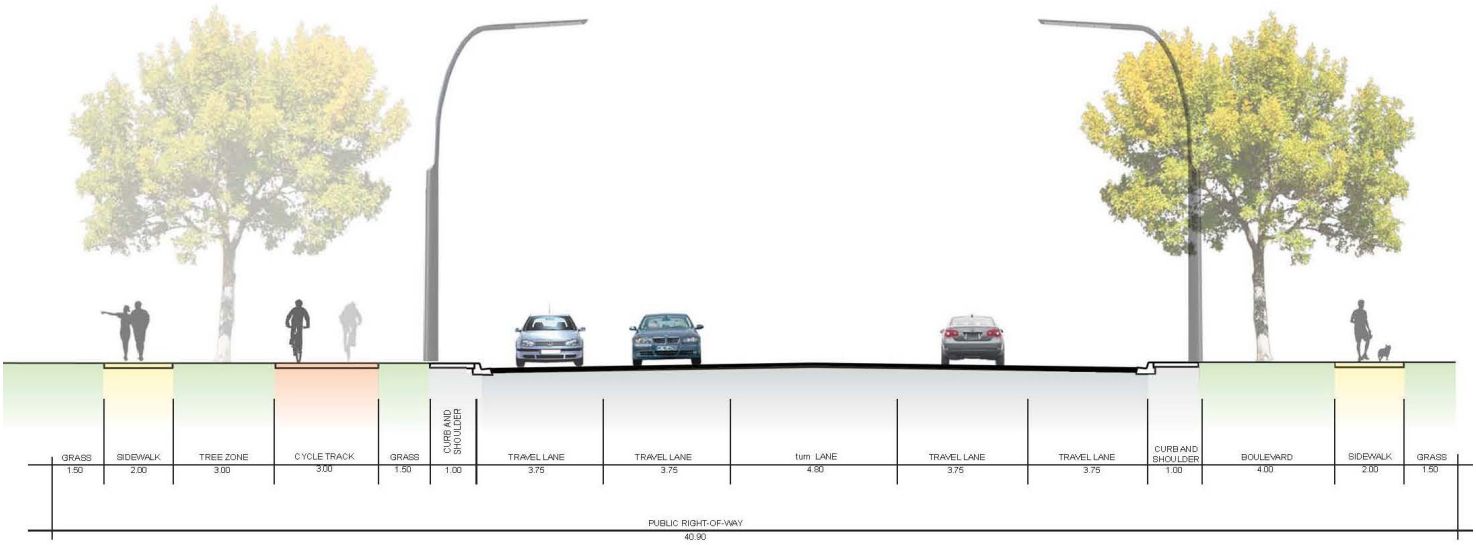


FIGURE 14b
Active Transportation Priority Scenario Cross Section Between George Bolton Parkway and Mayfield Road

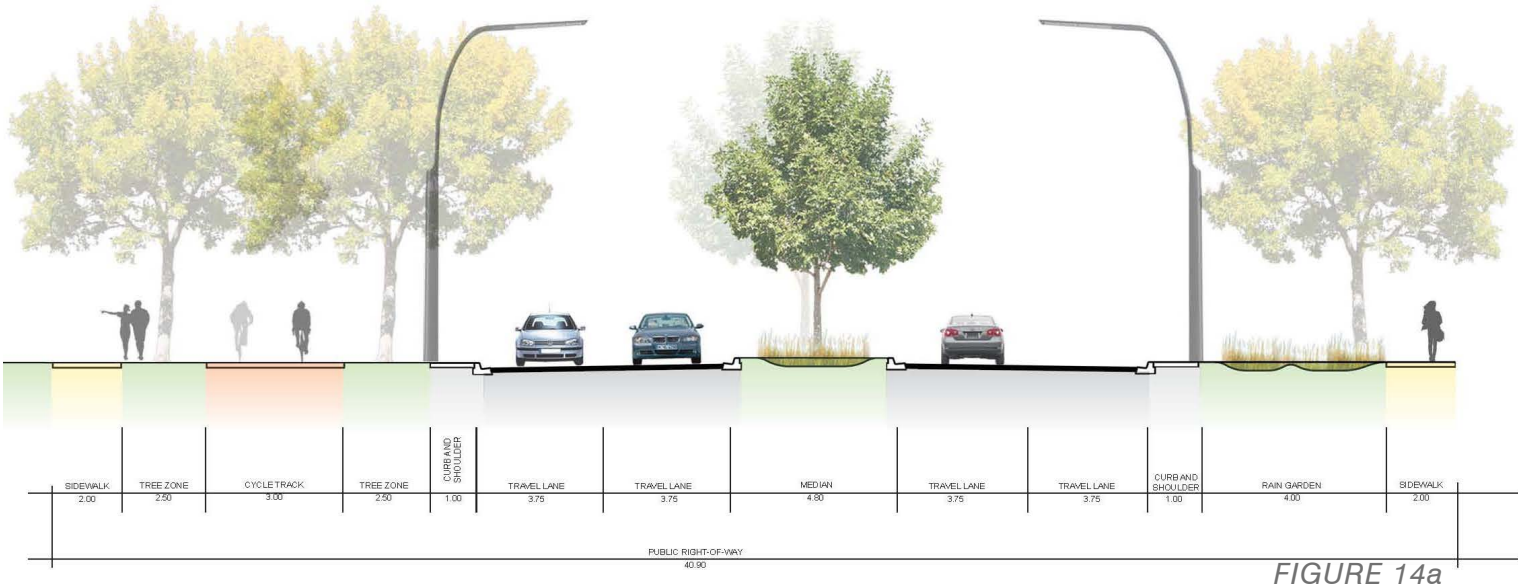


FIGURE 14a
Public Realm Priority Scenario Cross Section Between George Bolton Parkway and Mayfield Road


CONSTRUCTION
ZONE
ENDS

7.0 DIGITAL FLY-THROUGH COLLECTION

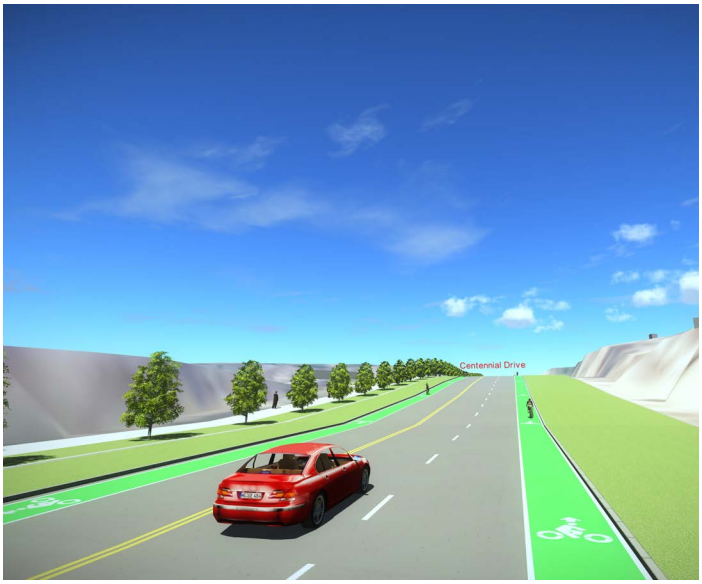
The final deliverable of this project was a ground breaking group of digital fly-through animations which later allowed us to create "immersive" experiences for users and provide online access to this work. This approach was a pilot exercise which assisted in our ability to create new and exciting ways to present city building projects. In many ways the Queen Street Corridor Study provides an advanced lens to which multiple Scenarios can be tested and measured against physical metrics of the site. This platform and base line information is provided to the Town, and as the corridor develops and changes, this information can be applied to create an interactive and adaptable digital model. The following describes the technical approach to this deliverable.

Esri CityEngine was used to create a large-scale 3D city model of the community of Bolton. This model was procedurally constructed using a rule-based programming language, Computer Generated Architecture (CGA), to automatically generate 3D models from the Town's existing 2D Geographic Information System (GIS) data. The 3D terrain was accurately modeled using contours lines, representing topographical relief and textured with 2015 aerial imagery. Other features including roads, buildings, and vegetation were generated as "geosimilar" 3D models, representing an approximation of real-world features. For example, 3D buildings were procedurally modeled from their related 2D footprint layer and extruded to an approximate height and roof form based on their land use designation.

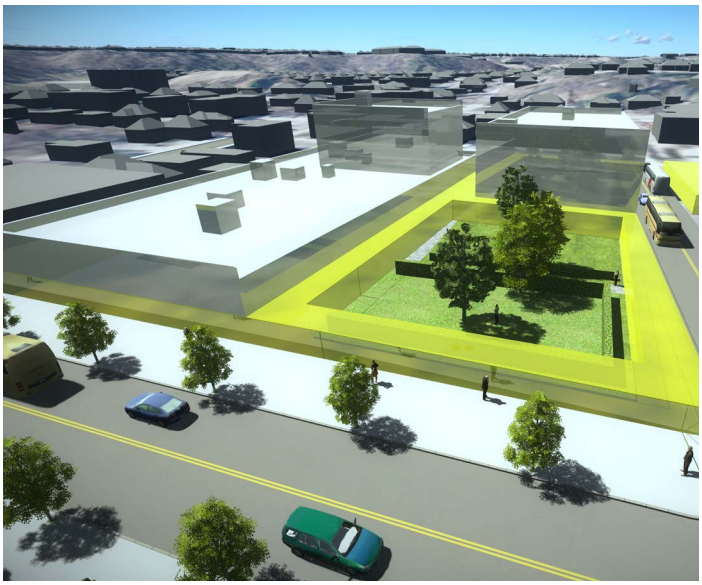
The 3D city model was then published online as an interactive 3D web scene, giving the urban design team powerful 3D analysis tool to explore the Queen Street corridor. Through extensive public consultation and 3D analysis, the team developed a series of cross-section design options. These options were inputted into CityEngine via a "Complete Street" rule package that interpreted road parameters and procedurally constructed 3D street features. This process created parking lanes, boulevards, curb and shoulders, travel lanes, sidewalks and bicycle paths. Using the Town's existing road centerline, all of the 3D street features were positioned to their correct offset location, respecting the maximum available road right-of-way limit.

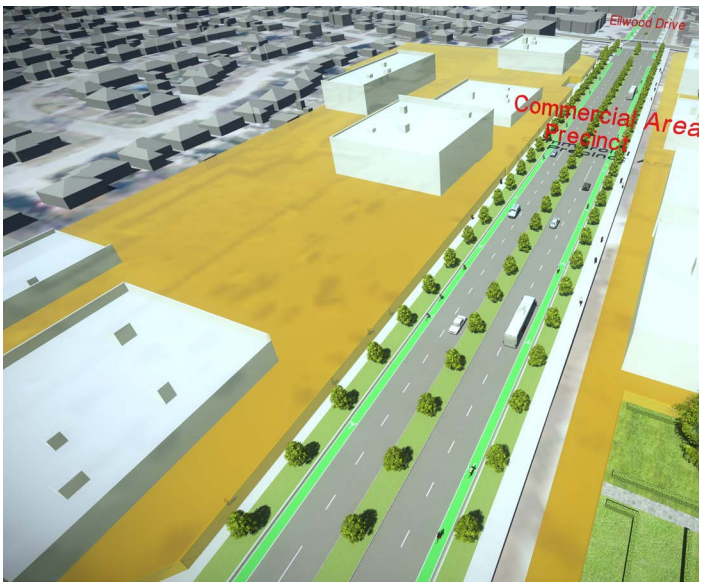
A series of 3D fly-through animations were created using Bentley LumenRT. This cinematic real-time rendering software enhanced the visuals of the CityEngine model by integrating animated traffic, moving pedestrians, wind-swept plants and realistic skies. Two fly-through animations were generated for each scenario, including one from a ground or diving perspective and the other from a bird's eye view. A 360-degree spherical video was generated for the downtown area enabling viewers to control the viewing direction of the camera. The 360-degree video was loaded into a Virtual Reality headset and made available to the public to experience at the September 2018 Public Open House. This allowed participants to fully immerse themselves in the proposed street cross-section and to experience it from a pedestrian perspective.


King Street


Centennial Drive


Parr Boulevard




Ellwood Drive
Commercial Area
Precinct

8.0 NEXT STEPS

Following the conclusion of the Queen Street Corridor Study, it is the hope that recommendations made through the options will help inform next steps in infrastructure renewal projects and other studies which directly or indirectly impact the corridor. It is incredibly important to note that public engagement is critical in the successful implementation of the recommendations for this Study. Each recommendation stated below should include robust and engaging public consultation to continue to facilitate discussions with the public and stakeholders as part of future decision making processes. Also a more detailed study of the current and potential infrastructure needs should be provided, in order to assist the Town and Region in developing an implementable solutions moving forward.

PRIMARY RECOMMENDATION

Of these recommendations the most important and time sensitive work should be to conduct a *Municipal Class Environmental Assessment (EA) of the Downtown Section of the Queen Street Corridor*. In order to yield the most holistic solution, the Region and Town should initiate this project together as it includes local planning and design improvements as well as wider impacting infrastructural investments. This comprehensive look at improving Queen Street through the Downtown can be the appropriate avenue to consensus building on a multitude of issues which hinder the potential of creating a vibrant and active space in Bolton. The EA process is also well suited to address technical issues on a more detailed level, which will help create tangible solutions beyond policy. The aging nature of the infrastructure requires improvements that are aligned with contemporary building practices and can account for climate change resiliency. The formal design of the streetscape can better attenuate to the constraints of the renewed infrastructure and present options that support a better street underground and beautiful street above ground. At a minimum the EA should include:

- Functional Engineering and Design
- Streetscape Design Options
- Engagement Strategy
- Parking Study of the Downtown Area
- Climate Change Analysis
- Servicing Plan
- Bridge Assessment and Hydrological Study
- Cost Estimates

Through the resolution of this work and Region and Town would be in much better place to initiate the *detailed design and construction* of the corridor, while also assessing phasing impacts. This suggested recommendation is focused on the Downtown portion of the corridor however considerations should include extension of the study area, beyond the Downtown, if appropriate. If the Queen Street Corridor Study includes a more extensive look at other parts of the corridor it is important to recognize that many variables will change, based upon context and design sensitivity. The overall corridor changes dramatically and therefore an EA would need to recognize the diversity of a wider scoped project.

SECONDARY RECOMMENDATIONS

Other recommendations which should be considered relate largely to providing more clarity to the design and planning policies surrounding Bolton itself. Many of the existing Secondary Plans should be updated and integrated within the updated Official Plan. New Secondary Plans and other initiatives/studies can help to build a "vision" for Bolton and the Queen Street Corridor. These recommendations could include:

- Secondary Plan for the Highway Employment Area (as outlined in this study)
- Secondary Plan for the Highway Commercial Area (as out lined in this study)
- Gateway and Public Arts Strategy
- Design Competition for a New Pedestrian Bridge over the Rail Corridor

ONGOING CONSIDERATIONS

It is important to note that many of these recommendations also will require joint jurisdictional management. Recommendations to the formal infrastructural components to the corridor, including the roadway and bridges, should be led by the Region, while planning studies, such as secondary plans, and cultural heritage studies should be led by the Town. However it should be noted that both the Region and the Town must work in close collaboration with each other and all efforts for the results of these recommended studies be formally integrated into the Official Plans of both jurisdictions. This will assist in decision making and anticipated priorities for future investment.

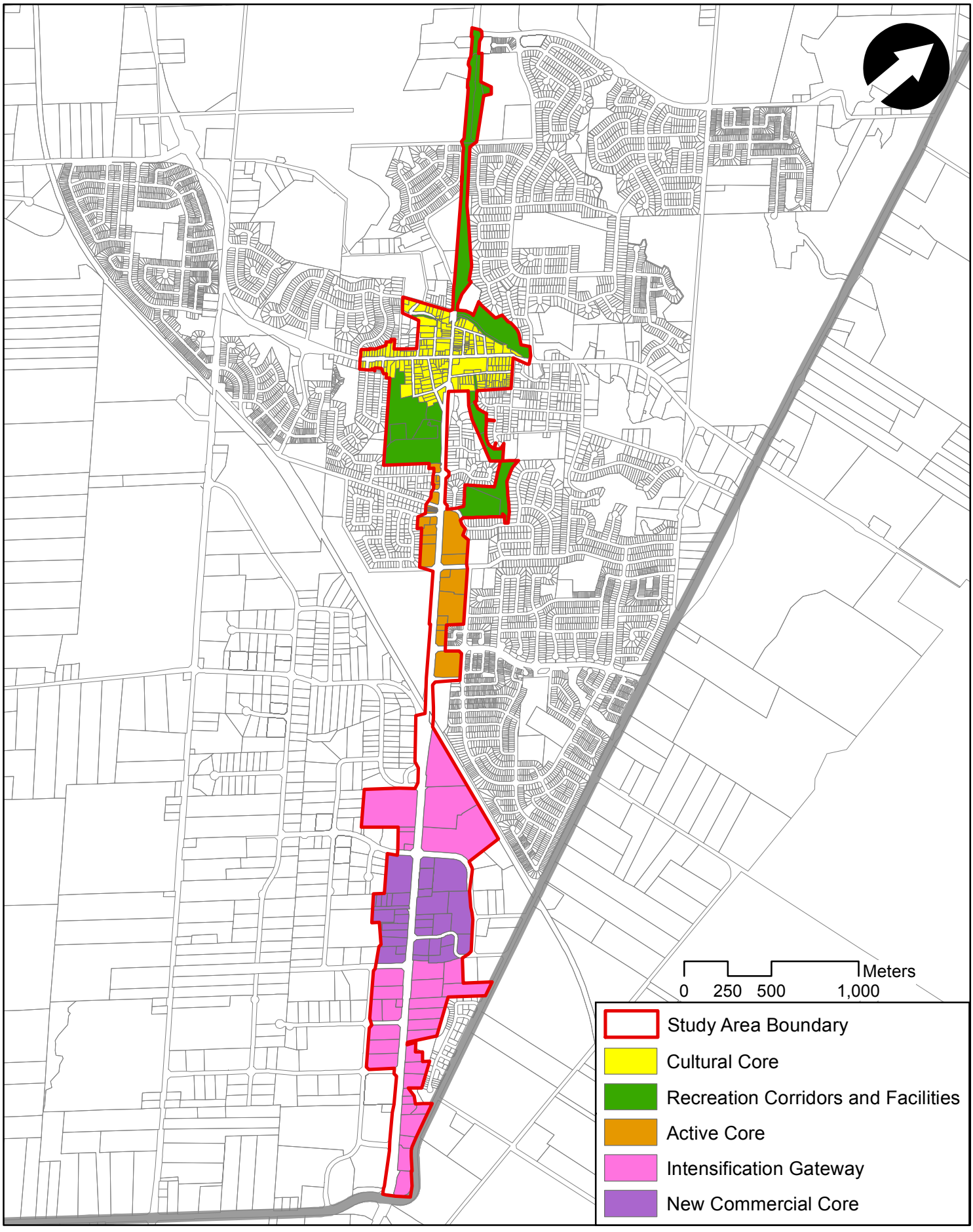
Concurrent work is also being completed by the Region of Peel which will impact the corridor in the near future. The Peel Sustainable Transportation Strategy "Walk + Roll" Studies are in the process of being developed. All future work within the corridor must follow the recommendations of these Strategy including the ongoing development of the:

- Sustainable Transportation Strategy (2018)
- Active Transportation Implementation Plan (2018-2022)
- Transportation Demand Management Implementation Plan (2018-2022)

APPENDIX A

BOLTON CONCEPTUAL LAND USES & OFFICIAL PLAN LAND USE PLANS

Bolton Queen Street Corridor Study
Conceptual Land Uses



Bolton Queen Street Corridor Study Conceptual Land Uses

A key objective of the Bolton Queen Street Corridor Study is to identify land use and design opportunities along the study area that could thrive within the current developed landscape and accommodate changing demands for growth to 2041.
The following are a series of conceptual land uses were developed from a review of existing conditions and comments collected as part of the public consultation top date. A corresponding conceptual land use map is included below.

Limited Potential Growth

Yellow– Cultural Core (Historic Village of Bolton)

- Focused around the **Bolton Core** as identified in the Caledon Official Plan.
- Historically planned for as the commercial core of Bolton.
- Significant factors impacting potential for future growth include:
  - Hazard protection (Special Policy Area – Flooding)
  - Cultural heritage preservation (Heritage Conservation District Policy),
  - Limited space for public realm and active transportation enhancement
  - Slopes at north and south ends of area impact active transportation opportunities

- Ideas:
  - Emphasize and enhance opportunities for mixed-use development, in scale with the existing area.
  - Emphasize and enhance opportunities for street furniture, active transportation and connectivity along the Queen St. and Humber River feature.
  - Emphasize and enhance vehicle parking in limited locations (signage, maximize spots in a manner designed to be sympathetic to the area.
  - Emphasize and enhance area as a node for historic, social and passive attraction based land uses (restaurants, boutique / specialty shops, urban greenspace, public art)
  - Reduce land use focus on general commercial throughout historically residential side streets.

Green – Recreational Corridors and facilities

- Focus on enhancing accessible active transportation connections between the cultural core, institutional uses and along the corridor areas via public greenspace along or adjacent to Queen St./Highway 50
- Ideas:
  - Establish formal maintained pathways for active transportation at specified locations:
    - On Highway 50. From Columbia Way to Hickman St. (Humber Valley Heritage Trail).
    - The south end of Nancy St. connecting to the Albion & Bolton Community Centre.
    - The Entrances to Ted Houston Park at Jane St. and Connaught St. to the Albion & Bolton Community Centre.
    - Along the public lands from Willow St. to Ellwood Memorial Public School.

Moderate Potential Growth

Orange – Active Core

- Focus on introducing opportunities for mixed medium density residential and public space to the existing Bolton South Hill Commercial Area, currently serving the surrounding residential community.
- Intended to maintain local vehicle access to and from Queen St. at Ellwood Dr., Allan Dr. and Queensgate Blvd. and parking for commercial uses.
- Intended to add facilities that provide a node for public activity along the Queen St. corridor, with connections to adjacent institutional and recreational corridors.
- Ideas:
    - Enhance opportunities for development adjacent to the Queen St. corridor, with vehicle parking underground or at the rear.
    - Establish opportunities for a limited increase in density along the Queen St. corridor.
        - Limited building heights (3 stories consistent with medium density in the OP currently)
        - no first floor residential use
    - Establish a municipal square type public space adjacent to Queens St.
    - Emphasize and enhance opportunities for street furniture, active transportation and connectivity along the Queen St.
    - Establish a pedestrian/active transportation bridge over the railway at the south end of the area, to enhance corridor connectivity.

Significant Potential Growth

The lands south of the railway line look to offer the greatest potential within the Bolton Queens St. Corridor Study area for accommodating growth in use and intensification to 2041. Current land use areas include:

- The Bolton Community Shopping Centre Commercial Area;
- The Bolton Highway 50 Commercial Area;
- Rural Uses;
- Special Residential; and
- Properties with dual land use designations (Highway 50 Commercial, Prestige Industrial);

Pink – Intensification Gateway

- Focus on increasing density, mixed, residential, public and institutional uses.
- Emphasize and enhance accessible active transportation connectivity along southern portion of the Queen St./Highway 50 corridor.
- Emphasize and enhance opportunities for transitioning commercial uses from established space and heavy truck dependent activity.
- Establish area as gateway to Bolton
- Transition lands out of dual land use and industrial designations along the corridor

- Intended to maintain local vehicle access to and from McEwan Dr., Industrial Rd./George Bolton Pkwy. and parking for commercial uses.
- Ideas:
  - Enhance opportunities for development adjacent to the Queen St. corridor, with vehicle parking underground or at the rear.
  - Establish opportunities for medium and high density uses and corresponding building heights along the Queen St. corridor.
  - Emphasize and enhance opportunities for street furniture, active transportation and connectivity along the Queen St.
  - Establish a pedestrian/active transportation bridge over the railway at the north end of the area, to enhance corridor connectivity.
  - Establish gateway features at south end of corridor study area (Mayfield Rd.)

Purple – New Commercial Core

- Focus on enhancing opportunities for higher density commercial and higher density residential activity along Highway 50 between McEwan Dr. and George Bolton Pkwy towards in support of establishing a new commercial core.
- Intended to maximize use of existing road network and future eastward expansion of George Bolton Parkway to Industrial Rd.
- Focus on incorporating facilities for active transportation “from the start”.
- Ideas:
  - Enhance opportunities for development adjacent to the Queen St. corridor, with vehicle parking underground or at the rear.
  - Establish opportunities for high density uses and corresponding building heights along the Queen St. corridor.
  - Emphasize and enhance opportunities for street furniture, active transportation and connectivity along the Queen St.

Schedule C
BOLTON LAND USE PLAN

TOWN OF CALEDON

- Prime Agricultural Area
- Rural Lands
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Special Residential
- General Industrial
- Dry Industrial
- Prestige Industrial
- Policy Area - Industrial
- Bolton Highway 50 Commercial Area
- Bolton South Hill Commercial Area
- Bolton North Hill Commercial Area
- Rural Uses
- Institutional
- Special Provisions
- Open Space Policy Area
- Environmental Policy Area
- Boundary of Greenbelt Plan Area
- Oak Ridges Moraine Conservation Plan Area
- 2021 Settlement Boundary
- 100 Year Floodline Limit
- Regional Floodline Limit
- Special Policy Area Boundary
- Site Specific Area
- Bolton Arterial Road Network
- Regional Road
- Local Road
- Railway

Base Data Source: Town of Caledon

0 0.25 0.5 1 1.5 2 km

Refer to Schedule C-4 "Northeast Bolton Land Use Plan"

Refer to Schedule C-3 "West Bolton Secondary Plan Area"

Refer to OPA #183

Refer to Schedule C-1 "Bolton Core Land Use Plan"

O.Reg 210/13

Bolton South Hill Commercial Area

Refer to Schedule C-2 "Bolton South Hill Land Use Plan"

Refer to OPA 223

Refer to Schedule C-7 "Coleraine West Employment Area"

Refer to Schedule C-6 "Bolton Community Shopping Centre Commercial Area"

Refer to Schedule C-5 "South Simpson Industrial Secondary Plan Phase 1"

Refer to OPA 190

Refer to OPA 240

Bolton Highway 50 Commercial Area

East-West Industrial Connector Road

Refer to OPA 228

Refer to Schedule C-5 "South Simpson Industrial Secondary Plan Phase 2"

CON 4 CON 5 CON 6 CON 7 CON 8 CON 9

LOT 14 LOT 13 LOT 12 LOT 11 LOT 10 LOT 9 LOT 8 LOT 7 LOT 6 LOT 5 LOT 4 LOT 3 LOT 2 LOT 1

OAK RIDGES MORAINE CONSERVATION PLAN AREA

KING ST

HEALEY RD

MAYFIELD RD

DUFFYS LN

HIGHWAY 50

QUEEN ST N

QUEEN ST S

MOUNT HOPE RD

MOUNT PLEASANT RD

CALEDON KING TOWNLINE

COLUMBIA WAY

KING ST W

A'BIION VAUGHAN RD

CITY OF VAUGHAN

YORK REGION

TOWNSHIP OF KING

VAUGHAN RD

KING RD

KIRBY RD

COLD CREEK RD

Humber River

THE GORE RD

CENTREVILLE CREEK RD

INNIS LAKE RD

HUMBER STATION RD

CHINGUACOUSY RD

CITY OF BRAMPTON

Wildfield

B 2

SAVED: 2 April 2018

FILE: S:\POLICY SECTION\GIS\official_plan\mxd\9-april_2018

SAVED BY: bloverock

April 2018 Office Consolidation

TOWN OF CALEDON

Schedule C-1

(A Subschedule to Schedule "C")

BOLTON CORE LAND USE PLAN

- High Density Residential
- Medium Density Residential
- Low Density Residential
- Low Density Residential/Office Commercial
- General Commercial
- Institutional
- Environmental Policy Area
- Boundary of Bolton Core and Business/ Community Improvement Area
- Bolton Special Policy Area

Base Data Source: Town of Caledon

0 10 20 40 60 80 100 m

April 2018 Office Consolidation

SAVED: 2 April 2018

FILE: S:\POLICY SECTION\GIS\official_plan\mxd\9-april_2018

SAVED BY: bloverock