

# Urban Design Guidelines BOLTON





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# Introduction

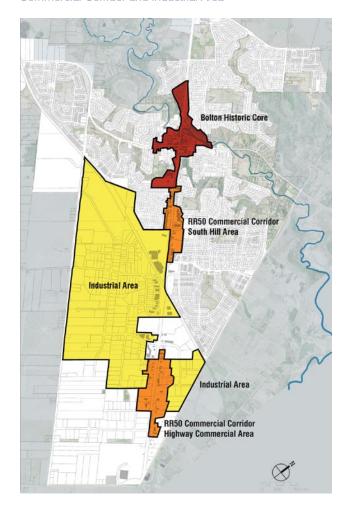
In June of 2008, the Town of Caledon retained MMM Group Limited (MMM) and du Toit Allsopp Hillier (DTAH) to develop a Community Improvement Plan (CIP) and Urban Design Guidelines (UDG) for the community of Bolton.

As stated in the CIP, the Bolton Community Improvement Plan provides a framework that guides community improvement in Bolton, through the identification of a Municipal Leadership Strategy and Programs, and Financial Incentive Programs. This companion document, the Bolton Urban Design Guidelines, provides additional guidance for community improvement by identifying design principles and guidelines with respect to streetscape, built form, site access, signage, and open spaces.

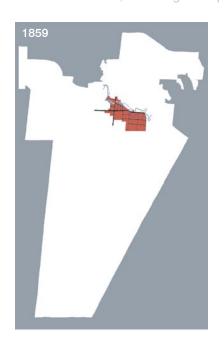
This document is divided into two sections:

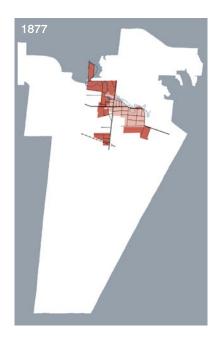
- Section One Urban design context describing the 'big picture' in terms of Bolton's history, development character, topography, open space and movement networks; and
- Section Two Urban design guidelines for each of the three precincts in the Community Improvement Project Area: Bolton Historic Core, Regional Road
   Commercial Corridor and the Industrial Area.

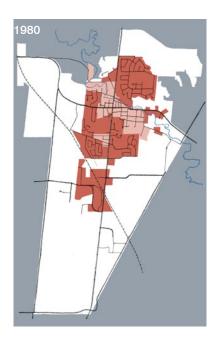
▼ COMMUNITY IMPROVEMENT PROJECT AREA, divided into three precincts: Bolton Core, Regional Road 50 Commercial Corridor and Industrial Area

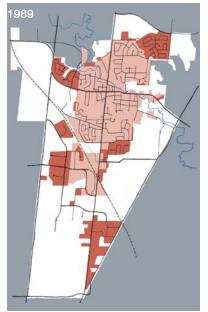


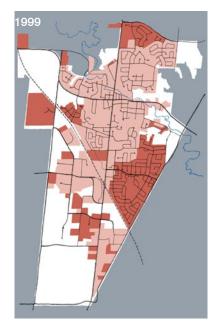
▼ MAP OF BOLTON, Chronological sequence of growth: 1859, 1877, 1980, 1989, 1999 and 2007.

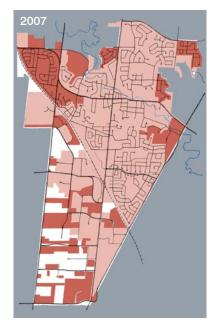












Town of Caledon

DESIGN CONTEX

# **URBAN DESIGN CONTEXT**

#### **1.1 Historical Context**

Bolton was settled in 1822 around a saw and grist mill built by James and George Bolton. The village commercial area developed around the mill but it eventually moved to its current location at the intersection of King and Queen Streets.

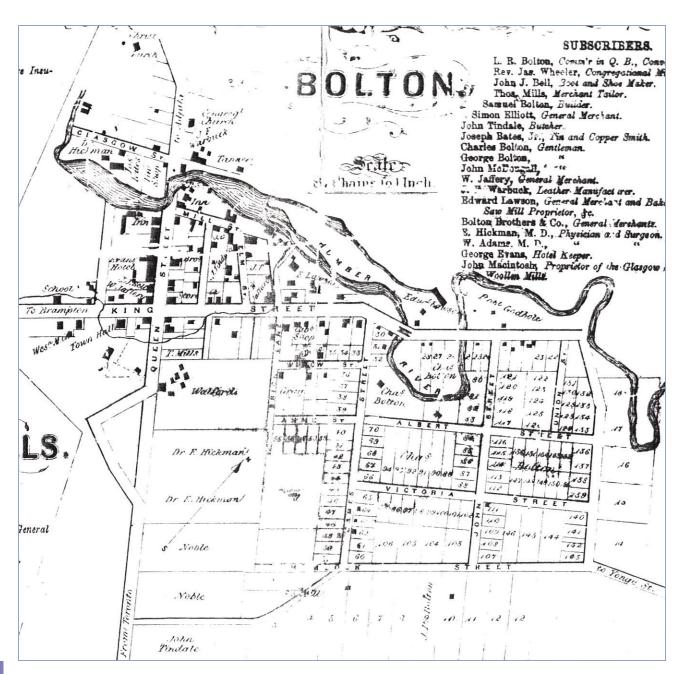
By 1840, the village "consisted of 14 houses, 2 stores, blacksmiths, shoemakers, a tailor, a hotel, distillery and tannery as well as the mill." (André Scheinman, Envision-the Hough group, Town of Caledon: Cultural Heritage Landscapes Phase 2: Inventory Report, July 2006)

The village grew through the mid 19th Century in part due to the wheat boom generated by the Crimean War (1854-56). With the end of the war, the introduction of the railway in the 1870s and the inheritance laws in place at the time, many of Bolton's residents migrated to major

urban centres in Ontario and to the West of Canada. The size of Bolton remained relatively the same until the end of the II World War.

The chronological sequence of growth starts in 1859, date of the first map available, and ends in 2007, date of the most recent aerial photograph. There is a 100-year gap between 1877 and 1980 due to the lack of available information. This analytical sequence highlights the contrast between a very compact 19th Century picturesque village set by the Humber River, and a late 20th Century rapidly expanding urban settlement. In the last 30 years Bolton has seen its residential zones fill in with low-density single family housing, as well as the rapid expansion of its industrial lands. This study is an opportunity to reflect on the potential for intensification within the current urban area, and the introduction of a mix of land uses in areas that are underutilized or vacant.

#### ▼ 1859 MAP OF BOLTON



# **Context**

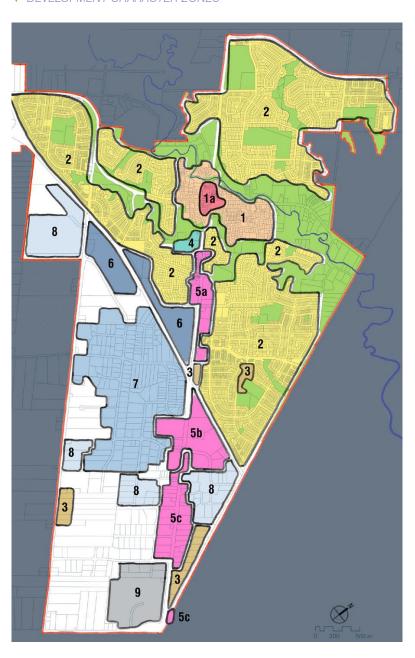
#### 1.2 Development Character Zones

Bolton has a clear pattern of development. The 19th Century Historic Core (Development Character Zone 1) is nested in the Humber River valley and anchored by a small but charming Commercial Downtown (Development Character Zone 1a) at the intersection of Queen and King Streets. Surrounding the Core and occupying the higher and flatter ground, there are four large residential areas composed of mostly single-family housing built over the past 40 years. Steep wooded slopes, public parks and school grounds contain these nodes of development.

Small pockets of old farm houses or single-family homes (Development Character Zone 3) are still visible here and there. These are the last vestiges of rural land uses within the urban area. The largest grouping, between RR50 and Albion-Vaughan Road, has the potential to become a zone for residential intensification.

The Albion-Bolton Fairgrounds and Community Centre (Development Character Zone 4), located a short 10 min walk from Downtown, is a very important cultural and recreational hub for the residents of Bolton. It houses the library, a hockey arena, squash courts, and meeting spaces, as well as outdoor space for seasonal fairs.

#### ▼ DEVELOPMENT CHARACTER ZONES



#### ✓ KEY

- 1 Historic Core
- 1a Commercial Downtown
- 2 Post-war Neighbourhoods
- 3 Rural Residential Lots
- 4 Albion-Bolton Fair Grounds and Community Centre
- 5 Highway Commercial
- 5a South Hill Commercial Area
- 5b Shopping Centre Area
- 5c Highway Commercial Area under development
- 6 Large Industrial Lots with Landscape Buffer
- 7 Street-Related Older Industrial Area
- 8 Industrial with Large Open Storage Area
- 9 Recent Prestige Industrial Area

Along Queen Street/Regional Road 50, south of the Historic Core, there is a long stretch of typical highway commercial development (Development Character Zone 5). A closer look reveals the strip to be composed of three zones:

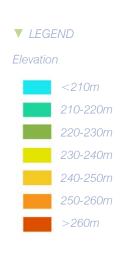
- 5a South Hill Commercial Area, the older commercial area located north of the railway;
- 5b "New Format" Shopping Centre Area composed of "big box" retail stores such as Walmart and Home Depot; and
- 5c Highway Commercial Area which is in transition but filling in rapidly with new stores, car dealerships, etc.

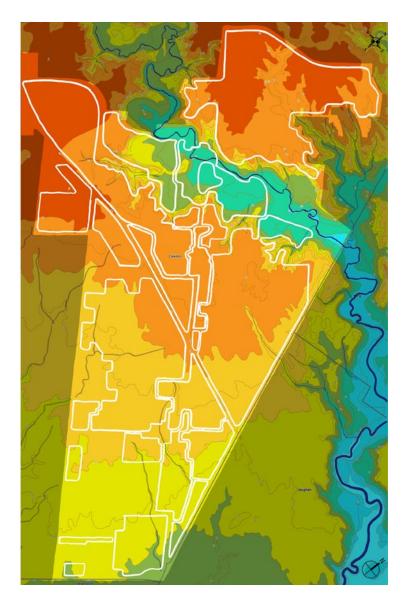
The area south of the railway is occupied by industrial uses of differing character.

The Husky and Mars Properties (Development Character Zone 6) are large industrial facilities surrounded by well landscaped grounds. Husky is a good local example of how to site a large plant in an urban setting in an environmentally conscious way. The plant is set close to the rail tracks but well accessed from the street, the parking areas are surrounded by dense vegetation providing screening from the street, and there is an internal network of sidewalks and paths for pedestrians and cyclists.

The older industrial area (7) is a dense grouping of small lots with warehouses or office buildings facing the street. Many of the buildings in this area are in poor condition, especially in the oldest part on Healey Drive and Hardwick Road. The streetscape is green but lacking in large trees.

#### ▼ TOPOGRAPHY





▼ HUMBER RIVER, the river is concealed by dense vegetation and hidden from the life of Bolton.



#### 1.3 Topography

One of Bolton's most memorable aspects is its topography. Even the casual passer-by driving along Regional Road 50 will remember driving down the hill and entering Bolton's picturesque downtown. This feeling of being "in a bowl" is unique and should be protected. It is important to maintain the views of the forested hills around the historic core, and to enhance the reason for this dramatic landscape, the Humber River.

Great opportunities exist in opening up the views to the river by clearing some of the lower vegetation at key points along the shoreline. Seeding groundcovers in some areas could improve the potential for leisure, recreational and cultural activities by the river.

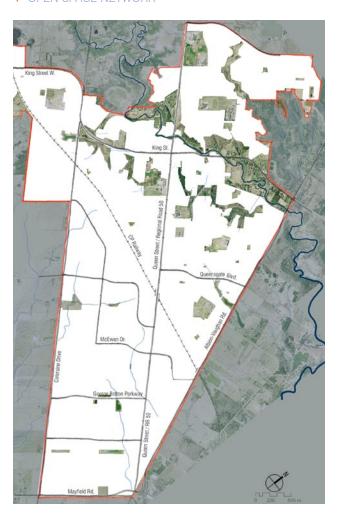
The counterpoint to the valley is the flatter ground occupied by the industrial lands and the highway corridor south of the railway. Without the hills, this area lacks visual interest and spatial containment. The image of the industrial zone would benefit from additional tree cover and more visible and lush stormwater features.

Some lots have a high proportion of the land occupied by open storage (Development Character Zone 8). Most

properties are surrounded by tall fences but few have landscape screening.

The newest additions to the industrial area are located on the northwest corner of RR50 and Mayfield Road, and along Parr Boulevard (Development Character Zone 9). These very large warehouses or office buildings are very visible from the street and would benefit from a densely treed landscape.

#### ▼ OPEN SPACE NETWORK



▼ 1999 AERIAL PHOTO, the industrial area before development shows a dense pattern of swales draining towards the Humber River



#### 1.4 Open Space Network

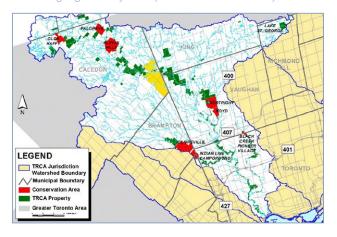
The network of green open spaces follows the Humber River and its secondary streams. The river runs diagonally to the northern part of Bolton, distinguishing the historic core from the North Hill residential area. In the downtown the valley is very narrow and discreet, but the secondary streams and ravines are still apparent and important links between the various residential areas. In the same way, the spaces along the river by the historic core have the potential to become significant green public spaces, as discussed under "Topography".

On the other hand, the area south of the railway appears to be separate from the river's drainage basin, when in fact it is very much a part of the Humber watershed. Older aerial photos show that there used to be a series of drainage lines which now have either been paved over or diverted to stormwater retention ponds. A Stormwater Management Study of the industrial area, done in partnership with the Toronto and Region Conservation Authority, would be important to understand the current impact of development and to suggest ways to improve the quality and quantity of the stormwater draining towards the Humber.

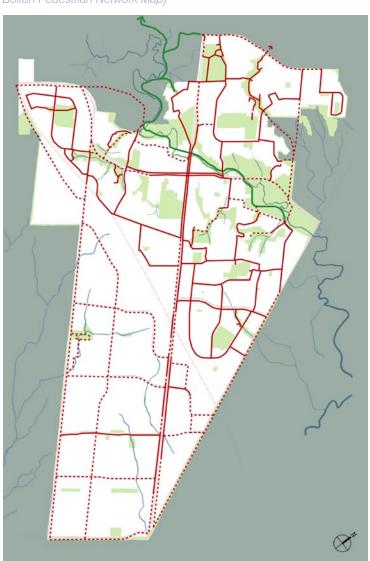
The open spaces indicated in the diagram on the preceding page are a compilation of Town lands, TRCA lands, and private lands under the Environmental Policy Area designation in the Official Plan (due to their significance in the Humber River valley).

The Town is encouraged to preserve and enhance these open spaces and linkages.

▼ HUMBER RIVER WATERSHED,
Bolton highlighted in yellow (Source: TRCA website)



▼ PEDESTRIAN NETWORK (based on the Town of Caledon Bolton Pedestrian Network Map)



- Existing Pathways
- ■ Potential Pathways
- Existing Humber River Heritage Trail

#### 1.5 Pedestrian and Cycling Network

#### **Pedestrian Network**

The pedestrian network illustrated in the diagram on the preceding page is based on the Town of Caledon Bolton Pedestrian Network map. It includes existing sidewalks and trails (as shown in the 2007 aerial photo), and the segments of pathways needed to complete the network. The diagram reveals that:

- There is a much denser network of existing pathways to the north of the railway;
- It is possible to walk within each neighbourhood but difficult to find direct routes to walk between adjacent neighbourhoods;
- Regional Road 50 is the only north-south street connecting the two sides of the railway that has some sidewalks, but these are not continuous; and that
- The bridge over the rail tracks does not have appropriate sidewalks to enable a safe and comfortable pedestrian crossing of the tracks.

These observations demonstrate the need to invest in new sidewalks and trails especially south of the railway. It also highlights the need to invest in a new pathway on the east side of the bridge connecting the existing sidewalks north and south of the tracks. A more complete network will encourage pedestrian movement and give the community alternatives to vehicular traffic.

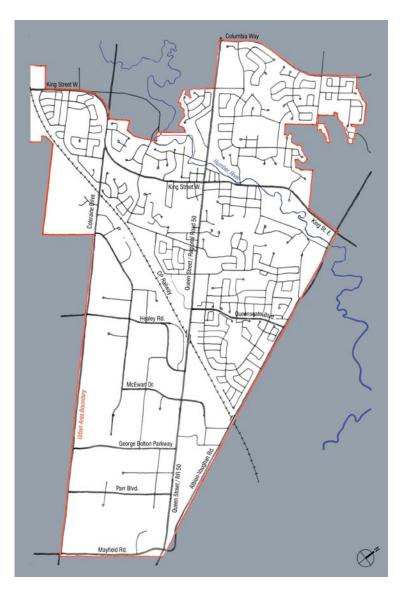
Bolton is connected to the Caledon Trailway and the TransCanada Trail by the Humber River Heritage Trail. This hiking trail starts at the Albion-Vaughan Road and runs along the north side of the river for most of the way. The Town has planned improvements to the section through Mill Park, which will accommodate bicycles.

#### **Cycling Network**

Bicycles are designated as a vehicle under the Province of Ontario's Highway traffic Act and when operating within the public roadway, must comply with the same regulations as automobiles. Both the Ministry of Transportation and the Transportation Association of Canada have established design standards for inroad bicycle facilities.

Currently Bolton has no designated cycling routes or paths. A Town-led study of the needs and wants of cyclists, in concert with the Region's Active Transportation Study (presently underway) will be important to define a comprehensive cycling network.

#### ▼ ROAD NETWORK



#### 1.6 Road Network

Bolton's road network lacks connectivity. King Street is the only east-west through street, and Coleraine Drive, Regional Road 50 and Albion-Vaughan Road are the only north-south connections. Similarly, the pattern of residential streets has been laid out in clusters and lacks continuity, and in the industrial area the road pattern is incomplete. The reasons for the current road layout appear to be:

- The steep slopes of the Humber River valley;
- The railway, which requires the construction of bridges or underpasses;
- The land ownership, especially in the southern part of the industrial area; and
- The suburban type of street network design which minimizes the number of connections between local and arterial roads.

One of the biggest challenges to the creation of a safe and comfortable pedestrian environment along Regional Road 50/Queen Street is the high level of vehicular traffic. This is especially evident in the historic core where the ambient noise makes it difficult to carry a conversation.

Ways to improve the current conditions are discussed under "Transportation and Transit."



▲ QUEEN STREET, Use of the Public Right-Of-Way



▲ REGIONAL ROAD 50, Use of the Public Right-Of-Way

# Moving Ontario Forward Together

▲ MOVEONTARIO, In the MoveOntario 2020 Plan, Bolton is shown as the destination of a new GO commuter rail line.

#### ▼ TRANSPORTATION AND TRANSIT



Potential Roads

Potential Service Laneways

Existing Bus Routes

Potential GO Train Line

#### 1.7 Transportation and Transit

An important step towards reducing the amount of through traffic on Regional Road 50 is the construction of the Bolton Arterial Road (BAR) slated for completion by 2012. The BAR is effectively an improved Coleraine Drive between Mayfield Road and King Street West, which will bridge over the Humber River and link to Regional Road 50 north of Columbia Way. Construction has started next to Mayfield Road and is advancing north.

Recognizing land ownership constraints, other potential improvements to the road network might include:

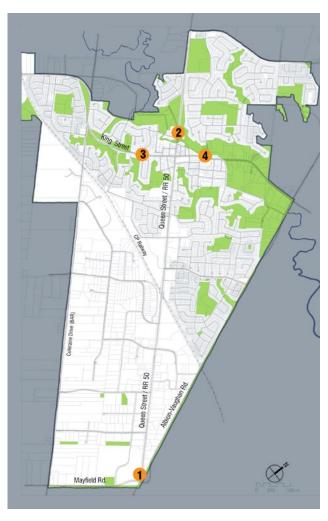
- Road connection between Simpson Road and Coleraine Drive;
- The extension of Simpson Road, Nixon Road and Simona Drive, to allow access to the undeveloped lots in the industrial area and establish a coherent network of streets: and
- The construction of service laneways in the area between Albion-Vaughan Road and Regional Road 50, south of Industrial Road, when the time is right for redeveloping these underutilized lands.

Transit service in Bolton is limited. GO Transit runs six buses per day to/from Malton GO Station, and two buses to/from Toronto via Nobleton and Kleinburg. The points of departure/arrival are at Regional Road 50 at Columbia Way, and Albion-Vaughan Road at Industrial Road. There are bus stops on Regional Road 50 at Allan Drive and at Mill Street, and a future stop at a commuter parking lot on the southwest corner of Regional Road 50 and Mayfield Road expected to be completed by the fall of 2009.

In June of 2007, the Province of Ontario announced MoveOntario 2020, "a 12-year building plan that will deliver 52 Rapid Transit initiatives in the GTA and Hamilton." Project 15 is a new GO commuter rail line from Union Station to Bolton, which will require an agreement with Canadian Pacific Railway for sharing the use of the tracks and the construction of a new train station in Bolton. Earlier studies have suggested that the best location for the station is on a triangular property just west of Coleraine Drive, south of the tracks. This location was deemed preferable due to the flat topography, the length of the adjacent rail track, and the fact that it is currently undeveloped. The project will be subject to further study before a decision is made.

From an urban design perspective, the location of the train station at the edge of town is a missed opportunity. The new regional transit authority, Metrolinx, states in its March 2008 Green Paper #7 on Transit that "it is important to ensure that land uses around stations can serve as origins and destinations of trips. A line from nowhere to nowhere does not serve any purpose. Areas around major transit stations should include compact, walkable, mixed-use developments with densities that support transit use, in both directions in which the line runs throughout the day." (Metrolinx, Development of a Regional Transportation Plan for the Greater Toronto and Hamilton Area, Green Paper #7 – Transit, March 2008.) A more centrally located transit station could be an important step towards introducing higher density mixed use development within the current urban area.

#### ▼ POTENTIAL GATEWAYS



► 1. GATEWAY
PRECEDENT, Design
Concept for a
Gateway in Toronto
by &Co.



► 2. GATEWAY
PRECEDENT,
Sculpture by Richard
Serra that reveals the
topography



➤ 3&4. HERITAGE SIGN, in Caledon



#### 1.8 Gateways

The purpose of a gateway is to mark the arrival to a unique place, in this case the settlement of Bolton, and to reinforce a sense of community identity and pride of place. Gateways can either be elements of structure or a landscape feature. Both can be effective and can also potentially incorporate signage and way-finding.

In addition to the existing signs marking the arrival to the settlement of Bolton, it seems logical to contemplate potential gateway locations Regional Road 50 at Mayfield Road and at three main entry points into the core of Bolton.

1- From the south at the intersection of Regional Road 50 and Mayfield Road, a very important and active entry point from the south which could be marked by a combination of architectural treatment of the immediate development, a strong and dense landscape treatment or a large public art element;

2- From the north located just north of the river on the slope of the road coming down to the core. It seems like a natural spot to mark the entrance into the historic core. A landscape or public art element which might demonstrate the unique topographic condition of this entry point might be considered;

3 and 4 – Similarly, east and west gateway points along King Street could be considered that mark the entry to the historic core. Elements of landscape, signage and possibly public art could be combined to mark one's arrival.

Section Two

# **URBAN DESIGN GUIDELINES**

The purpose of these guidelines is to:

- Identify design principles and guidelines with respect to built form, façades, streetscape, and open spaces, etc.;
- Provide eligibility criteria for CIP's Financial Incentive
   Programs, with respect to design;
- Provide the Town with a tool for the review and evaluation of applications for Financial Incentive Programs and supporting materials; and
- Educate property and business owners about the Town's principles and guidelines for design;

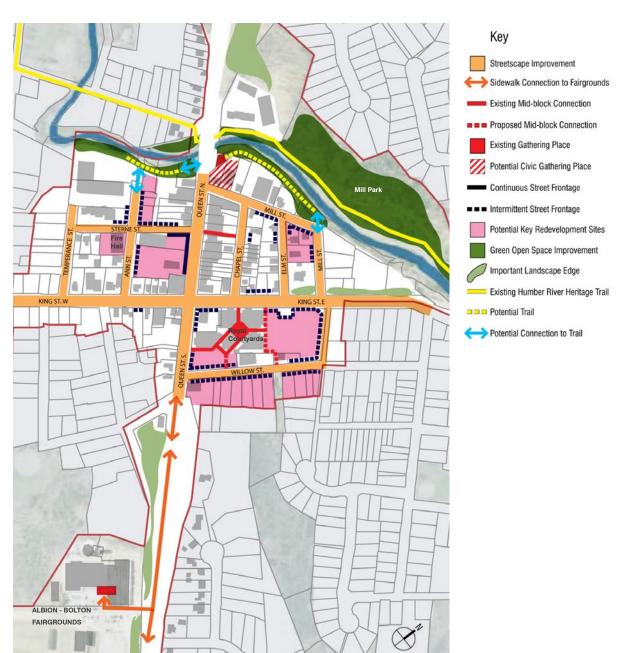
They build on existing guidelines prepared in 2002 by the Town of Caledon, namely the *Bolton-Regional Road* 50 (*RR50*): Landscape Plan Master Plan, the Town of Caledon Industrial/Commercial Design Guidelines and the South Bolton: Shopping Centre Design Guidelines.

#### 2.1 Historic Core

#### 2.1.1. Key Objectives

The historic core of Bolton is a compact set of urban blocks that has survived a series of floods and several fires over the past 180 years, and can still be recognized as the old village of Bolton. At this moment in time, it would benefit from building renovation and infill development that is respectful of its historic character, more residents to support the local economy, and a cohesive and attractive streetscape that is a joy to inhabit. The diagram on the following page summarizes the recommended improvements to the core.

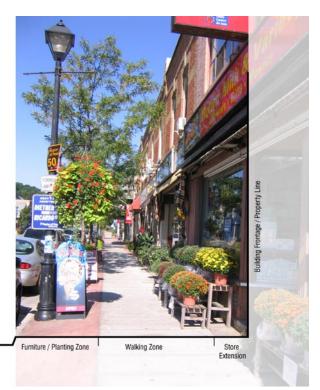
▼ PLAN OF POTENTIAL IMPROVEMENTS IN THE BOLTON CORE



# **Guidelines**

The guidelines for the Bolton Core are intended to address the following key objectives:

- Preserve and highlight unique character of the historic core of Bolton;
- Reinforce the identity of the area as a predominantly low rise main street retail area;
- Expand and improve the streetscape and open spaces to create a beautiful place and enhance accessibility;
- Encourage revitalization of underused sites; and
- Protect surrounding established residential areas.



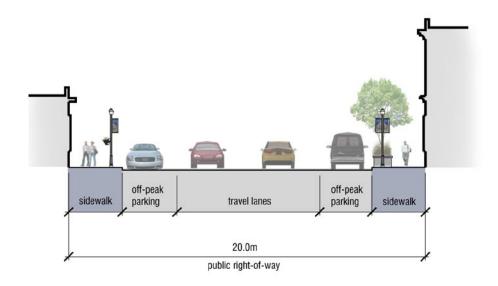
#### 2.1.2. Streetscape

The streetscapes in the Core should reinforce the historic character of the old village of Bolton. They should have a sense of unity derived from a consistent use of colours, textures and shapes in paving, street furniture, lighting, signage, planting and other elements. The three parts of the pedestrian realm: furniture/planting zone, walking zone and store extension zone should have a uniform treatment.

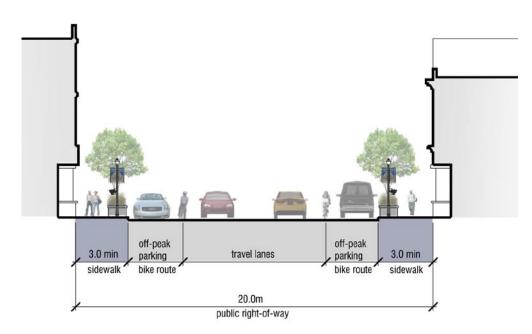
Background - The Town of Caledon and the BIA have invested in the streetscape of the core by using a family of street furniture (street lights, litter containers, flower pots, etc.) and upgrading the sidewalks. These are steps in the right direction that should be encouraged and reinforced. However, more can be done to improve the streetscape not only of Queen and King Streets, but also of Chapel, Elm, Mill, Ann, Sterne, Temperance and Willow Streets.

→ PARTS OF PEDESTRIAN REALM, well distinguished on east side of Queen Street

#### ▼ EXISTING STREETSCAPE OF QUEEN STREET



#### ▼ POTENTIAL STREETSCAPE OF QUEEN STREET



► EXISTING PLANTING, Street Trees, Flower Pots and Hanging Baskets







#### Guidelines

These guidelines are divided in the following themes: paving; planting; street furniture, lighting and signage; and public art and screening.

#### **Paving**

- In the event that the Town chooses to invest in a comprehensive streetscape strategy for the Core, consider the implementation of a new design standard for the sidewalk paving that distinguishes the furniture/planting zone with a material other than the current coloured stamped concrete. This material is difficult to replicate when repairs are needed and does not enhance the historic character of the building facades;
- Acknowledge the mobility needs of older adults and people with disabilities by implementing barrier-free sidewalks, lower curbs at intersections and universal access to ground floor retail wherever possible. The walking zone should remain clear of free standing elements; and
- Differentiate crosswalks from the road surface with smooth concrete or paint.

#### **Planting**

The current sidewalk widths in downtown streets are very narrow to allow the growth of large trees. However, the importance of trees and planting in the streetscape cannot be overstated. Great trees make great streets.

- All the existing trees that are in good health should be retained and well maintained:
- Wherever possible, plant additional trees to complete one row of trees on each side of the street, preferably planted at grade. On streets other than Queen, add more trees or other plantings on front yards if there is space available;
- Use innovative techniques when reconstructing a road or sidewalk to improve street tree root growth;
- Avoid using tree containers except on Queen Street.
   Replace the existing tree containers with new ones that are complementary to the existing family of street furniture; and
- Continue the use of hanging baskets and tall movable planters during the warm season for added colour. Planters should be carefully located so that they do not interfere with sight lines;

▼ SIGNAGE PRECEDENT,



▼ EXISTING STREET LIGHT







▲ EXISTING LITTER CONTAINER

◆ BENCH
PRECEDENT,
Kingston

#### Street furniture, Lighting and Signage

Street furniture, lighting and signage make an essential contribution to the streetscape by providing a consistent and unified appearance. The Town of Caledon and the Bolton Core Business Improvement Association have already recognized its importance by investing in new street lights, litter containers, banners, flower containers, etc. in priority areas such as Queen, King and a few other streets.

- Extend the use of the same family of street furniture to the sections that are unfurnished. Consider adding other elements that match the current heritage theme such as: benches, outdoor café furniture, bollards, bike racks, bus shelter and newspaper holders;
- Add signage and wayfinding that is consistent with the heritage theme, including street signs, parking signs and information kiosks;
- Encourage all business and commercial land owners to use the selected family of street furniture;
- While advertising on street furniture is often used to defray the costs of the hardware, this should be carefully considered not to overwhelm the visual characteristics of the furniture;
- Many of these furnishings tend to be clustered at street corners adding to street congestion. When possible, locate these elements away from the street corner, particularly news boxes. As well, provision within new building redevelopment for litter containers, telephones and mailboxes should be considered and encouraged; and
- Minimize the number of freestanding traffic signs.

#### **Public Art and Screening**

Public art plays an important role in the interpretation of the history, the people and the character of a place. It can have a variety of expressions, from 2-dimensional murals and pavement to 3-dimensional sculptures, gates, seating or fencing. The introduction of art works in the public realm should be encouraged, in a way that is sensitive to the site and enhances the historic core.

The use of fencing, hedges or planted screens should be encouraged to hide the view of side and backyards from public streets.

► EXISTING MURAL, Queen Street



► MURAL

PRECEDENT,

Gravenburst

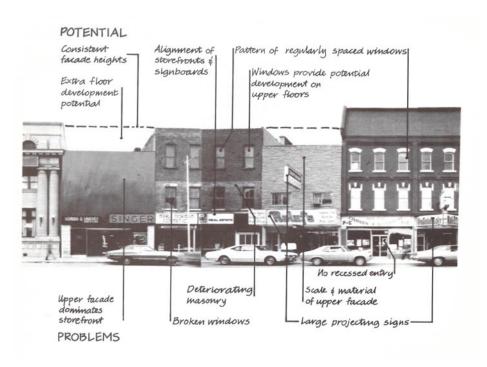


► EXISTING FENCE AND PLANTING, Queen Street



► PUBLIC ART PRECEDENT, Orangeville







▲ FACADE IMPROVEMENT, Assessment (above) and Proposal (below)

(Source: Province of Ontario, Ministry of Municipal Affairs Community Planning Wing, Design for Commercial Facade Improvements by Roger du Toit Architects and Research and Special Projects Branch, 1985)

#### ► EXISTING IMPROVED FACADE, Queen Street



#### 2.1.3. Façade Improvement

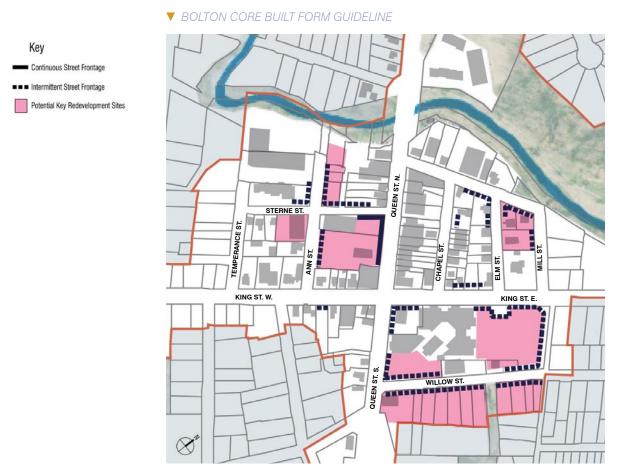
The façades of commercial and mixed use buildings should complement the character of historic core, with particular attention paid to overall scale, the nature of window openings, material selection, integration of signage and lighting. Building style could include contemporary treatment respectful of the historic character of the core.

**Background** – Some commercial buildings along Queen Street have recently been renovated. These kinds of initiatives are very good and should be encouraged. However, many other buildings have had poor upkeeping over the years, or have been repeatedly altered in a way that hides the original façade.

#### Guidelines

- Maintain original façade components and materials wherever possible. If components are damaged, repair is visually and economically preferable to replacement;
- If replacement is required, replicate original parts and materials;
- If replication is not possible, substitute with materials similar to the colour, texture, dimensions, proportion and design of the original;

- If major work like expansion or subdivision is to be done, do not irrevocably change the original building (s). Leave as much of the original as possible, working around it rather than removing it. This will also leave more options open in the future;
- An attractive, well maintained façade is the most effective form of store identification and advertising. Improperly located signs, which are excessive in scale and poorly maintained, are visible in many facades in the core:
  - Remove all large, projecting signage.
     Remove all other overly large and inappropriately located signage.
  - Use no more than one large sign per storefront. It should be flat and located on the signboard above the entrance. Signage lettering should be simple and straight forward. If more signs are needed, use no more than 2 additional small signs.



31





#### 2.1.4. Built Form

Queen Street should have a continuous building frontage, with retail on the ground floor. Other streets should have an intermittent building frontage with ground floor uses that animate the street. New infill development should be respectful of the scale and character of the existing historic buildings.

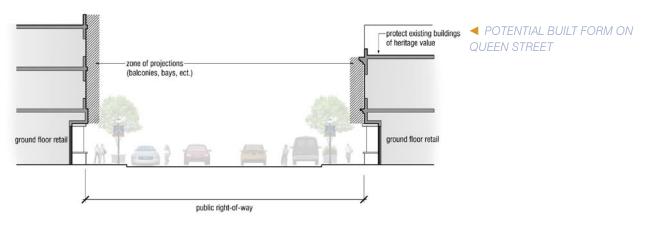
Background - Queen Street originally had a continuous building frontage along the west side. Two fires have created a gap in the urban fabric which has since been occupied by a drive through and surface parking. Drive-throughs are no longer allowed in the core. The south side of King Street, east of Queen Street, is largely occupied by surface parking needed for the Royal Courtyards. Secondary streets such as Chapel, Mill, Elm, Ann, Temperance, Sterne and Willow Streets also have

underutilized and vacant properties with redevelopment potential. The full infill development capacity and parking needs in the core should be subject to a comprehensive study.

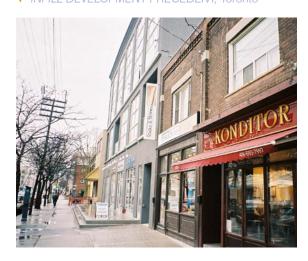
#### Guidelines

**Street Character Types** - The intention is to encourage two types of street characteristics in the core.

'Continuous' building frontages, typical to a traditional main street, will be encouraged along Queen Street in the commercial core. These portions of the street are characterized by having building frontages occupying at least 80% of the street line with no setbacks. New buildings should generally align with traditional street frontages where possible, except where a widening is desired to create a more generous sidewalk zone;



#### ▼ INFILL DEVELOPMENT PRECEDENT, Toronto



Intermittent' street wall conditions will be acknowledged on the streets adjacent to the primary streets of the core reflecting the historic pattern here of more substantial front yard setbacks and landscaped areas and a less regular street pattern. This condition applies to all streets other than Queen Street. These streets (or portions of street) are characterized by having building frontages occupying at least 65% of the street line within the setback zone defined of 0 to 5 metre back from the public right-of-way.

Potential Infill Development - There are a few key potential redevelopment areas which combined can dramatically improve the image of the historic core, as well as other individual underutilized lots with redevelopment potential. The key areas are the Tim Hortons site, the parking lot of the Royal Courtyards, the municipal parking lot, the Fire Hall, the properties on the south side of Willow Street, and those between Mill and Elm Streets.

These guidelines should be followed when planning a redevelopment:

- Protect all designated heritage buildings and buildings of heritage value;
- Protect existing stable residential neighbourhoods;
- Development should be low to mid-rise;
- Assign public uses at grade to help animate the street. If located within the continuous building frontage zone, the ground floor use should be retail;
- Maintain the basic height and width of storefronts prevalent in the area;
- Flood proof the lower levels of the building if located within the floodplain.



▲ HERITAGE TRAIL IN MILL PARK will be improved to accommodate bicycles.

# 2.1.5. Public Open Spaces

The historic core should have well designed public spaces where people can gather.

Background – Currently the opportunities to enjoy the Humber River are to walk along the Humber River Heritage Trail in Mill Park and to gather at the newly built public space on the east side of Queen Street by Mill Street. The Town is planning another small park to the west side of Queen Street which will be built once property ownership issues are cleared.

## Guidelines

Invest in the creation and/or improvement of public open spaces in the core such as:

- A potential larger civic gathering place at the corner of Queen and Mill Streets by the river;
- A walking trail along the south shore of Humber River, between Ann and Mill Streets; and
- An improved Mill Park so that it can accommodate outdoor events such as music festivals.



■ EXISTING
MUNICIPAL
PARKING LOT
ON STERNE
STREET, landscape
screening along
Sterne Street would
improve the image
of the street



◆ PARKING SIGNAGE PRECEDENT, Kitchener (Credit: Entro Communications)



◆ PARKING SIGNAGE
PRECEDENT, Kitchener
(Credit: Entro
Communications)

## 2.1.6. Parking

Adequate amount of parking should be provided to support the economic health and stability of the businesses in the core. Parking should have clear and coordinated signage, and adequate lighting.

#### Guidelines

- The existing parking resources should primarily serve the existing services and retail in the core;
- Commuter parking should be strongly discouraged, and alternatives provide elsewhere in Bolton;
- Introduce clear signage to guide residents and visitors to encourage the full use of available parking;
- In case of redevelopment of an existing surface lot to an above-grade parking structure, keep the structure out-of-sight from the public realm by adding a retail frontage, a façade treatment that matches adjacent storefronts or landscape screening; and
- Consider using greenroof technologies to improve the quality of stormwater runoff and to increase the area of green space in the Core.

# 2.1.7. Albion-Bolton Fairgrounds and Community Centre

As an important cultural and recreational hub in Bolton, the Albion-Bolton Fairgrounds and Community Centre should have improved parking facilities and be fully accessible by pedestrians and cyclists.

**Background** - The Fairgrounds and Community Centre house the library, a hockey arena, squash courts, and meeting spaces, as well as outdoor space for seasonal fairs. While the facility is located a short 10 min walk south of the core, most people access it by car.

Guidelines

- Improve the surface and lighting of the parking lot;
- Improve vehicle entrances and circulation for times with and without outdoor events;
- Improve pedestrian access from Queen Street/ Regional Road 50 by allowing direct access between the building entrance and the sidewalk;
- Provide end-of-trip facilities for cyclists;
- Add landscape screening along the back side of the building facing RR50; and
- Identify the building entrances more clearly through signage and lighting.

► EXISTING PHOTO OF ALBION-BOLTON FAIRGROUNDS

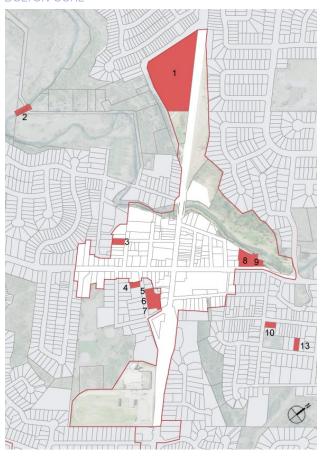






▲ POTENTIAL IMPROVEMENT TO FAIRGROUNDS

▼ EXISTING DESIGNATED HERITAGE PROPERTIES IN THE BOLTON CORE



## 2.1.8. Heritage Conservation

The Town of Caledon should take leadership to protect and enhance the special character of groups of properties in the historic core of Bolton, established by the overall heritage quality of buildings, streets and open spaces as seen together.

There are currently 13 designated heritage properties in the Historic Core of Bolton:

- 1. Laurel Hill Cemetery: 203 Queen Street North;
- 2. Steel Truss Bridge over Humber River on Glasgow Road (outside CIPA);
- 3. Shore-Nease House: 34 Temperance Street;
- 4. True Blue Masonic Lodge: 16 Nancy Street;
- 5. Goodfellow-Natress-Potts House: 25 Nancy Street;
- 6. Smith-Schaefer-Potts House: 31 Nancy Street;
- 7. Joseph Watson House: 45 Nancy Street;
- 8. Guardhouse-Goodfellow House: 83 King Street East;
- 9. McFall House: 97 King Street East;
- Lambert Bolton House: 65 James Street (outside CIPA);
- 11. Shields-Gillander Property: 65 Sneath Road (outside CIPA); and
- 12. Steel Truss Bridge over Humber River on Sneath Road (outside CIPA).

A further property, the Charles Bolton House at 159 Victoria (13), has been nominated for designation but the process is not yet complete. Most of the designated properties are houses except for the True Blue Masonic Lodge, the Laurel Hill Cemetery and the two steel truss bridges over the Humber River.

The Town of Caledon has sponsored two studies which make recommendations for heritage conservation district(s) in Bolton. These are the *Draft Built Heritage Inventory* and the *Cultural Heritage Landscape Inventory* (*Phase 2*). There are also currently two financial incentive programs available to designated properties in the town, including: a **Matching Grant Program** (for residential and institutional properties) that is managed by the Town of Caledon and a **Heritage Tax Rebate Program** (for commercial and industrial properties) that is managed by the Caledon Heritage Foundation.

SHORE-NEASE HOUSE, this residence located on 34 Temperance Street is a designated heritage property



► MR. SUB BUILDING, which used to be the Telephone Exchange is a good candidate for façade improvement



► OLD TELEPHONE EXCHANGE, at Queen and Sterne Streets



▼ ELEMENTS OF A COMPLETE STREET (Source: Omaha Streetscape Handbook)



## ▲ KEY

- 1 Bus Stop
- 2 Street Trees (shade)
- 3 Coordinated Street Furniture
- 4 Planters
- 5 Median Refuge
- 6 Pedestrian Crosswalk
- 7 Colocating Signs
- 8 Bicycle Lane
- 9 Public Art
- 10 Pedestrian Lighting
- 11 On-street Parking

# 2.2. Regional Road 50 Commercial Corridor

"The image of a city is reflected in its streets, from the fixtures that light them to the sidewalks that frame them. Coordinating the features and components of the streetscape help define an area's character and create a distinctive sense of place. Without coherence, these same components clash with one another, producing visual noise that wears on both residents and visitors. Streets define how a city presents itself to the public. An attractive and cohesive streetscape is a vital part a city's physical appeal." (Omaha Streetscape Handbook)

The Regional Road 50 corridor faces similar challenges to other highway corridors. It has the same car dealerships and chain stores as in other small towns in Ontario, flanked by large areas of parking and marked by a collection of signs competing for one's attention.

The intention is to create a 'complete' street, one that accommodates the needs of pedestrians, transit users, cyclists as well as private automobile use. The following guidelines point to the completion of the pedestrian network, the future addition of bike lanes, the reduction of the number of access points by adding service laneways, and the reduction of the roadway width where possible.

In terms of streetscape, Regional Road 50 has the potential to become a 'green avenue' that is flanked by large trees and continuous sidewalks. This intent is achievable through a concerted effort between the Region of Peel and the Town of Caledon in the planning,

design, construction and maintenance of the avenue. Ultimately the purpose is to enable the right-of-way to develop independently from the surrounding built form, allowing for a unified vision of the public realm to be implemented as soon as possible, with the full build-out of residential and/or commercial density evolving over time.

In terms of built form, the intent is to encourage a stronger building edge along the whole corridor by locating surface parking on the side or rear of buildings. Mixed use development is encouraged in the South Hill Commercial Area, especially in the section between Allan Drive and Queensgate Boulevard where it is possible to incrementally create a more pedestrian-friendly 'Main Street' with grade-related uses facing both sides of the street.

The diagrams on the following page summarize the recommended improvements to the two areas of RR50: the South Hill Commercial Area and the Highway Commercial Area.



▲ SOUTH HILL COMMERCIAL AREA, Potential Key Improvements

# Key

Streetscape Improvement

■■■ Intermittent Street Frontage (conceptual line)

Intersection Improvement

→ Site Access

■■■ Potential Service Laneway

Important Landscape Edge

▼ HIGHWAY COMMERCIAL AREA, Potential Key Improvements



## 2.2.1. Streetscape

As the main north-south spine of Bolton, Regional Road 50 should be a well designed streetscape with a rhythmic and logical use of trees, furniture, lighting, paving and planting. It should have attractive and durable materials, and have consistent landscape maintenance. The construction of the streetscape should be independent from the redevelopment of adjacent private properties.

**Background** - The dimensions of Regional Road 50 right-of-way (ROW) vary considerably between William Street (by the Albion-Bolton Fairgrounds) and Mayfield Road. In the South Hill Commercial Area, north of the railway, the ROW is an average of 37 metres, except along the Husky property where it is 45 metres wide. The roadway is divided into four lanes with an additional central turning lane, occupying 50% of the ROW. South of the railway, the ROW width varies between 40 and 45 metres and has a similar five-lane cross-section. Along the entire corridor, the sidewalks are discontinuous but more frequent along the east side of the road.

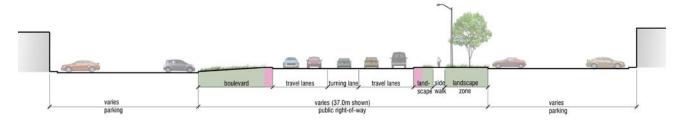
▼ REGIONAL ROAD 50, looking south in the South Hill Commercial Area.



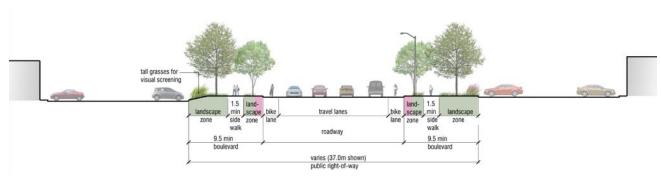
## Guidelines

The key improvements to the streetscape in the South Hill Commercial Area are:

- Continuous sidewalks (1.5 metres minimum) on both sides of the street, except along the Husky property frontage;
- Double-row of large trees on either side of the street, planted in the public right-of-way;
- Grassed boulevard with tall grasses or shrubs at the edge of parking lots for visual screening;
- Repaved or painted crosswalks at key intersections;
- Long term addition of bike lanes.



▲ EXISTING STREETSCAPE, South Hill Commercial Area

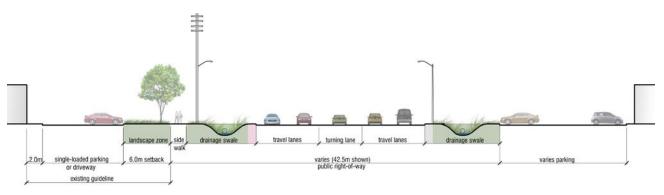


▲ POTENTIAL STREETSCAPE, South Hill Commercial Area

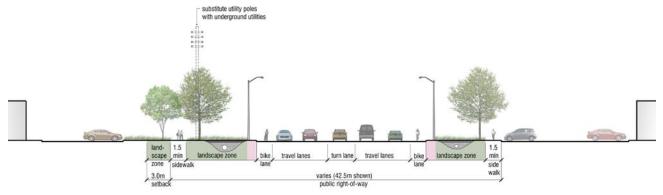
The key improvements to the streetscape in the Highway Commercial Area are:

- Continuous sidewalks (1.5 metres minimum) on either sides of the street;
- Double-row of large trees on both sides of the street: one row planted in the public right-of-way and the other in the 3.0 m setback if there is no space available in the ROW;
- Roadway width reduction wherever possible;

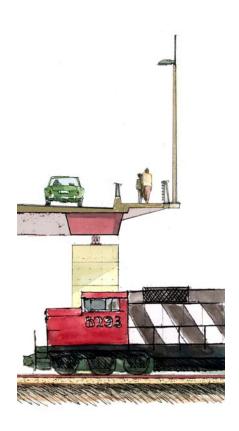
- Covered drainage swales;
- Grassed boulevard with tall grasses or shrubs at the edge of parking lots for visual screening;
- Repaved or painted crosswalks at key intersections;
- Long term replacement of utility poles with underground utility channel; and
- Long term addition of bike lanes.



▲ EXISTING STREETSCAPE, Highway Commercial Area



▲ POTENTIAL STREETSCAPE, Highway Commercial Area



▲ BRIDGE PRECEDENT, Hamilton, showing a generous sidewalk along a vehicular bridge crossing the railway

### **Paving**

The Bolton-Regional Road 50 (RR50): Landscape Plan Master Plan makes specific suggestions regarding paving materials and colours which should be followed: stamped coloured concrete on the maintenance strip and on crosswalks at signalized intersections; and smooth concrete on sidewalks. Please refer to these guidelines for specific crosswalk treatments.

Sidewalks should have a minimum width of 1.5 metres. If located next to a building, the extended paved area can accommodate street furniture or plantings, or be filled with functional elements that are directly related to the adjacent buildings and their uses (sidewalk cafe seating, further plantings, etc.). This zone should be designed for the barrier-free movement of pedestrians and be clear of permanent and temporary objects.

#### Street Furniture

Street furniture should be located between the sidewalk and the roadway. Maintaining consistent standards for the design and placement of street furniture including transit shelters, lighting, litter containers, and bicycle racks, will help to define the identity of the street. The theme of the family of street furniture should have a contemporary design appearance.

### **Street Trees/Landscaping**

The inclusion of large street trees and other planting within the public right-of-way benefits the pedestrian experience by enhancing and unifying the image of the street, providing shade and creating a buffer between the walking zone and the roadway.



► EXISTING STREETSCAPE IMPROVEMENTS ON ALLAN DRIVE, at Regional Road 50

They also have numerous environmental benefits by, among others, reducing the urban heat island effect and capturing carbon dioxide.

- Landscaping should be selected to provide physical comfort and visual interest to the streetscape;
- Typically street trees should be located in a double row, one between the sidewalk and the roadway and another at the back of the sidewalk:
- Plant materials should be compatible in type and scale with the adjacent land uses and buildings;
- Plant materials/species and planting infrastructure should be coordinated along the length of the corridor to provide visual continuity to the entire street;
- Selected plant species should be suited to the climate of Bolton, able to grow within the physical space allotted them (both horizontally and vertically), and resistant to damage by salt or other minerals common to urban streets in Canada;
- Maintain and protect existing mature trees where possible, including setting back or notching builtform to accommodate mature trees deemed to be of significance;
- Invest in the investigation and implementation of planting technologies that improve the sustainability of trees in urban settings; and
- Consider the development of Street Tree
   Preservation and Planting Guidelines to be applied on public and private projects.

### **Bicycles**

In the future, bicycle lanes should be accommodated along the Regional Road 50 in a safe and appealing manner so that bicycle use is encouraged.

#### Street Parking

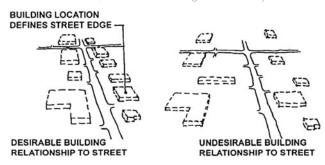
The provision for street parking encourages pedestrian activity within the boulevard while creating a physical barrier between the travel lanes and the sidewalk.

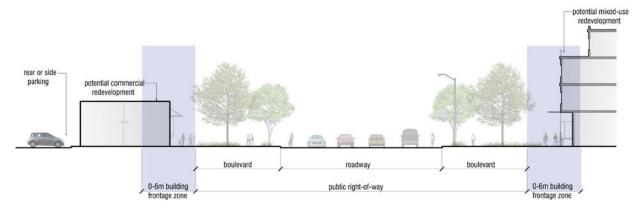
Street parking is not currently proposed within the sections shown. Street parking could be accommodated within the curb-side lane on either side of the street if other traffic calming measures are in place to reduce the need for through-traffic lanes to one in either direction, and could be implemented during off-peak hours only with specific signage in place.

### Pedestrian Linkage over Rail Tracks

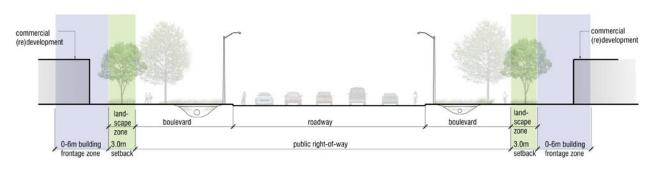
The bridge on Regional Road 50 needs a new pedestrian linkage to connect the residential neighbourhoods north of the rail tracks to the commercial areas to the south. This linkage could potentially take the form of a cantilevered sidewalk added onto the bridge structure, with generous width and lighting to make it safe and comfortable for pedestrians. The east side of the bridge would be a more adequate location for the linkage because it would connect to existing sidewalks leading up to the bridge.

▼ EXISTING BUILT FORM GUIDELINE (Source: Town of Caledon Industrial/Commercial Design Guidelines)





▲ BUILT FORM GUIDELINE, South Hill Commercial Area



▲ BUILT FORM GUIDELINE, Highway Commercial Area

#### 2.2.2. Built Form

Regional Road 50 should have a stronger spatial definition generated through building edges, appropriate walls, hedges, and tree canopies. The buildings and the landscape should be more prominent than large parking areas.

#### Guidelines

#### **South Hill Commercial Area**

The built form along Regional Road 50 in the South Hill Commercial Area is intended to transform, in the long term, from a low-rise to a mid-rise scale and mixed-use in character. All parking should be located at the rear or side of the property.

An intermittent street wall is desirable along the length of RR50, with vehicular access drives limited wherever possible and replaced by separate service laneways along the rear property line of development properties. It is suggested that a minimum of 65% of the street wall be occupied by building frontages, within a building frontage zone of 0 – 6 metres from the public right-ofway.

When adjacent to residential uses, the rear-yard setback should be defined by a 45 degree angular plane restriction from rear lot line of adjacent existing residential neighbourhood.

### **Highway Commercial Area**

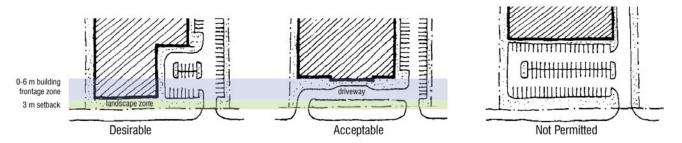
The built-form along Regional Road 50 in the Highway Commercial Area, south of the railway, is intended to remain as a low-rise scale and commercial in character.

An intermittent street frontage is desirable along the length of RR50, with vehicular access drives limited wherever possible and replaced by service laneways along the rear property line of development properties. It is suggested that a minimum of 50% of the street wall be occupied by building frontages, within a building frontage zone of 0 – 6 metres from the public right-of-way.

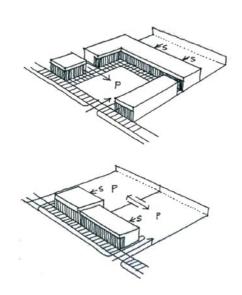
# ▼ STREETSCAPE AND BUILT FORM PRECEDENT, Queensway in Toronto



▼ PARKING AND BUILT FORM GUIDELINE for Highway Commercial Area. No 3 metre setback in South Hill Commercial Area (Modified diagram based on Town of Caledon Industrial/Commercial Design Guidelines)



▼ PARKING AND SERVICING GUIDELINE



▼ EXISTING PHOTO ON RR50, low hedging is an effective way to visually separate parking from the street.



#### 2.2.3. Parking

Parking areas should be located at the side and/or rear of the building, and be sub-divided by planting and pathways.

#### Guidelines

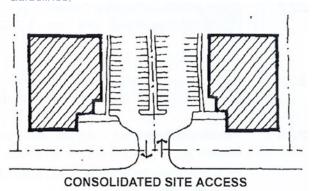
- The preferred location of main parking areas is at the side and/or rear of the building. Locating main parking areas between the building and the street should not be permitted;
- Where parking areas are visible from the street, buffer landscaping and screening features should be provided such as tree planting, hedges, tall grasses, low walls and decorative fencing;
- Large parking areas should be broken into smaller blocks defined by landscaping and pedestrian walkways;
- Stormwater management features such as bioswales should be an integral part of the design of large parking areas.

#### 2.2.4. Site Access

Vehicular access points off Regional Road 50 should be consolidated wherever possible to minimize conflicts with pedestrians and cyclists, and to enable the implementation of a continuous streetscape.

- Whenever feasible, access points should be consolidated to reduce the number of driveways on the street;
- Service laneways should be encouraged when access from the side or back of properties is limited;
- Site access to corner lots should not be located close to the intersection;
- Driveway entrances should be aligned with access points on the opposite side of the street.

▼ ACCESS CONSOLIDATION GUIDELINE (Source: Town of Caledon Industrial/Commercial Design Guidelines)





■ LANDSCAPE AROUND PARKING LOT, precedent in Toronto

▼ PEDESTRIAN CONNECTION TO TRANSIT STOP, precedent in Toronto





▲ LANDSCAPE AROUND PARKING LOT, precedent in Toronto

## 2.2.5. Landscape

Private areas, including parking lots, visible from the public realm should be landscaped and well maintained.

#### Guidelines

Landowners are encouraged to:

- Increase the area of green space and the number of trees in their properties;
- Subdivide parking lots into small blocks, defined by landscaping such as rows of trees, masses of shrubs, low walls, decorative fencing or low hedges;
- Use native plantings to minimize irrigation and maintenance needs. Use alternatives to sod such as native ground covers or drought-resistant lawn types;
- Use irrigation systems such as SMART Watering Systems that use weather information to assess when to irrigate;
- Provide pedestrian linkages between;
  - parking areas and the building;
  - parking areas and transit stops or adjacent sidewalk;
  - buildings on adjacent lots;
- Combine signage with the building façade to minimize freestanding signs.



▲ SIGNAGE COMBINED WITH THE FACADE

(source: www.greenscreen.com)



▲ WALL SIGNAGE PRECEDENT, Vancouver

▼ EXISTING SUCCESSFUL STORE IDENTIFICATION, Shopping Centre Area on RR50



#### 2.2.6. Signage

Signage should be clear, attractive and scaled to its intended users. Signs should not create visual clutter on the street.

**Background** - The streetscape of RR50 is visually cluttered by a variety of signs. The most common ones are directional signs, ground signs, wall signs and mobile signs.

#### **Guidelines**

- Directional signs should be scaled to the speed at which they will be viewed. Their size should be as small as possible;
- Freestanding ground signs should be consolidated wherever possible;
- Wall signs should be designed in coordination with other adjacent walls signs;
- Mobile signs should not be permitted.

### 2.3. Industrial Area

The industrial area is very large and holds a variety of conditions depending on the level of landscape and building maintenance, visibility of open storage and amount of parking visible from the public realm. It has some properties with well greened front yards and others with poorly kept gardens, buildings and driveways.

The general purpose of these guidelines is to create a place that is both functional and attractive. This area would benefit from improved landscapes facing the public realm; additional screening of open storage; the application of innovative stormwater management practices; the construction of environmentally sustainable buildings; and the continued application of the guidelines stated in the *Town of Caledon Industrial/Commercial Design Guidelines*.

# ▼ POTENTIAL ROAD IMPROVEMENTS IN THE INDUSTRIAL AREA



Potential Roads

Potential Service Laneways

## 2.3.1. Road Network and Streetscape

The industrial area should have a coherent and complete network of streets that provides full access to all properties. The streets should be clean, well landscaped, and be appropriately designed to accommodate trucks, cars and bikes.

**Background** - The existing road network in the industrial area is incomplete. Many streets in the industrial area are poorly maintained and have no facilities for bikes. The image of the street is also negatively impacted by poor building maintenance and unscreened open storage. General streetscape improvements, especially a tree planting and maintenance programs, should be considered.

#### Guidelines

The Town is encouraged to make the following improvements:

- Extend Simpson Road to Mayfield Road;
- Extend Nixon Road between George Bolton Parkway and Parr Boulevard;
- Extend Simona Drive to Simpson Road;
- Add a road connection between Simpson Road and Coleraine Drive; and
- Add service laneways in the area between RR50 and Albion-Vaughan Road.

## 2.3.2. Landscape

Private spaces visible from the public realm should be green and well maintained. Open storage should not be visible from the street.

#### Guidelines

Landowners are encouraged to:

- Increase the area of green space and the number of trees in their properties, and protect existing mature trees;
- Use native plantings to minimize irrigation and maintenance needs. Use alternatives to sod such as native ground covers or drought-resistant lawn types;
- Use fences, hedges and screens with vines or climbers to hide open storage from view, and use taller shrubs and trees to frame the view of the buildings;
- Combine signage with the building to minimize freestanding signs and enhance the building facades. Use signage to clarify the hierarchy of entrances i.e. more prominent sign next to the main entrance;
- Provide pedestrian linkages between:
  - parking areas and the building;
  - the main building and transit stops or adjacent sidewalks;
  - buildings on adjacent lots the building and outdoor amenity areas;

► GREEN FENCING
PRECEDENT FOR OPEN
STORAGE AREAS (source:
www.greenscreen.com).



► GOOD PEDESTRIAN CONNECTIONS AT MARS





▲ EXISTING OUTDOOR AMENITY AT HUSKY

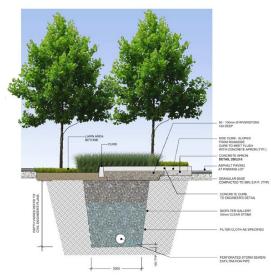
 Provide outdoor amenity areas such as well furnished eating areas, and playing fields and walking trails for active recreation.

▼ HONDA'S NEW PLANT, MARKHAM, ONTARIO, the parking is sub-divided by rows of trees along biofilter swales. These swales filter stormwater and facilitate infiltration, promoting groundwater recharge and reducing the temperature of treated stormwater that is discharged from the system.

(Credit: Schollen & Company, Sabourin & Kimble)



► BIOSWALE, the bioswale slows down the flow of stormwater and improves its quality. (Credit: Schollen & Company, Sabourin & Kimble)



## 2.3.3. Stormwater Management

Stormwater management should be an integral part of the site planning of any new development or redevelopment in the industrial area.

Emphasis should be put on the application of innovative technologies such as bio-swales, greenroofs, rainwater harvesting and reuse, etc.

Background - The goal of stormwater management is to mimic the water drainage patterns to those predevelopment, when rainwater infiltrated into the ground and would only run overland towards creeks and streams after the soil was saturated. Industrial properties have large areas of paved surface that do not allow for this kind of slow infiltration to happen, thus accelerating the flow of water clouded with sediments, oils and other contaminants.

The older part of the industrial area was developed at a time when there were few to no requirements to deal with stormwater runoff. As a result, most stormwater runoff from this area is likely being channeled through storm sewer pipes and quickly delivered to creeks or streams without any treatment. Bolton's location at the headwaters of the Humber River means that any increase in the amount of stormwater will have compounded effects downstream.

The newer part of the industrial area has been subject to more rigorous requirements for managing stormwater. In this area, developers have included retention ponds and open water channels that slow down the flow of rainwater, in event of a storm, and also improve its quality.

#### Guidelines

The Town may want to initiate a Stormwater Management Plan for the Industrial area to have better understanding of the quality and quantity of stormwater flows from the whole area.

Individual landowners are encouraged to:

- Reduce the quantity of stormwater flows to public infrastructure;
  - Improve the quality of stormwater flows to public infrastructure or adjacent properties;
- Incorporate green technologies such as greenroofs, permeable pavement, biofilter swales, rainwater harvesting, erosion and sediment control ponds, bioretention systems, roof runoff infiltration and exfiltration systems etc. as an integral part of the site plan for their property;
- Combine stormwater features such as wet ponds with other outdoor amenities for employee enjoyment; and
- Increase the tree canopy on their properties.

Resources

www.sustainabletechnologies.ca

### ▼ EXISTING GREEN DEVELOPMENT PROGRAM, criteria and benefits

	IENT CHARGE DISCOUNT AI CIAL & INDUSTRIAL BUILDI		
TACTIC	INCLUSIONS	DISCOUNT AS A PERCENTAGE OF NON-RESIDENTIAL DEVELOPMENT CHARGE	
Green Technologies**	Solar hot water system	5% for any inclusion or any combination of inclusions	
	Transpired solar collectors		
	Solar photovoltaic system		
	Permeable pavement		
	Storm water cistern		
LEED® Certified	Certified and registered	20%	
LEED® Silver	with the <i>Canada Green Building Council</i> as	22.5%	
LEED® Gold	meeting the applicable LEED® Canada 1.0 Rating	25%	
LEED® Platinum	System (or its successor)	27.5%	
	own of Caledon development cha		

<sup>\*\*</sup>for fact sheets visit www.caledon.ca/greendevelopment.

## 2.3.4. Green Building

New and retrofitted buildings should be more energy efficient, use less potable water and generate less waste than conventional buildings.

Background - The Town has a Green Development Program that provides municipal development charge discounts for new green commercial and industrial buildings. The eligible green technologies are: a solar hot water system, transpired solar collectors, a solar photovoltaic system, permeable pavement, and stormwater cistern. LEED Certification by the Canada Green Building Council will also enable developers to have development charge discounts from 20% to 27.5%.

Guidelines

Much of the industrial area has already been developed, which means that the current Green Development Program does not apply unless the existing building is replaced by a new structure. To complement it, the CIP includes a specific Energy Efficiency Retrofit Grant Program to promote the retrofit of existing buildings to become more energy efficient.

A long-term progressive measure would be to develop a comprehensive sustainability master plan for the industrial area that would analyze the current energy and water inputs and outputs of each facility, and explore the possibility of transferring energy and water between properties. For example, a facility that refrigerates goods produces heat (in the refrigeration process) that could be reused by an adjacent facility. This kind of

master plan could enable potential developers to buy property strategically, (i.e., according to the potential sharing of energy between neighbours, as opposed to simply following conventional criteria for real estate acquisition). Ultimately the idea is to position Bolton's industrial area as a desirable location for progressive and environmentally conscious entrepreneurs.

