



MACVILLE

URBAN & ARCHITECTURE DESIGN GUIDELINES

Caledon (Bolton), Ontario

FEBRUARY 2021

TOWN OF CALEDON
PLANNING
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Macville
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Executive Summary

The Macville Urban and Architecture Design Guidelines sets a framework for the design and development of a vibrant and connected new community in the Town of Caledon. This 182 hectare greenfield site is planned to comprise residential with supportive mixed uses, anchored by a future GO Transit Hub at the east limit of the site.

The Macville Urban and Architecture Design Guidelines (UADG) apply to the Subject Land's owned by Bolton 'Option 3' Landowner Group. This UADG is required by the Town of Caledon as part of the detailed development application to be submitted for review and approval by the Town. More specifically, the UADG builds on the legacy and vision from the Bolton Residential Expansion Study (BRES) process where the design framework noted herein is a continuation of these planning and design efforts.

To this aim, a set of guiding principles have been established from the outset of the study, including the application of best urban design practices, encompassing transit-oriented development, an active transportation strategy with cycling infrastructure throughout, integration of the environmental policy area, memorable community experience, mixed-housing types, high quality architecture, walkability and a main street with central character.

It is intended that this UADG will provide guidance for future land uses planning and development application processes, recognizing that some of today's underlying plan assumptions may change over time. This does not weaken the content or intent of this guideline, but rather directs the land owner to consider the broader context and overall area requirements as noted in other sections of this UADG and in other applicable approval authority documents. It is understood that with time, amendments may be pursued or required to this UADG. For this reason, the UADG contains design elements which allow for flexibility in the future.

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The document has been structured in the following manner:



INTRODUCTION

Provides an overview of the documents purpose and site background, including site context, analysis and policy framework.



COMMUNITY DESIGN VISION

Outlines guiding principles that lay the foundation for the development of a healthy, complete, and resilient community. Describes the adopted framework plan in relation to the preferred scenario and summarizes the opportunities and constraints of the design.



COMMUNITY STRUCTURE

Describes the primary structuring elements that serve as framework for defining the various land uses, establishing street hierarchy and network, and creating neighbourhood configurations and community node areas.



PUBLIC REALM & STREETScape DESIGN GUIDELINES

Provides guidelines for streetscape and public realm elements to ensure safety, establish a high quality and durable built component, reinforce a comfortable street environment, wayfinding and placemaking.



PARKS & OPEN SPACE GUIDELINES

Provides guidelines for parks and open space amenities, features and elements to help support the environmental policy area and trail system as part of a sustainable community design.



ARCHITECTURE & SITE PLANNING GUIDELINES

Provides guidelines for architectural design of all built form present within the community, including priority lot locations that will support the goal of creating a visually attractive and safe streetscape design.



SUSTAINABLE DEVELOPMENT & SMART CITY/TOWN INITIATIVES

Describes several important measures to ensure the community is designed with a strong emphasis on the integration of sustainable practices and city/town initiatives that will result in a healthy, resilient and active community.



IMPLEMENTATION

Outlines the implementation process of these guidelines and the design principles noted herein during draft plan development through to Architectural Design Control.

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INTRODUCTION





1.1 DOCUMENT PURPOSE & STRUCTURE

NAK Design Strategies has been retained by Bolton 'Option 3' Landowner Group (hereinafter known as the "Owner") to prepare the Urban and Architecture Design Guidelines for the development of the property known as Macville in the Town of Caledon.

The Macville Urban and Architecture Design Guidelines (UADG) set out to achieve a coordinated approach to urban design throughout the Subject Lands, providing comprehensive Urban and Architectural Design Guidelines that reinforce broader planning objectives as outlined in the Region of Peel and Caledon Official Plans.

The purpose of these Urban and Architecture Design Guidelines is to provide design direction in support of municipal development goals, while retaining the Subject Land's own unique design integrity.

The information contained herein describes the physical design of the community and is intended to promote economic, social and environmental values, that will be achieved through the following:

- **Community Character** – provides a high quality built form character and architectural design that exemplifies the identity of Caledon and promotes tourism.
- **Main Street** – creates a central character avenue with an attractive, high quality streetscape and built form design that links the community and businesses.
- **Smart Communities** – integrates 'smart' community technologies that establish broadband connectivity for an improved quality of life through learning, work and play.
- **Transit-Oriented Development** – creates transit oriented community that is anchored by a GO Transit hub which balances pedestrian, cycling, transit and vehicular connections.
- **Community Experience** – establishes a vibrant, mixed-use environment that attracts activity throughout the day and evening.
- **Walkability** – creates walkable, pedestrian-scaled neighbourhoods with amenities and transit stops within walking distance and a safe, comprehensive path and trail system that links with the broader Caledon network.
- **Residential Mix** – establishes a range and mix of housing types that reinforce identifiable neighbourhoods and meets density targets.
- **Parks and Open Spaces** – establishes a hierarchy of park spaces with flexible design and innovative programming options catered to the neighbourhood character.
- **Low Impact Development** – integrates appropriate low-impact development strategies as a key component of open space and built form design.
- **Potential Environmental Policy Area Features** – protects and enhances existing natural features, wetlands and wildlife corridors and expands upon the natural features with introduced parks and open spaces.



1.2 BACKGROUND







1.2.1 REGIONAL & LOCAL CONTEXT

Macville consists of approximately 182 hectares of land located within the Bolton Residential Expansion Study Area (BRES) of the Town of Caledon. The site is bounded by the Gore Road to the west, King Street West to the south, the Canadian Pacific Railway (CPR) and part of Humber Station Road to the east, and Whitebelt lands to the north.

With a proposed Caledon GO Transit Line, utilizing a transit oriented development approach for Macville is a logical location for strategic growth and density surrounding this future Major Transit Station Area.

This GO train service extension to Macville will not only provide regional linkages, but will also be a key component of a well-connected strategy with Bolton residential, commercial and employment lands, as well as providing access to the Greenbelt and the extensive recreation trail networks.

LEGEND:

-  EXISTING GO RAIL LINE
-  PROPOSED GO RAIL LINE (BOLTON)
-  PROPOSED GO RAIL STATION (BOLTON LINE)
-  GTA WEST FOCUSED STUDY AREA (APPROX.)
-  BOLTON EXPANSION AREA BOUNDARY (OPTION 3)
-  GREENBELT (APPROX.)

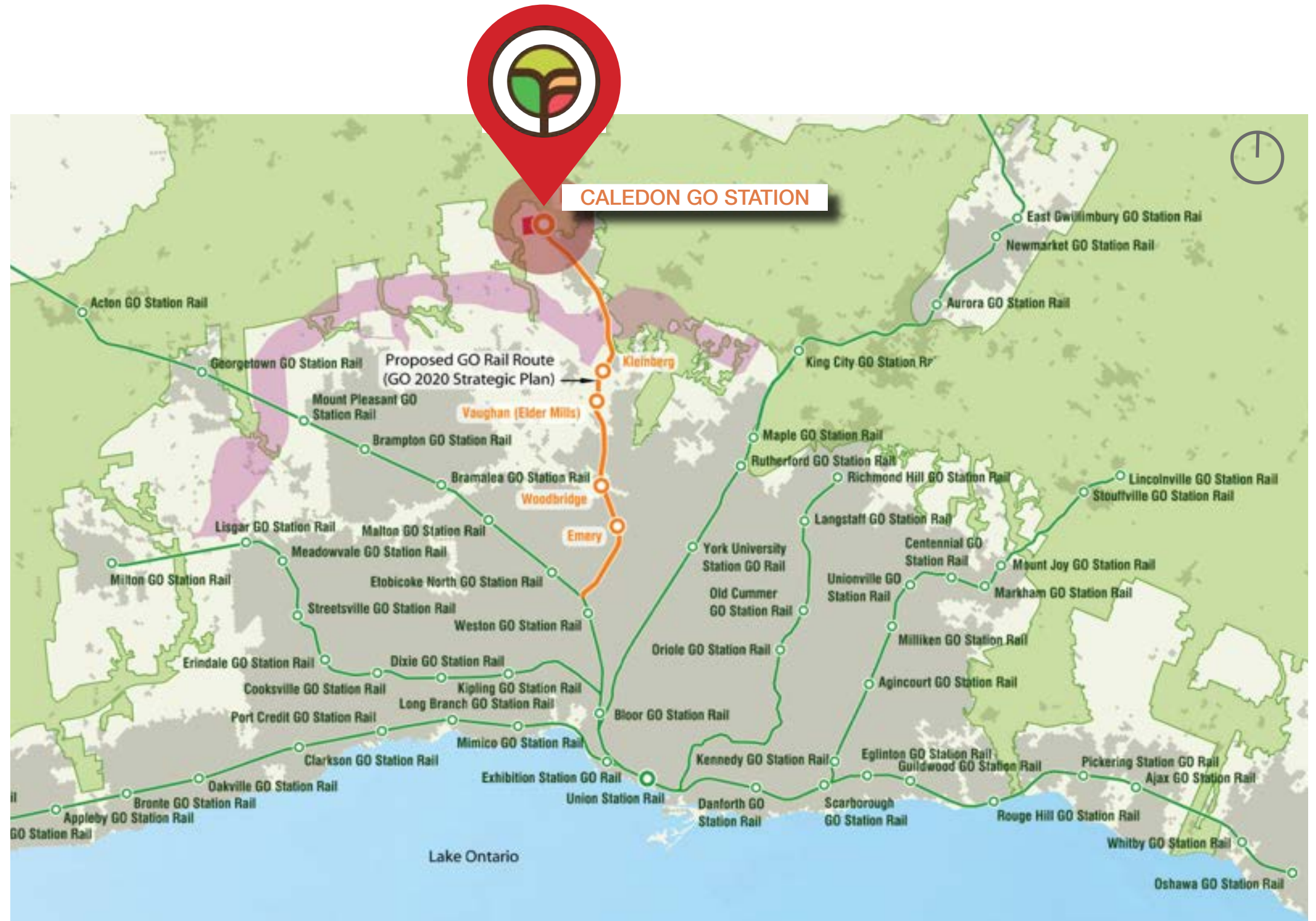


Figure 1: Regional Context Map

1.2.2 SITE CONTEXT AND ANALYSIS

The existing character of the Subject Lands is that of gently sloping farmland with natural feature areas that are intended to be preserved and which will provide opportunities for smaller local linkages and key features based on environmental and site studies. Existing land uses of the site consist of a combination of agricultural, rural residential and open space uses.

The Subject Lands will be developed into a complete mixed-use community consisting of residential, commercial and employment lands that will be bounded by:

To the North

- Whitebelt lands sit to the north of the site and about the GPNHS and Oak Ridges Moraine Conservation Plan Area (ORMCPA). These lands are currently being considered through the Region of Peel's emerging 2051 MCR for possible future 2051 growth, consisting primarily of residential development.

To the East

- CPR and GPNHS which will form the eastern boundary of the development. The GPNHS is made up of the Protected Countryside, that is intended to support a range of recreation and tourism uses for surrounding settlement areas, and provides paramount ecological functions.

To the South

- Existing commercial and employment lands about the proposed Subject Lands immediately to the south (King Street West and Humber Station Road). The existing Bolton Rural Settlement Area Urban Area exists to the south of King Street West and to the east of Humber Station Road and consists of residential communities predominantly comprised of two-storey single-detached dwellings.

To the West

- Whitebelt lands wrap around the north-west corner of Macville and which are currently being considered through the Region of Peel's emerging 2051 MCR for possible future 2051 growth, consisting primarily of residential development.



Figure 2: Community Context Map

1.2.3 POLICY FRAMEWORK

Macville provides an opportunity to develop a complete mixed-use community within the Town of Caledon's established settlement boundary. The proposed community design is therefore subject to several planning and urban design policies which have been discussed in further detail within this section of the Urban and Architectural Design Guidelines.

1.2.3.1 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) came into effect on May 01, 2020, and establishes a comprehensive vision and direction for land use planning in Ontario. One of the key policy directions expressed in the PPS sets out to build strong communities by promoting efficient development and land use patterns. To that end, the PPS contains a number of policies that promote intensification, redevelopment and compact form, particularly in areas well served by public transit.

In support of the PPS, the land use design within the Subject Lands will be based on:

- a) *Densities and a mix of land uses which efficiently use land and resources (Policy 1.1.3.2).*
- b) *Minimize negative impacts to air quality and climate change, and promote energy efficiency (Policy 1.1.3.2);*
- c) *Are transit-supportive, where transit promote densities and a mix of land uses which efficiently use land, resources, infrastructure and public service facilities (Policy 1.1.3.2);*
- d) *Promote appropriate development standards, which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety (Policy 1.1.3.4); and*
- e) *Provide that new development taking place in designated growth areas should occur adjacent to the existing built-up area and shall have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and services (Policy 1.1.3.6).*

1.2.3.2 A Place To Grow: Growth Plan For The Greater Golden Horseshoe Office Consolidation (2020)

The Growth Plan for the Greater Golden Horseshoe (GGH) Office Consolidation has been prepared under the Places to Grow Act (2005), to provide an overall vision and direction for residential and employment related development within one of the fastest growing regions in North America. The Growth Plan establishes a long-term vision for growth in the area, and advocates for the development of vibrant, compact and complete communities that support a strong economy through intensification, efficient use of land and infrastructure, and support for transit viability.

The design of Macville supports the following principles, as outlined in the Provincial Growth Plan and the Places to Grow Act:

- Develop a mixed-use community while protecting and enhancing employment opportunities around Major Transit Station Areas (Caledon GO) to encourage more transit-oriented development and intensification;
- Flexibility to capitalize on new economic and employment opportunities;
- Implementation of environmentally sustainable practices to minimize negative impacts to air quality and climate change;
- Intensification and introduction of higher densities in strategic growth areas to make efficient use of land and infrastructure; and
- Consideration of climate changes and management of growth through planning for more resilient communities and infrastructure.

1.2.3.3 Town of Caledon Official Plan (2018)

The Town of Caledon Official Plan (OP) is meant to provide a road map for the next 20+ years of development in the Town of Caledon. The principles and objectives contained in the OP support the Town's strategy to preserve its rural character and cultural heritage, while adapting to pressures of urbanization, fiscal capacity and the demand for more urban services.

To support Town's strategic direction, the followings principles will be integrated in the development of Macville:

- Settlement pattern that reinforces the concept of Caledon continuing to be a community of communities and provides the residents with convenient access to opportunities for employment, learning, culture, recreation, and physical and social well-being;
- A hierarchy of roads and a road pattern which minimizes the impact of traffic on sensitive environmental areas, heritage features and human settlement, while at the same time providing for the convenient movement of residents and the movement of through traffic traversing the Town;
- Quality of community life that provides access to community based services in a manner that best responds to the need for employment, learning, shopping, culture, recreation and social opportunities;
- An open space system which promotes a diversity of recreational and leisure opportunities; and
- A mix and range of housing that responds to the needs of the community.

1.2.3.4 Caledon Comprehensive Town-Wide Design Guidelines (2017)

The Town-wide guidelines are intended to be a single, consolidated source of guidance for both urban and rural setting in the Town of Caledon. These guidelines recognize the role and significance of Town's rural areas in establishing the town-wide character and actively contributing to daily interactions throughout the municipality.

To support diversified uses in the Town's urban areas, the following key design principles will be adopted in the development of the Macville:

- The development of compact, connected and walkable communities that provide increased mobility options (ie: active and alternative transportation) and support future transit opportunities;
- Caledon's communities will provide opportunities for safe active transportation, promoting daily physical activity throughout the Town of Caledon by linking everyday destinations of work, school, business and recreation; and
- Greenfield development within the Town of Caledon will create identifiable and unique mixed use communities.

1.2.3.5 Metrolinx Mobility Hub Guidelines For The Greater Toronto and Hamilton Area (2011)

The development of existing and new GO Train facilities are intended to be in accordance with the following mobility hub objectives:

- A. Seamless Mobility
 - Seamless integration of modes at the rapid transit station;
 - Safe and efficient movement of people with high levels of pedestrian priority;
 - A well-designed transit station for a high quality user experience;
- B. Placemaking
 - Strategic parking management;
 - A vibrant, mixed-use environment with higher land use intensity;
 - An attractive public realm;
 - A minimized ecological footprint;
- C. Successful Implementation
 - Flexible planning to accommodate growth and change; and
 - Effective partnerships and incentives for increased public and private investment.

1.2.3.6 The Healthy Development Assessment User Guide - Region of Peel (2016)

The Healthy Development Assessment User Guide is adapted from the Health Background Study Framework (HBSF) and is intended to assist in the planning and development of creating healthy, supportive environments for Peel residents. By measuring the health-promoting potential of development proposals, the guide helps identify design standards that are essential to building healthy and complete communities.

The HDA User Guide will act as a tool to assess and implement six Core Elements of the built environment into the design and planning of Macville to ensure the community is suited to fit into Caledon's diverse development context. These core elements will include:

- Density;
- Service Proximity;
- Land Use Mix;
- Street Connectivity;
- Streetscape Characteristics; and
- Efficient Parking.

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COMMUNITY DESIGN VISION





Community Design Vision 2

2.1 COMMUNITY DESIGN VISION & OPPORTUNITIES

Macville, located in the Town of Caledon, is a 182 hectare greenfield development site planned to comprise of residential and mixed-uses that support the long-term vision for regional growth, and advocate for a strong economy through development of greenfield areas. A primary focus of the proposed plan is the integration of a commuter rail (GO Transit) station at the east limit of the site with supporting mixed-uses (commercial, office) and higher density residential. The overall plan has been structured with distinct neighbourhood areas and 2 character district areas - the Avenue and the Hub, which are anchored by the future GO Transit Station.

The goal is to create a 'made in Caledon' community that is healthy, vibrant and connected with a unique community character, high quality built form, integrated smart technologies, transit oriented, enhanced Environmental Policy Area, high quality parks and open spaces, a mix of housing types and a central main street character.

Made in Caledon

- Strong ties to the identity and character of Caledon, distinct from neighbouring communities.

Healthy

- Walkable neighbourhoods, amenities within walking distance; and
- Active lifestyle through bike lanes, trails and pathways, park facilities and community programming.

Vibrant

- A well-functioning, attractive public realm that encourages people to get outside;
- A mix of uses that attract people throughout the day and evening;
- Pedestrian-scaled spaces that are conducive to public gathering; and
- Revisit the notion of the neighbourhood street as an important social space.

Connected

- Through a comprehensive trail, path and bike lane network;
- Through an integrated transit system, including micro-transit options, with GO Transit linkages on a regional scale; and
- Through 'smart' community technologies that improves quality of life through learning, work and play.



2.2 COMMUNITY DESIGN GUIDING PRINCIPLES

Macville will be a “healthy” and “vibrant” community with a well-functioning, attractive public realm because of the opportunities a GO Train station will bring as a catalyst for creating a mix of uses with higher residential densities, employment, commercial and community open spaces that will conveniently surround the station.



COMMUNITY CHARACTER

Provide a high quality built form character and architectural design that exemplifies and promotes the identity of Caledon.



SMART COMMUNITIES

Integrate ‘smart’ community technologies that establish broadband connectivity, energy reduction solutions and municipal infrastructure advancements for an improved quality of life for residents, employees and visitors.



TRANSIT INTEGRATED DEVELOPMENT

Create a transit-integrated community anchored by a GO Transit hub that balances pedestrian, cycling, transit and vehicular connections and achieves convenient transit connections throughout the GTA that provides opportunities for growth.



ENVIRONMENTAL POLICY AREA FEATURES

Protect and enhance existing wooded areas, wetlands and wildlife corridors and expand upon the system with introduced open spaces.



COMMUNITY EXPERIENCE

Establish a vibrant, mixed-use environment that attracts activity throughout the day and evening.



PARKS AND OPEN SPACES

Establish a hierarchy of park spaces with flexible design and innovative programming options catered to the neighbourhood character.



RESIDENTIAL MIX

Establish a range and mix of housing types that reinforce identifiable neighbourhoods and meets density targets, while providing options for affordability and aging-in-place.



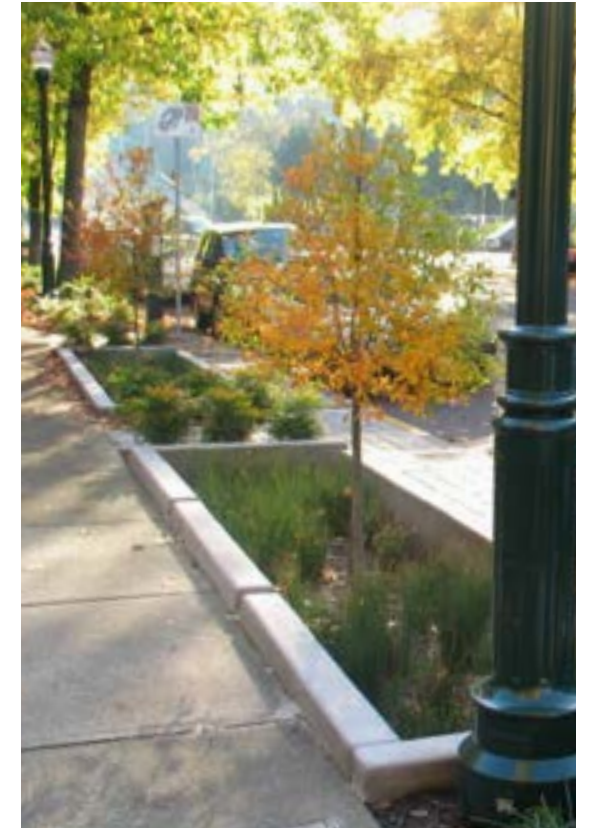
WALKABILITY

Create walkable, pedestrian-scaled neighbourhoods with amenities and transit stops within walking distance and a safe, comprehensive path and trail system that links with the broader Caledon network.



CENTRAL CHARACTER AVENUE

Create a multi-modal central character avenue that connects the entire community to the station hub with an attractive, high quality streetscape and built form design.



LOW IMPACT DEVELOPMENT

Integrate appropriate low-impact development strategies as a key component of open space and built form design.

2.3 COMMUNITY STRUCTURE PLAN

Macville's community structure plan illustrates one way in which the community may be designed to address the local road and built form layout. In keeping with the Bolton Residential Expansion Study (BRES), alternative layout options for the road network, the development blocks and the built form may be pursued by the landowners in the implementing draft plan of subdivisions and/or site plans.

LEGEND:

- SITE BOUNDARY
- LOW DENSITY RESIDENTIAL
- LOW-MEDIUM DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- MIXED-USE RESIDENTIAL (AT GRADE COMMERCIAL)
- COMMERCIAL/MIXED-USE
- FLEX DENSITY RESIDENTIAL/MIXED-USE
- GO TRANSIT LANDS
- EMPLOYMENT/OFFICE
- SCHOOL
- PARK
- NATURAL HERITAGE AREA
- STORMWATER MANAGEMENT POND

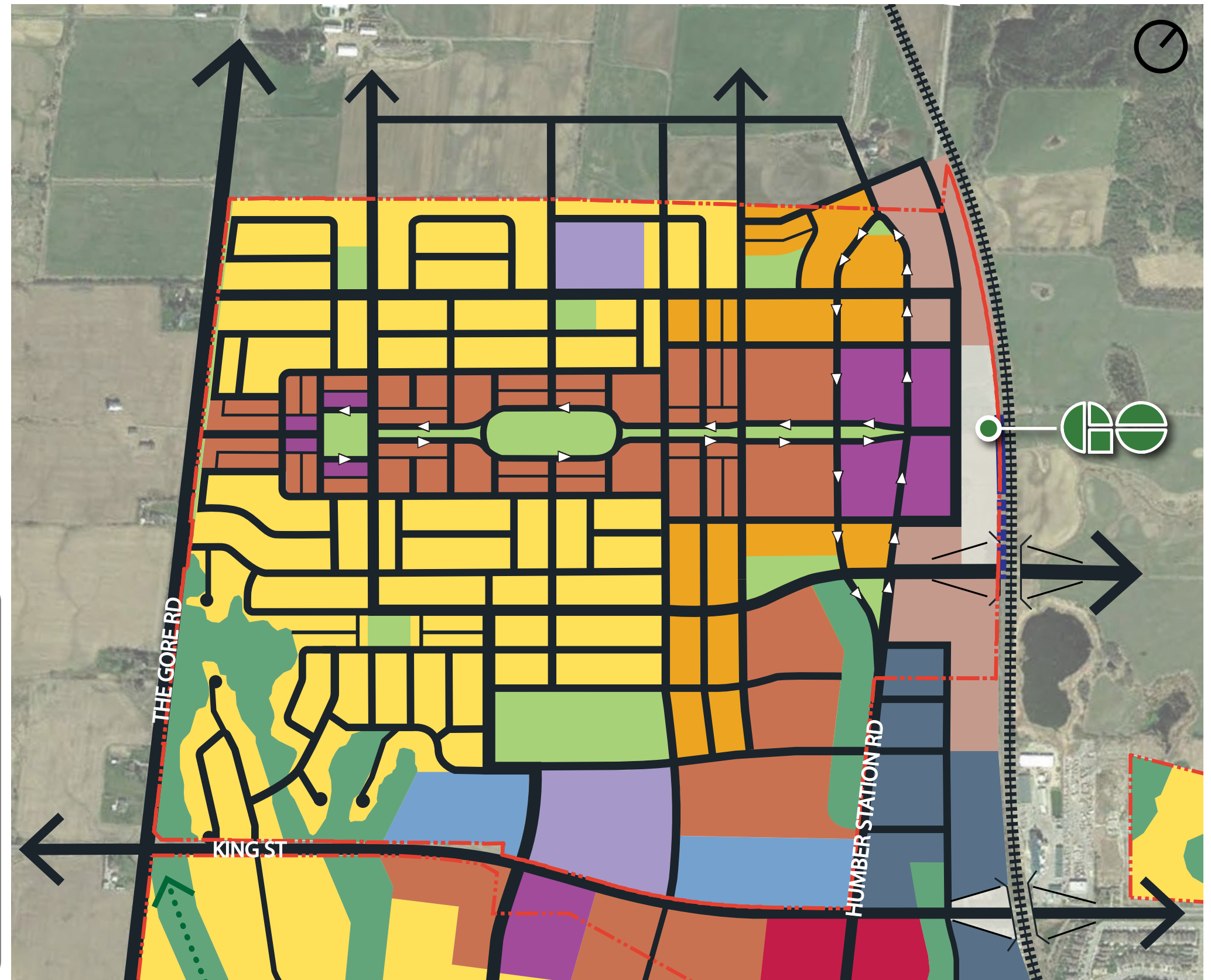


Figure 3: Community Structure Plan

COMMUNITY STRUCTURE



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Community Structure 3

3.1 ABOUT THE COMMUNITY STRUCTURE

Macville will be a “healthy” and “vibrant” community with a well-functioning, attractive public realm because of the opportunities a GO Train station will bring as a catalyst for creating a mix of uses with higher residential densities, employment, commercial and community open spaces that will conveniently surround the station.

With an emphasis on a ‘rails to trails’ program that will bring more visitors to Bolton, the Station Area will be connected through a comprehensive trail, path and bike lane network that links to each district and neighbourhood.

The community structure in conjunction with a future Caledon GO Transit station will bring about enough people populating residences, workplaces, shops and restaurants to achieve the “critical mass” where public spaces will be activated, commercial establishments will have more walk-in customers, sidewalks will be safer on a 24/7 basis and the community will feel like an interesting place that is alive with activity. This community structure serves as the framework for defining the various land uses, establishing the street hierarchy and network, and creating neighbourhood configurations.

The primary structuring elements described in this chapter include the following:

- Natural Heritage Feature, Parks & Open Spaces;
- Regional Trail Systems;
- Station Area (Multi-Modal);
- Regional Transportation Network;
- Community Transportation Network;
- Districts and Neighbourhoods; and
- Residential and Mixed-Use Densities.



Built form character, height and massing should be coordinated with the street according to use.



High activity areas will reflect more comfortable pedestrian scale, with reduced building setbacks that frame the road.

3.2 PARKS, OPEN SPACES & PROPOSED ENVIRONMENTAL PROTECTION AREA

Consistent with the community design principle to protect and enhance existing wooded areas, wetlands and wildlife corridors and expand upon the system with introduced open spaces, Macville will be supported by an extensive open space network comprising of protected natural areas, parks, SWM ponds, and connected trails and paths.

To align with the guiding principle aimed at protecting the natural environment, Macville's parks and open spaces will be planned through an integrated and comprehensive approach that considers their location in the context of the proposed EPA with respect to linkages and connectivity, interface conditions, viewsheds, and tree preservation.

Within Macville, the proposed EPA is located primarily in the south-western corner of the community, with a narrow portion located along the west side of Humber Station Road. SWM ponds have been strategically located to enhance the existing natural features, providing opportunities for trail linkages, and establishing views from streets and sidewalks.

Greenbelt lands and the Humber River are situated on the north side of Macville, providing a unique protected recreation amenity within close proximity to the new community.

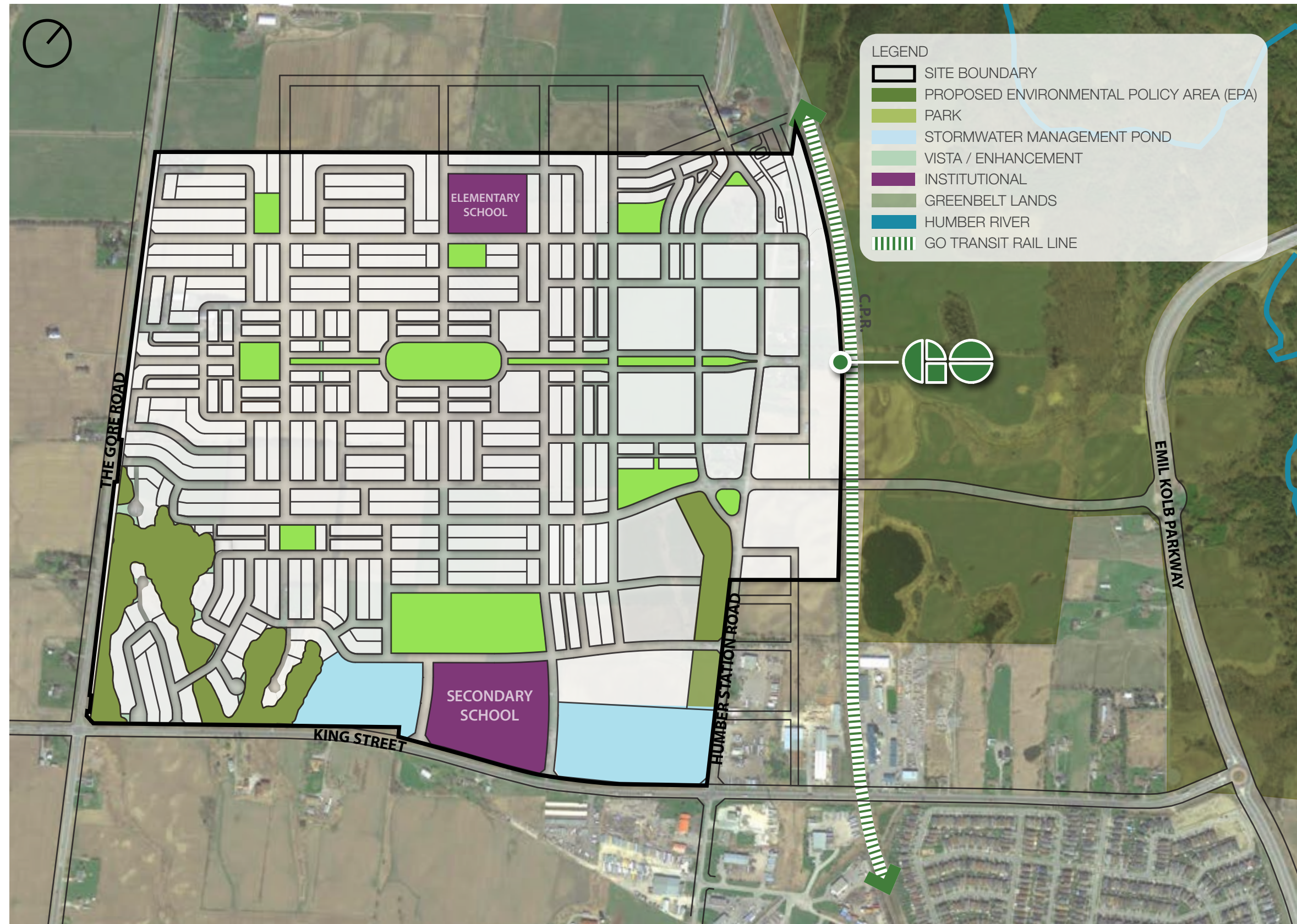


Figure 4: Macville Proposed Environmental Policy Area, Parks and Open Spaces

3.2.1 LINKAGES

The proposed EPA lands provide opportunities for trail linkages, natural viewsheds, and environmental preservation, as well as potential for accommodating stormwater management facilities. The community will be made up of an integrated open space system with linkages between the proposed EPA, parks, SWM facilities, and school sites. These linkages shall support an integrated network of pathways and trails connecting the proposed EPA and public and private open spaces throughout the community.

3.2.2 INTERFACE

The interface between the proposed EPA and adjacent proposed development will require careful consideration with respect to existing topography, vegetation communities, and hydrologic features and functions. This interface will be characterized by a mix of adjacent land uses, including rear residential lotting, single-loaded window streets, stormwater management ponds, and parks.

3.2.3 VIEWS AND ACCESS

Public access to the proposed EPA views and viewsheds is an integral component of an attractive, walkable and sustainable community. In the southern portion of the community, views will be enhanced by the proposed EPA and stormwater management facilities located along King Street. These naturalized features will provide attractive views from various vantage points within the community. These views have significantly influenced the configuration of the proposed land uses and framework plan, including the layout of the road network, blocks, SWM facilities, parks, and schools. Views and access will also be provided through a carefully designed trail system through the outer portions of the proposed EPA.

Refer to Section 5.7 – Views & Viewsheds for specific guidelines.

3.2.4 TREE PRESERVATION

Large, healthy trees are valuable assets to the community as they reduce air pollution, provide shade and cooling, offer habitat for wildlife, increase property values, enhance community aesthetics, and contribute to overall quality of life. Existing significant healthy trees beyond those contained within the proposed EPA are intended to be preserved, where appropriate.

A Tree Inventory and Preservation Plan may be required as part of the development approval process in order to identify and assess existing trees, including their size, species, condition and potential methods for protection and retention.



SWM ponds are a compatible use with the greenway system and have been situated along the edges of the community.



The greenway system interface within the community will integrate linkage opportunities as a component of the overall active transportation network.

3.3 REGIONAL TRAIL SYSTEMS

A key component of achieving continuous connections through Macville is linking the community to the existing regional trail system along Humber Station to the south, and the to trails within the Greenbelt Lands at the north and east edges of the community. To reinforce the vision of a pedestrian-oriented and well integrated community, site circulation within Macville will be facilitated through a coherent and well connected network of pedestrian routes including, wide and continuous sidewalks, bike lanes and multi-use trails for the safe and convenient movement of pedestrians and cyclists in and around the community boundary.

To the northeast of Macville, the Humber Valley Heritage Trail is part of Caledon's existing trail network and provides a valuable recreational amenity and regional active-transportation link. A potential east-west link along Emil Kolb Parkway will connect Macville to this established regional trail.

These planned connections are linkage opportunities into the regional trail system which achieve community connectivity and encourage residents and visitors to utilize active modes of transportation.

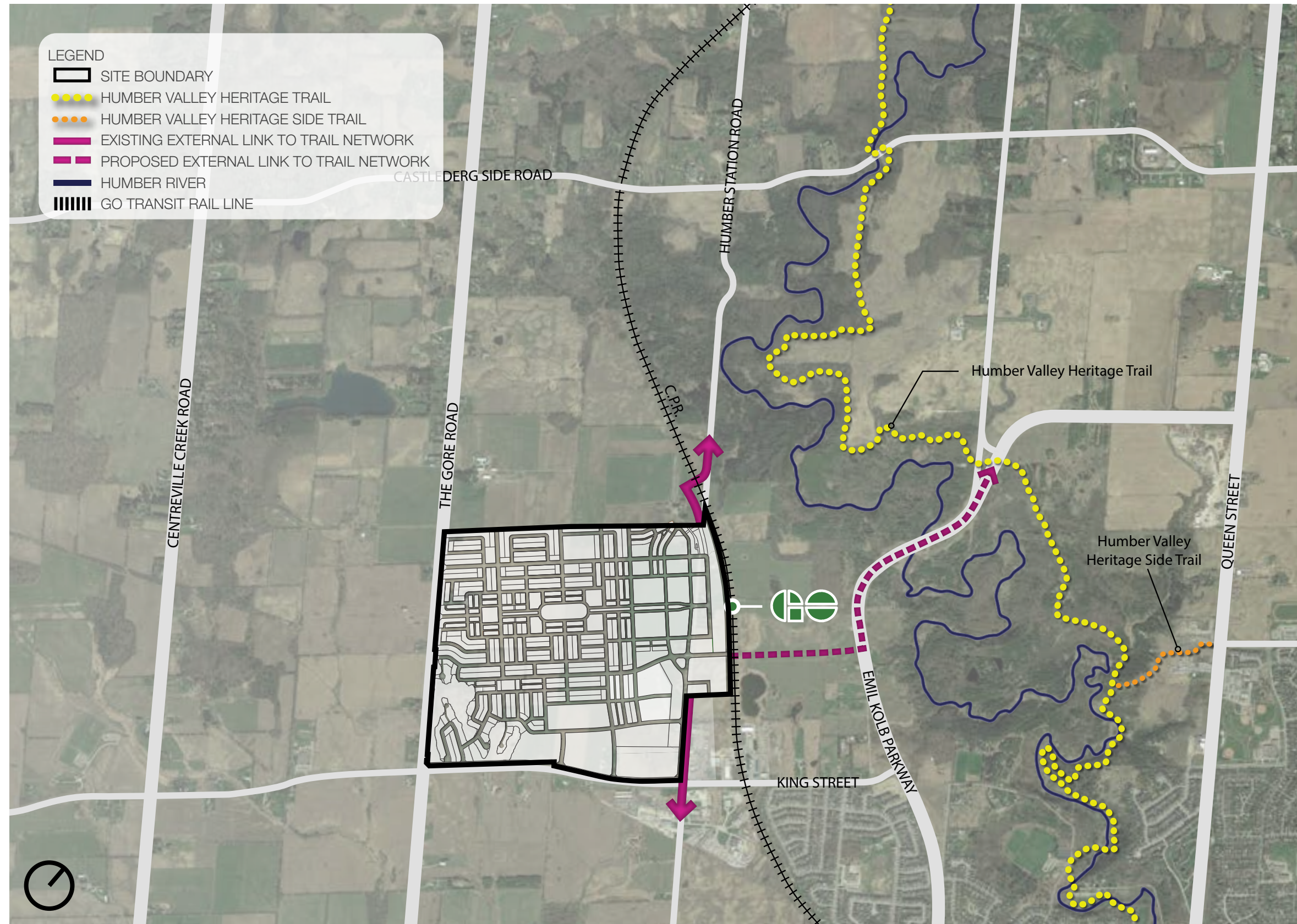


Figure 5: Macville Regional Trail Systems

3.4 STATION AREA (MULTI-MODAL)

Macville's integrated community transportation network, including pedestrian friendly streets and blocks contribute to the neighbourhood structure, providing access to amenities within walking distance. This integrated network promotes an active lifestyle through bike lanes, trails, and a connected proposed EPA, parks and open space system.

The Humber Station Loop Road (also known as Local Road A) will be linked to the Multi-modal Loop Road which will support a flexible approach to active transportation. Encouraging walking, jogging, cycling, roller blading, etc., residents and visitors will have the opportunity to use the multi-modal loop for recreation, fitness, and daily transportation needs.

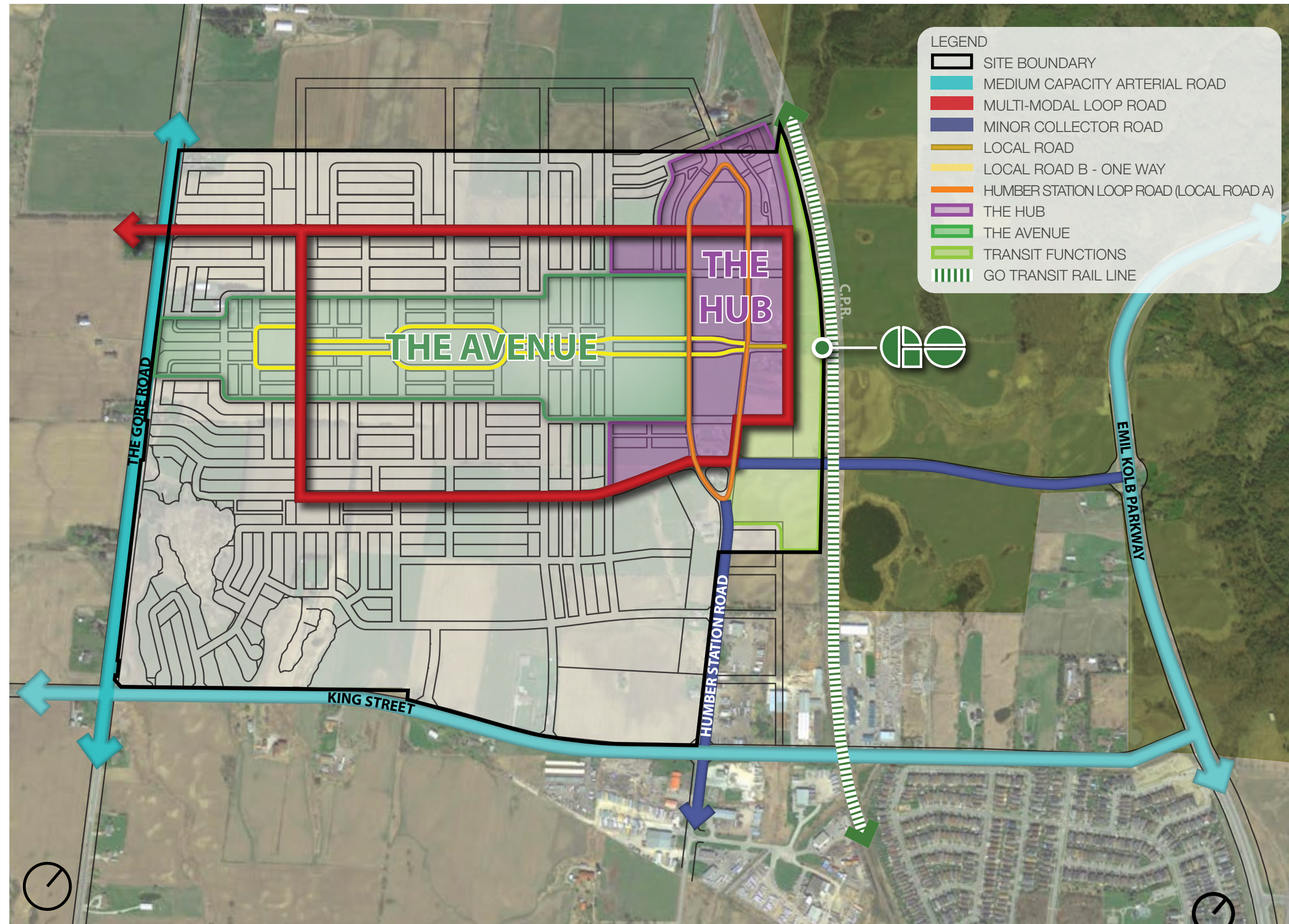


Figure 6: Macville Station Area (Multi-Modal)

3.5 REGIONAL TRANSPORTATION NETWORK

Ensuring efficient and convenient transit options are provided to and from Macville is a fundamental component of the transportation and sustainability strategy. With a comprehensive local transit network connected to the regional GO Transit linkages, Macville is ideally situated to bring residents, employees, and visitors within easy reach of local and regional destinations.

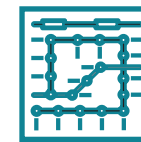
Since bringing transit to the site will be important to ensure the long term sustainability of the community, the plan is designed to be flexible, so that transit can be incorporated as the project is phased and as regional transit plans are implemented. Potential regional bus routes with Brampton Transit, GO Transit or Metrolinx may be located along Humber Station Road, King Street, and The Gore Road, as determined by transit authorities.

3.6 COMMUNITY TRANSPORTATION NETWORK

The transportation system for Macville will be designed to encourage a shift away from Single Occupant Vehicle (SOV) travel, and to embrace multi-modal transportation options with an emphasis on transit and active transportation. This will reduce vehicle trip generation, reduce traffic delays, alleviate congestion, and improve energy consumption and emissions.

Beyond traditional bus transit methods, new technologies and initiatives present alternative options that focus on first and last mile issues and which have recently emerged as real considerations for new community development. These include micro transit options, such as community shuttles, shared private services (UberPool or Lyft), and potentially autonomous vehicle services.

Regardless of the ultimate mode of transportation, the focus within Macville will remain on bringing a transit model that will see a significant increase in the modal split to transit and away from private car use. Macville's interconnected multi-modal network will include on-street bike lanes, continuous pedestrian sidewalks and multi-use trails which unify at the future Caledon GO Station area and form a dynamic and activated focus for Macville. The provision of a shuttle to the Caledon GO Station will also be encouraged.



TRANSIT NETWORK

Transit stops and community amenities are coordinated with the active transportation network to ensure easy access through means alternative to the automobile.



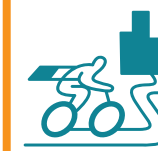
STRONG PEDESTRIAN REALM

A connected system of pedestrian sidewalks and trails (where feasible), provides people of all ages, culture and abilities with access to key community amenities, including parks and open spaces, schools, and mixed use areas.



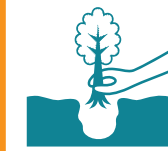
IMPROVED CONNECTIONS

The strategically planned road network will alleviate unnecessary congestion and provide connections in and around the community.



MODAL SPLIT

The transportation network will provide extensive and safe active transport opportunities.



GREEN INITIATIVES

New technologies and initiatives in community development like use of LID's present considerations for long term effects.

3.6.1 STREET CONNECTIVITY

Macville's interconnected street and block layout is designed to facilitate movement and permeability throughout the community. It has been planned with a primary focus on easy circulation, smaller block lengths and convenient direct street linkages to reinforce a connected community environment. With an emphasis on street connectivity, the modified grid layout reduces travel distance, and increases the opportunity for a variety of distinctive streetscape opportunities.

Vehicular access into Macville will occur primarily from the Gore Road (Highway 8) and King Street West. In addition to the planned network of major, minor collectors and local roads, the proposed active-transportation linkages along streets will include bike lanes on major / minor collector roads and the multi-modal loop road, connecting each neighbourhood to local amenities, the Caledon GO Station, and the community as a whole.

3.6.2 STREET HIERARCHY

A well-defined and logically connected hierarchy of streets is one of the key structuring elements of Macville, as it promotes efficient use of available land while minimizing the environmental impacts of development. Macville will therefore be characterized by urban design excellence that includes a well integrated street network which has been designed to facilitate safe and convenient movement of pedestrians, cyclists and vehicles, serve as common space for social interaction and help establish the character and visible impression of the community.

The street hierarchy, locations and design within Macville were determined based on design principles for transit-oriented developments, which include:

- Promoting the use of various modes of travel (i.e. pedestrians, cyclists, transit riders, vehicles);
- Ensuring all districts and neighbourhoods are well-interwoven;
- Equally accommodating all transportation modes within the community plan; and
- Enabling pedestrians, cyclists, transit riders, and drivers have appropriate means to make direct, efficient, safe, connections throughout the community and surrounding areas.



Street design will facilitate a safe and multi-modal use that supports connections throughout the community and surrounding areas.

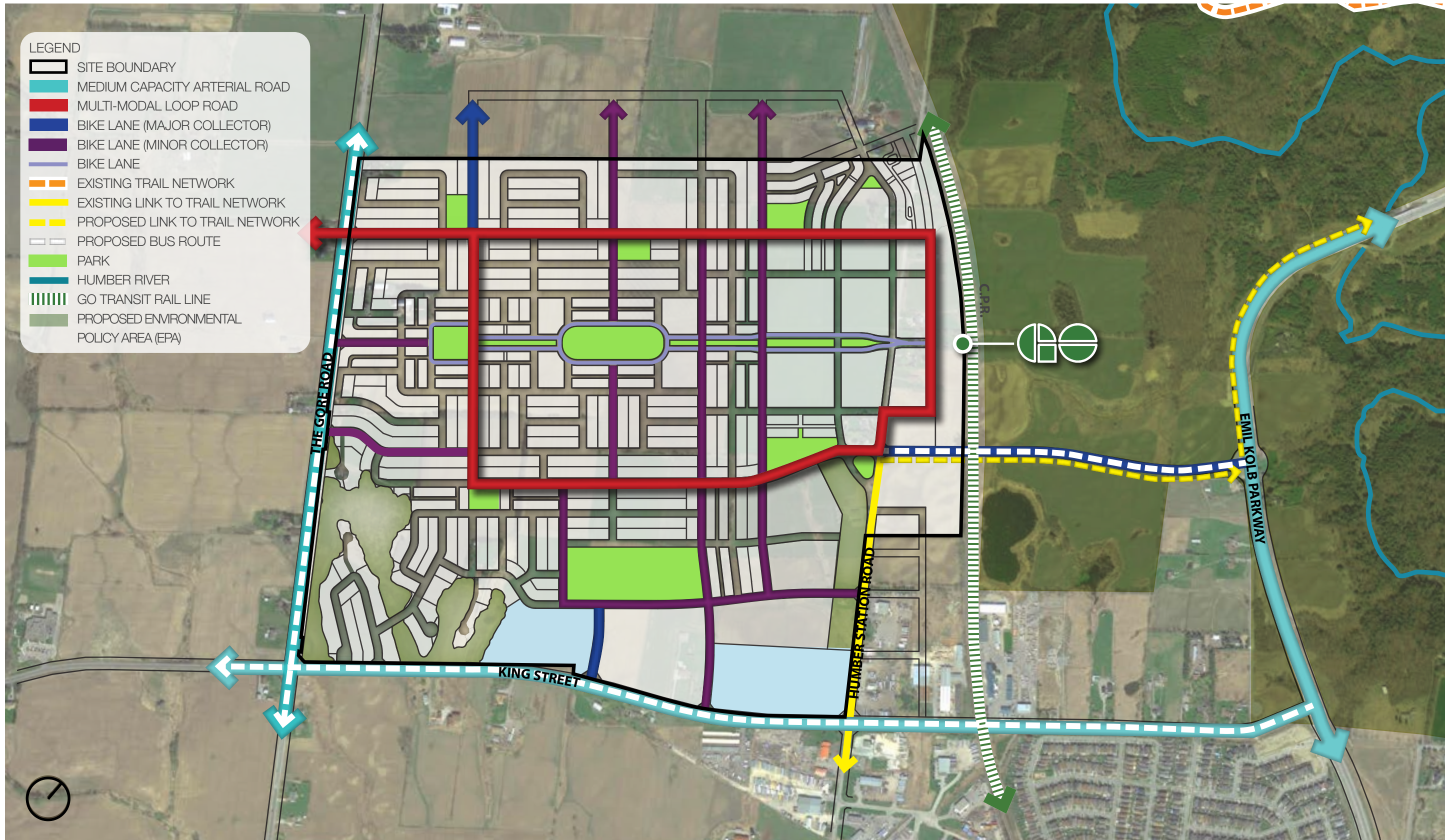


Figure 7: Macville Transportation Network

3.6.3 STREETS AND BLOCKS

Macville's streets are designed to minimize block lengths for easier navigation and walkability, and to create terminating views, vistas and other focal points to achieve an attractive public realm.

Achieving street patterns that limit block lengths, reduce vehicular speeds, and adds to the character of Macville will promote walkability and is an important means of achieving a significant active transportation network that reduces reliance on vehicular travel within the community.

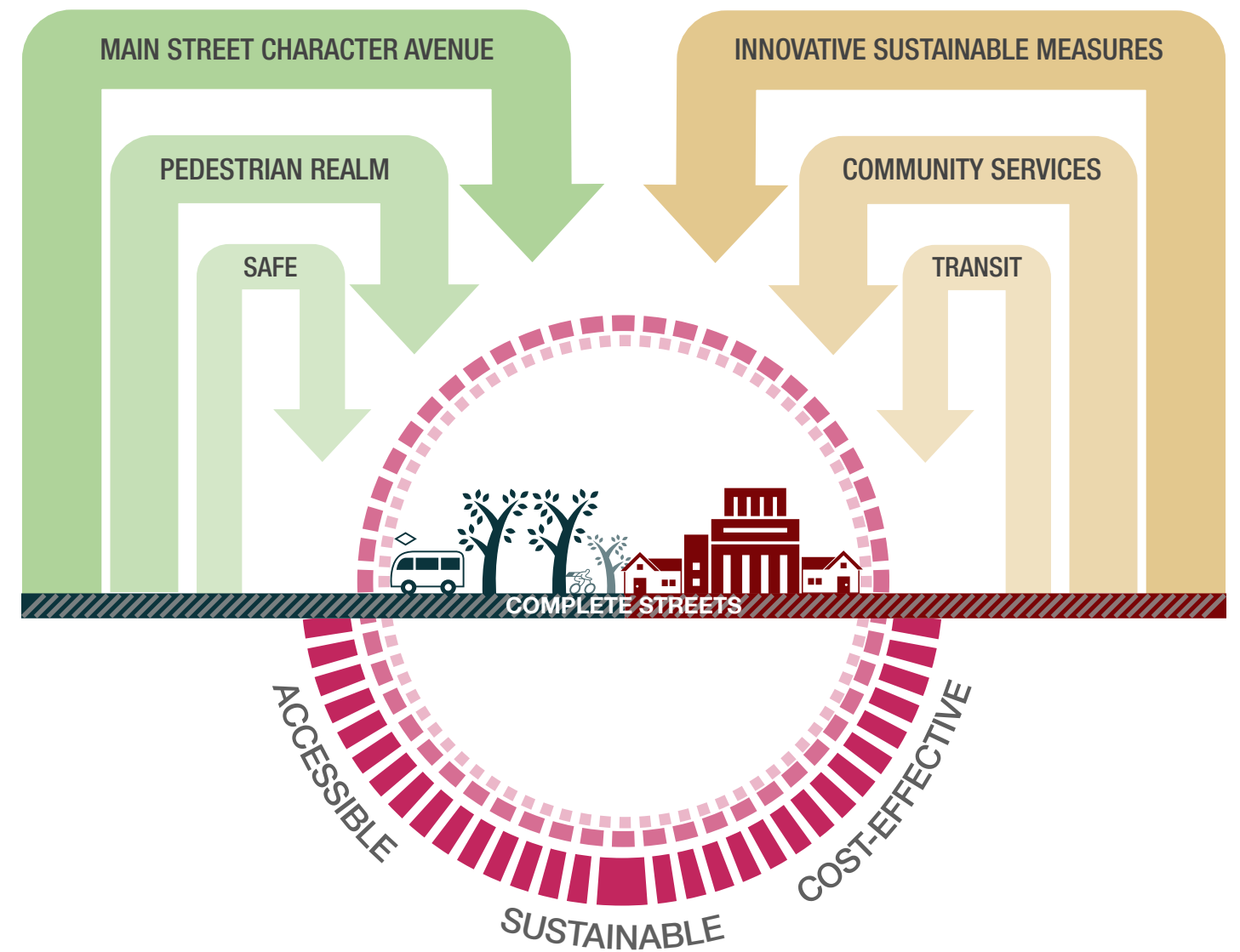
Both as a means of structuring the community and providing the building blocks for distinctive districts and neighbourhoods, establishing a fine grain street pattern will appropriately respond to a multitude of users and functions.

A particular structural emphasis will be connections to the future Caledon GO Station, ensuring linkages and view corridors are reinforced through street orientation, attractive built form and block permeability.

3.6.4 COMPLETE STREETS

Complete streets are designed for all ages, abilities, and modes of travel. Safety, accessibility, walkability, cycling and transit networks are an integral part of complete street design in Macville. Integrated with arterial roads, Macville street network will provide flexibility for establishing diverse transportation route options with a well-defined and connected hierarchy of streets. Special attention shall be given to the design and character of main streets (major and minor collector) to provide another layer to Macville's street and block structure.

Although major and minor collector roads with higher capacity vehicular requirements and bus transit connections, main streets will have enhanced streetscape features, will be pedestrian scaled and will support cycling, bus and shuttle transit options. With the focus on creating substantial pedestrian realm, built form along these street types will have reduced setbacks that help frame the street and reduce its perceived scale. In mixed-use areas of Macville, the main streets will also help form community junctions for higher density residential, commercial, employment and institutional uses, at the doorstep of local and regional transit, bringing those who will greatly benefit from accessible transit, community services, retail and recreation functions within walking distance of home.



3.7 LAND USE AND DISTRIBUTION

3.7.1 LAND USES

New developments in greenfield areas should be designed as complete communities that provide jobs, housing, transit, and recreation opportunities, while supporting individual and community health.

In compact communities, infrastructure costs are lower and greenhouse gas emissions and energy use can be decreased when compared to sprawling development. The overall layout of Macville will be designed to maximize the use of land, while preserving the proposed Environmental Policy Area (EPA) and encouraging a mix of uses and modes of transportation, delivering a greater density of people in close proximity to active transportation linkages and transit service.

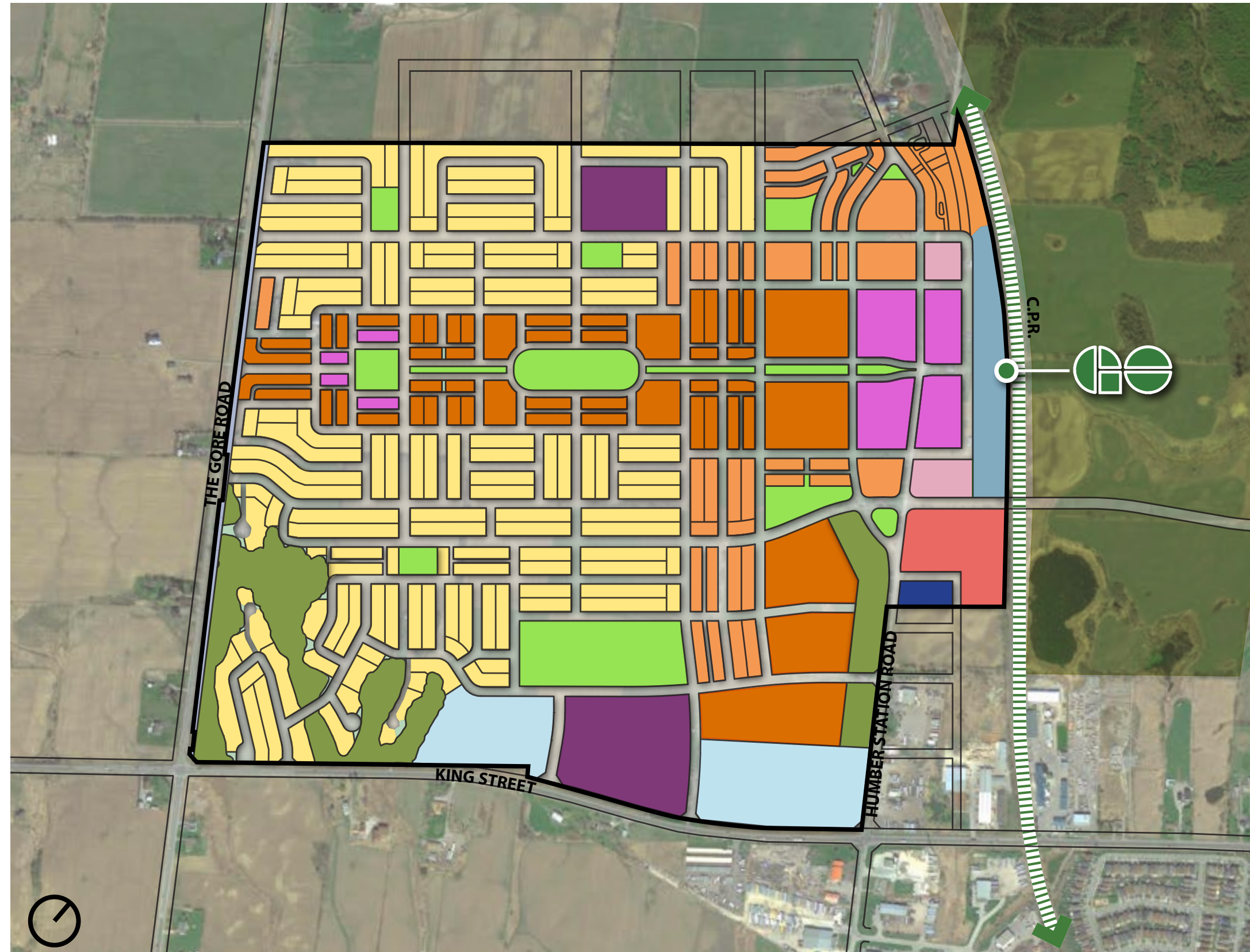


Figure 8: Macville Land Use Plan

3.7.2 TRANSIT SUPPORTIVE DENSITY

The proposed residential and mixed use medium densities will strengthen the urban structure and bring a unique character and focus to surrounding adjacent neighbourhoods. By emphasizing walkability, cycling connections and the use of public transit, it is possible to achieve improvements in the livability of new developments, helping progressive communities move toward healthier, more active, and more sustainable practices.

Providing community amenities within walking distance helps attract residents, workers, and visitors for a variety of reasons and at different times of the day and week. As population densities increase within the medium density areas, they provide the critical population base to ensure support for amenities such as commercial and retail uses, community programs, as well as transit ridership.

The following design guidelines will apply to transit supportive density areas:

- A mix of uses shall be provided, including residential, institutional, parks, and retail, focusing amenities in strategic areas within walking distance to facilitate active transportation and, ultimately, support a more compact urban form;
- A wide range and mix of housing types and sizes shall be provided, allowing residents of various life stages to reside within Macville;
- An appropriate transition between higher density mixed use mid rise building massing and adjacent lower density residential shall be achieved to ensure a compatible fit throughout the neighbourhoods; and
- Higher densities shall be distributed to reinforce significant edges and corridors.



Building densities should support active streetscapes by focusing amenities in strategic areas and within walking distance of transportation amenities.

3.8 DISTRICTS AND NEIGHBOURHOODS

3.8.1 DISTRICTS / SPECIAL CHARACTER AREAS

Macville's Concept Plan is organized into a series of coordinated and interconnected neighbourhoods or districts. Each neighbourhood is characterized by an individual sense of place that collectively contributes to the project's overall vision and experience. The districts and neighbourhood strategy was developed based on site constraints and opportunities, market conditions, and the overall project vision and goals. These districts help to organize and concentrate community activity and can also be useful in determining project phasing. Districts will be connected through the planned street network, trail connections and stormwater management facilities. Like all great places, the neighbourhood strategy includes built-in flexibility to evolve over time as the project develops.

Within this established community structure, neighbourhood focused amenities such as parks, schools, path system, and the proposed EPA interface, combine to define a neighbourhood function and character and are typically accessible within a reasonable walking distance. Each individual neighbourhood is served by a designated park space, with easy access to schools, commercial uses and natural areas. However, multiple neighbourhoods may utilize a Neighbourhood Park or Community Park as a focus for gathering, with Parkettes supplementing for more immediate active and passive recreation opportunities.

The following sections discuss in more detail the districts and special character areas.

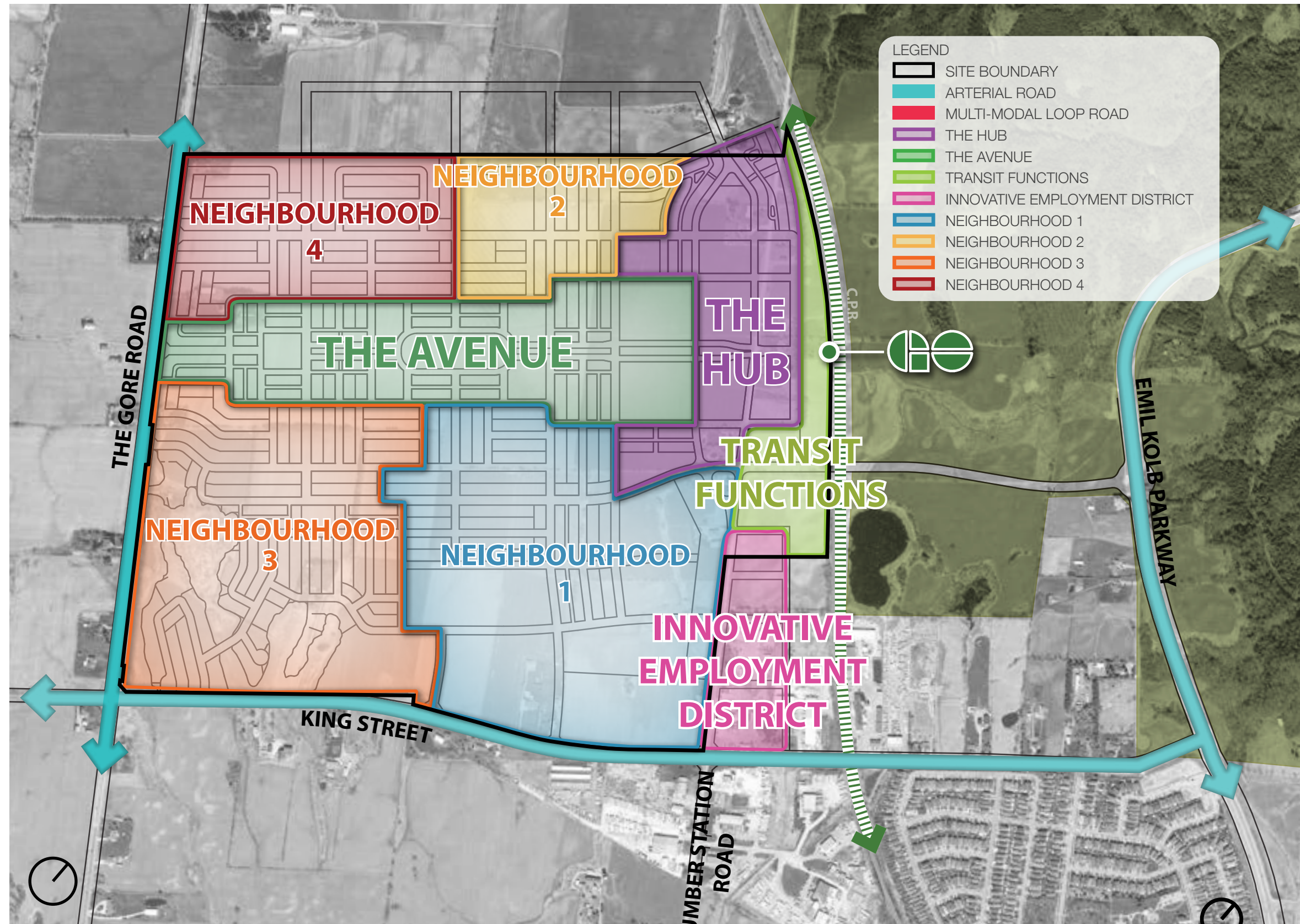


Figure 9: Macville District and Neighbourhood Plan

3.8.2 WALKABILITY/SERVICE PROXIMITY

With an objective to create a walkable, pedestrian-friendly community, that has close proximity to services, amenities and transit, the community design plan:

- Presents street patterns that are logical and efficient with direct connections;
- Incorporates compact and transit-supportive road and block layouts;
- Creates pedestrian-friendly streets with direct, coherent, and safe connections to local destinations;
- Ensures the active transportation network and facilities are well-connected to the open space and transit networks;
- Proposes an east-west central character avenue for the community, which links to the mixed uses located in the Hub and the future Caledon GO Station; situated to be in close proximity of, and accessible from, all neighbourhoods within a reasonable walking distance; and
- Offers a mix of housing types and densities that will sustain a viable transit program.

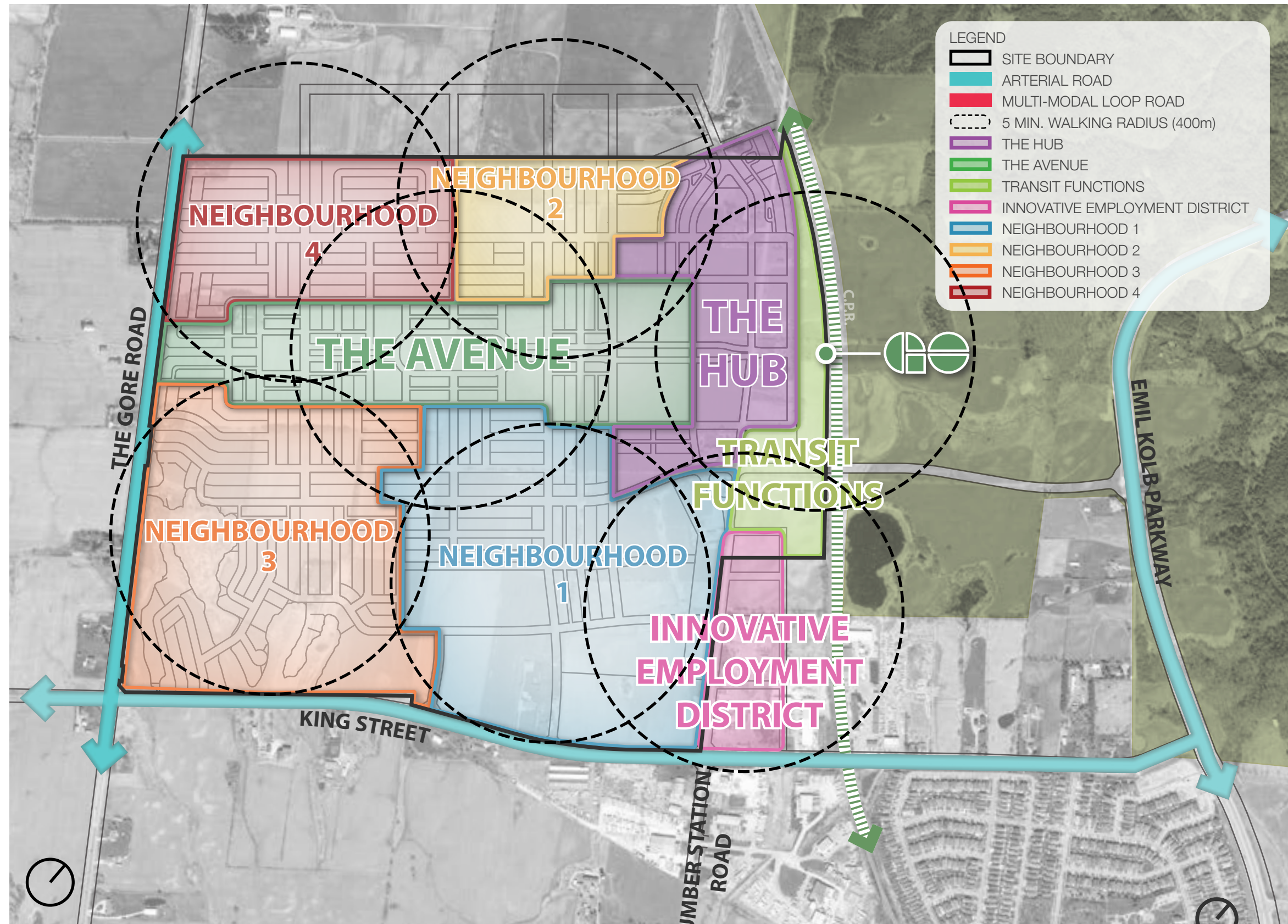


Figure 10: Macville Neighbourhood Walkability and Service Proximity

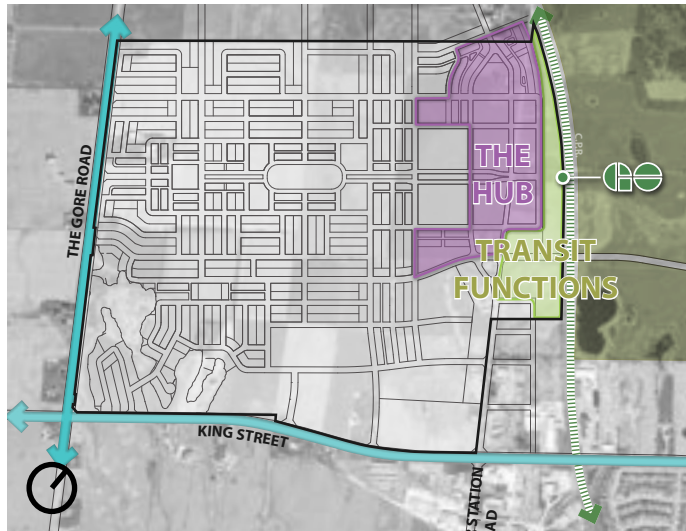


Figure 11: Macville Key Map

3.8.3 STATION AREA / MIXED-USE CORE (THE HUB)

The adopted moniker of “Made in Caledon – Healthy, Vibrant + Connected” is rooted in the mix of uses, community amenities and transportation options that can be supported and delivered with a community developed in conjunction with a GO train station and at the threshold to the extensive Greenbelt lands. The overall plan for Macville is structured with distinct neighbourhood areas and character districts, including what is termed “The Hub”, and contains a mix of uses surrounding and anchored by the future Caledon GO Station.

The Hub, or train station area, will strategically achieve a mix of increased residential densities with community serving amenities, including public open spaces and locally serving commercial, institutional and residentially-based employment and mixed use opportunities. Surrounding the station will be a flexible use public plaza that will allow for a variety of programming, that will cater to GO Transit users, as well as those living in and visiting the community.

This increased residential and employment density, as well as the close proximity of Bolton, will support and ensure the viability of a comprehensive transit service featuring train and bus connections, simultaneously reducing travel time and achieving higher sustainable modal splits for walking and cycling.

Macville will be designed to be a vibrant healthy community that will benefit from the presence of the future Caledon GO Station. The future Caledon GO Station will assist in bringing about enough people to populate residences, workplaces, shops and restaurants to achieve the “critical mass” where public spaces will be activated, commercial establishments will have more walk-in customers, sidewalks will be safer on a 24/7 basis and the community will feel like an interesting place that is alive with activity.



The Hub will create an attractive and comfortable public realm with a strong sense of place in order to support a walkable station area with various modes of circulation including transit, regional cycling and pedestrian networks.



The mixed-use core will support a wide range of streetscape activity while simultaneously achieving a mix of increased residential densities with community serving amenities.

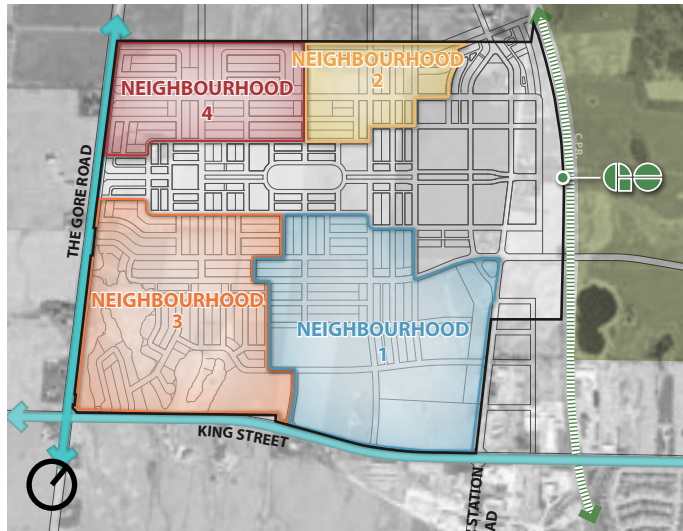


Figure 12: Macville Key Map

3.8.4 NEIGHBOURHOOD AREAS

Neighbourhoods are classified as residential neighbourhood areas comprising one or more of the three land use designations identified as Residential Low Rise, Residential Mid Rise and Mixed Use Mid Rise. Lands within residential neighbourhood areas are to be developed with predominantly ground-oriented housing types, such as detached, semi-detached, and townhouse dwellings. Residential mid-rise or mixed-use buildings will be strategically in neighbourhoods at key intersections along collector roads where a higher level of activity is anticipated. Generally, neighbourhood areas shall be planned to:

- Provide access and connections to open spaces, parks, and schools;
- Encourage residential mid rise in strategic locations along collector roads;
- Encourage a mix of low-rise ground related built forms on local roads;
- Encourage unique neighbourhood identities; and
- Locate neighbourhood parks centrally and within an approximate five-minute walk to create a neighbourhood focus.

Based on the anticipated population and housing types, the need for two school sites within the Macville residential neighbourhood areas have been identified. The elementary school is located in Neighbourhood 2 and the secondary school is located in Neighbourhood 1. By distributing the school sites in different areas of the community will allow for the continued efficient utilization of these schools as the Bolton community continues to grow and evolve into other growth and white belt areas.

Another key element of the neighbourhoods is the ability to conveniently access the designated commercial / mixed use blocks and the amenities and services located in the Hub and the Avenue. This is provided through a comprehensive active transportation network, including the multi-modal loop road that allows for safe, direct and efficient walking and cycling connections as well as built form that responds to more active land use areas that are located closer to the Major Transit Station Area.



Residential built form with enhanced architectural features will help define the individual character of each neighbourhood and naturally help in wayfinding.



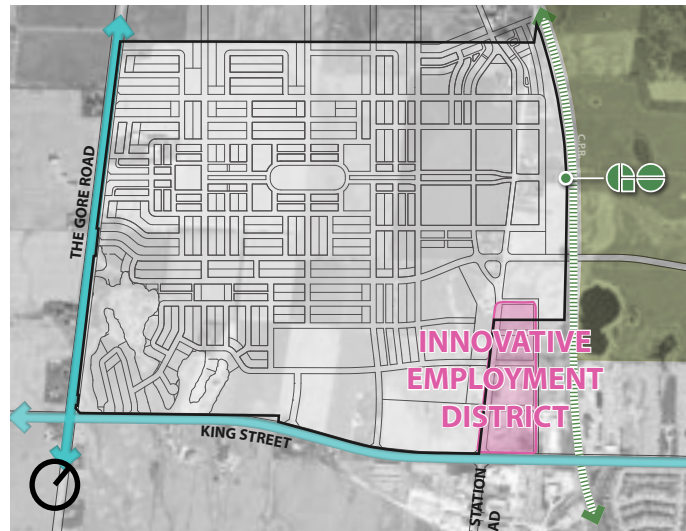
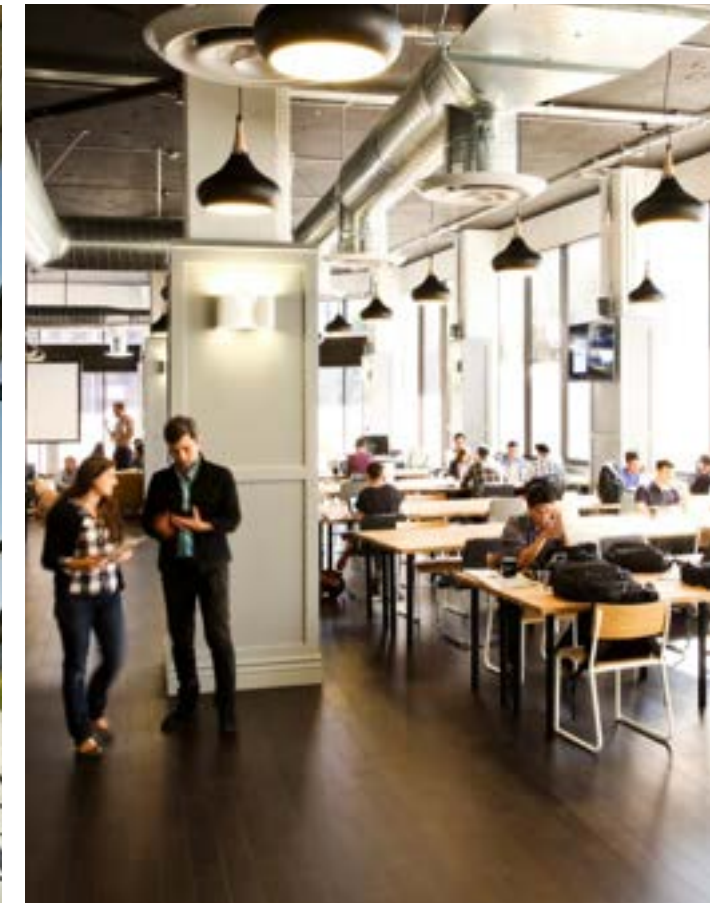


Figure 13: Macville Key Map

3.8.5 INNOVATIVE EMPLOYMENT DISTRICT

An innovative employment district is an essential part of the mix of land uses in Macville. Located in southeast portion of the community along King Street and Humber Station Road, the employment district will be designed to support a mix of office, institutional, and innovation uses that will complement the planned residential and retail uses as well as enhance Macville's complete community. The corridor will benefit from its proximity to the future Caledon GO Train station and the retail/service amenities that will be located in the Hub area.



The innovative employment district will be designed to support a mix of office and institutional uses.

PUBLIC REALM & STREETSCAPE DESIGN GUIDELINES

4



W Pender St

W Pender St

W Hastings St

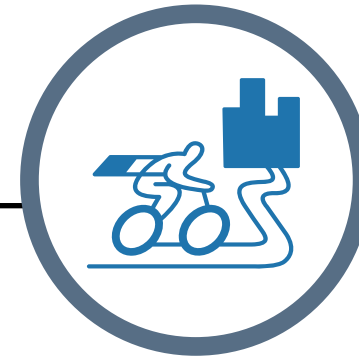


Public Realm & Streetscape Design Guidelines 4

4.1 ABOUT THE COMMUNITY STRUCTURE

The community will be structured by a well-ordered and fine grain street hierarchy that will appropriately integrate transit connections, various densities and building types, support an expansive walking and cycling network throughout the community and achieve efficient block development.

The character of the streets will vary depending on the function and adjacent land uses proposed in the Macville. Minimum street right-of-way widths are reinforced and alternative road standards considered to ensure the best response to balancing pedestrian, cycling, transit and vehicular use and promoting easy circulation within the community. Design influences from shared streets or 'woonerfs' will be encouraged, where appropriate, to reinforce pedestrian comfort, provide unique streetscape opportunities, and achieve a reduction in right-of-way widths.



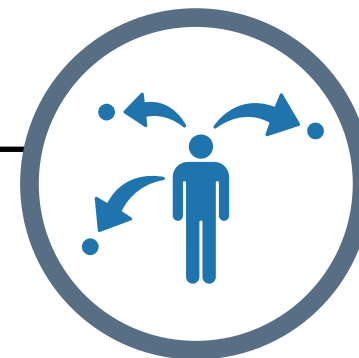
MULTI-MODAL TRANSPORTATION

The multi-modal transportation network will alleviate unnecessary congestion and provide connections in and around the community.



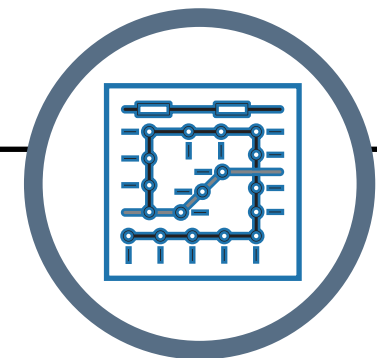
PERMEABLE STREET SYSTEM

The transportation network will alleviate unnecessary congestion and provide connections in and around the community.



EXPANSIVE PEDESTRIAN NETWORK

A connected pedestrian network that provides people of all ages, culture and abilities with access to key community amenities, including parks and open spaces, schools, and mixed-use areas.



INTEGRATED TRANSIT

An integrated system of integrated transit which improves mobility and respects different levels of service needs, improves financial efficiencies and makes transit a more attractive option for residents and visitors.

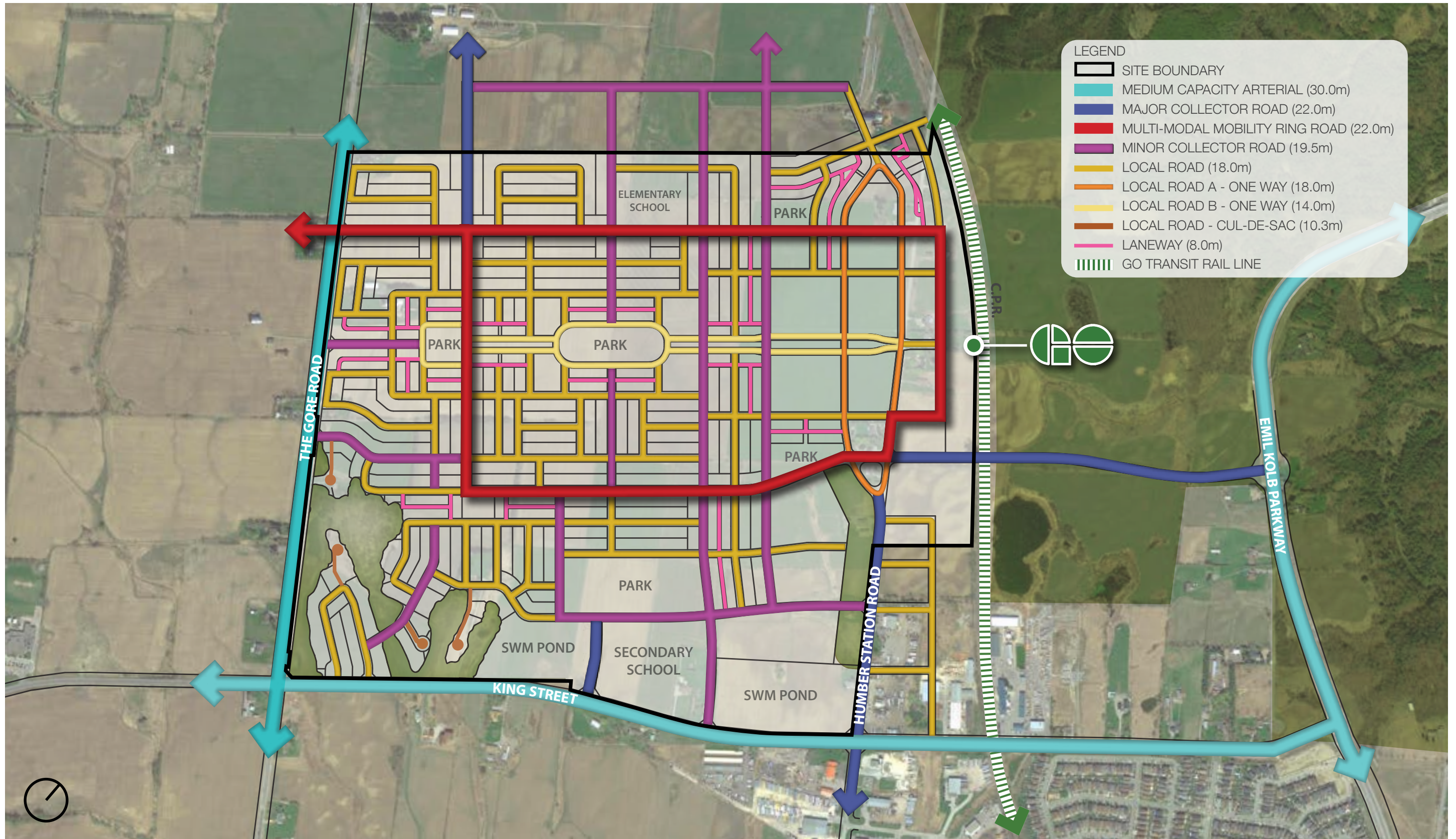


Figure 14: Macville Road Hierarchy

4.2 HIERARCHY OF STREETS

A well-defined and logically connected hierarchy of streets forms the main structure of Macville and helps to establish the character of the community. The intended street hierarchy supports a stage and convenient movement of pedestrians, cyclists and vehicles, and serves as a common space for social interaction.

Defined by neighbourhood pockets, the street network established for Macville responds to the existing road network, the site's topography, presence of the Environmental Policy Area, and land uses found at community edges. The proposed road layout is intended to facilitate convenient and efficient circulation, support accessibility and transit ridership, and promote active and passive resident lifestyles.

A particular structural emphasis will be placed on the future Caledon GO Station, which requires strong community linkages and circulation that is reinforced through street orientation and connection opportunities.

The streets are in general designed to minimise block lengths for easier navigation and walkability, and to create terminating views, vistas and other focal points in an effort to achieve an attractive public realm.

The proposed community transportation network will consist of:

- External Major Roads (Medium Capacity Arterial);
- Major Collector Roads;
- Multi-Modal Mobility Ring Road;
- Minor Collector Roads;
- Local Roads;
- Woonerfs / Shared Streets; and
- Laneways.

4.2.1 EXTERNAL MAJOR ROADS

External major roads, or medium capacity arterial roads, are roadways that serve as major thoroughfare and transit routes through the Town of Caledon. The Gore Road (Highway 8) and King Street (Highway 9) are both considered external major roads that will provide connections to Macville. The streetscape along these routes will be the foci for mixed-use, institutional and low density residential developments, with streetscape breaks provided by natural areas like the proposed Environmental Policy Area and stormwater management ponds.

4.2.2 MAJOR COLLECTOR ROADS

Major collector roads provide important connections between Macville and the community functions, such as parks, the future Caledon GO Station and other facilities. These types of roads largely define the community structure and serve as the primary inter-district circulation routes that facilitate movement for all modes of transportation.

4.2.2.1 Humber Station Road

Acting as one of the primary connection routes into Macville and the Caledon GO, Humber Station Road will be lined with ground level commercial, office and service amenities, with residential above. It will be a comfortable pedestrian scale with attractive streetscape elements that will encourage walking connections and better integrate the station into the village fabric.

Although a major collector road with bus transit connections, Humber Station Road will be designed as a complete street with substantial pedestrian realm and built form with reduced setbacks that help to frame the street and reduce its scale.

Typical roadway cross-sections include:

- Sidewalks on both sides of the street;
- Two lanes in each direction;
- Bike lanes in each direction; and
- Double row of street trees along boulevards with raised curb stormwater management planters.

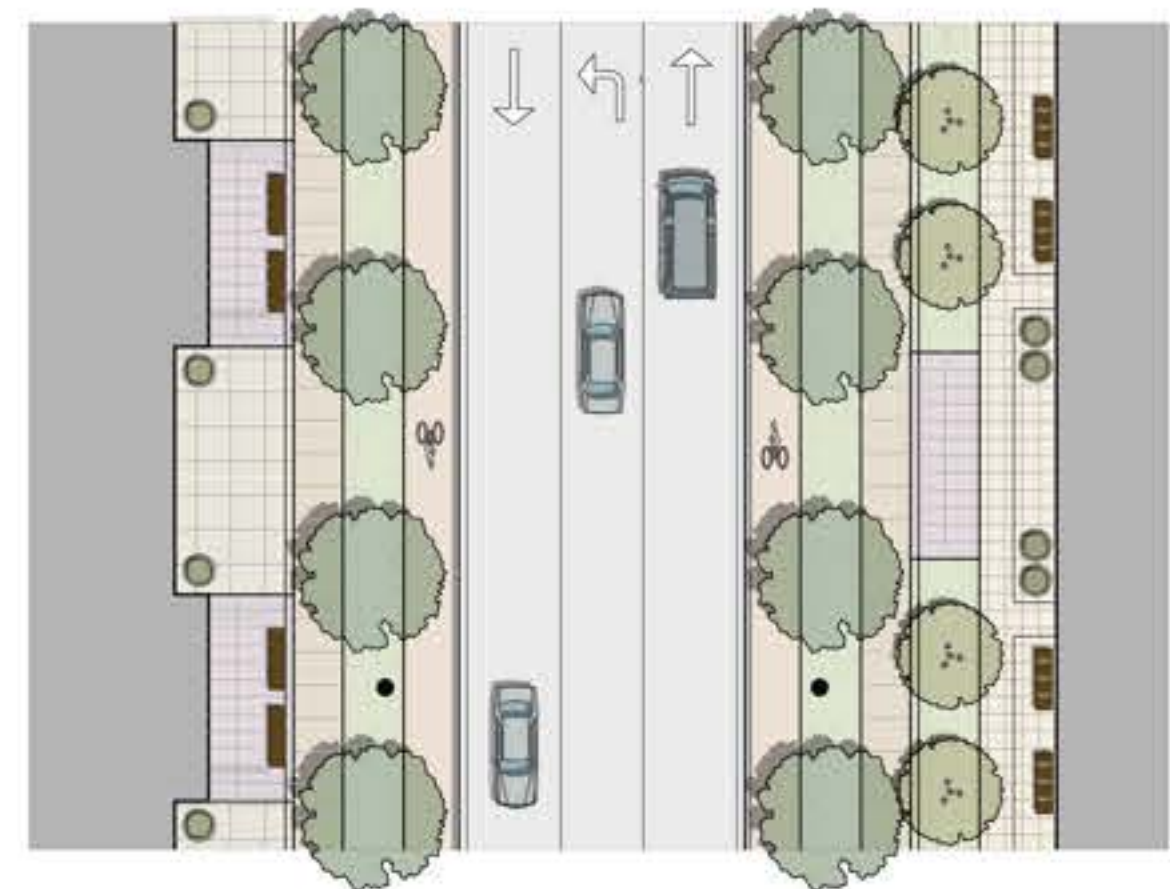


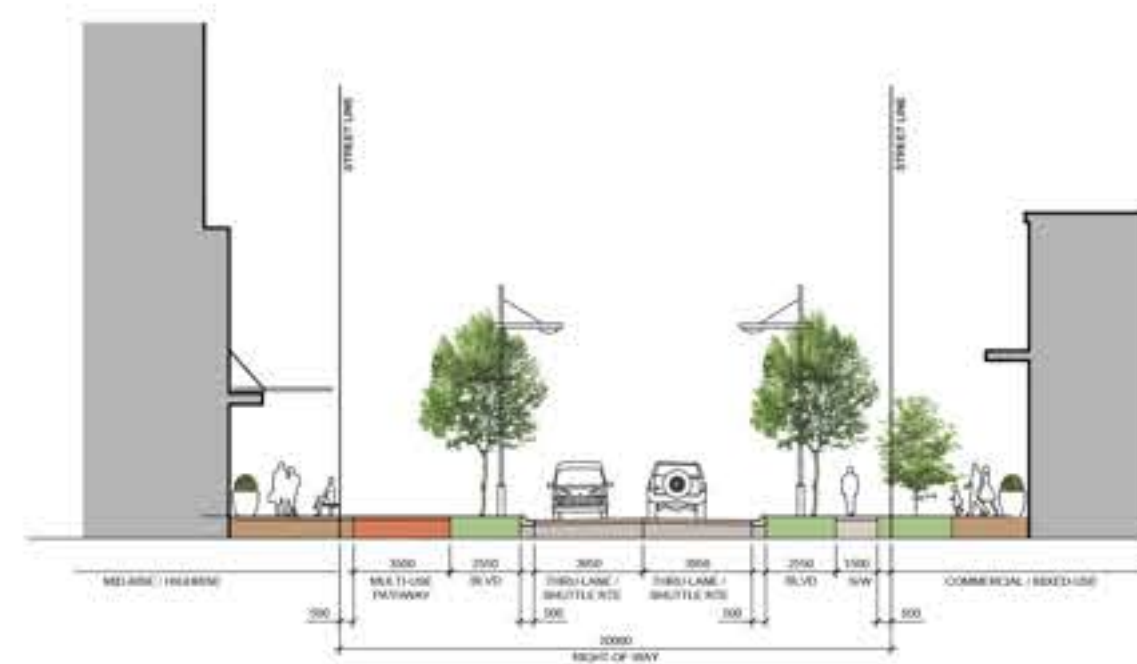
Figure 15: 23.0m ROW - 2 thru lanes; left turn lane; sidewalk on both sides; bike-lanes and street trees in grass boulevard on both sides.

4.2.2.2 East-West Link

Acting as the other primary connection route into Macville and the Caledon GO, the East-West Link connects at the northern end of Humber Station Road and the Multi-modal Loop Road and facilitates movement beyond the underpass and the Canadian Pacific Railway toward Emil Kolb Parkway to the east.

With a connection to the multi-use pathway system along Emil Kolb Parkway, the East-West Link is considered a major asset to Macville's trail and cycling network. With priority given to pedestrians and cyclists, the link has been designed as a complete street that facilitates movement for various modes of transportation and provides opportunities for social interaction. Typical roadway cross-section will include:

- Sidewalks on one side of the street;
- Multi-use pathway on one side of the street;
- Two lanes in each direction; and
- Double row of street trees along boulevards with raised curb stormwater management planters.



MAJOR COLLECTOR (EAST-WEST LINK) - 20.0m R.O.W.

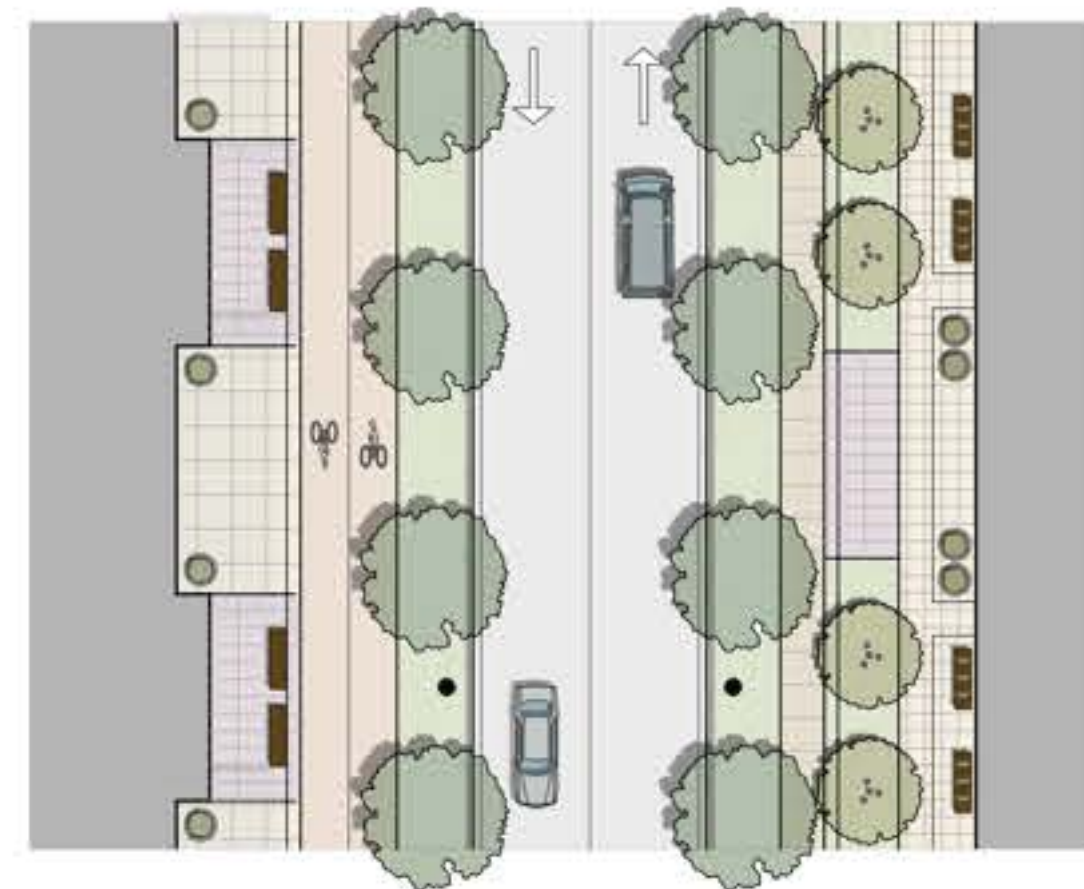


Figure 16: 20.0m ROW - 2 thru lanes; sidewalk on one side of the street; multi-use pathway on one side of the street and street trees in grass boulevard on both sides.

4.2.2.3 Multi-Modal Ring Road

The multi-modal ring road is a major initiative for this community, reinforcing the principles of transit-oriented development. Connecting through all neighbourhoods in Macville, the multi-modal ring road will provide cyclists and micro transit riders with direct and convenient links to the station, hub and points throughout the community.

Reaching each of Macville's districts and neighbourhoods, this ring road will provide multi-modal options for traveling within Macville, serving as an important means to connect people to jobs, institutional, and recreation uses. It also has the capacity to expand into future Whitebelt lands when developed.



Figure 17: 22.0m ROW - 2 thru lanes; side walk on both sides of the street; on-street parking on one side of the street; separated bicycle track; and street trees in grass boulevard

4.2.3 MINOR COLLECTOR ROADS

Minor Collector Roads connect to the major road network and provide primary street linkages to the multi-modal loop road and local roads found among Macville's neighbourhoods.

These streets are designed to be attractive urban boulevards, with high quality streetscapes, coordinated built form and engaging public realm. For this reason, all minor collector roads will have sidewalks and bike lanes on both sides of the right-of-way to enable safe and convenient movement for pedestrians and cyclists.

Typical roadway cross-sections include:

- Sidewalks on both sides of the street;
- One lane in each direction with integrated bike lane;
- On-street parking; and
- Double row of street trees in grass boulevards.

Minor collector street entrances to Macville from the Gore Way and King Street will vary in their right-of-way widths in order to match existing street treatments and widths at the proposed intersections (including centre medians, where applicable).

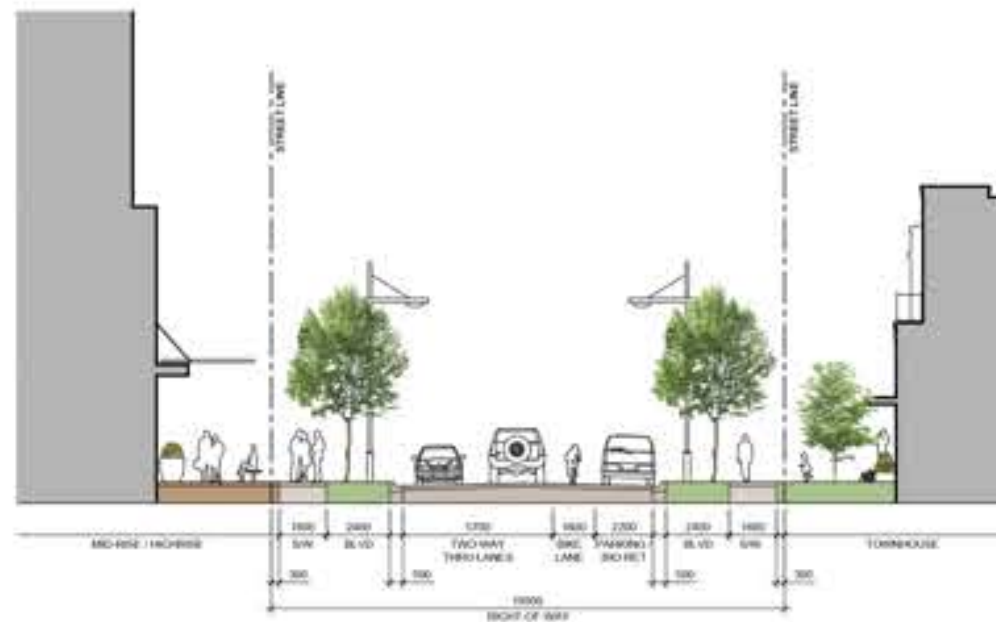


Figure 18: 19.5m ROW - 2 thru lanes; on-street bike lanes; side walk on both sides of the street; on-street parking; and street trees in grass boulevard



Image example of minor collector road with maximized pedestrian walkways along street edge.

4.2.4 LOCAL ROADS

Local Roads serve various neighbourhood districts within Macville, and are intended to provide a comfortable pedestrian experience with relatively low levels of local vehicular traffic. Their character varies according to adjacent built form, which includes low and medium density residential, mixed use buildings, neighbourhood commercial, employment, parks and open spaces.

Typical roadway cross-section will include:

- Sidewalks on both sides of the street;
- One lane in each direction;
- On street parking on one side of the street; and
- Double row of street trees in grass boulevard.



Example of local street with sidewalks situated along the boulevard.

Figure 19: 18.0m ROW - 2 thru lanes; on-street parking; sidewalk on both sides of the street; and double row of street trees in grass boulevard.

4.2.4.1 Local Road A - One Way (Humber Station Loop Road)

Local Road A, also referred to as Humber Station Loop Road, shall facilitate logical, direct and permeable neighbourhood connections through a modified-street configuration. This one way loop will run at the north-south axis of the community, originating from Humber Station Road to further disperse traffic circulation predominately originating from King Street. Based on a 5 minute walk criterion, the loop will be designed to support a comfortable pedestrian experience with accessibility to community facilities situated within the Hub and GO Station districts.

Typical roadway cross-section will include:

- Sidewalks on both sides of the street;
- One lane in each direction;
- On-street bike lanes in each direction;
- On-street parking on one side of the street; and
- Boulevards with raised curb stormwater management planters.

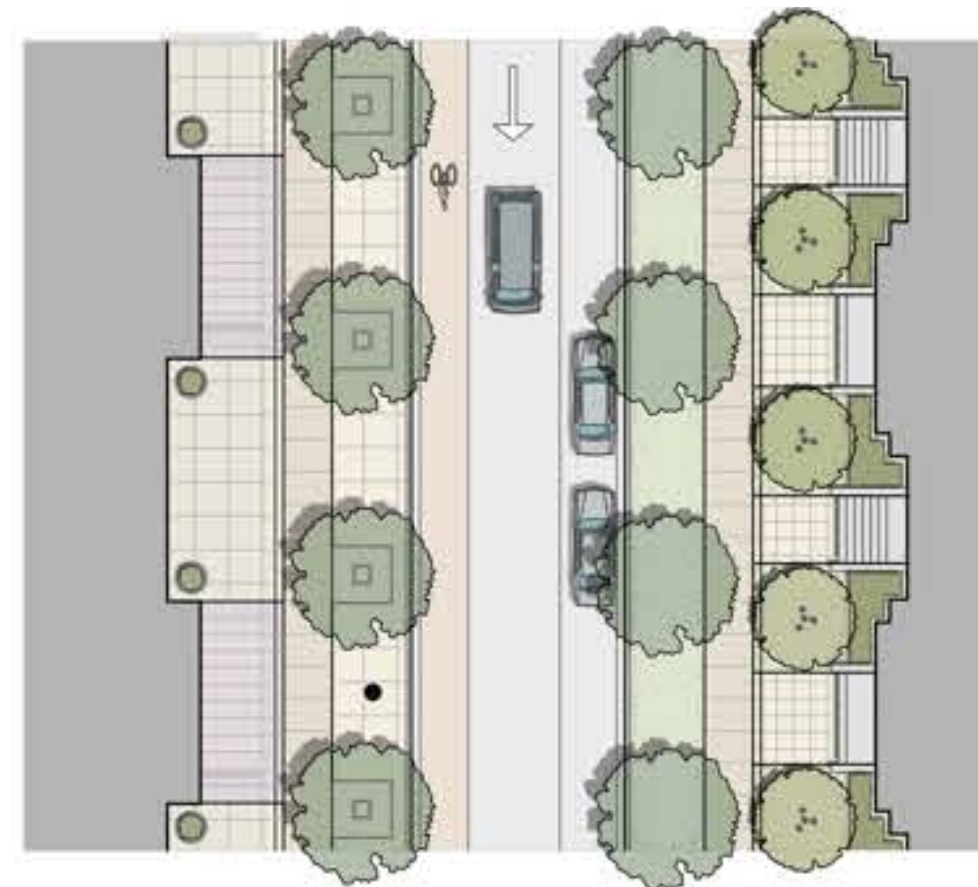


Figure 20: 18.0m ROW - one way thru lane; on-street bike lanes; side walk on both sides of the street; on-street parking and double row of street trees in grass boulevard.

4.2.4.2 Local Road B - One Way (Central Promenade Green Link Street)

The Avenue is intended to be the spine of the community and a shared street that incorporates urban streetscape treatments like planters, street trees, benches and areas for abundant social interaction.

Acting as a main street character avenue, the Avenue streetscape will be pedestrian scaled and will support bus transit, leading directly into the Hub station area, where it will intersect with the north-south Humber Station Loop Road to help form the village junction for higher density residential, residentially-base employment, mix-use, commercial and institutional uses.

Typical roadway cross-section will include:

- Sidewalks on both sides of the street;
- One lane in each direction;
- On-street bike lanes in each direction;
- On-street parking on one side of the street; and
- Boulevards with raised curb stormwater management planters.

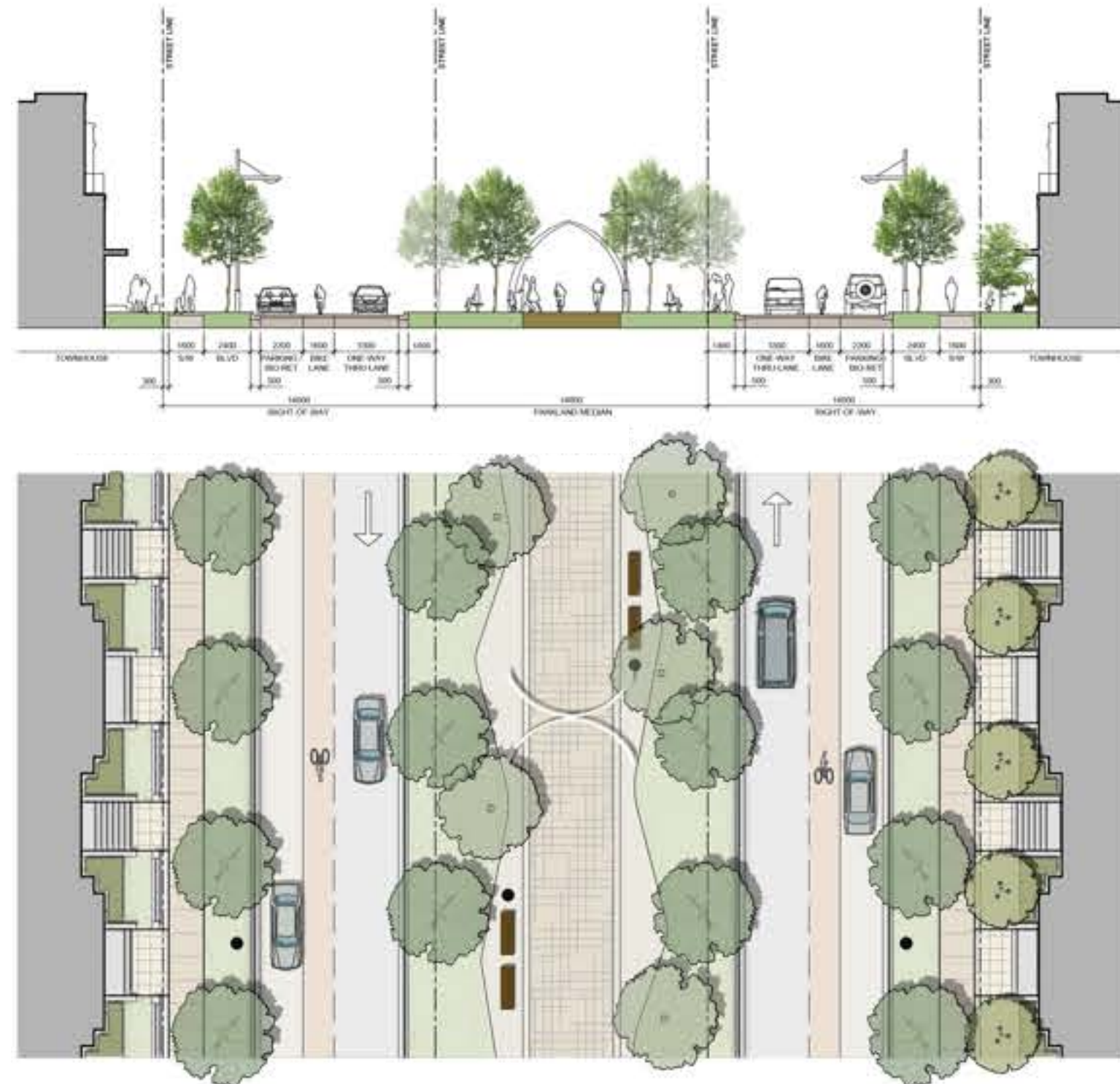


Figure 21: 14.0m ROW - One way thru lane; on-street bike lanes; on-street parking; side-walk on both sides of the street; central parkland median and street trees in grass boulevard

4.2.5 WOONERFS / SHARED STREETS

Woonerfs/shared streets are streets designed for everyone and inclusive of vehicular, cyclist and pedestrian movement. Although subtle, the shared street design changes the typical dynamic of street usage and allows for more block permeability. These lanes provide 'shared backyard' community spaces for safe play and socializing.

Woonerfs/shared streets will typically be present among larger blocks where higher density mid-rise or mixed-use built form has been proposed but may occur in lower density areas where laneways are present. They should be designed in a way that distinguishes them from other local roads and lanes, and that they may have their own individualized character.

With the priority given to pedestrians, and without a clear division between pedestrian and auto space, motorists are forced to slow down and travel with caution. Limiting vehicular speed and direction not only improves residents' feelings of safety, but also promotes greater use of public spaces and increase in social interactions.

Design Guidelines:

- Lighting should be provided for safety and be pedestrian in scale;
- Gateway treatments at entrances to woonerfs/shared streets set the tone and character for each zone and should include feature planting along with more prominent architectural form;
- Ensure entrances to units are clearly articulated, not compromised by pedestrian or vehicular traffic and suitably sheltered to function as the building's front door, especially where the woonerfs/shared streets operates as the unit's front address; and
- Buildings should be designed to ensure positive street frontage and overlooking to the woonerfs/shared streets.



'Woonerf' inspired shared streets create inviting places and spaces to stroll, sit and enjoy within a more urban and intimate context.





Laneways help create an opportunity to build exciting new streetscapes for pedestrian and cyclist circulation that goes beyond parking and service vehicles.



4.2.6 LANEWAYS

Rear access lanes provide access to garages and parking spaces at the rear of properties. They are typically associated with attached housing and some apartment style housing.

Whilst their primary function is one of access, they also play an important communal role as “shared” community spaces for the participating residents, and are part of a wider network of connections for the local community. Public and private laneways will therefore be used in key areas of Macville to help create a high quality public realm, attractive streetscapes and compact built form. Through the relocation of driveways and garages from the fronts of buildings to their rear, laneways will help reduce the presence of garages and cars within the community streetscape.

To ensure a good design outcome for rear lanes, the following design principles are proposed:

- Laneways will mostly be proposed for townhouse dwellings and situated along primary roads where direct driveway access would impact the function of higher order roads;
- Gateway buildings should be provided at the entrance point to rear lanes, to overlook the laneway. These may take the form of individual buildings or loft apartments over garages and not that of a separate dwelling;
- A typical laneway width will be 8.0m. However, at elbow street conditions the laneway will be 10.0m to accommodate maintenance and additional circulation; and
- The principle of providing diversity in housing within Macville will extend to the treatment of buildings and landscaping in rear lanes. Buildings will exhibit diversity in design, materials, colours, textures and finishes, with designs complementary to the character of the neighbourhood.

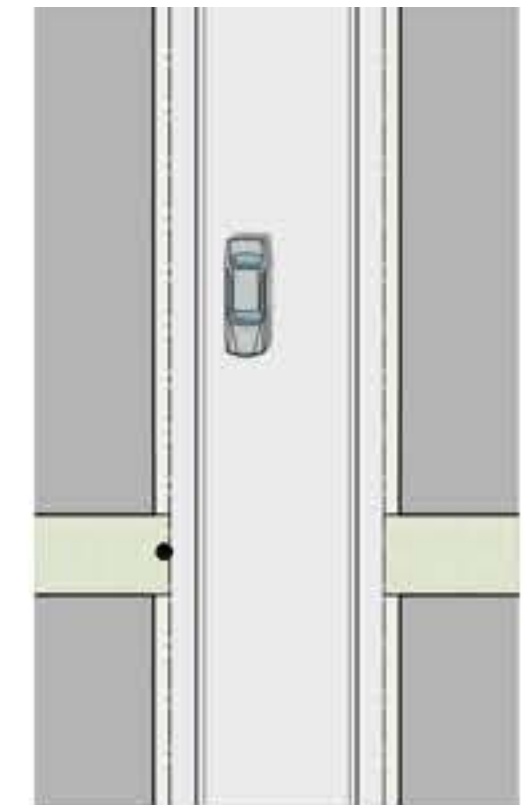
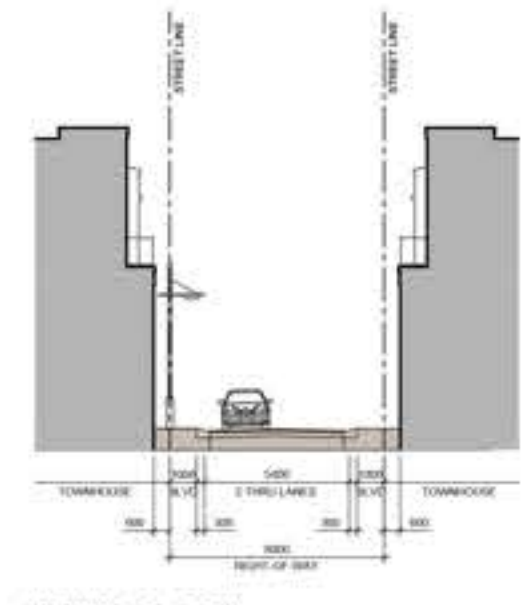


Figure 22: 8.0m ROW with 2 direction lane and 1.0m paved apron on each side.

4.3 COMMUNITY EDGES, INTERFACES AND NODES

4.3.1 MIXED-USE NEIGHBOURHOOD CORRIDOR EDGES

These mixed-use neighbourhood corridor edges will serve as destinations in their own right, with places where people can shop, work, live and interact. From a land use perspective, the development of these corridors is intended to include a mix of commercial, retail and employment uses that primarily serve residents living along the community edges. In some locations, such as at the eastern edge of the Hub along Humber Station Road, the commercial, retail and employment uses may also serve a town-wide or regional function.

The following key design considerations are intended to support the Town of Caldon's urban growth objectives with respect to creating complete and walkable mixed-use neighbourhood corridor edges.

These design considerations will aim to:

- Facilitate pedestrian-oriented, transit supportive areas that will enhance the sense of place within the community;
- Create environments that are appealing and functional, pedestrian-oriented and visually interesting;
- Provide a compatible 'fit' within the surrounding context;
- Offer a range of retail and commercial amenities that are within walking distance to residents; and
- Support and encourage active transportation choices.

4.3.2 RESIDENTIAL LOW AND MID-RISE COMMUNITY NODES

Interfaces of the low and medium density residential nodes along the community edges include significant portions facing The Gore Road and King Street. Buildings along these community edges, as well as along key community connectors including Major Collector Roads and Multi-Modal Loop road, will have heightened public visibility and design influence, providing opportunities to express and reinforce a community architectural theme. Accentuating an architectural character that complements the surrounding streetscape treatment and creates a distinct landmark shall be further refined during the building design / architectural control review processes.



High activity areas will reflect a more comfortable pedestrian scale, with reduced building setbacks that frame the road and create an animated streetscape.

4.3.3 PROPOSED ENVIRONMENTAL POLICY AREA INTERFACE

The proposed EPA along the south-western edge of Macville makes a significant contribution to the community's character and the Town's ecological systems. The area's mature wooded area, watercourses and extensive agricultural land operations are valuable attributes which will benefit the community by serving as an integral component of the open space system and optimizing views and vistas.

The interface between the proposed EPA and adjacent proposed development will require careful consideration with respect to existing topography, vegetation communities and continuing agricultural functions. The proposed EPA interface along the south-western edge of the community will be characterized by a mix of adjacent land uses, including rear residential lotting, SWM ponds, parks, buffer blocks and a new school.

Key characteristics / recommendations include:

- To reinforce the importance of the area, opportunities shall be provided for public visual and physical access by means of a trail and from publicly-owned lands, such as parks, schools, stormwater management facilities and the buffer block;
- The proposed EPA can be integrated into the community through the placement of a continuous trail connection that runs along the entire length of this interface, linking the SWM ponds, parks, employment lands and schools for pedestrians, cyclists and recreational users;
- Stormwater management ponds are considered a compatible use with the purpose and function of the proposed EPA. Consideration should be given to locating these facilities partially or entirely within the proposed EPA lands;
- Conversely, where environmentally sensitive features and other areas within the proposed EPA require protection, public access and encroachment shall be restricted in order to prevent negative impacts or disturbances;
- Measures may include physical barriers such as lot fencing or information signage. A homeowner education and stewardship program shall be implemented in this regard;
- Dwellings backing onto or flanking the publicly accessible areas within the proposed EPA shall feature upgraded architectural treatment for the exposed rear and side elevations, consistent with the dwelling's front elevation treatment; and
- Transitional planting within parks, stormwater management facilities and other introduced features at the interface with the proposed EPA shall utilize a planting palette that consists of native species and is compatible with the existing or proposed plant material found within any natural features along the proposed EPA edge.



The proposed Environmental Policy Area (EPA) interface with the community may integrate linkage opportunities as a component of the overall active transportation.

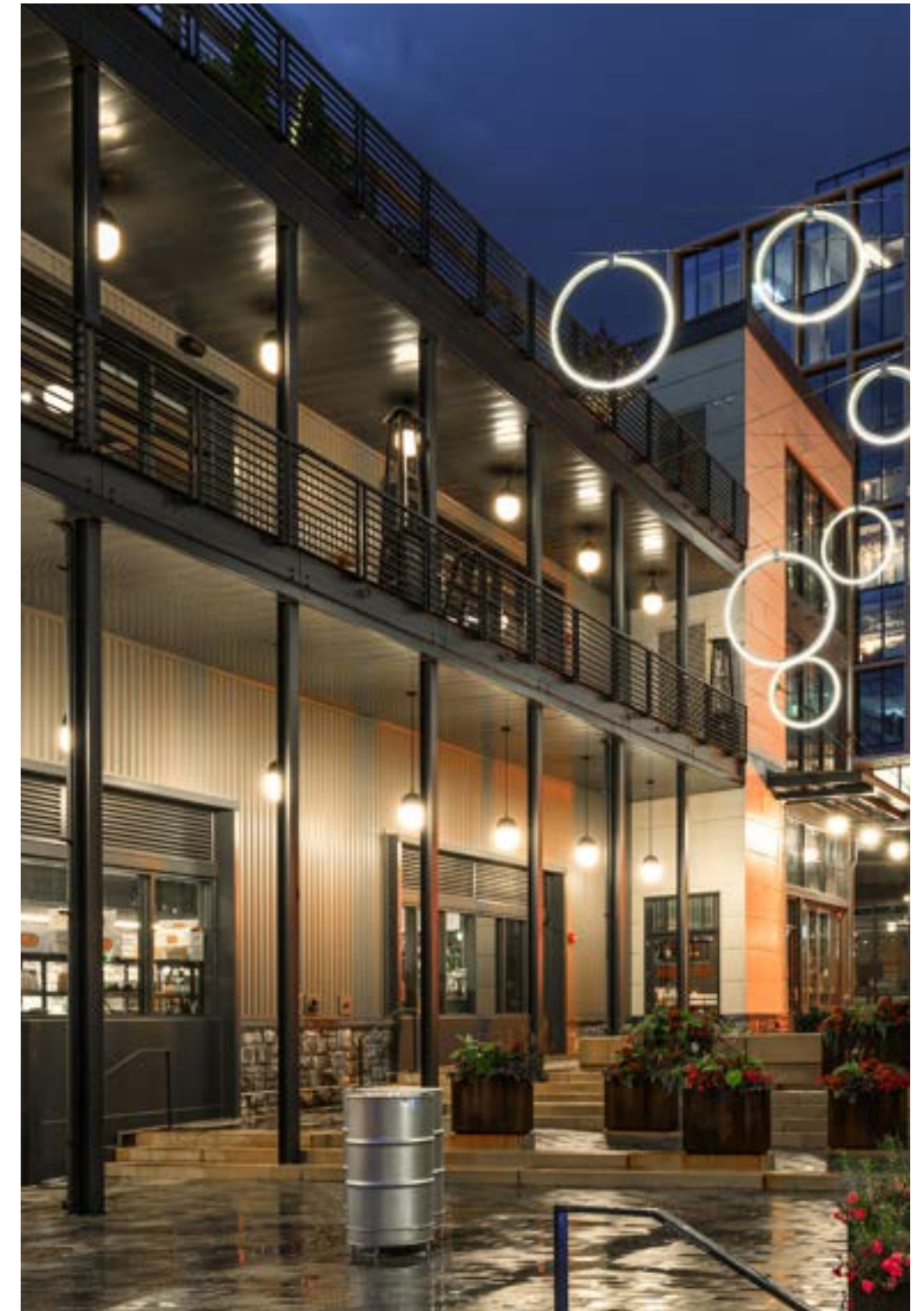
4.4 STREETScape ELEMENTS

Harmoniously designed streetscapes will contribute to the identity of Macville and each of its districts and neighbourhoods, creating an inviting and unique public realm experience for residents and visitors. Streetscape elements within the right-of-way such as lighting and site furniture reinforce the character of the community and ensure the safety, comfort, and accessibility of pedestrians, cyclists, and motorists.

The design of streetscape elements shall be coordinated and consistent with the vision for Macville, with key elements including the following:

- Street Lighting;
- Street Furniture;
- Utilities; and
- Street Tree Planting Strategy.

The following sections contain guidelines related to these individual elements.



Coordinated streetscape elements in Caledon including light standards, waste receptacles, and benches help to reinforce the character of the community.



4.4.1 STREET LIGHTING

The design and selection of street lighting elements plays a key role in establishing the character of the public realm. In Macville's districts and neighbourhoods, consideration should be given to aesthetics, maintenance, cost effectiveness, and energy efficiency. Selection and placement of lighting fixtures shall be in compliance with established Town of Caledon standards, including the Outdoor Lighting Standard Manual (2018). Where there is some flexibility in selection, the following design guidelines should be considered:

- Coordinate lighting design (pole and luminaire) that is compatible with the architectural design and other street furnishings to promote a consistent and definable character for Macville;

- Select light poles and luminaires that are appropriate to the site and function to avoid underlit or excessively lit areas and light pollution;
- Special Character Areas may be distinguished by a special lighting treatment to reinforce its role as a key character streets for the community. Options may include:
 - Unique light standards along the Avenue, within the Hub, and Employment / Innovation District;
 - Introduce additional pedestrian-scaled lighting along the Avenue within the the Hub, and Employment / Innovation District;
 - Specialty lighting treatments within private lands, such as pedestrian scale light standards, light bollards, parking lot lighting, etc., may be considered within the Special Character Areas to create a unique streetscape character;
- Along the Avenue or within the Hub, light poles may provide options for hanging baskets or banners to reinforce the special nature of these districts;
- Lighting utility boxes shall be located to minimize their visibility, in compliance with Town of Caledon standards;
- Selection and placement of lighting fixtures should minimize light encroachment into natural areas to minimize impacts on wildlife;
- Selection and placement of lighting fixtures should ensure 'night sky' compliance as a component of sustainable design, with illumination directed downwards;
- Opportunities should be considered for renewable energy use, such as solar-powered lighting along park paths and natural trails.



Special character areas and locations with high pedestrian activity are distinguished by special lighting treatments, creating a unique streetscape character.

4.4.2 STREET FURNITURE

Along with lighting, street furniture will play an important role in defining the streetscape and reinforcing Macville's community identity. Contributing to the visual appeal and pedestrian comfort of streets and public spaces, all site furniture should be attractive, sturdy and accessible.

Design Guidelines:

- A common site furniture palette will be used throughout Macville and will reflect Town of Caledon approved standards;
- Street furniture should be provided in high pedestrian traffic areas and in key open space areas such as parks and stormwater management pond lookouts;
- Furniture within the Avenue, the Hub and Employment / Innovation District, in particular, may include benches, waste receptacles and bicycle racks, rings or posts, and shall be complementary to the selected street lighting design.
- The colour, material, form, and style of street furniture should be consistent with and complementary to the established design theme for Macville and the districts/ neighbourhoods;
- The placement and layout of furnishings shall encourage safe use, maintain all accessibility requirements, and be appropriate to the adjacent built form type and function;
- As much as possible, furnishings shall be vandal-resistant and low-maintenance, with readily available componentry.

4.4.3 UTILITIES

Any utilities and utility-related boxes or structures in Macville's public or private realm should be designed and sited to minimize their visual impact, where feasible.

Design Guidelines:

- Along the Avenue and within the Hub and Employment / Innovation District, utilities should be strategically located to mitigate visual impacts and avoid physical barriers to pedestrian flow;
- As much as possible, avoid locating above-ground utility plants on boulevards along the Avenue, within the Hub, and any mixed-use node intersections. Rather, utilize side streets and rear lane or ganged end-wall service entrances;
- Where possible, locate utility plants within public or private easements;
- Utilities required for parks and open space areas will be located within these uses. All other utility boxes/structures are not permitted within or in front of park or open space blocks; and
- Utility companies are encouraged to incorporate graffiti maintenance controls for applicable utility boxes.



A consistent family of street furniture components will help define the streetscape character of the community.



Urban tolerant trees should be used where a hardscape environment characterizes the public realm.

4.4.4 HEALTHY STREET TREE AND PLANTING STRATEGY

An effective tree planting strategy can help establish the character of neighbourhoods within the community and should relate to the street type and adjacent land use. The strategy for Macville may address 5 basic categories for street trees, including the following:

Design Guidelines:

- Native / Non-Invasive Trees (Medium or Coarse-Textured Species) – typically located on streets adjacent to natural heritage features, stormwater management facilities and buffers;
 - Urban Tolerant Trees (Medium, Coarse or Fine-Textured Species) – typically located within the Hub where tree grates, raised planters and predominantly hardscape environments characterize the boulevard treatment;
 - Ornamental or Flowering Trees (Medium or Coarse-Textured Species) – typically located at significant community / neighbourhood entry points or alongside main gathering areas;
 - Medium or Coarse-Textured Trees – typical to all street hierarchy types, including local, collector and arterial roads;
 - Fine-Textured Trees – typically located along local streets.
- The use of native, non-invasive tree species is required for streets and areas adjacent to natural open spaces, including NHS features, buffers and stormwater management ponds;
 - Generally, preference shall be given to native species, particularly those tolerant of urban conditions (pollution, salt, drought, soil compaction);
 - Avoid planting conditions inherent in many urban environments, which are characterized by minimal soil volumes, poor soil structure, lack of irrigation and improper drainage;
 - Ornamental or flowering trees may be considered for key entry streets to help define or emphasize community and neighbourhood gateways;
 - Unless otherwise stipulated, street trees shall be located within the grass boulevard between sidewalk and curb, with the intent of creating a prominent, continuous canopy on both sides of the street;
 - Trees of the same species are encouraged to be planted on both sides of the street and may extend the length of the block or street, with the objective of creating a uniform canopy;
- To foster greater biodiversity, avoid street tree monocultures that repeat the same species over large areas;
 - The selection of proposed street tree species shall be from the Town of Caledon's recommended list;
 - Street tree sizes shall comply with Town of Caledon minimum caliper size standards. However, a larger caliper size (approx. 80-100mm cal.) should be considered to highlight character streets, focal areas or significant entry points;
 - Minimum distance separation between street trees and below and above-ground utilities shall be in accordance with Town of Caledon standards; and
 - A hard surface splash strip along the inside of the curb for arterial and collector roads shall be integrated to reduce salt damage to grass boulevards.

PARKS & OPEN SPACE GUIDELINES



5

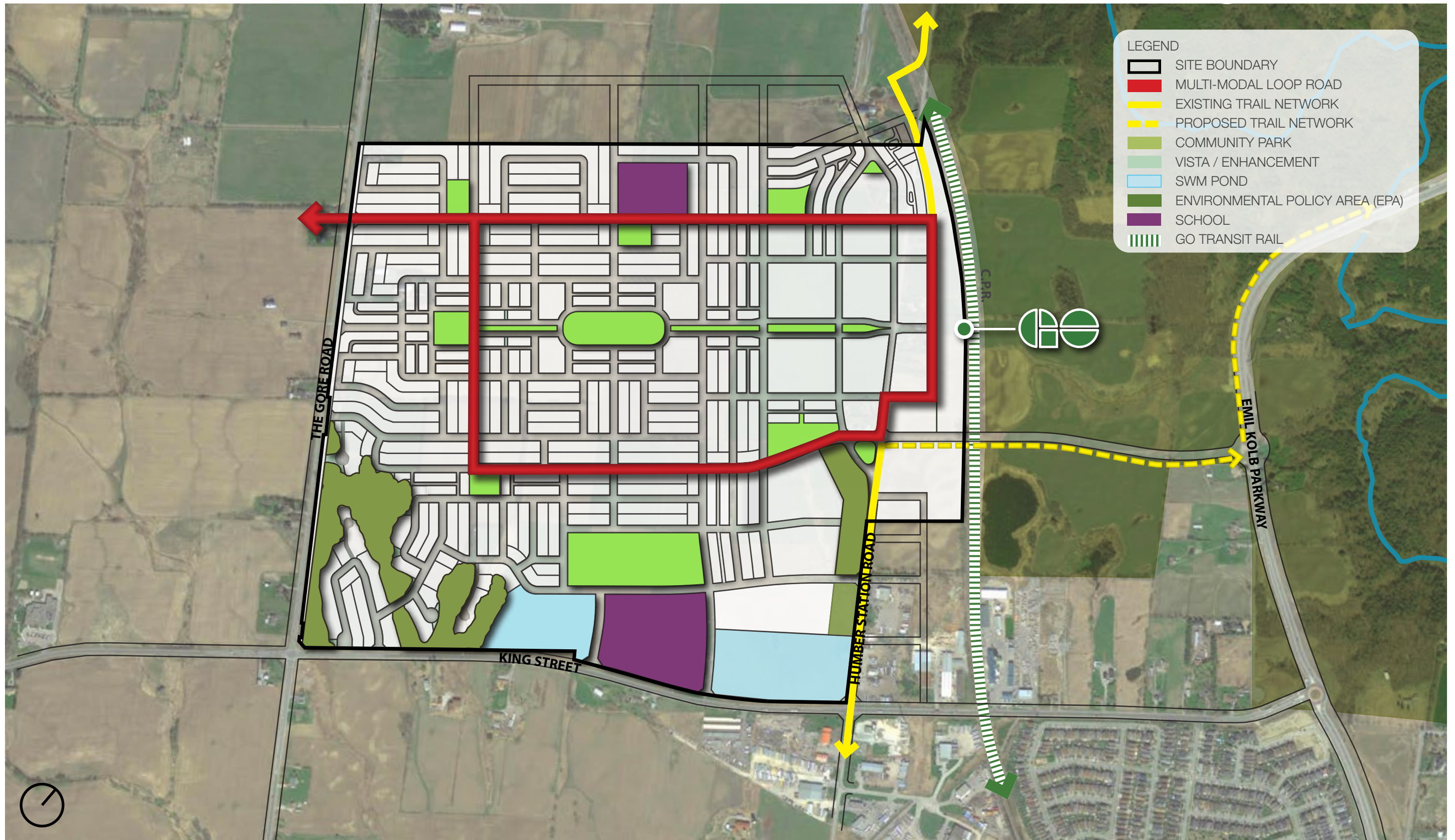


Figure 23: Macville Parks and Open Spaces

Parks & Open Space Guidelines 5

5.1 ABOUT THE PARKS AND OPEN SPACE GUIDELINES

The residents and visitors of Macville will spend less time mowing lawns and more time visiting parks and open spaces. Macville's park and open space network is master planned to include both programmed and unprogrammed public open spaces that connect to a regional trail and proposed Environmental Policy Area to be enjoyed by residents and visitors alike.

In addition to the design treatment described for the Public Realm and Streetscape Design Guidelines, several landscape and open space amenities, features, and elements of Macville shall be planned, designed, and developed with a responsible, creative approach. These components will help define the community as a sustainable, healthy, and innovative place to live, work, and play, and include the following:

- Parks;
- Environmental Policy Area;
- Regional Trail Systems;
- Water Management Facilities; and
- Schools.



5.2 PARKS

Parks and open spaces proposed for the community shall consist of four types, all of which are defined through function, configuration, setting, and programming opportunities. These include the following park typologies:

- Community Park
- Neighbourhood Parks
- Parkette
- Urban Plazas and Squares

A total of eleven (11) parks have been identified for Macville, which consist of three (3) Community Parks, five (5) Neighbourhood Parks, one (1) Linear Park and two (2) Gateway Parks.

Figure 24 illustrates the preliminary distribution of the various park types across Macville. The location of some Neighbourhood Parks shown will be determined through the Draft Plan process to ensure these fit within the context of neighbourhood and block structure. Programming for the parks will be guided by the following sections and in concert with Town staff.

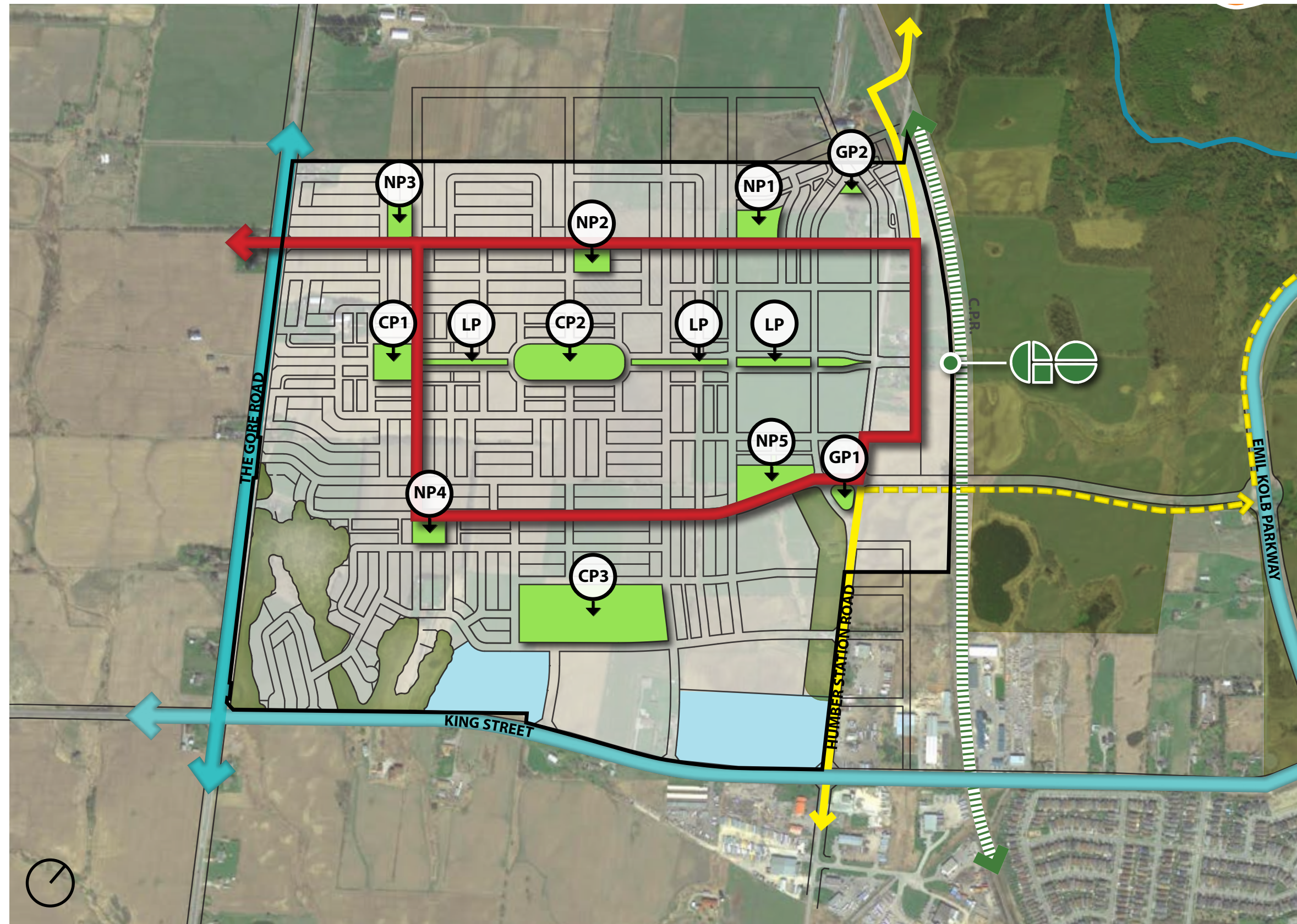
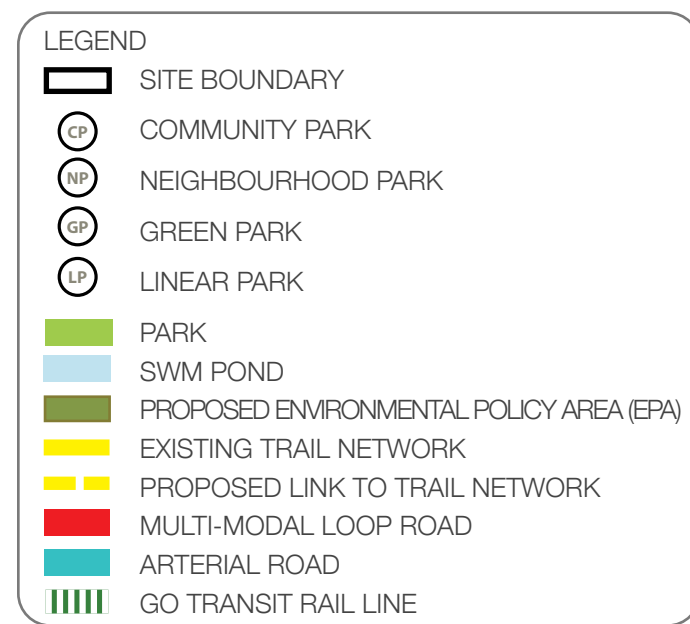


Figure 24: Macville Park Designations

5.2.1 PARKLAND REQUIREMENTS

The Town of Caledon *Recreation & Parks Master Plan* (March 2010) establishes a parks and open space classification system. In support of the provisions and design recommendations set out in Section 5.4 - Park Design & Amenities of the Masterplan, the following shall apply:

- Emphasis should be placed on providing more informal space in new parks in order to promote unstructured and organized activities.
- New and existing parks should continue to be designed with patrons' safety in mind through the application of CPTED (Crime Prevention Through Environmental Design).
- Ensure that parks are accessible to a wide range of users.
- Provide appropriate signage to promote recognition of parks among visitors and residents.

In addition to these Masterplan provisions and recommendations, the Town of Caledon *Comprehensive Town-wide Design Guidelines* Part 2, Section 6.1.2 - Public Parks will also be incorporated into Macville's parks allocation, programming and design, and shall include:

- Provide parks in centralized locations that are accessible to residents within a 5 to 10 minute walk (or 400-800 metres).
- Locate parks with minimum 50% frontage onto connector streets, ensuring public exposure and proper integration.
- Incorporate accessibility elements into park design, wherever possible.
- Provide a variety of recreational amenities for people of all ages, including children's play equipment, garden plots, and seating.
- Provide adequate LED lighting as per the Town Standards to ensure safe use throughout the day and seasons, in coordination with the Community Services Department.
- Contribute to the urban forest canopy by planting hardy, native tree species, shrubs, grasses and ground covers.
- Incorporate low impact development (LID) measures, where appropriate, and in consultation with the appropriate conservation authorities
- Provide on-street parking adjacent to parks, on the park side of the street, where deemed desirable through consultation with Town Staff.





5.2.2 APPROACHES TO PARK DESIGN

Given Caledon's cultural heritage, parks represent an important role in the cultural and recreational fabric of the community and provide features that link neighbourhoods to their natural surroundings. The approach to design of parks should therefore incorporate elements that factor in topographical and geological considerations, wildlife and native plant species, location and access to the area, visibility/public frontage, role in the cultural and recreational fabric of the community and have potential for trail or natural system linkages.

To complement more traditional park designs and facilities, unique and innovative approach to park programming and play elements within Macville should also be encouraged. 'Playscapes' or play experiences that extend beyond traditional play equipment, are more accessible and inclusive of various age groups, provide choice in play, call upon children to be imaginative, and can integrate elements such as topography and natural materials to become more engaging. The design of all parks and open spaces within Macville shall also comply with the Town of Caledon's accessibility and zoning requirements.



Parks with innovative elements can be successfully integrated within more traditional park designs.

5.2.3 COMMUNITY PARKS

CP1: West Entry Community Park

Intended to serve the entire community, the proposed West Entry Community Park is centrally located within Macville to serve multiple neighbourhoods. This community park will be primarily for passive recreation, with features including small children's play component, seating amenities, outdoor performance space, including multi-function stage / shade structure, common green / flexible use as gathering space and public art.

The West Entry Community Park will also be an ideal venue for integrating significant heritage resources, by functionally re-purposing built structures as a form of commemoration to the history of the area and Macville.

CP2: Macville Central Community Park

Supporting a range of community uses, Macville's Central Community Park is intended to be a central focus and primary green space for the Avenue district, which physically and visually links the park system with the retail and cultural hub of Macville to the east. Primarily surrounded by a mix of low to mid-rise residential dwellings, Macville's Central Community Park will be part of the wider green space network stretching east-west over multiple blocks in the Avenue, and providing a continuous view corridor toward the future Caledon GO Station.



Parkside living will have distinctive architecture framing the edges and establishing unique community areas.

CP3: Active Recreation Community Park

The active recreation community park will have non-regulation sizing with the potential for artificial turf for extended play. Play courts and potential skateboard facility will also be considered for added community uses. Lighting for the sports fields and other park elements shall minimize disturbance to adjacent properties. Safe pedestrian and cycling connections shall also be provided between the open space areas, and the secondary school. These connections will link to the higher level of pathways associated with main roads as part of the hierarchy of trails and pathways offered in Macville.

In keeping with promoting a healthy lifestyle, facilities that cater to a broad age group – children to seniors will be provided in the active recreation community park, including an exercise circuit, bouldering park, pickleball and other unique youth play opportunities.

A skate trail will offer both unsupervised public skates and shinny hockey for all ages. Designed in an irregular ‘canal’ shape, the trail will feature natural bends to allow skaters of all abilities to practise their skills, while maintaining a comfortable flow. Seating will also be available along the trail.



A skate trail will offer both unsupervised public skates and shinny hockey for all ages.



Community parks should provide programming that allows for a variety of facilities and functions.



In keeping with promoting a healthy lifestyle, facilities that cater to a broad age group – children to seniors.



5.2.4 NEIGHBOURHOOD PARKS

Neighbourhood parks are uniquely compact public open spaces that respond to the architectural form and street design of the surrounding neighbourhood. The Neighbourhood parks within Macville Village will provide community open spaces that encourage public gatherings, are more passive-use oriented and are largely characterized by an urban form and structure. These smaller open spaces will have the flexibility to adapt to, both, traditional residential and more urban, mixed use settings and will function as a supplement to the proposed Community Parks, while reinforcing an identifiable focus for smaller grain neighbourhoods. In doing so, the combined neighbourhood parks will ensure all residents are within a 5-minute walking radius of a green open space with play facilities.

Design Guidelines:

- Use of predominantly soft landscaping to allow for a variety of active and passive uses, including programmed and unstructured uses;
- Planned and designed to reflect each of the four neighbourhood characters;
- Act as a focal point within the neighbourhood, and be sited with frontages on a minimum of two public streets or lanes to promote views and access;
- Playgrounds and/or shade structures (including play structures, swings, etc.) shall be designed as a major focal element of the Neighbourhood Park;
- Although Neighbourhood Parks are neighbourhood focused and within walking distance of the surrounding catchment area, on-street parking within 50-100 metres of the park shall be provided; and
- Park programming will consider a variety of facilities and functions as determined by the Town of Caledon, including junior and senior playground facilities, multi-use play courts, community gardens, dog runs, park pavilions, seating and entry features, unprogrammed open spaces, etc.



Neighbourhood parks that reflect a unique character of their respective neighbourhood.



Linear parks along the Avenue and the Hub corridor will provide addition network of pedestrian circulation.

5.2.5 LINEAR PARKS

Traditional urban parks are public spaces designed for passive recreation where users sit to read, to eat, to watch other people. These parks are destinations, places to go to. In contrast, linear parks are meant to take you somewhere. They are facilities for active recreation, for walking, jogging, or biking. The linear parks in Macville will combine elements of transportation with recreation and provide an added layer of circulation along the Avenue and the Hub spine. Opportunities for resting/seating areas should be provided in areas of high pedestrian activity, and may be combined with the surrounding mixed uses as additional seating areas. This will allow the residents and retail users from both sides of the Hub move freely from each side of the street due to the combined linear park and woonerf concepts.

With an alley of trees and formal planting approach, the linear parks will provide an opportunity for an innovative lighting program that will act as an extension of Community Parks.

Where appropriate, a change in material should be considered on the street where a Linear Park crosses a street. This may include a different paving material than that used on the street, pavement markings, and/or signage.

5.2.6 GATEWAY PARKS

- GP1 – South community gateway connected through Humber Station Road South**
- GP2 – North community gateway connected through Humber Station Road North**

The preservation and enhancement of the existing series of unique, important and memorable views within Macville will play an important role in the design of two gateway parks located at the south and north end of Humber Station Road. The provision of a coordinated series of features, which demarcate major gateway entrances to Macville will be encouraged to acknowledge the transition between this important and unique area and the surrounding neighbourhoods. These two gateways will provide iconic feature(s) like public art, landscape and/or built form related to denote entry and Macville character. These gateway parks may have a commemorative function denoted (e.g. the community cenotaph).

5.2.7 URBAN PLAZAS AND SQUARES

Macville's urban plazas and squares will be vibrant central gathering places with potential for four-season programming which will serve as the outdoor retail, arts and cultural spaces for the community.

Drawing from the vision for Macville and the wider goals and objectives of the Town of Caledon, urban squares and plazas will function as flexible urban open spaces that can be programmed to accommodate a variety of events and celebrations, such as public markets, art fairs and festivals. These flexible open spaces are supported by the retail, restaurant and services integrated into the ground floor of adjacent mixed-use buildings.

The combination of appropriately scaled buildings with animated storefronts on the east side and a 'woonerf' inspired shared street will frame the space and provide a safe, comfortable and inviting pedestrian focused environment. Decorative paving within these open spaces may extend across the adjacent street to provide a sense of entry, reinforce the pedestrian priority for the combined space and serve as a traffic calming element.

Other landscape elements and uses integrated with these urban spaces may include distinct seating and lighting elements, water features, interactive information kiosks, stormwater planters, public art, performance stage and opportunities for seasonal vendors.

The urban plazas and squares found among the high and mixed-use buildings will be designed to provide permeability throughout the buildings with alternative routes toward the future Caledon GO station. These additional pedestrian connections will deliver a variety of experiences, activities, programming opportunities and intimate settings that will define the more urban character of Macville.



Landscape design should promote pedestrian connections offered through privately owned public spaces.

5.3 PROPOSED ENVIRONMENTAL POLICY AREA (EPA)

The proposed EPA within Macville is an essential component of the community's character and the Region's ecological system. One of the primary goals of the development is to preserve the existing natural environment and achieve environmental objectives and targets related to wildlife habitat, community diversity, and water management. Protecting the proposed EPA in Macville will help to ensure an ecologically diverse, healthy and sustainable open space system in an urbanized setting.

The interface between the proposed EPA and adjacent proposed development will therefore require careful consideration with respect to existing topography, vegetation communities, wildlife habitats, and hydrological systems.

In support of the design standards, requirements and guidelines outlined in Section 6.1.1 - Natural Heritage System of the *Town of Caledon Comprehensive Town-Wide Design Guidelines*, the following guidelines shall apply to the proposed EPA present in Macville:

- To reinforce the importance of these lands for the community, opportunities shall be provided for public visual access from adjacent streets, open space or from publicly-owned and accessible lands, such as parks and stormwater management facilities;
- Where environmentally sensitive features and other areas within the proposed EPA require protection, public access and encroachment shall be restricted in order to prevent negative impacts or disturbances; Measures may include physical barriers such as lot fencing or information signage. A homeowner education and stewardship program be implemented in this regard;
- The proposed EPA shall be preserved and enhanced through the placement of trails and view corridors from adjacent open spaces, linking the SWM ponds, parks, and residential neighbourhoods for pedestrians, cyclists, and recreational users;
- Dwellings backing onto the proposed EPA shall be fenced to fully enclose the lots, with no gate access leading into rear open space and the proposed EPA;
- Upgraded architectural treatment for the exposed rear and side elevations of dwellings backing onto or flanking the publicly accessible and visible areas within the proposed EPA should be considered;
- A planting palette for transitional planting within parks, stormwater management facilities, and other introduced features at the interface with the proposed EPA shall consist of native species that are compatible with the existing or proposed plant material found within any natural features along the proposed EPA edge; and
- Given the agrarian heritage of Macville, opportunities to integrate community gardens at the interface with the proposed EPA, where sensitive landscape features are not compromised, can represent an important and valuable link with the past while providing opportunities for community engagement for all ages.



Connecting trails and the proposed EPA interface will provide year round active recreation for both residents and visitors.












Ample opportunities shall be provided for public visual access into the proposed EPA from adjacent streets, open space or other publicly-owned and accessible lands.

5.4 REGIONAL TRAIL SYSTEMS

Macville's interconnected multi-use trail and on-street bike network along with access to the existing regional trail system will help to establish an active and healthy community. As part of this comprehensive active transportation network, a system of parks and open spaces has been designed to provide a range of passive and active recreation opportunities within walking distance of all districts and neighbourhoods. This network will deliver a continuous trail system that has convenient and attractive links throughout the community.

The multi-use trails and bike lanes located in strategic locations throughout Macville will enhance access and provide new links to allow cyclists and pedestrians to access the existing regional trail systems to the north, east, and south.

LEGEND

-  SITE BOUNDARY
-  BIKE LANE
-  EXISTING TRAIL NETWORK
-  EXISTING TRAIL NETWORK
-  PROPOSED LINK TO TRAIL NETWORK
-  PROPOSED ENVIRONMENTAL POLICY AREA (EPA)
-  GREENBELT LANDS
-  HUMBER RIVER
-  GO TRANSIT RAIL LINE

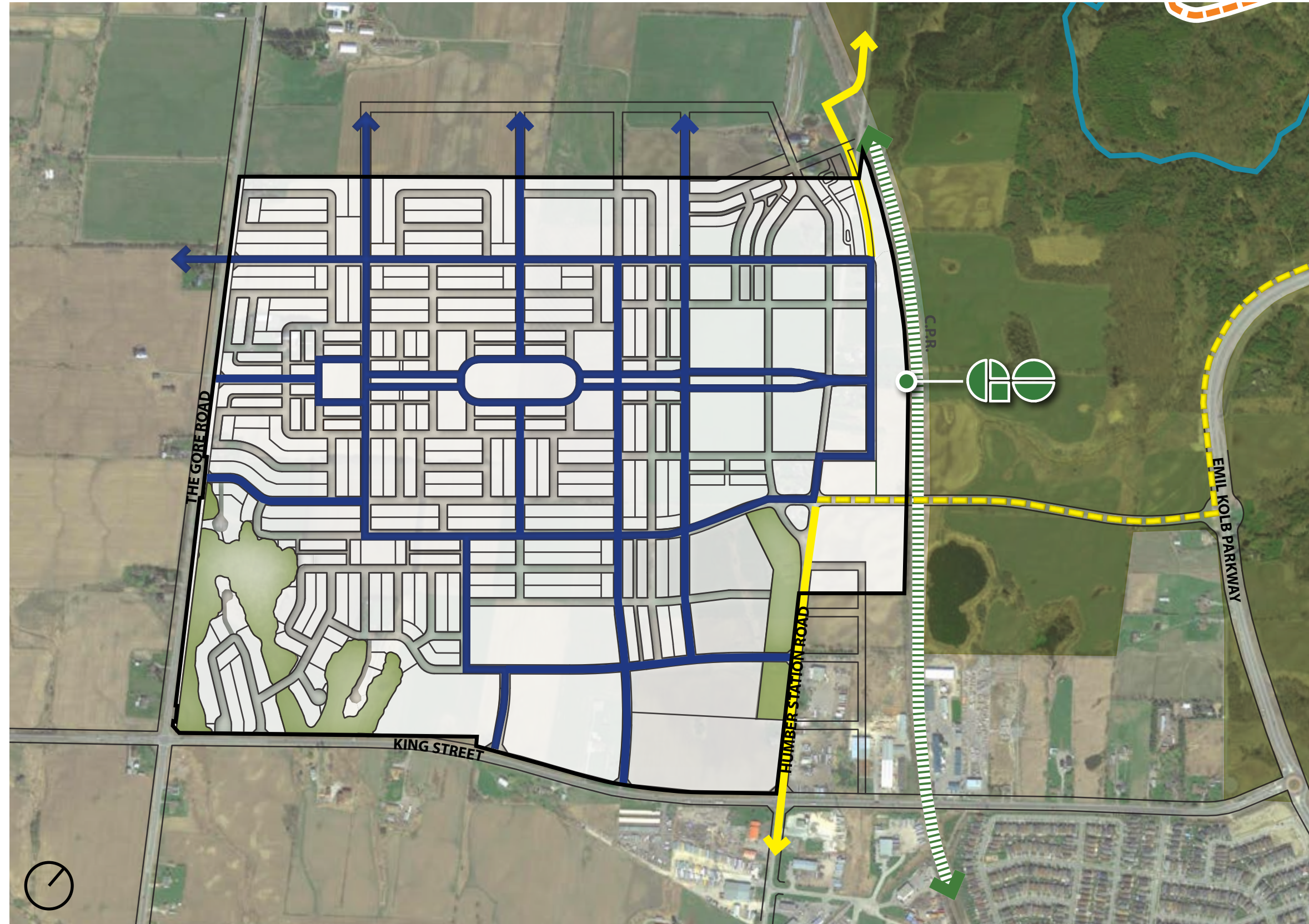


Figure 25: Macville Regional Trail System

5.5 STORMWATER MANAGEMENT FACILITIES

Generally located in close proximity to the community's open space system, stormwater management facilities (SWM ponds) are designed to provide water quality and control systems. Their secondary role is to complement the parks and open space system through provisions for the extension of the trail network and the integration of community features such as seating areas.

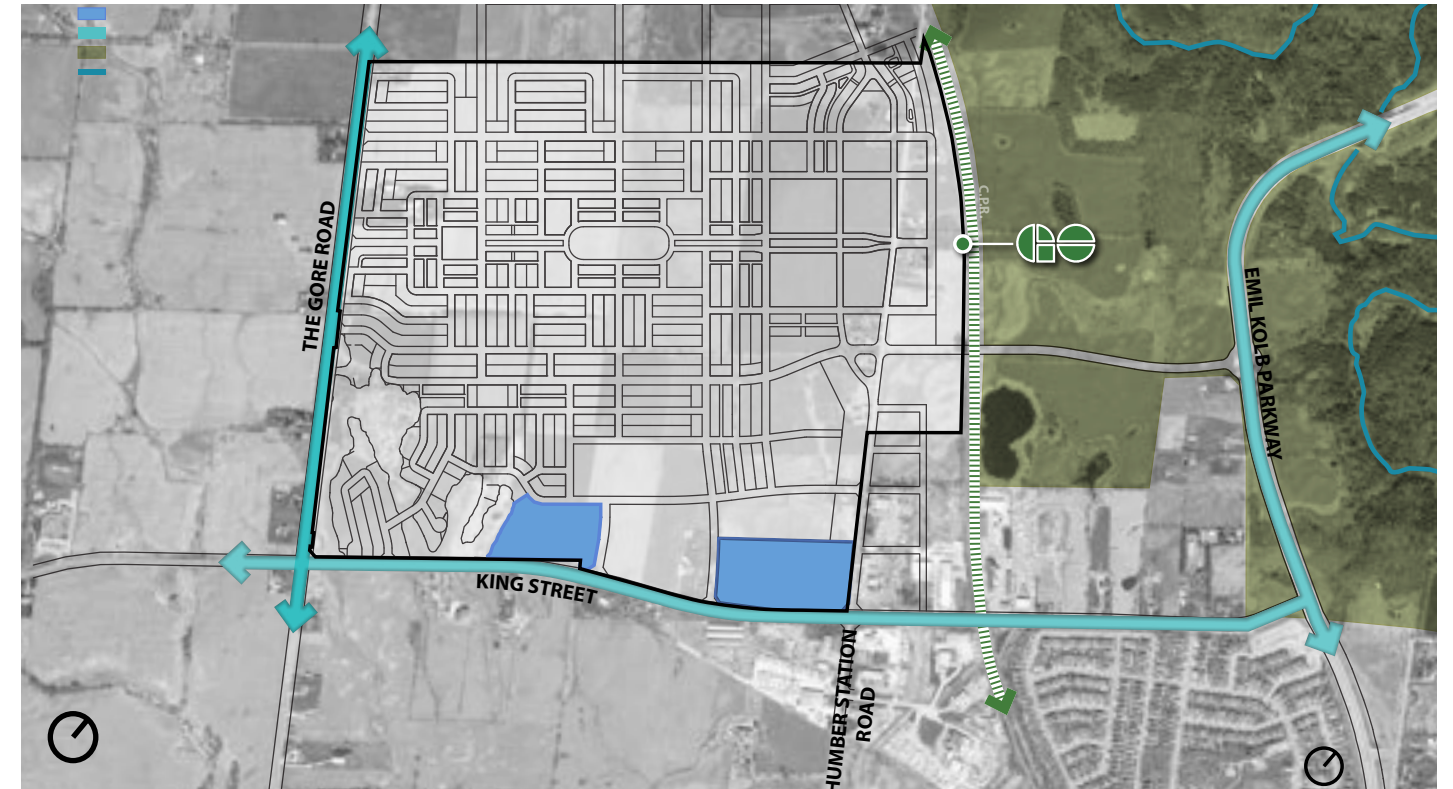
Two (2) stormwater management ponds are planned for Macville. The ponds shall integrate all of the necessary engineering and environmental functions, and will be designed to fit within the context of a compact urban development. Both facilities are located along King Street and have been strategically planned to align with the proposed EPA.

Stormwater management ponds and channels shall be designed as key focal / visual features within Macville. The facilities shall enhance the character and appearance of surrounding neighbourhoods, in addition to achieving the functional water quality and quantity objectives.

Design Guidelines:

- Appropriate planting shall be used along the slopes of ponds to help achieve a natural pond appearance;
- Pond inlets and outlets shall be concealed using planting, grading and/or natural stone. Similarly, any utilities located within a stormwater management facility shall be screened from public view using planting, fencing, or other built features, as appropriate;

- The zone between the street and stormwater management facility shall be designed as a transition from an urban streetscape to a naturalized area;
- Each facility shall have street frontage to maximize visibility within the community;
- Fencing of ponds adjacent to publicly accessible areas is discouraged. However, where it is desirable to discourage public access to a pond, barrier plantings and living fences consisting of plant material may be utilized in place of fencing;
- Public walking / cycling trails can provide access along ponds, where possible, except where immediately adjacent to a sidewalk or multi-use path;
- Maintenance / access roads may double as pedestrian trails and connect to segments of the community-wide trails and pathways network, where feasible;
- Naturalized planting shall consist of native species and shall include whips, multi-stem shrubs, trees, grasses and riparian, aquatic and upland species as appropriate to conditions. All planting shall meet applicable TRCA species and density standards for stormwater management pond facilities; and
- For streets that interface with SWM ponds, there is the opportunity to enhance the boulevard treatment with the integration of naturalized planting and vegetated swales as a component of the LID strategy for Macville.



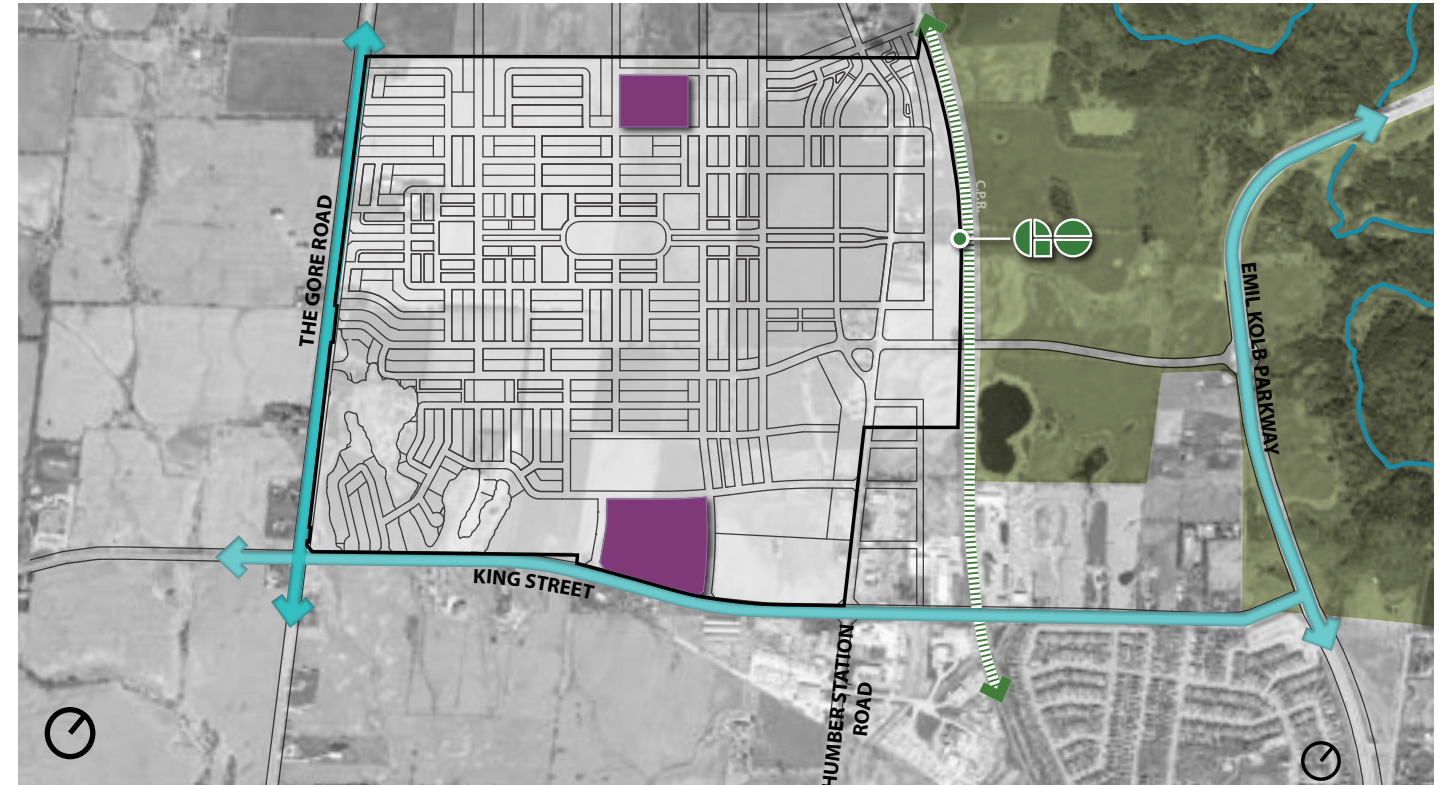
SWM ponds are a compatible use with the Environmental Policy Area and have been situated along the edge of the community along King Street.

5.6 SCHOOLS

Similar to parks, schools represent important built form and open space elements and serve as landmarks for the community that help define the character of the surrounding neighbourhoods where they are located. Two potential school sites have been identified within Macville, including one elementary school and one secondary school. Located along the multi-modal loop road, the combined school blocks shall be designed in a cohesive, attractive and functional manner.

Design Guidelines:

- The impact of parking facilities shall be minimized from the street through school siting and the use of landscape buffers. A passenger pick-up / drop-off area shall be sited within the school site;
- The design of school grounds should accommodate potential community use outside of school hours, including shared parking;
- Landscaping in the form of trees, shrubs and hardscaping shall be designed to complement the school building, buffer adjacent residential uses and parking areas, and provide opportunities for shade in strategic areas;
- Perimeter fencing and gateway features located in proximity to the street edge shall be consistent or complementary with the prevailing architectural theme of the school and neighbourhood;
- Potential conflicts between pedestrian and vehicular routes shall be avoided. Appropriate setbacks shall be provided between building entrances and on-site traffic routes;
- Preserve as much space as possible at the rear of the school site for student play areas and maximize green space;
- Pedestrian routes shall be clearly defined and provide easy, direct, and barrier-free access to school entrances. Barrier free parking is required close to the school main entry;
- Entrances should be coordinated with nearby street crossings to reinforce safe, direct links;
- Minimize the penetration of cars and busses into the school site for student safety;
- Schools that contain child care centres may have special requirements for parking and passenger pick-up/drop-off at the appropriate entry;
- School parking areas, driveways, and walkways shall be adequately illuminated. Pedestrian scaled lighting is encouraged to define pedestrian routes and to complement any larger scaled lighting used specifically for the parking area.
- Loading, service and garbage areas shall be integrated into the building design or located away from prominent public view and screened to minimize negative impacts; and
- Bike racks shall be installed for all schools in highly visible locations close to points of entry.



Schools should have a strong relationship with the street and contributes to the character of the community through architectural excellence.

5.7 VIEWS AND VIEWSHEDS

An extensive network of parks and open spaces provides a range of opportunities for attractive views within Macville. Important views and viewsheds, combined with the green corridor along the Avenue have been specifically designed to enhance permeability through the community and to promote connectivity between its open spaces and parks system.

The experience of the public realm within these open spaces plays a key role in informing the location of building heights, density and land uses. Viewsheds, vistas, and sight lines identified in Figure 26 have therefore been devised in concert with streets and open spaces with a goal of accentuating primary viewsheds, framing of community features like the Avenue, and enhancing the breadth and depth of the pedestrian network. Secondary sight lines focused on spatial enclosures and terminated views will provide a look into more intimate character spaces like the urban plazas and squares. An opportunity for taller buildings to be placed in strategic locations will allow building heights to serve as vertical landmarks, points of orientation and wayfinding.

The natural features within the proposed EPA will also provide attractive views from various vantage points within Macville. Throughout the master planning process, these potential views have significantly influenced the configuration of the proposed land uses, including the layout of the road network and the block plan, as well as the siting of parks and schools.

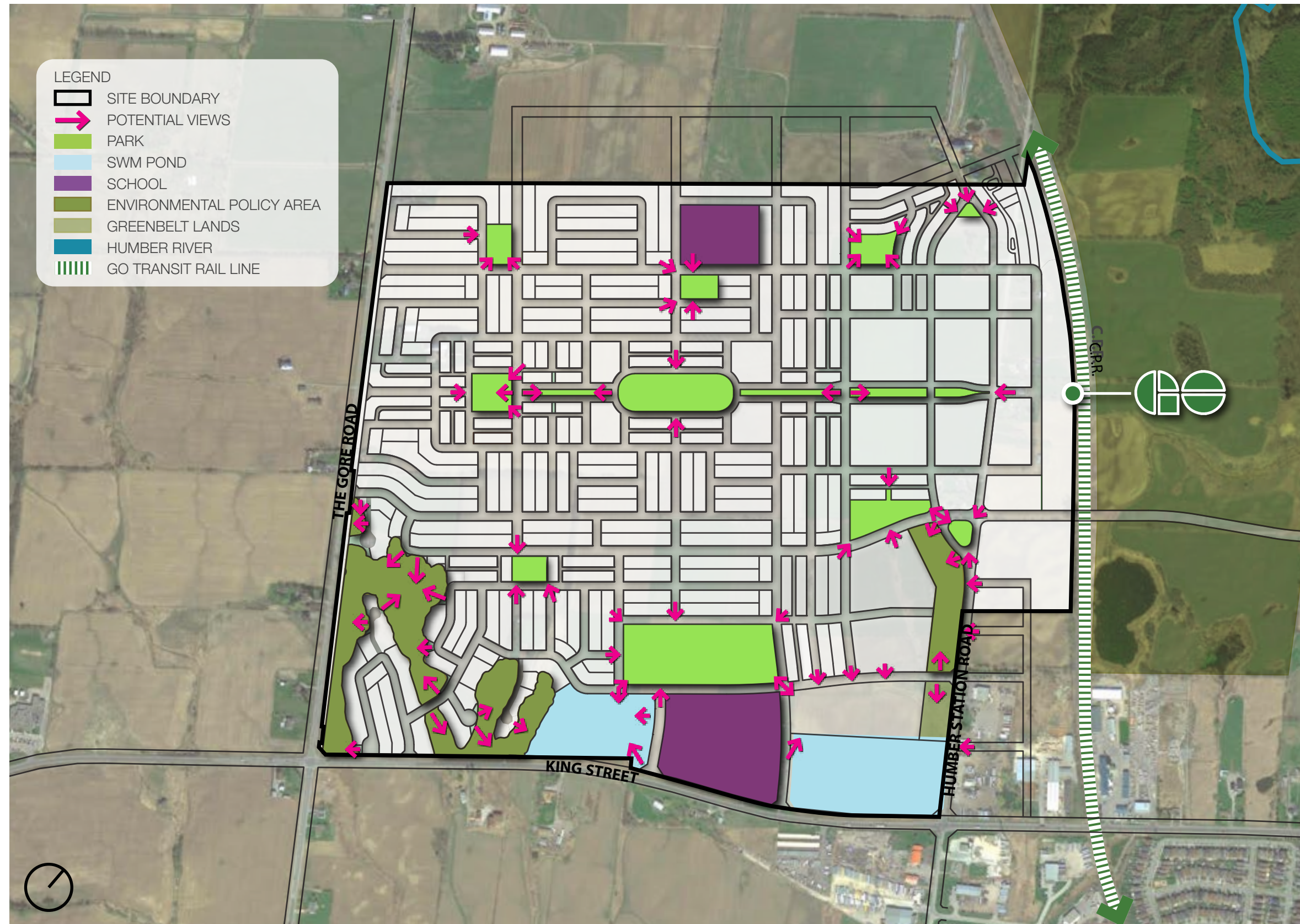


Figure 26: Macville Views & Viewsheds

Through the application of key design principles, viewsheds and corresponding views have been integrated into Macville in order to guide the design of the surrounding urban fabric.

The quality and character of the resulting view opportunity can be described as either long / expansive views, which typically afford an extensive vista or longitudinal view over a large distance, or short views, which are usually framed by a wooded edge or have built community features (roads, built form, etc.) in the background.



ACCESSIBILITY

Emphasis should be placed on providing access points to natural features by locating pedestrian amenities (trailheads, multi-use path network) along potential view corridors.



BUILT FORM DESIGN

Architectural built form shall be designed to maximize sustainable materials and energy efficient building techniques.



PUBLIC CIRCULATION

Community design that directs public circulation to key areas including the Avenue and the Hub and their associated public amenity spaces.



STREET CONNECTIONS

Local streets should be oriented to maximize views towards the proposed EPA, including strategic use of single-loaded roads and window streets.



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ARCHITECTURE & SITE PLANNING GUIDELINES





Architecture and Site Planning Guidelines 6

6.1 ABOUT THE ARCHITECTURE AND SITE PLANNING GUIDELINES

With a focus on creating a unified and cohesive community, Macville has the unique opportunity to design and shape the built form as a legacy community that shapes the identity of Caledon. The historical precedent found throughout Caledon played a key role informing the style, materiality and massing of Macville's built form. The various architectural forms within the development will provide for a harmonious mix of attractive architecture which may incorporate both traditional and contemporary influences.



Architectural design should frame open spaces and create memorable community streetscapes.

6.2 BUILT FORM CHARACTER

It is important to recognize that the urban densities proposed for Macville will mark a profound change in built form character from the existing rural and suburban development pattern in the area. A high quality built form character will be promoted by utilizing architectural treatments that create exceptional visual interest, promote vibrant pedestrian environments and help to foster a distinctive identity for Macville as an attractive, cohesive and sustainable community of Caledon.

The architectural styles and themes for each neighbourhood and district area will be developed in a coordinated manner in consultation with the stakeholders and the Town.

Derived from tradition-inspired architecture, the built form character will be adapted to suit a modern context, with contemporary architectural styles envisioned in the mixed-use residential at grade commercial core as well as throughout low and medium density areas of the community. Architectural styles will be encouraged to vary in order to assist in placemaking by giving unique landmark elements to help identity to the streets within each of the districts and neighbourhoods.

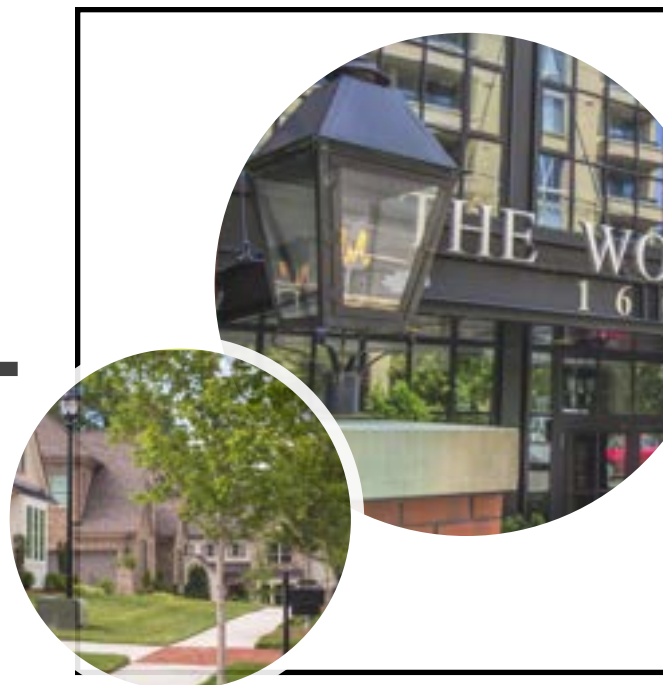
The use of distinctive and well-designed buildings employing durable, high-quality, environmentally responsible materials that support the intended architectural character of the building will be the common thread linking the various neighbourhoods within the community.

A visually attractive selection of exterior colours and materials will be chosen for each building as well as for groupings of buildings within the streetscape. Colour schemes and material selections will therefore be carefully coordinated for visual harmony and for consistency with each districts and neighbourhoods character to create a vibrant streetscape appearance.

INSPIRATION DERIVED FROM EXISTING HERITAGE



LANDMARK BUILT FORM ELEMENTS



TRADITIONAL MATERIALITY



CONTEMPORARY & URBAN MASSING



6.3 BUILT FORM TYPOLOGIES

Low-rise residential development will account for the majority of new built form constructed within Macville. A wide variety of housing choices will therefore be provided to create a diverse, yet cohesive, community for residents of different incomes, households and lifestyles. The various architectural forms within the development shall provide for a harmonious mix of attractive architecture which may incorporate both traditional/heritage and modern/contemporary influences to reflect a high quality character with a cohesive and legible community identity.

It is important that new residential buildings are designed to be complementary to the design of the public realm. Building elevations exposed to public view will be designed in such a way so as to ensure attractive, harmonious streetscapes are realized.

Outlined on the following pages are design objectives for the various low-rise dwelling types that may be constructed within Macville, including:

- Single Detached Dwellings (with/without laneways);
- Semi-Detached Dwellings;
- On-Street Townhouses;
- Lane Townhouses (public/private laneways);
- Stacked Townhouses;
- Back-To-Back Townhouses;
- Mid Rise Apartment Buildings; and
- Mixed-use Buildings.

6.3.1 SINGLE DETACHED DWELLINGS

Single detached dwellings will occur throughout the community on a variety of lot frontages. This form of housing typically has front-facing garages accessed by a street, but may have rear-facing garages accessed by a laneway.

Design Guidelines:

- Single detached dwellings should be designed to individually and collectively contribute to the character of the various neighbourhoods within the community.
- Building elevations visible from public areas shall incorporate appropriate massing, proportions, wall openings and plane variation in order to avoid large, uninteresting façades.
- Each individual dwelling should have appropriate façade detailing, materials and colours consistent with its architectural style.
- A variety of 2 storey and 3 storey building massing will be permitted.
- It is important to ensure that appropriate measures are taken in the siting of dwellings to ensure compatible and harmonious massing and building height relationships are achieved.
- For corner units, both street facing elevations shall be given a similar level of architectural treatment. Main entries for these dwellings are encouraged to be oriented to the flanking lot line.
- Corner lot dwellings should be a minimum of 2 storeys.
- Dwelling designs with covered front porches or porticos where appropriate to the architectural style are encouraged.

- Attached street-facing garages shall be incorporated into the main massing of the building to ensure they do not become a dominant element within the streetscape.
- The Zoning By-law provides minimum requirements for garage sizes. Provision of extra space for storage is recommended, where feasible.
- The use of rear yard garages (attached or detached) accessed from the street may be appropriate, where feasible. All other driveway locations shall be reviewed and approved by the Town on a case-by-case basis.



Individual dwellings should have appropriate design that positively contributes to the individual character of a neighbourhood.



Semi-detached homes should be designed with massing, articulation and cladding which supports the appearance of a single dwelling in lieu of two individual units.



6.3.2 SEMI-DETACHED DWELLINGS

Semi-detached dwellings contribute to the mix of housing types in the development and add to the diversity of housing choice and streetscape character.

Design Guidelines:

- Both halves of the building should be compatible in terms of design expression. Elevations may be symmetrical or asymmetrical.
- Building elevations visible from public areas shall incorporate appropriate massing, proportions, wall openings and plane variation in order to avoid large, uninteresting façades.
- Each dwelling should have appropriate façade detailing, materials and colours consistent with its architectural style.
- Semi-detached dwellings should have 2 to 3 storey massing. Bungalow forms are generally discouraged for this housing type.
- Semi-detached dwellings should be fully attached above grade. Consideration may be given to dwellings partially attached above grade, subject to design review.
- Dwelling designs with covered front porches or porticos are encouraged, where appropriate to the architectural style.
- For corner lot buildings, the entry of the interior unit should be oriented to the front lot line, while the entry of the corner unit is encouraged to be oriented to the flanking lot line.
- Attached street-facing garages should be incorporated into the main massing of the building to ensure they do not become a dominant element within the streetscape.
- Street-accessed semi-detached dwellings should generally be restricted to a single-car garage.
- Garages / driveways for semi-detached dwellings should be paired to maximize on-street parking opportunities.
- The Zoning By-law provides minimum requirements for garage sizes. Provision of extra space for storage is recommended, where feasible.
- Utility meters for corner lot semi-detached dwellings shall be recessed in accordance with adopted standards.

6.3.3 ON-STREET TOWNHOUSES

Townhouse dwellings are an efficient use of land and an energy conservative housing form that will add built form diversity to the development of the Subject Lands. They are proposed to be located in areas of the development where a denser housing form is desired.

Since townhouses are comprised of individual units attached and grouped together into a larger architectural form, the massing and design of the whole building, rather than the individual units, should be considered during the design stage.

Design Guidelines:

- Townhouse block sizes may range from 3 to 8 units.
- Mixing of townhouse block sizes along the street can help provide visual diversity of the streetscape.
- Townhouse dwellings should have 2 to 3 storey massing. Bungalow forms are generally discouraged for this housing type unless extra-wide lot frontages are contemplated.
- Townhouse dwellings should be fully attached above grade. Consideration may be given to dwellings partially attached above grade, subject to design review.
- The overall townhouse block composition should display massing and design continuity while achieving adequate streetscape variety.
- Each townhouse block should have appropriate façade detailing, materials and colours consistent with its architectural style.



- Sufficient wall articulation is required to avoid large unbroken expanses of roof or wall planes, including the stepping of units and the use of bays, gables and porches, where appropriate.
- Building elevations visible from public areas should incorporate appropriate massing, proportions, wall openings and plane variation in order to avoid large, uninteresting façades.
- Dwelling designs with covered front porches or porticos are encouraged, where appropriate to the architectural style.
- For corner lot buildings, the entry of the interior units shall be oriented to the front lot line, while the entry of the corner unit should be oriented to the flanking lot line.

- Front-facing garages should be incorporated into the main massing of the building to ensure they do not become a dominant element within the streetscape.
- Street-accessed townhouse dwellings will generally have single-car attached garages accessed from the street, with an additional parking space on the driveway. Consideration may be given to wider garages based upon merits of the design.
- Garages / driveways for townhouse dwellings should be paired, wherever feasible, to maximize on-street parking opportunities.
- When site conditions allow, rear yard access from the garage may be provided for interior units.





Consistent architectural detailing should be applied to all publicly exposed elevations.

6.3.4 REAR LANE TOWNHOUSES

Lane Townhouses, with rear yard garages accessed from a public or private laneway, will occur within special areas of the community having a higher public visibility and pedestrian activity. This form of housing contributes positively to the built form character and urban streetscape appearance of the neighbourhood by removing garages and driveways from the public realm and establishing a strong uninterrupted street edge that is more urban in character.

In addition to the design guidelines stated for street townhouses, the following will apply.

Design Guidelines:

- Rear lane townhouses shall feature 2-3 storey building massing to provide an appropriate transition with low density residential and establish a built form scale appropriate to the planned street hierarchy. Heightened building massing at main intersections should be considered;
- Rear lane townhouses along the Avenue shall be 3 storey in height and feature consistent architectural detailing on all publicly exposed facades;
- The main dwelling facade should typically be sited no further than 2.0m from the front lot line to create a strong and active street edge;
- Garages will be accessed from a rear laneway and may be either attached to the dwelling or detached from the dwelling. Single or double garages are permitted;
- Garages shall be complementary to the main dwelling in terms of materials, massing, character and quality. They shall be designed and arranged to provide an attractive visual environment within the rear laneway;
- Front entrances shall be directly linked to the public sidewalk with a walkway. Definition of the private front yard space may occur through the use of low fencing and/or edge planting;
- Outdoor amenity areas for lane-based townhouses may take the form of a conventional rear yard amenity space (with detached garages) or a functional raised terrace/balcony (with integrated garages);
- Where feasible, utility meters should be located in the laneway, away from prominent views; and
- Where a common open space or internal courtyard area occurs, a tot lot play facility shall be integrated within the site to complement Neighbourhood Park amenities.

6.3.5 BACK-TO-BACK TOWNHOUSES

Back-to-Back Townhouses may occur on public streets or on private streets in the medium / mix-use density blocks within the community. This type of townhouse is typically a 3 storey housing form with front facing garages accessed from a public or private road.

As the name suggests there is a common demising wall along the rear of the unit in addition to the traditional interior side walls. Outdoor amenity space is provided in the form of a balcony typically located above the garage. This form of development will be subject to Site Plan Approval when located on condominium internal roads.

Design Guidelines:

- Back-to-back townhouse block sizes may range from 6 to 16 units. Mixing of townhouse block sizes along the street can help provide visual diversity of the streetscape;
- Private outdoor amenity space is typically provided in the form of a balcony;
- Privacy screens should be provided between outdoor amenity spaces of neighbouring units;
- Since balconies will be facing the street, they must be well-detailed to suit the architectural style of the building using upgraded, durable and low-maintenance materials;
- Façades should be developed to incorporate architectural elements found on lower density housing forms such as peaked roofs, gables, porches and roof overhangs;
- Flat roofs and/or rooftop terraces are permitted;
- Garages shall not project beyond the front wall or porch face of the dwelling;
- Utility meters should be recessed or otherwise located away from immediate public view;
- Air conditioning units should be located discreetly on the balcony away from public view; and
- Entrances to each unit should be ground-related requiring no more than a few stairs to access, subject to site grading conditions.





6.3.6 STACKED TOWNHOUSES

Stacked Townhouses may occur within medium and mixed-use density blocks within the community. This building type is typically a multilevel condominium housing form (typically 4 storeys, comprised of individual units stacked on one another) with rear facing garages or surface parking areas. This building type provides a low-rise, compact built form yielding relatively high densities.

Design Guidelines:

- Stacked townhouses shall have 3-4 storey building massing;
- Buildings should typically be sited no further than 4.0m from the Spine Road right-of-way to help frame a pedestrian friendly environment;
- Parking areas may occur as surface parking or within garages integrated into the massing of the building. Main parking areas and garages shall be located away from the Avenue and any Collector Roads;
- Private outdoor amenity space is required for each unit and typically takes the form of a functional balcony or terrace for the upper level units and an at-grade or sunken courtyard for the lower level units;
- Façades shall be developed to create a 'main street' appearance and shall incorporate architectural elements appropriate to the design theme of The Hub;
- Flat roofs may be permitted to allow for rooftop terraces;
- Where a common open space or internal courtyard area occurs, a tot lot play facility shall be integrated within the site to complement Neighbourhood Park amenities;
- Pedestrian walkways within stacked townhouse blocks shall provide safe and direct access between dwelling entrances, parking areas, amenity areas and adjacent streets;
- Main entrances shall be ground-related, requiring minimal stairs to access, subject to site grading conditions; and
- Banked and screened utility meters shall be provided and located on internal end units where feasible, subject to compliance with local utility company regulations.



6.3.7 MID-RISE APARTMENT BUILDINGS (4-6 STOREY)

With a mix of densities being offered in the community, the mid-rise apartment buildings will include a range of configurations that can be attached to or share the block with low-rise or taller buildings resulting in the juxtaposition of heights and punctuation of roofscape profiles that avoid monotony of massing along the streetscape. Blocks containing mid-rise buildings have been configured in a variety of forms to aid in stepping-down the height and scale of taller buildings, transitioning between building types and establishing the appropriate height to proportionately frame larger-scale open spaces to create a sense of enclosure.

Design Guidelines:

- Building heights from 4 to 6 storeys will be permitted;
- Buildings shall be designed to mitigate any negative impact upon surrounding lower density residential development;
- A shadow impact study may be required, depending on building height, location and orientation relative to adjacent land uses;
- Ground level floor heights shall be taller than upper floor heights to create a strong street presence and provide opportunities for flexible space;
- Building set-backs shall be minimized to relate well to the adjacent roadway, village square and/ or open space areas, while allowing sufficient space for a comfortable pedestrian zone and landscaping opportunities;
- Building façades shall provide visual interest through use of materials, colours, ample fenestration, wall articulation and style appropriate architectural detailing. All façades exposed to public view shall be well articulated and detailed;
- Corner buildings shall provide façades which appropriately address both street frontages;
- Main entrances shall be designed as a focal point of the building. They shall be recessed or covered and provide visibility to interior lobbies to allow for safe and convenient arrival and departure from the building. Main entrances shall also be ground-related and wheelchair accessible;
- Building materials and detailing shall be used to establish a base, middle and upper portion for the building;
- The base portion shall reinforce a human scale environment at street level;
- The middle portion shall contain the largest mass of the building and should reflect the architectural character of the community;
- The upper portion shall be emphasized through articulations of the exterior wall plane, accent materials or roofline to draw the eye skyward;
- Where flat-roofed buildings are contemplated, a strong cornice line should be provided;
- Apartment units shall include private open space amenity areas (i.e. balconies/terraces) to enhance the private living environment of residents. Balconies must be well-detailed to suit the architectural style of the building and appropriately sized to comfortably accommodate seating;
- Underground parking is preferred to avoid unsightly large expanses of parking typically associated with higher density buildings;





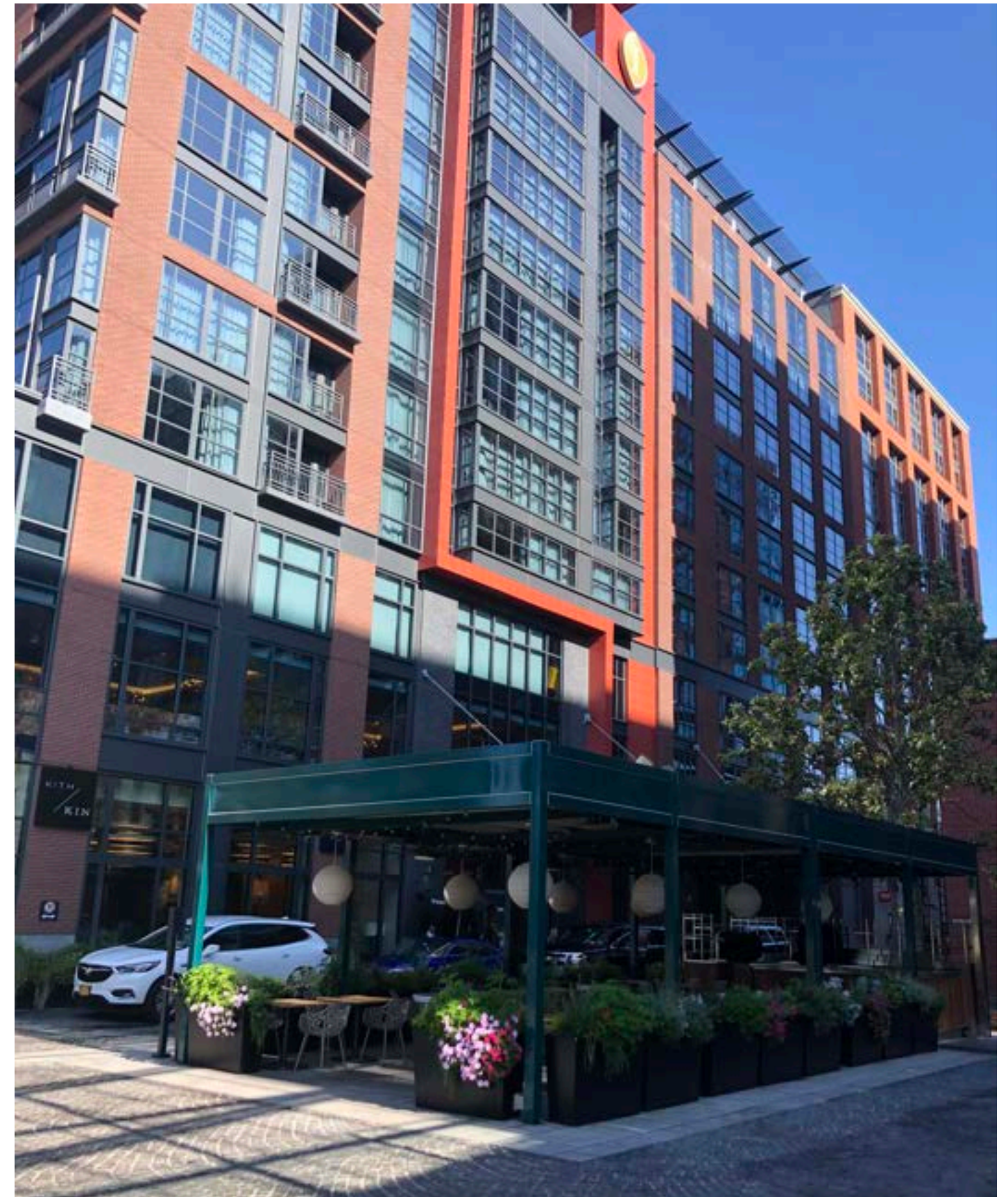
- Underground parking will enable a greater proportion of the site area to be utilized as outdoor amenity space for residents, which is particularly important for seniors-focused dwellings where residents benefit from a closer proximity to these outdoor features;
- Where surface parking is provided, it shall be done so in a non-obtrusive manner, away from areas of high visibility. Surface parking areas shall be screened from street views through the use of landscaping (including features such as metal fencing with masonry columns) or building siting to provide appropriate screening;
- Garbage facilities shall be incorporated into the overall design of the building and hidden from areas of high visibility;
- Mechanical equipment shall be screened from public view and integrated into the design of the building;
- Lighting shall be directed inward and downward to mitigate negative impacts on neighbouring uses; and
- Where a common open space or internal courtyard area occurs, a tot lot play facility shall be integrated within the site to complement Neighbourhood Park amenities.

6.3.8 MID-RISE+ APARTMENT BUILDINGS (7-12 STOREY)

Mid-rise+ apartment buildings will be permitted within the Mixed-use area surrounding the future Caledon GO Station. These higher density, seven to twelve storey mixed use forms are appropriate in establishing an active urban character through emphasis of building height and massing where intensity of use is desirable. These areas include community node locations along primary roads that are close to public transit service and commercial uses.

A high degree of architectural design quality shall be exhibited to ensure a distinct and attractive built form character appropriately suited to the building's location and role within Macville. Each building will be reviewed and approved by the Town through a Site Plan Approval process based in part on its design merits, its compatibility with neighbouring buildings and its ability to appropriately fit within the built form context of the neighbourhood. Final building heights shall be determined in consultation with the Town and shall comply to the zoning by-law.

In support of the vision for Macville, the mid-rise+ buildings will be oriented and designed to enhance placemaking, wayfinding and landmarking of the public realm. For this reason, these taller buildings will be uniquely configured in a variety of forms to aid in stepping-down the height and scale, transitions between building types, and establishing the form of massing and proportion of tower shafts in relation to views from streets and open spaces.



6.4 TRANSIT STATION / TRANSIT FACILITIES

The future Caledon GO Station is a key component of the community building strategy and an important tool for encouraging transit connections on a local and regional scale. Given that it is integrated with residential, mixed-use and commercial uses and in close proximity to the employment lands, Caledon GO Station will provide convenient and logical transit connections for a large and varied population base. It is expected to connect multiple transit providers from local and regional areas.

As part of the community building strategy, the transit area will instill a sense of place and identity for Macville. Through the careful design of an engaging public realm, connection to the linear park in the Hub and opportunities for community events and activities, the transit station will be a public space and gathering place.

GO Station Guidelines:

- The Caledon GO Station building shall be prominently located along the street and designed as a visually attractive community amenity, with interesting and durable architectural detailing, materials and finishes;
- Facilitate meeting and gathering in transit station area by incorporating a public plaza with street furniture, seating areas, displays, waste receptacles, and ample landscaping treatments;
- Bus ingress and egress points shall be designed to minimize traffic delay to buses and priority bus movements should be considered;
- Ensure a high-quality community hub architectural design and public realm design that respects the surrounding built form context and reflects the character of the community;
- All facilities shall be designed to a high standard of safety, security and comfort for all users, including persons with disabilities and persons using mobility devices;
- Provide an attractive and barrier-free pedestrian environment with consideration for safety and user amenities, including such elements as weather protection, lighting, sheltered waiting areas, seating and waste/recycling receptacles;
- Develop a coordinated program of furnishings that reflect the character of the community;
- Use a coherent design theme reflective of the local surrounding neighbourhood character;
- Ensure clear view corridors along sidewalks connecting to the transit hub and important civic buildings and landmarks;
- Provide clearly marked access for pedestrians and cyclists to minimize conflicts, particularly at passenger pick-up / drop-off locations, bus facilities and parking access points;
- Use landscaping elements, including special paving and lighting, to reinforce circulation patterns;
- Bicycle racks and storage shall be highly visible, easily secured and weather protected;
- Provide secure bicycle parking at the transit hub entrance, with consideration for bicycle supportive end-of-trip facilities such as showers, change rooms and personal lockers within the transit hub building;
- Provide wayfinding and signage that supports efficient navigation of the Caledon GO Station building;
- Locate and design commuter parking to maximize ridership potential while utilizing a road network that will minimize the vehicular impact to the community and the Hub;
- Use lighting, landscaping and public art to create a visually pleasing environment for transit users; and
- Incorporate natural landscaping elements and green design such as drought-resistant plantings, permeable surfaces and recycled/recyclable materials.



6.5 RESIDENTIAL ARCHITECTURAL DESIGN GUIDELINES

6.5.1 INFLUENCING STYLES

A high quality built form character shall be achieved for the proposed single detached dwellings, which aim to deliver architecture that is rich and varied in its form and treatments, creating a cohesive and visually appealing streetscapes.

The design of all dwellings within Macville shall offer a harmonious mix of architectural themes derived from established architectural styles. Traditionally inspired buildings are designed to provide contemporary amenities, while paying homage to a particular architectural style. These buildings are revivalist examples that utilize recognizable architectural elements. Stylistic influences may be borrowed from local architectural precedents, and may include:

PRAIRIE



MODERN FARMHOUSE



SCANDINAVIAN



CONTEMPORARY





The main entry should be a distinctive element of the building design, and should reflect the character of the entire neighbourhood.



A range of housing types with a variety of architectural styles will add interest to the streetscape.

6.5.2 FACADE VARIETY WITHIN THE STREETScape

Harmoniously designed streetscapes will contribute to the identity of Macville and are therefore key to establishing an attractive, vibrant and livable community. Model variety, massing, height and repetition within a group of dwellings enhance the visual appeal of streetscapes.

Design Guidelines:

- Allow for a variety of architectural expressions and elevation treatment to avoid monotony within the streetscape;
- Single, semi and townhouse dwelling forms shall be designed with at least two distinct front facade options for each model to avoid visual monotony in the streetscape. Creative and innovative housing types that provide for a variety of options for homeowners and their needs/wants shall be encouraged;
- Identical building elevations within the streetscape shall not be sited side-by-side or directly opposite one another. They shall be separated by a minimum of 2 dwellings (or 2 pairs of semis) and not sited greater than 3 times (30%) within any row of 10 dwellings (or 10 pairs of semis). This requirement will not apply for townhomes or other more dense building forms where facade variety will be evaluated on an individual basis;
- For corner lots, flanking elevations shall be different from those flanking elevations on lots abutting or directly opposite; and
- Repetition of architectural design may be permitted in key areas (such as surrounding parks or within special character areas) where it helps to visually strengthen neighbourhood character.

6.5.3 MAIN ENTRANCES, PORCHES AND BALCONIES

The front entry of a building is aesthetically, functionally, and socially important to the design of both the individual building and the streetscape. A visible and well-designed entry area promotes an individual sense of address and a collective sense of community and safety by providing “eyes on the street”.

Design Guidelines:

- Varied and distinctive entry door designs should be provided, such as single-door, double-door, or door with sidelights or transoms;
- Main entry designs should provide shelter from the weather;
- Building designs featuring porches should be sized with min. depth of 1.5m to allow sufficient space for seating;
- The cladding of the sides of the porch steps shall start no more than 300mm above finished grade;
- Front entry and porch design is encouraged to provide enough room to provide an area for seating and shelter from the weather
- Steps constructed with landscape paving slabs could be an attractive alternative to conventional precast steps, and may be considered where the number of riser is limited (e.g. max. of 4 risers or 3 steps);
- Handrails shall be provided where required by the Ontario Building Code and additionally may be included for aesthetic or stylistic reasons; and
- Where handrails are provided they are to have a top and bottom rail with vertical pickets, and to be consistent with style of porch columns, in terms of vernacular and colour.

6.5.4 EXTERIOR MATERIALS AND COLOURS

Design Guidelines:

- The use of high quality wall cladding materials reflective of the architectural style of the building will be required to contribute to the built form character of the community;
- The following main wall cladding materials are suitable for the community:
 - Brick in a variety of established local heritage and earth tones and textures;
 - Siding, particularly in board and batten profiles with heritage colours;
 - Stone that displays heritage colours and textures; and
 - Stucco in natural tones with appropriate trim detailing such as detailed mouldings or half-timbering.
- Main wall cladding material shall be consistent on all elevations of the dwelling. No false fronting is permitted (i.e. brick on front elevation with siding on rear elevations). Exceptions to this may be permitted where an upgraded stone façade, stucco façade or stone plinth is incorporated into the design and the side and rear walls have brick;
- Material changes which help to articulate the transition between the base, middle and top of the building are appropriate. Where changes in materials occur, they should happen at logical locations such as a change in plane, wall opening or downspout;
- A wide variety of exterior colour packages should be provided to avoid monotony within the streetscape. Given a Caledon inspired thematic emphasis, colours should reflect a heritage palette of deep reds and browns with subdued yellows; and
- Individual exterior colour packages shall combine to create a visually harmonious streetscape appearance.





6.5.5 ARCHITECTURAL DETAILING

Design Guidelines:

- Each building shall include architectural detailing characteristic to its style on all publicly exposed elevations. Where an elevation has reduced public visibility (i.e. sides and rears) the level of detail may be simplified;
- A high standard of architectural detailing is required, consistent with the architectural style, including:
 - Cornice / frieze board treatments;
 - Lamps for entrances and garages;
 - Decorative address plaques;
 - Stylistically appropriate porch columns;
 - Generous use of precast stone elements;
 - High quality decorative glass, metal, wood or vinyl railings; and
 - High quality, well detailed garage doors that reflect the architectural style of the building.

6.5.6 FENESTRATION

Design Guidelines:

- Ample fenestration, consistent with the dwelling's architectural style, is required for publicly exposed elevations to enhance the dwelling's appearance and to promote casual surveillance of the street from within the dwelling;
- Vertical, rectangular window proportions are preferred to reflect traditional architectural styles. Other window shapes are encouraged as an accent, but should be used with discretion to ensure consistency with the architectural style of the dwelling; and
- Bay windows should be used at appropriate locations and designed in a manner consistent with the architectural style of the dwelling.

6.5.7 ROOF FORM

Design Guidelines:

- Roof form plays a significant role in the massing of the individual building and in the overall built form character of the community;
- A variety of roof forms are encouraged, consistent with the architectural style of the dwelling;
- Lower density housing forms should generally have pitched roofs. The minimum main roof slopes should generally be 10:12 pitch (side slopes) / 5.9:12 (front to back slopes).
- Bungalows shall utilize roof forms that assist in massing compatibility with 2-storey dwellings;
- Steeper pitches than the minimums stated are encouraged where appropriate to the architectural style of the dwelling to ensure roof form variety within the streetscape. Lower roof slopes may be considered where authentic to the dwelling style (i.e.);
- Flat main roofs are permitted for medium density buildings, provided an appropriate parapet or cornice treatment is incorporated into the design;
- Roof overhangs should generally be 300mm;
- Plumbing stacks, gas flues and roof vents should be located on the rear slope of the roof, wherever possible, and should be prefinished to suit the roof colour; and
- The use of false dormers is discouraged and shall only be considered where scale, orientation and roof line make them appropriate and an authentic appearance is assured.



6.5.8 GARAGES

6.5.8.1 Street-Accessed Garages

Design Guidelines:

- Minimizing the presence of attached garages within the streetscape is a key requirement for all low and medium density dwelling designs;
- Garages shall be complementary with regards to character and quality of the principal dwelling;
- Acceptable design options for attached street facing garages include:
 - Integrating the garage into the main massing of the house, flush with the porch;
 - Integrating the garage into the main massing of the house, flush with the main wall;
 - Locating the garage at the side of the house, recessed behind the main front wall face;
 - Projecting up to a maximum of 1.5m from the front wall or porch face (this may only occur on a limited basis for up to 20% of the streetscape);
- Provide a tandem garage;
- Stagger the front façade of the garage.
- The amount of garages per dwelling type or lot size will be provided as follows:
- Street townhouses and semi-detached dwellings shall have a single car garage;
- Detached dwellings on lots with frontage less than 11.0m shall have a single-car or 1-1/2 car garage;
- Dwellings on lots with frontage 11.0m or greater may have a double car garage;
- Dwellings on lots with frontage of 18.0m or greater may have a three-car garage, provided the garage face is staggered;
- Only sectional, roll-up type garage doors shall be considered. A variety of garage door styles shall be provided;
- Where a double car garage is contemplated, 2 individual garage doors / bays separated by a dividing column is preferred;
- Where dropped garage conditions occur on rear to-front sloping lots, alternative architectural treatment shall be employed to minimize the massing between the top of the garage door and the underside of the soffit.

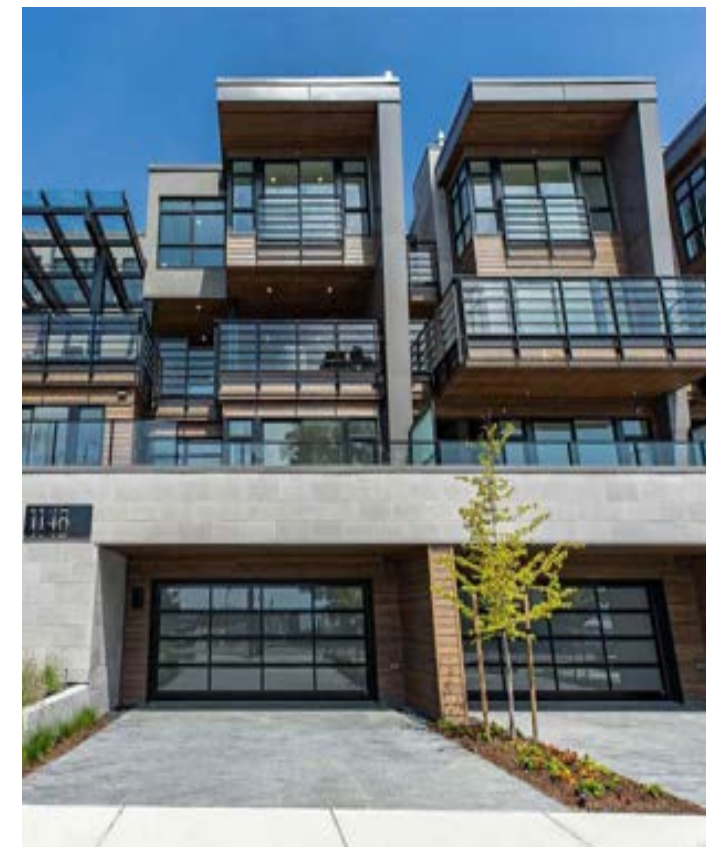
6.5.8.2 Rear-Accessed Garages

Design Guidelines:

- Lane accessed garages may be attached or detached from the dwelling. Both single and double-car lane garages may be permitted;
- Lane garages shall be consistent with the architectural style of the dwelling with respect to materials, massing, character and quality;
- Detached garages shall be designed with articulated roof lines or other architectural elements to enhance their appearance within the laneway;
- Only sectional, roll-up type garage doors shall be considered;
- Parking pads are permitted beside the rear yard garage, where space permits. For corner lots, parking pads shall not be located between the garage and the exterior side lot line; they shall be screened from street view;
- Garages on corner lots or other publicly exposed areas shall be designed with upgraded architectural treatment consistent with the main dwelling;
- Habitable and/or amenity space above an attached/detached rear lane garage may be considered to animate the lane and provide a distinct character to certain neighbourhoods; and
- Garages shall be sited to provide for access and drainage from the rear yard of the unit to the laneway.



Lane garages shall be consistent with the architectural style of the dwelling



Habitable and/or amenity space above an attached/detached rear lane garage may be considered to animate the lane.

6.5.9 UTILITY AND SERVICE ELEMENTS

Design Guidelines:

- To reduce their visual impact, utility meters or service connections for hydro, water, natural gas, telephone and satellite for detached dwellings shall be discreetly located away from public view, preferably on a wall that is perpendicular to the street and facing an interior side yard;
- For townhouse building forms, utility meters shall be located in the rear lane or screened / recessed into the wall, wherever possible, subject to local utility company requirements.



6.5.10 SITE GRADING CONDITIONS

Design Guidelines:

- Where severely sloping grade conditions occur, building designs shall be adapted to suit the site.
- This is particularly important for lots having back-to-front sloping grade conditions (front walk-out condition) to ensure an appropriate relationship between the dwelling, the garage and the street is maintained; and
- Care shall be taken to ensure foundation walls are not overexposed. Grading shall be coordinated with dwelling foundation design and constructed so that generally no more than ~300 mm of foundation wall above finished grade is exposed on all visible elevations of the dwelling.



6.6 PRIORITY LOTS

Priority Lots are located within those areas of the community that have a higher degree of public visibility. Their visual prominence within the streetscape and public open spaces requires that the siting, architectural design and landscape treatment for dwellings on these lots be of an exemplary quality to serve as landmarks within the community. Built form on priority lots will require special design consideration to ensure an attractive built form character is achieved.

Priority Lots include:

- Corner lot / gateway dwellings;
- View terminus dwellings;
- High exposure side/rear elevations;
- Park facing dwellings; and
- Community edge/window street lot dwellings.

6.6.1 CORNER LOT DWELLINGS / GATEWAY DWELLINGS

Dwellings on corner lots and at community gateway entrances typically have the highest degree of public visibility within the streetscape and are important in portraying the image, character and quality of the neighbourhood.

Design Guidelines:

- Street intersections shall be framed through built form that has a strong orientation to the corners;
 - Dwelling designs must be appropriate for corner lot locations. Dwelling designs intended for internal lots will not be permitted unless modified to provide adequate enhanced flanking wall treatment;
 - Both street frontages for corner lot dwellings shall have equivalent levels of architectural design and detail with particular attention given to the dwelling's massing, height, roof lines, apertures, materials and details;
 - Given the heightened exposure from the street, rear elevations shall also be treated with upgraded elements.
 - Distinctive design elements, such as wraparound porches, porticos, bay windows, generous fenestration, wall articulation or other features, appropriate to the architectural style of the building, shall be provided on the flankage side to create a positive pedestrian presence along the street and emphasize the corner dwelling's landmark qualities within the streetscape;
- The main entry to the dwelling is preferred to be located on the long elevation facing the flanking street (flanking main entry). However, main entries facing the front lot line or shorter side of the lot (front main entry) may be permitted;
 - A privacy fence shall be provided to enclose the rear yard of corner lot dwellings;
 - Rear lane garages on corner lots will require upgrades to the side elevations facing the street; and
 - Dwellings and porches shall be sufficiently setback from any community gateway entry feature to avoid conflicts. The architecture and materials of dwellings at gateway locations shall be coordinated with the community gateway entry feature.



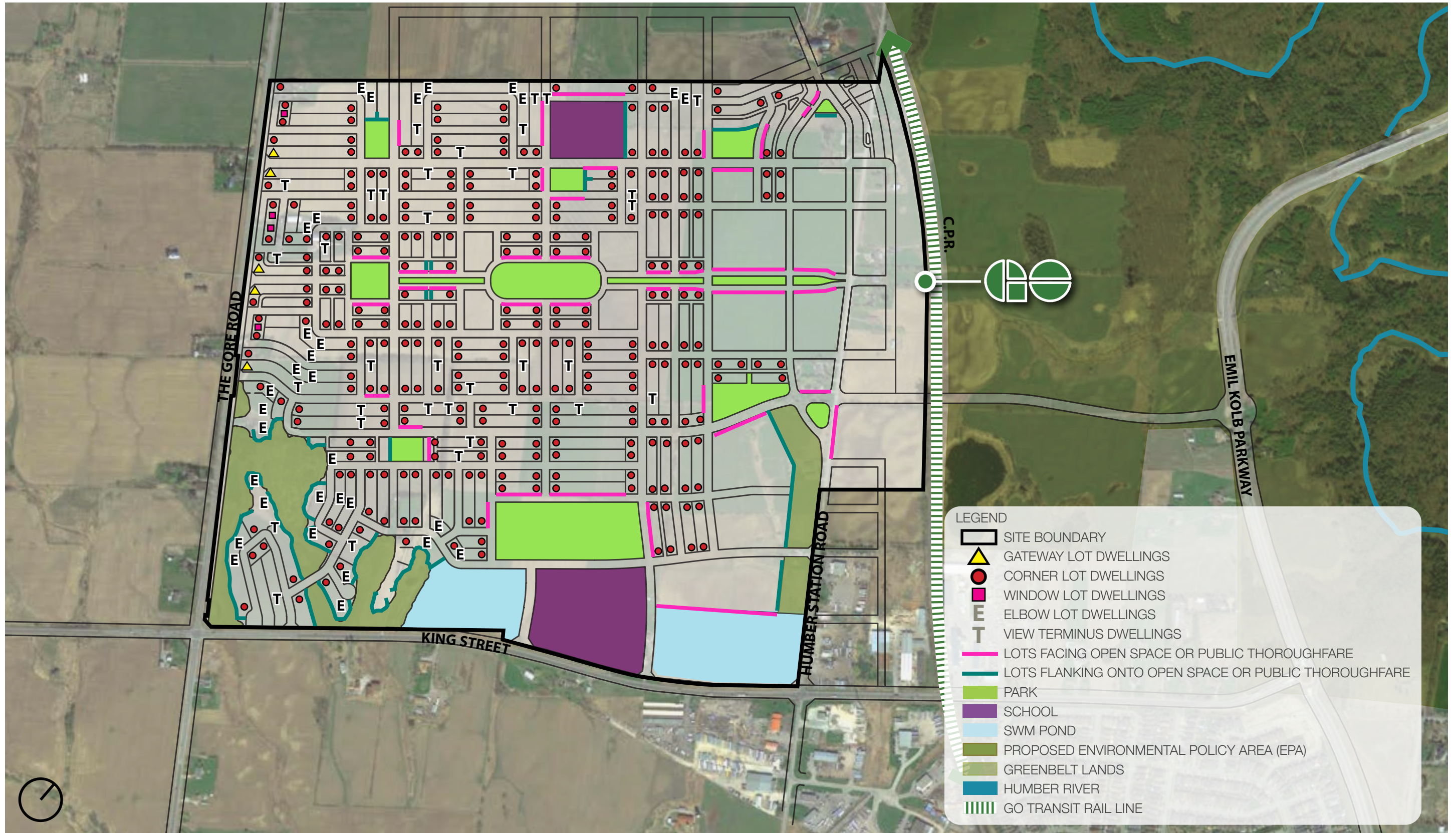


Figure 27: Macville Priority Lot Plan

6.6.2 VIEW TERMINUS DWELLINGS

View terminus lots occur at the top of 'T' intersections, where one road terminates at a right angle to the other, and at street elbows. Dwellings in these locations play an important visual role within the streetscape by terminating a long view corridor.

Design Guidelines:

- A prominent architectural element shall be provided to terminate the view; and
- Driveways shall be located to the outside of a pair of view terminus dwellings, where feasible, to increase landscaping opportunities and reduce the visibility of the garage.

6.6.3 HIGH EXPOSURE SIDE / REAR ELEVATIONS

Design Guidelines:

- Where a building's side or rear elevations are exposed to the public realm, both the front and exposed side and/or rear elevations shall be of equal quality in terms of the architectural materials, amount and proportions of openings and attention to detail. The design of these dwellings shall adequately address the public realm in a manner consistent with the building's front façade;
- Applicable enhancements on the exposed elevations include the following:
 - Bay windows or other additional fenestration, and enhancement of windows with shutters, muntin bars, frieze board, precast or brick detailing;
 - Gables; and
 - Wall articulations.



Dwellings flanking or backing onto publicly accessible areas such as public thoroughfare should feature upgraded architectural treatments for the exposed rear and side elevations compatible with the front elevation.



6.6.4 PARK FACING DWELLINGS

Any buildings facing open spaces, walkways or parks should make full use of the opportunities presented by these special locations and reinforce their significance. The following guidelines shall apply:

- Since these dwellings are very visible from the main gathering spaces within the community, an enhanced built form treatment consistent with the architectural style shall be implemented, such as prominent front porches, pronounced, well-proportioned windows, a projecting bay, articulated wall treatment and other design elements that enhances the front elevation.
- The use of upgraded materials and detailing, such as stone or precast elements, dichromatic brick etc. shall be integrated into the elevation design, consistent with the architectural style.
- Dwellings are encouraged to have wider and deeper porches that effectively allow for multiple seating and will promote ‘eyes on the street’, which results in an informal monitoring of the park and its activities.
- Park facing dwellings shall have available a variety of model types, elevation types and colour packages. However, a cohesive, harmonious relationship shall be achieved for all lots.



6.6.5. COMMUNITY EDGE / WINDOW STREET DWELLINGS

Streetscapes containing community edge / window street dwellings are those situated on single-loaded roads and laneways along the edges of The Gore Road and King Street. Window streets, in particular, are designed as local roads and allow front-loaded housing to face onto higher order roads while maintaining the benefit of driveway access from a local road. This arrangement ensures undesirable reverse frontage lot conditions are avoided.

Given the prominence of these locations, the dwellings and associated streetscape treatment will help establish the community’s character and identity from the surrounding areas.

- Due to their prominent public visibility, community window street dwellings shall provide a high level of architectural detailing and articulation to reflect the quality of the community;
- Minimum two-storey building massing shall be provided to relate to the scale of the combined roadways, as well as the prominence of the arterial road. Single storey built form in these locations is not acceptable.

Dwellings facing publicly accessible areas such as parks and open spaces should feature upgraded architectural treatments for the exposed elevations.

6.7 MIXED-USE AND NON-RESIDENTIAL ARCHITECTURAL DESIGN GUIDELINES

6.7.1 MIXED USE BUILDINGS

Mixed use buildings represent the notion of the traditional 'main street' shopfront, but in a contemporary form that combines an at grade commercial, office or studio use, with second and above floor intended for residential use. This mixing of uses responds to the growing work-at-home trend, reducing the distance between work, home and play thereby creating a more walkable, vibrant community.

This built form provides greater flexibility in commercial unit sizing, potentially attracting a wider range of tenants and uses that can contribute to the vitality of the community.

Design Guidelines:

- Mixed use building façades may either be designed in a contemporary, urban style or traditional style that is complementary, through tone and materials, with the proposed predominant architectural style of the surrounding mixed use, low and medium density blocks. This can be achieved through architectural detailing such as differing building materials, canopies/awnings, window treatment, as well as size and colour;
- Publicly exposed building exteriors shall present an attractive mixed use image with identifiable architectural treatments to differentiate this type of built form from residential built form;
- Building height to be minimum 3 storeys high with a minimum ground floor height of 3.5m;
- In order to create a comfortable pedestrian environment, all buildings shall be aligned and sited close to the adjacent street and/or intersection. Setback from the public sidewalk should range from 1.5m to no more than 4.0m;
- Buildings shall be designed with active front and flanking facades with ample fenestration and consideration for balconies to overlook the Avenue and the urban squares within The Hub. This overview of the street contributes to safe and active public spaces;
- Transparent areas shall be maximized on the ground floor to allow views into the structure or into display windows;
- No less than 56 sq.m. (600sq.ft.) of ground floor area should be dedicated to be commercial/non-residential uses;
- Opportunity for signage should be located between the first and second storey. Signage should occur in a coordinated manner that is appropriate to the architectural style;
- Backlit signage is discouraged;
- Wider sidewalks shall be provided in front of the street-facing elevations to provide a comfortable pedestrian environment. Landscaping and street furniture (including outdoor patio furniture) within the boulevard are encouraged in order to enhance the pedestrian experience;
- Lay-by parking should be provided in front of mixed-use buildings to facilitate convenient access to commercial functions;
- Main entrances shall be ground-related and wheelchair accessible;
- Corner buildings shall provide façades which appropriately address both street frontages; and
- Loading, service, garbage, recycling, utilities, meters, transformers, air conditioning units and other mechanical units shall be located away from publicly exposed corners and other publicly exposed views.





6.7.2 COMMERCIAL RETAIL BUILDINGS

A commercial / mixed-use centre will anchor the eastern end of the Avenue at the main entrance to the community from Humber Station Road. In addition to commercial uses, this area will contain a transit hub and medium density residential buildings.

Commercial buildings shall be designed and sited appropriate to their prominence and function as community focal elements. They shall reinforce the objective of creating an urban village or 'main street' character that contributes to the streetscape and will attract walkable connections from surrounding neighbourhoods.

The siting of commercial retail buildings within blocks should be arranged in a grid configuration that integrates a traditional street pattern and allows for more logical and safer pedestrian, cycling and vehicular navigation. The grid configuration also enables the commercial lands to strategically evolve over time, with opportunities to redevelop blocks on an individual basis (for example, to convert single purpose commercial to higher storey residential with at-grade commercial).

The design of successful and attractive commercial developments hold in common several key characteristics, including:

- Buildings that have a strong relationship with the street frontage, with minimal setbacks from the street edge;
- Well-articulated, attractive street façades using high quality materials;
- A building scale that is appropriate to the street and reinforces comfortable pedestrian connections;
- Display windows and/or glazing shall comprise the majority of the ground/street level portion of a retail building;
- Building entrances that strike a balance between direct access from the adjacent street and rear parking areas;
- Parking areas that do not dominate street frontages, substantially screened from views by built form and landscape features; and
- Signage design that is appropriate to the architectural style.



Design Guidelines:

- Where appropriate, strive to create mixed-use opportunities (retail, office, service) that will draw from a varied group of users at different times of the day within the neighbourhood or beyond;
- Buildings shall have a positive relationship to the street, with the primary façade parallel and close to the roadway to appropriately address, define and relate to the adjacent street frontages and sidewalks;
- Building frontages shall ideally occupy approximately 50% of the street (within The Hub, this should increase to approximately 70%) and extend in front of parking areas, where practical.
- Surface parking areas shall predominantly be located to the side or rear of the building to ensure a strong built edge along the surrounding streets and minimize views to unsightly parking from adjacent neighbourhoods. Where visible from the street, parking areas shall be screened through the use of edge landscaping and/or architectural elements.
- To encourage alternative modes of transportation, including use of public transit, large parking areas shall be reduced into smaller pedestrian-scale blocks that are defined by landscaping and walkways. Landscaped medians, appropriately sized for healthy tree growth, shall terminate parking aisles in key areas;
- Prominent building massing and high quality architectural design shall be provided at the street edges. Well articulated façades shall be provided for visual interest;
- The design of the built form and landscape shall achieve an identifiable theme and scale that is appropriate to the surrounding context and effectively relates at the pedestrian level;
- Architectural styles and materials for commercial buildings shall be compatible and complementary to other buildings within the Hub and the Avenue to reinforce the prevailing community character. The use of masonry brick as a main wall cladding material is preferred;
- Corner buildings shall address both street frontages in a consistent manner and appropriately reinforce their landmark status in the streetscape;
- For multi-building sites, in particular the Hub area, larger anchor buildings should be located further away from the street with smaller format buildings defining the street edge;
- Buildings shall be located to ensure good sight lines for all vehicular access points and to create coherent on-site traffic circulation;
- Continuity of architectural character within large sites is recommended;



- Main entrances shall be grade-related, face the street/sidewalk where feasible, be accessible from the sidewalk adjacent to the street and be given design emphasis;
- Barrier-free access shall be provided at the ground level of all buildings and to public destinations within the Subject Lands;
- Glazed areas shall be maximized along street frontages and main parking areas to encourage comfortable and safe pedestrian use;
- Outdoor patios should be considered in the design of the building where appropriate to its commercial use;
- Pedestrian routes shall be well defined and provide direct connection to parking areas, building entrances, transit shelters and adjacent developments. Sidewalk depths shall be maximized along storefronts with consideration to the provision of an appropriate canopy or arcade treatment for pedestrian weather protection; equipment should be located to the rear of buildings away from public view;
- Sidewalks, parking areas, driveways and walkways shall be adequately illuminated with low level, pedestrian-scaled lighting;
- Lighting shall be directed downward and inward to avoid light spill-over onto adjacent properties;
- A consistent and compatible approach to signage shall be provided throughout the commercial site as a means to establish a coordinated image. A themed approach to site lighting shall therefore be implemented;
- Signage shall be reflective of the architectural style of each district or neighbourhood, while respecting the business community's desire for corporate logos;
- Signage shall be secondary to the architectural design and massing of the building. Signage may be internally or externally lit. Cut-out signage is preferred and backlit box-signage is discouraged;
- Provide high quality site furniture (benches, public art, community notice boards, mail boxes, trash cans, bicycle racks) to support the community character and function within commercial community areas;
- Loading, service and garbage areas shall be integrated into the building design or located away from public view and screened to minimize negative impacts; and
- Utility meters, transformers and HVAC equipment should be located away from public views. Rooftop mechanical equipment shall be screened from ground level view by integration into the roof form or provision of a parapet. Utility pipes shall run internally for all commercial building.





6.7.3 INSTITUTIONAL BUILDINGS

Schools serve as landmark buildings within the community and have been strategically located to provide safe and logical accessibility by pedestrians, cyclists and motorists, and to achieve maximum visibility from surrounding areas, through siting at prominent intersections and providing linkages with the open space system and trail network.

Design Guidelines:

- School buildings located on corner sites should be situated close to the intersection and address both street frontages in a consistent manner. Main entrances shall be directly visible from the street and be given design emphasis;
- A strong built form relationship to the surrounding streets should be created through minimum building set-backs and direct access to the main entry from adjacent sidewalks;
- Each school may develop its own distinct visual identity, while harmoniously blending into the community fabric. Architectural styles, materials and colours should relate to the character envisioned for the surrounding community. High quality building materials shall be used, including brick or stone as the main wall materials.
- Schools shall incorporate prominent building features into their design, which will help to reinforce their landmark function within the community;
- 2-3 storey building massing shall be provided;
- Buildings shall be located to ensure good sight lines for all vehicular access points and to create coherent on-site traffic circulation. Vehicle circulation at the front of the school shall, typically, be limited to drop off zones;
- Minimize the impact of main parking facilities from the street edge through siting (at the rear or side of buildings away from the street) and landscape buffer treatment;
- Conflicts between pedestrian and vehicular routes shall be avoided. Adequate setback between building entrances and on-site traffic routes should be provided. Pedestrian routes should be well defined and provide easy, direct and barrier-free access to school entrances;
- Parking areas, driveways and walkways shall be adequately illuminated with low level, pedestrian-scaled lighting;
- Paved surfaces on school sites shall be provided in accordance with the applicable School Board requirements for parking and barrier-free play areas;
- Lighting for school buildings shall be integrated into the architecture. Lighting shall be directed downward and inward to avoid light spill-over onto adjacent properties;
- Signage shall be incorporated into the building architecture. Where ground level signage is used it shall be designed as a landscape feature, integrating other components such as planting, lighting, etc.;
- Loading, service and garbage areas shall be integrated into the building design or located away from public view and screened to minimize negative impacts;
- Utility meters, transformers and HVAC equipment shall be located away from prominent public views; and
- Rooftop mechanical equipment shall be screened from ground level view by integrating into the roof or a parapet.





6.7.4 EMPLOYMENT AREA (OFFICE / LIGHT INDUSTRIAL / MANUFACTURING BUILDINGS)

The Employment Area will be located within the Innovation Center Area and will allow for prestige employment uses such as office, research and development, light industrial and manufacturing. Capitalizing on its location at King Street and Humber Station Road, and close proximity to the future Caledon GO Station, the employment area will have direct access to public transit and the planned Transit Hub. The primary goal for the development of the employment lands is to create a consistently high quality built environment through the combination of site planning, building massing, architectural detail, materials and landscape/ streetscape treatments.



Design Guidelines:

- No outdoor storage will be permitted;
- A unique built form identity may be developed for each employment parcel;
- Stylistic influences envisioned for the Subject Lands will likely include, but should not be limited to, modern or contemporary architecture;
- Plain, unarticulated, box-like building designs with large blank walls will not be permitted;
- Glazed areas shall be maximized along street frontages. Windows shall be large, well proportioned and compatible in scale with the building mass and architectural style;
- Primary entrances are encouraged to be the focal point of the building;
- Articulated roof form is encouraged through the use of parapets, cornices and roof elements;
- High quality, durable building materials shall be used. This may include, but should not be limited to architectural glass, steel panels, polished stone, brick and textured concrete panels;
- Building façades which are highly visible from the public realm shall provide visual interest through the use of appropriate architectural detailing, wall and roof articulation, fenestration, lighting and materials to express a distinct visual identity, while harmoniously blending into the neighbourhood fabric;
- Corner buildings shall be sited close to the intersection and address both street frontages in a consistent manner. Access points for corner lot buildings shall be located away from the intersection;
- Buildings shall be designed and sited to minimize the impact of overshadowing, blocked views and overlook onto adjacent residential properties;
- Buildings shall be designed and sited to have a positive relationship to the street, with the primary façade parallel to the roadway and located close to the minimum setback to appropriately address, define and relate to the adjacent street edge;
- Buildings shall be located to ensure good sight lines for all vehicular access points and to create coherent on-site traffic circulation;
- On-site pedestrian routes shall be well defined and provide easy, direct and barrier-free pedestrian access to main entrances of the building;
- The number of driveway entries from roadways shall be minimized to reduce interruptions to pedestrian walkways and increase opportunities for street tree planting and landscaping treatments;
- Where large parking areas are proposed, they shall be located to the rear or side of the building's primary frontage or façade. Large parking areas should be broken into smaller human-scale blocks defined by landscaping and walkways;

- Along less prominent, internal roadways, a double row of parking and a central drive aisle may be permitted between the front of the building and the street for site circulation and parking purposes;
- Where parking areas are visible from the street, they should be screened through the use of enhanced edge landscaping and/or architectural elements;
- The office component of light industrial buildings shall be located closer to the street than the warehouse functions to maximize opportunities for windows facing the street.
- The length of the building façade exposed to the street view shall be optimized. Building frontage shall be proportional to the lot frontage;
- For sites adjacent to the proposed EPA, the use of a multi-building campus design may be considered with buildings sited and designed to overlook and integrate with these features;
- Loading, service and garbage areas shall be located away from prominent street views and shall be integrated into the building design or screened with landscaping, walls or fencing to minimize negative impacts of noise, visibility, odors and vibrations on adjacent properties;
- Rooftop mechanical equipment shall be integrated into the roof design and screened from prominent public view;
- Utility meters, transformers and HVAC equipment shall be located away from prominent public views;

- Noise attenuation measures shall be provided, as required, where service areas are in proximity to residences. These features should be complementary in material and design to surrounding buildings / structures to reinforce the image of the community;
- Pedestrian walkways, entrances and parking areas shall be adequately illuminated;
- All lighting shall be directed downward and inward to avoid light spill-over onto adjacent properties;
- All proposed signage shall be of a high design quality and shall at all times be in compliance with the Town's sign by-laws;
- Signage shall be designed to be characteristic of the architectural identity of each commercial development while respecting the business community's desire for corporate logos;
- Signage may be internally or externally illuminated. Cut-out letter signage is preferred. Plastic backlit signage and tall, freestanding pylon signage is not permitted; and
- Where freestanding signage is proposed, it should be ground-related with a horizontal form and consist of materials complementary to the building design. Ground-related signage shall be designed to incorporate landscaping / planting beds.



6.8 PARKING STANDARD

6.8.1 PARKING PROVISIONS

The built form of Macville is planned to control the impacts of parking and servicing on the public realm. Parking in will be provided as follows:

- On-street parking will be provided as appropriate and integrated into the streetscape design, balancing the needs of all modes of transportation and the public realm that share the right-of-way;
- Underground parking will be encouraged on in the Hub; however, a limited amount of surface parking may be considered;
- Underground and / or integrated above grade structured parking may be required for residential medium and mixed-use developments, where possible;
- Surface parking may be considered for:
 - Townhouse dwellings;
 - Low-rise apartment dwellings;
 - Cultural, recreational, and institutional uses; and
 - Employment district.
- Freestanding and above grade structured parking near the Hub may incorporate elevated design elements (e.g. façade wraps, integrated into buildings). Structures will be compatible with the surrounding area and will be encouraged to incorporate active uses at ground level in order to reduce negative impacts on the public realm.

6.8.2 TRANSIT PARKING

Parking for the future Caledon GO Station users will be provided through a combination of above-grade parking structures and surface parking. Parking structures will be designed to contain liner uses wrapping street frontages or provide screening of parked vehicles with either a façade treatment, graphic panels or landscaping, or some combination of the above.

These 'park once' locations are strategically located to serve multiple user groups which will result in higher parking utilization for longer periods and turnover rates that generate multiple vehicles using each space during a 24-hour period.

6.8.3 BICYCLE / SELF-PROPELLED VEHICLE PARKING

A consolidated approach will be taken for bicycle / self-propelled vehicle parking, setting standards that are appropriate for major gathering areas, particularly in the Hub, where it is connected to local and regional transit options and in close proximity to medium density mixed uses and cultural facilities.

- As an alternative to automobile use, encourage cycling by establishing safe, efficient cycling connections, integrating appropriate bicycle storage and locking facilities with options for weather protected storage, and offering incentive programs that promote cycling among residents, employees and visitors; and
- Establish an appropriate bicycle parking space target as a ratio of units or floor space area for buildings.



Streetview of the 19th century brick farmhouse located at 14275 The Gore Road which reflects the early settlers and prominent members of the Macville farming community.

South elevation view of the 19th century brick farmhouse located at 7640 King Street with focus on small centre gable on the front façade which demonstrates the building's bridging of early Regency influences with those of the Ontario Cottage style.



By adapting the historic properties with contemporary additions, the community can gain cultural amenities that respect and celebrate the individual history and style of each building.

6.9 HERITAGE HOUSE AND COMMUNITY INTEGRATION

Currently situated along the periphery of Macville, the late 19th century brick farmhouse at 14275 The Gore Road and 7640 King Street are non-designated heritage properties that are intended to be sensitively integrated into the planning and design of the Macville community. With their notable architectural and cultural heritage value, these existing homes provide a unique opportunity for the adaptive-reuse of this historic properties, retaining the detailed Italianate and Regency Cottage Style architectural features of the two homes, while satisfying contemporary needs and requirements as cultural assets. The integration of a contemporary addition and re-use of the existing dwellings would therefore provide facilities that address Macville's and Bolton's municipal programming needs, including opportunities for developing community wide programs that focus on youth, arts and culture.

Two different approaches are proposed for consideration of integrating the historical buildings into Macville; each scenario conserving the overall integrity, character, and architectural attributes of the two buildings with the intent to integrate them into the community and celebrate the rich history of Caledon's farming community.

Option 1: Centrally locate each heritage house in a community park (CP1, CP3)

- To sensitively integrate the building within the park, it may be an appropriate response to maintain the original structure and building form as is, renovating the interior rooms to meet the needs of the new building use as a community cultural amenity. Retaining the existing building fabric, specific interventions would be proposed to improve environmental performance, accessibility issues, and the quality of the interior space.

Option 2: Locate the heritage house in the community park (CP1, CP3) along the street edge

- Situating the building along the street edge of the park would offer an opportunity for a more pronounced building form than if it were located centrally in the open space. Similar to option 1, the building modifications would include modernized building systems and improved accessibility, but its location would lend itself to contemporary design interventions that modify existing openings to provide new interior spaces. Any additions to the building envelope would be intended to complement the original building materials and would not negatively impact the heritage attributes.

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SUSTAINABLE DEVELOPMENT & SMART CITY/TOWN INITIATIVES





Sustainable Development & Smart City/Town Initiatives 7

7.1 ABOUT THE SUSTAINABLE DEVELOPMENT AND SMART CITY/TOWN GUIDELINES

Macville has been designed with a strong emphasis on the integration of sustainable practices and techniques that will result in a transit oriented community which is highly walkable and cyclist friendly, with a mix of uses (residential, institutional, commercial, employment) and a diversity of housing types and densities. The principles and objectives of sustainability have applications in all areas of the Subject Lands. The community's context and proximity to the GPHNS makes sustainable development and low impact design a key priority for Macville.

The community's design and implementation will integrate several important sustainable measures related to:

- Transit Integration;
- Active Transportation;
- Low Impact Design Initiatives; and
- Smart City/Town Initiatives.

7.2 TRANSIT INTEGRATED

7.2.1 CALEDON GO STATION

As the terminus of the proposed GO rail route, Caledon GO Station will provide the anchor for a well-served, vibrant and connected mixed-use community with local and regional transit connections. Situated within close proximity of the existing residential neighbourhoods north-west of downtown Bolton, the future Caledon GO Station and integrated transit network will reduce the reliance on cars, alleviate unnecessary congestion and provide connections in and around the community. At both the local and regional level, the synergy of uses in this transit-oriented development, and resulting convenience of walking, biking and transit use can provide for much more sustainable travel behavior and development patterns.

The proposed Caledon GO Station location is also well placed to provide one of the most direct mobility connections to the Greenbelt and it's many publicly accessible trails and amenities from Toronto via rail transit. With the potential for a rails-to-trails connection to the regional Greenbelt lands and integrated trail systems (Greenbelt Cycling Route), the Caledon GO Station would offer one of the most direct mobility connections to the Greenbelt from Toronto.

7.2.2 RIDE-SHARE PROGRAMS

In addition to transit and active-transportation options, ride-sharing or car-sharing programs provide the flexibility and a wide range of other benefits, improving the overall commuting and travel experience in a community. Some of these benefits include the following:

- Reduced traffic – Since ride-sharing leads to fewer cars on the road, the impact on congestion can potentially reduce road construction and infrastructure maintenance costs over the long-term.
- Reduced vehicle emissions – With ride-sharing, depending on other factors including the size of the vehicle and its emissions efficiency, the result of multiple people taking one vehicle per trip can significantly reduce emissions pollution.
- Affordability / Individual cost savings – Combined with multiple transit opportunities, ride-sharing and car-sharing offers choice and opportunities to travel without a depending on car ownership, enabling individuals to potentially to live without an automobile, or require fewer cars per household. The availability of hourly car-sharing programs that provide occasional access to vehicles, can also reduce costly car-related expenses, allowing a pooling of resources for operating costs including maintenance, parking, insurance, parking, and finance charges.



Transit stops should be located as close to intersections as possible and coordinated with primary pedestrian linkages and provide a seating areas and weather protection.

7.2.3 BUS TRANSIT SERVICE

Within Macville, the interconnectivity between transit, cycling, and walking networks is essential to the establishment of a well-integrated active transportation system. Offering residents the opportunity to walk or bike to local services, such as parks or schools, or to take the bus to work, requires coordination of multiple systems, including bus routes.

The transit strategy for Macville is expected to include extensions to existing Brampton Transit services, as well as new routes along collector roads within the community. The potential bus transit service network for Macville may include an extension to the existing Brampton Transit services.

The local bus route is expected to follow the major collector road through Macville and connect to other minor collector roads to the north and south. In the fullness of time, it may be anticipated that bus transit will be available on all collector road routes.

7.2.4 TRANSIT STOPS

Frequent and conveniently located transit stops are crucial to establishing an integrated transit system and promoting transit ridership.

Transit Stop Guidelines:

- Situate transit stops in compliance with applicable transit authority guidelines. In particular, they shall be located as close to intersections as possible and coordinated with primary pedestrian linkages, including trail connections and major building entrances;
- Locate transit stops in close proximity to mixed use nodes / commercial areas, schools and other institutional uses;
- For safety reasons, provide a safe level of pedestrian-scaled lighting at transit stops, where street lighting may be inadequate;
- To maximize safety and allow transit users to see approaching buses, design transit shelters in a transparent manner;
- For passenger convenience, locate transit shelters on the boulevard, adjacent to the roadway;
- Provide a 1.5 to 2.0 metre-wide hard surface area in front of shelters to permit safe exit by passengers and wheelchair users. Transit shelters shall be set back 0.5 metres from curbs and sidewalks to avoid damage by snow ploughs;
- Provide a change in surface texture at transit stops to help the visually impaired locate transit stops and shelters;
- Design transit stops to provide seating areas and weather protection, where possible; and
- Provide a concentration of street furniture at transit stops located in key areas such as in The Hub.

7.3 ACTIVE TRANSPORTATION

7.3.1 TRAIL & CYCLING NETWORK

A comprehensive, integrated trail and cycling network shall be implemented within Macville, contributing to the development of walkable, cycle-friendly and active neighbourhoods. This system will provide safe, attractive and convenient access to community focal points, open spaces and transit, on a local, community and Regional scale, for both commuter and recreation purposes.

Pathways that accommodate pedestrians and cyclists have been identified within the proposed open space system, as well as the street network. The proposed network has been integrated into a contiguous system with the existing Town of Caledon, Bolton, City of Brampton and Region of Peel networks. It shall be designed in accordance with all applicable accessibility standards.

Bicycle and pedestrian path designations are as follows:

- Bike Lanes (Arterials): 1.8m to 2.0m-wide dedicated lanes that accommodate cyclists only, with pavement markings to separate cyclists from motorists;
- Bike Lanes or Pavement Widening (Collectors): 1.5m-wide dedicated bike lane or widened pavement that accommodate cyclists;
- Multi-Use Trail: 3.0m-wide, paved off-road trails designed to accommodate the needs of cyclists (recreational and commuter), in-line skaters, walkers, joggers, etc., allowing for a wide range of uses and large volume of users;
- Greenway Trails: Trails located within the proposed EPA buffers or introduced natural features including parks, stormwater management ponds and channels. Trail width and surfacing may vary according to context and anticipated uses; and
- Potential Open Space Trail: There is potential to integrate an open space trail within the Greenbelt Area buffer, subject to additional studies and regulatory approval. This potential trail would extend the entire length of the community and connect with potential stormwater management facility trails.

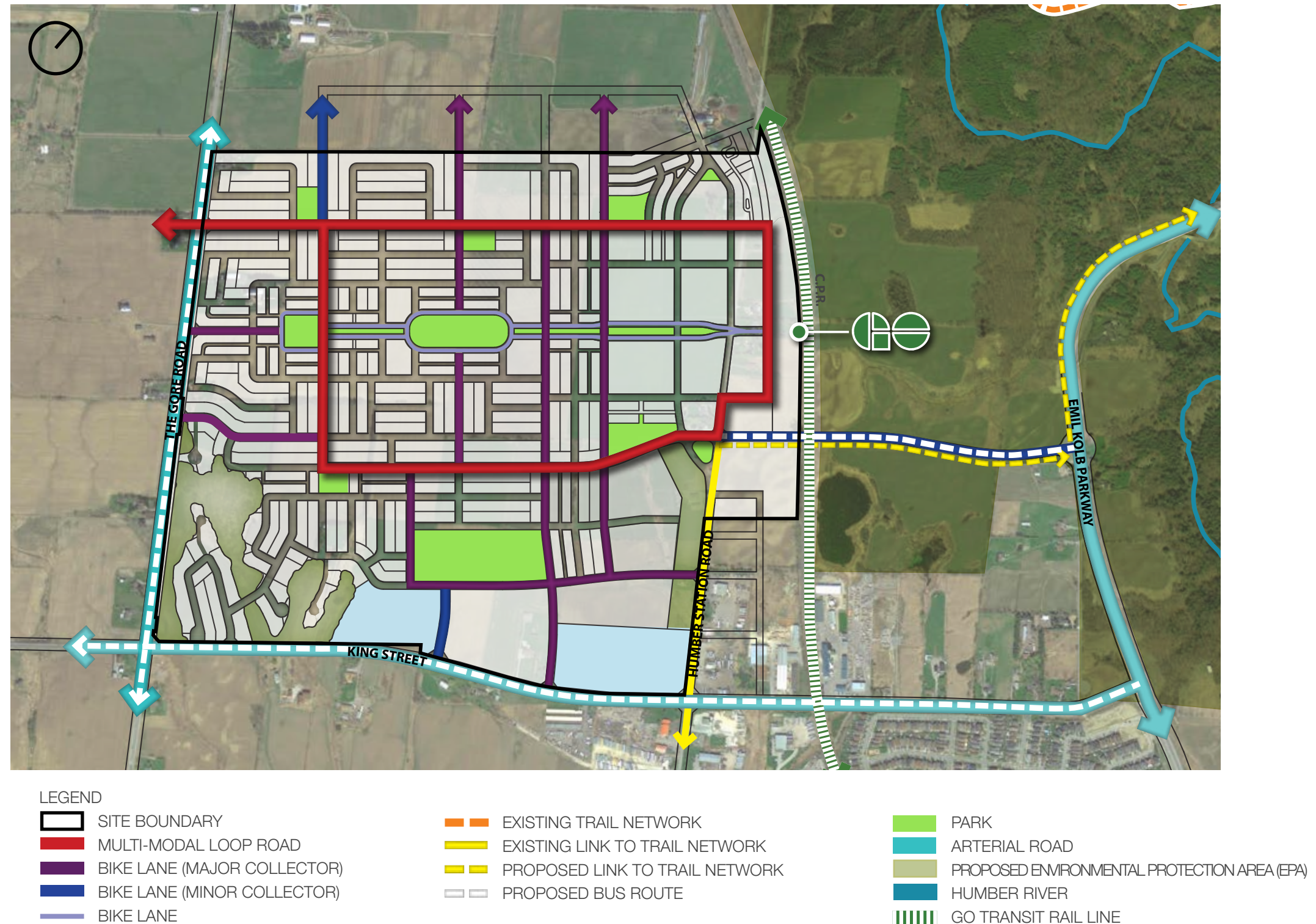


Figure 28: Macville Trail and Cycling Network



Cycling Lanes Throughout



Bike Friendly Neighbourhoods

7.3.2 CYCLING FACILITIES

Fundamental to encouraging cycling throughout Macville and beyond, as a viable alternative to vehicular connections and as a means of adopting a healthier lifestyle, is the integration of cycling facilities that complement the comprehensive bike lane and trail network in establishing a bike friendly community.

Cycling Facility Guidelines:

- Provide parking and/or storage for bicycles at all commercial, institutional, office, mixed-use and residential buildings;
- At major public gathering areas, such as in The Hub, bicycle parking and/or storage shall be easily accessible, secure and protected from the elements to the greatest extent practical;
- Bike parking facilities shall be integrated into residentially-based employment and mixed land uses, and should accommodate secure storage (e.g. for employees) and convenient short term storage (e.g. for customers or clients);
- Outdoor bicycle racks, rings or posts shall be of a secure design and strategically located in highly visible, easily accessible and well-lit locations, in close proximity to building entrances. They shall also be a key component of any streetscape furniture installation, particularly in higher density, mixed-use nodes such as in the Hub and along the Avenue; and
- Integrate bicycle parking elements into the design and layout of parking facilities, with convenient access to building entrances and within well-lit areas that provide weather protection options.

7.3.3 ACTIVE TRANSPORTATION CROSSINGS

Traffic calming is key to promoting walkability and creating a safe pedestrian, and cyclist-friendly environment. Enhanced paving or painting shall be provided for the active transportation crossings at key signalized intersections, to define pedestrian and cyclist crossings, serve as traffic calming, and add character to the street.

- Road crossing guidelines:
- An activated traffic signal may potentially be required for the pedestrian crossings at higher volume streets such as collector streets. A detailed evaluation will be required on an individual basis.
- In the instance with an activated traffic signal, crosswalks shall be provided to signify the continuance of trail users across the street, enhance visibility and prevent conflicts between pedestrians, cyclists and motorists.
- Crosswalks shall utilize highly visible and distinctive coloured and/or textured materials or markings.

7.3.4 BIKE-SHARE STATIONS

In the last several years, bike-share programs have dramatically risen in popularity in cities throughout North America, offering easy and affordable access to residents and visitors. In addition to the health benefits for the individual user, important benefits to the community include reduced auto traffic and emissions, as well as increased tourism.

Within Macville, potential opportunities for bike share stations could include locations near the urban plaza and community parks, near public transit stops, and along the multi-modal loop road. These stations would permit users to travel within Macville by utilizing the bike lanes throughout the community, access the GO station, and connect to the Greenbelt trail systems.

The costs associated with bike-share programs and stations includes the initial capital expense and ongoing payments of billing systems and bike maintenance. While these programs are often owned and operated by municipalities in partnership with a bike share company, they can also be privately managed programs run through corporate sponsorship.

7.3.5 BIKE PARKING PROVISIONS

- To encourage a reduction in automobile usage, ensure bicycle parking and public transit connections are integrated into the design of major community facilities;
- Consider LEED requirements as a key component in built form and open space design;
- The sizing of parking facilities shall be minimized to meet, but not exceed, zoning requirements;
- To reduce automobile use and the corresponding size of parking facilities, promote carpooling through incentive programs, such as dedicated parking spaces for carpool participants and low-emission vehicles. This has particular application to the proposed residentially-based employment and mixed used lands;
- As an alternative to automobile use, encourage cycling by establishing safe, efficient cycling connections, integrating appropriate bicycle storage and locking facilities with options for weather protected storage, and offering incentive programs that promote cycling among residents, employees and visitors;
- Establish an appropriate bicycle parking space target as a ratio of units or floor space area for buildings;
- Provide shower and change facilities for cyclists in major work facilities associated with the mixed use and employment lands or transit hub; and
- Similar to cycling, encourage public transit use through incentive programs that allow for a decrease in car usage and enables a reduction in parking facility capacity.



Bike Share Opportunities



Public Cycling Infrastructure

7.4 LOW IMPACT DESIGN INITIATIVES

The Town of Caledon requires development proponents to submit a Sustainability Design Brief as part of a complete development application, which addresses sustainability objectives in compliance with the Official Plan and, where applicable, the Town of Caledon's A Guide to Eco-Business Zone Planning & Development, which would specifically pertain to the proposed Employment Area.

The guidelines in this section shall apply to the preparation of development applications for Sustainability and Low-Impact Design.

Transportation Alternatives

To encourage a reduction in automobile usage, the planning and design of Macville will ensure that bicycle facilities, parking and public transit connections are integrated into the public realm and the design of major community facilities;

- Refer to Sections 6.8.3 Bicycle / Self-Propelled Vehicle Parking, 7.3.2 Cycling Facilities and 7.3.5 Bike Parking Provisions for guidelines;
- To reduce automobile use and the corresponding size of parking facilities, promote carpooling through incentive programs, such as dedicated parking spaces for carpool participants and low-emission vehicles. This has particular application to the proposed employment district; and
- The sizing of parking facilities shall be minimized to meet, but not exceed, zoning



Street Level Stormwater Retention



Block Level Stormwater Retention



Car Share Programs



Lot Level Stormwater Retention



Bike Share Programs



Green Roofs

requirements.

Hardscaping

Objectives for hardscaping shall balance functional requirements of vehicular and pedestrian circulation with sustainability, accessibility, maintenance and aesthetic considerations. As a general rule, select paving alternatives that allow for increased permeability and infiltration, while accommodating circulation and maintenance requirements.

- Preference shall be given to the selection of permeable or porous paving materials, such as open joint pavers, porous concrete or asphalt and/or precast turf-grid products;
- Paved areas used for snow storage are encouraged to integrate permeable paving to absorb snow melt on site;
- Where possible, utilize surface materials that contain recycled or sustainable materials;
- The use of light coloured surface materials, such as concrete, light asphalt or light-coloured unit pavers is encouraged to decrease heat absorption and ambient surface temperatures (urban heat island effect); and
- All paving materials and installation to be selected and designed to withstand traffic impacts and maintenance requirements.

Softscaping

- Naturalized, low maintenance planting shall be specified where appropriate.
- A priority shall be placed on utilizing xeriscape planting techniques, selecting drought-tolerant species to conserve water.
- Landscape features, such as berms, tree and shrub groupings, and 'green' walls shall be utilized to screen undesirable views to adjacent or nearby uses (traffic, railway

tracks, buildings) and on-site servicing areas (loading docks);

- Strategically place dense deciduous canopy trees to let sunlight and warmth into buildings and public open spaces and sidewalks during winter, while in summer creating a canopy that shields people and buildings from sun, glare and heat, and allows breezes to flow through;
- 'Green' screens and other landscape wall features may be situated on or near building façades to reduce ambient heat and minimize air conditioning requirements;
- To mitigate the impact of wind on a site, evergreens should be used as a windscreen for undesirable wind exposures; and
- Use only organic or biological fertilizers and weed and pest controls, free of potentially toxic contaminants.

Water Conservation & Management

- Utilize xeriscape planting techniques, selecting drought-tolerant plant species to conserve water and avoid the need for irrigation systems;
- If irrigation is required (e. g. sports fields), water should be provided by non potable sources (roof, parking lot, grey water) where feasible;
- Utilize rainwater harvesting techniques to use stormwater resources for irrigation;
- Implement roof downspout disconnection to prevent water from reaching the sewer system and allow it to be managed on site, whether through a storage device, permeable surfaces or an infiltration system;
- Where feasible, implement the use of soakaway pits, whereby a roof downspout is connected to an underground pit lined

with gravel or coarse aggregate, temporarily storing the water until it is absorbed into the ground;

- Similar to soakaway pits, infiltration trenches direct water to an at-grade trench filled with aggregate material, where it is held until it infiltrates into the ground;
- Depending on the type of built form, rain barrels or similar container system may also be considered to manage roof runoff;
- Where feasible, integrate bio-retention swales as an effective technique for managing stormwater within expansive areas of runoff. These may include swales, vegetated islands, rain gardens, etc.;
- Bio-retention swales typically include planting (groundcover, shrubs and potentially trees), curb inlets for stormwater flow and a water infiltration/storage area that supports vegetative growth. Depending on site characteristics, perforated sub-drains and overflow catchbasins may be required to manage excess water;
- Composition of swale components shall be designed to ensure surface water is fully drained within 48 hours of the end of any rainfall event;
- Undertake soil amendments to increase topsoil depths and restructure compacted soils for improved infiltration; and
- The degradation of slopes leading to erosion and sedimentation control problems results from the effects of rain and wind on unprotected slopes, with potential negative impacts for water quality and stormwater management infrastructure. As such, developers and contractors shall be diligent

in preventing erosion on site, both, during the construction phase and following construction completion.

Lighting

- Achieve a balance between safety and security and a reduction in energy consumption;
- Utilize energy efficient luminaires and bulbs to satisfy lighting requirements; and
- Select lighting poles, luminaires and light levels that are appropriate to the site and function to avoid excessive illumination and light pollution.

Materials

- Green roof technologies or reflective, light-coloured roofs should be encouraged for employment, office and institutional buildings, as well as higher storey residential buildings, in order to reduce solar heat absorption and building energy demand;
- Encourage the use of local materials to avoid unnecessary long distance transport of building materials; and
- Encourage the use of materials that have been sustainably harvested.

7.5 SMART CITY/TOWN DESIGN INITIATIVES

7.5.1 MUNICIPAL INFRASTRUCTURE ADVANCEMENT

Sustainability initiatives in Macville have the potential to be an integral component of the Town of Caledon's municipal infrastructure advancements. One of the key infrastructure initiatives will be the implementation of an active transportation strategy through extensive bike lanes, pathways as well as through shared bike facilities, with connections to the wider trail network. As part of the comprehensive sustainable transportation strategy, it is anticipated that existing public transit services will be extended into the Hub and Station Area along a route which is within walking distance of all residents and employees. The potential for an electric shuttle bus service to assist residents and workers in accessing the higher order public transit will also have the opportunity to evolve into autonomous transit as the technology matures in the near future.

In addition to these transportation advancements, additional implementation of Smart City/Town Technologies could include:

Traffic Monitoring

Intelligent syncing of traffic signals which has the potential to reduce average commutes in growing communities where most people travel by car. Real-time navigation alerts drivers to delays and helps them choose the fastest route. Smart-parking apps point them directly to available spots, eliminating time spent fruitlessly circling community blocks.

Utility and Infrastructure Monitoring

By allowing many unconnected, energy-consuming devices to be integrated into the grid through low-cost wireless technology, will enable the devices to be more accurately monitored to support better forecasting of energy needs. By connecting these energy-consuming devices using a smart grid, demand-side management will be further enhanced to support load balancing, helping reduce electricity peaks and ultimately reduce energy costs.

Remote Operation and Maintenance

An efficient waste management strategy, promoting waste minimization, reuse and recycling can nUADGe people toward conservation and reduce consumption. Applications such as pay-as-you-throw digital tracking can reduce the volume of solid waste per capita as the community grows.



Autonomous Shuttle Transit



Smart Municipal Infrastructure

7.5.2 BROADBAND CONNECTIVITY

Through Smart City/Town technologies, new developments such as Macville have a unique opportunity to implement community-wide advanced wireless technology, provide connectivity for street side environments, and enable broadband access at citizen level. A high-quality digital network provides equitable connectivity, offers opportunities to leverage important community data, in compliance with data privacy and data governance policies. Potential technologies / features to be considered in collaboration with the Town, may include the following:

- Fibre-Optic and advanced wireless infrastructure to enable broadband internet access to all residents and visitors;
- Free WiFi in public spaces;
- Connection kiosk installation within the urban plaza or GO station area, connecting residents and visitors to information services, providing easy and equitable access. These kiosks may have voice first information services, interactive digital screens, free WiFi hot spots, device charging stations, digital public art, security lighting and cameras;
- WiFi connected Smart LED streetlights; and
- Integration of smart sensors, such as public parking availability assistance, panic buttons for public safety, traffic management, and environmental monitoring.



Broadband Connectivity

7.5.3 ENERGY REDUCTION SOLUTIONS

With a goal to reduce the overall energy consumption in Macville, several measures can have an impact on reducing greenhouse gas emissions, including the following:

- Incorporate Energy Star residential building construction methods and technologies to reduce energy demand;
- Residential Buildings will be encouraged incorporate energy conservation measures resulting in Energy Star certification for New Homes and/or New Energy Star for Multi-Unit Residential Buildings with efficient building design using aggressive building standards;
- Use of LED street lights, which represent the latest in lighting technology. In comparison to High Pressure Sodium (HPS) street lights, LED lights are extremely energy efficient, generate very little heat, and are made of non-toxic materials that can be recycled. This technology also provides superior visibility with more even light dispersion and through targeted placement can reduce light pollution, helping to maintain native wildlife populations, habitats, and sensitive ecological functions; and
- Incorporate electric vehicle (EV) charging stations or equipment in key locations, such medium density mixed-use or residential buildings, residentially-base employment, and municipal parking lots and/or parking structures.



Electrical Vehicle Charging

7.6 ACCESSIBILITY

Social sustainability is achieved through accessibility and equity. Social equity, related to accessibility, ensures that residents have equal opportunities and rights regardless of age, health, and physical ability. Safety and accessibility shall be a key priority in the design of Macville.

- The road network shall be designed to support accessibility and transit ridership, and promote a safe pedestrian and cycling oriented lifestyle;
- Built form shall be coordinated with landscape features along the streetscape to support a comfortable pedestrian environment, with casual surveillance, enhanced accessibility, and intuitive wayfinding;
- Outdoor furnishings shall be placed to maintain all accessibility requirements and encourage safe use;
- Major entrances shall comply with accessibility standards;
- Bus bays, transit shelters, and bus loops shall be provided with sufficient lighting and accessibility features;
- Passive and active recreational uses shall provide for people of all ages and abilities, in accordance with the Town's 2018-2022 Accessibility Plan and AODA standards;
- Access to trails for people of all ages and abilities shall be ensured, in accordance with the Town's Accessibility Plan and AODA standards;
- Schools and other significant community buildings shall be strategically located to provide safe and logical accessibility by pedestrians, cyclists, and motorists, and to achieve maximum visibility from surrounding areas, through siting at prominent intersections and providing linkages with the open space system and trail network;
- All parks and open spaces shall be designed to comply with the Town's Accessibility Plan and AODA standards.



IMPLEMENTATION

8





8.1 COMMUNITY DESIGN APPROVAL PROCESS

The Urban and Architectural Design Guidelines (UADG) was developed in accordance with provincial legislation and policies, including the Planning Act, Provincial Policy Statement 2020, Places to Grow: The Growth Plan for the Greater Golden Horseshoe Office Consolidation 2020, Peel Official Plan and Caledon Official Plan. It sets out to achieve a coordinated approach to urban design throughout Macville, providing comprehensive Urban and Architectural Design Guidelines that reinforce broader planning objectives, as outlined in the Region of Peel and Caledon Official Plans.

The UADG will be implemented through the various development application processes. Required documentation demonstrating implementation of the UADG will be determined on a site specific basis in relation to development proposals in the Macville. Complete Submission requirements for development proposals are outlined in the Town of Caledon Official Plan.

8.1.1 ARCHITECTURAL CONTROL PROCESS

Architectural Control will occur through three principal mechanisms: the Draft Plan of Subdivision and Site Plan Approval processes, and through the issuance of Building Permits. While it is incumbent upon the applicant to prepare architectural designs that comply with the urban design objectives and built form guidelines outlined in the UADG, all submitted plans and designs shall be reviewed and approved through an architectural control process.

Formal approval by the Control Architect is either prior to building permit issuance or through the Site Plan Approval process. In all instances, the developer or builder is to make satisfactory arrangements with the Control Architect in regards to cost. The Control Architect and the design architect for any of the following in no case shall be the same individual or firm.

8.1.2 SUBDIVISION PROCESS

At the discretion of the Town, where there is a departure in the design of the subdivision from the approved UADG, the Control Architect will review a Draft Plan of Subdivision application, in conjunction with documents as may be required (see below) to understand if the changes are appropriate and desirable. Approved UADG's will be implemented through subdivision approval process. Town staff will circulate the plan and other relevant information to the Control Architect for review and coordinate comments for the applicant. Formal Control Architect approval will take place through either the site plan or building permit processes as outlined below. Approved urban design briefs and guidelines will be used in the review of all subsequent development applications.

8.1.3 SITE PLAN APPROVAL PROCESS

Where Site Plan Approval is required, Town staff will circulate the application to the Control Architect for review and coordinate comments for the applicant.

Plans reviewed by the Control Architect will include the following: site plan; architectural renderings and elevations; and, material and colour charts. Approved drawings will be stamped by the Control Architect, and suffice for any subsequent approval required as part of the release of a Building Permit. Complex site plan applications may require the submission of an urban design brief, at the discretion of the Town.

8.1.4 BUILDING PERMIT PROCESS

Where Site Plan Approval is not required (i.e. detached homes), the developer (or individual builder where applicable) will provide site plan, architectural elevations, material and colour chart information, and floor plans directly to the Control Architect. Approved drawings will be stamped by the Control Architect, prior to permit submission to the Town. It is recommended that preliminary approval be obtained for plans and elevations, including materials and colours, prior to the commencement of marketing and sales programs.

8.1.5 PLAN DEPARTURE

Any Draft Plan of Subdivision or Site Plan application that represents a departure (minor or significant) from the approved UADG, will require the submission of material that provides justification for the changes proposed. Minor departures to the UADG can be justified through the submission of an Urban Design Brief, noting how the intent of the UADG is met. A “significant departure” is defined as when the applicant proposes a land use, design or detail that is deemed by Town staff to contravene the intent of the UADG. For example, significantly changing the road pattern and/or land uses from that identified in Land Use section of this document, would be viewed as a significant departure. All significant departures will be subject to Council approval.

For significant departures, site specific urban design brief will be required in support of all newly proposed draft plans of subdivision or site plan development applications described above to the satisfaction of the Town. The urban design brief will address how the proposed development will “fit”/ be compatible with the existing context in relation to surrounding development and/or land use(s) as proposed by the Land Use Plan of the UADG.

The proposed urban design brief will be reviewed and approved by the Control Architect. The developer or builder is responsible to make satisfactory arrangements with the Control Architect in regards to cost.

8.2 CONCLUSION

The design guidelines, principles, standards and recommendations contained in the Macville Urban and Architectural Design Guidelines set out to achieve a coordinated approach to urban design and govern the preparation of detailed open space, landscape and built form design at the subdivision approval stage. It also provides design direction for the development of future site plans for the mixed use and cultural amenities located within in the Hub and station area, land uses that provide the anchor for Macville's development.

The UADG addresses pertinent urban design issues as applied to the community vision, community structure, public realm and streetscape, architecture and site planning, as well as sustainable development and smart city/town initiatives. The intended result is the development of a community that is reflective of the fundamental key design tenets of healthy, vibrant, connected, rooted in an approach that is Made in Caledon.



421 RONCESVALLES AVE
TORONTO ON M6R 2N1
www.nakdesignstrategies.com

T: 416.340.8700