Sherwood Survey SecondaryPlan
Urban Design Guidelines

DRAFT - May 2005

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1.0 INTRODUCTION

The following Urban Design Guidelines have been prepared to assist the Town of Milton in the development of the Sherwood Survey Secondary Plan Area. Strategically located between the Niagara Escarpment Plan Area and the established urban area, the new community area has tremendous potential to capitalize on its spectacular landscape setting and its direct links to Milton's existing urban area, its downtown, and the employment area adjacent to Highway 401 **(Figure 1).**

The Sherwood Survey Secondary Plan Area is the second new community area within the Town's Urban Area identified in the Official Plan. Phase One, the Bristol Survey is currently being developed directly to the east of the Phase Two lands. These guidelines are part of an overall Town strategy to provide an exemplary standard for future development through place-specific design of streetscapes, open space and built form.

These guidelines further elaborate on the policies stated in the Milton Official Plan (**Section 2.8,** Urban Design), the Sherwood Survey Secondary Plan, the Town's Zoning Bylaw, the Halton Region Transportation Master Plan, Town of Milton - Engineering and Park Standards Manual and Regional Right-of-way Dimension Guidelines.

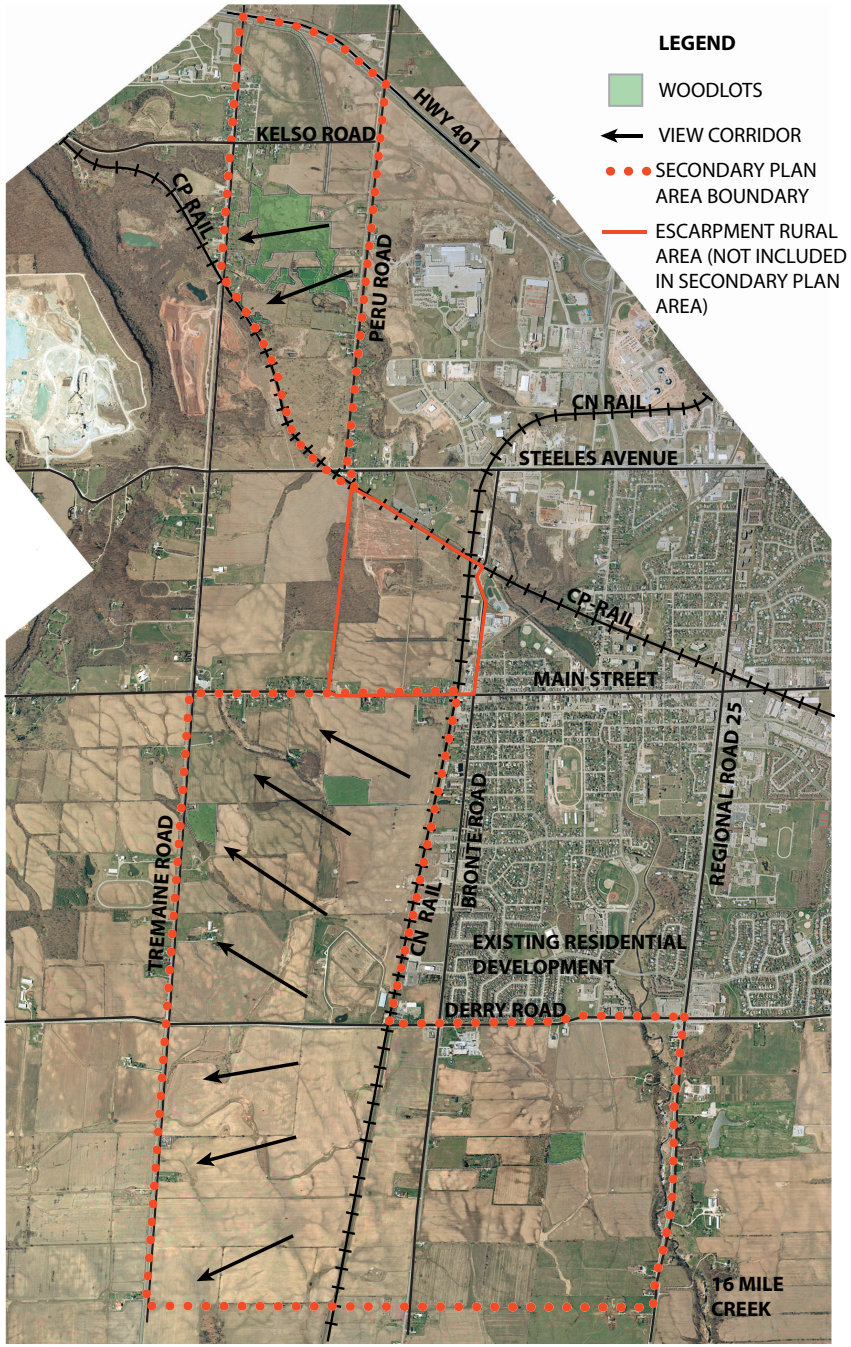

Figure 1: Sherwood Survey Secondary Plan Area: Primary Escarpment Plan Area Views.

1.1 REPORT FRAMEWORK

The report is structured into the following five sections:

Section 1: Introduction
Section 1 outlines the structure of the document, the Secondary Plan area character and the objectives of the urban design for the preparation of the Secondary Plan Framework Plan and Urban Design Guidelines.

Section 2: Community Framework and Guiding Urban Design Principles
Section 2 outlines the Community Design Framework, which forms the basis of the Secondary Plan structure and Concept Plans.

Section 3: Public Realm Guidelines
Section 3 outlines the Urban Design Guidelines for the Public Realm.

a. ***Community Structure:*** Neighbourhoods and Sub-neighbourhoods
b. ***Open Space Structure:*** *Conceptual Greenlands System:* including creek valleys, woodlots, the Union Gas Corridor and recreational trail systems.
c. ***Parks:*** The Community Park, Neighbourhood Parks and Village Squares
d. ***Stormwater Management Ponds***
e. ***Streetscape Treatments:*** a hierarchy of roads including Primary Streets (Arterials, Collectors and Local roads); and Secondary Streets (Rear Lanes, Window and Service Roads). Streetscape treatments include the design and placement of landscape elements, community entrance features, lighting, above grade utilities, community mailboxes etc.

Section 4: Private Realm Guidelines
Section 4 outlines the Urban Design Guidelines for the residential, mixed use and commercial development in the private realm.

a. ***Built Form:*** building placement, heights and massing; building character and gateway relationships; view sheds, relationship to the Open Space Network, and treatments to service and loading areas.
b. ***Landscaping:*** treatments to the front, side and rear yards including entry, forecourt, parking and service areas.
c. ***Parking:*** design and location of on- and off- street parking areas, landscape treatments, pedestrian and vehicular access, lighting and safety.

1.2 SHERWOOD SURVEY SECONDARY PLAN AREA

The Sherwood Survey Secondary Plan Area is characterized predominantly by agricultural land interspersed with established residential enclaves at Milton Heights and Main Street West. The approximately 2,193 acre (887.5 ha) subject lands are defined by:

North: Highway 401;
East: Peru Road, Canadian Pacific Railway, Canadian National Railway, Derry Road (RR 7) West, and Regional Road 25;
South: Westerly extension of Louis St. Laurent Avenue and southerly boundary road and;
West: Tremaine Road (RR 22).

The primary Secondary Plan Area features include:

Escarpment Plan Area Views: (Photo 1)
The agricultural lands west of the Secondary Plan area at Tremaine Road (RR 22) provides expansive and varied views towards the Niagara Escarpment Plan Area . The principal views of the Escarpment Plan Area are closest in the lands north of Main Street and shift to more distant views to the south where the Escarpment Plan Area alignment shifts to the southwest. Consequently, there is a continually changing view of the Escarpment Plan Area while travelling through the Secondary Plan area.

Photo 1: There is a continually changing view of the Niagara Escarpment Plan Area while traveling through the Secondary Plan area.

Photo 2: View looking south from Derry Road (RR 7). The Sixteen-Mile Creek creates a naturalized community edge condition.

Natural Features: (Photo 2)
Sixteen Mile Creek has a distinct impact on the character and topography of the landscape, particularly north of Main Street and where Sixteen Mile Creek aligns Regional Road 25. In addition, several woodlots, mature tree stands aligning the major roads and hedgerows further define the Secondary Plan area, and contribute to the landscape setting and orientation across the subject lands.

Cultural Heritage: (Photos 3,4 and 5).
Several farmsteads and 19th and early 20th century homes indicate the importance of agriculture and farming in the cultural heritage of Milton. Milton Heights is a hamlet of approximately 80 residences facing 3rd Sideroad, Peru Road and Tremaine Road (RR 22). The hamlet supports a local daycare and a convenience store. There are also approximately 18 existing single-family residences and a farmstead along the Main Street frontage.

Railway Corridors: (Photo 6)
The CP Railway line and the CN Railway line form boundaries to the Secondary Plan Area where existing street connections occur only at Steeles Avenue (RR 8), Main Street and Derry Road (RR 7).

Photos 3 and 4: The vernacular of existing housing in the Secondary Plan area provides context for new housing forms.

Photo 5: View south west at Regional Road 25 East

Photo 6: View south of Derry Road (RR 7) at the CN Railway.

1.3 URBAN DESIGN OBJECTIVES

The primary urban design objectives for Secondary Plan Area include:

Create a Strong Community Framework

a. To provide strong visual and physical ***public access to the Niagara Escarpment Plan Area*** through the strategic alignment of public open space, the Primary and Secondary road network and the siting and design of built form. The east west orientation of proposed streets and blocks, in particular, define principal views to the Escarpment Plan Area.

b. To ***align streets, open space and view corridors*** to maintain and create community connections between neighbourhoods, sub-neighbourhoods, greenlands, parks, woodlots, trail networks and stormwater management facilities **(Photo 7).**

c. To establish ***a hierarchy of community focus areas*** through the placement of the Secondary Mixed Use Node and Neighbourhood Centres at high profile locations and Village Squares within neighbourhoods to provide public amenities (e.g. commercial uses, elementary schools, community centres etc.) **(Figure 2)**.

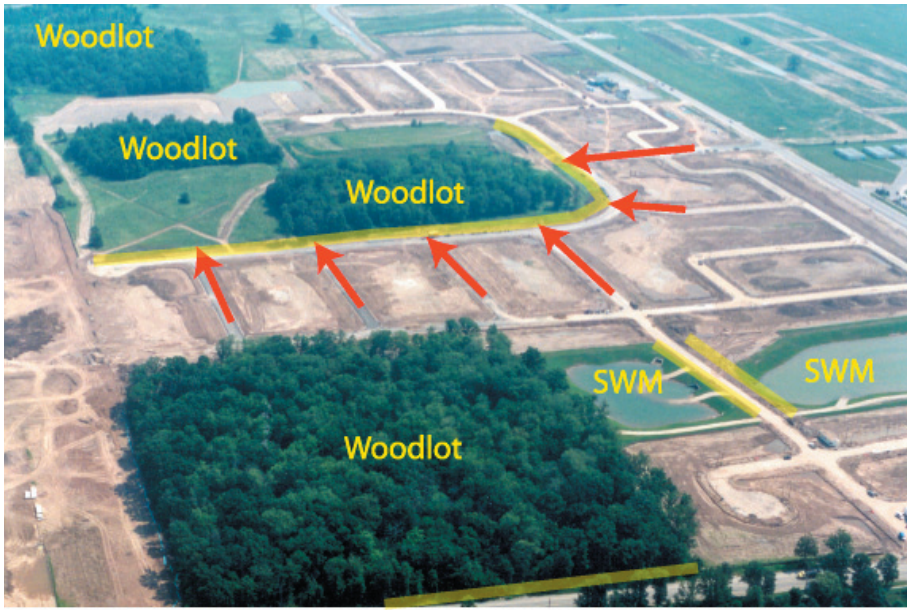

Photo 7: Bristol Survey street alignments create public access and visibility to open space.

Figure 2: A hierarchy of community focus areas including village squares provide community amenities, within walking distance of neighbourhoods.

d. To provide a design framework that concentrates proposed mixed use and commercial and higher density residential in a ***village main street setting*** that is compatible with a predominantly low scale residential neighbourhood setting.

e. To provide block sizes and land parcels in employment based land use areas that accommodate and promote the proposed ***variety of building types*** including residential, institutional, mixed use and commercial buildings. Land parcels should allow for flexible site planning and intensification.

Create Neighbourhood Enclaves

Key Policies:

a. To **limit block lengths** to not more than 200 to 250 metres to create shorter walking distances between neighbourhoods, and to encourage slower traffic movement through residential areas.
b. Back lotting of residential buildings is generally prohibited.

c. To establish a ***modified street grid*** that shifts to provide visibility to the Niagara Escarpment Plan Area and public access to key locations (Conceptual Greenland System, Secondary Mixed Use Node and Neighbourhood Centres and commercial areas), and to create sub-neighbourhood enclaves based on approximately five to ten minute walking distances **(Figure 3)**.
d. To provide a high proportion of single loaded streets (minimum 50%) adjacent to parks, woodlots, creeks and stormwater management ponds, which respond to the form of these elements and emphasize their role as publicly visible and accessible areas **(Photo 8)**.
e. To ***centre neighbourhoods*** around natural features, parks, schools and public uses where feasible. The distribution of these public elements should allow for less than ten minute walking distances between home and neighbourhood destinations.

Create a Diverse Community Framework

a. To encourage a mixture of lot sizes, building types and architectural styles that contribute to a diverse streetscape image **(Photo 9)**.
b. To permit deliberate variations in the design of blocks and streets around natural elements such as woodlots, creeks and topography to enhance views and achieve a place-specific character within neighbourhoods.
c. To create a consistent and identifiable community image through specific landscape treatments, street furnishings, paving materials, lighting and signs

Create an Eco-Tech Village

At least 50 acres of the Secondary Plan has been set aside for the development of an environmentally sustainable community. This community will serve as a pilot project for future development. Key objectives and policies for this development are outlined in the Secondary Plan for this community. (See Section 4.6 Sustainable Design)

The eco-tech villages should be in keeping with the principles and policies established through the eco-tech study process and the policies implemented in the Secondary Plan.

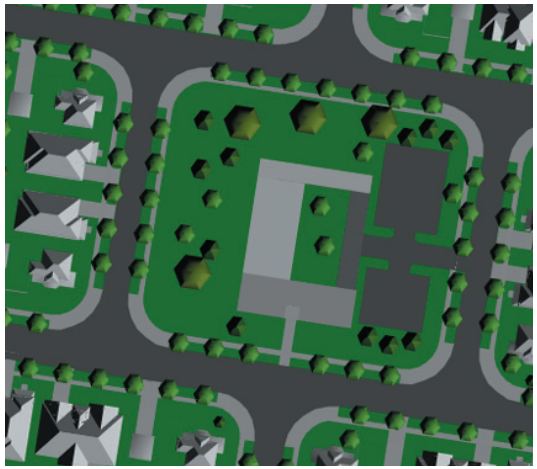

Figure 3: Centre neighborhoods around parks, natural features and where feasible public uses.

1.4 SECONDARY PLAN AREA URBAN DESIGN GUIDELINES

High Design Standards:
The Urban Design Guidelines are designed to create a high quality integrated community, with an emphasis on providing strong connections and buffer conditions between the developing community, the Niagara Escarpment Plan Area, as well as existing environmental resources.

The Urban Design Framework Plan **(See Section 2.0: Figure 5)** is intended to illustrate the urban design principles on which the Guidelines are based.

Though the Framework Plan is not intended as a final plan, it should serve to guide individual development submissions with differing land uses, landowners and site specific criteria and show how they can be applied in a comprehensive community framework. The Urban Design Guidelines should be referenced with respect to:

a. Specific applications for employment development focusing on the creation of quality design standards for residential, mixed use and employment land uses;
b. Specific recommendations for residential built form and site planning and its interface with open space, existing residential, institutional and employment uses;
c. Design direction in the assessment of development applications through the site plan approval process.

Photo 8: A high proportion of single-loaded streets provide connections to open space for the community as a whole.

Photo 9: A mixture of lot sizes and architecture contributes to a diverse streetscape image.

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2.0 GUIDING URBAN DESIGN PRINCIPLES AND COMMUNITY FRAMEWORK

Section 2 outlines the community design framework, which forms the basis for the Secondary, Structure and Concept Plans.

2.1 THE STRUCTURE PLAN AND CONCEPT PLAN

The Sherwood Survey Secondary Plan Structure Plan **(Figure 4)** and Concept Plan **(Figure 5)** have been prepared as a basis for the community framework and land uses outlined in the Secondary Plan.

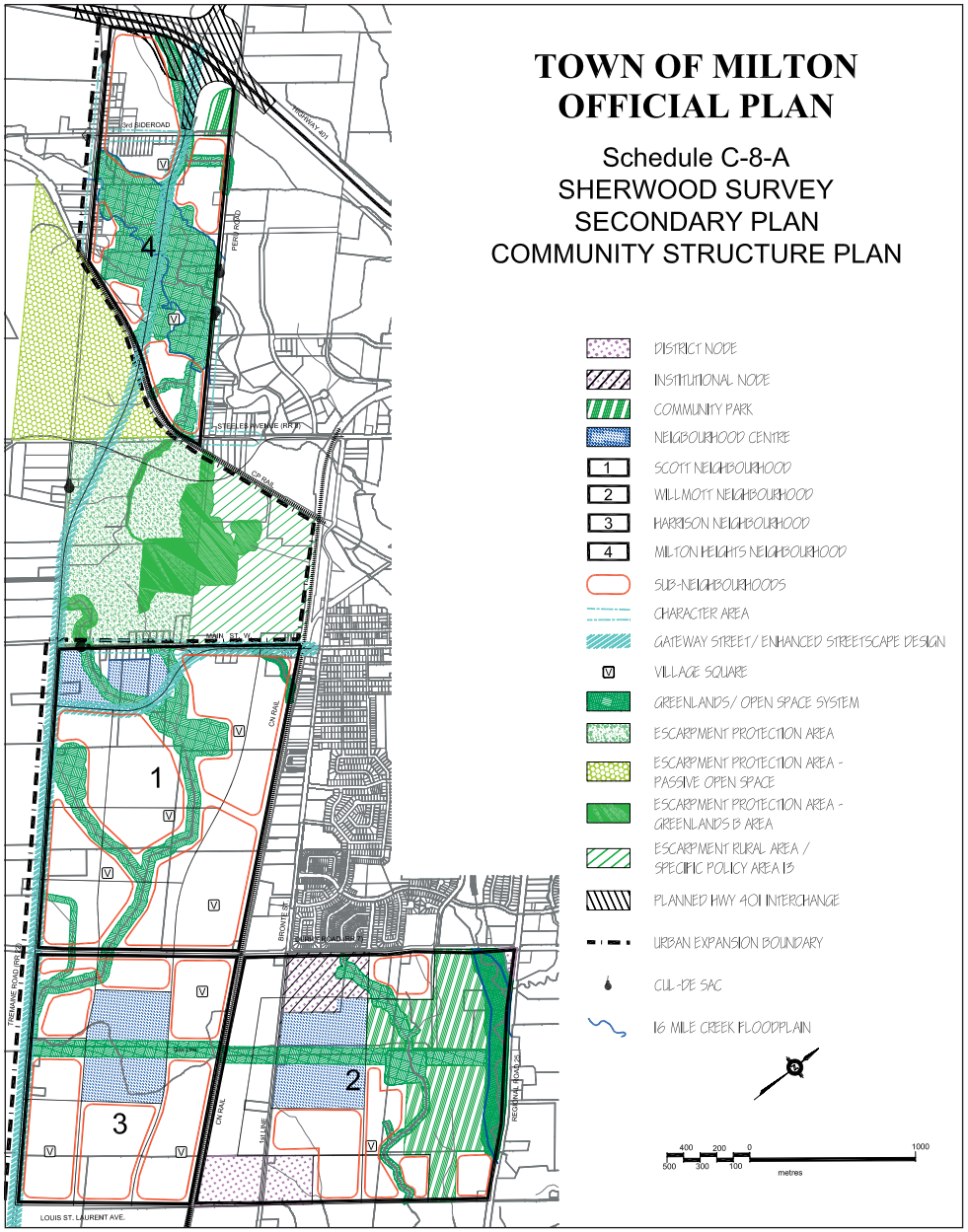

Figure 4: Sherwood Survey Secondary Plan: Community Structure Plan

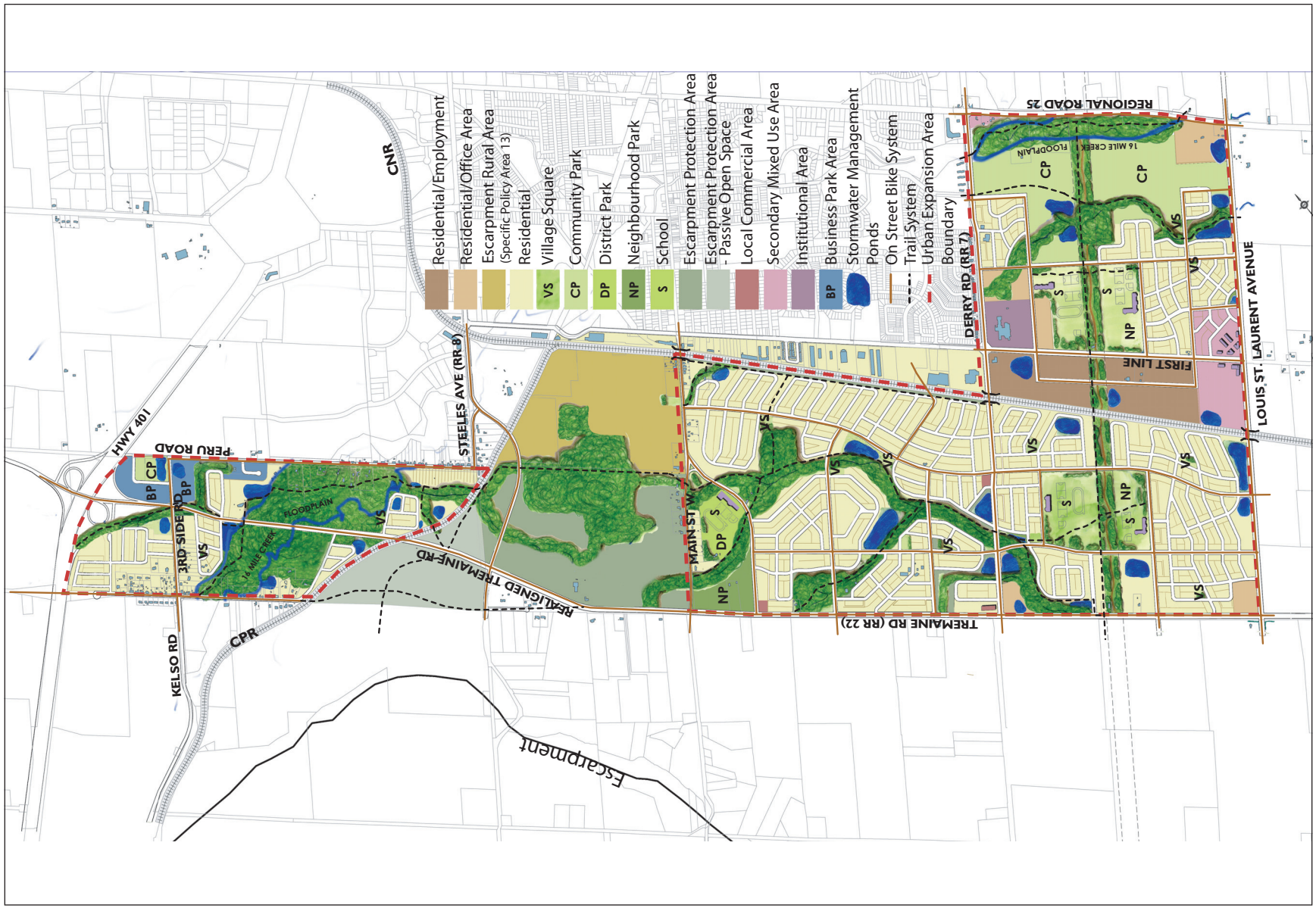

Figure 5: Sherwood Survey Secondary Plan: Concept Plan

The Community Structure is based on the following major elements:

a. The variety of ***proposed land uses*** including: Residential, Business Park, Residential/Employment, Residential/Office, and Institutional.

b. ***Four Neighbourhoods*** **(Figure 6)** The Neighbourhood Plan is defined by the arterial street and railway system in which pedestrian scaled sub-neighbourhoods **(Figure 7)**, are generally established by the local street and open space system and support five to ten minute walking distances between homes and neighbourhood destinations.

c. ***The Greenlands/Open Space System*** **(See Section 3.0 ,Figure 13)** A linked Greenlands/Open Space System including the Bronte and Sixteen Mile Creek Valleys; Natural features such as woodlots, and other vegetative features **(Photo 10)**; and the Union Gas Pipeline as part of a significant east west open space link between Tremaine Road (RR 22) and Regional Road 25. This system also includes the Community Park, which serves the Town as a whole, Village Squares and the Stormwater Management (SWM) System.

d. ***Bicycle/Pedestrian Trail System:*** An extensive recreational trail system within the Greenlands/ Open Space System as well as incorporated into the arterial and collector road system **(Photo 11)**.

e. ***The Street Network:***

- A modified street grid system of arterial, collector and local roads in response to views and connections to the open space network and in particular, the

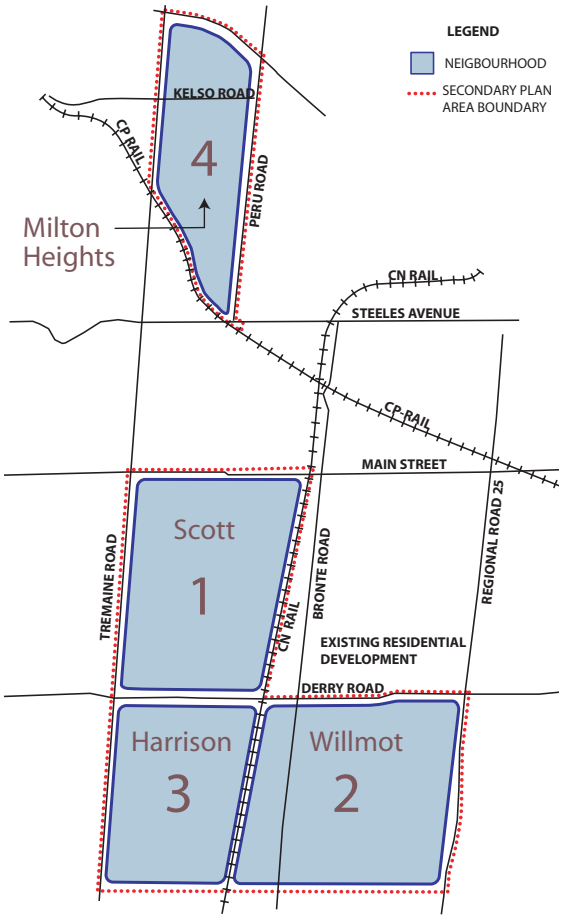

Figure 6: Neighbourhoods Plan

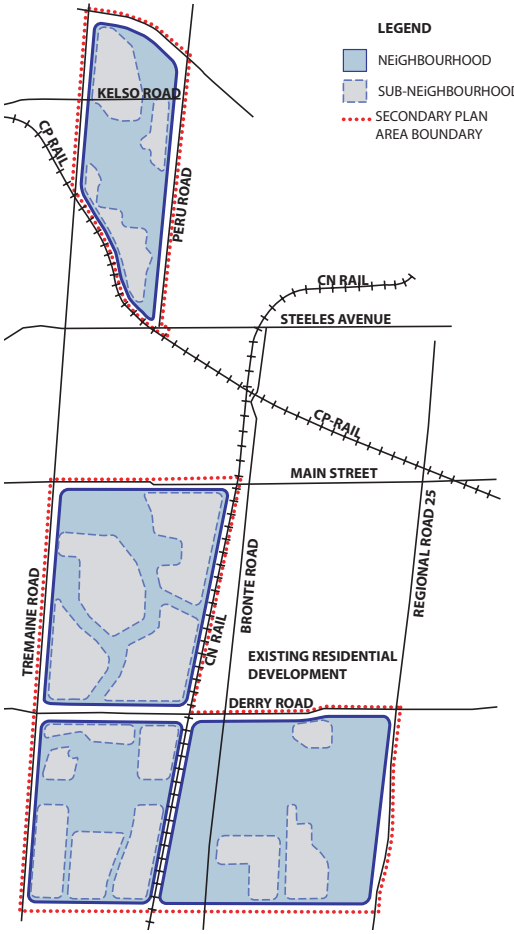

Figure 7: Sub-neighbourhoods Plan

Niagara Escarpment.

- Block patterns and sizes to facilitate pedestrian movement between neighbourhoods and sub-neighbourhoods.
- Provision of transit on primary arterial and collector roads.
- Pedestrian and cyclist amenities: sidewalks, bikeways, feature paving, lighting, public art, signs etc.
- Enhanced Streetscape Design: including landscape treatments on Tremaine Road (RR 22) and Realigned Main Street.
- Preservation of existing tree-lined roads as Character Roads: Tremaine Road (RR 22) and 3rd Sideroad in Milton Heights, Steeles Avenue (RR 8)/Peru Road and existing Main Street.
- The preservation and protection of existing tree-lined, rural character roads, many of which have existing residential enclaves.

f. Secondary Mixed Use Node: The Secondary Mixed Use Node including major commercial and public use facilities.

g. Neighbourhood Centres: School/park campuses and other public use facilities, which provide opportunities for community buildings such as libraries, places of worship, community centres etc. In addition, Neighbourhood Centres permit high and medium density housing, and special needs housing.

h. Transitional Edge Conditions: Areas in the Secondary Plan Area where adjacencies between sensitive landscape features, differing land uses and primary streets, rail and utility corridors require appropriate transitional treatments between these areas.

i. Character Properties: These include existing farms throughout the Secondary Plan area and residential enclaves along Main Street within Milton Heights **(Photo 12)**.

Key Policies:

a. Provide enhanced streetscape design on Tremaine Road (RR 22) and on realigned Main Street.
b. Preserve existing "Character Roads".

Photo 10: Existing natural features contribute to the community structure.

Photo 11: Recreational Trails should be incorporated into the Greenlands/Open Space System.

Photo 12: Character properties reflect Milton's cultural heritage and should where feasible be integrated into the developing community.

2.2 THE FRAMEWORK PLAN: FOUR NEIGHBOURHOODS

The Concept Plan provides a design framework for the whole 887 hectares Secondary Plan Area, tying together the four individual neighbourhoods within which employment areas, sub-neighbourhoods and a linked system of open space, streets and recreational trails are located. The Concept Plan **(See Figure 5)** demonstrates the potential application of the design guidelines in a comprehensive overall concept. The four neighbourhoods are illustrated in Figure 6.

Figure 8: Neighbourhood 1

2.2.1 Scott Neighbourhood One (240 hectares)

Existing Character

- One of the largest neighbourhoods within the Secondary Plan area.
- Three significant woodlots associated with the creek alignment **(Photo 13).**
- Transitional Edges:
  - CN Railway Corridor
- Existing residential or character properties
  - Neighbourhood Commercial and Residential land uses
  - Character Properties: Berryhill Farm on Tremaine Road (RR 22) **(Photo 14)** Brick Farmhouse on Tremaine Road (RR 22) south of Main Street **(Photo 15)**, Stone Farmhouse on Main Street and other Main Street Residences
- The primary Escarpment views are to the northwest.

Photo 13: Woodlots and hedgerows define Neighbourhood 1

Photo 14: Berryhill Farm at Tremaine Road (RR 22)

Photo 15: Existing brick farmhouse on Main Street

Proposed Elements (Figure 8)

- Major Land Uses: Residential, three local commercial areas, one Neighbourhood Centre area District and Neighbourhood Park (Community and higher density where appropriate residential uses).
- Four sub-neighbourhoods defined by the Indian Creek alignment.
- Roads: An internal collector road system and potential transit line on the north south collector west of the CN Rail. Local streets are aligned with the primary Escarpment views.
- Access and views to the Escarpment are preserved and extended through the alignment of local roads and the location of Community and District Parks south of existing Main Street.
- Substantial single loaded local streets around open space elements. Tremaine Road (RR 22) will have enhanced landscape design.
- Four Village Squares: Three adjacent to the creek corridor and one adjacent to the proposed north south collector
- Four Stormwater Management Ponds: One major facility within the valley and three smaller facilities.

Photo 16: Regional Road 25 south of Derry Road (RR 7). The Sixteen Mile Creek creates a naturalized community edge condition.

Figure 9: Neighborhood 2

2.2.2 Willmot Neighbourhood Two (266 hectares)

Existing Character (Photo 16)

- One significant woodlot associated along the Sixteen Mile Creek west tributary alignment.
- Major Land Uses: Institutional at Derry Road (RR 7) including the Hospital, Southgate Community Church, a Fire Station and sports centre (under construction). A gas bar at the Derry/RR25 intersection
- Character Properties: Two farmsteads and several homesteads at 1st Line and RR25
- The primary Escarpment views are to the southwest.

Proposed Elements (Figure 9)

- Major Land Use: Residential, Secondary Mixed Use Node, institutional (existing Hospital) residential/employment between the CN Rail and Bronte Street (1st Line), residential/ office surrounding the existing hospital lands and at RR25/ Louis St. Laurent intersection, neighbourhood centres (2 schools and a neighbourhood park) north and south of the Union Gas Corridor.
- Three sub-neighbourhoods defined by the proposed north south collector, creek alignment and public open space system.
- Roads: An internal collector road system defined by an external arterial road system. Local streets are aligned with the primary Escarpment views.
- An potential locations for the Eco Tech Village: An approximately 50 acre pilot project village may be located north of Louis St. Laurent Avenue between 1st Line and the proposed north/south collector road. The village concept is based on the principles of environmental sustainability and is intended to become a precedent setting community for the whole of the Secondary Plan area.
- One Village Square: Adjacent to the west tributary of the creek corridor.
- Eight Stormwater Management Ponds: The largest facilities are located at the creek tributaries facing Louis St. Laurent Avenue.
- Transitional Edges:
  - CN Railway Corridor
  - Existing residential or character properties
  - Creek valleys
  - Residential and Employment related land uses

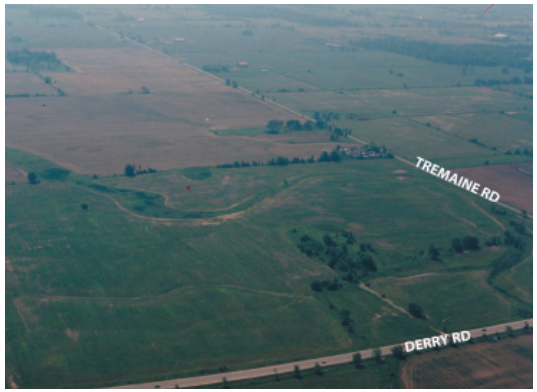

Photo 17: Neighborhood 3. Generally flat topography and Escarpment views to the southwest.

Figure 10: Neighborhood 3

2.2.3 Harrison Neighbourhood Three (167 hectares)

Existing Character (Photo 17)

- A tributary of the Bronte Creek at the northwest quadrant of the neighbourhood. Generally flat topography.
- Minor hedgerows defining agricultural boundaries and minor vegetation surrounding the creek.
- Transitional Edges: CN Railway Corridor
- Existing residential or character properties: Two farmhouses at Tremaine Road (RR 22)
- The primary Escarpment views are to the southwest.

Proposed Elements (Figure 10)

- Major Land Use: Residential, a neighbourhood centre (2 schools and a neighbourhood park) located north and south of the Union Gas Easement, Two Residential/Office areas at the Tremaine/Derry and Tremaine/ Louis St. Laurent intersections.
- Six smaller sub-neighbourhoods defined by the open space and neighbourhood centre locations.
- Roads: An internal collector road system defined by external arterial roads, and the CN Railway. Local streets are aligned with the primary Escarpment views.
- Substantial single loaded local streets around open space elements. Tremaine Road (RR 22) has enhanced landscaping and design.
- Three Village Squares: Each defining the northeast, southeast and southwest sub-neighbourhoods.
- Eight Stormwater Management Ponds: three larger facilities in relation to the creek valley and five mid-size to small facilities throughout the neighbourhood.

Figure 11: Neighborhood 4

2.2.4 Milton Heights Neighbourhood Four (150 hectares)

Existing Character (Photo 18)

- Significantly defined by the residential hamlet of Milton Heights and existing development along Peru Road.
- Significant vegetation and topography associated with the Sixteen Mile Creek alignment.
- Transitional Edges: CP Railway Corridor
- Existing residential or character properties
- Character Properties: Milton Heights and existing development along Peru Road
- The primary Escarpment views are to the northwest.

Photo 18: View looking north from Peru Road at the CP Railway. Neighborhood 4, Milton Heights

Proposed Elements (Figure 11)

- A full Highway 401 interchange at a realigned Tremaine Road (RR 22).
- Major Land Use: New and infill residential, Business Park at Hwy 401 west of Peru Road and north of 3rd Sideroad.
- Three sub-neighbourhoods defined by the Bronte Creek alignment and Tremaine Road (RR 22).
- Roads: After the construction of the realigned Tremaine Road - closure of Peru Road at the creek valley. Closure of Tremaine Road (RR 22) at the CP Rail and Highway 401. Significant vegetation has limited the amount of local roads, which are generally aligned with the creek valley. Local streets are single-loaded around open space elements where feasible. Existing Tremaine Road (RR 22) and 3rd Sideroad in Milton Heights and Peru Road are preserved as Character Roads.
- A Community park located northwest of Peru Road and Third Side Road
- Two Village Squares: Located adjacent to the creek corridor at Tremaine Road (RR 22) and south of 3rd Sideroad.
- Nine Stormwater Management Ponds: Two major facilities directly adjacent to the creek valley, and seven midsize to small facilities distributed throughout the neighbourhood.

3.0 PUBLIC REALM GUIDELINES

3.1 Open Space System Guidelines

The Greenlands/Open Space System is an integrated system that includes pedestrian and recreational trails connections to the developing and existing urban area. **(Figure 12)** It also contains the following elements:

- The Community Park
- Neighbourhood and District Parks
- Village Squares
- Stormwater Management Ponds
- Natural Features: Sixteen Mile and Indian Creek, Woodlots

A primary objective of these Guidelines is the creation of a linked open space network between the Escarpment and the proposed Greenlands/Open Space System.

The arterial and collector roads, including Tremaine Road (RR 22) in particular, will be an important reflection of the transition from the urban area to the Escarpment Area through enhanced landscape treatments.

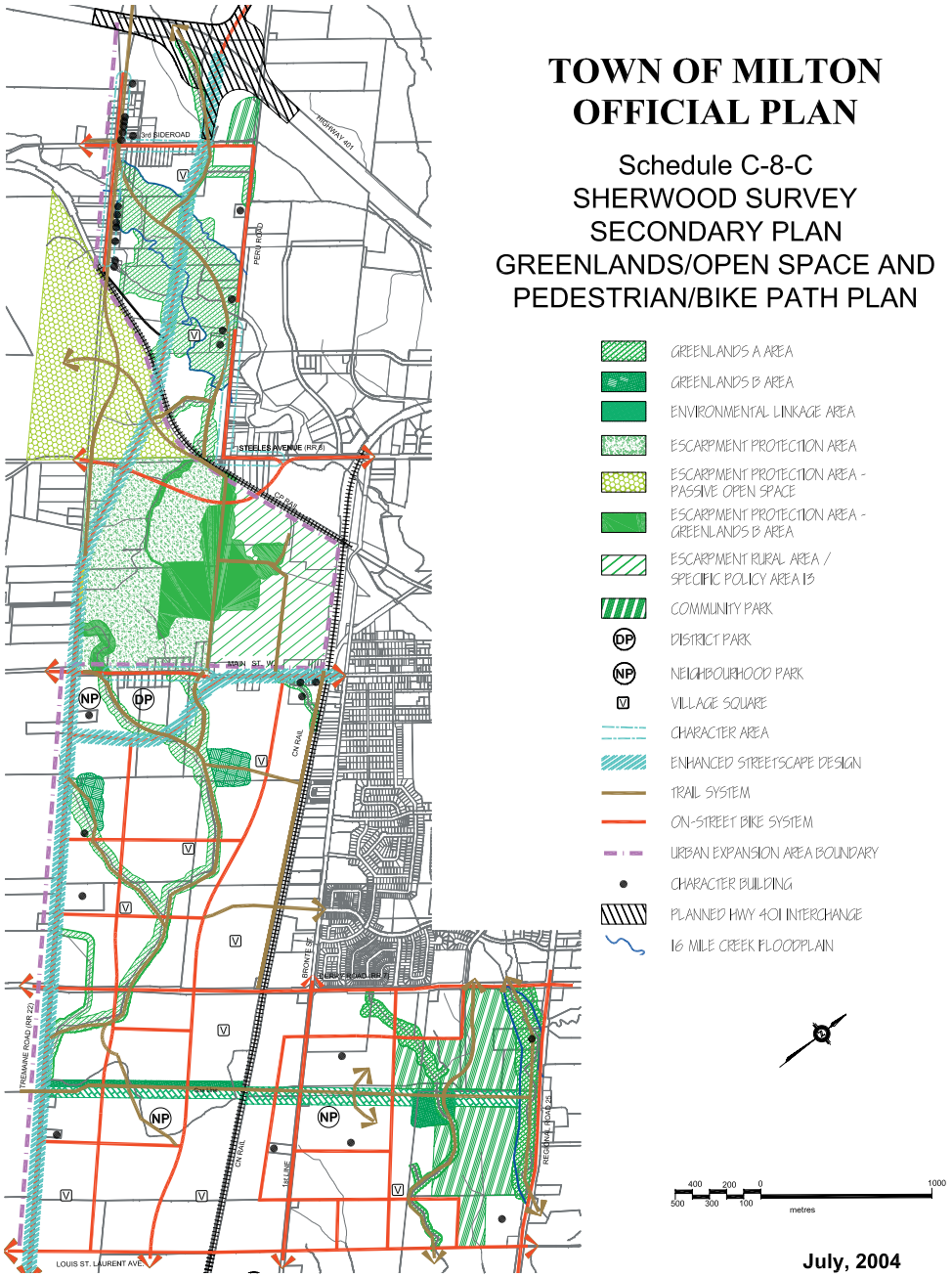

Figure 12: Greenlands and Open Space Plan

3.1.1 General Guidelines

Key Policy:

a. Single loaded roads should surround a minimum of 50% of the perimeter of woodlots, watercourses, stormwater management ponds and parks.

b. Open spaces should be framed or flanked by public roads wherever possible to provide a high degree of public access and visibility.

c. Neighbourhood Centre parks and schools should be considered as a neighbourhood focus and designed to provide areas for community and civic events.

d. Park sizes should reflect their role in the hierarchy of the park system.

3.1.2 The Community Park

The Community Park at Regional Road 25 is intended to serve the diverse recreational open space needs of the community. The location of the Community Park within the Sixteen Mile Creek watershed adds topographic interest to an area, which is otherwise relatively flat, particularly adjacent to Regional Road 25, while providing north south trail opportunities. The Community Park as Peru Road and Third Line is surrounded by Business Uses and therefore may include facilities and playing fields that are complimentary to the neighbourhoods as well as the potential use of the park for local business, employees, area visitors and may include such elements as gardens, walkways, water features, public art and / or heritage interpretive elements.

The Union Gas pipeline alignment creates an opportunity for a strong east west open space connection across the Secondary Plan Area. The design of the park should provide a balance between its community function including community-wide events; athletic fields for organized sports and recreation, and opportunities to preserve and extend the topography and vegetative edge conditions of the Sixteen Mile Creek valley.

Key Policy:

a. Provisions to buffer residential areas from lighting, traffic and parking areas should be provided through landscaping and appropriate setback treatments.

b. The Community Park should support the larger community identity, and provide a variety of spaces for passive park use adjacent to Sixteen Mile Creek, as well as include a variety of active/recreational sports facilities (e.g. baseball diamonds, soccer pitches, swimming pools etc.) **(Figure 13).**

c. The Community Park should emphasize visibility from its boundary roads including Regional Road 25, Derry Road (RR 7) and Louis St. Laurent Avenue to reinforce a strong public profile.

d. The Community Park should include passive park facilities including walkways, formal gardens, seating areas and park pavilions.

e. Highly visible connections should link the major park amenities and facilities through walkways and bicycle paths. Where feasible, a separate pedestrian network should be distinguished between the recreational network used for biking and/or in-line skating.

f. Vehicular connections through parkland should be limited to emergency vehicle routes and access to major park facilities (e.g. arenas, pools) and parking areas.

3.1.3 Neighbourhood Centre (District and Neighbourhood Park)

The District and Neighbourhood Park is located between existing and realigned Main Street east of Tremaine Road (RR 22).

Street alignment, site plan and built

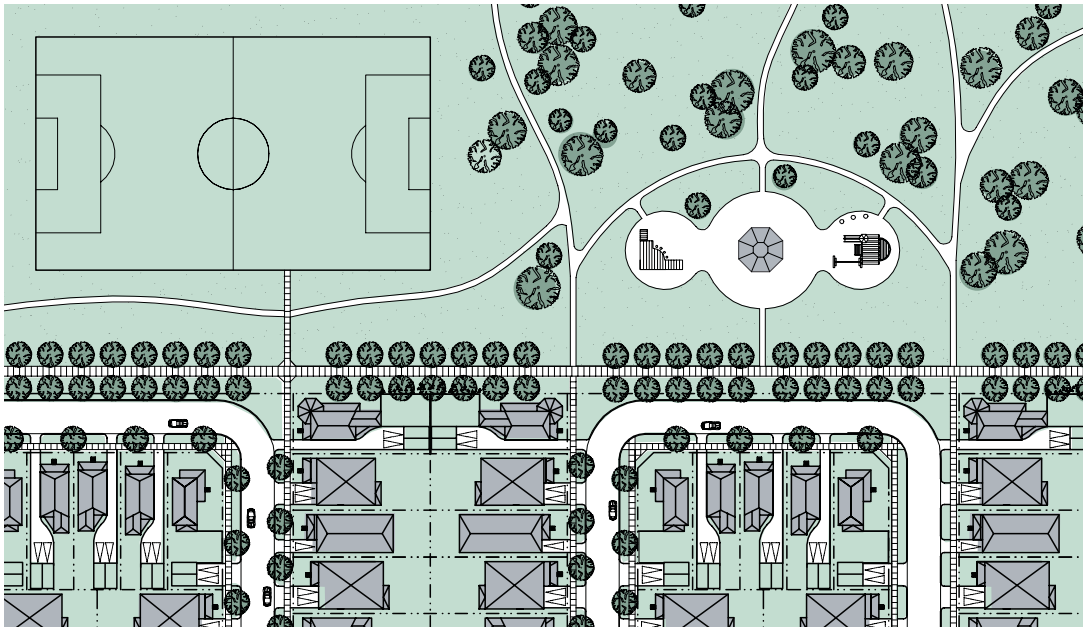

Figure 13: Strong access and visibility to community and neighborhood parks reinforces their public role and natural surveillance opportunities.

Open Crescents At WoodLots

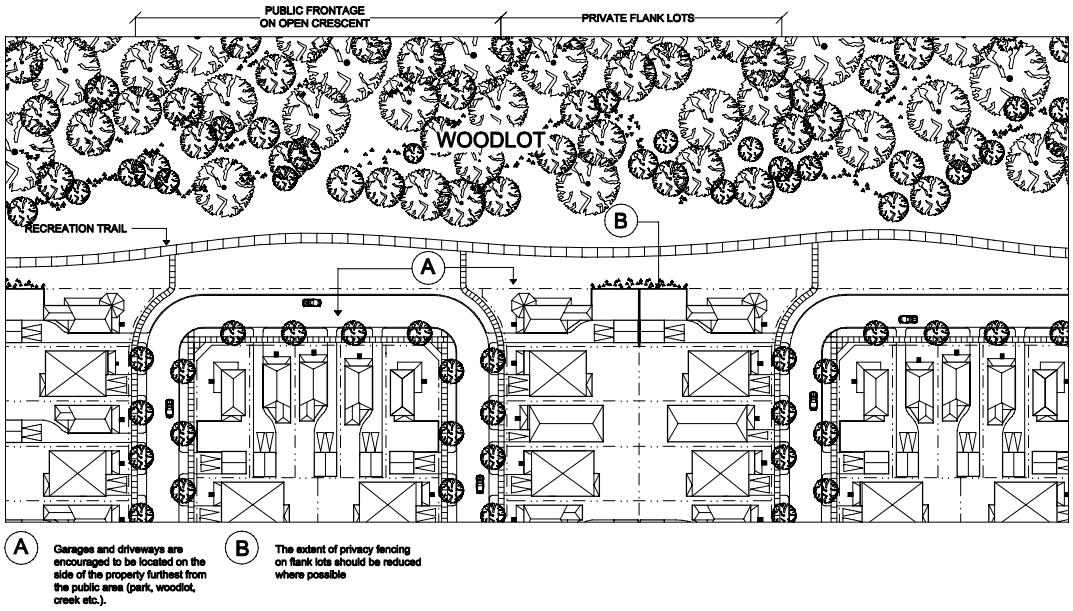

Figure 14: Single loaded roads contribute to public access and visibility at key natural features including woodlots.

design should support the objective of creating a park-like setting. Community and residential buildings should respond to the rural image of the Escarpment lands by providing generally low-rise buildings (3 storeys and less) with limited opportunities for taller mid-rise buildings at locations which do not adversely impact Escarpment views.

Key Policy:

a. New development facing Existing Main Street or Tremaine Road (RR 22) should reinforce views and physical connections to the Escarpment.

b. Campus form design is recommended over street-edge building design and should consist of a balanced site plan approach between built form, landscape and other open space requirements.
c. Buildings should frame open space opportunities providing a scale and pattern of development that supports pedestrian activity between grade level outdoor areas (gardens, courtyards, walkways etc.)
d. Building heights should provide transitions of massing that optimize views at grade to the Escarpment.

3.1.4 Village Squares

Key Policy:

a. Village Squares must be aligned by a minimum of two public streets or 50% of the park perimeter; whichever is greater.

b. Village squares should generally be 0.8 hectares (2 acres) in size.
c. The village square should contribute to the structure and identity of the neighbourhood **(Figure 15 and 16)**.
d. Village squares may, where their size permits, include a variety of minor outdoor playing fields, ice pads and children's play equipment.
e. The village square should be open to a minimum of two sides of the public street, 50% of the park perimeter, or whichever is greater.

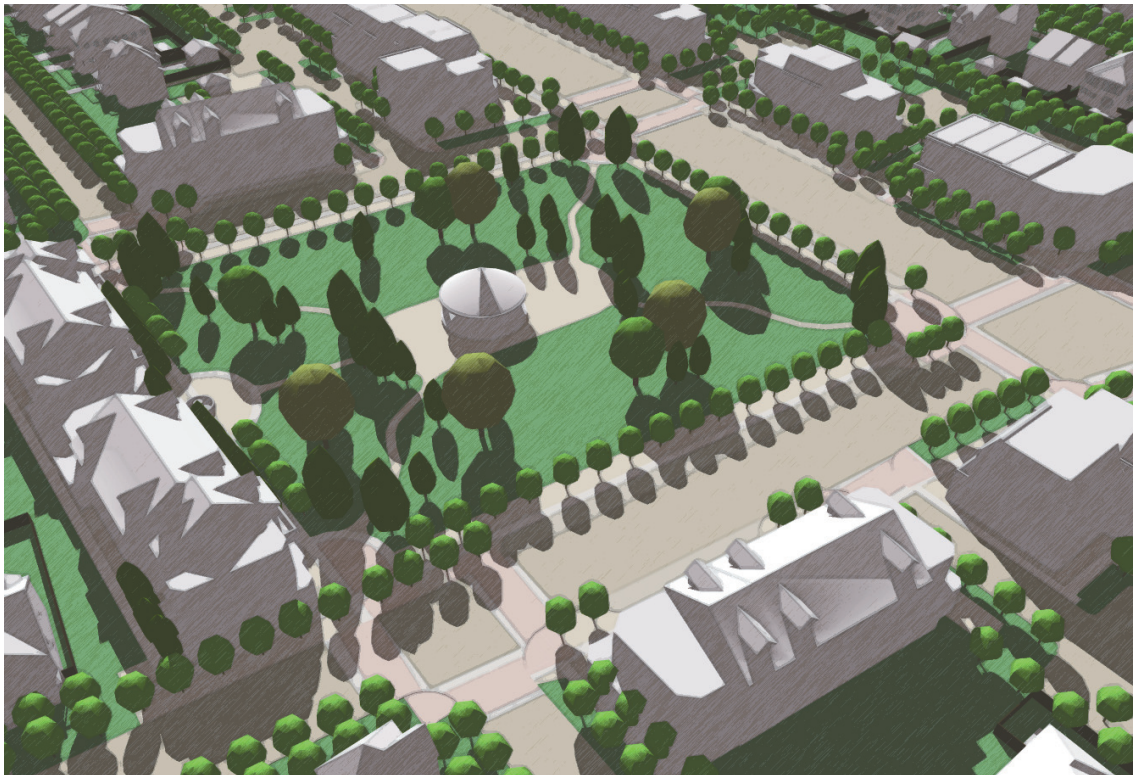

Figure 15: Village Squares are located at the centre of sub-neighborhoods as well as adjacent to the natural open space system.

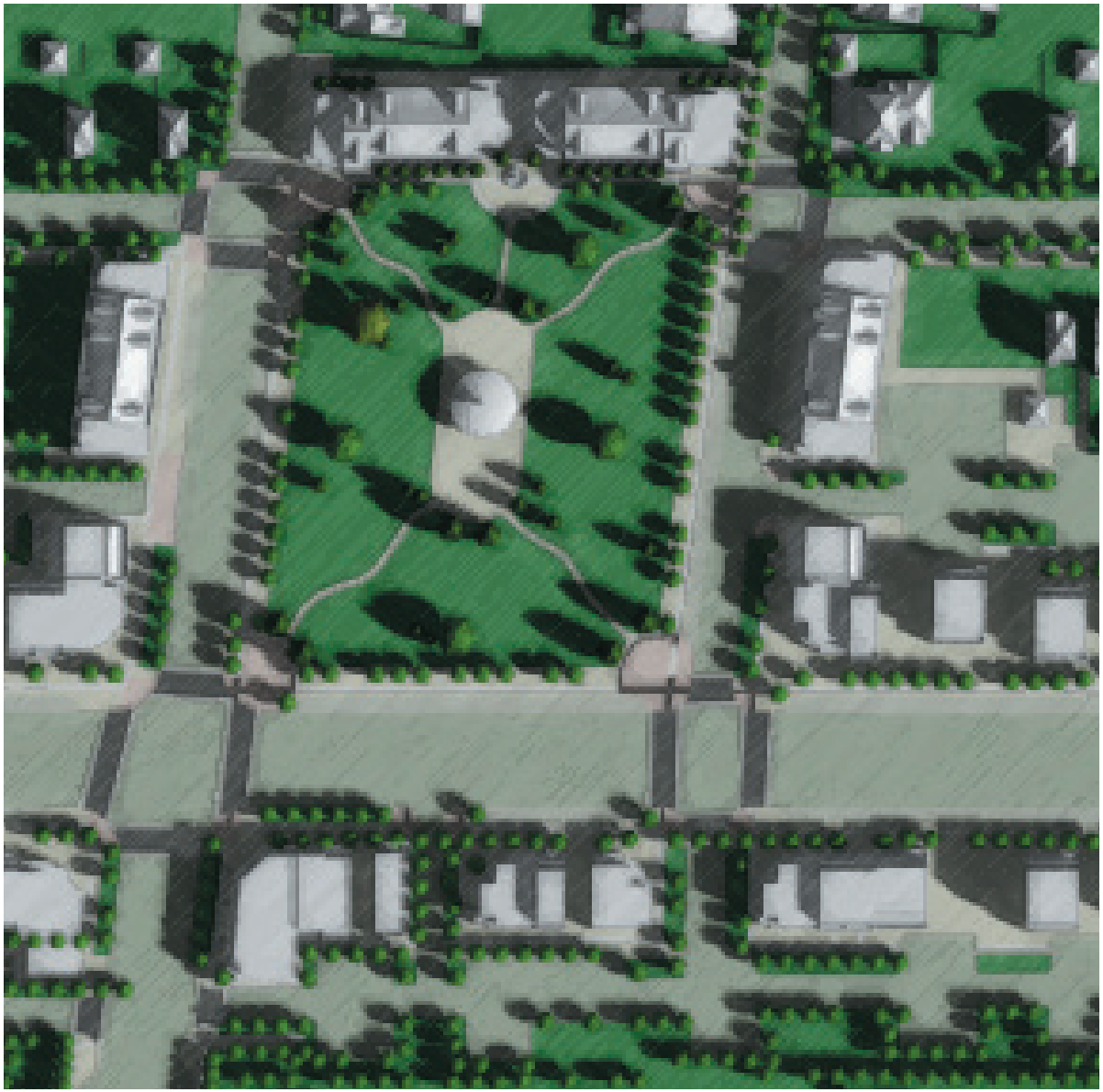

Figure 16: Village Squares must be aligned by a minimum of two public streets.

3.2 Stormwater Management Ponds

Stormwater management ponds should have public access and be integrated as positive and safe amenities within the community and the Conceptual Greenlands System. The objective of creating a few well-designed community ponds that include walkways, running trails, seating and play areas, will encourage frequent use and thereby greater safety in these areas.

The following recommendations are proposed for stormwater management ponds:

Key Policies:

a. SWM ponds should have as much public exposure as possible. As a general objective, not more than 50% of a SWM perimeter should be bounded by the rear or side yards of adjacent houses; however, the exact proportion should be determined on a case-by-case basis.
b. Of the total linear perimeter distance of a SWM that is adjacent to a new development area, a substantial portion of the perimeter should be bounded by a public road right-of-way, public park, or combination of publicly owned and accessible lands. A minimum of 50% of publicly accessible exposure is generally recommended.
c. Stormwater management ponds (SWM) should be integrated as community amenities to optimize their use as a component of the publicly accessible Conceptual Greenlands System **(Figure 17)**.
d. The design of ponds should avoid fencing requirements to promote public access and surveillance opportunities **(Photo 19).**
e. Safe access to the perimeter of ponds should be examined on a site-by-site basis through a combination of pond edge treatments. Shallow slopes should be considered for direct access areas and overlooks with railings or densely planted areas should be applied to discourage direct access.
f. Standards for pond design should be referred to in the Town's Standards Manual.

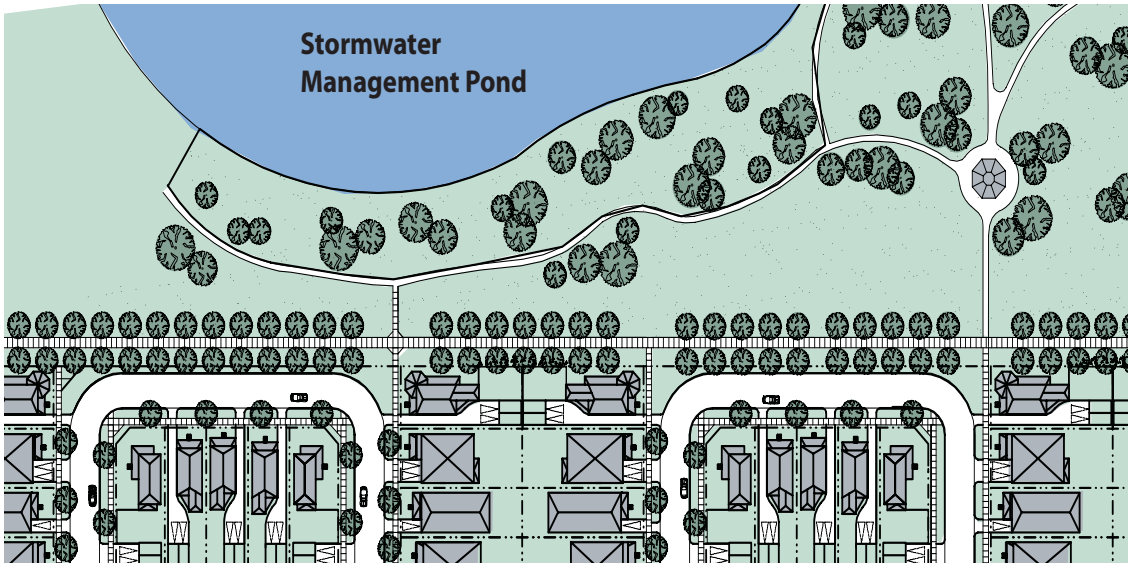

Figure 17: Not more than 50% of a stormwater management pond should be bounded by the rear or side yards of adjacent buildings.

Photo 19: Stormwater management ponds should be accessible community features. Their active use will contribute to their safety.

3.3 Recreational Trails

(See Section 2.0, Figure 5, The Concept Plan)

The potential to link the primary open space features, including the watercourse, woodlot, hedgerows and specimen trees, within the Secondary Plan Area encourages the development of a trail system to link the community together, and to be an integral part of the Conceptual Greenlands System **(Photo 20).** The watercourse and street network provide the primary linear framework for establishing connections between neighbourhoods, woodlots, schools, parks and stormwater management facilities.

The provision of recreational trails creates an attractive and viable alternative to driving and thus may result in a significant decrease in short automobile trips. They also serve as a means of linking new residential areas without adding additional vehicular traffic to these sensitive areas.

The following Guidelines should be considered in the planning and design of recreational trails:

Key Policy:

a. The design of the recreational trail should reflect the function and nature of the type of open space it occupies. Trails should be a minimum of 8 metres wide to allow for a 3-metre path centered between a double row of trees, and other landscaping/ground cover. **(Figure 18)**

b. Create links between primary open space destinations, neighbourhoods by providing continuous recreational trail connections for walking and cycling along streets and the existing watercourse (See Figure 6, Concept Plan).

c. Recreational trails on streets and within park and open space areas should connect to the Town-wide Open Space System.

d. Trails that align the watercourse, woodlot or other sensitive natural areas should employ separation distances from such features. Such separation distances should be individually determined.

e. Lighting on trails should be individually determined, particularly where lighting may disturb natural habitats or have high maintenance costs.

f. Bicycle paths along streets should provide direct connections to other trails within the Conceptual Greenlands System.

g. Connections should be provided as part of the street bicycle path/ trail system across local arterial or collector roads at signalized

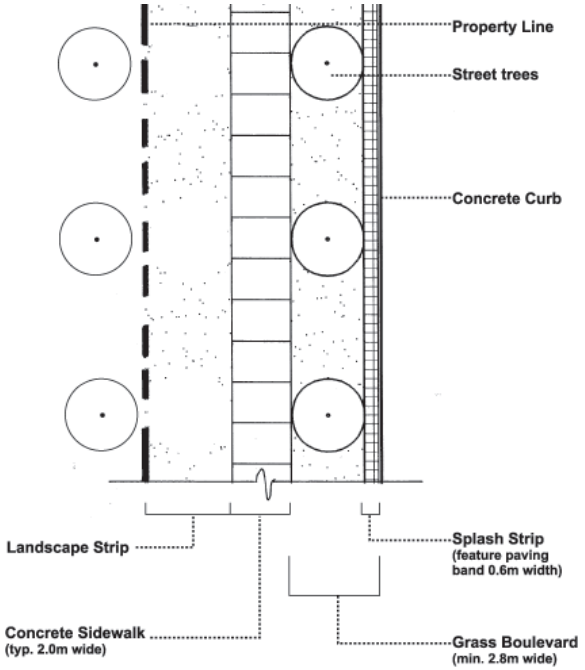

Figure 18: The streetscape consists of a series of defined areas.

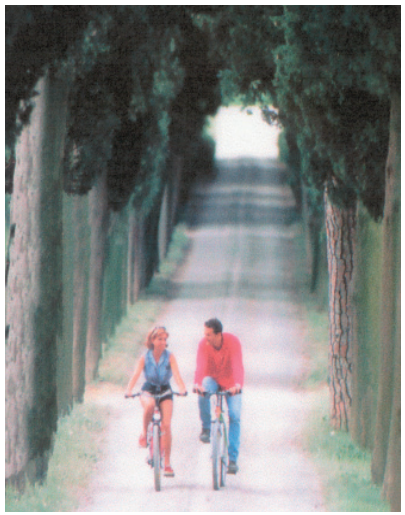

Photo 20: Tree lined streets are part of the integrated trail system.

intersections. To facilitate safe pedestrian and recreational trail connections across Major Arterial and Collector Roads, feature paving should be provided to mark crossing areas **(Photo 21)**.

3.4 Streets

Opportunities to create a sense of connection to Milton's existing context and history are possible through the design of new street and block patterns. Historically, Milton's streets and blocks are short and well connected with a consistent and high quality fabric of buildings facing them. Streets can be oriented and designed to enhance the experience of travel and walking and to create visual and physical connections to the natural heritage features (woodlot, watercourse, significant tree stands).

3.4.1 Streets for Walking and Recreation

The use of the street as a place for informal socializing and recreation increases personal safety through casual surveillance opportunities. In established neighbourhoods, the presence of sidewalks and mature tree-lined streets provide a comfortable place for residents to walk and an extended area for children to play. The provision of sidewalks and recreational trails on major arterial roads, allows for jogging, cycling, skateboarding and other informal recreational activity. Where cars are permitted to park on local or other streets, there are fewer cars in front yards and a buffer zone between the street and the sidewalk is created.

The characteristics of the new streets that will promote walking and recreating include:

a. **Limit through traffic:** A shorter system of Local Street and block lengths will allow traffic flow to dissipate more evenly through neighbourhoods. This pattern will limit increased traffic speed on long road stretches and the need for traffic calming devices, which limits emergency vehicle response time, reduces street parking and are costly to construct and maintain.
b. **Disperse Local Traffic:** An offset street grid will encourage through traffic to stay on the Community Collectors rather than filtering through less direct local streets.
c. **Minimize Pavement Width:** The widths of streets are proposed in accordance with operational safety of the road and the provision of an enhanced pedestrian realm. The width of the pavement in particular, should be kept as narrow as practically feasible, to encourage traffic to slow down.
d. **Encourage Street Parking at Commercial and Mixed Use areas:** Street parking will also help to slow traffic through the maneuvering of parked cars.
e. **Plant Street Trees:** Tree-lined streets provide an evolving and lasting impression of the street, and a physical buffering between the pavement, the sidewalk and private dwellings. The shading effects of mature street trees have a significant mediating effect on summer sunlight.

Photo 21: Feature paving at an intersection.

3.4.2 Unique Street Character

a. **Vary the Length of Streets and Blocks:** Allow streets to respond to the configurations of topography, other natural features, and existing development (streets, residential areas) to reinforce a sense of place in the new community. A uniformity of new streets and blocks will limit orientation with community landmarks. A variety of streets and blocks that are occasionally offset, single loaded or curved will enhance one's orientation and enjoyment of the area.

b. **Provide a Variety of House Types:** The visual interest of the street will be improved by a coordinated and consistent variety of lot sizes, house types, building heights, materials and colours.

c. **Provide a Variety of Setbacks:** Opportunities to provide a variety of street setbacks will create visual interest and a sense of informality. A greater variety of buildings will create an image of incremental development, as housing has evolved in the Town's older neighbourhoods, rather than an appearance of being built all at once. Varied house types and setbacks should be demonstrated through architectural control.

3.4.3 Links to Natural Features

The organization of streets and blocks should reinforce the connection to the Escarpment, natural features, open space and the surrounding rural landscape by providing physical and visual connections through the alignment of streets and the design of built form. Visibility of the Escarpment will result in shifting road alignments in accordance with the shifts in principal views, and will result in a strong sense of local identity **(Figure 19)**.

a. Preserve and incorporate natural features including creek corridors, woodlots and other vegetative features into new neighbourhoods. These should be strategically located where possible within public rights of way, open space or parkland to support environmental awareness and contribute to a mature landscape character within neighbourhoods.
b. Development or interventions that require cutting of slopes or vegetation within creek corridors (Bronte, Sixteen Mile and Indian Creeks) should be minimized.
c. Provide singe-loaded or crescent road frontages on to creek corridors, natural features (and stormwater management ponds). In general, 50% public frontage to these areas is strongly recommended, and can be achieved through a single loaded street frontage, open space or a combination of the two.

3.4.4 Sub-Neighbourhood Size

The size of Sub-neighbourhoods is derived from reasonable walking distances in and between adjacent neighbourhoods. These distances are generally organized to allow a maximum of ten minutes walking distance to local parks, shops and schools.

a. A Sub-neighbourhood should generally be defined by a 400-metre radius (five minute walk) from centre to edge.
b. Sub-neighbourhood enclaves should be discernible through the central Village Square as a central focus and/or a shifted or changing street pattern.
c. Community Parks, Greenlands, stormwater management ponds and streets can define sub-neighbourhood entrances or edges.

3.4.5 Block and Street Design

The established neighbourhoods existing in Milton generally provide a 'fine grain' grid pattern of streets and blocks. The average lengths of blocks average 120-200 metres. This pattern of shorter blocks and more frequent cross streets allows for greater filtering of pedestrian activity and general connections between neighboring streets. It also helps to reduce traffic volumes on single streets by providing more options to a given destination.

a. The street and block pattern should 'fit-into' and accentuate the natural and heritage elements of the Secondary Plan Area including woodlots, watercourses, established residential areas, tree-lined roads and lanes, hedgerows and topographic features.
b. To maximize connections for automobiles and pedestrians, streets should be based on a grid pattern that is modified in response to natural, open space or existing street conditions.
c. Blocks and streets should be designed to enhance views, or to achieve a distinctive character around a neighbourhood focus through deliberate variations in the street alignment.
d. The street grid should shift at key locations to create distinct

Photo 22: Rear lane access provides opportunities for housing to front onto parks.

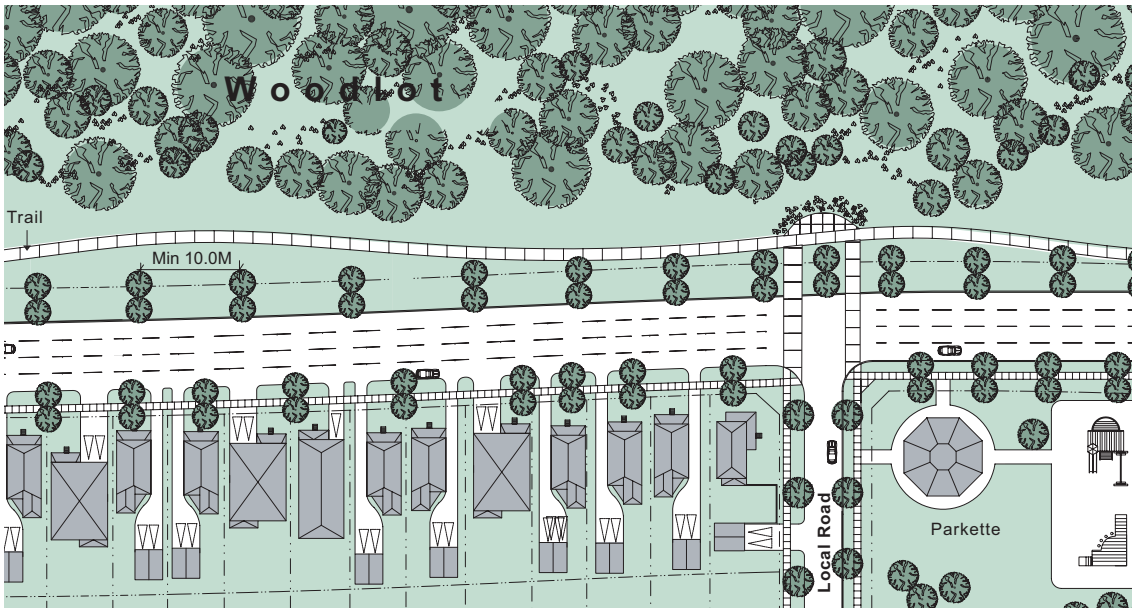

Figure 19: Single-loaded roads and "window" roads at woodlots promote public access and visibility.

neighbourhood enclaves, while allowing for significant view opportunities to natural features, parks, public buildings and landmarks.

e. Block lengths should generally range between 200 and 275 metres.

3.4.6 Rear Lanes

Despite the variety of issues that pertain to laneway based housing including general access, maintenance and safety, there are some conditions where the use of rear lanes to access residential parking is appropriate. These conditions apply at arterial roads and particularly where excessive curb cuts to private driveways would impede the operational function of the roadway (Derry and Tremaine Road (RR 22) south of Main Street) and at parks or open space (woodlot, watercourse, stormwater management ponds) where lane based housing may benefit from having direct overview of these public areas **(Photo 22).**

a. Rear lanes should provide a minimum lane right-of-way of 8-11 metres **(Figure 20).**
b. Travel pavement width should be a minimum 6.0 metres, providing a setback of 1.0 metre from the travel lane to the garage face. This 1.0 metre is intended to accommodate snow clearance.
c. On one side of any garage in a rear lane, a minimum side yard setback of 3.0 metres for semis and 3.0 metres for singles shall be provided to allow for visual connections from the lane to the rear of the house, and to promote safer laneway conditions.
d. On semis and singles, the side-yard beside the garage may also be used as an additional driveway parking space.
e. Rear lane garages associated with townhouses require no side yard setback; however, a minimum 3.0 metre setback must be provided between a maximum of six townhouse garages constructed in a row to provide access for emergency services or others.

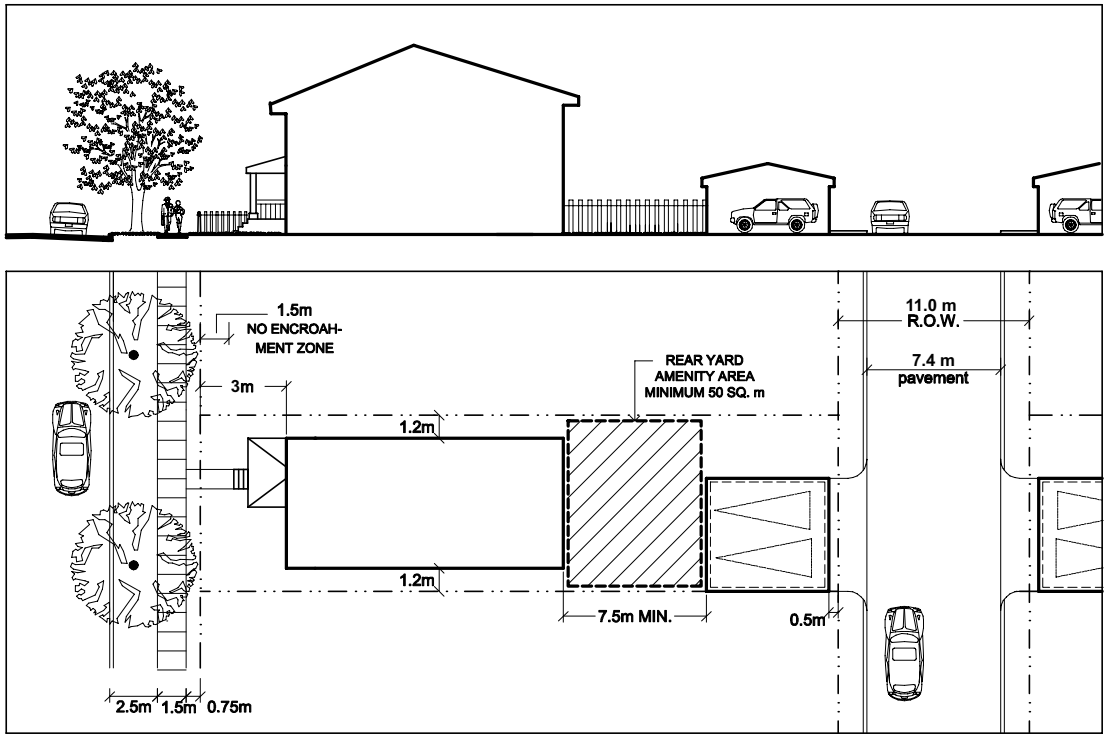

Figure 20: Rear lanes should be considered for specific areas, including housing facing arterial roads (Tremaine, Derry, Louis St. Laurent and Village Squares).

3.4.7 Arterial Roads

The guidelines propose treatments to existing and proposed arterial roads that will contribute the high profile image of the Secondary Plan area.

Arterial Roads (max. 35 metres): Depending on their location, adjacent land use and operational function, arterial roads should present an attractive streetscape image. Where urban conditions are proposed and the Major Arterial Street is lined by commercial and/or Mixed Uses, the section illustrated in **Figure 21** should apply. Opportunities for pedestrian and recreational activity will be aided by the provision of sidewalks, boulevards with street trees and lighting, transit stops and bicycle paths **(Figures 22, 23 and 24)**.

Opportunities for transit should be accommodated in the design and function of the following streets: Derry Road (RR 7), Tremaine Road (RR 22), First Line, Louis St. Laurent Avenue, RR 25, Main Street and the new north-south collector west of the CN Railway.

The major characteristics of arterial roads include:

- 5m wide central landscaped median.
- Double rows of trees planted within the boulevard on either side of the sidewalk/bicycle lane.
- Opportunities for street parking adjacent to retail, mixed use, commercial and institutional areas.

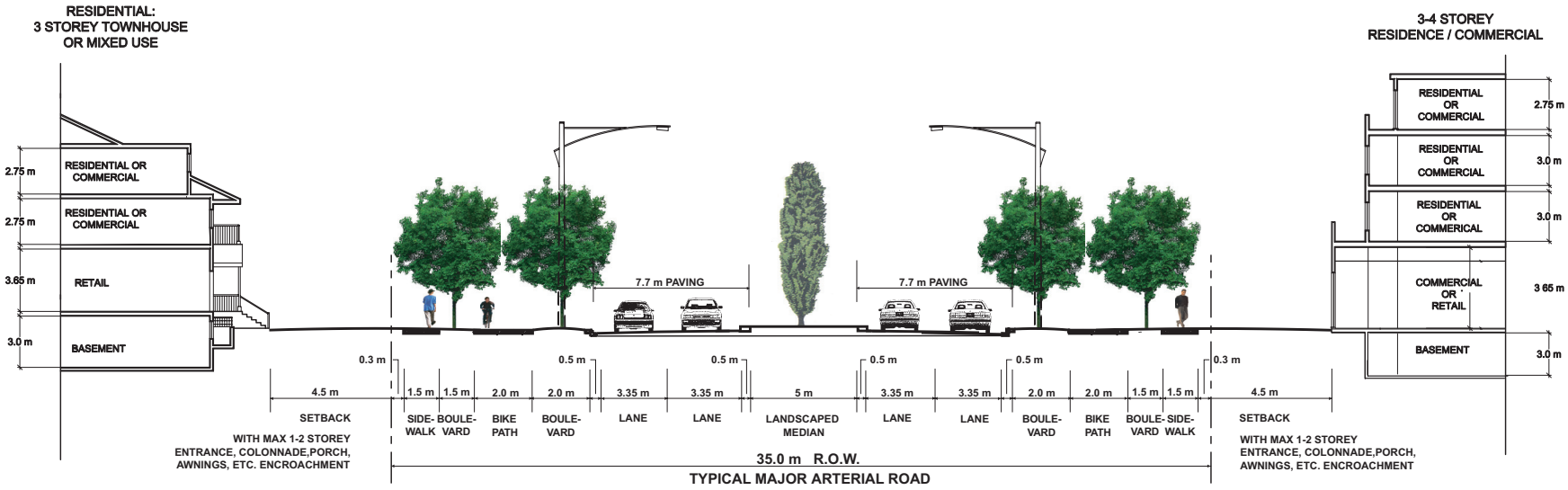

Figure 21: Major Arterial Road should be lined by buildings placed close to the street edge.

The following arterial roads are included in the Secondary Plan area:

1. ***Tremaine Road (RR 22 (Figures 22 and 23):***

- A major community gateway road between the Niagara Escarpment and the western boundary of the Secondary Plan Area. Double rows of trees should be planted where it is developed as an urban cross-section.
- Tremaine Road (RR 22) is realigned north of Main Street and will have a major intersection at Highway 401.
- A combined urban and rural cross-section south of Main Street including enhanced landscape elements to reflect its important role directly adjacent to the Niagara Escarpment **(Figure 22).**

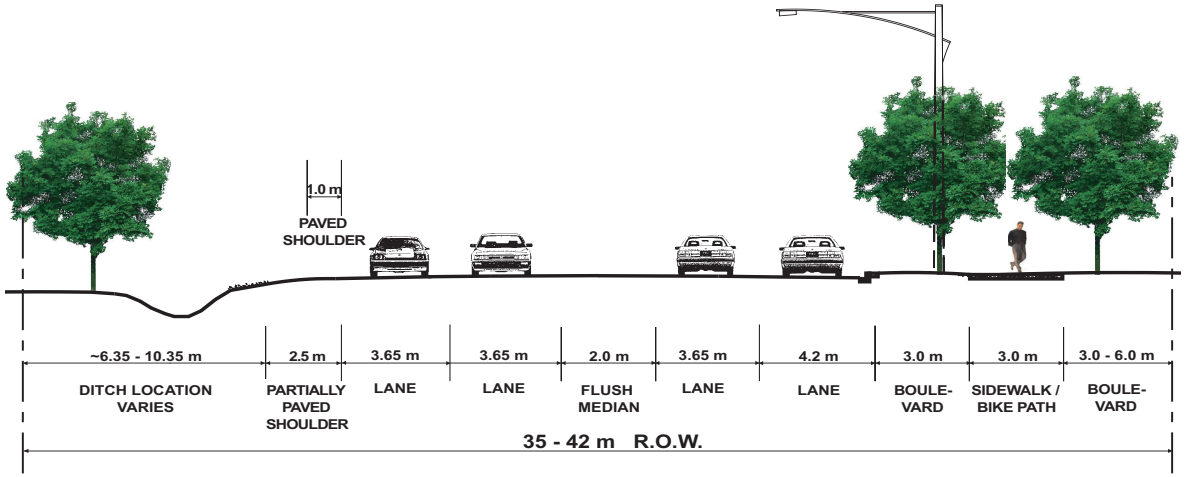

Figure 22: Arterial Road (Tremaine Road (RR 22)) illustrating semi-urban road section adjacent to the Escarpment lands.

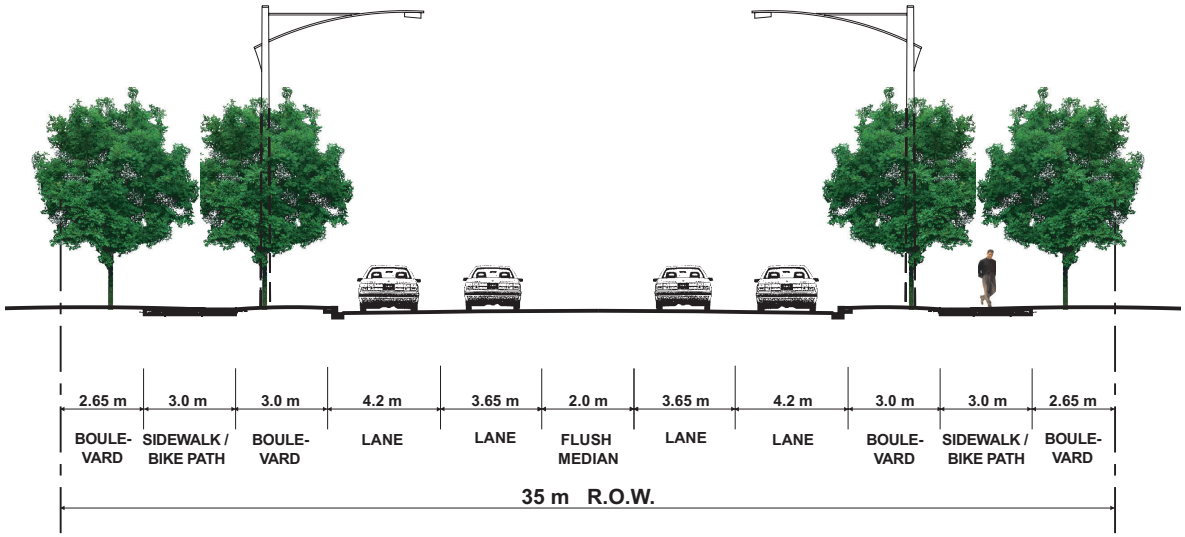

Figure 23: Arterial Road (Tremaine Road (RR 22)) illustrating semi-urban road section adjacent to the Escarpment lands.

2. Main Street (Minor Arterial):

- Existing Main Street is maintained and closed west of the CN Railway once the realigned Main Street is constructed. The existing street is to be maintained and upgraded to support the scale and character of the existing residences. The proposed Neighbourhood and District Parks (Neighbourhood 1) proposed south of Main Street will contribute to views to the Escarpment and through these extensive areas of recreational open space.
- Realigned Main Street alignment dips south of its current alignment to define the Neighbourhood Centre area. The realigned Main Street will provide access to schools, parks and other public focus areas and afford westerly views to the Escarpment.

- NOTE: The existing Main Street will not be closed until the realigned Main Street is constructed.

3. Steeles Avenue (RR 8):

- Existing Steeles Avenue (RR 8) is maintained and closed east of the CP Railway and is realigned to the south to reconnect with existing Steeles Avenue as it intersects with the proposed Tremiain e Road realignment. The existing street should be maintained and upgraded to support the scale and character of the existing residences.

4. Derry Road (RR 7):

- Derry Road (RR 7) will be upgraded to reflect the design elements proposed for Major Arterial Roads.

5. Louis St. Laurent Avenue (Minor Arterial):

- Louis St. Laurent Avenue will be constructed as the new southern boundary road of the Secondary Plan area. As a road with access to major commercial and mixed uses and significant views to the Escarpment, Louis St. Laurent Avenue should be constructed as a primary gateway road to the Sherwood Community. Streetscape treatments should provide a central landscaped median, pedestrian scale lighting, double rows of street trees and feature paving (interlocking brick on a concrete sub-base) on sidewalks and crosswalks at primary road intersections. Buildings should face the street with minimum setbacks and where larger building setbacks do occur, these areas should be defined by landscaped building forecourts. Front yard parking should not be permitted in this prominent location.

6. Regional Road 25:

- Regional Road 25 will be defined through the significant open space area that aligns it including the Community Park, Sixteen Mile Creek and the Union Gas Easement.

7. First Line (Minor Arterial):

- First Line will be predominantly characterized by the commercial, Residential/ Employment uses aligning it.

Enhanced treatments should extend throughout arterial roads to provide a high level of treatment within the boulevard, sidewalk and, where applicable, within the central street median. The roadway should accommodate feature paving at intersections and crosswalks to encourage priority of pedestrian movements over high-speed traffic flow.

Guidelines for Arterial Roads include:

a. Landscape, boulevard and sidewalk treatments should be substantial relative to other street treatments in The Secondary Plan Area.
b. The roadway intersection should provide for a minimum of four traffic lanes and widening for turning lanes where required on either side of a min. 5.0 metre wide landscaped median.
c. The central median should have a combination of grass ground cover and/or feature paving that is coordinated with the location of pedestrian crosswalks.
d. A tall tree species (e.g. Columnar Oak) should be coordinated with the placement of other elements including banners, lighting and public art.
e. Street trees adjacent to the central median should be paired on either side of the public sidewalk.
f. Buildings should be located to have strong exposure to their corner site or view terminus.
g. Locate buildings at minimum setbacks to reflect a traditional village or town image where there is a close relationship between the building at grade and the sidewalk.
h. Buildings above three storeys should apply massing and/or be stepped back to express the base, middle and top of taller buildings, and to control the massing of the building and minimize impacts on adjacent properties.
i. Where appropriate, incorporate taller non-habitable structures or freestanding elements (e.g. towers, signs, entrance pavilions) to frame and signal the importance of the Primary Streets and key terminus/intersection locations.

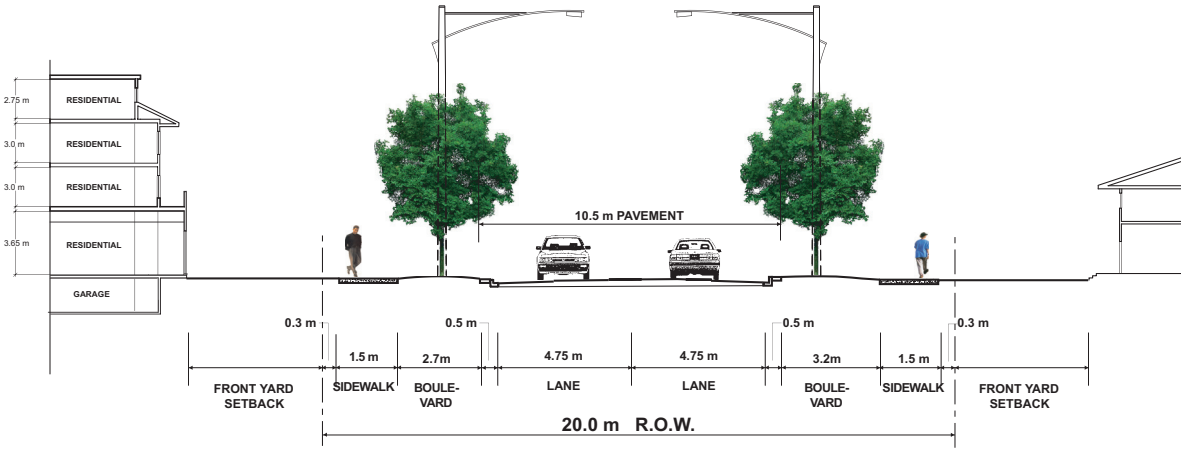

Figure 24: Building height and massing should be designed to fit with transitions in density and the smaller scale of local streets.

3.4.8 Local Streets

Specific guidelines are illustrated on **Figures 25 and 26.**

a. Local Streets: Where feasible within the overall community structure of streets and open space, local streets should be aligned to maximize access and views in the direction of the Niagara Escarpment.
b. Significant single loading of local streets (min. 50% of the perimeter) is recommended at parks, creeks, woodlots and stormwater management ponds.
c. Local Streets should support low traffic speeds within neighbourhoods. Where feasible, smaller right-of-ways are encouraged to create a more intimate, pedestrian scaled neighbourhood setting.
d. Local streets will be designed with a high degree of pedestrian amenity including sidewalks, lighting, street trees and on-street parking that could alternate street side location.
e. Building height and massing should be designed to fit with transitions in density and the smaller scale of local streets. **(Figure 24)**

Note:
The double row of trees should be applied for roads aligned with principal Escarpment views.

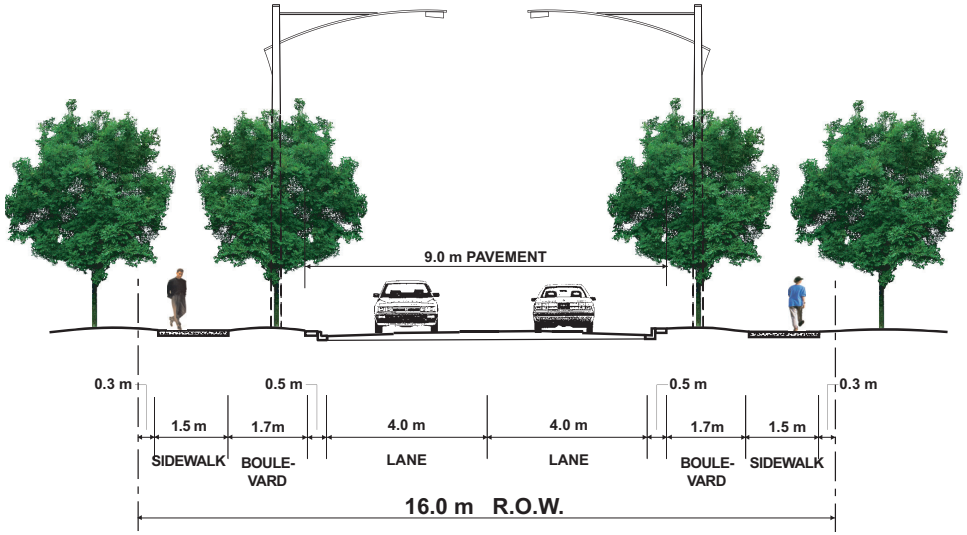

Figure 25: Local Road Typical Treatment.

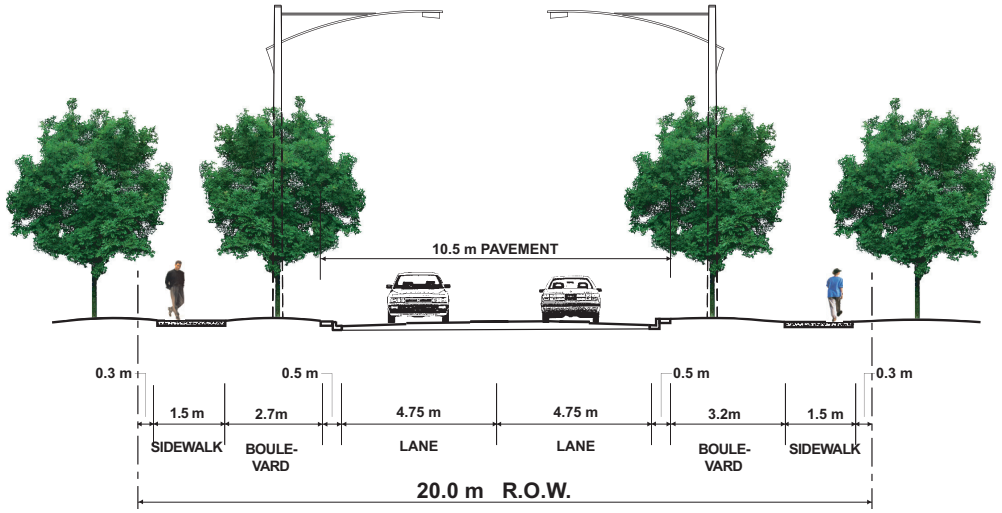

Figure 26: Local Road Enhanced Treatment for roads aligned with principal Escarpment views.

3.4.9 Collector Roads

Collectors (23-26 metres): Collector Roads are proposed to support pedestrian and vehicular links between the neighbourhoods. Community Collectors will be designed with a high degree of pedestrian amenity including sidewalks, lighting, double rows of street trees where transit routes are planned, on-street parking and on-road cycling lanes (where permitted). Specific guidelines are illustrated on **Figures 27 and 28.**

3.4.10 On-Street Parking

On-street parking should be provided on at least one side of the street where appropriate (i.e. Commercial and Mixed Use Areas).

On-Street Parking Guidelines:

a. Driveways on lots less than 12.0 metres should be paired to increase opportunities for on-street parking (where permitted).
b. Consideration to permit on-street parking to reduce the number of cars required to park on the lot should be given with respect to all lot sizes.

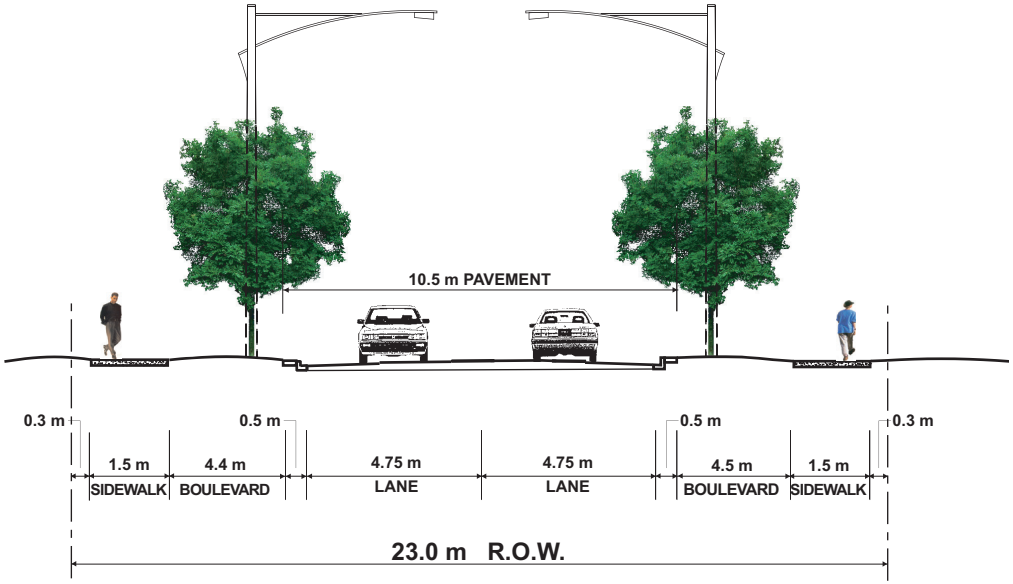

Figure 27: Minor Collector Road Typical Treatment.

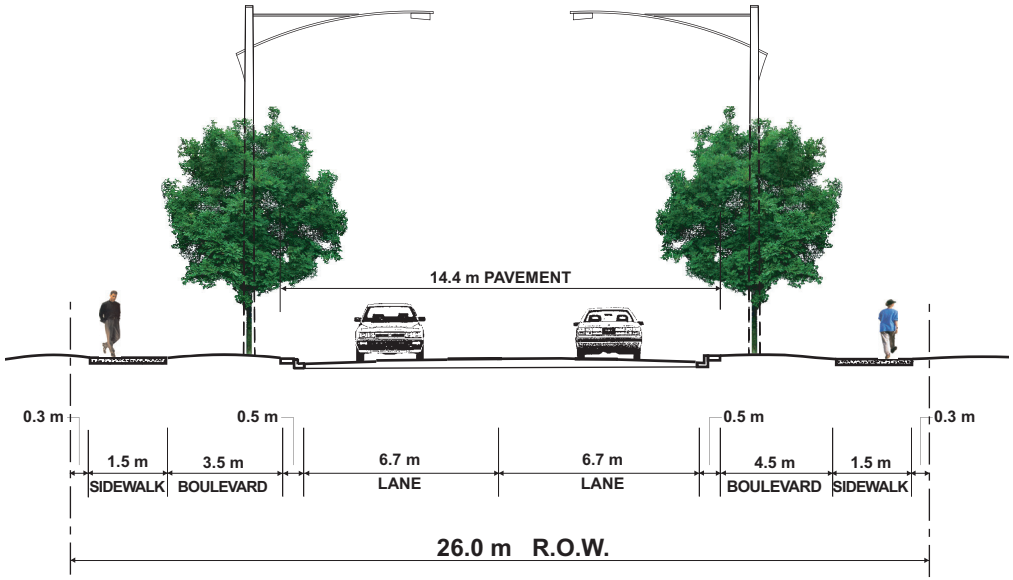

Figure 28: Major Collector Road Enhanced Treatment, adjacent to parks and open space.

3.4.11 Above Grade Utilities

Above grade utilities on residential streets including hydro, telephone and cable boxes generally create a negative streetscape appearance, particularly when placed in highly visible areas of the public right-of-way. Streets that have smaller lots require a greater number of above grade utilities and the location of above grade services reduces opportunities to plant street trees.

Above Grade Utility Locations Guidelines:

a. The general location of all utilities should be addressed at the Block Plan stage for new communities.
b. Staff should examine the opportunity for grouping utilities in single locations above grade (e.g. the flankage yard of the public right-of-way) or underground. Such locations should be guided by the location and primacy of streets, storm water management facilities, parks and major Open Space Systems.
c. Staff should continue to work with the utility companies to examine ways to determine and improve the interface of the utilities within new communities.

3.4.12 Community Entrance Features

Community features are often used to introduce entry to a community or individual neighbourhood. The number of entrance features should be limited within neighbourhoods at local road intersections, in addition to major community entrance features at arterial and collector roads.

a. Community entrance features should be located within the municipal reserve of the public right-of-way. The reserve block shall be dimensioned to fit the entrance feature
b. Setbacks between the entrance feature and a private dwelling must be a minimum of 3.0 metres. A front or wrap-around front porch may encroach into the 3.0 metre setback a maximum of 1.5 metres, leaving a 1.5 metre 'no-encroachment zone'.
c. The entrance feature should not project into the daylight triangle.
d. Entrance features should be limited to major entrance feature locations at arterial and collector roads.

4.0 PRIVATE REALM GUIDELINES

4.1 RESIDENTIAL DESIGN PRINCIPLES

1. ***Create a Strong Public Face:*** House designs that accentuate actively used elements, including windows, front porches and steps combined with a variety of rooflines, create a positive street image over those elements such as front attached garages or blank walls which tend to replace the active house areas from the front of the house to the rear of the house **(Photo 23).**

2. ***Automobile Storage should be Subordinate:*** In traditional neighbourhoods where the garage is not readily visible from the street, the house façade tends to have greater expression through opportunities to emphasize the front entrance, porch, bay windows etc. This is in contrast to many newer local subdivisions where the garage is placed forward of the front wall of the house, and is often the widest element of the front façade.

3. ***Create Dual Frontages on Corner Lots:*** Give positive expression to the two street frontages through the use of wrap around front porches, sunrooms, bay windows and side entrances. Privacy fencing should be limited to screening the back yard only **(Photo 24).**

4.2 GENERAL RESIDENTIAL GUIDELINES

Key Policies:

a. A general minimum setback of 4.5 metres and a mix of architectural treatments will provide variety in the building street wall.
b. Where rear yard garages are provided, a minimum 3.0-metre front yard with a 1.5 metre "no-encroachment zone" should be permitted.
c. Privacy fencing for dwellings on corner lots and flank lots should be encouraged to occupy no more than 50% of the lot frontage measured form the rear property line to minimize extensive lengths of uninterrupted fences **(Figure 30)**. Due regard for sight lines is required when placing fences.
d. Housing should front onto streets and open space wherever possible.
e. Flanking lots should be subject to architectural controls for windows, porch design etc. to encourage positive façade treatment facing these publicly visible areas.
f. Access to parking and/or garages should generally be encouraged to mix a variety of options including from the street to front facing and rear yard garages, and where appropriate, from a rear lane.
g. The opportunity to build on a variety of large and small lot sizes should contribute to the variety of dwelling types and garage treatments

Photo 23: Single detached housing

Photo 24: House with frontage on two streets.

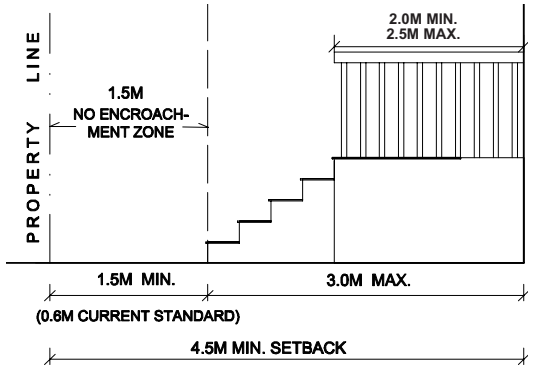

Figure 29: Typical section through front porch

in a single diverse and distinct neighbourhood.

h. Front porches or covered entrances are strongly encouraged as a transitional area between the principal building and the front yard to provide both visual interest to the building and the opportunity for informal social activity contributing to casual surveillance and safety of the street. Front porches and projecting bay windows are encouraged front yard encroachments; however, no part of the encroachment including rails or stairs shall be within the "no-encroachment zone" **(Figure 29).**

i. Higher density housing should be generally placed along arterial, collector or major local roads, as well as around open spaces and at the end of blocks or view terminus.

j. Housing adjacent to woodlot, watercourse, stormwater management ponds and mature trees should establish reasonable buffer zones to maximize the retention of these natural features.

k. Dwellings on corner and flankage lots, and at the terminus of streets should employ building elements (e.g. turrets, bay windows, wrap-around porches) and other designs that emphasize their visibility and potential role as landmarks or orienting structures within the community.

l. Decks should be used as outdoor amenity spaces, using trellises and canopies to provide privacy between dwellings and weather protection.

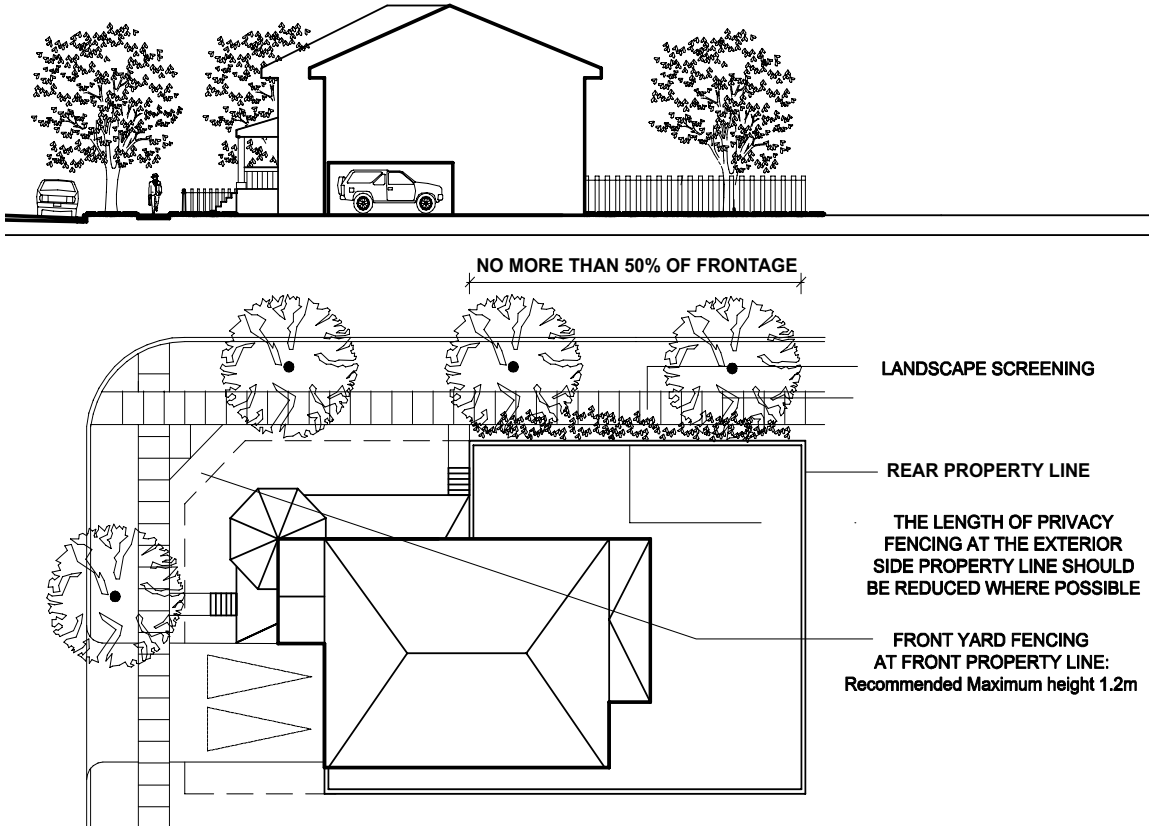

Figure 30: Minimize privacy fencing to occupy no more than 50% of the lot frontage measured from the rear property line.

4.3 SINGLE DETACHED, SEMI-DETACHED, DUPLEXES AND TOWNHOUSES

See Table A, and the accompanying Guideline drawings.

4.3.1 Minimum Front Yard Setbacks

For the purposes of the following Guidelines, the definition of 'main building façade' shall mean the front wall of the building on the ground floor that contains the front door to the house. In the case of a corner lot where the front door faces the interior side yard, the main building façade shall mean the ground floor wall of the habitable (non-garage) portion of the dwelling **(Figures 31 and 32).**

a. Front yard setbacks should generally be a minimum of 4.5 metres with the exception of lots providing rear yard garages, which should permit a minimum 3.0-metre setback.
b. Front yard setbacks should apply to the full range of residential lot frontages.
c. All front yards should have a minimum 1.5 metre "no encroachment" area. The balance of the setback may be encroached upon with non-interior building elements including porches, steps, roof elements etc. Front yard setbacks should generally not exceed 7.5 metres, with the exception of lots on a cul-de-sac or angle bend that may require larger setbacks as a result of lot configuration.

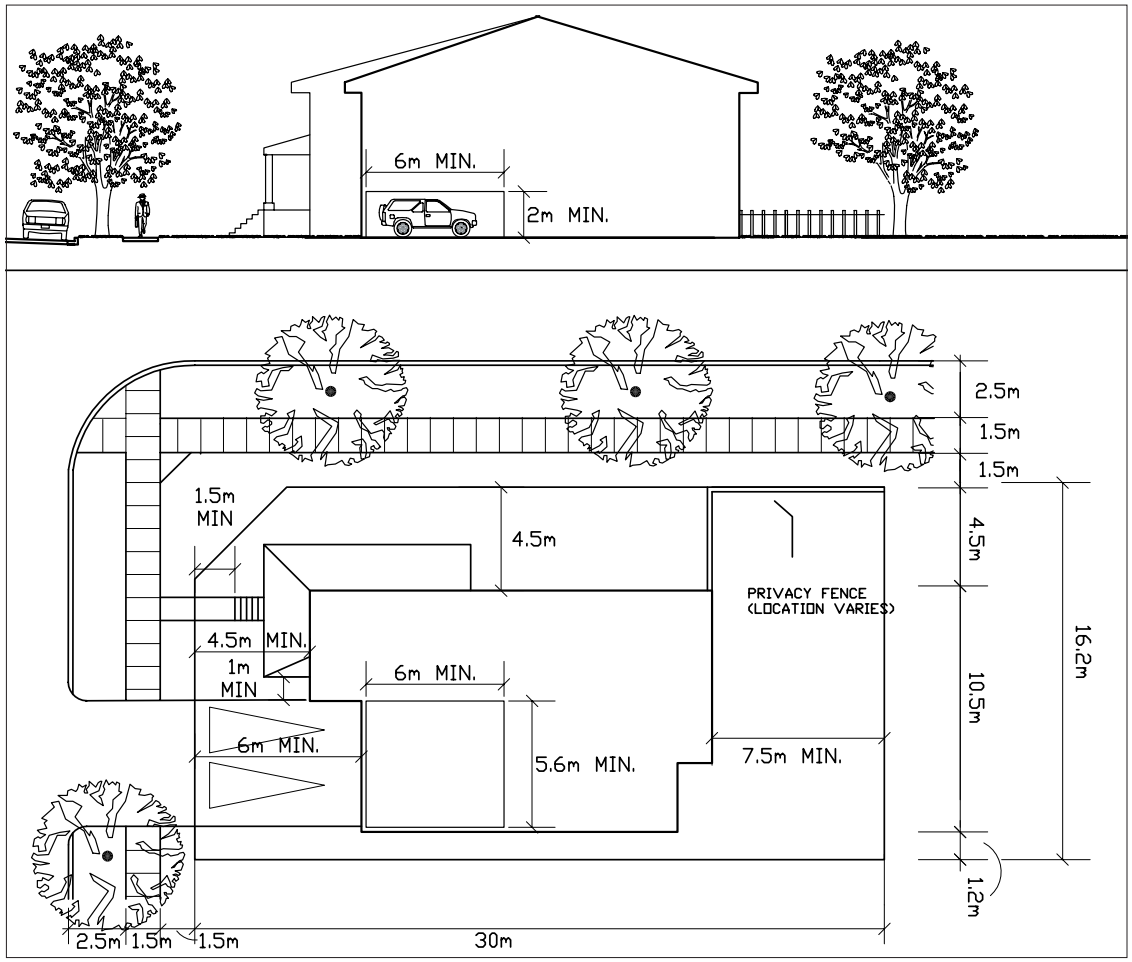

Figure 31: Front yard setbacks should generally be a minimum of 4.5 - 6 metres for single detached, semi detached and townhouse lots.

d. From the property line to the front face of a front attached garage the minimum front yard setback shall be 6.0 metres. This setback shall apply regardless of the placement of a sidewalk or not.
e. The minimum front yard setback on a lot with a rear garage, accessed by a driveway or rear lane shall be 3.5 metres.
f. A range of front yard setbacks (from 3.5 to 6.0 metres) is recommended in order to achieve a diversity of setbacks on the streetscape.
g. Front porches may encroach into the front yard by a maximum of 3.0 metres including access steps of which the front porch may be a maximum depth of 2.5 metres. A 1.5 metre "no-encroachment zone" should be maintained between the furthest front dwelling wall or front porch (including access steps) and the property line.

4.3.2 Minimum Interior Side Yard Setbacks

a. On a lot less than 12.0 metres, the minimum interior side yard setback should be 1.2 and .6 metres.
b. On a lot greater than 12.0 metres, the minimum interior side yard setback should be 1.2 and 1.2 metres.
c. On a lot with a garage located in the rear yard accessed by a driveway, the minimum interior side yard setback should be 3.5 and 1.2 metres.

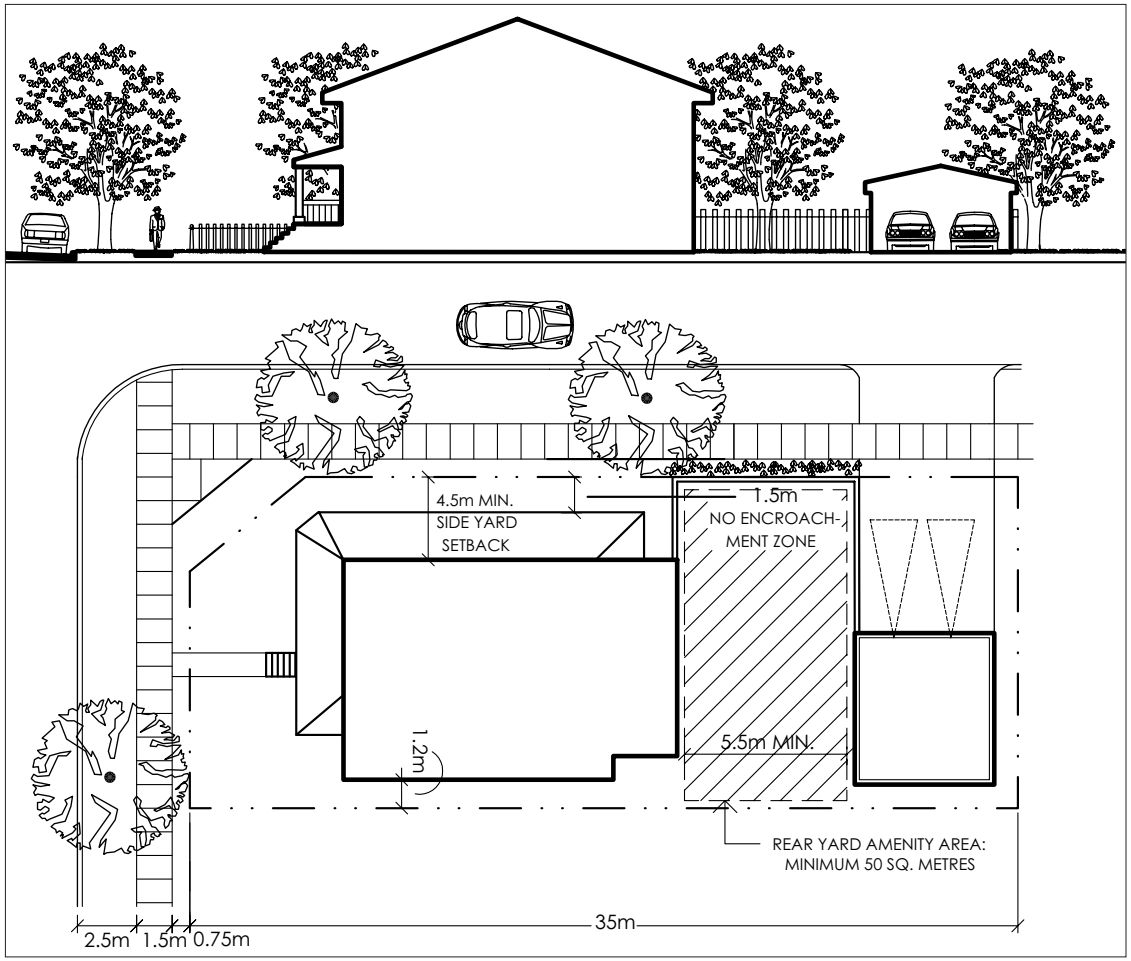

Figure 32: Single detached lot with detached garage

No	TABLE A Provisions Re: Single, Semi-detached, Duplex and Townhouse Dwellings	Proposed Standard (metres)
1	**Minimum Front Yard Setback** - From property line to front face of attached garage. - *Minimum Front Yard Setback* - on a lot accessed by a driveway - on a lot with a front porch (permits porch, steps and rails max. encroachment of 3.0m) - on a lot where the garage is in the rear yard accessed by a lane or driveway	 6.0 4.5 4.5 3.0
2	**Minimum Interior Side Yard Setback** - attached garage/ More than 12.0 m lot - attached garage/ 12.0 m lot and less - garage located in the rear yard accessed by a driveway - abutting a non-residential use (including a walkway, natural element and SWM ponds)	 1.2 and 1.2 1.2 and 0.6 3.5 and 1.2 3.5 and 1.2
3	**Minimum Exterior Side Yard Setback** - with a side yard porch - adjacent to a rear lane - adjacent to a site triangle - site triangle abutting an entrance feature (including a max. 1.5 metre encroachment)	 4.5 3.0 1.2 3.0
4	**Minimum Rear Yard** - on lot accessed by a driveway - on a lot with a rear yard garage accessed by a lane or driveway - on a wide shallow lot	 7.5 15.0 7.0
5	**Interior Garage Dimensions** - less than 12.0m lots - 12.0 m lots and greater **Maximum Garage Projection** - from front wall of dwelling where there is no front porch - from front wall of dwelling where there is a front porch	 Min. 3.0 wide by 6.0 Min. 5.5 wide by 6.0 Max. 1.0 Max. 2.0
6	**Minimum Lot Depth**	23.0
7	**Maximum Building Height**	11.0

d. On a lot abutting a non-residential use (including a walkway) the minimum interior side yard setback should be 3.5 and 1.2 metres.

4.3.3 Minimum Exterior Side Yard Setbacks

a. The minimum exterior side yard setback (including those with a side yard porch) should be 4.5 metres with a "no-encroachment zone" of 1.5 metres.
b. Porches may encroach into the exterior side yard by a maximum of 3.0 metres including access steps of which the front porch may be a maximum depth of 2.5 metres. A 1.5 metre "no-encroachment zone" should be maintained between the furthest front dwelling wall or front porch (including access steps) and the property line.
c. On lots adjacent to a rear lane, the minimum exterior side yard setback should be 3.0 metres.
d. On lots adjacent to a site triangle (including those with a front or side yard porch), the minimum exterior setback should be 1.2 metres.
e. On lots adjacent to a site triangle (including those with a front or side yard porch) abutting an entrance feature, the minimum exterior setback should be 3.0 metres of which a porch may not encroach beyond the 1.5 metre "no-encroachment zone" set back from the property line.

4.3.4 Minimum Rear Yard Setbacks

a. On lots accessed by a driveway, the minimum rear yard setback should remain as 7.5 metres measured from the rear face of the garage, or rear property line, to the rear face of the dwelling.
b. On lots with a rear yard garage, the minimum rear yard setback should be 15.0 metres.
c. All other lots should have a minimum rear yard setback of not less than 7.5 metres measured from the rear property line to the rear face of the dwelling.
d. Rear yard decks/porches and garden sheds should be permitted as rear yard encroachments, provided the rear yard is a minimum 7.5 metres in length, excluding rear yard garages that are attached to the dwelling or at the rear of the property (lane or driveway access). It is recommended that where feasible, a 50 square metre landscaped amenity space (excluding driveways) be maintained for single detached and semi-detached dwellings and 45 square metres for duplex, triplexes and townhouses.

4.3.5 Minimum Lot Depth

a. The minimum lot depth should be 27.0 metres.

4.3.6 Maximum Building Height

a. The maximum building height should be 11.0 metres for single, semi-detached, duplex and townhouse dwellings.
b. Building height shall be measured from grade level at the front of the house to the mid-point of the roofline for a pitched roof, or the midpoint of the parapet for a flat roof.

4.3.7 Semi-Detached Lots

a. The minimum lot frontage should be 7.5 metres per dwelling unit.
b. See Table A for minimum setbacks.
c. Only attached semis where two dwellings share a fully attached party wall should be allowed on semi-detached lots. **(Figure 33)**

4.3.8 Garage Dimensions and Projections

In general, the interior width of the garage should be a maximum 50% of the lot frontage. The following Guidelines propose standards for interior garage widths that maintain this principle of a balanced house to garage frontage, and ensure that appropriate interior dimensions for attached or detached garages are applied. See **Figures 34, 35 and 36** for minimum garage sizes.

a. On lots less than 12.0 metres, interior one-car garage dimensions should be a minimum 3.0 metres wide by 6.0 metres deep.
b. On lots 12.0 metres and greater, interior two-car garage dimensions should be a minimum 5.5 metres wide by 6.0 metres deep.
c. The minimum height clearance

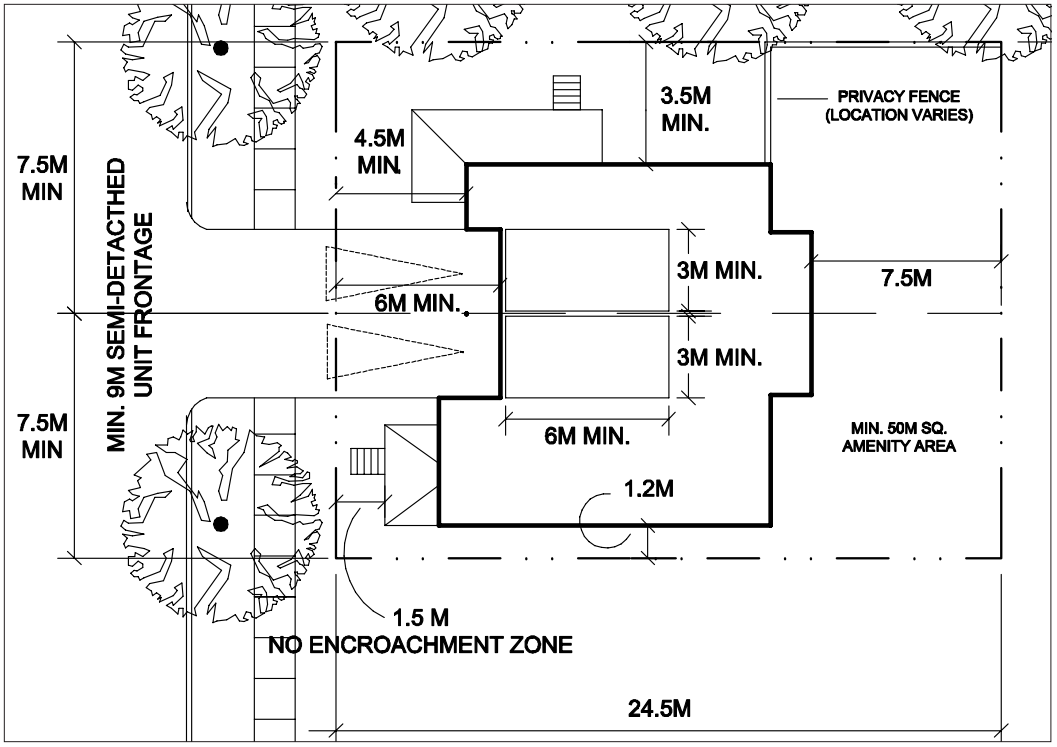

Figure 33: Front yard setback recommendations for semi-detached end lots.

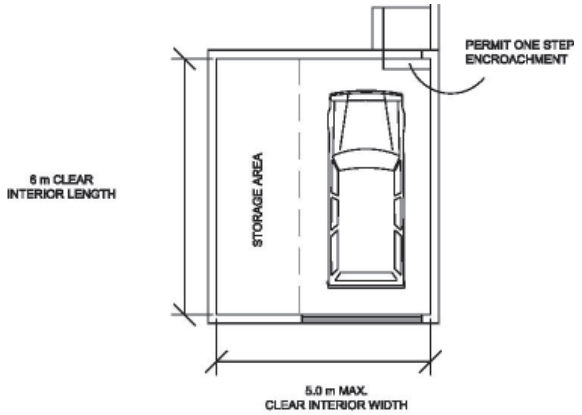

Figure 34: Single car garage with storage space.

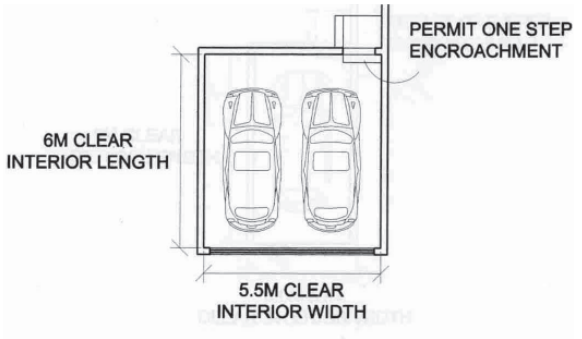

Figure 35: Double car garage.

Figure 36: Garage sections illustrates minimum 2.0m height clearance.

from structural or mechanical encumbrances (including overhead bulkheads, lofts, garage closures, etc.) in the garage should be 2.0 metres.

d. The maximum garage projection in front of the main wall of the house should be 1.0 metre where there is no front porch, and 2.0 metres where there is a front porch.

4.3.9 Attached Front Garage Lots

The primary issues with respect to attached front garages relates to the proportion of the garage over the habitable portion of the house at grade. Opportunities to provide front porches, windows and front facing rooms are minimized. Public safety through CPTED (Crime Prevention Through Environmental Design) opportunities for casual surveillance of the street from the house are limited.

a. To reduce the garage dominance on the streetscape, as a general rule, the maximum width of garages should not exceed 50% of the width of the dwelling. See Table A.
b. The maximum garage projection from the front face of the house shall be 1.0 metre where there is no front porch and 2.0 metres where there is a front porch.

4.3.10 Driveways and Tandem Parking

a. Driveways should be straight and not tapered, and be as wide as the outside dimensions of the garage.
b. The draft plan of subdivisions must be reviewed and approved to ensure that lots have the appropriate curb frontages to accommodate straight and non-tapered driveways.
c. Maintain driveway standards respecting the separation of abutting driveways and setbacks to street hardware including above grade utilities and light standards.
d. Tandem parking should be discouraged in the front yard. This will result in the reduction of excessive garage setbacks required for front yard tandem parking and will create a more desirable relationship of garage face to habitable dwelling face.
e. Require the submission of engineering construction drawings that will specify the location and size of driveways on a lot. Driveway locations must include the locations of all on street hardware and provide for driveway widths that comply with the zoning by-laws. These locations must provide for straight and non-tapered driveway locations taking in to account the proposed house location
f. Existing lot grading criteria should be reinforced to ensure that driveways are built straight and are not tapered. The house designs and locations must be altered or revised to ensure the appropriate relationship between the driveway and the street edge is provided.

4.4 MULTIPLE UNIT BUILDINGS

The design of townhouse, multiplex and apartment buildings should consider the overall form, massing, proportions, and the rhythm of major repetitive building elements and roof designs to create a street façade that is composed of a consistent and attractive variety of building elements.

4.4.1 General

a. End units in a townhouse or multiplex block should place windows and entrances facing the public street and along pedestrian walkways where appropriate to encourage these areas to be attractive, active and safe.
b. The proportion of rooflines, wall planes and openings should be consistent with other buildings on the street.
c. Ground floor units should have individual at-grade access. Upper floor units should be emphasized through articulations of the exterior wall plane and roof, and the use of pronounced building elements including bay windows, balconies and dormers.
d. Primary building entrances should clearly address the street with large entry awnings and provide visibility to interior lobbies to allow for safe and convenient arrival and departure from the building.
e. Pedestrian entrances to parking and service areas within the principal building should be combined with exposed communal areas such as exercise areas or meeting rooms to provide casual surveillance opportunities.

4.4.2 Townhouse Lots

a. The minimum lot frontage for townhouse units shall be 6.0 metres. It is recommended that end units be wider to balance the proportion of house and garage to overall frontage.
b. A maximum of six townhouse dwelling units should be attached together in a single row.
c. See Table A for setbacks, garage treatments and building height provisions. **(Figure 37, 38 and 39)**

4.4.3 Rear Lane Townhouses (garage facing rear lane)

a. The minimum separation between the dwelling unit and the detached garage should be 7.5 metres.
b. The minimum side yard for townhouse end units should be 2.0 metres to facilitate access for emergency services.
c. A maximum of two garages shall be paired together with minimum setback of 1.2 metres on either side.
d. Fencing shall include a gate within one of the side yards to allow entry between the lane and rear yard.

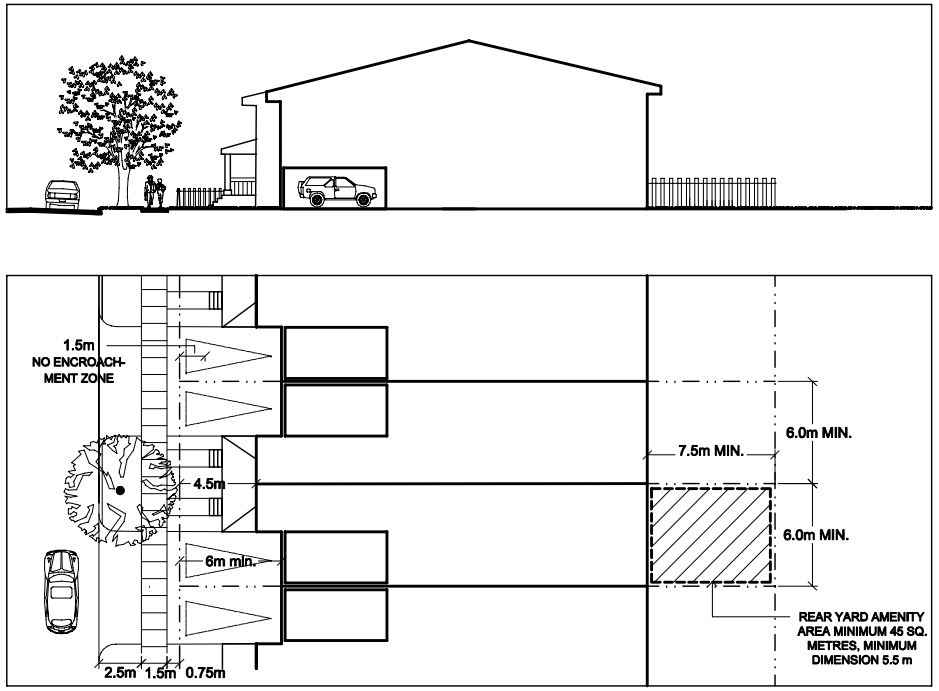

Figure 37: Front yard setback recommendations for townhouse lots.

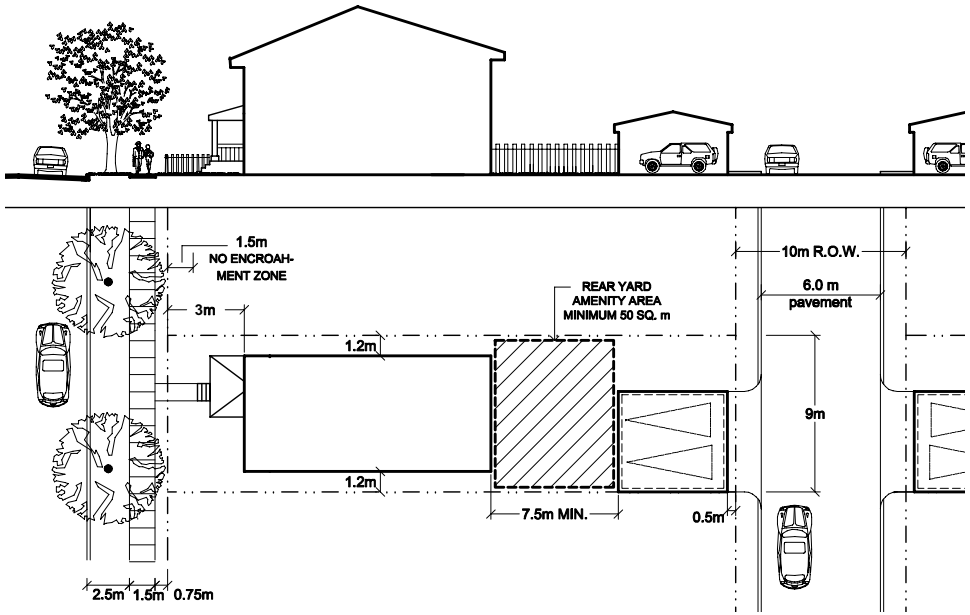

Figure 38: Lots with rear yard garages should permit a minimum 3.0 metre setback.

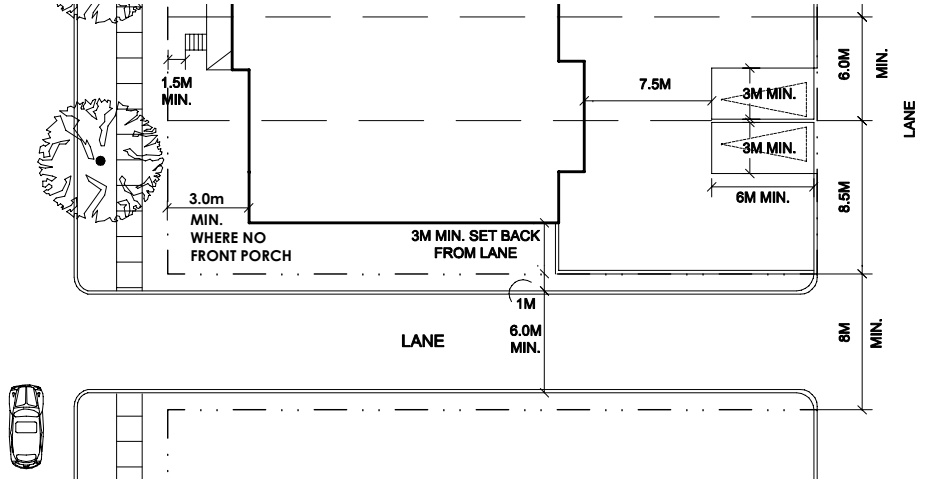

Figure 39: 3.0 metre minimum exterior sideyard setback at rear lane.

4.5 EMPLOYMENT AND MIXED USE AREA GUIDELINES

The following Guidelines address the elements of commercial, mixed use and public use building design. The following land use areas apply:
District Centre, Secondary Mixed Use, Business Park, Residential/Employment, Institutional and Residential/Office.
Collectively these employment areas should fit well within the context, scale and image of the adjacent existing and proposed neighbourhoods **(Figure 40).**

Similar to the design of the neighbourhoods, the employment areas should support the design principles of:

a. A high standard of building design and street design that promotes the use of transit;
b. Building design that provides continuity to and enclosure to the street and Open Space System through a combination of 'Street Edge' and 'Campus' site plan designs;
c. Site plan design that articulates building setback and massing criteria, parking location, outside storage or display and street edge treatment in relation to development;
d. Active at-grade uses that combine uses such as retail, service commercial and cafes with recreation areas, open space and street edges to reinforce a sense of animation and safety;
e. New development that is compatible with adjacent development, natural features and open space;
f. Building design that contributes to the visual interest of the community and the Town.

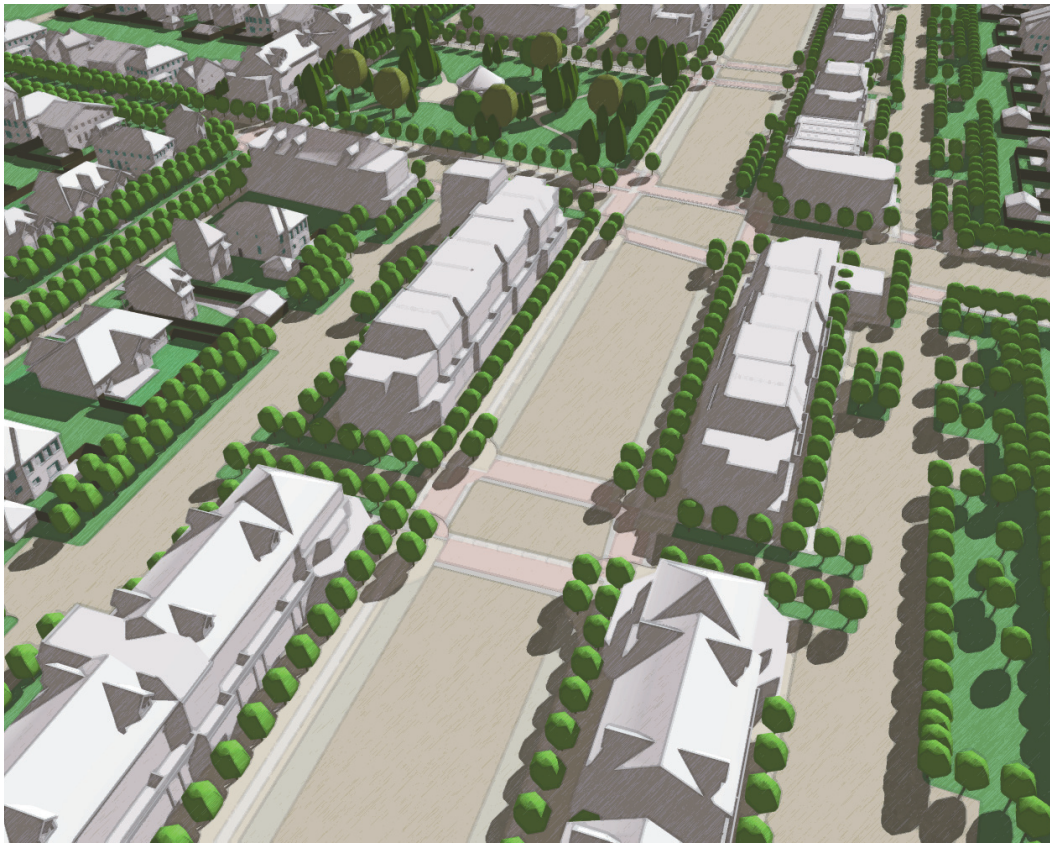

Figure 40: The Secondary Mixed Use Node should be developed to support transit, and pedestrian scale development within a compact mixed-use village centre.

4.5.1 General

The following general guidelines address all new development, infill, and re-development related to Employment and Mixed Use areas.

Design Guidelines:
a. A substantial building facade fronting the public street at the minimum setback line is encouraged in order to define a more urban street edge.
b. In general, the building frontage should be proportional to the lot

frontage and the proposed front yard setback.

c. The percentage of building frontage should increase proportionally for wider lots.
d. To enhance building visibility and quality, built form and massing should emphasize key elements including building entrances and forecourts. In particular, variations in articulation of the building envelope are encouraged.
e. The scale of the building should be compatible with neighbouring properties, particularly when adjacent to open space, or where another dissimilar land use abuts.
f. Building massing should minimize impacts on neighbouring properties with respect to privacy, noise, and sunlight.
g. Corner buildings should be located with smaller setbacks to reinforce their focal role. Entrances should be located at or close to the corner.
h. Building heights should be determined on an individual basis according to site context, adjacent development, and impact on views to the Escarpment and open space system.
i. Building facades that are visible from the street should apply some amount of architectural expression beyond blank, single material walls. Treatments should include colour and material variations, windows, and articulations in the wall plane.

4.5.2 Secondary Mixed Use, Residential Employment Area, Institutional and Residential Office Areas

To promote creation of a special character within these employment areas, and in particular the objective of promoting a greater mix of uses including residential, consideration should be given to the development of higher densities, in locations that are adequately buffered from existing and proposed low-density residential areas**.**

Buildings should be flexible in design to accommodate future conversions between residential, mixed and commercial uses. The following general guidelines should be applied.

a. Encourage a minimum building height of 14 metres to accommodate the flexibility of building either a three storey commercial building or a four storey mixed-use building with retail at grade and three residential floors above **(Figure 41).**
b. For buildings taller than 12 metres, a minimum setback of 1.5 metres for the upper floor must be provided where the building faces a street, lane or other public area to mitigate the perception of overly tall structures.
c. Both the setback and height limit provisions should be calculated on an average basis to allow for pitched rooflines.
d. Live-work units accommodating home-based businesses, studio type businesses or residential loft-type living should be encouraged.
e. All units should have a principal façade and front door that is accessible at grade level from a public street, public lane or private lane.
f. Parking areas should be well screened from the public street preferably located at the rear of each unit and accessible via a public or private laneway **(Figure 42).**
g. To create a transition between these mixed use employment areas and adjacent residential areas, traditional house form elements including pitched roofs, gable ends, dormer windows, front porches, front steps and other architectural features should be incorporated into the design of buildings facing or directly adjacent to residential neighbourhoods.

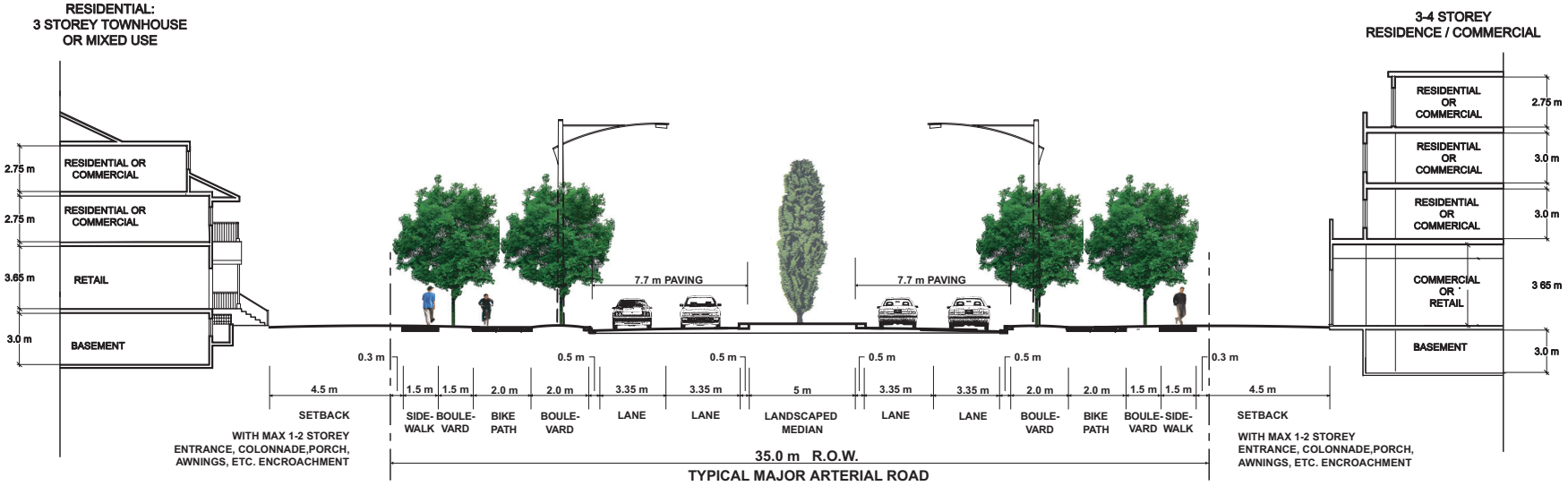

Figure 41: Secondary Mixed Use Node section illustrating potential residential, commercial or mixed-use scenario.

Figure 42: Screen Parking from public streets by locating it to rear of buildings.

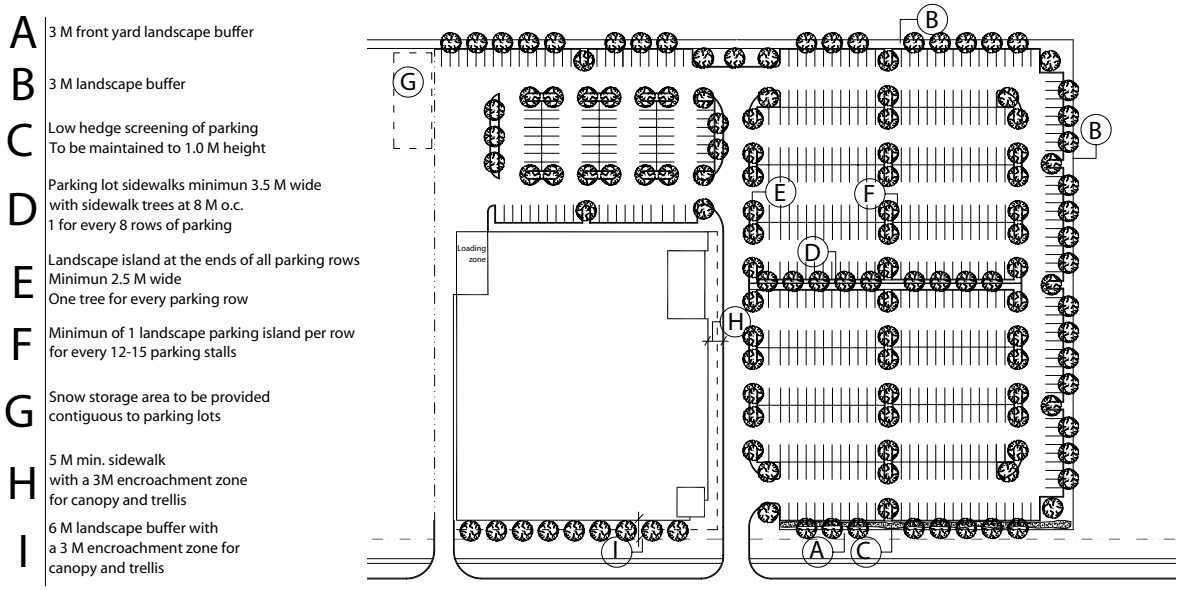

Figure 43: Landscaping should be used to define smaller parking areas and site edges.

4.5.3 Local Commercial Areas

The three local commercial areas at the Tremaine/Derry, Derry/the new north south Collector and Tremaine/realigned Main Street intersections should be developed to emphasis built form over large expanses of surface parking. Commercial buildings should be placed at the street edge where feasible. Large format retail should minimize parking in the front yard **(Figure 44, 45, 46 and 47).**

a. Buildings should be positioned close to the street edge (max. 3.0 metres) to reinforce an urban streetscape.
b. Buildings at the Tremaine/Derry and Tremaine/Main Street intersections should be designed to address the intersection and provide a pedestrian entrance into the development at the corner or directly adjacent to it.
c. Street edges and public spaces (entry forecourts, courtyards) should incorporate consistent landscape edge treatments to enhance the image of buildings and screen surface parking areas.
d. Street facing building façades should incorporate substantial glazing, entry elements (colonnades, canopies, awnings) and architecturally integrated signs.
e. Building elevations should be developed with equal design quality on all sides.
f. Service areas should be screened from public view.
g. Surface parking areas should be defined by interior planted walkway connections to major building entrances **(Figure 43).**

4.5.4 Secondary Mixed Use Area

a. Retail, commercial and residential uses within the Residential/ Employment, Residential/Office, District Centre, Neighbourhood Centres and Secondary Mixed Use Area should create opportunities for active at grade uses including local shops, restaurants, parks and eventually other public destinations (i.e. Daycare, library, place of worship) that will serve the developing residential community.
b. Buildings should be low-scale in keeping with the creation of a village character. Where buildings are taller than three storeys, the upper floors must employ stepped elevations to reduce their visual mass.
c. Mixed-use buildings should be comparable in height and mass to adjacent residential buildings. The architectural character of these buildings should be complementary to the local vernacular, without precluding the design of contemporary buildings.
d. Incorporate new surface parking or service areas as unobtrusively as possible, at the side or rear of properties. Parking behind buildings should have a direct walkway connection between the public street and the parking area.
e. Built form and the alignment of streets and blocks should frame streets leading to natural features, and in particular should emphasize and frame Escarpment views.
f. Emphasize the priority of pedestrians through enhanced streetscape treatments within the Secondary Mixed Use Node mixed use area through elements including: **(Figure 48)**
   - Double rows of street trees (where feasible)
   - Upgraded sidewalk treatment
   - Feature Pedestrian Scale lighting
   - Lay-bys for on-street parking

Figure 44: Larger formal commercial buildings within the Secondary Mixed Use Node and Local Commercial Area should reinforce a street presence by placing buildings at minimum building setbacks.

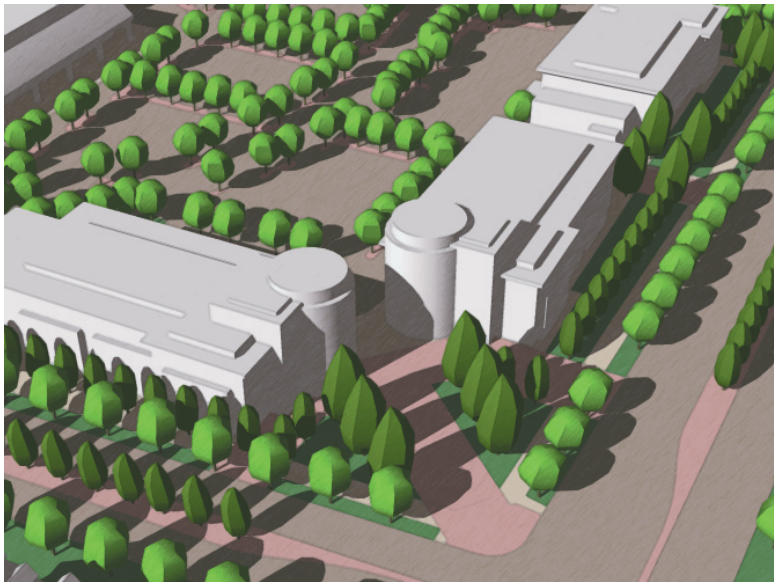

Figure 45: Corner buildings should frame the intersection and provide pedestrian access into the development.

Figure 46: Provide a maximum building height of 3 storeys adjacent to residential areas.

Figure 47: Create connections between buildings and subdivide interior parking areas with planted drive aisles and walkways.

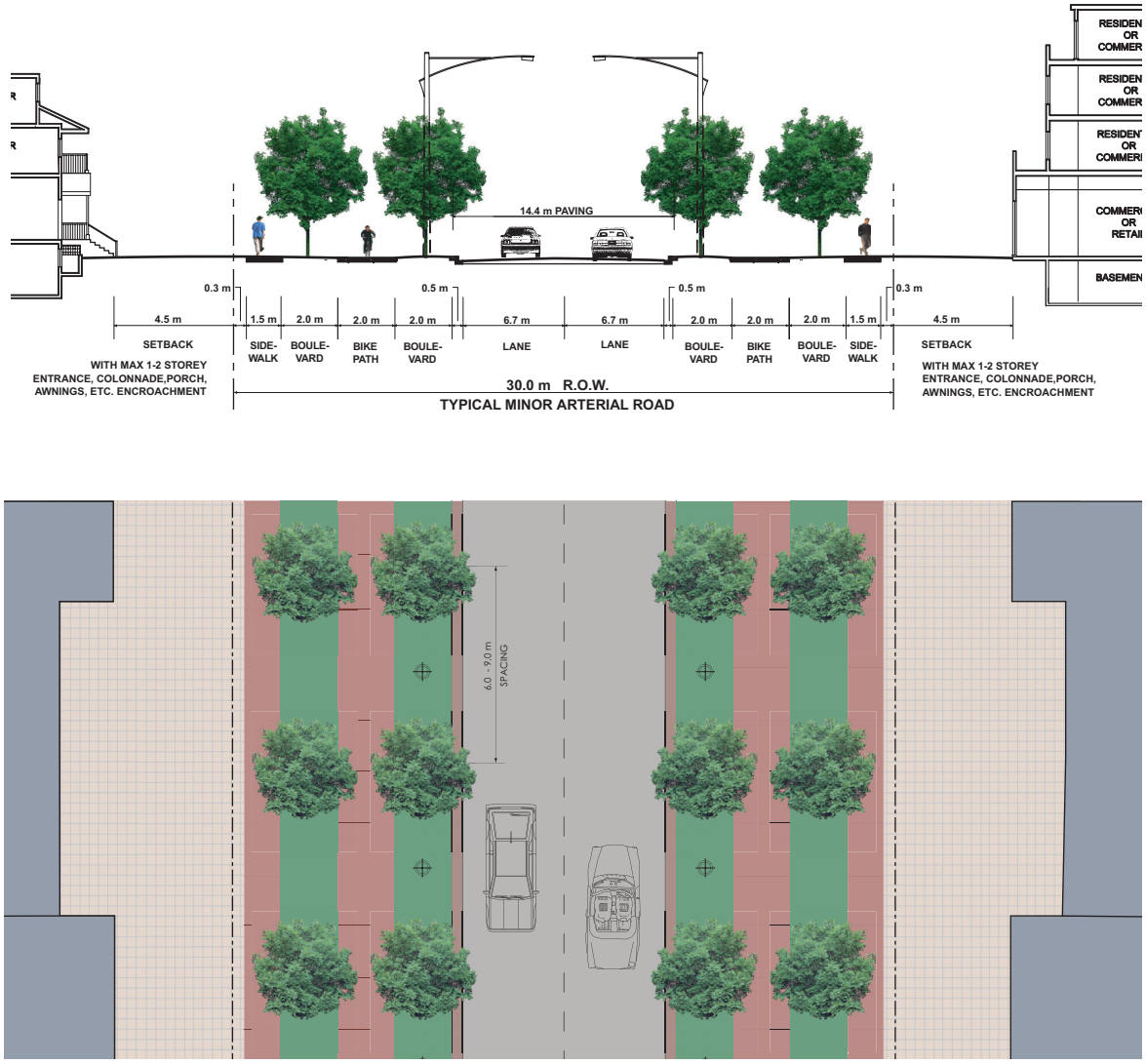

Figure 48: An emphasis on the design of the Louis St. Laurent Avenue streetscape should be made within the Secondary Mixed Use Node mixed use area.

4.5.5 Outdoor Storage and Service Areas (Figures 49 and 50)

Outdoor storage areas must be screened from public view through architectural screening, landscape buffering, berms or a combination of such treatments

Service, delivery and outdoor storage areas should not be visually obtrusive. The visual impact of service and delivery areas should be minimized; especially views of such areas from public ways and along designated view corridors. Outdoor storage must not be permitted within front yards adjacent to public streets.

a. Locate loading docks, outside storage, and service areas in areas of low visibility such as at the side or at the rear (non-street side) of buildings.
b. Outdoor storage areas are not permitted to be located in the front of a building.
c. Loading, service and outdoor storage areas should generally not exceed 75% of the linear building frontage or 60% of the linear lot frontage in the side yard.
d. Loading, service and outdoor storage areas may occupy the full rear yard frontage if recommended landscape edge and buffer treatments are provided.
e. With the exception of outside storage areas, when it is not possible to locate loading facilities and service areas on a non-street side of the building, loading docks and

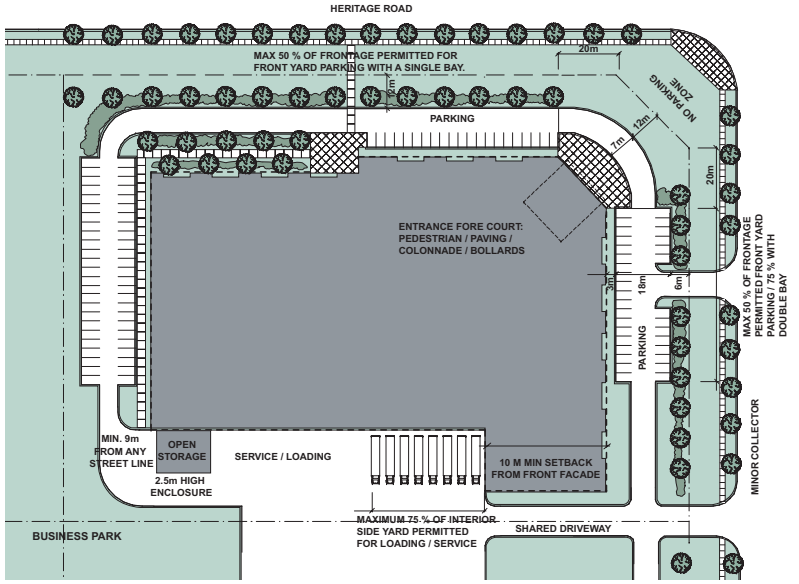

Figure 49: Screen outdoor storage and service areas from public view.

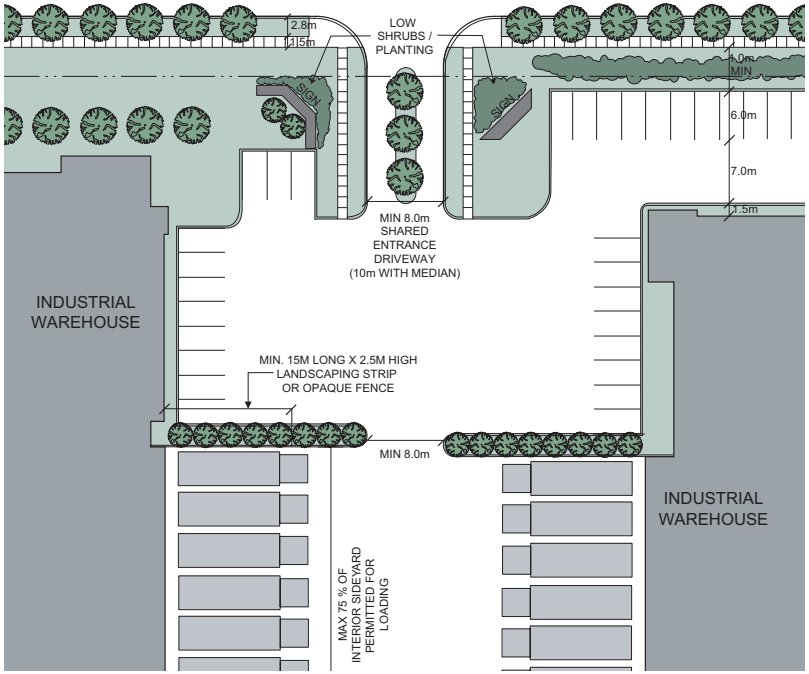

Figure 50: A maximum of 75% of the interior side is permitted for loading.

doors shall not dominate the building frontage and must be screened from all adjoining public rights-of-way. Loading and service facilities shall be offset from driveway openings. Combine loading docks and service areas between multiple sites. Screen from public view with fencing, walls, other structures and/or landscaping.

f. Clearly identify service entrances with signs to discourage the use of main entrances for deliveries.

g. Service and refuse areas shall not encroach into the parking setback. Such areas should be screened with a minimum 1.8-metre wall height enclosure. Service and refuse areas shall be paved with an impervious surface of asphalt or concrete.

h. Service and outside storage enclosures should be constructed of materials to match or complement the building material. No enclosure shall be made of any form of chain link or wood fencing. Gates and/or access doors may be constructed of materials different from the actual enclosure material to facilitate operation of the gates or access doors. Trash enclosures shall enclose an area large enough to accommodate the peak needs of building users.

i. Outside storage areas should generally not exceed 10% of the floor area of the principal structure and when authorized must be typically associated with the specific industrial operation proposed for the building.

j. Outside storage areas shall be fully screened by screen wall enclosures. Stored materials may not be stacked or be visible above the enclosure height.

4.6 SUSTAINABLE DESIGN (PHOTOS 25 - 32)

In order to achieve a greater standard of environmental sustainability within the Sherwood Survey Secondary Plan Area, the following sustainable design guidelines should be achieved for all new development:

4.6.1 Site

a. Site plans should be maximized for microclimatic conditions: ie. solar access, wind and snow effects, windbreaks and shade trees. For example, development should be oriented to take advantage of winter solar gain, and summer shading.
b. Existing significant trees, tree stands, and vegetation should be protected and incorporated into site design and landscaping.
c. The site plan should encourage the connection of natural areas and open spaces. Native species should be planted in natural interface areas.
d. Where appropriate i.e. surface parking areas, walkways, porous pavement materials are encouraged such as porous asphalt, porous pavers or grassed paving systems.
e. Renewable energy systems should be considered to power light standards and to supplement building power requirements.
f. Site design should incorporate strategies to minimise water consumption, e.g. native species, use of mulches and compost, alternatives to grass, rainwater collection systems.
g. Bioswales should be considered next to walkways and surrounding parking lots to collect stormwater runoff in a way that replenishes groundwater and minimizes the dependency on stormwater sewers. Bioswales should be planted with salt-tolerant shrubs and grasses to filter water before it percolates into the ground. They should be graded to direct water away from paved areas.
h. Drainage basins should be located throughout parking lots to collect stormwater. These basins should be planted with native plant materials that thrive in wet conditions.
i. Landscape plans should use deciduous street trees and on-site trees where these trees will grow to shade windows of residential structures. Such trees provide shade and help reduce temperatures inside adjacent units during the warmer months and shed their leaves to allow sunlight and better heat penetration during cooler months. Evergreen trees may be included in landscape plans at locations where they will not have solar impacts on buildings.

Photo 25: This swale filters rainwater, prevents run-off and ensures slow percolation into the ground.

4.6.2 Buildings

a. New buildings should be designed to meet and preferably exceed environmental standards such as the Model National Energy Code of Canada for Buildings (MNECB), C-2000, ISO 14000, or ASHRAE/IESNA 90.1-1999.
b. New development should seek LEED Certification. LEED Certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting higher performance standards in environmental responsibility and energy efficiency. Leeds Certification requires that the development:
c. Aim at reducing dependence on non-renewable resources by using appropriate recycled materials and by promoting adaptive reuse of existing structures.
d. Reduce marginal energy costs by promoting selection of locally manufactured or fabricated products and materials.
e. Buildings should be sited to maximize micro climate opportunities through orientation, shading and the effect on adjacent buildings and spaces.
f. Improve indoor environmental quality through design techniques including daylighting and the use of low-emission finishes formulated to low or zero volatile organic compounds (VOC) standards.
g. Maximize building flexibility to satisfy the varied demands of current and future users and residents.
h. Reduce energy consumption of building and site systems (HVAC, hot water, lighting) through the use of appropriate mechanical and construction technology (natural cooling, light recovery, passive solar design, etc.).
i. Innovative wastewater treatment, water reduction and sustainable irrigation strategies is encouraged, including the use of water efficient plumbing fixtures.
j. Natural ventilation systems should be considered as an alternative means to air conditioning through the promotion of passive convection cooling and ventilation. Passive systems can minimize or eliminate mechanical systems for heating, cooling and ventilating buildings.
k. Efficient lighting equipment should be used and unnecessary lighting of occupied space should be eliminated by using room and task light switches, occupancy sensors and photocells as energy efficient occupant controls.
l. Green roofs are encouraged where feasible (i.e. public / institutional buildings, buildings with flat, expansive rooftops) to minimise water runoff and improve building insulation. Roof design should also incorporate daylighting to reduce dependence on internal artificial lighting.

Photo 29: This flat roof is planted with grass which reduces local temperature and retains water.

Photo 27: The IBM World Headquarters is carved into the forest.

m. Building systems should be designed to be adaptable to future change in use or possible change in program. Designing for flexibility prolongs the longest possible useful life of buildings which in turn reduces waste, conserves resources and reduces environmental impacts of manufacturing and transport.

n. Consideration should be given to optimize southern exposure through building orientation and glazing.

o. The long axis of a building (attached and 'detached residential) should be oriented east-west so that the broad face of the building facade faces south, thus maximizing the incidence of south facing windows.

Photo 29: Example of rooftop garden. Rooftop gardens provide access to open space for multi-unit and apartment developments.

Photo 30: Porous surfaces or landscaped areas should be used to capture roof drainage and minimize water runoff.

Photo 28: This parking lot on Granville Island features porous pavers and trees that provide shading, preventing the Heat Island Effect.

Photo 31 & 32: Sun shade louvres block the high summer sun but let light in during the winter months.