

North Oakville

Urban Design and Open Space Guidelines

November 23, 2009



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Section One

1 Introduction & Overview

The Town of Oakville is one of the Greater Toronto Area's most rapidly growing urban centres. The Town has recognized a need for a new form of community development that balances the preservation of natural resources with sustainable, community-conscious development initiatives. The development of North Oakville should reflect Oakville's historical roots, with strong neighbourhoods and main streets, prestige employment and green linkages continuing to define Oakville's unique landscape. The community will include an integrated network of

planned natural and open spaces that will create definable, walkable neighbourhoods with vital Neighbourhood Centres and an interconnected street and transit network. The hierarchy of transit and pedestrian oriented streets is combined with a mix of housing and employment opportunities. These elements create greater concentrations of people closer to home and work, community and social spaces, local shopping, parks and open space.



Figure 1.1: North Oakville in the context of the broader Region.

1.1. The Role of North Oakville within Oakville



Figure 1.2: Map of Oakville from the 1800's: the Old Town, located within the surveyed grid of concessions and side roads of Trafalgar Township, was laid out on a well-connected system of blocks and streets that provides excellent walkability and vehicular transit connection.



Figure 1.3: The earliest settlements in Oakville were carved into the forest edges near Lake Ontario. North Oakville will be closely connected to its natural and cultural heritage.



Figure 1.4: The Town of Oakville in the Greater Golden Horseshoe.

The Town of Oakville today consists of what was originally the port town of Oakville surrounded by the rural lands and small villages of Trafalgar Township. Trafalgar Township was surveyed in 1806 with the properties along Dundas Street being the first granted by the Crown. Founded several years later in 1827 by William Chisholm, the town of Oakville was first settled on 900 acres of land at the mouth of the Sixteen Mile Creek, which became a strategic port of entry to Canada. In 1962, a portion of Trafalgar Township amalgamated with the towns of Bronte and Oakville to form the current Town of Oakville.

The Town of Oakville's lakeside setting, heritage main street, educational, cultural and recreational opportunities, and access to transit and major highways makes the Town a desirable place to live and work.

The natural beauty of the North Oakville lands and their location provides an opportunity for the Town of Oakville to create a new progressive community that is closely linked to its natural and cultural heritage.

North Oakville represents the largest remaining new development area for the Town. The North Oakville Secondary Plan Areas are bounded by Dundas Street (RR5) to the south, Highway 407 to the north, Tremaine Road (RR22) to the west and 9th Line (RR13) to the east. The area ranges from approximately 1 to 3 kilometres in depth by 12 kilometres in length, comprising a total of 3,106 hectares (7,674 acres). The lands are located directly north of Dundas Street (RR5) and the Town's developing urban area.

The North Oakville Secondary Plan Areas are comprised of the following existing elements:

- Existing road patterns including primary north-south arterial roads (from east to west): 9th Line (RR13), Trafalgar Road (RR3), 6th Line, Neyagawa Boulevard (RR4), Bronte Road (RR25) and Tremaine Road (RR22). These roads generally connect into the existing community fabric;
- The primary east-west roads: Dundas Street (RR5), Burnhamthorpe Road (RR27) and Highway 407;
- Agricultural Uses;
- Natural Heritage Features: including Sixteen Mile Creek and Joshua Creek, woodlots, wetlands, streams and meadows; and,
- Cultural Heritage Features: designated buildings and churches.



Photo 1.1: Sixteen Mile Creek is the most significant stream corridor in the Town of Oakville. The creek runs from the Niagara Escarpment, through Milton and Oakville, where it flows into Lake Ontario.



Figure 1.5: Sixteen Mile Creek flows from Lake Ontario through the whole of the Town and North Oakville.

1.2. Role of the Guidelines

The North Oakville Urban Design and Open Space Guidelines establish the physical design concepts that will lead to the development of a high quality, sustainable and integrated employment and residential community. They are a detailed set of objectives, illustrated recommendations and guidelines that will greatly expand the Town's capacity for urban living, employment and recreation.

This document is to be used in conjunction with the:

- North Oakville East Secondary Plan;
- North Oakville West Secondary Plan;
- North Oakville Zoning Bylaw;
- North Oakville Sustainability Checklist;
- North Oakville Transit Plan and Developer's Toolkit;
- North Oakville East Cycling Strategy;
- North Oakville Parking Strategy;
- Terms of Reference for Environmental Implementation Strategies/Functional Servicing Studies;
- North Oakville Creeks Subwatershed Study;
- North Oakville East Trails Plan; and
- Town of Oakville Active Transportation Master Plan.



Photo 1.2: Lakeshore Road in Old Oakville inspires opportunities for new pedestrian oriented main streets in North Oakville.

1.3. Structure of the Document

The Urban Design and Open Space Guidelines document for North Oakville is structured into the following sections:

Section 1: Introduction & Overview – introduces the North Oakville Secondary Plans and Urban Design and Open Space Guidelines and outlines the interpretation and implementation of the Urban Design and Open Space Guidelines.

Section 2: The Vision & Guiding Principles for North Oakville – outlines the Vision, Guiding Design Principles and specific areas that make up the Master Plan.

Section 3: General Urban Design and Open Space Guidelines: Built Form & Open Space – includes direction with respect to the following:

- Sustainable Development;
- Subdivision Design;
- Land Use & Site Design;
- Building Typologies;
- Natural Heritage and Open Space System;
- Stormwater Management;
- Pedestrian & Bicycle Circulation;
- Street Furniture;
- Landscaping; and,
- Parking.

Sections 4 to 8: Describe the specific areas that make up the North Oakville area. These include: the Urban Cores (Section 4), the General Urban and Sub Urban Neighbourhood designations (Section 5), the Neighbourhood Centre (Section 6), the Transitional Area (Section 7) and the Employment District (Section 8).



Photo 1.3: Housing in Old Oakville is varied, well crafted and creates a good relationship between the front yard and street.

1.4. Interpretation and Implementation of Urban Design and Open Space Guidelines

This document implements the broad policies/directions of the North Oakville Secondary Plans. In the event of a conflict between the Urban Design and Open Space Guidelines and the Secondary Plans, Master Plan or Zoning By-law, the latter documents prevail.

All development applications will be evaluated by the Town to ensure that they are consistent with the Urban Design and Open Space Guidelines. The North Oakville Urban Design and Open Space Guidelines should be referenced with respect to:

1. Design parameters for both the private and public sectors in preparing development plans and concepts.
2. Design direction for the assessment of development applications including site plans, rezoning applications, subdivisions, architectural control guidelines and other development applications.
3. General recommendations for how new development should relate to open space and other land uses.
4. General recommendations for landscape requirements, open spaces and recreational trail systems which will also have an impact on site design issues such as built form, landscape screening and outdoor storage/service areas.
5. General directions with respect to the treatment of heritage resources.

Design Review Process

To ensure high quality development for North Oakville and to promote the policy directions of the Secondary Plans and recommendations set out in the Urban Design and Open Space Guidelines, the Town will ensure the development review process allows for adequate design-focused review. The design review process will reflect the nature of the application. Generally, complex, high-density applications and/or development at prominent sites will require greater design review. For example, development at key locations and/or high density applications could include the retention of outside peer review. Depending on the nature of the development proposal, this review may include: urban designers, architects, landscape architects, planners, and/or engineers.

Development Applications

Development applications will be evaluated on the principles of the Urban Design and Open Space Guidelines. Applicants must provide reasonable design solutions that are consistent with the objectives of this document and the policies of the North Oakville Secondary Plans, as well as other Town documents. Development applications will be evaluated through the submission of supporting materials such as Urban Design Briefs, a Sustainable Development Checklist and detailed Site Plan Control applications.

Architectural Control

Architectural Control will generally be required through the subdivision process where more than half of the proposed ground-related residential lots (i.e. townhouses, semi-detached and single-detached dwellings) have less than 12 metres of frontage (lane-based lots will not be included in this calculation). In these cases, Architectural Control Guidelines will address all ground-related residential lots within the subdivision. For example, the Guidelines will address strategies for reducing the impact of front attached garages on the streetscape, porch design, treatment of priority lots (i.e. corner lots and view terminus lots), and building materials. Architectural Control Guidelines will be based on the approved Urban Design Brief and will be imposed as a condition of draft plan approval. The Guidelines will be approved by the Town.

Urban Design Brief

An Urban Design Brief will be required for most development projects in North Oakville. Whether an Urban Design Brief is required for a particular proposal will be determined by the Town's Planner or Urban Designer during the pre-consultation meeting. In general, the level of detail in the Urban Design Brief will be a reflection of the scale and/or sensitivity of the development project and its location.

Urban Design Briefs are used by Town staff to evaluate the various elements of development applications and how applicants have responded to the Urban Design Guidelines. The brief must reflect that the proposal has met the intent of the guidelines. Further, these documents provide an understanding of how and why projects are designed in a particular manner and gives staff the opportunity to work cooperatively with proponents. The

Town's desire is to elevate the quality of development projects in Oakville, and encourage well designed, functional projects.

The main purpose of the Urban Design Brief is to illustrate the proposed design solution for a new development project in the Town of Oakville and how the solution was devised. It describes the design strategy of how the development will be integrated with its surroundings. The Urban Design Brief also provides guidance on how a site should be developed to achieve the urban design principles.

The Brief will be submitted as part of a development application and will provide an analysis of the context of the site within the greater community area. In summary, it must reflect the design process (such as the analysis of site context) and not simply justify an end-product based on economic factors (such as achieving the highest yield on the site).

Please see the Urban Design Brief Terms of Reference for additional information.

Sustainable Development Checklist

In addition to the Sustainable Development Strategy found in the North Oakville Secondary Plans, Town Staff have created a Sustainable Development Checklist which will be used as a tool for assessing the sustainable features of specific development applications. Town Staff will be looking for all development applications to reflect the principles of sustainability included in the Sustainable Development Checklist. Submitted checklists will be evaluated based on the nature of the application. Based on the North Oakville Secondary Plans' policies, the checklist is meant to be a tool to encourage sustainable development practices; however, required components of the checklist reflect requirements of the Secondary Plans.

Site Plan Control

Applicants are advised to contact the Town's Planning Services Department prior to submitting a site plan application. Low density development and freehold townhouses that are not subject to Site Plan Control will generally be subject to approval by a Control Architect where more than half of the proposed ground-related residential lots (i.e. townhouses, semi-detached and single-detached dwellings) within a subdivision have less than 12.0 metres of frontage.

Heritage Site Plan/Implementation

As part of the Background Studies for the Secondary Plans, Unterman McPhail Associates, Heritage Consultants, prepared a 'Cultural heritage Resource Assessment Report', which identified cultural heritage resources of varying degrees of heritage value, interest and merit. While it is not the intent that all of the identified features be preserved and designated as historical significant attributes, it provides a cursory review of the features, thereby allowing for further, more detailed analysis to determine which features should in fact be considered worthy of further protection. The Secondary Plans themselves, as adopted, encourage the use or adaptive reuse of cultural heritage resources as part of new development, either in situ, or at alternate locations.



Photo 1.4: Buildings that are built with sustainable practices in mind, such as passive cooling, will be demonstration and educational resources for the North Oakville community.

Recently, the Town has updated its Register of Properties of Cultural Heritage Value or Interest (Not Designated), and which may be worthy of ultimate designation, and placed on the Register. The Register urban design guidelines, in concert with the Heritage Oakville Committee, and other implementing mechanisms through the planning approval process, will ensure that such resources are sensitively protected and integrated into the surrounding development.

to be prescriptive design requirements but rather to provide a series of available options for considering building, open space and streetscape design. 3D model and perspective illustrations are intended to show how mature development could look in the long term.

Intent of the Urban Design and Open Space Guideline Illustrations

Pictures and computer models are shown throughout the document. The illustrations include plans, sections and 3D models, as well as precedents photos of suggested development (buildings, landscape, streetscape) from comparable existing communities. They are intended to illustrate how development may occur as North Oakville develops fully into an urban community over the long term. The illustrations are not intended

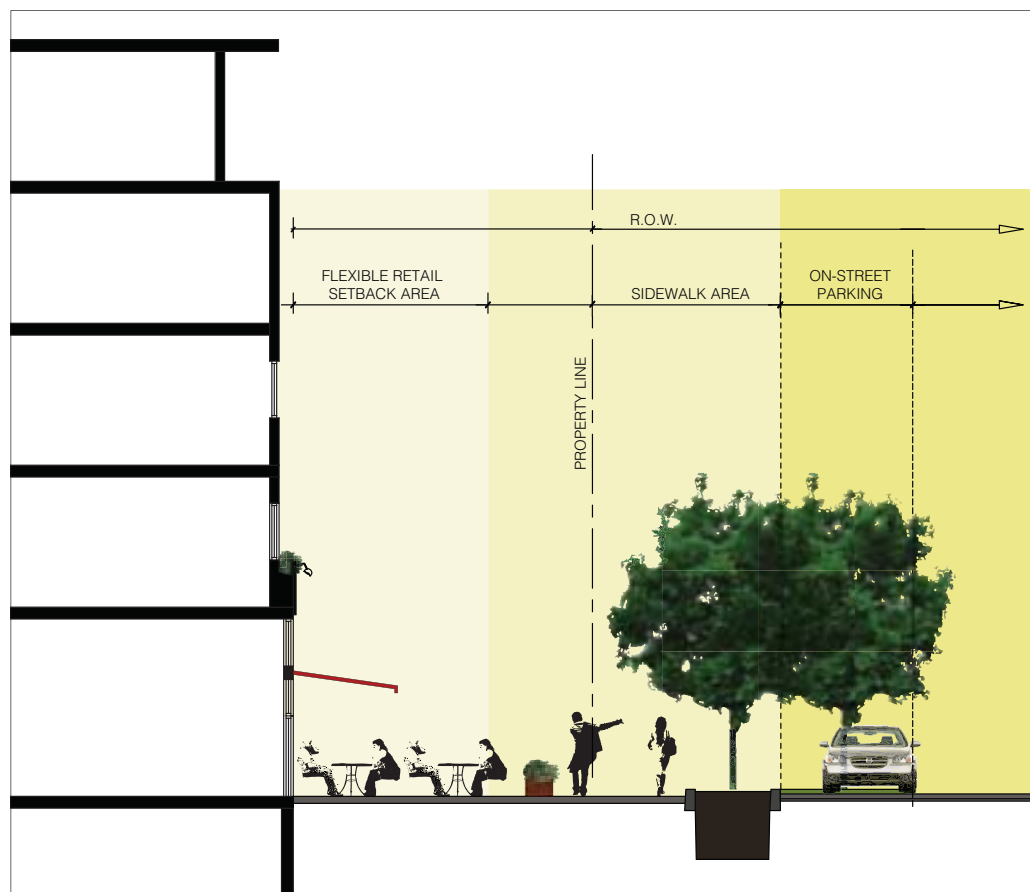


Figure 1.6: Guideline illustrations are provided throughout the document to illustrate the long term potential of the developing urban area.



Section Two

2 The Vision & Guiding Design Principles for North Oakville

North Oakville's development as an urban community shall reflect Oakville's distinct historical roots and small-town heritage and Trafalgar Township's village rural heritage, with nodal development, prestige industry, and green linkages continuing to define Oakville's unique landscape.

North Oakville should also be forward-looking. It should be a model of smart growth and social diversity. It should enhance the Town's reputation for excellence and its capacity to link the past, present and future.

The design of North Oakville West, together with North Oakville East, will generally reflect the "Transect", a system of classification of human habitats from the most rural which is reflected in the natural heritage and open space system, to the most urban conditions, which is reflected in urban core areas. The goal of the transect-based system is to make it possible for North Oakville West, together with North Oakville East, to sustain a complete palette of neighbourhoods and employment opportunities.

In keeping with the Transect, North Oakville West, together with North Oakville East, is planned as a compact, pedestrian-oriented, urban community containing a broad range of housing opportunities ranging from executive housing on large lots to high rise apartment units.

The character and pattern of the community will be significantly influenced by a planned natural heritage and open space system. This natural heritage and open space system is designed to protect the natural environment, provide a balance between active and passive recreation needs and contribute to the quality of life in North Oakville and the Town as a whole. A key component of the system will be the provision of an opportunity for residents and employees to use an extensive open space trail system.

The natural heritage and open space system helps to create definable neighbourhoods in North Oakville. These neighbourhoods will be known for their walkable streets and their central nodes, which will include civic uses such as a transit stop and mail services, and may include a few small shops and services. These nodes will be popular neighbourhood meeting places and will generally be located within a five minute walk of the entire neighbourhood.

The community will be well served by an interconnected transit network which will provide residents and employees

opportunities for an attractive alternative travel mode within North Oakville, and connections to the rest of the Town, as well as transit facilities which serve the Region and the Greater Golden Horseshoe.

A business park located along Highway 407 in North Oakville East and employment areas in North Oakville West provide a range of employment opportunities to residents of Oakville including prestige employment and office development at Trafalgar Road and the Highway 407. The jobs available in the North Oakville West Secondary Plan Area, in combination with those jobs in the North Oakville East Secondary Plan Area, help to create a live-work community.

**Note: The Transect was developed by the firm of Duany Plater-Zyberk & Company.*



Figure 2.1: Streets and blocks in Old Oakville were designed to be short and well connected reflecting the pre-automobile era.



Photo 2.1: Streets will be designed to include informal places for socializing.

Urban Design Principles

The following urban design principles are based on the Vision for North Oakville.

1. Create a Sustainable Natural Heritage and Open Space System

The Natural Heritage and Open Space System forms the central focus of North Oakville and provides the context for the developing community. The majority of the Natural Heritage and Open Space System will be in public ownership. The Town will create a sustainable, natural heritage and open space system which provides a balance between active and passive recreational needs and links to the Town's existing open space system.

2. Provide Access and Visibility to Open Space

An interconnected system of trails will be developed in North Oakville to provide public access to the Natural Heritage and Open Space System and to connect the whole of North Oakville. Public safety, views and accessibility, both physically and visually, to the Natural Heritage component of the Natural Heritage and Open Space System, as well as to parks, schools and other natural and civic features, will be important consideration in community design. Parks will serve as central meeting places for residents. Important views and vistas of the Natural Heritage and Open Space System will be provided through community design.



Figure 2.2: From the first settlements in 1806, Oakville's communities have been tied to its natural features including Lake Ontario and Sixteen Mile Creek.

3. Create a Sustainable Street Transportation Network

The transportation system for North Oakville will be based on a modified grid system of roads and transportation corridors which promotes the safe, efficient circulation of traffic including transit and non-vehicular traffic. The interconnected street network will be responsive to the Natural Heritage and Open Space System and existing land uses. An efficient and linked, safe pedestrian movement system (cycleways and walkways) will be established along with an appropriate distribution of land uses so that residents do not need to rely on the automobile to meet the recreational, shopping and commuter needs of daily life. Transit opportunities will be promoted through community design, including a "transit first" policy to ensure that development will proceed in a manner which will be supportive of the early provision of transit services. All modes of transportation will be explored including the use of HOV lanes, express bus lanes and transit rights-of-way on the existing and future road network in Oakville, as well as other innovative approaches to transit.

4. Create Compact, Walkable Mixed-Use Development

The Master Plan illustrates compact neighbourhoods, Urban Cores based on a highly interconnected street and block system allowing efficient vehicular and pedestrian connections, main streets and Neighbourhood Centres. A mixture of uses and well designed buildings will contribute to creating interesting streets and mixed-use areas. Each neighbourhood will include at its centre, approximately a five minute walk from most areas of the neighbourhood, a Neighbourhood Activity Node which would include a transit stop and other public facilities which serve the neighbourhood such as central mail boxes. In addition, commercial facilities or similar uses will be encouraged to locate at the Neighbourhood Centre Activity Node.



Photo 2.2: Access to a linked system of parks and open space will be a key feature of the North Oakville plan.

5. Provide a Variety of Housing

Residential neighbourhoods will be varied and distinguishable with a mixture of lot sizes, building types and architectural styles that provide a strong, identifiable sense of place for residents. A variety of housing types, architectural styles, residential densities and unit types will respond to the varied needs of the future population allowing people to stay in the same neighbourhoods at all life-cycle stages.

6. Preserve and Extend Residential Enclaves and Cultural Heritage

The existing development throughout North Oakville, especially along existing Burnhamthorpe Road (RR27), provides an important context for the new community. The preservation of the existing built-form, where feasible, and its integration with new development assists in preserving the local culture and identity and in creating a sense of place in the new community.

7. Sustainable Development

The North Oakville Secondary Plans have been based on a conceptual design which maximizes the potential for sustainable development through such features as mixed-use development, a modified grid road system, which enhances the opportunity to provide transit, and a Natural Heritage and Open Space System.

In addition to the general direction implicit in the Plan, the Town will actively encourage development which is specifically based on the principle of sustainable development, including the development of Town facilities. The Town will also work with other public agencies to encourage them to follow these principles. Such development will be designed to:

- a) Reduce the consumption of energy, land and other non-renewable resources;
- b) Minimize the waste of materials, water and other limited resources;
- c) Create livable, healthy and productive environments; and,
- d) Reduce greenhouse gases.

8. Provide a Vital Setting for Employment Uses

The Employment District will provide for a range of employment opportunities with access to major arterial road and transit systems. High profile major office, institutional, prestige employment and mixed-use buildings will be located on the most visible sites within the Employment District and other areas, where permitted. Heavier industrial uses will occupy less visible sites within the Employment District.

Where employment uses are located adjacent to the Natural Heritage and Open Space System, opportunities to relate development to outdoor spaces should be explored (building location and outdoor amenities).



Photo 2.3: A sustainable street transportation network provides alternative modes of travel including cycling, walking and public transportation.



Photo 2.4: The highest quality employment buildings will be located on the most visible sites in North Oakville.

2.1. The Master Plan

2.1.1. North Oakville East Master Plan

The North Oakville East Master Plan (Appendix 7.3 to the Official Plan) is intended to illustrate graphically, the design of the North Oakville Planning Area. They show how the policies and figures of the North Oakville East Secondary Plans can be implemented. The Master Plan provides a community concept plan, subject to the provisions of Section 7.5.2 of the North Oakville East Secondary Plan, for individual development submissions. Intersection spacing along Regional Roads requires final approval by Halton Region.

The Master Plan provides a framework for:

- Demonstrating the North Oakville community design principles with respect to land use, street networks and the Natural Heritage and Open Space System; and,
- The Urban Design and Open Space Guidelines regarding open space and street design, site plan and built form recommendations.

2.1.2. North Oakville East Master Plan Components

The North Oakville East Master Plan illustrates the land uses, road networks, and the Natural Heritage and Open Space System required to develop North Oakville. The following describes each component of the Master Plan.

1. Natural Heritage and Open Space System:

The Natural Heritage and Open Space System forms a central feature of the North Oakville Planning Area. It is comprised of two components, a Natural Heritage component and an Open Space component. The Natural Heritage component of the System includes: Core Preserve Areas, Linkage and Optional Linkage Preserve Areas, High Constraint Stream Corridor Areas, Medium Constraint Stream Corridor Areas, and Other Hydrological Features. The Open Space component of the Natural Heritage and Open Space System includes: stormwater facilities, cemeteries, public parks and schools.

2. Urban Core Areas:

The Urban Core designations contain the most urban part of the North Oakville Plan Area. These areas provide for the densest development and the highest order activities including a full range of residential, retail and



Photo 2.5: The Natural Heritage and Open Space System forms a central feature of the North Oakville Planning Area.



Figure 2.3: Scenario showing how the Dundas Urban Core Area could develop.



Figure 2.4: Scenario showing how the Trafalgar Urban Core Area could develop.

service commercial, entertainment, cultural, business and institutional uses. Mixed-use development is encouraged for the mutual benefit of combining compatible uses in one or a series of adjacent buildings. Ultimately it is intended that Urban Core lands will become true mixed-use urban areas. The primary focus of Urban Core development is along Trafalgar Road (RR3), with the north side of Dundas Street (RR5) and the intersection of Neyagawa Boulevard (RR4) and Burnhamthorpe Road (RR27) having an important, but more secondary role.

3. Employment District:

Employment District refers to land designed to accommodate development of predominantly employment generating uses including industrial and office development.

4. Neighbourhoods:

Fourteen mixed-use neighbourhoods have been proposed for North Oakville, each of which contains a variety of housing, neighbourhood parks and schools. Each neighbourhood contains a mix of densities, lot sizes and building types to accommodate people with a diversity of living requirements and incomes. Neighbourhoods are focused around a Neighbourhood Activity Node, where access to transit stops and local retail will be encouraged. Village Squares are located within walking distance of residences and include places to play, socialize and relax.

5. Transit Supportive Street Layouts:

The street network for North Oakville is based on a grid system of shorter blocks modified to accommodate natural features and create a sense of orientation and enclosure between neighbourhoods, key sites and community features. All streets within North Oakville will be accessible to transit, providing multiple opportunities for convenient transit routes between neighbourhoods and Urban Core Areas.

6. Schools and Parks:

Schools and their adjoining parks are fundamental components of each neighbourhood and contain active playing fields and other major recreational facilities. School and park sites are located to provide connections and amenities for neighbourhoods.

2.1.3. North Oakville West Master Plan

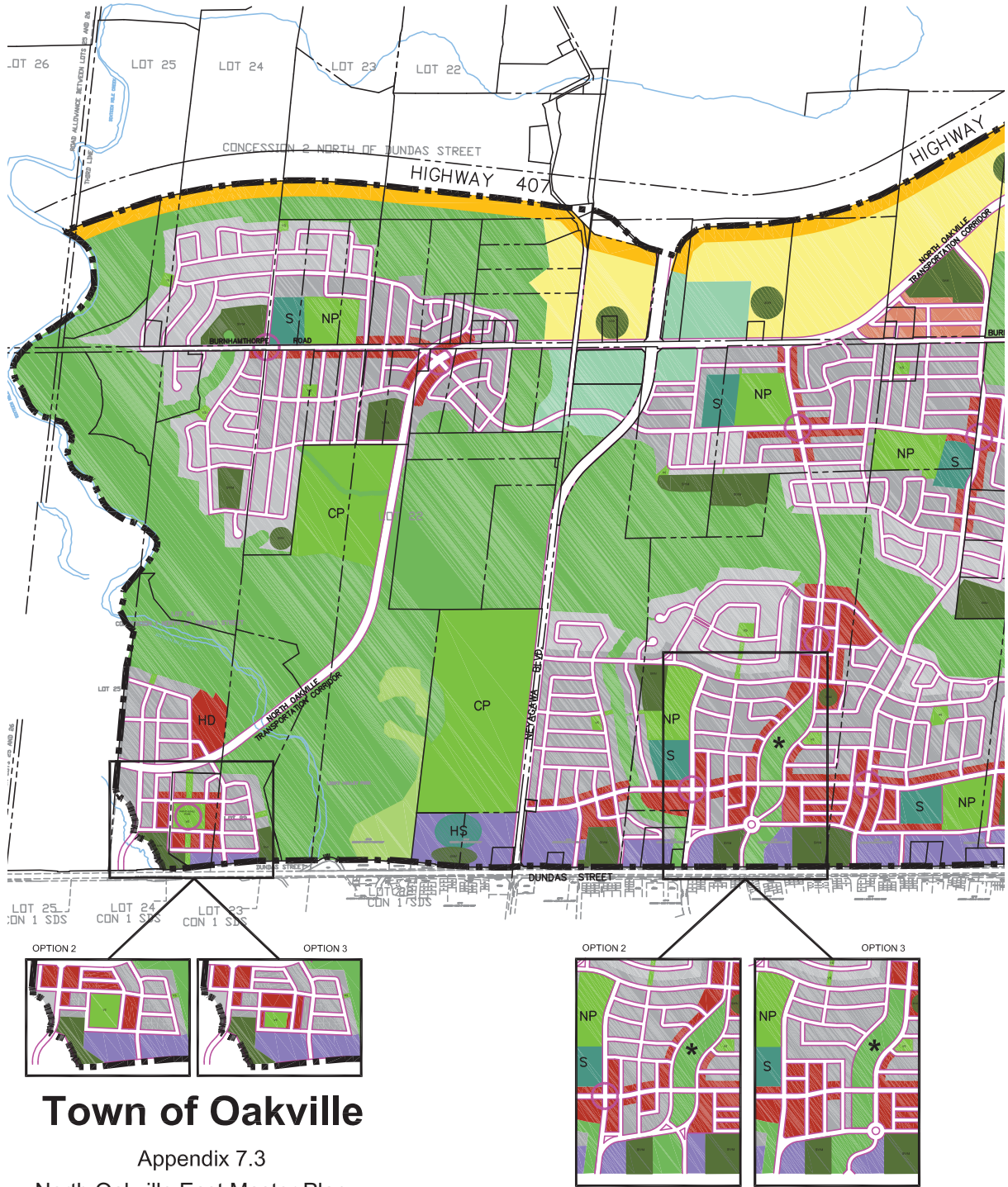
2.1.4. North Oakville West Master Plan Components



Figure 2.5: Employment District buildings will address the street edge and maximize exposure to the Natural Heritage System.



Figure 2.6: Conceptual neighbourhood plan.



Town of Oakville

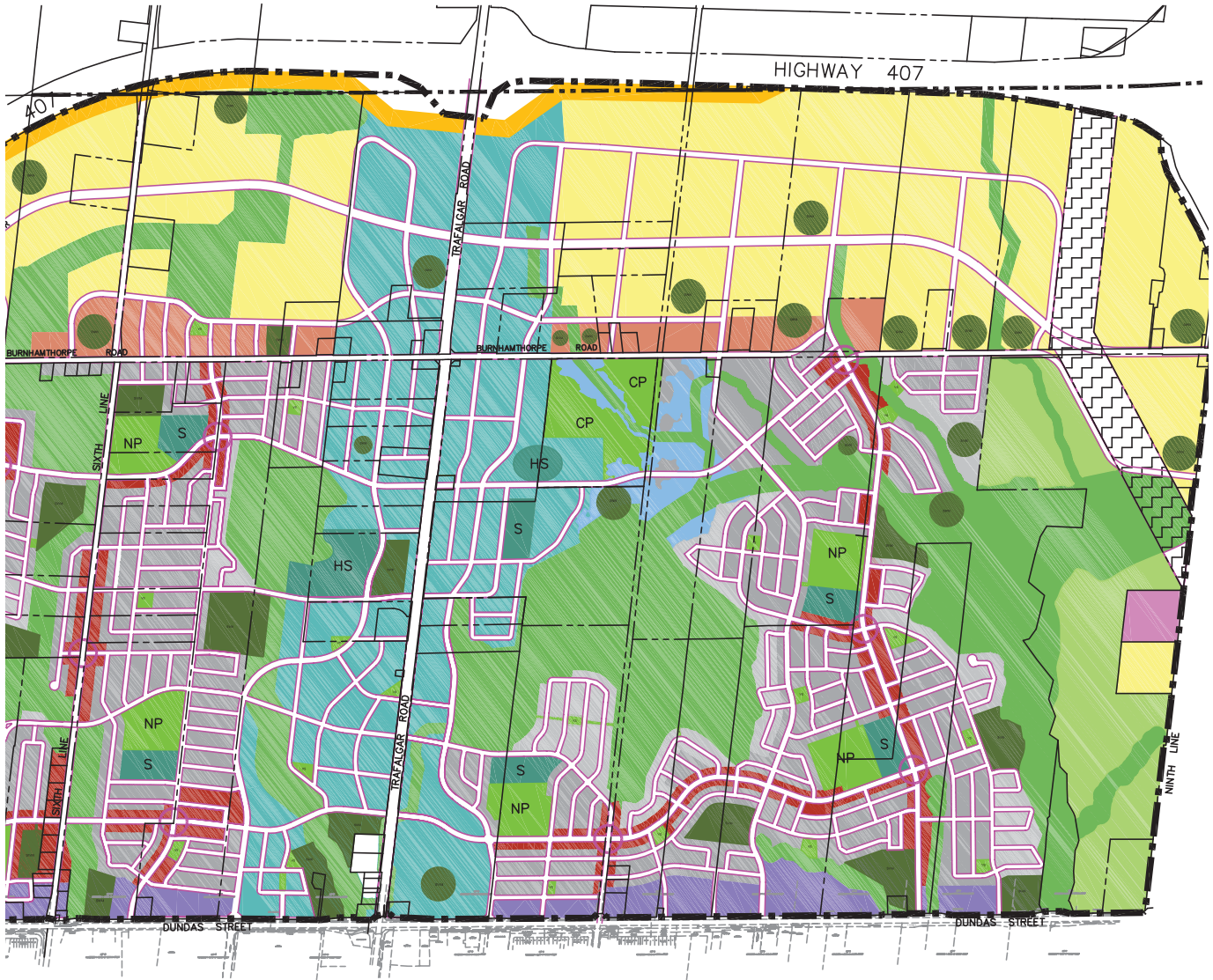
Appendix 7.3

North Oakville East Master Plan

February 2008

NOTE: The Master Plan assumes the protection of designated heritage resources in accordance with the provisions of Section 7.4.12 of the Secondary Plan

Figure 2.7: North Oakville East Master Plan



LEGEND

- | | | | | | |
|--|--------------------------------------|--|---|--|---|
| | SECONDARY PLAN AREA BOUNDARY | | INSTITUTIONAL AREA | | UTILITY CORRIDOR |
| | OAKVILLE / MILTON MUNICIPAL BOUNDARY | | STORMWATER MANAGEMENT FACILITY (final location tbd) | | NEIGHBOURHOOD ACTIVITY NODE |
| | TRANSITWAY | | COMMUNITY PARK AREA | | CEMETERY AREA |
| | DUNDAS STREET URBAN CORE AREA | | NEIGHBOURHOOD PARK AREA | | NEIGHBOURHOOD CENTRE AREA |
| | NEYAGAWA BLVD. URBAN CORE AREA | | VILLAGE SQUARE/URBAN SQUARE | | GENERAL URBAN AREA |
| | TRAFALGAR ROAD URBAN CORE AREA | | ELEMENTARY SCHOOL SITE | | SUB URBAN AREA |
| | TRANSITIONAL AREA | | SECONDARY SCHOOL SITE | | HIGH DENSITY RESIDENTIAL AREA |
| | EMPLOYMENT AREA | | JOSHUA CREEK FLOODPLAIN AREA | | POLICY REFERENCE - SEE POLICY SECTION 7.4.7.2 |
| | NATURAL HERITAGE SYSTEM AREA | | | | |



2.2. Street-based Design

The building to street relationship is key to creating a vibrant public realm.

The Urban Design and Open Space Guidelines will establish five types of streets with respect to typical design treatment. Please refer to the cross-sections in Sections 4, 5, 6 and 8. Variations may be considered by the Town based on circumstances such as topography, proposed abutting land use, relationship to the Natural Heritage and Open Space System and achievement of other design objectives. All Regional roads will be planned for by the Region and the necessary Environmental Assessment (EA) studies have or will be completed by the Region. Detailed design for each road will be undertaken by the Region.

2.2.1. Arterial/Transit Corridors

Arterial/Transit Corridors, as designated on Figure NO4 in the North Oakville Secondary Plans, are high capacity roads which serve as major gateways into the community, including both the Town as a whole, and North Oakville. A balance must be achieved between their transportation function, including accommodation for transit, and their ability to provide access to flanking land uses and act as socially vibrant public space. To assist in achieving this balance, these streets will have the highest form of design treatment, including wide sidewalks, special tree and feature planting, paving, lighting and signage design.

2.2.2. Avenue and Connector/Transit Corridors

Avenue/Transit Corridors and Connector/Transit Corridors connect neighbourhoods, Urban Core Areas and other major focal points of the community. These roads will have a higher level of design than the Local Streets through the use of tree and feature planting, paving, lighting and signage design. The design will complement the planned abutting land uses. For example, where these streets provide access to street related retail and mixed-use development, in the Urban Cores and Neighbourhood Centres, their design should include wider sidewalks, and street furniture such as benches.

2.2.3. Local Streets

Local streets play a dual role as neighbourhood socialization spaces, and as transportation corridors. The design requirements, while less substantial than for Connector/Transit Corridors, must support the dual role of the local streets.

2.2.4. Character Roads

The Character Road designation is applicable to portions of existing Burnhamthorpe Road (RR27), which will be designed in accordance with the North Oakville East Secondary Plan policies of Section 7.7.2, except for the section identified to serve a major arterial roadway function as part of the New North Oakville Transportation Corridor.

2.2.5. Lanes/Hybrid Roads/Service Roads

Where direct driveway access from a roadway is inappropriate or in response to special design features such as a development fronting directly on to open space, lanes, hybrid roads, and service roads should be utilized, and in limited circumstances, “window” roads. The design requirements for these roads will establish certain minimum standards to address issues like pavement width and relationship to parking areas.



Photo 2.6: The building to street relationship creates a vibrant public realm.

2.2.6. Street-based Design Principles

While individual aspects of built form, architecture and street design are described in the Urban Design and Open Space Guidelines, street based design principles ensure that the individual design of streets and buildings are intricately connected, recognizing that the private and public realm should be thought of as a collective experience. Therefore, street design should incorporate the following principles:

1. Allow for a strong connection between the street and building.
2. The street provides for all modes of transportation and is a place for socializing and community events (e.g. markets, parades).
3. Provide access and views into publicly accessible building spaces.
4. Provide opportunities for strong connections between building activities and streets.

Residential Interface

In residential areas, a transitional zone between the dwelling frontage and the public right-of-way will help to create a clear distinction between the public and private realm to ensure privacy and security. This transition zone is created through a variety of treatments in the setback such as: front porches, grade separations with integrated landscape buffers, courtyards, front lawns and gardens.

Mixed-Use and Commercial Interface

A continuous street wall should be created for mixed-use and commercial areas by creating active retail at-grade. Wide sidewalks allow for amenities in the public right-of-way such as: bicycle parking, lighting and landscaping. Wide sidewalks also create opportunities for spill-out uses like cafes or merchandise and also provide a place for public art.



Photo 2.7: Residential buildings should have a strong connection with the street. Porches and windows provide opportunities for residents to have a visual connection with the activities on the street.



Photo 2.8: Mid-block connections in mixed-use or commercial areas will encourage people to walk within and between neighbourhoods.



Photo 2.9: Mixed-use and commercial areas should have wide sidewalks that allow many people to comfortably walk as well as allowing shops to provide outdoor amenity spaces.



Section Three

3 General Urban Design Guidelines: Built Form & Open Space

The design of the public realm and its consistent role in engaging the pedestrian at every level will let residents, employees and visitors know they are in North Oakville. The key themes emphasized throughout this document are sustainability and connectivity. This chapter contains guidelines for how these themes will influence the following components:

1. Sustainable Development
2. Subdivision Design
3. Land Use & Site Design
4. Building Typologies
5. Natural Heritage and Open Space System
6. Stormwater Management
7. Pedestrian & Bicycle Circulation
8. Street Furniture
9. Landscaping
10. Parking: Vehicular & Bicycle



Photos 3.1, 3.2, & 3.3: High quality design and mixed-use development generates an active public realm including streets, parks and civic open space.

3.1. Sustainable Development

The Town is committed to the principles of sustainable development as set out in Section 7.4 of the North Oakville East Secondary Plan, Section 8.4 of the North Oakville West Secondary Plan, and applied throughout the Urban Design and Open Space Guidelines.

Efficient land-use patterns, improved neighbourhood design, sustainable infrastructure, reduced automobile dependence and improved air quality will contribute to make North Oakville a more liveable and sustainable community. Sustainable development principles focus on addressing development form, air/energy efficiency and water management, and recognize the need to respond to evolving and improved sustainable development technologies.

3.1.1. Development Form

The North Oakville Secondary Plans have been based on a conceptual design which maximizes the potential for sustainable development through such features as:

- Mixed-use development;
- A modified grid street network which enhances opportunities for transit;
- Transit First Principle (Please refer to the North Oakville Secondary Plans: Transit Plan Developers' Toolkit for more details); and,
- The protection of natural heritage through the designation of the Natural Heritage and Open Space System.



Photo 3.4: Buildings that use sustainable practices such as passive cooling, natural ventilation and solar orientation will demonstrate the ongoing importance of environmental resources within the North Oakville community.



Photo 3.5: Transit-Oriented Development policies promote opportunities for higher density, and a greater mix of land uses, within neighbourhoods and Core Areas.

3.1.2. Energy Efficiency & Air Quality

The Town recognizes that air quality in North Oakville will be significantly influenced by air pollutant emissions from outside the area. Improved energy efficiency and air quality will be addressed through building and site design. A well-connected urban fabric of streets and blocks will encourage social interaction and result in walkable neighbourhoods. The green design of buildings and site plans will reinforce North Oakville's emphasis on sustainable development. Methods of improving energy efficiency and air quality may include:

- Earth source energy;
- Passive solar design;
- Building orientation;
- Natural ventilation;
- Increased insulation;
- Photovoltaic panels;
- Green roofs; and,
- Cool roofs.



Photo 3.6: Naturally ventilated buildings promote healthy living environments in multi-unit buildings.

3.1.3. Water Management

The management of water resources within North Oakville should be undertaken in accordance with the directions established in the North Oakville Creeks Subwatershed Study. Sustainable methods for water management may include:

- Bioswales;
- Green roofs; and,
- Rain water harvesting.



Photo 3.7: Bioswales can be integrated into parking lots, along roads or in residential areas to naturally cleanse and return run-off to the water table.



Photo 3.8: Green roofs can have a dramatic impact on the environmental performance and energy efficiency of buildings.

3.2. Street & Block Pattern



Photos 3.9 & 3.10: The North Oakville transportation network mixes automobiles with transit, cycling and walking.

The transportation network as set out in the Secondary Plans for North Oakville will accommodate cars, transit, walking and cycling. The following section outlines the general framework for streets, blocks and community design.

3.2.1. Streets Patterns & Street Design

The streets within North Oakville are designed to support a strong connection between streets, open space and buildings. The transportation network accommodates all modes of travel but places a priority on transit, cycling and walking over the predominant use of the car. The street network is designed to maximize community access. The street network connects to Highway 407 for long inter-regional trips while providing alternate routes for daily commuting and shopping trips.

The shorter block lengths designed for North Oakville facilitate walking, a principle consistent with the design of Old Oakville.

The characteristics of the new streets that will promote active transportation include:

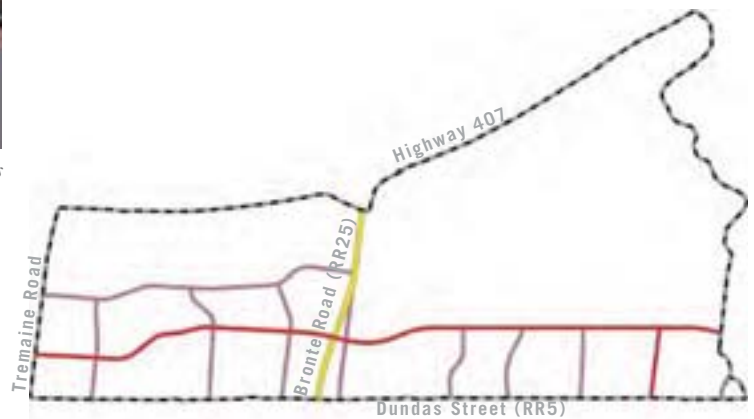


Figure 3.1: North Oakville West: Street Hierarchy



Figure 3.2: North Oakville East: Street Hierarchy

- **Disperse traffic:** A system of shorter local street and block lengths will promote more even traffic flow through neighbourhoods. This pattern will reduce traffic speed on long road stretches and mitigate the need for traffic calming devices (i.e. chicanes, speed bumps), which limit emergency vehicle response time, reduce street parking and increase construction and maintenance costs.
- **Minimize pavement width:** The widths of streets will allow operational safety while providing for an enhanced pedestrian realm. The width of the pavement in particular will be kept as narrow as practically feasible to encourage traffic to slow down.
- **Encourage on-street parking:** On-street parking will help to slow traffic. It will also serve as a protective buffer between pedestrians and moving vehicles.
- **Introduce landscaping:** Tree-lined, vegetated streets create an evolving and lasting impression of the street. Trees can also provide physical buffering between the pavement, the sidewalk and private dwellings. In addition, the shading effects of mature street trees have a significant impact in reducing the urban heat island effect.
- **View Terminus:** At the terminus of streets and other view corridors, buildings should employ architectural features and a high quality of facade detail to emphasize the prominence of these special locations.



Figure 3.3: Housing will include a variety of types and densities on a pattern of blocks designed to promote walking, cycling and transit.

Street Patterns to promote visibility and access to public open space.

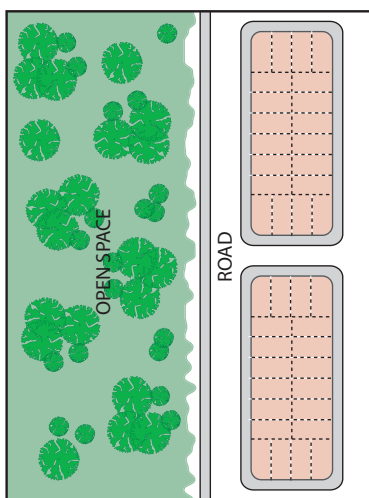


Figure 3.4: Single-loaded Road (Parallel Lots)

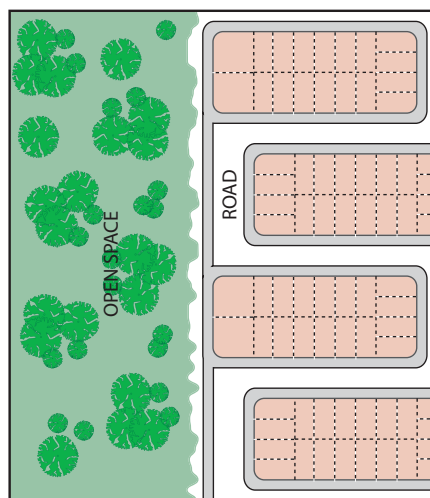


Figure 3.5: Crescent or Window Roads

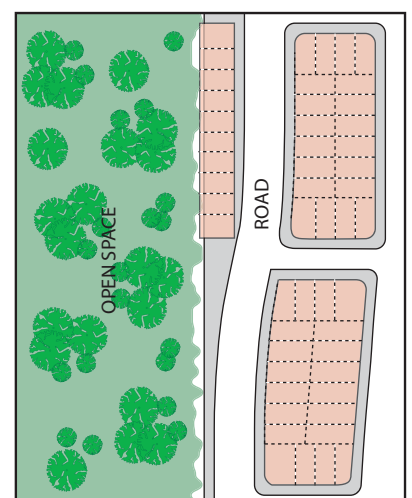


Figure 3.6: Single-loaded Road

3.2.2. Community Design for Active Transportation

A variety of active transportation modes will provide healthy means of travel and will support a variety of land uses. Good circulation complements mixed land use and a concentrated population. To enhance circulation, block sizes will be kept relatively small. In addition, a variety of different sized blocks will produce buildings of different shapes and sizes. Mid-block connections on larger blocks may be required to facilitate defined pedestrian connection with and between neighbourhoods. Please refer to *Section 3.4.5.* of this document, regarding mid-block connections and building separations.

Design Guidelines:

- a) Land uses should be arranged to support transit and road infrastructure.
- b) A range of larger and smaller blocks should be created to promote different sizes and shapes of buildings and correspond with local topographic features.
- c) Block lengths should generally not exceed 250 metres. Where blocks exceed 250 metres, wide mid-block pedestrian connections may be required to ensure the connectivity of the pedestrian environment. A block refers to a parcel of land defined by its surrounding public streets and open space.
- d) Pedestrian, cycling and vehicular connections to existing neighbourhoods south of Dundas Street (RR5) should be created.
- e) The circulation network should consist of direct, continuous and unobstructed routes for convenient access to neighbourhoods, open space and public transit.

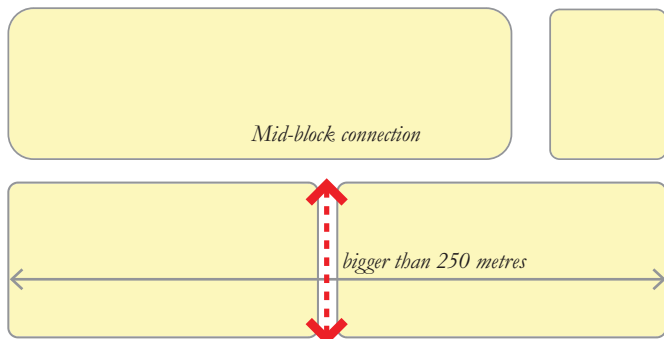


Figure 3.7: Provide mid-block pedestrian connections where blocks exceed 250 metres.

3.2.3. Gateway Features

The demarcation of gateways is created through the provision of consistent elements such as urban space, hardscaped or landscaped surfaces, public art and appropriate built form to provide orientation and to assist in defining a neighbourhood's distinctive character. Gated subdivisions within neighbourhoods and core areas are not permitted in North Oakville.

Design Guidelines:

- a) Gateways should create a sense of entrance and arrival, contributing to community image and identity. Elements contributing to gateway features and design include: trees and other landscaping, feature lighting, paving, seat walls, and public art.
- b) Major gateways should be located at visually prominent sites located at major entry points into the Town and at other prominent locations entering a Neighbourhood Centre, Core Area or other district.
- c) Minor gateways should be located at prominent intersections, secondary entry points to the Town, and entrances to individual communities to enhance the location's image.
- d) Development at gateways should meet a high standard of design, recognizing their role as a gateway, and be appropriately oriented to the public realm.
- e) Within parks, streets or other open spaces, unique elements such as landscaping, paving, lighting and public art can be used to signal transition into a neighbourhood, Neighbourhood Centre, Core Area or other district.
- f) Entrance features to new subdivisions, such as ornamental walls and signs, shall not be permitted.
- g) Where permitted, landscaped gateway features shall be located on municipal property. Landscaped gateway features will only be considered on a case-by-case basis or where the features are located on private property to provide a gateway to a neighbourhood (as defined in the Secondary Plans). Landscaped gateway features shall not be used to identify individual subdivisions but instead should incorporate wayfinding features for the Neighbourhood as a whole.

3.3. General Land Use & Site Design

The following general guidelines refer to all building types within North Oakville except where indicated. Specific guidelines for individual building typologies (low, mid and high-rise) are included in *Sections 3.4.1 – 3.4.4.* of this document.

3.3.1. Building Orientation & Site Layout

Site planning for individual properties should maintain, to the greatest possible extent, existing environmental features. The relationship of buildings to one another and to open spaces influences the amount of energy they consume, the comfort of pedestrians at street level and the quality of interior spaces.

The North Oakville Master Plan shows blocks that maximize opportunities for natural heating, cooling, access to natural light and private outdoor space, privacy, security and views. Proposed building uses should also be planned to optimize natural conditions.

Design Guidelines:

- a) Buildings should be organized to define the public realm and frame abutting streets, internal drive aisles, sidewalks, parking areas and amenity spaces.
- b) Passive solar design should be incorporated into the design of block layouts, buildings, transportation corridors and open spaces.
- c) Main building entrances should face public streets and be directly accessible from public sidewalks. Houses fronting on to parks and open space can also create a positive relationship between housing and parkland.
- d) On streets where mixed-use or retail uses are provided within a shopping or main street setting, building setbacks should generally be reduced to minimize distances between building entrances and abutting public street and sidewalks to create a semi-continuous streetwall while allowing for a degree of articulation and the creation of civic spaces at regular intervals.
- e) Corner buildings at primary intersections should emphasize the focal nature and visibility of these buildings through elements such as towers, bay windows, projections, recesses,

materials, and other architectural details.

- f) Corner buildings and buildings that terminate primary view corridors should reinforce their prominent location through appropriate building massing, setbacks and building base design. Higher density development may also be appropriate for these locations.
- g) Where large format retail stores are permitted, setback areas should be mitigated through well designed surface parking, open space and, where appropriate, smaller single or multi-unit buildings. Please refer to *Section 3.4.2.3. Commercial Retail Units.*
- h) Large blocks should be sub-divided into smaller areas designed to ensure pedestrian connectivity. This can be achieved by local roads, internal drive aisles, a network of interconnected walkways and/or landscaping. The location of buildings and drive aisles should consider opportunities for future building infill and the conversion of private drive aisles to public roads.
- i) Mixed-use buildings and buildings with commercial uses at-grade should generally be located close to the public sidewalk to create a relatively continuous streetwall. This consistency will give a sense of enclosure to pedestrians on the street and aid in the regular placement of shops and public uses. Variations in the street wall are recommended where building forecourts, courtyards and other forms of public or semi-private open space are desired.
- j) Where commercial retail uses are desirable, but not feasible at the time of development, the design of ground floor uses should consider the flexibility to allow for conversion to commercial uses, including appropriate floor-to-floor heights and appropriate treatments of entrances and facades.



Photo 3.11: Mid-block walkways and courtyards should be designed as an extension of the public realm.



Photo 3.12: Clear sightlines, particularly within parking areas, should be emphasized.

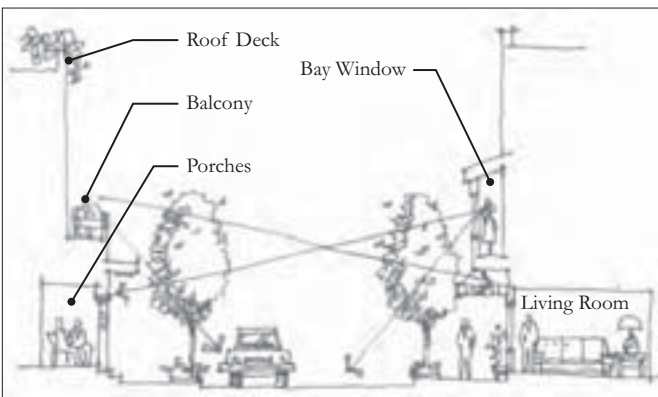


Figure 3.8: Site design should protect the safety of the residents as well as the general public who may be travelling through or visiting North Oakville.

3.3.1.1. Public Safety

Site design should protect the safety of the residents as well as the general public who may be travelling through or visiting North Oakville.

Design Guidelines:

- a) Site design should encourage safe public use and natural surveillance opportunities, particularly after dark, and provide users with informed choices for alternative pedestrian routes.
- b) Site design should result in clear, unobstructed views of parking areas, parks, school grounds, public institutions and open spaces from adjacent public streets.
- c) Buildings and main entrances should, where possible, front on to the public street to encourage a pedestrian-orientated streetscape and maximize public surveillance of the street.
- d) Sight lines between buildings along designated pedestrian walkways should be unobstructed and well lit.
- e) Lighting of pedestrian walkways should occur only on main pedestrian routes and outdoor spaces to prevent a sense of false security in remote, less populated areas.
- f) The selection, siting and maintenance of landscape elements should consider views for safety and surveillance opportunities.
- g) Views between the interior of public buildings to exterior public spaces should be promoted through the design of windows and other building openings.
- h) The placement of active public institutions, such as schools and community centres, in proximity to public open spaces will promote their active use and surveillance opportunities.
- i) Promote orientation along public walkways and through public spaces through well signed/marked routes.
- j) Building and site design should adhere to CPTED (Crime Prevention Through Environmental Design) principles.

3.3.1.2. Barrier-free Access

Principles of universal design should be applied to public streets, open spaces, site plan and building design (as per the Ontario Building Code). Standards are currently being developed under the Accessibility For Ontarians with Disabilities Act (AODA) which relate to the built environment. These standards may supercede the Ontario Building Code and may be made into regulation during construction in North Oakville.

Design Guidelines:

- a) At a minimum, circulation and building access for pedestrians and vehicles should conform to barrier-free access requirements as set out by the Ontario Building Code (OBC). In addition to meeting the minimum access requirements for the OBC, the Town encourages the use of the Town of Oakville Guidelines for Design of Accessible Facilities in the development and construction of all new facilities, private or public, throughout the community. The Guidelines address issues of access and circulation, parking, landscaping, street furniture, signage, lighting, materials and finishes, as well as some municipal facility specific requirements. The Guidelines are available at www.oakville.ca, with hard copies available at the Planning Department counter.
- b) Access structures such as ramps should be designed to harmonize with buildings.
- c) Barrier-free accessibility should provide access to the ground level of all publicly accessible buildings.
- d) Curb ramps should provide barrier-free connections between the driveway and pedestrian walkways.
- e) Tree planting and other landscaping outside of the Natural Heritage System should not be an obstacle to the barrier-free path of travel.
- f) The design of buildings other than single, semi-detached or townhouses, should result in accessibility for everyone.



Photos 3.13 & 3.14: Ramps and gently rising steps can complement the use of outdoor areas for all users



Photo 3.15: Pictorial, written and tactile signage should indicate the location of accessible facilities.



Photo 3.16: Building articulation is used to express the buildings main components: base, middle and top.



Photo 3.17: A prominent entrance canopy orients visitors, provides weather protection and creates a connection between the building interior and the street.

3.3.2. Building Articulation & Detailing

Building articulation refers to the organization of building façade elements including walls, entrances, roofs, windows and projections or recessions. The articulation of buildings is of particular importance at the street level and the design of the building base.

Buildings must demonstrate a high quality of architectural design that reflects their context and function. The North Oakville Area will evolve with a variety of building types and architectural expressions. Buildings should be developed using design and building principles that are consistent with sustainable development practices. To ensure an interesting building fabric and a diverse image, any existing heritage or buildings of architectural significance should be retained, where necessary.

Buildings facing Major Arterial/Transit Corridors, Minor Arterial/Transit Corridors and Avenue/Transit Corridors and those at major intersections should apply a level of design that demonstrates their focal role.

Design Guidelines:

Pedestrian Access and Entrances

- a) Main building entrances for mid and high-rise buildings should work in conjunction with retail uses and can be expressed and detailed in a variety of ways including large entry awnings, canopies or double-height glazing. Building entrances should promote visibility to interior lobbies to allow for safe and convenient arrival and departure from the building.
- b) A variety of front door styles is encouraged, including some with glazing.
- c) Encouraged covered main entrance features include: front porches, porticos, verandahs, recessed entries.
- d) Public spaces with seating are encouraged near entrances for mid and high-rise buildings.
- e) In multi-tenant development, the use of multiple pedestrian entrances into the building at street level is encouraged.
- f) In mid and high-rise buildings, windows should be coordinated with design of building entrances and waiting areas to reinforce exposure between indoor and outdoor areas.
- g) Steps and ramps should be architecturally integrated with the building entrance.

Building Façades

- a) Blank façades that extend the entire length of the building parallel to a public street should not be permitted. Building façades may include the following elements:
 - Windows (display windows or views of the interior);
 - Awnings and canopies;
 - Outdoor terraces and patios;
 - Projections and recesses; and/or,
 - Architectural details and change of materials.
- b) All low rise residential buildings should incorporate design measures to increase natural surveillance opportunities between the private dwelling and the street, such as useable front porches, grade level windows including front door windows and sidelights, and rooms and/or balconies built above the garage. In particular, this should include, in a portion of each street, dwellings with a front façade which includes active living space such as family/living rooms, studies, dens and kitchens facing the street. The specific portion of the street will be determined as part of the architectural control or site plan approval process, and will reflect an analysis of the factors such as the type of garage, the use of useable front porches and other similar design measures which enhance the relationship between the dwelling and the street for the block as a whole.
- c) In Core Areas and Mixed Use Areas, a portion of ground floor units should be designed to accommodate live-work or mixed uses, or the conversion of these uses. In Neighbourhood Centres, a portion of ground floor units should be designed to accommodate mixed uses, or the conversion of these uses. Such units, with the exception of live/work units, should be designed with taller ground floor heights to allow for conversions between residential, work and/or retail uses.
- d) Secondary building façades fronting on to public streets should have a design and materials standard equal to the front or primary building façade.
- e) Functional building elements, such as vents or rainwater leaders within the wall plane, should be integrated into the architectural design. Low-rise residential buildings, such as singles, semis and townhouses are excluded.



Photo 3.16: The lower portion of building façades should receive the greatest amount of architectural detailing and contain the highest quality materials.



Photo 3.18: Extensive glazing used on the ground floor of this building creates a strong connection between the building lobby and the street.



Photo 3.19: Large storefront windows provide opportunities for creative shop front displays.



Photos 3.20, 3.21, 3.22 & 3.23: Samples of preferred architectural materials.



Photo 3.24: This Montréal high rise mitigates the visual impact of its height through the articulation of massing and the choice of materials.

Building Materials

- a) The front façade of buildings should provide a high standard of design, detail and variety of materials. Wall facing material should be combined to create front building façades with a distinct, well-balanced street presence.
- b) Building materials should be chosen for their functional and aesthetic quality as well as for energy and maintenance efficiency. Exterior finishes should exhibit quality of workmanship, sustainability and ease of maintenance.
- c) Lintels, cornices and other details are recommended to be incorporated within brick and stone walls to reduce the heavy effect of these materials.
- d) Despite the use of various architectural styles, quality should be consistent and building materials and finishes should be complementary.

Building Detailing

- a) New developments should achieve a unique identity that is respectful of context. Building variety and architectural detail may be achieved by period/historic architecture, however an emphasis on a contemporary architectural vocabulary is encouraged.
- b) For residential units on the ground floor with direct access from the street, privacy should be enhanced through the creation of a private and/or semi-private outdoor amenity space (including lawns). Please refer to Figure 3.25 on page 58 of these guidelines.

Porches and Building Projections

- a) Building projections including porches, decks, balconies and stairs are encouraged as transitional building elements that provide weather protection, dwelling access and useable amenity spaces.
- b) Porch and deck dimensions should be large enough to accommodate furnishings and ensure their active use. For useable sections of the front porch, the minimum depth should be in the range of 1.5 - 2.0 metres (5.0 - 6.5 feet).
- c) The design of porch railings and columns should be integrated and use complementary materials such as wood and/or metal or other appropriate material.
- d) Where the situation cannot be addressed through landscaping, finish materials should extend to all sides of the porch and stairs. The underside of the porch should not be exposed to the street.
- e) Stacked townhouses and other multi-unit dwellings should provide porches at or below the main building entrance and decks as outdoor amenity spaces for upper units.
- f) Continuity of front porch design is recommended between townhouses, attached and semi-detached dwellings. Material and detail variations may occur between porches provided the scale and proportion is maintained.
- g) Balconies should be designed as integral parts of the building design. Balconies should be provided for residential apartments, wherever possible, and should apply similar minimum dimension as porches.
- h) Wraparound porches/verandas are encouraged on corner lot dwellings or other locations where the side yard of the dwelling is visible.



Photo 3.25: Residential off-street entrances can be buffered with plantings and enclosed terraces to enhance privacy.



Photo 3.26: High quality finishes, landscaping and stepbacks are used to create a buffer between the public sidewalk and private residences.



Photo 3.27: Porches are a desirable element of house design. Collectively, they create a vital transitional place between the house interior and the street.

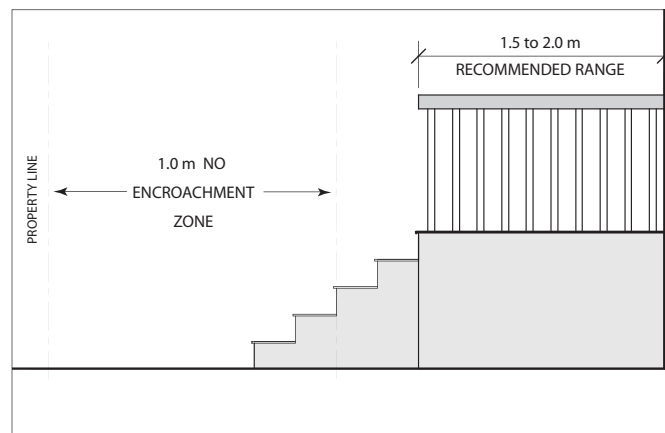


Figure 3.9: The minimum depth for the useable area of a front porch should be 1.5 to 2.0 metres.

Window Treatments

Windows are an important element of any building façade that overlooks a street or area of public activity.

- a) Window design should be primarily an expression of the interior dwelling use. Creative arrangements of windows should have a functional role in providing natural ventilation and light, views and privacy to the individual and adjacent dwellings.
- b) Windows facing the street frontage, whether display windows for retail use or windows for office space, should be large, occupying a significant portion of the street elevation between the ceiling and floor at-grade.
- c) Front residential dwelling façades should include a substantial percentage of surface window area from a main living area, especially at-grade to promote visibility and safety on the street.
- d) Where residential units are proposed at-grade, bay windows or other large windows are encouraged as they increase visibility from private dwellings to the public realm and add to the building character.
- e) Skylights and clerestory windows are encouraged. Skylights can be treated as distinct roof elements and be coordinated with other roof and building elements.
- f) Clear glass is preferred for all glazing to promote a high level of visibility. Reflective and tinted glazing may be used for reasons of energy efficiency.



Photo 3.28: Louvers control direct sunlight and maximize desirable indirect daylighting.

Weather Protection for Mixed-Use, Commercial and Employment Related Buildings

- a) Canopies and porticoes are recommended to provide weather protection to pedestrians and help articulate building elevations and principal building entrances.
- b) Weather protection features such as canopies should be allowed to project beyond the property line, provided that there is adequate height clearance.
- c) Colonnade design should not overly impede views or access to storefronts.
- d) Consider the design of convertible colonnades that provide climate protection in winter and shaded breezeways in warmer seasons.



Photo 3.29: Convertible colonnades provide climate protection in winter and shaded breezeways in warmer seasons.

Roofs

- a) A variety of roof shapes should occur on each block to create individuality of address through differing roof forms. This variety is not required where similar rooflines are a characteristic of the building or dwelling type (i.e. townhouses, semi-detached dwellings and condominiums).
- b) Pitched or sloped roofs may be considered as alternatives to flat roofs for commercial development.
- c) Roof materials and colours should complement the building's cladding materials.
- d) Rooftop mechanical equipment should be integrated with the building design, and rooftop units and vents should be screened using materials complementary to the building.
- e) Parapets or other architectural screening devices should be used to screen rooftop mechanical units.
- f) To create greater interest in the skyline, taller buildings may introduce articulation in the upper floors. This can be achieved through the use of terracing and/or architectural elements including projecting roof lines, trellises or vertical elements.
- g) Flat roofs and roof terraces are encouraged to be used as private and communal outdoor patios, decks and gardens. "Green" roof technologies are encouraged.
- h) Roof elements including chimneys, dormers, pitches, cupolas and vents should be encouraged as distinct elements providing the potential for additional variety in dwelling units.
- i) The use of dormers on sloped roofs is encouraged to allow use of top storeys, or to allow future conversion of attic spaces. Dormer windows should be complementary in design and placement to windows in the lower storeys.



Photo 3.30: This roof garden is enjoyed by building occupants and contains a variety of plant and tree species.



Photo 3.31: Townhouses show their individuality through architectural detailing and defined roof form.



Photo 3.32: This lightly coloured cool roof has some of the benefits of a green roof and integrates photovoltaic cells to supplement the building energy needs.

3.3.3. Storage, Servicing and Loading

3.3.3.1. Servicing and Loading

Where service and loading areas apply, they should not be visually obtrusive. The visual impact of service and delivery areas should be minimized. Landscape treatments are encouraged to provide additional screening to service area enclosures.

Design Guidelines:

- a) Loading docks, outside storage and service areas should be located in areas of low visibility such as at the side or at the rear (non-street side) of buildings. Outside storage of any kind in public street rights-of-way, exterior side or front yard building setbacks or easement areas is not permitted.
- b) Service and refuse areas should not encroach into the exterior side or front yard setback. Such areas should be screened with a minimum height that ensures service and refuse areas are not visible. Service and refuse areas should be paved with an impervious surface of asphalt or concrete.
- c) 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 doors should not dominate the building frontage and should be screened from adjoining public rights-of-way.
- d) Service and outside storage enclosures should be constructed of materials to match or complement the building material. No enclosure should be made of any form of chain link 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. Waste enclosures should enclose an area large enough to accommodate the peak needs of the various potential users of the building.
- e) Service areas for delivery, loading and garbage pick-up are encouraged to be coordinated to reduce the number of curb cuts along the public street and within parking areas, and to be screened from public view.
- f) Service areas should be separated from pedestrian amenity areas and walkways.

- g) Where screening is required, building and/or landscape materials similar to those used for the main buildings are encouraged.
- h) Separate service driveways are not encouraged. Service driveways should be coordinated with those of parking areas to reduce curb cuts along the streetscape.



Photo 3.33: The design and placement of storage should minimize visibility from public areas.

3.3.3.2. Outside Storage

Outside storage should be permitted in the General Employment District only. Outside storage areas must be screened from public view through architectural screening, landscape buffering, berms or a combination of such treatments. In general, open storage should be located at the rear of lots, screened by building placement or by landscape screening. Outside storage will not be permitted on yards adjacent to Highway 407, Trafalgar Road (RR3) or the New North Oakville Transportation Corridor.

Design Guidelines:

- a) Outside storage areas are not permitted to be located in the front of a building.
- b) Loading, service and outside storage areas may occupy the full rear yard frontage if adequate landscape edge and buffer treatments are provided.
- c) Service and outside storage enclosures should be constructed of materials to match or complement the building material. No enclosure should be made of any form of chain link fencing. Gates and/or access doors may be constructed of materials different from the actual enclosure material to facilitate operation.
- d) Outside storage areas should be fully screened by wall enclosures. Screen walls should have a minimum height equal to that of the item in which it is screening.
- e) Outside storage should not be visible from any street.



Photos 3.34 & 3.35: The design of outside storage and loading areas should be integrated into the overall building and site design and be constructed of durable high quality materials. The photo above shows a wood screen enclosure and the photo below recesses the storage area under a projecting building element.



Photo 3.36: Mixed-use buildings with retail at-grade will create the social centres of the community.



Photo 3.37: Mixed-use buildings will foster mutually beneficial relationships between upper level residents and businesses and ground floor commercial retail uses.

3.4. General Building Typologies

3.4.1. Low-rise Mixed-use Buildings

Mixed-use buildings should have a strong relationship with the street. Parking should either be provided on the street or at the rear of the development. Mixed-use buildings with retail located at-grade are encouraged within the Urban Core, Neighbourhood Centre or in other appropriate locations.

General Principles for Mixed-Use Buildings

1. **Strong Street Edge:** A human scaled environment should be reinforced through appropriate building height, mass and architectural design. The building base should be articulated with entrances, canopies, large areas of glazing, and retail opportunities.
2. **Active At-grade Uses:** Active commercial uses are encouraged at-grade. Office and/or residential uses are encouraged above the first storey.
3. **High Quality Public Amenities:** Development should address all public streets and all public spaces adjacent to high density development. Outdoor amenity areas should be provided, wherever possible, either at the front, side, rear or roof of the building. This space is preferably located adjacent to indoor amenity space. Outdoor amenities should be in view of residential units and at a location that receives direct sunlight.
4. **Distinct Image and Quality:** The ground floor of buildings should be designed to express the individuality of the commercial or residential unit through architectural expression, entrance doors and windows that address the public realm. Consistent rhythms of similar but not identical details and architectural elements should be used to reinforce the streetscape and a strong neighbourhood image. Despite the use of various architectural styles, quality should be consistent and building materials and finishes should be complementary.
5. **Environmentally Sustainable:** New buildings and major additions should be designed to achieve a high degree of environmental sustainability and address opportunities for energy and water efficiency, optimization of solar orientation and minimization of water runoff. LEED certification of buildings is encouraged.

3.4.2. Low-rise Commercial Buildings

A strong relationship between the street and commercial buildings is facilitated through shallow setbacks, on-street parking and/or placing parking at the rear of the building. At-grade, commercial buildings should contain active office or commercial space. Office uses on the second floor and above are encouraged. Only street level units should have separate entries, all other units should share a single main entrance and lobby. Providing additional secondary entrances to a development helps animate the street while the main entrance defines the symbolic entrance and civic address.

General Principles for Commercial Buildings

- 1. Strong Street Edge:** All commercial retail development, including Large Format (or 'Big Box') uses, should provide continuous physical definition to streets (i.e. establish a street wall) and public spaces. Physical definition is achieved by locating buildings close to the street edge, direct access from the sidewalk with off-street parking located behind buildings or in parking decks and structures.
- 2. Recognize the Urban Context:** Commercial retail development contributes to an urban, pedestrian focused public realm. The provision of flexible building forms that will allow retail to be integrated into buildings at-grade, as market conditions permit, will ensure North Oakville's evolution towards a truly urban community.
- 3. A mix of uses and sizes:** Although one type of land use may dominate in a shopping district, a mix of land uses and unit sizes should be provided to the extent possible to increase diversity and flexibility.
- 4. High Quality Public Amenities:** Development should provide high quality public amenities including urban squares, landmark features and art installations to promote a positive site appearance, pedestrian activity and social interaction.

3.4.2.1. General Guidelines

The highest quality of architecture and sit planning should apply where low-rise commercial buildings are present. All buildings should be sited and designed to be compatible with North Oakville's urban context and the character of adjacent development.

Design Guidelines:

- a) Large retail stores should be designed to be conducive to a vibrant and active street life. Design alternatives to achieve this goal, may include direct street frontage of the large retail building or, in instances where the building is required to be setback, the placement of smaller retail or mixed-use buildings at the street edge or along major drive aisles.
- b) Pedestrian amenities should be provided including walkways that connect entries, seating and human scaled lighting.
- c) Where appropriate, open spaces or walkways between buildings should be well landscaped, at the street edge and through parking areas.
- d) Excessive signage and illumination should be avoided. Roof lighting and illuminated awnings are all strongly discouraged.



Photo 3.38: Multi-storey large format retail buildings are strongly encouraged.



Photo 3.39: The primary entrance design should incorporate high quality architectural treatments such as clerestory windows and materials.

3.4.2.2. Large Format Retail

Large format retail stores pose significant urban design challenges in terms of building scale, design and parking requirements. Development of these stores may also be interim and not represent the ultimate long term build out of the site. The following guidelines recognize that some large format retail will be interim, or short term, while other opportunities will permit



Photos 3.40 & 3.41: Example of large-format retail stores presenting an articulated and animated street frontage that supports an active public realm.

large retail developments to achieve a more long term urban form from the outset.

Design Guidelines:

Building

- a) Opportunities to provide more compact building forms should be considered including multi-storey stores and reduced building setbacks.
- b) Excessively long façades should incorporate architectural detailing, entrance features, recesses and projections along the length of the façade.
- c) Smaller retail units should line part of the principal building and have display windows and separate entrances.
- d) The primary building entrance should face the street. Additional building entrances may be provided to improve building access. Site planning and building design should ensure a reasonable visibility of all building entrances to promote natural surveillance opportunities.
- e) The principal building entrance should be highly visible with features such as canopies or porticos, arcades and landscaping.
- f) Predominant exterior building materials should be of high quality materials such as brick, wood or stone. Stucco, concrete block or E.I.F.S. panels can be used, but should be balanced with other high quality materials.
- g) Exterior materials should be varied in colour and texture, where appropriate, to provide architectural interest.

- h) False upper floors are not acceptable. All floors visible from the street should be functional.

Setbacks

- a) Setbacks of buildings to public streets should be minimized wherever possible.
- b) Community amenities, such as seating areas, water features, and public art installations, should be considered within setbacks to a public street or at specified site locations.

Pedestrian Infrastructure & Streetscaping

- a) Sidewalks should be provided on both sides of all adjacent public streets to facilitate pedestrian movement and access.
- b) Where a continuous internal pedestrian walkway is provided from the perimeter public sidewalk to the principal store entrances landscaping, benches and pedestrian-scaled lighting should be provided
- c) Sidewalks should be provided along the full length of the building along any façade including a store entrance and along any façade abutting public parking areas. Continuous tree planting and/or other landscape treatments should be considered.



Photo 3.42: The façades of large format retail buildings should be highly articulated and provide multiple entrances and a variety of small stores.



Photo 3.43: Public amenities should be provided within large format retail blocks. Plazas and areas for socializing provide users with places of respite.

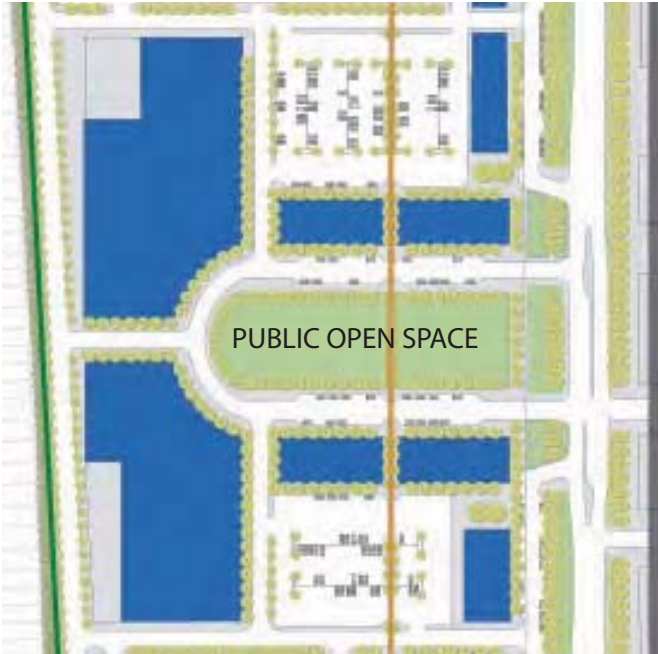
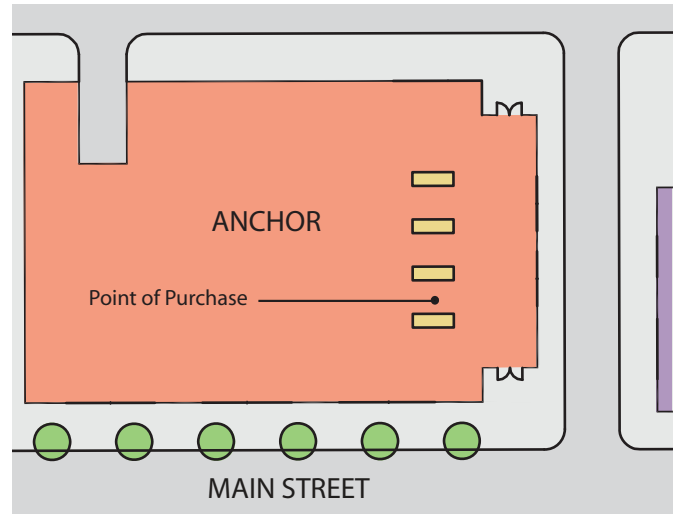
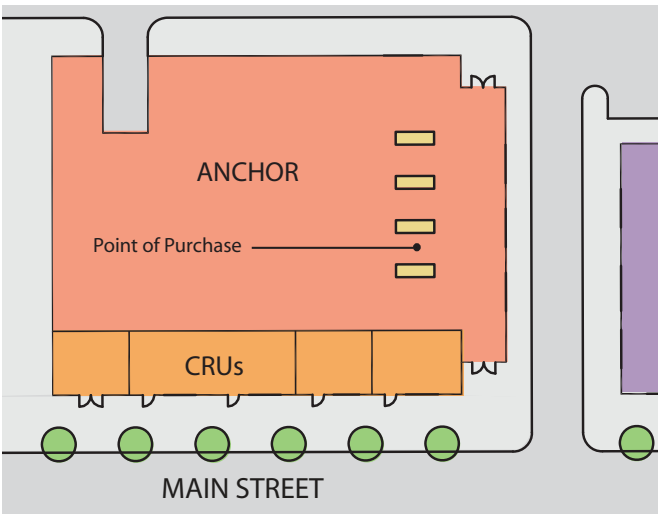


Figure 3.10: Large format retail, in combination with smaller CRUs, can be designed to frame public space and reasonably screen large surface parking lots.

- d) Internal pedestrian walkways should be distinguished from driving surfaces through the use of concrete or special paving to enhance pedestrian safety and the attractiveness of the walkways.

Site Layout & Parking Areas (Please refer to Section 3.12.2. Surface Parking)

- a) Large retail stores should be integrated into a consistent pattern of streets or private drives and blocks
- b) Large surface parking lots located between the front façade of the large format retail building and the primary abutting street should be discouraged. Infill development along the street line should be promoted to reduce the visual impact of large format parking areas.
- c) Parking areas should incorporate pedestrian walkways, where feasible, to enable safe and direct movement to principal customer entrances.
- d) Landscaping islands and modules should be located, where possible, at each end a row of parking spaces.



Figures 3.11 & 3.12: Large format retail stores should be sited to address the street and, where feasible, include smaller Commercial Retail Units (CRUs) to promote a more active main street condition.

3.4.2.3. Commercial Retail Units

The arrangement of smaller commercial retail units (CRUs) that align walkable “main streets” with a consistent rhythm of entrances is strongly encouraged.

Design Guidelines:

- a) The location of smaller-format Commercial Retail Units (CRUs) can be used to define street edges, courtyards, terraces and other public open spaces.
- b) CRUs may be located and designed to create a ‘main street’ shopping environment through their continuous alignment and, where feasible, multi-storey façades.
- c) Building entrances should be located on the street side of the building. If this is not possible, a clear and direct pedestrian route from the public sidewalk to the entrance should be provided.
- d) The co-location or close proximity of retail commercial units and the coordinated alignment of entrance doors is encouraged to facilitate sequential shopping.
- e) Areas not required for servicing between buildings should be well landscaped and programmed (i.e. outdoor seating and dining areas).
- f) CRUs should have continuous pedestrian sidewalks on all sides of the building where public entrances and parking areas are located.



Photo 3.44: Large expanses of glazing help to define the pedestrian realm surrounding the smaller format commercial retail units.

3.4.2.4. Gas Station Design

Gas station design should enhance the quality of the community and adjacent commercial and neighbourhood areas through high-quality site planning and architectural design. Pedestrian and vehicular access should be equally considered. Gas stations should demonstrate a high quality of site design through coordinated built form and landscape design particularly at the street edge.

Design Guidelines:

Site Plan Design & Circulation

- a) The street frontages of a site should be designed with either street oriented buildings such as a convenience store and/or a substantial landscaped area, including low walls and/or fencing. The maximum height for low walls or fencing should be 1.2 metres. Materials should be of high quality such as masonry and/or decorative metal. Planting material should consist of low-growing shrubs and perennials that do not exceed a maximum of 1.2 metres in height. This height ensures clear visibility of both pedestrians and drivers. High-branching deciduous trees are also appropriate.
- b) Where a convenience store is proposed, the building should be street oriented to define the street edge. On corner lots, buildings should be located at the corner. An active entrance facing the street is encouraged.
- c) Transparent windows and doors should be used for convenience store buildings to ensure visibility between the store, pumps and surrounding streets.
- d) Consistent building materials should be used for the convenience and car wash buildings. High quality materials such as stone, brick and wood are preferred over stucco (i.e. E.I.F.S.) panels.
- e) Any vehicle wash facility should generally be located as far from the street lines as is reasonably possible, while providing sufficient space for vehicle stacking, appropriate setbacks from property lines and landscaping. Where a car wash is proposed near the street edge, clear windows should be used in the design of car wash façades to animate the street by providing views into the car wash.
- f) Parking spaces and gas pumps should be setback from the street edge and screened through the use of landscaping and/or built form.
- g) On-site circulation should be designed to avoid conflict

between pedestrians and vehicles. Barrier-free pedestrian walkways and driving surfaces should be distinguished by using varied paving treatments.

- h) Barrier-free pedestrian walkways should be provided between the public sidewalk and building entrances. On a corner lot, a pedestrian walkway should be provided from each adjacent sidewalk. Pedestrian walkways should also be provided from parking areas to building entrances.
- i) Clear sightlines and views should be provided between site areas (i.e. pumps, convenience store and car wash) and the public street to promote public safety.
- j) Any building with direct exposure to the abutting streets should be designed with appropriate architectural treatments or details on main walls and windows. Main entrances should be defined and oriented towards the street for pedestrian access.
- k) Signage should be integrated into the massing and articulation of a building. This can be accomplished by using canopies, taller building elements or a variety of other building elements.
- l) Planting materials should be selected considering their tolerance to urban conditions, such as road salt and heat. Hardy, native species are encouraged.
- m) A landscape buffer should be located along the side and rear yard of the property to provide screening from adjacent uses. Where the site is adjacent to residential or institutional properties, a noise attenuation fence should be used.
- n) Sustainable site design practices may be integrated into service station developments. Green building technologies should be considered to help reduce the urban heat island effect and stormwater runoff.
- o) Provision in the site design for emerging automotive technologies may be considered.

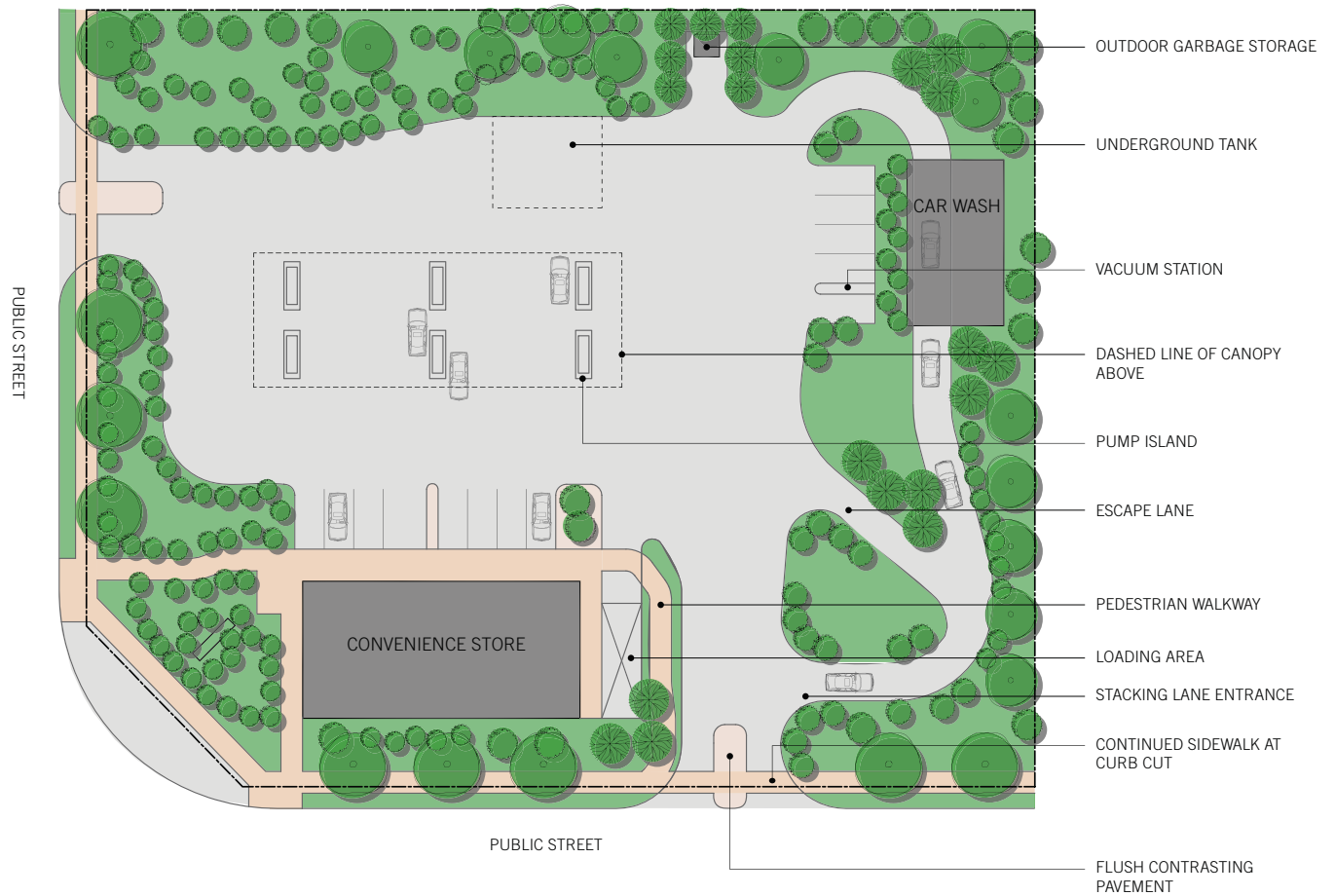


Figure 3.13: Gas Station Site Plan adapted from the City of Ottawa Planning and Growth Management Department: This site plan illustrates opportunities for a more urban gas station site plan where the convenience store addresses the street edge, landscape treatments screen vehicular areas and the car wash is located at the rear of the site.



Photos 3.45 & 3.46: Planted low walls and landscaping should be used to buffer parking areas and stacking lanes and should be used to define the street edge.

Parking & Vehicular Site Access

- a) Stacking lanes should be separated from parking areas through the use of landscaped islands.
- b) Stacking lanes should be located such that vehicle line-ups do not block traffic along public streets or impede the movement of vehicles on site.
- c) Vehicular access points should be located with adequate spacing from street intersections.
- d) The number and width of curb cuts should be kept to a minimum.
- e) Where a convenience store is proposed, parking should be located at the side and/or rear of the building.
- f) Parking should be integrated into the site plan design through the use of landscaped islands, trees and low plantings.
- g) Parking should not be located between the building and the street.

Utilities & Services

- a) Noise-generating areas (such as auto service bays, car wash openings, vacuum stations, outdoor loading areas, garbage storage and stacking lanes) should be located away from sensitive uses such as residential areas and schools.
- b) Utility boxes, garbage and recycling container storage, loading docks and ramps, and air conditioners should be located within buildings or screened from public view.
- c) Rooftop mechanical equipment should be set-back from the edge of the building and screened to minimize visual impact.
- d) Above grade utilities and services such as loading and garbage bins should be located at the rear or side of the convenience store or car wash building.
- e) Enclosed utility and service facilities should be clad with durable materials that either match or are complementary to the main structure. The wall height of a garbage enclosure should be high enough to completely conceal the garbage dumpster.
- f) Lighting should be designed to ensure that there is no light spillage or glare cast over adjacent uses.
- g) White light sources should be used to reduce energy costs and to create a natural colour balance for safety and security.

3.4.2.5. Drive-throughs

Drive-throughs are not permitted in the Trafalgar Urban Core Area. For other areas please refer to the Town's Drive-through Facilities Urban Design Study and Guidelines.



Photos 3.47 & 3.48: Drive-throughs should incorporate upgraded landscaping and be as visually unobtrusive as possible.

3.4.3. Low-rise Residential Buildings

For the purposes of this document, low-rise buildings will constitute structures 2-4 storeys. Low-rise does not necessarily imply low density and a variety of higher density low-rise buildings are anticipated including small and large lots single family houses, townhouses, stacked townhouses, walk-up apartments and other multi-unit residences.

These housing forms are encouraged to maximize the use of land, municipal services and other resources.

General Principles for Residential Buildings

The following outlines the general principles for residential design and is followed by detailed guidelines.

- 1. Create a Strong Public Face:** The houses that line the street substantially influence the image and pedestrian experience of the streetscape. House designs that accentuate an attractive and animated building frontage using elements including large windows, front porches and steps combined with architectural variety will contribute positively to the streetscape and aid in casual surveillance opportunities. Garages should not be the dominate feature of the house and preclude opportunities to have useable rooms that look out on to the street.
- 2. Automobile Storage should be Subordinate:** To reduce the impact of automobile storage, the house façade should have greater expression than the garage through a well articulated façade.

- 3. Create Dual Frontages on Corner Lots:** On corner lots, give positive expression to the two street frontages through the use of wrap-around front porches or sunrooms, bay windows and side entrances, where possible. Privacy fencing should be limited to screening the back yard only.
- 4. Provide a High Quality Design:** Housing design is intended to encourage creativity and diverse interpretation of architecture. The design guidelines will enable a variety of housing projects and styles while still creating cohesive, integrated and high quality neighbourhoods.
- 5. Activity & Safety:** An animated residential streetscape is a key design consideration. Housing should incorporate designs with habitable, street facing rooms (i.e. living, dining rooms and kitchens) to promote neighbourhood safety through “eyes on the street”.
- 6. Context Sensitive:** The mass, scale, and architectural elements of residential buildings should be sensitive to adjoining areas.
- 7. Housing Variety & Choice:** A full range of housing types (i.e., detached, semi-detached, townhouse, apartments) should be provided to accommodate a wide demographic (i.e. couples, families with children, single parents, seniors, people with special needs, and others). A range of housing types will provide flexibility over time.
- 8. Environmentally Sustainable:** Residential development should be environmentally sustainable, and address opportunities for environmentally sensitive design.



Photo 3.49: Corner dwellings should provide positive expression to both frontages.



Photo 3.50: This house in Santa Monica is LEED Platinum.

3.4.3.1. Building Variation & Density

The provision of different dwelling types will influence the social composition of North Oakville by accommodating individuals of different ages, incomes and sociocultural backgrounds. A full range of housing types will be provided so that residents may age-in-place.

Design Guidelines:

- a) Housing variety should be achieved on each street and block as a means of strengthening neighbourhood character and providing more choice. Repetition of design (i.e. style, elevation and materials) should be allowed where repetition of building elements is a characteristic of the building or dwelling type.
- b) A range of housing types within neighbourhoods should be provided to promote variety and diversity, and address changes in market conditions. Housing types may include detached, semi-detached, townhouse, back-to-backs and/or apartments.
- c) The highest density of the designation should occur in areas with a variety of transportation options, including sites located close to:
 - Neighbourhood Centres and Urban Cores;
 - Larger public open spaces (e.g. neighbourhood parks and civic spaces); and,
 - Other community destinations such as: places of worship, community centres and cultural facilities.



Photo 3.51: These buildings project a positive interface with the adjacent open space.



Photos 3.52 & 3.53: Housing variety should be achieved on each street and block as a means of strengthening neighbourhood character and providing more choice.

3.4.3.2. Residential Building Typologies

Single & Semi-Detached Houses

Single and semi-detached dwellings are permitted housing types within fourteen Neighbourhoods identified within the North Oakville area.

Residential setbacks should provide appropriate front, side and rear yard setbacks to control lot coverage and drainage, provide adequate private open space, situate buildings in close proximity to the right-of-way and ensure adequate separation between adjoining buildings.



Design Guidelines:

General

- All housing should face adjacent public streets and, where feasible, open spaces. Rear lotting, if required, will be subject to Section 7.5.5.7 of the North Oakville East Secondary Plan.
- Dwellings on corner and flanking lots should be designed so both exposed façades are oriented towards the street. At these locations, building elements and design should emphasize their visibility and potential role as landmark or orienting structures within the community.
- The maximum building height is 3 storeys.

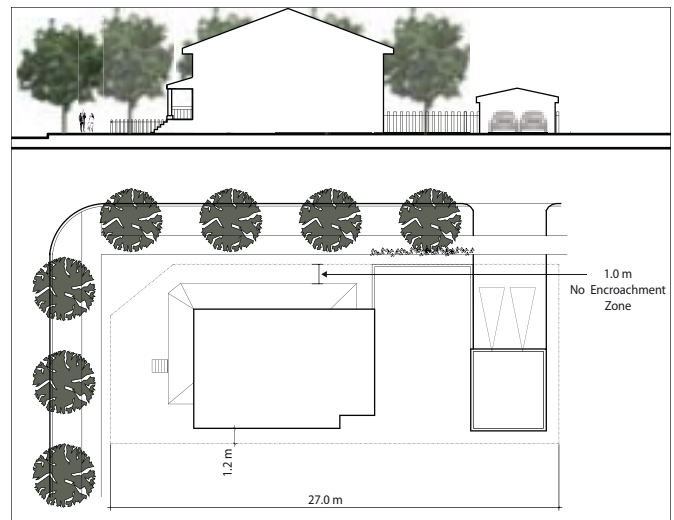


Figure 3.14: Illustration of a single detached dwelling with the garage accessed from the side.

Photos 3.54, 3.55 & 3.56: A variety of single and semi-detached houses will be provided in North Oakville.

Front Yard

- a) All residential front yards should have a minimum 1.0 metre “no encroachment” zone, with the exception of stairs which may encroach to within 0.5 metres of the front lot line. The balance of the setback may contain non-interior building elements including porches, steps and roof elements.
- b) A range of front yard setbacks along any street is recommended in order to achieve a diversity of setbacks on the streetscape. Front yard setbacks should generally be a minimum of 2.5 metres to allow for the provision of a useable front porch and allow for a transition between the public and private realm. Where inset porches are provided, the setback can be reduced to 2.0 metres.

Side Yard

- a) Interior side yard setbacks for single detached houses should generally be 1.2 metres & 0.6 metres, but 0.6 metres & 3.0 metres for lots with a garage located in the rear yard accessed by a driveway.
- b) On a lot abutting a non-residential use (including a walkway or a lane), a setback from abutting use may be required, depending on the nature of the non-residential use, and the relationship between the two uses. A setback in the order of 2.0 metres should be considered.

Rear Yard

- a) On lots with a front attached garage accessed by a driveway, the minimum rear yard setback should in most case be 7.0 metres from the rear property line to structures. However, one storey additions are permitted to project into the rear yard setback subject to regulations.
- b) On lots with a rear yard garage accessed by a lane, the minimum rear yard setback should be 0.75 metres from the garage to the property line.
- c) Rear yard decks/porches and garden sheds should be permitted as rear yard encroachments but should be a minimum of 0.6 metres from the property line.
- d) It is recommended that, where feasible, 10% landscaped amenity space (excluding driveways but including such features as decks, patios and pools) be maintained for single detached and semi-detached dwellings.

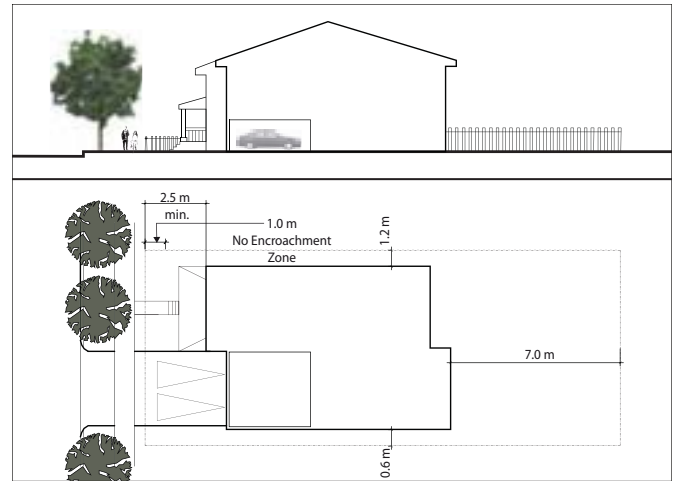


Figure 3.15: Front yard setbacks for single detached houses should be 2.5 metres minimum.

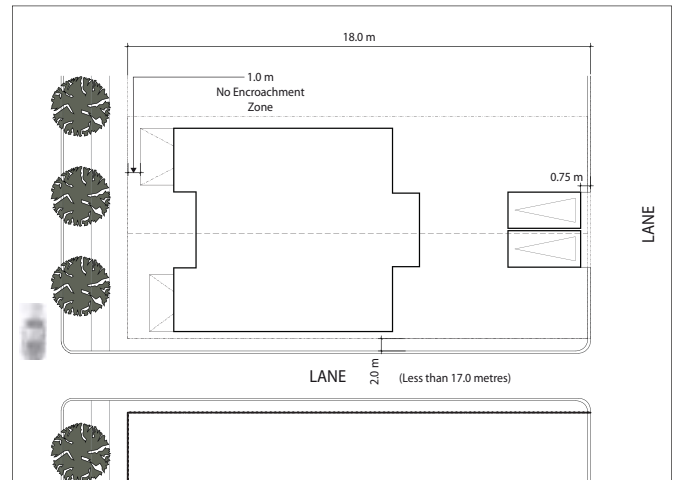


Figure 3.16: The minimum exterior side yard setback is 2.0 metres when the yard abuts a public right-of-way less than 17.0 metres.

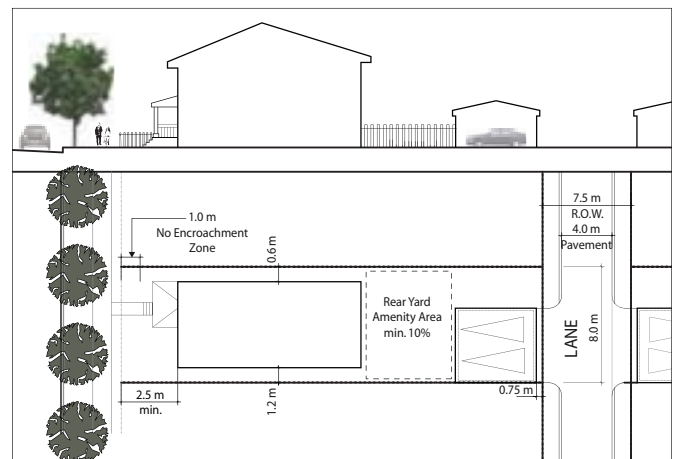


Figure 3.17: Illustration of a single detached dwelling with the garage accessed from a rear lane.



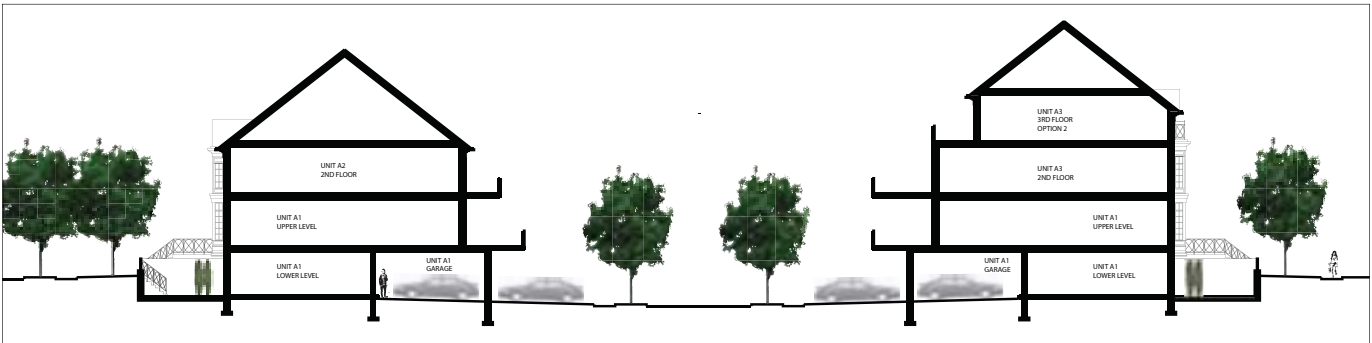
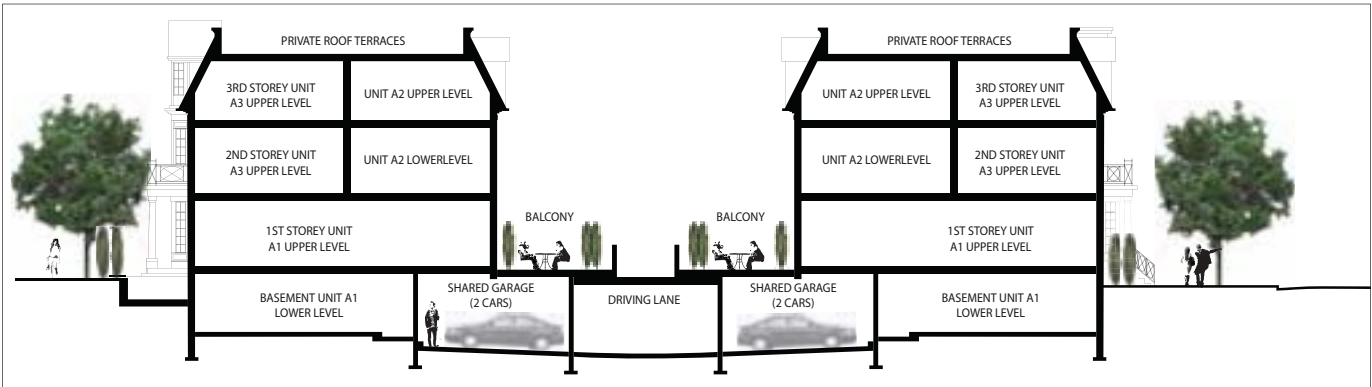
Photo 3.57: Townhouses can use elements of traditional low-density residential housing, such as peaked roofs, front porches and overhangs.

Townhouses

Townhouses will provide more compact, higher-density housing choices than single or semi-detached dwellings and, in some instances, may share outdoor and amenity space. Townhouses may provide the transition between low-density/low-rise housing and more intense multi-residential forms

Variations in townhouse form include back to back units, stacked units or a courtyard configuration, but generally townhouses should comprise a continuous row along the street within a 2 to 4 storey building.

Each unit should have entrances from the street at or near grade-level or, in the case of some stacked units, below-grade entrances may be acceptable. Setbacks for townhouses should allow for private amenity space such as balconies, patios or landscape open space.



Figures 3.18 & 3.19: Alternative multi-unit townhouse sections illustrating garage access, configuration and location options.

Design Guidelines:

- a) The main dwelling façade should be located parallel to the street and/or sidewalk, open space or park and, in general, line up with adjacent buildings to frame the street. Where the front entrance is accessed from the side yard, the main dwelling façade may be located perpendicular to the street provided that the dwelling façade fronting the street has high quality architectural design and fenestration.
- b) Rear yard parking accessed from a lane is preferred over front yard parking to allow for greater flexibility in the design of the front façade and front yard.
- c) The top of the front porch should not be higher than 1/2 a storey above grade (with the exception of stacked townhouses and in instances of extreme grading).
- d) Each unit will generally have a minimum front yard setback of 2.5 metres to allow for the provision of a useable front porch and allow for a transition between the public and private realm, and a minimum exterior side yard setback of 2.0 metres. Where inset porches are provided the setback can be reduced to 2.0 metres.
- e) Each unit will have a front and exterior side yard no encroachment zone of 1.0 metres, with the exception of stairs.
- f) End units in a townhouse should place windows and entrances facing the public street and along pedestrian walkways to encourage these areas to be visible, active and safe.
- g) The minimum lot frontage for townhouse units with front attached garages should be 4.9 metres. The end units are recommended to be wider to balance the proportion of house and garage to overall frontage.

Additional Guidelines for Block Developments

- a) Co-ordinated access to all developments within a block should be provided to use space efficiently.
- b) Common open space such as children's playgrounds (e.g. privately maintained tot lots) should be provided, where possible and where public facilities are not available nearby.
- c) Public walkways within townhouse developments should provide safe and direct access between public streets, parking and other site areas.



Photo 3.58: Stacked townhouses are a low-rise alternative to achieving higher density without increasing building height.



Photo 3.59: Townhouses accessed by a rear lane provide more design flexibility of front facades and front yard landscaping.

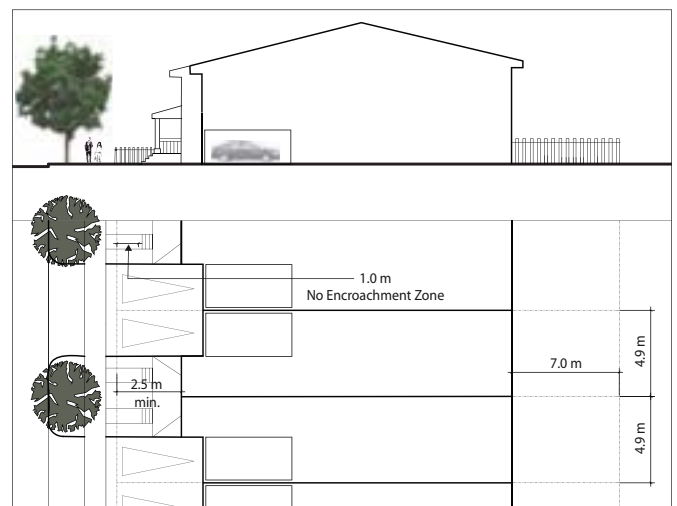


Figure 3.20: Townhouses with front attached garages should have a minimum lot frontage of 4.9 metres per unit.

3.4.3.3. Attached Front Garages

Front attached garage design should create a balance between the garage and the remaining front house façade. Opportunities to provide front porches, windows and front facing rooms will create more attractive housing and neighbourhood safety through casual surveillance.

Design Guidelines:

- Garages shall be designed so that they are not the dominant feature in the streetscape. Garage door widths should be minimized and should not be wider than 50% of the lot width. Options to reduce the impact of the garage include setting back the garage face from the principal façade, building a second storey above the garage, integrating glazing and other architectural details within the garage face.
- Attached garages should not project beyond the façade of the dwelling or the façade of a porch.
- Tandem garages (one car parked behind another) are encouraged, where house and lot depth permit, as a method of reducing garage frontage, decreasing the width of curb cuts, increasing the living area located at the front of the dwelling, and increasing landscaping opportunities in the front yard.
- Garage design should be complementary to the design of the overall principal building.
- Rear yard garages accessed by laneway or front driveway are encouraged to promote greater variety and flexibility in the design of the front façade and front yard.
- Garage doors should be no wider than a 2-car width. If it is larger it should be split.

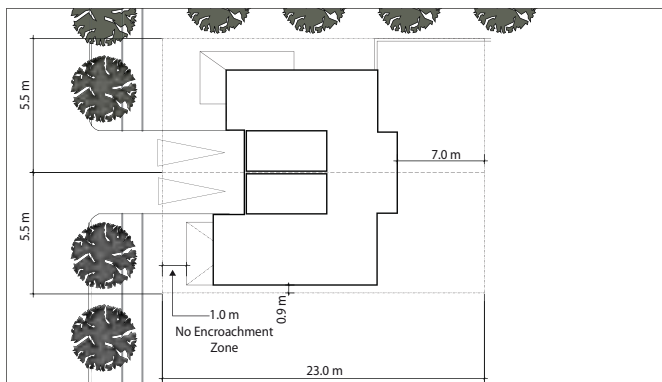


Figure 3.21: Semi-detached dwellings with front attached garages should have a minimum lot depth of 23.0 metres.

3.4.3.4. Coach Houses

Design Guidelines:

- Coach houses should be complementary in character and quality of detail to the principal dwelling.
- Where possible, stairs to the upper coach house level should be internal, but where they are required to be external, they should be located at the side or rear of the coach house and not in the lane.
- Coach house windows should be positioned to maximize street or lane overview and minimize overview of adjacent properties.
- Coach houses may include dormers and windows within the structure and roof.



Photo 3.60: Coach houses should be complementary in character and quality of detail to the principal dwelling.

3.4.3.5. Driveways and Tandem Parking Guidelines

Design Guidelines:

- a) The width of paved driveways on private property as well as driveway curb cuts should be no wider than the width of the garage.
- b) Permeable driveway surfaces are encouraged in order to reduce surface run-off.
- c) Curb cuts should be spaced to preserve the maximum number of on-street parking spaces where feasible. Strategies could include the pairing of driveways.
- d) Corner lots located at the intersection of an Avenue/Transit Corridor and a Connector/Transit Corridor should generally have driveway access from the minor roadway, with the exception of townhouse blocks, back-to-backs and semi-detached housing.
- e) Tandem parking (one car behind another) should be discouraged in the front yard to reduce excessive garage setbacks and large amounts of front yard surface parking.



Photo 3.61: Driveways should be no wider than the garage opening and narrower where feasible.

3.4.3.6. Rear Lane Guidelines (Garage Facing Rear Lane)

Design Guidelines:

- a) To maintain adequate distance between the vehicular traffic on the lane and the rear of the garage, the minimum separation between the detached garage and the rear lane should be 0.75 metres.
- b) Rear lane single car garages are encouraged to attach as a pair to provide a consolidated appearance versus many small separate structures.
- c) Garages should be complementary in character and quality of detail to the principal dwelling.



Photo 3.62: Garages should be complementary in character and quality of detail to the principal dwelling.

3.4.4. High Density Residential Area

The High Density Residential Area land use category will generally be adjacent to:

- The valley of the Sixteen Mile Creek within Neighbourhood 14; and,
- The Natural Heritage and Open Space System.

Applicants should refer to guidelines in **Section 3.4.5.** for the design of mid and high-rise buildings.



Photo 3.63: The mixed-use nature and tall ground and second floors of this building facilitate flexible tenancies including retail at-grade with office and residential above.



3.4.5. Mid & High-rise Buildings

Where buildings exceed 4 storeys it is important to develop built form and massing that fits with adjacent sites and the public realm (i.e. streets, parks and open spaces). The guidelines promote appropriate scale and design excellence for mid and high-rise buildings and recognize there are many ways to achieve design quality. Guideline recommendations are developed to provide appropriate transitions with adjacent building and open spaces, good sunlight access and sky views while allowing for a diversity of architectural expression and environmental responsiveness.

In mid and high-rise building development it is important that the base building (typically 1-4 storeys, and up to 6 storeys in the Urban Core Areas, particularly on Trafalgar Road) provide definition and a pedestrian scale in relation to adjacent streets, parks and open spaces. The building scale and design must also integrate with adjacent buildings and minimize the impact of parking and servicing areas.

Mid-Rise Buildings

For the purposes of this guideline document, mid-rise buildings are characterized as buildings that are 5-9 storeys in height. Building articulation, orientation and ground floor façade design are important elements in creating architectural quality and a pedestrian environment at the building base. Mid-rise buildings may be comprised of one use (e.g. residential or commercial) or may contain a mix of uses.

Surface parking should be located to the rear of buildings. Parking within a structure should be screened from view at the sidewalk level as much as possible. Service areas, parking entrances, vents and rooftop mechanical equipment should be integrated within the architectural design and screened from view.



Photos 3.64 & 3.65: Well designed mid-rise buildings should provide a good transition between low-rise and high-rise buildings.

High-Rise Buildings & Towers

For the purposes of this guideline document, high-rise relates to buildings that are 10-storeys in height or taller. The design of high-rise buildings should consider three parts of the building massing: the base which relates primarily to the public street and open space, the middle (shaft) and the top including the roof, and mechanical penthouse.

Urban Core Areas and sites adjacent to the Natural Heritage and Open Space System, and Sixteen Mile Creek are prime sites for high-rise buildings. High-rise buildings will be expected to perform the highest architectural standards and incorporate principles of good urban design. These include:

1. Tall floor-to-ceiling heights at-grade to create flexible commercial space, which contributes to a pedestrian oriented streetscape.
2. The exploration of various means of massing to achieve a variety of very-scaled contemporary built form.
3. An articulated building design that mitigates the mass and shadow impacts of the building, provides a contextual fit among old and new buildings and creates visual interest drawing attention to height as an asset.
4. The use of articulated materials in the overall building design and where feasible, mitigate the mass and bulk of tall building elements.
5. Consolidated parking, servicing and loading access to the site in order to avoid pedestrian obstructions.



Photo 3.66: High-rise buildings can be developed as sheer vertical forms where design excellence and adequate separation distance between towers is achieved.



Photo 3.67: Terraced buildings provide appropriate transition of scale and overlook parks and open space.



Photo 3.68: There are many ways to design mid and high-rise buildings, which do not preclude slender towers that touch the ground.

3.4.5.1. Building Base Design

A well designed building base will provide definition and human scale at-grade, integrating the building with adjacent streets, parks and open spaces. In North Oakville, appropriate building base height will depend on the evolving scale of the existing and planned context. Strong street presence of the base building may be achieved by articulating the building base through a variety of means: stepbacks, building materials, cornices or other architectural elements. Architectural excellence can also achieve an appropriate building base design through a variety of other design expressions.

Where building stepbacks are recommended, the Visual Angular Plane analysis is a tool that can be used to assess options for building massing. Please refer to *Section 3.4.5.5.* of this document.

Design Guidelines:

- a) The building base should be designed and massed to create a pedestrian oriented streetscape.
- b) Large expanses of transparent glazing on the ground floor and at building base levels should be applied to create visual interest for pedestrian and indoor uses.

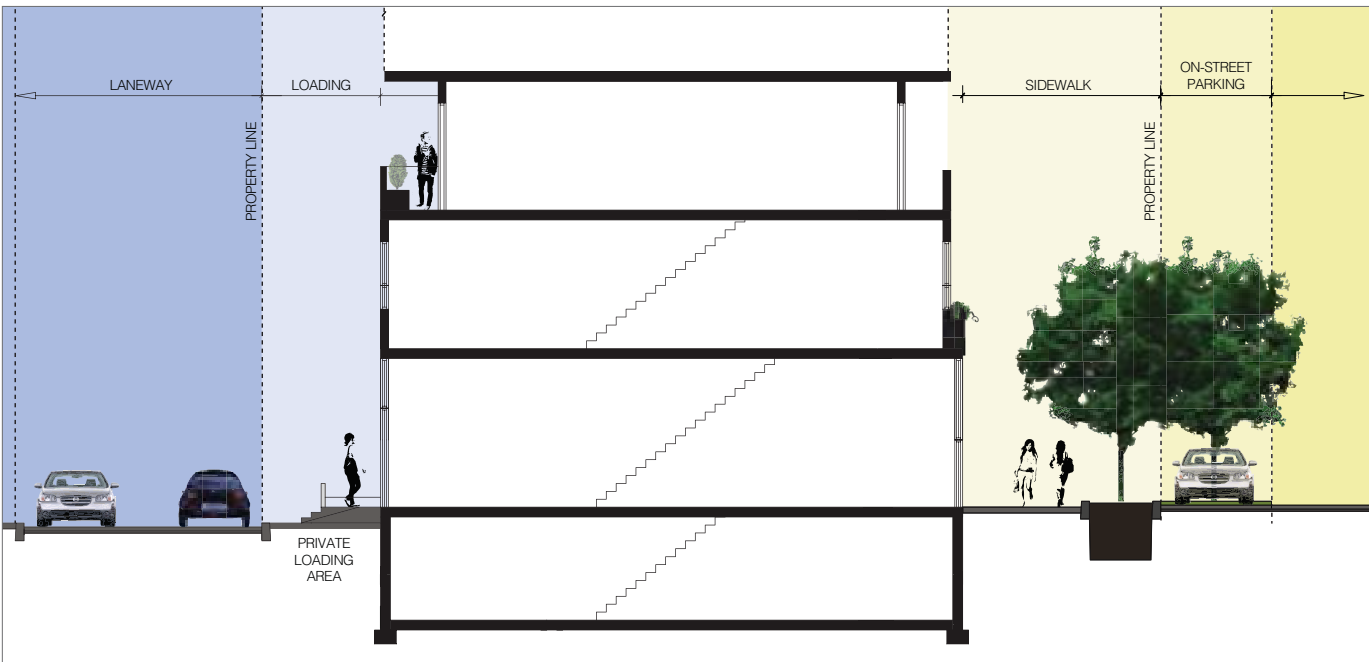
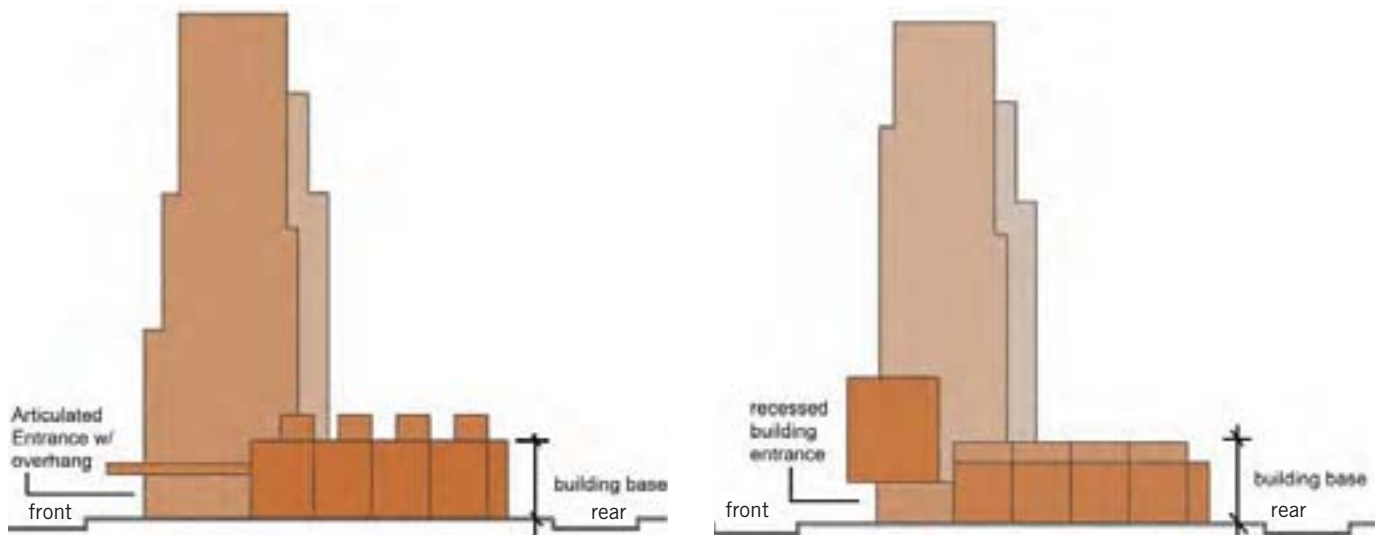


Figure 3.22: Section illustrating commercial buildings with on-street parking and a rear service lane.

- c) Building façades facing on to streets and public spaces should incorporate vestibules, building entrances, covered walkways or canopies and awnings at the ground floor level to provide weather protection, and surveillance on to adjacent pedestrian areas.
- d) Buildings and developments should be designed with continuous street façades. Variations in setbacks may be used to incorporate opportunities for public open space (i.e. gardens and forecourts), mid-block pedestrian walkways, and/or main entrance ways.
- e) Other strategies to create well defined street scale include: canopies, cornices, datum lines and glass proportions.
- f) Recessed building entrances are recommended to aid in building base design, contribute to visual interest and varied massing in the overall building and orient people to primary grade level entrances.
- g) Taller floor-to-ceiling heights at-grade are recommended to create a strong street presence and flexible commercial space.
- h) Requirements for taller floor-to-ceiling heights at grade do not apply to low-rise residential buildings including single and semi-detached dwellings and townhouses.



Photo 3.69: Tall floor-to-ceiling heights at-grade create a strong street presence, flexible commercial space and a pedestrian orientated streetscape.



Figures 3.23 & 3.24: The building base should be designed and massed to create a pedestrian oriented streetscape. Overhangs and recessed building entrances are recommended to aid in building base design, contribute to visual interest and varied massing in the overall building and orient people to primary grade level entrances.

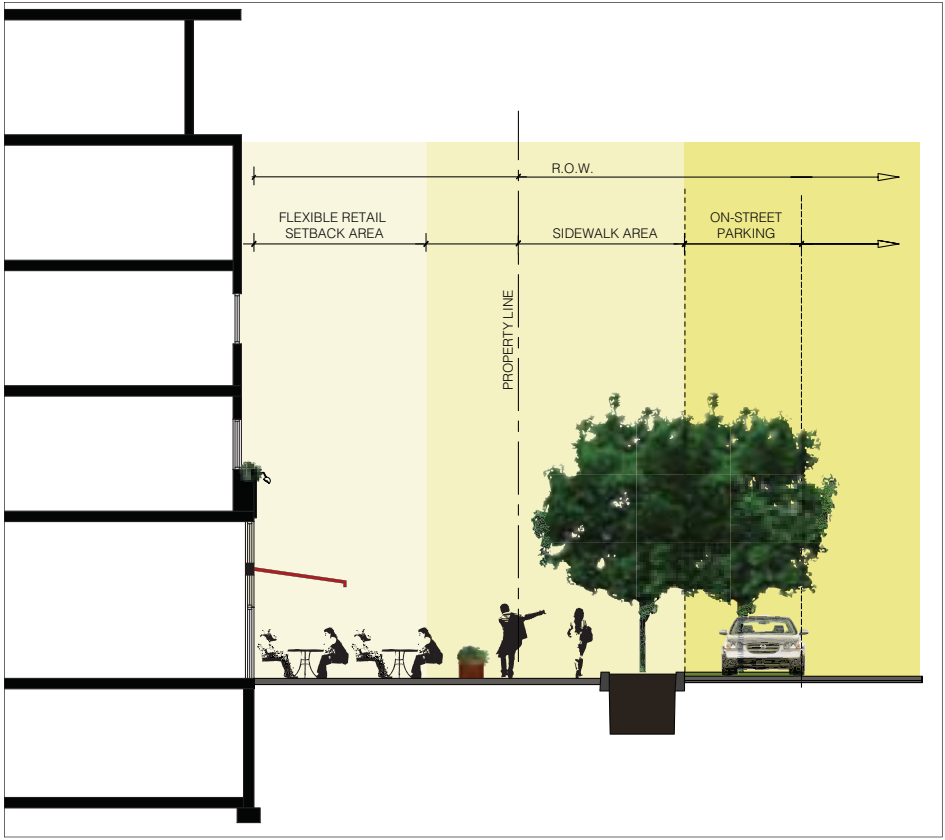


Figure 3.25: Section illustrating commercial buildings on mixed-use streets where an additional setback beyond the street right-of-way can provide a broad “civic” street boulevard. Trafalgar Urban Core mixed-use frontages will benefit from this treatment.

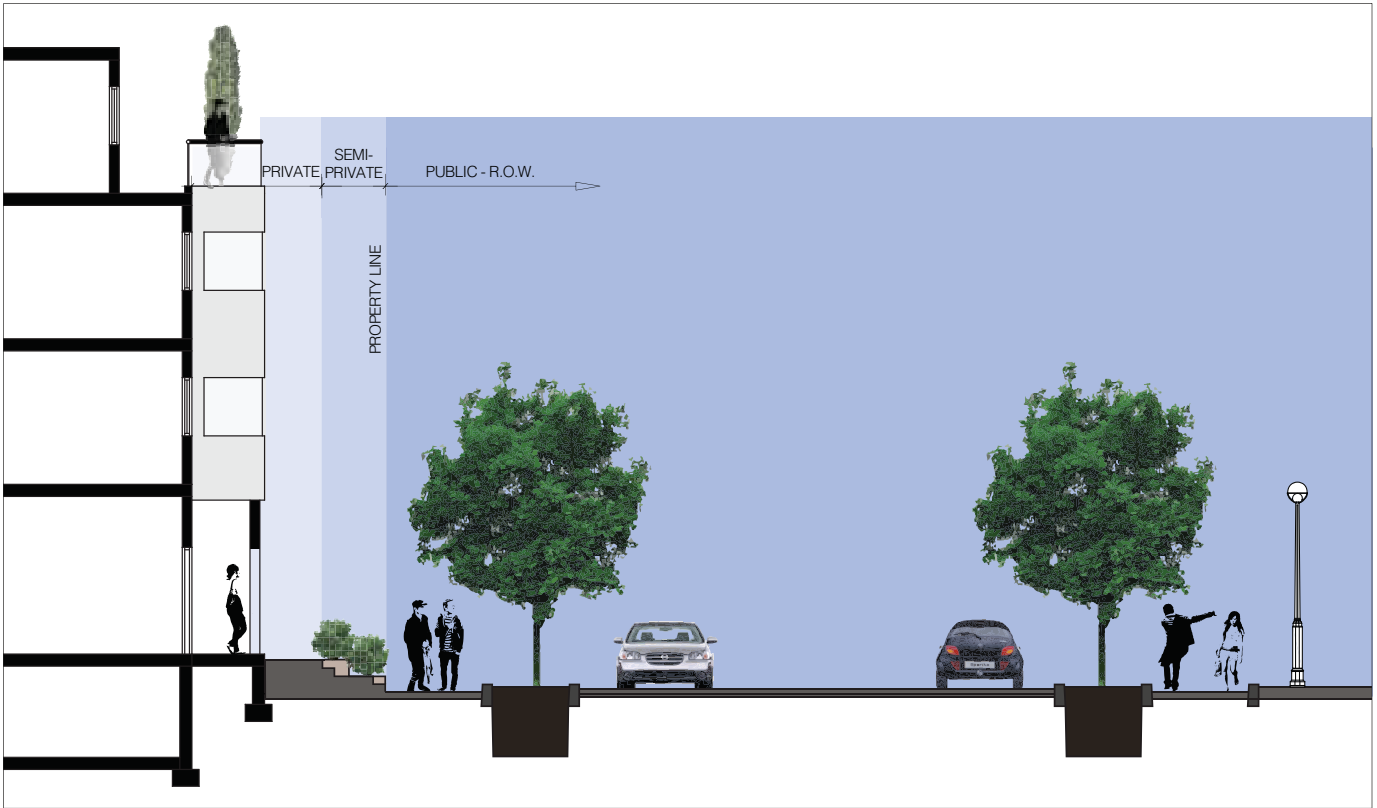


Figure 3.26: Section illustrating at-grade residential uses where a semi-private zone, shown here slightly elevated, promotes privacy between grade level rooms and the public street and/or open space.

3.4.5.2. Tower Articulation & Floor Plates

High and mid-rise tower articulation refers to the middle (shaft) of the building. Tower articulation should be applied to help new development fit within its proposed context adjacent to neighbourhoods, other buildings, streets, parks and open spaces by:

- Reducing shadow and wind impacts;
- Retaining opportunities for public views from street level and dynamic skylines; and,
- Shaping the mass and size of the floor plate to promote the conditions of the points above and promote sustainability through increased daylight within the building.

Design Guidelines:

- a) Smaller tower floor plates are recommended (i.e. point tower form) to improve views, reduce shadow and wind impacts and contribute to a dynamic urban skyline.
- b) Elongated towers should be sited to minimize shadow impacts to adjacent sites, streets and open space.
- c) Articulate large floor plates to reduce the perception of overall building mass and achieve a distinct skyline building profile.
- d) Spatial separation between towers should equal the width of adjacent towers and be generally no less than 25.0 metres.
- e) Mid-block open space between buildings should be integrated and designed as private or semi-private courtyards and/or gardens.



Photos 3.70 & 3.71: Towers should have distinct building forms and roof lines.

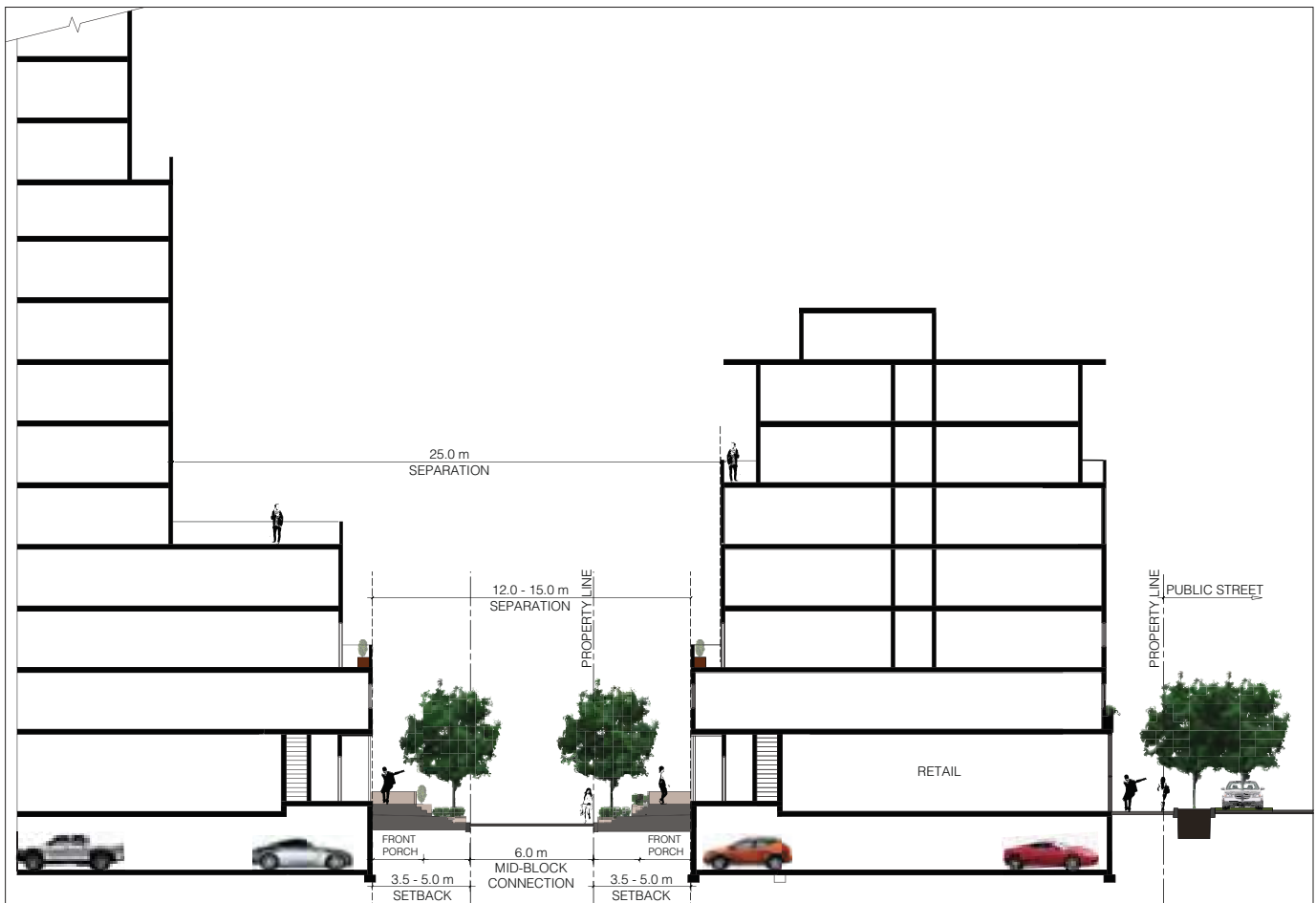


Figure 3.27: Mid-block connections between buildings should have a minimum width of 12.0 metres between building bases, 25.0 metres between buildings and a 6.0 metre pedestrian pathway.

3.4.5.3. Building Setbacks & Stepbacks

A mid and high-rise building **setback** refers to the grade level building location to provide space at the sidewalk for forecourts, gardens and walkways. A mid and high-rise building **stepback** is generally applied above the building base to allow for greater separation of tall building elements and to allow for increased sun penetration, privacy and upper level terraces.

Building setbacks and stepbacks can be used to create transitions to lower buildings (i.e. lower rise residential areas), parks or other sensitive land uses. Buildings should generally be located parallel to the street, park or open space and apply a consistent front yard setback except where publicly accessible building forecourts, plazas, courtyards or gardens apply.

Design Guidelines:

- a) The primary façade of the base building should generally be sited parallel to the street and front property line.
- b) Differing setbacks should be resolved through the design of the base building which should generally be located within the range of proposed or existing setback dimensions.
- c) On corner sites, building setbacks should generally align with their respective street frontages and make necessary transitions to both edges.
- d) Higher density development at major intersections should be developed to reinforce the prominence of these locations through appropriate massing, building projections, recesses at-grade, lower storey design and open space treatments.
- e) Where building stepbacks are appropriate, they should provide a clear distinction between the building base, middle and top. Alternatively they may be used to create a slender tower, emphasising verticality and mitigating the mass of the building.

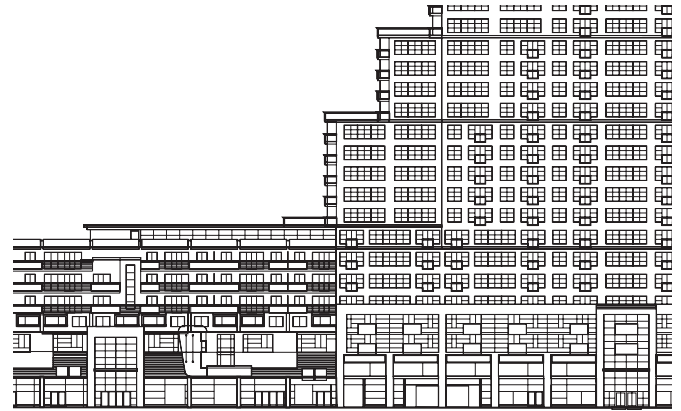


Figure 3.31: Stepbacks of upper floors create appropriate transition to open space, adjacent buildings and the street edge.



Photo 3.72: Buildings designed with stepbacks can utilize these transitions to create useable outdoor spaces at upper levels, such as patios and terraces with landscaping.



Photo 3.73: Building stepping down to transition towards the adjacent low-rise residential neighbourhoods.



Photo 3.74: The tall ground and second floors of this mixed-use building in Vancouver emphasize the retail and common areas of the building, while the residential above is carefully setback to provide privacy is designed for greater privacy with small outdoor terraces above.

3.4.5.4. Visual Angular Plane

Buildings over the 2-4 storey low-rise height may use a building setback that reduces the impact of upper storeys. The visual angular plane analysis is intended to be used in association with other visual means of testing building height suitability such as sun/shade analysis, street proportion and 3D modeling.

Visual Angular Plane Analysis determines the building envelope using a site cross-section and drawing a 45-degree angle measured from the centre line of the street. The line extension of this angle can assist in determining where the building massing can be stepped back or reconfigured to reduce its perceived mass as the building height increases. The Visual Angular Plane can be useful particularly from the perspective of a pedestrian on the street to modulate the building mass.

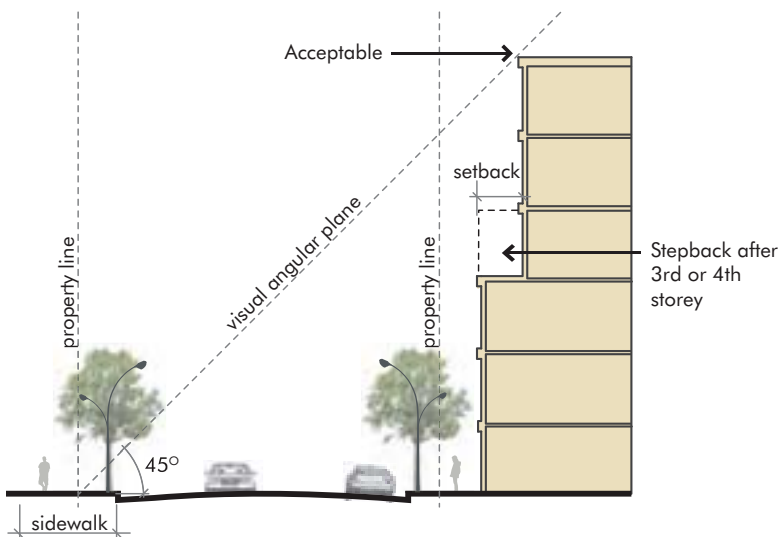


Figure 3.28: The Visual Angular Plane Analysis is used as one means to determine building mass and adjacent site impacts as the building height increases.

3.4.5.5. Shadow & Sun Impacts

Shadows cast by mid and high-rise buildings greatly influence the spaces that surround the building. Buildings should be sensitive to casting shadows on low-rise residential neighbourhoods, public open spaces, streets and pedestrian areas where a high degree of sun penetration is desirable. Access to direct sunlight improves the useability of outdoor spaces and increases the sunlight exposure to buildings and rooms directly facing these areas. The design of mid and high-rise buildings should apply massing to improve access to sunlight and minimize adverse shadow impacts as much as possible, while balancing goals for intensification. Placing the taller part of the building (shaft) on the south side reduces the amount of cast shadows on adjacent public and private open space and improves sky views when two or more mid and/or high-rise buildings are adequately spaced apart.

Computer generated shadow impact analysis is a tool to determine the location and effects of shadows cast by buildings on adjacent properties at varying times of day and seasons. The level of impacts should be assessed on a site-by-site basis.

Design Guidelines:

- a) Mid and high-rise buildings should be oriented to minimize shadows cast on adjacent open spaces, buildings and streets as much as possible. A shadow study may be required to examine shadow impacts on adjacent properties.
- b) The interior courtyards of buildings should be designed to maximize sun exposure through the massing and location of tall building elements.
- c) During summer months, when shade is preferred, include the use of awnings, canopies and tree planting to modulate direct sun exposure.



Photo 3.76: Setting back taller buildings can minimize their visual impact and minimize adverse shadow effects.



Figure 3.29: Sample Shadow Study Diagram

3.5. General Institutional Uses

3.5.1. Schools

Schools (Elementary and Secondary Schools) are proposed as integral components of the neighbourhoods. Schools are generally placed at the centre of neighbourhoods or between neighbourhoods to act as a civic focus of the community. For

public schools, the Town recognizes that the building of schools will depend on the availability of funds from the Ministry of Education.

Design Guidelines:

- a) School buildings should be designed to reflect their civic role through prominent, high quality architecture.
- b) Building design should promote safety and ease of access through well defined entrances and windows facing the public street and primary walkways.
- c) Multi-storey school buildings are strongly recommended to maximize the site and services as well as contribute to an urban street condition through building façade proportion that contributes to a sense of enclosure at the street.
- d) The main school entrance should be highly visible and distinguished through the building's architecture and detailing (i.e. door size, entry and windows). A recessed entry or projecting canopy can also provide weather protection and promote the prominence of the entry.
- e) School façades should maximize the use of operable windows to naturally illuminate and ventilate classrooms, offices, recreational and social spaces.
- f) Covered walkways or building edge colonnades are recommended for linking separate school buildings or provide weather protected building edges fronting school open spaces including forecourts, courtyards, gardens or playing fields.

- g) School buildings should examine the possibility for LEED Certification, promote green building technologies and sustainable site design/organisation (i.e. LEED Site Planning).
- h) Where possible, the site should be organised to extend the street network via internal pedestrian walkways and driveways.
- i) Site organisation should be designed to maintain view corridors and sight lines in order to further enhance crime prevention opportunities.
- j) Bus stops should be incorporated as a layby within the public right-of-way or on-site where safe and efficient access can be provided.
- k) Surface parking areas should be minimized and where required should be developed as "greened" parking courts with landscaping, trees and porous or another permeable materials that promote on-site stormwater run-off and/or biofiltration, where feasible.
- l) Parking areas should be designed to accommodate pedestrian movement (i.e. planted edges, medians that incorporate dedicated pedestrian walkways, paving articulation).
- m) School sites should incorporate bike racks in convenient locations to building entrances.



Photos 3.77 & 3.78: High quality design will help to create the schools as a community focal point.

3.5.2. Places of Worship

Places of Worship may be developed as small-scale neighbourhood focal points or large-scale buildings with attendees who commute from beyond immediate neighbourhood boundaries. The following design guidelines apply to all forms of Places of Worship but in order to address the variety in scales, sizes and uses, specific applications will need to be reviewed on a site-by-site basis.

Design Guidelines:

- a) Places of Worship should be easily accessible by pedestrians, cyclists and transit.
- b) Places of Worship are encouraged to be located at an intersection and should address both street frontages.
- c) When not sited at an intersection, Places of Worship should directly front on to an Arterial/Transit Corridor, Avenue/Transit Corridor, or Connector/Transit Corridor.
- d) Places of Worship are strongly encouraged to be located on the edges of residential areas or within the Urban Core areas.
- e) Places of Worship should minimize floor area by creating multi-level buildings to accommodate accessory and, if applicable, complementary uses.
- f) See *Section 3.12. Vehicular Parking* for parking requirements.

3.5.3. Community Centres

Community Centres will be provided throughout North Oakville to support the recreational, cultural and educational needs of local residents and the broader community.

Design Guidelines:

- a) Community Centres should be located to serve as focal points of the community in Urban Core Areas or in Parks where adjacent uses will be complementary to the Community Centre use.
- b) Community Centres should be located to take into account connections to trail networks and the North Oakville parks system.
- c) Community Centres are encouraged to become demonstration projects for sustainable building design.
- d) Community Centres should employ high standards of architectural design.
- e) Community Centres may be combined with other public building uses such as libraries.
- f) Community Centres are encouraged to be multistorey buildings in order to minimize the need for large sites.
- g) Community Centres should be located on major transit routes and easily accessible for pedestrians and cyclists and by transit.
- h) See *Section 3.12. Vehicular Parking* for parking requirements.



Photo 3.79: Community Centres should employ high standards of architectural design.

3.6. Natural Heritage and Open Space System

The Natural Heritage and Open Space System is comprised of the natural and open space as set out in the Secondary Plans.

Urban Design Principles:

- a) The Natural Heritage and Open Space System provides a primary framework for developing the community.
- b) Public safety, views and accessibility, both physically and visually, to the Natural Heritage component of the Natural Heritage and Open Space System, as well as to parks, schools and other natural and civic features, will be important consideration in community design. Physical and visual public access will be accomplished through a range of different approaches including, but not limited to, the use of single loaded roads, crescent roads, combining public open space with other public or institutional facilities (e.g. school/park campuses, easements, stormwater ponds adjacent to the Natural Heritage component of the System) and the location of high density residential and employment buildings. With respect to the Natural Heritage component of the Natural Heritage and Open Space System, priority will be given to maintaining views and accessibility at key trail access points where Arterial/Transit Corridors, Avenue/Transit Corridors and Connector/Transit Corridors are adjacent to the System. Where there is no significant Natural Heritage edge exposed at Arterial/Transit Corridors, Avenue/Transit Corridors or Connector/Transit Corridors, Neighbourhood Parks, Village Squares or local roads will be encouraged to provide access and visibility.
- c) Opportunities exist to develop high density buildings adjacent to the Natural Heritage and Open Space System to capitalize on exceptional views and connections to the recreational trail system.

3.6.1. Natural Heritage Component

The primary purpose of the Natural Heritage component of the Natural Heritage and Open Space System is to protect, preserve and, where appropriate, enhance the natural environment. The focus of the Natural Heritage component is on the protection of key ecological features and functions of North Oakville. It will also contribute to the enhancement of air and water resources, and provide for limited, passive recreational needs.

The Natural Heritage System is comprised of the following key areas:

- a) Core Preserve Area
- b) Linkage Preserve Area and Optional Linkage Preserve Area
- c) High Constraint Stream Corridor Area
- d) Medium Constraint Stream Corridor

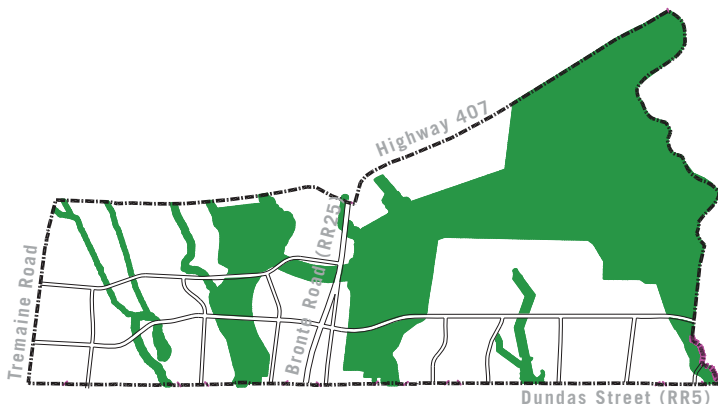


Figure 3.30: Natural Heritage and Open Space Diagram for North Oakville West.

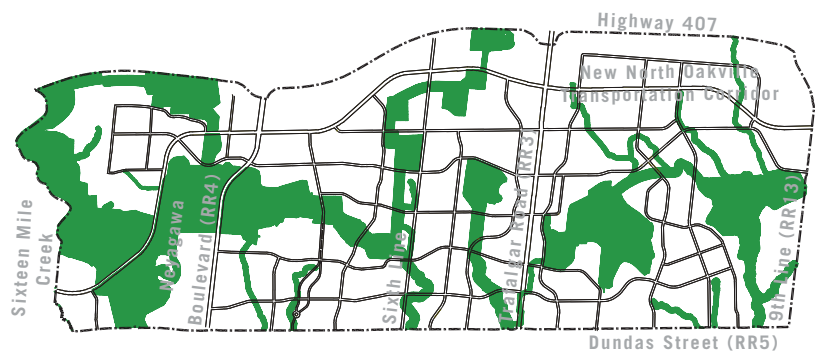


Figure 3.31: Natural Heritage and Open Space Diagram for North Oakville East.

3.6.2. Open Space Component

Public parks, stormwater management facilities and other open space areas such as school yards and cemeteries, that currently exist or will be established, form the Open Space Component of the Natural Heritage and Open Space System. The primary purpose of the majority of the Open Space Components, including public parks, schools and cemeteries, is to provide for active recreational needs and community facilities. These general types of open space apply:

- Passive parks including informal green space, children's playgrounds, gardens and walkways;
- Active recreation space for field sports; and,
- Urban open space such as plazas and squares.

The Open Space Component also should be designed to, where possible, connect to and enhance the Natural Heritage component of the Natural Heritage and Open Space System. It should also provide for passive recreational needs. Finally, the Open Space System Component facilities that will assist in building social relationships within the North Oakville community. The Open Space Component will have strong public exposure and access through the alignment of public streets and building frontages.

The Parkland Hierarchy, listed below, includes facilities that are designed to provide a full range of active and passive recreation activities for the emerging neighbourhoods and community:

- a) Community Parks
- b) Neighbourhood Parks
- c) Village Squares
- d) Urban Squares within the Trafalgar Urban Core Area



Photos 3.80, 3.81, 3.82 & 3.83: The Open Space Component of North Oakville will contain a variety of outdoor spaces for active and passive activities.



Photo 3.84: Community Parks should support the highest intensity of recreational use and level of facility development.



Photo 3.85: The recreational networks should accommodate cyclists.

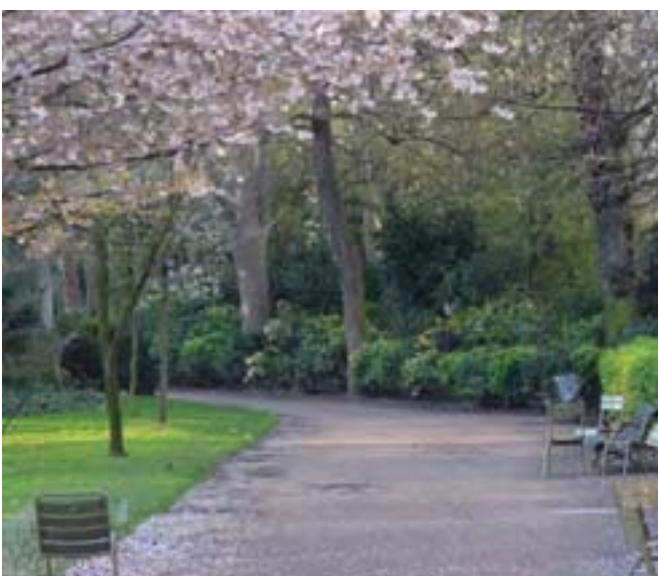


Photo 3.86: Large trees and extensive landscaping should be used to create buffers within Community Parks.

3.6.2.1. Community Parks

There are two Community Parks identified in North Oakville. Community Parks should support the highest intensity of recreational use and level of facility development. Community Parks will typically include parkland with illuminated and irrigated sports fields, and other major municipal facilities such as community centres. In addition to their recreational focus, Community Parks should reflect the aspirations of the community as a whole through sustainable design, limited parking and vehicular circulation (not including emergency services), and the provision of facilities that contribute to the enjoyment of the natural setting and physical health. Community Parks can be complemented by a series of park pavilions and shelters accommodating concessions, washrooms, educational and community facilities supporting year-round, day and evening activity, and ensuring that Community Parks are safe and vibrant.

Design Guidelines:

- a) The size and design of Community Parks should be consistent with the North Oakville Secondary Plans.
- b) Park entrance designs should primarily orient pedestrians to the park while addressing servicing, emergency vehicles and include minimized parking at the entrance. Where areas of surface parking, visitor drop-off or service areas are required, design elements should be applied to integrate these areas into the park. Signs to assist orientation, heritage interpretation elements, public art and park maps should be co-ordinated at park entrances to avoid unnecessary clutter.
- c) Program elements should include major sports fields as well as passive park facilities such as walkways, seating areas, park pavilions and interpretive displays relating to local history or natural features.
- d) Highly visible connections should link the major park amenities and facilities through walkways and cycling paths. Where demand warrants, the pedestrian network should be separated from the recreational network used for biking and roller-blading.
- e) Vehicular connections through parkland should be limited to emergency/service vehicle routes and access to major park facilities (e.g. arenas, pools) and parking areas.
- f) Where Community Parks are located in proximity to residential areas, they should be designed to mitigate the impacts of activities which generate light and noise on residential properties and by using measures such as separation distances within the park, directional lighting, and buffering such as landscaping and fences.

3.6.2.2. Neighbourhood Parks

There are 10 Neighbourhood Parks proposed for North Oakville. Neighbourhood Parks are intended to provide a variety of outdoor recreational experiences and should serve one or more neighbourhoods. Generally, Neighbourhood Parks will be maintained as active parkland with sports fields and children's play areas, although there may be areas which are maintained as natural, passive parkland.

Design Guidelines:

- a) Neighbourhood Parks should be approximately 4.25 hectares (10.5 acres) in size but may range from 4.0 hectares to 4.5 hectares (9.9 acres to 10.5 acres).
- b) The parks should contribute to the structure and identity of the neighbourhood.
- c) Neighbourhood Parks will include a minimum of 2 major sports fields and other facilities such as children's play equipment.
- d) In the order of 50% of the perimeter will be bounded by a combination of roads and open space which will allow public access or, at a minimum, private open space which will allow significant views of the feature or facility. Where only road frontage is provided, the frontage should be in the order of 40% of the perimeter of the features and facilities.
- e) Where possible, Neighbourhood Parks should be located adjacent to school sites to encourage sharing of indoor and outdoor facilities.



Photos 3.87 & 3.88: Neighbourhood Parks will contain creative playground apparatus, sports fields and recreation facilities for people of all ages.



Photo 3.89: Neighbourhood Parks will have a minimum of two major sports fields.



Photo 3.90: Village Squares provide passive open space areas which are intended to serve as focal points within sub-areas of each neighbourhood



Photo 3.91: Village Squares should be designed to have significant public exposure and access. Urban design options include surrounding the Square with streets or fronting dwellings directly on to the Village Square.



Photo 3.92: George's Square in Old Oakville is an excellent 'village square' as it is surrounded on all sides by streets and houses.

3.6.2.3. Village Squares

Village Squares are the smallest in the parks hierarchy. The design of Village Squares should reflect the needs of surrounding residents including places to sit and socialize, dedicated play areas for children of all ages that could be maintained by local residents and a significant tree canopy for shade and drainage benefits. Village Squares provide passive open space areas which are intended to serve as focal points within sub-areas of each neighbourhood and are accessible within a five minute walk.

Design Guidelines:

- a) Village Squares should be approximately 0.3 hectares (0.7 acres) in size with a maximum area of 0.5 hectares except for one larger village square in Neighbourhood 14 which will be approximately 1.0 hectare (2.5 acres) in area.
- b) Village Squares should contribute to the structure and identity of the sub-neighbourhoods.
- c) Village Squares should include a variety of passive recreational facilities including: open space, sitting areas, gardens and children's play equipment.
- d) Village Squares should be designed to have significant public exposure and access. Urban design options include surrounding the Square with streets or fronting dwellings directly on to the Village Square.

3.6.2.4. Urban Squares

The Trafalgar Urban Core includes well distributed locations for Urban Squares. Intended to provide flexible outdoor spaces for socializing and civic events, the Squares will provide outdoor respite within the most intensely urban area of the community and create a focal point for the buildings and streets which face them. Urban Squares will consist of outdoor courtyards and plazas framed by mixed-use buildings. Shops and restaurants will have an opportunity to “spill-out” into the urban squares creating places to sit, people-watch and enjoy informal events. Urban Squares can include a sequence of interpretive areas and/or public art to describe the rich history of North Oakville. Urban Squares will be located in the Trafalgar Urban Core and will contain passive open space areas which are intended to serve as focal points within the Trafalgar Core Area. Please also refer to *Section 3.11.4 Semi-Private Open Space*.

Design Guidelines:

- a) Urban Squares should be established at key focal points within the Trafalgar Urban Core Area.
- b) Urban Squares will generally consist of passive open space areas.
- c) Urban Squares should generally be smaller in size than Village Squares and their size and design should relate to development on adjacent sides.
- d) Urban Squares may be in public or private ownership.
- e) The number of Urban Squares in the Trafalgar Urban Core Area will be related to the ultimate size of individual facilities.
- f) Urban Squares should be designed to ensure overlook opportunities from surrounding uses and abutting roads.



Photo 3.93: Urban Squares will be located at key intersections or focal points within the Trafalgar Urban Core.



Photo 3.94: Urban Squares are intended to provide flexible outdoor spaces for socializing and civic events



Photo 3.95: Urban Squares can include a sequence of interpretive areas and/or public art



Photo 3.96: Cemeteries could be developed for public cultural and educational opportunities including arboretums, public art and nature study.



Photo 3.97: Existing cemeteries should be integrated into the open space network of North Oakville.

3.6.2.5. Cemetery Interfaces

Two major Cemeteries exist within the North Oakville East Secondary Plan Area: at the intersection of Dundas Street (RR5) and 9th Line (RR13); and north of Dundas Street (RR5) directly east of Sixteen Mile Creek. Cemeteries provide a unique sense of heritage and local connection as they provide a passive extension of the public open space system. Ensuring that cemeteries are open and accessible to the local community will help them to be safe and limit vandalism.

Design Guidelines:

- a) Cemeteries should be maintained as key components of the open space network.
- b) Cemeteries should be encouraged to be used for passive activities including strolling, jogging and cycling along major pathways.
- c) Cemeteries could be developed for public cultural and educational opportunities including arboretums, public art and nature study.
- d) Housing is encouraged at the perimeter of cemeteries and may include garden gates where dwellings back on to the cemetery.
- e) Cemetery edges that require fencing should generally be enclosed with “transparent” fencing such as wrought iron or painted metal to permit views into the cemetery from the public street.
- f) Multiple entrances should be located on all publicly accessible sides of the cemetery to increase opportunities for public access.

3.7. Stormwater Management

Stormwater Management (SWM) facilities should have public access and be integrated as open spaces throughout North Oakville. SWM facilities can be designed to combine their function with amenities for residents and the local community.

3.7.1. Stormwater Management Ponds

There are over 50 anticipated stormwater management (SWM) ponds proposed for North Oakville. The general locations of stormwater management ponds have been identified within the North Oakville East Secondary Plan as per the North Oakville Creeks and Subwatershed Study (NOCSS); however, the final locations of SWM ponds will be determined through an EIR/FSS. Furthermore, all stormwater management facilities, including urbanized SWM ponds, require approval from the Town, Conservation Halton and the Ministry of Environment (MOE).

Stormwater management facilities should have public access and be integrated as positive and safe amenities within the community and open space system. The size of stormwater management ponds should be determined through the EIR/FSS in accordance with the NOCSS and MOE standards. Source-level conveyance controls are encouraged, where feasible. Please refer to *Section 3.7.2.* for further details.



Photos 3.98, 3.99 & 3.100: Stormwater management ponds should become public amenity spaces within the North Oakville community. Public access through trails and boardwalks should be provided.

The following recommendations refer to stormwater management ponds.

Design Principles:

- a) Stormwater Management Ponds (SWM) should be integrated as community amenities to optimize their use as a component of the publicly accessible open space network.
- b) SWM facilities should be considered as important and desirable to the community as open space. Street and block patterns should utilize views and access to the SWM facilities through street frontage, wherever possible.
- c) Public exposure required for SWM facilities will vary depending on the surrounding land uses and the location of the pond. In general, a portion of SWM facilities shall be bounded by a combination of roads and open space to allow appropriate use, access and views.
- d) SWM facilities should be designed as positive visual features and incorporate an arrangement of formal planting, seating and paths that do not interfere with their function.
- e) The design of ponds should avoid fencing in order to promote public access and surveillance opportunities.
- f) Where appropriate, create connections between valley lands and open space through walkways and recreational trails.
- g) Public education displays could be used to increase public awareness and appreciation of the local environment.
- h) Planting within SWM facilities should be compatible with the adjacent natural areas.
- i) Managing access to the perimeter of ponds should be provided 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, where appropriate.

- j) A hierarchy of design treatments should be developed to address the various conditions of pond design and locations including urbanized edges.
- k) The water level in stormwater management ponds is designed to fluctuate in response to storm events and therefore accessibility under these circumstances may need to be limited (i.e. through dense landscaping).
- l) Where feasible, provide sitting areas with pathway connections at SWM pond edges to encourage public safety through frequent use and surveillance opportunities of these areas.

Additional Guidelines for the Urbanized Stormwater Management Ponds:

- a) The urbanization of stormwater management ponds will be considered within North Oakville Urban Core designations.
- b) The use of paved edges for the function of creating a positive community amenity must be designed to minimize any impacts on the Natural Heritage System or the pond's form and function.
- c) Edges of stormwater ponds abutting the Natural Heritage System should remain naturalized.
- d) Urbanized stormwater management ponds must maintain the targets for water quality, erosion and flood storage per directions as set out in the North Oakville Creeks Subwatershed Study.

3.7.2. Other Stormwater Management Strategies

The North Oakville Creeks and Subwatershed Study recommends the use of a hierarchy of stormwater controls with preference given to source-level and conveyance-level control. This includes, where feasible, the uses of infiltration facilities, surface retention, and storage to help maintain predevelopment water balance conditions.

Examples of strategies may include the use of biofiltration trenches (especially within the Trafalgar Urban Core, Dundas Urban Core and the Neighbourhood Centres), and porous paving. The promotion of stormwater reuse is also encouraged and may take the form of rain barrels or cisterns.

In summary, the Town encourages the use of a variety of stormwater management strategies. Some strategies, such as exfiltration pipes in public areas, may provide treatment upstream and help to reduce the reliance on end-of-pipe facilities, such as ponds. Other stormwater management strategies, such as grassed swales on private property may help to enhance end-of-pipe controls by filtering stormwater runoff. Any proposed reduction in SWM pond size through the use of other SWM strategies will be reviewed through the Environmental Implementation Strategy/Functional Servicing Study.



Photo 3.101: On-site stormwater retention areas reduce the requirement for end-of-pipe stormwater infrastructure.



Photos 3.102 & 3.103: Bioswales in naturalized landscapes can help reduce the size of stormwater management ponds.

3.8. Pedestrian & Bicycle Circulation

Encouraging travel throughout North Oakville by non-motorized means will promote healthy lifestyles and will support a variety of land uses. Good circulation complements mixed land use and a concentrated population, reducing auto dependency and supporting local goods and businesses. An extensive system of recreational trails will be developed related to the Natural Heritage and Open Space System as well as along certain public road rights-of-way.



Photo 3.104: This cross section includes sidewalks, trees, cycling lanes, parking and traffic lanes.

3.8.1. Street Boulevard Design

Safe and convenient walkways for pedestrians should be a key element of all street boulevard designs. A hierarchy of boulevard and sidewalk widths is proposed to reflect their function and location.

Design Guidelines:

- a) Street boulevards should have sidewalks lined by a regular pattern of street trees and/or other landscape treatments to support walking as a primary means of travel.
- b) In high traffic areas, boulevards should act as a buffer between pedestrians and vehicular traffic by placing street trees, vegetation, and/or on-street parking between the sidewalk and the road way.
- c) Boulevards should include bicycle parking in proximity to all mixed-use development, open spaces, institutions and other publicly-oriented land uses.
- d) All public streets and sidewalks shall be barrier-free.



Photo 3.105: Encouraging travel throughout North Oakville by non-motorized means will promote healthy lifestyles and will support a variety of land uses.

3.8.1.1. Core Area & Neighbourhood Centre Sidewalks

Well designed commercial area sidewalks are critical elements of retail main streets which accommodate the highest number of pedestrians and a variety of commercial activities. They are therefore encouraged to be wide (greater than 4.0 metres between the curb and building face) according to their location and intensity of use. The Trafalgar Urban Core will particularly benefit from wider sidewalks to support the concentration of density, high order transit and commercial retail uses anticipated for the area.

Design Guidelines:

- a) Core Area and Neighbourhood Centre sidewalks where retail fronts on to the street should generally be a minimum width of 4.0 metres, comprised of a 1.5-2.0 metres wide walkway and 2.0-2.5 metres wide boulevard that is constructed of a hard paved surface.
- b) Generally, the sidewalk surface should be constructed of poured concrete. Higher quality treatments should be considered in key focal areas.
- c) Feature paving bands constructed of materials other than asphalt, (including pavers, impressed concrete or concrete) should be used to define the sidewalk. They should also continue across driveways and signalized intersections to indicate pedestrian priority.
- d) Street trees should be located within the paved boulevard and planted in an adequate pit under a metal grate. Strategies to improve tree habitat such as corridors, structural soil, and other engineering solutions (i.e. Silva Cell) should be used.
- e) The design of sidewalks should take into account elements such as street furniture and newspaper boxes.
- f) At street corners, consideration should be given to widening the boulevards through the use of bump-outs which will extend areas for seating, planting, public art and amenities such as newspaper boxes and information kiosks. In addition, bump-outs serve to reduce the width of the crosswalk between street corners.
- g) Curb ramps shall be used to provide assistance to persons with disabilities, as well as providing a proper transition between the road surface and top of curb at pedestrian sidewalk corners.



Photo 3.106: This section of Lakeshore Road East demonstrates an appropriate sidewalk width, buffering from traffic through landscaping and parked cars and strong façade articulation with a sequence of shop entrances which contribute to a desirable street.



Photo 3.107: Residential sidewalks should be a minimum of 1.5 metres wide.

3.8.1.2. Residential Area Sidewalks

Design Guidelines:

- a) Residential area sidewalks should be a minimum of 1.5 metres wide.
- b) Sidewalks should generally be provided on both sides of all streets except where a sidewalk on one side are permitted by the Secondary Plans.
- c) The design of public sidewalks should be as continuous as possible. Intersecting driveways and vehicular circulation should be limited across the sidewalk.
- d) Generally, the sidewalk surface should be constructed of poured concrete, however unit paving may be used as an edge condition to the sidewalk to provide opportunities for variation and visual interest.
- e) Street trees are recommended to be sited to prevent damage from salts and confined soil area and to promote mature growth.



Photo 3.108: Residential sidewalks can align the roadway (bottom photograph) or be set back from the roadway with a landscaped boulevard (above photograph).

3.8.1.3. Crosswalks

Crosswalks ensure continuity of the sidewalk network. High quality crosswalks must be provided for safety and to generally promote walking. The following guidelines apply to crosswalks at the intersection of Arterial/Transit Corridors, Avenue/Transit Corridors and Connector/Transit Corridors.

Design Guidelines:

- a) Crosswalks should be continuous and connected to adjacent sidewalks. Crosswalks should be clearly designated for safety, with appropriate surface markings or variation in construction material, and signage.
- b) Gateway and major commercial area intersections should use feature paving to signify the priority of pedestrian crossings at these locations.
- c) Surface markings for crosswalks are recommended to be simple and legible. Concrete banding is sufficient and may be combined with textured edges to increase legibility and assist individuals with visual impairments.
- d) Additional mid-block crosswalks with signals should be provided on long blocks.



Photos 3.109 & 3.110: Crosswalks should be clearly marked for both pedestrians & vehicles.



Photo 3.111: Trails can be naturalized or be of a hard surface depending on their use and context.



Photo 3.112: Trails in North Oakville will provide wide opportunities to experience the unique natural setting within the evolving urban community.



Photo 3.113: Where demand warrants, cycling paths should be separated from walking trails. Lighting along trails may be desirable in some limited locations.

3.8.2. Trail Design

The Natural Heritage and Open Space System encourages the development of a trail system to link the community together and to be an integral part of the Natural Heritage and Open Space System. The trail system will also establish connections between Neighbourhoods, Urban Cores and Employment Districts as well as parks, schools and other features. A trail system can provide pedestrians and cyclists with direct connections throughout North Oakville.

Design Guidelines:

- a) Create links throughout North Oakville’s urban areas by providing continuous recreational trails for walking and cycling along streets and through the Natural Heritage and Open Space System.
- b) Recreational trails on streets and within the Natural Heritage and Open Space System should be planned in a coordinated manner to connect to existing and proposed trails in other parts of Oakville and in adjacent municipalities.
- c) The design of the recreational trails should reflect the function and nature of the type of open space it occupies. Trails designed for use by utilitarian cyclists should be a minimum of 3.0 metres wide to allow for two way cyclist or pedestrian passage.
- d) Trails that are accessible and visible from the public street or other public areas are preferred.

3.8.3. Universal Design

Individuals of varying ability should be able to access any part of North Oakville. Principles of universal design are necessary in all public spaces and within new developments (as per the Ontario Building Code). Features which stimulate sense of touch and hearing should be incorporated to help convey location and potential hazards. Standards are currently being developed under the Accessibility For Ontarians with Disabilities Act (AODA) which relate to the built environment. These standards may supercede the Ontario Building Code and may be made into regulation during construction in North Oakville.

Design Guidelines:

- a) All public sidewalks shall be barrier-free.
- b) In high activity areas such as Core areas, the use of multi-sensory visual and audio queues as well as textured paving should be considered to assist in orientation and the existence of potential hazards to disabled individuals. Sensory indicators may be tactile or audible.
- c) Canadian standards and Ontario Building Code regulations must be complied with or exceeded in making design choices.
- d) The placement of street furniture and street trees must not impede the mobility of individuals using mobility assisting devices.



Photo 3.114: The placement of street furniture and street trees must not impede the mobility of individuals using mobility assisting devices.



Photo 3.115: Curb ramps should be provided at all intersections. Textured paving also assists those with visual impairments.

3.9. Street Furniture



Photo 3.116: A full range of pedestrian amenities should be provided on commercial sidewalks.

Street furniture including benches, bicycle racks, waste receptacles, poles and bollards as well as flexible spaces such as sitable ledges and movable chairs should have a consistent style. A high quality palette of street furniture can help distinguish neighbourhoods and Core Areas and strengthen the social role of streets, Urban Squares and other outdoor public spaces.

Design Guidelines:

- a) A palette of street furniture should be selected for its durability, ease of maintenance, compatibility with Oakville's climate, and availability for future replacement.
- b) The colours and materials of street furniture should be coordinated.
- c) The street furniture styles within North Oakville neighbourhoods should be complementary and consistent.
- d) Street furniture placement should not impede emergency and maintenance vehicles, especially snow removal vehicles.
- e) The palette of street furniture can vary and should be chosen to perform for different settings, such as Urban Squares and parks.



Photo 3.117: Street furnishings should provide areas for informal gathering, without obstructing pedestrian movement.

3.9.1. Transit Shelters

Locations for transit stops will be determined by the Functional Servicing Study. The intent of the following guidelines are to encourage the design of high quality transit infrastructure that will promote transit use.

Design Guidelines:

- a) Sidewalks should connect directly to transit shelters to encourage active transit use and ensure safety and convenience.
- b) Transit stops should be conveniently located for pedestrian access and should be located near major intersections.
- c) Transit stops should be located in close proximity to activity nodes, such as commercial areas within Urban Cores, Neighbourhood Centres and Employment Districts.
- d) Near-side stops (before an intersection) are encouraged for safety and efficiency.
- e) Transit stops should be located near building entrances.
- f) Transit stops may be located near fire hydrants to minimize impact on on-street parking so long as the placement does not impact the operation of transit vehicles.
- g) Transit shelters should provide for weather protection, with sufficient shelter for 8~10 people.
- h) Transit shelters should include seating, trash receptacles, lighting and route information.
- i) Transit shelters should be located between 1.1 metre and 3.0 metres from the curb, depending on where the entrance is located.
- j) Transit shelters should be located in a way that does not interfere with pedestrian circulation and have barrier-free access.



Photos 3.118 & 3.119: Transit stops should ideally be enclosed and provide amenities for users such as seating, waste receptacles and system maps.



Figure 3.120: A dedicated transit right-of-way on Trafalgar Road should integrate the highest degree of amenities for transit users.



Photos 3.121 & 3.122: High quality and permanent seating should be located along commercial sidewalks and throughout the neighbourhoods.



Photo 3.123: Seating integrated with planters is encouraged on major roads as a means of buffering pedestrians from traffic.

3.9.2. Seating

Benches, seating and other street furniture should be provided in the Urban Core areas, Neighbourhood Centres and in highly active areas such as parks and open spaces. Seating should be oriented to buffer the impact of traffic and to provide comfort and social engagement. Seating should be located in areas that will have the most pedestrian use, such as heavily travelled sidewalks and intersections, parks, adjacent to building entrances, and near transit shelters. On commercial streets, raised planters may double as a seat wall.

Design Guidelines:

- a) Seating should be located in active pedestrian areas and oriented and placed to facilitate pedestrian movement.
- b) Benches should be located throughout North Oakville in clusters in the denser areas like the mixed-use Core Areas and the Neighbourhood Activity Nodes.
- c) Seating areas and benches should be oriented towards the sun, whenever possible. Benches should be sited and maintained so that they can function all year round.
- d) Seating elements other than manufactured benches may be utilized. Precast concrete blocks or slabs, square cut boulders and seatwalls make interesting and durable places to sit. Raised planters located in the boulevards should be designed to provide seating along the sidewalk edge.
- e) Benches may be of different designs for specific areas, for example, park benches may be different from benches in commercial areas.

3.9.3. Public Art

Public art is encouraged throughout North Oakville, particularly in the Urban Core and Neighbourhood Centres. Public art creates character and identity, contributing to the overall character and history of a location. For a small percentage of a total project budget, public art can provide an added level of sophistication and quality. The Town intends to create a Town-wide public art strategy that discusses in detail the appropriate locations for public art and the requirements for making it happen. Applicants are encouraged to incorporate public art based on the following guidelines and should contact the Recreation and Culture department for further information.

Design Guidelines:

- a) Recommended public art locations include sites of cultural significance or high-use areas such as public parks, plazas, street intersections, walkways, trails, courtyards, gardens and institutional or public building sites.
- b) Public art should be designed specifically for that site and add to the identity and profile of the community.
- c) Public art pieces should be durable and easily maintained
- d) Public art should be installed at highly visible sites that provide an opportunity for casual surveillance such as views from adjacent buildings and/or public streets.
- e) Artworks should aesthetically enhance the area they are sited in and should relate to and interact with the surrounding environment.
- f) Sites with public art pieces should provide public access and include appropriate landscaping materials that complement the piece. Benches should be located nearby public art.
- g) Opportunities should be sought to celebrate historic events and figures of local, national and international relevance with public art installations.
- h) Sites should be reserved for groupings of complementary pieces, included temporary installations.
- i) Public art should be both physically and visually accessible and barrier free. The incorporation of universal design principles is encouraged. For example, public art is encouraged to incorporate braille on interpretive materials and include touchable maquettes whenever possible.



Photos 3.124, 3.125 & 3.126: Public art can be of varying scales: poetry integrated into benches, a clean water message on a sewer grate (above photographs) or large-scale, installations at focal points or gateway locations (bottom photograph).

3.9.4. Lighting

Sustainable lighting practices will reduce light pollution, conserve energy and reinforce pedestrian character. Down-cast lighting will avoid wasting energy to illuminate the sky. Pedestrian lighting can be emphasized by the use of pedestrian-scaled light standards or illuminated bollards.

Design Guidelines:

- a) Lighting equipment should be selected that provides an appropriate level of illumination, may be powered by alternative energy sources and is easily maintained and replaced.
- b) Sustainable lighting practices will reduce light pollution, conserve energy and reinforce pedestrian character.
- c) Directional lighting will reduce wasted energy from illuminating the sky.
- d) Light emitting diodes (LEDs), solar power, road reflectors and similar alternative lighting and energy sources should be encouraged for energy efficiency, where appropriate. Sensors could also be used to help regulate when lights turn on and off, and their level of brightness.

- e) In high pedestrian activity areas, where higher levels of pedestrian lighting is appropriate, pedestrian-scaled light standards or illuminated bollards are preferred.
- f) The design and location of lighting should consider the impacts of light pollution, energy efficiency and any other potential negative impacts.
- g) Specially designed lighting fixtures may be located on roads that lead to key areas including neighbourhoods, Core Areas, community parks, etc.



Photos 3.127 & 3.128: Lighting should meet roadway functional requirements but be pedestrian friendly.

3.9.5. Waste Receptacles

Waste receptacles should be located at street corners in highly active pedestrian areas and be coordinated with the overall street furniture palette. The waste receptacles chosen for the area should include slots for recycling as well as litter. Waste receptacles should generally be located at areas of high pedestrian activity such as major street intersections, park and plaza entries and transit stops.

Design Guidelines:

- a) All litter and recycling receptacles should be configured as side opening containers for convenient maintenance.
- b) Receptacles should integrate separate slots for recyclable litter.
- c) Receptacles should be located in conjunction with seating areas, pedestrian entrances, parking areas, washrooms, key destinations and at regular intervals along circulation routes.
- d) Recycling and litter receptacles should be grouped together or integrated in a single litter container and should be wildlife proof.



Photo 3.129: Waste and recycling containers should be found throughout the North Oakville community.



Photo 3.130: Waste management should be integrated into building and site design.

3.9.6. Signage

3.9.6.1. Public Signage

A hierarchy of signage should be implemented uniformly throughout North Oakville. A signage strategy encompassing street signs, directional signage, commercial signage and murals should be developed.

Wayfinding & Directional Signage

A comprehensive wayfinding strategy, including mapping at key locations, such as Neighbourhood Centres, Urban Cores, public parks and trails, should be developed.

Information & Community Boards

The need for information kiosks may become evident in the long term, as the surrounding residential communities grow. As pedestrian traffic increases throughout the commercial and mixed-use areas, these kiosks can become important sources of information for the community. Kiosks should be conveniently located and in highly active pedestrian areas to attract users and provide security. They should not impede pedestrian circulation. Kiosks should be limited in size to minimize visual impacts while providing adequate space in which to post information.

Street Furniture Signage

Street furniture should not include signage (i.e. benches with advertisements) with the exception of, where appropriate, small, unobtrusive plaques to indicate the source of funding for the streetscape item.



Photos 3.131 & 3.132: Wayfinding and directional signage should be appropriately scaled and located.



Photo 3.133: Wayfinding or directional signage should be located in commercial districts.



Photo 3.134: Banners can capture the identity of the area while animating a building frontage.

3.9.6.2. Private Signage - See Oakville's Sign By-Law

Provisions for signs within private development in North Oakville should comply with Oakville's sign by-laws with regard to size, type, number, illumination and location requirements. In addition to adhering to by-law regulations, the appearance of the signs should reinforce the high quality of private development through design and choice of colour, material and their placement at entrance areas and on the building façade.

Design Guidelines:

- a) Signage should be integrated into the site plan for each proposed development to ensure coordination of design.
- b) Signage should be integrated in building design to reduce clutter.
- c) Building identification signs should be compatible with the building design in scale and material in compliance with the Town's Sign by-law.
- d) Stand alone signs should be shared among tenants and/or integrated in landscaping.
- e) Front lit signage, back lit individual block letter signs and/or logo signage is recommended. Back-lit box signs are not allowed.
- f) Signage should add diversity and interest to retail streets but not be overwhelming; mobile signs, temporary signs, backlit sign boxes are discouraged; billboards, revolving signs and roof signs are prohibited.
- g) Freestanding signs addressing private development should be located within the property line and mounted in a landscaped setting. Their design should be compatible with the building design.
- h) Building identification should be coordinated with the principal building façade and should be compatible with the building design in scale, colour and materials.
- i) Multiple tenant development should use signage guidelines to encourage properly scaled and integrated signage design.
- j) Building entrance canopies and window awnings may incorporate signs to enhance building character and identification. Awnings on multiple tenant buildings should be considered on exterior elevations.

- k) Directional signs should assist in the orientation of pedestrians and traffic to street names, parking location and the Natural Heritage and Open Space System.
- l) To ensure public safety, sign location should not compromise pedestrian and/or vehicular sight lines.
- m) Signs (including lettering) should not obstruct more than a small percentage of window areas unless the building is under significant renovation and/or vacant.
- n) Up-lighting of signs should be prohibited to limit light pollution, with the exception of low accent lighting for monument signage



Photos 3.135 & 3.136: Private signs should be carefully integrated with buildings or freestanding elements.



Photos 3.137 & 3.138: Signage can be artfully integrated into building design.

3.9.7. Utilities

The coordinated design and integration of service infrastructure and utilities will contribute to the visual quality of the community. For that reason they must be considered as an integrated component in the design of neighbourhoods and buildings.

Developers should contact the Town and local utilities early in the development process (e.g. prior to draft approval) to coordinate the placement of above-ground utilities to reflect the guidelines below.

Design Guidelines:

- a) Where new services are being introduced, they should be located underground, where feasible, and should be encouraged to locate in one initial common trench. Trunk hydro services may be located above ground, but will be encouraged to be located underground, where appropriate.
- b) Where feasible, opportunities should be identified for grouping utilities in single locations above grade (e.g. the flankage yard of the public right-of-way). Such locations should be guided by the location and primacy of streets, storm water management facilities, parks and other components of the open space systems.
- c) Utilities, including utility cabinets, transformer vaults, hydro metres and gas metres, should be incorporated into new buildings, where feasible. Where this is not possible, utilities should be placed in discrete locations and/or screened from view as much as possible and preferably not at corners or other locations visible to pedestrians.
- d) New and innovative solutions for integrated utility services should be explored to minimize street clutter. Products that incorporate street lighting and telecommunication boxes within the same pole are encouraged.
- e) Alternate heating and cooling systems are encouraged. One example of an alternate system is District Energy.

3.10. Public Landscaping

Parks and other landscaped areas will be incorporated into urban areas to create a sense of cohesion, and extend the Natural Heritage and Open Space System.

Proper soil and planting practices will help urban trees succeed along roads, pathways, parking areas and on rooftops. Trees shall be incorporated into public street design and will frame all streets and pathways. Trees provide shade and comfort to pedestrians and enhance the visual and environmental qualities of the street. To sustain trees, planting should occur in sufficiently deep and wide planting areas which are backfilled with appropriate soil. Native and disease-resistant species for street trees should be used, wherever possible, to promote long term growth. Please see the North Oakville Urban Forest Strategic Management Plan for further details

Design Guidelines:

- a) Street trees should be planted next to sidewalks and paths at regular intervals, with the balance of boulevard planting used to enhance street edges and open spaces.
- b) Resilient tree species that are able to withstand an urban setting with minimal maintenance should be selected. Monoculture planting may, in the case of disease, be entirely lost and is therefore strongly discouraged.
- c) Tree planting trenches should be adequate for root growth. Please refer to the North Oakville Urban Forest Strategic Management Plan and Landscape Standards.
- d) In higher density areas, an irrigation system using underground storage fed by stormwater should be considered.
- e) Plantings should be selected that require little maintenance and do not require the use of pesticides and fertilizers.
- f) Careful consideration should be given to the type and location of trees. Higher branching trees should be positioned to ensure there is no interference with truck traffic. Sight lines should also be considered in the location of trees planted at intersections.
- g) The planting of trees as infill along existing streets where the rhythm of existing trees is interrupted should be implemented.



Photo 3.139: Tree grates or densely planted tree pits should be used to protect street trees on commercial sidewalks.



Photo 3.140: Trees shall be incorporated into public street design and will frame all streets and pathways.



Photo 3.141: Spaces between structures not occupied by parking, streets, sidewalks or walkways should be landscaped as usable open space accessible to pedestrians.



Photo 3.142: Front yards should be landscaped with trees, shrubs and native plantings to promote amenity and privacy to private development.

3.11. Private Landscaping

Landscape treatments within private properties will have a significant role in establishing the image of the entire North Oakville Area and will require the co-ordination of individual treatments with functional requirements including parking, servicing, loading and storage. Landscape treatments should be used to establish clear boundaries and areas within sites and be co-ordinated with landscape treatment in the public realm.

Design Guidelines:

- a) Front yards should be landscaped with trees, shrubs and native plantings to promote amenity and privacy to private development. This does not apply to lanes.
- b) Street tree placement should be selected to reduce exposure from salt damage.

Where a landscape plan is required for mid and high rise residential and/or commercial and mixed-use developments the following should apply:

- a) Landscaping should differentiate site areas including parking, building forecourts, courtyards, gardens and sidewalks to give each site a distinct, clearly defined character.
- b) Landscaping and grading should be used to screen and enhance parking areas, access and service roads, loading areas and dissimilar uses on adjacent properties.
- c) Landscaping should mitigate expansive or blank building façades in the form of clustered trees or other forms of planting, which can have a softening effect.
- d) Landscape elements should be used to define and enhance building edges, the street and open spaces so that these areas contribute to a consistent and high quality image for the area.
- e) Pedestrian-scaled downcast lighting should be provided along pedestrian walkways and common open space areas in mixed-use and high density areas.

For mid and high-rise development the following should apply:

- a) All vehicular roads and privacy pathways should be designed to accommodate street trees.
- b) Street trees should be planted at between regular intervals (i.e. 8.0 - 12.0 metres) on centre and provide appropriate soil volume to allow for adequate root growth.

- c) Shrub and fencing heights should not obscure views through to private or public development to preserve sight lines and safety.
- e) Low fencing, combined with low shrubs, may add visual character along property lines, or enhance the perimeter of surface parking areas. These treatments should be coordinated with adjacent streetscape design, parks and/or open spaces.
- f) Landscape treatments provided along major access driveways or within driveway medians should be provided in the form of high-branching deciduous trees and low shrub planting (i.e. less than 1.2 metres at mature growth) to preserve vehicular sight lines.



Photo 3.143: Low fencing, combined with low shrubs, adds visual character along property lines and enhances the perimeter of surface parking areas.



Photo 3.144: Landscape features and public art should be used to define and enhance building edges, the street and open spaces so that these areas contribute to a consistent and high quality image for the area.



Photo 3.145: High branching trees, which align the front property line should be coordinated with street trees.



Photo 3.146: Low planting may be used to enhance edges and screen front yard parking areas.



Photo 3.147: Vines such as Boston Ivy, may be used to soften building edges at the ground level.

3.11.1. Front Yard Treatments

The following guidelines apply to the Urban Core areas and Neighbourhood Centres as well as mid and high-rise development. These guidelines do not apply to low density residential.

Design Guidelines:

- a) Planting strips should be provided between the street line and parking lots. Landscape materials should include a combination of salt tolerant ground cover, low shrubs and high-branching deciduous trees.
- b) Shrubs and ground covers should cover a reasonable amount of the planting strip to form a continuous low screen wherever possible to buffer parking areas.
- c) Fences or continuous planting of tall shrubs higher than 1.2 metres, which obscure pedestrian views, should be discouraged.
- d) High-branching deciduous trees, which are aligned on the front property line should be coordinated with street trees to maintain views through to private development.
- e) Accent planting and coordinated signs should be provided within the front yard at main driveway entrances, subject to sight line requirements.
- f) Trees may be used to line main driveways, indicating their priority over other vehicular circulation routes.
- g) Shrubs or climbing vines may be provided to soften the transition of the ground level of any building or structure at finished grade.

3.11.2. Side Yards

The following guidelines apply to the Urban Core areas and Neighbourhood Centres as well as mid and high-rise development. These guidelines do not apply to low density residential.

Design Guidelines:

- a) Where neighbouring properties have adjacent surface parking lots, a coordinated planting strip that is wide enough to plant trees and/or other landscape edge treatments (3.0 metres minimum recommended) should be provided between the parking lots to allow sufficient area for parking lot edge treatments, drainage, access, vegetation, fencing and snow storage.
- b) Landscape strips, where provided, should be planted with a combination of high branching, coniferous and deciduous trees and low ground covers that do not obscure pedestrian views.
- c) Tree, shrubs and ground covers should cover a reasonable amount of the planting strip between adjacent properties.
- d) Screen planting, where provided to buffer parking areas from neighbouring properties, should cover sufficient density and form a continuous visual screen.



Photo 3.148: Where parking areas abut, side and rear yard planting strips should be provided for vegetation, fencing and snow storage.



Photo 3.149: Where neighbouring properties have adjacent surface parking lots, a coordinated planting strip of 3.0 metres should be provided between the parking lots to allow sufficient area for parking lot edge treatments, drainage, access, vegetation, fencing and snow storage.



Photo 3.150: Landscape strips should be planted with high-branching, deciduous trees and low ground covers that do not obscure pedestrian views.



Photos 3.151: Rear yard setbacks may vary in depth.

3.11.3. Rear Yards

The following guidelines apply to private landscaping within the rear yard of the Urban Core Areas and Neighbourhood Centres as well as mid and high-rise development. These developments will ultimately result in urban conditions where outdoor open space may be absent or limited within the rear yard. The objective of these areas is to ensure that rear yards abutting neighbouring properties provide adequate screening and privacy. These guidelines do not apply to low density residential.

Design Guidelines:

- a) Rear yards should provide as a minimum, a landscape edge treatment to include adequate space for tree planting or other landscape treatments.
- b) Where lane access or service driveways are located in the rear yard, the landscape edge should be wide enough (i.e. 3.0 metres) to plant trees and/or other landscape to serve as an adequate buffer in combination with fencing at abutting property lines.

3.11.4. Semi-Private Open Space

Landscaping within private property that is perceived to be shared amenity space should be designed to provide a high level of comfort for the pedestrian. Paving materials should conform to all applicable accessibility requirements and include high quality, easily replaced, low maintenance materials. Site furnishings and other placed elements such as play equipment, public art, shelters, signage or fencing should be manufactured from high quality, durable materials. Lighting should be provided in all publicly accessible areas and should be designed to provide safe light levels.

Design Guidelines:

- a) Customer and visitor amenities should be located in convenient locations in relation to building entrances. Amenities may include:
 - Window shopping walkway;
 - Landscaped seating area with benches;
 - Outdoor dining area;
 - Outdoor playground;
 - Outdoor market and/or kiosk area;
 - Water feature;
 - Art installations;
 - Transit shelter;
 - Outdoor employee amenity area;
 - Parks or trails; and/or,
 - Ecological restoration area.
- b) The above amenities should be directly accessible from public or semi-private sidewalks (except for employee-focused amenities) and constructed of materials congruent in quality and appearance with those of the main buildings.
- c) Plant material incorporated into public amenity spaces should have the following characteristics:
 - Low maintenance, pest and disease resistant;
 - Free of fruit or other features that could poison or cause injury to pedestrians;
 - Selected and placed to ensure clear views into and out of amenity spaces;
 - Arranged/massed to provide maximum affect and efficiencies in maintenance and watering; and,
 - Provide variety, interest and form during all seasons of the year.



Photos 3.152 & 3.153: Small semi-private squares, plazas and gardens will serve as community gathering spaces.



Photo 3.154: A central landscaped area can provide an outdoor focus for the adjacent mixed-use area.

3.12. Vehicular Parking

A variety of parking will be available in North Oakville including:

- Within the private realm:
 - Surface parking; and,
 - Structured parking in buildings above or below grade.
- In the public realm:
 - On-street parking;
 - Limited parking associated with public open spaces such as parks and trail systems; and,
 - Public structured parking in buildings above or below grade.

Initial development within North Oakville, particularly employment and commercial uses within the Urban Cores, Neighbourhood Centres, and Employment lands will likely be developed as surface lots.

As development over the mid and long term intensifies and land values increase, structured parking will become a viable and desirable option to ensure the ultimate urban build-out of North Oakville where a high proportion of buildings directly line public streets. In the short-term, where surface lots are required, these areas should be designed to minimize their visual impact and to allow for redevelopment as future building sites. Therefore, the layout of initial buildings should consider site access, landscape and site servicing that will permit the long term intensification of these sites.

A reduction in parking standards will also be considered where mixed-use development is permitted, where there is significant density of development and good accessibility to transit, such as in the Urban Core Area designation. Reduced parking standards provide opportunities to integrate smaller amounts of structured parking within development, minimize the amount of parking visible from the street edge and will generally contribute to a greater sense of urbanity within North Oakville.

The guidelines are intended to prevent parking from becoming a dominant physical element. The design of parking facilities should coordinate landscaping, lighting, walkways and structures to ensure a compatible interface with open space, buildings and streets. The total amount of parking may be minimized through shared parking between adjacent properties, particularly in the evenings, weekends and other off-peak periods.



Photo 3.155: Landscaping internal to parking lots is desirable.



Photo 3.156: Examples of integrated structured parking, note the ground level shops, lack of visible entry point and attention to streetscape.

3.12.1. On-Street Parking

On-street parking on Town roads should be permitted wherever possible, to animate the street, reduce vehicle speeds and serve as a protective buffer between pedestrians and moving vehicles. To encourage the provision of such parking, appropriate engineering design standards for roadways, including bump-outs, may be developed. Reduced off-street parking requirements will be established for specific areas, where appropriate, particularly along transit routes and in the Urban Core designations.

Design Guidelines:

- a) Parallel on-street parking is preferred over perpendicular or angled parking to minimize the overall width of the roadway.
- b) On-street parking may be situated within bump-outs, where appropriate.
- c) Bump-outs should be landscaped with street trees or low level ground cover and be designed to accommodate snow loading.
- d) Generally, on-street parking is recommended to assist in traffic calming.
- e) Where appropriate, permeable paving should be considered.



Photos 3.157 & 3.158: On-street parking allows users convenient access to commercial and residential areas.



Photo 3.159: Permeable paving, bioswales (as illustrated in this photo) and other features to manage stormwater on-site may be considered, where appropriate.



Photo 3.160: Pedestrian circulation in parking lots should be emphasized.



Photo 3.161: Surface parking areas should be heavily landscaped and located at the rear of buildings.

3.12.2. Surface Parking

In mid and higher density residential areas, surface parking lots will generally be used for “interim” developments and as a component of higher density residential, mixed-use, commercial or employment uses, such as hotel or office complexes.

Rear-yard, side-yard and surface parking are preferable to front-yard parking. On-street parking is recommended wherever possible to provide short-term parking and to help slow traffic. Where outdoor parking does exist it should be visually subdivided into smaller parking courts.

Design Guidelines:

- a) Surface parking areas should generally not be located in front of buildings facing streets (except for on-street parallel parking). Provisions exist, under certain circumstances, for front yard parking. Refer to the North Oakville East Secondary Plan, Sections 7.5.7.1 b and 7.6.8.4 d and the North Oakville West Secondary Plan, Section 8.5.7.1.
- b) Large areas of unbroken parking should be avoided. Landscaping and/or paving articulation should be used to define smaller areas, improve edge conditions and provide for pedestrian walkways. The amount of landscaping should be proportionate to the overall parking lot size.
- c) Landscape, or other parking area screening devices, should not obstruct the primary building façade or total visibility of the parking area.
- d) Alternatives should be considered for screening parking facilities, such as depressing lots from the street level or creating landscaped enclosures of low walls, hedges or berms with a maximum height of 1.2 metres.
- e) Parking lots should be divided using a variety of methods including: planting strips, landscaped traffic islands and articulated paving. High branching trees with tree grates and shrubbery on hard paving surfaces are recommended for ease of maintenance. Sod surface or shrubs are recommended as ground cover at the perimeter of lots.
- f) Major internal vehicular routes should be defined by raised and curbed traffic islands.
- g) Freestanding or building-mounted light standards should be provided at pedestrian level, along pathways and at a broad area level for general visibility and security.

- h) Landscaped parking islands at the end of parking rows and pedestrian connections that contain salt tolerant shade trees are encouraged. Other treatments include feature paving or enhanced parking lot edge treatments.
- i) Pedestrian walkways should be located adjacent to stores, between building clusters, and to provide pedestrian access to transit stops, public sidewalks and other developments.
- j) Distinctive pavement and pavement markings should be used to indicate pedestrian crossings and create an interesting visual identity.
- k) Permeable paving, swales and other features to manage stormwater on-site may be considered, where appropriate.
- l) Preferential bicycle parking should also be provided. Reserved spaces for car-sharing services are also encouraged.
- m) Pedestrian entrances for parking structures should be located adjacent to main building entrances, public streets or other highly visible locations.
- n) Freestanding or building-mounted light standards should be provided at pedestrian level, along pathways, and at a broad area level for general visibility and security.
- o) Pick-up and drop-off areas should not interfere with pedestrian circulation or loading areas.

3.12.2.1. Sidewalk - Parking Interfaces

Surface parking areas adjacent to public sidewalks negatively impact pedestrian comfort and safety. The surface parking interface should be well designed with adequate buffers.

Design Guidelines:

- a) Where parking areas are adjacent to a public sidewalk (e.g. retail forecourt parking, or car sales yard), adequate buffers, such as landscaping or bollards, should be provided between parked vehicles and the sidewalk.
- b) Buffer elements or enclosures including landscaping, fencing, or bollards must be located on private property and therefore not reduce the total sidewalk width.
- c) Buffer elements should be designed to facilitate clear sightlines between the street and parking area. A recommended maximum height of 1.2 metres should be applied for continuous buffer elements (i.e. hedges, fences, etc.)



Photos 3.162 & 3.163: High mast lighting should be avoided, low level lighting such as this is preferred.



Photo 3.164: Parking structures should contain active uses at-grade.



Photo 3.165: Structured parking should be incorporated into the building design.



Photo 3.166: The side yard parking garage entrance minimizes its visibility from the street.

3.12.3. Parking Structures

Parking structures are required to have a high level of design which is consistent and complementary to the development and site as a whole.

Design Guidelines:

- a) Parking structures fronting on to public streets and public open space should be developed, as much as possible, with active at-grade uses to provide safety, animation and attractive building façades.
- b) Wherever possible, access to structured parking should be from secondary streets or the interior of blocks. Ramps at street corners or view termini should be avoided, where possible.
- c) Ramps to parking structures should be located away from public areas, where possible.
- d) Structured parking entrances should be designed and located to minimize their visibility.
- e) Parking within a structure should be screened from view at sidewalk level, and the street-level wall should be enhanced by architectural detailing, artwork, landscaping or similar treatment that will add visual interest.



Photo 3.167: The principles of Crime Prevention through Environmental Design (CPTED) were used in the design of this parking structure.

3.13. Bicycle Parking

The accommodation of safe and convenient bicycle parking is an essential element of the North Oakville community. Bike racks should be placed in highly active pedestrian areas throughout the North Oakville area. This includes the main entrances of buildings and at transit stations and nodes. The placement of racks within the pedestrian realm should not impede pedestrian movement. Please refer to the North Oakville Cycling Strategy.

Bike racks should be constructed of a good quality, single locking ring and post design.

Design Guidelines:

- a) Bicycle racks should generally be installed at regular intervals throughout the Urban Core, Neighbourhood Centre and Employment Districts to promote non-motorized transportation.
- b) The post-and-ring design constructed of aluminium or galvanized steel is preferred as larger units can impede pedestrian movement and snow clearing.
- c) In addition to bicycle racks, bicycle lockers are strongly encouraged especially for large office developments and at major transit stops.
- d) The number and configuration of bike racks at any location should be evaluated on case-by-case basis.
- e) Short-term or visitor bicycle parking should be sheltered and located near building entrances and pedestrian walkways. Ensure that these locations do not impede pedestrian circulation when bicycles are parked.
- f) Bicycle parking that only supports the wheel is not permitted. Only bicycle parking that allows frame support is acceptable.
- g) For long term bicycle parking provided as part of a high-density residential development, the parking spaces must be accessible, secure and weather-protected.



Photos 3.168 & 3.169: Bicycle parking should ideally be located close to building entrances to minimize opportunities for bicycle theft.



Photos 3.170 & 3.171: Bicycle parking should be convenient and located close to the main entrance of buildings.

3.14 Bird-Friendly Guidelines

The following Guidelines are based on the City of Toronto Green Development Standard's Bird-Friendly Development Guidelines prepared by the City of Toronto March 2007 (http://www.flap.org/development_guidelines.pdf).

Ideally, bird-friendly solutions found below should be applied to the entire building. However, the first 12 metres above grade is the critical area. Window treatments in this zone are particularly important for a building to be considered bird-friendly. Developers are encouraged to incorporate bird-friendly features into the design process at the preliminary design concept stage.

3.14.1. Visual Markers & Muting Reflections

There are currently two approaches used to mitigate the danger that glass poses to birds. Creating visual markers is the first and more effective means. A similar, though less effective method, is to mute reflections in glass.

For a building to effectively be projected as a solid object the denser the pattern the better. For example, birds first begin to perceive buildings as objects to avoid when the distance between features or patterns is approximately 28 cm (a 10 cm or less distance is most effective).

The following are examples of visual markers:

- Patterned or 'Fritted' Glass;

- Film;
- Decals;
- Fenestration Patterns; and,
- Decorative Grilles and Louvres.

The following are ways to mute reflections:

- Angled Glass (minimum angle 20 degrees);
- Internal Screens; and,
- Awnings, Overhangs and Sunshades.

3.14.2. Light Pollution

Light pollution is the result of the unnatural brightening of the night sky through excessive and unnecessary light. Light pollution creates "artificial sky glow". Reducing light pollution will not only reduce the death of migratory birds each year, but will also save energy, enhance the visibility of the night sky's stars and improve security and safety for people and property through the use of efficient, properly designed lighting fixtures.

3.14.2.1. Types of Lighting

To ensure safety and security at night around a building, external light fixtures should minimize direct upward light, spill light, glare and artificial sky glow by projecting downward.

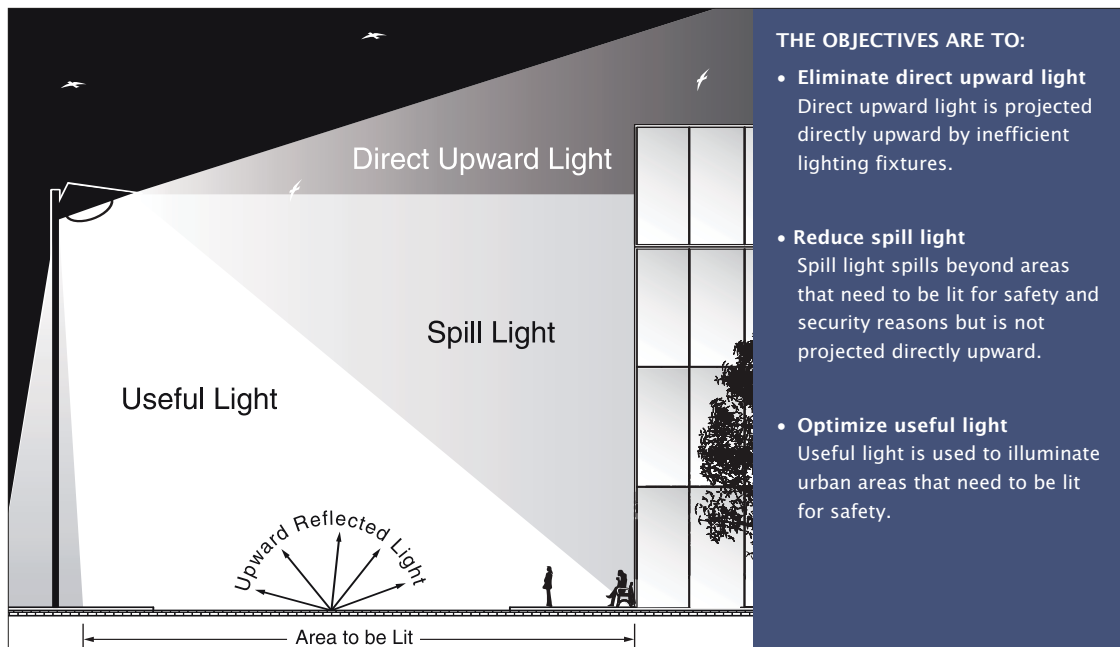


Figure 3.32: External Lighting Fixture diagram. Source: Bird-Friendly Development Guidelines prepared by the City of Toronto March 2007.

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Section Four

4 Urban Cores

The Urban Core designations reflect the most urban part of the North Oakville Plan area. These areas provide for the densest development and the highest order activities including a full range of residential, retail and service commercial, entertainment, cultural, business and institutional uses. Mixed-use development is generally encouraged though some areas are likely to have residential towers. Ultimately it is intended that Urban Core lands will become true mixed-use urban areas and therefore, flexible building forms that can transition to other uses are encouraged. Lofts and apartments with floor heights that permit change of use on the ground and upper floors are building types that will support this desired flexibility and particularly for development within the Trafalgar Urban Core. In addition, the Urban Core areas on the north side of Dundas Street (RR5) and the intersection of Neyagawa Boulevard and Burnhamthorpe Road (RR27) will be important, but secondary to the Trafalgar Urban Core Area. Access to Regional Roads (e.g. Trafalgar Road, Dundas Street, Neyagawa Boulevard) will require final approval by Halton Region.

Interim Uses & Phased Development Principles

Urban Core Areas are intended to ultimately provide for the densest mixed-use development in North Oakville. In order to ensure that the ultimate development form is not constrained by interim land uses and/or the development of initial phases, the following planning and design principles will form the basis for development:

- a) Development and building placement should be planned on the basis that intensification may occur, either by future

phases of development around them, by intensification or redevelopment of the buildings themselves, or both. Except for minor buildings and structures, buildings and other facilities should be designed for the long term. Accordingly, buildings should be located on the site to the urban standards set out in this document and planned so that future phases of intensification are not overly constrained.

- b) A diverse mix of land-use will promote excellent pedestrian and transit access from the outset. To maintain vibrancy and active day and evening uses within the Urban Core areas, densities supportive of transit and a healthy social mix should be provided.
- c) The highest density of development should be concentrated around the Avenue/Transit Corridor and Connector/Transit Corridor street intersections in the Trafalgar, Neyagawa and Dundas Urban Core Areas.
- d) The design guidelines should be used for low, mid and high-rise buildings to ensure appropriate relationships between different building scales, and to help integrate intense urban development by making it more attractive, functional and sustainable.
- e) A well-defined street and open space network should foster connections between the Urban Core Areas, Employment Districts, Neighbourhood Centres and adjacent neighbourhoods.
- f) Shadow impacts for taller buildings and structures in the Urban Core Area should be considered in the design process and balanced with goals for intensification.

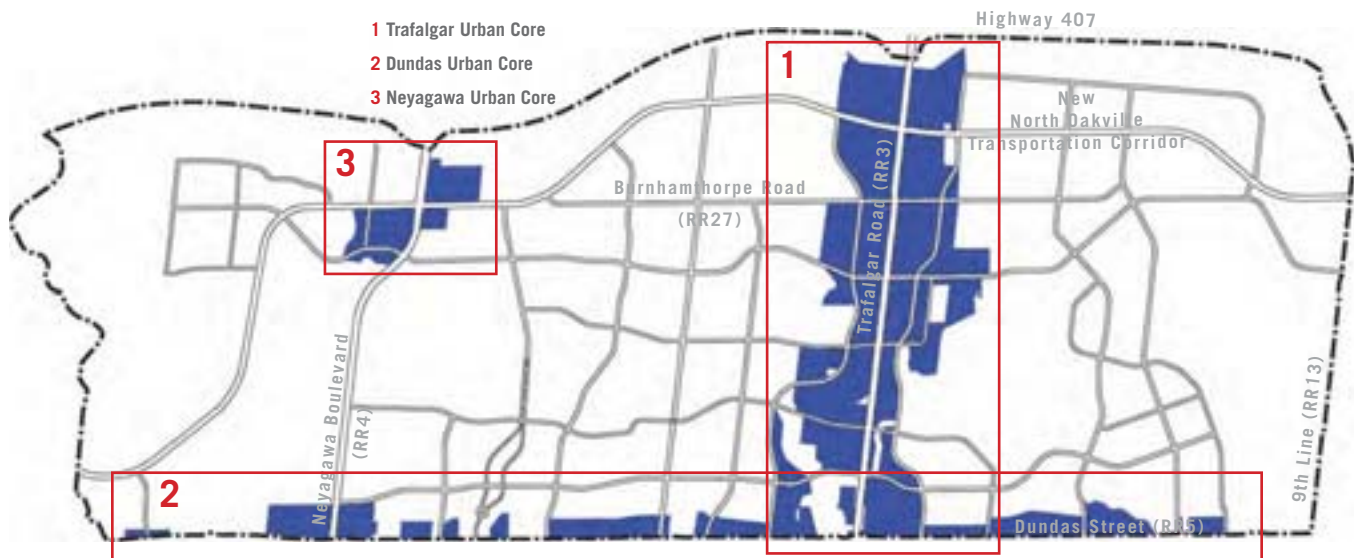


Figure 4.1: North Oakville: Urban Core Areas

4.1 The North Oakville Urban Cores

4.1.1. Trafalgar Urban Core Area

The Trafalgar Urban Core Area is intended to be the focal point for development in North Oakville. Accordingly, Trafalgar Road (RR3) represents a significant opportunity to demonstrate the highest town-wide sustainability standards in the design of buildings, public open spaces and streets. Tree-lined streets and urban squares when combined with well-scaled spaces such as building forecourts, courtyards and gardens will create a healthy environment integrating landscape, natural systems and a diversity of ‘green’ public spaces.

The Natural Heritage and Open Space System will be a key open space resource surrounding the Trafalgar Urban Core and will be connected to parks, trails, schools and other public resources. Buildings in the Trafalgar Urban Core will capitalize on views of the Natural Heritage and Open Space System through the orientation of high-rise buildings and the potential use of terraces and roof top gardens. Public access and views to the Natural Heritage and Open Space System are consistently achieved throughout the Trafalgar Urban Core through street alignment, view corridors and mid block connections.

The Trafalgar Urban Core Area will have a large mix of uses creating new employment and a live-work balance at sufficient densities to support transit, walking and cycling as the principle

modes of travel. Development will foster the growth of a new innovative urban centre for the Town of Oakville.

Trafalgar Road (RR3) originally served as an important historical route and continues to serve as a significant entrance to Oakville. The character of Trafalgar Road (RR3) changes from a two-lane street lined by mature trees and single detached houses within the Old Oakville to a wider, more suburban cross-section dedicated to carrying traffic north of the Queen Elizabeth Way (QEW). In the long-term, Dedicated Rapid Transit along Trafalgar Road (RR3) will support the highest densities and create town-wide connections. Trafalgar Road (RR3) is a Regional road under the jurisdiction of Halton.

The ultimate street design for Trafalgar Road (RR3) includes six lanes, with off-peak on-street parking on both sides, and a central transit right-of-way within landscaped medians. Bus lanes will provide transit in the interim. Street trees, sidewalks and narrow building setbacks will create a strong edge resulting in an urban street. The final road design for Trafalgar Road will be developed through an Environmental Assessment to be undertaken by Halton Region. Intersection spacing and access along Trafalgar Road must be reviewed and approved by Halton Region.



Figure 4.2: A typical Local Road in the Trafalgar Urban Core where low to mid-rise buildings will promote mixed-use, walkable streets.



Figure 4.3: 3D model View of Trafalgar Road Urban Core Area 1: Streets, mid-block connections, parks, courtyards and semi-private open spaces provide multiple connections throughout the Trafalgar Urban Core Area.



Figure 4.4: Trafalgar Road Urban Core: Urban Squares provide a series of civic open spaces as places for relaxation and community activity.



Figure 4.5: Building massing can be used to create a clear distinction between the base of the building and the taller building above.

Trafalgar Road (RR3) north of Dundas Street (RR5) will be transformed into the primary community street, with dedicated transit ways and mixed retail, office and residential uses that will extend the Uptown Core on the south side of Dundas Street (RR5) at Trafalgar Road (RR3). Developments in the areas surrounding the Trafalgar/Dundas and Trafalgar/Burnhamthorpe intersections are envisioned as mixed-use nodes with a commercial focus to anchor the Trafalgar Urban Core Area. The Trafalgar/Dundas intersection should provide for a strong relationship with the Uptown Core to the south. Development in other areas of the Trafalgar Urban Core is encouraged to allow for other mixed-use activity. The interchange at Highway 407, together with the major GO Bus Station to be located in its vicinity will provide efficient access to the major Employment District. The Employment District will include prestige office and industrial buildings and will allow residents to both live and work in North Oakville.

The highest density will generally be located along Trafalgar Road (RR3) where the tallest buildings are recommended. Building heights will generally step down from Trafalgar Road (RR3) to the east and west to integrate with lower rise neighbourhood areas. However, opportunities for additional density and taller buildings are encouraged adjacent to the Natural Heritage and Open Space System, and at Avenue/Transit Corridor, Connector/Transit Corridor and Arterial/Transit Corridor road intersections.

Retail and service commercial development will be encouraged in a “main street” format within the Trafalgar Urban Core to create a pleasant pedestrian shopping environment. Some buildings in these main street areas will be single-use residential or commercial buildings, however, flexibility of built form and ground floor building heights should be considered to allow for a variety of tenants and uses. These may include restaurants, retail stores, clinics and other non-residential uses.

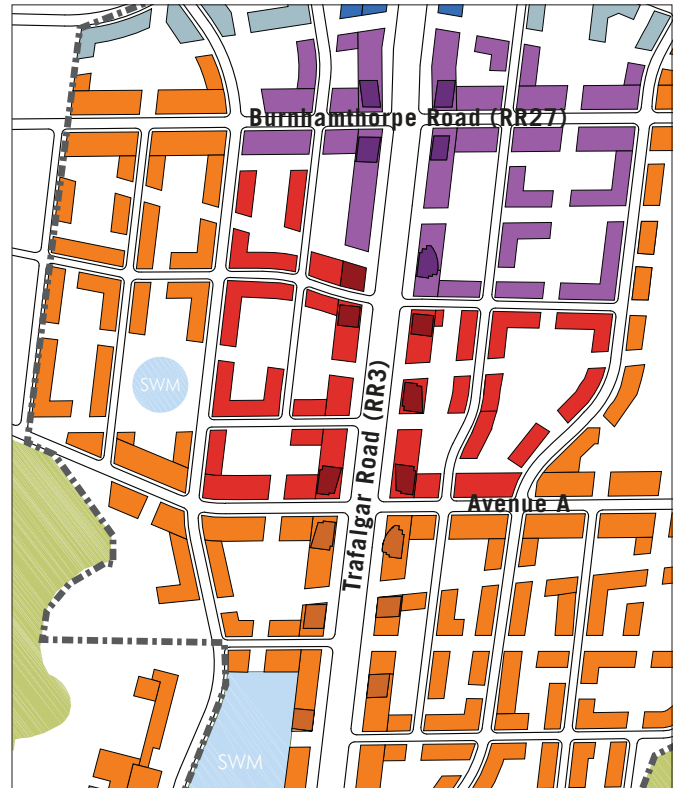
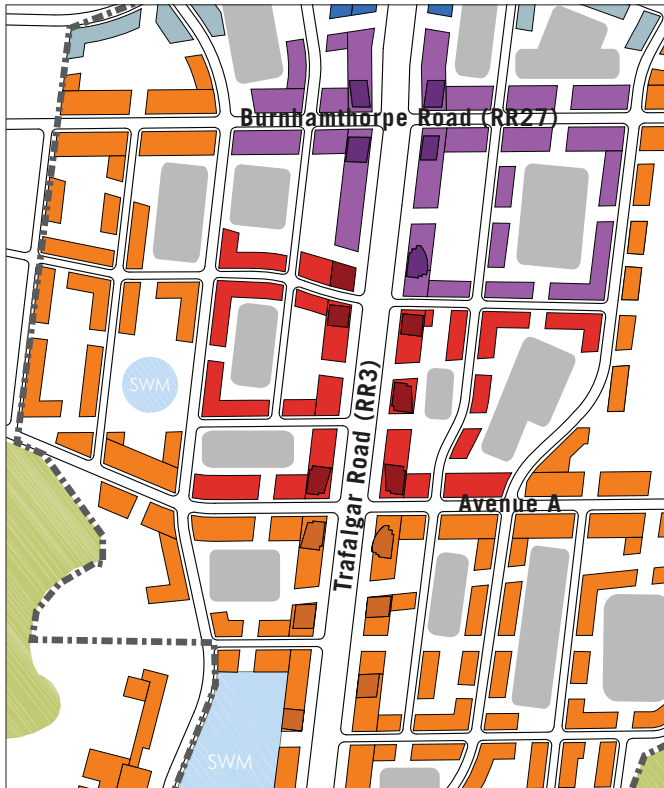


Figure 4.6 & 4.7: Sample Interim and Ultimate Diagrams for Trafalgar: The Trafalgar Urban Core is anticipated to be built out over a long period of time. The interim and the ultimate vision for the Urban Core is intended to be highly urban and pedestrian and transit supportive. On interim sites (Figure 4.6) where substantial areas of surface parking are likely to be provided, the diagram in Figure 4.7 illustrates how these parking lots can eventually become development sites for street related buildings that accommodate either structured parking and/or smaller areas of surface parking.

The Trafalgar Road Urban Core Area will evolve from an interim stage into the ultimate plan. In the interim (i.e. the first 5 - 10 years), increased development density and the potential to create developments that can justify structured parking may be limited. It is therefore essential that interim development patterns anticipate, and do not preclude, opportunities to infill and intensify development sites over time. Public parking will also play an important role in achieving the ultimate plan.

Interim development may, for example, include low-rise commercial or mixed-use buildings. Buildings within the Trafalgar Urban Core will be required to have frontage on to public streets and directly front on to Trafalgar Road (RR3), where feasible. First phase development may require significant areas of surface parking which should be located in the centre of blocks provided they are well designed and landscaped along portions of undeveloped street edges. These interim sites should be designed to permit future subdivision of blocks through the coordinated location of buildings and internal site circulation.



Figure 4.8: View north along Trafalgar Road (RR3) in the Trafalgar Urban Core. Trafalgar Road (RR3) is a 6 lane cross-section. The dedicated central transit right-of-way will provide direct and efficient access to the mix of retail, commercial, institutional and residential uses along Trafalgar Road (RR3).



Figure 4.9: Trafalgar Road (RR3) Plan showing section cut.

Four primary sections define the role and character of Trafalgar Road (RR3).

These include:

1. Highway 407 to Burnhamthorpe Road (RR27)

- This area of Trafalgar Road (RR3) is comprised primarily of employment related uses, including office and industrial buildings with a pattern of streets and blocks centred around the New North Oakville Transportation Corridor and Trafalgar Road (RR3) intersection. Significant densities surrounding the Transit Station is anticipated and opportunities to maximize the landmark role and quality of buildings visible from Highway 407 is encouraged.
- Major office and institutional uses, as well as hotels, convention centres and ancillary retail and service commercial and business support services are permitted throughout, however offices should be focused along the Trafalgar Road (RR3) Corridor. These buildings should create a strong sense of enclosure along the facing street, civic spaces and courtyards. The stormwater management facility planned for this area will be designed to integrate with the urban setting through innovative approaches and technology.
- Prestige industrial uses are permitted including a full range of employment uses excluding truck terminals, works yards, waste processing, waste transfer and uses with outdoor processing or outdoor storage. Along the Trafalgar Road (RR3) frontage, the built form should be oriented to Trafalgar Road (RR3) and will incorporate multiple-storey building elements.
- Mixed-use development is permitted in a “main street” format along the north side of Burnhamthorpe Road (RR27) as a transition between the employment uses to the north and the commercial and residential development to the south. This area should provide commercial, including retail and service commercial uses, and business support facilities. Office and institutional uses are also permitted. Both mixed-use and single use buildings are permitted.

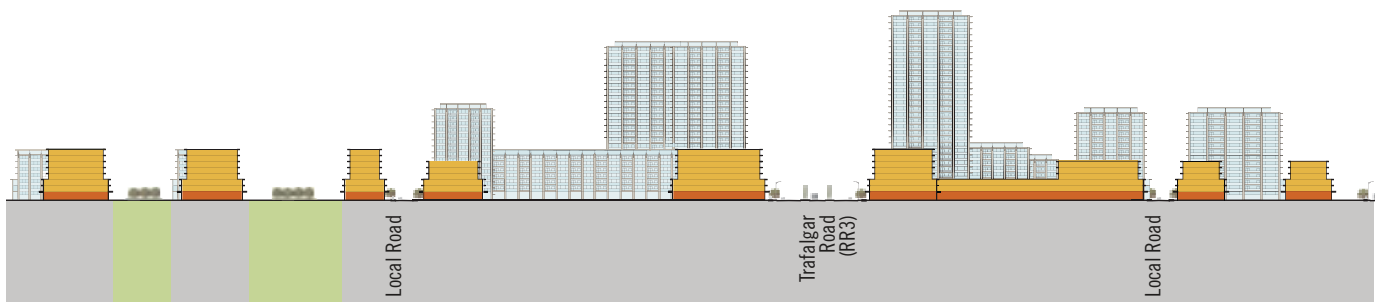


Figure 4.10: Section A-A

2. Burnhamthorpe Road (RR27) to Avenue A

- This area of Trafalgar Road (RR3) will incorporate a range of commercial uses, including retail commercial uses, in the blocks adjacent to Trafalgar Road (RR3) with residential uses at the east and west edges of the Urban Core Area.
- Mixed-Use, in a “main street” format, will be located along the south side of existing Burnhamthorpe similar to uses permitted on the north side; however, residential uses should also be permitted.
- Street Related Commercial Development, as well as some Large and Small Format Commercial Development, may occupy the blocks on either side of Trafalgar Road (RR3). Office, institutional and high density residential, as well as mixed-use development, are also permitted.
- High Density Residential development will be permitted and encouraged to locate along Trafalgar Road (RR3) and the Avenue/Transit Corridor roads. In addition, this type of development will be encouraged in locations adjacent to the Community Park, including on Burnhamthorpe Road (RR27).
- Medium Density Residential development will be permitted throughout this area and encouraged to locate west and east of the north/south Avenue/Transit Corridors to provide a transition to the adjacent residential neighbourhoods and Community Park. In both areas, consideration may also be given to the development of some low density residential uses, particularly to the west as part of the transition to the adjacent residential neighbourhood.



Figure 4.11: Trafalgar Road (RR3) Plan showing section cut.



Figure 4.12: Section B-B



Figure 4.13: Trafalgar Road (RR3) Plan showing section cut.

3. Avenue A to Connector B

- This area of Trafalgar Road (RR3) will consist of a mix of uses including residential, retail, office development and institutional uses such as a secondary school and places of worship. This prime location between two major areas of the Natural Heritage and Open Space System will enable close access and prime views to the Natural Heritage and Open Space System.
- High Density Residential uses will be encouraged to locate along Trafalgar Road (RR3) and the Avenue/Transit Corridor roads.
- Medium Density Residential development will be permitted throughout this area and will be encouraged to locate west of the west north/south Avenue/Transit Corridor and east of the east north/south Avenue/Transit Corridor. It will also be permitted in locations which complement adjacent high density residential uses. Consideration may also be given to the development of some low density residential uses west of the west north/south Avenue/Transit Corridor and east of the east north/south Avenue/Transit Corridors.
- Mixed-use development including office, commercial and residential uses will be permitted throughout this area and will be encouraged on Trafalgar Road (RR3), as well as on Connector/Transit Corridor and Avenue/Transit Corridor roads.
- Institutional uses will be encouraged to locate in this area particularly on sites fronting on Trafalgar Road (RR3).

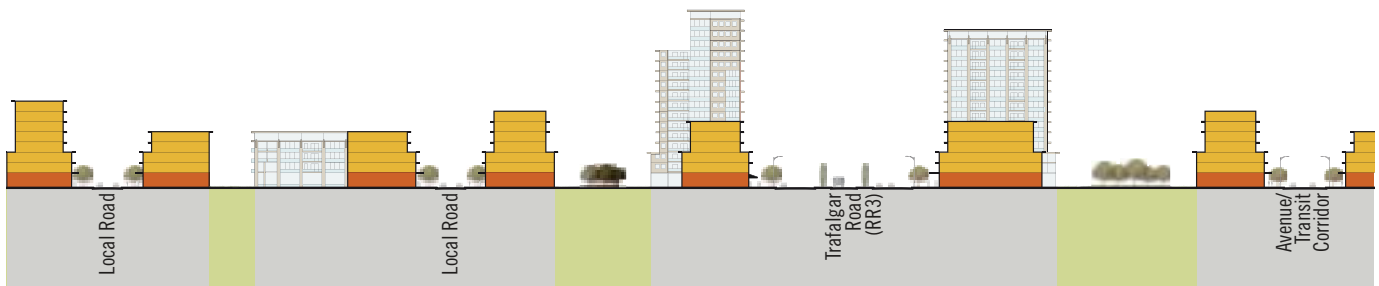


Figure 4.14: Section C-C

4. Connector B to Dundas Street (RR5)

- This area of Trafalgar Road (RR3) will consist primarily of high density residential, institutional and commercial uses including a “main street” commercial area.
- Mixed-use development including office, commercial and residential uses will be permitted throughout the area, but will be encouraged at the south end of Trafalgar Road (RR3) and along Dundas Street (RR5), as well as on the Avenue/Transit Corridors. Mixed-use and retail and service commercial uses should be encouraged in a “main street” format. However, in order to create strong street-related commercial and mixed-use areas, priority will be given to clustering such uses into a few areas particularly in the initial phases of development.
- High Density Residential uses will be permitted and encouraged to locate along Trafalgar Road (RR3) and on the Avenue/Transit Corridors.
- Medium Density Residential uses will be permitted in this area and will be encouraged to locate in areas which complement adjacent high density residential development, as well as at the edges of the area as a transition to adjacent residential neighbourhoods.



Figure 4.15: Trafalgar Road (RR3) Plan showing section cut.

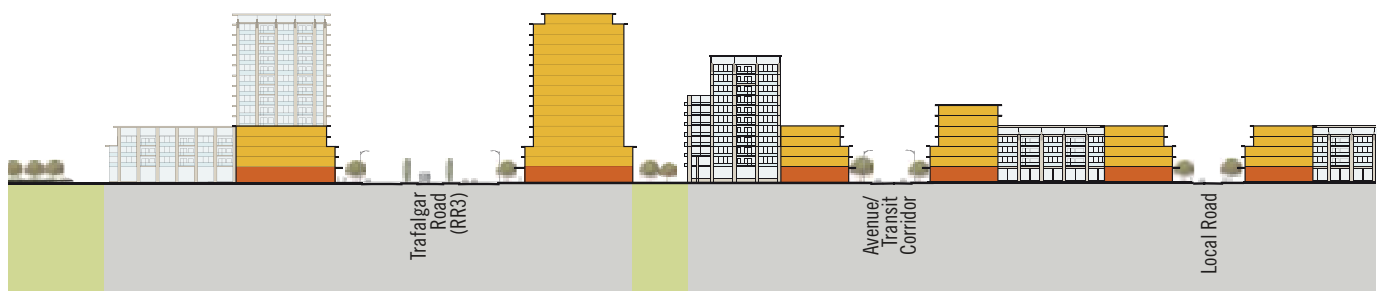


Figure 4.16: Section D-D



Figures 4.17, 4.18 & 4.19: Trafalgar Urban Core Areas 2 & 3. An articulated building base creates a consistent, pedestrian scaled building face at the street edge. Mid to high-rise building elements are designed to provide adequate building tower separations, frame sky and open space views and contribute to a memorable Town skyline.



Figure 4.20: Trafalgar Road (RR3): Trafalgar Road (RR3) is a 6 lane cross-section. The dedicated transit right-of-way will include islands for transit shelters, public art, street trees and help pedestrians safely cross the road.



Figure 4.21: The new North Oakville Transportation Corridor looking east towards the Trafalgar Road Urban Core

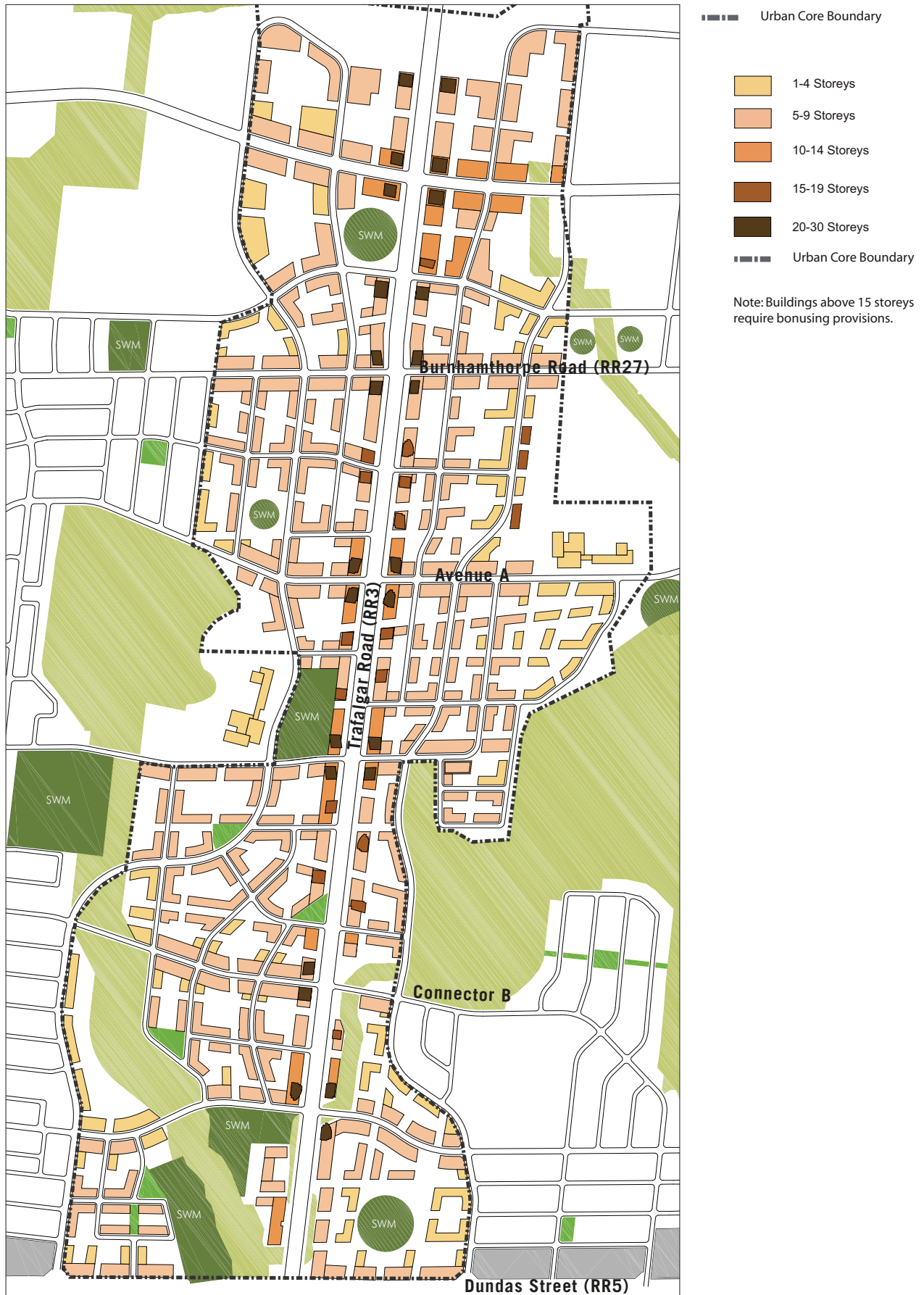


Figure 4.22: Trafalgar Road (RR3) Building Heights: this illustration shows how the Trafalgar Urban Core can build out over the long term into a distinct urban environment. Note: Final locations of SWM ponds to be determined through EIR/FSS.

4.1.2. Dundas Street Urban Core Area

The future design and function of Dundas Street (RR5) is limited in the interim by the high traffic volume and suburban character of the land uses to the south. The south side of Dundas Street (RR5) is generally characterized by low-rise residential and large format commercial buildings that are separated from the road by a berm. Despite this challenge, the Dundas Urban Core has the potential to become a significant urban edge to the North Oakville community. Development fronting on to Dundas Street (RR5) should anticipate the high order transportation function of the road and future high order transit as it connects to other nodes in the Greater Toronto Area. Development at medium densities with low and mid-rise structures is envisaged. At key intersections a mix of uses including retail and commercial development is encouraged. Dundas Street (RR5) should set a precedent for its long-term future as a defining street within the Town and a connecting road between North Oakville and the rest of Oakville. Dundas Street (RR5) is an important inter-regional transit corridor.

The 3D illustrations and plan options shown for the Dundas Urban Core emphasize the importance of creating distinct architecture on a major Regional road. It is recognized that other development forms may occur including townhouses, stacked townhouses and low-rise buildings including lofts and live/work building types.



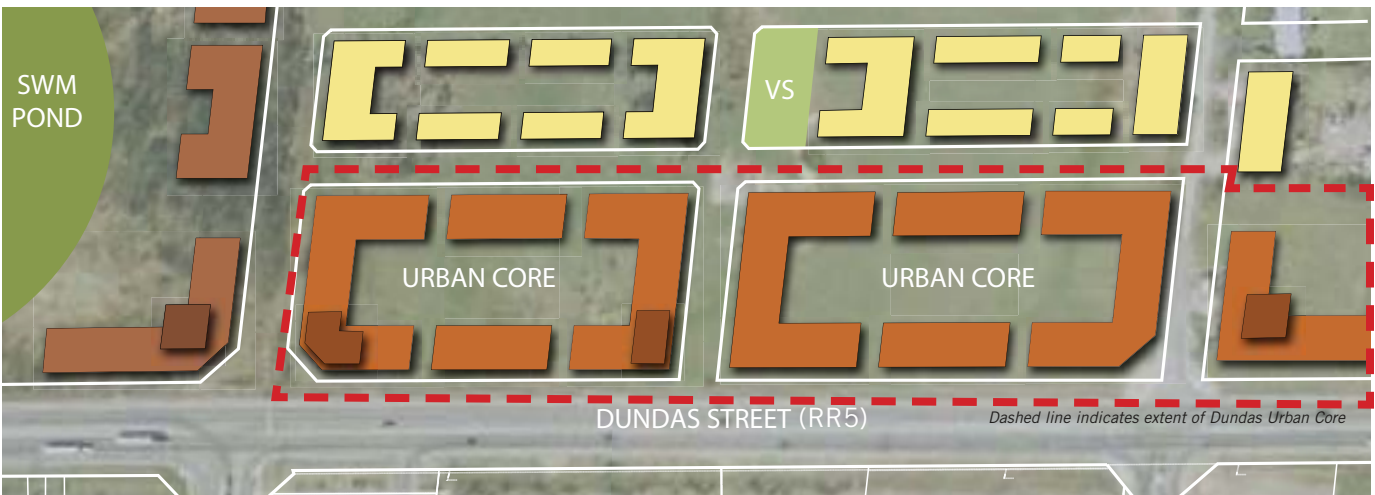
Figure 4.23: Dundas Urban Core: Buildings fronting on to Dundas Street (RR5) should have a height and mass that frames key intersections into North Oakville (Neyagawa, Avenue/Transit Corridors, Connector/Transit Corridors) and provides a generally robust building form to mitigate the noise and high traffic volumes of Dundas Street (RR5).



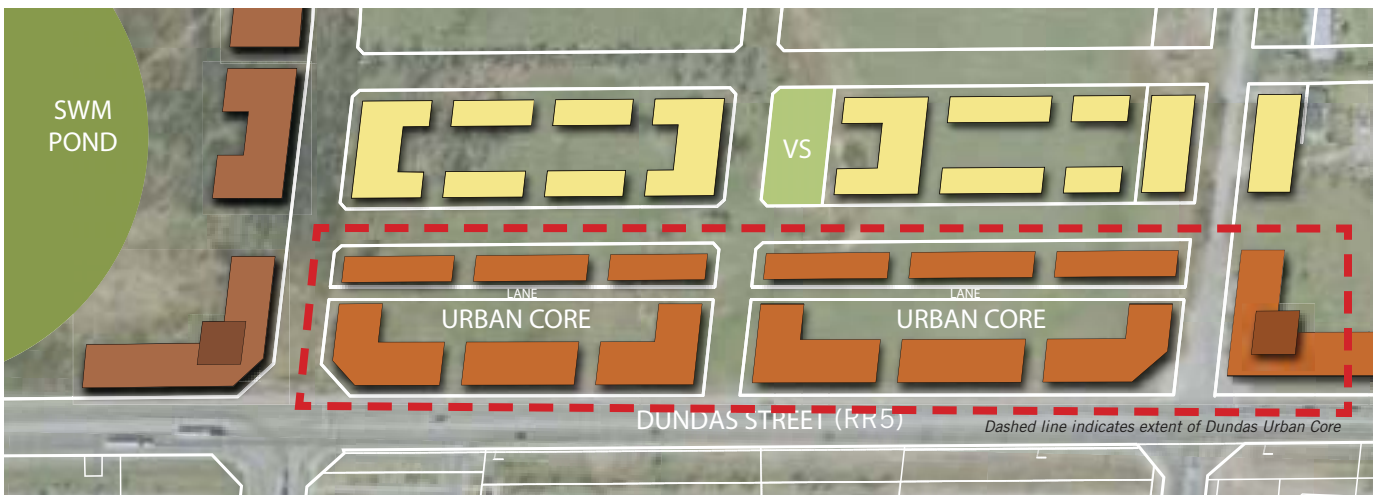
Photo 4.1: Development forms including townhouses, stacked townhouses and low-rise buildings including lofts and live/work building types may occur along Dundas Street (RR5).



Photo 4.2: Where low-rise buildings on Dundas Street (RR5) are proposed they should preferably have a consistent street wall as a buffer to help mitigate the major transportation role and noise of Dundas Street (RR5).



Figures 4.24 & 4.25: Dundas Urban Core: Scenario 1 Model and Plan showing direct access from Dundas Street (RR5).



Figures 4.26 & 27: Dundas Urban Core: Scenario 2 Model and Plan showing alternative lane access behind Dundas Street (RR5). Lanes facilitate retail fronting on to Dundas Street (RR5) for service and loading.



Photo 4.3: King's Christian College at Neyagawa Boulevard (RR4) and the New North Oakville Transportation Corridor

4.1.3. Neyagawa Urban Core Area

The Neyagawa Urban Core is intended to be a mixed-use area accommodating a range of commercial, residential and institutional uses. This area will also act as a focal point for the western portion of the North Oakville area. Development will generally be at lower densities than those found in the Trafalgar Urban Core. King's Christian College is a major institutional focus of the area and any development fronting on to or adjacent to the school should respect access, views, natural features and the integrity of the school campus as a whole. The Neyagawa Urban Core also provides an opportunity to develop uses linked to the proposed transit way station which will be located in the south west quadrant of the Highway 407/Neyagawa Boulevard (RR4) intersection.

Where retail and service commercial development is permitted it will be encouraged to be oriented to the street creating a pleasant, pedestrian shopping environment. These retail and service commercial uses may be in stand alone stores or in the ground floors of mixed use buildings.



Photo 4.4: Buildings that are typically 1-storey such as pharmacies or grocery stores, may be integrated into a mixed-use developments with residential units above.



Figures 4.28 & 4.29: Neyagawa Urban Core: Scenario 1 Model and Plan

4.2. Streets in the Urban Core

4.2.1. Trafalgar Road (RR3)

The road design for Trafalgar Road (RR3) is a key component of the street network for North Oakville. Trafalgar Road (RR3) is a multi-functional Major Arterial/Transit Corridor designed to support a mixed-use, higher density urban environment. The Trafalgar Road (RR3) cross-section provides 6 travel lanes including 2 HOV lanes for peak hours, which also accommodates cyclists and a dedicated transit right-of way to allow for rapid transit. The dedicated transit lanes that run along the centre of Trafalgar Road (RR3) are separated from vehicular traffic by planted medians. Halton Region will be undertaking an Environmental Assessment to determine the design requirements for Trafalgar Road.

The Major Arterial/Transit Corridor accommodates high order transit and/or HOV lanes, connects urban areas and nodes in different municipalities, carries high volumes of traffic and distributes traffic to and from the Provincial Freeways.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Commercial offices;
- Medical clinics;
- Libraries;
- Cultural facilities;
- High-rise apartments;
- Pedestrian-oriented main street retail;
- Personal care services; and,
- Restaurants and cafes.

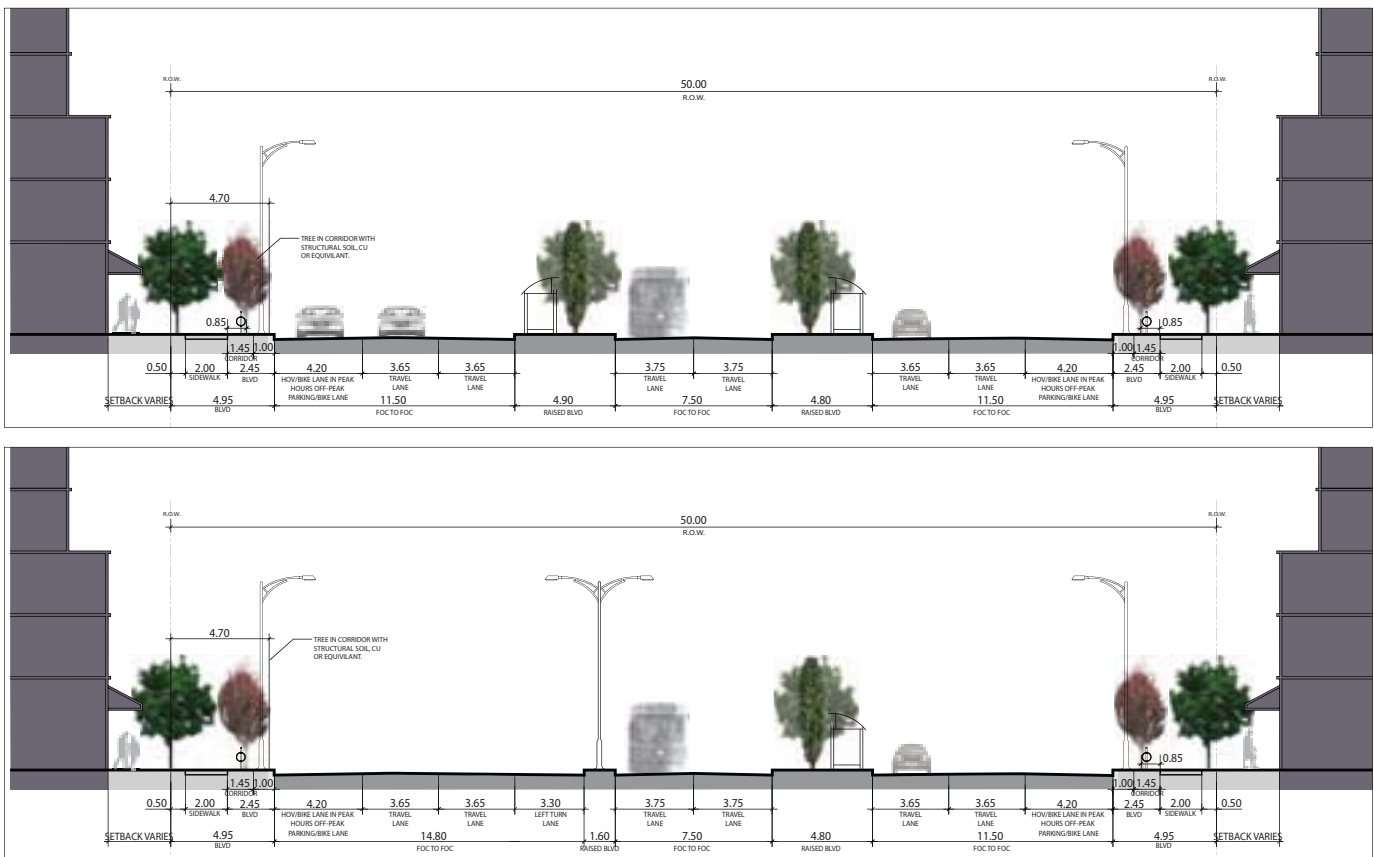


Figure 4.30: Typical Trafalgar Road (RR3) sections. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

4.2.2. Dundas Street (RR5)

Dundas Street (RR5) will serve mainly inter-regional and regional travel demands including movement of heavy trucks, accommodate high order transit and/or HOV lanes, connect urban areas and nodes in different municipalities, carry high volumes of traffic and distribute traffic to and from the Provincial Freeways. It should be noted that Dundas Street (RR5) is a major Regional Arterial road. Corridor improvements have or will be identified through Environmental Assessment studies undertaken by the Region.

The treatment of the boulevard will reflect adjacent land use.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Commercial offices;
- High schools;
- Medical clinics;
- Libraries;
- Cultural facilities;
- High-rise apartments;
- Townhouses;
- Pedestrian-oriented street retail;
- Personal care services; and,
- Restaurants and cafes.

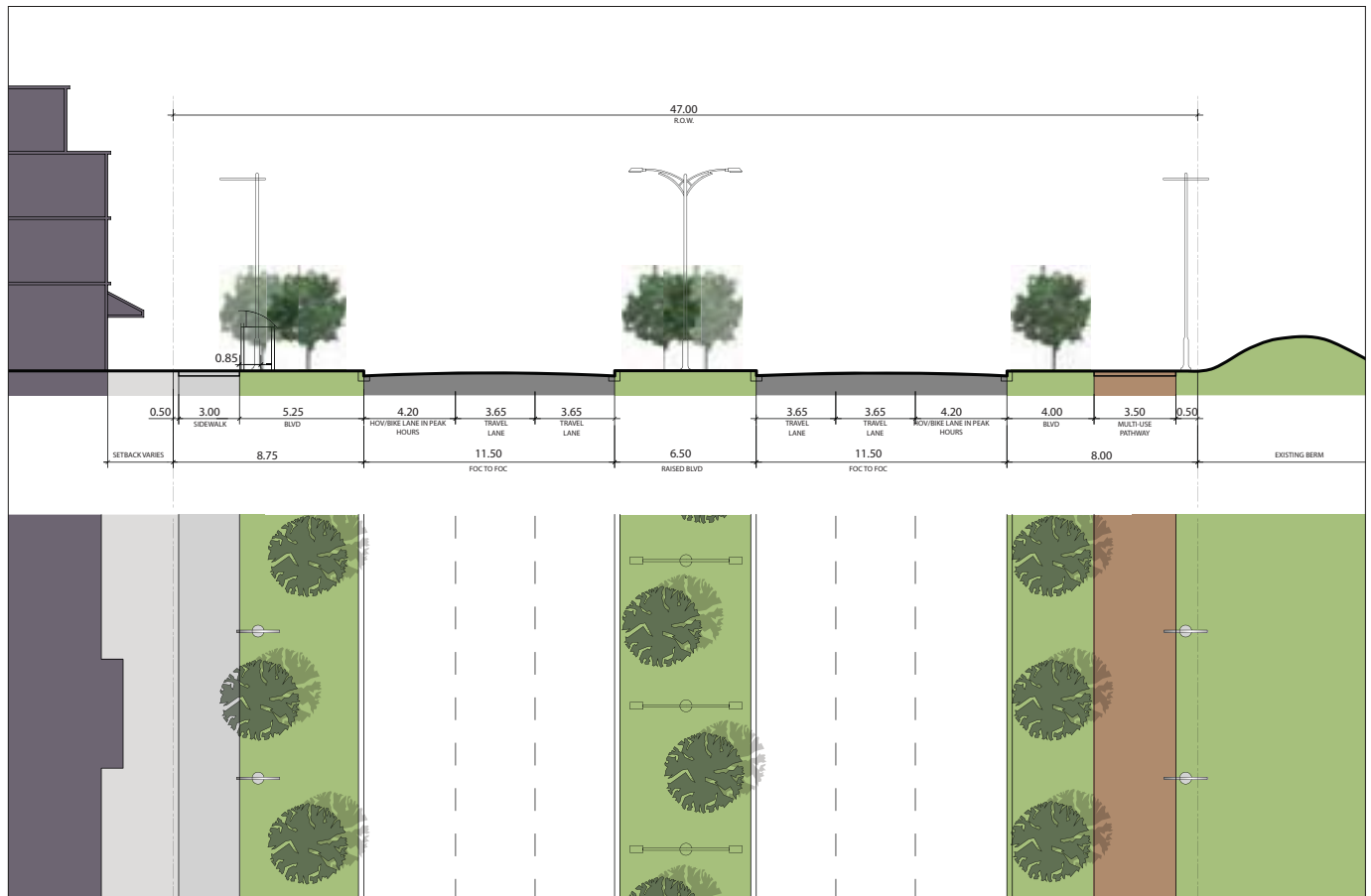


Figure 4.31: Typical section of Dundas Street (RR5). Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

4.2.3. Avenue/Transit Corridor

Between the Arterials, the Avenue/Transit Corridors provide multiple street connections within and between neighbourhoods. These connections provide alternative routes for access to Neighbourhood Centres and serve to disperse traffic on a smaller street section.

Avenue/Transit Corridors serve mainly intermediate volumes of intra-neighbourhood/ district travel, accommodate local transit, connect Urban Centres Areas and serve as a major internal connector for Urban Core Areas.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- High schools;
- Medical clinics;
- Libraries and Cultural facilities;
- High-rise and walk-up Apartments;
- Townhouses;
- Pedestrian-oriented street retail;
- Restaurants and cafes;
- Recreation centres; and,
- Theatres.

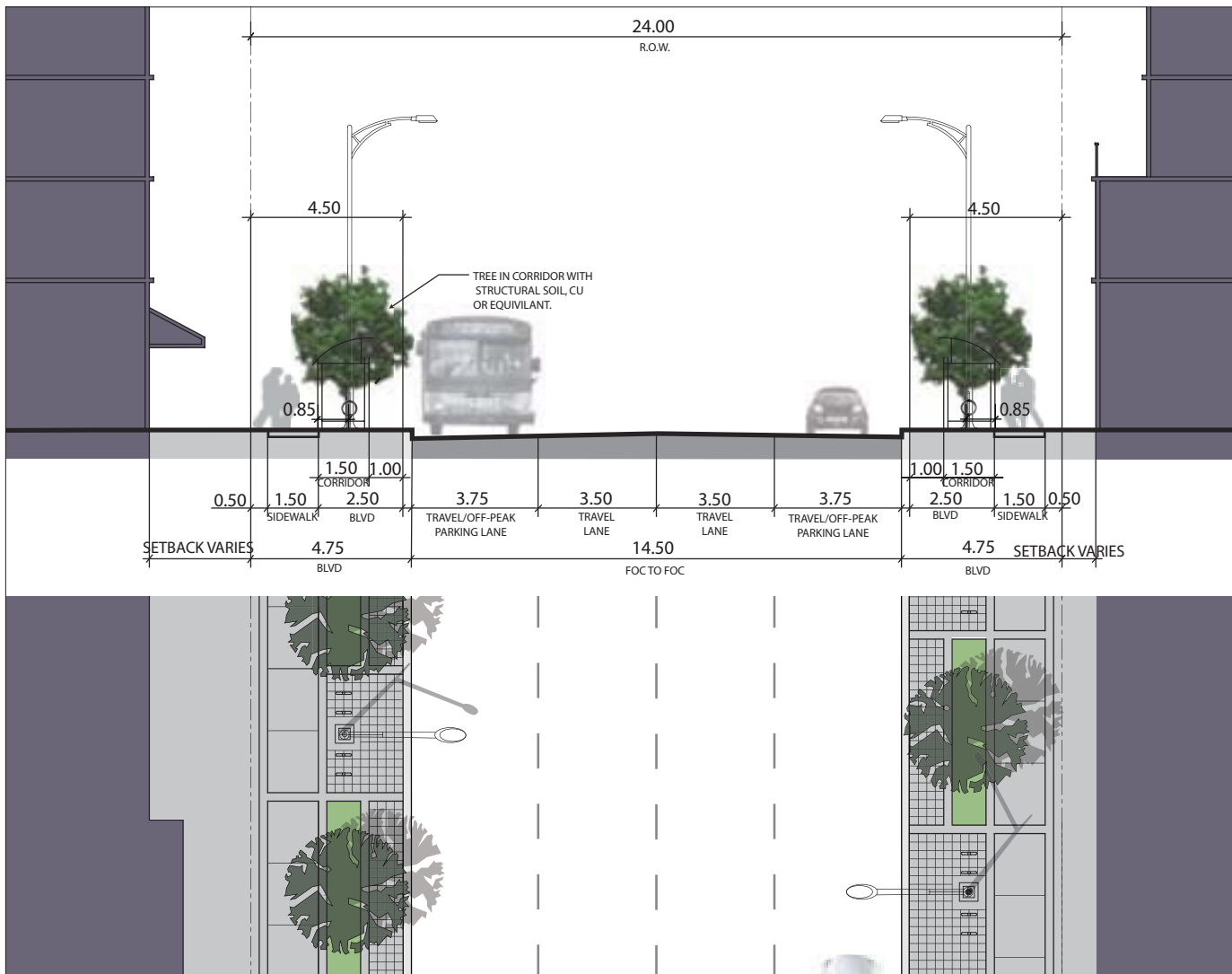


Figure 4.32: Typical Avenue/Transit Corridor section through the Urban Core. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

4.2.4. Connector/Transit Corridor

Connector/Transit Corridors should be designed to serve relatively low volumes of intra-neighbourhood travel, accommodate local transit service and distribute traffic to and from Major and Minor Arterial/Transit Corridors and Avenue/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

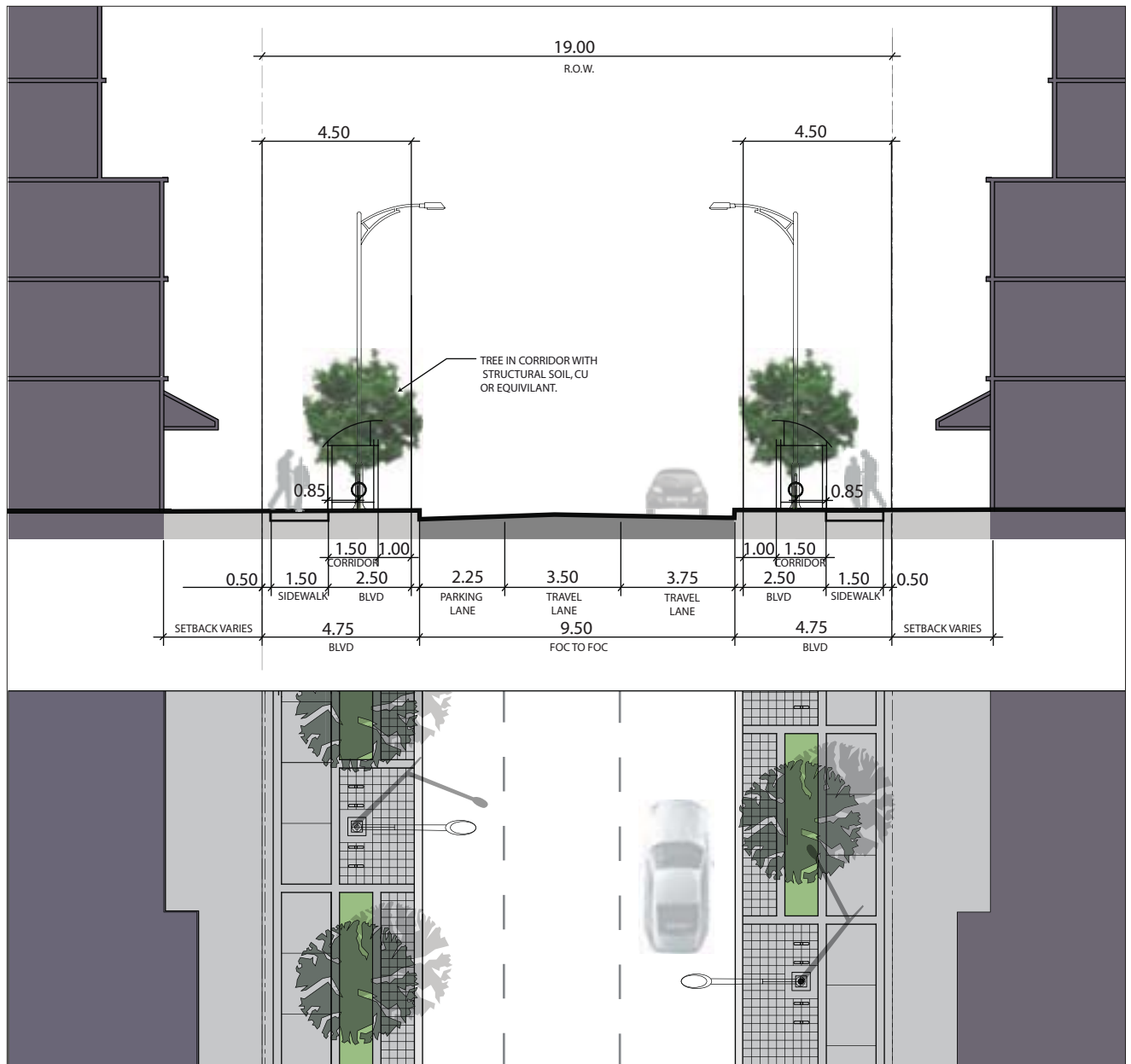


Figure 4.33: Typical Connector/Transit Corridor section through the Urban Core. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

4.2.5. Local Road

Local Roads will be designed to provide access to individual properties and serve internal residential neighbourhood, Core Area or Employment District travel demands. Local Roads will also connect individual properties to other Local Roads, Avenue/Transit Corridors or Connector/Transit Corridors.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

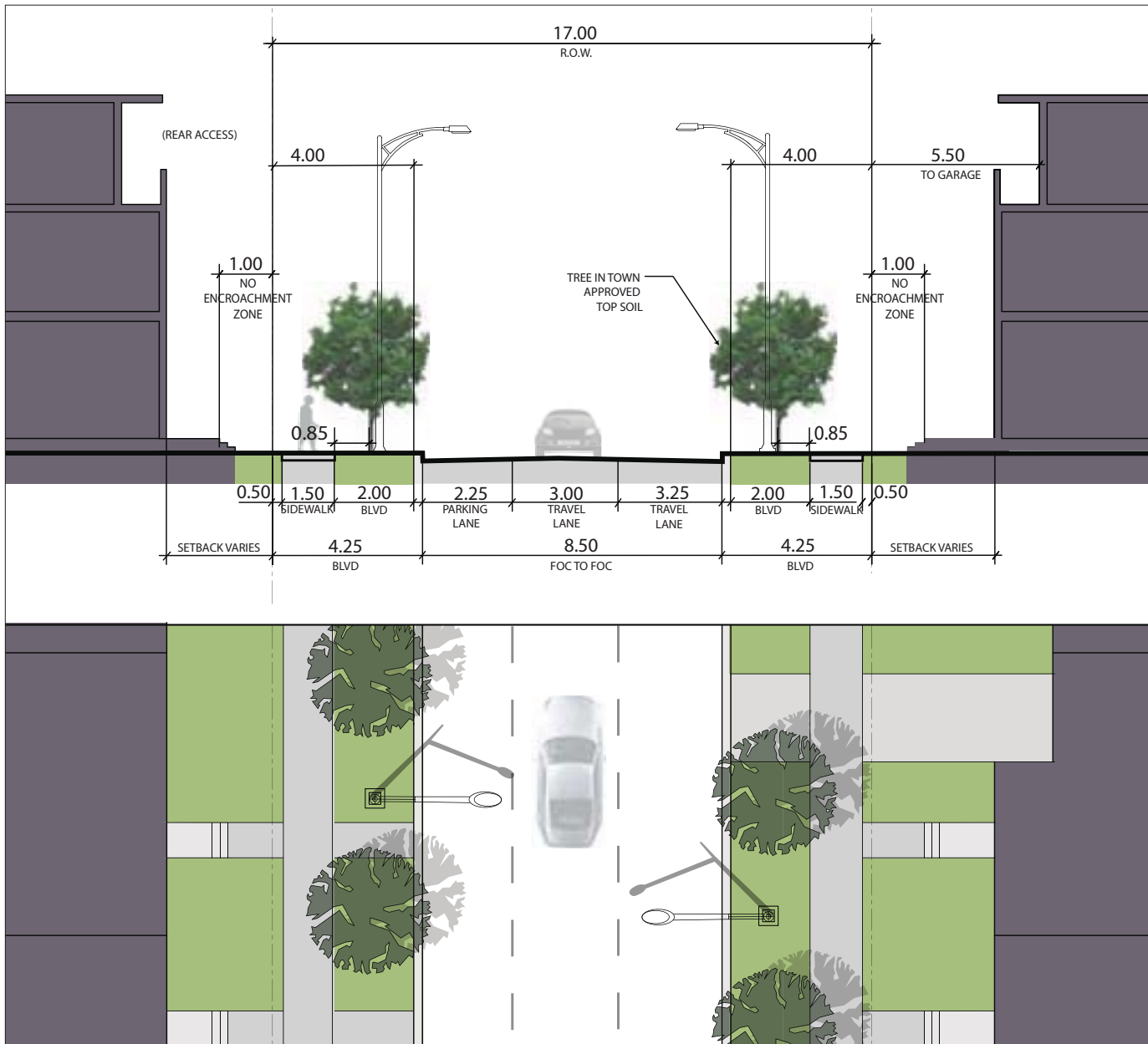


Figure 4.34: Typical Local Road section through the Urban Core. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville’s Urban Forest: Our Solution to Our Pollution (2006).

4.2.6. Laneways

Laneways provide rear access to individual properties and connect them to Local Roads, Avenue/Transit Corridors and Connector/Transit Corridors.

Laneways also serve to allow for a high degree of access in mixed-use locations where frequent interruption of the public sidewalk is undesirable.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

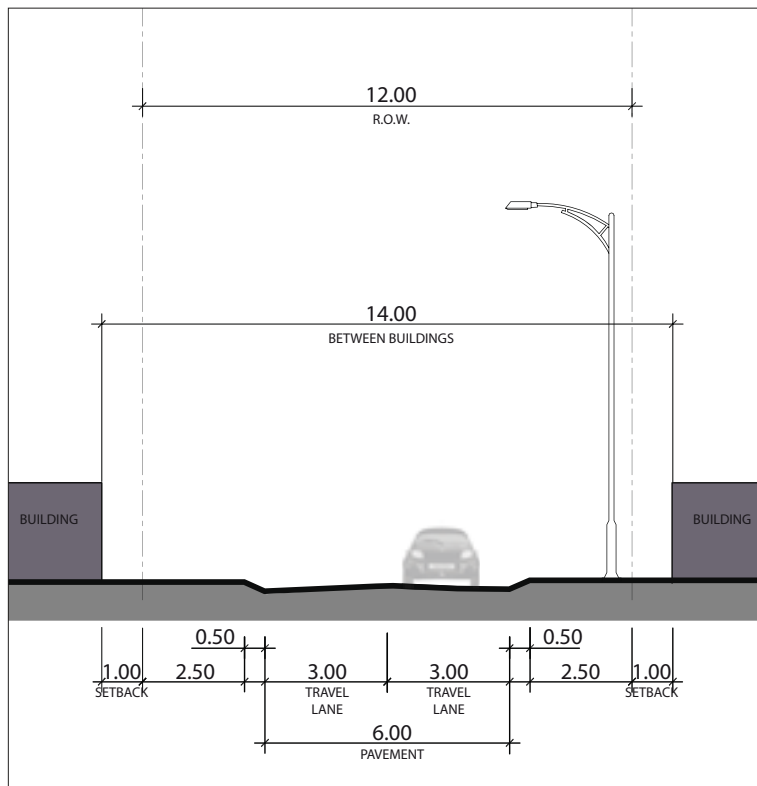


Figure 4.35: Typical Commercial Lane section through the Urban Core.

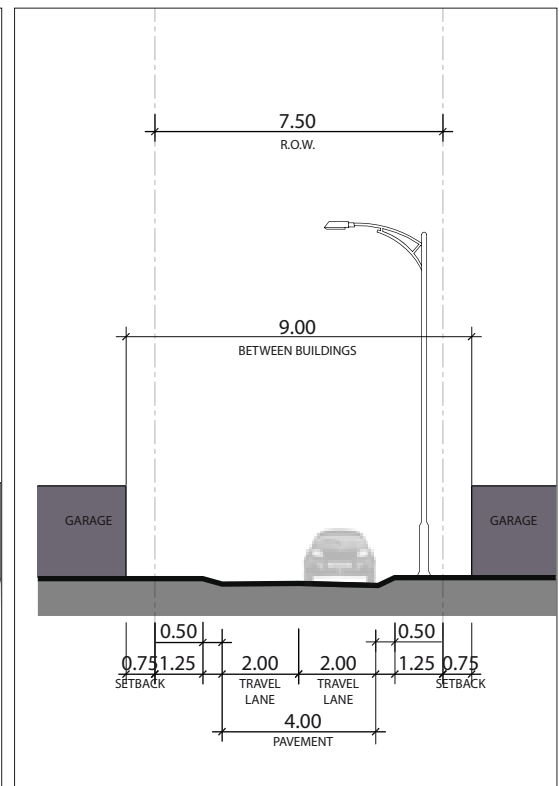


Figure 4.36: Typical Residential Lane section through the Urban Core.

4.2.7. Street Intersections

The design of the intersection of Connector / Transit Corridors with Arterial / Transit Corridors, which generally occurs in the Urban Core, will reflect adjacent land uses. In instances where parallel parking is provided, bumpouts may occur in order to increase the size of hardscaped areas, provide additional space for street furnishings, and reduce the distance of pedestrian crossings between sidewalks.



Figure 4.37: Typical Intersection of an Avenue/Transit Corridor and a Connector/Transit Corridor in the Urban Core.

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Section Five

5 Neighbourhoods: General Urban & Sub Urban

Each of the fourteen mixed-use neighbourhoods proposed for North Oakville will have distinctive characteristics but will also include common elements. Each neighbourhood will include at its centre, approximately a five minute walk from most areas of the neighbourhood, a Neighbourhood Activity Node within the Neighbourhood Centre (please refer to *Section 6 Neighbourhoods: Neighbourhood Centres*). The Neighbourhood Activity Node will include a transit stop and other public facilities which serve the neighbourhood such as a daycare, meeting places and central mail boxes. In addition, convenience commercial facilities or similar uses will be encouraged to locate at the Neighbourhood Activity Node. Neighbourhoods will be primarily residential in character, but will include mixed-use development including commercial, institutional, live-work and civic facilities. Within neighbourhoods, a range of lot sizes and building types should be provided to accommodate diverse ages and incomes. Open spaces including Neighbourhood Parks and Village Squares will be located and designed so that they are easily accessible, provide places to rest and play, and help to create a sense of place.

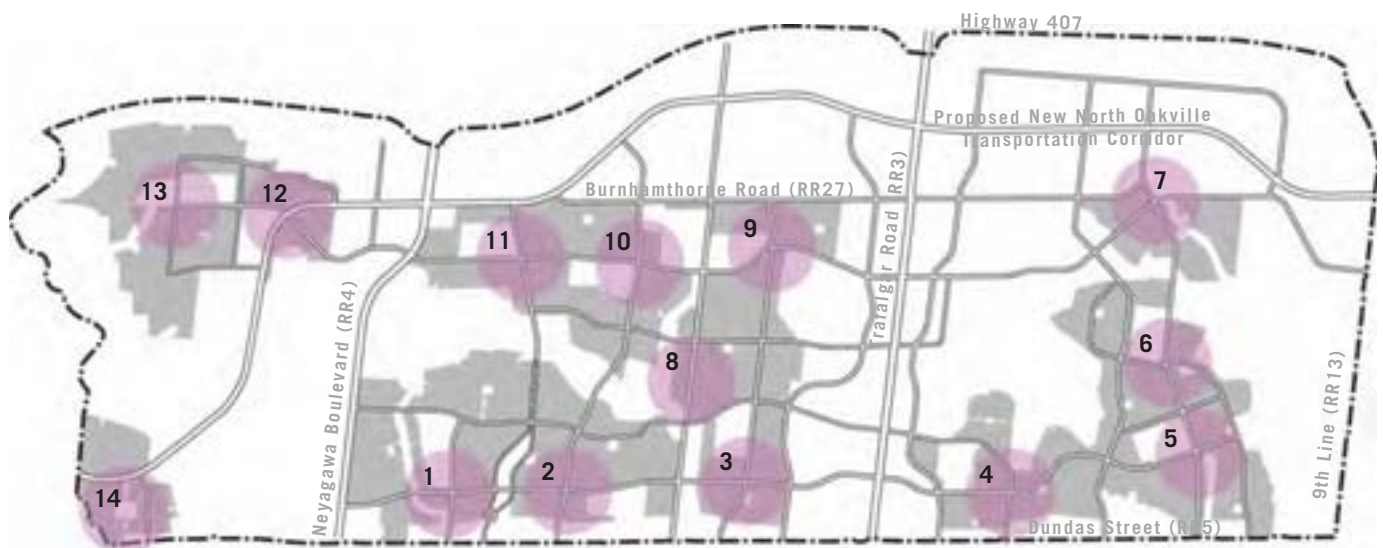


Figure 5.1: Neighbourhood Activity Nodes - define the heart and social centre of each neighbourhood.

5.1. General Urban & Sub Urban

General Urban Areas

A variety of residential buildings are recommended with higher densities generally closer to the Neighbourhood Activity Nodes in the Neighbourhood Centres. Locating greater densities closer to Neighbourhood Activity Nodes will create densely populated urban neighbourhoods within close walking distance of local retail, parks and schools.

Sub Urban Areas

The edges of the neighbourhoods are generally defined by the Natural Heritage and Open Space System where housing is still mixed, but is typically comprised of small, medium and large lot single-detached dwellings. Development is designed to respond to these natural areas, with a street grid that 'flows' and responds to changing topography and may provide opportunities for public views and for buildings to front on to open space using strategies such as single-loaded roads and window roads in key locations.



Figure 5.2: Neighbourhoods 1 & 2 conceptually illustrated to show streets and block variety and housing integrated with parks, village squares and natural open spaces to create enclosure and connectivity within and between neighbourhoods.

5.2. Streets in the General Urban & Sub Urban Designations

5.2.1. Minor Arterial/Transit Corridor

The Minor Arterials serve a combination of local and through (inter-municipal) traffic demands, accommodate local transit services, accommodate local truck traffic, connect urban areas and Nodes within municipalities, carry moderate to high volumes of traffic and distribute traffic to and from Major Arterial/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Walk-up apartments;
- Townhouses;
- Small-lot detached homes; and,
- Semi-detached homes.

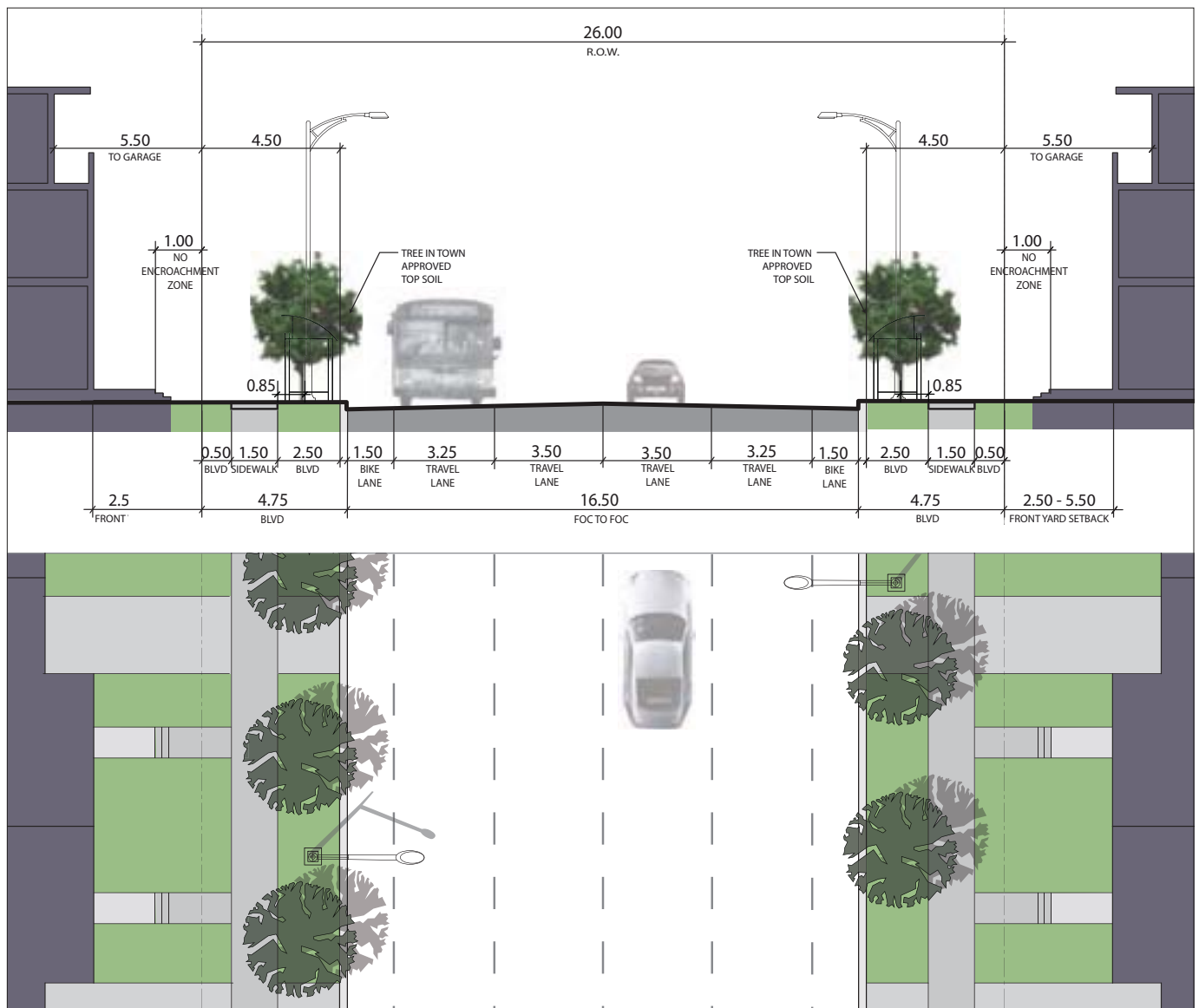


Figure 5.3: Typical Minor Arterial/Transit Corridor section through the General Urban and Sub Urban Designation. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water; sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

5.2.2. Avenue/Transit Corridor

Between the Arterial/Transit Corridors, the Avenue/Transit Corridors provide a finer grid of connection within and between neighbourhoods. These connections provide alternative routes for access to Neighbourhood Centres and serve to disperse traffic on a smaller street section.

Avenue/Transit Corridors serve mainly intermediate volumes of intra-neighbourhood/district travel, accommodate local transit, connect Urban Centres Areas and serve as a major internal connector for Urban Core Areas.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Walk-up apartments;
- Townhouses; and,
- Small-lot detached homes.

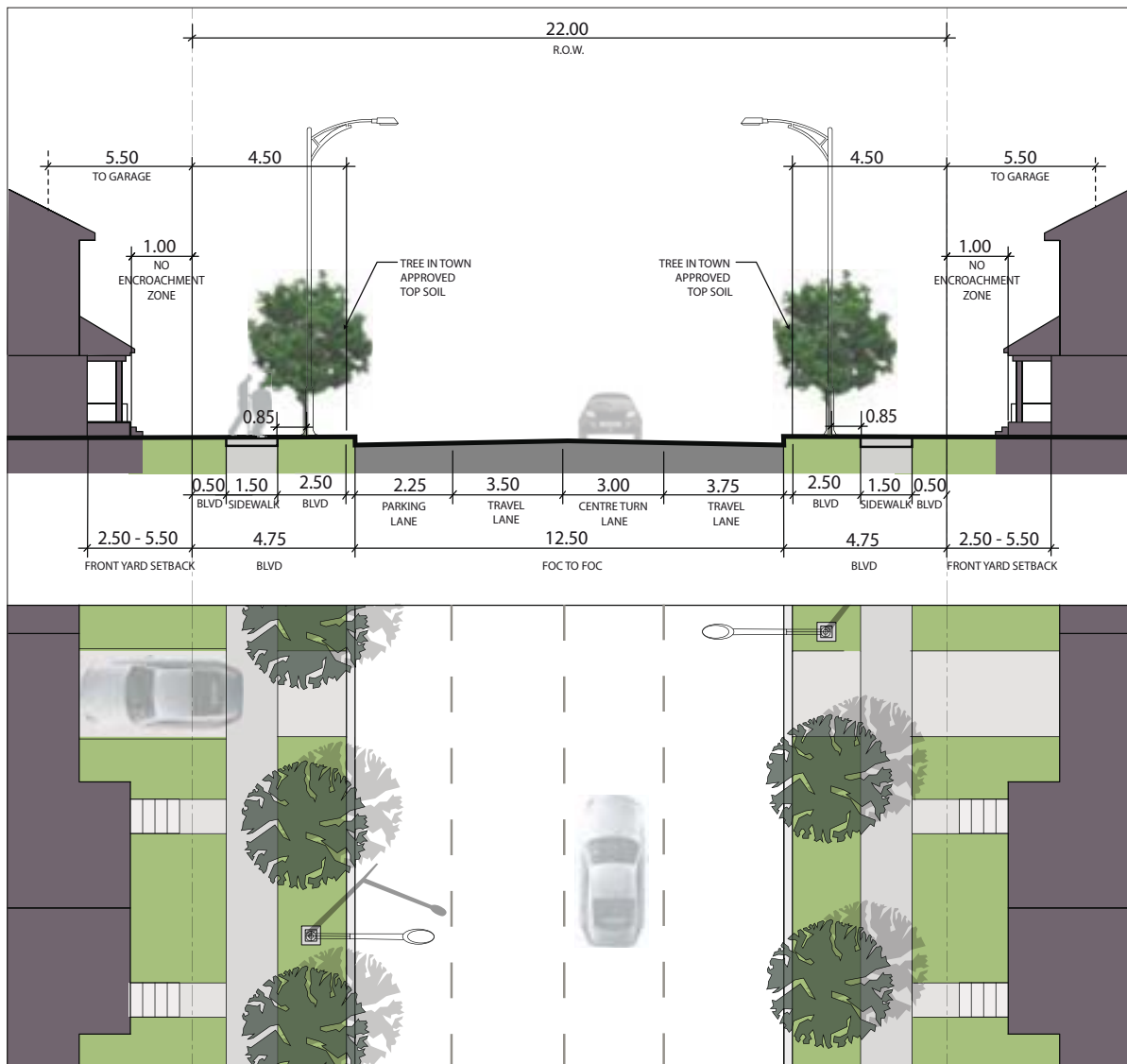


Figure 5.4: Typical Avenue/Transit Corridor section through the General Urban and Sub Urban Design. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

5.2.3. Connector/Transit Corridor

Connector/Transit Corridors should be designed to serve relatively low volumes of intra-neighbourhood travel, accommodate local transit service and distribute traffic to and from Major and Minor Arterial/Transit Corridors and Avenue/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

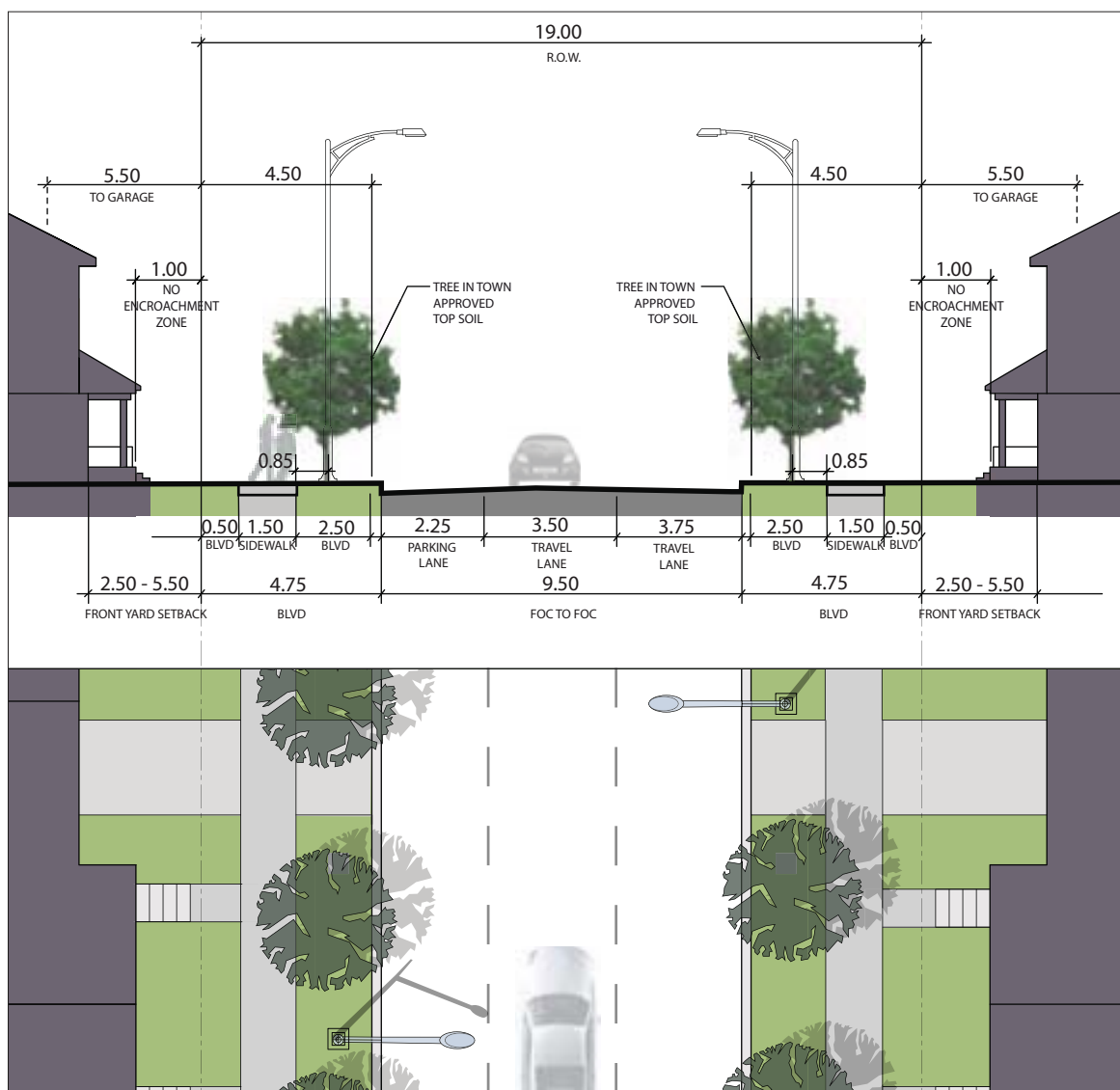


Figure 5.5: Typical Connector/Transit Corridor section through the General Urban and Sub Urban Designation. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

5.2.4. Local Road

Local Roads will be designed to provide access to individual properties and serve internal residential neighbourhood, Core Area or Employment District travel demands. Local Roads will also connect individual properties to other Local Roads, Avenue/ Transit Corridors or Connector/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

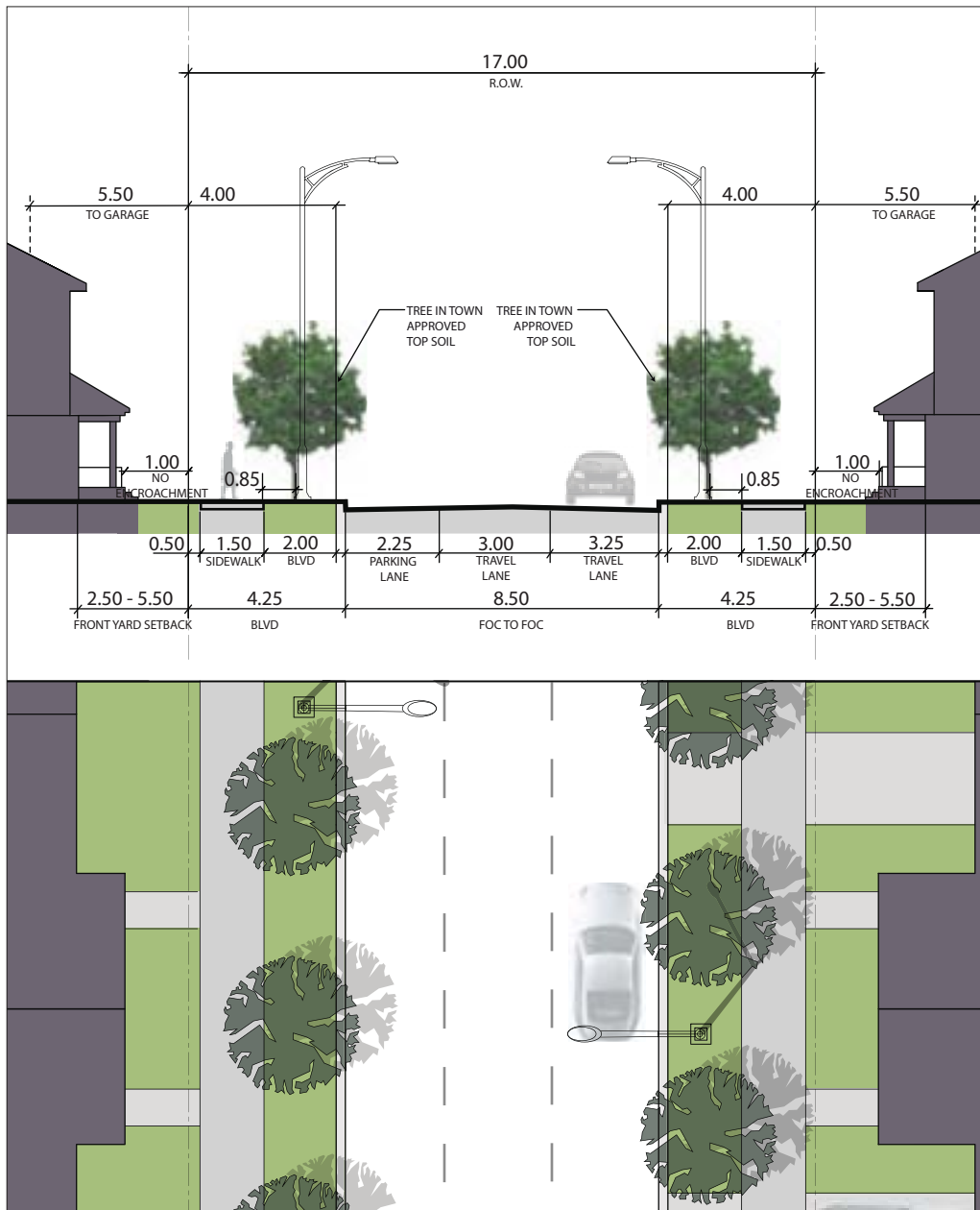


Figure 5.6: Typical Local Road section through the General Urban and Sub Urban Designation. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

5.2.5. Laneways

Laneways provide rear access to individual properties and connect them to Local Roads, Avenue/Transit Corridors and Connector/Transit Corridors. Lanes are recommended where narrow lot frontages (i.e. townhouses) are proposed or to provide access to parking garages.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

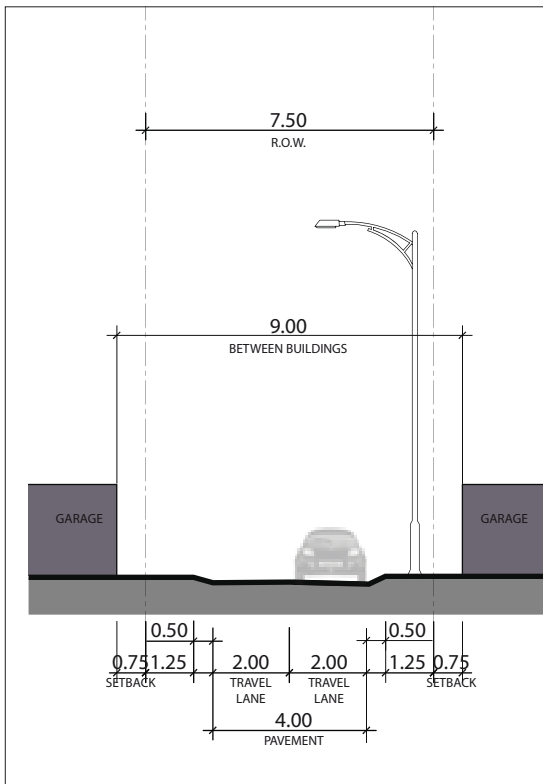


Figure 5.7: Typical Residential Lane section through the General Urban and Sub Urban Designation.

5.2.6. Street Intersections

The design of the intersection of Local Roads, which generally occurs in General Urban and Sub Urban Designations, will reflect adjacent land uses. In instances where parallel parking is provided, bumpouts may occur in order to increase the size of landscaped areas, provide additional space for street furnishings, and reduce the distance of pedestrian crossings between sidewalks.



Figure 5.8: Typical intersection plan through the General Urban and Sub Urban Designation.



Figure 5.9: Alternative intersection plan through the General Urban and Sub Urban Designation.



Section Six

6 Neighbourhoods: Neighbourhood Centre

6.1. Neighbourhood Centre

Depending on location and proximity to the Urban Core Areas, the Neighbourhood Centres may develop with varying character and degrees of intensity. Some Neighbourhood Centres may evolve to include retail 'main streets' with live-work and civic functions, while others may only sustain a small amount of convenience retail. Retail space should be concentrated as close to the central Neighbourhood Activity Node to limit walking distances to approximately five minutes. A bus stop is located in the Neighbourhood Centre as part of the interconnected transit system.

The scale and character of the Neighbourhood Centres will be defined by the main streets with mostly low-rise buildings defining the streets. Mid-rise buildings (to a maximum of 5 storeys) is an appropriate built form at key locations, such as at key street intersections.



Photo 6.1: Neighbourhood Centres will evolve to provide a social and retail area for each neighbourhood.



Figure 6.1: The scale and character of the neighbourhood centres will generally be defined by low-rise buildings creating a local meeting and shopping place for each neighbourhood.

6.2. Streets in the Neighbourhood Centre

6.2.1. Minor Arterial/Transit Corridor

The Minor Arterials serve a combination of local and through (inter-municipal) traffic demands, accommodate local transit services, accommodate local truck traffic, connect urban areas and Nodes within municipalities, carry moderate to high volumes of traffic and distribute traffic to and from Major Arterial/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Medical clinics and health care facilities;
- Mid-rise and walk-up apartments;
- Townhouses;
- Pedestrian-oriented street retail;
- Childcare facilities;
- Personal care services; and,
- Restaurants and cafes.

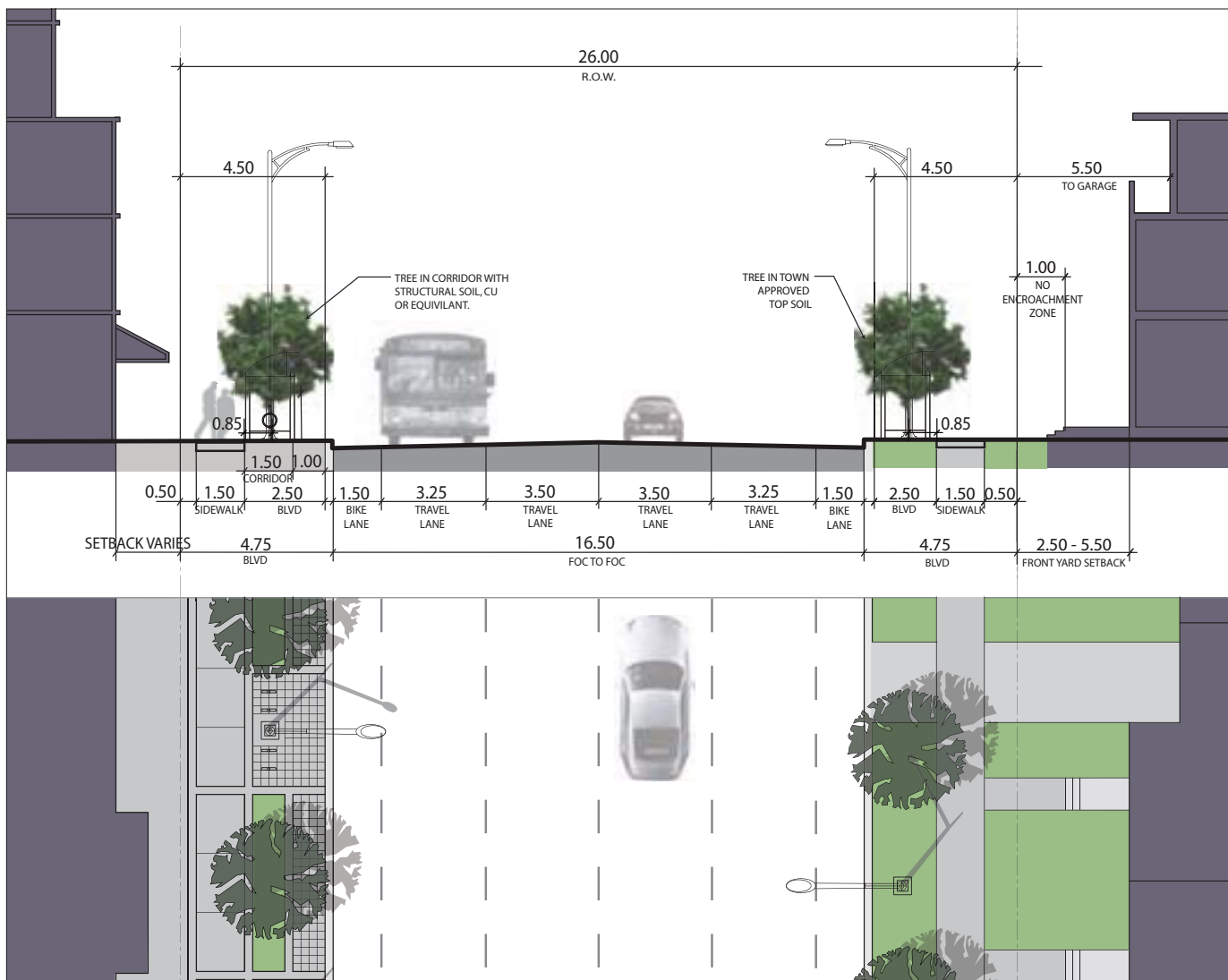


Figure 6.2: Typical Minor Arterial/Transit Corridor section through the Neighbourhood Activity Node. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

6.2.2. Avenue/Transit Corridor:

Between the Arterials, the Avenue/Transit Corridors provide a finer grid of connection within and between neighbourhoods. These connections provide alternative routes for access to Neighbourhood Centres and serve to disperse traffic on a smaller street section.

Avenue/Transit Corridors serve mainly intermediate volumes of intra-neighbourhood/ district travel, accommodate local transit, connect Urban Centres Areas and serve as a major internal connector for Urban Core Areas.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material,

soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Libraries and cultural facilities;
- Mid-rise and walk-up apartments;
- Townhouses;
- Small-lot detached homes;
- Pedestrian-oriented street retail;
- Childcare facilities;
- Personal care services;
- Restaurants and cafes.

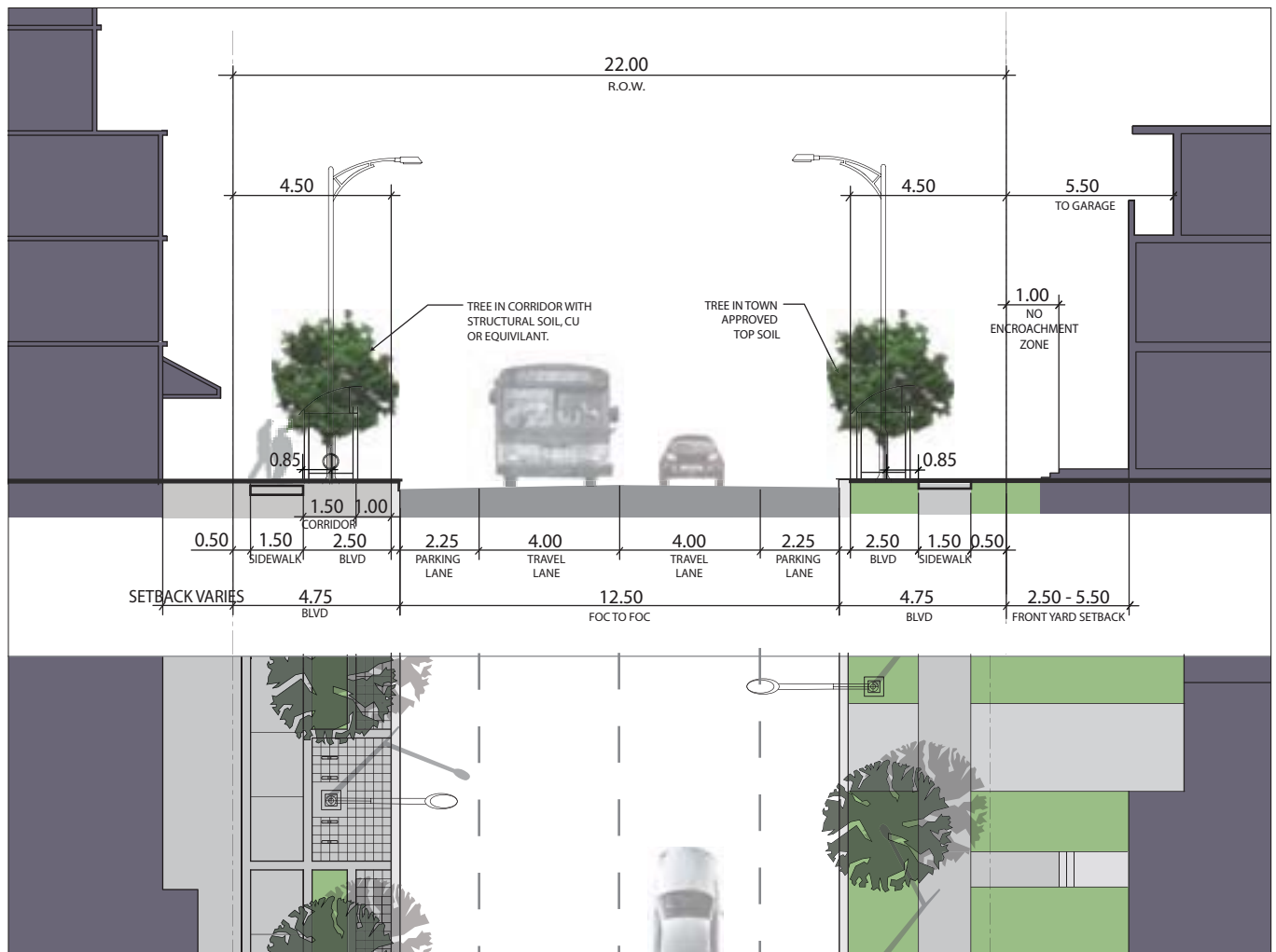


Figure 6.3: Typical Avenue/Transit Corridor section through the Neighbourhood Activity Node. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

6.2.3. Connector/Transit Corridor

Connector/Transit Corridors should be designed to serve relatively low volumes of intra-neighbourhood travel, accommodate local transit service and distribute traffic to and from Major and Minor Arterial/Transit Corridors and Avenue/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

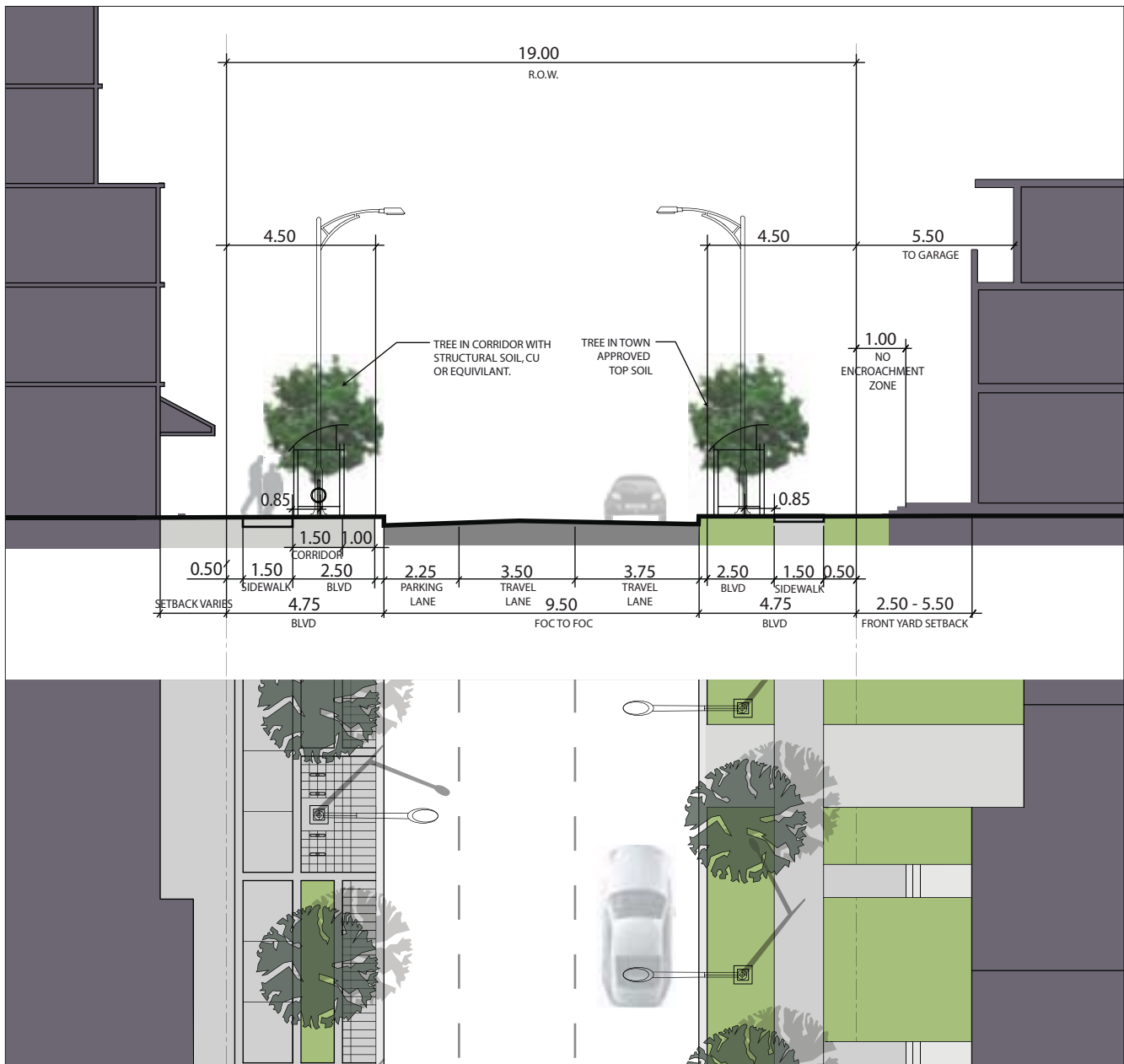


Figure 6.4: Typical Connector/Transit Corridor section through the Neighbourhood Centre. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

6.2.4. Local Road

Local Roads will be designed to provide access to individual properties and serve internal residential neighbourhood, Core Area or Employment District travel demands. Local Roads will also connect individual properties to other Local Roads, Avenue/Transit Corridors or Connector/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

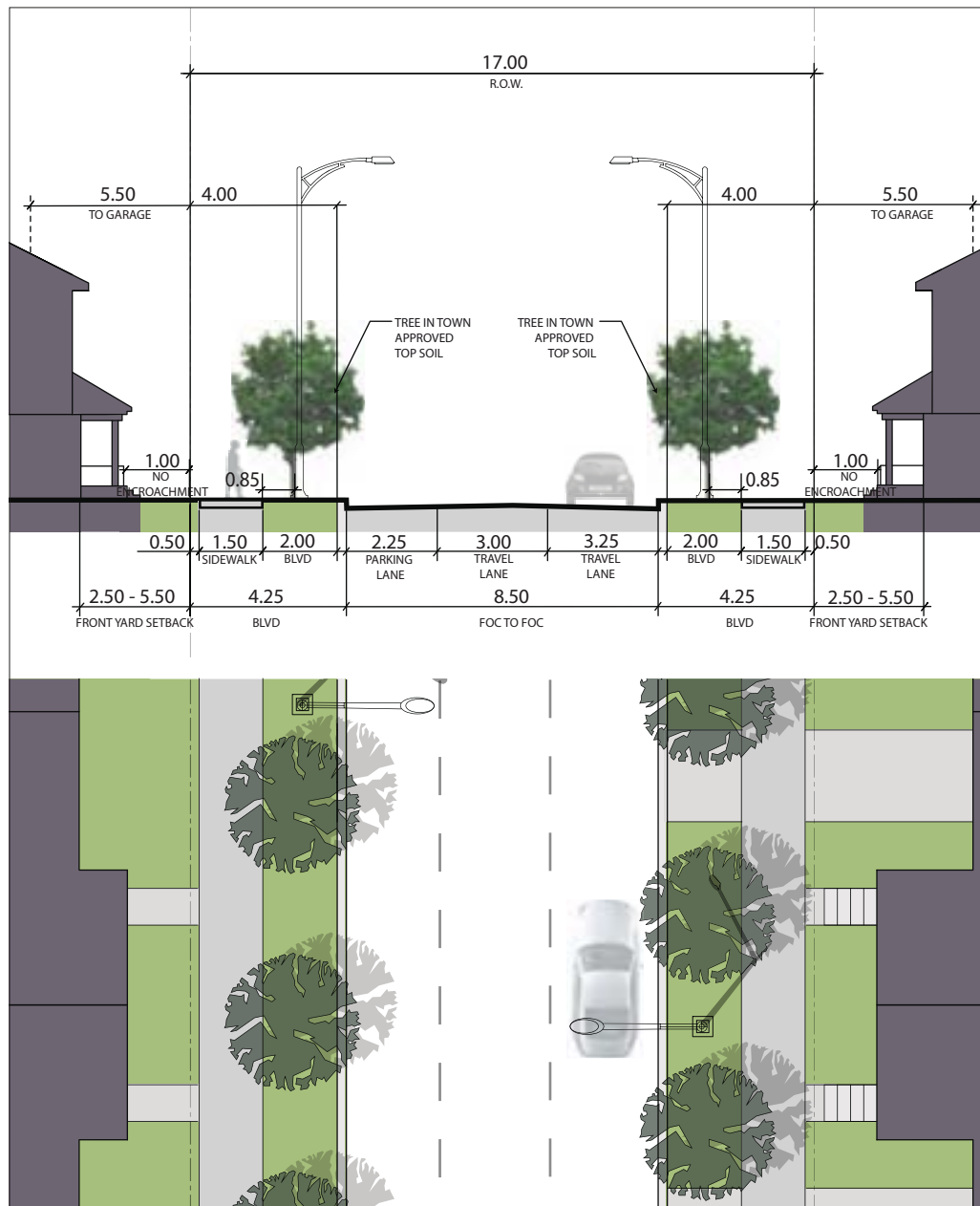


Figure 6.5: Typical Local Road section through the Neighbourhood Centre. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

6.2.5. Laneways

Laneways provide rear access to individual properties and connect them to Local Roads, Avenue/Transit Corridors and Connector/Transit Corridors.

Laneways also serve to allow for a high degree of access in mixed-use locations where frequent interruption of the public sidewalk is undesirable.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

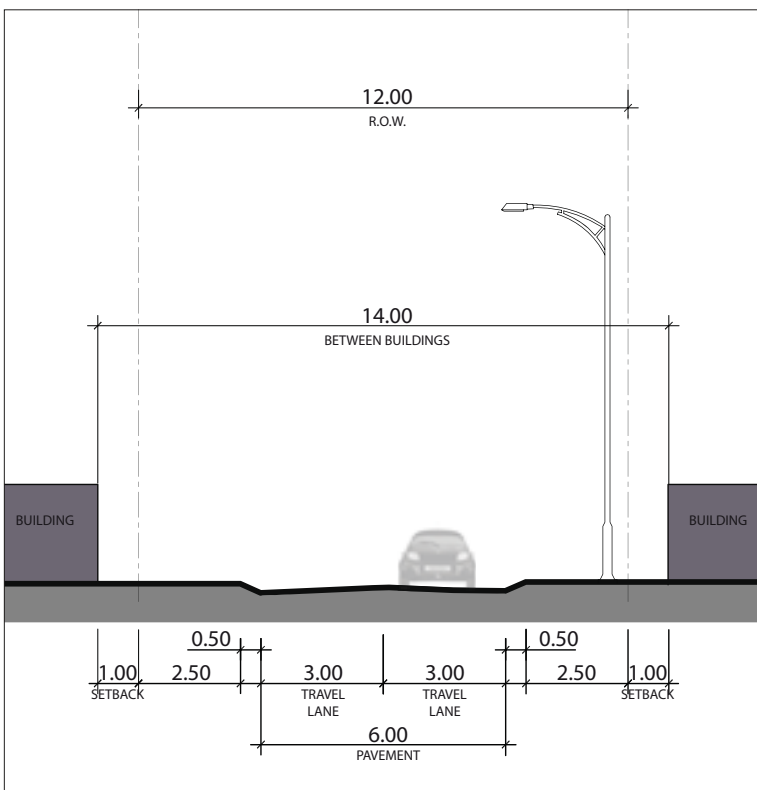


Figure 6.6: Typical Commercial Lane section through the Neighbourhood Centre.

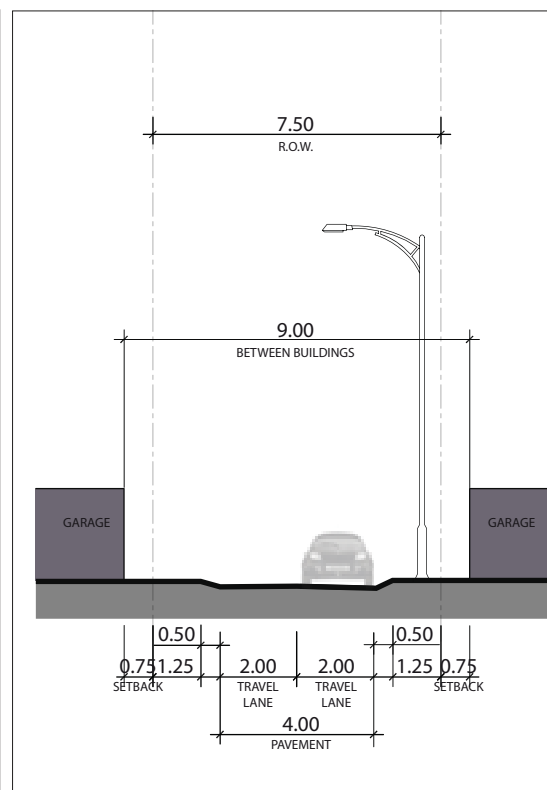


Figure 6.7: Typical Residential Lane section through the Neighbourhood Centre.

6.2.6. Street Intersections

The design of the intersection of Local Roads with Connector / Transit Corridors, which generally occurs in Neighbourhood Centres, will reflect adjacent land uses. In instances where parallel parking is provided, bumpouts may occur in order to increase the size of landscaped and/or hardscaped areas, provide additional space for street furnishings, and reduce the distance of pedestrian crossings between sidewalks.

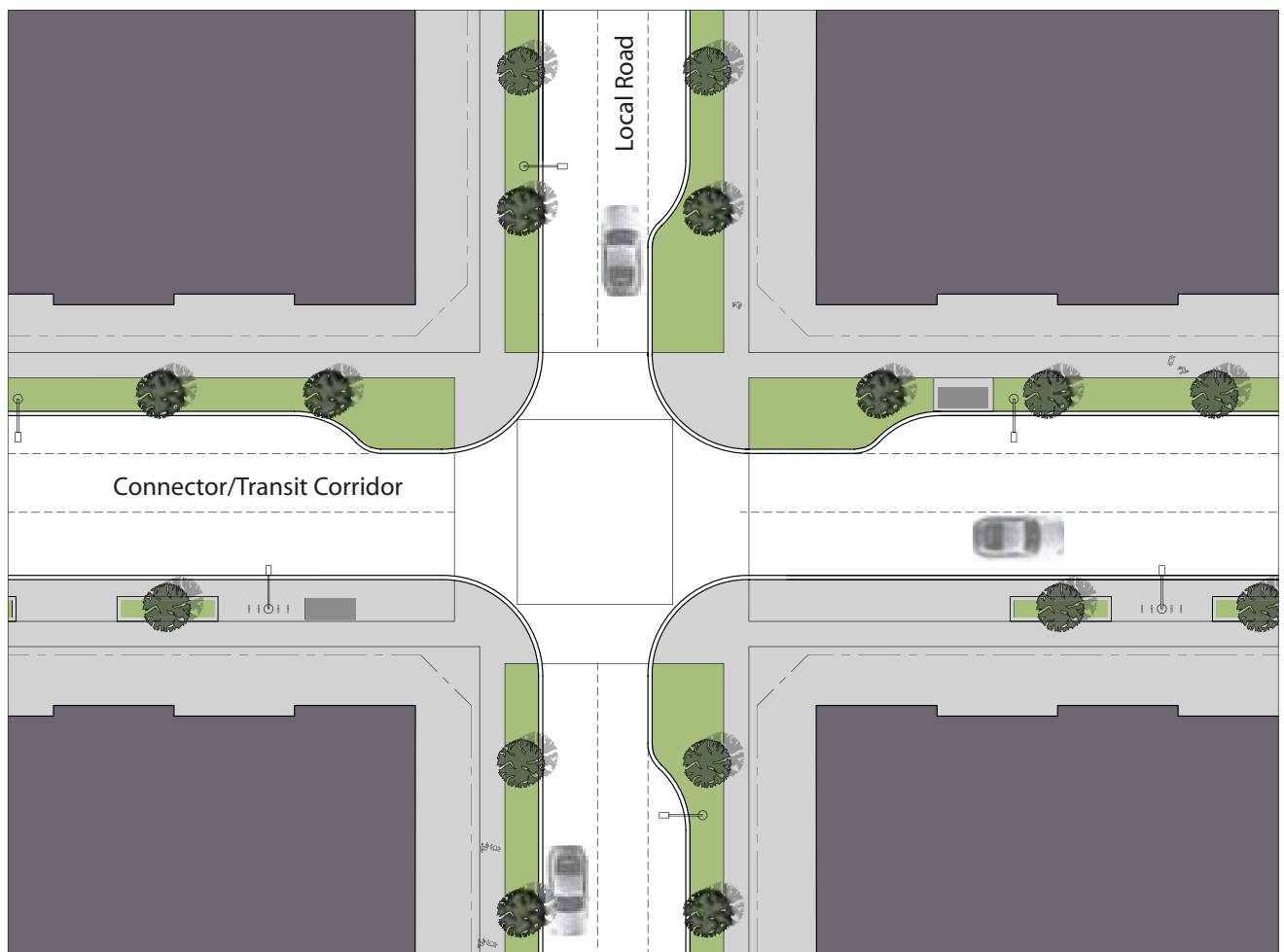


Figure 6.8: Typical intersection plan through the Neighbourhood Centre.

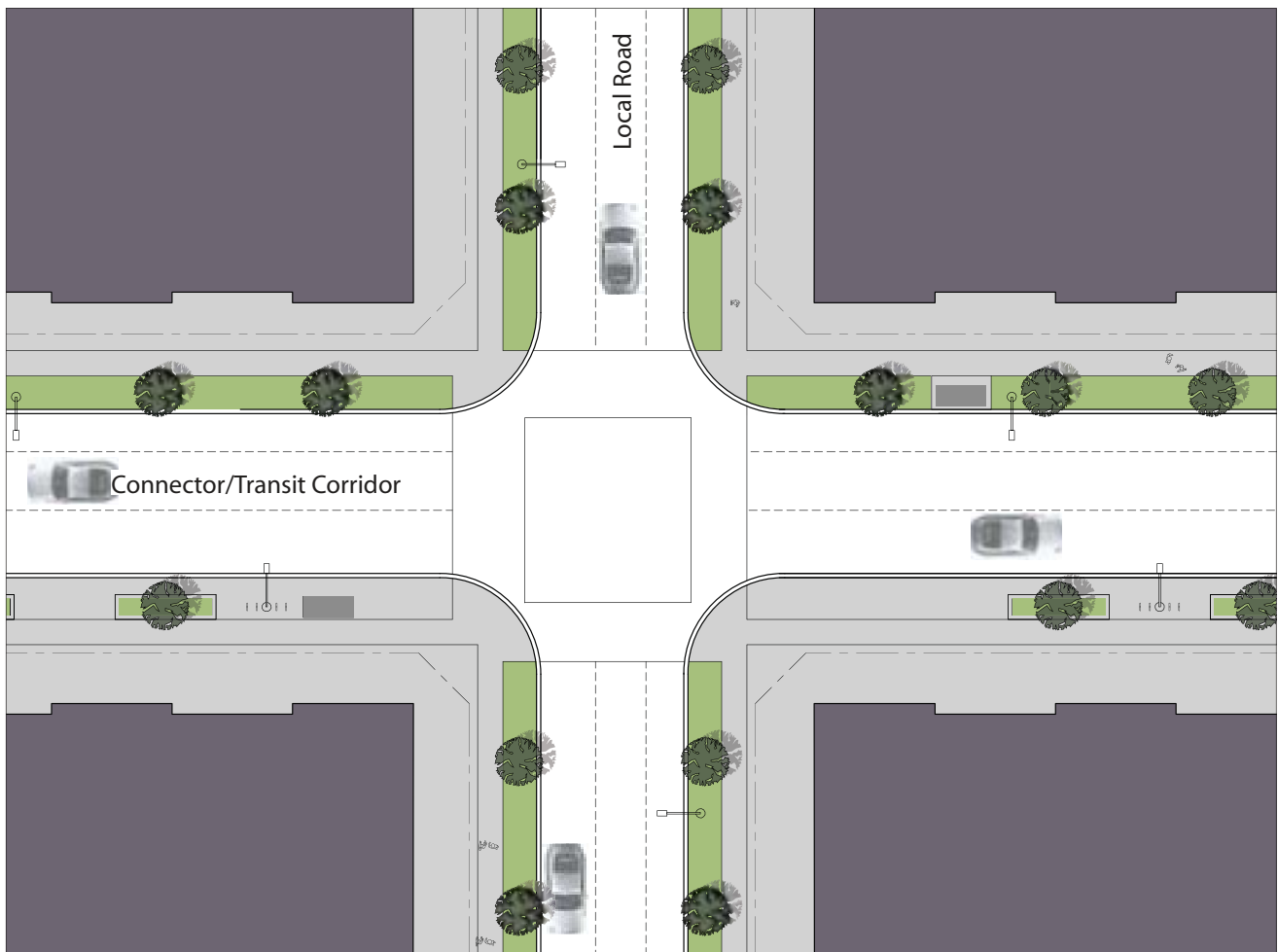
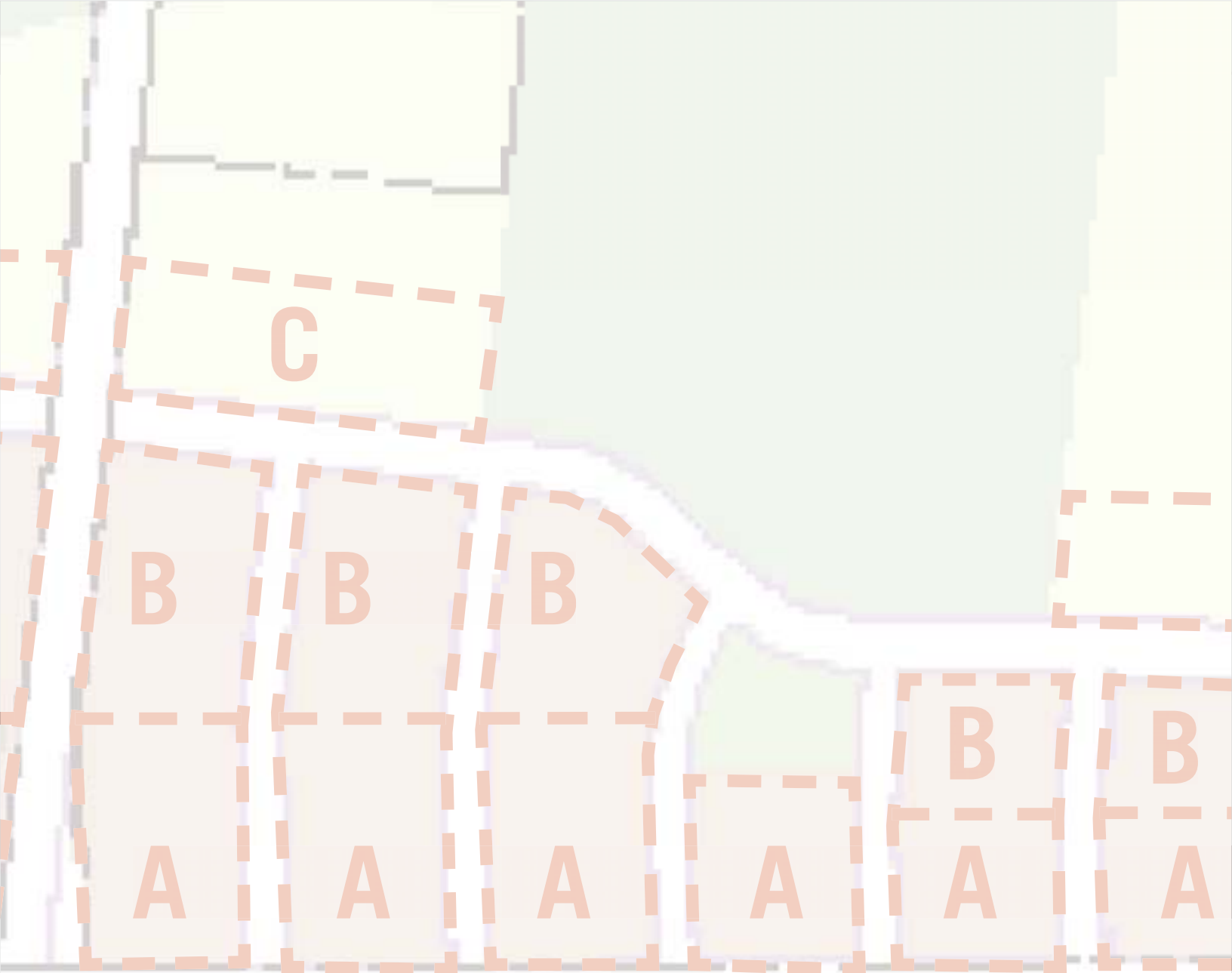


Figure 6.8: Alternative intersection plan through the Neighbourhood Centre.

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Section Seven

7 Transitional Designation

7.1. Transitional Area

The Transitional Area north of Burnhamthorpe Road (RR27) will provide a transition of residential, live-work and mixed uses to the more intensive concentration of industrial, office and service employment uses located in the Employment District to the north and adjacent residential uses fronting on to Burnhamthorpe Road (RR27).

Burnhamthorpe Road (RR27) is identified as a Character Road in the North Oakville Secondary Plan for the sections of road not utilized as part of the New North Oakville Transportation Corridor. Redevelopment along Burnhamthorpe Road (RR27) should respect the existing natural and existing built form of the area. New buildings should be of a mass and scale that respects the context of existing homes. Applicants should refer to *Section 3* for building design guidelines.



Photo 7.1: Transitional Area A: Low scale residential buildings should front on to Burnhamthorpe Road (RR27).



Photo 7.2: Transitional Area B: Mid-rise residential buildings are an acceptable transition between low scale residential and employment uses.

The precise range of uses and form of development shall be determined through an area design plan for the area which must be completed prior to any major new development. The area design plan will:

- Create a logical land use boundary with the adjacent Employment District, provided that there shall be no significant reduction in either the Employment Area or Transitional Area designations;
- Establish design parameters to mitigate environmental impacts on proposed residential and other sensitive development. In particular, consideration will be given to locating roads which serve both the Transitional Area and Employment District so that they create a buffer between residential development and lands in the Employment District designation;
- Address Provincial noise and air quality guidelines and regulations; and,
- Consider compatibility with existing uses including an appropriate range of adjacent uses and an illustration of how proposed development can be integrated with existing uses which are being maintained.



Figure 7.1: An example of a Conceptual Transitional Area Plan: West of the Trafalgar Urban Core

Transitional Area

Burnhamthorpe Road (RR27) should maintain its rural cross-section if feasible. However, if development or additional traffic volumes warrant changes to road design, the road cross-section should integrate the following elements: sidewalks on both sides of the road; trees planted at regular intervals; provision of cycling facilities within the dedicated right-of-way; signage; public art; and, other elements within the public right-of-way.



Photo 7.3: Lower scale employment buildings will provide a good transition between the Special Policy Area and the Employment Lands to the North.



Photo 7.4: Institutional buildings are permitted within Zone B and should be faced with materials that reflect the character of the area.



Figure 7.2: An example of a Conceptual Transitional Area Plan: East of the Trafalgar Urban Core

Transitional Area

DesignGroup

Section Eight

8 Employment

The lands designated Employment District in the North Oakville Secondary Plan are located in the area between Highway 407 and Burnhamthorpe Road (RR27).

The Employment Districts permit a full range of employment uses including industrial, office and service employment uses. Higher design standards are required for employment buildings located on the most highly visible sites, including those fronting on to Highway 407 abutting the Natural Heritage and Open Space System, parks, the Transitional Area and the Urban Core Areas. However, regardless of location, employment uses are expected to achieve a level of urban design quality that is highest at building frontages and front yards facing the street and other publicly visible areas.



Photo 8.1: Higher design standards are required for employment buildings located on the most highly visible sites



Figure 8.1: North Oakville: Employment Lands



Jacques Plante, Jodoin Lamarre Pratte



Photos 8.2 & 8.3: A variety of high quality building materials should be applied to larger scale Employment use buildings.

General Principles

1. Create a hierarchy of employment land uses

Diversity of employment uses is encouraged throughout the Employment District. However, the zoning by-law will limit the location of certain uses generally in accordance with the following directions:

Light Employment Area: Includes light industrial, office, public and institutional, research and development, information processing, and call centre uses, as well as ancillary retail uses. These uses will be located in the most visible locations such as fronting on Highway 407 and the New North Oakville Transportation Corridor, as well as locations where compatibility issues may arise such as adjacent to the Natural Heritage and Open Space System, Transitional Areas and Urban Core Areas. High design standards will be required for all built form and site planning. No outdoor storage will be permitted.

Service Areas: Within the Light Employment Area, service centre areas will be identified at the intersections of Arterial/Transit Corridor, Avenue/Transit Corridor and Connector/Transit Corridor. Service establishments will be located in such clusters together with the other permitted light employment uses. The highest design standards in the employment district will be required for all built form and site planning in these areas. No outdoor storage will be permitted.

General Employment Area: In addition to the uses permitted in the Light Employment Area, a range of general industrial uses, including outside storage and outside operations, will be permitted in the General Employment Area. These uses will be located on internal sites which are not visible from Highway 407 or major arterial roads, or where they do not abut residential, Urban Core, Institutional or Transitional Area designations. Design controls in these areas primarily address the front building façade, provisions for landscaped treatments within parking areas and limit the visibility and amount of outdoor storage, outdoor operations, service and loading areas.

2. Create a distinct employment district design framework through:

- A mixture of lot sizes, building types and architectural styles;
- Blocks and streets that respond to the existing topography and maximize views and access to the Natural Heritage and Open Space System and other community focus areas;
- Street or campus related designs or a combination of both are encouraged. Street edge design fronts the public street. Campus related design is generally setback from the public street, and responds to natural or other environmental features (i.e. the Natural Heritage and Open Space System and streams).

3. Apply design principles to employment buildings:

- Use quality exterior building materials, surfaces and textures, particularly for publicly visible sides of buildings;
- Where two or more buildings are located on one site, ensure the design of buildings is coordinated or complementary; and,
- Preserve and enhance views to the Natural Heritage and Open Space System.



Photo 8.4: The highest design standards should be applied to main building façades.

8.1. General Land Use & Site Design

8.1.1. Street Edge & Campus Design

Street Edge Design and Campus Design are recommended options for developing sites within the Employment District.

Street Edge Design

Street Edge Design consists of buildings that front on to and define the street edge through minimum setbacks and consistent landscape edge treatments.

Design Guidelines:

- a) Minimize building setbacks to define a more consistent and urban street edge design. Street edge design is generally encouraged throughout the Employment Districts and in particular for buildings facing primary roads including the New North Oakville Transportation Corridor, Neyagawa Boulevard (RR4) and the Avenues. Exceptions may occur where open space elements such as parks, creek corridors or stormwater management ponds intersect with or face these roads.
- b) Buildings should face the public street and apply the highest design standards to visible primary building elevations.
- c) In permitted retail and service commercial uses, active uses including accessory uses and service uses such as cafes and financial institutions, should be located at-grade along public sidewalks to reinforce a sense of animation and safety, wherever possible.
- d) Loading and Service Areas should be located in side and rear yards.
- e) The side and rear yard is preferred for surface parking areas. A minimal amount of surface parking is permitted to be located in the front yard, and as a general rule, should not extend in depth greater than two bays accessed by a central drive aisle.



Photo 8.5: Extensive glazing at the street edge and within primary façades promotes quality within the interior spaces and greater integration with outdoor spaces and the street.



Figure 8.2: Street Edge design focuses the highest building quality at the street while screening parking, service and loading areas away from public view.



Photo 8.6: Opportunities to create 'green' parking courts that apply a high degree of landscape treatment and/or biofiltration for stormwater run-off should be considered.

Campus Design

Campus Design is a balanced design approach which integrates landscape, topography and special features with site access requirements including roads, driveways, parking, service and loading areas to create an integrated building and site setting. Key areas where Campus building form may apply include sites adjacent to the Natural Heritage and Open Space System and stormwater management ponds.

Design Guidelines:

- a) Buildings should respond to open space opportunities, providing a scale and pattern of development that supports pedestrian activity between grade level building uses and adjacent open space, courtyards, walkways and other site plan elements.
- b) Building orientation or massing should optimize connections and views to the Natural Heritage and Open Space System or other adjacent features.
- c) Stormwater management ponds should be integrated with the design of employment uses.
- d) Opportunities to create 'green' parking courts that apply a high degree of landscape treatment and/or biofiltration for stormwater run-off should be considered. Please refer to **Section 3.12. Vehicular Parking** for additional information.



Photo 8.7: In a campus setting, buildings frame and provide access to outdoor open spaces.



Figure 8.3: Conceptual Campus Design example.

8.1.2. Site Access and Circulation

Access to and circulation within individual properties should provide safe and well-defined routes for vehicles and pedestrians. The use of landscaping, paving materials, lighting, signs and other distinct treatments to define these areas will contribute to the overall safety, quality and sense of orientation within each site.

Design Guidelines:

- a) Where feasible, shared driveways between two properties should be provided to parking and service areas to minimize disruption of the public sidewalk and to facilitate vehicular access to public roadways.
- b) Where parking, loading and service requirements are substantial, a separate entrance driveway and service access driveway may be provided.
- c) A pedestrian walkway should be provided between the public sidewalk and main building entrance. Walkways should be a minimum width of 1.5 metres.
- d) Pedestrian walkway paving material should differ in material and appearance from vehicular routes. A variety of materials may be used, including stone, concrete and unit brick pavers.
- e) Landscaped islands or other appropriate treatments, should be included in surface parking areas to delineate and enhance main driveways, subdivide parking area into smaller “courts” and improve edge conditions between the public road, buildings, open space areas and adjoining properties.

8.2. Building Typologies

The following general guidelines address all development related to the Employment District.

8.2.1. Building Design

Design Guidelines:

- a) A substantial building façade fronting the public street close to the setback line is encouraged to define a more urban street edge except where conditions such as site topography, integration of building forecourts, limited front yard parking, or other conditions warrant a larger building setback.
- b) 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 envelop are encouraged. The guidelines also recognize the potential benefit of allowing employment areas to display campus-like character, with coherent and consistent architecture that establishes a recognizable identity.
- c) Building massing should relate appropriately to neighbouring residential or mixed-use properties with respect to privacy, noise and shadow impact.
- d) Corner buildings should be located close to the street to reinforce their focal role. Entrances should be located at or close to the corner.
- e) Building heights should be determined on an individual basis according to use, site context, adjacent development and impact on views to the Natural Heritage and Open Space System. Where feasible, multi-storey buildings should be developed to use land and resources more efficiently.



Photo 8.8: Light and General Employment buildings will have a positive physical impact on North Oakville.



Photos 8.9 & 8.10: Office Centres may be comprised of a number of buildings grouped together in a campus setting, or be integrated within a single building complex.

8.2.2. Light Employment - Gateway Sites

A significant amount of Employment District development fronts on Highway 407, the New North Oakville Transportation Corridor and Neyagawa Boulevard (RR4). Employment District buildings and development therefore, have a key role in establishing the traveler's impression both North Oakville. Development on such gateway sites, along the 407 at interchanges or other key points such as adjacent to the Natural Heritage and Open Space System, and at the intersections of the Transportation Corridor and Minor Arterial/Transit Corridors and Avenue/Transit Corridor requires the highest design standard in the Employment District for building placement, built form and architectural character.

Design Guidelines

- a) Gateway buildings should be designed to reflect their prominent location with articulated building massing, increased height and other architectural details that emphasize the focal nature of the buildings.
- b) Development along the New North Oakville Transportation Corridor should emphasize the application street edge development.
- c) All street edge development should occupy a substantial amount of the total lot frontage to promote a well-defined street edge and pedestrian realm.
- d) Street edge buildings should be placed at minimum setbacks. Variations in setbacks may be applied to incorporate features such as front yard courtyards and terraces, building entrances, recesses and projections and other building massing variations.

8.2.3. Light Employment

Light employment uses are encouraged to be located on the edges of the Employment District and along Highway 407, the New North Oakville Transportation Corridor and adjacent to the Natural Heritage and Open Space System, the Transitional Area and the Urban Core Areas. A high development standard is therefore required.

Design Guidelines:

- a) Street Edge buildings should occupy a substantial amount of the total lot frontage to promote a well-defined street edge and pedestrian realm.
- b) Street Edge buildings should be placed at minimum setbacks. Variations in building setbacks may be applied to incorporate front yard courtyards and terraces, building entrances, recesses and projections, front yard parking (2 rows with a central driving lane), and other building massing variations.
- c) In general, building heights should respond to function and site specific considerations including development phasing, location and adjacent land use.
- d) Consider emphasising corner sites by employing increased building heights and orienting building mass and entrances towards the intersection.
- e) The most substantial treatments to the building should be applied to the façade fronting the public street.
- f) Loading and service areas should be located at the rear or side yards, and should be screened from public view through architectural screening, landscape buffering, berming or a combination of these treatments.



Photo 8.11: Higher design standards are required for employment buildings located on the most highly visible sites.

8.2.4. General Employment

General employment uses are to be located at the interior of the primary block structure in North Oakville. Built form and architectural standards applied to general employment uses should be less restrictive than those standards applied to light employment uses. The guidelines below address the requirements at less prominent locations and recognize the needs of manufacturing and other industries that typically require large amounts of site servicing, loading and outdoor storage areas.

Design Guidelines:

- a) Buildings should address the street in order to define a more urban street edge. The highest quality of building design should be applied to the building façades facing the public street or open space. Corner buildings should address both street frontages.
- b) Minimum amounts of parking should be located in the front yard. Please refer to *8.1.1.e.* of this document.
- c) Where large parking fields are necessary, landscape elements should be introduced to break up large asphalt areas.
- d) Outdoor storage should generally not be visible from the public street or open space. Where outdoor storage is required, it should be screened with fencing and/or landscaping.



Photo 8.12: General employment use buildings will emphasize treatments to the front building facade and front yard.

8.3. Streets in the Employment Designation

8.3.1. New North Oakville Transportation Corridor

The New North Oakville Transportation Corridor accommodates high order transit and/or HOV lanes, connects urban areas and nodes in different municipalities, carries high volumes of traffic and distributes traffic to and from the Provincial Freeways.

The New North Oakville Transportation Corridor extends east-west across all of the North Oakville area.

The treatment of the boulevard will reflect adjacent land use.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Offices;
- Call centres;
- Research facilities;
- Light employment uses; and,
- Service Areas at intersections.

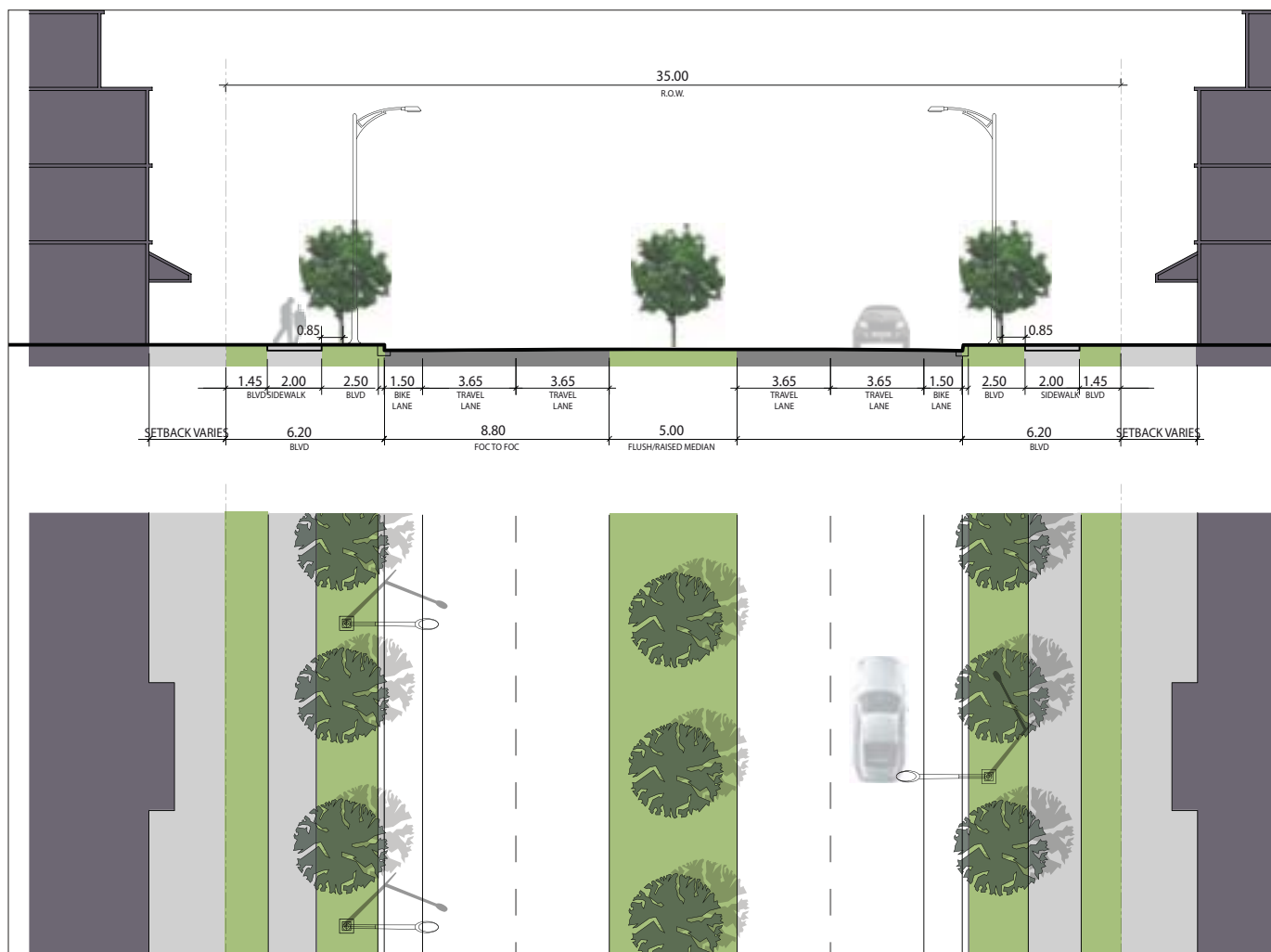


Figure 8.4: Typical Major Arterial/Transit Corridor section through the Employment Area. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

8.3.2. Minor Arterial/Transit Corridor

The Minor Arterial/Transit Corridors serve a combination of local and through (inter-municipal) traffic demands, accommodate local transit services, accommodate local truck traffic, connect urban areas and nodes within municipalities, carry moderate to high volumes of traffic and distribute traffic to and from Major Arterial/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Offices;
- Call centres;
- Research facilities;
- Light employment uses; and,
- Service Areas at intersections.

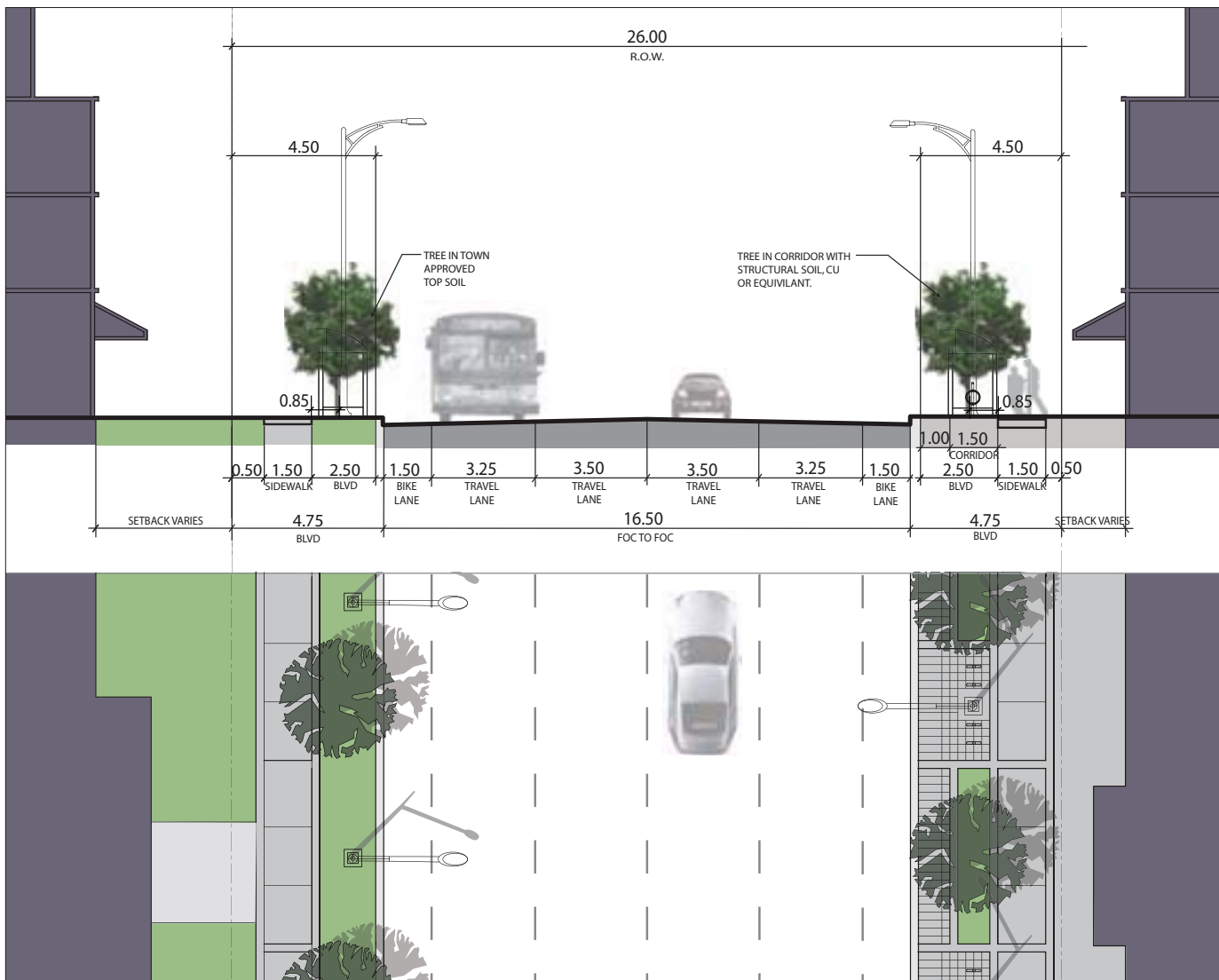


Figure 8.5: Typical Minor Arterial/Transit Corridor section through the Employment Area. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

8.3.3. Avenue/Transit Corridor

Avenue/Transit Corridors serves mainly intermediate volumes of intra-neighbourhood/ district travel, accommodate local transit, connect Urban Centres Areas and serves as major internal connector for Urban Core Areas and distributes traffic to and from Major and Minor Arterial/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

Transit Supportive Uses

Transit supportive land uses are to be encouraged along the right-of-way, such as:

- Offices;
- Call centres;
- Research facilities;
- Light employment uses; and,
- Service Areas at intersections.

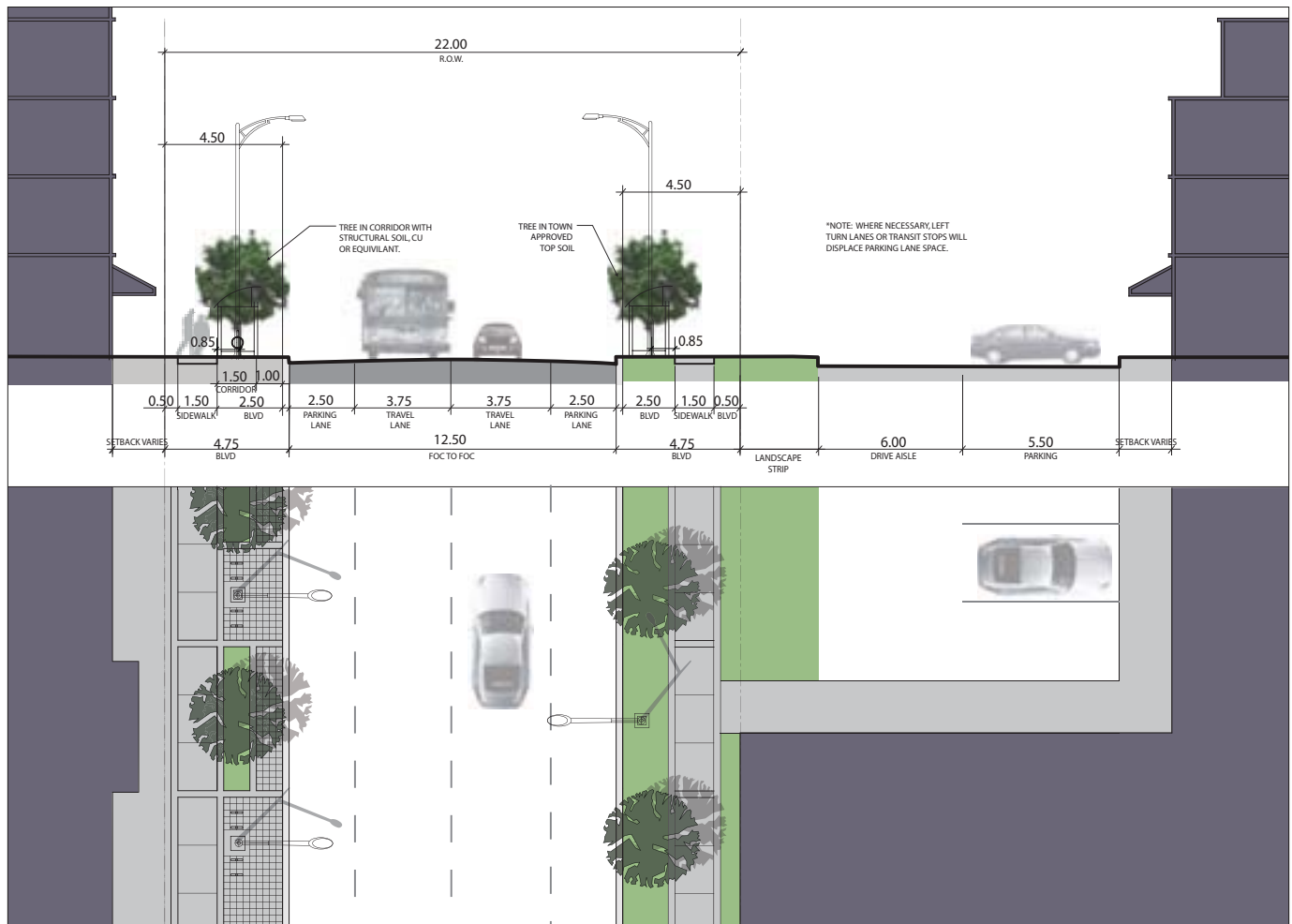


Figure 8.6: Typical Avenue/Transit Corridor section through the Employment Area. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

8.3.4. Local Road

Local Roads will be designed to provide access to individual properties. Local roads will also connect individual properties to other Local Roads, Avenue/Transit Corridors or Connector/Transit Corridors.

The treatment of the boulevard will reflect adjacent land use and whether on-street parking is provided.

Specific technical details of the cross-section (i.e. plant material, soil type, engineering standards) will be determined through the appropriate design review process.

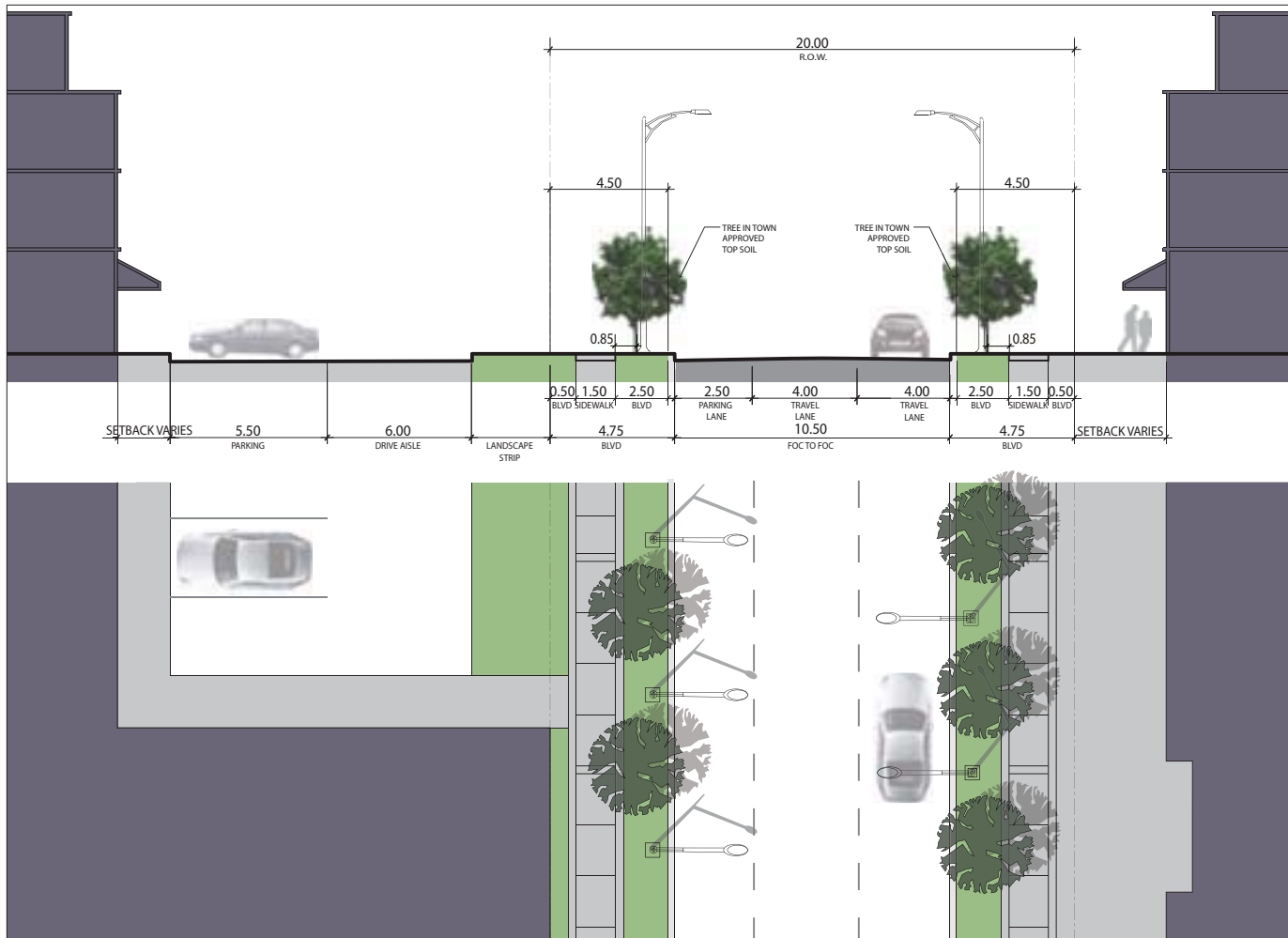


Figure 8.7: Typical Local Road section through the Employment Area. Street tree height at maturity will vary according to species and the availability of optimum growing conditions (i.e. adequate water, sunlight, soil volume), the protection from compacted soils, salt spray, mechanical damage, pests, and maintenance programs. Please refer to tree habitat design guidelines found in Table 9 of Oakville's Urban Forest: Our Solution to Our Pollution (2006).

8.3.5. Street Intersections

The design of the intersection of Arterial / Transit Corridors, which generally occurs in Employment Districts, will reflect adjacent land uses. In instances where parallel parking is provided, bumpouts may occur in order to increase the size of landscaped and/or hardscaped areas, provide additional space for street furnishings, and reduce the distance of pedestrian crossings between sidewalks.



Figure 8.8: Typical intersection plan in the Employment District.



Figure 8.8: Alternative intersection plan in the Employment District.

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