



Willoughby Drive Subdivision

Urban Design Brief
September 11, 2024

Prepared for Lawrence Avenue Group

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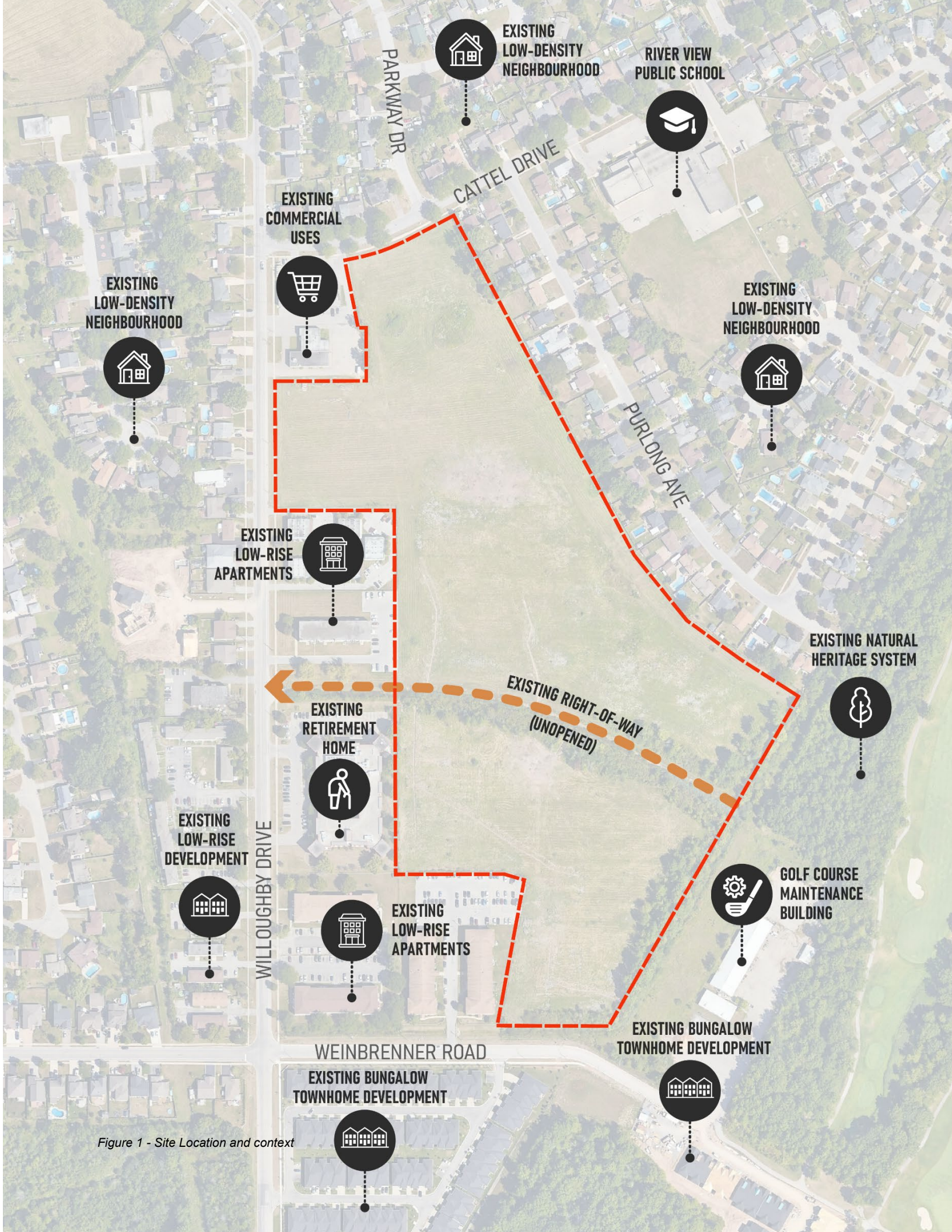


Figure 1 - Site Location and context

1.0 Introduction

Fotenn Planning + Design has been retained by Lawrence Avenue Group to prepare an Urban Design Brief in support of Official Plan Amendment, Zoning By-law Amendment, and Plan of Subdivision applications for the subject property. The overall proposed development encompasses approximately 11 ha (109,762 sq m) of land located east of Willoughby Drive, between Cattell Drive and Weinbrenner Road.

Master Plan Overview

The proposed development (or “Master Plan”) provides a vision for the long-term development of the Lawrence Avenue Group lands (hereafter referred to as the ‘subject property’). This Urban Design Brief demonstrates how the vision and guiding principles are consistent with the structuring elements, built form and public realm frameworks. The Master Plan illustrates how the subject property is proposed to be developed and evolved over time with the adoption and implementation of the structuring elements and design frameworks.

The Master Plan envisions the development of a residential community with a range of building typologies and varying building heights. The proposed development contains a total of 978 units, including a mix of apartment units and grade-related units such as front-loaded townhouses, stacked townhouses, and back-to-back townhouses. Vehicle parking is proposed in underground parking areas combined with above-grade parking areas, accessed from a network of new private and public streets. Enhanced public realm elements are envisioned throughout the site through the introduction of high-quality streetscape treatments, large open spaces, and landscaped linear open spaces, as well as a new public park located centrally within the subject property.

1.1 Site Location

The subject property (Figure 1) is situated in the Chippawa Community (a former village) towards the southeast corner of the City of Niagara Falls’ urban boundary within the smaller Cummings neighbourhood. It is approximately 800 metres away from the shorelines of both the Niagara River and Welland River. The subject property is located within a broader area recognized for its historical significance, notably as the site of the Battle of Chippawa in 1814.

The subject property is approximately 11 hectares (27 acres) in size and is currently divided into 14 individual lots. The largest of these lots forms a broad V-shape and fronts onto Willoughby Drive to the west and Cattell Drive to the north. The property also contains 11 lots which are smaller rectangular parcels along the north and south frontages of Caronpost Road. The remaining two lots are located further south and has frontage onto Weinbrenner Road. Furlong Avenue lies to the east of the subject property, separated by single-detached dwellings fronting this street. The subject property is currently vacant and does not have an assigned municipal address. The proposed development involves the assembling of the lots and subsequent subdivision.

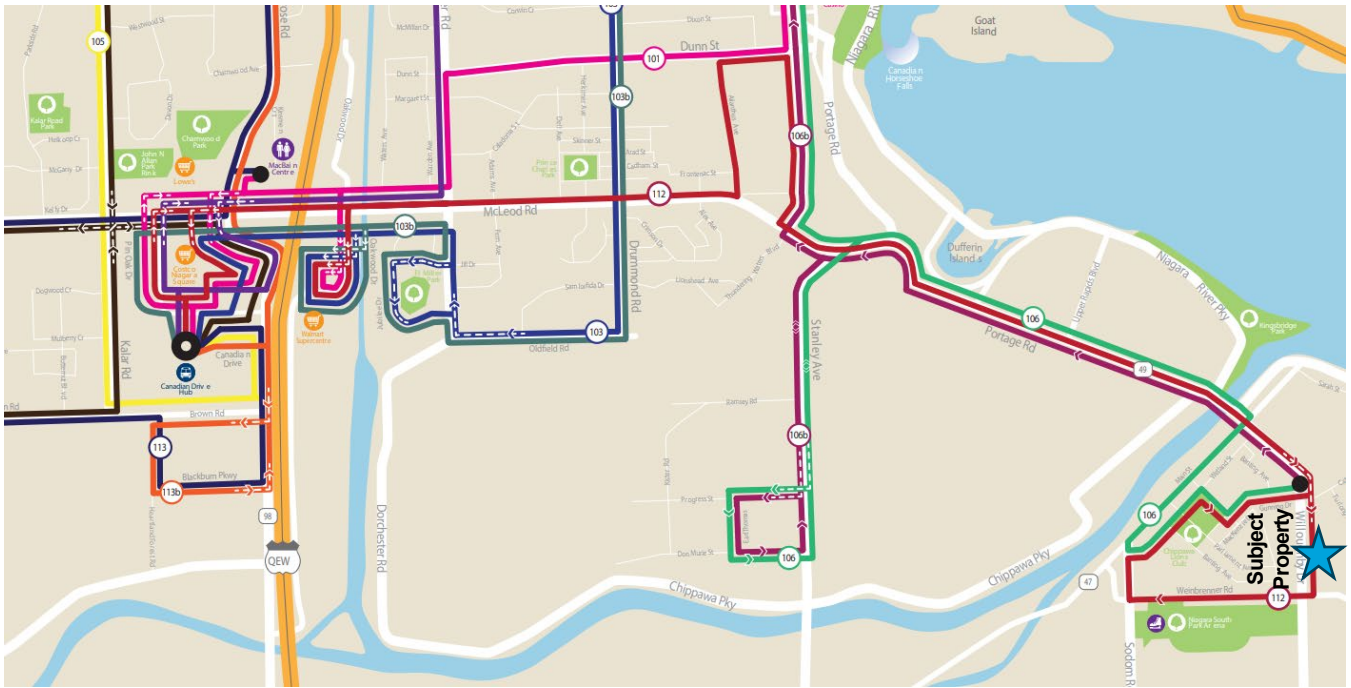


Figure 2 - Transit Routes and Stations near the Subject Property (Daytime)

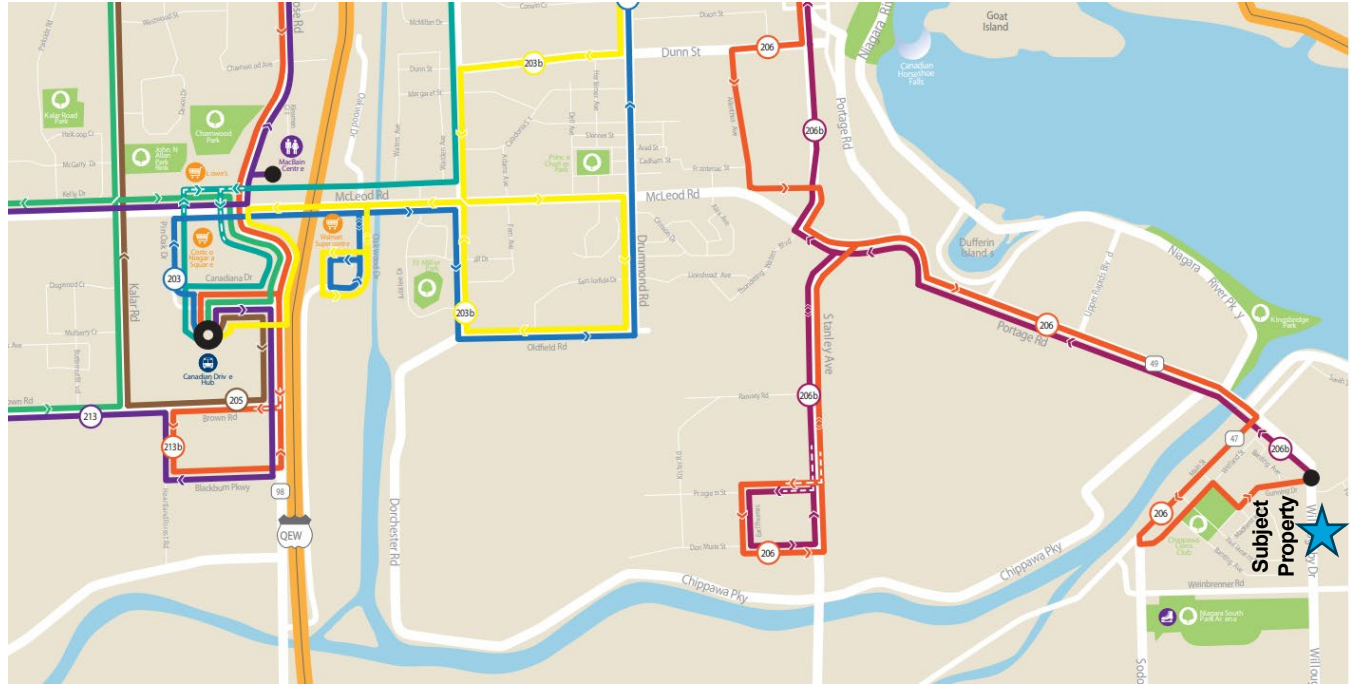


Figure 3 - Transit Routes and Stations near the Subject Property (Nighttime)

1.1.1 Road Network

Willoughby Drive is a north-south city Collector Road connecting the subject property to the City at large. To the north, Willoughby Drive changes to Portage Road past the Wightman Bridge, while to the south it connects to the Queen Elizabeth Highway. Cattell Drive is a smaller Collector Road bringing local traffic from residential neighbourhoods to the north and east of the subject property to Willoughby Drive. Caronpost Road is a planned municipal Collector Road which will be proposed to be urbanized and serviced as part of the proposed subdivision development, as discussed later in this report. Weinbrenner Road is a local municipal road which truncates at a cul-de-sac just south-east of the subject property.

1.1.2 Transit Network

The City of Niagara Falls is connected to the Greater Golden Horseshoe region by the Lakeshore West GO Line, while the VIA Rail further connects the City more broadly to Ontario and Canada. The joint GO and VIA Rail station is located approximately 9 kilometers away from the subject property.

The subject property is served by three main bus routes, including:

- / Route 112 with three stops along Willoughby Drive near the subject property; and,
- / Routes 106 and 206 with a single stop along Willoughby Drive to the north of the subject property.

Each of these transit routes connect the subject property to the City's downtown, and currently operate at a frequency of every 60 minutes.

Recently, transit services offered by the various lower-tier municipalities within the Niagara Region have been unified under a streamlined Niagara Region Transit. Bus routes servicing the subject property have been retained under the new unified system.

1.1.3 Cycling Network

There are currently no formal dedicated cycling lanes adjacent to the subject property. However, pre-consultation comments from municipal staff identify an existing informal bike lane along Willoughby Drive. Paved shoulder lanes along Weinbrenner Road are also used as an informal cycling route. Further east of the subject property, an existing multi-purpose trail runs along the Niagara River Parkway which offers residents and visitors scenic recreational biking opportunities.

1.1.4 Natural Features

The property is within walking distance of the Niagara River and Welland River waterfronts. The south-eastern portion of the property abuts a wooded Environmental Conservation Area (ECA) with multiple walking trails. The City's GIS maps indicate that there are stormwater ditches running adjacent to the southern side of the property, as well as along the Caronpost Road allowance. The central and southern portions of the property, on either side of the Caronpost Road allowance, was previously wooded (identified as Other Woodlands on Schedule C2 of the Niagara Region Official Plan 2022).

1.2 Surrounding Neighborhood Context

The surrounding neighborhood is predominantly residential in nature with considerable open recreational space (such as the Legends of the Niagara golf course) to the southeast side of the subject property. The residential neighbourhood is characterized by a significant proportion of single-detached dwellings with a few low-rise apartment buildings and townhouses in proximity to the site along Willoughby Drive and Weinbrenner Road. Along the eastern side of the property, on the southeast corner of the Willoughby Drive/Caronpost Road intersection, is a three-storey long term care home with the capacity to accommodate up to 160 long-term care residents.

There are three schools within a 500-metre radius of the subject property – River View Public School to the east, as well as Sacred Heart Catholic Elementary School and Wali Al Usr Learning Institute to the west. The Chippawa Presbyterian Church, Sacred Heart Roman Catholic Church, Lighthouse Church of God, and Holy Trinity Church are all within walking or short driving distances away from the property.

To the northwest side of the property there exists a strip mall with frontage on Cattell Drive. The strip mall has multiple tenants including a laundromat, convenience store, jewelry and gift store, a pub and eatery, and personal service establishments.



Figure 4 - Surrounding context (Google Earth, 2023)

1.3 Vision and Design Principles

The Master Planning process was guided by a series of urban design principles and objectives, which were initially derived from the Municipality's Official Plan, Regional Municipality of Niagara – Model Urban Design Guidelines, and through consultation with Lawrence Ave Group. Throughout the design process, a series of design principles and objectives were developed to inform the design team of the intent and expectations of the Master Plan. The following principles have been informed by the project team's vision, values, and objectives, as well as best practices in planning and urban design. The principles that helped guide the Master Planning process include:

- / **Provide a compact built form and efficient use of land** – The Master Plan aims to mitigate negative impacts on the surrounding neighbourhood as well as ensure that the development reflects principles of sustainability and efficient use of land. The proposed apartment built forms promote intensification, adopting compact built development. It allows the footprint to be minimised, while increasing housing options.
- / **Direct development into existing communities** – The proposed development is strategically positioned to integrate harmoniously with its surrounding context. It directs growth and development into the existing community, ensuring that it leverages the full range of urban services like public transit systems, community and public services, and employment opportunities available. This approach not only supports sustainable growth but also fosters a vibrant, cohesive, and resilient community where infrastructure and resources are optimally utilized.
- / **Offer a range of housing opportunities and choices** – Population growth and limited land supply are creating an enormous need for a mix of new housing. Development at Willoughby Drive will include a mix of housing options and typologies that considers the needs of the residents and generations. The Master Plan empowers communities through a diverse array of housing options that cater to every individual's needs, fostering inclusivity, sustainability, and vibrant living environments. The plan proposes a mix of apartment units and grade-related units such as front-loaded townhouses, stacked townhouses, and back-to-back townhouses.
- / **Create a walkable neighbourhood and community** – The Master Plan shall ensure that streets and blocks are walkable and that the built form and building uses foster a comfortable and safe pedestrian experience. The Master Plan shall leverage the walkability and connectivity to the various uses and amenities within the area to help make walking and active transportation convenient and more appealing.
- / **Foster an attractive community and sense of place** – The Master Plan aims to create pedestrian friendly spaces and architecturally significant built-form. The built form is designed to blend seamlessly with the surrounding environment employing contextual massing and utilising high-quality materials. Moreover, our plan includes thoughtful consideration of height transitions to ensure harmonious integration with the existing neighbourhood fabric, supporting increased density while respecting the scale and character of the area.

2.0 Policy Context and Site Analysis

The proposed development requires an Official Plan Amendment, Zoning By-law Amendment, and Plan of Subdivision applications to permit the development of the subject property. The Master Plan represents intensification within an area of the city intended to provide increased residential densities to serve the city and surrounding local neighbourhoods. Intensification and infill within the area are generally supported by the Provincial Policy Statement (PPS, 2020) and the City of Niagara Falls' Official Plan.

This Urban Design Brief supports the proposed heights and densities of the Master Plan, with careful consideration of key structuring elements such as built form massing, land use, design and materiality, and open spaces to ensure that the proposed development will be compatible with and mitigates any impacts on the existing and future surrounding area.

The Master Plan is also consistent with the Provincial Policy Statement and Growth Plan for Greater Golden Horseshoe and aligns with the policies of City of Niagara Falls' Official Plan, meeting many of the policy guidelines established by the City. Based on this review of the proposed Master Plan from a land use planning policy and design perspective, the proposed Official Plan Amendment is appropriate and will permit the development of a high-quality residential community that will assist the City in achieving its housing growth and sustainability goals.

Please refer to the Planning Justification Report prepared by Fotenn, which provides discussion, rationale, and justification for the proposed Official Plan and Zoning By-law Amendments.

2.1 Response to Urban Design Policies and Guidelines

2.1.1 Region of Niagara Official Plan (2022)

Niagara Regional Council adopted the Niagara Official Plan in June 2022, and the Minister of Municipal Affairs and Housing approved the plan with modifications in November 2022. The subject property is located within the Niagara Falls Urban Area and the delineated Built-Up Area on Schedule B – Regional Structure of the Niagara Official Plan (Figure 5).

The Regional Plan directs growth and development to settlement areas where full urban services are available, as well as public transit, community and public services and employment. The Planning Justification Report, prepared by Fotenn provides a comprehensive overview of how the proposed development addresses the policies and strategies discussed in Chapters 2 through 5 of the Region of Niagara Official Plan. The section below discusses the Urban Design related policies set by the Official Plan.

Section 6.2 of the Region of Niagara Official Plan emphasizes enhancing Niagara's unique natural and built environment through thoughtful design of built form and public realm to create memorable places, thereby enriching residents' quality of life and community experiences. The Plan aims to achieve urban design excellence, improve the public realm, encourage active transportation, and establish tools for implementing urban design initiatives.

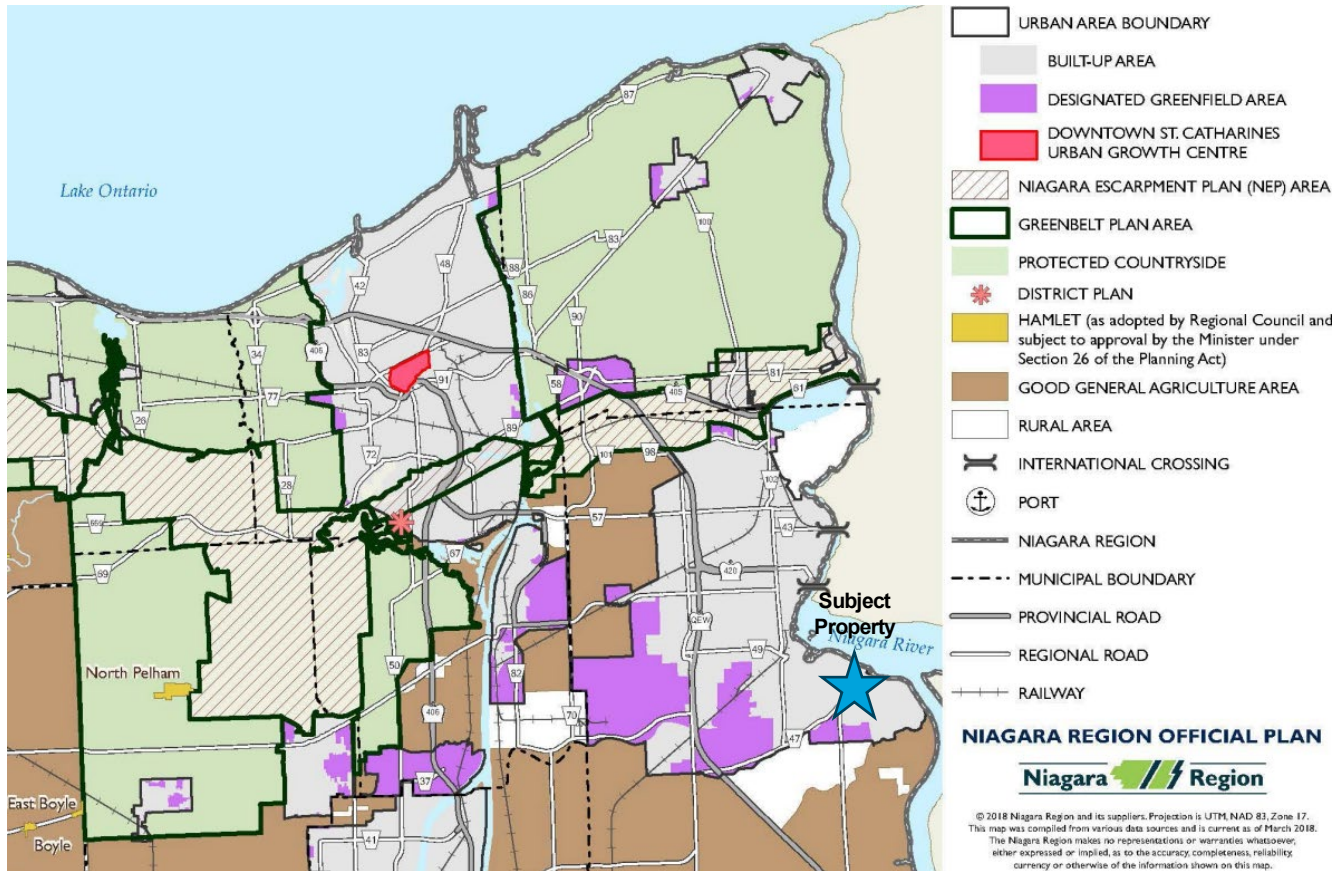


Figure 5 - Schedule B: Regional Structure of the Niagara Official Plan

Section 6.2.1 Excellence in Urban Design of Region of Niagara Official Plan

- 6.2.1.1 *Excellence and innovation shall be promoted in architecture, landscape architecture, site planning, streetscape design, and overall community design to ensure built environments are attractive, walkable, accessible, diverse, and functional.*
- 6.2.1.2 *The collaboration and co-ordination of related disciplines, including land use planning, urban design, transportation planning, architecture, engineering, environmental planning, and landscape architecture shall be encouraged.*
- 6.2.1.6 *Active transportation shall be promoted through the cohesive and collaborative design of streets, building interfaces and public spaces.*
- 6.2.1.7 *Sustainable design principles shall be applied to the public realm, infrastructure, public service facilities, development and streets.*

The proposed Master Plan was developed through the collaboration between planning and urban design disciplines to create an attractive community. This Master Plan aligns with the above policies and aims to provide a diverse, accessible, and walkable community.

For a detailed understanding of the design aspects and how the plan addresses the Region of Niagara Official Plan objectives of achieving urban design excellence, improving the public realm, and encouraging active transportation, please refer to Section 3 of this brief.

Section 6.2.2 Public Realm and Active Transportation of Region of Niagara Official Plan

- 6.2.2.2 *Alternative road designs that balance the needs of pedestrians, cyclists, public transit users, and motorists, and prioritize road safety will be considered to support complete streets*
- 6.2.2.3 *The design of road networks should consider walking distances for public transit users, and the use of an interconnected transportation system with consideration for applicable standards and guidelines, to minimize travel distances for cyclists and pedestrians.*
- 6.2.2.5 *The burial of overhead utilities and the co-location of utilities underground is encouraged in areas strategically identified for intensification including strategic growth areas, and local growth centres and corridors.*
- 6.2.2.10 *Streetscapes should be designed to create a seamless transition with the public space.* 6.2.2.11 *The mitigation of microclimate impacts, such as wind, shadowing and seasonal factors, should be considered regarding the impact of development on the public realm.*

The design of the proposed development aligns with the principles outlined in Section 6.2.2 of the Region of Niagara Official Plan, emphasizing the creation of a safe and accessible public realm.

- / Road networks have been thoughtfully planned to minimize travel distances for cyclists and pedestrians, while ensuring convenient walking distances for public transit users through an interconnected transportation system and complete street designs.
- / Streetscapes are designed to create a seamless transition with public spaces, contributing to a cohesive and inviting environment. The design also considers the mitigation of microclimate impacts, such as wind, shadowing, and seasonal factors, to ensure a comfortable and enjoyable public realm for all users.
- / Additionally, the plan advocates for the burial of overhead utilities and co-location of utilities underground.

Please refer to Section 3 of this report for additional justification.

The report addresses *Section 6.2.3 Tools for Implementation of the Region of Niagara Official Plan*, through a separate section of this brief. Please refer Section 3 of the Urban Design Brief to understand how the Master Plan aligns with the Model Urban Design guidelines.

2.1.2 City of Niagara Falls Official Plan (1993, as Amended)

The City of Niagara Falls Official Plan (OP) outlines the long-term objectives and policies of the City and is intended to guide growth and development to the year 2031. The intention of the Official Plan is to focus new growth to accommodate the growing population in a sustainable way that makes for an orderly and effective use of land and infrastructure, creates compact, livable communities, and protects the City’s natural heritage and agricultural lands. The subject property are designated ‘Residential’ per Schedule A – Land Use Plan of the Official Plan (Figure 6) documents.

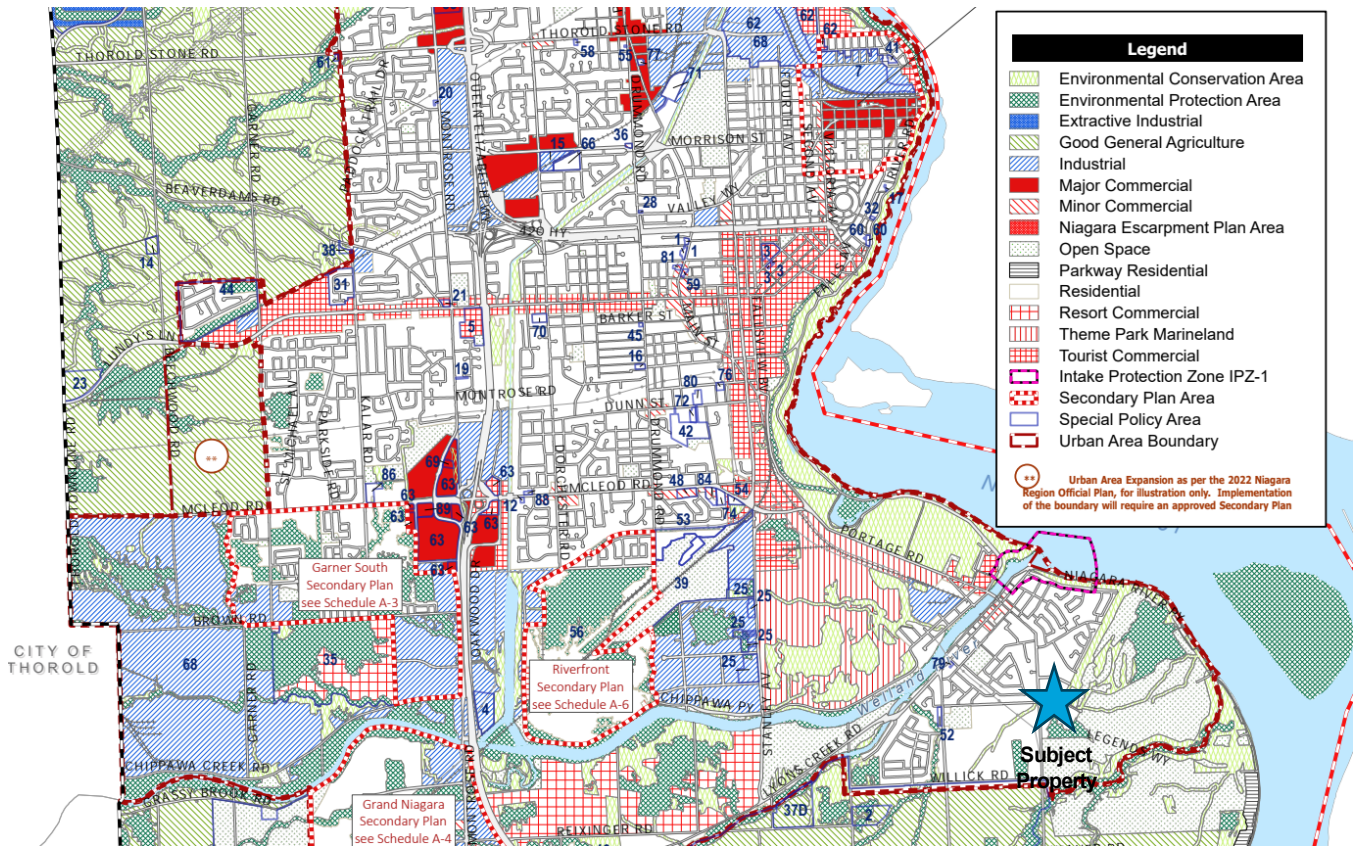


Figure 6 - Schedule A – Land Use Plan, City of Niagara Falls Official Plan

The City’s Official Plan is organized into five parts with multiple sections under each part. Part 3 Section 5 of the Official Plan provides the Urban Design Strategies for the Master Plan. The Official Plan states that the urban design shapes the built environment and plays a key role in maintaining the City’s civic image, economic potential, and citizens’ quality of life. The proposed development aims to create a compact, interconnected, pedestrian-oriented, and transit-supportive community. It ensures that the public and private realm are harmoniously designed, and following section will address the relevant policies provided for both the public and private areas.

Section 5.1 New development, redevelopment and public works projects shall utilize building, streetscaping and landscaping designs to improve the built and social environment of the City and to enhance quality of life. Development should integrate and be compatible with the surrounding area including natural and cultural heritage features.

- 5.1.1 *The design of new development and redevelopment shall specifically address height, setbacks, massing, siting, and architecture of existing buildings to provide a compatible relationship with development in an area.*
- 5.1.2 *Development shall be designed and oriented to the pedestrian. As such buildings shall be set as close to the street as possible. Moreover, where development includes multiple buildings, the buildings should be deployed in such a manner that allows pedestrians to move between buildings with a minimum of interference from vehicular traffic. To this end, designated walkways through parking areas and to other buildings are to be provided.*
- 5.1.5 *Parking areas are to be minimized within the front yard of development sites. Parking shall primarily be located in the rear or side yards of development sites with sufficient landscaping utilized to create an effective buffer to abutting lands.*
- 5.1.7 *The number of access points onto arterial roads shall be minimized. Linked parking and driveway areas shall be encouraged. Access points shall be oriented toward major roadways.*

The Master Plan aims to use building, streetscaping, and landscaping designs to enhance the overall built and social environment, thereby improving the quality of life. It seeks to integrate with and remain compatible with the surrounding area, as suggested by the policies. The Master Plan aligns with these policies and maintains compatibility regarding height, setbacks, massing, siting, and architecture with the existing surrounding context.

- / The proposed development prioritizes pedestrian accessibility. Building interfaces will be detailed in later design stages to facilitate easy pedestrian movement.
- / The Master Plan is designed to include ample landscaping to provide effective buffering between properties.
- / Parking areas are thoughtfully planned and strategically located concerning the existing parking area's location.

Section 5.2 Streets are a public space that, while conveying motorized traffic, should be designed as a safe, comfortable and convenient environment for the pedestrian and cyclist. Streetscaping should serve to improve the pedestrian experience of an area through the use of amenities such as widened sidewalks, decorative street lighting, rest areas, tree planting and other landscaping features.

- 5.2.1 *The provision of adequate and accessible space for pedestrians, cyclists and transit are to be considered in the design of streets.*
- 5.2.2 *The improvement and upgrading of streetscapes is encouraged through the development of facilities and amenities such as sidewalk cafes, plazas, piazzas and other spaces. Where appropriate, streetscape plans, urban design guidelines or community improvement plans will be undertaken and implemented in cooperation with area land owners and Boards of Management for business improvement areas.*
- 5.2.6 *In cooperation with the appropriate agencies, the number of utility poles shall be minimized, and overhead wiring shall be progressively buried underground.*

The proposed development aligns with the above policies. As mentioned earlier, the streets are designed to be safe and comfortable spaces for pedestrians and cyclists, incorporating amenities such as widened sidewalks, decorative lighting, rest areas, and landscaping in accordance with policy requirements.

- / The proposed development ensures that the design provides adequate and accessible space for pedestrians, cyclists, and transit users.
- / Additionally, the Master Plan advocates for the burial of overhead utilities and the co-location of utilities underground.

Section 5.3 Landscaping and open space amenity areas can provide an opportunity to enhance the visual image of properties along the streetscape and should be incorporated in development projects to complement boulevard plantings. Landscaping can soften dominant building mass, screen noise and visual intrusion, shield against excessive wind and sun and provide various environmental benefits.

- 5.3.1 *The orientation of landscaping within development sites should be toward public use areas, realizing the importance of the effective placement and maintenance of such landscaping in creating attractive amenity areas and entranceways. In addition, the City shall promote the substantial greening of the area intended for landscaping within development sites.*
- 5.3.2 *Low maintenance forms of landscaping shall be encouraged, where possible, with the responsibility for maintenance to be placed on the landowner.*
- 5.3.3 *The size and extent of new plantings shall be appropriate for the mass and size of the building and surrounding area. Suitable tree types and plant species shall be selected having regard for their purpose, appearance and resilience to conditions of the urban environment.*

Section 5.4 Parking areas should be designed efficiently to minimize the extent of pavement and provide the opportunity for additional landscaping.

- 5.4.1 *Green space and landscaping shall be interspersed throughout the parking area but not affect it's functioning and safety.*

The development aligns with the Official Plan policies reference above. Built forms are oriented to maximize pedestrian and vehicle connections, including a centrally located public park. Higher densities are positioned to frame the streets and create a harmonious relationship between uses.

- / Vehicle access is efficiently designed with underground parking for high-density forms and surface parking screened from public view. Landscaping is used to buffer parking areas, provide a transition between buildings and streets, and enhance pedestrian-friendly environments.
- / Future Site Plan Control applications will address detailed design elements, including architectural features and landscaping, ensuring that the development aligns with neighborhood aesthetics and functionality.
- / All residential lots have adequate access via public or private rights-of-way, ensuring pedestrian comfort. High-rise residential blocks are designed for higher-density uses, and site plans will evaluate building massing and design for compatibility with the neighborhood.

Please refer to Section 3 of this report and Section 4.5 of the Planning Justification Report prepared by Fotenn for additional justification.

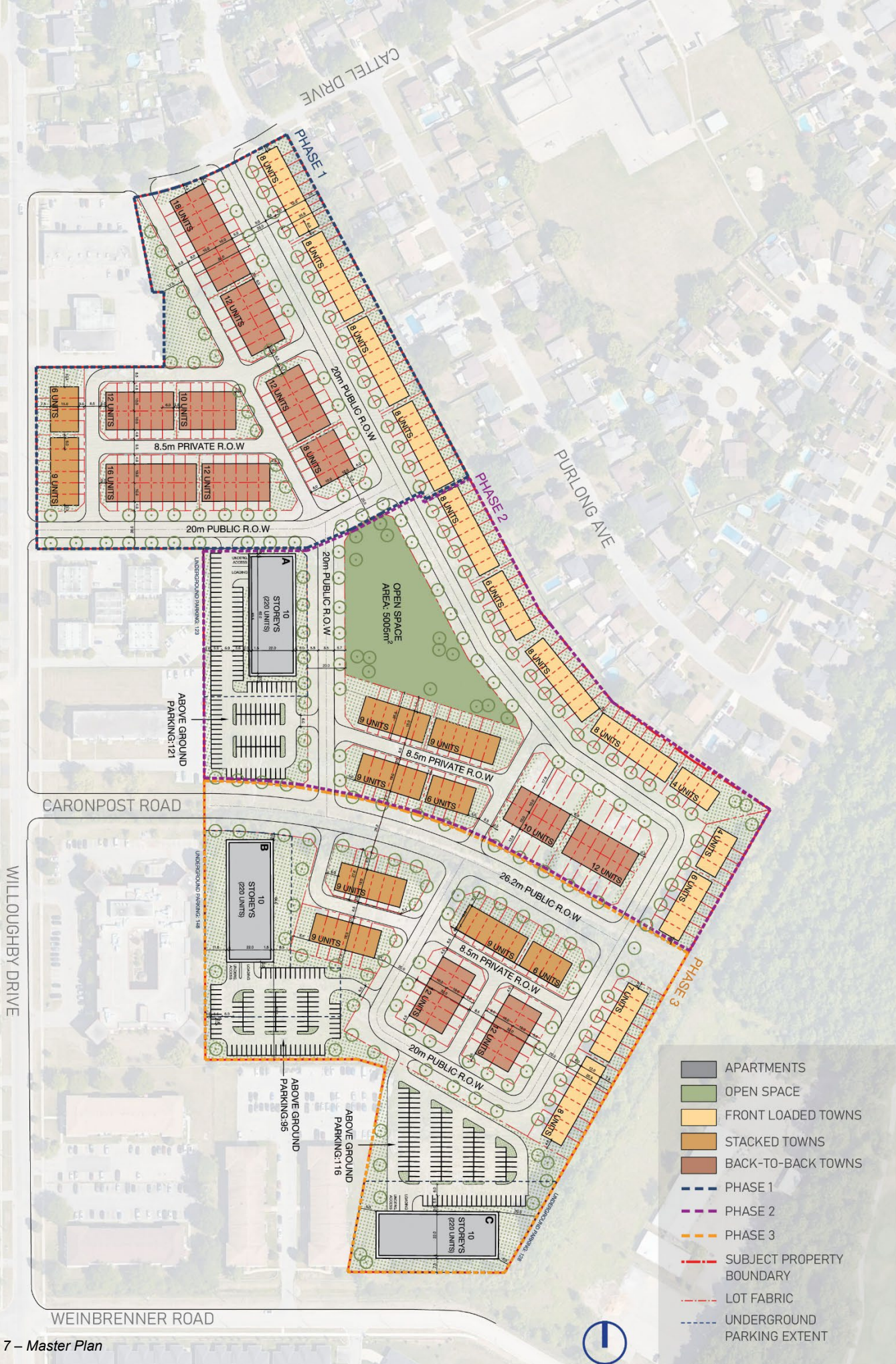
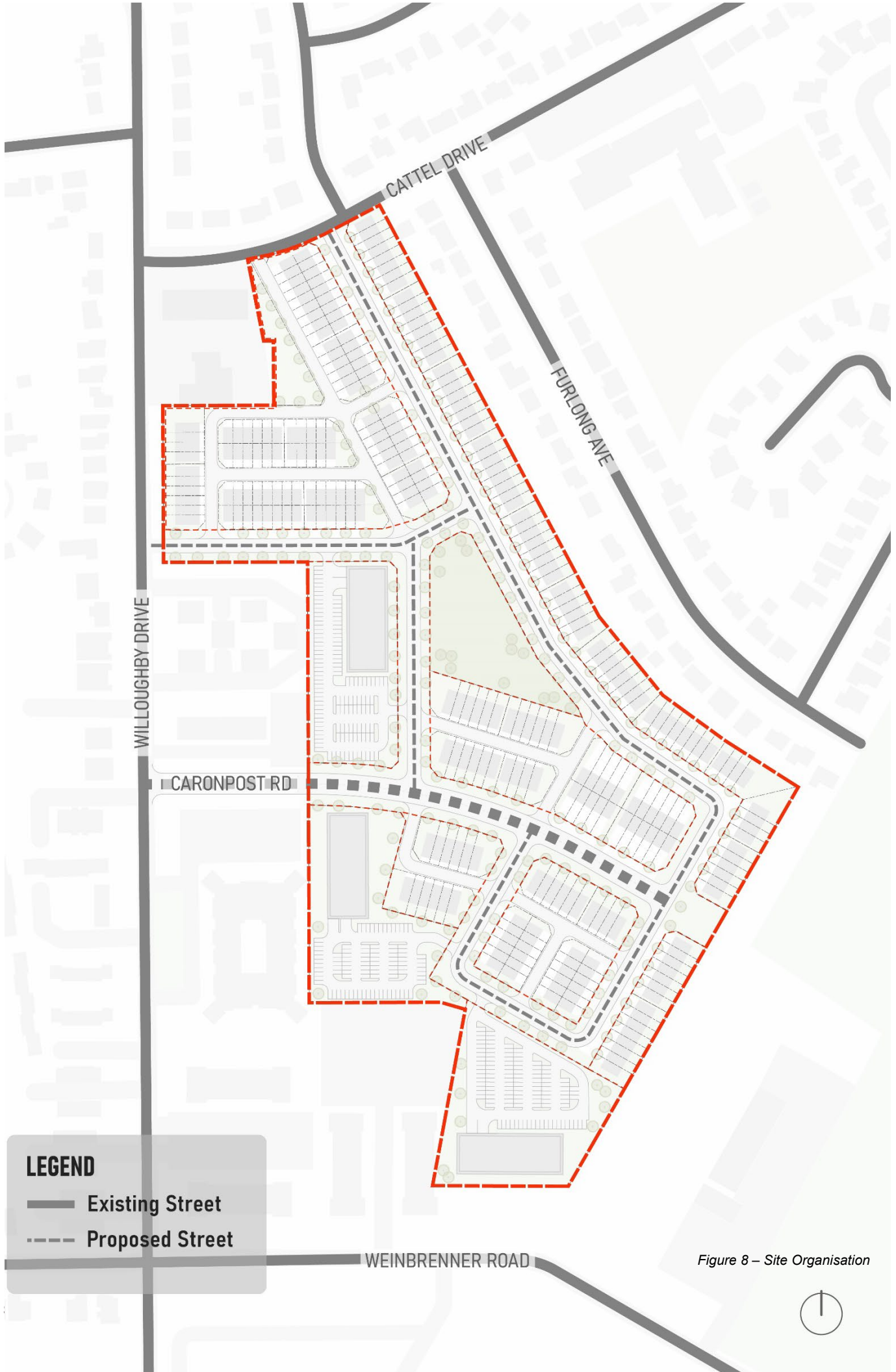


Figure 7 – Master Plan

3.0 Design Considerations

The Master Plan's vision is to create a complete, vibrant, and healthy community that includes a range of unit types and a dynamic public realm (Figure 7). The proposed development is strategically positioned to integrate harmoniously with its surrounding context, leveraging existing landmarks and contextual features to enhance its identity and community integration. While it does not emphasize any landmark or gateway features within the site, its proximity to Willoughby Drive and connections to Furlong Avenue neighbourhood via Cattel Drive positions it within an existing residential urban fabric. This location influences the design approach, ensuring compatibility and respect for adjacent heritage attributes and established residential neighborhoods.

The development concept prioritizes contextual integration by employing a variety of building typologies that transition smoothly from higher densities along Willoughby Drive to lower densities adjacent to existing single-family dwellings and a golf course to the east. This careful density gradient and massing strategy contribute to a balanced streetscape and neighborhood aesthetic, respecting the scale and character of the existing built environment. The site's layout incorporates a fine-grained road network complemented by mid-block connections, enhancing connectivity and facilitating pedestrian-friendly streetscapes. Streets and open spaces are designed at a human scale, promoting social interaction and active transportation within the community. Additionally, the proposed open green spaces and landscaping elements further enhance the site's appeal and contributes to its integration into the local context. Overall, the development concept reflects a thoughtful approach to contextual integration, ensuring the new community complements and enhances the distinct local characteristics while providing a sustainable, vibrant living environment.



LEGEND

- Existing Street
- - - Proposed Street

Figure 8 – Site Organisation



3.1 Site Organization

The proposed development (Figure 8) is organised with appropriately scaled development typologies which transition to the adjacent low-density residential context to the northeast and golf course to the east, through built form massing and density. A key organising element of the proposal is the extended Caronpost Road through Willoughby Drive, which divides the site and further provides multiple public and laneway connections. The Master Plan establishes a street and block pattern that is intended to support both transit and pedestrians. The proposal is planned in three phases (Figure 13), which ultimately forms a detailed grid road network complemented by private streetways, streetscapes, and pockets of open spaces. This network defines vehicular access and circulation, promotes active transportation, and prioritizes enhancing the public realm.

The Master Plan layout prioritizes walkability and densities, designing a street pattern with short block lengths to improve connectivity and accommodate various modes of active transportation. Streetscapes are intended to be designed cohesively, incorporating elements such as trees, signage, streetlights, and boulevard treatments to create both attractive and functional public spaces. The placement of buildings and open spaces within the site is carefully arranged to maximize views, ensuring a harmonious relationship between built forms and open areas.

The team is determined to provide landscaping elements along Caronpost Road and all proposed internal connections, including rooftop terraces and amenity areas at detailed design stages. Approximately 4.5% of the site area (5,005 sq m) is dedicated to open green spaces, in addition to streetscape and landscaping surrounding residential blocks. Enhanced streetscape treatments along proposed streets and within buffer spaces between buildings shall be provided to enhance the pedestrian experience, encouraging community interaction, and creating intimate gathering spaces within the public realm. Sidewalks are designed to be a minimum of 1.5 meters wide and shall accommodate plantings and street furniture, which are tailored to enhance pedestrian safety and enjoyment, accessible to users of all ages and abilities.

The street and block design connects the subject property internally as well as to the existing surrounding context. New connections include two connections off Cattel Drive, one of which is a 20 m Public ROW and the other is an 8.5 m private ROW; one new 20 m public ROW connection off Willoughby Drive, along with the Caronpost Drive extension and several new internal road segments to provide access and servicing. These streets are intended to have sidewalks, either on both or at least one side, which is to be decided at later design stages. Access to the parking garage and loading area is strategically located away from the intersections to reduce vehicular conflicts while allowing the building to frame the street. Access to the parking garage and loading area is integrated into the building, minimizing the impacts on the public realm, and the design intends to propose screening such uses from the adjacent townhouses and surrounding context.

The development shall include provisions for cycling facilities, ensuring access to both indoor and outdoor bike parking. Parking ratios are currently set at 1.1 spaces per unit for apartment buildings, 2.0 spaces per unit for front-loaded and back-to-back townhouse units, and 1.0 space per unit for stacked townhouse units.

3.2 Public Realm

The model urban design guidelines support the principles of compact, mixed-use neighbourhoods that foster a sense of place, prioritize pedestrian and transit movement, and respect natural environments. The following sub-sections further detail the overall structure and layout of the proposed Master Plan. The following sub-sections are organized based on the overarching structure of the *Model Urban Design Guidelines*. Please refer Appendix A for relevant guidelines.

3.2.1 Neighbourhood Structure

The plan adheres closely to the design principles outlined in the neighborhood structure guidelines (Section 3a.2 of the model urban design guidelines). The overall neighbourhood structure is organized with the intent of enhancing the quality of life for residents and ensuring the long-term sustainability and attractiveness of the neighborhood as a cohesive community hub. The below principles highlight how the Master Plan compliment the guidelines:

- / It prioritizes the development of a compact residential community that fosters a distinctive sense of place, enhances pedestrian and transit accessibility, and respects built and natural surroundings.
- / The plan locates higher-density apartment buildings adjacent to other existing apartment buildings and closest to the main arterial corridor (transit corridor) to ensure that future residents have access to the public transportation network.
- / Proposed densities decrease moving eastward, with careful consideration given to locating a central open space and enhancing connectivity through a well-defined grid network of streets, blocks, and midblock connections.
- / Streetscapes are intended to be landscaped with street trees, street furniture, and other landscape elements, to be confirmed, catering to the existing and future community, providing them with abundant gathering spaces.

The following characteristics of the Master Plan elaborate on how the proposed development align with the model urban design guidelines.

Block Design - The plan prioritizes walkability and enhanced neighborhood connectivity. The blocks are designed to be flexible and to accommodate a mix of uses and building typologies. The proposed development:

- / provides a variety of lot sizes and introduces a grid pattern that integrates seamlessly with the existing street network, thereby creating a finer and more cohesive urban fabric.
- / promotes street alignment that adds visual interest and enhances the streetscape and landscape opportunities within the plan.
- / designs street elements to create gathering spaces that are both inviting and permeable, ensuring they remain complete yet accessible to residents and visitors alike.

Lot Size and Variety - The plan establishes a balance of large and small lot sizes that introduce a variety of lot sizes, development blocks, and designs. The Master Plan:

- / proposes lot fabric that consists of simple, rectilinear lot shapes, while also creatively utilizing irregularly shaped spaces for green and landscaped areas within the streetscape.
- / promotes consistent lot sizes throughout the plan, with corner or edge lots specifically sized to ensure adequate width and length for appropriate building setbacks.
- / promotes lots that have been designed and situated to frame all public and private rights-of-way as well as parks and open spaces, where possible.

Additional details regarding the landscape and streetscape will be finalized at later design stages.

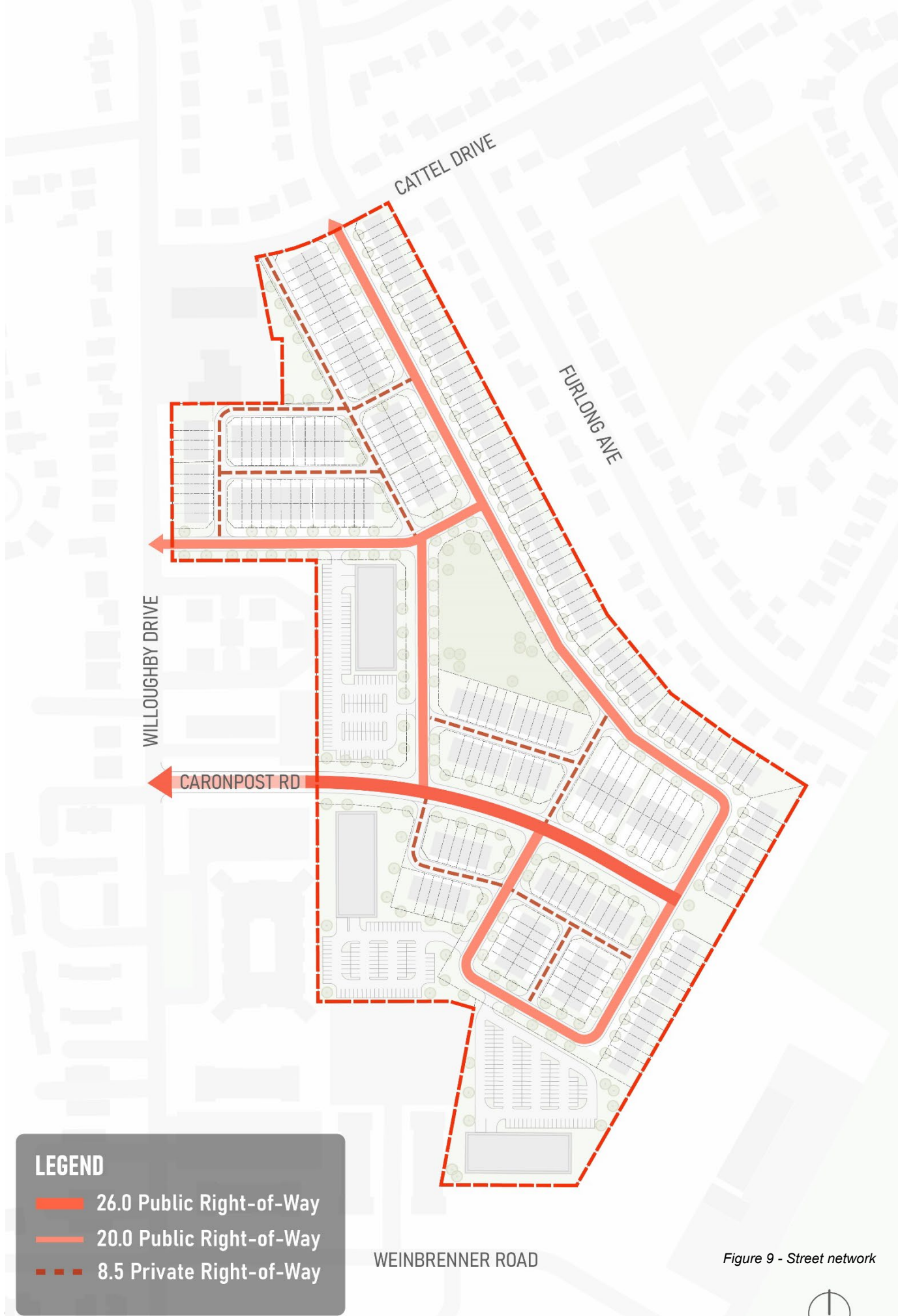
Neighbourhood Edge Interface - The Master Plan has carefully considered interfaces with its immediate and surrounding context. The Master Plan prioritizes building fronting onto streets, rear-loaded building typologies, and opportunities to frame parks and open spaces. The proposed development conforms to Section 3a.5 guidelines on Neighborhood Edge structure. The following principles illustrate further how the proposed development aligns with the guidelines:

- / As per the model urban design guidelines, the open space in the plan is predominantly bordered by public rights-of-way, meeting the requirement that over 50% of their perimeter interfaces with public roads.
- / Lots adjacent to or backing onto parks are designed with careful consideration for privacy and safety.
- / Lots and buildings are oriented to provide visibility towards the park, ensuring a secure environment while respecting residents' privacy.
- / The centrally located open space is situated to be easily accessible, with pedestrian connections established from nearby streets and mid-block connections wherever feasible.

Transit Supportive Design - The plan is designed to seamlessly blend with the immediate and surrounding neighborhood, offering a diverse range of housing options and increasing the overall density of the area. Aligned with policy guidelines, the Master Plan aims to support public transit ridership and support various complementary uses in the neighbourhood. Below are the principles that highlight how the proposed development adheres to the guidelines:

- / The proposal aims to reduce road congestion and pollution by promoting transit as a viable alternative to cars through a transit-oriented design.
- / The proposed network of fine-grained streets and blocks provides safe pedestrian passages, secure bike routes, and increased utilization of public amenities like neighborhood facilities, parks, and transit options.
- / All proposed blocks are located within walking distance or in close proximity to existing and future potential transit stops.

Utilities and Services - The Master Plan intends to support the design guidelines related to utilities and services. It will address utility and services related design considerations at detail design stage of the process.



LEGEND

- 26.0 Public Right-of-Way
- 20.0 Public Right-of-Way
- 8.5 Private Right-of-Way

Figure 9 - Street network



3.2.2 Roads / Streetscape

The road network (Figure 9) is designed based on the unique site characteristics and shape while also taking into consideration the following relevant design principles:

- / The streetscape network accommodates multiple modes of transportation, including active transit and transition.
- / The design of the rights-of-way is flexible and able to respond to the varied land uses and built form typologies.
- / The streets are envisioned as high-quality, enhancing the amenity of adjacent properties.
- / The design of rights-of-way provides opportunities for street trees, landscaping, and other landscape elements.
- / The intent of the streetscapes is to maximize the pedestrian realm and experience.
- / Streetscapes and the siting and orientation of streets and blocks provide opportunities for street parking.

The following characteristics of the streets elaborate on how the proposed development align closely with the model urban design guidelines.

Collector Streets (26.0m ROW) - The extension of Caronpost Road and a new connection through Cattel Drive into the Master Plan serve as a collector street for the neighbourhood. The proposed collector streets are 26.02 m and 20.00 m wide; property buffers extend beyond the ROW as directed by the above guidelines. The later design stages will provide more details on the street design and are intended to align with the guidelines.

Local Streets (20.0m ROW) - The Master Plan creates a fine-grained street grid with public and private streets diverging from collector streets. The public streets designed in the Master Plan are 20.0 m wide, which is greater than the proposed widths in the guidelines, while the private streets are 8.5 m wide. The streets within the Master Plan serve only the proposed community, which is why it is anticipated that the 20.0 m streets will remain more local than collector in character. The later design stages will provide more details on the street design and are intended to align with the guidelines.

Laneways/Private Driveways (8.5m ROW) - The Master Plan does not propose any laneways; however, the 8.5-meter wide private streets are proposed in the Master Plan between the back-to-back townhouse blocks to provide access to these units. The Master Plan intends to design these as double-loaded for functional purposes and confirms to provide a feasible design solution at later stages.

Sidewalks and Streetscaping - The Master Plan aligns with the considerations of Section 3c and incorporates them into the design at the detailed design stages. Sidewalks are designed as high-quality public spaces, integrating amenities that enhance pedestrian experiences and promote a strong sense of place. Safety is prioritized to ensure unobstructed pedestrian movement and minimize conflicts with vehicular traffic, utilizing features such as boulevards, plantings, and appropriate lighting.



LEGEND

- Open Space Connections
- Mid-Block Connections
- Open Space

Figure 10 – Park and Open Space connections



3.2.3 Parks and Open Space

The design of the Master Plan ensures that parks and open spaces (Figure 10), including streetscape elements, are interconnected to form a cohesive network that enhances community connectivity and accessibility. These spaces cater to a diverse range of recreational activities, balancing active and passive uses to meet community needs. Safety considerations are incorporated into the design, promoting visibility and surveillance from public roads and flanking houses to create secure environments. The Master Plan aligns with the considerations of Section 3d and incorporates them into the design at detailed design stages.

The following elements and their principles within the Master Plan further illustrate how the proposed development closely aligns with the urban design guidelines:

Central Open Space

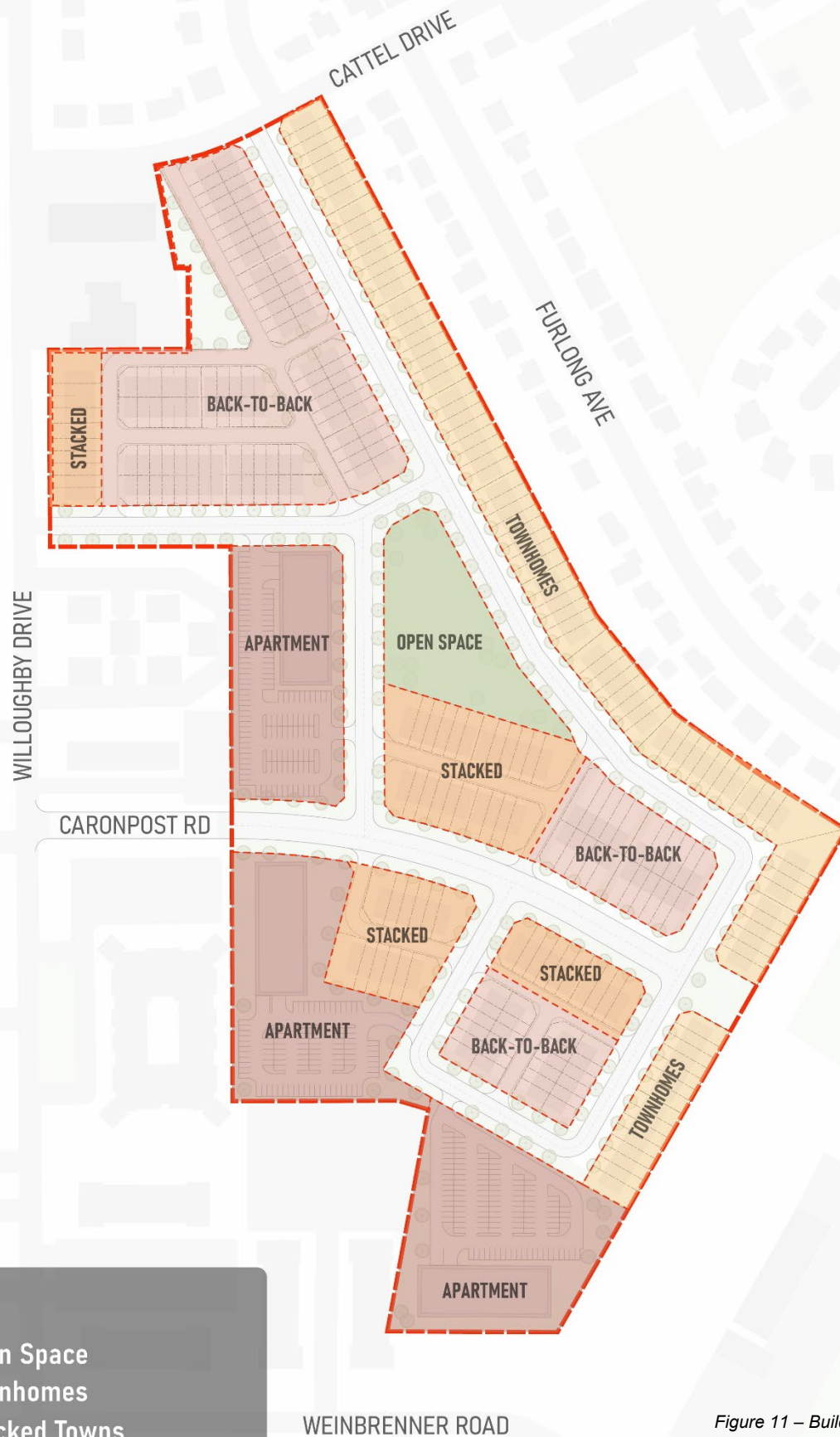
- / The central open space provides a gathering area for the community, centrally located within the overall development and connected to the primary street network.
- / It has primary frontages onto public rights of way, except where a series of townhouse blocks front onto and frame the open space.

Primary Connections

- / Public rights-of-way provide primary circulation to and throughout the site.
- / Primary connections terminate at the central open space.
- / These connections further branch out into local streets, laneways, and mid-block connections to aid overall movement in the Master Plan.

Mid-block Connections

- / A network of private rights-of-way serves as mid-block connections to the central open space and throughout the proposed development.
- / Furthermore, mid-block connections are provided through larger development blocks, between townhouse blocks, connecting the proposed streets and blocks with the immediate and surrounding context.
- / The network of mid-block connections also aids in movement and circulation, as well as improves presence and safety through casual surveillance.



LEGEND

- Open Space
- Townhomes
- Stacked Towns
- Back-to-Back Towns
- Apartments

Figure 11 – Building Typology



3.3 Built Form

The design principles related to the private realm have been considered in the design and layout of the proposed Master Plan. The proposed Master Plan (Figure 11) aligns with many of the design principles outlined in Section 4a of the Model Urban Design Guidelines, Niagara Region, as follows:

- / The design considers the quality and character of the streetscapes and neighborhood.
- / The massing, scale, and heights are sensitive to the immediate and surrounding context, where the siting and orientation of buildings ensure appropriate transition.
- / The design supports a unique sense of place through the varied building typologies, road alignments, and open spaces.
- / The proposed development provides a range of housing types, from freehold townhouses to stacked townhouses, back-to-back townhouses, and apartment buildings. This variety offers a mix of building types, unit sizes, and housing options.
- / The introduction of apartment building typologies provides opportunities to incorporate a range of future uses, such as retail at-grade and/or offices.
- / The proposed streets, blocks, and building typologies are flexible and may provide opportunities to incorporate sustainability measures and design elements into the area at later detail design stage.

3.3.1 Building Variation and Density (Building Typologies)

The proposed development aims to seamlessly integrate with the surrounding context, enhancing the overall character through a thoughtfully designed street pattern and a diverse range of housing types. The inclusion of front-loaded, stacked, and back-to-back townhouses will foster diversity, accommodating a varied population within the neighborhood. Detailed elevation designs for the houses will be finalized in later stages, ensuring alignment with the objective of enhancing neighborhood character and identity. The introduction of apartment buildings and a variety of townhouses will contribute to increasing residential density in the area. This strategic approach is intended to encourage transit use and boost the utilization of neighborhood parks and community facilities, thereby enriching the local community experience.

The new public and private streets lay the foundation for establishing development blocks and developable areas. These blocks establish a hierarchy of built form and density. In terms of built-form massing, buildings generally transition from tall heights on the west edge of the site—adjacent to the existing apartment and care facility buildings - to lower heights in the north and east to accommodate an appropriate transition to the residential low-density context of the subject property. The increased density and heights at these locations support the overall streetscape and define a hierarchy of building height and massing that transitions down to the existing landscape and built form, creating an interesting skyline (Figure 8). The following framework establishes design guidelines for diverse typologies and their placement across the site.

Townhouses (Front-Loaded) - The plan proposes 91 front-loaded townhouse units along the east property line, with the main entrances facing the new proposed 20 m public street. These townhouses are designed to resemble single-family homes but are arranged in rows of 4, 6, or 8 units, three-storeys in height with shared walls, individual backyard spaces, and entrances. These townhouses are offered as freehold units, allowing homeownership with the benefit of individual property ownership within a shared community setting.

- / Each townhouse includes an individual garage space along with driveway parking, ensuring ample parking availability for residents.
- / Visitor parking spaces will be located adjacent to townhouse blocks via street parking, enhancing accessibility for guests.
- / Townhouse blocks are no greater than 8 units wide.

Back-to-Back Townhouses (Front-Loaded) - The Master Plan proposes 146 back-to-back townhouse units, which are three-storeys in height. These townhouses have access fronting onto streets while sharing back walls. The Master Plan arranges stacked and back-to-back townhouse blocks in relation to the street pattern, maximizing land use efficiency while maintaining a neighborhood feel. This arrangement provides a blend of privacy and community interaction, suitable for families or individuals seeking a quieter residential setting within a vibrant community.

- / Each townhouse includes an individual garage space along with driveway parking, ensuring ample parking availability for residents.
- / Visitor parking spaces will be located adjacent to townhouse blocks via street parking or shared visitor parking areas, enhancing accessibility for guests.
- / Townhouse blocks are no greater than 8 units wide.

Stacked Townhouses (Rear-Loaded) - The proposed development includes 81 stacked townhouse units, distinctly designed to optimize space utilization. This typology features three units coexisting and utilizing a floor plate of two townhouse lots. The design concept incorporates three parking spaces at ground level, efficiently meeting the parking requirements for the three units. The units are distributed across two upper floors, with two units occupying the second floor and a partial third floor, while the remaining third floor accommodates the entire third unit. This layout ensures that each unit enjoys its own unique configuration and access. The units share semi-private backyard spaces. Detailed plans and drawings will be provided at later stages to illustrate how this design concept effectively utilizes the available space to create a cohesive and attractive living environment within the community.

- / Each townhouse includes individual rear-garage space accessed via a rear lane or private driveway.
- / Visitor parking spaces will be located adjacent to townhouse blocks via street parking or shared visitor parking areas, enhancing accessibility for guests.
- / Townhouse blocks are no greater than the equivalent of 8 units wide.

Apartment Buildings - The Master Plan proposes three (3) apartment buildings with a total of 660 units, located along the west property line, adjacent to the existing apartment buildings. These apartment buildings are proposed to be 10-storeys in height, with a setback at the 8th storey to provide a height transition. Parking for these apartments will be provided both at-grade and below grade. As mentioned earlier, the surface parking spaces are arranged adjacent to the existing parking structures in the surrounding context to minimize any impact on the residents. Loading and servicing are proposed away from the open spaces, and this strategic location will not hinder the townhouse or surrounding residents.

- / The siting and orientation of apartment blocks emphasize minimizing the impact of tall structures on open spaces and adjacent properties through thoughtful height and mass transitions, effective separation, and extensive landscaping.
- / Apartment buildings are designed to foster a strong relationship with the street, enhancing pedestrian accessibility and promoting a vibrant urban environment.
- / The public realm adjacent to apartment buildings will ensure high-quality walkways and comfortable street environments that encourage pedestrian access and interaction.
- / Ground floor uses have direct connections to the surrounding neighborhood fabric, with clearly defined entrances and maximum visual connection into interior lobby spaces to promote safety for residents and other users.
- / The upper floors are articulated to reinforce the residential character and enhance visual interest.
- / Rooftop amenities and mechanical equipment will be adequately screened and landscaped to ensure visual harmony with the surrounding environment.
- / The overall design of apartment blocks is intended to comply with the model design guidelines and create a human-scale, pedestrian-friendly urban environment that enhances the overall quality of life for residents and visitors alike.

Each housing type within the development is strategically integrated to promote social interaction, facilitate neighborhood connectivity, and ensure access to shared open and green spaces. This variety not only meets the diverse housing needs of potential residents but also contributes to the overall vibrancy and sustainability of the community, fostering a dynamic and inclusive living environment. This section of the brief will list the design considerations for various typologies.

3.3.2 Siting and Orientation

The Master Plan is aligned with the design principles and intends to adhere closely to the specific nuances of these principles as the design evolves through successive stages of development.

- / All built forms front onto streets and open spaces.
- / Rear-loaded building typologies are used to improve interfaces along streetscapes, provide frontage onto parks and open spaces, and locate parking and access to the rear of buildings.
- / Rear-loaded building typologies also eliminate the need for rear-lotting.
- / Where buildings are located on corners or flanking lots, they are designed and oriented towards both frontages.

3.3.3 Setbacks

Appropriate setbacks are used to provide adequate private open space, situate buildings close to the right-of-way, and ensure adequate separation between adjoining buildings. The Master Plan adheres to the guidelines and intends to maintain the intricacies of these principles as the design advances in subsequent phases. Please refer to the Master Plan drawing to understand the setbacks.

The proposed plan generally conforms to the setback guidelines; however, later design stages will further detail all aspects of the proposal. The team intends to align with the model urban design guidelines.

Typology/ Setbacks	Front yard	Interior Side yard	Exterior Side yard	Rear yard
Front-loaded Townhouses	6.0m	1.5m	3.0m	7.5m
Back-to-back townhouses	6.0m	1.5m	3.0m	0.0m
Stacked townhouses	6.0m (min.)	1.5m	3.0m	0.0m
Apartments	6.0m (min.)	5.5m (min.)	5.5m (min.)	10.0m (min.)

Figure 9 – Table showing proposed setbacks

3.3.4 Building Heights

The proposed Master Plan (Figure 12) introduces a diverse range of housing types to accommodate various demographics. The plan includes 91 front-loaded townhouses, 81 stacked townhouse units, and 146 back-to-back townhouses, all designed to maximize land use efficiency.

- / **Front-loaded traditional townhouses, stacked townhouses, and back-to-back townhouses** are designed to be three-storeys in height and integrate well with the neighborhood character, aligning with adjacent developments and policy guidelines.
- / **Apartment buildings** are proposed to be 10-storeys high and will be located along the western edge of the property. The design of these buildings incorporates a setback at the 8th storey to mitigate visual impact and provide a transition in height. The apartment buildings aim to integrate into the surrounding context while addressing challenges such as overshadowing and wind-tunnel effects in accordance with policy guidelines.

Building heights are concentrated along the western edge of the property, adjacent to the existing apartments and townhouses along Willoughby Drive. The heights transition downward moving eastward to provide a gradual shift to the existing low-density residential neighborhoods adjacent to the site and the surrounding context.

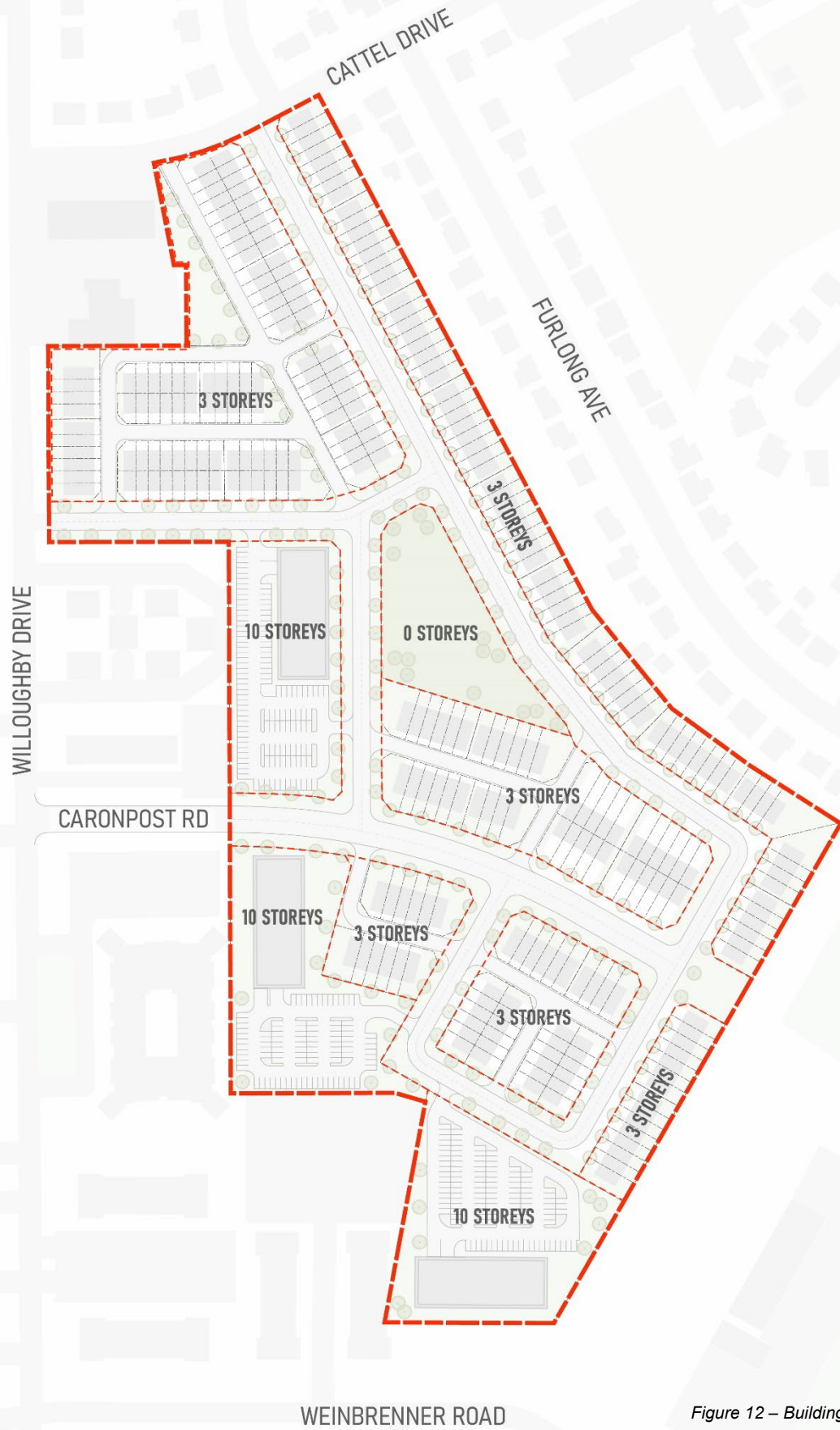


Figure 12 – Building Heights



3.3.5 Architectural Features

The proposed development aims to adhere to architectural guidelines by incorporating varied styles that respect the local context and enhance the neighborhood's visual appeal. The team intends to design the built form with further details that achieve a mix of materials and façade treatments in the apartment buildings to ensure that the proposed structures fully integrate into the existing fabric, particularly in terms of articulating transitions and reducing their perceived massing.

The design also intends to provide generous openings in the built form to promote connectivity between private and public spaces while maintaining functionality and aesthetics across all building typologies. Projections like porches and decks will be strategically placed to enhance active spill-over spaces for the built form. It is anticipated that a project architect will consider diverse roof shapes as elements contributing to an engaging streetscape; however, the final decision will be made at the later design stages to ensure design coherence and alignment of mass and height, creating a unified skyline.

The following high-level design principles are established to enhance the master plan and align with the design guidelines; however, many design elements will be developed in later detailed design stages:

- / Residential buildings will exhibit a range of styles, each respecting the distinctiveness of the local area.
- / Though different architectural styles will be utilized, the buildings will consistently use high-quality materials and finishes that complement each other.
- / The streetscape will be defined by a consistent rhythm of architectural details, where similar elements are repeated but varied, reinforcing the neighborhood's visual identity.
- / The architectural design of dwellings will focus on maximizing the visibility of living spaces on the front façade through the use of high-quality design, detailed craftsmanship, and a variety of materials to establish a distinct street presence. Flanking walls and façades will incorporate window areas and adhere to the same design and material standards as the front façade, along with architectural details. Changes in wall materials will occur at setbacks or projections to define transitions between building sections as defined in Section 4a.7 of the Model Urban Design Guidelines, with material choices guided by considerations of energy efficiency and maintenance.
- / Buildings that face or flank streets, lanes, or open spaces will feature ample window openings, with front façades having window areas to foster a strong visual connection between private dwellings and the public realm. Further detailing will be added at the detailed design stage.
- / Building projections, such as porches, decks, canopies, and stairs, will be encouraged as transitional elements for weather protection and amenity spaces. Duplex and multiplex dwellings will incorporate porches and decks as outdoor spaces for upper units. For townhouse and multiplex dwellings, porch designs will be consistent, or vary rhythmically every second or third unit, ensuring scale and proportion harmony.
- / Each residential block will feature a variety of roof shapes while maintaining a consistent roofline in terms of mass and height with adjacent buildings. The individuality of townhouse and multiplex dwellings should be expressed through distinct roof forms.

3.3.6 Driveways, Garages, Access

The proposed development introduces a series of grade-related building typologies, along with apartment buildings.

- / Townhouses and Back-to-Back Townhouses - A series of front-loaded traditional townhouses and front-loaded back-to-back townhouses provide up to two parking spaces per dwelling, with one space located within a garage and one space located within the driveway.
- / Stacked Townhouses - The proposed Master Plan also introduces a series of rear-loaded stacked townhouses. The introduction of rear-loaded townhouses relocates parking and access to the rear of the buildings, which helps screen parking and access from primary frontages. Stacked townhouses provide one space per dwelling.
- / Apartments - Below-grade parking is introduced for apartment blocks, combined with surface parking. Surface parking is located away from primary street frontages, wherever possible. Approximately 1.1 spaces are provided per unit, with parking situated above-grade wherever possible and below-grade when additional parking spaces are required to meet parking needs.

The team intends to detail the design to maintain a balanced streetscape that aligns with the architecture of the neighbourhood's character. The Master Plan aims to support the above policy guidelines and will provide more details on the driveway widths, surface treatments, curb designs, etc. The details will ensure that the plan promotes a cohesive visual aesthetic, aligns with the neighbourhood patterns, supports safe traffic flow, and integrates permeable surfaces for environmental sustainability.

Access and parking within the proposed development adhere to a comprehensive strategy aimed at minimizing the impact of vehicular activity on the surrounding environment. Parking facilities, including underground and surface options, are strategically integrated within the development to optimize space and minimize visual impact. Access to these facilities is designed away from intersections to reduce traffic congestion and improve overall streetscape aesthetics. The layout ensures that parking, loading, and servicing areas are consolidated and screened from public view, blending harmoniously with the surrounding neighbourhood.

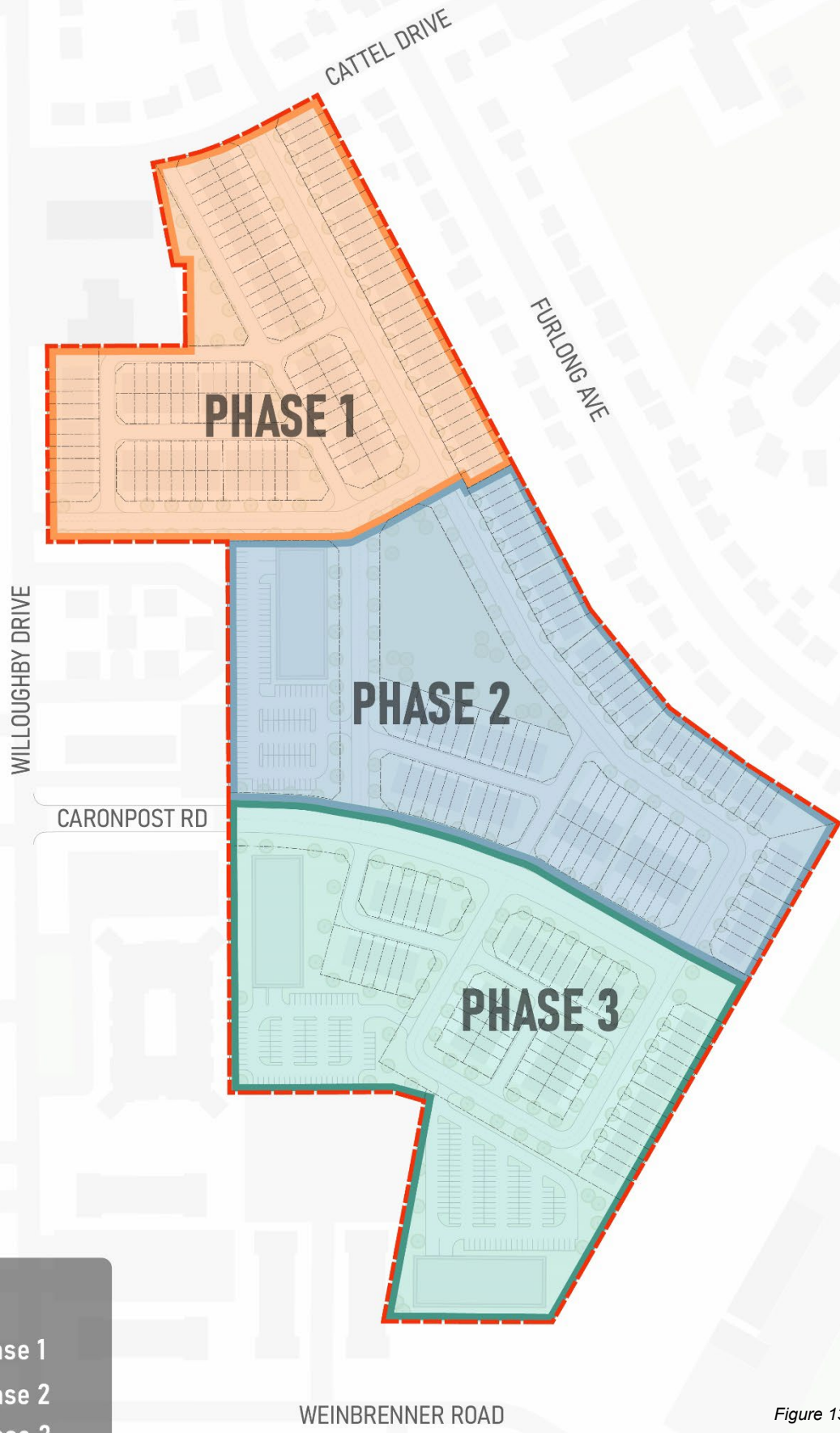
Parking ratios are thoughtfully calculated to meet the diverse needs of residents, ensuring adequate availability of parking infrastructure within the community. These measures collectively contribute to a well-planned, integrated development that prioritizes both functionality and environmental stewardship.

3.4 Shadow Impacts

The proposed development abuts low-density neighborhoods with single-detached dwellings along the north and north-eastern property boundaries along both Cattel Drive and Furlong Avenue. Additional low-density neighborhoods are situated west of Willoughby Drive and south of Weinbrenner Road, where one-storey bungalow townhouses have been recently developed. Immediately abutting the property boundaries lining the eastern portion of Willoughby Drive, there are low-density 1-storey commercial uses at Willoughby Drive and Cattel Drive and a series of three-storey low-rise apartments, including the Bella Care Residence.

The proposed development envisions gradual transitions to existing single-detached neighborhoods surrounding the site. A series of front-loaded townhouse blocks are oriented along the Furlong Avenue interface, transitioning up in density to a series of back-to-back townhouses and stacked townhouses (three-storeys). Two mid-rise apartment blocks (10-storey) have been positioned along the western portion of the site, abutting neighboring low-rise apartments (three-storey) along Willoughby Drive, locating height and density more centrally to the site and surrounding context. The apartment buildings have been located away from low-density neighborhoods, providing separation and mitigating shadowing impacts through a north-south orientation. An additional apartment block has been positioned to the south of the site, abutting existing low-rise residential uses along Weinbrenner Road. The proposed apartment building is oriented along Weinbrenner Road to frame the street edge and to mitigate shadow impacts on the proposed townhouses to the north. While some shadowing from Apartment Block A impacts the proposed open space mid-afternoon and onwards, the intent of the proposed design is to frame the open space with more active frontages as opposed to locating parking adjacent to the open space. Shadowing impacts on neighboring properties to the west are limited to morning and impacts to mid-afternoon for properties to the east of the site. Apartment Block C along Weinbrenner Road has negligible shadowing on the abutting neighborhood south of Weinbrenner Road.

The Sun-Shadow Study, which has been prepared by Fotenn Planning + Design in addition to this Urban Design Brief, assesses shadows cast by the proposed 10-storey apartment buildings at multiple times throughout the year. Specifically, the study assesses exact shadowing patterns and movements on the private outdoor amenity spaces, public amenity spaces, streets, and parks and open spaces. The study demonstrates that shadowing on surrounding properties, private outdoor amenity spaces, and the public realm are limited and move quickly throughout the year. The proposed development appropriately considers the surrounding context and mitigates potential future shadow impacts through the placement, orientation, and overall site design. For technical details and further analysis, please refer to the Sun-Shadow Study which has been submitted as part of this application package.



LEGEND

-  Phase 1
-  Phase 2
-  Phase 3

Figure 13 - Phasing



3.5 Phasing

Phase 1 introduces a 20.0m Public Right-of-Way connection between Cattel Drive and Willoughby Drive. This phase includes a total of 147 units with a mix of townhome typologies ranging from Townhouses to Stacked and Back-to-Back Townhomes. A series of private rights-of-way/laneways form an internal network of streets providing access to the Stacked and Back-to-Back Townhouse Blocks.

Phase 2 extends the Public Right-of-Way along the eastern portion of the property, connecting to the unopened 26.0m Caronpost Road Public Right-of-Way. An additional Public Right-of-Way connects the Phase 1 road network to Caronpost Road along the west and provides access to Apartment Block A (220 units). A central open space is introduced, as well as an additional Front-Loaded, Stacked, and Back-to-Back Townhome units (99 units). The Stacked Townhomes front onto Caronpost Road and the open space, with access through a rear lane.

Phase 3 introduces a looped 20.0m Public Right-of-Way connecting to Caronpost Road and Phase 2. A total of 72 Front-Loaded, Stacked, and Back-to-Back Townhome units are added, with an additional 440 units from Apartment Blocks B and C. The Stacked Townhomes fronting onto Caronpost Road are accessed through rear lanes.

4.0 Conclusion

The Urban Design Brief demonstrates that the proposed development of this parcel is consistent with the urban design framework and policies as outlined in the:

- / Regional of Niagara Official Plan
- / City of Niagara Falls Official Plans
- / Regional Municipality of Niagara – Model Urban Design Guidelines

The Master Plan envisions a vibrant and sustainable community that integrates seamlessly with its surroundings while enhancing neighborhood identity and quality of life. It aims to achieve this through a thoughtful balance of urban design principles, contextual integration, and a diverse range of housing options. Strategically positioned within an existing residential fabric near Willoughby Drive and connected to the Purlong Avenue neighborhood via Cattel Drive, the development leverages existing landmarks and contextual features. This approach ensures compatibility with adjacent heritage attributes and established neighborhoods, fostering a cohesive community identity.

The below section shall demonstrate how the plan achieves it's intended vision.

Compact Built Form and Efficient Use of Land

- / Provides a variety of building typologies to manage density effectively.
- / Transitions from higher densities along Willoughby Drive to lower densities adjacent to existing single-family dwellings and a neighboring golf course.
- / Supports a balanced streetscape and preserves the scale and character of the existing built environment.
- / Promotes intensification through apartment buildings and varied townhouses, minimizing the overall footprint and increasing housing options.
- / Introduces compact built form allowing for higher density living, which supports a greater variety of housing choices and fosters a vibrant community while preserving open spaces and reducing urban sprawl.

Direct Development into Existing Communities

- / The Master Plan emphasizes sustainability through efficient land use, green building practices, and access to public transit and community services.
- / By directing development into existing communities, it optimizes infrastructure and fosters a resilient neighborhood.
- / Strategically positioned, the development leverages urban services such as public transit, community facilities, and employment opportunities, supporting sustainable growth and fostering a vibrant, cohesive community.

Range of Housing Opportunities and Choices

- / Addresses the need for diverse housing options to meet the demands of population growth and limited land supply.
- / Provides a mix of apartment units and townhouses not only caters to different preferences and lifestyles but also promotes inclusivity, sustainability, and vibrant living environments.
- / Promotes social interaction, facilitates neighborhood connectivity, and ensures access to shared open and green spaces.
- / Provides a variety of diverse housing options and enhances the overall vibrancy and sustainability of the community.

Walkable Neighbourhood and Community

- / Streets and blocks are designed to be pedestrian-friendly, fostering a safe and comfortable environment for walking and active transportation.
- / A fine-grained grid road network is central to the design, complemented by mid-block connections that enhance connectivity and pedestrian-friendly streetscapes.
- / Streets and open spaces are designed at a human scale, promoting social interaction and active transportation within the community.
- / Leverages connectivity to green and public spaces and attractive streetscape design, encouraging walking as a convenient and appealing mode of transport.

Attractive Community and Sense of Place

- / Focuses development around a central open green space, integrated with streetscape and landscaping elements.
- / Open spaces enhance aesthetic appeal and contribute to the integration of the development into the local environment.
- / Enhanced streetscape treatments further improve the pedestrian experience and create inviting public spaces.
- / Proposes architecturally significant built forms that blend harmoniously with the surrounding environment with thoughtful height transitions.
- / Respects the scale and character of the existing neighborhood fabric while supporting increased density.
- / Creates an attractive community with a strong sense of place for its residents.

The Urban Design Brief has thoroughly assessed and outlined the key urban design components and merits of the Master Plan. It has demonstrated that the proposed development effectively addresses the vision and principles that guide the design of the Subject property. As illustrated throughout the urban design brief, these key principles have been successfully addressed. Therefore, we are confident that the proposal aligns with the objectives set forth and recommend that it be approved for development.

Appendix A

The following section lists out the relevant guidelines that apply to the proposed Master Plan.

Regional Municipality of Niagara – Model Urban Design Guidelines

The Niagara Region Model Urban Design Guidelines were incorporated into the Region's Smart Growth initiative to enforce ten Smart Growth principles for development and redevelopment. The purpose of these guidelines is to support development and redevelopment across the Region, progressively implementing the ten Smart Growth Principles.

These Model Guidelines outline design principles and specific guidelines applicable to various development types and conditions relevant to the Niagara region. They emphasize the distinction between the public and private realms as a critical element within the document. The Model Guidelines are structured into six sections, covering background and context, the public realm, the private realm, environmental sustainability, critical success factors, and test site analysis.

The Region is currently undertaking an update to the Model Guidelines, to ensure they adequately address current provincial planning policies and urban design practices, particularly with respect to complete communities, resiliency, and sustainability. The below section speaks to the existing guidelines with respect to the proposed master plan.

Section 3a: Public Realm – Neighbourhood Structure

Section 3a.2 Neighbourhood Structure

The following guidelines support the principles of compact, mixed-use neighbourhoods that foster a sense of place, prioritize pedestrian and transit movement, and respect natural environments.

- b) *Areas in close proximity to the neighbourhood centre, a transit corridor, or an employment district should be of higher density to provide a 'critical mass' of population that can sustain commercial and community activities and transit systems. Density should generally decrease towards the edge. Higher density is encouraged at the edge where it is adjacent to large open spaces such as community parks.*
- c) *The neighbourhood movement network should be defined by a fine grain grid pattern of streets with a consistent block orientation that provides multiple connections and maximizes permeability to filter local traffic; assists in local orientation and way-finding; and reduces traffic speeds.*
- d) *A non-repetitive yet simple street and block layout should be provided for visual interest and to maximize views and vistas to parks, green lands, the rural periphery and heritage and landmark buildings.*
- e) *Parks and recreation areas should be distributed evenly throughout the neighbourhood and located within walking distance of most homes. Open spaces should cater to a variety of recreation activities.*

Section 3a.3 Block Design

Blocks define and structure neighbourhoods, and directly influence development opportunities, movement options, and neighbourhood character. Blocks should be designed to be flexible and accommodate both residential and commercial lot sizes.

- a) *Block lengths should generally range between 200 and 250 metres.*
- b) *In special circumstances where blocks are longer than 250 metres, a through-block pedestrian walkway or a mid-block parkette should be provided. The walkway should be a minimum width of 3.5 metres, and parkettes a minimum width of 12 metres. Downcast pedestrian-scaled lighting should be provided.*
- c) *The width of blocks should vary to promote lot size variety and development options, without exceeding 250m.*
- d) *To maximize connections for vehicular and especially pedestrian traffic, streets should be based on a grid pattern that is modified in response to natural open space, built heritage or existing street conditions.*
- e) *The street grid should shift at key locations to create distinct neighbourhood enclaves, while allowing for significant view opportunities to natural features, parks, public buildings and landmarks.*

- f) *In existing neighbourhoods, opportunities should be pursued to connect ending streets to adjacent or new development. The number of connections should be maximized for permeability.*
- g) *Laneways are recommended where possible to eliminate the need for driveways and street facing garages.*

Section 3a.4 Lot Size & Variety

Lot size and variety have a direct impact on development costs, density, and affordability. The following guidelines are established to achieve an appropriate balance of large and small lot sizes and to promote a variety of development types, sizes and designs.

- a) *Generally, lot shapes should be simple and rectilinear so as not to limit design and siting options. However, variations to the traditional lot may be considered to manage slope, property boundary, or density issues. Potential alternatives include the 'Z Lot', 'Zipper Lot', 'Wide Shallow', etc. (see 'Further Reading' at the end of this section for more information).*
- b) *Corner lots should have adequate width to permit appropriate building setbacks from both streets.*
- c) *Irregular lots, corner lots, and some mid-block lots may be developed as small neighbourhood parks, providing comfortable areas for passive recreation, attractive landscaping, or public art.*
- d) *Lots adjacent to neighbourhood centres, public transport facilities, or adjacent to higher amenity areas such as parks and environmental features should be designed to support higher density development.*

Section 3a.5 Neighbourhood Edge Interface

A high quality and 'positive' interface should be achieved at the edge of neighbourhoods, to provide opportunities for overview and public access from streets and adjacent developments. Therefore, single loaded roads and developments that 'face' open space are 'positive' and promoted.

- a) *Wherever possible, the perimeter of parks and other public open spaces and natural should be faced with single-loaded streets. Generally, a minimum of 50% of the total open space/natural feature perimeter should be bounded by the public road right-of-way.*
- b) *Where the open space/natural feature perimeter is bounded by private properties, a balance between flanking lots on open crescents and rear lotting is encouraged. Lots flanking or backing onto park areas should be subject to architectural and landscaping controls to provide a high quality interface between these uses.*
- c) *Pedestrian connections from the public road right-of-way to adjacent public open spaces/natural features should be provided where possible.*

Section 3a.6 Transit Supportive Design

Neighbourhood design should promote transit and provide a development framework that supports an increase in public transit ridership. Development should support adequate densities and a range of complementary uses. Transit facilities should be convenient to use and situated at key destinations, where pedestrian activity is high. Neighbourhood design should promote transit as a viable alternative to the automobile and to help reduce road congestion and pollution.

- a) *Neighbourhoods should provide a mix of land uses and higher residential densities at key locations to generate pedestrian traffic and activity throughout the day, making transit a viable option.*
- c) *Compact development forms support transit. Higher density development should be located in close proximity to major transit facilities (such as a train station or bus interchange).*
- g) *Trails and bicycle routes should link to transit facilities. Secure bicycle parking/storage space should also be provided.*

Section 3a.8 Utilities & Services

- a) *Utilities should be buried below grade - typically in the boulevard section of the right-of-way - as part of new construction and reconstruction of a road right-of-way.*

- b) *The use of a joint utility trench is encouraged for access and maintenance benefits. Above-grade utilities should be sited with regard for their visual impact on the streetscape.*
- c) *Joint service trenches are recommended for efficiency and should be located within the road right-of-way.*
- d) *Wherever possible, above-ground utilities should be located away from intersections, day-lighting triangles, and visual axes such as the end of T- intersections or other view corridors.*
- e) *Where possible, street grade public utilities such as transformer pads, telephone switching stations, and junction boxes should be screened through treatment similar to the landscape theme and treatment of the surrounding neighbourhood.*
- f) *Community mailboxes should be considered as important amenities where people socialize, and their siting and treatment should reflect the level of use and exposure they receive on a daily basis.*
 - *Community mailboxes should be located at neighbourhood centres as part of a building structure, as free-standing structures at gateway features into neighbourhoods, or adjacent to parkettes.*
 - *The design and material treatment should showcase the architectural theme of the surrounding neighbourhood and include important features such as community boards and sheltering.*
 - *Community mailboxes should not be located at street corners or in front of an individual lot.*

Section 3b: Public Realm – Roads

Section 3b.4 Collector Street Guidelines

- a) *Collector Streets should be designed to serve a variety of functions including:*
 - *Transit.*
 - *Connections between neighbourhoods.*
 - *Connections to Local Streets.*
- b) *The Collector Street right-of-way may range from 19.5m to 27m and design standards should be flexible to reflect changes in adjacent land uses and traffic conditions.*
- c) *The design of Collector Streets should consider the following variables:*
 - *Lanes: The total number of lanes will range from 2 to 4, depending on traffic conditions.*
 - *Centre Median: A centre median may be provided in gateway locations.*
 - *Sidewalks: Sidewalks should always be provided on both sides of the street and be at least 1.5m wide. This width should be increased to accommodate snow storage where required.*
Note: The location of sidewalks and plantings may vary depending on the adjacent land use. Sidewalks should be buffered by a landscaped boulevard.
 - *Curbs: Curb design will vary depending on the nature of adjoining land uses. In some areas, 'soft shoulder' and swale drains may be provided. However, most urban conditions typically require barrier curbs.*
 - *On-Street Parking: On-street parking should be permitted on Collector Streets. Time-based restrictions may be applied to reflect traffic volume and snow clearing requirements.*
 - *Boulevard: Boulevards are required for Collector Streets in urban areas and should be at least 2.5m wide and planted with street trees situated every 6.0 to 9.0m where adequate safety standards are met.*
 - *Bicycle infrastructure: Bicycle infrastructure of 0.75m ~ 1.5m wide may be located on the roadway.*
 - *Property Buffer: A 1.0m wide property buffer should be provided on both sides of the street.*
- d) *Travel lane widths should not exceed 3.25m* and may be reduced to 3.0m where off-peak on-street parking is provided.*
- e) *Pedestrian-scale lighting no greater than 4.5m high should be provided to contribute to the safety and comfort of the streetscape. Lighting should be downcast.*
- g) *Alternatives to single access driveways to individual properties should be explored, (i.e., through joint access driveways). 'Right-in right-out' movements are preferred on Collector Streets.*
- h) *To encourage walkability and pedestrian safety, Collector Road curb radii should be 5.0m ~ 8.0m.*

3b.5 Local Street Guidelines

- a) *Local Streets should be designed to create 'intimate' pedestrian-scaled streetscapes that promote walkability and residential activities but discourage speeding and through traffic. The right-of-way standards should be reduced to minimum requirements wherever possible.*
- b) *Local Streets should be designed with a narrow or reduced right-of-way standard of no greater than 18.5m (see diagram on page 29).*
- c) *A maximum total of two traffic lanes - each 2.75m wide and 1 shared traffic/on-street parking lane of 2.0m wide is required. 1 (or 1.5) traffic lanes (yield configuration) with 1 shared traffic/on-street parking lane may be provided as an 'alternative standard' to reduce total pavement width.*
- d) *A landscaped boulevard of 2.0m wide should be located on both sides of the road, planted with lawn and street trees located every 6.0 to 9.0m on centre.*
- e) *A sidewalk of 1.5m wide should be provided on both sides of the street and situated between the boulevard and the property buffer strip.*
- f) *A 1.0m wide 'property buffer' should be situated between the sidewalk and the private property boundary to provide options for locating underground services within the street right-of-way.*
- g) *Pedestrian-scale lighting no greater than 4.5m high should be provided to contribute to the safety and comfort of the streetscape. Lighting should be downcast.*
- h) *Barrier curbs are required for all Local Streets.*
- i) *Bicycle movement is considered to be a normal part of Local Street traffic movement - so no dedicated bicycle infrastructure is required.*
- j) *To encourage walkability and pedestrian safety, Local Street curb radii should be 5.0m ~ 6.0m.*
- k) *Utilities should be buried below grade - typically in the boulevard section of the right-of-way. The use of a joint utility trench is encouraged for access and maintenance benefits.*

3b.6 Laneways

- a) *Where conditions in residential areas make it undesirable to allow direct driveway access from a roadway, other provisions for access to parking areas and garages are proposed through the use of a Rear Lane Access.*
- b) *Laneways should be prioritized where development fronts onto an Arterial or Collector Road network. Also, laneways should be considered to provide access to parking on small lots - particularly narrow lots, and in retail/commercial areas.*
- c) *Single-loaded laneways should provide a minimum right-of-way of 8.5m with a minimum 0.5m setback to the garage wall.*
- d) *Double-loaded laneways are discouraged for aesthetic, safety, and functional reasons. Where necessary, double-loaded laneways should be no greater than 10.0m wide with a minimum 0.5m setback to the garage wall.*
- e) *Areas at the end of laneways should be set aside for snow piling.*
- f) *The use of permeable materials is encouraged where sufficient drainage exists, as low traffic levels permit the use of less durable surfaces.*

Section 3c: Public Realm – Sidewalks & Streetscaping

3c.1 Design Principles

1. *Public spaces: Sidewalks should be designed as high-quality public spaces, promoting active use by residents and visitors, and enhancing pedestrian experiences. Amenities such as street furniture, banners, art, street trees and special paving, wayfinding signage, along with historical elements and cultural references, should promote a 'sense of place'.*
2. *Scale: Sidewalks should be designed according to the function and nature of adjoining land uses. For example, wide sidewalks are required for many commercial areas with high pedestrian volumes.*

3. *Safety: Sidewalks should provide safe environments and provide unobstructed pedestrian movements along and across the street. Sidewalks should be designed and built free of hazards and to minimize conflicts with external factors such as vehicular movements and protruding architectural elements. Key elements of safe design include lighting and buffers from fast-moving traffic - e.g. boulevards, plantings, and on-street parking.*
4. *Connections: Sidewalks should be located so that the majority of residents are conveniently connected between destinations such as institutional, recreational and retail/employment areas and transit facilities. Marked and lighted crosswalks are a key issue for pedestrian safety and should be provided wherever required.*

Section 3d: Public Realm – Parks and Open spaces

3d.1 Design Principles

1. *Networked: Parks and other open spaces should form part of a linked network, providing a major structure in shaping existing and new communities, and providing a variety of access and movement options.*
2. *Functional: Public parks and open spaces should be designed to serve the diverse open space needs of the community, including a range of active and passive recreational activities.*
3. *Safe: The design of public open spaces should provide safe recreational and movement opportunities. Open spaces should be framed or flanked by public roads wherever possible to improve the presence and safety of these amenities through casual surveillance.*
4. *Integrated with Natural Heritage: Conservation objectives should be balanced with recreational needs. Natural features, such as woodlots and watercourses should be preserved and integrated into Parks and Open Spaces as a means of maintaining a sense of connection with the original landscape. Naturalized, and indigenous plantings should be used wherever possible.*

4a. Residential

4a.1 Design Principles

1. *Positive Image: A positive residential image is a key design consideration for enhancing the quality and character of the overall streetscape and neighbourhood. Housing should incorporate architectural design elements to create a positive street image. Elements such as front-attached garages or blank walls must be avoided.*
2. *Context Sensitive: The mass, scale, and architectural elements of residential buildings should be sensitive to adjoining areas. Design elements such as the height, building mass, and architectural features should complement the overall neighbourhood character. Context sensitive design will support the creation of a unique sense of place that respects local cultural and natural environmental features.*
3. *Housing Variety & Choice: A full range of housing types (i.e., detached, semi-detached, townhouse, apartments) and tenures (for sale, rent, affordable, and aged-care) should be provided so as to provide options for a wide range of residents/family types (i.e. single parents, couples, families with children, seniors, people with special needs, and others). A range of housing types will address changes in market conditions and provide flexibility for people at a variety of income levels.*
4. *Flexible & Adaptable: Multiple unit and apartment housing should create opportunities for a wider range of uses, other than residential, such as home-office and apartments situated above street commercial. Mixing land uses gives a social and economic focus for new and existing residential neighbourhoods.*
5. *Environmentally Sustainable: Residential development should be designed to achieve a high degree of environmental sustainability and address opportunities for solar orientation and water runoff minimization.*

4a.2 Building Variation & Density

- a) *Housing variety should be achieved on each street and block as a means of strengthening neighbourhood character and identity. Repetition of house type, size and design (style, elevation, materials, etc.) should therefore be avoided.*
- b) *A full range of housing types (i.e., detached, semi-detached, townhouse, apartments) should be provided to promote variety and diversity, and to address changes in market conditions.*

- c) *Identical house elevations should not be located on adjacent or opposite lots, including flanking lots. Identical elevations, either in design or color, should not comprise more than 25% of the same street.*
- d) *Residential density should be increased at appropriate locations to promote transit use. Density is the ratio of residential units on a given area of land and is typically measured in dwelling units per acre. The following table outlines the target net densities (area exclusive of roads) for common housing types.*

Type	Density
Single Detached	<i>up to 10 units/acre</i>
Semi-Detached	<i>up to 20 units/acre</i>
Townhouse	<i>up to 40 units/acre</i>
Apartment	<i>over 25 units/acre</i>

- e) *The highest density development should occur at appropriate locations. Appropriate locations include areas that benefit from increased population and have a variety of movement and travel options, including:*
 - *the centre of a neighbourhood;*
 - *larger public open spaces (e.g. neighbourhood parks);*
 - *transit facilities or major transit corridors; and*
 - *larger institutional uses (e.g. universities).*
- f) *High density development should transition to adjacent areas through appropriate setbacks and building form.*

4a.3 Orientation

- a) *All housing should face adjacent streets and open spaces. Rear lotting should not be permitted unless it is required to achieve a reasonable design objective (such as to limit access to environmentally sensitive open space).*
- b) *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.*

4a.4 Setbacks

The intention of the following residential setback guidelines is to promote appropriate front, site and rear yard setbacks to control lot coverage, provide adequate private open space, situate buildings in close proximity to the right-of-way, and to ensure adequate separation between adjoining buildings. Refer to Section 4a.5 for a summary of recommended setback guidelines.

Front Yard

- a) *All residential front yards should have a minimum 1.5 metre “no encroachment” area. The balance of the setback may be encroached with non-interior building elements including porches, steps, roof elements, etc.*
- b) *A range of front yard setbacks along any street is recommended in order to achieve a diversity of setbacks on the streetscape. However, front yard setbacks should generally be a minimum of 2.5 metres and a maximum of 4.5m.*

Side Yard

- c) *Side yard setbacks should be a minimum of 1.2m, but 3.5m for lots with a garage located in the rear yard accessed by a driveway.*
- d) *On a lot abutting a non-residential use (including a walkway) the minimum interior side yard setback should be 3.5m.*

Rear Yard

- e) On lots accessed by a driveway, the minimum rear yard setback should remain as 7.5 metres measured from the rear face of the garage, or rear property line to the rear face of the dwelling.
- f) On lots with a rear yard garage, the minimum rear yard setback should be 9.0 metres.
- g) Rear yard decks/porches and garden sheds should be permitted as rear yard encroachments, provided the rear yard is a minimum 7.5 metres in length excluding rear yard garages that are attached to the dwelling or at the rear of the property (lane or driveway access). It is recommended that, where feasible, a 50 square metre landscaped amenity space (excluding driveways) be maintained for single detached and semi-detached dwellings and 45 square metres for duplex, triplexes and townhouses.

4a.5 Model Residential Setback Guidelines

The below table highlights the setback provisions and standards for single, semi-detached, duplex, and townhouse dwellings outline specific requirements to ensure orderly development within the proposed area. Minimum front yard setbacks vary depending on driveway access and presence of porches, with allowances for garage locations in rear yards accessed by lanes or driveways. Interior side yard setbacks accommodate attached garages on narrower lots, with additional considerations for properties abutting non-residential areas. Exterior side yard setbacks account for features like side yard porches and proximity to rear lanes or site triangles. Rear yard setbacks are defined with adjustments for lot configurations and garage placements. Interior garage dimensions are stipulated based on lot widths, ensuring adequate space for parking. Maximum garage projections from dwelling fronts are regulated to maintain street-facing aesthetics, and specific minimum lot depth and maximum building height standards provide further parameters for development. These guidelines collectively aim to promote uniformity and functionality in the built environment while accommodating diverse housing needs.

Setback Provisions: Single, Semi-detached, Duplex and Townhouse Dwellings	Proposed Standard (meters)
<p>Minimum Front Yard Setback</p> <ul style="list-style-type: none"> - from property line to front face of attached garage where driveway crosses sidewalk; - from property line to front face of attached garage where driveway doesn't cross sidewalk; - on a lot accessed by a driveway; - on a lot with a front porch permits porch, steps and rails max. encroachment of 3.0m); - on a lot where the garage is in the rear yard accessed by a lane or driveway. 	<p>4.5 4.5 2.5 4.5 3.0</p>
<p>Minimum Interior Side Yard Setback</p> <ul style="list-style-type: none"> - attached garage/Less than 12.0 m lot and greater than 9.0 m; - attached garage/ 9.0 m lot and less; - garage located in the rear yard accessed by a driveway; - abutting a non-residential use (including a walkway, trailway and SWM ponds). 	<p>1.2 each side 1.2 each side 1.2 and 0.6 3.5 and 1.2</p>
<p>Minimum Exterior Side Yard Setback</p> <ul style="list-style-type: none"> - with a side yard porch; - adjacent to a rear lane; - adjacent to a site triangle; - site triangle abutting an entrance feature (including a max. 1.5 meter encroachment). 	<p>4.5 3.0 1.2 3.0</p>
<p>Minimum Rear Yard Setback</p> <ul style="list-style-type: none"> - on a lot accessed by a driveway; 	<p>7.5</p>

<ul style="list-style-type: none"> - on a lot with a rear yard garage accessed by a lane or driveway; - on a wide shallow lot. 	9.0 7.5
Interior Garage Dimensions <ul style="list-style-type: none"> - less than 11.0m lots; - 11.0 to 11.5 m lots; - 11.6 to 11.9 m lots; - 12.0 m lots and greater; 	Min. 3.0 wide by 6.0 Min. 3.0 wide by 6.0 - Max. 4.5 wide Min. 3.0 wide by 6.0 - Max. 5.0 wide Min. 5.5 wide by 6.0
Maximum Garage Projection <ul style="list-style-type: none"> - from front wall of dwelling where there is no front porch; - from front wall of dwelling where there is a front porch. 	Max. 0.0 Max. 1.0
Minimum Lot Depth	24.0
Maximum Building Height	up to 18.0m
Maximum Garage Width (interior width)	Max. 50% of house frontage

4a.6 Building Height

a) *The following table summarizes the range of appropriate heights for typical housing types.*

Type	Height
Single Detached	2 ~ 3 storeys
Semi-Detached	2~ 3 storeys
Townhouse (Row)	3 ~ 5 storeys
Apartment	5 ~ 8+ storeys

- b) *The design of tall buildings should respond to potential negative impacts on adjacent properties, including overshadowing, overlooking, wind-tunnel effects. Therefore, building height and mass should be appropriate to the type and nature of adjoining development.*
- c) *Height transition should be incorporated into the design of tall buildings, especially when situated adjacent to low density - low rise areas.*
- d) *Buildings over 3 storeys should have a base building height of no greater than 2 storeys above adjacent development. Upper floors should step back to reduce visual impact and building mass as perceived at street level and from adjoining properties. The total building height, and upper floor step-backs should be designed according to appropriate visual angular plane analysis.*

4a.7 Architectural Features

The intent of the Architectural Feature guidelines is to achieve a visually rich residential building fabric that promotes a distinct neighbourhood image through the use of materials, building form, and architectural styles.

General

- a) *Architecture expressed throughout residential buildings should be varied and recognize its local context.*
- b) *Despite the use of various architectural styles, quality should be consistent and building materials and finishes should be complementary.*

- c) *Consistent rhythms of similar but not identical details and architectural elements should be used to reinforce the streetscape and a strong neighbourhood image.*

Walls

- d) *The front façade of dwellings and garage treatments should maximize the presence of the habitable building façade. A high standard of design, detail and variety of materials should be combined to create front building façades with a distinct street presence.*
- e) *Flanking walls should include at least 20% surface window area.*
- f) *Flanking façades should have a design and materials standard equal to the front façade treatment.*
- g) *Facing materials including brick, stone, stucco and wood/metal siding are all acceptable. Lintels, cornices, quoins, dentils and other details are recommended to be incorporated within brick and stone walls to reduce the heavy effect of these materials.*
- h) *Changes in the use of wall facing materials should occur at wall setbacks or projections, or to articulate the transition between the building base, middle and top.*
- i) *Wall materials should be selected based on energy and maintenance efficiency.*

Windows

- j) *Buildings facing or flanking a street, lane or open space should provide a generous amount of window openings to encourage strong visual connections between the private dwelling and public realm.*
- k) *Front dwelling façades should include between 30 to 40% surface window areas.*
- l) *Bay windows are encouraged as they increase visibility from private dwellings to the public realm and add to the building character.*
- m) *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.*
- n) *Centre lines of similar windows should be aligned vertically and should be set within a sufficient area of wall to avoid an overcrowded composition of wall openings.*
- o) *Skylights and clerestory windows are encouraged. Skylights should be treated as distinct roof elements and be coordinated with other roof and building elements. Skylights are encouraged and should be located behind the roof ridge, away from the street view. Clerestory windows should be detailed to provide a structural and coordinated junction between the building wall and roof.*

Porches and Building Projections

- p) *Building projections including porches, decks, canopies, and stairs are encouraged as transitional building elements that provide weather protection, dwelling access and active amenity spaces.*
- q) *Porch and deck dimensions should be large enough to accommodate furnishings and ensure their active use. The minimum depth for porches and decks should be 2.0m (6.5 feet).*
- r) *Steps to porches should have generous proportions and a gentle rise and run to encourage safety and active use (e.g. step sitting).*
- s) *The design of porch railings and columns should be integrated and use complementary materials.*
- t) *Finish materials should extend to all sides of the porch and stairs. The underside of the porch should not be exposed to the street.*
- u) *Duplex and multiplex dwellings should provide porches and decks as outdoor amenity spaces for upper units.*
- v) *Continuity of front porch design is recommended between detached and semi-detached dwellings. Material and detail variations may occur between porches provided there is an accord of scale and proportion. Townhouse and multiplex dwelling porches should be the same or establish a clear rhythm of variation between every second or third unit.*

Roofs

- w) *A variety of roof shapes should occur in each residential block. However, roof forms should apply a consistent roofline in mass and height to adjacent buildings.*
- x) *Roof materials/colours should complement the building materials and the proposed building design.*

- y) *Where sloped roofs are required, a minimum 30- degree slope is recommended.*
- z) *Townhouse and multiplex dwellings should express individuality of address through defined roof forms that express individual dwellings and contribute to a residential character for the overall development.*
- aa) *Roof elements including chimneys, dormers, pitches, cupolas and vents should be incorporated as distinct elements providing the potential for additional variety in the image of one dwelling to the next.*
- bb) *The use of dormers on sloped roofs is encouraged to ensure liveability of top storeys, or to allow future conversion of attic spaces. Dormer windows should be of the same type and proportion as those used for windows in the lower storeys.*

4a.8 Driveways & Garages

The primary issue regarding residential parking is the dominant proportion of the garage over the house façade. This limits opportunities for 'positive' design features such as front porches and windows, front facing rooms, and public safety through casual surveillance of the street from the house.

Garage

- a) *To reduce the garage dominance on the streetscape, and to achieve the principle of a balanced house façade to garage, attached garages located at the front or side of the house should be no wider than one half the width of the house.*
- b) *There should be no projection of the garage from the front face of the house (measured from the primary building façade not the porch) where there is no front porch and 1.0m where there is a front porch.*
- c) *For lots less than 12.0 metres wide, interior one-car garage dimensions should be a minimum 3.0 metres wide by 6.0 metres deep. A maximum width of 5.0 metres may be applied to permit a one-car garage with storage.*
- d) *On lots greater than 12.0 metres wide, interior two- car garage dimensions should be a minimum 5.5 metres wide by 6.0 metres deep.*
- e) *Tandem garages are strongly encouraged for row housing as a method of reducing the garage frontage and number of curb cuts, and increasing the living area frontage and landscaping opportunities in the front yard.*
- f) *Within townhouse or multiplex dwelling lots, no more than six double car garages or the equivalent in single car garage length should generally occur in a row.*
- g) *In neighbourhoods with an established pattern of detached garages located in the rear yard, new garages should also be located at the rear of the house.*
- h) *Garage design should be complementary in character and quality of detail to the principal dwelling, and include high quality construction materials, adequate windows and appropriate architectural details.*

Driveways

- i) *The width of paved driveways on private property as well as driveway cuts at the curb should be as narrow as possible, and in no case wider than the predominant pattern.*
- j) *Driveway space located between the house and adjacent road should be limited to the width required for access to a garage or other required parking spaces. Permeable surfaces are encouraged for driveway paving.*
- k) *Curb cuts should be spaced to preserve the maximum number of on-street parking spaces.*
- l) *Corner lots located at the intersection of major and minor roadways should normally have driveway access from the minor roadway.*

4a.9 Apartment & Mixed-Use Buildings

The following guidelines are intended to provide apartment buildings that respect the human scale of residential and mixed-use areas. Human scale should be reinforced through appropriate building height, mass and architectural design.

- a) *The impact of tall buildings on open spaces and adjacent properties should be minimized through adequate height and mass transition, separation, and landscaping.*
- b) *Buildings should have a strong relationship to the street, both by use or form.*
- c) *Mixed use buildings with retail located at grade are encouraged within the neighbourhood centre or other appropriate locations. Mixed use building should be at least 3 storeys in height.*
- d) *Higher density development at major intersections should be developed to reinforce the prominence of these locations through appropriate massing, building projections, and recesses at grade, pedestrian-scale buildings, and open space treatments.*
- e) *High quality pedestrian infrastructure should be provided on all public streets and public spaces adjacent to apartment development to support vibrant street environments, pedestrian access and comfort.*
- f) *Ground floor units should have individual at grade access where possible. Upper floor units should be emphasized through articulations of the exterior wall plane and roof, and the use of pronounced building elements including bay windows, balconies and dormers.*
- g) *Primary building entrances should clearly address the street with large entry awnings and provide visibility to interior lobbies to allow for safe and convenient arrival and departure from the building.*
- h) *Pedestrian entrances to parking and service areas within the principal building should be combined with exposed communal areas such as exercise areas or meeting rooms to provide casual surveillance opportunities.*
- i) *Outdoor amenity areas should be provided wherever possible, either at the front, side, or rear of the building. Outdoor amenity space is preferably located adjacent to indoor recreation space, in view of residential units, and at a location that receives direct sunlight.*
- j) *Outdoor amenity areas may be provided as an external garden area, rooftop terrace. Roof terraces require planting, screening, and wind shelter to promote comfort and safety.*
- k) *Rooftop mechanical equipment and vents should be incorporated as an integral part of the building design wherever possible. Roof top units and vents should be set back from the roof edge and screened using materials complementary to the building.*

4a.10 Apartment Building Parking Areas

- a) *Parking areas as part of apartment building development should be located underground, integrated within the building or structured parking.*
- b) *Access to underground or structured parking should be provided at the interior of the lot - not at the corner.*
- c) *Where structured parking fronts onto a public street or space, commercial retail units should be provided at-grade.*
- d) *Surface parking must not be located between the public ROW and the front of the adjacent primary building.*
- e) *Where surface parking areas are required, design guidelines outlined in Section 4e should apply.*
- f) *Vehicular ramps for underground or structured parking should not exceed 40% of the street frontage.*
- g) *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.*
- h) *The calculation of parking space requirements allocated for a development should take account the following considerations:*
 - *public parking stock with spare capacity within walking distance of the development site.*
 - *availability of transit within walking distance of the development site.*
 - *availability of sharing parking between different uses that require parking at different times of the day.*

4g.1 Design Principles

1. *Build 'Green': Green buildings are resource efficient, use less energy, utilize construction materials efficiently (including recycled, renewable, and reused resources), are designed reduce internal and external impacts on the environment, and can reduce operating costs. Green building methods should be considered for both large and small projects.*
2. *Recycle & Reuse: Heritage structures were often built for long term value. As these buildings outlive their intended purpose, opportunities for adaptive reuse should be explored to find new uses while retaining their historic features. Similarly, old materials can be given new life through recycling.*
3. *Sustainable Site Plan: The site plan should also address environmental sustainability principles. Water quality, consumption, and runoff are key site sustainability issues. A range of appropriate design measures should be considered such as the preservation of natural features, reduction of hard surfaces and addition of extensive landscaping.*