4134 16TH AVENUE
COMMUNITY DESIGN PLAN

First Submission: September 2016
Second Submission: October 2017

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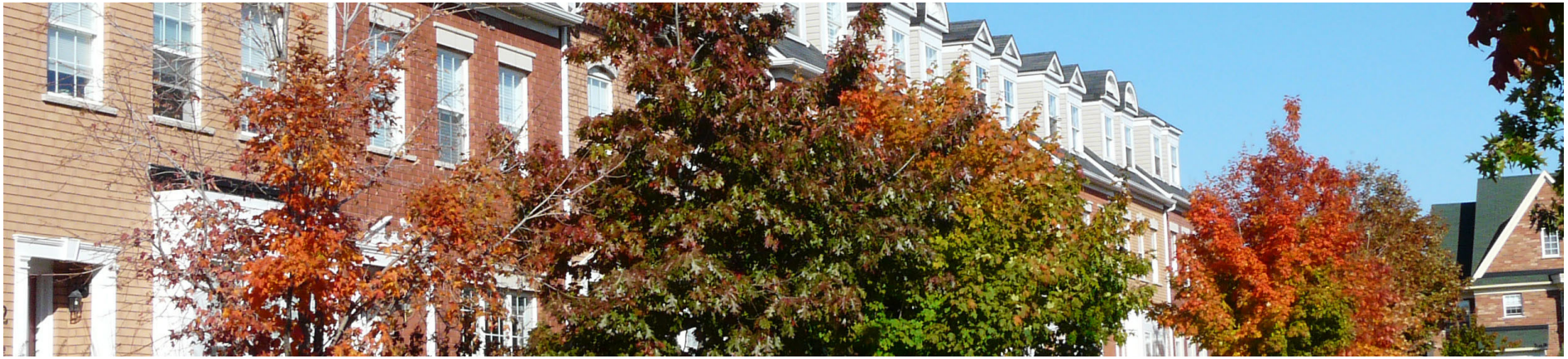
Contents

1.0 Introduction



Sixteenth Land Holdings Inc. has retained The MBTW Group to prepare a Community Design Plan in support of an Official Plan Amendment ("OPA"), a Zoning By-Law Amendment ("ZBLA") and two draft plans of subdivision applications to permit the development of a residential community on the subject property. The property is municipally known as 4134 16th Avenue, in the City of Markham, Region of York. The property is located in Part lots 16, 17 and 18, Concession 5. Except for an area adjacent to Kennedy Road, the balance of the property is currently used by its former owner York Downs Golf & Country Club for a golf course.

The property is a total of 168.58 hectares (416.57 acres), and is located on the north side of 16th Avenue, on the west side of Kennedy Road. The property has a small amount of frontage onto the east side of Warden Avenue and is surrounded by existing residential development on all sides.

A tributary of the Berczy Creek crosses the western portion of the property, and the Bruce Creek traverses the property in a roughly north / south direction, bisecting the property into west and east tableland areas. The current golf course use has been in operation since York Downs Golf & Country Club opened on site in the early 1970's. The current Official Plan designation of 'Private Open Space' for the areas outside of the greenway reflects this historic golf course use. Sixteenth Land Holdings Inc. wishes to develop the property for a residential community and is submitting an OPA, ZBLA and two draft plans of subdivision applications. The OPA redesignate the developable portion of the property from 'Private Open Space' to appropriate urban residential designations to permit the development of residential uses.

This report has been prepared in conjunction with the OPA application in support of the re-designation as proposed in the draft OPA and in the Planning Report (Gatzios Planning, September 2016). Please refer to the draft OPA and to the Planning Report for a description of the proposed Official Plan land use designations proposed for the property.

The proposed residential development is detailed in the two draft plan of subdivision applications that accompany this OPA application. There is one draft plan of subdivision for the east portion of the property (Draft Plan 1) and one for the west portion of the property (Draft Plan 2). The west draft plan of subdivision also contains the greenway associated with both the Berczy Creek and the Bruce Creek. The Community Design Plan covers the entire area and references in this report to the two draft plans or to specific lots / blocks will include 'East' or 'West' to denote the appropriate area.

The proposed development is surrounded by existing communities of high quality urban design.

1.1 Vision

The 4134 16th Avenue Community will be a complete, compact, healthy and accessible community which is defined by, embraces and enhances the existing rich natural heritage system. The central greenway and preserved trees create a unique and memorable character for the 4134 16th Avenue Community that establishes the community's identity.

The community will encourage healthy living through active transportation and an engaging public realm, which provide safe and attractive pedestrian and cycling connections within the community and to its neighbours.

The 4134 16th Avenue Community will reflect the City of Markham vision of a sustainable and innovative community with modern infrastructure, an engaging public realm, high quality architecture, and access to a full range of housing, schools, parks and open space.

The 4134 16th Avenue Community vision guides a community structure that is defined by its edges, gateways, street network, streetscapes, open space, land use and built form. Three key design objectives support this vision and are aimed to achieve a complete community that is compact, accessible and integrated with its surroundings.

The 4134 16th Avenue Community will be a pedestrian led, connected and attractive community.

1. Promote a sustainable and healthy community – Resilient and Adaptable

The proposed Community Design Plan is intended to support environmental and social sustainability, promoting low impact development measures, sustainable building technologies, built form diversity and housing choice, and a connected and compact street network that encourages active transportation and healthy living. The sensitive design considers the existing surroundings, including the natural heritage system and established neighbourhoods. It ensures that the community seamlessly integrates with its context through a carefully aligned street network and an appropriate distribution of building typologies and densities that are compatible with existing neighbouring residences. The sustainable development principles of this plan are discussed in more detail in Section 2.0 (page 20).

Residents and visitors will benefit from a diverse, high quality public realm.

2. Promote a high quality public realm

The 4134 16th Avenue Community will consist of a high quality and diverse public realm that includes the existing greenway, a preserved woodlot, parks and open spaces, and naturalized enclaves that will integrate bio-retention features in the community. The topographic and physical conditions of the existing York Downs Golf Course have guided the layout and design of two neighbourhoods with a street network that supports physical and visual access to the greenway. The street network will be legible, functioning through a hierarchy that is supported by appropriate built form and setbacks. Green streets will promote walkability within a high quality streetscape. The proposed network of complete streets balances all mobility modes and promotes active transportation throughout the community, assisting the City's goal of "Creating Strong, Caring, Safe Communities" (Vision 2026).

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

3. Demonstrate a full range of housing and services

The 4134 16th Avenue Community will provide a range of housing options, from single detached dwellings on large 70 foot lots, to laneway housing and mid-rise buildings (discussed in more detail in Section 4.0, page 50). The proposed mix of built form will be of high quality, enforcing continuity through architectural control, and will assist in creating a complete community that provides housing options for various stages of one's lifecycle. The proposed residential community will be supported by a range of community facilities, including an elementary school, a system of parks, a mixed use area, and access to the greenway. 4134 16th Avenue residents will be within walking distance of the amenities in their community, as well as a broader range of commercial services in neighbouring communities at Angus Glen, Upper Unionville, and Berczy Square.

1.2 Background

The 4134 16th Avenue proposal comprises the redevelopment of 168.58 hectares of the York Downs Golf and Country Club and a parcel of agricultural lands into a complete residential community. The 4134 16th Avenue Community design team has been involved in the development of the Angus Glen Community to the north, Upper Unionville to the east and Yorkton located immediately adjacent to the community at the north-west corner of 16th Avenue and Kennedy Road, and has a strong understanding of the surrounding context. The design team will build off of their local knowledge and experience to develop a community that is walkable and sustainable. The development team is committed to continuing to develop successful places, using high quality and innovative designs within the 4134 16th Avenue Community.

1.2.1 Site Analysis

The subject lands are located in Unionville, Markham, between 16th Avenue (south) and the existing Angus Glen Community (north), and between Warden Avenue (west) and Kennedy Road (east), as shown in Figure 1 (page 6). The site is currently predominantly used as a Golf and Country Club, and a portion of the site consists of remnant agricultural lands near Kennedy Road. The subject lands have significant natural heritage features, including a greenway system that bisect the Community (north-west to south-east) into two distinct neighbourhoods, an additional greenway block in the south-west corner of the site, and an existing woodlot in the eastern portion of the site.

- **To the north:** The subject lands are bounded by the Angus Glen Community, which consists of large, single detached low-density homes. This edge is predominantly characterized by rear lots of the homes that are fronting onto Royal Troon Crescent and Royal County Down Crescent, and some flanking laneway singles near Kennedy Road. This edge also has some exposure to the Bruce Creek greenway, Angus Glen Boulevard, Colty's Park, and Parkstone Road. It is also the termination point for Prospectors Drive, which runs parallel to Kennedy Road.
- **To the east:** The northern half of the 4134 16th Avenue Community fronts onto Kennedy Road, a four-lane regional arterial road characterized by a mix of low-density residential and mixed use development. The southern portion of the eastern edge comprises adjacencies to St. Philip's Church and Cemetery (1829), and to residential uses, which consist of a mix of existing single detached dwellings and a new townhouse development (Yorkton). This edge of Kennedy Road is planned for future mixed use development.
- **To the south:** 16th Avenue is a four-lane regional arterial road that forms a key east-west link through Markham. The southern edge of 16th Avenue primarily consists of natural heritage features, including the greenway for both the Bruce Creek and the Berczy Creek Tributary (and associated trail connections), and a pocket of low-density residential uses with large single detached houses that back onto the arterial edge. The Unionville Montessori Private School and the Village Grocer (a local grocery store) are located at the south-east corner of the subject lands.
- **To the west:** The western boundary consists of executive single detached homes and townhouse dwellings (Glenburn Forest), including the only designated Residential Estate neighbourhood in Markham (at the north-west corner of the site). These neighbourhoods are characterized by their large setbacks and lot sizes, with rural cross-sections and mature trees. A small extension of the subject lands has frontage directly on Warden Avenue (north of Glenburn Forest), at the location of the existing bridge on Warden Avenue where there are significant changes in grade. The street layout within the adjacent communities consists of cul-de-sacs and crescents, with limited opportunity for street connections along this edge.

There are currently two access points to the subject lands; at the north eastern corner of the site, where the existing golf club is accessed from Kennedy Road, and from 16th Avenue, located at approximately the centre of the site (as an extension of Normandale Road to the south). The area is currently serviced by four main VIVA bus routes: Route16, which runs along 16th Avenue; Route 8, which runs along Kennedy Road; Route 18, which connects the Angus Glen community to the north to Bur Oak Avenue to the east; and Route 68B, which runs along Warden Avenue.

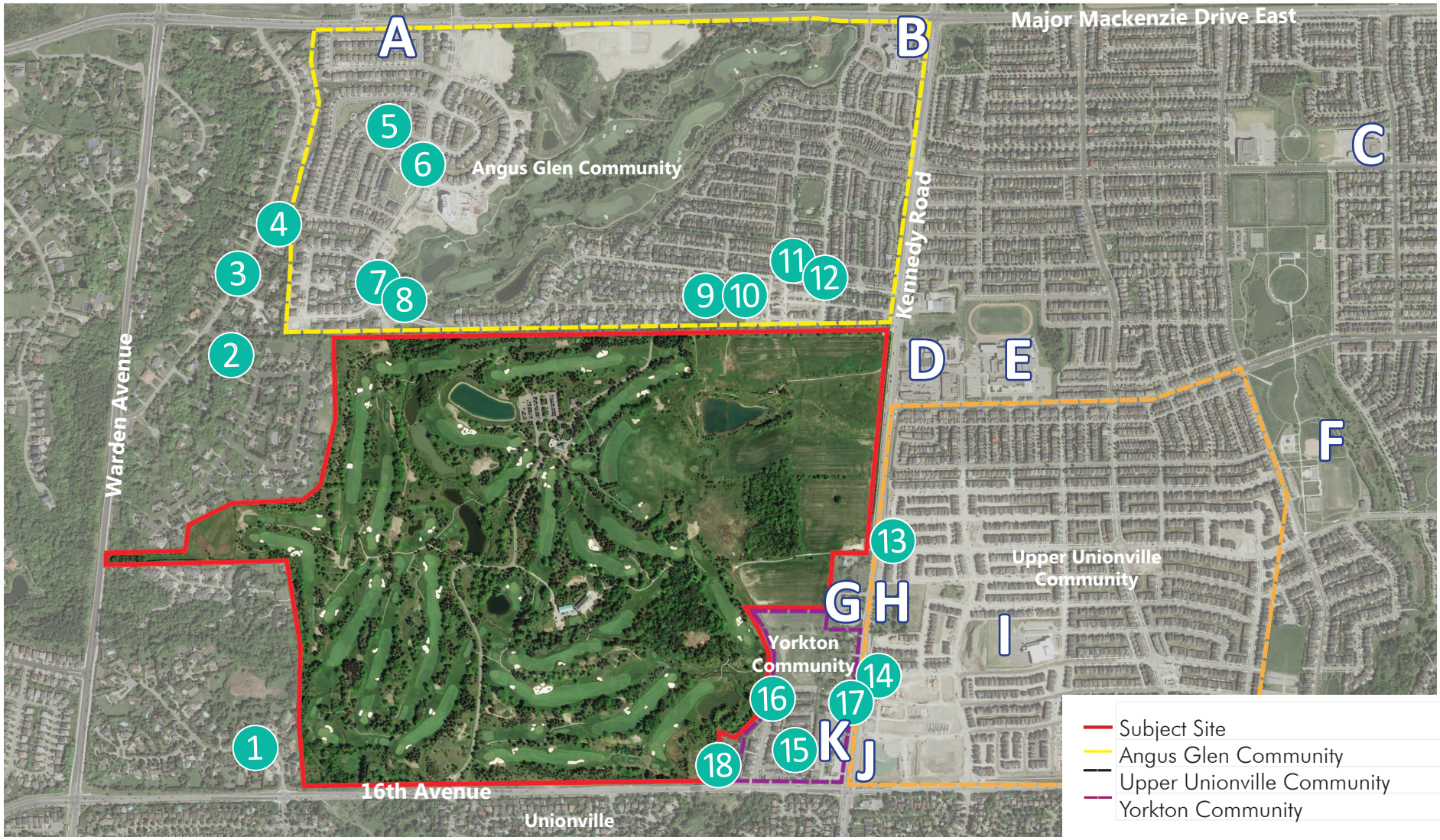


Figure 1 - Context Map

A	Angus Glen Community Centre	D	Bur Oak Plaza	H	Bethesda Lutheran Cemetery
B	Commercial Plaza	E	Pierre Elliott Trudeau High School	I	Beckett Farm Public School
C	Castlemore Public School	F	Berczy Park South	J	Berczy Square
		G	St. Phillip's on-the-hill Church	K	Unionville Montessori Private School

1 Large, executive detached homes are typical of the Country Estates community, south-west of the subject site.

2 Homes have a variety of architectural features, including turrets on Glenbridge Drive.

3 This contemporary home on Glenbourne Park Drive uses high quality fenestration.

4 Some homes on Glenbourne Park Drive include three car garages and an accentuated roofscape.

5 Townhouses in Angus Glen are designed with stepbacks and changes in the roofline to break up their massing.

6 Laneway homes front onto the Angus Glen Boulevard Park, creating a strong and consistent streetscape.

7 The look out provides views onto the SWM Pond and Angus Glen Golf Club near the Blackstock Bridge.

8 A range of densities have been developed in the Angus Glen Community, benefiting from views of open space.

9 The Colty's Park soccer field is overlooked by homes on Angus Glen Boulevard and Royal Troon Crescent.

Colty's Park, directly adjacent to Angus Glen Boulevard includes a playground and baseball diamond.

Local streets provide shade and create a high quality pedestrian environment.

The landscaped roundabout assists with wayfinding and traffic calming throughout the community.

Existing townhouses in Upper Unionville, east of the subject lands.

Townhouses under construction in Upper Unionville, east of subject lands.

High quality landscape is evident throughout the community, including at the commercial uses.

Existing walkway in the Yorkton Community adjacent to the Bruce Creek greenway.

Existing decked townhouses in Yorkton, south-east of the subject lands.

Bruce Creek is part of the rich natural heritage of the subject lands.

1.2.2 Policy Framework

The current Provincial policy framework directs new residential and employment growth to built-up areas, wherever capacity exists. The 4134 16th Avenue redevelopment provides a tremendous opportunity to develop a complete community within the City of Markham's established settlement boundary. The proposed development is subject to the *York Region Official Plan* (2016 consolidation), the *City of Markham Official Plan* (1987 and 2014), and various regional and municipal guideline documents. This document specifically reviews the urban design and sustainability policies related to the plan from the following documents:

Places to Grow – Growth Plan for the Greater Golden Horseshoe (2006, consolidated in 2013)

The Growth Plan for the Greater Golden Horseshoe (GGH) has been prepared under the *Places to Grow Act* (2005), to provide an overall vision and direction for residential and employment related development within one of the fastest growing regions in North America. The Plan advocates the development of vibrant, compact and complete communities to support a strong economy through intensification of the existing built-up area.

The 4134 16th Avenue Community supports the *Provincial Growth Plan* and the *2014 Provincial Policy Statement* by:

- Promoting active transportation;
- Employing environmentally sustainable practices to minimize negative impacts to air quality and climate change; and,
- Providing a range of dwelling types and densities.

York Region Official Plan (2010, consolidated in 2016)

York Region is one of the fastest growing regions in Canada and is expected to continue to grow. The *York Region Official Plan* (2010, consolidated in 2016) provides a framework that is intended to guide the development of sustainable and healthy communities. The Region's Vision 2026 is:

> *"Creating Strong, Caring, Safe Communities" (page 1)*

To achieve this vision, the *York Region Official Plan* presents the following relevant urban design goals:

- *"Quality Communities for a Diverse Population*
- *Enhanced Environment, Heritage and Culture*
- *Housing Choices for Our Residents" (page 1)*

The Regional Official Plan builds off of York Region's award-winning Sustainability Strategy to promote diversity in housing; active living; high quality urban design, community facilities, and green building; protected environmental features; and circulation networks that support multi-modal transportation. Its "Triple Bottom line Objectives" are:

- *"Sustainable Natural Environment*
- *Healthy Communities*
- *Economic Vitality" (page 3)*

The proposed 4134 16th Avenue redevelopment supports these sustainability goals by providing diverse housing options within a complete and compact community, which protects and celebrates features of the natural environment and connects to the surrounding multi-modal transportation network. The below urban design principles, as outlined in Policy 5.2.8 of the *York Region Official Plan*, are at the core of the proposed design for the 4134 16th Avenue Community:

> *"5.2.8 To employ the highest standard of urban design, which:*
> *a. provides pedestrian scale, safety, comfort, accessibility and connectivity;*
> *b. complements the character of existing areas and fosters each community's unique sense of place;*
> *c. promotes sustainable and attractive buildings that minimize energy use;*
> *d. promotes landscaping, public spaces and streetscapes;*
> *e. ensures compatibility with and transition to surrounding land uses;*
> *f. emphasizes walkability and accessibility through strategic building placement and orientation;*
> *g. follows the York Region Transit-Oriented Development Guidelines; and,*
> *h. creates well-defined, centrally-located urban public spaces." (page 79)*

The Community Design Plan for the 4134 16th Avenue Community addresses some of the key concerns for servicing the Region's population, presented in Chapter 7 of the Regional Official Plan.

Trip Reduction

The Community Design Plan contemplates the design of a compact and walkable community that promotes active transportation and healthy lifestyle, and lowers the dependence on automobiles. The following policies are relevant to the Community Design Plan and have been address through the urban design of the 4134 16th Avenue Community:

> "7.1.7 To require new development applications to demonstrate how the proposed development is transit-oriented. The York Region Transit-Oriented Development Guidelines provide guidance on how to address this policy.
>
> 7.1.8 To work with developers to provide all new-home buyers with information on available pedestrian, cycling and transit facilities and carpooling options within the community, including local transit routes and schedules."

Water Conservation and Efficiency

The Community Design Plan integrates opportunities for water conservation and efficiency measures, considering a diverse system of stormwater management measures, discussed in more detail in Sections 2.5, 3.2.10, and 6.2.1 of the Community Design Plan. The following policy is relevant to at this stage of urban design review, and may be followed by more detailed strategies for water conservation efficiency through other studies and at the more detailed design stage:

> "7.1.22 To pursue with local municipalities and conservation authorities the implementation of water efficiency innovations such as water reuse systems, rainwater harvesting and innovative stormwater management."

Active Transportation

The 4134 16th Avenue Community integrates an extensive network of cycling and pedestrian infrastructure, including sidewalks, trails, bike lanes, and walkways. Transit stops and community amenities are coordinated with the active transportation network to ensure easy access through means alternative to the automobile. These design initiatives, described in more detail throughout the Community Design Plan, address the Regional Official Plan's objective of active transportation, and consider the following relevant urban design policies:

"7.2.4 To develop an integrated Regional cycling network connecting people to places of recreation, services and employment and transit.

7.2.5 To provide safe, comfortable and accessible pedestrian and cycling facilities that meet the needs of York Region's residents and workers, including children, youth, seniors and people with disabilities.

7.2.10 That the construction of proposed pedestrian and cycling paths will protect and enhance the Regional Greenlands System.

7.2.11 To integrate pedestrian, cycling and transit activities through improvements such as bicycle racks and storage at transit stops, bicycle racks on buses, and improved access for pedestrians and bicycles at transit stops, stations and terminals.

7.2.12 To encourage property owners to provide facilities such as benches, shelters and secure bicycle storage at major destinations, including employment, educational, institutional and shopping locations.

7.2.13 To co-ordinate Regional and local pedestrian and cycling networks with trail connections to the Regional Greenlands System trails network, where appropriate."

Transit

The Community Design Plan proposes a bus route which connects to the larger transit network, and runs along the primary collector streets of the east and west neighbourhoods. Transit supportive development has informed the overall structure and distribution of built form throughout the 4134 16th Avenue Community. Relevant policies from the Regional official Plan include:

"7.2.19 To recognize transit as a Regional strategic investment priority and a key element of York Region's urban structure.

7.2.21 To develop transit corridors and related infrastructure necessary to establish the York Region Transit and Viva network as illustrated on Map 11.

7.2.23 To ensure communities are planned with the early integration of transit.

7.2.25 To achieve higher transit usage by supporting improvements in service, convenient access and good urban design, including the following:

a. minimizing walking distance to planned and existing transit stops through measures such as the provision of walkways, sidewalks and more direct street patterns. The Region will plan to provide transit service so that the distance to a transit stop in the Urban Area is within 500 metres of 90 per cent of residents, and within 200 metres of 50 per cent of residents;

b. connecting transit stops directly to sidewalks and adjacent buildings in the Urban Area;

c. providing bus bays, transit shelters and bus loops with sufficient lighting and accessibility features;

d. directing medium- and high-density urban development to rapid transit corridors;

e. creating a system of parking and drop-off facilities for commuters;

i. utilizing the York Region Transit-Oriented Development Guidelines and related tools in the review and evaluation of development applications and related studies."

Streets

The proposed street network in the 4134 16th Avenue Community supports a variety of users including pedestrians, cyclists, transit riders and automobiles. A street network plan and associated cross sections are provided in Section 3.2 of the Community Design Plan. Considerations for effective built form to enhance community streetscapes are also provided in Section 4.0 of this document. In general, access to regional roads is provided in an efficient manner, restricting entrances from regional roads to ensure connections to the larger regional network while maintaining effective movement along these streets.

City of Markham Official Plan (1987, consolidated in 2005)

The City of Markham has recently adopted its 2014 Official Plan, which was approved by York Region on June 12, 2014. Portions of the new Official Plan are still under appeal, and therefore the majority of the 1987 Official Plan remains in force and effect. The Community Design Plan for 4134 16th Avenue will review the urban design policy framework for both the 1987 and 2014 Official Plans.

The general purpose of the *1987 Markham Official Plan* is to ensure a healthy, safe, convenient and high quality lifestyle to all current and future residents in the City of Markham, and to promote the protection and restoration of natural heritage features.

The 1987 *City of Markham Official Plan* recognizes the role of high quality urban design in place-making, and supports a design-based community planning approach, specified in Section 3.4, Part I, of the Official Plan. This section references the *Design Implementation Guidelines*, which were adopted by Council in June 1996, as a guiding document that articulates clear urban design principles and direction to ensure the development of high quality, vibrant and pedestrian friendly communities that build on the foundation of a thoughtful and engaging public realm. The City's Official Plan also specifies the role and significance of Community Design Plans, which are intended to encompass the following:

- A Design Vision and Direction;
- An Open Space Master Plan;
- A Comprehensive Streetscape Master Plan; and
- Built Form Guidelines

The general outline for this Community Design Plan has been developed in coordinate with Markham city staff, and addresses the requirements established by the 1987 *City of Markham Official Plan*.

The general goals of the 1987 *City of Markham Official Plan* have also guided the overall design development for the 4134 16th Avenue Community (identified in Section 1.5, Part II of the Official Plan). The following goals are relevant to the urban design component of community development:

> *"b) To place areas and types of urbanization in the best possible relationship to each other and to the agricultural and natural undeveloped areas of the Town."* The design approach to the 4134 16th Avenue Community is focused on the thoughtful integration of the community with its surroundings. This is built into the community vision statement and consideration for the interface between various uses is provided throughout the Community Design Plan.

> *"d) To ensure that Markham develops as a desirable place for people to both live and work."* The 4134 16th Avenue Community integrates a range of residential, mixed use and commercial uses in a seamless manner that allows for easy access through various modes of transportation.

"g) To protect, and to encourage the restoration and enhancement of natural features, and to promote an attractive visual appearance in the built environment in sympathy with the natural landscape."
Visual and physical access to a healthy and restored natural environment has been considered in the development of the Community Design Plan for the 4134 16th Avenue Community. The overall street network has been aligned in a manner that respects existing natural heritage features and optimizes views and vistas to these features (discussed in more detail in Section 6.6).

Section 2.2.2.11 (Part II) of the Official Plan includes policies with respect to the requirements of the Community Design Plan, specifically relating to the protection of environmental Areas. Policy 2.2.2.11.b) provides specific requirements for the preparation of the Community Design Plan.

"b) The Community Design Plan will include an Open Space Master Plan component which will address, among other matters, the park and open space needs relative standards of the Official Plan and the applicable Secondary Plan, the protection of significant environmental features, the design of a linked open space system including pedestrian and bicycle paths and accessibility and public enjoyment of the greenlands area. The Community Design Plan shall have regard for the Greenway System identified in Appendix Map 1 – GREENWAY SYSTEM. Where required, the Community Design Plan may also include detailed recommendations on the management of natural features and other open space elements."

The protection of the greenway system (as identified in the Official Plan) is a key element of the Community Design Plan for the 4134 16th Avenue Community. It is a fundamental pillar in the Sustainable Development Principles presented in Section 2.0, and is discussed in more detail in Sections 2.3 of this document. An Open Space Master Plan is provided in Figure 3 (page 29), in Section 3.1, followed by additional detailed guidelines for crossings, pathways and trails in Section 3.1.1. Furthermore, Section 6.0 of the Community Design Plan is dedicated in its entirety to the Parks and Open Space System of the 4134 16th Avenue Community. Finally, built form guidelines and proposed zoning regulations regarding development adjacent to the open space system are provided in Sections 4.5.8 and 7.1, respectively.

City of Markham Official Plan (2014)

The 2014 *Markham Official Plan*, while not yet entirely in force and effect, reflects the latest vision, strategic direction and priorities for the City of Markham.

The City of Markham vision to 2031 is identified in Section 2.1 of the 2014 Official Plan:

> *"In managing sustainable growth to 2031, Markham will be a strong, vibrant and productive City with its residents, businesses and workers leading the way together to liveable neighbourhoods, healthy people and continuing prosperity."* (page 2-3)

This vision for sustainable communities is consistent with the City's *Community Sustainability Plan – Greenprint* (described in more detail in Section 2.0 of the Community Design Plan). Section 2.2 of the 2014 Official Plan identifies five goals and objectives that support the City's Vision:

- *2.2.1 – Protecting the Natural Environment and Agricultural Lands*
- *2.2.2 – Building Complete Communities*
- *2.2.3 – Increasing Mobility Options*
- *2.2.4 – Maintaining a Vibrant and Competitive Economy*
- *2.2.5 – Implementation* (pages 2-9 and 2-10)

Section 6 of the 2014 City of Markham Official Plan provides the framework for urban design and sustainable development throughout the City of Markham. This section builds on the foundations established by the 1987 Official Plan, and specifies the role of high-quality urban design in ensuring *"that greater levels of density, mix of land uses and building mass and height are sensitive to established residential neighbourhoods and will be transit supportive"* (Section 6.1).

Urban design will guide growth to create:

- *"compact neighbourhoods with pedestrian-friendly streets;*
- *compatible built form and high-quality building design and construction;*
- *vibrant people places within a clearly identifiable and well-designed public realm; and*
- *sustainable development."*

These principles have been established as priorities that comprise the foundation of urban design throughout the 4134 16th Avenue Community.

The general urban design policies of the 2014 *City of Markham Official Plan* promote walkable, compact and pedestrian-friendly communities that incorporate high-quality built form and a structured and legible public realm. It focuses on place-making and civic pride. The 4134 16th Avenue Community has been developed with these policies and objectives in mind, incorporating them into the community's vision statement, and reinforcing them in all aspects of design. The key urban design policies that have contributed to the structure and design of the proposed community are summarized as identified in the Official Plan below:

Public Realm

"Safe, accessible and comfortable public spaces add to the creation of vibrant, healthy and sustainable community by emphasizing walkable streets and people places"
(Section 6.1.2 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- A legible, structured and defined public realm.
- Enhanced safety and accessibility.
- Walkability combined with opportunities for cycling and transit use.
- A unique sense of identity and place.
- High-quality, consistent design.
- Visual and physical connections to the natural heritage system and key community amenities.
- Opportunities for public art and civic pride.
- Sustainable development practices.

Streets and Blocks

"The quality and comfort of streets, and the size of a block, shape the perception of a community and influence the community to choose walking as a viable mode of transportation" (Section 6.1.3 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- Complete streets that provide accommodation for all modes of transportation (supporting pedestrians, cyclists and transit).
- Sidewalks on both sides for key routes, connecting to community amenities.
- Supportive infrastructure to encourage active transportation, including benches, signage, bicycle parking, etc.
- Connections between all transportation networks.
- Safe and accessible streets.
- Design that minimizes the visual dominance and reliance on the car.
- Bus stops proposed along the primary route, at approximately 200 metre intervals.

Streetscapes

"Safe, accessible and attractive streetscapes can provide supportive settings for a wide range of social, business and recreational activities by providing amenities that make walking, cycling, and gathering in public streets and open space more comfortable and convenient" (Section 6.1.4 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- Coordinated street furnishings, including lighting, benches, signage, etc.
- Effective tree planting to ensure sustainable and comfortable pedestrian environments.
- Priority streetscapes provide adjacencies to various activities, amenities and uses, which activate the street.

Landmarks and Views

"Significant natural and cultural heritage features and architecturally significant buildings and landscapes can provide distinct identifiable landmarks that can influence the pattern of the street network and the character of the public realm of a community" (Section 6.1.5 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- Integration of views and vistas of the natural heritage system throughout the community.
- Identification and integration of trees with cultural landscape significance.

Parks and Open Spaces

"The parks and open space system will include public and private open spaces that are well designed, connected and publicly accessible to allow Markham residents, workers and visitors to socialize, recreate and appreciate the environment together" (Section 6.1.6 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- An interconnected network of open space, parks, and trails.
- Diverse passive and active recreational opportunities.
- 5-minute walking distance to parks and amenities.
- Connections to existing parks and open space.
- Improved pedestrian and cycling access.
- Sensitive development adjacent to open space systems.
- Adaptable and programmable space, with year-round use.
- Opportunities for public art installations.

Public Art

"Public art can enhance the urban fabric of the community by creating landmarks, recognizing local culture as well as global influences and contributing to social and economic vibrancy"
(Section 6.1.7 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- Identified opportunities for public art at key locations throughout the public and private realms.

Built Form and Site Development

"Buildings through their design and placement, collectively, help create the character and identity of Markham's communities"
(Section 6.1.8 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- Built form that defines and positively contributes to the public realm.
- Building placement that encourages connections and continuity, supporting the functionality of the public realm and pedestrian, cycling and transportation networks.
- Active frontages and entrances address the public realm and reinforce safety and security within the community.
- Key locations are accentuated through massing and enhanced architectural treatment.
- Compatibility with adjacencies, and sensitive transitions.
- Transparency and interaction between the public and private realm (especially for mixed-used and commercial sites).
- Comfortable microclimate conditions and weather protection.
- Sustainable and sensitive building technologies, especially along open space networks.
- Thoughtful integration of screening for parking areas, services and utilities.

Sustainable Communities

"Markham's communities will be planned to achieve sustainable development by providing policy direction that can result in the maximization of environmental resource conservation, energy efficiency and the reduction of green house gas production, as well as improving air, soil and water quality"
(Section 6.2.2 of the Official Plan).

Relevant components of the 4134 16th Avenue Community:

- A complete and compact community.
- A diverse mix of uses and housing units.
- Accessibility and active transportation opportunities to reduce dependence on automobiles.
- Restoration and enhancement of the natural heritage system, supporting biodiversity and ecological function.
- Energy conservation and waste and water management.
- Neighbourhood-level sustainable development techniques including block and street orientation to maximize the use of solar energy, and opportunities for planting and paving to reduce the urban heat-island effect.

York Region New Communities Guidelines (2013)

The *York Region New Communities Guidelines* (2013) recognize complete and sustainable communities as a fundamental building block to accommodate the expected residential and employment growth within the Region. The policies within this document have been prepared for the urban expansion areas of East Gwillimbury, Vaughan and Markham. While the proposed 4134 16th Avenue Community is not located within the Markham Urban Expansion Area, it will refer to the *York Region New Communities Guidelines* as a guide to create a sustainable and complete community within an existing, rich urban fabric.

The *York Region New Communities Guidelines* identifies eight key focus areas:

1. Directing Growth
2. Community Design
3. Sustainable Transportation
4. Open Space Natural Heritage
5. Sustainable Buildings
6. Energy Efficiency
7. Water Management
8. Resource Management & Education

High quality materials and detailing contribute to a successful and attractive public realm.

Shared Places Our Spaces; Markham's Public Realm Draft Strategy (2014)

The focus of Markham's Public Realm Strategy is to recognize the importance of public space, and to provide a framework for achieving a high quality, impactful public realm. The public realm, as defined by the Strategy, includes *"streets, boulevards, walkways, bikeways, trails, bridges, parks, open spaces, plazas, squares, wetlands, natural features, views, landmark structures, public art, transit facilities, front yards and building exteriors"* (page 4). The document outlines the City's Vision for the Public Realm as:

> *"A place for all that is engaging, sustaining and beautiful"*
> *(page 33)*

The public realm strategy emphasizes the importance of gateways and destinations, and the critical role of the public realm in placemaking, civic identity and pride. Markham's strategy for creating these special places will guide the design of the public realm within the 4134 16th Avenue Community, and consists of the following guidelines:

- *Creating lasting impressions.*
- *Showcasing public art.*
- *Developing green assets as destinations.*
- *Identifying cultural assets as destinations.*

Parks and open spaces are essential in creating successful new communities, providing opportunities for active and passive recreation and providing a community focal point.

Design Implementation Guidelines (rev. 1998)

In 1996, the City of Markham introduced its *Design Implementation Guidelines*, which establish key urban design principles that have guided the development of high quality communities in Markham since their inception. The guidelines are focused on seven key areas:

4. **Community Structure** – establishing the relationship between various structural elements (i.e. natural heritage, streets, parks and open space); the size and distribution of parks and amenities (with parks and schools at the heart of the community); the overall block and street pattern; and the appropriate distribution of built form.
5. **Parks and Open Space** – providing key structural elements and establishing distinctive neighbourhood character; a hierarchy of open spaces and parks will provide diverse recreational opportunities within walking distance.
6. **Streetscape** – identifying a hierarchy of streets with coordinated landscape and utility elements, including street trees, sidewalks and paving, lighting, furniture, transit amenities, parking and utilities.
7. **Built Form** – ensuring high quality built form that considers appropriate siting, access and design, and contributing to a successful public realm.
8. **Zoning** – considering appropriate setbacks, lane-access and garage projections.
9. **Architectural Control** – requiring a commitment to development high quality residential design.
10. **Approvals Process** – outlining the various stages of design implementation from the Secondary Plan level, to Building Permit Applications.

The overall design and structure of the 4134 16th Avenue Community will be guided by these design principles and will reflect, where possible, the guidelines presented in the *Markham Design Implementation Guidelines*.

2.0 Sustainable Development Principles

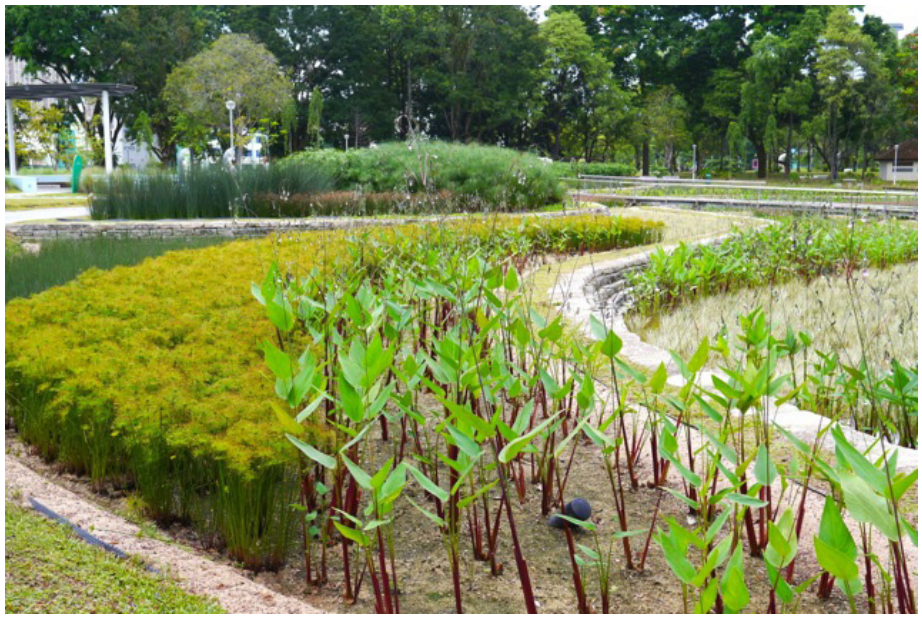
The Regional and Municipal policy framework establish a context for sustainable development in the City of Markham that promotes environmental health, social wellbeing, cultural vibrancy, and economic vitality. This framework is supported by the City's *Greenprint Sustainability Plan*, which is a community-drive plan that was introduced in 2011 to guide municipal planning and decision making within a 50 – 100 year horizon. The Greenprint vision is:

> *"Markham; leading the way together to liveable neighbourhoods, healthy people and continuing prosperity" (page ix)*

The *Greenprint Sustainability Plan* identifies 12 sustainability priorities, supported by 23 objectives intended to guide planning decisions to achieve the City's vision of sustainability. These priorities are:

1. Social Equity
2. Identity and Culture
3. Individual Health
4. Shelter
5. Food Security
6. Access and Mobility
7. Education and Skills
8. Economic Vibrancy
9. Materials Management
10. Water Efficiency
11. Ecosystem Integrity
12. Energy and Climate

These priorities have been considered through an integrated planning and design process that will engage stakeholders through the statutory public meeting process, and members of the public through social media outlets (including Facebook and Twitter). Various representatives will be involved at an early stage to ensure the consideration of sustainability principles in the construction, architecture, site servicing (civil), landscape architecture, and mechanical / electrical works of the 4134 16th Avenue Community. The scope of work and drawings produced by each of these professionals will reflect established sustainability targets. The 4134 16th Avenue Community Design Plan builds off of the priorities listed above to establish design objectives that guide the integrated planning and design process.



Sustainability initiatives are incorporated at various levels of design development.

2.1 Pedestrian Oriented Community

The 4134 16th Avenue Community will be pedestrian oriented, supporting the sustainability priorities of social equity, identity and culture, individual health, and access and mobility.

Sustainable Design Objectives:

- Compact, accessible and walkable;
- Attractive, with enhanced streetscapes and an engaging public realm; and
- Supportive of transit, bicycle and pedestrian networks.

2.1.1 Compact Development

The overall layout and distribution of uses within the 4134 16th Avenue Community will be designed to maximize the use of land, while preserving the natural heritage system. General design guidelines include:

- Provide access to a mix of uses, including residential, institutional, public parks, retail and office space, focusing amenities in strategic areas within walking distance.
- Provide a wide range and mix of housing types and sizes, allowing residents of various life stages to locate within the 4134 16th Avenue Community.
- Distribute higher densities to reinforce significant edges (16th Avenue and Kennedy Road) and primary streets within the Community.

2.1.2 Presence of the Public Realm

The 4134 16th Avenue Community will instill a sense of place and identity through the careful design of an engaging public realm, from building face to building face. The public realm components include all streetscapes, parks and open spaces, and consider opportunities for public art and social gathering. General design guidelines include:

Laneway housing fronts onto public parks to provide a sense of enclosure and security.

- Apply the highest standard of urban design.
- Provide spaces that foster organic social gathering and community development, including playgrounds and centralized parks.
- Reflect the natural setting, cultural heritage and diversity of the community in its design.
- Encourage public art in strategic locations, such as within proposed parks, mixed use areas and greenway trails.
- Ensure the sustained growth of healthy tree-lined streets, avoiding monocultures, and planting flowering trees and trees with seasonal interest at key locations (ex. Chanticleer Pear and Autumn Blaze Maple).
- Consider landscape treatments that activate all senses, including smells and sounds.

A pedestrian and bicycle network will be provided throughout the community, encouraging an active and healthy lifestyle.

2.1.3 Active Transportation Network

Mobility choice is a key factor in the allocation of facilities and overall design of the 4134 16th Avenue Community. General design guidelines include:

- Provide a connected system of pedestrian sidewalks and trails (where feasible), that provides people of all ages, culture and abilities with access to key community amenities, including parks and open spaces, schools, and mixed use areas.
- Support a connected network of infrastructure for bicycles, within the right-of-way and in community trails, and include supportive elements including bicycle parking, water stations, washrooms and air pumps, where feasible.
- Provide community amenities and public transit stops within 400 metres (5-minute walking distance) of 90% of the homes within the community.
- Locate opportunities for seating in strategic areas (along key streets) to provide locations of rest and encourage walkability (approximately 200-250 metres apart).
- Incorporate traffic calming measures, and consider the location of car sharing on site.

2.2 16th Avenue Special Character Area

The southern extent of the 4134 16th Avenue Community will support mixed use development along the urban edge of 16th Avenue. This location is connected to existing transit infrastructure, serviced by VIVA route 16, with an existing bus stop at the intersection of 16th Avenue and Warden Avenue. The 16th Avenue Special Character Area supports the sustainability priorities of social equity, access and mobility, and economic vibrancy.

Sustainable Design Objectives:

- A centralized mix of uses and amenities that is accessible using multiple modes of transportation;
- An activated and vibrant public realm along a defined community edge; and
- A comfortable environment for pedestrians, allowing for all-season use by providing shelter from the elements.

2.3 Greenway System

The greenway system is an integral component of the 4134 16th Avenue Community and will be maintained and enhanced to support wildlife and biodiversity. The greenway system supports the sustainability priorities of access and mobility, ecosystem integrity, and energy and climate.

Sustainable Design Objectives:

- Conservation, enhancement and restoration of the natural heritage system (including the greenway, streams, culturally significant trees and the woodlot/wetland), consistent with City of Markham policy requirements;
- Stormwater management techniques to support the greenway system, including stormwater management ponds and low impact development measures near the edges of the greenway;
- Opportunities for green infrastructure, compensation planting, the protection of wildlife corridors and green linkages between parks and open space;
- Bird-friendly architectural treatments, including overhangs and glazing, especially on the sides of homes that face the ravine and natural areas;
- Minimal light pollution, with a 'dark sky' target and zero light spillage outside of the property line;
- Supportive community landscapes with a healthy tree canopy: one tree planted for each at-grade lot, and a minimum of two trees on the flankage side of corner lots;
- Landscaping in common areas that follows the City of Markham plant list, and is drought tolerant, native / non-invasive, climate adaptive, attractive to song birds, insect, butterflies and other species; and
- Adequate soil quantity and quality to sustain planting in the public realm.

The greenway system will be enhanced, and will include opportunities for physical and visual access.

2.4 Sustainable Neighbourhood Development Objectives

Neighbourhoods within the 4134 16th Avenue Community will be sustainable, inviting and safe. Key objectives of sustainable neighbourhood development will build on the sustainability priorities of individual health, shelter, food security, water efficiency, and energy and climate.

Sustainable Design Objectives:

- Community safety, implemented through community design and built form (Crime Prevention Through Environmental Design, CPTED);
- Healthy living achieved through an interconnected, accessible and legible system of trails and sidewalks;
- Access to diverse recreational opportunities year-round to encourage active lifestyles;
- Opportunities for future community garden plots and a framework that supports local food markets and production;
- Urban heat island reduction through paving treatments and landscaping;
- Green building practices, including energy and water efficiency measures;
- Opportunities for future application of renewable energy technologies; and
- Adequate ventilation strategies to promote indoor health.

2.5 Stormwater Management

Stormwater management techniques will aim to reduce stormwater runoff, optimize on the natural topography, and employ innovative low impact development techniques. They will support the sustainability priorities of water efficiency and ecosystem integrity.

Sustainable Design Objectives:

- Stormwater management practices that reduce the risk of flooding;
- A comprehensive system of green infrastructure including rain barrels, bioswales, and ponds that collects, treats, stores and distributes stormwater effectively; and
- Low impact on municipal infrastructure and protection or restoration of natural water systems.

2.6 Sustainability Performance Measures

The Markham Performance Measures have been coordinated with universally accepted sustainability measures (including LEED New Construction and Major Renovations, Version 1.0), and are designed to monitor the performance of communities in Markham, ensuring that they are up to date and employing the latest best practices. The performance measures test six key themes: Community, Built Form, Green Infrastructure, Greenway System, Public Space, and Transportation. A draft checklist has been provided in Appendix 8A.

The 4134 16th Avenue Community will promote healthy living, walkability and sustainability.

3.0 Community Design Plan

The subject lands are bisected by the Bruce Creek and associated greenway, which separates the property into two distinct neighbourhoods, east and west of the Creek. The neighbourhood east of the Bruce Creek encompasses approximately 71.5 hectares of developable land and the neighbourhood to the west includes approximately 54.4 hectares of developable land.

The Community Design Plan reflects the policy framework and principles identified in Sections 1 and 2 of this document, and is guided by the following objectives:

- Demonstrate a consistent design vision throughout the community (established in Section 1.1, page 3);
- Ensure the City of Markham's policies and design initiatives are addressed;
- Promote a sustainable and healthy community;
- Promote a desired urban form through the community's structure, street network, edges and gateways, streetscape, open space system, and site planning and built form;
- Illustrate special features of the community and provide design direction related thereto;
- Ensure quality in the design of all buildings and public spaces through future application of the Architectural Design Control process; and
- Provide a clear basis for the review and implementation of subsequent stages of development.

The subject lands are characterized by key natural features that have been recognized as structuring elements in the overall Community Design Plan. Special community features include both existing and proposed elements that distinguish the 4134 16th Avenue Community as a complete and sustainable development. This has been illustrated in Figure 2 (page 27) and in a more simplified community structure diagram in Appendix 8E.

The community benefits from a rich natural heritage system which has informed its design and development.

The special features of the community are:

- The Natural Heritage System (including the Bruce Creek and Berczy Creek Tributary; the existing woodlot/wetland; and trees of cultural landscape significance);
- A legible, walkable and connected network of streets and trails (including defined edges and roundabouts at key wayfinding locations);
- A housing mix with special building forms and varying densities;
- Neighbourhood amenities (including parks and a school);
- Commercial retail uses incorporated into the mixed-use block at 16th Avenue; and
- Naturalized stormwater facilities (ponds and bio-retention enclaves).

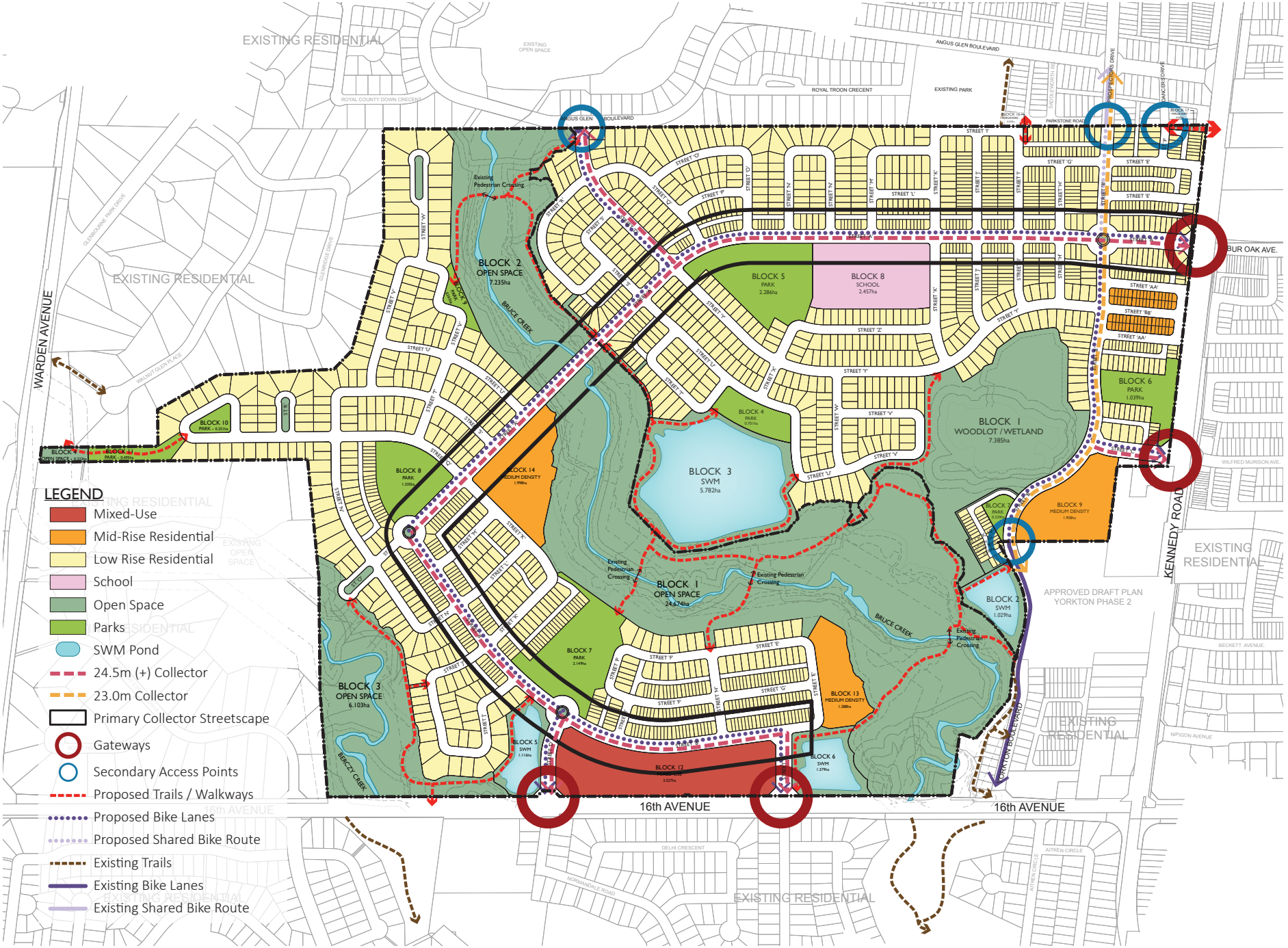


Figure 2 - Proposed Community Structure Plan

3.1 Natural Heritage System

The natural heritage features that have contributed to the overall structure of the 4134 16th Avenue Community are:

- The Bruce Creek greenway, distinctly separating the east and west neighbourhoods;
- The Berczy Creek tributary at the south-western portion of the site;
- The existing woodlot/wetland in the east neighbourhood;
- Groupings of preserved trees provided in both neighbourhoods;
- Trees of cultural landscape significance (Bur Oak); and
- Trees of endangered species (Butternut).

Bruce Creek and associated greenway divide the east and west neighbourhoods and provide a significant central open space which bisects the whole site.

Figure 3 - Proposed Open Space Plan

Blackstock Bridge, north of the subject lands, provides pedestrian and vehicular connections across the Bruce Creek greenway.

Existing trails run along the Bruce and Berczy Creeks, south of 16th Avenue.

Where possible, connections will be made to the existing trail network, providing an integrated pedestrian network.

3.1.1 Environmental Constraints and Buffers

A buffer will be provided along the edge of the greenway system and woodlot (including the Red Side Dace habitat, and staked wetland, top of slope and dripline) in order to sustain these features and protect them from potential adverse impacts caused by adjacent development. Stormwater management facilities and open space connections have been provided, lining the edge of the open space network where possible. Adjacent residential uses will be designed sensitively, using green building technologies to minimize their impact on the greenway and woodlot/wetland.

3.1.2 Natural Heritage System Crossings

To enable easy connections between the two neighbourhoods, a road bridge will traverse the central greenway and will be the primary multi-modal connection to amenities throughout the community. The proposed bridge will allow for views north and south, into this significant natural heritage feature.

Four pedestrian and bicycle bridges are also proposed as a secondary means of access across the Bruce Creek greenway. Three of these bridges are located south of the road crossing along the greenway, and are proposed to provide a more direct connection between the mixed use area and the medium density block near the 16th Avenue edge in the west neighbourhood, to the amenities provided in the east neighbourhood. The fourth pedestrian and bicycle bridge is proposed near the northern boundary of the community, north of the proposed road crossing. This All of the proposed pedestrian and bicycle bridges will be retrofit from an existing crossings. Please refer to Figure 21 (page 78) for the greenway crossing locations.

3.1.3 Pathways & Trails

A continuous network of trails will connect major pedestrian routes from the larger street network to the greenway system. Pedestrian and bicycle pathways and trails should be legible and accessible, providing opportunities for resting, and shade. Trails also present an opportunity for public art installations, and contribute to the overall quality of the public realm. Trail access will be provided along the Bruce Creek system, connecting to existing trails south of 16th Avenue. An additional trail connection will be provided to an existing trail with access to Warden Avenue, from the western extents of the west neighbourhood. This trail will connect south through the street network to a trail within the Berczy Creek greenway.

3.2 Transportation Network

The proposed network of streets comprises a hierarchy of collector streets, local streets, and rear lanes that defines the urban fabric and integrates the proposed mix of uses, built form and densities. Primary access to the 4134 16th Avenue Community will be provided from the arterial road edges of 16th Avenue and Kennedy Road. Additional street access points will connect the proposed community to the existing residential neighbourhood to the north. A pedestrian-only connection will be provided to an existing linkage providing access to Warden Avenue.

3.2.1 Gateways & Community Edges

Community edges provide the first impression of the community to passersby, and as a result they play an important role in defining community identity. The edges of the 4134 16th Avenue Community include the arterial roads of Kennedy Road and 16th Avenue, and residential edges to the north (Angus Glen and Colty's Park), west (large homes and estate lots) and east (townhouse development of Yorkton and single-detached homes). The arterial road edges will be reinforced by higher densities and a strong building edge to provide high quality urban environments on these transit corridors. Proposed built form along the Kennedy Road edge includes window streets and flankages of back to back townhouses, laneway townhouses and laneway singles. The southern portion of the Kennedy Road frontage includes a park block (Block 6). A mixed use development is proposed at the 16th Avenue edge. The southern edge also has exposure to the Bruce Creek and Berczy Creek greenway system, as well as two proposed stormwater management ponds. Careful and seamless integration has been considered for the residential edges of the 4134 16th Avenue Community, ensuring appropriate connections and compatible built form.

Community gateways will be located at the main vehicular and pedestrian entrances along Kennedy Road and 16th Avenue. Gateways will be identified through increased architectural detailing and enhanced landscape architecture features.

A mixed use block is proposed along the 16th Avenue edge of the community.

East Neighbourhood: proposed built form will frame the entrances at Kennedy Road and Bur Oak Avenue (Street 'A'), and at the intersection of Kennedy Road and Wilfred Murison Avenue (Street 'C'). Additional entrances from the north (Angus Glen) will be sympathetic to the existing development, and will ensure the seamless integration of the proposed community.

West Neighbourhood: the mixed use block will provide a strong edge at the eastern and western entrances of Normandale Road (Street 'C' and 'D', respectively) from 16th Avenue. This strong edge will be contrasted by the proposed stormwater management ponds, proposed at these gateway locations. The western community gateway is further enhanced with special landscape features, including a roundabout, views to a proposed park, and visual and physical access to the wider Greenway System.

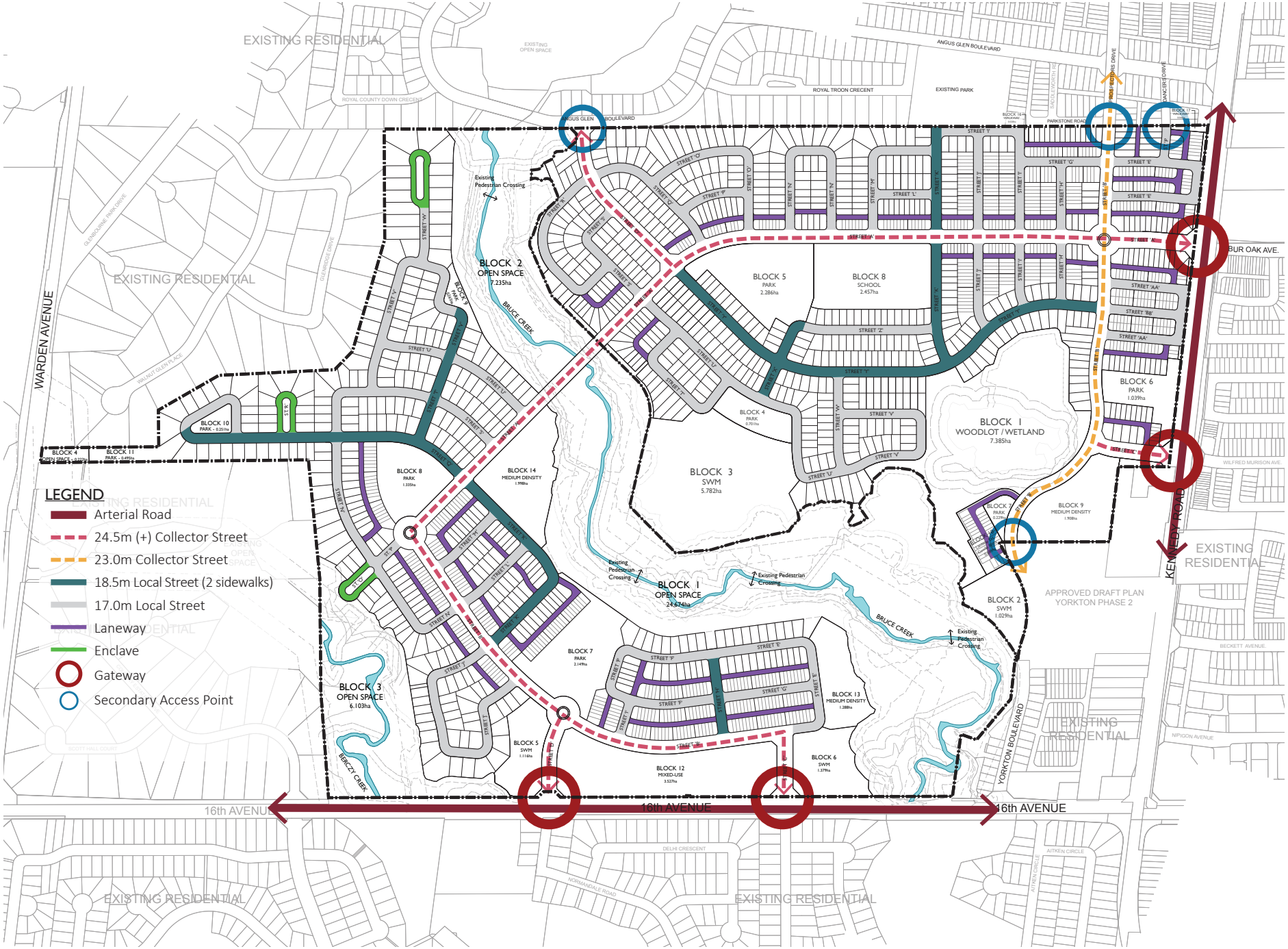


Figure 4 - Proposed Street Network

3.2.2 Arterial Roads

The proposed public realm of the arterial roads that line the 4134 16th Avenue Community will be enhanced by an urban built form, connected sidewalks on both sides of the street, transit and bicycle facilities, window streets along Kennedy Road, and view corridors into the Bruce Creek and Berczy Creek tributary greenway system along 16th Avenue.

The regional planned street width for 16th Avenue and Kennedy Road is identified as being "up to 43 metres" on Map 12 – Street Network, of the York Region Official Plan. According to the Regional Official Plan, both arterials are planned to accommodate cycling facilities, such as multi-use trails, bike lanes, paved shoulders, or signed routes; and transit priority features, including the potential construction of HOV lanes, dedicated transit lanes, and transit priority signals. 16th Avenue is currently undergoing an Environmental Assessment Study to determine user requirements related to growth, development, and multi-modal transportation.

3.2.3 Collector Streets

Collector streets facilitate movement through the community by connecting arterial roads to the finer grain of the local street network. All collector streets will have sidewalks on both sides of the right-of-way to enable safe and convenient movement for pedestrians on these key routes. Sidewalks will be 1.5 metres wide as required by the City of Markham, and will connect pedestrians to centralized community amenities throughout the west and east neighbourhoods. Collector streets within the community are all designed to accommodate two lanes of vehicular movement that can support potential future bus routes.

Entry Collector Streets

Collector street entrances to the 4134 16th Avenue Community vary in their right-of-way widths in order to match existing street treatments and widths at the proposed intersections (including centre medians where applicable). The following right-of-ways are proposed for these entry collector streets:

East Neighbourhood

- A 30 metre right-of-way is proposed for Street 'A', from Kennedy Road to the proposed roundabout at the street's intersection with Street 'B'.
- A 28.5 metre right-of-way is proposed along Street 'C' from Kennedy Road, tapering towards its intersection with Street 'B'.

West Neighbourhood

- A 28.5 metre right-of-way is proposed for the Street 'C' entrance from 16th Avenue
- A 27 metre right-of-way is proposed for the Street 'D' entrance from 16th Avenue.

Primary Collector Streetscapes

The primary collector streetscapes in the 4134 16th Avenue Community are Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west. These streets connect both neighbourhoods through a greenway crossing, and facilitate movement to Kennedy Road to the east and 16th Avenue to the south by way of collector Streets 'C' and 'D' (in the neighbourhood to the west). The primary collector streets represent the typical collector street cross section, and have a right-of-way width of 24.5 metres that supports bicycle lanes, sidewalks and street trees planted on both side of the street, and lay-by parking on one side of the street (as shown in Figure 5, below).

Additional Collector Streets

Two additional collector streets are proposed in the neighbourhood to the east. Streets 'B' and 'D' provide north-south access to the Angus Glen Community in the north, and the Yorkton Community at the south-east edge of the 4134 16th Avenue Community.

From the north, Street 'B' will extend towards the roundabout intersection with Street 'A', having a standard 23.0 metre right-of-way, with a shared bike route, as shown on Figure 6 (page 35). The narrower right-of-way is proposed to allow for a seamless connection to the existing right-of-way of Prospectors Drive to the north. A special right-of-way is proposed for the portion of Street 'B' that extends south of the roundabout (Figure 7, page 35) to allow for the extension of existing bicycle lanes on Yorkton Boulevard to the south. Street 'D' is proposed as a 24.5 metre collector street, as shown in Figure 5 (shown below), and in accordance with current City of Markham standards. These streets will accommodate sidewalks and street trees on both sides of the street, lay-by parking on one side of the street.

In all instances, the collector street layout has been designed to facilitate movement for all modes of transportation, maximize views of the greenway and provide opportunities for social interaction. Collector streets are designed to be attractive urban boulevards, with high quality streetscapes, coordinated built form and engaging public realm.

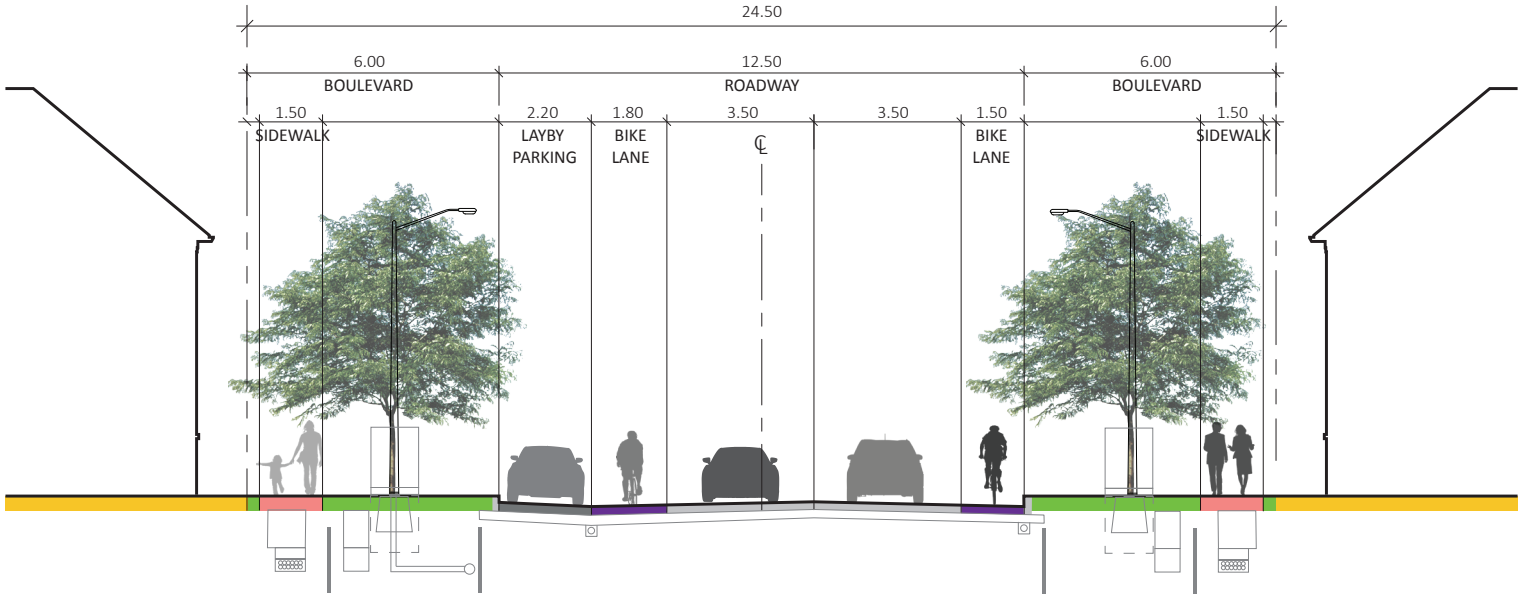


Figure 5 - Collector Street (24.5 metre ROW)

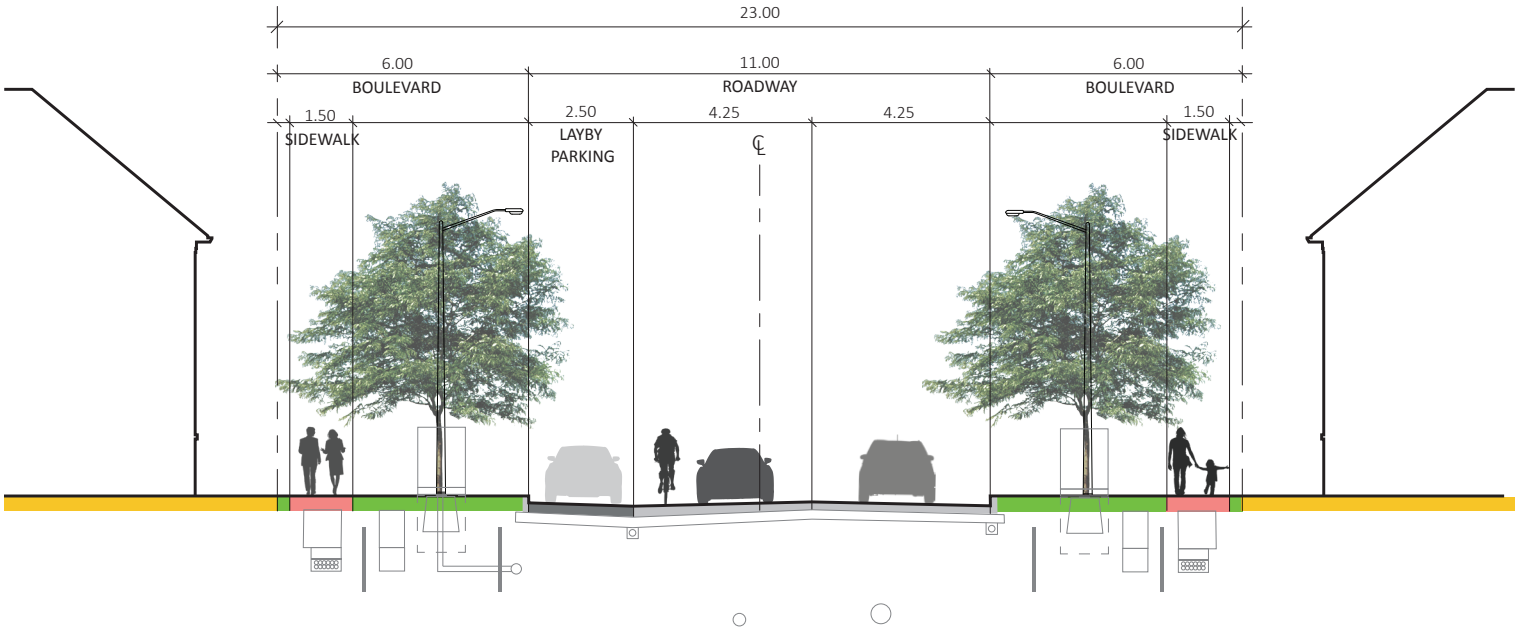


Figure 6 - Typical 23 metre Collector Street (Street 'B', North of the Roundabout)

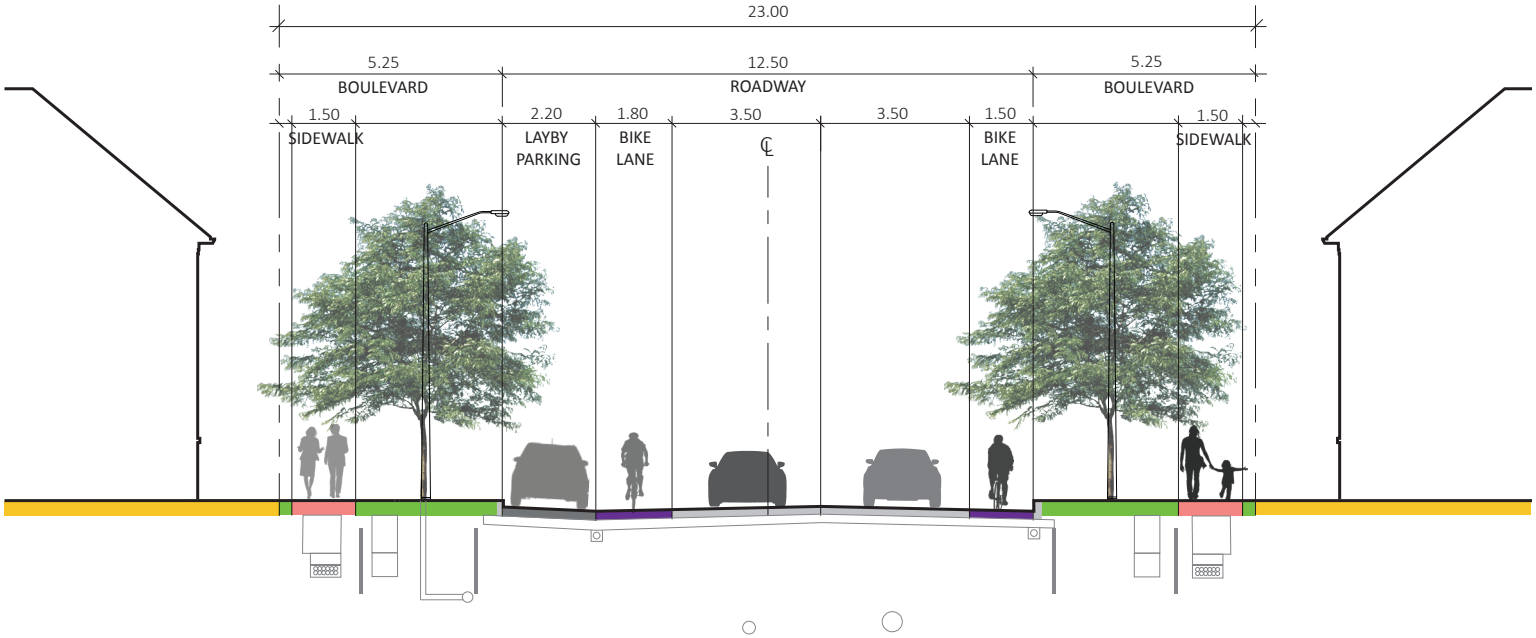


Figure 7 - Special 23 metre Collector Street (Street 'B', South of the Roundabout)

3.2.4 Local Streets & Window Streets

The local street network has been developed to respond to the existing topography and incorporates short block lengths that support walkability. Sidewalks and shared bicycle facilities provide both pedestrians and cyclists with direct and effective movement through the community. Two types of local streets are proposed within the 4134 16th Avenue Community:

- A typical 17 metre right-of-way is proposed for most local streets, which includes a 1.5 metre sidewalk on one side of the street and two 4.25 metre wide travel lanes, as shown in Figure 8 (page 37).
- An expanded 18.5 metre right-of-way is proposed to accommodate a second 1.5 metre sidewalk on the other side of a typical local street (as shown in Figure 9, page 37). The wider right-of-way is allocated in strategic locations that connect the proposed trail and pathway system to the collector streets of the community, including Streets 'H', 'K', 'T', 'Q' and a portion of Street 'V' (extending to park block 9 and the greenway) in the west neighbourhood, as well as Streets 'K', 'X', 'Y' and a portion of Street 'Z' in the east neighbourhood.

Window streets are proposed in the neighbourhood to the east, running parallel to the Kennedy Road edge (Streets 'E' and 'AA', located north and south of Street 'A', respectively), and along the north property line (Street 'I'), at the southern edge of the existing Colty's Park in Angus Glen. These window streets will be designed with a 17 metre right-of-way to accommodate adequate landscaping for screening, where necessary. Guidance regarding appropriate built form at window street locations is provided in Section 4.5.5 (page 69), and additional guidance relating to streetscape conditions on these streets is provided in Section 5.3.3 (page 88).

Figure 8 - Local Street with a Single Sidewalk (17.0 metre ROW)

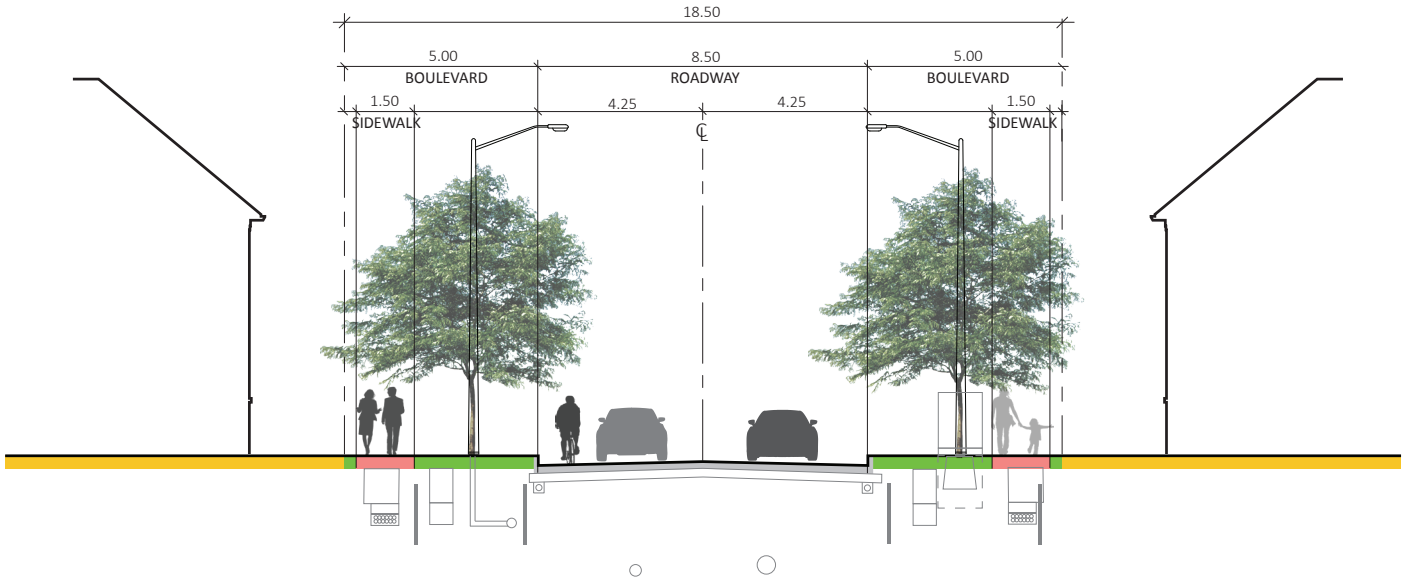


Figure 9 - Local Street with Sidewalks on Both Sides (18.5 metre ROW)

3.2.5 Laneways

Built form requiring laneway access is provided along the primary collector streetscapes of the 4134 16th Avenue Community (Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west, as identified in Section 3.2.3, page 33). These laneways help to create a high quality public realm, attractive streetscapes and compact built form through the relocation of driveways and garages from the fronts of the buildings, to their rear. The typical laneway width will be 8.5 metres, however, laneways at elbow conditions will be provided with a wider right-of-way of 10.0 metres to accommodate maintenance and circulation, where necessary (as identified on Figures 10 and 11, shown below).
The design of laneways in the proposed 4134 16th Avenue Community is consistent with existing laneways in Angus Glen and the surrounding neighbourhoods, and are intended to function in the same manner with respect to snow storage, access and other operations.

3.2.6 Proposed Transit Route

A transit route is proposed along the primary collector street network, traveling from the Kennedy Road entrance of Street 'A' in the east neighbourhood, across the greenway bridge, to Streets 'A' and 'B' in the west neighbourhood. The proposed bus route will exit back onto 16th Avenue from Street 'C'. This route will connect various community amenities including the elementary school, neighbourhood park, additional local parks, and the mixed use and medium density blocks along the southern edge of the community. Bus stops are proposed every 200 metres, approximately, to promote active transportation. The proposed bus route is shown on Figure 12, page 39 (Figure 6 of the Traffic Impact Study).

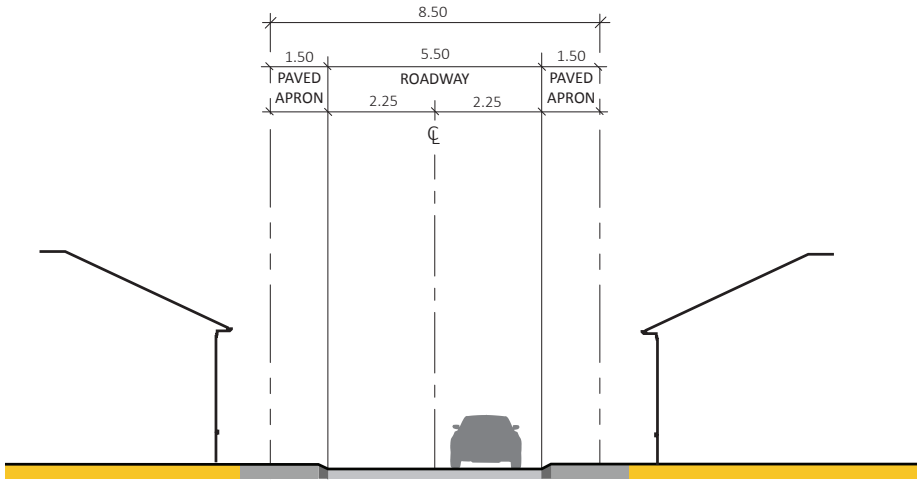


Figure 10 - Typical Laneway with 8.5 metre ROW

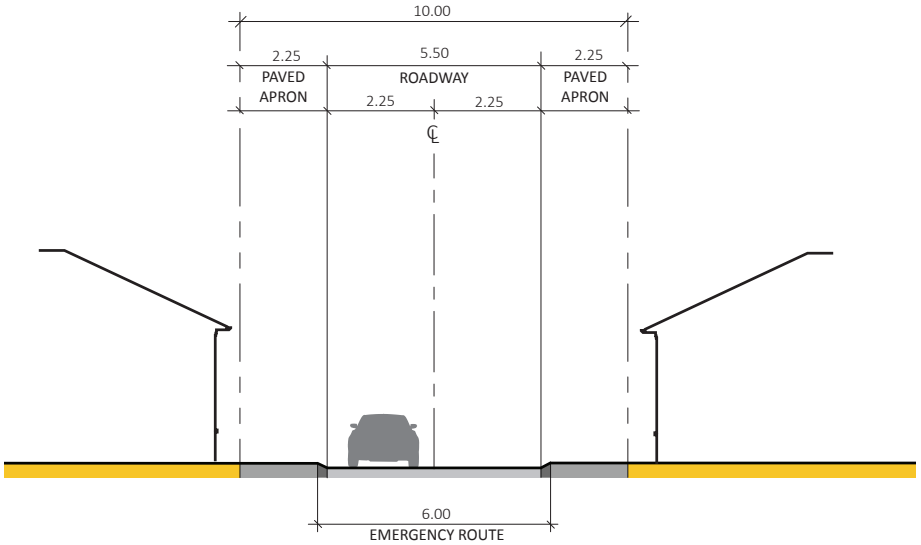
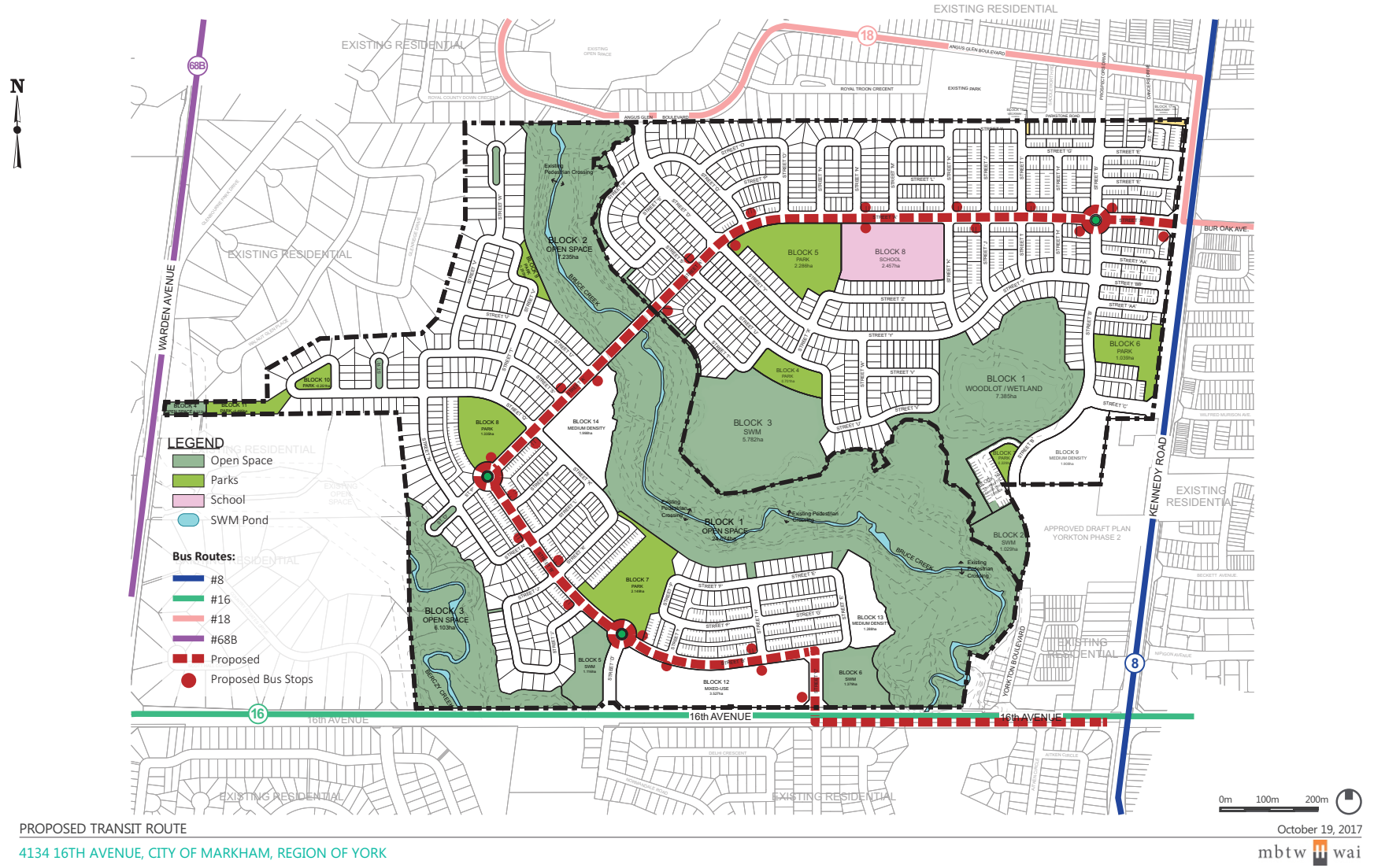


Figure 11 - Expanded Laneway with 10 metre ROW



PROPOSED TRANSIT ROUTE

4134 16TH AVENUE, CITY OF MARKHAM, REGION OF YORK

October 19, 2017

mbtw wai

Poulos Chung

Proposed Transit Route
Figure 6

Figure 12 - Proposed Transit Route

3.2.7 Roundabouts

Three traffic calming and landscaped roundabouts are provided within the 4134 16th Avenue Community, two in the west neighbourhood, and one in the east neighbourhood. These roundabouts will be supported by enhanced built form that addresses the intersection and provides visual interest in the streetscape. This will include laneway access to the proposed built form, reducing garage and driveway impact on the street. The roundabouts are proposed at key intersections, and provide a means of traffic calming and intuitive wayfinding within the community:

East Neighbourhood

- Intersection of Street 'A' and Street 'B': laneway singles are proposed on all four corners of this intersection.

West Neighbourhood

- Intersection of Streets 'A', 'B' and 'P': A special T-intersection with park frontage, laneway townhouses addressing the roundabout and park, and one laneway single with a corner condition at the roundabout.
- Intersection of Street 'B' and Street 'D': A special T-intersection with frontage onto a proposed park block lined by townhouses, a stormwater management pond, and the proposed mixed-use block. Built form in the mixed use block will address the roundabout location and adjacent open spaces (as shown in Figure 13).

1. Junior / Senior Playground
2. Seating / Lookout Area
3. Shade Structure / Gathering Area
4. Pathway
5. Roundabout
6. Crosswalk
7. Stormwater Management Pond
8. Preserved Trees

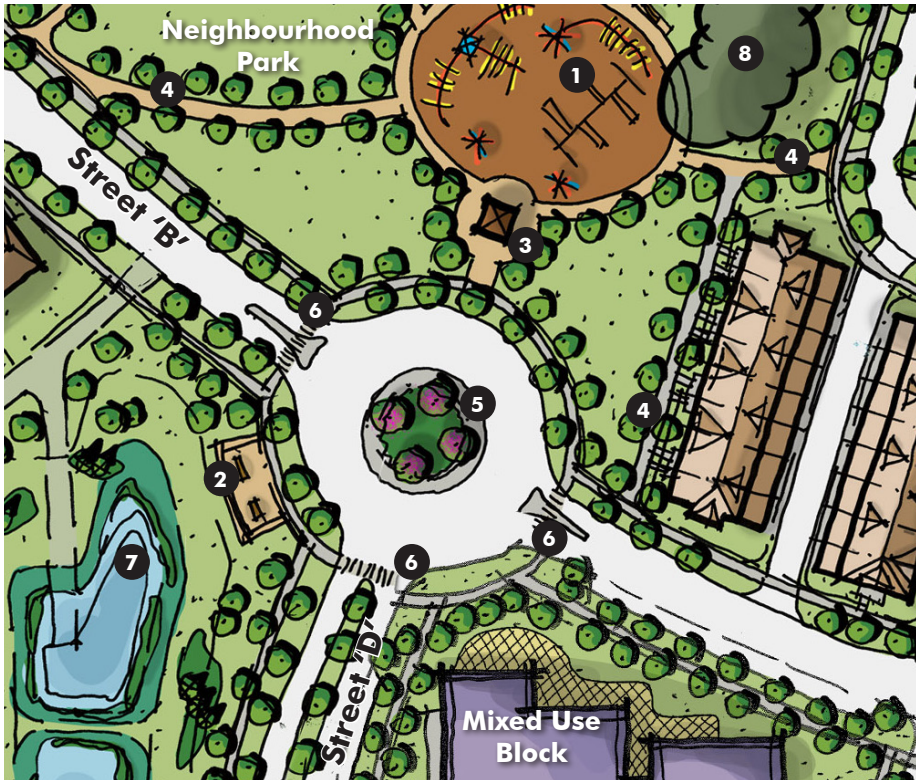


Figure 13 - Roundabout Treatment (Example from the Street 'B' and Street 'D' Intersection in the West Neighbourhood)

Landscaped roundabouts assist with wayfinding and traffic calming within the community.

On-street parking assists with traffic calming and reduces the requirement for larger parking lots.

3.2.8 On-Street Parking

On-street parking acts as an indirect form of traffic calming, and will be provided to support neighbourhood amenities including parks, schools, and mixed use development. On-street parking also helps to reinforce the desired urban streetscape by reducing the presence of parking lots. Lay-by parking is proposed on one side of all of the collector streets in the community, where feasible:

East Neighbourhood

- Streets 'A', 'B' and 'D'.

West Neighbourhood

- Streets 'A' and 'B'.

3.2.9 Utility Coordination

Careful utility coordination is required to ensure that proposed streetscapes are viable and visually appealing. Poor utility coordination impacts the growth of street trees, the location of street furniture, and overall appeal of neighbourhood and community streets. The following guidelines apply for utility placement throughout the 4134 16th Avenue Community:

- Place utilities underground, where possible, or at flankages; alternatively, utility boxes must be screened from all sides to the extent possible in keeping with utility operational access requirements;
- Screen utility boxes along park and open space edges with landscaping and landscape structures;
- Coordinate the placement of below ground utilities with tree roots (in accordance with City of Markham standards);
- Coordinate the placement of above ground utility boxes and light fixtures with other elements of the streetscape, including street trees, sidewalks, street furniture, and mailboxes (where relevant); and
- Incorporate utility meters discreetly into interior side elevations of adjacent built form, at least 1.2 metres away from the front of the house, within compliant and recessed gas distribution meter boxes (subject to utility company regulations).

Examples of sensitive integration of utilities to benefit the streetscape.

3.2.10 Low Impact Development

To support the sustainability objectives of the Community Design Plan, innovative low impact development (LID) measures are proposed in the form of enclaves with bio-retention islands (rain gardens). The enclaves will generally have a 32.5 metre right-of-way, with a 15 metre wide island to accommodate the proposed rain gardens.

There are a total of three enclaves proposed in the 4134 16th Avenue Community, all of which are located in the neighbourhood to the west (Streets 'O', 'R' and a portion of Street 'W'). The enclaves will consist of a landscaped area with loose, deep soil, that is depressed to collect water runoff. Landscaping within these features includes drought and water tolerant, native plant species, similar to the following varieties:

- *Amelanchier arborea* (Downy Serviceberry);
- *Cephalanthus occidentalis* (Buttonbush);
- *Cornus stolonifera* (Red-osier Dogwood);
- *Hamamelis virginiana* (Witch-hazel); and
- *Rosa palustris* (Swamp Rose).

Rain gardens allow approximately 30% more water to soak into the ground than a regular patch of lawn. The strategic location of these enclaves would divert run off from adjacent tributaries, supporting the hydrological function of the adjacent natural creek systems.

Examples of rain gardens, to be incorporated in the proposed enclaves throughout the community.

3.3 Land Use Mix & Distribution

The distribution of density and land use has been designed to support the overall objective of a compact and healthy community. This distribution will ensure appropriate built form and amenities to support a walkable and engaging public realm. Proposed land uses in the 4134 16th Avenue Community include natural heritage features, parks and open spaces, stormwater management ponds, an elementary school, mixed-use development, and medium density and low density housing (Figure 14, page 45).

3.3.1 Distribution of Density and Land Use

The design and layout of the community has been guided first and foremost, by the rich natural heritage resources; in the greenway in both neighbourhoods, the existing woodlot/wetland in the east neighbourhood, and retained culturally significant trees, where possible. The distribution of sensitive land uses and sustainability measures has been guided by the location of these features, including the distribution of stormwater management ponds, LID measures such as the proposed bio-retention enclaves, and low density housing (incorporating LIDs, as described in Sections 3.2.10 on page 43 and 6.2.1 on page 91). Visual and physical access to these systems were provided where possible, in both the east and west neighbourhoods, through openings in the streetscape, the proposed greenway crossing (Street 'A') and trail connections.

The location of neighbourhood amenities, including parks and open spaces allows access to all residents within a 5 minute walk (400 metre walking distance). There are a total of nine proposed parks in the 4134 16th Avenue Community, four in the neighbourhood to the east, and five in the neighbourhood to the west. There is also direct access and frontage to Colty's Park, an existing park within the Angus Glen neighbourhood to the north. These parks are generally located at key collector street intersections, including two of the proposed enhanced roundabout intersections. The largest proposed park (2.3 hectares) is proposed in the neighbourhood to the east, campused with the proposed elementary school. This central location provides a focus for the community and supports potential institutional need from the Angus Glen Community to the north. Built form is generally oriented to front onto the proposed parks, often with direct frontages, with access to garages from rear laneways, for an enhanced public realm and to encourage safety through casual surveillance.

The proposed community design allocates the highest densities adjacent to the urban edges of 16th Avenue and Kennedy Road. These locations are supported by transit facilities, and are accessible through a connected multi-modal transportation network throughout the 4134 16th Avenue Community. The proposed street layout, trail network and transportation systems provide mobility options for residents in these higher density locations to access neighbourhood amenities, within and beyond the proposed community.

To underpin the healthy community and mobility objectives of the Community Design Plan, the layout of the community has been designed to support potential future transit connections, such that the majority of the community (90%) is located within 400 metres (a 5 minute walk) of transit stops. The proposed transit network will travel along the primary collector streetscape, and is described in more detail in Section 3.2.6, page 38 of these guidelines.

Figure 14 - Land Use Plan

3.3.2 Transitions to Existing Uses

Sensitive transitions to the existing residential neighbourhoods to the north, east and west were key determining factors of the distribution of housing types throughout the community. Larger and deeper single detached lots with a 21.34 metre (70 foot) frontage are proposed at the north-west extent of the west community, ensuring compatibility with the existing estate residences to the northwest. A gradual increase in densities is proposed as housing approaches higher order streets, especially the collector street network. Laneway housing and narrower single detached housing are the predominant built form along the collector street edges (exceptions are found in transition areas to ensure compatibility).

The proposed plan includes the following measures to ensure sensitive transitions to existing residents:

- Tree groupings have been preserved as natural heritage features to maintain existing features and provide added screening. Deeper lots have been assigned along the peripheries of the site, adjacent to existing residences to ensure the preservation of these trees without compromising rear yard space, while also respecting the depth of these existing lots.
- Side lot lines have been aligned to ensure that rear yards of new residents are consistent with those of existing rear yards, where possible, such that only one rear yard backs onto any existing yard.

3.3.3 16th Avenue Special Character Area

A mixed use block is proposed along the southern edge of the 4134 16th Avenue Community, located between the Berczy Creek greenway to the west and the Bruce Creek greenway to the east. It is framed by the two proposed entries from 16th Avenue (Streets 'C' and 'D'), extensions of Normandale Road to the south. This block optimizes on existing transit infrastructure and provides a centralized destination for commercial, office and residential uses, with a frontage of approximately 410 metres on 16th Avenue. The variety of uses within the mixed use block may be distributed horizontally within the block, or vertically within a single building. Guidance for mixed use buildings is provided in Section 4.4, page 63 of this document.

The configuration of the mixed use block is expected to be developed at the detailed design stage. A demonstration plan has been provided on the following page as an example of how uses may be distributed in the block (Figure 15 on page 47). While the distribution of land uses and built form within the block is flexible to change through design development, there are a number of measures that have been included in this application to ensure that sensitive transitions are provided to the existing residential community south of 16th Avenue, as well as the proposed residences north of the mixed use block (part of the west neighbourhood):

- Building heights along the 16th Avenue frontage will be limited to 13.5 metres in the proposed zoning by-law, with 20.0 metres permitted on the north half of the block.
- The block will be subject to a 4 storey maximum height in the official plan
- The proposed commercial gross floor area will be limited to 3,700 square metres, distributed across the entire block.
- To mitigate impact on transportation routes along 16th Avenue, only right-in right-out access will be permitted from the arterial road edge.

Key design principles for the 16th Avenue Special Character Area are described in Section 2.2 (page 22) and support priorities of social equity, economic vibrancy, and access and mobility.

1. Mixed Use Building
2. Mid Rise Building
3. Commercial / Office
4. Condominium Laneway Townhouses
5. Laneway Townhouses
6. Rear Lane Single-Detached Homes
7. Single Detached Homes
8. Gateway Building
9. Access to Mixed Use Block
10. Crosswalk
11. Pathway
12. Proposed Bus Stop
13. Parking
14. Lay-by Parking
15. Planted Median
16. Roundabout
17. Landscape Buffer
18. Amenity / Patio Space
19. Stormwater Management Pond
20. Preserved Trees

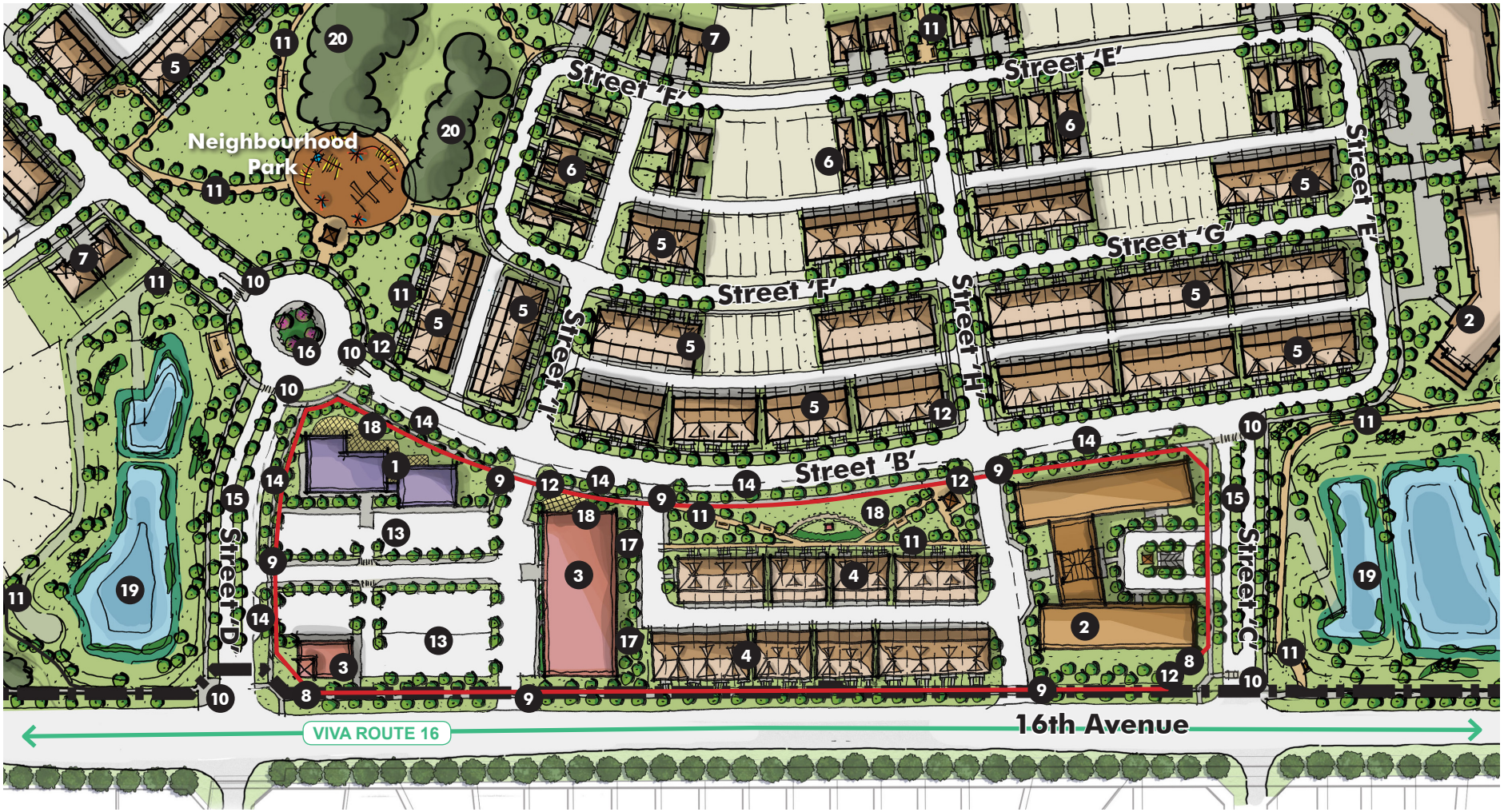


Figure 15 - Demonstration Plan of the Mixed Use Block (West Neighbourhood)

3.3.4 Street and Block Pattern

The proposed street network follows an intuitive hierarchy of collector and local streets with a modified grid layout and short block lengths. Where long residential blocks are proposed, cap end units will be proposed to visually shorten the block, encourage walkability and create a safe, pedestrian-led environment. More information on cap end block configurations is provided in Section 3.3.5, on page 49. This street pattern maximizes walkability and connectivity to neighbourhood amenities, such as the mixed use development, proposed elementary schools, parks, trails and the open spaces, as well as beyond the extent of the community to adjacent neighbourhoods and commercial amenities to the north and east. The layout of the street network generally supports good sustainability practices, with the majority of blocks being oriented east-west according to solar patterns to promote comfortable pedestrian microclimates. Nearly every street in the proposed community leads to an open space view, a valley connection, or a lookout.

Variation in the proposed built form will provide a visually interesting streetscape.

The street network is oriented to provide open space views throughout the community.

3.3.5 Cap End Block Configuration

Cap end units are proposed throughout the 4134 16th Avenue Community to increase active frontages in the public realm and promote a safe and active pedestrian environment. The primary collector streetscapes of the east and west neighbourhoods (Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west) are designed to eliminate driveway or garage presence, which is predominantly supported by the distribution of cap end laneway single and townhouse dwellings. A special built form and architectural treatment is proposed for the flankage lots along these primary streets, discussed in further detail in Section 4.5.2, page 66 of these guidelines. Conventional cap end block configurations ensure casual surveillance and an enhanced architectural presence and streetscape condition and are distributed throughout the local street network of the community. Notable locations for cap end units include terminus view locations, and other areas where these units front onto the secondary collector street network, and window street conditions with indirect access to parks, Kennedy Road to the east, and the natural heritage system.

Cap end block configurations increase active frontages on the public realm and visually shorten the block.

4.0 Architecture and Site Planning

The proposed architecture of the 4134 16th Avenue Community will be sympathetic to its natural setting, and will be compatible with surrounding existing development on all sides of the community. The proposed architecture will include adaptations of traditional styles, influenced by the surrounding communities and the historical homes of Unionville. Opportunities to integrate more contemporary styles of housing may be considered to add variety to the streetscape, especially for higher density housing types. Architectural Design Guidelines will be prepared as a condition of draft plan approval, and will provide a more detailed vision and guidelines related to the proposed architecture. The following sections should be read in conjunction with these Architectural Design Guidelines.

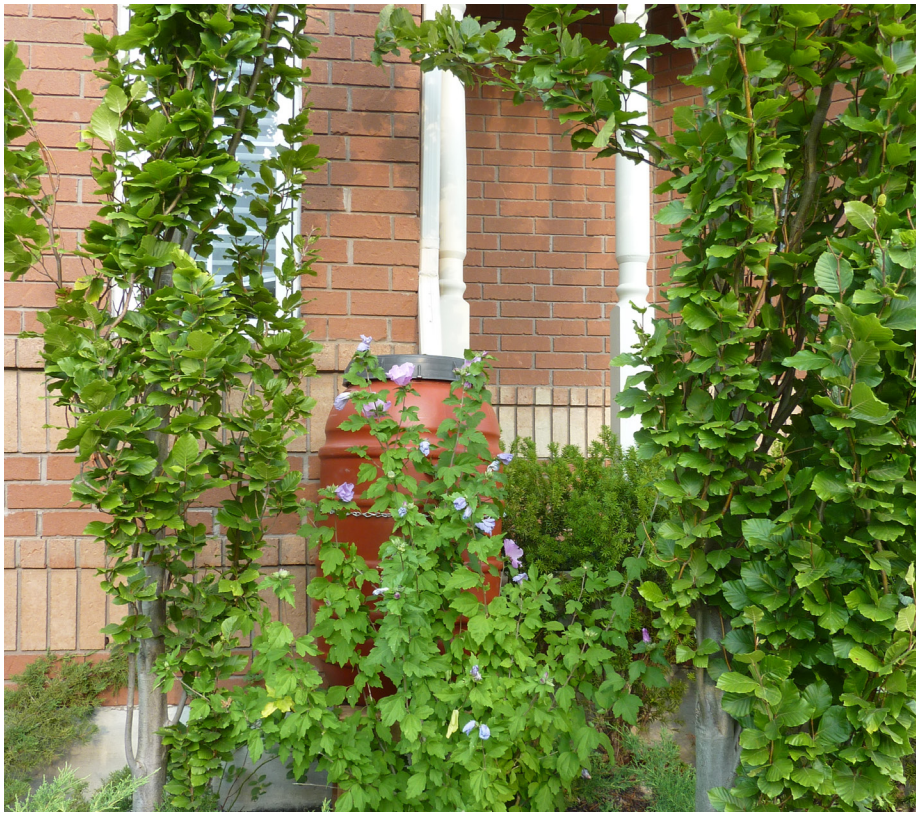
The architecture and site planning of new buildings within the 4134 16th Avenue Community will contribute to attaining the overall vision of a complete, compact, healthy and accessible community.

The following objectives will guide the architecture and site planning of new buildings in the community:

- Designing for a sustainable community.
- Supporting community safety by design.
- Providing high quality architecture that contributes to the public realm.
- Coordinating architecture and landscape to create a distinctive image throughout the community.
- Enhancing architectural treatment at community gateways and other prominent locations.
- Orienting buildings to frame views and vistas.

4.1 Building Typology

The proposed built form provides housing choice, and incorporates green building technologies that demonstrate a commitment to sustainable development practices. Opportunities for energy efficiency and conservation will be considered at each stage of the development process, including planning, design, and construction. All proposed residential typologies will be required to submit an 'Energy Efficiency Design Summary' sheet demonstrating the house's compliance with the Ontario Building Code, in accordance with the City of Markham's standards and regulations. New homes are required to achieve an 'Energuide' rating of 80 or above to be classified as an 'energy efficient new house'.



Rain barrels may be installed, and should be sensitively screened from view.

The following sustainable building measures are proposed:

- An integrated design approach will include representatives from all stages of the development process to ensure a sustainable process from conception to construction (professions include construction, architecture, site servicing (civil), landscape architecture and mechanical / electrical).
- A range of housing types and sizes will intrinsically account for affordability.
- Building designs will incorporate flexible provisions for employment, including working from home.
- Architectural features will be applied (for example, overhangs) on the sides of the homes that face the ravine and natural areas as bird friendly glazing treatment.
- Energy efficiency measures will include best practices for insulating the building envelope, glazing and mechanical equipment (to be investigated at the time of construction).
- LED exterior lighting will be provided, and will target 'dark sky' with zero light spillage outside the property line.
- Garages will include a power connection for Level 2 EV charger.
- Water efficiency levels will exceed Ontario Building Code requirements.
- Water systems will be installed that help to reduce potable water consumption within the home and irrigation of residential yards.
- Homes will be designed to be solar ready (empty conduit installed from roof to electrical panel and space provision for batteries).
- Homes will include HRVs which will be property sized.
- Materials will include recycled content, and low VOC paints, coatings, adhesives and sealants, and low VOC carpet, underlay and flooring (GreenLabel +Plus and FloorScore certified).
- Waste sorting will be incorporated within units and throughout the community.

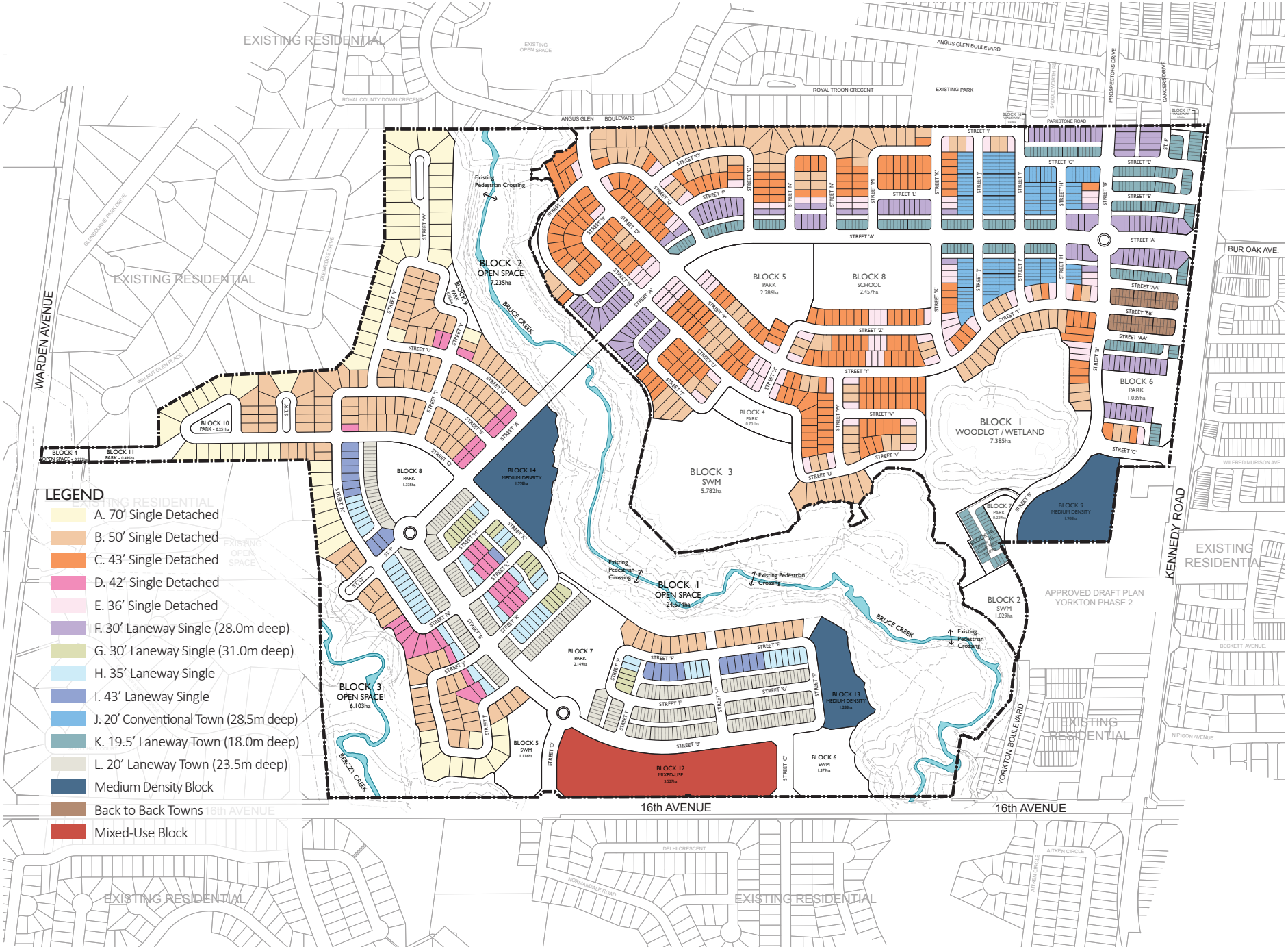


Figure 16 - Proposed Building Typology

Figure Reference	Unit Type	West Draft Plan (no. of units)	East Draft Plan (no. of units)	Total Unit Count
Single detached dwelling, with access on a public street				
A	21.33m (70') x 31m / 35m	64	-	63
B	15.24m (50') x 28.5m / 31m / 35m	159	135	294
C	13.1m (43') x 28.5m	-	255	255
D	12.2m (40') x 31m	37	-	37
E	11.0m (36') x 28.5m	-	91	91
Single detached dwelling, with access on a laneway				
F	9.15m (30') x 28m	-	147	147
G	9.15m (30') x 31m	25	-	25
H	10.7m (35') x 31m	53	-	53
I	13.1m (43') x 31m	22	-	22
Townhouse dwelling, with access on a public street				
J	6.0m (20') x 28.5m	-	145	145
Townhouse dwelling, with access on a laneway				
K	5.95m (19.5') x 18m	-	265	265
L	6.1m (20') x 23.5m	281	-	281
Medium Density Residential Units				
	Medium Density Condominium Block	265	145	410
	Back to Back Townhouse Block	-	72	72
Mixed Use Block				
	Residential Units	210	-	210
Total Residential Units		**1,116**	**1,255**	**2,371**

Table 1 - Building Typology and Unit Yield

4.2 Low Density Residential

The majority of the proposed 4134 16th Avenue Community will consist of low density development, including single detached and townhouse dwellings, both conventional and laneway based. These units are proposed at a variety of lot sizes and depths, and have been distributed with careful consideration in order to create high quality streetscapes and appropriate transitions between the existing surrounding neighbourhoods and the proposed 4134 16th Avenue Community. All dwellings within the proposed development should foster a safe community, in accordance with the following guidelines:

- Building entrances and windows should be visible from the street, to create an overall impression that vigilant neighbours are looking out on the street.
- Dwellings should have porches, stoops, porticoes or other outdoor usable space in the front, to create an overall impression that neighbours may be out in front of their homes.
- Landscape elements and plant material should not create obscure areas where a person could hide.

4.2.1 Block Shape and Building Type

The distribution of the proposed dwelling types in the 4134 16th Avenue Community are shown in Figure 16, described in Table 1 (pages 52-53).

The buildings have been carefully distributed to ensure compatibility with adjacent development and a high quality public realm. Buildings should be designed and located to frame the public realm, providing a sense of enclosure with a clear definition between public and private space. Special considerations in the proposed community include:

- 70' and 50' single detached homes are proposed in the north-west corner of the subject lands, adjacent to the existing estate residential homes. These large and deep lots provide a transition from the existing estate residences to the narrower and more compact residential development proposed throughout the Community Design Plan.
- 50' single detached homes are proposed backing onto the existing residences of the Angus Glen Community, east of the Bruce Creek greenway. These homes will provide a deeper back yard than is typical with the hopes of preserving some of the existing vegetation and providing a buffer for the residences to the north, to ensure an appropriate transition.
- Laneway housing and special flankage treatments are proposed along the primary collector streetscapes (Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west), ensuring that driveways and garages are eliminated from the streetscape along these primary travel routes. This makes for a more attractive streetscape condition, and a more compact, transit supportive and walkable form of housing.

4.2.2 Built Form

High quality built form within the streetscape and at special locations within the 4134 16th Avenue Community helps to physically define the public realm and provide identifiable landmarks to foster a unique sense of place. General guidelines for the proposed built form in the community are provided below.

- Provide varying roof forms, orientations, and details for visual interest.
- Provide varied and compatible architectural styles for a sense of place and to create interesting streetscapes.
- Provide variety in main entry designs that are consistent with the architectural style of building.
- Design main entrance and porch as the focal feature of the main façade of the house.
- Provide balanced proportions of architectural details and features for high quality design.
- Ensure that architectural detailing is consistent on all publicly exposed elevations.
- Provide a variety of high-quality and maintenance-free cladding materials for permanence and quality.
- Coordinate exterior colour selections for a harmonious yet varied streetscape experience.
- Provide a mix of window types, where appropriate to the architectural style of building.
- Provide window accents, such as shutters, where appropriate to the architectural style of building.

Example of 70' wide single detached dwelling.

Example of 50' wide single detached dwelling.

Design Guidelines for Grade Related Dwellings:

- The mixture of architectural styles and influences in the streetscape must be compatible through massing, materials, and colours.
- Provide a variety of elevation treatments between unit types and alternate elevations, including symmetrical and asymmetrical elevations. Differences may be achieved in the treatment of main entries, fenestration, architectural detailing and cladding.
- Provide variations in building massing and scale, with simple, distinguishable massing and shape, as well as strong distinctive elements for main entry as the focal feature.
- Provide gentle height transitions between adjacent buildings.
- Pay attention to exposed side elevations where transitions between building types include changes in front yard setbacks and adjust front yard landscaping to mitigate these transitions.
- Provide dominant porch designs sized to allow for seating and promote interactive outdoor spaces. Porches should be a minimum of 1.5 metres in depth.
- Provide a variety of front-facing garage locations to minimize the visual impact of the garage in the streetscape.
- Consider grading conditions of the site when designing buildings.

Example of laneway-based single detached housing

Example of 20' wide laneway townhouse.

Design Guidelines for Townhouse Dwellings:

- Ensure that the architectural design, composition, and style of the proposed townhouse blocks near Kennedy Road are compatible with adjacent existing and proposed residential development.
- Consider breaking up the overall building massing of individual townhouse blocks relative to adjacent single and semi-detached houses. Townhouse blocks may alternatively be designed to appear as a series of individual parts.
- Consider the overall building form, massing, and proportions, relative to the number of units within the specific block.
- Variations in the design of townhouse blocks should be used to help articulate long and continuous rooflines and/or wall planes and create a distinctive character for individual blocks.
- Provide varied roofscapes within individual townhouse blocks where possible to contribute to an interesting public realm and maintain compatibility with adjacent detached dwellings.
- Locate main entrances of corner units on the flankage elevation to create a building appearance that is consistent with the adjacent detached housing, while addressing both street frontages.
- Where stepping occurs along the street, the overall townhouse block shall maintain a relatively consistent relationship to grade for individual units.
- Where firewalls are necessary, they are to be integrated into the overall design of the townhouse block taking care in their location and design relative to individual units and minimize its visual impact on the building elevation.

Garages and Driveways:

- Where the garage is accessed by rear lane, incorporate materials, colours and details to match the main house.
- Ensure that front-facing garages do not project forward of the main entry element or porch.
- Provide a variety of garage door styles.
- Reduce the amount of asphalt and increase the landscaped areas in front yards, maximizing opportunities for on-street parking, by pairing, grouping, or tapering driveways, where appropriate.
- All driveways should be finished in a hard surface. Interlock pavers are encouraged.
- Minimize the width of the driveway to reduce its presence on the streetscapes.
- Ensure that the exterior width of the driveway does not exceed the exterior width of the garage.

4.2.3 Secondary Suites

Secondary suites are self-contained residential units that are accessory to a principal residential dwelling. They are an effective means of providing affordable, rental housing, and increase options for aging in place. They also support the objective of a compact community, increasing the number of people living within a specific area, and therefore supporting transit and community facilities, which are essential elements of creating a complete community.

Secondary suites within the 4134 16th Avenue Community may take the form of coach housing, located at the end of a laneway. Coach houses are secondary units located above a garage, and can benefit the community by creating 'eyes on the street' on adjacent laneways, and improving the massing and streetscape conditions on the laneways and on flanking streets.

Coach housing diversify built form and improve the massing and streetscape of laneways.

Design guidelines for coach housing include:

- Restrict secondary suites to a maximum of 1 accessory unit for a principal residential dwelling.
- Provide a separate entrance for the secondary unit, with a separate kitchen, bathroom and living area.
- Incorporate similar building materials, textures and colours as those used on the principal dwelling, complementing but not replicating the design of the main building.
- Locate windows to maximize light penetration and casual surveillance on the laneway or flanking street (for a corner lot), while minimizing overlook and shadows into adjacent private yards.
- Orient coach housing located on corner lots to front the flanking street.
- Provide articulated elevations and variations in height and massing to add visual interest to the streetscape, especially for the side elevation facing the flanking street.
- Incorporate stepbacks to transition massing from interior side yards to a greater height onto flanking streets.
- Provide a complementary rhythm, scale and height to that of the surrounding streetscape.
- Locate habitable space towards the flanking street and laneway to activate the frontage and encourage casual surveillance.
- Design garage doors to have minimal visual impact on the laneway, through architectural detailing.
- Incorporate green building technologies, where possible, including energy and water efficiency measures.

4.3 Medium Density Residential

A medium density residential block (Block 13) is proposed on the west side of the Bruce Creek greenway, near the 16th Avenue frontage on Street 'E' (in the west neighbourhood). This block may include a mid-rise development and condominium townhouses that front onto Street 'E' and provide views to the greenway. Additional medium density blocks are proposed near the central greenway, including Block 14 in the west neighbourhood and Block 9 in the east neighbourhood (adjacent to the Yorkton community to the south). Other medium density dwelling types that are proposed in the east neighbourhood include back to back townhouses along the Kennedy Road edge.

General guidelines for townhouse development are provided in Section 4.2.2, on page 57. Additional guidelines for stacked, decked and back to back townhouses are provided below:

- Locate townhouse blocks close to the street and orient them to maintain a significant street frontage.
- Provide a minimum of three-storey massing and a strong, formal street presence along Kennedy Road (in the east neighbourhood).
- Install low decorative fencing and landscaping to define the front yards of stacked townhouses located along Kennedy Road and to create an appropriate transition between the public and private realms, including an appropriate level of privacy for ground floor living areas facing onto Kennedy Road.
- Provide clearly identifiable entrances fronting the street and, where possible, close to the street line.
- Provide variety in architectural detailing to improve the quality of the streetscape and intuitive wayfinding.
- Encourage the pairing of main entrances to increase the width of landscaped areas.
- For back to back townhouses, design all frontages to address public (or private) streets.
- Ensure that the design of private streets, where required, provide for high quality, safe and comfortable pedestrian environments, with fenestration and habitable space on these frontages to promote casual surveillance.

Examples of back to back townhouses.

General guidelines for mid-rise development include:

- Provide appropriate transitions and compatible architectural design, composition, and style of medium density buildings as they relate to adjacent residential dwellings.
- Locate building close to the street edge, oriented to address all street intersections.
- Ensure the main building entrance is prominent and directly visible from the street.
- Provide weather protection for all entrances.
- Provide opportunities for social gathering areas close to the main entrance, that allow for seating, displays, waste/recycling receptacles, public art, and landscaping, to encourage interactions.
- Provide safe, clear pedestrian circulation patterns within the site to sidewalks.
- Provide bicycle parking areas to encourage cycling opportunities, especially near the main entrance.
- Articulate building elevations with changes in plane to break up long, continuous stretches.
- Provide appropriate setbacks and step-backs in the upper levels of the building massing to maintain pedestrian scale at street level.
- Divide and vary long roofscapes for visual interest.
- Provide balconies and distinctive architectural features incorporated into the overall design of the building.
- Design and detail the building to be compatible with adjacent built form through massing, materials and / or other design strategies, with consistent architectural detailing on all publicly exposed elevations.
- Minimize conflicts between vehicular access, drop-off, parking areas and pedestrian accesses.
- Where possible, provide mainly underground parking.
- Avoid surface parking areas between the building and street, where possible. Surface parking should be located at the rear of the site.
- Screen loading, service, and garbage storage areas by building, screen walls and/or landscaping of coniferous planting for year-round screening of negative views.
- Coordinate snow storage with landscape design.
- Screen all roof-top mechanical units from public view.
- Incorporate vents and exhaust elements into the design of façades, and avoid locating them on principal elevations.

Mid-rise buildings provide additional density, while retaining a human scale and relationship with the street (The 6th Angus Glen).

1. Seating / Gathering Area
2. Condo Amenity Space
3. Laneway Townhouses
4. Conventional Townhouses
5. Mid Rise Buildings
6. Existing Greenway
7. Pathway / Trails
8. Community Gateway and Pedestrian Entrance to Mixed Use
9. Planted Median
10. Stormwater Management Pond
11. Underground Parking Access
12. Emergency Access

Figure 17 - Conceptual Design of Medium Density Block 14 (West Neighbourhood)

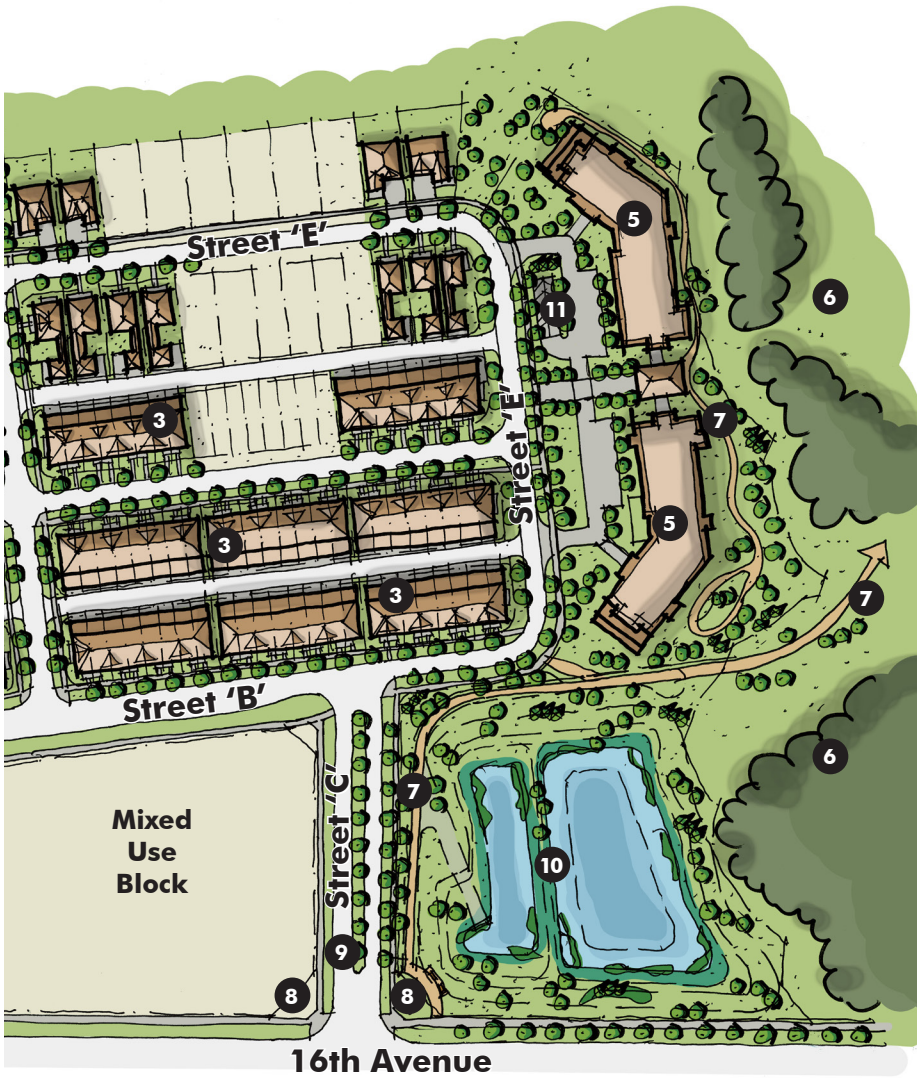


Figure 18 - Conceptual Design of Medium Density Block 13 (West Neighbourhood)

Figure 19 - Conceptual Design of Medium Density Block 9 (East Neighbourhood), prepared by NAK design strategies

4.4 Mixed Use Buildings

A mixed use block is proposed at 16th Avenue, in the west neighbourhood. This block is expected to consist of 2-4 storey buildings supporting a mix of uses, including commercial, residential, and office. The proposed block provides an urban edge at this arterial location, locating higher densities within closer proximity of a high-priority transit corridor. Mixed use buildings also provides commercial and retail amenities to the proposed 4134 16th Avenue Community.

Where a mix of uses is proposed within the same building, it is recommended that the commercial and retail space be located on the ground floor, with residential uses above. Additional commercial buildings may also be proposed within the same mixed use block. The development of mixed use buildings should be consistent with the guidelines provided for mid-rise buildings in Section 4.3 (page 59). Additional guidance is identified below:

- Use colours and materials to clearly define and differentiate the building base (i.e. the commercial component) from the balance of the building and its residential uses, and to convey a sense of scale.
- Clearly define commercial entrances of the building and differentiate them from residential entrances.
- Provide taller first floors than upper floors, and combine first floor heights with canopies, storefront windows, and details for an animated pedestrian-scaled frontage.
- Provide expansive storefront windows for views to activities inside, creating interest for passersby and to serve as a visual connection to the outdoors.
- Encourage projecting storefront windows to enhance visibility of the retail space.
- Provide commercial signage that is clearly illuminated with accent lighting complementary to the design of the building. Avoid backlit signage.

Large storefront windows provide views to activities inside, animating the streetscape.

4.5 Priority Lots & Dwelling Types

Lots that are situated in prominent areas within the public realm are identified as priority lots and require special design considerations to account for their high visibility. Priority locations include gateway lots, corner lots, window lots, and lots that front onto or are adjacent to parks and open space. Additional considerations are also provided for lots at the end of a view corridor, such as at T-intersections, elbow streets, and cul-de-sacs.

Recognition for priority lots should be reflected in the proposed architectural design at these locations, incorporating elements and details that are appropriate for their higher degree of exposure. Special attention and unique solutions should be considered, including building shape or massing, main entry design, garage treatment and location, architectural detailing, exterior building materials and/or colours, and landscape elements.

Priority lot locations are identified in Figure 20 (page 65). The following criteria are intended to ensure an appropriate response for priority lots within the proposed 4134 16th Avenue Community.

4.5.1 Gateway Lots

Gateway lots are located at the entrances of the community and represent special opportunities to celebrate a "sense of entry or arrival". This can be achieved with special designs that address the high level of public exposure, which reflect the architectural character of the development. Gateways will be identified through increased architectural detailing and enhanced landscape architecture features.

Special considerations for gateway buildings include:

- Orient gateway features to address the higher order street at intersections.
- Where possible, incorporate greater height or massing than is typical in the adjacent streetscapes.
- Feature strong and distinctive architectural elements, such as prominent gables and/or projecting bays.
- Incorporate consistent main cladding, architectural detail and treatment on the front, flankage and rear elevations.
- Coordinate the design of the gateway building with adjacent landscape features that are part of the development's gateway design and treatment. This coordination should be mindful of main entry location, porch design, placement of windows, vernacular, exterior materials and colours.
- Provide private lot landscaping, detailed by the consulting landscape architect.

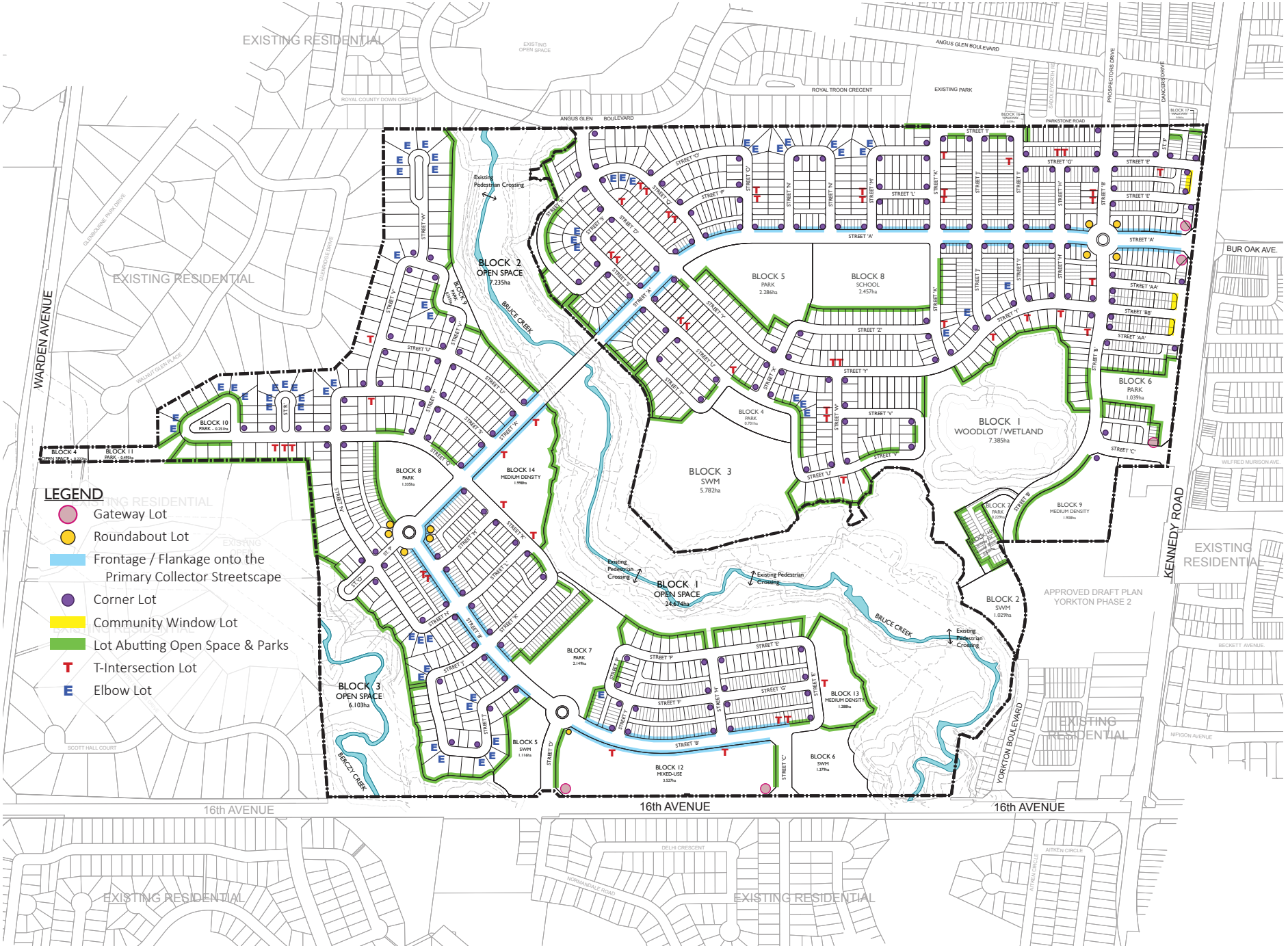


Figure 20 - Priority Lot Plan

4.5.2 Primary Collector Streetscape

The primary collector street network comprises those streets most traveled by pedestrians, cyclists, transit users and motorists. This network includes Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west. Built form located along these streets should be designed to be compatible with built form at gateway locations, to further strengthen a sense of identity and place within both of the 4134 16th Avenue neighbourhoods. Built form on primary collector streets will support walkability by incorporating the following design considerations:

- Relocate driveways away from the primary collector streets by providing vehicular access to all buildings from rear laneways, or through driveway access from the flanking local street.
- Locate all garages at the rear of buildings.
- Orient the main elements of all proposed built form to address the primary collector street, including main entry location, porch design, and placement of windows.
- Ensure that the main elements of corner lot buildings at intersections with secondary collector streets and other local streets address the primary collector street.
- Coordinate built form with landscape features along the streetscape to support a comfortable pedestrian environment, with casual surveillance, enhanced accessibility and intuitive wayfinding.

Examples of laneway dwellings fronting onto the primary collector streets.

4.5.3 Roundabout Lots

Three roundabout locations are proposed within the 4134 16th Avenue Community. Built form located at these intersections should incorporate special design considerations to celebrate, reinforce and address the roundabout, including:

- Orient or stagger the front elevation of the building to address the roundabout.
- Provide main entrances to face the flanking lot line or angled to face and address the roundabout.
- Increase fenestration facing the roundabout.
- Provide a unique façade treatment and elevation design for each dwelling facing the roundabout, while maintaining an architectural compatibility in massing and scale.
- Avoid repetition for dwellings located around the same roundabout, and provide each with a unique colour package.
- Construct dwellings with dominant building massing to address the roundabout and present a strong street edge.
- Maintain pedestrian scale at the street level.
- Provide parking access from the rear to minimize traffic impact and focus on main entrances as focal features.
- Locate utility metres on the interior side yard elevation, at least 1.2 metres away from the front of the house, and subject to utility company regulations.
- Provide private lot landscaping, detailed by the consulting landscape architect.
- Screen rear yards with enhanced privacy fencing detailed by the consulting landscape architect.
- Ensure that the urban landscape character is compatible with the design language and theme for entry features.

Roundabout homes provide an architectural statement, while addressing two street frontages.

4.5.4 Corner Lots

Corner lots are characterized by their exposure to two street frontages, which permits a variety of main entry and garage access configurations. The main entry of these dwellings should be located on the flankage side to allow for the allocation of habitable space fronting onto the street. Where this is not feasible, the main entry may be oriented to the front lot line, provided that the flankage wall composition incorporates an appropriate amount of design attention and architectural features such as bay windows, secondary entrances, etc.

Special considerations for corner lot buildings include:

- Maintain a consistent level of detailing on all publicly exposed elevations.
- Design the exposed side and rear elevations of corner lot buildings to match the front elevation, and to respond to the additional light source through the location and design of windows, articulated building faces, fenestration and architectural details.
- Provide increased fenestration along elevations facing the public realm for eyes on the street (CPTED).
- Break up the roofline by incorporating wall plane changes or projecting bays along with gable features.
- Provide corner-specific architectural features, such as wrap-around porches.
- Locate the main entry along the flankage side.
- Locate the driveway and garage on the front elevation at the interior property line, as far from the intersection as possible.
- Recess the garage from the front of the building, away from the main entry and intersection.
- Where the main entry is located on the shorter side of the lot, the design of the flankage face should incorporate a secondary entrance, projecting bay or other appropriate feature.
- Locate utility metres on the interior side yard elevation, or integrated into rear elevations on a laneway, at least 1.2 metres away from the front of the house, and subject to utility company regulations.

Features such as wrap-around porches and enhanced landscaping are used to address the two street frontages.

4.5.5 Community Window Lots

Community window locations, sometimes known as service roads, occur where a public or private street runs directly parallel to an adjacent arterial road. These situations create a framed view that contributes to the overall first impression of a community, providing an opportunity to convey the overall character to passersby. Design considerations for community window locations include:

- Coordinate the design of individual buildings with the residential streetscape and the landscape treatment of the arterial road edge.
- Orient buildings to front onto the window street, providing a strong community image.
- Orient main entrances to face window streets, where possible. Where this is not possible, lots flanking onto an arterial road adjacent to a community window street should be designed in a similar manner to corner lots, presenting a front face to the arterial road and enhanced side and rear elevation upgrades.
- Integrate the garage into the envelope of the building to minimize its dominance on the streetscape.
- Pay special attention to the colour schemes of houses located on community window streets.

Community window streets can provide the first impression of a community. A variety in architectural styles and materials add interest to the streetscape.

4.5.6 T-Intersection Lots

T-Intersection lots are located at the end of a view corridor, and are framed by two corner lots flanking the terminated street. These dwellings are viewed more frequently and for prolonged periods while traveling through community streets. Special considerations for lots at the terminal view of T-intersections include:

- Select models that present visual interest with architectural treatment and de-emphasize the presence of the garage and driveway locations, favouring a larger area for landscaped treatment in the front yard.
- Plant coniferous landscaping to screen headlights, where possible.
- Locate garages and driveways to the periphery of the axial view for a larger landscaped area.

4.5.7 Elbow Streets & Cul-de-sacs

On curved, elbowed and cul-de-sac streets, special attention should be given to those dwellings where the bend of the street can partially expose the interior side elevation, as they are viewed from along the length of the street. These conditions may require the following design considerations:

- Extend detailing treatments to the interior side elevation, such as frieze board, material transitions, and possibly, additional fenestration.
- Coordinate the location of driveways and garages to minimize their impact on the streetscape, by locating them away from the axis with a view terminus.
- Soften the presence of driveways by incorporating low planting material that complements the building design and siting.

Locate garages and driveways away from the view terminus.

Coordinate driveways and garages to minimize their presence in curved streetscapes.

4.5.8 Buildings Abutting Open Space & Parks

Any buildings abutting open spaces, walkways or parks should make full use of the opportunities presented by these special locations and reinforce their significance. Special considerations for these buildings include:

- Present a consistent level of architectural detailing and fenestration, in the design of all publicly exposed elevations.
- Consider constructing upper floor balconies, French windows, and deck terraces in housing that fronts open space and parks to promote casual surveillance.
- Provide architectural detailing and quality that is consistent on all exposed elevations.
- Frame views and provide visual connections to the open space, where possible.
- Housing surrounding parks should be sited to face open space and form its visual boundaries.
- Design a complete streetscape that forms a varied and interesting backdrop to open spaces and parks.
- Achieve a balance between diversity of the streetscape and continuity of architectural massing.
- Provide emphasis to the corner of structures and their side elevations, such as corner bay windows, wrap around porches and roof elements at the corner, where possible.

Houses overlooking the parks provide casual surveillance and enclosure.

An upgraded elevation with special architectural features addresses adjacent open space.

4.6 Commercial Buildings

Commercial buildings may be proposed as part of the variety of uses permitted in the mixed use block on 16th Avenue, in the west neighbourhood. The guidelines in this section are intended to ensure the sensitive integration of commercial buildings with surrounding uses, public realm conditions and proposed or existing built form. Commercial sites are encouraged to promote opportunities for walkability and social gathering, with clear and intuitive wayfinding.

4.6.1 Site Planning

- Provide larger building setbacks to allow for opportunities that enhance the pedestrian experience, such as outdoor amenity spaces and landscaping;
- Locate buildings to form a consistent street edge and to frame open spaces, such as squares or parks;
- Locate surface parking in a manner that minimizes their impact on arterial roads and collector streets;
- Orient commercial development to activate the pubic realm, providing secondary entrances from surface parking; and
- Promote the use of LID techniques in commercial site planning.

4.6.2 Building Massing & Roof Lines

- Promote seamless transitions between different heights and densities, and where relevant, use stepbacks to minimize the impact of larger buildings on adjacent low-rise residential neighbourhoods;
- Provide enhanced architectural features at corners closest to major intersections (for example, through increased building massing, or by providing a covered entry); and
- Where the commercial site is proposed with more than one building, the collective architectural composition of the buildings should be considered in terms of massing, roof lines, street relationship, and visual impact on adjacent buildings.

Two storey commercial building with offices above.

Screen surface parking areas from the public realm.

4.6.3 Building Elevations

- Commercial buildings should address the street and exhibit a high degree of visual appeal on all exposed frontages. At corner lot locations, corner specific details such as corner entrances or corner glazing should be incorporated;
- Provide visual interest in building elevations through design, articulation and fenestration. Large unarticulated wall surfaces are not permitted;
- All elevations should be clad with the same prominent materials. Where relevant, there should be purposeful termination of building materials;
- The architectural elements, colour and material treatment of individual buildings is encouraged to be compatible with adjacent buildings and the overall streetscape;
- Elevations should be pedestrian friendly, providing appropriate setbacks and human scaled articulation, detailing, and fenestration; and
- Incorporate architectural elements, such as visual markers or muted reflections, into the design of the façades for bird-friendly elevations.

4.6.4 Building Entrances

- Accentuate all public entries by integrating intuitive signage, effective architectural features (for example, canopies, change in building massing), and hard and soft landscaping elements; and
- Building entrances are encouraged to open onto an exterior area suitable for gathering and waiting.

4.6.5 Pedestrian Circulation

- Design pedestrian walkways to ensure a safe, comfortable and attractive environment for walking, accommodating movement from and through parking areas to building entrances. Walkways should be designed in concert with parking areas and drive aisles for pedestrian safety, and must comply with the Accessibility of Ontarians with Disabilities Act (AODA);
- An enhanced pedestrian realm is required along the street and at focal points throughout the development to accommodate multiple users. Enhanced pedestrian areas should be designed to facilitate meeting and gathering by incorporating street furniture, seating areas, displays, trash receptacles, public art and landscaping;
- Pedestrian connections should facilitate access to proposed transit stops; and
- Entrances used by the public must be fully accessible, and should not take their access from steps or other condition which would create a barrier to accessibility.

Pedestrian realm along the frontage of a commercial building.

4.6.6 Vehicular Access, Parking & Servicing

- Locate servicing and loading facilities to the rear of the building, screening them with architectural elements and landscaping from public view (for example, through low walls, plantings or high quality fencing);
- Where surface parking areas are permitted between the building and the street, sufficiently screen from public view through a coordinated combination of berms, fences and landscaping;
- Vehicular and service access points should be provided from adjacent side streets, away from major streets, wherever possible;
- Vehicular access points and routes should be clearly identified using both ground oriented and upright hard and soft elements;
- Large parking areas should be broken up with landscaped parking islands with a minimum width of 3.0 metres to sustain adequate tree growth and retention;
- Parking islands should be curbed, landscaped and located at the ends of all rows of parking stalls. Parking islands should include walkways where required to support a system of pedestrian routes;
- All parking areas should be paved in a hard surface material, and should be able to accommodate snow removal and storage; and
- Bicycle storage racks should be provided adjacent to main building entrances.

4.6.7 Lighting

- Provide lighting that contributes to a consistent and compatible community style;
- Provide pedestrian-scale lighting that accentuates entry points and is situated along major pedestrian pathways;
- Lighting for outdoor areas should be designed and located to ensure safety for users at night, and to facilitate crime prevention; and
- Lighting for buildings and parking will be designed and sited to minimize light spill and distribution onto adjacent residential properties by incorporating dark sky compliant lighting.

4.6.8 Commercial Signage & Outdoor Display

- Provide commercial signage that is internally illuminated using accent lighting complementary to the building façade, or floodlit. Backlit signage is not permitted;
- Provide signage that is aesthetically pleasing and unobtrusive to residential neighbours;
- Signage should be compatible in scale and design with design, colour and material of the building and designed as an integral element of the building's façade;
- Both ground-related and wall-mounted signage should be located and designed at a pedestrian scale, in terms of location, legibility and orientation;
- Ground-related signage should be integrated into the site plan, landscaping and contribute to the overall wayfinding strategy of the site; and
- Ground-related commercial signage should be used at key vehicular access points to direct vehicular traffic into the site.

Pedestrian-scale signage and patio space along the public realm.

4.7 Institutional Buildings (Elementary School)

An elementary school is proposed in the east neighbourhood of the 4134 16th Avenue Community. The school is intended to be a community hub, providing a focus for activity within the community. To reinforce this role, the proposed school is campused with a 2.3 hectare park. The guidelines in this section are intended to assist in the integration of the school building with surrounding lower density housing.

4.7.1 Site Planning

- Locate buildings close to the street line and orient them to maintain a strong street edge, addressing street intersections and maximizing the potential for their location within view corridors from surrounding neighbourhoods.
- Provide adequate room for snow storage.

4.7.2 Building Massing & Roof Lines

- Building scale and size should be compatible with and sensitive to adjacent grade-related buildings and should not dominate adjacent residential areas.
- Screen all rooftop mechanical units from public view through strategic design of roofscapes.

4.7.3 Building Elevations

- Construct building elevations with high quality design.
- Provide materials, detail and articulation that are compatible with adjacent residential buildings.

Provide opportunity for meeting and gathering at institutional sites.

4.7.4 Building Entrances

- Provide weather protection for all public entries.
- Ensure that major entrances comply with accessibility standards.
- Allow for ease of movement through all major entrances and include an overflow and waiting space for pedestrians at all major entrances.

4.7.5 Pedestrian Circulation

- Provide safe, direct, and marked paths of travel that do not conflict with vehicular movement on site, from municipal sidewalks to main building entrances, and accommodate high volumes of unencumbered movement at peak times.
- Facilitate access to present and future transit stops.
- Facilitate meeting and gathering by incorporating plazas with street furniture, seating areas, displays, waste receptacles, and landscaping treatments.

4.7.6 Passenger Pick-Up & Drop-Off Areas

- Encourage lay-by lanes along street edges fronting the institutional building.
- Locate bus pick-up and drop-off areas on-lot and separate them from other traffic.
- Design queuing areas so as to not impede the normal flow of traffic.

4.7.7 Vehicular Access, Parking & Servicing

- Clearly identify major vehicular access points and routes using both ground oriented and upright hard and soft elements.
- Provide bicycle storage racks adjacent to the main building entrances.
- Integrate all waste, storage, and loading service areas into the building envelope, where possible, and adequately buffer and screen them from adjacent residential areas, parks, and open space.
- Locate waste services a sufficient distance from residential lots to avoid creating a nuisance to neighbourhood residents.

5.0 Public Realm & Streetscape Design

The public realm and streetscapes of the 4134 16th Avenue Community will reflect high quality pedestrian environments, with coordinated landscape features, built form, infrastructure and utilities. General guidelines for common features such as street trees, lighting, mailboxes, furniture and utilities are provided to all streetscapes within the community. Additional considerations are provided for specific streetscapes, including:

- Collector streets;
- Local streets; and
- Streetscapes along the mixed use block.

Finally, additional guidance will be provided for the application of special features and landmarks, including gateways, window streets and public art.

5.1 General Guidelines

The overall design of streets within the 4134 16th Avenue Community will reinforce its primary objective of promoting a high quality public realm, and will also support a sustainable and healthy, walkable community. A well defined hierarchy, as established in Section 3.2 of the Community Design Plan (page 31), will be reinforced through appropriate streetscape treatments. Each street type is encouraged to have its own character to intuitively reflect its role within the larger street network. In general, the following guidelines should be considered in the design of community streetscapes.

- On streets with a single sidewalk (most local streets), locate the sidewalk on the side that provides direct access to the greatest number of units with the least amount of crossings, where possible, to improve pedestrian connections and safety.
- In areas where laneways are provided, provide sidewalks on the side directly adjacent to laneway homes.
- Consider variations in the texture or width of the sidewalk to create spatial definition and to accommodate safe and accessible movement within areas of high pedestrian activity, such as transit stops, at intersections, or public open spaces which encourage public activity.
- Provide a sidewalk connection to window streets adjacent to arterial roads.
- An expanded 18.5 metre right-of-way will be provided for some local streets (as described in Section 3.2.4, on page 36) to accommodate a sidewalks on both sides of the street.
- Coordinate fencing that is visible from public areas to be consistent in design throughout the entire 4134 16th Avenue Community. Fencing design should be complimentary to the architectural forms and styles that characterize the community while achieving attractive human scale.
- Provide consistent and coordinated street furniture throughout the public realm. Materials, colours and styles should be complementary to the architectural style of the community. Additional guidance for street furniture is provided in Section 5.1.5 (page 83).

Figure 21 - Proposed Active Transportation Network

Provide shaded tree-lined streets to ensure a comfortable pedestrian environment.

5.1.1 Street Trees

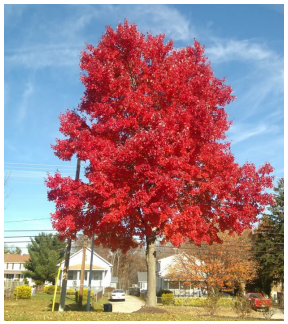
Street trees are an essential component of the streetscape. They enhance the aesthetic and pedestrian comfort of public environments, providing year round interest, protection from the elements, and improving microclimatic conditions. Street trees must be coordinated with utilities to ensure their long term and sustainable growth. A conceptual street tree plan is provided in Appendix 8B. The proposed plan adds interest and reinforces the hierarchy of streets throughout the community. The design of streetscapes should be consistent with the *City of Markham Streetscape Manual: Trees for Tomorrow* (June 2009).

The following considerations should guide the selection and allocation of street trees.

- Avoid monocultures containing the same street tree species over large areas. Using similar species along local streets is acceptable as long as there is definition and change between various streets.
- Consider locating tree species with contrasting colour or foliage in areas of interest to visually distinguish and enhance the built form and soft landscape in these areas.
- Provide a row of street trees between the sidewalk and the roadside curb or as appropriate. Variations may occur to highlight adjacent land use, such as open space, town squares, and focal points.
- Coordinate the location of street lighting fixtures and utility boxes to be in line with the street trees unless indicated otherwise.
- Plant trees that are hardy, salt-tolerant, and high branching, of deciduous varieties that can tolerate street environments.

- Common deciduous varieties recommended for use in the 4134 16th Avenue Community streetscapes include:
  - *Acer* (Maple)
  - *Celtis occidentalis* (Common Hackberry)
  - *Ginkgo biloba* (Maidenhair Tree)
  - *Gleditsia triacanthos* (Honey Locust)
  - *Gymnocladus dioicus* (Kentucky Coffee Tree)
  - *Platanus x acerifolia* (London Planetree)
  - *Prunus virginiana* (Chokecherry)
  - *Quercus* (Oak)
  - *Syringa reticulata* (Japanese Tree Lilac)
  - *Tilia* (Linden)
  - *Ulmus* (Elm)

- Ornamental deciduous trees and trees with seasonal interest will be used to highlight street intersections and include the following:
  - *Pyrus calleryana* (Ornamental Pear)
  - *Acer rubrum* (Red Maple)
  - *Quercus macrocarpa* (Bur Oak)
  - *Quercus rubra* (Red Oak)



Acer rubrum (Red Maple)

Celtis occidentalis (Common Hackberry)

Ginkgo biloba (Maidenhair Tree)

Gymnocladus dioicus (Kentucky Coffee Tree)

Prunus virginiana 'Schubert' (Chokecherry)

Pyrus calleryana 'Chanticleer' (Ornamental Pear)

Quercus rubra (Red Oak)

Syringa reticulata 'Ivory Silk' (Japanese Tree Lilac)

Tilia x flavescens 'Glenleven' (Glenleven Linden)

5.1.2 Street Lighting

Street lighting contributes to the community character while also serving a functional purpose. Pedestrian safety, maintenance, energy efficiency and visual appearance are all important considerations in the placement of street lighting within the public right-of-way. Street lighting should be consistent with City of Markham and Power Stream standards, and should consider the following design criteria:

- Place street lighting in line with street tree planting and utility boxes.
- Ensure that all lighting is Dark Sky compliant.
- Enhance night visibility and safety by ensure that placement of street lighting is consistent with the principles of CPTED.
- Incorporate utilities into street light poles and communication poles, where possible.
- Ensure that the design of light standards is consistent with the community character and reflects an established theme and style for other street furniture within the community.
- Install laneway lighting that is consistent with street lighting.
- Provide pedestrian scaled lighting on streets with sidewalks on both sides of the street, and within the walkway block. In all other areas street lighting should be of standard local street height.

5.1.3 Community Mailboxes

The location of community mailboxes will be determined through coordination between Canada Post and the City of Markham, and should consider the following design criteria:

- Locate community mailboxes in convenient locations, along the sidewalk edge of streets.
- Incorporate curb side or lay-by parking, where possible.
- Ensure appropriate levels of lighting to maximize accessibility, safety and usage.
- Coordinate mailbox design both visually and physically with streetscape and open space design.

Mailboxes are provided at a central community destination with weather protection.

5.1.4 Transit Stops

A future bus route is proposed along the primary collector street network, traveling along Street 'A' in the neighbourhood to the east, and Streets 'A' and 'B' in the neighbourhood to the west (refer to Figure 12 on page 39). The location of bus stops along this route should be determined through coordination with VIVA, York Region and the City of Markham. Transit stops on this primary collector street network should incorporate the following design considerations:

- Locate transit stops in accordance with Regional Municipality of York transit requirements.
- Provide night lighting to enhance safety and visibility at transit stops, using pedestrian-scale street lighting.
- Provide an appropriate width and texture of concrete standing area adjacent to the curb at bus stop locations for user safety and to comply with York Region and City of Markham transit standards.
- Provide appropriate site furnishings, such as benches, and waste and recycling receptacles, that do not block pedestrian movement, and are coordinated in overall design and theme with other streetscape elements within the community.

An example of signage for a bus stop in the Angus Glen community.

5.1.5 Street Furniture and Utilities

The appropriate application of street furniture presents an opportunity to reflect the community character through a unified set of streetscape elements. Street furniture should be visually attractive and coordinated within the streetscape, placed within strategic locations that support pedestrian activity, bicycle use, and transit. Seating should be integrated at 200-250 metre intervals to allow for resting stops for senior populations and people of all abilities. It should also be coordinated in amenity areas with shading and protection from the elements. Street furniture in the 4134 16th Avenue Community may include the following:

- Benches
- Bicycle Racks
- Community Mailboxes
- Signage
- Lighting poles and fixtures
- Waste and Recycling Receptacles
- Newspaper boxes

Utilities should be located away from visible locations within the streetscape, as discussed in Section 3.2.9 of the Community Design Plan (page 42). The placement of utility boxes should be coordinated in the early stages of development to avoid complications or conflicts. The City of Markham, the utility companies, and land owners should be involved in this process.

Benches and signage are significant in facilitating pedestrian movement and enhancing accessibility.

5.2 Key Streetscapes

The following streets will have a special streetscape treatment:

- Collector streets;
- Local streets; and
- Streetscapes along the mixed use block.

5.2.1 Collector Streets

The proposed collector streets connect various neighbourhood amenities throughout both the east and west neighbourhoods, including the elementary school, parks, mixed use block, the existing woodlot/wetland and the open space network. Collector streets are provided with two typical right-of-ways; 24.5 metres or greater for the primary collector streets, and 23 metres for the secondary collector streets. Both primary and secondary collector streets provide sidewalks on both sides of the street, and the main difference between the two is within the pavement; primary collector streets provide marked bicycle lanes on both sides of the street, while secondary collector streets accommodate a shared bicycle route (refer to the cross sections provided on pages 34 and 35). The significance of collector streets will translate into their high quality design, in built form (as discussed specifically for primary collector streets in Section 4.5.2, page 66), and within the public realm, which includes both private landscaped areas and landscaping within the public right-of-way. Their significance within the community is also reinforced by the three proposed landscaped roundabouts, which will act as key wayfinding features and traffic calming measures within the community.

Special considerations for collector streets are provided below.

- Provide sidewalks on both sides of the street.
- Provide lay-by parking on one side of the collector streets. Parking should be provided on the side closest to open spaces, parks and the school.
- Provide dedicated bicycle lanes on collector streets; bicycle lanes should be 1.5 metres wide, and 1.8 metres wide on the side adjacent to lay-by parking. A shared bicycle route is proposed on Street 'B' in the neighbourhood to the east.
- Coordinate utilities with street tree planting to ensure healthy tree growth and a sustainable, long-term streetscape.
- Ensure that street lights provide a safe level of night lighting, are pedestrian scaled, and are coordinated with, and placed in line with street trees.
- Plant street trees to be uniform on both sides of the street (consistent with the conceptual tree planting plan provided in Appendix 8B).
- Coordinate the location of transit stops along the primary collector streetscape, and provide adequate seating, waste and recycling receptacles, and shelter, as necessary.
- Provide opportunities for seating and rest, incorporating benches into the streetscape at 200-250 metre intervals.
- Consider the application of special paving treatments (colour, texture, etc.) at key locations along the primary collector streets, such as roundabout locations, transit stops, and adjacent to the school, parks, or mixed use block.
- Incorporate fencing and private lot landscaping adjacent to primary collector street that is consistent in design and coordinated with overall theming of these areas.

5.2.2 Local Streets

The majority of residences within the 4134 16th Avenue Community are located on local streets. These streets will be designed in a manner that reflects the overall vision of a complete, compact, healthy and accessible community. With this vision in mind, the following design criteria should be considered in the design of all local streets.

- Provide a compact 17 metre right-of-way on the majority of local streets, with a single sidewalk.
- Sidewalks should be located strategically on the side of the street where laneway housing is provided to ensure direct connections to dwelling entrances. Consideration should also be given to the number of units with access to the sidewalk, as well as connections to parks and open spaces (refer to Figure 21 on page 78).
- Accommodate an expanded 18.5 metre right-of-way to incorporate an additional 1.5 metre sidewalk on the other side of the street at strategic locations that connect the proposed trail and pathway network to the primary collector streets in the community. These locations include Streets 'H', 'K', 'T', 'Q' and a portion of Street 'V' (extending to park block 9 and the greenway) in the west neighbourhood, as well as Streets 'K', 'X', 'Y' and a portion of Street 'Z' in the east neighbourhood.
- Provide a paved roadway with curbed boulevards on both sides of the street.
- Provide curb side parking on one side of the street. Parking should be provided on the side closest to open spaces, parks and the school.
- Plant street trees on both sides of the street to create a continuous canopy (in accordance with the conceptual tree planting plan provided in Appendix 8B).
- Provide at least one street tree per dwelling, where space permits. Provide two street trees per residence on flankage lots without blocking important visual ties.

Local streets will be tree-lined, providing a comfortable pedestrian environment.

5.2.3 Streetscapes along the Mixed Use Block

The mixed use block located along 16th Avenue, in the west neighbourhood, is recognized as a key character area that requires special design consideration. The mixed use block includes the development of 4-6 storey mixed use buildings, and additional 2-3 storey commercial buildings. The streetscapes within this area should reflect an urban image that is vibrant, promoting pedestrian activity and supportive of transit facilities. The mixed use block is located at the southern edge of the proposed community and plays a key role in defining the character of the community. Because of its significance in use, function and exposure, the following design criteria should be considered in designing the streets and public realm within the block.

- Provide wider sidewalks to support pedestrian movement along the retail edges.
- Include seating, shading, and other street furniture, as necessary, to support pedestrian activity along this edge.
- Provide lay-by parking to avoid a larger surface parking areas and to calm traffic along this edge.

Wider sidewalks and larger planters are provided to accommodate greater pedestrian traffic.

Streetscapes along commercial uses accommodate patio space, wider sidewalks, landscaping, bike lanes and lay-by parking.

5.3 Community Features & Landmarks

The 4134 16th Avenue Community is distinguished by a number of community features that are coordinated and designed to reflect the community's character, making it unique and recognizable. These special features and landmarks are:

- Gateways;
- Landscaped Roundabouts;
- Window Streets; and
- Public Art.

5.3.1 Gateways

As mentioned in Section 4.5.1 (page 64), community gateways are located at the entrances to the community along 16th Avenue and Kennedy Road. Secondary access points are located at entrances from the Angus Glen community, at Angus Glen Boulevard and Prospectors Drive. Gateway locations emphasize a sense of entry or arrival, and reflect the best of the vision set for the 4134 16th Avenue Community. They have the opportunity to become visual landmarks that reinforce the community identity and assist in wayfinding. Gateways will be appropriately designed to have strong architectural elements that are incorporated into the houses, supported by consistent fencing and private and public landscaping. Public realm design considerations to support the enhanced architectural treatments described in Section 4.5.1 are provide below.

- Plant accent flowering trees and low hedge shrub plantings to celebrate gateway locations without impeding sight lines.
- Coordinate landscape features with connecting and adjacent property lots (fences, sidewalks, etc).
- Consider providing distinctive sidewalk paving treatments and landscape elements such as decorative metal fencing to enhance the sense of arrival when entering the community.
- Enhance pedestrian connections, especially to the public open spaces, parks and the stormwater management pond at the gateway intersections of 16th Avenue and Street 'D', and 16th Avenue and Street 'C' in the west neighbourhood.

5.3.2 Landscaped Roundabouts

The three roundabouts of the community are key features of the community that act as visual landmarks, assisting in wayfinding while improving the overall aesthetic of the streetscape and calming traffic. It is essential that pedestrian and bicycle movement is clear and intuitive through the roundabout intersection to ensure a safe interface between multiple modes of transportation. Design considerations for landscaped roundabouts are provided below.

- Design roundabouts and adjacent park spaces (where relevant) with formally arranged hard and soft landscape elements and an appropriate selection of trees, shrubs and perennials plantings.
- Provide a perimeter of hard landscaping along the island to facilitate the movement of large vehicles and protect vegetation from ploughing and salt damage.
- Incorporate special paving (through texture or colour) along a transition area between the hardscaped perimeter strip and the elevated, landscaped area (clear zone).
- Plant high-branching trees to ensure visibility and clear sight lines at the intersection.
- Consider formal landscaping in the centre of the roundabout, which may include conifers and low evergreen shrubs.

Plant high branching trees to ensure visibility.

5.3.3 Window Streets

Window streets are proposed at the north-east edge of the community, in two locations along the Kennedy Road frontage. These areas provide visual ties with the street, however should be buffered with landscaping and street trees to mitigate the impact of the adjacent arterial road and nearby residential units. The following design criteria should be considered in the design of the streetscape along window streets.

- Provide landscaping along window streets that parallel Kennedy Road to mitigate the impact of headlights onto the internal residential areas.
- Provide pedestrian connections and walkways to sidewalks along Kennedy Road to support direct access to the high priority transit route.
- Coordinate landscaping and architecture along the window street to be consistent with the high quality design of gateway sites. Sidewalks and built form should consider adjacent architecture and identity to create smooth transitions between neighbourhoods.
- Plant landscaped buffers with native species that provide year round interest.
- Ensure that hard landscape materials are of high quality and that elements such as signage, lighting, etc, reflect the overall theming of the community.

5.3.4 Public Art

Public art is a key component to public expression and establishing a community's unique identity. Public art pieces act as landmarks throughout the community and help to beautify the public realm, increasing civic pride and promoting inclusiveness. They reinforce a sense of place, and are recognized in the City of Markham as key indicators of vibrant cities competing to attract new businesses, families and tourism.

Public art installations within the 4134 16th Avenue Community will be consistent with the City of Markham's Public Art Policy. They should be provided in areas that are accessible to the public, exhibiting higher levels of pedestrian activity, such as the mixed use block, near transit stops, along trails, within neighbourhood parks, etc. The final location and design of public art throughout the community should be established through collaboration between the public and private sector, artists and members of the community.

Buffers along window streets mitigate the impact of headlights on adjacent households in internal residential areas.

Public art is used to create an engaging public realm and unique identity.

6.0 Parks & Open Space System

The existing open space network in the 4134 16th Avenue Community includes two greenway systems, the existing woodlot/wetland, and trees of cultural landscape significance. These features will be integrated into the community, and will provide opportunities for environmental protection, visual and physical access, and passive and active recreation. The existing open space network will be supported by various stormwater management facilities and parks, distributed to ensure access to recreational amenities for all residents within the community.

6.1 Design Objectives

The open space and park network of the 4134 16th Avenue Community will provide residents with a diverse range of recreational opportunities, promoting a healthy, active lifestyle. In general, the following objectives guide the treatment of open spaces, stormwater management ponds, and parks throughout the community.

- Ensure the design and management of parks and open spaces is conducted in a sustainable manner.
- Provide safe and comfortable environments for pedestrians, accommodating both larger groups and individual use.
- Carefully integrate parks and open spaces with their adjacent uses.
- Provide a range of passive and active recreational opportunities for residents within a 5-minute (400 metre) walking distance, in accordance with the City of Markham's park classification (established in Section 4.3.2 of the 2014 Markham Official Plan).
- Provide visual and physical access (for pedestrians and cyclists) to open spaces and parks throughout the community through an interconnected system of trails and sidewalks.
- Consider opportunities for public art in parks and along trails to enhance a sense of place and civic pride.

6.2 Open Space System

As previously mentioned, in Section 3.1 (page 28), the natural heritage system of the 4134 16th Avenue Community includes the following features:

- The Bruce Creek greenway, distinctly separating the east and west neighbourhoods;
- The Berczy Creek tributary at the south-western portion of the site;
- The existing woodlot/wetland in the east neighbourhood;
- Groupings of preserved trees provided in both neighbourhoods;
- Trees of cultural landscape significance (Bur Oak); and
- Trees of endangered species (Butternut).

The enhancement and protection of these features requires proper integration, an effective management strategy, and adequate wildlife linkages. This is supported by the York Region Greening Strategy, which aims to create and maintain healthy and integral open space systems that support an active and healthy lifestyle for current and future generations. Special considerations for the natural heritage network, consistent with the Greening Strategy, are provided below.

- Deliberately arrange the street network to create axial views to particularly attractive or significant open space.
- Where possible, maximize visual access and appropriate physical access to the open space system by providing single-loaded streets and siting parks, stormwater management ponds or other public uses adjacent to the feature.
- Provide access to natural areas from adjacent public sidewalks along streets and stormwater management pond areas. Access to natural areas should not be permitted from individual private properties.
- Locate and align development in support of public access to produce the least amount of impact on the environment.

- Planting along the vegetative protection buffer should be a native species, and should create visual privacy for abutting residential amenity areas without impeding opportunities for casual surveillance.
- Provide slope and bank stabilization where required to ensure long term stability of slopes. Stabilization efforts should be naturalized and contribute to the enhancement of the adjacent natural areas.
- Identify opportunities to restore, enhance and reinforce the existing natural form, function and habitat.
- Consider incorporating interpretive signage in visually prominent areas along the greenway and woodlot/wetland, especially at trail head locations.
- Integrate a pedestrian/cycling trail within open spaces and buffers adjacent to the greenway, where grading permits.
- Minimize tributary crossings and located them where they will incur the least amount of impact or where crossings already exist.
- Reduce lighting within the buffer while ensuring safety and visibility where trail access is provided.

Protect and enhance the Bruce Creek and its associated greenway system.

6.2.1 Stormwater Management

A multifaceted approach is proposed for the treatment of stormwater runoff in the 4134 16th Avenue Community, which includes stormwater management ponds and a host of low impact development measures. Four stormwater ponds are proposed within the community; two in each of the neighbourhoods. Three of these ponds (Blocks 2, and 3 in the east neighbourhood, and Block 6 in the west neighbourhood) line the Bruce Creek greenway system, and the fourth pond (Block 5 in the west neighbourhood) is located near the Berczy Creek tributary, at a primary gateway location to the community.

The primary function of stormwater management ponds is the collection, retention and controlled release of urban stormwater. An integrated approach to stormwater pond planning and design goes further to identify opportunities for visual and recreational amenities, extensions to the natural environment systems and potential sources of biodiversity and wild life habitat. Locating stormwater management ponds adjacent to greenway allows them to be integrated into a larger open space system, and renders them as important semi-natural green spaces that provide linkages and transition between the urban environment and adjacent natural areas and trails. Stormwater management ponds should be constructed as naturalized extensions of the open space system and recreational opportunities within the community.

Design considerations for stormwater management ponds are provided below.

- Locate, design and implement stormwater management ponds to support and enhance the larger open space network.
- Provide grading and vegetation that are controlled to ensure natural transitions that sensitively integrate them into the existing natural environment. Slopes should range from 3:1 – 7:1 (horizontal to vertical), with variations in accordance with operational requirements.
- Ensure that all species for the stormwater management pond are native.
- Provide generous tree planting around the upper perimeter of all ponds in order to harmonize the pond landscape with adjacent natural features and provide a pleasant transitional buffer to the adjacent housing and public streets.
- Plant fast growing wetland species of trees and shrubs along the pond edge to encourage rapid naturalization. Examples of such species include black willow, silver and red maples, alder, gray dogwood, etc.
- Provide buffer planting to screen views of engineering structure, headwalls, spillways, etc.
- Arrange tree and shrub planting in significant groups to frame views of the pond from the amenity areas.
- Incorporate a pedestrian gravel trail along stormwater management pond maintenance access roads, where possible, and integrate them into the wider pedestrian network of sidewalks and trails.
- Include seating and lookout areas in the amenity locations, providing them at a distance from the arterial road edge and where views of the open space are available.
- Provide benches, waste and recycling receptacles and plantings for shade as components of the lookout area and to terminate trails, where possible.

Low impact development measures for consideration in the proposed community include:

- Opportunity to install rain water collection barrels, where requested;
- Stormwater retention on the edges of streets that line the valley edge; and
- Enclaves near the natural heritage system that integrate bio-retention features in the community (as discussed in Section 3.2.10, page 43).

1. Views / Access to Greenway
2. Residential Enclave
3. Bioswale

Figure 22 - Enclave with Bio-Retention Features

6.3 Parks & Recreation

A healthy and active community is underpinned by a connected network of parks and recreation, which provides multiple opportunities for active and passive interaction with the natural environment. Parks proposed within the community are intended to provide a range of recreational opportunities for both neighbourhoods. In general, amenities provided in parks include active sports fields and courts, children's play areas, and seating and other passive uses. The final design of parks within the 4134 16th Avenue Community will be determined in coordination with City staff. A list of the proposed parks is provided below.

6.3.1 Parkland Dedication

Parkland dedication requirements in the City of Markham are subject to Markham's Conveyance of Parkland By-law 195-90, which stipulates a dedication requirement calculated at either 1 hectare for every 300 units, or as 5% of the net developable area. The following table provides a breakdown of parkland dedication for both the east and west neighbourhoods of the 4134 16th Avenue Community:

	East DP	West DP	Total
Site Statistics			
Total Number of Residential Units	1,255	1,116	**2,371**
Net Developable Area (ha)	68.311	53.971	**122.282**
Parkland Dedication Calculations (ha)			
Parkland Dedication per 1ha/300units (ha)	4.180	3.720	**7.900**
Parkland Dedication per 5% of Net Developable Area (ha)	3.416	2.699	**6.115**
Proposed Number of Park Blocks	4	5	**9**
Parkland Area Provided (ha)	**4.255**	**4.468**	**8.723**

Table 2 - Parkland Dedication Calculations

An overview of the neighbourhood parks and parkettes being proposed in both neighbourhoods is provided on the following pages.

East Neighbourhood

- A 2.3 hectare active park (Block 5) is proposed at the south-east corner of the Streets 'A', 'D' and 'Y' intersection. This is the largest park proposed in the 4134 16th Avenue Community, and is campused with the public elementary school, providing a focus for the community and supporting institutional need from the Angus Glen Community to the north. The park has 238 metres of frontage on Street 'A', is located within close proximity of the greenway crossing and provides active playing fields with supportive passive and active recreational opportunities, including a soccer field, playgrounds and seating areas.

Neighbourhood parks provide passive and active recreational opportunities for nearby residents.

1. Shade Structure / Gathering Area
2. Seating / Gathering Area
3. Junior / Senior Playground
4. Pathway
5. Soccer Field
6. Crosswalk
7. Laneway Townhouses
8. Single Detached Homes
9. Rear Lane Single Detached Homes with Front Doors Addressing Street 'A'
10. Primary Access to School
11. Parking
12. Open Field
13. Proposed Bus Stop
14. Lay-by Parking
15. Preserved Trees

Figure 23 - Proposed School and Park Campus (Blocks 8 & 5 in the East Neighbourhood)

- A 0.7 hectare neighbourhood parkette (Block 4) is proposed on the north side of the stormwater management pond and Bruce Creek, providing public exposure and access to the wider trail network in the greenway system. A connection between this parkette and Park Block 5 is provided through the widening of Street 'X' and a portion of Street 'Z' to an 18.5 metre right-of-way with sidewalks on both sides of the street.
- A 1.0 hectare neighbourhood parkette (Block 6) is proposed along the Kennedy Road edge of the east neighbourhood. The park is lined with laneway singles having direct frontage on the north and south sides. It also has access and visual exposure on Collector Street 'B'.
- A 0.2 hectare parkette (Block 7) is proposed south of the protected woodlot/wetland along Street 'B', providing terminus views of both the parkette and woodlot/wetland upon entry into the Community. The parkette is located near the existing Yorkton Community to the south, and proposed laneway townhouses have direct frontage along its south west edge. The parkette also serves residents from the medium density block opposite Street 'B' (Block 9).

Figure 24 - Proposed Neighbourhood Parkette (Block 4 in the East Neighbourhood)

Figure 25 - Proposed Neighbourhood Parkette (Block 6 in the East Neighbourhood)

1. Primary Park Entrance
2. Seating / Gathering Area / Shade Structure
3. Adult Fitness Equipment or Junior / Senior Playground
4. Crosswalk
5. Existing Woodlot
6. Preserved Trees / Bur Oak Tree
7. Single Detached Homes
8. Laneway Singles addressing the parkette
9. Laneway Townhouses
10. Stormwater Management Pond

West Neighbourhood

- A 2.1 hectare neighbourhood park (Block 7) is proposed at the vista of the roundabout intersection of Streets 'B' and 'D'. The park has 170 metres of frontage on Street 'B' and enhances the primary gateway entrance from 16th Avenue. It also provides direct connections to the trail network along the Bruce Creek, and further to amenities within the east neighbourhood through a pedestrian and bicycle bridge connection. Access to the park is provided from Streets 'F' and 'K', and it has been designed with laneway townhouses lining the west edge to enhance user safety through casual surveillance. The park will incorporate groupings of preserved trees, and may include play, seating and open lawn areas, as well as a trellis or other urban structure or public art, located at the terminal view of the gateway entrance from Street 'D'.

1. Park Access Point
2. Seating Area
3. Seating / Lookout Area
4. Shade Structure / Gathering Area
5. Junior / Senior Playground
6. Pathway / Trail
7. Crosswalk
8. Roundabout
9. Single Detached Homes
10. Laneway Townhouses Addressing Park
11. Laneway Townhouses
12. Laneway Singles
13. Gateway Building
14. Stormwater Management Pond
15. Existing Greenway
16. Preserved Trees
17. Existing Pedestrian Bridge
18. Planted Median

Figure 26 - Proposed Neighbourhood Park (Block 7 in the West Neighbourhood)

- A 1.3 hectare neighbourhood park (Block 8) is proposed at the primary roundabout intersection of Streets 'A' and 'B'. The layout of the surrounding street network and built form supports the function of this park as a central neighbourhood amenity, with a clear axis provided from both Streets 'B' and 'T'. This axis and the curvature of the streets provide ideal views to preserved trees within the park, including two preserved Bur Oak trees of cultural landscape significance. The park has 150 metres of frontage on Street 'A' and direct townhouse frontage (with rear laneway access to garages) on its west edge. The park may include tennis courts, an open lawn area and playgrounds. Seating, landscaping and shade structures will provide opportunities for socializing and passive activity in the park.
- A 0.3 hectare parkette (Block 9) is proposed along the curvature of Street 'V'. The parkette is located along the west edge of the Bruce Creek greenway, and provides direct access to the trail network. A widened 18.5 metre right-of-way is also proposed for Street 'T' and the portion of Street 'V' that extends south towards Park Block 8 to improve pedestrian comfort and access between the two parks and the larger trail network.

1. Primary Park Access Point
2. Park Access Point
3. Seating Area
4. Shade Structure / Gathering Area
5. Playground
6. Open Field
7. Preserved Trees
8. Pathway
9. Crosswalk
10. Roundabout
11. Single Detached Homes
12. Laneway Singles
13. Laneway Townhouses Addressing the Park
14. Laneway Townhouses
15. Upgraded Laneway Townhouses Flankage Addressing Roundabout
16. Lay-by Parking

Figure 27 - Proposed Neighbourhood Park (Block 8 in the West Neighbourhood)

Figure 28 - Proposed Neighbourhood Parkette (Block 10) and Linear Parkette (Block11) in the West Neighbourhood

- A 0.2 hectare neighbourhood parkette (Block 10) is proposed at the western extent of the neighbourhood to the west, providing opportunities for passive recreation for those residents, further removed from the centre of the community. This park is located with local street frontage on all sides (Street 'Q'), and is adjacent to another linear park block (Block 11), described below. The park may include an open lawn area, walkways and a shade structure.
- A 0.5 hectare linear parkette (Block 11) is proposed to provide pedestrian-only access to an existing trail with access to Warden Avenue to the west. Access to this parkette is available from Street 'Q', and further connections through the street network will provide access to a trail within the Berczy Creek greenway. The park provides a connection to Park Block 10, and will provide passive recreational opportunities, including a linear walkway with seating areas.

Parks are distributed to be within a 5-minute walk from residents.

6.3.2 General Park Design Guidelines

Parks have been distributed throughout the community to ensure that residents are within a 5-minute (400 metre) walk to their local neighbourhood park, the majority of which having exposure onto the collector street network. Programming should include passive and active recreational uses that provide for people of all ages and abilities, in accordance with the City's accessibility standards and AODA standards. Consideration should be given to the following design criteria in the distribution and design of parks.

- Distribute parks to serve as functional and visual focal points for individual neighbourhoods, within a 5-minute (400 metre) walking distance from residential properties in the surrounding neighbourhood.
- Campus the school with a park to encourage combined recreational and educational programs, create more significant public spaces, and facilitate efficient maintenance. Park and school blocks should be seamlessly integrated without regard for property boundaries or administrative jurisdictions. In particular, fencing between local parks and schools is discouraged.
- Provide links through trails and sidewalks to open space and other community amenities where possible.
- Locate parks with significant frontage onto the surrounding collector and local street fabric to ensure public exposure and proper integration.
- Design active parks to be consistent with the City of Markham's Integrated Leisure Plan.
- Provide play equipment for children (2-12 years of age) in parks that are over 0.50 hectares in size.
- In general, design parks to accommodate both the active and passive recreational needs of neighbourhood, which may include: playgrounds, seating areas, covered shelters, unstructured landscape space, gardens, active sport surfaces and walking paths.
- Provide lay-by or curb side parking alongside parks, on the side of the street where the park is located.
- Provide a 1.5 metre high chain link fence along the property lines of residential lots that flank or back onto parks and the school.
- Provide appropriate space dedicated to establishing an urban forest canopy and natural buffers to adjoining land uses.

Figure 29 - 5-Minute Walking Distance (400 metres)

6.4 Pedestrian & Cycling Connections

Pedestrian and cycling connections throughout the community will reinforce the community vision of accessible and walkable neighbourhoods that promote healthy living and active transportation. Beyond sidewalk connections, these links include:

- Community trails;
- Walkway blocks;
- Greenway crossings; and
- Cycling routes.

6.4.1 Community Trails

A comprehensive network of open space and street-based pedestrian trails will be weaved throughout the fabric of the community to enhance accessibility and promote linkages between parks, open spaces, the school, the mixed use block, and residences (including both low and mid-rise dwellings). Key design considerations for community trails are provided below.

- Ensure access to trails for people of all ages and abilities, in accordance with the City of Markham accessibility standards and AODA standards.
- Design trails that will be used by both pedestrians and cyclists to be a minimum of 3.0 metres wide. To avoid 'hardening' the tributary corridors, it is recommended that trails be constructed of compacted granular materials, except where the trail routing occurs within the right-of-way of streets.
- Provide connections to the trail network extending beyond the 4134 16th Avenue Community, especially to the south along the Berczy Creek Tributary.
- Distribute access points to trails throughout the community, occurring within the public realm and not from individual properties.
- Provide trail heads as primary entrance corridors to the larger trail network, and incorporate decorative hard surface areas with seating viewing opportunities, where possible.
- Locate trails along the pedestrian gravel path that is coordinated with the maintenance road at stormwater management pond locations.
- Provide linkages to schools within the local street fabric to encourage pedestrian and bicycle travel and minimize school busing wherever possible.
- Consider convenient linkages from the school to nearby stormwater management ponds, open space, greenway and woodlot/wetland amenities.

Pedestrian and bicycle trails encourage active and healthy lifestyles.

Figure 30 - Trail Connectivity and Proposed Bruce Creek Greenway Crossings

6.4.2 Walkway Block

Two walkway blocks ares proposed to provide better access and transitions in the north east edge of the neighbourhood to the east (Blocks 16 and 17). The walkway blocks are provided in strategic locations, improving permeability to the Angus Glen neighbourhood and Kennedy Road, whilst acting as green buffers to help sensitively integrate the new community with the existing residences. These blocks should incorporate a 3.0 metre wide sidewalk with landscaping and fencing that is consistent with the overall design language of the community. Lateral decorative fencing is recommended to ensure privacy and security of adjacent residences. Pedestrian scale lighting should be incorporated along the walkway.

6.4.3 Greenway Crossings

A single street crossing is proposed over the Bruce Creek greenway, connecting the primary collector streets of both neighbourhoods. This crossing will provide sidewalk connections on both sides of the bridge, and bicycle lanes on both sides of the street. Additional greenway crossings are proposed in each of the greenway systems, where current bridge crossings already exist. These locations will be repurposed to allow for pedestrian and bicycle connections to both sides of the valley. The following design considerations should guide the overall treatment of greenway crossings.

- Where opportunity exists, coordinate the crossing design language with materials and language of surrounding community; columns, fencing and colour.
- Ensure that planting adjacent to the crossing seamlessly complements natural plantings along the watercourse.
- Provide 3.0 metre wide trails where they lead into channel crossings, with an asphalt or granular surface. Use asphalt for the bridge apron.

6.4.4 Cycling Infrastructure

Cycling routes are proposed throughout the 4134 16th Avenue Community, as marked and shared routes within street right-of-ways, and within community trails. Cycling routes should be supported by legible and adequate bicycle infrastructure, including markings, signage, and bicycle parking. Bicycle parking should be provided at key locations, including the elementary school, the mixed use block, parks, and transit stops. These facilities should be compatible in character with the rest of the community, and consistent with the street furniture palette. They should be made out of a strong and durable material to prevent theft or damage, and should either be heavy enough or anchored in place so that they cannot be moved.

Bicycle lanes are provided on collector streets.

6.5 Links to Adjacent Neighbourhoods

To support the successful integration of the community into adjacent existing neighbourhoods, the plan has been designed to have as many connections as possible. Links to adjacent neighbourhoods should be designed to promote continuous streetscapes between existing and proposed development, facilitate safe and accessible movement using multiple modes of transportation, and sensitively transition between various uses and built form types.

East Neighbourhood Connections

- Street network connections are provided to the Angus Glen community to the north from collector Streets 'B' and 'D' (connecting to Prospectors Drive and Angus Glen Boulevard, respectively), and local Street 'F' (connecting to Dancers Drive). Street 'B' also acts as an extension of Yorkton Boulevard to the south, and provides sidewalks and bicycle lanes to the existing and planned neighbourhoods of the Yorkton Community.
- Sidewalk connections are provided to Colty's Park in Angus Glen, with cap end units fronting onto the park to strengthen the relationship between Angus Glen and the public realm interface along Street 'I'.
- Two walkway blocks (Blocks 16 and 17) are provided at the north east edge of the community to improve permeability to the Angus Glen neighbourhood and Kennedy Road (as described in Section 6.4.2 on page 103).
- To the east, collector street connections tie the east neighbourhood to Kennedy Road and beyond, with Street 'A' connecting at the intersection of Kennedy Road and Bur Oak Avenue, and Street 'C' connecting at the intersection of Kennedy Road and Wilfred Murison Avenue. Connections from Street 'A' will support the pedestrian, bicycle and transit networks.
- Pedestrian walkway connections will be provided along the window street conditions parallel to Kennedy Road, from Streets 'E' and 'AA'.

West Neighbourhood Connections

- Pedestrian, bicycle and transit connections are provided to 16th Avenue along the southern edge of the community, through Street 'C' and Street 'D', which connect to the east and west intersections of Normandale Road and 16th Avenue, respectively.
- Pedestrian access will be provided through a linear park and open space block (Blocks 11 and 4) to Warden Avenue to the west.

Links between the Two Neighbourhoods

- A road crossing is proposed across the Bruce Creek greenway, between the east and west neighbourhoods. The bridge, located along Street 'A' (west neighbourhood) provides links for the transit, bicycle and pedestrian networks.
- Secondary pedestrian and bicycle links are proposed at the locations of the existing pedestrian bridges (as shown in Figure 21, page 78). These bridge crossings will connect the wider trail and sidewalk system in both neighbourhoods, supporting both pedestrian and bicycle travel.

6.6 Views & Vistas

Views and vistas to the natural heritage system of the 4134 16th Avenue Community are provided along various interfaces, including arterial roads, collector streets and local streets. This visual relationship is critical for establishing a sense of place for community, and reflects the community's unique identity, derived from existing natural resources. The following design principles should be considered to enhance visual connections to the rich natural environment. Figure 31 (page 106) illustrates potential viewpoints into natural areas. The location of these viewpoints is conceptual and should be regarded only as an expression of principle, not a specific location. The location and dimension of these viewpoints can be determined with greater precision at the detailed block planning stage.

6.6.1 Views from Arterial Roads & Collector Streets

Visual connections to the open space system are provided in the west neighbourhood along the arterial road edge of 16th Avenue, with views of both the Bruce Creek and Berczy Creek tributary, and a proposed stormwater management ponds (Blocks 5 and 6 in the west neighbourhood). Additional views of the Bruce Creek system are proposed from the bridge crossing of Street 'A', a primary collector street that connects both neighbourhoods in the community. Views of the creek system are possible from collector Streets 'B' and 'C' in the east neighbourhood, which also provides for views to the preserved woodlot/ wetland. Views to the open space system are provided from collector Streets 'A', 'B' and 'D' (through Park Block 7) in the west neighbourhood.

Collector streets also provide views to preserved Bur Oak trees of cultural landscape significance in both neighbourhoods. These trees are located in Park Blocks 7 and 8 in the neighbourhood to the west and Park Blocks 4, 5 and 6 in the neighbourhood to the east. Collector street views are provided from Streets 'A', and 'B' and 'D' in the neighbourhood to the west, and Streets 'A' and 'B', as well as Kennedy Road in the neighbourhood to the east.

Views of the open space network are provided throughout the community.

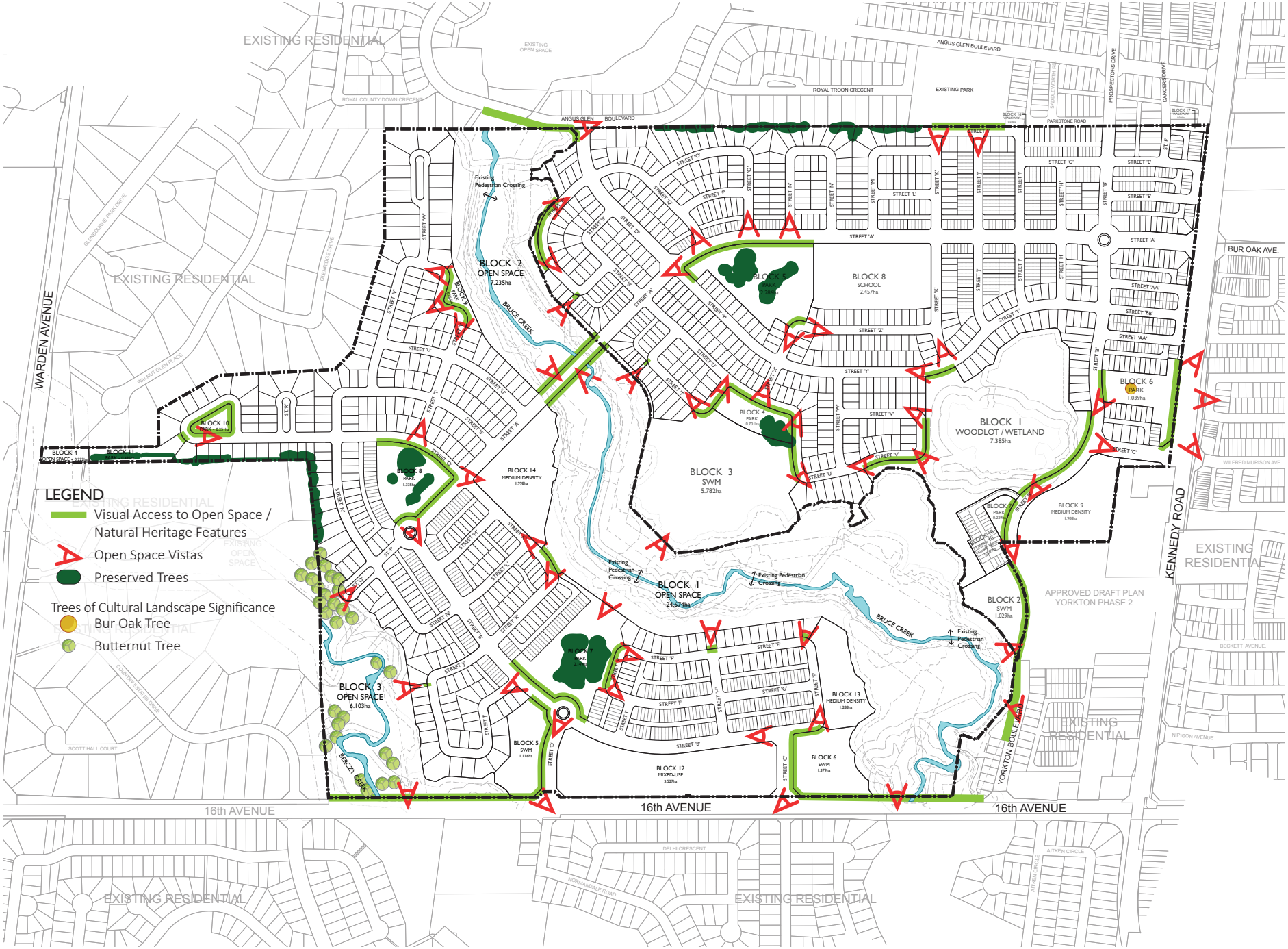


Figure 31 - Views and Vistas to Open Space and Culturally Significant Landscapes

Key design considerations apply to all arterial road and collector street edges that provide visual access to the natural heritage environment, and are provided below.

- Plant native tree species within the road right-of-way adjacent to environmental features consistent with the species found in the adjacent natural areas.
- Provide a layout and organization of boulevard planting that is informal to reflect the natural character of the adjacent greenway and woodlot/wetland.
- Manipulate boulevard grading to blend as gently as possible with the adjacent natural landscape. In particular, steep slopes with a distinctly "engineered" appearance should be discouraged wherever practical.
- Minimize guard rails, barriers, and fencing where possible, and screen them with dense shrub planting.
- Give particular attention to bridges and culverts at tributary crossings, recognizing them as significant visual features of the community.
- Treat sidewalks that are directly adjacent to greenway and woodlot/wetland as extensions of the adjacent open space trail system, where practical. Where appropriate, these sidewalks may be allowed to "meander" within the boulevard to visually harmonize the overall visual character of the edge with the natural environment.

6.6.2 Views from Local Streets

Views of the natural heritage system are also provided along some of the community's local streets, including Streets 'E', 'F', 'H', 'K', 'O' and 'V' in the neighbourhood to the west, and Streets 'R', 'T', 'U', 'V', 'X' and 'Y' in the neighbourhood to the east. Street 'T' in the community to the west is designed with an axial view of two preserved Bur Oak trees of cultural landscape significance. Views of these trees are also provided along Street 'Q', as it curves around the proposed park (Block 8). The following design considerations are proposed, in addition to those mentioned in Section 6.1 (page 89), to protect and enhance visual access through the local street network.

- Design the local street network to allow for periodic views and vistas to natural heritage features (including the greenway, the existing woodlot/wetland, and preserved trees of cultural landscape significance).
- Provide pedestrian and cycling access to desirable viewpoints, where possible.
- Highlight desirable viewpoints with street tree planting, lighting and signage.
- Consider introducing pedestrian seating and lookout areas in particularly attractive settings.

The local street network provides visual access to the existing natural heritage system.

7.0 Implementation

The Community Design Plan (CDP) is a design study that provides a high level design vision and framework at the Official Plan or Secondary Plan stage. The CDP establishes guidelines for all components of the public realm within the community, including built form, streetscapes, open spaces, parks, schools, and more. The CDP is prepared in a collaborative manner, alongside a number of technical studies, and it influences and informs the requisite parallel technical studies. It is used to guide the design of communities at the draft plan of subdivision stage, and beyond.

The 4134 16th Avenue Community Design Plan describes the urban design principles and community vision for the proposed community. Once approved by the City of Markham, the CDP acts as a working document that aids the City and guides the consulting development team in the detailed design and implementation stage of community building. To this end the CDP is intended to be an implementation tool, applied in a flexible, rather than prescriptive manner, throughout the detailed design stages, which will culminate in the realization of the community vision for the 4134 16th Avenue Community.

7.1 Zoning

The proposed zoning for the 4134 16th Avenue Community has been developed to permit the diverse range of housing and uses that are proposed in the community, and is consistent with the principles and objectives of this Community Design Plan. The zoning is based on the City of Markham's Consolidated Zoning By-law 177-96 (office consolidation March 25, 2015), and is generally consistent with City-wide standards for various built form types.

The following zones are proposed to permit the proposed built form in both east and west draft plans; the list of permitted uses is consistent with Tables A1, A2 and A3 of Zoning By-law 177-96:

Zone	West Draft Plan	East Draft Plan
R2	-	Townhouse Dwellings
R2-S	Single Detached Dwellings Townhouse Dwellings	Single Detached Dwellings Townhouse Dwellings
R3	Medium Density (Block 14)	Medium Density (Block 9) Back-to-Back Townhouses
R4	Medium Density (Block 13 & 14)	-
CA1	Mixed Use (Block 12)	-
OS1	Parks and Open Space Blocks	Parks and Open Space Blocks
OS2	-	Elementary School (Block 8)
G	Greenway	Woodlot / Wetland

Table 3 - List of the Proposed Zones and Uses

7.1.1 Proposed Exceptions

The east and west draft plans of the proposed 4134 16th Avenue Community introduce a number of residential typologies at varying heights and densities. A summary of the proposed built form is provided in Section 4.1, page 51, of this Community Design Plan, and general building sitings have been provided for both east and west draft plans and can be found in Appendix 8C.

The proposed zoning will generally be consistent with the provisions provided in Zoning By-law 177-96, however a number of proposed exceptions which have been summarized in the table bellow are to accommodate the proposed building types. Existing Zoning By-Law exceptions that were previously approved on adjacent lands have also been proposed for similar unit typologies within the 4134 16th Avenue Community. These exceptions promote additional diversification and variety in unit typologies and architecture on specifically proposed lots throughout the plan. Overall, the proposed exceptions strengthens the design vision set out in this Community Design Plan by facilitating changes to the existing Zoning By-Law that promote a vibrant, diverse, compact, healthy, and walkable neighbourhood.

For additional information, refer to the zoning by-law amendment.

Exception No.	Relevant Zones	Draft Plan	Description
Proposed New Exceptions			
A	R2 / R2-S / R3	East & West	The proposed exception increases the minimum exterior side yard setback from 2.4 metres to 3.0 metres and is intended to reflect good urban design principles for the design of corner lots, and lots adjacent to open space (accommodating wrap around porches and other pedestrian friendly treatments).
B	R2-S	East & West	Proposes an increased height from 11 metres to 13 metres, enhancing the presence of a street wall and sense of enclosure on public streets. This increase in height also promotes a variety of rooflines along the streetscape by accommodating architectural styles with higher roof pitches.
C	R2-S	East & West	Decreases the minimum rear yard setback for single detached dwellings from 7.5 metres to 7.0 metres. This exception does not extend to singles that are backing onto existing residences.
D	R2-S	East & West	Decreases the minimum rear yard setback for single detached dwellings from 7.5 metres to 6.0 metres. This exception only applies to proposed conventional single detached lots with a standard frontage of 12.0 metres or less.
E	R2-S	East & West	The proposed exception increases the minimum rear yard setback from 7.5 metres to 11.5 metres and is proposed for the single detached dwellings that back onto larger existing residential lots to ensure compatibility.
F	R2-S	East & West	The proposed exception decreases the rear yard setback on conventional single detached units for a maximum of 45% of the building width to 3.0 metres. This exception only applies to areas with limited visibility from the public realm.

Table 4 - List of Proposed Exceptions

Exception No.	Relevant Zones	Draft Plan	Description
G	R2	East	To support the principles of a compact and walkable pedestrian community, this proposed exception decreases the minimum lot frontage of conventional townhouses from 7.0 metres to 6.0 metres.
H	R2-S	West	Applies to laneway townhouses in the west draft plan, and requires an increase in the maximum front yard setback from 0.6 metres to 3.0 metres. This increase promotes a positive streetscape that will allow for a 1.5 metre porch with private on-lot landscaping.
I	R2-S	East	An increase in the maximum height for laneway townhouses from 11 metres to 15 metres is proposed to accommodate larger ceiling heights and a roof terrace that includes an enclosed stairway access.
J	R3	East	An increase in the maximum height for Back to Back and Stacked townhouses from 12 metres to 15 metres is proposed to accommodate larger ceiling heights and a roof terrace that includes an enclosed stairway access.
K	R2-S	East	The proposed exception will only apply to the proposed 11 metre singles where they are located on interior lots, and increases the maximum garage width from 3.5 metres to 6.1 metres to accommodate a 2-car garage.
L	R2-S	West	The proposed exception allows for a maximum 9 metre, 3-car garage, permitted only on the proposed 21.34 metre (70') lots.
M	R3	East	The proposed exception increases the density for back-to-back townhouse units to a maximum of 105 dwellings per units (from 100 dwellings per unit).
N	R2-S	East	The proposed exception decreases the minimum rear yard setback for laneways single dwellings from 14.8 metres to 0.6 metres.
O	R2-S	East	Decreases the minimum rear yard setback for laneway townhouses from 14.8 metres to 0.6 metres to the face of the garage.
P	R2-S	East	Applies to laneway townhouses in the east draft plan, and requires an increase in the maximum front yard setback from 0.6 metres to 2.0 metres.
Q	CA1	West	The proposed exception caps the total gross floor area of commercial uses to 3,700m^2 between the CA1:Q & CA1:R areas.
R	CA1	West	The proposed exception limits the height of all buildings to a maximum of 13.5m as well as caps the total gross floor area of commercial uses to 3,700m^2 between the CA1:Q & CA1:R areas.
S	R3	East	Applies to back-to-back townhouse units and establishes a minimum 4.5m front yard setback on lots not accessed by a lane.

Table 4 - List of Proposed Exceptions (continued)

Exception No.	Relevant Zones	Draft Plan	Description
T	R3	East	Applies to back-to-back townhouse units and establishes a 0.0m rear yard setback on lots not accessed by a lane.
U	R3	East	Applies to back-to-back townhouse units and allows for the garage width to be a maximum of 3.05m on lots not accessed by a lane.
Existing Exceptions (in Zoning By-law 177-96) Proposed as part of the Zoning By-law Amendment			
5	R2-S	East & West	This exception permits an accessory dwelling unit that is associated with, but not located within the main building of single detached dwellings with access from a lane.
118	R2-S	East & West	This exception permits a reduced minimum rear yard setback of 0.6 metres on dwelling units with private garages that are attached to the main building and accessed by a lane.

Table 4 - List of Proposed Exceptions (continued)

7.2 Phasing

Three stages of occupancy are proposed for the community (as shown in Appendix 8D):

Stage A – Occupancy between 2016 and 2021

Development within the 4134 16th Avenue Community will be initiated in the East Draft Plan, starting at the Kennedy Road edge to the east, and is proposed to extend west into the site.

EAST DRAFT PLAN

- **Phase 1:** The first phase of the East Draft Plan is proposed to be occupied during this stage of development. This phase includes a portion of Street 'A' as a westerly extension of Bur Oak Drive, establishes the Street 'B' connection from Prospectors Drive to Yorkton Boulevard, and also includes other connections to the north: Street 'F' and Street 'H'. All of Street 'B' is proposed to be built during this phase, including the roundabout at the Street 'A' and Street 'B' intersection. A secondary access point to Kennedy Road established as Street 'C' connects directly with Wilfred Murison Avenue to the east. The neighbourhood park (Block 6) and the medium density stacked townhouse condominium (Block 9) are also proposed to be built in this phase. The mix of units proposed during this phase includes 109 single detached homes, 255 townhouse dwellings and 145 multiple dwelling units.

WEST DRAFT PLAN

- No units from the West Draft Plan are proposed to be developed for the first stage of occupancy.

Stage B – Occupancy between 2022 and 2024

The second stage of occupancy for the 4134 16th Avenue Community includes the continued development of the East Draft Plan and the start of development for the West Draft Plan.

EAST DRAFT PLAN

- **Phase 2:** The second phase of the East Draft Plan includes the extension of Street 'A' westward to Street 'K'. A neighbourhood park (Block 4), the woodlot (Block 1) and two stormwater management ponds (Blocks 2 and 3) are proposed to be built during this phase. Additionally, the laneway townhouse condominium (Block 10) and adjacent park (Block 7) will be constructed during this phase, to the west of Street 'B' where Yorktown Boulevard extends north. This phase's occupancy consists of 240 units, which include 143 single family detached homes and 97 townhouse units.

WEST DRAFT PLAN

- **Phase 1:** Occupancy for the first phase of development west of the Bruce Creek is planned to be initiated between 2022 and 2024. This phase includes a stormwater management pond (Block 6), grade related development continuing west to the neighbourhood park (Block 7) and its surroundings, and the roundabout proposed at the Street 'D' and Street 'B' intersection. This phase also includes the two entry points proposed from 16th Avenue (Streets 'C' and 'D'). The mix of units proposed during this phase consists of 59 single family detached homes, and 181 townhouse dwellings (a total of 240 units).

Stage C – Occupancy between 2024 and 2026

The third stage of occupancy for the 4134 16th Avenue Community includes the third and final phase of development in the East Draft Plan and the second and third phases of development in the West Draft Plan. This is the final proposed stage of occupancy.

EAST DRAFT PLAN

- **Phase 3**: Occupancy in the final phase of development in the East Draft Plan is planned to take place between 2024 and 2026, and provides the connection of Street 'A' to the West Draft Plan. This phase also includes an elementary school (Block 8), campused with the neighbourhood park (Block 5) and the completion of Street 'D' providing direct access to Angus Glen Boulevard to the north. The mix of units proposed during this phase includes 376 single family homes and 130 townhouse units, totaling to 506 occupancy units.

WEST DRAFT PLAN

- **Phase 2:** The second phase of development for the West Draft Plan incorporates the majority of the Bruce Creek Lands (Open Space Block 1) from 16th Avenue to the proposed vehicular bridge crossing. This phase includes the bridge crossing over the Bruce Creek, connecting to Street 'A' of the West Draft Plan, and completing the primary street network of Streets 'A' and 'B' in the West Draft Plan (including the proposed roundabout). This phase also includes a stormwater management pond (Block 5) and the Berczy Creek Open Space Block (Block 3). Furthermore, all roads between the intersection of Street 'B' and Street 'K' up to Street 'Q' including the neighbourhood park (Block 8) are proposed as part of this phase. This phase consists of a total of 251 units, of which 151 are single family homes and 100 are townhouse dwellings.
- **Phase 3:** The third and final phase of development in the West Draft Plan includes the development of the mixed use block (Block 12) which completes the community's frontage along 16th Avenue. Both medium density blocks (Block 13 & 14) as well as all undeveloped lands north of Street 'A' and Street 'R' will also be completed as part of this phase. These lands include the remaining portion of the Bruce Creek open space block (Block 2) and three neighbourhood parkettes (Blocks 9, 10, and 11). The mix of units proposed during this final phase consists of 626 units, including 150 single family homes, and 475 multiple dwelling units.

8.0 Appendices

8A Performance Measures Checklist

8B Street Tree Master Plan

8C Proposed Building Sitings

8D Phasing Plan

8E Simplified Community Structure Plan

8F System Diagrams

8A Performance Measures Checklists

1 - Community			
Item #	**Performance Measure**	**Yes**	**No**
Community Design			
1-A	Does community design provide for a range of housing?	✓	
1-B	Does community design provide for community infrastructure in close proximity?	✓	
1-C	Does community design support biodiversity and integrates natural heritage features into parks and open spaces?	✓	
1-D	Does the community achieve complete community goals?	✓	

2 - Built Form			
Item #	**Performance Measure**	**Yes**	**No**
Street Form and Landscaping			
2-A	Do the building locations define street corridors and open spaces?	✓	
2-B	Is the building massing, character and design appropriate to the scale and role of each street type?	✓	
2-C	Do the street cross sections support maximizing pedestrian use and amenity, and minimizing pavement?	✓	
2-D	Are the buildings and street patterns positioned to maximize visual features?	✓	
Building Form			
2-E	Are building designs and materials of a consistently high architectural quality?	✓	
2-F	Is the building designed and outfitted, and is there a program in place to promote the redirection of waste from landfill?	✓	
2-G	Does the design of roof areas create special places of activity as well as contribute to a distinctive roofscape?	✓	
2-H	Are front yards and facades configured so as to ensure privacy for living spaces immediately facing the street?	✓	
2-I	Does the building design manage water in an ecologically effective way?	✓	
2-J	Does the building design conserve materials and resources?	✓	
2-K	Does the building design achieve high indoor environmental quality?	✓	
2-L	Have bird-friendly development practices been incorporated into the design of the building?	✓	
Parking			
2-M	Are parking and entrances located and designed to avoid interruption of the continuity of street frontages?	✓	
2-N	Is surface parking in the project minimized?	✓	

References:

1. Markham Centre Performance Measures Document for Sustainability & Smart Growth
2. Greenlands Master Plan
3. Toronto Green Standard and Sustainable Metric
4. New Communities Guidelines - York Region
5. Markham Official Plan (2014)

3 - Green Infrastructure

Item #	Performance Measure	Yes	No
Site Water Quality and Permeability			
3-A	Are pre-development catchments maintained?	✓	
3-B	Does the site design (street, park and pathway) maximize the ability of water to percolate into the ground, closer to pre-development natural levels?	✓	
3-C	Is the run-off managed in an ecologically sound manner?	✓	
3-D	Does the design of the streets, parks and pathways minimize hard surfaces that cannot absorb groundwater, encourage natural percolation?	✓	
3-E	Is the stormwater management facility integrated into the landscape, and naturalize to the extent possible?	✓	
3-F	Net Environmental Gain: Is there a place to replace/offset any loss of vegetation?	✓	
3-G	Has the landscaping plan been designed to conserve and enhance the natural attributes of the site and to conserve potable water?	✓	
Conservation of Energy Through Landscape Design			
3-H	Are heat island effects minimized?	✓	
Built Form in Relationship to Green Infrastructure			
3-1	Have the buildings been positioned and oriented to make creative use of green design principles and best practices?	✓	

4 - Greenway System

Item #	Performance Measure	Yes	No
Implementation of Greenway System Plan			
4-A	Is this project consistent with achieving the goals of the Markham Greenlands Master Plan?	✓	
Conservation of Energy Through Landscape Design			
4-B	Does this project enhance the greenway system?	✓	
4-C	Are Water Quality and river processes improved?	✓	
4-D	Is Vegetation Improved?	✓	
4-E	Is wildlife protected and enhanced?	✓	
4-F	Are Social Factors addressed, including recreation, interpretation, education and user experience?	✓	
4-G	Are off-street pathways through greenway systems designed to maximize connectivity and minimize environmental impact?	✓	

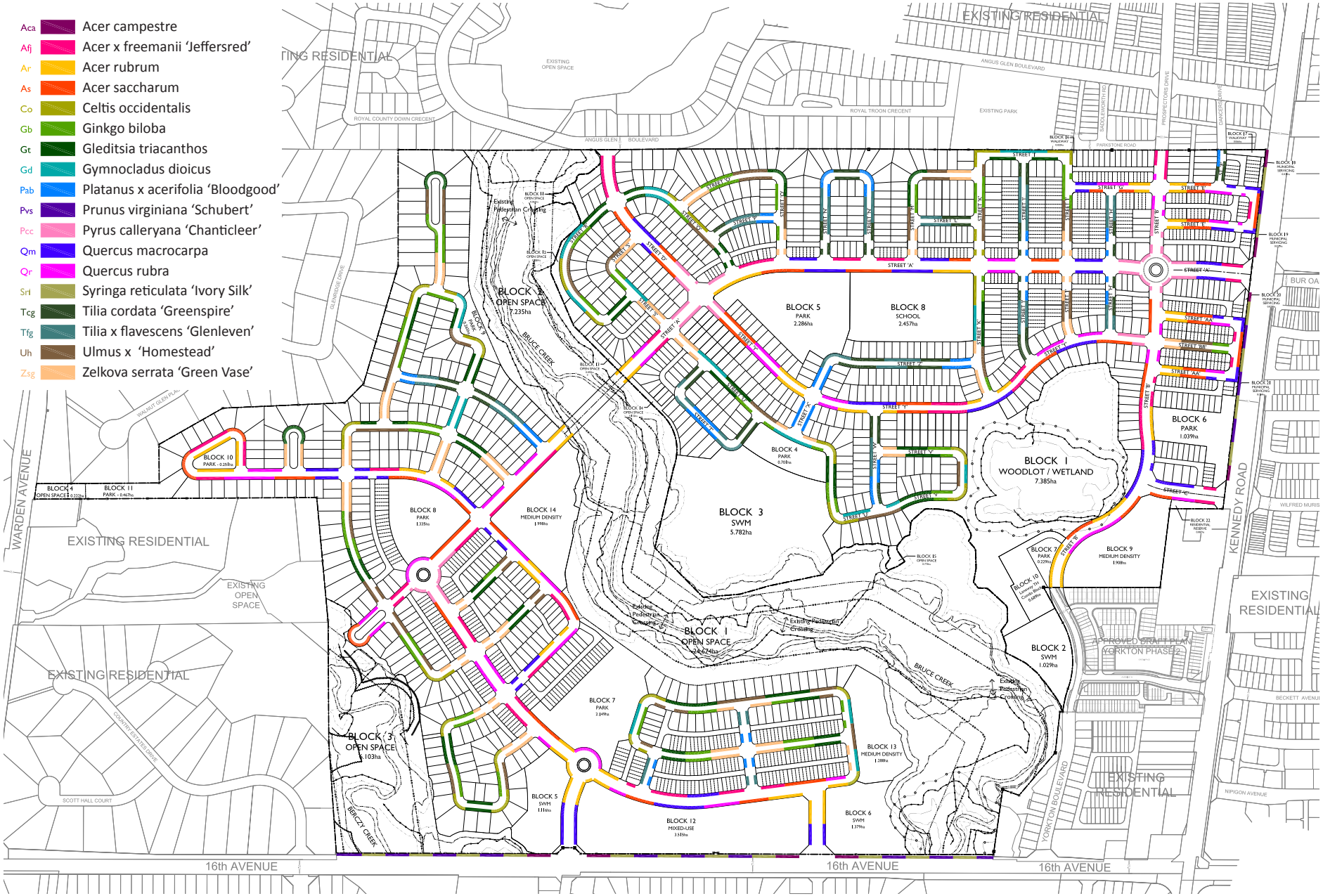
5 - Public Space

Item #	Performance Measure	Yes	No
Public Space			
5-A	Is the urban park system coherent and complementary to the Berczy and Bruce Creek greenway while preserving its scenic presence?	✓	
5-B	Is there a natural integration of urban open spaces, parks, streets, bridges and paths and interconnectivity to key community facilities and the Berczy Creek and Bruce Creek greenway?	✓	
Urban			
5-C	Do the block dimensions promote easy cross movements?	✓	
Public Art			
5-D	Has public art been integrated into public and public accessible spaces to contribute to the cultural legacy of the 4134 16th Avenue Community?	✓	
Public Space Amenity			
5-E	Usage Diversity: Are the parks distinct yet complementary?	✓	
5-F	Usage Diversity: Is there diversity in programming of the park and open space system activities?	✓	
5-G	Safety & Accessibility: Do parks and urban open spaces have adequate accessibility, safety and promote year round usage?	✓	
Ecology			
5-H	Horticultural Biodiversity: Is there horticultural biodiversity in the development of urban streetscapes, parks and open spaces components?	✓	
5-I	Light Pollution: Is the glare and/or light prevented from trespassing onto any neighbouring properties?	✓	

6 - Transportation

Item #	Performance Measure	Yes	No
Transportation Demand Management			
6-A	Does the Plan reduce the reliance of single occupancy vehicle trips?	✓	
6-B	Is the project planned and designed to promote interconnected mobility system?	✓	
Alternate Modes			
Walking			
6-C	Are sidewalks and pedestrian pathways integrated into the transportation network and buildings?	✓	
6-D	Does the community provide key elements for a walkable community?	✓	
Biking			
6-E	Are designated biking routes identified to connect with and implement with Town-wide objectives?	✓	
6-F	Are bicycle support facilities incorporated into the development?	✓	
Public Transit			
6-G	Is there connectivity amongst local, regional and interregional transit systems?	✓	
6-H	Is the development planned in a transit oriented way?	✓	
Road Pattern			
6-I	Does the road network reflect the grid network pattern?	✓	
6-J	Do the crossings minimize impact on Berczy Creek and Bruce Creek?	✓	
Intersections			
6-K	Do the vehicle and pedestrian movement patterns integrate well with the overall scheme of vehicle and pedestrian flow?	✓	

8B Street Tree Master Plan



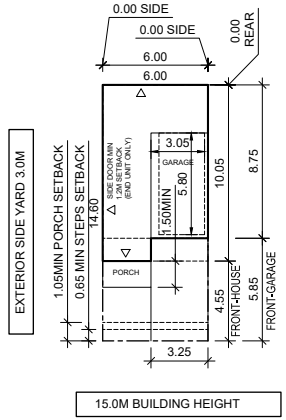
8C Proposed Building Sitings

PRELIMINARY LOT PRODUCT STUDY-YORK DOWNS

ISSUED FOR REVIEW
1. AUGUST 20-15
2. DECEMBER 1-15
3. DECEMBER 2-15
4. JUNE-20-16
5. AUG-08-16
6. SEPT-09-16
7. OCT-30-17

B2B TH LOTS

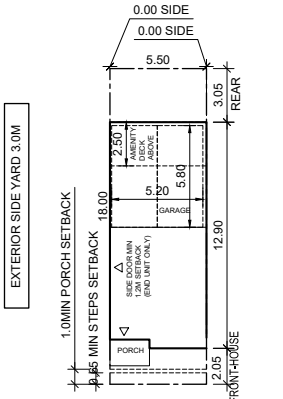
LOT WIDTH-6.0m (20')
LOT DEPTH-14.6m (47'11")
LOT AREA-87m2
COVERAGE-60.2m2 (69.2%)
MAX GFA-1600 SF
3 STOREY (+ OPT TERRACE)
ZONE R2



15.0M BUILDING HEIGHT

18' RLT LOTS

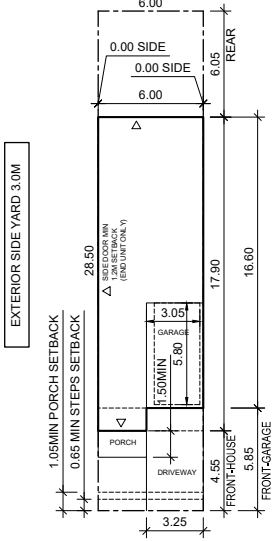
LOT WIDTH-5.5m (18')
LOT DEPTH-18.0m (59'0")
LOT AREA-99m2
COVERAGE-68.15m2 (68.8%)
MAX GFA-2050 SF
3 STOREY (+ TERRACE)
ZONE R2



15.0M BUILDING HEIGHT

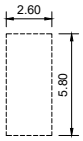
20' TH LOTS

LOT WIDTH-6.0m (19'8")
LOT DEPTH-28.5m (93'6")
LOT AREA-171m2
COVERAGE-107.3m2 (62.75%)
MAX GFA-2095 SF (no basement)
ZONE R2
2 STOREY (+ OPT TERRACE)



13.0M BUILDING HEIGHT

MIN PARKING SPACE



ALL ALLOWABLE ENCROACHMENTS TO BE PERMITTED WITH AND/OR WITHOUT FOUNDATIONS INTO ALL YARDS

NOTE: BUILDER TO VERIFY LOCATION OF ALL HYDRANTS, STREET LIGHTS, TRANSFORMERS AND OTHER SERVICES. IF MIN. DIMENSIONS ARE NOT MAINTAINED BUILDER IS TO RELOCATE AT HIS OWN EXPENSE.

CLIENT: MINTO COMMUNITIES
PROJECT/LOCATION: YORK DOWNS MARKHAM, ONT
DRAWING: SITE GRADING PLAN

BUILDING STATISTICS

REG. PLAN No.	
ZONE	
LOT NUMBER	
LOT AREA(m)^2	
BLDG AREA(m)^2	
LOT COVERAGE(%)	
No. OF STOREYS	
MEAN HEIGHT(m)	
PEAK HEIGHT(m)	
DECK LINE(m)	

LEGEND

FFE	FINISHED FLOOR ELEVATION
TFW	TOP OF FOUNDATION WALL
TBS	TOP OF BASEMENT SLAB
USF	UNDER SIDE FOOTING
USFR	UNDER SIDE FOOTING @ REAR
USFG	UNDER SIDE FOOTING @ GARAGE
TEF	TOP OF ENGINEERED FILL
R	NUMBER OF RISERS TO GRADE
WOD	WALKOUT DECK
LOB	LOOKOUT BASEMENT
WOB	WALK OUT BASEMENT
REV	REVERSE PLAN
STD	STANDARD PLAN
	DOOR
	WINDOW
	BELL PEDISTAL
	CABLE PEDISTAL
	CATCH BASIN
	DBL. CATCH BASIN
	ENGINEERED FILL
	HYDRO CONNECTION
	FIRE HYDRANT
	STREET LIGHT
	MAIL BOX
	TRANSFORMER
	WATER VALVE
	WATER CONNECTION
	SEWER CONNECTIONS 2 LOTS
	SEWER CONNECTIONS 1 LOT
	AIR CONDITIONING
	DOWN SPOUT TO SPLASH PAD
	SWALE DIRECTION
	CHAINLINK FENCE
	PRIVACY FENCE
	SOUND BARRIER
	FOOTING TO BE EXTENDED TO 1.25 (MIN) BELOW GRADE

ISSUED OR REVISION COMMENTS

NO.	DESCRIPTION	DATE	DWN	CHK

I, DECLARE THAT I HAVE REVIEWED AND TAKE DESIGN RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF RN DESIGN LIMITED UNDER SUBSECTION 2.17.4 OF THE BUILDING CODE. I AM QUALIFIED, AND THE FIRM IS REGISTERED, IN THE APPROPRIATE CLASSES/CATEGORIES.

QUALIFIED DESIGNER BCIN
FIRM BCIN
DATE SIGNATURE

DRAWN BY
SCALE
PROJECT No. 17075
LOT NUMBER

RN design
Imagine • Inspire • Create
TEL.(905)738-3177
FAX.(905)738-8449
DWG@RNDESIGN.COM

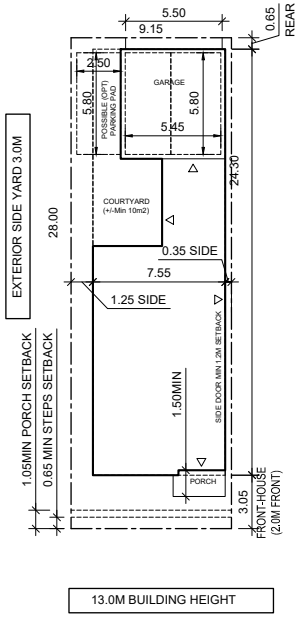
File:C:_RN_Standards\temp\AcPublish_17548\17075 Minto-York Downs- Envelope Study.dwg Plotted: Oct 30, 2017 By:matthewm

PRELIMINARY LOT PRODUCT STUDY-YORK DOWNS

ISSUED FOR REVIEW
1. AUGUST 20-15
2. DECEMBER 1-15
3. DECEMBER 2-15
4. JUNE-20-16
5. AUG-08-16
6. SEPT-09-16
7. OCT-30-17

30' REAR LANE LOTS DETACHED

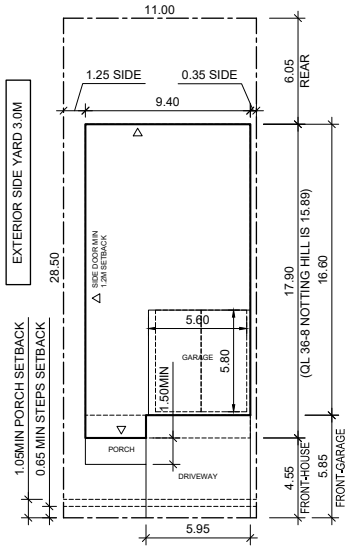
LOT WIDTH-9.15 (30')
LOT DEPTH-28.0m (91'10")
LOT AREA-256.2m2
COVERAGE-166.0m2 (65.0%)
MAX GFA-2800 SF (3800 SF)
2/3 STOREY (OPT 3rd ST LOFT)
ZONE R2



13.0M BUILDING HEIGHT

36' LOTS

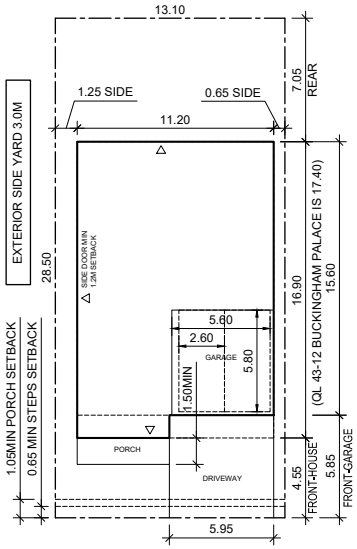
LOT WIDTH-11.0m (36')
LOT DEPTH-28.5m (93'6")
LOT AREA-313.5m2
COVERAGE-156.3m2 (51.7%)
MAX GFA-2050 SF
2 STOREY (+ OPT TERRACE)
ZONE R2



13.0M BUILDING HEIGHT

43' LOTS

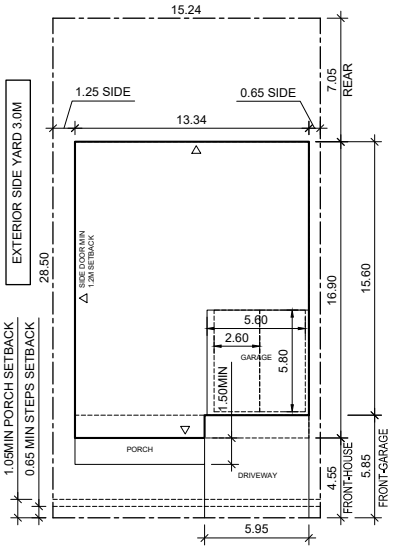
LOT WIDTH-13.1m (43')
LOT DEPTH-28.5m (93'6")
LOT AREA-373.35m2
COVERAGE-189.4m2 (50.7%)
MAX GFA-3500 SF
2 STOREY (+ OPT TERRACE)
ZONE R2



13.0M BUILDING HEIGHT

50' LOTS

LOT WIDTH-15.24m (50')
LOT DEPTH-28.5m (93'6")
LOT AREA-434.3m2
COVERAGE-228.8m2 (52.7%)
MAX GFA-4285 SF
2 STOREY (+ OPT TERRACE)
ZONE R2



13.0M BUILDING HEIGHT

ALL ALLOWABLE ENCROACHMENTS TO BE PERMITTED WITH AND/OR WITHOUT FOUNDATIONS INTO ALL YARDS

NOTE: BUILDER TO VERIFY LOCATION OF ALL HYDRANTS, STREET LIGHTS, TRANSFORMERS AND OTHER SERVICES. IF MIN. DIMENSIONS ARE NOT MAINTAINED BUILDER IS TO RELOCATE AT HIS OWN EXPENSE.

CLIENT
MINTO COMMUNITIES

PROJECT/LOCATION
YORK DOWNS
MARKHAM, ONT

DRAWING
SITE GRADING PLAN

BUILDING STATISTICS

REG. PLAN No.	
ZONE	
LOT NUMBER	
LOT AREA(m^2)	
BLDG AREA(m^2)	
LOT COVERAGE(%)	
No. OF STOREYS	
MEAN HEIGHT(m)	
PEAK HEIGHT(m)	
DECK LINE(m)	

LEGEND

FFE	FINISHED FLOOR ELEVATION
TFW	TOP OF FOUNDATION WALL
TBS	TOP OF BASEMENT SLAB
USF	UNDER SIDE FOOTING
USFR	UNDER SIDE FOOTING @ REAR
USFG	UNDER SIDE FOOTING @ GARAGE
TEF	TOP OF ENGINEERED FILL
R	NUMBER OF RISERS TO GRADE
WOD	WALKOUT DECK
LOB	LOOKOUT BASEMENT
WOB	WALK OUT BASEMENT
REV	REVERSE PLAN
STD	STANDARD PLAN
	DOOR
	WINDOW
	BELL PEDISTAL
	CABLE PEDISTAL
	CATCH BASIN
	DBL. CATCH BASIN
	ENGINEERED FILL
	HYDRO CONNECTION
	FIRE HYDRANT
	STREET LIGHT
	MAIL BOX
	TRANSFORMER
	WATER VALVE
	WATER CONNECTION
	SEWER CONNECTIONS 2 LOTS
	SEWER CONNECTIONS 1 LOT
	AIR CONDITIONING
	DOWN SPOUT TO SPLASH PAD
	SWALE DIRECTION
	CHAINLINK FENCE
	PRIVACY FENCE
	SOUND BARRIER
	FOOTING TO BE EXTENDED TO 1.25 (MIN) BELOW GRADE

ISSUED OR REVISION COMMENTS

NO.	DESCRIPTION	DATE	DWN	CHK

I, DECLARE THAT I HAVE REVIEWED AND TAKE DESIGN RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF RN DESIGN LIMITED UNDER SUBSECTION 2.17.4 OF THE BUILDING CODE. I AM QUALIFIED, AND THE FIRM IS REGISTERED, IN THE APPROPRIATE CLASSES/CATEGORIES.

QUALIFIED DESIGNER BCIN
FIRM BCIN
DATE SIGNATURE

DRAWN BY
SCALE
PROJECT No. 17075
LOT NUMBER

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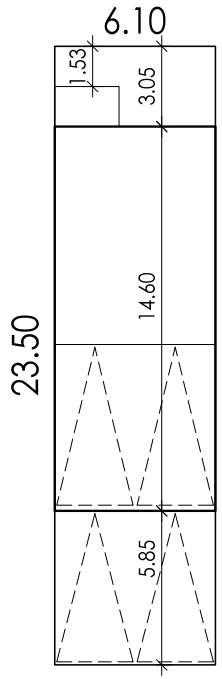
File: C:_RN_Standards\temp\AcPublish_17548\17075 Minto--York Downs-- Envelope Study.dwg Plotted: Oct 30, 2017 By:matthewm

1. ZONING

ZONE: R2-S - 20 FT TOWNS (INT.)

2. UNIT DESIGN CRITERIA



20' TH - INT.
R2-S ZONE

TYP.
6.1m X 23.5m = 143.35m²
BLDG AREA = 89.06m² (W/O PORCH)
LOT COVERAGE = 62.1%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
FRONT (GARAGE):	5.8m
REAR SETBACK:	14.8m (7.5m PROPOSED)
SIDE (INTERIOR):	0.0m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	6.1m (INT.)
MIN. LOT AREA:	N/A

ENCROACHMENTS

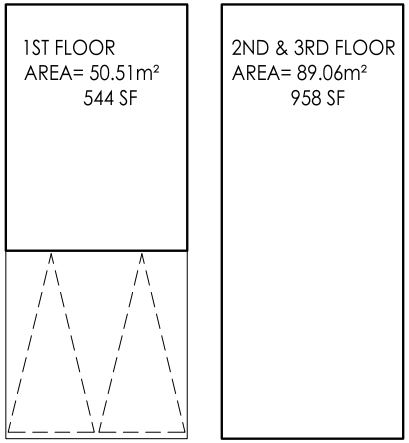
PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.6m
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

R2-LA ZONE (AND R3 ZONE) DOES NOT ALLOW PRIVATE GARAGE ATTACHED TO THE MAIN BUILDING. IF THE LOT IS ACCESSED BY A LANE



3-STOREY
GFA MAX= 228.63m2
= **2461 SF**

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FAX.(905)738-5449
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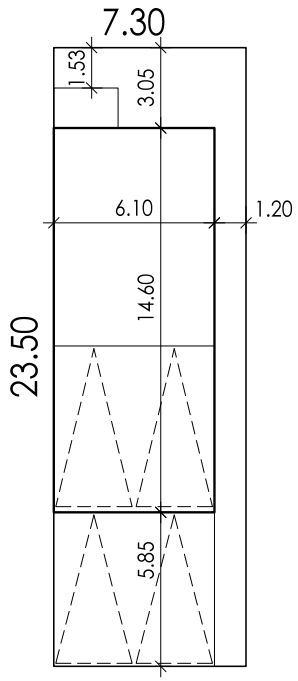
JOB No.	16044
DWN BY:	RK
SCALE:	N.T.S.
DATE ISSUED:	
JUN. 27/16	RK
SEP. 23/16	RK
PROJECT	4134 16TH AVENUE MARKHAM, ON.
CLIENT	KYLEMORE
S.F.	2461 SF
UNIT	20 FT TOWNS INT.
PAGE NO.	1-A

1. ZONING

ZONE: R2-S - 20 FT TOWNS (INT. END)

2. UNIT DESIGN CRITERIA



20' TH - INT. END
R2-S ZONE

TYP.
7.3m X 23.5m = 171.55m²
BLDG AREA = 89.06m² (W/O PORCH)
LOT COVERAGE = 51.9%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
FRONT (GARAGE):	5.8m
REAR SETBACK:	14.8m (7.5m PROPOSED)
SIDE (INTERIOR):	0.0m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	6.1m (INT.)
MIN. LOT AREA:	N/A

ENCROACHMENTS

PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.6m
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

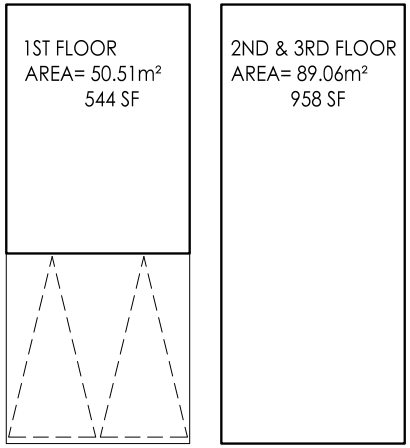
PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

R2-LA ZONE (AND R3 ZONE) DOES NOT ALLOW PRIVATE GARAGE ATTACHED TO THE MAIN BUILDING. IF THE LOT IS ACCESSED BY A LANE

TYP. INT. END FRONTAGE = 7.3m
PROPOSE INT. END FROTAGE OF 7.5m FOR 6" EXT. WALL AND TOLERNCE?



3-STOREY
GFA MAX= 228.63m2
= **2461 SF**

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JOB No. 16044
DWN BY: RK
SCALE: N.T.S.

DATE ISSUED:

JUN. 27/16	RK
SEP. 23/16	RK

PROJECT
4134 16TH AVENUE
MARKHAM, ON.

CLIENT
KYLEMORE

S.F. 2461 SF

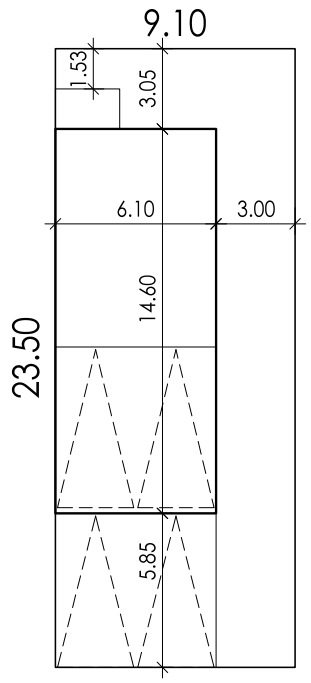
UNIT
20 FT TOWNS
INT. END

PAGE NO. 1-B

1. ZONING

ZONE: R2-S - 20 FT TOWNS (EXT. END)

2. UNIT DESIGN CRITERIA



20' TH -EXT. END
R2-S ZONE

TYP.9.15m X 23.5m = 213.85m²
BLDG AREA = 89.06m² (W/O PORCH)
LOT COVERAGE = 41.6%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
FRONT (GARAGE):	5.8m
REAR SETBACK:	14.8m (7.5m PROPOSED)
SIDE (INTERIOR):	0.0m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	6.1m (INT.)
MIN. LOT AREA:	N/A

ENCROACHMENTS

PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.6m
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

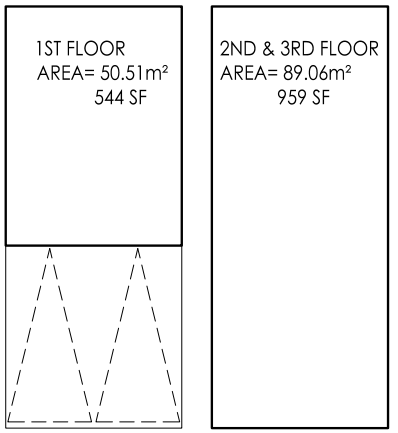
PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

R2-LA ZONE (AND R3 ZONE) DOES NOT ALLOW PRIVATE GARAGE ATTACHED TO THE MAIN BUILDING. IF THE LOT IS ACCESSED BY A LANE

SMALLEST CORNER = 8.85m FRONTAGE, TYPICAL = 9.1m



3-STOREY
GFA MAX= 228.63m2
= **2461 SF**

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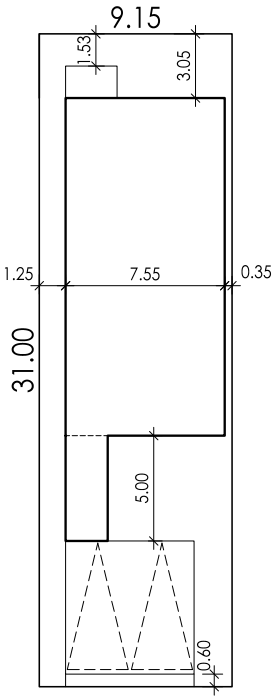
JOB No.	16044
DWN BY:	RK
SCALE:	N.T.S.
DATE ISSUED:	
JUN. 27/16	RK
SEP. 23/16	RK
PROJECT	4134 16TH AVENUE MARKHAM, ON.
CLIENT	KYLEMORE
S.F.	2461 SF
UNIT	20 FT TOWNS EXT. END
PAGE NO.	1-C

1. ZONING

ZONE: R2-S - 30FT SINGLES

2. UNIT DESIGN CRITERIA



30' SINGLE LOTS (LANEWAY)
R2-S ZONE

TYP.
9.15m X 31.0m = 283.65m²
BLDG AREA = 169.58m² (W/O PORCH)
LOT COVERAGE = 59.8%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
REAR (GARAGE):	0.6m
REAR SETBACK:	7.0m
SIDE (INTERIOR):	0.3m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	8.0m
MIN. LOT AREA:	N/A

ENCROACHMENTS

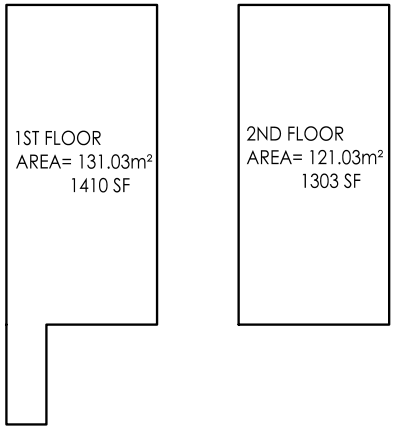
PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

0.3m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 252.06m2
= **2713 SF**

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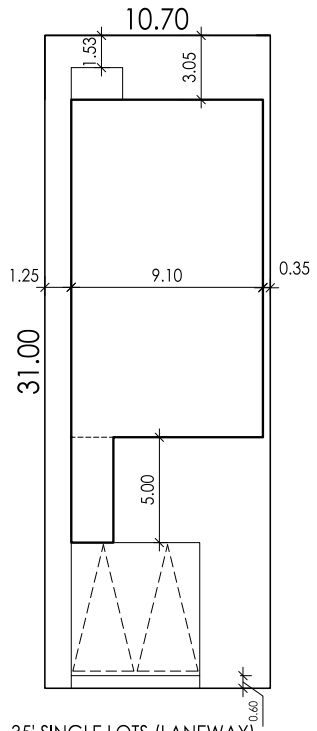
JOB No. 16044
DWN BY: BWS
SCALE: N.T.S.
DATE ISSUED: SEP.23/16
PROJECT: 4134 16TH AVENUE MARKHAM, ON.
CLIENT: KYLEMORE
S.F. 2713 SF
UNIT: 30 FT SINGLES
PAGE NO. 2

1. ZONING

ZONE: R2-S - 35FT SINGLES

2. UNIT DESIGN CRITERIA



35' SINGLE LOTS (LANEWAY)
R2-S ZONE

TYP.
10.7m X 31.0m = 331.7m²
BLDG AREA = 194.42m² (W/O PORCH)
LOT COVERAGE = 58.6%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
REAR (GARAGE):	0.6m
REAR SETBACK:	7.0m
SIDE (INTERIOR):	0.3m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	8.0m
MIN. LOT AREA:	N/A

ENCROACHMENTS

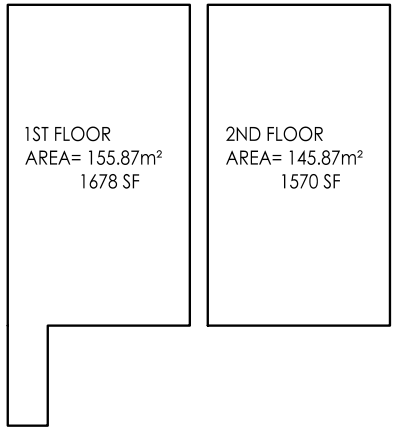
PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

0.3m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 301.74m2
= **3248 SF**

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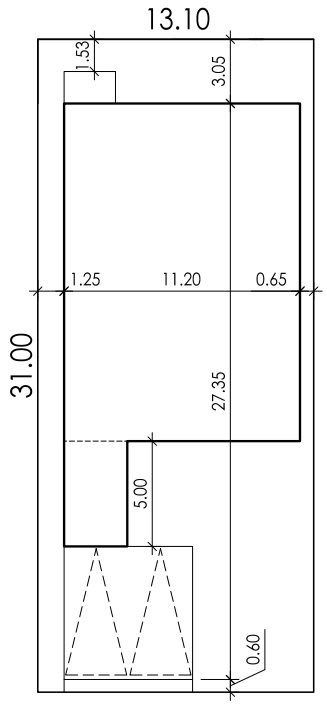
JOB No. 16044
DWN BY: BWS
SCALE: N.T.S.
DATE ISSUED: SEP.23/16
PROJECT: 4134 16TH AVENUE MARKHAM, ON.
CLIENT: KYLEMORE
S.F. 3248 SF
UNIT: 35FT SINGLES
PAGE NO. 3

1. ZONING

ZONE: R2-S - 43FT SINGLES

2. UNIT DESIGN CRITERIA



43' SINGLE LOTS (LANEWAY)
R2-S ZONE

TYP.
10.7m X 31.0m = 406.10m²
BLDG AREA = 233.09m² (W/O PORCH)
LOT COVERAGE = 57.4%

MINIMUM YARDS

FRONT (HOUSE):	3.0m
REAR (GARAGE):	0.6m
REAR SETBACK:	7.0m
SIDE (INTERIOR):	0.6m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	8.0m
MIN. LOT AREA:	N/A

ENCROACHMENTS

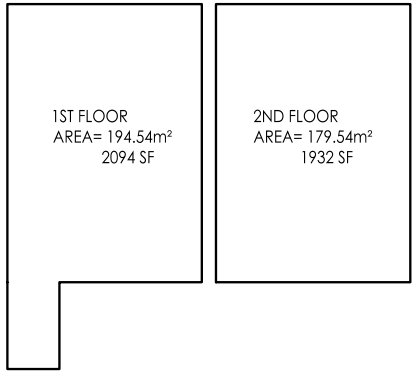
PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

0.6m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 374.08m2
= **4026 SF**

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JOB No. 16044
DWN BY: RK
SCALE: N.T.S.
DATE ISSUED:

SEP.23/16	RK

PROJECT
4134 16TH AVENUE
MARKHAM, ON.

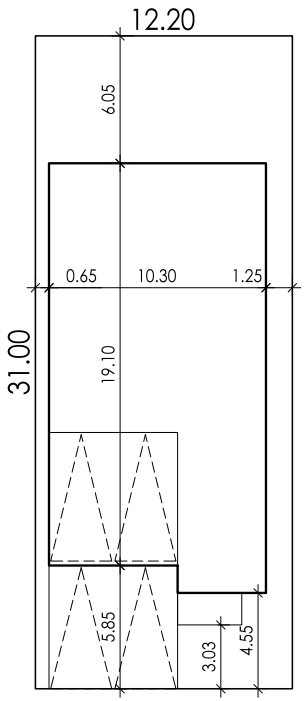
CLIENT
KYLEMORE

S.F. 4026 SF
UNIT 43FT SINGLES
PAGE NO. 4

1. ZONING

ZONE: R2-S - 40FT SINGLES

2. UNIT DESIGN CRITERIA



40' SINGLE LOTS
R2-S ZONE

TYP.
12.20m X 31.0m = 378.2m²
BLDG AREA = 202.19m² (W/O PORCH)
LOT COVERAGE = 53.5%

MINIMUM YARDS

FRONT (HOUSE):	4.5m
FRONT (GARAGE):	5.8m
REAR SETBACK:	6.0m
SIDE (INTERIOR):	0.6m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	9.75m
MIN. LOT AREA:	N/A

ENCROACHMENTS

PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

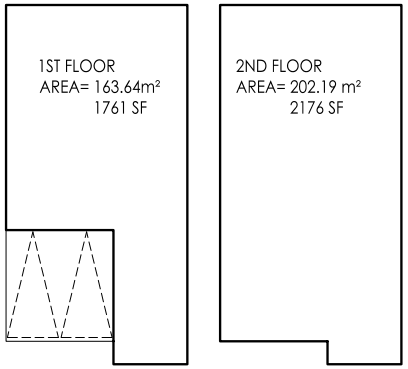
PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

MAXIMUM GARAGE WIDTH = 9.0m FOR LOTS WITH FRONTAGE GREATER THAN 11.6m

0.6m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 365.83m2
= **3938 SF**

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DWG@RNDESIGN.COM

JOB No. 16044

DWN BY: RK

SCALE: N.T.S.

DATE ISSUED:

JUN. 27/16	RK
SEP. 23/16	RK

PROJECT
4134 16TH AVENUE
MARKHAM, ON.

CLIENT
KYLEMORE

S.F. 3938 SF

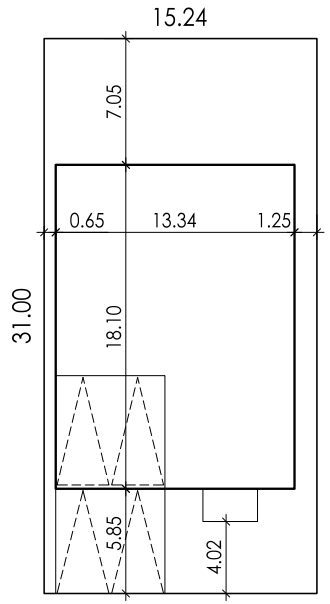
UNIT
40FT SINGLES

PAGE NO. 5

1. ZONING

ZONE: R2-S - 50FT SINGLES

2. UNIT DESIGN CRITERIA



50' SINGLE LOTS
R2-S ZONE

TYP.
15.24m X 31.0m = 472.44m² (W/O PORCH)
LOT COVERAGE = 51.1%

MINIMUM YARDS

FRONT (HOUSE):	4.5m
FRONT (GARAGE):	5.8m
REAR SETBACK:	7.0m
SIDE (INTERIOR):	0.6m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	9.75m
MIN. LOT AREA:	N/A

ENCROACHMENTS

PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

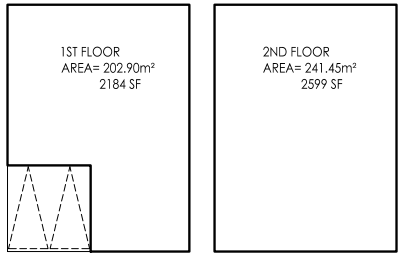
PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

MAXIMUM GARAGE WIDTH = 9.0m FOR LOTS WITH FRONTAGE GREATER THAN 11.6m

0.6m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 444.35m2
= **4783 SF**

RN design
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TEL.(905)738-3177
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DWG@RNDESIGN.COM

JOB No. 16044
DWN BY: RK
SCALE: N.T.S.

DATE ISSUED:

JUN. 27/16	RK
SEP. 23/16	RK

PROJECT
4134 16TH AVENUE
MARKHAM, ON.

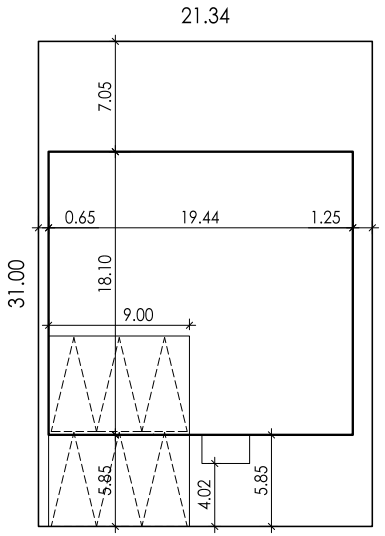
CLIENT
KYLEMORE

S.F. 4783 SF
UNIT 50FT SINGLES
PAGE NO. 6

1. ZONING

ZONE: R2-S - 70FT SINGLES

2. UNIT DESIGN CRITERIA



70' SINGLE LOTS
R2-S ZONE

TYP.
21.34m X 31.0m = 661.54m²
BLDG AREA = 351.86m² (W/O PORCH)
LOT COVERAGE = 53.2%

MINIMUM YARDS

FRONT (HOUSE):	4.5m
FRONT (GARAGE):	5.8m
REAR SETBACK:	7.0m
SIDE (INTERIOR):	0.6m AND 1.2m
SIDE (EXTERIOR):	3.0m
SITE TRIANGLE:	UNKNOWN
BUILDING HEIGHT: (MEAN or PEAK)	13m
COVERAGE:	N/A
PORCH INCLUDED:	Y or (N)
MIN. FRONTAGE:	9.75m
MIN. LOT AREA:	N/A

ENCROACHMENTS

PORCH:	
FRONT/ EXT.:	MIN. 1.0m FROM LOT LINES
REAR:	3.0m
INT. SIDE:	0.3/0.6m (HALF SIDE YARD)
STEPS: (TO ACCESS A PORCH)	MIN. 0.6m FROM LOT LINE
BAY WINDOWS (CANTILEVERED)	1.0m (REAR AND EXT SIDE) MAX 3.0m WIDE
ARCH FEATURES: INLUDING: EAVES, CHIMNEY BREASTS, PILASTERS, ROOF OVERHANGS, AND BALCONIES.	3.5m INTO FRONT MIN. 1.0m FRON LOT LINE
	2.0m INTO REAR
	0.6m INTO INT.
	1.2m INTO EXT. SIDE YARD

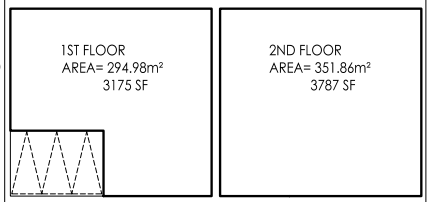
PARKING REQUIREMENTS

# PARKING SPACES:	2
MIN. PARKING SPACE SIZE (GARAGE SIZE):	2.75m X 5.8m (1 SPACE)

NOTES:

MAXIMUM GARAGE WIDTH = 9.0m FOR LOTS WITH FRONTAGE GREATER THAN 11.6m

0.6m SIDE YARD CANNOT HAVE DOORS OR WINDOWS DUE TO BLDG CODE. (MIN. 1.2m)



2-STOREY
GFA MAX= 646.84m2
= **6963 SF**

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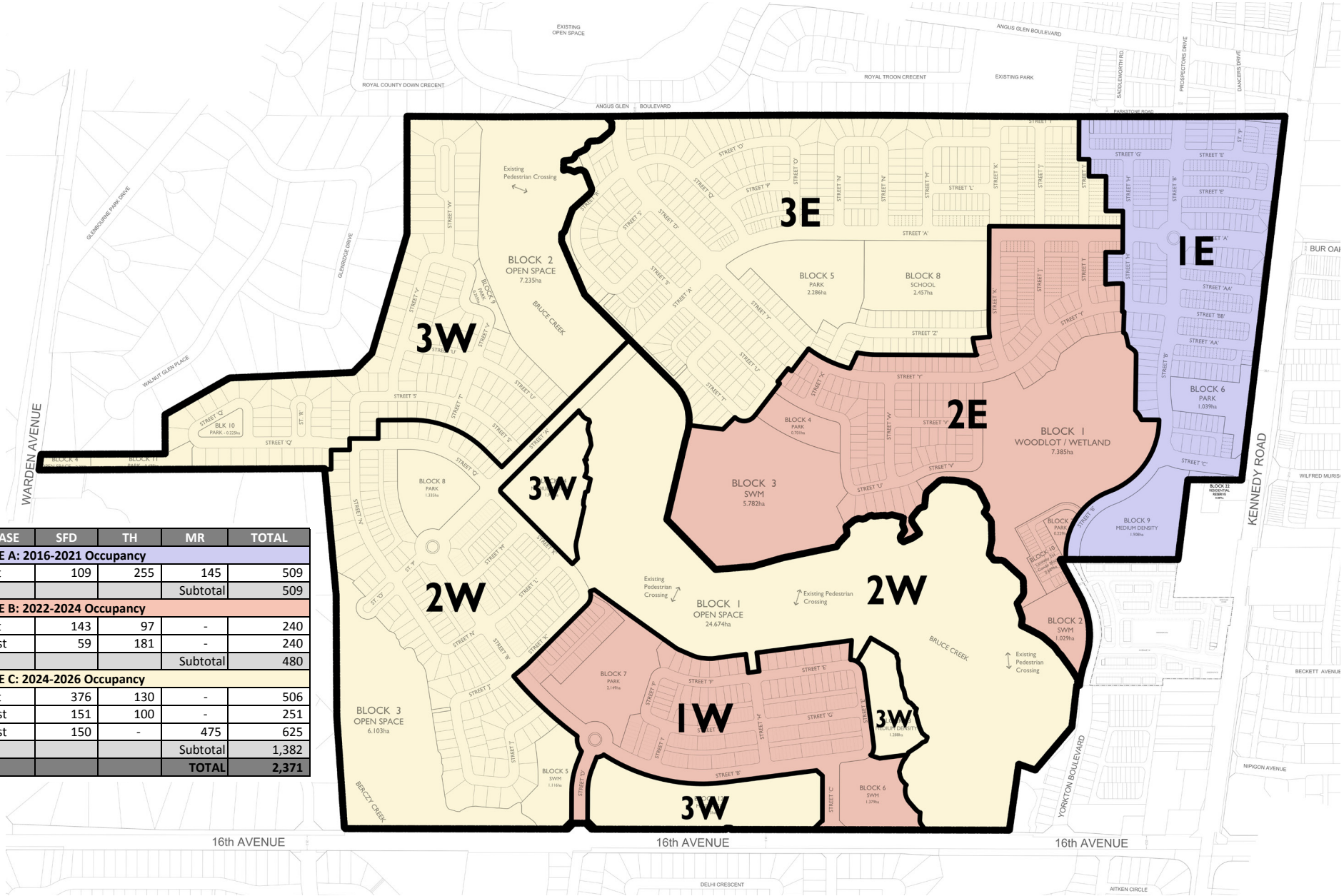
S.F. 6963 SF

UNIT
70FT SINGLES

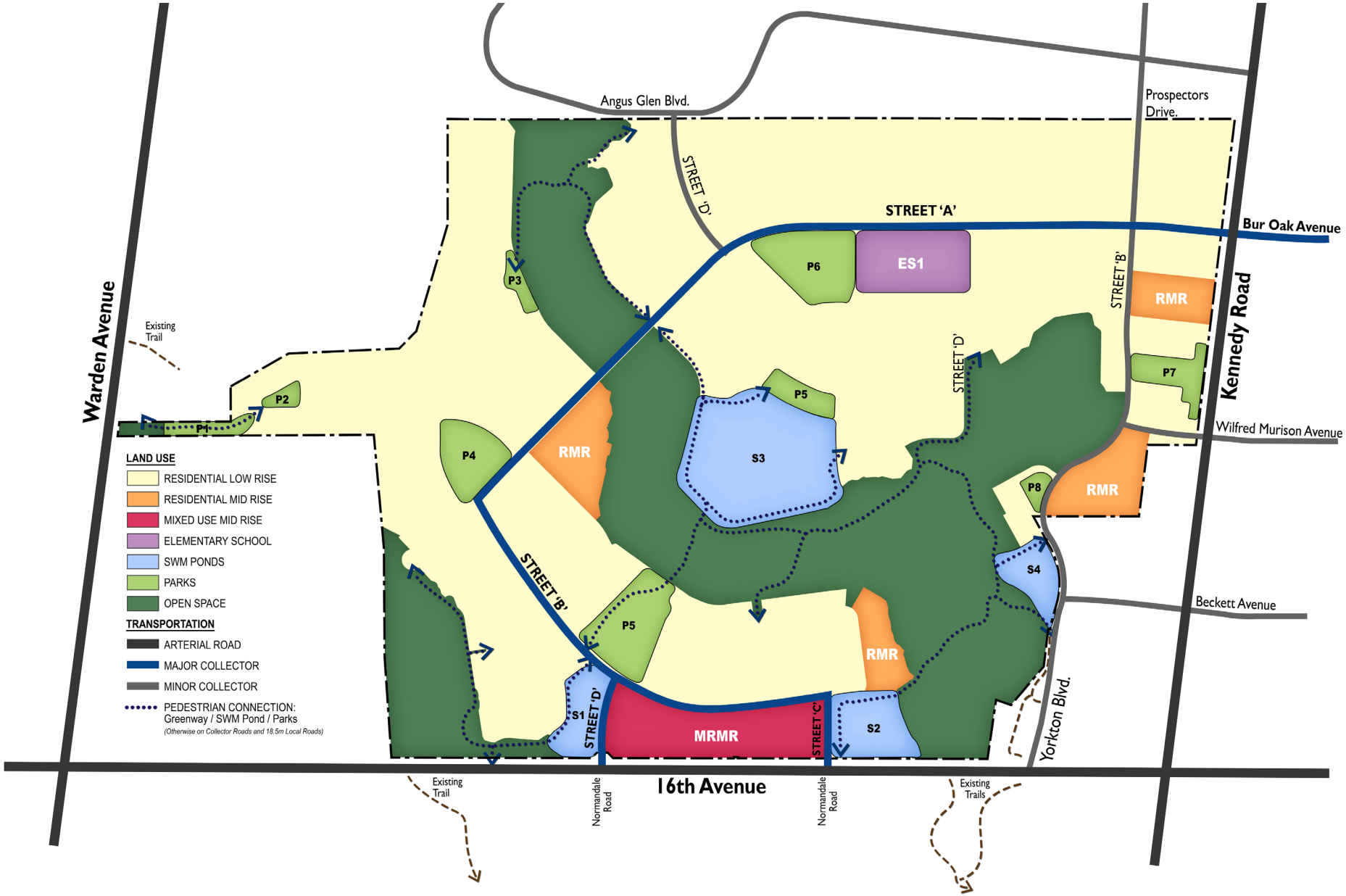
PAGE NO. 7

8D Phasing Plan



PHASE	SFD	TH	MR	TOTAL
STAGE A: 2016-2021 Occupancy				
1 East	109	255	145	509
			Subtotal	509
STAGE B: 2022-2024 Occupancy				
2 East	143	97	-	240
1 West	59	181	-	240
			Subtotal	480
STAGE C: 2024-2026 Occupancy				
3 East	376	130	-	506
2 West	151	100	-	251
3 West	150	-	475	625
			Subtotal	1,382
			TOTAL	**2,371**

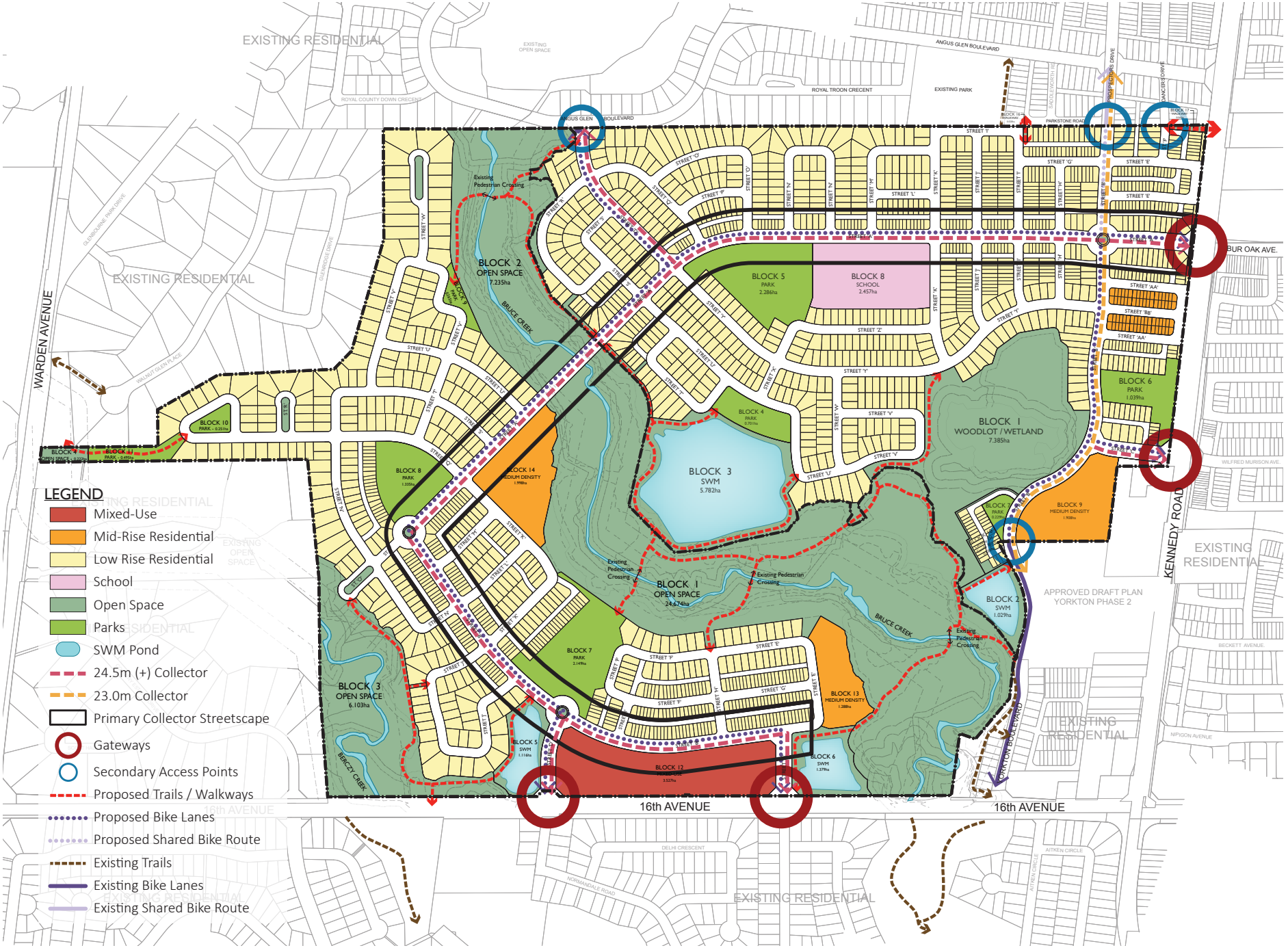
8E Simplified Community Structure Plan



8F System Diagrams

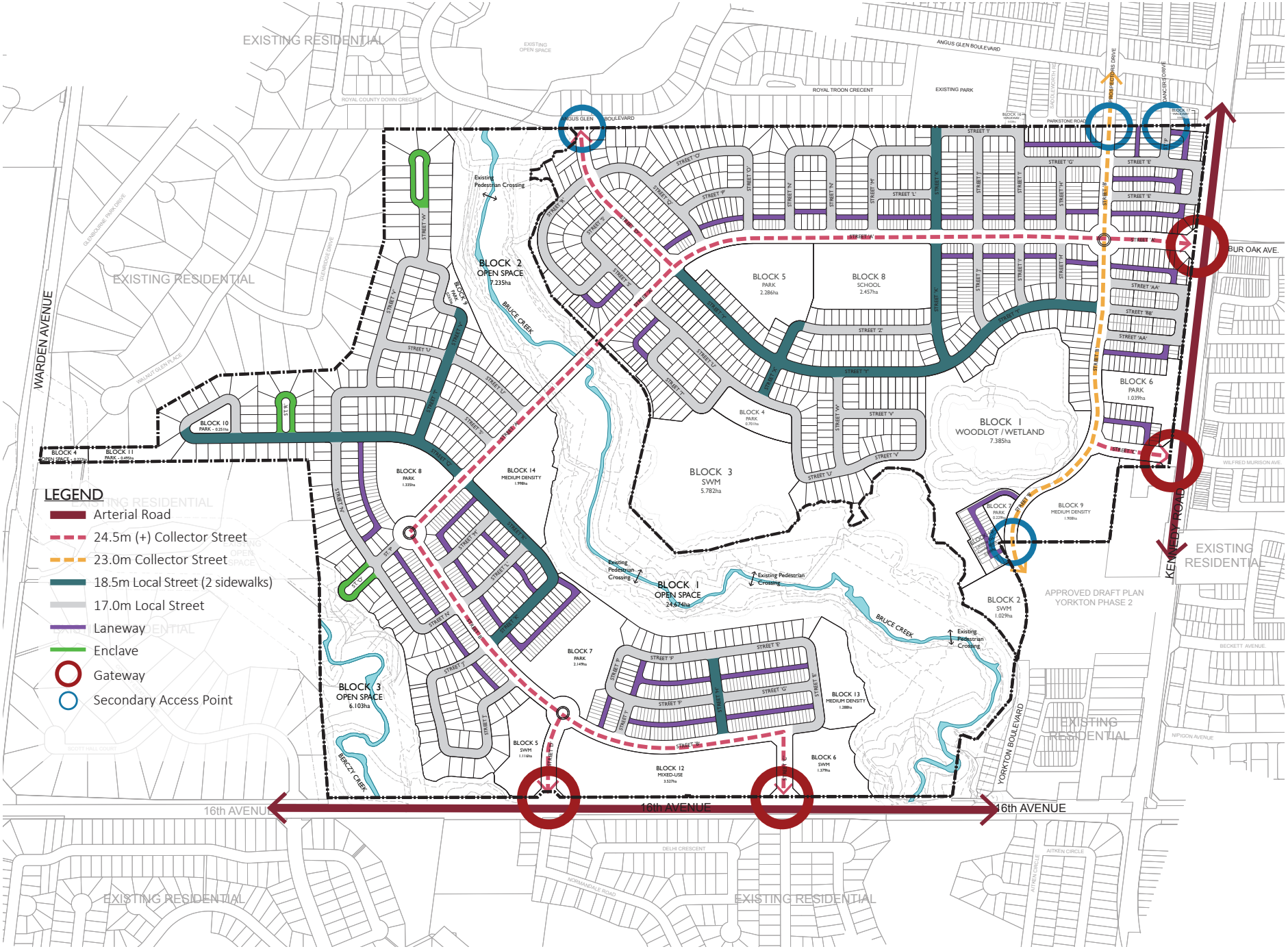
Summary of system diagrams provided in the Community Design Plan:

Figure Title	CDP Reference	
	Figure No.	Page No.
Proposed Community Structure Plan	2	27
Proposed Open Space Plan	3	29
Proposed Street Network	4	32
Proposed Transit Route	12	39
Land Use Plan	14	45
Proposed Building Typology	16	52
Priority Lot Plan	20	65
Proposed Active Transportation Network	21	78
5-Minute Walking Distance (400 metres)	29	100
Views and Vistas to Open Space and Culturally Significant Landscapes	31	106



Proposed Community Structure Plan (Figure 2, Page 27)

Proposed Open Space Plan (Figure 3, Page 29)



Proposed Street Network (Figure 4, Page 32)

PROPOSED TRANSIT ROUTE

4134 16TH AVENUE, CITY OF MARKHAM, REGION OF YORK

October 19, 2017

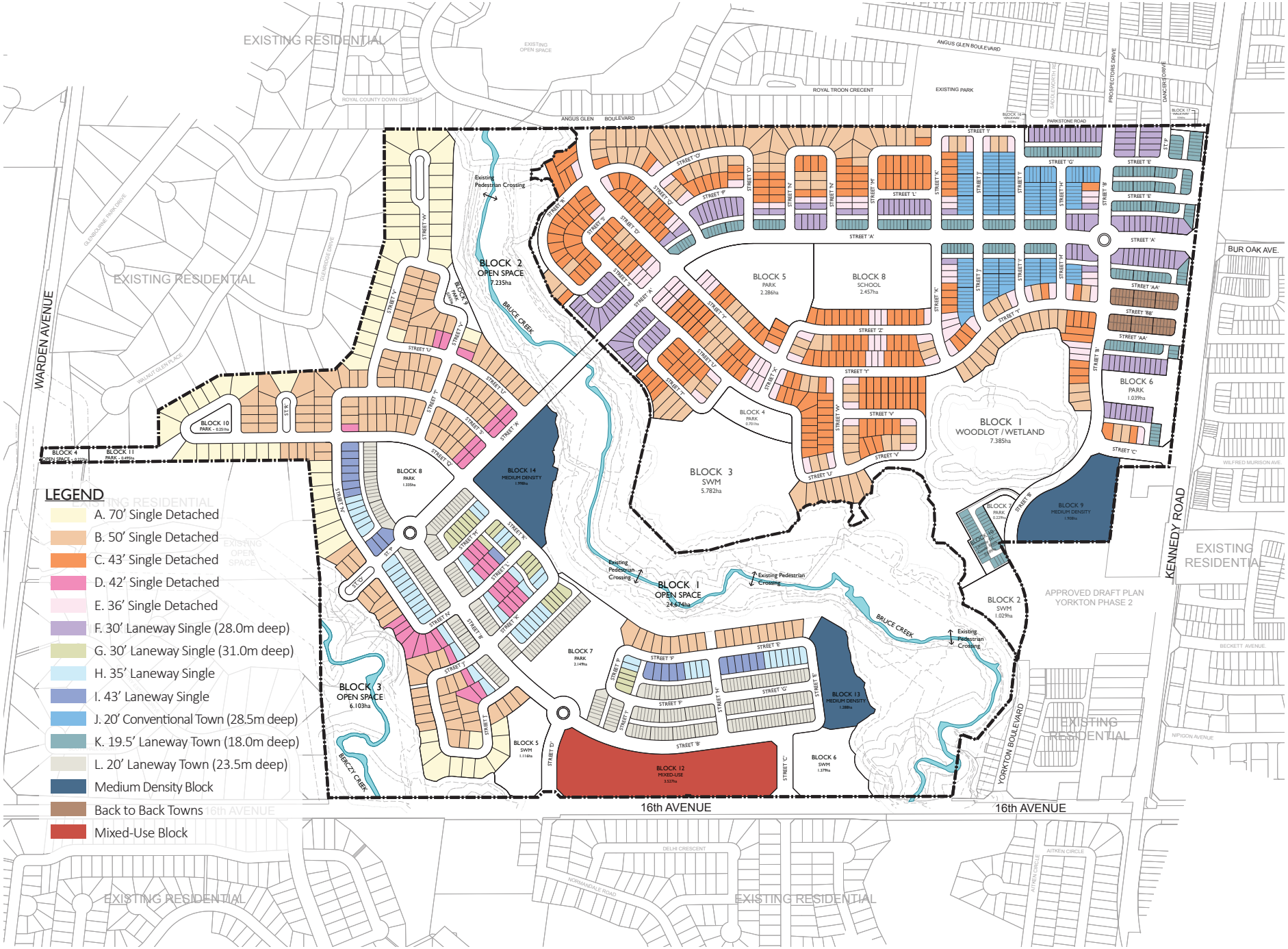
mbtw wai

Poulos Chung

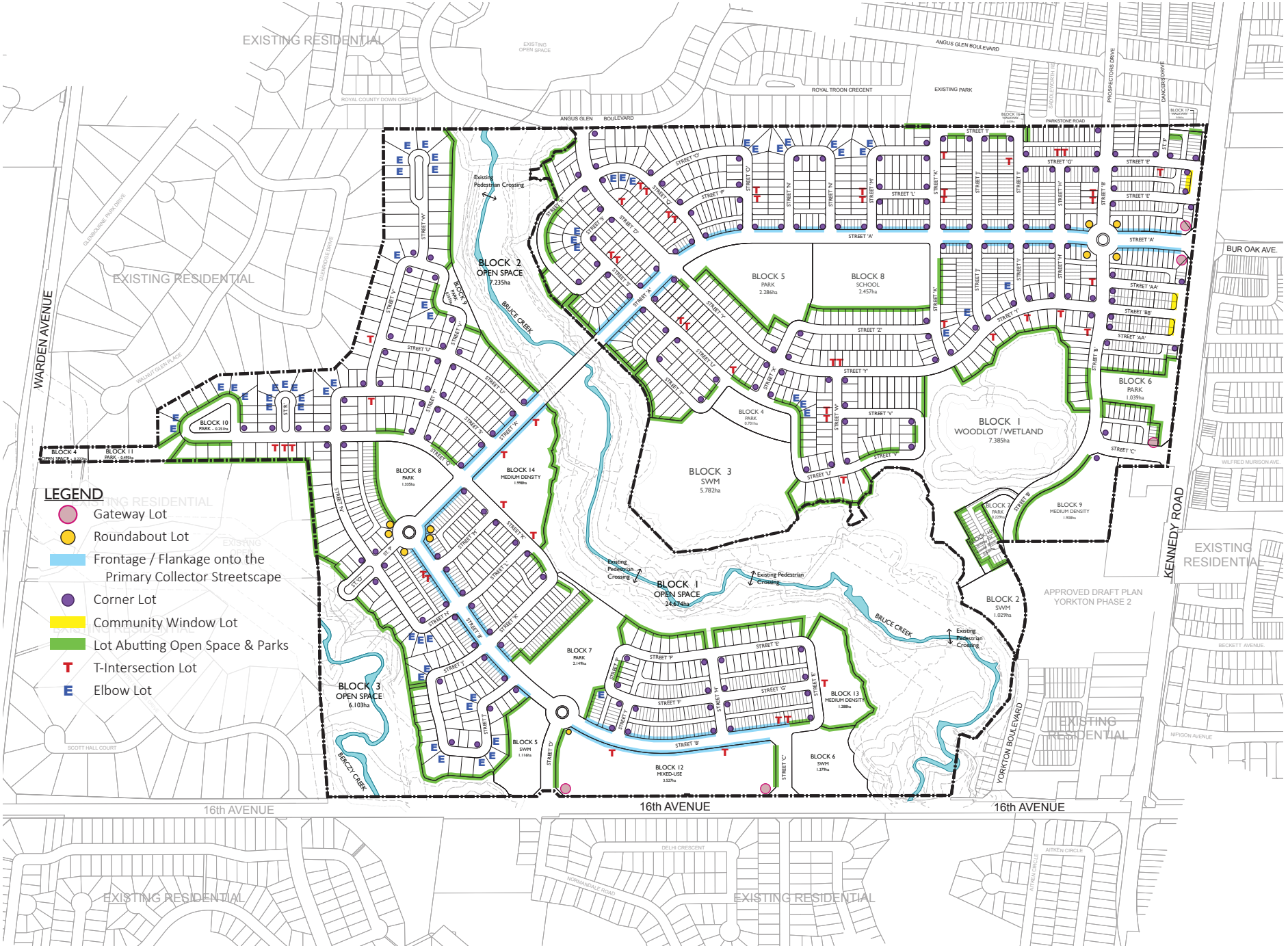
Proposed Transit Route
Figure 6

Proposed Transit Route (Figure 12, Page 39)

Land Use Plan (Figure 14, Page 45)



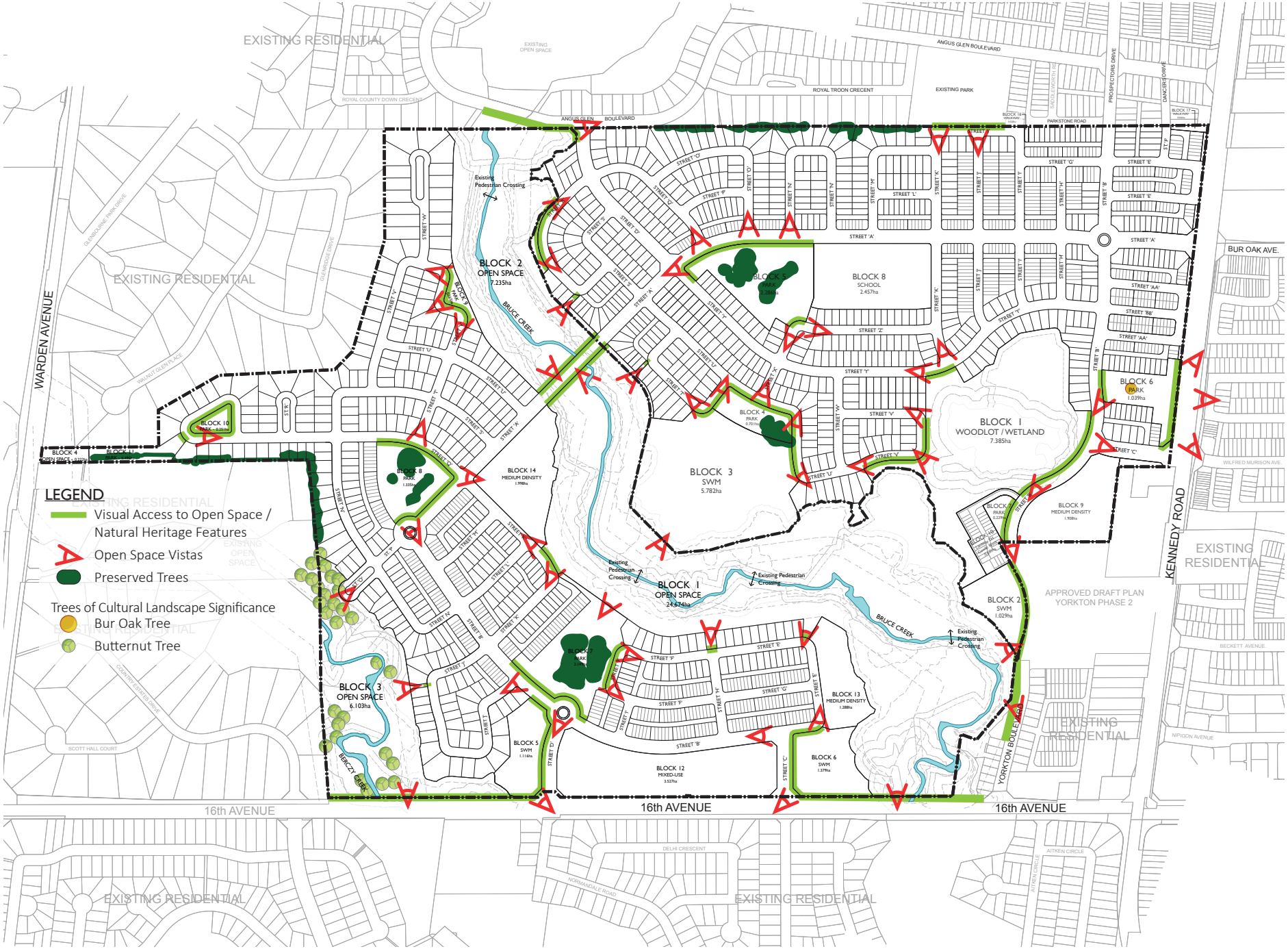
Proposed Building Typology (Figure 16, Page 52)



Priority Lot Plan (Figure 20, Page 65)

Proposed Active Transportation Network (Figure 21, Page 78)

5-Minute Walking Distance (400 metres) (Figure 29, Page 100)



Views and Vistas to Open Space and Culturally Significant Landscapes (Figure 31, Page 106)