Concord West

Urban Design Framework + Streetscape Plan

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VAUGHAN

prepared by:

JanetRosenberg&Studio

Landscape Architecture and Urban Design

Janet Rosenberg & Studio + VAUGHAN

This study represents the outcome of a collaboration led by consulting firm Janet Rosenberg & Studio with invaluable input from City of Vaughan staff and the Concord West community.

Study Contents:

Section Contents:

Introduction to the Study

1

1.1
Study Introduction

1.1.1
Role of the Study

The *Concord West Urban Design Framework + Streetscape Plan* establishes the vision and design concepts that will lead to the development of a high quality, sustainable, and cohesive urban environment along the Highway 7 and Keele Street corridors, integrated with the existing Concord West residential community. The study covers two unique components, each defined by a unique study boundary - an *Urban Design Framework* (Figure 1.1.1) and a *Streetscape Plan* (Figure 1.1.2). Though this document represents the most detailed look at the study area, it should be utilized in conjunction with a variety of related documents (Table 1.1.3).

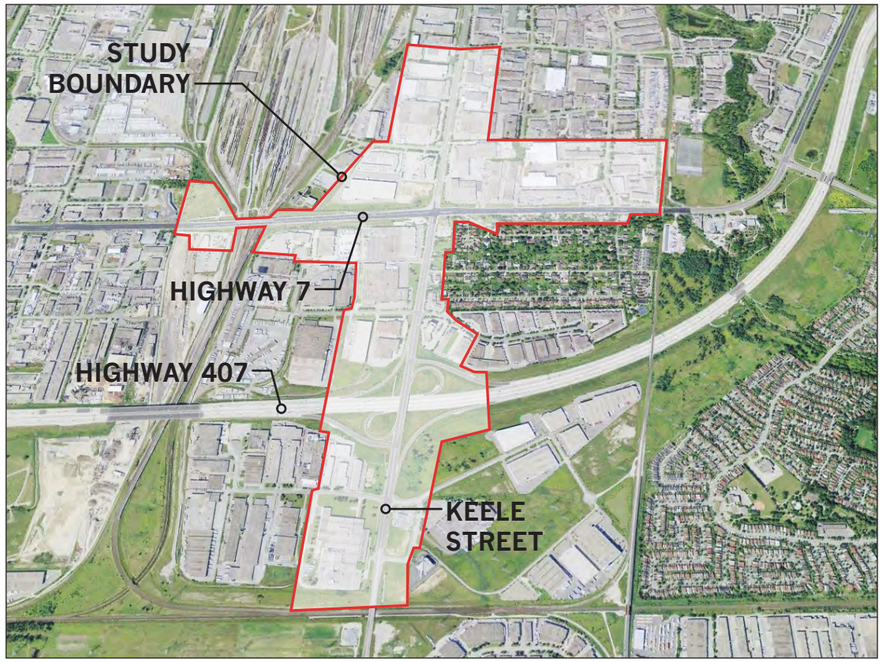


Figure 1.1.1 Urban Design Framework study area.

1.1.2
Structure of the Document

This study document is structured into the following sections:

1: Introduction to the Study
Introduces the study and its components.

2: Urban Design Framework
Outlines the broad urban design vision and design concepts for the study area.

3: Streetscape Plan
Details concepts for the study area streetscapes and community gateways.

4: Streetscape Implementation Strategy
Provides an implementation timeline, outlines jurisdictional responsibilities and funding sources, and includes cost estimates for streetscapes and gateways.

Figure 1.1.2 Streetscape Plan study area.

City of Vaughan – Active Together Master Plan for Parks, Recreation, Culture and Libraries (2008)

City of Vaughan – By-Law 1-88

City of Vaughan – The Corridor and Employment Area Design Standards Study

City of Vaughan – Crime Prevention Through Environmental Design

City of Vaughan – Highway 7 Land Use Futures Study (2001)

City of Vaughan – Official Plan (2010) and Offical Plan Amendments (OPA)

City of Vaughan – Pedestrian and Bicycle Master Plan Study (2008)

Green Directions Vaughan – Community Sustainability and Environmental Master Plan (2009)

Making It Happen! The York Region Centres and Corridors Study

Government of Ontario – Places to Grow: Growth Plan for the Greater Golden Horseshoe (2006)

Government of Ontario – The 2005 Provincial Policy Statement

Planning for Tomorrow – York Region Growth Management Study (2006)

Regional Transit-Oriented Development Guidelines (2006)

Toronto Region Conservation Authority – Don River Watershed Plan (2009)

Vaughan Tomorrow – A Plan for Transformation

Vaughan Vision 2020 – The City of Vaughan Strategic Plan

Viva Rapidway Design Standards (2007)

York Region – Official Plan (2009)

York Region – Pedestrian and Cycling Master Plan (2008)

York Region – Street Tree Preservation and Planting Design Guidelines (2009)

York Region – Sustainability Strategy (2007)

York Region – Transit Coordinated Street Furniture Urban Design Guidelines

York Region – Transit Highway 7 Corridor and Vaughan N-S Link Public Transit Improvements Environmental Assessment

York Region – Transportation Master Plan (2003)

Table 1.1.3 List of related documents for additional reference.

Section Contents:

2 Urban Design Framework

2.1
Site Analysis

2.1.1
Study Area

The study area for the Concord West Urban Design Framework encompasses approximately 1.7 square kilometres along Keele Street and the Highway 7 intensification corridor - the primary intensification corridor within the Concord West employment area (Figure 2.1.1). The area is immediately situated between the GO Transit rail corridor to the east and the CN rail yards to the west, and between Rivermede Road to the north and the CN rail corridor to the south. The area also sits between three major zones of future urban intensification - the Concord GO Centre to the east, the Vaughan Metropolitan Cantre to the west, and the Steeles West District to the south. The Concord West residential community abuts the study area, and its characteristics shall be respected by and integrated into future development of the area in a complementary manner. The study area currently consists of predominantly commercial and industrial land uses, severely lacking in any form of street grid to organize development into a cohesive urban form. Also included in the study area is a Highway 407 interchange, located to the south of the Concord West residential community and occupying a large amount of inaccessible land along Keele Street.

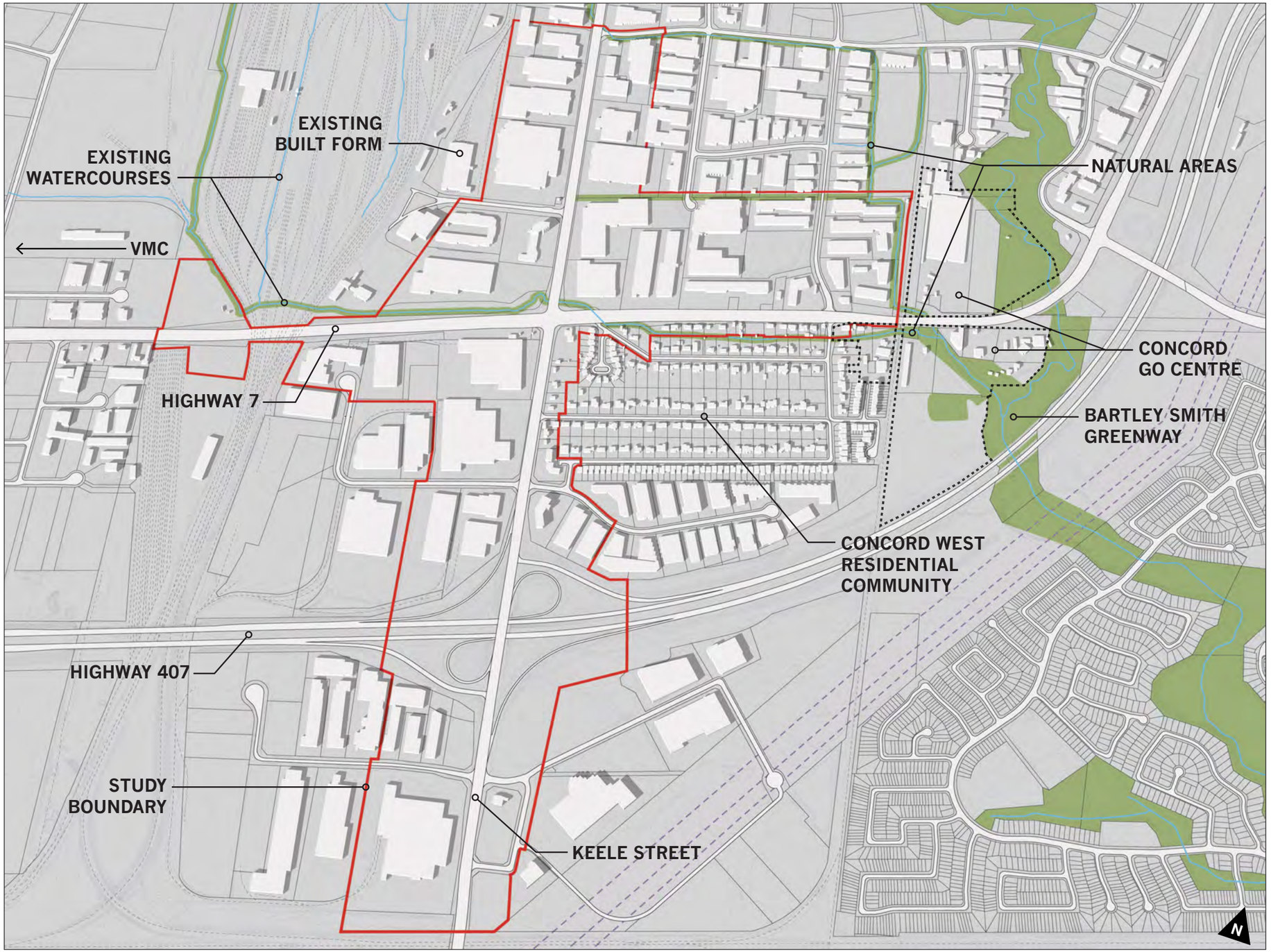


Figure 2.1.1 Concord West Urban Design Framework study area.

Figure 2.1.2 Aerial view of existing Concord West study area.

Figure 2.1.3 Detailed aerial view of typical existing conditions within the study area.

2.1.2
Existing Conditions

Currently consisting of predominantly low-rise commercial and industrial developments, the Concord West study area faces many challenges to overcome in the next stages of its necessary redevelopment and intensification (Figure 2.1.2). The study area's existing framework consists of large tracts of land contained within a very limited formal street network - a high percentage of its surface area covered with impermeable paving dedicated to vehicles, with little to no landscape features and a nonexistant pedestrian realm (Figure 2.1.3). Adjacent to the study area exists an established pocket of low density residential developement - a neighbourhood that is a unique enclave within the broader community, as well as the upper West Don River within the Bartley Smith Greenway.

Figure 2.1.4 City of Vaughan Official Plan 2010: A Plan for Transformation.

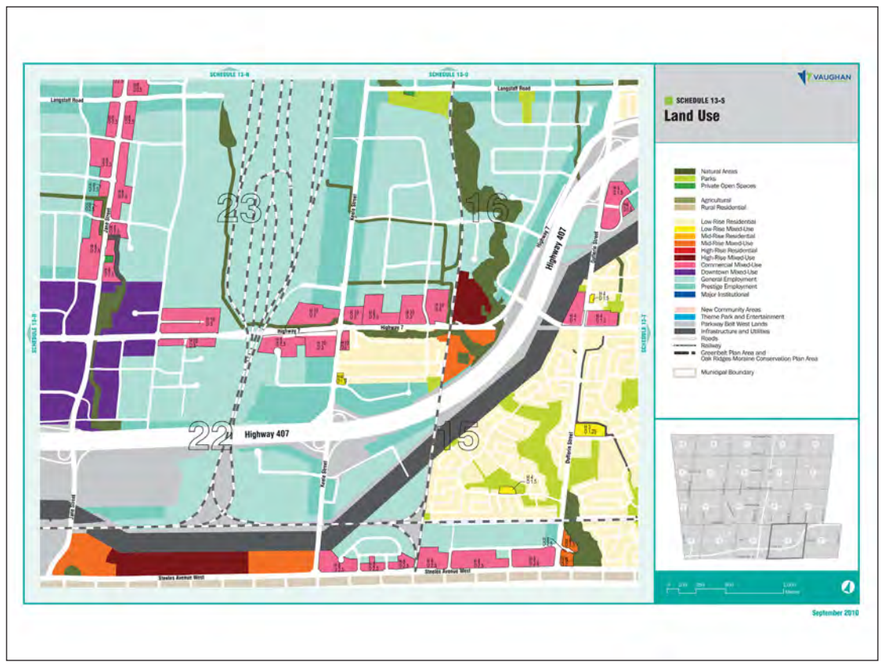


Figure 2.1.5 City of Vaughan Official Plan 2010: Land Use Schedule.

2.1.3
City of Vaughan Official Plan 2010

The City of Vaughan Official Plan is part of an overall Growth Management Strategy that will shape the future of the area and oversee its continued transformation into a vibrant, beautiful and sustainable city (Figure 2.1.4). Adopted by Council on September 7, 2010, this plan defines a vision and guidelines that shall be at the foundation of ALL future development in the Concord West study area. Within the Official Plan, Schedule 13-S identifies new land use designations for the Concord West study area (Figure 2.1.5). These new designations will support the planned re-development of the Highway 7 and Keele Street corridors, and provide a starting point for the re-visioning of Concord West.

2.1.4
Current Land Use Designations

As outlined in the Official Plan 2010, located within the Concord West study area are four land use designations - Commercial Mixed-Use, Low-Rise Mixed-Use, Prestige Employment, and General Employment (Figures 2.1.6-10):

Commercial Mixed-Use areas are located along the Highway 7 intensification corridor, and shall include predominantly commercial uses appropriate for non-residential intensification and make use of existing and planned transit investments. These areas shall be developed with commercial buildings that allow for a variety of business uses to occur in close proximity to each other in order to assist the City in achieving its overall employment targets and intensification objectives.

Low-Rise Mixed-Use areas are located on arterial or collector streets. They will allow for an integrated mix of residential, community and small scale retail uses intended to serve the local population.

Prestige Employment use areas shall be characterized by high quality buildings in an attractive pedestrian-friendly and transit-oriented working environment. A variety of lot sizes will be made available to provide flexibility for attracting and accommodating a wide range of employment uses.

General Employment areas shall be predominantly industrial areas characterized by low scale buildings with a variety of lot sizes to provide flexibility for attracting and accommodating a wide range of industrial and associated employment uses. Development in such areas shall be designed with pedestrian amenities to serve the daily employee population and to facilitate access to public transit.

All land use areas shall be carefully designed with a high standard of architecture and public realm, and well integrated with adjacent areas.

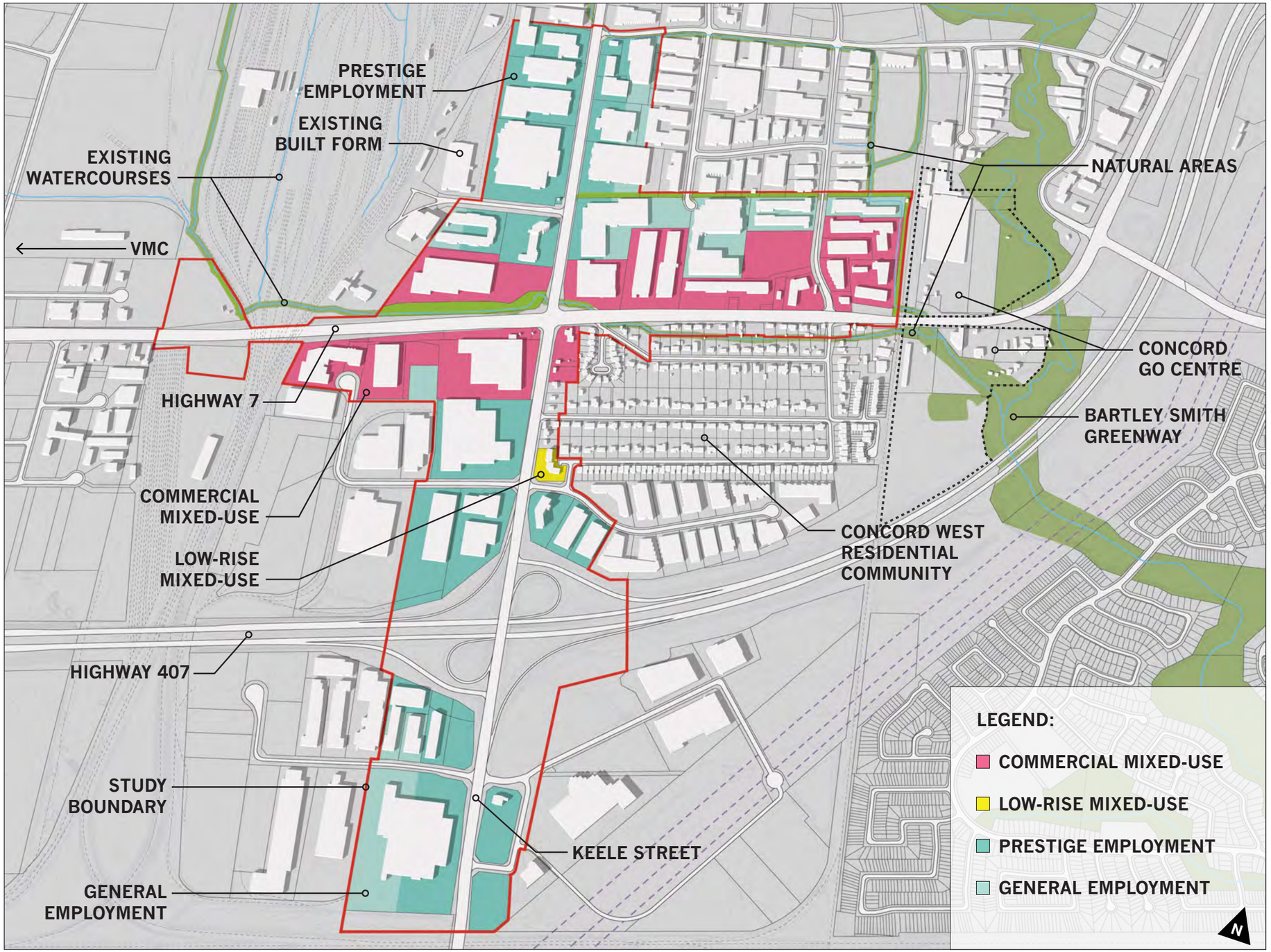


Figure 2.1.6 Study area showing new land use designations from the Council-approved Vaughan Official Plan 2010.

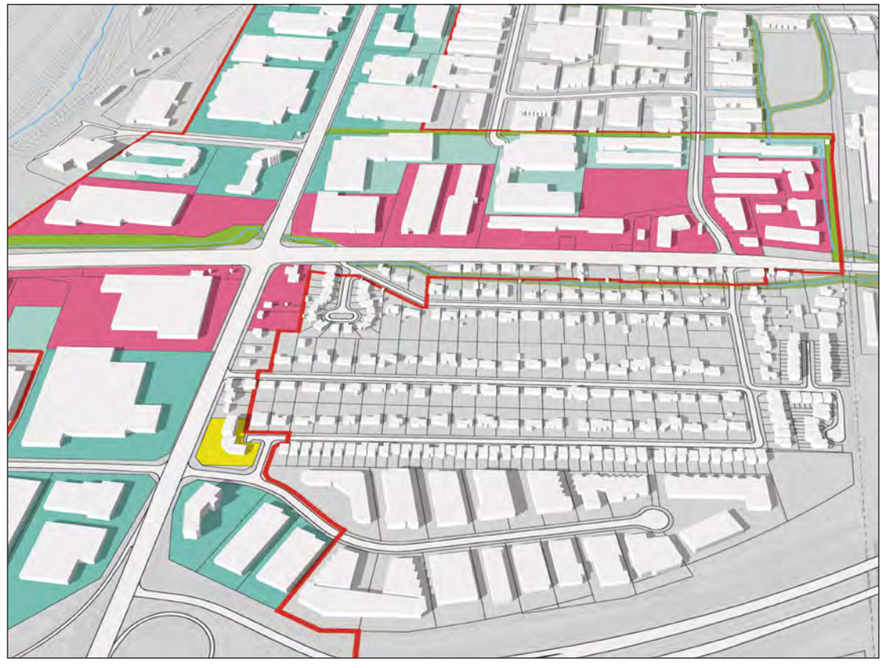


Figure 2.1.7 View from south (showing land uses from Vaughan Official Plan 2010).

Figure 2.1.8 View from southeast (showing land uses from Vaughan Official Plan 2010).

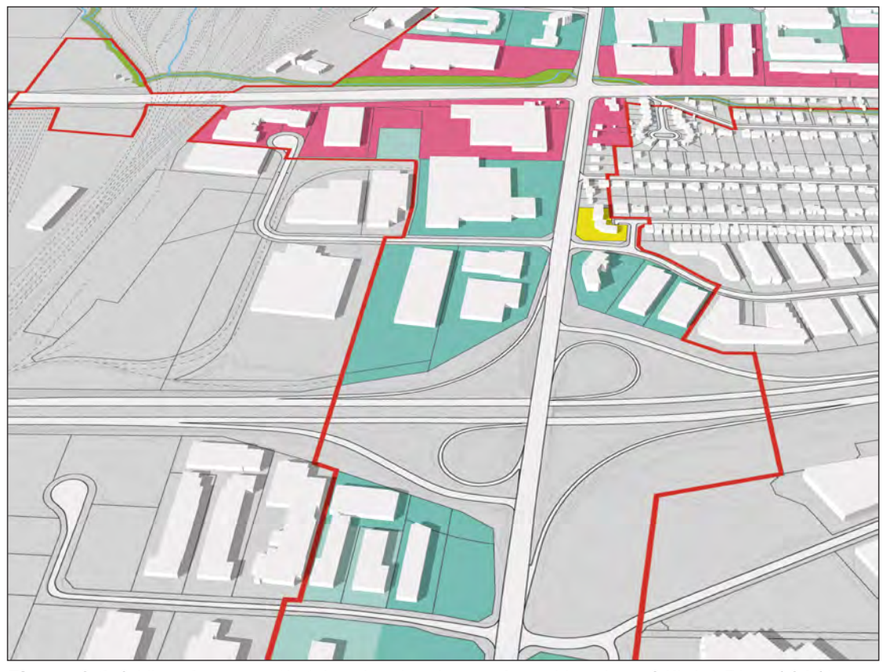


Figure 2.1.9 View from south (showing land uses from Vaughan Official Plan 2010).

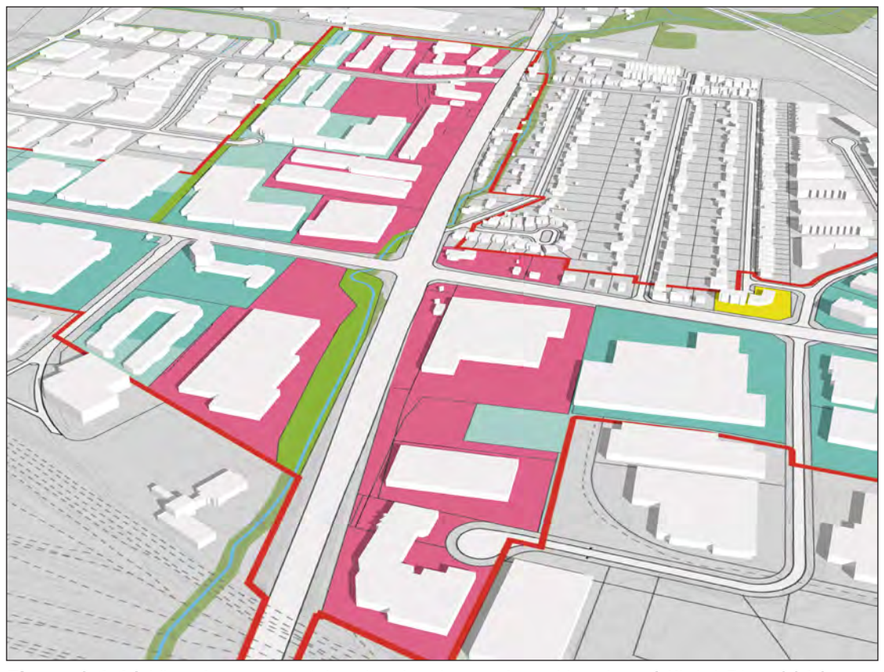


Figure 2.1.10 View from west (showing land uses from Vaughan Official Plan 2010).

Commercial Mixed-Use

a. The following uses are permitted: Office (max. of 12,500 sq m), Hotel, Retail, and Gas Station (subject to certain criteria).
b. Retail uses shall not exceed 50 percent of the total gross floor area of all uses on the lot.
c. The following building types are permitted: Mid-Rise, Public and Private Institutional, and Gas Station.

Low-Rise Mixed-Use

a. The following uses are permitted: Office, Small Scale Hotel, Retail, Residential Units, and Home Occupations.
b. The ground floor frontage of buildings shall predominantly consist of retail uses or other activities that animate the street.
c. The following building types are permitted: Townhouse, Stacked Townhouse, Low-Rise, Low-Rise, and Institutional.

Prestige Employment

a. The following uses are permitted: Industrial, Office, Retail, Gas Station (all subject to certain restrictions).
b. Separation distance measures shall be applied to achieve compatability between these land uses and other adjacent areas.
c. The following building types are permitted: Employment/Industrial, Low-Rise, Mid-Rise, and Gas Station.

General Employment

a. The following uses are permitted: Industrial, Office, and Retail (all subject to certain restrictions).
b. Separation distance measures shall be applied to achieve compatability between these land uses and other adjacent areas.
c. The following building types are permitted: Employment/Industrial, Low-Rise, and Mid-Rise.

2.2
Urban Framework

2.2.1
Overview

Future urban development within Concord West will be focused along both Highway 7 and Keele Street. The successful development of this area will require a long-term commitment initiated by the vision described in this study, and further guided by additional plans and guidelines of increasing detail. This section lays out the underlying components that will form the study area's new *Urban Framework*. Included in these components are: a new *street network* and *block structure*, *urban corridors*, *stormwater buffers*, *natural areas and planted buffers*, and *street trees and boulevard plantings* (Figure 2.2.1).

Note: The future street network and block structure shown in this study document is intended for conceptual purposes only. Though a denser block pattern will inevitably be implemented to achieve the vision for Concord West, further traffic and urban studies will need to be undertaken to determine its exact structure and alignment.

Figure 2.2.1 Study area showing conceptual urban framework (subject to further traffic analysis).

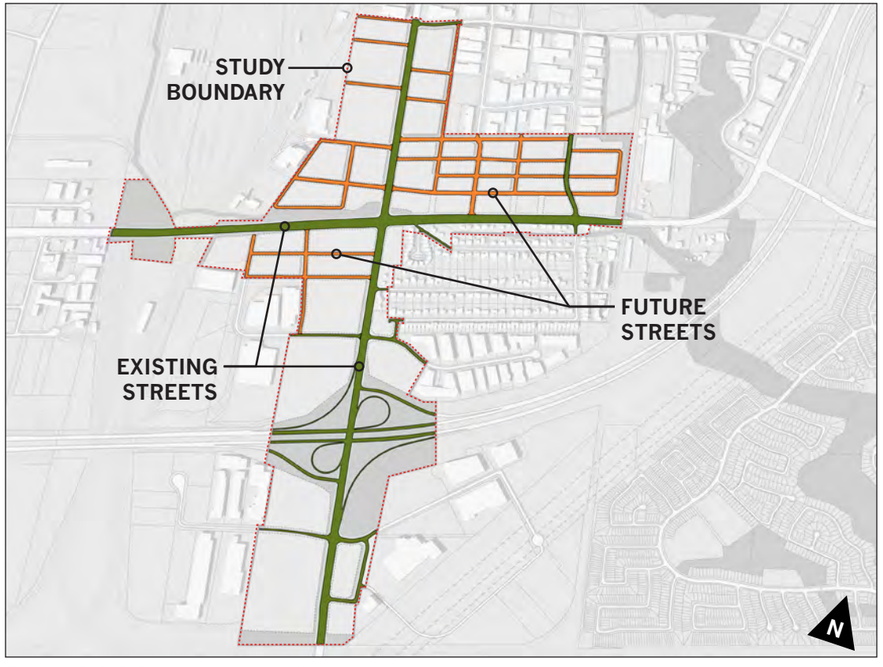


Figure 2.2.2 Street network diagram.

Figure 2.2.4a Development in Portland, OR.

Fig. 2.2.4b Development in San Francisco.

Fig. 2.2.4c Development in Austin, TX.

Figure 2.2.3a Streetscape in Austin, TX.

Figure 2.2.3b Streetscape in Portland, OR.

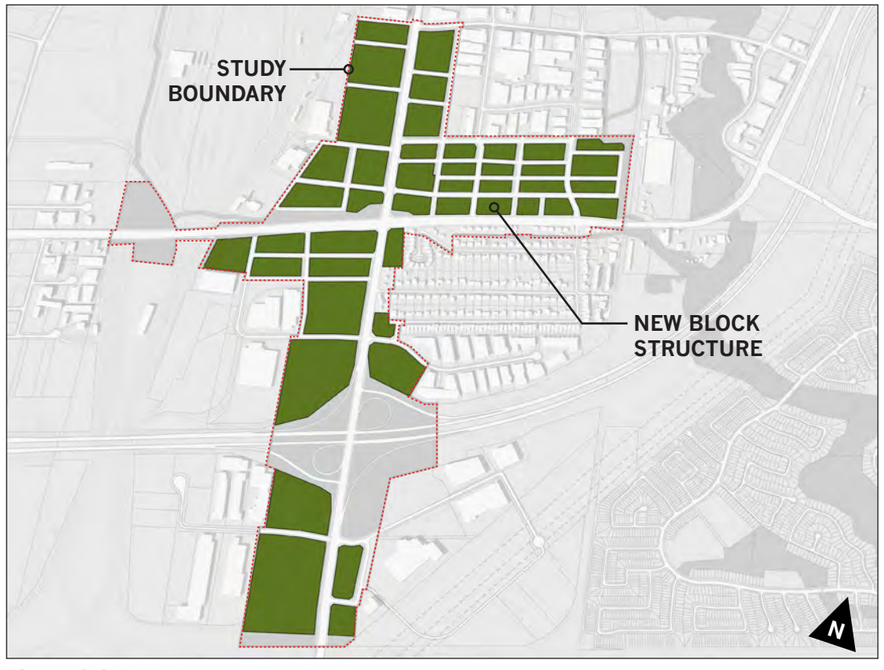


Figure 2.2.5 Block structure diagram.

2.2.2
Street Network

Within the study area there currently exists a very limited street network. This network lacks the necessary structure and connectivity required for a successful and sustainable urban intensification. A new street network overlay will need to be implemented into the Concord West study area (Figure 2.2.2). This network should be designed with a hierarchy of street types and a sensitivity to the surrounding context - based upon a rationale that allows for expansion through continued growth and change. Future studies should be undertaken to determine a master plan for this enhanced street network. Many successful and healthy streetscape precedents exist within the North American context and serve as reference, such as the examples displayed here (Figures 2.2.3a/b).

2.2.3
Block Structure

As a direct result of a newly interpolated street network, the block structure within the Concord West study area should become further defined with a finer grain (Figure 2.2.5), and thus more compatible with urban development planned to occur along the Highway 7 and Keele Street intensification corridors. Block sizes should be varied, and generally no larger than 100 x 200 metres. Although this will not always be achievable, a strong effort should be made to adhere to these standards along Highway 7 in particular. Future studies of the area should reference the many successful urban block precedents found throughout similar North American contexts (Figures 2.2.4a/b/c).

2.2.4
Urban Corridors

The key to a vibrant future intensification of Concord West is through the development of successful urban corridors along Highway 7 and Keele Street (Figure 2.2.6). A healthy development of these corridors - such as the Route de Vanne precendent in Nantes, France (Figures 2.2.7a/b) - will help to carry energy further into the study area, activating the internal blocks and encouraging a more robust development. Highway 7, in particular, will see dramatic changes over the next few years as it undergoes its transformation into a VivaNext rapidway - supporting integrated bus transportation as well as expanded pedestrian and cyclist accommodation. Further detail regarding these streetscapes, including the Highway 7 urban promenade (Figure 2.2.7c), can be found in Section 3.

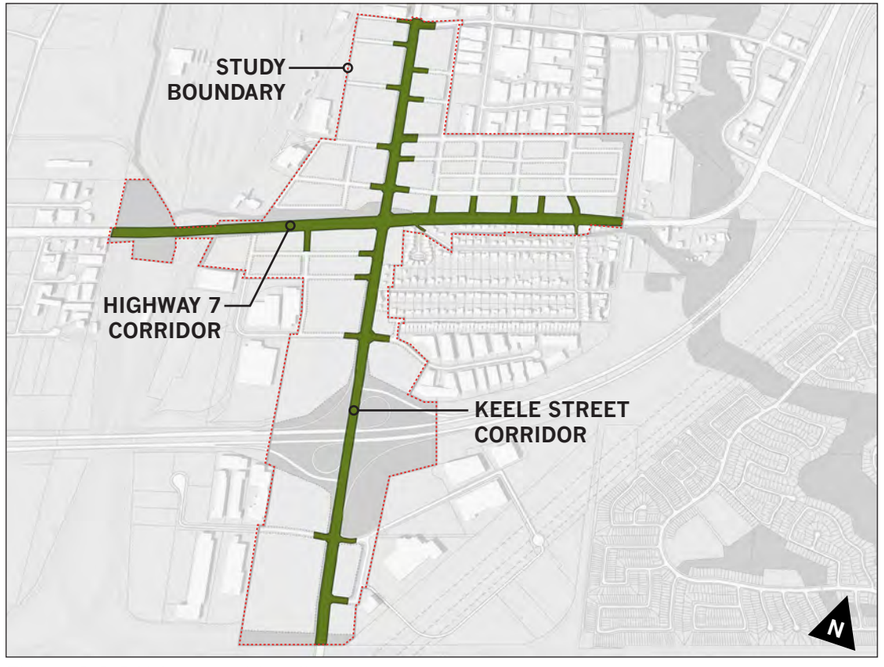


Figure 2.2.6 Urban corridor diagram.

Figures 2.2.7a/b Route de Vanne urban corridor in Nantes, France.

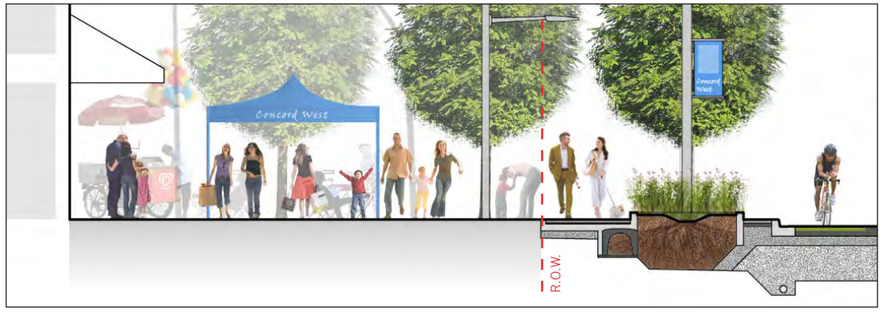


Figure 2.2.7c Highway 7 urban promenade section (see Section 3.3.1 for further detail).

2.2.5
Stormwater Buffers

With the relevance and immediacy of environmental issues and sustainability at the forefront of our contemporary context, it is imperative that Concord West strive to take its own steps to mitigate the impact of urbanization on the environment. By locating landscaped stormwater buffers along Keele Street and adjacent to employment parcels throughout the Concord West study area (Figs. 2.2.8c & 2.2.9), a step is taken to naturally filter and manage stormwater locally. In addition, these buffers provide attractive landscape features that help screen employment buildings and parking areas from adjacent streetscapes. Precedents for this type of rain garden exist in cities across North America (Figs. 2.2.8a/b). More detail regarding these buffers can be found in Section 3.

Fig. 2.2.8a Rain garden in Portland, OR.

Fig. 2.2.8b Rain garden in Seattle, WA.

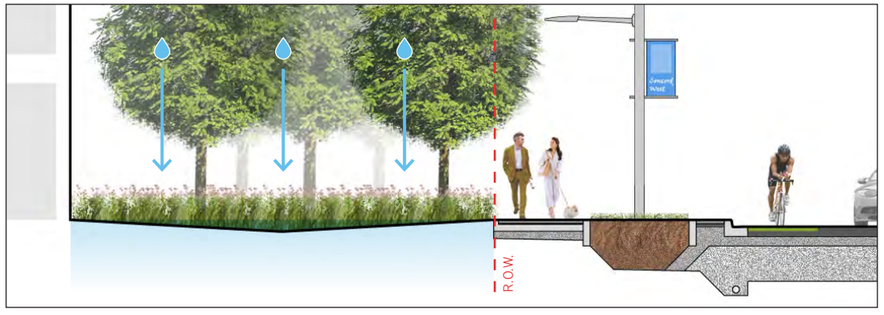


Figure 2.2.8c Stormwater buffer section (see Section 3.3.2 for further detail).

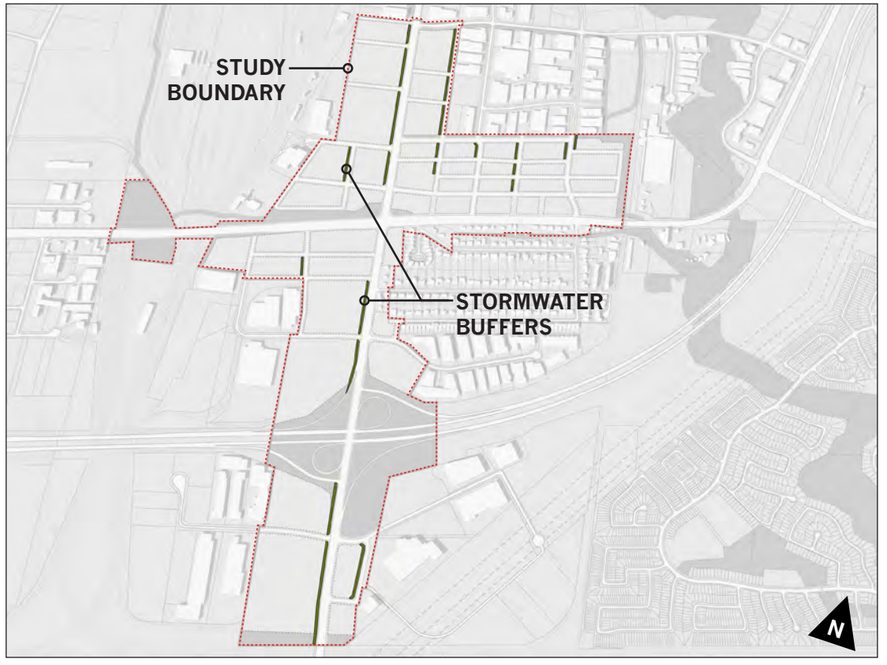


Figure 2.2.9 Stormwater buffer diagram.

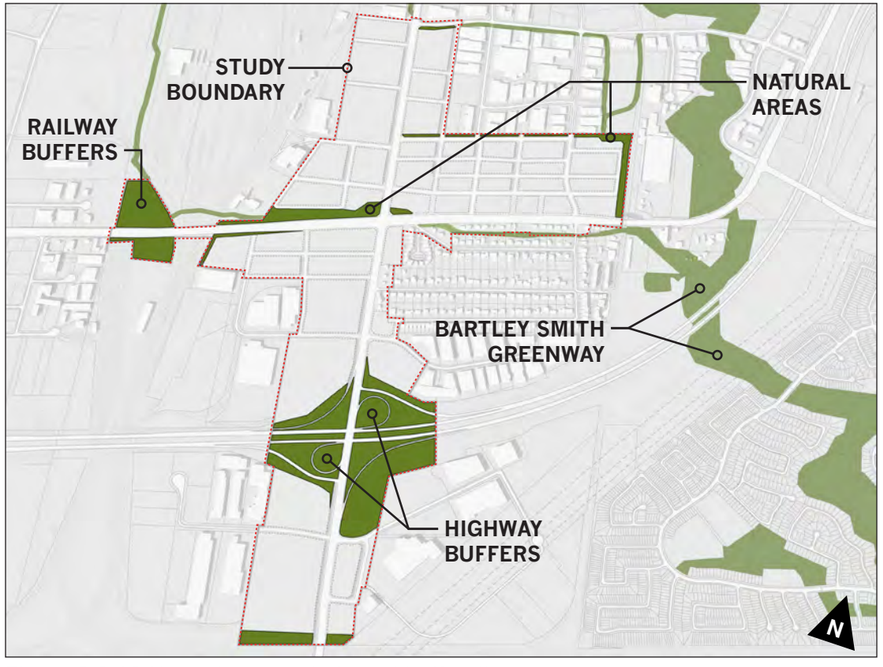


Figure 2.2.10 Natural area and planted buffer diagram.

Fig. 2.2.11a Bartley Smith Greenway.

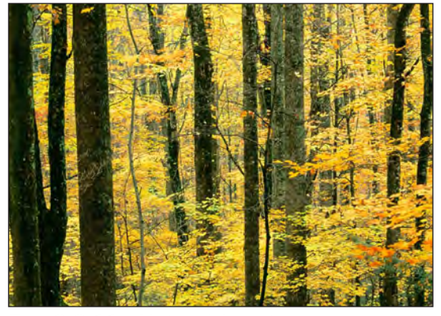


Fig. 2.2.11b Natural forest.

Fig. 2.2.11c Planted interchange.

2.2.6
Natural Areas & Planted Buffers

Concord West sits adjacent to a major greenspace - the Bartley Smith Greenway (Figure 2.2.11a) - offering the community a soft contrast to its otherwise industrial context. Due to the community's proximity to this greenway, efforts should be made to naturalize the study area's urban integration through multiple means (Figure 2.2.10). Several natural areas are designated within Concord West in the Official Plan's land use schedule. These areas should be preserved and renaturalized (Figures 2.2.11a/b). In addition, opportunities exist for further planted natural areas to be established as visual and acoustic buffers adjacent to the CN rail yard, railway corridors, and the Highway 407 interchange (Figure 2.2.11c).

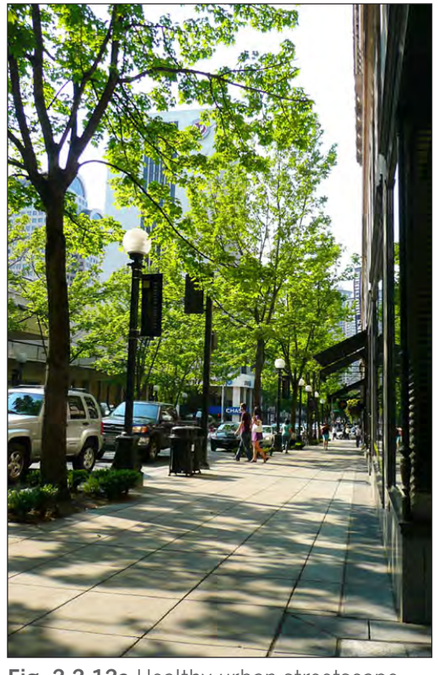


Fig. 2.2.12a Healthy urban streetscape.

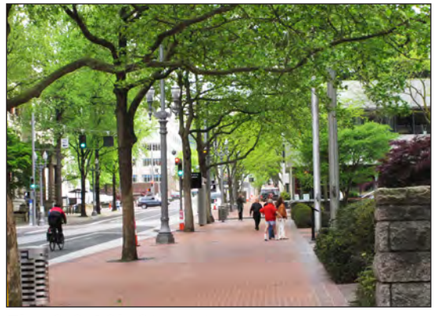


Fig. 2.2.12b Street tree canopy.

Fig. 2.2.12c Bioswale boulevard planting.

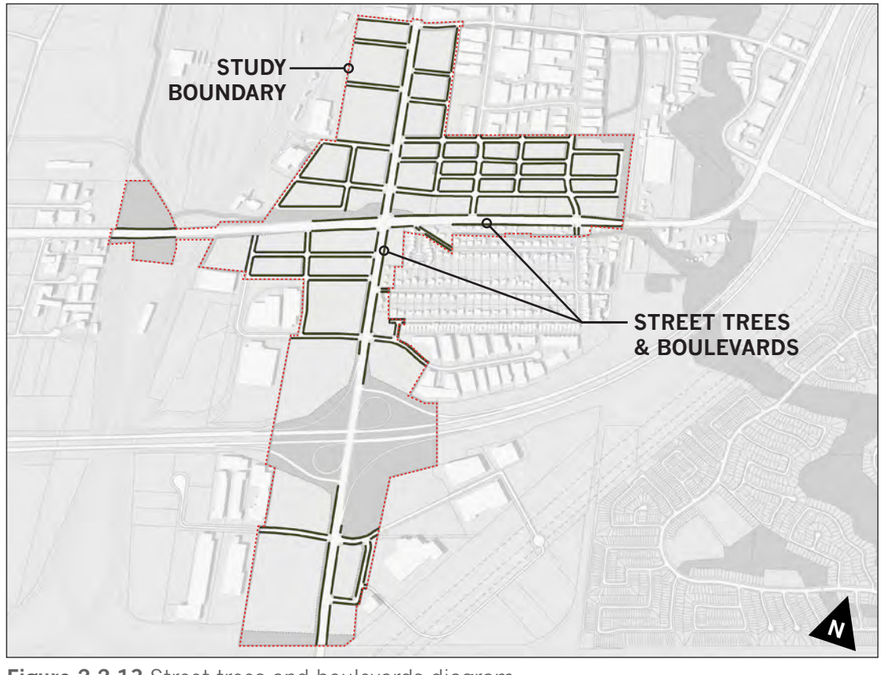


Figure 2.2.13 Street trees and boulevards diagram.

2.2.7
Street Trees & Boulevard Planting

Highly important to the success of future urban development within Concord West is the creation of pedestrian-friendly streetscapes along new local roads in the study area - including a standardized network of street trees and boulevard plantings (Figure 2.2.13). Healthy street trees are an important feature of vibrant urban streetscapes (Figures 2.2.12a/b), and should play such a role in the development of a new urban framework for Concord West. To add a layer of sustainability to the area, the inclusion of bioswales as a method of managing stormwater should be considered (Figure 2.2.12c).

2.2.8
Conceptual Land Use Designations

As Concord West undergoes its urban transformation and adapts to a finer grained street network, the Official Plan's land use schedule will need to be replotted over the area's newly defined block structure and property divisions in order to provide a clearer planning vision. The diagrams here illustrate how that reassessment might look (Figures 2.2.14-18). Land use designations for the study area include Commercial Mixed-Use (Fig. 2.2.19) predominantly along Highway 7, Low-Rise Mixed-Use (Fig. 2.2.20), Prestige Employment (Fig. 2.2.21), and General Employment (Fig. 2.2.22). Within the study area, the Official Plan assigns maximum building heights of 8 or 10 storeys for Commercial Mixed-Use and 4 storeys for Low-Rise Mixed-Use. These new land use designations have the potential to recreate the character of the area over the coming years, creating an identity for the community in the form of a *Concord West Mixed-Use District*, as highlighted in Fig. 2.2.14.

Note: Refer to section 2.1.4 for detailed land use designation descriptions.

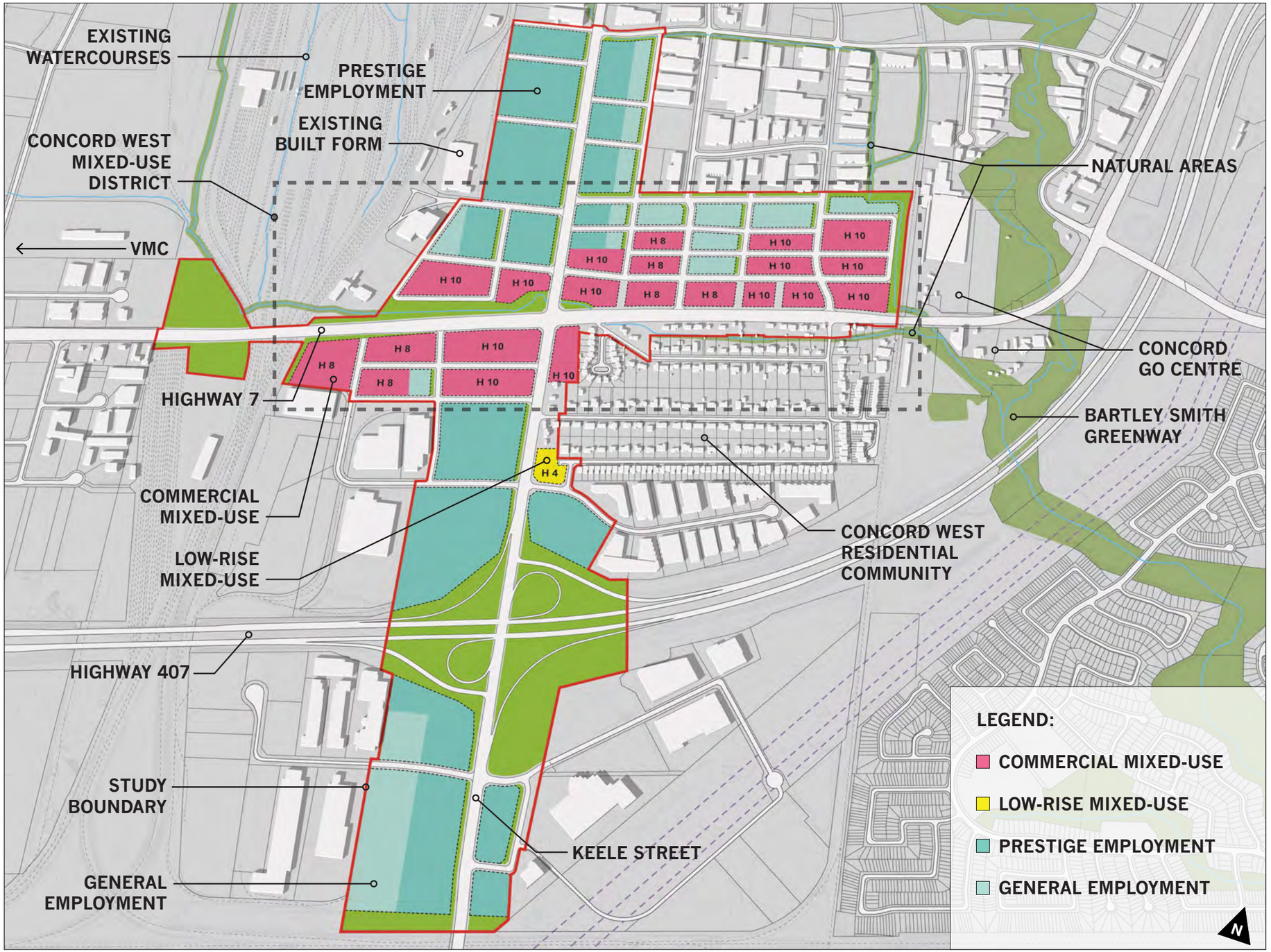


Figure 2.2.14 Study area showing conceptual urban framework with land uses derived from the Council-approved Vaughan Official Plan 2010.

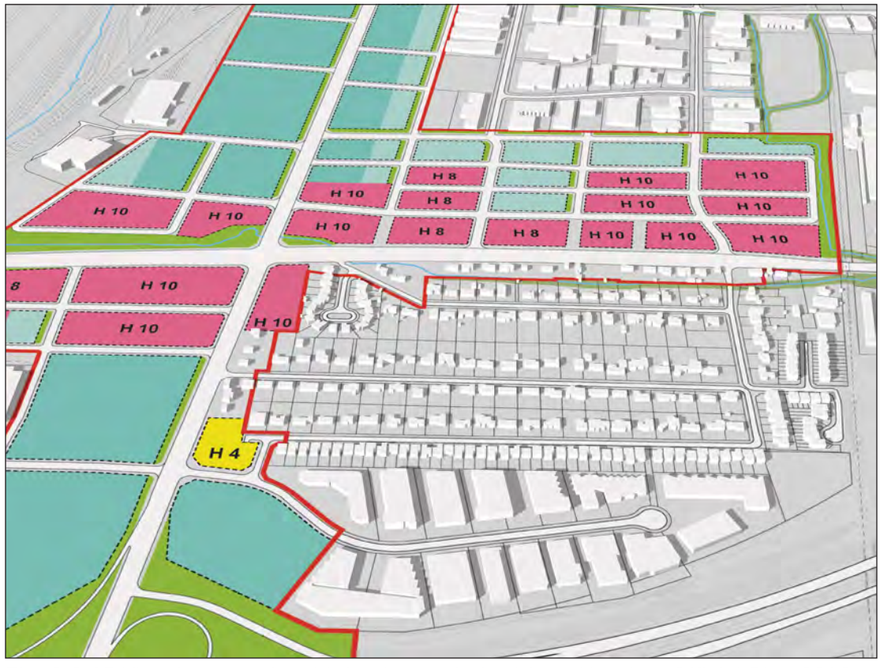


Fig. 2.2.15 View from south (with land uses derived from Vaughan Official Plan 2010).

Fig. 2.2.16 View from southeast (with land uses derived from Vaughan Official Plan 2010).

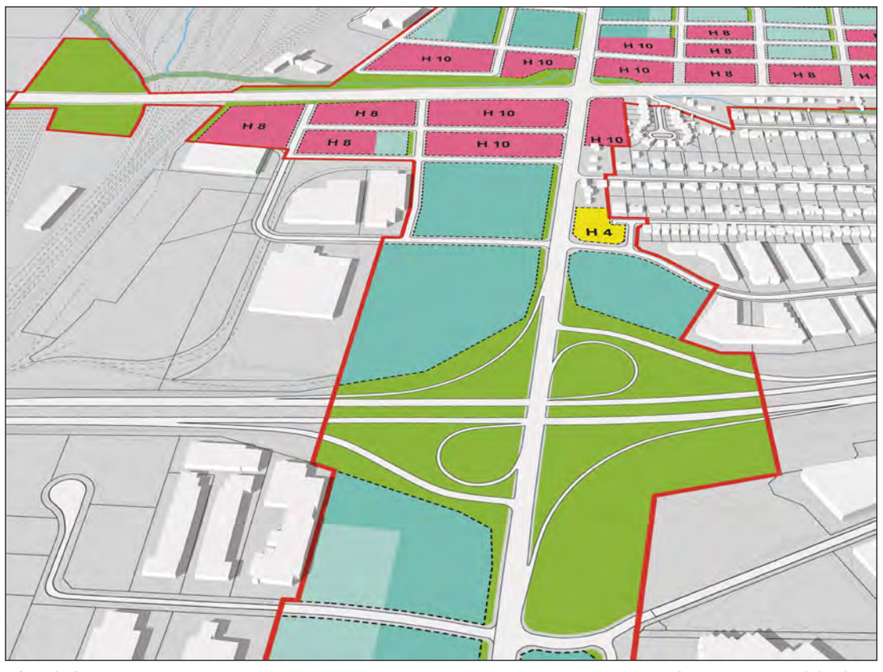


Fig. 2.2.17 View from south (with land uses derived from Vaughan Official Plan 2010).

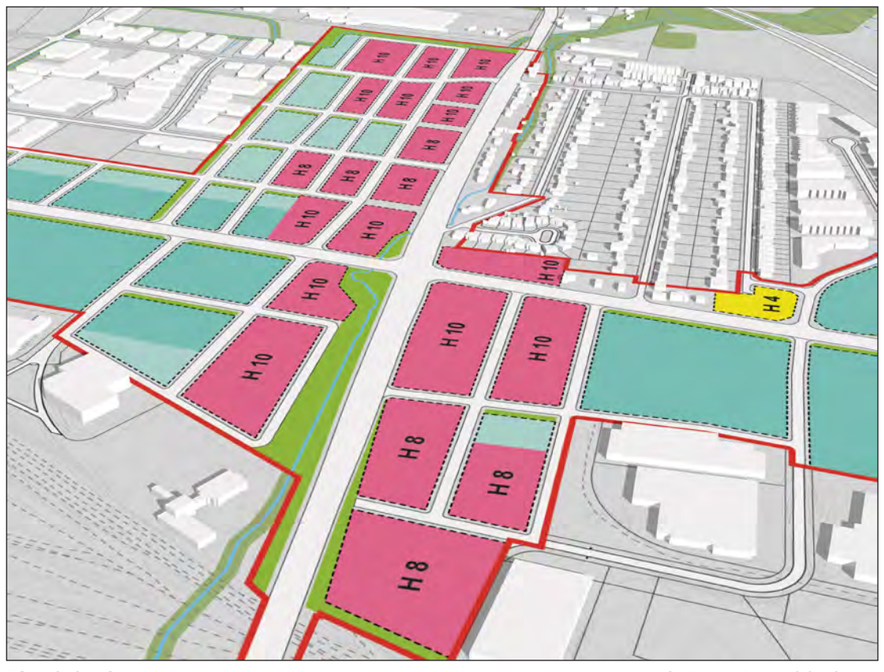


Fig. 2.2.18 View from west (with land uses derived from Vaughan Official Plan 2010).

Fig. 2.2.19 Commercial Mixed-Use.

Fig. 2.2.20 Low-Rise Mixed-Use.

Fig. 2.2.21 Prestige Employment.

Fig. 2.2.22 General Employment.

2.3
Development Framework

2.3.1
Overview

Filling the voids within the public realm of the *Urban Framework* is the private realm *Development Framework*. This section provides initial guidelines for the development of the private realm within the Concord West study area - the major components of this framework being *building street frontage* and *pedestrian connections* (Figure 2.3.1). The appropriate proportioning and composition of these components will contribute to a successful future intensification. A commitment to these ideals will result in a reversal of the anti-pedestrian industrial patterns that the community has seen in recent decades.

Note: The future street network and block structure shown in this study document is intended for conceptual purposes only. Though a denser block pattern will inevitably be implemented to achieve the vision for Concord West, further traffic and urban studies will need to be undertaken to determine its exact structure and alignment.

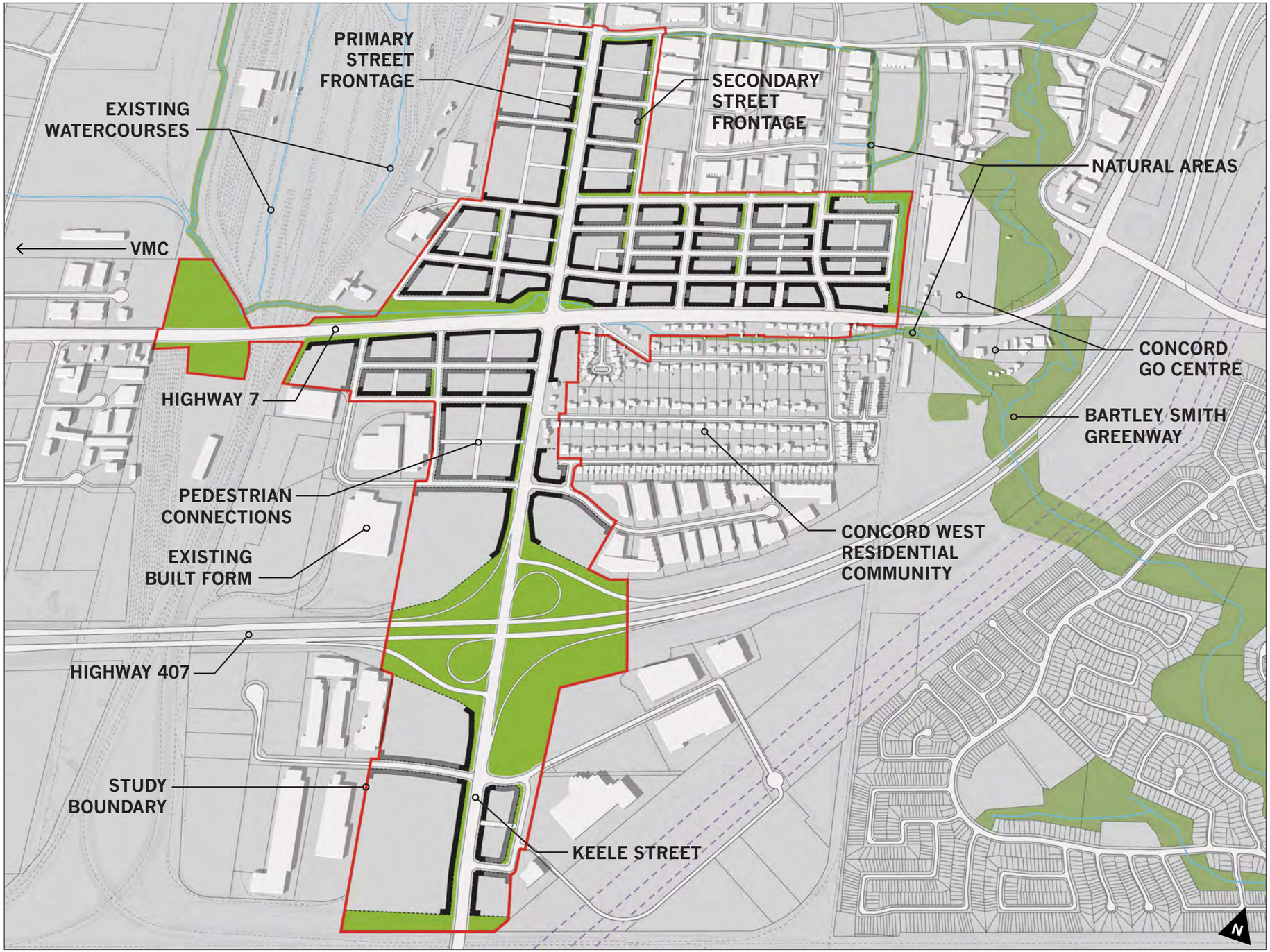


Figure 2.3.1 Study area showing conceptual development framework.

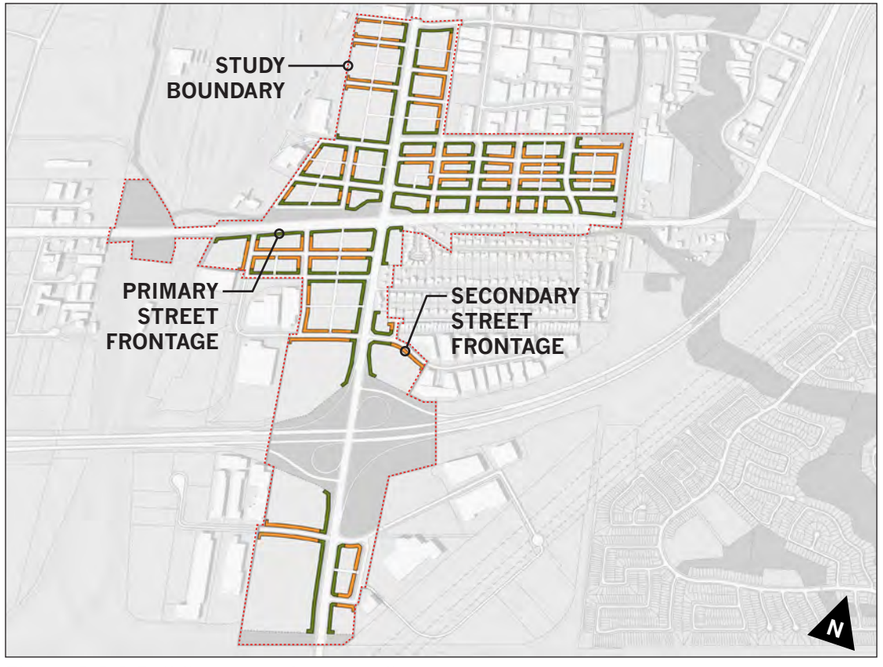


Figure 2.3.2 Building street frontage diagram.

Fig. 2.3.3a Street front retail amenities.

Fig. 2.3.3b Raised street front patio.

Fig. 2.3.3c Mid-rise building frontage.

2.3.2
Building Street Frontage

A key characteristic of activated, pedestrian-friendly urban neighbourhoods is the appropriate proportioning of building frontage located at the streetfront. This conceptual diagram highlights street frontages of *primary* and *secondary* importance (Figure 2.3.2). Of primary importance are the frontages along arterial streets and local throughways. These frontages should make the greatest attempt to maintain a continuous built streetfront presence (Figures 2.3.3a/b/c). Of secondary importance are the various local streets that complete the urban block pattern. Efforts should be made to maintain a continuous building presence along these frontages, and where not possible, parking areas should be screened from the streetscapes by trees and landscape areas.

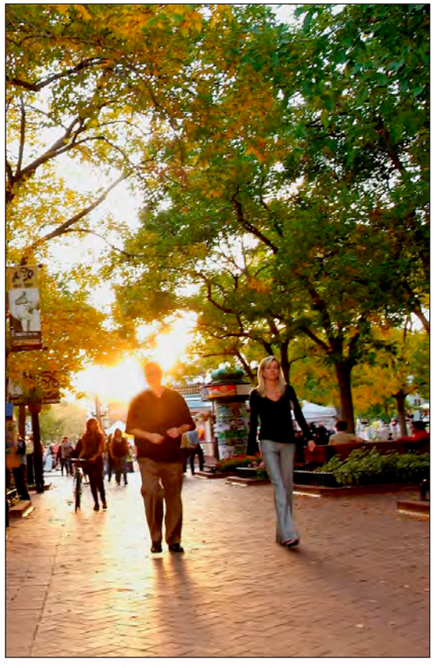


Figure 2.3.4a Walkway in Denver, CO.

Fig. 2.3.4b Treed pedestrian connection.

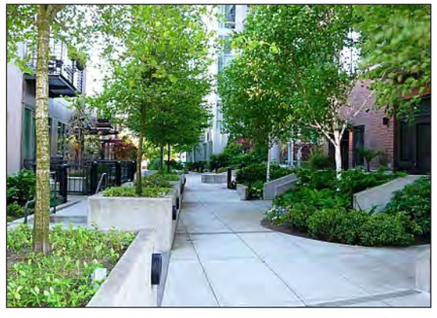


Fig. 2.3.4c Connection in Portland, OR.

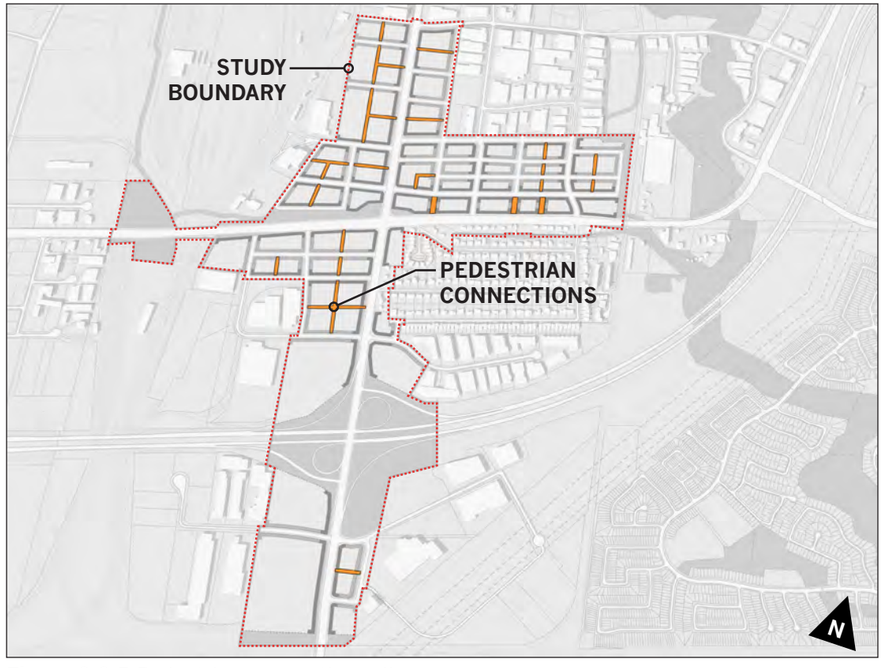


Figure 2.3.5 Pedestrian connections diagram.

2.3.3
Pedestrian Connections

As a strategy to further break down the private realm within the development blocks of the Concord West study area, mid-block pedestrian connections shall occur whenever a block exceeds *140 metres* in any direction (Figure 2.3.5). These connections will create porosity of the urban environment for pedestrians, and shall provide refuge within a setting balanced between hardscape and softscape (Figures 2.3.4a/b/c). Whether these connections bypass building or parking area, they should be formally distinguished as screened passageways to move people through large block developments. Efforts should be made to align connections along multiple blocks, where appropriate, to create pedestrian throughway alternatives to the main street network.

2.4
A Vision for Concord West

2.4.1
Massing Demonstration Plan

Through a successful urban intensification guided by the implementation of the framework initiated by this document, Concord West has the potential to become defined by a distinct urban fabric connecting the surrounding community to the Highway 7 and Keele Street urban corridors (Figures 2.4.1-5) - one composed of healthy urbanization, green amenity spaces, public amenity spaces, and sustainability features (Figures 2.4.6-9). Development within the study area should maximize the amount of permeable surface and green amenity space to reduce stormwater runoff and contribute to a healthier community.

Note: This massing demonstration plan is intended for conceptual purposes only, and as such should serve as a reference point to convey the vision for all future development within Concord West.

Figure 2.4.1 Study area showing massing model in conceptual urban framework.

Fig. 2.4.2 View from south showing massing model in conceptual urban framework.

Fig. 2.4.3 View from southeast showing massing model in conceptual urban framework.

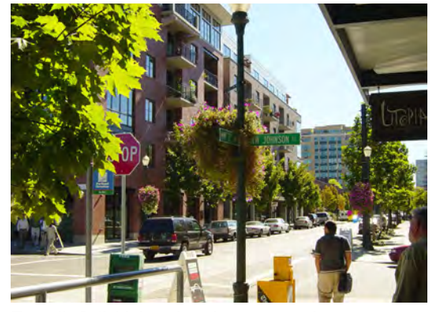


Fig. 2.4.6 Urbanization precedent.

Fig. 2.4.7 Green amenity space precedent.

Fig. 2.4.4 View from south showing massing model in conceptual urban framework.

Fig. 2.4.5 View from west showing massing model in conceptual urban framework.

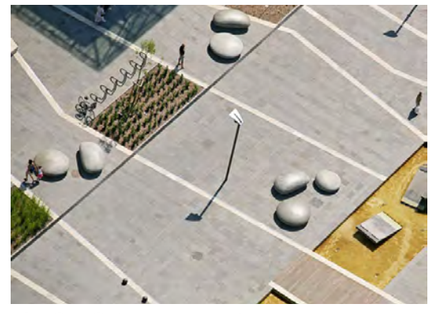


Fig. 2.4.8 Public amenity space precedent.

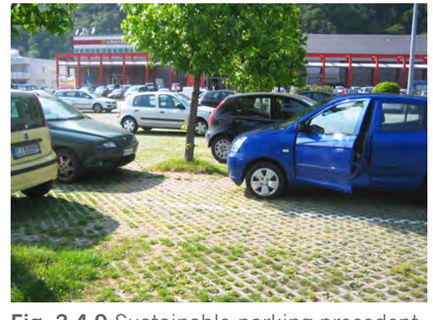


Fig. 2.4.9 Sustainable parking precedent.

2.5
Framework Component Matrix

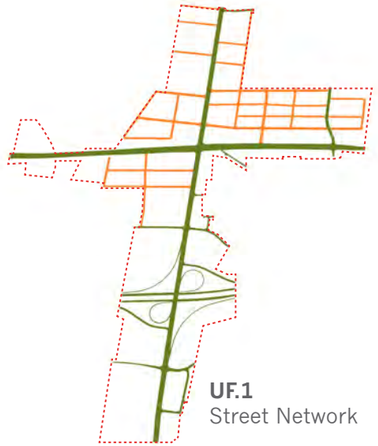
2.5.1
Component Matrix

This series of diagrams identifies the various component layers that define the conceptual *Urban Framework* (UF) and *Development Framework* (DF) for Concord West. They are represented as follows:

Urban Framework Components
UF.1 · Street Network
UF.2 · Block Structure
UF.3 · Urban Corridors
UF.4 · Stormwater Buffers
UF.5 · Natural Areas & Planted Buffers
UF.6 · Street Trees & Boulevard Planting

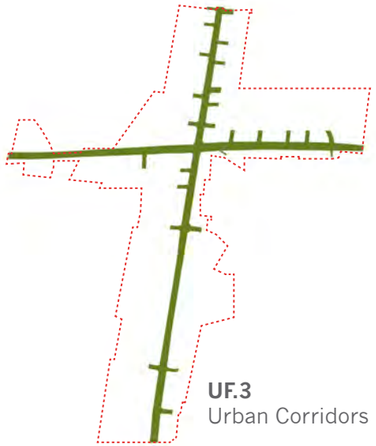
Development Framework Components
DF.1 · Building Street Frontage
DF.2 · Pedestrian Connections

Note: The future street network and block structure shown in this study document is intended for conceptual purposes only.

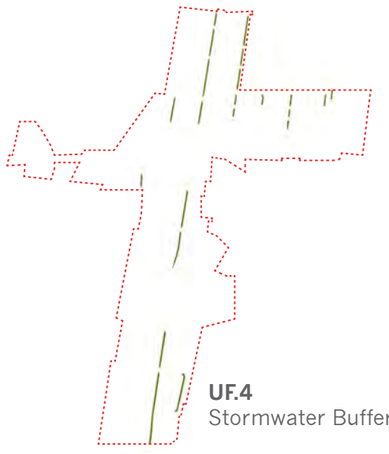


UF.1
Street Network

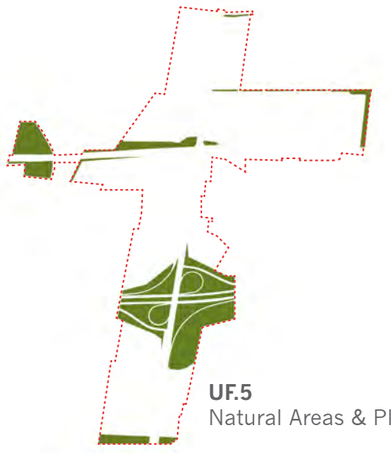
UF.2
Block Structure



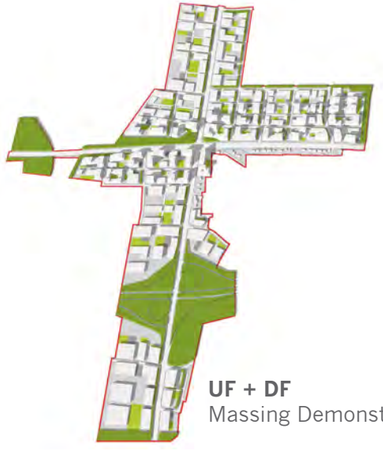
UF.3
Urban Corridors



UF.4
Stormwater Buffers



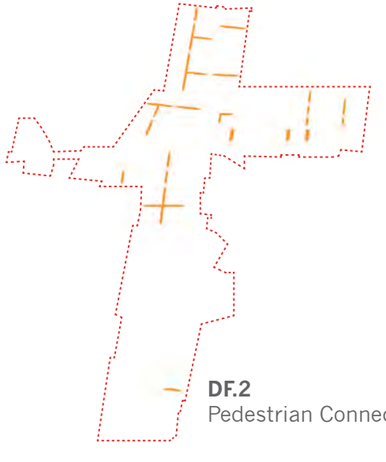
UF.5
Natural Areas & Planted Buffers



UF + DF
Massing Demonstration Plan

UF.6
Street Trees & Boulevard Planting

DF.1
Building Street Frontage



DF.2
Pedestrian Connections

Section Contents:

3 Streetscape Plan

3.1
Site Analysis

3.1.1
Study Area & Existing Conditions

The study area for the Concord West Streetscape Plan extends along two major Vaughan corridors - along Highway 7, from beyond Keele Street in the west to Centre Street in the east; and along Keele Street, from beyond Highway 7 in the north to Highway 407's access ramps in the south (Figure 3.1.1). In their current states, both corridors separate the Concord West residential community from surrounding land uses (Figure 3.1.2). On the north side of Highway 7 and the west side of Keele Street, low-rise commercial buildings transition northward and westward into industrial tracts.

Figure 3.1.1 Aerial view of existing Concord West study area.

Figure 3.1.2 Aerial view along Concord West's existing Highway 7 corridor.

3.1.2
VivaNext Highway 7 Rapidway Plan

VivaNext is York Region's plan for the next generation of rapid transit (Figure 3.1.3). In Vaughan, the Highway 7 rapidway will eventually extend west from Yonge Street to Highway 50. The first segment in Vaughan, scheduled to be completed by 2015, will start at the Vaughan Metropolitan Centre - seemlessly connecting the Spadina Subway extension to the Viva system. The segment of Highway 7 containing the Concord West study area is also scheduled to be completed during 2015. In Concord West, the rapidway will provide transit access to future commercial mixed-use and employment areas - helping to create the mixed-use intensification corridor as designated by the Official Plan. The rapidway will integrate automobile, cyclist, and pedestrian traffic modes (Figure 3.1.4).

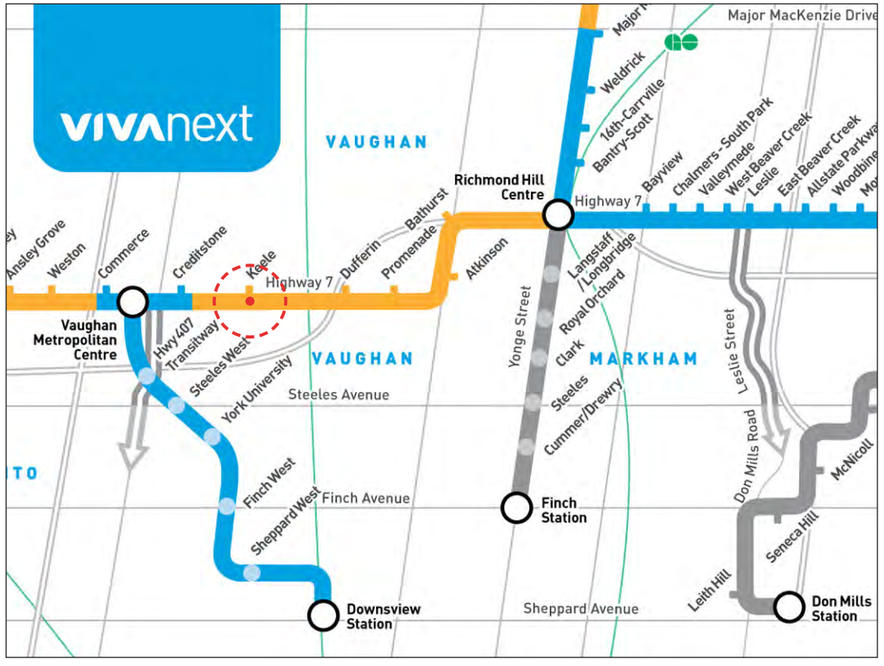


Figure 3.1.3 Partial VivaNext system map indicating location of study area.

Figure 3.1.4 Rendering of a VivaNext Highway 7 rapidway bus station.

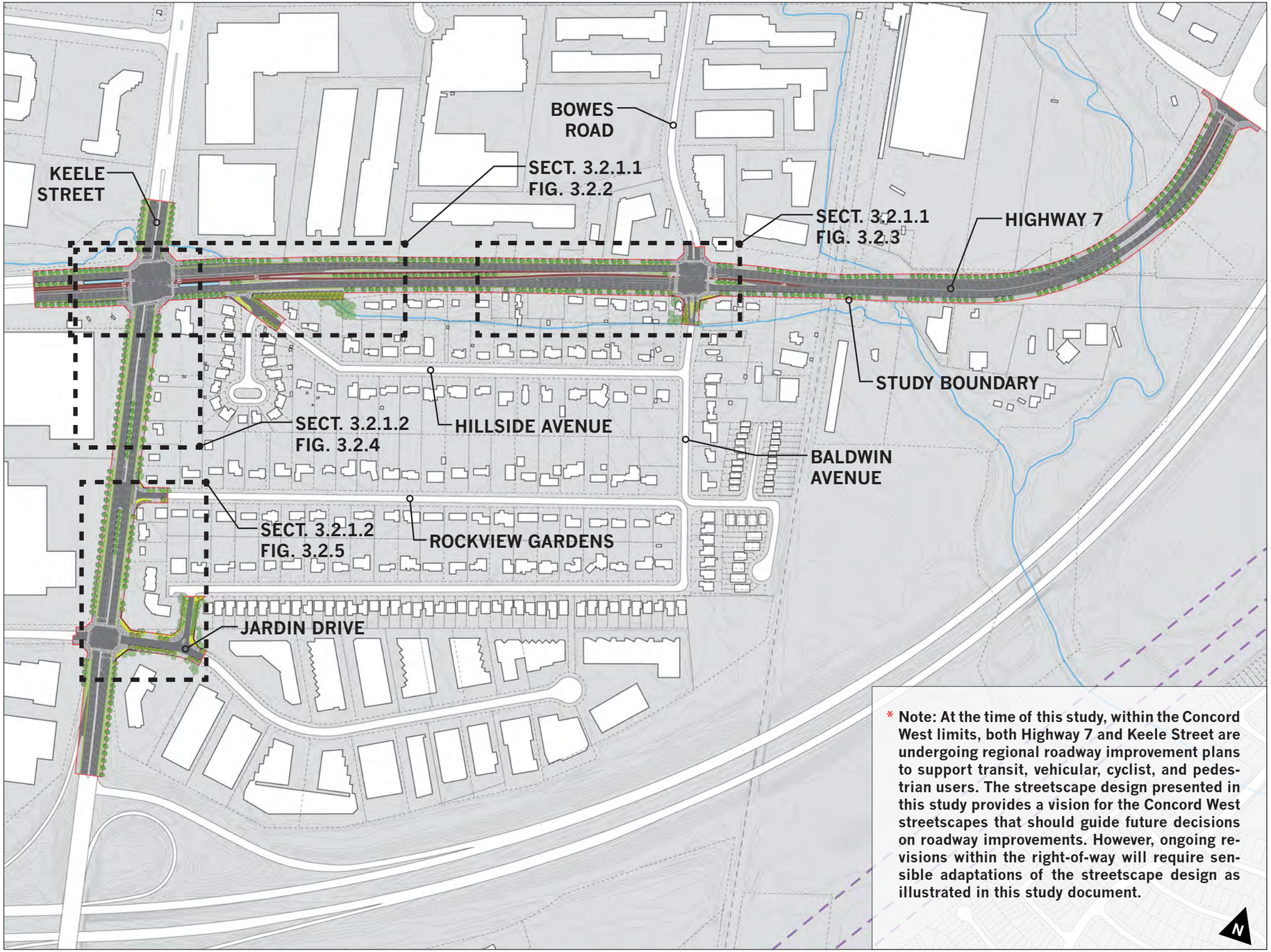


Figure 3.2.1 Concord West Streetscape Master Plan study area.

3.2 Streetscape Plan

3.2.1 Overview

This overview plan depicts the new streetscape design for Highway 7 and Keele Street within the existing Concord West context (Figure 3.2.1) · reflecting an integration of regional plans with a context-specific design sensitive to the local community and its desire to retain its unique identity and link with nature. The five focus areas of the Streetscape Plan are *Intersections*, *Gateways*, *Street Cross Sections*, *Streetscape Materials and Furnishings*, and *Utilities*. This document examines each focus area in detail, specifying recommendations that will contribute to a healthy and successful streetscape.

Objectives of the Streetscape Design:

1. *Integrate the transformation of the Highway 7 and Keele Street streetscapes, responding to the VivaNext Highway 7 Rapidway Plan and the Keele Street Class Environmental Assessment.*

2. *Enhance the Concord West community by creating a unique identity for it along the Highway 7 and Keele Street intensification corridors.*

3. *Develop a vision including intersection enhancements, community gateways, pedestrian walkways, paving materials, pedestrian lighting, street trees and other plantings, street furnishings, and community banners.*

4. *Select environmentally-friendly materials and furnishings to meet community goals for sustainability.*

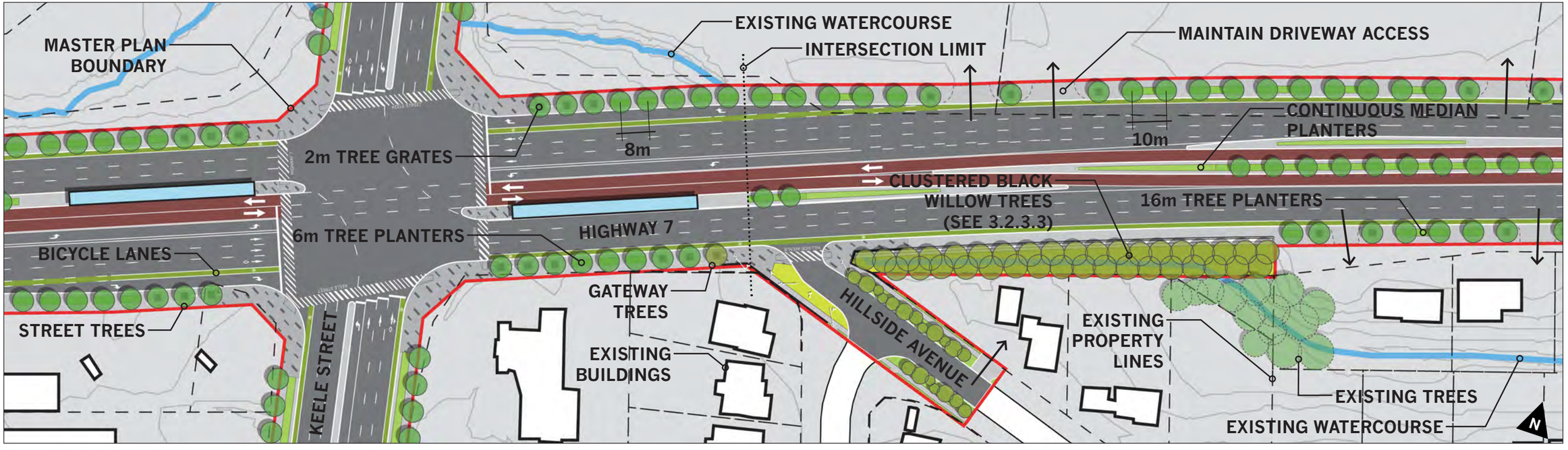


Figure 3.2.2 Highway 7 streetscape concept plan detail.

3.2.1.1 Highway 7

These enlarged detail views display the character typical of the Highway 7 streetscape (Figures 3.2.2-3). Driveway access into existing commercial and residential lots shall be maintained using the identical paving material of adjacent sidewalks to retain a sense of visual continuity for the pedestrian user. Community gateways along Highway 7 shall integrate seemlessly with the general streetscape treatment.

A note about street trees and planters:
Highway 7 street tree spacing shall be 8 metres within 55 metres of intersections (known as the *intersection limit*), and 10 metres along the mid-blocks. Tree grate and tree planter sizing and locations shall follow VivaNext's Highway 7 standards - utilizing 2 metre tree grates, as well as both 6 & 16 metre long tree planters.

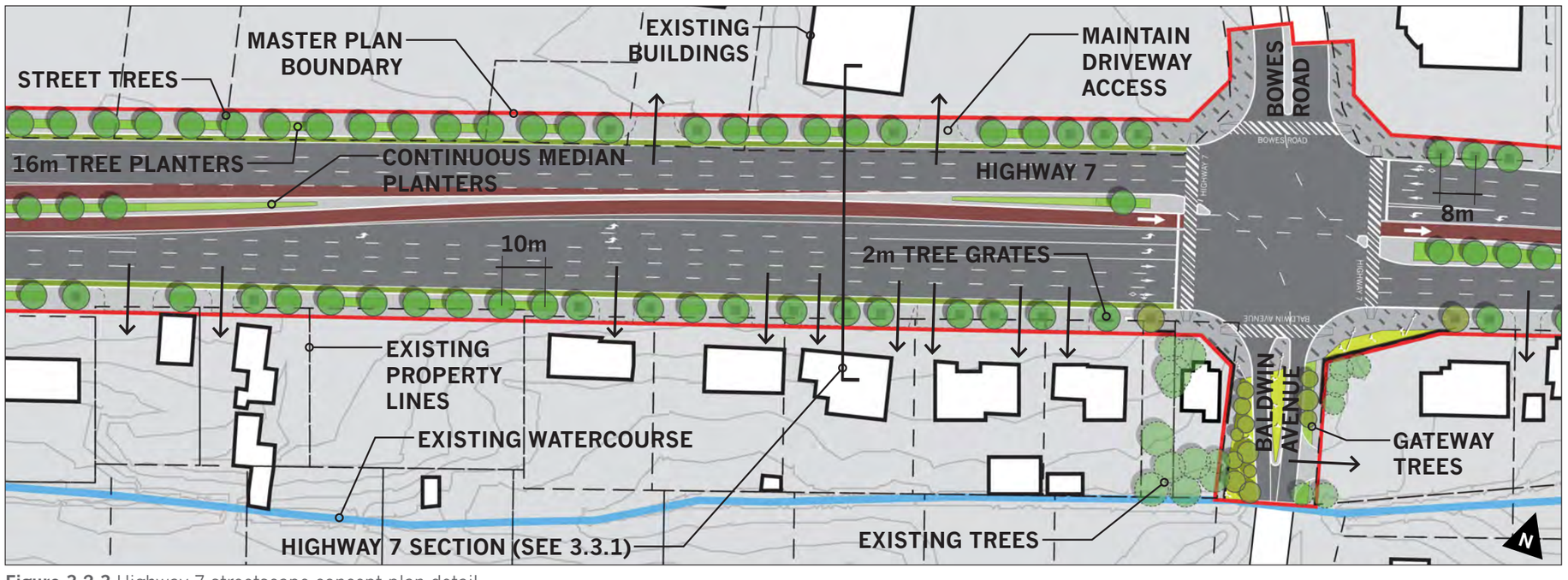


Figure 3.2.3 Highway 7 streetscape concept plan detail.

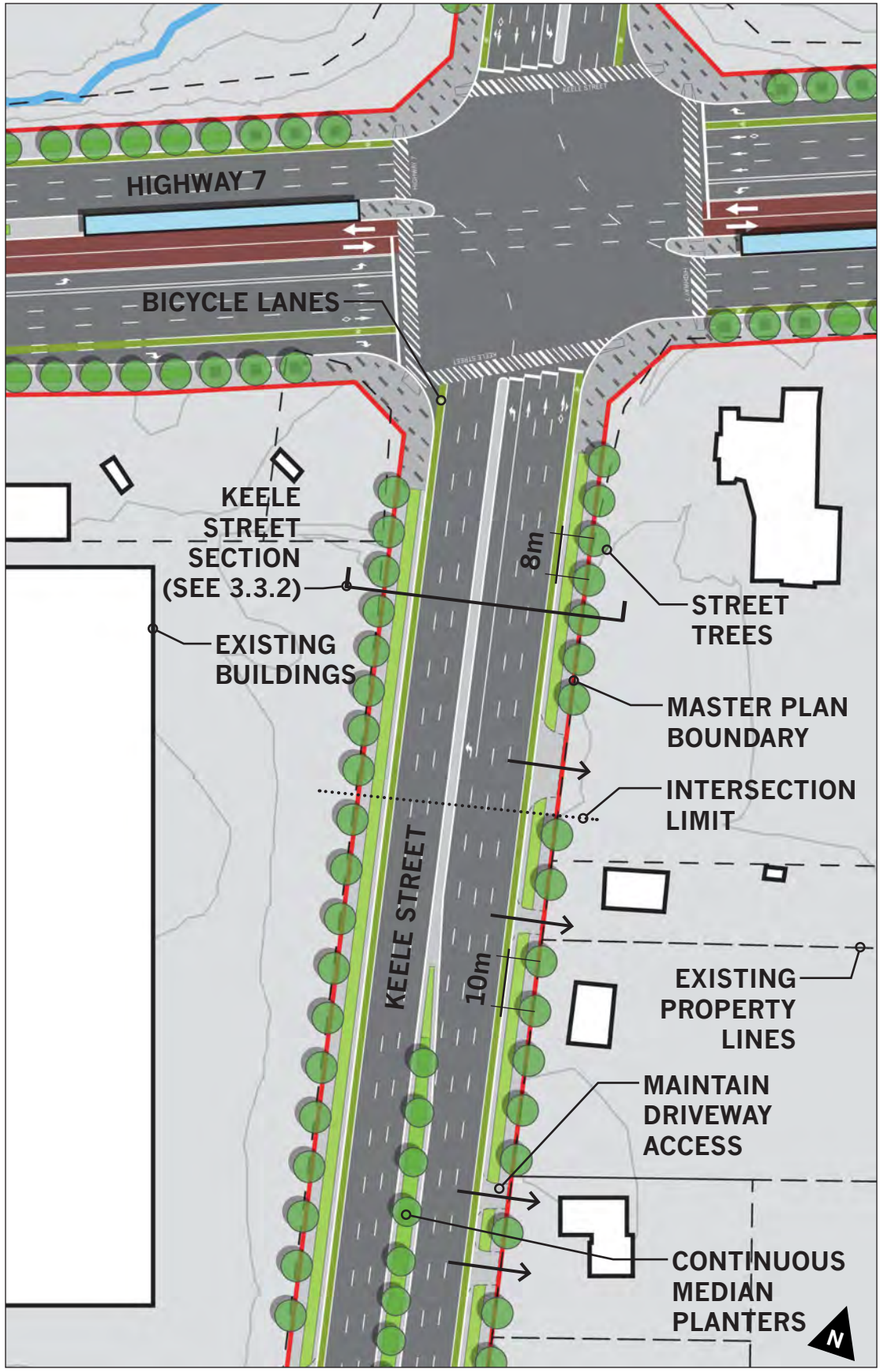


Figure 3.2.4 Keele Street streetscape concept plan detail.

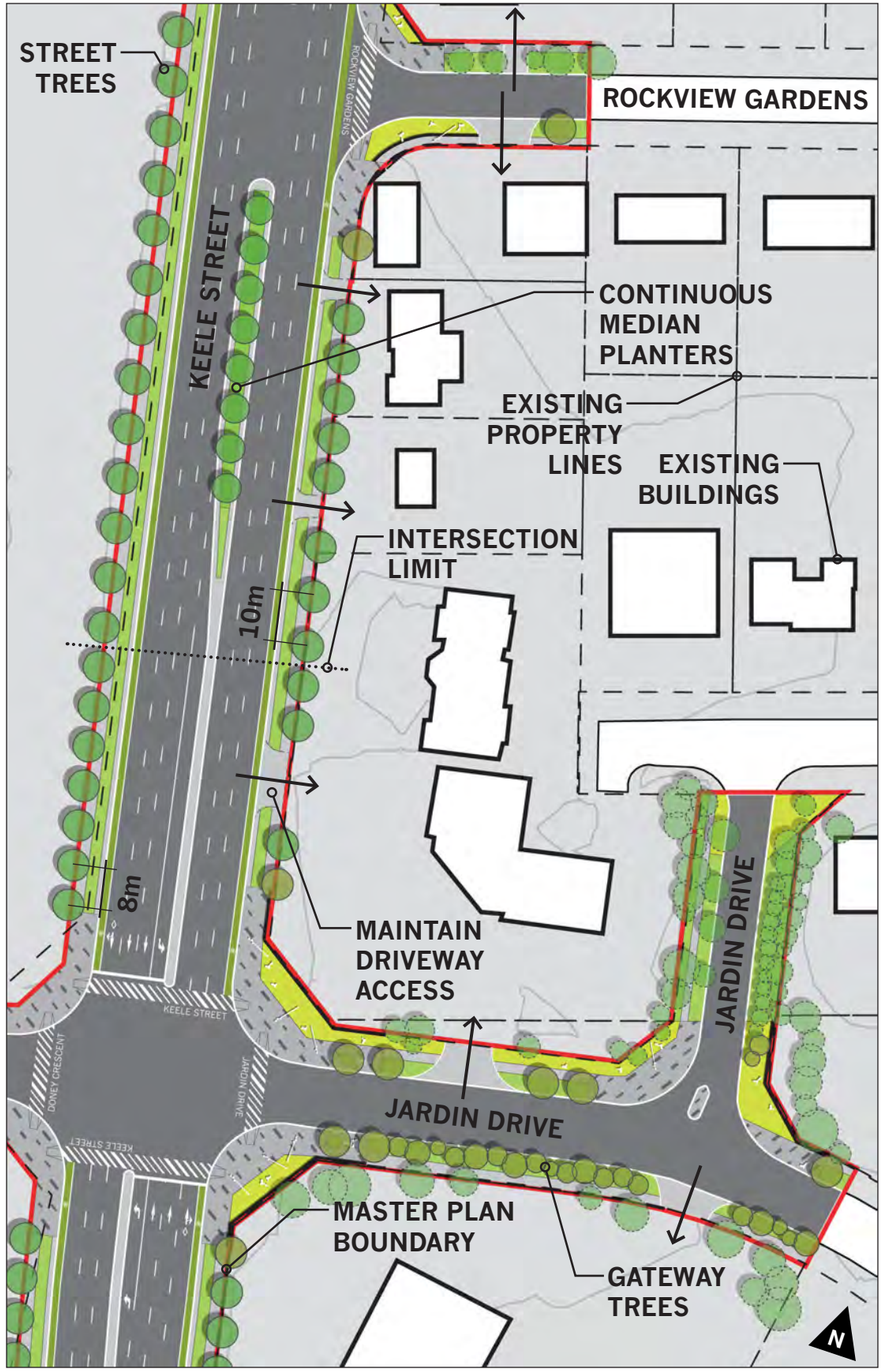


Figure 3.2.5 Keele Street streetscape concept plan detail.

3.2.1.2 Keele Street

These enlarged detail views display the character typical of the Keele Street streetscape (Figures 3.2.4-5). Driveway access into existing commercial and residential lots shall be maintained using the identical paving material of adjacent sidewalks to retain a sense of visual continuity for the pedestrian user. Community gateways along Keele Street shall integrate seemlessly with the general streetscape treatment.

A note about street trees:
As Regional plans for Keele Street do not include boulevards wide enough to accommodate street trees, they will need to be planted on the lot side of the sidewalk. Trees located beyond the property limit will need to be installed in consultation with property owners. As with Highway 7, street tree spacing along Keele Street shall be 8 metres within 55 metres of intersections (known as the *intersection limit*), and 10 metres along the mid-blocks.

Note: Refer to Section 3.4.6 for street tree species selection.

3.2.2
Intersections

The Concord West study area contains three distinct intersections (Figure 3.2.6) - Highway 7 & Keele Street, Highway 7 & Baldwin Avenue/Bowes Road, and Keele Street & Jardin Drive/Doney Crescent. Each of these intersections shall exhibit uniform characteristics - diagonally-oriented concrete pavers, tactile grooved intersection ramp pavers, custom crosswalk patterns, and printed street signage. These elements shall integrate seemlessly into the surrounding streetscape, adapting to traffic flow, dedicated bus lanes, bicycle lanes, pedestrian movement, and the proposed VivaNext plans for Highway 7. At the eastern end of the study area boundary, the intersection of Highway 7 with Centre Street shall merge appropriately with the Centre Street Streetscape Plan.

Note: Roadway designs for Highway 7 and Keele Street are subject to changes by Viva and York Region.

Figure 3.2.6 Intersection locater plan.

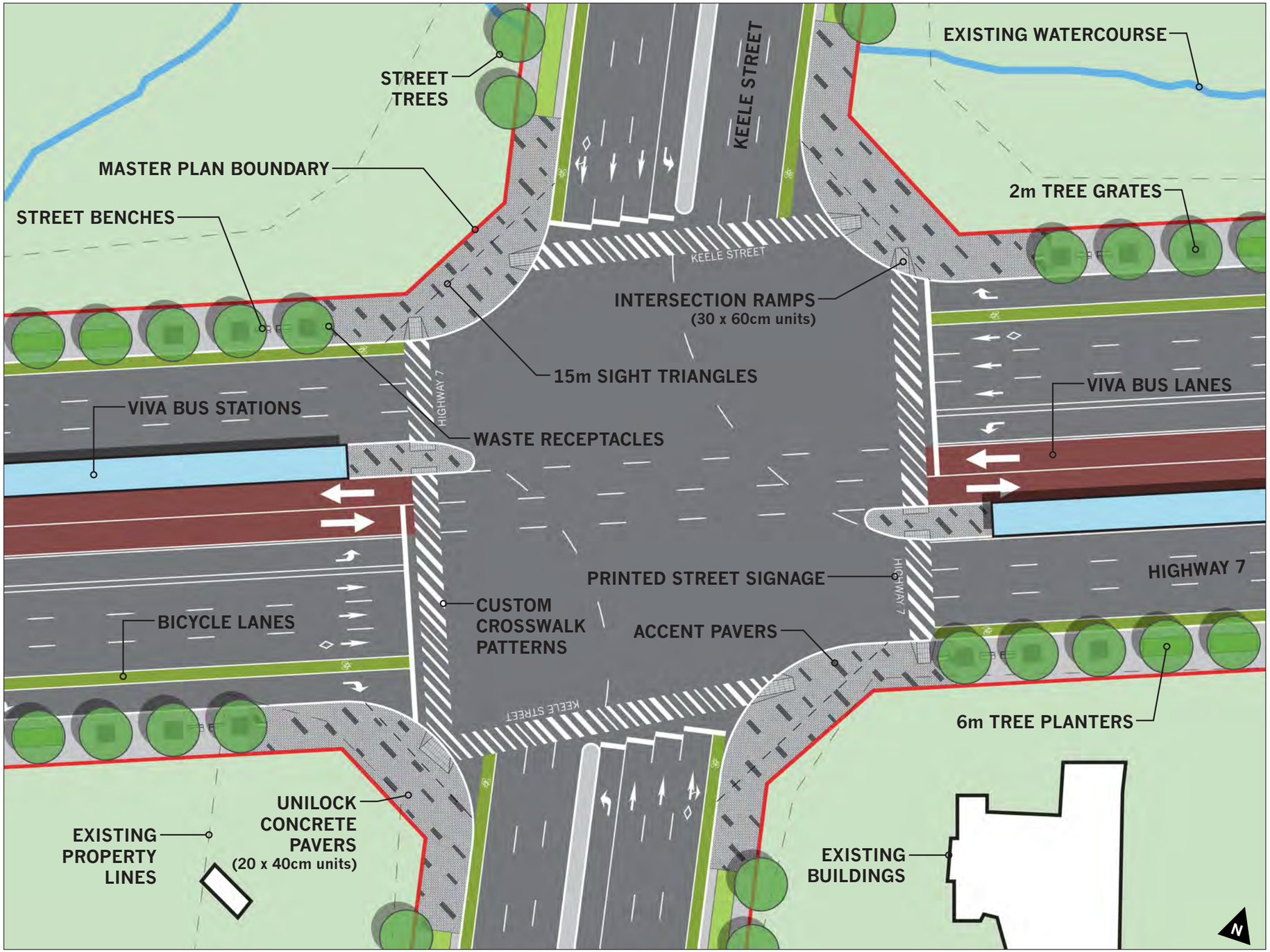


Figure 3.2.7 Highway 7 & Keele Street Intersection streetscape concept.

3.2.2.1 Highway 7 & Keele Street

The Highway 7 & Keele Street Intersection (Figure 3.2.7) is the major intersection within the Concord West community, located in the northwest corner of the study area. This intersection, a transit stop along the Viva rapidway, will include two bus stations along Highway 7 as well as bus stops on Keele Street. Zoned for commercial-mixed use at all four corners, this intersection will become a transit node along the Highway 7 intensification corridor. Future developments adjacent to the intersection will include buildings up to a maximum height of 10 storeys, forming a continuous streetfront along the two arterial roads. Existing driveways shall be accommodated within the intersection design layout.

Note: Roadway designs for Highway 7 and Keele Street are subject to changes by Viva and York Region.

3.2.2.2
Highway 7 & Baldwin Avenue

The Highway 7 & Baldwin Avenue Intersection (Figure 3.2.8) is a major intersection within the Concord West study area along the Highway 7 corridor, located just to the west of the GO train corridor. On the north side of Highway 7, lots adjacent to the intersection are zoned for commercial mixed-use · with building height limits of 10 storeys. On the south side of Highway 7, lots adjacent to the intersection are zoned for low-rise residential use. Accordingly, the north side of Highway 7 will develop with a much more urban character, and the south side will retain its residential character as it integrates with the new streetscape. Contained within this intersection is the Baldwin Avenue Gateway into the Concord West residential community. Existing driveways shall be accommodated within the intersection design layout.

Note: Roadway designs for Highway 7 and Keele Street are subject to changes by Viva and York Region.

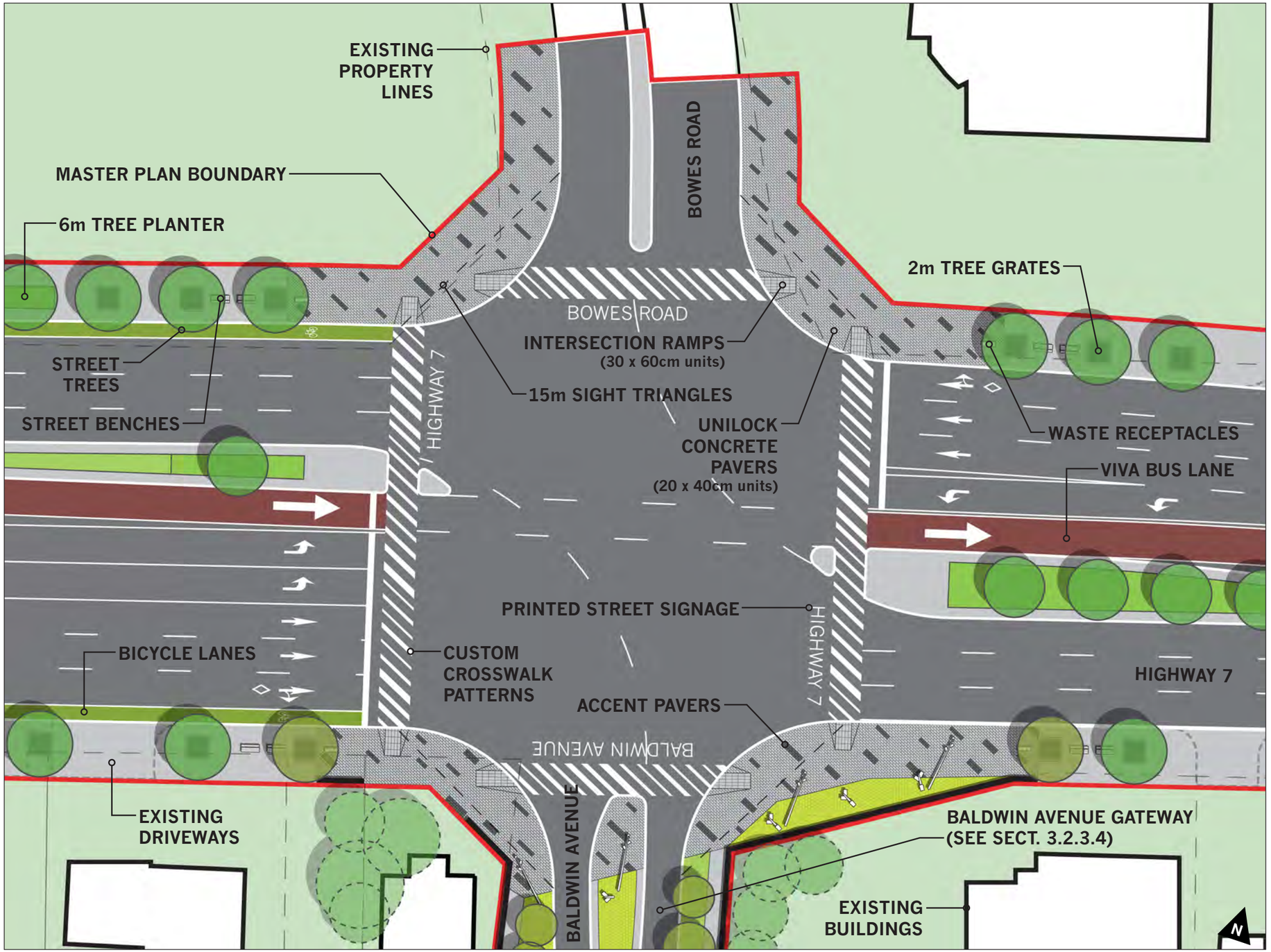


Figure 3.2.8 Highway 7 & Baldwin Avenue Intersection streetscape concept.

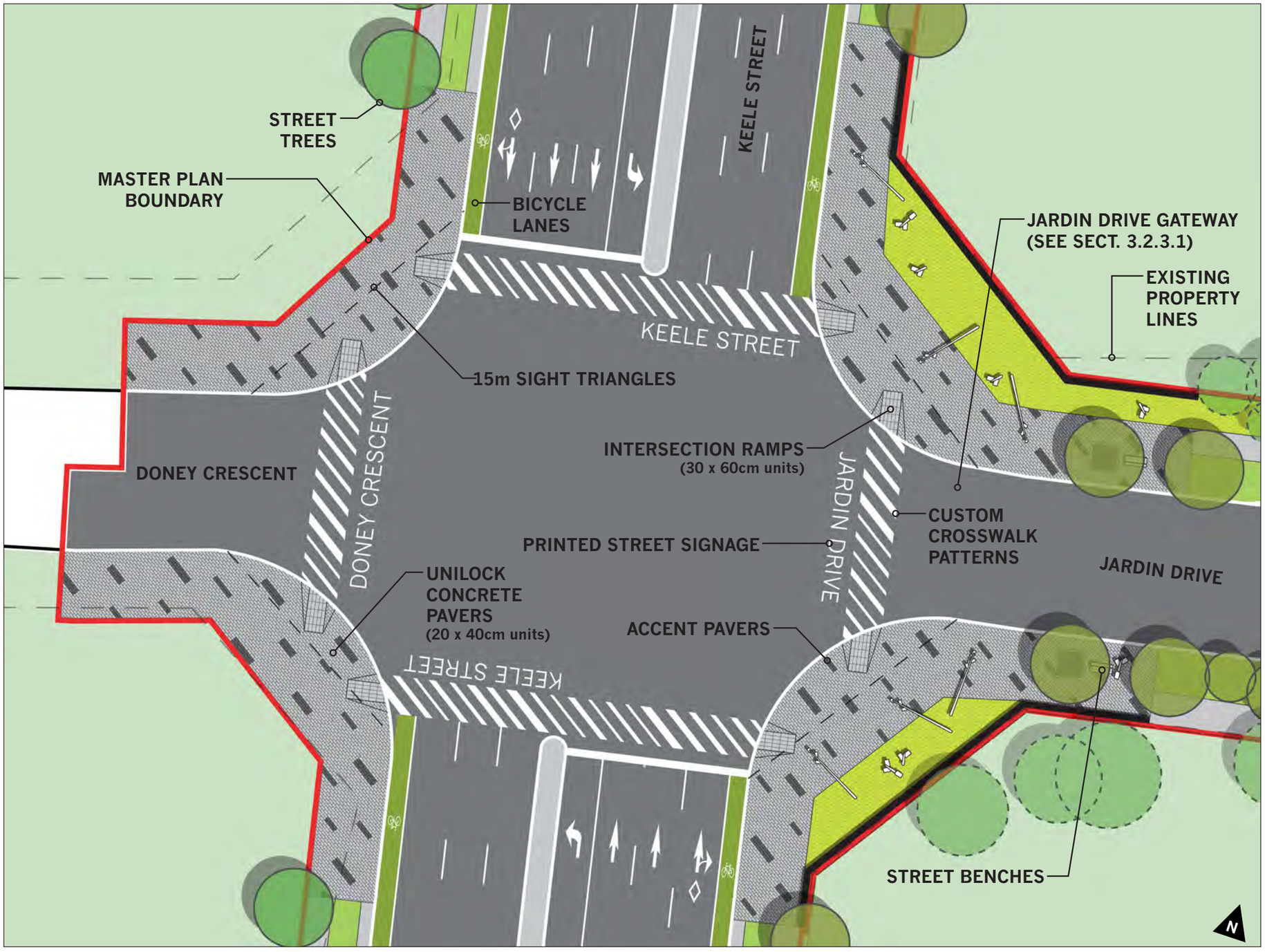
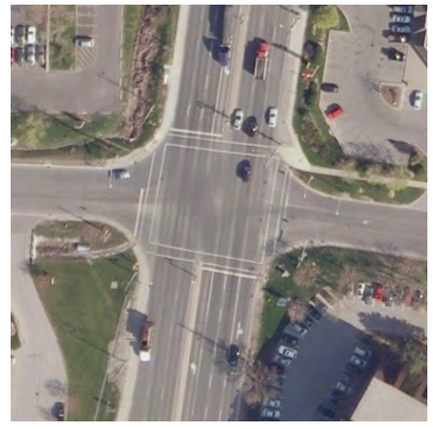


Figure 3.2.9 Keele Street & Jardin Drive Intersection streetscape concept.

3.2.2.3
Keele Street & Jardin Drive

The Keele Street & Jardin Drive Intersection (Figure 3.2.9) is located towards the south of the study area along the Keele Street corridor, just to the north of the Highway 407 exit ramp. The northeast corner of the intersection is zoned for low-rise mixed use, whereas all other lots adjacent to the intersection are zoned for presitige emplyment use. Accordingly, this intersection will have less of an urban character than those located along the Highway 7 intensification corridor. Contained within this intersection is the Jardin Drive Gateway into the Concord West residential community. Existing driveways shall be accommodated within the intersection design layout.

Note: Roadway designs for Highway 7 and Keele Street are subject to changes by Viva and York Region.



3.2.3
Gateways

The Concord West study area contains four gateways into the Concord West residential community (Figure 3.2.10) - two *primary* and two *secondary*. *Primary* gateways are the Jardin Drive Gateway (Figs. 3.2.11+15) and the Baldwin Avenue Gateway (Figs. 3.2.12+16). *Secondary* gateways are the Rockview Gardens Gateway (Figs. 3.2.13+17) and the Hillside Avenue Gateway (Figs. 3.2.14+18). Each of these gateways shall exhibit uniform characteristics - diagonally-oriented concrete pavers, tactile grooved intersection ramp pavers, custom crosswalk patterns, printed street signage, low gateway walls, planting beds, and sculpural lighting fixtures. These elements shall integrate seemlessly into the surrounding streetscape. Each of the gateways includes existing trees that shall be appropriately preserved and integrated with new street trees. Formal street tree plantings shall blend into informal clustered tree plantings as each gateway moves from the major streets into the residential community. Existing driveways shall be accommodated within the gateway design layouts.

Figure 3.2.10 Gateway locater plan.

Figure 3.2.11 Jardin Drive Gateway (see Section 3.2.3.1 for enhanced detail).

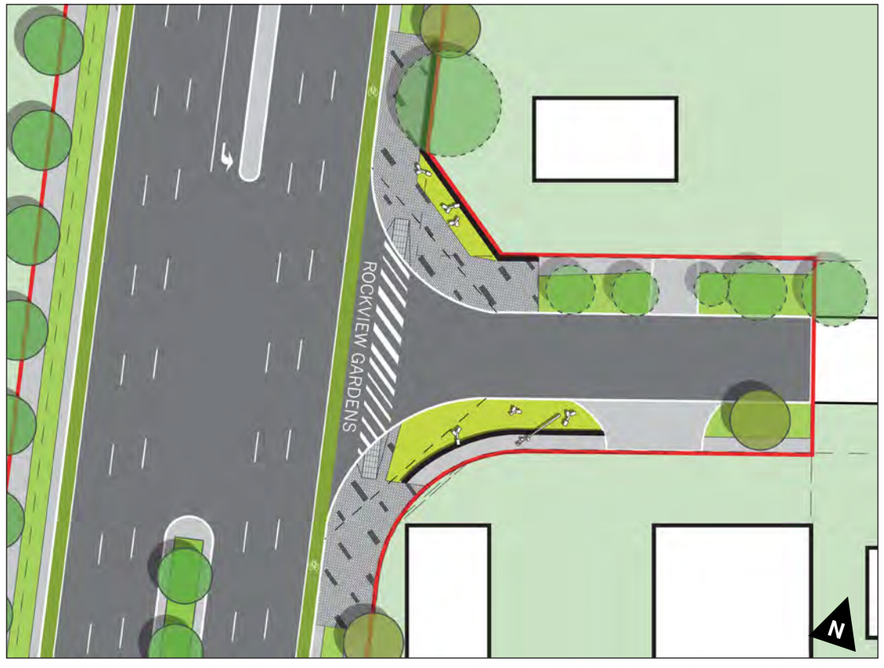


Figure 3.2.12 Rockview Gardens Gateway (see Section 3.2.3.2 for enhanced detail).

Fig. 3.2.15 Jardin Drive (existing).

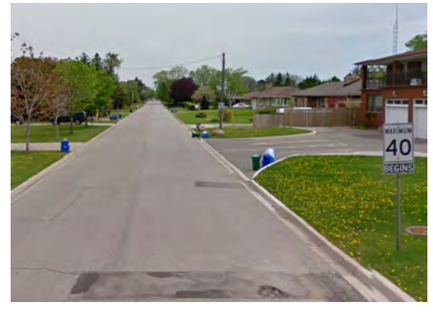


Fig. 3.2.16 Rockview Gardens (existing).

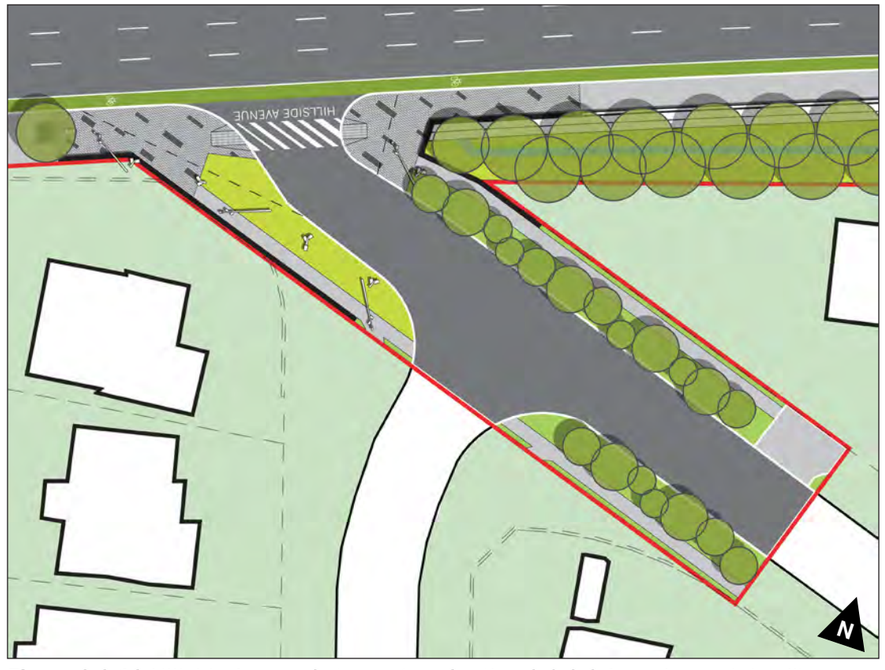


Figure 3.2.13 Hillside Avenue Gateway (see Section 3.2.3.3 for enhanced detail).

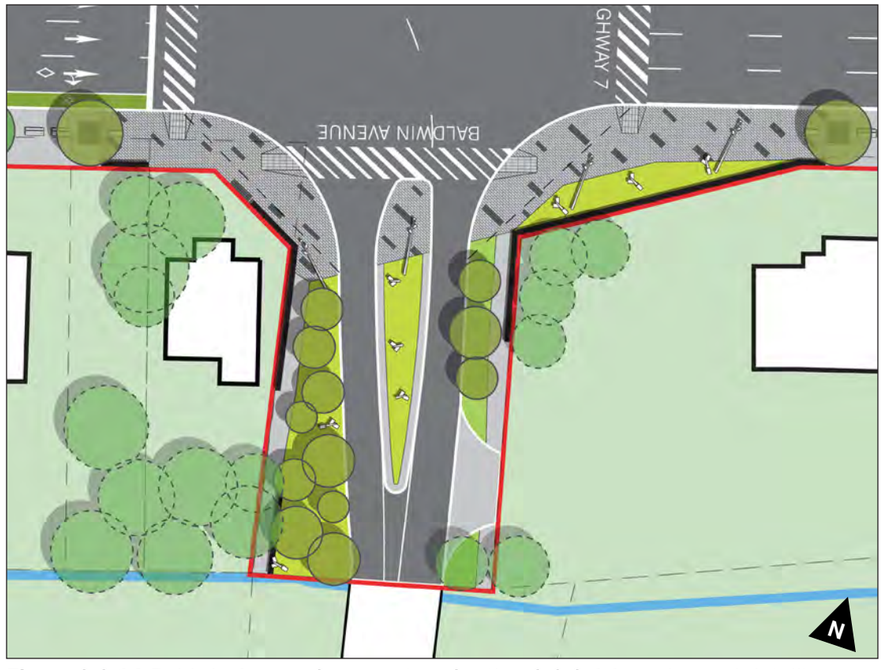


Figure 3.2.14 Baldwin Avenue Gateway (see Section 3.2.3.4 for enhanced detail).

Fig. 3.2.17 Hillside Avenue (existing).

Fig. 3.2.18 Baldwin Avenue (existing).

3.2.3.1
Jardin Drive Gateway

The Jardin Drive Gateway (Figure 3.2.19) is the southernmost gateway along Keele Street leading into the Concord West residential community, located just to the north of the Highway 407 exit ramp. Among the four gateways, this one is unique in that it serves a double function - first as a gateway into the industrial corridor along Jardin Drive, and second as a gateway into the residential community along Southview Drive. Within the gateway, the north side of Jardin Drive is zoned for low-rise mixed use, and as such shall receive a more urban treatment with formalized street trees. The south side of Jardin Drive is zoned for prestige employment use, and shall be screened from the street with clustered tree plantings. Gateway walls shall be seat height - between 45cm and 60cm tall - falling well within regional sight triangle height limitations. Wall locations and openings shall be coordinated with adjacent context.

Note: Refer to Section 3.4.8 for gateway tree species selections.

Figure 3.2.19 Jardin Drive Gateway streetscape concept (primary gateway).

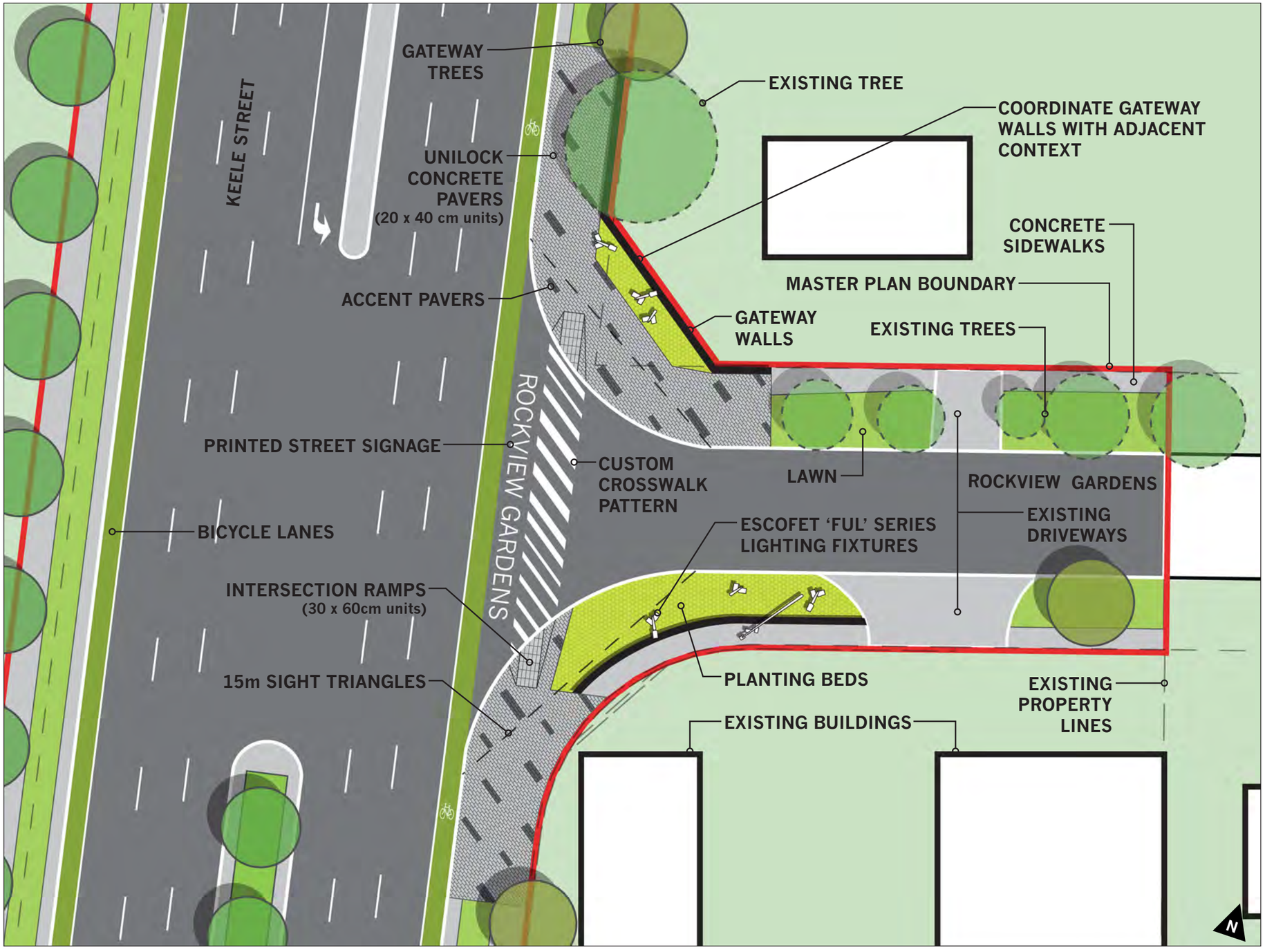


Figure 3.2.20 Rockview Gardens Gateway streetscape concept (secondary gateway).

3.2.3.2
Rockview Gardens Gateway

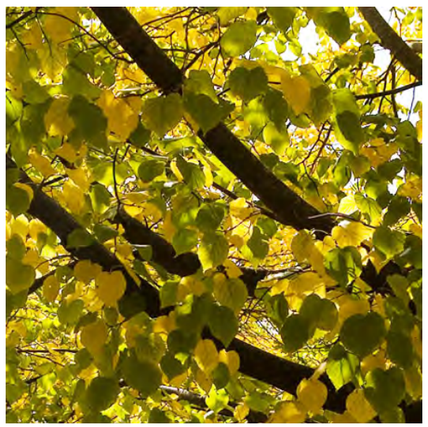
The Rockview Gardens Gateway (Figure 3.2.20) is the smallest of the four gateways leading into the Concord West residential community, located off of Keele Street between Highway 7 and Jardin Drive. The lots to both the north and south of the gateway are zoned for low-rise residential use. Gateway walls shall be seat height - between 45cm and 60cm tall - falling well within regional sight triangle height limitations. Wall locations and openings shall be coordinated with adjacent context.

Note: Refer to Section 3.4.8 for gateway tree species selections.

3.2.3.3
Hillside Avenue Gateway

Of the four gateways leading into the Concord West residential community, the Hillside Avenue Gateway (Figure 3.2.21) is the closest in proximity to the Highway 7 & Keele Street intersection - located off of Highway 7 just to the east of Keele Street. All lots adjacent to this gateway are zoned for low-rise residential use. Unique among the four gateways, here a natural water-course runs out from underneath Highway 7 and along the southern side of the road. Existing below street grade, this water-course shall be retained and protected from the new streetscape construction by a stepped retaining wall. Clustered around the wet environment of the watercourse shall be a grouping of Black Willow trees sitting in a base of native grasses. Gate-way walls shall be seat height - between 45cm and 60cm tall - falling well within regional sight triangle height limitations. Wall locations and openings shall be coor-dinated with adjacent context.

Note: Refer to Section 3.4.8 for gateway tree species selections.



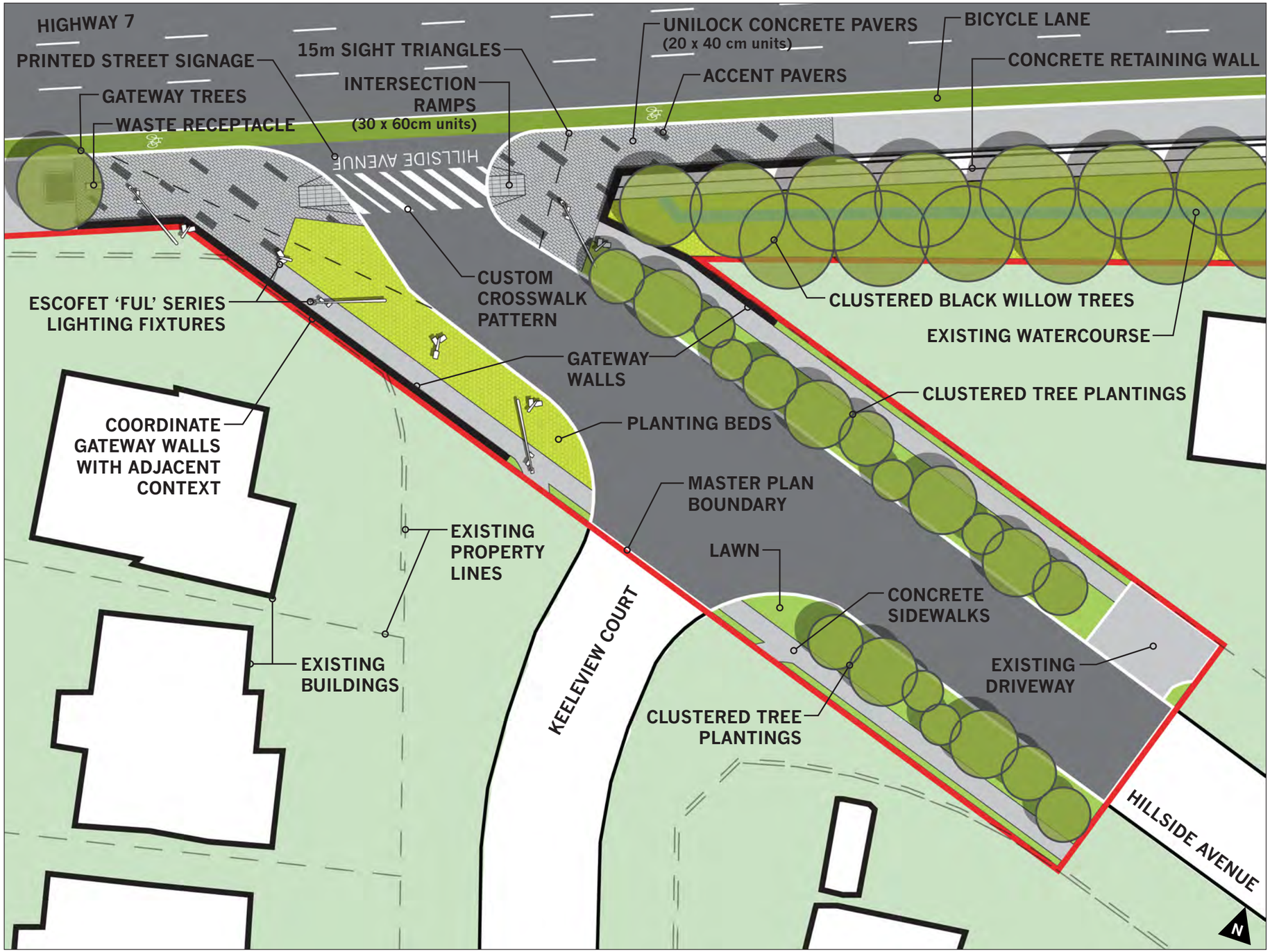


Figure 3.2.21 Hillside Avenue Gateway streetscape concept (secondary gateway).

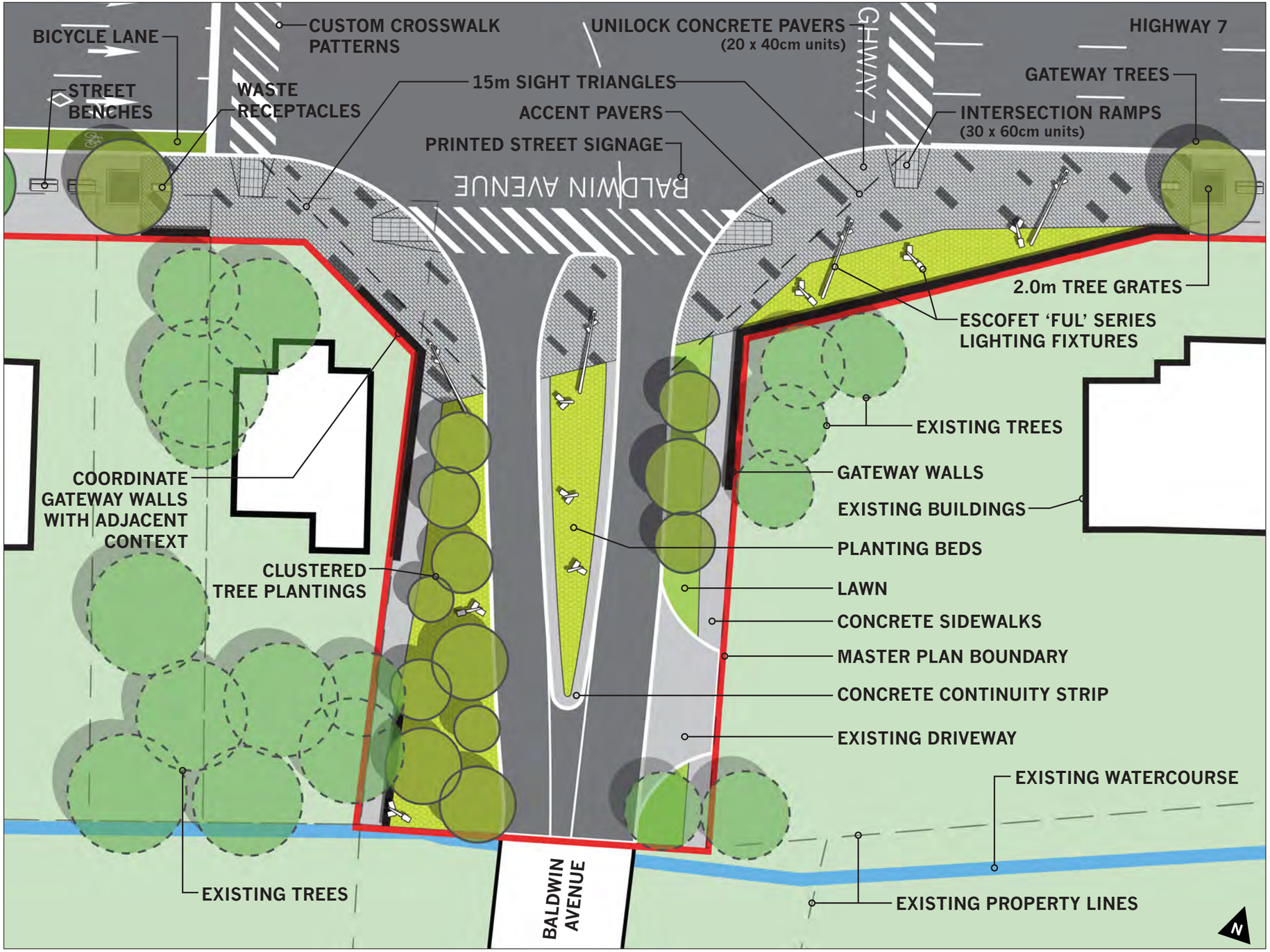


Figure 3.2.22 Baldwin Avenue Gateway streetscape concept (primary gateway).

3.2.3.4 Baldwin Avenue Gateway

The Baldwin Avenue Gateway (Figure 3.2.22) is the easternmost gateway along Highway 7 leading into the Concord West residential community, located just to the west of the GO train corridor. All lots adjacent to this gateway are zoned for low-rise residential use. On the west side of this gateway shall be an open green space existing on lots acquired by the region. This green space, with its mature existing trees, shall act as an informal park for neighbourhood residents. Trees clusted along the sides of Baldwin Avenue frame the wildflower-covered open median leading into the residential community. This gateway is bound along its southern edge by a natural watercourse. This watercourse shall remain preserved and protected as part of the natural system of the study area. Gateway walls shall be seat height - between 45cm and 60cm tall - falling well within regional sight triangle height limitations. Wall locations and openings shall be coordinated with adjacent context.

Note: Refer to Section 3.4.8 for gateway tree species selections.

3.3
Street Cross Sections

3.3.1
Highway 7 Section

With Highway 7 designated by the City of Vaughan Official Plan as an intensification corridor, and with the impending implementation of the VivaNext Highway 7 rapidway through the Concord West area (see Section 3.1.2), the street section must be transformed to provide appropriate character for future development. Within the study area, the north side of Highway 7 is predominantly zoned for commercial mixed-use. Future development on these parcels will be limited to 8 or 10 storeys in height, forming a continuous streetfront along Highway 7 (Figure 3.3.5a/b). The south side of Highway 7 is predominantly zoned for low-rise residential use - maintaining the existing character of the Concord West residential community (Figure 3.3.3). The initial implementation of the new streetscape plan shall integrate with the existing land uses (Figure 3.3.4), promoting future development along Highway 7.

Note: Streetscape concept only. Revisions required at detailed design phase by Viva in accordance with the Highway 7 master plan.

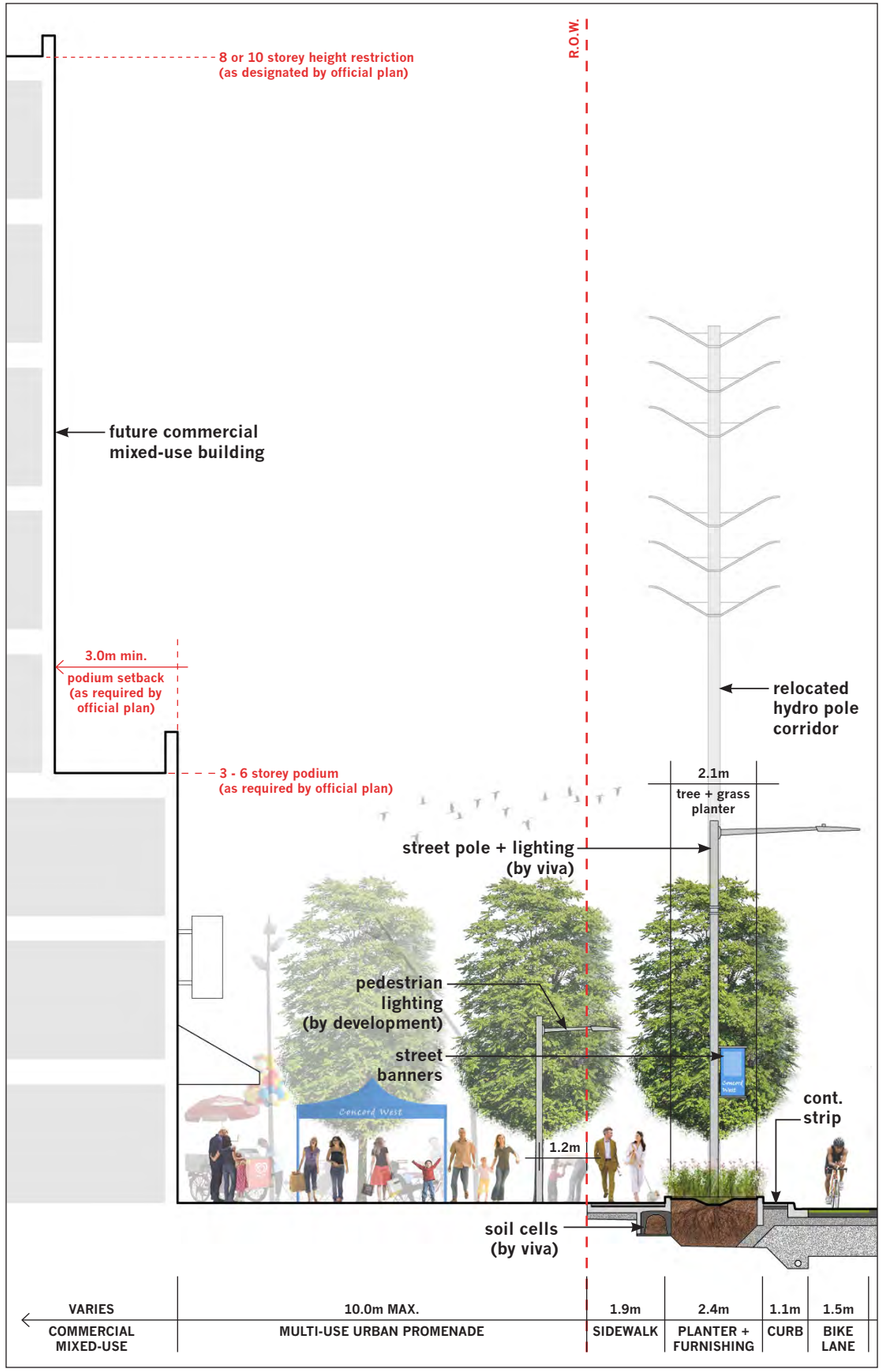


Figure 3.3.1 'Option B' detail of north side of Highway 7 [Future commercial mixed-use].

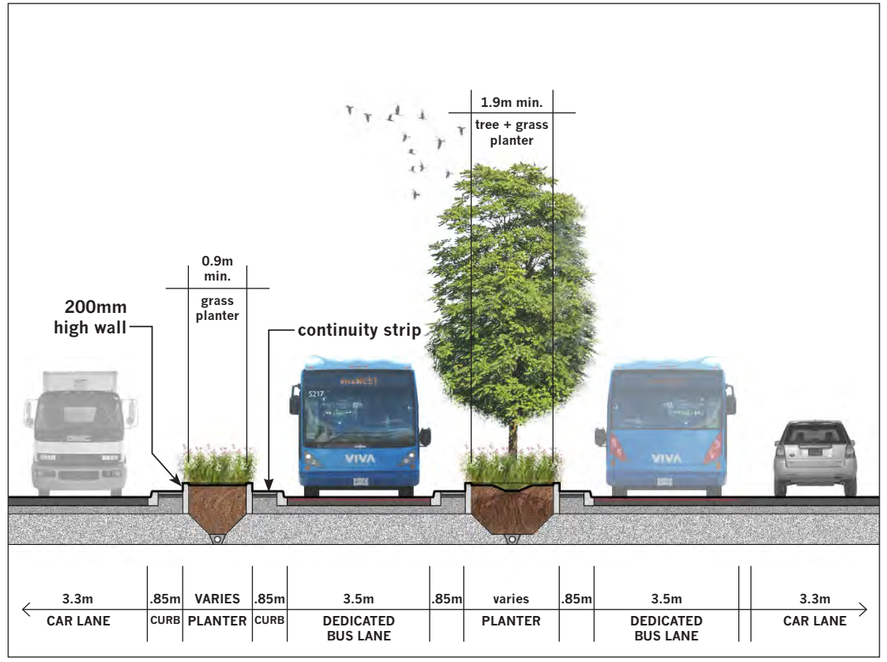


Figure 3.3.2 Detail of Highway 7 medians.

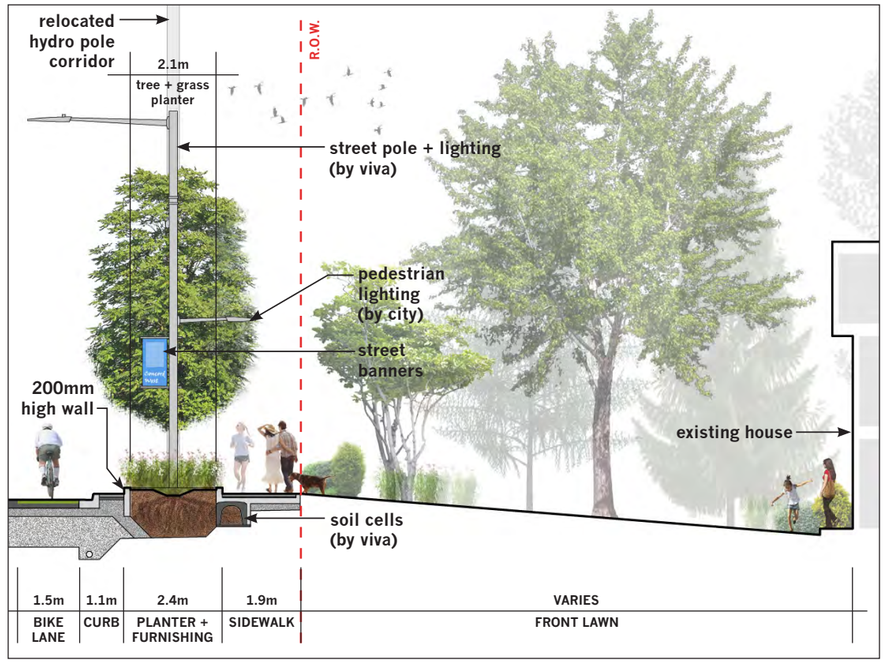


Figure 3.3.3 Detail of south side of Highway 7 [Existing low-rise residential use].

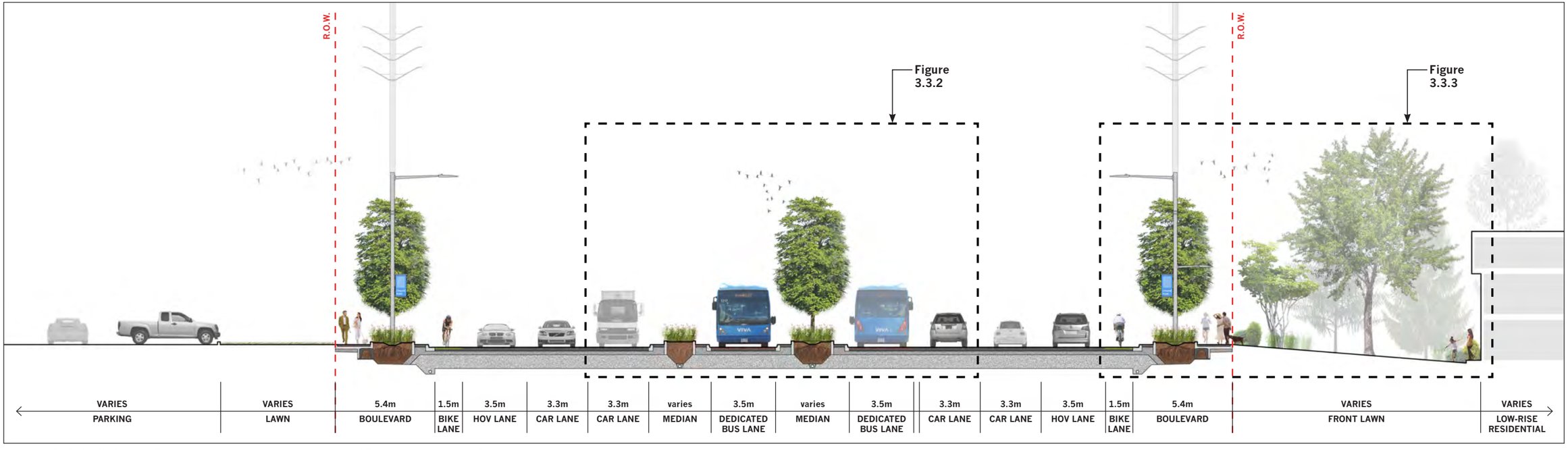


Figure 3.3.4 Highway 7 streetscape concept section [Existing land use].

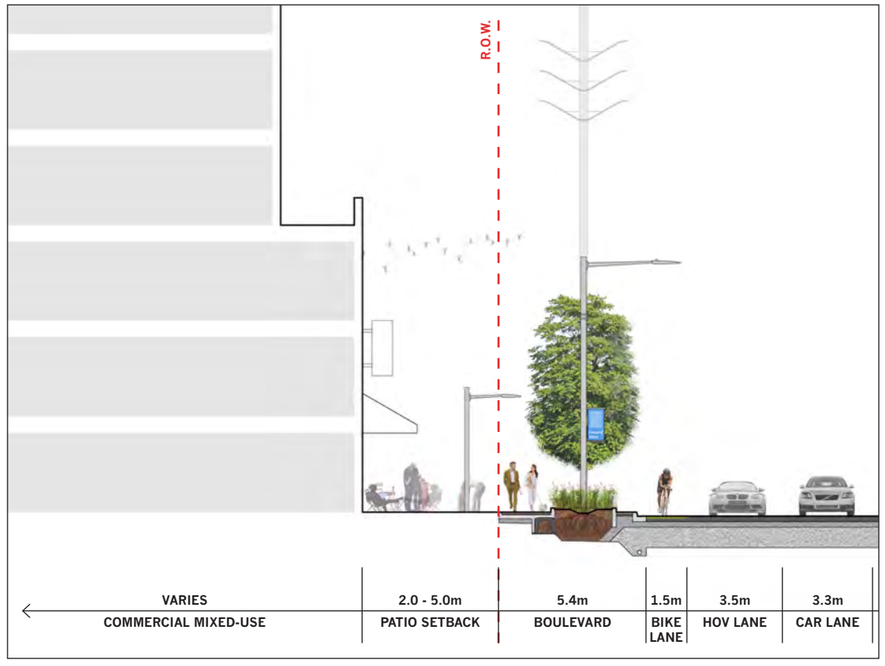


Figure 3.3.5a 'Option A' Highway 7 north side section [Future commercial mixed-use].

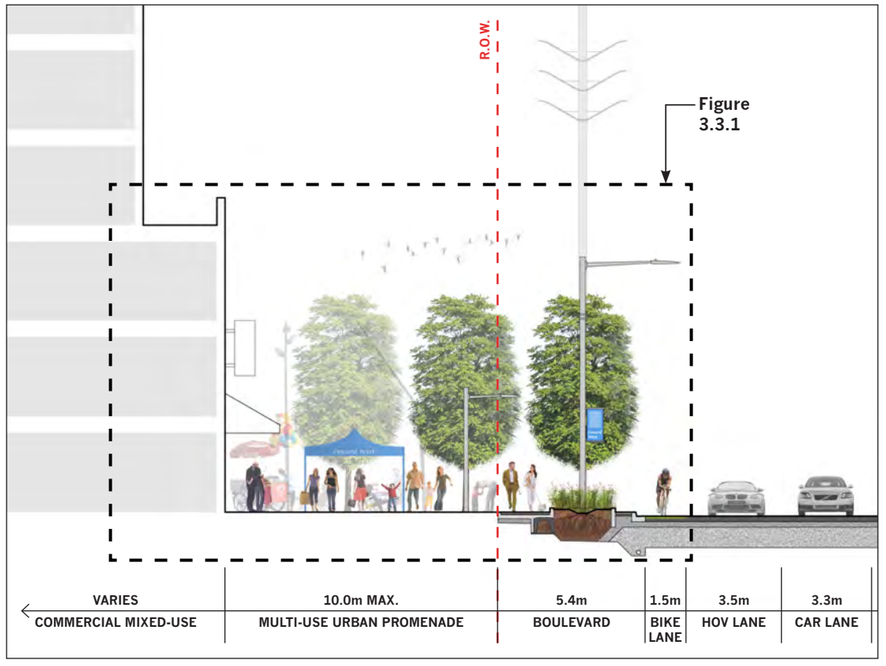


Figure 3.3.5b 'Option B' Highway 7 north side section [Future commercial mixed-use].

Two options are proposed for the future development of the north side of Highway 7 - option 'A' (Fig. 3.3.5a) and option 'B' (Fig. 3.3.5b). Option 'A' allows for a more minimal 2 to 5 metre patio setback from the right-of-way. Option 'B' allows for a more distinctive 10 metre multi-use urban promenade setback from the right-of-way.

Planting beds along Highway 7 shall be maximized to allow street trees to reach the highest possible level of maturity. Planters along the north and south boulevards of Highway 7 shall provide a 2.1m width soil bed, with integrated soil cells underneath the sidewalk to increase potential root volume. Median planters shall allow for street trees combined with ornamental grasses where soil bed width is a mimimum of 1.9m, and only ornamental grasses where soil bed width is a mimimum of 0.9m (Fig. 3.3.2).

3.3.2
Keele Street Section

Though planned to be a less intensive corridor than Highway 7, Keele Street is nonetheless anticipated to receive a certain level of urban intensification - and must be transformed accordingly to provide appropriate character for future development. Within the study area, the west side of Keele Street is zoned for a mixture of commercial mixed-use and prestige employment use. Future development on commercial mixed-use parcels will be limited to 10 storeys in height, forming a continuous streetfront along Keele Street (Figure 3.3.6a). Future development on prestige employment parcels shall be set back 9 metres from the right-of-way with a landscaped stormwater buffer - a means of naturally filtering and managing stormwater - and shall form a continuous streetfront along Keele Street (Figure 3.3.6b). The east side of Keele Street is zoned for a mixture of commercial mixed-use, low-rise mixed-use, prestige employment use, and low-rise residential use (Figure 3.3.8). Future development on these parcels shall maintain the existing character of the Concord West residential community.

Note: Streetscape concept only. Revisions required at detailed design phase by Region in accordance with the Keele Street EA.

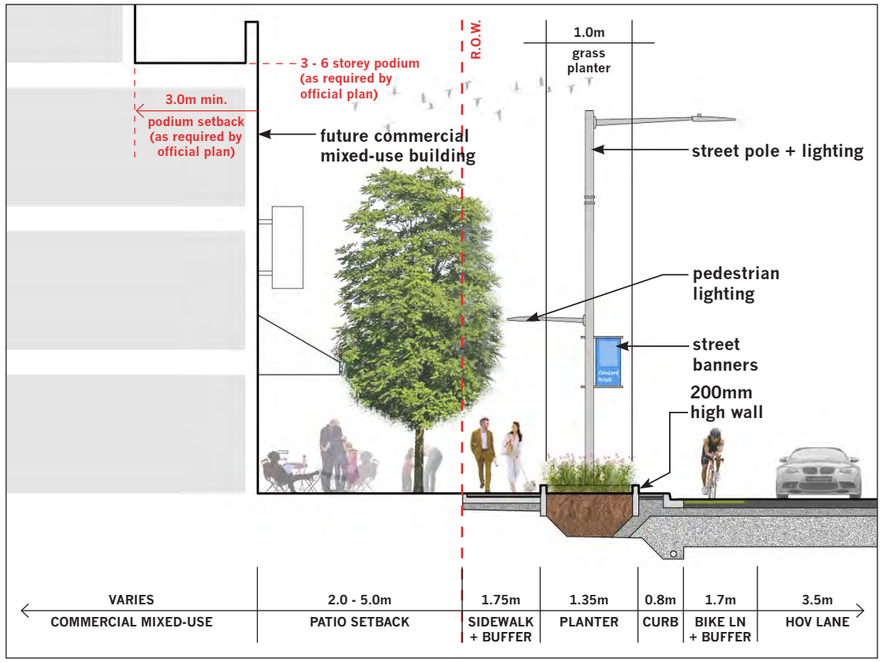


Figure 3.3.6a Detail of west side of Keele Street [Future commercial mixed-use].

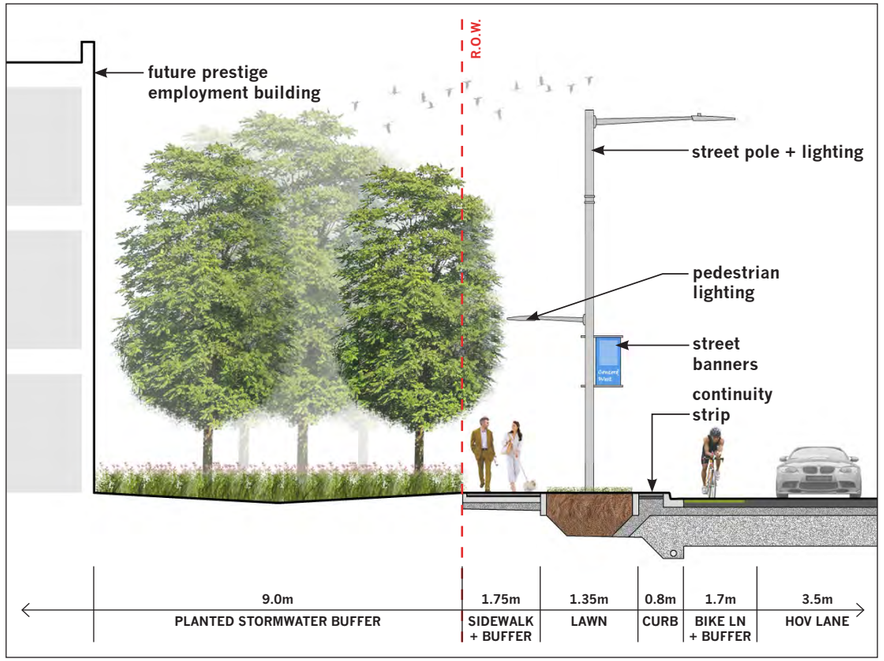


Figure 3.3.6b Detail of west side of Keele Street [Future prestige employment use].

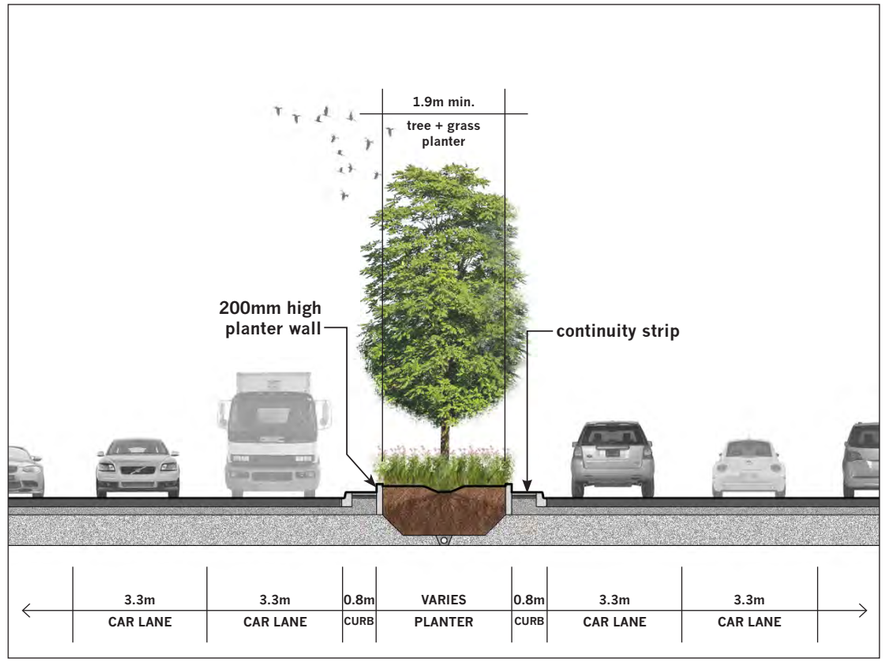


Figure 3.3.7 Detail of Keele Street median.

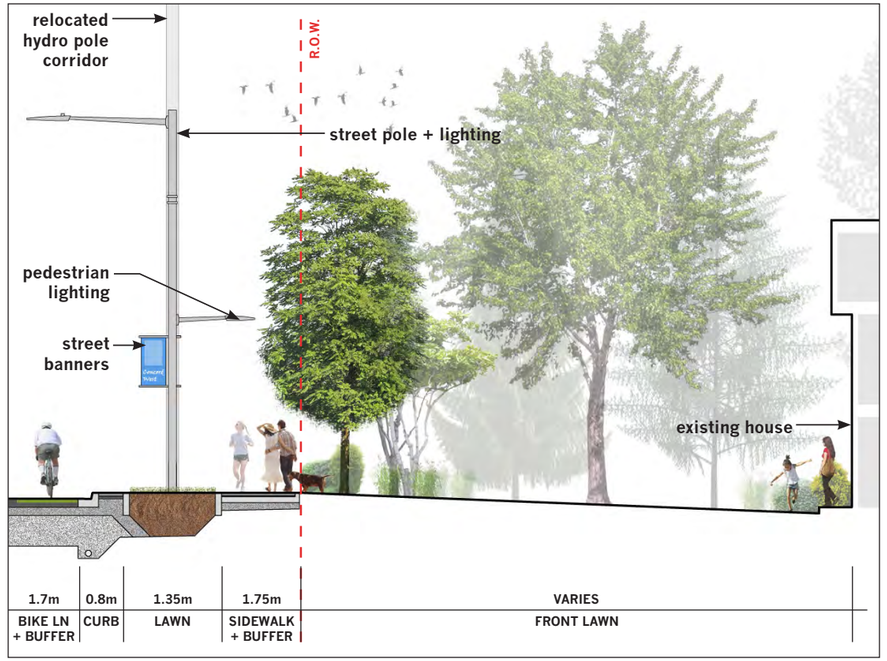


Figure 3.3.8 Detail of east side of Keele Street [Existing low-rise residential use].

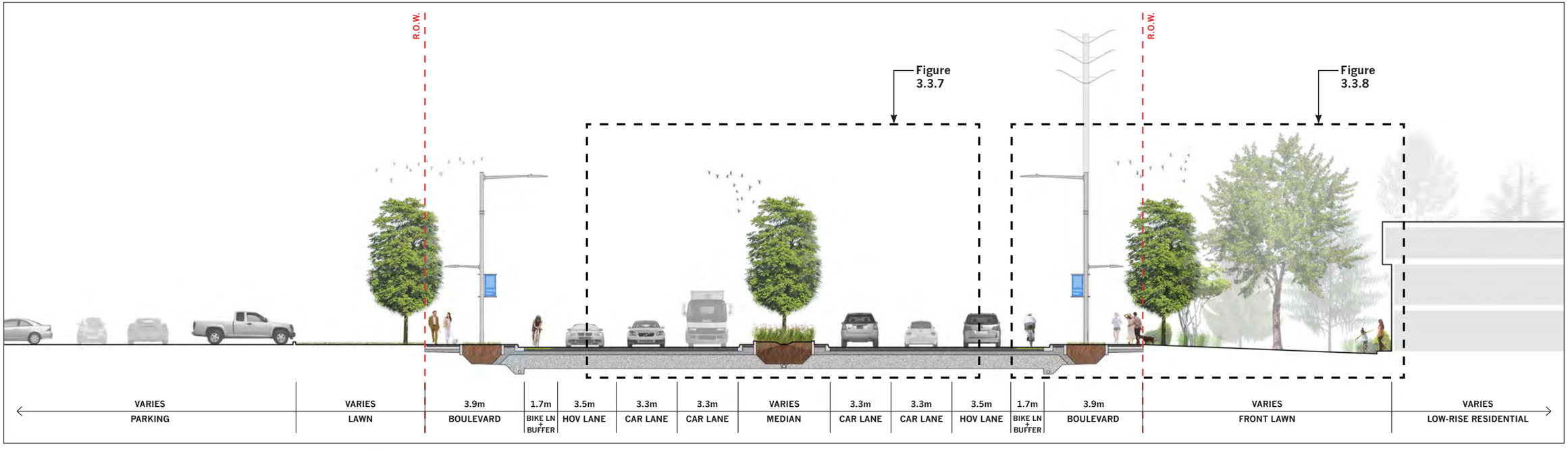


Figure 3.3.9 Keele Street streetscape concept section [Existing land use].

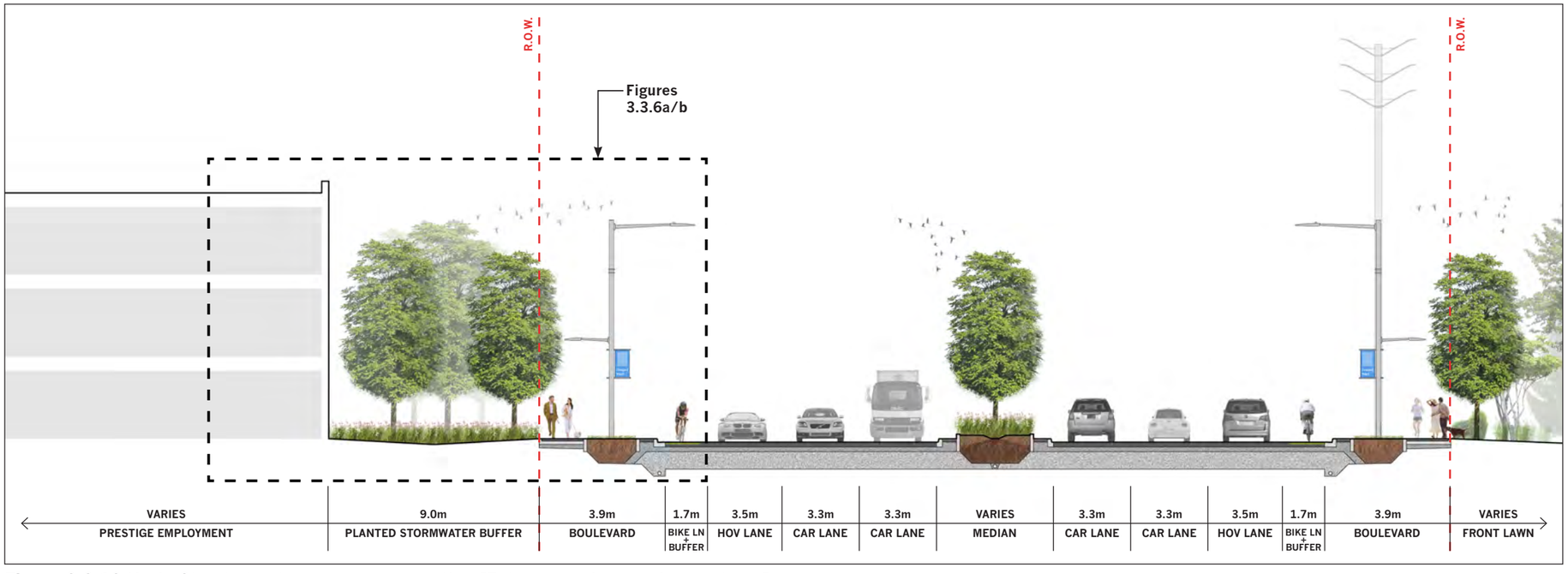


Figure 3.3.10 Keele Street streetscape concept section [Future prestige employment use].

The initial implementation of the new streetscape plan shall integrate with the existing land uses (Figure 3.3.9), promoting future development along Keele Street (Figure 3.3.10).

Planting beds along Keele Street shall be maximized to allow street trees to reach the highest possible level of maturity. Median planters shall allow for street trees combined with ornamental grasses where soil bed width is a mimimum of 1.9m, and only ornamental grasses where soil bed width is a mimimum of 0.9m (Figure 3.3.7).

3.4 Streetscape Materials & Furnishings Palette

3.4.1 Paving

Intersection and gateway corners along Highway 7 and Keele Street shall be paved with Unilock concrete pavers with sand-filled joints. The sidewalk along the north side of Highway 7, between Keele Street and Bowes Road, shall be upgraded to concrete pavers (Fig. 3.4.1). The general paver colour shall be 'Winter Marvel', with 'Midnight Sky' used as an accent colour (Fig. 3.4.2a). At intersection ramps, CNIB-approved tactile grooved concrete pavers shall be used, matching the proposed VivaNext standard (Fig. 3.4.2b).

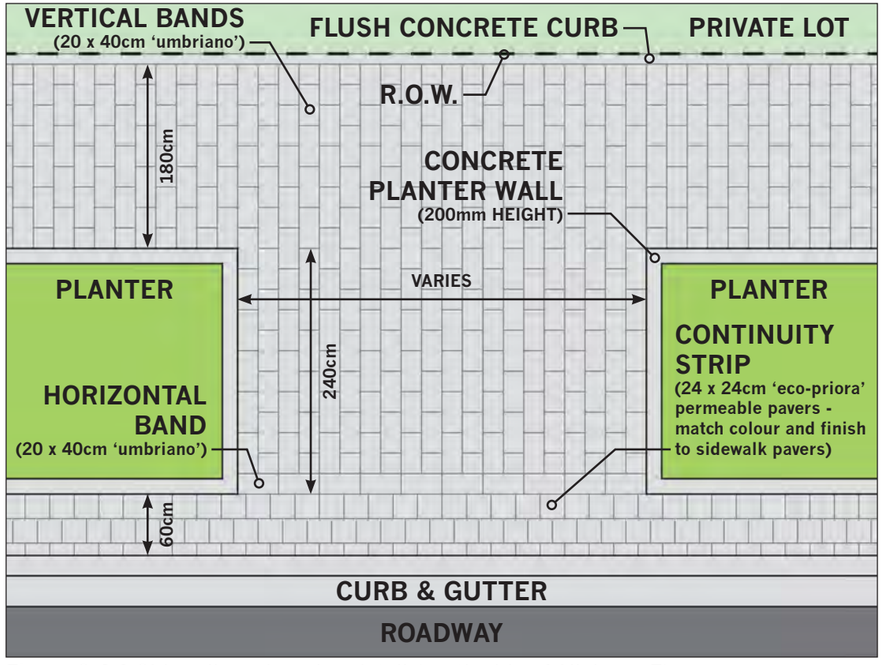


Figure 3.4.1 Sidewalk paving plan detail (north side of Highway 7).

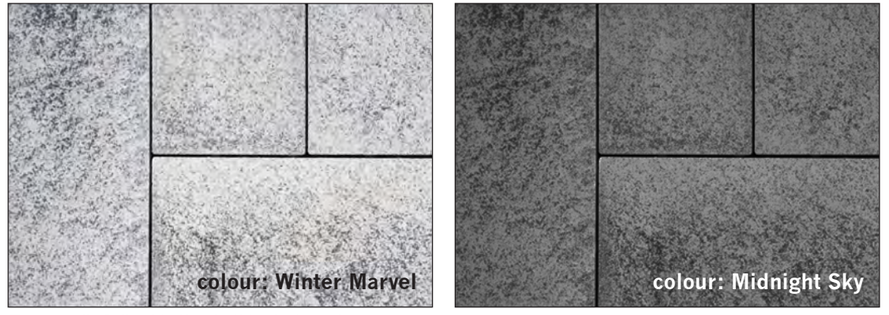


Figure 3.4.2a Unilock 'Umbriano' concrete pavers.

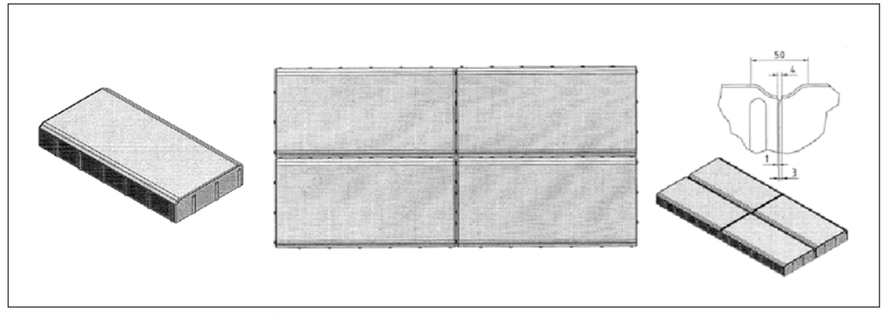
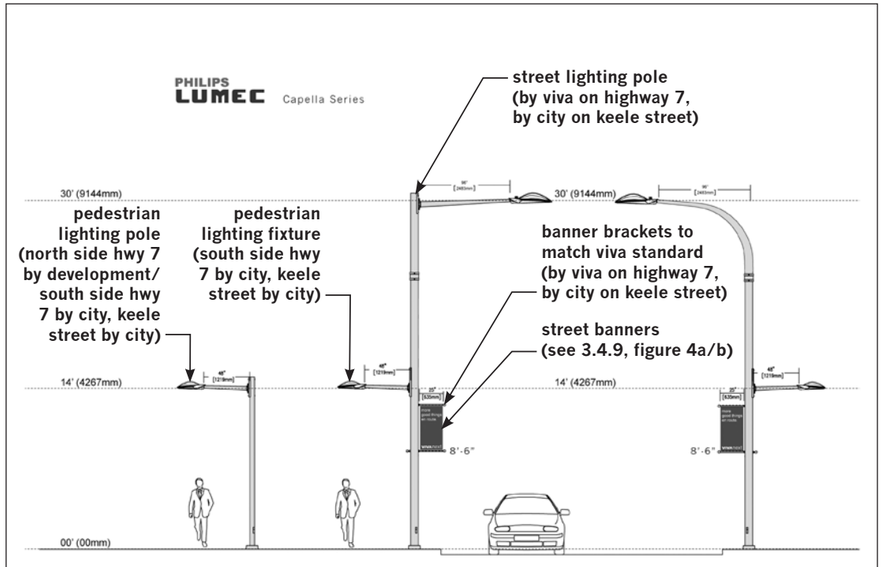


Figure 3.4.2b Unilock CNIB-approved tactile grooved concrete paver.

3.4.2 Lighting Fixtures

Street lighting along Highway 7 shall match VivaNext's proposed standard LED fixtures from the Philips Lumec 'Capella' series (Figure 3.4.3). Matching pedestrian lighting poles and fixtures shall be located throughout the study area, allowing for consistent lighting at the pedestrian level. The colour selection shall be 'Silver'. At the four designated gateways into the Concord West residential community, fixtures from the Escofet 'FUL' series shall provide sculptural forms lending unique character to the community (Figure 3.4.4). A variety of models from the series shall be utilized to create an appealing mixture of heights and curvatures. These gateway fixtures shall be of a Cor-ten Steel finish.



Note: Philips Lumec `Capella` series poles shall be installed along Keele Street within 80 metres of the Highway 7 intersection as a transition between the two street types.

Figure 3.4.3 Philips Lumec 'Capella' series lighting fixtures [colour: Silver].

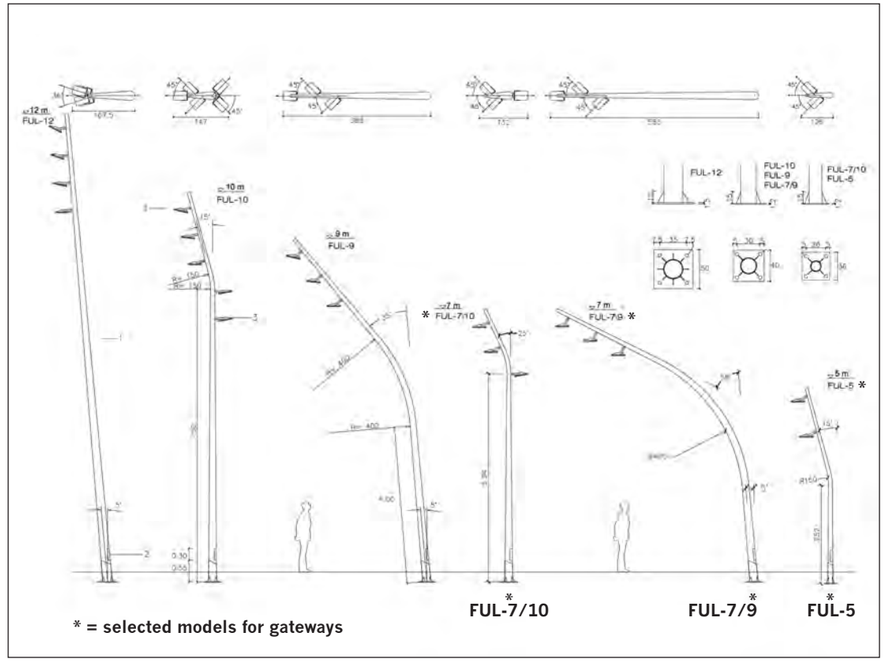


Figure 3.4.4 Escofet 'FUL' series lighting fixtures [finish: Cor-ten Steel].

Figure 3.4.5a Landscape Forms ‘Neoromantico’ bench [wood species: Jarrah].

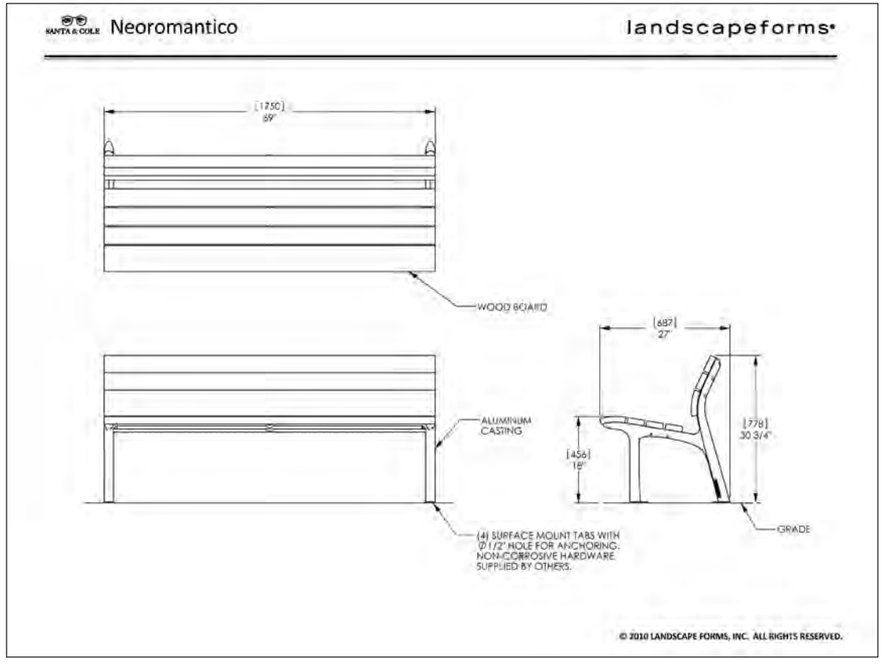


Figure 3.4.5b Landscape Forms ‘Neoromantico’ bench product sheet.

3.4.3
Street Benches

Street benches shall be strategically located throughout the study area, predominantly at intersections and gateways. To provide a consistent and unique identity to the Concord West community, all benches shall be from the ‘Neoromantico’ series by Landscape Forms (Figures 3.4.5a/b). This bench, measuring 69 inches (175cm) in length, is manufactured from 100% recyclable aluminum and wood. The unfinished wood boards will weather naturally to a beautiful pewter grey. The bench model specified shall be backed with no arms. Installation shall be surface mounted. The wood species selection shall be ‘Jarrah’.

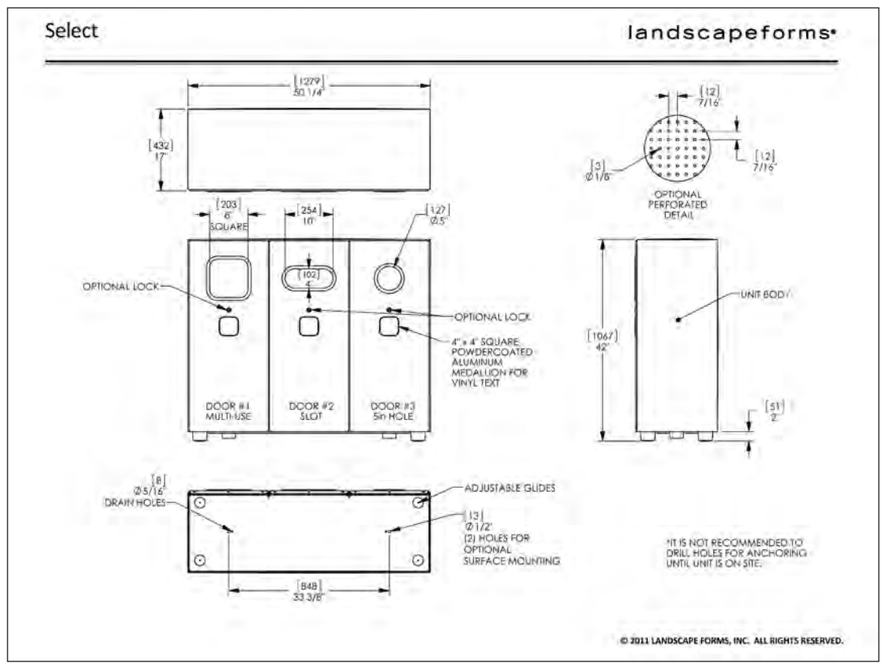


Figure 3.4.6a Landscape Forms ‘Select’ 3-stream waste receptacle product sheet.

Figure 3.4.6b Landscape Forms ‘Select’ 3-stream waste receptacle [colour: Silver].

3.4.4
Waste Receptacles

2-stream and 3-stream waste receptacles shall be utilized throughout the study area. Within the public realm, receptacles are located along Highway 7 at all intersections. All other receptacles are to be located at the streetscape interface on private property. To provide a consistent and unique identity to the Concord West community, all waste receptacles shall be from the ‘Select’ series by Landscape Forms (Figures 3.4.6a/b). These waste receptacles are manufactured from 100% recyclable steel and finished with a powdercoat. Solid face model units with perforated sides shall be specified. Installation shall be surface mounted. The colour selection shall be ‘Silver’.

3.4.5
Bicycle Racks

Bicycle racks shall be strategically located throughout the study area, typically centred between tree grates/planters in the furnishing zone of boulevards. To provide a consistent and unique identity to the Concord West community, all bicycle racks shall be from the 'Ring' series by Landscape Forms (Figures 3.4.7a/b). This bicycle rack, measuring approximately 27 inches (69cm) in height and 25 inches (63cm) in diameter, is manufactured from 100% recyclable steel. The finish selection shall be Stainless Steel.

3.4.6
Street Trees & Grasses

Street trees in Concord West shall be capable of surviving in harsh urban environments. Preferred species are the American Buckeye *[Aesculus glabra]*, Horse Chestnut *[Aesculus hippocastanum]*, Pin Oak *[Quercus palustris]*, and Silver Maple *[Acer saccharinum]* (Figures 3.4.8a/b). Each species should be grouped in clusters of 6 to 8.

Ornamental grasses, such as the *Karl Foerster* variety (Fig. 3.4.8c), shall be planted as an understory in boulevard and median planters.

3.4.7
Gateway Planting Beds

Each of the four gateways into the Concord West residential community includes generous planting beds. These beds shall be planted with a mix of wildflowers and ornamental grasses (Figure 3.4.9). Planting bed interface with sidewalk shall be delineated with a minimal raised concrete curb.

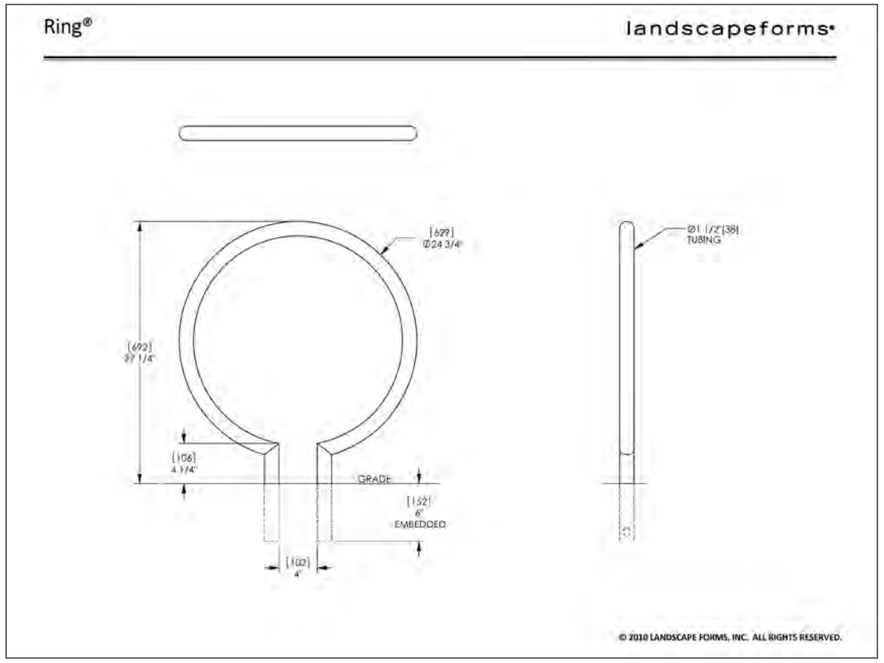


Figure 3.4.7a Landscape Forms 'Ring' bicycle rack product sheet.

Figure 3.4.7b Landscape Forms 'Ring' bicycle rack [finish: Stainless Steel].

Fig. 3.4.8a Silver Maple tree.

Fig. 3.4.8b Silver Maple leaves.

Fig. 3.4.8c Karl Foerster ornamental grass.

Figure 3.4.9 Gateway planting bed [plant selection: Black Eyed Susan + Karl Foerster].

Fig. 3.4.10a Kentucky Coffeetree tree.

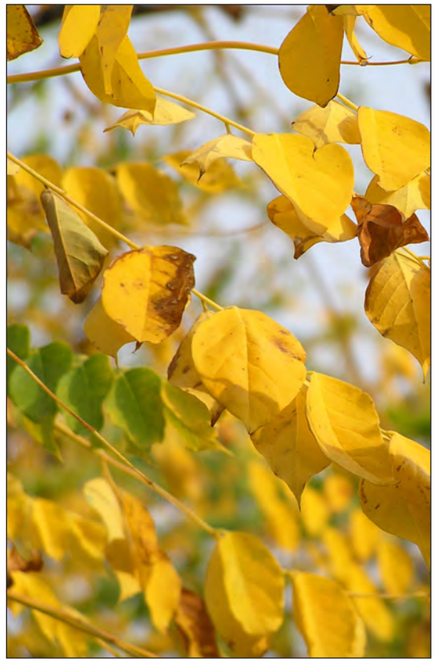


Fig. 3.4.10b Kentucky Coffeetree leaves.

Fig. 3.4.11a American Buckeye tree.

Fig. 3.4.11b American Buckeye leaves.

Fig. 3.4.12a Greenspire Linden tree.

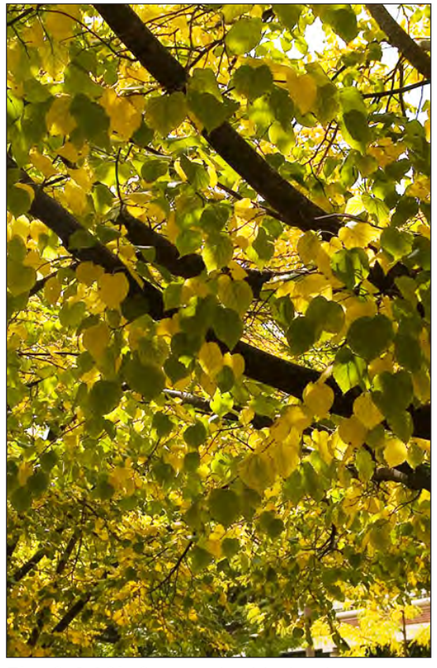


Fig. 3.4.12b Greenspire Linden leaves.

Fig. 3.4.13a Freeman Maple tree.

Fig. 3.4.13b Freeman Maple leaves.

3.4.8
Gateway Trees

As a strategy to define the four gateways into the Concord West residential community with unique characteristics, each gateway shall be planted with a different species of tree. This variation will enhance the streetscape design palette by adding a further layer of complexity. Gateway tree species shall be distributed as follows:

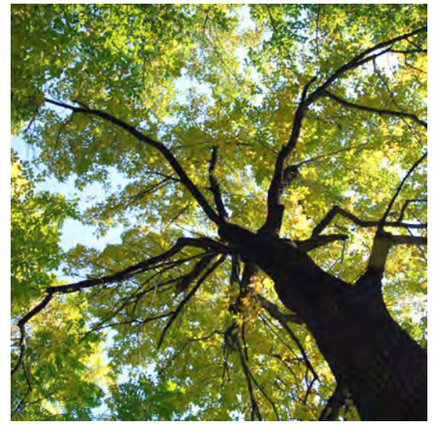
Jardin Drive Gateway
Kentucky Coffeetree (Figs. 3.4.10a/b)
Gymnocladus dioicus

Rockview Gardens Gateway
American Buckeye (Figs. 3.4.11a/b)
Aesculus glabra

Hillside Avenue Gateway
Greenspire Linden (Figs. 3.4.12a/b)
Tilia cordata 'Greenspire'

Baldwin Avenue Gateway
Freeman Maple (Figs. 3.4.13a/b)
Acer x freemanii

Note: Refer to Section 3.2.3 for gateway tree layout design drawings.



3.4.9
Miscellaneous

Custom Crosswalk Patterns
As pedestrian activity will increasingly become a defining characteristic of Concord West, crosswalk patterns should provide a unique identity to the community - such as those found in this precedent in Curitiba, Brazil (Figure 3.4.14). Custom diagonal crosswalk patterns and printed street signage throughout the study area shall be uniform in character.

Gateway Walls
Each of the four gateways into the Concord West residential community includes low walls as a defining characteristic of the entry experience. These gateway walls shall be constructed of dry-stacked stone, with stone coping, and be 40cm wide and seat height (Figs. 3.4.15a/b).

Tree Grates & Side Inlets
To provide a consistent and unique identity to the Concord West community, all tree grates shall be from the 'Clyde' series by Citygreen (Fig. 3.4.16). All grates are to be 2 metre squares, ADA-compliant, and manufactured from galvanized steel with a powdercoat finish. The colour selection shall be 'Silver'. The style of side inlets should be coordinated to match tree grates.

Street Banners
Street banners located on street light poles throughout the Concord West study area provide an opportunity for the community to represent itself with a unique identity (Fig. 3.4.17a). These precedents from San Fransisco's 'Urban Forest Project' display a graphic design quality that should be strived for when designing banners for the Concord West community (Fig. 3.4.17b).

Figure 3.4.14 Custom crosswalk pattern precedent in Curitiba, Brazil.

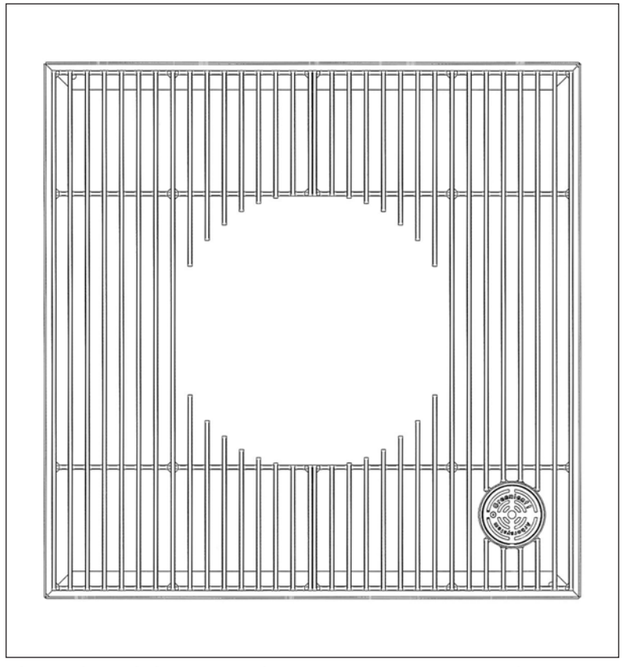


Figure 3.4.16 Citygreen 'Clyde' tree grate [colour: Silver].

Figure 3.4.15a Dry-stacked stone wall precedent (square-cut Credit Valley limestone).

Figure 3.4.15b Dry-stacked stone wall pattern precedent (in sand and grey tones).

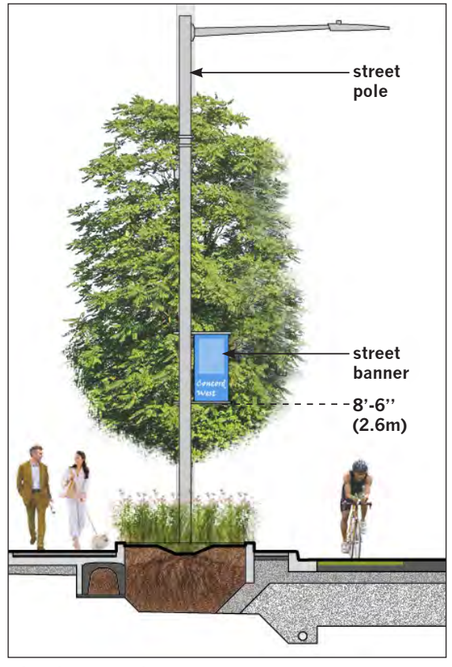
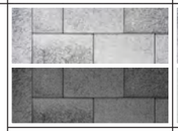
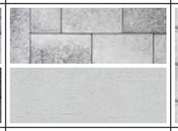
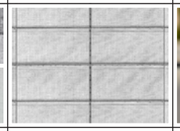
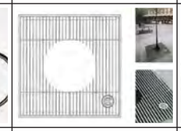
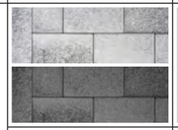
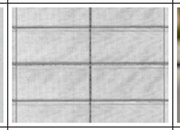
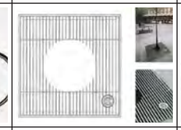
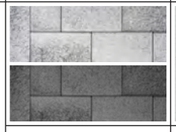
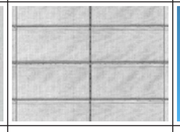
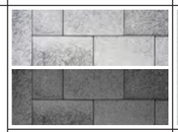
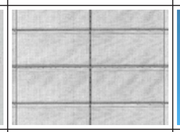
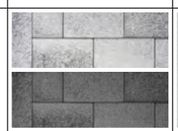
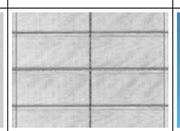
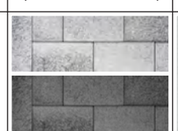
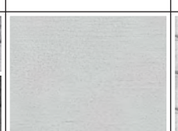
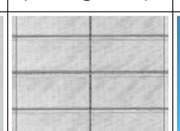


Fig. 3.4.17a Street banner location.

Fig. 3.4.17b Street banner precedents.

3.4.10
Streetscape Component Matrix

	Intersection Corner Paving	Sidewalk Paving	Intersection Ramp Paving	Lighting Fixtures	Street Benches	Waste Receptacles	Bicycle Racks	Tree Grates & Side Inlets	Street Trees	Planting Bed Vegetation	Crosswalks	Gateway Walls	Street Banners
Highway 7													
	Unilock Pavers (w/accent colour)	Unilock Pavers + Concrete Paving	Unilock Pavers (tactile grooved)	Philips Lumec ‘Capella’ Series	Landscape Forms ‘Neoromantico’	Landscape Forms ‘Select’	Landscape Forms ‘Ring’	Citygreen ‘Clyde’	Preferred Species	Ornamental Grasses	Custom Pattern		Community Identity Banners
Keele Street													
	Unilock Pavers (w/accent colour)	Concrete Paving	Unilock Pavers (tactile grooved)	Philips Lumec ‘Capella’ Series	Landscape Forms ‘Neoromantico’	Landscape Forms ‘Select’	Landscape Forms ‘Ring’	Citygreen ‘Clyde’	Preferred Species	Ornamental Grasses	Custom Pattern		Community Identity Banners
Jardin Drive Gateway													
	Unilock Pavers (w/accent colour)	Concrete Paving	Unilock Pavers (tactile grooved)	Escofet ‘FUL’ Series					Kentucky Coffeetree	Wildflowers & Orn. Grasses	Custom Pattern	Dry-Stacked Stone	
Rockview Gardens Gateway													
	Unilock Pavers (w/accent colour)	Concrete Paving	Unilock Pavers (tactile grooved)	Escofet ‘FUL’ Series					American Buckeye	Wildflowers & Orn. Grasses	Custom Pattern	Dry-Stacked Stone	
Hillside Avenue Gateway													
	Unilock Pavers (w/accent colour)	Concrete Paving	Unilock Pavers (tactile grooved)	Escofet ‘FUL’ Series					Greenspire Linden	Wildflowers & Orn. Grasses	Custom Pattern	Dry-Stacked Stone	
Baldwin Avenue Gateway													
	Unilock Pavers (w/accent colour)	Concrete Paving	Unilock Pavers (tactile grooved)	Escofet ‘FUL’ Series					Freeman Maple	Wildflowers & Orn. Grasses	Custom Pattern	Dry-Stacked Stone	

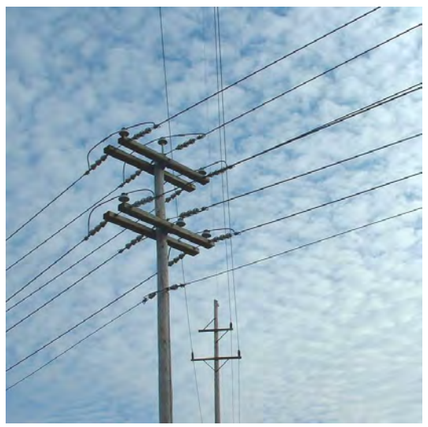
3.5
Utilities

3.5.1
Existing Utility Location Plan

Approximately 4,500 metres of major overhead electrical corridors currently run along 89 electrical poles on both Highway 7 and Keele Street, adjacent to or within the Streetscape Plan boundary. These corridors will need to be integrated as seemlessly as possible into the streetscape. As there is not adequate funding for burial of these electrical lines, they shall instead be appropriately reconfigured into the master plan and upgraded from wood to concrete poles to better promote the urbanization and growth of Highway 7 and Keele Street. This plan depicts the existing pole and overhead line locations in relationship to the existing Concord West community (Figure 3.5.1).

Legend:

- electrical pole location
- overhead electrical lines
- master plan boundary



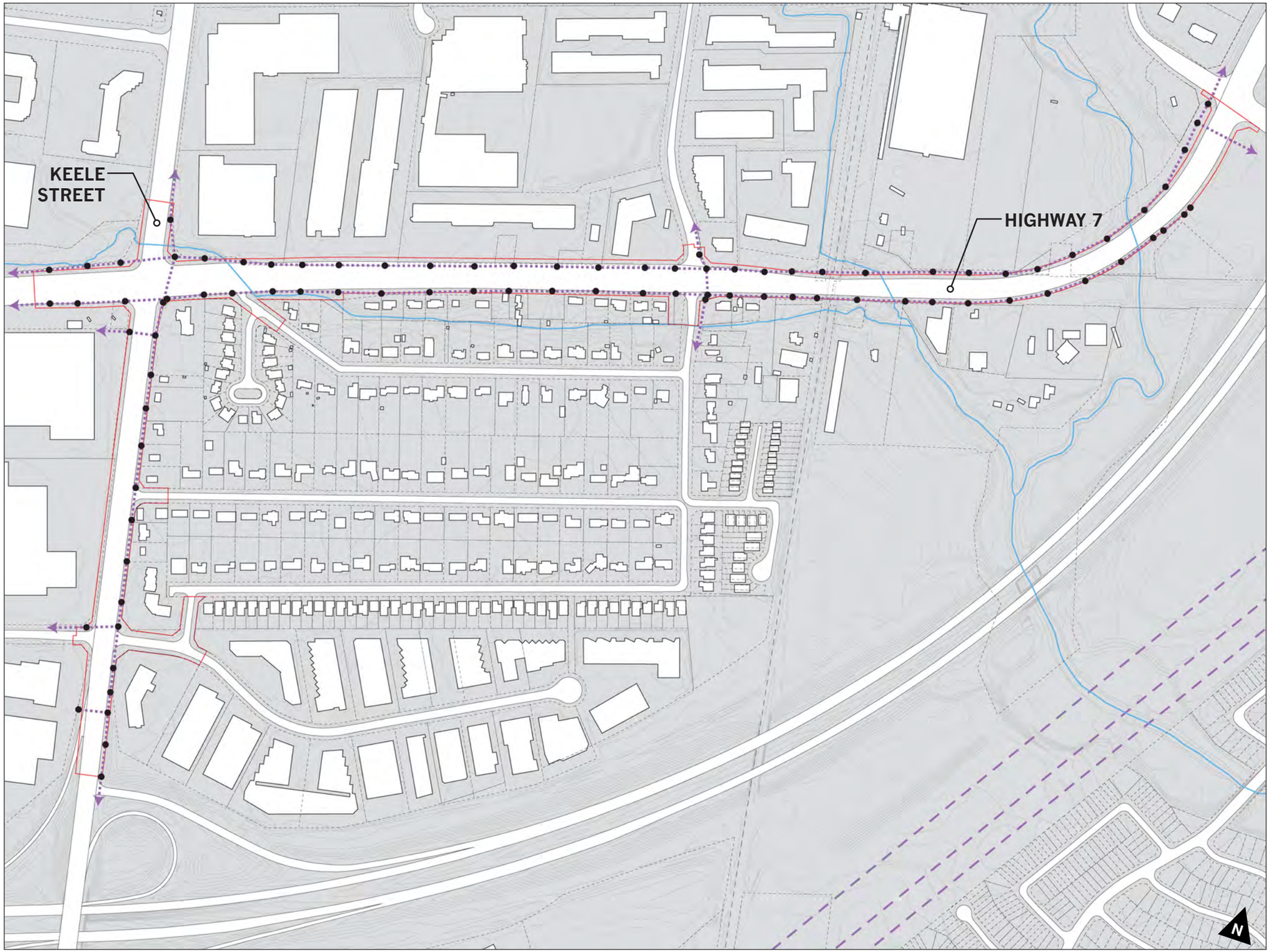


Figure 3.5.1 Existing overhead utility location plan.

Section Contents:

Streetscape Implementation Strategy

4

4.1
Implementation Strategy

The detailed implementation strategy for this plan will be determined after the completion of the *Vaughan City-Wide Streetscape Implementation and Financial Strategy*.

4.1.1
Implementation Timeline

Streetscape improvements along both Highway 7 and Keele Street fit within existing Regional master plan timelines (Figure 4.1.1). The projected construction timeline is as follows:

2015 *
Highway 7 Improvements
Highway 7 & Keele Street Intersection
Keele Street Improvements

2016 *
Jardin Drive Gateway
Rockview Gardens Gateway
Hillside Avenue Gateway
Baldwin Avenue Gateway
Highway 7 add'l benches & bicycle racks

** Anticipated dates of commencement. Subject to change in accordance with Regional project timelines.*

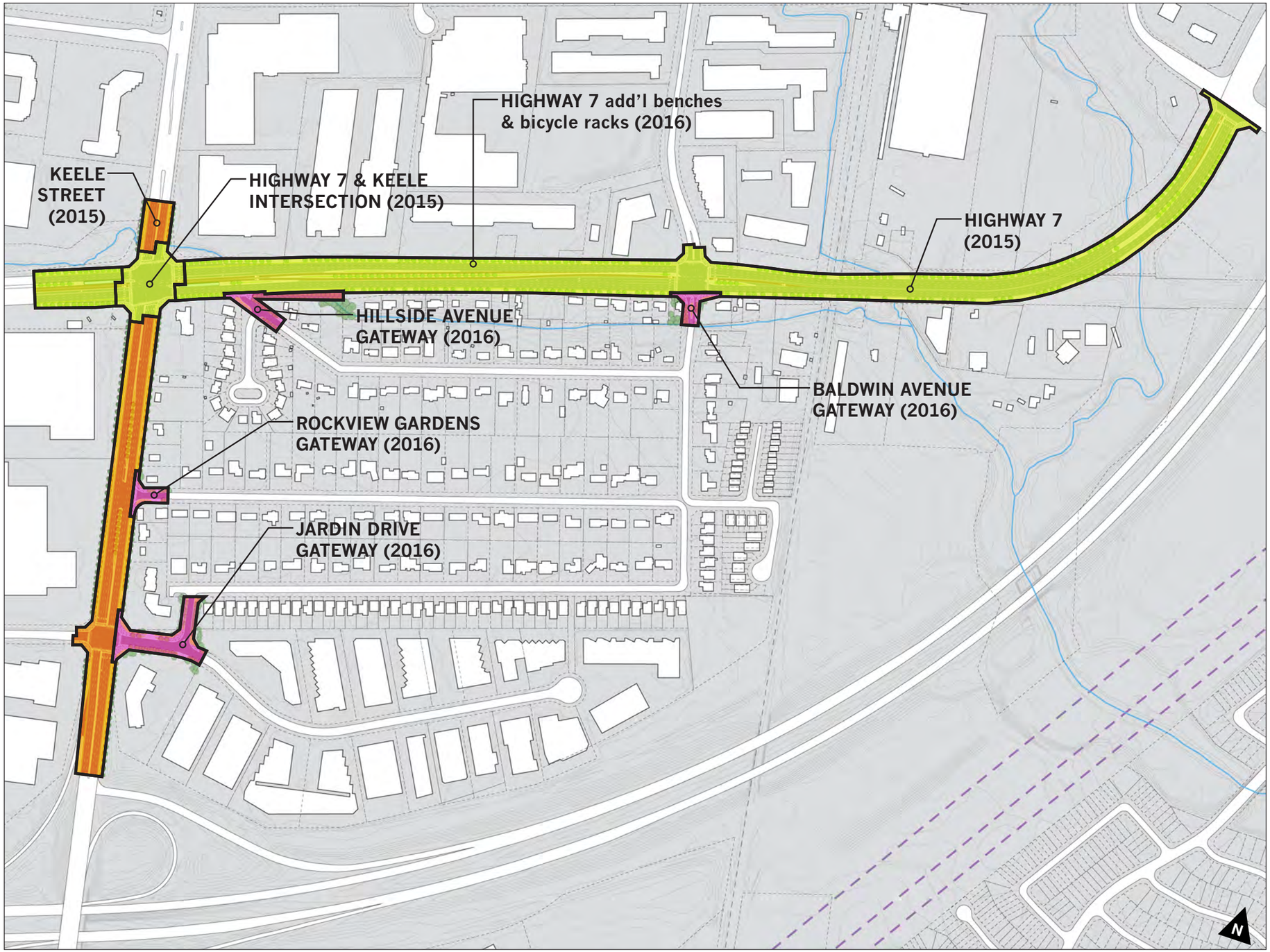


Figure 4.1.1 Streetscape Implementation Plan.

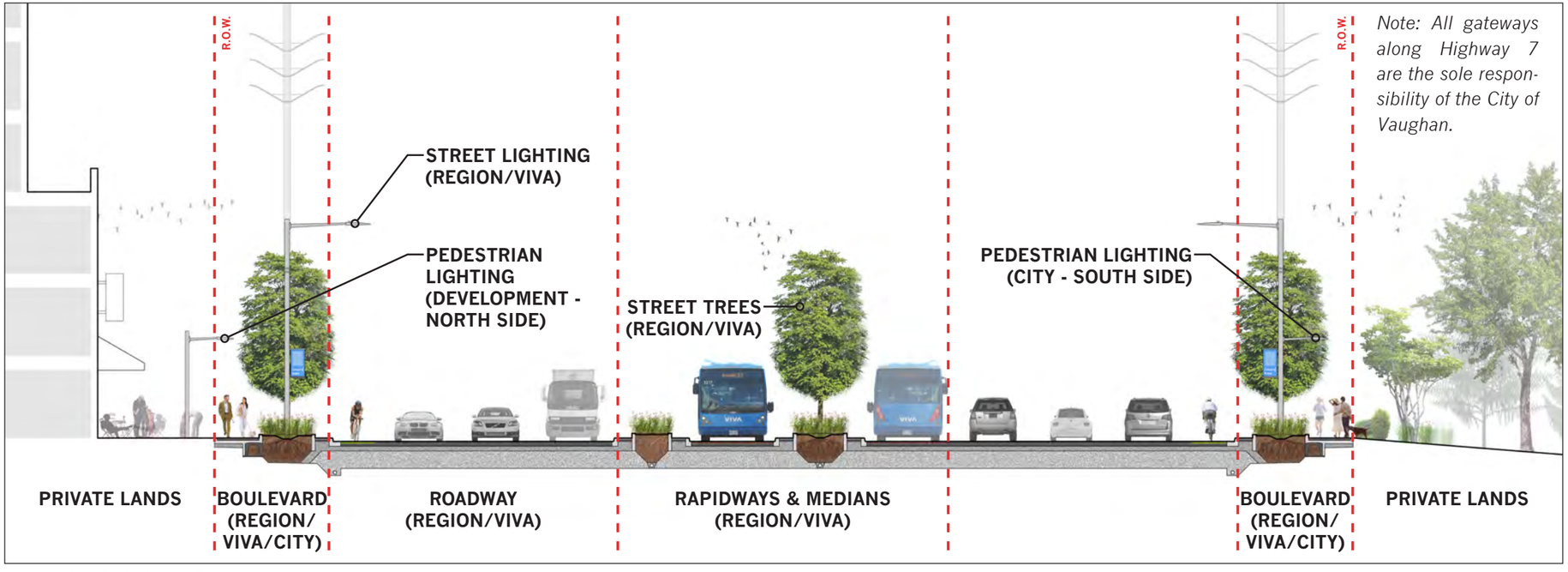


Figure 4.1.2 Highway 7 jurisdictional responsibilities.

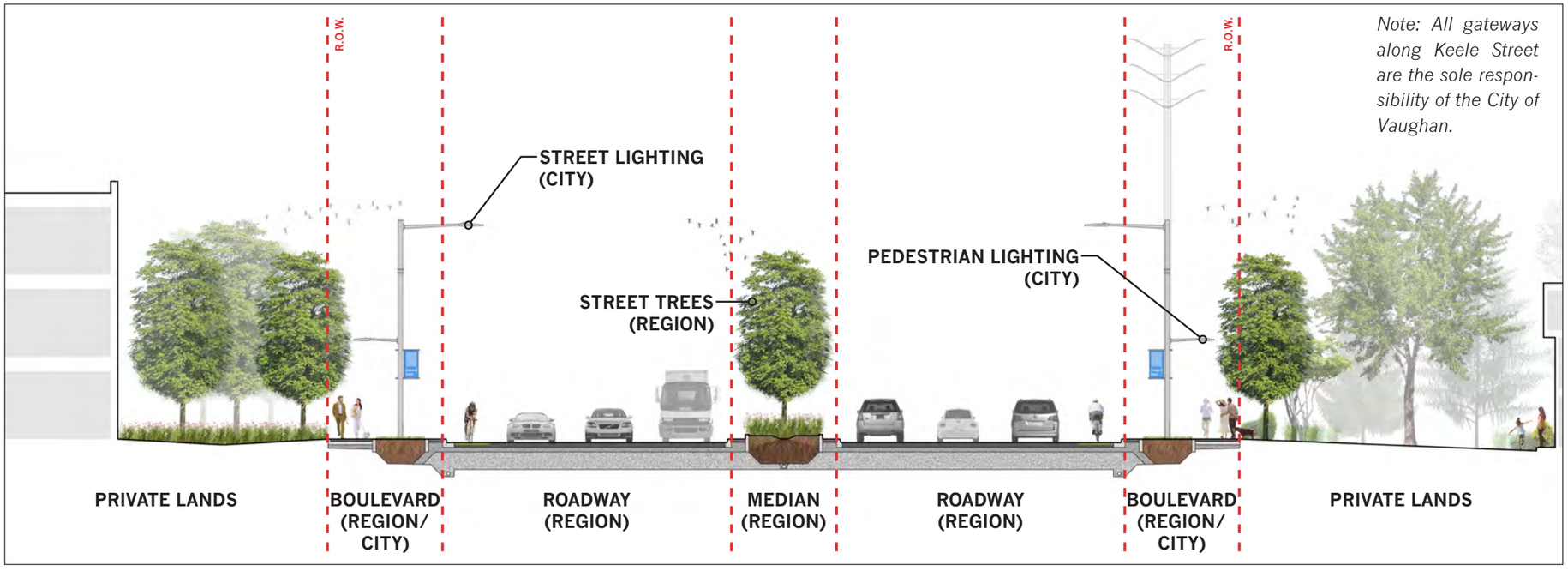


Figure 4.1.3 Keele Street jurisdictional responsibilities.

4.1.2 Jurisdictional Responsibilities

Highway 7
Within the Highway 7 right-of-way, York Region/Viva is responsible for the roadways, rapidways, medians, and street lighting. Boulevards are the shared responsibility of York Region/Viva and the City of Vaughan. Pedestrian lighting is a split responsibility between the City and private development (Figure 4.1.2).

Keele Street
Within the Keele Street right-of-way, York Region is responsible for the roadways and medians. Boulevards are the shared responsibility of York Region and the City of Vaughan - sidewalks, street lighting, and pedestrian lighting are to be maintained by the City and all other is maintained by the Region (Figure 4.1.3).

4.1.3 Funding Sources

Existing Funding Source
The *Municipal Streetscape Partnership Program* is a 50/50 cost-sharing capital program for streetscape projects on Regional roads. Local municipalities may apply to York Region to help fund enhanced sidewalk treatments, median treatments, street trees and landscaping, decorative lighting standards, and more.

Potential Funding Source
Costs for Highway 7 and Keele Street streetscape improvements have been included in the City of Vaughan's Development Charges Background Study, currently under review.

4.1.4
Enhancements to Regional Standards

Tables 4.1.4 and 4.1.5 each provide a matrix of design enhancements to Regional standards within the Concord West Highway 7 and Keele Street streetscapes, respectively. Deviation descriptions are provided, and cost implications for each design element are indicated. Individual cost estimates for each of the streetscapes and gateways follow in Section 4.2.

	DESIGN ELEMENTS	VIVANEXT BASE DESIGN COMPONENTS	CONCORD WEST DESIGN ENHANCEMENTS	COST IMPLICATIONS
1	Intersection Corner Paving	Unilock 'Umbriano' concrete pavers	Diagonal pattern with accent pavers	Yes
2	Sidewalk Paving	Concrete sidewalks	Unilock 'Umbriano' concrete pavers along north side of Highway 7	Yes
3	Intersection Ramp Paving	Unilock tactile grooved concrete pavers	No deviation	No
4	Street Lighting Fixtures	Philps Lumec 'Capella' series	No deviation	No
5	Pedestrian Lighting Fixtures	Not included	Philps Lumec 'Capella' (street pole fixtures and pedestrian poles)	Yes
6	Street Benches	VivaNext standard benches	Landscape Forms 'Neoromantico' benches (10 additional benches)	Yes
7	Waste Receptacles	VivaNext standard receptacles	Landscape Forms 'Select' receptacles	No
8	Bicycle Racks	VivaNext standard racks	Landscape Forms 'Ring' racks (15 additional racks)	Yes
9	Tree Grates & Side Inlets	VivaNext standard grates and inlets	Citygreen 'Clyde' grates	Yes
10	Street Trees	VivaNext standard trees	Preferred species (American Buckeye, Horse Chestnut, Pin Oak, Silver Maple)	No
11	Planting Bed Vegetation	VivaNext standard planting mix	Ornamental grasses (*Karl Foerster* or similar)	No
12	Crosswalks	VivaNext standard patterns	Custom diagonal patterns recommended	No
13	Street Banners	VivaNext standard banner arm brackets	No deviation	No
14	Hydro Poles	Relocate above ground poles	Upgrade to concrete poles when relocating	Yes
15	Bicycle Lanes	Uncoloured asphalt lanes	Integral colour lanes recommended	Yes
16	Gateways	Not included	Two gateways - Hillside Avenue and Baldwin Avenue	Yes

Table 4.1.4 Highway 7 deviation matrix.

	DESIGN ELEMENTS	REGION BASE DESIGN COMPONENTS	CONCORD WEST DESIGN ENHANCEMENTS	COST IMPLICATIONS
1	Intersection Corner Paving	Concrete sidewalks	Unilock 'Umbriano' concrete pavers (diagonal pattern with accents)	Yes
2	Sidewalk Paving	Concrete sidewalks	No deviation	No
3	Intersection Ramp Paving	Concrete ramps	Unilock tactile grooved concrete pavers	Yes
4	Street Lighting Fixtures	Region standard fixtures	Philps Lumec 'Capella' series (within 80m of Highway 7 intersection)	Yes
5	Pedestrian Lighting Fixtures	Not included	Philps Lumec 'Capella' series (within 80m of Highway 7 intersection)	Yes
6	Street Benches	Not included	No deviation	No
7	Waste Receptacles	Not included	No deviation	No
8	Bicycle Racks	Not included	No deviation	No
9	Tree Grates & Side Inlets	Not included	No deviation	No
10	Street Trees	Region standard trees	Preferred species (American Buckeye, Horse Chestnut, Pin Oak, Silver Maple)	No
11	Planting Bed Vegetation	Region standard planting mix	Ornamental grasses (*Karl Foerster* or similar)	No
12	Crosswalks	Region standard patterns	Custom diagonal patterns recommended	No
13	Street Banners	Not included	Banner arm brackets installed on 'Capella' street poles	Yes
14	Hydro Poles	Relocate above ground poles	Upgrade to concrete poles when relocating	Yes
15	Bicycle Lanes	Uncoloured asphalt lanes	Integral colour lanes recommended	Yes
16	Gateways	Not included	Two gateways - Jardin Drive and Rockview Gardens	Yes

Table 4.1.5 Keele Street deviation matrix.

4.2.1 Highway 7 Enhancements Cost Estimate

Item	Description	Quantity	Unit Type	Unit Upgrade Cost	Total Upgrade Cost
Intersection Corner Paving	Unilock 'Umbriano' concrete pavers (20cm x 40cm)				
	upgrade paving at Hillside Avenue gateway to match adjacent gateway paving	144	sq m	$150	$21,600
Sidewalk Paving	Unilock 'Umbriano' concrete pavers (20cm x 40cm)				
	upgrade north side of Highway 7 between Keele Street and Bowes Road to unit pavers	1,168	sq m	$150	$175,200
Continuity Strip	Unilock 'Eco-Priora' concrete pavers (24cm x 24cm)				
	upgrade from standard to custom colour and finish to match specified 'Umbriano' pavers	3,400	sq m	$10	$34,000
Intersection Ramp Paving	Unilock 'Umbriano' CNIB-approved grooved concrete pavers (30cm x 60cm)				
	no product upgrade from VivaNext standard	110	sq m	$0	$0
Lighting Fixture, Type 1a	Philips Lumec 'Capella' series pedestrian fixture (40m spacing)				
** south side only*	*supply and install pedestrian fixture only, mounted to VivaNext provided 30' street poles*	42	each	$2,650	$111,300
Lighting Fixture, Type 2	Philips Lumec 'Capella' series 14' street pole and pedestrian fixture (40m spacing)				
** north side by development*	*supply and install pole and fixture, alternate with Type 1a*	39	each	$4,960	$193,440
Street Benches	Landscape Forms 'Neoromantico' bench				
	VivaNext to provide at intersections as per standards	20	each	$0	$0
	add benches on north side of Highway 7 between Keele Street and Bowes Road (60m spacing)	10	each	$2,000	$20,000
Waste Receptacles	Landscape Forms 'Select' 3-stream waste receptacle				
	VivaNext to provide at intersections as per standards	11	each	$0	$0
Bicycle Racks	Landscape Forms 'Ring' bicycle rack				
	VivaNext to provide at intersections as per standards	12	each	$0	$0
	add racks on north side of Highway 7 between Keele Street and Bowes Road (40m spacing)	15	each	$525	$7,875
Tree Grates	Citygreen 'Clyde' grate (2m x 2m)				
	product upgrade from VivaNext standards; provided at intersections as per standards	30	each	$470	$14,100
Street Trees	Preferred species (American Buckeye, Horse Chestnut, Pin Oak, Silver Maple)				
	no cost upgrade from VivaNext standards	305	each	$0	$0
Planting Beds	Ornamental grasses (*Karl Foerster* or similar)				
	no cost upgrade from VivaNext standards	4,063	sq m	$0	$0
Crosswalks	StreetPrint XD (custom pattern)				
	no cost upgrade from VivaNext standards	321	sq m	$0	$0
Street Banners	Banner arms (supply brackets only)				
	no product upgrade from VivaNext standards	84	each	$0	$0
Bicycle Lanes	Integral colour lanes (recommended)				
	cost implications to be determined by VivaNext in the future	1,647	lm	TBD	TBD
Electrical Poles	Upgrade to concrete poles when relocating				
	cost implications to be determined in the future	71	each	TBD	TBD
				Total	**$577,515**

Note: This cost estimate is intended for planning purposes only.

4.2.2 Keele Street Enhancements Cost Estimate

Item	Description	Quantity	Unit Type	Unit Upgrade Cost	Total Upgrade Cost
Intersection Corner Paving	Unilock 'Umbriano' concrete pavers (20cm x 40cm)				
	upgrade at Gateway corners, as illustrated in streetscape master plan drawings	336	sq m	$150	$50,400
	install additional concrete base to support added concrete pavers	148	sq m	$100	$14,800
Sidewalk Paving	Concrete paving				
	no product upgrade from Region standards	TBD	sq m	$0	$0
Continuity Strip	Concrete splash strip				
	no product upgrade from Region standards	1,146	sq m	$0	$0
Intersection Ramp Paving	Unilock 'Umbriano' CNIB-approved grooved concrete pavers (30cm x 60cm)				
	upgrade intersection ramps at Gateways to complement adjacent concrete pavers	30	sq m	$235	$7,050
Lighting Fixture, Type 1b	Philips Lumec 'Capella' series 30' street pole, light, and pedestrian fixture (40m spacing)				
	supply and install within 80m of Highway 7 intersection to match standard along Highway 7	12	each	$10,600	$127,200
Lighting Fixture, Type 2	Philips Lumec 'Capella' series 14' street pole and pedestrian fixture (40m spacing)				
** alternate with Type 1b*	*supply and install within 80m of Highway 7 intersection to match standard along Highway 7*	8	each	$4,960	$39,680
Street Benches	Landscape Forms 'Neoromantico' bench				
	no street benches included along Keele Street	0	each	$2,000	$0
Waste Receptacles	Landscape Forms 'Select' 3-stream waste receptacle				
	no waste receptacles in public right-of-way along Keele Street	0	each	$3,800	$0
Bicycle Racks	Landscape Forms 'Ring' bicycle rack				
	no bicycle racks included along Keele Street	0	each	$525	$0
Tree Grates	Citygreen 'Clyde' grate (2m x 2m)				
	no tree grates included along Keele Street	0	each	$4,345	$0
Street Trees	Preferred species (American Buckeye, Horse Chestnut, Pin Oak, Silver Maple)				
	no cost upgrade from Region standards	130	each	$0	$0
Planting Beds	Ornamental grasses (Karl Foerster or similar)				
	no cost upgrade from Region standards	406	sq m	$0	$0
Crosswalks	StreetPrint XD (custom pattern)				
	no cost upgrade from Region standards	111	sq m	$0	$0
Street Banners	Banner arms (supply brackets only)				
	supply and install only on Lighting Fixture Type 1b	12	each	$375	$4,500
Bicycle Lanes	Integral colour lanes (recommended)				
	cost implications to be determined by Region in the future	1,394	lm	TBD	TBD
Electrical Poles	Upgrade to concrete poles when relocating				
	cost implications to be determined in the future	18	each	TBD	TBD
				Total	**$243,630**

Note: This cost estimate is intended for planning purposes only.

4.2.3 Jardin Drive Gateway Cost Estimate

Item	Description	Quantity	Unit Type	Unit Cost	Total Cost
Site Preparation	General clearing, stripping of topsoil, and rough grading (where necessary)	1,710	sq m	$8	$13,680
Sidewalk Removal	Removal of existing concrete sidewalks as required to accommodate new layout	100	lm	$15	$1,500
Unit Pavers	Unilock 'Umbriano' concrete pavers	500	sq m	$305	$152,500
Sidewalks	Concrete paving	224	sq m	$120	$26,880
Gateway Walls	Dry-stacked stone walls (40cm width, seat height, stone coping)	87	lm	$1,365	$118,755
Gateway Planting Beds	Wildflowers and ornamental grasses	517	sq m	$170	$87,890
Lawn	Sod	355	sq m	$12	$4,260
Gateway Trees	Kentucky Coffeetree (Gymnocladus dioicus, large caliper)	23	each	$1,110	$25,530
Street Benches	Landscape Forms 'Neoromantico' bench	2	each	$2,000	$4,000
Bicycle Racks	Landscape Forms 'Ring' bicycle rack	2	each	$525	$1,050
Lighting Fixture, Type 3a	Escofet 'FUL' series (FUL-5)	7	each	$6,190	$43,330
Lighting Fixture, Type 3b	Escofet 'FUL' series (FUL-7/9)	7	each	$9,130	$63,910
Lighting Fixture, Type 3c	Escofet 'FUL' series (FUL-7/10)	6	each	$8,370	$50,220
				Total	**$593,505**

4.2.4 Rockview Gardens Gateway Cost Estimate

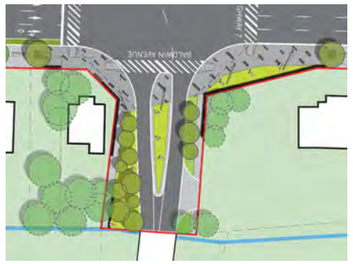
Item	Description	Quantity	Unit Type	Unit Cost	Total Cost
Site Preparation	General clearing, stripping of topsoil, and rough grading (where necessary)	435	sq m	$8	$3,480
Unit Pavers	Unilock 'Umbriano' concrete pavers	95	sq m	$305	$28,975
Sidewalks	Concrete paving	87	sq m	$120	$10,440
Gateway Walls	Dry-stacked stone walls (40cm width, seat height, stone coping)	39	lm	$1,365	$53,235
Gateway Planting Beds	Wildflowers and ornamental grasses	100	sq m	$170	$17,000
Lawn	Sod	125	sq m	$12	$1,500
Gateway Trees	American Buckeye (Aesculus glabra, large caliper)	3	each	$930	$2,790
Lighting Fixture, Type 3a	Escofet 'FUL' series (FUL-5)	2	each	$6,190	$12,380
Lighting Fixture, Type 3b	Escofet 'FUL' series (FUL-7/9)	1	each	$9,130	$9,130
Lighting Fixture, Type 3c	Escofet 'FUL' series (FUL-7/10)	4	each	$8,370	$33,480
				Total	**$172,410**

4.2.5 Hillside Avenue Gateway Cost Estimate

Item	Description	Quantity	Unit Type	Unit Cost	Total Cost
Site Preparation	General clearing, stripping of topsoil, and rough grading (where necessary)	615	sq m	$8	$4,920
Unit Pavers	Unilock 'Umbriano' concrete pavers	51	sq m	$305	$15,555
Sidewalks	Concrete paving (includes existing driveway reconstruction)	207	sq m	$120	$24,840
Gateway Walls	Dry-stacked stone walls (40cm width, seat height, stone coping)	54	lm	$1,365	$73,710
Gateway Planting Beds	Wildflowers and ornamental grasses	96	sq m	$170	$16,320
Watercourse Planting Bed	Seed with native grasses	880	sq m	$0.50	$440
Lawn	Sod	225	sq m	$12	$2,700
Gateway Trees	Greenspire Linden (Tilia cordata 'Greenspire', large caliper)	18	each	$860	$15,480
Watercourse Trees	Black Willow (Salix nigra, large caliper)	24	each	$900	$21,600
Lighting Fixture, Type 3a	Escofet 'FUL' series (FUL-5)	4	each	$6,190	$24,760
Lighting Fixture, Type 3b	Escofet 'FUL' series (FUL-7/9)	4	each	$9,130	$36,520
Lighting Fixture, Type 3c	Escofet 'FUL' series (FUL-7/10)	1	each	$8,370	$8,370
				Total	**$245,215**

Note: These cost estimates are intended for planning purposes only.

4.2.6 Baldwin Avenue Gateway Cost Estimate



Item	Description	Quantity	Unit Type	Unit Cost	Total Cost
Site Preparation	General clearing, stripping of topsoil, and rough grading (where necessary)	355	sq m	$8	$2,840
Unit Pavers	Unilock 'Umbriano' concrete pavers (upgrade median from concrete to unit pavers, as drawn)	24	sq m	$185	$4,440
Sidewalks	Concrete paving	87	sq m	$120	$10,440
Gateway Walls	Dry-stacked stone walls (40cm width, seat height, stone coping)	55	lm	$1,365	$75,075
Gateway Planting Beds	Wildflowers and ornamental grasses	213	sq m	$170	$36,210
Lawn	Sod	45	sq m	$12	$540
Gateway Trees	Freeman Maple (Acer x freemani, large caliper)	14	each	$890	$12,460
Lighting Fixture, Type 3a	Escofet 'FUL' series (FUL-5)	3	each	$6,190	$18,570
Lighting Fixture, Type 3b	Escofet 'FUL' series (FUL-7/9)	4	each	$9,130	$36,520
Lighting Fixture, Type 3c	Escofet 'FUL' series (FUL-7/10)	5	each	$8,370	$41,850
				Total	**$238,945**

Note: This cost estimate is intended for planning purposes only.

.....A collaboration between Janet Rosenberg & Studio, the City of Vaughan, and the Concord West community.

completed by:

JanetRosenberg&Studio

Landscape Architecture and Urban Design