

39 - 67 DUNLOP STREET WEST &
35 - 37 MARY STREET
CITY OF BARRIE
ONTARIO

URBAN DESIGN REPORT



FILE NO. 9354

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PREPARED FOR: BARRIE WATERFRONT DEVELOPMENTS INC.



**WESTON
CONSULTING**
planning + urban design

An aerial photograph of a city grid, likely Chicago, with a blue tint. The image shows a dense network of streets and buildings. In the bottom right corner, there is a large, solid black curved shape that partially obscures the city view.

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INTRODUCTION



INTRODUCTION

This Urban Design Report [the Report or UDR], has been prepared by Weston consulting on behalf of Barrie Waterfront Developments Inc. This report describes the urban design vision, objectives and rationale for a proposed high-rise mixed-use development with residential apartments and retail space. The development includes a provision for future flexible live/work units within the podium.

The site of the proposed development is located in the City of Barrie in the Downtown core. Barrie Transit Terminal lies immediately to the south of the development site. The site is bounded by Dunlop Street West to the North, Mary Street to the West and Maple Avenue to the East. The site lies within 150 meters of the waterfront and Kempenfelt Bay. See Figure 1. The Report demonstrates the suitability of the proposed development on this site in terms of good urban design practice and compatibility with the existing built environment. The report also demonstrates

the valuable contributions of the development towards intensification goals and the diversification of building stock within Downtown Barrie, whilst complimenting the existing built environment and enhancing the skyline along Kempenfelt Bay waterfront.

This report is in support of applications for a Zoning By-Law Amendment application. The application is required to facilitate the proposed development. This Report is intended to be read and considered in conjunction with the Planning Justification Report prepared by Weston Consulting, together with additional documents submitted with this application.

It should be noted that the text and images contained in this document are conceptual representations of the intended vision and character of this development. They should not be interpreted as literal representations of the proposed development.



Figure 1: Project Location within the Downtown Barrie Urban Growth Centre

1. DESIGN VISION AND OBJECTIVES



1. DESIGN VISION & GUIDING PRINCIPLES

The design vision is to rejuvenate Downtown Barrie with a development that supports intensification, increased transit usage, housing diversity and elevates the building and public realm aesthetic. Consisting of two high-rise building anchored to a podium, the development renders high quality architecture and urban design. The contemporary architectural expression will help develop a new style in the area while the slender forms of the towers signify the site's strategic location near the waterfront.

The development will integrate with the existing and planned surrounding context by offering a compatible built form design and by building on the existing road and other connective infrastructure. The development seeks to encourage mid-block connections and access and linkages to the waterfront where there are several landmarks and key destinations.

The development will also compliment the future Farmer's Market that is to be integrated with the existing Barrie Transit Terminal just south of the site. This will be achieved through a new mid-block connection through the buildings from Dunlop Street West to the waterfront, encouraging transit to the waterfront. The design intent of allowing flexible grade related uses in the podium in the form of live/work units will animate the blocks edges and enhance the future farmers market. The iconic style of the building and the street edge treatment of a human-scaled,

finer grain urban fabric will contribute to creating a unique sense of place.

The following core design principles inform the vision:

- Develop a built form that accommodates intensification but at the same time remains sensitive to the site surroundings and does not create adverse impacts on the existing built environment;
- Enhance views to and from the waterfront of Kempenfelt Bay;
- Reinforce existing and create new access routes and linkages to the waterfront, pedestrian and cycling trails and to local landmarks;
- Develop a sustainable phasing plan with built-in flexibility for future uses;
- Provide high-quality landscaping and planting, including tree planting for the neighbouring public realm;
- Establish a development of high architectural quality that is mixed-use and diversifies the existing building typologies within the locale;
- Provide active frontages along Dunlop Street West for retail use and that interact with existing frontages, particularly those which adjoin the Transit Terminal, and;
- Incorporate best practices in sustainable design to reduce its carbon footprint.



Figure 2: Photograph of the Downtown Skyline of Barrie

2. CONTEXT ANALYSIS



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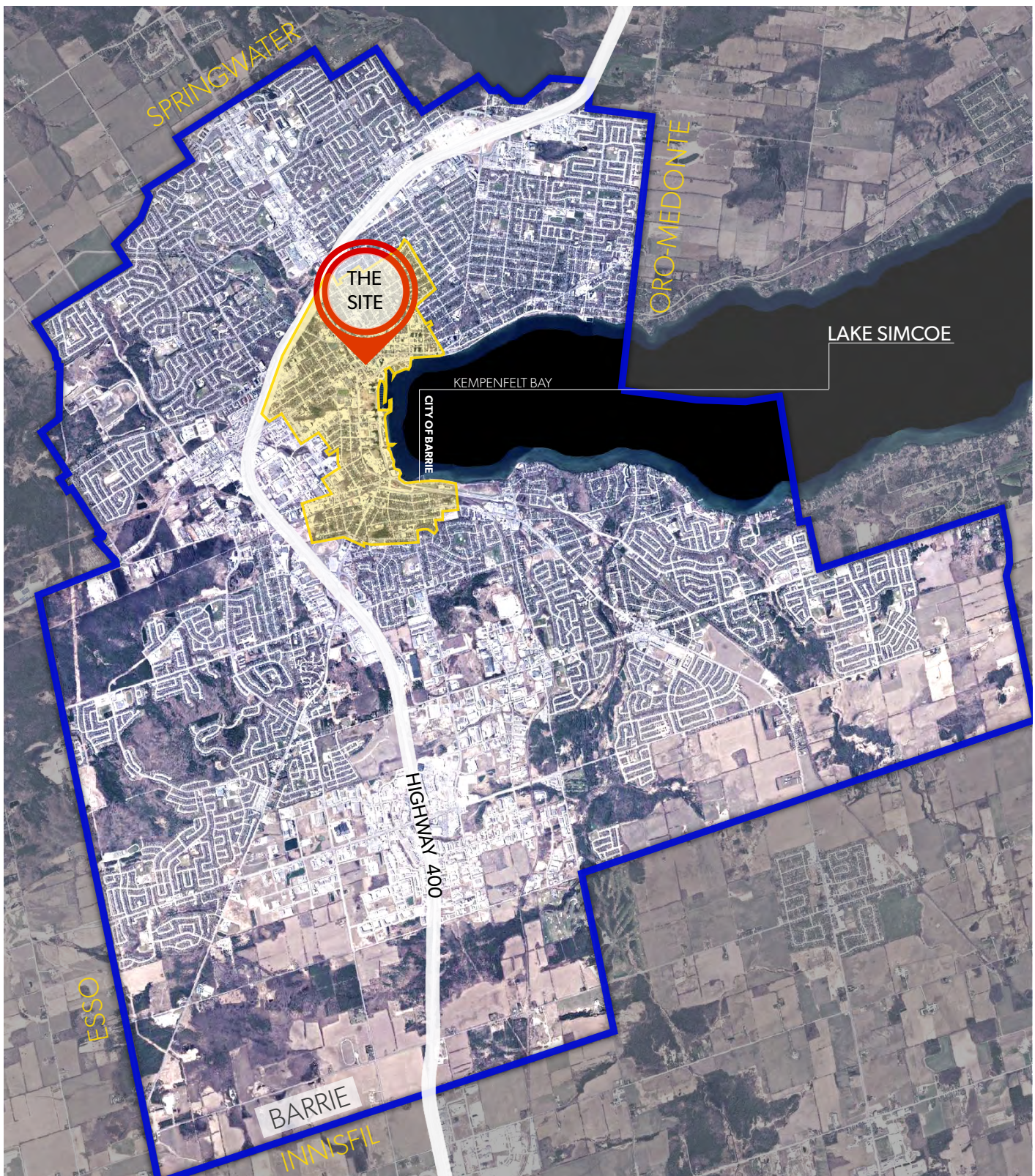


Figure 3: Site location within the wider city of Barrie and Urban Growth Centre, showing neighbouring Township context

2.1 OVERVIEW

The subject lands lie within Downtown Barrie, north of the Marina at Kempenfelt Bay. The local context is a mix of land uses. The site is bounded by primarily mixed use along Dunlop Street West, Maple Avenue and Mary Street. Commercial uses are concentrated to the north and west of the site, with office uses primarily along Collier Street and Dunlop Street.

A high-rise mixed use development is located adjacent to the subject lands at 15 Maple Avenue. This development is 16 storeys with retail at ground and residential floors above.



Figure 4: Rendering of building showing a Mixed-Use Podium and surrounding public realm

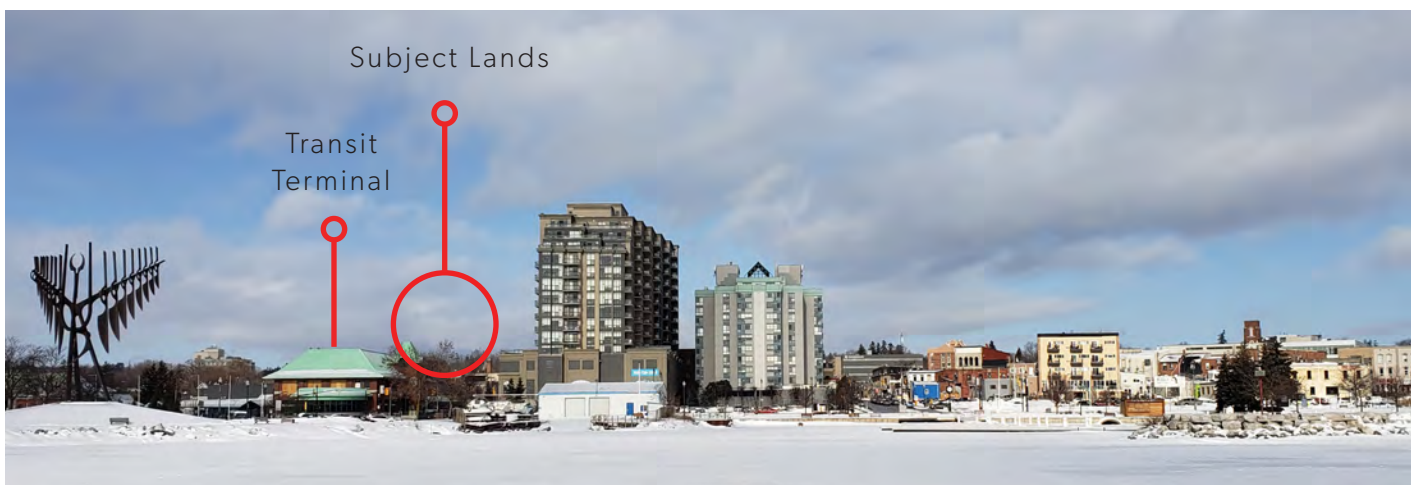


Figure 5: Photograph from Kempenfelt Bay towards Downtown Barrie showing proximity to the Barrie Transit Terminal

2.2 EXISTING NATURAL FEATURES

According to the site survey conducted in 2018, the subject lands lie on flat ground. However, there is a general slope of the land including Maple Avenue and Mary Street to the southeast towards the waterfront.

A total of 23 trees were inventoried near the site: one lies on the subject lands and is identified as an 'invasive species'. Two are nearby along Dunlop Street. A further twenty trees are on the neighbouring Barrie Go Transit terminal lands which include a line of trees located in the

south west corner of the lands, forming a natural barrier between it and the subject lands.

The site is considered to be an extreme example of an urban environment [see Figure 6], and has no significant natural features to speak of.



Figure 6: Aerial closeup of the site showing urban conditions, Google Earth 2019

2.3 LOT FABRIC AND GENERAL STREET BLOCK PATTERN

The street block pattern is generally of a grid iron layout with rectangular urban blocks. The subject site lies within the block bounded by Dunlop Street West to the north, Simcoe Street to the south, Maple Avenue to the east and Mary Street to the west.

The blocks east and west are of similar block dimensions, details of which are provided in Figure 7. The design intent behind the new development scheme is to create

a finer grain of urban fabric and improve permeability by proposing a mid-block pedestrian arcade. This will link Dunlop Street West to the waterfront to access the Heritage trail that runs along the waterfront of Kempenfelt Bay, also providing walking and biking access to other landmarks and neighbourhoods within Barrie.

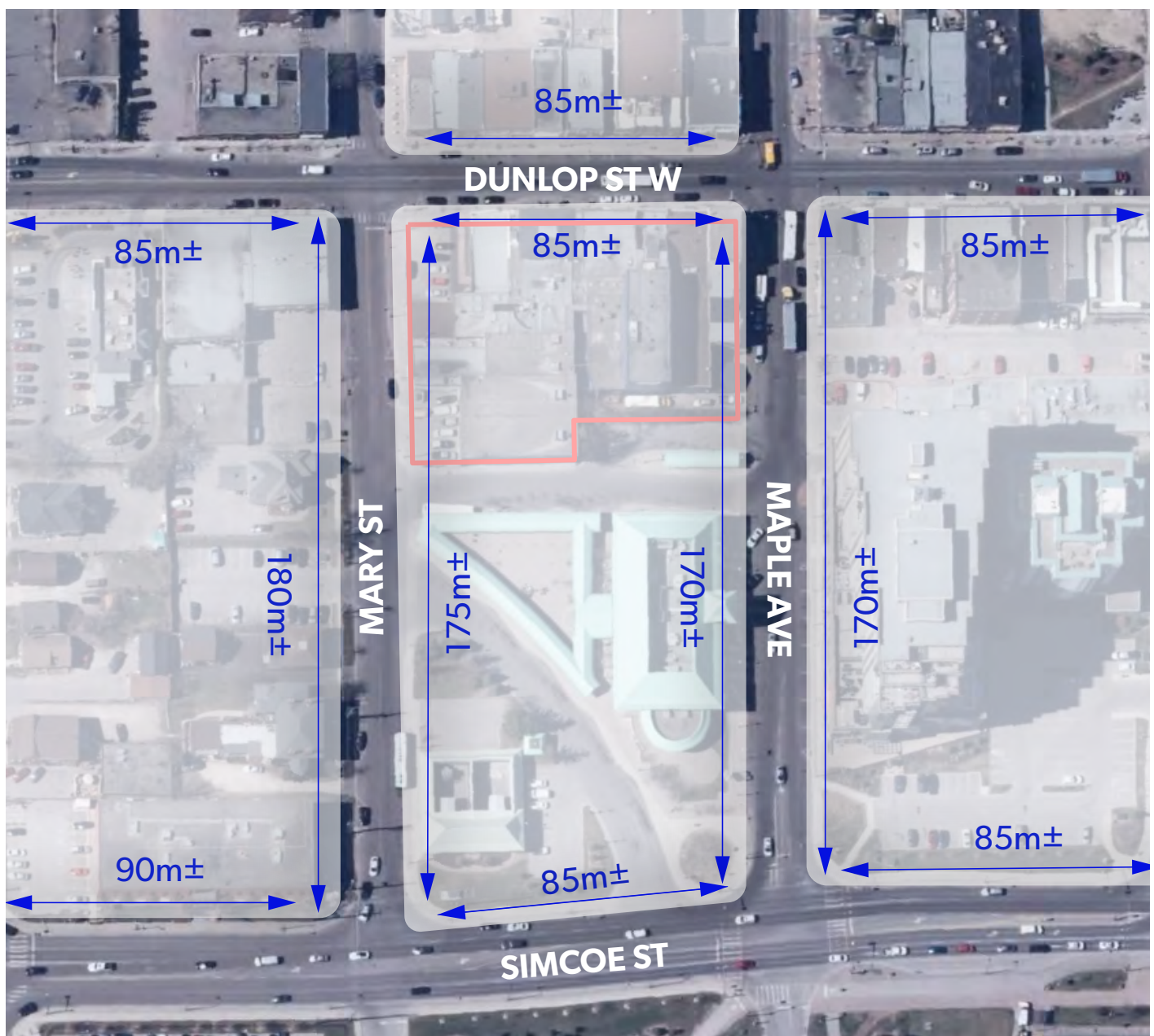


Figure 7: Site location with surrounding approximate block dimensions

2.4 BUILT FORM CHARACTER OF SURROUNDING ENVIRONMENT

Generally, the City Centre is mid-rise, with the exception of several high-rise residential buildings located closer to the waterfront. Other residential uses elsewhere within Barrie are mainly low-rise and located northward towards Queens Park. Dunlop Street West’s commercial strip typically consists of low-rise two storey retail concentrated where an abundance of restaurant and retail uses are located. Several proposed developments within Barrie [specifically Ward

2 in which the subject lands fall] indicate a trend towards increased heights in this ward. In proximity to the subject lands, these include the proposed 20 storey ‘5 Points’ development at 2-14 Dunlop Street West, 43 & 45 Maple Avenue, 30-42 Bayfield Street and a development consisting of 6, 8 and 20 storey buildings at 53, 55, 59, 61, 67 Owen St; 70-74, 76, 78 Worsley St and 55, 57 McDonald Street. See Figure X.



Figure 8: Illustration of existing and proposed high-rise buildings within the site vicinity in relation to Barrie Waterfront Skyline



Figure 9: Views along Dunlop Street West

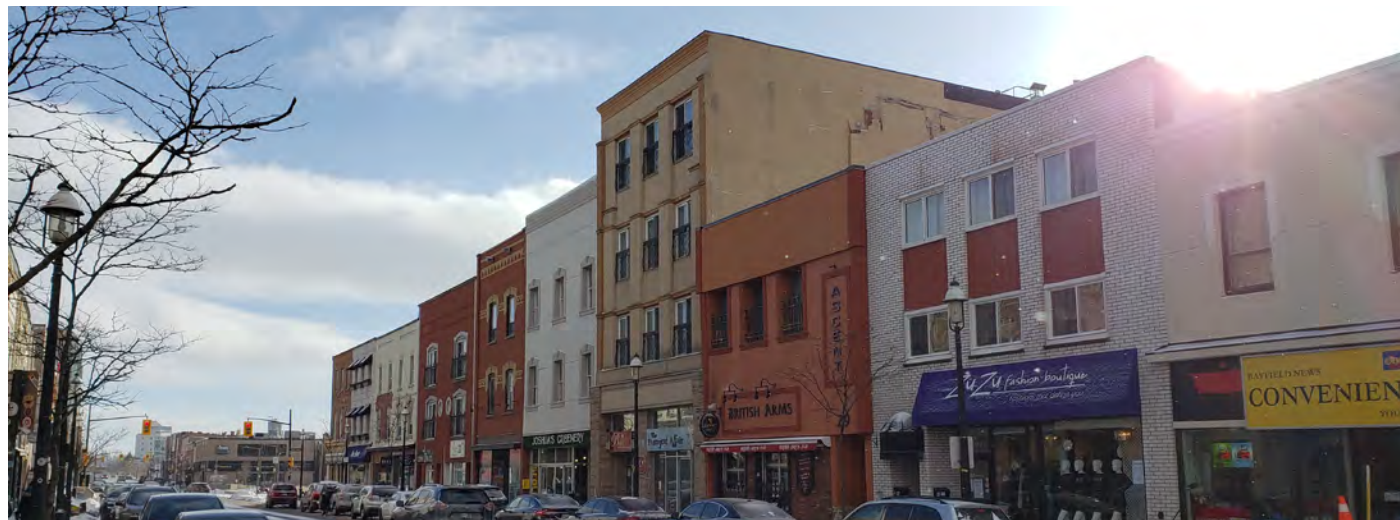


Figure 10: Views along Dunlop Street East



Figure 11: Examples of residential properties adjacent to mixed-use

The proposed development is located in the Downtown of the City of Barrie, immediately north of Kempenfelt Bay. The area is characterized by walkable commercial main streets with residential buildings of a mix of ages and types [see Figures 8-12]. High-rise development is concentrated towards the waterfront with a mix of mid and low-rise buildings within the Downtown area. There is a range of commercial and other retail activity concentrated along Dunlop Street West and East bordering the site to the north.



Figure 12: Examples of residential properties adjacent to mixed-use



Figure 13: Examples of residential properties near to subject lands



Figure 14: Views along Mulcaster Street away from the Waterfront



Figure 15: Views along Mulcaster street towards the Heritage Park and Waterfront



Figure 16: Views from the Cenotaph towards the waterfront

2.5 SURROUNDING LAND USES



Figure 17: Surrounding Land Use Context Map

The land uses immediately surrounding the subject lands are primarily mixed use. Commercial and retail activity is concentrated near the subject lands, including some residential apartments on upper floors. Increases of office uses are evident farther west.

Dunlop Street West is located immediately north of the subject lands with a row of two-storey commercial buildings facing.

The existing City of Barrie Transit Terminal is located immediately south of the subject lands with Simcoe Street beyond, including the Spirit Catcher Park and Heritage Park fronting Kempenfelt Bay.



Figure 18: Photograph of existing Barrie GO Transit Terminal with subject lands visible



Figure 19: Sketch of proposed future Farmers Market at Barrie Go Terminal building

Mary Street is located to the west of the subject lands. This area consists of mainly low-rise commercial buildings with surface parking lots. A series of green spaces, including Centennial Park, form a natural open network between the waterfront and Simcoe street, beyond which the transit station and subject lands lie. Multiple parkettes are located elsewhere in the city centre. The landmarks of Barrie are also located within easy access both on foot and Bicycle along the waterfront.

Office uses are concentrated to the west of Downtown Barrie with public services such as libraries and Barrie City Hall clustered in close proximity.

An abundance of educational facilities lie near to the subject lands which include a music school to the south east and college to the north.



Figure 20: Barrie Public Library from Worsley Street



Figure 21: Current site condition, view onto subject lands from Maple Avenue

2.6 VIEWS

Key views from the site are located along Maple Avenue towards the waterfront where the Spirit Catcher sculpture is located. There are other direct views from the subject

property to the waterfront along Mary Street. The waterfront is visible from the subject property along both Mary Street and Maple Avenue.



Figure 22: View from Spirit Catcher towards the site looking north



Figure 23: View of site from the north, corner of Dunlop Street West and Mary Street



Figure 24: View of Kempenfelt bay looking East



Figure 25: View from the site along Maple Avenue to the waterfront and the Spirit Catcher

2.7 LANDMARKS

There are several key landmarks in Barrie within proximity of the site. A significant landmark is the Spirit Catcher sculpture, located along the waterfront approximately 230m from the site. The Spirit Catcher represents the Aboriginal People of Canada and was designed by sculptor Ron Baird. It has been located in Barrie since 1987.

The Barrie Cenotaph is a memorial to the soldiers of World War One and stands in an open green space overlooking Kempenfelt Bay. The Cenotaph is connected by a series of pedestrian paths which cross Simcoe Street into Heritage Park which runs along the waterfront. It is approximately 300m from the site. The Heritage Park is a gateway to the Barrie North Shore trail which runs along the waterfront to the east and south towards the marina.



Figure 26: The Spirit Catcher Sculpture looking south over Kempenfelt Bay



Figure 27: The Barrie Cenotaph Looking north away from the waterfront

2.8 TRANSPORTATION NETWORK AND KEY LINKAGES

Dunlop Street West is designated as an Arterial Road per Schedule D of the Barrie Official Plan. These are the primary thoroughfares across and within the City. Bayfield Street and Dunlop Street West are key transport corridors connecting transit in Downtown Barrie with Highway 400. Local transit stops are concentrated in the

Downtown core surrounding the site. Key public services, landmarks and public amenity are within short walking distances of the site:

Barrie City Hall - 7 minutes
Barrie Marina - 5 minutes]
Cenotaph - 3 minutes



Figure 28: Key Transportation Networks Map

Figure 29 illustrates the strategic importance and potential of the proposed development in facilitating intensification and improving accessibility to and connectivity to the waterfront, fully embracing the opportunities for increased

pedestrian linkages along mixed-use and retail corridors. Mid-block connectivity is key, as well as the enhancement of pedestrian space in the local public realm.

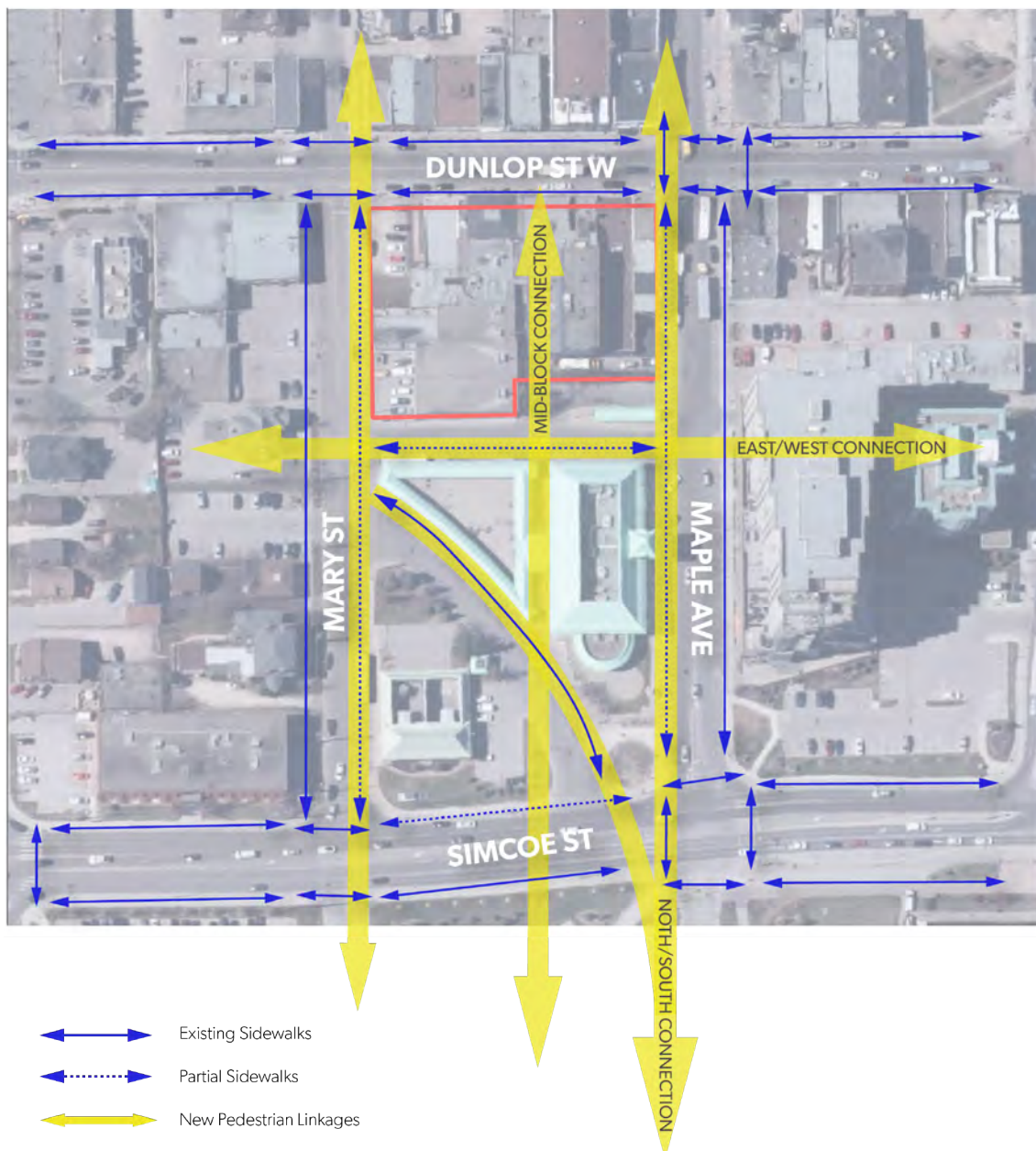


Figure 29: Key existing and proposed pedestrian linkages

3. POLICY CONTEXT



3. POLICY CONTEXT

3.1 URBAN DESIGN GUIDELINES OF THE OFFICIAL PLAN

The City of Barrie Urban Design Guidelines were read in the context of the City of Barrie's Strategic Plan and Official Plan.

Section 6.5 of the Urban Design Guidelines of the City of Barrie Official Plan identifies the following key goal:

"To provide, through urban design policies and guidelines, a framework for the development and maintenance of a convenient, safe, efficient and aesthetically pleasing urban environment"

Considering the above in application to the proposed development, the development is a sympathetic response to policy goals as well as to the contexts of the local economy, transportation, population growth, and in the site's proximity to the waterfront of Kempenfelt Bay.

3.1.1 General Design Guidelines of the OP

The following paragraphs include discussions of how the proposed development responds to the relevant urban design policies of the OP:

1. Policy 6.5.2.2 [a] Building and Sitting

In response to this Policy, the proposed development establishes a built form that emphasizes its strategic location in the City Centre with two slender towers on a podium. The towers will create a bold presence in the area symbolizing the growth potential of Downtown Barrie as well as complimenting existing and planned mixed-use built forms within its vicinity. [See Figure 8 for existing and planned high-rise buildings].

The six-storey podium anchors the towers in the urban context and establishes an animated street-level environment. The potential future live/work use of the podium will further animate the street level environment within a finer grain of urban fabric and compliment the potential future use of the existing Transit Terminal as

a farmers market. The commercial component of the development aids in activating the local realm and creates retail engagement spanning from Dunlop Street West through the Transit Terminal and future farmers market towards the waterfront.

Additionally, the project strives to create a desirable community character through its contemporary style of design and massing. Each corner of the building is unique in terms of style and features, creating a unique design whilst retaining essential gateways from all sides. The pedestrian environment is emphasized and enhanced by the human-scaled, active podium edges and mid-block connections which lead to and from Dunlop Street to the farmers market and beyond to the waterfront where special surface treatments are envisioned to provide greater legibility to this key linkage in Downtown Barrie.

All rooftop mechanical equipment will be screened from public view with integrated roof design or architectural screening devices. All visible sides of the towers and podium from the public realm will be treated in a visually attractive manner with no blank walls and all servicing held internally.

Building entrances will be well-designed through built form expression/articulation and the use of signage and/or canopies. Entrances to residential lobbies and retail uses are directly accessible from the sidewalk pedestrian areas. All entrances will be universally accessible.

All pedestrian sidewalks and connections will be adequately illuminated at night for the safety of pedestrians. The site addresses both of its corners by wrapping around the podium and the retail frontage. Thus, the design emphasizes the pedestrian scale and not the car. Increased setbacks and built form articulation will help accommodate landscaping and pedestrian amenities, details of which will be provided at future design stages.

2. Policy 6.5.2.2 [b] Parking Areas

Vehicular access points are limited to the two side streets. These are linked with a single internal driveway and ramp leading to the internal parking structure from floors 2 to 6. The integration of these areas minimizes impacts on Dunlop Street West.

Disability parking spaces are provided within the parking floors 2 – 6. These are conveniently located close to building entrances and elevators for ease of access. The majority of loading and delivery areas as well as garbage enclosures are contained within the building to conceal them from the street. See Figure 41 for parking.

3. Policy 6.5.2.2 [c] Landscaping

Future iterations of the design will explore the provisions for planting, lighting and seating where possible and appropriate. Landscaping design will seek to utilize native vegetation and water conservation practices.

4. Policy 6.5.2.2 [d] Environmental Features

The site in its present state reflects an extreme urban condition void of landscaping and vegetation. The proposed development may consider design strategies for greening the immediate urban environment through the use of green roofs, the planting of native street trees and street landscaping where feasible in coordination with Barrie Parks Department.

5. Policy 6.5.2.2 [e] Signage

Any signage associated with the development will compliment and improve legibility of the surrounding area through good quality design and responds well to surrounding building materials.

6. Policy 6.5.2.2 [f] Utilities

Best efforts will be made to minimize the visual impact of utilities by considering innovative methods of integrating them with streetscaping features and/or clustering them

together to minimize overall impacts and keeping to the side streets.

7. Policy 6.5.2.2 [g] Energy Efficient Urban Design

In response to this policy, the development establishes a compact urban form that is transit oriented. The development facilitates active modes of transportation such as walking and cycling. Housing and employment opportunities are provided on the site through the grade related retail use and future live/work flexible usage for the units.

3.1.2 City Centre Urban Design Policies

Policy 6.5.2.3 City Centre Guidelines

In addition to the policies contained in Section 6.5.2.2 of the OP, the proposed development is subject to the policies of Section 6.5.2.3 City Centre Guidelines. The project complies with these policies as it establishes high quality design in terms of providing a built form that draws attention and defines the City Centre with iconic buildings. It creates an enjoyable, safe and accessible environment through its well designed pedestrian realm design along the peripheries as well as through the proposed mid-block connection.

The podium design and tower setbacks create the pedestrian scale of design. The development not only protects views of the city skyline but also contributes to the skyline through its proposed built form. It also protects views to the Spirit Catcher along Maple Avenue as well as views of the waterfront from Mary Street. Additionally, future residents will enjoy spectacular views of the waterfront and Kempenfelt Bay area.

The development encourages and facilitates connections to the waterfront through the proposed mid-block connection and enhanced pedestrian zones. The design and location of street furniture will be coordinated to link Downtown Barrie with its waterfront by maintaining a high quality of design. Streetscape aesthetics will be enhanced

through a coherent concept plan, its size, lighting and lettering. Utilities will be located underground, where feasible, so that they do not visually detract from the Downtown.

3.1.3 Tall Buildings and Height Control, Policy 6.6

Tall building policies apply to buildings of 3 storeys or more in height. The majority of tall building development is anticipated to occur within the Urban Growth Centre and in the Intensification nodes. The development responds to the policies in the following ways:

- A terraced and layered podium is designed to break up the overall mass of the block and retain a human scale at grade;
- Innovative architectural design includes slimmer tower design which seeks to reduce the visual and physical impact of the tall buildings and also breaks up the 'mass' of the block. Transparent materials are also encouraged throughout the design to reduce

appearances of bulk; and

- Smaller floorplates leading to slim towers will help to maintain skyline views and is visually more aesthetic from the public realm. In addition, the appropriate spacing of the towers ensures maximized views of Kempenfelt Bay, landmarks and along the Algonquin Ridgeline.
- Parking areas, site loading and other services are located on the interior of the development within the podium structure. The potential for underground parking is constrained by the water table. The internal parking structure within the podium is however treated with an attractive facade design anticipating phase 3 of the development which includes future flexibility of the podium for live/work units.
- The building facade is designed to be permeable and create a pedestrian friendly environment. Main entrances are directly accessible from public sidewalks.



Figure 31: Precedent example of a mid-block connection through a mixed-use podium

Section 6.4 also includes policies related to tall building design and the mitigation of shadow impacts, protection of views and access to Kempenfelt Bay area, mitigating micro-climatic impacts, encouraging street level activity and maintaining local area compatibility. The following discussion analyzes how the project is in keeping with the relevant policies:

Policy 6.6.4 (a) Shadowing

The accompanying shadow study diagrams prepared by OWA illustrate that the shadows from the proposed development do not impact nearby parks and open spaces. At no time do they overshadow the waterfront area or neighbouring GO station. The shadows cast from the development are slim due to the sensitive design of the towers, with existing nearby buildings causing greater shadowing impacts due to a greater overall mass.

Sections of Dunlop Street West will be impacted during specific times of the day. However, the duration of a shadow on a specific section of Dunlop Street is short and therefore acceptable. Neighbouring properties affected

are all commercial mixed-use facilities. Please refer to accompanying Shadow Study, dated 22nd of March 2019 filed under separate cover.

Policy 6.6.4 (b) Views and Access to Kempenfelt Bay

See section 2.6 Views and 2.8 Transportation and Linkages.

Policy 6.6.4 (c) Micro-climatic Impacts

Wind channeling

Please refer to the accompanying Wind Study Report prepared by Theakston Environmental dated March 13th 2019. In summary, the proposed development intends to mitigate wind impacts through the following design measures:

- parapet walls
- balconies
- stepped massing
- landscaping
- textured facades and others that will increase surface roughness apparent to the wind



Figure 32: Example of Street Level planters with public seating

Urban heat island effect

Future stages of the design will incorporate methods to reduce heat impacts from the proposed development. This will be achieved through urban greening of the adjacent public realm including the potential for green roofs on the towers above the podium. Landscaping will be provided where possible and will improve the existing environmental quality of the site.

Shadowing

Please refer to section 3.1.3 Policy 6.6.4 [a] on Shadowing, alongside the accompanying Shadow Study dated 22nd of March 2019, filed under separate cover.

Weather protection

The design integrates appropriate materials for weather protection. The podium is set back providing an overhang above the pedestrian realm, protecting from the elements to ensure pedestrian space remains more widely used.

Policy 6.6.4 (d) Street Level Activity

The street wall is designed to have a fluid, continuous built form which wraps around Mary Street and Maple Avenue, with active frontages including at-grade retail uses. The future live/work units within the podium [currently for use as a parking structure] inspires further street level animation in entrances at grade. Building facades will include a very high level of transparency to avoid 'blocking' light and visual access.

Policy 6.6.4 (e) Local Area Compatibility

This policy does not restrict new development to exactly the same height and densities of the surrounding areas, particularly in areas of transition such as Intensification Corridors. The site is slated for intensification and the proposed built form adequately addresses this as well as adding vibrancy to the City Centre. Although the immediate surrounding areas are currently in the form of low-rise commercial buildings. The zoning-by-law permits mid-rise mixed use development. It is anticipated that



Figure 33: Live/Work units precedent

these areas will undergo change to respond to the City's intensification policies. Therefore, the proposed building height and scale of development is in keeping with the planned context of the area. However, the design strives to maintain a street-oriented pedestrian scale of development through its articulated podium and active retail use. The towers are setback from the podium and include slender forms to reduce their visual impact from the pedestrian's eye at street level.

Policy 6.6.5 Height Control

The site for the proposed development is subject to height control as per Schedule C of the OP that articulates that the height is governed by the provisions of the Zoning-By law 2009-141. The site is currently zoned 'Central Area-1 (C1-1)' that regulates a building height of:

- 10m within 5m of the front lot line and the lot flankage, and;
- 30m beyond 5m of the front lot line and the lot flankage.

This translates to a 3 storey building height along the street's edges and a maximum building height of 9 to 10 storeys five (5) metres back from the street's edges.

We are of the opinion that the currently regulated mid-rise form of development does not fully utilize the site's potential of accommodating higher densities and tall buildings at a strategic location. The site is in a highly visible location within the Urban Growth Centre (UGC) where higher densities are proposed. Close to the 'Five Points' that is the intersection of Dunlop Street West, Dunlop Street East, Bayfield Street and Clappertone Street, the site requires a landmark development to signify this area.

Dunlop Street West and Bayfield are two of the main thoroughfares that provide entrance into Downtown Barrie from Highway 400. The built form along these streets are responsible for forming the first impression for visitors while entering into the UGC. A development that will provide a landmark status to the area by creating a bold presence with iconic buildings and high quality

architecture is desirable to create a sense of arrival and invitation. Additionally, taller buildings on this site will contribute to views while driving up north on Lakeshore Drive as the south of the site will eventually be occupied by a Farmer's Market consisting of the existing low-rise building housing the current Barrie GO Transit Station.

The site is located in one of the four (4) urban blocks bounded by Dunlop Street West to the north, Simcoe Street to the south, Bayfield Street to the east and Bradford Street to the west. These blocks have the potential of accommodating higher densities and establishing a north urban node within the UDC. This will complement the planned context of concentrated massing at the southern node of the UGC, near the Allendale GO Station. In other words, a northern counterpart of the south urban node within the UGC [Figure 34] will frame Kempenfelt Bay's western edges with high-rise buildings, taking opportunities of the lake's prominence and the City's transit infrastructure. The buildings will also contribute to the development of a more comprehensive skyline of Downtown Barrie.

Existing surrounding tall buildings are generally 16 storeys high as illustrated in Figure 8 including proposals of higher storeys. The relatively central position of the site in the north urban node facilitates higher buildings for emphasis. This will also build up a gradual transition in heights and massing from 16 storeys to taller buildings at the centre.

Policy 6.6.6. [a] [i] A Block Plan

A Block Plan as per Section 6.6.6 (a) has been prepared as part of submission requirements accompanying tall buildings for Zoning By-law Amendment and Site Plan applications. Figure 7 illustrates the Block Plan.

Policy 6.6.6.[a] [iii] A Shadow Impact Study

A Shadow Impact Study has been prepared by OWA. Please refer to section 3.1.3 Policy 6.6.4 [a] on Shadowing, alongside the accompanying Shadow Study, dated 22nd of March 2019 filed under separate cover.



3.2 CITY OF BARRIE URBAN DESIGN MANUAL

The UDM has been established to implement the existing urban design policies contained within the OP to provide a framework for establishing Barrie's future urban form, and to ensure that new development is consistent with the City's vision for urban design. The proposed development is in keeping with several design recommendations contained in the UDM as discussed below:

Physical Environment and Building Siting

The development supports existing transit facilities including the Barrie Go Agency immediately to its south by proposing a compact mixed-use development. Retail uses are provided at grade to encourage pedestrian activity and interaction between internal spaces and the public realm. Parking, loading, garbage storage and other service areas are contained within the building and is screened from the public realm. The mixed-use nature of the development will increase natural surveillance as building entrances and large windows will be facing the streets. The visual presentation of the structure will be articulated with a variety of reliefs and architectural elements and materiality.

Site Circulation

The design proposes a safe, convenient and accessible pedestrian circulation system. Main building entrances are directly linked to the street that include entrances to retail units and residential lobbies. A mid-block pedestrian connection connects between Dunlop Street West and the future farmer's market. This pedestrian block will be marked with distinct paving or material treatment where it crosses over the internal driveway. Safety of the block will be ensured through sufficient lighting at night.

An adequate number of barrier free parking spaces are provided and distributed throughout all levels of the podium parking structure including one barrier free spot at grade. These parking spaces will be located close to accessible barrier free entrances and will be equipped with vertical signs, pavement markings and directional signs (as required).

The proposed parking structure is contained in the building's podium and integrated with ground floor retail

use. The future phase of the development contemplates live/work units that will be integrated with the parking structure. All required safety features will be provided in the parking structure including adequate lighting, clearly indicated exit routes and doors, bright coloured painting to improve light levels. Stairwells and elevators are located centrally to the parking levels in high visible areas.

The development proposes two site access points from Mary Street and Maple Avenue. The location of the driveway does not impact the safety of pedestrians as pedestrian and vehicular routes are clearly separated. Both access points are at adequate distances from the street intersections. Entrance aprons on the boulevards shall be paved and designed as per municipal standards.

Site Services

Site services including loading bays and garbage storage areas are contained within the building and screened from the public realm. The circulation route of site servicing vehicles is designed to eliminate reversing or maneuvering on public streets. Loading bays are located adjacent to garbage storage and collection areas as well as moving areas. Utilities will be located underground, as much as possible to improve the street appearance. Otherwise, utilities located on site will be screened with landscaping or integrated with the building design to reduce its impact on the public realm.

Lighting and Signage

The design of light fixtures will be complementary to the architectural style of the building. Site lighting will be considered for all user needs, in particular all pedestrian areas, Lighting will be ensured to avoid the spill of light onto neighbouring properties. Lighting fixtures and landscaping around the building's periphery will be coordinated to ensure that site and street lighting are not obscure, but complement each other.

Architectural Design

The architectural design of the podium and towers establish harmony and continuity through the repeated use of colours, materials, details and massing expression.

Main building facades are oriented towards the street with large windows providing casual surveillance and breaking up the podium mass. Roof top mechanical equipment will be enclosed or screened and the roof top will be designed to contribute to the skyline of the City Centre.

Main building entrances will be designed as prominent features to be clearly identified from the street and encourage pedestrian use. The building design equally addresses all street frontages through its siting and architectural treatment. Balconies are designed to provide usable activity area for residents and to overlook onto the Kempenfelt Bay area and waterfront public spaces. See Figure 43 floor plans with balconies. Balcony railings will likely be built with transparent materials for increased surveillance, details of which will be provided at advanced stages of the design.

BIA Streetscape

The site is located within the Downtown Business Improvement Area (BIA). See Figure XX-Downtown BIA area jurisdiction. The UDG identifies the facades on Dunlop Street West to be Post-Victorian being constructed from the turn of the century up to the 1950's with some exceptions. The design recommendations of Section 7.1 of the UDG are geared towards the existing streetscape character of Dunlop Street that generally consist of two storey period buildings with commercial storefronts.

The vision for the area within the vicinity of the site is to transform to higher densities in support of existing transit facilities of the City Centre and make Downtown Barrie a more sustainable and accessible place to live, work and play. The proposed development offers a design that will embark on the future planned context of the City Centre and contribute significantly to the existing built environment with animated streetscapes, improved connectivity, building design that is reflective of its time and that elevates the image of the City Centre. The design draws inspiration from the existing streetscape character by maintaining the existing building line or street wall and by having a human-scaled podium that engages the public realm. This treatment is carried along Maple Avenue and Mary Street for a continuous and harmonious streetscape .

Signage

All signage shall comply with the City of Barrie Sign By-law 2005-93 as amended and the Ontario Building Code (OBC). Building signage will be complementary to the façade design and the size and location of building signage will be uniform in particular for the retail units.

Landscape Design

An attractive landscape treatment around the peripheries of the site will soften and improve the visual character of the development by providing a harmonious integration of planting, hard surfaces, signage and street furniture. The landscape design will be based on the site's urban condition and existing hard surfaces surrounding the site. Appropriate plant species will be selected based on their hardiness and capability to tolerate extreme urban conditions as well as seasonal effects.

Waterfront Developments

Located close to Kempenfelt Bay area, the development has the potential to contribute to the protection and expansion of physical connections to the waterfront as well as maximizing views towards the lake. The proposed mid-block connection facilitates connections while the rotation of the towers maximize views from residential units towards the lake.

Transit

The development facilitates access to transit by placing the podium edges close to the street line and establishing direct links with building entrances and the municipal sidewalk with transit stops. It is anticipated that the future potential Farmer's Market will require the relocation of the Barrie Go Agency and the provision of new bus stops on Maple Avenue and Mary Street (as required).

3.3 INTENSIFICATION AREA URBAN DESIGN GUIDELINES [IA UDG]

These urban design guidelines direct new development within the Intensification Nodes and Corridors, Urban Growth Centre, and Major Transit Station Areas identified in the City of Barrie Official Plan. The guidelines present a vision and a set of priority directions to ensure that new development is compatible with the existing built fabric, creates an attractive and safe pedestrian realm, supports alternative modes of transportation (i.e. walking, cycling and transit), and is environmentally sustainable.

The proposed development meets the general intent of specific sections of the IA UDG that are discussed below:

Intensification Typology- Mixed-Use Main Street

The IA UDG identifies the subject site to be categorized with a Mixed-Use Main Street typology (Figures 35 and 36]. The proposed development is in keeping with

key recommendations of this typology that include the following:

- The transparent façade design associated with the mixed-use of the building. Retail and future live/work units are at grade facing the Transit Terminal and future farmers market to the south. Between Dunlop Street West and the Terminal will run a mid-block arcade. The upper floors overlook the active arcade with upper mixed-use residential and retail floors creating additional animation. Residential apartments in the towers will establish an 'eyes on the street' approach enhancing safety and activity at all hours.
- The recessed ground floor along the street edge expands the pedestrian zone and offers a widened area for trees, landscaping, continuous sidewalks, street furniture, public art and provides weather protection.



Figure 35: Intensification: Mixed-Use streetscape concept, IA UDG, 2012

- The development makes significant improvements to the areas surrounding the block with enhanced streetscaping and active building edges that will encourage pedestrians to gather and socialize.

Mixed-Use Main Street Vision, Major Station Areas

As new development occurs in the Intensification Areas, it is essential that some of the greatest densities are concentrated within a ten-minute (500 metre) walking distance of the Major Transit Station Areas to support a viable transit network, and promote an active community where residents are encouraged to walk, cycle and take public transit as an alternative to personal vehicles. The site is located in the Downtown Transit Terminal Station area.

The development proposes a scheme with active pedestrian supportive streetscapes at a density that will support existing and future transit. On the main floor the window line is set back approximately 1 meter, creating a wider area for pedestrian activity and circulation.

Private Realm Design Guidelines

The proposed design introduces a 4.5m wide mid-block connection, that is wider than the recommended 3.5m with additional setbacks at the entrances. This contributes to a finer grain of urban fabric adding to the lot variety of the area. Side streets are used for vehicular access keeping Dunlop Street West free from driveways.



Figure 36: Prominent Street Rendering, IA UDG, 2012

General Building Guidelines Section 4.3

The proposed building podium is positioned to frame all streets. All building entrances are directly accessible from the streets. A continuous street wall is maintained around the block with the ground floor massing recessed in order to extend the pedestrian zone.

The IA UDG recommends a general mid-rise scale of development within Intensification areas consisting of building heights of 4-8 storeys. Buildings taller than 8 storeys are also encouraged in key areas including the Urban Growth Centre. New developments will strengthen the community and accommodate many new residents and jobs. The proposed development offers a design consisting of a 6 storey podium and two towers, 30 and 34 storeys high. In our opinion, tall iconic buildings will enhance the site's strategic location close to the waterfront, adjacent to the Barrie GO Agency with a high degree of visibility while entering into Downtown Barrie from Highway 400. The towers will also contribute to the skyline of Downtown Barrie and complement other existing and proposed tall buildings near the waterfront.

The ground floor height is proposed to be 6 metres to accommodate retail uses and clearances for service vehicles and loading bays. The 6 storey podium creates

a human-scaled street wall. For approximately the first 7 meters upward of the podium, the main level is setback so that it overhangs a portion of the street creating a generous sidewalk. The towers are further setback from the podium to reduce the impact of their heights from the pedestrian's eye level and also to ensure the streetscapes have reasonable hours of sunlight. Please refer to the Shadow Study diagrams prepared by OWA. for shadow impacts on neighbouring areas.

The façade design will clearly distinguish between the podium and the towers above as well as the commercial and residential units. A variety of building materials and finishes will add visual interest that will be used in a consistent manner. Recessed ground floor massing and a covered walkway will provide weather protection. The building base will utilize a high level of transparency providing views of the interior retail units and creating visual interest for pedestrians. Separate entrances are provided for the retail units and residential lobbies. The podium frontage is divided functionally and visually into smaller units through façade articulation and the walkway connection.

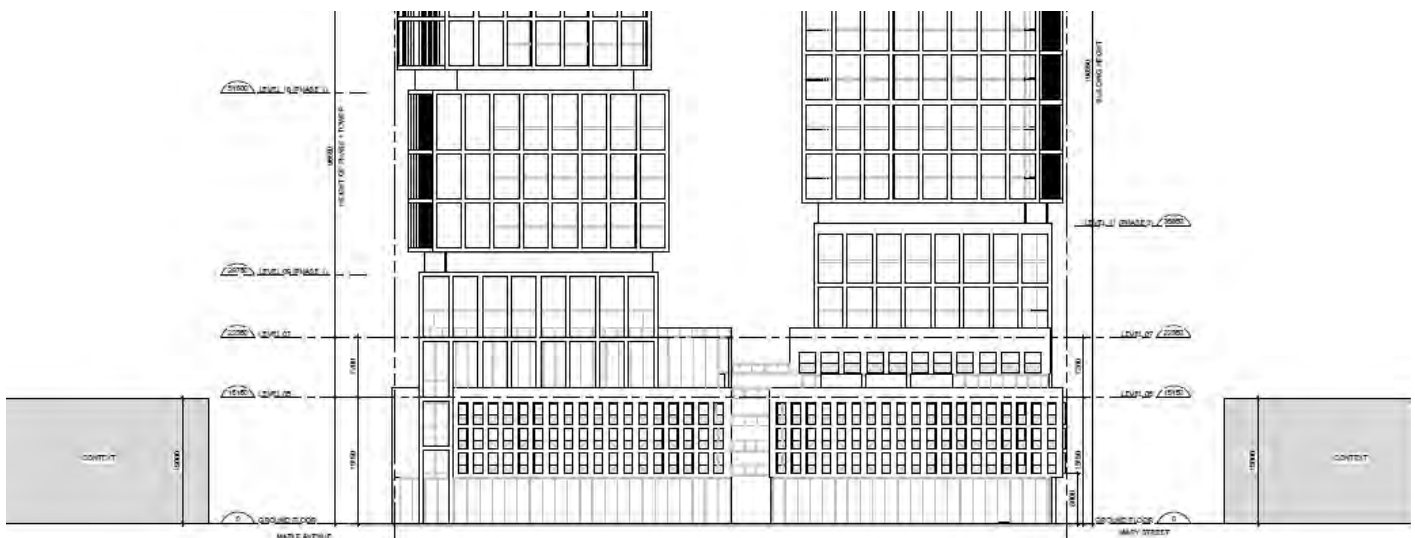


Figure 37: North/south Schematic showing Mary Street and Maple Avenue Contexts

3.4 HERITAGE

The City of Barrie has been shaped by a number of historic factors which have contributed to the built form today. The proposed development adheres to good urban and architectural design standards which respects this built form and the local context that includes a variety of typologies. The proposed development diversifies the existing building stock and compliments the materiality of Barrie. Design measures have been taken to ensure that the mass of the proposed development is at a respectful scale. The slender two towers function to reduce the overall mass of the property. Increased densities near to the waterfront serve to support and encourage cultural and entertainment events which are held year round in Barrie. This creates active frontages establishing linkages to further enliven the waterfront.

The Historic Neighbourhoods Strategy [HNS]

The HNS looks at the future needs of Barrie's historic residential neighbourhood. The purpose of the study is to ensure that Barrie retains livable communities and neighbourhoods, and focuses on the areas around the Urban Growth Centre, specifically the low density residential areas.

The development site lies within the Urban Growth Centre of Barrie as per the Barrie Official Plan Schedule C Defined Policy Areas [2018]. The development site is not however included within the Historic Neighbourhood Defined Policy Area... *"as this is a key intensification area identified in the Places to Grow Growth Plan."* [Amendment no.54 The City of Barrie Official Plan: Part B - The Amendment]. As such, the development has no impact on the Historic Neighbourhood Defined Policy Area.

With regard to Cultural Heritage Preservation, Section 3.4 of the Official Plan contains information regarding areas targeted for intensification. Subsection 3.4.2.2 (j) states that:

"In areas considered for intensification, the City shall encourage the conservation or preservation of any cultural heritage resource which may be affected by such intensification with the use of conservation plans and heritage-related urban design guidelines."

The subject lands fall within an intensification area defined as Mixed-Use Main Streets by the City of Barrie Intensification area Guidelines [BIUDG]. This designation describes intensification as compatible with the "existing heritage fabric," within the context of the site along Dunlop Street West.

It is our opinion that as the proposed development poses no impacts upon the built heritage of Barrie and does not cause harm to existing heritage assets within the city, as it does not lie within a Historic Neighbourhood Defined Policy area.

4. DETAILED DESIGN DIRECTION



4. DETAILED DESIGN DIRECTION

4.1 DEVELOPMENT PLAN

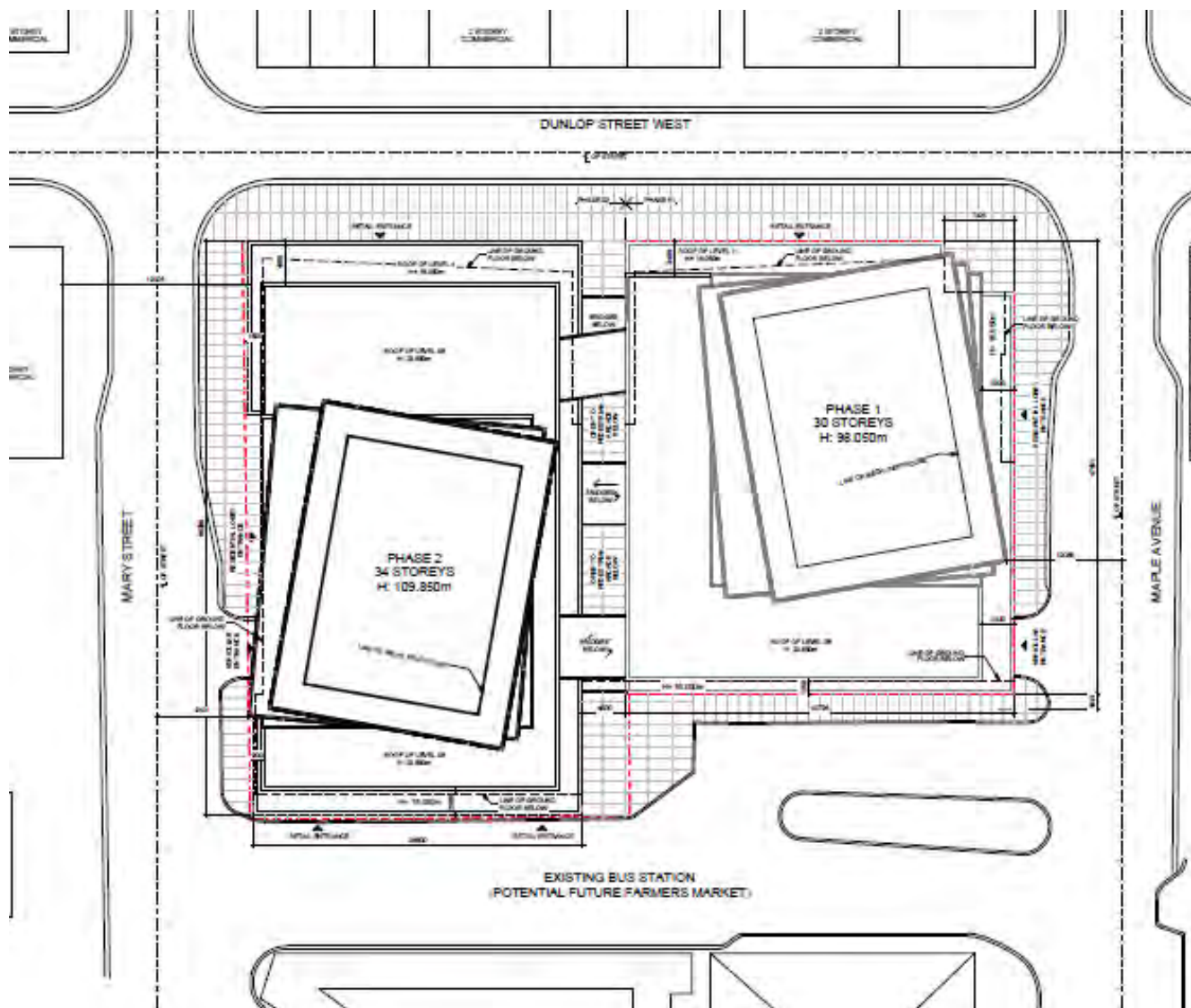


Figure 38: Site Plan showing phase 1 and 2

4.2 SITE DESIGN

This section includes general design directions that describe how the proposed development plan will be realized. These general design directions are preliminary and are subject to revisions, refinements and additional details that will be provided as the design evolves to a more advanced stage.

Master Plan of Larger Sites

The 'break-up' of the block bounded by Dunlop Street West, Mary Street and Maple Avenue provides a mid-block connection through the building podium to connect the Downtown to the waterfront, adjoining with the future Farmers Market. This connection is intended to be enhanced by new paving treatments according to the Waterfront and Marina Strategic Plan [2013] for pedestrian use.

Positioning of the building(s) in relation to the site, abutting streets and surroundings

- The podium is built to the site's boundaries offering a continuous street wall along the site's street frontages and the future interface along the potential farmer's market. This alignment along Dunlop Street helps to extend the existing building line on the east and west sides of the site, and reinforces the street edge definition around the block that complements the main street character envisioned for this area.
- The recessed ground floor massing widens the pedestrian zone at grade. The projected floors above provide weather protection and a sense of entry as well opportunities for enhancing the streetscape.
- The building's location close to the street's edges offers short connections between the public sidewalk and the ground floor retail uses and lobby areas for pedestrian convenience.

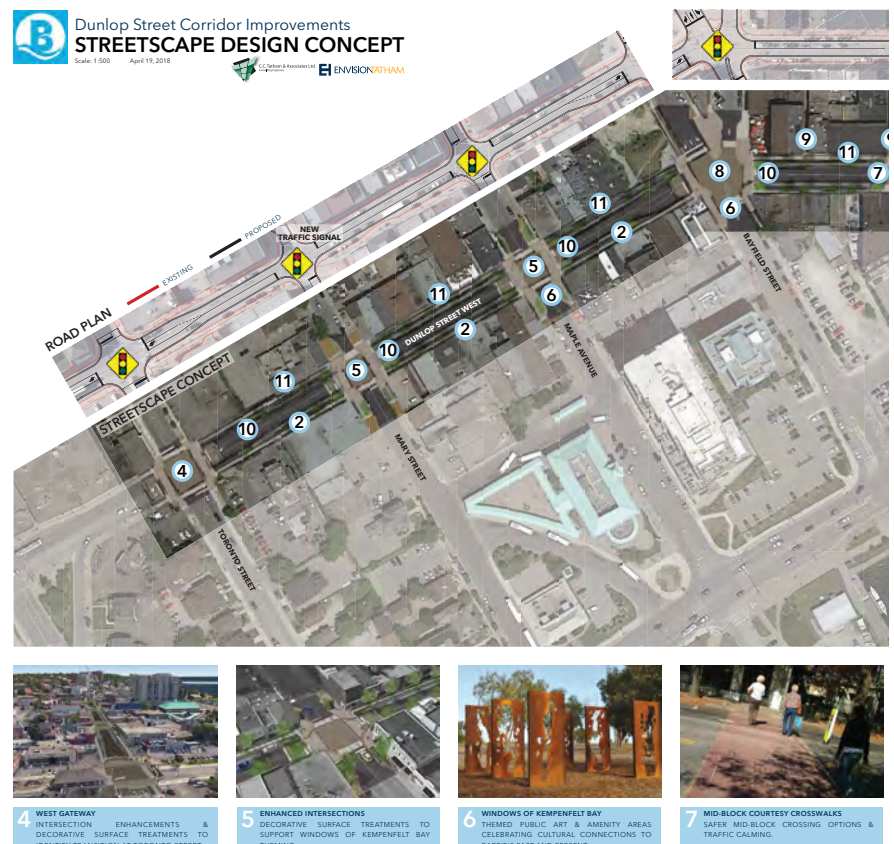


Figure 39: Dunlop Street Corridor Improvements Streetscape Design Concept showing surrounding proposed future improvements near to the site along Dunlop Street West

Vehicular and pedestrian access and circulation

- Vehicular and pedestrian access and circulation are separated. Vehicular access is provided from the two side streets (Maple Avenue and Mary Street) to minimize disruptions along the main street (Dunlop Street) and maintain a continuous pedestrian oriented environment. Access will compliment any future development as per the Barrie Corridor Improvements, 2018 [see concept Figure 39].
- A single driveway located at the rear south end of the development provides access to the parking decks, loading and service areas and the 11 short-term parking spaces at grade.
- The pedestrian route occupies the site's street frontages adding to the vibrancy along the public realm.
- The mid-block connection provides links between Dunlop Street West to the future potential farmer's market improving the block's permeability. context to the proposed Corridor Improvements by the City of Barrie, 2015.

Streetscape and Public Open Spaces

- The extended pedestrian zones at grade can facilitate enhanced streetscaping. Landscaping elements such as benches for seating, light fixtures etc. can be located in these areas for the comfort of pedestrians.
- Considering the extreme urban edges of the site, there are opportunities to soften the edges with vegetation and planter boxes.
- A landscape design that seamlessly integrates with the public realm will be a key design priority.



1 EAST GATEWAY
INTERSECTION ENHANCEMENTS & DECORATIVE SURFACE TREATMENTS TO IDENTIFY TRANSITION AT MULCASTER STREET.



2 FLEXIBLE STREET
VERSATILITY FOR VARIOUS BOULEVARD CONFIGURATIONS FOR INCREASED PATIO & OUTDOOR RETAIL OPPORTUNITIES.



3 MEMORIAL SQUARE
PROVIDE COMPLEMENTARY INTERFACE TO SUPPORT PROGRAMMING & EVENTS WITH VISUAL/PHYSICAL ACCESS FROM OWEN STREET.



8 CENTRAL GATEWAY
INTERSECTION ENHANCEMENTS AND DECORATIVE SURFACE TREATMENTS TO HIGHLIGHT THE HISTORIC 5-POINTS INTERSECTION.



9 LANEWAYS
CREATE VISIBLE GATEWAYS TO KEY LANEWAYS TO MARK CONNECTIONS TO REAR MUNICIPAL PARKING LOTS AND MID-BLOCK PEDESTRIAN ROUTES.



10 FEATURE PLANTING AREAS
TERMINATES 'PARKING GROUPINGS' ALONG FLEXIBLE STREET & ALLOWS FOR SEASONAL DISPLAYS/PUBLIC ART.



11 GREEN INFRASTRUCTURE
UTILIZES UNDERGROUND SOIL CELLS FOR NEW TREE PLANTINGS AND TO CLEAN STORMWATER FROM THE ROADWAY.



Figure 40: Precedent examples of streetscaping along a mixed-use building with recessed ground floors, seating and street planting.

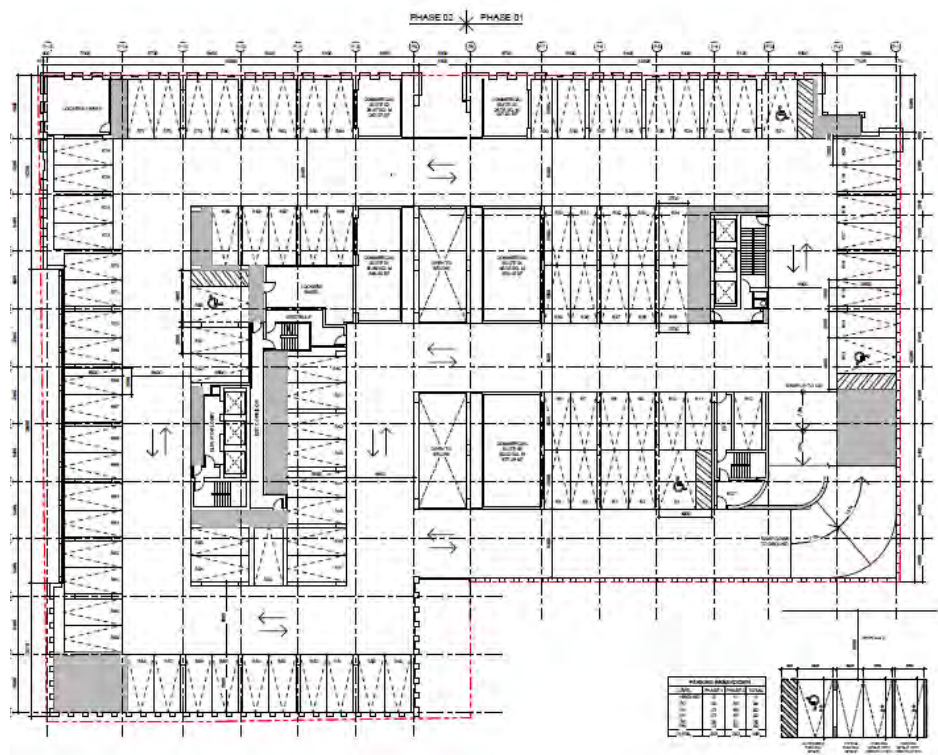


Figure 41: 2nd Floor Parking

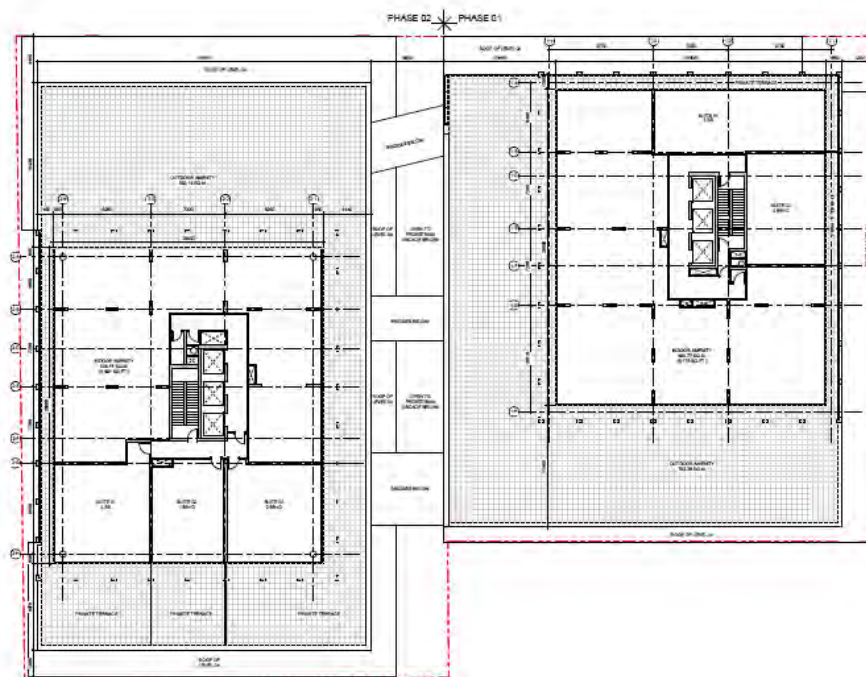


Figure 42: 7th floor plan and typology

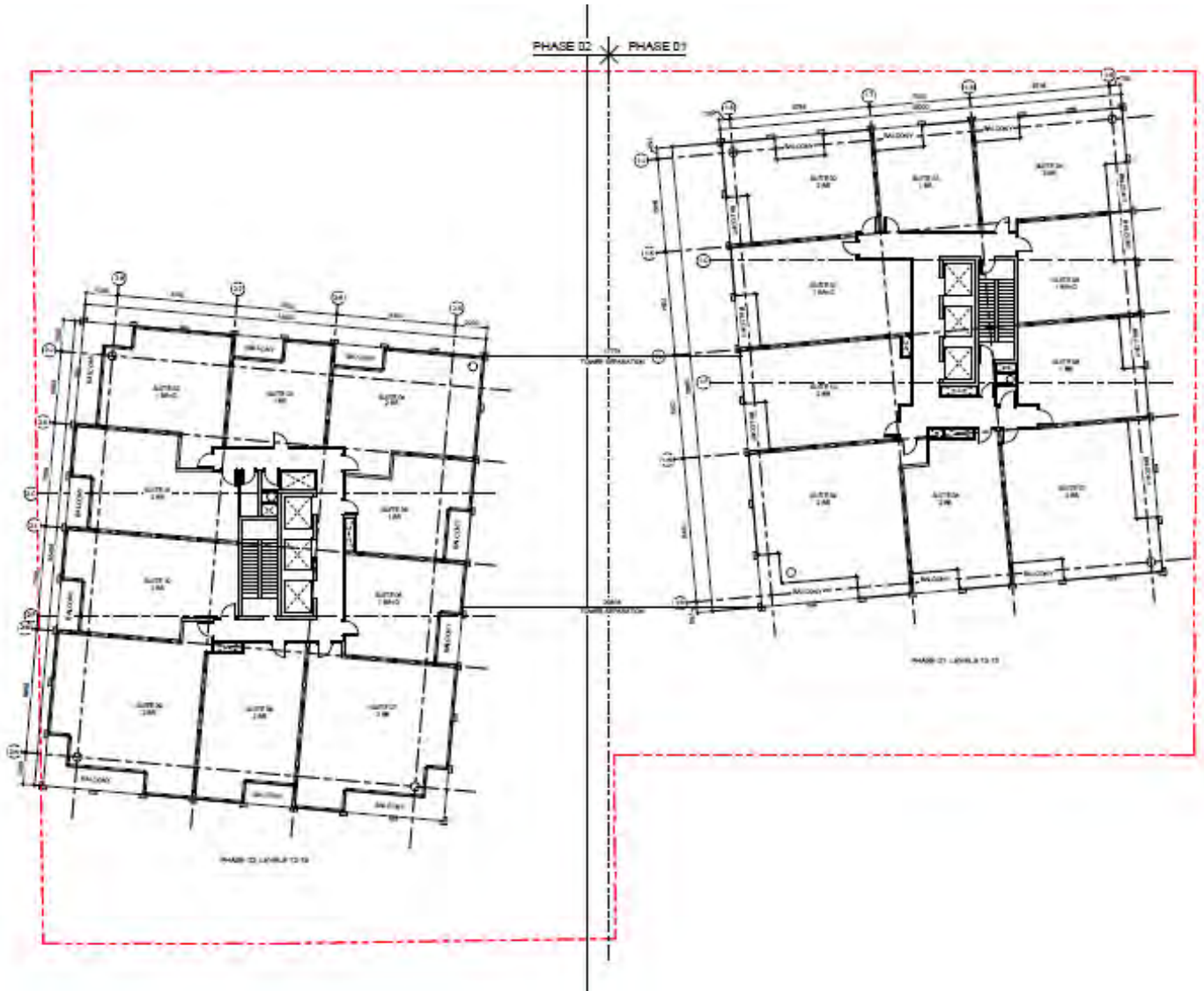


Figure 43: Lower tower floor plans 12-15



Figure 44: Precedent example of podium roof used as outdoor amenity.



Figure 45: Example of residents enjoying views onto waterfront from their high-rise balcony.

Parking, Loading and Service areas

- Parking, loading and service areas will be located inside the building and screened from the public realm.
- Loading bays will be located close to garbage storage and collection areas and moving areas for functional convenience.
- The circulation route for service vehicles will contain the maneuvering and turning of such vehicles within the site without impacting public streets.

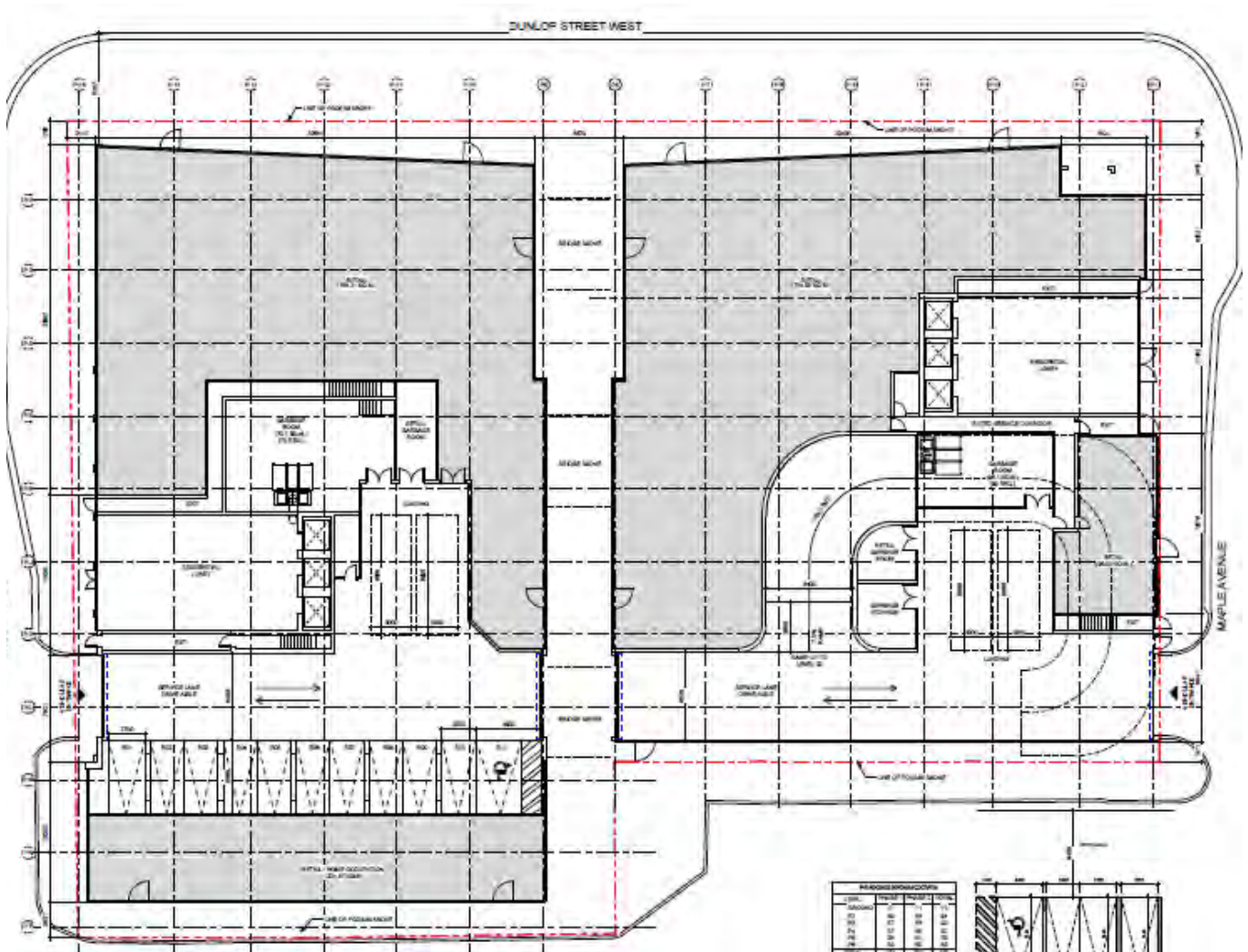


Figure 46: Ground Floor Plan showing loading, service areas and truck turn.

Lighting

- Lighting design will provide adequate lighting for all users and will ensure safety of pedestrians at night.
- The style of lighting fixtures will be complementary to the architectural style of the building.
- Wall fixtures will be in proportion to the façade design.
- Lighting that will highlight pedestrian areas at grade and the building's roof top are encouraged.



Figure 47: Example of contemporary lighting in a mixed use podium to illuminate street-level



Figure 48: Example of use of lighting at entrance level of mixed-use ground floor.

4.3 BUILT FORM

Height and Massing

- The massing is articulated with a podium and two towers. The podium provides a ground related built form and anchors both towers.
- The proposed maximum building height is 34 storeys. Phase 1 includes a tower with a building height of 30 storeys (Tower 1) and phase 2 includes the second tower (Tower 2) at a height of 34 storeys. The towers help to signify the site's strategic location within the UGC as discussed in Section 3.1.3 of the report.
- The podium is proposed to be 6 storeys high. The terraced podium is recessed at grade that reduces the perception of volume and establishes an enhanced pedestrian realm.
- The slender massing of the towers is broken up within rotated sections that maximize views towards the lake for residential units and add a sense of motion to the towers.

Setbacks

- The podium has a 0 meter setback along the site's street frontage and along the south edge. This build-to-street line approach helps the development engage with the public realm and provide a human-scaled street wall.
- The towers are setback from the podium and the streets at a minimum distance of 1.5 metres. Greater setbacks occur along the north and south edges of Tower 2 and the south edges of Tower 1, due to their relative position to the podium. These setbacks help to reduce the visual perception of mass from the street level and aid in reducing shadow impacts on surrounding areas. Refer to Figure 38.

Building to Street Ratio

The podium height at 21.5 metres establishes a street wall that is proportionate to the street's right-of-way. Dunlop Street West has a 20m ROW. This relationship is close to the desired 1:1 street ratio. See Figure 49.

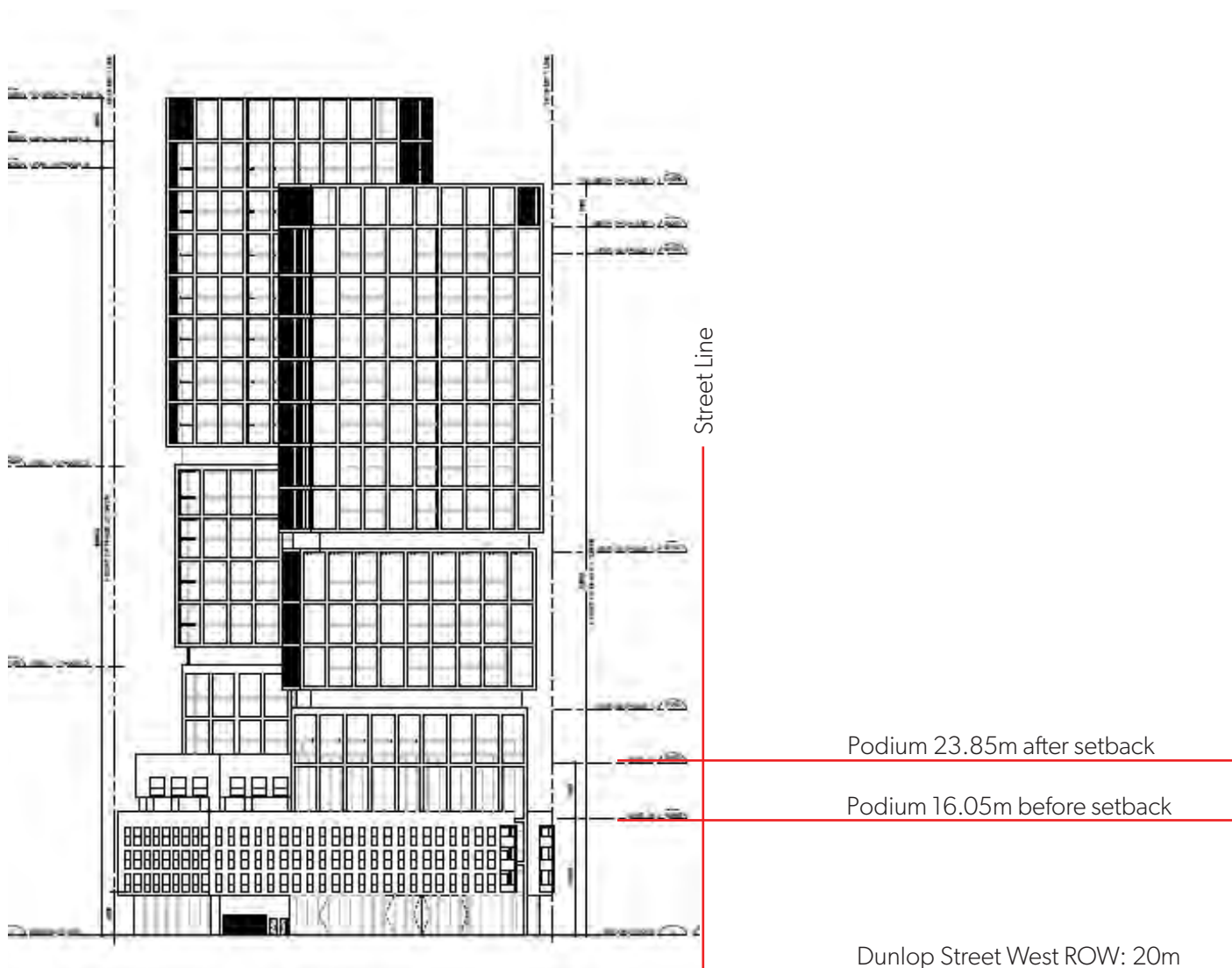


Figure 49: Cross-section of East Elevation illustrating building in relation to Dunlop Street West

Street Wall and Building Treatment at Grade (Pedestrian Experience)

- The building treatment at grade will include large amounts of glazing to provide visual connections between the interior of retail units and residential lobbies, and the public realm. This will engage pedestrians.
- Multiple entrances at grade will add to the pedestrian activity. Extended pedestrian zones will facilitate the spill out of certain retail and commercial uses such as outdoor café seating and outdoor displays that will stimulate pedestrian activity in the area.
- Architectural elements that provide a human-scale to the podium are encouraged to be utilized in the ground floor. Wall mounted signage, canopies etc. can also aid in reinforcing the human-scale.
- The future consideration of live/work units at grade will further the animation and create a finer grain of urban fabric surrounding the block.



Figure 50: Render of the proposal showing mixed-use units with glazing showing displays.

Façade Treatments, Architectural Elements and Materials

- The façade treatment will include a variety of elements, materials, colours and textures for visual interest. These elements will be used in a consistent manner. Distinct treatments will define the podium and the two towers.
- Materials that may be considered include modulated glass walls, glass balcony rails, metal/concrete pre-cast panels, metal siding, brick veneer panels, and concrete bands or window surrounds.
- The podium faces will be treated to conceal its function as a parking structure and to establish a human-scaled street wall.
- All facades will be equally treated as they front onto streets and the building has a high degree of visibility from the public realm.
- High quality and durable materials will be used in the façade design.

Corner and/or landmark/gateway building treatment

- The proposed built form with its rotatory tower components and terraced podium will signify the site's landmark location within the UDG. The towers will reinforce the significance of the project.



Figure 51: Precedent example of live work/units at grade.

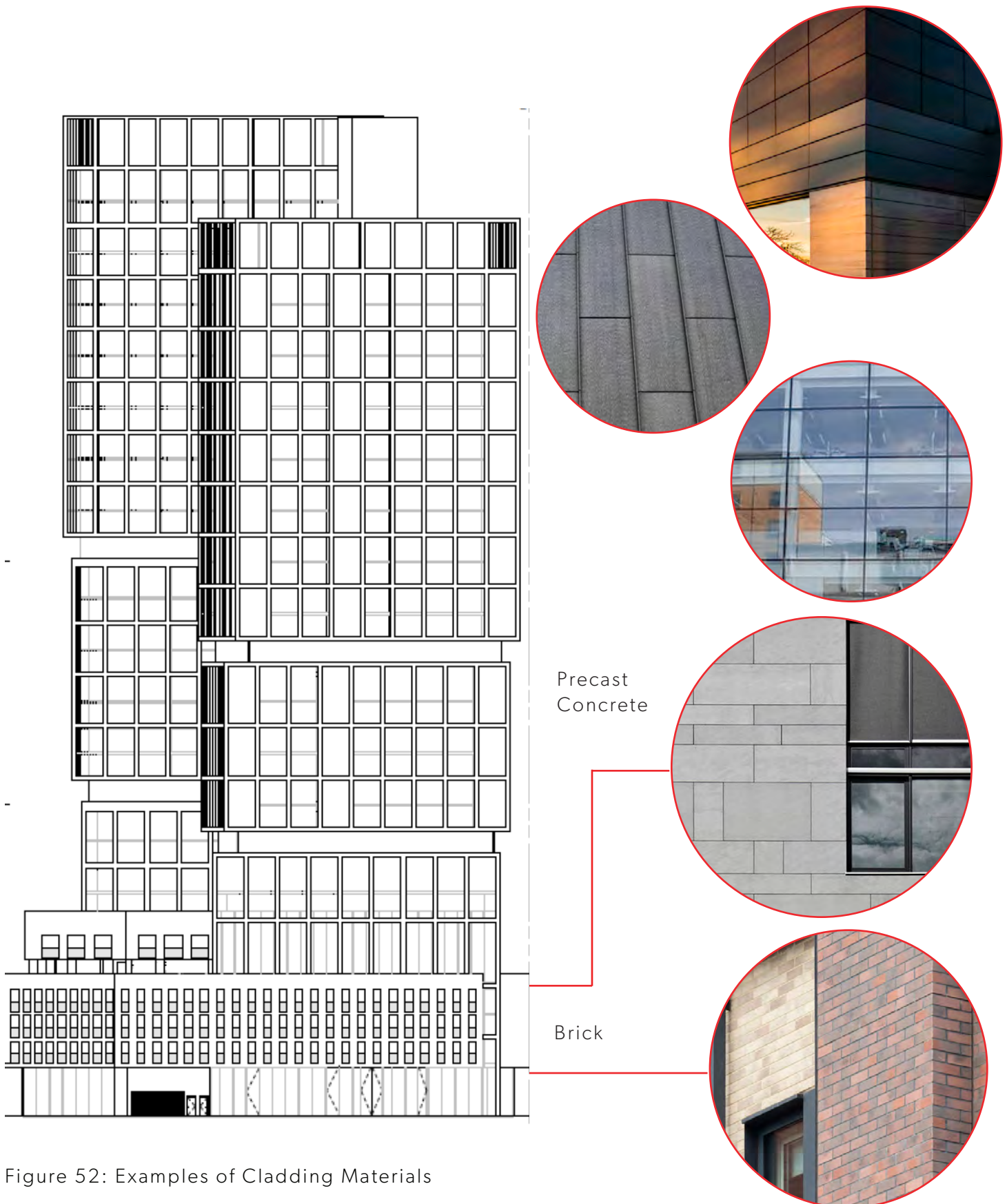


Figure 52: Examples of Cladding Materials

4.4 SUSTAINABILITY FEATURES

There are several sustainability features proposed for this development which include:

- Energy efficiency to meet current Code requirements and standards.
- Energy savings will be made resulting from urban intensification brought about by the development.
- Through its design and phasing, the proposed development encourages and facilitates the efficient use of infrastructure systems and transportation in Downtown Barrie.
- Bicycle storage is provided on site to facilitate greater uptake in bicycle ownership and usage.
- Heat Recovery ventilation.

4.5 PHASING

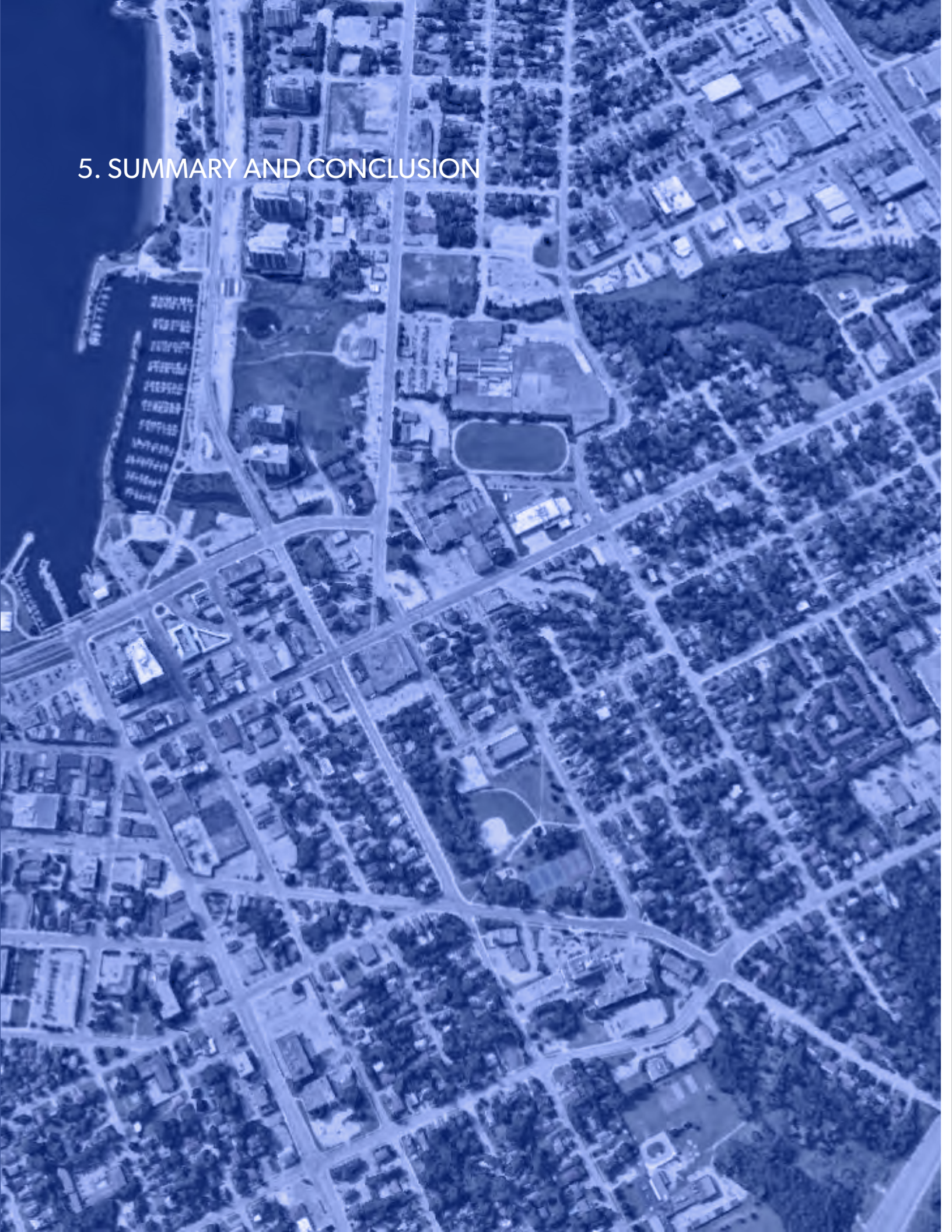
The build-out of the proposed development is broken down into three key phases.

Phase one describes the development of one of the two residential towers. The east tower development and associated parking is central to phase one. The 30 storey tower rests on the 6 storey retail/commercial podium. There is ground floor access to retail amenity, and vehicle access to the 6 floors of interior parking structure. The GFA proposed is 600% of the total lot area, providing high densities in-line with intensification of the area.

Phase two addressed the remainder of the subject lands. This sees the build-out of the west tower and associated parking and services. The west main wall of Phase one will feature a blank façade that will abut the existing east main wall of 55 Dunlop Street West. The operation of businesses within the Phase two portion of the subject lands can be serviced via the dock located on the south west portion of the site, while parking needs are satisfied by the existing surface lot on the north west corner of the subject lands and adjacent street parking.

Phase three provides scope for the flexibility of use of the podium interior parking floors 2-6 for potential live-work units in the future, with the potential increasing residential floorspace and residential density.

5. SUMMARY AND CONCLUSION



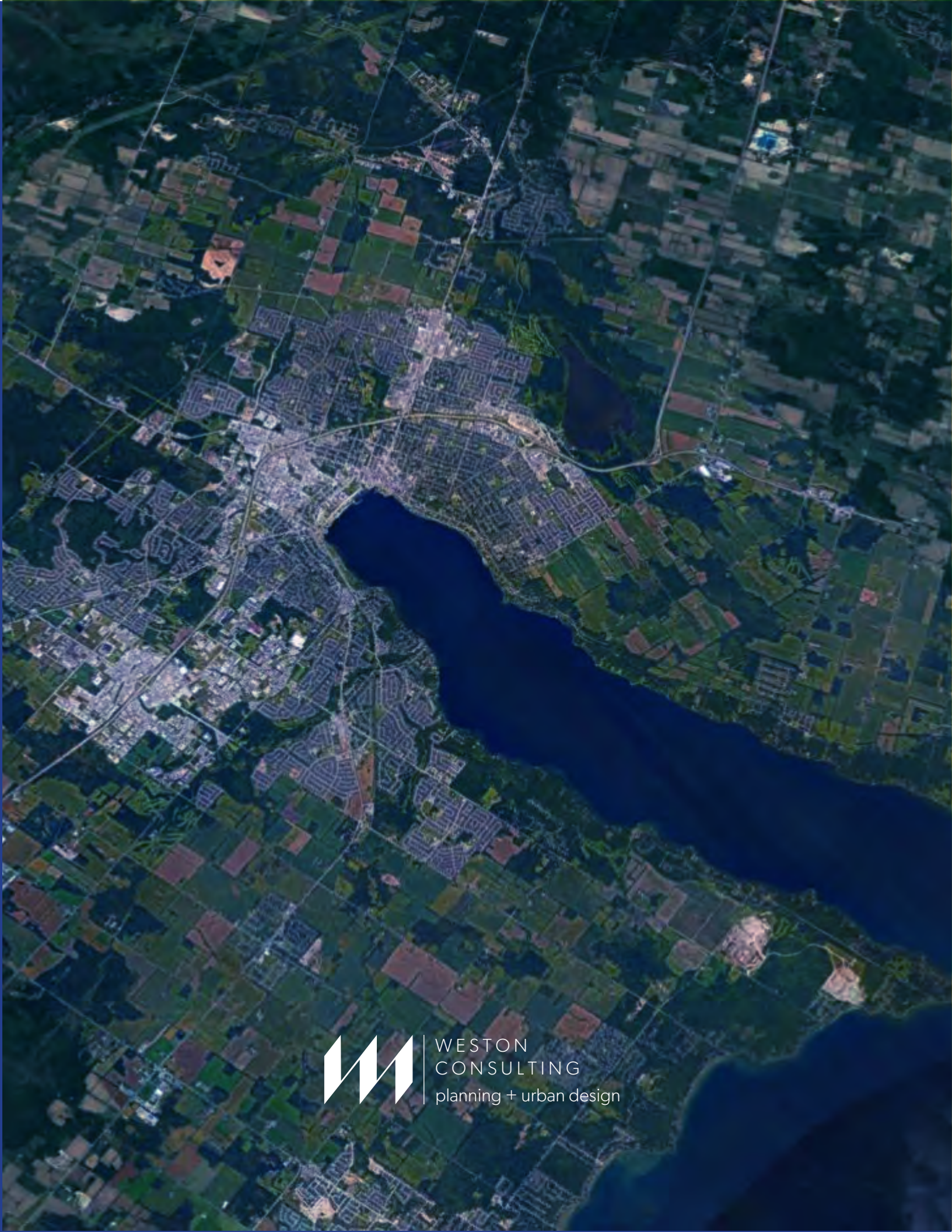
5. SUMMARY AND CONCLUSION

The approval of the proposed Zoning By-Law amendment will facilitate high-rise mixed-use development in the City Centre of Barrie to rejuvenate the Downtown, in particular the unique waterfront of Kempenfelt Bay.

The proposed development will enhance the legibility of the area when travelling from Highway 400 into the city, signalling arrival into the Downtown. The style of the building and use of space increases key connections between Dunlop Street West, the Barrie Transit Terminal and the Waterfront promoting pedestrian and cycle access. These positive impacts will permeate through the wider Downtown Barrie.



Figure 53: Illustration from Commercial Strategic Plan of Barrie, 2016



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Respectfully Submitted by Weston Consulting

April 30th 2019



**WESTON
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SENIOR ASSOCIATE