

Urban Design Report

660 Belmont Avenue West

660 Belmont LP Inc.

City of Kitchener
Zoning By-law Amendment

REVISED October 2021



GSP
group

WITH



aba
architects inc.

CONTENTS

1.	Background	1
2.	Site Conditions	2
4.	Proposed Development	8
5.	Shadow Study	27
6.	Design Framework Analysis	28
6.	Conclusions	36

1. Background

Proposal

660 Belmont LP Inc. (“the Owner”) is proposing a mixed-use development on the property at 660 Belmont Avenue West (“the Subject Site”) in Kitchener. The complete applications for the Official Plan Amendment and Zoning By-law Amendment were originally submitted in July 2020. The development plan for the applications was a 13-storey (49 metres tall) mixed-use building with ground floor commercial, 163 residential units above, and two levels of underground parking together with a small surface parking area (“**the Original Development Plan**”). The original Official Plan Amendment sought an increase for the proposed building height. The original Zoning By-law Amendment sought corresponding increases to the maximum building height and a reduction in the minimum parking requirements for residential units.

The applications were the subject of public consultation sessions in December 2020, February 2021, and March 2021; the former two sessions were Neighbourhood Information Meetings while the latter was a series of City-facilitated smaller sessions with interested participants for dialogue.

Following public consultation sessions in December 2020, February 2021, and March 2021, the Owner engaged with City Staff to resolve technical comments and address comments from the public consultation. The resulting revised building design for Council’s decision is an 11-storey (39.1 metres tall) mixed-use building with ground floor commercial, 132 residential units above, and two levels of underground parking together with a small surface parking area (“**the Revised Development Plan**”).

An Official Plan Amendment is no longer required to allow the proposed development’s height, per the consideration of Section 15.D.4.23 of the Kitchener Official Plan outlined below. The revised Zoning By-law Amendment continues to amend the MIX-2 Zone to address the proposed building height as well as new minor reductions of the required building base setbacks; the original proposed reduction in the minimum parking requirement for residential uses is no longer required given the reduced number of dwelling units satisfying the MIX-2 requirements.

Purpose

This revised Urban Design Report is being submitted in support of the Revised Development Plan and implementing Zoning By-law Amendment. An Urban Design Report was required as part of the original applications per the September 24, 2019 pre-submission consultation meeting. Given the changes in building height and massing proposed the Revised Development Plan, an updated Urban Design Report was warranted.

The Kitchener Official Plan defines an Urban Design Report as an “*urban design document that may be required of an owner/applicant to demonstrate how a development application implements the City’s Urban Design Manual*”, which “*does not require Council approval*”. This Report describes the Subject Site’s existing physical conditions (Section 2); its existing neighbourhood context (Section 3); the the Revised Development Plan (Section 4); shadow analysis undertaken (Section 5); how the proposed development responds to relevant City urban design policies and guidelines (Section 6); and ultimate design conclusions (Section 7).

2. Site Conditions

Location & Description

The Subject Site is located on the east side of Belmont Avenue West, just north of Glasgow Street in the Cherry Park neighbourhood. The Subject Site is composed of 660 Belmont Avenue West and includes the adjacent laneway “Belmont Lane East” to the north and east. Consolidated, the Subject Site is 0.4 hectares (1.1 acres) in area and has a frontage of 77.7 metres on Belmont Avenue West. The Subject Site is currently developed with a one-storey garage and office building, used as a commercial auto repair shop (“Dettmer Tirecraft”).

Existing Access and Parking

The Subject Site is currently accessed by Belmont Avenue West, with parking along the west and south side of the building. Belmont Lane East provides circulation around the south and east ends of the Subject Site, with additional parking at the rear. The Lane continues north and circulates back to Belmont Avenue West at Claremont Avenue, prior to Union Boulevard.





Existing Conditions

The Subject Site is currently developed with a one-storey garage and office building, used as a commercial auto repair shop (Dettmer Tirecraft). The Subject Site is currently accessed by Belmont Avenue West and has parking along the west and south sides of the building. Belmont Lane East provides circulation through the south and east portion of the Dettmer Tirecraft parcel. There is additional parking on the other parcel between Belmont Lane East and Iron Horse Trail.

Most of the Subject Site is generally flat throughout with an incline of approximately 1 metre towards Belmont Avenue, but the rear portion drops off considerably to the Iron Horse Trail to the rear.



There are thirteen trees on the Subject Site per the submitted Tree Management Plan, located along the eastern edge of Belmont Lane East currently under City ownership. Most of the trees are recommended for removal given necessary grading and construction works in this area associated with the proposed development. New plantings as part of the development would address the removals.

Abutting Property Context

North: the abutting property to the north (672-698 Belmont Avenue West) is also owned by the proponent and is a two-and-a-half storey commercial building featuring retail and office units. The property on the corner of Union Boulevard and Belmont Avenue West (115 Union Boulevard) are currently vacant, both intended for future mixed-use development. The City of Waterloo municipal boundary is located just north of Union Boulevard, along with a residential area and further mixed-use properties.



East: the Subject Site backs onto the Iron Horse Trail, a 5.5 kilometre multi-use trail, connecting Erb Street West in Uptown Waterloo to Ottawa Street South in Kitchener. "Gilder Green", a public park, abuts the eastern side of the Iron Horse Trail across from the Subject Site and a low-rise residential area with several taller buildings throughout. Catalyst 137 (137 Glasgow Street) is a former industrial warehouse revitalized as a tech-hub, located 275 metres south-east of the Subject Site.





South: the Subject Site abuts a drive-through only Tim Hortons (638 Belmont Avenue West) at the corner with Glasgow Street that contains. There is a noticeable grade change between 660 and 638 Belmont Avenue West. South of Glasgow Street is mixed-density residential and offices, primarily of medical and insurance use. South of Glasgow Street, the nearest portion of the Belmont Avenue West corridor close to the Subject Site has low-rise commercial and health-related uses on the east side and low-rise and high-rise residential on the west side.



West: a craft store “Bead Boutique” (651 Belmont Avenue West), dental office (657 Belmont Avenue West) and ESSO gas station (200 Glasgow Street) sit on the west side of Belmont Avenue West facing the Subject Site. The area beyond to the west is a low-rise residential neighbourhood of principally detached dwellings.



Built Form Pattern surrounding the site
Source: GSP Group

Neighbourhood Context surrounding site

Source: GSP Group



4. Proposed Development

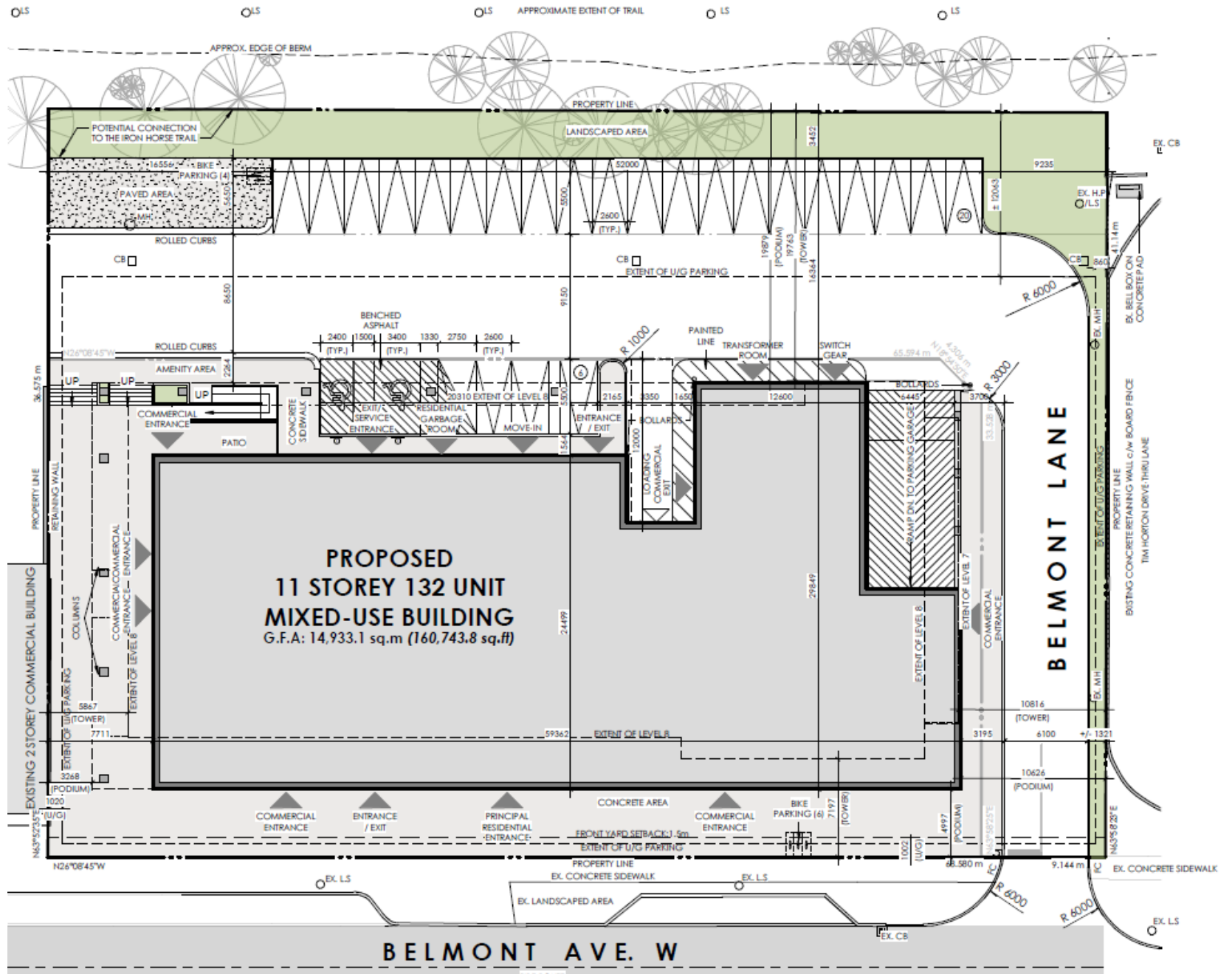
Development Overview

The Revised Development Plan maintains the general building placement and site configuration as originally proposed. The revisions principally relate to the building height and massing on the Subject Site. The proposed building height in the Revised Development has been reduced to 11 storeys from the originally proposed 13 storeys, representing a reduction of 8.7 metres per the Zoning By-law's definition of "Building Height" (or a reduction of 5.3 metres in absolute building height when comparing with the inclusion of mechanical penthouses).

The following summarizes the functional aspects of the Revised Development Plan:

- **Access:** vehicular access is maintained from Belmont Avenue West in the same alignment with the rear laneway (Belmont Lane East alignment) connecting to the surface parking area and underground parking garage ramp area.
- **Commercial Uses:** the proposed building's ground floor now has 911 square metres of commercial floor space (slightly lower than the original 1,090 square metres), reconfigured for a larger commercial unit oriented towards Belmont Avenue West (food store); three smaller commercial units oriented to the pedestrian "mews" on the north side of the building (restaurants); and a larger, more pronounced, residential lobby facing Belmont Avenue West.
- **Residential Uses:** the upper floors (2nd through 11th storeys) now contain 132 residential units (reduced from 163 units originally) with a mix of one- and two-bedroom units. The larger residential lobby is a pass-through lobby connecting Belmont Avenue West to the rear surface parking area and Iron Horse Trail.
- **Car Parking:** car parking continues to be in a two-level underground parking for residents and a small rear surface parking area for visitors and commercial southwest corner of the building along Belmont Avenue West. Belmont Lane extending to the north of the Subject Site, is proposed to act as a flex laneway for convertible seating use. units. The total parking supply has increased to 170 parking spaces (from 161 parking spaces originally), now comprised of 144 underground parking spaces and 26 surface parking spaces.
- **Bike Parking:** the proportion of secure indoor parking areas for residents remains the same, now accommodating 76 bicycle spaces. The short-term bicycle parking spaces remain the same with 10 bike rack spaces, 6 spaces on the Belmont Avenue West frontage and 4 spaces in the rear parking area near the proposed Iron Horse Trail connection.
- **Service Areas:** the ground floor internalizes garbage and loading functions, situated away from the Belmont Avenue West frontage, with loading, garbage and emergency service vehicles accessing the building from the rear laneway.
- **Exterior Amenity:** units have either a private terrace or a private balcony. Units on floors where the building mass pulls back from the floor below (2nd, 3rd and 8th floors) have private terraces that extend the width of the units. The units on the remaining floors (4th through 7th floors and 9th through 11th floors) have private balconies, either inset or hanging.

IRON HORSE TRAIL

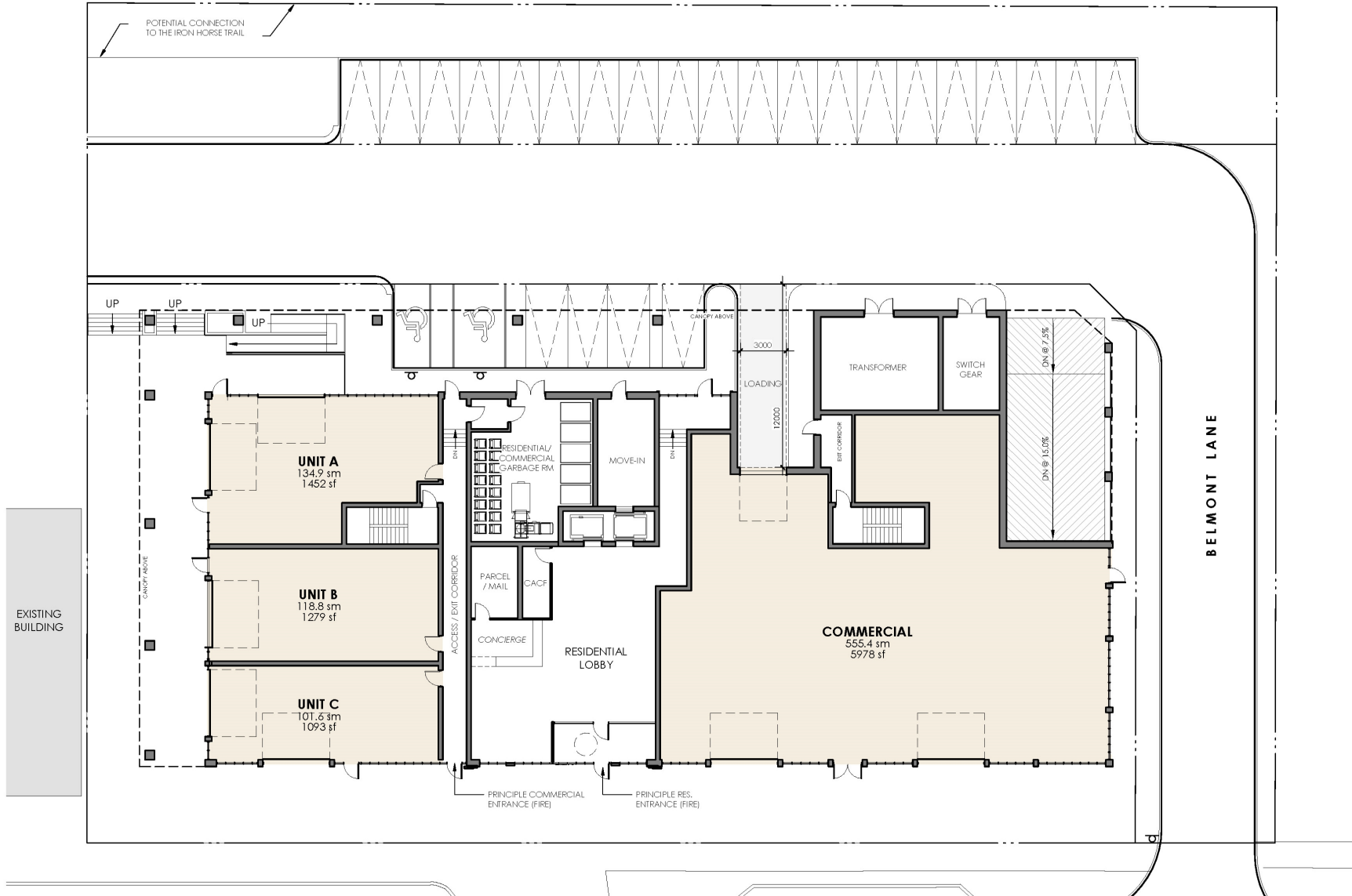


Revised Development Plan

Source: ABA Architects (October 2021)

Proposed Ground Floor Plan

Source: ABA Architects (October 2021)



Building Massing

The proposed development has a building footprint of 1,411 square metres, a floor space ratio of 3.5 and overall height of 39.1 metres (plus mechanical penthouse). The building mass consists of a mid-rise building podium, including a lower podium (base) and upper podium, and building tower.

Building Lower Podium (Base)

The building's base is two storeys in height (8.85 metres tall) to align with the height of the building to the north. This base continuously lines the Belmont Avenue frontage, occupying 80% of the street frontage. It is situated intimately to the street with a 4.9-metre setback to the Belmont Avenue West right-of-way edge. The ground floor on the northern end recedes 3 metres under the 2nd storey above, coinciding with commercial patio space of the pedestrian "Mews" outlined in the following sections.

Building Upper Podium

The building's upper podium comprises the 3rd through 7th storeys above the base. The upper podium mass is distinguished from the base with stepbacks on the western, southern and eastern building edges beginning on the 3rd storey, creating a "beltline" effect accentuated

Building Base Scale and Massing along Street

Source: ABA Architects (October 2021)

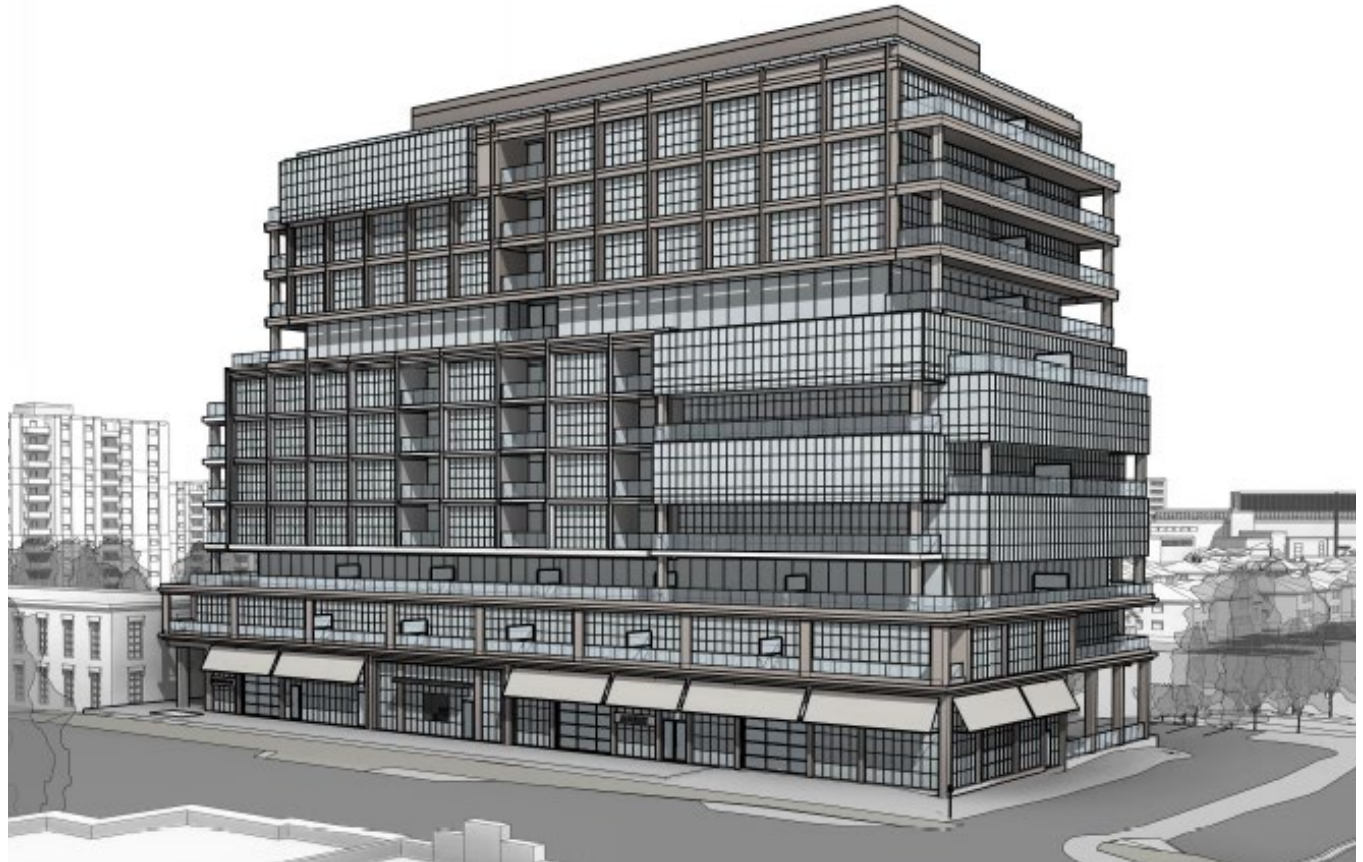


with the glazing treatment on this storey. The west side (facing Belmont Avenue) steps back 2.7 metres above the building base. Above the 3rd storey, the upper podium mass projects forward over the 3rd storey to further accentuate the beltline. This includes an alternating pattern of glass-clad projecting

volumes surrounding the upper podium's southwest corner for effect. The 8th storey as part of the tower portion also has the similar belt-line treatment of stepbacks and glazing as the transition from upper podium to the tower portion above.

Building Tower

The building's tower portion consists of the 8th through 11th storeys, together with the mechanical penthouse above. The tower steps back 6.8 metres from the upper podium's northern end and 5.2 metres from the southern end. To the east, the tower steps back 2 metres beginning at the 3rd level. In total, the building tower is situated 19.8 metres to the eastern property line (Iron Horse Trail), 12.5 metres to the northern property line (672-698 Belmont Avenue West), and 15.9 metres to the southern property line (Tim Horton's), providing physical separation to abutting interfaces. The building top is defined with a mechanical penthouse defining the roofline, stepped back again from the edges of the building.

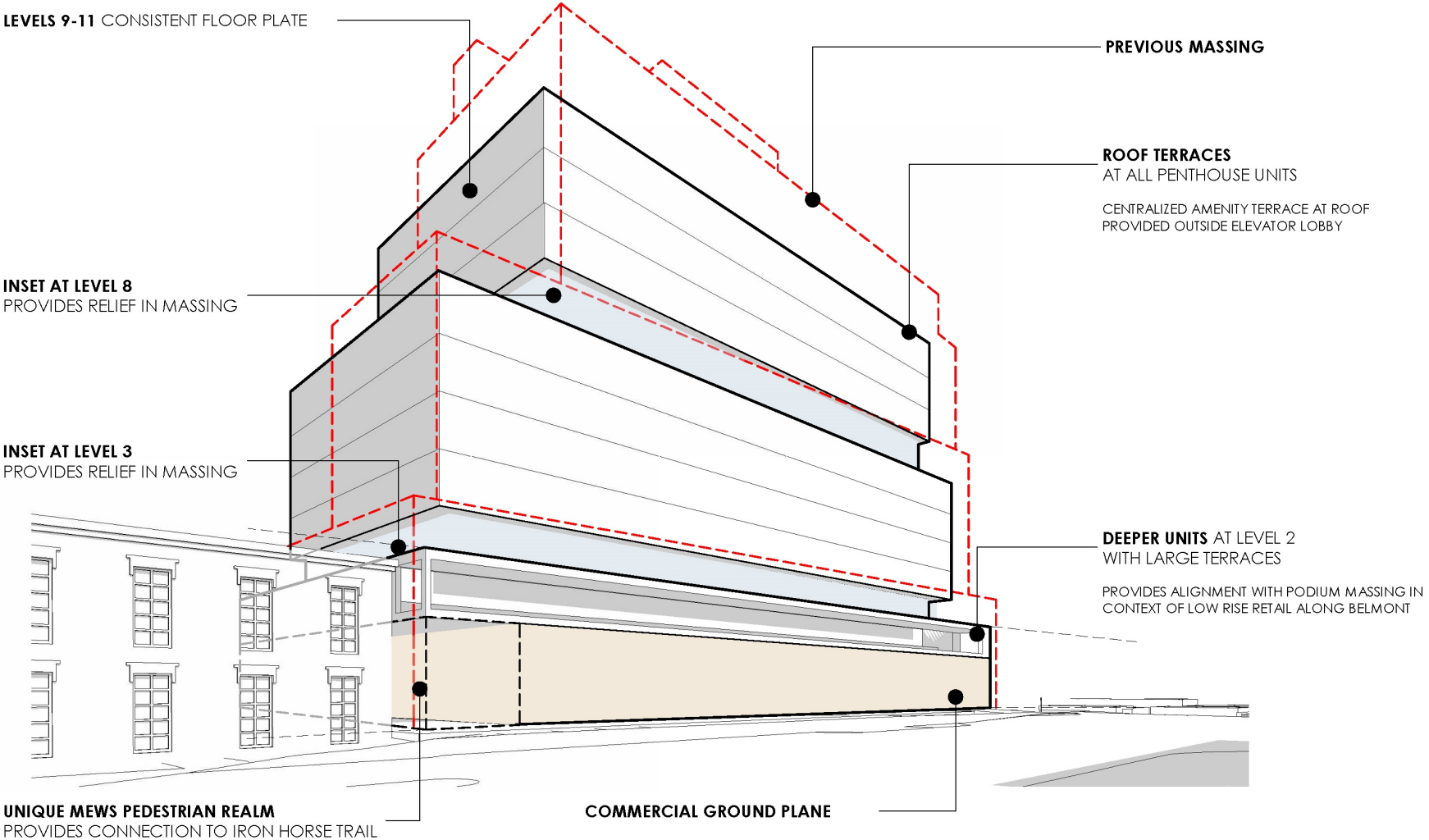


Overall Building View

Source: ABA Architects (October 2021)

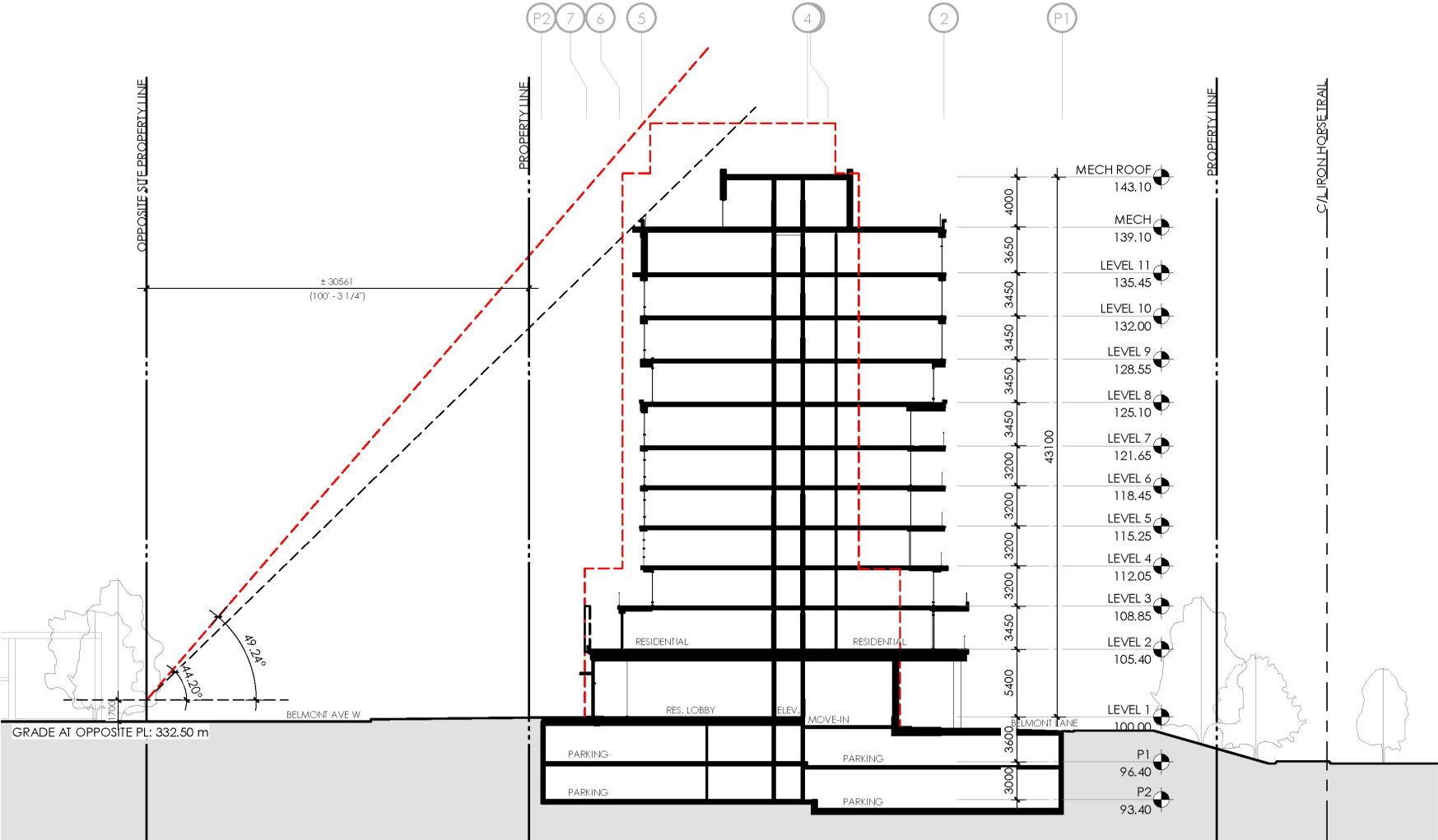
Building Massing Changes from Original to Revised Development Plan

Source: ABA Architects (October 2021)

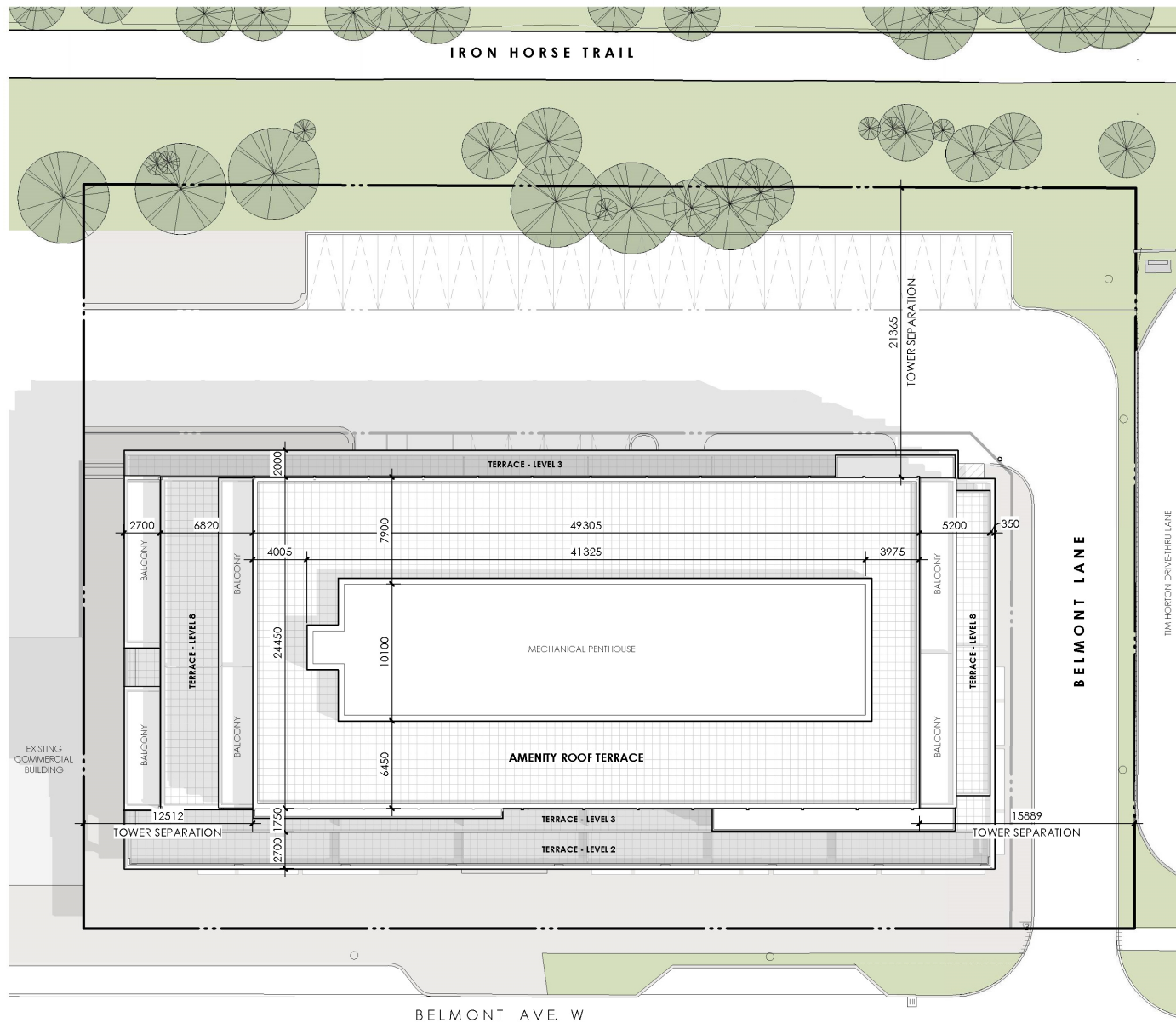


East-West Cross-Section and Angular Plane

Source: ABA Architects (October 2021)



--- OUTLINE OF MASSING AS PER ZBA/OPA SUBMISSION JULY 2020



Building Massing Stepbacks
 Source: ABA Architects
 (October 2021)

Rear Laneway and Trail Interface

Source: ABA Architects (October 2021)

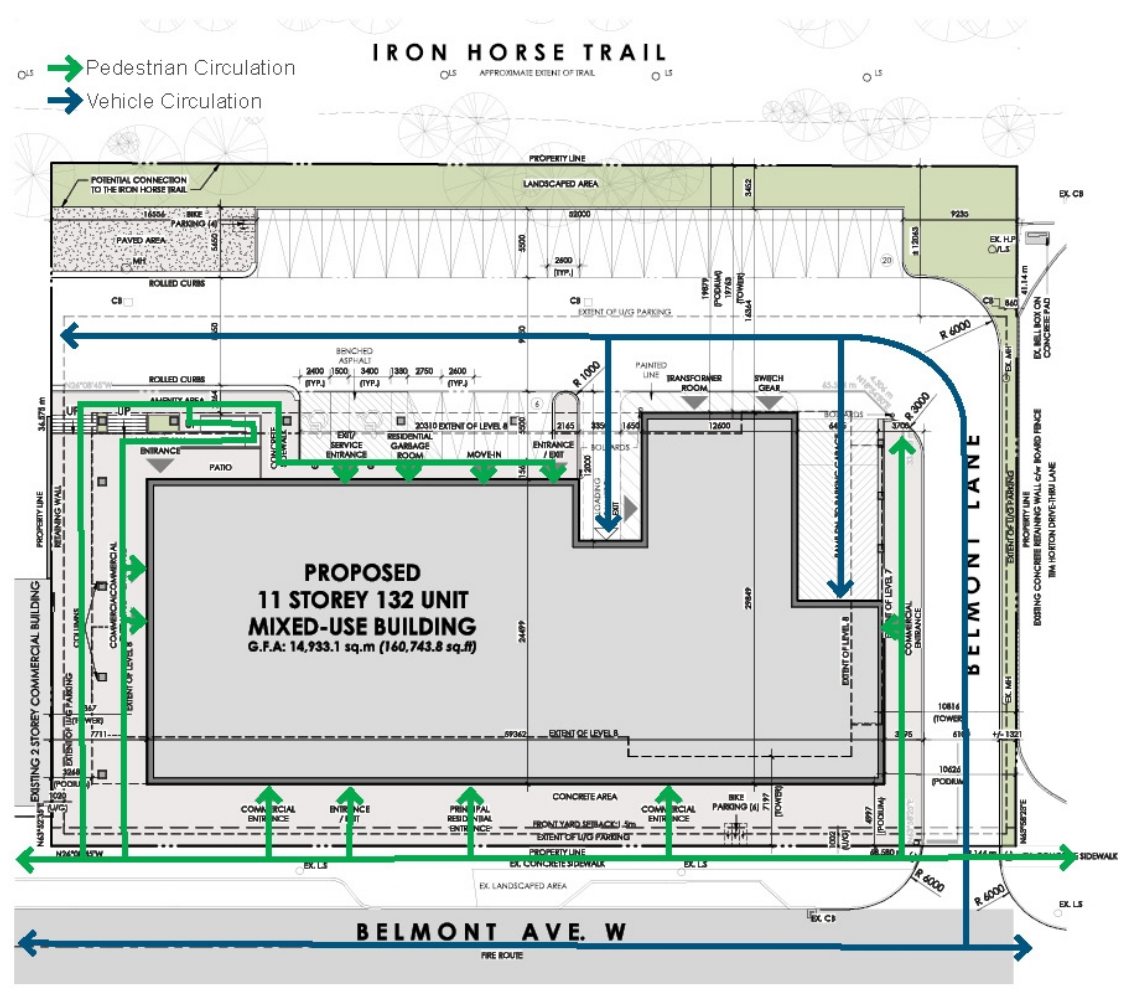


Access and Circulation

Commercial units front Belmont Avenue West as well as the northern building end facing the pedestrian Mews with individual unit entrances. Some will have access from the common lobby as well. The residential lobby connects through the building from Belmont Avenue West to the rear parking area.

Pedestrian access to the building is available off Belmont Avenue West. Paved walkways connect the unit entrances to the public sidewalk along the frontage, with an internal 1.5-metre sidewalk proposed along the western edge of Belmont Lane East to provide access to the residential lobby at the rear. Pedestrian and cyclists connections to the Iron Horse Trail (stairs and barrier-free ramp) are proposed at the Subject Site's northeast corner for access.

Vehicular and cycling access to the Subject Site will be provided from Belmont Avenue West, with Belmont Lane East connecting to the rear surface parking area and underground parking garage ramp. Loading, garbage and emergency service vehicles will be accommodated through the laneway and surface parking area to the rear



Site Circulation

Source: ABA Architects (June 18, 2020), Emphasis Added

Building Materials and Articulation

Detailed architectural plans and elevations have not been completed for the Zoning By-law Amendment. The architectural style is intended as a clean, contemporary look for the building. Architectural precast panels arranged in a regular grid-like pattern in light colour tones are proposed to harmonize with the surrounding neighbourhood. A high degree of transparency is accommodated along all building elevations, with a particular emphasis on the ground floor plane and “beltline” storeys between the base, upper podium, and tower portions of the building.

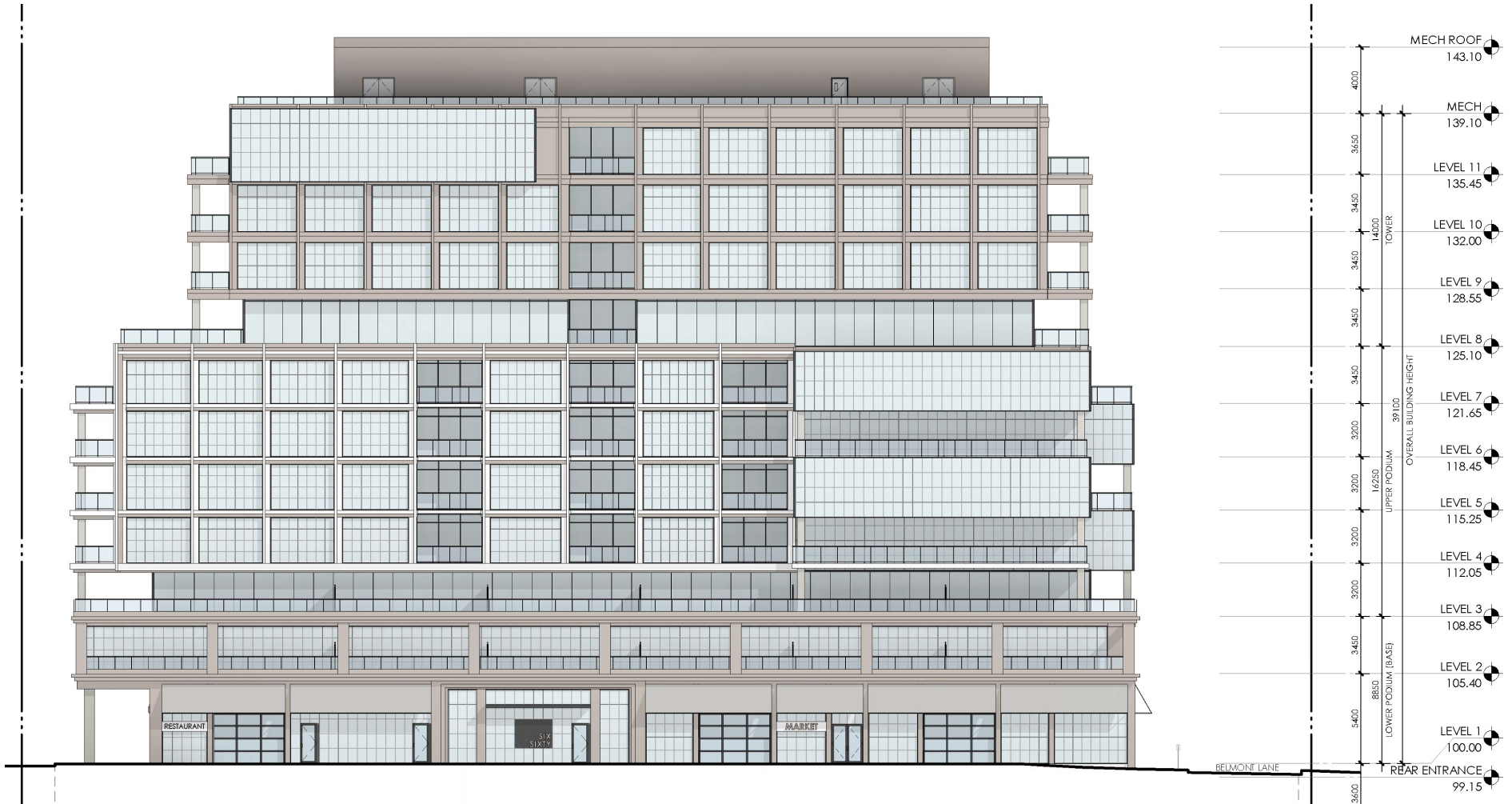


Project Reference

Source: ABA Architects (July 2020)

Western Building Elevation (facing Belmont Avenue West)

Source: ABA Architects (October 2021)

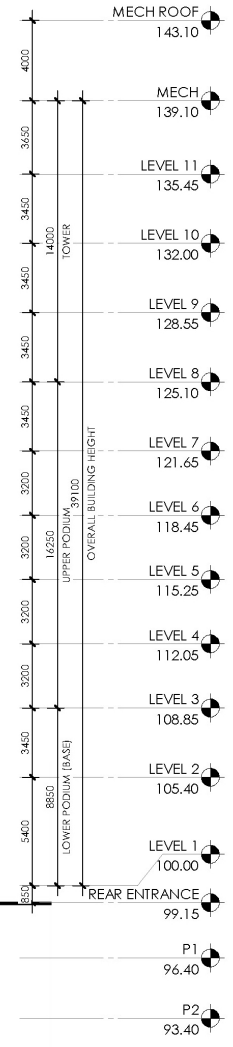
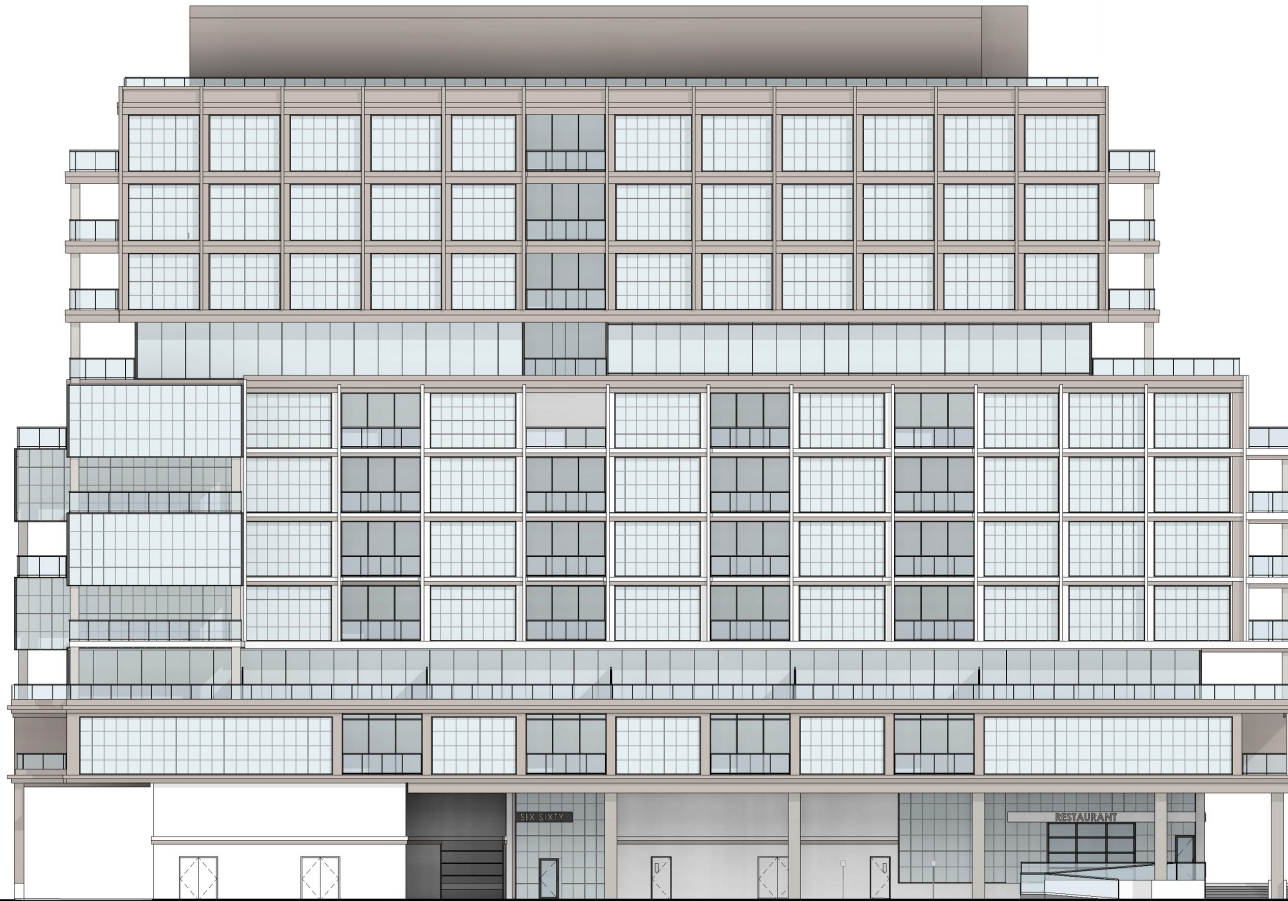


Eastern Building Elevation (facing Iron Horse Trail)

Source: ABA Architects (October 2021)

PROPERTY LINE

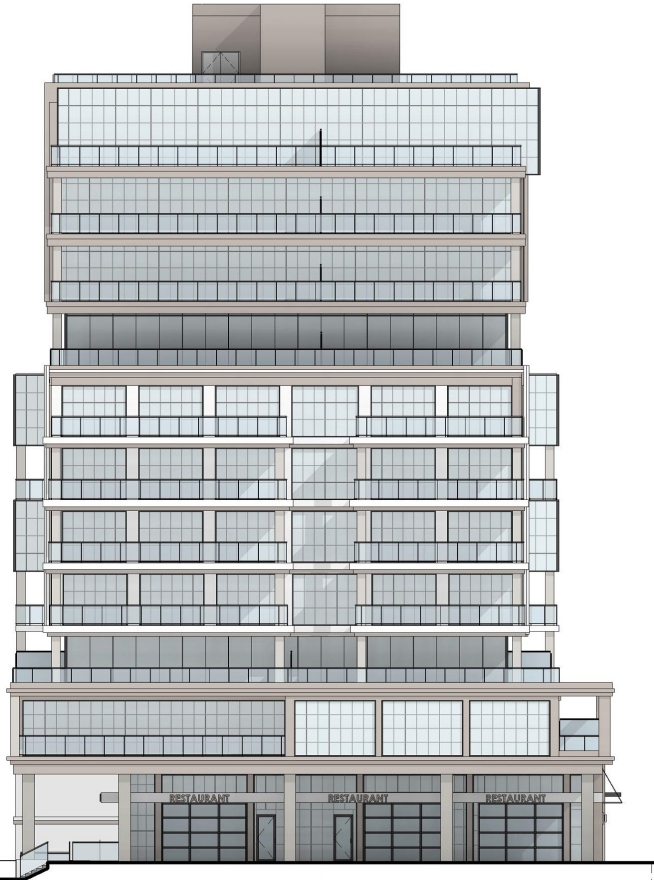
PROPERTY LINE



BELMONT LANE

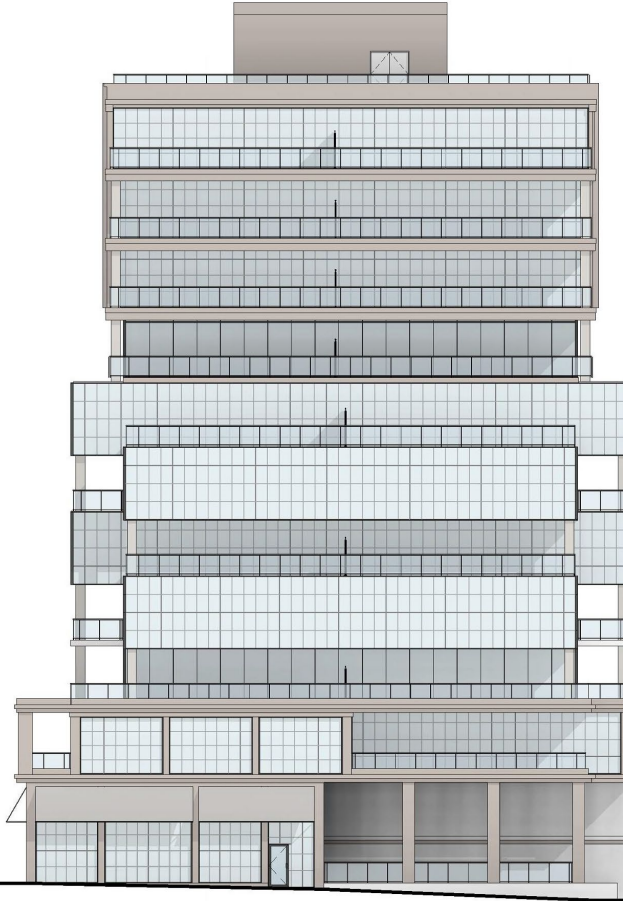
RAMP TO PARKING

EXTENT OF PARKING



Northern Building Elevation

Source: ABA Architects (October 2021)



Southern Building Elevation

Source: ABA Architects (October 2021)

Streetscape and Landscape Design

A conceptual landscape plan for the Subject Site emphasizes common amenity areas, internal pedestrian walkways, connections to the Iron Horse Trail, and perimeter screening planting. The proposed site layout incorporates the following landscape elements.

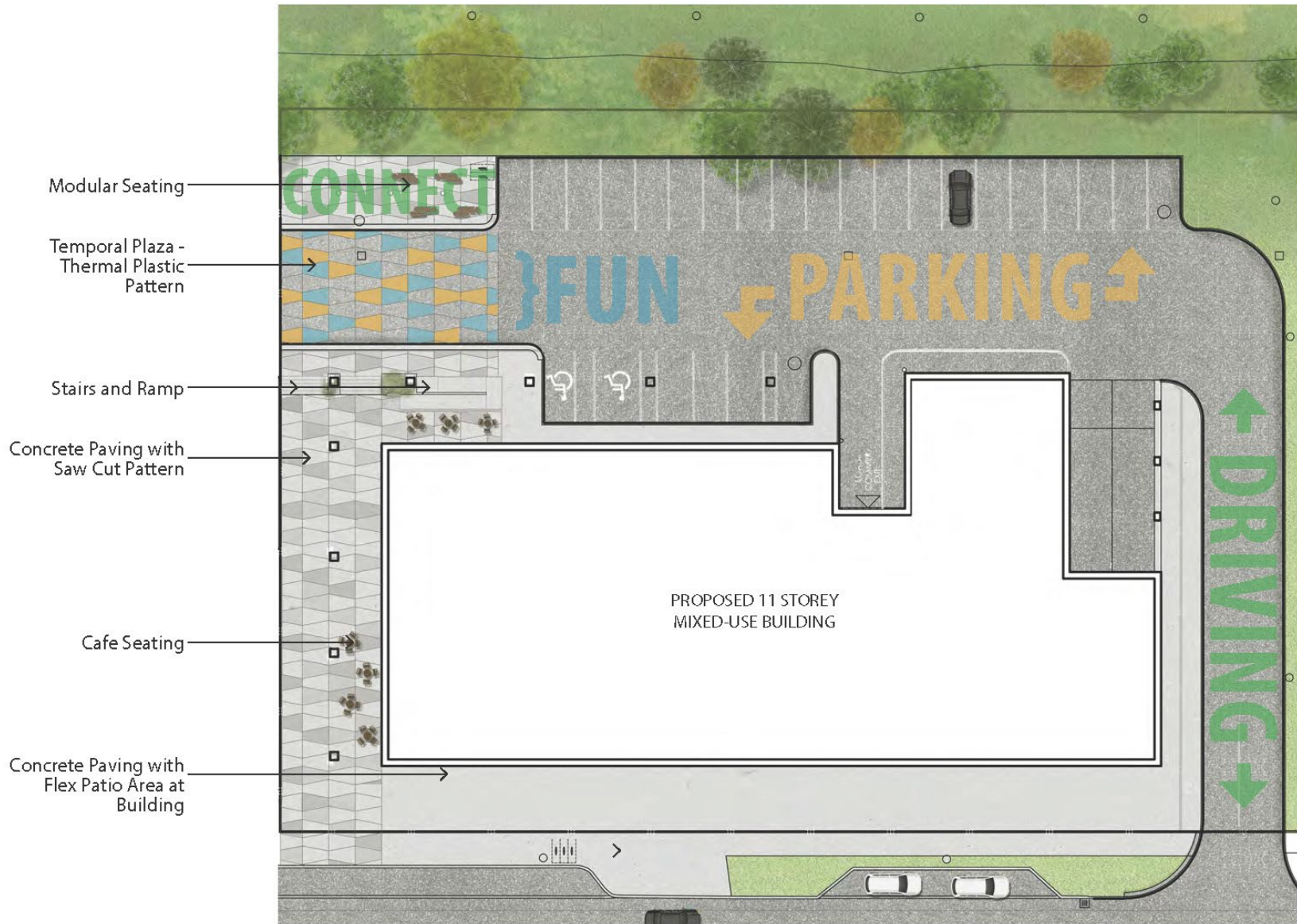
- **Streetscape Design:** Along Belmont Avenue West, the landscape design includes a barrier-free paved plaza area for building entrances and commercial spill-out space, accommodating opportunities for planters to provide year-round visual interest as well as site furnishings.
- **Pedestrian Mews:** a wide pedestrian “Mews” extends along the Subject Site’s northern edge, extending from Belmont Avenue West to the Iron Horse Trail corridor. The Mews serves a dual purpose: providing for patio/café space for commercial units facing the Mews and remainder as a pedestrian route between the Belmont sidewalks and Iron Horse Trail.
- **Flexible Plaza:** the Mews will extend into the rear laneway as a flexible, convertible plaza space for events, functions, and patios. It will operate as a vehicular laneway or a pedestrian plaza at different times. It will



be distinguished from the remainder of the laneway with different surface patterns and colours to convey the pedestrian nature of the space.

- **Iron Horse Trail Connection:** a trail connection (both stairs and a barrier-free ramp is being proposed) to the Iron Horse Trail from the above pedestrian mews is proposed, complemented by a naturalized edge on the Subject Site with a program of native plantings.

- **Plantings:** Parking lot perimeter and internal walkway edges will be planted with deciduous trees (where there is sufficient soil volume) and supported by additional ground landscaping.
- **Service Areas:** screening of utility boxes and amenity spaces will be provided as required.



Site Landscape Concept

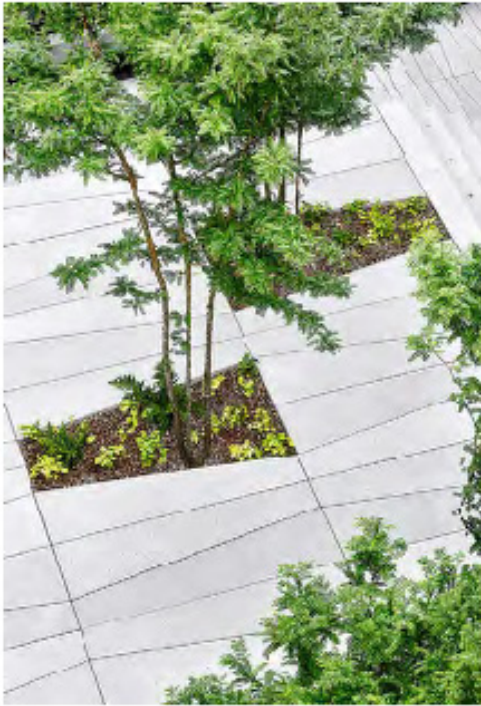
Source: The Planning Partnership (September 2021)



Pedestrian Mews between Street and Trail

Source: ABA Architects(October 2021)





Site Landscape Concept – Project References

Source: *The Planning Partnership* (September 2021)



Sustainable Design

Sustainable Location

The Subject Site's location provides contextual benefits in terms of existing services, infrastructure and land use mix. The proposed development is a compact intensification of an existing developed and serviced site within an area that is served by existing public service facilities, public transit, and commercial and community uses. The Subject Site is connected to employment, residential and institutional locations in the immediately surrounding area and throughout Kitchener by local public transit services and the nearby ION route. It is well connected in terms of active transportation connections, backing onto the Iron Horse Trail and situated on Belmont Avenue with sidewalks and bicycle facilities.

Sustainable Transportation

Sustainable transportation options are a key element of the proposed redevelopment. The design limits surface parking with most parking through a new integrated parking garage, maximizing the site use and reducing associated heat island effects. Unbundled residential parking provide opportunities for car-free living, given transit proximity and walking and cycling infrastructure. The mixed-

use nature of the redevelopment, including residential and commercial spaces, provides for parking efficiencies including opportunities for shared use parking. Secure bicycle storage areas provide for safe bicycle parking.

Water Conservation

Details on water supply systems are not known at the time. Alternative water supply and demand management systems have not been explored at this time. The landscape plan's planting scheme will focus on hardy, low maintenance species, including deciduous trees, shrubs, grasses and ground cover. Planting plans use durable, low irrigation species. Rainwater harvesting, LID measures and alternative roofing approaches will be explored for the podium rooftop through detailed design. Site stormwater will be controlled through connections to the existing sewers on Belmont Avenue West.

Energy Conservation and Generation

Exterior cladding and wall assembly are not known at the time of the Zoning By-law Amendment application. Increased insulation, high-performance glazing and lower window-to-wall ratio will all be considered as part of the detailed building design to be conducive to energy conservation. Alternative or renewable

energy systems have not been considered at this time. Rooftop Solar PV installations are not being considered. The north-south orientation of the site limits opportunities for south-facing exposures. Cool roofs can contribute to reducing the heat island effects.

Air Quality

The landscape plan will include deciduous trees that will contribute to the urban tree canopy. Site landscaping and infrastructure will emphasize sustainable options. The Subject Site is adjacent to six existing GRT routes and is within 800 metres of the ION Grand River Hospital station. The development proposes 98 bicycle parking spaces in a combination of secure locker and street-level spaces to suit the needs of all tenants.

Waste Reduction and Management

The existing building on the Subject Site would not be practical for re-use or conservation given site remediation and construction requirements for a parking garage. The building incorporates internal waste collection areas to encourage the collecting and recycling of waste produced by residents and tenants. The garbage room is conveniently located at the surface connected to the rear laneway.

5. Shadow Analysis

The Tall Building Guidelines identify that shadow analysis is meant “to demonstrate how a proposed development is designed to mitigate unwanted microclimatic impacts”. Generally, acceptable conditions maintain 3 to 4 hours of sunlight on public sidewalks, private amenity areas / rear yards, and public parks and spaces

Shadow impact graphics for the Revised Development Plan are provided in **Appendix A** for June 21, September 21, and December 21 on an hourly basis. The graphics illustrates three colours to quantify potential shadowing impacts:

- Yellow: illustrates the shadow overlap between those cast by the proposed building form and those by the existing buildings (i.e. not new net shadows).
- Blue: illustrates the new net shadows cast by a hypothetical mid-rise new building (8 storeys) that is built with the existing as-of-right building height and setbacks.
- Orange: illustrates the new net shadows by the proposed development further to the as-of-right building form.

Similar to the original development plan and applications, analysis of these shadow impact graphics demonstrates the impacts are acceptable and provide sufficient sun exposure to affected properties. This recognizes the limited use of outdoor space in December; higher use periods of June and September have significant continuous periods of no impact from the proposed building.

IMPACTS ON:	Iron Horse Trail	Gildner Green	Belmont Sidewalks	Residential Properties
June 21	No impacts from 7am to 2pm	No impacts from 7am to 4pm	No impacts from 9am to 6pm (WEST) No impacts from 11am to 6pm (EAST)	No impacts between 8am and 6pm
September 21	No impacts from 8am to 1pm	No impacts from 8am to 2pm	No impacts from 10am to 5pm (WEST) No impacts from 11am to 5pm (EAST)	No impacts between 9am and 3pm
December 21	No impacts generally from 9am to 12pm	No impacts from 9am to 1pm	No impacts from 10am to 3pm (WEST) No impacts from 11am to 3pm (EAST)	No impacts from 10am to 1pm 3 properties impacted at 9am, but these rear yards receive 6 hours sun Higher number of properties impacted from 2 to 4pm, but largely already shaded under existing conditions

6. Design Framework Analysis

This section contains a summary of the design policies and guidelines relevant to the Subject Site and the Revised Development Plan and assessment of the general themes of those documents.

6.1 Official Plan

6.1.1 Designation Design Policies

The Subject Site is designated Mixed Use in the City of Kitchener Official Plan. The Mixed Use policies are intended with flexibility to permit a broad range of uses at different scales and intensities. The Mixed Use policies (15.D.4) specifically indicate that “*development and redevelopment of properties will be encouraged to achieve a high standard of urban design, be compatible with surrounding areas, be transit-supportive and cycling and pedestrian-friendly*”.

The proposed redevelopment supports the policy direction by providing further uses and density to the Subject Site, that are compatible with the surrounding area, and that supports alternative modes of transportation, including transit, walking and cycling.



Land Use Designation
 Source: Kitchener Official Plan

6.1.2 Urban Design Policies

Section 11 of the Official Plan contains general urban design policies. It states that the policies are intended to be used to evaluate movement patterns, the relationship between built form and open spaces, integration of natural and cultural resources and impacts of development. The general urban design policies require applications to have regard for the city's skyline, CPTED principles, fire prevention, barrier-free accessibility, and shade.

Site Design policies require consideration of the building's streets relationship as well as landscaping to improve the streetscape. The policies require developments to improve aesthetic quality and be safe, comfortable, functional and provide circulation for all modes of transportation. The policies seek site servicing and utilities to be screened from view from the public realm. Also, they seek clarity of nighttime visibility and incorporation of design mitigation measures to minimize adverse impacts on Subject Site, adjacent properties and the public realm.

Building Design, Massing and Scale design policies require buildings to relate to human scale proportions to support a comfortable and

attractive public realm. This includes encouraging attractive building forms, façades and roof designs; complementary design of new buildings relative to existing buildings; and architectural innovation and expression.

The Revised Development Plan continue to supports these urban design policies as it:

- Makes a positive contribution to the skyline with an articulated roofline;
- Is barrier-free accessible;
- Provides access for emergency service vehicles;
- Provides for "eyes on the street" and implements other CPTED measures;
- Contemplates tree planting provides for shade along the streetscapes;
- Building siting and orientation that relates well to the public frontage;
- Enhances streetscape conditions along the street frontage with proposed urban landscape treatments;
- Contributes to pedestrian comfort with a high transparency on the ground floors and commercial entrance facing the street;
- Provides access for vehicles, pedestrians, and cyclists;
- Provides secure parking for both vehicles and bicycles;
- Internalizes garbage, loading and mechanical room, minimizing visual impacts from the public realm;
- Incorporates recessed vestibules and building setbacks as mitigation measures to minimize adverse wind impacts;
- Incorporates fencing along the southern interior property boundary to mitigate potential for privacy and minimize light impacts on adjacent properties;
- Provides a human-scaled proportions for the building base;
- Provides an articulated built form with setbacks and terracing, inset and hanging balconies, and well-defined and distinguished base, upper podium and tower portions; and
- Intends to provide high quality and attractive building materials on all elevations.

6.2 Urban Design Manual

6.2.1 Relevant Design Guidance

PART A – Design Guidelines

Part A contains design guidelines on topics of built form type, geographic areas, and urban structure type.

a) City Wide

The City-Wide design guidelines apply to Kitchener as a whole. The main objective of these guidelines is to ensure that the Kitchener is designed as an inclusive, safe, accessible, comfortable and appealing place to live, work and play. Guidelines are divided into Community Design and Site Design. The Community Design guidelines are primarily used by the City in designing the form and structure of communities through the application of design best practices in a range of topics. The Site Design guidelines address built form, open space and Site functionality.

(b) Major Transit Station Areas

The Major Transit Station Areas guidelines apply generally for areas within walking distance (approximately 1 kilometre) of the Grand River Hospital ION Station. Although the

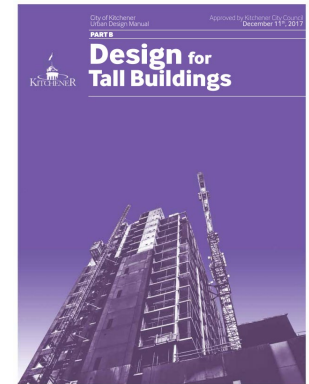
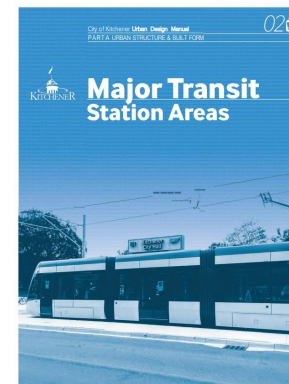
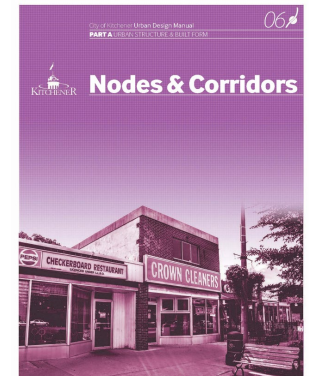
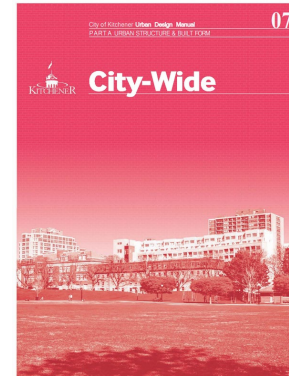
Subject Site is not within the intensification areas established by the *Planning Around Rapid Transit Stations* (PARTS) project, where the guidelines are focused, they are germane to the proposed development.

(c) Nodes and Corridors

The Nodes and Corridors guidelines apply to key intensification areas which help provide transit-supportive development. Relevant goals include providing suitable transition between high-density development and adjacent low-rise, new buildings of compatible design to the surrounding area and the use of high-quality materials.

(d) Tall Buildings

The Kitchener Tall Building guidelines guide the design of tall buildings in the city, defined in the Official Plan as buildings over 9 storeys in height. These guidelines are meant to be read in conjunction with the policies of the Official Plan and guidelines of the Urban Design Manual and are meant to be applied on a case-by-case basis.

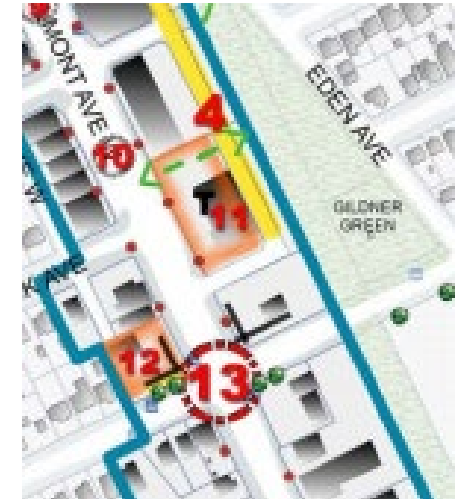
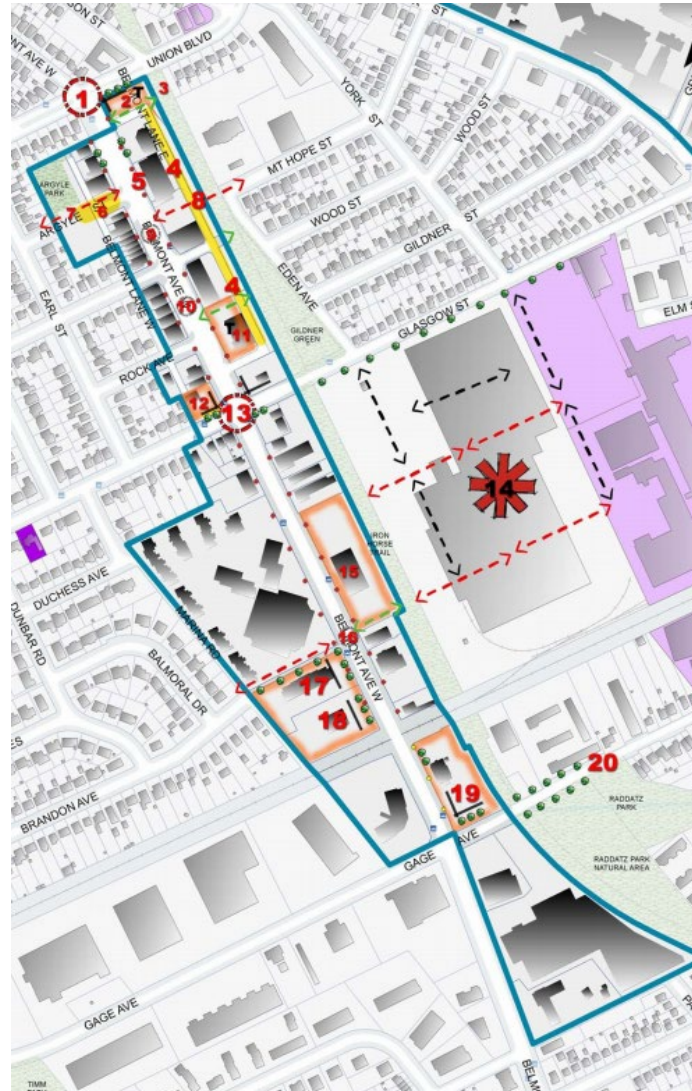


PART B – Design Briefs

Part B contains design briefs for certain geographic areas or building typologies. The “Mixed Use Corridor” Design Brief is applicable to the Subject Site. The Brief contains general guidelines for all the various corridors as well as specific guidelines for particular corridors. The Belmont Avenue Corridor guidelines has more specific guidance, including for the Subject Site. The specific guidelines suggest a low-rise (3-4 storey building) for the Subject Site, recognizing this guidance is dated (2012) and pre-dates, and is superseded, by the current Official Plan Kitchener from 2014.

PART C – Design Standards

Part C contains design standards with specifications on technical details. Several standards are applicable to the proposed development, including those for parking structures, access, surface parking, outdoor lighting, barrier-free accessibility, pedestrian and transit-supportive development, rooftop mechanical equipment, emergency services, landscaping and natural features, storm water management facilities and landscape design. These technical aspects of the detailed design will be evaluated at a later stage of the review process through Site Plan Approval.



Belmont Avenue Corridor

Source: Kitchener Urban Design Manual, Part B

6.2.2 Design Response Highlights

Inclusive Design

- Dedicated walking routes from Belmont Avenue through/around the building to the rear, with potential pedestrian connection to the Iron Horse Trail.
- Pedestrian-scale lighting to be defined at detailed design stage.
- Uninterrupted sight lines from the building length to both the Belmont Avenue sidewalks to the front and the parking area and the Iron Horse Trail to the rear.
- Large ground floor commercial unit fronting directly onto Belmont Avenue West, animating the street with people and activity.
- Smaller ground floor commercial units facing directly onto Pedestrian Mews, animating that intimate space with people and activity (as well as flanking Belmont Avenue West for end unit).
- Continuous movement routes through the Subject Site and through the building that avoids any entrapment areas.
- Prominent and large lobby entrance mid-point on the building.
- Accessible routes that will be universally designed at the time of detailed design.

- A mix of different sizes of units sizes and types to provide for housing choice.
- Each unit has private terraces or balconies for individual outdoor spaces.

Smart City Design

- Details of building interiors and building/site infrastructure not known at this time.

Design for Sustainability

- Compact intensification of an existing developed and serviced site within an area that is served by existing transit, commercial and community uses.
- Subject Site within 800 metres of ION Grand River Hospital Station and near six existing GRT routes.
- Subject Site connected to employment, residential and institutional locations in the immediately surrounding area and throughout Kitchener.
- Subject Site backing onto the Iron Horse Trail and situated on Belmont Avenue with sidewalks and bicycle facilities
- Minimal surface parking with most parking (85%) in an underground parking garage, reducing associated heat island effects.

- Unbundled residential parking provides opportunities for car-reduced living.
- Parking storage rooms and EV Charging stations within the parking garage.
- Deciduous trees rear (parking/trail) areas contribute to the urban tree canopy.
- Focus to be on hardy, low maintenance species, including deciduous trees, shrubs, grasses and ground cover.
- Stormwater controlled through connections to the existing sewers on Belmont Avenue per engineering drawings.
- Architectural features (such as canopies) and building envelope considerations (increased insulation, high-performance glazing and lower window-to-wall ratio) to be explored through detailed design.
- Material choice and detailing at time of detailed design to address bird collision avoidance guidelines.
- 83 bicycle parking spaces in a combination of secure locker and street-level spaces to suit the needs of all tenants.
- Internal waste collection areas to encourage the collecting and recycling of waste produced by residents and tenants.

Design of Outdoor Comfort

- Wind Study demonstrates satisfactory safety and comfort conditions surrounding the new building.
- Shadow Study demonstrates satisfactory sun exposure conditions for surrounding streets, public spaces and properties.
- Lighting and landscape plans at the time of detailed design to address pedestrian comfort guidelines.
- Landscape plans at the time of detailed design to address planting opportunities for shading and wind screening, as needed.

Street Design

- Tree planting and other landscape efforts to be explored within Belmont Avenue West right-of-way as part of detailed design.

Public and Open Spaces

- Stair and ramp connections proposed to Iron Horse Trail and onto public Gildner Green on other side.
- Planted edge treatment along Iron Horse Trail to enhance landscape quality intended through detailed design plans.

Site Function

- Belmont Lane East remains as sole access to Belmont Avenue to limit interruption of public sidewalk.
- Underground parking comprises 85% of proposed parking supply.
- Small surface parking for commercial units and visitors situated to the building's rear away from Belmont Avenue.
- Retention of Belmont Lane East as a flex laneway to operate as a vehicular driveway and convertible seating space.
- Continuous pedestrian circulation walkway lines the building's south and east sides.
- Pedestrian connection to the Iron Horse Trail proposed on the Subject Site's eastern edge through stairs and barrier-free ramp.
- Deciduous trees along the eastern property line, abutting the Iron Horse Trail, to shade the small rear surface parking area.
- Low level plantings in this landscape space (3.5 to 4 metres wide) will balance screening and surveillance.
- All functional areas (garbage, loading, mechanical, garage ramp, moving) contained to rear behind the commercial units and common lobby lining the entirety of the Belmont Avenue frontage.

- Two universally accessible walkways crossing the driveway leading to the Iron Horse Trail, a wider walkway to the north (2.5 metres) and a second to the south (2 metre wide).
- Long lay-by space (13.5 metres of usable length) for vehicles on building's rear side for drop-off functions.
- Belmont Lane East maintained as fire access route to required standards and with heavy duty asphalt surface.

Compatibility

- Similar building heights and forms to the northeast and south of Belmont Avenue within the broader neighbourhood.
- Building base set at two storeys, aligned with abutting building and scaled to reflect pedestrian-scaled main street corridor.
- Building set back 4.9 metres from Belmont Avenue West to reinforce surrounding streetscape pattern.
- Building tower situated 19.8 metres to Iron Horse Trail property edge providing appropriate separation.
- Multiple upper storey setbacks throughout building's upper podium, tower, and rooftop portions sculpts the building mass.

- Building mass contained entirely with a 45 degree angular plane from far side of Belmont Avenue West.
- Contemporary architectural style, detailing and materiality to be refined through the detailed design stage.

Cultural & Natural Heritage

- No cultural heritage in the vicinity.
- No natural heritage areas in the vicinity.
- Expected that existing trees along Iron Horse Trail corridor will be removed with new native species and plantings treatments as part of detailed design stage.

Built Form – Massing

- Building podium continuously lines the Belmont Avenue frontage, occupying 80% of the street frontage.
- Building podium massed intimately with Belmont Avenue frontage with 4.9 metre setback to the street edge.
- Building podium positioned towards the northwest corner of the Subject Site (nearest the abutting property also owned by proponent), 10.6 metres to the southern property line (Tim Horton’s) and 19.8

metres to the eastern property line (Iron Horse Trail)

- The upper storeys step back where the building mass transitions from base to upper podium and from upper podium to tower portion.
- The northern end steps back 6.8 metres at the 8th storey.
- The western side (facing Belmont Avenue) steps back 2.7 metres at the 2nd storey and 2.6 metres at the 3rd storey.
- The southern end (facing Tim Horton’s) stepbacks 5.2 metres at the 8th storey.
- The eastern side (facing Iron Horse Trail) steps back 2 metres at the 3rd storey.
- The ground floor on the south side recedes 3 metres under the 2nd storey above, coinciding with commercial patio space of the Pedestrian Mews.

Built Form – Articulation and Materials

- Preliminary building elevations display a clean, contemporary look for the building.
- Architectural precast panels in regular grid-like pattern in light colour tones are provide the solid frame to the building to harmonize with the surrounding neighbourhood.

- High transparency accommodated on all building elevations.
- Ground floor elevation facing Belmont Avenue West and the internal Mews is largely transparent glass to these pedestrian spaces.
- “Beltlines” where the mass recedes at the 3rd and 8th storeys are principally continuous transparent glass surface to further distinguish together with stepbacks.
- Mechanical penthouse clad in single colour pre-cast panels to blend into the articulated detail in the building below.
- Articulation, details, materiality and colours to be refined at the time of detailed design stage, recognizing the guidance offered by the relevant design guidelines.

Built Form – Ground Floor and Base Design

- 2-storey pedestrian-scaled building base distinguished by upper storey stepbacks and intended architectural treatment.
- Podium substantially composed of transparent glass, recognizing a balance with solids for sustainability purposes.
- Centrally-located common lobby combined with a regular pattern of commercial unit entrances along the public sidewalk.

- Podium is 64 metres in length per the design intent of a maximum of 70 metres.
- Weather protection for ground floor units to be explored at the time of detailed design.
- Terraces and balconies on 2nd and 3rd facing Belmont Avenue West.
- “Back-of-house” activities are on the rear side of the building away from Belmont Avenue, or in the underground garage.
- 5.4-metre ground floor height contains high proportions of transparency, materials and detailing.
- Coordinated transition between the commercial entrances and the public realm within the Belmont Avenue West right-of-way to be explored at detailed design stage.

Built Form – Tower Design

- Tower Size is a “Large Slab” (tower floor plate of 1,062 square metres and tower proportion of 1.7)
- Physical Separation of 9.52 metres desired by the Tall Building Guidelines for the tower portion (9th through 11th storeys)
- North (678-692 Belmont) separation of 7.7 metres provided, the slight deficiency mitigated by the fact the property is also owned by the proponent.

- East (Iron Horse Trail) separation of 19.7 metres provided, satisfying the guideline
- South (Tim Horton’s) separation of 10.8 metres provided, satisfying the guideline
- Entire building mass respects 45 angular plane from the far side of Belmont (also respected to low-rise residential neighbourhood to east), a common tool for building compatibility.
- Placement above the 2nd storey maintains the intent of a stepback along Belmont Avenue West (and to Iron Horse Trail side as well), also slightly less than the suggested 3 metres.
- Tower stepbacks from the building ends outlined above provide tapered upper storeys.

Built Form – Top Design

- Narrow, linear enclosed rooftop mechanical penthouse on 11th storey considerably set back from the Belmont Avenue frontage and two building ends.
- Shared, private terraces and connected access suites surround the mechanical penthouse from these sides, further diminishing views of the utility space.

- Roofline contributes to building top with railings to provide dual wind protection and aesthetic effect.

Shared Spaces

- Variety of private terraces and balconies throughout the building with different configurations and situations.
- Floors 2 and 3 with terraces/balconies on the west and east sides.
- Floor 3 additionally wraps to the south side corresponding with building stepback.
- Floors 4 through 7 with partially recessed balconies on the west, south or east sides.
- Floor 8 with generous private terraces for end units corresponding to substantial stepbacks, plus recessed balconies for some units facing east and west.
- Floors 9 and 10 with end and mid-building balconies.
- Floor 11 with a combination of shared amenity terrace for the building and private terraces for individual units, all of which occupies most of the building rooftop.
- Balcony and terrace details to address guidelines as part of detailed architectural design, as informed by Wind Study recommendations.

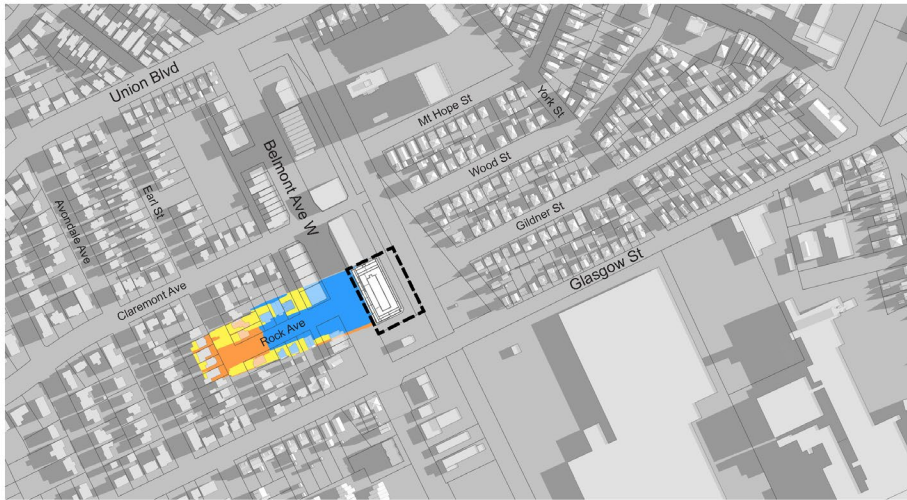
7. Conclusion

Based on the review contained in this Urban Design Report, the Revised Development Plan for an 11-storey mixed-use building is well-designed and supports the intent and spirit of the Official Plan policies and relevant guidelines of the Urban Design Manual as it:

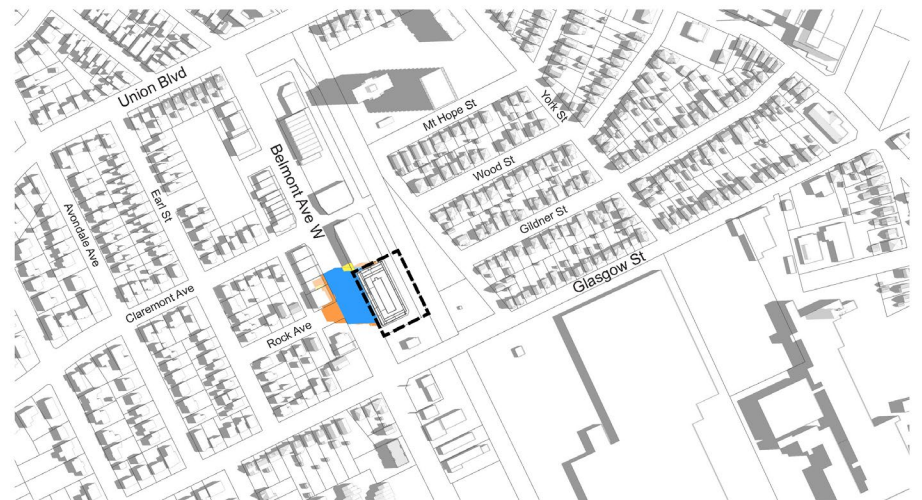
- Provides a compact, urban intensification on a site well-served by public transit, commercial activities and community facilities;
- Accommodates the bulk of parking within an underground parking garage for residents with a small surface parking area for commercial uses and visitors;
- Links the Subject Site, entrances and functional areas through a safe and connected circulation pattern for pedestrians, including potential connections to the Iron Horse Trail;
- Accommodates opportunities for landscape treatments that reinforce the public streetscape quality and appropriately edge the Iron Horse Trail corridor to the rear;
- Establishes a pedestrian-scaled base defined by an intimate relationship to the street, upper storey step backs to distinguish, and an active and transparent commercial ground floor;
- Positions the building's tower portion (9th storey and above) respecting the separation guidelines for tall buildings, recognizing the mutual ownership of the abutting commercial property to the north of the Subject Site;
- Sculpts the upper storeys through building stepbacks on both the building's sides and ends as the building rises, reducing the perception of mass and providing a refined building shape;
- Does not create unacceptable micro-climatic conditions from a wind and shadow perspective, as concluded by supporting studies; and
- Will establish a clean, contemporary architectural aesthetic featuring precast panels and transparent glass, which will be explored and refined through the detailed design stage.

APPENDIX A

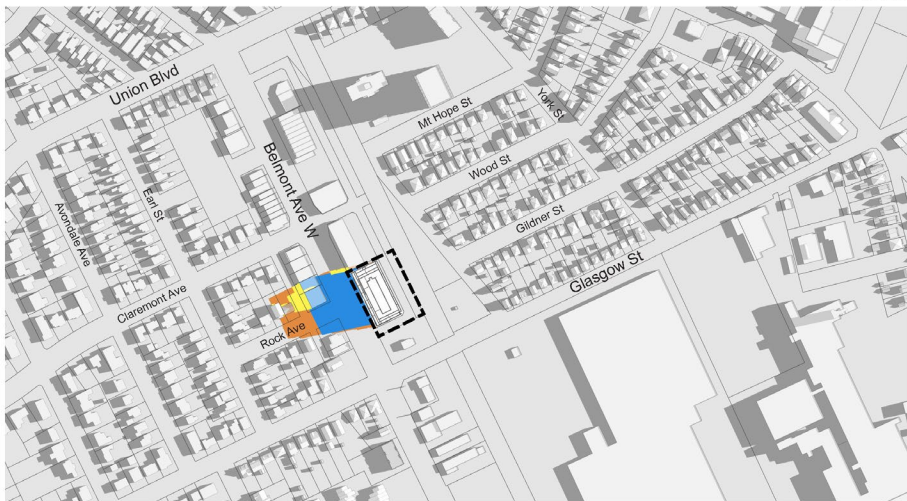
Shadow Analysis Graphics



6:00am



8:00am



7:00am



9:00am

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am

Sunset - 9:06pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am

Sunset - 9:06pm



10:00am



12:00pm



11:00am



1:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am
Sunset - 9:06pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am
Sunset - 9:06pm



2:00pm



4:00pm



3:00pm



5:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

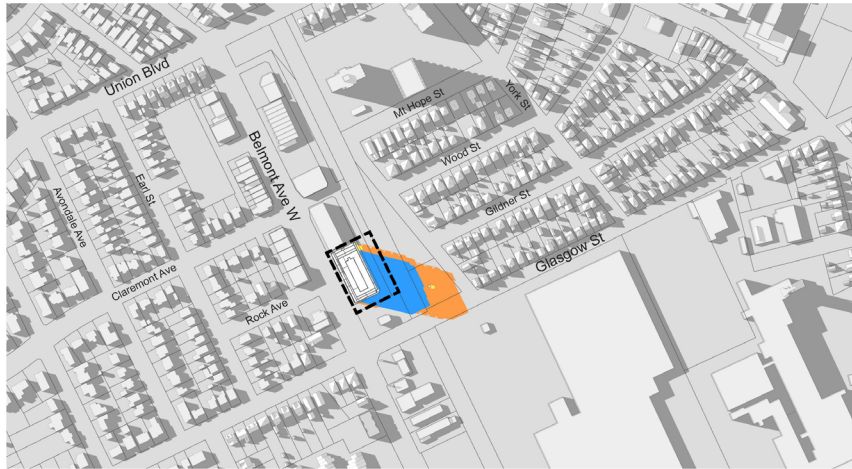
JUNE 21

Sunrise - 5:41am
Sunset - 9:06pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am
Sunset - 9:06pm



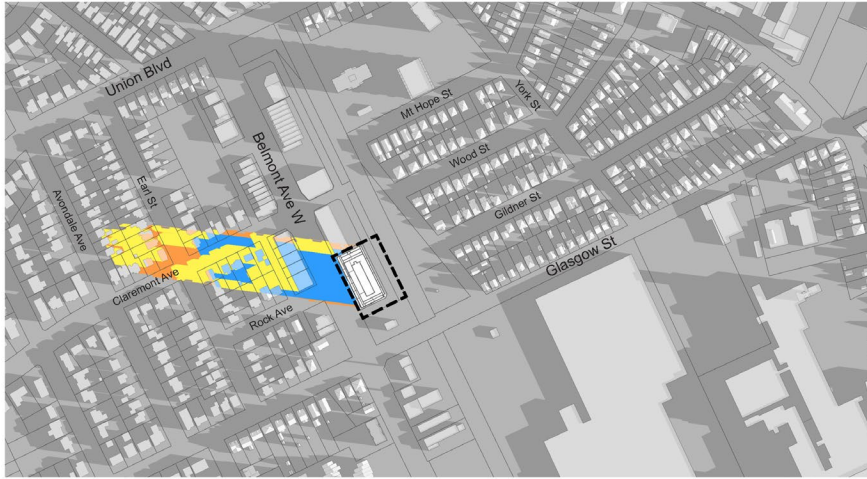
6:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

JUNE 21

Sunrise - 5:41am

Sunset - 9:06pm



7:00am



8:00am

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21
 Sunrise - 7:09am
 Sunset - 7:20pm



9:00am



10:00am

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21
 Sunrise - 7:09am
 Sunset - 7:20pm



11:00am



12:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21

Sunrise - 7:09am
Sunset - 7:20pm



1:00pm



2:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21

Sunrise - 7:09am
Sunset - 7:20pm



3:00pm



4:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21

Sunrise - 7:09am
Sunset - 7:20pm



5:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

SEPTEMBER 21

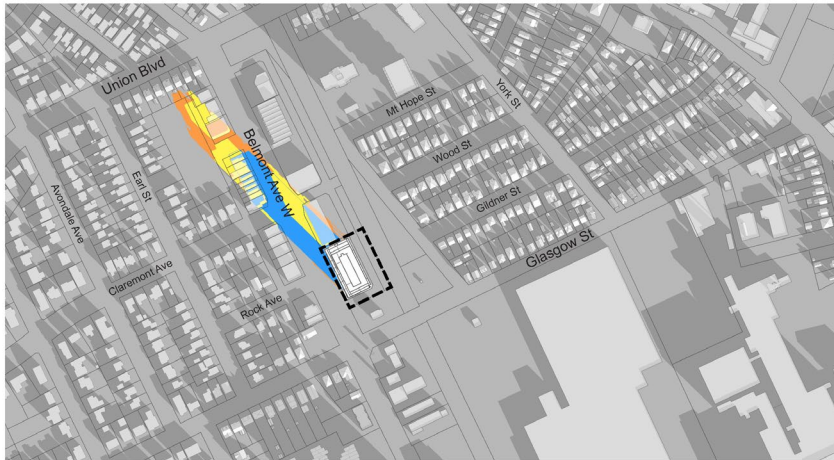
Sunrise - 7:09am
Sunset - 7:20pm



8:30am



10:00am



9:00am



11:00am

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

DECEMBER 21

Sunrise - 7:52am

Sunset - 4:49pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

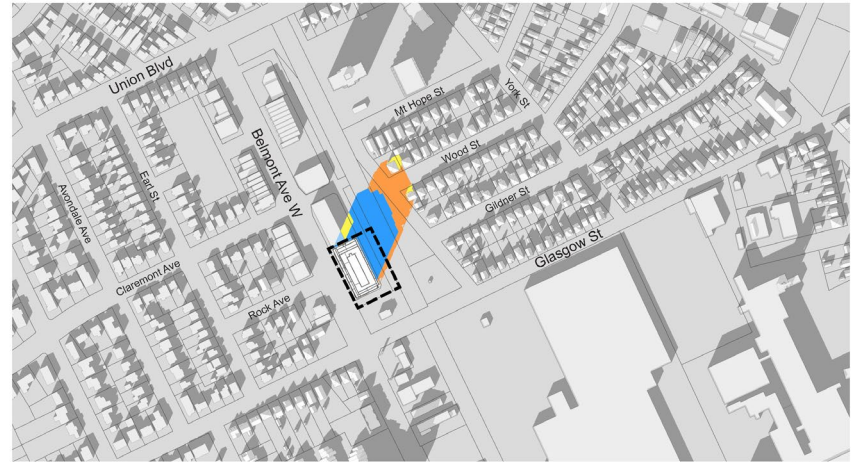
DECEMBER 21

Sunrise - 7:52am

Sunset - 4:49pm



12:00pm



2:00pm



1:00pm



3:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

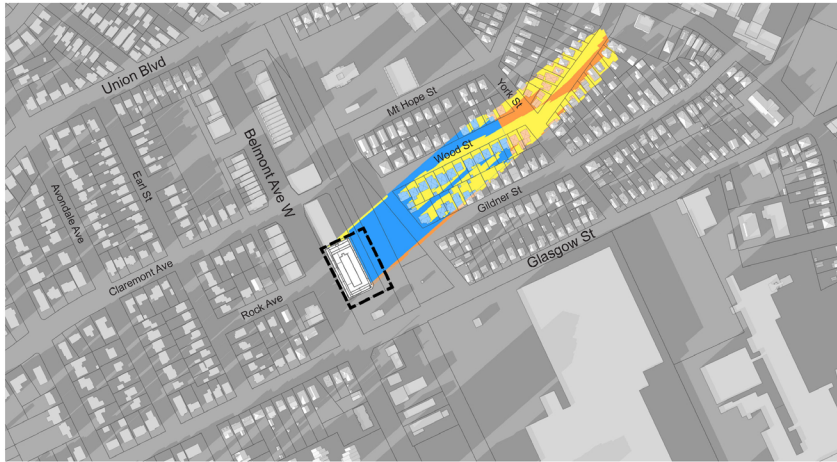
DECEMBER 21

Sunrise - 7:52am
Sunset - 4:49pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

DECEMBER 21

Sunrise - 7:52am
Sunset - 4:49pm



4:00pm

- EXISTING SHADOWS
- NEW NET SHADOWS WITH AS-OF-RIGHT ZONING
- NEW NET SHADOWS WITH PROPOSED BUILDING

DECEMBER 21

Sunrise - 7:52am

Sunset - 4:49pm