Urban Design Brief

2481 Barton Street East, Hamilton, ON

Zoning By-Law Amendment

December, 2022

Project: 22073

Prepared for:

Barton Street Developments Inc.
12 Chiavatti Dr.
Markham, ON
L3R1E2

Prepared by:
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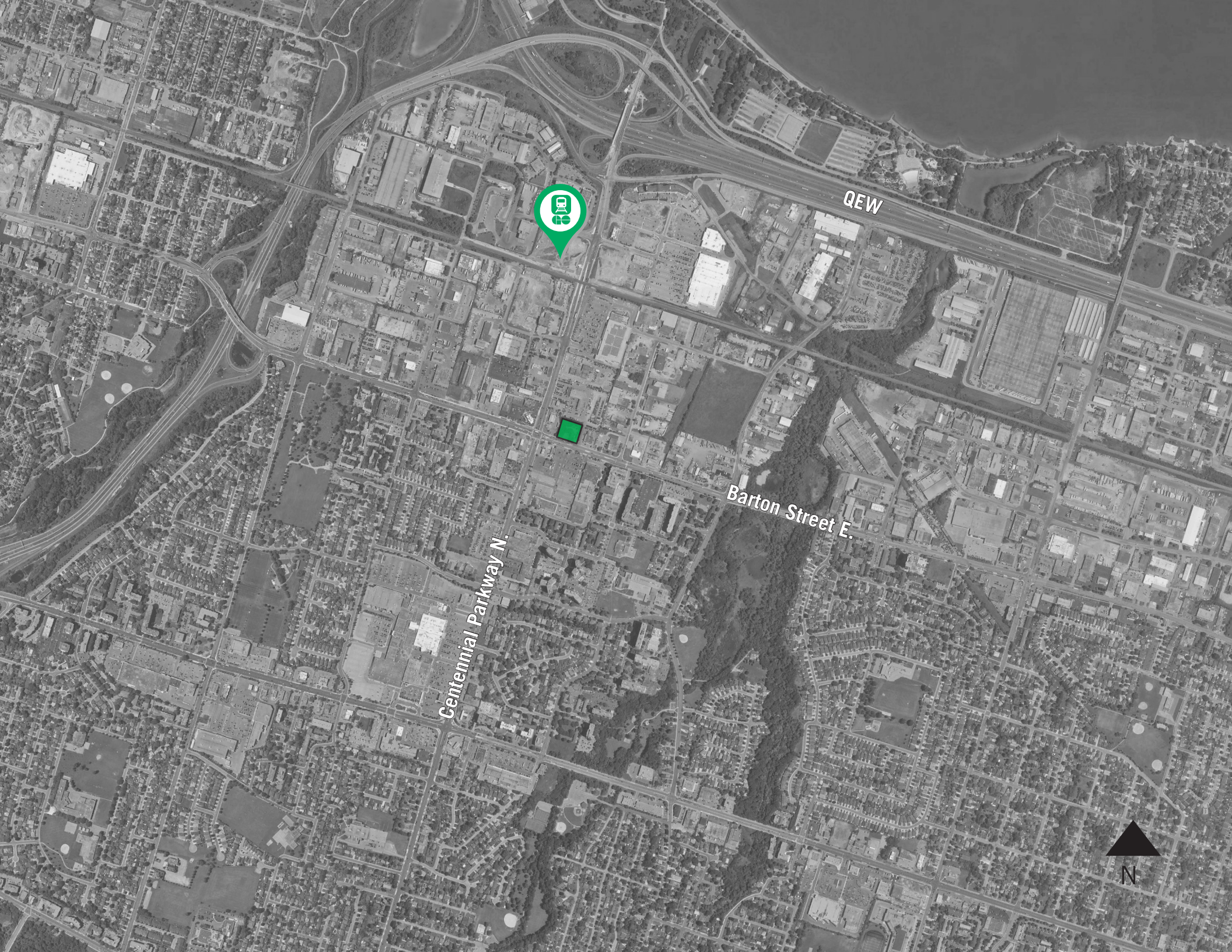
QEW
Barton Street E.
Centennial Parkway N.
N

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1. BACKGROUND

1.1 Proposal

GSP Group has been retained by Barton Street Developments Inc. (referred to as "the Applicant") to prepare the following Urban Design Brief in support of the Zoning By-law Amendment ("ZBA") to facilitate the redevelopment on the lands municipally addressed 2481 Barton St. E. in the City of Hamilton (referred to as "the Site").

The purpose of the proposed amendment is to facilitate the redevelopment of the Site for a 17-storey mixed-use apartment, building atop a 5-storey podium, consisting of 207 dwelling units.

For the purpose of this Urban design brief, the ultimate condition of the development with full build out will be assessed.

1.2 Purpose and Outline

A Zoning By-law Amendment ("ZBA") is required in order to facilitate the Proposed Development on the Site. An Urban Design Brief was identified as a requirement for this application as per the Formal Consultation comments. The City of Hamilton's Urban Design Brief: General Terms of Reference were referred as a guiding document in preparation of this report.

Accordingly, this Urban Design Brief consists of following sections:

- Section 2 outlines of the site's existing conditions and attributes;
- Section 3 outlines the site's contextual relationships with the neighbourhood and surrounding area;
- Section 4 summarizes the applicable design-related policy and guideline documents;
- Section 5 describes the proposed development and how its design responds to the policy and guideline direction;
- Section 6 provides a conclusion of the report's findings.

2. EXISTING SITE CONDITIONS

2.1 Site Description

The Site consists of a square interior lot located along Barton St. E and on the east side of Centennial Pkwy. N. (*Fig.1*). The area of the Site is ~0.37 ha and measures 72.5m in width and 51.9m in depth. Access to the Site is from Barton St. E.

2.2 Existing Buildings and Structures

There is small car garage currently existing on the Site and is proposed to be demolished to facilitate the proposed development. The majority of the Site is vacant and currently used as surface parking for construction vehicles.

Fig.1: Site Location

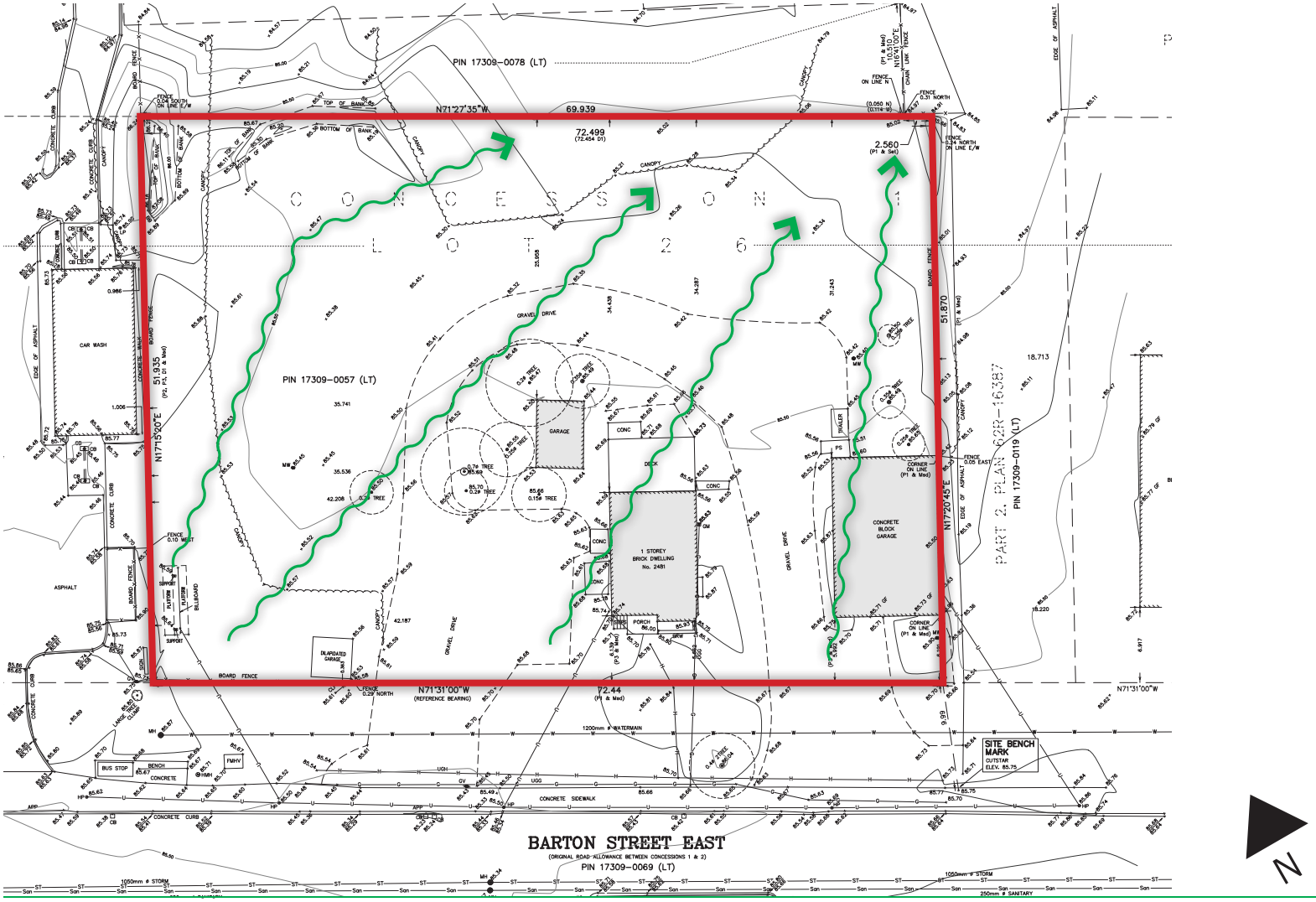
Fig.2:Existing Site Condition Source: Site Visit, 05-22

Fig.3:Existing Site Condition Source: Site Visit, 05-22

2.3 Topography and Existing Vegetation

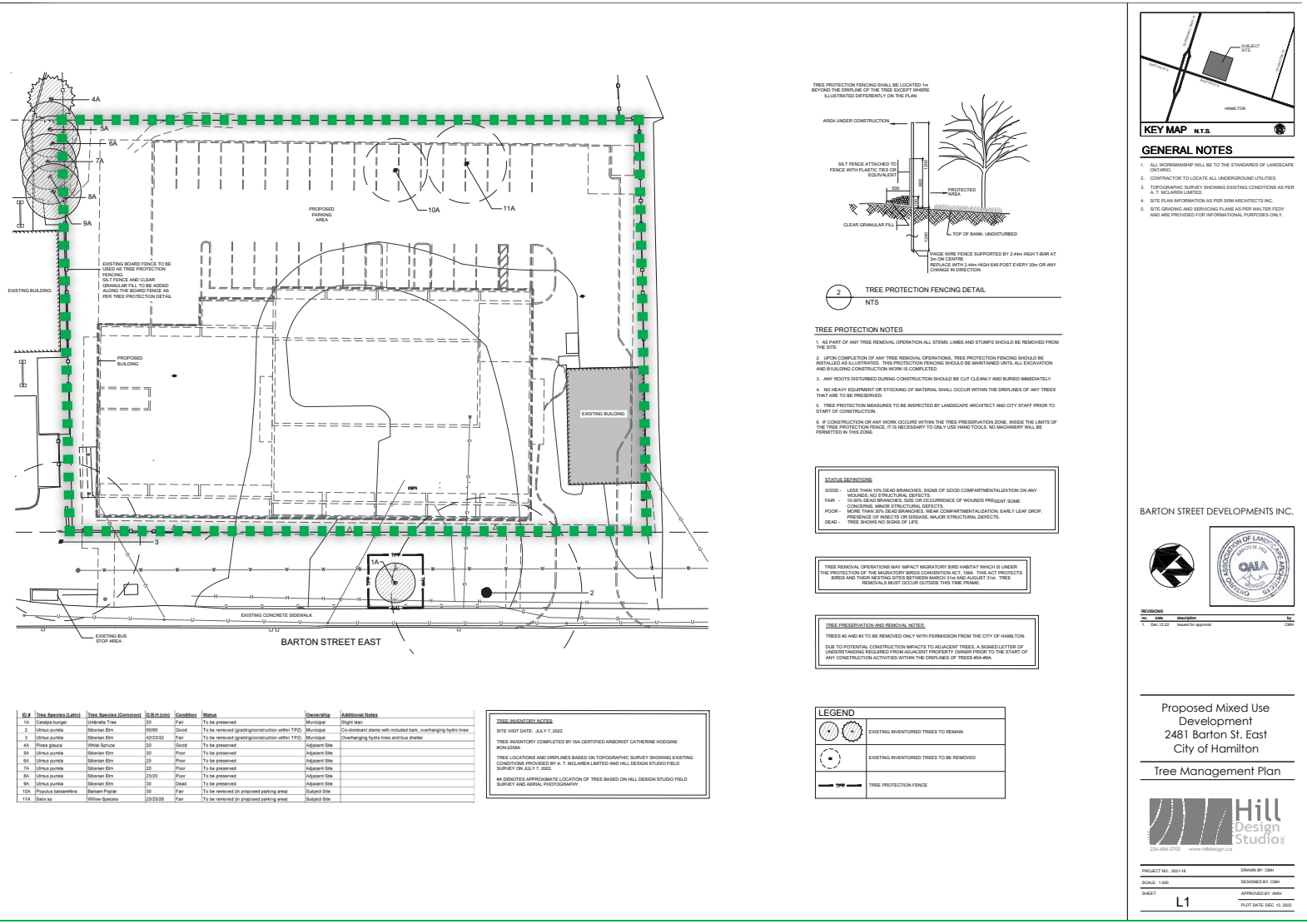
The Site has generally a flat topography with gentle slopes. The Site generally slopes from Barton St. E. to the rear of the property. The Site sits slightly above the Barton St. E.

Fig.4:Topographic Survey. Source: A.T. McLaren Limited



The Site is largely covered by an gravel parking lot with little to no grassed areas. As per the tree preservation report, there are only 2 trees within the Site and an additional 9 trees within 6m of the proposed development area. Out of the 11 trees, removal of 4 trees is recommended to accommodate the proposed development.

Fig.5:Tree Inventory and Preservation Plan. Source: Hill Design Studio Inc.

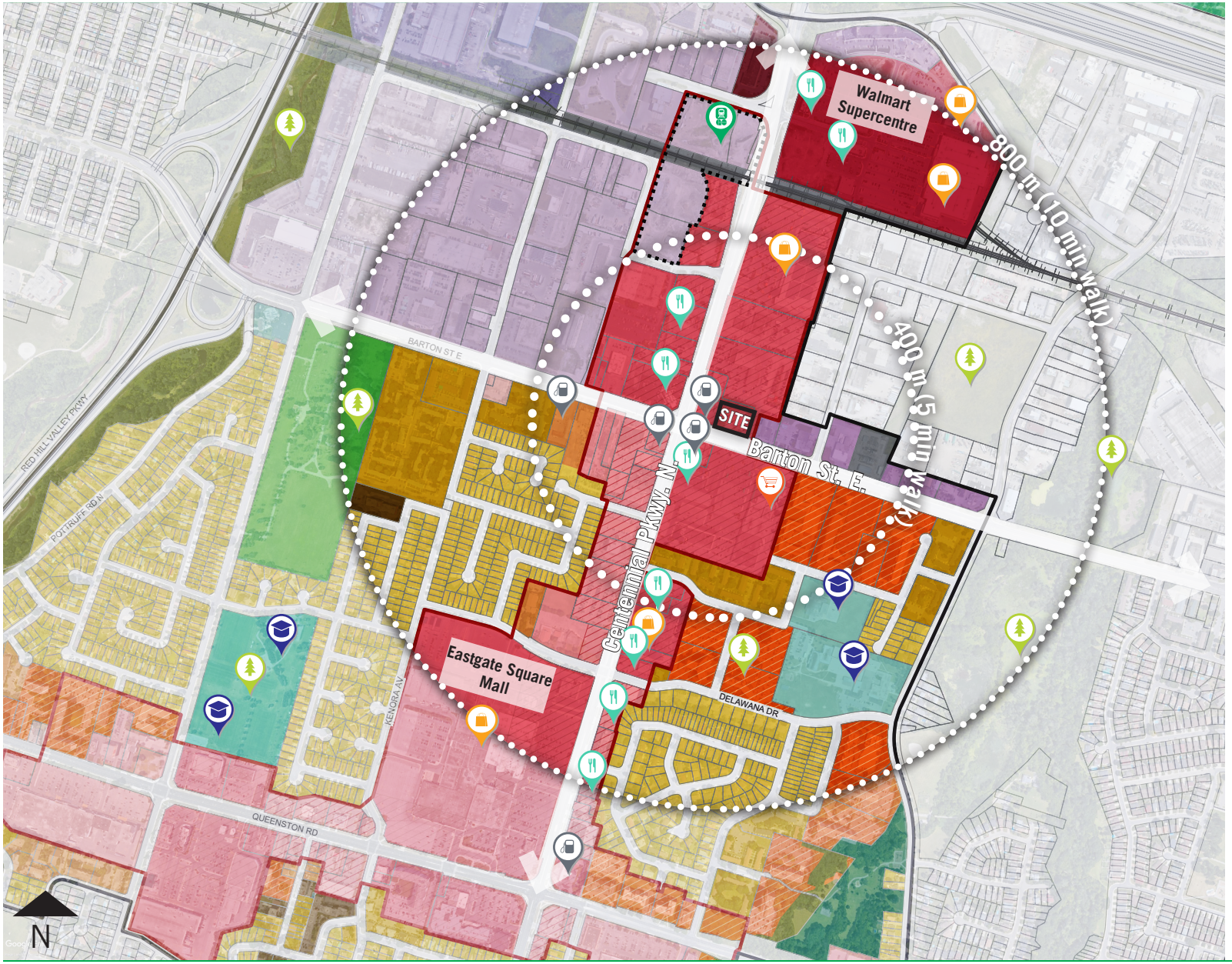


ID #	Tree Species (Latin)	Tree Species (Common)	D.B.H (cm)	Condition	Status	Ownership	Additional Notes
1A	Catalpa bungei	Umbrella Tree	20	Fair	To be preserved	Municipal	Slight lean
2	Ulmus pumila	Siberian Elm	60/60	Good	To be removed (grading/construction within TPZ)	Municipal	Co-dominant stems with included bark, overhanging hydro lines
3	Ulmus pumila	Siberian Elm	42/23/32	Fair	To be removed (grading/construction within TPZ)	Municipal	Overhanging hydro lines and bus shelter
4A	Picea glauca	White Spruce	20	Good	To be preserved	Adjacent Site	
5A	Ulmus pumila	Siberian Elm	30	Poor	To be preserved	Adjacent Site	
6A	Ulmus pumila	Siberian Elm	25	Poor	To be preserved	Adjacent Site	
7A	Ulmus pumila	Siberian Elm	20	Poor	To be preserved	Adjacent Site	
8A	Ulmus pumila	Siberian Elm	25/25	Poor	To be preserved	Adjacent Site	
9A	Ulmus pumila	Siberian Elm	30	Dead	To be preserved	Adjacent Site	
10A	Populus balsamifera	Balsam Poplar	30	Fair	To be removed (in proposed parking area)	Subject Site	
11A	Salix sp.	Willow Species	25/25/28	Fair	To be removed (in proposed parking area)	Subject Site	

TREE INVENTORY NOTES:
SITE VISIT DATE: JULY 7, 2022
TREE INVENTORY COMPLETED BY ISA CERTIFIED ARBORIST CATHERINE HODGINS #ON-2258A
TREE LOCATIONS AND DRIPLINES BASED ON TOPOGRAPHIC SURVEY SHOWING EXISTING CONDITIONS PROVIDED BY A. T. MCLAREN LIMITED AND HILL DESIGN STUDIO FIELD SURVEY ON JULY 7, 2022.
#A DENOTES APPROXIMATE LOCATION OF TREE BASED ON HILL DESIGN STUDIO FIELD SURVEY AND AERIAL PHOTOGRAPHY.

3. SITE AND SURROUNDING CONTEXT

3.1 Immediate Site Context and Land Uses



Legend

Residential Designations
- Low Density Residential 2
- Low Density Residential 3
- Medium Density Residential 2
- Medium Density Residential 3
- High Density Residential 1

Commercial and Mixed Use Designations
- Local Commercial
- Mixed Use - Medium Density
- Mixed Use - High Density
- District Commercial
- Arterial Commercial

Industrial Designations
- Light Industrial
- General Industrial
- Business Park

Parks and Open Space Designations
- Neighbourhood Park
- Community Park
- General Open Space
- Natural Open Space

Other Designations
- Institutional
- Utilities

Other Features
- Pedestrian Focus Street
- Railways
- Commuter Bus and Rail Station
- Sub-Regional Service Node Boundary
- Secondary Plan Boundary
- Park
- Retail
- School
- Restaurant
- Groceries
- Gas Station

Fig.6:Source: Google Earth, 2021

North: Commercial and light industrial uses are located to the north of the Site across Barton Street East.

Fig.7:Source: Google Earth, 2021

East: East side is flanked by a mix of residential uses, including two (2) 7-storey buildings, three (3) high-rise residential buildings ranging from 10-12 storeys, and 3-storey townhouses. St. Charles Adult and Continuing Education – Stoney Creek Campus, Dominic Agostino Riverdale Community Centre and Lake Avenue Elementary School are located approximately 100 m to the east of the Site.

Fig.8:Source: Google Earth, 2021

West: Across Centennial Parkway North, on the west side of the street, there are commercial uses which includes automotive dealerships, retail/office plaza, and a hotel.

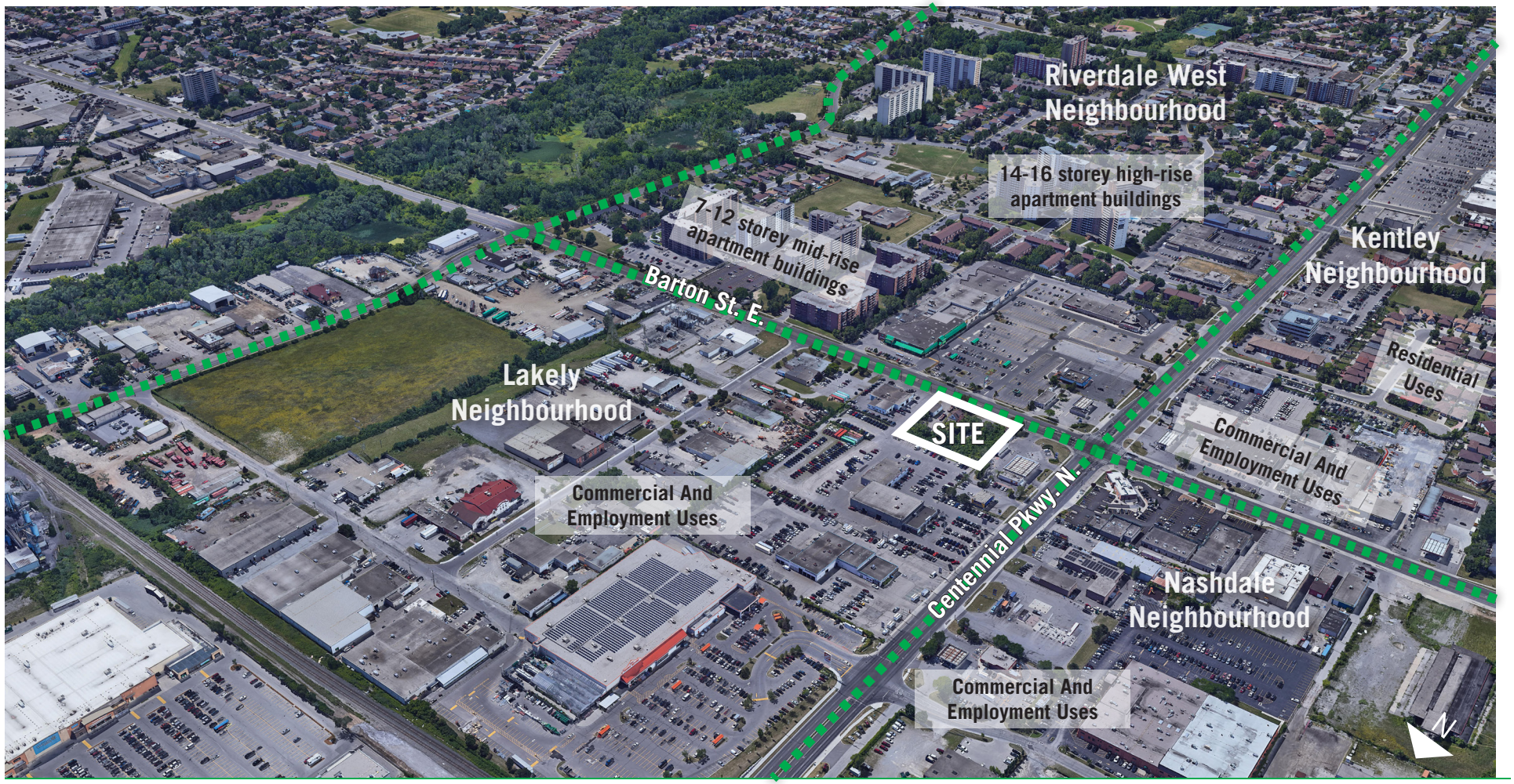
Fig.9:Source: Google Earth, 2021

South: The South side of the Site is flanked by 3-storey townhouse development immediately to the south, further south is a cluster of high-rise residential apartments and several retail plazas along Centennial Parkway North.

3.2 Neighbourhood Context

The Site is located in the Lakely Neighbourhood. Lakely and abutting Nashdale neighbourhoods are characterized by a mix of employment and commercial uses. To the south, Riverdale West and Kentley neighbourhoods, are characterized by a mix of commercial and residential uses. These residential uses come in the form of large floor plate mid-rise buildings (7-12 storeys), slab towers (14-16 storeys) and low-rise residential.

Fig.10:Surrounding Built Form Context



3.3 Streetscape context

Barton St. E. is a classified as a Minor Arterial Road within Hamilton Official Plan. It has sidewalks on both sides of the street and carry four (4) lanes of vehicular traffic and a dedicated left turn lane. The sidewalks along south side of street are buffered from vehicular traffic with a grass strip along the edge of the road. The grass strip also contains street lights and street trees in some areas.

The north side of street is mostly flanked by employment, industrial and commercial uses with building heights ranging from 1 to 2 storeys. The south side of the street is fronted by a mix of commercial and residential uses with building heights ranging from 1-2 storey for commercial and 2-12 storey for residential uses. The commercial/retail plazas have deep front yard setbacks of approximately 10-30m, used for surface parking and landscaping.

The buildings are a mix of old and new with building materials ranging from siding, stucco, aluminum panels, glass and brick. Generally the commercial and apartment buildings have flat roof lines.

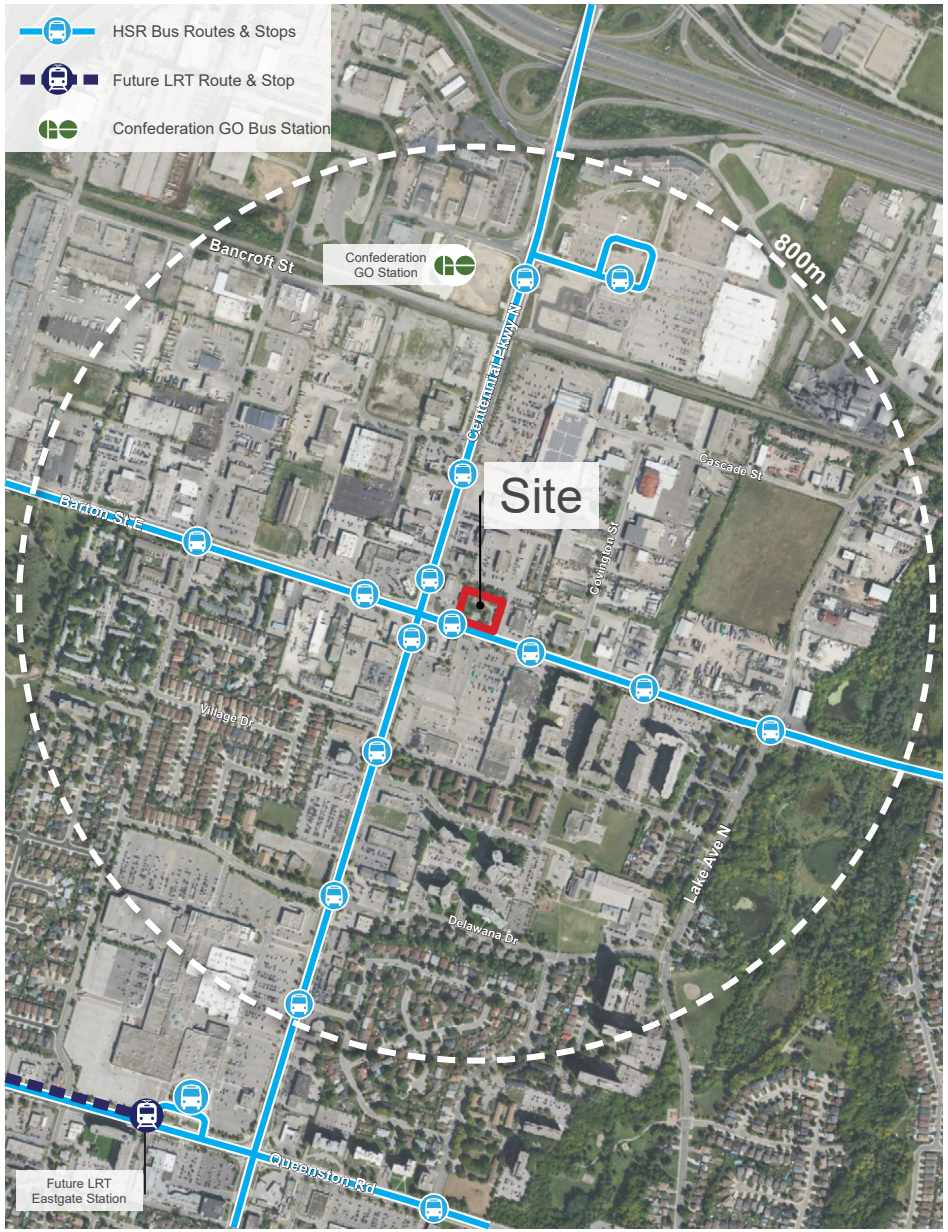
Fig.11:Looking East On Barton St. E. Source: Google Street View 2020

Fig.12:Looking West On Barton St. E. Source: Google Street View 2020

3.4 Transit Context

The site is well served by existing public transit infrastructure and is within walking distance of multiple HSR Bus stops and Confederation GO Bus Station.

Fig.13:Source: Bing Aerial Mapping (2020)



4. DESIGN POLICY AND GUIDELINE REFERENCES

4.1 Urban Hamilton Official Plan

The site forms part of the "Secondary Corridor" of Centennial Parkway on Schedule E of the Urban Hamilton Official Plan. Per Section E.2.1, corridors are intended as significant opportunities for creating vibrant pedestrian and transit-oriented places with investments in infrastructure; residential intensification, infill and redevelopment; and quality urban design.

The site has "Mixed Use - High Density" designation. The Mixed Use - High Density designation permits a full range of retail, commercial, entertainment, office and high density residential uses.

Sections B.3.3.2 through 3.3.2.10 identify urban design principles that are applicable for development throughout the city. These principles seek:

- Urban design fostering a sense of community pride and identity (3.3.2.3).
- Development creating quality spaces (3.3.2.4).
- Places that are safe, accessible, connected and easy to navigate (3.3.2.5).
- New development enhancing existing character where compatibility is desirable (3.3.2.6).
- Places that are adaptable in accommodating future change (3.3.2.7).
- Urban design that promotes environmental sustainability (3.3.2.8).
- Community health and well-being enhanced and supported through urban design (3.3.2.9).
- Streets shall be designed also as important public spaces (3.3.2.10).

The Official Plan contains structure policies, general design policies and designation policies. The proposed design references the following sections:

- General residential intensification (B.2.4.1.4).
- Built form design (B.3.3.3).
- Views and Vistas (B.3.3.5).
- Storage, servicing and loading (B.3.3.6).
- Signage and lighting (B.3.3.8).
- Access and circulation (B.3.3.9).
- Parking (B.3.3.10).
- Barrier-free design (B.3.3.11).
- Energy and environmental design (B.3.7).
- Commercial and Mixed Use Designations (E.4.2).
- Pedestrian Focus Streets (E.4.3).
- Mixed Use - High Density Designation (E.4.5)

Fig.14:Schedule E1: Urban Land Use Designations

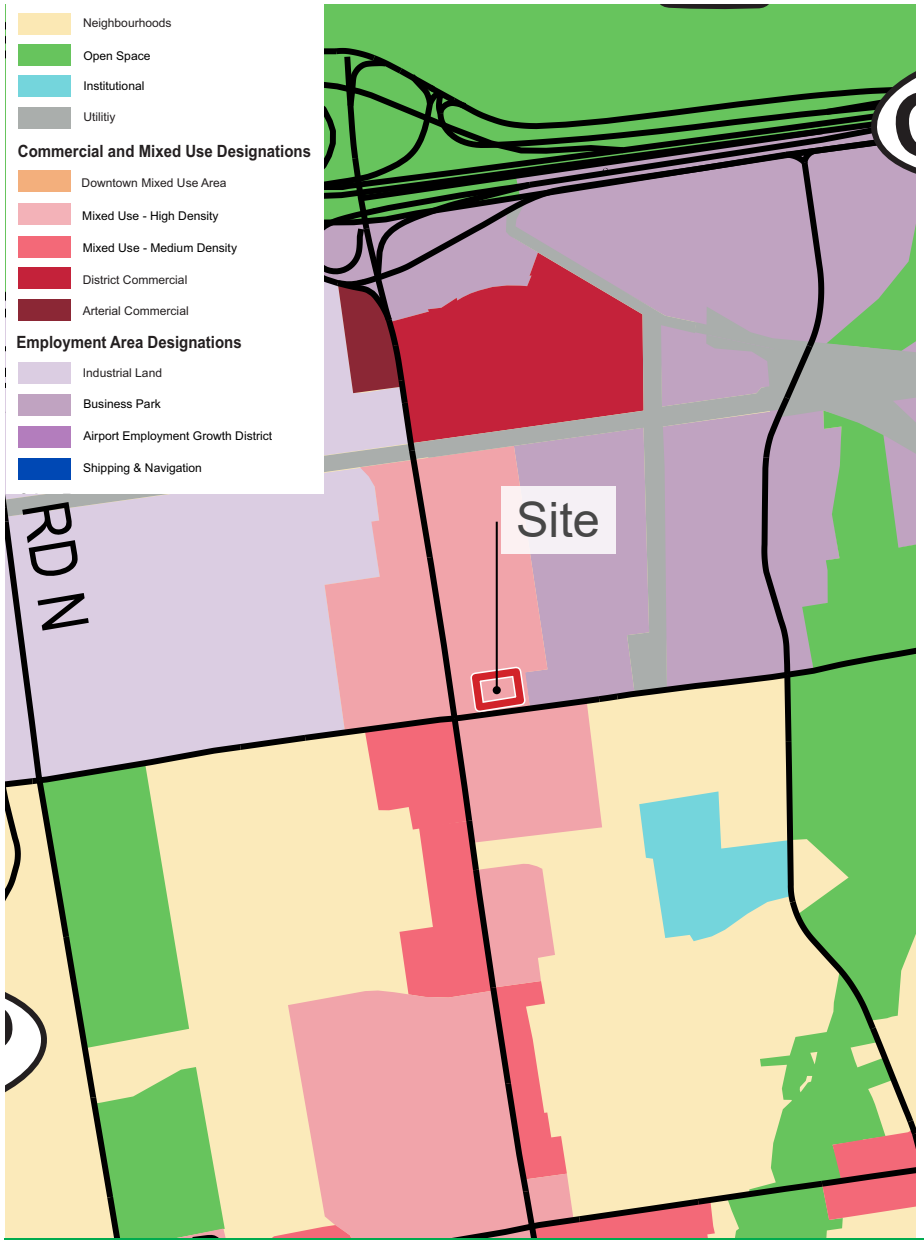
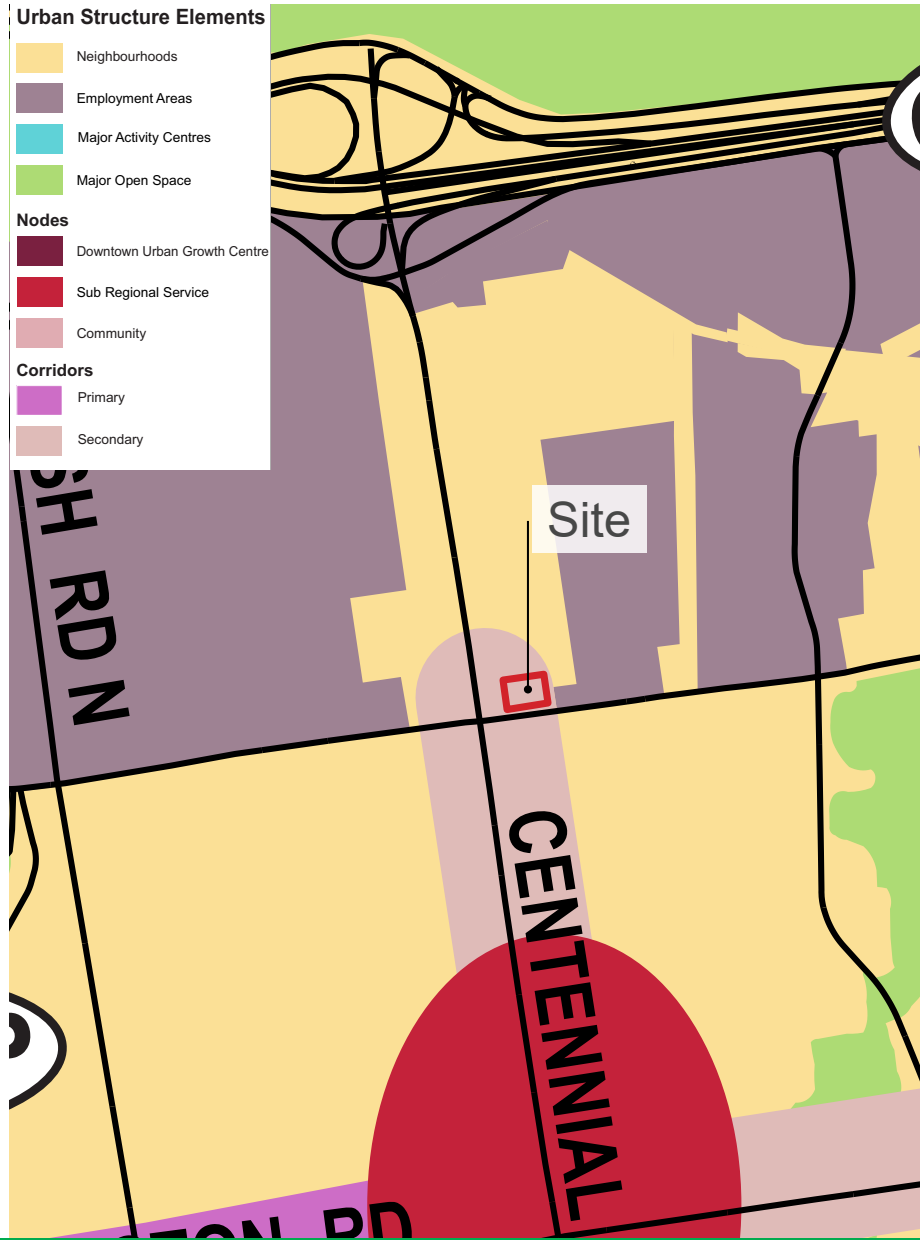


Fig.15:Schedule E - Urban Structure



4.2 Centennial Neighbourhood Secondary Plan

The site is principally within the Centennial Neighbourhood Secondary Plan as part of the Sub Regional Service Node and designated as Mixed-Use High Density, with a pedestrian focus street overlay and industrial transition area. The Site also fronts on to Barton St. E. which is designated as streetscape improvement area and prominent intersection in the Secondary Plan.

Section 6.7.2 provide direction for accommodating development, promoting compatible intensification, preserving the area's green spaces and promoting opportunities for active transportation. The following Secondary Plan policies are relevant and referenced as part of the proposed design:

- Urban Design (6.7.3.2).
- General Policies (6.7.4).
- Mixed Use-High Density (6.7.7.4).
- Pedestrian Focus Street (6.7.7.5).
- General Urban Design Policies (6.7.12.1).
- Gateway Improvement Areas and Prominent Intersections (6.7.12.2)
- Streetscape Improvement Areas (6.7.12.4).
- Transition Areas (6.7.13).

Fig.16:Map B.6.7-1: Land Use Plan

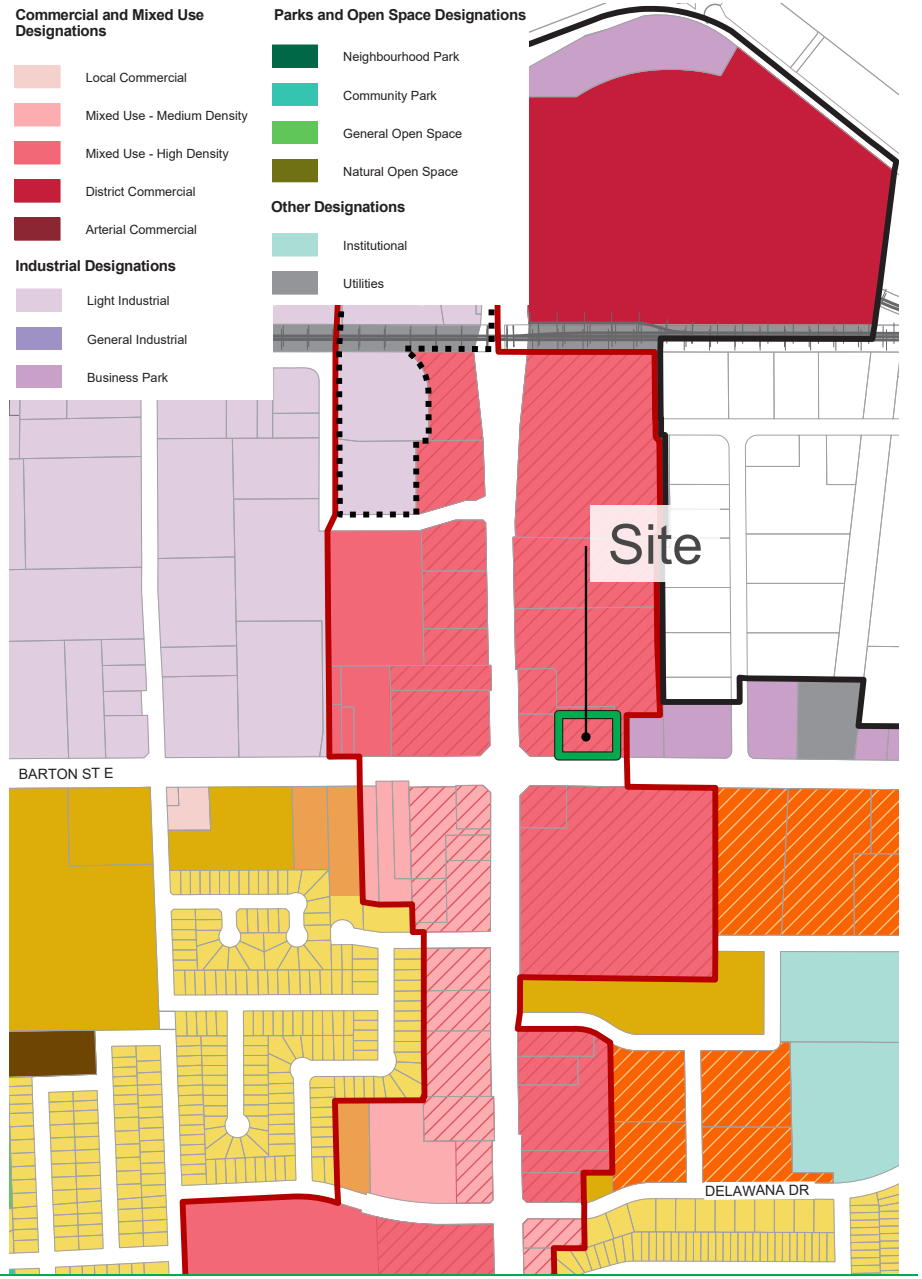


Fig.17:Map B.6.7-3: Transportation and Connections

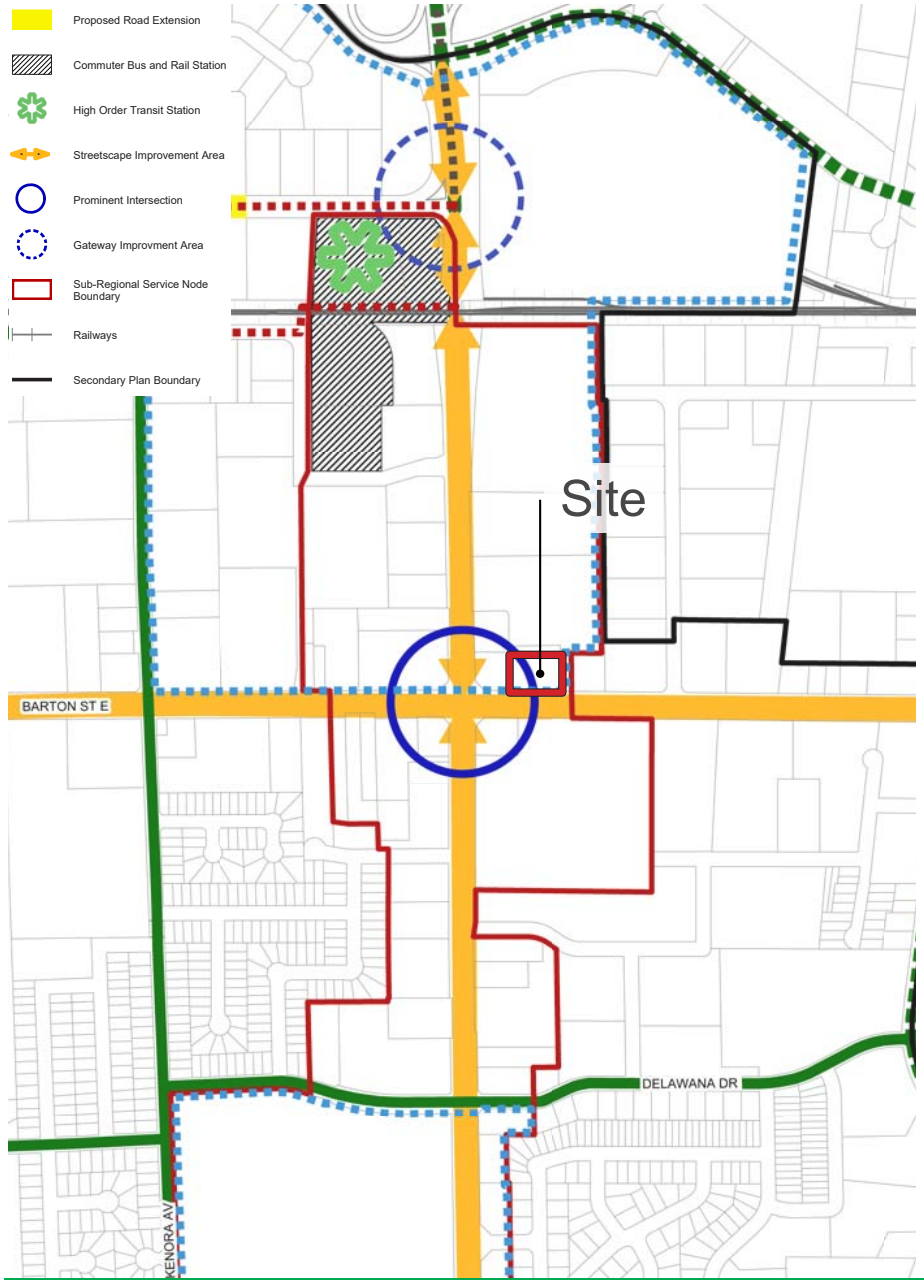
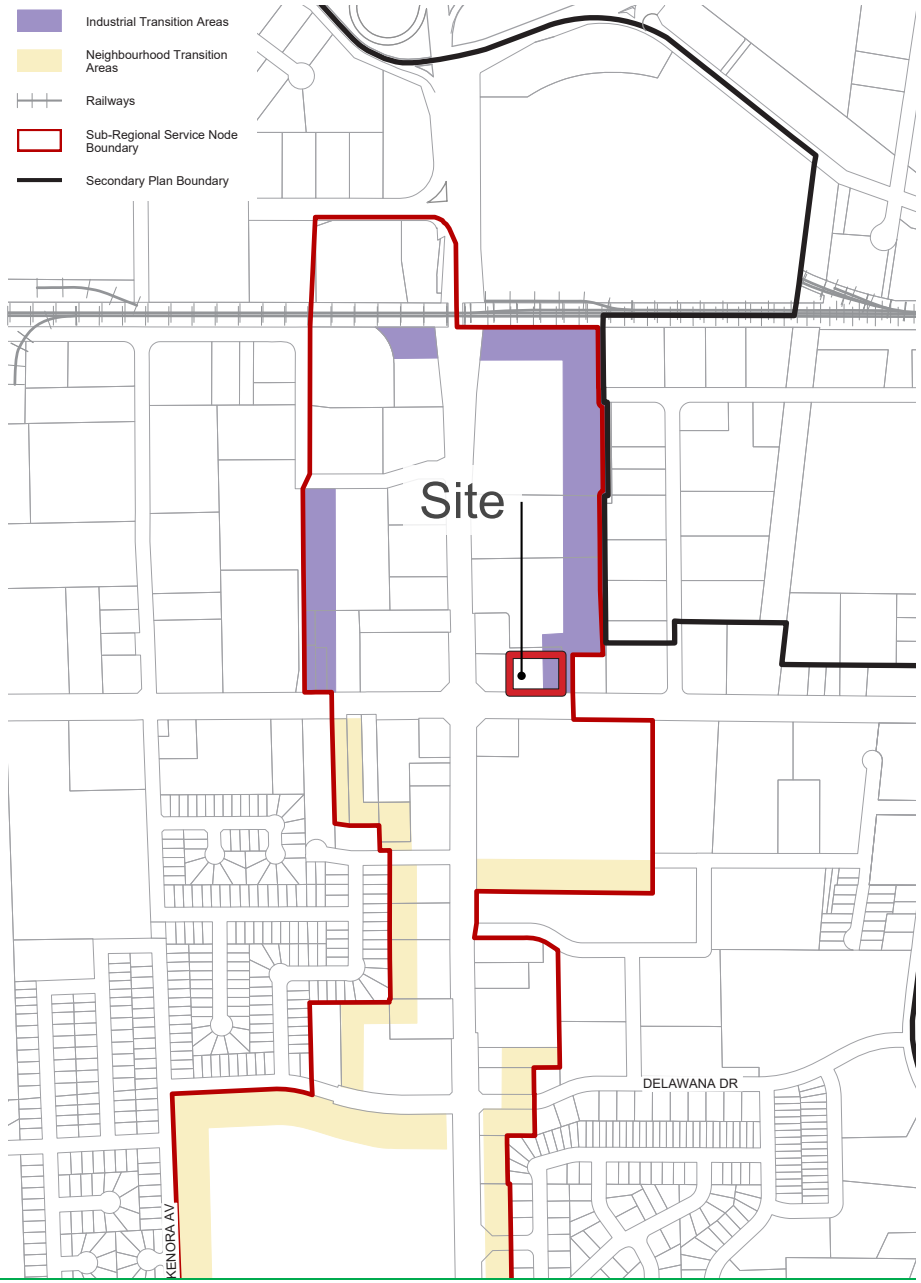


Fig.18:Appendix A: Transition Areas



4.3 City-Wide Corridor Planning Principles and Design Guidelines

The City-Wide Corridor Planning Principles and Design guidelines provide direction for designated corridors in the city.

These guidelines are applicable for development applications along Centennial Parkway, together with other applicable city design guidelines. Section 4.0 outlines the design guidelines for development along corridors. The following sections of policies are relevant and referred as part of the proposed design:

- Maximum building height (4.3).
- Minimum building height (4.4).
- Landscaping (4.5).
- Parking and loading (4.6).
- Street relationship (4.7).
- Side yards, walls and step-backs (4.8).
- Sidewalks and streetscapes (4.10).
- Land assembly (4.11).
- Shadow Impacts (4.12).

4.4 Tall Building Guidelines

The Downtown Hamilton Tall Building Guidelines implement the design direction for taller buildings in Downtown Hamilton, defined as those over 12 storeys in height. Although the site is not captured within the study area for the Tall Building Guidelines, they have been referred as best practices for tall building design. The Tall Building Guidelines has two core components for the design process.

The first component establishes recommended minimum site dimensions that inform evaluation of a site's appropriateness for a tall building. This recommended minimum for a point tower building is an 35 m width and 45 m depth (Fig.17). The subject site satisfies these minimum recommendations with a frontage of 72 m along Barton St. E. and 52 m of depth. The site's frontage on a minor arterial road and proximity to higher order transit, additionally lends to site's suitability for a hybrid tall building as expressed in the guidelines.

The second component provides design guidelines related to contextual considerations, building form and articulation, and public realm relationships in the arrangement and design of tall buildings. These guidelines are meant to offer flexibility and not limit creativity or contextually appropriate designs. The following sections of the Guidelines are relevant and referenced as part of the proposed design:

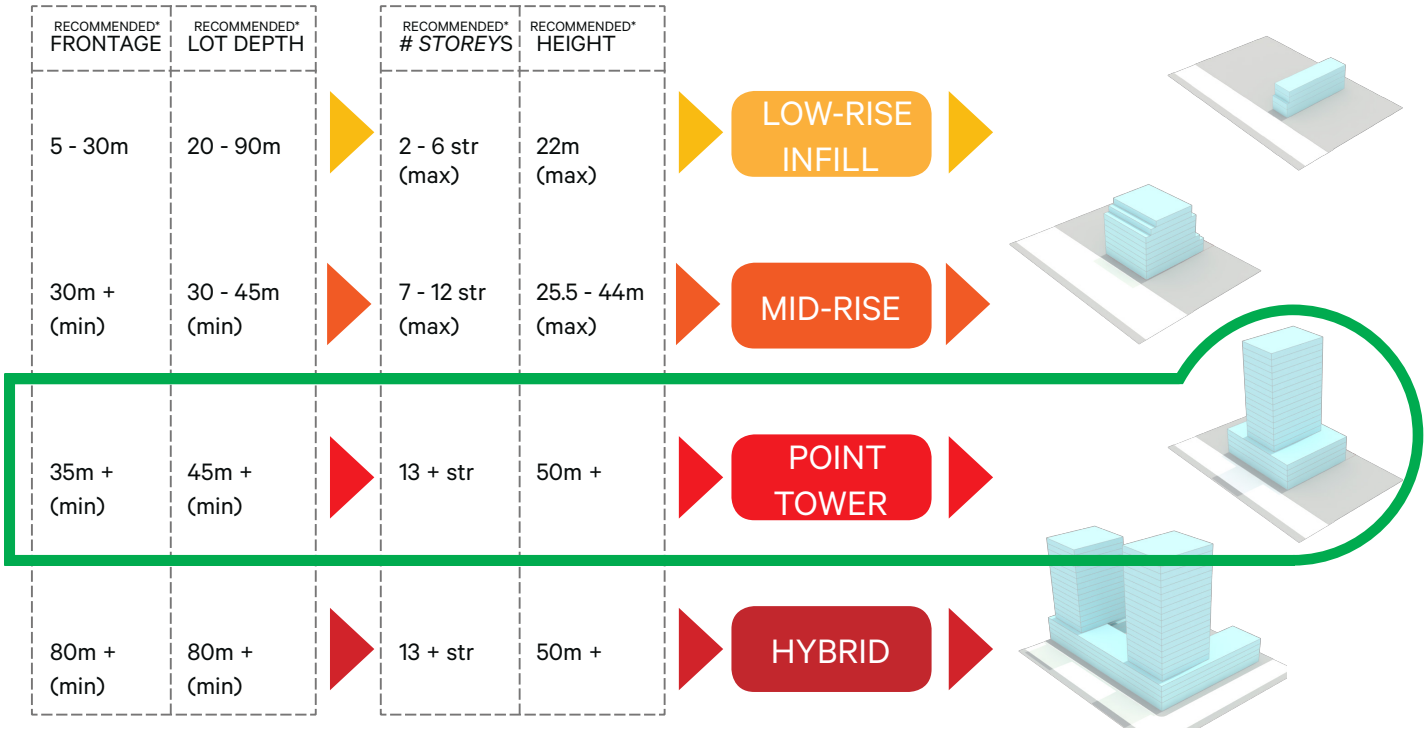
- Neighbourhood transition (3.2).
- Vibrant streets (3.4).
- Transit proximity (3.5).
- Site organization and building base (4.2).
- Building tower (4.3).
- Streetscape and landscape design (5.1).

- Sidewalk zone (5.2).
- Pedestrian weather protection (5.3).

4.5 Site Plan Guidelines

The Site Plan Guidelines provide broad design guidance for developments subject to Site Plan Approval. The Guidelines provide guidance concerning contextual considerations (Section 2.0), site design (Section 3.0) and general building design (Section 4.0). Section 6.4 provides more specific design guidance for apartment buildings, the goal of which is to achieve a "high standard of site and building design…to create a quality living environment, contribute to the streetscape, and integrate higher density housing into existing neighbourhoods".

Fig.19:Minimum Site Dimension for Tall Buildings



5. PROPOSED DESIGN RESPONSE

5.1 Design Evolution

The proposal is for a 17-storey mixed-use high-rise building, containing 207 dwelling units and 475 sq.m. of retail space. The proposed development has 998 sq.m. of amenity space (indoor + outdoor), 177 vehicle parking spaces (underground and surface parking), and 107 (short term + long term) bicycle parking spaces.

The form of the new development evolved over time and was refined to:

- reduce the building height to provide better massing transition and mitigate shadow impacts on the Site and surrounding areas;
- re-design the site layout to provide 75m buffer from industrial use as per the industrial transition zone guidelines;
- increase outdoor amenity area and bring it closer to the building;
- provide safer vehicular entry and exit to the Site by moving the access away from intersection;
- add more active commercial frontage along Barton St. E.;
- create direct and safe access to at-grade outdoor amenity area;
- add a direct pedestrian entrance from Barton St. E.

The revised development proposal better address the relevant urban design and Secondary Plan guidelines.

Fig.20:First submission concept

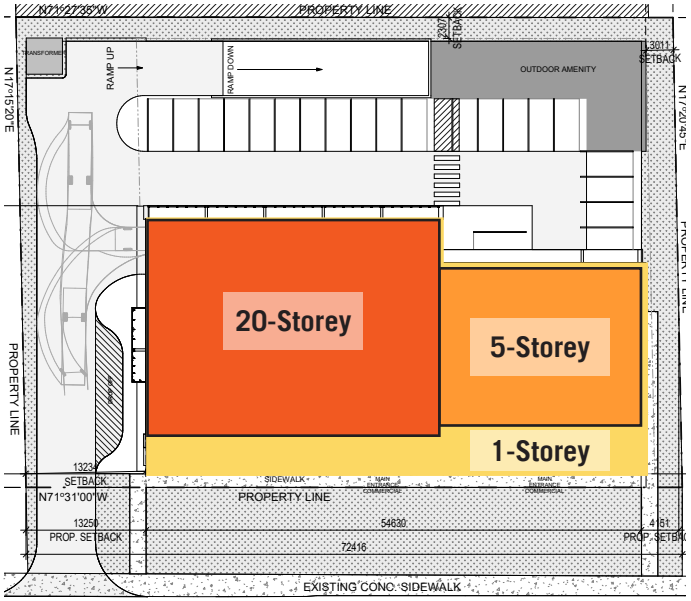
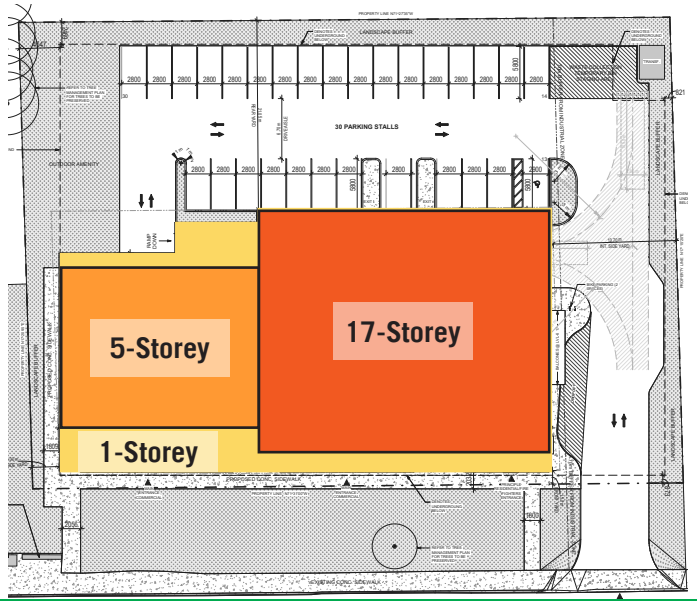
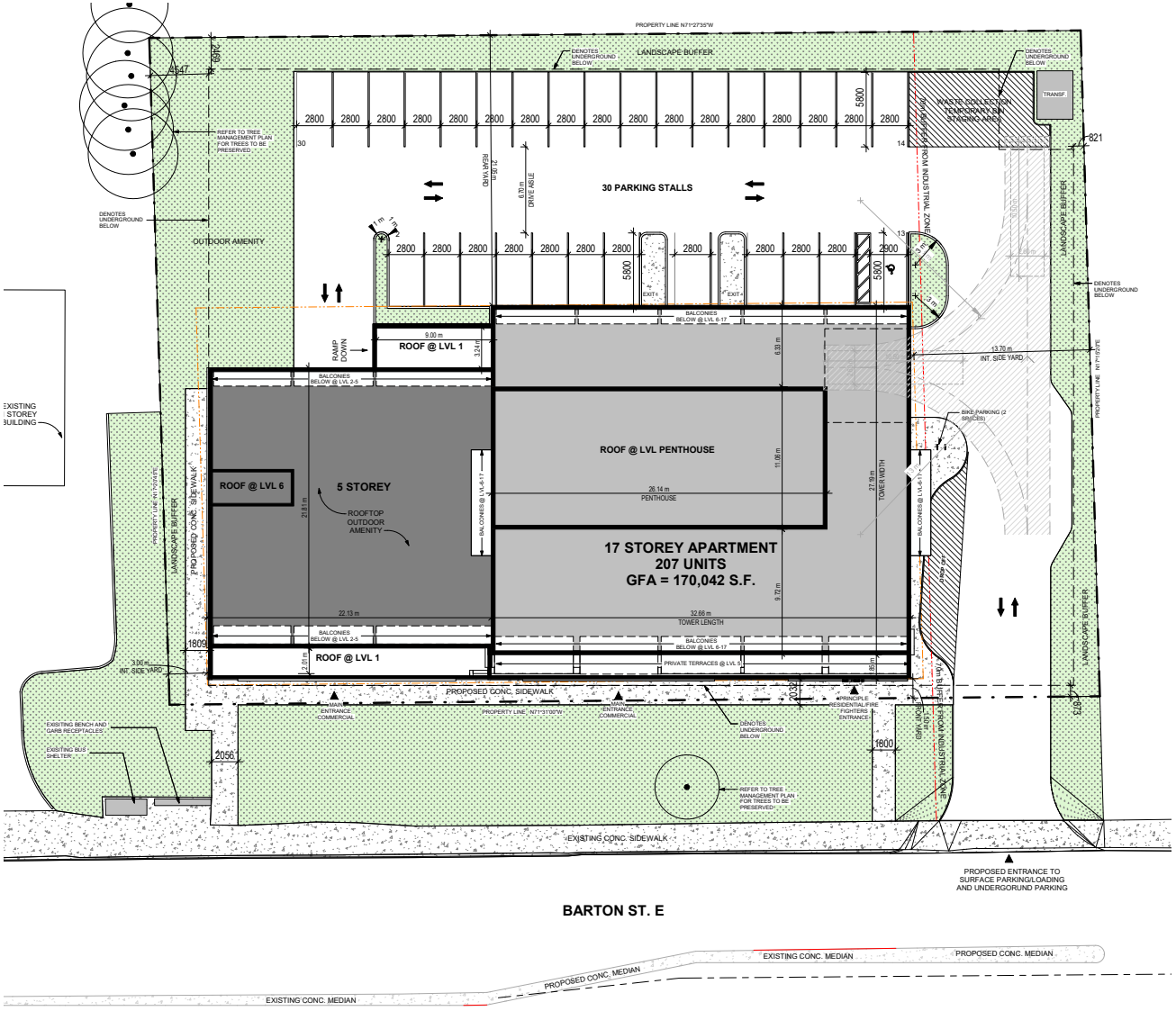


Fig.21:Revised concept



5.2 Floor Plans & Elevations

Fig.22:Site Plan



SITE DATA 2481 Barton, Hamilton, ON

DATA		REQUIRED	PROVIDED
ZONING			ZONING - C4
LOT AREA (m²)		N/A	3,758 (m²)
SETBACKS	FRONT YARD (m)	4.5 (m)	1.5 m
	INTERIOR SIDE YARD (m) - W	7.5 (m)	3.0 (m)
	INTERIOR SIDE YARD (m) - E	7.5 (m)	13.7 (m)
	REAR YARD (m)	7.5 (m)	21.05 (m)

BUILDING DATA

DATA	REQUIRED	PROVIDED
TOTAL DENSITY (# of units)	N/A	**207 UNITS** STUDIO < 50m² = 28 (13.5%) 1BD + D > 50m² = 104 (50.2%) 2 BEDS = 71 (34.3%) 3 BEDS = 4 (1.9%)
BUILDING AREA (m²)	N/A	13,661 ft² (1,269 m²)
GROSS FLOOR AREA (m²)	N/A	170,042 ft² (15,797 m²)
CONSTRUCTION FLOOR AREA (m²) (including underground)	N/A	239,322 ft² (22,233 m²)
NUMBER OF STOREYS	N/A	17 STOREY
BUILDING HEIGHT (m)	11m MIN. 40m MAX.	53 m
COMMERCIAL/RETAIL AREA (m²)	N/A	COM. A = 2,299 ft² (214 m²) COM. B = 2,810 ft² (261 m²) **TOTAL = 5,109 ft² (475 m²)**
AMENITY AREA (m²)	1,186 m²	INDOOR 1,360 ft² (126 m²) OUTDOOR 9,388 ft² (872 m²) BALCONIES 21,916 ft² (2,036m²) **TOTAL = 26,061 ft² (2,421 m²)**
LANDSCAPE AREA (percentage)	N/A	18.4 %
LANDSCAPE AREA (m²)	N/A	7,433 ft² (690 m²)

VEHICLE PARKING DATA

DATA	REQUIRED	PROVIDED
RESIDENTIAL PARKING Units >50 m² = 1 / unit MIN. Units <50 m² = 0.3 / unit MIN.	**Units <50 m² = (179*1.0 unit)** 179 stalls **Units <50 m² = (28*0.3 / unit)** 8.4 stalls 179 + 8.4 = **187**	**Units >50 m² = (179 x 1.0/ unit)** 179 stalls **Units <50 m² = (28 x 0.3 / unit)** 9 stalls *(10% Bicycle Parking) 187 – 18.7 = 168.3 (168) Provided stalls = **170 stalls**
BARRIER FREE PARKING (included)	1 + 3% = 6 stalls (MIN.)	6 stalls (included above)
VISITOR PARKING	0.X / units	TBC
COMMERCIAL PARKING	2 Commercial units <450 m² = 0 stalls	0 stalls
PARKING PROVIDED	177 stalls	UG TOTAL = 140 stalls SURFACE = 30 stalls
TOTAL	**159 STALLS***	**170 STALLS**

BICYCLE PARKING DATA

DATA	REQUIRED	PROVIDED
SHORT TERM PARKING	10 STALLS	10 STALLS
LONG TERM PARKING	90 STALLS**	102 STALLS

* required vehicular parking with 10% reduction for long term bicycle parking

** 90 long term bicycle stalls required for 10% reduction in vehicular parking

Project North

True North

GENERAL NOTES

1. **DO NOT SCALE DRAWINGS** WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL WORK SHALL COMPLY WITH THE 2012 ONTARIO BUILDING CODE AND AMENDMENTS.
3. CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND SPECIFICATIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
4. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL HAVE A SET OF APPROVED CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
5. ALL DOCUMENTS REMAIN THE PROPERTY OF THE ARCHITECT. UNAUTHORIZED USE, MODIFICATION, AND/OR REPRODUCTION OF THESE DOCUMENTS IS PROHIBITED WITHOUT WRITTEN PERMISSION. THE CONTRACT DOCUMENTS WERE PREPARED BY THE CONSULTANT FOR THE ACCOUNT OF THE OWNER.
6. THE MATERIAL CONTAINED HEREIN REFLECTS THE CONSULTANTS BEST JUDGEMENT IN LIGHT OF THE INFORMATION AVAILABLE TO HIM AT THE TIME OF PREPARATION. ANY USE WHICH A THIRD PARTY MAKES OF THE CONTRACT DOCUMENTS, OR ANY RELIANCE ON/OR DECISIONS TO BE MADE BASED ON THEM ARE THE RESPONSIBILITY OF SUCH THIRD PARTIES.
7. THE CONSULTANT ACCEPTS NO RESPONSIBILITY FOR DAMAGES, IF ANY, SUFFERED BY ANY THIRD PARTY AS A RESULT OF DECISIONS MADE OR ACTIONS BASED ON THE CONTRACT DOCUMENTS.

KEY PLAN

No.	Date	Revision
1	2022-12-12	ISSUED FOR ZBA

srm ARCHITECTS INC.

Project No	21033
Project Date	
Drawn by	CD
Checked by	GG
Plot Date / Time	2022-12-14 12:47:23 PM

2481 BARTON ST. E, HAMILTON

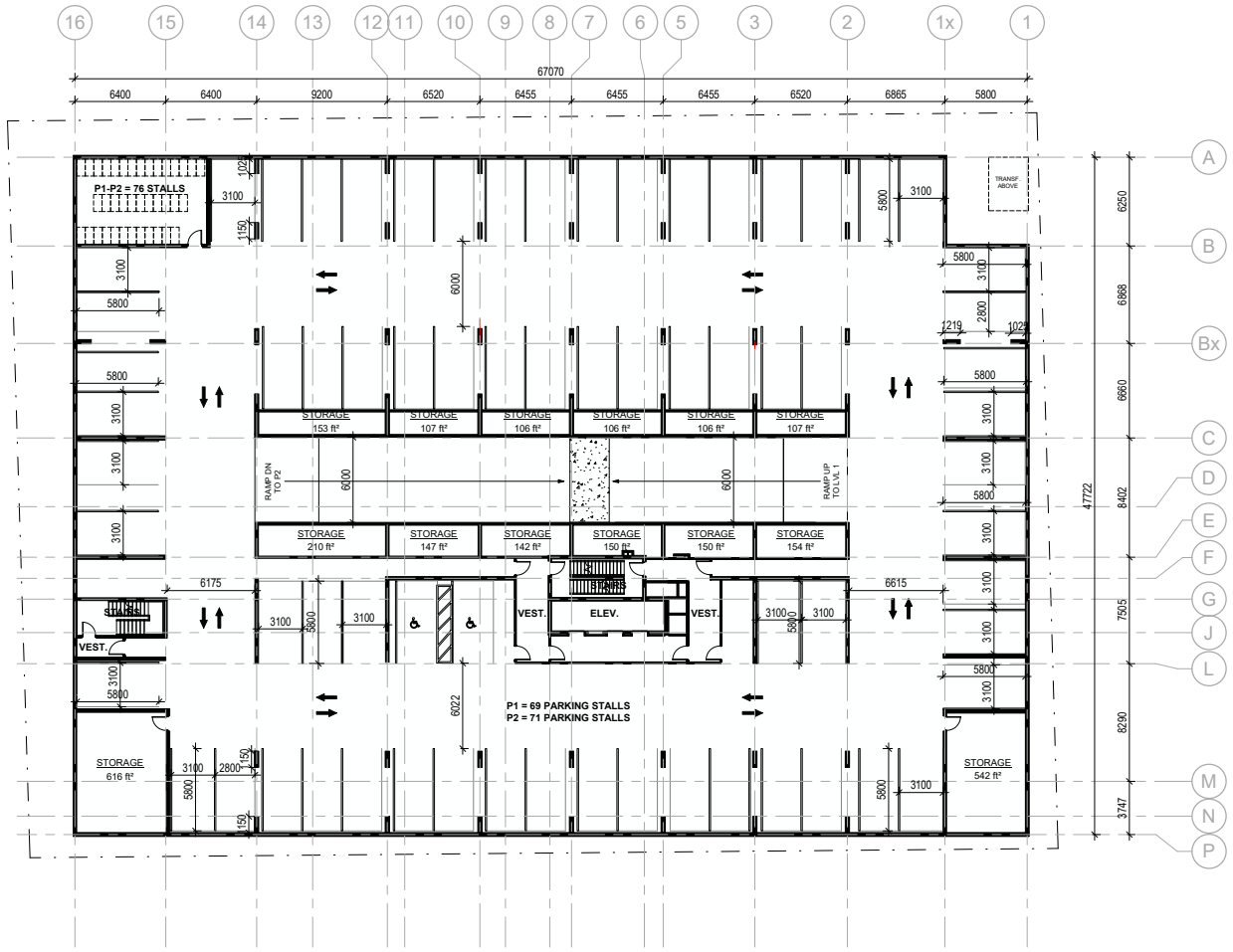
SITE PLAN

Drawing Scale: As indicated

Status:

Drawing No. **D2.1** Revision No. **- r1**

Fig.23: Under Ground Parking Plan (P1 & P2)



1 LEVELS P1-P2 FLOOR PLAN
1 : 200

Project North

True North

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No.	Date	Revision
1	2022-12-12	ISSUED FOR ZBA

srm ARCHITECTS INC.

Project No	21033
Project Date	
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Plot Date / Time	2022-12-14 12:47:32 PM

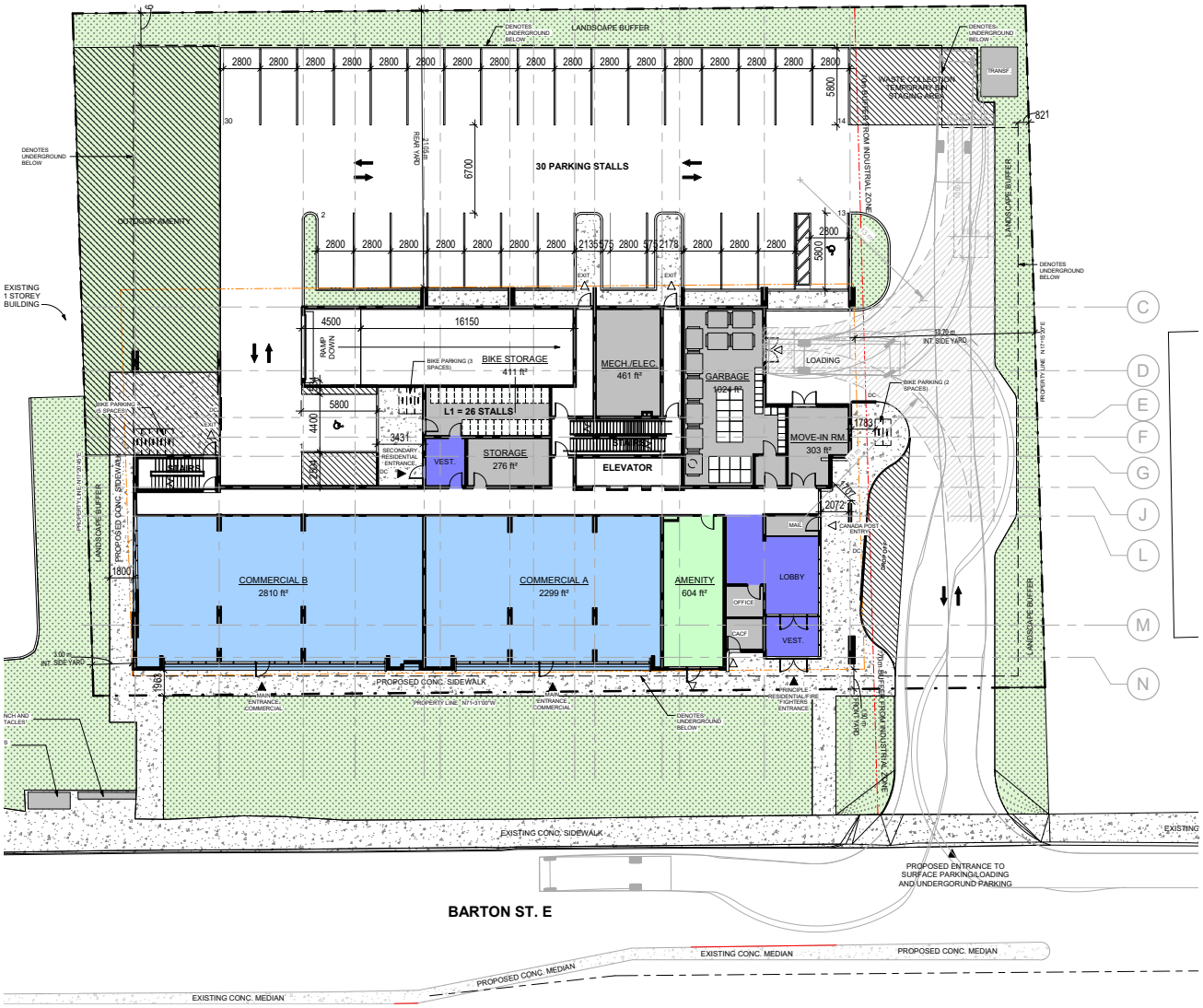
2481 BARTON ST. E, HAMILTON

LEVELS P1 & P2

Drawing Scale	1 : 200
Status	

Drawing No. **D2.2 - r1** Revision No.

Fig.24:Ground Floor Plan



1 **LEVEL 1 FLOOR PLAN**
1 : 200

Project North

True North

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2481 BARTON ST. E, HAMILTON

LEVEL 1

Drawing Scale	1 : 200
Status	
Drawing No.	Revision No.

D2.3 - r1

Fig.25:2nd Level Floor Plan

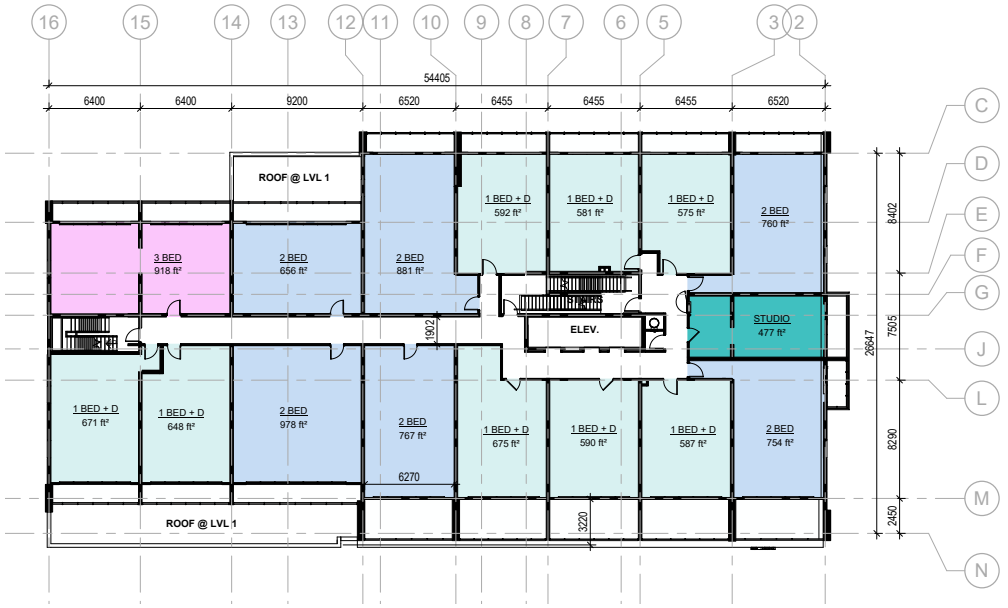
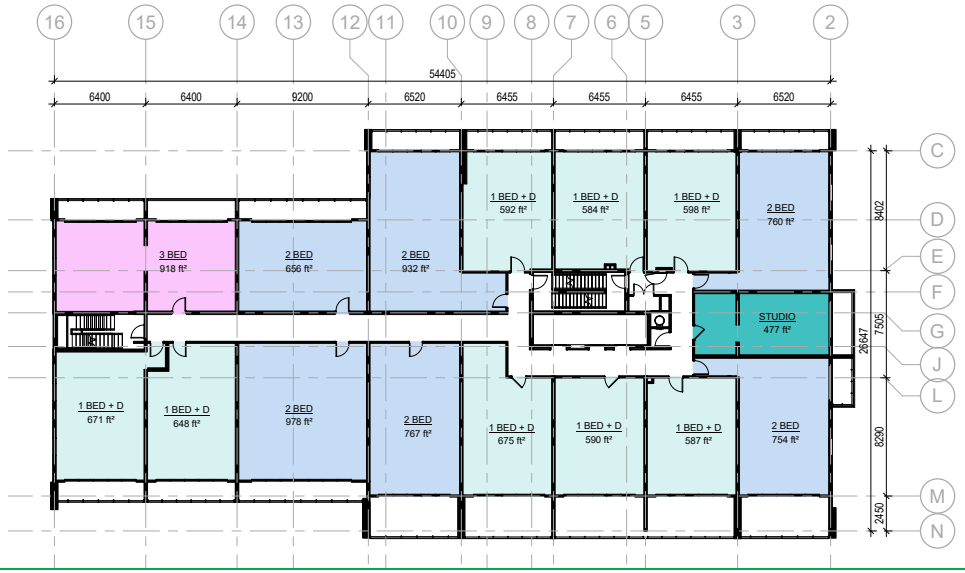


Fig.26:3-5th Level Floor Plan



Project North

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LEVELS 2-5

Drawing Scale 1 : 200
Status
Drawing No. Revision No.

D2.4 - r1

Fig.27:6th Level Floor Plan

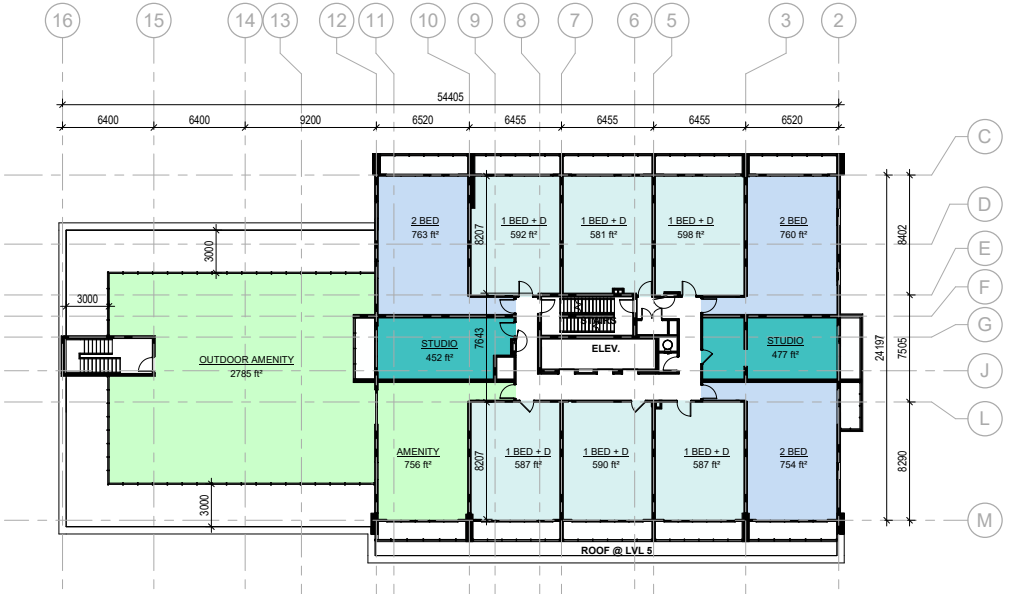
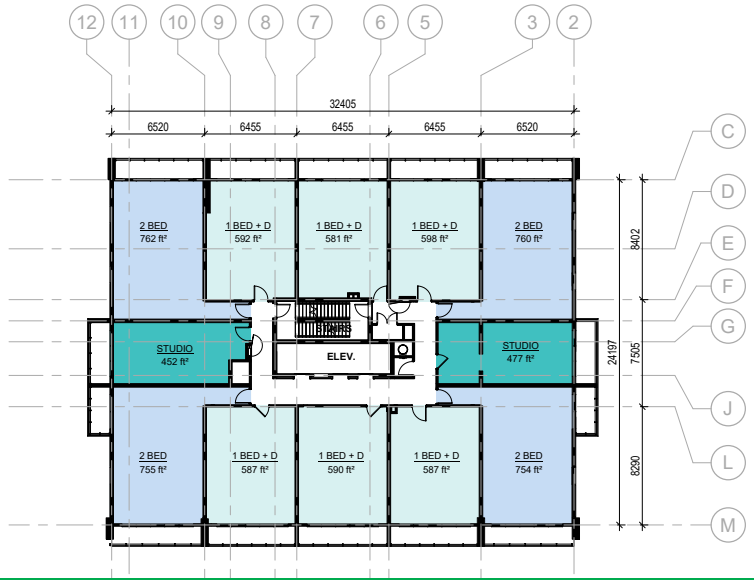


Fig.28:7-17th Level Floor Plan



Project North

True North

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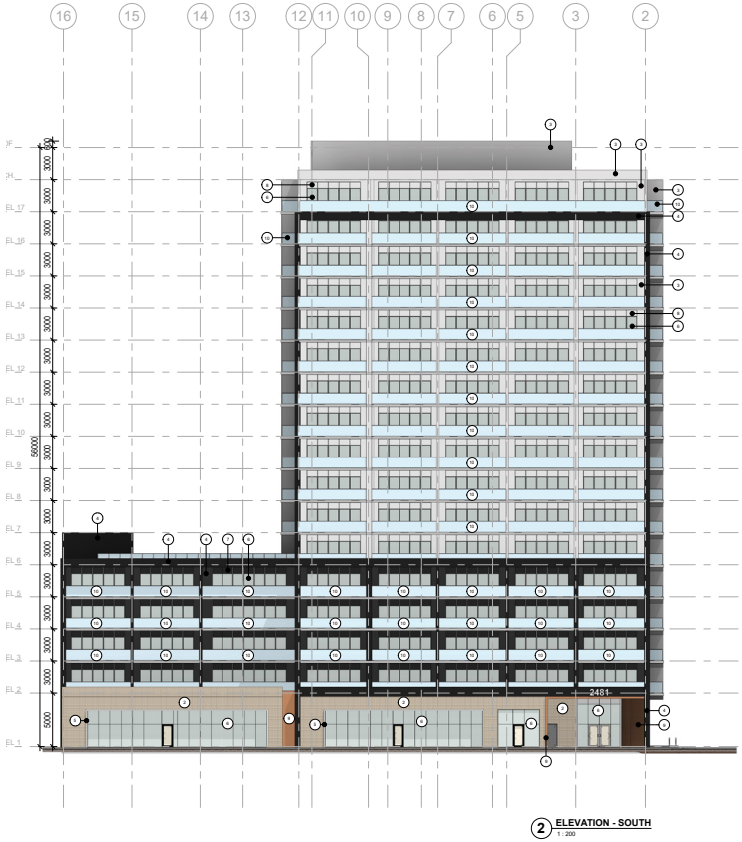
2481 BARTON ST. E, HAMILTON

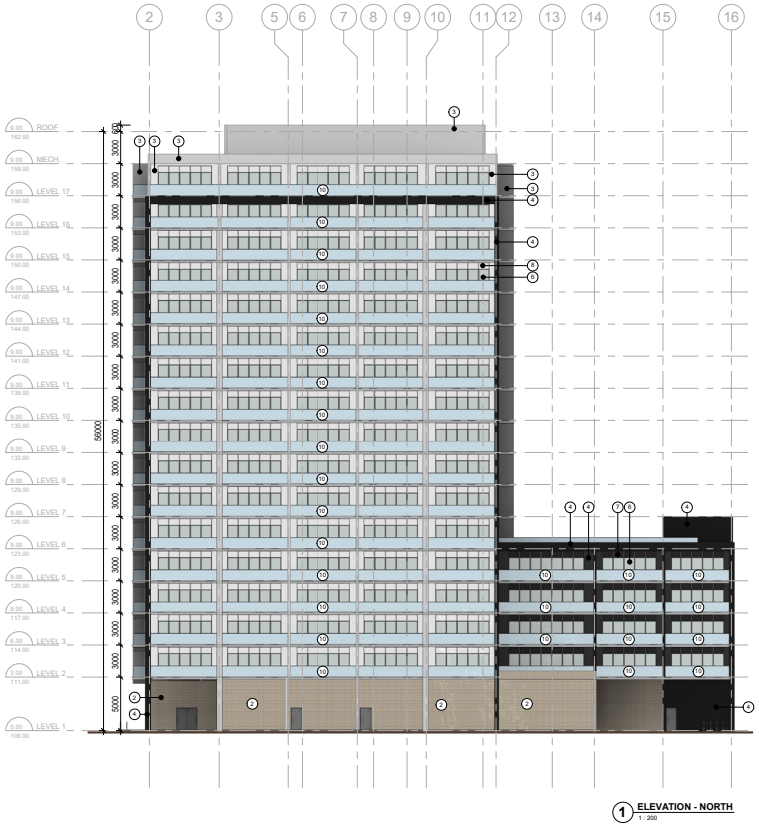
LEVELS 6-17

Drawing Scale: 1 : 200
Status:
Drawing No.: **D2.5** Revision No.: **- r1**

Fig.29:Elevations



2 ELEVATION - SOUTH
1 : 200



1 ELEVATION - NORTH
1 : 200

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MATERIAL LEGEND	
1	PRECAST CONCRETE BRICK PATTERN COLOUR: DARK CHARCOAL
2	PRECAST CONCRETE BRICK PATTERN COLOUR: CREAM
3	PRECAST CONCRETE COLOUR: WHITE
4	PRECAST CONCRETE COLOUR: DARK CHARCOAL
5	METAL PANEL - DARK CHARCOAL COLOUR: DARK CHARCOAL
6	GLAZING PANEL COLOUR: CLEAR
7	SPANDREL PANEL - DARK CHARCOAL
8	SPANDREL PANEL - WHITE
9	METAL PANEL - WOOD FINISH
10	BALCONY GUARD - CLEAR GLAZING PANEL

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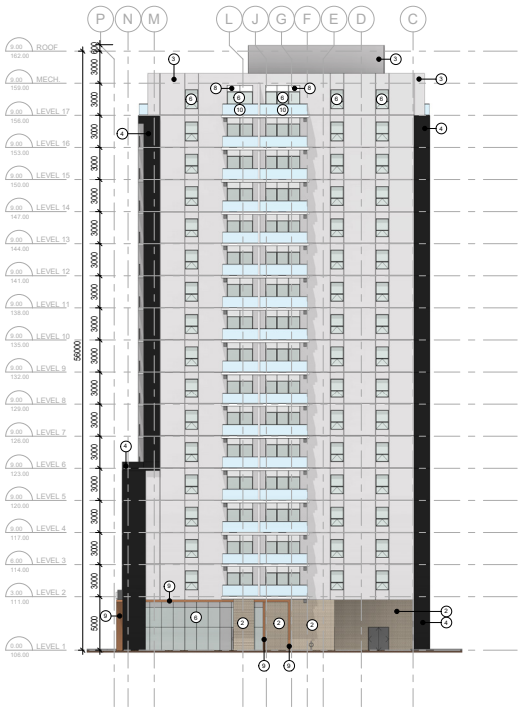
2481 BARTON ST. E, HAMILTON

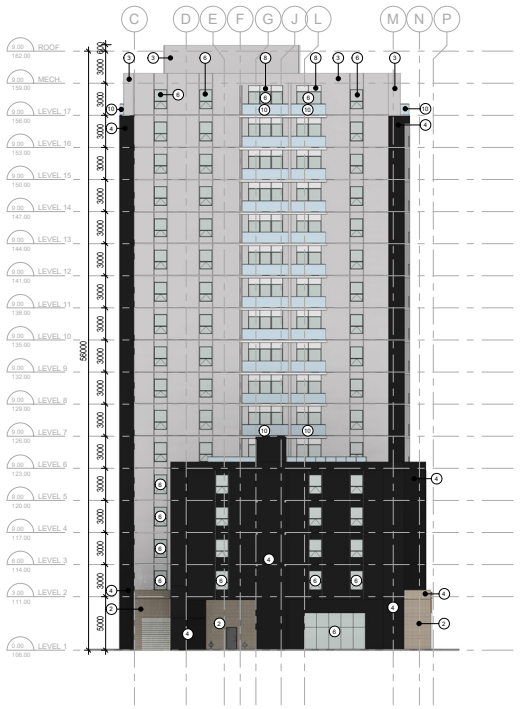
ELEVATIONS

Drawing Scale: As indicated
Status:
Drawing No. / Revision No.: **D3.1 - r1**

Fig.30:Elevations



2 03 A3 ELEVATION - WEST
1 : 200



1 03 A3 ELEVATION - EAST
1 : 200

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2481 BARTON ST. E, HAMILTON

ELEVATIONS

Drawing Scale: As indicated
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Drawing No. / Revision No.

D3.2 - r1

5.3 Site Organization

Building Placement

The apartment building is placed parallel and close to Barton St. E. with a 1.5 m front yard setback, which helps to frame the street while providing space for comfortable entrance/exit to the building. A 3 m building setback is provided along westerly lot line for landscape buffer and a larger 13.7 m setback is provided from the easterly lot line to provide 70 m buffer from industrial uses to east. A rear setback of 21.05 m, with a 2.5 m landscape buffer, is provided to create appropriate buffer from commercial uses to north and provide space for outdoor amenity area and rear surface parking.

The proposed building placement and orientation creates a continuous street wall, frames the street, and provides buffer from adjacent commercial/industrial uses.

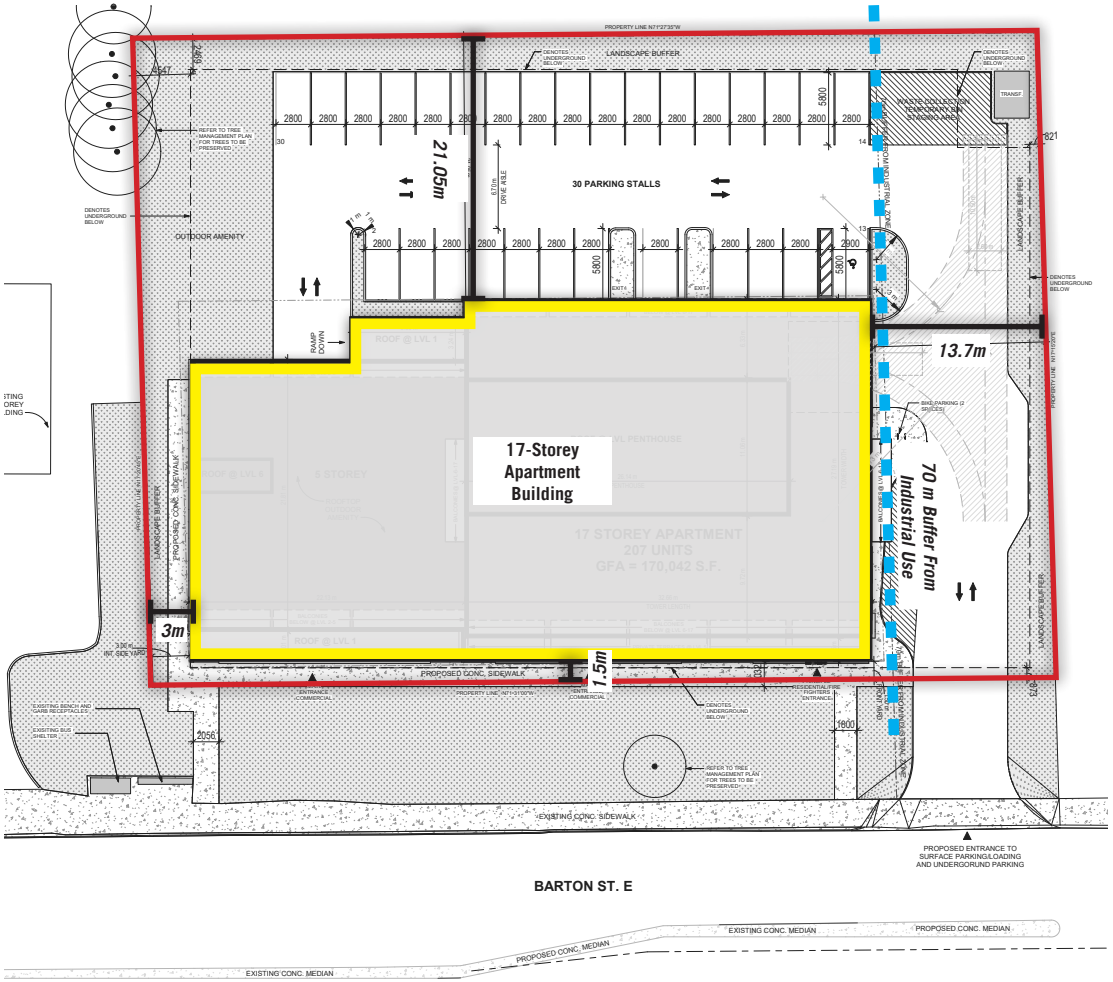
Vehicle Access And Circulation

One vehicular access from Barton St. E. is proposed and is located far from the Barton St. E. intersection. A total of thirty (30) surface parking spaces are proposed. Access to underground parking is located far from the public street, creating buffer to provide safe entrance and exit to the Site. The parking area is screened from public view, safe, accessible and conveniently located near the building entrances.

Pedestrian Access And Circulation

The main building entrance is proposed along Barton St. E. which provides direct and barrier-free pedestrian connections to the public sidewalk, creating a safe and

Fig.31: Building Placement

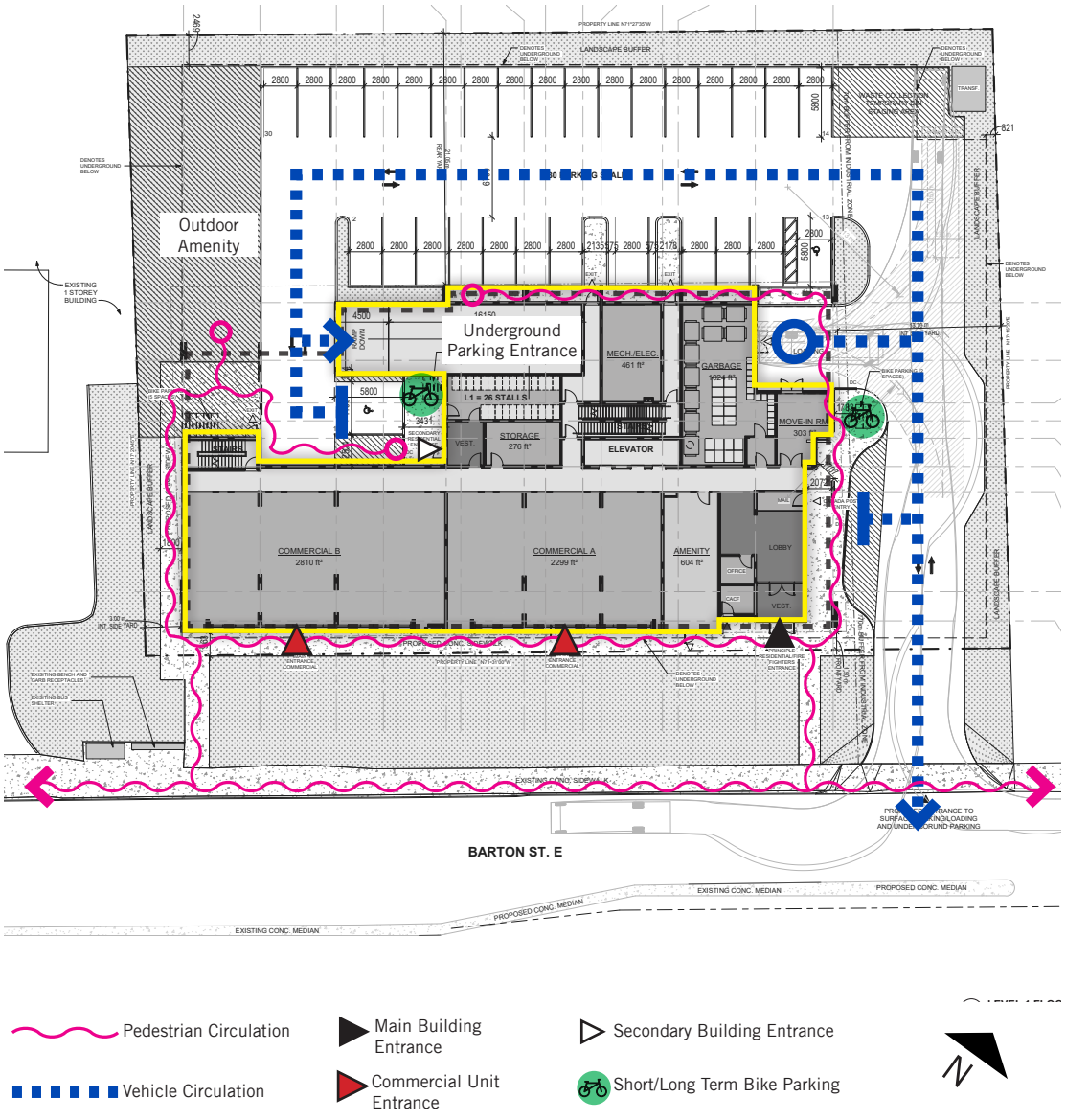


legible pedestrian access. Pedestrians can also access the building from secondary building entrance, located at the rear of the building, which is also connected to the public sidewalk. Commercial unit entrances are clearly have direct pedestrian connection from Barton St. E. Outdoor amenity area can be safely accessed via pedestrians, uninterrupted from vehicular traffic. Space for landscaping, planing beds, seating areas, bike parking is proposed along pedestrian walkways and building entrances to contribute to the public realm and enhance pedestrian experience.

Cyclist Access And Circulation

Visitors can easily access the conveniently located short-term bicycle parking near the building entrances directly from public sidewalk. Five (5) short term bike parking spaces are provided. Residents bike parking is securely located inside the building, 26 spaces on the ground floor and 76 spaces in level P1, and is conveniently located close to the building elevator. A total of one-hundred two (102) long term bike parking spaces are provided.

Fig.32:Building Entrances



Parking and Servicing Areas

Parking spaces for residents is provided in two levels of underground parking *(Fig.23)* and are proposed to be well lit, avoiding any dark or hidden areas. Barrier free parking spaces are conveniently located close to building elevators and a pedestrian walkway is provided for safe access. Surface parking and waste loading areas are located behind the building and hidden from street view. Service areas and waste storage room is fully enclosed within the building and located along at the rear, hidden away from public view.

Fig.33: Angular Plane From 80% Barton St. ROW

5.4 Built Form

The proposed 17-storey point-tower atop a 5-storey podium height and massing, conforms to the height permitted as per the Centennial Neighbourhood Secondary Plan. The proposed 5-storey podium defines the building base, enforces pedestrian scale along Barton St. E. and the massing respects the different scales of the neighbourhood. This approach creates a contextually-responsive fit, the scale and form of the building base responds to surrounding character and creates an intimate streetscape.

Barton St. E. Corridor Scale

The corridor scale is defined by the closer views contained by the width of the Barton St. E. right-of-way (36.5m). In a typical urban corridor setting, a 1:1 ratio of street width-to-streetwall height for the podium is usually appropriate. This ratio would result in a mid-rise streetwall height of 36 m or 11 storeys for the site.

To better reflect the scale of existing neighbourhood, a 5-storey podium height is proposed. The Corridor Design Guidelines reference a 45-degree angular plane, from the 80% width of the street, to determine a maximum height and massing along corridors *(Fig.33)*. The stated intent of the angular plane is to create an appropriate scale along the street with a defined streetwall and to minimize shading. In response, the proposed building podium meets the 45-degree angular plane, has an appropriate street width-to-height scale and the Site is appropriately sized for a tall building per the Tall Building Guidelines. Although, the tower pierces the angular plane by 6 storeys, due to its point tower design, compact floor plate, and step-backs, the ~45% of street frontage along Barton St. E. that the tower represents *(Fig.34)*, would not meaningfully impact the sky views. The shadows cast by the proposed building are acceptable per the Shadow Impact Study prepared by SRM Architects. The proposed design meets

the general intent of the Corridor Design Guidelines, as expressed through the remainder of this section, within the context of a taller building per the Tall Building Guidelines.

Neighbourhood Scale

The immediate neighbourhood scale comprises of low-rise commercial and employment uses to the north, east and west of the Site, and mid to high-rise (7-16 Storey) apartments to the south of the Site. In this context, the proposed 5-Storey podium will compliment the scale of mid-rise apartments to south and the 17-storey tower will blend in with the high-rise housing pattern of the larger neighbourhood *(Fig.10)*.

Fig.34: Percentage Of Massing Piercing The Angular Plane

5.5 Base Design

Ground Floor Design And Building Entrances

The ground floor of the apartment building faces most of the street frontage along Barton St. E. *(Fig.36)* and is proposed to have doors, large windows, active commercial uses and a programmed amenity area with windows, creating an attractive street wall and increase permeability of urban area.

The main building entrance is recessed and directly connected to the public sidewalk *(Fig.36),* creating a legible and barrier-free at-grade entrance. A deep canopy over the entrance provides a weather-protected area underneath. The commercial uses along the facade have entrances located prominently and fronting the public street.

The ground floor has a floor-to-floor height of 4.5 m, creating a distinctive building base. The proposed taller floor-to-floor height of the ground floor provides the flexibility of use as suggested by the Tall Building Guidelines. This taller ground floor is suitable to accommodate the proposed commercial and lobby space in the interior which provides for active uses along Barton St. E. The ground floor building elevations are comprised of significant proportions of transparent glass to provide interaction and surveillance between interior spaces and exterior public realm spaces. These ground floor building elevations significantly exceed the minimum ground floor frontage width suggested in the Tall Building Guidelines in the interest of maximizing built form presence along the public street edges.

The conveniently located building entrances, along with windows and doors opening directly onto the street provide “eyes on the street”, animating and visually connecting the public and private realm.

Fig.36:Entrances Along Barton St. E.

Articulation and Detailing

The building base is articulated in a distinguishing fashion between the ground floor and the rest of the podium up to 5th storey. The ground floor has a taller height and utilizes generous use of glass in the commercial and common areas to enhance the ground floor and public realm interaction (*Fig.37*). The ground floor articulation has a cleaner look with brick bands spanning over large glazed facade, dividing the base into three sections and delineating it from the rest of the podium floors. The use of brick material, which is also found in the surrounding residential buildings, helps to create an anchored base and a facade that is compatible with the surrounding neighbourhood character. The main building and commercial unit entrances are recessed with a overhanging canopy over the landing spaces. Glazed windows and doors, entrance canopy and municipal address signage accentuate the ground floor facade.

The upper base is distinguished from the lower base with a complementary and unifying treatment. The upper podium floors incorporate recessed balconies with post and beam design and glass railing, creating a rhythmic design *(Fig.38)*. Horizontal and vertical step-backs are utilized to break the perceived massing and length of the podium. The upper floors are clad with smooth grey finish, distinguishing the lower base the from upper base.

The proposed design establishes a strong street-wall presence at grade and minimizes the perceived height of the building, creating a human-scaled environment. Large windows are provided throughout the building facade, leaving no blank wall and providing surveillance on public and private outdoor spaces.

Fig.37:Ground Floor Articulation Along Barton St. E.

Fig.38:Upper Base Articulation Along Barton St. E.

5.6 Tower Design

Placement and Separation

The 17-storey tower is consciously placed and centered along Barton St. E. frontage, to provide buffer and separation from the abutting commercial and industrial uses surrounding the Site. The tower is set back ~21 m from the rear lot line, ~25 m from western side lot line and ~13.7 m from eastern lot line.

Considering that abutting properties to north and west of the Site could potentially be developed as mixed-use developments, the proposed tower separation satisfies the Tall Building Guidelines recommended 12.5 m separation distance from abutting property lines to mitigate shadow and privacy considerations on abutting residential properties.

Tower Floor Plate

The towers have a articulated floor plate with a mix of recessed and projected balconies. The tower floor plate, measuring 32.4 m by 24.19 m, has an area of 783 sqm. The floor plate area is slightly larger than the 750 sqm, as referenced by the Tall Building Guidelines. Although the design guidance does contemplate larger floor plates where the other guidelines can be satisfied. This is the case for the proposed design, considering the demonstrated minimal shadow, and wind impacts; building separation distances; the street-reinforcing podium placement and design; uninterrupted building base line with active frontages; use of lighter material for the tower portion to reduce perceived mass; and the overall quality of the architectural expression.

Step-backs

The tower design incorporates step-backs as it rises above the building base after 5th storey. From Barton St. E., the tower

Fig.40:Tower Placement And Floor Plate Area

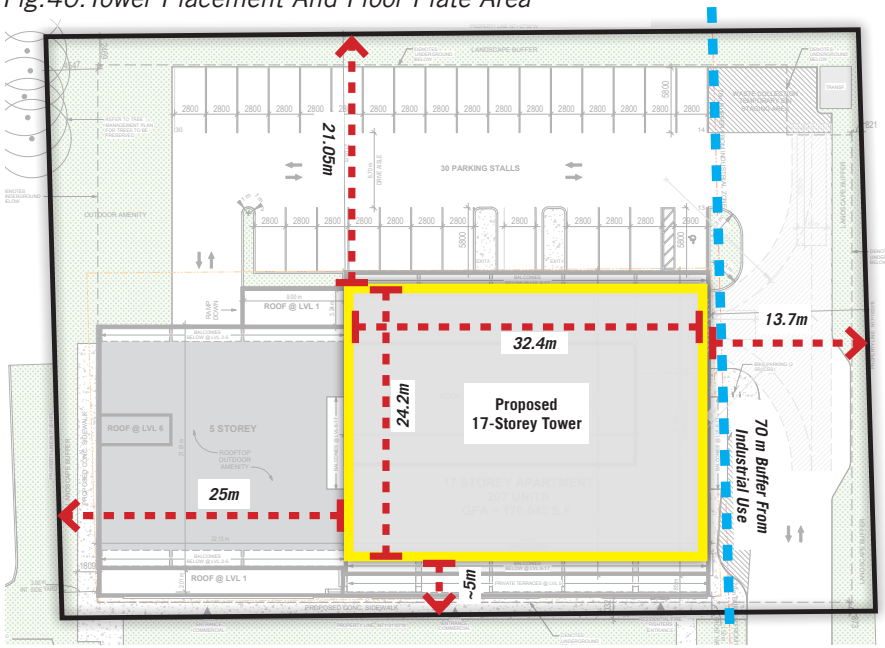


Fig.39:Tower Step-backs

facade step-backs from the building base by a 3 m and 22 m from the western side. The proposed tower step-backs satisfies the Tall Building Guidelines recommended a minimum of 3 m step-back from the building base along all streets to mitigate shadow and provide a human scale podium.

Articulation and Detailing

The tower articulation is complementary to that of the building base. The tower is clad with smooth white pre-cast colour and generous use of transparent glazing to create a lighter top volume and distinction from the building base. The window pattern is simple and regular in shape and composition. The south and north facade of the tower replicates the podium balcony pattern and is coloured in contrast, creating a distinctive but cohesive tower design. The east and west tower facade has projected balconies with transparent glass balcony railings, creating facade design variety and contribute to the simple yet refined aesthetic.

Tower Top

A mechanical penthouse encloses all rooftop equipment, situated centrally on the rooftop with setbacks from all four sides to reduce views. The penthouse is clad with light material to distinguish from the remainder of the tower and diminish visual perspective from the storeys below.

Balconies

The tower design includes a combination of fully recessed and projected balconies, integrated as cohesive elements throughout the building's architecture. The podium has wider and deeper balconies, which provides more active communal space facing the public street edge. Projected and recessed balconies are at least 1.5 m deep to be useful outdoor sitting areas in keeping with the minimum suggested in the Tall Building Guidelines.

Fig.41:Tower Design

Roof And Rooftop Mechanical Equipment

The proposed building has flat roof lines and the top floor of the building is cladded with white pre-cast colour creating a lighter top volume. The roof top mechanical equipment is setback from the top floor, incorporated into the building design, and screened from public view.

Lighting

Adequate and high quality lighting is proposed to be provided at the recessed building entrances, parking and servicing areas, illuminating all areas of use. Further lighting details to be discussed at the Building Permit stage.

5.7 Amenity Areas

Common indoor amenity areas are proposed on the ground floor, which provide easy and barrier free access to the residents and visitors. These areas are proposed to have higher ceiling height and large windows allowing natural light penetration and enhancing human comfort. Private balcony is proposed for each unit and they are large enough to be a usable space and accommodate furniture.

On the 6th floor, a large outdoor roof-top amenity area is proposed *(Fig.27)* in conjunction to an indoor amenity area with access to washrooms, common seating and landscaping. Approximately 278 sqm of at-grade outdoor landscaped amenity area is proposed at the rear of the building and can be easily accessed by the residents. These areas are proposed to have soft and hard landscaping elements with trees and other shrub plantings. Further landscaping details will be discussed in the landscape plan at the Site Plan stage.

The proposal meets and exceed the required amenity space requirement as per the zoning bylaw.

5.8 Materials

The material palette for the proposed development consists of varied, durable and high quality finishes. Materials are used consciously to achieve several different architectural effects and contributions. This includes accentuating architectural details, distinguishing the building base from the tower mass and reflecting surrounding context.

The choice of materials moves from heavy to light from the ground to the top floors. Generous glass is used on the ground floor commercial and common areas to connect the interior of the building with the exterior, expanding the public realm along Barton St. E. The podium introduces a combination of solid and transparent elements to mark a distinct expression between tower and lower base. The tower employs transparent components and lighter colour to add lightness to the overall massing.

The combination of solid and light materials is intended to create a distinct design and appropriately reflect tones that are current and of this design era. The podium has darker colour and deeper balconies compared to the tower, which further helps to anchor the building base and enhances its street presence.

5.9 Parking

The parking is mostly contained in two levels of underground parking with some surface parking, located behind the building and away from public street view. In total, the garage contains 140 parking spaces and 30 surface parking spaces.

The building's ground floor contains a conveniently located and secure indoor bicycle storage room. These spaces provide longer-term storage for residents, complementing the shorter-term outdoor spaces for visitors close to building entrances.

5.10 Service and Loading Areas

Service and loading areas are internalized within the rear of ground floor, away from the public street frontages as desired by the policy and guidelines. The waste storage and management areas are located internally and enclosed as well. Mechanical equipment is contained with service rooms within the parking garage and/or within the mechanical penthouse on the towers roof tops.

5.11 Potential Impacts and Mitigation

Noise

The Noise Impact Study prepared by dBA Services Inc. concludes that road noise can be adequately controlled through upgraded wall and window glazing design. Noise screening to outdoor amenity areas is not required.

Wind

The Pedestrian Wind Assessment prepared by Gradient Wind Engineers and Scientists concludes the proposed building form and massing satisfies all wind safety criteria and wind conditions for intended usage on most of the surrounding public sidewalks, surface parking, landscaped areas and building entrances. Mitigation through addition of 2m vertical wind barriers or landscape barriers are proposed to the design. No areas over the study site were found to experience wind conditions that are considered unsafe.

Shadow

The Shadow Impact Study prepared by SRM Architects Inc. concluded that the proposed development will have minimal shadow impact as per the guidelines referenced in the City of Hamilton's Development Application Guidelines: Sun Shadow Study.

5.12 Sustainable Design

At the broader city context scale, the site provides sustainability advantages owing to its location. It sits within the Sub-Regional Service Node Boundary of Centennial Neighbourhood Secondary Plan and is surrounded by urban areas that contain workplaces, community and institutional uses, shops and restaurants. These destinations can be easily accessed by walking, cycling or transit, reducing reliance on automobile trips. The site has excellent connections to HSR and GO bus service and GO train services provided at the Confederation GO station just North of the site. Collectively these factors provide opportunities for car-free or car-reduced living and accompanying reductions of greenhouse gas emissions.

At the site design scale, the proposed design provides several sustainability contributions. Parking is mostly contained within a parking garage reducing heat island impacts. Proposed TDM measures include access and convenience for pedestrians and cyclists, parking management strategies, promotion of carpooling, and TDM education/promotion which will assist in reducing reliance on driving. The development also includes short-term and long-term bicycle parking, car parking requirements in line with Hamilton zoning standards and an un-bundled parking supply. Permeable paving will be considered at a later stage which can assist with stormwater management.

At the building design scale, the proposed design has a higher solid-to-glazing ratio which helps in reducing the energy requirements for heating and cooling. Sustainable construction and building operation will be explored at the time of more detailed design, including considerations of energy efficient building envelopes, cladding materials, window design and controls and roof design.

6. SUMMARY

The proposed development is an appropriate expression of a high-rise building form that is compatible with the surrounding built form context and is generally in keeping with the policy direction of the Urban Hamilton Official Plan including the Centennial Neighbourhood Secondary Plan and respects and reflects the intent of relevant design guidelines, particularly the Tall Building Guidelines, and Corridor Principles and Design Guidelines. We base this statement on the following conclusions:

1. The site is appropriately sized and configured for a tall building per the general parameters of the Tall Building Guidelines.

2. The proposed development appropriately reflects the height and scale for a Mixed-use High Density designation, and the corridor scale of Barton St. E.

3. The scale and articulation of the building base reinforces the corridor scale of the Barton St. E. and reflecting the abutting low-rise context.

4. The building base positioning closer to street edge together with a transparent and active frontage facade reinforces an intimate and attractive, pedestrian-friendly public realm while the podium meets the angular plane from Barton St. E.

6. The building tower is positioned to meet the separation guidelines and provide step-backs to distinguish from the building base.

7. The tower has distinct cladding material and colour from the building base, and the mechanical penthouse room is integrated with the building's architecture and screened from public view.

8. The tall building form is supported by the shadow and wind studies demonstrating that there are no significant impacts related to shadow impact or pedestrian level wind conditions.

9. With the application of various step-backs, architectural expression, and high quality materials, the proposed buildings will have a positive contribution to the city's skyline.

10. All parking and servicing facilities are placed in an enclosed parking garage, behind active uses and away from the public streets.

APPENDIX A

Shadow Impact Diagrams

SHADOW STUDY WRITTEN ANALYSIS

The following shadow studies demonstrates the shadow impacts of the proposed development during the Spring / Fall Equinox. The proposed site is currently located at 2481 Barton Street East, Hamilton, Ontario.

Tower = 17 Storey Tower with a net floor area of 795 m²
Podium = 5 Storey Tower with a net floor area of 1,200 m²

March 21st sunrise = 7:20am +/- and sunset = 7:30pm +/-
September 21st sunrise = 7:00am +/- and sunset = 7:18pm +/-

The shadow impact study for Spring Equinox takes place from 9:00am until 6:00pm at 1.5 hour intervals.
The shadow impact study for Fall Equinox takes place from 8:30am until 6:00pm at 1.5 hour intervals.

March 21st (Spring Equinox)

- The proposed development has no impact on Barton Street East on March 21st.
- The proposed development has no impact on the Centennial Parkway North from +/-10:00am to sunrise.
- The proposed development has no impact on the Covington Street from sunrise to +/- 5:00pm.
- The proposed development has impact on the adjacent commercial / industrial plazas from sunrise to sunset.

True North

1 **SHADOW STUDY MARCH 21st 9:00 AM (SUNRISE +/- 7:20 AM)**
1 : 2500

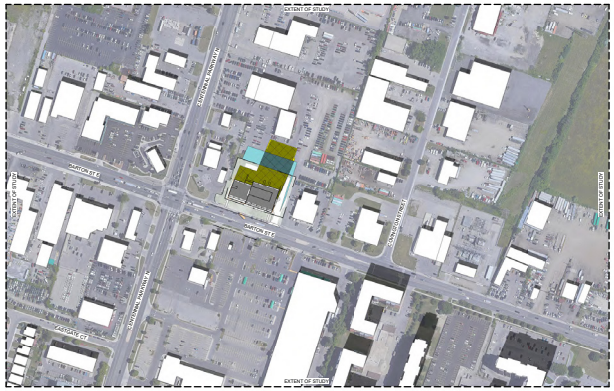
2 **SHADOW STUDY MARCH 21st 10:30 AM**
1 : 2500

SHADOW STUDY LEGEND

- AS-OF-RIGHT SHADOW (4 STOREY, 17m HEIGHT)
- PROPOSED DEVELOPMENT SHADOWS (17 STOREY, 53m HEIGHT)
- NEW NET SHADOWS
- PROPOSED BUILDING FOOTPRINT
- PROPERTY LINE
- EXTENT OF SHADOW STUDY

NOTE: TIMES HAVE BEEN ADJUSTED FOR DAYLIGHT SAVINGS.

3 **SHADOW STUDY MARCH 21st 12:00 PM**
1 : 2500



4 **SHADOW STUDY MARCH 21st 1:30 PM**
1 : 2500

SHADOW STUDY - SPRING EQUINOX
2481 BARTON ST. E, HAMILTON

0 25 50 125
Scale 1 : 2500 FULL SIZE
Scale 1 : 5000 HALF SIZE

21033
12/14/22
Prepared By: XXX

srm ARCHITECTS INC.

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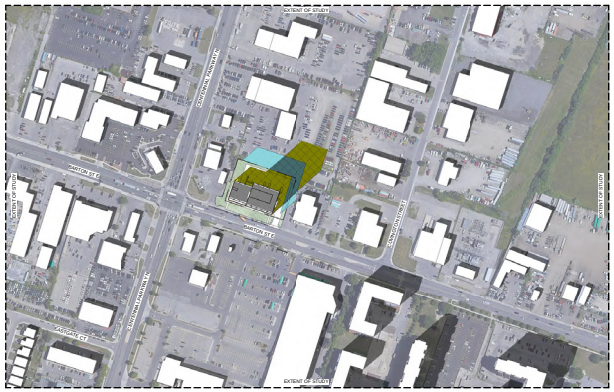
True North



1 **SHADOW STUDY MARCH 21st 3:00 PM**
1 : 2500

2 **SHADOW STUDY MARCH 21st 4:30 PM**
1 : 2500

SHADOW STUDY LEGEND

- AS-OF-RIGHT SHADOW (4 STOREY, 17m HEIGHT)
- PROPOSED DEVELOPMENT SHADOWS (17 STOREY, 53m HEIGHT)
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- EXTENT OF SHADOW STUDY

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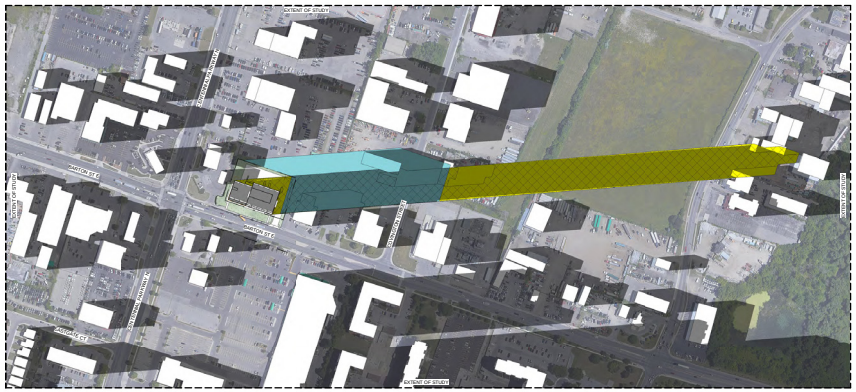

3 **SHADOW STUDY MARCH 21st 6:00 PM (SUNSET @ 7:30 PM)**
1 : 2500

SHADOW STUDY - SPRING EQUINOX
2481 BARTON ST. E, HAMILTON

21033
12/14/22
Prepared By: XXX

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The shadow impact study for Fall Equinox takes place from 8:30am until 6:00pm at 1.5 hour intervals.

September 21st (Fall Equinox)

- The proposed development has no impact on Barton Street East on September 21st.
- The proposed development has no impact on the Centennial Parkway North from +/-10:00am to sunrise.
- The proposed development has no impact on the Covington Street from sunrise to +/- 4:30pm.
- The proposed development has impact on the adjacent commercial / industrial plazas from sunrise to sunset.

True North

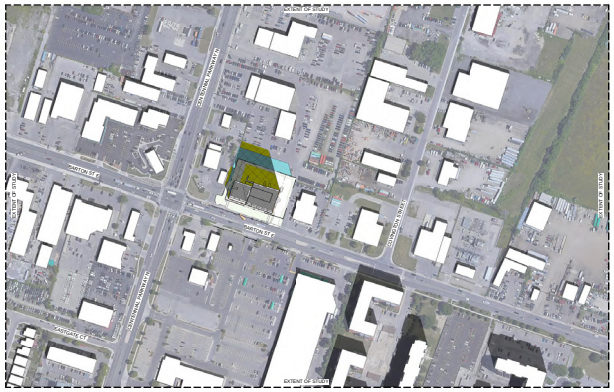
1 **SHADOW STUDY SEPTEMBER 21st 8:30 AM (SUNRISE +/- 7:00 AM)**
1 : 2500

2 **SHADOW STUDY SEPTEMBER 21st 10:00 AM**
1 : 2500

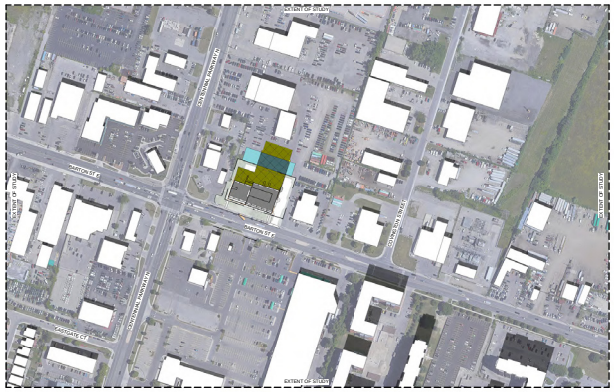
SHADOW STUDY LEGEND

- AS-OF-RIGHT SHADOW (4 STOREY, 17m HEIGHT)
- PROPOSED DEVELOPMENT SHADOWS (17 STOREY, 53m HEIGHT)
- NEW NET SHADOWS
- PROPOSED BUILDING FOOTPRINT
- PROPERTY LINE
- EXTENT OF SHADOW STUDY

NOTE: TIMES HAVE BEEN ADJUSTED FOR DAYLIGHT SAVINGS.



3 **SHADOW STUDY SEPTEMBER 21st 11:30 AM**
1 : 2500



4 **SHADOW STUDY SEPTEMBER 21st 1:00 PM**
1 : 2500

SHADOW STUDY - FALL EQUINOX
2481 BARTON ST. E, HAMILTON

21033
12/14/22
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September 21st (Fall Equinox)

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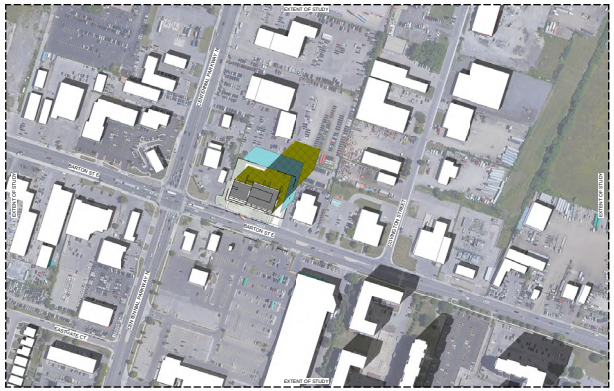
- The proposed development has no impact on the Covington Street from sunrise to +/- 4:30pm.
- The proposed development has impact on the adjacent commercial / industrial plazas from sunrise to sunset.

True North



1 SHADOW STUDY SEPTEMBER 21st 2:30 PM
1 : 2500

2 SHADOW STUDY SEPTEMBER 21st 4:00 PM
1 : 2500

SHADOW STUDY LEGEND

- AS-OF-RIGHT SHADOW (4 STOREY, 17m HEIGHT)
- PROPOSED DEVELOPMENT SHADOWS (17 STOREY, 53m HEIGHT)
- NEW NET SHADOWS
- PROPOSED BUILDING FOOTPRINT
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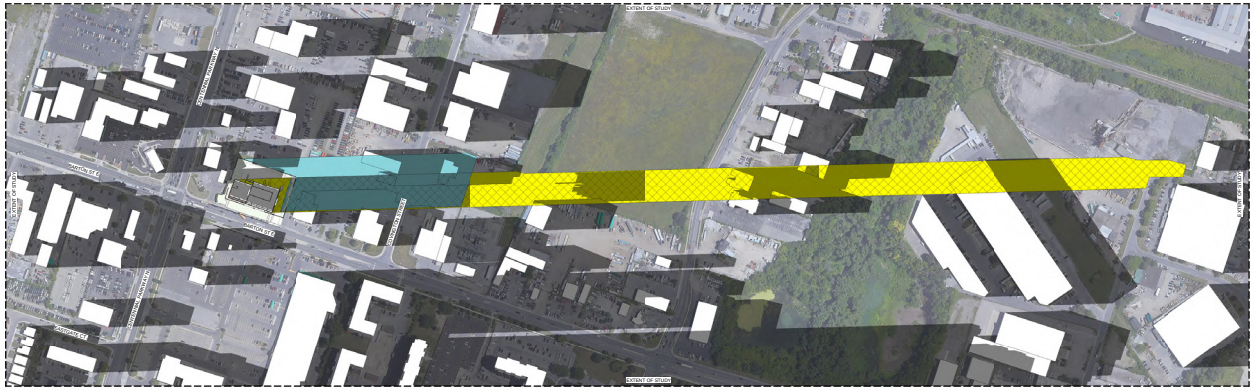

3 SHADOW STUDY SEPTEMBER 21st 6:00 PM (SUNSET @ 7:18 PM)
1 : 2500

SHADOW STUDY - FALL EQUINOX
2481 BARTON ST. E, HAMILTON

21033
12/14/22
Prepared By: XXX

srm ARCHITECTS INC.


GSP
group