December 1, 2024

Mr. Jean-Charles Renaud
Planner III, Development Review – Central
City of Ottawa
110 Laurier Avenue West
Ottawa, ON K1P 1J1

Via Email: jean-charles.renaud@ottawa.ca

RE: UDRP Report – Site Plan Control
110 O'Connor Street, Ottawa

Dear Mr. Renaud,

Please find attached the following materials, together forming the "UDRP Report", in support of the formal Site Plan Control application submission:

1. Original UDRP Design Brief prepared by Geiger Huot Architectes, as presented to the UDRP on May 3rd, 2024;
2. UDRP Recommendations, as provided to Fotenn on May 23rd, 2024; and,
3. Comprehensive response to the UDRP Recommendations, dated December 2nd, 2024.

Sincerely,

Nico Church, MCIP RPP
Senior Planner

Evan Saunders, M.PL
Planner

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FOTENN

110 O’CONNOR

REDEVELOPMENT PROJECT MIXED-USE BUILDING

DESIGN BRIEF

APRIL 2024

PROJECT: 23032

FOTENN Planning + Design

MACH

GeigerHuot architectes

TABLE OF CONTENTS

PREAMBLE :

DOCUMENT OBJECTIVES

The purpose of this document is to present a mixed-use redevelopment project on O'Connor Street as part of an application for approval of a site planning and architectural integration program. The building has a footprint of 1494 m^2 and is 25 storeys in height including 391 residential units, commercial premises on the ground floor and 102 underground parking spaces. The project is located on lot 43 and a part of lot 42.

PROMOTER-DEVELOPER

GROUPE MACH

Founded in 2000, Groupe Mach is now considered one of the leading private real estate owners and developers in Canada. Having assembled a large team of professionals in the field, Groupe Mach shares its passion and commitment to building a better world through all its achievements.

Motivated by this constant desire, the company seeks to design, develop and manage projects designed to improve the quality of life of its residents and visitors. The team manages over 250 properties across Canada. Groupe Mach's real estate portfolio comprises 42 milion square feet of residential, commercial and business properties. In addition, the company's construction expertise enables them to partner with experienced professionals to build projects that meet the highest standards in terms of quality, performance and sustainable development.

URBAN PLANNER

FOTENN

Fotenn is an award-winning planning, urban design and landscape architecture firm with offices in Ottawa, Kingston, and Toronto. Established in 1992, the firm is committed to a responsive and personal approach and to the honest and fair treatment of our clients and the communities in which we work.

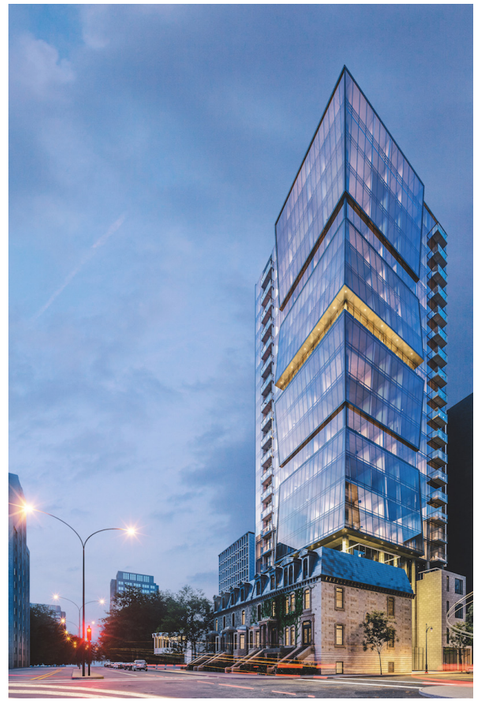
With over sixty staff, each with unique specializations, Fotenn consistently provides successful planning and design services for a range of long-time clients. We maintain a balance of public and private work ranging from individuals and large private sector firms to all three levels of government. While our projects are all diverse in nature, they share one thing in common: a need for practical, high-quality and attractive results. With our wealth of experience in the field, knowledge of current trends and innovative vision, we have added and continue to add immense value to all the spaces we have created across Canada.

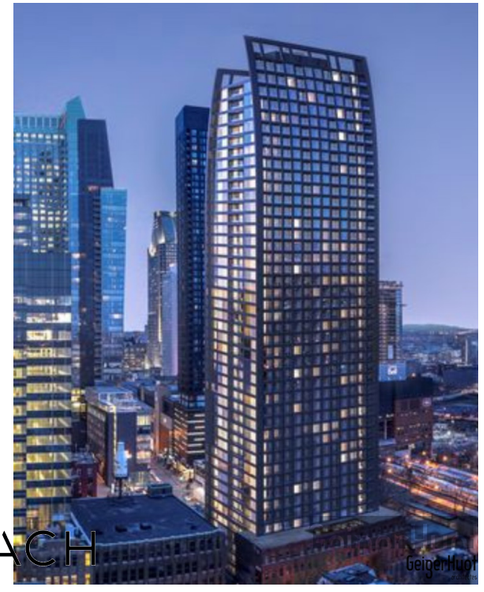
THE PROFESSIONALS

GEIGER AND HUOT ARCHITECTS

For over 30 years, Geiger and Huot architects has evolved and distinguished itself through the realization of large-scale architectural projects in Montreal, Quebec city, Ottawa and Toronto.

Partners Gilla Geiger and Eric Huot, both architects with degrees from McGill University, founded the firm in 1991. Having acquired extensive experience in many areas of architectural practice and planning, it was in the residential field that the firm made its name. Their aim is simple: to be attentive to the needs and demands of the environment, the users and the client - and this is what has earned them longevity in the consulting field. By building a solid team of design and construction professionals, the firm has earned a reputation for the quality of its designs and the excellence of its project execution.





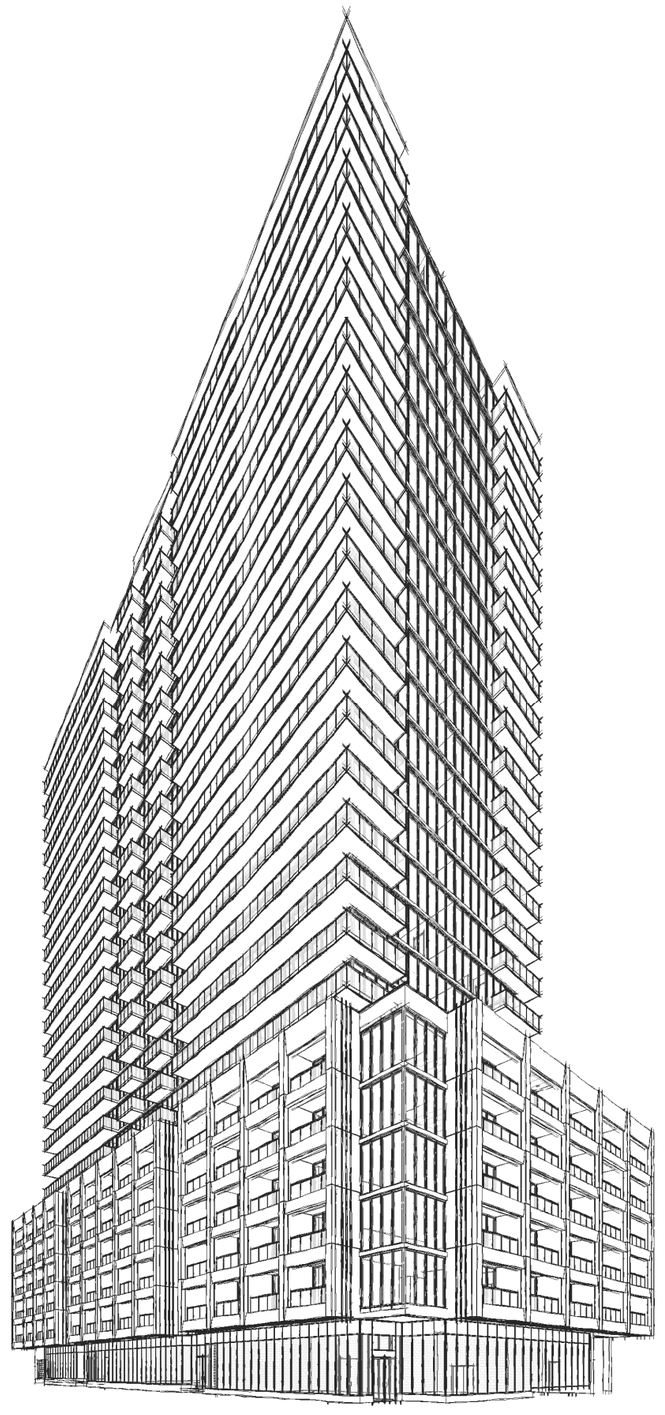
1.0 PROJECT DESCRIPTION

PROJECT DESCRIPTION

THE PROPOSAL

Among the largest and most dominant towers in the city, is nestled 110 O Connor with its 25 floors on one of the busiest arteries in the city. The concept is articulated in three floating masses and retains the precious brutalist language of the sector with a reinterpreation of historic styles present on its neighbouring builings. The contemporary design of the tower on top preserves the integrity of the architecture without dominating the 6-storey podium. The transparent tower rises above and is made out of curtain wall so as to be read in second plane.

The concept is driven by a desire to harmonize with the brutalist facades in the immediate context. The podium is distinguish by its size and by its grid like facade with a tectonic play in fiber cement.



PROJECT DESCRIPTION

SITE PLAN

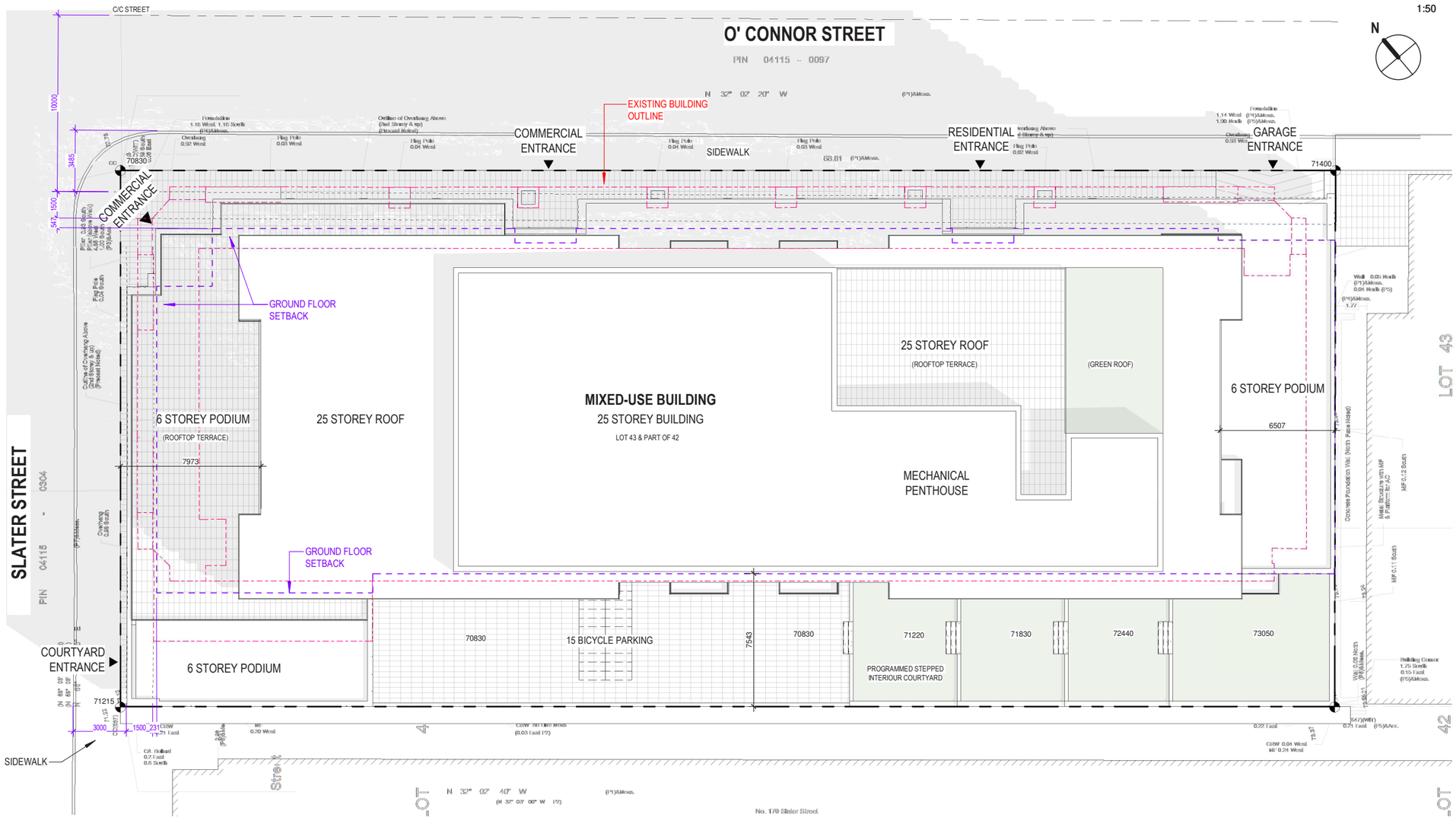
110 O'Connor is a mixed-use development of 392 residential units over 25 storeys, with 543 m^2 of commercial space on the ground floor. The site is bounded by O'Connor and Slater streets, as well as lots 124 O'Connor and 170 Slater. It is close to Parliament Hill.

The project's podium features a continuous streetwall with 0m setbacks from the interior side and rear lot lines, with the tower portion being stepped back and incorporating 6,5 m and 7,5 m separation distances from these lot lines. On Slater and O'Connor Streets, the project borders the lot line, leaving a 2-to-3 metre setback at the ground floor to provide a semi-public, shaded space in front of the double height commercial base of the building. This commercial base is highly articulated and transparent to encourage permeability with the public realm

The podium volume of the tower is 6 storeys high (including the commercial storey) to harmonize with the lower density adjacent buildings. A 19 storey tower sits above, set back by 2m and 7.9m from the podium, to accomodate the high-density template sought in the neighbourhood.

The project comprises a single phase. The residential entrance is located on O'Connor Street while the commercial entrance gives onto the corner of O'Connor and Slater streets to activate the public realm and encourage pedestrian interaction. Note that the indoor parking lot is accessible from a minimally wide ramp from O'Connor Street, which is not a Corridor, and is located at the lateral edge of the site to minimize the impact on the public realm.

Finally, as a large building that will further enliven the landscape, the project offers inclusions such as a protected roof terrace, a communal interior courtyard at grade, a large outdoor bicyle parking area, and other convivial and multi-functional ammenity spaces throughout the building.



PROJECT DESCRIPTION

REGULATIONS

SITE STATISTICS	SPECIFIED	PROPOSED
USE	D, E	C, D, E
HEIGHT	149.4 m to 155 m max.	25 storeys*, 149.4 m to 155 m
PODIUM HEIGHT	max. height = width of row = 20 m	20 m
SITE COVERAGE	70% min. = 1464.7 m^2 min.	1494 m^2 = **71.4%**
TOWER FLOORPLATE	750 m^2 max. encouraged	951.2 m^2**
UNIT DENSITY	350 units / hectare min. = 350 x 0.21 = 74 units min.	392 units
AMENITIES	6 m^2 / unit = 6 x 400 = 2400 m^2 (including 1200 m^2 communal min.)	1600 m^2 balconies, 1161 m^2 communal ammenities = 2761 m^2
SETBACKS	11.5 m from tower to property line encouraged	front: 2 m, 3m (commerce), lateral: 0 m (podium), 6.5 m, 7.5 m (tower)***
PARKING	0.1 spaces / unit after the first 12 units (for visitors) up to 30 spaces = (400-12) x 0.1 = 39 spaces	80 interior spaces
LOADING DOCK	none required for non-residential use under 1000 m^2	none
VEHICULAR ACCESS	not permitted from a Corridor (Slater street)	located on O'Connor street
BICYCLE PARKING	0.5 spaces / unit min. + 1/250 m^2 of commercial = 0.5 x 400 + 3 = 203 spaces	290 interior spaces + 24 exterior spaces = 314 spaces total
GREENING	-	25.8 % at grade

*We chosen to have a 25-storey building to better tie in with the high-density buildings throughout the neighbourhood.

**We chose to exceed a 750 m^2 tower floorplate to allow us to frame the corner streetscape on both O'Connor and Slater, two major streets in the downtown core.

***We chose to setback the front facades at ground level by 2-3 m to provide a semi-public plaza in front of the commercial space bounded by the sidewalk and the front of the building.
The tower is set back 6.5 m from its neighbouring lot on O'Connor, and 7.5 m from the neighbouring lot on Slater because of the current lower density on this lot.

2.0 DESIGN DIRECTIVES

DESIGN DIRECTIVES

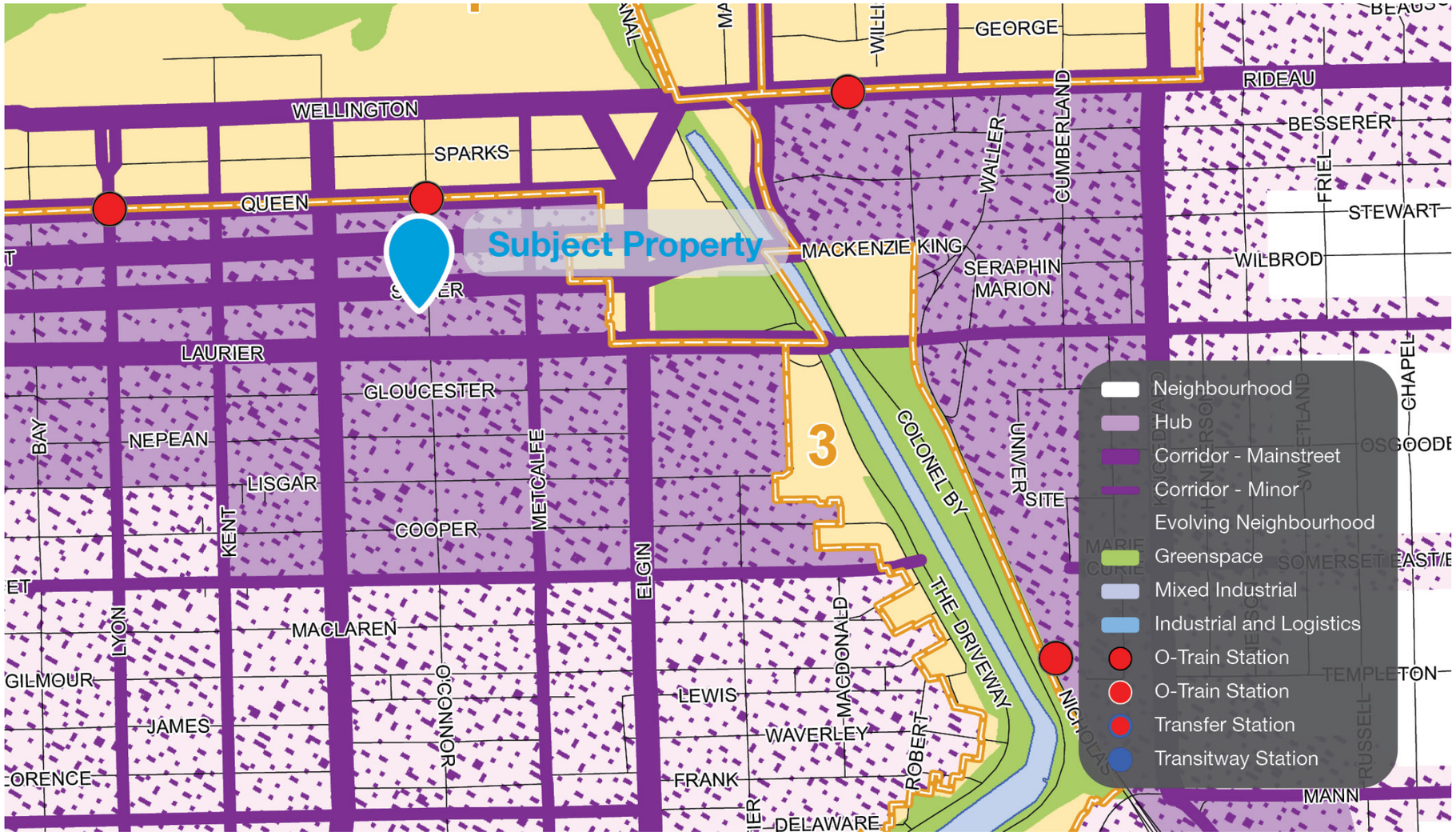
RESPONSE TO DESIGN POLICIES AND GUIDELINES

OFFICIAL PLAN

The subject property is located in the Downtown Core and is designated Mainstreet Corridor within a Hub. The proposed development meets the applicable designation and Transect policies by proposing a high-rise, mixed-use design that defines the street edge with minimal setbacks, activates the at-grade experience with ground floor commercial uses with significant glazing, and locating parking underground.

The proposed development meets several of the applicable urban design policies in Section 4.6 of the Official Plan. In particular, the proposed development pays homage to the character and scale of the existing building and surrounding area; respects applicable view planes and height restrictions, improves the at-grade experience, incorporates sustainable design practices, and provides a variety of indoor and outdoor amentiy spaces.

The proposed building, which incorporates a well-defined base, middle and top, has a tower floorplate of approximately 950 square metres. This larger floorplate responds positively to the surrounding context, which consists typically of high-rise buildings with large floorplates and imposed height restrictions.



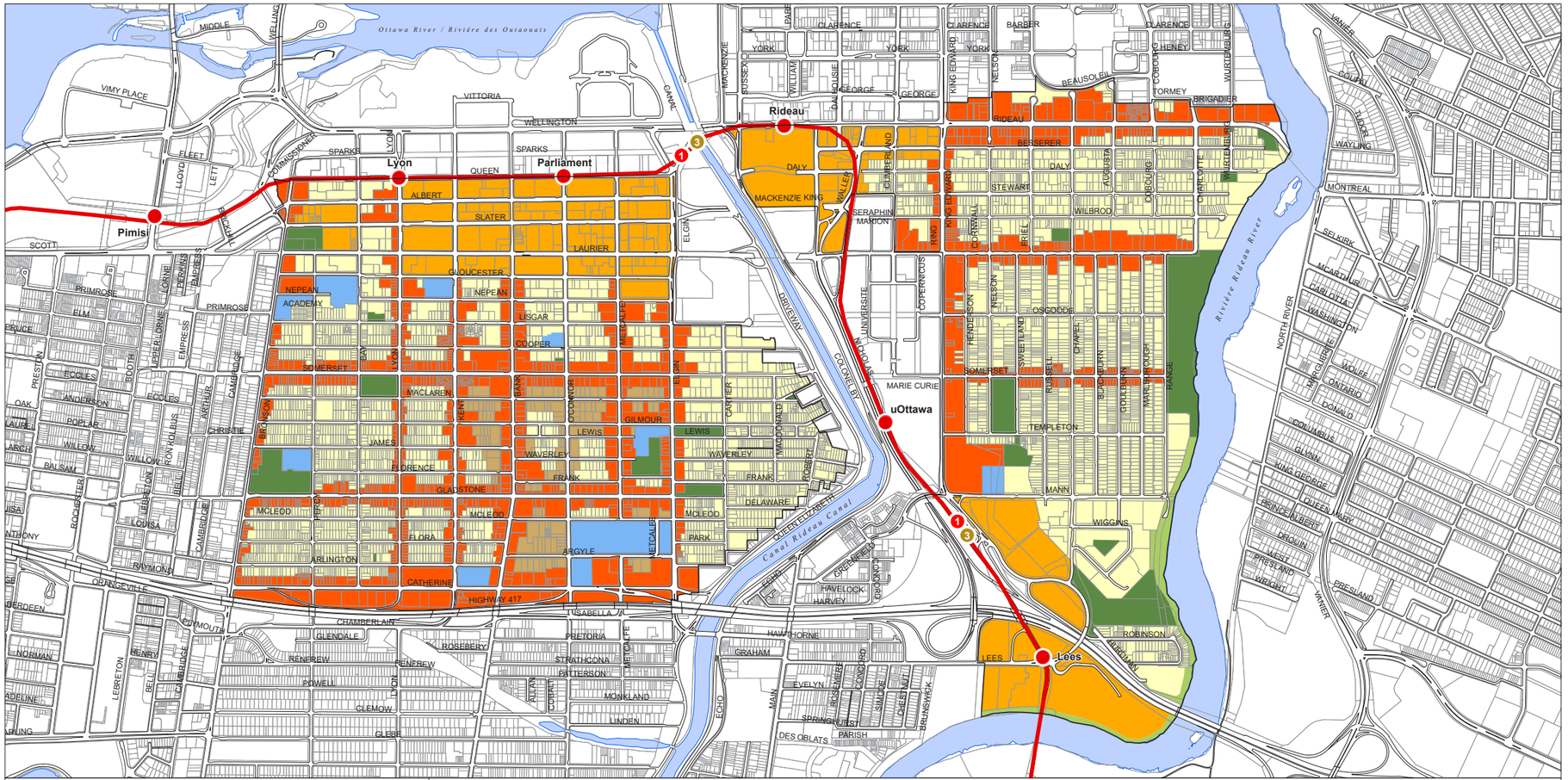
DESIGN DIRECTIVES

RESPONSE TO DESIGN POLICIES AND GUIDELINES

CENTRAL AND EAST DOWNTOWN CORE SECONDARY PLAN

The subject property is located within the Core character area and is designated as Downtown Mixed-Use within the Central and East Downtown Core Secondary Plan.

The proposed development largely meets the applicable general, designation, and built form policies by activating the public realm with ground floor active uses and functional main entrances, providing enhanced, weather-protected pedestrian facilities, locating parking underground, and presenting a context-sensitive design approach. The parking garage entrance is located along the main building facade due to restrictions on new driveways along Slater Street, but is located at the building's edge to minimize its prominence. Parking is proposed to be located underground.



Central and East Downtown Core / Centre-ville et centre-est

SECONDARY PLAN - VOLUME 2
Schedule B - Designation Plan

PLAN SECONDAIRE - VOLUME 2
Annexe B - Plan de désignation

DESIGNATION / DÉSIGNATION

- Local Neighbourhood / Zone locale – quartier
- Corridor / Couloir
- Downtown Mixed-Use / Zone centre-ville - usage mixte
- Local Mixed-Use / Zone locale - usage mixte
- Institutional / Institutionnel
- Park / Parc
- Passive Open Space / Espace vert passif

- Secondary Plan Boundary / Limites du plan secondaire
- O-Train
- O-Train Lines / Lignes de l'O-Train

Consolidation and Amendments / Consolidation et amendements

0 62.5 125 250 375 500 m

Planning, Infrastructure and Economic Development Department, Geospatial Analytics, Technology and Solutions
Services de la planification, de l'infrastructure et du développement économique, Analyse géospatiale, technologie et solutions

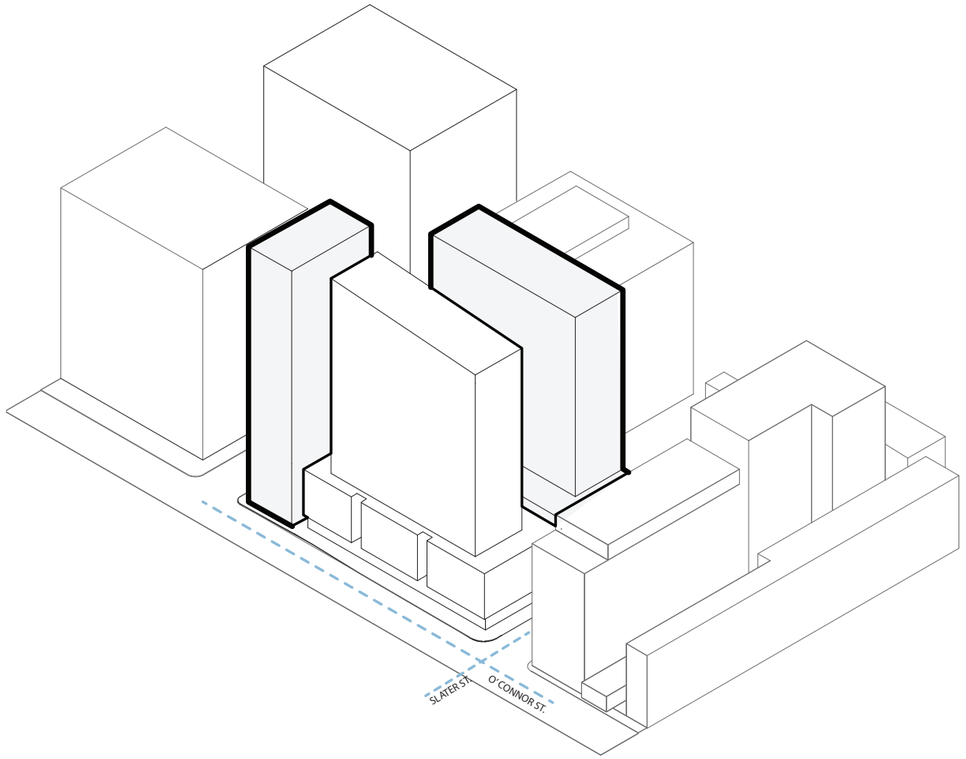
DESIGN DIRECTIVES

URBAN DESIGN GUIDELINES FOR HIGH-RISES

The Urban Design Guidelines for High-Rise Buildings address issues of building and site design as it relates to developments capable of supporting high-rise developments.

The proposed building largely meets the applicable guidelines. In particular: the proposed background building respects the existing character of the downtown core; incorporates a base, middle, and top; enhances the public realm experience; integrates parking and utilities; and is located on a sufficiently sized parcel.

The proposed design incorporates a larger floorplate and smaller separation distances to abutting properties than outlined in the guidelines. These characteristics represent the existing development fabric found in the downtown core. The proposed design is thus appropriate in its context.



Possible future tower projections
on south and west lots

DESIGN DIRECTIVES

TRANSIT-ORIENTED DEVELOPMENT GUIDELINES

The proposed development generally meets the applicable Transit-Oriented Development guidlines. In particular: the proposed design increases residential density in proximity to rapid transit; provides minimal parking located underground; and enhances the public realm experience.

DESIGN DIRECTIVES

ZONING BY-LAW

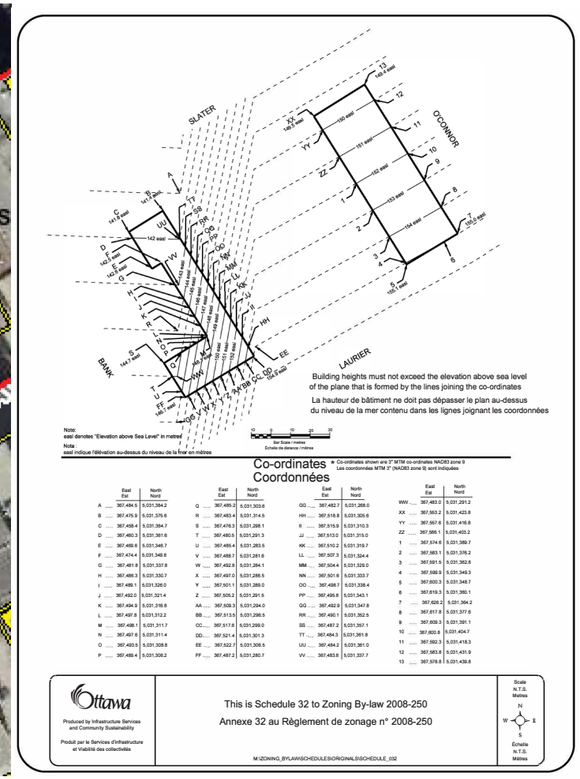
The subject property is zoned Mixed Use Downtown, Schedule 32 (MD S32) in the City of Ottawa Comprehensive Zoning By-law (2008-250).

The purpose of the MD zone is to:

- Support the Central Area, as designated in the Official Plan, as the central place in the region for employment and shopping while also allowing residential, cultural and entertainment uses;
- Facilitate more intense, compatible and complementary development to ensure that the active, pedestrian-oriented environment at street level, particularly along Bank Street, Sparks Street and Rideau Street is sustained; and
- Impose development standards that will protect the visual integrity and symbolic primacy of the Parliament Buildings and be in keeping with the existing scale, character and function of the various Character Areas and Business Improvement Areas in the Central Area while having regard to the heritage structures of the Central Area.

The proposed uses are permitted in the MD zone. The proposed building height meets the requirements outlined in Schedule 32. All other applicable zoning provisions will be met.

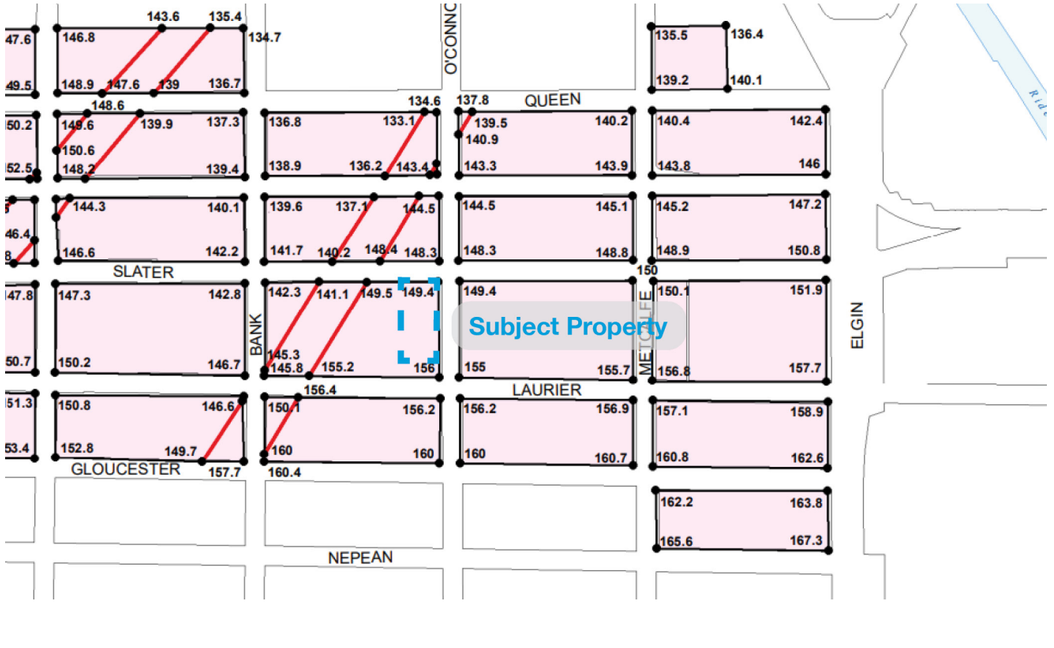
Zoning Graphic

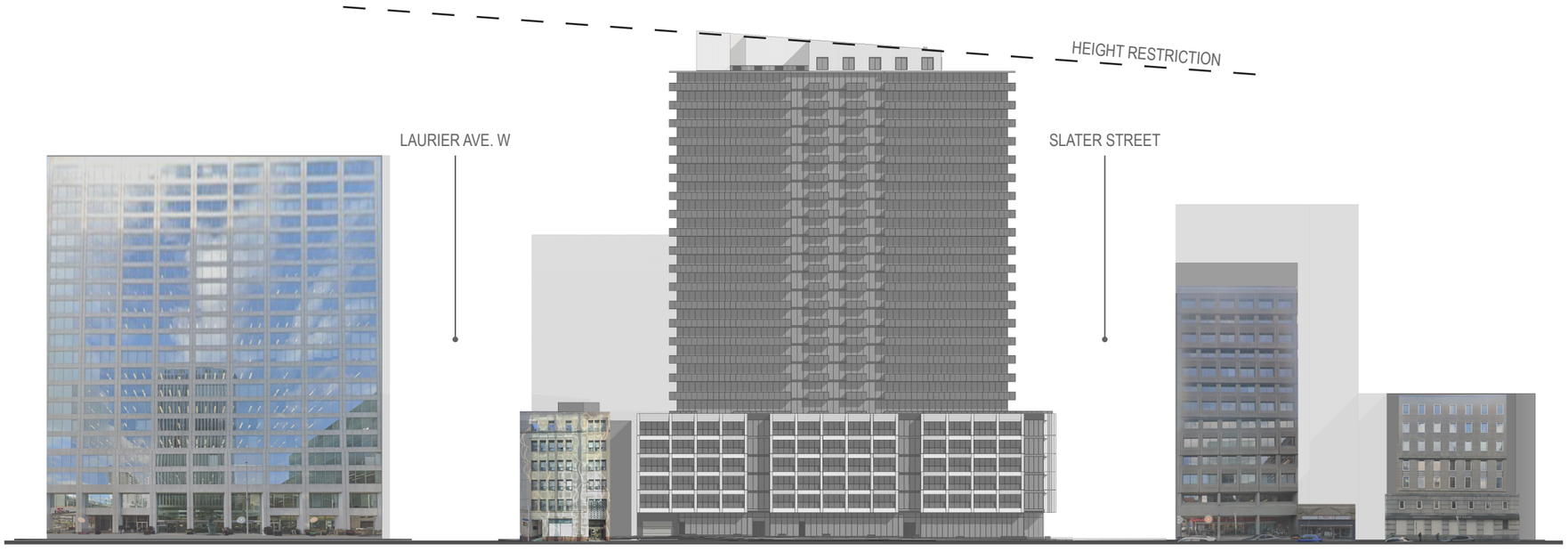


Schedule 32

DESIGN DIRECTIVES

MAXIMUM BUILDING HEIGHT (SCHEDULE 32)





DESIGN DIRECTIVES

RESPONSE TO CITY STAFF URBAN DESIGN DIRECTIONS AFTER PHASE 1 PRE-CONSULTATION

The following elements of the preliminary design are appreciated:

- ***a. Respect of the view planes that pro-tect the Parliament Buildings.***
- ***b. Commercial uses at grade.***
- ***c. Building setbacks at grade.***
- ***d. Creation of street wall conditions on both streets through the podium.***
- ***e. The provision of tower setbacks.***

Noted; the project continues to provide these elements.

The following element of the preliminary design are of concern:

- ***a. Pinched pedestrian realm relative to the very high-density development pro-posed on this site and in the immediate vicinities of the site.***
- ***b. Narrow ramp leading to the under-ground parking.***
- ***c. The overwhelming scale of the 9-storey podium in relationship to the nar-row streets and the heritage building at 124 O'Connor.***
- ***d. The design of the podium appears to be generic. The pattern of the facades does not seem to take into consideration the context of the site.***
- ***e. The overwhelming scale of the tower resulting from a very large floor plate size.***

a. The project incorporates right-of-way wid-enings and a recessed podium at the ground floor to provide more pedestri-an space at-grade.
b. A 6.1-metre-wide ramp provides access to the parking garage.
c. A 6-storey podium is now proposed, which is more consistent with the adjacent ROW width and the building height at 124 O'Connor.
d. The podium reimagines the brutalist con-text with the expression of structure, strict grid like façades, rough concrete cladding, and the absence of ornamen-tation.
e. The tower floorplate size has been reduced from 1,024 square metres to approxi-mately 950 square metres. The tower floorplate size is appropriate for the surrounding context, which features large floorplates and minimal tower setbacks.

Create an adequate pedestrian realm that is of sufficient width to support the density and the commercial uses.

The recessed ground floor provides a wider pedes-trian realm with weather protection. Further, the building's at-grade frontage will be animated with commercial units.

Incorporate the parking ramp into the building envelope instead of being a standalone structure outside of the building.

The parking ramp is proposed to be incorporated into the building.

Manage loading and garbage pick-up on site instead of on streets.

A 6-meter-wide entryway has been added on Slater for garbage pick-up on site.

Consider a contiguous commercial space at grade instead of two spaces separated by the residential lobby to provide greatest flexibility.

Two (2) contiguous commercial spaces are pro-posed; these could be merged into one (1) larger unit if needed.

Reduce the height of the podium. The height and the articulation of the podium should take into considera-tion the width of the public streets, which are approx-imately 20m, and the heritage building at 124 O'Connor. A 6-storey podium would be more appro-priate with respect to street proportion and relation-ship with the heritage building next door.

The podium height has been reduced to six (6) storeys.

The façade of the podium should be responsive to the context, particularly to the heritage building at 124 O'Connor.

Homage is paid to 124 O'Connor with the re-interpretation of the three recessed linear elements on its façade.

Reduce the floor plate of the tower. The Official Plan and the Urban Design Guidelines for High-Rise Buildings have established maximum floor plate size for a residential tower, which is 750m². Slightly greater tower floor plate may be acceptable when greater tower setbacks are contemplated.

The floor plate of the tower has been reduced to approximately 950 square metres. Although greater than the 750 square metres recommended in the Guidelines, the floor plate is appropriate in light of its surrounding context within the downtown core, which typically features large tower floorplates and short separation distances between towers.

3.0 SITE, CONTEXT AND ANALYSIS

SITE, CONTEXT AND ANALYSIS :

SITE OVERVIEW

Located in the «Downtown Core Transect», the future project is part of a plan to upgrade the site and integrate it into the high-density intensification and development program planned for the sector. The site is close to Parliament Hill, Parliament railway station major bus routes, and is bounded by a multi-use sector.

Currently, the lot is occupied by a 14-storey commercial building along a Mainstreet Corridor and in a designated «Hub» area of the City of Ottawa at the heart of the district's activity. The building's exterior mainly consists of prefabricated concret.

The site has a rectangular morphology. Approximately 69 m long, it is accessible from two streets, O'Connor and Slater streets. The building currently erected on the site has a surface area suitable for the development of a high-density mixed-use project.

THE CONVERSION OF THIS LAND WILL:

- Develop a strong contemporary concept that will help liven up the neighborhood.
- Reaffirm the built envirinment at the streetfront
- Encourage high-density use
- Promote commercial continuity along O'Connor and Slater streets

SITE, CONTEXT AND ANALYSIS :

MOBILITY

Active transportation:

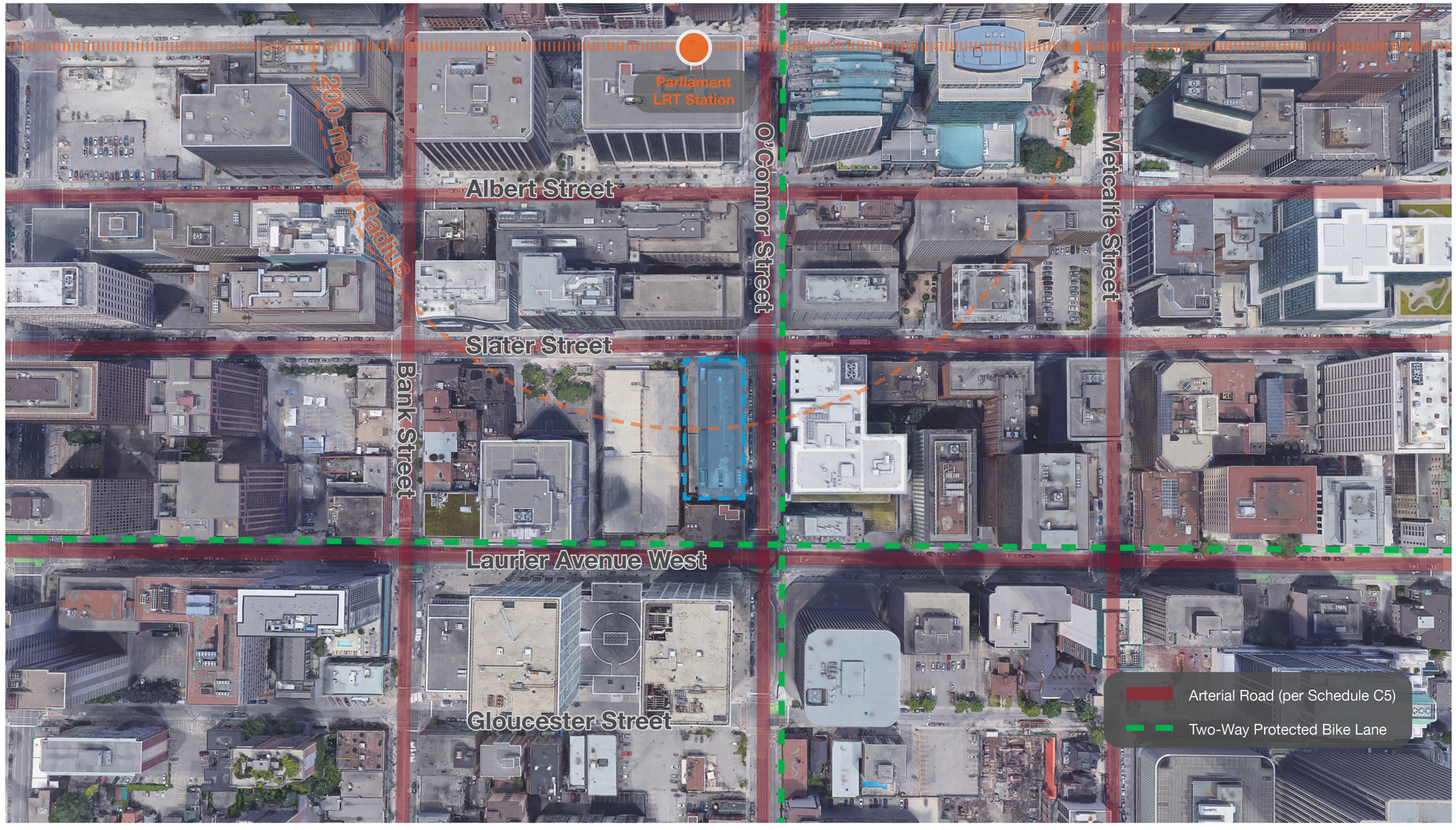
- Bicycle parking spaces offered to encourage daily use.

Individual transport:

- Multi-storey parking lot nearby with electric car charging stations.

Public transit:

- Access to O-Train via Parliament station, 3-minute walk away
- Direct access to the bus system (lines 23, 24, 32, 34, 36, 37, 38, 55, 59, 67, 85, 87, 371, 400)

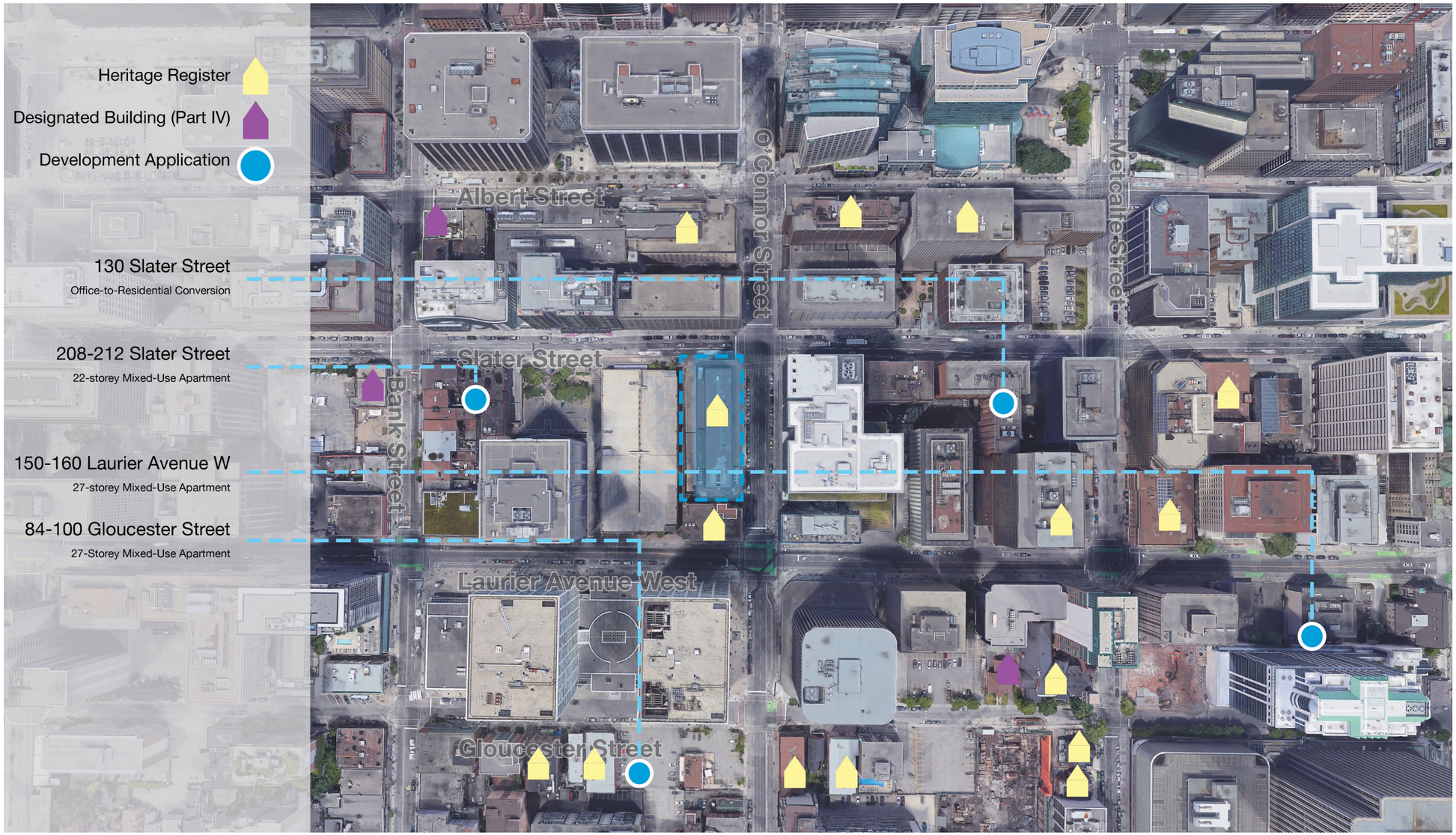


SITE, CONTEXT AND ANALYSIS :

PROTECTED VIEWS AND CORRIDORS OF INTEREST

The subject property is located in proximity to several ongoing, recently approved or recently constructed development applications. Typically, these consist of high-rise residential mixed-use projects.

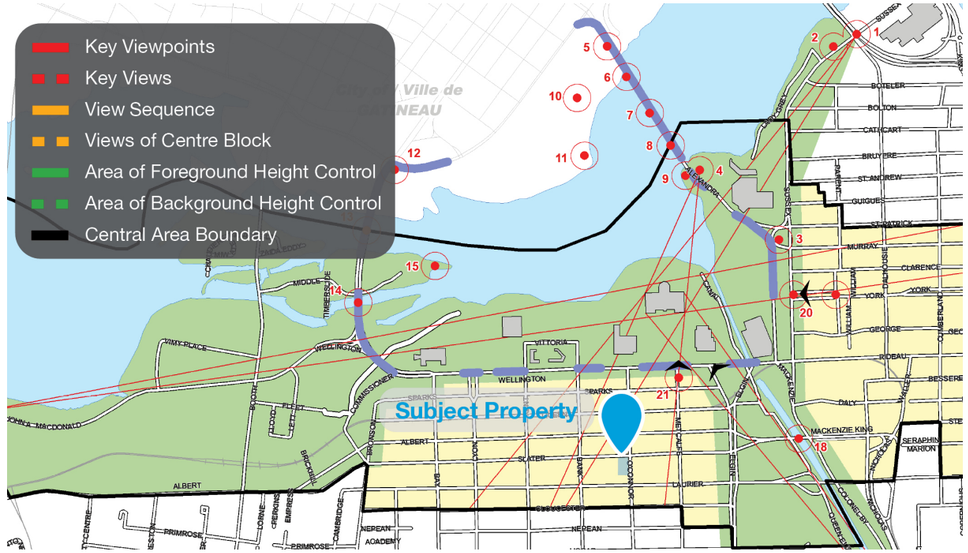
Given that the downtown core is typically home to older built forms, the subject property is in proximity to several buildings located on the Heritage Register or designated under Part IV of the Heritage Act.



SITE, CONTEXT AND ANALYSIS :

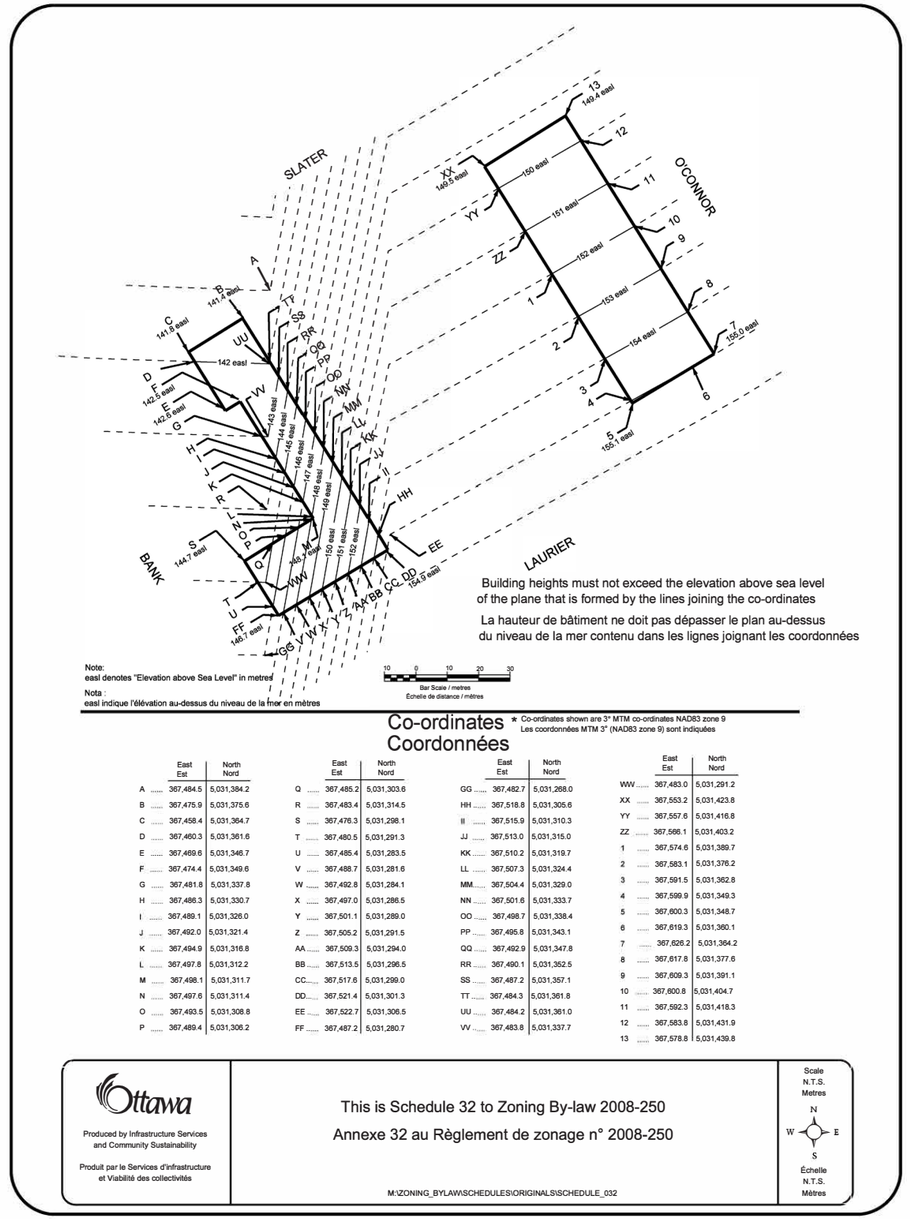
PROTECTED VIEWS AND CORRIDORS OF INTEREST

Per Schedule C6-A – Views, Viewsheds and View Sequences of the Parliament Buildings and other National Symbols, the subject property is located in an Area of Background Height Control. Per Schedule C6-B – Central Area Maximum Building Heights, the subject property is located within a block where buildings heights are limited to angular planes defines by perimeter A.S.L. heights. The maximum building heights are also reflected in Schedule 32 of the Zoning By-law, which applies to the subject property.



Schedule C6-A

Schedule C6-B



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9	367,609.3	5,031,391.1
10	367,600.8	5,031,404.7
11	367,592.3	5,031,418.3
12	367,583.8	5,031,431.9
13	367,578.8	5,031,439.8

Schedule 32

SITE, CONTEXT AND ANALYSIS :

MICROCLIMATE CONDITIONS

The area surrounding the subject property is generally characterized by taller buildings and high density. The surrounding built form results in greater shadowing on the subject property and surrounding public realm. Per a Pedestrian Level Wind Study prepared by Gradient Wind, the dense urban surroundings provide shielding forthe proposed development to prominent winds from multiple directions, including those from the southwest clockwise to the northwest and those from the east.

The Wind Study ultimately concludes that prior to and following the introduction of the proposed development, conditions within and surrounding the subject site are predicted to be calm and suitable for sitting throughout the year, inclusive of the surrounding public sidewalks along Slater Street, Laurier Avenue West, and O'Connor Street, nearby public walkways and the proposed walkways within the subject site, the proposed outdoor amenity at grade, and in the vicinity of the building access points serving the proposed development. The Wind Study also predicts suitable year-round sitting conditions for common amenity terraces at Level 7 and at the rooftop level.

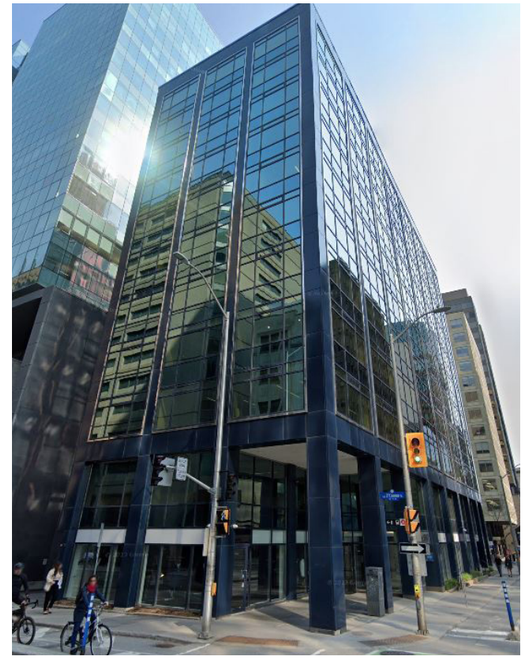
SITE, CONTEXT AND ANALYSIS :

O'CONNOR STREET

CLADDING :
- Beige and white masonry tones
- Metallic black
- Glass curtian wall

SCALE :
- Variable heights from 6 storeys to more than 25 storeys

TYPOLOGY :
- Commercial
- Institutional
- Office
- Residential
- Mixed-Use



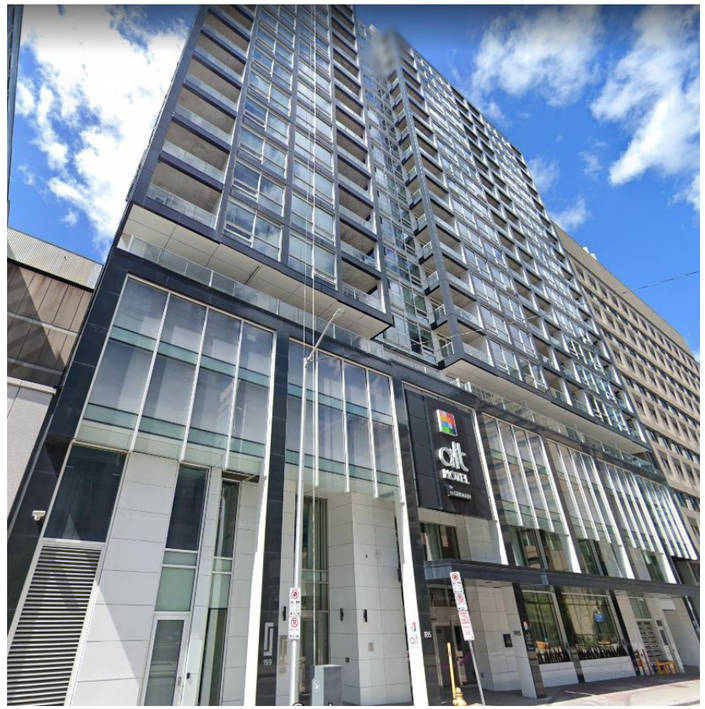
SITE, CONTEXT AND ANALYSIS :

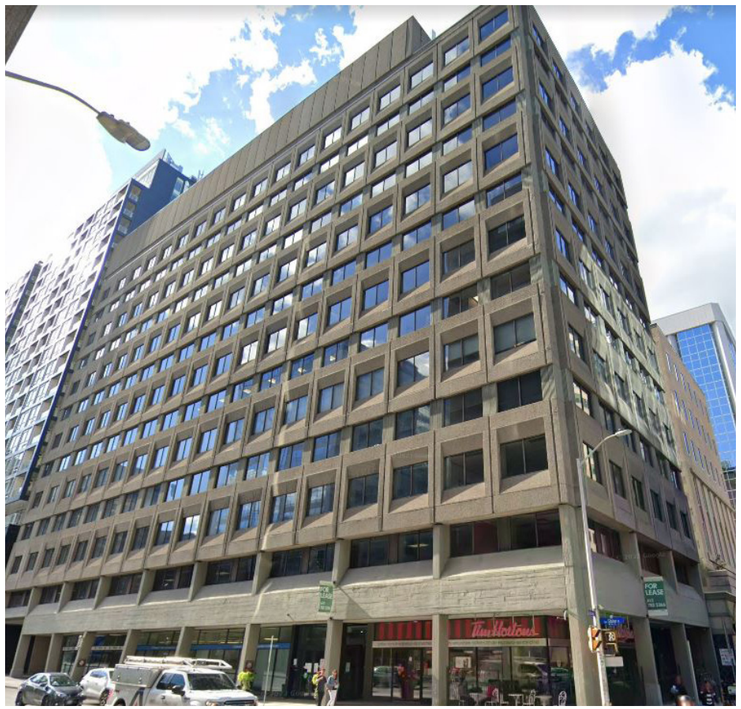
SLATER STREET

CLADDING :
- Beige, and grey masonry tones
- Metallic black and white
- Glass curtain wall

SCALE :
- Variable heights from 3 storeys to 20 storeys

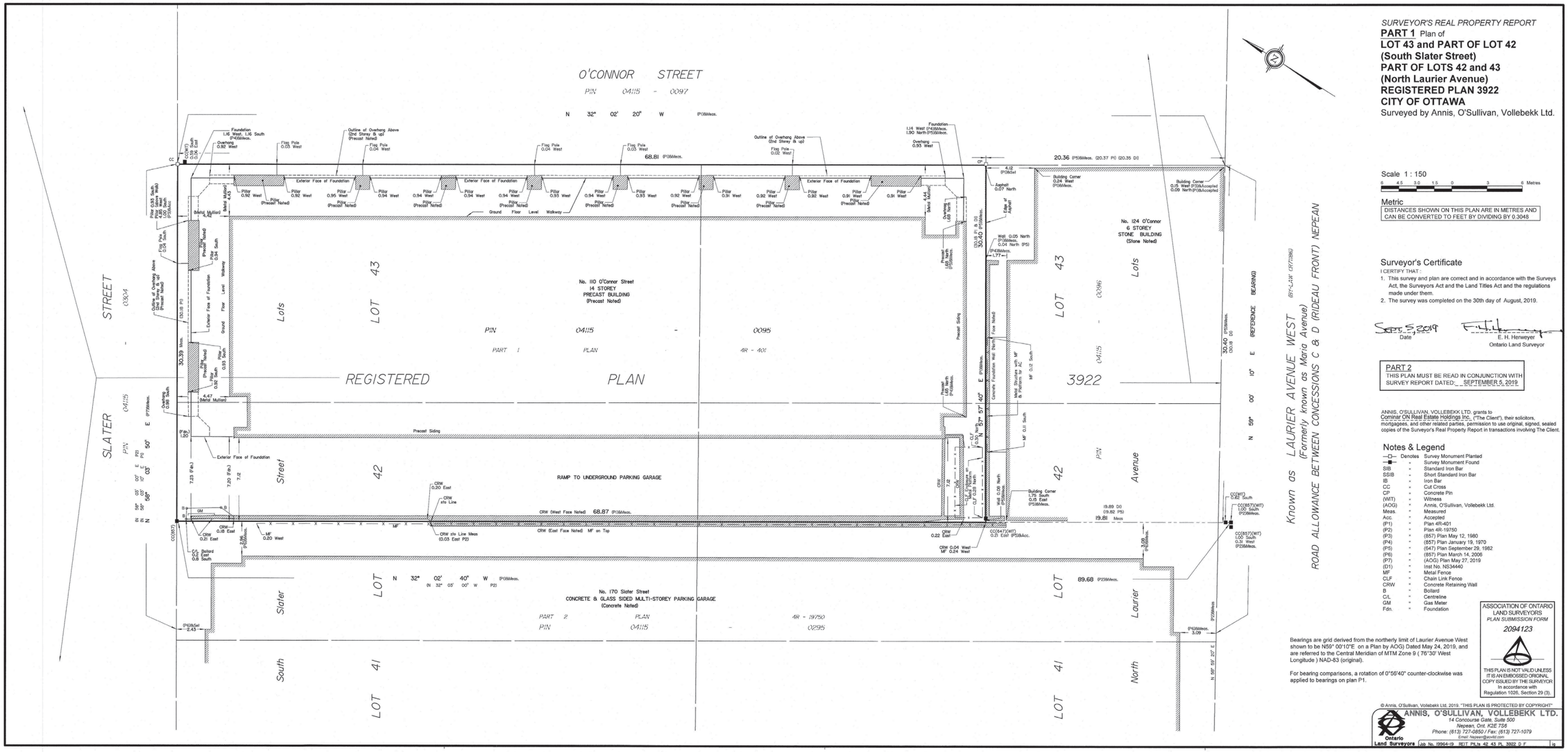
TYPOLOGY :
- Commercial
- Institutional
- Office
- Residential
- Mixed-Use





SITE, CONTEXT AND ANALYSIS :

CERTIFICATE OF LOCATION



SURVEYOR'S REAL PROPERTY REPORT

PART 1 Plan of
LOT 43 and PART OF LOT 42
(South Slater Street)
PART OF LOTS 42 and 43
(North Laurier Avenue)
REGISTERED PLAN 3922
CITY OF OTTAWA
Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 150

6 4.5 3.0 1.5 0 3 6 Metres

Metric

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Surveyor's Certificate

I CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the 30th day of August, 2019.

Sept. 5, 2019
Date

E. H. Herweyer
Ontario Land Surveyor

PART 2
THIS PLAN MUST BE READ IN CONJUNCTION WITH SURVEY REPORT DATED: SEPTEMBER 5, 2019

ANNIS, O'SULLIVAN, VOLLEBEKK LTD. grants to Cominar ON Real Estate Holdings Inc. ("The Client"), their solicitors, mortgagees, and other related parties, permission to use original, signed, sealed copies of the Surveyor's Real Property Report in transactions involving The Client.

Notes & Legend

—□—	Denotes	Survey Monument Planted
—■—	"	Survey Monument Found
SIB	"	Standard Iron Bar
SSIB	"	Short Standard Iron Bar
IB	"	Iron Bar
CC	"	Cut Cross
CP	"	Concrete Pin
(WIT)	"	Witness
(AOG)	"	Annis, O'Sullivan, Vollebekk Ltd.
Meas.	"	Measured
Acc.	"	Accepted
(P1)	"	Plan 4R-401
(P2)	"	Plan 4R-19750
(P3)	"	(857) Plan May 12, 1980
(P4)	"	(857) Plan January 19, 1970
(P5)	"	(647) Plan September 29, 1982
(P6)	"	(857) Plan March 14, 2006
(P7)	"	(AOG) Plan May 27, 2019
(D1)	"	Inst No. NS34440
MF	"	Metal Fence
CLF	"	Chain Link Fence
CRW	"	Concrete Retaining Wall
B	"	Bollard
C/L	"	Centreline
GM	"	Gas Meter
Fdn.	"	Foundation

Bearings are grid derived from the northerly limit of Laurier Avenue West shown to be N59° 00'10"E on a Plan by AOG) Dated May 24, 2019, and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

For bearing comparisons, a rotation of 0°56'40" counter-clockwise was applied to bearings on plan P1.

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2094123
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29 (3).

Ontario Land Surveyors
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com
Job No. 19964-19 REIT PtLts 42 43 PL 3922 D F ig

SITE, CONTEXT AND ANALYSIS :

HERITAGE ASSETS AND RE-USE POTENTIAL

The 14-storey existing office building at 110 O'Connor Street was constructed in 1969 to the design of George Bemi, architect, and Adjelian & Associates, engineer. The building is a reinforced concrete structure clad in architectural pre-cast concrete panels. The envelope is a representative example of the Brutalist Style in Ottawa. The floorplate is much larger and is less flexible for adaptive reuse, which is characteristic for modernist buildings. Indeed, 110 O'Connor presents several challenges from an Architectural standpoint relative to its transformation and re-use as a residential building.

According to the best practices for building reuse and recycling, the designer should look at several factors to help in guide them as to the best solution when choosing to demolish versus adaptive reuse.

These criteria can be summarized by the following items:

1. Smart Land Use Planning
2. Memory, Urban Fabric Continuity
3. Floor Plate Adaptability
4. Structural Viability
5. Building Envelope, Energy Efficiency.

1 Smart Land Use Planning:

Reusing buildings eases demand on new land development. By virtue of its central location, the building offers all of the benefits in terms of connectivity, access to urban amenities, access to public transportation and other community services.

Current zoning allows for a greater density to be planned on this site compared to what the existing building can offer. In the current context of housing shortages, conversion of underused commercial buildings has become the focus of many redevelopment projects.

As the existing building site coverage is extensive, increasing the density requires vertical expansion, namely adding floors to the existing structure. A structural assessment conducted by L2C Experts of the existing structural capacity has limited the additional load to 2 extra floors, requiring a partial demolition of the 2 mechanical penthouses that currently exist. It is important to note that this structural assessment is based on zero interventions to the existing shear walls or changes to the façades. A redevelopment project would require considerable modifications to the shear walls and façades to create livable residential units.

2 Memory, Urban Fabric:

The building undoubtedly plays a vital role in the history of the downtown core. When we think of preservation we often think of "old buildings" but some buildings convey a sense of history by their massing and distinctive character without necessarily offering unique ornamentation or traditional masonry veneer.

If a building is demolished, the presence of the former building can be re-created by simply recalling the original's sense of place, through similar treatment of the rhythms and compositions that were associated with the original structure.

By recreating the feeling of the original building, the link to the collective memory of the community can be maintained.

3 Floor Plate Adaptability:

One of the most important aspects of deciding on the adaptive reuse of a building is whether the buildings floor plate can be efficiently adapted to the new use intended or not. When planning a high rise multi- residential building, we generally try to achieve an efficiency of 90% on the typical floor plate, meaning the loss to common area to the proportion of rentable area should remain above 10%. This allows for the introduction amenity and other spaces a very little cost to the overall feasibility of the project.

In this case, the transformation from office to residential would seem to be quite efficient. There are however several drawbacks with the existing floor plate that are problematic (see attached plan):

•The floor plate itself is almost 23m wide, in a market where we try not to exceed 19m. The extra 4 meters when distributed to the units, renders them uncompetitively deep with extra square footage that doesn't necessarily translate to more efficient or livable dwellings. The deep window to corridor ratio is problematic, leading to:

-Darker units with limited access to daylight.

-Extra square footage translates to higher rental price, reducing desirability. Given that the units width determines the number of livable rooms, extra depth usually translates into redundancies in service spaces rather than livable spaces.

•The presence of 4 elevators makes the floor over serviced. The office occupancy required a higher ratio of elevators to rentable area in order to shuttle workers efficiently at critical hours. Given the much lower population loads in a residential use, and technological improvements in elevator systems, the number of elevators can be reduced. This has a spatial implication giving over more rentable square footage to the standard floor plate. It also has an impact on the operations of the building leading to lower maintenance requirements for example. In a retrofit, because the elevator core is surrounded by concrete shear walls, the elimination of one, or even two elevators make the reclaimed space difficult to integrate into a typical unit. As explained by L2C experts in their analysis, any alterations to the basic structural systems requires a complete review of code compliance to meet current standards.

•The presence of shear walls at the four corners of the building, and the lack of window creates large bays with little fenestration. The low window to floor area ratio of these corner bays leads to poor quality units in the corners of the building where normally the most desirable dwelling units would be located. These bays become virtually unusable in a residential capacity as the widow to floor area is below the requirements by OBC for glass area serving a livable space.

•The eccentric placement of the elevator core creates extra circulation space on the floor that exacerbates the net to gross balance that we hope to achieve. Ideally in a new build, the elevator core and the main corridor run along a central axis in the floor plate. Because of the existing elevators are located nearer to the back wall of the floor plate, any central corridor linked to the elevator core creates an unduly large elevator lobby, generally not required in a low occupancy usage such as residential.

•Existing mechanical spaces such as large shaft openings, fan rooms, electrical closets etc. that were essential for the previous use, are not required for the repurposed residential use. However new plumbing requirements require core drilling through the existing structural slab, each requiring particular reinforcement and careful planning. Likewise, ventilation of the residential suites is often handled with conduits leading to the exterior walls within each suite, which in this case could not be provided through the existing concrete panels, thereby further reducing the window area by introducing louvers where there would have been glass, not to mention the esthetic impact of such a solution.

4 Structural Viability:

A comprehensive assessment has been completed on the requirements and necessity for structural interventions on the existing building structure.

5 Building Envelope and Energy Efficiency:

An extreme retrofit as we are planning is equivalent to a new construction as it concerns the application of the OBC and energy efficiency of buildings.

As such the building envelope would require a considerable overhaul to render it compliant to todays standards. The entire building envelope must be stripped down and reconstructed, new insulation, membranes and vapor barriers added, as well as new window systems.

Because the building was originally designed as an office building, the windows are generally smaller than we would propose for a residential building. Presently the windows are arranged in strips, that do not lend themselves intuitively to the separation of rooms and demising walls. Fire ratings between units and sound control are of practical importance that cannot be accomplished with the current rhythm of the fenestration. For these reasons all the windows would have to be replaced.

Another factor to consider is the absence of balconies. A residential building requires, for the most part, that dwelling units be enhanced with a proper exterior extension in the form of a balcony. In a retrofit, the only way this could be achieved is by moving the exterior wall back from the edge and carving out a balcony / loggia at the buildings edge.

In theory this is feasible, if not a very costly component as it requires each balcony to be drained and insulated independently. Creating these loggias on the exterior of the building would also contribute to additional darkness in the unit as the window is moved further back from the buildings edge. Such an intervention to the building envelope is of critical importance as it generates complications to the fire rating required of the building envelope as well as the thermal bridges that could inhibit compliance to new energy objectives.

Because the cladding is of precast concrete panels, any alteration to the panels, to introduce larger widow openings or adding balconies for instance, is a challenge in itself risking the integrity of the said panels. The curing of the panels over the past 50 years has made them very brittle and almost impossible to modify without compromising their structure. If lager windows are desired, they cannot be inserted in the façade by simply cutting the concrete panels but instead the existing panels would have to be replaced.

In summary, we have evaluated the benefits of adaptive reuse versus demolition and reconstruction and have concluded that in this case, a new construction is warranted.

SITE, CONTEXT AND ANALYSIS :

URBAN DESIGN

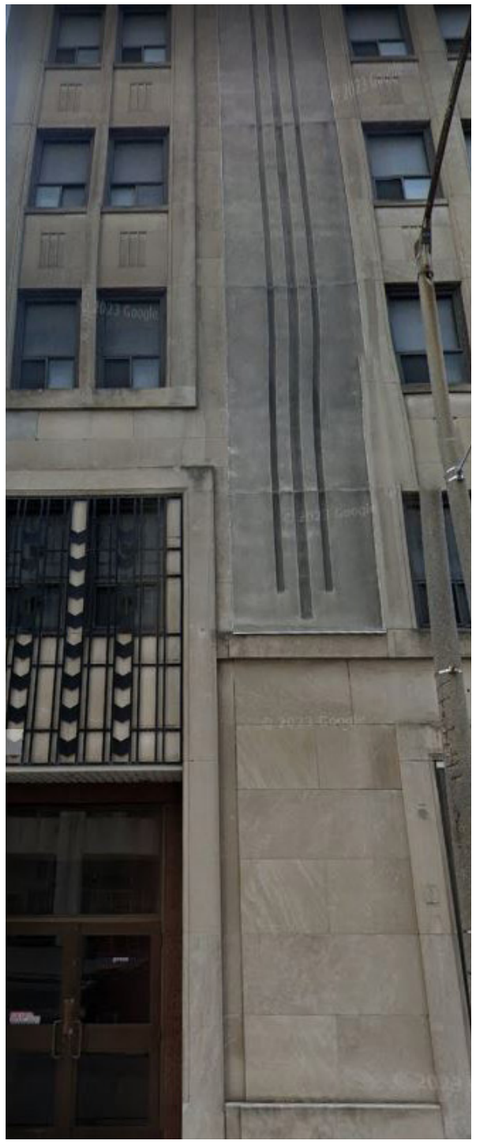
Section 4.6 of the Official Plan contemplates an urban design framework to outline the City's urban design program. The subject property is identified as a Tier 2 – National & Regional Design Priority Area (DPA) per Table 5 –Design Priority Areas of the Official Plan as it is located in a Hub within the Downtown Core. Tier 2 areas are of national and regional importance to defining Ottawa's image. These areas support moderate pedestrian volumes and are characterized by their regional attractions related to leisure, entertainment, nature or culture.

The applicable urban design policies relating to the redevelopment of the subject property are as follows:

4.6.1(4) Design excellence shall be achieved in part through recognition and conservation of cultural heritage resources located throughout the City, including buildings, streetscapes and landscapes.

The proposed development recognizes the heritage character existing on the site through specific design elements and details, paying homage to the existing building on the property. The main characteristics of Brutalism are reflected in the neighborhood's surrounding buildings. The massive forms, expression of structure, strict grid like façades, rough concrete cladding, and the absence of ornamentation define this style of architecture.

Inspired by this rich built environment the project aims to pay tribute to the contextual surroundings by designing a building that reimagines some brutalist features in a contemporary, more engaging fashion.



SITE, CONTEXT AND ANALYSIS :

URBAN DESIGN

The neighboring building, 124 O'Connor, is a heritage building and has significant details on its envelope that the project aims to reinterpret with a contemporary approach. 124 O Connor has a sleek linear appearance with stylized geometric ornamentation. The vertical colonnades delineate the principal facades and are ornamented with three distinct recessed lines. The theme of these three lines is repeated in various façade elements, including the vertical spaces between the windows.

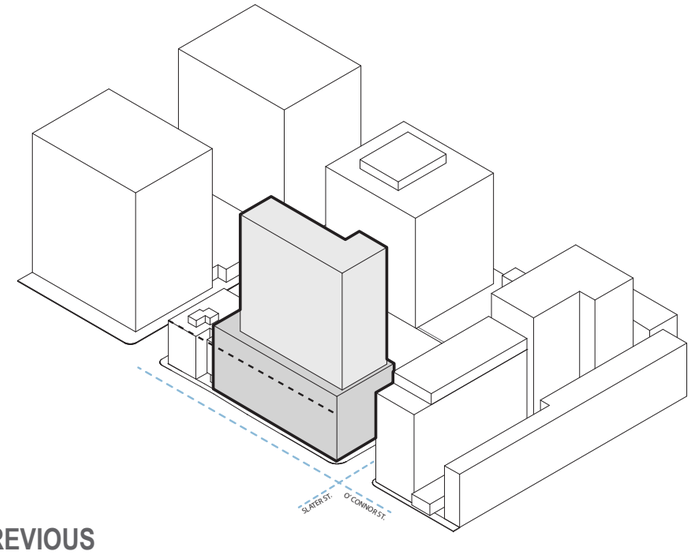
Our proposal aims to pay homage to this significant neighboring building by introducing a contemporary interpretation of its grid like, colonnaded façade and geometric ornamentation.

Our podium is divided by three floating masses intersected by curtain wall and treated in a brutalist style by the choice of texture and sculpture of its structural elements. Homage is paid to 124 O'Connor with the re-interpretation of the three recessed linear elements on the sides of these masses. While the massing and details are reinterpretations of historic styles, the floating elements are distinctly contemporary. The corner, marked by these same lines, opens up to the street, re-interpreting the language of the existing building.

4.0 DESIGN RESEARCH

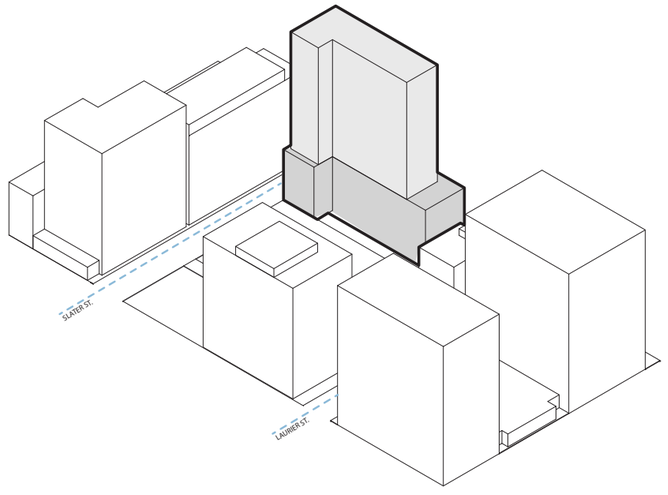
DESIGN RESEARCH :

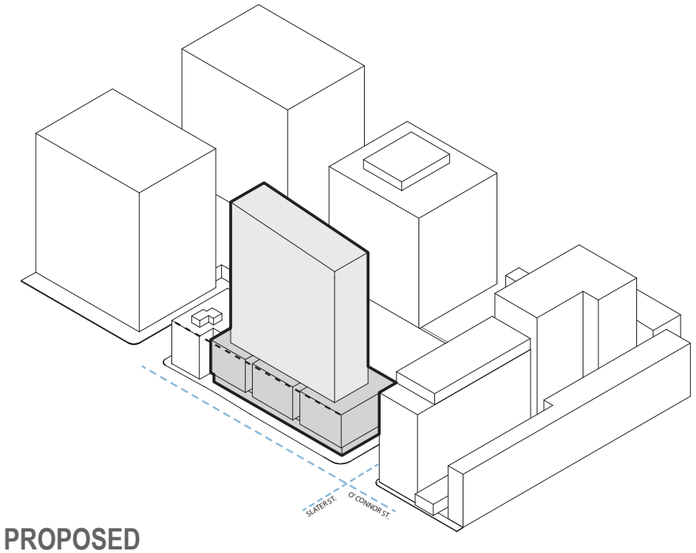
DESIGN EVOLUTION



1. PREVIOUS

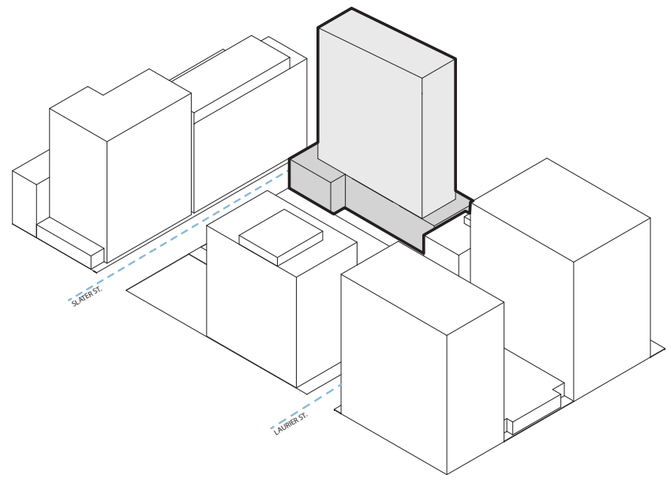
- 8 storey podium
- L shaped tower
- 2m setback on ground floor





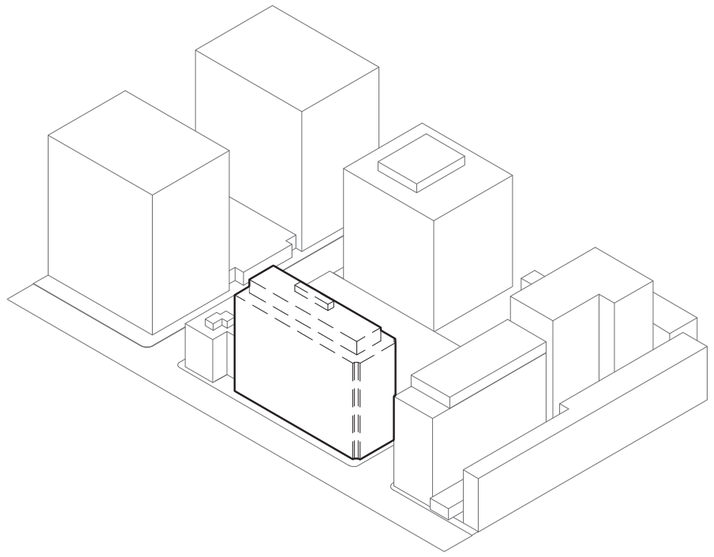
2. PROPOSED

- 6 storey podium
- bar shaped tower
- 3m setback on ground floor



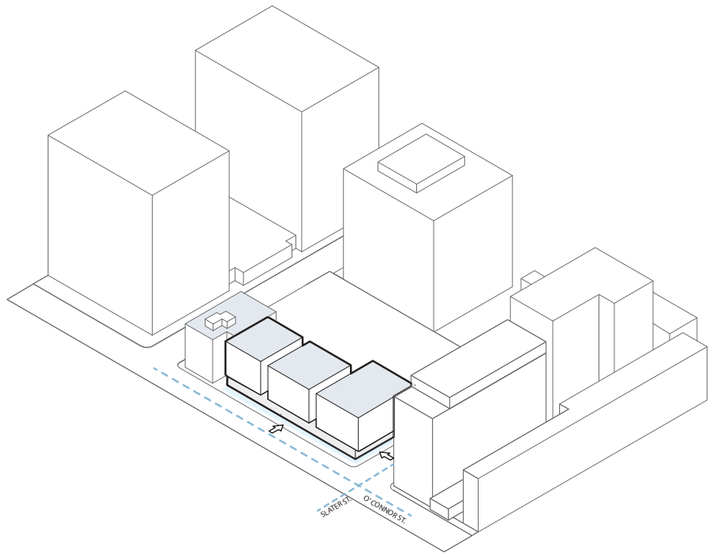
DESIGN RESEARCH :

CONCEPTUAL DIAGRAMS



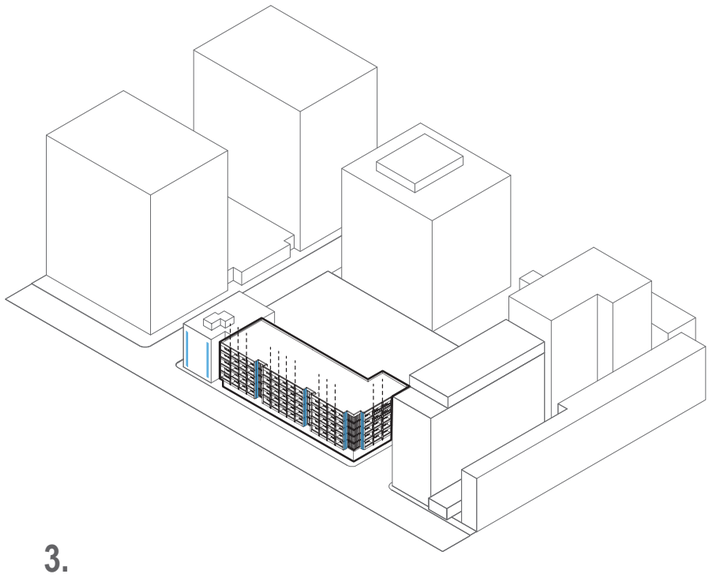
1.

- The existing building presents several architectural challenges relative to its transformation into a residential use including: smart land use, urban fabric conitnuity, foor plate adaptability, structural viability and building enveloppe efficiency.
- Thus we propose the demolition of the existing building to make way for a residential tower.



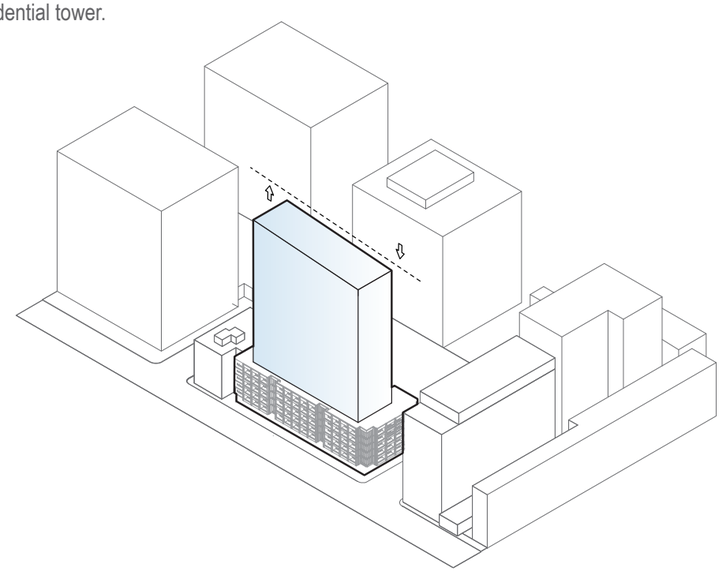
2.

- Creation of a double height commercial base and 5 storey middle podium to reaffirm the building presence at street level and frame the streetscape.
- Align the height of the podium with the neighbour on O'Connor.
- 3m setback at the ground floor for easement.



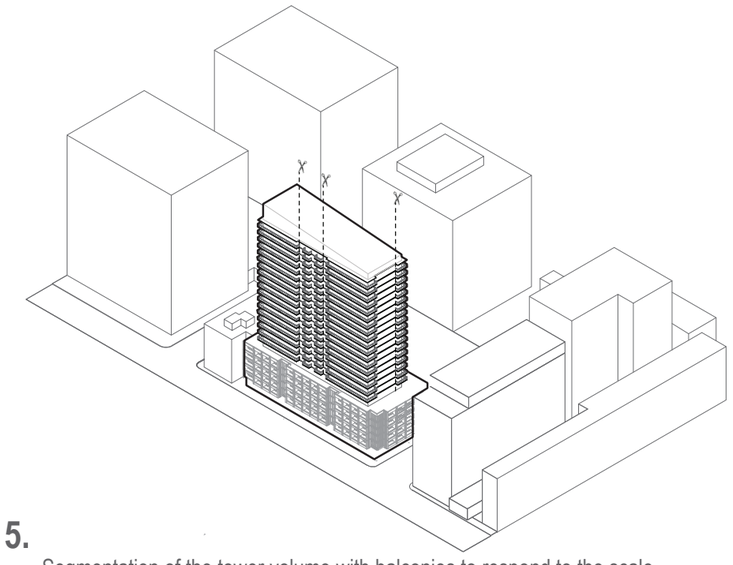
3.

- Separation of the base into a grid reflecting the surroudning brutalism style but with a contemporary break of the strict rectilinear volumes using the addition of curtain wall and subtraction of volumes.
- Reinterpretation of the three vertical lines of 124 O'Connor.



4.

- Addition of a transparent tower set back from the podium and reaching maximum height on the site.



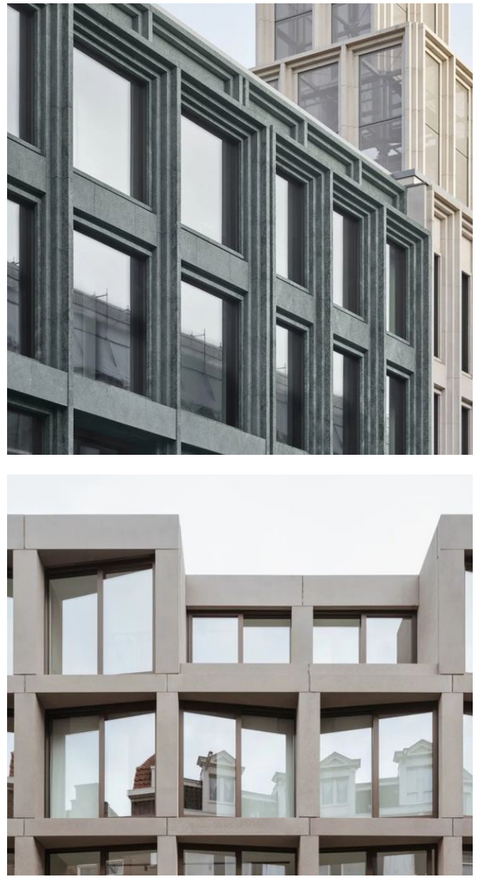
5.

- Segmentation of the tower volume with balconies to respond to the scale of the surrounding buildinds

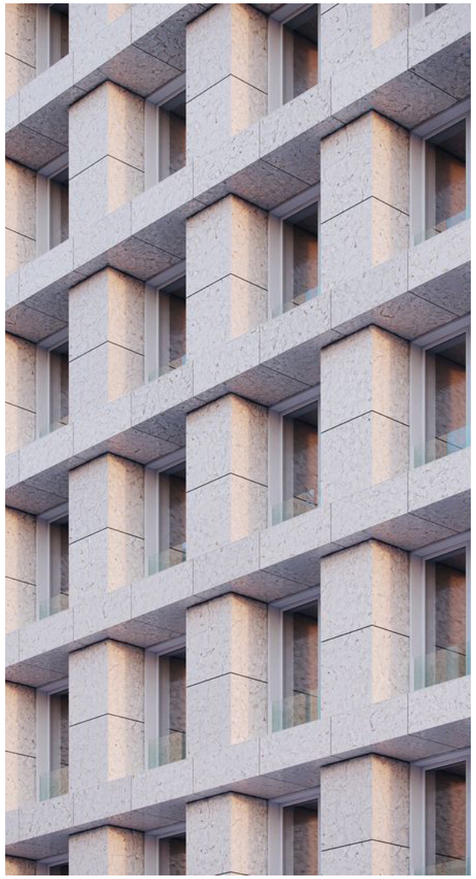
DESIGN RESEARCH :

PRECEDENTS

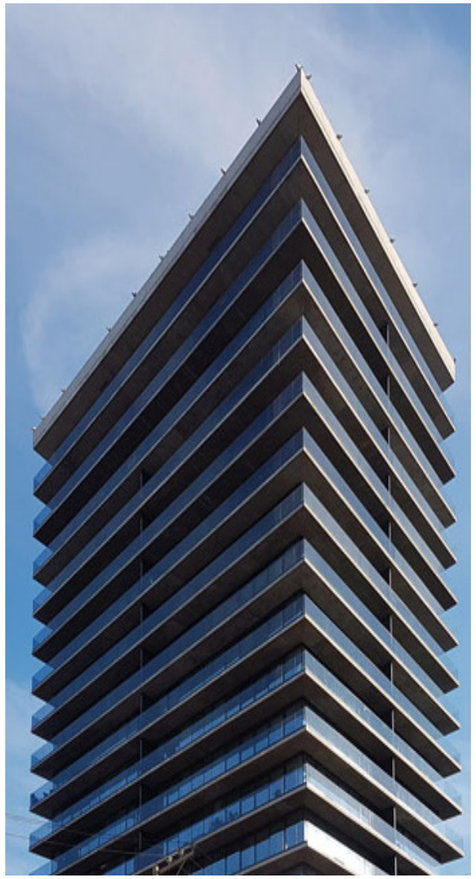
Masonry volume bisected by curtain wall



Gridlike facade



Loggia rhythm and masonry detailing



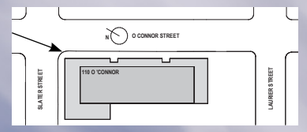
Balconies along the perimeter

Light tower placed on podium

As the building sits is in the heart of the city center, the envelope is inspired by the various architectural qualities of the contextural built environment. The gridlike facades give a nod to the surrounding context while adding to the eclectic mix of contemporary architecture of the area. The building's volumes are predominantly clad in fiber cement panels and curtain wall.

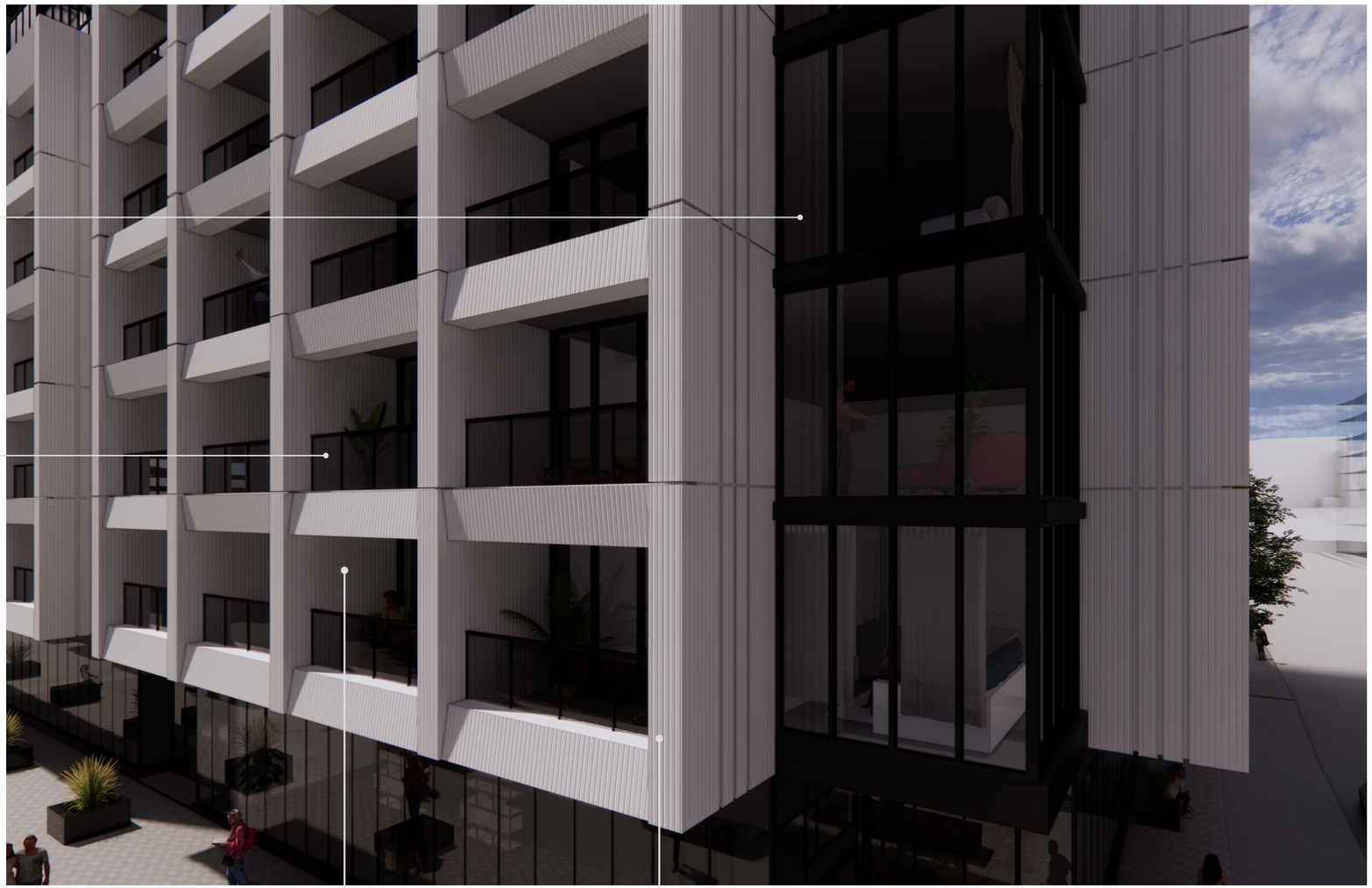
DESIGN RESEARCH :

VIEW FROM O'CONNOR AND SLATER INTERSECTION



DESIGN RESEARCH :

MATERIALITY



BLACK METAL CLADDING

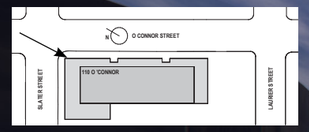
BLACK METAL RAILING
WITH TINTED GLASS PANELS

SMOOTH FIBER CEMENT PANEL
OR SIMILAR

TEXTURED FIBER CEMENT PANEL
OR SIMILAR
ORIENTATION OF PATTERN TO BE DERTERMINED

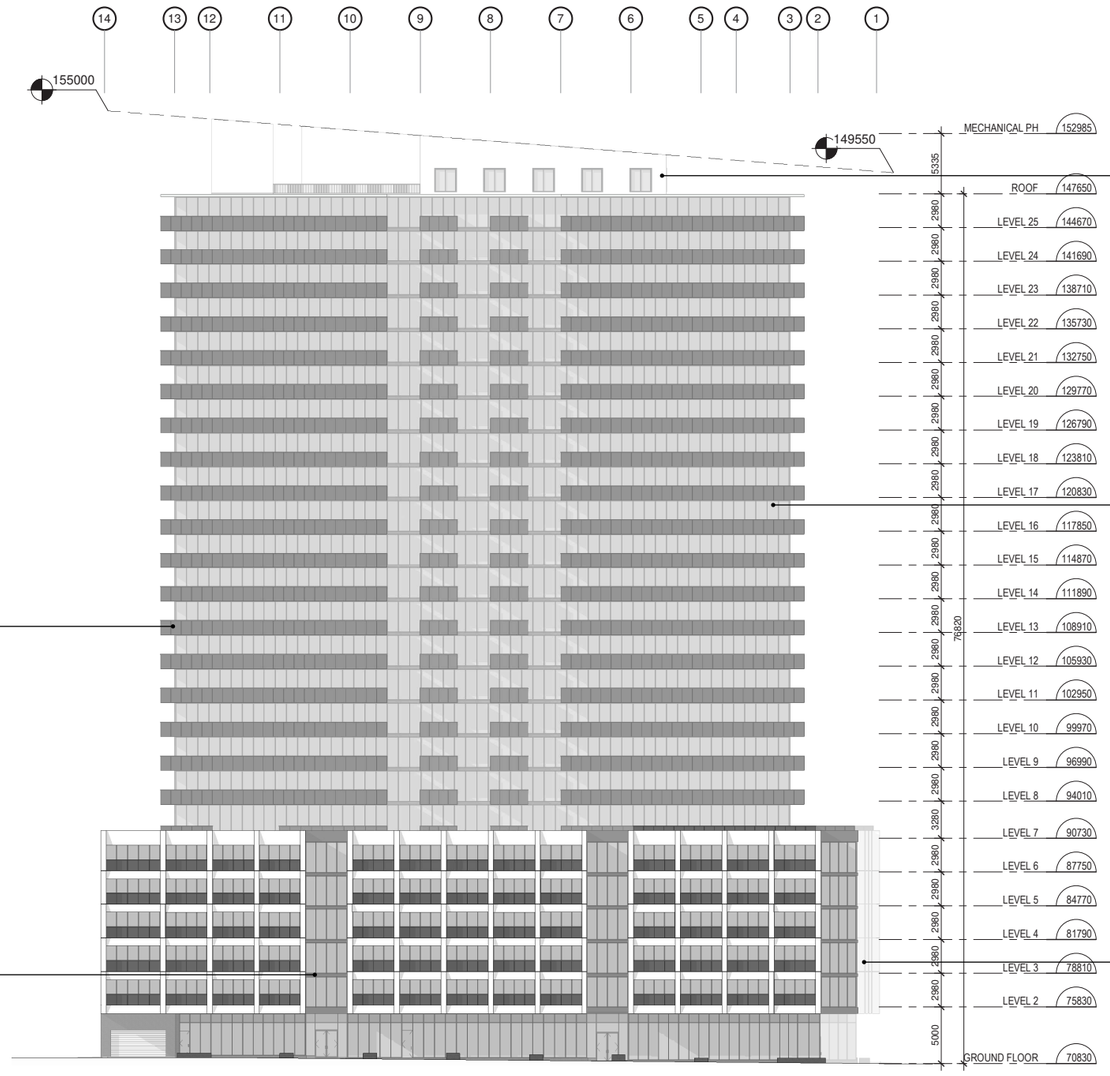
DESIGN RESEARCH :

VIEW FROM SIDEWALK



DESIGN RESEARCH :

EAST ELEVATION (O CONNOR ST.)



SMOOTH FIBER CEMENT PANEL
OR SIMILAR

CLEAR GLASS WITH LOW E
WITH BLACK MULLIONS

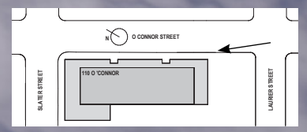
BLACK METAL RAILING
WITH TINTED GLASS PANELS

BLACK METAL CLADDING

TEXTURED FIBER CEMENT PANEL
OR SIMILAR
ORIENTATION OF PATTERN TO BE DERTERMINED

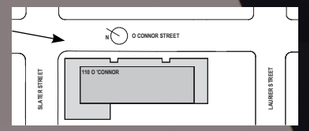
DESIGN RESEARCH :

VIEW FROM O'CONNOR SOUTH



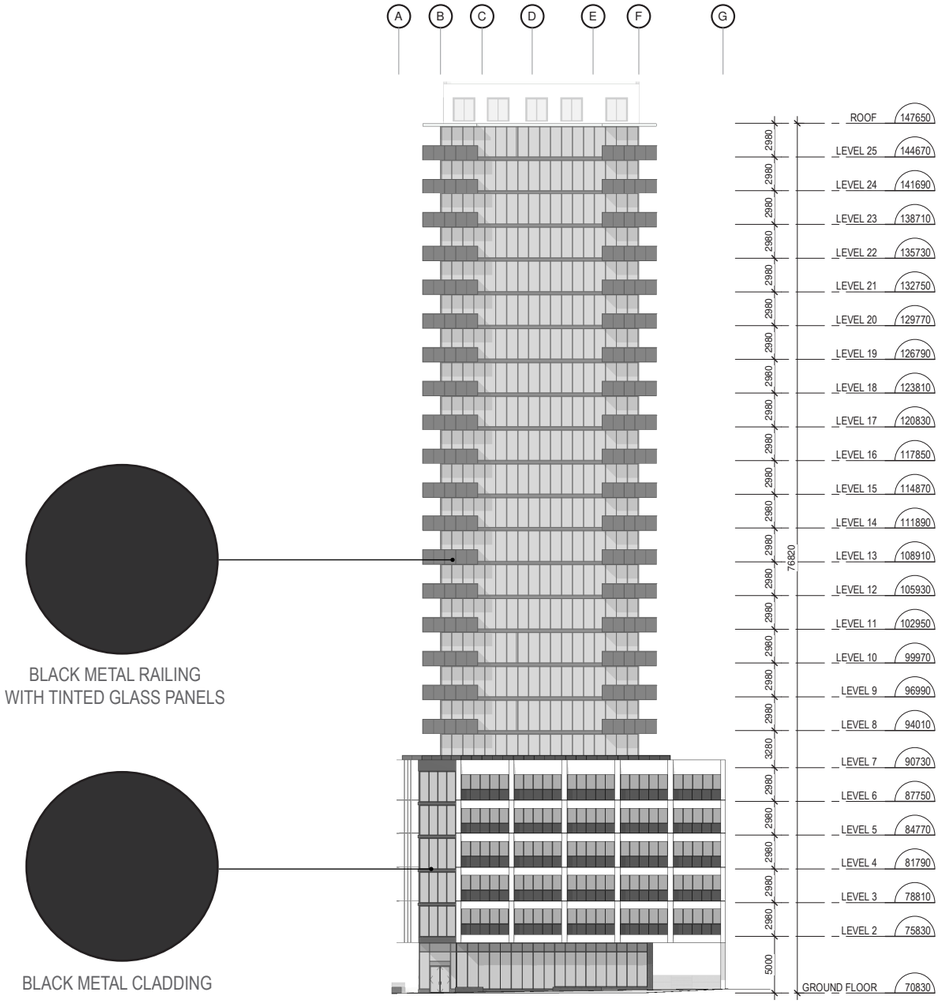
DESIGN RESEARCH :

VIEW FROM O'CONNOR NORTH



DESIGN RESEARCH :

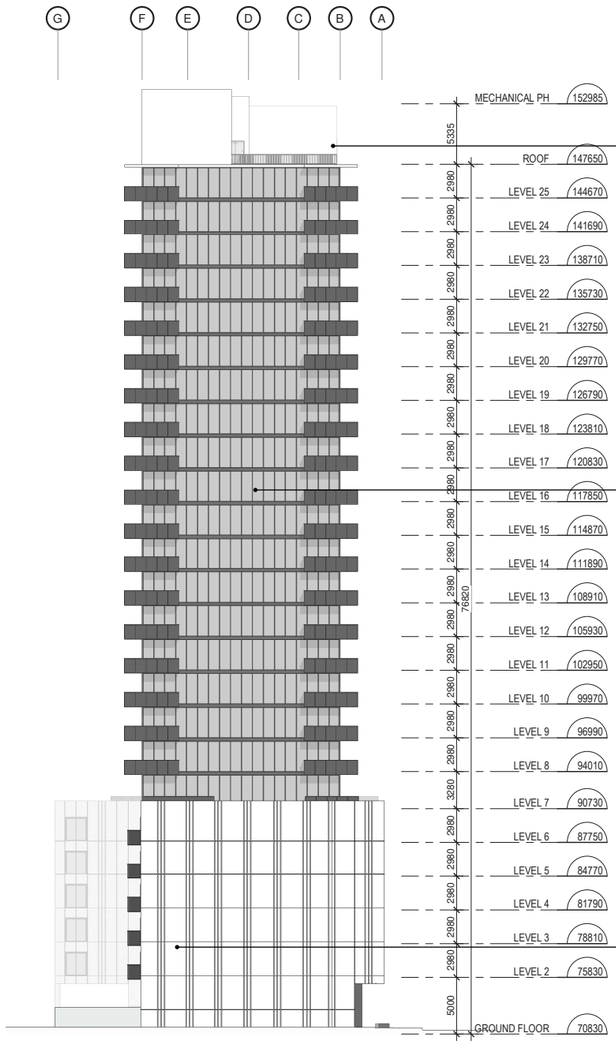
SLATER AND WEST ELEVATION



BLACK METAL RAILING
WITH TINTED GLASS PANELS

BLACK METAL CLADDING

North elevation (Slater St.)



South elevation

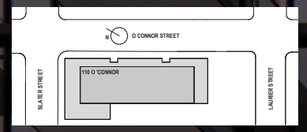
SMOOTH FIBER CEMENT PANEL
OR SIMILAR

CLEAR GLASS WITH LOW E
WITH BLACK MULLIONS

TEXTURED FIBER CEMENT PANEL
OR SIMILAR
ORIENTATION OF PATTERN TO BE DERTERMINED

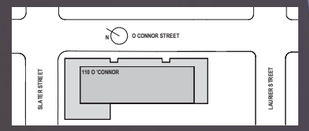
DESIGN RESEARCH :

VIEW FROM O'CONNOR NORTH



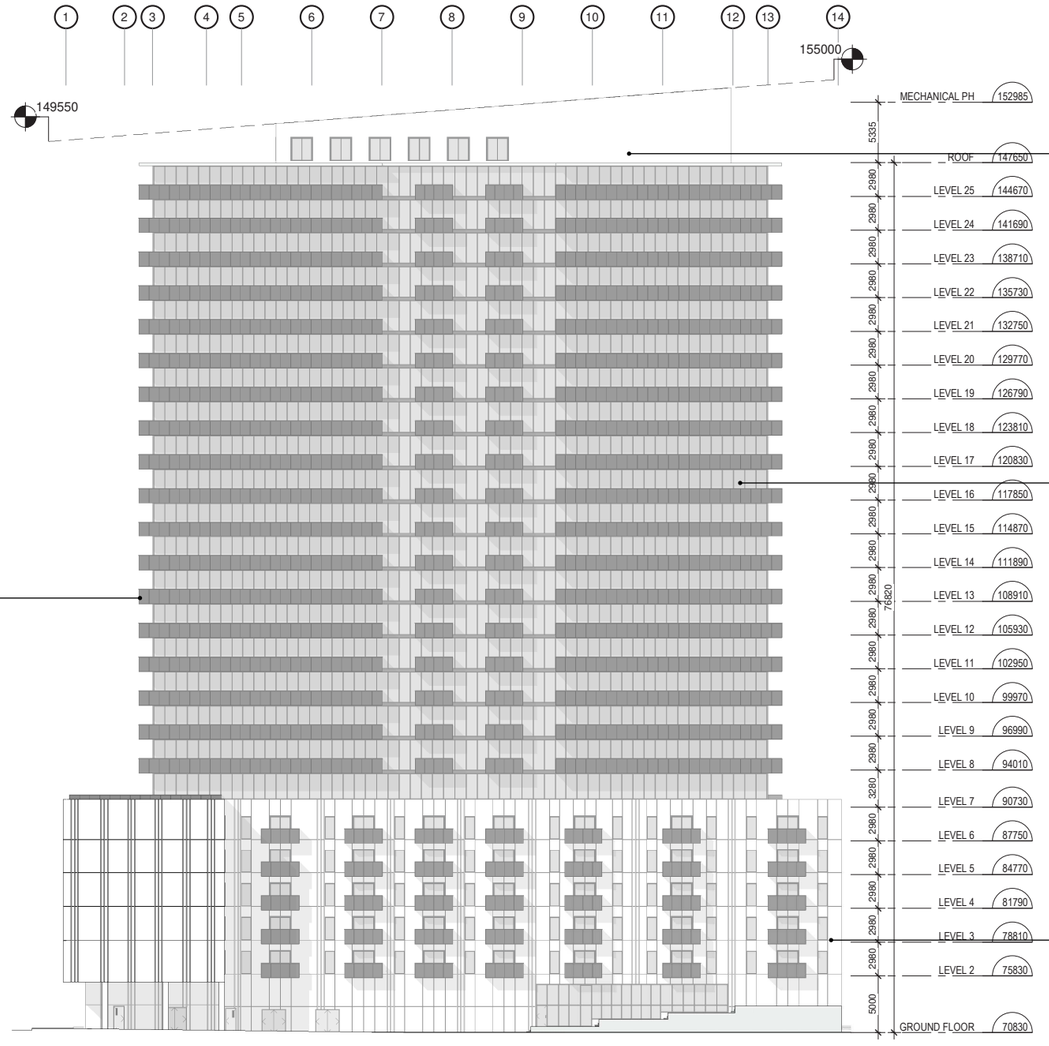
DESIGN RESEARCH :

VIEW FROM SLATER



DESIGN RESEARCH :

WEST ELEVATION (REAR)



SMOOTH FIBER CEMENT PANEL
OR SIMILAR

CLEAR GLASS WITH LOW E
WITH BLACK MULLIONS

BLACK METAL RAILING
WITH TINTED GLASS PANELS

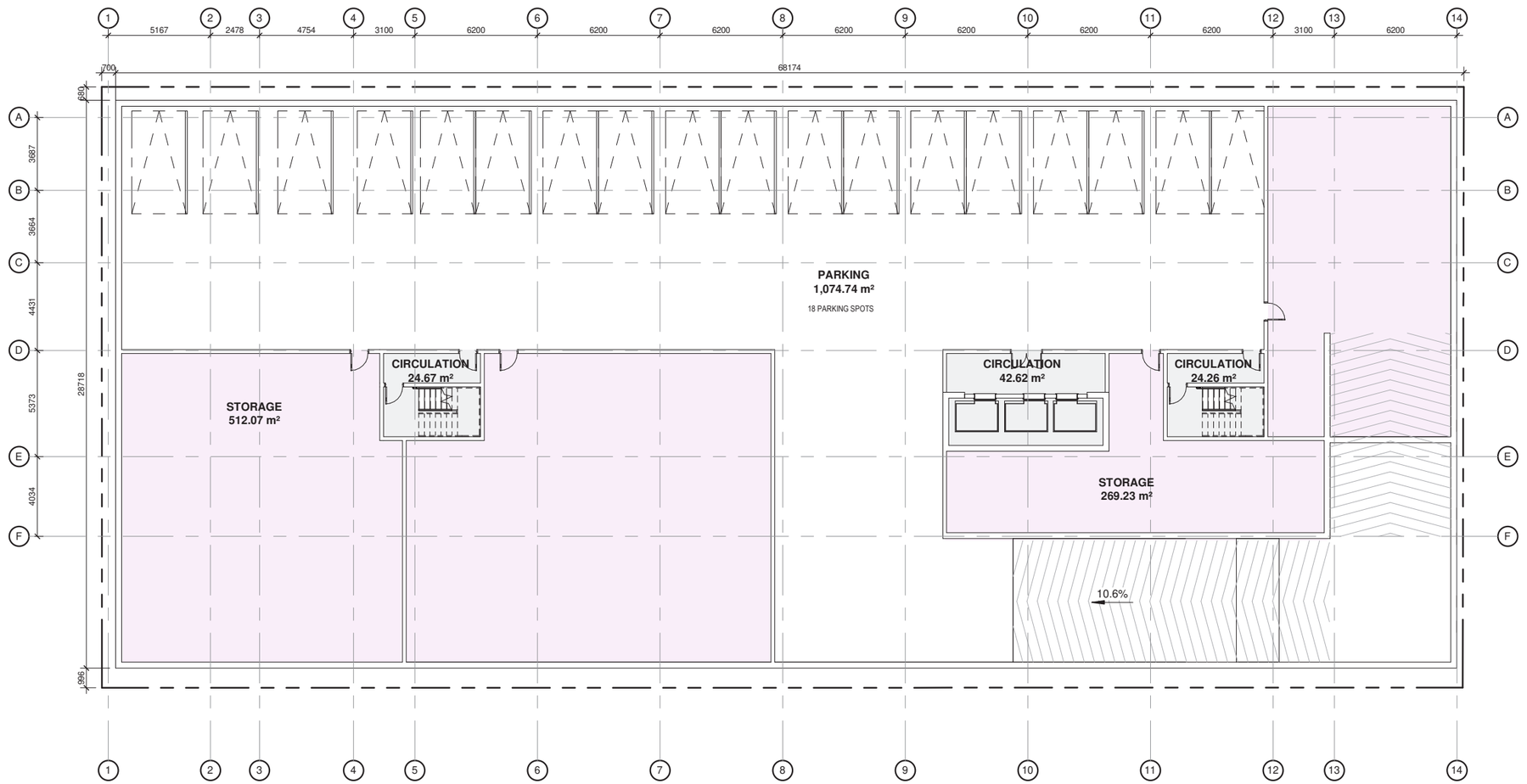
TEXTURED FIBER CEMENT PANEL
OR SIMILAR
ORIENTATION OF PATTERN TO BE DERTERMINED

DESIGN RESEARCH :

3RD BASEMENT PLAN

USE LEGEND

- MECHANICAL
- BICYCLE
- CIRCULATION

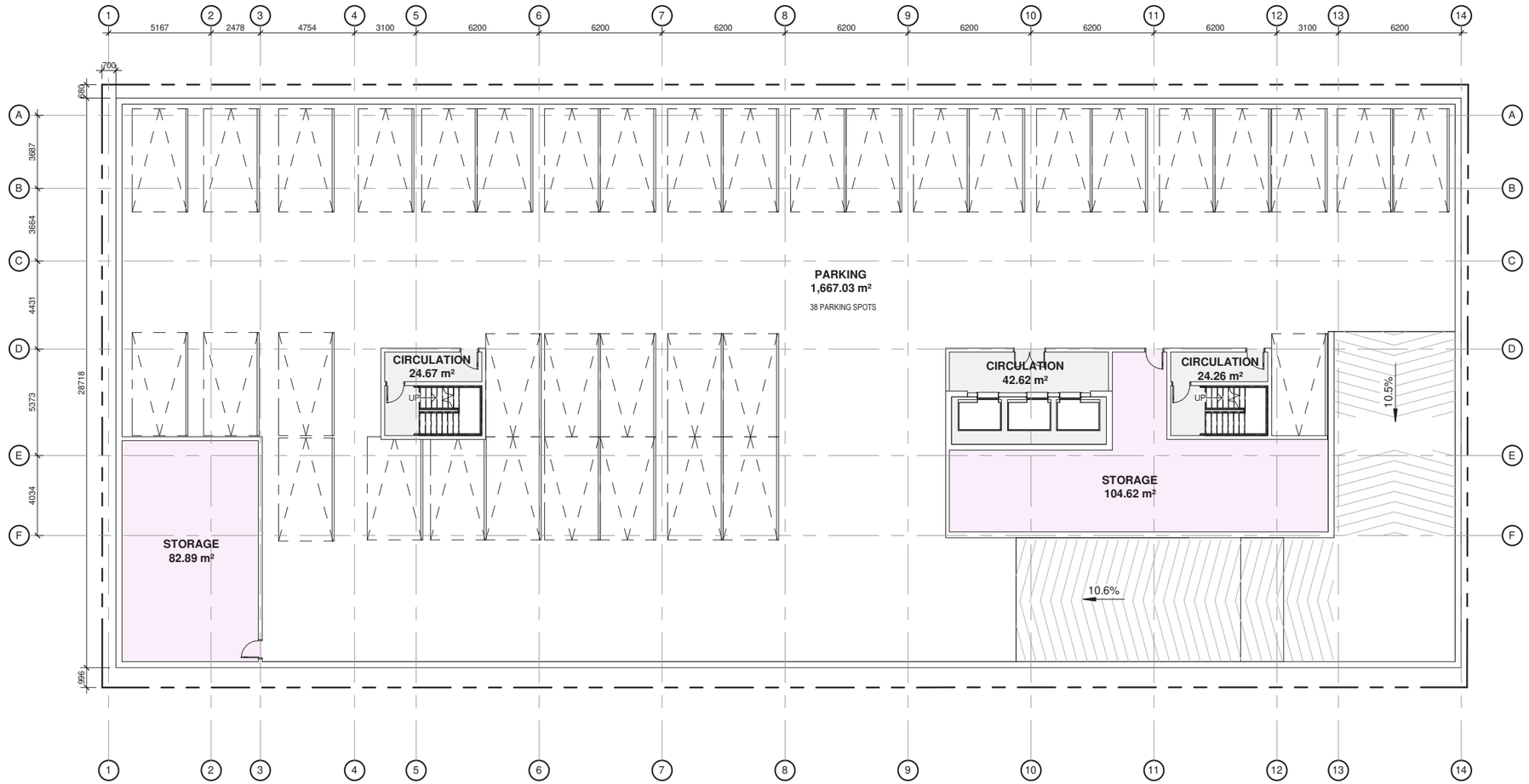


DESIGN RESEARCH :

2ND BASEMENT PLAN

USE LEGEND

- MECHANICAL
- BICYCLE
- CIRCULATION

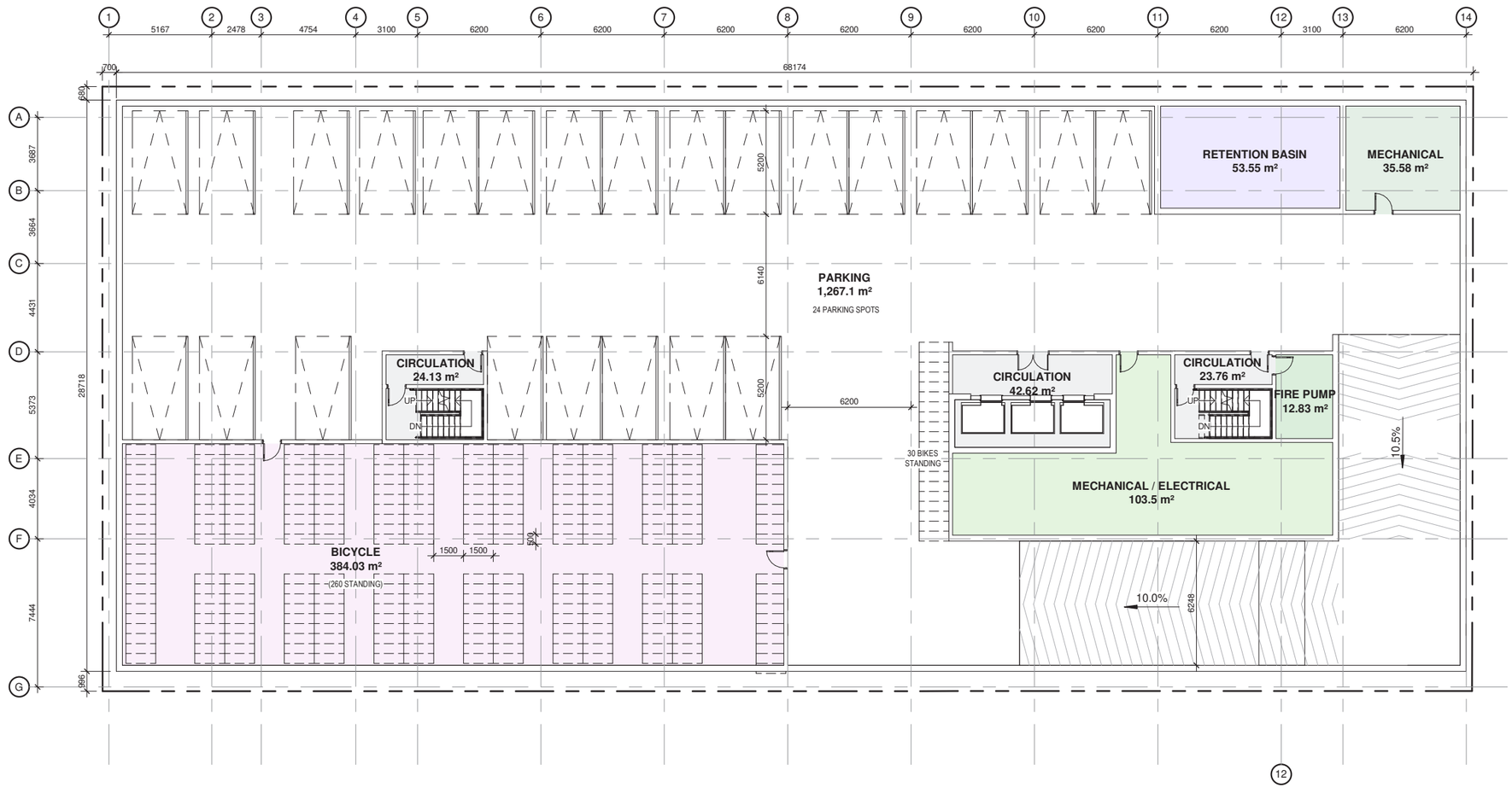


DESIGN RESEARCH :

1ST BASEMENT PLAN

USE LEGEND

- MECHANICAL
- BICYCLE
- CIRCULATION

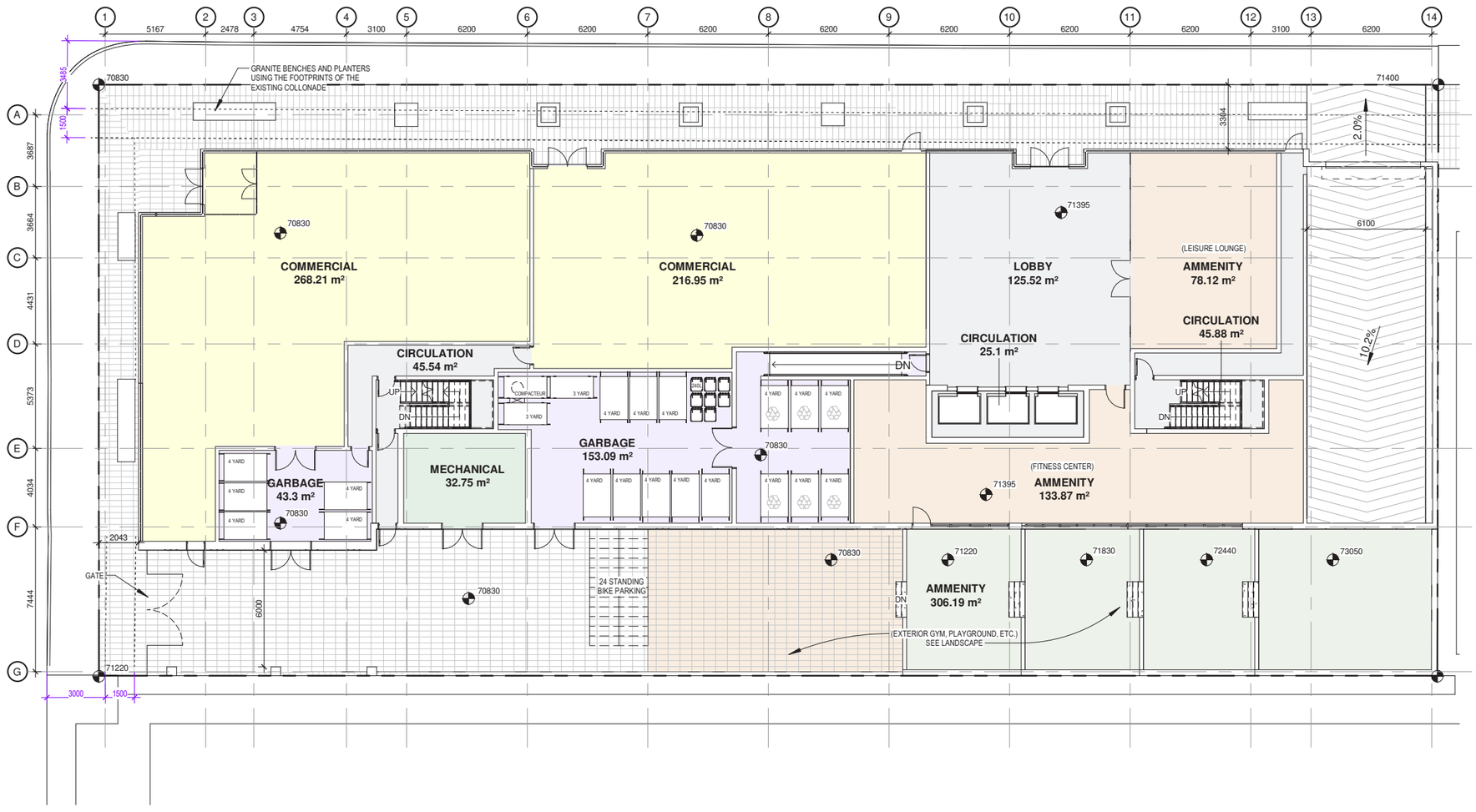


DESIGN RESEARCH :

GROUND FLOOR PLAN

USE LEGEND

- COMMERCIAL
- GARBAGE
- LOBBY
- CIRCULATION
- AMMENITY

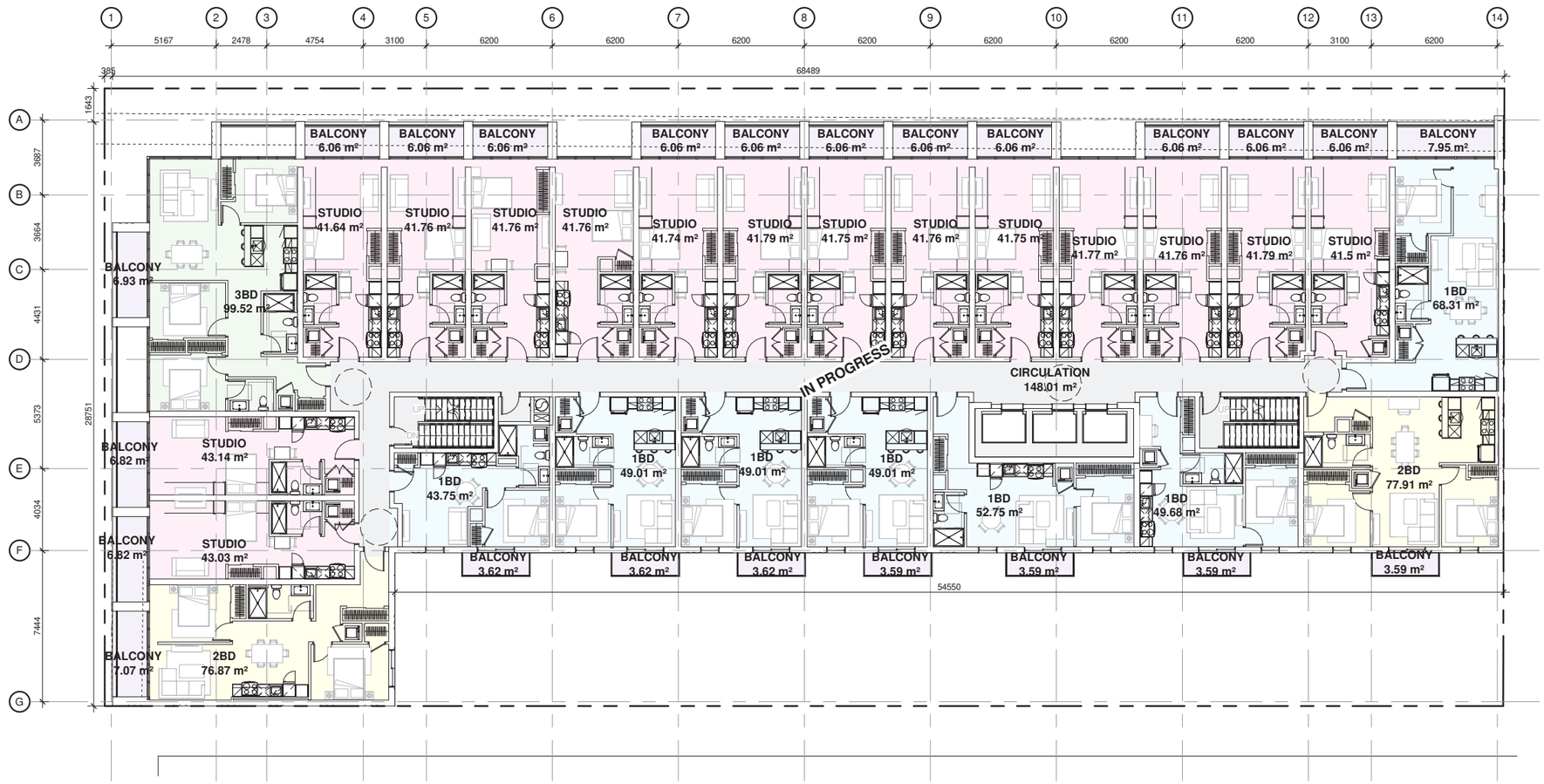


DESIGN RESEARCH :

2nd TO 6th FLOOR PLAN

USE LEGEND

- STUDIO
- 1 BD
- 2 BD
- 3 BD
- CIRCULATION
- BALCONY

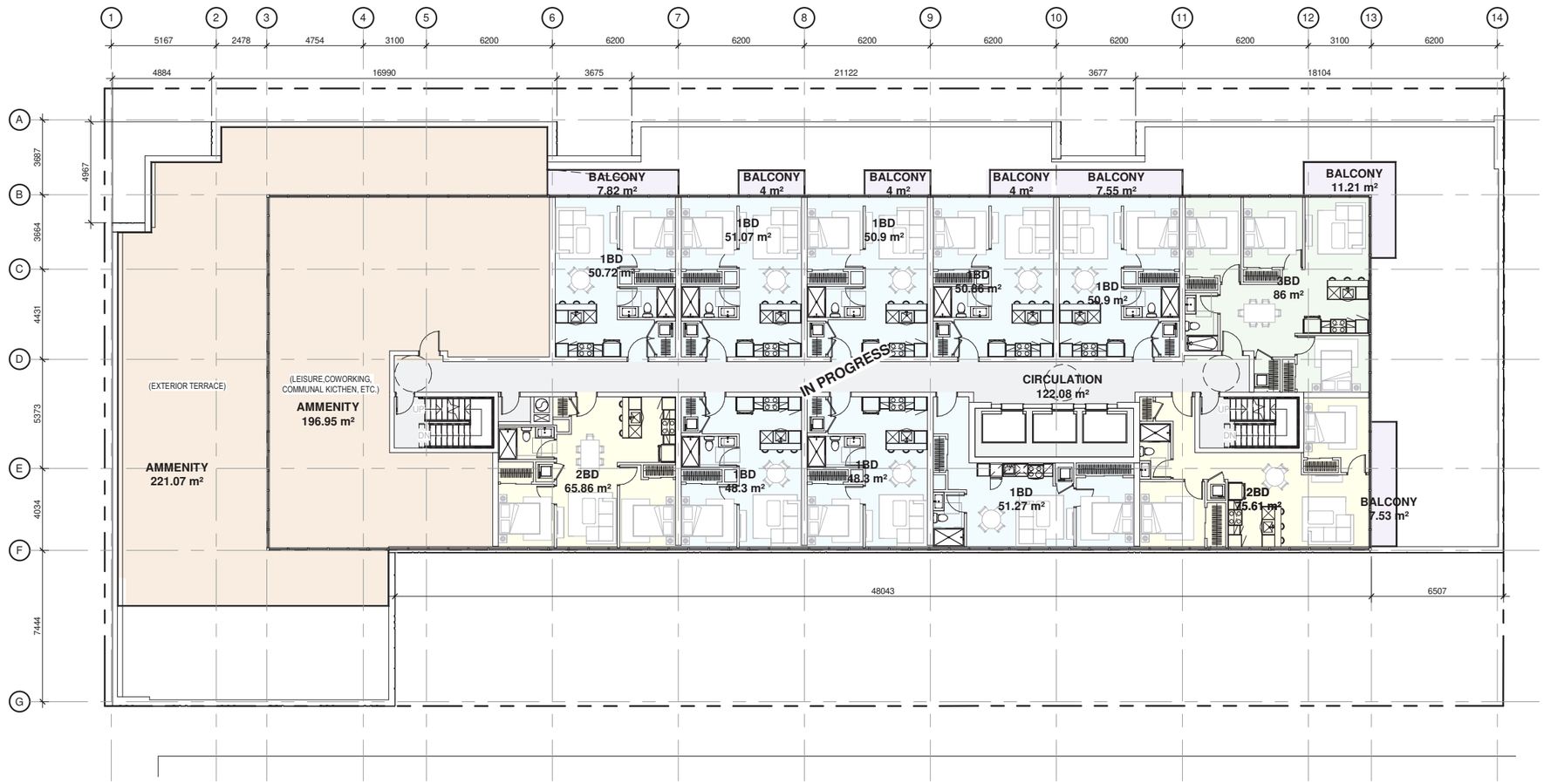


DESIGN RESEARCH :

7th FLOOR PLAN

USE LEGEND

- 1 BD
- 2 BD
- CIRCULATION
- AMMENITY
- BALCONY

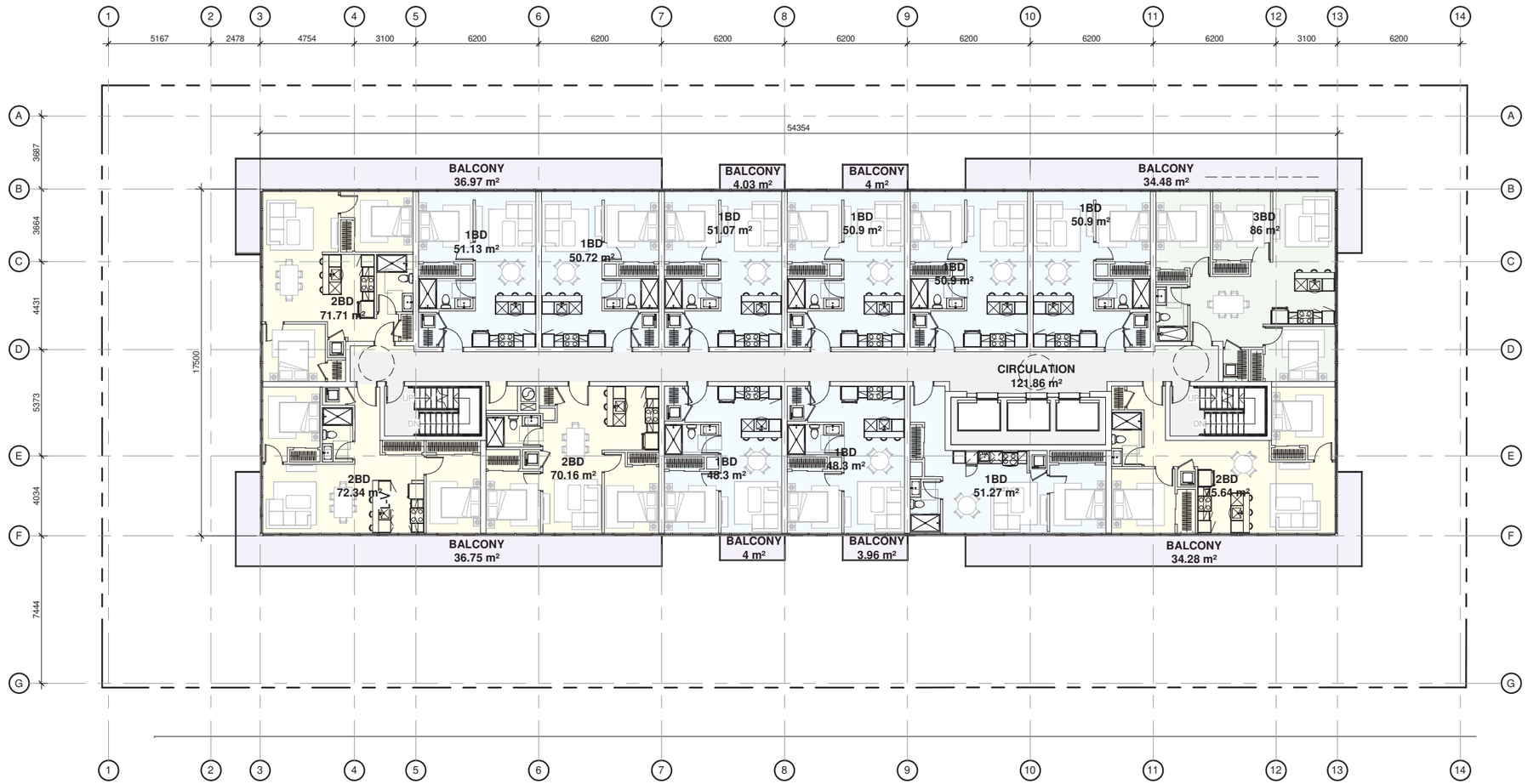


DESIGN RESEARCH :

8th TO 24th FLOOR PLAN

USE LEGEND

- 1 BD
- 2 BD
- 3 BD
- CIRCULATION
- BALCONY

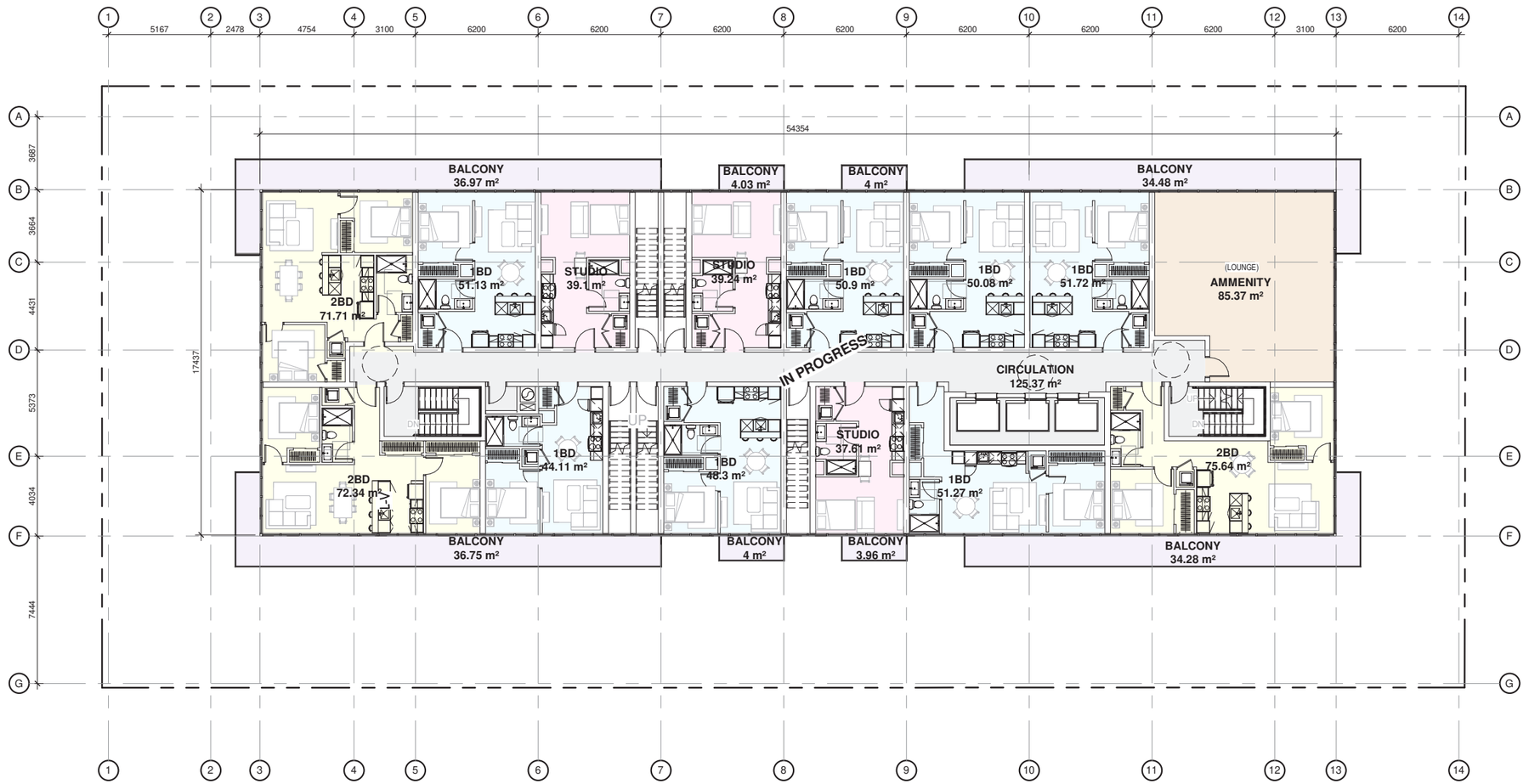


DESIGN RESEARCH :

25th FLOOR PLAN

USE LEGEND

- 1 BD
- 2 BD
- 3 BD
- CIRCULATION
- AMMENITY
- BALCONY

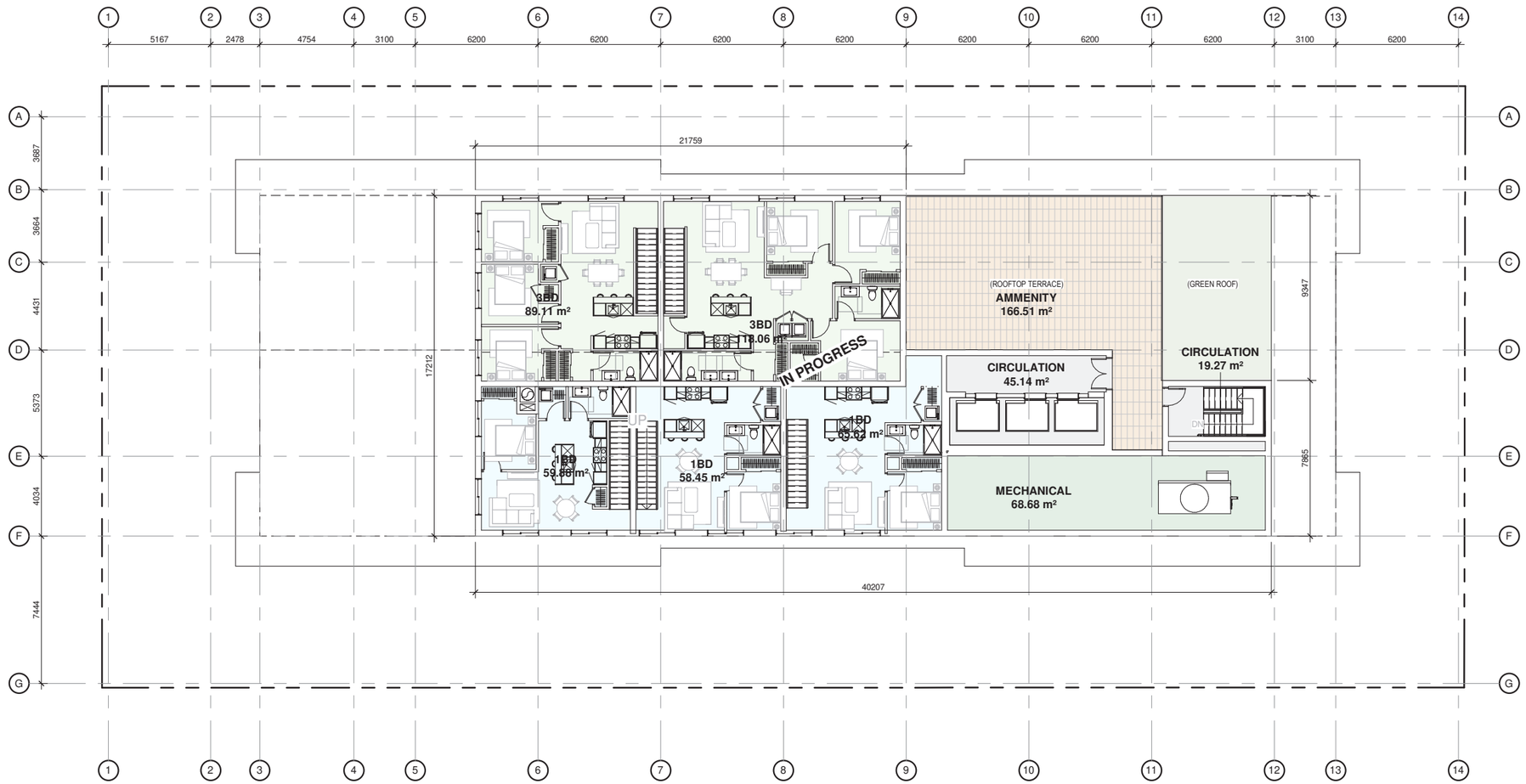


DESIGN RESEARCH :

ROOF PLAN

USE LEGEND

- 1 BD
- 2 BD
- 3 BD
- CIRCULATION
- AMMENITY
- BALCONY

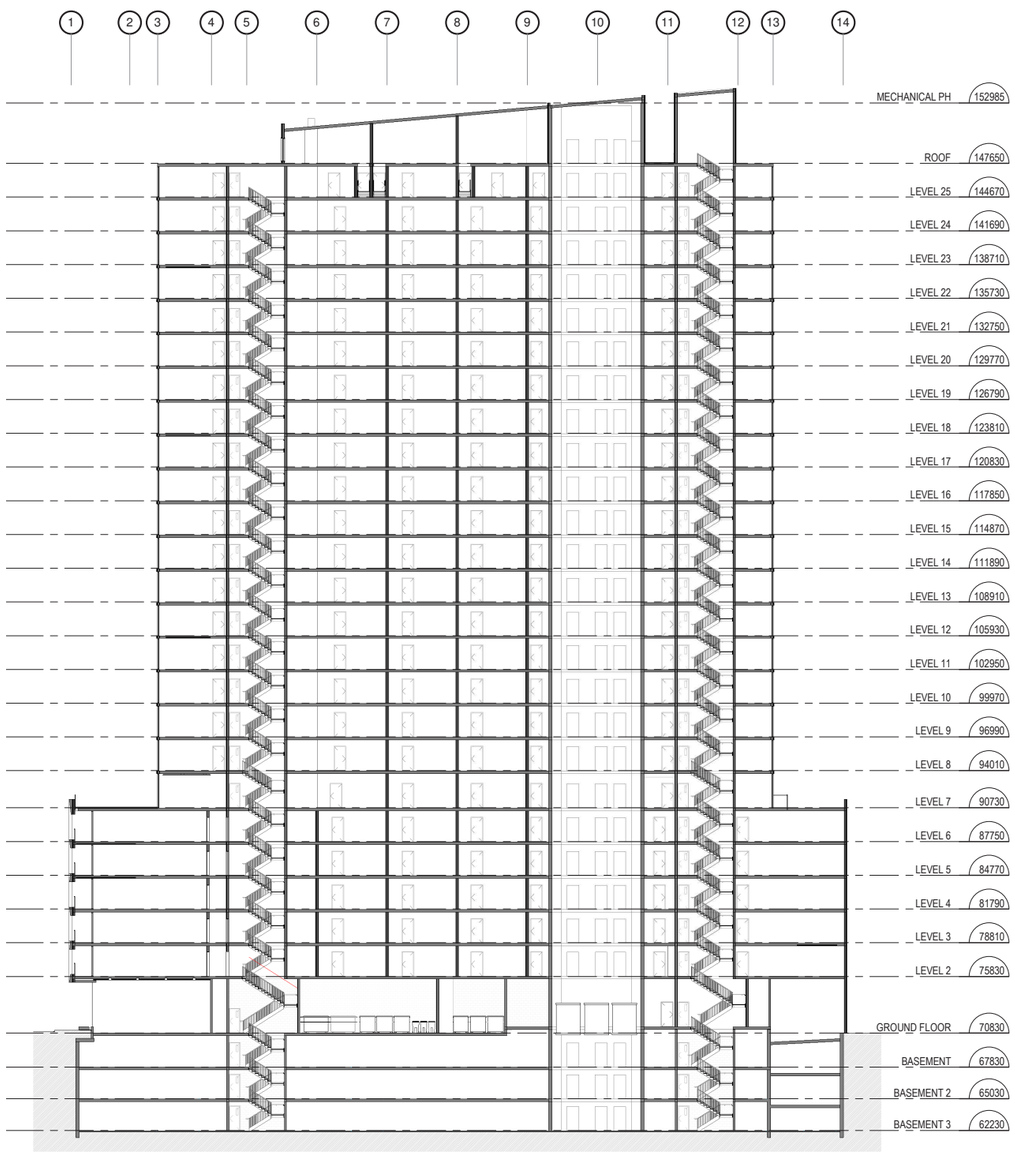


DESIGN RESEARCH :

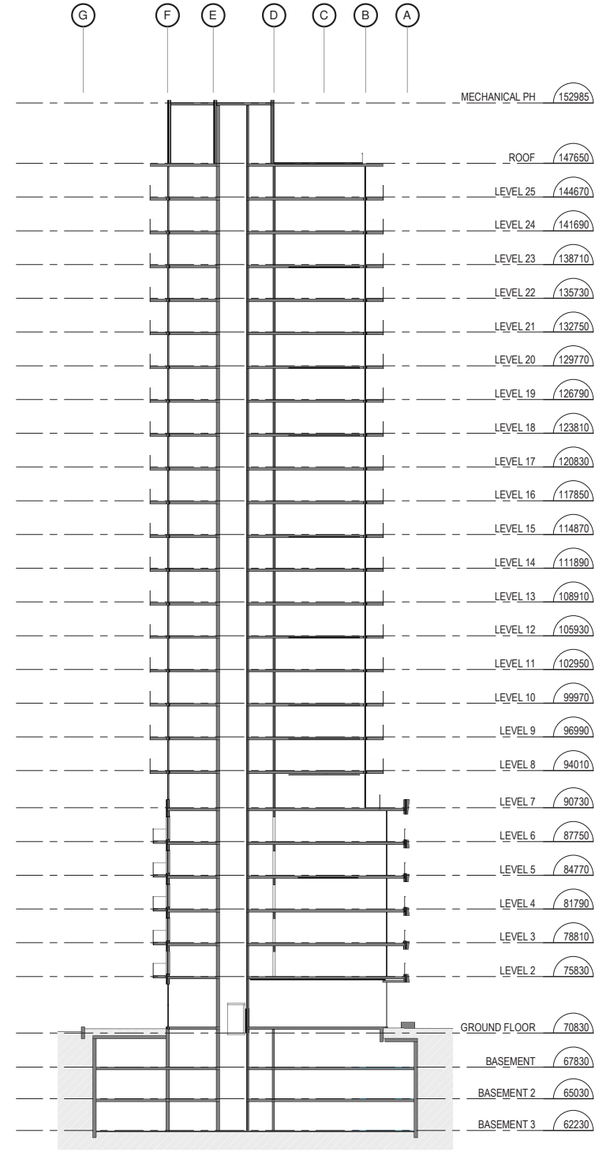
VIEW OF THE PROGRAMMED COURTYARD

DESIGN RESEARCH :

SECTIONS



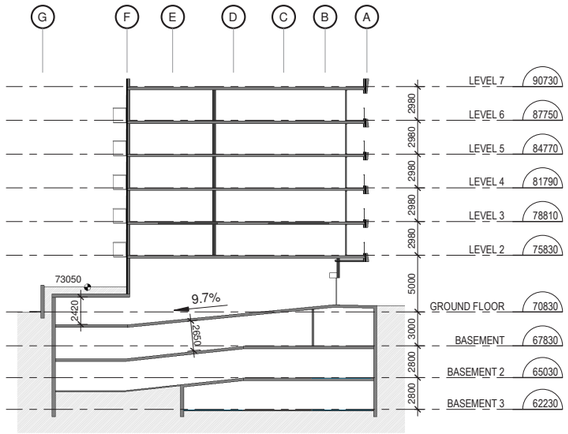
Longitudinal section



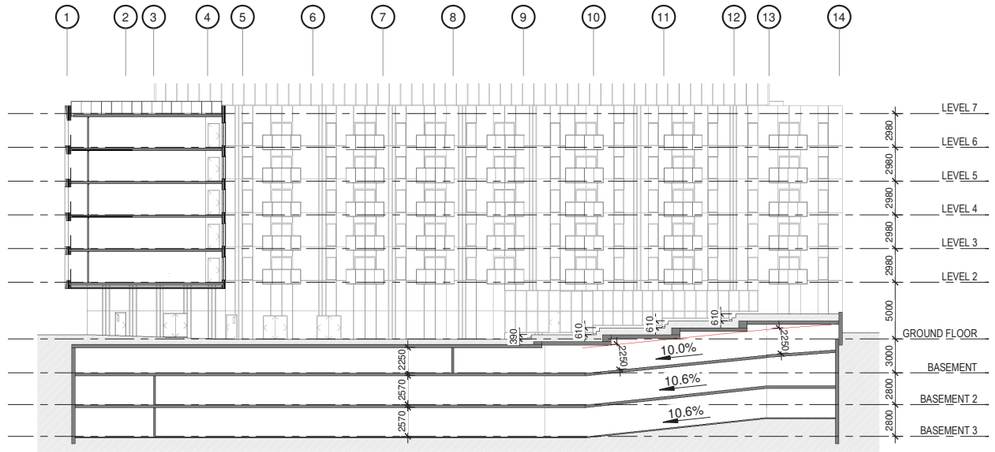
Transversal section

DESIGN RESEARCH :

SECTIONS



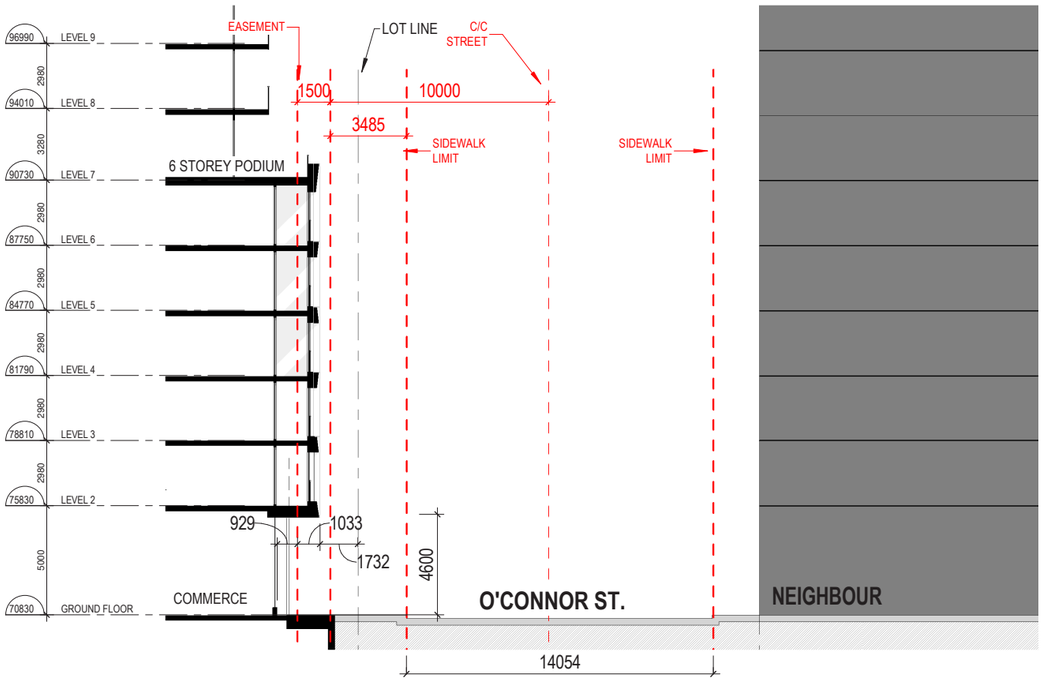
Ramp section



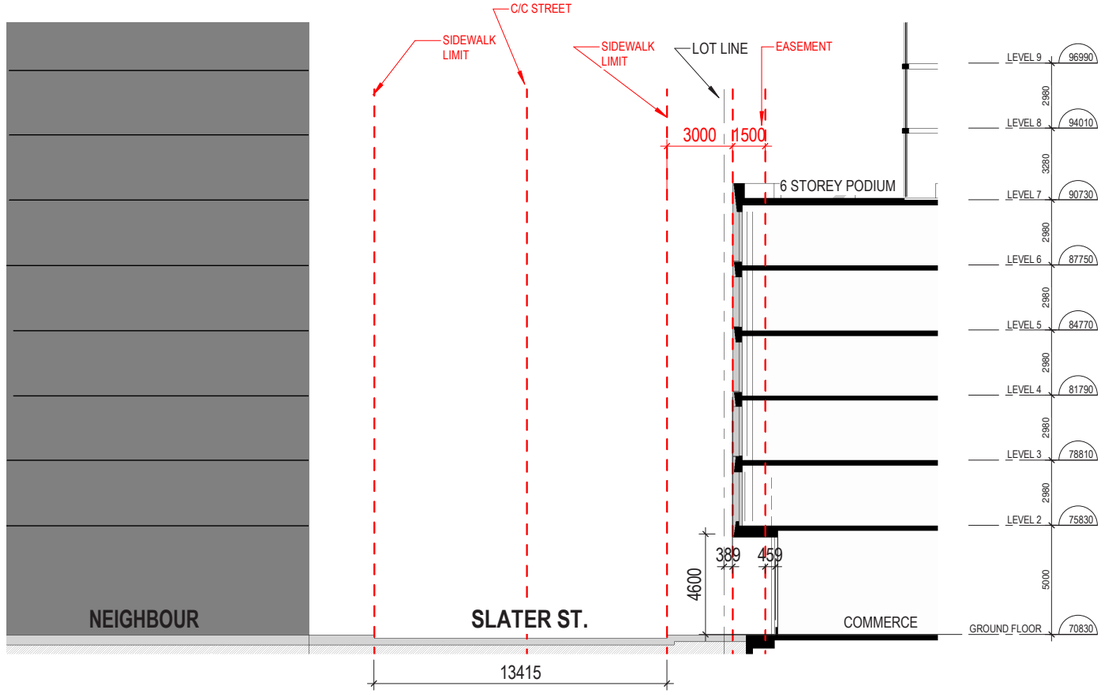
Garage section

DESIGN RESEARCH :

SETBACKS



Setback on O Connor



Setback on Slater

DESIGN RESEARCH :

ENVIRONMENTAL QUALITY AND BIRD SAFETY

The project at 110 O'Connor Street has been designed and planned by incorporating a series of elements that will promote environmental protection and align with the principles of sustainable development. This approach fosters innovation and integration with the surrounding environment to ensure the realization of a building that will offer a unique quality of life for its future occupants

To maintain environmental quality, the project includes:

- Redevelopment of a parking lot and former industrial building for residential purposes;
- Underground parking and loading areas to limit paving and heat islands on the property;
- Parking spaces equipped with charging stations for electric vehicles;
- Indoor, enclosed bicycle parking to promote sustainable mobility;
- Outdoor bicycle racks for visitors;
- A waste and energy management approach in construction and site management;
- Layout of spaces to encourage proper waste management, in accordance with Gatineau city standards;
- Outdoor temporary storage area near the underground access ramp to facilitate waste collection;
- Use of mostly indigenous species in landscaping.

To contribute to community and social life, the project includes:

- A wide variety of units types (studios, 1, 2 or 3 bedrooms) to meet the needs of a diverse clientele;
- Universal accessibility to the residential lobby as well as indoor and outdoor common spaces;
- Development of indoor recreational spaces and outdoor gathering areas (inner courtyard and rooftop common terrace).
- Building Performance:
- To ensure energy efficiency and sustainability of the building, the project includes:
- Selection of durable, robust, and high-quality materials including a low carbon footprint cladding;
- High-quality soundproofing;
- Preference for materials with low levels of volatile organic compounds;
- Preference for the use of local materials;
- Installation of high-performance glazing to minimize unwanted solar heat gain and heat loss;
- Central water heating, which is more durable than individual water heaters;
- Air exchangers in the housing units;
- Central air conditioning system for common areas;
- High-quality insulation meeting standards;
- Installation of programmable thermostats to reduce energy consumption when occupants are absent;
- Energy-efficient indoor and outdoor lighting system.

To contribute to community and social life, the project includes:

- A wide variety of units types (studios, 1, 2 or 3 bedrooms) to meet the needs of a diverse clientele;
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- Air exchangers in the housing units;
- Central air conditioning system for common areas;
- High-quality insulation meeting standards;
- Installation of programmable thermostats to reduce energy consumption when occupants are absent;
- Energy-efficient indoor and outdoor lighting system.

To optimize the proper management of potable water, the project includes:

- Selection of plants that require minimal water consumption;
- Installation of water-saving sanitary and plumbing fixtures in the units;
- Retention of a portion of rainwater on site.

To reduce the amount of heat islands the project includes:

- Reduction of paved surfaces on the ground and the arrangement of 100% of indoors parking;
- Use of white-colored roofing material. This type of roof reflects light and contributes to the reduction of heat islands;
- Planting of two trees on the inner courtyard.

The project is also currently exploring options for bird-safe design elements to decrease the potential risk to bird species. We have focused on the podium as this is the portion most at risk based on the City's guidelines by haveing a mixture of glazing and textured cladding. This mixture aims to differentiate the materials,the texture and colour to increase the visibility of the podium.

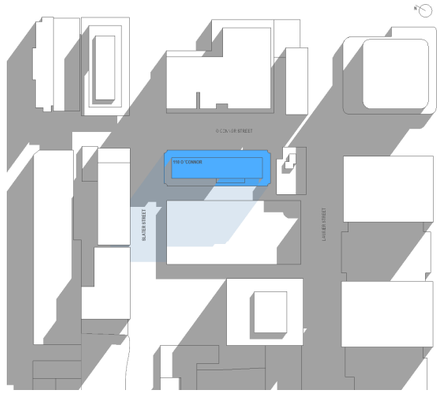
The lighting component of the building will aim to remain mainly decorative and of low impact to ensure that sustainable and bird-friendly goals are acheived as mentionned above.

Finally, we have deployed a substantial effort to plant two trees on the inner courtyard with native species to create a bird-friendly landscaping.

5.0 APPENDICES

APPENDICES :

SUMMER SOLSTICE SUN STUDY // EXISTING
110 O'CONNOR STREET



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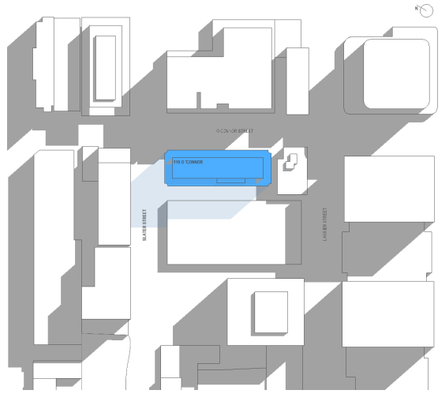

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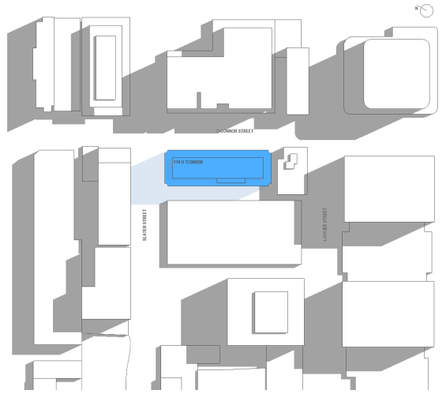

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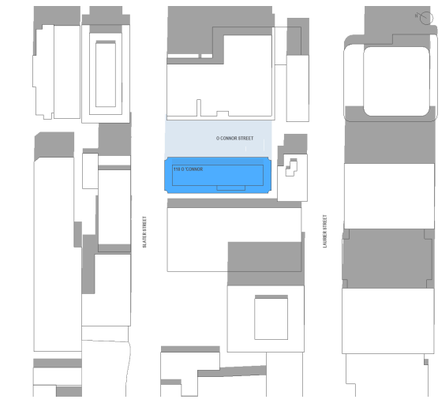

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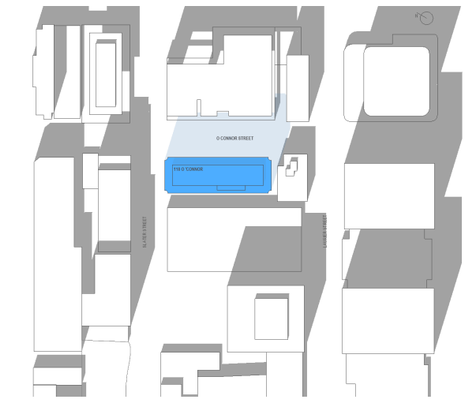

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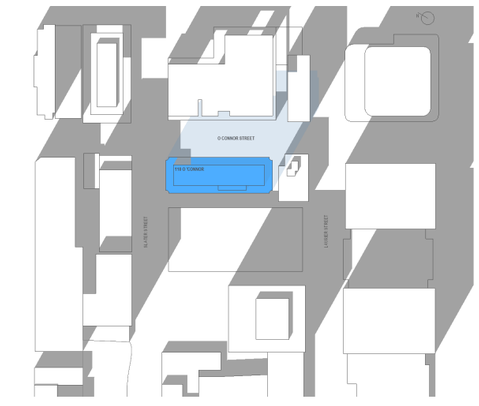

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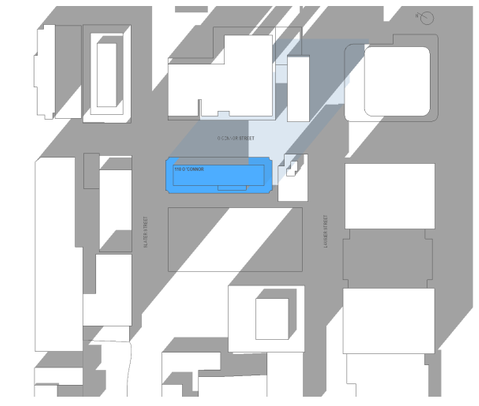

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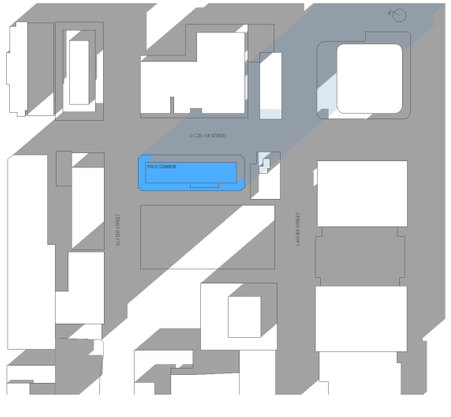

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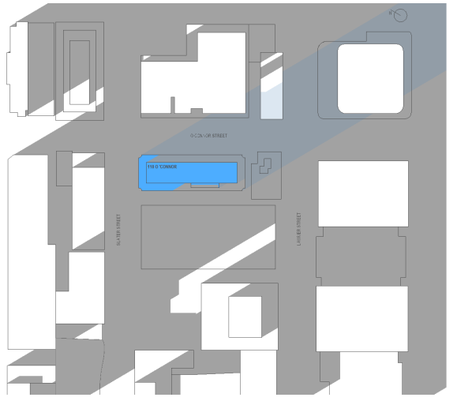

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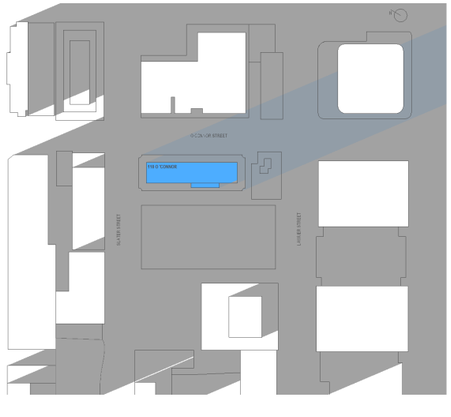

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LEGEND

EXISTING BUILDING

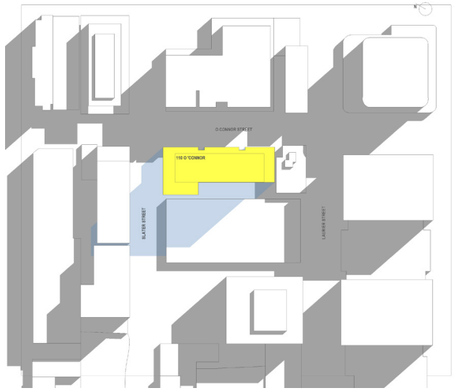
EXISTING BUILDING SHADOW

MACH FOTENN Planning + Design GeigerHuot architects

APPENDICES :

SUMMER SOLSTICE SUN STUDY // PROPOSED
110 O'CONNOR STREET

8 AM



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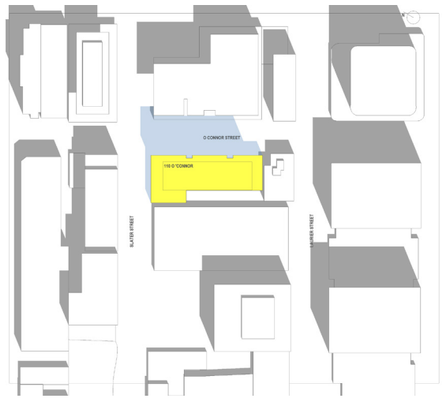

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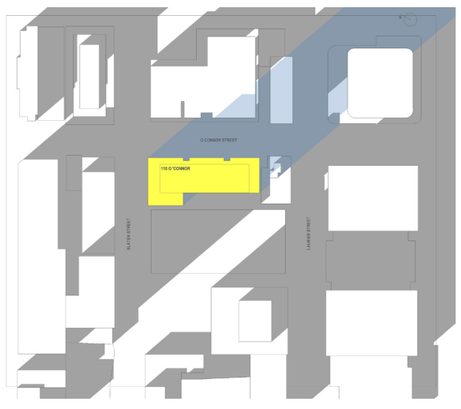

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LEGEND

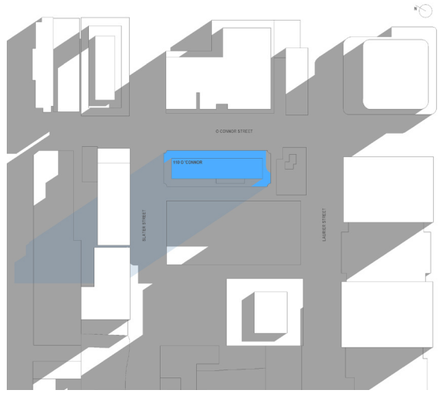
PROPOSED BUILDING

PROPOSED BUILDING SHADOW

MACH FOTENN Planning + Design GeigerHuot architects

APPENDICES :

EQUINOX SUN STUDY // EXISTING
110 O'CONNOR STREET



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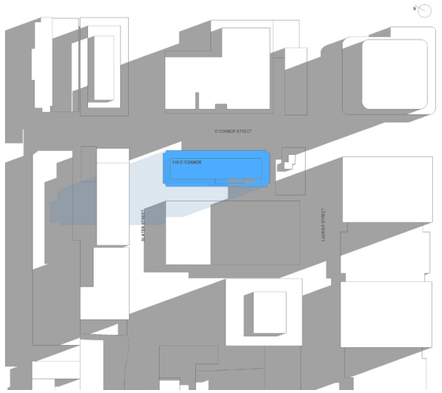

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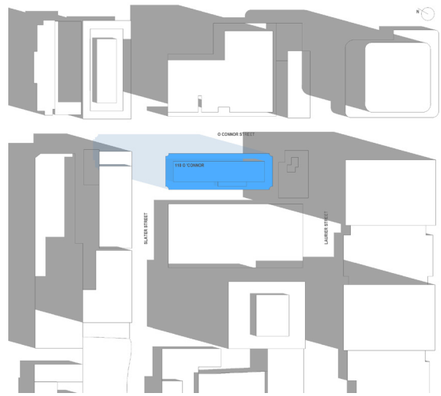

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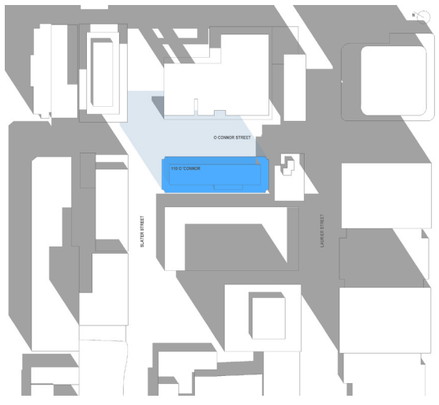

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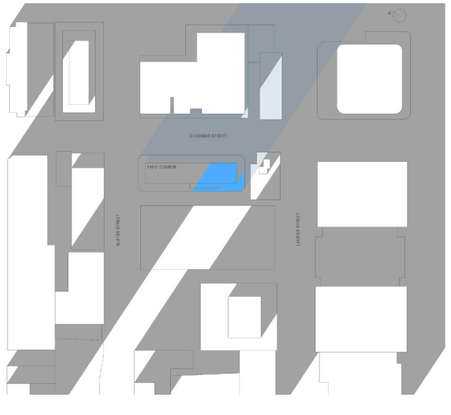

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LEGEND

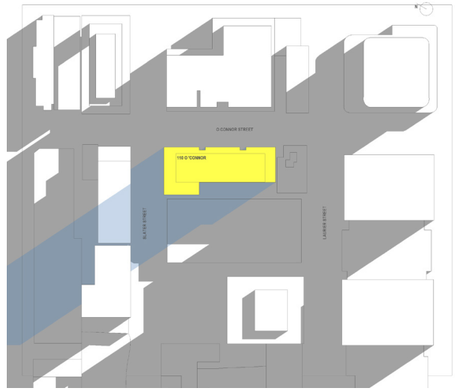
EXISTING BUILDING

EXISTING BUILDING SHADOW

MACH FOTENN Planning + Design GeigerHuot architects

APPENDICES :

EQUINOX SUN STUDY // PROPOSED
110 O'CONNOR STREET



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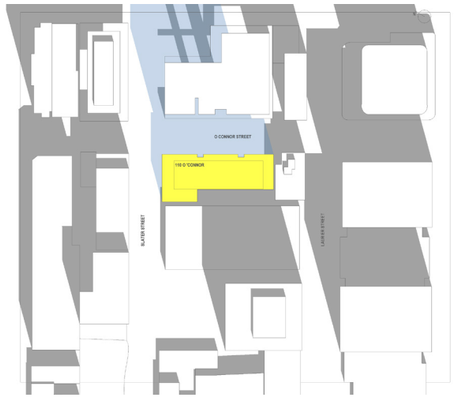

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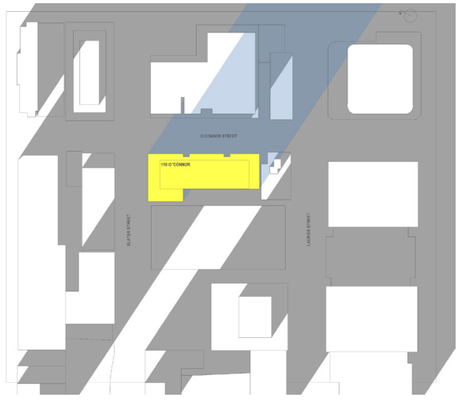

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LEGEND

PROPOSED BUILDING

PROPOSED BUILDING SHADOW

MACH FOTENN Planning + Design GeigerHuot architects

APPENDICES :

WINTER SOLSTICE SUN STUDY // EXISTING
110 O'CONNOR STREET

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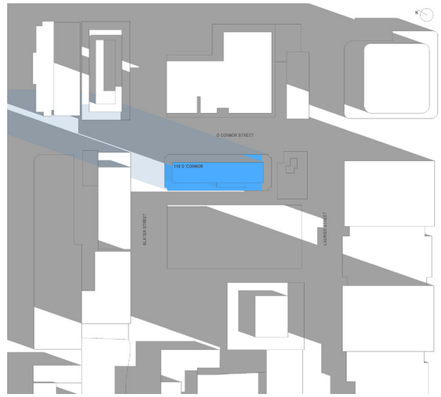

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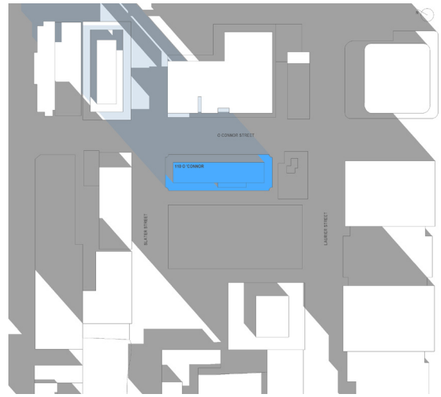

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LEGEND

EXISTING BUILDING

EXISTING BUILDING SHADOW

APPENDICES :

WINTER SOLSTICE SUN STUDY // PROPOSED
110 O'CONNOR STREET

9 AM

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12 PM

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LEGEND

PROPOSED BUILDING

PROPOSED BUILDING SHADOW

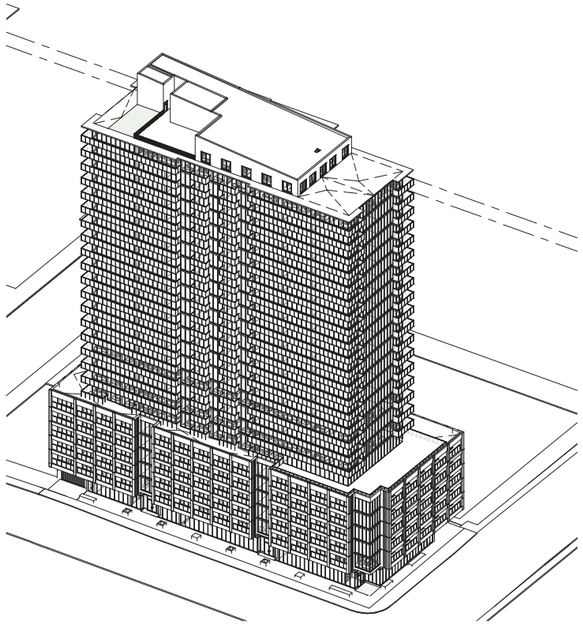
MACH FOTENN Planning + Design GeigerHuot architects

APPENDICES :

PROJECT STATISTICS

TYPICAL AREAS TOTAL

TYPE	AREA
CIRCULATION	3,241.02 m²
COMMERCIAL	528.46 m²
COMMON SPACES	1,313.6 m²
PARKING	5,840.77 m²
RENTAL	22,025.22 m²
UTILITIES	254.52 m²
	33,203.6 m²



LOT AREA: 2 092,4 m²
SITE COVERAGE %: 71.4 %

GROSS BUILDING AREA: 27 087.72 m²
SITE CONVERAGE: 1 493.97 m²
EFFICIENCY: -

NUMBER OF STOREYS : **26**
NUMBER OF UNITS : 392

INTERIOR PARKING 0.1/UNIT: **80**
BICYCLE PARKING 0.5/UNIT: **24 (EXTERIOR)**
290 (INTERIOR)

AMENITY 6m2/UNIT:
COMMUNAL AREA 3m2/UNIT: **1176m2 required**
1188m2 provided

TOTAL LEASABLE AREAS

TYPE	NUMBER	AREA
1BD	206	10,460.61 m²
2BD	83	6,058.79 m²
3BD	25	2,250.72 m²
STUDIO	78	3,255.11 m²
392		22,025.22 m²

AMMENITY AREA

LEVEL	TYPE	AREA
GROUND FLOOR	FITNESS CENTER	133.87 m²
GROUND FLOOR	COURTYARD	306.19 m²
GROUND FLOOR	LOUNGE	78.12 m²
LEVEL 7	LOUNGE	196.95 m²
LEVEL 7	TERRACE	221.07 m²
LEVEL 25	CO-WORKING	85.37 m²
ROOF	TERRACE	166.51 m²
		1,188.08 m²

BALCONY AREA

LEVEL	NUMBER	AREA
LEVEL 2	23	127.52 m²
LEVEL 3	24	127.35 m²
LEVEL 4	22	116.58 m²
LEVEL 5	22	114.98 m²
LEVEL 6	22	116.09 m²
LEVEL 7	7	46.1 m²
LEVEL 8	8	158.47 m²
LEVEL 9	8	158.47 m²
LEVEL 10	8	158.47 m²
LEVEL 11	8	158.47 m²
LEVEL 12	8	158.47 m²
LEVEL 13	8	158.47 m²
LEVEL 14	8	158.47 m²
LEVEL 15	8	158.47 m²
LEVEL 16	8	158.47 m²
LEVEL 17	8	158.47 m²
LEVEL 18	8	158.47 m²
LEVEL 19	8	158.47 m²
LEVEL 20	8	158.47 m²
LEVEL 21	8	158.47 m²
LEVEL 22	8	158.47 m²
LEVEL 23	8	158.47 m²
LEVEL 24	8	158.47 m²
LEVEL 25	8	158.47 m²
264		3,501.01 m²

AREA PER FLOOR

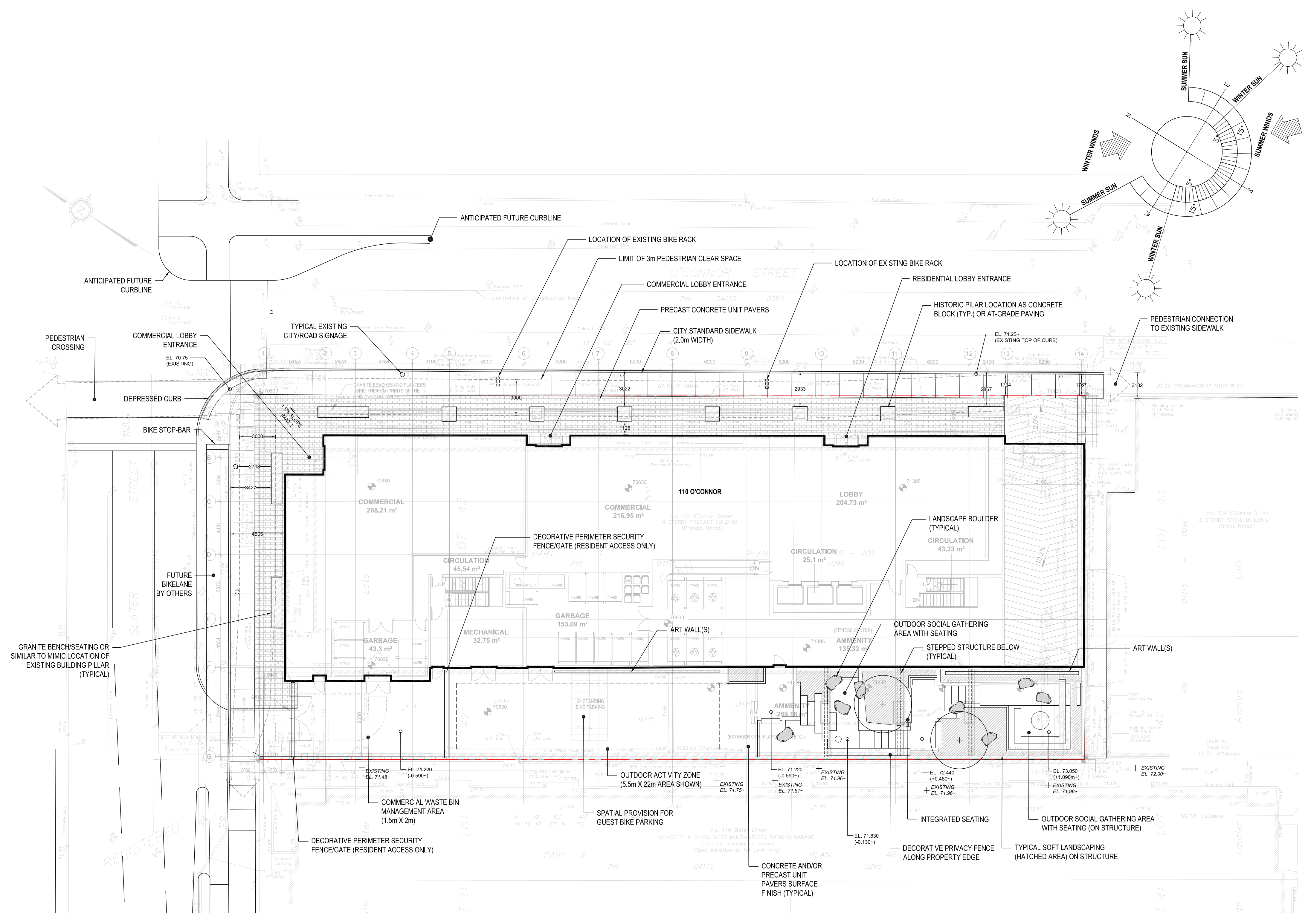
LEVEL	TYPE	AREA
BASEMENT 3	PARKING	1,947.59 m²
		1,947.59 m²
BASEMENT 2	PARKING	1,946.09 m²
		1,946.09 m²
BASEMENT	PARKING	1,947.09 m²
		1,947.09 m²
GROUND FLOOR	CIRCULATION	116.52 m²
GROUND FLOOR	COMMERCIAL	528.46 m²
GROUND FLOOR	COMMON SPACES	643.7 m²
GROUND FLOOR	UTILITIES	185.84 m²
		1,474.52 m²
LEVEL 2	CIRCULATION	148.01 m²
LEVEL 2	RENTAL	1,244.49 m²
		1,392.49 m²
LEVEL 3	CIRCULATION	146.95 m²
LEVEL 3	RENTAL	1,247.17 m²
		1,394.12 m²
LEVEL 4	CIRCULATION	147.34 m²
LEVEL 4	RENTAL	1,244.8 m²
		1,392.14 m²
LEVEL 5	CIRCULATION	146.95 m²
LEVEL 5	RENTAL	1,245.02 m²
		1,391.97 m²
LEVEL 6	CIRCULATION	146.95 m²
LEVEL 6	RENTAL	1,247.17 m²
		1,394.12 m²
LEVEL 7	CIRCULATION	122.08 m²
LEVEL 7	COMMON SPACES	418.02 m²
LEVEL 7	RENTAL	629.79 m²
		1,169.89 m²
LEVEL 8	CIRCULATION	126.72 m²
LEVEL 8	RENTAL	823.05 m²
		949.77 m²
LEVEL 9	CIRCULATION	121.86 m²
LEVEL 9	RENTAL	829.34 m²
		951.2 m²
LEVEL 10	CIRCULATION	121.86 m²
LEVEL 10	RENTAL	829.34 m²
		951.2 m²
LEVEL 11	CIRCULATION	121.86 m²
LEVEL 11	RENTAL	829.34 m²
		951.2 m²
LEVEL 12	CIRCULATION	121.86 m²
LEVEL 12	RENTAL	829.34 m²
		951.2 m²
LEVEL 13	CIRCULATION	121.86 m²
LEVEL 13	RENTAL	829.34 m²
		951.2 m²

AREA PER FLOOR

LEVEL	TYPE	AREA
LEVEL 14	CIRCULATION	121.86 m²
LEVEL 14	RENTAL	829.34 m²
		951.2 m²
LEVEL 15	CIRCULATION	121.86 m²
LEVEL 15	RENTAL	829.34 m²
		951.2 m²
LEVEL 16	CIRCULATION	121.86 m²
LEVEL 16	RENTAL	829.34 m²
		951.2 m²
LEVEL 17	CIRCULATION	121.86 m²
LEVEL 17	RENTAL	829.34 m²
		951.2 m²
LEVEL 18	CIRCULATION	121.86 m²
LEVEL 18	RENTAL	829.34 m²
		951.2 m²
LEVEL 19	CIRCULATION	121.86 m²
LEVEL 19	RENTAL	829.34 m²
		951.2 m²
LEVEL 20	CIRCULATION	121.86 m²
LEVEL 20	RENTAL	829.34 m²
		951.2 m²
LEVEL 21	CIRCULATION	121.86 m²
LEVEL 21	RENTAL	829.34 m²
		951.2 m²
LEVEL 22	CIRCULATION	121.86 m²
LEVEL 22	RENTAL	829.34 m²
		951.2 m²
LEVEL 23	CIRCULATION	121.86 m²
LEVEL 23	RENTAL	829.34 m²
		951.2 m²
LEVEL 24	CIRCULATION	121.86 m²
LEVEL 24	RENTAL	829.34 m²
		951.2 m²
LEVEL 25	CIRCULATION	125.37 m²
LEVEL 25	COMMON SPACES	85.37 m²
LEVEL 25	RENTAL	683.15 m²
		893.88 m²
ROOF	CIRCULATION	64.41 m²
ROOF	COMMON SPACES	166.51 m²
ROOF	RENTAL	391.12 m²
ROOF	UTILITIES	68.68 m²
		690.72 m²
Grand total		33,203.6 m²

APPENDICES :

LANDSCAPE PLAN



DRAFT

SITE LANDSCAPE CONCEPT

110 O'CONNOR

Ottawa

APRIL 17, 2024

MACH

PREPARED FOR:

PREPARED BY:

siteform

Siteform Inc. Landscape Architecture
Ottawa, ON K1S 3G8
613.796.4537 www.siteform.ca

KEY MAP

N.T.S.

NORTH

NOT FOR CONSTRUCTION
2024-04-17

Revision	By	Appd.	YY.MM.DD
ISSUED FOR PHASE 2 SUBMISSION	JAL		24.04.17

Client/Project

GROUPE MACH
110 O'CONNOR STREET

OTTAWA, ON

Title

CONCEPT LANDSCAPE PLAN

Project No. SF 24005

Scale 1:500

Drawing No. LP-1

Sheet 1 of 1

Revision A

SF 24001

MACH FOTENN Planning + Design GeigerHuot architects

110 O'Connor – Responses to Applicable Policies & Guidelines 1

1.0 City of Ottawa Official Plan (2022)

1.1 Transect and Designation

The subject property is located in the Downtown Core Transect and is designated Mainstreet Corridor within a Hub. Per the applicable policies of Sections 5.1, 6.1 and, 6.2, high-rise, mixed-use development is encouraged and anticipated within the Downtown Core within Hubs due to their proximity to transit and existing services. The policies of the Official Plan permit a wide range of urban-oriented uses in the Downtown Core, including high-density housing and at-grade retail.

The following design-related Transect and designation policies apply to the subject site:

/ 5.1.1(4) The public realm in the Downtown Core should be of a consistently high quality that compensates for the smaller public, private and semi-private spaces available in the core.

The proposed development enhances the public realm by activating its ground floor frontages with at-grade commercial uses and providing a wider pedestrian sidewalk with partial weather protection (through a recessed ground floor).

/ 5.1.1(5) To offset its inherently dense built environment and the high proportion of built-up and hardscaped land, particular measures to ensure climate resilience in the Downtown Core Transect should consider the following attributes in the review of a development application:

- a) The urban heat island effect through cool or green roofs, light coloured reflective materials, retention of mature trees, tree planting and other urban greening;
- b) Shaded sidewalks, streets, transit stops, bike lanes and paths to support active mobility and transit during extreme heat through using trees or structures for transit stops;
- c) High-quality and intensive urban greenspace, such as parks, shaded public realm and access to cooling amenities to provide relief from the heat, especially for those without air conditioning;
- d) On-site stormwater management to mitigate increased imperviousness; and,
- e) Alignment with other climate adaptation policies and procedures identified in this Plan.

The proposed development's recessed ground floor and overhanging podium will provide shaded pedestrian space. Further, the proposed development will ensure high levels of energy efficiency above and beyond the applicable Code requirements

/ 6.2.1(4) Unless otherwise indicated in an approved secondary plan, the following applies to development of lands with frontage on both a Corridor and a parallel street or side street:

- a) Development shall address the Corridor as directed by the general policies governing Mainstreet Corridors Minor Corridors, particularly where large parcels or consolidations of multiple smaller parcels are to be redeveloped; and
- Vehicular access shall generally be provided from the parallel street or side street.

The proposed development, being located in the Downtown Core, addressed both streets on which it fronts, with minimal setbacks, an enhanced at-grade experience, and commercial space along Slater and O'Connor Streets. With Slater Street being considered the Mainstreet Corridor, the vehicular access is provided from O'Connor Street, considered by the City's policy framework to be the side street.

1.2 Section 4.6 – Urban Design

Section 4.6 of the Official Plan contemplates an urban design framework to outline the City's urban design program. The subject property is identified as a Tier 2 – National & Regional Design Priority Area (DPA) per Table 5 –Design Priority Areas of the Official Plan as it is located in a Hub within the Downtown Core. Tier 2 areas are of national and regional importance to defining Ottawa's image. These areas support moderate pedestrian volumes and are characterized by their regional attractions related to leisure, entertainment, nature or culture.

The applicable urban design policies relating to the redevelopment of the subject property are as follows:

/ 4.6.1(4) Design excellence shall be achieved in part through recognition and conservation of cultural heritage resources located throughout the City, including buildings, streetscapes and landscapes.

The proposed development recognizes the heritage character existing on the site through specific design elements and details, paying homage to the existing building on the property. The main characteristics of Brutalism are reflected in the neighborhood's surrounding buildings. The massive forms, expression of structure, strict grid like façades, rough concrete cladding, and the absence of ornamentation define this style of architecture.

(immediate context)

Inspired by this rich built environment the project aims to pay tribute to the contextual surroundings by designing a building that reimagines some brutalist features in a contemporary, more engaging fashion.

The neighboring building, 124 O'Connor, is a heritage building and has significant details on its envelope that the project aims to reinterpret with a contemporary approach. 124 O Connor has a sleek linear appearance with stylized geometric ornamentation. The vertical colonnades delineate

the principal facades and are ornamented with three distinct recessed lines. The theme of these three lines is repeated in various façade elements, including the vertical spaces between the windows.

Our proposal aims to pay homage to this significant neighboring building by introducing a contemporary interpretation of its grid like, colonnaded façade and geometric ornamentation.

Our podium is divided by three floating masses intersected by curtain wall and treated in a brutalist style by the choice of texture and sculpture of its structural elements. Homage is paid to 124 O'Connor with the re-interpretation of the three recessed linear elements on the sides of these masses. While the massing and details are reinterpretations of historic styles, the floating elements are distinctly contemporary. The corner, marked by these same lines, opens up to the street, re-interpreting the language of the existing building.

/ 4.6.1(5) Development and capital projects within DPAs shall consider four season comfort, enjoyment, pedestrian amenities, beauty and interest through the appropriate use of the following elements:
- a) The provision of colour in building materials, coordinated street furniture, fixtures and surface treatments, greening and public art, and other enhanced pedestrian amenities to offset seasonal darkness, promote sustainability and provide visual interest;
- b) Lighting that is context appropriate and in accordance with applicable standards and guidelines; and c) Mitigating micro-climate impacts, including in the winter and during extreme heat conditions in the summer, on public and private amenity spaces through such measures as strategic tree planting, shade structures, setbacks, and providing south facing exposure where feasible.

The ground floor condition is conducive to four-season comfort as a result of the cantilevered upper podium over the sidewalk and ground floor retail entrances. This feature re-establishes an existing condition on the site, as the current building at 110 O'Connor features a pedestrian arcade. The proposed cantilever represents an improved condition with regards to four-season comfort and public realm interface as the existing columns have been removed, creating a seamless connection between the sidewalk and the covered walkway. This pedestrian walkway will also be well lit at night with integrated LED lighting in the soffit. We propose to conserve and reuse the granite column bases of the original building to repurpose and provide public seating and planters on Slater and O'Connor streets.

The project also offers an accessible green courtyard that is programmed for various activities and will feature much planting and trees. The blank wall facing the interior courtyard will feature a mural commissioned by local artists.

/ 4.6.2(1) The visual integrity and symbolic primacy of the Parliament Buildings and other national symbols, as seen from Confederation Boulevard, the main approach routes to the Parliamentary Precinct and from other key viewpoints and view sequences is protected. The area to which view protection applies can be extended through development or supplementary planning processes, to apply to lands where the City determines that height and foreground controls are necessary in accordance with the intent of Schedule C6A, Schedule C6B, Schedule C6C and the National Capital Commission's Canada's Capital Views Protection, or its successor document. The following applies within areas designated on Schedule C6A:
- a) Development shall not visually obstruct the foreground of views of the Parliament Buildings and other national symbols, as seen from the key viewpoints and view sequences indicated on Schedule C6A;
- b) No building, part of a building or building roof structure will exceed the angular building height limits that are defined by the perimeter above sea-level heights for each block on Schedule C6B.

The proposed development respects the applicable view planes and height restrictions enforced in the downtown core through the relevant zoning provisions and schedules.

/ 4.6.2(3) Development which includes a high-rise building or a High-rise 41+ shall consider the impacts of the development on the skyline, by demonstrating:
- a) That the proposed building contributes to a cohesive silhouette comprised a diversity of building heights and architectural expressions.

The proposed development's design has regard to its surrounding context and the commercial office character of the Central Business District. The building's silhouette presents vertical as well as horizontal visual interest through setbacks, articulation, and massing. Per the City's Urban Design Guidelines for High-Rise Buildings, the proposed building represents the three-tiered vertical distribution of massing desired by the city – presenting a base, middle, and top of the building, each with their own distinctive character and relationship to the surrounding context.

/ 4.6.3(1) Development and capital projects shall enhance the public realm where appropriate by using methods such as: curb extensions, curbside boulevards that accommodate wider pedestrian walkways, trees, landscaping, and street furniture. These enhancements will make streets safer and more enjoyable by dedicating more space to pedestrians, creating opportunities for relaxation and social interaction, and where necessary, buffering pedestrians from traffic.

/ 4.6.3(8) Public realm investments such as street furniture and other related streetscape elements will be designed to be welcoming and comfortable for all people, and hostile elements that intentionally prevent people from using the space will be avoided.

The existing building features a pedestrian arcade which extends along both street frontages. In keeping with this existing public realm element, the proposed development seeks to re-establish a similar pedestrian-oriented element through an overhang of the building's podium above a recessed ground floor. The second through sixth floor protrude out from the rest of the building's

massing, providing an overhead cover over the sidewalk and entrances to the building. This space creates a well-defined interface between the uses and entrances along the ground floor of the building and the public realm extending along the two street frontages.

/ 4.6.4(1) Innovative, sustainable and resilient design practices and technologies in site planning and building design will be supported by the High-performance Development Standard, which will apply to site plans, draft plans of subdivision and local plans in accordance with Subsection 11.1, Policy 3). The Standard addresses matters of exterior sustainable design and will align urban design with climate change mitigation and adaptation goals and objectives.

The proposed development seeks to establish sustainable deign and development practices through the demolition, construction, design, and operation of the building. The proposed exterior cladding on the podium are fibre cement panels that offer design flexibility, durability and are 100% recyclable. The material also has a low carbon footprint.

/ 4.6.4(3) The installation of photovoltaic panels on expansive roof structures, such as large-format retail buildings and large-scale institutions and facilities are encouraged. Alternative rooftop designs or interventions that promote climate and energy resiliency such as greenhouses, green roofs or rooftop gardens are also permitted.

A small portion of the rooftop has been dedicated to a green roof so as to reduce the amount of dark-coloured surfaces contributing to the urban heat island effect, as well as providing a minor stormwater catch basin.

/ 4.6.5(2) Development in Hubs and along Corridors shall respond to context, transect area and overlay policies. The development should generally be located to frame the adjacent street, park or greenspace, and should provide an appropriate setback within the street context, with clearly visible main entrances from public sidewalks. Visual impacts associated with above grade utilities should be mitigated.

The Downtown Core transect is representative of a high-density, mature built form, generally defined by zero-lot line conditions and a continuous building wall framing the street. Given the commercial office character of the downtown, stepbacks from upper floors are less common and sheer building faces extending from the street to the tops of buildings are the characteristic built form seen in the surrounding blocks.

Given the existing context, the proposed building is a characteristic element of the Downtown Core through the implementation of the anticipated heights, parking allotments, and ground-floor activation. The building includes entrances along each of the street frontages and incorporates a podium design, creating a continuous interface with the public realm and helping to create a feeling of separation between the pedestrian-level experience and the upper high-rise building massing. This approach, as found across the Downtown Core, seeks to ensure that the overall massing does not overwhelm and encroach onto the enjoyment of street-level activities.

/ 4.6.5(3) Development shall minimize conflict between vehicles and pedestrians and improve the attractiveness of the public realm by internalizing all servicing, loading areas, mechanical equipment and utilities into the design of the building, and by accommodating space on the site for trees, where possible. Shared service areas, and accesses should be used to limit interruptions along sidewalks. Where underground parking is not viable, surface parking must be visually screened from the public realm.

The proposed development will provide underground parking. The entrance to the parking garage is proposed to be located at the e3dge of the building so as to minimize impacts to the public realm.

The maximum building heights established in relation to the Parliament Buildings are inclusive of mechanical penthouses. The mechanical penthouse has been integrated into the top storey of the building. Additional mechanical space will be located underground or elsewhere within the building.

/ 4.6.5(4) Development shall demonstrate universal accessibility, in accordance with the City's Accessibility Design Standards. Designing universally accessible places ensures that the built environment addresses the needs of diverse users and provides a healthy, equitable and inclusive environment.

All common areas of the building are designed to be universally accessible, as well as 15% of all units distributed by unit type and vertically throughout the building.

/ 4.6.6(4) Amenity areas shall be provided in residential development in accordance with the Zoning By-law and applicable design guidelines. These areas should serve the needs of all age groups, and consider all four seasons, taking into account future climate conditions. The following amenity area requirements apply for mid-rise and high-rise residential:

- a) Provide protection from heat, wind, extreme weather, noise and air pollution; and
- b) With respect to indoor amenity areas, be multi-functional spaces, including some with access to natural light and also designed to support residents during extreme heat events, power outages or other emergencies.

The amenity spaces across the proposed building vary in purpose, size, and outdoor exposure – ranging from an indoor space on the ground floor, to a fully-exposed rooftop terrace. The amenity spaces are also distributed vertically throughout the building, with spaces available at the ground level, 7th floor, 25th floor, and rooftop. As mentioned, there are varying levels of outdoor exposure across the amenity spaces, providing residents with ample opportunities to appreciate and utilize these spaces regardless of weather conditions. Two of the spaces (7th and 25th floor) include both indoor spaces as well as accessible outdoor terrace or balcony features, creating a hybrid environment, available regardless of the weather conditions outside.

/ 4.6.6(8) High-rise buildings shall be designed to respond to context and transect area policies, and should be composed of a well-defined base, middle and top. Floorplate size should generally be limited to 750 square metres for residential buildings and 2000 square metres for commercial buildings with larger floorplates permitted with increased separation distances. Space at-grade should be provided for soft landscaping and trees.

The proposed tower features a relatively large floorplate of approximately 950 square metres, which is characteristic within the Downtown Core, but larger than the above-noted 750 square metres. Due to the existing lot fabric, and constraints placed on the site by maximum building height restrictions, the proposed building presents itself as a bar building, similar in envelope to the existing building on the site. The existing urban fabric within the downtown core is characteristic of large high-rise floorplates, The lot size and shape are not conducive to a slimmer tower and design. Additionally, the existing foundation on the site, which is proposed to be partially reused, is not oriented in a way which would be conducive to the tower core being located in an appropriate location. The existing site constraints and context of the downtown core lend itself to a building with greater bulking as opposed to a slim tower design.

/ 4.6.6(3) Where two or more High-rise buildings exist within the immediate context, new High-rise buildings shall relate to the surrounding buildings and provide a variation in height, with progressively lower heights on the edge of the cluster of taller buildings or Hub.

The proposed development relates to the surrounding buildings by providing a built form, setbacks and floorplates that are typical within the downtown core. The proposed development will ensure compliance with existing building height restrictions in proximity to Parliament Buildings, which make variations in height with nearby buildings more difficult to achieve.

/ 4.6.6(9) High-rise buildings shall require separation distances between towers to ensure privacy, light and sky views for residents and workers. Responsibilities for providing separation distances shall be shared equally between owners of all properties where High-rise buildings are permitted. Maximum separation distances shall be achieved through appropriate floorplate sizes and tower orientation, with a 23-metre

separation distance desired, however less distance may be permitted in accordance with Council approved design guidelines.

/ 4.6.6(10) Development proposals that include High-rise buildings shall demonstrate the potential for future High-rise buildings or High-rise 41+ buildings on adjacent lots or nearby lots in accordance with the relevant policies of this Plan.

The proposed development incorporates shorter separation distances than envisioned by the City's Official Plan. However, this is representative of the tighter urban fabric found throughout the downtown core, which is characterized by shorter setbacks and large floorplates. It should be noted that the proposed development also incorporates stepbacks after the 6th storey to provide a more slender tower than the base of the building and greater separation distances from abutting properties (the tower provides separation distances of approximately 6.5 metres from the abutting property to the south and approximately 7.4 metres from the abutting property to the west).

2.0
Central and East Downtown Core Secondary Plan

The Central and East Downtown Core Secondary Plan applies to the subject property. Per Schedules A and B of the Secondary Plan, the subject property is located in the "Core" character area (Schedule A) and is designated "Downtown Mixed-Use" (Schedule B) with a maximum building height specified through the applicable Angular Height Plane established through the Official Plan and Zoning.

2.1 Downtown Mixed-Use Designation Policies

The Downtown Mixed-Use Designation provide for a character of uses and infrastructure that is supportive of the Downtown Core Transect's role as a hub of commercial and social activity. The following policies apply to development on the subject property:

/ 2.3(4) Development will provide active uses along the entire ground floor frontage.
- a) Uses which do not contribute activity and animation to the public realm should be located away from the building's frontage. Examples include offices; and
- b) Parking garage entrances and loading facilities will, wherever possible, be located on a different wall than that of the main building frontage and accessed from a side street. Residential parking, office parking and loading facilities will share the same curb cut and access point unless it is demonstrated that such arrangement is impossible to design. The width of garage and loading dock doors, and associated curb cut, shall be kept to the strict minimum. Curb returns leading to garage and loading doors are not permitted; any vehicular access crossing a public sidewalk shall be designed to maintain a level sidewalk and give absolute priority to pedestrian safety. Signage will require vehicles to yield to pedestrians on the sidewalk.

The proposed development incorporates active uses (commercial uses and building entrance lobby) along the ground floor frontages along Slater and O'Connor Streets. The parking garage entrance is located on O'Connor Street, along the longest building wall facing the public frontage. The parking garage entrance is located as close to the building edge as possible so as to minimize impacts to the public realm. Further, the location of the entrance is in line with Official Plan directions indicating Slater Street as a Mainstreet Corridor (with O'Connor Street therefore being a side street).

2.2 General Policies

Per the Secondary Plan, development in the Central and East Downtown Core will contribute to an active street life and pedestrian convenience through its design, function and activity. The following general policies apply to the proposed development:

2.2.1 Built Form

/ 3.1(1) Development will contribute positively to the entire adjacent public realm. It should maximize the activity visible from the public realm and the activity easily accessible to it. Measures include but are not limited to:
- a) Functional main entrances directly accessible from the public realm for each unit on the ground floor. For further specification, this includes residential, retail and commercial units.
- b) Usable indoor and/or outdoor amenity areas where possible. These amenities are meant to encourage people to linger in or within view of the public realm. Examples include patios, porches, atria, stoops, etc.
- c) Lower floor articulation with a high degree of transparency and functional permeability.
- d) Notwithstanding Section 3.1 - Built Form, Policies 1) b) and f), residential units at or near the ground floor and their private outdoor amenity spaces should provide a comfortable degree of privacy, while also accommodating easy interaction with the public realm.
- e) A lack of blank walls, or designs which do not contribute to the activity of the public realm. In particular, retail stores shall not be permitted to block or cover any windows or transparent doorways with posters, opaque glass, the backs of shelves, or anything that obstructs the full and clear view of the interior of the store from the sidewalk, other than up to 10 per cent window coverage by temporary posters or advertisements.
- f) Visual and functional variety from the sidewalk. Street-level frontage widths for individual non-residential units should be narrow.
- g) The inclusion of art in the public realm where possible.
- h) Buildings must front onto all their adjacent streets.
- i) Vehicular facilities must minimize all visual and functional impacts on the public realm.
- j) Further to Section 3.1 - Built Form, Policy 1) i), surface parking and surfaces likely to be used as surface parking in front of buildings are prohibited.
- k) Increased setbacks in front of buildings occupying a large portion of a block should be provided. The setback will be dedicated to widened pedestrian and public realm facilities.

The proposed development contributes positively to the adjacent public realm. In particular, the proposed development incorporates:
- **functional main entrances that are visible from the public street;**
- **amenity spaces in proximity to the public realm including balconies, a large lobby, and at-grade indoor and outdoor amenity space in the southwest corner of the subject property;**
- **activation of the ground floor with significant glazing and articulation of the podium levels;**
- **commercial units fronting the public street;**
- **frontage on both adjacent streets;**
- **a vehicular entrance at the edge of the building, allowing for minimal impacts to the public realm;**
- **underground parking; and,**
- **wide pedestrian and public realm facilities, which are partially covered by a cantilevered podium over a recessed ground floor.**

/ 3.1(2) Development will provide a continuity of active frontages along the ground floor fronting all corridors. This includes functional main entrances that are directly accessible from the public realm for each unit on the ground floor. For further specification, this includes residential, retail and commercial units.

The proposed development will provide a continuity of active frontages along the ground floor fronting Slater and O'Connor Streets through the incorporation of commercial units and a lobby for the residential component.

/ 3.1(4) Where development has little or no setback from the public realm, it should generally provide continuous and substantial weather protection for pedestrians along its frontage. These setbacks will constitute a seamless extension of the street's pedestrian realm. If provided in the form of colonnades or cantilevers, the minimum height of such spaces is two storeys. Weather protection features will ensure a maximum visibility for storefronts and a minimal footprint on the ground. Such features should not be

required above residential units or where it conflicts with heritage considerations. Refer to the Downtown Moves: Transforming Ottawa's Streets, study Section 3.2.12.

The proposed development provides weather protection in the form of a cantilevered podium and recessed ground floor providing shelter for pedestrians along its frontage.

2.2.2 Mobility

/ 3.3.1(14) Right of way widening consistent with right of way protections will be used for the purposes of improving the streetscape and addressing the needs of pedestrians and/or cyclists. Examples include widened sidewalks, bicycle parking, street trees and parkettes. This space will not be used to expand motor vehicle infrastructure. Corner sight triangles will no longer be required, unless it is demonstrated that it is impossible to achieve the satisfactory placement of signal or other infrastructure in a way that maintains pedestrian flow on the sidewalk. Wall-mounted infrastructure placement based on agreements with abutting landowners should be considered as preferable to the taking of land.

The proposed development will incorporate wide pedestrian spaces through its recessed ground floor.

/ 3.3.2(17) Development will locate loading and other vehicular access infrastructure in a manner which does not compromise or otherwise negatively impact sustainable modes. Where possible, they should be accessed from within the building envelope and not the public right of way.

- a) Vehicular access, parking and loading infrastructure shall not be permitted from Corridors. Existing accesses will be removed at time of development. Exceptions may be made if a lot both fronts no other streets and has no alternative vehicular access. In that case, the dimensions of the access shall be kept to an absolute minimum and shall minimize their visibility from the public realm.

The proposed vehicle parking entrance is accessed off O'Connor Street, away from the frontage along Slater Street (a designated Mainstreet Corridor).

/ 3.3.2(19) The City will prohibit parking facilities in front of buildings, including front yard parking, or in any location which is highly visible from the public realm. Where they currently exist, the City will require their removal at the time of redevelopment or change of use.

No parking facilities are provided in front of the proposed building.

2.2.3 Heritage

/ 3.4(21) The Central and East Downtown Core is distinguished by its high concentration of heritage buildings, districts and landscapes, including those designated under Part IV and Part V of the Ontario Heritage Act, the Federal Heritage Buildings Review Office, or listed on the City's Heritage Register. Development will respect the area's heritage character and where located on or adjacent to a built heritage resource, will be in accordance with the policies found in Section 4.5 – Cultural Heritage and Archaeology, of Volume 1 of the Official Plan.

The proposed development is located adjacent to a property on the Heritage Register (124 O'Connor Street, to the south). The proposed development relates to the abutting building to the south by providing a podium height with the same number of storeys (six) as the abutting building.

2.2.4 Character Area Policies – Core

/ 4.3.2(6) The Core area is intended to be the principal focal point of activity in the city and within the metropolitan downtown core. Development will: a) Be designed to maximize the activity on, accessible to and visible from the public realm; and b) Provide continuous active frontages and active uses along all streets.

The proposed development enhances the at-grade experience through the incorporation of commercial uses facing the public realm.

/ 4.3.4(8) The City will require a minimum sidewalk width of 3 metres along all streets, as per the Downtown Moves: Transforming Ottawa's Streets study. This may be increased without amendment.

The proposed development will provide sidewalks along Slater and O'Connor Streets which are significantly wider than three (3) metres.

3.0 Design Guidelines

3.1 Urban Design Guidelines for High-Rise Buildings

The proposed building respects the existing character of the downtown core through re-establishing the bar building which currently exists on the site. The nature of the site has guided the overall massing and building envelope pursued through this design. Due to its location within the Downtown Core, the proposed building is subject to the height restricts established in relation to the Parliament building to the north. The proposed building height is respectful of these limitations and has integrated features such as the mechanical penthouse and rooftop terrace into this constrained envelope.

The proposed building is representative of a background building within the downtown area, yet, due to the general office-building character found in the surrounding blocks, the proposed design represents a shift away from the general character found in the area. Increased articulation and the addition of balconies creates a distinct character from the buildings surrounding the property while also respecting its role as a fabric element in the high-rise downtown core.

Through the establishment of a base, middle, tower design, the proposed development presents a high-rise building which respects the ground-floor experience through the attention paid by the overhanging podium. Stepbacks at the 7th floor helps to separate the tower portion of the building from the experience at grade. The outset podium creates a distinguished building face from the ground floor, helping to maintain a human scale along O'Connor and Slater Street.

Overall, the proposed development generally aligns with the direction provided by the Urban Design Guidelines for High-Rise Buildings as the design respects the existing character of the downtown, presenting a high-quality and well-articulated bar building, while enhancing the overall experience through a well-differentiated base, middle, and tower configuration.

3.2 Transit-Oriented Development Guidelines;

The proximity to the Parliament LRT Station as well as several other bus stops emphasizes the importance of meeting and exceeding the guidelines associated with Transit-Oriented Development. The proposed development has taken guidance and direction from the general principals and guidelines established by the Transit Oriented Development Guidelines. The development of high-density, mixed-use destinations within close proximity to existing transit stations exercises the opportunity to provide housing options and associated services in a way which promotes sustainable modes of transportation.

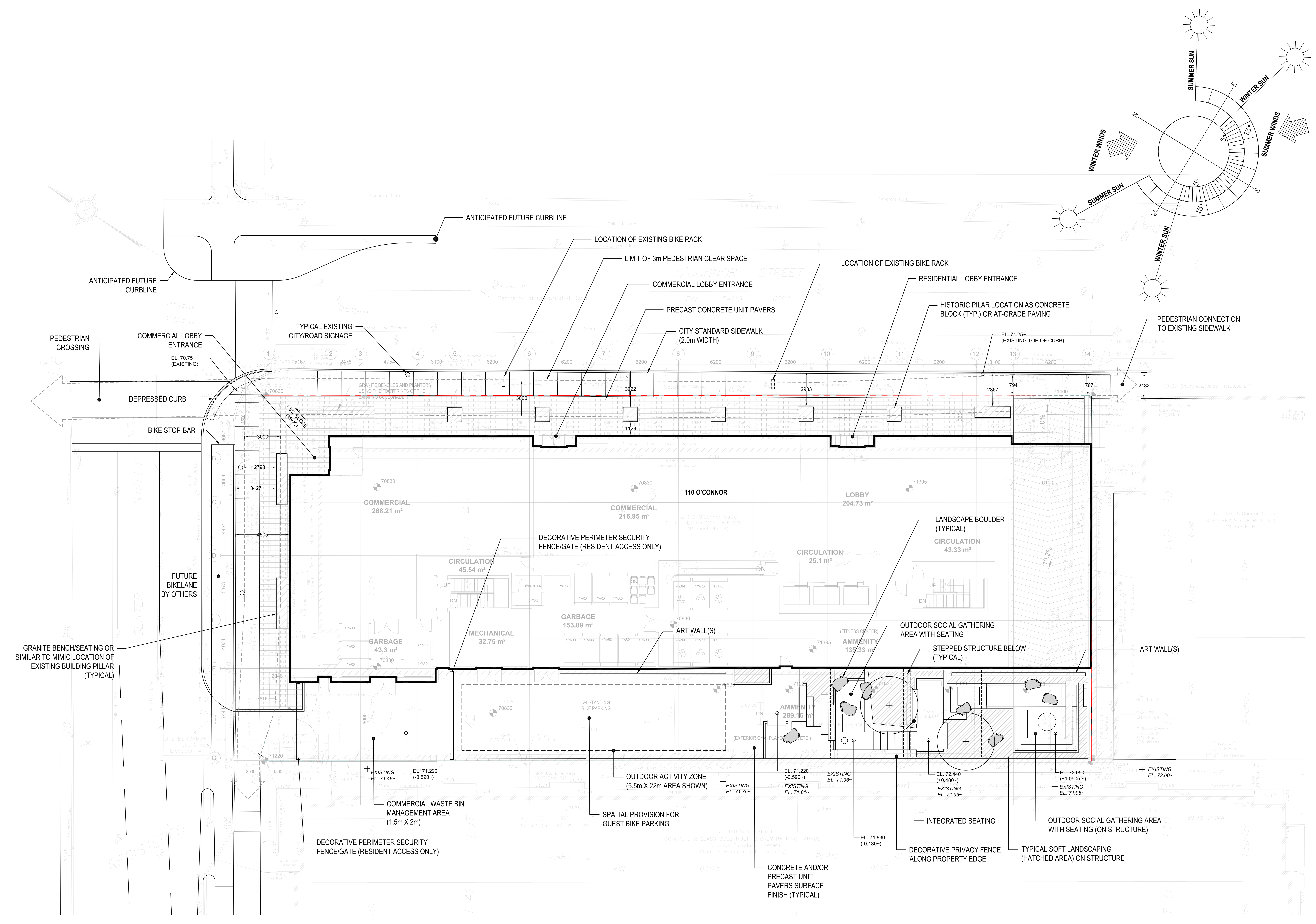
The building's design seeks to highlight the residential character of the building through the use of articulation within the podium as well as through the podium's orientation and relationship to the rest of the building. The inset balconies create a texture, unique to the general commercial office context found in the surrounding blocks. Seeing as many of the prominent office buildings in the surrounding area are unlikely to be redeveloped, the differentiation achieved by such design features creates a distinct built form and silhouette within a high-traffic and important area of the city.

APPENDICES :

DETAILED RESPONSES TO APPLICABLE POLICIES & GUIDELINES

The proposed development, while establishing greater densities on the site, contributes to the public realm experience through a podium design which frames the right-of-way and a cantilever which provides for a more enjoyable pedestrian experience along the ground floor. The podium, as a distinct feature of the building's design, creates a stark separation between the pedestrian realm and the high-rise tower character, helping to establish and maintain a human-scale along the street. The re-establishment of retail uses at-grade, existing on the site currently, seeks to propagate service offerings within the downtown core, primarily accessible to those walking, cycling, and travelling by transit.

The proposed design aligns with many of the applicable guidelines established through this document, representing a highly-accessible, pedestrian-oriented, and transit-supportive development.



DRAFT

SITE LANDSCAPE CONCEPT

110 O'CONNOR

Ottawa

APRIL 17, 2024

GRAPHIC SCALE

1:150

5m 0 1m 5m 10m

NORTH

G:\Shared Drives\Siteform\Projects\2024\24005-001 - MACH 110 O'Connor\Drawings\20240417_110-O'Connor_LANDSCAPE PLAN CONCEPT.dwg
2024/04/18 10:45 AM By: Jonathan Loschmann

ORIGINAL SHEET - ARCH D

MACH

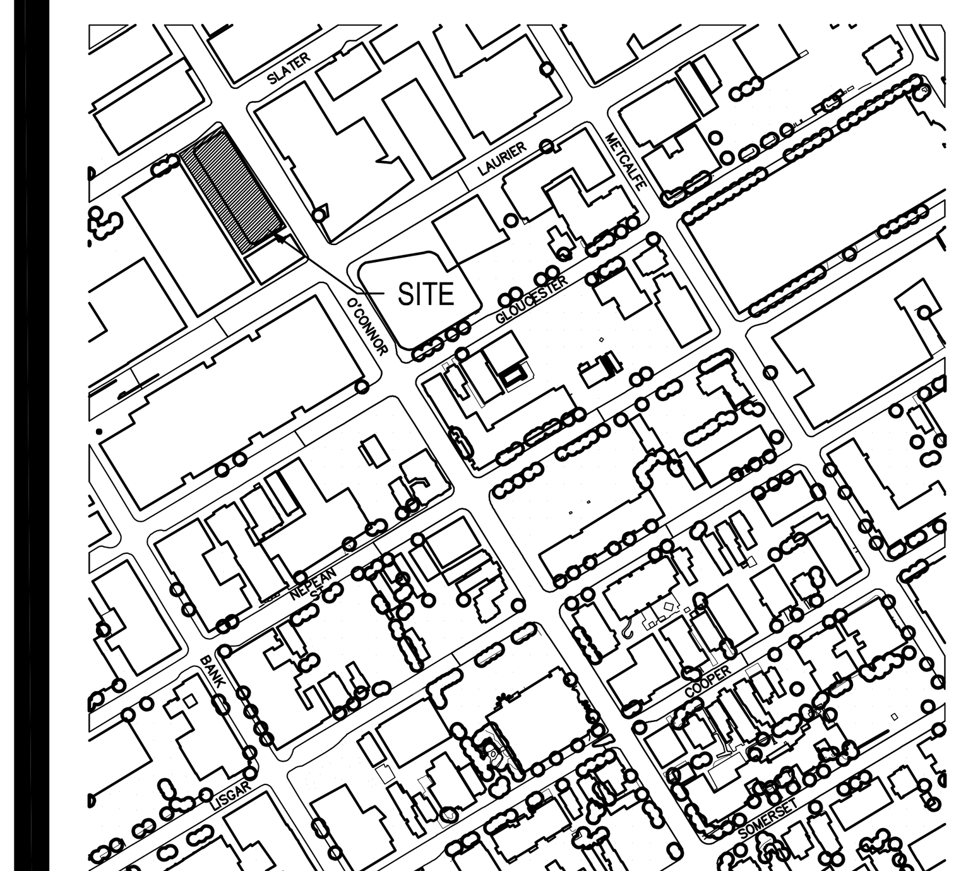
PREPARED FOR:

PREPARED BY:

siteform

Siteform Inc. Landscape Architecture
Ottawa, ON K1S 3G8
613.796.4537 www.siteform.ca

KEY MAP



N.T.S.

NORTH

NOT FOR CONSTRUCTION
2024-04-17

ISSUED FOR PHASE 2 SUBMISSION	JAL		24.04.17
Revision	By	Appd.	YY.MM.DD

File Name: 20240417_LANDSCAPE	-	-	JAL	24.04.17
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Client/Project

GROUPE MACH
110 O'CONNOR STREET

OTTAWA, ON

Title

CONCEPT LANDSCAPE PLAN

Project No.	Scale
SF 24005	1:500 0 5 15 25m
Drawing No.	Sheet	Revision
LP-1	1 of 1	A

SF 24001

XXX-XX-XX-XXXX

ÉDIFICE 110 O'CONNOR INC.

PROJECT:	**110 O'CONNOR STREET OTTAWA**
PROJECT NO:	**600901**
DATE:	**2024-04-17**

LIST OF PLANS

ÉQUIPE LAURENCE INGÉNIERIE CIVILE

117, avenue Lépine, unité 202, Gatineau (Québec) J8L 3G1
T 819 303 2700
info@equipelaurence.ca | equipelaurence.ca

110 O'CONNOR STREET - OTTAWA
PROJECT 600901 - PLANS ISSUED FOR UDRP, THE 2024-04-17

TECHNICAL AND GENERAL SPECIFICATIONS

1.0 GENERAL SPECIFICATIONS

All work shall conform with Ontario building code, latest edition as well as local regulation and bylaws.

Contractor to verify all dimensions and report any discrepancies to the engineer immediately to get design confirmation before proceeding with construction.

Refer to the City of Ottawa for regulations and standards (supersedes provincial standards).

Refer to Ontario Provincial Standards for Roads and Public Works - Volume 3 for details.

Ontario provincial standards for roads and public works must also be respected.

Work to be performed in accordance with the Occupational Health and Safety Act and Regulations for Construction Projects.

All materials shall meet all current applicable standards set by the American Water Works Association ("AWWA"), Canadian Standards Association ("CSA"), the American National Standards Institute ("ANSI") safety criteria standards, American Society for Testing and Materials (ASTM), NSF/14, NSF/60 and NSF/61.

The Contractor will get approval for all materials selection from the Civil Engineer prior to delivery to the site.

BUILDING OWNER: ÉDIFICE 110 O'CONNOR INC.

CONSULTING CIVIL ENGINEER: ÉQUIPE LAURENCE INC.

2.0 GENERAL INFORMATIONS

2.1 UNDERGROUND SERVICES

The plans show certain underground installations for the sole purpose to highlight the existence of cables, pipelines and underground structures. In the sectors where work must be performed, the contractor is responsible to verify himself with the competent authorities the existence and actual location of all cables, pipelines and existing underground structures that may affect the works.

Before beginning excavations, the contractor must thus contact the Ontario One Call (www.on1call.com) , the municipal authorities and all other stake holders in order to identify on the field all existing underground structures whether they are shown on the plans or not.

He is responsible for damages to cables, pipelines and underground structures. No cost variation resulting from underground structures not shown or poorly located on the plans can be claimed against the building owner. Following the review of the plans and specifications, the contractor must notify the engineer of any error, omission or discrepancy noted by him before starting work.

2.2 EXISTING WATERMAIN AND SEWER CONDUITS

The location of the watermain and sewer pipes is approximate. The contractor must verify and validate the position and depth of the pipes by the means of meticulous excavations. Should discrepancies be observed, they must be provided to the engineer without delay in order that the required modifications are made to the construction plans. The contractor will have to coordinate with the city,the connecting works to the existing networks (watermain and sewers). No service interruption shall take place without the building owner's authorization or the relevant authorities.

2.3 PROTECTION AGAINST EROSION

As per "Erosion and sediment control guideline for urbain construction"
In all areas of the building site where there is a risk of erosion, the ground must be stabilized.
Runoff water must be intercepted and routed to stabilized areas and this, throughout the construction period. The contractor must use the recognized methods to prevent the transport of sediments.

- Sediment barrier
- Mud mat
- Sedimentation pond
- Filtering berm and sediment trap
- Straw bale filter

Any intervention on the building site which may cause the transfer of sediments must be simultaneously accompanied by sediment capture measures.

2.4 DRAINING OF THE EXCAVATIONS

The contractor shall take all necessary precautions to prevent the penetration of surface waters and to evacuate surface, underground or sewer waters. Waste waters must be directed towards a combined sewer or a sanitary sewer and the surface and underground waters towards a storm sewer, a combined sewer or a ditch. In all cases, the diversion site must be submitted for approval.
The contractor must assume all required pumping and cleaning costs.

2.5 PAVEMENT PROTECTION

At all times, the movement of machinery and metal tracked vehicles is prohibited on paved surfaces unless plywood sheets with a 20mm normal thickness or rubber with a 12.5mm thickness are used in order to avoid damaging pavement. All repairs or complete replacements of pavement is the contractor's responsibility, who will have to pay all the costs.

2.6 CLEANING OF SITE

At the end of the construction works and as often as requested by the project superintendent, the contractor must clean and eliminate all construction generated debris and restore all construction affected areas. The cleaning of the construction site is included in the global market unit prices.

3.0 SITE GRADING

Surface topsoil layer stripping required.

Low-lying areas may be filled by utilising soil cut from higher ares and by importing suitable fill materials.

The approved subgrade may be raised to design subgrade level with approved compactable on-site soil, providing it is placed in maximum 300 mm thick lifts and each lift is compacted to at least 95% of the material's SPMDD. As an alternative to subexcavation, a woven geotextile separator, such as Terratrack 24-15, Amoco 2002, Mirafi 500XL or equivalent, may be placed over spongy areas prior to placing the Granular 'B' sub-base layer.

4.0 CONCRETE WORKS

All weather exposed concrete shall have 5 to 8% air entrainment or as otherwise specified in Tables 2 and 4 of CSA A23.1.

Concrete sidewalk as per OPSD 310.010. Foundation consist of 150 mm minimum of granular 'A' material. Sidewalk concrete thickness shall be 200 mm.

Concrete barrier curb as per OPSD 600.110. Foundation consist of 150 mm minimum ofgranular 'A' material.

PROJECT LOCATION
NO SCALE

CIVIL ENGINEERING LEGEND

	EXISTING BUILDING
	PROPOSED BUILDING
	BOTTOM OF EMBANKMENT
	TOP OF EMBANKMENT
	DITCH CENTER
	DITCH TO BE REMOVED
	DITCH CENTER WITH ROCK FILL PROTECTION
	EXISTING FENCE
	FENCE TO BE REMOVED
	PROPOSED FENCE
	SILT FENCE BARRIER
	ISOLATED WETLAND
	EXISTING TREE
	WOODED AREA
	WOODED AREA TO BE REMOVED
	OVERLAND FLOW ROUTE
	GUARDRAIL
	STONE RETAINING WALL
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER SERVICE VALVE
	PROPOSED WATER SERVICE VALVE
	EXISTING WATER PIPE
	EXISTING WATER PIPE TO BE REMOVED
	PROPOSED WATER PIPE
	EXISTING DRINKING WATER SERVICE CONNECTION
	PROPOSED DRINKING WATER SERVICE CONNECTION
	EXISTING SANITARY SEWER AND MANHOLE
	PROPOSED SANITARY SEWER AND MANHOLE
	SANITARY SEWER AND MANHOLE TO BE REMOVED
	EXISTING STORM SEWER PIPE AND MANHOLE
	PROPOSED STORM SEWER PIPE AND MANHOLE
	STORM SEWER AND MANHOLE TO BE REMOVED
	CULVERT
	EXISTING CATCH BASIN OR MANHOLE-CATCH BASIN
	PROPOSED CATCH BASIN OR MANHOLE-CATCH BASIN
STMHE-01	EXISTING STORM SEWER MANHOLE
STMH-01	PROPOSED STORM SEWER MANHOLE
SANMHE-01	EXISTING SANITARY SEWER MANHOLE
SANMH-01	PROPOSED SANITARY SEWER MANHOLE
	LIGHTNING UNIT
	OVERHEAD WIRING AND GUY WIRE
	EXISTING GAS PIPELINE
	BELL CANADA UNDERGROUND CABLE
	UNDERGROUND ELECTRICAL WIRE
	PROPOSED ASPHALT SURFACE
	PROPOSED CONCRETE SIDEWALK/SLAB
	PAVER SIDEWALK
	PROPOSED GRASS SURFACE
	GRANULAR SURFACE
	PROPOSED TEMPORARY MUD MAT
	PROPOSED STONES SURFACE
	PROPOSED GRANITE STONES
	EXISTING ASPHALT SURFACE TO BE REMOVED
	EXISTING SURFACE TO BE REMOVED
26.300	PROPOSED ELEVATION
CB: 26.450	PROPOSED ELEVATION OF CONCRETE CURB
C: 26.450	PROPOSED ELEVATION OF CONCRETE SLAB
G: 26.650	PROPOSED TOP ELEVATION OF GRASS
S: 26.450	PROPOSED TOP ELEVATION OF SIDEWALK
TW: 26.450	PROPOSED TOP ELEVATION OF RETAINING WALL
BW: 26.450	PROPOSED BOTTOM ELEVATION OF RETAINING WALL
25.30	EXISTING ELEVATION OF SURFACE
-3.00%	GRADING SLOPES
	NORTH

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION

REV	DESCRIPTION	PAR	DATE
A	FOR UDRP	B.B.	2024-04-17

CLIENT
ÉDIFICE 110 O'CONNOR INC.
630, RUE ST-PAUL OUEST, MONTRÉAL
MONTRÉAL, (Qc) H3C 1L9

PROJET
110 O'CONNOR STREET
OTTAWA

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SCEAU
LICENSED PROFESSIONAL ENGINEER
B. BRAY
100568973
PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
TECHNICAL AND GENERAL SPECIFICATIONS, LEGEND AND NOTES
LOCATION

ÉCHELLE
AUCUNE ÉCHELLE

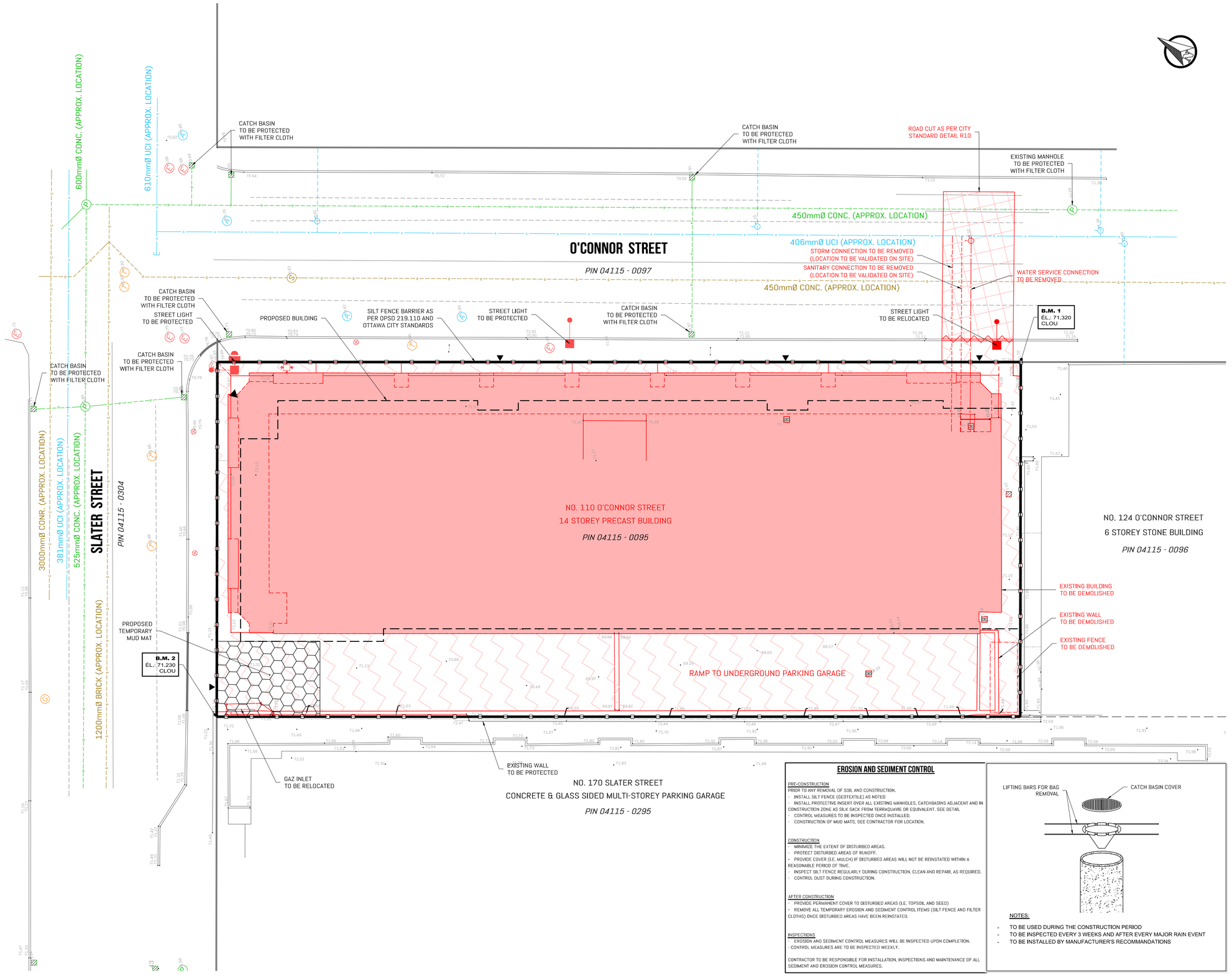
ÉQUIPE DE PROJET
C. SAINT-MARTIN, tech.
V. MERCIER, ing.
B. BRAY, ing.

DOSSIER NO
600901

FICHIER
C-201.dwg

PRÉPARÉ PAR
B. BRAY, ing.

C-201



EROSION AND SEDIMENT CONTROL

PRE-CONSTRUCTION

PRIOR TO ANY REMOVAL OF SOIL AND CONSTRUCTION,
- INSTALL SILT FENCE (GEOTEXTILE) AS NOTED
- INSTALL PROTECTIVE INSERT OVER ALL EXISTING MANHOLES, CATCHBASINS ADJACENT AND IN CONSTRUCTION ZONE AS SILK SACK FROM TERRAQUAVIE OR EQUIVALENT. SEE DETAIL
- CONTROL MEASURES TO BE INSPECTED ONCE INSTALLED.
- CONSTRUCTION OF MUD MATS, SEE CONTRACTOR FOR LOCATION.

CONSTRUCTION
- MINIMIZE THE EXTENT OF DISTURBED AREAS.
- PROTECT DISTURBED AREAS OF RUNOFF.
- PROVIDE COVER (I.E. MULCH) IF DISTURBED AREAS WILL NOT BE REINSTATED WITHIN A REASONABLE PERIOD OF TIME.
- INSPECT SILT FENCE REGULARLY DURING CONSTRUCTION. CLEAN AND REPAIR, AS REQUIRED.
- CONTROL DUST DURING CONSTRUCTION.

AFTER CONSTRUCTION
- PROVIDE PERMANENT COVER TO DISTURBED AREAS (I.E. TOPSOIL AND SEED)
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS (SILT FENCE AND FILTER CLOTHS) ONCE DISTURBED AREAS HAVE BEEN REINSTATED.

INSPECTIONS
- EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED UPON COMPLETION.
- CONTROL MEASURES ARE TO BE INSPECTED WEEKLY.

CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION, INSPECTIONS AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL MEASURES.

NOTES:
- TO BE USED DURING THE CONSTRUCTION PERIOD
- TO BE INSPECTED EVERY 3 WEEKS AND AFTER EVERY MAJOR RAIN EVENT
- TO BE INSTALLED BY MANUFACTURER'S RECOMMANDATIONS

NOTE:

THE EXISTING AND PROPOSED SUBDIVISION WILL HAVE TO BE VALIDATED BY THE SURVEYOR-GEOMETER ON FILE.

SURVEY AND LOTS INFORMATION PROVIDED BY
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
DATE: JULY 18 2023
FILE NO.: V-53839
PLANIMETRIC REFERENCE SYSTEM: MTM NAD 83 ZONE 9
ALTIMETRIC REFERENCE SYSTEM: CGVD28 HT2.0

SITE PLAN PREPARED BY
GEIGER HUOT ARCHITECTES
DATE: MARCH 21 2024
PROJECT: 24412-23

THE CONTRACTOR MUST NOTIFY ÉQUIPE LAURENCE, THE CONSULTANT, IF HE NOTICES ANY DISCREPANCIES BETWEEN THE INFORMATION PRESENTED ON THE PLANS AND THE MEASUREMENTS TAKEN ON SITE SO THAT ADJUSTMENTS CAN BE MADE.
WHEN APPLICABLE, HE MUST ALSO VERIFY THE ELEVATIONS OF EXISTING SEWERS BEFORE STARTING CONSTRUCTION AND MUST PROVIDE THE INFORMATION TO THE CONSULTANT.

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REV	DESCRIPTION	PAR	DATE
A	FOR UDRP	B.B.	2024-04-17

CLIENT
ÉDIFICE 110 O'CONNOR INC.
630, RUE ST-PAUL OUEST, MONTRÉAL
MONTRÉAL, (Qc) H3C 1L9

PROJET
110 O'CONNOR STREET
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SCEAU

LICENSED PROFESSIONAL ENGINEER
B. BRAY
100568973
PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
PLAN VIEW
EXISTING ITEMS AND DEMOLITION

ÉCHELLE
Horizontale 1:150
0 1,5 3 7,5m

ÉQUIPE DE PROJET
C. SAINT-MARTIN, tech.
V. MERCIER, ing.
B. BRAY, ing.

DOSSIER NO
600901

FICHIER
C-202.dwg

PRÉPARÉ PAR
B. BRAY, ing.

C-202

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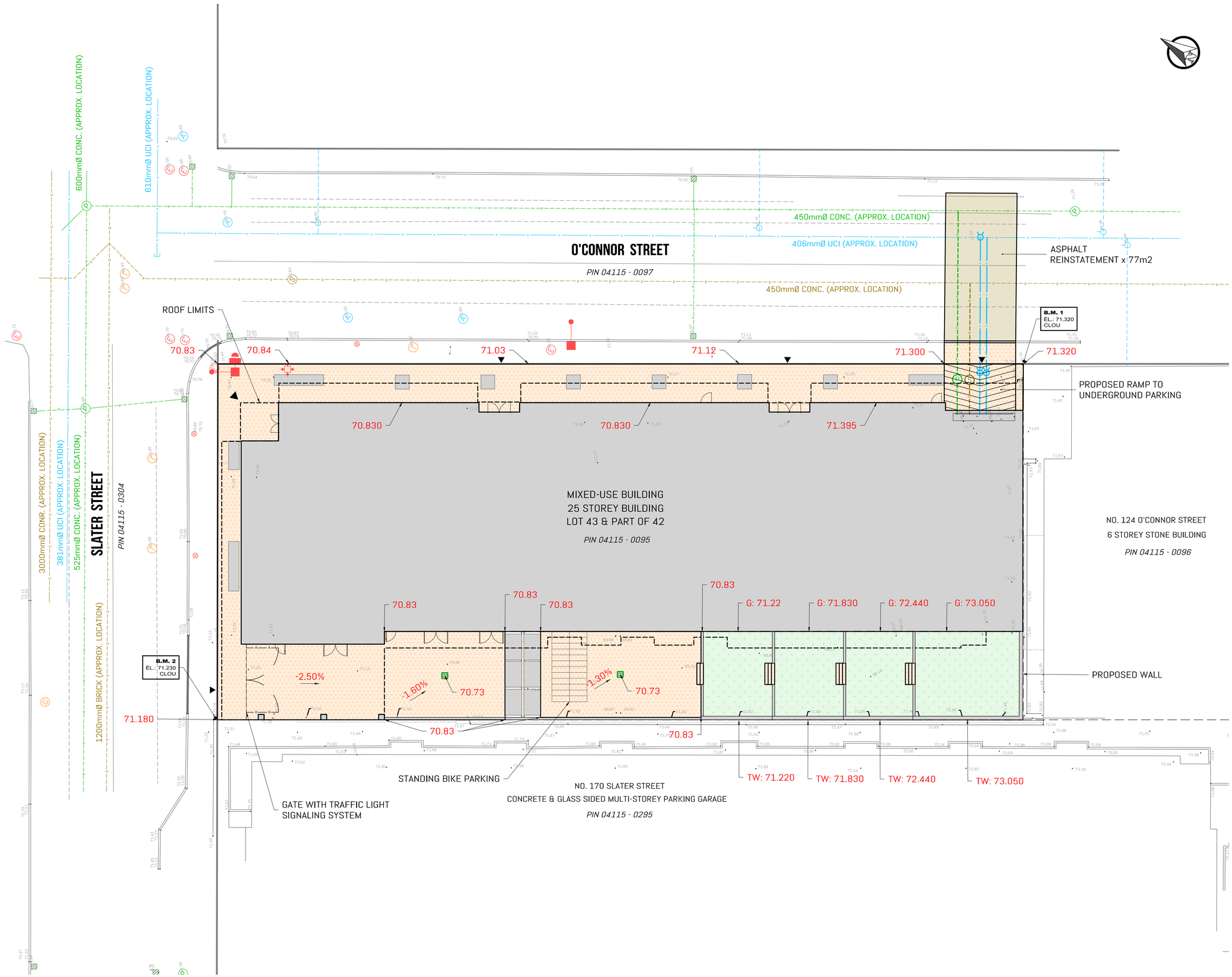

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PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
PLAN VIEW
SITE GRADING AND DRAINAGE PLAN

ÉCHELLE
Horizontale 1:150
0 15 30 75m

ÉQUIPE DE PROJET
C. SAINT-MARTIN, tech.
V. MERCIER, ing.
B. BRAY, ing.

DOSSIER NO
600901

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C-203.dwg

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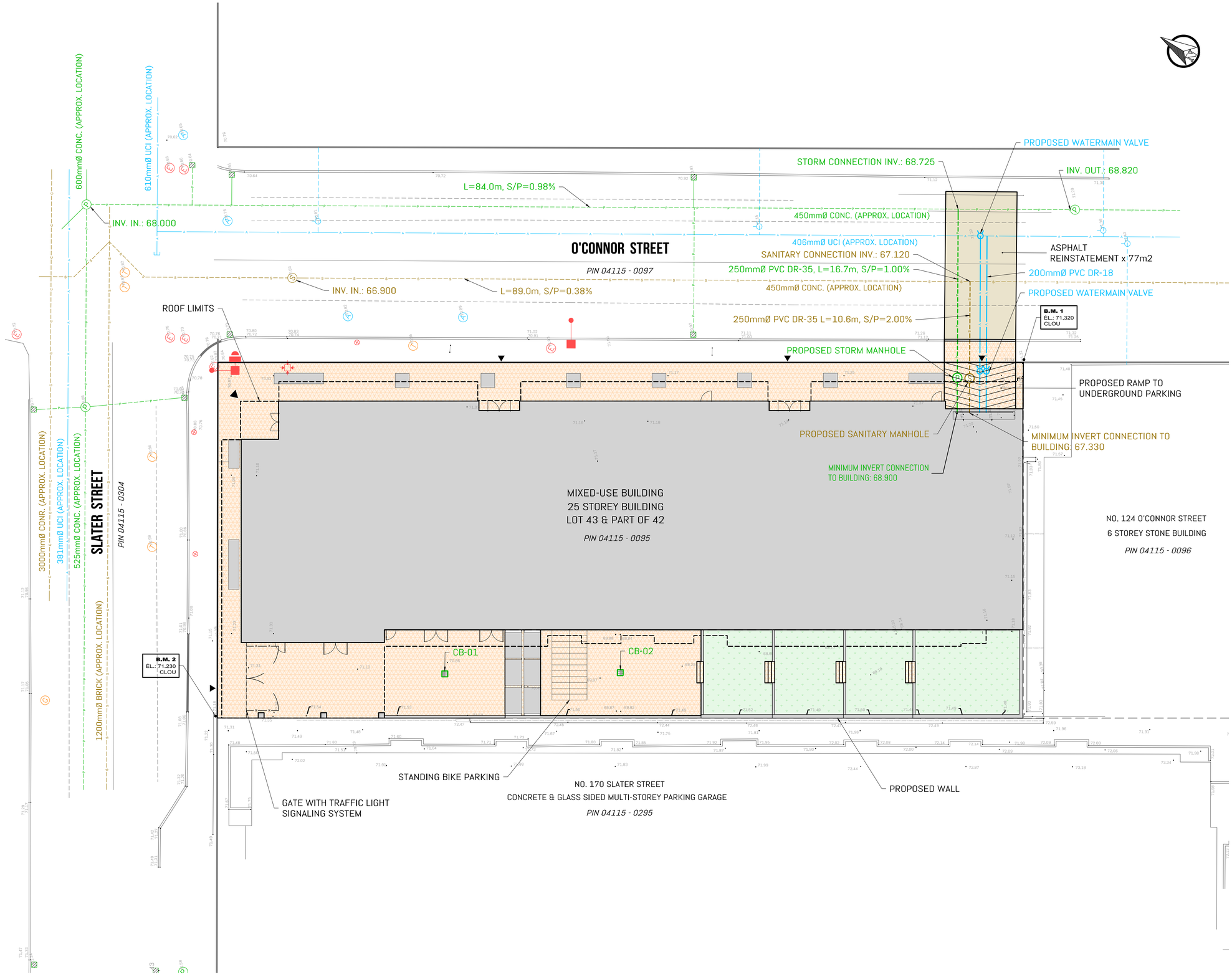

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PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
PLAN VIEW
SITE SERVICING PLANS AND DRAINAGE AREA

ÉCHELLE
Horizontale 1:150
0 1.5 3.0 7.5m

ÉQUIPE DE PROJET
C. SAINT-MARTIN, tech.
V. MERCIER, ing.
B. BRAY, ing.

DOSSIER NO
600901

FICHIER
C-204.dwg

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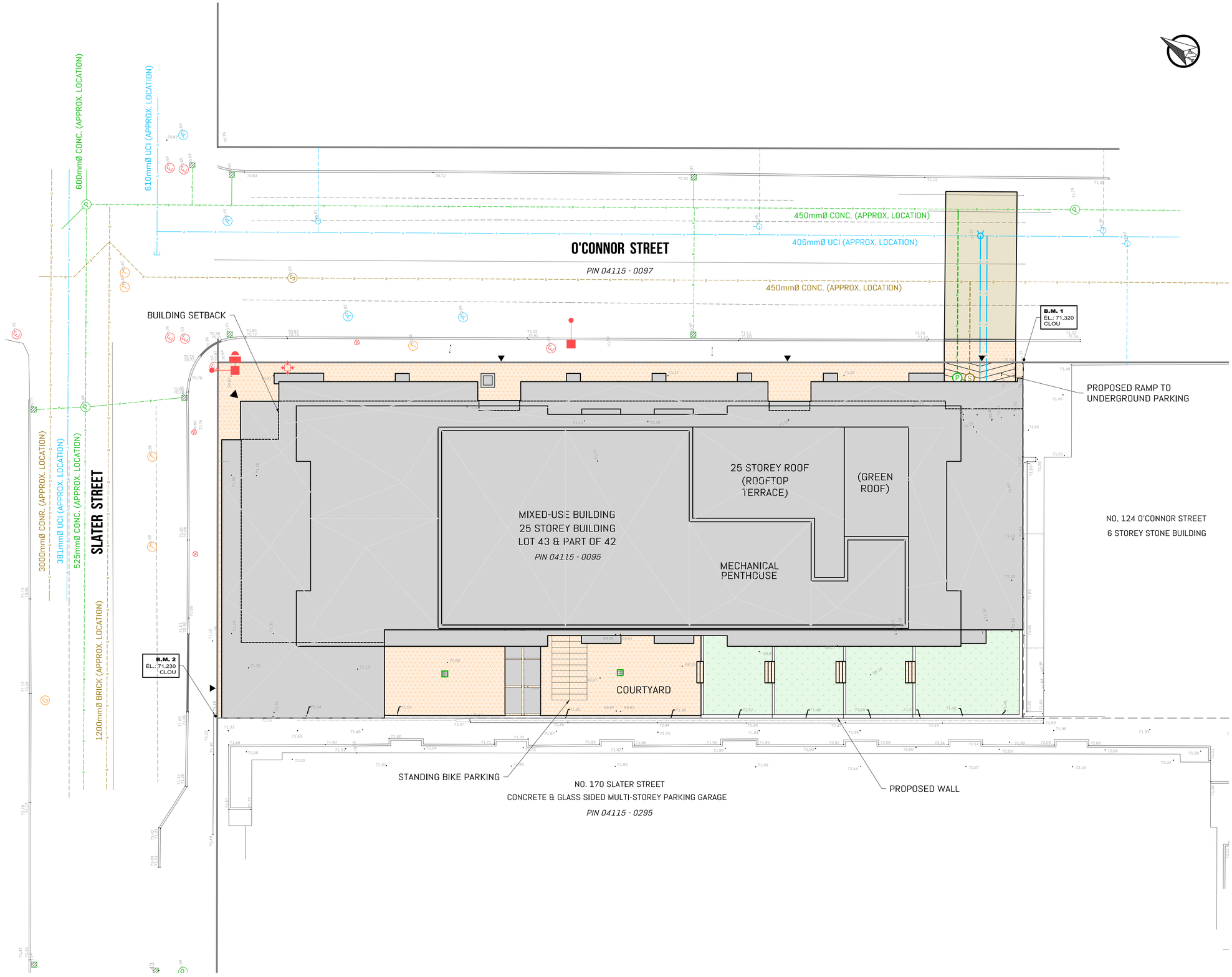
C-204



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SITE PLAN PREPARED BY
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DATE: MARCH 21 2024
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B. BRAY
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PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
PLAN VIEW
ROOF DRAINAGE PLAN

ÉCHELLE
Horizontale 1:150
0 1.5 3.0 7.5m

ÉQUIPE DE PROJET
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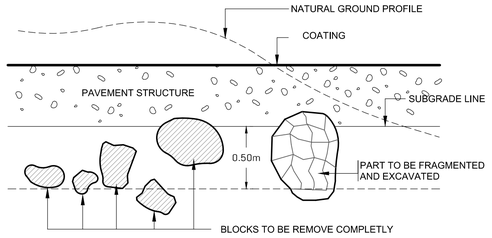
C-205.dwg

PRÉPARÉ PAR
B. BRAY, ing.

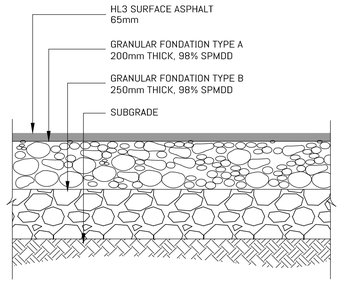
C-205



NOTES:

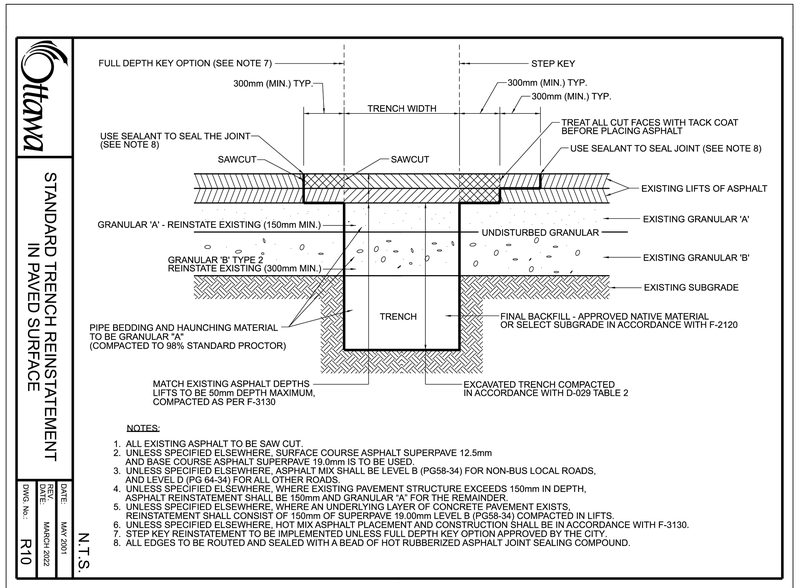
- ALL BLOCKS OVER 250mm DIAMETER PRESENT IN THE FIRST 500 mm UNDER INFRASTRUCTURE LINE MUST BE REMOVED, FRAGMENTED AND EXCAVATED TO 500 mm DEPT;
- AFTER REMOVING BLOCKS, THE EXCAVATIONS HAVE TO BE RAISED TO DESIGN SUBGRADE LEVELS WITH APPROVED COMPACTABLE ON SITE SOIL.
- LIFTS OF 300mm THICK, COMPACTED AT 95% MSPDD
- AS AN ALTERNATIVE TO SUBEXCAVATION, A WOVEN GEOTEXTILE SEPARATOR, SUCH AS TERRATRACK 24-15, AMOCO 2002, MIRAFI 500XL OR EQUIVALENT, MAY BE PLACED OVER SPONGY AREAS PRIOR TO PLACING THE GRANULAR "B" SUB-BASE LAYER.

SUBGRADE PREPARATION DETAIL



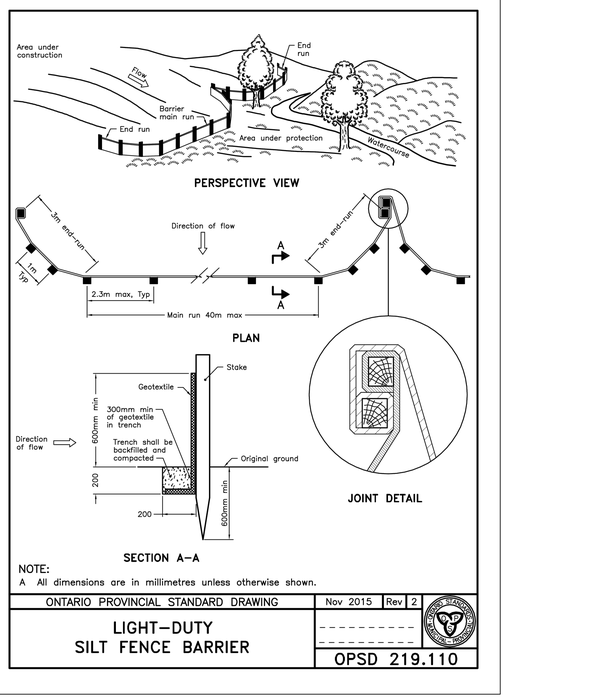
PARKING AND ACCESS FOUNDATION ASPHALT SURFACE

(TO BE VERIFIED BY GEOTECHNICAL ENGINEER)



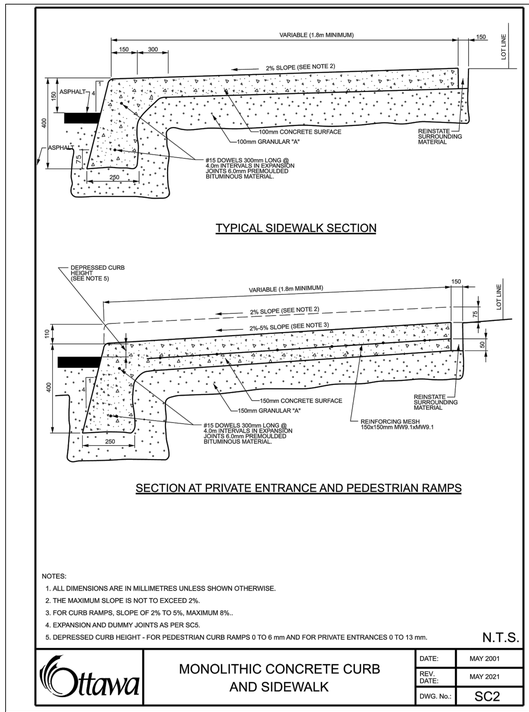
NOTES:

1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm AND BASE COURSE ASPHALT SUPERPAVE 19.0mm IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, ASPHALT MIX SHALL BE LEVEL B (PG58-34) FOR NON-BUS LOCAL ROADS, AND LEVEL D (PG 64-34) FOR ALL OTHER ROADS.
4. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR "A" FOR THE REMAINDER.
5. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS, REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.00mm LEVEL B (PG58-34) COMPACTED IN LIFTS.
6. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130.
7. STEP KEY REINSTATEMENT TO BE IMPLEMENTED UNLESS FULL DEPTH KEY OPTION APPROVED BY THE CITY.
8. ALL EDGES TO BE ROUTED AND SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT JOINT SEALING COMPOUND.



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev	2
LIGHT–DUTY SILT FENCE BARRIER			
	OPSD 219.110		



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%..
4. EXPANSION AND DUMMY JOINTS AS PER SC5.
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13 mm.

N.T.S.

MONOLITHIC CONCRETE CURB AND SIDEWALK	DATE:	MAY 2001
	REV. DATE:	MAY 2021
	DWG. No.:	SC2

THIS DOCUMENT MUST NOT BE USED FOR CONSTRUCTION

REV	DESCRIPTION	PAR	DATE
A	FOR UDRP	B.B.	2024-04-17

CLIENT
ÉDIFICE 110 O'CONNOR INC.
630, RUE ST-PAUL OUEST, MONTRÉAL
MONTRÉAL, (Qc) H3C 1L9

PROJET
110 O'CONNOR STREET
OTTAWA

ÉQUIPE LAURENCE INGÉNIERIE CIVILE
117, avenue Lépine, unité 202, Gatineau (Québec) J8L 3G1
T 819 303 2700
info@equipelaurence.ca | equipelaurence.ca

SCEAU

LICENSED PROFESSIONAL ENGINEER
B. BRAY
100568973
PROVINCE OF ONTARIO
2024-04-17

TITRE DU PLAN
STANDARD SECTIONS AND DETAILS

ÉCHELLE
AUCUNE ÉCHELLE

ÉQUIPE DE PROJET
C. SAINT-MARTIN, tech.
V. MERCIER, ing.
B. BRAY, ing.

DOSSIER NO
600901

FICHIER
C-206.dwg

PRÉPARÉ PAR
B. BRAY, ing.

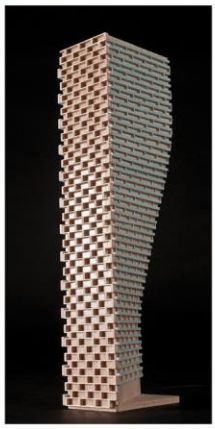
C-206

GRADIENTWIND
ENGINEERS & SCIENTISTS

PEDESTRIAN LEVEL WIND STUDY

110 O'Connor Street
Ottawa, Ontario

Report: 24-056-PLW



April 10, 2024

PREPARED FOR

Édifice 110 O'Connor Inc.
630 rue Saint-Paul Ouest, bureau 600
Montréal, QC H3C 1L9

PREPARED BY

Omar Rioseco, B.Eng., Junior Wind Scientist
David Huitema, M.Eng., Wind Scientist
Justin Ferraro, P.Eng., Principal

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GRADIENTWIND.COM

EXECUTIVE SUMMARY

This report describes a pedestrian level wind (PLW) study undertaken to satisfy Site Plan Control application submission requirements for the proposed mixed-use development located at 110 O'Connor Street in Ottawa, Ontario (hereinafter referred to as "subject site" or "proposed development"). Our mandate within this study is to investigate pedestrian wind conditions within and surrounding the subject site, and to identify areas where conditions may interfere with certain pedestrian activities so that mitigation measures may be considered, where required.

The study involves simulation of wind speeds for sixteen (16) wind directions in a three-dimensional (3D) computer model using the computational fluid dynamics (CFD) technique, combined with meteorological data integration, to assess pedestrian wind comfort and safety within and surrounding the subject site according to City of Ottawa wind comfort and safety criteria. The results and recommendations derived from these considerations are detailed in the main body of the report (Section 5), illustrated in Figures 3A-7D, and summarized as follows:

1) All grade-level areas within and surrounding the subject site are predicted to experience conditions that are considered acceptable for the intended pedestrian uses throughout the year. Specifically, conditions over surrounding sidewalks and walkways, in the vicinity of building access points, and within the outdoor amenity located to the southwest of the subject site, are predicted to be calm and suitable for sitting throughout the year, which is considered acceptable.

2) Regarding the amenity terraces at Level 7 and at the roof level, wind comfort conditions are predicted to be suitable for sitting throughout the year, which is considered acceptable.

3) The foregoing statements and conclusions apply to common weather systems, during which no dangerous wind conditions, as defined in Section 4.4, are expected anywhere over the subject site. During extreme weather events (for example, thunderstorms, tornadoes, and downbursts), pedestrian safety is the main concern. However, these events are generally short-lived and infrequent and there is often sufficient warning for pedestrians to take appropriate cover.

TABLE OF CONTENTS

1. INTRODUCTION

Gradient Wind Engineering Inc. (Gradient Wind) was retained by Édifice O'Connor Inc. to undertake a pedestrian level wind (PLW) study to satisfy Site Plan Control application submission requirements for the proposed mixed-use development located at 110 O'Connor Street in Ottawa, Ontario (hereinafter referred to as "subject site" or "proposed development"). Our mandate within this study is to investigate pedestrian wind conditions within and surrounding the subject site, and to identify areas where conditions may interfere with certain pedestrian activities so that mitigation measures may be considered, where required.

Our work is based on industry standard computer simulations using the computational fluid dynamics (CFD) technique and data analysis procedures, City of Ottawa wind comfort and safety criteria, architectural drawings prepared by Geiger Huot Architectes in April 2024, surrounding street layouts and existing and approved future building massing information obtained from the City of Ottawa, as well as recent satellite imagery.

2. TERMS OF REFERENCE

The subject site is located at 110 O'Connor Street to the southwest at the intersection of O'Connor Street and Slater Street, bounded by Slater Street to the north, O'Connor Street to the east, a mid-rise building at 124 O'Connor Street to the south, and a parking structure at 170 Slater Street to the west. The proposed development comprises a 25-storey mixed-use building with a 6-storey 'L' shaped podium and topped with a mechanical penthouse (MPH) level.

Above the underground parking, the ground floor of the proposed development incudes a lobby near the southeast corner, a commercial space to the north fronting O'Connor Street and Slater Street, and a garbage room and an indoor amenity to the west. A basement garage entrance is located to the south, accessed via O'Connor Street, and an outdoor amenity is located at the southwest corner of the subject site, adjoining the indoor amenity. Levels 2-6 are reserved for residential occupancy. At Level 7, the building steps back from the northwest, north, east, and south elevations and this level comprises an indoor amenity to the north and residential units throughout the remainder of the level. A common amenity terrace is accommodated to the north atop the podium. Levels 8-24 are reserved for residential occupancy, while at Level 25, an indoor amenity is located to the southeast and the remainder of the level

comprises residential units. At the MPH Level, residential units are located to the north and a mechanical space is situated to the southwest. A rooftop common amenity terrace is situated to the southeast atop the building.

The near-field surroundings, defined as an area within 200-metres (m) of the subject site, are characterized by high and mid-rise buildings in all directions, with the above-noted parking structure to the immediate west and low-rise buildings located along Bank Street further to the west. The far-field surroundings, defined as an area beyond the near-field but within a 2-kilometre (km) radius of the subject site, are characterized by a mix of low-, mid-, and high-rise buildings, with the downtown core followed by the LeBreton Flats, Parliament Hill, and the Ottawa River from the southwest clockwise to the north, and the remainder of the downtown core followed by the mixed low-, mid-, and high-rise density of the ByWard Market and the University of Ottawa from the northeast clockwise to the east. The Rideau Canal meets the Ottawa River approximately 750 m to the north of the subject site.

Site plans for the proposed and existing massing scenarios are illustrated in Figures 1A and 1B, while Figures 2A-2H illustrate the computational models used to conduct the study. The existing massing scenario includes the existing massing and any future developments approved by the City of Ottawa.

3. OBJECTIVES

The principal objectives of this study are to (i) determine pedestrian level wind conditions at key areas within and surrounding the development site; (ii) identify areas where wind conditions may interfere with the intended uses of outdoor spaces; and (iii) recommend suitable mitigation measures, where required.

4. METHODOLOGY

The approach followed to quantify pedestrian wind conditions over the site is based on CFD simulations of wind speeds across the subject site within a virtual environment, meteorological analysis of the Ottawa area wind climate, and synthesis of computational data with City of Ottawa wind comfort and safety criteria[1]. The following sections describe the analysis procedures, including a discussion of the noted pedestrian wind criteria.

[1] City of Ottawa Terms of References: Wind Analysis
https://documents.ottawa.ca/sites/default/files/torwindanalysis_en.pdf

4.1 Computer-Based Context Modelling

A computer based PLW study was performed to determine the influence of the wind environment on pedestrian comfort over the proposed development site. Pedestrian comfort predictions, based on the mechanical effects of wind, were determined by combining measured wind speed data from CFD simulations with statistical weather data obtained from Ottawa Macdonald-Cartier International Airport. The general concept and approach to CFD modelling is to represent building and topographic details in the immediate vicinity of the subject site on the surrounding model, and to create suitable atmospheric wind profiles at the model boundary. The wind profiles are designed to have similar mean and turbulent wind properties consistent with actual site exposures.

An industry standard practice is to omit trees, vegetation, and other existing and planned landscape elements from the model due to the difficulty of providing accurate seasonal representation of vegetation. The omission of trees and other landscaping elements produces slightly stronger wind speeds.

4.2 Wind Speed Measurements

The PLW analysis was performed by simulating wind flows and gathering velocity data over a CFD model of the site for 16 wind directions. The CFD simulation model was centered on the proposed development, complete with surrounding massing within a radius of 480 m. The process was performed for two context massing scenarios, as noted in Section 2.

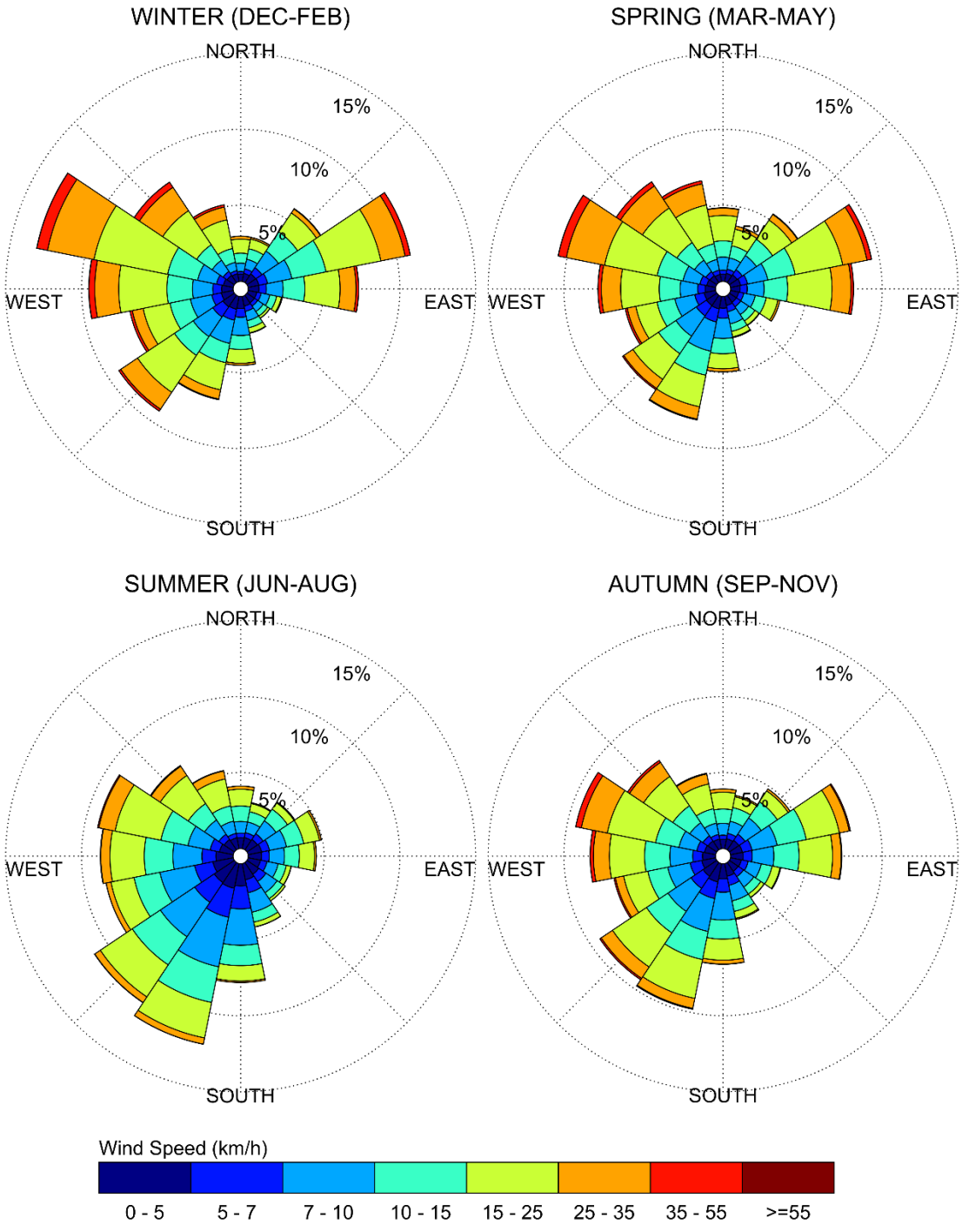
Mean and peak wind speed data obtained over the subject site for each wind direction were interpolated to 36 wind directions at 10° intervals, representing the full compass azimuth. Measured wind speeds approximately 1.5 m above local grade and 1.5 m above the common amenity terraces at Level 7 and at the roof level were referenced to the wind speed at gradient height to generate mean and peak velocity ratios, which were used to calculate full-scale values. Gradient height represents the theoretical depth of the boundary layer of the earth's atmosphere, above which the mean wind speed remains constant. Further details of the wind flow simulation technique are presented in Appendix A.

4.3 Historical Wind Speed and Direction Data

A statistical model for winds in Ottawa was developed from approximately 40 years of hourly meteorological wind data recorded at Ottawa Macdonald-Cartier International Airport and obtained from Environment and Climate Change Canada. Wind speed and direction data were analyzed during the appropriate hours of pedestrian usage (that is, between 06:00 and 23:00) and divided into four distinct seasons, as stipulated in the wind criteria. Specifically, the spring season is defined as March through May, the summer season is defined as June through August, the autumn season is defined as September through November, and the winter season is defined as December through February, inclusive.

The statistical model of the Ottawa area wind climate, which indicates the directional character of local winds on a seasonal basis, is illustrated on the following page. The plots illustrate seasonal distribution of measured wind speeds and directions in kilometers per hour (km/h). Probabilities of occurrence of different wind speeds are represented as stacked polar bars in sixteen azimuth divisions. The radial direction represents the percentage of time for various wind speed ranges per wind direction during the measurement period. The prominent wind speeds and directions can be identified by the longer length of the bars. For Ottawa, the most common winds occur for westerly wind directions, followed by those from the east, while the most common wind speeds are below 36 km/h. The directional prominence and relative magnitude of wind speed changes somewhat from season to season.

SEASONAL DISTRIBUTION OF WIND
OTTAWA MACDONALD-CARTIER INTERNATIONAL AIRPORT



Notes:

1. Radial distances indicate percentage of time of wind events.
2. Wind speeds are mean hourly in km/h, measured at 10 m above the ground.

4.4 Pedestrian Wind Comfort and Safety Criteria – City of Ottawa

Pedestrian wind comfort and safety criteria are based on the mechanical effects of wind without consideration of other meteorological conditions (that is, temperature and relative humidity). The comfort criteria assume that pedestrians are appropriately dressed for a specified outdoor activity during any given season. Five pedestrian comfort classes based on 20% non-exceedance mean wind speed ranges are used to assess pedestrian comfort: (1) Sitting; (2) Standing; (3) Strolling; (4) Walking; and (5) Uncomfortable. The gust speeds, and equivalent mean speeds, are selected based on the Beaufort scale, which describes the effects of forces produced by varying wind speed levels on objects. Wind conditions suitable for sitting are represented by the colour blue, standing by green, strolling by yellow, and walking by orange; uncomfortable conditions are represented by the colour magenta. Specifically, the comfort classes, associated wind speed ranges, and limiting criteria are summarized as follows:

PEDESTRIAN WIND COMFORT CLASS DEFINITIONS

Wind Comfort Class	Mean Speed (km/h)	Description
SITTING	≤ 10	Mean wind speeds no greater than 10 km/h occurring at least 80% of the time. The equivalent gust wind speed is approximately 16 km/h.
STANDING	≤ 14	Mean wind speeds no greater than 14 km/h occurring at least 80% of the time. The equivalent gust wind speed is approximately 22 km/h.
STROLLING	≤ 17	Mean wind speeds no greater than 17 km/h occurring at least 80% of the time. The equivalent gust wind speed is approximately 27 km/h.
WALKING	≤ 20	Mean wind speeds no greater than 20 km/h occurring at least 80% of the time. The equivalent gust wind speed is approximately 32 km/h.
UNCOMFORTABLE	> 20	Uncomfortable conditions are characterized by predicted values that fall below the 80% target for walking. Brisk walking and exercise, such as jogging, would be acceptable for moderate excesses of this criterion.

Regarding wind safety, the pedestrian safety wind speed criterion is based on the approximate threshold that would cause a vulnerable member of the population to fall. A 0.1% exceedance gust wind speed of 90 km/h is classified as dangerous. From calculations of stability, it can be shown that gust wind speeds of 90 km/h would be the approximate threshold wind speed that would cause an average elderly person in good health to fall. Notably, pedestrians tend to be more sensitive to wind gusts than to steady winds for lower wind speed ranges. For strong winds approaching dangerous levels, this effect is less important because the mean wind can also create problems for pedestrians.

Experience and research on people's perception of mechanical wind effects has shown that if the wind speed levels are exceeded for more than 20% of the time, the activity level would be judged to be uncomfortable by most people. For instance, if a mean wind speed of 10 km/h (equivalent gust wind speed of approximately 16 km/h) were exceeded for more than 20% of the time most pedestrians would judge that location to be too windy for sitting. Similarly, if mean wind speed of 20 km/h (equivalent gust wind speed of approximately 32 km/h) at a location were exceeded for more than 20% of the time, walking or less vigorous activities would be considered uncomfortable. As these criteria are based on subjective reactions of a population to wind forces, their application is partly based on experience and judgment.

Once the pedestrian wind speed predictions have been established throughout the subject site, the assessment of pedestrian comfort involves determining the suitability of the predicted wind conditions for discrete regions within and surrounding the subject site. This step involves comparing the predicted comfort classes to the target comfort classes, which are dictated by the location type for each region (that is, a sidewalk, building entrance, amenity space, or other). An overview of common pedestrian location types and their typical windiest target comfort classes are summarized on the following page. Depending on the programming of a space, the desired comfort class may differ from this table.

TARGET PEDESTRIAN WIND COMFORT CLASSES FOR VARIOUS LOCATION TYPES

Location Types	Target Comfort Classes
Primary Building Entrance	Standing
Secondary Building Access Point	Walking
Public Sidewalk / Bicycle Path	Walking
Outdoor Amenity Space	Sitting / Standing
Café / Patio / Bench / Garden	Sitting / Standing
Transit Stop (Without Shelter)	Standing
Transit Stop (With Shelter)	Walking
Public Park / Plaza	Sitting / Standing
Garage / Service Entrance	Walking
Parking Lot	Walking
Vehicular Drop-Off Zone	Walking

5. RESULTS AND DISCUSSION

The following discussion of the predicted pedestrian wind conditions for the subject site is accompanied by Figures 3A-6B, illustrating wind conditions at grade level for the proposed and existing massing scenarios, and by Figures 7A-7D, which illustrate conditions over the common amenity terraces at Level 7 and at the roof level. Conditions are presented as continuous contours of wind comfort throughout the subject site and correspond to the comfort classes presented in Section 4.4.

Conditions at all areas studied are considered acceptable for the intended pedestrian uses throughout the year. The details of these conditions are summarized in the following sections for each area of interest.

5.1 Wind Comfort Conditions – Grade Level

Notably, the dense urban surroundings of the subject site provide shielding for the proposed development to prominent winds from multiple directions, including those from the southwest clockwise to the northwest and those from the east.

Prior to and following the introduction of the proposed development, conditions within and surrounding the subject site are predicted to be calm and suitable for sitting throughout the year, inclusive of the surrounding public sidewalks along Slater Street, Laurier Avenue West, and O'Connor Street, nearby public walkways and the proposed walkways within the subject site, the proposed outdoor amenity at grade, and in the vicinity of the building access points serving the proposed development.

5.2 Wind Comfort Conditions – Common Amenity Terraces

The proposed development is served by common amenity terraces at Level 7 and at the rooftop level. The noted terraces are predicted to be suitable for sitting throughout the year, which is considered acceptable.

5.3 Wind Safety

Within the context of typical weather patterns, which exclude anomalous localized storm events such as tornadoes and downbursts, no pedestrian areas within or surrounding the subject site are expected to experience conditions that could be considered dangerous, as defined in Section 4.4. During extreme weather events (for example, thunderstorms, tornadoes, and downburst), pedestrian safety is the main concern. However, these events are generally short-lived and infrequent and there is often sufficient warning for pedestrians to take appropriate cover.

5.4 Applicability of Results

Pedestrian wind comfort and safety have been quantified for the specific configuration of existing and foreseeable construction around the subject site. Future changes (that is, construction or demolition) of these surroundings may cause changes to the wind effects in two ways, namely: (i) changes beyond the immediate vicinity of the subject site would alter the wind profile approaching the subject site; and (ii) development in proximity to the subject site would cause changes to local flow patterns.

6. CONCLUSIONS AND RECOMMENDATIONS

A complete summary of the predicted wind conditions is provided in Section 5 and illustrated in Figures 3A-7D. Based on computer simulations using the CFD technique, meteorological data analysis of the Ottawa wind climate, City of Ottawa wind comfort and safety criteria, and experience with numerous similar developments, the study concludes the following:

1) All grade-level areas within and surrounding the subject site are predicted to experience conditions that are considered acceptable for the intended pedestrian uses throughout the year. Specifically, conditions over surrounding sidewalks and walkways, in the vicinity of building access points, and within the outdoor amenity located to the southwest of the subject site, are predicted to be calm and suitable for sitting throughout the year, which is considered acceptable.

2) Regarding the amenity terraces at Level 7 and at the roof level, wind comfort conditions are predicted to be suitable for sitting throughout the year, which is considered acceptable.

3) The foregoing statements and conclusions apply to common weather systems, during which no dangerous wind conditions, as defined in Section 4.4, are expected anywhere over the subject site. During extreme weather events (for example, thunderstorms, tornadoes, and downbursts), pedestrian safety is the main concern. However, these events are generally short-lived and infrequent and there is often sufficient warning for pedestrians to take appropriate cover.

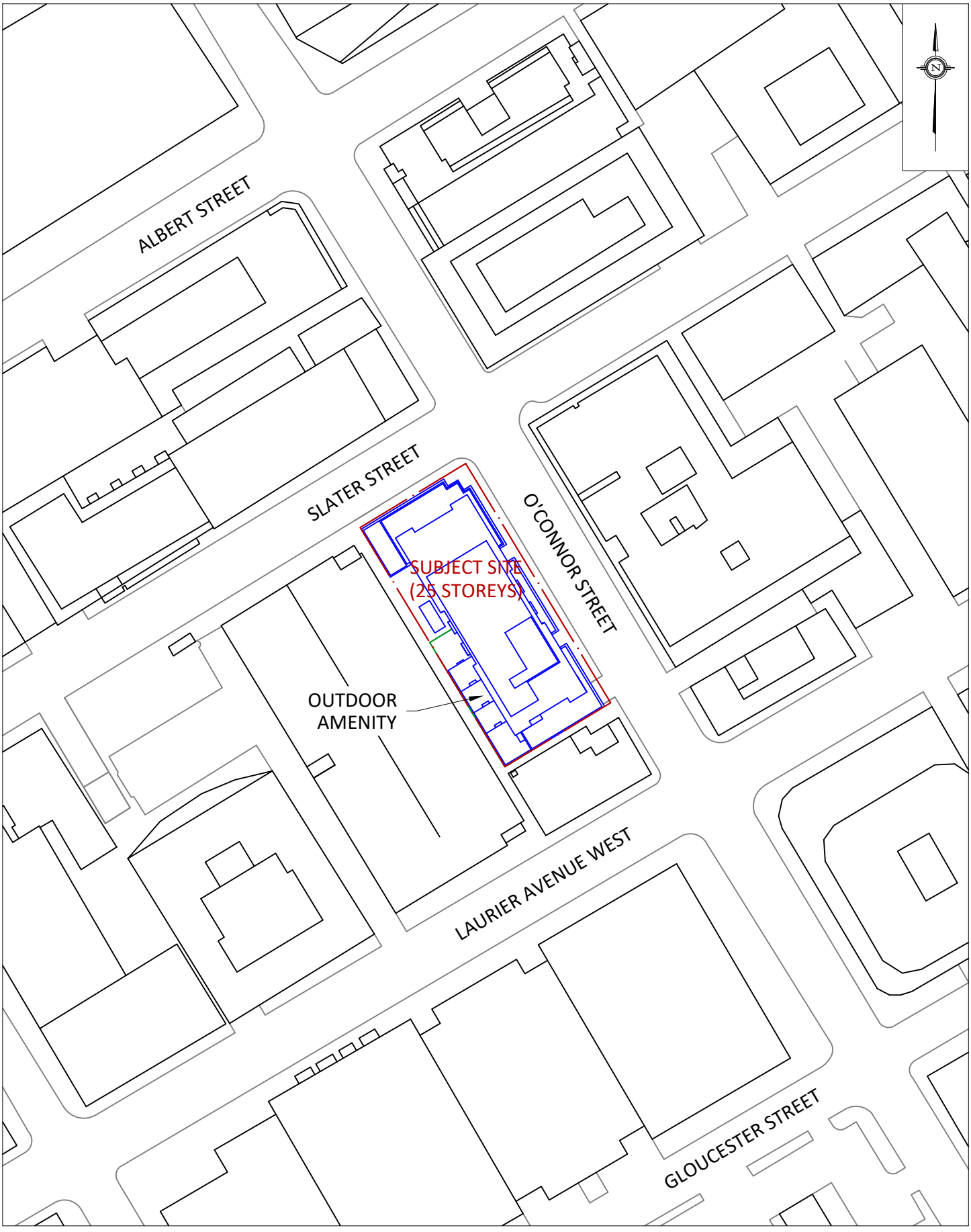
Sincerely,

Gradient Wind Engineering Inc.

David Huitema, M.Eng.
Wind Scientist

Justin Ferraro, P.Eng.
Principal

Omar Rioseco, B.Eng.
Junior Wind Scientist



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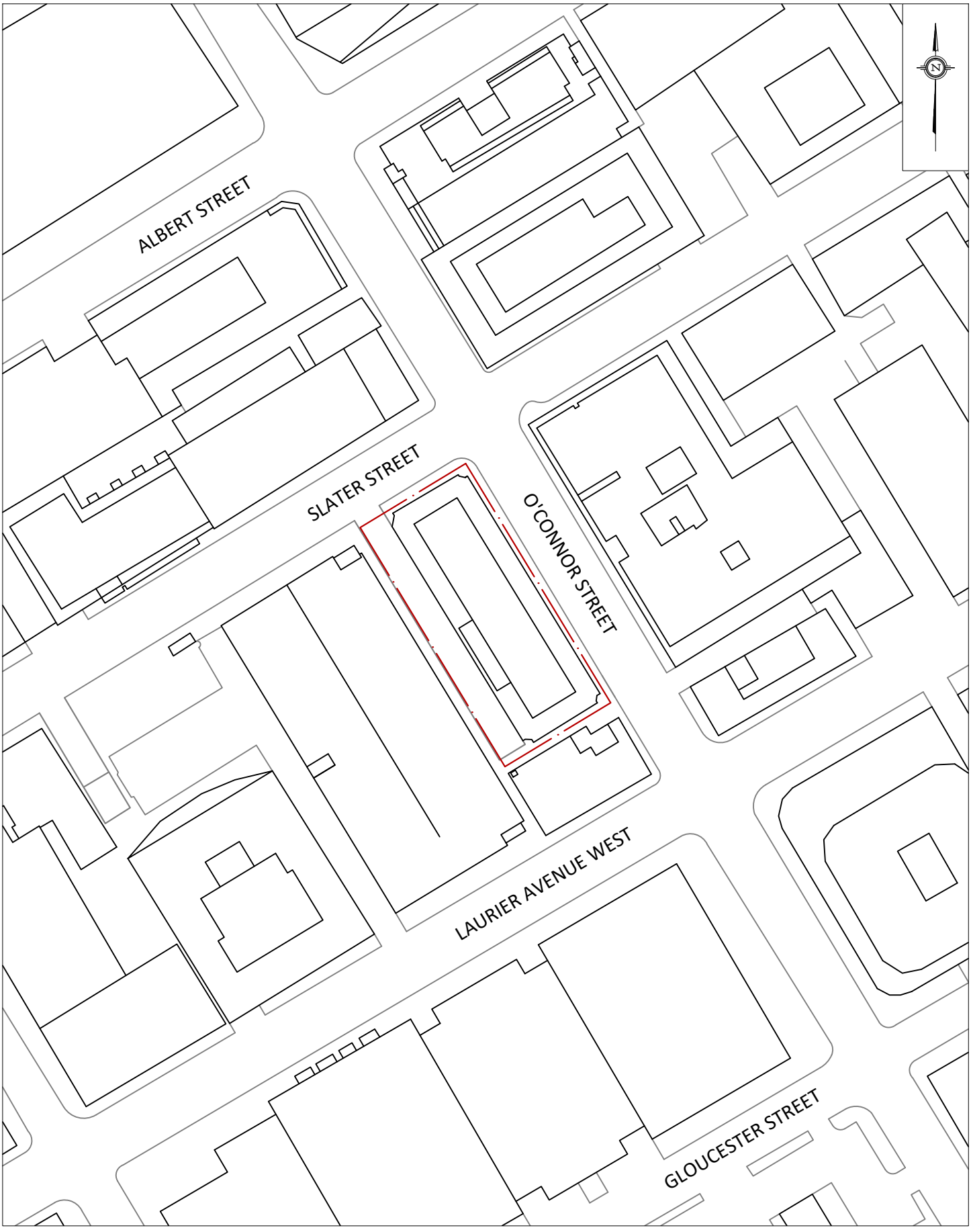
613 836 0934 • GRADIENTWIND.COM

PROJECT	110 O'CONNOR STREET, OTTAWA PEDESTRIAN LEVEL WIND STUDY		DESCRIPTION
SCALE	1:1250	DRAWING NO.	24-056-PLW-1A
DATE	APRIL 10, 2024	DRAWN BY	N.M.P.

FIGURE 1A:
PROPOSED SITE PLAN AND SURROUNDING CONTEXT



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PROJECT	110 O'CONNOR STREET, OTTAWA PEDESTRIAN LEVEL WIND STUDY
SCALE	1:1250
DRAWING NO.	24-056-PLW-1B
DATE	APRIL 10, 2024
DRAWN BY	N.M.P.

DESCRIPTION

FIGURE 1B:
EXISTING SITE PLAN AND SURROUNDING CONTEXT

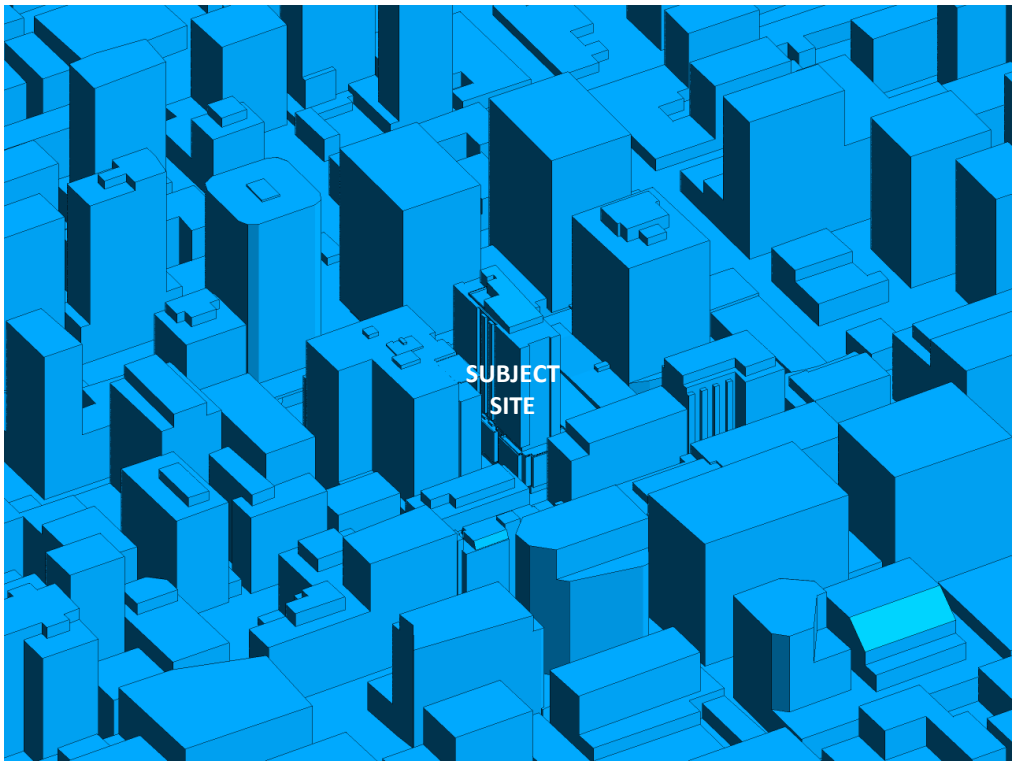


FIGURE 2A: COMPUTATIONAL MODEL, PROPOSED MASSING, NORTH PERSPECTIVE

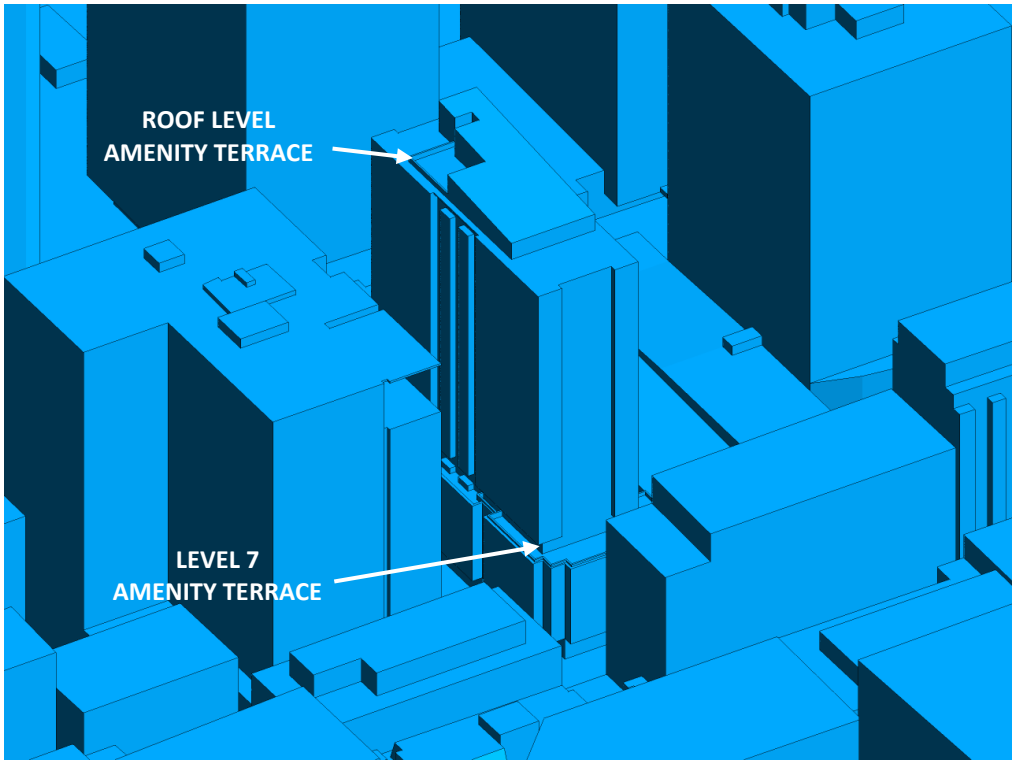


FIGURE 2B: CLOSE UP OF FIGURE 2A

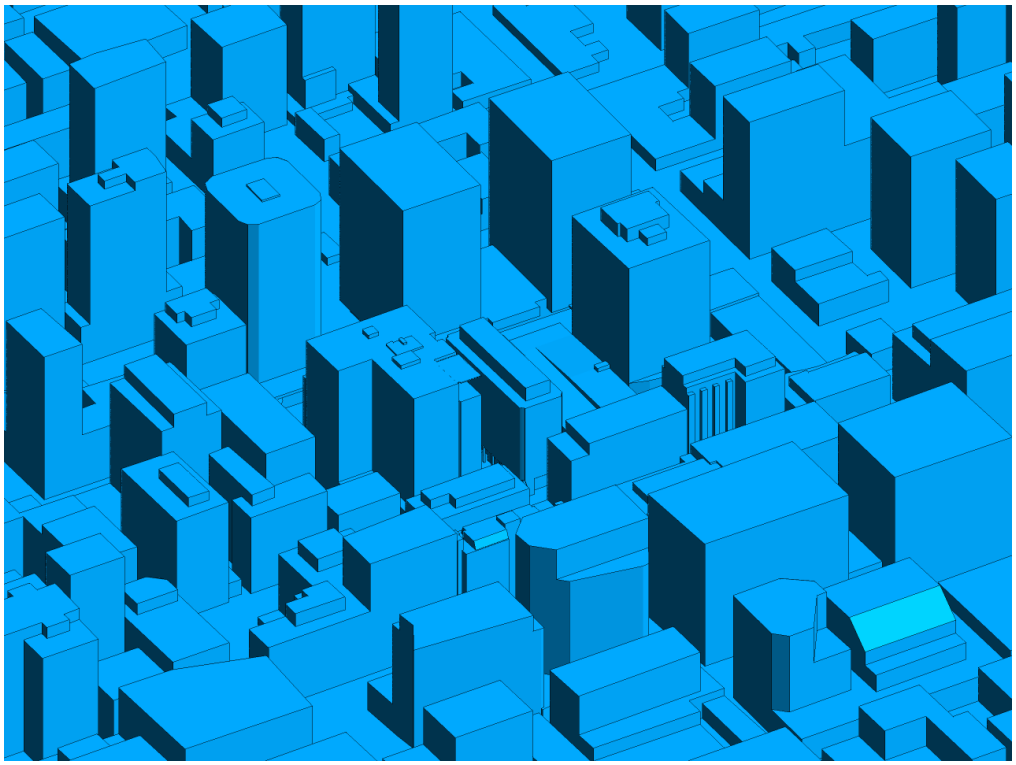


FIGURE 2C: COMPUTATIONAL MODEL, EXISTING MASSING, NORTH PERSPECTIVE

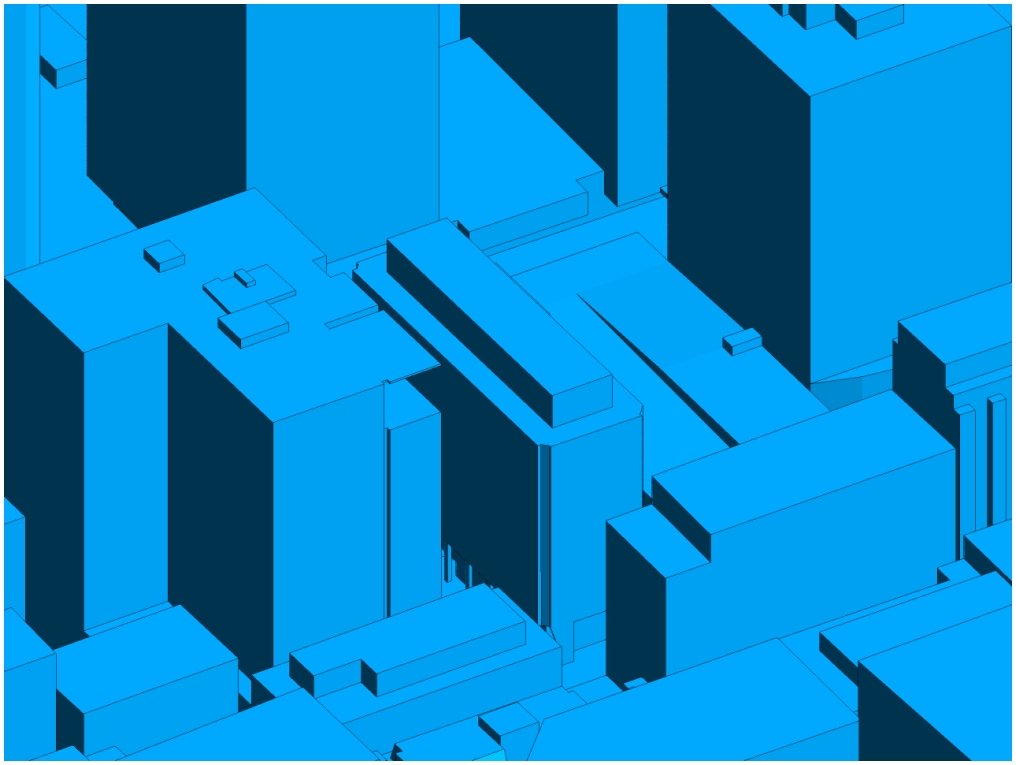


FIGURE 2D: CLOSE UP OF FIGURE 2C

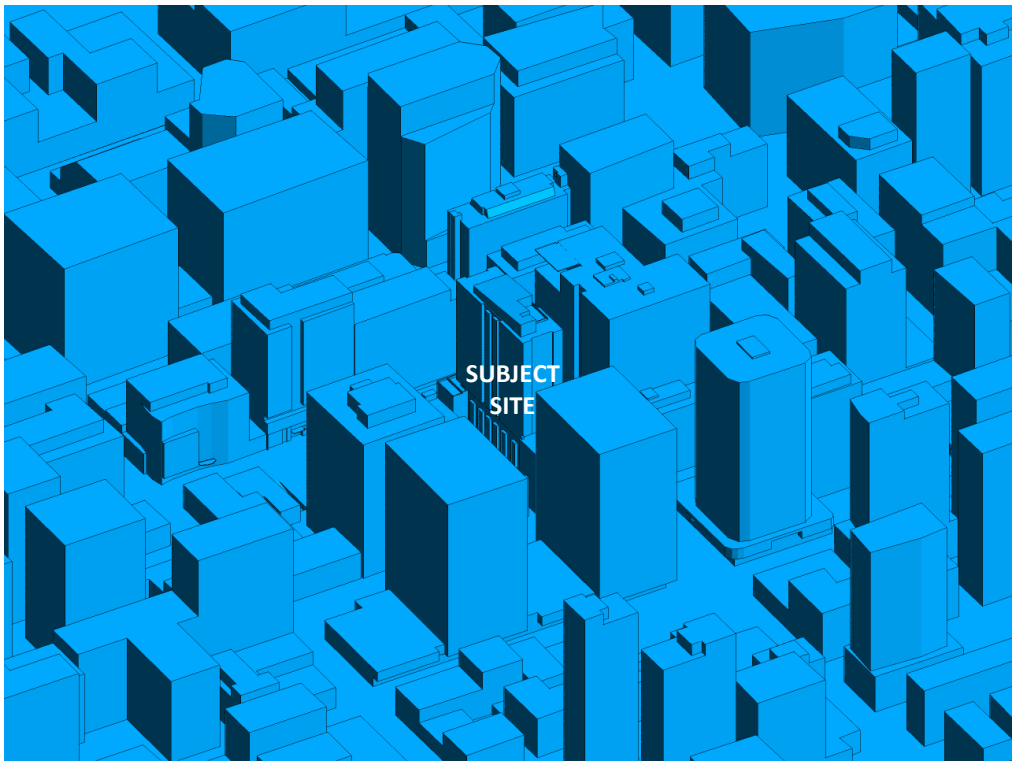


FIGURE 2E: COMPUTATIONAL MODEL, PROPOSED MASSING, SOUTH PERSPECTIVE

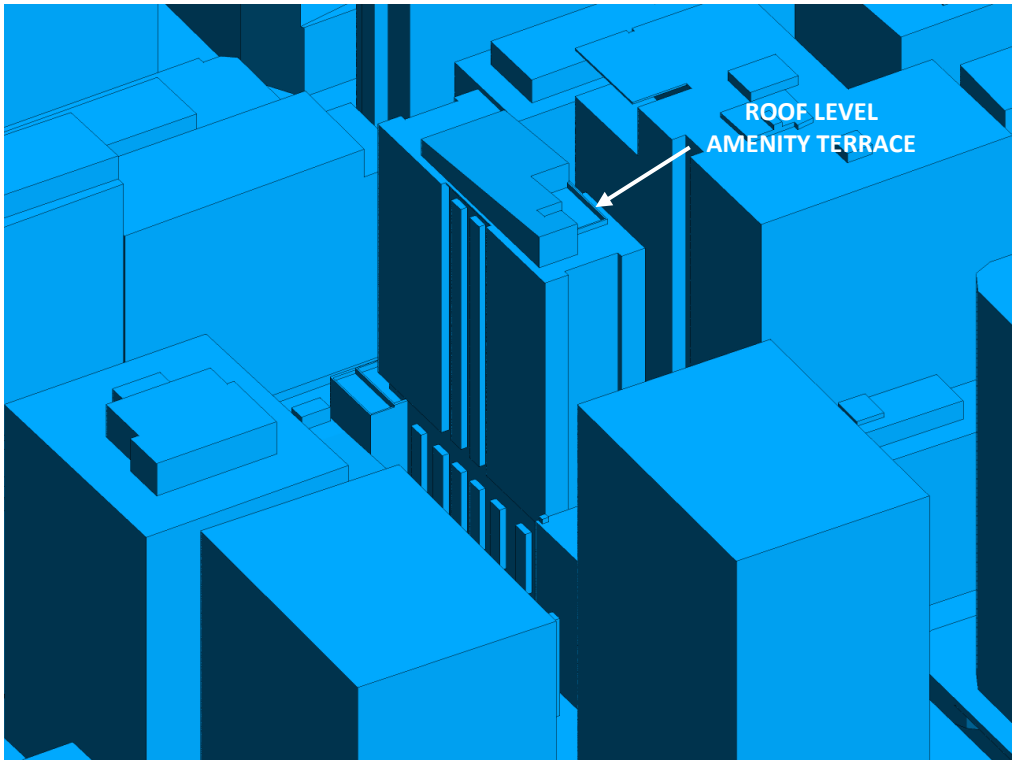


FIGURE 2F: CLOSE UP OF FIGURE 2E

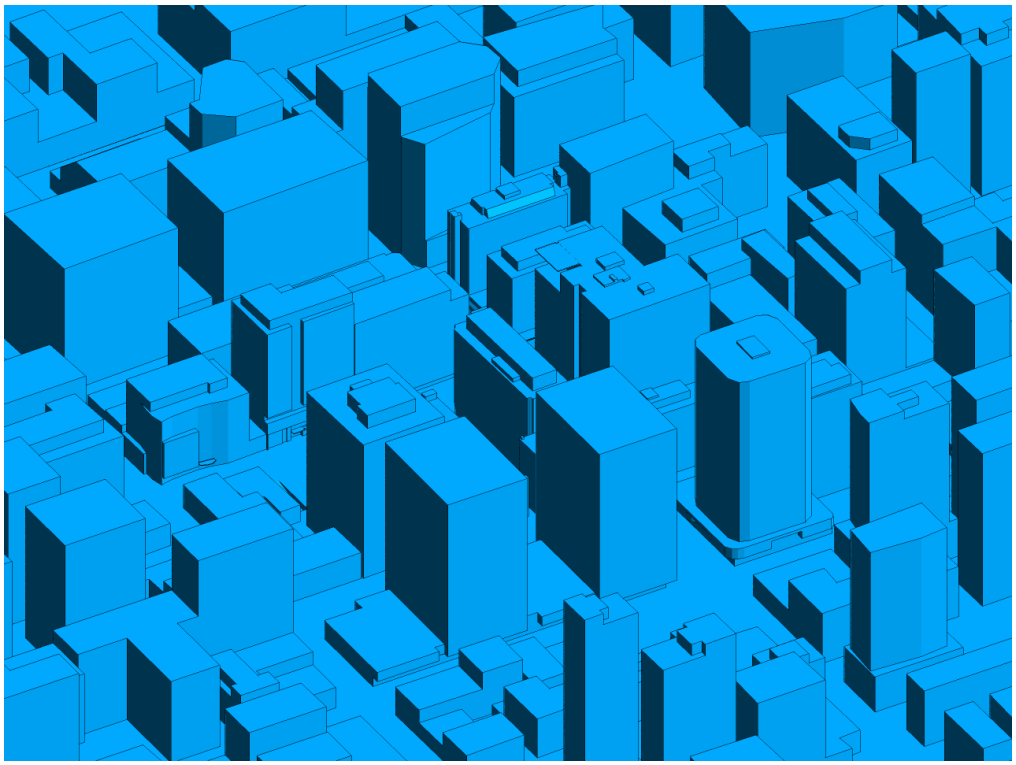


FIGURE 2G: COMPUTATIONAL MODEL, EXISTING MASSING, SOUTH PERSPECTIVE

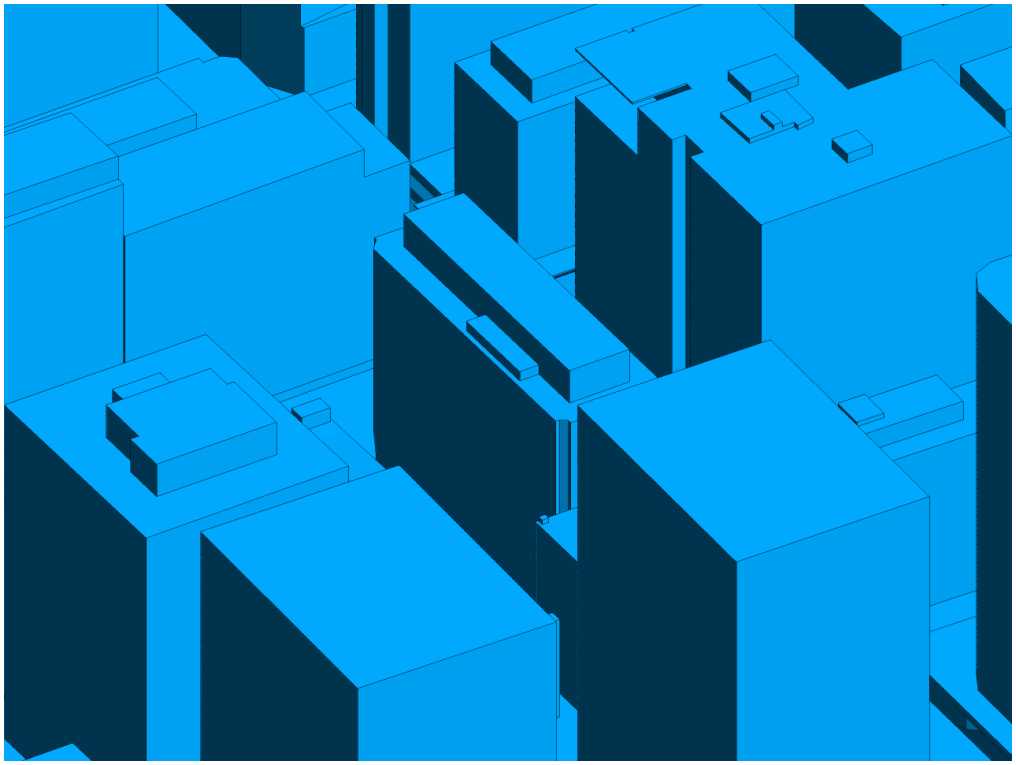


FIGURE 2H: CLOSE UP OF FIGURE 2G

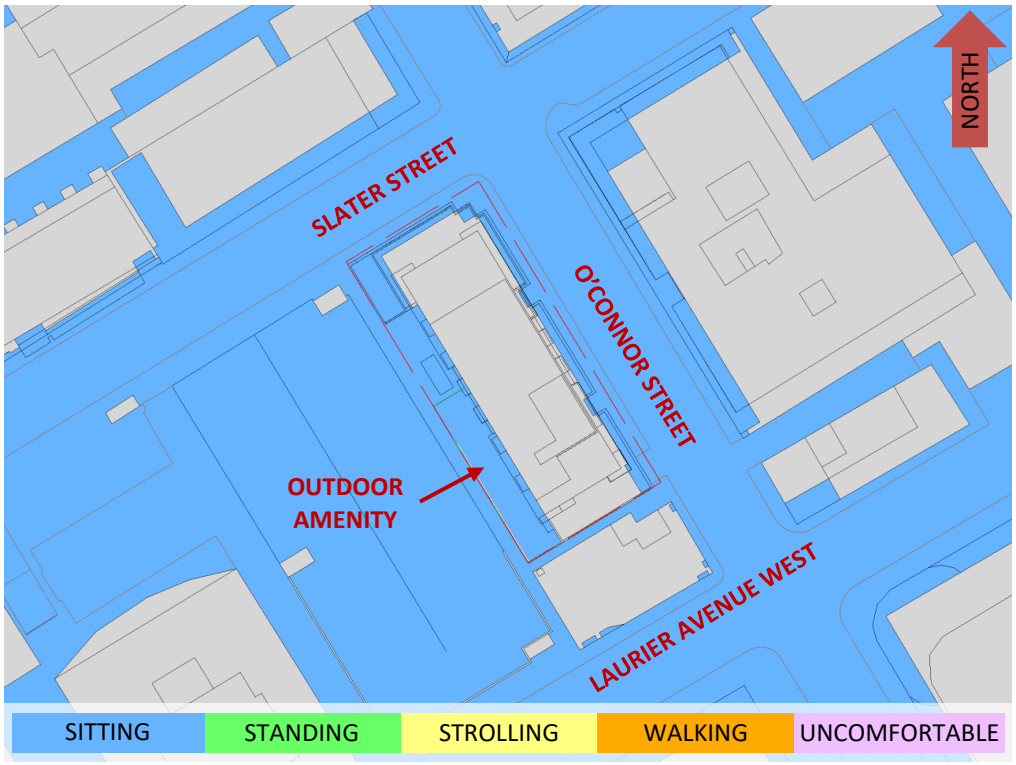


FIGURE 3A: SPRING – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

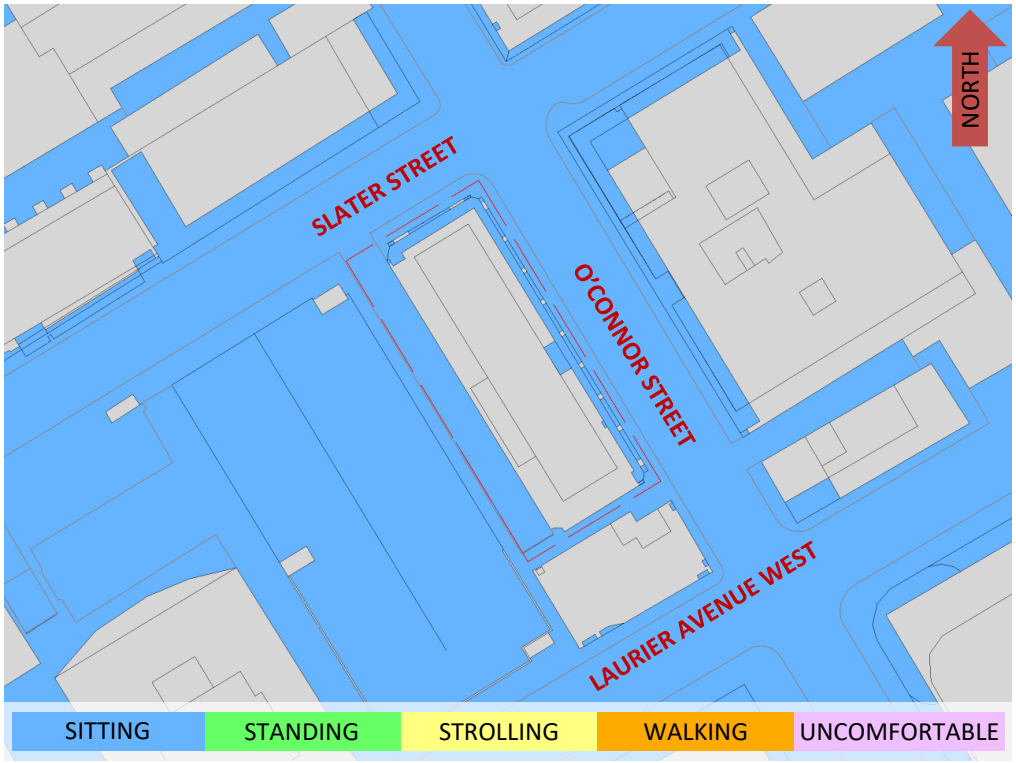


FIGURE 3B: SPRING – WIND COMFORT, GRADE LEVEL – EXISTING MASSING

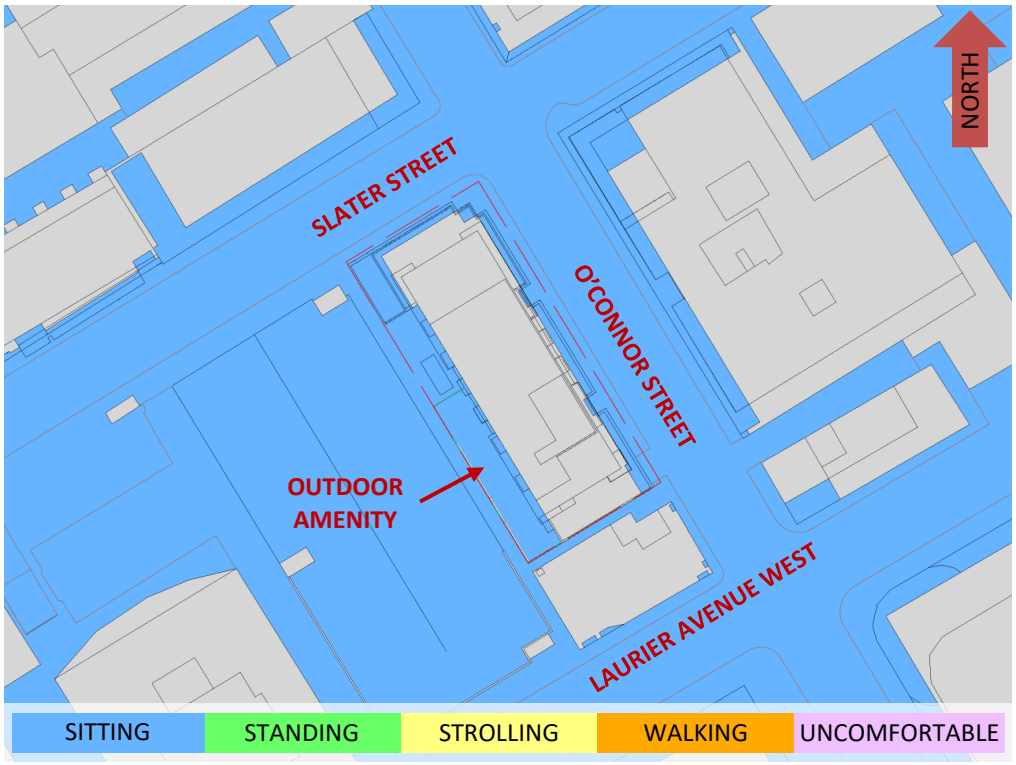


FIGURE 4A: SUMMER – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

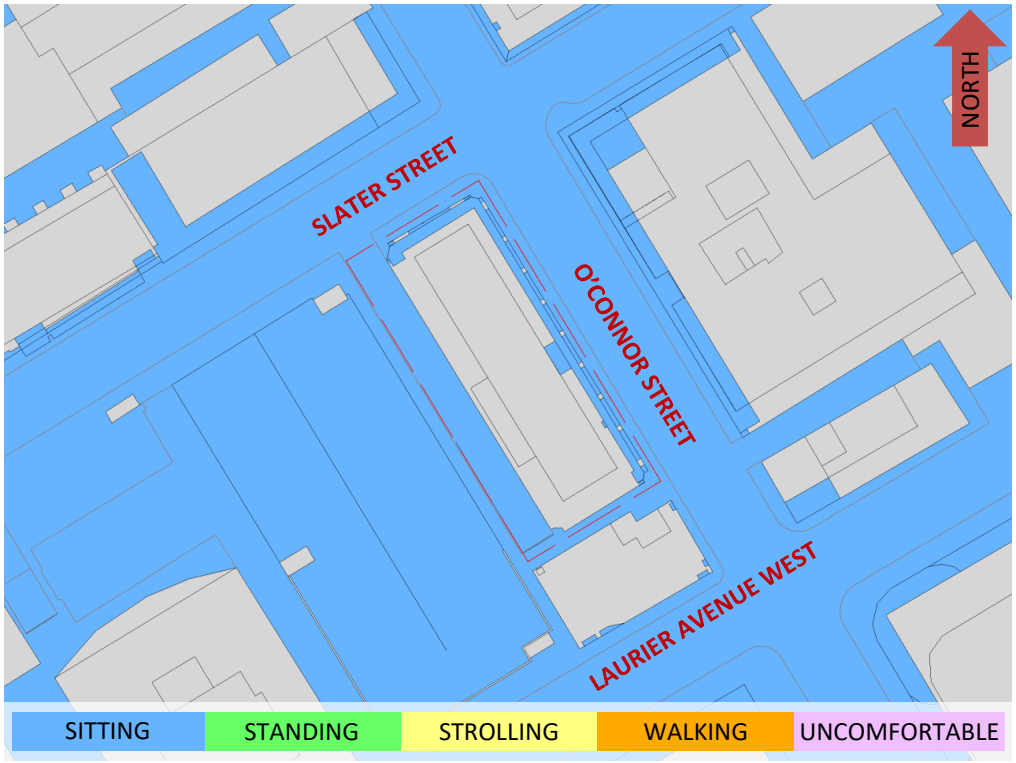


FIGURE 4B: SUMMER – WIND COMFORT, GRADE LEVEL – EXISTING MASSING

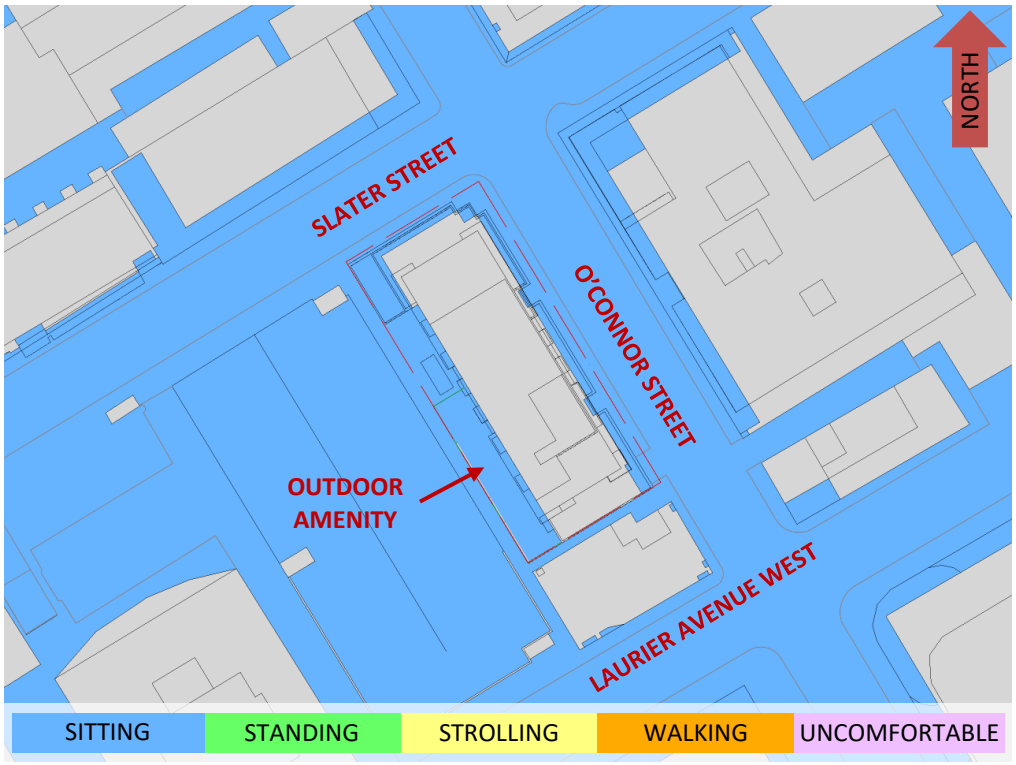


FIGURE 5A: AUTUMN – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

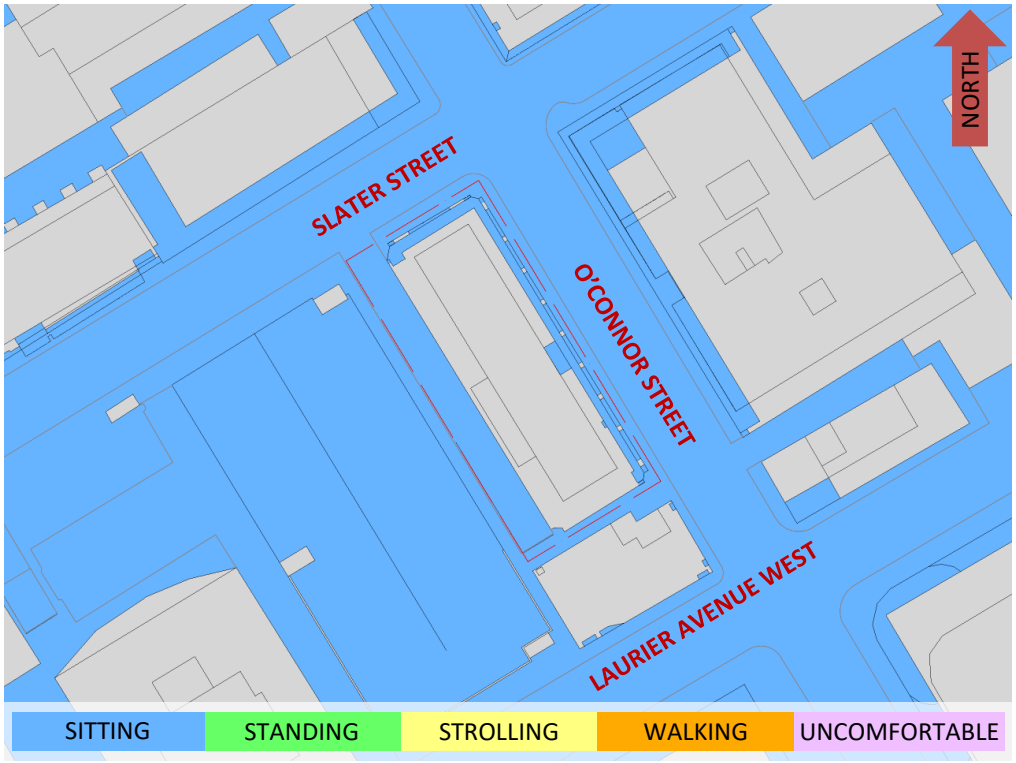


FIGURE 5B: AUTUMN – WIND COMFORT, GRADE LEVEL – EXISTING MASSING

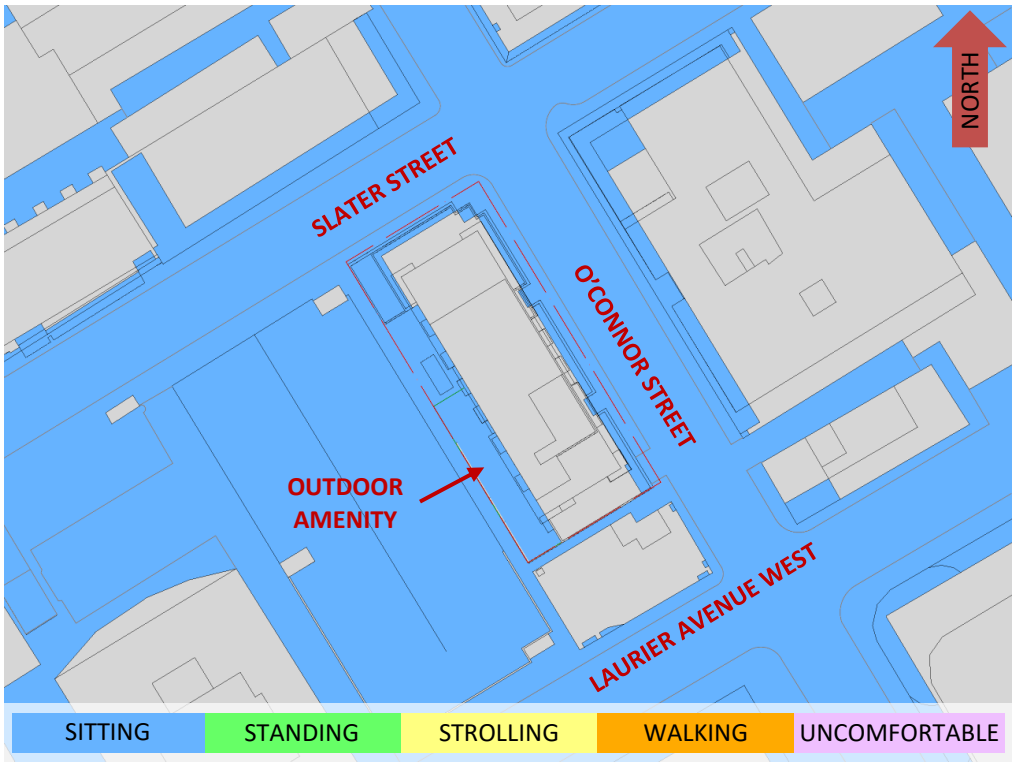


FIGURE 6A: WINTER – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

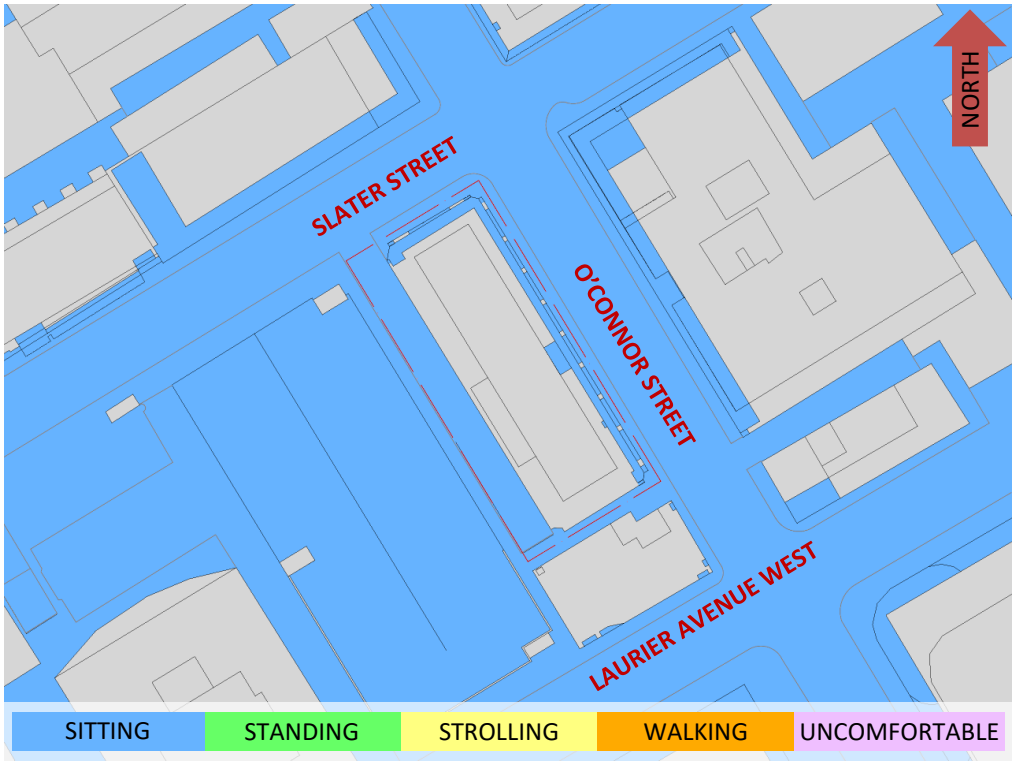


FIGURE 6B: WINTER – WIND COMFORT, GRADE LEVEL – EXISTING MASSING

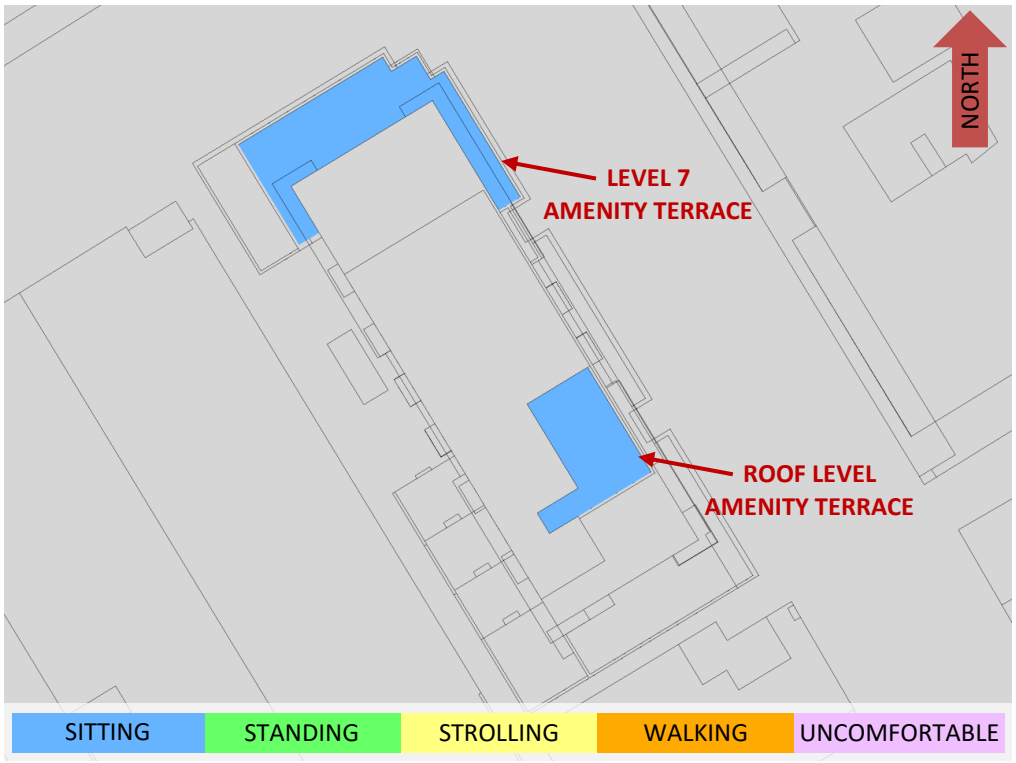


FIGURE 7A: SPRING – WIND COMFORT, COMMON AMENITY TERRACES

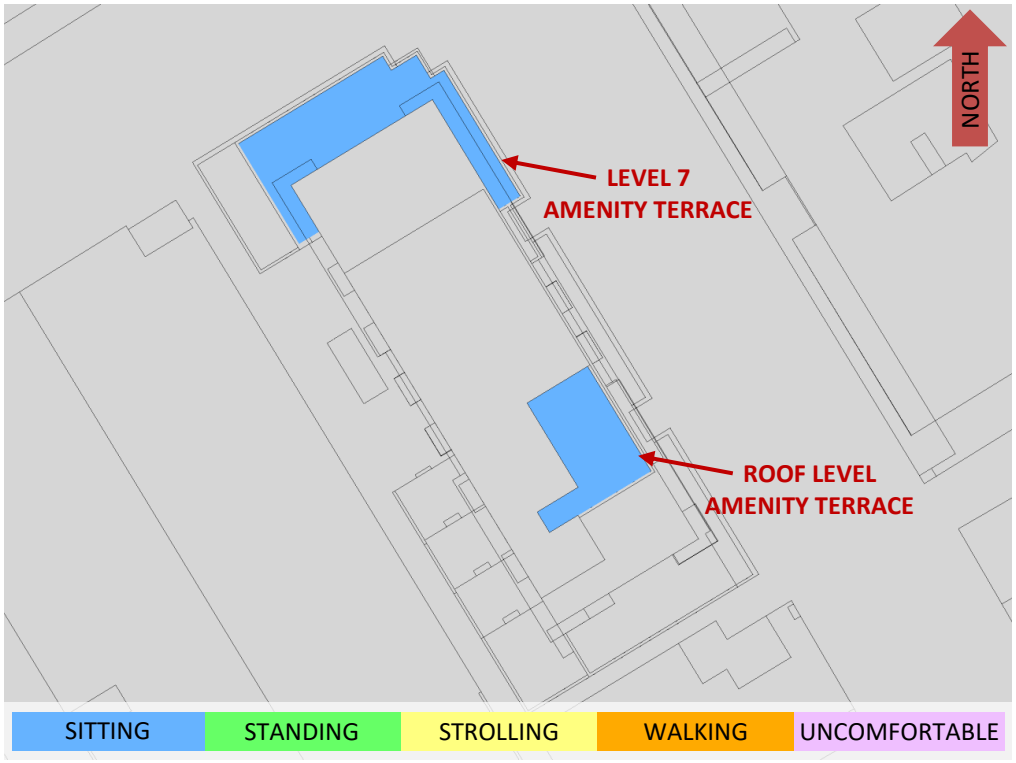


FIGURE 7B: SUMMER – WIND COMFORT, COMMON AMENITY TERRACES

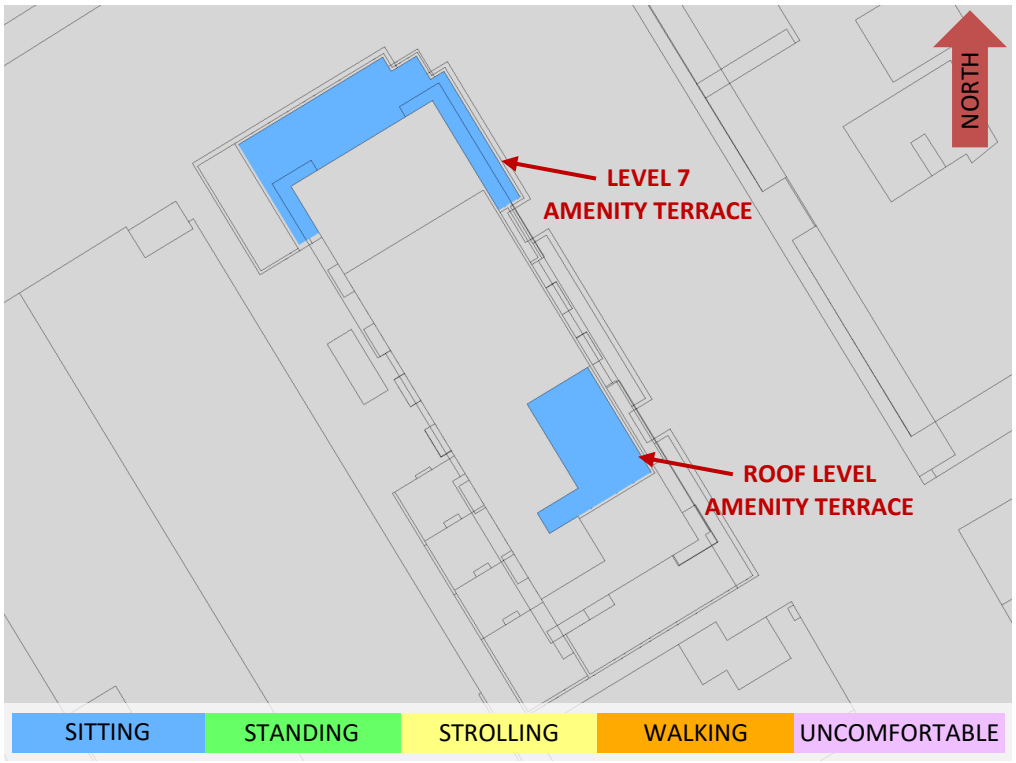


FIGURE 7C: AUTUMN – WIND COMFORT, COMMON AMENITY TERRACES

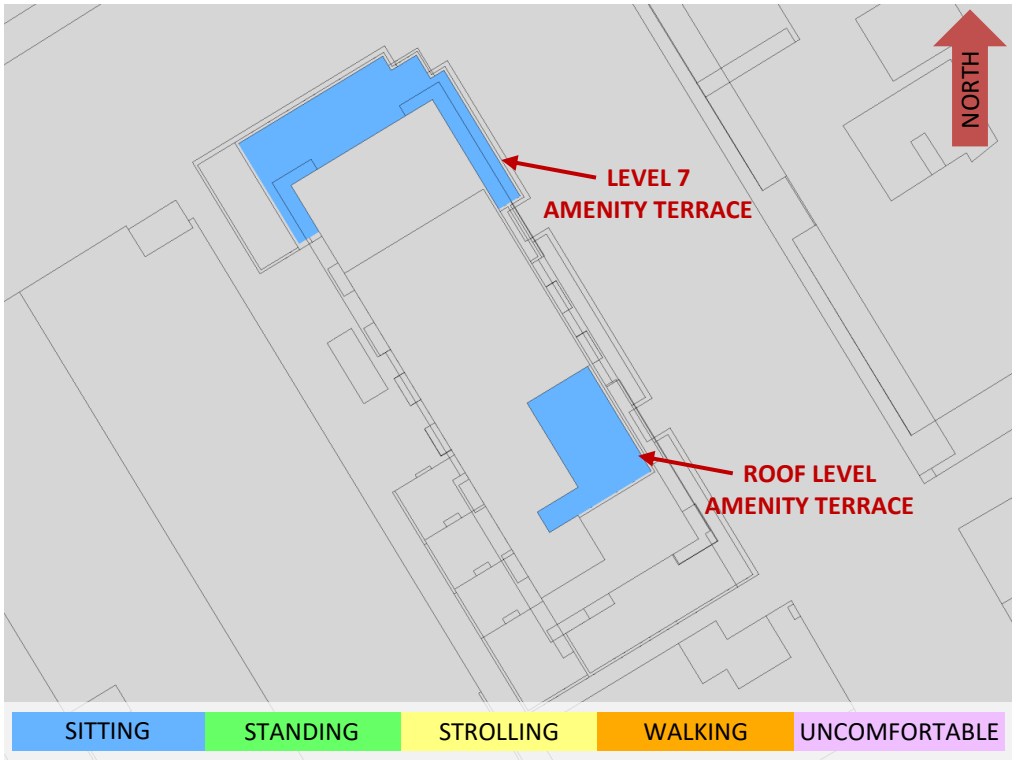
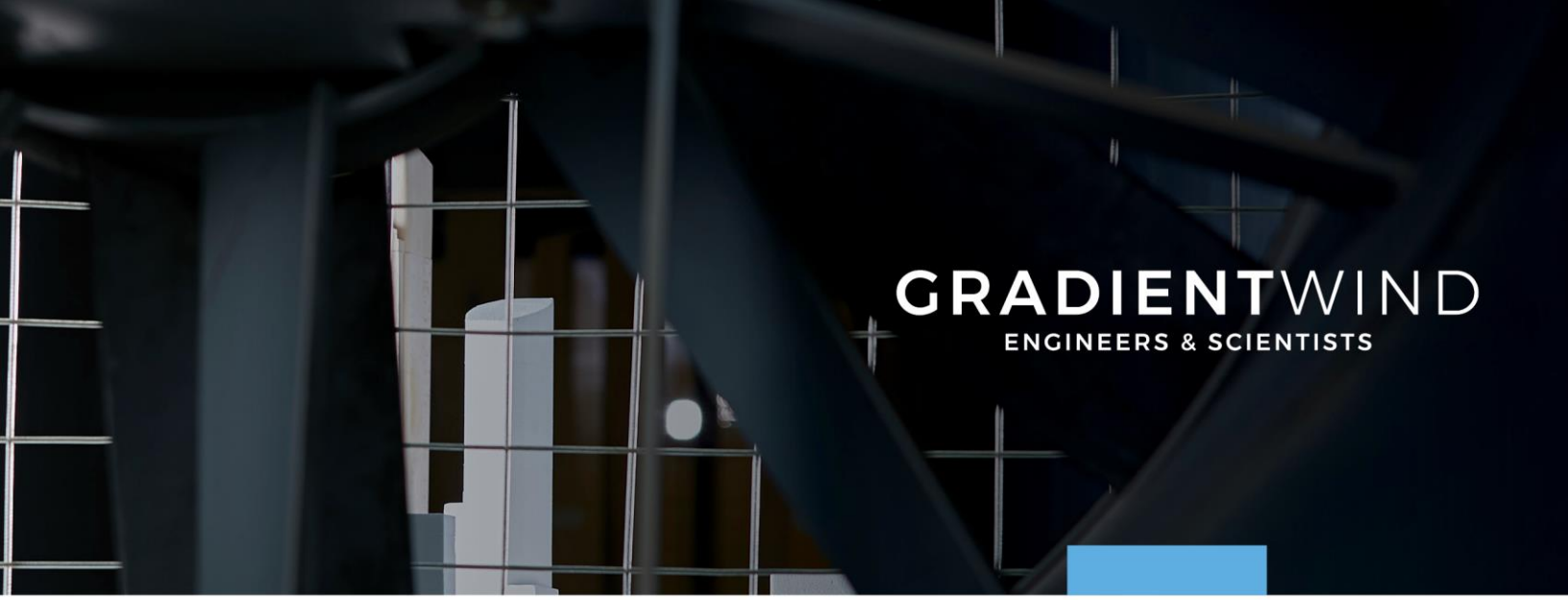
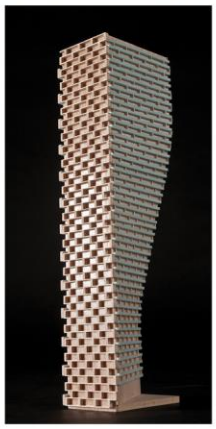
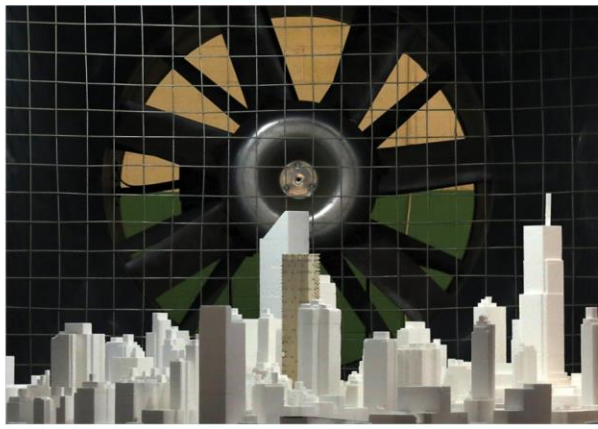


FIGURE 7D: WINTER – WIND COMFORT, COMMON AMENITY TERRACES







APPENDIX A

SIMULATION OF THE ATMOSPHERIC BOUNDARY LAYER

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SIMULATION OF THE ATMOSPHERIC BOUNDARY LAYER

The atmospheric boundary layer (ABL) is defined by the velocity and turbulence profiles according to industry standard practices. The mean wind profile can be represented, to a good approximation, by a power law relation, Equation (1), giving height above ground versus wind speed (1), (2).

$$U = U_g \left(\frac{Z}{Z_g}\right)^{\alpha} \qquad \text{Equation (1)}$$

where, $\boldsymbol{U}$ = mean wind speed, $\boldsymbol{U_g}$ = gradient wind speed, $\boldsymbol{Z}$ = height above ground, $\boldsymbol{Z_g}$ = depth of the boundary layer (gradient height), and α is the power law exponent.

For the model, U_g is set to 6.5 metres per second, which approximately corresponds to the 60% mean wind speed for Ottawa based on historical climate data and statistical analyses. When the results are normalized by this velocity, they are relatively insensitive to the selection of gradient wind speed.

Z_g is set to 540 m. The selection of gradient height is relatively unimportant, so long as it exceeds the building heights surrounding the subject site. The value has been selected to correspond to our physical wind tunnel reference value.

α is determined based on the upstream exposure of the far-field surroundings (that is, the area that it not captured within the simulation model).

Table 1 presents the values of α used in this study, while Table 2 presents several reference values of α. When the upstream exposure of the far-field surroundings is a mixture of multiple types of terrain, the α values are a weighted average with terrain that is closer to the subject site given greater weight.

TABLE 1: UPSTREAM EXPOSURE (ALPHA VALUE) VS TRUE WIND DIRECTION

Wind Direction (Degrees True)	Alpha Value (α)
0	0.25
22.5	0.26
45	0.28
67.5	0.26
90	0.28
112.5	0.27
135	0.26
157.5	0.26
180	0.26
202.5	0.25
225	0.27
247.5	0.28
270	0.24
292.5	0.25
315	0.23
337.5	0.22

TABLE 2: DEFINITION OF UPSTREAM EXPOSURE (ALPHA VALUE)

Upstream Exposure Type	Alpha Value (α)
Open Water	0.14-0.15
Open Field	0.16-0.19
Light Suburban	0.21-0.24
Heavy Suburban	0.24-0.27
Light Urban	0.28-0.30
Heavy Urban	0.31-0.33

The turbulence model in the computational fluid dynamics (CFD) simulations is a two-equation shear-stress transport (SST) model, and thus the ABL turbulence profile requires that two parameters be defined at the inlet of the domain. The turbulence profile is defined following the recommendations of the Architectural Institute of Japan for flat terrain (3).

$$I(Z) = \begin{cases} 0.1\left(\frac{Z}{Z_g}\right)^{-\alpha-0.05}, & Z > 10\ \text{m} \\ 0.1\left(\frac{10}{Z_g}\right)^{-\alpha-0.05}, & Z \leq 10\ \text{m} \end{cases} \qquad \text{Equation (2)}$$

$$L_t(Z) = \begin{cases} 100\ \text{m}\sqrt{\frac{Z}{30}}, & Z > 30\ \text{m} \\ 100\ \text{m}, & Z \leq 30\ \text{m} \end{cases} \qquad \text{Equation (3)}$$

where, ***I*** = turbulence intensity, $\boldsymbol{L_t}$ = turbulence length scale, ***Z*** = height above ground, and α is the power law exponent used for the velocity profile in Equation (1).

Boundary conditions on all other domain boundaries are defined as follows: the ground is a no-slip surface; the side walls of the domain have a symmetry boundary condition; the top of the domain has a specified shear, which maintains a constant wind speed at gradient height; and the outlet has a static pressure boundary condition.

REFERENCES

[1] P. Arya, "Chapter 10: Near-neutral Boundary Layers," in *Introduction to Micrometeorology*, San Diego, California, Academic Press, 2001.

[2] S. A. Hsu, E. A. Meindl and D. B. Gilhousen, "Determining the Power-Law Wind Profile Exponent under Near-neutral Stability Conditions at Sea," vol. 33, no. 6, 1994.

[3] Y. Tamura, H. Kawai, Y. Uematsu, K. Kondo and T. Okhuma, "Revision of AIJ Recommendations for Wind Loads on Buildings," in *The International Wind Engineering Symposium, IWES 2003*, Taiwan, 2003.

CULTURAL HERITAGE EVALUATION REPORT

110 O'Connor Street, Ottawa, Ontario

REVISED January 2024

PREPARED For:

Édifice 110 O'Connor Inc.
630, rue Saint-Paul O., bureau 600
Montréal (Québec) H3C 1L9

PREPARED By:

John Stewart, Commonwealth Historic Resource Management and
Barry Padolsky Associates Inc. Urban Design and Heritage Consultant

Cover Image:
Building Name and Address: Export Development Canada, 110 O'Connor Street
Construction Date: 1969 Architectural and Structural Drawings Sets
Alterations: None noted.
Original Owner: Federal Government Office Building, Export Development Canada.

AUTHORS QUALIFICATIONS

Commonwealth Historic Resource Management is a consulting firm that offers a range of professional services related to conservation, planning, and interpretation for historical and cultural resources. A key focus of the practice is planning and assessment of heritage resources as part of the development process.

John J. Stewart, B.L.A., B.A.S. Honorary, OALA, CSLA, CAHP, a principal of Commonwealth is a specialist in the planning and design of cultural resources, building conservation, and commercial area revitalization. A graduate of the University of Guelph, he received additional training at Cornell University (USA) and Oxford University (UK) and holds a diploma in the Conservation of Monuments from Parks Canada, where he worked as Head, Restoration Services Landscape Section. Before Commonwealth's formation, Stewart served for four years as the first director of Heritage Canada's Main Street Program.

Stewart is a founding member of the Canadian Association of Heritage Professionals. He has served as the Canadian representative of the Historic Landscapes and Gardens Committee of ICOMOS and the International Federation of Landscape Architects. Stewart is a panel member with the Ottawa Urban design Review Panel and a board member of Algonquin College Heritage Trades Program.

Barry Padolsky, B. Arch., M. SC. (Urban Design), OAA, FRAIC, RCA, CAHP is a member of the Ontario Association of Architects, (1965); the Royal Architectural Institute of Canada, (1965); a Fellow, Royal Architectural Institute of Canada, (1987); the Canadian Association of Heritage Professionals, (2003) and the Royal Canadian Academy of Arts (2006). He has been recognized with 43 national and civic architectural and urban design awards, including 29 for heritage conservation. He was a member of the City of Ottawa Built Heritage sub-committee advising Ottawa City Council on heritage matters (2013-2023) and was honoured with the Order of Ottawa (2021). In 2023, he was appointed to serve on the NCC's Advisory Committee on Planning, Design and Realty.

Ian Hunter, **Built Heritage Specialist, Researcher** is a specialist in the research and assessment of cultural heritage resources and building conservation. Experience in the heritage conservation field extends over 30 years, primarily working for Commonwealth Historic Resource Management.

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Scope

This Cultural Heritage Evaluation Report (CHER) evaluates the cultural heritage values of 110 O'Connor Street in the City of Ottawa, Ontario. The property was listed on the City's Heritage Register in 2019 as a property of potential cultural heritage value or interest. It is one of ten buildings identified in 2017 as worthy of consideration and placed on the city's heritage register as part of the Centretown Neighbourhood Character Area Study. This area bound by the Ottawa River to the north, Highway 417 to the south, Queen Elizabeth Drive and the Rideau Canal to the east, and Bronson Avenue to the west and includes five different heritage conservation districts, Bank Street, Cathedral Hill, Centretown, Minto Park, and Sparks Street Heritage Conservation Districts as well as Parliament Hill and Ottawa's Central Business District west of the Rideau Canal.

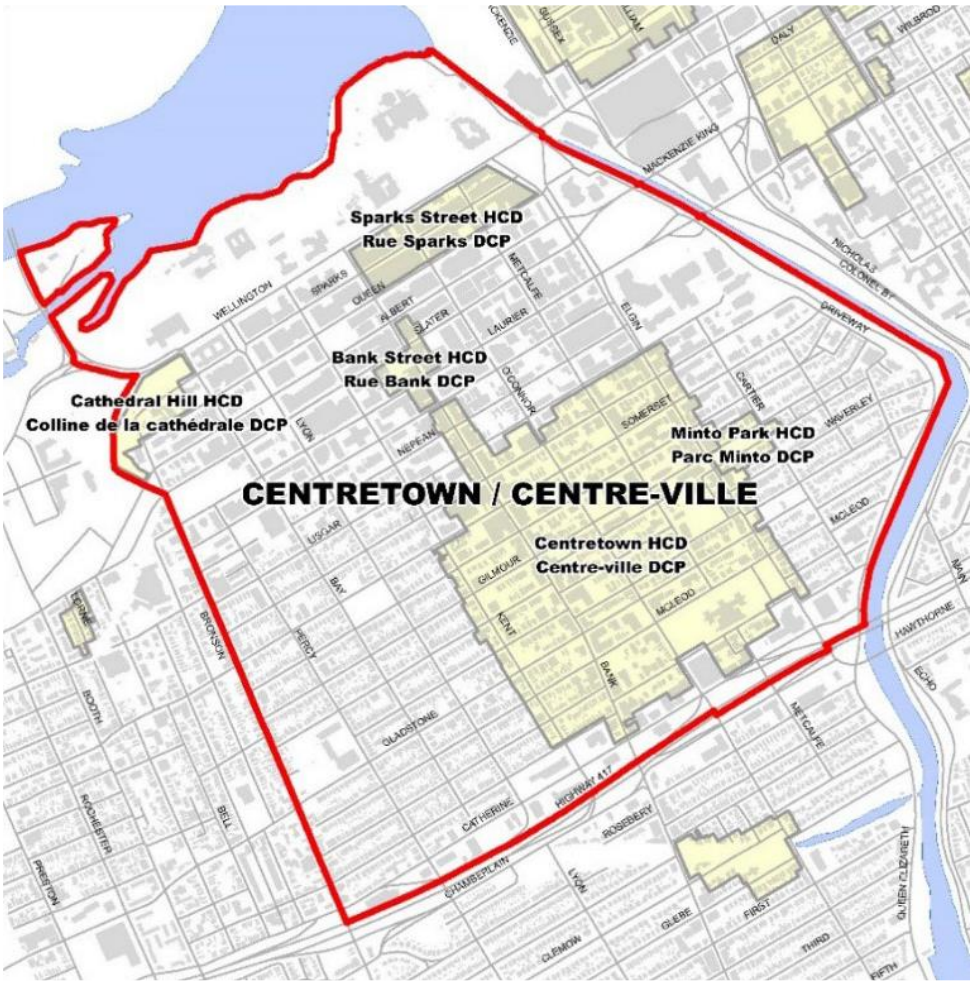

Figure 1: Centretown neighbourhood study Area. Source City of Ottawa 2022.

This assessment expands on the evaluation inventory and follows the criteria for the identification and evaluation of properties for their cultural heritage value or interest contained in the amended *Ontario Regulation 9/06: "Criteria for Determining Cultural Heritage Value or Interest under the Ontario Heritage Act (O.Reg. 9/06) Amendment 569/22".* The evaluation of the cultural heritage values focusing on the nine provincial criteria for determining cultural value or interest has provided the outline of the evaluation.

The following sources were reviewed in the preparation of this report:
Carleton University Library, Archives & Research Collections, George Bemi Fonds, Finding Aid;

- Central Area West HCD Study, Part 4. City of Ottawa, 1999:
- Centretown Heritage Conservation District Study (1997) and Plan 2022;
- Centretown, Neighbourhood Heritage Character, City of Ottawa. ND.
- Heritage Inventory, Property Information Sheet, 110 O'Connor Street, City of Ottawa;
- Memorandum to the Ottawa Built Heritage Subcommittee re the conserving Ottawa's Mid-century Modern Architecture addressed prepared by Barry Padolsky March 10, 2022.
- A letter to the City of Ottawa regarding proposed addition of buildings to the City of Ottawa Heritage Register 2019, Barry Padolsky Architect, March 10, 2022.
- Memo from Steve Willis, City of Ottawa to Ottawa Built Heritage Sub-committee re: City-wide Inventory of Mid-20th Century Heritage Resources, March 24, 2022.
- 23-032 110 O'Connor building reuse Greiger et Eric Huot Architecte, 2023-12-15
- 23-12 -10 Technical Assessment Report 110 O'Connor L@C Experts Conseils en Structures
- Groupe Mach 110 O'Connor - Notice of Intent to Demolish Letter - Fotenn. 23 12 15

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1.2 Summary of Findings

The City of Ottawa's current effort to evaluate the heritage value of Ottawa's mid-century modern buildings (circa 1945-1980) is acutely compromised by the continued absence of a comprehensive survey and evaluation of the city's significant portfolio of buildings constructed in the post-war era. This oversight has resulted in an avoidable arbitrariness where, in 2019 for example, City heritage staff recommended adding 10 high rise mid-century modern buildings to the Heritage Register in Ottawa's Central Business District (including 110 O'Connor) and omitting 13 similar buildings constructed in the same era. No evidence of a comparative analysis was provided. The lack of a database and comparative analysis also seriously limits relying on any Cultural Heritage Evaluation Report (CHER) aimed at assessing and designating individual buildings such as 110 O'Connor under Part IV of the Ontario Heritage Act.

The listed property 110 O'Connor Street was reviewed using the amended Ont. Reg 9/06. This Cultural Heritage Evaluation Report (CHER) considers each of the nine criteria and provides a comment explaining why the property may or may not meet the provincial criteria. Based on this assessment, the evaluation concludes that the property at 110 O'Connor meets three of the nine provincial criteria for determining whether it is of cultural value or interest. Consequently, the property would be marginally eligible to be considered for designation under Part IV of the Ontario Heritage Act; however, we submit that 110 O'Connor **not be** proposed for designation.

1.3 Background

The 2019 Heritage Register listing

The 14-storey office building at 110 O'Connor Street was constructed in 1969 to the design of George Bemi, Architect. The building is a reinforced concrete structure clad in architectural pre-cast concrete panels. The first two floors are set back from the street, creating a covered shopping concourse supported by a series of columns with thick angular columns extending to the facade with a distinct corner shrouded entrance. The inventory describes the building as angular and stark in expression, ribbed precast concrete, deeply incised horizontal slat windows. The design of the exterior of this building has features inspired by the brutalist style popular between 1950 and late 1970s.

George Bemi produced over 400 designs and built over 200 public and private sector buildings. His fonds are organized under two subheadings Office Buildings and Residential Buildings. Residential Buildings were designed with a distinct structural frame, the floor plate was compact with less depth than in commercial/office layouts, and cladding incorporating operable windows within concrete panels. Whereas office buildings such as 110 O'Connor were designed with larger floor plates, dictating a larger frame, structural grid, width between bays, placement of shear walls and vertical circulation (stairs, elevators), as well as fixed windows set in concrete panels and exterior panel treatment. Although not specifically a concern impacting the CHER evaluation, many of these factors result in building floor plates less flexible for adaptive reuse, which is a characteristic of modernist buildings. Another factor is materials fatigue, over time the concrete panels become brittle making conservation and modifications to the panels difficult. The structural engineering report prepared by Jean-René Larose, of L2C Structural Engineers outlines these issues.

According to the City of Ottawa documentation, 110 O'Connor was one of 10 buildings in Ottawa's central Business district constructed between 1957 and 1978 that could generally be characterized as examples of "mid-century modern" architecture and were recommended for addition to the Heritage Register

During the 2019 Register listing, there was discussion over and concerns raised as to which mid-century modern buildings in Ottawa's Central Area should be added to the City's Heritage Register. Ten office and apartment buildings were recommended for inclusion, while thirteen similar buildings were arbitrarily excluded. A second review of the study area was undertaken using the City's heritage

evaluation criteria of construction dates, and the FHBRO policy of evaluating buildings 40 years old or older. The review identified 13 other "mid-century modern" buildings, that have equivalent characteristics to the 10 buildings identified by City staff. These buildings, however, were excluded from being recommended for addition to the Heritage Register. It is further difficult to understand why 110 O'Connor is considered worthy of being on the register, while other mid-century buildings evaluated by ERA are listed as non-contributing.

1.4 The 2019 Two-Part Evaluation, Design, and Context

Design

The design test required that:

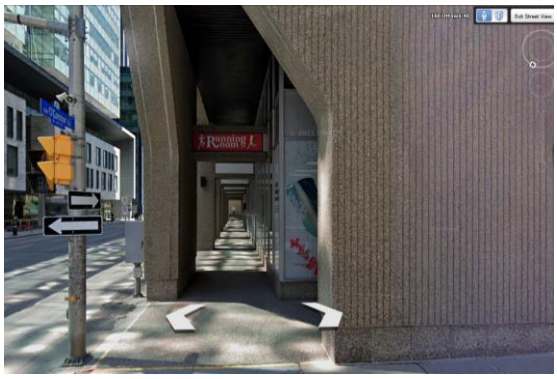
- The building or structure is a good expression of a particular architectural style, reflects the era of its construction.
- The building or structure represents the distinctive local design skills and available materials of its time.
- The style is reflected through architectural elements which might include, but are not limited to; the cornice, cladding, bargeboard, porch or balcony detailing, voussoirs, quoins, sills, lintels, window frames (mullions and muntins), doors, parapets, carvings, rooflines, integration with natural landscaping, etc. massing, shape, and volume of the original building (or additions of heritage significance) are clearly identifiable in the current form.
- Additions or modifications to the building are sympathetic regarding its original form.

Context

The property reflects the Neighbourhood Heritage Statement attributes:

- The building or structure reflects distinctive thematic and cultural references.
- The buildings or structure contributes to the heritage fabric of the street or neighbourhood.
- The building or structure connects with a natural landscape or a geographic feature, with a story, with the work of a well-known architect, or with the lives of Ottawans from the past.
- The building or structure, or an aspect therein, forms part of a cluster of cohesive and distinctive physical attributes, which collectively add to the aesthetic, social or cultural identity of the place. This may include elements such as a repeating pattern of a unique bargeboard motif limited to one neighbourhood block, a small grouping of houses sharing specific elements which reflect a particular architectural style or historic land use within the neighbourhood.

Comment: It should be noted that this list of criteria was provided by the city, but there was no indication why some buildings met these criteria while others were not considered significant. Nor whether the criteria were used to assess other modernist buildings throughout the study area.



Figures 2. (left) & 3 (right): Figures 2 (left) view from the corner along the covered arcade with the shroud demarking the corner entrance. Figure 3: A street view looking north, illustrating the two-storey commercial treatment.

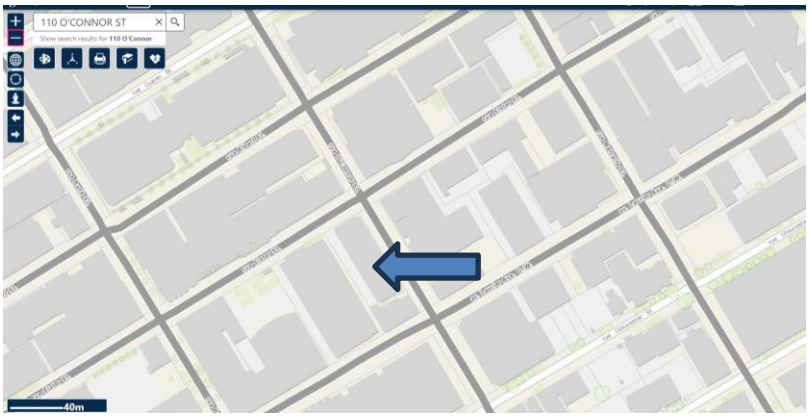


Figure 4: Plan of a section along O'Connor indicating the location of 110 O'Connor at the intersection of Slater Street.

Current Heritage Context (Excerpts Centretown Neighbourhood Heritage Character Statement)

Today, the architectural character of Centretown is defined by its eclectic mix of building types, from modest family homes to modernist towers, to utility buildings and to landmarks of Parliament Hill. Centretown forms a distinct part of Ottawa's urban core and continues to reflect national politics and local histories.

Heritage Attributes (Applicable to 110 O'Connor Street)

- Variety of architectural styles, expressions, and types indicative of an area with distinct periods of development over the 19th and 20th centuries.
- High-rise office buildings constructed between the end of the Second World War and the 1980s, predominantly in the north end of the neighbourhood, with many constructed in the 1970s and clad with precast concrete panels in the Brutality style. (NHS Centretown)

Comment: *Heritage attributes applicable to 110 O'Connor are fairly generic and beg the question of why they were not acceptable for the 13 other identified modernist buildings put forward in 2019? As part of this assignment character defining elements of mid-century architecture were developed and served to assess 110 O'Connor Street. (See page 8 - 9.)*

2.0 PROVINCIAL CRITERIA FOR DETERMINING CULTURAL HERITAGE VALUE/ INTEREST

2.1 Criteria, s. 27(3) (b) of Act O. Reg. 569/22,s.

The listed property 110 O'Connor Street was reviewed using the amended Ont. Reg 9/06, which states:

> *1.(1) The criteria set out in subsection (2) are prescribed for the purposes of clause 27 (3) (b) of the Act. O. Reg. 569/22,s. 1.*
>
> *(2) Property that has **not** been designated under Part IV of the Act may be included in the register referred to in subsection 27 (1) of the Act on and after January 1, 2023. If the property meets two of the following criteria for determining whether it is of cultural value or interest it can be considered for designation.*

Each of the nine criteria was considered and a comment was provided explaining why the property **does** or **does not** meet the provincial criteria. Based on the assessment, the evaluation concludes that the property at 110 O'Connor meets three of the nine provincial criteria for determining whether it is of cultural value or interest and eligibility to be considered for designation under Part IV of the Ontario Heritage Act.

2.2 Style

The property has design value or physical value because it is rare, unique, representative, or early example of a style, type, expression, material, or construction method?

YES

Comment

110 O'Connor is a representative example of the Brutalist Style in Ottawa. Other better examples include the Ottawa Public Library, Central Branch (G. Bemi Architect, 1970); the National Arts Centre (F. Lebensold Architect, 1979) before its recent renovation; the Azrieli School of Architecture and Urbanism at Carleton University (Corneil Stinson Architects, 1972); Place du Portage Phases I, II, III, and IV (D. Lazoski Architect, 1979), and the Morisette Library at the University of Ottawa (Murray and Murray, 1972) as well as a grouping of FEBRO designated buildings at Tunney's Pasture.

Notable buildings designed by Bemi include St. Basil Roman Catholic Church (G. Bemi Architect 1960) and Nepean Police Headquarters (G. Bemi Architect, 1991) (recommended for designation, not designated, demolished). Other notable pieces that have been demolished include the Union du Canada Building (advocated for designation, not designated, demolished) and the Canadian Nurses Association Headquarters James Strutt (deemed of heritage value, recommended for demolition - with architectural fragments incorporated in a new building).

Background Research

To provide an informed decision for the candidate property the following background research and analysis was undertaken

The former Export Development Canada office building is a fourteen storey, reinforced concrete structure clad in architectural precast concrete sandwich panels completed in 1969. The slab form high-rise is rectangular in plan with the first two storeys setback from the property line with columns forming an arcade extending along O'Connor. Commercial uses are located on the first two floors and open concept office floor plans on the third through fourteenth storeys.

The property contains a modernist style office building influenced by the Brutalist Style and completed in 1969. The style is characterized through the use of raw concrete or masonry, a limited palette of materials, and the use of enduring construction elements such as stone or concrete. Other characteristics of the style include large geometric forms, often in unusual shapes; simple, clean lines; rough and raw surfaces; exposed concrete and other construction materials; monochromatic palettes; and modular elements such as architectural precast concrete panels.

The building is a reinforced concrete structure typical of most office buildings constructed in the Central Business District in the 1960s and 1970s. The massing and form reflects the height limits, and setbacks contained in the zoning bylaws current at the time. The bands of horizontal windows reflect its use and function with open concept floor plans. The building embodies modern office building design through its rectilinear composition and restrained façades.

The expression is monolithic and austere with the use of the broken rib finish on the concrete panels, and the use of precast concrete sandwich panels spanning between structural columns and from floor to floor. The north, south and west façades are similar in design featuring bands of recessed horizontal windows.

The use of architectural precast concrete cladding in North America spans between 1945 through to 1975, corresponding with the popularity of Modernist Style architecture, and the post-war economic boom. The concrete cladding was designed to fulfill an architectural function: through a particular concrete mix design and an expressive surface finish and/or treatment, it was able to contribute to the architectural expression of the building. The panels could be cast into interesting and artistic shapes to further add to this expression. Essential to the use of architectural precast panels was the change in building assemblies from load-bearing walls to curtain walls separating a building's skin from its structure. [1]

The popularity of architectural precast panels increased in the 1950s and 1960s due to better handling/erecting equipment, improved methods of production, and the continued development of new techniques and materials that continue through to this day. Improvements in casting technology and handling equipment also made larger panels possible, which sped up construction and required fewer joints and connections. [2]

[1] Meloy, Grace. Architectural Precast Concrete Wall Panels: Their Technological Evolution, Significance, and Preservation. University of Pennsylvania Commons. 2016

[2] Ibid

The development of the window-type mullion wall panel in 1960 introduced glazing into architectural precast wall panels, making the concrete technology more competitive with metal and glass curtain walls by eliminating the need for an entirely separate structural frame while retaining a thin wall section. Similarly, the development of sandwich panels, which are precast panels consisting of two outer faces of concrete that sandwich a core of insulating material, provided a type of precast panel that addressed growing concerns for heating and air-conditioning costs. [3]

Although the increased speed of construction and high quality of the product made architectural precast wall panels competitive with metal and glass curtain walls, it was the diversity in shapes, colors, and textures that made this concrete technology the preferred material for curtain walls.[4]

2.3 Craftsmanship or Artistic Merit

The property has design value or physical value because it displays a high degree of craftsmanship or artistic merit?

NO

Comment

The building is an example of a Modern style office building influenced by the Brutalist Style and demonstrates a moderate degree of craftsmanship in its use of industrially produced and highly engineered precast concrete cladding panels where the craftsmanship resided within the industry. Better examples of the G. Bemi Architect Brutalist Style in Ottawa include the Ottawa Public Library, Central Branch.

Surface finishes and treatments published during the 1960s by the Precast Concrete Institute (PCI) in particular emphasized the importance of effective communication between casters, architects, and engineers, especially for obtaining the desired surface appearance. The types of surface finishes and treatments did not change immensely after the 1965 Symposium sponsored by the American Concrete Institute (ACI); however, publications presented the range of finishes, applied either to plastic concrete during casting or hardened concrete after curing and stripping.

- Plastic Concrete: Chemical surface retarders; Brooming; Floating or troweling; Special form finishes; and, Scrubbing, and brushing to add surface texture.
- Hardened Concrete: Hand brushing and/or power rotary brushes; Belt sanding; Acid etching; Sand or other abrasive blasting; Honing and polishing; Bush hammering or other mechanical tooling; and the artificially created broken rib texture. [5]

Surface finishes evident on the building include artificially created broken rib texture.

[3] ibid
[4] Ibid
[5] Ibid

2.4 Technical or Scientific Achievement

The property has design value or physical value because it demonstrates a high degree of technical or scientific achievement.

NO

Comment

The technical merit is in the construction type – cast concrete frame/structure supporting. Any technical or scientific merit in the structural attachment and details that limited water migrating into the structure was for the most part due to the American Concrete Institute (ACI) and the panel manufacturers.

A symposium on architectural precast concrete panels sponsored by the ACI Committee 533 in 1965 and the publications that resulted from it provided an immense amount of information about the design, production, and assembly of this concrete technology that would ultimately spike the interest of the concrete industry. Technical details discussed included joint design suggesting that cement mortars be substituted with a mastic (assumed bitumen based) or thermosetting plastics or sealants. The symposium also provided best practice in the connections used to secure the panels to the concrete structure, as well as the two stage joint system to limit moisture migration through the panels and improve the air tightness of the building envelope. [6]

The Canadian Standard Association in association with the National Research Council were developing a standard for architectural precast concrete panels in the 1960s. By 1966, the Building Research Council had developed a number of building digest notes related to the use of architectural precast wall panels. Technical notes focused on an assortment of issues including thermal and moisture deformations in building materials; thermal bridges in buildings; wind pressures on buildings; rain penetration and its control; requirements for exterior walls; principles applied to an insulated masonry wall; temperature gradients through building envelopes; and vapour diffusion and condensation. [7]

The Canadian Precast/Pre-stressed Concrete Institute (CPCI) is a well-established technical and marketing institute, founded in 1961, that is recognized throughout Canada as the body of knowledge for precast and prestressed concrete products and systems. CPCI's purposes include stimulating and advancing the common interests and general welfare of the structural, architectural and specialty precast pre-stressed concrete industry in Canada.

2.5 Direct Associations

The property has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community?

YES

[6] Ibid

[7] • NRC Publications Archive. Selected annotated bibliography on precast concrete wall panels Dryburgh, R. B. Bibliography (National Research Council of Canada. Division Of Building Research); no. BIBL-31, 1966-02, Ottawa 1966.

Comment

The post-war expansion and economic boom impacted Ottawa primarily during the 1960s and 1970s. Expanded government roles, in this case in the promotion, funding, and development of export markets for Canadian made products.

Organization/Activity

Export Development Canada

Person - Architect

George Bemi 1927-2023 was born in Winnipeg, Manitoba in 1927. After returning from serving in the Royal Canadian Navy during World War II, George Bemi attended the University of Manitoba Architecture School. Upon graduation in 1951, George Bemi was employed by Defence Construction Ltd., and was transferred to Ottawa the following year.

In 1955, Bemi became the Associate Partner of the Montreal architecture firm, Greenspoon, Freelander & Dunn. It was in 1957 that George Bemi went on to establish his own architecture firm in the national capital region, G.E. Bemi & Associates. Bemi was the sole practitioner of the firm except for 1961 when he partnered with Tim Murray for one year. In 1989 Bemi's son James became a partner. With over fifty years of experience, George Bemi produced over 400 designs and built over 200 public and private sector buildings. Two of the most notable buildings include the main branch of the **Ottawa Public Library** that won the Royal Architectural Institute of Canada (RAIC) Festival of Architecture Award of Merit in 1979. Other notable works include, **the Downtown 'Y'**, the **Nepean Police Headquarters**, and **St. Basil Roman Catholic Church**. Over the course of his career, George Bemi had been an active member of the Royal Architectural Institute of Canada (RAIC), the Ottawa Regional Society of Architects (ORSA) and the Ontario Association of Architects (OAA). (Source G. Bemi Fonds, Finding Aid, and Ontario Association of Architects Memoriam)

Person – Structural Engineer

Adjelian & Associates Engineers

Adjeleian Allen Rubeli Limited is a Structural Engineering consulting firm with offices in Ottawa and Toronto. The firm was founded in 1955 by John Adjeleian (1923 – 2004). Since its inception it has provided a comprehensive range of services in all areas of structural planning, design, and investigations. One cannot travel anywhere in Ottawa without seeing the impact of the firm's contribution to the skyline – there are also many significant buildings to be found scattered throughout the Toronto area.

John Adjeleian was an accomplished consulting engineer; he was also a well-respected academic, with a long history at Carleton University culminating in his terms as Chair of the Department of Civil and Environmental Engineering. In 2003, the Department of Civil and Environmental Engineering established an annual lecture series named after John Adjeleian. A stroll through the campus will reveal a dozen or more well-known buildings designed by Adjeleian Allen Rubeli Limited.

2.6 Contributes to Community Understanding

The property has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture? NO

Comment

The building was a market response following World War II for additional office facilities to service the requirements of the growing federal government.

2.7 Demonstrates or Reflects Ideas

The property has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, building, designer, or theorist who is significant to a community? YES

Comment

The G. Bemi Fonds list the projects by type Office Buildings or Residential Subheadings, in this case Office Buildings. There are over 80 (some duplicate) files in the Office Building subdirectory. The examples presented for comparative analysis are limited to examples completed in the 1960s. It is interesting to note that a number of modernist designed buildings located in Centretown HCD are classified as non-contributing.

Examples of his work include the three properties described below.

Burnside Building 151 Slater Street. File - Plans, Photographs and Slides: Burnside Office Building - Massey Awards Submission, 1965. The building was recently rehabilitated and set on a glazed podium. The architectural precast concrete mullion panels extending from floor to floor and developed in 1960 are evident in the facades of the upper floors. Note the use of multiple mullion panels between structural columns. Source: Google Earth

Narono Office Building, 369 Laurier Avenue West. File - Narono Office building -working drawings 67-50, 94-245, 87-212 1967-1995. Note the similarity in the ground floor treatment with a colonnade and recessed ground floor to improve pedestrian circulation, and the architectural precast concrete mullion panels. Note the width of the panels indicating that the original joints were most likely filled with mortar. The thermal expansion of panels was a limiting factor in the panel size and durability of the mortar joints; hence the panel widths are relatively narrow width.

E.A. Bourque Memorial (Constitution) Building - Rideau & King Edward 63-11, 1963-1965.
Source Google Earth

2.8 Area Character

The property has contextual value because it is important in defining, maintaining, or supporting the character of the area?

No

Comment

Centretown is a large diverse area. The architectural character is defined by its eclectic mix of building types, from modest family homes to modernist towers. Heritage attributes of the area include a variety of architectural styles, expressions, and types indicative of an area with distinct periods of development over the 19th and 20th centuries. Office buildings constructed between the end of the Second World War and the 1980s, are predominantly located in the north end of the neighbourhood. Many were constructed in the late 60s and 70s, clad with precast concrete panels in the Brutalist style and are a distinguishing feature in the central core where offices are concentrated, but when assessed against the Centretown Study area it does not define or maintain the area's character.

2.9 Visually or Historically Linked

The property has contextual value because it is physically, functionally, visually, or historically linked to its surroundings?

NO

Comment

The office building is physically and functionally linked to its surroundings, being located in the Central Business District where a large number of high-rise office towers were constructed to house federal

government departments and agencies and corporate headquarters. Following the 2019 review a second list was prepared based on the city criteria as well as FHRBO. These properties with similar characteristics, some by the same architect, have not been considered.

2.10 Landmark

The property has contextual value because it is a landmark? **NO**

Comment

The property has a corner location and is situated in an area where mid to high-rise office towers completed in the 1960s are dominant. It does not exhibit landmark status.

3.0 CONCLUSION & RECOMMENDATIONS

This revised assessment follows the criteria for the identification and evaluation of properties for their cultural heritage value or interest contained in the amended *Ontario Regulation 9/06: "Criteria for Determining Cultural Heritage Value or Interest under the Ontario Heritage Act (O.Reg. 9/06) Amendment 569/22".* Based on that assessment, the property scored positively for three of the nine provincial criteria and is therefore eligible for designation under Part IV of the Ontario Heritage Act.

Recommendations

As the evaluation indicates 110 O'Connor meets three of the nine criteria making it marginally eligible for designation. A challenge for determining the heritage value and providing a research-informed basis for weighing the criteria is the absence of a systematic survey and evaluation of Ottawa's mid-century modern architecture. George Bemi produced over 400 designs and built over 200 public and private sector buildings. Examples featured in the report (see also page 7) are considered better examples of Bemi's work. One of the most notable buildings is the main branch of the Ottawa Public Library that won the Royal Architectural Institute of Canada (RAIC) Festival of Architecture Award of Merit in 1979. Other notable works include, the Downtown 'Y', the Nepean Police Headquarters, and St. Basil Roman Catholic Church.

It is recommended that:

1. Based on the low score, 110 O'Connor Street should not be designated;
2. The city might consider establishing a subdistrict within the Centretown area with a more focused list of attributes addressing tall buildings to help guide future evaluations; and
3. The City of Ottawa proceed with a City wide inventory of mid-20th Century Heritage Resources project included in heritage staff's work plan in 2022 but deferred due to other priorities.

4.0 BIBLIOGRAPHY

The following sources were consulted:

- Centretown Heritage Inventory Project Draft ERA Architects, 2020;
- Carleton University Library, Archives & Research Collections, George Bemi Fonds, Finding Aid;
- Carleton University Library, Archives & Research Collections, George Bemi Fonds, Architectural and Structural Drawings Provided by Client;
- Central Area West HCD Study, Part 4. City of Ottawa 1999:
- Centretown Heritage Conservation District Study (1997) and Plan 2022;
- Centretown, Neighbourhood Heritage Character, City of Ottawa. n.d.:
- Heritage Inventory, Property Information Sheet, 110 O'Connor Street, City of Ottawa;
- 2016 Architectural Precast Concrete Wall Panels: Their Technological Evolution, Significance, and Preservation Grace Meloy University of Pennsylvania. University of Pennsylvania Scholarly Commons Theses (Historic Preservation) Graduate Program in Historic Preservation; and
- NRC Publications Archive. Selected annotated bibliography on precast concrete wall panels Dryburgh, R. B. Bibliography (National Research Council of Canada. Division Of Building Research); no. BIBL-31, 1966-02, Ottawa 1966.
- Precast Concrete Institute Journal 1970. Available on the Internet Archive.

THANK YOU

Response to UDRP Recommendations
110 O'Connor Street, Ottawa

December 1, 2024

Mr. Jean-Charles Renaud
Planner III, Development Review – Central
Planning, Infrastructure and Economic Development Department
City of Ottawa
110 Laurier Avenue West
Ottawa, ON K1P 1J1

Via Email: jean-charles.renaud@ottawa.ca

RE: Response to Comments
110 O'Connor Street, Ottawa
Site Plan Control

Dear Mr. Renaud,

Please find below a comprehensive response to the Urban Design Review Panel feedback received following the hearing on May 3rd, 2024. This response letter is included as part of the UDRP Report, which also includes the original presentation and the UDRP feedback received. This UDRP Report is being submitted in support of a Site Plan Control application.

Urban Design Review Panel

Overview

1. The Panel supports the transition of land use and addition of residential units in the downtown core.

   Response: Noted.

2. The Panel has concerns with the 7.5 metre setback creating too tight a condition with adjacent sites and strongly recommends setting the building back a minimum of 10 metres from the property line.

   Response: The tower has been moved towards O'Connor Street to allow for a 9.5m setback from the property line. We believe this is sufficient considering the adjacent development has a much larger property and was allowed a 6.5m setback according to the documents available to the public for their proposal.

3. The tower has been moved towards O'Connor Street to allow for a 9.5m setback from the property line. We believe this is sufficient considering the adjacent development has a much larger property and was allowed a 6.5m setback according to the documents available to the public for their proposal.

   Response: See updated plan. 3,000mm minimum clear is shown (occupying the majority of public realm along O'Connor). Frontage along Slater accommodates anticipated future cycle-track and related AT facilities by the City. The potential for greening relative to the proposed building footprint is limited to seasonal planters at the discretion of property management/operations.

4. The Panel has concerns with the heavy “looming” effect of the dark tower, especially in contrast to the lighter expression of the base. Consider pursuing a lighter tower expression that compliments a more solid expression in the podium base.

Response: The Panel has concerns with the heavy "looming" effect of the dark tower, especially in contrast to the lighter expression of the base. Consider pursuing a lighter tower expression that compliments a more solid expression in the podium base.

5. The Panel has concerns with the use of cement board on the podium, and recommends using a more solid and durable material such as stone or precast panels.

   Response: The cement board has been changed to light coloured precast concrete panels.

6. The Panel appreciates the highly glazed corner treatment at Slater Street and O'Connor Street, but recommends further detailing and highlighting that corner expression to form a feature and beacon for the building.

   Response: The entrance has been further highlighted with a chamfered curtain wall reminiscent of the existing building, and has been increased to two storeys high. The corner is now fully clad in silicone glazed curtain wall.

7. The Panel has concerns with the cantilevered overhang being too close to grade-level and negatively impacting the access to sunlight on the ground floor and within the pedestrian realm, and recommends raising the cantilever by at least one storey (3m).

   Response: We believe that the proposed 5m is quite sufficient. We will ensure that the soffit will be well lit and welcoming.

8. The Panel recommends minimizing the use of large balconies on the tower.

   Response: The balconies offer extended private amenity space for the users. The larger corner balconies are a nice feature for the larger units located in these areas. Secondly, the glass guardrails will soften the thick appearance of the less refined mullions of the window wall. Lastly, the balconies are conceived as volumes, serving as separators for the long facade of the tower.

Site Design & Public Realm

9. The Panel notes that the prevalence of buildings abutting property lines downtown provides little to no public open spaces, and recommends the proponent consider this development as an opportunity to demonstrate leadership and elevate the experience of Ottawa's downtown. Slater Street and O'Connor Street are core streets to the downtown, and it is important that this project elevates the experience of our city.

   Response: The proposed development incorporates a positive public realm interface which seeks to animate the property's frontages, . A covered walkway along both frontages encourages pedestrian activity and interaction with the proposed development. In conjunction with the surrounding public realm experience,

10. The Panel appreciates some of the moves being made to enhance the public realm, however, the public realm and pedestrian through-way still seem very constrained. The Panel recommends raising the cantilevered portion of the podium by 1-storey and thus starting the overhang at an 8m height (currently proposed 5m height), thereby giving more comfort and sky views to the public realm and providing the ability to plant in the areas where planters are being proposed.

    Response: We believe that the proposed 5m is quite sufficient and removing a storey of studios would render the project unviable. We will ensure that the soffit will be well lit and welcoming. Even if the soffit were raised to 8m there would still not be enough lateral space for trees to be planted and there is no precedent on O'Connor for trees.

11. The Panel appreciates the additional public realm setback being provided, and recommends introducing some greenspace to the building edges with carefully placed planters.

    Response: Noted. Refer also to comment response to #3 and #9.

12. The Panel cautions that the proposed exterior amenity at the rear of the building is located next to the garbage room and will be quite a dark and pinched space with adjacent buildings. It is unlikely the exterior amenity is going to be used as it has been rendered, and more likely will be used as a dog run. Consider rethinking how that amenity space will be used, given how dark it will be most times of day.

    Response: It is noted and concurred that the rear space will be heavily shaded. Shade (deep) tolerant plantings and approaches are proposed. The use of art and colour/lighting will be employed to animate the space. Unknown future opportunities exist to relate to the adjacent proposed development.

13. The Panel appreciates the terracing of the outdoor amenity space to cover the parking ramp.

    Response: Noted. This is a perceived major outdoor amenity feature of the proposed development.

14. The Panel has concerns with the overall lack of amenity space provided and recommends a more generous amenity should be provided at the top of the building.

    Response: The proposed development features several different amenity areas with ubique functions and settings, providing for a wider array of opportunities for residents to interact with these spaces.

Sustainability

15. Some Panel members regret that the original heritage building is not being retained, pointing to the benefits of repurposing the building, particularly from a heritage and sustainability perspective.

    Response: Through the previous Heritage Act application, initiated through the Intent to Demolish application, the heritage context was shown to be important but not necessarily unique within the downtown, and therefore teh designation of the property was not pursued by heritage staff. Additionally, due to structural considerations, maintaining the facade, core, or building itself would yield a infeasible venture from a redevelopment standpoint.

16. The Panel encourages more thought toward sustainability aspects, as well as lighting of the site and incorporating public art to help enhance the design excellence of the building.

    Response: The project aims for a LEED certification (GH). Material selection for outdoor landscape materials will consider potential for contribution to LEED certification.

Built Form & Architecture

17. The Panel appreciates the effort made to relate with the neighbouring heritage property.

    Response: We appreciate the comment.

18. The Panel recommends the proponents give more consideration to the Urban Design Guidelines for High-Rise Buildings.
    Response: The proposal speaks to the Urban Design Guidelines as they relate to this project, but note that given the context within the downtown core, high-rise building design is constrained and limited due to the size of the lot, proximity of other high-rise buildings, and

19. The Panel encourages the proponents to pursue stone or light precast as a podium material to foster a stronger relationship with the surrounding context.

    Response: The cement board has been changed to light coloured precast concrete panels.

20. The Panel has strong concerns with how dark and heavy the current proposal appears. The surrounding context has a prevalence of light grey precast, stone, and glass materiality at its base with a similar or lighter glazed materiality palette above. The Panel strongly recommends considering a lighter glass materiality above a stone-clad podium for this development as well.

    Response: We maintain that darker mullions, especially because the tower facades will be in window wall, will make the tower look more refined and age better over time. However, we have changed the colour to charcoal instead of black. A reflective film will be installed on the glass panels which will considerably lighten the look of the tower, and the glass guardrails have been changed to clear reflective glass as well. The inclusion of spandrel panels in the window wall is minimized to maximize the reflectivity and lightness of the tower.

21. The Panel has concerns with the cement board being proposed not meeting the more elevated finishes that are necessary in downtown. Consider the materiality of surrounding precedents such as the EDC building across the street and brutalist pre-cast buildings which contain intricate details and fine expression in their materiality.

    Response: The cement board has been changed to light-coloured precast concrete panels.

22. The Panel suggests that the corner expression of the proposal is particularly important to the overall success of the development. Consider a silicone glazed curtain wall with more lightness. The corner condition at Slater Street and O'Connor Street needs to become a more highly defined architectural space/feature.

    Response: The entrance has been further highlighted with a chamfered curtain wall reminiscent of the existing building, and has been increased to two storeys high. The corner is now fully clad in silicone glazed curtain wall.

23. The Panel appreciates the revisions made to the massing of the building to this point. Trimming back the leg portion at Slater Street and simplifying to a bar tower has helped to clean up the massing.

    Response: We appreciate the comment.

24. The Panel appreciates the proponents highlighting the requirement for design excellence at this site, and suggest more is needed to achieve that goal.

    Response: We believe the use of precast panels, silicone glazed curtain wall at the corner, athe new corner expression and the refinement of the tower panel design will bring us closer to the design excellence we aspire to achieve.

25. The Panel has concerns with how small the proposed mechanical equipment room is. More study is required to ensure adequate allocation of space for the rooftop mechanical equipment.

    Response: Study in progress by mechanical engineer. It is possible that the 1BR unit on the roof next to the elevators will be converted into mechanical space as well if necessary.

26. The Panel recommends further exploring how the top of the building meets the sky, and recommends ensuring that the mechanical equipment room is concealed within the rooftop treatment.

    Response: The mechanical equipment will be concealed from view within the walls surrounding the roof.

27. The Panel notes that the zoning downtown is very tight, which historically was provided for daytime office uses. Considering that this proposal is for a residential building, the amount of setback provided to the rear lot line needs to be re-thought. The current 7.5m setback is too small, and a minimum of 10m setback is needed in order to have a 20m separation from future adjacent towers.

    Response: The tower has been moved towards O'Connor street to allow for a 9.5m setback from the property line. We believe this is sufficient considering the adjacent development has a much larger property and was allowed a 6.5m setback according to the documents available to the public for their proposal.

28. The Panel recommends giving more consideration to the chamfered corners and openings of the brutalist building, and incorporating similar concepts in this proposal. Consider the NAC renovation as a successful precedent that keeps the overall character of the brutalist architecture while modernizing it by providing a balance between window openings and solid wall proportions.

    Response: The entrance has been further highlighted with a chamfered curtain wall reminiscent of the existing building, and has been increased to two storeys high. The corner is now fully clad in silicone glazed curtain wall.

29. The Panel has concerns with the very long balconies being proposed, and recommends further study is needed on the balconies and how they integrate with the building expression.

    Response: The balconies offer extended private amenity space for the users. The larger corner balconies are a nice feature for the larger units located in these areas. Secondly, the glass guardrails will soften the thick appearance of the less refined mullions of the window wall. Lastly, the balconies are conceived as volumes, serving as separators for the long facade of the tower.

30. The Panel has concerns with the lack of articulation in the tower and the resulting ‘canyon effect’.

    Response: The site is quite narrow. With a required 10m setback from the property line, this leaves only enough room for a less than standard 57' (normally 62') wide residential building with a double loaded corridor. If we were to integrate the balconies into the tower as loggias there would be significant loss of sellable square footage which would render the project unviable- or we would have to eliminate many balconies which is undesirable as well. We believe the design of the balconies as proposed works to divide the long portion of the tower and add articulation to the facades. We suggest looking at the precedent Yoo Condos in Montreal.