



JASPER AVENUE AND 123 STREET - MIXED USE DEVELOPMENT

10110 123 Street and 12312 Jasper Avenue

EDMONTON DESIGN COMMITTEE -
FORMAL REZONING INFORMATION PACKAGE

JULY 02, 2019

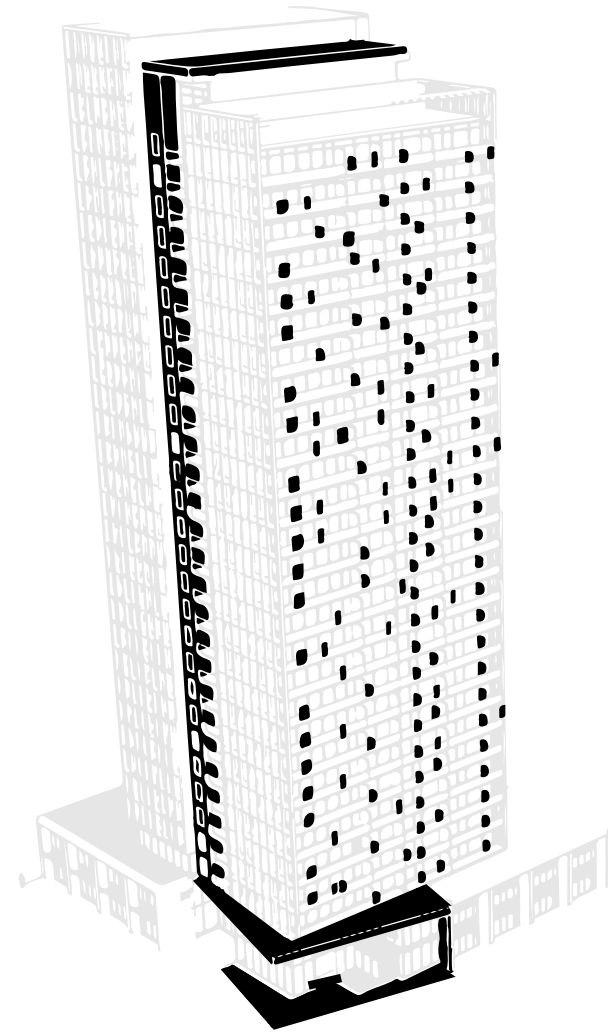


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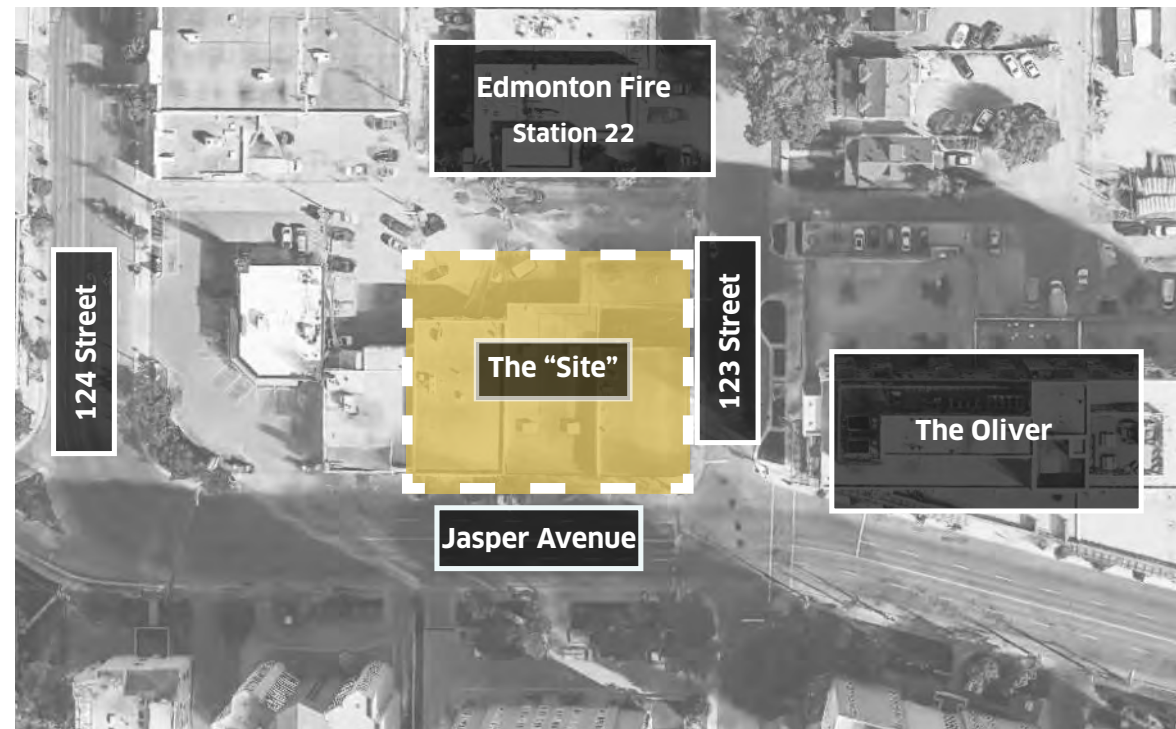
1.0 PROJECT DESCRIPTION

JASPER AVENUE & 123 STREET

1.1 SITE + SURROUNDING CONTEXT

The subject site is located at 10110 123 Street and 12312 Jasper Avenue NW and includes one and two storey commercial buildings fronting onto Jasper Avenue, as well as a one-storey standalone commercial building along 123 Street. There are several multi-family buildings in the form of highrise and medium rise developments within the vicinity of the site, as well as several proposed / ongoing redevelopments including: the CNIB redevelopment (35 stories), McLaren (26 storeys), and Clifton Place (22 storeys). The proposed redevelopment is central to the existing and redeveloping high-rise towers and will help to support Jasper Avenue, as a dense and pedestrian-friendly main street.

The streetscape along Jasper Avenue includes a wide street and sidewalk with a few street trees, decorative street lights, and bus stop signage. The streetscape along 123 Street includes very little landscaping or pedestrian amenities, and access to the rear laneway.



Site Location



South Elevation of Existing Built Form - Jasper Avenue



North Elevation of Existing Built Form - Laneway



East Elevation of Existing Built Form - 123 Street

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1.2 REQUIRED APPROVALS

The proposed development requires an amendment to the Oliver Area Redevelopment Plan, as well as an amendment to the City of Edmonton Zoning Bylaw 12800 (Bylaw) - from (CB3) Commercial Mixed Business Zone and (CB1) Low Intensity Business Zone to a (DC2) Site Specific Development Control Provision - in order to facilitate the proposed development.

1.3 PROPOSAL

The proposed rezoning application supports the development of a 32-storey mixed-use building (plus the mechanical penthouse). The building includes a tower and podium design that is approximately 98 metres in height (including the mechanical rooms), with a Floor Area Ratio (FAR) of 11. The building is comprised of:

- A 2-storey podium with commercial uses fronting Jasper Avenue, a residential lobby that wraps around the corner with public and private outdoor amenity space, and a commercial unit for a cafe and row of active residential uses (townhouses) along 123 Street;
- A 28-storey multifamily tower;
- 3 levels of underground parking accessed from the rear lane;
- Approximately 305 residential units ranging in sizes
- Tower has a sleek and modern design with a small footplate (~750 sq m)
- Tower step back above the podium; and
- Public realm enhancements and landscaping that respects the vision outlined in Imagine Jasper Avenue

1.4 PLANNING POLICY

The proposed development is supportive of existing and emerging policy as follows:

1.4.1 Edmonton Metropolitan Region Growth Plan (EMRGP)

The EMRGP identifies a need for integrated and higher density development in the core to meet the demand of the growing region. The EMRGP calls for a mix of jobs, services, amenities, and diversity in housing to support the creation of a complete and liveable community, an ultimately a healthy and well-serviced region within downtown Edmonton.

1.4.2 The Way We Grow - Municipal Development Plan (MDP)

Policies set out by the MDP include growth and development that integrates land uses to achieve complete, livable communities. The site is within the Central Core - a high density, mixed-use, transit and pedestrian oriented area with excellent urban design. An objective of the Central Core is to enhance downtown livability by increasing amenities and supporting the emergence of a highly

desirable urban community, especially around transit corridors.

1.4.3 Sub- Area 1 - Oliver Area Redevelopment Plan (ARP)

The Oliver ARP encourages a diverse range of housing and commercial uses that draw people to the area and support an animated public realm. The Oliver ARP policies focus on a sustainable, vibrant, well-designed, and pedestrian-oriented neighbourhood. The ARP has zoning associated with it, (indicating that the sites are zoned CB1 and CB3) and as such, an amendment to the ARP is required in order for the Plan and the zoning to align.

1.4.4 Imagine Jasper Avenue

Policies and funding for Imagine Jasper Avenue have not been finalized and may not be approved by the time this project is built. As such, the design of the public realm and landscaping will be developed in the spirit of Imagine Jasper Avenue, and in doing so, will coordinate the placement of urban design element and the re-configuration of the streetscape with this in mind. The proposed development contemplates the building being pulled back by 1 metre from the property line as per the Imagine Jasper concept plan. Furthermore, the proposal meets the intent of Imagine Jasper by:

- Creating a vibrant, all seasons destination;
- Shaping a community street - putting pedestrians first and ensuring travel options for all users; and
- Increasing the amount of green space within the public realm.



1.5 DEVELOPMENT & PLANNING PRINCIPLES



Existing Character - Support the existing character of the area and increase its appeal as a pedestrian oriented neighbourhood.



Thriving Businesses - Support and encourage Jasper Avenue as a commercial area - with a focus on retail and service commercial activity.



Pattern of Development - Promote a pattern of development that will bring greater densities into well-served neighbourhoods near the downtown core at a scale that fits within the context of the existing community.



Walkable/Multi-Modal Transportation - Support walkability and multi-modal transportation along Jasper Avenue.



Managing Traffic & Parking - Manage vehicular traffic circulation and parking to minimize impacts on the residential interior of the neighbourhood.



Housing Choices - Introduce varied housing options to provide additional housing choices within the community.



Sense of Place - Create a positive sense of place by providing amenities and public realm improvements for all to enjoy.

1.6 CHANGES TO THE DEVELOPMENT CONCEPT

How the updated concept addresses what we heard at the informal Edmonton Design Committee Meeting?

How does the project plan on incorporating sustainability?	The updated concept will incorporate sustainability by exploring opportunities for energy efficiency through an advanced mechanic system and a durable building envelope. The development also supports sustainability by increasing the density in an area that is well-served, walkable and transit oriented.
Could the trees be pulled back from 123 Street?	The updated concept pulls the trees back from 123 Street.
Is there an opportunity to have the podium walls glazed? (Particularly the solid wall adjacent to the residential entrance and fronting Jasper Avenue)	The updated concept includes an improved podium with additional glazing and a redesigned orientation of the podium walls to break up the mass and improve sight lines.
Has the new energy code been considered? Will some walls be solid? Will this affect the appearance of the East and West elevations?	Yes, the new energy code has been considered. The current design is aiming for a 40:60 ratio of clear glazing to solid wall.
What can be done to break up the tower?	The updated concept is broken up vertically and horizontally through a redesigned tower and podium which reduces the amount of solid large plains, as well as an improved treatment to the exterior with a more porous and gridlike facade and a complimentary mix of materials, colour, and textures to create a sense of lightness within the design.
Would like to see how the building integrates with the surrounding context? Including images that illustrate adjacent building across the street and avenue.	The updated concept includes additional renders to highlight the integration of the building with the surrounding developments.
Can you provide a shadow study that makes it clearer how the building will cast a shadow to the north.	See updated sun/shadow study with an extended view-plane to the north and east within this booklet.
How are we mitigating development to the west?	The updated concept includes a redesigned podium with active commercial uses along Jasper Avenue that will be complimentary to any future development that occurs to the west along Jasper Avenue, and support a more lively and animated streetscape.
Can you provide more information as to how the building design impacts the street (Corner element is not necessarily bad, but it is different)?	See the updated aerial renderings as well as street level renderings for how the project engages with Jasper Avenue and 123 Street within this booklet.
Can you show the landscaped rooftop and podium?	See additional concept design information for the landscaped rooftop and podium within this booklet.

1.7 HOW THE DEVELOPMENT CONCEPT ADDRESSES THE VISION AND PRINCIPLES?

How the concept addresses the vision and guiding principles?

<p>Existing Character - Support the existing character of the area and increase its appeal as a pedestrian oriented neighbourhood.</p>	<p>The updated concept includes a diverse mix of uses on the ground level to animate the public realm, increase the curb appeal, and complement the existing character of the Oliver neighbourhood. The concept embraces the commercial-oriented nature of Jasper Avenue (through the commercial units), as well as the residential neighbourhood to the north along 123 Street (through the row of townhouses). The concept also includes a plaza space with seating and landscaping to support a pedestrian oriented neighbourhood.</p>
<p>Thriving Businesses - Support and encourage Jasper Avenue as a commercial area - with a focus on retail and service commercial activity.</p>	<p>The concept includes active commercial uses along Jasper Avenue to enhance retail and service commercial activity.</p>
<p>Pattern of Development - Promote a pattern of development that will bring greater densities into well-serviced neighbourhoods near the downtown core at a scale that fits within the context of the existing community.</p>	<p>The concept introduces approximately 301 residential units to the downtown core along Jasper Avenue in an well-serviced neighbourhood with many nearby amenities and transit services. There is a transition into townhouses within the podium along 123 Street to respect the residential nature of the street. It is also important to note, that the tower has been sited closer to Jasper Avenue, to provide ample setbacks towards the rear lane, fire station, and residential neighbourhood further north.</p>
<p>Walkable/Multi-Modal Transportation - Support walkability and multi-modal transportation along Jasper Avenue.</p>	<p>The concept is in a walkable location with many bus stops nearby and along the transit avenue of Jasper Ave, as well as several future LRT stops along the Valley Line - West. The concept also includes bicycle storage for occupants to make it easy to bike and support multi-modal transportation.</p>
<p>Managing Traffic & Parking - Manage vehicular traffic circulation and parking to minimize impacts on the residential interior of the neighbourhood.</p>	<p>All parking, with the exception of a narrow strip of surface parking along the rear lane, is contained underground to minimize impacts on the surrounding Oliver neighbourhood.</p>
<p>Housing Choices - Introduce varied housing options to provide additional housing choices within the community</p>	<p>The concept includes a mix of studio, one bedroom, two bedroom, and townhouses to improve housing choices within the community. After further market research it was determined that it would be more beneficial to have additional studio units that are smaller in size than what was previously proposed, instead of the nano-suites.</p>
<p>Sense of Place - Create a positive sense of place by providing amenities and public realm improvements for all to enjoy.</p>	<p>The concept includes several unique residential amenities including a swimming pool, skating rink, fitness room, sauna, library, and entertainment lounge, to create an authentic sense of place and bring occupants together. The active commercial frontages and private/public realm spaces blend together to create an inviting and destination oriented street frontage that will create a sense of place along the corner of Jasper Ave and 123 Street.</p>

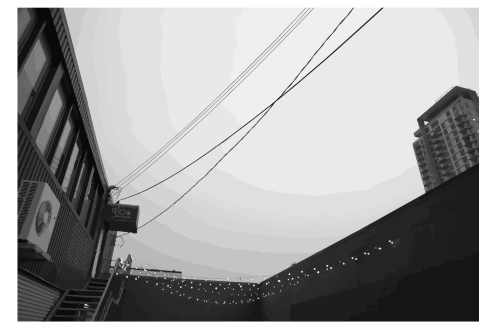
1.8 SITE, NEIGHBOURHOOD, AREA INSPIRATION



MID-CENTURY MODERN
FEATURES IN THE AREA



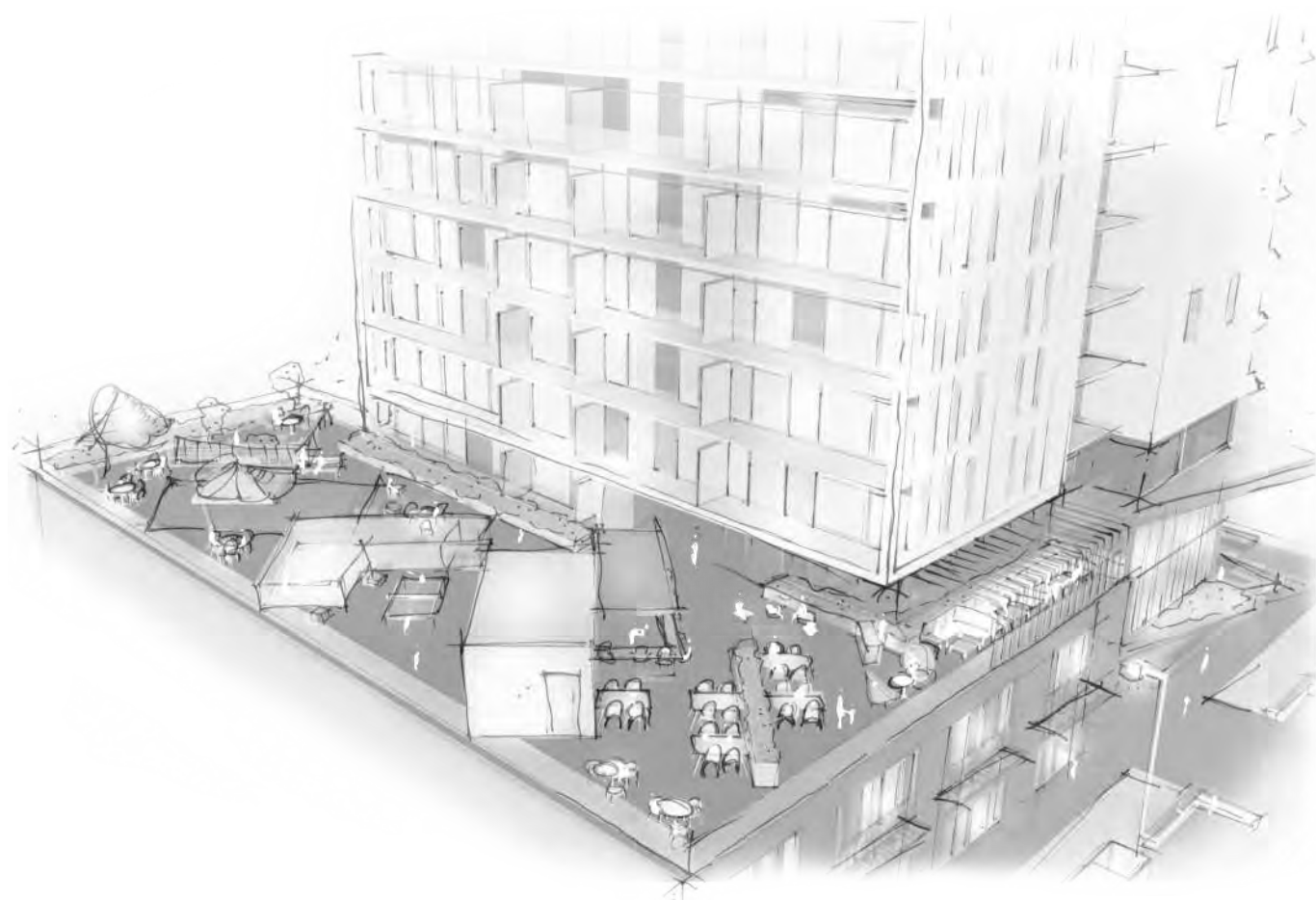
NEIGHBOURHOOD
IDENTITY



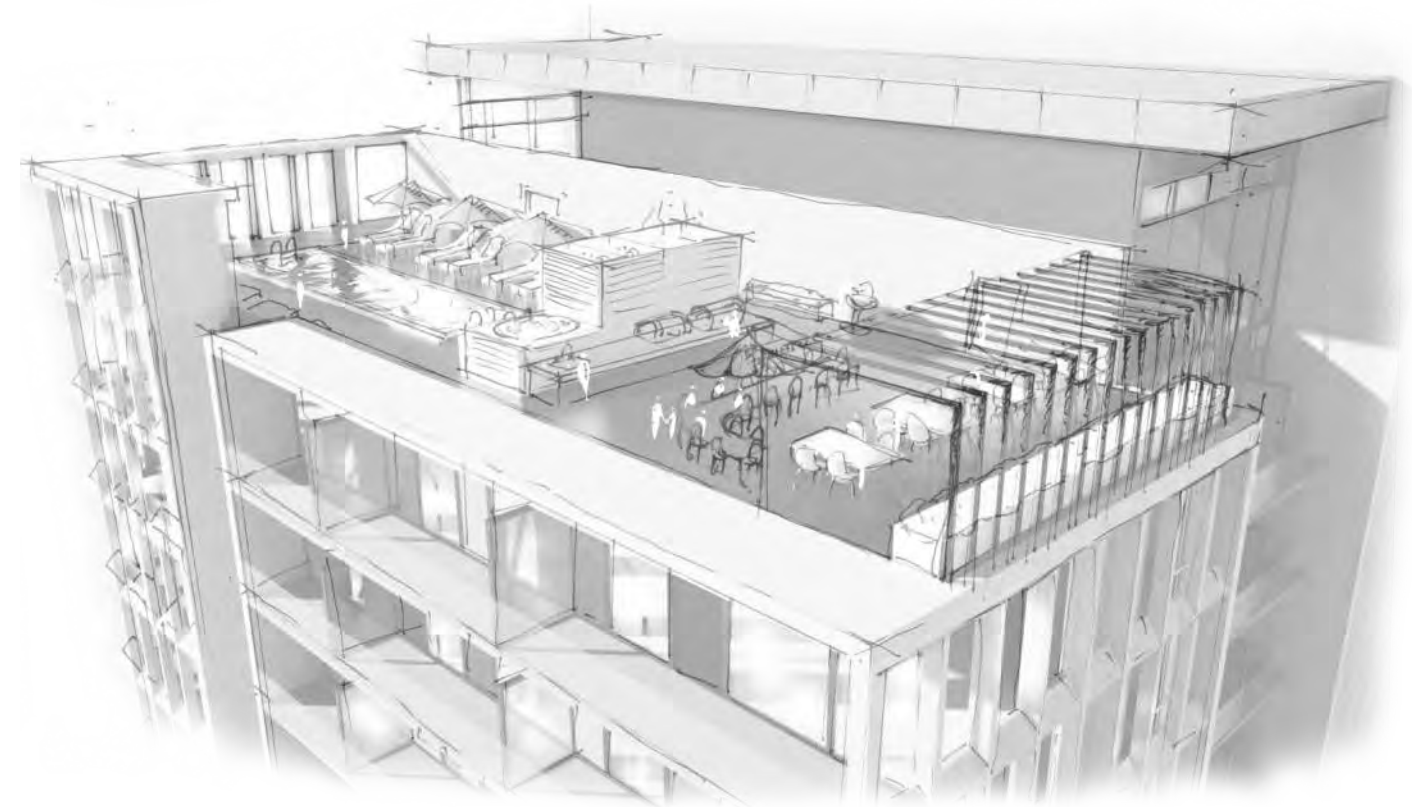
SITE ESSENCE



1.9 SKETCHES OF AMENITY SPACE



Sketch of the podium looking northeast from Jasper Avenue

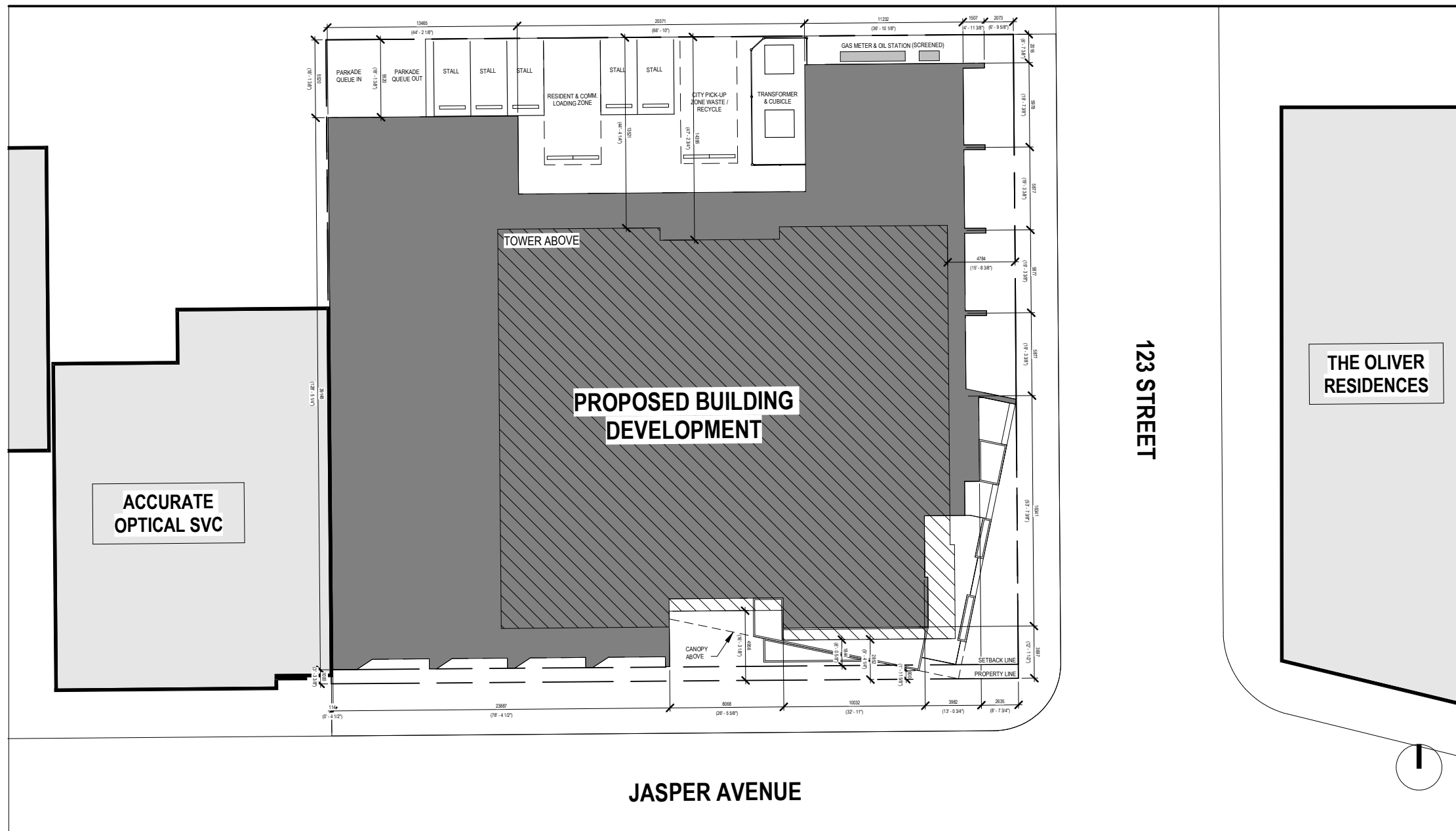


Sketch of the rooftop design and terrace

1.0 PROJECT DESCRIPTION

JASPER AVENUE & 123 STREET

1.10 SITE PLAN



1.0 PROJECT DESCRIPTION

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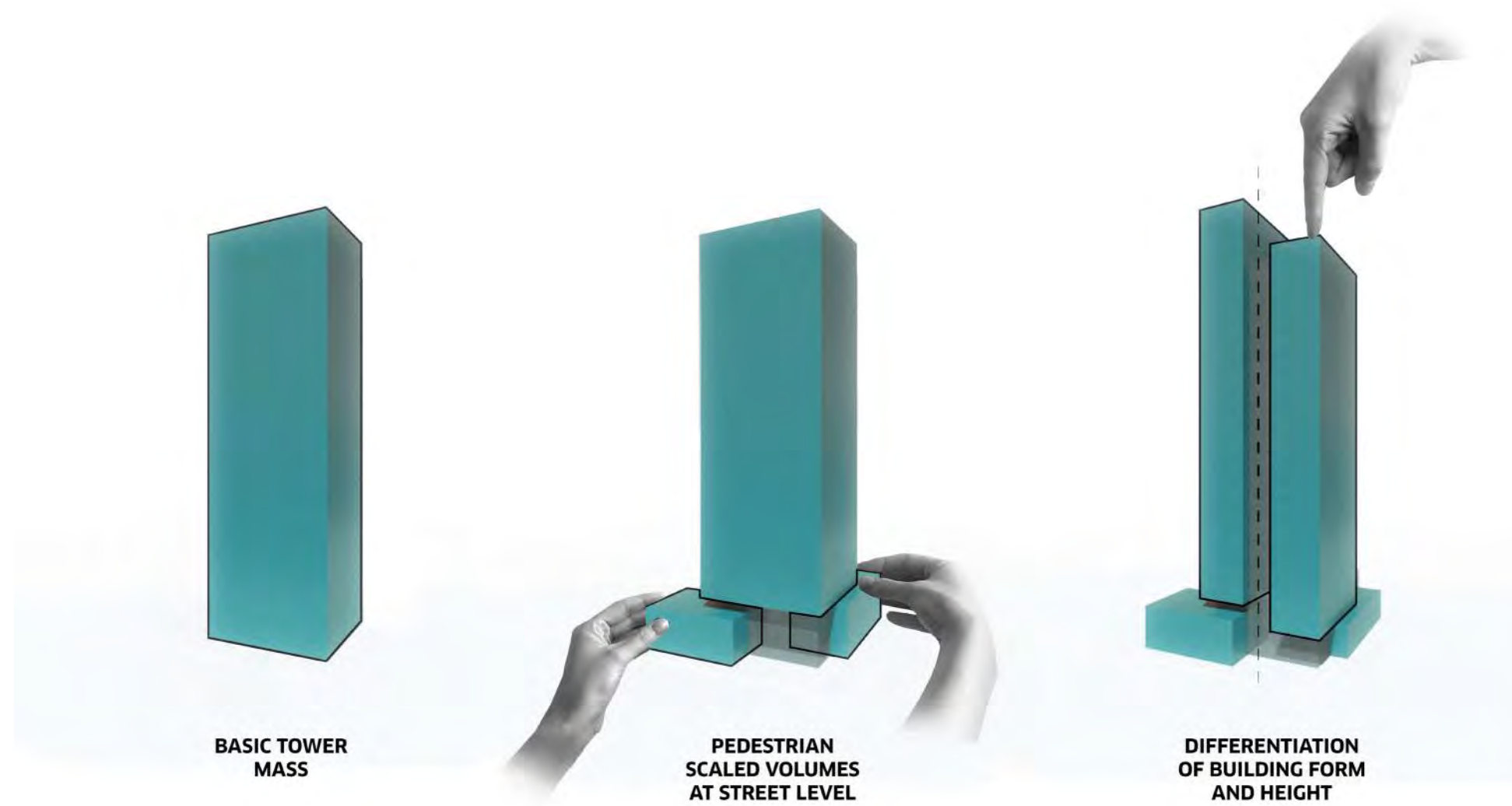


1.11 LANDSCAPE PLAN

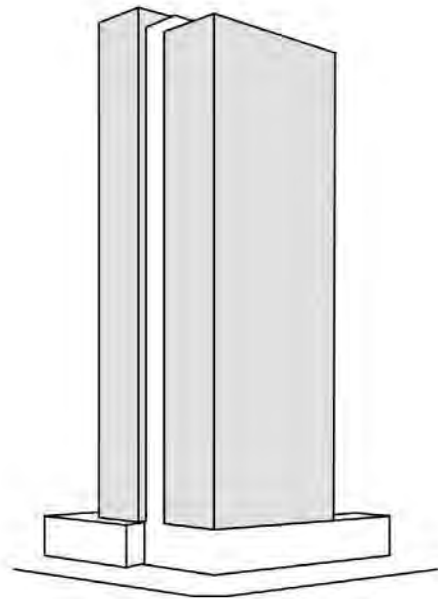
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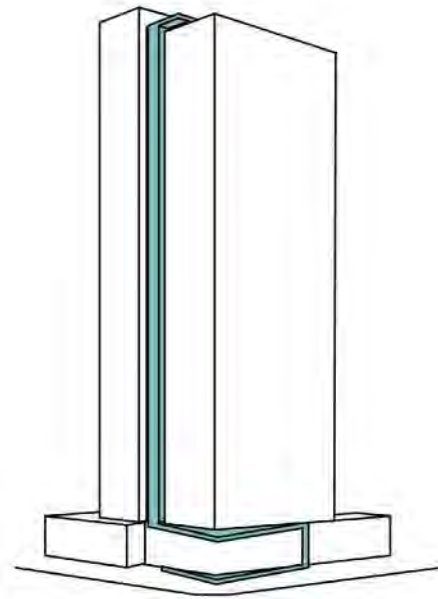
1.12 DESIGN MASSING



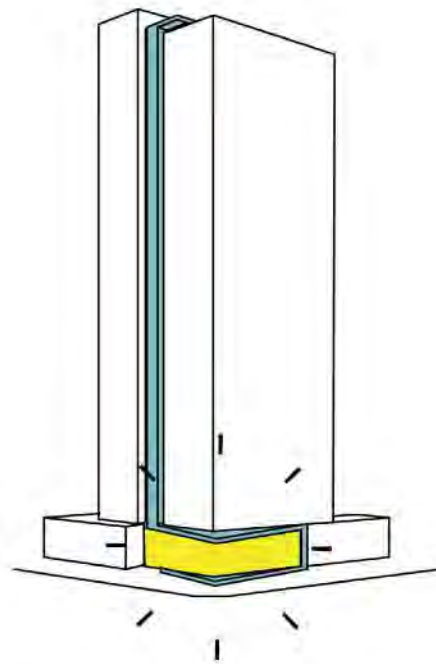
1.13 DESIGN ARTICULATION



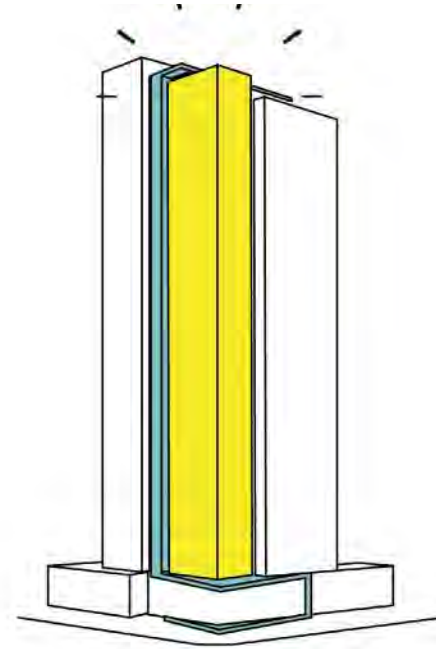
BASIC TOWER FORM IS DIVIDED INTO THREE DISTINCT VOLUMES WITH A PODIUM AT PEDESTRIAN LEVEL



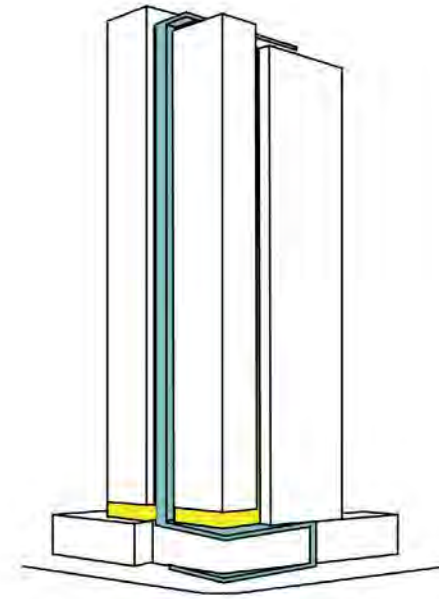
THE MIDDLE VOLUME CASCADES DOWN THE TOWER AND TRANSITIONS INTO AN ELEMENT THAT FRAMES A PORTION OF THE PODIUM



A FRAMED SOUTH-EAST STREET CORNER BECOMES 'THE JEWEL' OF THE BUILDING FILLED WITH RESIDENTIAL AMENITY FACING JASPER AVENUE AND 123 STREET



DISTINCT FACADE TREATMENT AT THE SOUTH-EAST OF THE TOWER ENFORCES THE IMPORTANCE OF THE STREET CORNER



LIFTING THE TOWER FACADE AT THE SOUTH-EAST AND THE SOUTH-WEST CORNERS PROVIDE RELIEF OF BUILDING MASSING BETWEEN THE TOWER AND PODIUM

1.0 PROJECT DESCRIPTION

JASPER AVENUE & 123 STREET

1.14 RENDERS



View of the tower and podium looking southwest



View of the tower and podium looking southeast

1.0 PROJECT DESCRIPTION

JASPER AVENUE & 123 STREET



View of the tower and podium looking northeast



View of the tower and podium looking northwest

1.0 PROJECT DESCRIPTION

JASPER AVENUE & 123 STREET



View of the residential townhouses along 123 Street

2.1 CREATING + ENHANCING THE CITY

The Oliver neighbourhood is a livable and walkable community with a diverse mix of residential, retail and office uses and is easily accessible to public transit and the River Valley. Jasper Avenue plays an important role in the urban fabric, as it serves as a linkage between the 124 Street commercial corridor and the Downtown. The redevelopment of underutilized properties along Jasper Avenue will bring a renewed energy to this part of the City, strengthening its importance as an urban place. It promotes compact development and intensification; transit-oriented development (TOD) (Jasper Avenue is designated as a Transit Avenue); and housing choices for various demographic groups.

Residential intensification along major transit corridors is a fundamental principle in sustainable urban design. The proposed development has 13 bus stops located within a 400 metres radius, including several along Jasper Avenue and is within 600 metres from a future Valley Line - West LRT Station. The proposed development does adhere to a number of the strategic policies and as such integrates easily into the an intensifying city pattern.

BUS & BIKE MAP



2.2 CREATING + ENHANCING THE NEIGHBOURHOOD, DISTRICT CORRIDOR

The proposed development includes street oriented commercial space to support the needs of residents, workers and visitors, who will activate their use throughout the day and evening. A diverse, vibrant, compact, pedestrian-friendly public realm will be created through the use of a unique paving pattern, and street plantings that are in keeping with the spirit of Imagine Jasper. A well designed livable environment is achieved through the proposed landscaping, indoor and outdoor private amenity spaces, and ground floor uses. Again, this stretch of Jasper Avenue is an important link to the 124 Street corridor and the Downtown. The scale and design of the podium respects and complements the character of the area and supports a continuous street facade. The development will revitalize buildings that are nearing the end of their life cycle; add significant investment to lands located at the edge of the neighbourhood; and place higher density development closer to transit services.

The residential tower will add high-quality accommodations broadening the range of housing choices in the community. The mix of units will include townhouses, studio, and one-bedroom and two-bedrooms, with and without dens. By introducing several types of units, the development is more likely to attract a diverse range of residents of different socioeconomic backgrounds which will further enhance the neighbourhood.

2.3 CREATING + ENHANCING THE BLOCK, STREET + BUILDING

The podium has been scaled to the pedestrian and is designed with active frontages along both Jasper Avenue and 123 Street. The podium along Jasper Avenue includes a primarily glazed façade, providing visual access to and from interior spaces. This ground level transparency will encourage active edges and promote a safe environment with “eyes on the street”. The actives frontages proposed for the townhouses, will further activate 123 Street. The residential and commercial entrances are clearly distinguishable and well-illuminated to ensure that the building is easily accessible and safe. The tower is stepped back to provides a break in the massing, as well as access to daylight, privacy and ventilation, and favorable wind conditions at street level. The tower setbacks from the property line are ~13.8 metres from the west, ~6.55 metres from 123 Street, ~3.2 metres from Jasper Avenue and ~13.8 metres from the rear lot line.

Furthermore, the design of the corner element is angled slightly to open up to Jasper Avenue and 123 Street and create a unique visual presence. This corner feature frames the outdoor space and establishes a visual introduction to the 124 Street commercial corridor. The continuous street edge will create a strong urban presence and uniform building height, materiality and massing which will be enhanced by a high quality public realm.

3.0 DESIGN EXCELLENCE

The overall design concept is based on the following principles:

- To create a positive sense of place through pedestrian focused streetscapes and active frontages.
- To provide additional housing choices in the community by introducing a variety of housing forms (including a mix of unit types in the residential portion of the building and townhouses).
- To design a sensitive streetscape with a 2-storey podium with active residential and commercial uses along 123 Street and commercial uses along Jasper Avenue, at an appropriate scale that complements the neighbourhood and ultimately enhances the public realm.
- To design a mixed-used building with a slim and tall tower with a small floor plate (~725 sq m) and an enhanced step back that provides visual interest and offsets the perceptible massing at street level.
- To contain all residential, visitor and commercial parking on Site and below grade.

3.1 SUSTAINABILITY

The commercial portion of the development has been designed to be flexible and adaptable to the changing needs of future tenants. The mix of unit types in the residential portion of the building support social diversity within the tenant population. The redevelopment has been designed to be environmentally sustainable and supports the “greening” of Edmonton. The landscaping will be mindful of water conservation and include plant species that require low maintenance.

3.2 THE WINTER CITY

The proposed development has taken into consideration principles for Winter City design, and achieves many of the principles through the following:

- The tower has been stepped back from the podium and massed appropriately to provide a break in the massing and allow for access to daylight and favourable wind conditions at the street level.
- Several building entrances have been provided to add to the visual interest of the building.
- A vestibule to the residential entrance is included, providing a place for residents and visitors to shed snow prior to entering the building and to prevent heat loss.
- Underground parking is provided for the users of the building.
- The building materials include transparent glazing (the majority of which faces south) on the ground floor to allow for people to see in and out of the building at all times of the day. The south facing glazing also provides an opportunity to receive winter warming and day lighting potential.
- Lighting will be strategically incorporated into the design of the building, allowing patrons to clearly distinguish entrances and enhance visibility.
- The vegetation chosen is appropriate for Edmonton's climate, has the ability to withstand snow loads, and provides colour and looks attractive covered in snow.
- Building signage will promote building identity and way finding.
- The building is on the north side of the street, thus limiting excess shading over Jasper Avenue, which is a pedestrian oriented commercial street. A Sun/Shadow analysis has been completed and is depicted in the appendices.
- The building includes indoor/outdoor amenity spaces that are accessible for residents year-round and will provide a flexible space for residents to gather with neighbours, and to enjoy views of downtown Edmonton and the river valley.

3.3 PUBLIC ART AND CULTURE

A community contribution will be made to introduce additional amenities into the neighbourhood. The project team is interested in working with City Administration and the community to determine the best use for the monies contributed, and is particularly interested in using this contribution for some form of public realm improvement. While the type and style of community contribution has not been determined, we are confident that this contribution will ultimately be used to enhance the vibrancy of the community and eclectic culture of Jasper Avenue and the Oliver neighbourhood.

As a whole, the design of the building supports the sentiment of architecture as art. Although each aspect of the building is clearly identifiable and each has a distinctive expression, the project reads as a whole, as a unique, modern and visually interesting development, that will enhance the overall aesthetics of Jasper Avenue and 123 Street. The design of the building embraces the culture of the urban fabric through the design of the podium and public realm. These spaces support community gathering and create opportunities for people to have spontaneous interactions which is one of the best and unique experiences a Downtown area can offer. One example of this can be seen in the precedent image below which depicts an interior design style the building may consider for the residential lobby.

3.4 INNOVATION

The proposed development is in keeping with the City's current development policies as it promotes a development that has a range of unit types, is high quality, transit and street oriented and is pedestrian friendly. The development is innovative in its design as incorporates traditional and contemporary features, with materials that complement and will integrate into the community. When looking at the building from different angles, it interacts with the edge condition in different ways to most appropriately enhance that space. In addition to an innovative design, efforts will be made to incorporate sustainability by optimizing energy efficiency through an advanced mechanic system and a durable building envelope.



Precedent example of residential lobby

3.0 PRINCIPLE B - DESIGN EXCELLENCE
JASPER AVENUE & 123 STREET



View of the residential Entrance along Jasper Avenue

4.1 CELEBRATE, ENGAGE AND ENHANCE THE UNIQUE CONTEXT OF THE LOCATION

The Oliver neighbourhood is one of Edmonton's most walkable and livable inner city communities. The proposed development enhances this by:

- Facilitating uses that are street oriented with multiple entrances along Jasper Avenue;
- Providing a mix of unit types, which increases the utilization and efficiency of the Site and promotes a sustainable community, and;
- Providing a building that responds to each orientation through the positioning of balconies and landscaped terraces which take advantage of the unique Oliver location framing views of the City and the River Valley, and providing eyes on the street and laneway.

4.2 CELEBRATE + RESPECT HERITAGE

The proposed development respects the overall context of the Oliver neighbourhood by providing commercial uses along Jasper Avenue and active residential along 123 Street. The scale and massing of the stepped back residential tower is relatable to the Canadian Western Bank building to the east of the Site and to the residential buildings on the south side of Jasper Avenue. The scale, massing and location of the development will not impact the existing historical character of the neighbourhood, but will improve the public realm, social activity and strengthen neighbourhood presence. The development celebrates and respects the coherence of the current urban structure.

4.3 ENHANCE + PRESERVE CONNECTIONS

The proposed development provides a pedestrian oriented streetscape, designed to accommodate multiple points of arrival on the ground floor. Along Jasper Avenue, these points of arrival are commercial uses, with a separate entrance to the residential component that will be distinguished by a recessed forecourt, but also complement and integrate with the active uses along Jasper Avenue. The 123 Street facade will connect to Jasper Avenue and the surrounding community to the north by providing active residential frontages. As previously mentioned, the Site is a gateway to both the 124 Street commercial corridor and the Downtown and the proposed development and treatments of the ground level and public realm enhance this connection.

Underground parking is accessed from the laneway to ensure that vehicles and parking do not impact the pedestrian experience along the street. Additionally, the new development removes the existing surface parking lot, which had previously created a gap in the active street frontage.

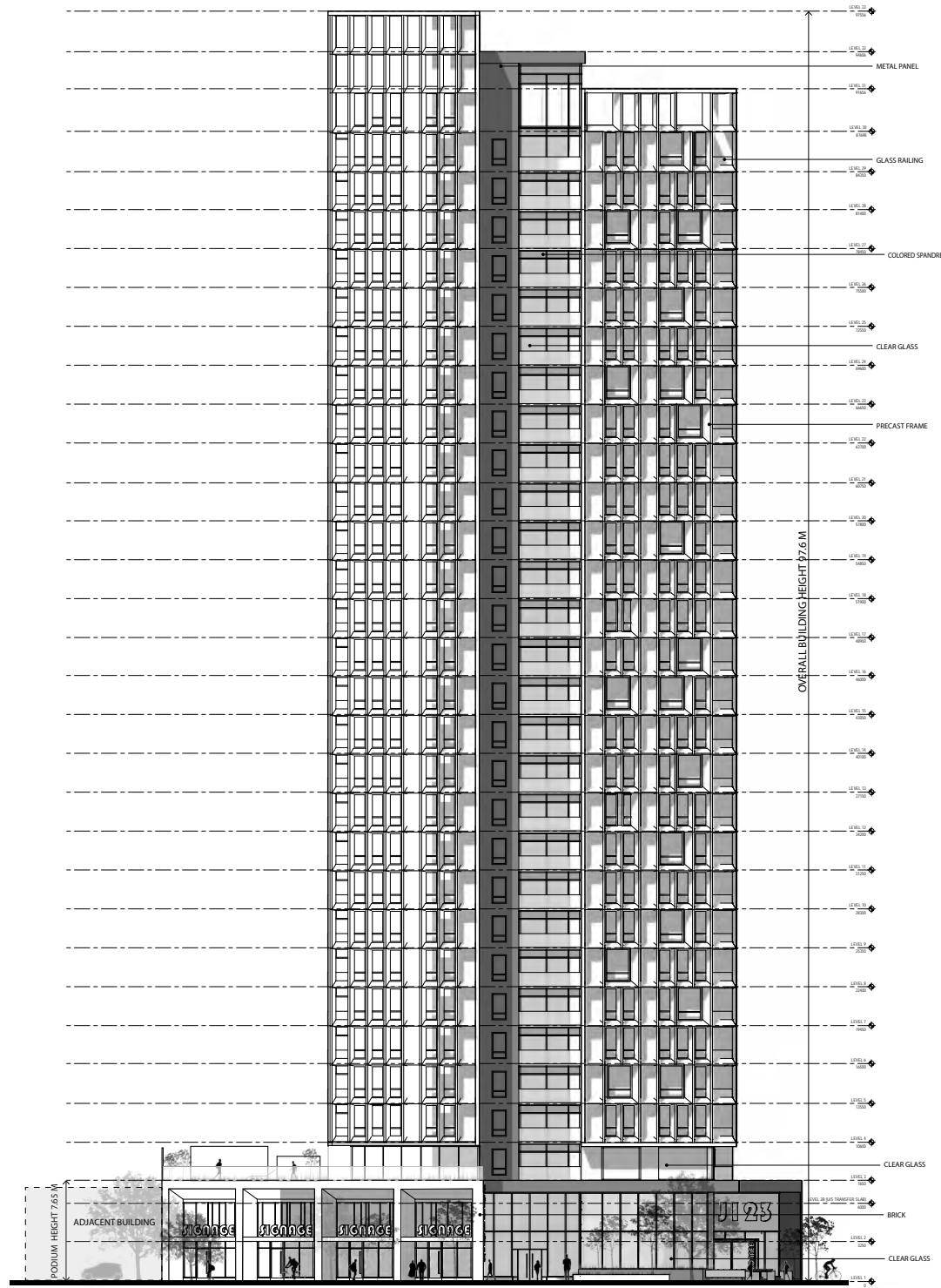


Public realm along Jasper Avenue and 123 Street

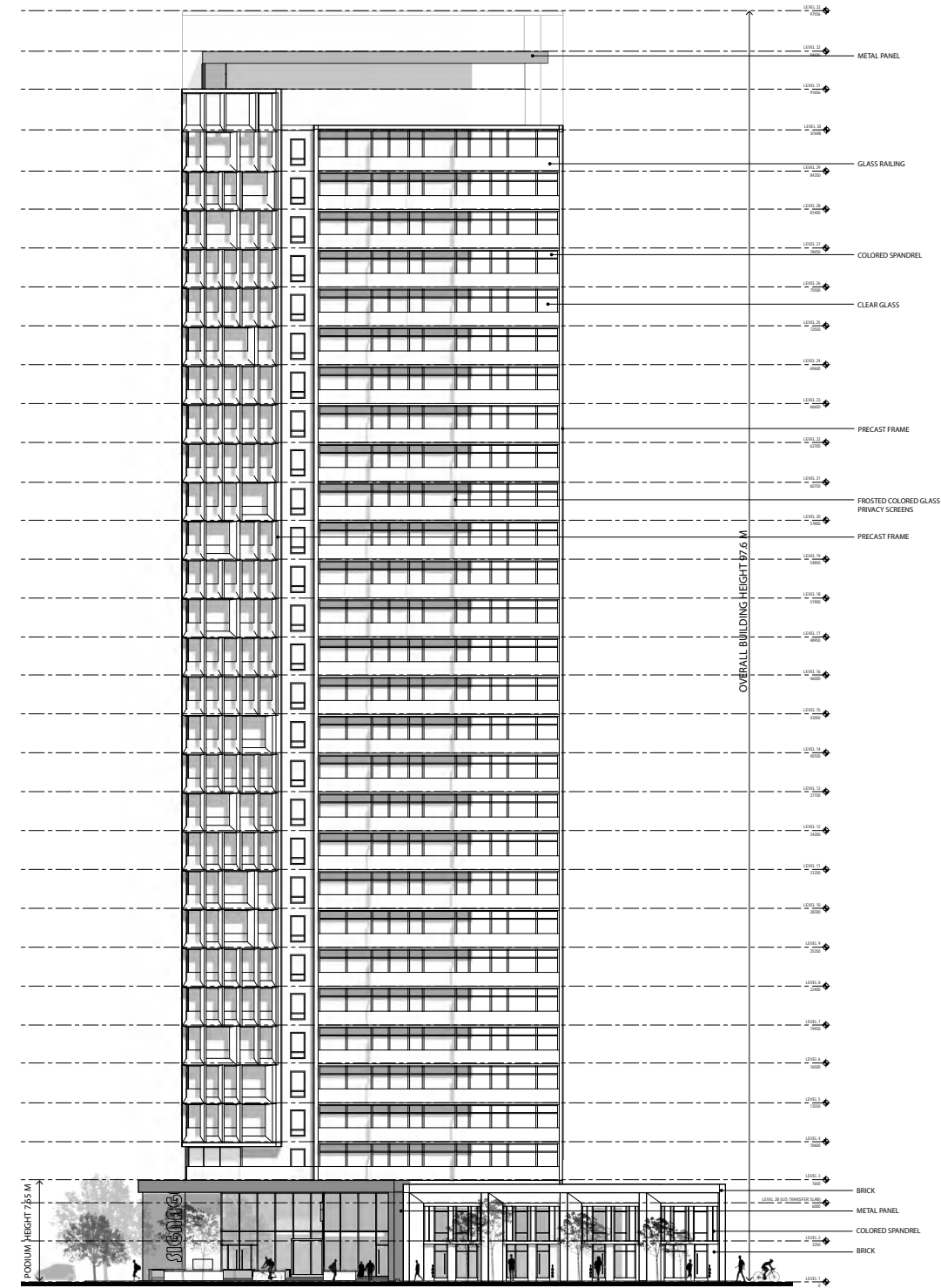
5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET

5.1 ELEVATIONS



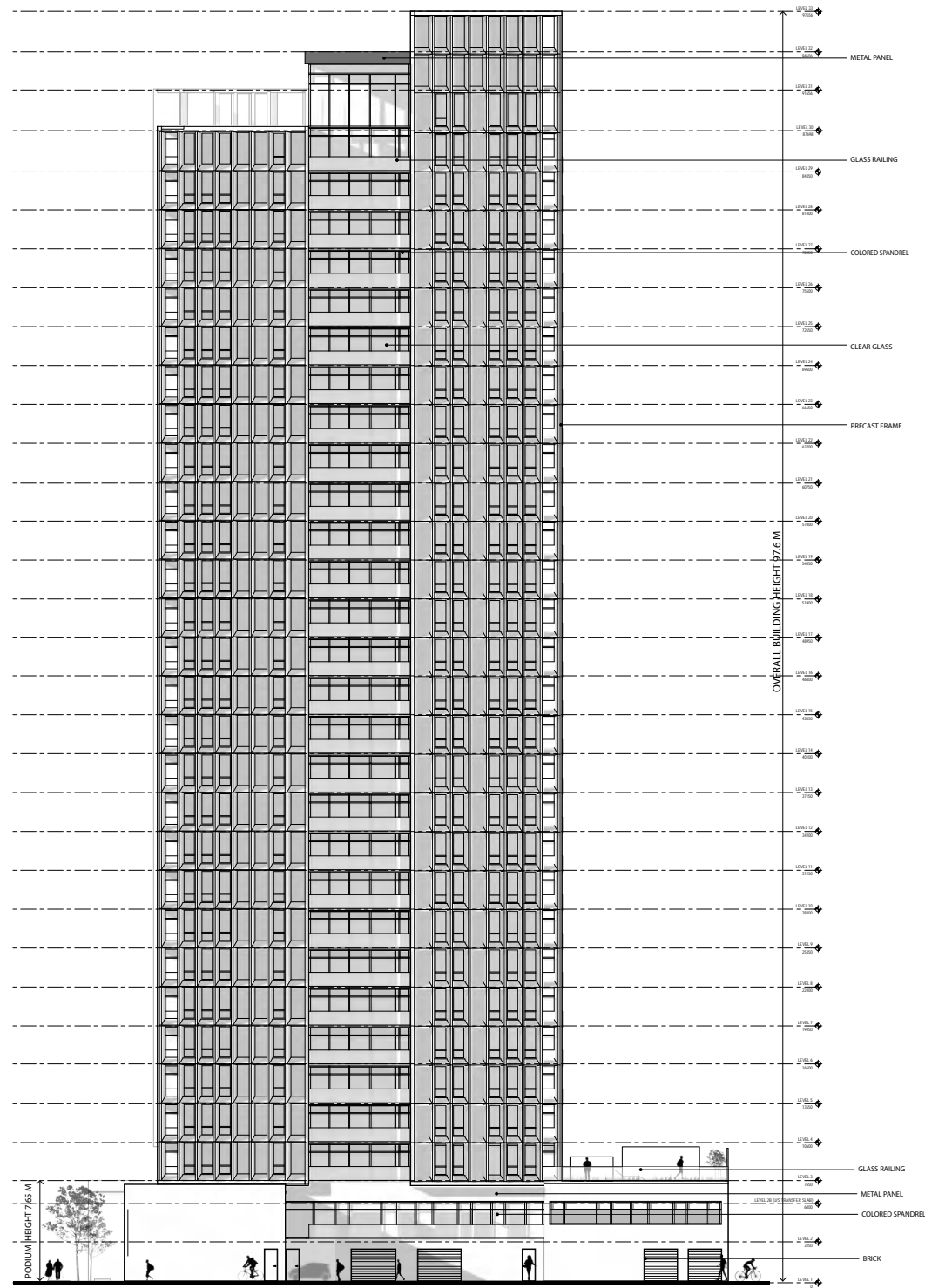
SOUTH ELEVATION



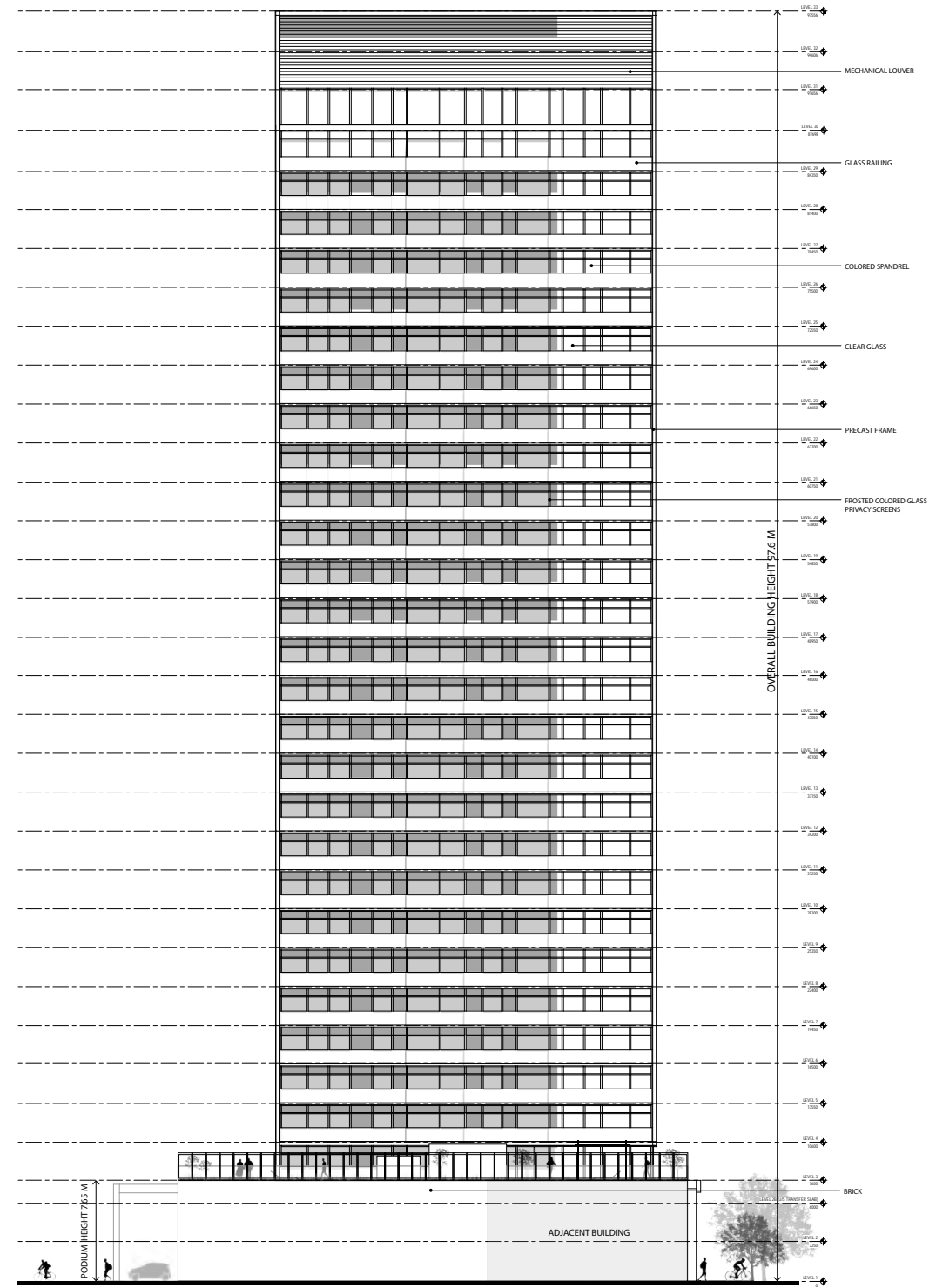
EAST ELEVATION

5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



NORTH ELEVATION

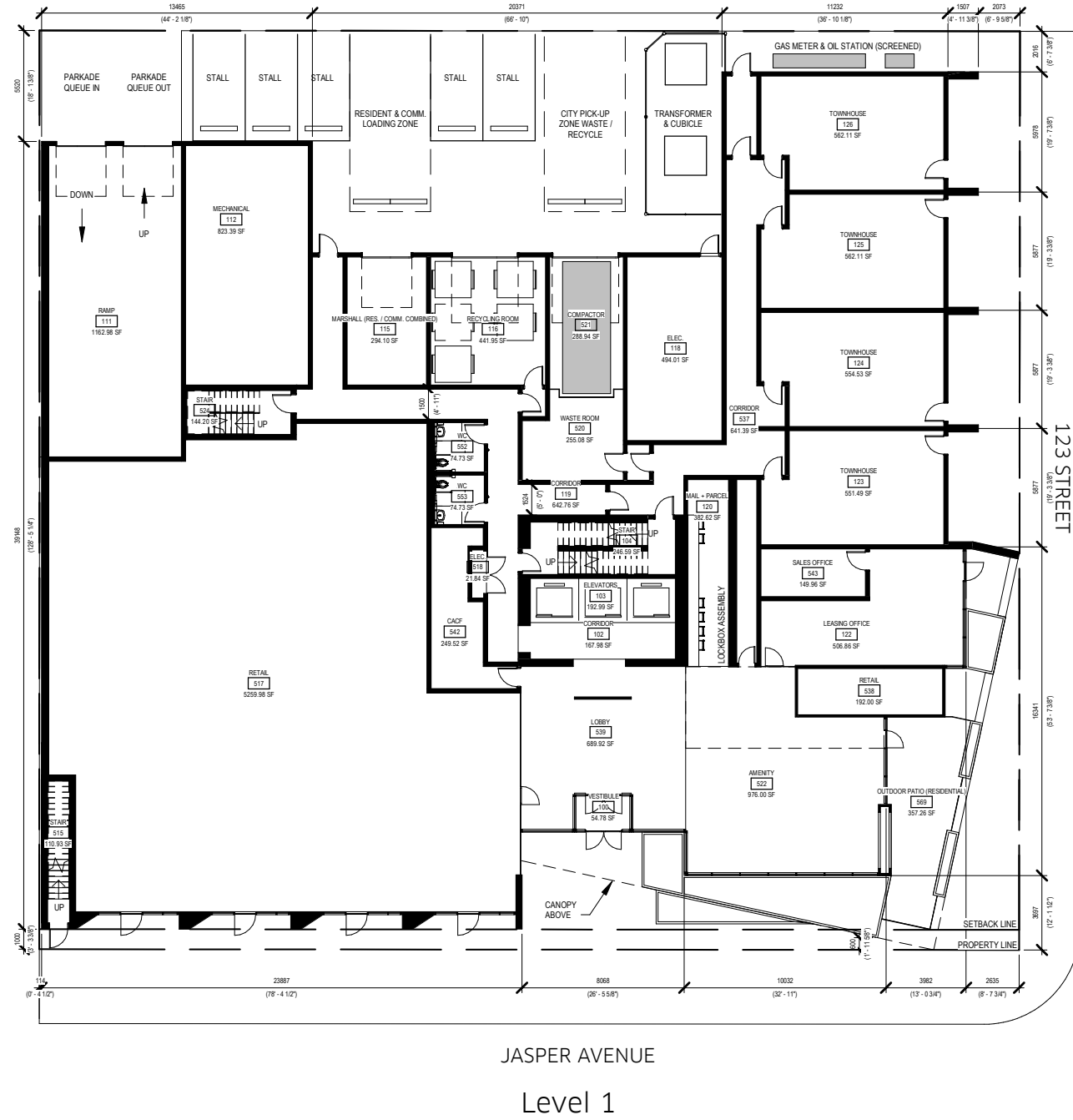


WEST ELEVATION

5.0 BUILDING DESIGN

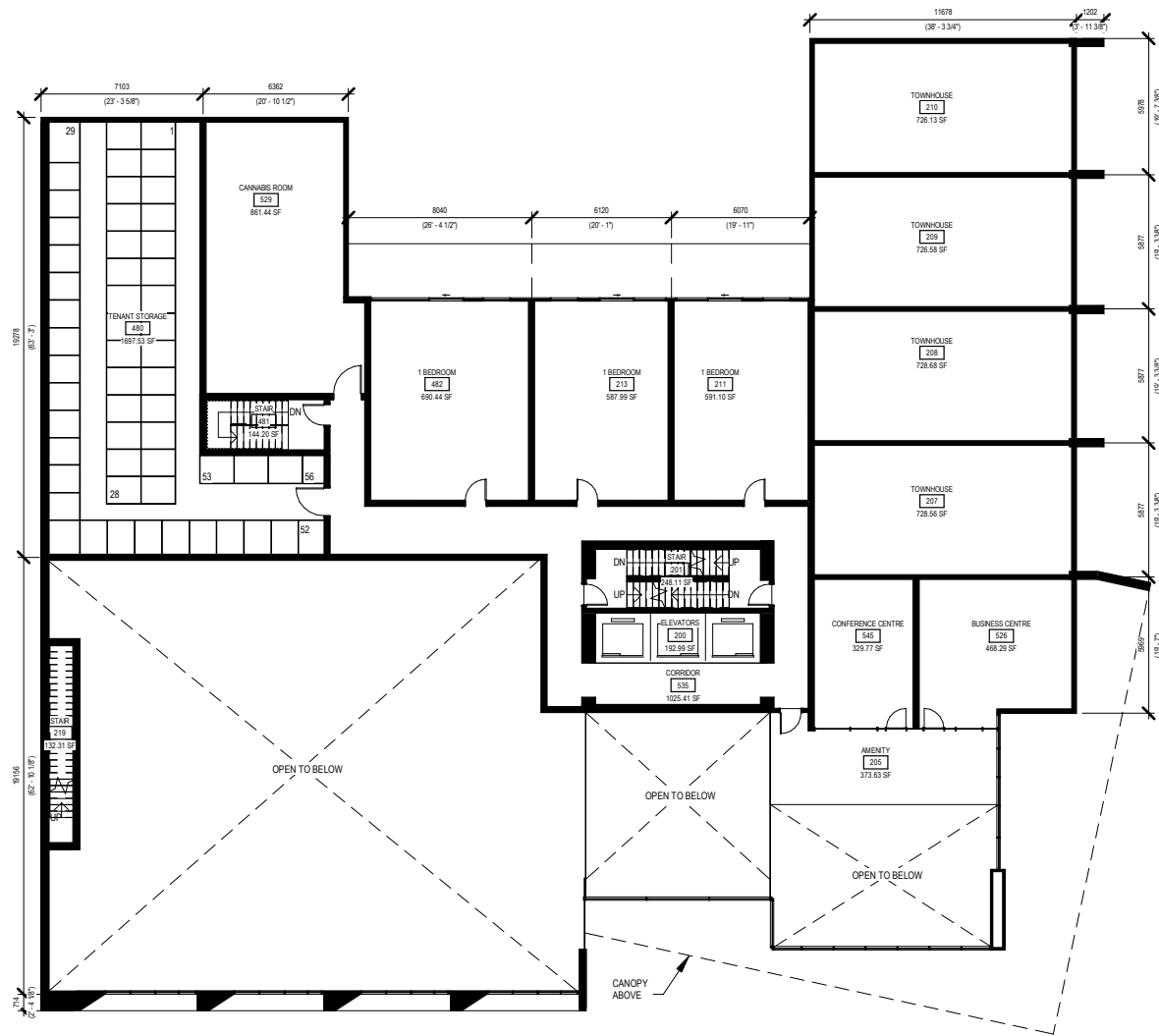
JASPER AVENUE & 123 STREET

5.2 FLOOR PLANS



5.0 BUILDING DESIGN

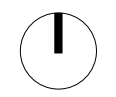
JASPER AVENUE & 123 STREET



Level 2

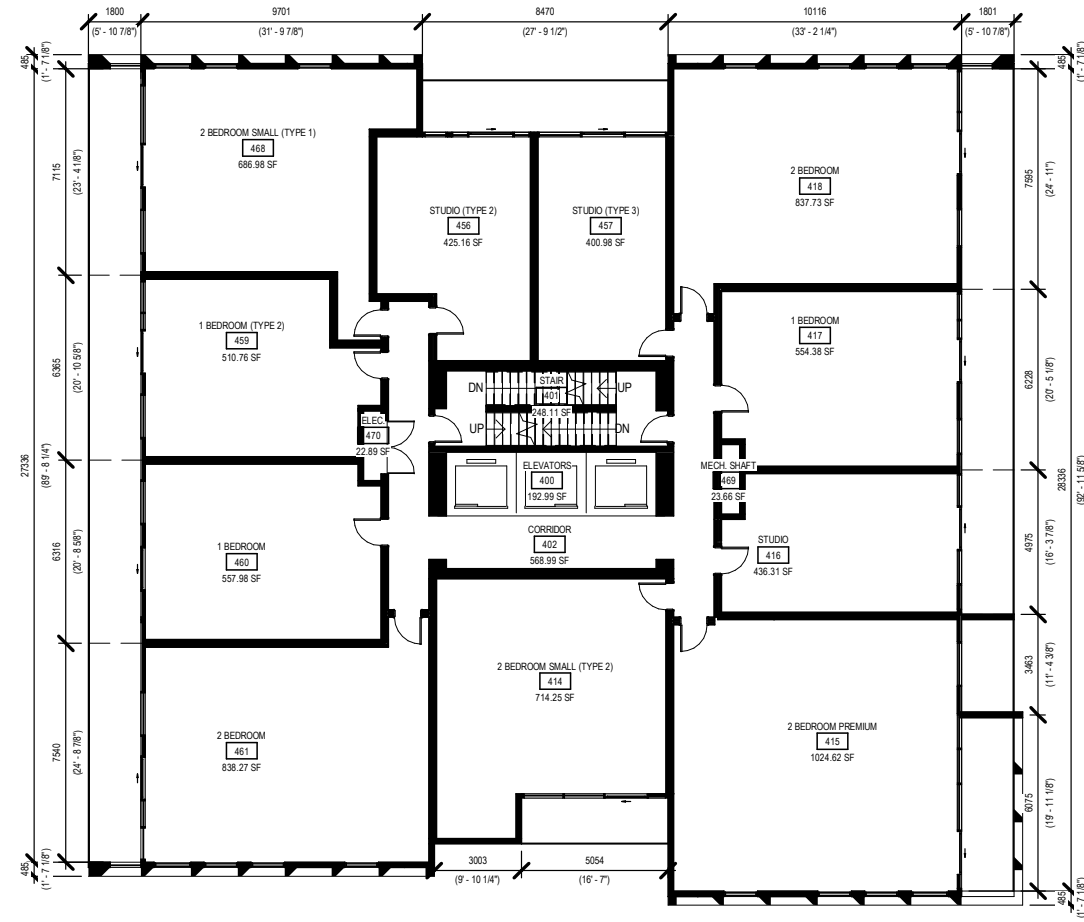


Level 3

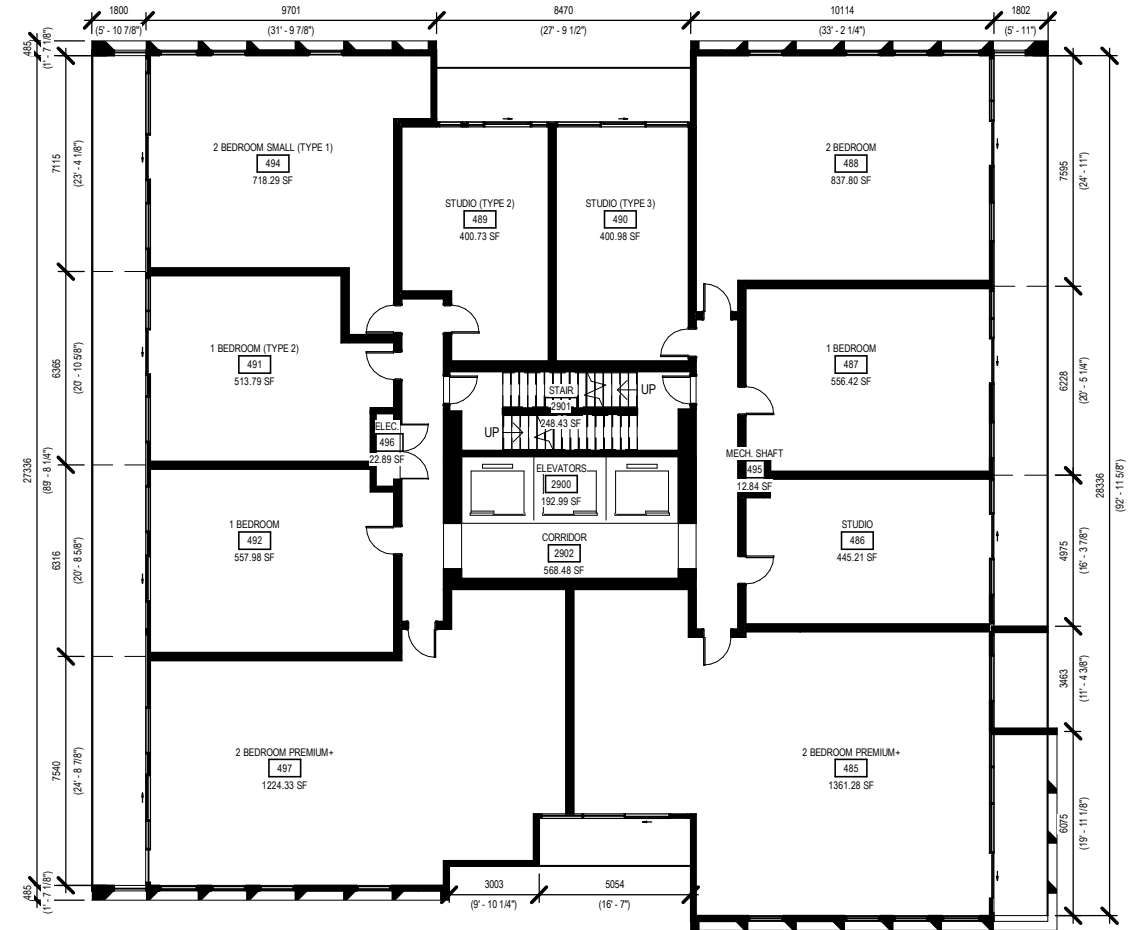


5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



Level 4



Level 29

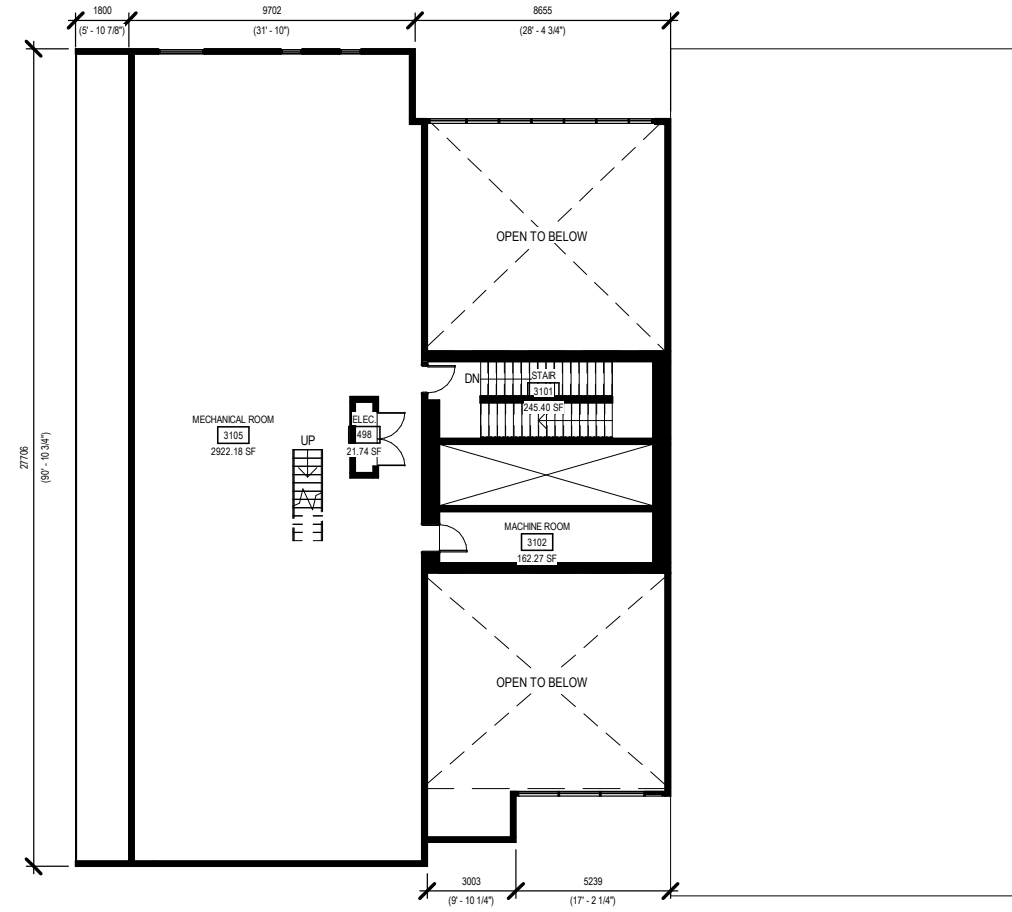


5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



Level 30

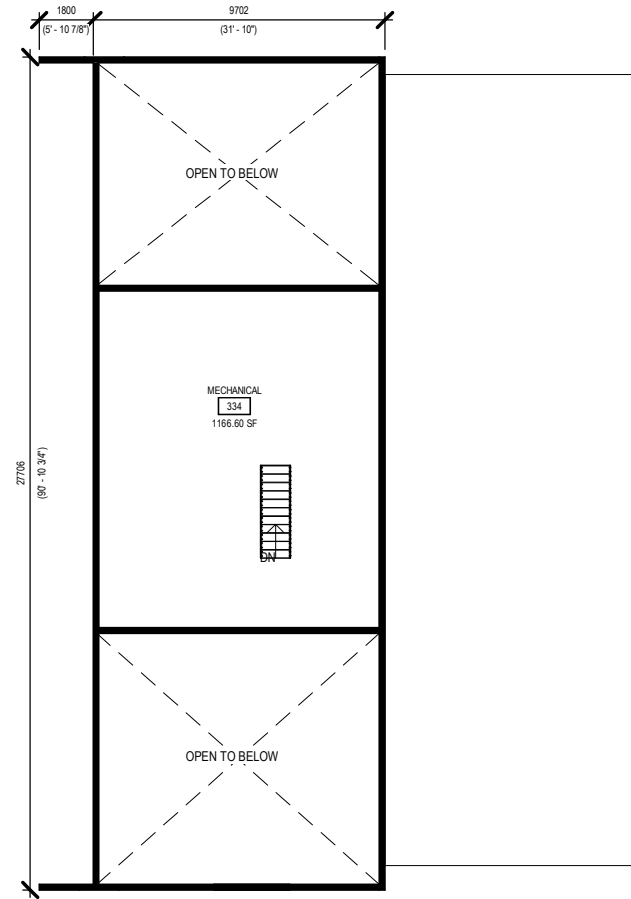


Level 31



5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



Rooftop Mechanical



5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



View facing northeast

5.0 BUILDING DESIGN
JASPER AVENUE & 123 STREET



View facing northwest (Winter)

5.0 BUILDING DESIGN

JASPER AVENUE & 123 STREET



View facing east

5.0 BUILDING DESIGN
JASPER AVENUE & 123 STREET

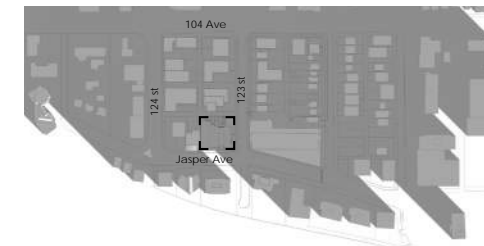


View facing southwest

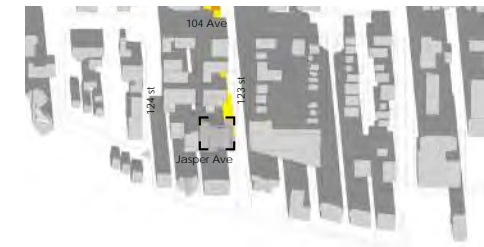
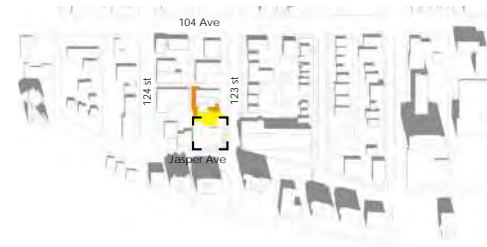
6.0 SUN/SHADOW STUDY

JASPER AVENUE & 123 STREET

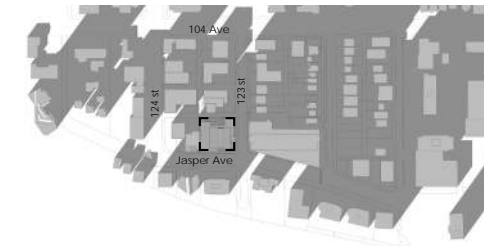
9:00 AM



12:00 PM



3:00 PM



5:00 PM



* Entire Area in Evening Shadow



MARCH 21

JUNE 21

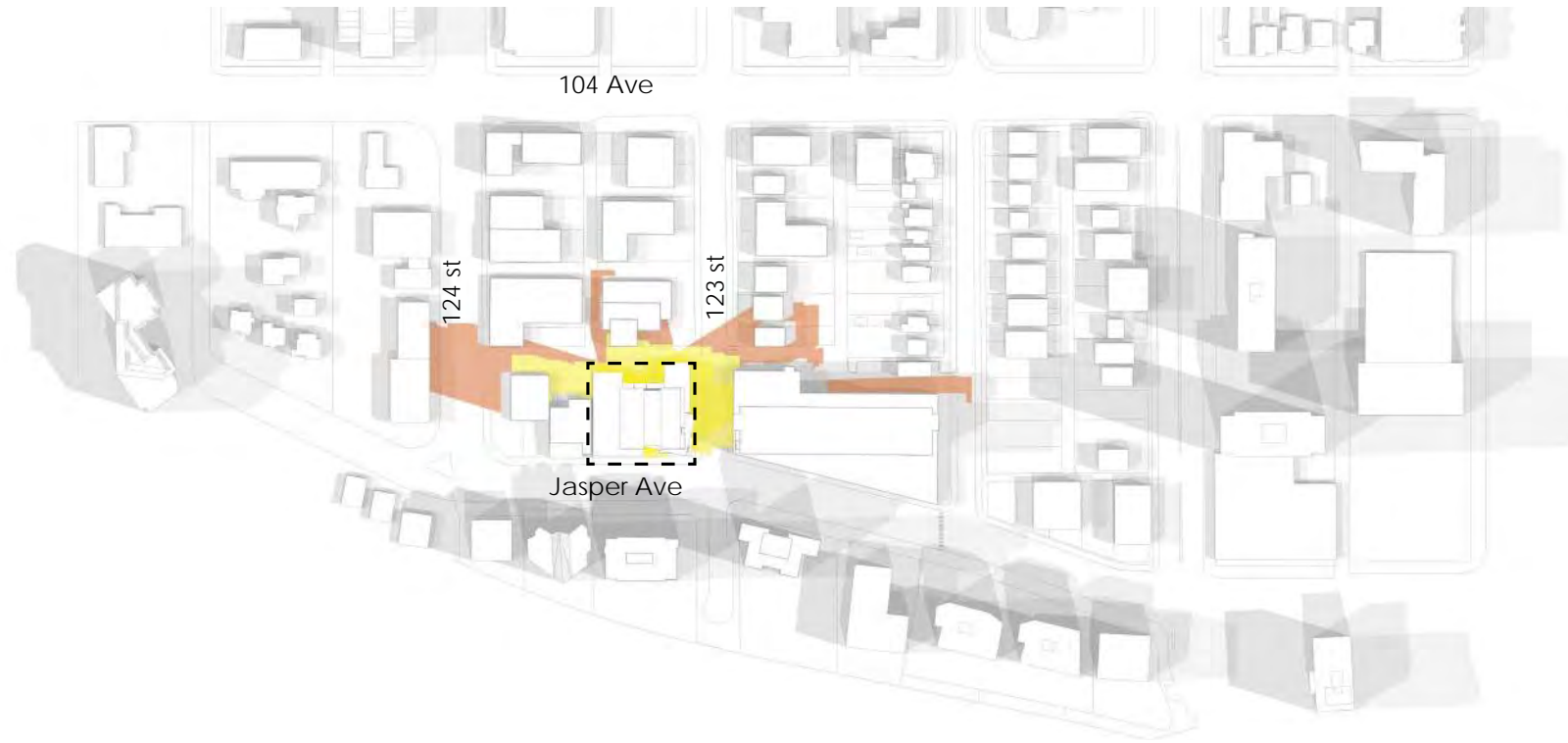
SEPTEMBER 21

DECEMBER 21

- Building Shadow
- Existing Shadow
- 45m Tall Tower (Existing Zoning) Shadow

6.0 SUN/SHADOW STUDY

JASPER AVENUE & 123 STREET



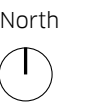
Shadow Study MARCH (above) and JUNE (under)



- Building Shadow
- Existing Shadow
- 45m Tall Tower (Existing Zoning) Shadow

6.0 SUN/SHADOW STUDY

JASPER AVENUE & 123 STREET



- Building Shadow
- Existing Shadow
- 45m Tall Tower (Existing Zoning) Shadow

Shadow Study SEPTEMBER (above) and DECEMBER (under)

Amendment to the Oliver Area Redevelopment Plan
Bylaw No. 11618

Prepared By:



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1.0 Introduction

1.1 Proponents and Location

The amendment to the Oliver Area Redevelopment Plan (the “ARP”), Bylaw No. 11618, adopted in December, 1997, has been prepared by DIALOG on behalf of Streamliner Properties. The amendment is for the land use policies applicable to the properties municipally known as 10110 123 Street and 12312 Jasper Avenue Edmonton, Alberta (the “Site”).

The amendment area encompasses 0.174 hectares on the parcels located at the northwest corner of 123 Street and Jasper Avenue, legally described as Lots 18-20, Block 19, Plan RN22 shown in **Figure 1 - Location Map**.

1.2 Amendment Purpose

The purpose of this Oliver ARP amendment is to change the land use designations and policies related for this specific Site only. This ARP amendment is required to permit a high density, mixed-use development on the Site and to reflect the proposed (DC2) Site Specific Development Control Provision rezoning application (submitted concurrently with this application).



Figure 1 - Location Map

2.0 Background

The Oliver ARP is located in the area “immediately to the west of the Downtown commercial core, adjacent to the north side of the North Saskatchewan River Valley”, bounded to the west by 124 Street, and to the north by 103 Avenue. The land directly east of 124 Street from 103 - 104 Avenue is also included in the plan boundaries. The portion of the plan area that is the subject of this amendment is known as *Sub-Area 1* in the Oliver ARP, as depicted in Figure 1.

2.1 History of the Oliver Area Redevelopment Plan (ARP) and Amendments

- Bylaw 11618 (as amended) was adopted by Council in December 1997. In July 2017, this document was consolidated by virtue of the incorporation of the following bylaws which were amendments to the original Bylaw 11618.
- Bylaw 11780 Approved September 1998 (text amendment to Policy 12.5.1, replace map 21)
- Bylaw 11967 Approved July 1999 (text amendment to Policy 12.5.1, 12.5.2.4, replace map 21)
- Bylaw 12129 Approved September 1999 (replace map 7)
- Bylaw 12297 Approved May 2000 (replace map 9)
- Bylaw 12433 Approved November 2000 (replace maps 8 and 21)
- Bylaw 12801 Approved May 2001 (text amendments to Section 15, replace maps 8,9,10,11,12,13,14 and 21)
- Bylaw 12925 Approved January 2002 (text amendment to Section 15.0)
- Bylaw 13256 Approved March 2003 (text amendment to Section 6.5.1.1, replace map 8)
- Bylaw 13283 Approved September 15, 2003 (replace map 12, text amendment to Section 10.5.1.1)
- Bylaw 13537 Approved November 24, 2003 (replace map 12)
- Bylaw 13753 Approved July 5, 2004 (replace map 8)
- Bylaw 13984 Approved July 13, 2005 (replace maps 9 and 21, text amendment to Section 7.5.1)
- Bylaw 14174 Approved January 11, 2006 (replace maps 8, 19 and 21, text amendments to Sections 6.5.2.4 and 13.4.2)
- Bylaw 14381 Approved October 3, 2006 (text amendment to Section 15.5.4 b)
- Bylaw 15322 Approved October 26, 2009 (replace maps 11 and 21)
- Bylaw 15147 Approved July 7, 2010 (text amendments to Sections 1.3.2 and 12.1, replace maps 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20 and 21)
- Bylaw 15518 Approved August 23, 2010 (replace maps 6, 7 and 21)
- Bylaw 15959 Approved December 12, 2011 (replace maps 11 and 21)
- Bylaw 16010 Approved February 27, 2012 (replace maps 10 and 21)
- Bylaw 15897 Approved April 2, 2012 (text amendments to Policy 5.5.1.8 and 5.5.1.9, replace maps 6, 7, and 21)
- Bylaw 16505 Approved August 26, 2013 (text amendment to Section 8.5.1.1, replace map 10 and a portion of map 21)
- Bylaw 16534 Approved August 26, 2013 (text amendment to Section 15.10, replace map 12 and a portion of map 21)

2.2 Existing Development Conditions and Proposed Development Concept

The Site, as depicted in Figure 1, is currently developed with a two storey, one storey and another two storey commercial structure from east to west respectively. Each of the three commercial buildings has ground-level retail fronting Jasper Avenue, the two storey buildings have office use above grade. Parking is currently limited to on-street metered parking along Jasper Avenue and at-grade parking north of the buildings.

The proposed development concept is to construct a 32-storey residential tower and podium (including the mechanical penthouse). The podium is two-storeys and will include at-grade commercial uses along Jasper Avenue, and at-grade commercial and residential uses, including a row of townhouses along 123 Street. The proposed land use amendment application will allow for a Floor Area Ratio of 11.0; with approximately 305 dwelling units; and 200 parking spaces with three levels of underground parking.

3.0 Amendment to the Bylaw

3.1 Rationale of the Amendment

This amendment creates a (DC2) Site Specific Development Control Provision that encompasses two lots in Sub-Area 1, currently zoned CB3 and zoned CB1. This DC2 zoning will permit a mixed-use highrise development and ground oriented units for this specific Site only.

The Oliver ARP states its vision as:

“The Oliver area acts as the major high density residential core of the City, supporting both of the City’s major employment centres, the Downtown and the University area. Over the course of the next ten to fifteen years, Oliver will continue to evolve as the main location of higher density multi-unit housing in the City centre. Oliver will continue to contain an eclectic blend of housing, including family oriented units, and commercial uses, thereby enhancing the unique blend of uses and activities which defines the character of Oliver. The role of Jasper Avenue as a commercial area will be reinforced, with an increasing focus as a pedestrian oriented shopping and service commercial area linking 124 Street and Downtown Edmonton.”

This amendment to the Oliver ARP will ensure that this vision is realized. The development that this amendment will accommodate will increase residential density, providing a stronger residential base to support the employment centres of Downtown and the University Area, and add to the eclectic blend of high-density multi-unit housing and commercial units that define Oliver. Furthermore, this amendment provides for and implements the general intent and purpose of many of the ARP’s goals and policies, as the development concept will:

- Increase Oliver’s portfolio of family-oriented units with a row of two-storey townhouses.
- Continue the ground-orientated commercial link between 124 Street and Downtown Edmonton with commercial retail units fronting Jasper Avenue and active residential and commercial uses along 123 Street.
- Increasing the residential density of Oliver, thus supporting the surrounding employment and retail centres.

This Amendment is also in alignment with many of the ARP’s objectives:

Plan Objective 3.2:

“To promote a pattern of development that supports and builds on the existing character of Oliver, that being a blend of housing types and forms oriented towards a range of households, including families, and historically significant older housing stock used for residential uses or as conversions to low intensity commercial activities. The intent is to support the existing character of the area, and provide policies which will enhance this character and increase its appeal as a pedestrian oriented neighbourhood.”

Redevelopment of the site will not impact historically significant older housing stock, but will increase the availability of housing options including various unit types available in the residential tower, and the multi-family townhouses along the podium. The mix of commercial and residential in the development concept is consistent with the mixed-use character of Oliver and will add vibrancy and activity-options to the neighbourhood.

Plan Objective 3.4:

“To support and encourage the strengthening of the Jasper Avenue commercial strip as the major focus of retail and service commercial activity, particularly pedestrian-oriented activity, in the area. This may include forging links with the adjacent commercial areas of 124 Street and Downtown.”

The development concept will maintain and focus ground level retail units towards Jasper Avenue. The location of the Site serves as a critical linkage space between the commercial areas of 124 Street and Jasper Avenue. Street orientated retail will continue to promote this area as a destination for restaurants and retail.

Sub-Area 1 Policy 8:



“Redevelopment on other block faces within this Sub Area, which are predominantly developed with low rise apartments, may consist of any form of residential development from single detached residential up to and including low rise apartments. The lands directly adjacent to Jasper Avenue between 121 Street and 123 Street, and the two lots located west of 123 Street may be developed with mixed-use, mid to high rise buildings. Conversion of single detached structures on isolated lots within these block faces to commercial or office uses is acceptable provided that appropriate landscaping and screening is incorporated into the development to minimize negative impacts on adjacent residential developments.”

This policy provides for the larger parcel in the development concept to be redeveloped as “mixed-use, mid to high rise buildings.” As a mixed-use, high-rise building, the development concept and rezoning asks for an additional lot west of 123 Street to be redeveloped. This additional footprint for the development allows for the inclusion of the mixed-family townhouse portion, without sacrificing any Jasper-Avenue facing retail frontage.

3.2 Proposed Text Amendments to the ARP

Current Policy	Amendment
Oliver ARP 5.5.1.8 (Sub Area 1 Land Use Policy 8)	<p>Delete:</p> <p>The lands directly adjacent to Jasper Avenue Between 121 Street and 123 Street, and the two lots located west of 123 Street may be developed with mixed-use, mid to high rise buildings.</p> <p>Replace With:</p> <p>The lands directly adjacent to Jasper Avenue Between 121 Street and 123 Street may be developed with mixed-use, mid to high rise buildings. The three lots west of 123 Street, directly adjacent to Jasper Avenue, may be developed with mixed-use, mid to high rise buildings and/or row housing.</p>

3.3 Proposed Map Change to the Strathcona ARP

Current Map	Amendment
Map 6, Subarea 1 - Zoning	<p>Delete:</p>  <p>Replace With:</p> 

3.4 Availability of Infrastructure

The development concept this amendment allows for will make excellent use of City Infrastructure, adding density to a core area of the City. Some upgrades to municipal services may be necessary, and such upgrades will be determined through the technical analysis of a Servicing Brief and review by the City of Edmonton.

3.5 Special Studies

A Servicing Brief, Environmental Site Assessment, Sun/Shadow Analysis, Pedestrian Wind Assessment, Transportation Impact Assessment (TIA), Parking Impact Assessment (PIA) and Planning Rational + Design Brief were undertaken to inform and support the proposed development concept.

4.0 Development Objectives and Policy

The proposed development concept this ARP amendment would allow for complies with the policy direction contained within *The Way We Grow*, *Bylaw 15100*, *The Way We Move*, *The Way We Green* and *The Way We Live*. The planning rationale and its conformance to the City's strategic plans is outlined below.

4.1 Alignment with Strategic Plans

The Way We Grow

Policy	How Development Complies
3.1.1.1 Integrate higher density development with Light Rail Transit (LRT) stations and transit centres (see Map 5: Potential LRT Expansion: 2040). 3.1.1.2 Encourage a minimum of 25 percent of city-wide housing unit growth to locate in the Downtown and mature neighbourhoods (see Map 3: Established Neighbourhoods) and around LRT stations and transit centres where infrastructure capacity supports redevelopment 3.3.1.1 Promote medium and higher density residential and employment growth around LRT stations and transit centres (see Map 5: Potential LRT Expansion: 2040) to support and ensure the viability of transit service.	The development that this ARP amendment will allow for will increase the residential density of a site located within 600 metres of two planned LRT stops for the Valley Line (Brewery Stop and 124 Street Stop). The site is also located within the mature neighbourhood of Oliver, along the Transit Avenue of Jasper Ave.
3.2.1.1 Ensure a combination of single family and multi-family housing development potential is available for the next 30 years	The proposed development will include a range of housing options including townhouses, two-bedroom, one-bedroom, and studios.
3.2.1.2 Ensure there is sufficient land available to sustain economic opportunities.	The proposed mixed-use development intensifies the economic activity that is already happening in the existing development.
3.3.1.2 Promote residential and employment growth that is sensitive to existing development along transit avenues (see Map 6: Transit Avenues) where infrastructure capacity supports redevelopment.	The tower is set back to minimize the massing impact on the street. The podium is two storeys, similar to the built height of the surrounding area, and nearby commercial.
3.4.1.3 Preserve and strengthen the role of the Downtown as a major regional employment center.	The proposed development adds a variety of units to Oliver, increasing the labour market that has easy access to Downtown.
3.4.1.5 Promote the retention and development of major cultural, educational and recreational facilities Downtown.	Downtown recreational and cultural facilities will be supported by the nearby residents of the proposed development.

3.4.1.6 Recognize and plan for the unique characteristics, development expectations and design challenges facing the eleven neighbourhoods (see Map 2: Central Core) that connect to the Downtown in a consistent and integrated manner.	The proposed development aims to create a vibrant sense of place by redeveloping the Site with an unique range of unit options and street-orientated retail. The at-grade retail continues the active-frontage along Jasper Avenue, establishing a link of retail between Downtown and 124 Street.
3.5.1.1 Support redevelopment and residential infill that contribute to the livability and adaptability of established neighbourhoods (see Map 1: Land Development Concept) and which are sensitive to existing development.	The proposed development adds a key mix of residential units and street-orientated retail that will increase the population and vibrancy in the neighbourhood. The tower's setbacks from the podium are designed to minimize size and massing impacts on other developments. The townhouses are positioned on the north-east corner to provide a gentler transition to the lower density development.
3.5.1.5 Involve residents in pre-consultation and planning process.	In accordance with Section 720.4 (c), (d), (e), and (f) of Zoning Bylaw 12800, a Pre-Application consultation Notice/Invitation for Public Open House was mailed out to residents within 120 m of the Site, in advance of a land use amendment application submission. On November 28, 2018, a Public Open House was held to solicit feedback from residents and stakeholders surrounding the development concept. We also met with Oliver Community League Civics Committee on two separate occasions.
3.5.1.6 Investigate innovative approaches through consultation for achieving community benefits and public amenities as part of the redevelopment process through the Great Neighbourhoods initiative.	Through on-going public engagement, community benefits and public amenities will be established.
3.5.1.7 Ensure redevelopment determines and addresses any infrastructure capacity constraints, including stormwater management.	A Servicing Brief will be submitted for review to the City of Edmonton. The proposed development will support the upgrading of infrastructure if/ where required.
4.2.1.7 Enhance City infrastructure in association with increased density where required.	
3.5.2.5 Promote the development of family orientated housing and walkability in established neighbourhoods (see Map 1: Land Development Concept) to support existing school and institutional infrastructure.	The proposed development will include a range of housing options for families of various sizes including townhouses, two-bedroom, and one-bedroom.
4.2.1.1 Support neighbourhood revitalization, redevelopment and residential infill that contributes to the livability and adaptability of neighbourhoods.	The development concept that this ARP amendment allows for features ground-orientated retail units that will serve the surrounding Oliver community. The inclusion of multi-family town housing facing 123 Street.

4.2.1.8 Address the compatibility of land use within the neighbourhood in the review of all development proposals.	The proposed development has been designed to be compatible with the existing built form. The tower is setback in a manner that reduces shadow and massing impacts on smaller developments, and its height is similar to the surrounding and upcoming towers in the area. The mix of residential unit-types and retail land-uses fit in the mixed-use, complete neighbourhood feel of Oliver.
1.2.1.10 Consider the need for family orientated housing and the infrastructure necessary to support families with children in the preparation of land use plans in established neighbourhoods.	The proposed development includes a range of housing options for families of different sizes including townhouses, two-bedroom, and one-bedrooms. This will allow for households of different sizes, types, ages and incomes and create more socially sustainable community.
4.4.1.1 Provide a broad and varied housing house, incorporating housing for various demographic and income groups in all neighbourhoods.	
5.2.1.1 Require development to fit with the existing and planned neighbourhood context, to respect the scale, form, massing, style and materials of the neighbourhoods and to incorporate other design elements that create a transition between the new development and the existing neighbourhood.	The proposed development has been designed to be compatible with the existing built form. The podium and tower will be similar in scale to the existing and proposed development. The ground oriented units on the west side of the Site will create a transition from the highrise to smaller scaled development to be north along 123 Street. The tower is massed to maintain appropriate sightlines. The proposed development is thus a positive contribution to the neighbourhood.
5.4.1.4 Recognize and plan for the unique characteristics, development expectations and design challenges facing the eleven neighbourhoods (see Map 2: Central Core) that connect to the Downtown in a consistent and integrated manner.	The proposed development will feature unique, context sensitive and enduring designs that promote public safety and security. The proposed development will aim to incorporate materiality that is respective of the character of the community.
5.6.1.1 Encourage new buildings adjacent to pedestrian streets to support pedestrian activity by providing visual interest, transparent storefront displays, pedestrian amenities and connections to interior spaces.	Provisions in the proposed DC2 ensure that the development facing Jasper Avenue welcomes and encourages pedestrian activity. This will be ensured through the use of transparent frontages, ground oriented commercial, and connections to the interior space.
5.6.1.2 Encourage new development to locate and organize vehicle parking, vehicle access, service areas and utilities to minimize their impact on the property and surrounding properties and to improve the safety and attractiveness of adjacent streets and other public spaces.	A Parking Impact Assessment will be completed to determine the required amount of residential and commercial/visitor parking for the development. The development is within 150m of the Transit Avenues of Jasper Avenue and 124 Street and thus qualify for the parking restrictions found within the "Core Neighbourhoods" portion of Schedule 1(C) of section 54.2 of Edmonton's Zoning Bylaw

7.0 APPENDIX A - DRAFT ARP AMENDMENT JASPER AVENUE & 123 STREET

5.6.1.4 Design density, land uses and buildings to benefit from local transit service by minimizing walking distances to transit service and by providing safe and comfortable pedestrian streetscapes and high quality transit amenities.	The proposed development will increase the amount of residential units within 150m of the Transit Avenues of 124 Street and Jasper Avenue. It is also located within 600m of two planned LRT stations for the Valley Line. The development will feature an enhanced public realm that will serve pedestrians and transit users with high-quality design.
5.6.1.5 Encourage new buildings and public spaces to incorporate design features that mitigate impacts on the natural and ecological environment.	The stepping back of the tower from the podium base will prevent the creation of adverse wind conditions on the public realm. A Pedestrian Wind Comfort Assessment has been submitted with the application and the proposal will incorporate design suggestions to minimize adverse microclimate effects.
5.6.1.7 Identify and preserve public views and vistas of the North Saskatchewan River Valley and Ravine System as new development occurs and require public access in accordance with the Top of Bank Policy.	The slim tower approach promotes views through the Site. Shadow studies have been undertaken to determine the impact of the build form on the surrounding neighbourhood.
5.6.1.10 Enhance the safety of buildings and public spaces and discourage criminal activity and anti-social behaviour through the application of Crime Prevention Through Environmental Design (CPTED) guidelines.	A CPTED Report will be submitted at the Development Permit Stage to ensure safety of buildings and public spaces.
6.2.1.4 Plan for retail centres that meet the daily needs of residents in Area and Neighbourhood Structure Plans	The proposed development will maintain the commercial land use currently specified for the site along Jasper Avenue in the Oliver ARP. The retail units will be street orientated, thus designed to support tenants that provide goods and services for residents' daily needs.
6.2.1.10 Revitalize older commercial areas within existing neighbourhoods in association with the Great Neighbourhoods Initiative	The development this ARP amendment will allow for will revitalize the existing commercial buildings on the site.
6.2.1.11 Accommodate home-based businesses and services.	The DC2 will provide for a range of commercial uses operable within residential units such as major and minor home-based business, and live-work units.

5.7.1.3 Undertake streetscape improvements to create high quality public spaces through tree planting and landscaping, pedestrian scale lighting, good quality street furnishings and decorative paving and through design approaches that reduce impacts of parking and public utilities on the quality of the pedestrian environment.	The proposed development aims to create a high quality positive sense of place through pedestrian focused streetscapes and active commercial and residential frontages. The development will respect the character of the community through revitalizing and enhancing the commercial uses and public realm. Policies in the proposed DC2 state that ground oriented units fronting onto 123 Street shall have active frontages and shall use features such as porches, staircases and stoops. A landscape plan will be submitted and will include: pavement materials, exterior lighting, street furniture, pedestrian seating areas (where applicable), sizes and species of new tree plantings, boulevard trees and other landscape elements as applicable.
6.2.1.4 Plan for retail centres that meet the daily needs of residents in area and Neighbourhood Structure Plans	The pedestrian-orientated design and placement of the commercial retail units in the development concept will be attractive to tenants with goods and services that meet the daily and weekly needs of residents.

The Way We Move

Section 4.1 - Public Transportation and Land Use Integration	The proposed development concept will increase the residential unit density and maintain the commercial unit density of a site serviced directly by Jasper Avenue, a designated Transit Avenue. The site is also located within the 600m catchment areas of 2 future Valley Line LRT stops. This area is well serviced by transit, and the increased density will support ridership in turn.
Section 4.3 - Community Building	The Oliver Community provides an environment that supports walking, biking and transit use. Increasing the residential units in this area will provide more residents with the ability to travel in more sustainable ways.
Strategic Objective 6.1 - The City will create a walkable environment.	The development concept this ARP amendment will allow for will provide for universally accessible. Street orientated commercial uses on the ground level. This will provide pedestrian accessible destinations for the residents of Oliver.
Strategic Objective 6.2 - The City will create a cycle-friendly city.	The site of the ARP amendment is conveniently located nearby the east-west separated bike lane along 102 Ave and the north-south separated bike lane along 121 Street. Bringing residents to this site can potentially support these cycling infrastructures with increased ridership.
Strategic Objective 7.4 - The City will develop a parking management strategy through a combination of Bylaws and Policies to ensure the livability and economic vitality of the city and to promote appropriate land use and public transit initiatives.	A Parking Impact Assessment has been completed and has determined the required amount of residential and commercial/visitor parking for the proposed development.

<p>Strategic Objective 7.6 - The City will appropriately mitigate the impacts of the transportation network on existing and future residential communities.</p> <p>Strategic Action d. - ensuring that infill developments are well integrated within existing communities and strongly support active modes and transit use.</p>	<p>The development is anticipated to provide support for increased pedestrian and bicycle use in addition to transit use. A Traffic Impact Assessment (TIA) will be prepared and will examine pre and post development impacts on existing roadway networks and provide recommendations to mitigate any undue impacts on adjacent neighbourhoods.</p>
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The Way We Green

<p>Principle of Resilience Section 2.4.8. Density, diversity, and mixed-use: Creating resiliency and reducing the carbon footprint of urban development requires space and land use be maximized. A vibrant, densely populated urban environment is well used around-the-clock, every day, and during all seasons.</p>	<p>The proposed development will reduce the carbon footprint as it is concentrating residential density in a sustainable built form that will provide everyday uses at the base of the building.</p>
<p>Principle of Resilience Section 2.4.9 - Active Transportation: Resilient cities and neighbourhoods should prioritize active transportation as the preferred mode of travel and as a defining component of a healthy quality of life. Reducing car dependency is a key objective and imperative to resiliency</p>	<p>The proposed development increases residential units to an area that is well serviced by active transportation infrastructure and will allow residents to conduct day-to-day trips on foot or bicycle.</p>
<p>Principle of Resilience Section 2.4.9 - Transit Supportive Planning: Resilient cities and neighbourhoods should be planned and developed to be transit supportive. After walking and cycling, public transit is the most sustainable mode of transportation.</p>	<p>The site of the ARP amendment is adjacent to the Transit Avenue of Jasper Ave, and within the 600m radius of two proposed LRT stops for the Valley Line West. Residents of this proposed development will be able to utilize many public transit routes.</p>
<p>Principle of Resilience Section 2.4.12. Complete communities: Resilient neighbourhoods should provide for the needs of daily living within walking distance. Resilient communities reduce carbon footprints by ensuring people opt to walk or cycle, instead of driving vehicles.</p>	<p>The proposed development will feature street-orientated commercial uses adjacent to Jasper Avenue. These units are best suited towards retailers that offer goods and services that make up a resident's daily needs, and will likely become walking-distance destinations for the residents of Oliver.</p>
<p>Principle of Resilience Section 2.4.16. Engaged communities: Development of resilient cities and neighbourhoods requires the active participation of community members at all levels. Residents and stakeholders must be part of planning and designing their cities and communities. They must also be part of delivering a new vision by choosing to walk, engaging each other, generating awareness, and demanding higher standards.</p>	<p>565 Pre-Application Consultation Notices/ Invitations for Public Open House were delivered to the City of Edmonton the week of November 11, 2018 to be mailed out to all residents within 120 metres of the site. A public open house was held on November 28, 2018 and was attended by 21 participants. The Oliver Community League has also been involved through periodic meetings and open electronic communication.</p>

<p>Strategic Action 3.1.3 Encourages renewal and densification of mature neighbourhoods by ensuring superior living experiences that include:</p> <ul style="list-style-type: none"> • opportunities to live locally • special places that foster a sense of authentic human attachment and belonging • durable buildings and communities that can last many generations • buildings that are adaptive to different uses over time • beauty everywhere • high quality public spaces • priority to pedestrians and bicycles over automobiles • natural spaces and biodiversity • balance (age, demographics, housing, uses) • opportunities to enjoy winter and experience the full potential of a winter city • design features that help mitigate climatic effects. 	<p>The proposed development concept achieves all the items in strategic action 3.1.3 respectively by:</p> <ul style="list-style-type: none"> • providing opportunities to live locally • high-quality architectural design with street-orientated retail that bridges Jasper Avenue to 124 Street. • building durable infrastructure • providing a variety of permitted uses within the DC2 zoning • enhancing the public realm with pedestrian orientated public spaces • creating a unique EDC approved design • locating high residential density in a highly walkable and bikeable community • providing for a wide variety of unit types • incorporating design suggestions from the Pedestrian Wind Assessment to minimize adverse microclimate effects.
<p>Strategic Action 3.1.4 Encourages a minimum of 25 per cent of citywide housing units growth to locate in the downtown and mature neighbourhoods and around LRT stations and transit centres where infrastructure capacity supports redevelopment (The Way We Grow, Policy 3.1.1.2).</p>	<p>The development concept is projected to provide upwards of 300 residential units to the mature neighbourhood of Oliver. The site is located adjacent to the transit avenue of Jasper Ave and within the 600m catchment areas of 2 Valley Line West stops.</p>
<p>Strategic Action 6.1.7 Encourages developments that permit Edmontonians to conveniently walk, cycle, and use public transit to get to the places they live, shop, work, learn, and play.</p>	<p>The site of the ARP amendment is located within a context that provides easy access to high quality pedestrian, cycling and public transit infrastructure and a variety of commercial and recreational destinations.</p>
<p>Strategic Action 6.2.2 - Integrate higher density development with Light Rail Transit (LRT) stations and transit centres (The Way We Grow, Policy 3.1.1.1).</p>	<p>See response to The Way We Grow Policy 3.1.1.1 above.</p>
<p>Strategic Action 6.2.3 Encourages land uses that are compatible and complementary to the surrounding transportation network (The Way We Move, Strategic Action 4.1.b).</p>	<p>A mixed-use, high residential-density structure is compatible to an area with high-quality pedestrian, cyclist and public transportation infrastructure.</p>
<p>Strategic Action 6.3.5 Encourages high energy efficiency standards for all new buildings constructed in Edmonton.</p>	<p>The development concept will incorporate sustainability by optimizing energy efficiency through an advanced mechanic system and a durable building envelope. The landscaping will be mindful of water conservation and include plant species that require low maintenance.</p>

The Way We Live

Strategic Policy Direction 1.3.2 - Provide more than single use facilities in areas well served by public transit.	The proposed mixed use development is adjacent to a Transit Avenue and within the 600m catchment areas of 2 Valley Line West LRT stops.
Strategic Policy Directions 1.3.4 Promotes a range of housing options located in close proximity to LRT stations and major transit centres.	The proposed development will include a range of housing options including townhouses, two-bedroom, one-bedroom, and studios.
Strategic Policy Direction 5.1.4 Promotes innovative architecture and design in all areas of the city.	<p>The siting and massing of the building has been carefully thought out, and vetted by the Edmonton Design Committee. The proposed DC2 will have policies to ensure the development will employ durable, quality materials complimentary to those found within the neighbourhood. The tower is designed as a slender building with a podium base in an effort to minimize shadow impact, and pedestrian wind impact, while optimizing access to sunlight. The tower has been shaped to break up the massing, and will be further distinguished through the use of varying materials.</p> <p>The tower will be constructed on a two-storey podium. The podium will respect the height of the existing surrounding uses and will also use materials that complement the same. The tower will be stepped back from the podium. The design of the podium will be articulated to support a walkable environment and reduce the building massing.</p>
Strategic Policy Direction 5.3.6 Promotes the enhancement and protection of significant lands, trees, views and streets in its neighbourhoods.	The tower has been designed as a tall slim tower in an effort to “protect views and maximize sunlight penetration for surrounding property owners”.

5.0 Implementation

The Oliver ARP amendment requires approval by Edmonton City Council prior to approval of the corresponding DC2 rezoning application. Once approved by Council, the Bylaw version will be finalized.

SCHEDULE "B"

(DC2) SITE SPECIFIC DEVELOPMENT CONTROL PROVISION

1. General Purpose

To accommodate a mixed use development comprised of a podium and Tower with ground oriented commercial uses along Jasper Avenue and 123 Street and ground oriented residential uses along 123 Street that promote a walkable and vibrant public realm.

2. Area of Application

This provision shall apply to the lands legally described as Lot 18, Block 19, Plan RN22, Lot 19, Block 19, Plan RN22 and Lot 20, Block 19, Plan RN22, located at 12312 Jasper Avenue NW and 10110 123 Street NW, shown in Schedule "A" of the Bylaw adopting this Provision.

3. Permitted Uses

- a. Apartment Hotel
- b. Apartment Housing
- c. Bars and Neighbourhood Pubs;
- d. Breweries, Wineries and Distilleries
- e. Business Support Services
- f. Cannabis Retail Sales
- g. Child Care Services
- h. Commercial Schools
- i. Convenience Retail Stores
- j. Convenience Vehicle Rentals
- k. Creation and Production Establishments
- l. General Retail Stores
- m. Government Services
- n. Health Services

- o. Hotels
- p. Household Repair Services
- q. Indoor Participant Recreation Services
- r. Live Work Units
- s. Lodging Houses
- t. Major Alcohol Sales
- u. Major Home-Based Business
- v. Market
- w. Media Studios
- x. Minor Alcohol Sales
- y. Minor Home-Based Business
- z. Nightclubs
- aa. Non-accessory Parking
- bb. Private Clubs
- cc. Protective and Emergency Services
- dd. Personal Service Shops
- ee. Public Education Services
- ff. Professional, Financial and Office Support Services
- gg. Private Education Services
- hh. Public Libraries and Cultural Exhibits
- ii. Residential Sales Centre
- jj. Restaurants
- kk. Row Housing
- ll. Second-hand Stores
- mm. Special Event

- nn. Specialty Food Services
- oo. Urban Gardens
- pp. Urban Indoor Farm
- qq. Urban Outdoor Farms
- rr. Veterinary Services
- ss. Warehouse Sales
- tt. Fascia On-Premises Signs
- uu. Fascia Off-Premises Signs
- vv. Free-Standing On-Premises Signs
- ww. Free-Standing Off-Premises Signs
- xx. Major Digital Signs
- yy. Minor Digital Off- Premises Signs
- zz. Minor Digital On- Premises Signs
- aaa. Minor Digital On- Premises Off- Premises Signs
- bbb. Projecting On-premises Signs
- ccc. Temporary On-premises Signs

4. Development Regulations for Uses

- a. Each Restaurant Use shall be limited to a maximum of 460 m² of Public Space, excluding exterior patio/deck/terrace space which can be to a maximum of 50% of the interior Public Space.
- b. Each Specialty Food Services Use shall be limited to a maximum 300 m² of Public Space, excluding exterior patio/deck/terrace space which can be to a maximum of 50% of the interior Public Space
- c. Each Bar and Neighbourhood Pub Use shall be limited to a maximum of 300 m² of Public Space, excluding exterior patio/deck space.
- d. Each Nightclub Use shall be limited to 240 m² of Public Space, if the Site is adjacent to or across a Lane from a Site zoned residential.
- e. Breweries, Wineries and Distilleries shall only be allowed if developed in

combination with a Restaurant or Bar and Neighbourhood Pub as described in this provision.

- f. Restaurants, Speciality Food Services, Bar and Neighbourhood Pub and Nightclub Uses shall be permitted to have a patio / deck / terrace on the podium rooftop, not exceeding an area of 200 m². This area shall not be included in the calculation of Public Space as described in this provision.
- g. Each Secondhand Stores Use shall be limited to a maximum 275 m² of Floor Area.
- h. Residential Sales Centres shall be limited to the marketing of the on-Site condominium or rental Dwellings.
- i. Sign shall comply with the regulations found in Schedule 59H.
- j. A Comprehensive Sign Design Plan in accordance with Section 59.3 of the Zoning Bylaw shall be prepared for the development and submitted with the Development Permit application for the principal building.
- k. Temporary On-premises Signs shall be limited to project advertising associated with an on-Site Residential Sales Centre and shall not include trailer mounted or signs with changeable copy.

5. Development Regulations for Site Layout and Built Form

- a. The development shall be in general conformance with the attached Appendices.
- b. The maximum Height of the Tower shall be 98.0 m.
- c. The maximum Height of the podium along Jasper Avenue shall be 10.0 m, not including the podium parapet.
- d. The maximum Height of the podium along 123 Street shall be 10.0 m, not including the podium parapet.
- e. The maximum Floor Plate of the Tower shall be 750 m².
- f. The maximum Floor Area Ratio (FAR) shall be 11.0.
- g. The maximum number of Dwellings shall be 305.
- h. Minimum Setbacks from the Lot lines shall be provided as follows:
 - i. From the north Lot line – 0 m
 - ii. From the south Lot line – 1 m
 - iii. From the east Lot line – 0 m

- iv. From the west Lot line – 0 m
- i. The minimum Tower setbacks from the Lot lines shall be as follows:
 - i. From the north Lot line – 12.0 m
 - ii. From the south Lot line – 3.0 m
 - iii. From the east Lot line – 2.5 m
 - iv. From the west Lot line – 9.5 m
- j. The maximum width of any Tower Façade shall be 34.0 m.
- k. The maximum width of any podium façade shall be 45.0 m.
- l. The portions of the Parking Garage below ground level shall not be subject to required Setbacks and can extend to all Lot lines.
- m. A minimum Amenity Area of 7.5 m² per Dwelling shall be provided and can be private and/or communal. This may be achieved through the use of balconies, terraces/patios on top of the podium base, rooftop terraces/patios, and indoor Common Amenity Areas such as, but not limited to meeting rooms, communal cooking facilities, communal lounges and fitness areas.
- n. Amenity Area for Commercial uses shall not be required.
- o. Platform Structures in the form of balconies with a minimum depth of 1.2 m may be used to satisfy required Amenity Area.
- p. The minimum separation distance between Towers shall be 20.0 m. The Development Officer may vary the Tower spacing in consideration of the following:
 - i. The visual, sun/shadowing, and other microclimatic impacts on adjacent residential development; and
 - ii. The recommendations, and mitigative measures specified in any
- q. Notwithstanding Section 48 of the Zoning Bylaw, required Separation Space shall be reduced to the required setbacks.

6. Development Regulations for Parking, Loading, Storage and Access

- a. All vehicular parking shall be provided in the underground Parking Garage for residential Uses.

- b. Vehicular access to the underground Parking Garage shall be provided from the rear Lane, in general conformance with the Appendices, to the satisfaction of the Development Officer in consultation with Subdivision and Development Coordination (Transportation).
- c. The maximum number of Off-street Vehicular Accessory Parking spaces shall be 205 parking spaces.
- d. Up to 40% of the required Off-street Vehicular Accessory Parking spaces may be of a length shorter than that required above, and shall be clearly signed as small car spaces, easily located and convenient to use.
- e. Up to 12 Off-street Vehicular Accessory Parking spaces may be provided as tandem if the tandem Parking is not used for visitor parking, tandem Parking does not block access to any other parking space and tandem Parking spaces are developed to provide parking for the same Dwelling.
- f. Variances to the number of off-street vehicular accessory parking spaces may be considered by the Development Officer if the owner can demonstrate through a Parking Impact Assessment, that the parking proposed is less or more than that required by this Provision and rationalizes any variance in parking requirements to the satisfaction of the Development Officer in consultation with Subdivision and Development Coordination (Transportation).
- g. Accessory vehicular parking for Non-Residential and Non-Residential-Related Uses may share parking spaces with residential visitor parking through an owner-operated parking management program.
- h. A minimum of 85 Bicycle Parking spaces shall be provided within secured communal bicycle storage areas within the underground Parking Garage or in another secure location within the Podium or Tower that is easily accessible to cyclists via access ramps, or a route through the building which facilitates easy and efficient transportation of bicycles:
 - i. Vertical or stacked racks may be used to satisfy bicycle parking requirements if it can be demonstrated that they can be safely and efficiently used to the satisfaction of the Development Officer in consultation with Subdivision and Development Coordination (Transportation).
 - ii. Bicycle Parking may be located more than 15.0 m from a building's principal entrance.
- i. The underground Parking Garage ramp shall not exceed a slope of 6% for a minimum distance of 4.5 m inside the Lot line and the ramp must be at Grade at the Lot line, or to the satisfaction of the Development Officer in consultation with Subdivision and Development Coordination.
- j. Retaining walls bordering the underground Parking Garage ramp, shall not exceed

a Height of 0.3 m at the Lot line nor 1.0 m within 1.0 m of the Lot line and no portion of the wall may encroach onto road right-of-way. The Development Officer may increase this Height if adequate sight line data is provided to ensure vehicles can exit safely to the satisfaction of the Development Officer, in consultation with Subdivision and Development Coordination.

k. Loading, storage and waste collection areas shall be concealed from view from adjacent sites and public roadways with the waste collection areas located within the buildings. The waste collection area, and access to it, shall be designed to the satisfaction of the Development Officer in consultation with Waste Management Services and Subdivision and Development Coordination.

l. A minimum of one (1) Off-street Loading space shall be provided for the Site.

7. Development Regulations for Landscaping and Lighting

a. A detailed Landscape Plan, prepared by a registered AALA landscape architect, for the Site, shall be submitted for review and approval by the Development Officer, prior to the issuance of any Development Permit, except for a permit for excavation or shoring.

b. Building Setbacks at Grade in front of Commercial Uses shall be landscaped with hard surfacing and integrated with the pedestrian oriented public realm to create Public Amenity Space.

c. Landscaping, both on-Site and off-Site, shall consider the use of plant materials that provide colour throughout the year to enhance the appearance of the development during the cold weather months.

d. Landscaping that extends onto or over City-owned lands shall be developed in accordance with Traffic Bylaw 5590 and the City Design and Construction Standards.

e. Each tree shall be removed and replaced by a new tree within an enhanced growing medium at the cost of the owner. The owner shall be responsible for maintenance of the trees for a minimum of two years after installation.

8. Development Regulations for Building Design and Features

a. The building shall be comprised of a podium and Tower configuration.

b. The Tower shall provide articulation and visual interest through the variation of material/color or other means to the satisfaction of the Development Officer.

c. The podium rooftops of the development shall improve rooftop aesthetics to the satisfaction of the Development Officer. Improvements to aesthetics shall include screening of mechanical equipment, appropriate roof surface material, colour and texture variations and / or hard or soft Landscaping.

d. All mechanical equipment, including ground level Parking Garage vents, shall be concealed by screening in a manner compatible with the architectural character of the building, or concealed by incorporating it within the building. Ground level vents shall be oriented away from adjacent Sites or on-Site amenity or pedestrian circulation areas.

e. Exterior building materials shall be durable, high quality and appropriate for the development within the context of the immediately surrounding neighbourhood, including, but not limited to: masonry, stone, brick, metal cladding/panelling and/or glazing. The contextual fit, design, proportion, quality, colour, texture and application of various exterior finishing materials for the podium, Tower and ground oriented Dwellings, shall be determined at the Development Permit stage.

f. The use of vinyl siding as a finishing material is prohibited for the development.

g. Active commercial frontages in the south podium facing Jasper Avenue shall meet the following to the satisfaction of the Development Officer:

i. Building entrances, and windows shall be oriented to front a public roadway;

ii. The placement and type of windows shall allow viewing into the building to promote a positive pedestrian-oriented street;

iii. Weather protection, where appropriate, in the form of canopies or other architectural elements shall be provided to create a comfortable environment for pedestrians; and

iv. A minimum of 70% of the linear frontage shall consist of transparent glazing. Linear Frontage shall be measured as the horizontal plane at 1.5 m above Grade.

h. All ground-oriented Dwellings that face 123 Street shall provide an individual external entrance at Grade oriented and clearly visible to be readable from and lend a sense of occupancy to the public roadway using features such as, but not limited to porches, staircases and stoops.

i. A semi-private outdoor Amenity Area in front of each at-Grade Dwelling exterior entry shall be provided in a manner that establishes a transition area between the public roadway including a Lane, using landscape features such as decorative fencing, change in Grade, and/or built elements such as private enhance features and verandas or porches.

j. Building Façades on the podium fronting onto Jasper Avenue shall be designed with detail and articulation at intervals ranging from 8.0 m to 16.0 m to create an attractive streetscape.

k. Decorative and security lighting shall be designed and finished in a manner consistent with the design and finishing of the development and shall be provided

to ensure a well-lit and safe environment for pedestrians in accordance with Section 58 of the Zoning Bylaw, to accentuate artwork and building elements, and to highlight the development at night time and in winter months. Exterior lighting associated with the development shall be designed such that it has no negative impact on an adjacent property in accordance with Section 51 of the Zoning Bylaw. A detailed exterior lighting plan shall be provided with the Development Permit application to the satisfaction of the Development Officer,

1. Yards, including useable outdoor spaces, shall continue the public sidewalk paving materials, finish, and pattern

9. Public Improvement and Contributions

- a. As a condition of any development permit, the owner shall enter into an Agreement with the City of Edmonton for off-Site improvements necessary to serve the development, such improvements to be constructed at the owner's cost. The Agreement process includes an engineering drawing review and approval process. Improvements to address in the Agreement include, but are not limited to:
 - i. Repair of any damage resulting from construction of the development to the abutting roadways, sidewalks and/or boulevard, including lanes not directly adjacent to the site but which may be used for construction purposes, to the satisfaction of Subdivision and Development Coordination (Transportation). The Site must be inspected by Subdivision and Development Coordination prior to the start of the construction and once again when construction is complete.
 - ii. Required improvements to drainage infrastructure as indicated in the drainage Site Servicing Design Brief or alternatives to the satisfaction of the Development Officer in consultation with City Planning (Drainage).
- b. Prior to the issuance of a development permit for:
 - i. a building that contains 12 or more Dwelling units; or
 - ii. a building that contains less than 12 Dwelling units, but is part of a Site with 12 or more Dwelling units in total;

the Development Officer shall ensure a signed agreement has been executed between the City and the owner, requiring the owner to provide the City, at the time of each development permit approval, the option to purchase up to 5% of the proposed number of Dwelling units (rounded to the nearest Dwelling unit) in each building with Dwelling units, at 85% of market value or the equivalent value as cash in lieu (at the discretion of the owner) to the City. The City may exercise its option to purchase only in respect of Dwelling units that are individually titled.

- c. Prior to the issuance of the Development Permit, details shall be provided to the satisfaction of the Development Officer that a minimum of \$475,000 shall be provided towards community amenity contributions including but not limited to:
 - i. Improvements to the public realm directly abutting the site and/or within the general area. These improvements shall be designed to the satisfaction of the Development Officer in consultation with Subdivision and Development Coordination, City Operations and Integrated Infrastructure Services. Such improvements shall include, but are not limited to: Increased setbacks, sidewalk upgrades, extra trees, benches, lights or bike racks.
 - ii. Upgrades to public parks or community facilities (including community league facilities) within the community.
 - iii. Publicly-viewable art by a commissioned artist. The following shall apply to this contribution:
 - o The owner shall enter into an agreement with the City of Edmonton detailing the requirements of this provision of artwork, to the satisfaction of the Development Officer.
 - o Artworks may be located on or within private property and shall be in locations that are publicly visible to the satisfaction of the Development Officer.
 - o Artworks shall be commissioned or purchased by the owner(s) and all costs and procedures related to the procurement of the artworks.

10. Other Regulations

- a. Sun Shadow and Wind Impact Study may be required at the discretion of the Development Officer for submission with a Development Permit application, for any building or portion of a building with a Height greater than 15.0 m. The development shall incorporate design features to minimize adverse microclimatic effects such as wind tunneling, snow drifting, rain sheeting, shadowing, and loss of sunlight, both on and off-Site, consistent with the recommendations of the Sun Shadow Impact Study and Wind Impact Study.
- b. Prior to the issuance of any Development Permit, except for the purpose of demolition and excavation, a Crime Prevention Through Environmental Design (CPTED) Assessment shall be provided to the satisfaction of the Development Officer to ensure that the development provides a safe urban environment in accordance with the guidelines and principles established in the Design Guidelines for a Safer City (City of Edmonton 1995).
- c. Notwithstanding the other Development Regulations of this Provision, the Appendices of this Provision and Section 720.3(2) of the Zoning Bylaw, in the event

8.0 APPENDIX B - DRAFT DC2 BYLAW

JASPER AVENUE & 123 STREET

that the owner/developer does not obtain a Building Permit and commence construction of the principal building under a valid Development Permit within 10 years of the passage of the Bylaw adopting this Provision, development of the Site shall be in accordance with the (CB1) Low Intensity Business Zone and (CB3) Commercial Mixed Business Zone respectively.

DRAFT

REPORT

J123

EDMONTON, AB

WIND IMPACT STATEMENT

PROJECT #1901212
NOVEMBER 30, 2018



SUBMITTED TO

Belinda Morale Smith

Senior Planner | Planning and Urban Design
BMoraleSmith@dialogdesign.ca

Dialog

100, 10237 - 104 Street
Edmonton, AB T5J 1B1
T: 780.429.1580

SUBMITTED BY

Hanqing Wu, Ph.D., P.Eng.

Senior Technical Director | Principal
Hanqing.Wu@rwdi.com

John Alberico, M.Sc., CCEP

Senior Project Manager | Principal
John.Alberico@rwdi.com

RWDI

600 Southgate Drive
Guelph, ON N1G 4P6
T: 519.823.1311
F: 519.823.1316

rwdi.com

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1. INTRODUCTION



RWDI was retained by Dialog to prepare a Wind Impact Statement for the proposed J123 development in Edmonton, AB as required by the City of Edmonton as per Zoning Bylaw 12800, Section 14.2. The site is located at the northwest corner of the intersection of Jasper Avenue and 123 Street NW (see Image 1).

This assessment was based on the following:

- a review of regional long-term meteorological data from Edmonton City Centre Airport;
- concept drawings provided to RWDI during the project kick off meeting on November 14, 2018;
- wind-tunnel studies undertaken by RWDI for similar projects in the Edmonton Area, including a previously designed project on the same site; and
- our engineering judgement and knowledge of wind flows around buildings¹⁻³.

The current wind assessment is qualitative in nature. Conceptual wind mitigation measures are recommended, where necessary.

For the Wind Impact Study required later in the design, wind tunnel tests will be conducted to quantify the pedestrian wind conditions presented herein, and determine the need for wind mitigation.

Note that other wind issues, such as those related to cladding and structural wind loads, air quality, roof snow loading, snowdrifting, etc., were not considered in the scope of this pedestrian wind assessment.

RWDI Project #1901212
November 30, 2018



Image 1: Aerial view of existing site and surrounding (Photo courtesy of Google Earth)

1. H. Wu and F. Kriksic (2012). "Designing for Pedestrian Comfort in Response to Local Climate", *Journal of Wind Engineering and Industrial Aerodynamics*, vol.104-106, pp.397-407.
2. H. Wu, C.J. Williams, H.A. Baker and W.F. Waechter (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", *ASCE Structure Congress 2004*, Nashville, Tennessee.
3. C.J. Williams, H. Wu, W.F. Waechter and H.A. Baker (1999), "Experience with Remedial Solutions to Control Pedestrian Wind Problems", *10th International Conference on Wind Engineering*, Copenhagen, Denmark.

2. BUILDING AND SITE INFORMATION



The site is currently occupied by several low-rise buildings, and is surrounded by a mix of low-rise to high-rise buildings in all directions. There are several other high-rise developments proposed for the area. Downtown Edmonton is located to the distant east and Saskatchewan River Valley to the south.

The proposed development is to consist of a 26-storey tower with a 2-storey podium and a mechanical penthouse. Image 2 shows the floor plans at Level 1 (ground), Level 3 (podium) and Level 27 (roof).

Pedestrian areas of interest include residential and retail entrances, sidewalks at grade, and potential outdoor amenities/terraces at the podium and roof levels.



Image 2: Floor plans at Level 1 (ground, left), Level 3 (podium, middle) and Level 27 (roof, right)

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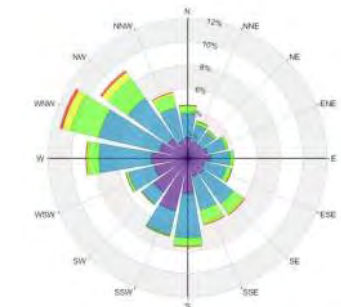
Wind Impact Statement | 3

3. METEOROLOGICAL DATA



Meteorological data from Edmonton City Centre Airport, for the period 1985 to 2015, were used as reference for wind conditions in the area. The distributions of wind frequency and directionality for the summer (May through October) and winter (November through April) seasons are shown in Image 3.

When all winds are considered, winds from southeast through south-southwest and west through north-northwest directions are predominant in both summer and winter. Strong winds of a mean speed greater than 30 km/h measured at the airport (red and yellow bands in Image 3) occur more frequently during the summer than the winter season, and they are typically from the west-northwest and northwest directions.



Summer - May to October



Winter - November to April

Image 3: Directional distribution of winds recorded at Edmonton City Centre Airport (1985 - 2015)

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4. PEDESTRIAN WIND CONDITIONS



4.1 Background

Predicting wind speeds and occurrence frequencies is complicated. It involves the assessment of geometry, orientation, position and height of buildings in the master plan, surrounding buildings, upstream terrain and the local wind climate. Over the years, RWDI has conducted thousands of wind-tunnel model studies on pedestrian wind conditions around buildings, yielding a broad knowledge base. This knowledge has been incorporated into RWDI's proprietary software that allows, in many situations, for a qualitative, screening-level numerical estimation of pedestrian wind conditions without wind tunnel testing.

Tall buildings tend to intercept stronger winds at higher elevations and redirect them to the ground level. Such a Downwashing Flow (see Image 4a) is the main cause for increased wind activity around tall buildings at the pedestrian level.

When two buildings are situated side by side, wind flows tend to accelerate through the space between the buildings due to the Channelling Effect (see Image 4b).

Oblique winds also cause wind accelerations around the exposed building corners (see Image 4c). If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity and uncomfortable conditions.

A large podium structure under a tower is beneficial for wind control as it reduces the direct impact of any downwashing winds from the tower (see Image 4d). However, increased wind activity will be created on the podium terrace, where calm wind conditions are typically desired for any amenity spaces.

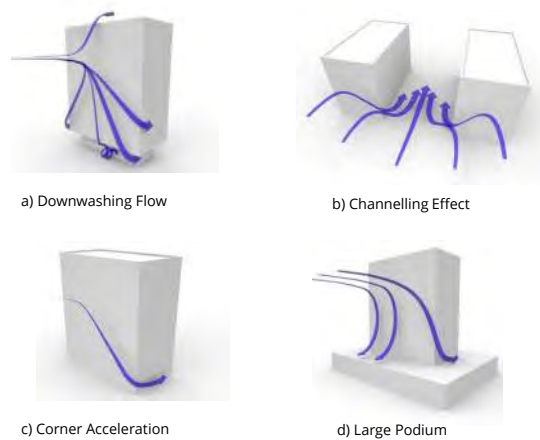


Image 4: General wind flow patterns

4. PEDESTRIAN WIND CONDITIONS



4.2 Existing Wind Conditions

The existing buildings on the site are low in height and surrounded by taller buildings, existing or under construction, in all directions. Image 5 shows the east and north street views from the intersection of Jasper Ave. and 124 St. NW. The existing wind conditions on the project site, including the northwest corner of the intersection, are likely comfortable for standing throughout the year, due to sheltering offered by surroundings.



Image 5: Street views from the intersection of Jasper Ave and 124 St NW to the east (upper) and north (lower) (Courtesy of Google Earth)

At the other three corners of the intersection of Jasper Ave. and 123 St. NW, however, elevated wind speeds are expected due to wind channelling between the existing towers. In particular, wind conditions at the southwest corner of the intersection may be uncomfortable from time to time (see Image 6). This existing situation is caused by the northwest winds accelerating around building corners and channelling between the existing towers (see Images 4b and 4c), and is expected to remain with the proposed project in place, based on our past wind tunnel experience.



Image 6: Street view of the southwest corner of the intersection of Jasper Ave and 123 St NW (Courtesy of Google Earth)

4. PEDESTRIAN WIND CONDITIONS



4.3 Future Wind Conditions

Our past wind tunnel results for the area indicate that windy conditions at the intersection of Jasper Ave. and 123 St. NW would remain with the proposed J123 tower. Wind conditions are expected to be comfortable for strolling or walking at the northeast and southeast corners of the intersection (Locations A1 and A2 in Image 7) and uncomfortable at the southwest corner (Location A3). The proposed development will provide some sheltering from the northwesterly winds, but will also increase the channelling of winds along Jasper Ave. and 123 St. NW.

As per the currently proposed development itself, the 2-storey podium is a positive design feature for wind control, as it will keep the winds downwashing off the new tower above the ground (see Image 4d). The proposed vestibule and lobby for the main residential entrance are another positive feature to provide indoor waiting areas on windy and cold days. Slightly increased wind speeds are expected on sidewalks along the east and south facades, but they will likely be comfortable for strolling or walking, which is suitable for sidewalks.

The future wind speeds along the south building façade may be higher than desired for the main residential entrance (B in Image 7) and retail entrances (C), where users may linger. Our wind control recommendations include:

- Moving the main residential entrance west, away from the exposed building corner; and
- Recessing retail entrances from the main building façade or installing wind screens/planters on both sides of the retail and residential entrances.

Examples of these wind control measures are provided in Image 8. The wind tunnel testing for the Wind Impact Study will be able to quantify these wind conditions and determine the need for wind mitigation.

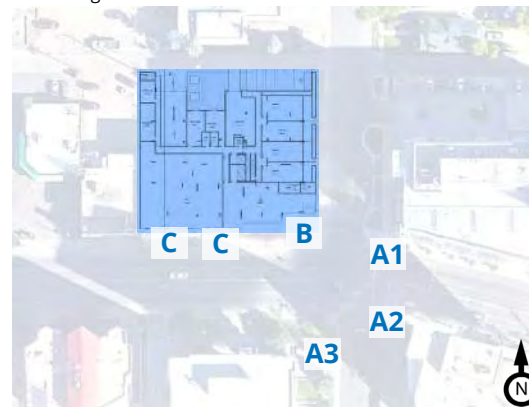


Image 7: Existing site photo with the proposed development
 (Photo courtesy of Google Earth)

4. PEDESTRIAN WIND CONDITIONS

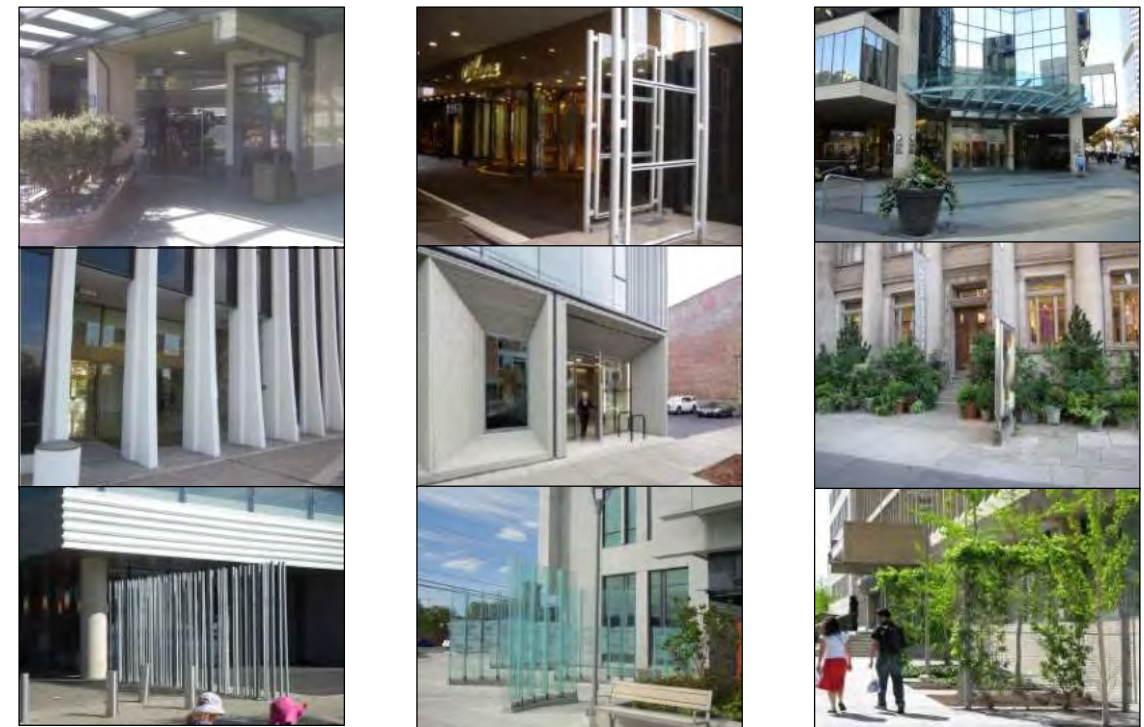


Image 8: Wind control examples for building entrances

4. PEDESTRIAN WIND CONDITIONS

4.3 Future Wind Conditions (Continued)

Spaces on the podium and roof of the proposed building may be used for outdoor amenities (see Image 9). Except for some sheltered areas, wind speeds on the podium and roof terraces (Locations D and E, respectively) are likely higher than desired for passive activities due to their elevation, exposure and winds downwashing off the tower.

The most common wind control measures include vertical elements such as tall guardrails, parapets, windscreens, privacy fences and landscaping. Podium terraces may also be affected by vertical winds that are deflected down by the tower. Therefore, wind control measures should also include overhead protection provided by trellises and canopies. Image 10 on the next page provides examples of wind control features.

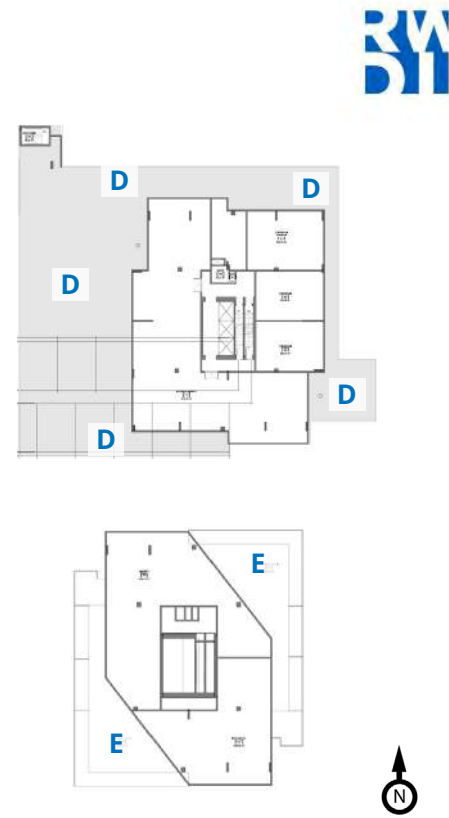


Image 9: Outdoor terraces on podium and roof

4. PEDESTRIAN WIND CONDITIONS

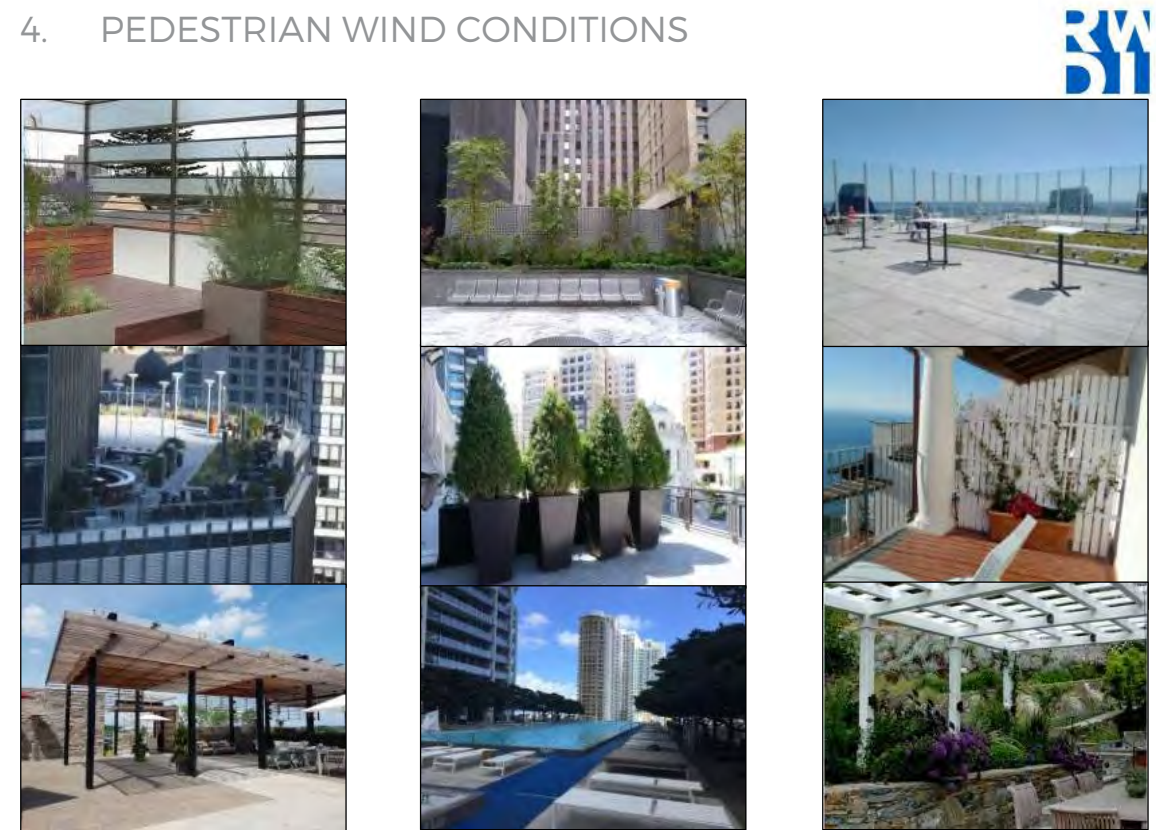


Image 10: Wind control examples for outdoor terraces on podiums and on roofs

5. SUMMARY

RWDI was retained to complete a Wind Impact Statement for the proposed J123 development at Jasper Ave. and 123 St. NW in Edmonton, AB. This statement includes a qualitative assessment of pedestrian wind conditions based on the local wind climate, current design drawings, existing surroundings as well as our knowledge and experience with wind flows around similar buildings.

The proposed development includes several positive wind control features such as a large low podium and an entrance vestibule and lobby. Suitable wind conditions are predicted along public sidewalks in general and the proposed development will not have a negative wind impact to surrounding areas.

Higher-than-desired wind speeds are expected at the main residential entrance and retail entrances along the south façade, and on the podium and at the roof terraces. Conceptual wind control options are discussed and photograph examples are provided for reference.

For the Wind Impact Study that will be required later in the design, wind tunnel tests will be performed to quantify the pedestrian wind conditions presented herein, and determine the need for wind mitigation.

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6. APPLICABILITY OF RESULTS

The assessment presented in this report is for the proposed J123 development at Jasper Ave. and 123 St. NW in Edmonton, AB based on the design drawings and documents received by RWDI from the project kick off meeting on November 14, 2018.

In the event of any significant changes to the design, construction or operation of the building or addition of surroundings in the future, RWDI could provide an assessment of their impact on the pedestrian wind conditions discussed in this report. It is the responsibility of others to contact RWDI to initiate this process.

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