

URBAN DESIGN REPORT



155 University Avenue West

City Of Waterloo
Zoning Bylaw Amendment



July 2023

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Zoning By-law Amendment

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1. BACKGROUND

1.1 Proposal

GSP Group Inc. has been retained by Diamond Schmitt Architects on behalf of the University of Waterloo (the “Applicant”) to coordinate the preparation and submission of a Zoning By-law Amendment for the property municipally known as 155 University Avenue West in the City of Waterloo (the “Site”). An Urban Design Brief was identified as a submission requirement for a complete application at the Pre-Consultation Meeting held on December 19, 2022.

1.2 Proposed Development

The proposed development is a 12-storey student residence building with a pedestrian bridge over the ION railway corridor to the east, connecting with Claudette Millar Hall. Additionally, the building will be connected to the existing walkway stairwell located on the west side of the Site, featuring a pedestrian overpass crossing University Avenue. New parking stalls for the proposed development are integrated with the existing parking lot A, which is located on the south side of the Site.

1.3 Purpose and Outline

This Urban Design Brief is intended to provide an overview of the urban design principles that will guide the detailed design of the Site to ensure that development is compatible with its context and meets the policy objectives of the City of Waterloo. A Zoning By-law Amendment (“ZBA”) is required in order to facilitate the proposed development on the Site and an Urban Design Brief was identified as a requirement of these applications.

Based on the matters for consideration and evaluation identified in pre-submission consultation record, this Urban Design Brief:

- Describes the existing physical conditions on the Site and existing neighbourhood context surrounding the Site (Section 2);

- Summarizes the principal City policy and guideline documents applicable to the Site and the relevant sections as they relate to the proposed development (Section 3);
- Describes the Proposed Development (Section 4);
- Summarizes how the proposed development responds to relevant City urban design policies and guidelines (Section 5); and
- Summarizes the design merits of the proposed development (Section 6).

1.4 Supporting Studies and Materials

This Urban Design Report has considered the following plans and reports prepared in support of the subject applications:

- Site Plan prepared by Diamond Schmitt Architects;
- Floor Plans prepared by Diamond Schmitt Architects;
- Building elevation and renderings by Diamond Schmitt Architects;
- Cross section prepared by Diamond Schmitt Architects; and
- Landscape Plan prepared by GSP Group.

2. SPATIAL AND CONTEXTUAL ASSESSMENT

2.1 Location and Description

The Site is located on University Avenue between the Seagram Drive and the ION rail corridor immediately to the east of the University of Waterloo Parking Lot A. There is an existing walkway stairwell with a pedestrian bridge that crosses University Avenue and Ring Road from the Site, providing a connection to Carl Pollock Hall at the University of Waterloo.

The topography of the Site is generally flat with slight grade variation along the northwest corner of the Site, leading towards University Avenue. The Site features extensive grassy areas along with a variety of mature trees distributed throughout the property.



Site Location

2.2 Surrounding Context

The Site is in close proximity to major institutions, including the University of Waterloo and Wilfrid Laurier University, as well as destinations such as Waterloo Park and Uptown Waterloo. The neighbourhood features a diverse mix of residential and commercial properties, including single-family homes, townhouses, apartment buildings, and rental properties catering to students and young professionals. The commercial areas offer a variety of amenities, such as shopping centers, restaurants, cafes, and other retail establishments, providing convenient access to everyday needs for residents and visitors. The surrounding area is predominantly a location for student accommodations and has been in transition for many years, gradually changing as single detached dwellings have been adapted to student rental accommodations.

The Site is well served by public transit, offering multiple options for travel. University Avenue, designated as a regional arterial in the City's Official Plan, ensures safe and direct multi-modal transportation links throughout Waterloo Region and neighbouring municipalities. University Avenue features two lanes of traffic on each side, complemented by designated bike lanes, promoting sustainable mobility and enhancing cycling opportunities. The Site is conveniently located within less than 5-minute walking distance to the Region's highest order transit service, with the Laurier-Waterloo Park ION station to the east. The Grand River Transit (GRT) stops along University Avenue provide access to other transit routes, including Bus Route 12 (Westmount), which runs from University Avenue to the Fairway Station, and iXpress Route 202 (University), which operates from Conestogo Station to the Boardwalk. This transit network provides extensive connections to the City and Region. In addition to public transit, the Site is also adjacent to the Laurel Trail featuring cycle tracks that promote sustainable and active transportation choices.

2.3 Abutting Property Context

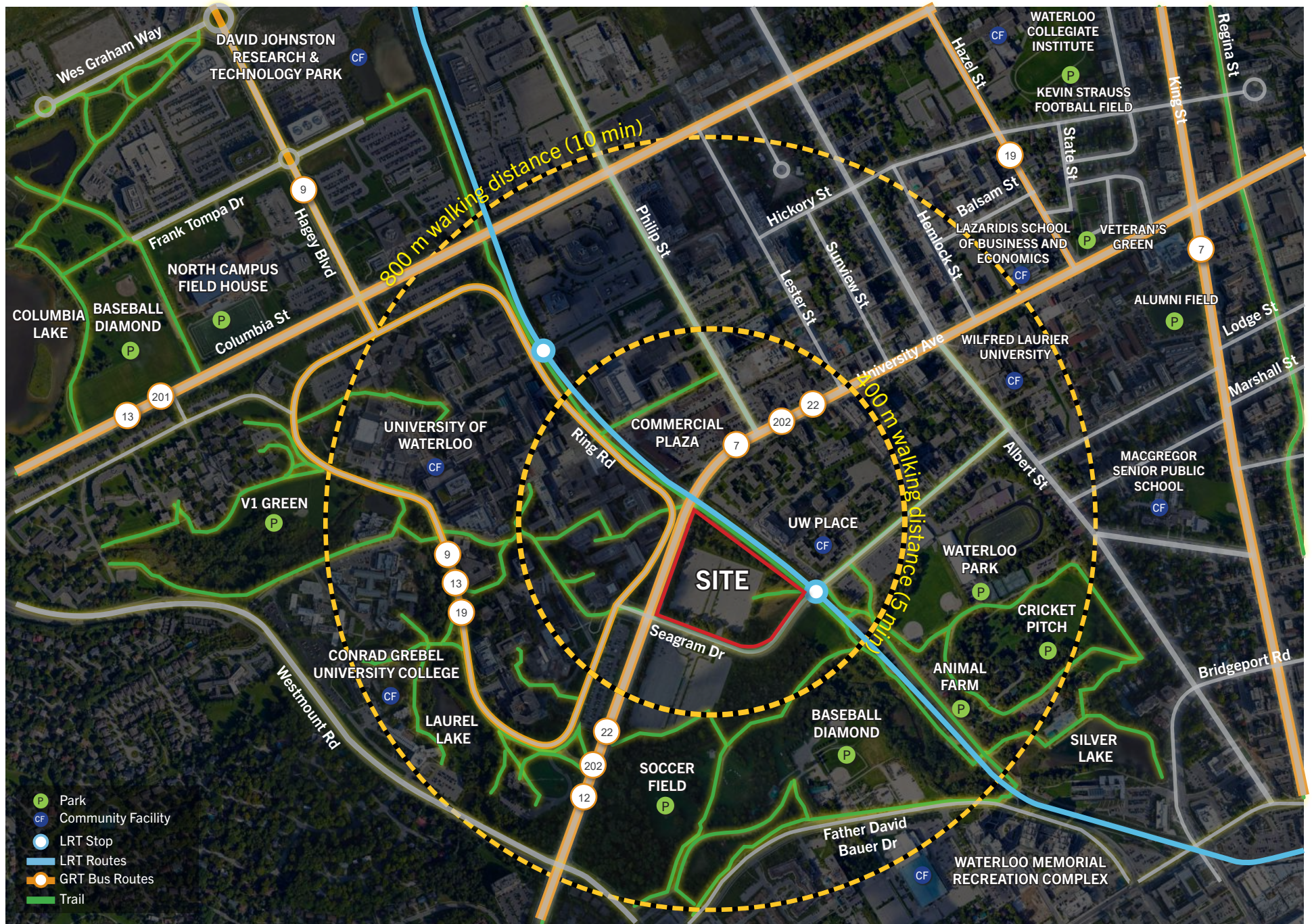
The areas immediately surrounding the subject site are as follows:

North: To the north of the Site, there are the Laurel Trail and ION rail corridor. Across the rail corridor, there is UW Place (UWP), a student residential community consisting of two towers and four courts.

East: Immediately east is the continuation of the Laurel trail and rail corridor running parallel to the Site and the Laurier-Waterloo Park ION station is located to the east;

South: To the south of the Site is the University of Waterloo Parking Lot A, with its entrance accessible from Seagram Drive.

West: The western side of the Site is bordered by University Avenue, which is a regional arterial road with two lanes of traffic and bike lanes on each side of the street. There is an existing walkway stairwell on the west side of the Site that contains a pedestrian overpass going across University Avenue.



Neighbourhood Context surrounding Site



North: Laurel Trail and ION rail corridor



East: Laurel Trail, ION rail corridor and Laurel-Waterloo Park ION Station



South: Parking Lot A



West: University Avenue

3. DESIGN POLICY AND GUIDELINE REFERENCES

3.1 City of Waterloo Official Plan

The Site is designated as 'Academic' on Schedule 'A2' in the City of Waterloo Official Plan. The Academic land use designation is applied to the main campuses of post-secondary educational institutions and permits a mixture of post-secondary related uses including residential uses for the academic use (e.g., student residences).

The Site is designated 'High Density Employment Residential' in the City of Waterloo Official Plan, which permits a maximum height of 81 metres (Schedule 'B1'). No residential density is identified in the Official Plan for the High Density Employment designation, and thus is deferred to the UC-81 zone standards. The proposed development is 12-storey in height and conforms to the Official Plan as the maximum building height of 81 metres would allow up to 25 storeys (as per Zoning Bylaw 2018-050).

3.1.1 General Urban Design Policies

The general urban design policies of Section 3.11.1 provide directions for the development of the Site. Generally, these policies provide design direction on the following topics for the Site:

- Intensification
- Character

- Views and Vistas
- Streetscapes
- Existing Site Features
- Safety and Security
- Site Circulation
- Transit-Oriented Design
- Universal Design
- Parking
- Site Servicing Areas
- Outdoor Lighting
- Signage
- Compatible Development

3.1.2 Urban Design within Nodes and Corridors

The Site is identified as a Major Node (UW Node) on Schedule 'B' of the Official Plan. In addition to the general design policies provided by the Official Plan, additional design guidelines for nodes in Section 3.11.2 provide directions for the development of the Site.

3.1.3 Urban Design within Station Areas

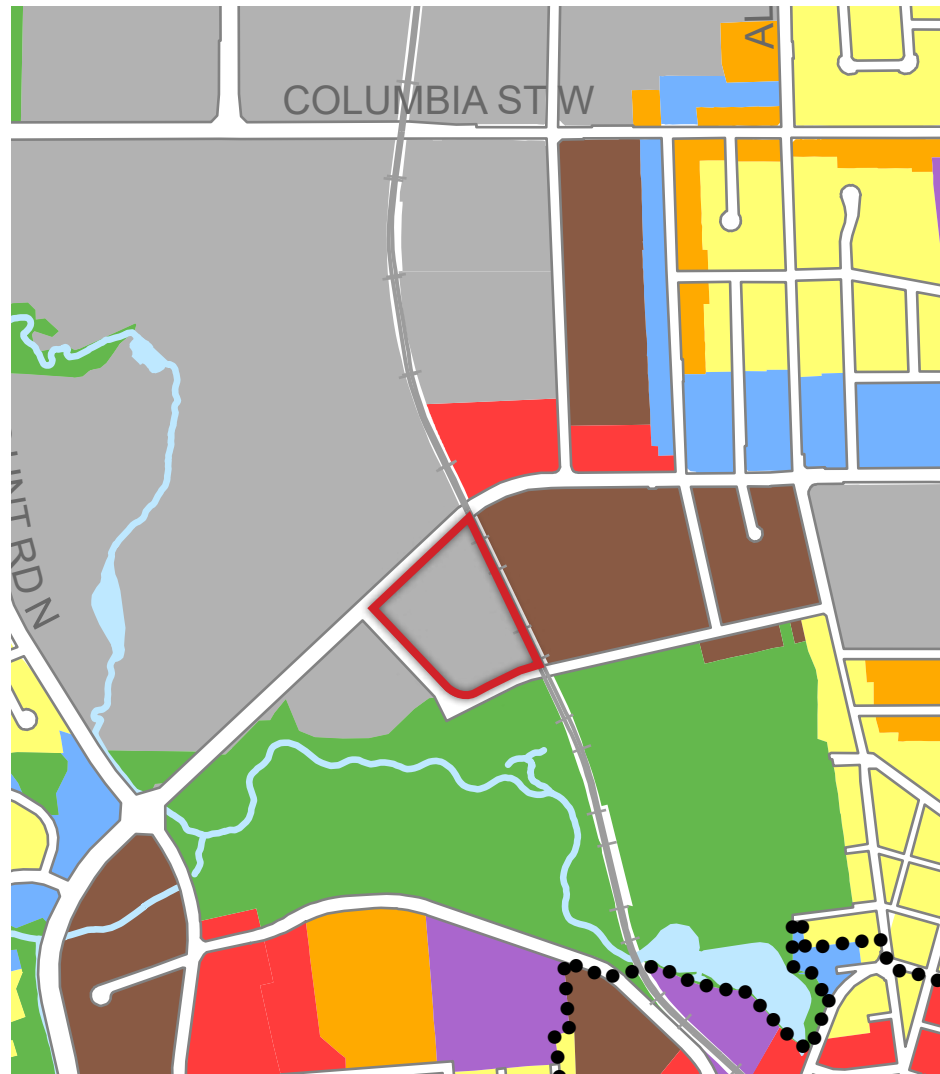
The Site is located within the "Wilfrid Laurier University and Waterloo Park" Station Area as per Schedule 'J4' of the Official Plan. Section 3.11.4 provides directions for the development of the Site within the station areas.

3.2. City of Waterloo Urban Design Manual

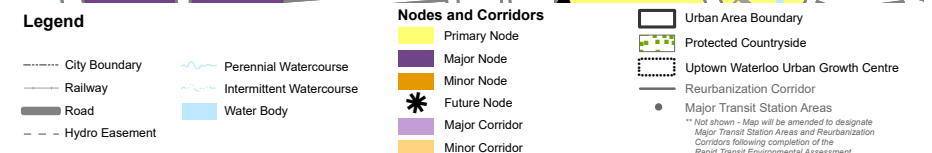
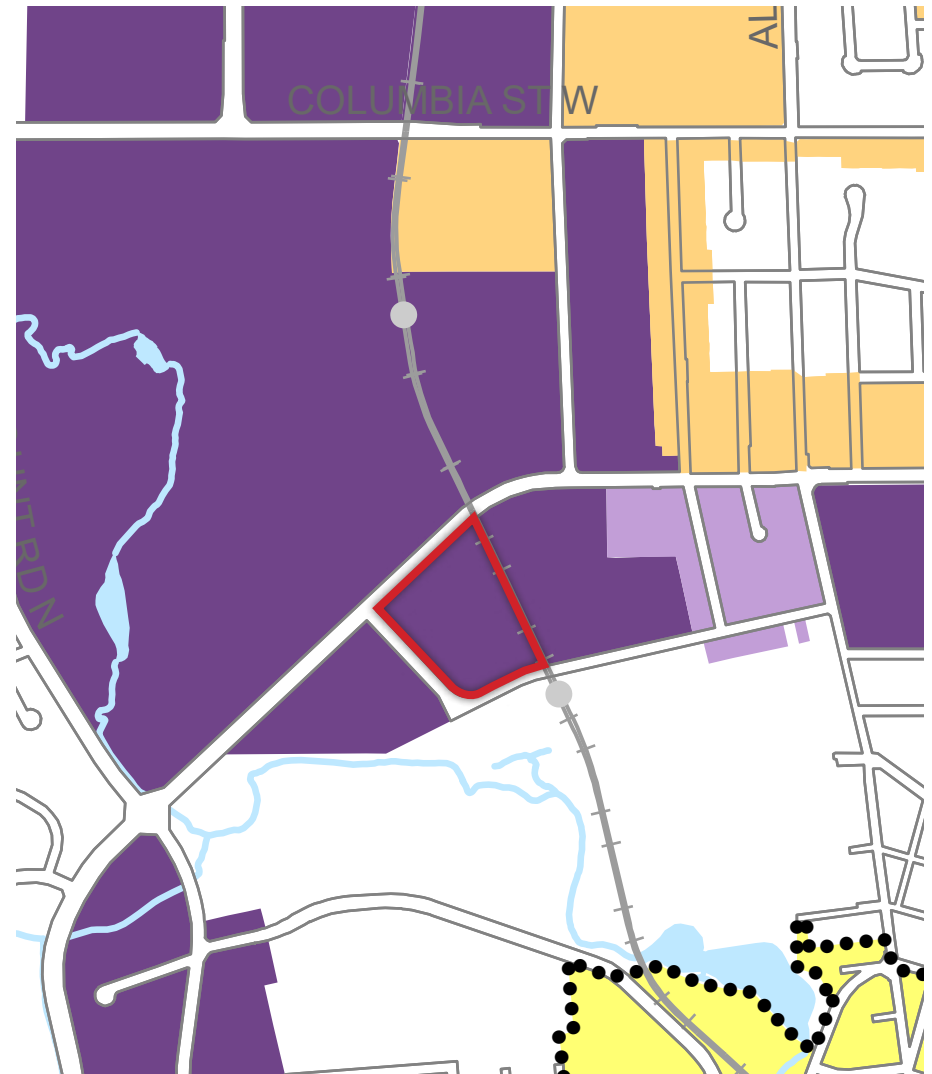
Portions of the general urban design guidelines of Part 2 of the Waterloo Urban Design Manual and the supplemental design guidelines of Part 3 are relevant to the Site. The following sections of these guidelines are particularly relevant to the development form proposed for the subject site, recognizing the preliminary design relates to the approvals process for an Official Plan Amendment and Zoning By-law Amendment and that detailed design has not been undertaken at this time:

- 2.1.1 Pedestrian-Friendly Design;
- 2.1.2 Human-Scale Development;
- 2.1.3 Compatible Development;
- 2.1.4 Safety and Security;
- 2.1.5 Transit-Oriented Design;
- 2.1.6 Building Design;

Land Use Map in City of Waterloo Official Plan



City Structure in City of Waterloo Official Plan



4. PROPOSED DEVELOPMENT

4.1 Development Overview

The proposed development is a 12-storey student residence building designed to accommodate approximately 510 students. The building will feature various supporting functional areas, including study spaces, fitness facilities, bike storage, seminar rooms, and administrative offices. To enhance connectivity, the proposal includes a pedestrian bridge over the rail tracks, linking the new residence to Claudette Millar Hall on the east side of the ION corridor. Furthermore, the building will connect with the existing walkway stairwell located on the west side of the Site, featuring a pedestrian overpass crossing University Avenue. Extensive landscaping is also proposed to the north of the building, providing direct connections to Laurel Trail and access to the University and Waterloo Park beyond.

4.2. Site Organization/ Building Positioning

The proposed design iteratively explored a series of different building configurations and orientations to determine the optimum placement for the new residence building. Ultimately, the proposed building is positioned to the northern edge of parking lot A, confined to the triangular shaped parcel between the LRT tracks and the parking lot. This strategic location allows the proposed building to seamlessly integrate into the UW Place collection of residences, serving as a prominent anchor adjacent to the main campus. The building maintains 5 metres setback from the street property line and 15 metres setback from the property line adjacent to the rail corridor.

Main Entrance Plaza

The area south of the main building is envisioned as a main forecourt/ entry plaza for the proposed New Student Residence, which will accommodate both functional needs (such as servicing and firetruck access, extensive pickup and drop off zones during student move in/ move out periods, vehicular access, etc.), while also providing

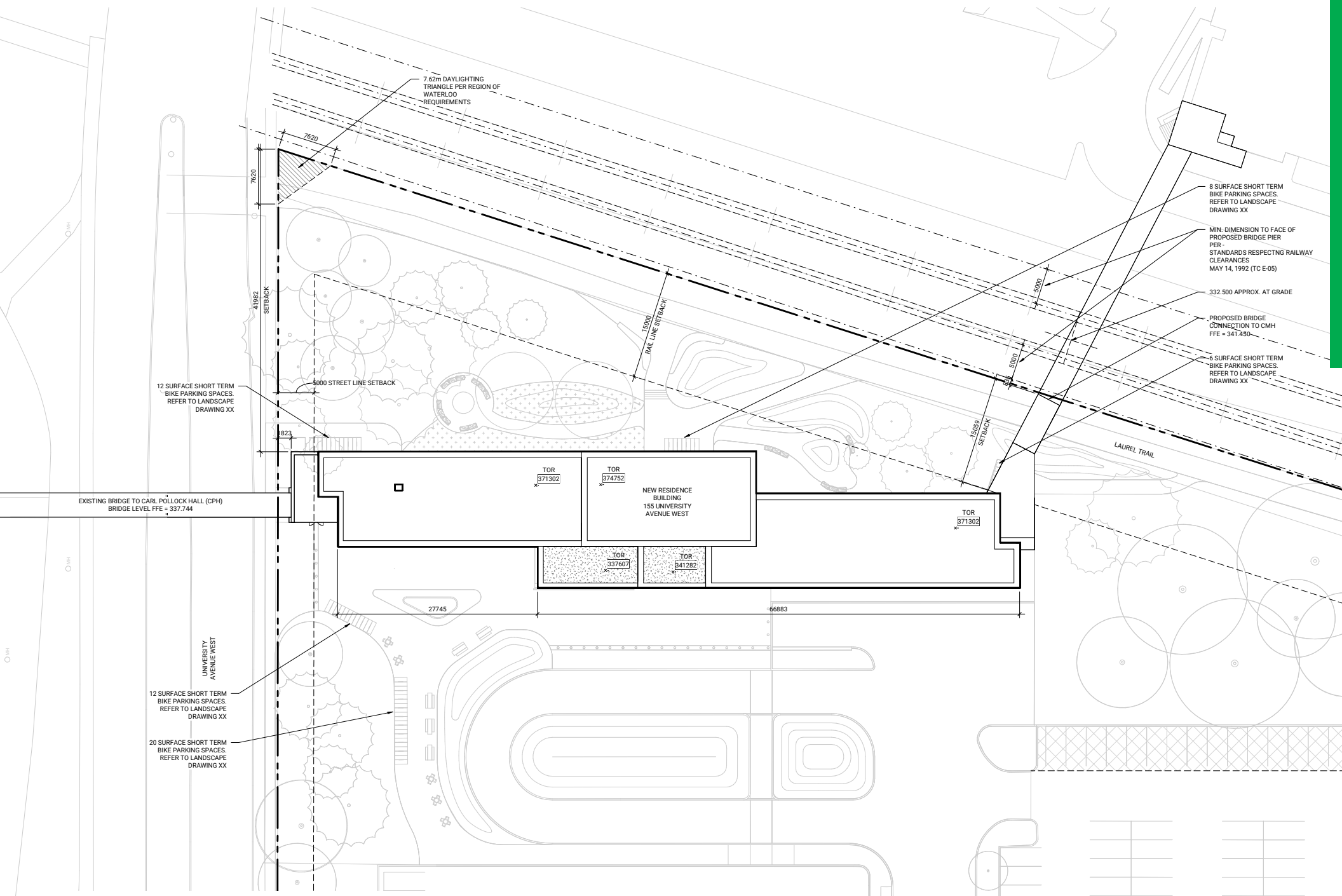
outdoor amenity/ recreational spaces for the student residence population as well as the larger university community.

University Avenue Entrance

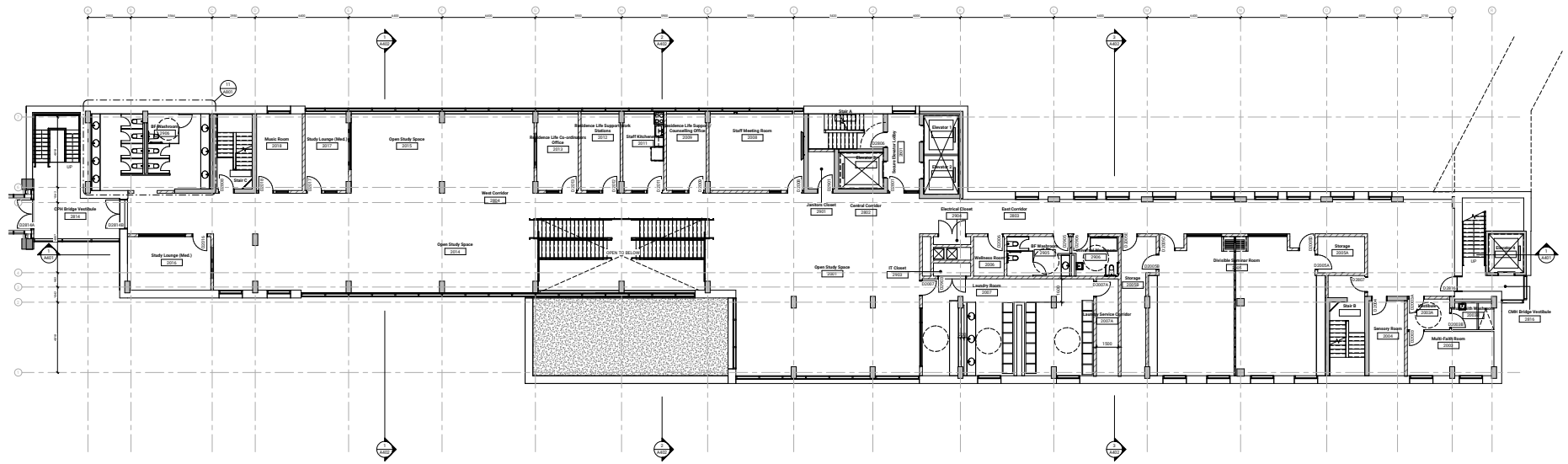
A smaller entryway/ forecourt is proposed along University Avenue, guiding those approaching the building from the west towards the main building entrance.

Laurel Trail Connection

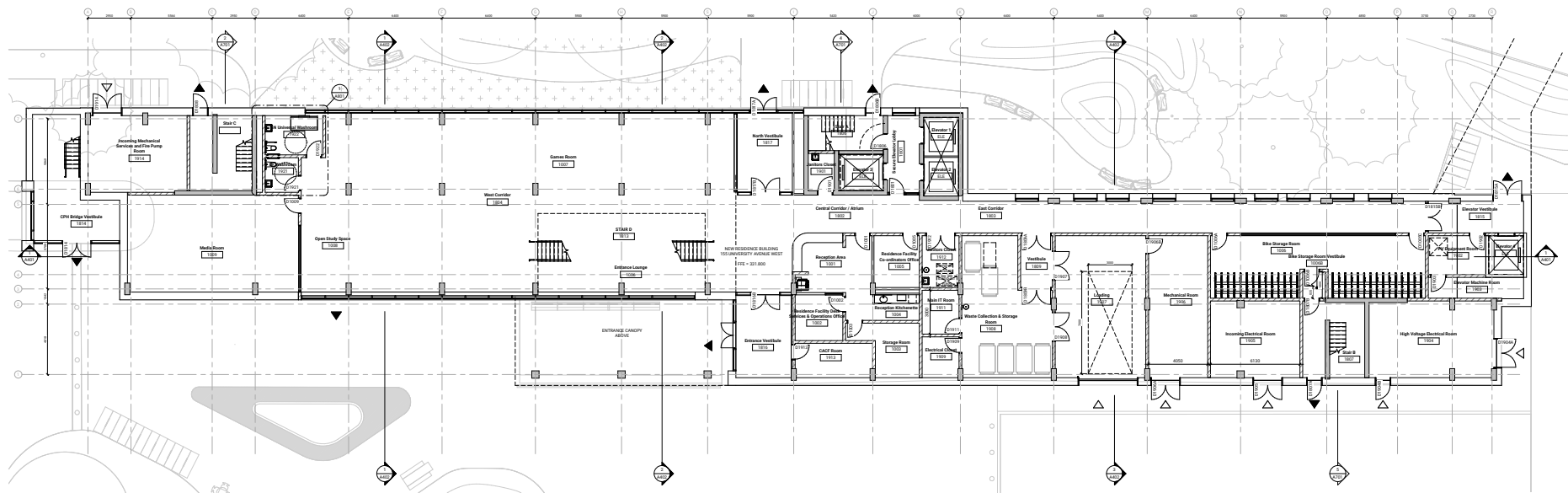
The proposed building's proximity to the Laurel Trail offers students quick access to Waterloo's extensive multi-use trail network, as well as to the adjacent ION LRT stations (being located approximately at the halfway point between the Laurier-Waterloo Park and the University of Waterloo Park ION stations). The proposed paved pathways connect the new building to the Trail, while utilizing similar materials and furniture as those of the Main Entrance Plaza and the University Avenue Entrance.



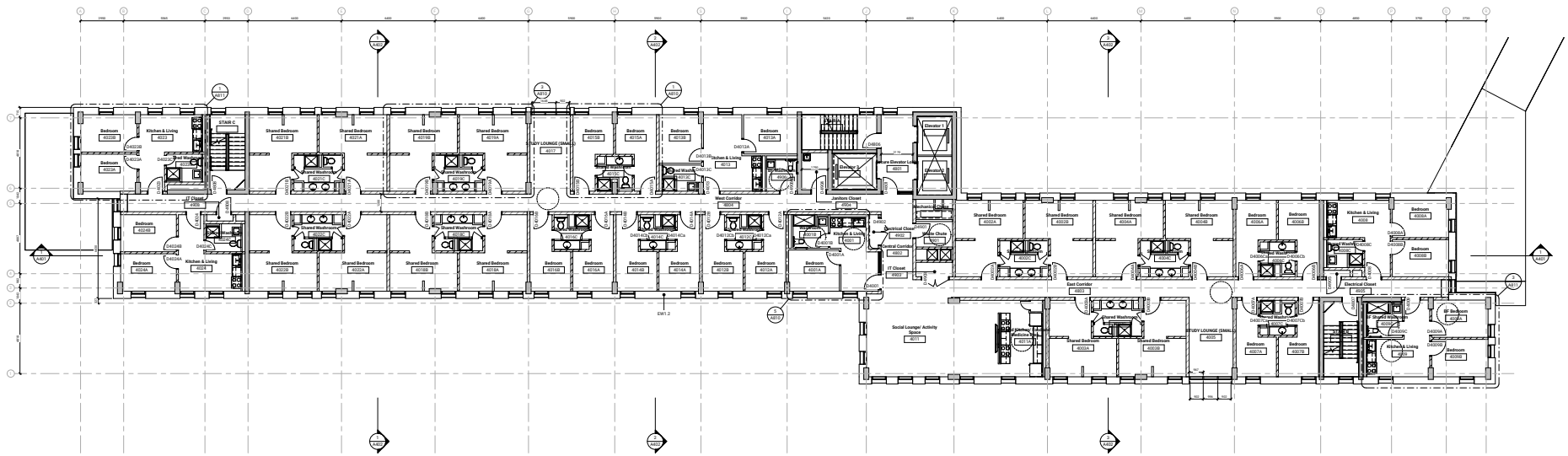
Site Plan, prepared by Diamond Schmitt Architects



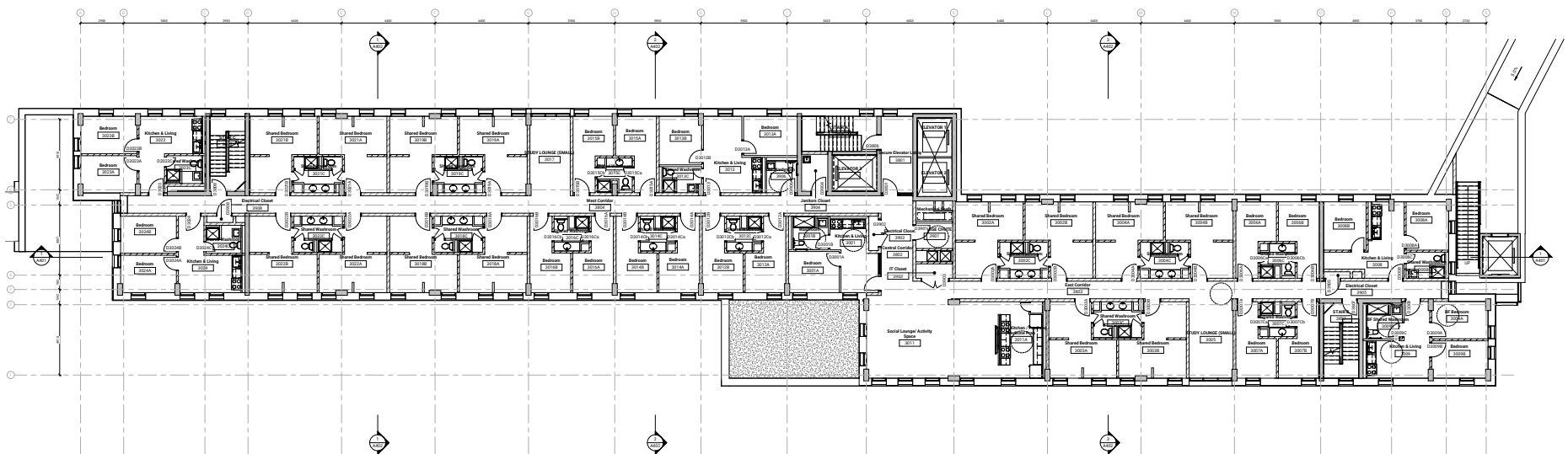
Level 2 Floor Plan



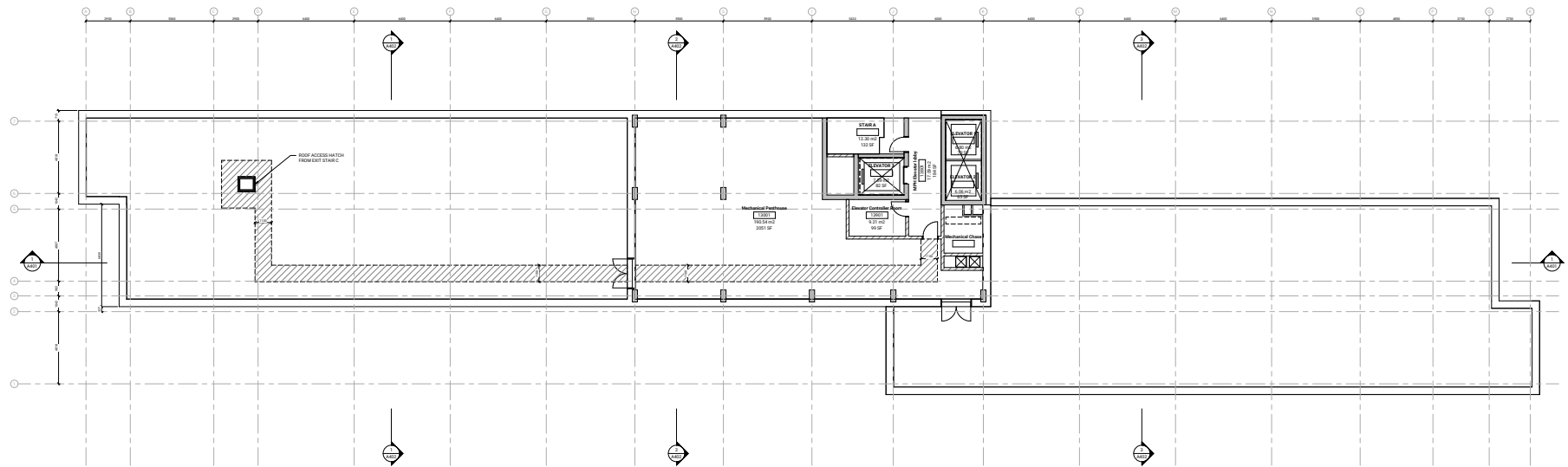
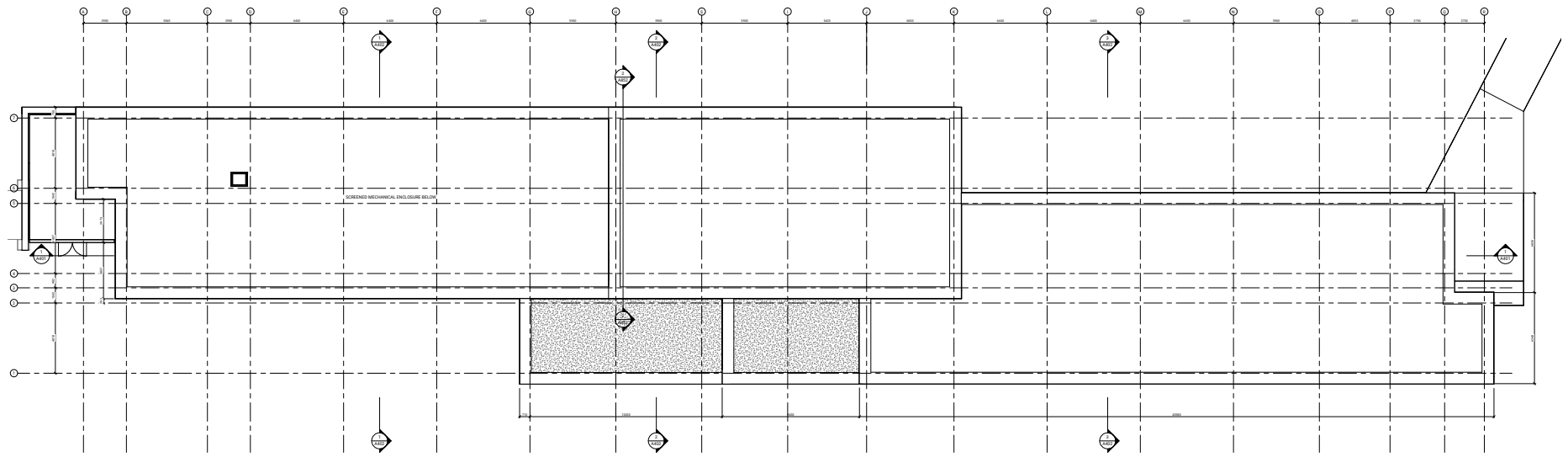
Level 1 Floor Plan



Typical Residence Floor Plan



Level 3 Floor Plan



4.3 Building Scale and Massing

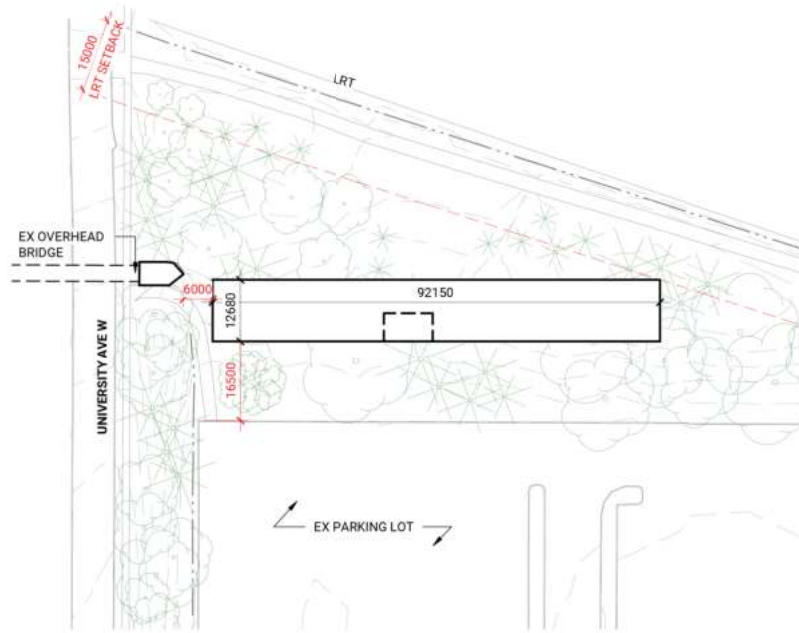
The proposed development consists of a 12-storey building with a two-storey podium height of 9.55 metres, resulting in an overall height of 43.25 metres to the top of the mechanical penthouse. The total building footprint covers approximately 1,824 square metres, measuring 19 metres wide and 96 metres long. The ground floor of the building is 6 metres in height with a covered entranceway for the principal entrance. The lower two floors have been designed as highly public with many amenity spaces overlooking a centralized atrium space. This atrium space becomes the vibrant heart of the facility, where various activities and interactions take place. With bridge connections at either extreme of the second floor, this level will contain vibrant program spaces.

Given University of Waterloo's current ratio of approximately 50 students for one don, and the target occupancy of the building at around 510 students, the building adopts a natural distribution of 10 residential "floors with one "house" of 50 students per floor. This arrangement resulted in a linear building length of approximately 95m. Four plan configurations were studied which would sit ostensibly within the confines of the triangular site and each was given a descriptive name: bar, hockey stick, L and shift.

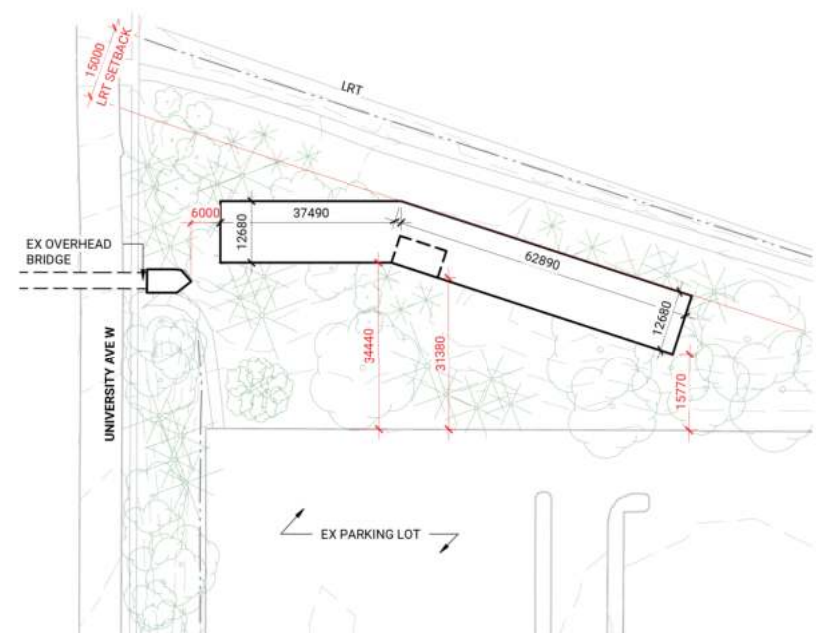
The shift option was favoured due to its advantages. The wider section in the middle of the building reduces the exterior envelope, resulting in better cost-effectiveness and improved energy performance compared to a long undifferentiated plan with more exterior wall area. Additionally, the staggered volume of the shift option breaks down the imposing mass seen from University Avenue into two visually distinct elements. The thicker knuckle in this configuration also allows for more program space at the center of the plan, creating a better focus for the building's interior functions.

Furthermore, the desire for a direct connection to the existing bridge led to the building's fixed location at the west end. Without the jog, the plan would intrude into the 15-meter rail setback to the southeast. By extending the building as far as possible towards Claudette Miller

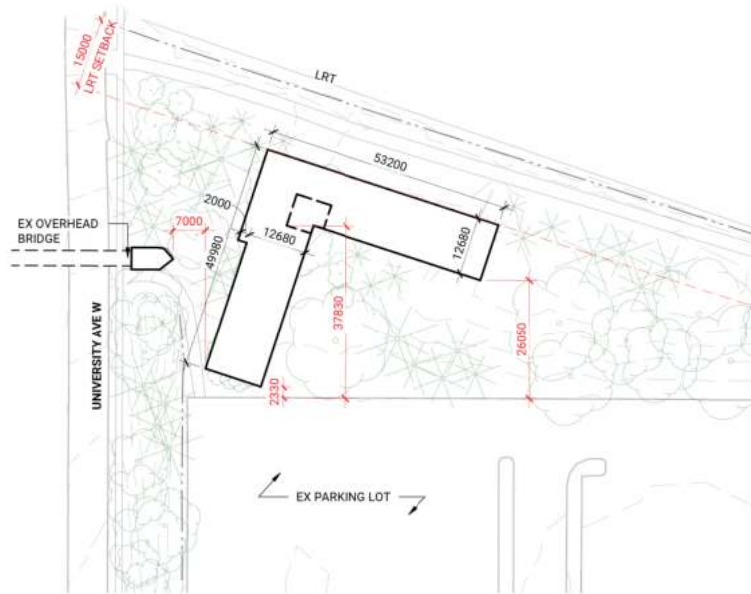
Hall, a shorter bridge connection can be achieved, facilitating a more seamless integration between the two facilities. The building's reorientation to be perpendicular to University Avenue simplifies the connection to the existing bridge and aligns with the main street, while also allowing for potential future phases towards Seagram.



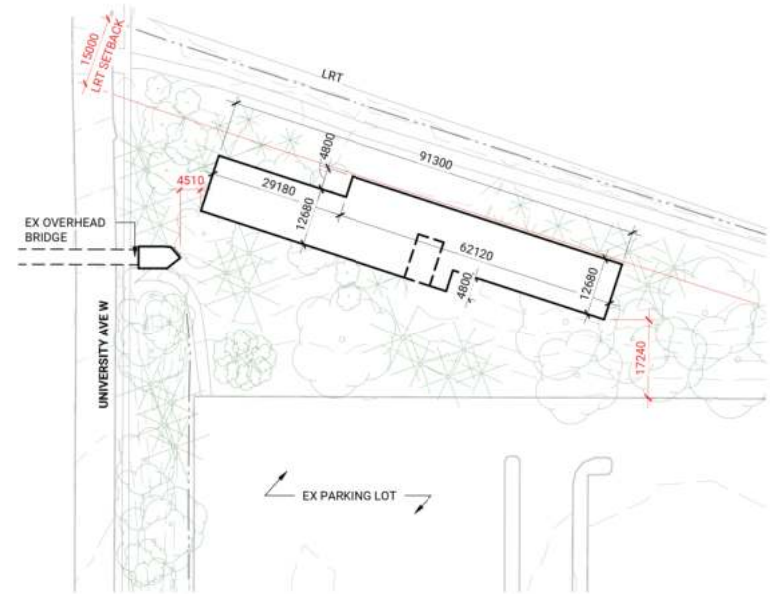
Option 1: Bar Parallel to Bridge



Option 2: Hockey Stick Parallel to Bridge & LRT

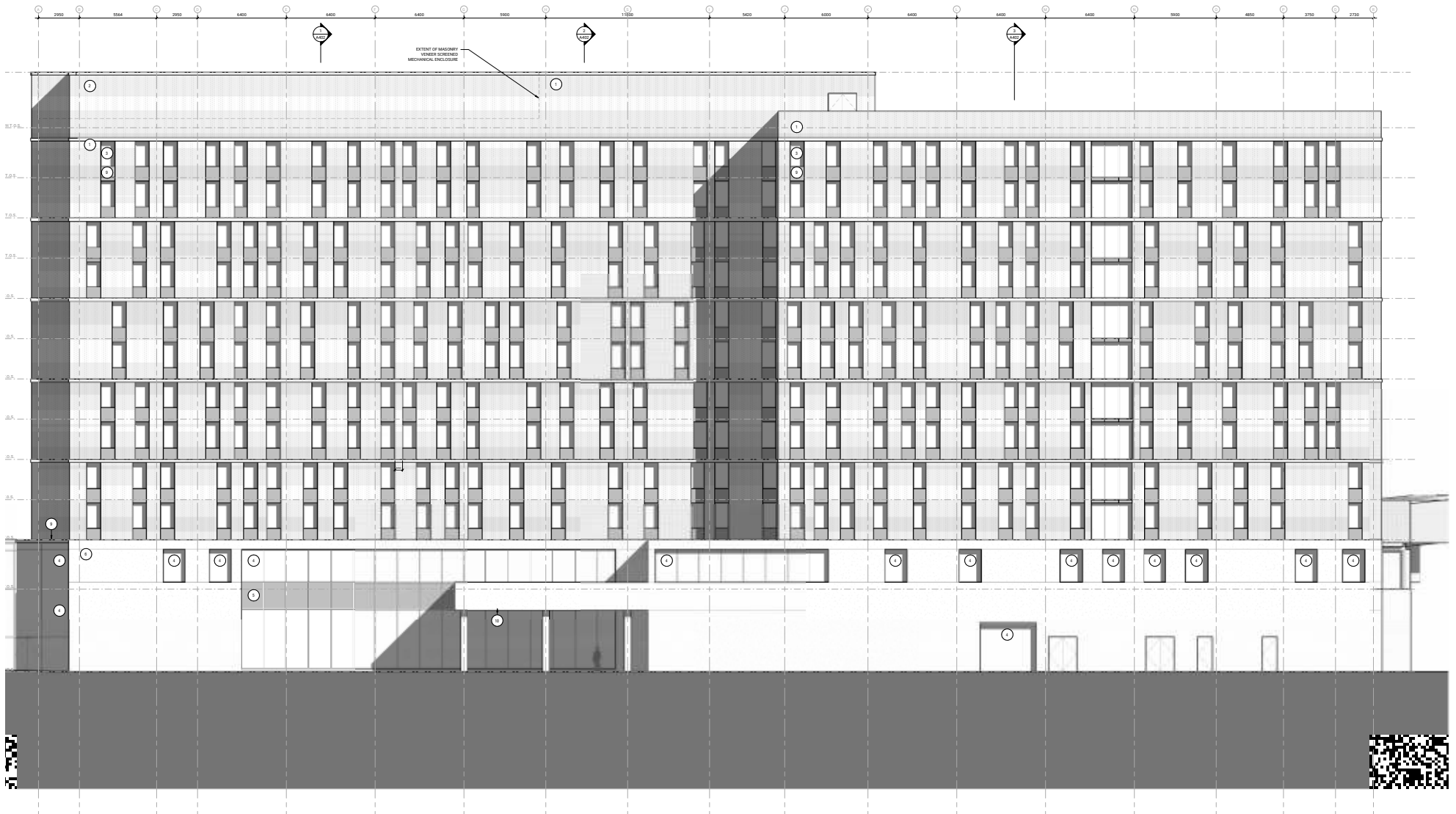


Option 3: L Parallel to LRT



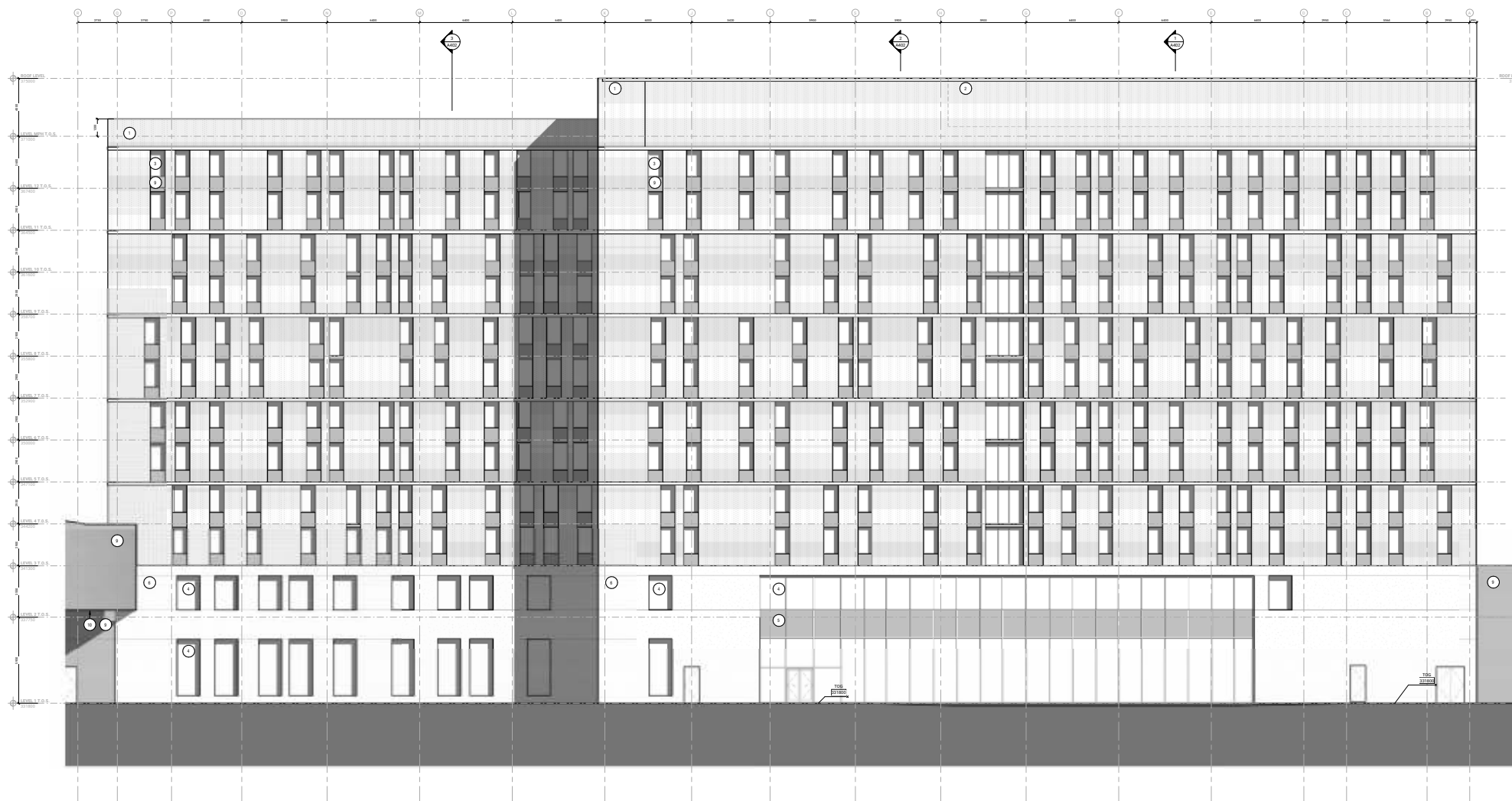
Option 4: Bar Shift Parallel to LRT

Design Prototypes



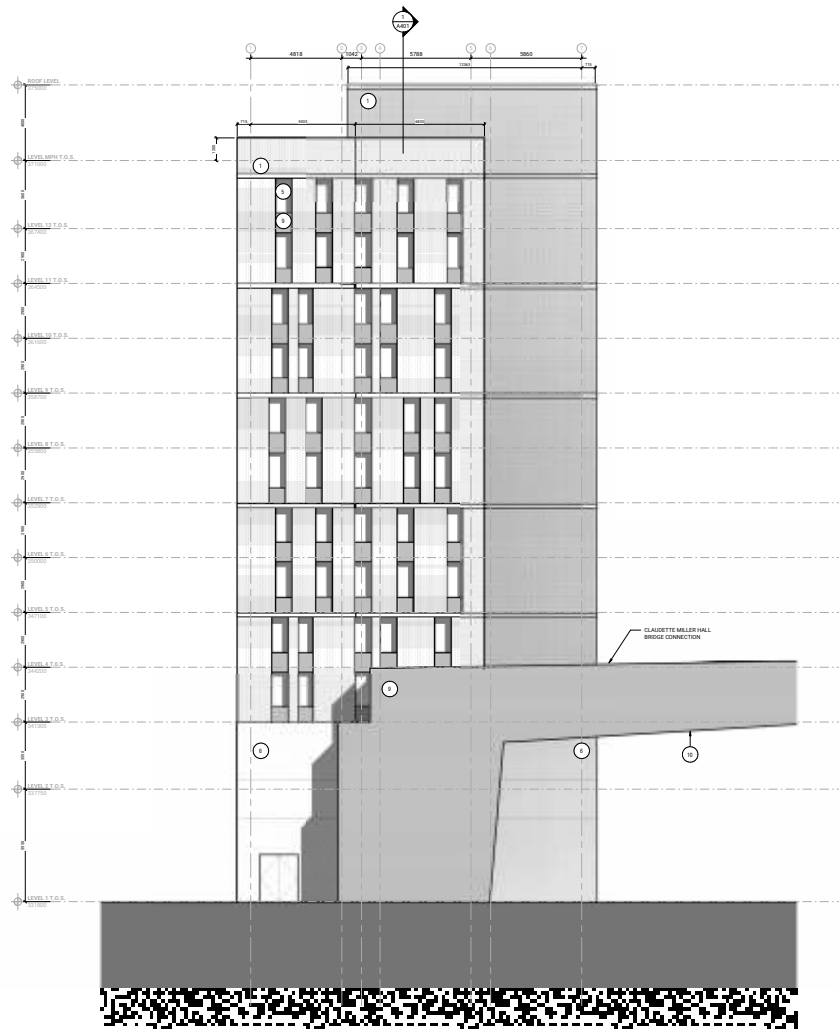
South Elevation

Elevations, prepared by Diamond Schmitt Architects

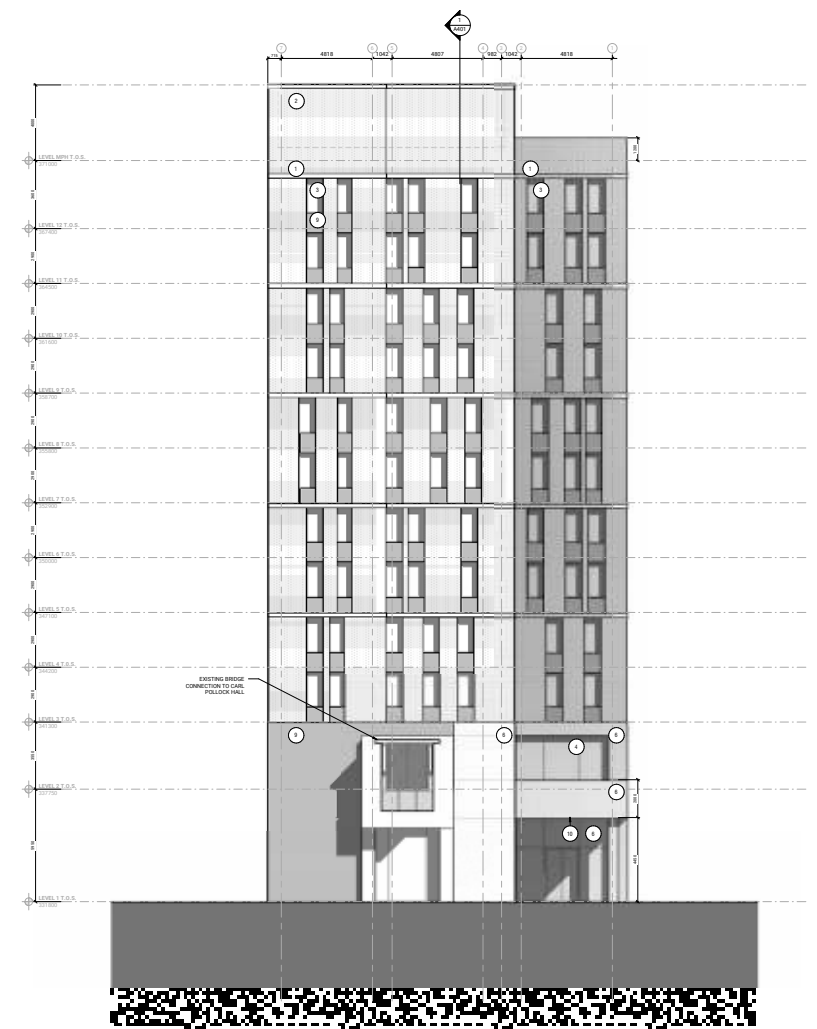


North Elevation

Elevations, prepared by Diamond Schmitt Architects



East Elevation



West Elevation

Elevations, prepared by Diamond Schmitt Architects

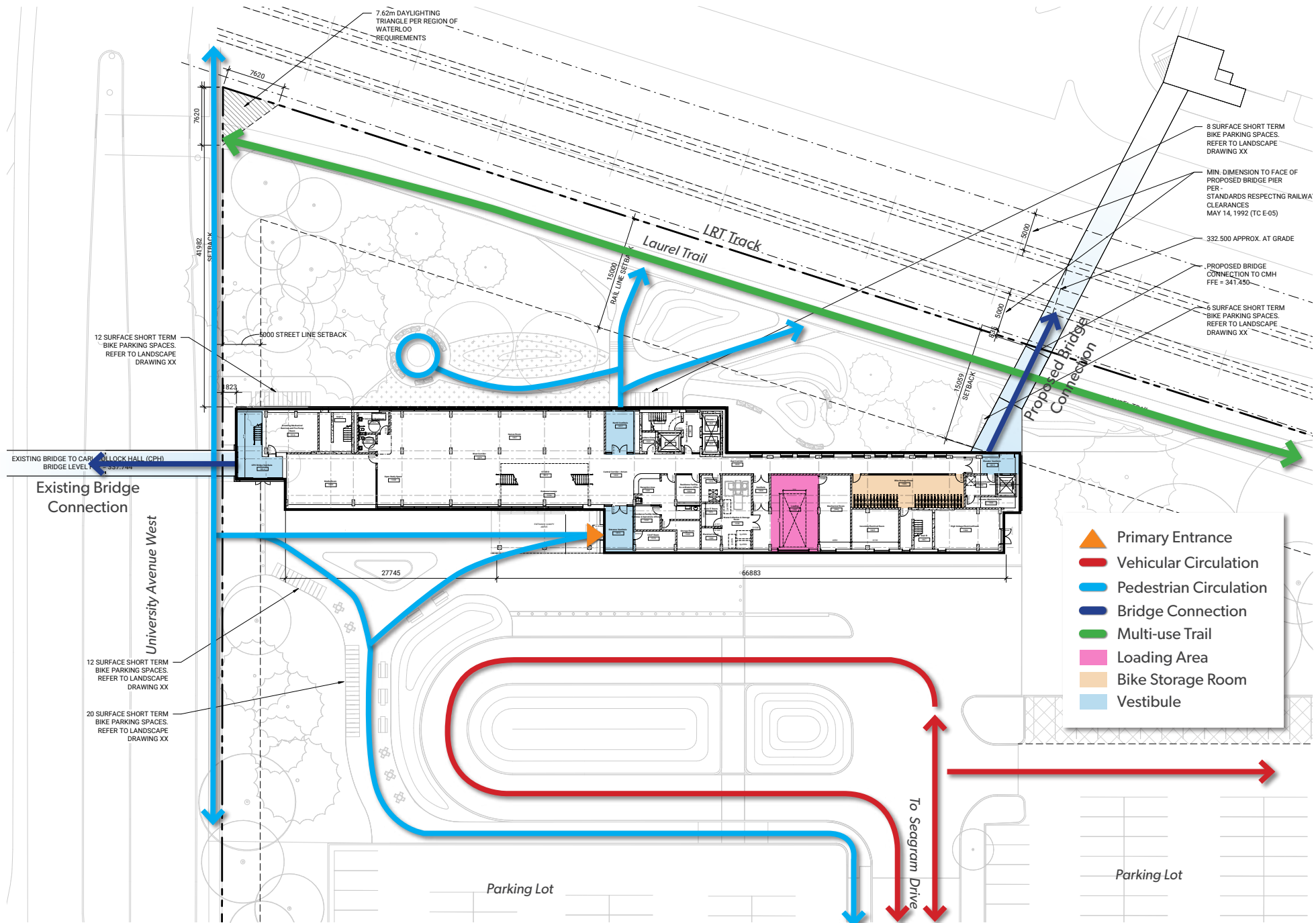


Proposed Bridge Connection

4.4 Access and Circulation

The driveway and vehicular access to the proposed development will be from Seagram Drive, facilitating safe site circulation for vehicular movement and loading. Pedestrian circulation will primarily occur on the public sidewalk adjacent to the Site along University Avenue. Additionally, a paved pathway connection from the proposed development to the Laurel Trail access is provided for pedestrians and cyclists.

To enhance the street-level experience, the main entrance to the Site will be identified through thoughtful landscape design, pavement treatment and building articulation. The parking areas will be well-lit and free of obstacles, ensuring safe and unobstructed pedestrian movement in accordance with CPTED (Crime Prevention Through Environmental Design) principles.



Circulation Diagram

4.5 Parking and Service Areas

The proposed development requires approximately 106 car parking spaces. Currently, Parking lot A on the south side of the Site offers a total of 630 parking spaces. The addition of the proposed turnaround and drop-off area for the new building further decreases the capacity of the existing parking lot. To ensure a total of 736 parking spaces, accommodating both the existing demand and the new building's requirements, an expansion of the parking lot will be necessary. This expansion involves extending the parking lot towards the south and east, towards the LRT and Seagram Drive.

A total of 125 bicycle parking spaces are provided, with 58 spaces allocated for long-term bicycle parking in a bike storage room on the ground floor level. Outdoor bike racks are proposed at the main entrance plaza, behind the building near the existing walkway stairwell on the west side, at the building entrance on the south side, and near the proposed pedestrian bridge connection to Claudette Millar Hall on the east side.

Service areas are screened from University Avenue through building placement and are located internal to the building (mechanical room, garbage room and storage rooms). A portion of the driveway will double as loading area for move-in and waste removal.

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Main Entrance

4.6 Building Articulation and Materials

Ground Floor and Base Design

The base of the building primarily features a mix of precast and brick masonry and precast pigmented concrete panels complemented by capless glazed curtain wall system with bird friendly frit. The design places a strong emphasis on pedestrian interaction, especially on the double-height ground floor, which comprises a 6-metre-tall ground floor and a 3.55-metre-tall second floor. This area is designed to be highly public, featuring numerous amenity spaces that overlook a centralized atrium space. The atrium serves as the heart of the facility, fostering a vibrant and lively atmosphere where various activities and interactions take place. The second floor, with bridge connections at either end, will house dynamic program spaces that contribute to the animation of the atrium at all levels. The use of transparent glass panels from the ground floor to the second floor allows for an open and inviting ambiance. Additionally, the main entrance will feature an overhead canopy, providing weather protection and creating a visually striking effect.

Tower Design

The tower design elevates the materiality and articulation of the building base. The tower will incorporate a combination of masonry veneer with a rainscreen cladding system and punched windows featuring aluminum rainscreen cladding. A clear distinction between the base and tower is achieved through the arrangement of the punched windows in a staggered pattern and the use of different materials. This design approach enhances the visual appeal of the tower and complements the aesthetics of the base, resulting in a cohesive and integrated architectural composition.

Top

The mechanical penthouse is thoughtfully integrated into the overall building design and is visually screened from public view.

It should be noted the final selection of building materials and colors, as well as landscape details, will be determined through further design refinement.



Atrium

4.7 Landscape Design

The Landscape Plan, designed by GSP Group, outlines a comprehensive scheme to create a high-quality public realm and achieve the placemaking objectives for the Site. The plan focuses on developing engaging and active frontages along the south elevation (main elevation), University Avenue street frontage, and the back of the building facing Laurel Trail. Key elements of the plan include:

Main Entrance Plaza

The main entrance plaza has a pedestrian priority character defined by concrete and asphalt pavements, which offer durability and ease of maintenance. A vehicular access 'loop' zone is delineated by landscaped berms, planters, and bollards, and is intersected by proposed pedestrian pathways that are lined with benches and groves of trees. Additional seating is provided along the ledges of raised planters, strategically clad with wood (IPE) seating. The materiality and design for the proposed landscape features seek to integrate and build on the family of furnishings established throughout the University of Waterloo campus, such as the recently revitalized Village 1 Student Residences campus as well as the University of Waterloo South Commons.

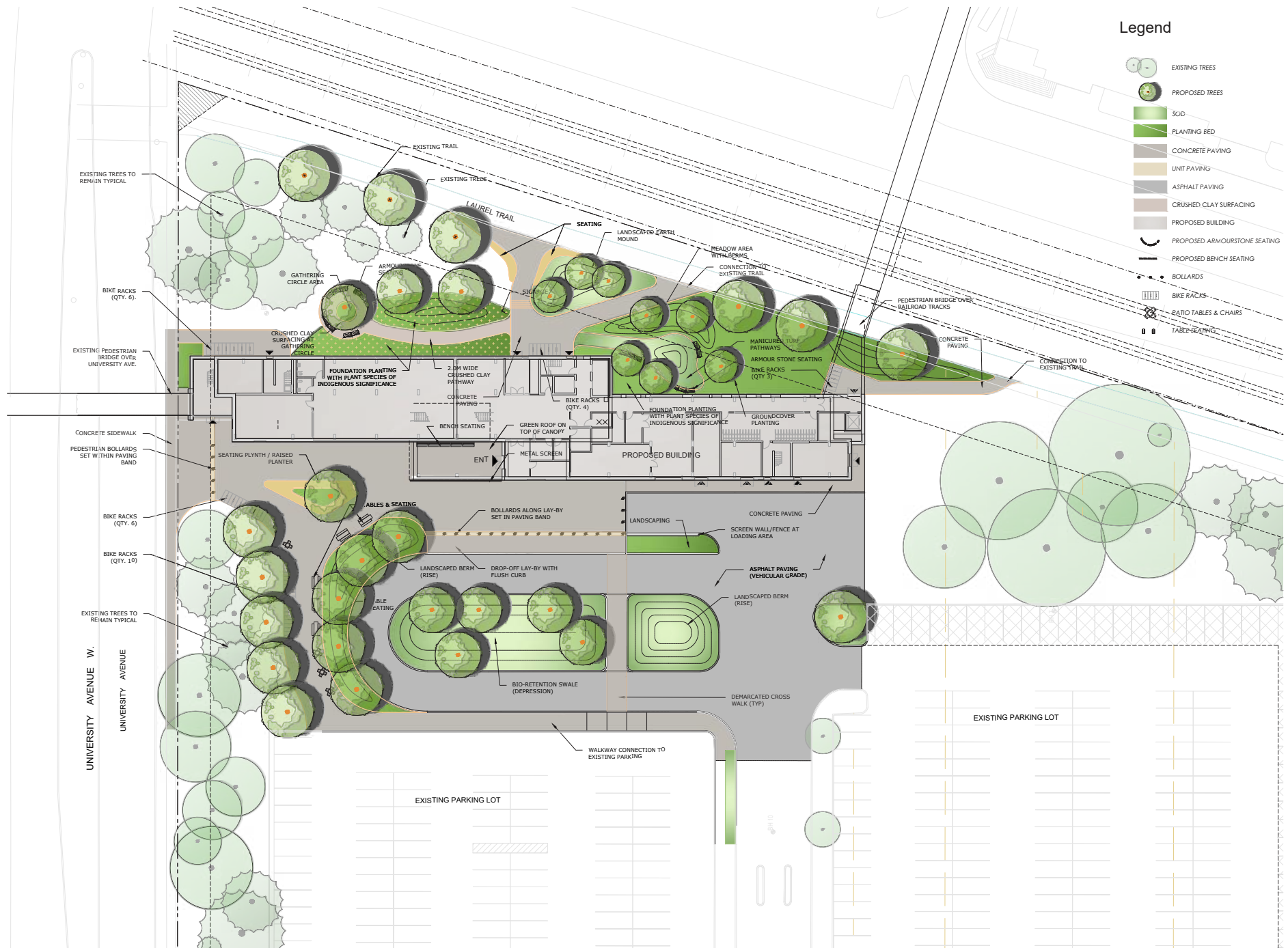
University Avenue Entrance

A smaller entryway/ forecourt is proposed along University Avenue, guiding those approaching the building from the west towards the main building entrance. The paving pattern proposed for the Main Entrance Plaza continues diagonally across the Site, reaching the University Avenue streetscape, while also anchoring and highlighting the landing of the pedestrian link over University Avenue. The existing berm along University Avenue is carefully opened up and retained by a seat wall, with particular attention given to preserving and enhancing the mature vegetation buffer along this busy Regional Road.

Laurel Trail Access

A pedestrian pathway is proposed from the building entrance located at the back to connect with Laurel Trail. Durable decorative paver materials in various patterns and colors distinguish different spaces

along the pathway. Concrete paving is used for the path connecting to Laurel Trail, while a 2-meter-wide crushed clay pathway and manicured turf pathways are proposed to create additional landscaped areas with seating arrangements made of armor stones.



Landscape Concept Plan, prepared by GSP Group

5. RESPONSE TO POLICY AND GUIDELINE FRAMEWORK

5.1 City of Waterloo Official Plan

Section 3.11 of the Official Plan pertains to Urban Design matters within the City of Waterloo. The following subsections detail the Urban Design policies that are applicable to the Proposed Development.

5.1.1 General Urban Design Policies

Intensification

Policy Objective: To address the integration, compatibility and relationship of new development to its context, based on good urban design.

The proposed development aligns with the intensification policy objective by utilizing a strategically positioned site, adjacent to existing amenities and transportation infrastructure, such as universities, transit stations, and multi-use trails. By creating a 12-storey student residential building with a two-storey podium, the development maximizes the use of space and accommodates approximately 510 students. The design optimizes the building's footprint and height, ensuring a compatible relationship with the existing context and surrounding neighbourhood.

Character

Policy Objective: To reinforce and maintain the architectural, visual and thematic integrity of structures, streetscapes, neighbourhoods

and planned development by creating sensitive designs through the coordination of design elements.

The existing character of the area is maintained and enhanced by the proposed development through the use of high-quality building materials and thoughtful articulation that aligns with the urban design guidelines for the Node and Corridor context. The creation of engaging frontages and well-defined public spaces, such as the Main Entrance Plaza, University Avenue Entrance, and Laurel Trail access, enhances the public realm and complements the established development pattern in the area.

Views and Vistas

Policy Objective: Design that contributes to, protects or respects important views and vistas.

The building's design and positioning maintain a visual link with the surroundings while also establishing an inviting and visually appealing presence from University Avenue.

Streetscapes

Policy Objective: To promote a streetscape design that results in an attractive and coordinated character with emphasis given to green and complete streets, pedestrian friendly design, coordinated landscape and

building design elements and features to animate the street.

The development's design prioritizes pedestrian interaction and safety, with a strong focus on creating vibrant streetscapes and welcoming pedestrian spaces. The Main Entrance Plaza, the University Avenue Entrance, and the landscaped pathways connecting to Laurel Trail provide attractive and inviting environments for pedestrians and cyclists. Additionally, the incorporation of CPTED principles in the lighting and layout of the outdoor spaces ensures a safe and secure environment for students and the university community.

Safety and Security

Policy Objective: To promote safe, comfortable and accessible environments for all users with emphasis on pedestrians through the universal principles of CPTED and natural surveillance.

The proposed development complements the existing natural features and landmarks by preserving and enhancing the mature trees and vegetation on the site. The landscape design and outdoor amenities respect the site's topography and incorporate existing features to create a harmonious relationship between the new development and its surroundings.

Site Circulation

Policy Objective: Design sites and buildings based on an efficient, safe and integrated circulation system with priority to pedestrian, non-vehicular and safe vehicular movements. Provide convenient, direct and safe pedestrian, barrier-free and cyclist access to entrances, amenity spaces and the public realm.

The proposed development includes a well-designed vehicular access point from Seagram Drive, ensuring efficient and safe vehicle circulation within the site. The presence of designated pedestrian pathways and connections to Laurel Trail and nearby transit stations promotes active transportation and offers convenient movement options for pedestrians and cyclists.

Transit-Oriented Design

Policy Objective: Design sites and buildings located along transit routes, and planned transit station areas, to promote transit use, pedestrian and cyclist accessibility, active and interesting streetscapes, human comfort and integrated site amenities.

The proposed development meets the objectives of a transit-oriented development as it is located within 400 metres from the University of Waterloo and Laurier-Waterloo Park ION Light Rail Transit stations, and there are various local bus routes in proximity to the Site. Bike lanes are also provided along University Avenue and Laurel Trail.

Universal Design

Policy Objective: Promote the adaptation of transportation networks, buildings and lands used by the public to provide barrier-free access and principles of universal design to all citizens and to encourage the use of the International Symbol of Access.

The proposed development conforms with all applicable accessibility guidelines and is located within walkable distance to a rapid transit station and local bus routes, providing transportation choices to users. Barrier-free access will be provided in accordance with AODA and Ontario Building Code standards.

Parking

Policy Objective: Reduce the visual impact of parking and urban heat island effect of asphalt through efforts to “green” or soften the urban landscape. Parking areas shall be designed to provide convenient and direct pedestrian access to major pedestrian destinations.

The proposed development incorporates parking spaces that meet the required demand for students and visitors, while also considering the Site’s limited space. By providing ample bicycle parking and promoting transit use, the development aims to manage traffic and encourage sustainable transportation options

Site Servicing Areas

Policy Objective: Design sites and buildings with convenient and safe truck access and turning movements. Locate or screen loading

and storage areas away from public view and incorporate mitigation strategies to minimize impacts to surrounding uses.

Site servicing areas within the Proposed Development are located within the building, away from public views and are appropriately located for convenient and safe access and movements.

Outdoor Lighting

Policy Objective: All site lighting, when required, shall be designed to create safe outdoor environments and to minimize glare and impact to night sky, public view and surrounding properties.

Lighting Plans to be reviewed through the Site Plan approval process will confirm that appropriate lighting levels are provided throughout all publicly accessible exterior areas of the Site and the parking area. Lighting will be focused on the ground level and activity spaces. The use of full cut off fixtures and location of fixtures will mitigate the potential for light trespass on adjacent properties in accordance with City standards.

Signage

Policy Objective: Design all site signage to complement and enhance the building and site design. Building signage shall be in scale with the building design and is not to overpower the building façade or obstruct architectural features.

Signage within the proposed development

will be of appropriate scale and complement the mixed use nature of the surrounding built form without obstructing architectural features or views. All signage will comply with the City's Sign By-law.

Compatible Development

Policy Objective: Site and building design that complements and enhances the surrounding neighbourhood character and context through a variety of design strategies including building massing, facade design and landscape coordination. The design of sites and buildings shall also minimize adverse impacts to human comfort, and surrounding properties including outdoor lighting, noise, shadowing, wind and snow disposition through a variety of design strategies and performance standards.

The proposed development will be compatible with the surrounding neighbourhood character through building's massing, architectural articulation and landscape design. By positioning the building to the northern edge of parking lot A and following setback requirements, the development seamlessly integrates into the nearby UW Place collection of residences while avoiding adverse impacts on neighbouring properties.

The proposed development carefully considers architectural articulation to respond to the neighbourhood's character while retaining its own unique identity. The design takes into consideration the visual

breaks, variations in materials, and staggered arrangement of punch-out windows to achieve a building that complements the surrounding context.

The proposed landscape plan complements the development's overall design by providing engaging and active frontages along the south elevation, University Avenue street frontage, and the back of the building facing Laurel Trail.

Human-Scale Development

Policy Objective: Development that reinforces human scale dimensions and proportions through design.

The proposed development prioritizes human-scale dimensions and proportions through a two-storey podium that features high transparency and active uses. The design fosters a welcoming and accessible environment, enhancing the pedestrian experience and creating a sense of connectivity with the surrounding area. Additionally, the thoughtful landscape design further complements the building's architecture, integrating engaging and active frontages, pedestrian pathways, and green spaces, creating a harmonious and inviting urban environment for students and visitors.

Building Design

Policy Objective: Design architecturally well composed buildings that complement and enhances the surrounding neighbourhood character and context. Building design shall also contribute towards an attractive and

coordinated streetscape character and towards a sense of place with opportunity for architectural innovation and expression through a variety of design techniques such as architectural features, building materials, colour and other design elements. Buildings shall be designed with prominent building entrances and include strategies to screen rooftop equipment from public and residential views.

The proposed development is designed to be attractive, fit within its context, and provide appropriate human scale at ground level. It incorporates a two-storey podium with a highly transparent facade and vibrant active uses, encouraging pedestrian engagement. The tower design harmoniously complements the base with its masonry veneer and punch-out windows. Sustainable and landscape design principles are thoughtfully integrated, further enhancing the overall appeal and creating a vibrant sense of place that enhances the surrounding character.

Landscape Design

Policy Objective: To design sites with a balanced distribution of hard and soft landscaping that contributes toward a coordinated and enhanced site design, streetscape character, create a sense of place, and an aesthetically pleasing comfortable pedestrian environment. Specific treatment may also be required to address a range of considerations such as screening objectives, landscape buffers to promote land use compatibility, the provision of large

canopy trees to provide respite from the sun, streetscape character and opportunity for integrated amenity spaces and sustainable design.

The proposed landscape design for the development achieves a balanced distribution of hard and soft landscaping, creating a coordinated and enhanced site design. It enhances a sense of place, contributing to an aesthetically pleasing and comfortable pedestrian environment. The design incorporates specific treatments, such as landscape buffers and large canopy trees, to promote land use compatibility and provide respite from the sun. Additionally, landscape design allows for integrated amenity spaces and embraces sustainable design principles, further enhancing the overall quality of the public realm and outdoor experience for students and visitors.

Site Amenities

Policy Objective: Design sites and buildings to include a range of on-site amenities such as benches, trash receptacles, bike parking, large canopy trees and/or shade structures to provide for more healthy active outdoor and urban spaces for social gathering, relaxation and enjoyment that results in a higher quality of life.

The proposed development incorporates a variety of on-site amenities, in line with the policy objective, to enhance the outdoor and urban spaces for social gathering, relaxation,

and enjoyment. These amenities include benches, gathering area, trash receptacles, bike parking facilities, and large canopy trees, creating a higher quality of life for the students and visitors of the development. The thoughtful integration of these amenities contributes to a welcoming and vibrant environment, promoting healthy and active outdoor experiences within the Site.

Sustainable Design

Policy Objective: The City shall promote sustainable design practices in the public and private realm through a variety of strategies.

The proposed development embraces sustainable design practices to align with the City's policy objectives. It incorporates a variety of strategies to reduce its environmental impact and enhance overall sustainability. Some key sustainable design features include the integration of bioswales to manage stormwater runoff, promoting water conservation and efficient water use through landscape design, and implementing energy-efficient technologies and materials in building systems. Additionally, the development prioritizes pedestrian-friendly design and access to public transportation, encouraging sustainable mobility options. By embracing these sustainable design strategies, the proposed development aims to create a more environmentally responsible and resilient urban environment.

5.1.2 Urban Design within Nodes and Corridors

- The Proposed Development aligns seamlessly with the urban design guidelines for Major Nodes, particularly the UW Node. It embraces the following principles:
- **Connectivity:** The proposed development prioritizes pedestrians, ensuring easy access to transit routes, amenity spaces, and building entrances.
- **Interest:** The proposed development's design fosters visually captivating and vibrant spaces. The two-storey podium with high transparency and active uses contributes to the overall attractiveness of the urban environment, creating engaging public areas.
- **Public Art:** The opportunity for public art will be considered as part of the detailed site design and may be incorporated into the site features. These details will be determined during the site plan process stage of the development.
- **Infill Development:** With careful consideration of the surrounding character and context, the proposed development is proportionally aligned within the lot size and thoughtfully situated at the northern edge of the parking lot, ensuring compatibility with neighbouring properties.

- **Building Design:** The proposed development's building design thoughtfully integrates with the parking lot-facing side, enhancing the streetscape character. The combination of masonry veneer, punch-out windows, and transparent glass panels adds visual interest and architectural distinction.
- **Built Form and Massing:**
- The proposed development's tower features a well-considered non-linear shape, optimizing program space for a focused and functional interior. The inclusion of a jog maintains compliance with the 15-meter rail setback to the southeast, allowing a shorter bridge connection to Claudette Miller Hall for seamless integration between the two facilities. Overall, the development maximizes potential while respecting site constraints and surrounding context, resulting in a thoughtfully designed tower.
- **Skyline:** The tower's roofline is meticulously designed to complement the overall building, ensuring a clean and unified appearance. The proposed development's contribution to the skyline enhances the identity of the area while coordinating harmoniously with other tall buildings nearby.
- **Site Amenities:** The proposed development includes a diverse array of

on-site amenities, emphasizing an active and inviting outdoor environment. Bike parking, seating areas, and green spaces are strategically integrated into the landscape design, fostering a healthy and social atmosphere.

5.1.3 Urban Design within Station Areas

Pedestrian Oriented

Policy Objective: Station Areas shall be pedestrian oriented places that are safe, accessible, connected, and easy to navigate for people of all abilities. Connectivity to and from transit stops to buildings will be a priority and shall be enhanced by:

- (a) Ensuring continuous sidewalks are located on both sides of the street;*
- (b) Clearly marking intersections relative to pedestrians;*
- (c) Improving pedestrian comfort with shade trees and landscaped boulevards; and*
- (d) Providing amenities such as lighting, seating, and way-finding signage; and,*
- (e) Providing for wider sidewalks where feasible.*

The proposed development has a strong street presence along University Avenue and Laurel Trail, providing pedestrians with convenient and safe pathways to access the transit stops and buildings. The inclusion of shade trees and landscaped boulevards within the development's surroundings improves pedestrian comfort, creating

inviting spaces for people to walk, socialize, and enjoy outdoor activities. The provision of amenities such as lighting, seating, and way-finding signage enhances the pedestrian experience, making it easier for individuals to navigate and access transit stops and key destinations in the Station Area.

Building Orientation

Policy Objective: Buildings shall be oriented towards streets and walkways. Buildings shall be as close to the street in accordance with the implementing Zoning By-Law, to contribute to the vibrancy and attractiveness of the street.

The proposed building strategically sits at the northern edge of parking lot A, nestled within a triangular parcel between the LRT tracks and the parking area. This positioning enables seamless integration with the established UW Place residences. The design adheres to a 5-meter setback from the street property line and a 15-meter setback from the adjacent rail corridor, aligning with the policy objective to enhance the vibrancy and attractiveness of the streetscape.

Built Form

Policy Objective: The built form of buildings shall enhance the appearance and character of streetscape and public realm, including walkways by:

- (a) Locating primary building entrances and principal building façades parallel to street;*
- (b) Locating buildings close to the street so that they can contribute to the desired*

street enclosure and contribute to the overall appearance and visual cohesiveness of the urban built form;

(c) Incorporating ample transparent glazing on ground floors in active and convertible frontage areas to create visibility to and from the public realm and promote street life;

(d) Providing a sympathetic transition in height and scale to surrounding stable neighbourhoods;

(e) Serving as passive surveillance of the street; and

f) Using high quality materials in the design of new buildings that are consistent and compatible with the surrounding context; and,

(g) Creating visual interest through projections, articulations, carried rooflines and entrance features.

The proposed development features a primary entrance parallel to University Avenue and a secondary entrance facing Laurel Trail, promoting accessibility and integration with the public realm. The ground floors incorporate ample transparent glazing, allowing visibility and interaction between indoor activities and the street, fostering a vibrant atmosphere. The building's design is sensitive to the surrounding neighbourhood, with appropriate setbacks and height to harmonize with the existing urban context. Strategic window placements enable passive surveillance, enhancing safety and contributing to an active streetscape. High-quality materials are used, ensuring

visual compatibility with the surroundings, resulting in a visually unified and appealing environment that enhances the overall character of the Station Area.

Parking

Policy Objective: : *Parking within Station Areas shall be designed and organized where it will not detract from the public realm or mobility.*

The proposed parking strategy aligns with the policy objective, ensuring minimal impact on the public realm and promoting smooth mobility within the Station Area.

5.2 City of Waterloo Urban Design Guidelines

The Proposed Development generally meets the City of Waterloo Urban Design Guidelines. A summary of how it addresses applicable sections of the City's Urban Design Guidelines is provided below.

2.1.1 Pedestrian Friendly Design

Guideline Objective: To design the streetscape as pedestrian-friendly features and spaces.

The placement of the building's primary entrance and its orientation towards University Avenue and Laurel Trail fosters easy access for pedestrians. Additionally, the ground floors' extensive transparent glazing promotes visibility and interaction between indoor activities and the outdoor public realm, enhancing the pedestrian experience.

2.1.2 Human-Scale Development

Guideline Objective: To design sites and buildings that relate to human-scale proportions and dimensions.

By incorporating a two-storey podium with active programs and a staggered tower design, the proposed development ensures a human-scale proportion and reduces the perceived height and mass from ground level. This approach creates a visually appealing and contextually appropriate building that relates well to the surrounding human-scale environment, contributing to a harmonious streetscape and public realm.

2.1.3 Compatible Development

Guideline Objective: To design sites and buildings that enhance the quality of the surrounding neighbourhood character and does not result in adverse impacts to surrounding properties or loss in quality of life.

The proposed development is designed to be compatible with the surrounding neighbourhood character, adhering to the objective of enhancing the quality of the area without causing adverse impacts to nearby properties. Through building placement and massing, the building design will seamlessly connect with the buildings across the rail corridor via a proposed pedestrian bridge as well connecting with existing bridge that runs across University Avenue. This thoughtful approach ensures the development maintains the aesthetics and fosters a harmonious relationship with neighbouring properties.

2.1.4 Safety and Security

Guideline Objective: To design sites and buildings for safe and secure use for all users and to reduce the incidence of feature and crime.

The proposed building will be oriented towards public realms, increasing visibility between public and private realms allowing for natural surveillance and safety. The proposed development incorporates CPTED design principles by promoting natural surveillance of common spaces through a high degree of glazing, adequate outdoor

lighting, highly visible entrances and clear pedestrian walkway.

2.1.5 Transit-Oriented Design

Guideline Objective: To design sites and buildings that relate to, and are integrated with, planned and future transit route(s) and promote transportation demand management strategies and transit use.

The proposed development aligns with transit-oriented design by integrating with nearby transit routes, providing easy access to public transportation, promoting walkability, and supporting cycling options through bicycle parking.

3.1.3 Site Services

Guideline Objective: To provide well designed, convenient site service areas that are screened from public view and promote safe and efficient vehicular access.

The proposed development will incorporate well-designed and conveniently located site service areas that are carefully screened from public view. It will prioritize safe and efficient vehicular access to enhance the overall functionality and aesthetics of the site.

3.2.1.3 Nodes and Corridors

Guideline Objective: To move the City of Waterloo's policies framework from that of a dispersed-city philosophy, to that of a compact-city philosophy and promote compatible development.

The proposed development aligns with

the City of Waterloo's vision of a compact-city philosophy by creating a well-defined node within the urban fabric. It promotes compatible development by integrating with existing infrastructure and transit corridors, encouraging a more concentrated and connected urban environment. This approach fosters a vibrant and sustainable community that prioritizes accessibility, reduces urban sprawl, and enhances the overall livability of the city.

6. CONCLUSION

In conclusion, the proposed development at 155 University Avenue exemplifies good urban design principles and aligns with the City of Waterloo's vision for a vibrant and pedestrian-friendly community. Its strategic location near the main campus and two ION stations promotes accessibility to public transit and encourages sustainable transportation options, such as walking and cycling. The building's human-scale design, with a two-storey podium and a staggered tower, seamlessly integrates with the surrounding environment and fosters a cohesive urban fabric.

By adhering to the City's Urban Design Guidelines, the development ensures compatibility with the neighbourhood character and minimizes adverse impacts on nearby properties. The inclusion of pedestrian bridges over the rail corridor and University Avenue showcases a commitment to connectivity and enhances the overall pedestrian experience. Additionally, the thoughtful consideration for potential future phases towards Seagram Drive demonstrates a forward-thinking approach to urban planning. The ground floors with active uses and transparent glazing create an inviting streetscape, contributing to a lively atmosphere that benefits both the student residents and the wider community. The careful placement of site service areas ensures efficient vehicular access without compromising the aesthetic appeal of the public realm.

Overall, the proposed development at 155 University Avenue presents a harmonious integration of urban design elements, contributing positively to the character of the Site and the surrounding major node.

