Urban Design Report

92-110 Park Street & 146-162 Victoria Street South

Innovations Developments Kitchener Limited Mixed-Use Redevelopment

August 2021



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6. SUMMARY

1. BACKGROUND & PURPOSE

1.1 Scope

Developments Kitchener Limited Innovations is proposing an Official Plan Amendment and Zoning Bylaw Amendment for the land assembly at the northeast corner of Victoria Road South and Park Street that would allow its redevelopment for a multi-tower, mixed-use development. An Urban Design Report is required as part of a complete application submission per the December 2019 Record of Pre-Submission Consultation. The Kitchener Official Plan defines an Urban Design Report as "an urban design document that may be required of an owner/applicant to demonstrate how a development application implements the City's Urban Design Manual".

1.2 Proposed Development

The proposed building form is a multi-tower development (25 storeys, 36 storeys and 38 storey towers) sitting atop a mid-rise podium (4 to 6 storeys). The development has approximately 1,750 square metres of ground floor commercial facing Victoria Street South. The podium contains multiple indoor amenity rooms co-located with a large outdoor rooftop amenity terrace for residents. Throughout the podium and towers, there are 1,150 one-bedroom and two-bedroom units. The development includes an integrated parking garage with 667 parking spaces on multiple underground and above-grade podium parking levels.

1.3 Report Content

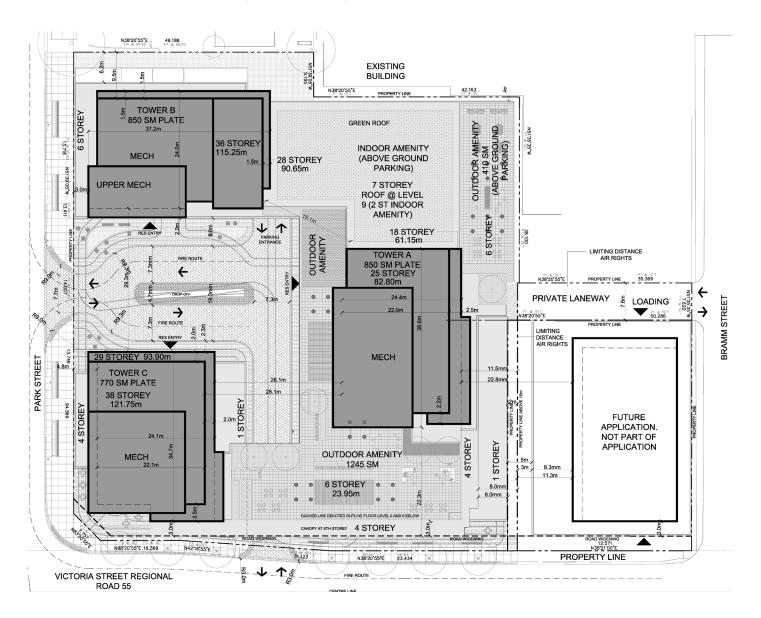
This Urban Design Brief is based on preliminary drawings and materials available at this stage of the application process. As work continues on the detailed aspects of design such as the site plan, elevation drawings and completion of lighting and landscape plans, additional details of the proposed development will be refined and fully demonstrated. Based on the matters identified in the pre-submission consultation record, this Urban Design Brief:

- Describes the contextual relationships and fit with the surrounding area (Section 2),
- Outlines the general Official Plan design policies and Urban Design Manual that are relevant to the Subjective Property and the proposed development's design (Section 3),
- Provides an overview of the proposed site and building design (Section 4),
- Assesses how the proposed development's design responds specifically above policy and guideline basis (Section 5), and
- Makes conclusions regarding the findings of the Urban Design Report (Section 6).



IMAGE: View of Subject Site (southwestern portion) looking from the Victoria Street South and Park Street intersection.





2. SITE DESCRIPTION

2.1 Location and Composition

The Subject Site sits at the northeastern corner of Victoria Street South and Park in Kitchener, which is the western entrance to the Downtown Kitchener (**see Figure 1**). It is 8,999 square metres (0.89 hectares) in area in total area, prior to the required road widening of 250 square metres along Victoria Street South. It is generally square in configuration with 70.9 metres of frontage along Victoria Street South and 94.6 metres along Park Street. It includes a laneway extending to Bramm Street providing 7.62 metres of frontage along that street. The Subject Site is an assembly four parcels owned by individual corporations under a common beneficial owner:

- Parcel 1: 162 Victoria Street South and 92 Park Street owned by 162 Victoria Limited.
- Parcel 2: 100 Park and 150 and 154 Victoria Street South owned by Innovations Developments Kitchener Limited.
- Parcel 3: 102, 106 and 110 Victoria Street South owned by Innovation Park Kitchener Limited.
- Parcel 4: 146 Victoria Street South owned by 1936026 Ontario Inc.

2.2 Existing Buildings

The Subject Site is an existing developed property. Parcel 1 contains a 1-storey purpose built commercial building (162 Victoria) on the corner parcel with surface parking area and driveway accesses to Victoria Street South and Park Street, as well as a 2-storey detached dwelling (92 Park) with a driveway access to Park Street. Parcel 2 contains two 2-storey commercial buildings, one along Victoria Street South (150/154 Victoria) and one to the Site's interior, connected by an asphalt driveway and laneway leading through the parcel between Park Street and Bramm Street. Parcel 3 contains three 2-storey detached dwellings with driveway accesses to Park Street. Parcel 4 contains a 2-storey detached dwelling with a driveway from Victoria Street South.

2.3 Existing Topography

The Subject Site has a minimal, gentle grade change across its boundaries. From the high point of the southwestern corner at the Victoria/Park intersection, the grades drop approximately 1 metre to the northwestern corner along Park Street and approximately 2 metres to the southeastern corner along Victoria Street. The Subject Site's Victoria Street properties current appear to drain overland directly to the right-of-way with no controls while the Park Street properties appear to drain to a catch-basin.

2.4 Existing Vegetation

There are 51 trees inventoried on the Subject Site, principally coinciding with the front, side and rear yards of the different properties that make up the site assembly. Approximately half of the trees are in good condition per arborist reports. Nearly all trees would have to be removed for the purposes of the proposed development footprint.

2.5 Servicing

The Subject Site has multiple service connections to the abutting public streets owing to the individual properties comprising the Subject Site assembly. Individual sanitary connections for the different properties of the Subject Site assembly that connect to the 300mm sanitary sewers on Park Street and Victoria Street, except for 100 Park Street that connects to the municipal sewer on Bramm Street. Individual water connections for the different properties of the Subject Site assembly that connect to the 200mm watermain on Park Street and 300mm watermain on Victoria Street, except for 100 Park Street that connects to the 300mm watermain on Bramm Street. There is a 375mm diameter storm sewer running from Park Street through the Subject Site that appears to serve the larger parcels; smaller properties on Victoria Road South appear to drain uncontrolled to the street. Existing hydro, telecommunication, and gas services connect to Park Street and Victoria Street infrastructure.



IMAGE: Topographic survey showing the Subject Site's existing conditions (source: Van Harten Surveying, emphasis added)



IMAGE: View of Subject Site (146 to 162 Victoria) looking from Victoria Street South.

IMAGE: View of Subject Site (146 Victoria and 92 to 106 Park) looking from Park Street

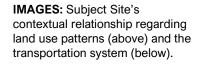


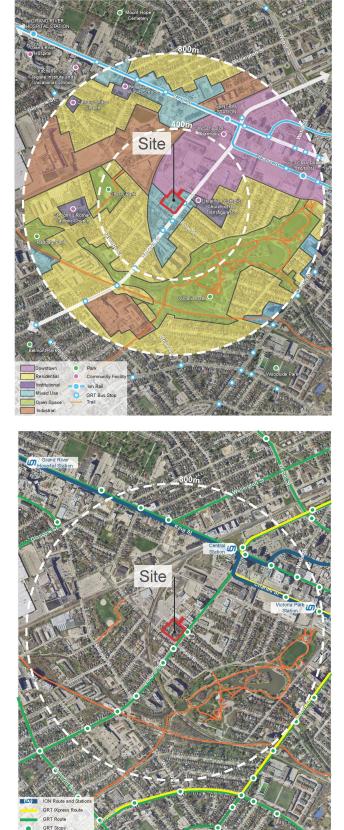
3. SURROUNDING CONTEXT

Downtown Context

Downtown is the planned focal point for intensification within Kitchener and is intended to accommodate a significant portion of its growth in a compact, dense and transit-supportive form. The Subject Site forms part of the "Mixed Use" district of the Downtown planning fabric, generally small pockets of land at the periphery of the Downtown boundaries; in the case of this western edge, the Mixed Use district extends between Bramm Street and Park Street only. This area is an extension of the much larger "Innovation District" of Downtown Kitchener extending on both sides of the Victoria Street between Bramm Street and Weber Street. This Innovation District is characterized by large former industrial buildings that are gradually being repurposed for office space and loft residential units. Newer recent institutional, office, and high-rise residential developments in the area over recent years have a modern aesthetic.

Downtown has a concentration of higher order transportation infrastructure. Downtown is at the heart of the Region's ION light rail transit system with four stations in in the westbound and eastbound directions within Downtown. The Subject Site is approximately 650 metres (8 minute walk) to the northbound/southbound ION Central Station at Victoria and King and 900 metres (11 minute walk) to the southbound ION Victoria Park Station. There are several principal bus transit routes running through the Downtown, either the iExpress 204 route running east-west with stops at King and Victoria or local routes 7 and 20, running through the Downtown with multiple frequent stops in the area.





Surrounding Site Interface

The Subject Site sits within a mixed corridor and area of Downtown Kitchener, both in terms of land use activities and built form. The corridor is planned to transition to different intensities of mixed-use development, which it is currently experiencing to the east with the above referenced projects. The Subject Site's immediately abutting and surrounding properties are as follows.

<u>NORTH</u>

The "Bramm Yards" (55 Bramm) abut most of the Subject Site's northern property line, coinciding with the jogs in the property line. These lands are owned by the City of Kitchener and are extensive in area spanning between Park Street, Joseph Street, and the railway in the area to rear from Victoria Street South. The Bramm Yards are intended for a higher intensity mixed-use development with employment and residential components through disposition, per the Urban Growth Centre (Innovation District) designation that applies to the land. Currently, the Bramm Yards property is comprised of a large municipal parking lot and remaining outbuildings associated with previous public works activities.

The remainder of the Subject Site's northern property line is shared with a property containing a 2-storey detached dwelling (116 Park) that appears to be used for commercial purposes. The property immediately to the north (120 Park) contains a 2-storey detached dwelling that has been converted to an automobile service business. These properties contain side yard driveways leading to rear parking areas for most of the rear yard and large garages. Both properties are also within the Urban Growth Centre (Mixed Use) designation and are zoned for mixed use (MU-1 and MU-2).

<u>WEST</u>

Eight buildings directly face the Subject Site from the west side of Park Street. Seven are 2 or 2.5-storey detached dwelling forms (89 to 115 Park) and the eighth is a 2.5-storey purpose-built commercial building (170 Victoria) at the corner of Victoria Street South and Park Street. Several of the properties have been converted to

commercial uses or multiple residential uses. These properties have individual side yard driveways leading to rear parking area, most of the rear yards being converted to principally paved areas. The balance of the block west of Park Street to the railway and Walnut Street has a similar character and pattern, including converted detached dwellings and paved rear yard areas. This block is zoned mixed use (MU-1 and MU-2), including a contemplated higher intensity mixed use zone (MIX-4) in the ongoing Neighbourhood Planning Review.

<u>SOUTH</u>

Six buildings (141-165 Victoria) directly face the Subject Site from the south side of Victoria Street South, all of which are 1- or 2-storey detached residential forms. Four buildings have been converted to commercial uses. Each property has an individual driveway access to Victoria Street South (or Park Street for 164 Victoria) to rear or side parking areas, which occupy most of the property rear areas. The corridor including these properties is zoned mixed use (MU-1).

<u>EAST</u>

A group of three properties forms the balance of the block to Bramm Street. The immediately abutting property (142 Victoria) contains a 3-storey multiple residential building with a single driveway to a rear parking area. The next property (138 Victoria) contains a 2-storey detached dwelling converted to multiple residential uses with a single driveway to a rear parking area. The last property flanking Bramm Street (130 Victoria) contains a single-storey commercial building that is currently being renovated for medical uses. These properties have a similar Mixed Use designation and mixed-use zoning and are anticipated to be redeveloped under the current single ownership of the three properties.



IMAGES: View of Park Street entrance to Bramm Yards (left) and 116 and 120 Park (right).

IMAGE: View of properties on the west side of Park Street facing the Subject Site.





IMAGE: View of properties on the south side of Victoria Street South facing the Subject Site.

IMAGE: View of properties on the east side of Subject Site to Bramm Street.



4. DESIGN GUIDANCE

4.1 Kitchener Official Plan Design Policies

Urban Structure Element

The Subject Site is in the Urban Growth Centre (Downtown) of the Kitchener Official Plan. The Urban Growth Centre is planned as the focus for intensification, redevelopment and investment for a full range of uses, including commercial and residential. Regarding urban design:

- Section 15.D.2.27 expects a "high quality of urban design" for "buildings, building elevations, building massing, storefronts, store signs, patios, streetscapes and public spaces to enhance street life and create local pride and interest as well as tourism interest" and encourages "innovation and architectural excellence in urban development".
- Section 15.D.2.11 directs that all development "will have regard for the contribution to the public realm through the design of public, semi-public and private spaces and buildings".
- Section 15.D.2.21 emphasizes giving the "pedestrian, cycling and rapid and public transit modes of transportation the priority over vehicular circulation and accommodation within the overall transportation system".
- Section 15.D.2.22 contemplates parking space reduction, encourage TDM measures, and encourages integrated and screened parking garages.
- Section 15.D.2.32 specifically directs that where a proposed development sits between a downtown land use district and a central neighbourhood that "the scale and massing of both sides of the street should be coordinated to provide a uniform streetscape and pedestrian experience".



IMAGE: Subject Site's designation in

Land Use Designation

The Subject Site is part of the Mixed Use district within the Urban Growth Centre. The Mixed Use policies are permit a broad range of uses at different scales and intensities depending on the over-arching urban structure element. Several general objectives of the Mixed Use district speak to urban design:

- 15.4.5. To ensure that lands designated Mixed Use are transit-supportive, walkable and integrated and interconnected with other areas of the city.
- 15.4.6. To ensure uses, built form and building design are compatible with surrounding low rise neighbourhoods and are pedestrian-oriented and human-scaled in order to positively contribute to the public realm.
- 15.4.7. To ensure that development and redevelopment of lands within lands designated Mixed Use implement a high standard of urban design.

Urban Design Policies

Section 11 of the Official Plan contains general urban design policies that are used to evaluate movement patterns, the relationship between built form and open spaces, integration of natural and cultural resources and development impacts. They include:

- General urban design policies that speak to the city's skyline, CPTED principles, fire prevention, barrierfree accessibility, and shade.
- Site Design policies speak to street relationships and landscaping to improve abutting streetscapes; developments to improve aesthetic quality and be safe, comfortable, functional and provide circulation for all transportation modes; and site servicing and utilities to be screened from public view.
- Building Design, Massing and Scale design policies speak to human-scale proportions to support a comfortable and attractive public realm, including attractive building forms, façades, and roof designs; complementary design of new buildings; and architectural innovation and expression.

Section 17.E.10.5 identifies that urban design briefs/reports together with other design-related are meant to be used to

a) demonstrate that a proposed development or redevelopment is compatible;

b) address the relationship to and the privacy of adjacent residential development; and,

c) ensure compatibility with the existing built form and the physical character of the established area and/or neighbourhood.

4.2 Kitchener Urban Design Manual Guidance

PART A – Design Guidelines

Part A contains design guidelines on various land uses, built types, geographic areas, and urban structure elements. The below are relevant to the Subject Site and the proposed development:

- The City-Wide design guidelines seek the design of Kitchener as an inclusive, safe, accessible, comfortable, and appealing place to live, work and play. The Site Design guidelines in the City-Wide address built form, open space and site functionality.
- The Downtown design guidelines have general guidance for the entirety of Downtown as well as areaspecific guidelines applying to the four design districts. The Subject Site sits outside the four specific design districts, abutting the Innovation District (UD3).
- The Major Transit Station Areas guidelines apply generally for areas surrounding ION Stations; the Subject Site is within the Station Area of the Central Station. The guidelines indicate they do not apply to Downtown sites, but they do inform design.
- The Tall Buildings guidelines provide form and site guidance to buildings greater than 8 storeys in height and are meant to be applied on a case-by-case basis.

PART C – Design Standards

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

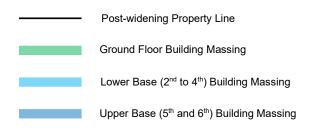
5. DESIGN OVERVIEW AND RESPONSE

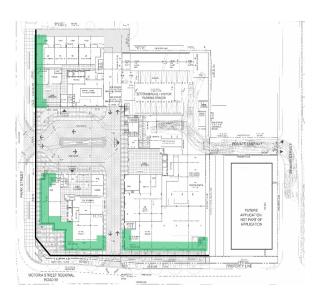
5.1 Building Base Design

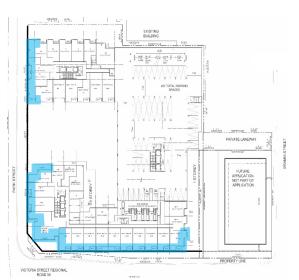
Inclusive Design – CW | DT | MTSA Compatibility – CW | DT | MTSA | TB Built Form – CW | DT | MTSA | TB Streets & Open Space – TB

The building base is situated to provide a strong urban edge to both Victoria Street South and Park Street. The base is configured with a "U"-shaped shared building base opening to Park Street and three towers sitting atop in a spaced pattern. The base sits at the property line along both Victoria Street South (post-widening) and Park Street. The building base generally continuously lines both street edges, although with small recessions in certain areas or openings associated with the driveway from Victoria Street South, the driveway courtyard from Park Street, or the landscaped area on the north side of the Tower B. Notably, the ground floor pulls back around the Victoria and Park intersection (with a projecting building mass above) for a prominent plaza space associated with the ground floor commercial units at the Tower C base. The building base sits tight (range of 0 to 1.1 metres) to the eastern and northeastern property boundaries shared with abutting properties.

IMAGES: General masing patterns and configuration of building base podium along public streets.









The building base is massed as a mid-rise form up to 6 storeys in height. The base's taller double height ground floor (4.25 metre ground plus 3.25 metre mezzanine space) provides for flexibility of different commercial activities and sufficient space for loading functions. Edging Victoria Street South and Park Street nearest the corner, the building mass is 4 storeys at the property line and stepping back 3 metres on the fifth and sixth storeys. The podium mass north of the Park Street driveway (base of Tower B) is 6 storeys at the street line, stepping back 3 metres to the seventh storey above; the "L"shaped podium mass between Towers A and B continues at 7 storeys in height accommodating the parking garage and a double-storey height for an indoor amenity space, dropping to 6 storeys along the western and eastern edges facing the internal courtyard and abutting land to the east. This building base massing provides for multiple uninterrupted sight lines to and from bounding public streets as well as into internal spaces e.

At the eastern edge, a small portion of the building base is 1 storey abutting the adjacent site assembly (130, 138 and 142 Victoria Street South). The Owner has agreements with that assembly's owner regarding limiting distances and building placement for the future development of that assembly. This was done, in part, to address the tower separation of the Tall Building Guidelines between the two property assemblies.

The building base along the Victoria Street South frontage, approximately 86 metres at its longest when ignoring the driveway break, is longer than the desired 70 metres maximum suggested by the Tall Building Guidelines. The base's mass at the corner of Victoria and Park is pulled back from the bulk of the building street wall to reduce this perceived mass, shortening the length by about 13 metres. The 1-storey portion of the building mass at the eastern end of the building for limiting distance purposes further shortens it by 6 metres. In effect, the perceived mass with these considerations is in keeping with the Guidelines intent. Add to that consideration is the consistent upper base stepbacks of the fifth and sixth storeys, the transparent ground floor plane, the varied articulation and detailing through the out the base, and the considerable Tower A pull back from the base that ensure an appropriate pedestrianscaled and designed street wall to Victoria Street South.



IMAGES: Building base composition along Victoria Street South (top) and Park Street (bottom) (Source: IBI Group)

5.2 Building Tower Design

Design for Outdoor Comfort – CW | DT | MTSA Compatibility – CW | DT | MTSA | TB Built Form – CW | DT | MTSA | TB Environment – TB

The towers of the proposed development are composed with slender floorplates sitting atop the mid-rise building base, set at 25, 36 and 38 storeys in height respectively. Each tower consists of "lower" and "upper" sections created by a combination of additional stepbacks and architectural effects. The height of the distinctions varies between the three towers, occurring at the 18th storey for Tower A, at the 30th storey for Tower B, and at the 29th storey for Tower C. The architecture for each upper tower also vary in composition of solid and glass together with roofline finishes, outlined in the below section.

The proposed design iteratively explored a series of different tower placements, heights, and floorplates to address the different objectives preferred by the Tall Building Guidelines. The property at 146 Victoria Street South was added to the assembly to further provide for further physical separation options, including off-site separation discussion and coordination with the abutting property owner. The proposed tower design addresses the intent of the Tall Building Guidelines as follows.

Placement

The towers step back from both street-facing sides of the building base. The stepbacks are either modest at the suggested 3 metres for Towers B and C to Park and Victoria to create a distinction between the base and tower portions or more substantial at 19.3 metres for Tower A to Victoria for the purposes of tower offsets.

Tower orientation was considered together with separation and overlook considerations. Tower A is oriented parallel to the shorter Tower C to maximize separation while still meeting the intent for the overlook considerations below. It's placement from Victoria Street South provides a diagonal relationship with Tower B, reducing any impacts between the two towers to oblique views in nature. Tower C is oriented perpendicular to Tower B for the purposes of reducing overlap with a shorter end facing the longer side.



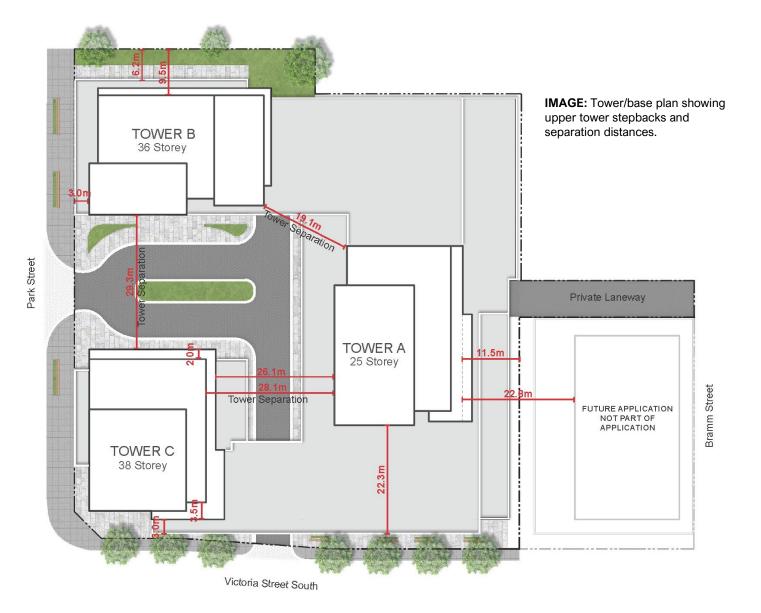
IMAGE: Rendering of proposed development looking east along Victoria Street South (Source: IBI Group).

Size & Proportion

All three towers are classified as the preferred "Compact Point" form with Lower tower floorplates at or below 850 square metres and a length-to-width ratio below 1.6. The Upper tower floorplates are meaningfully smaller at 80 to 90% of the slender Lower floorplates. The different tower masses are visually distinguished through different compositions of brick and glass, both within and between the Lower and Upper section, varied balcony configurations, and different roofline treatments.

Overlook

The tower placement minimizes overlook to the extent possible recognizing the other design considerations. Towers A and B have no overlap given the placement. Tower A and Tower C have an approximately 35% overlap with the parallel orientation, generally in keeping with the suggested guidance. Towers B and C have a greater overlap at approximately 65%, however, the perpendicular orientation does minimize privacy impacts with the shorter facing end of Tower C and a 30 metre separation between the towers.



Relative Height

The towers have variation in height as desired. Tower A is 65 to 70% of the heights of Towers B and C in keeping with the intent of the guidelines for variation. The tower heights transition from east to west to maximize separation to the abutting property assembly at Victoria and Bramm for a tower development, whereas the inverse suggested by the Tall Building Guidelines would likely impact or preclude such a development.

Separation

The proposed tower arrangement incorporates and respects the design guidance for physical separation, recognizing there are some deficiencies. These deficiencies have been minimized to the extent possible, balanced with other tall building design considerations, and are mitigated in part by their situation.

The deficiency between Tower A and Tower B is mitigated by the fact the measurement is tower corner to tower corner. Even measuring from the general midpoint of the affected corner units results in a separation of approximately 26 metres, in keeping the separation calculation. The oblique nature of the viewing angle further reduces any potential privacy impacts.

The deficiency between Tower B to Tower C is mitigated in part by the perpendicular orientation of the taller Tower C to Tower B, the absolute provided separation in the order of 30 to 32 metres, and the fact the separation in question is internal to the development rather than offsite. The greater deficiency of the Upper tower portion is mitigated by the smaller floor plates and the reduced number of units viewing towards the other tower in those storeys. Arranging the Tower C footprint in a parallel orientation would improve the physical separation but would compromise other design objectives.

The deficiency between Tower B and the northern property line is mitigated by fact that the abutting properties (116 and 120 Park Street) are not large enough to not accommodate a tall building on their own or together. They would need to be assembled with the surrounding Bramm Yards property, or portions thereof, which together would be large enough to provide a tall building with sufficient separation to Tower B.

TOWER DIMENSIONS

TOWER	Height	Length	Width	Area	
	(m)	(m)*	(m)*	(sq. m.)	
Tower A					
Lower	61.15	35.9	24.3	850	
Upper	82.8	33.7	22.0	755	
Tower B					
Lower	90.65	37.2	23.8	850	
Upper	115.25	35.6	22.5	770	
Tower C					
Lower	93.9	34.7	24.1	770	
Upper	121.75	29.2	22.0	640	

* measured at the longest/widest part of the tower floor plate, so will not compute to the area total.

PHYSICAL SEPARATION PER TOWER

TOWER	Distance per Guidelines (m)				
Tower A					
Lower	10.96				
Upper	14.6 (10.96 + 3.64)				
Tower B	Tower B				
Lower	16.86				
Upper	21.23 (16.86 + 4.37)				
Tower C					
Lower	16.29				
Upper	20.36 (16.29 + 4.07)				

PHYSICAL SEPARATION

FACING CONDITION	Distance per Guidelines (m)	Proposed Distance (m)	
Lower			
Tower A to Tower B	27.8	19.1	
Tower A to Tower C	27.3	28.1	
Tower B to Tower C	33.2	29.4	
Tower A to Off-Site (East)	11.0	9.5 **	
Tower B to Off-Site (North)	16.9	8.1	
Upper			
Tower A to Tower B	35.8	19.1	
Tower A to Tower C	35.0	28.1	
Tower B to Tower C	41.6	31.4	
Tower A to Off-Site (East)	14.6	12.0 ***	
Tower B to Off-Site (North)	21.2	9.5	

** agreed limiting distance boundaries with abutting property owners results in separation of 11.5 metres.

*** agreed limiting distance boundaries with abutting property owners results in separation of 13.9 metres.

Top Design

The proposed design finishes the towers with a quality, contemporary, and distinct touch to each of the tower tops. The tower top treatment occurs in depth, beginning at the divide between the Lower and Upper portions of the towers through stepbacks, material composition changes, and balcony extents. The rooftop mechanical equipment atop all three towers is fully enclosed within mechanical penthouses. Each mechanical penthouse is clad with different compositions of glass, solid brick, and combinations of the two to distinguish the rooflines.

The totality of the treatment and differentiation between the three towers, which offers distinct perspectives from multiple vantage points, provides a refined finish to the development. Such a finish achieves "*an architecturally significant top feature that makes a positive contribution to the skyline*" per the Tall Building Guidelines; this assists in furthering justifying the separation and overlook deficiencies outlined above per the Top Design section of the Guidelines.



IMAGES: Rendering of proposed development distinct tower top treatments of materials, colour and balconies (Source: IBI Group, adapted).

TOWER C MECH _____ 7.50m 38 ST ROOF 38 29 TOWER A MECH 7.50m 27 ROOF 25 ST 26 ī. BRICK 25 25 METAL PANEL TTT T 1 24 23 23 1 8 22 - B 21 N N 20 È 19 18 ST 19 TT Π 18 E E 18 TT TT F 17 17 TT T TT BRICK 16 16 L HH Π 15 93.9m HH TTT No. of Lot of Lo T GLAZING TT TT F 13 32.8m TT 12 12 121.75m Π , 11 11 01_736m TT \square 10 T d TT 1.15m 9 1 8 7 7 6 ST 6 STREET 5 30m 23.95m 3 PARK T T F ş 2 325 MEZZ MEZ 4.25m - -4 G CANOPY BRICK METAL PANEL FUTURE APPLICATION RETAIL UNDERPASS RETAIL

IMAGE: Proposed southern building elevations facing Victoria Street South (Source: IBI Group).

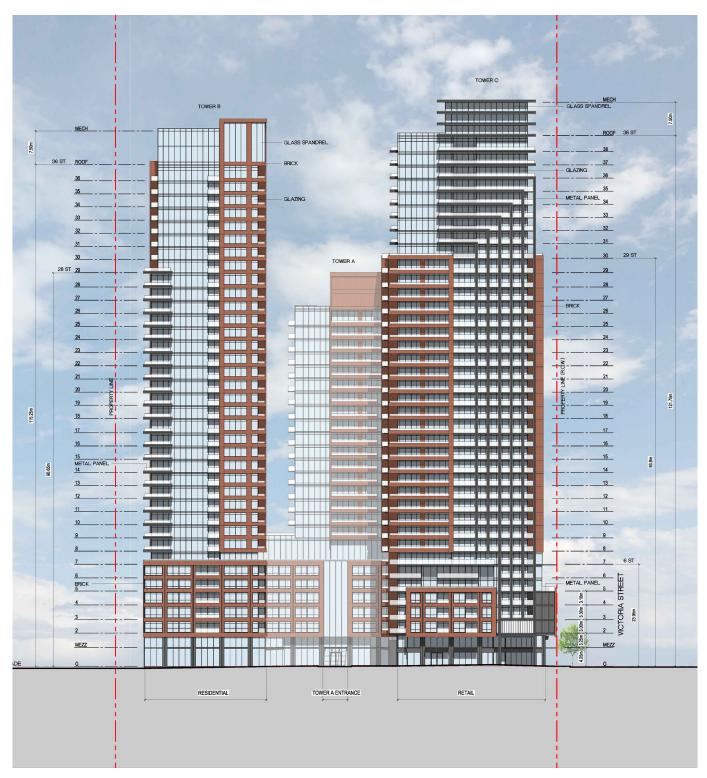


IMAGE: Proposed western building elevations facing Park Street (Source: IBI Group).

IMAGE: Proposed northern building elevations facing railway (Source: IBI Group).

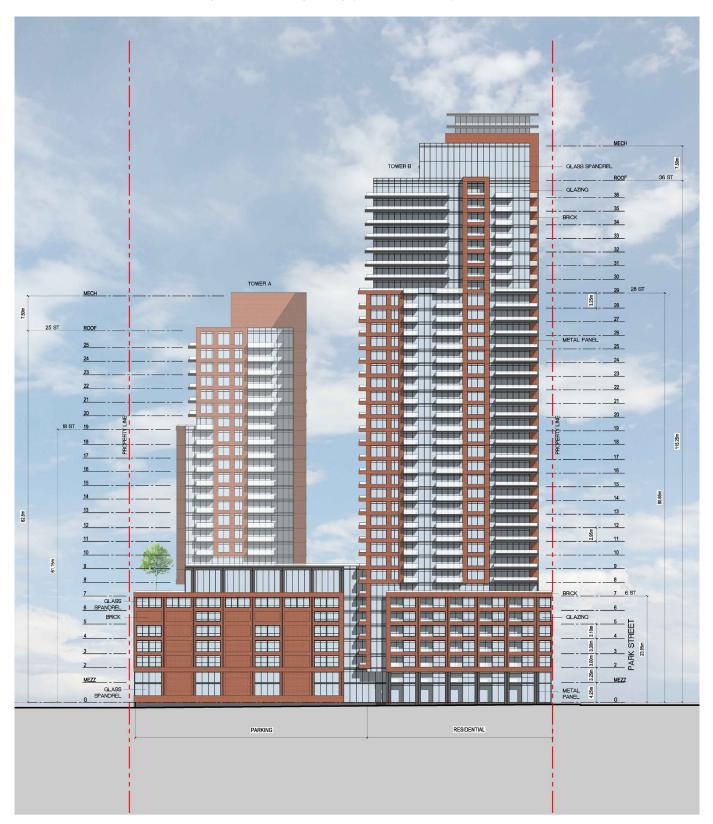
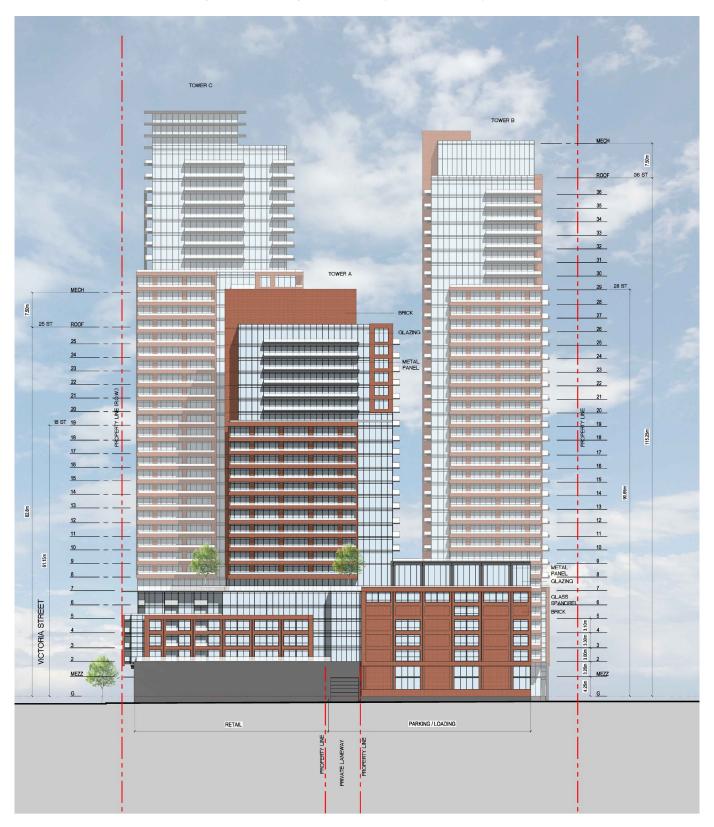


IMAGE: Proposed eastern building elevations facing Bramm Street (Source: IBI Group).



5.3 Vehicular Access and Circulation

Inclusive Design – CW | DT | MTSA Site Function – CW | DT | MTSA Street Design – CW | DT | MTSA | TB Streets & Open Space – TB

Three site driveways to the Subject Site provide options for accessing the development depending on the type of vehicle and intended destination on the property. The vehicular circulation pattern has one access from each of the public street frontages, recognizing the Subject Site is a distinct corner site at two intersections of public streets and abutting a third public street. Each of the driveway entrances are situated at mid-points on the respective frontage balancing separation to municipal street intersections with the site design and efficiency. This driveway circulation pattern provides through connections between the three towers provides for easy and direct access for drivers and service functions.

The Park Street and Victoria Street entrances are the principal entrances to the development providing access to the main parking garage entrance situated between Towers A and B and the drop-off courtyard in the space between the three Towers. They provide a continuous driveway circulation route through the Subject Site providing for easy and direct access for emergency vehicles along this internal fire route and service vehicles. Each of the driveways is 7.3 metres wide per design standards, consistent with the sizing of the drive aisles in the parking garage, and is designed with barrier curbs.

The Bramm Street entrance is designed more as a secondary entrance from this lower order street, principally providing access to the common garbage loading area at the base of Tower A as well as another entrance to the parking garage for residents and commercial visitors. The laneway is 7.6 metres wide per the existing condition with the intent of barrier curbs.

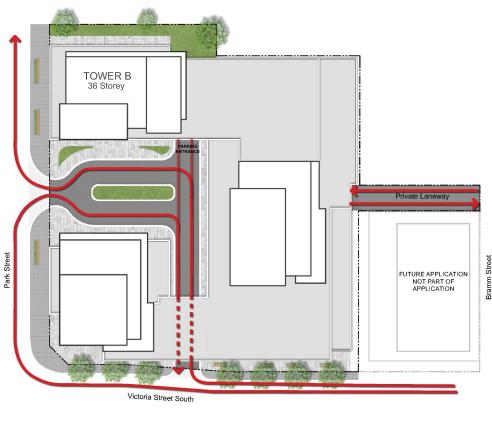


IMAGE: Vehicular circulation routes within the proposed development.

Vehicular Connection

5.4 Pedestrian Access and Circulation

Inclusive Design – CW | DT | MTSA Site Function – CW | DT | MTSA Street Design – CW | DT | MTSA | TB Streets & Open Space – TB

Ground floor commercial unit entrances facing the Victoria Street South edge are accessed directly from the public sidewalk. The commercial space at the base of Tower C surrounding intersection is recessed, so pedestrians may travel through the private plaza at the corner to entrances. Pedestrian circulation through the Subject Site from the public sidewalks, leading to and from active transportation routes and transit routes along the abutting public street corridors), run along edge the vehicular driveways from Victoria Street and Park Street provide pedestrian access to the residential lobbies each of Towers A, B and C that face the internal drop-off courtyard. These walkways are at least 2 metres wide, recognizing those from Park Street are substantial wider at 4 to 6 metres as entrance plazas. The site circulation system requires at most one crossing of the vehicular driveway depending on destination.

For cyclists, access to the development is provided by the above driveways and walkways. Short-term visitor bicycle parking (Class B) is expected around the Tower C base at the corner and the spaces surroundings the entrance driveway from Park Street for Towers B and C. Common long-term bicycle storage rooms (Class A) for residents are situated in the Tower A base and are easily accessed from the Bramm Street driveway or internal drop-off courtyard from the walkways.

Detailed design of Site Plan Approval will address ensuring safe and comfortable movements to and through the Subject Site. Walkways will be designed for universal accessibility and distinguished crossings through surface definition will be explored. Emergency signage and infrastructure will be addressed at detailed design. Lighting elements will address appropriate lighting levels for safety in higher pedestrian areas.

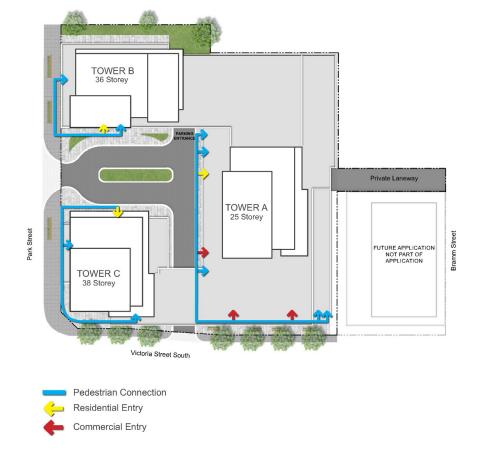


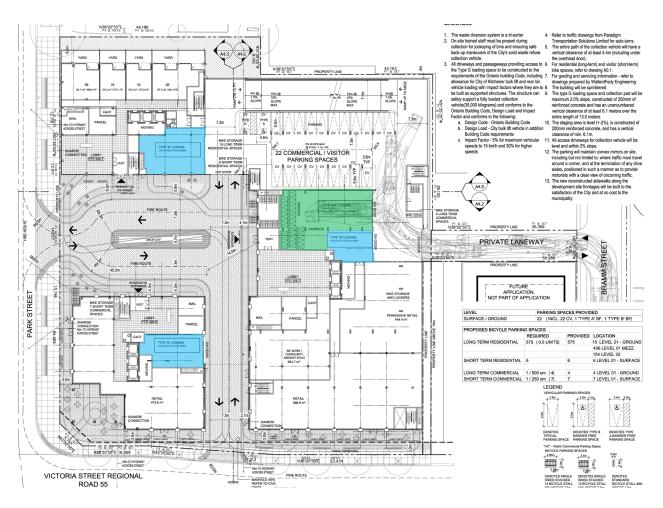
IMAGE: Pedestrian circulation routes and building entrances within the proposed development.

5.5 Loading and Service Areas

Site Function – CW | DT | MTSA Environment – TB

Loading and service functions are internalized in the development, away from the bounding public streets. Each of the towers are served by a dedicated loading space for residents within the building base accessed either from the internal site driveways from Victoria Street and Park Street (Towers B and C) or from the existing laneway to Bramm Street (Tower A). Each of the towers has an individual garage/recycling storage room in the P1 Parking Level, conveniently surrounding the elevators of each tower. A common garbage/recycling collection area is situated internally in the Tower A base, accessed from the laneway to Bramm Street. Mechanical equipment and utility rooms are incorporated into the parking garage levels and rooftop spaces.

The arrangement of loading and service functions on the Subject Site maximizes the separation of car parking areas and routes from truck and loading functions and routes to the extent possible, recognizing the continuous, multiple access pattern to abutting public streets. The bulk of truck access is meant to come off Bramm Street, accessing the shared garbage storage area in the Tower A base for the overall development. The loading spaces in the Tower B and C bases are tucked away internally from the parking areas with a limited extent of overlap between truck turning movements and garage driveways. All truck turning and maneuvering for loading and service functions is accommodated on the property and do not impact municipal streets.



IMAGES: Ground floor plan showing loading areas, in blue, and garbage storage/collection areas, in green (Source: IBI Group, adapted).

5.6 Parking

Inclusive Design – CW | DT | MTSA Site Function – CW | DT | MTSA

All car parking is internalized within an integrated parking garage shared between the three towers. Access to the parking garage, per above, is either through garage entrances from the Park/Victoria driveway or the existing Bramm Street laneway. This shared parking garage between the three towers has two underground parking levels (P1 and P2) and six above-grade parking levels within the building base (ground floor through sixth floor). In total, there are 667 parking spaces in the parking garage, comprised generally of a 55% / 45% split between underground parking spaces.

Of the total supply, 617 parking spaces are dedicated for residential units through the full garage, both underground and above-grade. The remaining 50 parking spaces are dedicated for shared commercial users and residential visitors on the P1, ground floor and mezzanine levels, more immediately situated for convenient access to ground floor commercial uses and garage entrance locations. The parking supply includes 16 barrier-free spaces that are generally distributed throughout all garage levels, situated close to the elevator bays on the respective floors for convenient access. Design-wise, the parking garage's exposed above-grade portion is positioned towards the Site's northeast corner. The closest portion of the above-grade parking garage levels is about 40 metres from Victoria Street South and 35 metres from Park Street. Inset within the shared 6storey podium between Towers and B, the garage is lined by substantial depths of the active podium uses along the Victoria Street South edge (ground floor commercial and upper residential) and Park Street edge (ground floor lobby and units plus upper residential). This eliminates any views or interface between the parking garage and Victoria and Park Streets.

The proposed development satisfies the minimum indoor (Class A) and outdoor (Class B) bicycle parking spaces of the MIX-3 Zone. The proposed development plans contain 592 bicycling parking spaces throughout the site and buildings. This total is principally comprised of 579 "Class A" indoor parking spaces (575 residential, 4 commercial) are provided in secure storage rooms throughout smaller areas on the ground floor and second floor and a large central area on the mezzanine level. The remainder is 13 "Class B" parking spaces in secure outdoor locations surrounding building entrances and along the streetscapes for easy access and circulation by visitors to the Site.

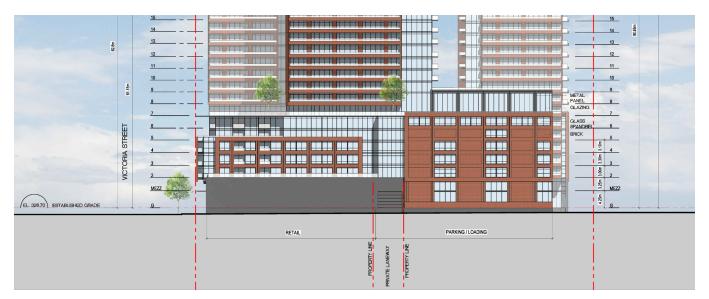
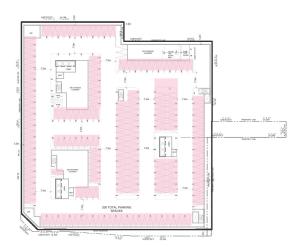
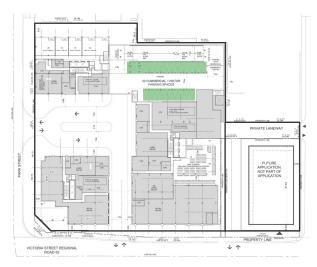


IMAGE: View of parking garage, to the right, situated away from Victoria Street South (Source: IBI Group).

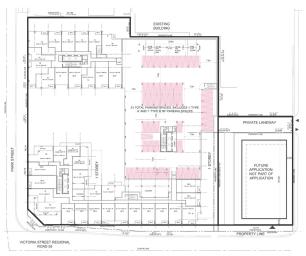
IMAGES: Floor plans of multi-level parking garage (Source: IBI Group, adapted).



Parking P2 Level



Ground Mezzanine (and Ground Floor)



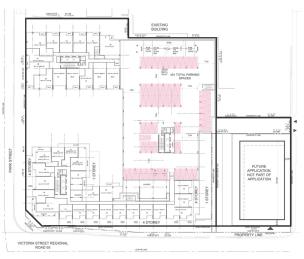




Parking P1 Level



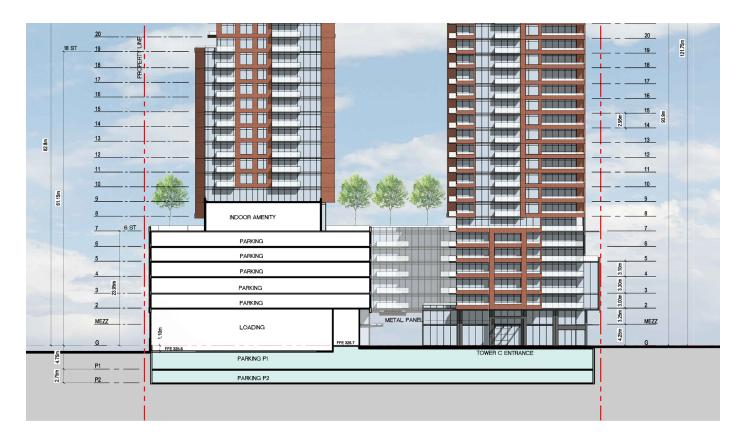
Level 2 Floor Plan

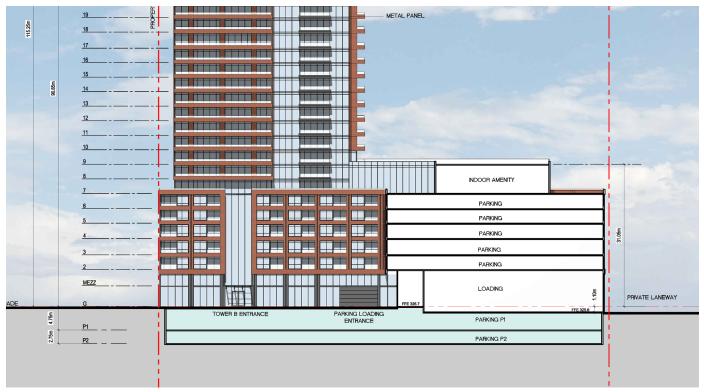


Level 5 & 6 Floor Plan

Residential Parking

IMAGES: Cross-sections view of parking garage, north-south from Victoria Street South (top) and east-west from Park Street (bottom) (Source: IBI Group).





5.7 Building Materials and Articulation

Design for Outdoor Comfort – CW | DT | MTSA Cultural & Natural Heritage – CW | DT | MTSA | TB Compatibility – CW | DT | MTSA | TB Built Form – CW | DT | MTSA | TB

The proposed design uses a contemporary aesthetic blended with traditional, contextual inspirations when it comes to articulation and materiality. Transparent glass, red brick, and dark metal panels are the core cladding materials used in a balance fashion along the podium base and up the towers. The building articulation and materiality is used together to establish a balanced solidto-glass proportions that creates a contemporary aesthetic that is respectful of a landscape with heritage attributes. This aesthetic is achieved in a varied method throughout the different components of the buildings and between towers, per below.

Ground Floor

The design emphasizes the pedestrian interaction with the double height ground floor (4.25 metres tall ground floor plus 3.25 metres tall mezzanine space) containing commercial floor space along Victoria Street and part of Park Street. Transparent glass extends the height of the ground floor elevation interposed with lines of metal accents to demarcate divisions (horizontal and vertical). The base of Towers A and C along Victoria and Park, sit recessed under the podium floors above for weather protection and effect, together with lower canopies over the entrance portions.

Building Base

Articulation and materiality for the remainder of the building base is distinguished between the lower and upper portions of the building base and between the different tower bases. This has the effect of the further composing the pedestrian scale of the building base together with upper base stepbacks.

For the lower base of the second through fourth storeys principally, the design has a projecting volume of the lower building base extending over the pedestrian realm along the Tower A and C base, respecting the Warehouse District fabric with red brick clad grid of openings for windows and inset balconies. The length along Victoria is broken approximately mid-building above the driveway entrance where is recedes with glass surface. The Tower B base shares a similar brick grid treatment facing Park Street although extending the full height of the building base (second through sixth



IMAGE: Rendering of development looking from south of Victoria and Park intersection (Source: IBI Group).



storeys). This building base recedes back from these brick projections at the Victoria and Park corner and changes to a dark metal clad that extends the height of the podium and most of the tower, meant as a signature element defining this key street intersection and entrance to Downtown Kitchener.

For the upper base where it steps back from the lower base along Victoria and Park, the base elevations of the Towers A and C transition to expanses of transparent glass with open balconies and private terraces. A horizontal dark metal canopy atop the sixth storey assists with signifying the base-tower distinction together with the other features, as well as assisting with mitigating potential wind impacts.

The exposed portions of the parking garage along the northern building elevation (facing railway) and eastern building elevation (facing Bramm Street) are treated in a similar aesthetic. The rhythm of the street-facing red brick grid is carried to these portions of the elevations interjected with spandrel glass on alternating vertical elements and vertically along the garage roofline.

Tower

The tower design pulls up the materiality and articulation of the building base. The red brick, transparent glass, and darker metal palette on the towers is arranged vertically to unify the base and tower components in a shared architectural aesthetic, once which varies between the three towers to avoid simply a common flipped tower design. The distinction between the lower and upper towers established by the upper floorplate stepbacks is assisted through changes in the composition of materials. A balanced arrangement throughout the lower tower features a projecting red brick pattern with wall returns and inset balconies extending vertically for portions; and complementary contrast areas of glass and metal, including both recessed and hanging balconies, extending vertically on the other sections. Such distinctions like the Tower C glass-based feature facing the prominent intersection and the Tower A extent of brick to the tower top provide variety to the vertical perspective of the overall development.

Tower Top

The rooftop finish of each of the tower mechanical penthouses is clad and articulated differently to provide a refined skyline profile for the overall development. This is either a simple red brick finish (Tower A), a glass and metal finish (Tower C), or a combination of the two (Tower B). The tower top distinction actually begins in the upper tower section and continues in a consistent fashion to the top.



5.8 Built Heritage

Cultural & Natural Heritage – CW | DT | MTSA | TB

The Site does not contain any cultural heritage resources, either designated or identified on the municipal register. The Site does not have an immediate interface with the Victoria Park Heritage District, which begins behind the lots fronting onto the south side of Victoria Street South that are planned for a mid-rise mixture of uses. The facing property at 163/165 Victoria Street South is listed on the Municipal Register but it is not adjacent given the intervening right-of-way of Victoria Street South.

The Site's 146 Victoria Street South parcel does flank 142 Victoria Street South, which was listed on the Kitchener Heritage Register in 2010. The 146 Victoria parcel was recently acquired by the Owner through a "swap" of 138 Victoria parcel, which allows the abutting property owner a consolidated site for a tall building development; prior to this swap, the Site had no heritage adjacencies (other than the Site's existing laneway). This abutting site assembly is expected to the subject of applications for redevelopment in the foreseeable future, which is expected to include the demolition of the building at 142 Victoria Street South.

Notwithstanding the above, the proposed design does incorporate contextual heritage fabric cues from the broader vicinity. From a building form perspective, the building base is scaled with references the built fabric of the Warehouse District landscape, namely mid-rise, continuous footprint configurations such as the repurposed Kaufman, Tannery, and Huck Glove buildings, among others stretching down Victoria Street North. The proposed 6-storey building base fits within those contextual references. The building base's positioning tight to the Park and Victoria street lines reinforces the prevailing pattern with such buildings in the Warehouse District. Stepbacks of the building base at the fifth and sixth storeys facing Victoria and the Park corner contribute the pedestrian-scaled mass along the public sidewalks. The Tower B and C narrow ends oriented perpendicular to the two streets carry that upper podium stepback up the towers, while Tower A is substantially pulled back from the Victoria providing a significant



opening of the streetscape fabric (similar to that by the Huck Glove adaptive re-use to the east of Bramm Street).

From an architectural and materiality perspective, the proposed design employs a contemporary aesthetic that draws inspirations from traditional materials in the surrounding landscape. Transparent glass, red brick, and dark metal panels are the core cladding materials used in a balance fashion along the podium base and up the towers. The use of red brick drawing from the surrounding context is arranged to reinforce window proportions and patterns. This ultimately contributes to a balanced solid-to-glass proportions that are respectful of a heritage aesthetic, rather than a strictly contemporary aesthetic. The rhythm of the base along the streets contains stretches of red brick portions projecting with interposed sections of recessed glass horizontally and vertically for accent.

5.9 Natural Heritage

Cultural & Natural Heritage - CW | DT | MTSA | TB

Most of the existing 51 trees inventoried affecting the Site will need to be removed for the proposed development. This is largely given they coincide with the front, side and rear yards of the different properties that make up the site assembly. Trees on abutting properties canopied over the Site will be retained as well as some trees along Park Street. Additional tree plantings in the Victoria Street South right-of-way and the Site's northern side yard will add new deciduous trees.

5.10 Street Landscape Design

Inclusive Design – CW | DT | MTSA Street Design – CW | DT | MTSA | TB Streets & Open Space – TB

The proposed building base positioning and arrangement supports a strong urban edge along both the Site's Victoria Street South and Park Street frontages. Within the post-widened Victoria Street South and Park Street rights-of-way, the proposed landscape design contemplates a continuous concrete paved design stretching the private property line. In this space, the design incorporates seating opportunities along Park Street and a regular row of the canopy trees along Victoria Street South. The proposed surface treatment blends into the private property with a similar hardscaped treatment, although differentiated in colour and pattern for accent. This treatment extends for the pedestrian circulation routes leading to the building entrances from both Victoria Street South and Park Street. The driveway surfaces are treated with different-coloured decorative surface patterns to distinguish from the pedestrian routes. Smaller landscaped areas within the internal driveway courtyard providing opportunities for soft landscaping and integrated seating fixtures.

The ground floor of the Tower C base recessed below the storey above provides for a more open plaza space at the corner. This design contemplates the similar private surface treatment with an assortment of sitting, patio and/or café areas associated with the ground floor commercial activities. A public art installation in this plaza is possible to further accentuate the public realm at the corner.

Detailed design will further explore and illustrate these public and public/private spaces. Lighting elements at the time of detailed Site Plan Approval design will address appropriate lighting levels for safety in these higher pedestrian activity areas. Opportunities for incorporating landscaping elements and surface treatment that promotes stormwater infiltration will be explored at detailed design.



IMAGE: View of urban streetscape edge to the abutting Victoria Street South and Park Street frontage, including the defined commercial plaza at the corner (Source: IBI Group).

5.11 Amenity Areas

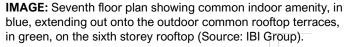
Shared Spaces – CW | DT | MTSA | TB

The proposed development plan contains a suite of different indoor and outdoor common amenity spaces for residents. A second floor indoor amenity room (150 square metres) at base of Tower C sits overtop and overlooking the at-grade commercial plaza at the Victoria Street South and Park Street corner. This outdoor plaza is intended to contain furnishings and elements supporting the abutting commercial units. A large indoor amenity area on the sixth floor, situated principally in the northeast corner of the Subject Site, connects the three towers through the building podium with a substantial space (1,530 square metres) for a multitude of social and amenity functions for residents. Coordinated with and complementing these indoor spaces, the podium rooftops between Towers A and B and between Towers B and C are large outdoor amenity areas for residents (1,582 square metres in total).

N38'20'55"E

49.186

The outdoor function of these common spaces is complemented by the individual unit balconies and terraces throughout the tower mass and atop the podium rooftops, respectively. The size and configuration of these balconies varies depending on the context, including smaller recessed balconies and longer hanging balconies that wrap building corners. The private terraces provide deeper spaces at the tower bases and in the upper podium stepback space along Victoria Street South. The variety of this spaces provide individual options for residents as well as refine and distinguish the architectural variation throughout the buildings.





5.12 Sustainable Design

Design for Sustainability – CW | DT | MTSA Environment – TB

At the broader city-level of sustainable development, the proposed development represents a compact and efficient mixed-use development as part of a broader mixed-use community in Downtown Kitchener. containing a mix of residential, commercial, employment, and recreation uses. The proposed redevelopment is of an existing brownfield site connected to existing community, servicing, transit and road infrastructure. Suites in this building will include a collection of 1bedroom suites starting from approximately 500 square feet to 2-bedroom plus dens ranging up to 850 square feet, providing for a range of downtown living options. The development form and intensity achieve many intensification and redevelopment objectives for highly transit-supported location.

The site and building design embrace sustainable transportation options. The proposed development supports car-free living opportunities given its central location and transit proximity. The Subject Site context is inherently a transit-supportive location, within the close walkshed the northbound/southbound ION Central Station at Victoria and King, the iExpress 204 route running east-west with stops at King and Victoria, and several local routes running through the Downtown with multiple frequent stops in the area. The site design accommodates safe and direct pedestrian connections from the Queen Street frontage to King Street for the and Duke Street. Reductions in parking requirements are a core component of the broad Transportation Management Plan for the Subject Site for encouraging alternatives to single occupant automobile use.

The building design will embrace practices of environmentally responsible design. It will include multiple measures consistent with an LEED certification, although LEED certification is not being pursued for the project. Although building design is preliminary for the proposed policy and zoning applications, several of the exterior design environmentally responsible design measures are known, while other interior measures can be contemplated:

- Energy Conservation: an overall building window-towall ratio is conducive to energy conservation with opportunities for exterior cladding features bringing increased insulation and high-performance glazing.
- Energy Generation: alternative or renewable energy systems have not been explored at this time.
- Water Conservation: alternative water supply and demand management systems have not been explored at this time.
- Parking: parking is entirely within the building mass and underground and eliminates heat island effects associated with surface parking areas.
- Bicycle Parking: cyclists are accommodated with short-term visitor spaces in multiple locations on the surface, and plentiful long-term resident and tenant spaces within the building.
- Stormwater Management: stormwater is controlled through connections to the existing sewers on the abutting public streets, per engineering drawings, and stormwater quantity and quality measures are not required given the development form.
- Rooftops: the design of the large podium rooftops will contemplate opportunities for white roofs and planting details to minimize heat island effects.
- Waste Management: the building incorporates internal garbage areas for collection and sorting. Innovative waste management using systems that encourage the collecting and recycling of waste produced by residents. The residential garbage room is conveniently located at the surface and connected to the surface drive route.
- Bird Collison: material choice and detailing addresses bird collision avoidance guidelines, which can be further explored through detailed design.

5.13 Microclimatic Impact Analysis

Design for Sustainability – CW | DT | MTSA Environment – TB

Shadow Analysis

Shadow impacts are reasonable where they maintain a certain threshold of sunlight on different spaces and areas. For private properties, generally the common municipal criterion is 4 hours of sunlight on private amenity areas. For the public realm, the Tall Building Guidelines specifically identify that shadow analysis should demonstrate how a proposed building maintains "daily access to at least 5 hours of cumulative direct sunlight under equinox conditions" on nearby open spaces and sidewalks.

The Shadow Analysis modelling in **Appendix A** shows the potential shadowing from the proposed development. It models hourly times for the period generally 1.5 hours after sunrise and 1.5 hours before sunset for each of June 21, September 21, and December 21. It reflects the new "net" shadows cast by the proposed development, over and above the existing shadows cast by the existing built fabric.

The below table summarizes the Shadow Analysis graphics.

Based on this analysis, the shadows cast by the proposed development are reasonable and in keeping with the general criteria. While the December 21 periods offer less than the suggested 4 hours of the criteria on outdoor spaces, this is mitigated by the fact of more limited use of outdoor spaces in December, the fact that many of assessed yards and amenity areas are already shadowed by the existing fabric, and the fact that sidewalks would be shaded even under an as-of-right building podium.

NEW NET SHADOWS FROM PROPOSED DEVELOPMENT CAST ON:	June 21	September 21	December 21
Park Street Sidewalks	None between 8am and	None at any point (10	None at any point (6
	4pm (8 hours)	hours)	hours)
Victoria Street South	None between 7am	None between 8am and 12pm (4 hours)	None between 9am
Sidewalks	and 1pm (6 hours)		and 12pm (3 hours)
Public Parks and Open Spaces	None	None	None
Rear yards of Low-rise residential properties	None between 8am	None between 8am	None between 9am
	and 2pm (6 hours)	and 1pm (5 hours)	and 12pm (3 hours)
Rooftop amenity areas of Multi-tower development east of Bramm Street	None	None generally between 8am and 10am (2 hours) and between 1pm and 6pm (5 hours)	None generally at 9am and between 2pm and 3pm (2 hours)

Pedestrian Wind Impact Study

RWDI prepared the Pedestrian Wind Study that assessed the potential wind comfort and safety conditions on and surrounding the Subject Site resulting from the proposed development. The Study was based on computer-based modelling of the proposed development under existing and proposed conditions. Although much of the Subject Site would have satisfactory conditions, the Study recommends wind control features through detailed design to improve pedestrian comfort in locations with higher than desired wind conditions. The Study makes the following conclusions:

- Wind conditions are satisfactory for intended use at all areas around the Existing site.
- With the introduction of Proposed development, conditions at grade level areas, including all major entrances, sidewalks, and the plaza, are predicted to be suitable for the intended use in the summer.
- Due to strong seasonal winds and the effect of comer acceleration, wind conditions are expected to be less than ideal near building corners during the winter.

- In the summer, wind conditions at most above-grade amenity areas are expected to be suitable for strolling or better, which is less ideal for passive pedestrian activities. Increased wind speeds are predicted near certain edges and corners on Level 7 outdoor amenity areas, resulting in undesired comfort conditions.
- Wind speeds at all locations are predicted to meet the criterion used to assess pedestrian wind safety with two exceptions of the northern and western corners on Level 7 outdoor amenity areas
- Wind control features are recommended in the report to improve pedestrian comfort for above-mentioned areas with undesired wind conditions.
- If desired, wind tunnel testing can be conducted at a later design stage to quantify these wind conditions and, if necessary, to develop and validate wind control solutions.

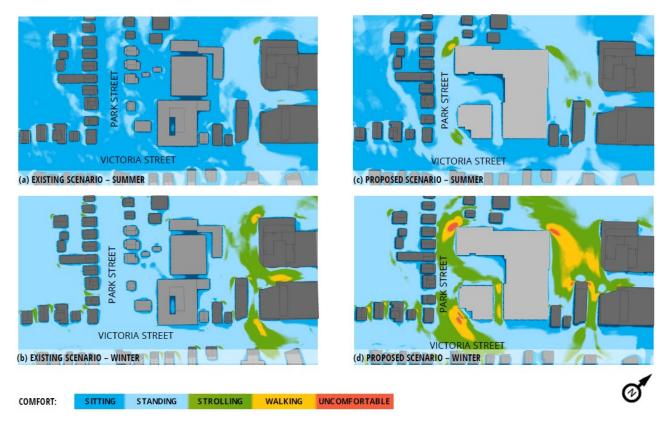


IMAGE: Pedestrian comfort conditions in summer and winter conditions pre- and post-development (Source: RWDI).

6. SUMMARY

The proposed building form is a multi-tower, mixed-use redevelopment sitting atop a mid-rise podium containing an integrated parking garage at the western gateway or entrance to Downtown Kitchener. An Urban Design Report is a requirement of the complete application submission for the proposed Official Plan Amendment and Zoning By-law Amendment to implement the proposed redevelopment. This Report responds to the applicable Kitchener Urban Design Manual guidance, implementing the general site and building design policy direction of the Kitchener Official Plan.

In summary, the design of the proposed development:

- Embraces the Site's context of excellent transit proximity to core ION Stations and local bus routes through a street-oriented building form with bicycle parking facilities.
- Adds shopping and living opportunities to a developing mixed-use community in the Innovation District of Downtown Kitchener.
- Intimately positions the building to the Victoria Street South and Park Street edges with active commercial ground floor uses features large expanses of ground floor transparency animating the public streetscapes.
- Provides a connected circulation pattern between building/garage entrances and the three public street connections for pedestrians, cyclists and drivers.
- Establishes a consistent mid-rise scale to the building base with ground floor recessions and upper storey stepbacks to tie the three towers together.
- Internalizes all loading, servicing, and parking garage functions away from abutting public streets.
- Arranges the slender point towers to address separation and overlap considerations both on the site and to any future off-site developments.
- Provides refined architectural approach to the three towers that distinguished each within an overall unifying aesthetic.

- Creates a creative contemporary architectural aesthetic that draws in the material cues from the surrounding Warehouse District and residential fabric.
- Is supported by required shadow and wind studies demonstrating the compatibility of the proposed development within the western edge of Downtown Kitchener.

Based on the preceding assessment, the conclusion of this Urban Design Brief is that proposed design is appropriate and reflects good urban design. It respects the design policy and guideline direction of the Kitchener Official Plan and the multiple layers of the Kitchener Urban Design Manual. Specifically, the proposed building massing and tower arrangement was iteratively designed to satisfy the intent and objectives of the Tall Building Guidelines.

APPENDIX A

Shadow Impact Analysis Graphics



EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm





EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm





EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm 150 meters 30 60





EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm 30 150 meters 60





EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm







NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

June 21 Sunrise - 5:41am Sunset - 9:06pm





EXISTING SHADOWS NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS) June 21 Sunrise - 5:41am Sunset - 9:06pm





≫ ∧≫∞ 9:00am

September 21

Sunrise - 7:06am Sunset - 7:21pm 150 meters 30 60

GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



September 21

Sunrise - 7:06am Sunset - 7:21pm

GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



* / / * * * 1:00pm

September 21

Sunrise - 7:06am Sunset - 7:21pm

GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



September 21

Sunrise - 7:06am Sunset - 7:21pm 150 meters 30 60

GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



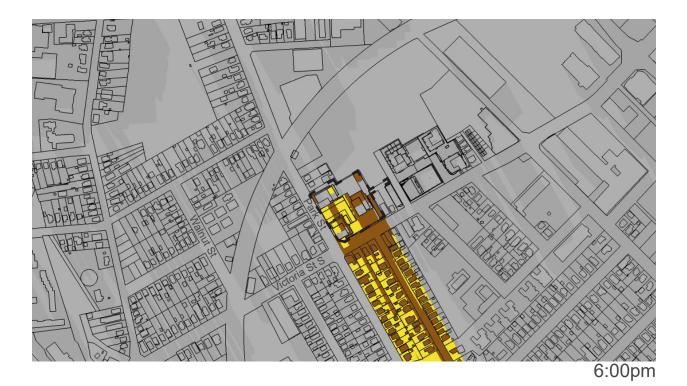
September 21

Sunrise - 7:06am Sunset - 7:21pm

GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



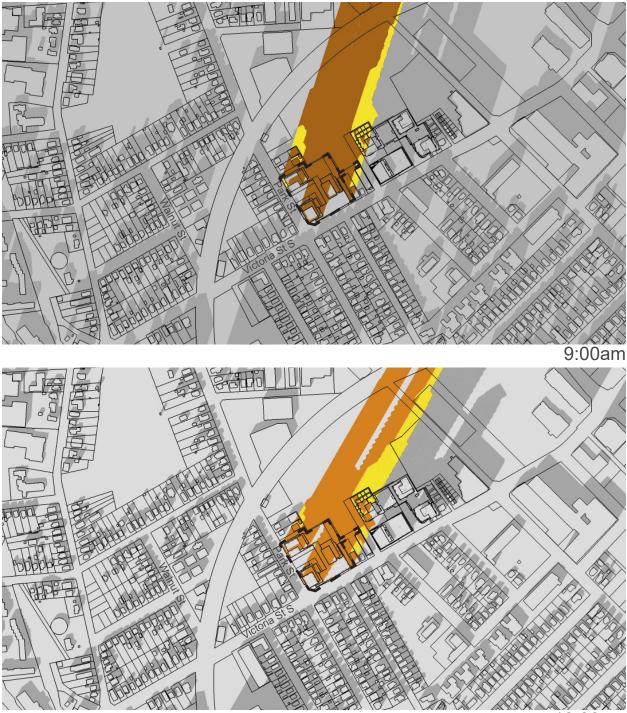
EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



September 21

Sunrise - 7:06am Sunset - 7:21pm



December 21

Sunrise - 7:42am Sunset - 4:49pm 150 meters

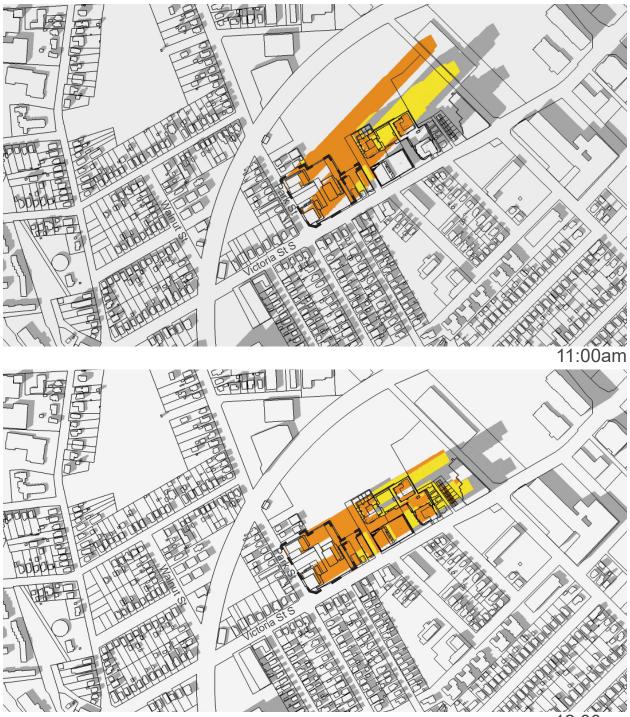
Shadow Analysis Source:IBI Group (2021); GSP Group (2021)



GSP group

EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

December 21

Sunrise - 7:42am Sunset - 4:49pm





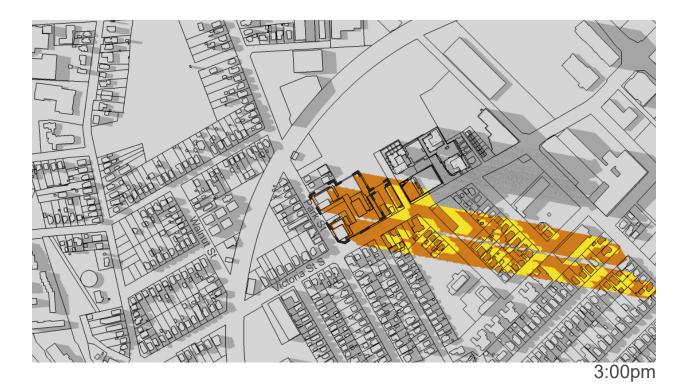
EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)

December 21

Sunrise - 7:42am Sunset - 4:49pm





EXISTING SHADOWS

NEW NET SHADOWS WITH PROPOSED DEVELOPMENT (38 STOREYS)



December 21 Sunrise - 7:42am

Sunset - 4:49pm