URBAN DESIGN BRIEF

5 Hill Street

City of Kitchener

Official Plan Amendment Zoning By-law Amendment

April 2025





URBAN DESIGN BRIEF5 Hill Street

City of Kitchener Official Plan Amendment Zoning By-law Amendment

April 2025

Prepared for: HOGG Fuel and Supply Ltd. 5 Hill Street Kitchener, Ontario N2H 5T4

Prepared by: GSP Group Inc. 72 Victoria Street South, Suite 201 Kitchener, ON N2G 4Y9

TABLE OF CONTENTS

1.	INTRODUCTION	4
	1.1 Background	4
	1.2 Proposed Application	4
	1.3 Report Purpose	5
	1.3 Supporting Studies and Materials	5
2.	EXISTING SITE CONDITIONS AND CON	TEXT 6
	2.1 Existing Site Conditions	6
3.	SURROUNDING CONTEXT ANALYSIS	8
	3.1 Context Within the City	8
	3.2 Land Use and Built Form	8
	3.3 Street Pattern	9
	3.4 Railway Corridor	9
	3.5 Public Transit	9
	3.6 Parks and Open Space	9
	3.7 Watercourses and Floodplain	10
4.	DESIGN POLICY AND GUIDELINE	
FF	RAMEWORK	12
	4.1 City of Kitchener Official Plan	12
	4.1.1 Urban Design	12
	4.1.2 Sustainability	12
	4.1.3 Parks and Open Spaces	12
	4.1.3 Streets	13
	4.1.4 Active Transportation	13

	4.1.5 Transit	14
	4.1.6 Transportation Demand Management	14
	4.2 City of Kitchener Urban Design Manual	14
5.	DESIGN VISION AND OBJECTIVES	16
5.	PROPOSED DEVELOPMENT	18
	5.1 Building Base Design	22
	5.1 Building Tower Design	26
	5.3 Vehicular Access and Circulation	33
	5.4 Pedestrian Access and Circulation	33
	5.5 Parking, Loading and Service Areas	35
	5.6 Building Materials and Articulation	36
	5.6 Landscape Design and Amenity Areas	37
	5.8 Sustainable Design	38
	5.9 Microclimatic Impact Analysis	39
	5.9.1 Shadow Analysis	39
6.	CONCLUSION	41
AF	PPENDIX A - SHADOW STUDY	42

1. INTRODUCTION

1.1 Background

GSP Group was retained by HOGG Fuel and Supply Ltd., (the "Owner") for the property located at 5 Hill Street (the "Site") in Kitchener (the "City"). The Site is municipally addressed as 5 Hill Street, Kitchener, Regional Municipality of Waterloo, and is legally known as Plan 788, Part Lot 3, Part Lot 4, Part Lot 6, Part Lot 15, Tract German Company, Sub Lot 58, Part Lot A, Plan 376, Part Lot.

The Site is currently used as a concrete manufacturing, storage, and shipping yard for the Owner. The Site is identified within the "Built Up Area" and is within the Urban Area Boundary of the City of Kitchener, as per Map 1 - "City Urban Area and Countryside" of the City of Kitchener Official Plan (the "Official Plan"). The Site is further designated as "Industrial Employment Areas," as per Map 2 -"Urban Structure" of the Official Plan. Lancaster Street West, the arterial street running parallel to the Site, is identified as a "Planned Transit Corridor." The Site is located within the North Ward Secondary Plan area, which designates the Site as "General Industrial" within a Special Policy Area, as per Map 19 - "North Ward Neighbourhood Plan for Land Use." The Site is not located within but is adjacent to the west of an "Employment Area."

The Owner is proposing the development of nine multiple residential buildings with an overall unit

count of 2,612 residential units, including 264 square metres of commercial space, and 2,403 parking spaces (the "Proposed Development"). This large-scale, predominantly residential development will transform the existing industrial site into a high-density, transit-supportive neighbourhood that integrates with the surrounding street fabric and land uses. The Proposed Development will include a varied composition of high-rise and mid-rise buildings, along with a series of open spaces, including a pedestrian promenade and publicly accessible green spaces.

The Proposed Development is discussed further in Section 4 of this Brief.

1.2 Proposed Application

The Owner is proposing an Official Plan Amendment and Zoning By-law Amendment. The Official Plan Amendment will redesignate the Site from a "General Industrial" designation to a "Site-Specific High-Rise Residential" designation.

The Zoning By-law Amendment will rezone the site from a "General Industrial (M-2)" Zone to a "Site-Specific High Rise Residential Seven (RES-7-XX)" Zone.

1.3 Report Purpose

A Pre-Submission Consultation Meeting for Official Plan Amendment and Zoning By-law Amendment was held on September 22, 2023, which listed an Urban Design Brief ("Report" or "Brief" as a requirement of a "complete application."

This Urban Design Brief establishes the overarching vision and design direction for the redevelopment of the site. It evaluates how the Proposed Development aligns with the City of Kitchener's Official Plan, Urban Design Manual, and Tall Building Design Guidelines. The Brief also provides a framework to guide the design evolution of the Site through future development stages.

The Report is organized as follows:

- Section 1 Introduction
 Outlines the background, proposed planning applications, purpose of the report, and supporting studies.
- Section 2 Conditions & Context
 Describes the Site's existing conditions and its surrounding physical, historical, and planning context.
- Section 3 Design Policy and Guideline References
 Summarizes applicable urban design policies and guidelines that inform the design approach.
- Section 4 Design Vision & Objectives
 Articulates the high-level urban design vision and

guiding principles for the redevelopment of the Site.

- Section 5 Proposed Development
 Outlines the development concept, including built form, circulation, open space, materials, and sustainability considerations, supported by detailed urban design analysis.
- Section 6 Conclusion
 Summarizes how the Proposed Development represents good urban design and supports the transformation of the Site into a livable, connected, and resilient community.

1.3 Supporting Studies and Materials

The following supporting studies, plans, and/or reports have been considered in this Urban Design Brief:

- Architectural Drawing Set (April 2025) prepared by ABA Architects; and
- Shadow Study Graphics (April 2025) prepared by ABA Architects; and

2. EXISTING SITE CONDITIONS AND CONTEXT

2.1 Existing Site Conditions

The Site is located in the northward neighbourhood of Kitchener. The Site is situated on the east side of Lancaster Street West and on the south side of Guelph Street. The Site is located on the west side of a decommissioned Canadian National Railway ("CNR") Line, which is adjacent to the west of the Woodside National Historic Site. The Site is north of residential uses fronting Wellington Street North.

The Site is 4.6 hectares (11.4 acres) in area with approximately 90 metres of frontage along Lancaster Street West and 56.5 metres of frontage along Guelph Street. The Site contains minimal ground cover and vegetation. The Site contains a significant west to east slope, spanning approximately 12-metres from Lancaster Street to the decommissioned CNR Line to the east. Access to the Site is provided by a single access from Lancaster Street West.

2.2 Site History

The Site is currently occupied by Hogg Fuel & Supply Limited and functions as a ready-mix concrete manufacturing, storage, and distribution facility. Historical aerial photography indicates that the Site has been used for industrial purposes since at least 1954. Over time, the surrounding context has evolved, with residential neighbourhoods developing to the north, west, and south, while industrial uses have



Fig.1: Site Context

remained concentrated to the northeast. The longstanding industrial use of the Site predates much of the surrounding residential development, establishing it as a significant employment use within the area for over seven decades.

2.3 Existing Site Conditions

The Site currently contains an assortment of buildings, storage silos, bunker silos, fuelling tanks and stands, automated concrete loading silos, and parking spaces.

In the centre of the Site is a 2-storey office building (1-storey at Lancaster Street West grade, 1-storey basement as a result of grade change). This office building is connected to a collection of connected 1-storey warehouses located centrally to the Site at the bottom of the grade change. Adjacent to this consortium of buildings are various storage areas for vehicles, equipment, and materials. At the south of the Site is a large-scale storage silo connected to 4 smaller storage silos. This system of silos is connected to 2 concrete loading docks. The perimeter of the south and east sides of the Site is used for vehicle. equipment, and material storage. At the west of the Site is a parking lot for the office and yard employees, as well as visitors. At the northwest of the Site are 4 bunker silos, as well as 2 tall silos and a control room used for transferring materials. At the centre of the Site are 7 fuelling stands with an attendant office. as well as a garage along the northern property line. At the east of the Site is a tailings pond with open material storage. The north of the Site, closest to Guelph Street, is used for equipment parking.

3. SURROUNDING CONTEXT ANALYSIS

3.1 Context Within the City

The Site is located to the centre north of the City of Kitchener in the north ward neighbourhood, forming part of the ring of neighbourhoods surrounding Downtown Kitchener. The Site is within 1,500 metres of Downtown Kitchener, which provides retail, restaurant, and employment opportunities. Lancaster Street West provides connection to Highway 85 (northbound), and to the south, Lancaster Street West provides connection to Victoria Street North, Frederick Street, and Weber Street East, which are classified as arterial roads. The neighbourhood contains several significant parks and community facilities, including Springwood Park and the Woodside National Historic Site (to the southeast). Guelph Street Park (to the north), the City of Kitchener Fire Department Station 2. Hillside Park. Northside Community Church, Lips Park, St. Teresa's Catholic Church, St. Teresa Catholic Elementary School, Prueter Public School, and Breithaupt Centre (to the west).

Grand River Transit ("GRT") Route 6 - "Bridge-Courtland" runs along Lancaster Street West, with two bi-directional north-south stops being located on either side of the corner of Lancaster Street West and Hill Street, respectively. Route 6 provides connection to University Avenue East, Northfield Drive East, and eventually Conestoga Station, which provides connection to GRT Routes 7, 9, 14, 21, 29, 31,

as well as the GRT iXpress 201 and 202 routes and the GRT Light Rail Transit ("ION") network. To the south, Route 6 connects to Central Station (ION), Victoria Park Station (ION), Queen Station (ION), and further south to stops on Ottawa Street North, providing connection to the GRT iXpress Route 205, Block Line Station (ION), and eventually connecting to Fairway Station, which provides connection to GRT Routes 1, 7, 8, 10, 12, 23, 27, 28, and 110, as well as iXpress Route 206, the ION network, as well as ION Route 302, which provides connection to Sportsworld Station and further routes to the south (Cambridge).

Central Station provides GO Transit and VIA Rail regional transit services. Additionally, Downtown Kitchener is serviced by additional transit providers, including Flix Bus, which provide further regional connections.

3.2 Land Use and Built Form

The Site's immediately surrounding context within 800 metres features a mixed land use pattern. Detached dwellings are primarily situated to the immediate north of the Site. To the west of the Site are a mixture of single-detached dwellings with some multiple dwelling units. To the south and southwest of the Site are single-detached dwellings, with a 5-storey multiple dwelling immediately south of the Site. To the east and northeast of the Site is the Northward Employment Area, which is predominantly

characterized by 1-storey large footprint industrial buildings. To the east and southeast of the Site is a decommissioned CNR Line, followed by the Woodside National Historic Site, which features a 1-storey residential dwelling converted for institutional purposes (museum).

3.3 Street Pattern

The neighbourhood contains a mixed street pattern with a loose, somewhat organic grid of streets in the pre-war residential areas. The industrial areas to the east of the Site are generally more loose, open grid with larger lot sizes to accommodate industrial operations. Lancaster Street West is a "Regional Road" which is identified as an arterial road. Guelph Street is identified as a collector road. Hill Street extends into the Site and is identified as a local street.

3.4 Railway Corridor

The CNR Line abuts the east side of the Site. The rail line was a spur off the Guelph Subdivision to the south, however, it is currently inactive. As such, a 15-metre separation distance and/or crash walls are not required by CNR.

3.5 Public Transit

The neighbourhood is well-served by existing and planned transit services. The Proposed Development is in located along Lancaster Street West, which is identified in the Region of Waterloo Regional Official Plan as a Future Transit Corridor. Currently, there is 1 stop located on the east side of Lancaster Street West

and Hill Street (southbound) and 1 stop located on the west side of Lancaster Street West and Hill Street (northbound) for GRT Route 6.

GRT Route 6 connects to Conestoga Station in the City of Waterloo to the north, which provides connections to GRT Routes 7, 9, 14, 21, 29, and 31, as well as iXpress routes 201 and 202, and the GRT ION Light Rail Transit ("ION") network. To the south, GRT Route 6 connects to Fairway Station in the City of Kitchener to the south, which provides connections to GRT Routes 1, 7, 8, 10, 12, 23, 27, and 28, as well as iXpress route 206 and the ION network, including bus rapid transit toward Sportsworld Station and further ION stops in the City of Cambridge.

Between Conestoga Station and Fairway Station, there are various stops along each route connecting to additional GRT Routes, respectively.

3.6 Parks and Open Space

There are several major parks and recreational facilities in the surrounding neighbourhood, including:

- Woodside National Historic Site (to the southeast of the Site)
 - Institutional/museum site.
- Springwood Park (to the southeast of the Site)
 - Wooded area, no access.
- Guelph Street Park (to the north of the Site)
 - Play structures, sports courts, trail system, and open space.

9

- Ash Park (to the north of the Site)
 - Play structure and open space.
- Arnold Park (to the northwest of the Site)
 - Play structure and open space.
- Lips Park (to the west of the Site)
 - Play structure, trail network, open space
- Hillside Park (to the west of the Site)
 - Open space, baseball diamond.
- Major Park (to the southwest of the Site)
 - Play structure, open space.

Maple Lane Green (to the southwest of the Site)

- Open space.
- Weber Park (to the south of the Site)
 - Play structure, community garden, baseball diamond, basketball court, tennis court, outdoor rink (seasonal)

As per the City of Kitchener Official Plan, Map 11 -"Integrated Transportation System," Guelph Street is identified as being a Planned Secondary Multi-Use Pathway/Connection (Type 2). The proposed route of this secondary multi-use pathway/connection is east toward the Walter Bean Grand River Trail, which runs through the cities of Kitchener, Cambridge, and Waterloo.

3.7 Watercourses and Floodplain

The Site is not located within or is directly adjacent to a floodplain and/or watercourse.



4. DESIGN POLICY AND GUIDELINE FRAMEWORK

4.1 City of Kitchener Official Plan

The City of Kitchener Official Plan (2014) ("Official Plan") was approved by the Region of Waterloo, in part, with modifications on November 19, 2014. The following design-related sections are relevant to the Site's design.

4.1.1 Urban Design

Section 11 of the Official Plan outlines the general urban design policy direction for the City.

Policy 11.C.1.28 of the Official Plan states that development should be compatible with the existing neighbourhood.

Policy 11.C.1.29 of the Official Plan states that existing sites are redeveloped, and community infrastructure is "planned to enhance the site, buildings open space and the streetscape."

Section 11.C.1.31 intends to ensure that new buildings are designed, and existing buildings are reworked to "enhance pedestrian useability, respects and reinforce human scale, create attractive streetscapes and contribute to rich and vibrant urban places."

4.1.2 Sustainability

Section 7.C.4 provides the policy direction for sustainable development.

Section 7.C.4.1 of the Official Plan outlines the general direction for sustainable development, indicating that the City will encourage, support, and potentially require a compact and efficiently built form (a), environmentally responsible design and construction practices (b), integrating, protecting and enhancing natural features and landscapes into the building and site design (c), reducing resource consumption associated with development (d), and promote the greater use of active modes of transportation, like cycling and walking, as well as transit (e). Section 7.C contains various other sections and policies relating to sustainable development, including water and energy conservation and efficiency, alternative energy, waste management and reduction, as well as air quality.

4.1.3 Parks and Open Spaces

Section 8.C of the Official Plan provides the policy direction for parkland. As per Sections 8.C.1.13 and 8.C.1.15 of the Official Plan, the City of Kitchener Parks Strategic Plan provides policy direction for public parks and open space. Section 8.C.1.15 of the Official Plan indicates that the City will "select suitable sites, and plan for the complete integration of these sites

with the integrated transportation system, the public transit system and multi-use pathway network." Section 8.C.1.21 of the Official Plan indicates that on-site recreation facilities and useable greenspace will be required in multiple housing development. Section 8.C.1.23 of the Official Plan states that the City will encourage "useable and accessible semi-public spaces in private developments that provide linkages and/or support arts, culture, recreation and leisure opportunities for its residents." Section 8.C.1.34 states that "privately built urban squares and parks held in private ownership will not be considered part of parkland dedication."

4.1.3 Streets

Hill Street is identified as a "Local Street," which is identified as providing access to abutting properties and are not intended to carry high volumes of traffic while supporting transit service. Sidewalks are to be provided on both sides of the street, and cycling facilities are to be accommodated safely within the street right-of-way utilizing the "Share the Road" approach in accordance with the City's Cycling Master Plan.

Lancaster Street West, adjacent to the west of the Site, is identified as a "Regional Road." Regional Roads are primary arterial streets under the jurisdiction of the Region, and their purpose is to move people and goods within, through, and between municipalities. Regional Roads can support transit service, with Lancaster Street West being identified as a Future Transit Corridor in the Official Plan and Region of Waterloo Regional Official Plan

("ROP"). Sidewalks are provided on both sides of Lancaster Street West. Currently, no bicycle facilities are provided along Lancaster Street West, though they are promoted in the Region's Regional Active Transportation Master Plan.

Guelph Street is identified as a "Major Community" Collector Street," which is to balance the provision of mobility in the City with land access, collecting and distributing people and goods between communities from Local Streets and Minor Neighbourhood Collector Streets to City Arterial Streets and Regional Roads. Direct access to properties may be permitted and can support transit service. Sidewalks are to be provided on both sides of the street, and dedicated cycling facilities should be promoted in accordance with the City's Cycling Master Plan.

4.1.4 Active Transportation

Section 13.C.2 of the Official Plan is supportive of pedestrian and cycling environments which provide "opportunities to walk and cycle for convenient travel, recreational, health, environmental and economic reasons" through such means as "integrating pedestrian and cycling facilities into existing, expanded and new developed areas" and "providing pedestrian and cyclist connections to transit stops." Section 13.C.1.3 of the Official Plan required that "new, multi-unit residential, commercial, industrial, office and institutional developments" to provide secure bicycle parking and encourages the provision of shower and change facilities. Section 13.C.1.4 of the Official Plan identifies that pedestrian-friendly streets will be designed by providing sufficiently wide

sidewalks, minimize conflicts with vehicular traffic through street design, and providing more attractive, safe, and comfortable streetscapes.

A "Planned Secondary Multi-Use Pathway/Connection (Type 2)" is located along Guelph Street, adjacent to the north of the Site which is meant to provide a three-season east-west connection between Guelph Street and the Walter Bean Grand River Trail. following the alignment identified in the Multi-Use Pathways and Trails Master Plan, as per Section 13.C.2.1 of the Official Plan.

4.1.5 Transit

Section 13.C.3.1 of the Official Plan states that the City "will ensure that all development and/or redevelopment proposals in areas services or planned to be serviced by public transit support the provision of an efficient, convenient, and safe public transit service." Section 13.C.3.2 of the Official Plan directs that the City will drive to "ensure an arrangement of development and streets whereby the maximum walking distance to a planned or existing transit stop will not exceed 450 metres for 95 percent of residences, places of employment and community facilities."

4.1.6 Transportation Demand Management

Section 13.C.7.1 of the Official Plan establishes the City's support for the Region's Transportation Demand Management ("TDM") policies and initiatives. Section 13.C.7.3 states "the incorporation of Transportation" Demand Management measures" may be required

and Section 13.C.7.4 of the Official Plan contemplates "reduced parking requirements for development and/ or redevelopment in accordance with Policy 13.C.8.2 where a comprehensive Transportation Demand Management Report is submitted to the satisfaction of the City."

4.2 City of Kitchener Urban Design Manual

PART A - Design Guidelines

Part A contains design guidelines on various land uses, built types, geographic areas, and urban structure elements. The following topics of design guidelines are relevant to the Site and the proposed building.

City-Wide (CW) a)

The City-Wide design guidelines apply to Kitchener as a whole. The main objective of these guidelines it to ensure Kitchener is designed as an inclusive, safe, accessible, comfortable and appealing place to live, work and play. Guidelines are divided into Community Design and Site Design. The Community Design guidelines are primarily used by the City in designing the form and structure of communities through the application of design best practices in a range of topics. The Site Design guidelines address built form, open space and site functionality.

Tall Buildings (TB) b)

The Tall Buildings guidelines guide the design of tall buildings in the city, which are defined as those greater than 8 storeys in height. These guidelines are meant to be read in conjunction with the policies of

the Official Plan and guidelines of the Urban Design Manual and are meant to be applied on a case-bycase basis.

c) Structured Parking (SP)

The Structured Parking guidelines apply to the development of above-grade parking structures within Kitchener. The Proposed Development includes six levels of podium parking. The Guidelines are to ensure promote compatibility with the surrounding built form and address materials, articulation, massing and public realm design.

5. DESIGN VISION AND OBJECTIVES

The Proposed Development at 5 Hill Street envisions a dynamic, high-density, mixed-use residential community that transforms an underutilized industrial site into a vibrant urban neighbourhood. The vision is to establish a livable, sustainable, and transitoriented development that integrates seamlessly with the surrounding context while offering high-quality housing, open spaces, and commercial amenities. The design approach prioritizes connectivity, pedestrian experience, and architectural diversity, ensuring that the development contributes positively to the evolving urban fabric of Kitchener.

The key objectives guiding the urban design strategy include:

Creating a High-Quality, Pedestrian-Oriented Public Realm

- Establishing a pedestrian-friendly environment with a network of open spaces, promenades, and well-defined streetscapes that encourage walking and active transportation.
- · Enhancing the ground plane with animated frontages, retail spaces, and publicly accessible amenities to promote interaction and engagement.
- Integrating landscaping, and outdoor furniture to create inviting communal areas that foster social cohesion.

Enhancing Connectivity and Multi-Modal Access

- Strengthening connections to existing transit infrastructure, including Grand River Transit (GRT) and future transit corridors along Lancaster Street West.
- Ensuring seamless pedestrian and cycling connections to adjacent neighbourhoods, Guelph Street Park, and Woodside National Historic Site.
- Providing a well-designed internal circulation

network, balancing vehicular, pedestrian, and cycling movements while minimizing conflicts.

Establishing a Diverse and Contextually Responsive Built Form

- Creating a varied architectural composition that respects the surrounding low-rise residential neighbourhood while introducing high-density residential forms.
- Designing a mix of mid-rise and high-rise buildings, ensuring appropriate transitions between building scales and adjacent land uses.
- Incorporating podium-level massing to frame the streetscape and create a human-scaled pedestrian experience.

Delivering High-Quality Residential and Mixed-Use Spaces

- Providing a diverse range of housing typologies. catering to various household sizes and demographics.
- Integrating neighbourhood-serving commercial space along Lancaster Street to support a complete community.
- Ensuring high indoor and outdoor amenity standards, offering spaces for recreation, play, and wellness.

5. PROPOSED DEVELOPMENT

The Proposed Development presents an opportunity to revitalize an underutilized industrial site into a high-density, mixed-use community. The Applicant envisions a vibrant, transit-oriented residential development that seamlessly integrates with its surrounding context while fostering walkability, connectivity, and sustainability. The development will introduce up to 2,612 residential units within a multi-building, high-rise residential community. The Proposed Development consists of nine residential buildings, strategically organized to provide high-quality living spaces, community amenities, and publicly accessible open spaces.

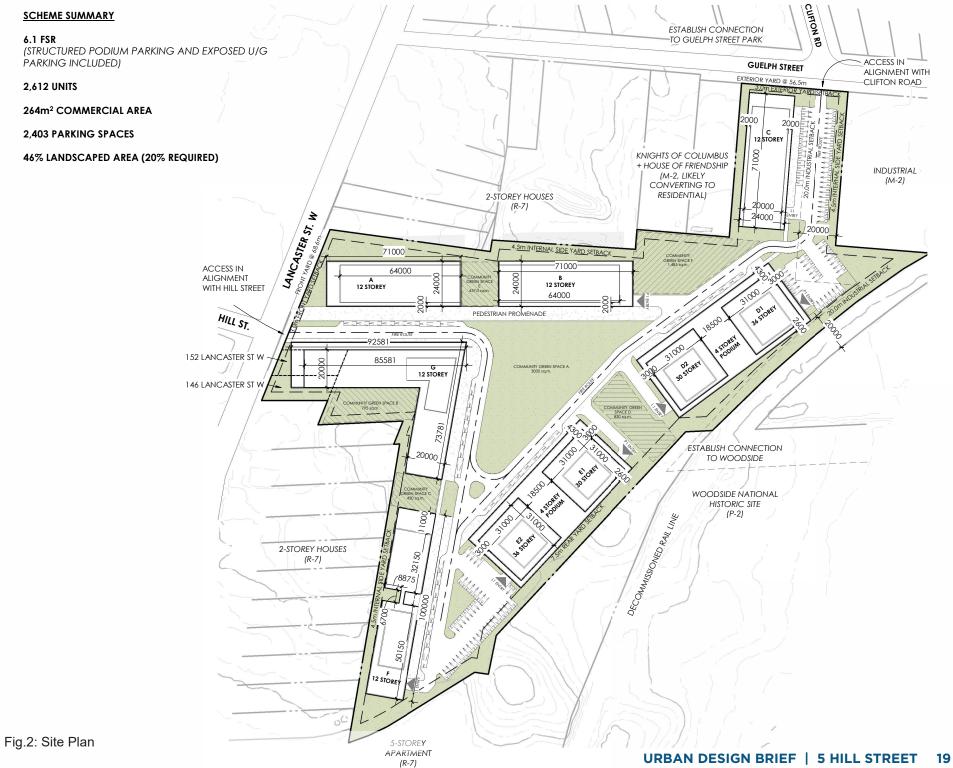
The built form is characterized by a series of mid-rise and high-rise towers, with podiums that incorporate residential units, commercial space, amenity areas, and structured parking. All the towers are centered around a large central community greenspace. A pedestrian promenade extends through the Site, linking Guelph Street and Lancaster Street West while providing a continuous, walkable urban experience. This central open space is flanked by lobbies, private residential amenity areas, and landscaped public plazas, fostering an active and engaging streetscape.

In total, the Proposed Development provides 21,345 square metres of landscaped open space, accounting for 46% of the site area, which significantly exceeds the 20% minimum requirement. This includes publicly accessible plazas, passive green spaces, and

recreational areas, enhancing the overall livability and environmental quality of the development.

Vehicular access to the Site is provided through two primary entry points, with one located on Lancaster Street West in alignment with Hill Street and another on Guelph Street. These access points facilitate efficient internal circulation while maintaining a pedestrian-prioritized streetscape. The internal private streets and drive aisles are designed to enhance safety, with wide sidewalks, tree-lined boulevards, and pedestrian crossings to support active transportation.

A total of 2,403 parking spaces are provided on-site, with the majority accommodated with one level of underground parking area beneath the residential podiums. A limited number of surface parking spaces are designated for visitors and short-term use to ensure accessibility while minimizing visual impact. Bicycle parking is provided to encourage sustainable, active transportation options.







5.1 Building Base Design

Inclusive Design - CW Compatibility - CW | TB Built Form - CW | TB Streets & Open Space - TB

The building base design is carefully integrated with the site's topographical conditions and surrounding context, supporting a safe, comfortable, and pedestrian-friendly environment. The base buildings define the street edge, activate ground-floor uses, and enhance walkability, aligning with Kitchener's Tall Building Urban Design Guidelines to create a vibrant and engaging urban environment.

The building base is organized along the perimeter of the site, framing a central open space, which serves as a key organizing element of the development. Buildings A and G are positioned closer to the western edge of the site, with Building A and Building G directly abutting Lancaster Street, while Building C defines the northern edge along Guelph Street. The design approach draws inspiration from College Park in Toronto, where podium massing successfully frames a central amenity space and integrates ground-floor terraces that overlook communal areas. Similarly, this development applies those principles by organizing residential units around a central open space, encouraging passive surveillance and fostering a strong sense of community through direct visual and physical connections between private and shared spaces.

Buildings A. B. and C incorporate three-storev podiums, each approximately 71 metres in length. Buildings A and G, with their shorter façades oriented toward Lancaster Street, include a mix of residential and commercial uses at grade, enhancing engagement with the street. Building C also features a three-storey base facing Guelph Street, lined with residential units. A 3-metre setback from the streetfacing property lines allows for generous pedestrian space and enhanced landscaping.

On the eastern side of the site, Buildings D and E include four-storey podiums, each approximately 86.5 metres long. Their design responds to both the site's slope and adjacent land uses, providing a transition toward the Woodside National Historic Site and nearby employment areas. Building articulation, stepbacks, and landscaping help reduce visual massing and soften the interface with heritage and industrial contexts. A 7.5-metre rear yard setback ensures appropriate separation, while a 20-metre setback from the employment lands maintains compatibility with adjacent non-residential uses.

Buildings F and G, located at the southwestern edge of the site, are adjacent to existing single-detached dwellings along Lancaster Street. These dwellings sit on deep lots, approximately 40 metres in length, providing a natural buffer between the Proposed Development and the surrounding neighbourhood. Building F, which extends 100 metres along the southern edge, interfaces with a nearby five-storey apartment building and the single-detached homes to the west. Internal side yard setbacks of 4.5 metres between Buildings A, B, C, F, and G promote sufficient spacing, support pedestrian circulation, and allow for integrated landscaping.

Building G features an L-shaped podium that emphasizes a defined corner within the interior of the site, while maintaining sensitivity to adjacent residential areas. The site's 12-metre slope from west to east informs the podium heights and landscape strategy, contributing to a smoother transition between built forms.

Throughout the development, base buildings prioritize transparency, active frontages, and varied materials to create interest at the pedestrian level. Articulation and step-backs help break down the massing, while a cohesive design language ties the buildings together. By framing the central open space and creating a connected pedestrian network, the base buildings support community interaction and a comfortable, human-scaled urban experience. The design strikes a careful balance between massing, activation, and compatibility with its surroundings.







Fig.5: Precedent Images









Fig.6: Precedent Images

5.1 Building Tower Design

Design for Outdoor Comfort - CW Compatibility - CW | TB Built Form - CW | TB **Environment - TB**

Size and Proportion

The Tall Building Urban Design Guidelines classify towers into Compact Point, Compact Slab, Large Point, and Large Slab Towers, based on floorplate size and proportion (length-to-width ratio).

Tower	Height (m)	Length (m)	Width (m)	Area (sq.m)	Proportion
Tower A	40	64	20	1,280	3.2:1
Tower B	40	64	20	1,280	3.2:1
Tower C	40	64	20	1,280	3.2:1
Tower D1	120	31	31	961	1:1
Tower D2	120	31	31	961	1:1
Tower E1	100	31	31	961	1:1
Tower E2	100	31	31	961	1:1
Tower G (L-shaped)	40	65.58	20	1,311	-
Tower G (L-shaped)	40	73.78	20	1,475	-

- Towers A, B, and C are Large Slab Towers with a floorplate of 1,280 square metres and a 3.2:1 length-to-width ratio. These towers are positioned abut detached dwellings, many of which have deep lots that provide a natural buffer between the Proposed Development and existing homes. Towers A and C are stepped back 12 metres from the street facing property line to Lancaster Street and Guelph Street, respectively.
- Towers D1, D2, E1, and E2 are Large Point Towers with a 961 square metre floorplate and a 1:1 lengthto-width ratio, making them more slender and visually appealing. This aligns with the guideline's preference for compact, well-separated towers.
- Tower F and Tower G follow large slab typologies, forming continuous massing elements within the development. Although their floorplates exceed the preferred compact size, the design integrates material variation and articulation strategies to ensure a human-scaled experience at the pedestrian level.

Tower Separation & Placement

The Site, formerly used for industrial purposes, is designated for residential intensification and represents a unique opportunity to transition underutilized employment lands into a vibrant, mixed-use community. The adjacent context includes low-rise residential uses, industrial buildings, and institutional spaces, including the Woodside National Historic Site. The Site's perimeter arrangement of towers allows the tallest buildings to front inward to a shared central open space, while the shorter mid-rise forms interface with existing low-rise neighbourhoods.

Given this shift in land use designation and the evolving urban fabric surrounding the Site, tower placement has been approached with a "best-fit" lens, as supported by the guidelines. Rather than adhere rigidly to numeric separation formulas, the proposed design incorporates massing techniques, building articulation, and landscape buffers to soften visual impacts and ensure compatibility with adjacent land uses.

The guidelines require tower separation to be proportional to building height, calculated as (Tower Length × Height) ÷ 200

Tower	Separation per guidelines (required)	Proposed Separation
Tower A to internal side yard	12.84	4.5
Tower B to internal side yard	12.84	4.5 to 10
Tower C to internal side yard abutting Knights of Columbus + House of Friendship	12.84	6.5
Tower D1 to rear yard	18.66	10
Tower D2 to rear yard	15.55	10+
Tower E1 to rear yard	15.55	10
Tower E2 to rear yard	18.66	10
Tower F	Does not have a base or a tower. It's one continuous building.	
Tower G (L-shaped)	13.15	4.5 to 18
Tower G (L-shaped)	14.80	

While some of the proposed separation distances fall below the guideline requirements, the design includes several mitigation strategies that align with the quidelines' overall intent:

- Tower A partially exceeds the required guideline for separation distance. Towers B is slightly below guideline, mitigated through strategic placement and façade articulation. Tower C is below guideline, mitigated through step-backs and façade articulation to break down the perceived bulk of slab massing and reduce privacy concerns.
- Towers D1, D2, E1, and E2 are positioned adjacent to employment lands and natural buffers, where overlook and privacy concerns are less critical compared to residential interfaces.
- Buildings F and G, function as mid-rise slab forms and interface with deep residential lots to the west. These dwellings inherently provide a buffer that lessens visual and privacy impacts. Further, the site's 12-metre grade drop from Lancaster Street to the east offers a natural transition between building scales.

Overlook

The guidelines aim to minimize direct sightlines between towers to ensure privacy, access to natural light, and comfortable sky views.

Tower	Proposed Separation Distance (m)	Acceptable Overlook %	Guideline Consideration
Tower A to B	20	30%	Exceeds guideline minimum separation, ensuring privacy and daylight access.
Tower A to G	24	30%	Exceeds guideline minimum separation, limiting direct visibility between units.
Tower E1 to D2	42	30%	Exceeds guideline minimum separation, ensuring no privacy concerns.
Tower E1 to E2	18.5	30%	Moderate overlook potential, mitigated through articulation and step-backs.
Tower D1 to D2	18.5	30%	Moderate overlook potential, mitigated through articulation and step-backs.
Tower F to G	18	30%	Moderate overlook potential, mitigated through articulation and step-backs.
Tower C	Not adjacent to any tower	30%	No overlook concerns due to isolated placement.

- Towers A and B: The 20-metre distance between Towers A and B meets guideline expectations for mid-rise buildings. The orientation and articulation of the façades ensure that privacy is maintained and that overlook concerns are minimized.
- Tower A to Tower G: At 24 metres, the spacing between Tower A and Tower G is generous, providing a comfortable buffer to limit direct visibility between units. The placement of balconies and glazing treatment reduces direct sightlines, reinforcing privacy.
- Towers E1 and D2: A 42-metre separation between Towers E1 and D2 far surpasses the minimum guideline requirements, ensuring that there are no direct overlook concerns. The increased spacing enhances sky views, daylight access, and privacy between these two towers.
- Buildings F and G: While the 18-metre separation is slightly below the ideal standard, the shorter façade orientation and articulation strategies effectively reduce direct overlook impacts.
- Tower C: Since Tower C is not adjacent to another tower, there are no direct overlook concerns for this building.

Skyline and Relative Height Variation

The City of Kitchener's Tall Building Urban Design Guidelines encourage height variation within multitower developments to create a visually dynamic skyline, support appropriate transitions to surrounding contexts, and enhance sky views and architectural distinction.

The Proposed Development incorporates intentional variation in building heights to reinforce a cohesive urban form and establish a legible hierarchy across the site:

- Towers A, B, C, F, and G are each 12 storeys, forming a consistent mid-rise edge along the site's western and southern perimeters. These buildings directly interface with existing low-rise residential dwellings and provide a sensitive transition in scale.
- Towers D1, D2, E1, and E2 are proposed at 30 and 36 storeys, situated toward the eastern portion of the site. Their placement adjacent to the former employment lands and decommissioned rail corridor leverages the site's depth and separation from lower-scale development to accommodate additional height,
- The site's overall height strategy transitions from taller buildings in the east to lower buildings in the west, aligning with the site's topography, minimizing visual impact on surrounding neighbourhoods, and enhancing compatibility with existing land uses.

This height distribution supports the creation of a distinct and varied skyline, reinforces the identity of the central open space, and aligns with the guideline's principles of relative height variation, context sensitivity, and design excellence.

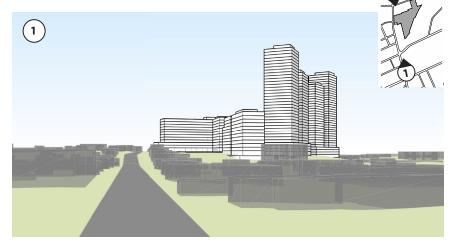


Fig.7: View from Lancaster Street, looking north

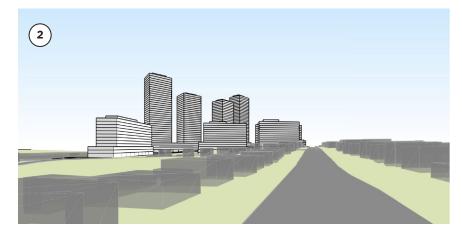


Fig.8: View from Lancaster Street, looking south

5.3 Vehicular Access and Circulation

Inclusive Design - CW Site Function - CW Street Design - CW | TB Streets & Open Space - TB

The primary vehicular access points are located along Lancaster Street West and Guelph Street, providing direct access to the internal circulation network. These access points facilitate smooth ingress and egress. while ensuring logical and intuitive site navigation. Internal streets and driveways are designed to accommodate service vehicles, emergency access, and resident parking needs without disrupting pedestrian flow.

A looped private street network serves the development, allowing efficient vehicular circulation and drop-off areas near building entrances. This configuration reduces congestion and enhances wayfinding within the site. The internal roadways are designed with pedestrian-friendly measures, including clearly marked crossings, wide sidewalks, and landscaping buffers, promoting a safe and accessible streetscape.

5.4 Pedestrian Access and Circulation

Inclusive Design - CW Site Function - CW Street Design - CW | TB Streets & Open Space - TB

The main pedestrian promenade runs east-west, serving as the central circulation spine of the development. This dedicated pathway establishes strong connections between key destinations. including residential buildings, commercial spaces, and open areas, facilitating seamless pedestrian movement throughout the site. The promenade is designed to be wide and well-landscaped, creating an inviting and comfortable pedestrian experience while ensuring accessibility for all users.

The circulation network provides direct access to Lancaster Street and Guelph Street, improving connectivity to public transit stops and nearby community amenities. Pedestrian pathways are strategically placed to minimize conflicts with vehicular traffic, with crosswalks and pedestrianfriendly street designs enhancing safety and visibility, particularly at key intersections.

For cyclists, access is integrated through the internal street network and walkways, promoting active transportation options. Short-term visitor bicycle parking (Class B) is proposed around building entrances and lobbies, ensuring convenient access for guests. Long-term bicycle storage rooms (Class A) for residents are incorporated into the base of each



building, providing secure and weather-protected facilities to encourage cycling as a primary mode of transportation.

At the detailed Site Plan Approval stage, additional design refinements will ensure that pedestrian movements remain safe and comfortable. Walkways will be designed to meet universal accessibility standards, with distinguished crossings that enhance safety and wayfinding. Emergency signage, lighting, and infrastructure elements will be further developed to maintain a safe and well-lit environment, particularly in high-traffic pedestrian areas. The design approach emphasizes a high-quality, pedestrianoriented streetscape, reinforcing the development's commitment to creating a walkable, accessible, and transit-supportive community.

5.5 Parking, Loading and Service Areas

Site Function - CW **Environment - TB**

The development includes structured parking and surface parking areas that are strategically positioned to minimize visual impacts and improve site functionality. Parking is primarily accommodated within underground and structured facilities, reducing surface-level congestion and maintaining a highquality public realm.

Service and loading areas are located at the rear or side of buildings, ensuring that they do not interfere with primary pedestrian zones.

Visitor parking is distributed throughout the site, conveniently positioned near building entrances and open spaces to enhance accessibility.

5.6 Building Materials and Articulation

Design for Outdoor Comfort - CW Cultural & Natural Heritage - CW | TB Compatibility - CW | TB Built Form - CW | TB

While detailed building elevations and final material specifications will be determined through future Site Plan Approval stages, the conceptual design package establishes a clear intent to apply highquality materials, thoughtful articulation, and a refined architectural expression that supports compatibility, visual interest, and pedestrian comfort.

Design Intent

The conceptual references illustrate a commitment to:

- Clear articulation between podium and tower elements, with massing strategies that define a strong street edge while minimizing visual bulk;
- Use of contrasting materials to differentiate building components, emphasize entrances, and highlight corners or transitions;
- Human-scaled podiums designed with material treatments that respond to the pedestrian environment and surrounding context:
- A mix of vertical and horizontal rhythms, balconies, and inset planes to enhance architectural variety and reduce the perceived scale of larger buildings.

Podium Expression

The base buildings are envisioned to incorporate visually grounded materials such as masonry, brick, or precast panels—drawing inspiration from local built form precedents and referencing the site's industrial legacy. These materials are intended to provide:

- A sense of durability and permanence;
- Warmth and tactility at the pedestrian level:
- Compatibility with the adjacent low-rise residential context.

Tower Massing and Finish

Towers are generally expressed with lighter and more transparent materials, including glazing and modern cladding systems. These elements support:

- A visually lighter upper mass;
- Improved daylight access and sky views;
- A distinct skyline profile consistent with the guidelines for tall buildings.

Compatibility and Transition

Material strategies and articulation are expected to reinforce the development's sensitive transition to adjacent uses, particularly the low-rise residential neighbourhoods to the west and south, and the Woodside National Historic Site to the southeast. Variations in material tone, texture, and depth will help soften the interface and frame the open spaces within the site.

5.6 Landscape Design and Amenity Areas

Inclusive Design - CW | DT Street Design - CW | TB Streets & Open Space - TB

The design of open spaces is inspired by successful urban environments that prioritize communal gathering, recreation, and urban ecology. As seen in Skeena Terrace and Earls Court, London, the integration of plazas, open green spaces, and market areas creates active, engaging, and inclusive environments. The Proposed Development follows these principles by incorporating a pedestrian promenade, green courtyards, and flexible communal spaces that serve both residents and visitors.

The Proposed Development provides 21,345 square metres of landscaped open space, accounting for approximately 46% of the site area, significantly exceeding the City's minimum requirement. This reflects a strong commitment to a green and integrated site design.

Key landscape elements include:

- Street-facing landscaped setbacks to soften the built edge and enhance pedestrian comfort;
- A central courtyard, serving as the heart of the development, surrounded by residential buildings and activated by adjacent lobbies, amenity spaces, and pathways:
- A pedestrian promenade that runs east-west through the site, linking Lancaster Street West

and Guelph Street, improving connectivity and walkability;

 A landscaped internal streetscape featuring street trees, lighting, and seating areas to support comfort, safety, and accessibility.

These spaces create a layered public-realm experience that prioritizes pedestrian movement. social interaction, and visual quality.

Amenity Areas and Programmed Spaces

The concept includes a diverse mix of indoor and outdoor amenity spaces designed to support a range of uses and resident needs. While detailed programming will be refined at later stages, the design intent includes:

- Green courtyards and the central landscaped courtyard for passive recreation and informal gatherings;
- Children's play areas, lawn zones, and seating pockets for users of all ages;
- Rooftop terraces or podium-level shared outdoor spaces, where appropriate, offering access to sun, fresh air, and views:
- Indoor amenity rooms located near primary building entrances and connected to outdoor spaces for flexible, year-round use.

These areas will be universally accessible and designed to foster an inclusive and socially engaging environment.

5.8 Sustainable Design

Design for Sustainability - CW Environment - TB

The Proposed Development is guided by principles of environmental responsibility, energy efficiency, and long-term resilience, aligning with the City of Kitchener's Official Plan and Urban Design Manual objectives for sustainable urban growth. While detailed sustainability measures will be further refined at the Site Plan Approval stage, the conceptual design reflects a commitment to creating a compact, walkable, and transit-oriented community that minimizes environmental impact.

Compact Urban Form and Active Transportation

- The redevelopment of a former industrial site into a high-density, mixed-use neighbourhood supports the City's goals for intensification within the Built-Up Area.
- The site's proximity to transit (including a planned transit corridor along Lancaster Street West) and integration of pedestrian and cycling infrastructure encourages a shift away from car dependency, contributing to a more sustainable transportation pattern.
- Internal walkways, bike parking, and a continuous pedestrian promenade promote walkability and active mobility throughout the site.

Energy and Climate Resilience

• All buildings are anticipated to incorporate

- energy-efficient design features, including highperformance glazing, modern HVAC systems, and thermally efficient building envelopes.
- The potential for green or reflective roofs, where appropriate, can reduce the urban heat island effect and support rooftop amenity areas.
- The use of underground and structured parking limits the extent of paved surface area, reducing heat absorption and allowing for increased landscaping.

Landscape and Low Impact Development

- The proposed landscape design includes opportunities for low-impact development (LID) strategies, such as permeable paving, infiltration zones, and native plantings that reduce irrigation demand and improve stormwater management.
- The inclusion of shade trees, green buffers, and a large landscaped courtyard enhances local microclimatic conditions and encourages yearround outdoor use.

Material Selection and Waste Reduction

- While detailed material specifications will be confirmed at later design stages, the intent is to use durable, low-maintenance, and regionally appropriate materials to reduce lifecycle impacts.
- Waste management infrastructure will be integrated into the site to support diversion of recyclables and organics, aligning with local and regional waste reduction goals.

5.9 Microclimatic Impact Analysis

Design for Sustainability - CW Environment - TB

5.9.1 Shadow Analysis

A comprehensive shadow study was conducted for the Proposed Development, in accordance with the City of Kitchener's Terms of Reference for Sun & Shadow Studies. The objective of the study is to evaluate the potential impacts of the proposed high-rise and mid-rise built form on adjacent streets, low-rise residential areas, parks, and open spaces, and to confirm that adequate access to sunlight is maintained during key periods of the year.

Methodology

The shadow study was completed using a geolocated 3D massing model based on the proposed development scheme. Shadows were assessed for the following dates and hourly intervals, as required by City policy:

- March 21 and September 21: hourly from 8:00 a.m. to 7:00 p.m. (Equinox conditions)
- June 21: hourly from 8:00 a.m. to 8:00 p.m. (Summer solstice)
- December 21: hourly from 9:00 a.m. to 7:00 p.m. (Winter solstice)

The model includes existing surrounding buildings, approved developments (where known), and the proposed massing including mechanical penthouses.

Key Findings

March 21 / September 21 (Equinox Conditions):

Shadows move steadily across the site and surrounding areas throughout the day. Adjacent low-rise residential properties to the west and southwest receive at least 5 cumulative hours of direct sunlight, consistent with the City's shadow policies. Sidewalks along Lancaster Street West and Guelph Street remain partially sunlit during peak daytime hours.

June 21 (Summer Solstice):

The longer daylight hours result in minimal shadow impacts. The majority of adjacent public and private open spaces, including Woodside National Historic Site and Guelph Street Park, receive full sun exposure for the majority of the day. Shadows are shortest and shift rapidly, limiting duration of any single impact area.

December 21 (Winter Solstice):

As expected, shadows are longest on this date. However, impacts are generally limited to the early morning and late afternoon hours. Due to the low angle of the sun, temporary shadowing does occur on portions of adjacent properties, but is consistent with expectations for higher-density urban developments and is not considered undue.

Assessment

The Proposed Development respects the City's Urban Design Manual policy 11.C.1.31, which requires at least 5 hours of cumulative sunlight on adjacent sidewalks and low-rise residential properties during equinox conditions. The central courtyard and other communal open spaces within the site receive adequate sunlight throughout the day, supporting their usability for residents.

The study confirms that shadow impacts have been mitigated through tower placement, slender floorplates, and the overall site design, which maintains reasonable separation distances and transitions in height toward lower-density areas.

6. CONCLUSION

The Proposed Development is a comprehensive, multibuilding residential redevelopment that transforms a long-standing industrial site into a vibrant, transit-supportive, high-density community. This Urban Design Brief is submitted as part of the complete application for the proposed Official Plan Amendment and Zoning By-law Amendment and responds directly to the City of Kitchener's Official Plan policies and Urban Design Manual guidance, including the Tall Building Design Guidelines.

In summary, the proposed design:

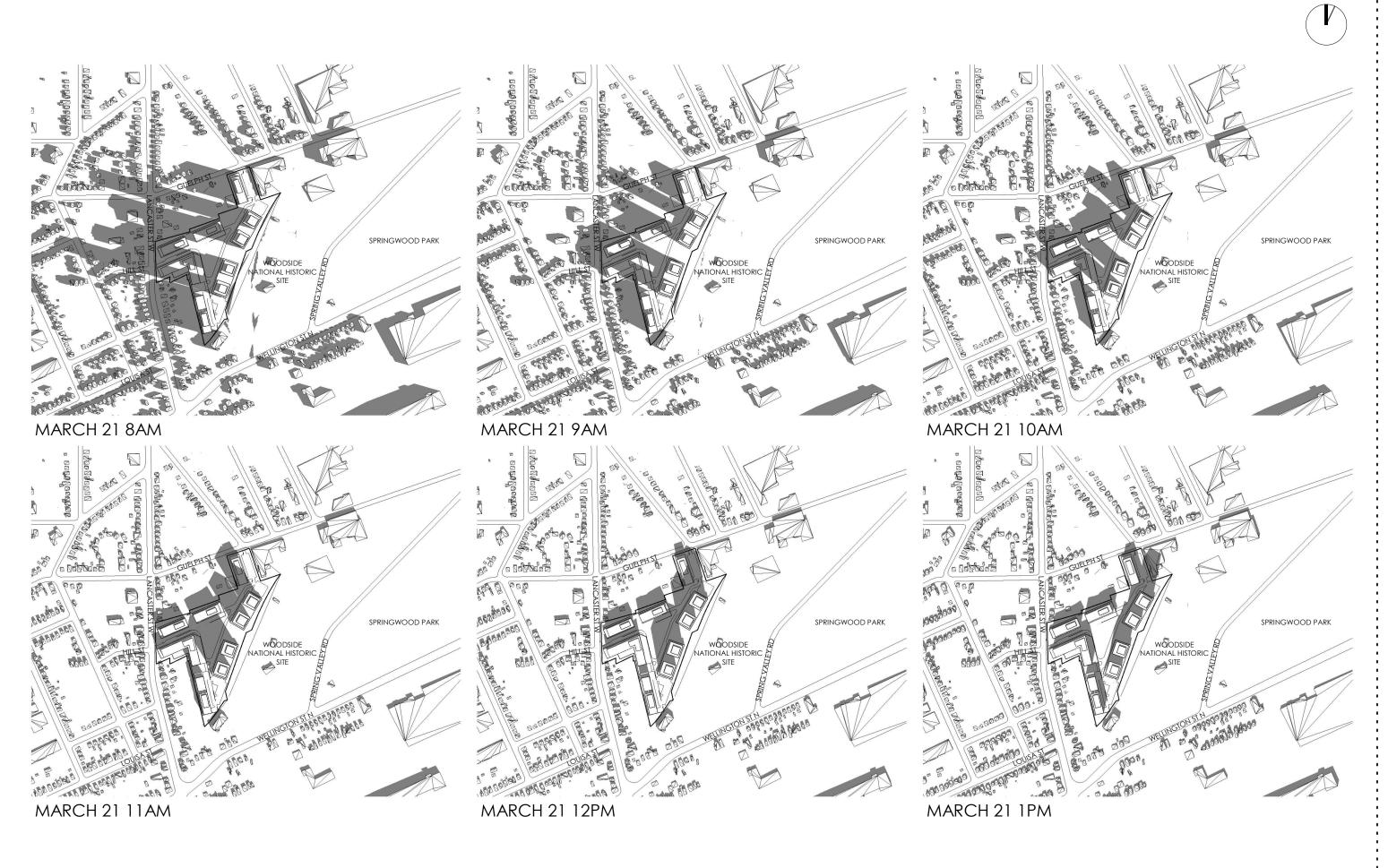
- Transitions the site from its legacy industrial use into a complete residential community anchored by nine high-rise and mid-rise buildings;
- Frames a large, central landscaped courtyard with a perimeter block of buildings to support community identity and reinforce a pedestrian-oriented development structure;
- Establishes a clear height and massing strategy, with taller towers oriented inward and lower buildings addressing the surrounding low-rise residential and heritage context;
- Integrates active transportation connections and direct access to existing and planned Grand River Transit routes along Lancaster Street West;
- Incorporates a generous 46% landscaped open

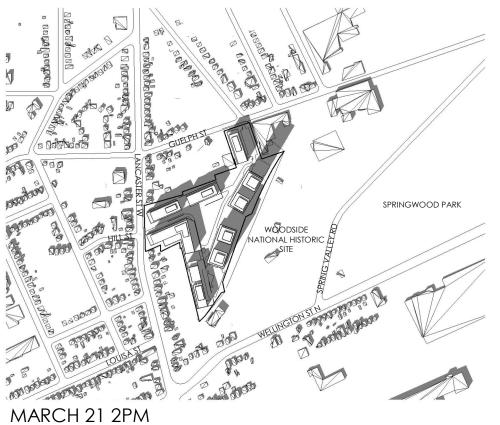
space, exceeding minimum City requirements, with tree-lined streetscapes, courtyards, and promenade connections;

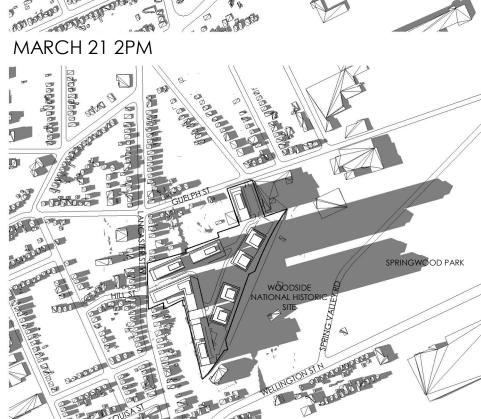
- Aligns with the City's compact urban form objectives, emphasizing walkability, amenity-rich design, and sustainable development practices;
- Places service, loading, and most parking functions underground or internal to podiums, reducing visual impact and supporting a high-quality public realm;
- Provides a diverse mix of unit types and built form to accommodate a range of households and promote long-term housing choice within the North Ward neighbourhood;
- Demonstrates compatibility through tower separation, built form articulation, and transition strategies, consistent with the City's Tall Building Guidelines.

The design of the Proposed Development has been carefully considered and refined to align with the intent and layered policy direction of the City of Kitchener's Official Plan and Urban Design Manual. Based on this assessment, the Urban Design Brief concludes that the proposal represents good urban design and contributes positively to the transformation of this key site into a livable, connected, and resilient urban community.

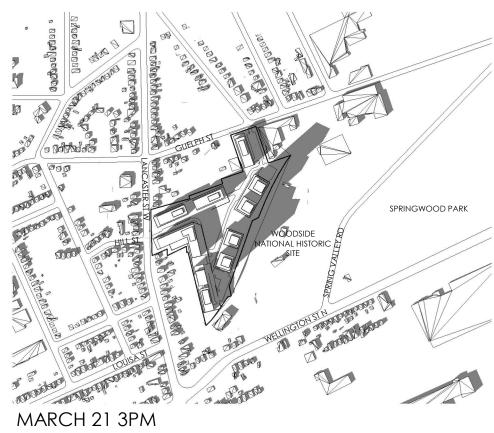
APPENDIX A - SHADOW STUDY

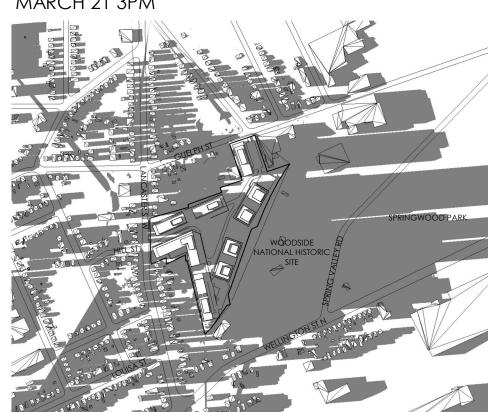




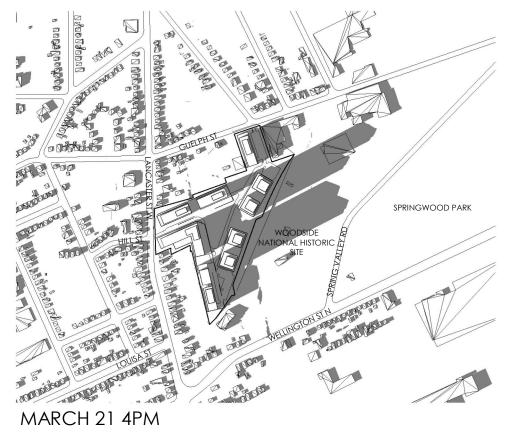


MARCH 21 5PM



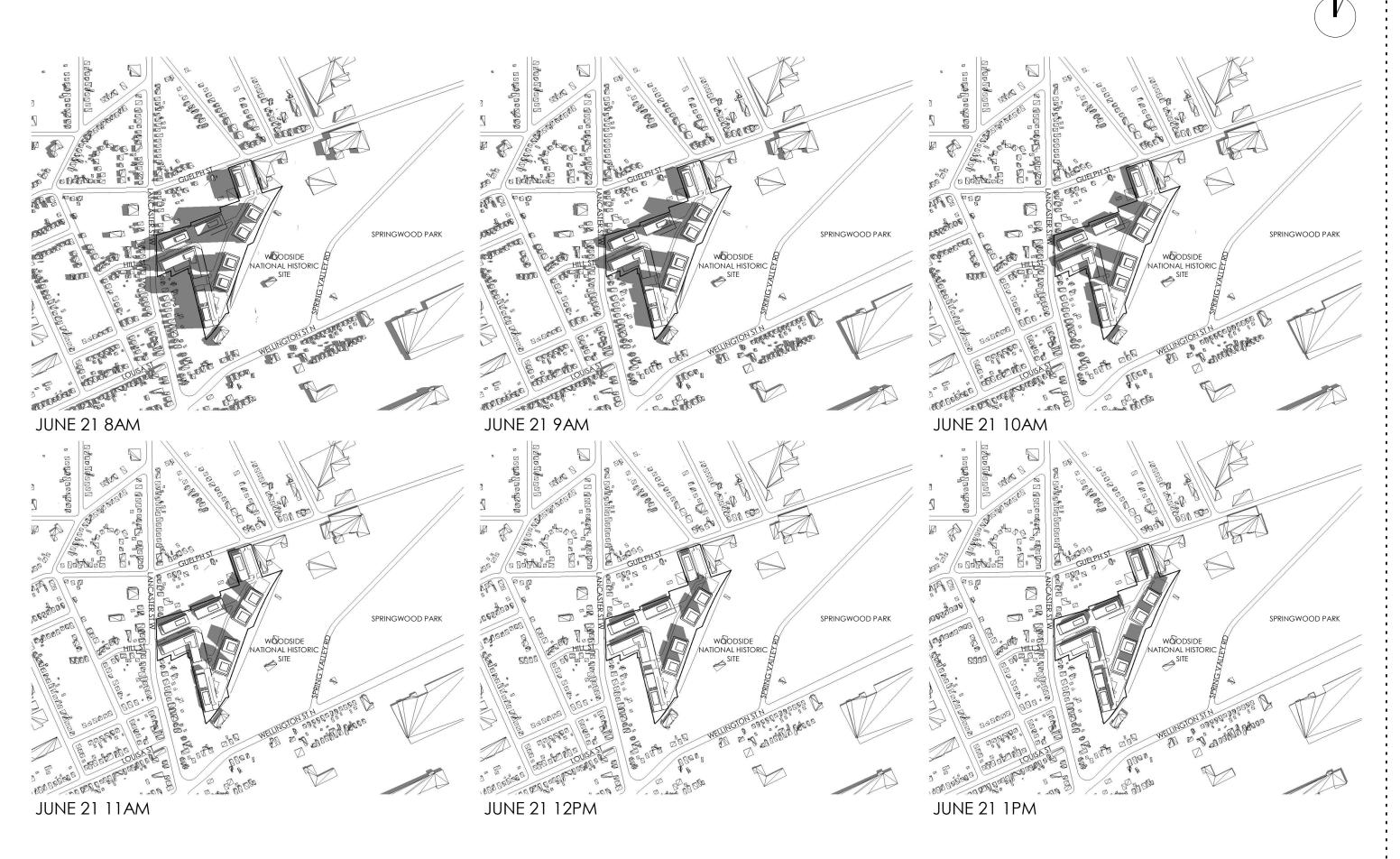


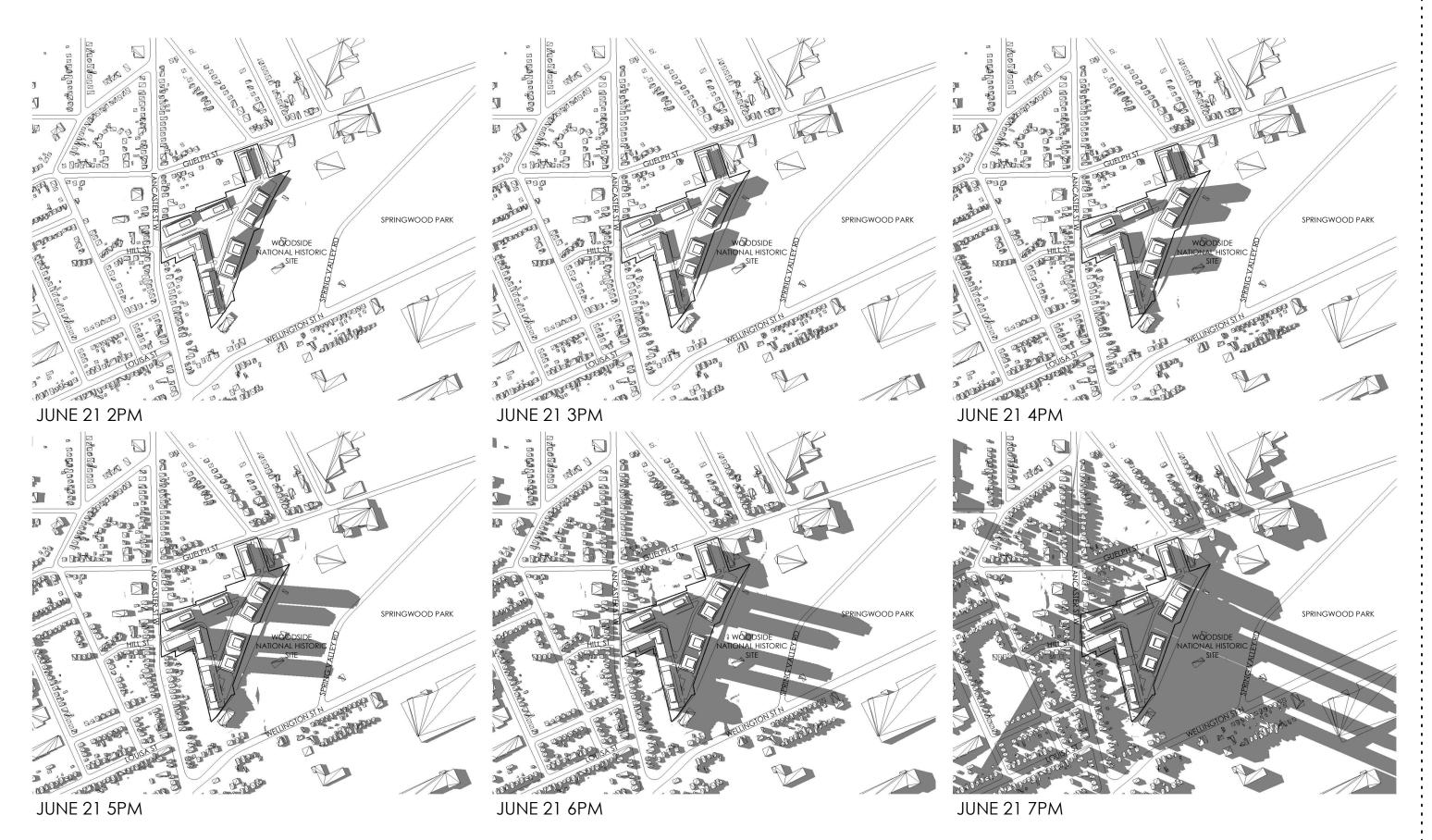
MARCH 21 6PM





MARCH 21 7PM

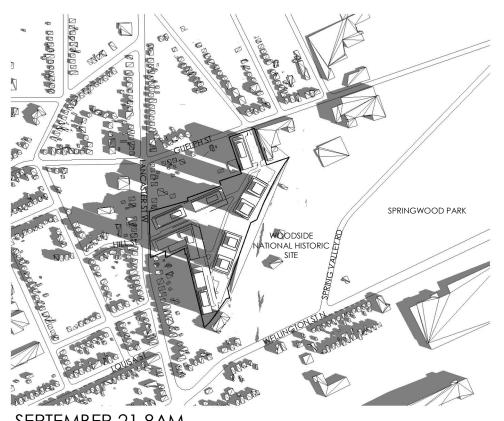


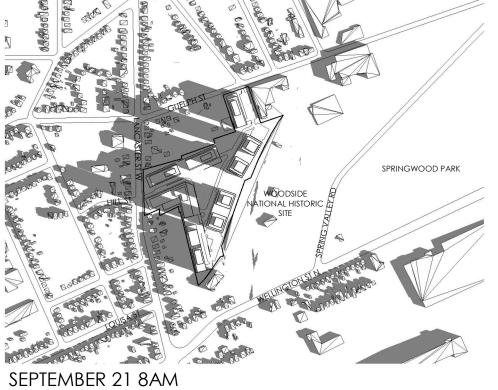


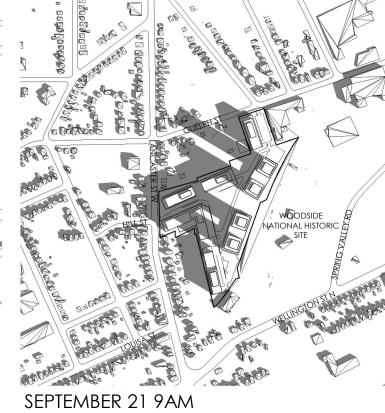




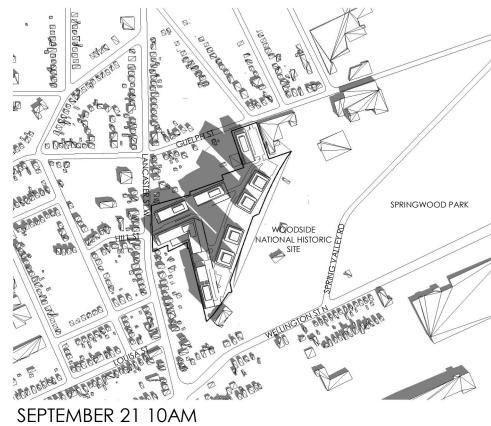
JUNE 21 8PM

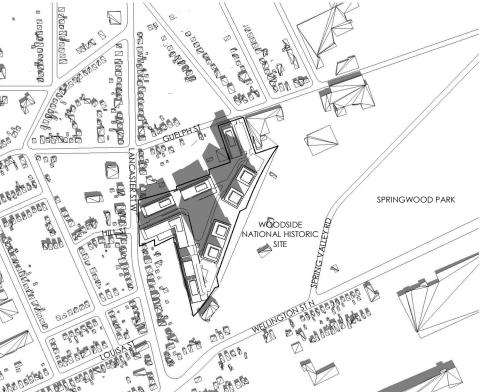




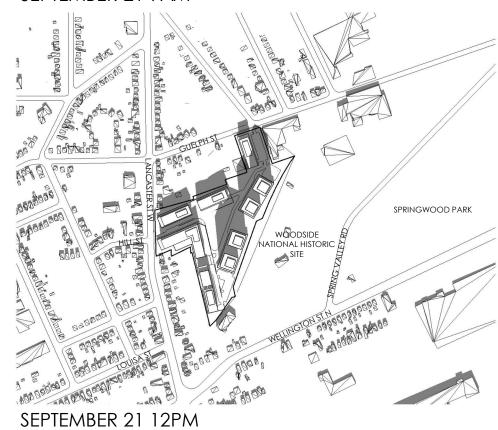


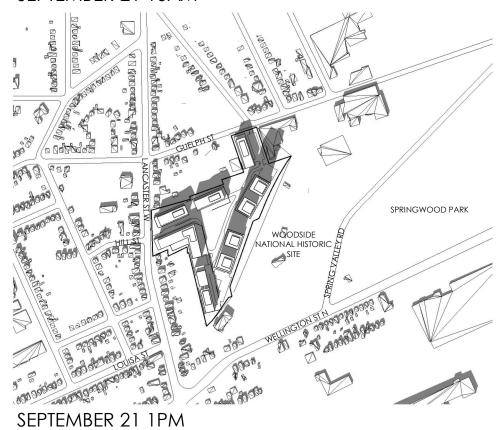
SPRINGWOOD PARK

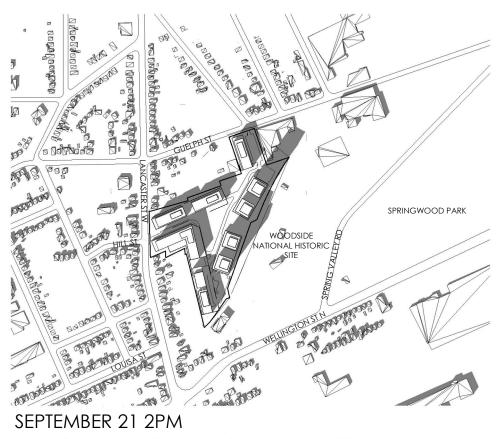


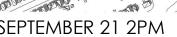


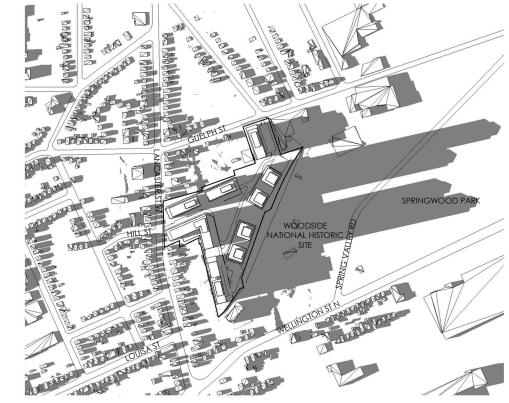
SEPTEMBER 21 11AM



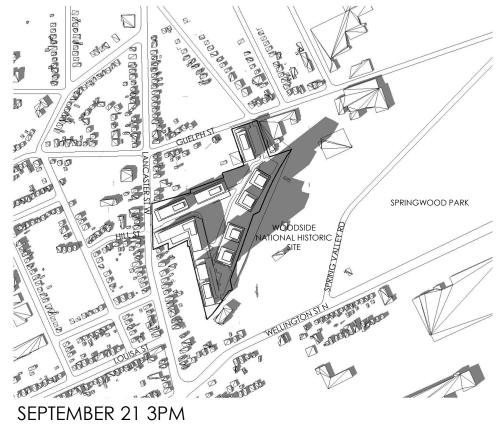






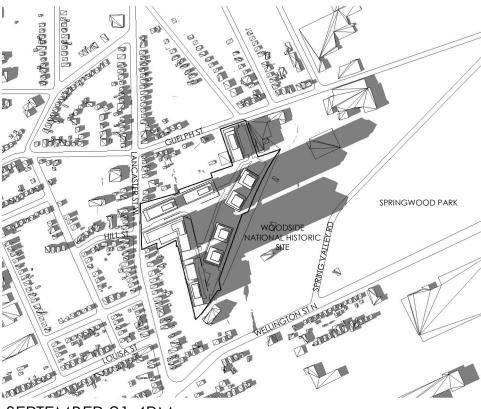


SEPTEMBER 21 5PM

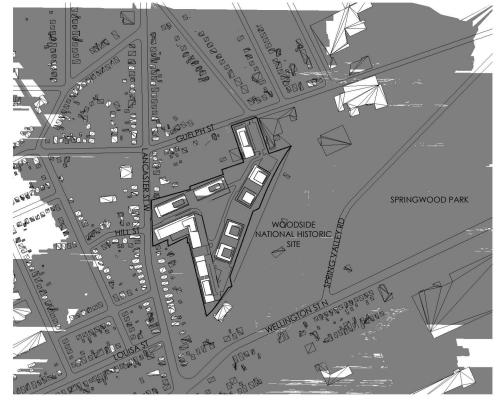




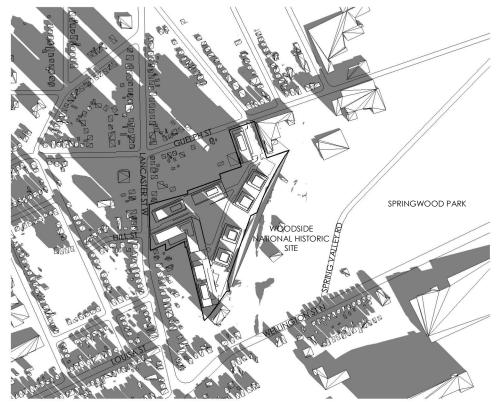
SEPTEMBER 21 6PM



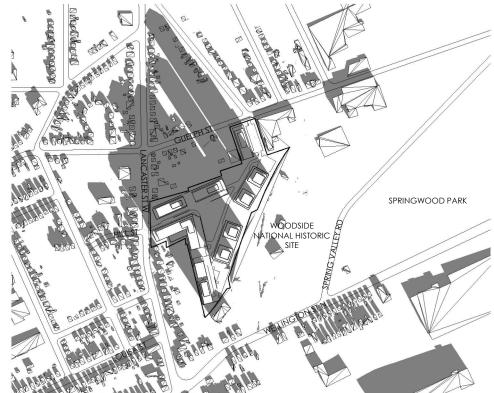
SEPTEMBER 21 4PM

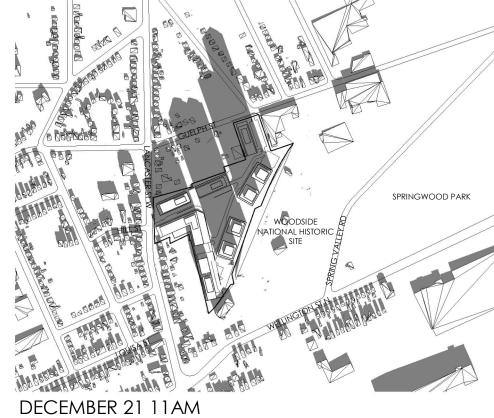


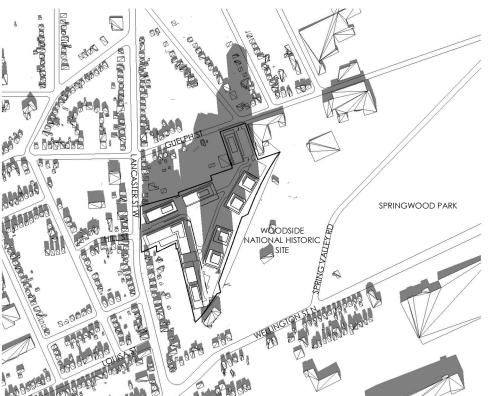
SEPTEMBER 21 7PM





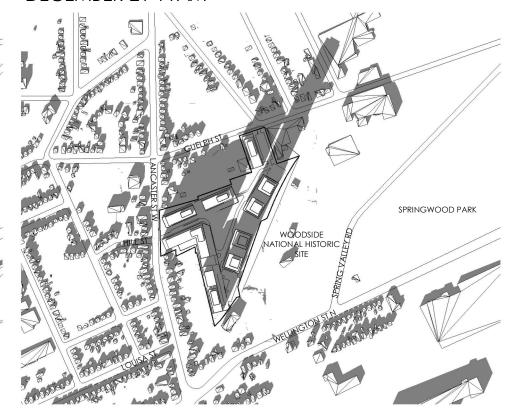




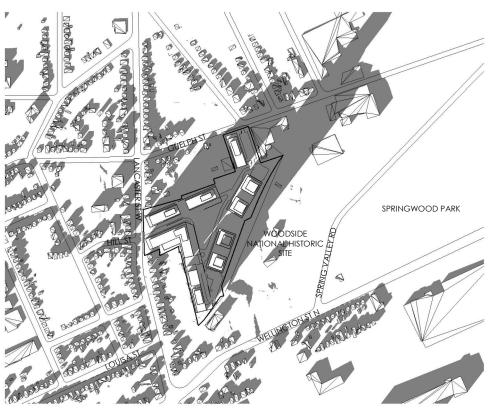


DECEMBER 21 12PM

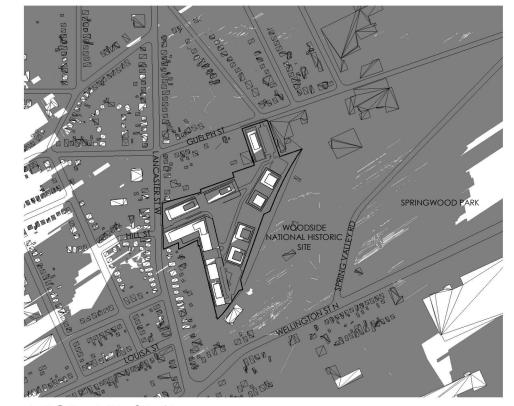




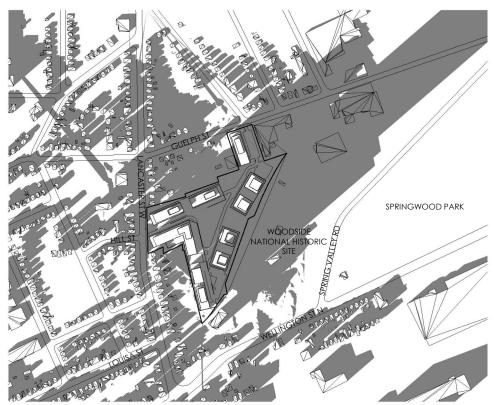
DECEMBER 21 2PM



DECEMBER 21 3PM



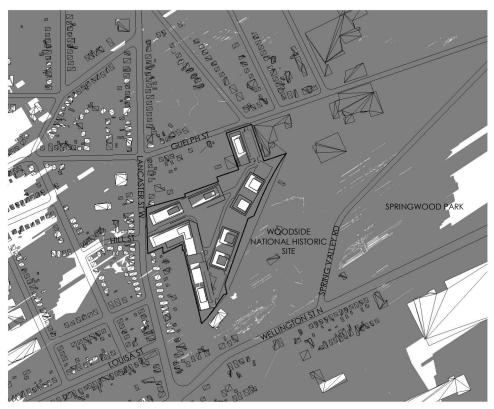
DECEMBER 21 6PM



DECEMBER 21 4PM



DECEMBER 21 7PM



DECEMBER 21 5PM