

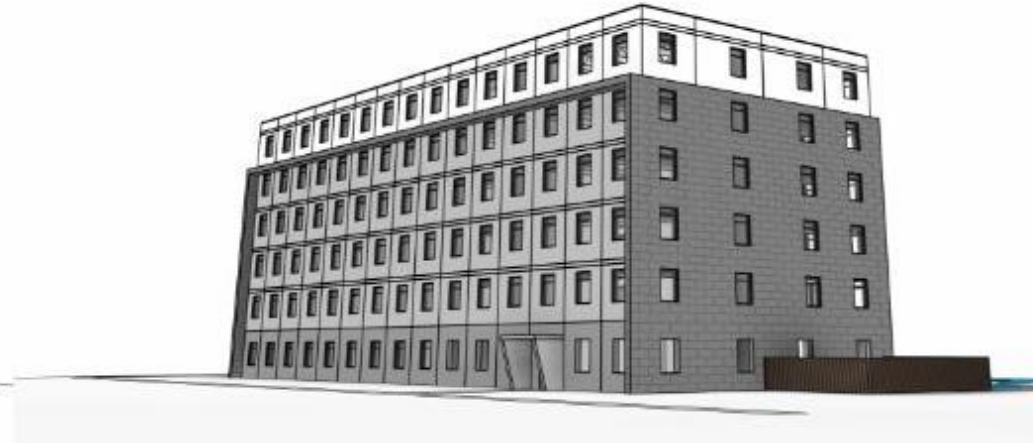


URBAN DESIGN BRIEF

303-317 Speedvale Avenue East
Guelph, ON

PROPOSED OFFICIAL PLAN & ZONING BYLAW APPROVAL
TO PERMIT A 6 STOREY RESIDENTIAL APARTMENT BUILDING

February 2024



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INTRODUCTION

Strik Baldinelli Moniz (SBM) Ltd. Has been retained by Habitat for Humanity (Guelph-Wellington) to prepare the necessary Planning Act applications for their landholdings, municipally addressed 303-317 Speedvale Avenue East, Guelph (hereafter referred to as the “Subject Site”). The Official Plan & Zoning By-law Amendment. The proposed development would consist of a 6-storey apartment building with 48 units and 48 spaces of both surface and internal parking spaces.

This Urban Design Brief has been prepared in accordance with the City of Guelph’s Urban Design Brief Terms of Reference to provide a detailed explanation of how the forthcoming Official Plan Amendment (OPA), Zoning Bylaw Amendment (ZBA), and Site Plan Approval (SPA) applications to permit a proposed mid-rise apartment development for affordable housing, will fit into the overall context of the community and how the community at large will benefit from the development.

PART 1

1.1 PHYSICAL CONTEXT

1.1.1 SITE DEFINITION

The subject site is located along Speedvale Avenue East on the southwest intersection of Speedvale Avenue East and Manhattan Court (see **Figure 1**). The subject site consists of two rectangular parcels of land, approximately 2,469.1m² in area. Presently, there are three buildings on the site, including: two single detached residential buildings addressed at #303 & #309 and a 2.5-storey professional office / clinic building addressed at #317. The proposed development of a 6-storey residential apartment building containing 48 apartment dwelling units is further detailed in Part 2 of this report.



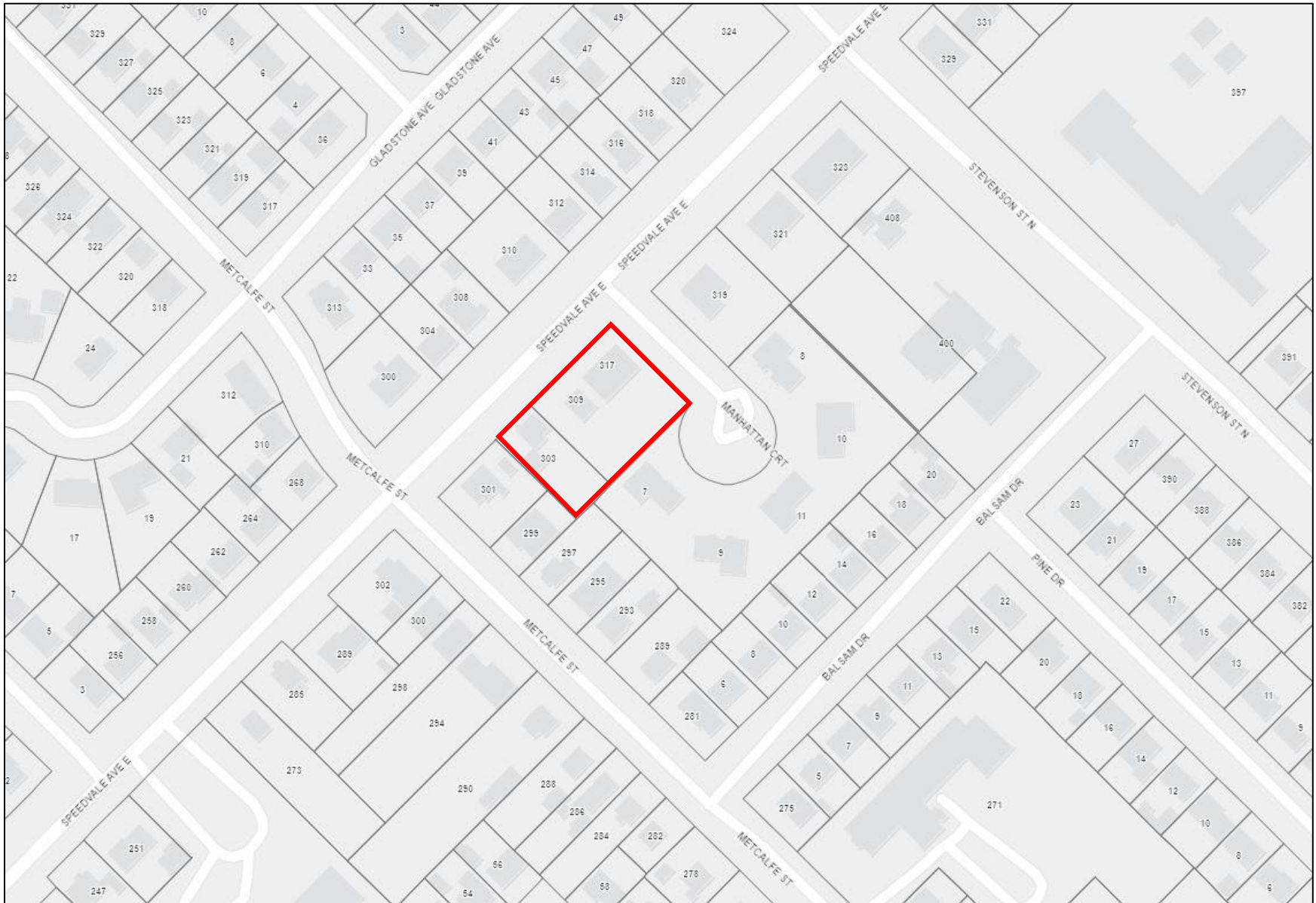


Figure 1. Location of Subject Site
Source: City of Guelph Online Mapping

1.1.2 ON SITE ATTRIBUTES

The subject site is comprised of two existing parcels of land and as outlined above, presently contains three buildings including two single detached residential buildings and a professional office / clinic building. The three existing buildings are setback approximately 6-8m from the right of way, consistent with the existing street wall along Speedvale Ave. E. The remainder of the 309 & 317 parcel (to the rear of the existing buildings) contains a surface parking lot. Finally, there are two vehicle accesses from the existing parking lot, one to Speedvale Ave. E. and one to Manhattan Crt. The single detached dwelling at 303 Speedvale Ave. E. also currently has driveway access to Speedvale Ave. E. see **Figure 2** and **Figure 3**.

Generally, the subject site (across both parcels) is level decreasing in elevations from Speedvale toward the rear of the site. A man-made mound at the front of the professional office building creates a relief in elevation that conceals the basement units of the building from the public view on Speedvale Ave. E. The existing parking lot is located approximately 1.1m from the property line and contains two rows of parking and one central drive aisle (see **Figure 4**) providing access and parking to both existing buildings and turning to connect to Speedvale Ave. E. There is also an existing mature tree on the adjacent property, centrally located along the shared lot line, which would be retained.



Figure 2. Oblique aerial view, looking south at 303, 309, and 317 Speedvale Avenue East Source: Google Earth

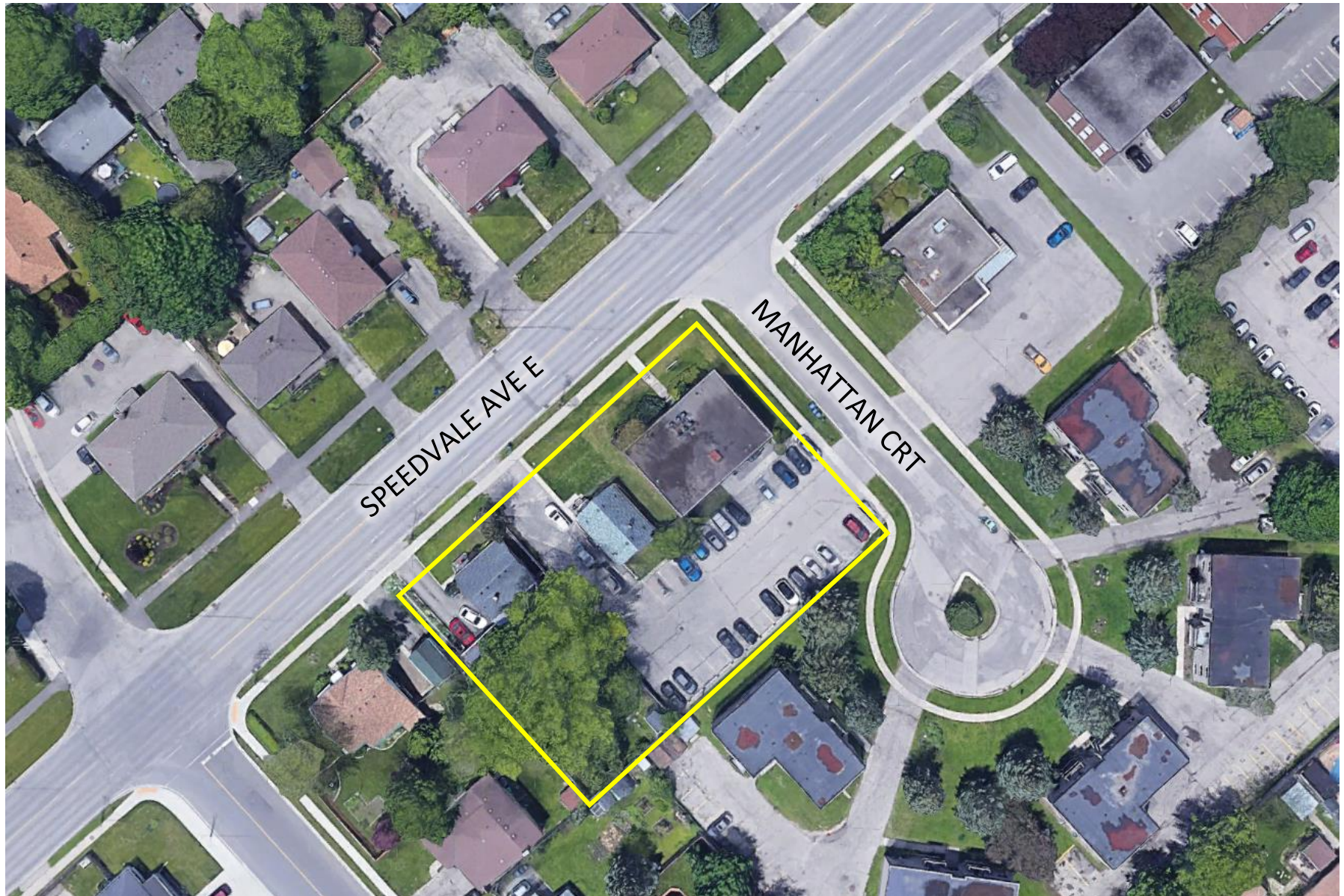


Figure 3. Aerial Image of the Subject Property
Source: Google Earth



Figure 4. View of existing surface Parking Lot.



Figure 5. View of Subject site from Speedvale Ave. E

1.1.3 THE SITE IN CONTEXT

Gateways:

The subject site is not considered a gateway corridor into the city of Guelph, nor is there an existing major or minor gateway in proximity to the subject site. Gateway design principles are not considered for this site.

Street Network and Urban Pattern:

The city of Guelph is primarily designed as a grid pattern of major roads (collectors and arterials) running north/south and east/west. Many other smaller local roads interconnect these major roads. The subject site is located along the south side of Speedvale Avenue East, identified as an arterial road on Schedule 5 'Road & Rail Network' of the City of Guelph Official Plan. Arterial roads are intended to accommodate large volumes of traffic, transit, and people through the city.

The subject site is also provided frontage along Manhattan Court, identified as a local road, which terminates via cul-de-sac to the south of the site accommodating no through traffic.

The proposed development does not change the existing street network and is an addition to the existing urban pattern.

Public Views and Vistas:

There are no public views or vistas on the subject site to be protected or enhanced.

Surrounding Land Uses:

The surrounding land uses consist of low-density residential uses (single family dwellings) located to the west along Metcalfe Street and north of Speedvale Avenue East (**Figure 6**). Medium density residential uses in the form of 2- and 3-storey residential apartment buildings to the east and south of the site.

The École Edward Johnson Public School is located 200m to the east of the subject site as well as the Speedvale Centre Commercial Plaza offering a grocery store, shopping, restaurants, convenience, and personal service uses.



Figure 6. Medium Density Residential uses, looking north of Speedvale Avenue East.
Source: Google Streetview

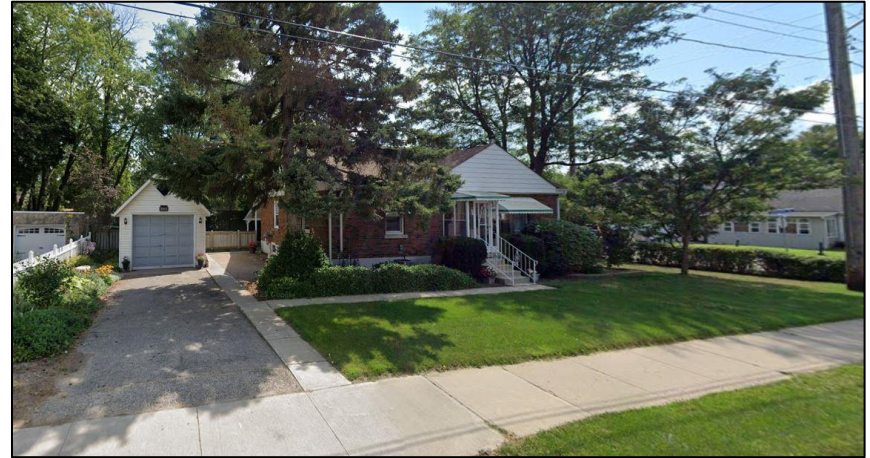


Figure 8. Residential dwellings adjacent to the west property line
Source: Google Streetview

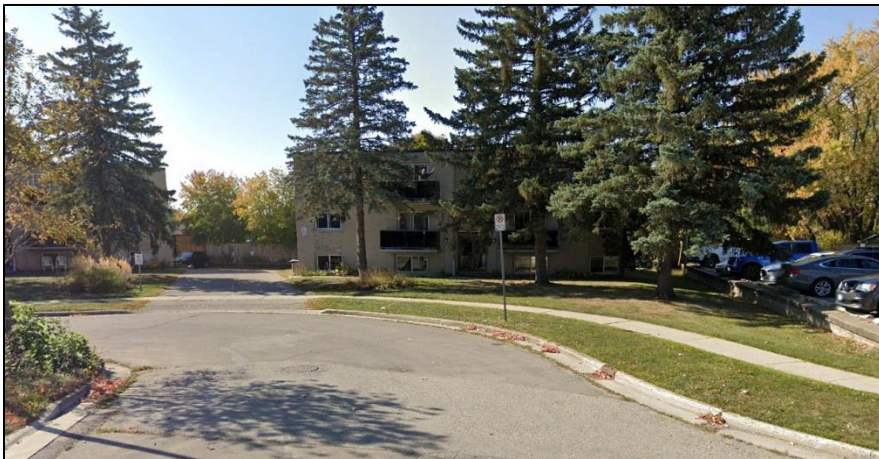


Figure 7. Medium Density Residential uses, south of subject site
Source: Google Streetview



Figure 9. Residential dwellings adjacent to the west property line
Source: Google Streetview

Barriers and Potential Connections:

There are no existing barriers to the Subject Site.

No new municipal streets or internal roads are proposed as a part of this application. The proposed development will have one vehicle access onto Manhattan Crt., matching an existing condition, and all existing connections (driveways) to Speedvale Ave. E. will be removed with no new vehicle connections to Speedvale Ave. E. Increased pedestrian connections are proposed to both Speedvale Ave. E. and Manhattan Crt. to promote active and connected streetscapes and promote interaction within the Public Realm.

Roads and Vehicular Traffic:

Speedvale Avenue East and West. (generally) runs east-west across the entire City of Guelph. Speedvale Ave. E. is classified as an arterial road in Schedule 5 of the City of Guelph Official Plan. A required road widening of 2.18m is being applied to Speedvale Ave. E. frontage along the Subject site.

Manhattan Crt. is a small cul-de-sac road running north-south from Speedvale Ave. E. to just south of the Subject site, providing vehicle access for the subject site, the multiple 3-storey apartment residential buildings, and a commercial building.

The nearest north-south routes to the Subject site are Metcalfe St. (running from Waverly Drive to Grange Street) which is designated as a collector in the Guelph Official Plan, and Stevenson St. N. (running from Waverly Drive to York Road) which is an arterial as identified in the Official Plan.

Transit Network:

The subject site is located on existing transit Route 12 – Delhi (connecting Guelph Central Station, Guelph General Hospital, Homewood Health Centre,

Speedvale Plaza, and the intersection of Victoria Rd. N. at Woodlawn Rd. E. running every 30 minutes starting around 6am and ending around 12:30am Monday to Saturday, and every 30 minutes from 9:20am until 7:00pm Sundays) and existing transit stops. The closest stop is located approximately 100m away on the northwest corner of the Metcalfe and Speedvale Ave. E. intersection (transit stop number 1219). Another stop is located approximately 200m away on the south side of Speedvale Ave. E. east of Stevenson St. N (transit stop number 1209).

Active Transportation:

The existing active transportation network consists of existing municipal sidewalks on both sides of Speedvale Ave. E. The existing municipal sidewalks connect further to existing municipal park and trail systems, as further outlined below.

Bike lanes are also provided along Speedvale Avenue East, with eastbound paths beginning, and westbound paths ending at Manhattan Court. Further widening and improvements of Speedvale Avenue East anticipate extension of the cycling infrastructure.

Open Space Systems:

While the subject site is not bound or adjacent to any Open Spaces or trail systems, the site is located approximately 800m (10 to 15 minute walking distance) to Riverside Park. This park provides a unique mixture of available public use features including access to the Speed River Trail (**Figure 10**), Playground equipment, and the Riverside Park Disc Golf Course.

The Speed River Trail provides further alternative transportation opportunities towards both the downtown and to areas north of the city (including Guelph Lake).



Figure 10. Riverside Park and Speed River Trail at Speedvale Ave. E.

Source: Google Streetview

Heritage Elements:

There are no culturally significant heritage buildings, properties, or neighbourhoods under Part IV or Part V of the Ontario Heritage Act, nor any lands listed on the Heritage Registry, on the Subject site or any immediately neighbouring properties.

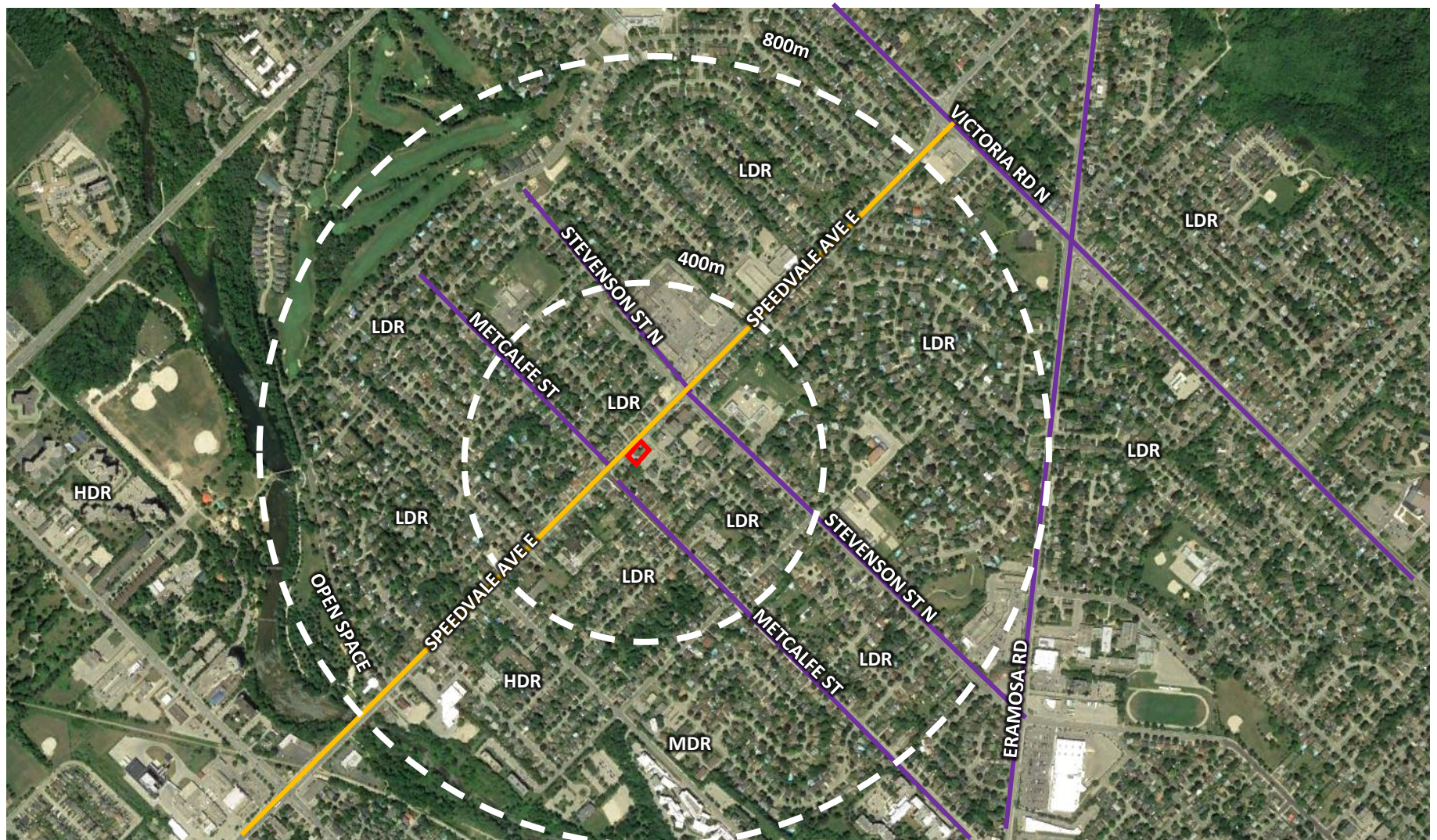


Figure 11. Spatial Analysis: 400m and 800m Radius
Source: Google Earth

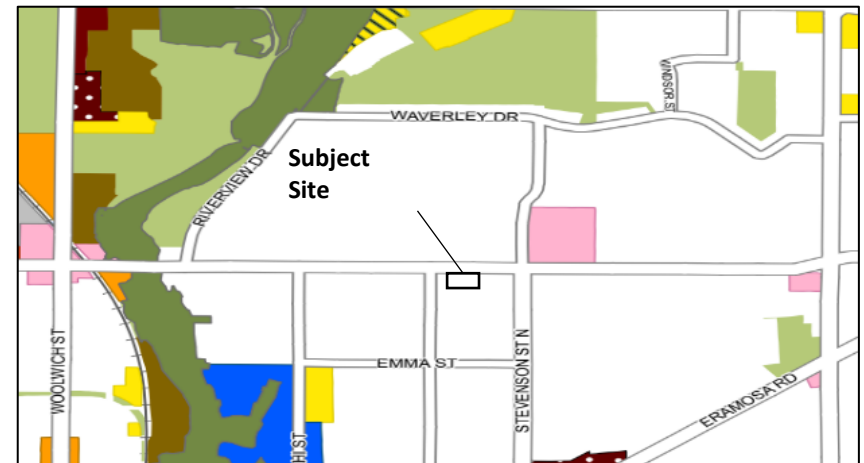
1.2 RESPONSE TO POLICY CONTEXT

1.2.1 CITY OF GUELPH OFFICIAL PLAN (2022 OFFICE CONSOLIDATION)

The City of Guelph Official Plan designates the subject lands for **Low Density Residential (LDR)**. The LDR designation permits low-rise residential buildings up to 3-storeys in height and maximum density of 35 units per hectare. Therefore, an Official Plan Amendment is required to re-designate the subject site to **High Density Residential (HDR)**, which permits residential apartment buildings up to 10-storeys in height and a maximum density of 150 units per hectare.

The subject site is located on an arterial road within the Built Area but is not located on an identified Intensification Corridor (Schedule 1); however, the site is serviced by bus transit (Route 12) and within walking distance of a large commercial plaza and elementary schools. Under the criteria of Intensification Corridors (Policy 3.10), the subject site should be considered as an appropriate location for intensification.

The subject site does not contain, nor adversely impact, any cultural or natural heritage resources or lands susceptible to flooding and is not impacted by industrial lands or other nuisance-emitting land uses. The following outlines the Urban Design Policies under Section 8 of the Official Plan.



Land Use Designations

- Low Density Residential
- Low Density Greenfield Residential
- Medium Density Residential
- High Density Residential
- Mixed-Use Corridors
- Commercial Mixed-Use Centre
- Service Commercial
- Major Institutional
- Special Study Area
- Major Utility
- Open Space and Park
- Significant Natural Areas & Natural Areas

Figure 12. The City of Guelph Official Pan (Schedule 2) Land Use Plan

Sustainable Urban Design

The proposed development will maintain the physical character of the area and utilizes the most efficient grading possible. The proposed development utilizes compact design, efficient use of the land and existing infrastructure. Reduced parking supply would encourage alternative forms of travel (transit and cycling).

The residents of the proposed building will live within the 5-to-10-minute walk of existing bus stops, commercial amenities, and open space recreational amenities. Finally, the proposed development includes the use of solar power photovoltaic cells on the roof.

Public Realm

The proposed development will enhance the public realm along both Manhattan Crt. and Speedvale Ave. E. The City of Guelph Official Plan seeks to establish a clearly identifiable public realm in all residential areas and that new residential developments shall be integrated and connected to surrounding existing neighbourhoods. The existing public realm offers this interconnected network of streets, parks, school sites, community trails and open spaces. There would be no alterations to the existing municipal infrastructure or layout of the municipal pedestrian network, and the proposed development would provide new internal site connections to the existing pedestrian elements (including access to transit and bike lanes) which would ultimately connect more Guelph residents to the existing public realm.

With consideration to the Official Plan Policy where block lengths shall be reasonably short (8.2 4.) The proposed building length along Speedvale Ave. E. is 46m long. Along this frontage there would be two new pedestrian connections, from the proposed building to the existing municipal sidewalks, that would provide relief for pedestrians in the public realm. These walkways are provided approximately 39m apart. An outdoor amenity seating area in addition to the main building entrance (covered by a proposed canopy), is provided along the Manhattan Crt. streetscape. This amenity and entrance area

would have direct pedestrian connections to the municipal sidewalks along both Manhattan Crt. and Speedvale Ave. E. and is located close to the street edge interfacing with the intersection.

Currently there is limited to no tree, shrub, or ground cover planting along the subject site. This relates to both lands within the subject site and the municipal boulevard lands along both Speedvale Ave. E. and Manhattan Crt. The development would provide landscaping (including both trees and shrubs) to be planted along the base of the proposed building and along the internal walkways within the subject property. The proposed planting would greatly increase the greenery as experienced from the Public Realm.

Landmarks, Public Views, and Public Vistas

There are no existing Landmarks, Public Views, or Public Vistas near the subject site, however the proposed design and location of the building would not impact the Public Views or Vistas along Speedvale Ave. E. as they currently exist and will improve these experiences with proposed Landscaping and Plantings (**Figure 13**).

Gateways

The subject site is not a major or minor gateway; however, the site will be developed in a way to support the public realm and character of the neighbourhood.

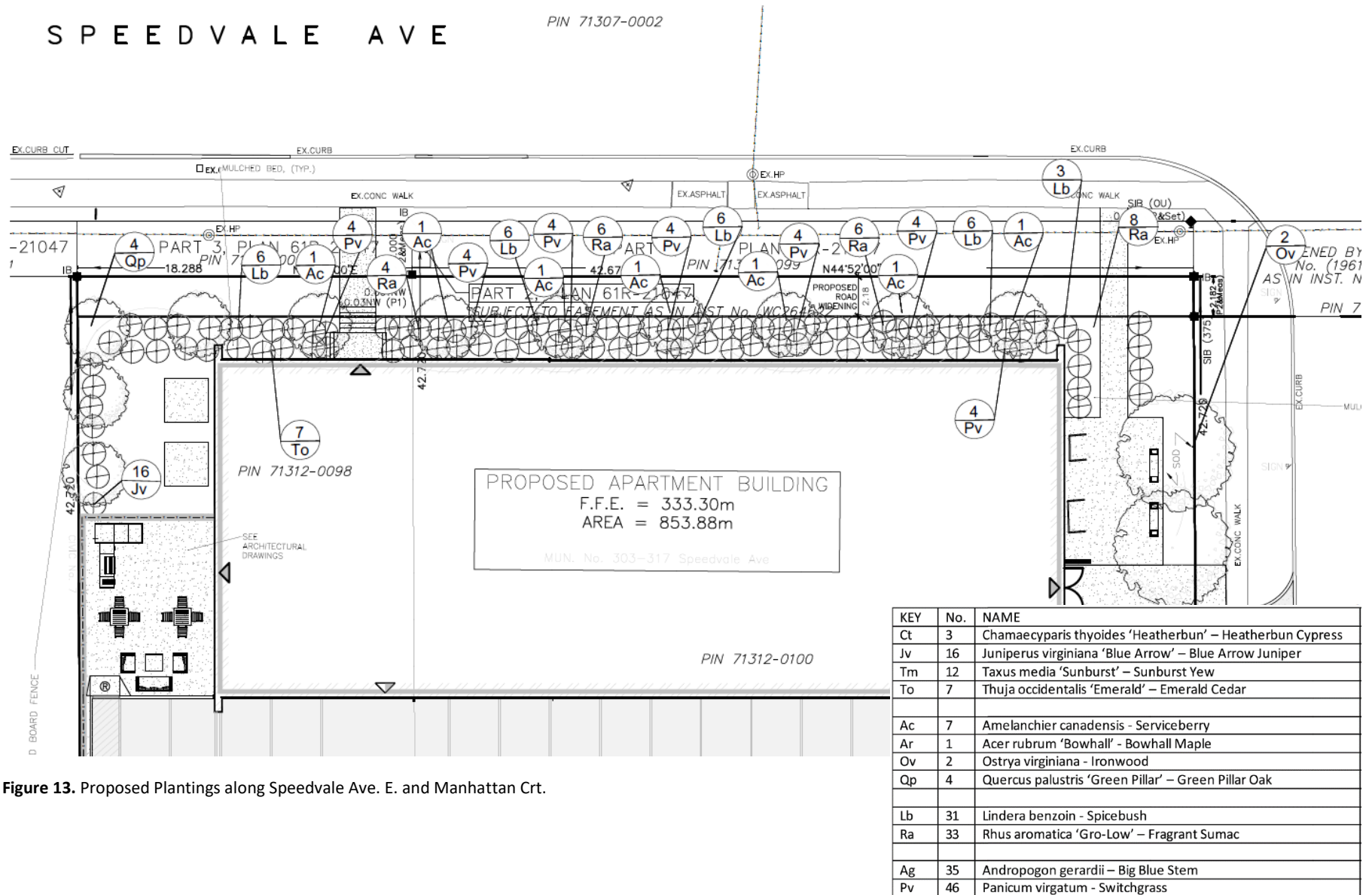


Figure 13. Proposed Plantings along Speedvale Ave. E. and Manhattan Crt.

Built Form

The proposed building is 6-storeys (approximately 19.1m) in height and will frame the intersection of Speedvale Ave. E. and Manhattan Crt.

A proposed external side yard setback of 7.0m from Manhattan Crt. provides space for the principal entrance to the building which, will be easily identifiable using a proposed entrance canopy and extended amenity space, along with pedestrian connections and proposed landscaping. The proposed exterior side yard space would become a welcoming feature for residents, visitors, and pedestrians.

A front yard setback of 2.3m (from the proposed road widening dedication) along Speedvale Ave. E. is proposed as this reduced distance would reinforce the existing street wall. Alternative building access is provided along Speedvale Ave. E. along with an additional pedestrian connection to the existing municipal sidewalk. This proposed entrance helps to break up the length of the ground floor of the building for pedestrians.

The proposed building is designed with a 'protruding eyebrow' starting at the ground level on both ends of the building and rising to the top of the 5th storey, then running along the building at the base of the 6th storey. An individual façade colour (giving focus to the ground level for pedestrians) is used on the building to identify the base. Massing of the building is then reduced by using a lighter facade colour for the 2nd to the 5th storeys. This colour change will also identify the middle of the building. Finally, the 6th storey is proposed to have another facade colour change, lighter than the lower storeys. Along with the proposed 'protruding eyebrow' along the top of the 5th storey, the lighter colour at the 6th storey will give an identity to the top of the building.

Proposed landscaping along the building and proposed walkways also provides visual relief for the public realm. Additional landscaping surrounding the property boundary, also reduces the building massing to all surrounding land uses and would provide screening to the proposed surface parking lot, and outdoor mechanical elements.

The preliminary massing model representing a conceptual built form has been provided by the Newton Group Inc. (refer to **Appendix C**). It is noted that at this stage of the development approval process, the graphics and supporting text are intended to highlight relevant details of the proposed development and may be subject to change through further Site Plan Approval and Building Permit phases of design and review.

Built Form: High-rise Buildings

The proposed variety of façade colours of the 1st storey, storeys 2 to 5, and then the 6th storey will establish a distinctive bottom, middle, and top. The 'protruding eyebrow' provides an architectural feature along the proposed building.

Underground parking is not feasible for the subject site; however, 10 internal parking spaces are provided along the ground floor. The proposed surface parking lot will be screened from Speedvale Ave. E. by the proposed building location and is softened from Manhattan Crt. and adjacent land uses by proposed landscaping (trees and shrubs) along the east, west, and south property lines.

Associated shadow and wind studies, as reviewed in this document, have been submitted in support of the proposed development, and have concluded no adverse effects are reasonably expected due to the proposed development.

Transition of Land Use

The location of the proposed building and the existing surrounding context provides the building with large separation distances. Speedvale Ave. E. and Manhattan Crt. provide an immediate buffer between the proposed building and the existing buildings to the north and the east. The proposed surface parking lot to the rear of the building, provides separation from the existing 3-storey apartment buildings to the south. These 3-storey buildings are also generally set back further on their own properties.

The west property line abuts existing single detached residential buildings. Existing landscaping (mature trees and vegetation) will provide the majority of screening between the properties. The new building is proposed to be setback 7.5m from this common property line as required by the zoning by-laws and will provide space for a proposed outdoor amenity space and new proposed landscaping (trees and shrubs). These features will be designed similar to that of a residential back yard providing a sense of lower density residential use abutting the existing single detached dwellings.

Vehicle Circulation

Parking for the proposed development is located to the rear of the site (similar to the existing site conditions) and is screened from the Speedvale Avenue East by the proposed building. Additionally proposed fencing also screens the surface parking lot from Manhattan Court and adjacent properties. Some parking would be located within the ground floor of the building, also screened from the public realm.

A loading space is provided away from the intersection and is screened by retaining wall and landscaping.

Lighting

Lighting shall be provided at sufficient levels for safety and will be appropriately oriented and shielded to avoid causing negative conditions on adjacent properties and public roads. Lighting will be reviewed further at time of Site Plan application.

Landscaping

As the existing subject site and municipal boulevard contain a very limited plantings, the proposed site landscaping, including a variety of trees and shrubs, between the base of the proposed building and the property lines along both Manhattan Crt. and Speedvale Ave. E. (as shown on the submitted landscape plan) creates a new visual interest as experienced from the public realm.

Further tree and shrub planting within the interior side yard (west lot line) provides additional screening to the adjacent single detached residential dwelling and uses a mixture of trees and shrubs and a variety of species, enhancing the user experience.

Required buffer strips for landscape and planting are provided, where the required buffer strips cannot be accommodated, screening and/or fencing will be used.

Plants have been chosen to be appropriate for site conditions, including indigenous and non-invasive species that are low maintenance and water efficient.

Safety & Accessible Design

Existing sidewalks and proposed walkways will be visible and are aligned and connected to the public spaces of Speedvale Ave. E. and Manhattan Crt. The

proposed building provides units along the streets providing opportunity for informal surveillance. Clear transitions from the public space to private space is designed providing extra safety to the residents of the proposed building.

The design of the proposed building will be to all Ontario Accessibility Standards and the Ontario Building Code.

1.2.2 CITY OF GUELPH URBAN DESIGN MANUAL (2017)

Guelph's City-wide urban design vision is to take one of southern Ontario's finest mid-sized cities and to use good urban design to enhance the already established sense of place that its citizens enjoy, creating a complete and distinctive community.

1.2.3 CITY OF GUELPH BUILT FORM STANDARDS FOR MID-RISE BUILDINGS AND TOWNHOMES (2018)

Section 4.2 Infill and Greenfield Sites

The proposed development is a residential infill and would redevelop an underutilised site. The proposed use complements the existing uses and provides appropriate setbacks for overlook, privacy, and shadow impacts.

The proposed development is in close proximity to existing alternative transportation facilities, and within a 10-minute walking distance of Public Open Green Space and the Speed River Trail (Riverside Park).

Section 7.0 Mid-Rise Buildings

As proposed, the site will be developed to create a consistent street wall by locating the proposed building so that it addresses the intersection, frames Manhattan Crt. and Speedvale Ave. E. and provides new landscaping. A road

widening has been provided allowing for a wider boulevard and increased potential for future boulevard plantings.

The building would provide a variety of building colours, materials and a proposed 'protruding eyebrow' framing the façade at the 5th storey to contribute to a more human scale form as experience from Speedvale Avenue East.

Anticipated built form impacts on neighbouring properties for access to sunlight and proximity have been mitigated primarily by the placement of the building (providing setbacks of 7.5m and 19.7m to the west and south shared property lines), as well as providing amenity spaces, landscaped areas, and required buffer strips or fencing as required around the subject site. A shadow analysis was completed for the proposed development and no impacts are expected on adjacent sites.

The proposed development will be a key part of creating a new effective transition from the higher order Speedvale Ave. E. where increased height is appropriate, then gradually decreasing in height and density to the existing 3-storey apartment buildings south of the subject site, and gradually decreasing again to the existing single detached low density residential dwellings that make up the remaining residential block. Speedvale Avenue East, and the road widening dedication as provided, create a large separation however a mirroring transition is created as the units along Speedvale Ave. E. on the north also comprise of 3 storey apartment buildings, which then transition down to single detached low density residential dwellings that make up the remainder of the residential block to the north.

Accessible, usable, and comfortable outdoor spaces are provided to the residents of the building through two proposed outdoor amenity gathering spaces, that will enhance the green space of the subject site while also fostering

an active/animated edge. Pedestrian connections are provided and ensure residents have effective access to the nearby bicycle lanes and transit stop locations. The building is designed to be accessible and as a Habitat for Humanity project, the development will provide some units geared to affordable housing.

Section 7.1 Building Massing, Scale and Transitions

The proposed development addresses massing, scale and transitions as outlined in the standards for mid-rise buildings document using the following methods.

The building location defines the street edges of both Speedvale Ave. E. and Manhattan Crt., and new active frontages, building entrances, and proposed windows are provided. The proposed building length of 46m reduces the impact of shadowing for the adjacent properties and pedestrian environments.

The provided interior side yard setback of 7.5m, to the west lot line, allows for separation between the proposed building and habitable windows to the existing single detached residential units on the adjacent properties. Within this setback, a proposed amenity area, tree and shrub plantings and the existing mature trees (on the adjacent property) work together to mitigate the impacts of height, overlook, and shadow.

The development utilizes the existing natural grade to complement adjacent developments by ensuring no stormwater runoff to adjacent properties is created and proposed grading changes have been integrated into the landscape and building design of the proposed development, in a way that is sensitive to the human scale and interface with the adjacent uses. Stair and ramp (walkway) accesses have been designed to meet the street grade where applicable for the proposed site layout. The subject site is designed to be accessible and appropriate for people of all abilities.

Section 7.2 Ground Floor and Street Edge Design

The proposed active frontages along the existing streets will include the main lobby building entrance and building entrances. Barrier free entrance and pedestrian accesses, with connections to existing municipal sidewalks, are provided. Walkways and entrances would be enhanced with landscaping to soften building massing at street-level. Lighting would be used on-site to identify safe access to the building, walkways, and parking areas.

7.3 Articulation, Façade Design and Materials

To encourage architectural diversity in building design, the development proposes the following.

A mixture of Versalok panel system (with varying colours), aluminium fascia/flashing, and vinyl framed windows (1.2mx1.6m in size) are proposed to promote visual diversity of the proposed building.

The façades would feature both horizontal and vertical elements with a 'protruding eyebrow' (creating both a projection and a recess), and multiple windows arranged in both vertical and horizontal lines. A canopy and a seating area are also provided to create a horizontal element on the Manhattan Crt. façade and activate the site edge.

1.2.4 ZONING BY-LAW (OLD & NEW)

Currently the City of Guelph is in a Zoning By-law comprehensive review process. As a result, there are multiple Zoning By-laws to be reviewed in regard to the proposed development.

City of Guelph Zoning By-law (1995)-14864

Presently, the subject site is dual zoned under the Residential Single Detached (R.1B) Zone and the Specialized Office-Residential (OR-36) Zone in the City of Guelph Zoning By-law 1995 (**Figure 14**). A new site-specific Zoning Bylaw Amendment would be required to permit the proposed development.



Figure 14. City of Guelph Zoning By-law 1995 (Guelph Online Mapping)

City of Guelph Zoning By-law (2023)-20790

Presently, the subject site is zoned under the Low Density Residential 1 (RL.1) Zone and the Convenience Commercial (CC-5) Zone (**Figure 15**). A new site-specific Zoning Bylaw Amendment would be required to permit the proposed development.



Figure 15. City of Guelph Zoning By-law 2023 (Guelph Online Mapping)

1.3 URBAN DESIGN GOALS AND OBJECTIVES

1.3.1 URBAN DESIGN GOALS AND OBJECTIVES

The proposed development aims to address, compliment and / or enhance the following design principles as outlined in the Urban Design Manual:

- Create neighbourhoods with diverse opportunities for living, working, learning, and playing.
- Build compact neighbourhoods that use land, energy, water, and infrastructure efficiently and encourage alternative modes of transportation.
- Showcase natural attributes as defining features of the city's character by making them highly visible and accessible, especially lands along the Speed and Eramosa rivers.
- Create a diversity of inviting and accessible gathering places that promote a full range of social, cultural, and economic interaction.
- Design for a choice of mobility including walking, cycling, transit and driving.

- Establish a pattern of interconnected streets and pedestrian networks in which buildings frame and address public spaces.
- Ensure that the design of the built environment respects the character of the existing distinctive areas and neighbourhoods of the city.
- Design space that is accessible to all, regardless of abilities.
- Preserve and enhance protected public views and public vistas of built and natural features.

Many urban design goals and objectives have been outlined to guide development within Guelph. These objectives will be used to guide the development process. The proposed goals of the proposed development are to create affordable and attainable living units that enhance the existing public realm along a major arterial corridor in Guelph, while providing opportunities to create a walkable community by connecting residents to the existing municipal walking, cycling, and public transit options.

2 PART 2

2.1 DEVELOPMENT CONCEPT

2.1.1 SITE DESIGN

The applicant is proposing to redevelop the site with a 6-storey residential apartment building with 48 dwelling units (195 units per hectare), consisting of 1-, 2-, and 3-bedroom units varying between 48m² and 97m² in floor area.

The proposed building would be oriented to Speedvale Avenue East with front entrance and lobby accessible to the public sidewalk (see **Figure 16**). Driveway access from Manhattan Court would provide vehicle access to a surface parking lot (described below). A preliminary Site Plan and Building Elevations (**Appendix A** and **Appendix C**) have been completed and are enclosed for your review and consideration.

2.1.2 TRANSITIONS

The proposed 6-storey apartment building would be a component of an overall neighbourhood transition, starting with taller buildings and high-density along the arterial Speedvale Ave. E. that lowers to mid-size medium density buildings moving away from Speedvale Ave. E. ultimately culminating with lower single detached low-density residential dwellings amongst the many local streets.

The immediate transition from the subject site to the apartment buildings south of the proposed building is provided with a large 19.7m building setback to the shared property line, containing the surface parking lot. Proposed landscaping along the shared property line provides screening of the parking lot.

The existing single detached dwelling (fronting onto Speedvale Ave. E.) and adjacent to the west property line is provided with a 7.5m setback. This setback space will contain a back yard style amenity area and additional landscaping

containing trees and shrubs. Both the manmade and natural screening features contained within this interior side yard setback will reduce the impact of overlook from the proposed building. Existing mature trees on the adjacent lot will be preserved and will work in collaboration with the proposed landscape plantings to provide additional screening along the shared lot line.

2.1.3 PUBLIC VIEW AND/OR PUBLIC VISTAS

The proposed development does not create a new public vista. The existing public view along Speedvale Ave. E. and Manhattan Crt. will be enhanced due to the additional landscaping, pedestrian connectivity, and an updated and consistent street wall along the subject site.

2.1.4 PARKING

A total of 48 parking spaces would be provided on site, for a parking rate of 1.0 space per unit, through a surface parking area within the rear yard and the exterior side yard and an internal parking area on the ground floor of the apartment building.

2.1.5 ACCESS, ACCESSIBILITY CIRCULATION, LOADING, STORAGE

The proposed site has internal walkways that connect various locations of the proposed building to the existing municipal sidewalks. All walkways and connections are designed to be accessible. The pedestrian walkways connecting to the municipal infrastructure lead directly to the existing bicycle lanes and Public Transit stops along Speedvale Ave. E.

Vehicle access is proposed from Manhattan Crt. connecting directly to the surface parking lot to the rear of the subject lot. An additional access from Manhattan Crt. acts as a multi-functional area for a move in-out loading space, and a garbage collection area.

2.1.6 MATERIALS

The building is going to be constructed using a mixture of high-quality materials comprising of a mixture of Versalock panels, and aluminium fascia/flushing. The used materials will ensure that the building is durable and is in keeping with the context of the surrounding community.

2.1.7 LIGHTING AND SIGNAGE

A lighting study has not been completed at this stage. The proposed development will provide lighting that meets or exceeds the Lighting Guidelines as outlined by the City of Guelph. The proposed lighting will be compatible with the area, address safety, provide pedestrian scale lighting, will provide opportunities for energy efficiency, and will minimize the impact of lighting on adjacent uses (reduce light pollution). Lighting will be considered at time of Site Plan.

2.1.8 ARCHITECTURAL TREATMENT

The proposed architectural treatment allows for the proposed building to fit into the existing community. Many of the surrounding buildings are composed of masonry buildings (with varying colours), buildings with siding, and landscaping. The proposed building will reflect the existing community context.

At grade, the proposal includes landscaping details to enrich the public realm and the user experiences of the subject site. Proposed Amenity Area and designated outdoor patio entrance design, allow for at grade social spaces to be enjoyed by residents and allow for informal surveillance.

The property is located on the corner of Speedvale Ave. E. and Manhattan Crt. and the proposed building provides active frontage along both roads. The lobby and outdoor sitting area are near the corner of the building interfacing with the intersection.

2.1.9 HIGH-DENSITY DEVELOPMENT

2.1.10 BUILT FORM

The proposed building will not be a tall slab-like building as it would have a floorplate size of 853.88m² (less than the 1000m² limit identified by the Urban Design brief) and a height of only 6-storeys whereas the polices are meant to address buildings up to 10-storeys.

A 'protruding eyebrow', to start at ground level on both ends of the building, rising to the top of the 5th storey and then running across the entire length of the building (along Speedvale Ave. E.) made up of the façade panelling, is proposed to provide some articulation to the building and to break up the height of the building in relation to users of the public realm.

The ground storey of the proposed building would have a different colour to immediately identify the lower portion of the building and interact with the pedestrian level. Storeys 2 through 5 are proposed with a lighter colour, this will identify the middle of the building. Finally, the 6th storey is proposed with the lightest colour. This lighter colour along with the proposed 'protruding eyebrow' gives the 6th storey the distinction of the top portion of the building.

2.1.11 TRANSITIONS

The location of the proposed building and the existing surrounding context provides the building with large separation distances. Speedvale Ave. E. and Manhattan Crt. provide an immediate buffer between the proposed building and the existing buildings to the north and the east. The proposed surface parking lot to the rear of the building, provides separation from the existing 3-storey apartment buildings to the south. These 3-storey buildings are also generally set back further on their own properties.

The west property line abuts an existing single detached residential building. Existing landscaping (mature trees and vegetation) will provide the majority of screening between the properties. In addition, the building is proposed to be setback 7.5m from this common property line. The proposed location of the amenity space and landscaping will provide a sense of lower density residential abutting the single detached dwelling.

2.1.12 MICROCLIMATE

A Wind Assessment Letter of Opinion has been completed by RWDI AIR Inc. in support of the proposed development, see **Appendix D**. The letter as submitted has found that the predicted wind speeds are considered suitable for the intended use in proximity to sidewalks, surface parking lot, at the entrance location, and amenity seating areas.

A shadow study has been conducted by Newton Group Ltd. and concludes that all the shadow impact criteria (as outlined in the City of Guelph's Sun and Shadow Study Terms of Reference) are met, except the requirement not to shade residential amenity spaces (on the subject property) for greater than 1 hour per day. This has been addressed by the site design as two amenity areas have been provided on separate side of the proposed building (east and west sides). This ensures that one of the two amenity areas would be provided with sunlight, while the other amenity space is in shadow. The shadows created by the proposed building are not expected to have negative impacts on the adjacent properties. See **Appendix E** for detailed analysis.

2.2 INTEGRATION WITH THE PUBLIC REALM

2.2.1 INTEGRATION WITH THE STREETScape

The proposed building length, internal pedestrian connections to municipal sidewalks, and proposed landscaping (including tree planting, front entrance with seating area facing the street, and informal surveillance) all work together to create an appealing public realm for both residents of the building and members of the public (see **Figure 13**).

2.3 SUSTAINABLE URBAN DESIGN

2.3.1 GENERAL ENVIRONMENTAL SUSTAINABILITY

As internal materials and finishes are yet to be determined and would be finalized at site plan approval and building permit stages, the location of the subject lands and proposed increased density, look to get more people in proximity to existing municipal services promoting alternative transportation options, and reducing the reliance on automobiles.

2.3.2 ENERGY

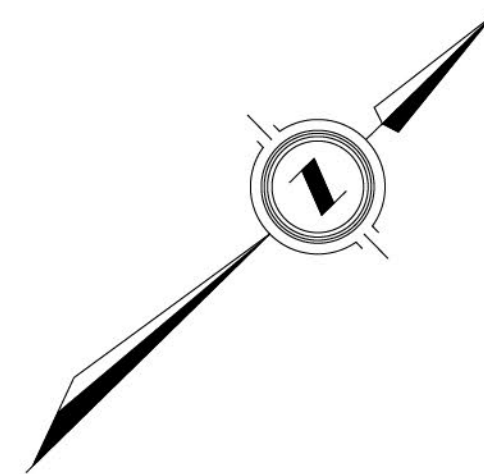
As the City of Guelph is aiming to become a net zero carbon community by 2050, the proposed development identifies solar energy, active transportation, and stricter codes on new buildings as potential actions for energy conservation.

As mentioned in the report above, the development proposes the use of 224 photovoltaic solar panels on the roof producing approximately 87,150 kWhrs of energy per year in renewable energy. A requested parking reduction to a total of 48 parking spaces are proposed for this development. The parking reduction would promote the use of more energy friendly methods, such as walking, cycling, carpooling, and public transit. The proposed location of the

development has direct connection to municipal sidewalks, municipal bike lanes, and existing Guelph Transit route 12 and transit stop locations.

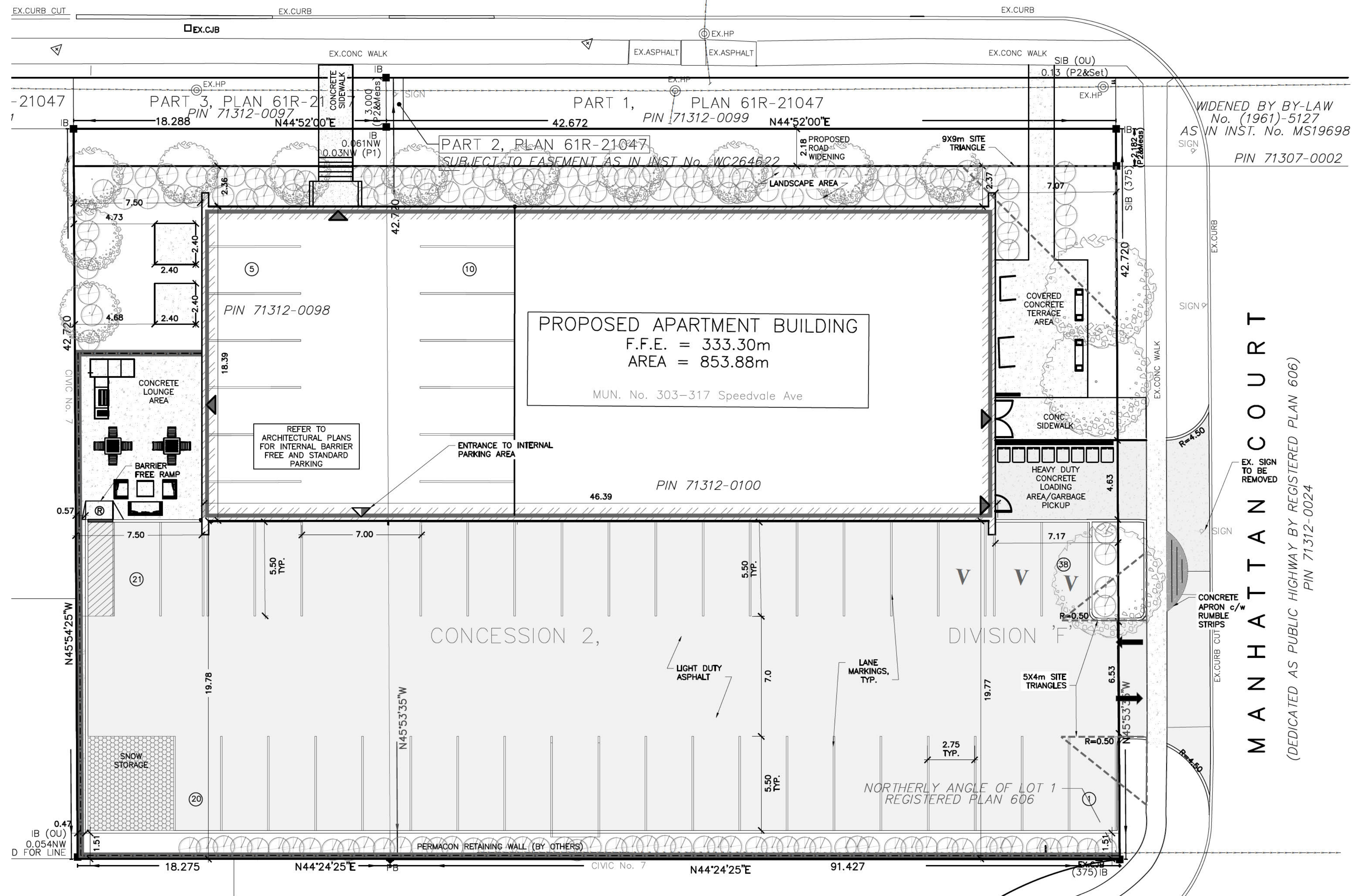
The Canada Mortgage and Housing Corporation (CMHC) contains its own energy efficiency standards, which are more stringent than the Ontario Building Code. CMHC requires a minimum 25% decrease in energy consumption and greenhouse gas emissions relative to the 2015 National Energy Code for Buildings, or a 15% decrease relative to the 2017 National Energy Code for Buildings. Proposed high quality windows will improve air quality and reduce energy consumption. Water efficient landscaping will be used as much as possible to reduce water consumption.

Appendix A – Site Plan



SPEEDVALE AVE

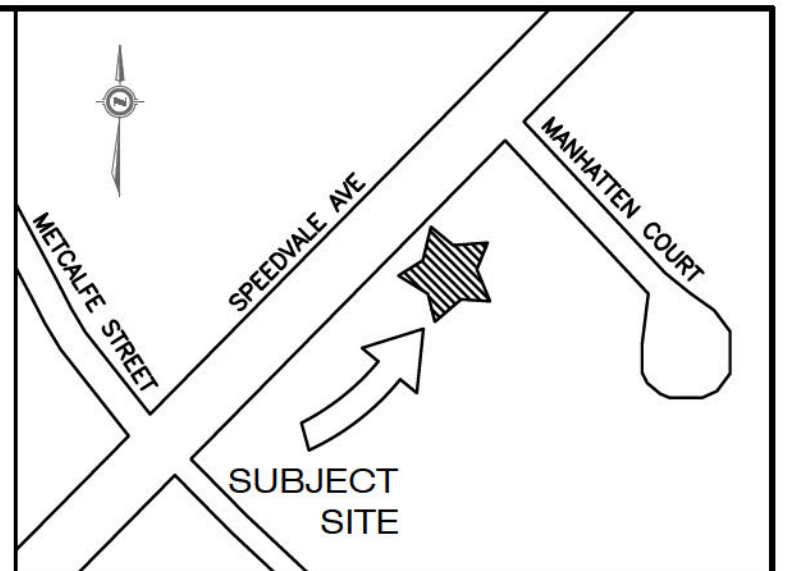
PIN 71307-0002



ZONING DATA CHART

GROSS SITE AREA: 2,601.81 m ²		BUILDING AREA: 853.88 m ²	
ROAD WIDENING: 132.72 m ²		ASPHALT AREA: 1,128.34 m ²	
NET SITE AREA: 2,469.09 m ²		LANDSCAPED AREA: 486.87 m ²	
ITEM	HIGH DENSITY RESIDENTIAL (RH.7)	REQUIRED	PROVIDED
1	LOT FRONTAGE (m MIN)	30.0	60.96
2	RESIDENTIAL DENSITY (UPH)	MIN: 100 MAX: 150	195*
3	FRONT YARD SETBACK (m) - SPEEDVALE AVE E	MIN: 6.0 MAX: 11.0	2.3*
4	EXTERIOR SIDE YARD SETBACK (m) - MANHATTAN CRT	MIN: 6.0 MAX: 11.0	7.0
5	INTERIOR SIDE YARD (m MIN)	7.5	19.7
6	REAR YARD (m MIN)	7.5	7.5
7	BUFFER STRIP (MIN)	3m ADJACENT TO INTERIOR LOT LINE (WEST)	1.5*
		3m ADJACENT TO REAR LOT LINE (SOUTH)	0.4*
8	LANDSCAPED OPEN SPACE (% MIN)	40.0	19.7*
9	BUILDING HEIGHT	MIN: 3 STOREYS MAX: 10 STOREYS	6 STOREYS
10	ANGULAR PLANE	45	>45*
11	BUILDING LENGTH (M MAX)	75	46.39
12	ACTIVE ENTRANCE FRONTAGE	1 PER 30m	1 PER 61m* (SPEEDVALE AVE E) 1 PER 40.5m* (MANHATTAN CRT)
13	COMMON AMENITY AREA (m ² MIN)	N/A	11.3m ² /UNIT
14	PROPOSED UNIT COUNT	N/A	48

*ZONING DEFICIENCY PER ZONING BY-LAW (2023)-20790



KEY PLAN
N.T.S.

LEGAL INFORMATION
PART OF
LOT 15 CONCESSION 2
DIVISION 'F'
IN THE
CITY OF GUELPH
COUNTY OF WELLINGTON

- LEGEND:**
- BUILDING ENTRANCE
 - OVERHEAD DOOR
 - PROPOSED LIGHT-DUTY ASPHALT
 - PROPOSED CONCRETE
 - PROPOSED BUILDING
 - LIMITS OF SUBJECT PROPERTY

PARKING REQUIREMENTS

MINIMUM SURFACE PARKING SPACE DIMENSIONS 2.75mX5.5m,
TYPE A 3.4mX5.5m, TYPE B 2.4mX5.5m, 2.0m BF WALKWAY

REQUIRED PARKING FOR APARTMENT BUILDING:
MINIMUM FIRST 20 UNITS 1.5/UNIT AFTER 20 UNITS 1.25/UNIT
48 UNITS 20x1.5= 30 SPACES 28x1.25= 35 SPACES = 65 SPACES
TOTAL PROVIDED PARKING (INTERNAL/SURFACE) = 48 SPACES*

B/F PARKING:
REQUIRED: 51-75 SPACES (1 TYPE 'A' 2 TYPE 'B') = 3 SPACES
PROVIDED = 0 TYPE 'A'*
= 2 TYPE 'B'

VISITOR PARKING REQUIRED 20% OF TOTAL = 13 SPACES
PROVIDED = 3 SPACES*

BICYCLE PARKING:
REQUIRED SHORT TERM 0.1 SPACES/UNIT 48x0.1 = 5 SPACES
LONG TERM 1 SPACE/UNIT = 48 SPACES
PROVIDED SHORT TERM = 5 SPACES
LONG TERM = 48 SPACES

*ZONING DEFICIENCY

REFERENCE DOCUMENTS:

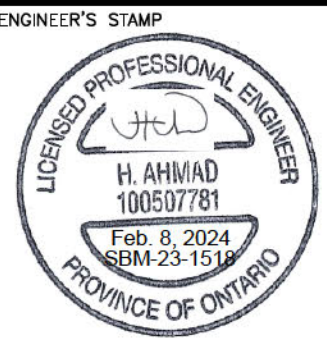
- PLAN OF SURVEY, REF #23-14-947-01RP BY J.D. BARNES SURVEYED 23/11/05
- ARCHITECTURAL PACKAGE BY NEWTON GROUP LTD.

**PRELIMINARY
NOT FOR CONSTRUCTION**

PARCELS, BUILDINGS AND EXISTING INFORMATION ARE APPROXIMATE AND FOR REFERENCE ONLY.
CONCEPT IS PRELIMINARY AND HAS NOT BEEN REVIEWED BY THE CITY.
THE PLAN IS COMPILED AND SHOULD NOT BE CONSIDERED A PLAN OF SURVEY.

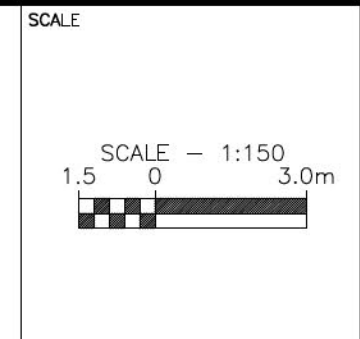
AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D./M./Y	BY	CONSULTANT
DESIGN	LA	1	FOR SUBMISSION - OPA/ZBA	1/02/24	BLG	
DRAWN	JF/RG					
CHECKED	TMB					
APPROVED	HA					
DATE	08/02/2024					
CAD	23-1518					

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmtd.ca



SEAL FOR GENERAL CONFORMANCE WITH THE OBC AND MUNICIPAL SITE PLAN CONTROLS AND ZONING BY-LAWS

HABITAT FOR HUMANITY
SUITE 100B - 104 DAWSON ROAD
GUELPH, ON
N1H 1A6
P: 226-770-4341
E: BRETT@HABITATGW.CA

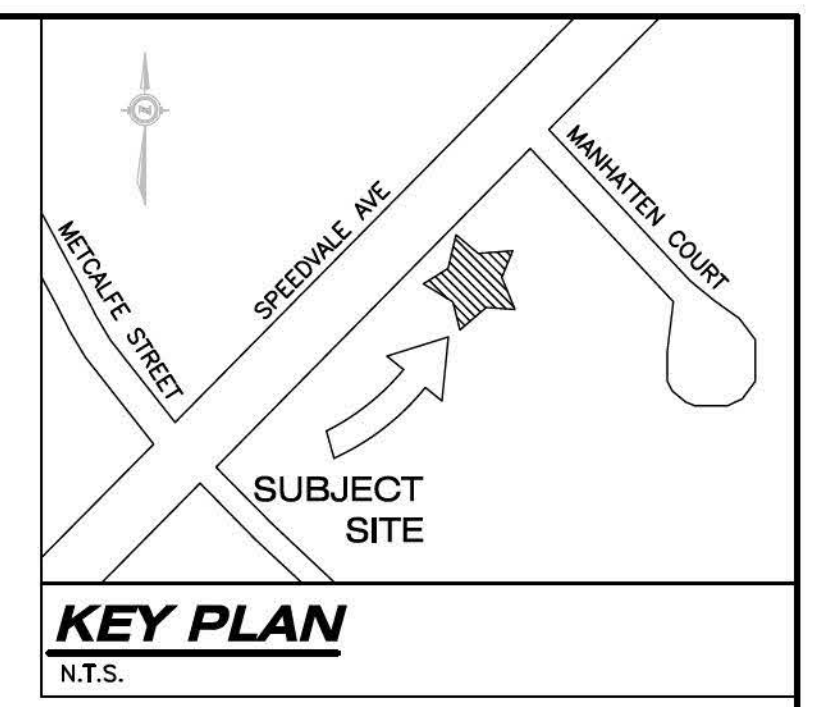


TITLE	SITE PLAN & ZONING CHART	PROJECT No.	SBM-23-1518
	HABITAT FOR HUMANITY	SHEET No.	SP1
	303 - 317 SPEEDVALE AVE EAST GUELPH, ON.	PLAN FILE No.	-

Appendix B – Landscape Plan

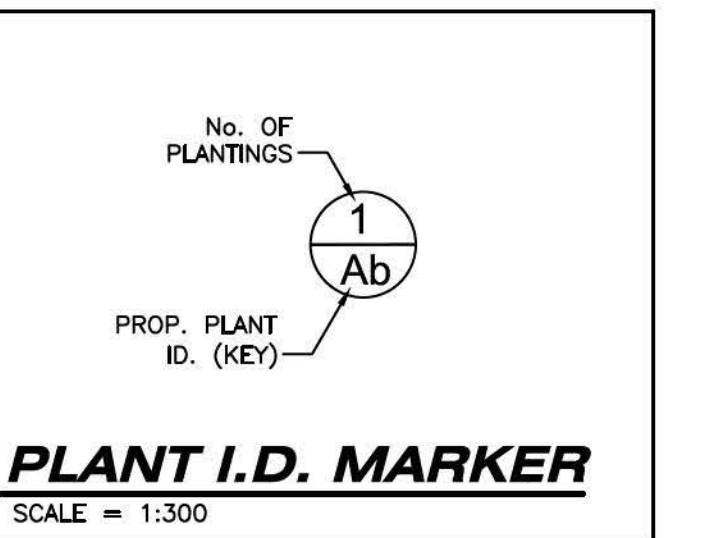
REFERENCE DOCUMENTS:

1. APPLEWOOD ESTATES SUBDIVISION PHASE 1 PLANS BY STANTEC STAMPED FEB 26, 2018.
2. TOPOGRAPHIC SURVEY PLAN NUMBER L-4647 BY AGM PRINTED APRIL 24, 2015.
3. BUILDING ELEVATION DRAWING BY MEAGHER'S DRAFTING AND DESIGN SERVICES RECEIVED JANUARY 18, 2018.
4. EXISTING LEGAL INFORMATION OBTAINED FROM PLAN OF SUBDIVISION BY STANTEC GEOMATICS LTD., PROJECT NO. 161630010, DATED APRIL 27, 2018.
5. APPLEWOOD HILLS SUBDIVISION, PHASE 1, LONDON, ONTARIO, TREE INVENTORY ASSESSMENT AND MANAGEMENT PLAN BY STANTEC DATED AUGUST 17, 2017.



LEGAL INFORMATION

PART OF
LOT 15
CONCESSION 2, DIVISION 'F'
IN THE
CITY OF GUELPH
COUNTY OF WELLINGTON



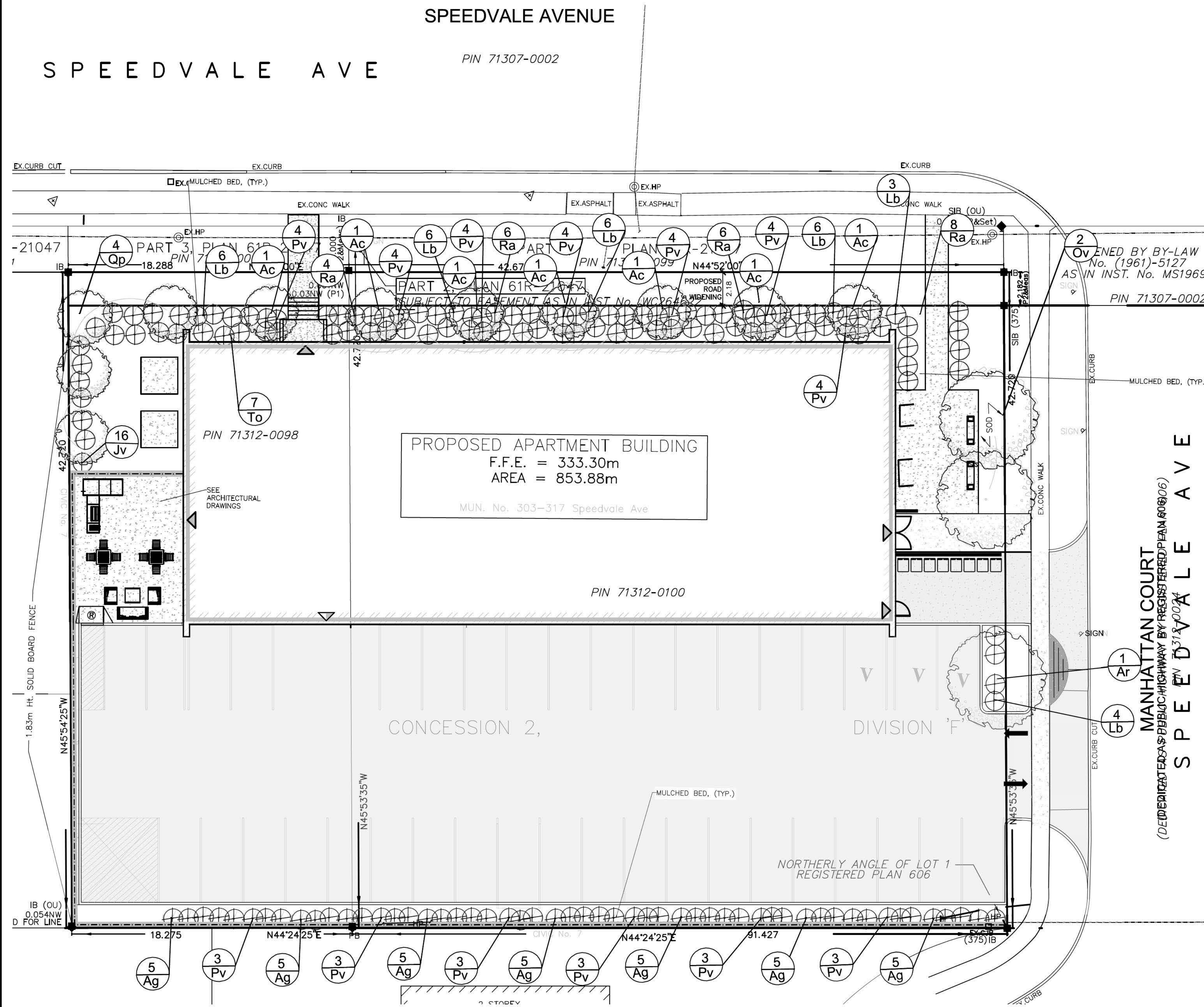
LANDSCAPE LEGEND:

- PROPOSED PLANTS
- LIMIT OF PROPOSED MULCH AREA
- PROPOSED RAMP
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PRINCIPAL BARRIER FREE ENTRANCE & FIRE FIGHTER ACCESS ENTRANCE
- BUILDING ENTRANCE
- OVERHEAD DOOR
- DRIVETHRU WINDOW
- PROPOSED LIGHT-DUTY ASPHALT
- PROPOSED HEAVY-DUTY ASPHALT
- PROPOSED RETAINING WALL (DESIGNED BY OTHERS)
- PROPOSED CONCRETE
- EXISTING BUILDING
- PROPOSED BUILDING
- TREE PROTECTION BARRIER
- LIMITS OF SUBJECT PROPERTY
- EXISTING TREE TO REMAIN

LIST OF DRAWINGS

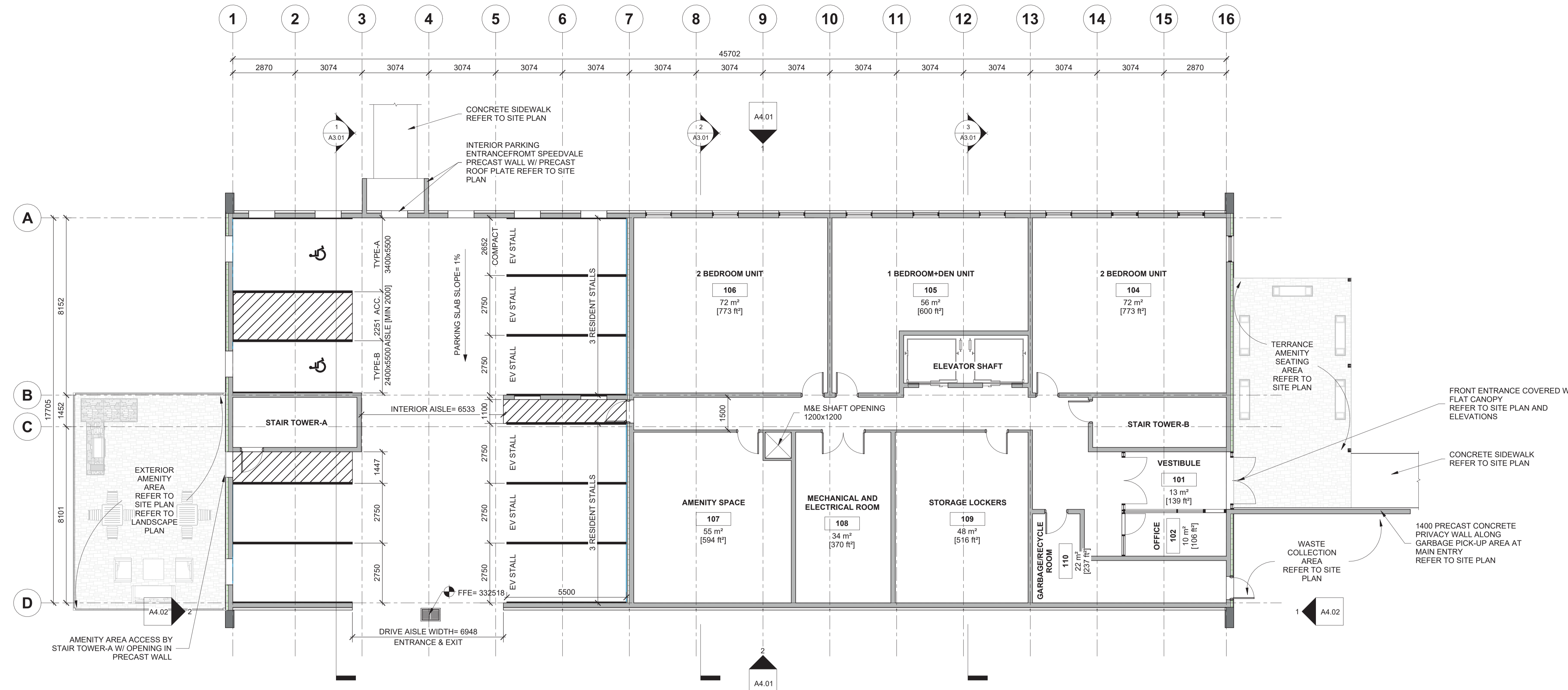
SHEET L1	LANDSCAPE PLAN
SHEET L2	LANDSCAPE NOTES, PLANT LIST, AND STANDARD DETAILS

REFER TO NOTES, DETAILS, AND PLANT LIST ON SHEET L2

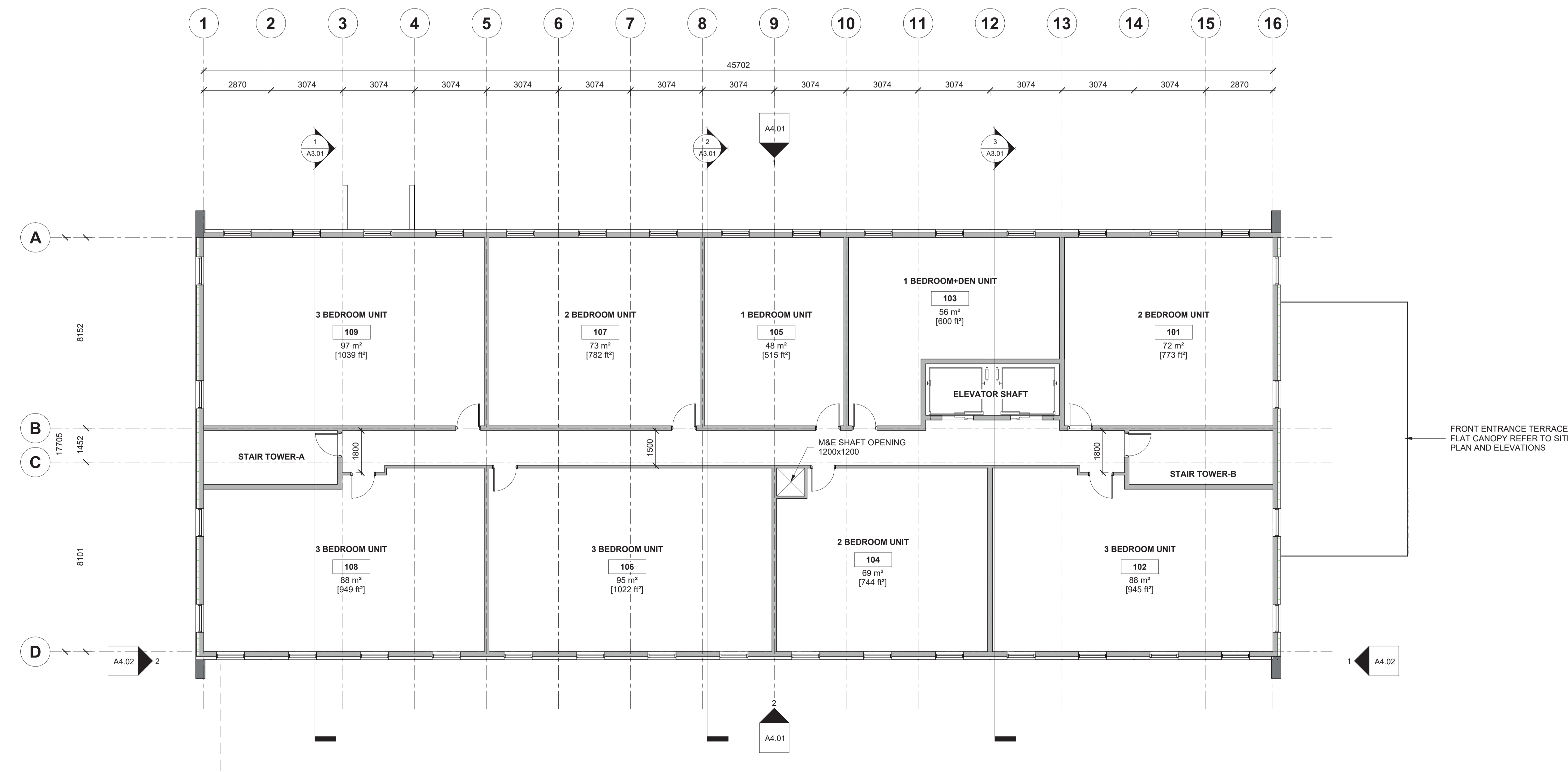


AS CONSTRUCTED SERVICES	COMPLETION	DESIGN DW	No.	REVISIONS	D/M/Y	BY	CONSULTANT	LA'S STAMP	LA'S STAMP	CLIENT	SCALE	TITLE	PROJECT No.
		DRAWN JF/RO	1	FOR SUBMISSION - OPA/ZBA	1/02/24	BLG	DAN WEAGANT, OALA, CSLA, LANDSCAPE ARCHITECT 703 FORMAN AVENUE STRATFORD, ON N5A 0G2 PH 519-694-5470 danweagant@rogers.com			HABITAT FOR HUMANITY SUITE 100B - 104 DAWSON RD. GUELPH, ON N1H 1A6 P: 226-770-4341 E: BRETT@HABITATGW.CA	SCALE - 1:150 1.5 0 3.0m	LANDSCAPE PLAN HABITAT FOR HUMANITY 303 - 317 SPEEDVALE AVE EAST GUELPH, ON.	SBM-23-1518 SHEET No. L1 PLAN FILE No.

Appendix C – Architectural Drawing Sheets



1 BASEMENT LEVEL
SCALE: 1 : 100



2 LEVEL 1.0
SCALE: 1 : 100

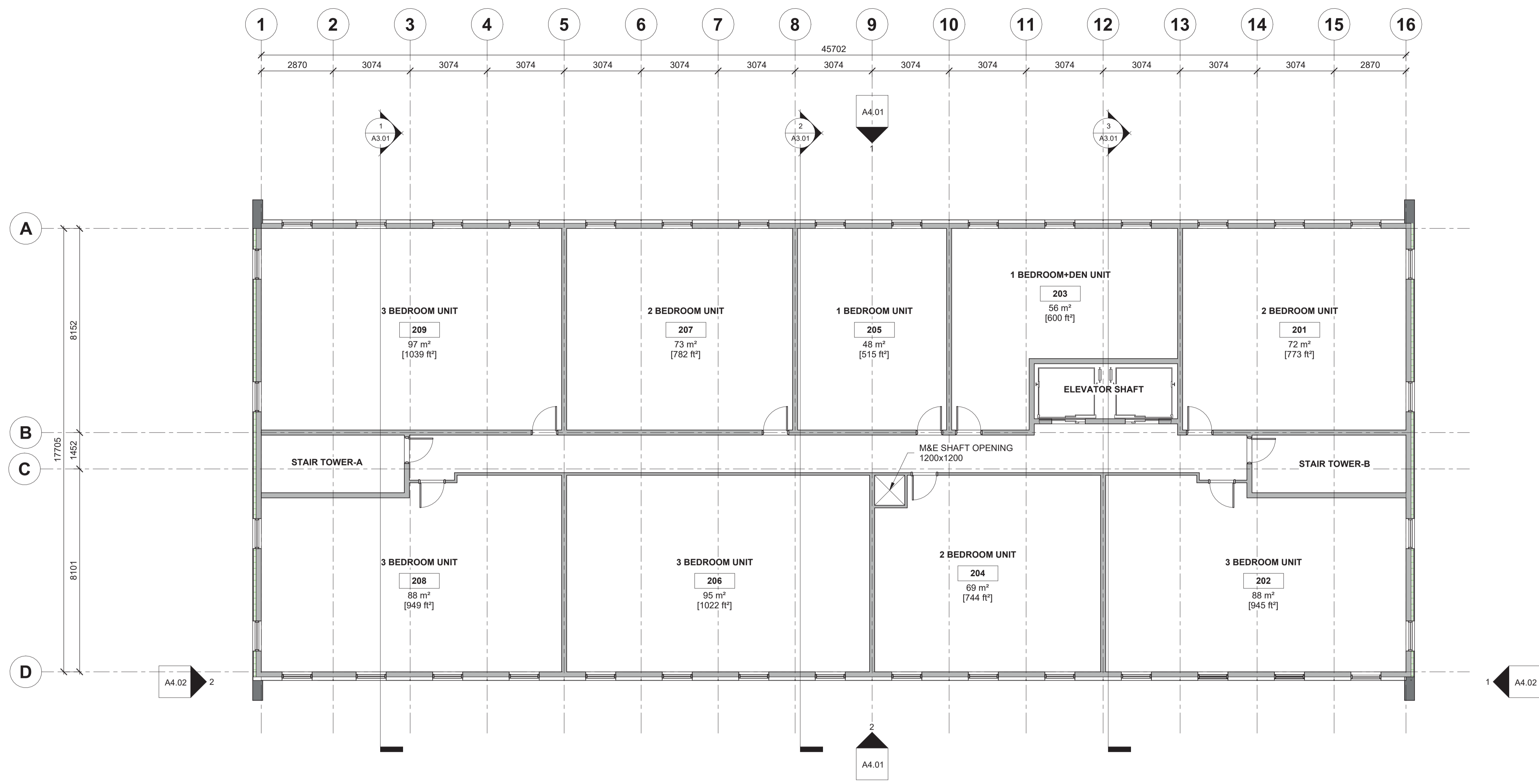
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A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#		DATE	DESCRIPTION

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE (TBD)

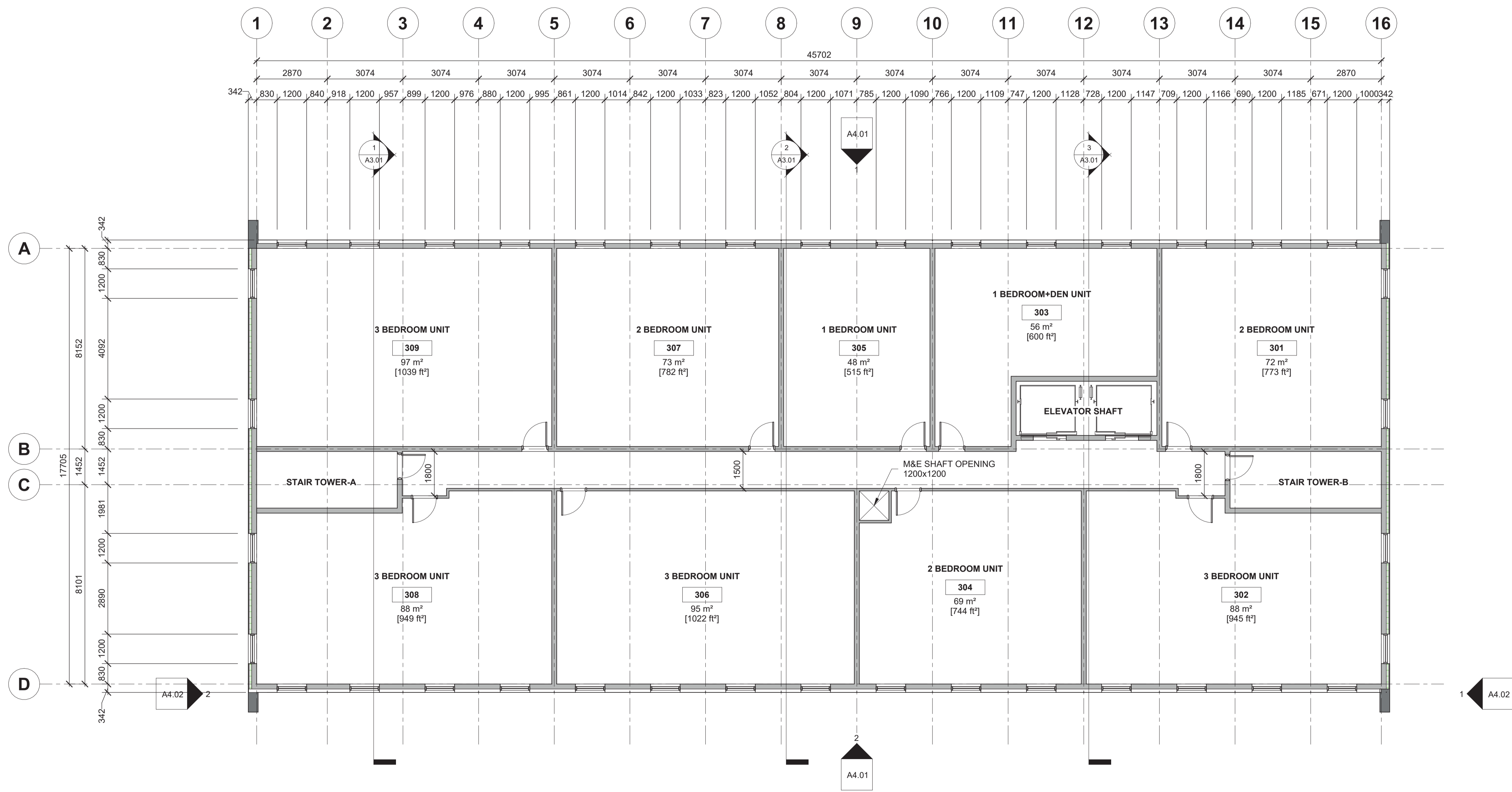
DRAWING
BASEMENT MAIN LEVEL & LEVEL 1.0

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100

DRAWING NO. **A2.01**



1 LEVEL 2.0
SCALE: 1 : 100



2 LEVEL 3.0
SCALE: 1 : 100

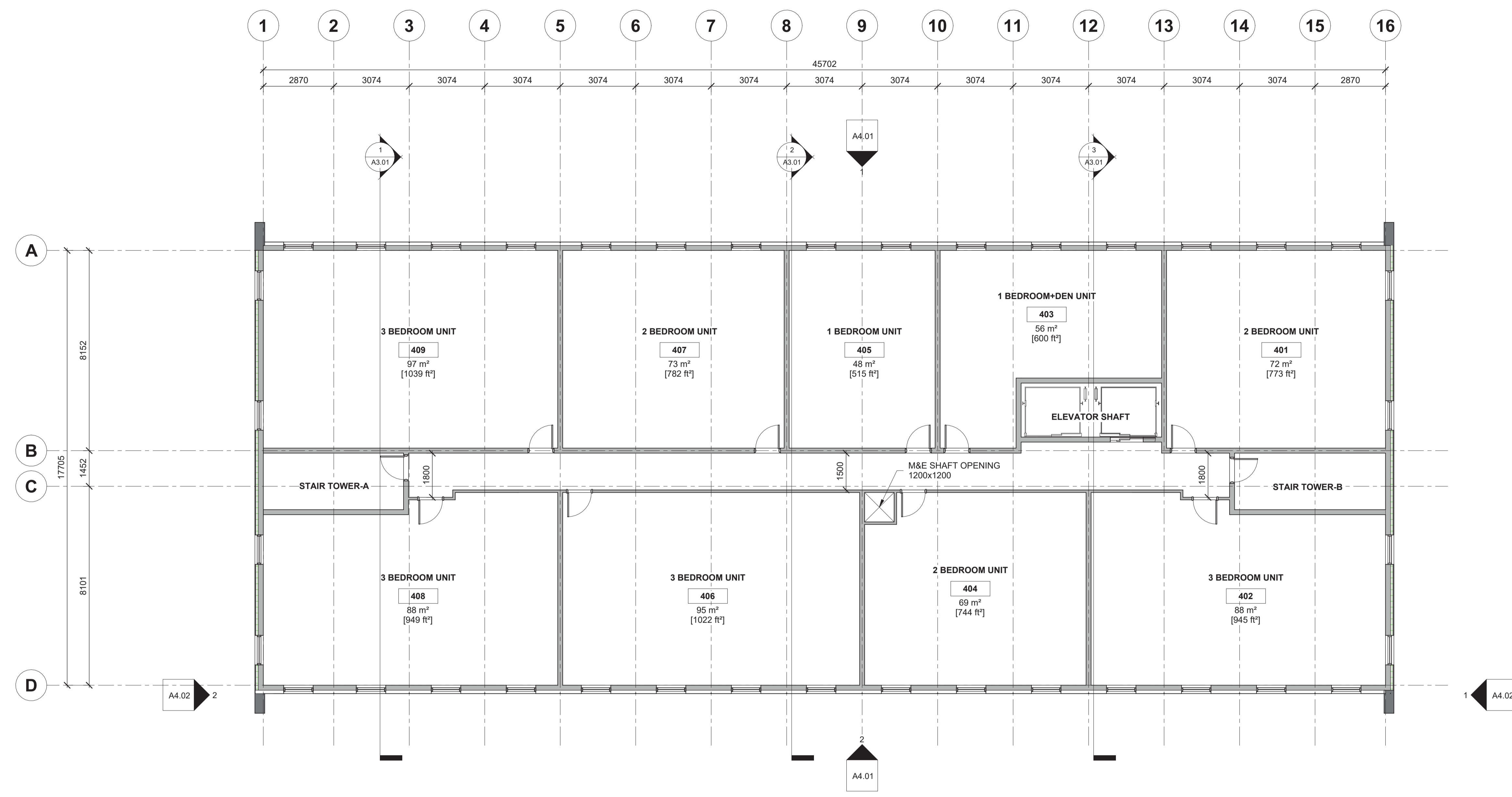
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A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE (TBD)

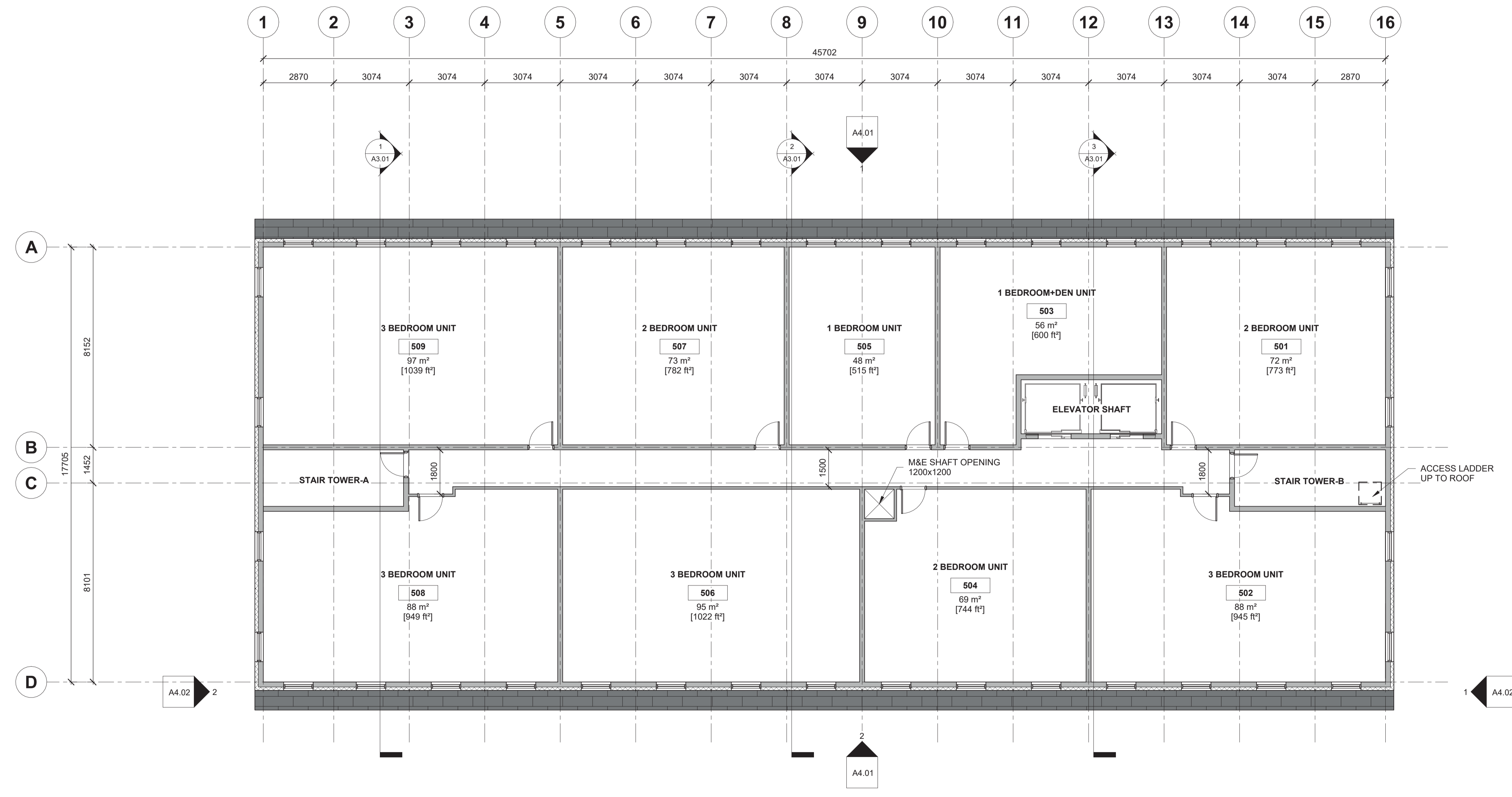
DRAWING
LEVEL 2.0 AND 3.0 FLOOR PLAN

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100

DRAWING NO. **A2.03**



1 LEVEL 4.0
SCALE: 1 : 100



2 LEVEL 5.0 (TOP FLOOR)
SCALE: 1 : 100

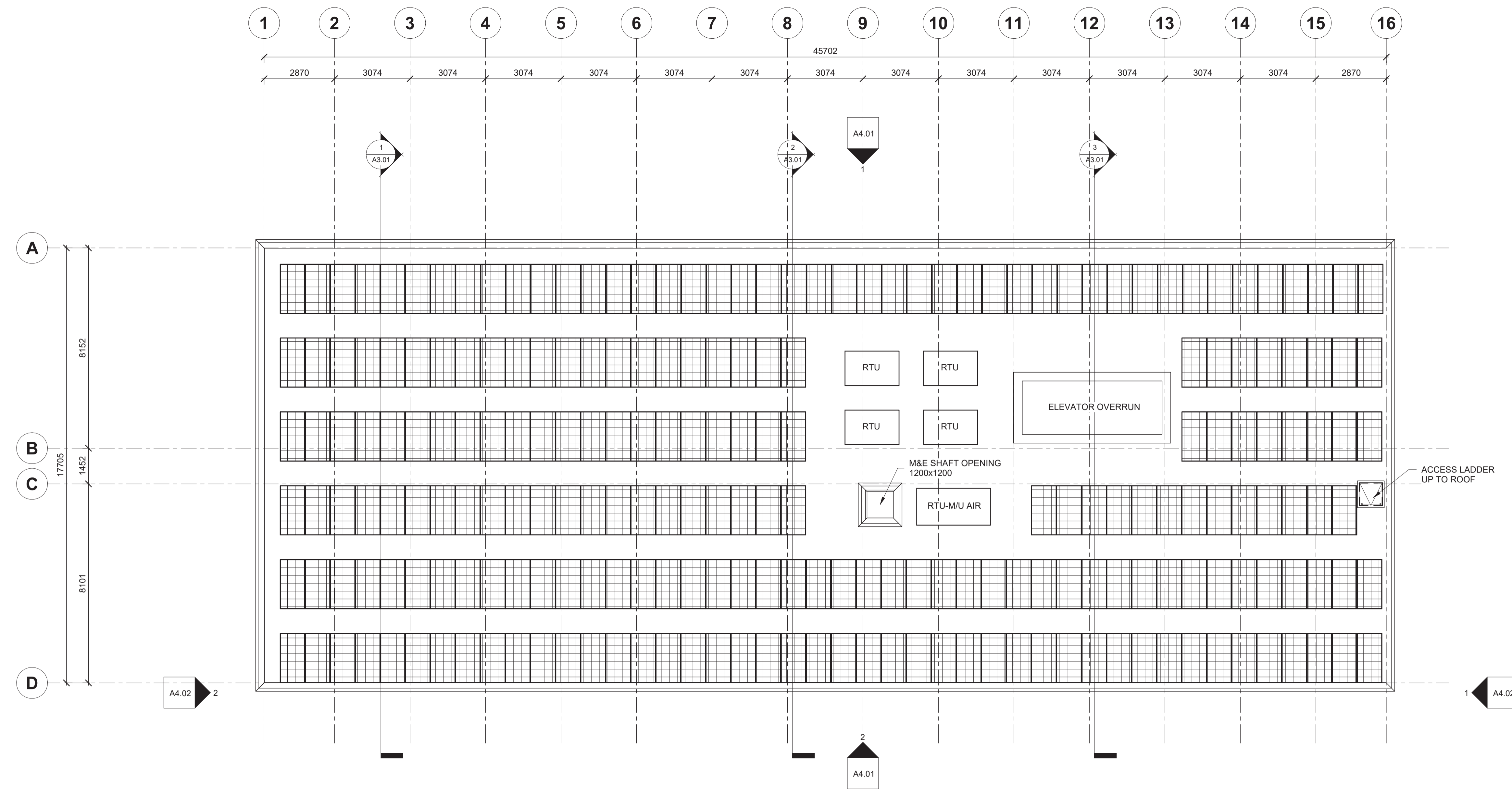
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#	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#		DATE	DESCRIPTION

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE (TBD)

DRAWING
LEVEL 4.0 AND 5.0 FLOOR PLAN

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100

DRAWING NO. **A2.04**



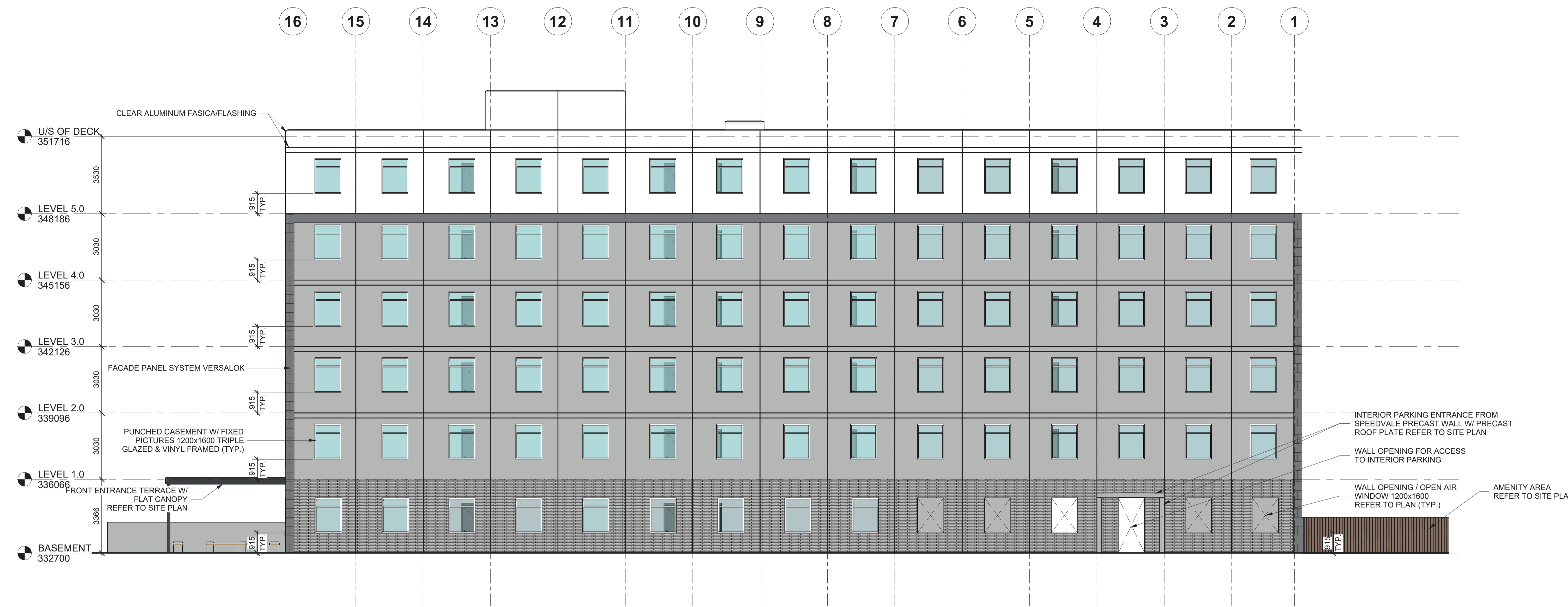
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SCALE: 1 : 100

#	23-12-19	ISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

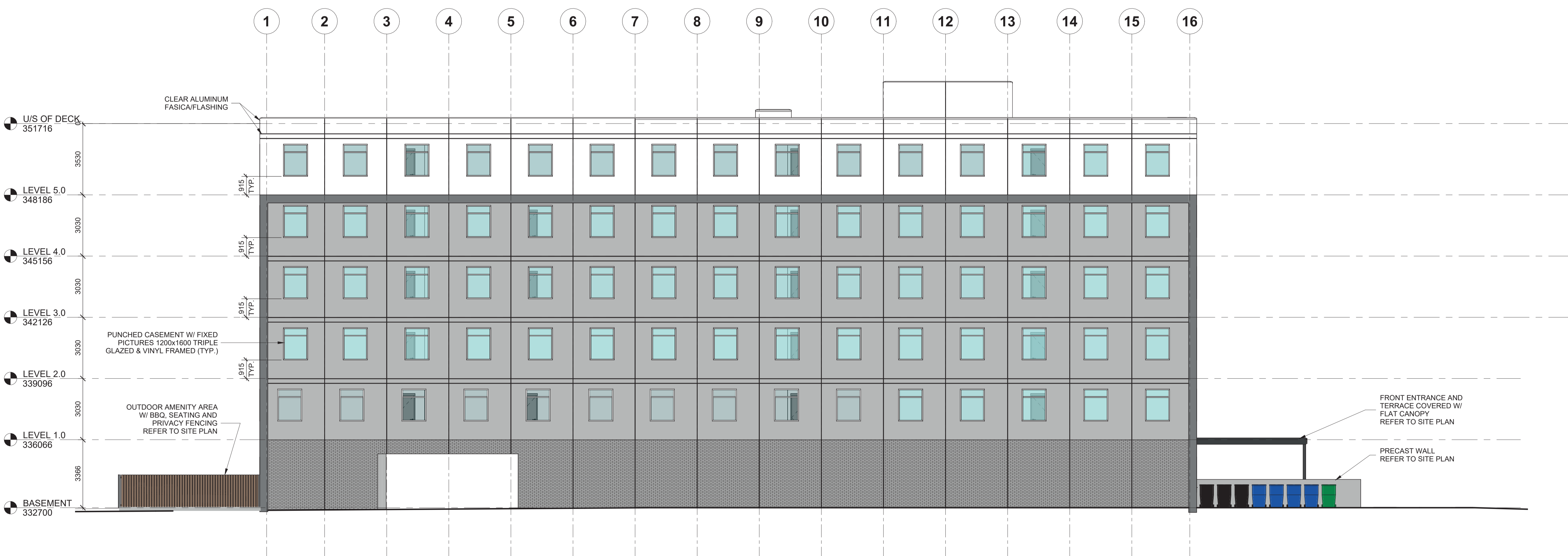
DRAWING
ROOF LEVEL

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100



NORTH BUILDING ELEVATION

SCALE: 1 : 100



SOUTH BUILDING ELEVATION

SCALE: 1 : 100

#	23-12-19	ISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#		DATE	DESCRIPTION

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

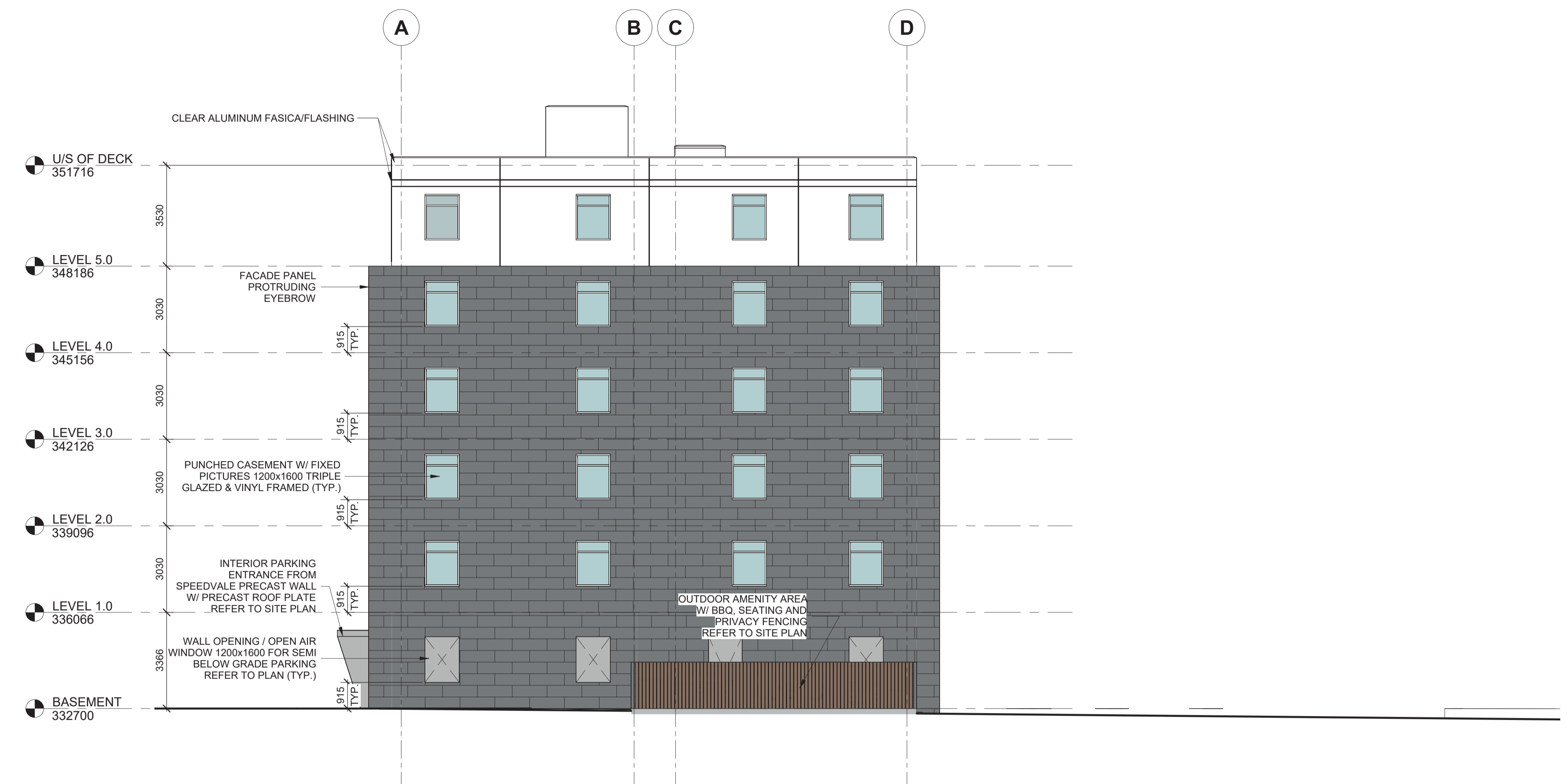
DRAWING
BUILDING ELEVATIONS

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100

DRAWING NO. **A4.01**



EAST BUILDING ELEVATION
SCALE: 1 : 100



WEST BUILDING ELEVATION
SCALE: 1 : 100

#	23-12-19	ISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

PROJECT
SPEEDVALE AFFORDABLE HOUSING
MANHATTAN COURT & SPEEDVALE AVE E
GUELPH, ON
POSTAL CODE [TBD]

DRAWING
BUILDING ELEVATIONS

PROJECT NO.:	23136
PROJECT DATE:	2023-07-20
DRAWN BY:	CVL
CHECKED BY:	CA
SCALE:	1 : 100

DRAWING NO. **A4.02**

Appendix D – Pedestrian Wind Assessment – Letter of Opinion



600 Southgate Drive
Guelph, ON N1G 4P6
Canada

Tel: +1.519.823.1311
Fax: +1.519.823.1316

December 22, 2023

Brett Daw
Habitat for Humanity Guelph Wellington
Suite 100B, 104 Dawson Road
Guelph Ontario Canada N1H 1A6
T: 226.770.4341
E: Brett@habitatgw.ca

**Re: Pedestrian Wind Assessment – Letter of Opinion
Speedvale Affordable Housing
Guelph, Ontario
RWDI Project 2400320**

Dear Brett,

RWDI AIR Inc. (RWDI) has prepared this letter to comment on the expected wind conditions around the proposed Speedvale Affordable Housing development in Guelph, Ontario. This qualitative assessment is based on the local wind climate, the design information received by RWDI on December 21, 2023, the existing surroundings as well as our engineering judgement and experience with wind tunnel testing of projects in Guelph area.

SITE AND BUILDING INFORMATION

The proposed development site is located on the south side of Speedvale Avenue East, between Metcalfe Street and Manhattan Court (Image 1). The site is currently occupied by low-rise buildings and surrounded by low-rise residential buildings in all directions.

The proposed development consists of a 5-storey residential building and a partially below-grade basement level, with an elongated rectangular floor plan. Main entrance to the building is situated on the east façade. An amenity seating area and a surface parking lot are proposed on the southwest and south sides, respectively. Site plan, building elevations and 3D renderings of the proposed building are shown in Image 2.



Image 1: Aerial View of the Project Site and Surroundings
(courtesy of Google™ Earth)

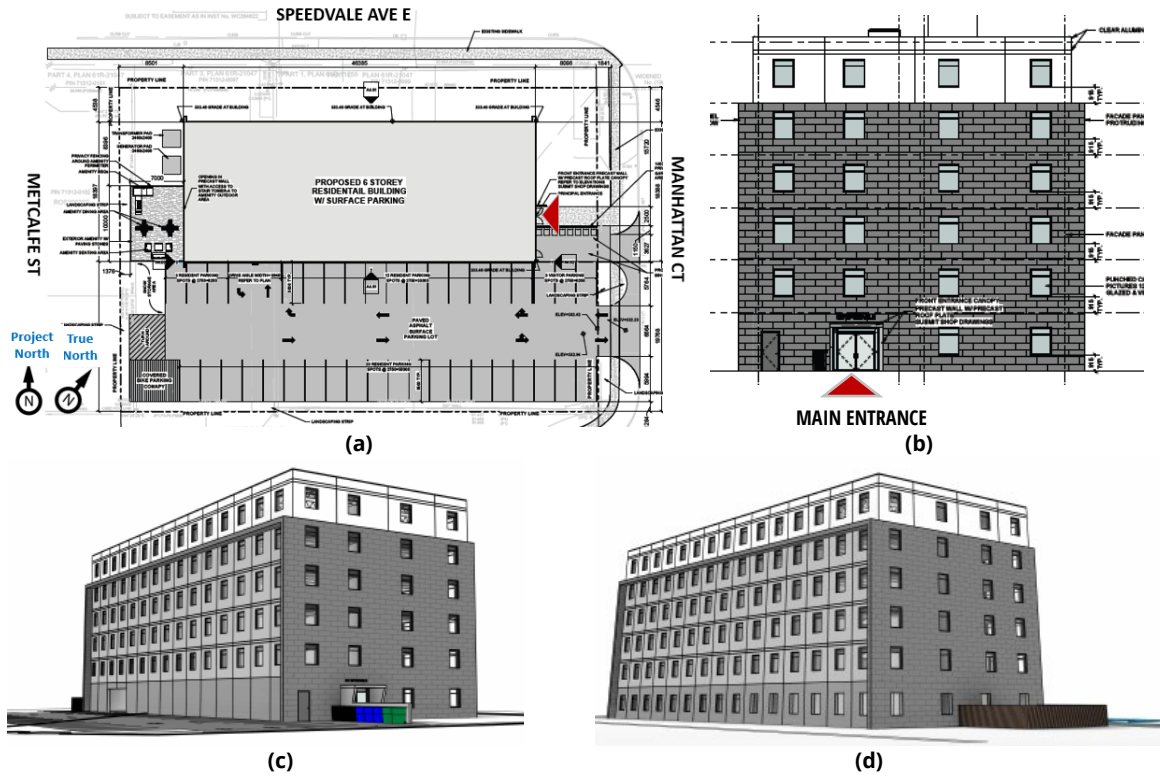


Image 2: (a) Site Plan, (b) East Building Elevation, (c) Southeast View, and (d) Northwest View

METEOROLOGICAL DATA

Wind statistics recorded at Waterloo-Wellington International Airport between 1991 and 2021, inclusive, were analysed. Image 3 graphically depicts the directional distribution of wind frequency and speeds for the summer (May-October) and winter (November-April). When all winds are considered, those blowing from the east and southwest through northwest are predominant during both seasons.

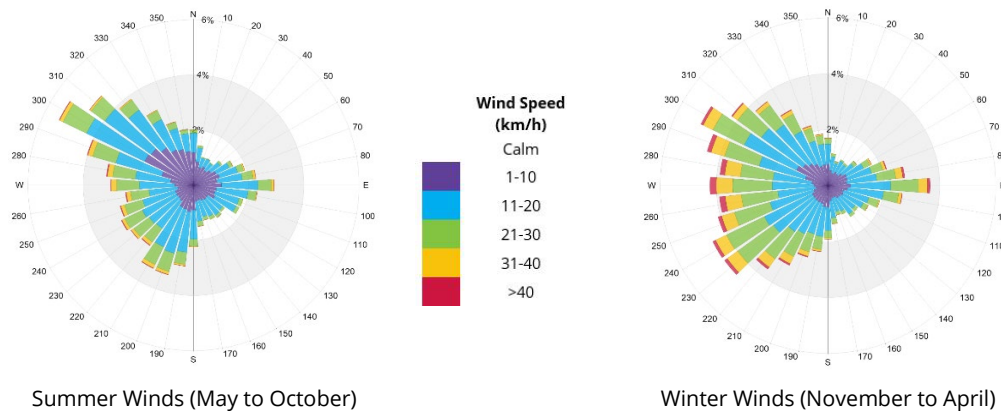


Image 3: Direction Distribution of Winds Recorded at Waterloo-Wellington International Airport (1991 and 2021)



Strong winds of a mean speed greater than 30 km/h measured at the airport (red and yellow bands in the wind roses) are more frequent during the winter. These winds are primarily from the westerly and easterly directions.

PEDESTRIAN WIND ASSESSMENT

Pedestrian areas of interest on and around the site include main building entrance, surface parking lot, amenity seating area as well as public sidewalks along Speedvale Avenue East, Metcalfe Street and Manhattan Court.

Existing Scenario

Buildings that are currently on the site and in the surrounding areas are low-rise. As such, they are not expected to redirect winds and cause adverse effects at ground level. Therefore, wind conditions on and around the existing site are suitable for pedestrian use throughout the year.

Proposed Scenario

The proposed development, at 5 storeys, will be taller than the existing buildings on the site and the surrounding buildings. Thus, the building facades will intercept the prevailing westerly and easterly winds and redirect them to ground level. Such wind downdrafts will subsequently accelerate along the facades and around the building corners, creating increased wind activity. It is worth noting that due to the moderate height of the proposed development, the wind impacts are not predicted to be significant and wind conditions in the extended surrounding areas are not expected to be affected by the construction of the new building.

- The predicted wind speeds are considered suitable for the intended use of sidewalks and the surface parking lot.
- At the main entrance location along the east façade, wind speeds are expected to be appropriate for pedestrians. While the proposed vestibule feature is a positive design aspect that provides an area for pedestrians to take shelter at on cold and windy days, the overhead canopy and the precast wall on the south side of the doors are beneficial toward creating calm wind conditions in the entry area.
- At the amenity seating area near the southwest corner, wind conditions are expected to be comfortable for passive patron use during both the summer and winter seasons. The proposed fencing along the perimeters of the amenity is positive and helps create a sheltered area for prolonged seating and leisure activities. We recommend ensuring the privacy fencing has a minimum height of 2 m to provide adequate wind shelter. Any use of landscaping, screen walls or partitioning elements throughout the amenity area will further reduce wind speeds.



CLOSING

We trust the enclosed meets your present requirements. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours very truly,

RWDI AIR Inc.

A handwritten signature in black ink, appearing to read 'Anthony Vanderheyden'.

Anthony Vanderheyden, B.A.Sc., EIT
Project Manager

A handwritten signature in black ink, appearing to read 'Rose Babaei'.

Rose Babaei, Ph.D.
Senior Technical Coordinator

AUV/RB/hta

Appendix E – Shadow Study



Newton Group Ltd.
41 Massey Road
Guelph Ontario Canada
N1H 7M6
T 519 822 5281
F 519 822 6159
www.kiwinewton.com

January 29, 2024

To: City of Guelph Planning Department
RE: 317 Speedvale Ave E, Guelph, Ontario
Sun and Shadow Study

Accompanying this report, please see Shadow Study drawings A9.00, A9.01, A9.02 and A9.03.

Shadow Studies have been prepared Newton Group Ltd. utilizing Autodesk Revit 3D software to analyze the shadows of the existing and proposed building conditions at 317 Speedvale Ave East in Guelph. The software permits the following information to specifically be input into the program:

Latitude: 43.56487 Degrees N
Longitude: 80.25891 Degrees W

Astronomic North was provided through a survey of the property completed by J.D. Barnes Ltd dated June 22, 2023. This document provided an initial base with which to start modeling the built context of the site. The final proposed grading of the site was not available at the time of the analysis, thus, the shadow model assumes the topography to be flat. The shadow studies were further enhanced by underlaying open source data from ArcGIS; AutoCAD Geolocation feature to trace streets and Google Earth to provide graphical context of the surrounding site.

DESCRIPTION, QUANTIFICATION AND ASSESSMENT OF AREAS WITH RESPECT TO SHADOW IMPACT CRITERIA

1. Residential Amenity Spaces – impact on surrounding residential amenity spaces (other properties) is minimal and within the requirements of the criteria. The proposed building does cast shadow over the proposed outdoor residential amenity spaces on the subject project for greater than one hour per day in the spring, summer and fall periods. On Sept 21, the east outdoor amenity space is in shadow from 1pm until sunset. On April 21, the west outdoor amenity space is in shadow from sunrise to 9am, and the the east outdoor amenity space is in shadow from 1pm to sunset. On June 21, the west outdoor amenity space is in shadow from sunrise to 10am and the east outdoor amenity space is in shadow from 2pm to sunset.
2. Places where Children play (schools, parks, etc) – n/a, no impact to places where children play
3. Public realm (sidewalks, open spaces, plazas, etc)
 - 3.1 Opposite sidewalk (North side of Speedvale) on Sept 21 has full sun 11am-6pm and meets the requirement. Opposite sidewalk (East side of Manhattan) on Sept 21 has full sun 9am to 2pm and meets the requirement.
 - 3.2 n/a – no impact to public open spaces and plazas



4. Community Gardens – n/a – no impact to community gardens
5. Cultural Heritage Resources – n/a – no impact to cultural heritage attributes

SUMMARY

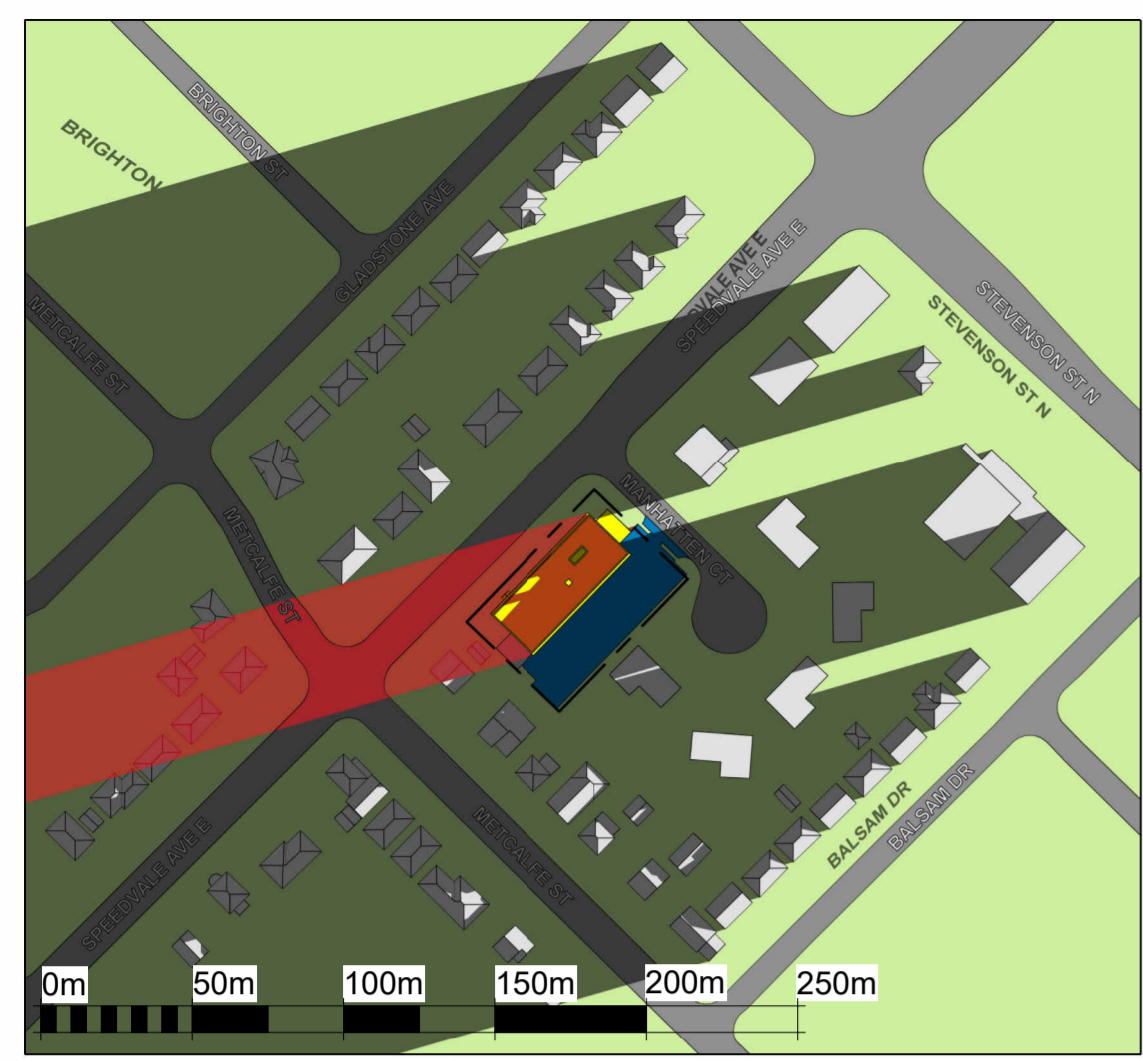
All of the Shadow Impact Criteria outlined in the City of Guelph's Sun and Shadow Study Terms of Reference are met (or are not applicable) other than the requirement not to shade residential amenity spaces (on the subject property) for greater than 1 hour per day. The layout of the outdoor amenity spaces has been designed as a mitigating feature – rather than a single amenity space, two amenity spaces have been provided on separate sides of the proposed building (east and west). While one amenity space may be in shadow, the opposite amenity space is always in sun to provide an option for users. Furthermore, not all users desire direct sun and may prefer shade.

We trust that the above is understood. Should you have any questions with regard to the above please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cam Krajcik', is written over a thin horizontal line.

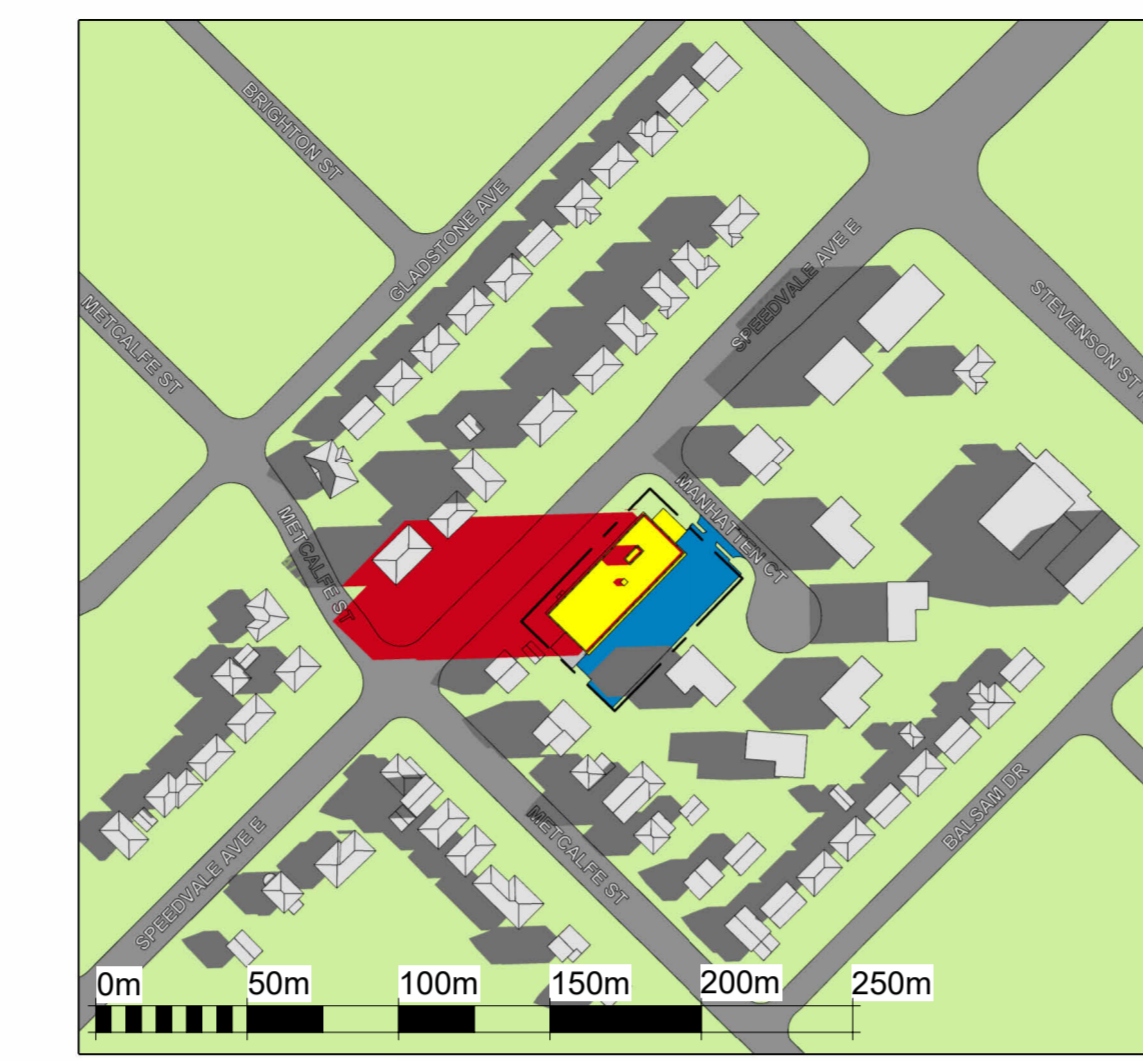
Cam Krajcik, P.Eng, PMP, LEED AP
Vice President, Design and Engineering
Newton Group Ltd.



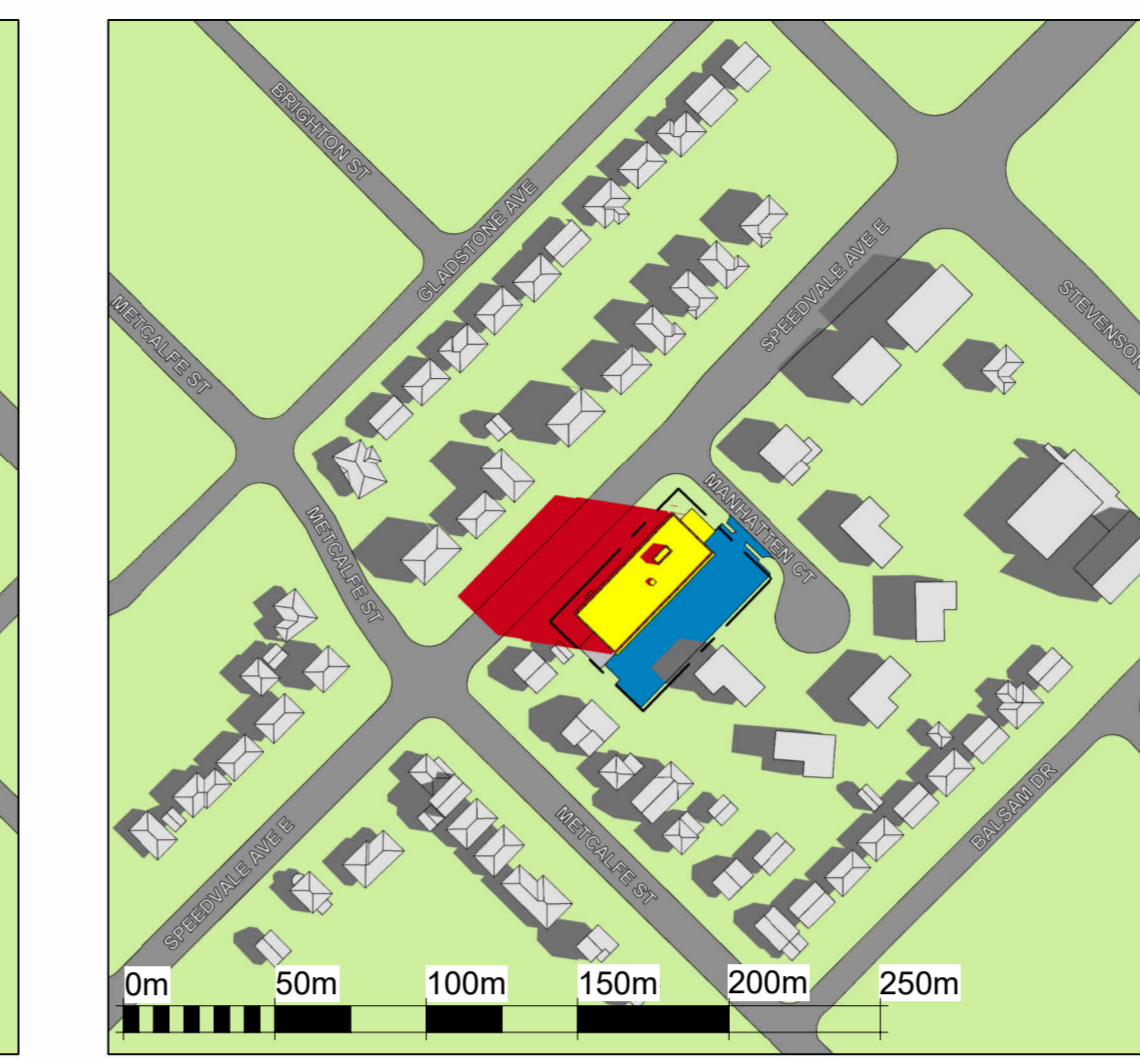
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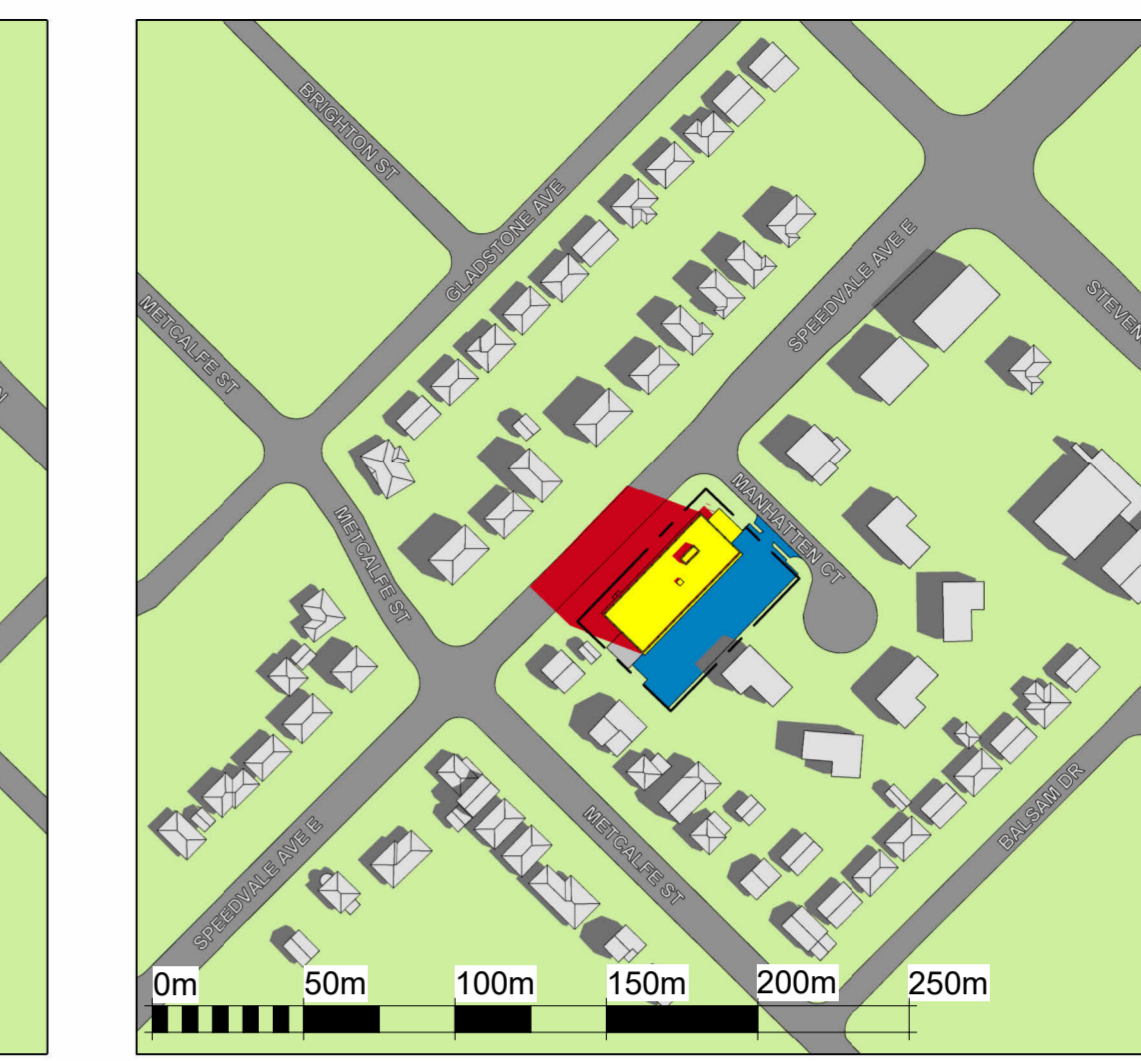
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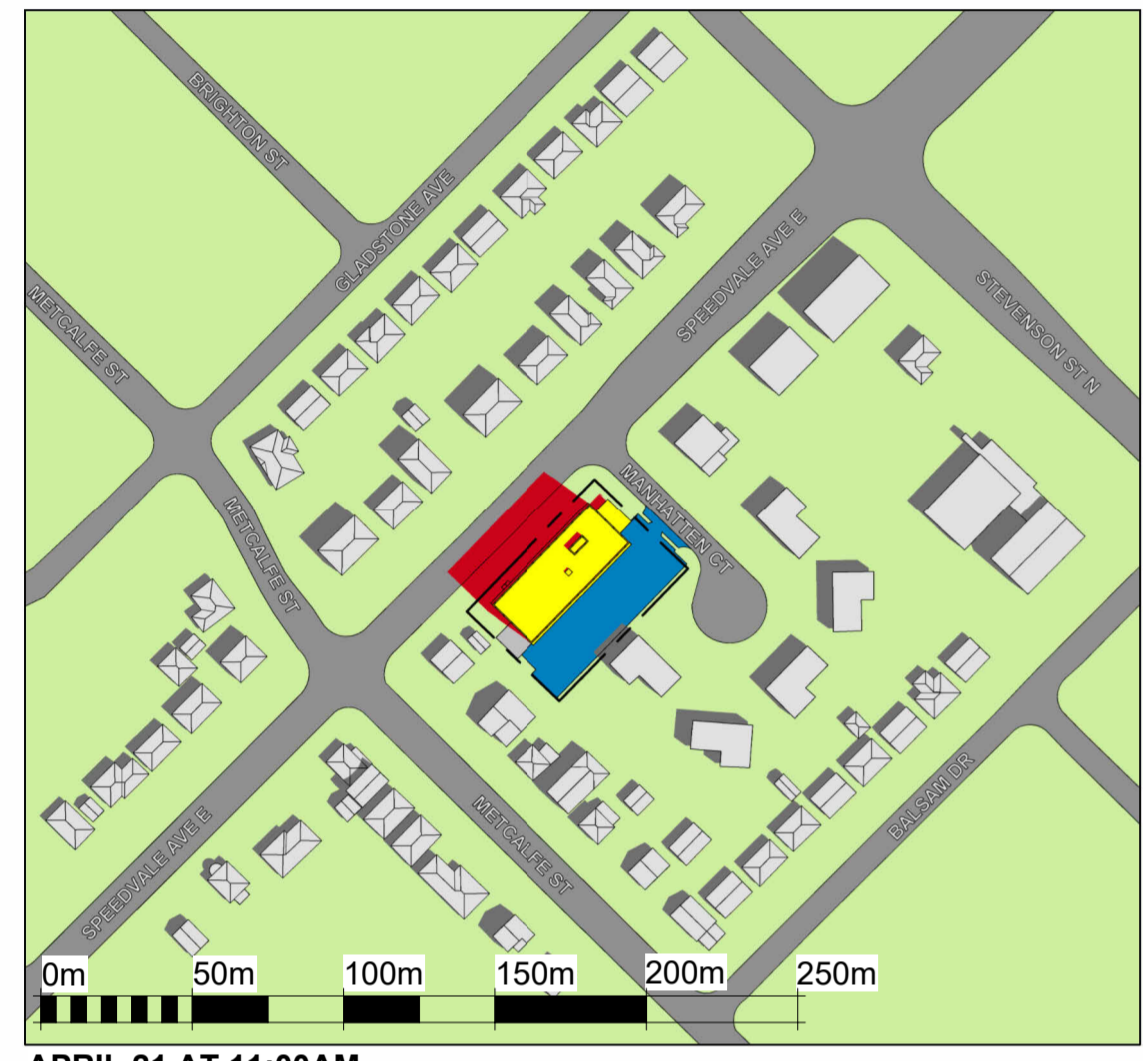
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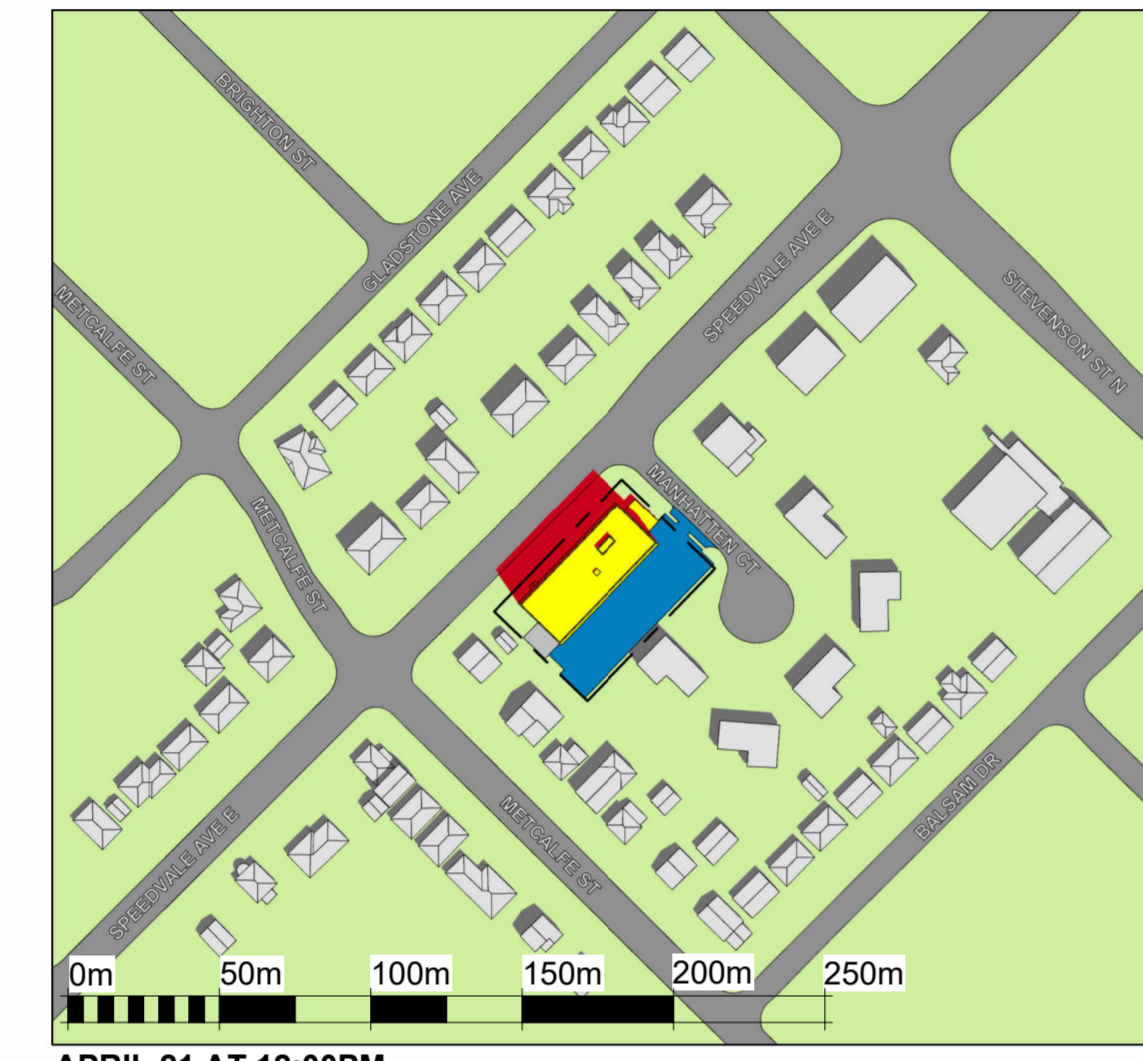
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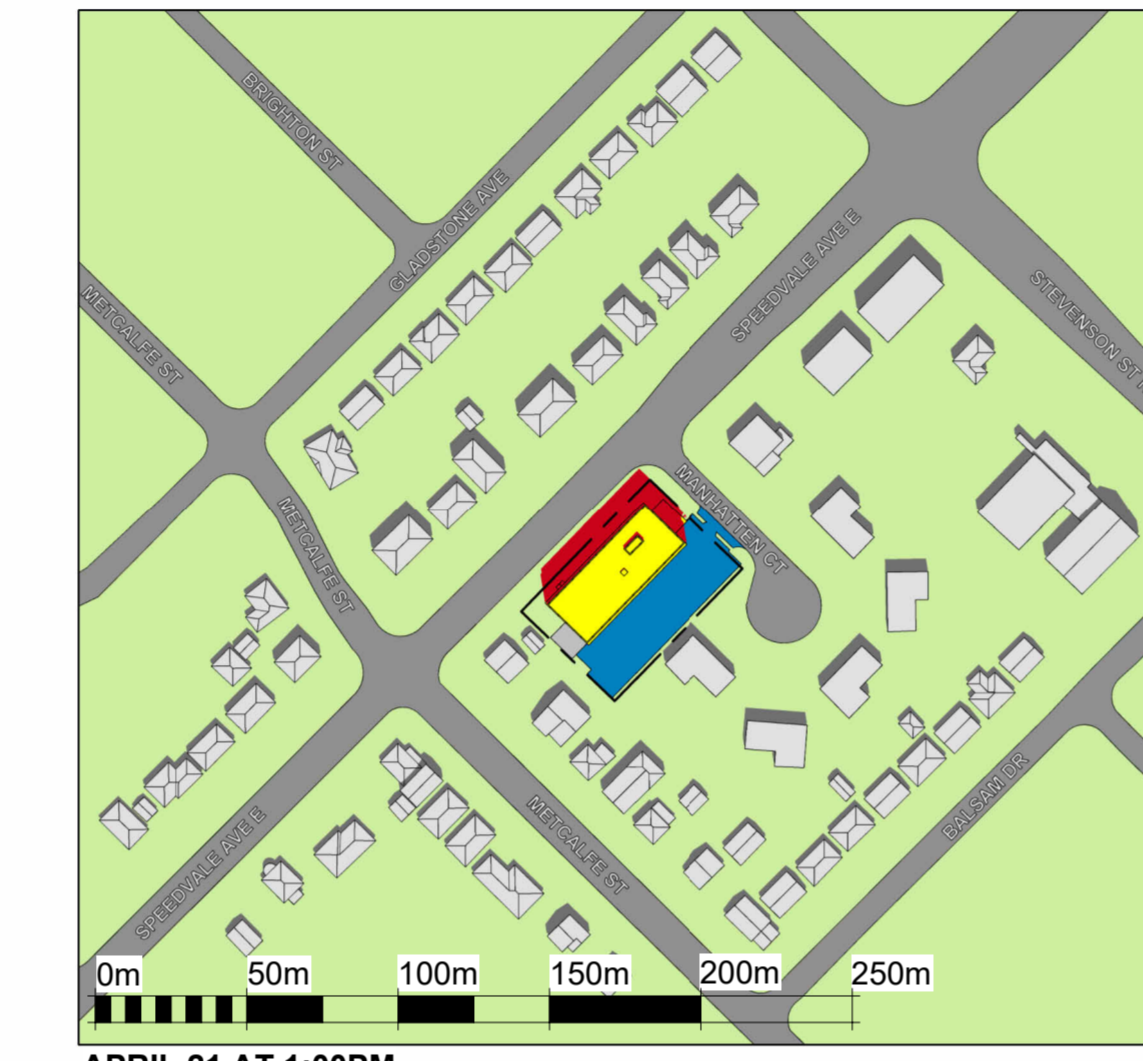
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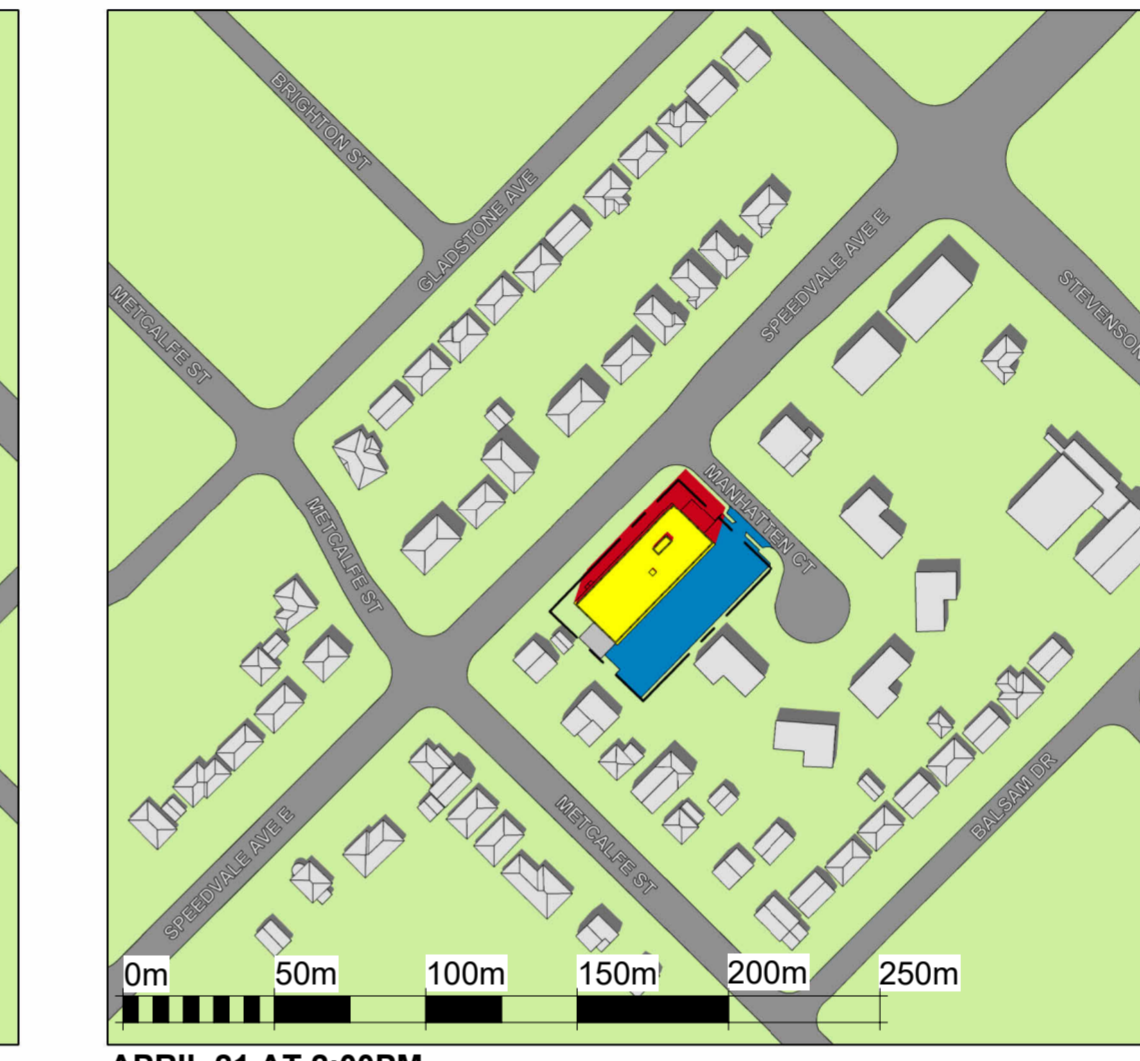
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APRIL 21 AT 12:00PM



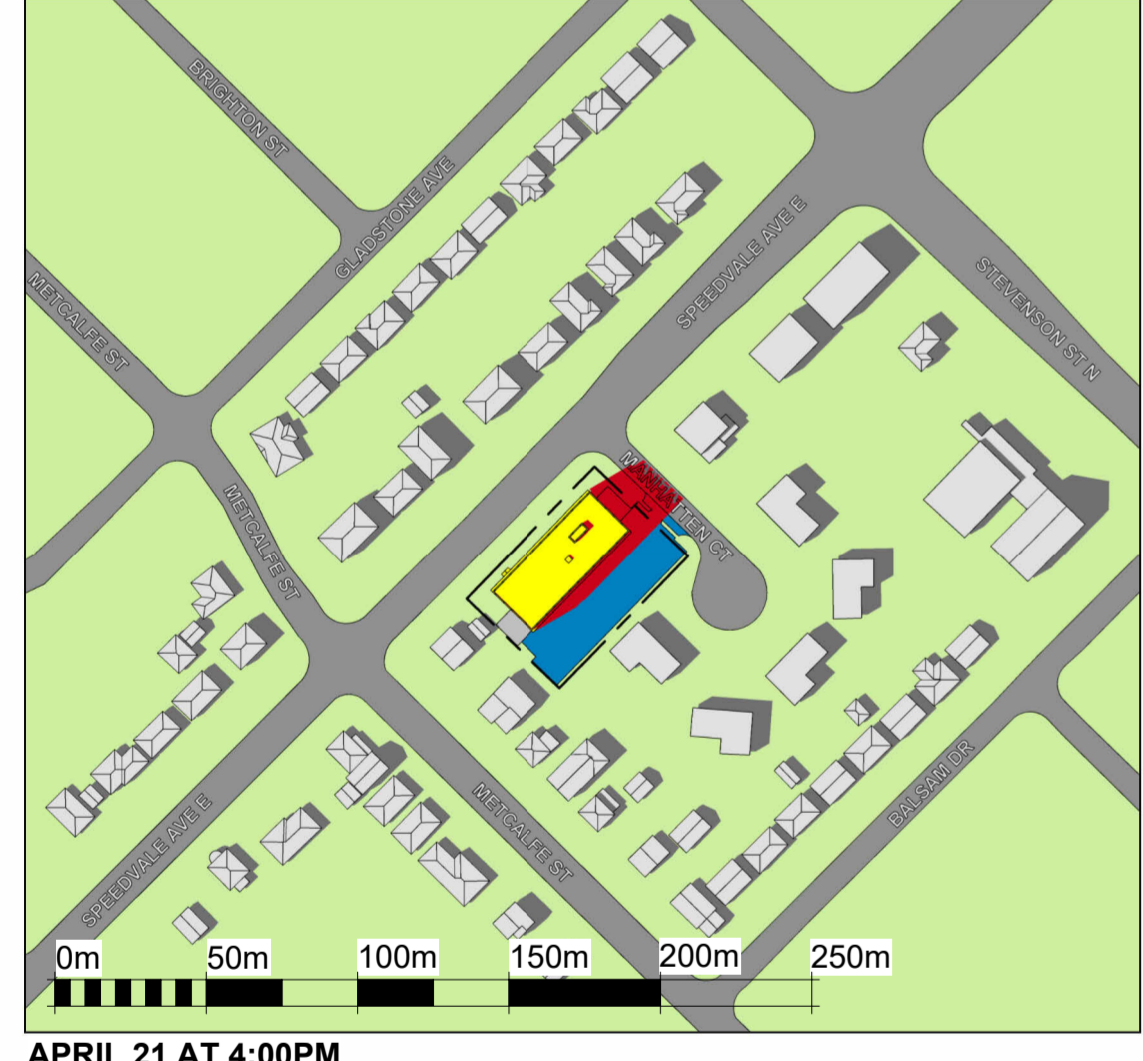
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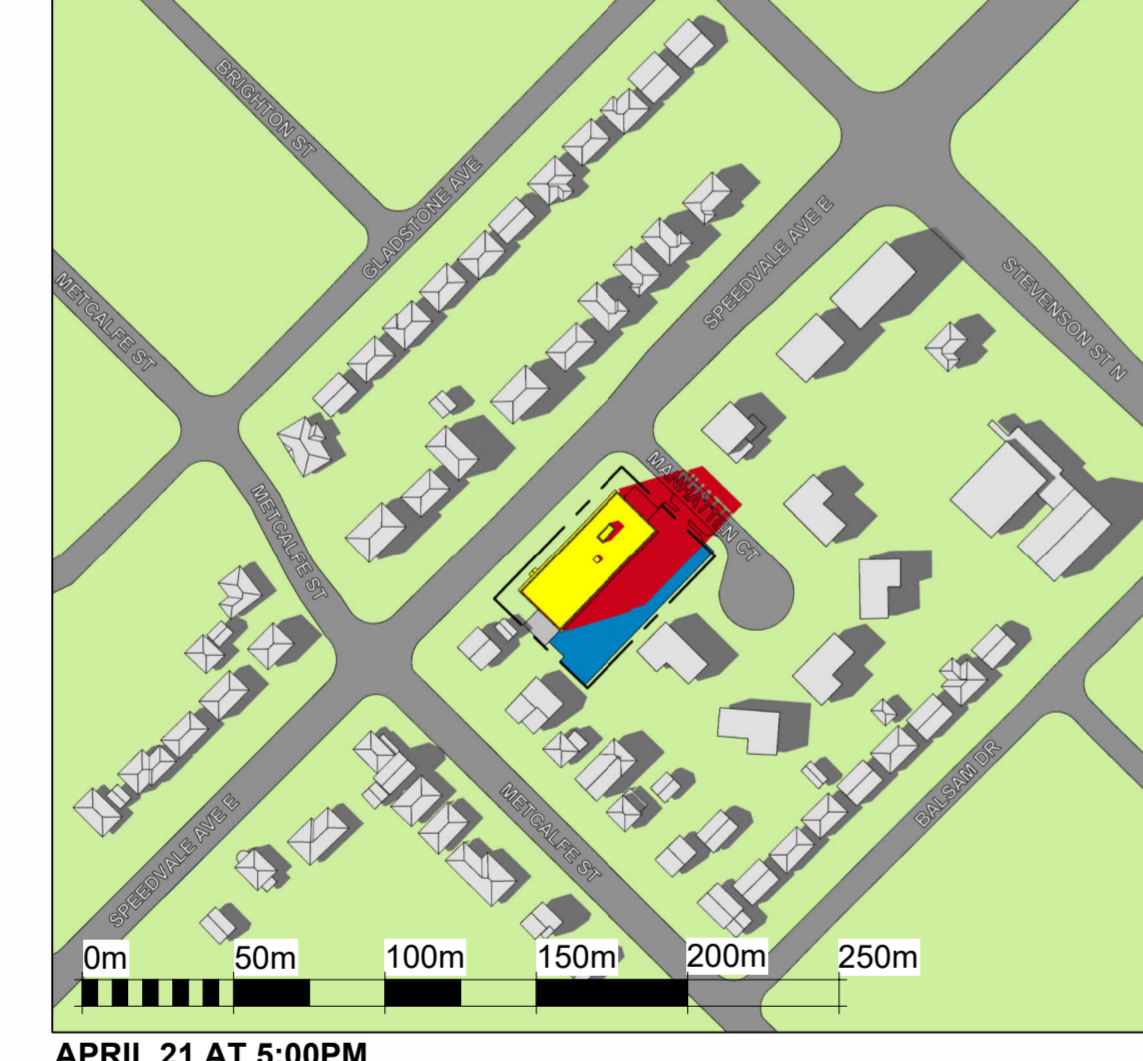
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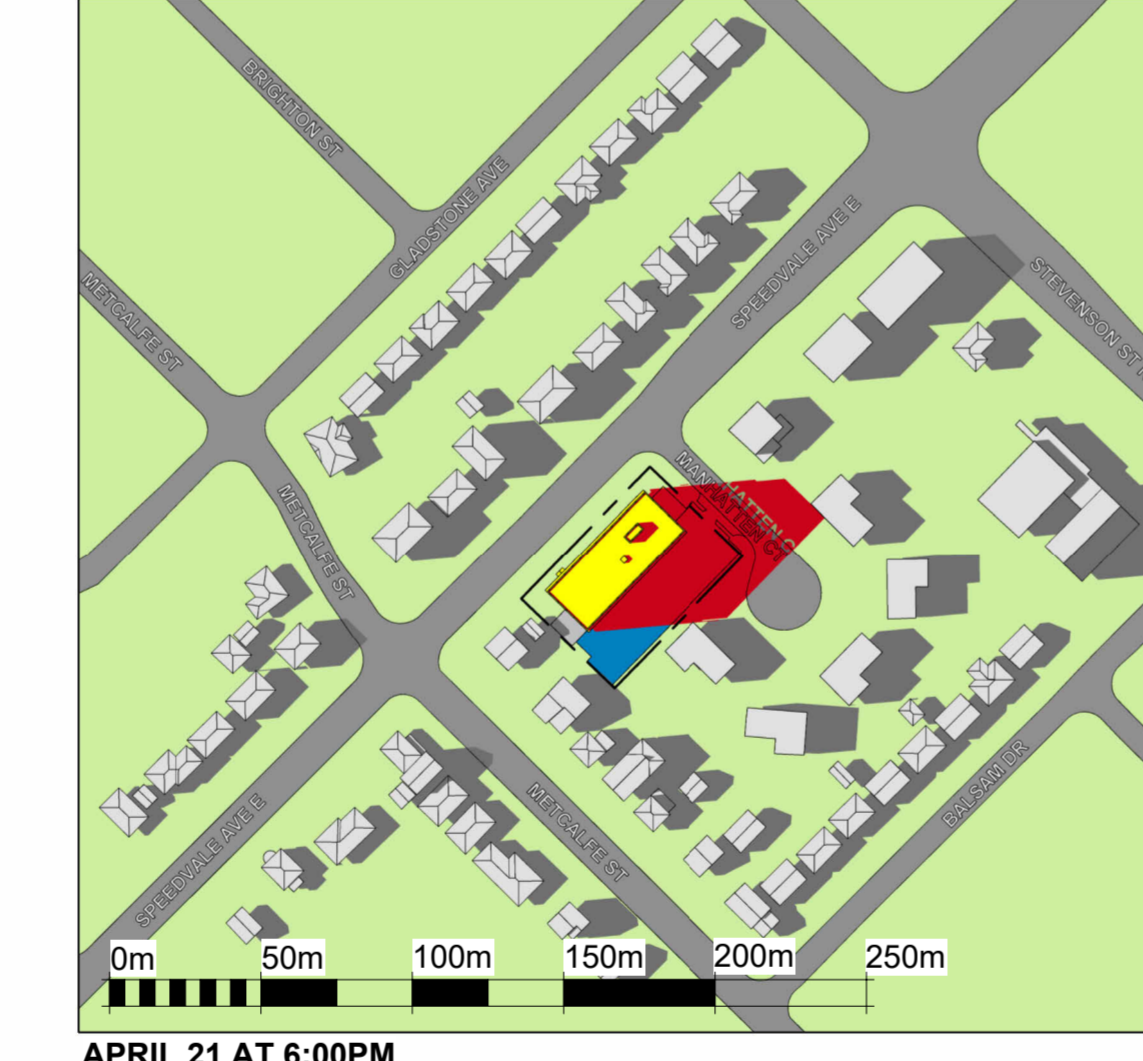
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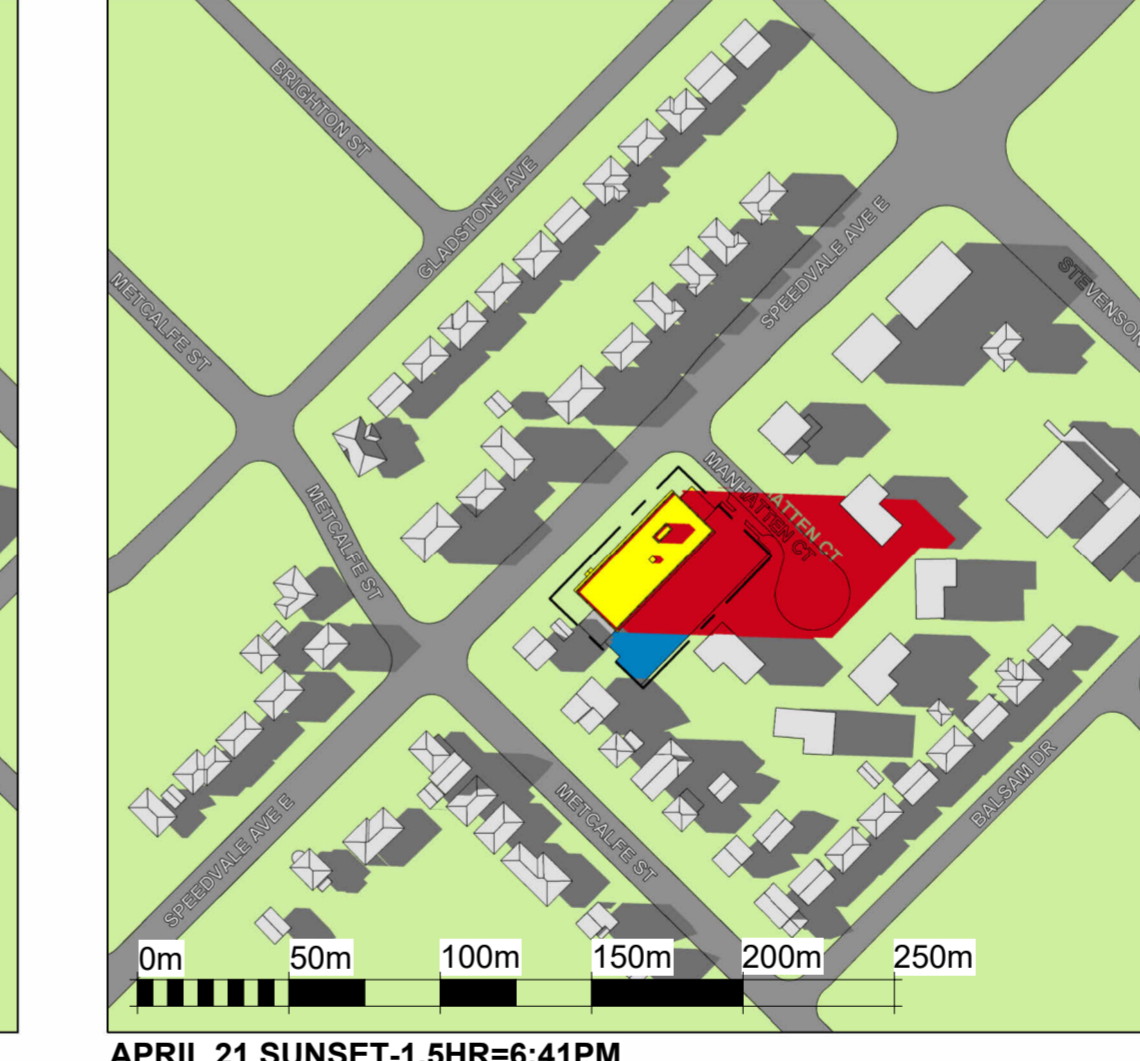
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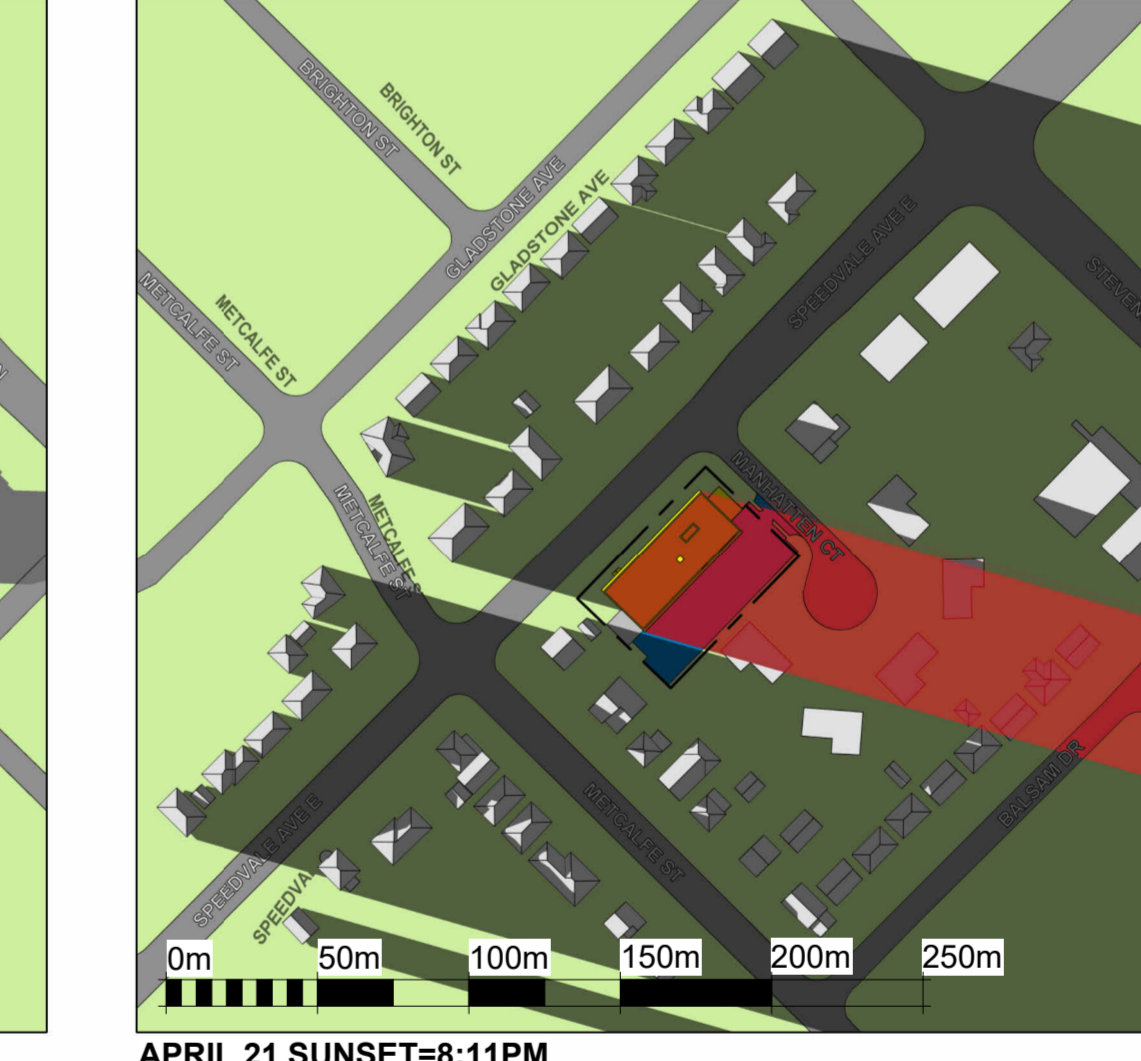
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APRIL 21 AT 6:00PM



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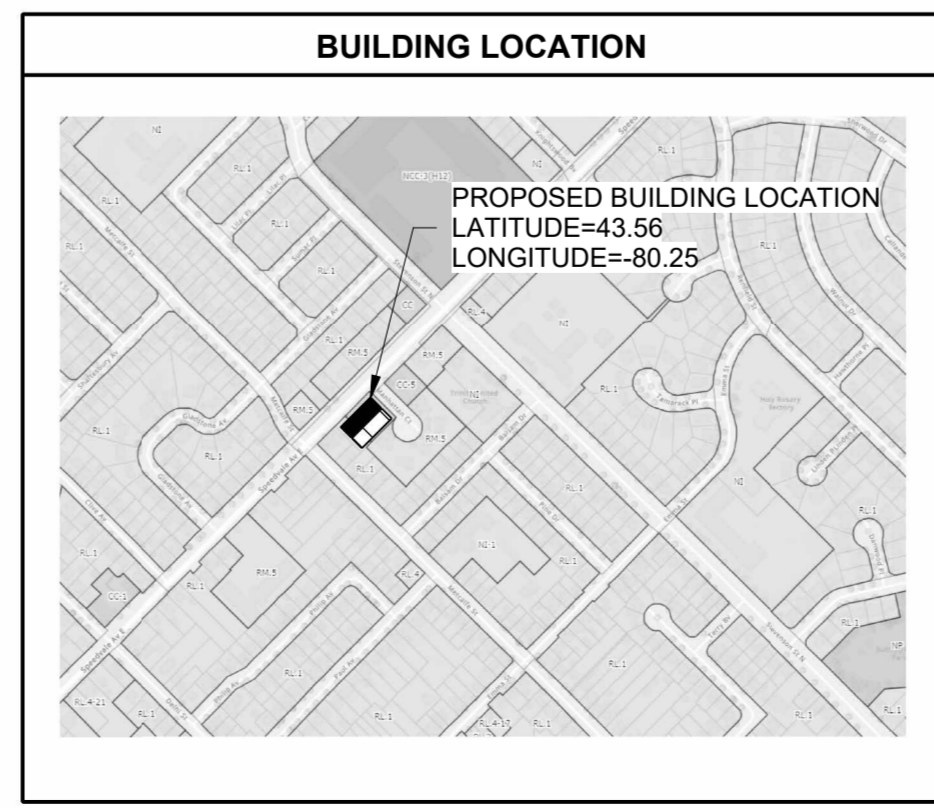
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B	23-12-19	ISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

PROJECT
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DRAWING
SUN PATH STUDY - PROPOSED APRIL 21

PROJECT NO.: 23136
PROJECT DATE: 2023-07-20
DRAWN BY: CVL
CHECKED BY: CK/PH
SCALE: As Indicated

DRAWING NO. **A9.00**



SHADOW STUDY LEGEND

	UNDERLAY ROADWAYS		PROPOSED BUILDING
	UNDERLAY GRASS AREAS		SHADOW CAST PROPOSED
	SHADOW CAST EXISTING		MODELED SURROUNDING BUILDINGS
	UNDERLAY PARKING AREA		



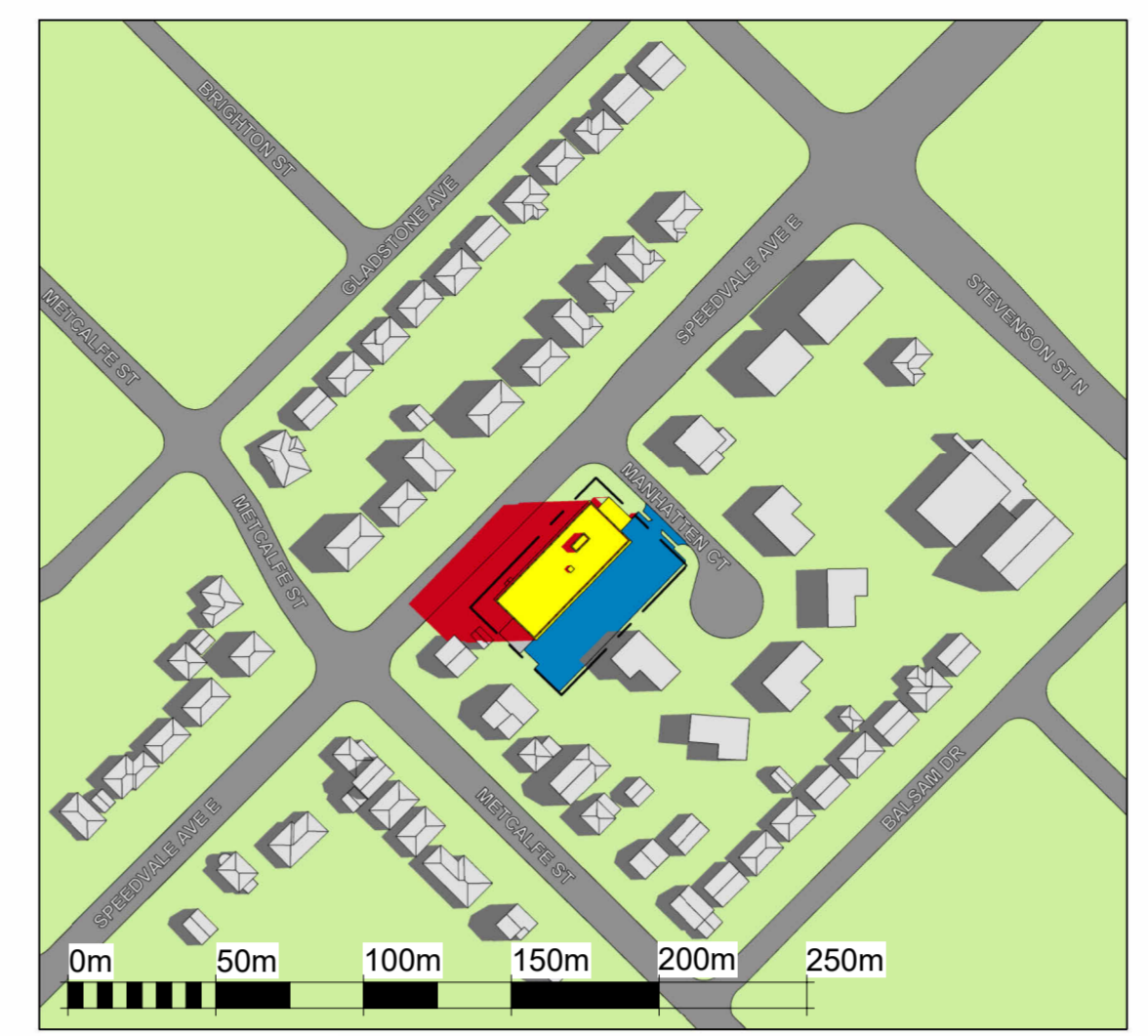
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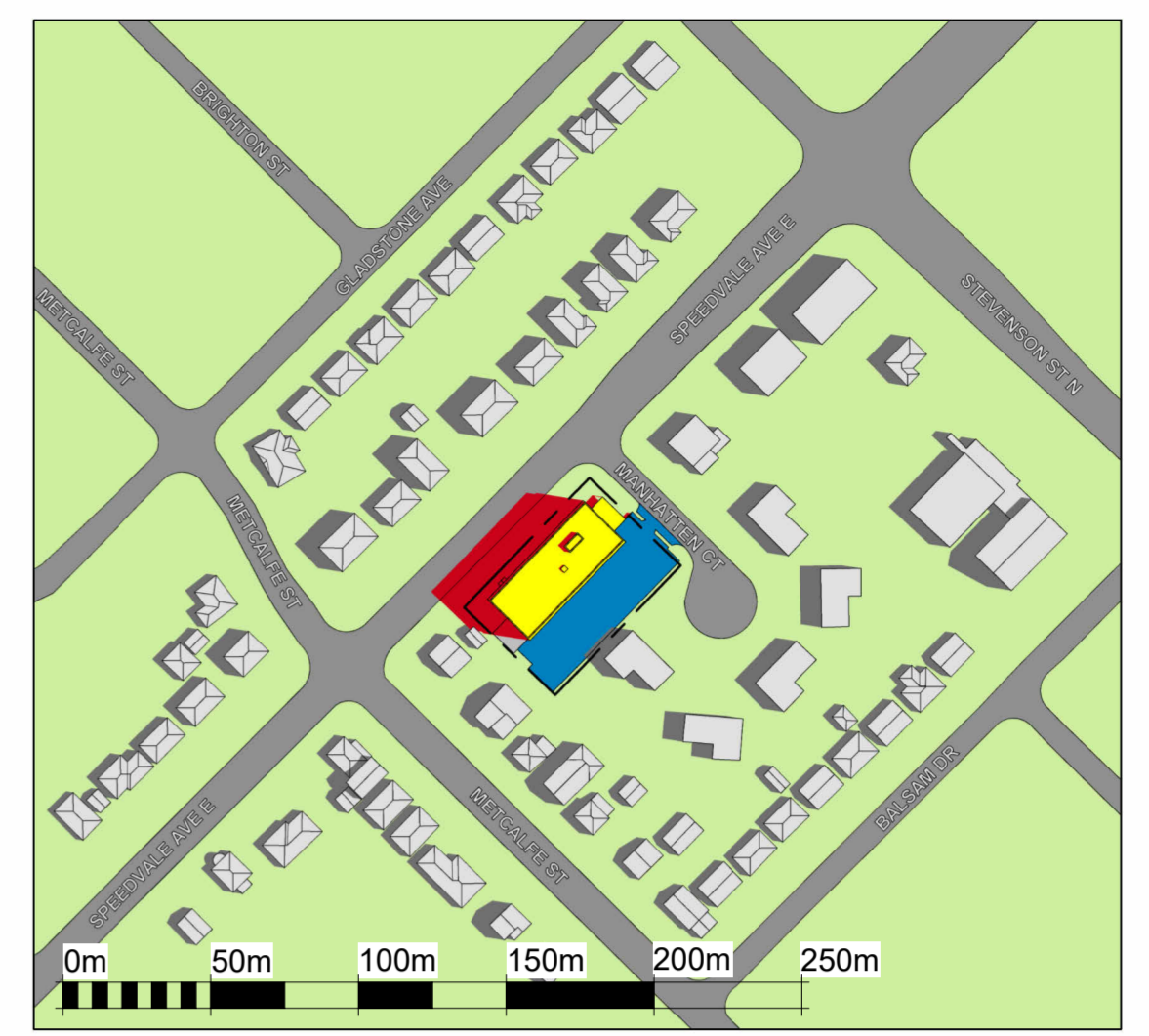
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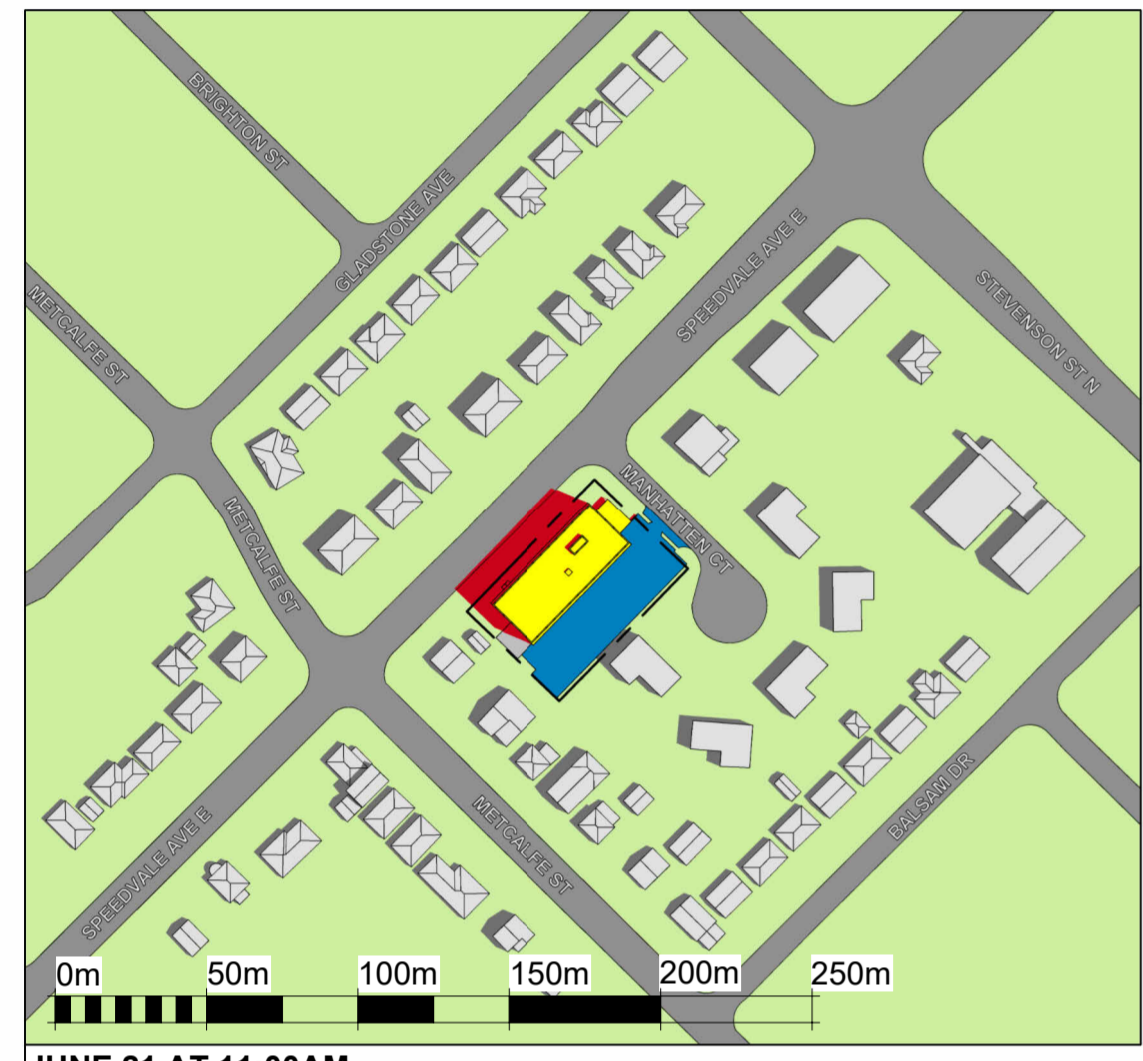
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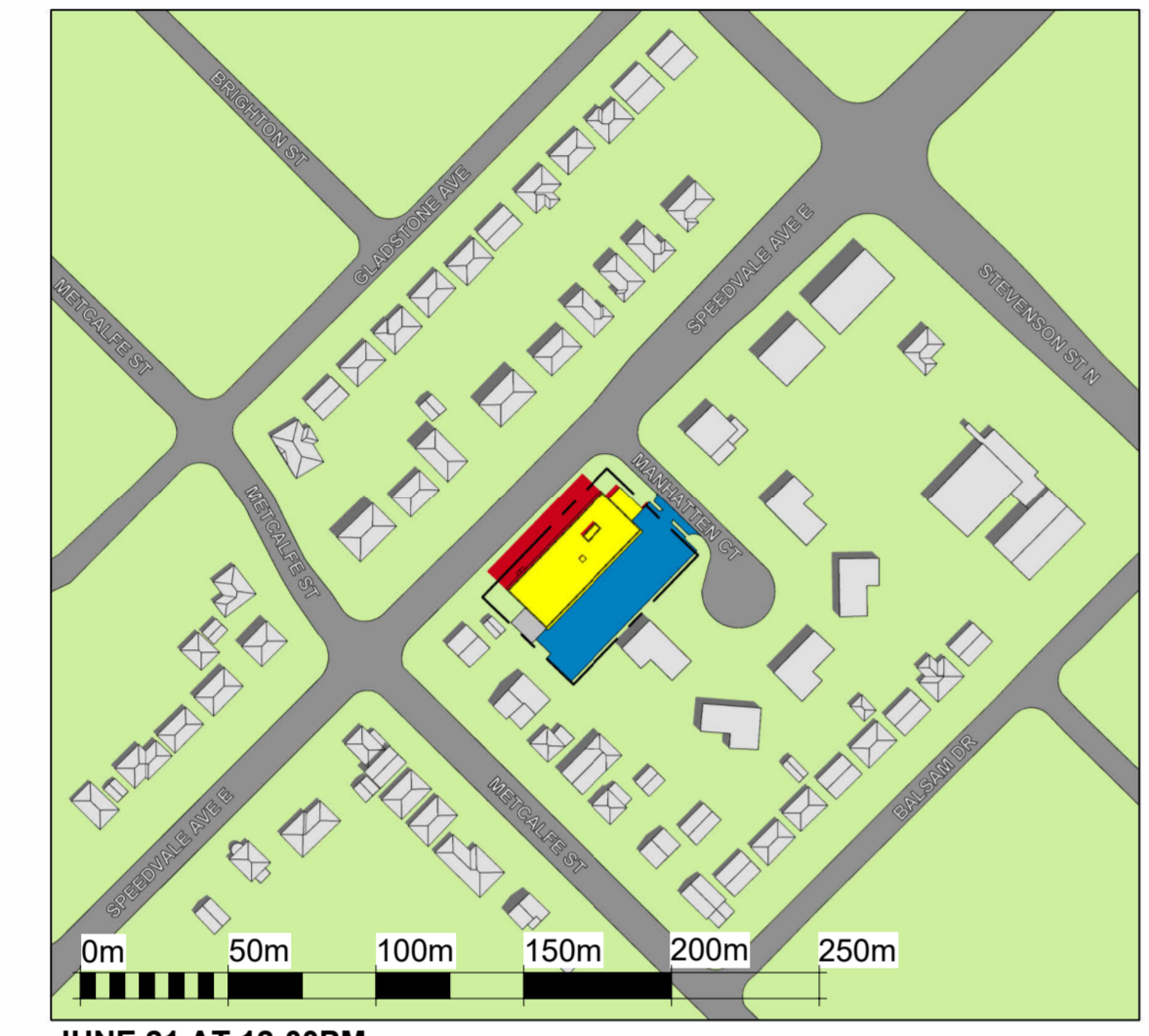
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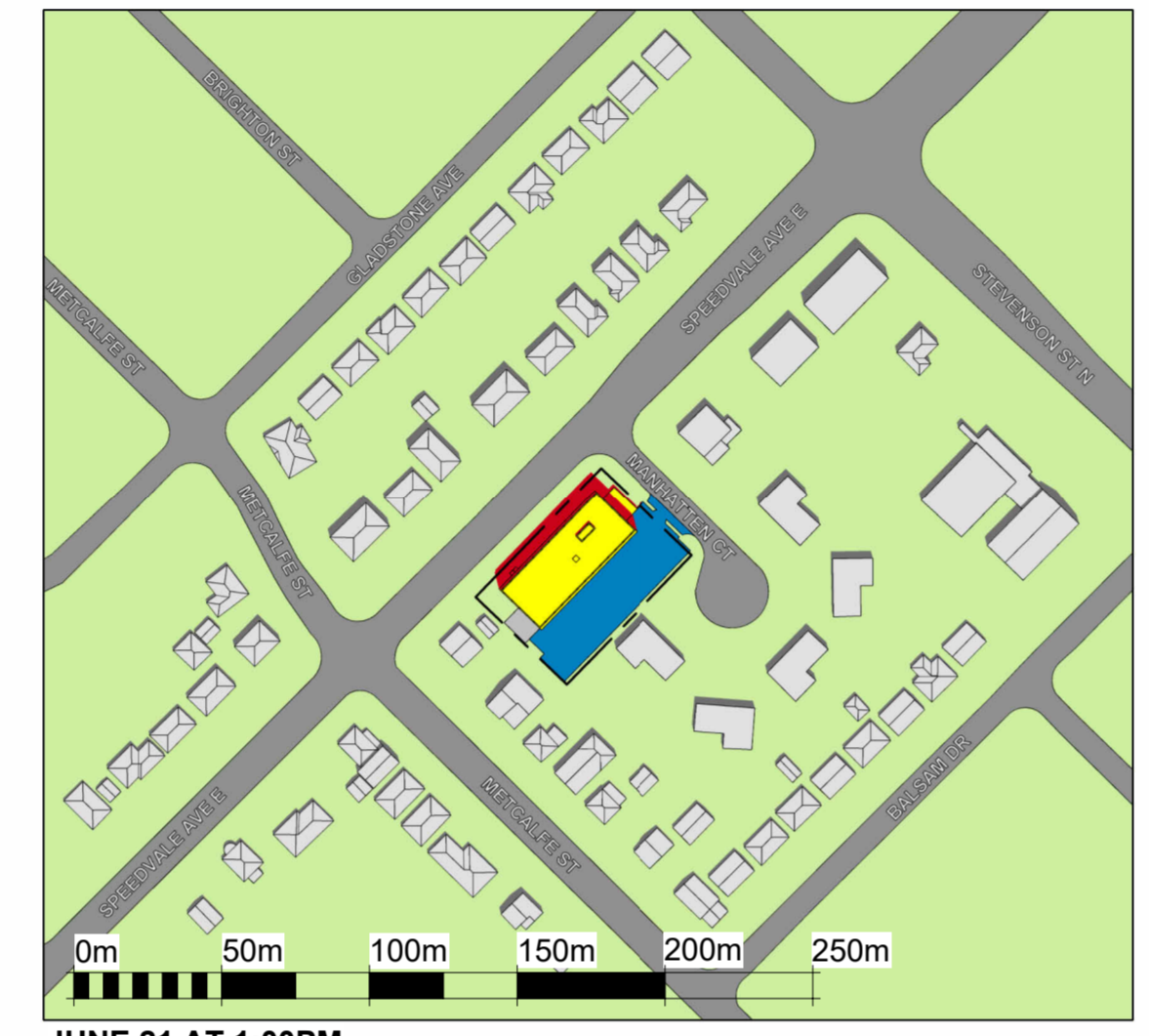
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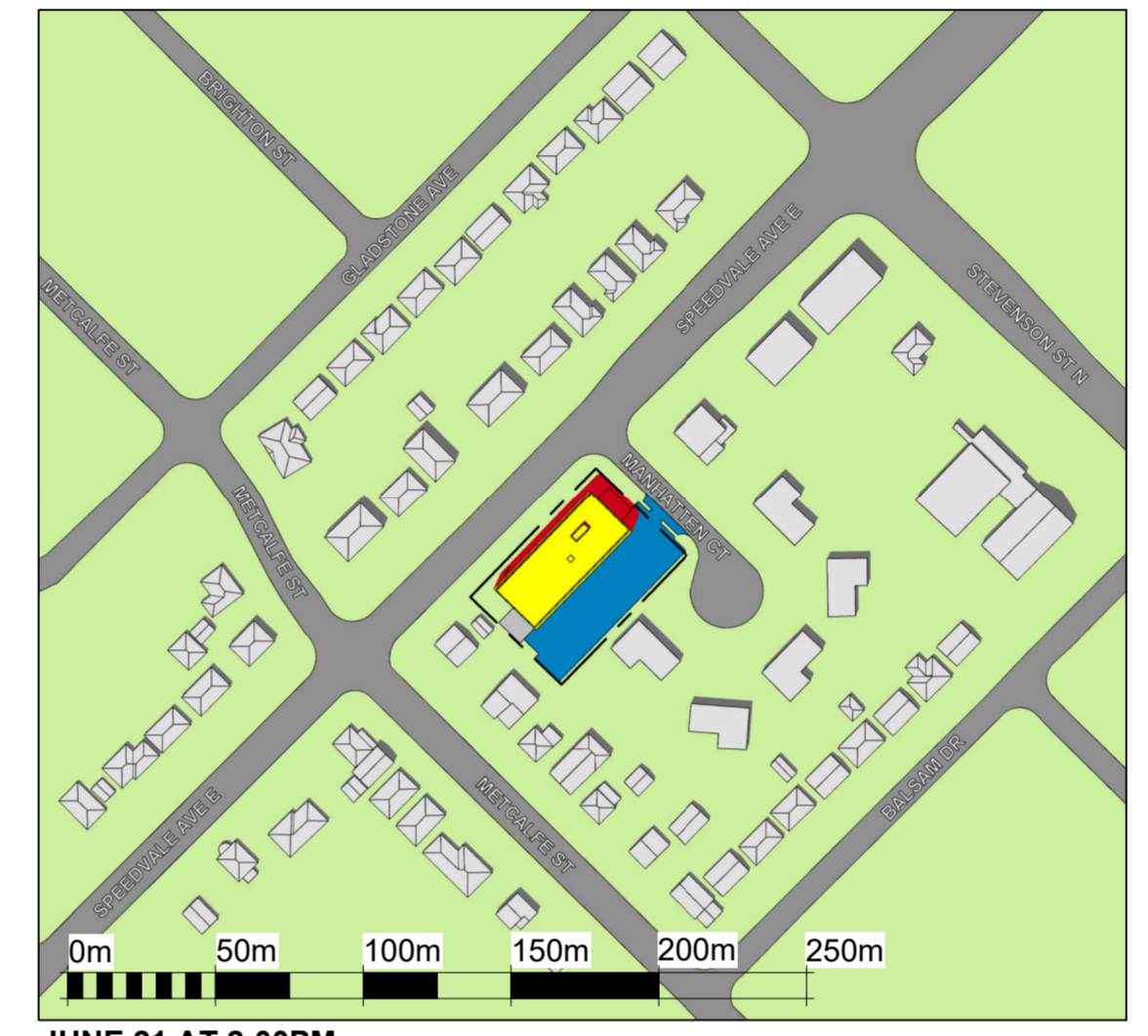
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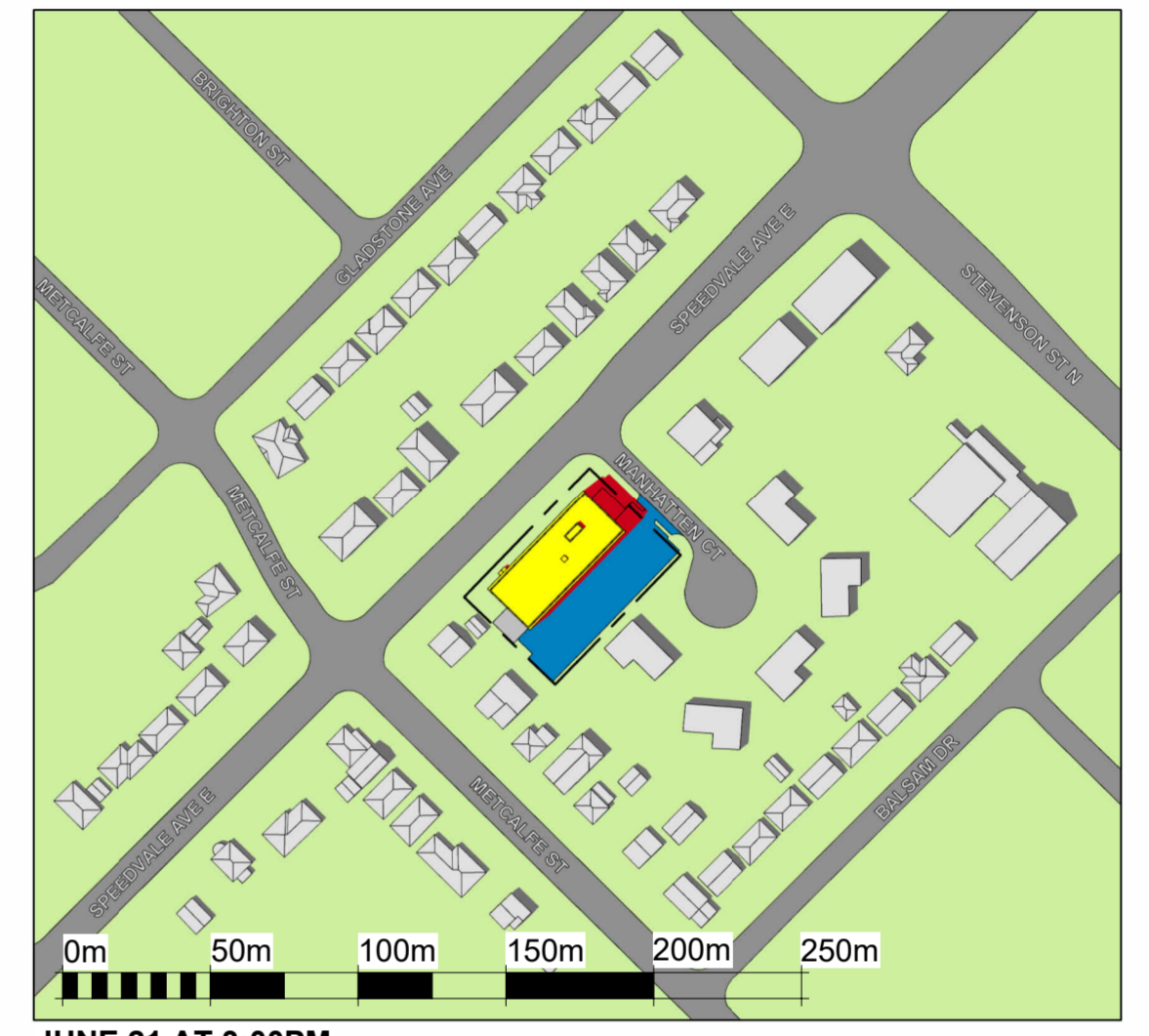
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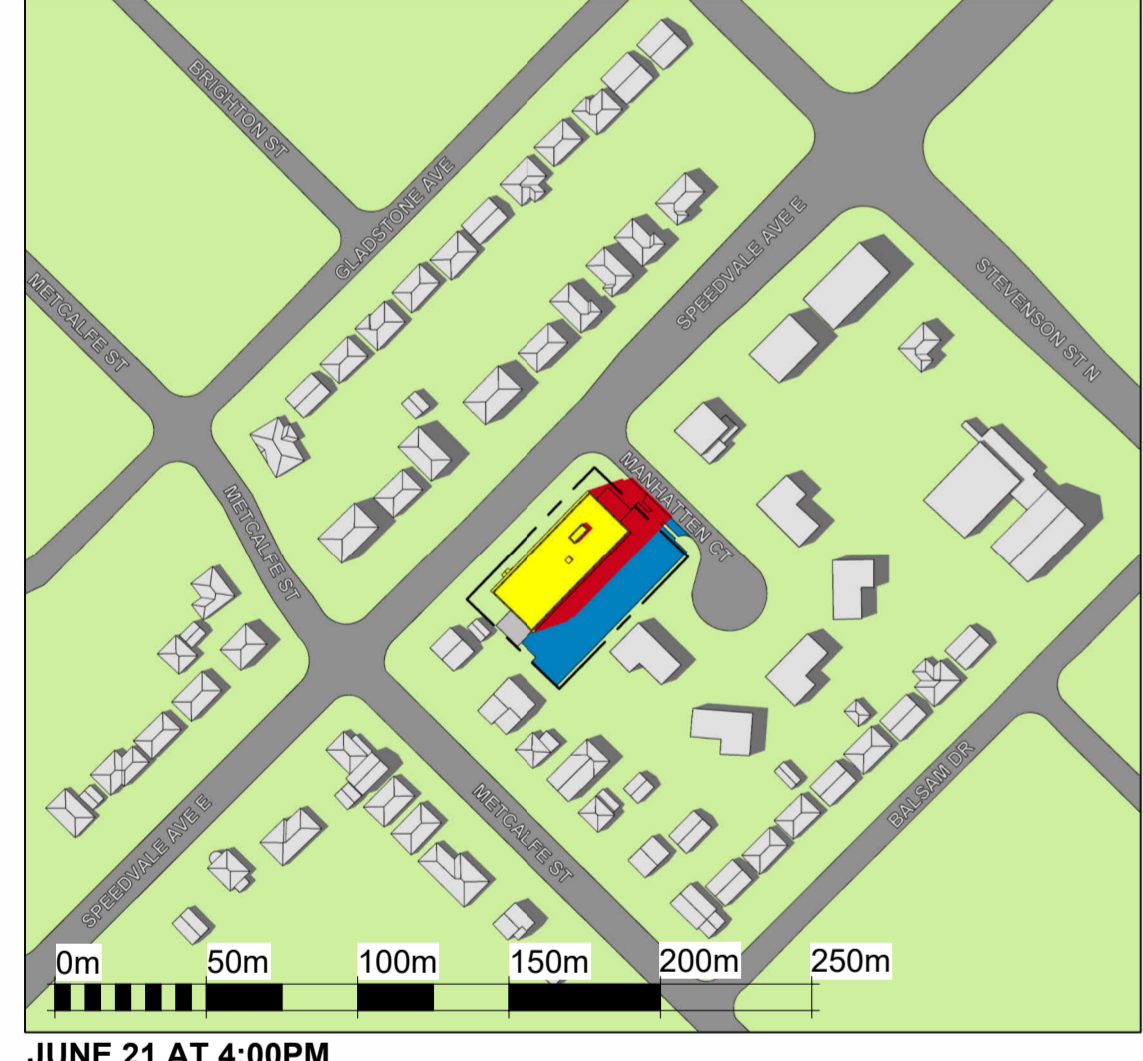
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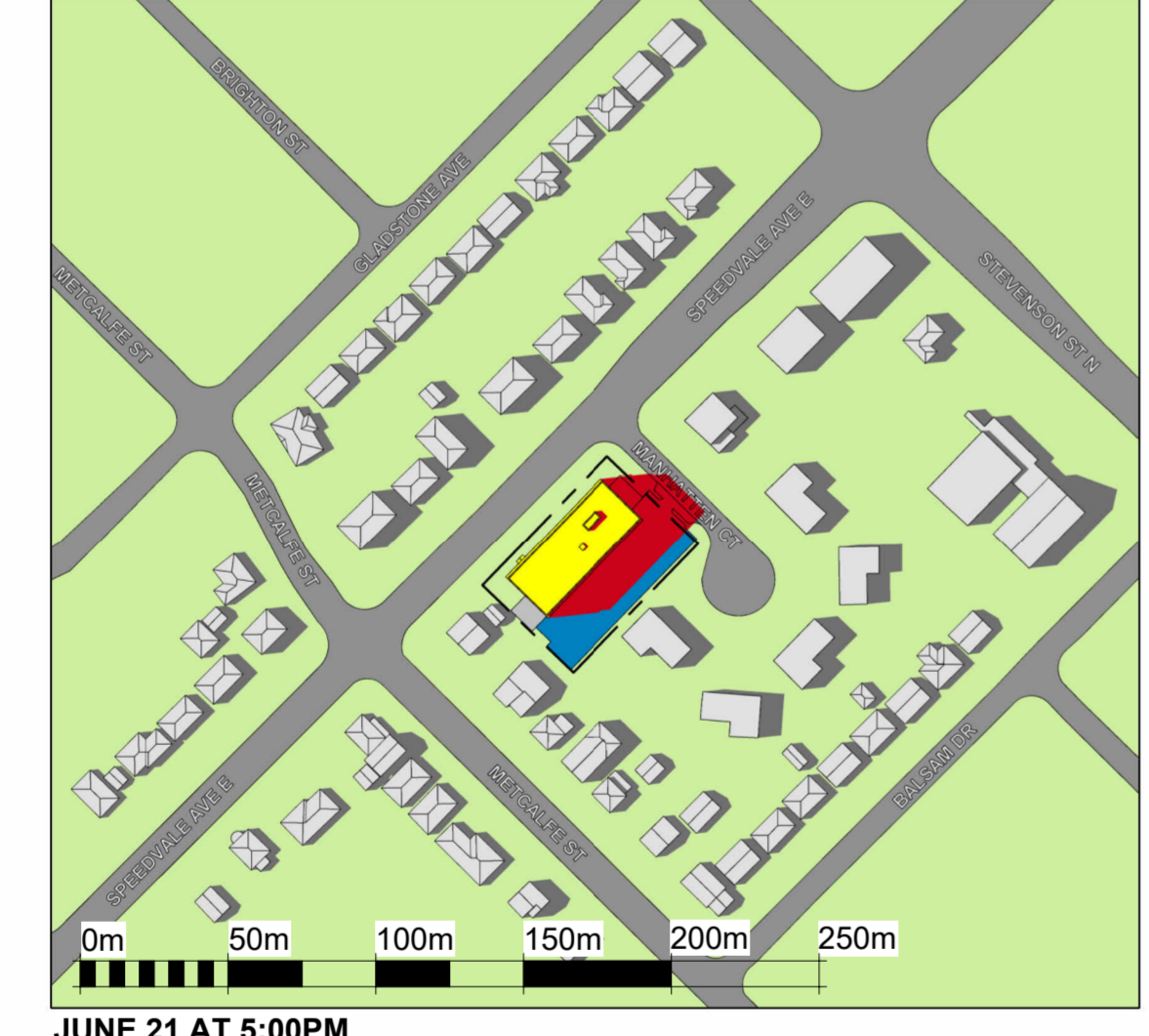
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JUNE 21 AT 3:00PM



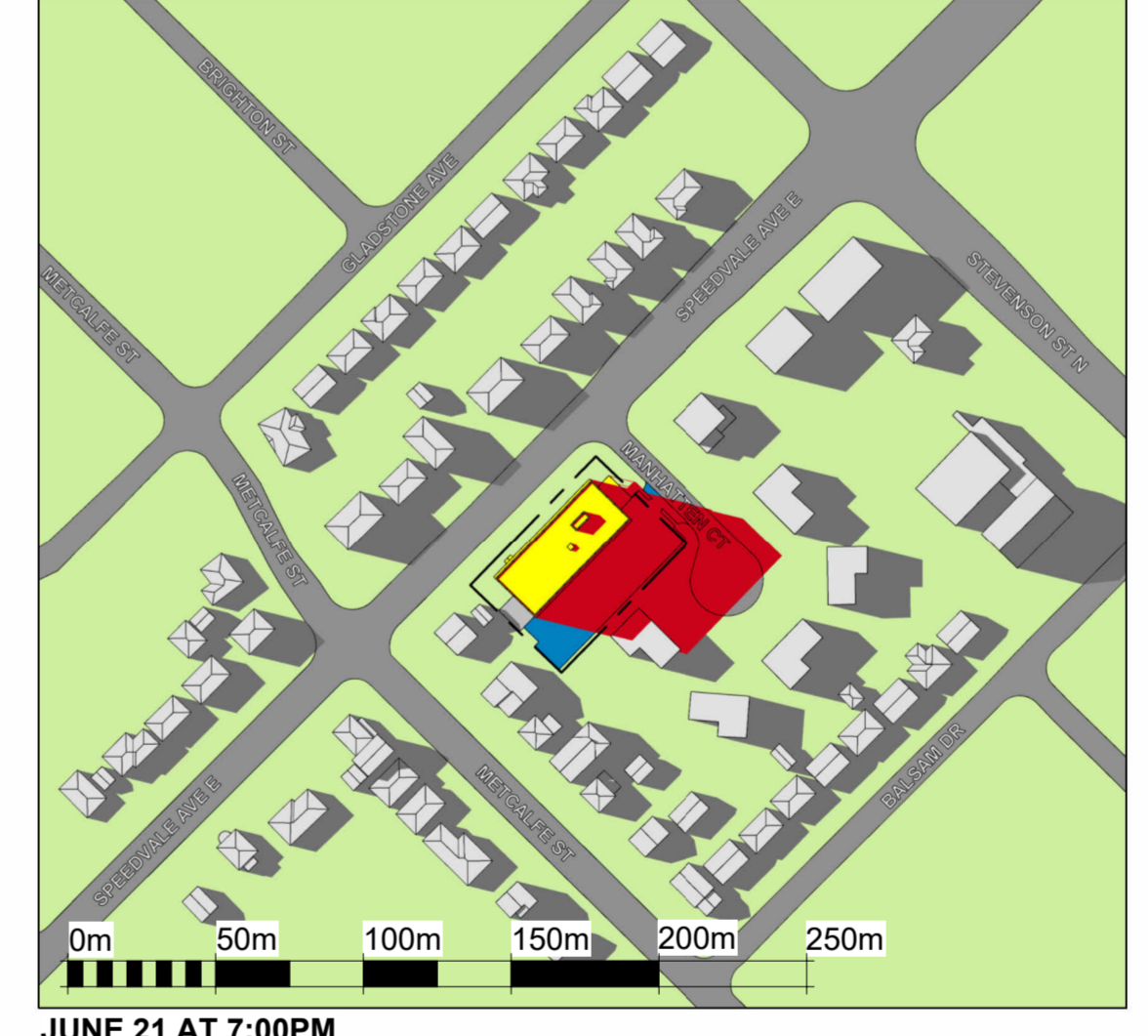
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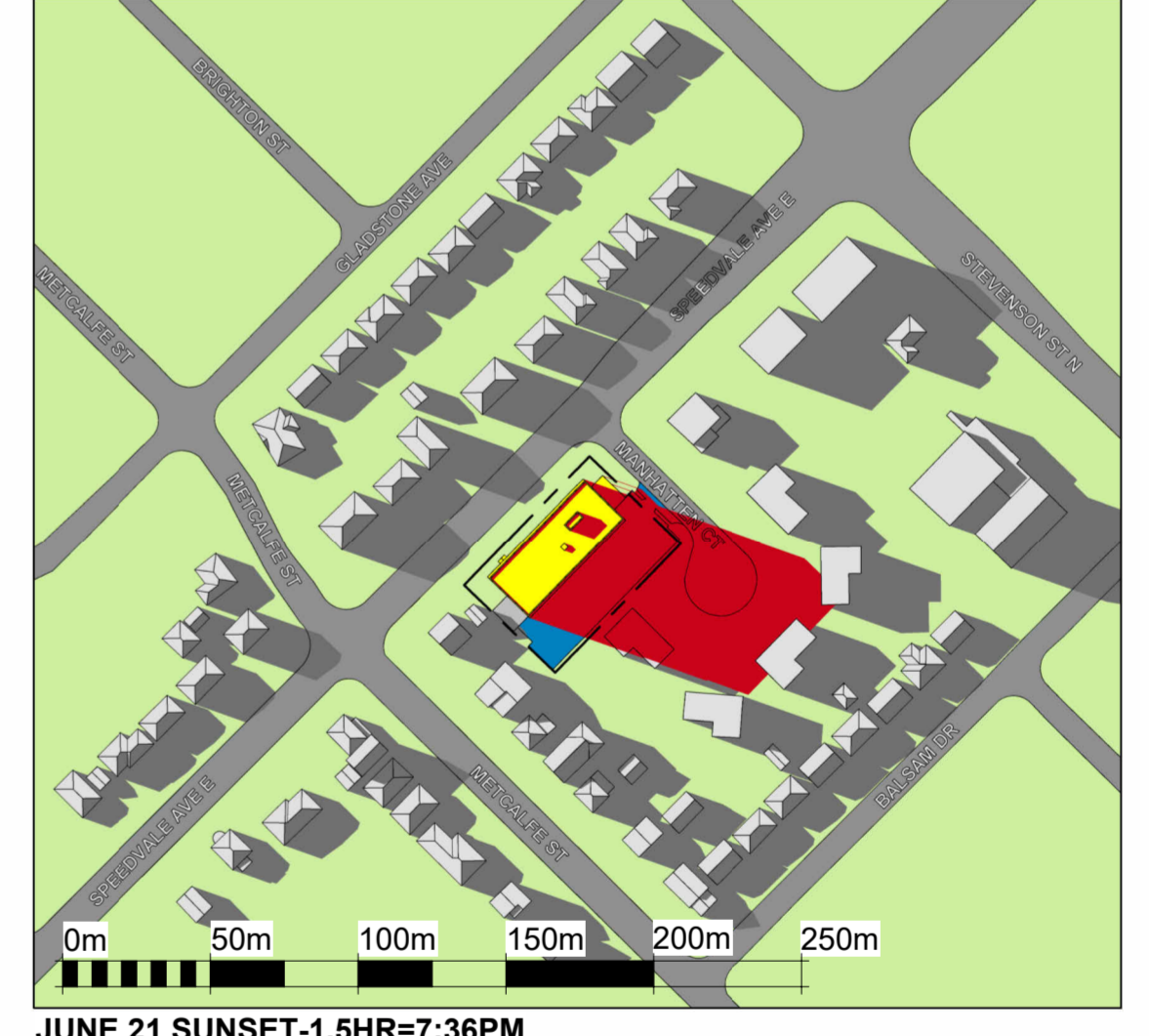
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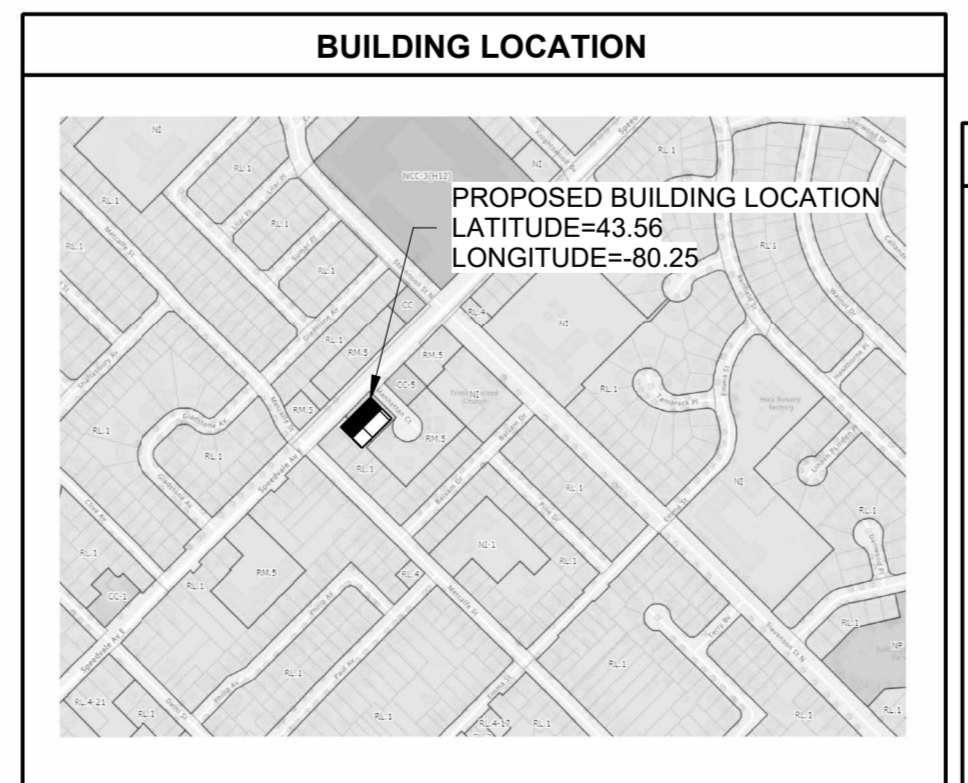
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JUNE 21 SUNSET=9:06PM



SHADOW STUDY LEGEND			
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	UNDERLAY GRASS AREAS		SHADOW CAST PROPOSED
	SHADOW CAST EXISTING		MODELED SURROUNDING BUILDINGS
	UNDERLAY PARKING AREA		

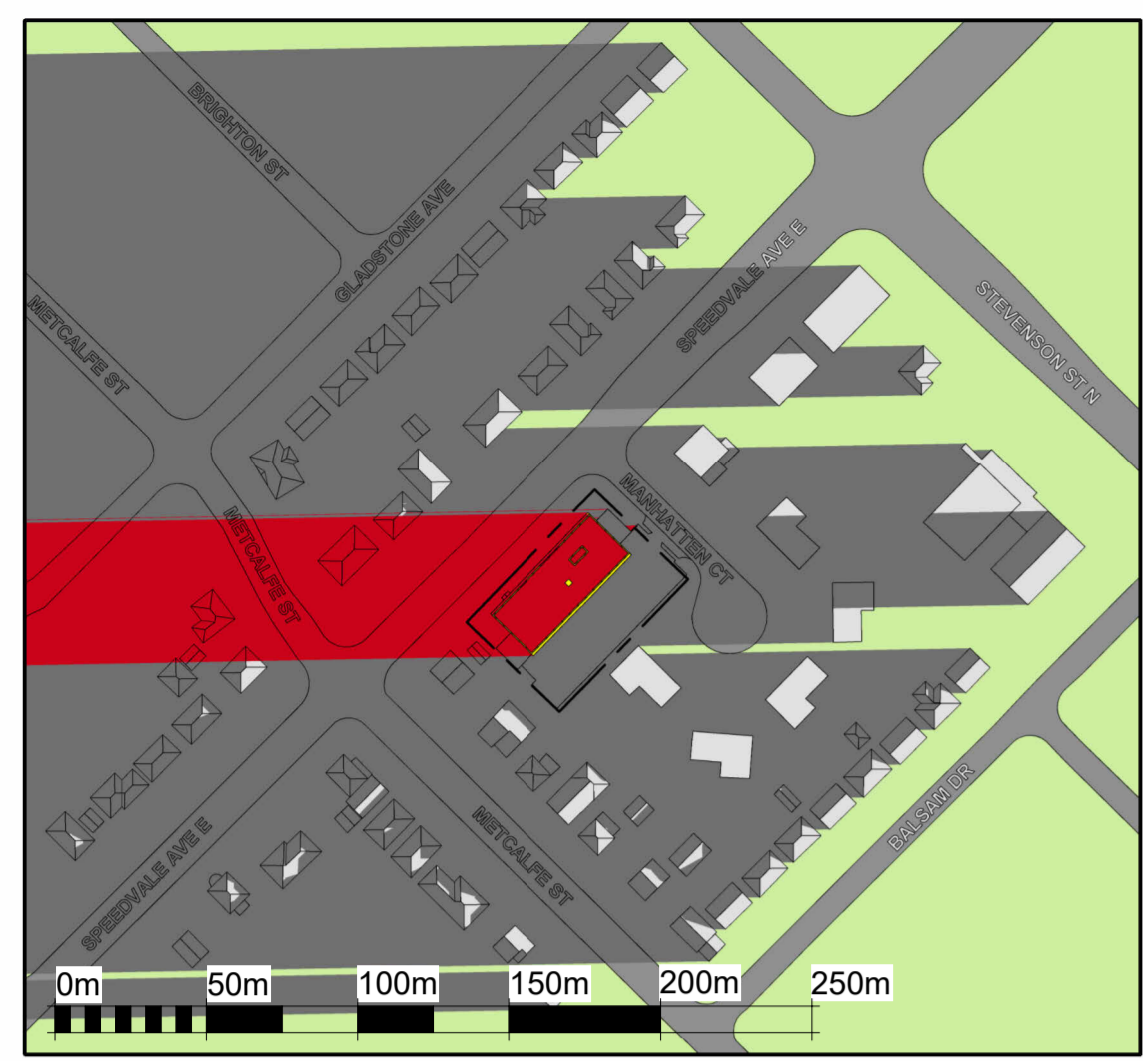
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B	23-12-19	ISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL

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DRAWING
SUN PATH STUDY - PROPOSED JUNE 21

PROJECT NO.: 23136
PROJECT DATE: 2023-07-20
DRAWN BY: CVL
CHECKED BY: CK/PH
SCALE: As Indicated

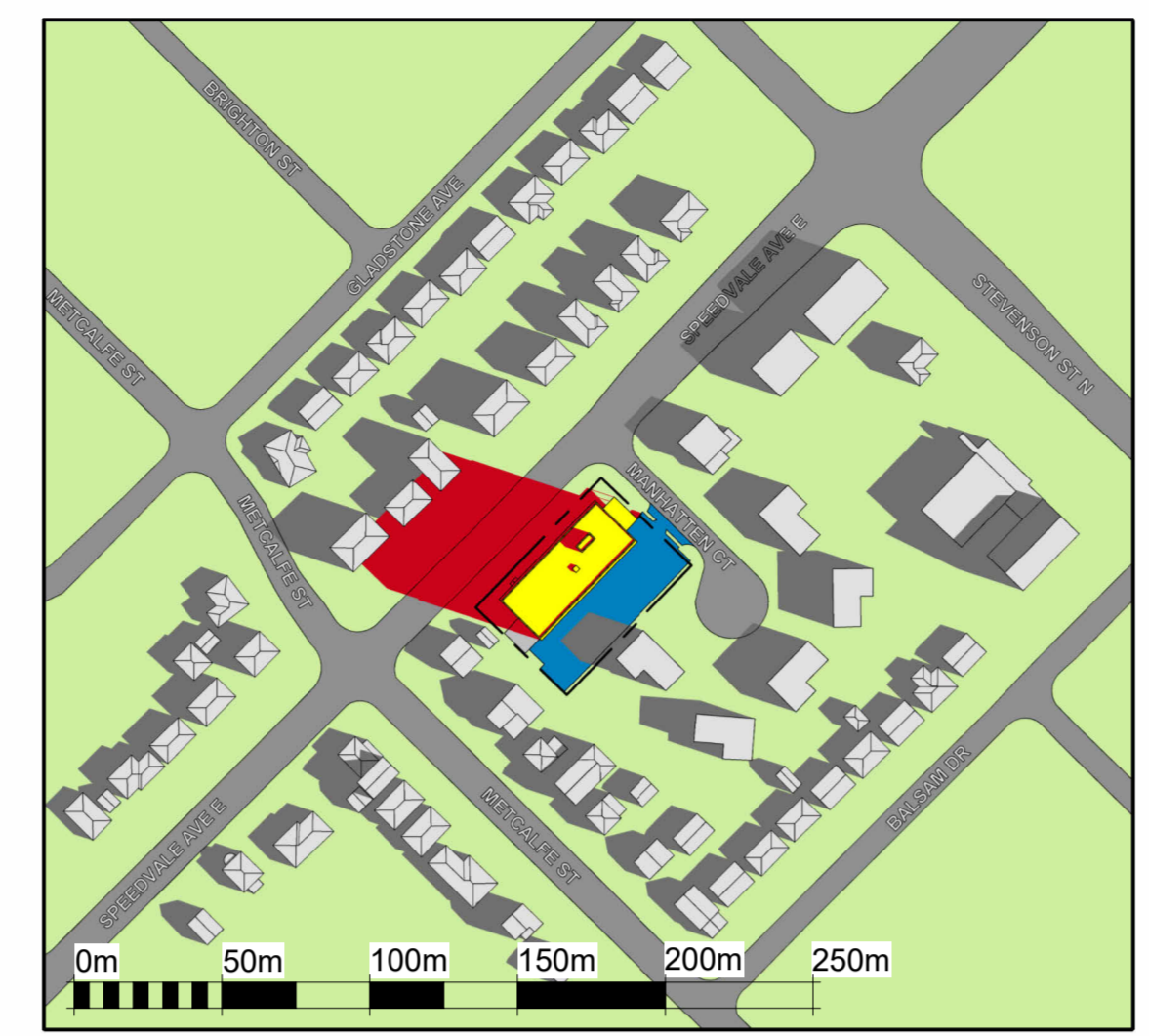
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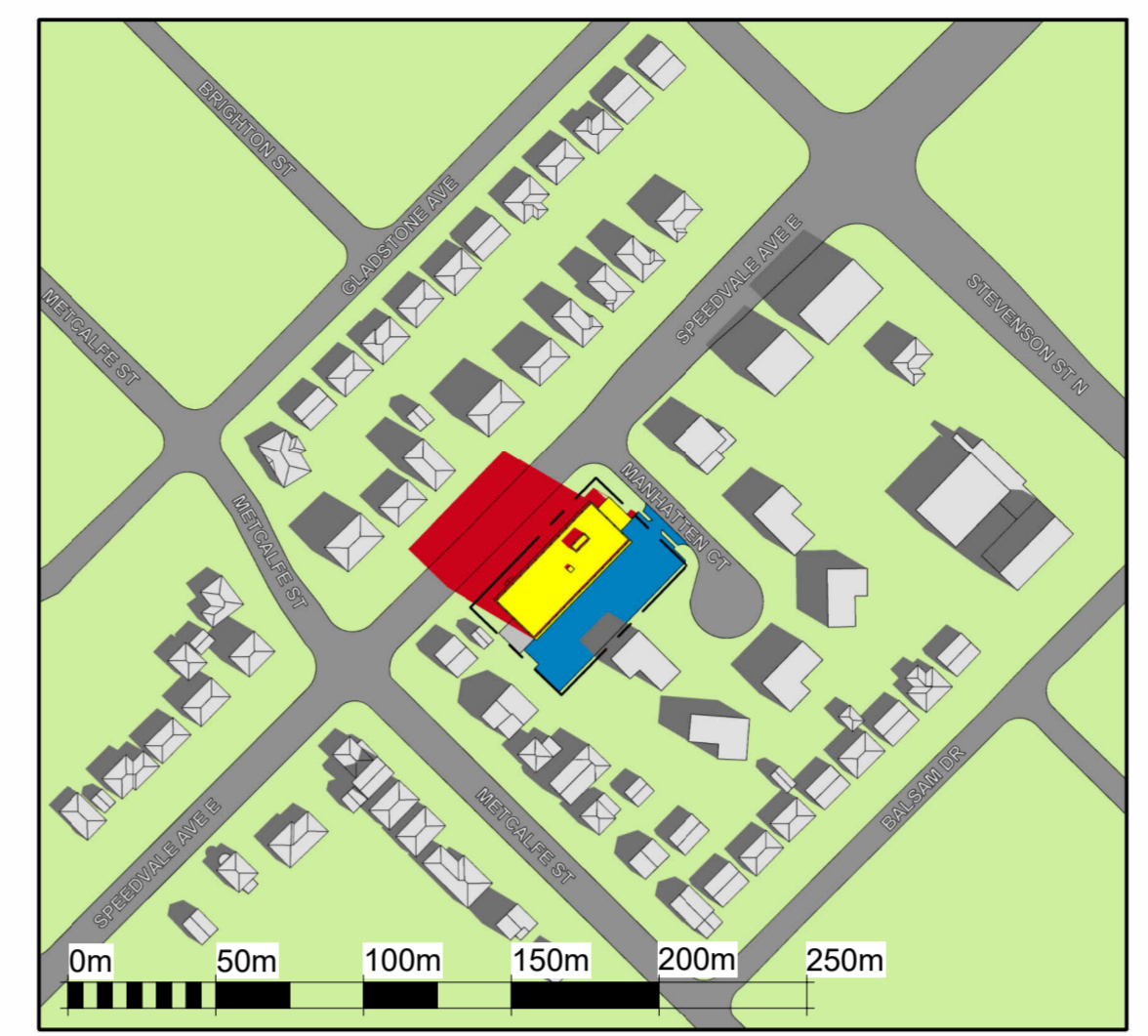
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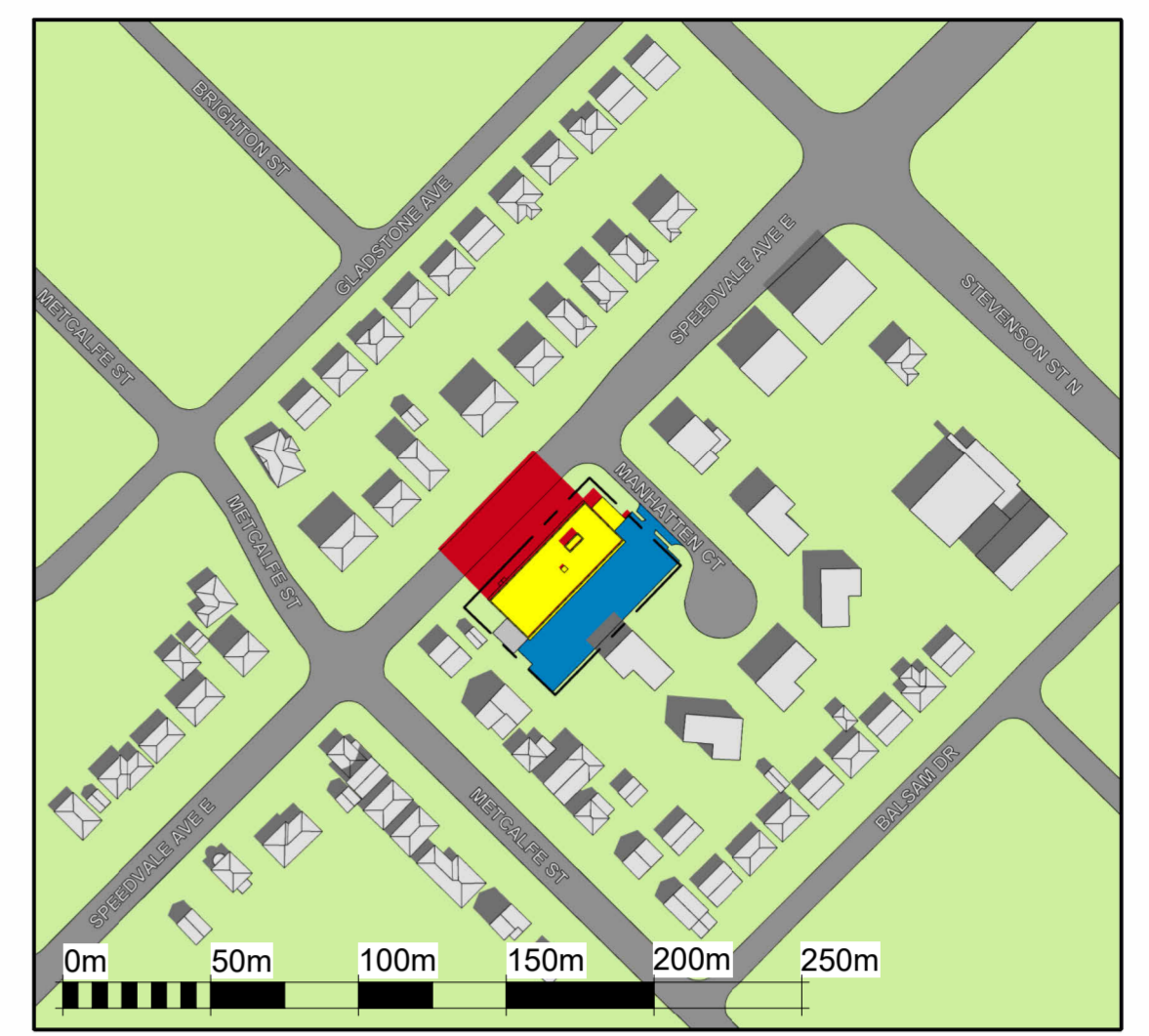
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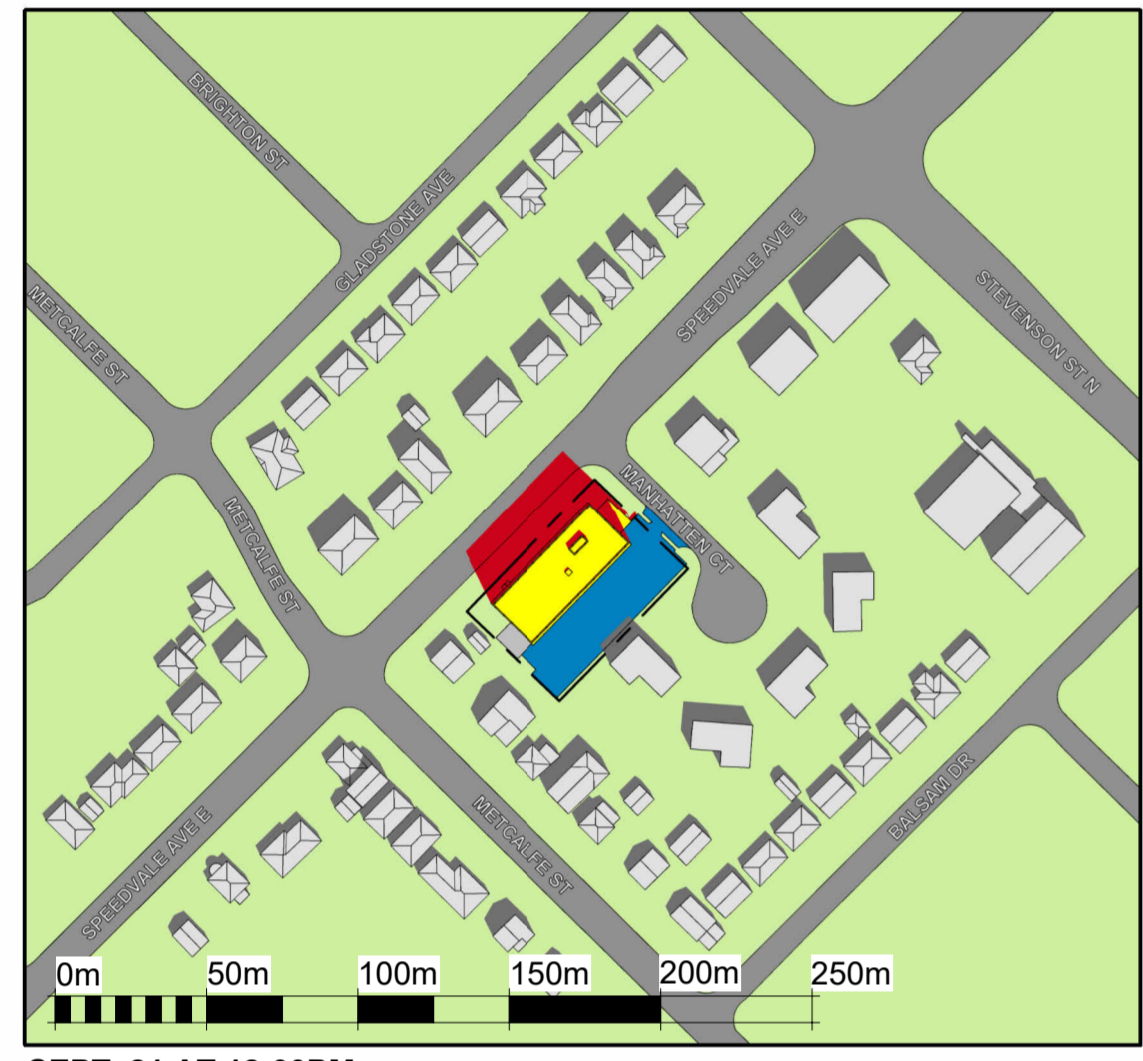
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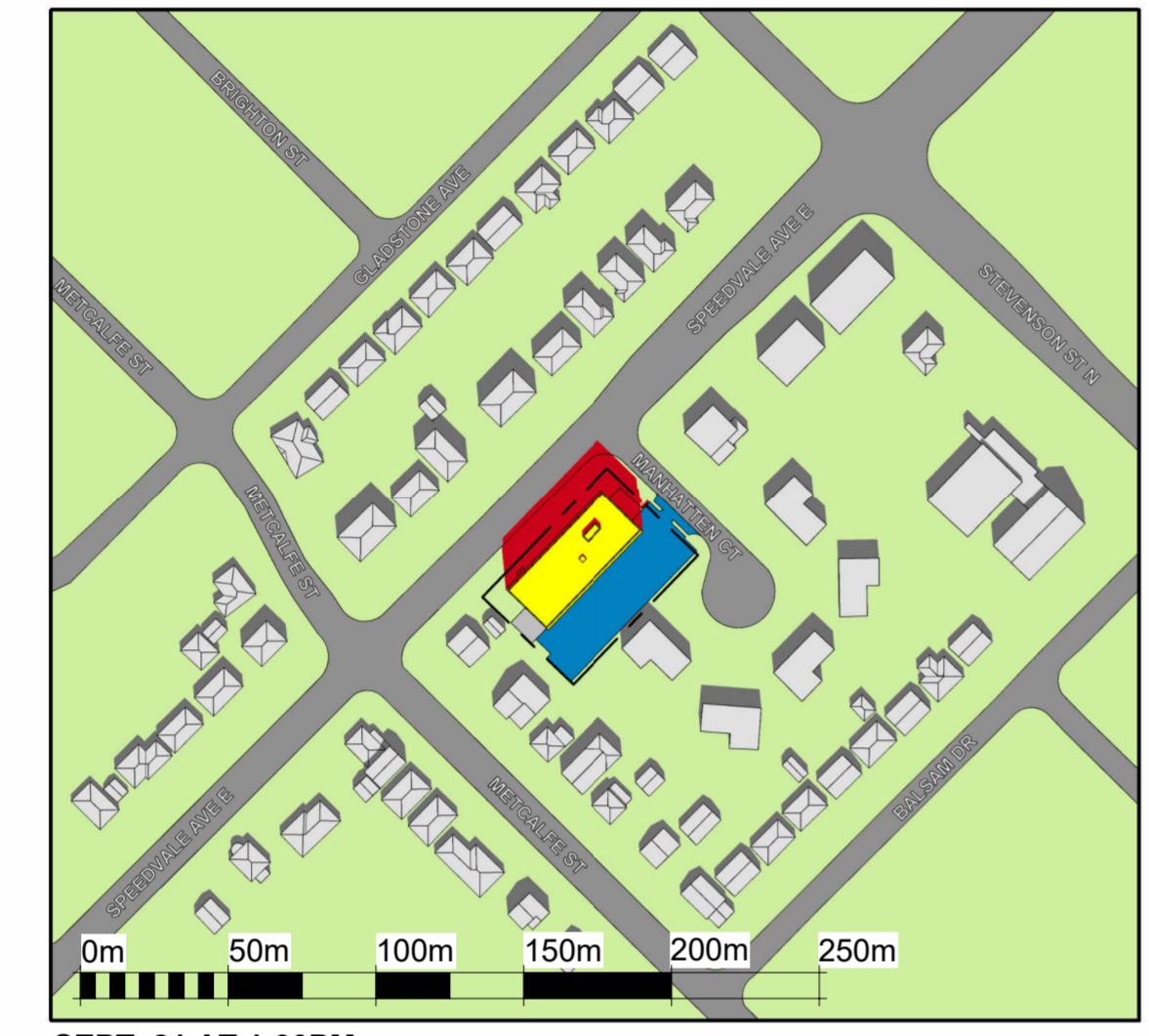
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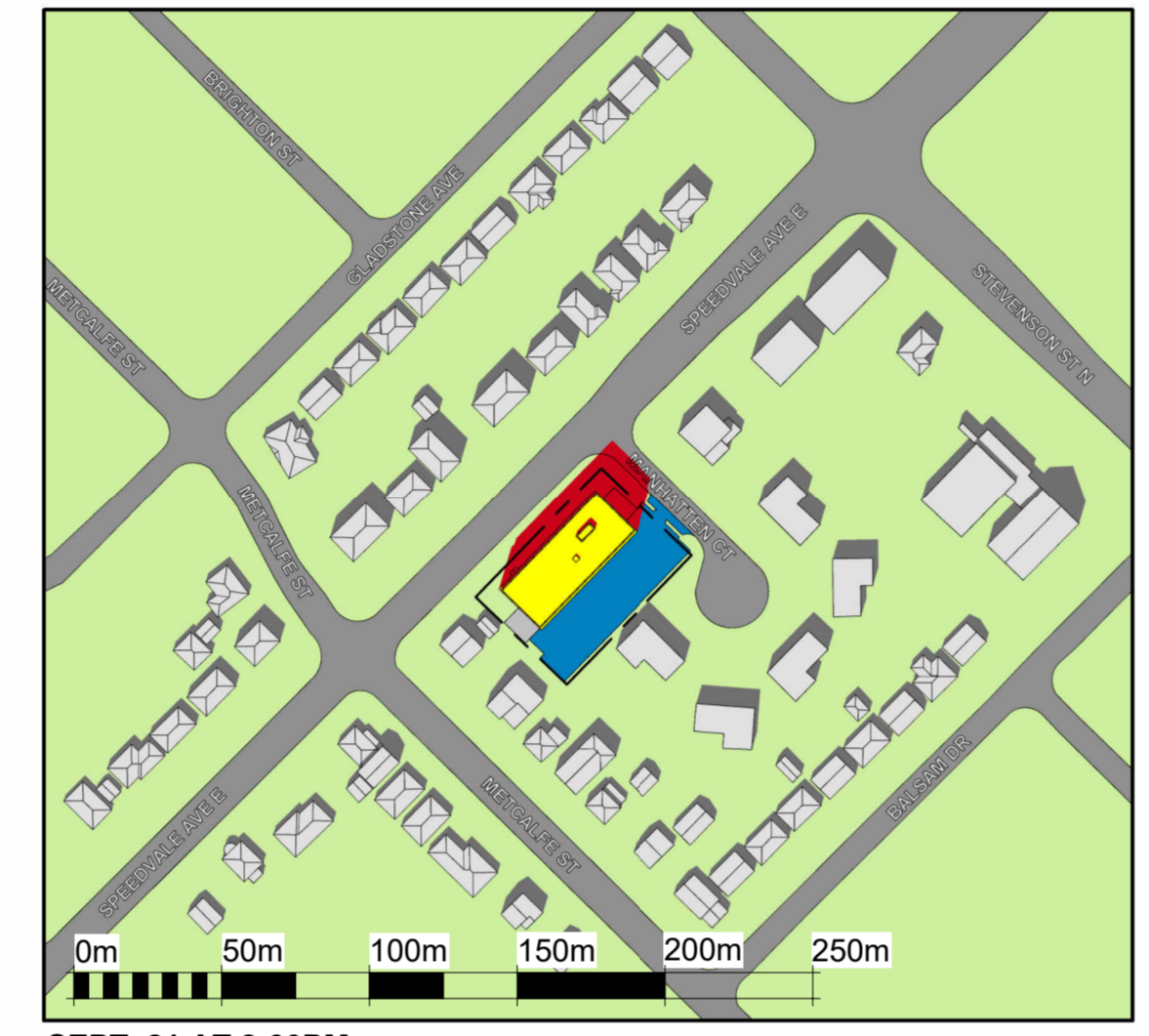
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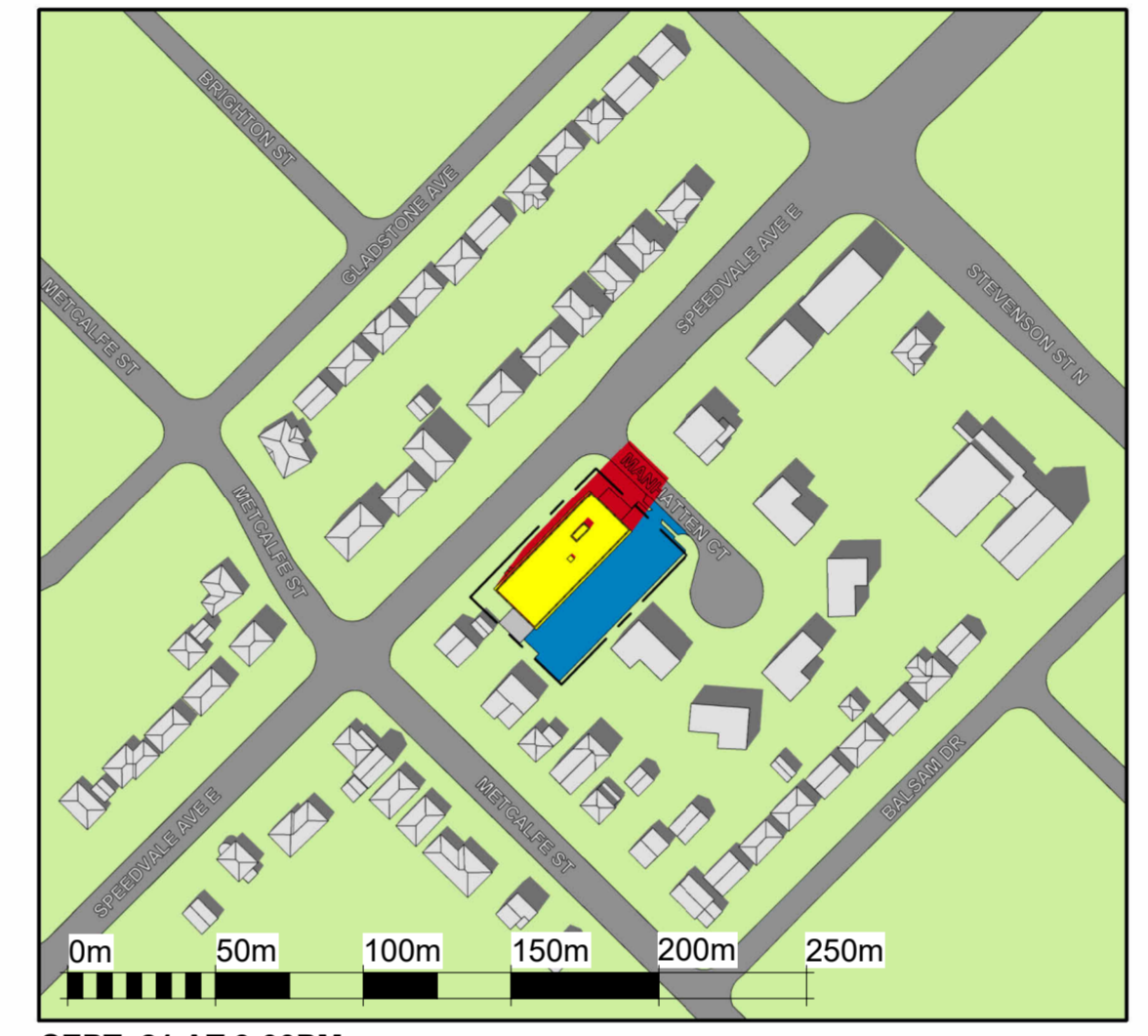
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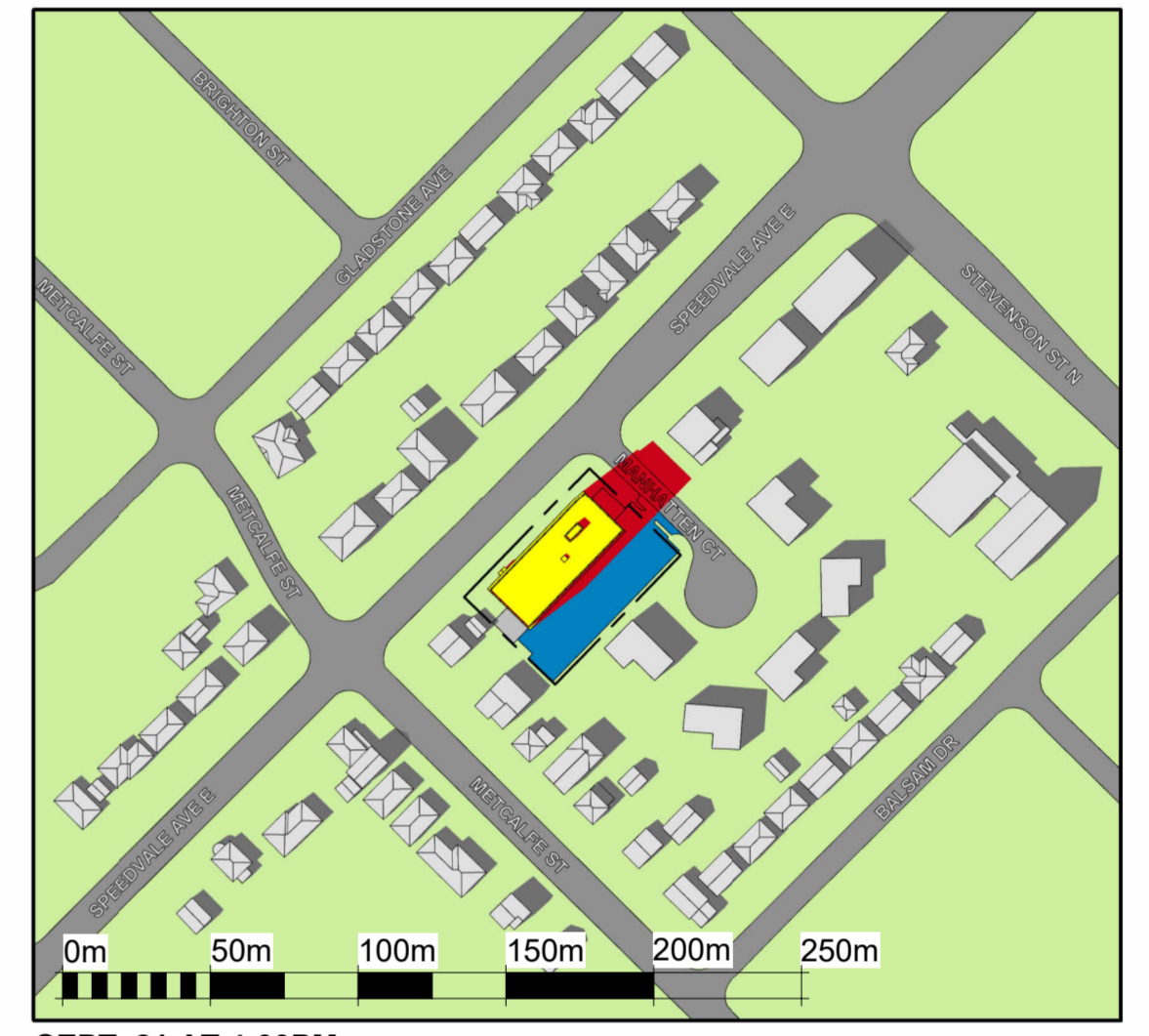
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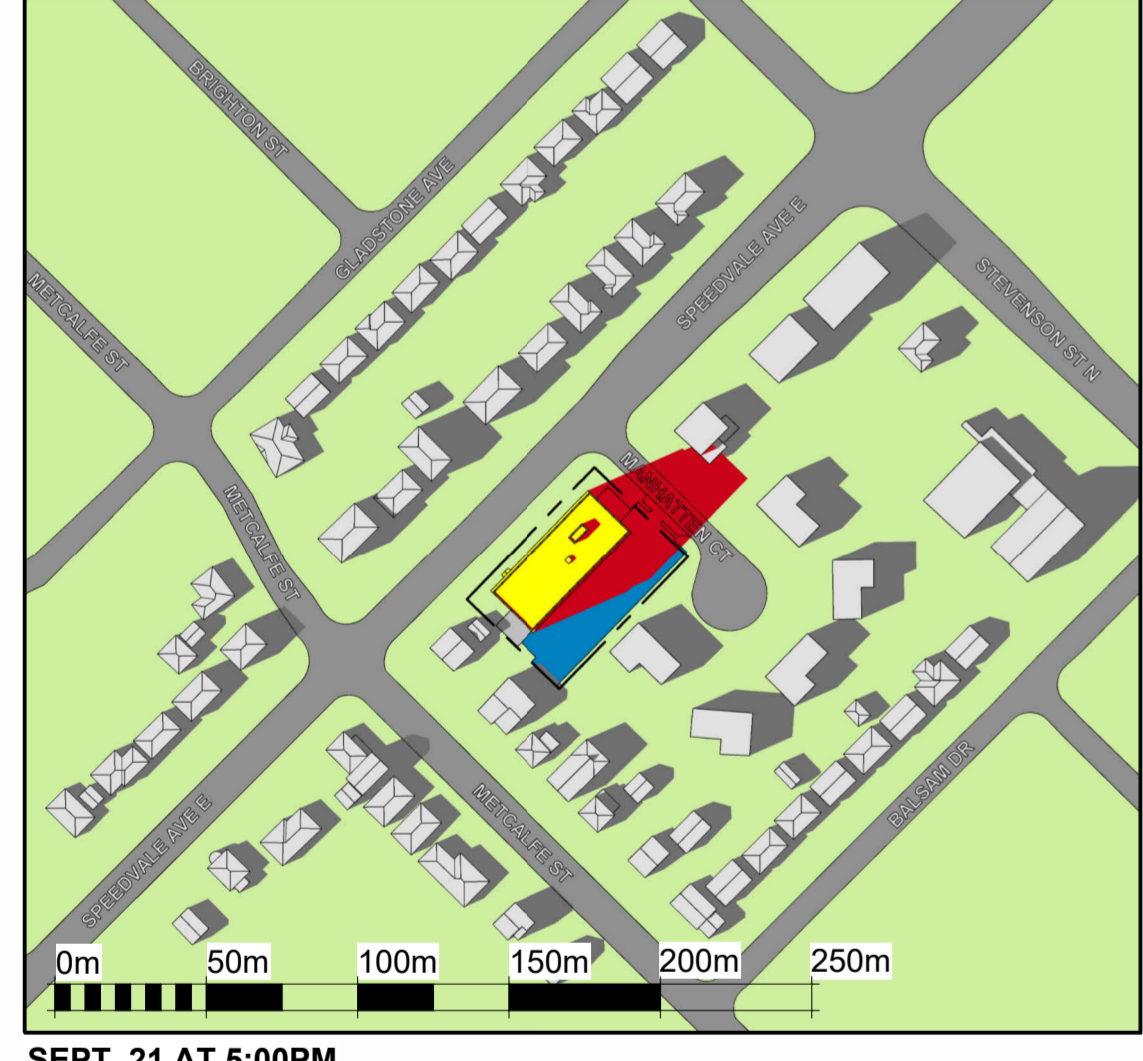
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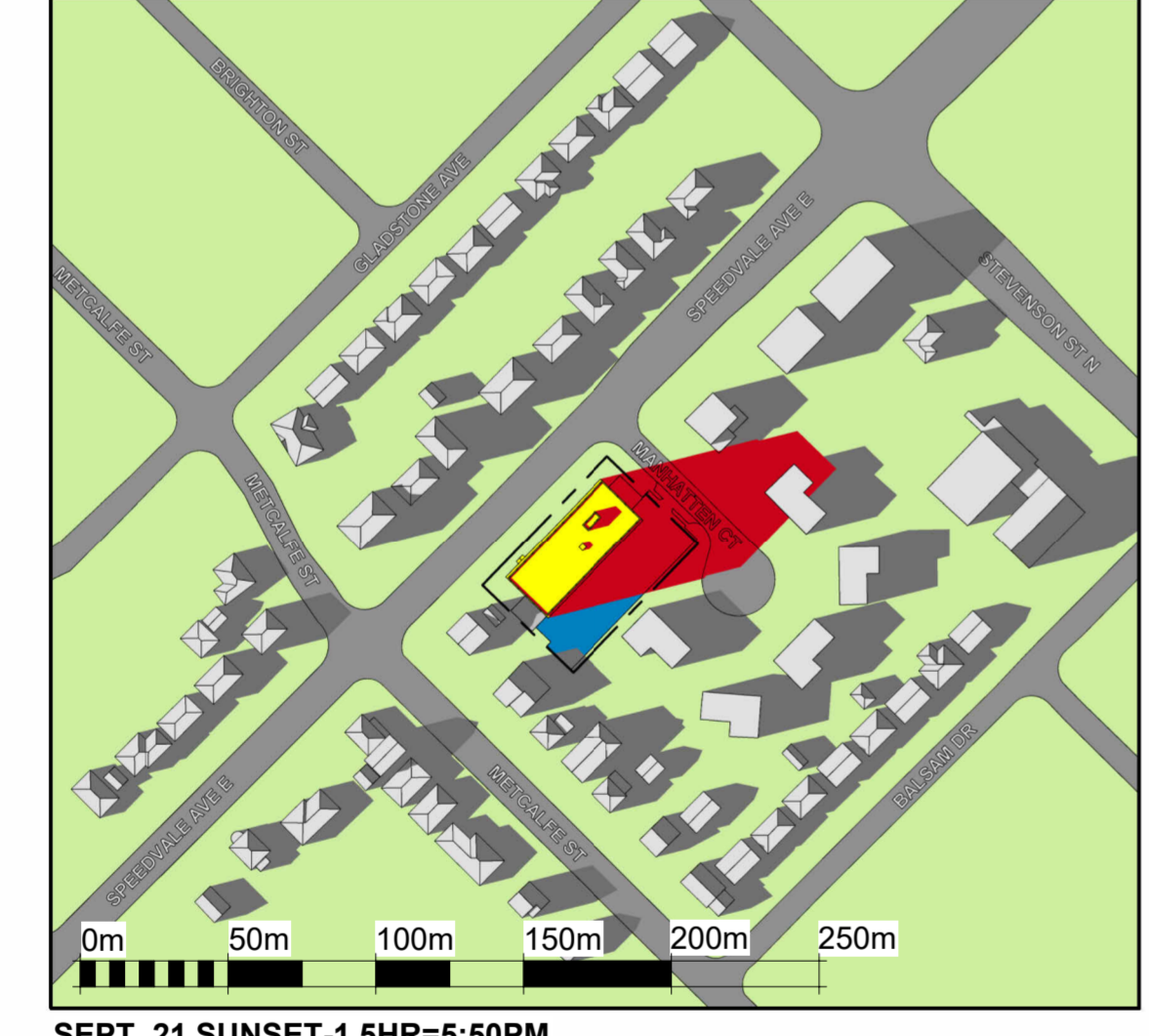
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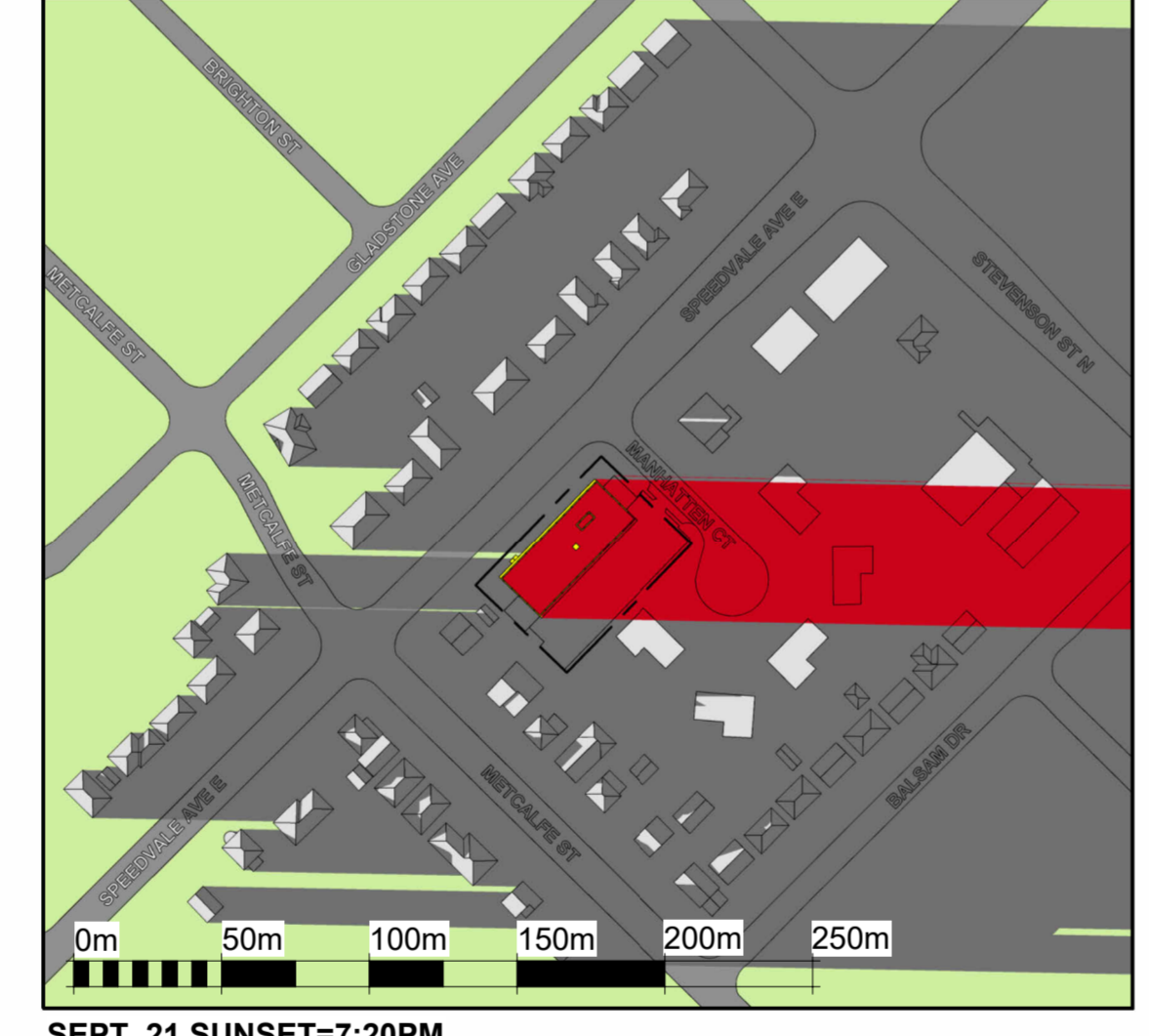
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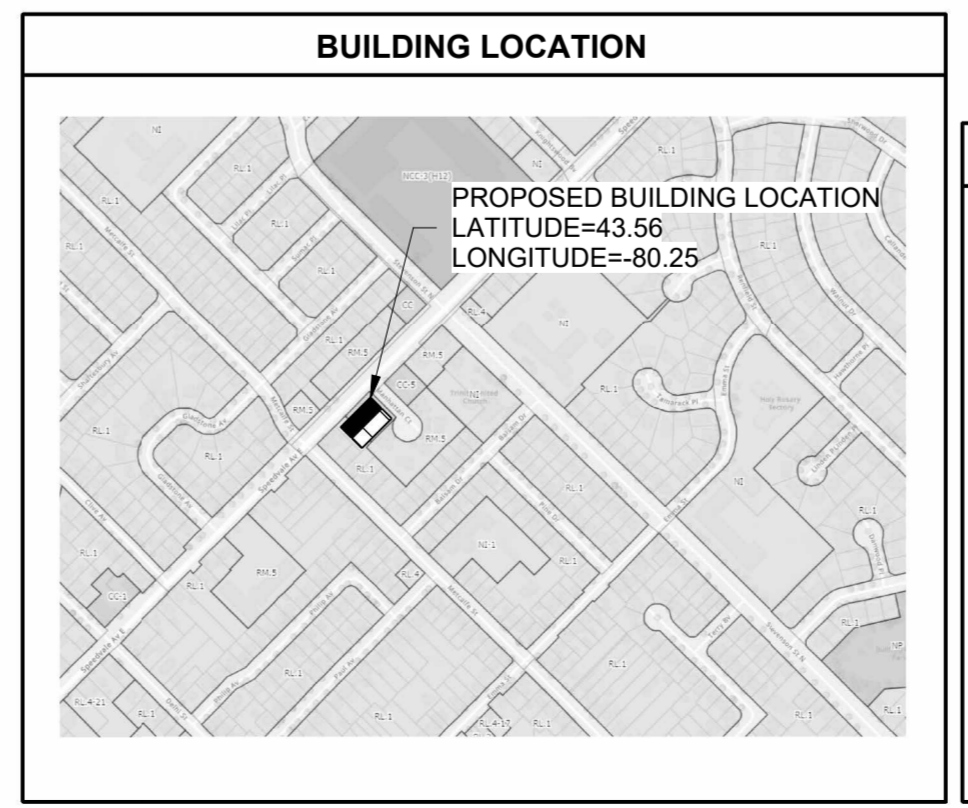
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SEPT. 21 SUNSET-1.5HR=5:50PM



SEPT. 21 SUNSET=7:20PM



SHADOW STUDY LEGEND

	UNDERLAY ROADWAYS		PROPOSED BUILDING
	UNDERLAY GRASS AREAS		SHADOW CAST PROPOSED
	SHADOW CAST EXISTING		MODELED SURROUNDING BUILDINGS
	UNDERLAY PARKING AREA		

C	24-01-16	ISSUED FOR SPA	CVL
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

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DRAWING
SUN PATH STUDY - PROPOSED SEPT. 21

PROJECT NO.: 23136
PROJECT DATE: 2023-07-20
DRAWN BY: CVL
CHECKED BY: CK/PH
SCALE: As Indicated

DRAWING NO. **A9.02**



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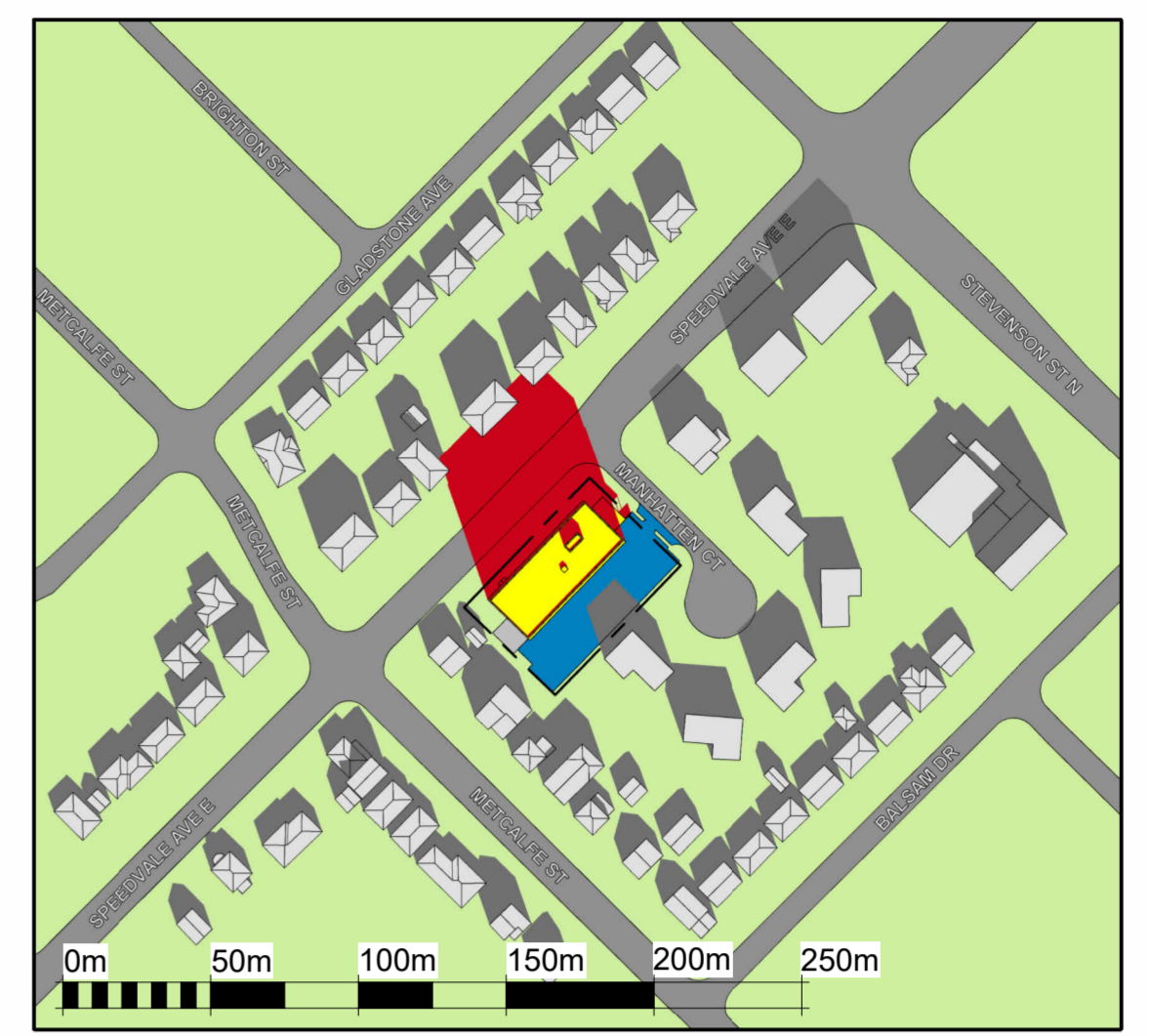
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DEC. 21 AT 10:00AM



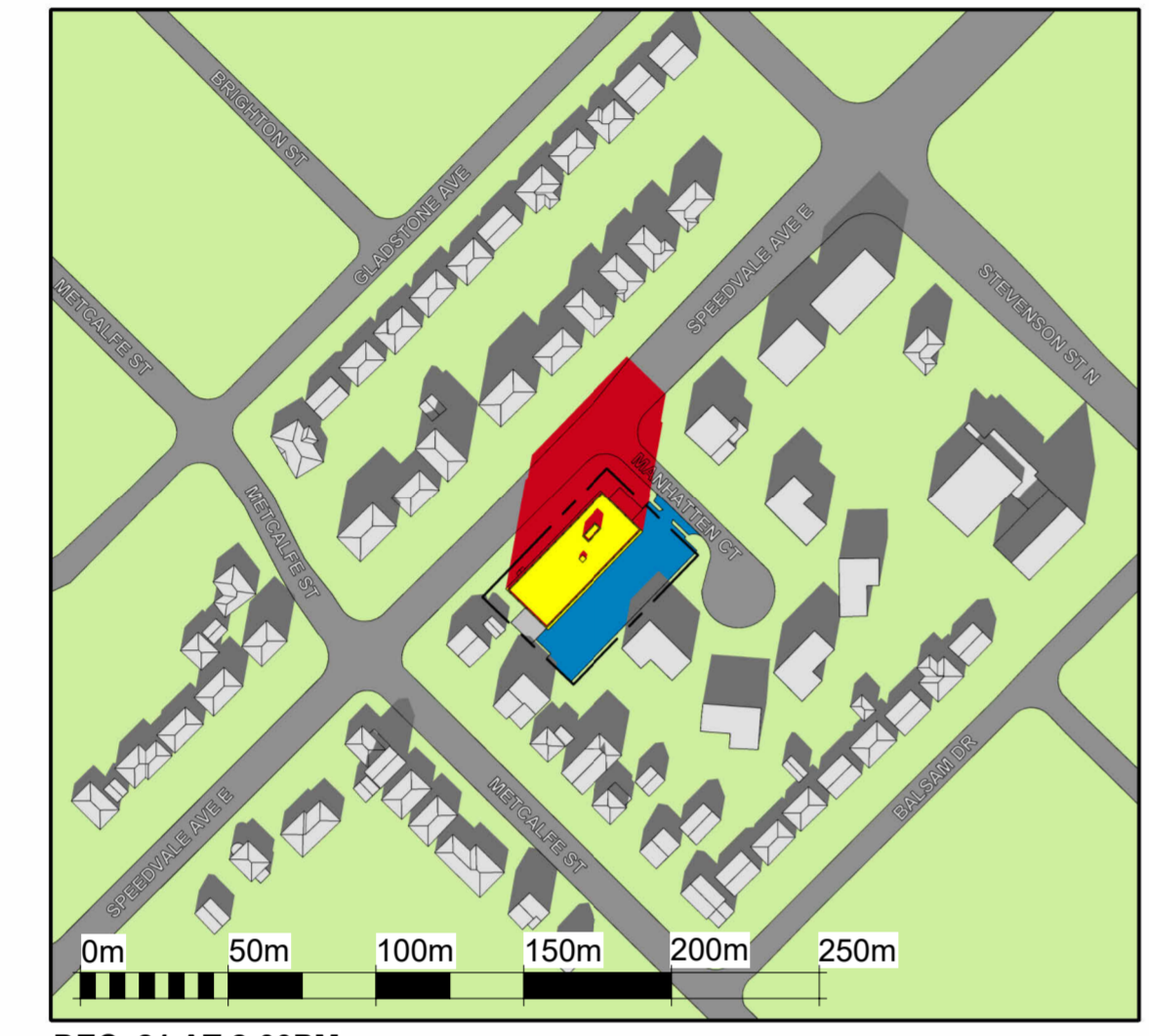
DEC. 21 AT 11:00AM



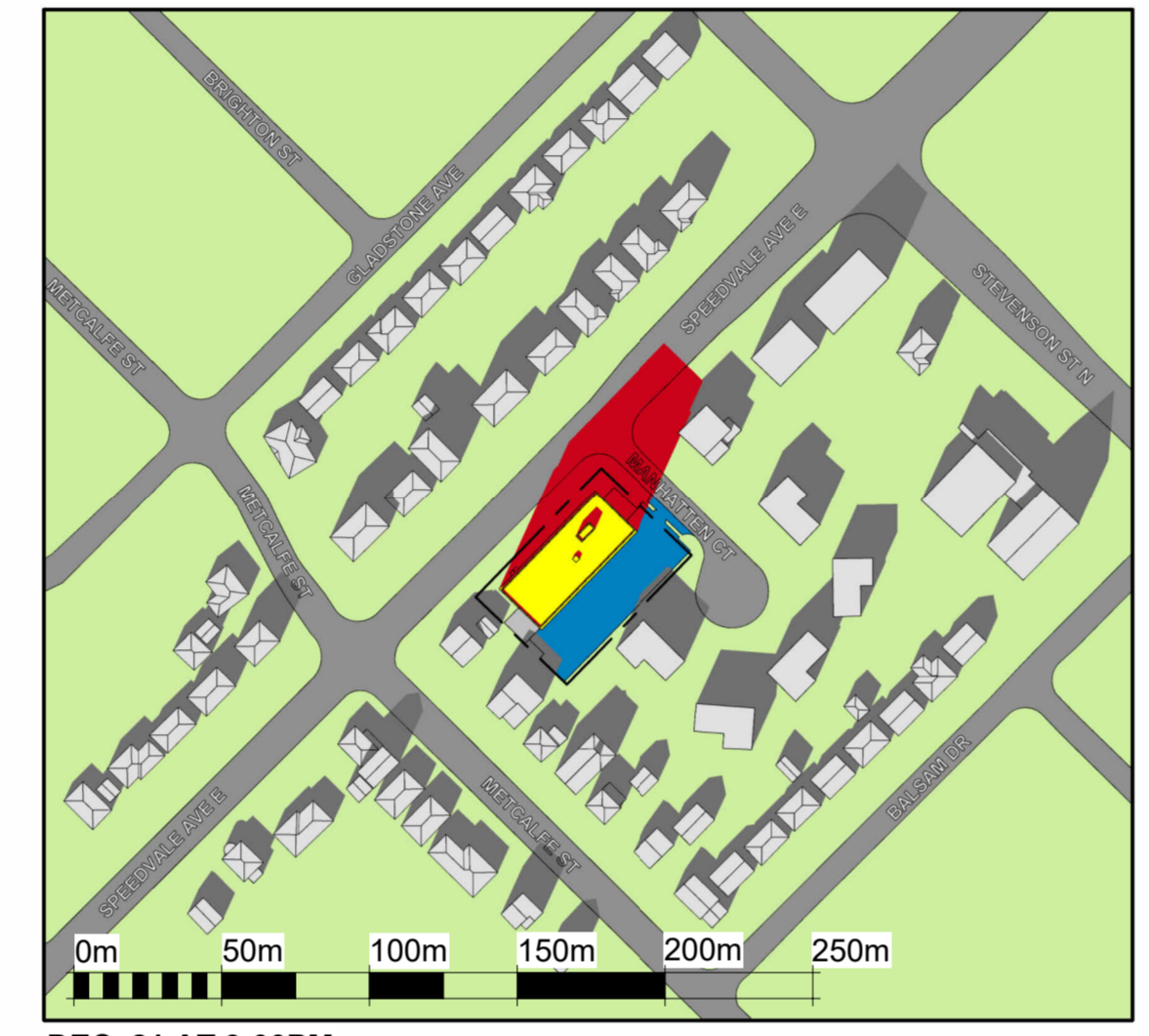
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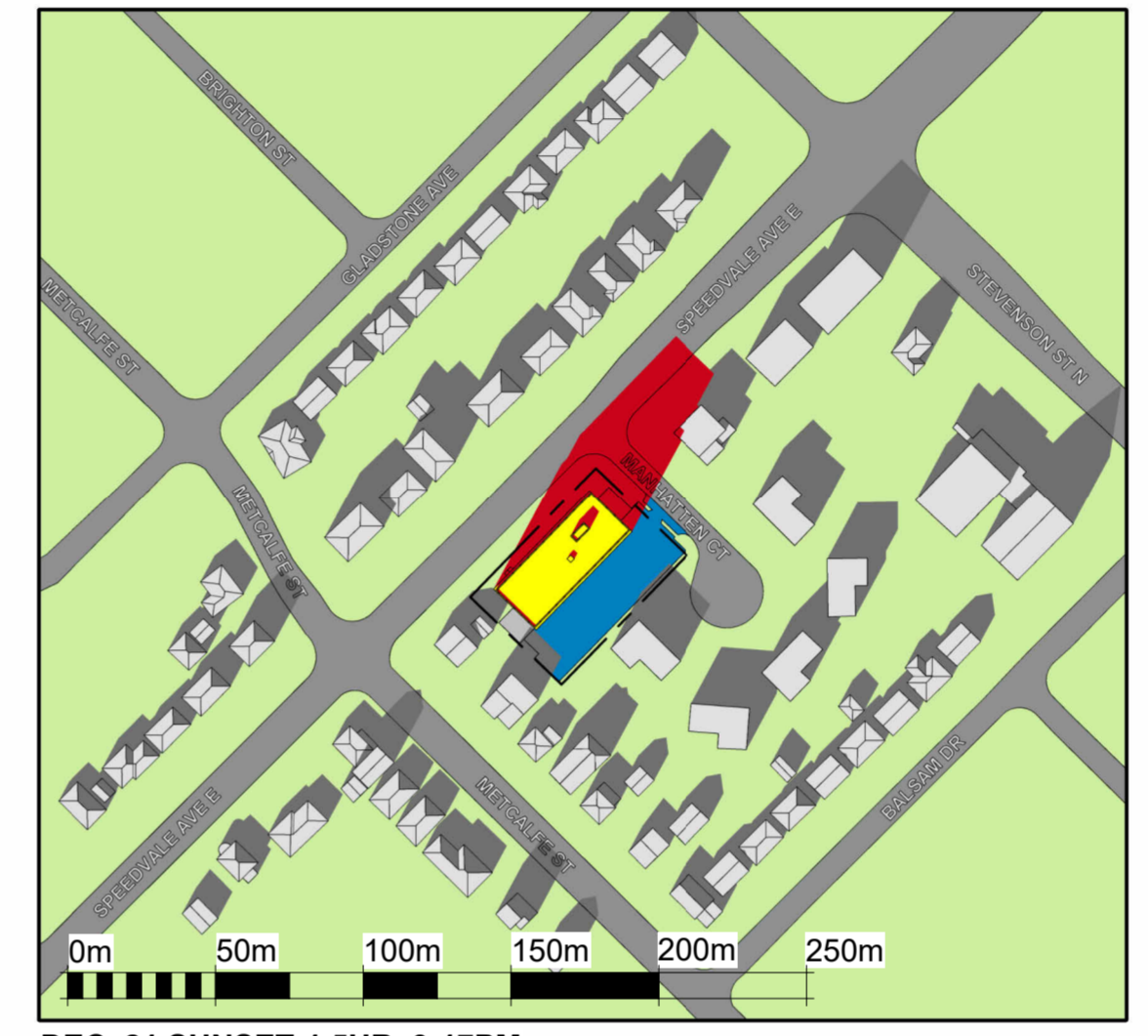
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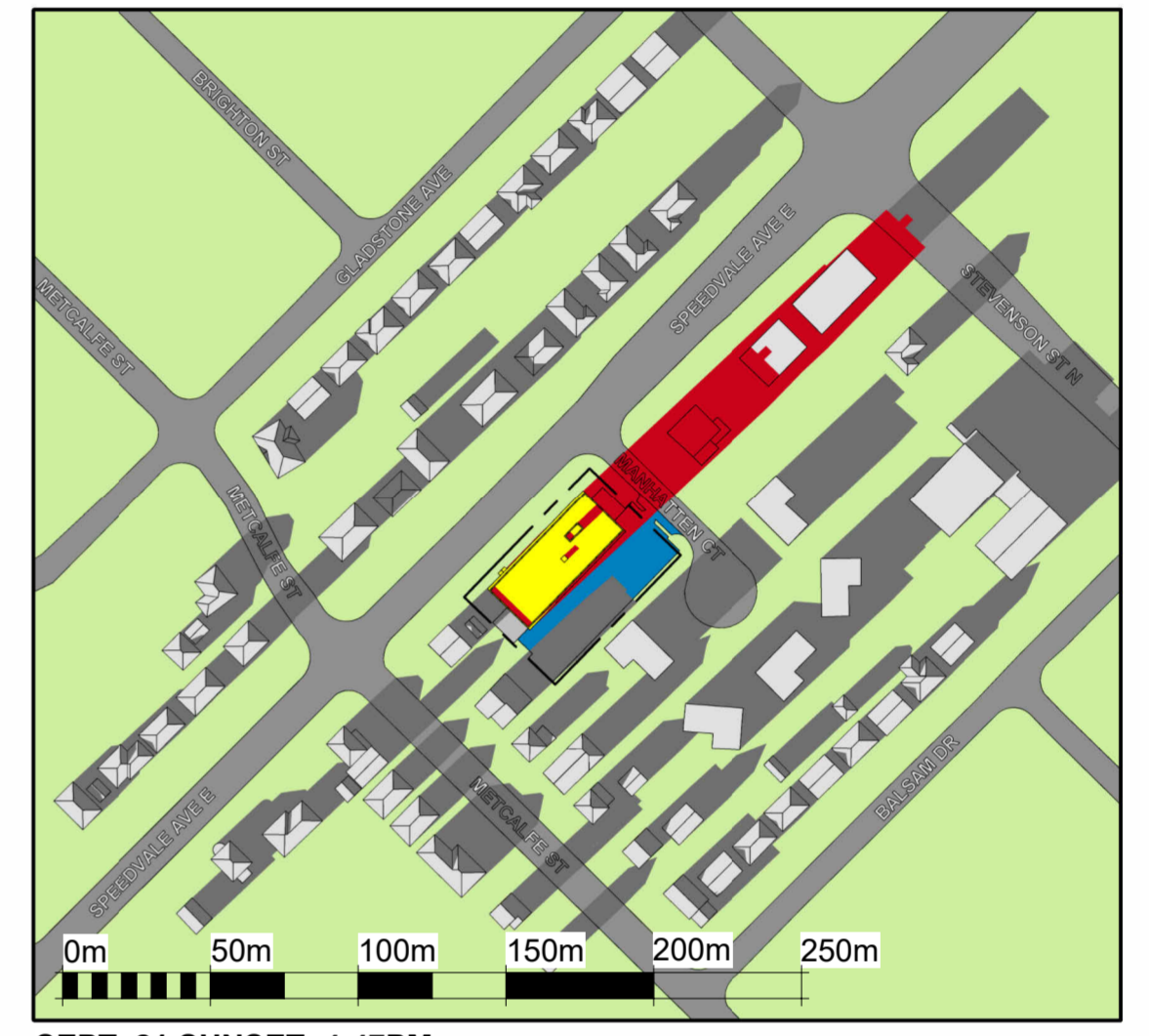
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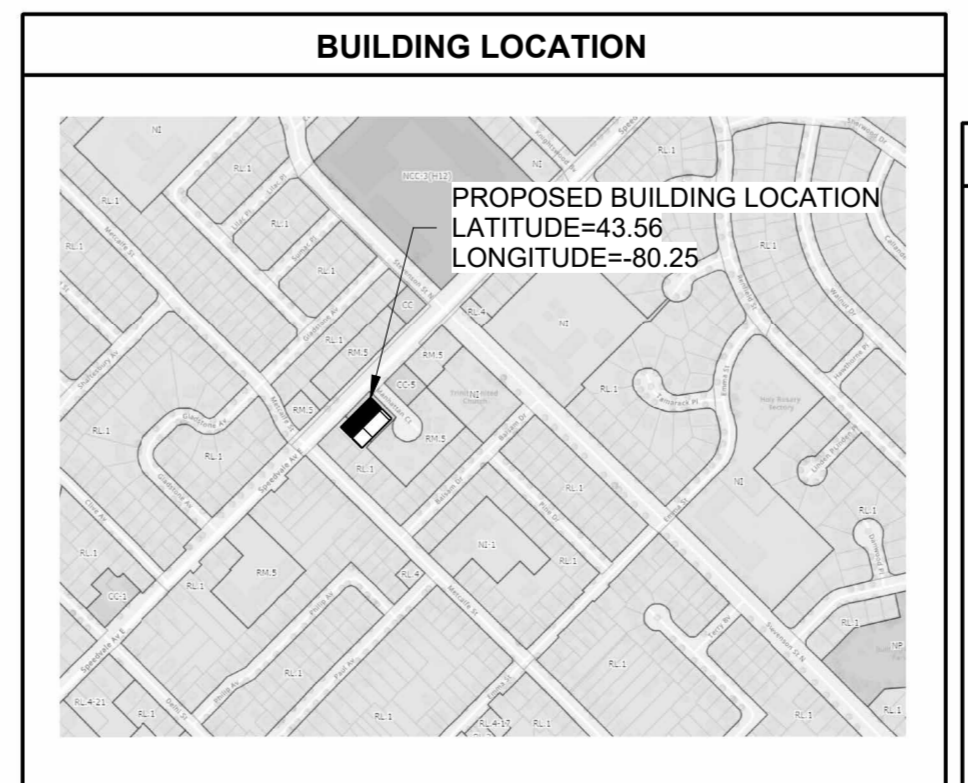
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SEPT. 21 SUNSET=4:47PM



SHADOW STUDY LEGEND

	UNDERLAY ROADWAYS		PROPOSED BUILDING
	UNDERLAY GRASS AREAS		SHADOW CAST PROPOSED
	SHADOW CAST EXISTING		MODELED SURROUNDING BUILDINGS
	UNDERLAY PARKING AREA		

C	24-01-16	ISSUED FOR SPA	CVL
B	23-12-19	REISSUED FOR SPA PRE-CONSULTATION	CVL
A	23-08-25	ISSUED FOR SPA PRE-CONSULTATION	CVL
#	DATE	DESCRIPTION	BY

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DRAWING
SUN PATH STUDY - PROPOSED DEC. 21

PROJECT NO.: 23136
PROJECT DATE: 2023-07-20
DRAWN BY: CVL
CHECKED BY: CK/PH
SCALE: As indicated

DRAWING NO. **A9.03**