

WELBEC PROPERTIES

3300 Rental Apartments

July 28, 2023 - Issue 03 - RZ Resubmission

3300 31st Avenue, Vernon, BC

**Siegrist
Architecture**

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ARCHITECTURE
July 28, 2023
Issue 03 - RZ Resubmission

015

Cover

A-0.000

Architectural Drawing Issues

2023-03-13 Issue 01 - Client Design Review
2023-05-17 Issue 02 - RZ Application

Project Description:
6 Storey Concrete and Woodframe Rental Apartment Building
5 Storey Residential Woodframe above 1 Storey Concrete Commercial

Civic Address:
3300 31st Avenue, Vernon, BC

Legal Description:
LOT A, PLAN LAP89332, DL 72, ODYD AND ADJACENT LANDS

Architectural Drawing Index

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Information
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February 17th, 2023
04-22-0286

Jonathan Beck
Director of Property Management
Welbec Properties
1930-777 Hornby Street
Vancouver, BC
V6Z 1S4

VIA E-MAIL: jonathan@welbec.com

Dear: Jonathan Beck,

Re: **3300 31st Avenue, Vernon
Parking Supply**

The following letter outlines what Bunt believes is an appropriate parking supply for the development at 3300 31st Avenue, Vernon. The study has taken into consideration vehicle ownership data from other comparable residential sites in Vernon. The study also reviews the Metro Vancouver Apartment Parking Study to look at general trends of parking demand by tenures of buildings.

We hope you find the outcome of the study satisfactory and that it will enable you to move forward with the Development. Should you have any questions please do not hesitate to contact us.

Yours truly,

Bu



J. Ackroyd

Josie Ackroyd, EIT
Transportation Analyst

Ch
Principal

cc: Duane Siegrist & Andrew Martins, Siegrist Architecture; Sanjeev Kandola, Welbec Properties

Bunt & Associates Engineering Ltd.
Suite 106, 460 Doyle Ave., Kelowna, BC V1Y0C2 Tel 778-738-3940
Calgary Edmonton Kelowna Vancouver Victoria www.bunteng.com

3. PARKING SUPPLY RATIONALE

3.1 Vernon Specific Parking Occupancy

As part of the investigation to support a lower parking rate for the 3300 31st Avenue Development, data was sourced from ICBC for the number of actively insured vehicles for 11 addresses within the urban/suburban areas of Vernon. Exhibit 3.1 depicts the locations of the sites and Table 3.1 displays the data sourced from the ICBC request. Due to the limited options to gather information from recent/modern developments in Vernon, a variety of rental apartments and strata apartments were selected in consultation with the City of Vernon staff.

Table 3.1 Actively Insured Vehicles at selected addresses in Vernon.

ID #	APARTMENT NAME	ADDRESS	# UNITS	ACTIVELY REGISTERED	ACTIVELY REGISTERED / # UNITS
1	Summitview Height Apartments	1803 31A St, Vernon, BC V1T 0C1	43	49	1.14
2	Rockwood Landing Apartments	3400 Centennial Dr, Vernon, BC V1T 2T7	60	64	1.07
3,4	Hillside Terrace	3405, 3507 33A Ave, Vernon, BC V1T 3E3	72	62	0.86
5	Vernon City View Apartments	3301 Centennial Dr, Vernon, BC V1T 6C2	47	28	0.60
6, 7, 8, 9	Creekview Heights	1693, 1695, 1697, 1699 Debennehr Rd, Vernon, BC V1B 8E7	216	223	1.03
10*	The Hub	3409 28th Ave, Vernon, BC V1T 1W8	57	42	0.74
11*	Willow brook	3800 24 Ave., Vernon, BC V1T 1L9	27	17	0.63
AVERAGE					0.93

*Sites 10 and 11 are Strata

Based on the surveyed sites the average is 0.93 which is lower than the bylaw requirements, which falls between 1 - 1.5 depending on the type of unit. This surveyed average of 0.93 does not distinguish between rental and strata properties or by location.

- With the Strata Sites (sites 10 & 11) removed, the average of the rental units would be 0.94.
- If only considering sites within 400m of the C7 and C8 zone boundary (sites 2, 5 and 10), the average would be 0.8 parking stalls per unit.
- All other sites except Creekview Heights (sites 6, 7, 8, 9) are located within 800m of the C7 and C8 zone boundary. Excluding Creekview Heights, the average would be 0.84

These averages would suggest that an appropriate parking rate would fall somewhere between 0.8 and 0.94. Table 3.2 below outlines the required residential parking that would be required if these alternative rates were to be applied.

3300 31st Avenue Vernon Parking Supply Letter | February 17th, 2023
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1. INTRODUCTION

Welbec Properties (Welbec) is redeveloping an existing site in the downtown Vernon area at 3300 31st Avenue. The development is proposed to be a 95-unit rental with commercial space on the ground floor. Welbec has retained Bunt & Associates Engineering Ltd. (Bunt) to review the parking supply and propose a suitable parking rate for the development.

1.1 Scope of Work

The scope includes:

- Review the site plan and development information.
- Establish the required number of parking stalls as per the City of Vernon's Bylaw.
- Identify 10 other similar apartment-style buildings located within the City of Vernon (with the help of the City) and obtain ICBC vehicle insurance data for the identified addresses.
- Review the information gathered and use this to inform an appropriate parking rate for the development.

1.2 Site Context

The site is located within the centre of Downtown Vernon at 3300 31st Avenue. The land use is currently zoned as C7 Zoning - Heritage Business District. The development is planned to support 95 residential dwelling units (all of which will be rental units), with 782m² of commercial on the ground floor. The site is conveniently situated 250m from the Downtown Vernon Transit Exchange and surrounded by an amenity-rich area. There are several cycling connections on the fringe of the downtown zone that are easily accessible from the site. This includes the cycle track on 30th Street and on-road cycle lanes on 34th Street which link to several multi-use paths.

1.3 Background

Vernon's Official Community Plan (OCP) was released in 2013 with updates being made as recently as September 2022. A few of the key guiding principles include:

- Creating strong and complete neighbourhoods.
- Provide alternative transportation; and,
- Revitalizing the Downtown.

More specifically surrounding transportation, the City of Vernon is looking to deliver a sustainable and integrated transportation network. There is a focus to promote mode choice away from personal motor vehicles, educating on the benefits of active transportation for health and reducing the impact of transportation on the environment. To maximize the benefits of transportation investment the City is seeking to integrate them with land use planning and development of the City Centre and neighbourhood centers in a manner that promotes community safety, is transit orientated, and provides transportation choices.

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Table 3.2 Total parking stalls with average surveyed parking rates

SCENARIO	PARKING RATE	RESIDENTIAL PARKING STALLS
Bylaw required	1 - 1.5	123
Rental sites only	0.94	89
All studied sites within 400m of the C7 & C8 boundary	0.80	76
All studied sites within 800m of the C7 & C8 boundary	0.84	80

It is noted that the average rental parking rate for the identified sites is higher than the average for strata developments. This is different from what was expected as rental units generally have a lower parking rate as per the Metro Vancouver Apartment Parking Study (discussed in Section 3.3).

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2. BYLAW PARKING REQUIREMENTS

2.1 Bylaw Requirements

2.1.1 Vehicular Parking Requirements

Table 2.1 outlines the parking stall requirements for vehicles in the downtown area of Vernon.

Table 2.1 Vehicular Parking Requirements

LAND USE	SUB-CATEGORY	QUANTITY	MINIMUM REQ. RATE	MINIMUM REQ. STALLS	PROVIDED
Residential	Commercial	748.58 m ² (GFA)	1.5 per 100m ² GFA	11	14*
	1 Bed	75 units	1.25 per dwelling unit	94	
	2 Bed	20 units	1.5 per dwelling unit	30	76
	Visitor	95 units	1 every 7 dwelling units	14	14*
Total				149	90

* Commercial and residential visitor parking are proposed as combined shared parking spaces. Some with use limitations.

The development is proposing 90 parking stalls be provided. This represents a difference of 59 stalls compared to the minimum requirements from the City of Vernon Zoning Bylaw. The 90 stalls will include 14 accessible parking stalls (10 accessible units per CMHC funding requirements). The minimum bylaw requirement of 2 accessible parking stalls is met.

2.1.2 Bicycle Parking Requirements

Table 2.2 outlines the bicycle requirements for the downtown development. Class I refers to long-term bicycle parking for residents or employees, in a secure location. Class II is intended for short-term use by patrons or visitors to the property.

Table 2.2 Bicycle Parking Requirements

LAND USE	QUANTITY	MINIMUM REQ. RATE	MINIMUM REQ. STALLS	ROUNDED	PROVIDED
Class I	Commercial	748.58 m ² (GFA)	0.2 per 100m ² GFA	2	
	Residential	95 units	0.5 per dwelling unit	48	123
Class II	Commercial	748.58 m ² (GFA)	0.6 per 100m ² GFA	4.5	
	Residential	95 units	0.25 per dwelling unit	23.8	28

The development is planning to provide 123 class II, long-term bicycle parking stalls, which is more than double the minimum bylaw requirements. This is aimed at increasing the ability for residents of the development to use cycling as their primary travel mode.

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3.2 Shared Parking Strategies

3.2 Shared Parking Strategies

Bunt believes that it would be appropriate to consider shared parking between the required commercial parking stalls and the residential visitor parking stalls. Visitor parking is known to peak in the evening periods at which time there is generally little to no demand for commercial uses. Many municipalities such as the City of Kelowna allow commercial and visitor parking to be shared providing the parking spaces are available to both land uses at all times. Table 3.3 outlines the number of parking stalls required if this were to be implemented.

Table 3.3 Shared Parking for Visitor and Commercial Land Uses

SCENARIO	COMMERCIAL PARKING STALLS	VISITOR PARKING STALLS	TOTAL STALLS
Bylaw required	11	14	25
Shared Visitor and Commercial Parking Stalls		14	14

The project proposes to 14 parking stalls which shall be shared between the commercial use and visitor use.

3.3 Strata vs Rental - Metro Vancouver Apartment Study

The development is proposing to provide purpose-built, rental-only units and the data collected from the identified Vernon sites contains some strata developments. Due to this, the key points from the Metro Vancouver Apartment Study have been reviewed to compare a typical difference between parking rates in rental units and strata units.

3.3.1 Metro Vancouver Apartment Study Summary¹

This study is one of the most comprehensive examinations of apartment parking supply and demand conducted in a metropolitan area. It uses lessons from other cities, particularly around studies on proximity to transit and for current practices i.e.: municipalities requiring at least 1 parking stall per unit. In 2011 the study was undertaken key findings are outlined below:

- Residential parking in strata apartments generally exceeds parking demand in the range of 18 - 35 % across the region.

¹ https://www2.gov.bc.ca/assets/gov/housing-and-tenancy/tools-for-government/uploads/metro_apartment_parking_study_technical_report.pdf

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- Residential parking demand is lower near TransLink's Frequent Transit Network (FTN)⁴. Parking demand ranges from 0.89 - 1.06 vehicles per apartment for close to FTN, and 1.10 - 1.25 for further away from FTN.
- Vehicle holdings and parking demand for apartment renters are much lower than for owners. This is consistent with prior research. In purpose-built market rental sites, the parking demand range is 0.58 - 0.72 vehicles per apartment unit.
- Strata buildings generally have a parking demand between 0.98 - 1.14 per unit.
- Visitor parking had an observed rate of less than 0.1 stalls per unit and is likely oversupplied.
- Households with carshare memberships have fewer vehicles than non-members do.
- Proximity to transit was consistently cited by over half of the surveyed households as one of the top three factors when choosing their home.

3.3.2 Metro Vancouver Apartment Study Applications to 3300 31st Ave Vernon
 In the case of the sampled Vernon sites the rental developments on average have a higher parking rate than the Strata developments. Due to this, the Metro Vancouver Apartment Study has not been used to adjust any of the collected data.

Another of the conclusions presented by the study is that visitor parking is often oversupplied. The study's observed rate is less than 0.1 per unit and this can be compared to the City of Vernon's Bylaw of 0.14 rate. This would further support the application of shared parking of visitors with commercial parking.

3.4 Transportation Demand Management (TDM) Measures
 In order to support the lower parking rate the development is intending on providing 123 class II, long-term bicycle parking spaces, 121 of which are residential long-term bicycle parking stalls. The current bylaw requires 0.5 spaces per residential unit the amount being provided by the development will be 1.27 stalls per unit, which is more than double what is required.

In addition to this, it is suggested that to further support the lower parking rate and enable the use of the additional bicycle stalls, bicycle maintenance facilities should also be provided within the development.

⁴ The FTN is a network of corridors along which transit service is provided at least every 15 minutes in both directions throughout the day and into the evening, every day of the week. This 15 minute or better service is provided at least from 6am-9pm on weekdays, 7am-9pm on Saturdays and 8am-9pm on Sundays. The FTN does not refer to specific routes or technologies or vehicle types; rather it refers to a high frequency and span of transit service within a corridor. This level of service may be provided by a single route or by a combination of multiple routes and/or technologies within the same corridor.

4. CONCLUSIONS
 Based on the content presented within this letter, **Table 4.1** provides a summary of a range of alternative parking supply numbers that Bunt believes would be appropriate for the development at 3300 31st Avenue Vernon. The table takes into consideration the application of lower parking rates as indicated by the averages of the surveyed sites and the implementation of shared parking between commercial and residential land uses.

Table 4.1 Alternative Parking Stall Requirement Summary

	RESIDENTIAL PARKING RATE	RESIDENTIAL PARKING STALLS	COMMERCIAL PARKING STALLS	VISITOR PARKING STALLS	TOTAL PARKING STALLS
City of Vernon Required Parking	1 - 1.5	124	11	14	149
Provided by the Development	-	76		14*	90
Investigated sites - Rental sites only average parking rate	0.94	89		14*	103
Investigated sites - Within 400m of the C7 & C8 boundary	0.80	76		14*	90
Investigated sites - Within 800m of the C7 & C8 boundary	0.84	80		14*	94

* Shared residential visitor and commercial parking

Bunt believes providing parking between the range of 103 - 90 stalls would be appropriate for the development at 3300 31st Avenue. Further to this, due to the site being centred within the C7 zone, in an amenity-rich location and less than 250m from the Downtown Vernon Transit Exchange, Bunt believes the resident parking rate of 0.8 would be suitable for the development. The 0.8 resident parking rate with shared parking totals 90 vehicle parking stalls required.

This reduced rate would also be supported as the development provides more than double the required long-term bicycle parking stalls. These additional stalls will act as enablers and encourage residents to choose a non-auto mode.

To further support the utilization of cycling as a primary mode of travel for residents, Bunt also recommends the project provides bicycle maintenance facilities within the bicycle parking area to support residents to use their bicycles.

Report#: RDAR-21516

Title:	Number of Actively Insured Vehicles at the selected addresses
Location:	Specified Addresses in B.C.
Period:	As of December 31, 2021
Reported By:	ICBC

- Notes:**
- Vehicles locations are based on mailing address which may not necessarily represent where the vehicle is used or parked.
 - Counts include Autoplan, temporary and storage policies. Counts also exclude licensed Trailers.
 - Policies in force data from 2020 and 2021 may be impacted by the COVID-19 pandemic.

Number	Address	Actively Registered Vehicles
1	1803 31a st.	49
2	3400 centennial dr.	64
3	3405 39 ave	31
4	3407 39 ave	31
5	3501 Centennial dr	28
6	1693 deleenheer road	70
7	1695 deleenheer road	74
8	1697 deleenheer road	1
9	1699 deleenheer road	78
10	3409 28th ave	42
11	3800 24 ave	17



Insurance Corporation of British Columbia
 Information Management - Corporate and Driver Licensing
 151 West Esplanade
 North Vancouver, BC V7M 3H9

Report #: RDAR-21516
Report Title: Number of Actively Insured Vehicles at the selected addresses
Approvals: The data in this report ("Data") has been approved for release to **Bunt & Associates Engineering Ltd.** by the Public Affairs Division at ICBC.
Terms and Conditions: The Data is subject to ICBC's Open Data Licence and any other terms or conditions advised by ICBC in writing. The Open Data Licence can be found at: <https://www.icbc.com/policies/Pages/open-data-licence.aspx>

Requested By: Christine Kirby
Requested On: 10/12/2022
Prepared By: Anamika Mahajan
Completion Date: 11/21/2022
Data Source: Enterprise Data Warehouse
Data As Of: 10/31/2022

Synopsis of Request: Registered vehicles associate with each address listed below, as of December 31, 2021
 1803 31a st. Vernon BC v1t0c1
 3400 centennial dr. Vernon bc v1t2t7
 3405 39 ave Vernon v1t3e3
 3407 39 ave Vernon v1t3e3
 3501 Centennial dr vernon v1t6c2
 1693 deleenheer road vernon v1b3r7
 1695 deleenheer road vernon v1b3r7
 1697 deleenheer road vernon v1b3r7
 1699 deleenheer road vernonv1b3r7
 3409 28th ave vernon v1t1w8
 3800 24 ave. vernon v1t1t9

Disclaimer: This report is intended to provide general information only and should not be viewed as an audited, or otherwise formally validated report. The provision of this report does not indicate or in any way imply ICBC's support, authorization or endorsement of any use that the user may make of it or any information contained in it. See Open Data Licence for other terms and conditions.

Caveats: Data Setting: Numbers will continue to change, especially for the most recent time periods, due to late reporting, and corrections and adjustments.

The attached information is provided to support the agency's review process and shall not be distributed to other parties without written consent from Bunt & Associates Engineering Ltd.

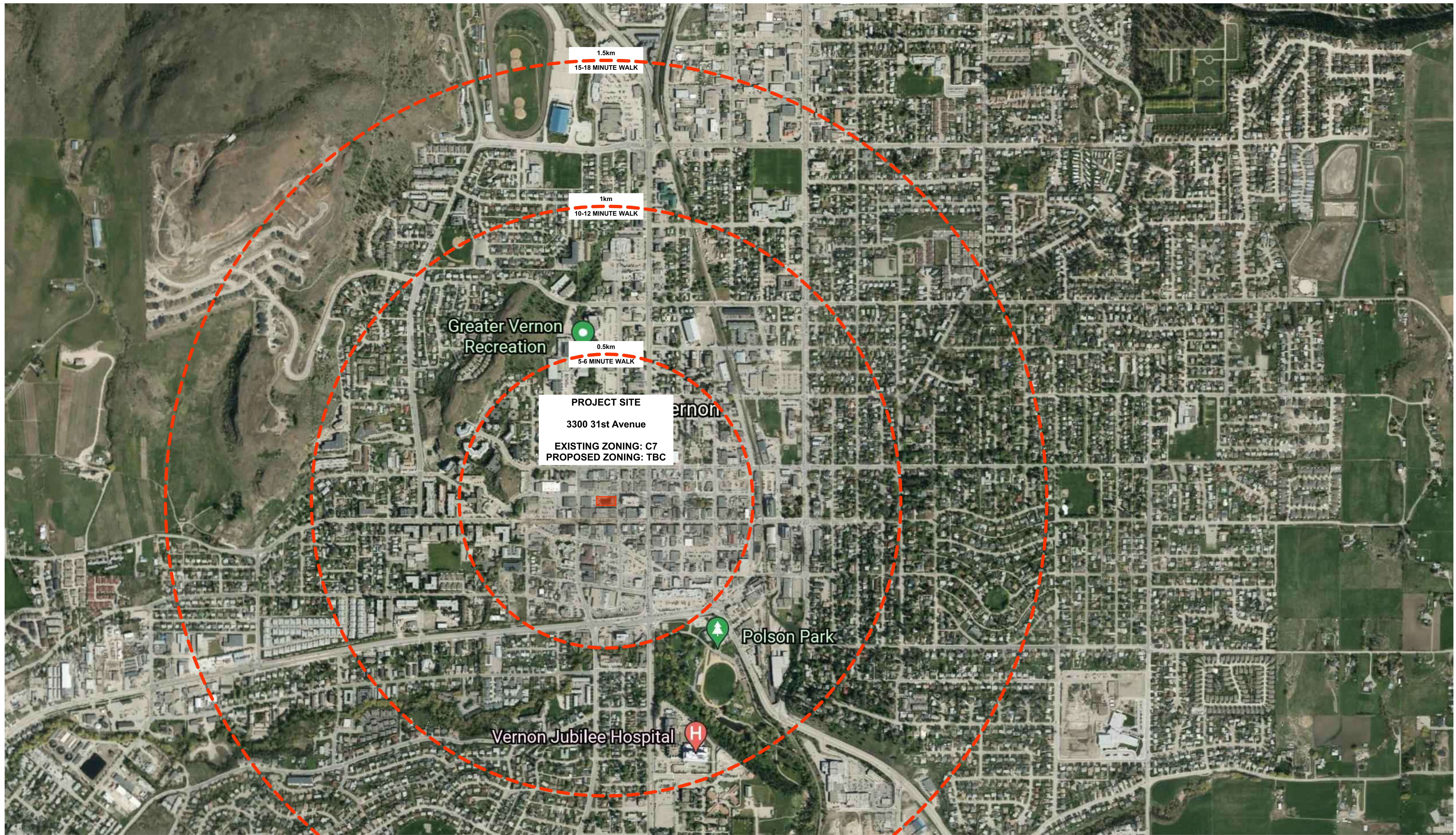
APPENDIX

ICBC Data

3300 Rental Apartments

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3300 31st Avenue, Vernon, BC



3300 Rental Apartments

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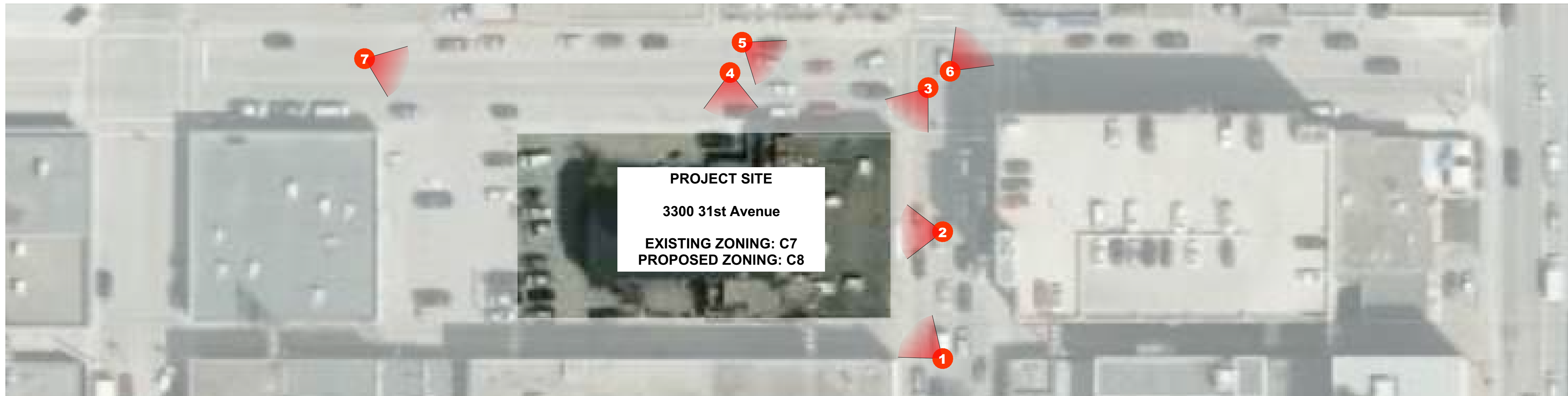
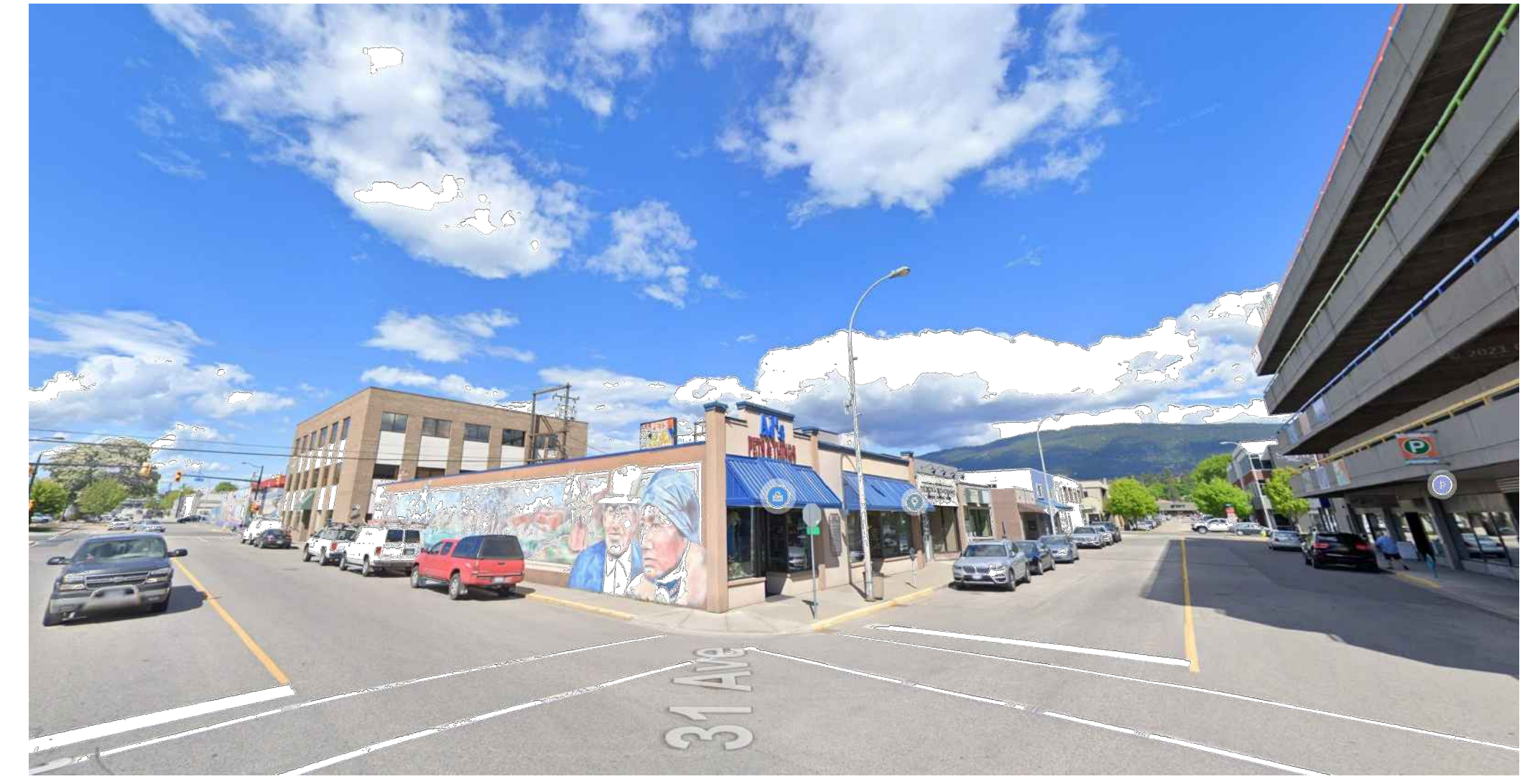
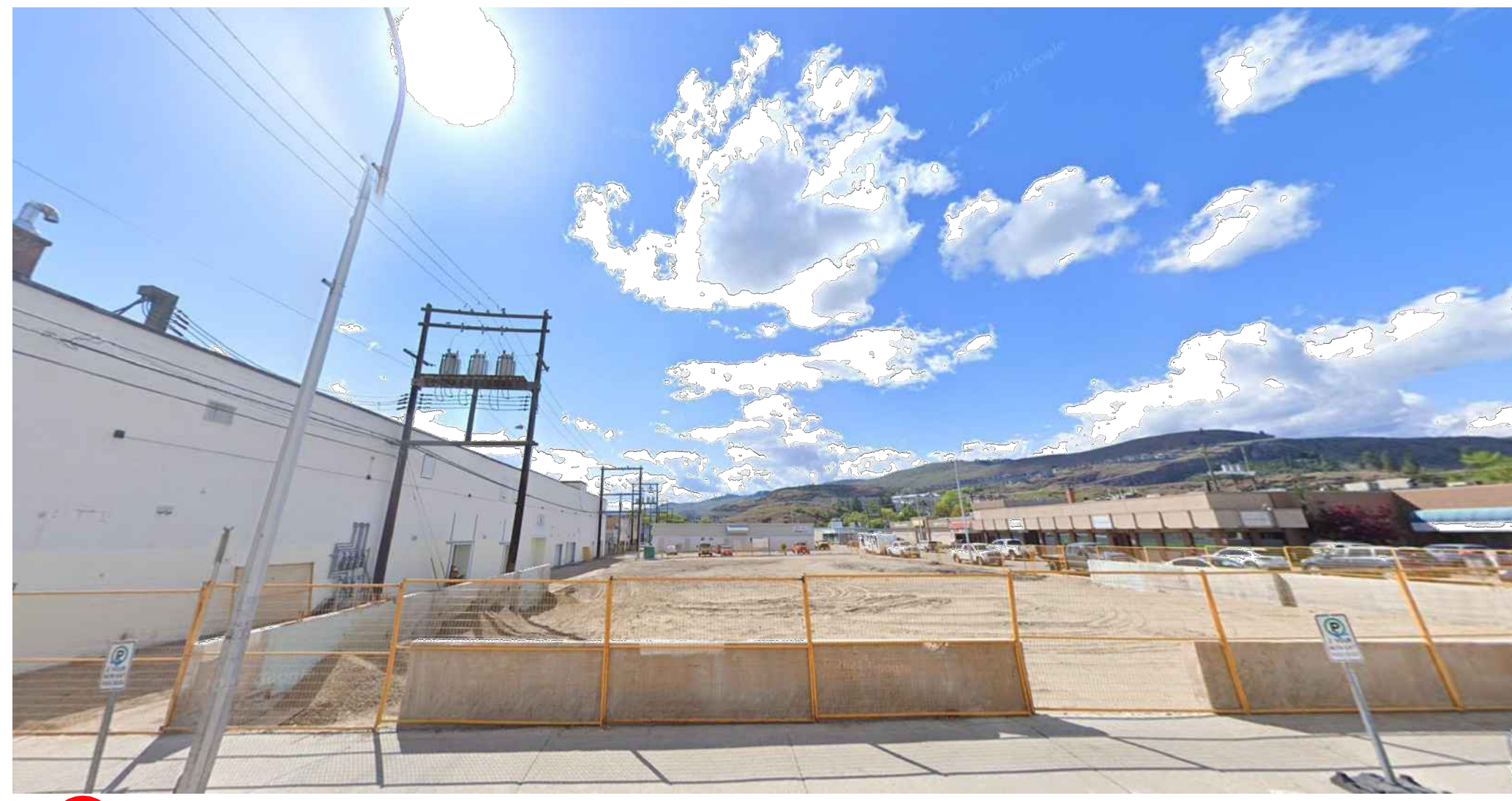
3300 31st Avenue, Vernon, BC



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3300 31st Avenue, Vernon, BC



3300 Rental Apartments

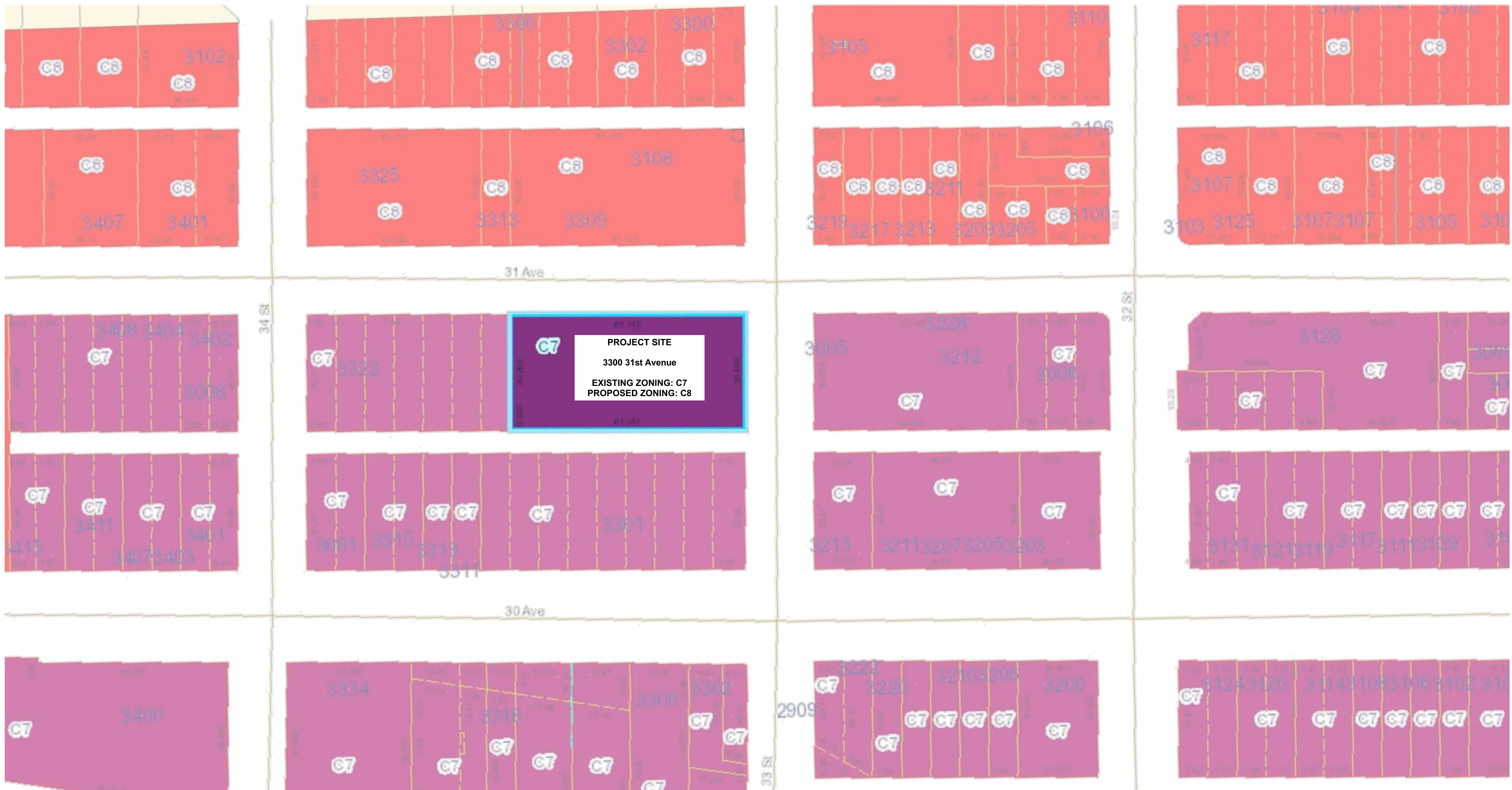
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3300 Rental Apartments

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3300 31st Avenue, Vernon, BC



5500 Rental Apartments

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3300 Rental Apartments

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Perspective
Renders

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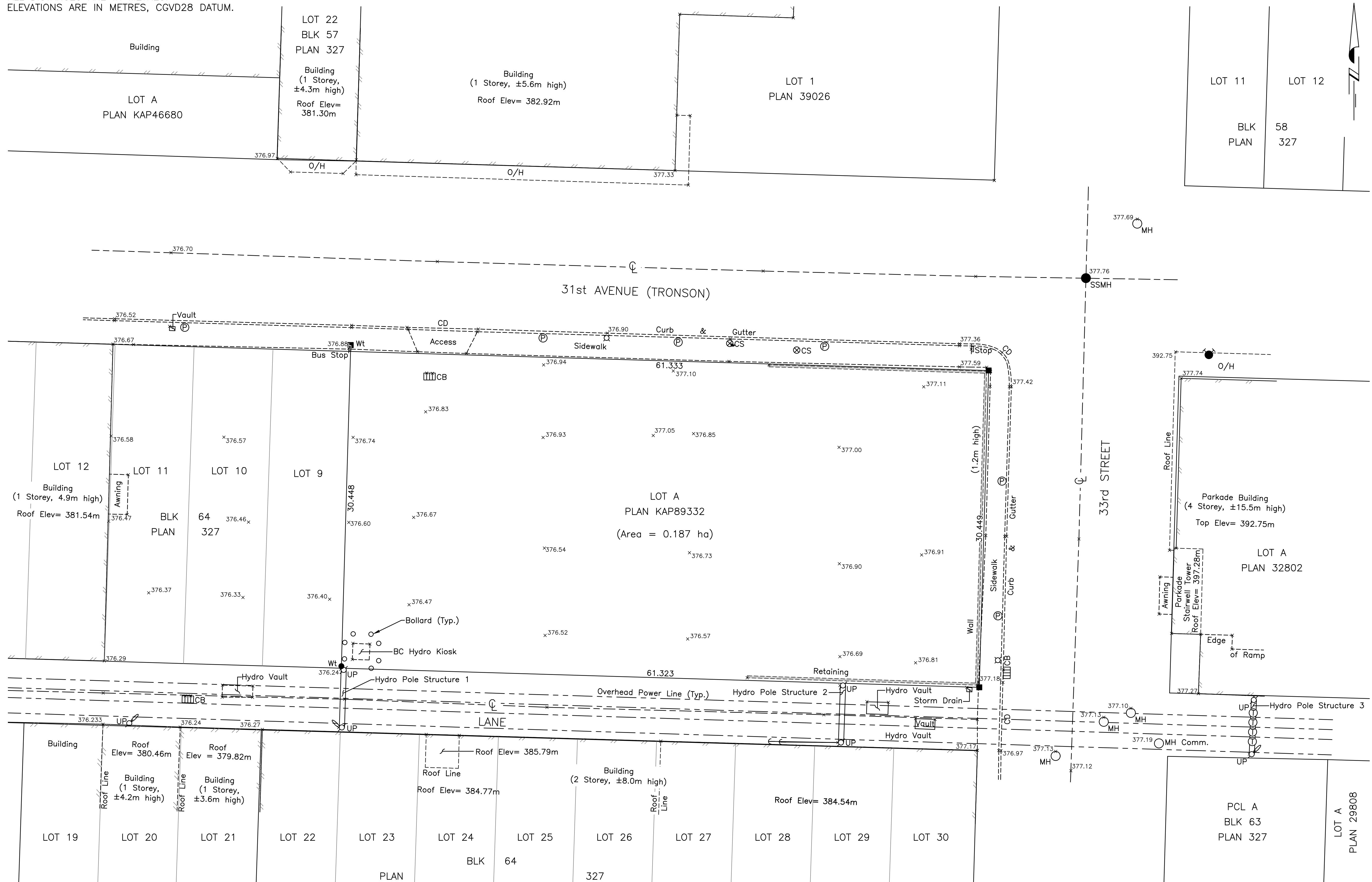


3300 Rental Apartments

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3300 31st Avenue, Vernon, BC

ALL DISTANCES ARE IN METRES.
ELEVATIONS ARE IN METRES, CGVD28 DATUM.



LEGEND:

- denotes lead plug found
- denotes iron pin found
- denotes building wall at ground level
- 377.77* denotes spot elevation
- CD denotes curb drop location
- O/H denotes overhang
- denotes fire hydrant
- CS⊗ denotes curb stop
- Wt denotes witness
- CB [] denotes catch basin
- SSMH ● denotes sanitary manhole
- MH ○ denotes manhole
- Comm. ○ denotes communications manhole
- ⊗ denotes parking meter
- ⊗ denotes lamp standard
- (Type) [] denotes sign
- UP ○ denotes utility pole
- denotes anchor
- ⊕ denotes hydro transformer
- UP ⊕ denotes utility pole with davit streetlight

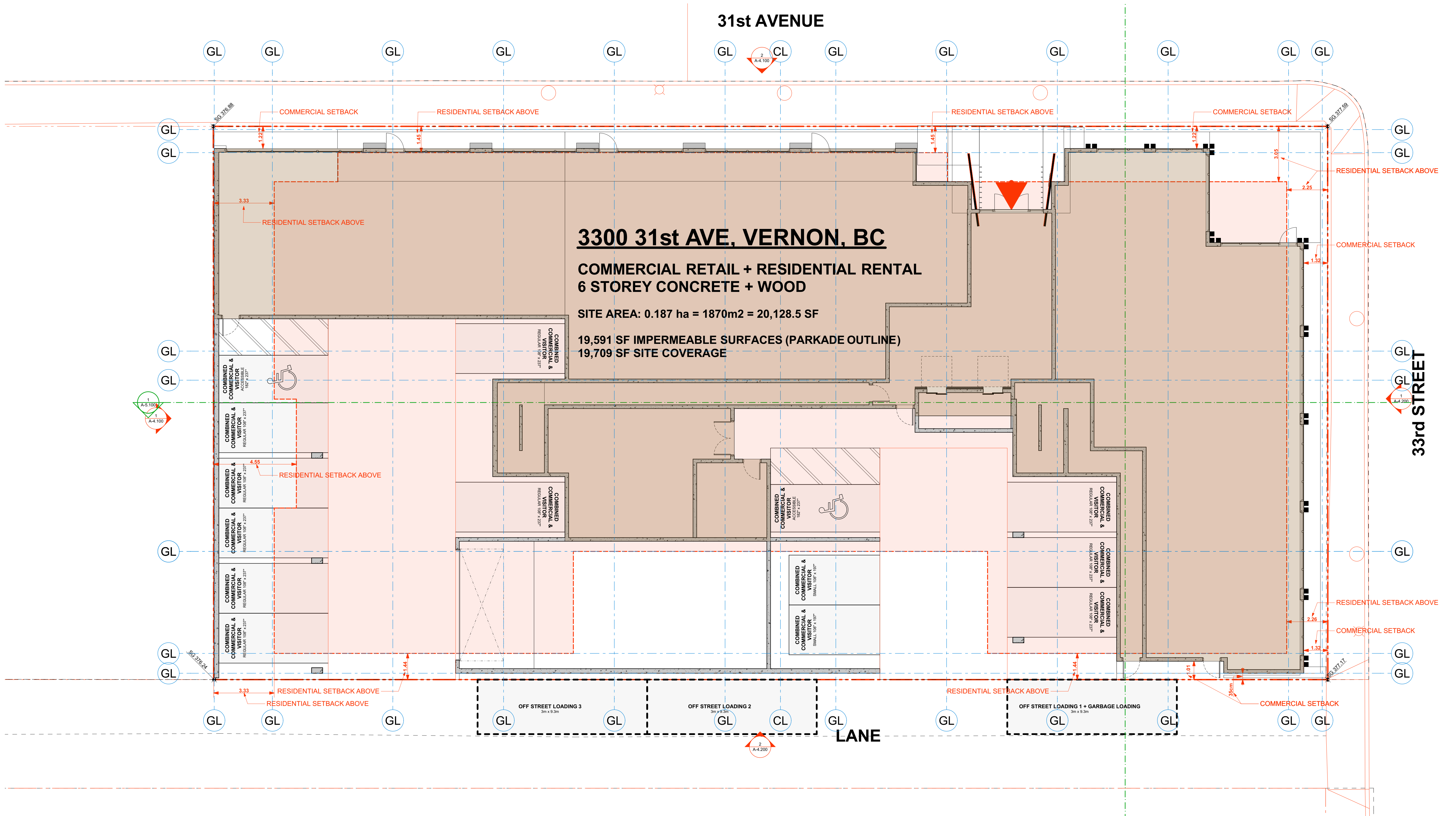
- Hydro Pole Structures**
- 1 - 12.7m tall
- no transformers
 - 2 - 13.3m tall
- no transformers
 - 3 - ±13m tall
- 4 transformers (±9m high)

111940T00

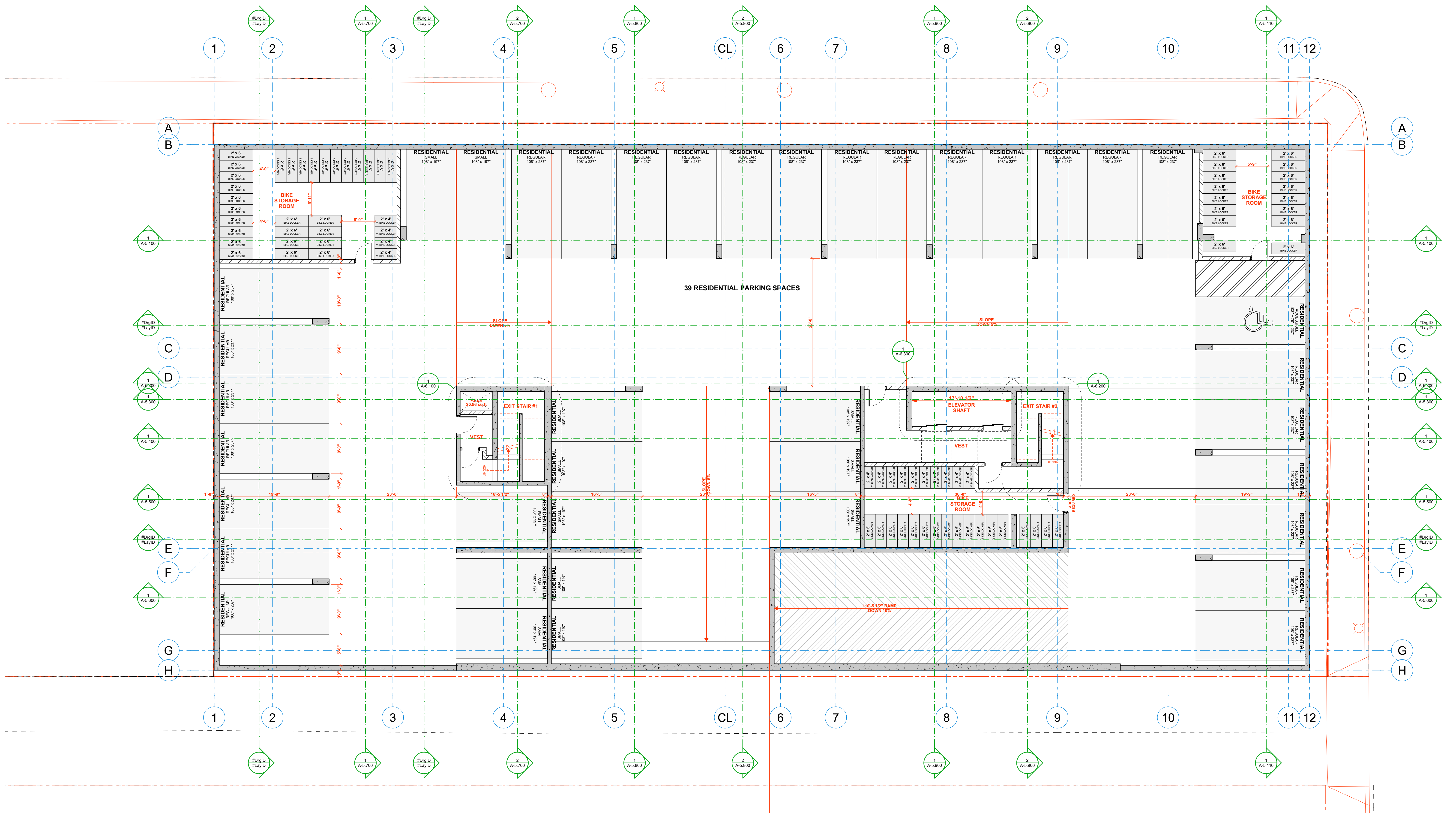
SITE PLAN OF LOT A, PLAN KAP89332,
DL 72, ODYD AND ADJACENT LANDS

OUR FILE: R11194	
DATE: 16 Mar 2022	DRAWN: KDG
Welbec Properties	
McPherson Maddox	
Land Surveying	
3500 - 30th Street Vernon, BC V1T 5E8 Telephone: (250) 542-4343	

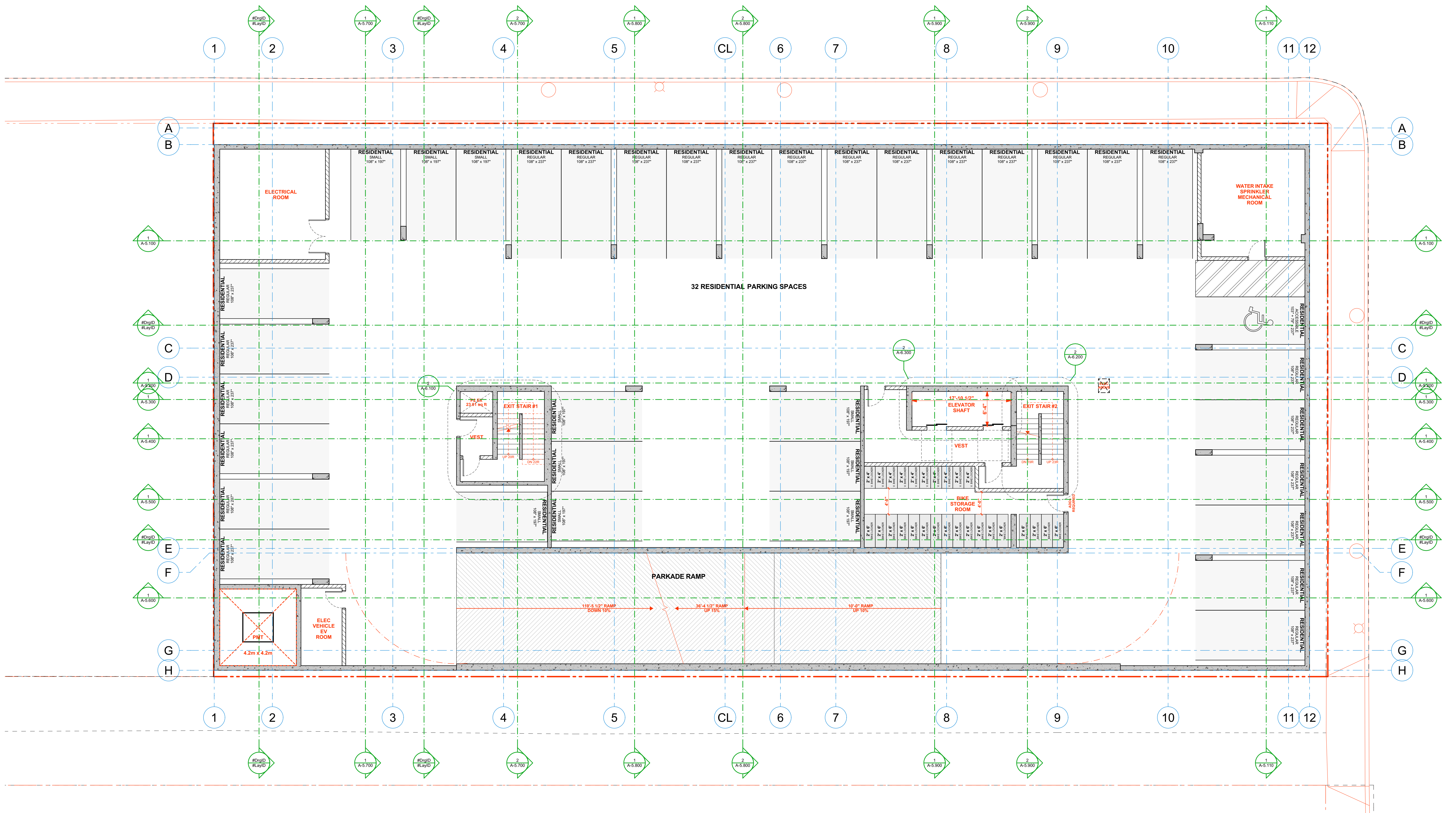




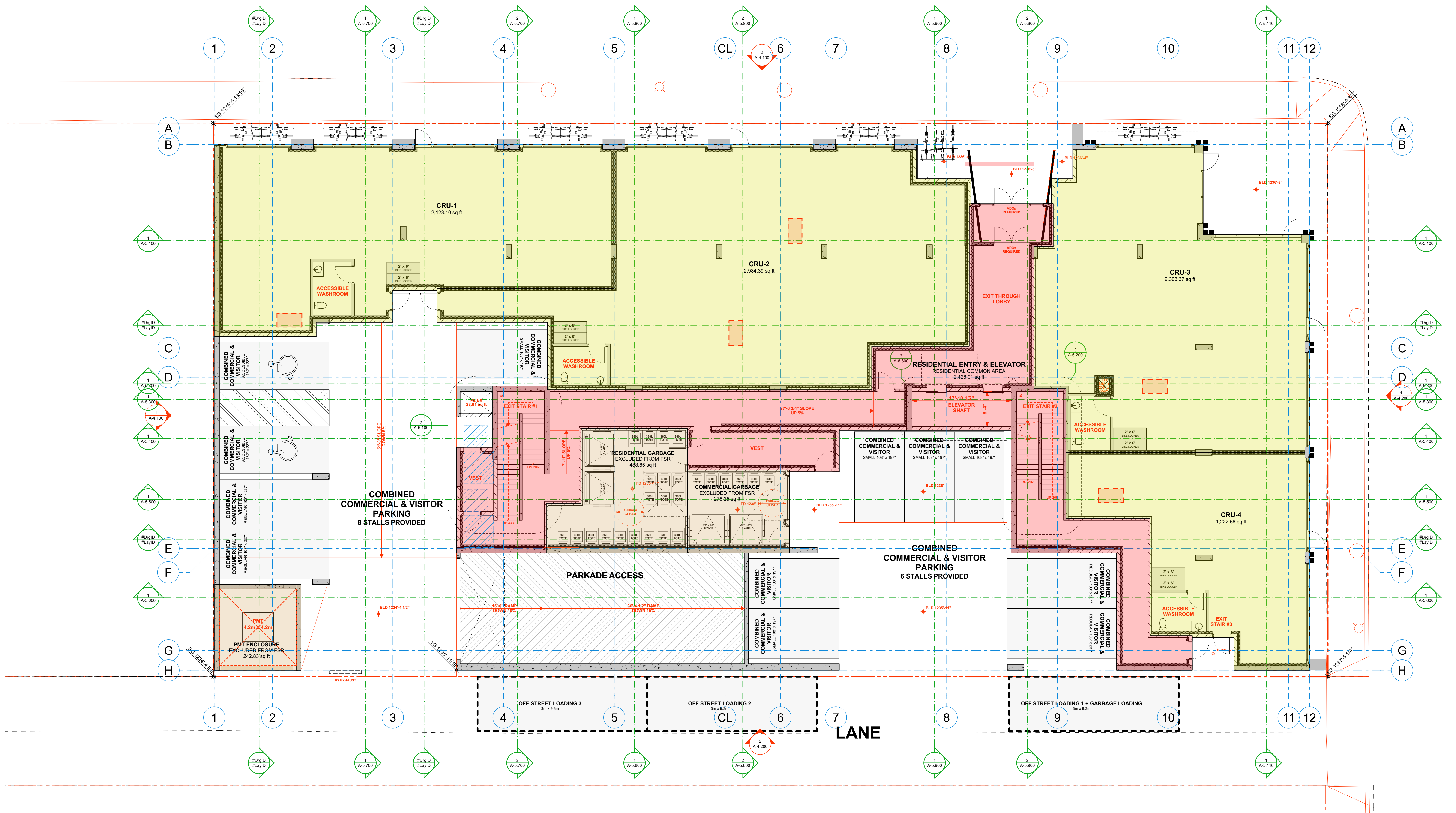
1 Site Plan
SCALE: 1/8" = 1'-0"



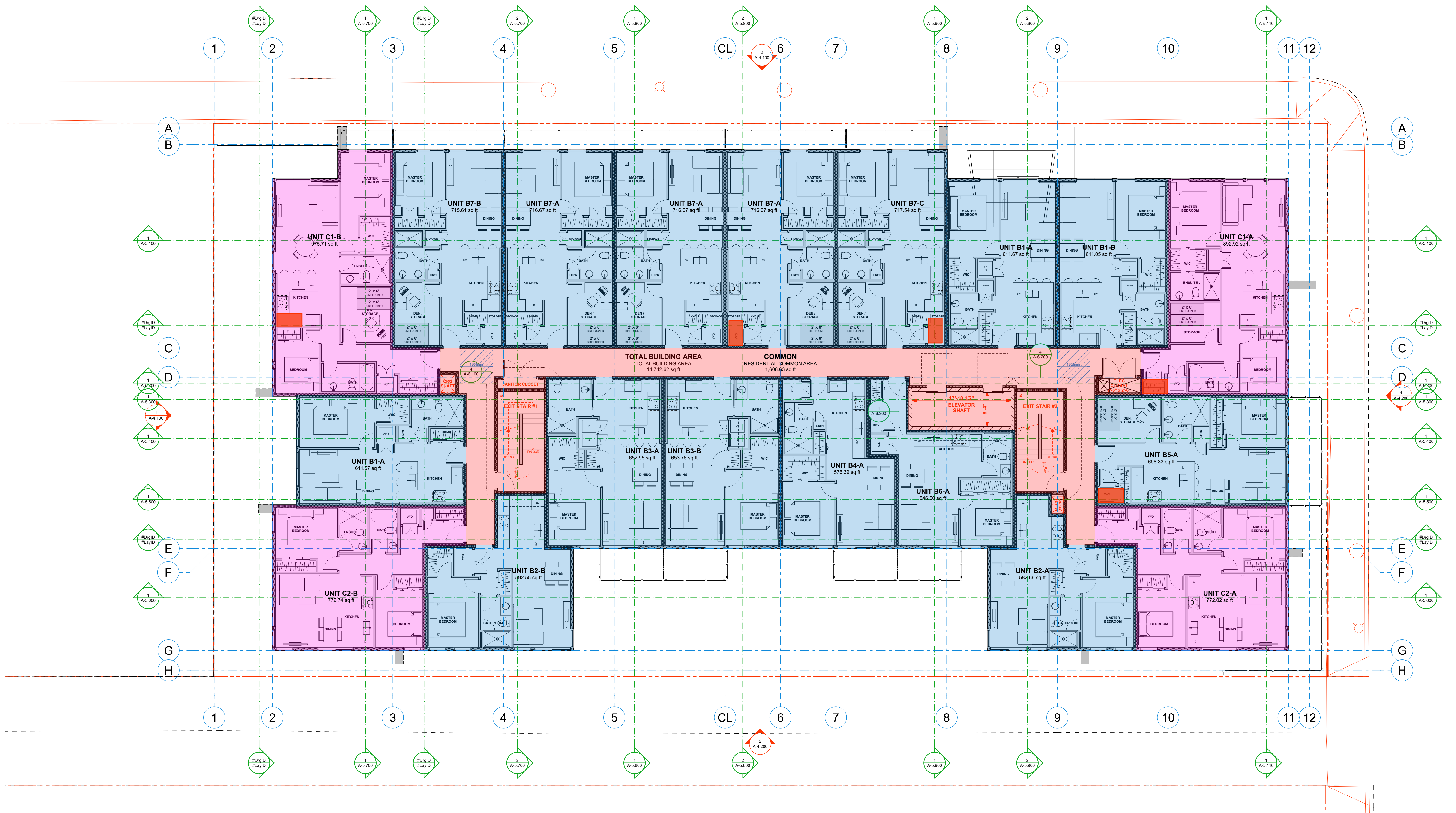
1 P2 Parking Plan
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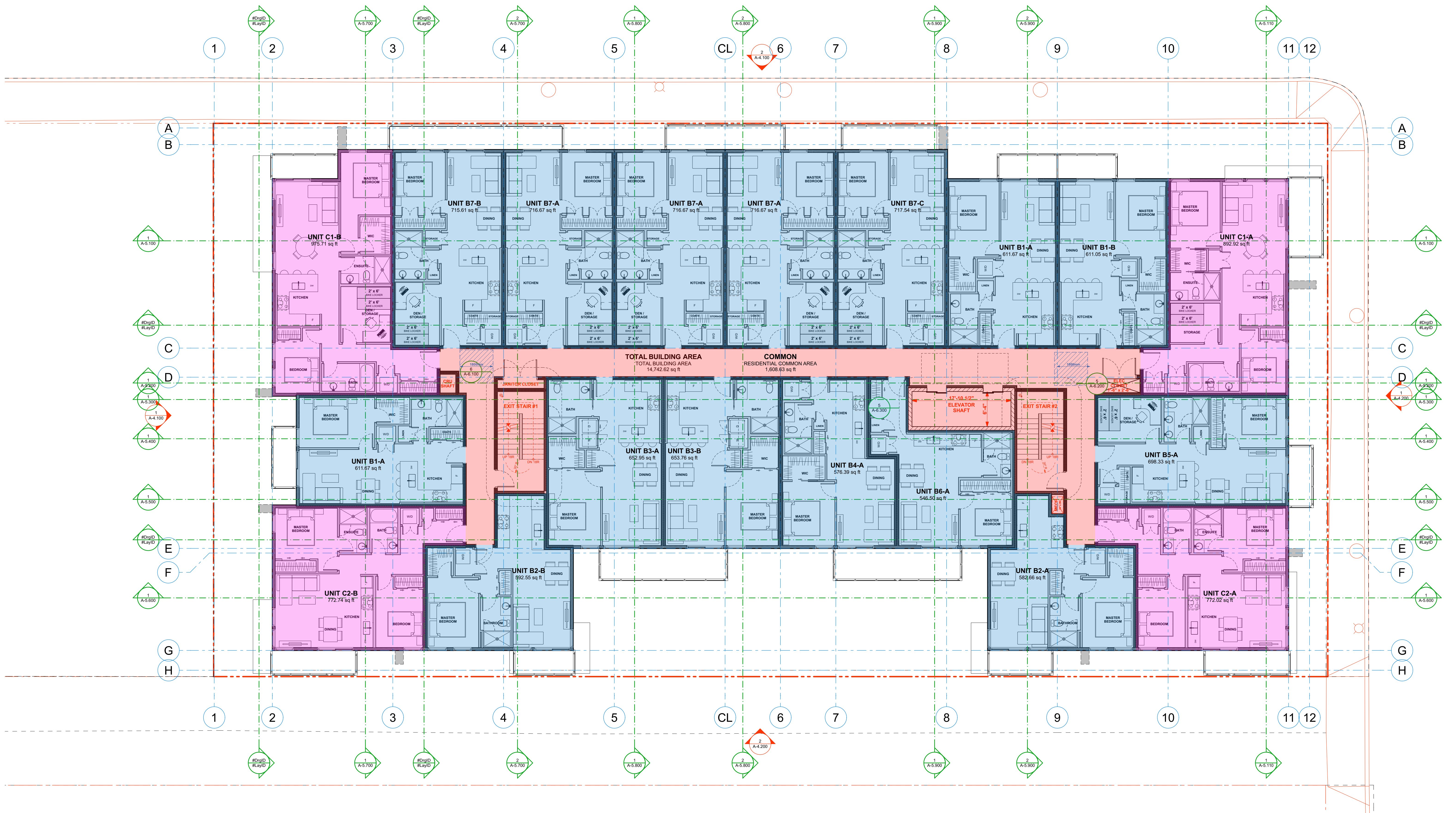
1 P1 Parking Plan
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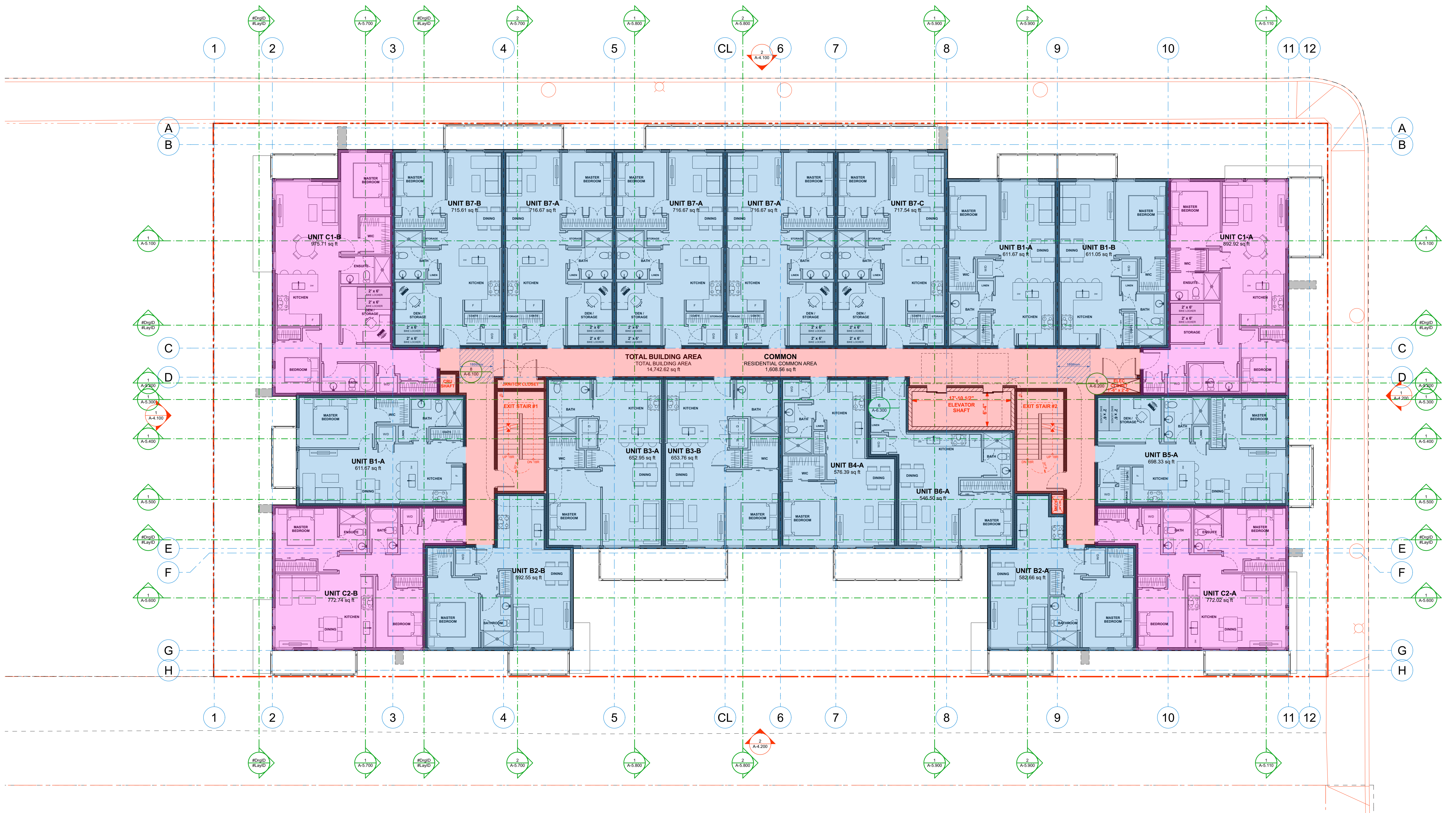
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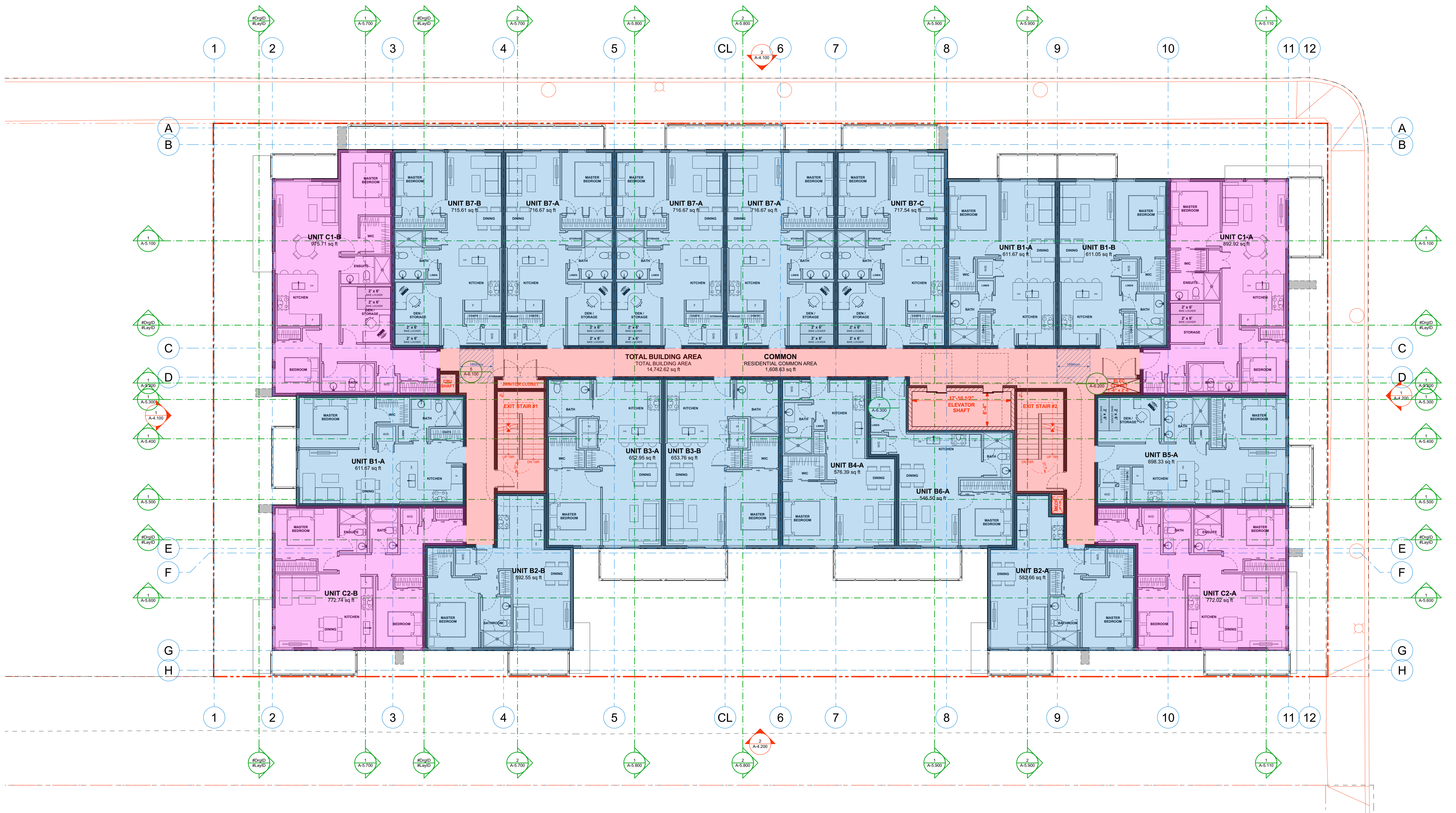
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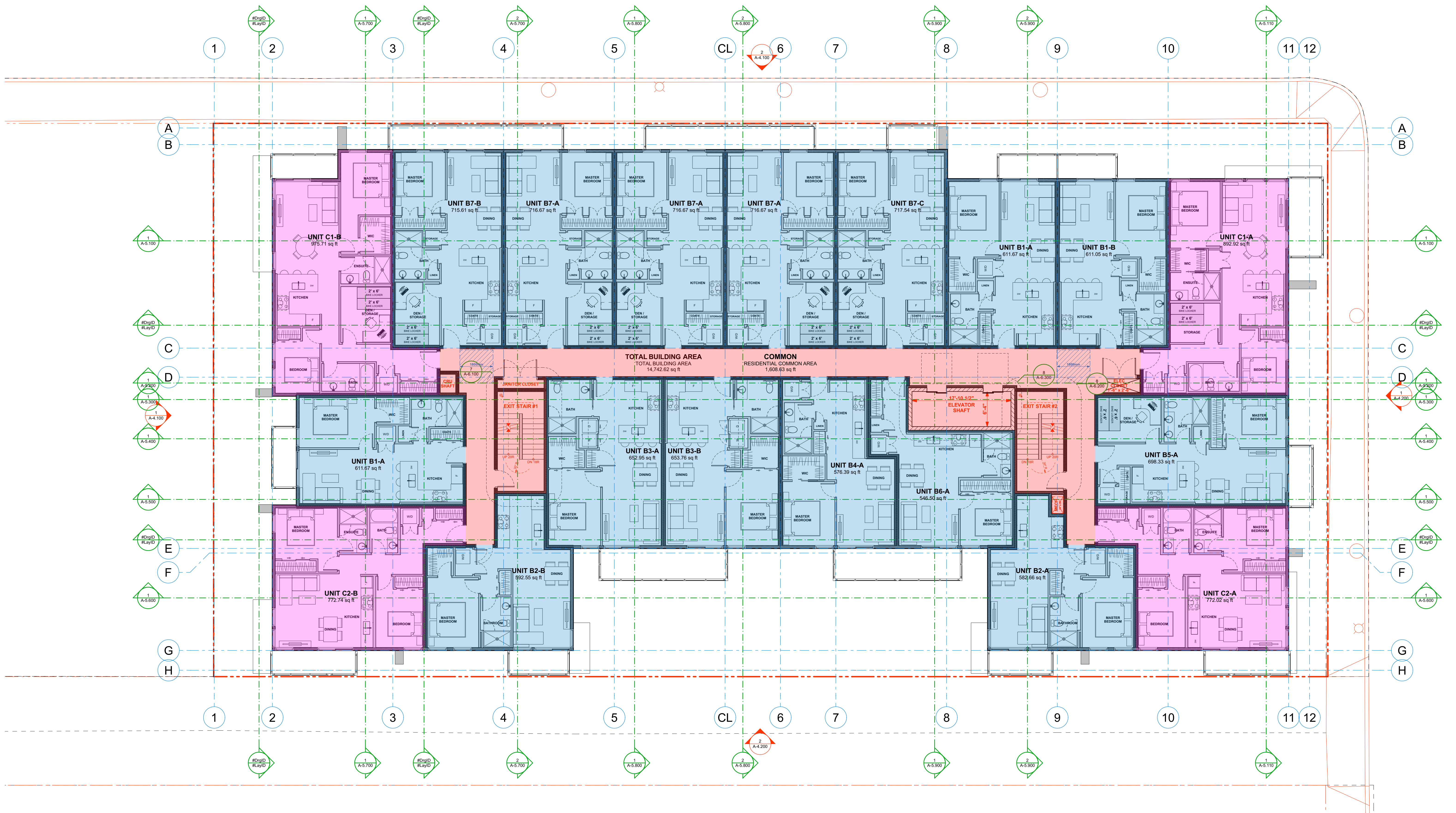
1 Level 3 Floor Plan
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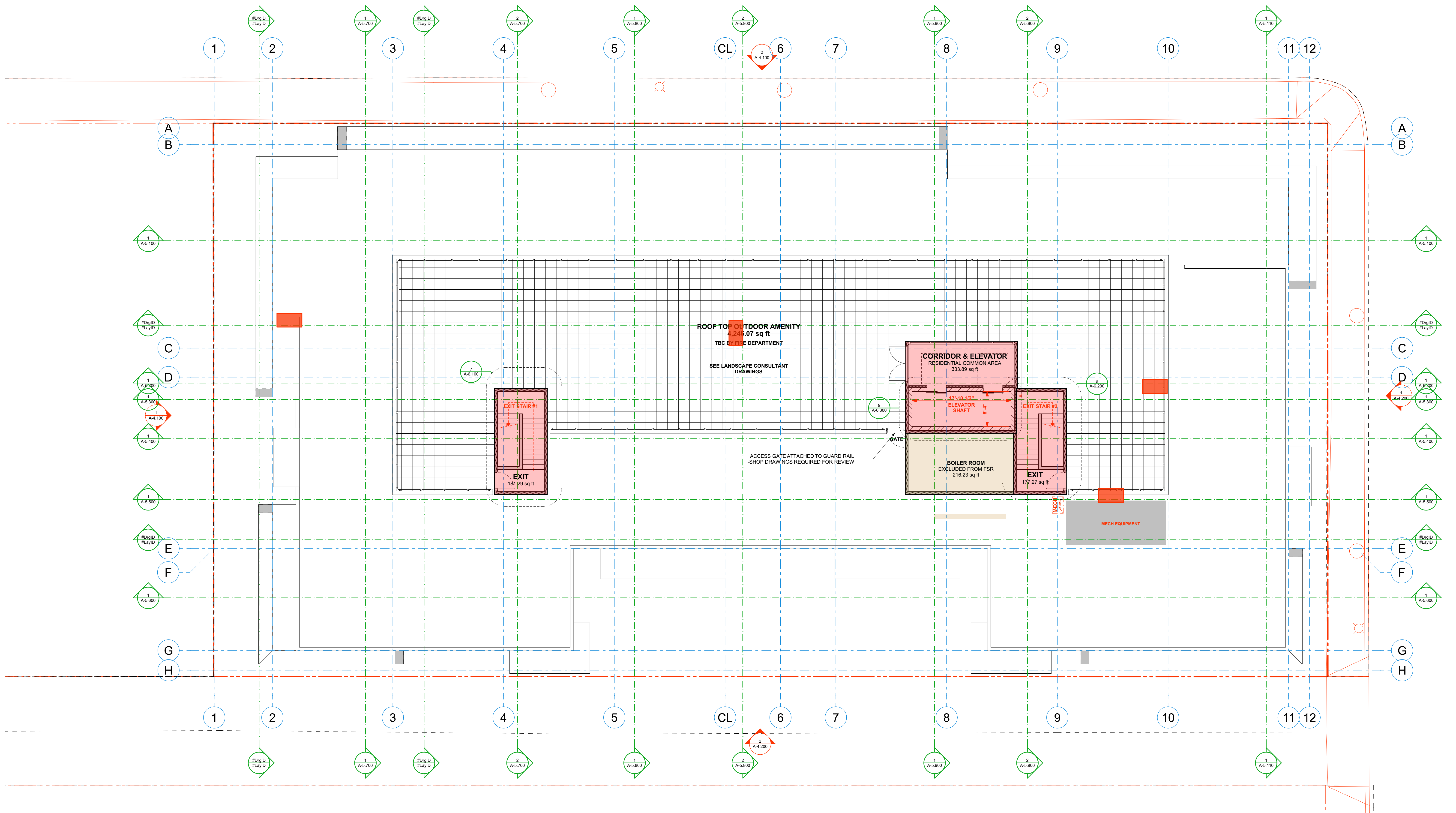
1 Level 4 Floor Plan
SCALE: 1/8" = 1'-0"



1 Level 5 Floor Plan
SCALE: 1/8" = 1'-0"



1 Level 6 Floor Plan
SCALE: 1/8" = 1'-0"



1 **Roof Plan**
SCALE: 1/8" = 1'-0"



MINIMUM ENVIRONMENTAL & ACCESSIBILITY REQUIREMENTS – NEW CONSTRUCTION

A. ENVIRONMENTAL EFFICIENCY REQUIREMENTS

Applicants must demonstrate that their projects are designed to achieve a minimum 25% decrease in energy consumption and Greenhouse Gas (GHG) emissions over the same project designed to the requirements of the 2015 National Energy Code for Buildings (NECB) or the 2015 National Building Code (NBC).

Note: CMHC will prioritize applications that exceed the minimum requirements. Applicants should ensure that they clearly state if their projects will exceed the minimum requirements and by how much (e.g. "...will exceed 2015 NECB by 40%").

Prior to Construction, applicants must demonstrate:

- Compliance with energy and GHG emission reduction requirements through the submission of an analysis of the energy consumption and GHG emission performance of a base case building designed to the 2015 NECB or the 2015 NBC and the analysis of the energy consumption and GHG emission performance of the actual design of the proposed project that has, at a minimum, 25% less energy consumption and GHG emissions.
- The energy and GHG emission reduction analysis has been undertaken by a qualified professional. For Part 3 construction, this includes professionals with energy modelling experience such as a Professional Engineer, Architect, Certified Engineering Technologist (CET) or Certified Energy Manager (CEM). For low-rise (Part 9) single, semi, row houses, duplexes, triplexes and small multi-unit residential buildings with less than four storeys, a Residential Energy Advisor accredited by Natural Resources Canada, or equivalent, may undertake the analysis.
- An appropriate energy simulation software has been used to conduct the analysis. CanQuest and EnergyPlus are examples of accepted energy modelling software used for multi-unit residential buildings (Part 3 of the NBC). For buildings under Part 9 of NBC (low-rise buildings, townhomes), HOT2000 is acceptable software. Other software used must be approved by CMHC prior to the submission of the energy and GHG emission reduction analysis.
- The physical and operational characteristics of the base case building and those of the proposed project that illustrate how the 25% energy and GHG emission reduction over the 2015 NECB or NBC base case will be achieved.

- The required documentation to demonstrate compliance includes:
 - A brief Executive Summary of the comparison of annual total energy consumption and GHG emission reduction performance between the base case and the proposed project.
 - A summary of the energy modelling of the proposed project that indicates annual energy consumption and GHG emissions for the total building and a breakdown of the estimates for each major energy end use (e.g. space conditioning, hot water, lighting, equipment, appliances, etc.).
 - An overview of the key physical and operational features of the base case and proposed building that illustrates the improvements to be made to building envelope, space conditioning, hot water, lighting and other systems, energy recovery and renewable energy systems to achieve compliance.
 - Input and output files for the energy consumption modelling for the base case and proposed project. The files must detail monthly energy consumption for the whole building and by major end use (space heating, hot water, lighting, equipment, systems, etc.).
 - Any supplemental calculations for energy contributions of renewable energy systems, other systems and conditions not included in the energy and GHG modelling.
 - GHG calculations, methodology and assumptions.

At Construction Completion, applicants must:

Identify any major changes to the original design and construction of the project. If there are significant changes between the as-designed and as-constructed cases that would have a material impact on the energy consumption and GHG emissions, an updated analysis must be submitted to CMHC to confirm the performance of the as-built project complies with program requirements.

B. ACCESSIBILITY REQUIREMENTS

Option 1: 20% of dwelling units meet accessibility standards (see Table A) and common areas are 'barrier-free' (see Table B).

OR

Option 2: The entire project (common areas and dwelling units) has full universal design (see Table C).

Note:

CMHC will prioritize applications that exceed these minimum requirements. Applicants should ensure that they clearly state if their projects will exceed the minimum requirements and how.

For either Option, prior to construction

- Indicate commitment to meeting either Option 1 or 2 to meet minimum requirements.

For Option 1:

- Provide the total number of units in the project and the total number of accessible units to be constructed.
- Identify any accessibility requirements from local codes or regulations.
- Provide a narrative of the details of the proposed accessibility strategy within each unit (Table A) and identify the "barrier-free" features from the approach to the building, through the common areas and into the accessible units (Table B).

For Option 2:

- Provide a narrative of the details of the proposed universal design strategy within the dwelling units and throughout the common areas (Table C).
- Identify any accessibility requirements from local codes or regulations.

At Construction Completion

- For Option 1, confirm the total number of accessible units that were constructed and barrier-free common areas have been provided. Confirm that the accessibility features of the project comply with the application and local building codes and regulations.
- For Option 2, confirm all units and common areas were constructed to universal design requirements and confirm compliance with any additional local accessibility building codes and regulations.
- Identify any changes that occurred between the design of the project and completion of construction that may have any impacts on the project eligibility (if applicable).

TABLE A

TECHNICAL CRITERIA FOR ACCESSIBLE DWELLING UNITS

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

ID	Category	Sub-Category	Key Features	Source
A1	Application Criteria	Number of Units	20% of units to comply with accessibility standards	NHS
A2	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.4.1.5.1
A3	Entrances and Doors	Entrance Landings	Illuminated to at least 50 lx	CSA 7.4.1.5.1
A4	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.4.1.5.2
A5	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.4.1.5.2
A6	Entrances and Doors	Entrance Doors	Appropriate manoeuvring space either side	CSA 7.4.1.5.2
A7	Entrances and Doors	Entrance Doors	Appropriate hardware	CSA 7.4.1.5.2
A8	Entrances and Doors	Signage	Identification and numbers appropriately located and configured	CSA 7.4.1.5.3
A9	Entrances and Doors	Door Bells or Intercoms	Appropriately located and configured, including audible and visual signals	CSA 7.4.1.5.3
A10	Entrances and Doors	Door Viewers	Where installed, provide second viewer 1000-1200 high	CSA 7.4.1.5.5
A11	Interior Circulation	Corridors	At least 920 wide	CSA 7.4.2.1
A12	Interior Circulation	Corridors	No steps or changes in level	CSA 7.4.2.1
A13	Interior Circulation	Corridors	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.1
A14	Interior Circulation	Corridors	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.1
A15	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred including at balcony or patio doors	CSA 7.4.2.2
A16	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.4.2.2

TABLE A (continued)

ID	Category	Sub-Category	Key Features	Source
A17	Interior Circulation	Doors and Doorways	Clear opening width of at least 850	BP
A18	Interior Circulation	Doors and Doorways	Appropriate manoeuvring space either side	CSA 7.4.2.2
A19	Interior Circulation	Doors and Doorways	Appropriate hardware	CSA 7.4.2.2
A20	Interior Circulation	Doors and Doorways	Doors to swing out (or be pocket doors) at bathroom/washroom, roll-in closets and general storage	CSA 7.4.2.2
A21	Interior Circulation	Floor and wall Surfaces	No steps or changes in level	CSA 7.4.2.3
A22	Interior Circulation	Floor and wall Surfaces	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.3
A23	Interior Circulation	Floor and Wall Surfaces	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.3
A24	Bathrooms	Floor Area	Provide 1500 diameter clear turn space or T-turn	BP
A25	Bathrooms	Lavatory	Clear floor space of at least 800 x 1350 (up to 480 may be under counter)	CSA 7.4.3.1
A26	Bathrooms	Lavatory	Centreline min 460 from side wall	CSA 7.4.3.1
A27	Bathrooms	Lavatory	Top 810-860 above the floor	CSA 7.4.3.1
A28	Bathrooms	Lavatory	Appropriate knee and toe space provided	CSA 7.4.3.1
A29	Bathrooms	Lavatory	Offset hot water pipes and drain (insulate if adjacent to knee and/or toe space)	CSA 7.4.3.1
A30	Bathrooms	Lavatory	Counter with front apron to have 750 wide x 720 high knee clearance	CSA 7.4.3.1
A31	Bathrooms	Lavatory	Appropriate faucet	CSA 7.4.3.1
A32	Bathrooms	Lavatory	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.1
A33	Bathrooms	Medicine Cabinets	Adjacent to 750 x 1200 clear floor space with horizontal reach max 500	CSA 7.4.3.2
A34	Bathrooms	Medicine Cabinets	Bottom shelf max 1000 high	CSA 7.4.3.2
A35	Bathrooms	Medicine Cabinets	Appropriate door hardware	CSA 7.4.3.2
A36	Bathrooms	Medicine Cabinets	Illuminated to at least 200 lx	CSA 7.4.3.2
A37	Bathrooms	Storage	A shelf shall be provided, located max 1100	CSA 7.4.3.3
A38	Bathrooms	Towel Bars	Max 1100 high	CSA 7.4.3.4
A39	Bathrooms	Mirrors	Bottom edge no higher than 1000	CSA 7.4.3.5
A40	Bathrooms	Toilets	Seat not spring activated, height 430-485, back support where no seat lid or tank	CSA 7.4.3.6
A41	Bathrooms	Toilets	Centre line of toilet fixture 460-480 from an adjacent wall	CSA 7.4.3.6
A42	Bathrooms	Toilets	Clear transfer space of at least 900 wide x 1500 long on open side of toilet	CSA 7.4.3.6

TABLE A (continued)

ID	Category	Sub-Category	Key Features	Source
A43	Bathrooms	Toilets	Automatic flush controls or appropriately configured hand-operated device	CSA 7.4.3.6
A44	Bathrooms	Toilet - Struct. Support	Provide appropriate structural support for grab bars in walls around toilet	CSA 7.4.3.7
A45	Bathrooms	Toilet Paper Dispenser	Provide dispenser within 300 from front of toilet and 600-800 high	CSA 7.4.3.8
A46	Bathrooms	Bathtub	At least 1500 long	CSA 7.4.3.9
A47	Bathrooms	Bathtub	Clear floor area at least 750 wide along full length of open side of the tub (no door)	CSA 7.4.3.9
A48	Bathrooms	Bathtub	Appropriate faucets and other controls	CSA 7.4.3.9
A49	Bathrooms	Bathtub	Appropriate hand-held showerhead	CSA 7.4.3.9
A50	Bathrooms	Bathtub	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.9
A51	Bathrooms	Bathtub - Struct. Support	Provide appropriate structural support to ceiling and in the surrounding 3 walls	CSA 7.4.3.9
A52	Bathrooms	Shower Stall	Water temperature supply no more than 49 degrees Celsius	CSA 7.4.3.10
A53	Bathrooms	Shower Stall	Appropriate hand-held showerhead	CSA 7.4.3.10
A54	Bathrooms	Shower Stall	Doors or curtains do not obstruct access to controls or the transfer space	CSA 7.4.3.10
A55	Bathrooms	Shower Stall	Floors sloped minimally to provide positive drainage and slip-resistant when wet	CSA 7.4.3.10
A56	Bathrooms	Shower Stall	Interior clear area at least 900 x 1500	CSA 7.4.3.10
A57	Bathrooms	Shower Stall	Clear floor area in front of the shower entrance of at least 900 x 1500	CSA 7.4.3.10
A58	Bathrooms	Shower Stall	Appropriate faucets and other controls	CSA 7.4.3.10
A59	Bathrooms	Shower Stall	Appropriate threshold - no more than 13	CSA 7.4.3.10
A60	Bathrooms	Shower - Struct. Support	Provide appropriate structural support to ceiling and in the surrounding walls	CSA 7.4.3.10
A61	Kitchens	Floor Area	Clear floor area of at least 750 x 1200 in front of fixtures	CSA 7.4.4.1
A62	Kitchens	Floor Area	Clear floor area of at least 750 x 1200 at one side of open doors and drawers	CSA 7.4.4.1
A63	Kitchens	Counters	At least one counter: 760 wide x 600 deep area, 730-860 high, with knee clearance	CSA 7.4.4.2
A64	Kitchens	Counters	Accessible counter has electrical outlet at side or front	CSA 7.4.4.2
A65	Kitchens	Base Cabinets	Toe space at least 150 deep x 230 high	CSA 7.4.4.3
A66	Kitchens	Sinks	Clear floor space of at least 800 x 1350 (up to 480 may be under counter)	CSA 7.4.4.4
A67	Kitchens	Sinks	At least 460 from side wall	CSA 7.4.4.4
A68	Kitchens	Sinks	Rim 810 - 860 high	CSA 7.4.4.4
A69	Kitchens	Sinks	Appropriate knee and toe space below	CSA 7.4.4.4

TABLE A (continued)

ID	Category	Sub-Category	Key Features	Source
A70	Kitchens	Sinks	Appropriate faucets	CSA 7.4.4.4
A71	Kitchens	Sinks	Offset hot water pipes and drain (insulate if adjacent to knee and/or toe space)	CSA 7.4.4.4
A72	Kitchens	Illumination	At least 300 lx at countertops	CSA 7.4.4.5
A73	Kitchens	Illumination	At least 100 lx at switches and controls (200 lx where reading required)	CSA 7.4.4.5
A74	Kitchens	Cooktops	810 - 860 high	CSA 7.4.4.6
A75	Kitchens	Cooktops	Adjacent work surface at least 400 wide, at same height as cooktop	CSA 7.4.4.6
A76	Kitchens	Cooktops	Appropriate knee-clearance below (including insulation as needed)	CSA 7.4.4.6
A77	Kitchens	Cooktops	Clear floor space of at least 800 x 1350 (up to 480 may be under cooktop)	CSA 7.4.4.6
A78	Kitchens	Ovens	Appropriate controls, mounted on front panel, no more than 1200 high	CSA 7.4.4.7
A79	Kitchens	Ovens	At side opening oven, provide heat resistant shelf beside oven door or under oven	CSA 7.4.4.7
A80	Kitchens	Refrigerator	Self-defrosting freezer with freezer shelf space no more than 1100 high	CSA 7.4.4.8
A81	Kitchens	Kitchen Storage	At least one shelf in cupboards no more than 1100 high	CSA 7.4.4.9
A82	Kitchens	Kitchen Storage	D-type door pulls within 400 - 1200 reach range	CSA 7.4.4.9
A83	Bedrooms	Floor Area	Clear floor area of at least 750 x 1200 mm on at least two sides of the bed	CSA 7.4.5
A84	Bedrooms	Floor Area	Provide 1500 diam clear turn space or T-turn in bedroom	BP
A85	Other Rooms	Floor Area	Provide 1500 diameter turn space or T-turn	BP
A86	Other Rooms	Laundry	Provide front-loading appliances with accessible operating controls	CSA 7.4.6.6
A87	Other Rooms	Laundry	Clear floor area of at least 750 x 1200 at one side of open appliance doors	CSA 7.4.6.6
A88	Other Rooms	Laundry	Where provided, laundry tub should allow a side-approach in a wheelchair	CSA 7.4.6.6
A89	General	Emergency + Security Alarms	Provide both audible and visual signals	CSA 7.4.6.1
A90	General	Windows	Where intended for views, sill max 750 above floor	CSA 7.4.6.2
A91	General	Windows	Accessible opening and locking mechanisms	CSA 7.4.6.2
A92	General	Operating Controls	Clear floor space in front at least 1350 x 800, centered	CSA 7.4.6.3
A93	General	Operating Controls	Located 400 - 1200 high	CSA 7.4.6.3
A94	General	Operating Controls	Operable using one closed fist, with max 22N force	CSA 7.4.6.3

TABLE A (continued)

ID	Category	Sub-Category	Key Features	Source
A95	General	Operating Controls	Provide tactile and/or auditory info indicating function and position of control	CSA 7.4.6.3
A96	General	Operating Controls	Colour contrast with mounting surface	CSA 7.4.6.3
A97	General	Operating Controls	Illuminated to at least 100 lx, 200 lx where reading is required	CSA 7.4.6.3
A98	General	Operating Controls	Where control has visual display, info should be supplemented with tactile/audio	CSA 7.4.6.3
A99	General	Clothes Closets	Clear floor area in front of at least 750 x 1200	CSA 7.4.6.4
A100	General	Clothes Closets	Clothes rail 1200 - 1400	CSA 7.4.6.4
A101	General	Clothes Closets	Where shelves are provided, 3 shelves within 400 - 1200 reach range	CSA 7.4.6.4
A102	General	General Storage	Outward-swinging or pocket door	CSA 7.4.6.5
A103	General	General Storage	Electrical outlet in inside, close to door	CSA 7.4.6.5
A104	General	General Storage	Capable of being illuminated to at least 50 lx	CSA 7.4.6.5
A105	General	Outdoor Living Spaces	Located adjacent to an accessible route	CSA 7.4.7
A106	General	Outdoor Living Spaces	At least 1500 x 1500 in area with accessible surface	CSA 7.4.7
A107	General	Outdoor Living Spaces	Appropriate manoeuvring space at appropriately configured accessible door	CSA 7.4.7
A108	General	Outdoor Living Spaces	Capable of being illuminated to at least 50 lx	CSA 7.4.7
A109	General	Outdoor Living Spaces	No step, level threshold through doors	CSA 7.4.7

TABLE B

TECHNICAL CRITERIA FOR BARRIER-FREE COMMON AREAS

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

ID	Category	Sub-Category	Key Features	Source
B1	Circulation	Parking	Where provided, interior, exterior or covered parking: • Pedestrian routes to comply with CSA 9.2 • Signage to comply with CSA 9.4 • Designated parking spaces to comply with CSA 9.5	CSA 7.4.1.1
B2	Circulation	Passenger Pick-up Areas	Where provided, passenger pick-up areas to comply with CSA 9.3	CSA 7.4.1.2
B3	Circulation	Exterior Routes	Minor changes in level: 0-6 may be vertical, 7-13 to be bevelled	CSA 7.4.1.3
B4	Circulation	Exterior Routes	Clear width of at least 1200	CSA 7.4.1.3
B5	Circulation	Exterior Routes	Stable, firm and slip resistant surfaces	CSA 7.4.1.3
B6	Circulation	Exterior Routes	Level, or sloped no steeper than the ratio of 1:20 (5%)	CSA 7.4.1.3
B7	Circulation	Exterior Routes	Cross-slope no steeper than the ratio of 1:50 (2%)	CSA 7.4.1.3
B8	Circulation	Exterior Routes	Edge protection provided at grade changes and other potential hazards	CSA 7.4.1.3
B9	Circulation	Ramps	Slopes steeper than the ratio of 1:20 (5%) to be designed as ramps	CSA 7.4.1.4.1
B10	Circulation	Ramps	No steeper than the ratio of 1:12 (8.3%)	CSA 7.4.1.4.1
B11	Circulation	Ramps	Cross slope no steeper than the ratio of 1:50 (2%)	CSA 7.4.1.4.1
B12	Circulation	Ramps	Landings no more than 9000 apart	CSA 7.4.1.4.1
B13	Circulation	Ramps	At least 920 wide	CSA 7.4.1.4.1
B14	Circulation	Ramps	Landings at top, bottom and changes in direction. Min 1500 long x at least ramp width. Min 1500 x 1500 at doors.	CSA 7.4.1.4.1
B15	Circulation	Ramps	Appropriate handrails	CSA 7.4.1.4.1
B16	Circulation	Ramps	Appropriate edge protection	CSA 7.4.1.4.1
B17	Circulation	Ramps	Appropriate surfaces, including colour-contrast band at slope transitions	CSA 7.4.1.4.1
B18	Circulation	Stairs	Risers no more than 180 and treads no less than 280 deep	CSA 7.4.1.4.2
B19	Circulation	Stairs	Slip resistant	CSA 7.4.1.4.2
B20	Circulation	Stairs	No open risers	CSA 7.4.1.4.2

TABLE B (continued)

ID	Category	Sub-Category	Key Features	Source
B21	Circulation	Stairs	Illuminated to at least 50 lx	CSA 7.4.1.4.2
B22	Circulation	Stairs	Colour-contrast band on nosings	CSA 7.4.1.4.2
B23	Circulation	Stairs	Tactile attention indicators at top of stairs	CSA 7.4.1.4.2
B24	Circulation	Stairs	Appropriate handrails	CSA 7.4.1.4.2
B25	Circulation	Stairs	Appropriate edge protection	CSA 7.4.1.4.2
B26	Circulation	Elevating Devices	Comply with: Appendix E of ASME A17.1/CSA-B44 for elevators and service lifts, or CAN/CSA-B335 for an elevating device	CSA 7.4.1.4.3
B27	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.4.1.5.1
B28	Entrances and Doors	Entrance Landings	Illuminated to at least 50 lx	CSA 7.4.1.5.1
B29	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.4.1.5.2
B30	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.4.1.5.2
B31	Entrances and Doors	Entrance Doors	Appropriate manoeuvring space either side	CSA 7.4.1.5.2
B32	Entrances and Doors	Entrance Doors	Appropriate hardware and motorized automatic front entry doors	CSA 7.4.1.5.2
B33	Entrances and Doors	Signage	Identification and numbers appropriately located and configured	CSA 7.4.1.5.3
B34	Entrances and Doors	Door Bells or Intercoms	Appropriately located and configured, including audible and visual signals	CSA 7.4.1.5.3
B35	Entrances and Doors	Door Viewers	Where installed, provide second viewer 1000-1200 high	CSA 7.4.1.5.5
B36	Interior Circulation	Corridors	At least 920 wide	CSA 7.4.2.1
B37	Interior Circulation	Corridors	No steps or changes in level	CSA 7.4.2.1
B38	Interior Circulation	Corridors	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.1
B39	Interior Circulation	Corridors	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.1
B40	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred	CSA 7.4.2.2
B41	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.4.2.2
B42	Interior Circulation	Doors and Doorways	Appropriate manoeuvring space either side	CSA 7.4.2.2
B43	Interior Circulation	Doors and Doorways	Appropriate hardware	CSA 7.4.2.2
B44	Interior Circulation	Doors and Doorways	Doors to swing out at bathroom/washroom, roll-in closets and general storage	CSA 7.4.2.2

TABLE B (continued)

ID	Category	Sub-Category	Key Features	Source
B45	Interior Circulation	Floor and Wall Surfaces	No steps or changes in level	CSA 7.4.2.3
B46	Interior Circulation	Floor and Wall Surfaces	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.3
B47	Interior Circulation	Floor and Wall Surfaces	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.3
B48	Washrooms	Public Washrooms	Multi-stalled public washrooms to comply with CSA 6.2	CSA 6.2
B49	Washrooms	Public Washrooms	Universal public washrooms to comply with CSA 6.3	CSA 6.3
B50	Washrooms	Public Washrooms	Public bathing facilities to comply with CSA 6.5	CSA 6.5
B51	General	Emergency/ Security Alarms	Provide both audible and visual signals	CSA 7.4.6.1
B52	General	Operating Controls	Clear floor space in front at least 1350 x 800, centered	CSA 7.4.6.3
B53	General	Operating Controls	Located 400 -1200 high	CSA 7.4.6.3
B54	General	Operating Controls	Operable using one closed fist, with max 22N force	CSA 7.4.6.3
B55	General	Operating Controls	Provide tactile and/or auditory info indicating function and position of control	CSA 7.4.6.3
B56	General	Operating Controls	Colour contrast with mounding surface	CSA 7.4.6.3
B57	General	Operating Controls	Illuminated to at least 100 lx, 200 lx where reading is required	CSA 7.4.6.3
B58	General	Operating Controls	Where control has visual display, info should be supplemented with tactile/auditory	CSA 7.4.6.3
B59	General	Outdoor Living Spaces	Located adjacent to an accessible route	CSA 7.4.7
B60	General	Outdoor Living Spaces	At least 1500 x 1500 in area with accessible surface	CSA 7.4.7
B61	General	Outdoor Living Spaces	Appropriate manoeuvring space at appropriately-configured accessible door	CSA 7.4.7
B62	General	Outdoor Living Spaces	Capable of being illuminated to at least 50 lx	CSA 7.4.7
B63	General	Outdoor Living Spaces	No step, level threshold through doors	CSA 7.4.7
B64	General	Public Amenities	Where amenity spaces are provided for the use or resident and their visitors (such as community rooms, hobby rooms, etc.), they shall be accessible to persons with disabilities	BP

TABLE B

TECHNICAL CRITERIA FOR BARRIER-FREE COMMON AREAS

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

ID	Category	Sub-Category	Key Features	Source
B1	Circulation	Parking	Where provided, interior, exterior or covered parking: • Pedestrian routes to comply with CSA 9.2 • Signage to comply with CSA 9.4 • Designated parking spaces to comply with CSA 9.5	CSA 7.4.1.1
B2	Circulation	Passenger Pick-up Areas	Where provided, passenger pick-up areas to comply with CSA 9.3	CSA 7.4.1.2
B3	Circulation	Exterior Routes	Minor changes in level: 0-6 may be vertical, 7-13 to be bevelled	CSA 7.4.1.3
B4	Circulation	Exterior Routes	Clear width of at least 1200	CSA 7.4.1.3
B5	Circulation	Exterior Routes	Stable, firm and slip resistant surfaces	CSA 7.4.1.3
B6	Circulation	Exterior Routes	Level, or sloped no steeper than the ratio of 1:20 (5%)	CSA 7.4.1.3
B7	Circulation	Exterior Routes	Cross-slope no steeper than the ratio of 1:50 (2%)	CSA 7.4.1.3
B8	Circulation	Exterior Routes	Edge protection provided at grade changes and other potential hazards	CSA 7.4.1.3
B9	Circulation	Ramps	Slopes steeper than the ratio of 1:20 (5%) to be designed as ramps	CSA 7.4.1.4.1
B10	Circulation	Ramps	No steeper than the ratio of 1:12 (8.3%)	CSA 7.4.1.4.1
B11	Circulation	Ramps	Cross slope no steeper than the ratio of 1:50 (2%)	CSA 7.4.1.4.1
B12	Circulation	Ramps	Landings no more than 9000 apart	CSA 7.4.1.4.1
B13	Circulation	Ramps	At least 920 wide	CSA 7.4.1.4.1
B14	Circulation	Ramps	Landings at top, bottom and changes in direction. Min 1500 long x at least ramp width. Min 1500 x 1500 at doors.	CSA 7.4.1.4.1
B15	Circulation	Ramps	Appropriate handrails	CSA 7.4.1.4.1
B16	Circulation	Ramps	Appropriate edge protection	CSA 7.4.1.4.1
B17	Circulation	Ramps	Appropriate surfaces, including colour-contrast band at slope transitions	CSA 7.4.1.4.1
B18	Circulation	Stairs	Risers no more than 180 and treads no less than 280 deep	CSA 7.4.1.4.2
B19	Circulation	Stairs	Slip resistant	CSA 7.4.1.4.2
B20	Circulation	Stairs	No open risers	CSA 7.4.1.4.2

TABLE B (continued)

ID	Category	Sub-Category	Key Features	Source
B21	Circulation	Stairs	Illuminated to at least 50 lx	CSA 7.4.1.4.2
B22	Circulation	Stairs	Colour-contrast band on nosings	CSA 7.4.1.4.2
B23	Circulation	Stairs	Tactile attention indicators at top of stairs	CSA 7.4.1.4.2
B24	Circulation	Stairs	Appropriate handrails	CSA 7.4.1.4.2
B25	Circulation	Stairs	Appropriate edge protection	CSA 7.4.1.4.2
B26	Circulation	Elevating Devices	Comply with: Appendix E of ASME A17.1/CSA-B44 for elevators and service lifts, or CAN/CSA-B335 for an elevating device	CSA 7.4.1.4.3
B27	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.4.1.5.1
B28	Entrances and Doors	Entrance Landings	Illuminated to at least 50 lx	CSA 7.4.1.5.1
B29	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.4.1.5.2
B30	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.4.1.5.2
B31	Entrances and Doors	Entrance Doors	Appropriate manoeuvring space either side	CSA 7.4.1.5.2
B32	Entrances and Doors	Entrance Doors	Appropriate hardware and motorized automatic front entry doors	CSA 7.4.1.5.2
B33	Entrances and Doors	Signage	Identification and numbers appropriately located and configured	CSA 7.4.1.5.3
B34	Entrances and Doors	Door Bells or Intercoms	Appropriately located and configured, including audible and visual signals	CSA 7.4.1.5.3
B35	Entrances and Doors	Door Viewers	Where installed, provide second viewer 1000-1200 high	CSA 7.4.1.5.5
B36	Interior Circulation	Corridors	At least 920 wide	CSA 7.4.2.1
B37	Interior Circulation	Corridors	No steps or changes in level	CSA 7.4.2.1
B38	Interior Circulation	Corridors	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.1
B39	Interior Circulation	Corridors	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.1
B40	Interior Circulation	Doors and Doorways	Threshold no more than 13 - level threshold preferred	CSA 7.4.2.2
B41	Interior Circulation	Doors and Doorways	Clear opening width of at least 810	CSA 7.4.2.2
B42	Interior Circulation	Doors and Doorways	Appropriate manoeuvring space either side	CSA 7.4.2.2
B43	Interior Circulation	Doors and Doorways	Appropriate hardware	CSA 7.4.2.2
B44	Interior Circulation	Doors and Doorways	Doors to swing out at bathroom/washroom, roll-in closets and general storage	CSA 7.4.2.2

TABLE B (continued)

ID	Category	Sub-Category	Key Features	Source
B45	Interior Circulation	Floor and Wall Surfaces	No steps or changes in level	CSA 7.4.2.3
B46	Interior Circulation	Floor and Wall Surfaces	Surface stable, firm, slip-resistant, nominal glare, not heavily patterned	CSA 7.4.2.3
B47	Interior Circulation	Floor and Wall Surfaces	If carpet, low, firm and level pile or loop, carpet + pad max 13, securely fastened	CSA 7.4.2.3
B48	Washrooms	Public Washrooms	Multi-stalled public washrooms to comply with CSA 6.2	CSA 6.2
B49	Washrooms	Public Washrooms	Universal public washrooms to comply with CSA 6.3	CSA 6.3
B50	Washrooms	Public Washrooms	Public bathing facilities to comply with CSA 6.5	CSA 6.5
B51	General	Emergency/ Security Alarms	Provide both audible and visual signals	CSA 7.4.6.1
B52	General	Operating Controls	Clear floor space in front at least 1350 x 800, centered	CSA 7.4.6.3
B53	General	Operating Controls	Located 400 -1200 high	CSA 7.4.6.3
B54	General	Operating Controls	Operable using one closed fist, with max 22N force	CSA 7.4.6.3
B55	General	Operating Controls	Provide tactile and/or auditory info indicating function and position of control	CSA 7.4.6.3
B56	General	Operating Controls	Colour contrast with mounding surface	CSA 7.4.6.3
B57	General	Operating Controls	Illuminated to at least 100 lx, 200 lx where reading is required	CSA 7.4.6.3
B58	General	Operating Controls	Where control has visual display, info should be supplemented with tactile/auditory	CSA 7.4.6.3
B59	General	Outdoor Living Spaces	Located adjacent to an accessible route	CSA 7.4.7
B60	General	Outdoor Living Spaces	At least 1500 x 1500 in area with accessible surface	CSA 7.4.7
B61	General	Outdoor Living Spaces	Appropriate manoeuvring space at appropriately-configured accessible door	CSA 7.4.7
B62	General	Outdoor Living Spaces	Capable of being illuminated to at least 50 lx	CSA 7.4.7
B63	General	Outdoor Living Spaces	No step, level threshold through doors	CSA 7.4.7
B64	General	Public Amenities	Where amenity spaces are provided for the use or resident and their visitors (such as community rooms, hobby rooms, etc.), they shall be accessible to persons with disabilities	BP

TABLE C

TECHNICAL CRITERIA FOR UNIVERSAL DESIGN DWELLING UNITS

Note: Table incorporates key requirements only - source should be referenced for further detail as required.

Note: Unless noted otherwise, all dimensions are in millimeters.

INDEX

NHS = National Housing Strategy
BP = Better practice
CSA = CSA B651: Accessible design for the built environment

PATH = PATH Housing Series: Universal Design and Accessible Housing
(http://homelesshub.ca/sites/default/files/HousingSeries_AccessibleHousing.pdf)

ID	Category	Sub-Category	Key Features	Source
C1	Application	Entry and Circulation	Accessible route through the main entry door and continuous through all the rooms on the entry level of the unit.	PATH
C2	Application	Access to Spaces and Fixtures	Accessible route to the required floor spaces, leading to all kitchen appliances and to all bathroom fixtures making these spaces and fixtures accessible. The route must also connect with all secondary exterior doors. Spaces include the storage areas and exterior balconies and patios that are part of the dwelling unit.	PATH
C3	Application	Multi-storey Dwelling Units	Configure unit to allow future installation of wheelchair platform lift to provide access to upper or lower floors, without the need for structural alterations to the unit	BP
C4	Exterior Circulation	Routes	Width at least 920	CSA 7.3.1.1
C5	Exterior Circulation	Surfaces	Stable, firm and slip resistant surfaces	CSA 7.3.1.1
C6	Exterior Circulation	Surfaces	Level, or sloped no steeper than the ratio of 1:20 (5%)	CSA 7.3.1.1
C7	Exterior Circulation	Surfaces	Cross-slope no steeper than the ratio of 1:50 (2%)	CSA 7.3.1.1
C8	Exterior Circulation	Edge Protection	Edge protection provided at grade changes and other potential hazards	CSA 7.3.1.1
C9	Entrances and Doors	Entrance Landings	Min 1500 x 1500	CSA 7.3.1.2
C10	Entrances and Doors	Entrance Doors	No Step - Threshold no more than 13	CSA 7.3.2
C11	Entrances and Doors	Entrance Doors	Clear opening width of at least 810	CSA 7.3.2



1 West Elevation
 SCALE: 1/8" = 1'-0"

MATERIAL AND COLOUR LEGEND

Note: All Materials are subject to change during Tender and/or Pricing phase of the project

Colour	Product	Finish (to match)	Manufacturer	Location
1.0 CLADDING				
1.1	Cedar	JamesHardie™ + Woodtone RusticSeries™ Lap Siding w/ 5" Exposure	Mountain Cedar	JamesHardie + Woodtone
1.2	reserved			
1.3	Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie
1.4	Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie
1.5	Red	HardiePanel® Vertical Siding - Smooth	Countrylane Red	JamesHardie
1.6	Brown/Beige	Exposed Concrete or Panel	TBC	TBC
2.0 SOFFIT				
2.1	Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie
2.2	Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie



2 North Elevation
 SCALE: 1/8" = 1'-0"



MATERIAL AND COLOUR LEGEND

Note: All Materials are subject to change during Tender and/or Pricing phase of the project

Colour	Product	Finish (to match)	Manufacturer	Location
1.0 CLADDING				
1.1 Cedar	JamesHardie™ + Woodtone RusticSeries™ Lap Siding w/ 5" Exposure	Mountain Cedar	JamesHardie + Woodtone	Exterior Walls
1.2 reserved				
1.3 Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie	Exterior Walls
1.4 Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie	Exterior Walls
1.5 Red	HardiePanel® Vertical Siding - Smooth	Countrylane Red	JamesHardie	Exterior Walls
1.6 Brown/Beige	Exposed Concrete or Panel	TBC	TBC	Commercial Feature
2.0 SOFFIT				
2.1 Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie	Soffits that connect with 1.3
2.2 Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie	Soffits that connect with 1.4

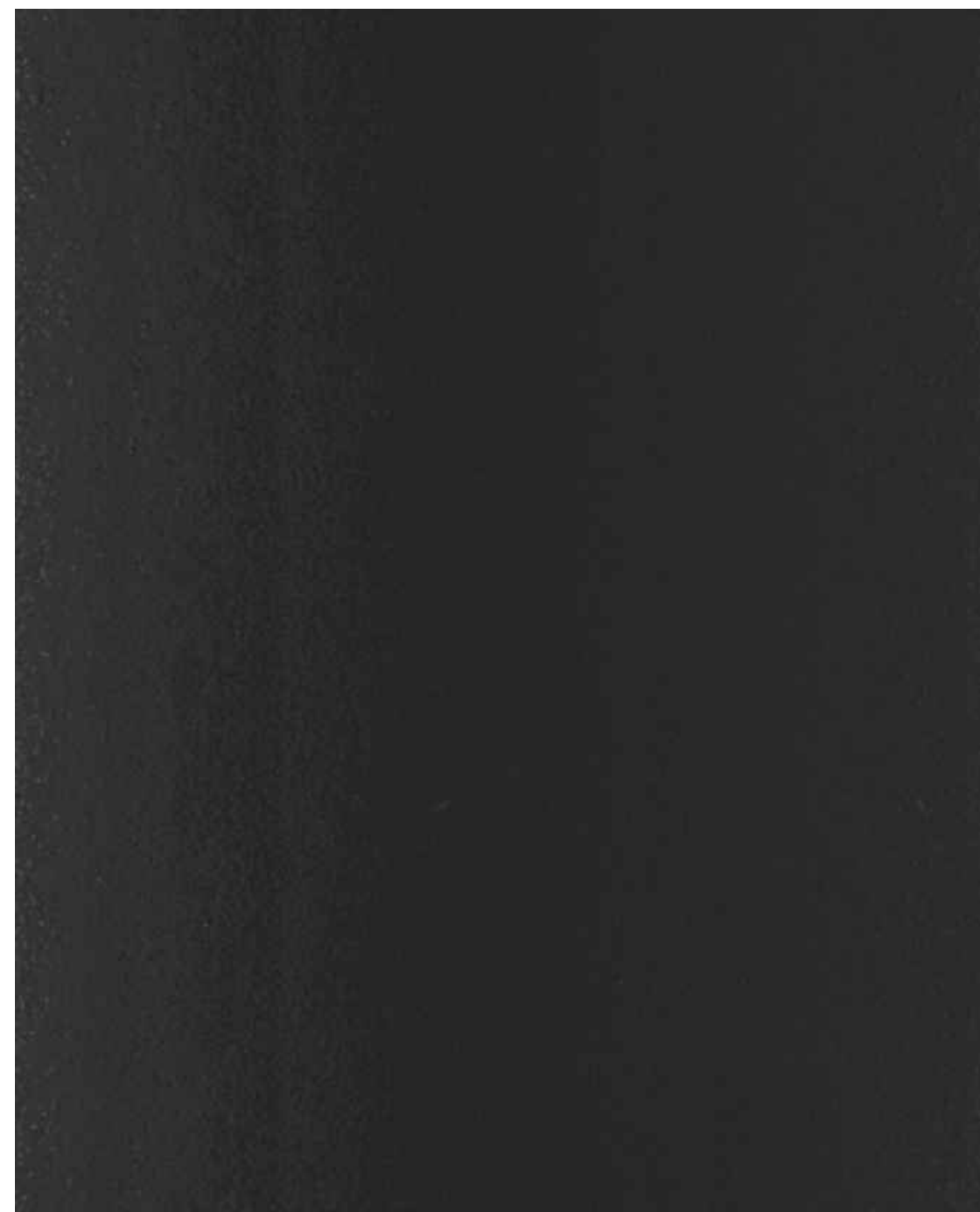
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2 South Elevation
SCALE: 1/8" = 1'-0"



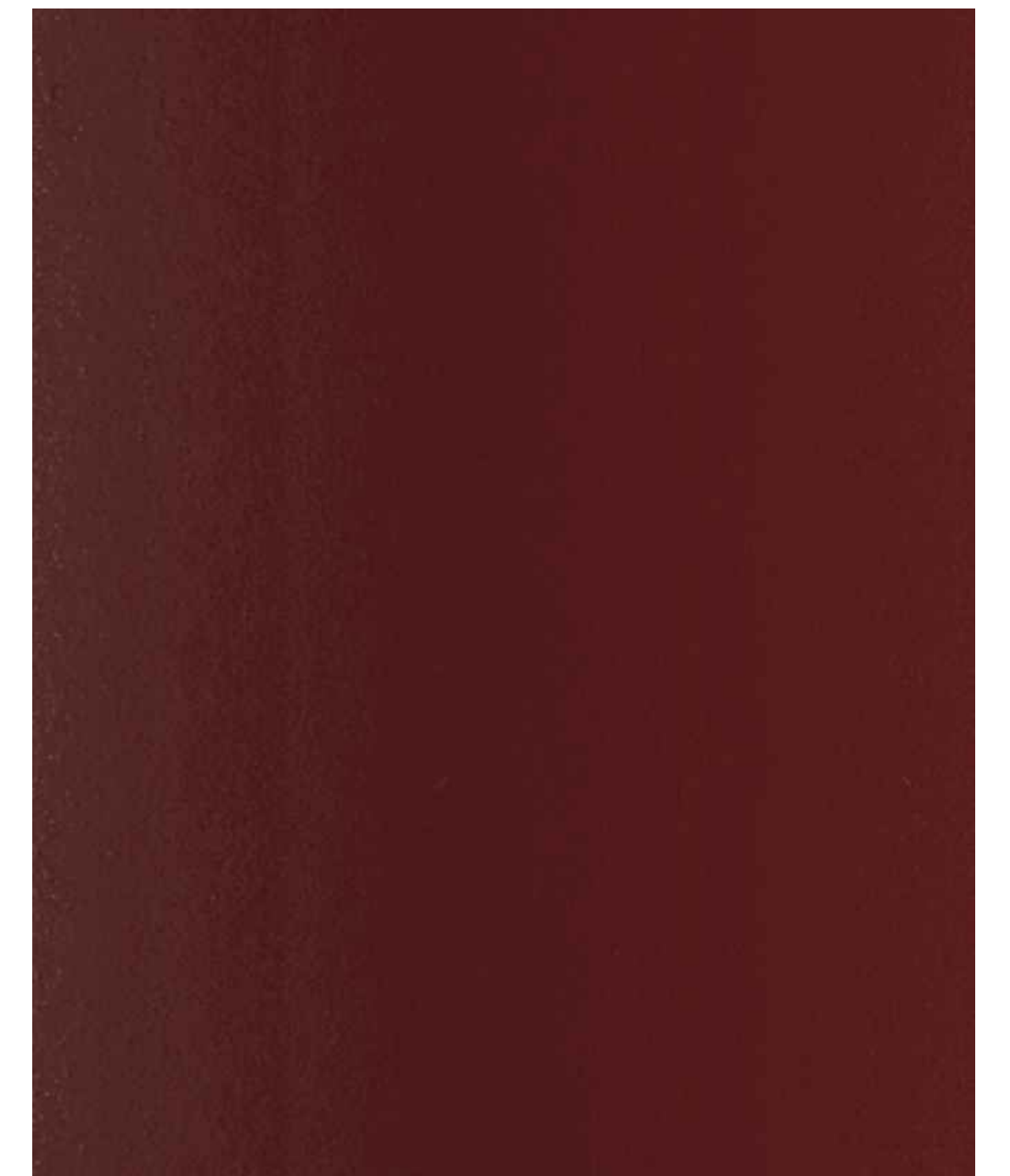
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1.4 JamesHardie™ HardiePanel® Vertical Siding Night Gray



1.5 JamesHardie™ HardiePanel® Vertical Siding Countrylane Red



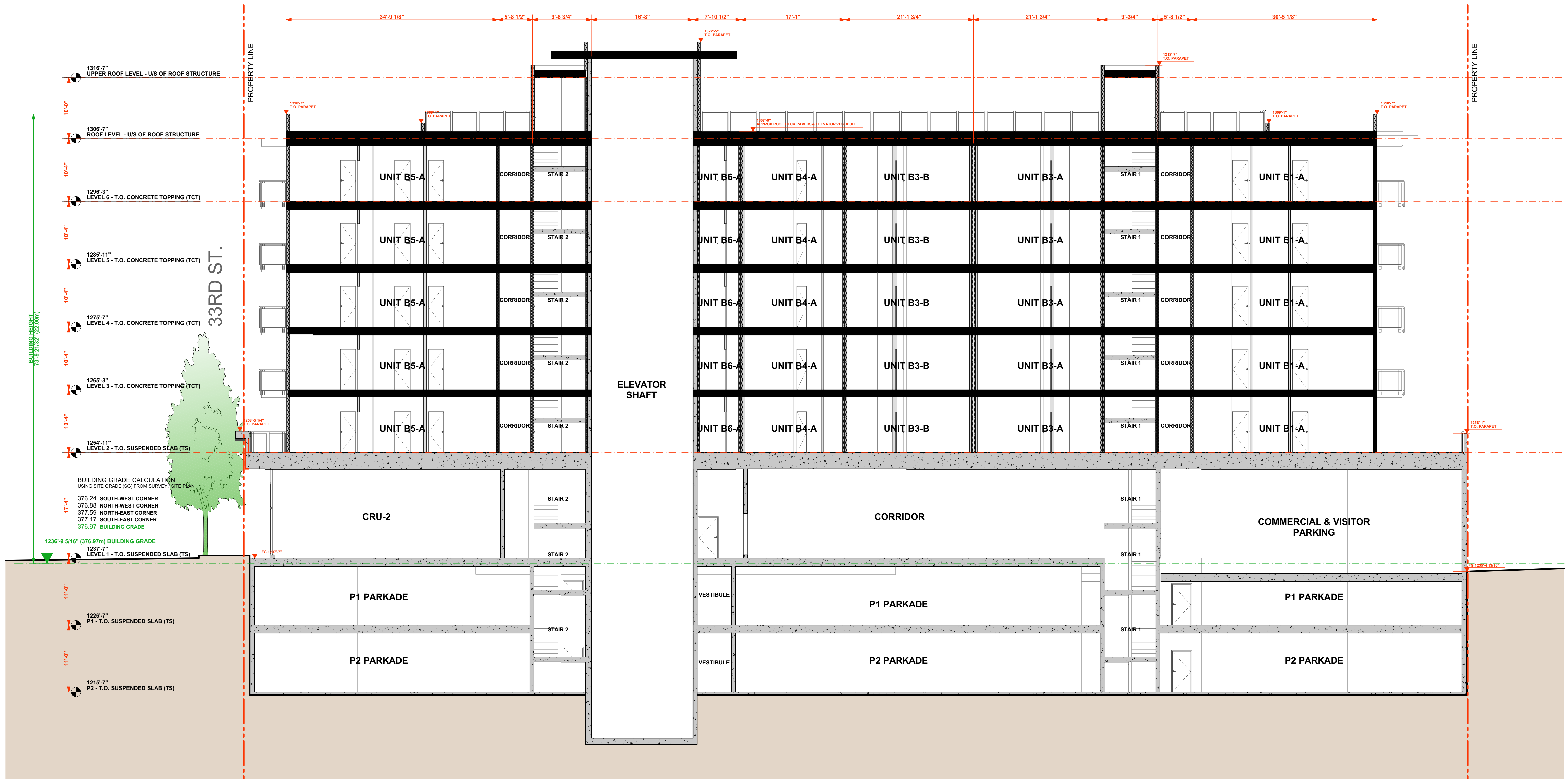
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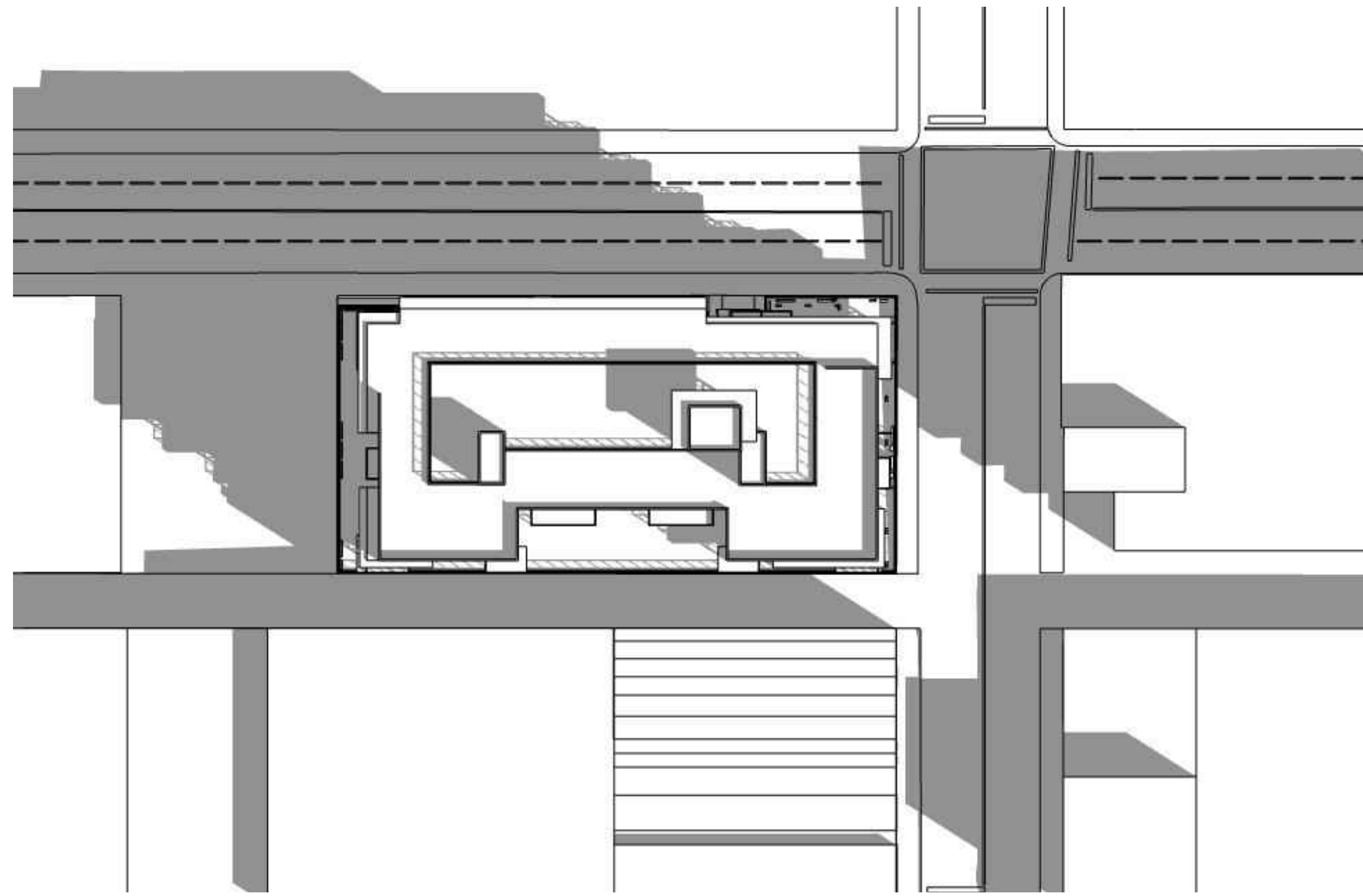
MATERIAL AND COLOUR LEGEND

Note: All Materials are subject to change during Tender and/or Pricing phase of the project

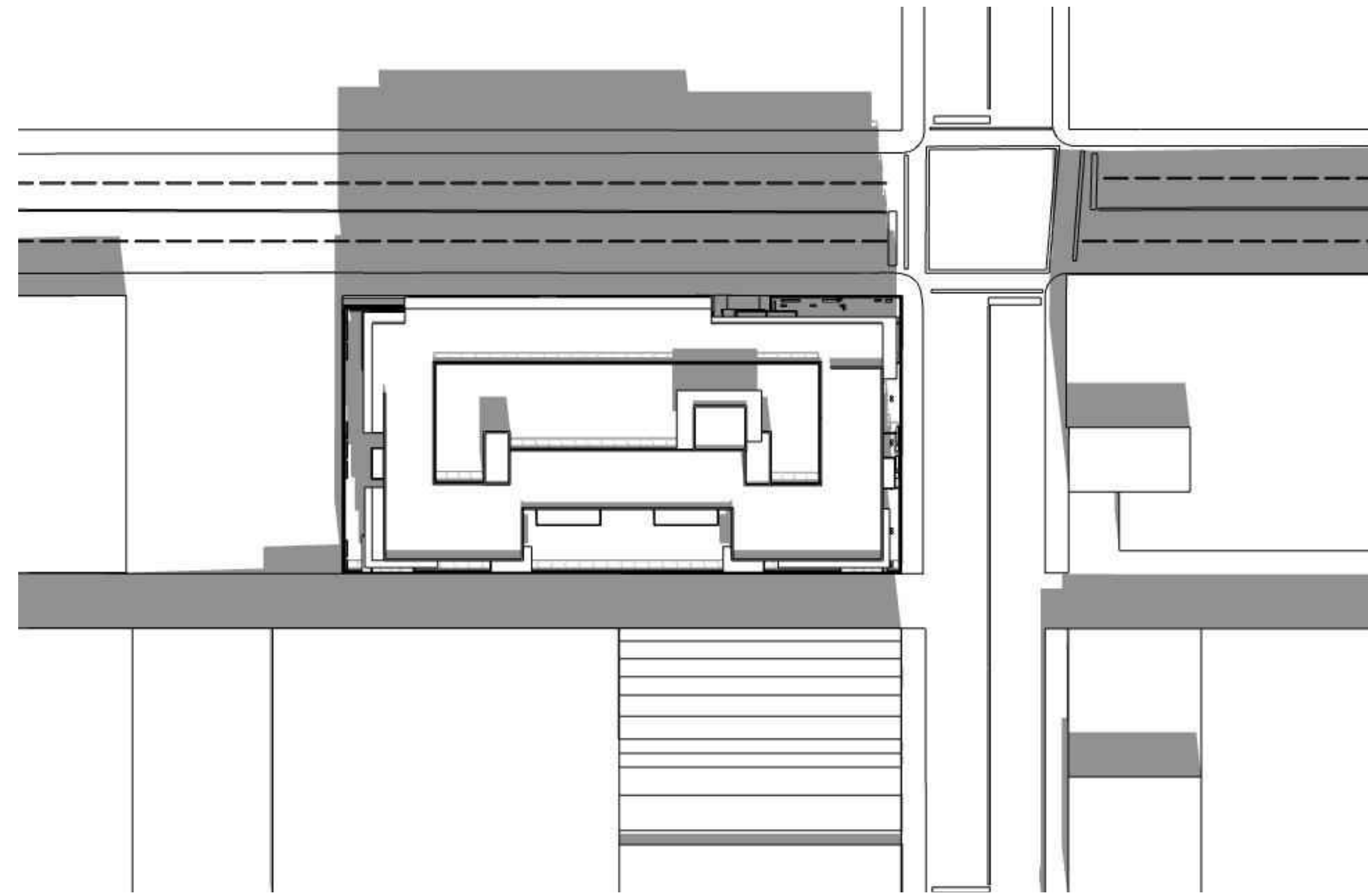
Colour	Product	Finish (to match)	Manufacturer	Location	
1.0 CLADDING					
1.1	Cedar	JamesHardie™ + Woodtone RusticSeries™ Lap Siding w/ 5" Exposure	Mountain Cedar	JamesHardie + Woodtone	Exterior Walls
1.2	reserved				
1.3	Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie	Exterior Walls
1.4	Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie	Exterior Walls
1.5	Red	HardiePanel® Vertical Siding - Smooth	Countrylane Red	JamesHardie	Exterior Walls
1.6	Brown/Beige	Exposed Concrete or Panel	TBC	TBC	Commercial Feature
2.0 SOFFIT					
2.1	Dark Grey	HardiePanel® Vertical Siding - Smooth	Iron Gray	JamesHardie	Soffits that connect with 1.3
2.2	Medium Grey	HardiePanel® Vertical Siding - Smooth	Night Gray	JamesHardie	Soffits that connect with 1.4



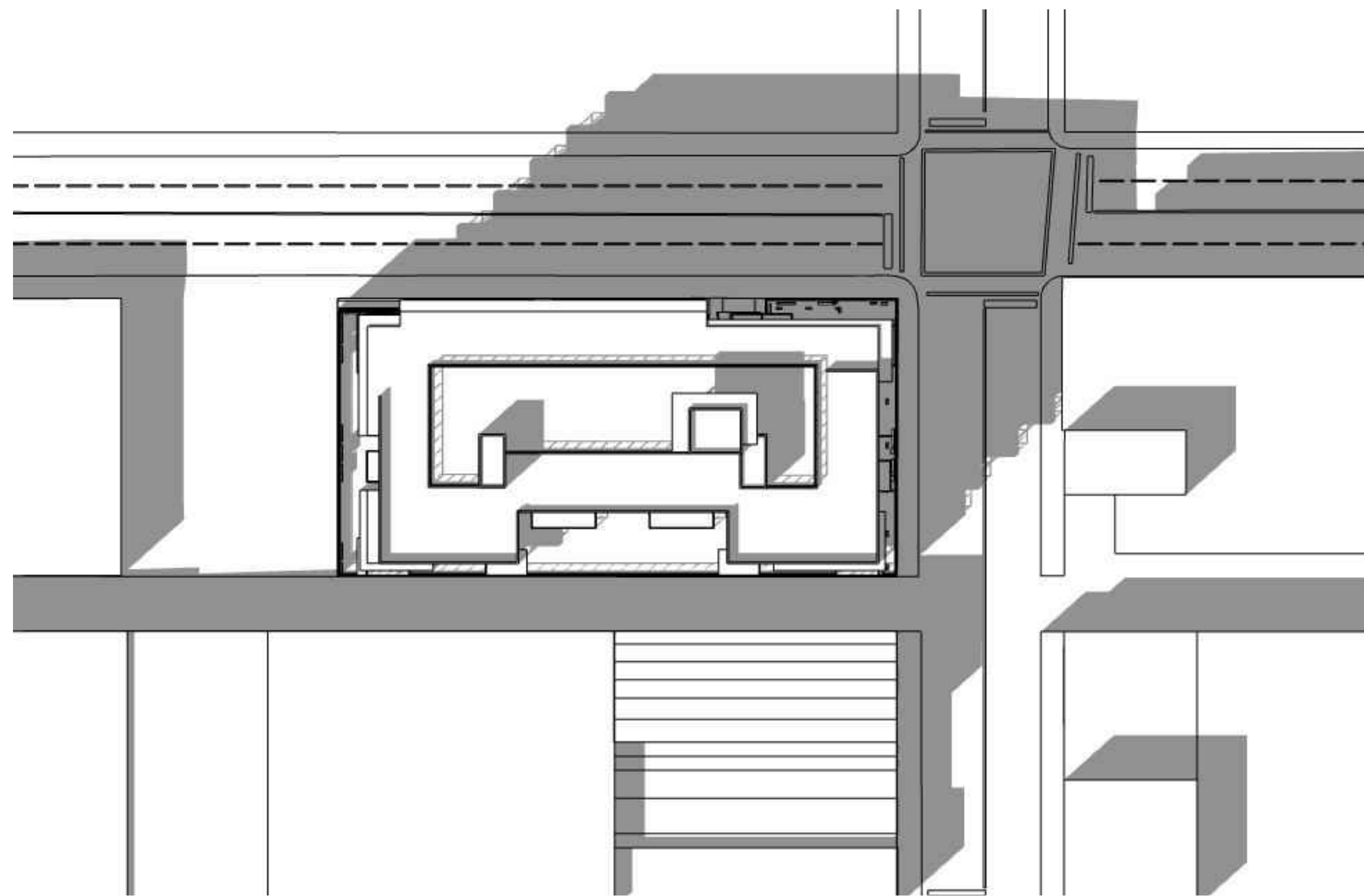
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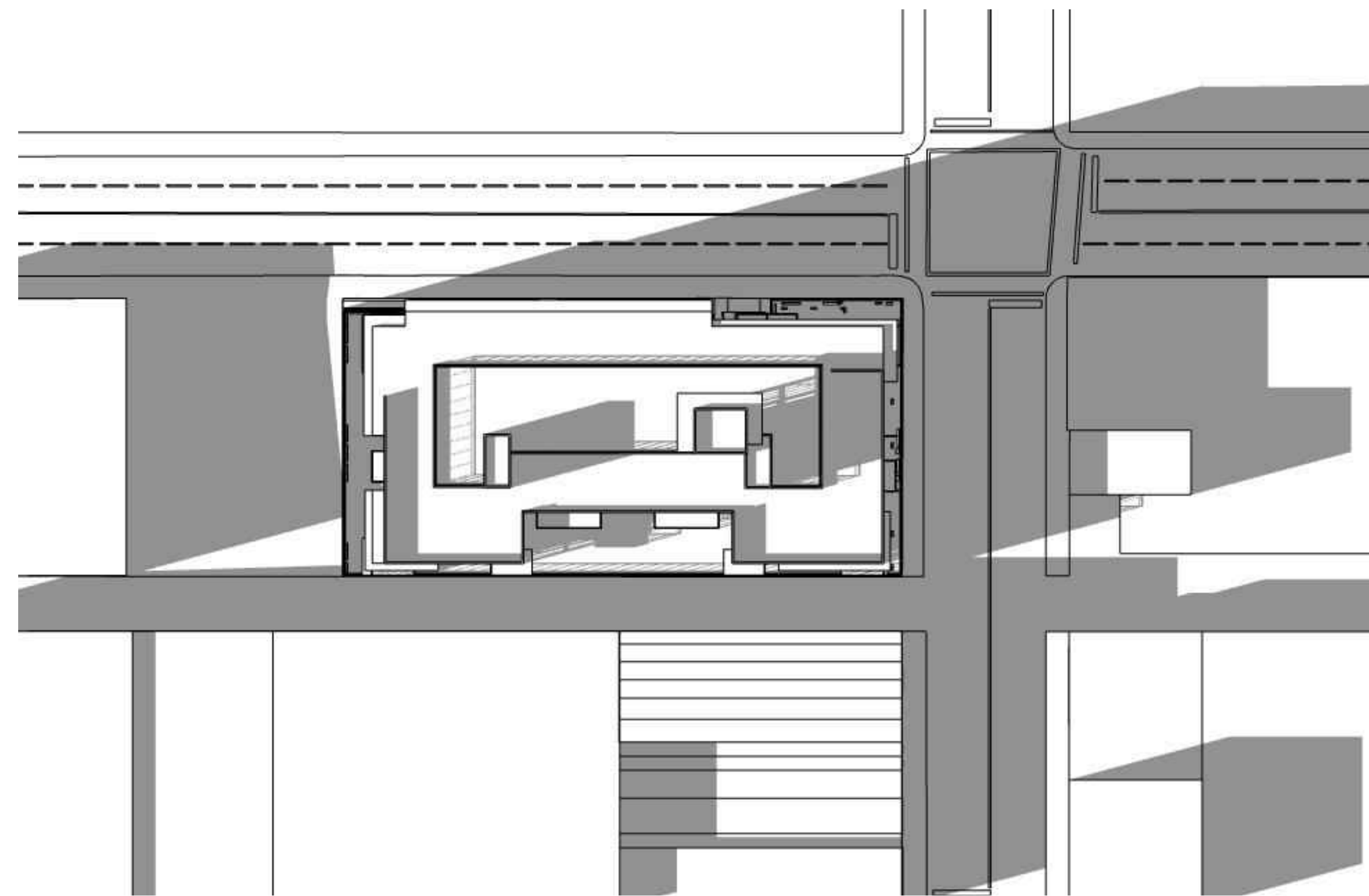
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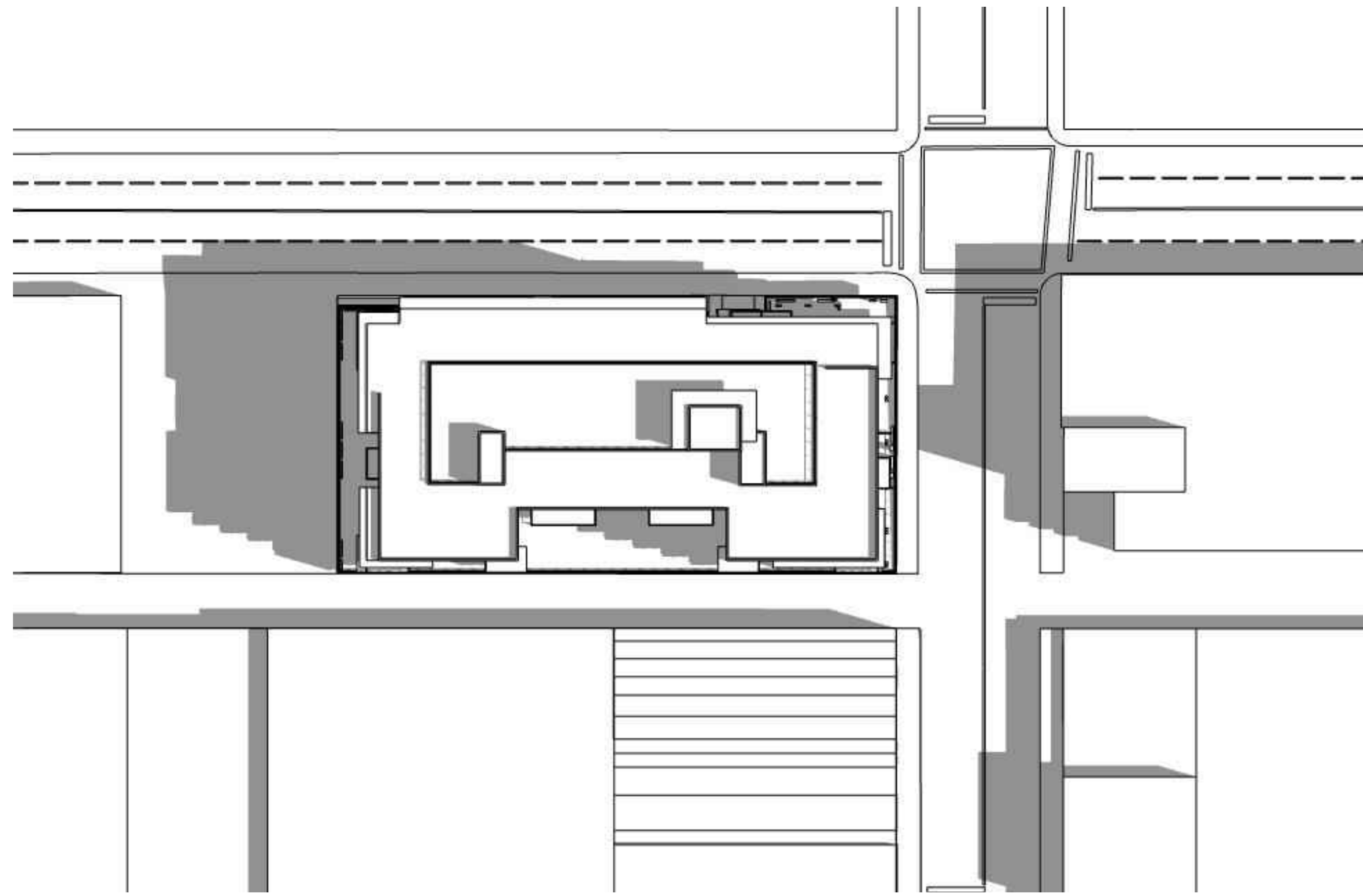
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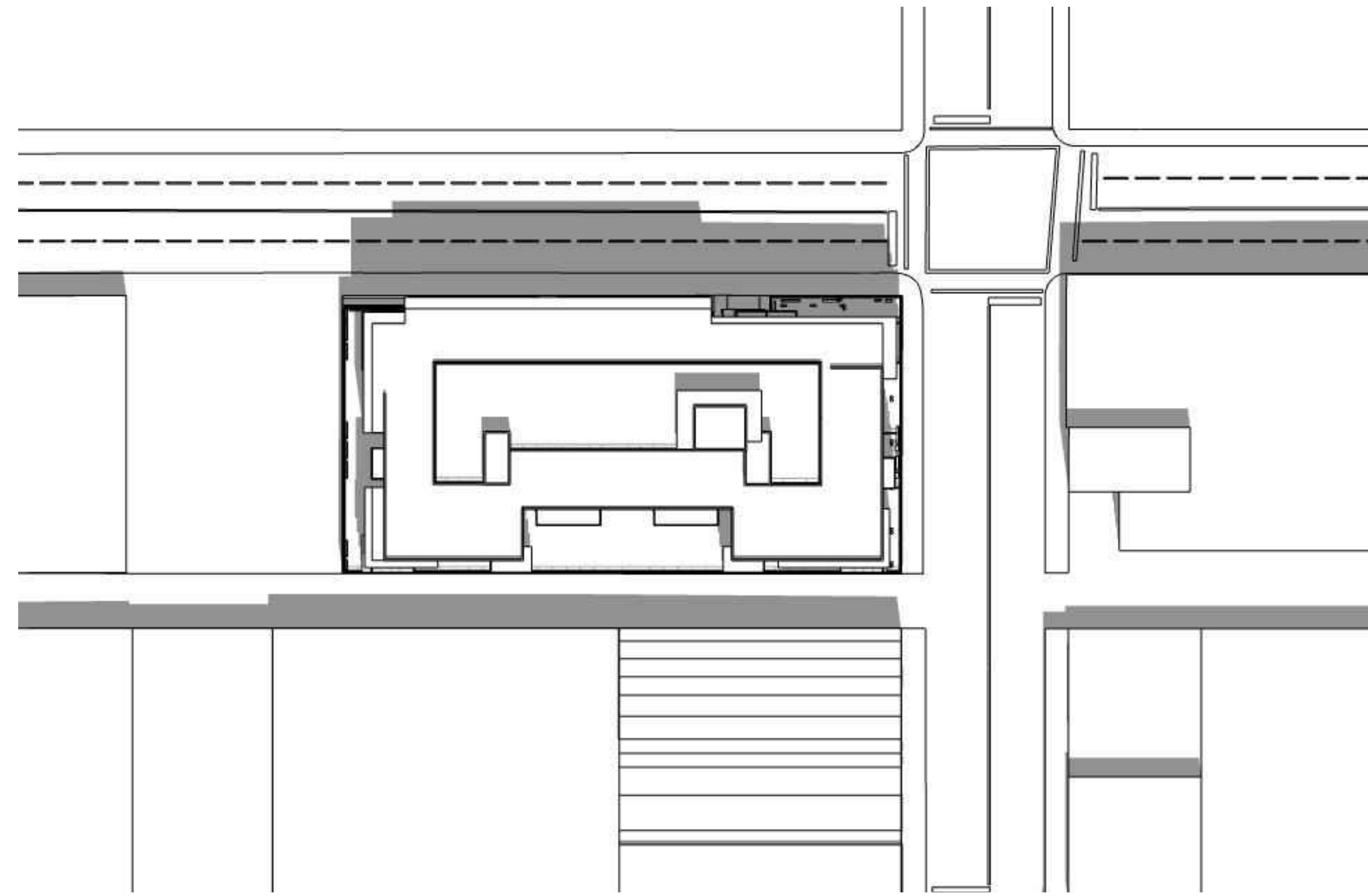
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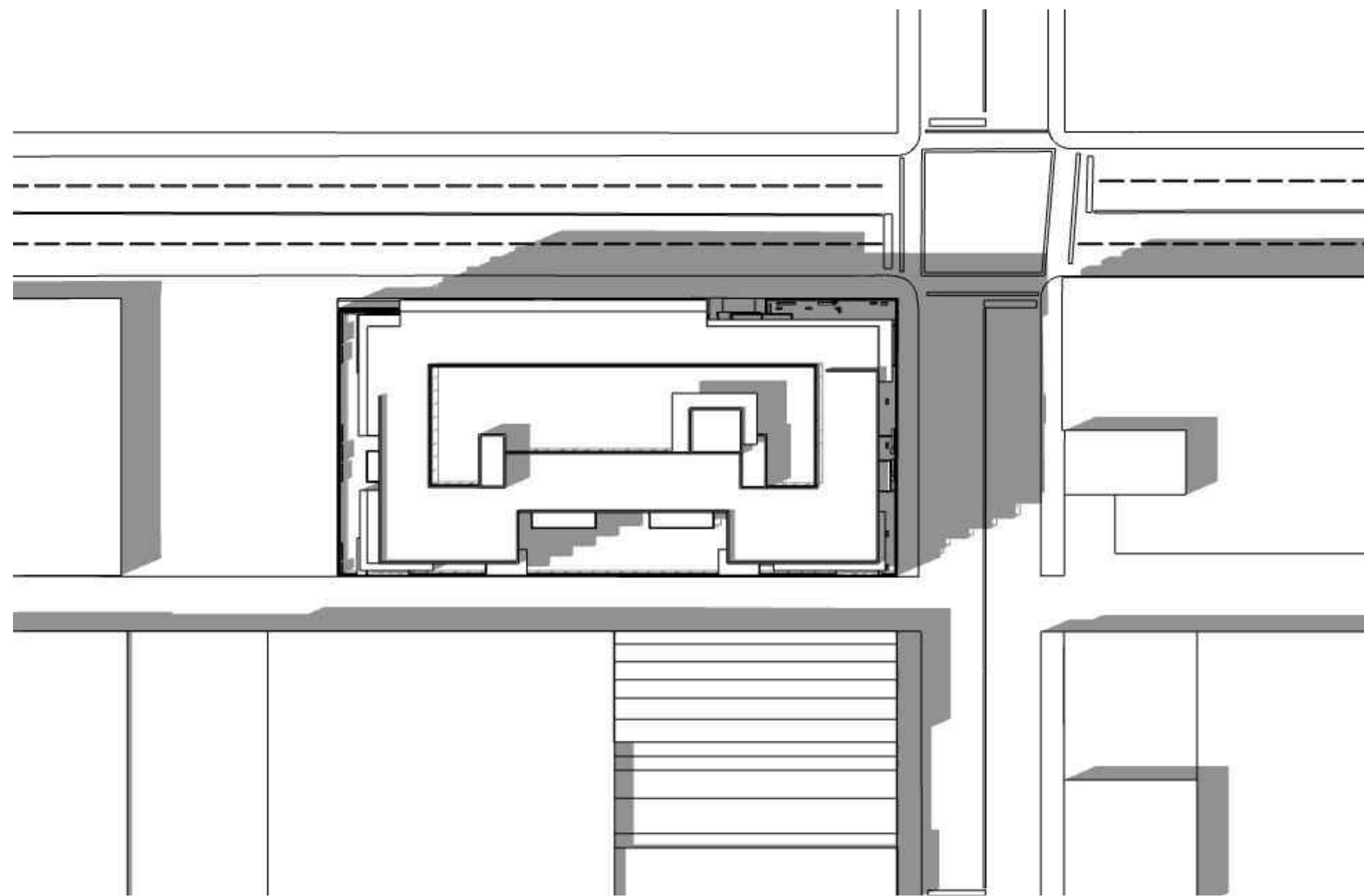
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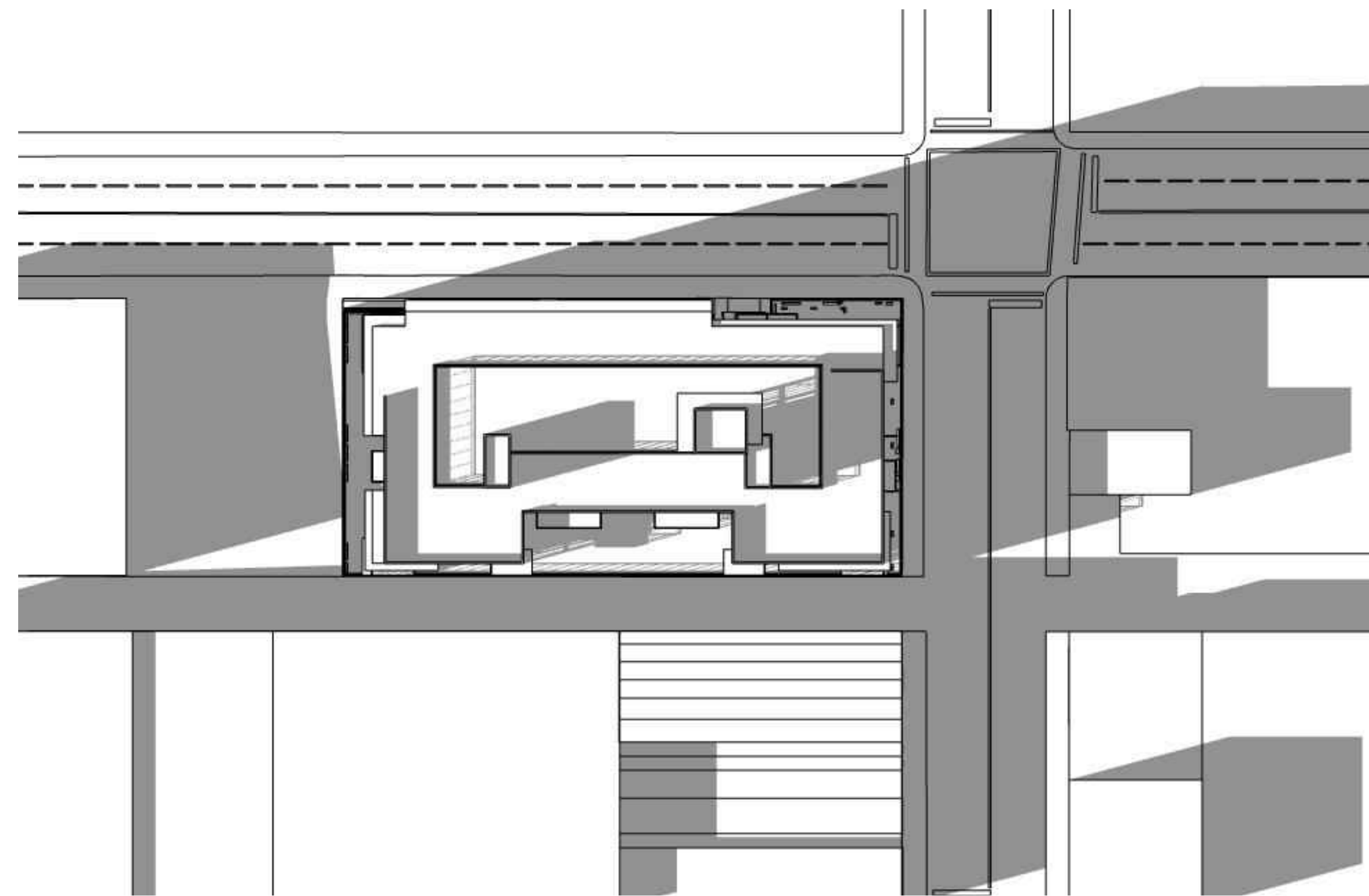
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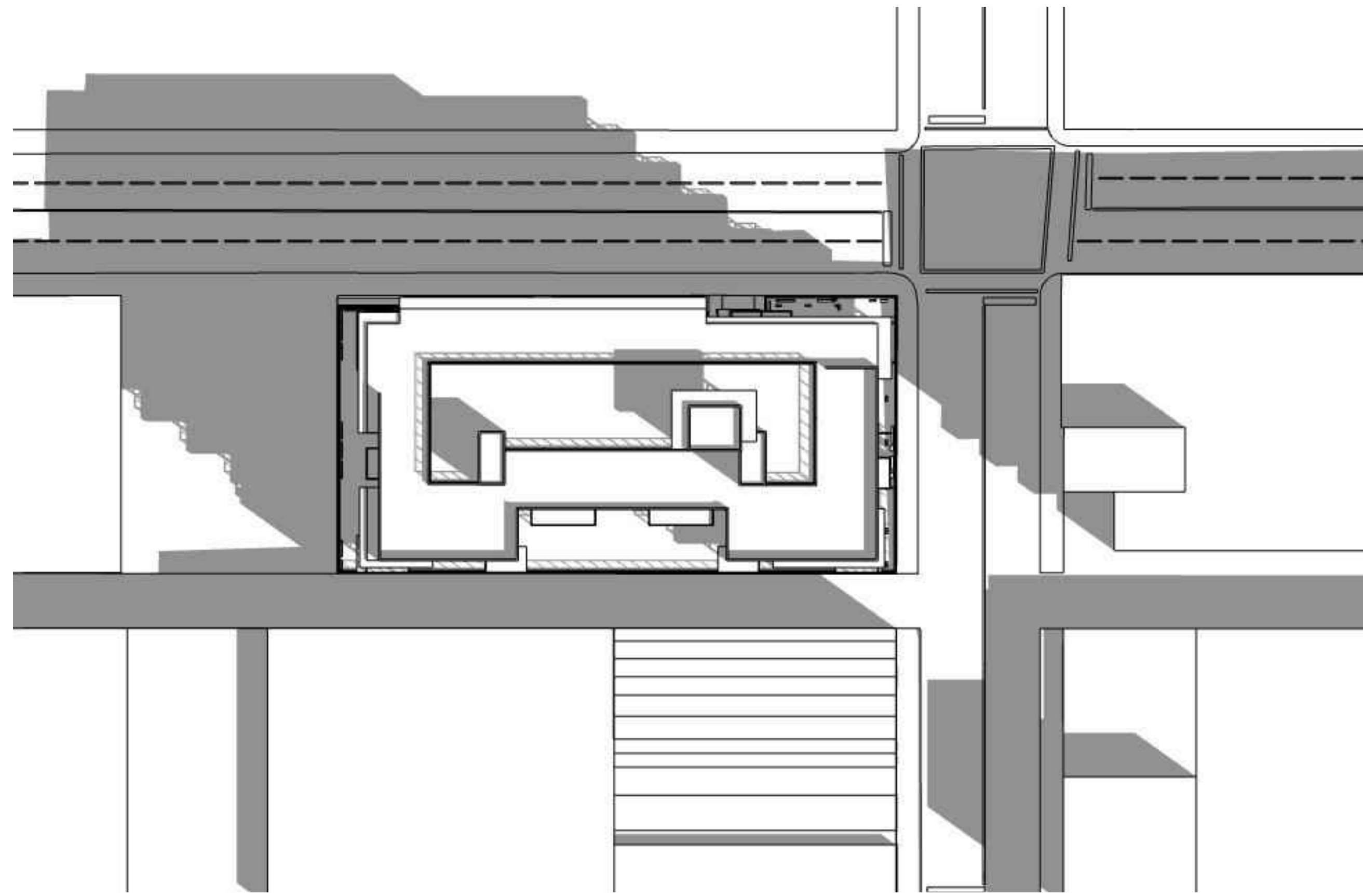
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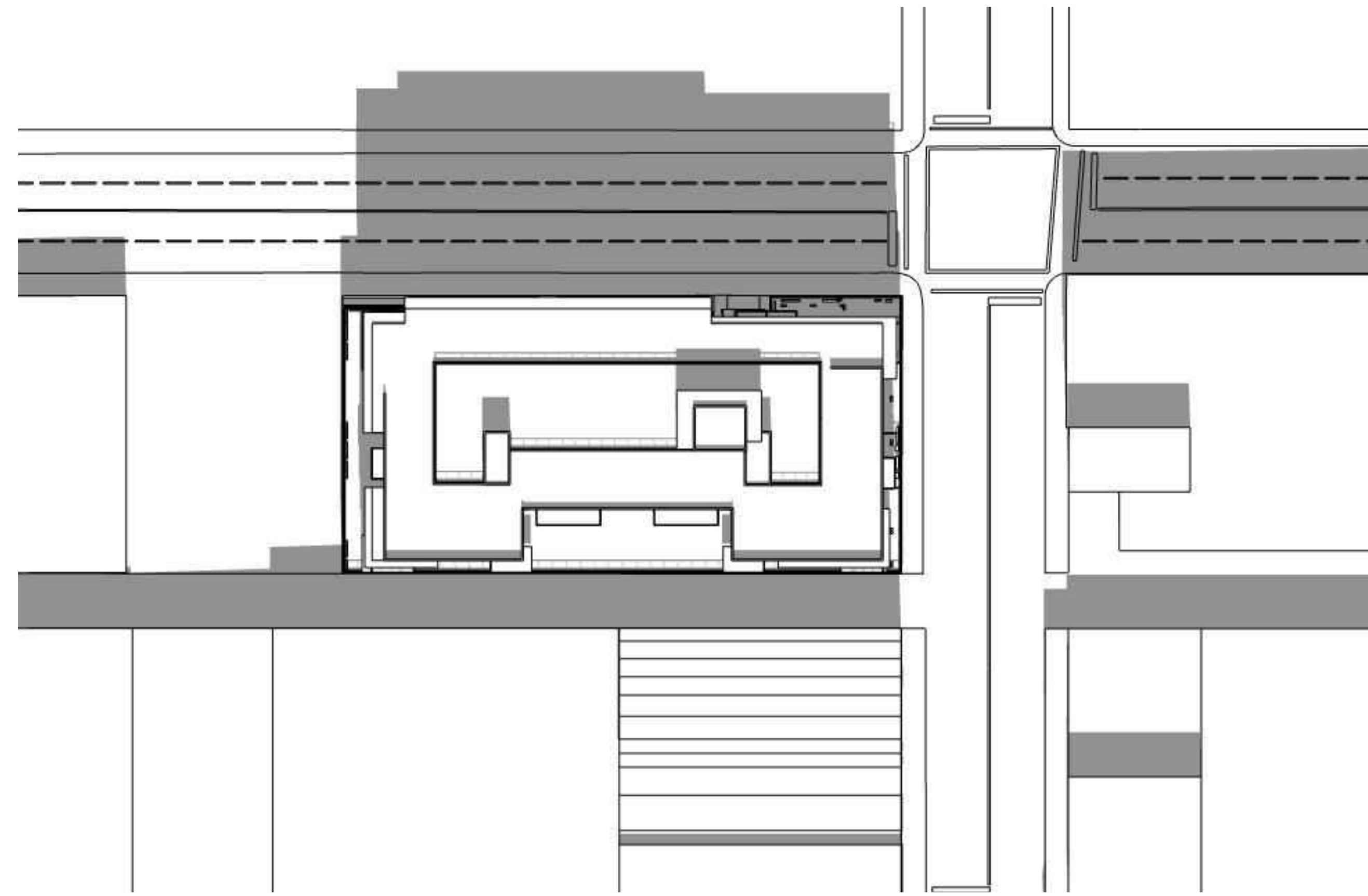
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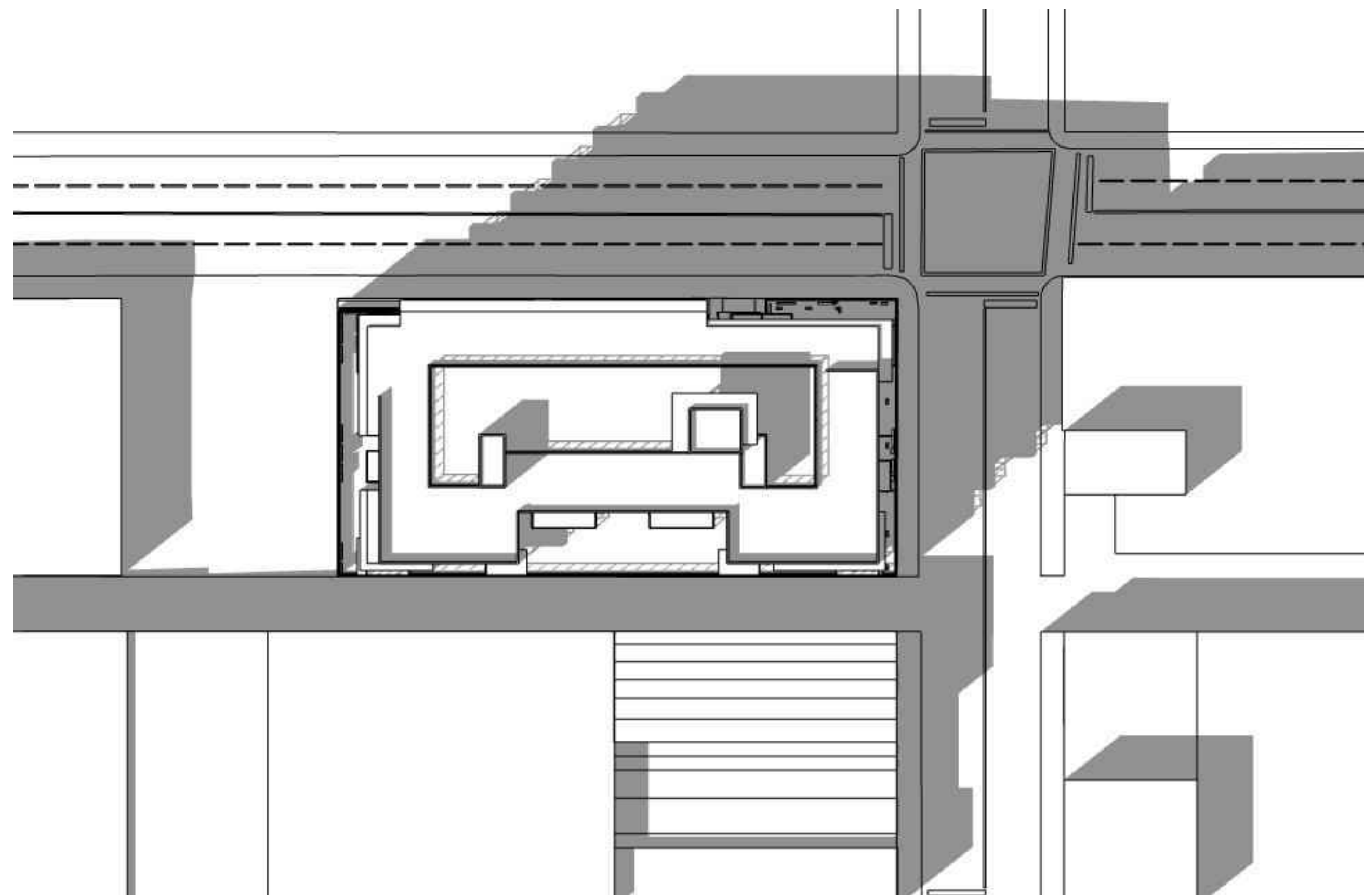
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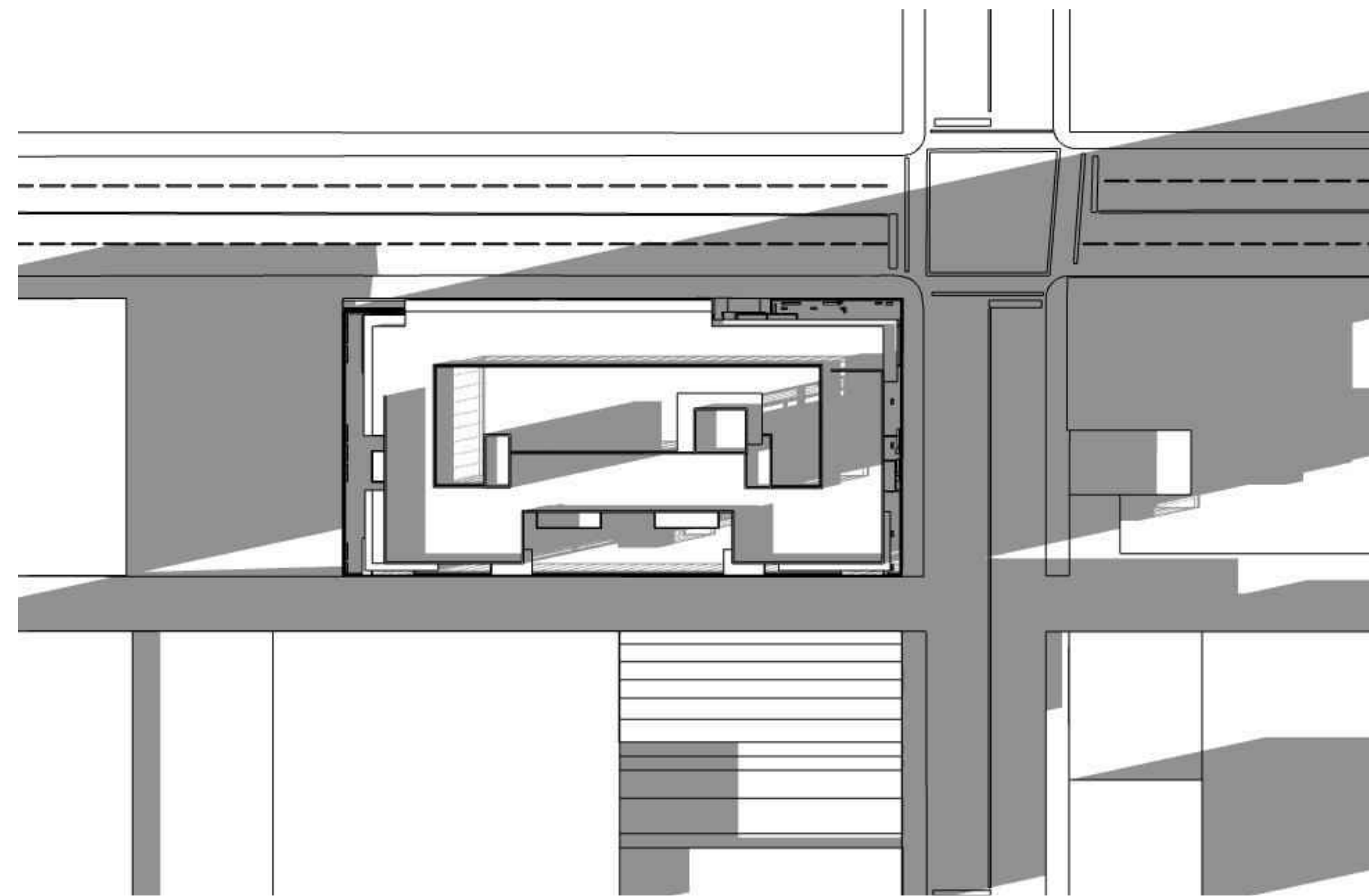
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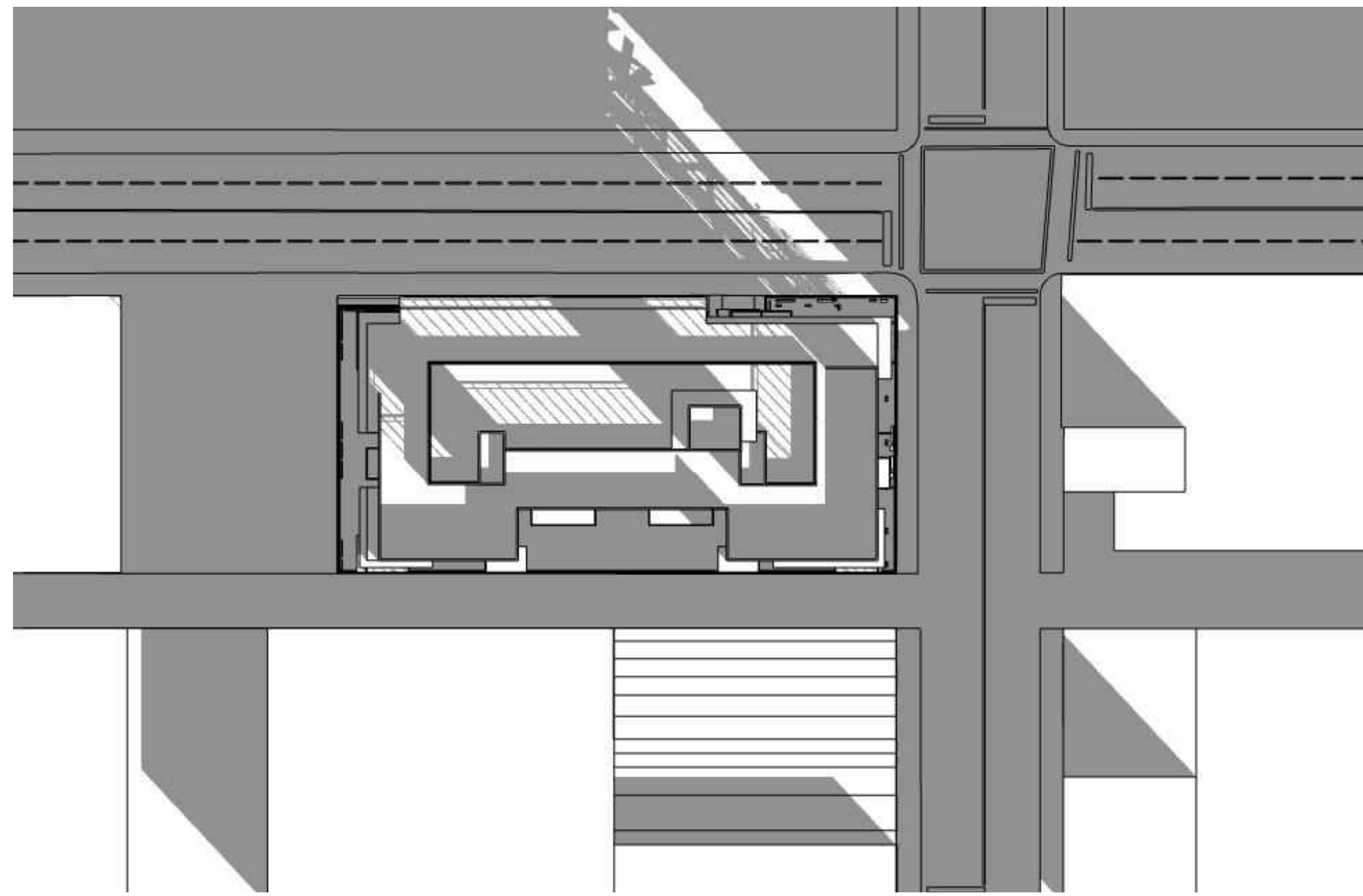
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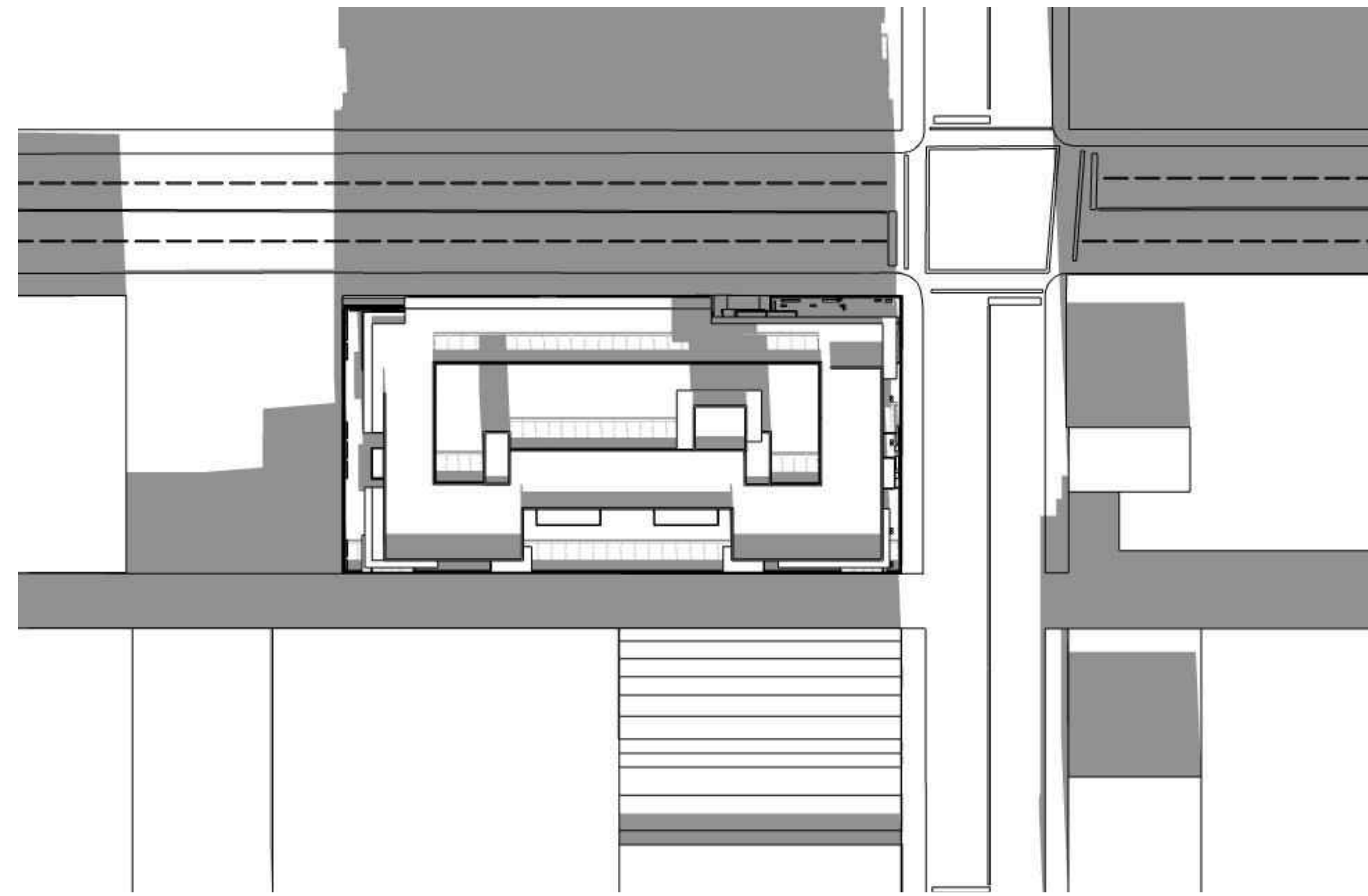
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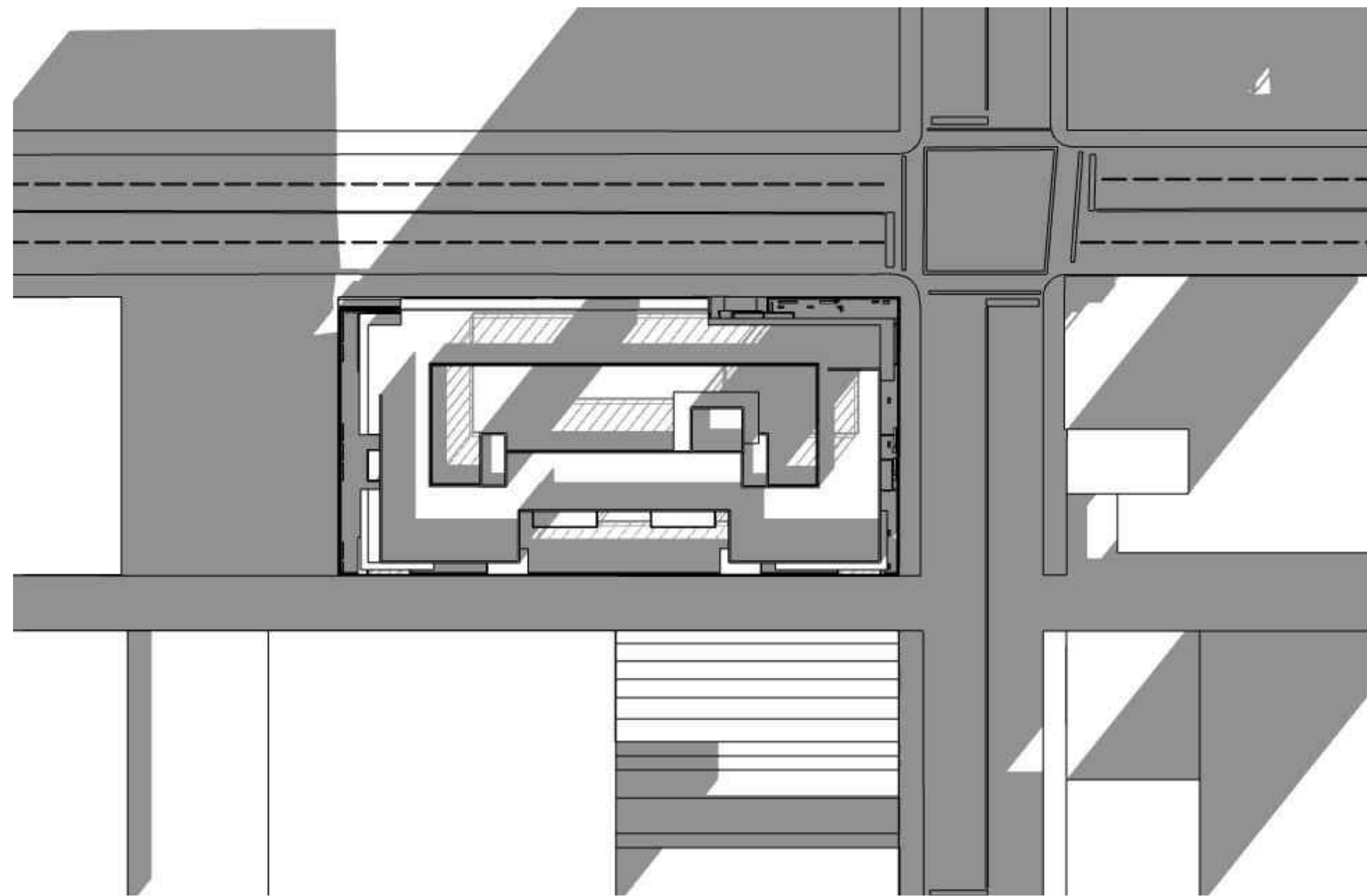
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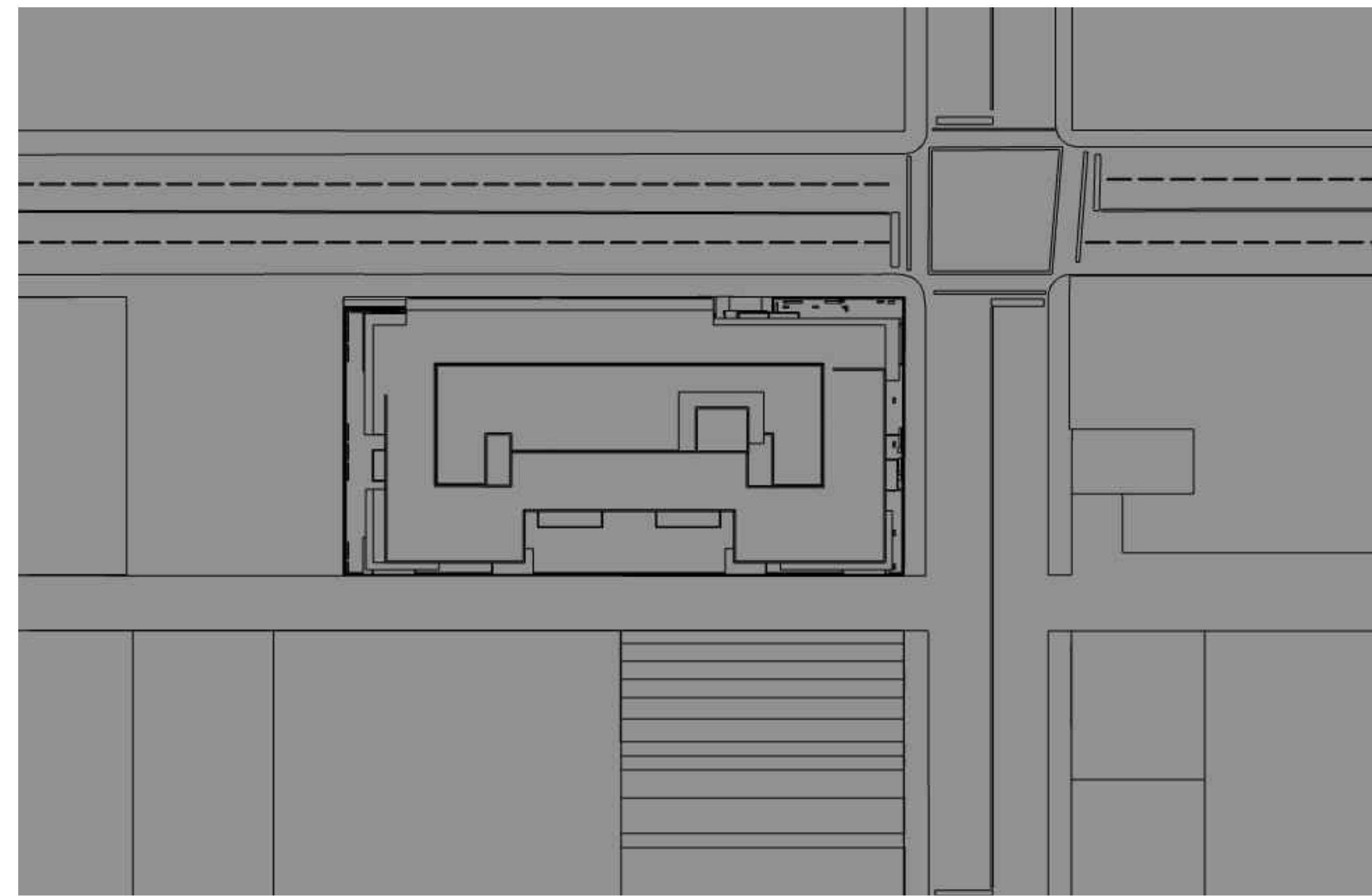
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3 December 21st @ 15:00
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4 December 21st @ 18:00
SCALE: 1/4" = 1'-0"