



4906 - 4958 Main Street

Rezoning Application

Virtual Open House

November 7 - 27, 2022

Project Overview

This Rezoning Application proposes a 6-storey mixed-use building for a site located at the southeast corner of Main Street and East 33rd Avenue. The development comprises of ground level commercial retail spaces and 72 secured market rental dwelling units on floors above.

This application proposes to rezone the site from RT-2 to CD-1 and is being made under the *Affordable Housing Choices Interim Rezoning Policy*.

Table of Contents

Site & Context, Rezoning Intent.....	3
Context Images.....	4
Design Rationale.....	5
Site Plan.....	6
Architectural Design	
<i>Floor Plans</i>	7
<i>Elevations</i>	15
<i>Sections</i>	19
Landscape Design.....	21
Streetscapes.....	23
Sustainability Strategy.....	24
Shadow Diagrams.....	25
Perspective Images.....	27
Project Team.....	28



Introduction

The subject site is located at the southeast corner of Main Street and East 33rd Avenue within the Riley Park-Little Mountain neighbourhood. The site is currently zoned RT-2.

The site's context is a mix of commercial and multi-family residential buildings along the Main Street corridor, with heights ranging from 2- to 5-storeys. South and east of the site are predominantly 1- to 2-storey single-family dwellings. General Brock Elementary School is half a block north across E33rd Avenue; Riley Park, Queen Elizabeth Park and Hillcrest Community Centre are two blocks west across Main Street. The site is at the southern gateway to the South Main / Mount Pleasant commercial district.

Rezoning Intent

The proposal is to rezone the site from RT-2 to CD-1 to permit the development of a 6-storey mixed commercial / residential market rental building. This rezoning is being made under the *Affordable Housing Choices Interim Rezoning Policy*, which allows consideration of buildings up to six storeys for sites fronting an arterial on Translink's Frequent Transit Network. The site is also within 500m of a C-2 zone (ie. a local shopping district) and is easily accessible to public transit.

Properties to the south of the site along both sides of Main Street fall within the eligible area of the *Secured Rental Policy*, which permits rezoning for rental housing developments up to 6-storeys.

The proposed development includes ground level commercial spaces fronting Main Street and E33rd Avenue, as well as 72 market rental dwelling units on five levels above. Two levels of underground parking providing 75 parking spaces (30 Commercial / 45 Residential) are proposed. No parking reduction is proposed. The total floor area proposed is 5,503 SM [59,240 SF] for a Floor Space Ratio of 3.20.

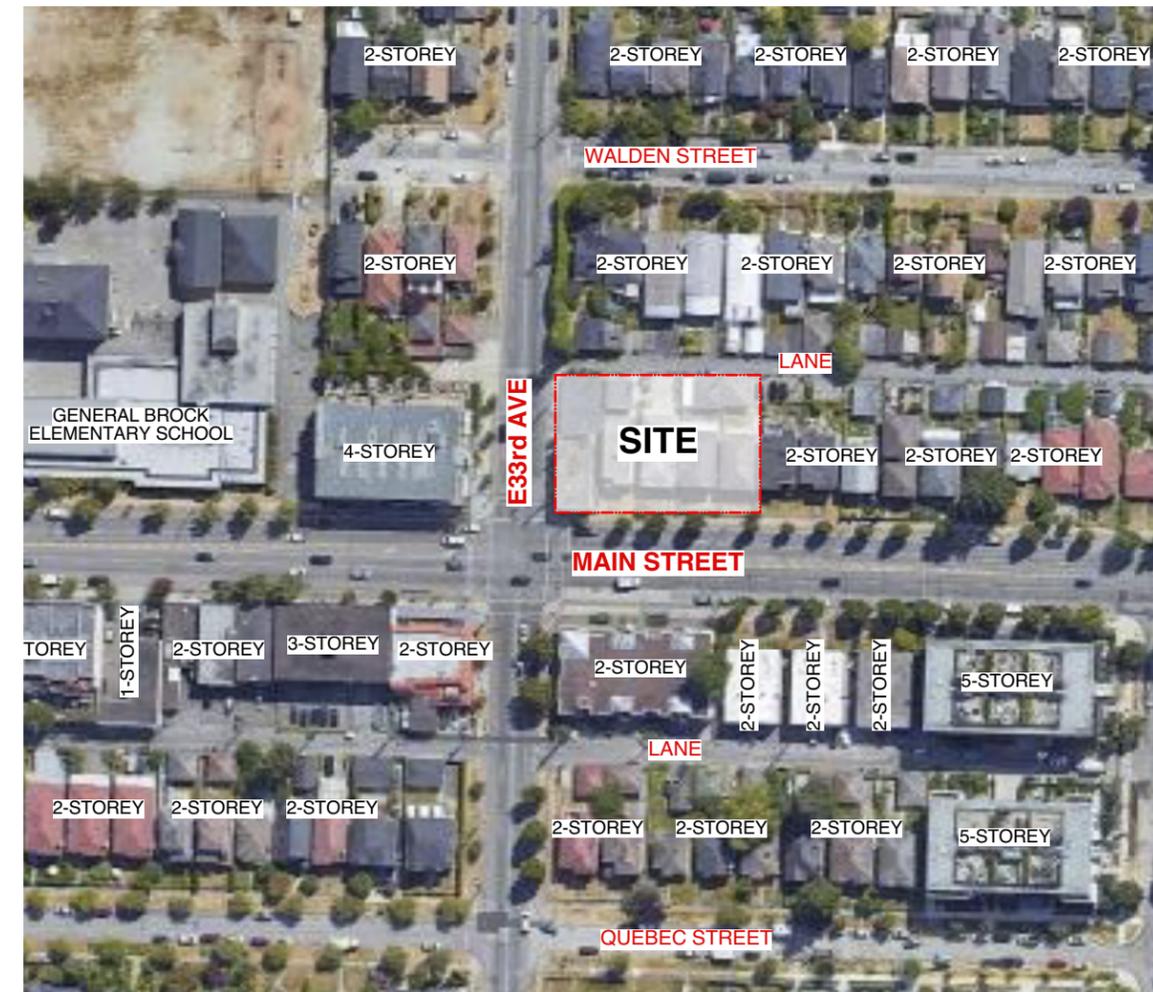
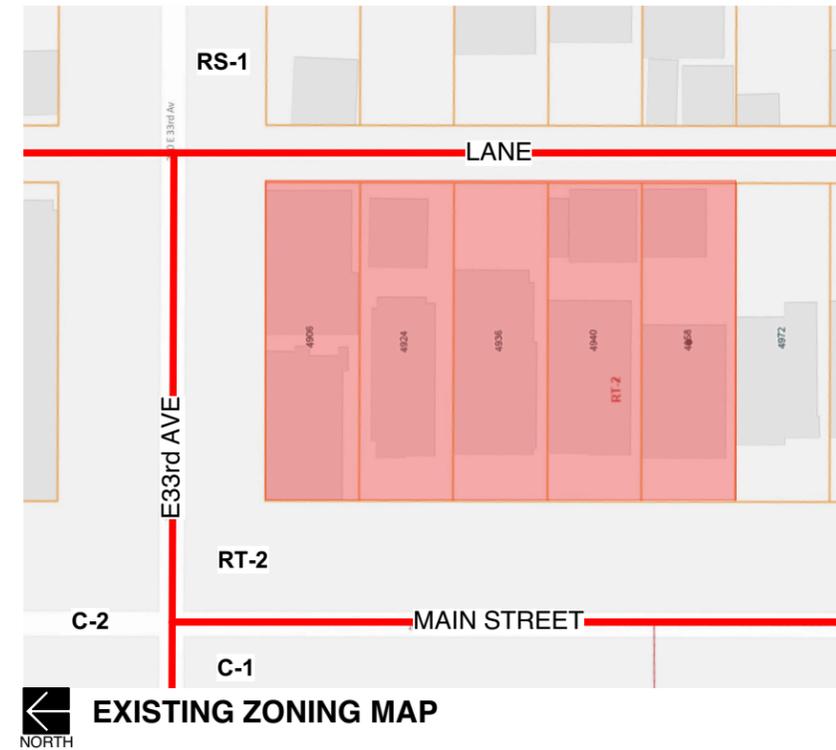
Of the 72 units proposed, 36% are family-sized units. The unit breakdown is: (22) Studios, (24) 1-bedroom, (16) 2-bedrooms, and (10) 3-bedrooms. This exceeds the target set in the City's *Housing Mix Policy for Rezoning Projects*.

A 2.4m (8 ft.) setback is provided along Main Street. Along E33rd Avenue, a 2.1m (7 ft.) dedication is provided. These provide the necessary 5.5m (18 ft.) statutory right-of-ways from back of existing curb for road widening and sidewalk & boulevard improvements. Access to off-street parking, loading, garbage & recycling collection, and utilities will be from the rear lane. A 1.0m (3'-3") landscaped setback is provided along the rear lane as well as the eastern portions of the south property line.

The development will be designed and constructed to comply with the Low Emissions Green Buildings requirements of the Green Buildings Policy for Rezonings. Sustainable strategies include a balanced window-wall ratio, high performance building envelope, low-flow plumbing fixtures, direct ventilation from all occupant spaces, low-emitting indoor materials, and an integrated rainwater management plan among others. Sustainable performance of the building will be confirmed via energy modeling and a Zero Emissions Building Plan. Embodied emissions and refrigerant emissions for the building will be calculated and reported. Airtightness testing and enhanced commissioning of mechanical & electrical systems will be conducted during construction.

Applicable Policies & Guidelines:

- Affordable Housing Choices Interim Rezoning Policy
- Green Buildings Policy for Rezonings
- Rental Incentive Guidelines
- C-2 District Schedule & Guidelines
- Riley Park South Cambie Community Vision
- Tenant Relocation and Protection Policy
- High-Density Housing for Families with Children Guidelines
- Family Room: Housing Mix Policy for Rezoning Projects
- Community Amenity Contributions - Through Rezoning
- Urban Agriculture Guidelines for the Private Realm
- Urban Forest Strategy



← NORTH
CONTEXT MAP



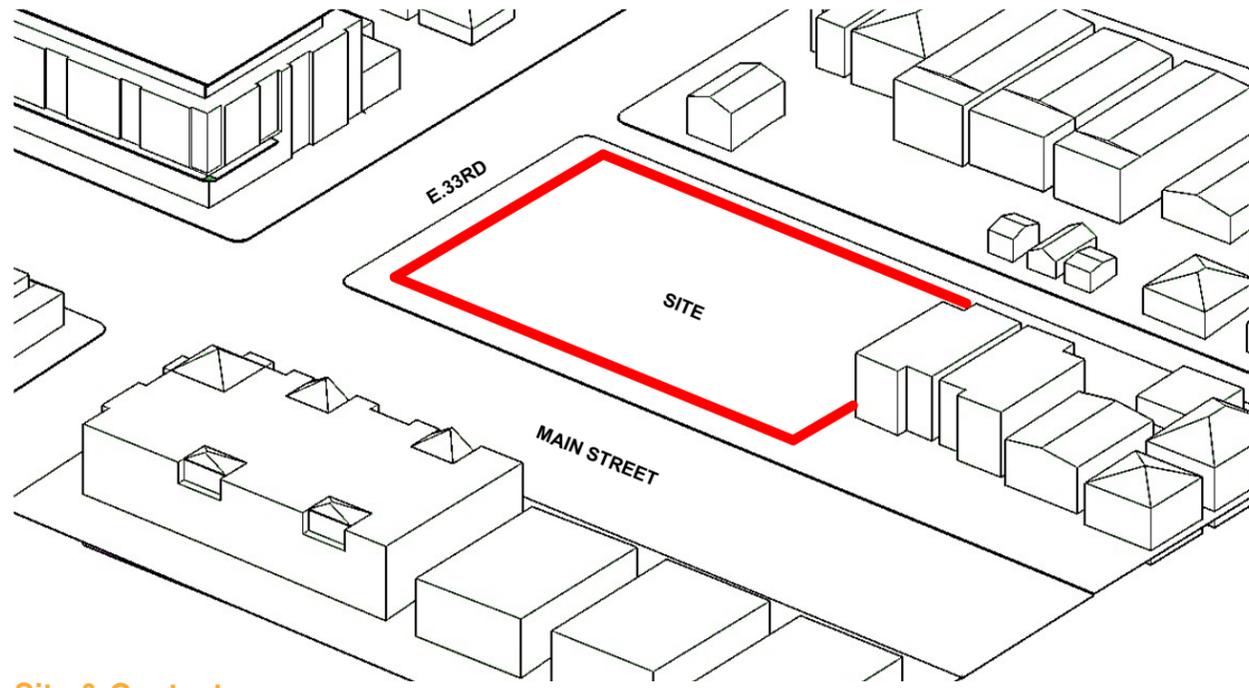
MAIN STREET LOOKING EAST



E33rd AVE - LANE INTERSECTION LOOKING SOUTHWEST



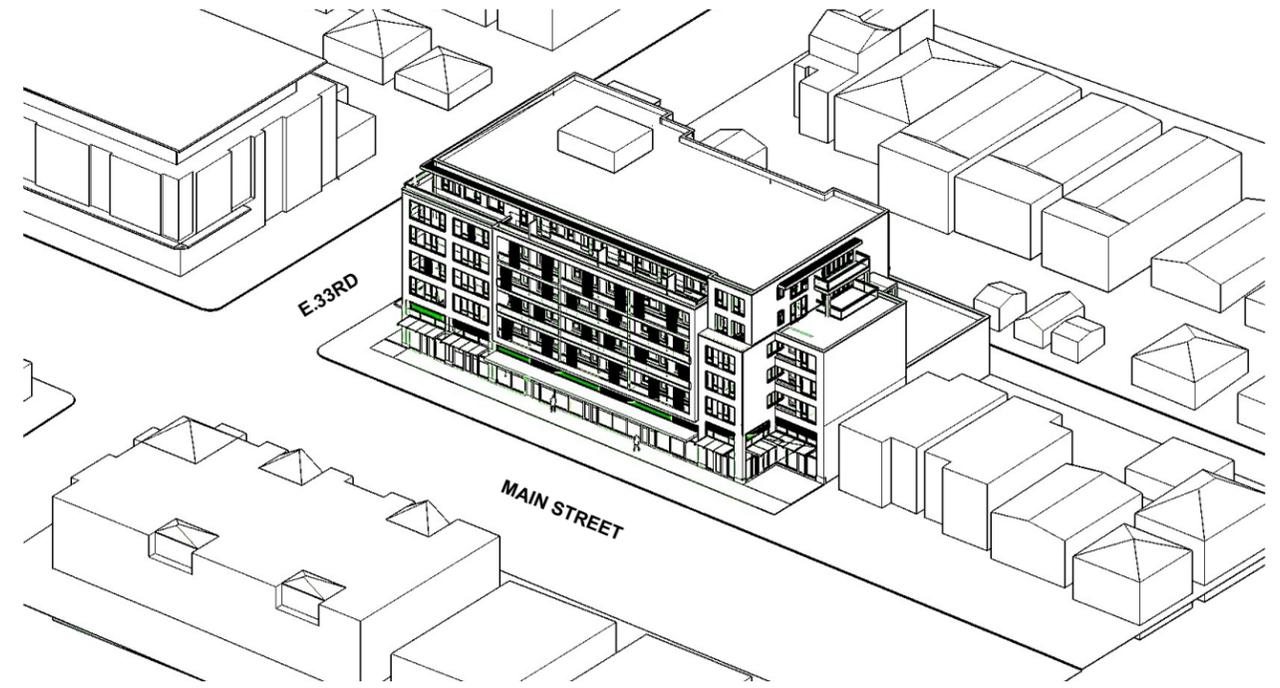
MAIN STREET-E33rd AVE INTERSECTION LOOKING SOUTH



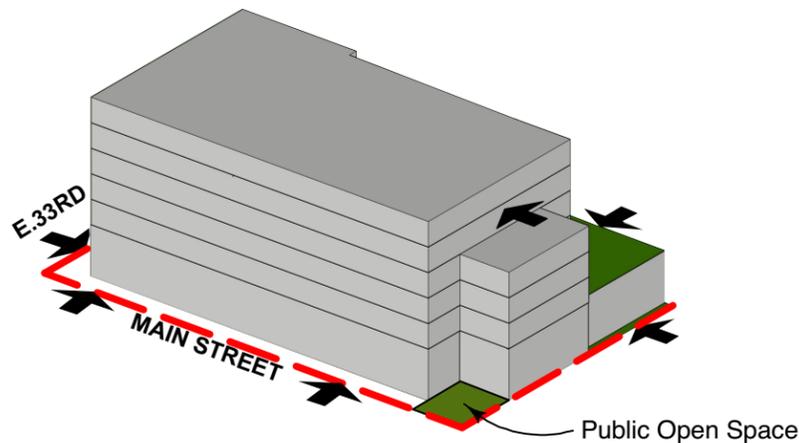
Site & Context

The subject site is located at the southeast corner of Main Street and East 33rd Avenue within the Riley Park-Little Mountain neighbourhood. The site's context is a mix of commercial and multi-family residential buildings along the Main Street corridor, with heights ranging from 2- to 5-storeys. South and east of the site are predominantly 1- to 2-storey single-family dwellings.

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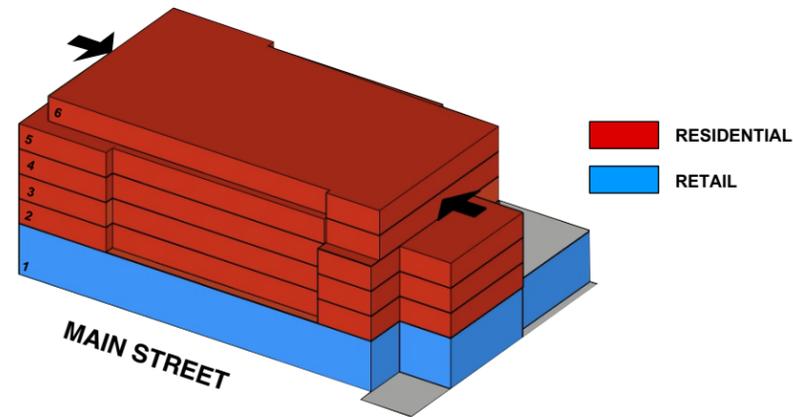


Proposed Building within Context



Massing & Setbacks

- A 6-storey built form is proposed. Massing setbacks are provided:
- 8 ft. setback along Main Street for sidewalk & boulevard improvements;
 - 7 ft. dedication along E33rd for road widening;
 - 15 ft. setback along east property line (rear lane) per C-2 design guidelines;
 - 3 ft. landscaped setbacks along east property line and eastern end of the south property line;
 - At southwest corner: 24 ft. setback from Main Street & 20 ft. setback from south property line to align with and provide relief to adjacent building. A southwest facing corner plaza is created as public realm.
 - 20 ft. setback from south property line on 5th & 6th floors to create a transition of scale southwards.

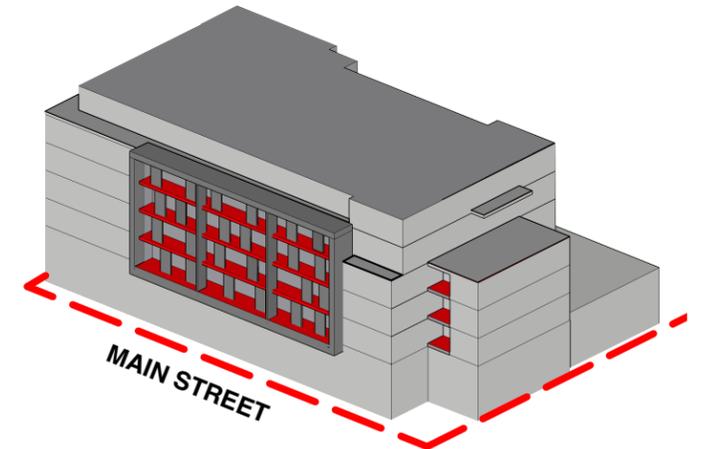


Programming & Shaping

Commercial use is located on the ground floor. Residential use is located on floors above

The top floor is setback to create a 5-storey street wall. This also minimizes shadowing of the northern sidewalk along E33rd at vernal and autumnal equinoxes.

Massing at southwest corner is shaped to ease the transition of scale towards the south.

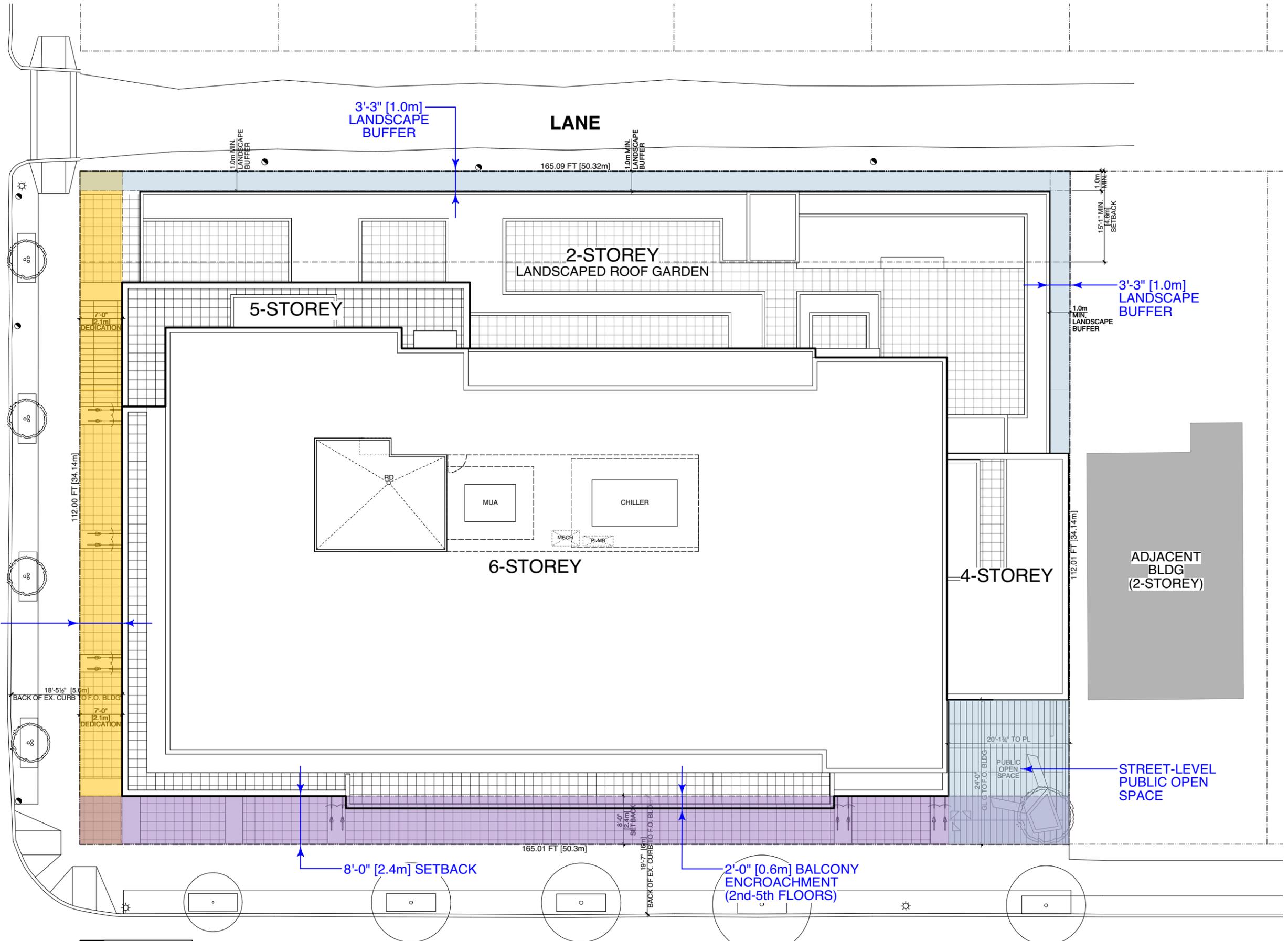


Articulation

Open balconies are introduced to articulate the building volume and breakdown its apparent bulk. Balconies fronting Main Street are featured in a framed grid of contrasting colour to emphasize this primary façade. Wood screens are set within the framed grid to create play and interest along the Main Street corridor.

EAST 33rd AVE

7'-0" [2.1m] DEDICATION FOR ROAD WIDENING



3'-3" [1.0m] LANDSCAPE BUFFER

LANE

165.09 FT [50.32m]

2-STOREY LANDSCAPED ROOF GARDEN

5-STOREY

3'-3" [1.0m] LANDSCAPE BUFFER

1.0m MIN LANDSCAPE BUFFER

15'-1" MIN SETBACK

MUA

CHILLER

6-STOREY

4-STOREY

ADJACENT BLDG (2-STOREY)

112.00 FT [34.14m]

18'-5 1/2" [5.6m]

7'-0" [2.1m] DEDICATION

BACK OF EX. CURB TO F.O. BLDG

7'-0" [2.1m] DEDICATION

112.01 FT [34.14m]

20'-1 1/4" TO PL

PUBLIC OPEN SPACE

24'-0" CLG TOP OF BLDG

STREET-LEVEL PUBLIC OPEN SPACE

8'-0" [2.4m] SETBACK

165.01 FT [50.3m]

8'-0" [2.4m] SETBACK

BACK OF EX. CURB TO F.O. BLDG

19'-7" [6m] SETBACK

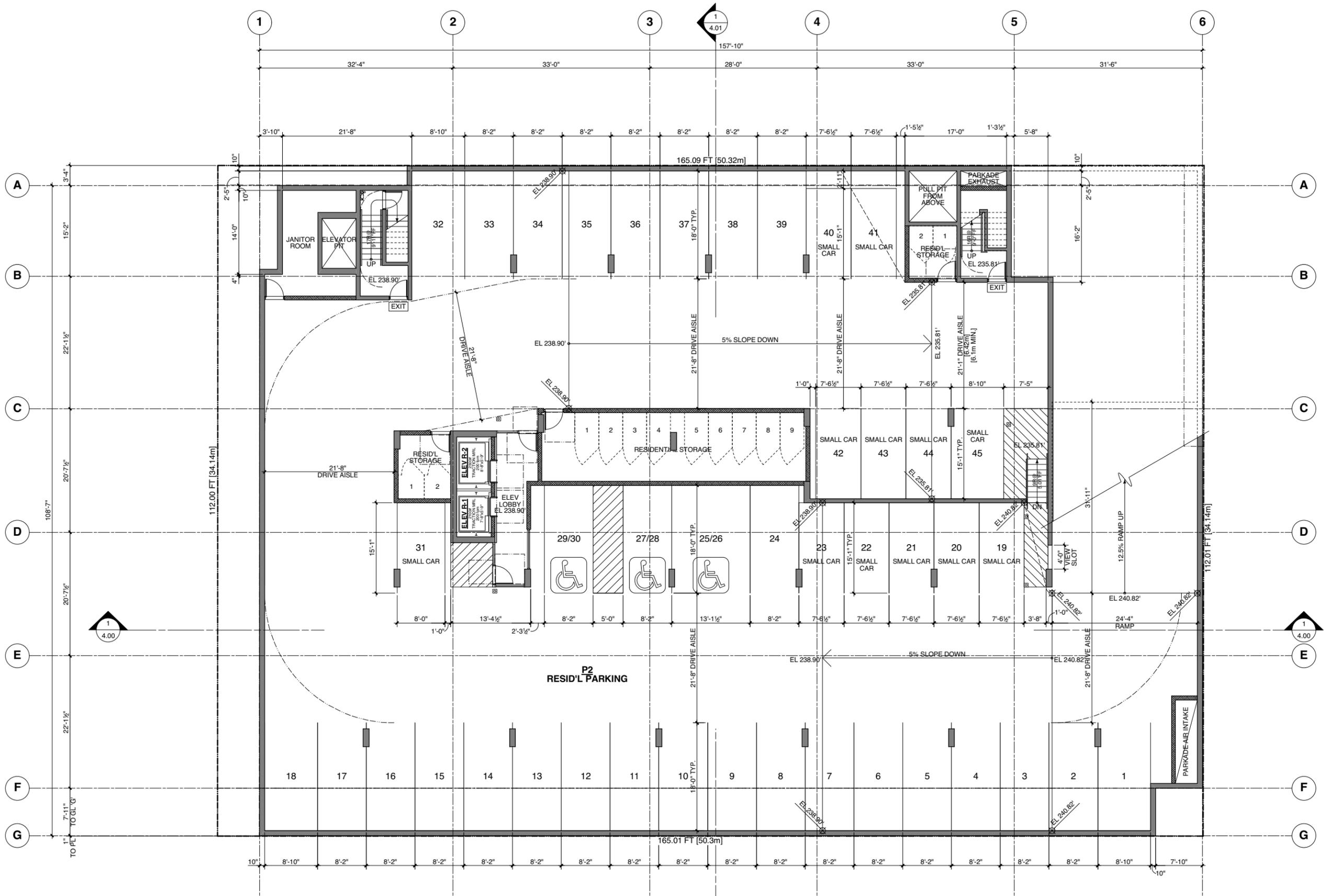
2'-0" [0.6m] BALCONY ENCROACHMENT (2nd-5th FLOORS)

SITE PLAN NORTH

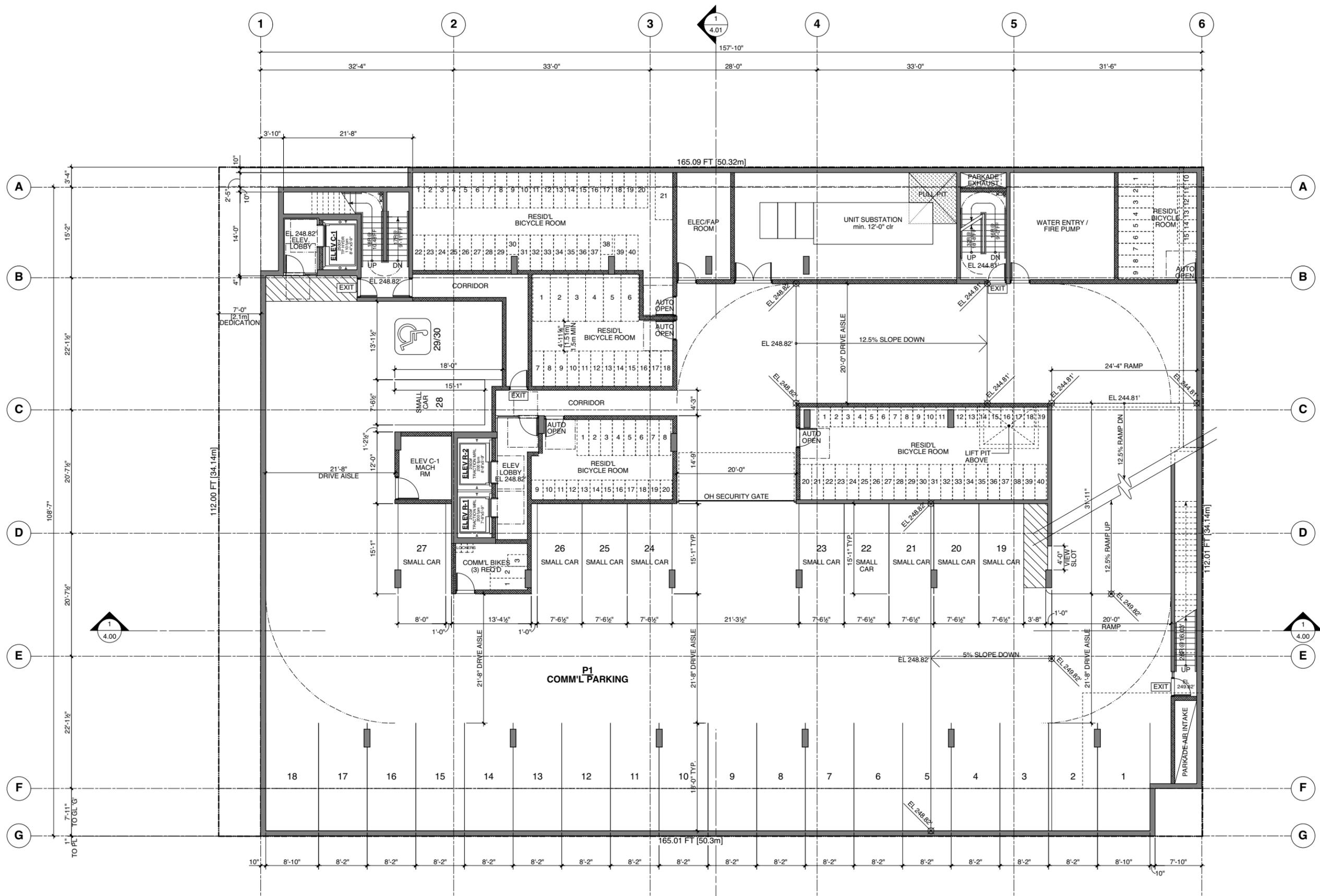
MAIN STREET

4906 - 4958 Main Street

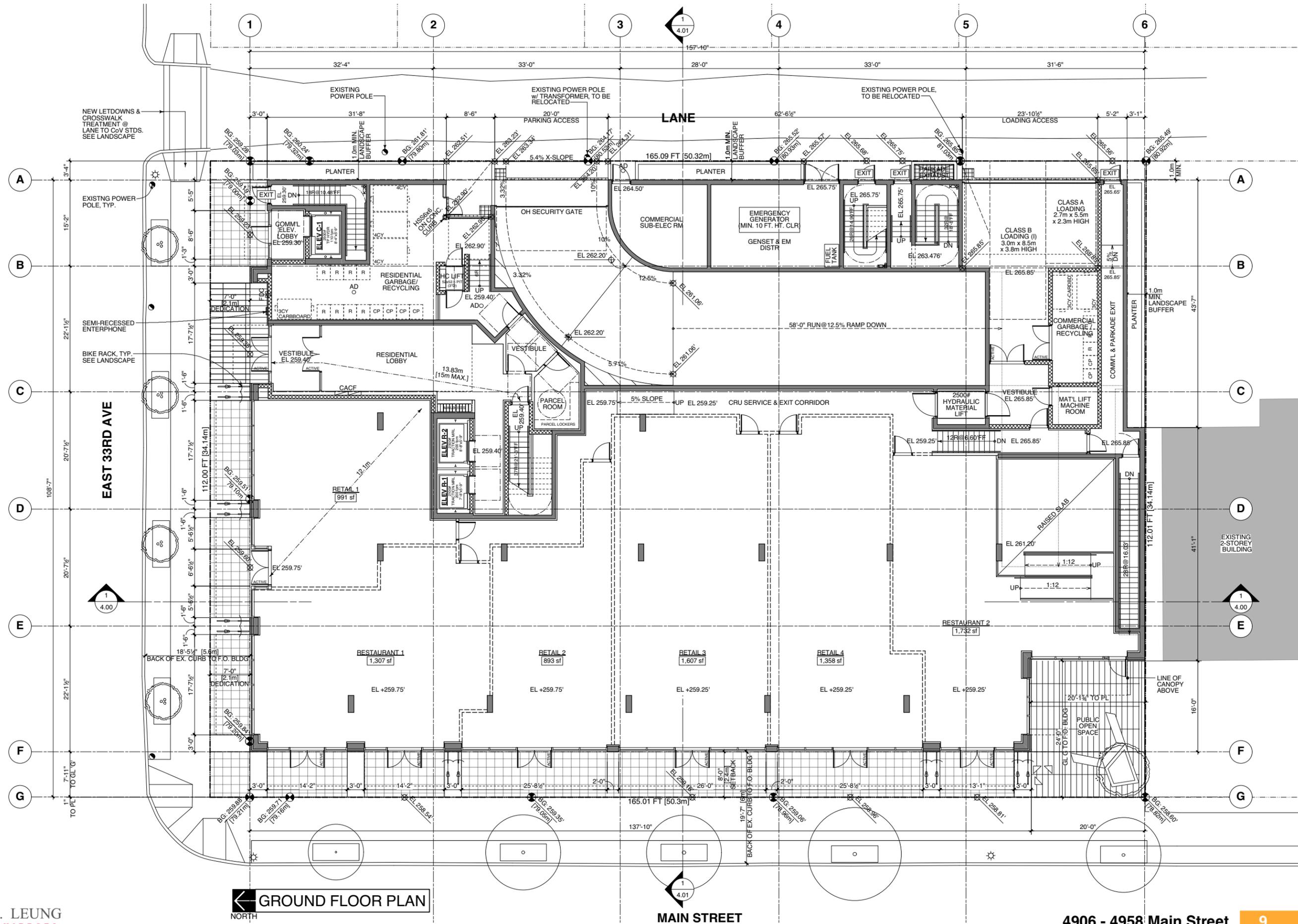
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PARKING P2 FLOOR PLAN



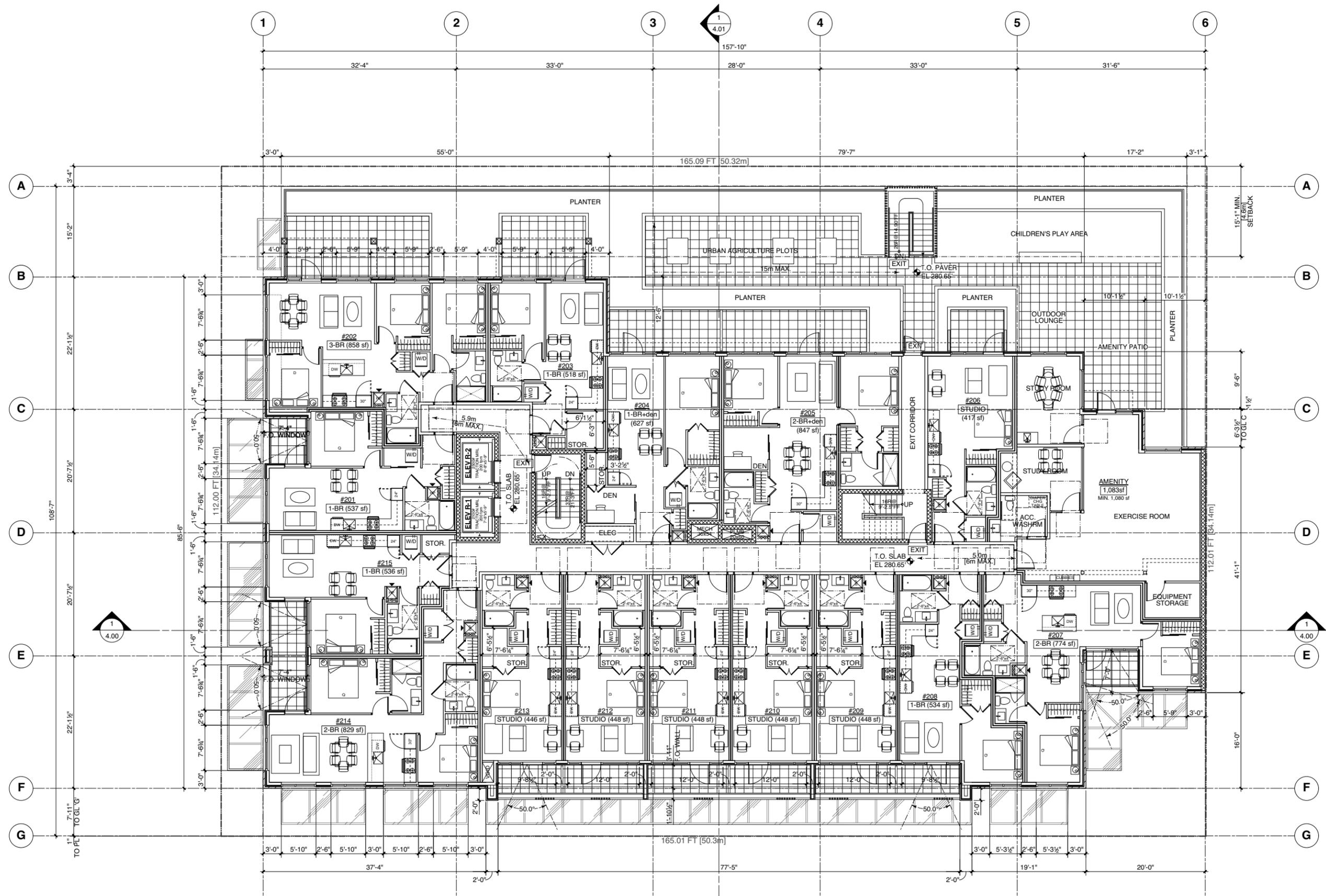
PARKING P1 FLOOR PLAN
NORTH



GROUND FLOOR PLAN
NORTH

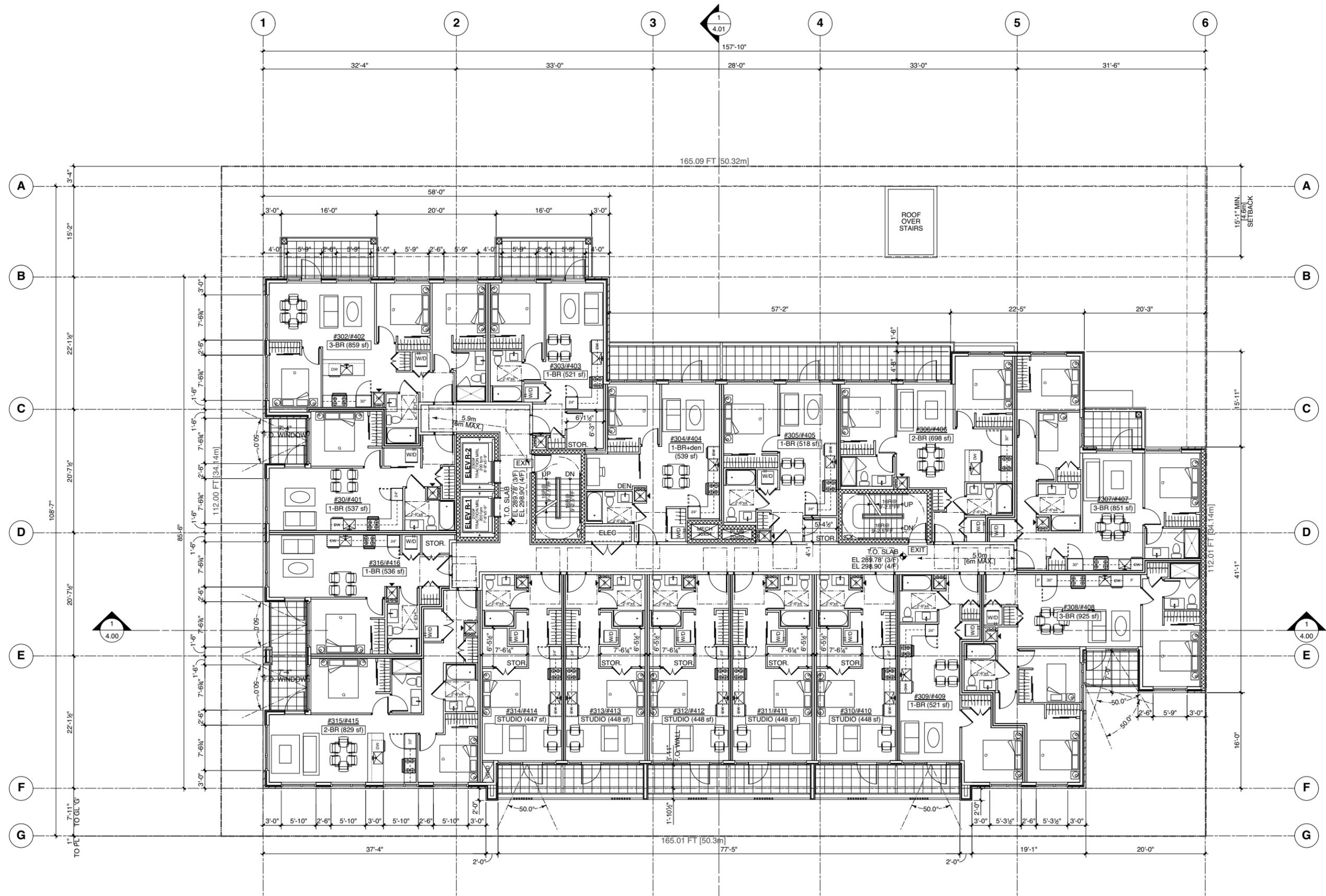
MAIN STREET

4906 - 4958 Main Street

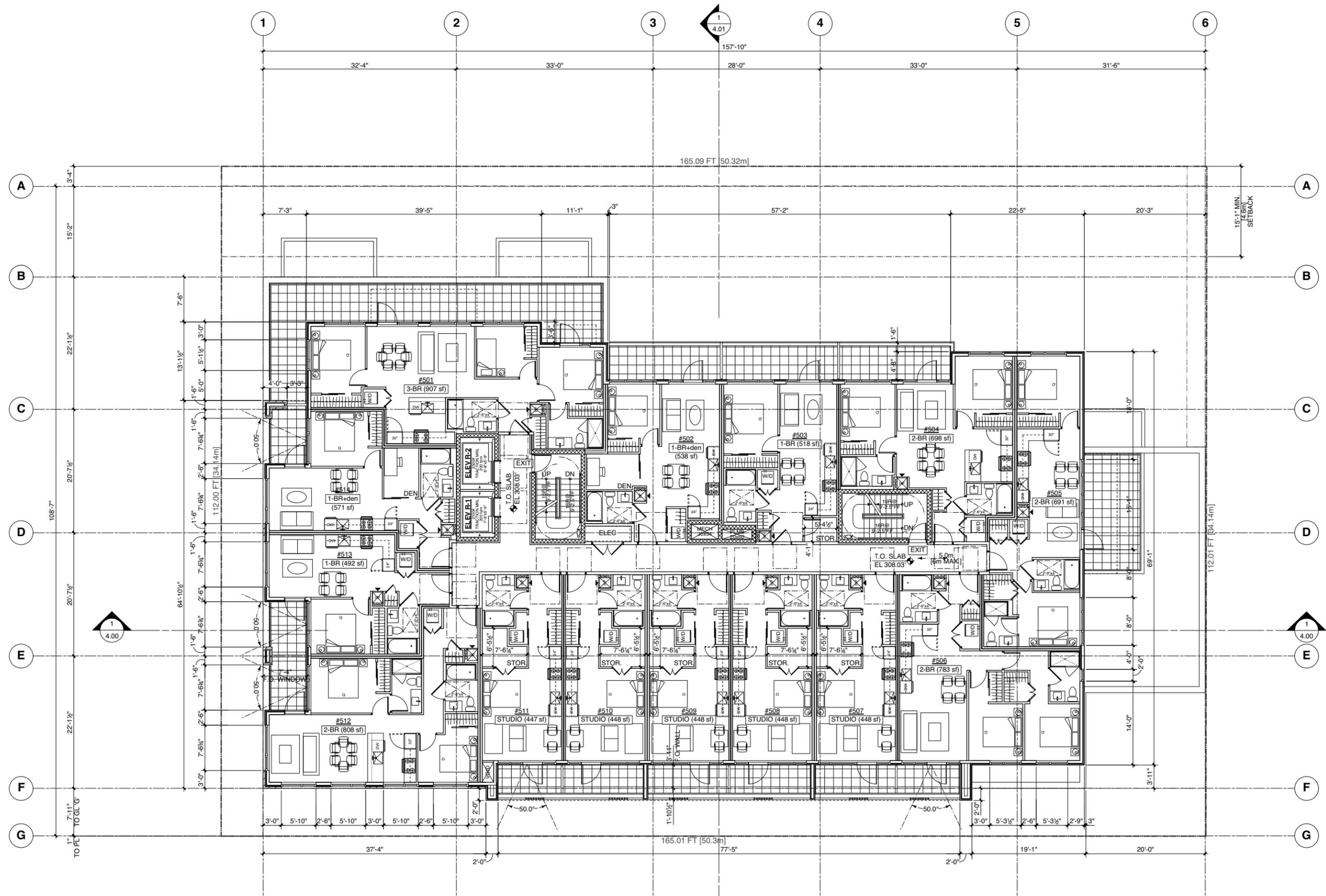


← 2nd FLOOR PLAN
NORTH

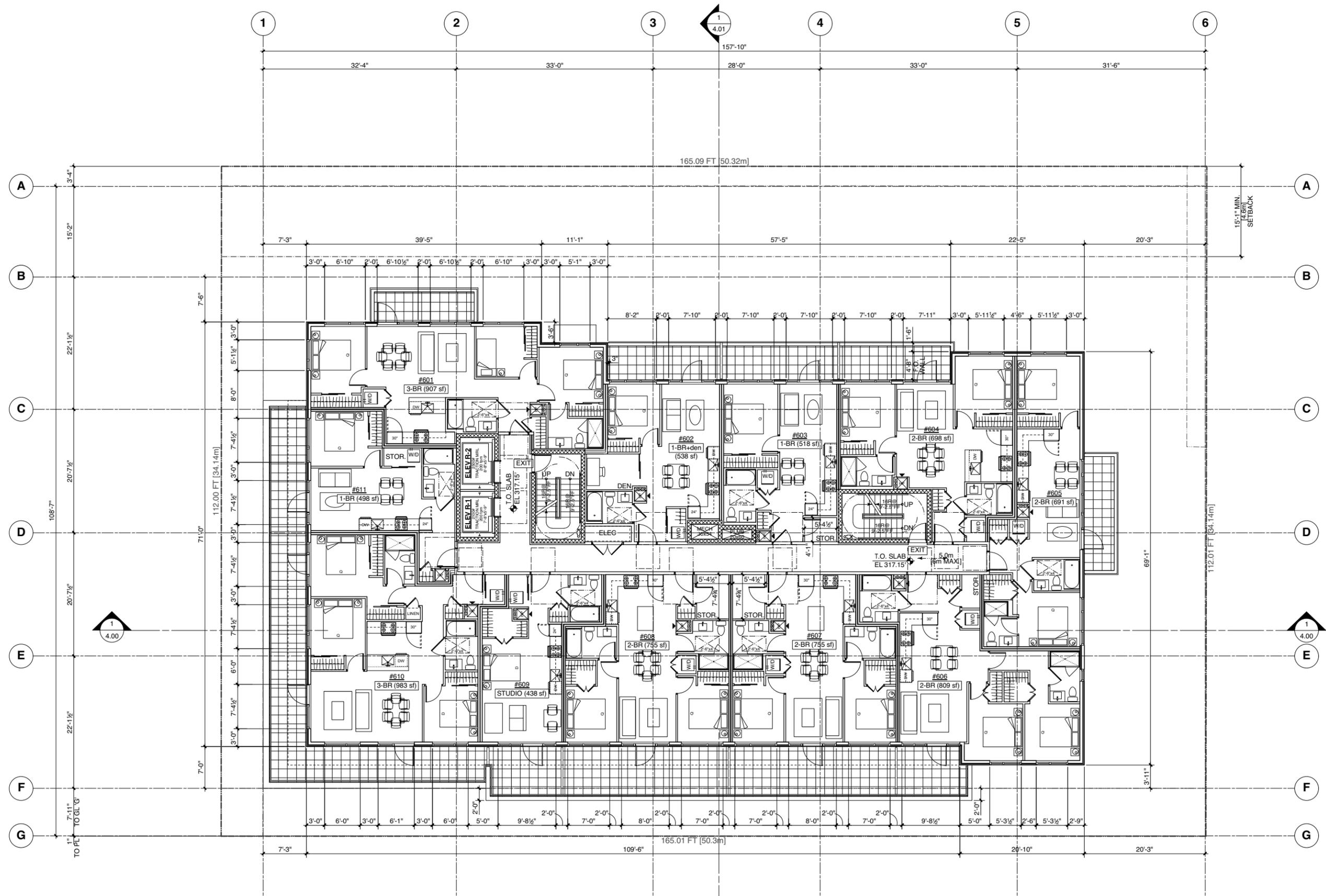
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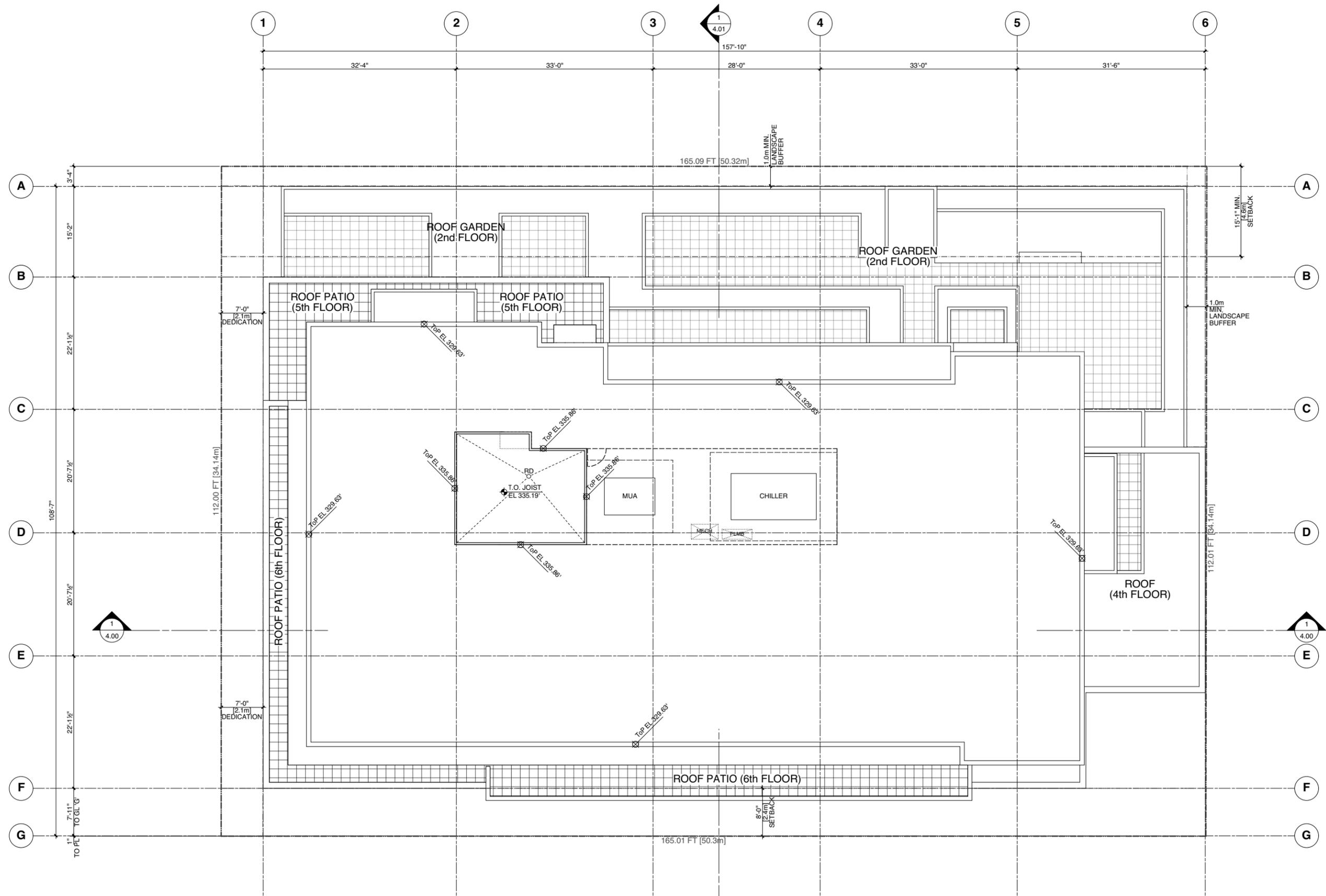
← 3rd & 4th FLOOR PLAN
NORTH



← 5th FLOOR PLAN
NORTH



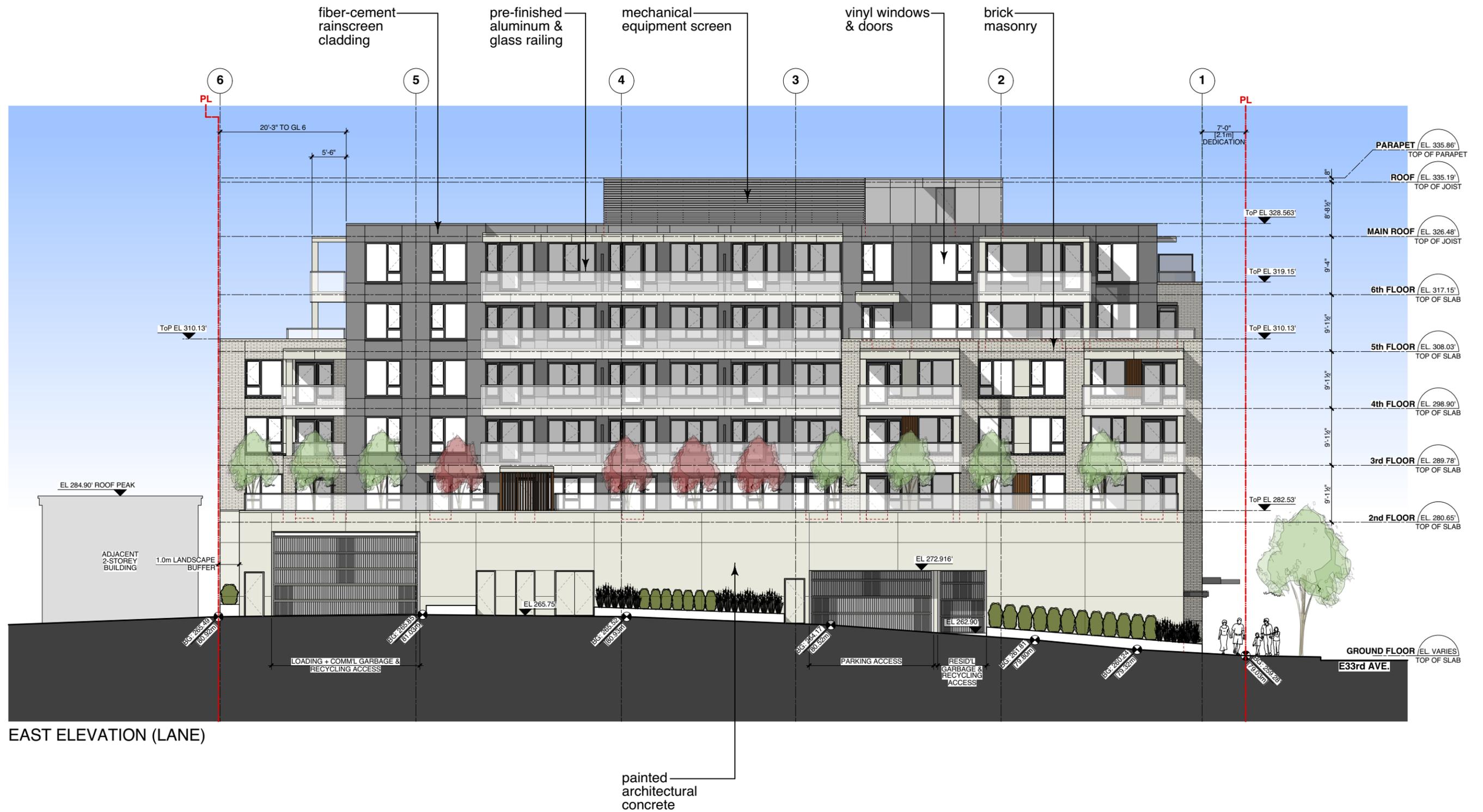
← 6th FLOOR PLAN
NORTH



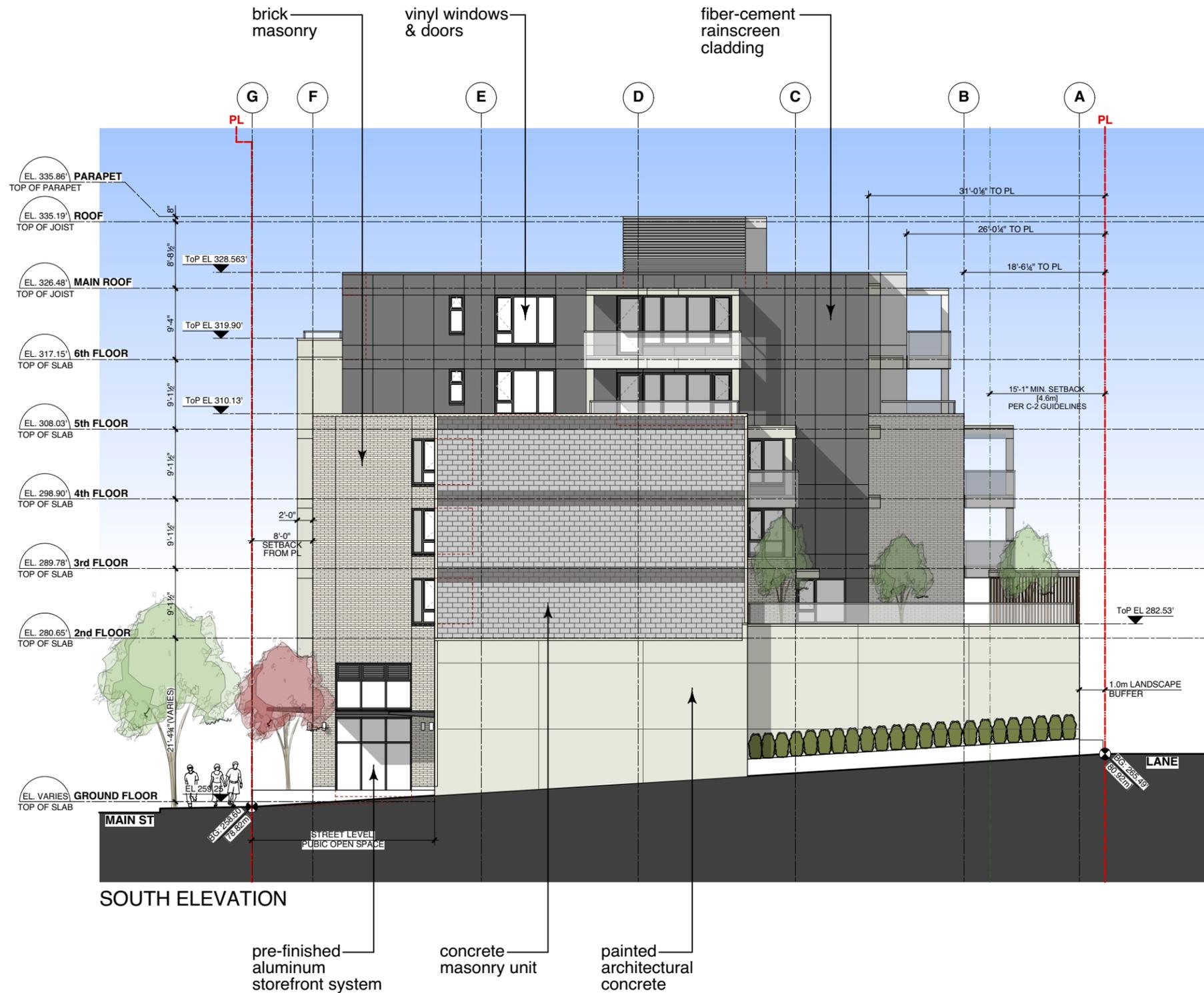
← ROOF PLAN
NORTH

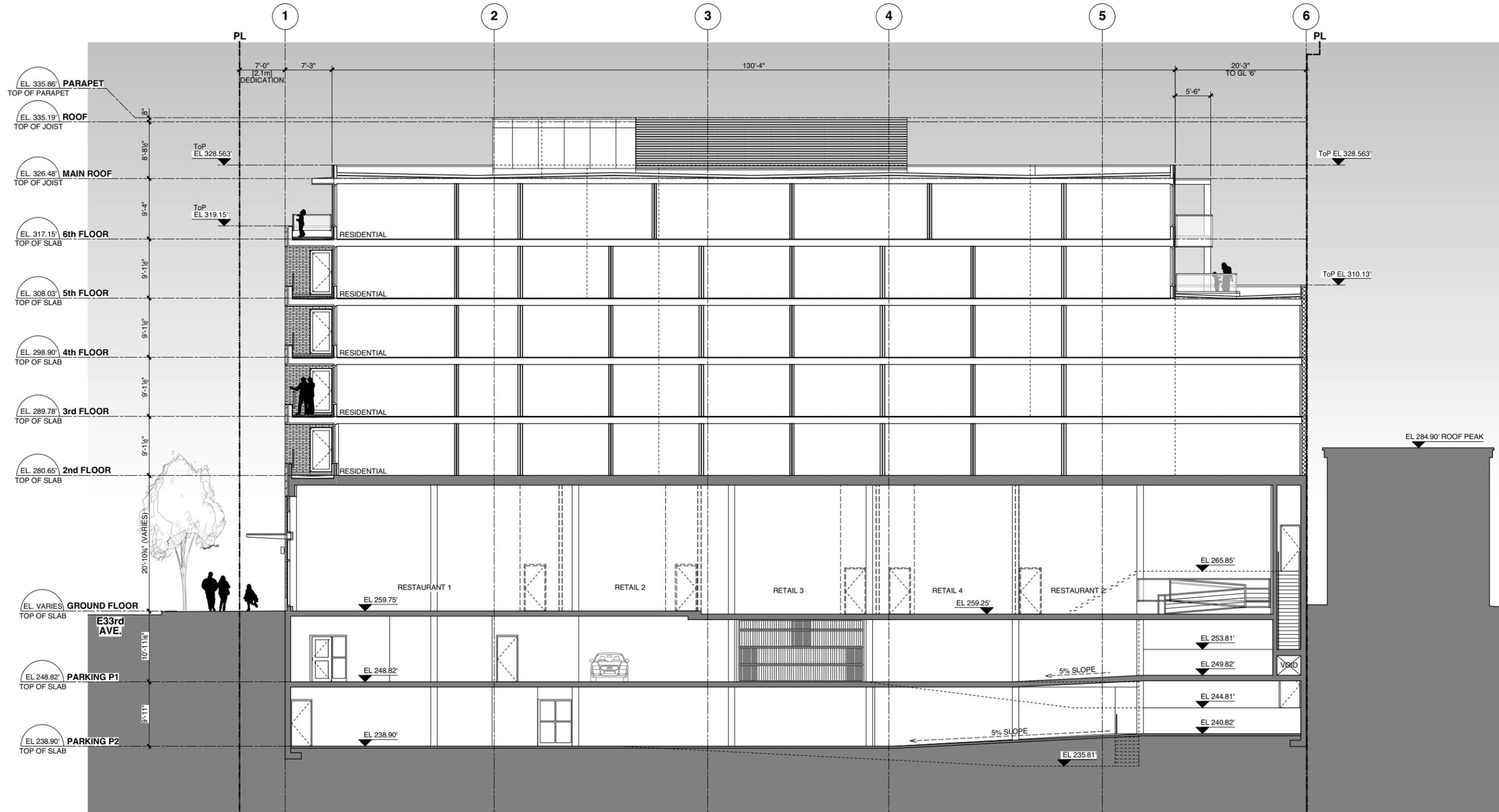




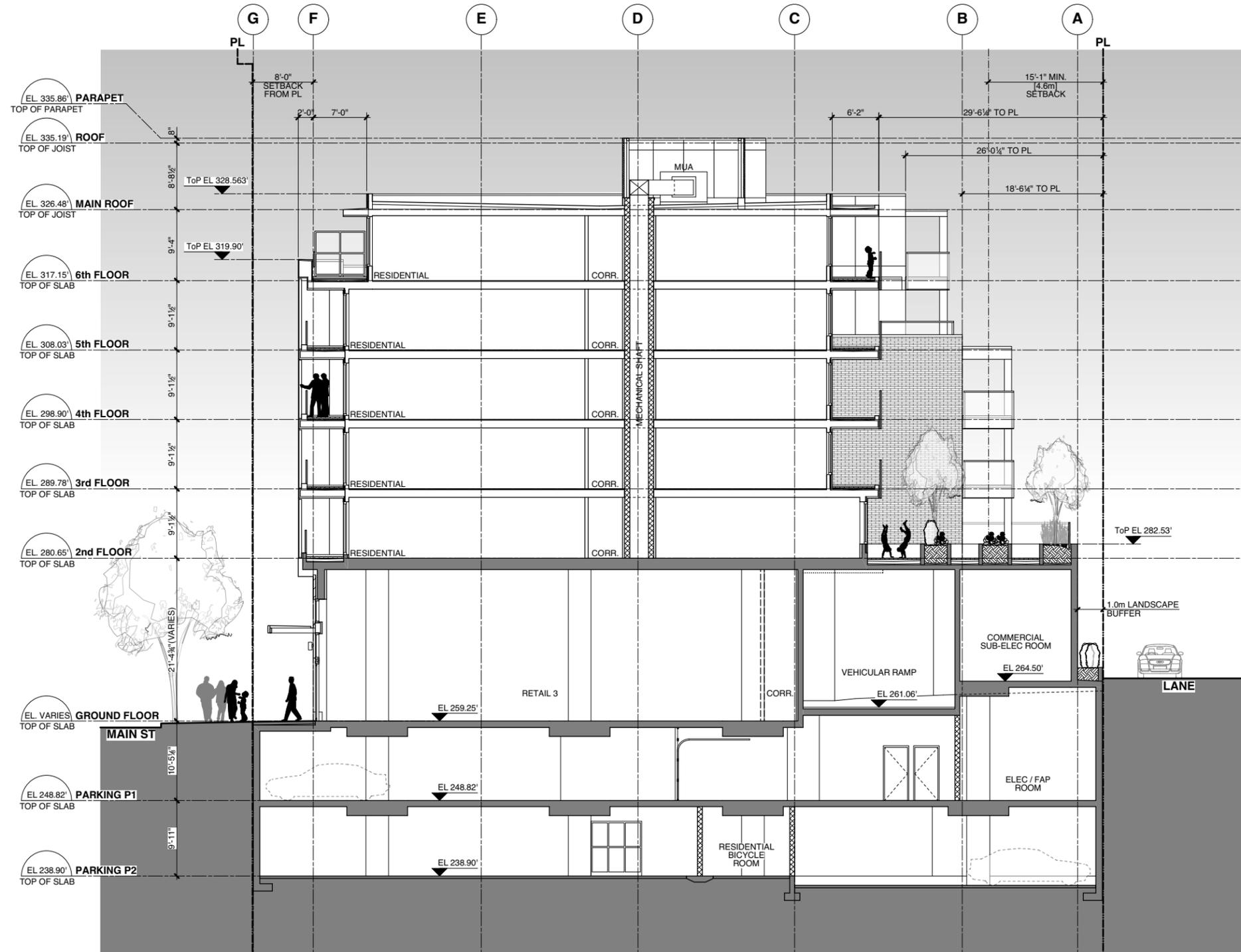


EAST ELEVATION (LANE)

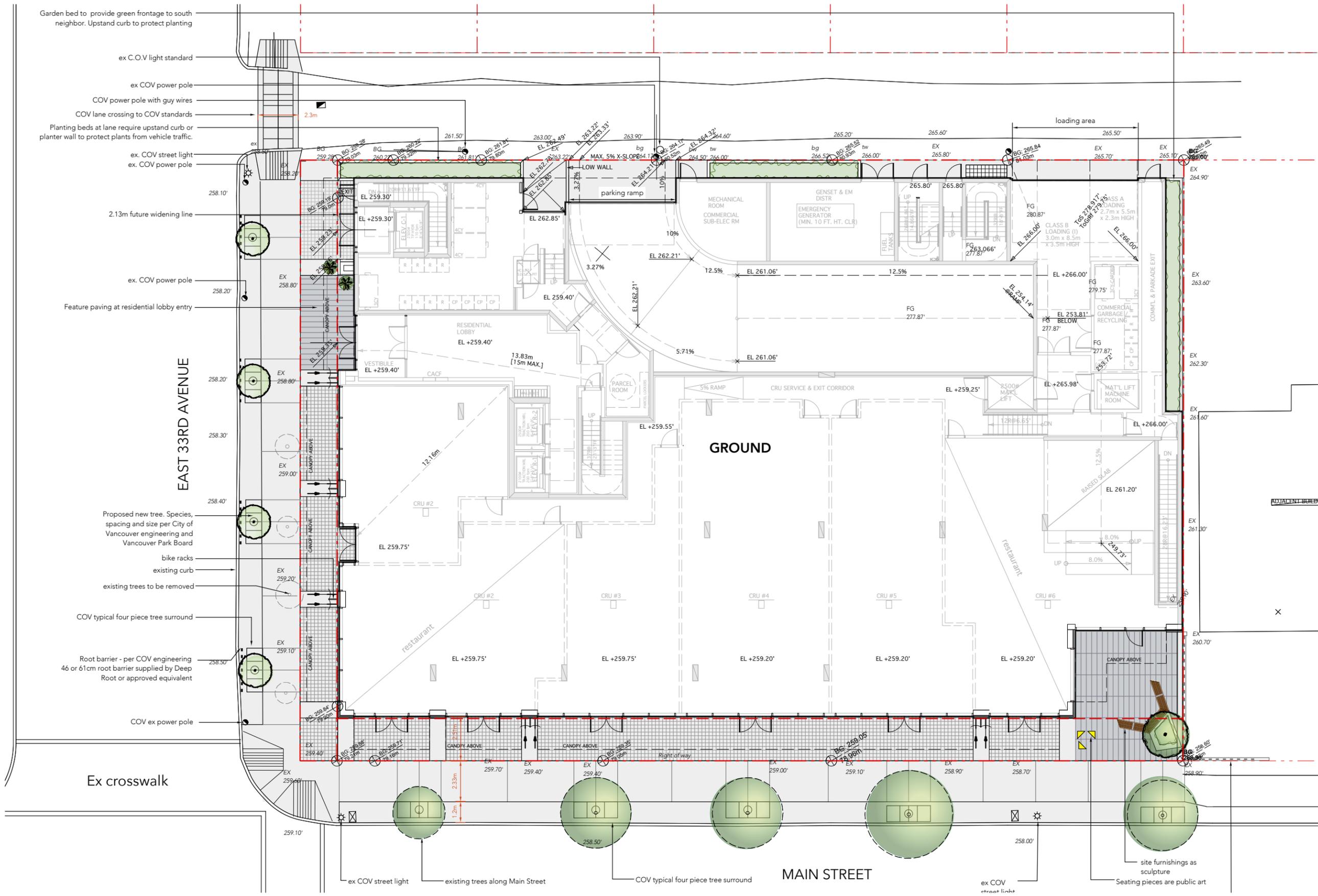




NORTH-SOUTH BUILDING SECTION



EAST-WEST BUILDING SECTION



GROUND LEVEL LANDSCAPE PLAN
NORTH

General Notes

General Landscape:
 All dimensions and elevations must be verified on site prior to commencing construction. Contact designer for any discrepancies between drawing and site conditions.
 All work to be completed to Canadian Landscape Standards and the Canadian Nursery Stock Standard (Current editions)
 All hard-landscape to have minimum 1% slope unless otherwise identified.
 All soft-landscape surfaces to be sloped a minimum of 2% away from buildings unless otherwise identified.

General Planting:
 All specified plant material to meet Canadian Landscape Standards and the Canadian Nursery Stock Standard (Current editions)
 Minimum Growing Medium Depths:
 - Sodded Lawn: 6"
 - Shrub Areas: 18"
 - Trees Pits: 30"
 All sodded lawn to be sand-based unnetted
 All new trees to be staked as required for maximum stability.

Issue:

01	Nov. 04, 2021	Client review
02	Apr. 25, 2022	Client review
03	Aug 03, 2022	Rezoning



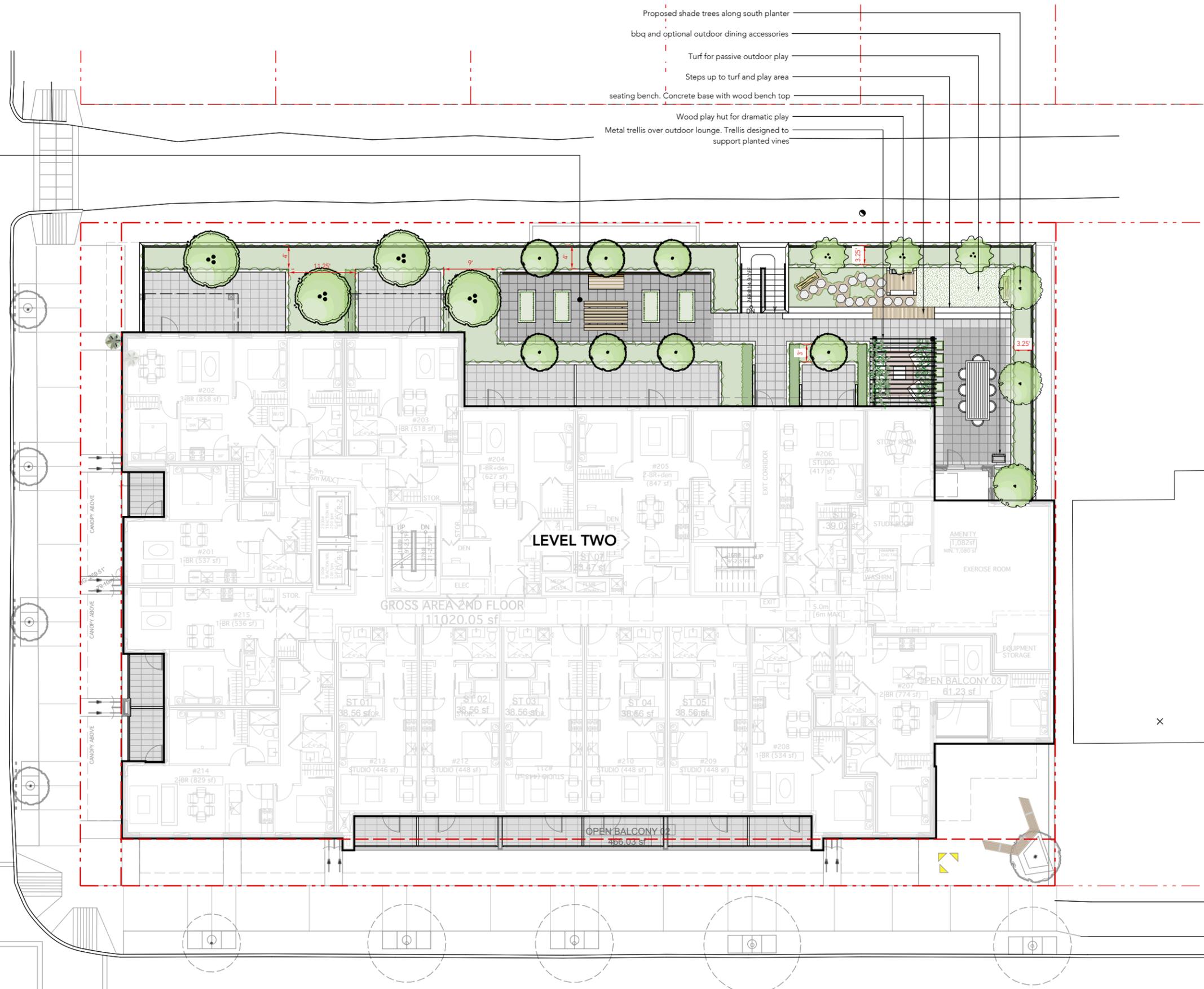
By:

 www.bearmarkdesign.com
 t: 604 319-9346

Area for urban agriculture with raised planters, potting bench with compost facilities and dining table

- Proposed shade trees along south planter
- bbq and optional outdoor dining accessories
- Turf for passive outdoor play
- Steps up to turf and play area
- seating bench. Concrete base with wood bench top
- Wood play hut for dramatic play
- Metal trellis over outdoor lounge. Trellis designed to support planted vines

EAST 33RD AVENUE



← LEVEL 2 AMENITY DECK LANDSCAPE PLAN

MAIN STREET

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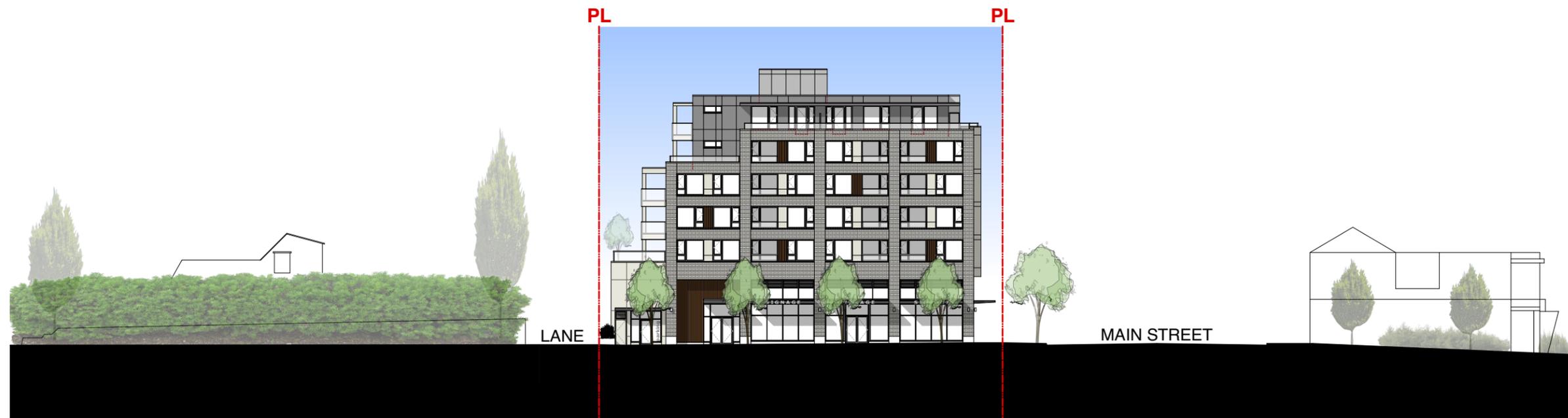


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MAIN STREET STREETScape



EAST 33rd AVENUE STREETScape

Sustainable Design Strategy
Rezoning Application

M33

4906 Main St, Vancouver, BC



Prepared For:
Main33 Project Holdings Inc.
4906 Main St, Vancouver, BC

Prepared By:
Allie Lapin, B.Sc., LEED AP BD+C
Sustainability Advisor

Reviewed by:
Navid Hossaini, P.Eng, P.HD, LEED AP BD+C
CEO

Recollective Consulting Inc.

2022-04-28



Background

M33 will be designed and constructed to meet the **Low Emissions Green Buildings** requirements of the **City of Vancouver Green Buildings Policy for Rezoning**. Documentation for each of the sustainability criteria is provided as identified in the **Green Buildings Policy for Rezoning - Process and Requirements (Amended June 14, 2019)**.

B.1 – LEED:

The project is more than 50% residential; therefore, LEED Gold is **not** required for the project.

B.2 – Energy Performance Limits:

The proposed design employs the following energy conservation measures to meet the performance limits of the rezoning policy.

- High performance building envelope
- Energy recovery with 75% sensible & latent efficiency
- Low flow fixtures

The preliminary Zero Emissions Building Plan (ZEBP) Energy Checklist is provided in Appendix 1. This was completed by the project energy modeller and shows that the project meets the performance limits for energy use, heat loss, and greenhouse gas emissions, together with key inputs.

Performance	Building Type	TEDI (kwh/m ² /yr)	TEUI (kwh/m ² /yr)	GHGI (kCO ₂ e/m ² /yr)
Rezoning Requirement	Residential	15	100	5
	Retail	21	170	3
	Restaurant	35% below current VBBL		
Proposed Building	Residential	11.5	99.9	3.6
	Retail	17.5	149	1.9
	Restaurant	Will meet 35% below current VBBL; Yes, strategies TBD		
		Pass	Pass	Pass

Also, a preliminary energy model report including modeling parameters is provided in Appendix 2.

B.3 – Airtightness Testing

Whole-building airtightness for the building will be tested and reported, and the building will be designed and constructed to meet an air-leakage target of 2.0 L/s*m² @75 Pa. Airtightness of suites will be designed, tested and reported to comply with a target of 1.2 L/s*m² @50 Pa. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.4 – Enhanced Commissioning

Advanced commissioning of mechanical and electrical systems will be conducted to ensure the energy savings will remain with the project over time. An enhanced commissioning process for the building energy systems will

be completed in accordance with ASHRAE Guideline 0-2005 and 1.1-2007. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.5 – Energy System Sub-Metering

A separate master metering for each energy utility will be provided as well as sub-metering of all major energy end-uses and major space uses within the building. Also, an Energy Star Portfolio Manager account will be setup for the building. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B6.1 – Refrigerant Emissions

Refrigerants emission for the building will be calculated and reported. The HVAC&R system will be designed to minimize CO₂e emissions. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.6.2 – Embodied Emissions

Building PathFinder was used to calculate the preliminary embodied emissions for the project. The Life Cycle Assessment (LCA) boundary accounts for cradle-to-grave impacts. The LCA includes systems identified in the Green Building Policy for Rezoning – Process and Requirements. A building lifetime of 60 years is assumed. The following table shows the LCA inputs:

Location	4906 Main St, Vancouver, BC
Building Type	Residential, Commercial Podium
Building Life Expectancy	60 years
Drawings Referenced	2022-04-07 4906-4958 Main St_ Concept Plans 2022-04-07 4906-4958 Main St_ Elevations
Structural System	P2-L1:Concrete, L2-L6:Wood
Window-to-Wall Ratio	45%
Windows	Double/triple glazed with PVC/Aluminum frame

Based on an area-weighted calculation for each construction type (concrete vs wood), the average embodied carbon of the whole building ranges from **150 to 160 kgCO₂eq/m²**.

Appendix 3 includes the embodied emissions calculation report for the building.

B.7 – Verified Direct Ventilation

The ventilation system will be designed to provide fresh outdoor air directly to all occupiable spaces in the quantities defined by code. Heat Recovery Ventilators (HRVs) will be included in the HVAC design. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.8 – Low-Emitting Materials

The project will aim to maximize the quality of the indoor environment for building occupants by using low emitting interior materials by meeting the content requirements of Green Seal, Green Label, Green Label Plus, FloorScore and SCAQMD Rules. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.9 – Indoor Air Quality Testing

The project will employ air quality management strategies through construction. This will be coordinated through an Indoor Air Quality (IAQ) management plan and executed by the construction team. The plan will include IAQ testing for formaldehyde, particulates, ozone, total volatile organic compounds, and carbon monoxide prior to occupancy. Results will be reported to the City of Vancouver. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

B.10 – Integrated Rainwater Management and Green Infrastructure

Geopacific Consultants prepared an Integrated Rainwater Management Plan for this site. The plan is prepared in accordance with the City Wide Integrated Rainwater Management Plan and Rainwater Bulletin criteria. Integrated Rainwater Management Plan (IRMP) is included in Appendix 4. The plan includes measures to address the rainwater management criteria including:

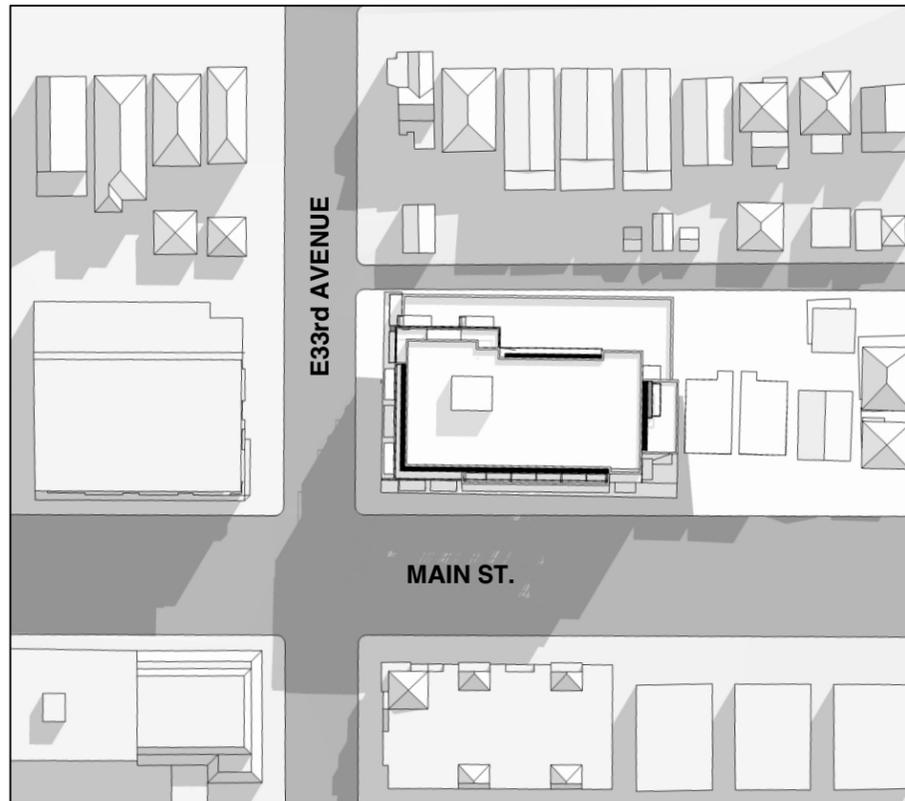
- Volume Reduction
- Water Release Rate
- Water Quality Treatment

B.11 – Resilient Drinking Water Access

A potable water fountain will be provided for the building. These water fountains will be easily accessible to all building occupants. The Owner has provided a commitment letter for the following sustainability requirements. The letter is included in Appendix 5.

Appendices

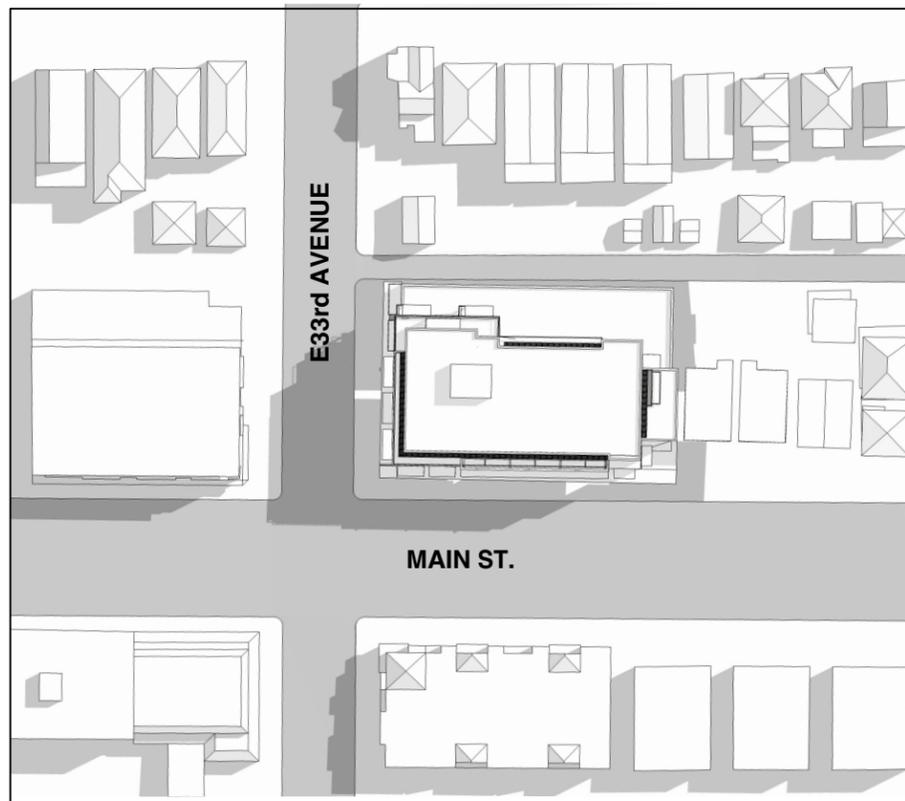
- **Appendix 1 – ZEBP Energy Checklist**
- **Appendix 2 – Energy Model Inputs**
- **Appendix 3 – Preliminary Embodied Emissions Calculations**
- **Appendix 4 – IRMP**
- **Appendix 5 – Commitment Letter form the Owner**



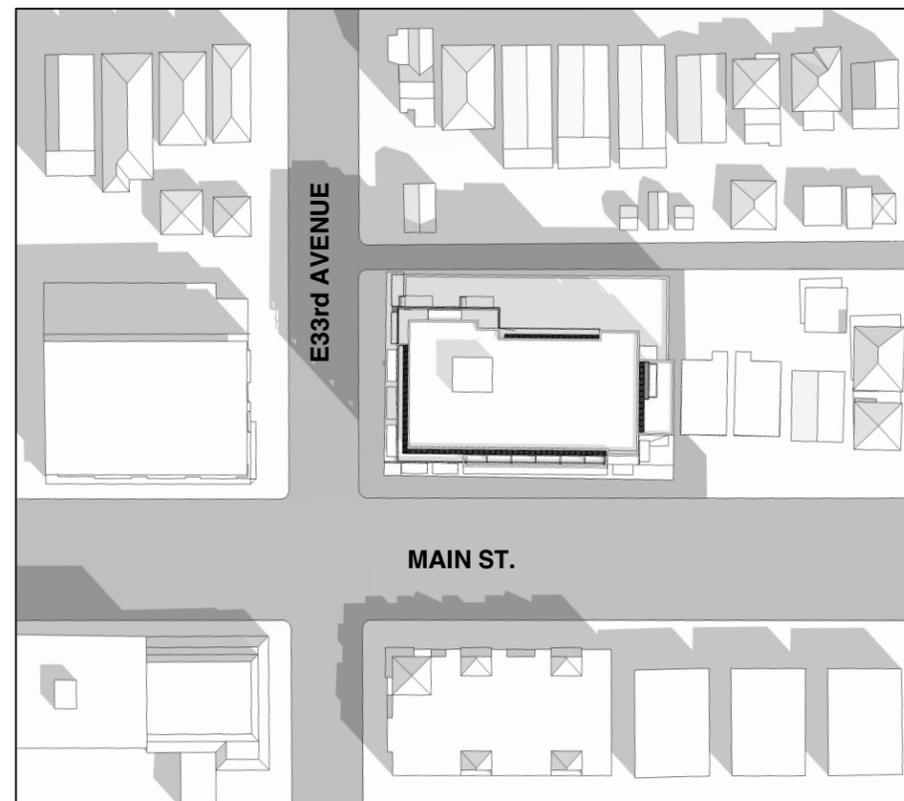
MARCH 21 - 10am



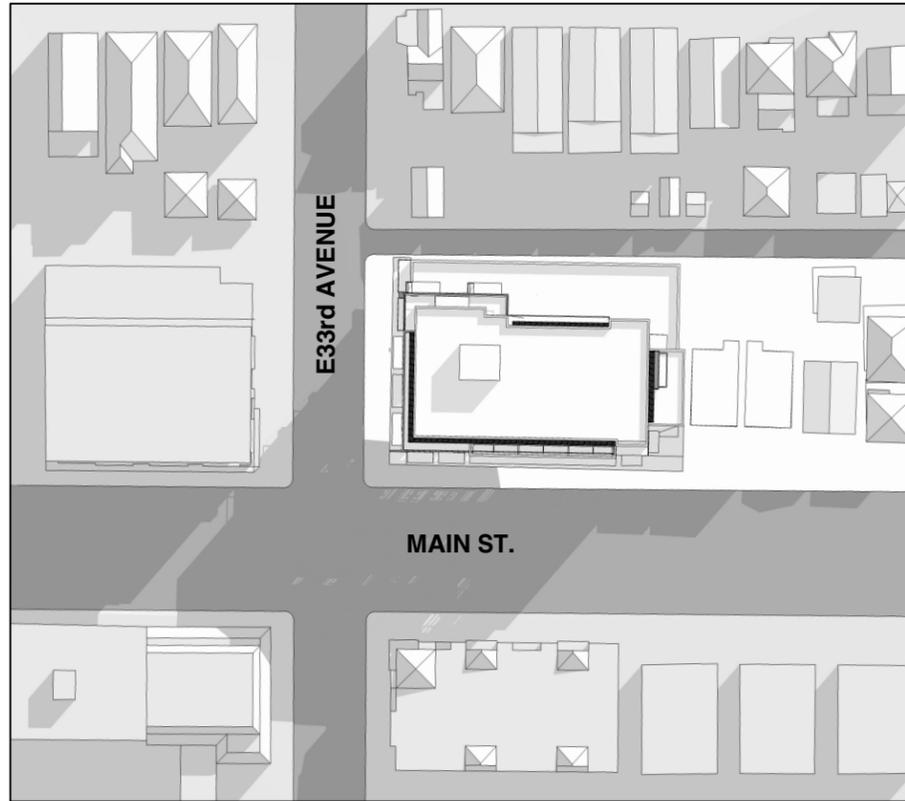
MARCH 21 - 12noon



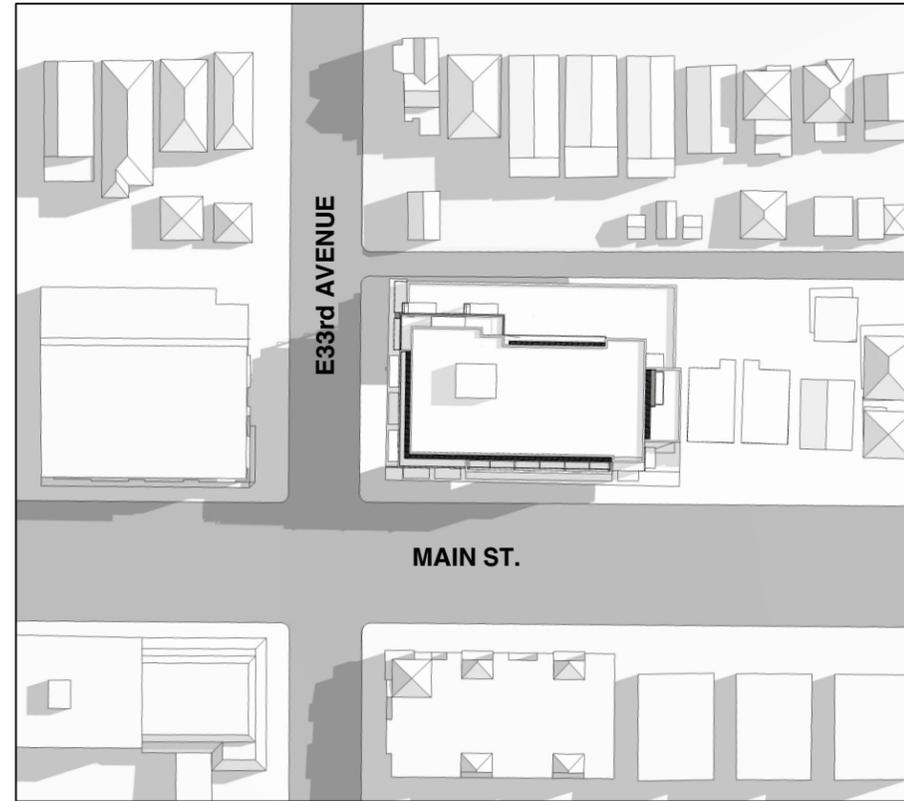
MARCH 21 - 2pm



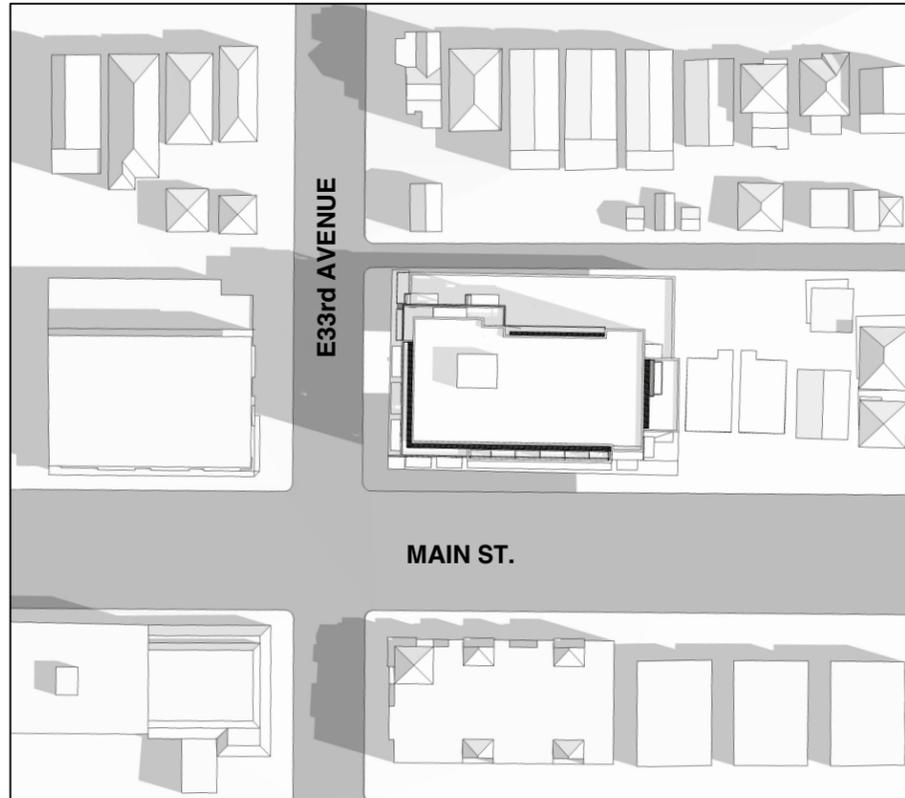
MARCH 21 - 4pm



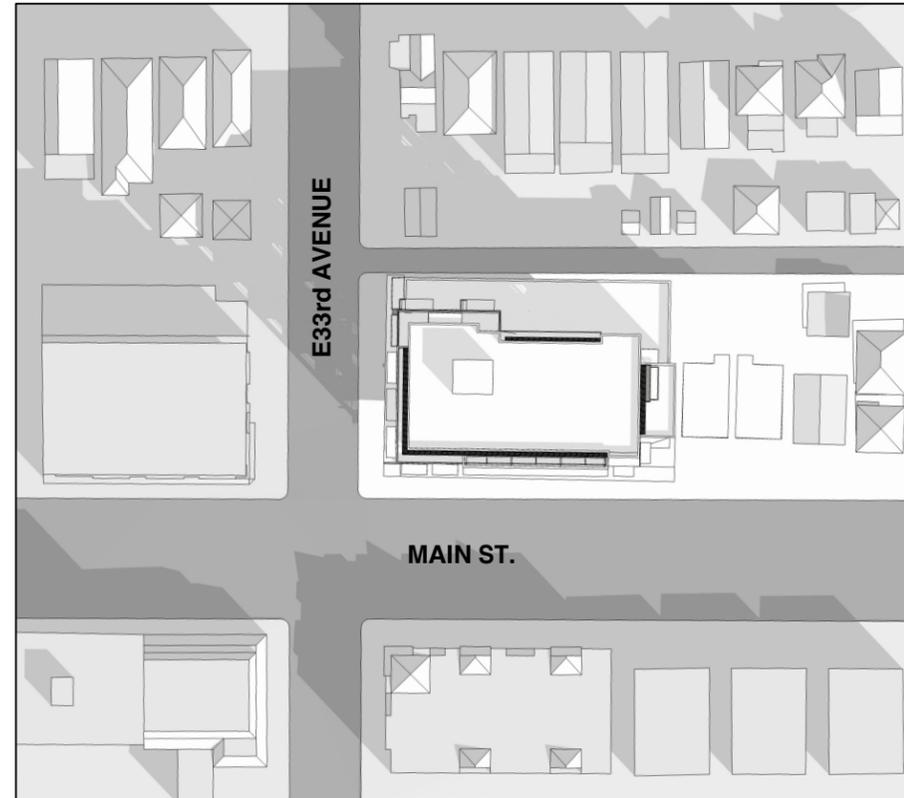
SEPTEMBER 21 - 10am



SEPTEMBER 21 - 12noon



SEPTEMBER 21 - 2pm



SEPTEMBER 21 - 4pm



VIEW EAST FROM MAIN STREET



VIEW SOUTH FROM E33rd AVENUE



VIEW NORTH FROM MAIN STREET



VIEW WEST FROM REAR LANE



PUBLIC OPEN SPACE AT SOUTHWEST CORNER

Project Team

Applicant / Owner.....Vorden Development Corp.
Architect.....W.T. Leung Architects, Inc.
Landscape Architect.....Bemark Design & Landscape Ltd.
Sustainable Design.....Recollective Consulting Inc.
Geotechnical Engineer.....Geopacific Consultants Ltd.
Civil Engineer.....R.F. Binnie & Associates Ltd.
Quantity Surveyor.....BTY Group
Tenant Relocation Coordinator.....Williams Management Corp.

