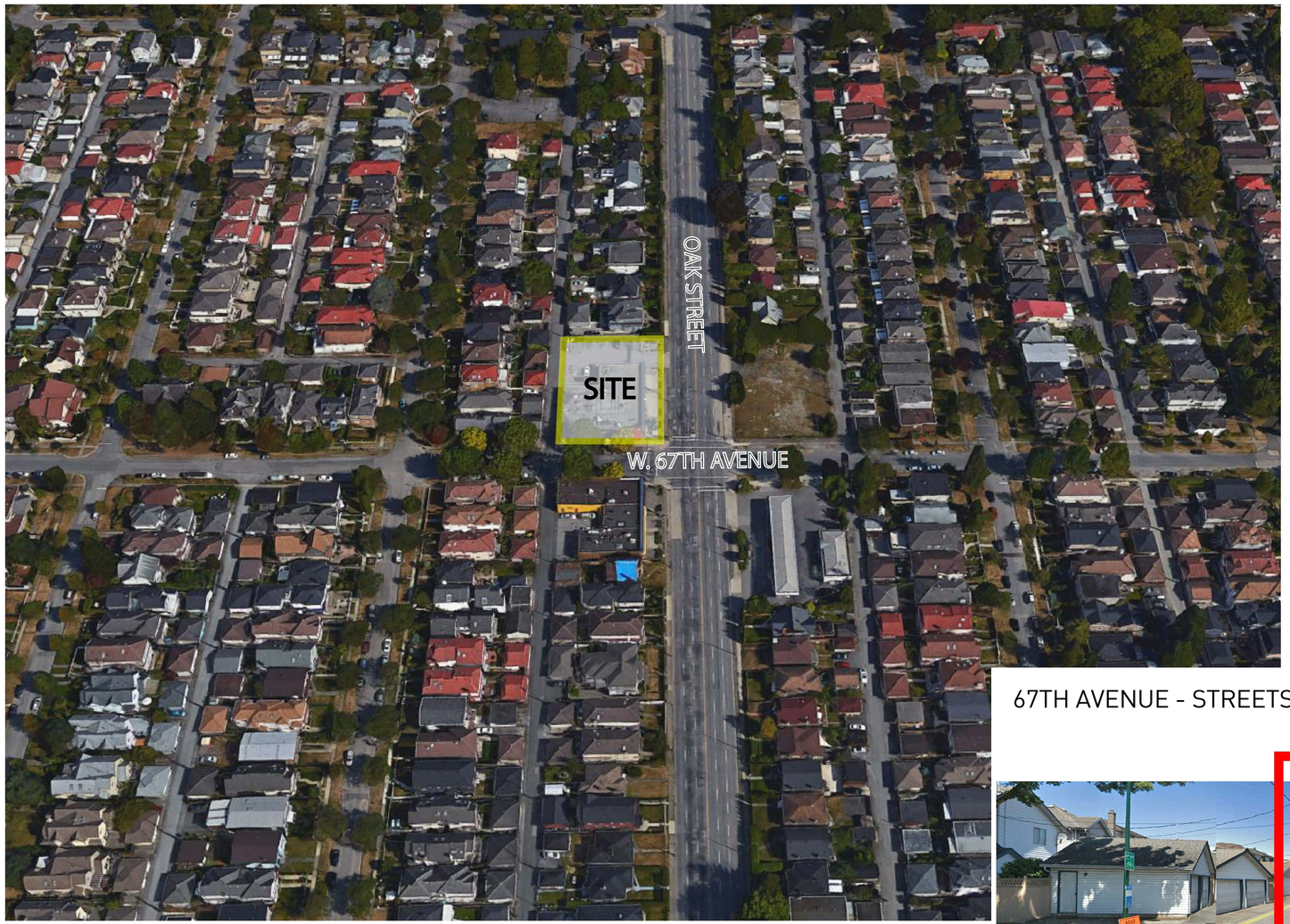
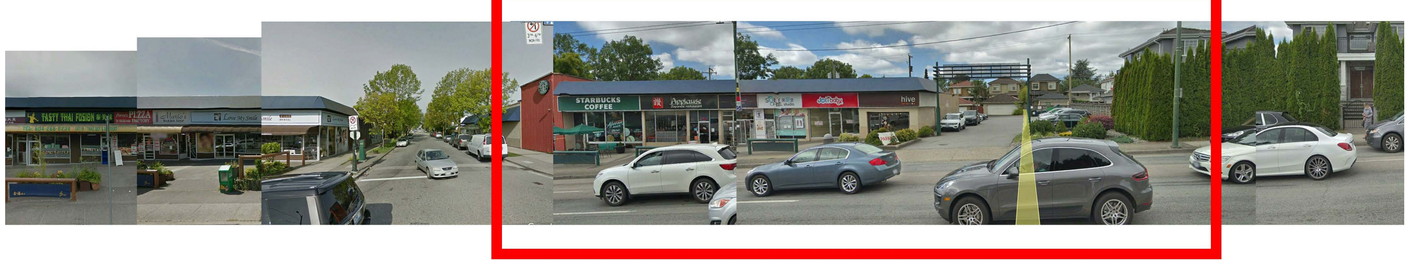
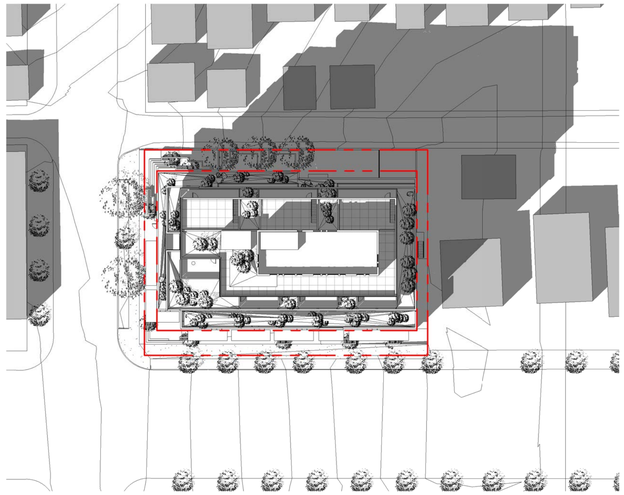


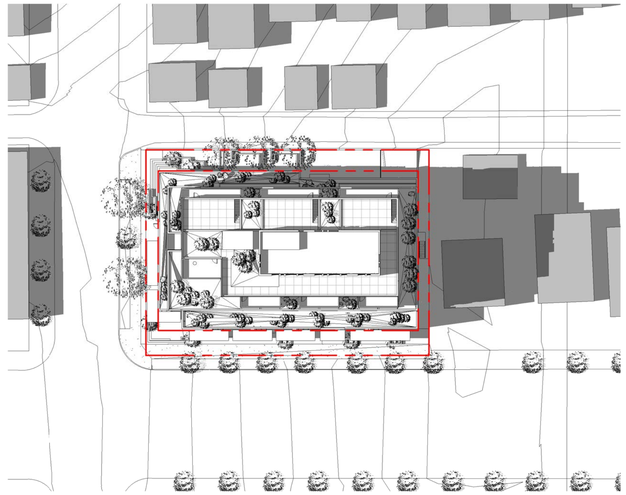
67TH AVENUE - STREETSCAPE

OAK STREET - STREETSCAPE

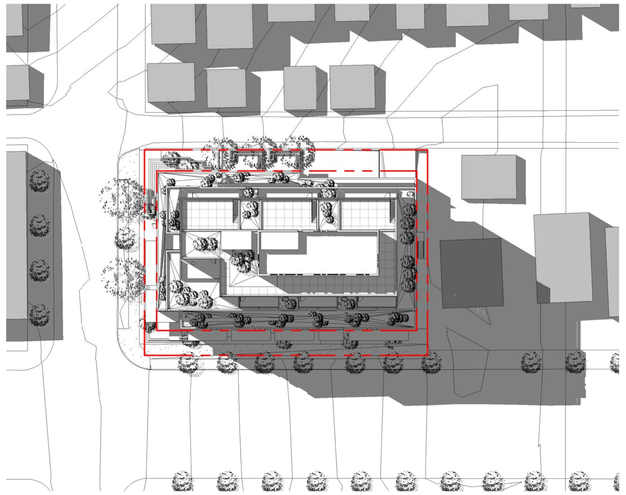




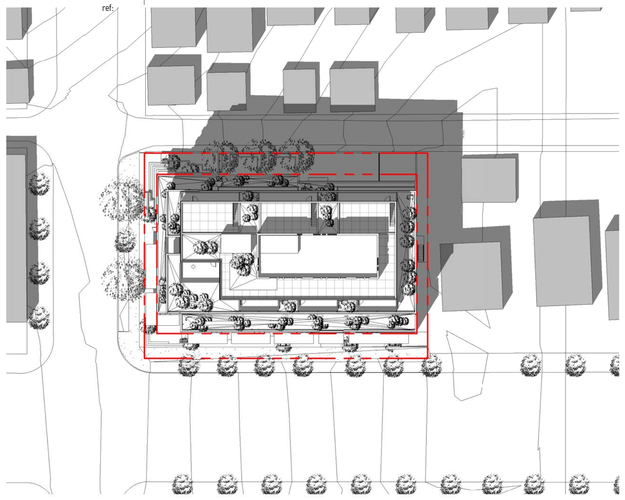
1 SHADOW STUDY - MARCH 10am



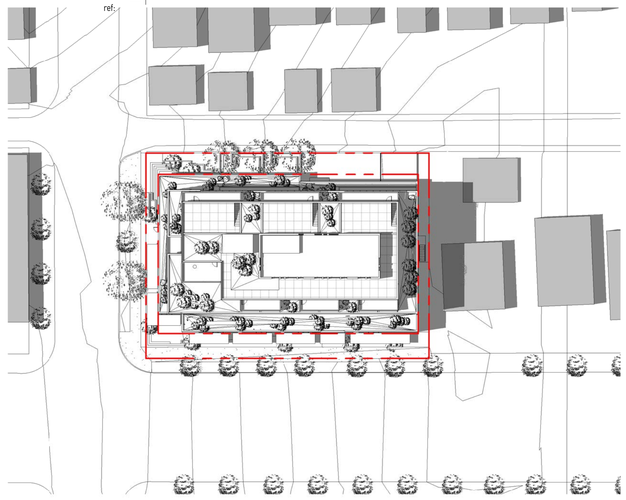
2 SHADOW STUDY - MARCH 12pm



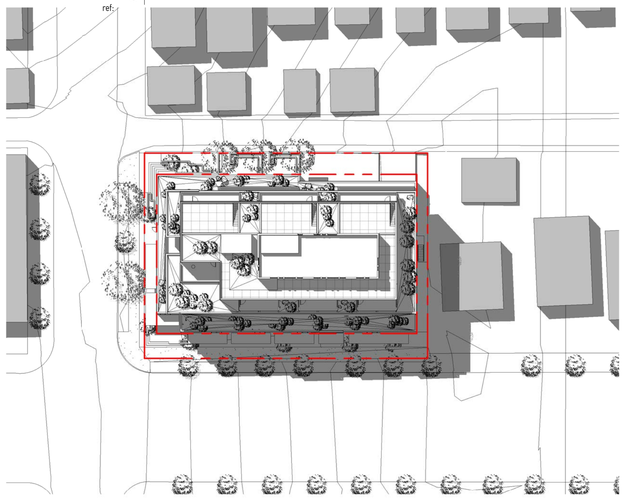
3 SHADOW STUDY - MARCH 2pm



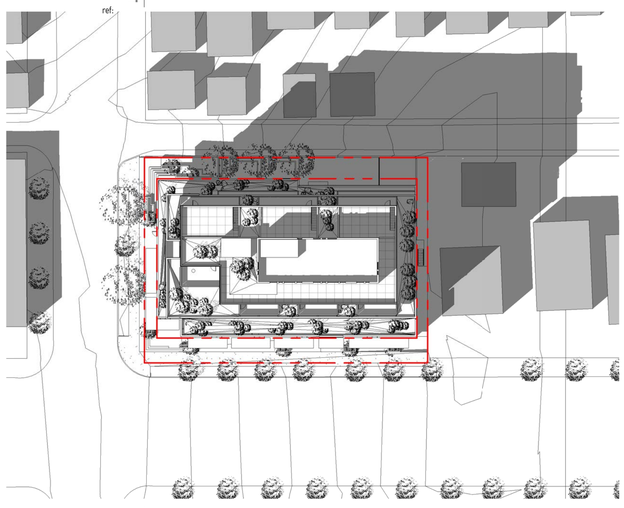
4 SHADOW STUDY - JUNE 10am



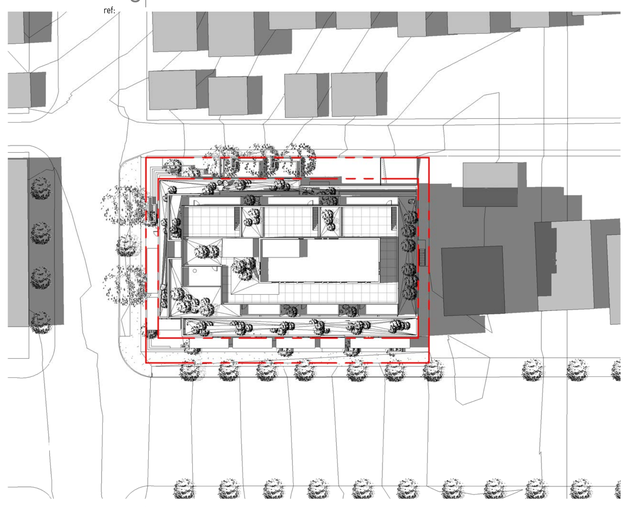
5 SHADOW STUDY - JUNE 12pm



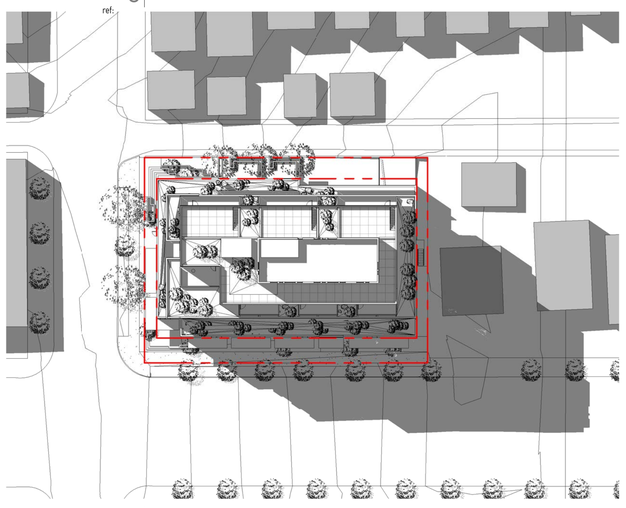
6 SHADOW STUDY - JUNE 2pm



7 SHADOW STUDY - SEP 10am



8 SHADOW STUDY - SEP 12pm



9 SHADOW STUDY - SEP 2pm

gbl

Shadow Studies

CONTEXT 01

8257 OAK STREET

LEGAL ADDRESS:		8257 OAK STREET
LEGAL DESCRIPTION:		TOPOGRAPHIC SITE PLAN OF LOT A OF LOT 14 BLOCK B DISTRICT LOTS 319, 323 AND 324 PLAN 19729
APPLICABLE POLICIES:		MARPOLE COMMUNITY PLAN
EXISTING ZONING:		C-1, RS-1
PROPOSED ZONING:		CD-1
MAX HEIGHT ALLOWED:		8 STOREYS
HEIGHT PROPOSED:		9 STOREYS (AMENITY ON LEVEL 9) 99'-11" (34.45m) TO TOP OF AMENITY ROOF SLAB; 103'-11" (31.67m) TO TOP OF EXCLUDED PARAPET
SETBACKS:	NORTH	6'-0"
	EAST	22'-0"
	SOUTH	6'-11" FROM PL, 22'-0" FROM CURB
	WEST	12'-0"
SITE AREA:		**18,207 sf (1691 sm)**
FSR PROPOSED		**3.52** 64,095 SF

AVERAGE UNIT SIZE			
STUDIO	1BED	2BED	3BED
434 sf	520 sf	730 sf	957 sf

AREA CALCULATION:

FLOOR		RETAIL	SERVICES	RESIDENTIAL
LEVEL	1	6,098	483	2,906
LEVEL 1 MEZZANINE (TH L2)				1,631
LEVEL	2	8713		642
LEVEL	3			8,259
LEVEL	4			8,259
LEVEL	5			8,259
LEVEL	6			8,259
LEVEL	7			6,218
LEVEL	8			6,218
LEVEL	9			1,945
TOTAL		**14,811**	**483**	**52,596**
MIX				

GROSS AREA	DEDUCTIONS AMENITY	DEDUCTIONS STORAGE		FSR AREA
9,487		483		9,004
1,631		80		1,551
9,355				9,355
8,259		453		7,806
8,259		453		7,806
8,259		453		7,806
8,259		453		7,806
6,218		109		6,109
6,218		109		6,109
1,945	1,202			743
67,890	**0**	**2,593**		**64,095**

UNIT MIX				
STUDIO	1BED	2BED	3BED	TOTAL
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
1	9	2	0	12
1	9	2	0	12
1	9	2	0	12
1	9	2	0	12
0	0	3	3	6
0	0	3	3	6
4	**36**	**16**	**6**	**62**
6%	58%	26%	10%	

PARKING SPACES CALCULATION		REQUIRED MIN	REQUIRED MAX	PROVIDED
RESIDENTIAL				
UNITS < 538 SF	MIN. 0.5 PER UNIT			
UNITS > 538 SF	MIN. 0.6 PER UNIT	43		46
1 PER 2153 SF OF UNITS OVER 538 SF				
VISITOR	MIN 0.05 PER UNIT	3		3
PASSENGER	1 PER 50-125 UNITS	1		1
COMMERCIAL				
MIN. 1 PER 1,076 SF UP TO 3229 SF. PLUS 1 PER ADDITINAL 538 SF		19		19
DISABILITY SPACES (INCLUDED AND COUNT AS 2 STALLS) VPBL 4.8.4				
RESIDENTIAL: 1 FOR AT LEAST 7 UNITS + 0.034 PER ADDITIONAL UNITS		3		3
COMMERCIAL: 1 FOR AT LEAST 5382 SF + 0.4 PER ADDITIONAL 10764 SF		1		2
TOTAL		**66**		**69**
SMALL CAR SPACES (included)				
25% MAX. OF REQUIRED			16	18

LOADING SPACES CALCULATION		REQUIRED MIN	REQUIRED MAX	PROVIDED
RESIDENTIAL				
CLASS A	NO REQUIREMENT	0		0
CLASS B	NO REQUIREMENT	0		0
CLASS C	NO REQUIREMENT	0		0
OFFICE				
CLASS A	NO REQUIREMENT	0		0
CLASS B	1 STALL FOR 5382 SF - 53,820 SF GFA	1		1
CLASS C	NO REQUIREMENT	0		0
RETAIL				
CLASS A	NO REQUIREMENT	0		0
CLASS B	1 STALL FOR FIRST 5,005 SF GFA	1		1
CLASS C	NO REQUIREMENT	0		0
TOTAL		**2**		**2**

BICYCLE SPACE CALCULATION		REQUIRED MIN	REQUIRED MAX	PROVIDED
RESIDENTIAL				
CLASS A UNITS < 700 SF	MIN. 1.5 PER UNIT	60		60
CLASS A UNITS > 700 SF	MIN. 2.5 PER UNIT	55		55
CLASS B	MIN. 2 FOR FIRST 20 UNITS + 1 PER ADDITIONAL 20 UNITS	4		4
OFFICE				
CLASS A	MIN. 1 PER 1830 SF	4		4
CLASS B	6 STALLS IF GFA > 21,528 SF	0		0
RETAIL				
CLASS A	MIN. 1 PER 3660 SF	1		1
CLASS B	6 STALLS IF GFA > 10,764 SF	0		0
TOTAL		**124**		**124**

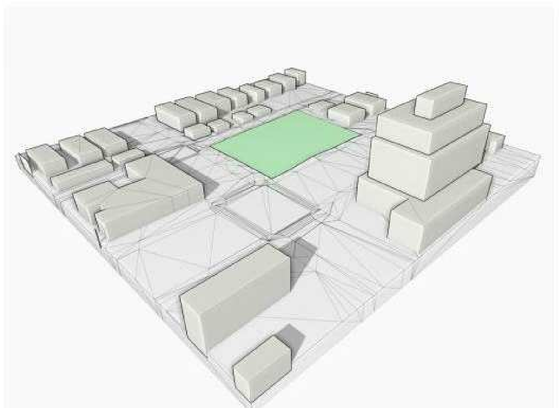
Our proposed development is consistent with the Marpole Community Plans guidelines and suggested massing. It consists of an 8 storey midrise with a commercial ground floor, second level office and residential upper floors.

Along Oak Street there is a 22'-0" public realm setback at grade, an 8'-0" setback at the lower residential floors, and an additional 8'-0" setback at the top two storeys per the guidelines. Along W. 67th Avenue there is a 22'-0" public realm setback at grade, a 5'-0" setback at the lower residential floors, and an additional 8'-0" setback at the top two storeys per the guidelines. Along the lane there is an 12'-0" setback at grade, an 8'-0" setback at the lower residential floors, and an additional 6'-0" setback at the top two storeys per the guidelines. Along the adjacent property there is a 6'-0" setback at grade, and an additional 11'-0" setback at the residential floors that satisfies the guidelines.

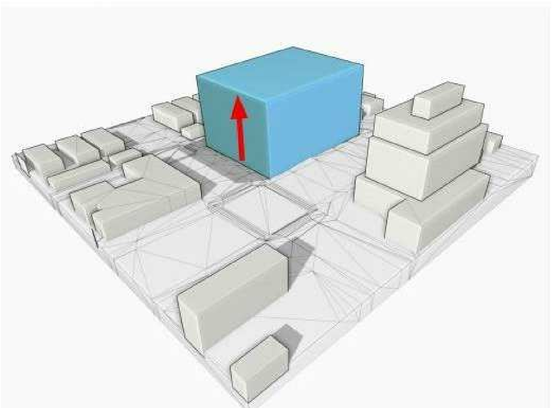
At grade, commercial spaces front Oak Street with a small plaza on the corner of Oak Street and W. 67th Avenue to compliment the plaza on the adjacent property across Oak Street. The office lobby is accessed off Oak Street. The residential lobby is set along the quieter W. 67th Avenue. Along the lane, there are two townhouses setback to allow for landscaped front yards. The entry to the parkade is located off of the lane on the north side of the property to move it as far from W. 67th Avenue as possible. The loading bays are located next to the parkade entry with access from the lane.

The proposed uses at grade are approximately 6,000 sf of commercial space, a residential lobby, townhouses, and service spaces. The total area of the ground floor level is 9,004 sf. On the secoond floor, there is approximately 8,700 sf of office space. The residential floors consist of a mix of 1 bedroom, 2 bedroom, and 3 bedroom units that is consistent with the guidelines. There are a total of 62 units in the development. Every residential unit has a patio, and the three penthouse units have private rooftop patio with access from within their unit.

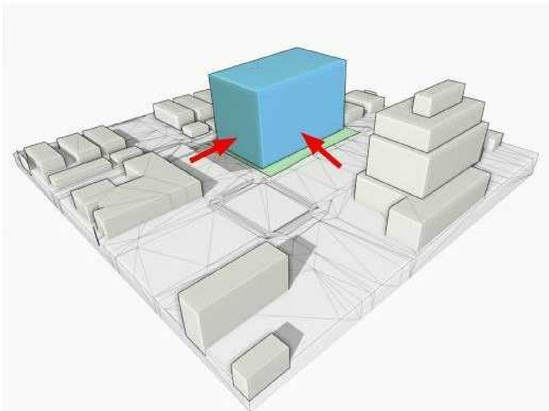
The building area is 64.095 sf achieving an FSR of 3.52. As per the Marpole Community Plan, a minimum of 0.5 FSR of office space is provided at level two, so additional density beyond 3.0 FSR is requested to achieve this. The total building height is 104'-0".



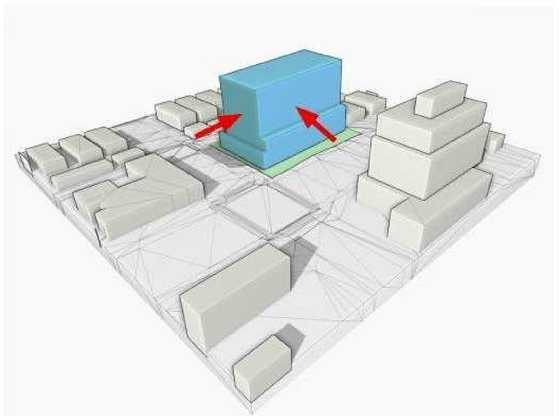
The site sits on the corner of Oak Street and W67th Avenue. The area of the site is 18,207sf.



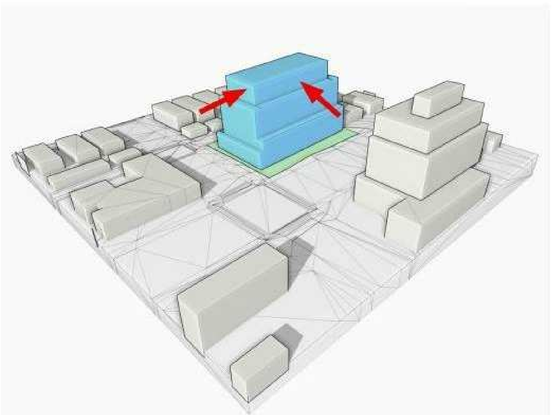
The form is extruded to the maximum 8 storeys per the Marpole Community Plan.



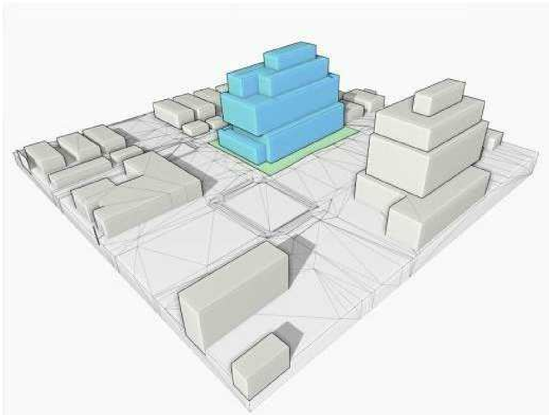
The form is then setback per the Marpole Community Plan. It is setback 6'-0" from the North, 22'-0" from the East, 6'-11" from the South, and 12'-0" from the West.



The lower levels step back per the Marpole Community Plan. They step back 0'-"0 from the North, 8'-0" from the East, 5'-0" from the South, and 8'-0" from the West.



The upper two levels step back per the Marpole Community Plan. They step back 11'-0" from the North, 8'-0" from the East, 8'-0" from the South, and 6'-0" from the West.



The form is further articulated to distinguish the commercial spaces from the residential spaces. A rooftop amenity is added for the residents.

GREEN BUILDINGS POLICY FOR REZONINGS

LOW EMISSIONS GREEN BUILDINGS - RESIDENTIAL

PERFORMANCE LIMITS
*CoV Energy Modelling Guidelines

We will meet minimum performance limits set by the CoV:

Table B.1.2b: Performance Limits- Buildings Connected to a City-Recognized Low Carbon Energy System

Residential High-Rise (7+storeys)
TEUI (Total Energy Use Intensity) = 130 kWh/m^2
TEDI (Thermal Energy Demand Intensity) = 40 kWh/m^2
GHGI (Greenhouse Gas Intensity) = 6 $kgCO_2/m^2$

WHOLE BUILDING AIRTIGHTNESS
*Illustrated Guide to Achieving Airtight Buildings (2017)

Whole-building airtightness will be tested and reported complying with the following:

- Air leakage target of 2.0 L/s*m^2 @75 Pa
- Suite-level air-leakage target of 1.2 L/s*m^2 @50 Pa
- Airtightness testing on 10% of the first 100 units and 5% of all units above that

All testing conducted will be according to ASTM E779 or to an equivalent standard acceptable to the Chief Building Official.

ENHANCED COMMISSIONING
*ASHRAE Guideline 0-2005 and 1.1-2007 or an alternate commissioning standard

We will provide an enhanced commissioning consisting on:

- Commissioning Plan
- Commissioning Report

ENERGY SYSTEM SUB-METERING

We will provide:

- Separate master metering for each energy utility
- Sub-metering of all major energy end-uses and major space uses

ENERGY REPORTING

Our proposal will meet the following:

- Energy Star Portfolio Manager account with basic property information, including setup of meters for all energy utilities servicing the building.
- Agreement with the CoV to report energy use data for the building as a whole and certain common areas and building systems.

REFRIGERANT EMISSIONS
*Code

We will calculate and report life-cycle equivalent annual carbon dioxide emissions in $kgCO_2e/m^2$ from the emission of refrigerants.

EMBODIED EMISSIONS

Report the life-cycle equivalent carbon dioxide emissions (global warming potential impact, or "embodied carbon") in $kgCO_2e/m^2$, as calculated by a whole-building life cycle assessment LCA.

We will submitt a report with:
- Embodied emissions intensity in $kgCO_2e/m^2$
- Total lifecycle embodied emissions in $kgCO_2e/m^2$
- Equivalent annual embodied emissions intensity in $kgCO_2e/m^2$/year

For information only, impacts and benefits beyond the system boundary (reuse, recycling and energy recovering from flows exiting the system boundary) will be reported.

VERIFIED DIRECT VENTILATION

Our building will be:

- Constructed with a ventilation system that provides outdoor air directly to all occupiable spaces (quantities by code).
- Designed with flow rates to be tested and verified (commissioning process).

LOW EMITTING MATERIALS

On our proposal the materials containing VOCs (volatile organing compounds) or added urea formaldehyde will be minimized by meeting the content requirements of Green Seal, Green Label, Green Label Plus, FloorScore, South Coast Air Quality Management Distric Rules.

INDOOR AIR QUALITY TESTING

We will do testing for: formaldehyde, particulates, ozone, total VOCs and carbon monoxide
The test will be prior to occupancy and reported to the CoV.

INTEGRATED RAINWATER MANAGEMENT AND GREEN INFRASTRUCTURE
*City-Wide Integrated Rainwater Management Plan

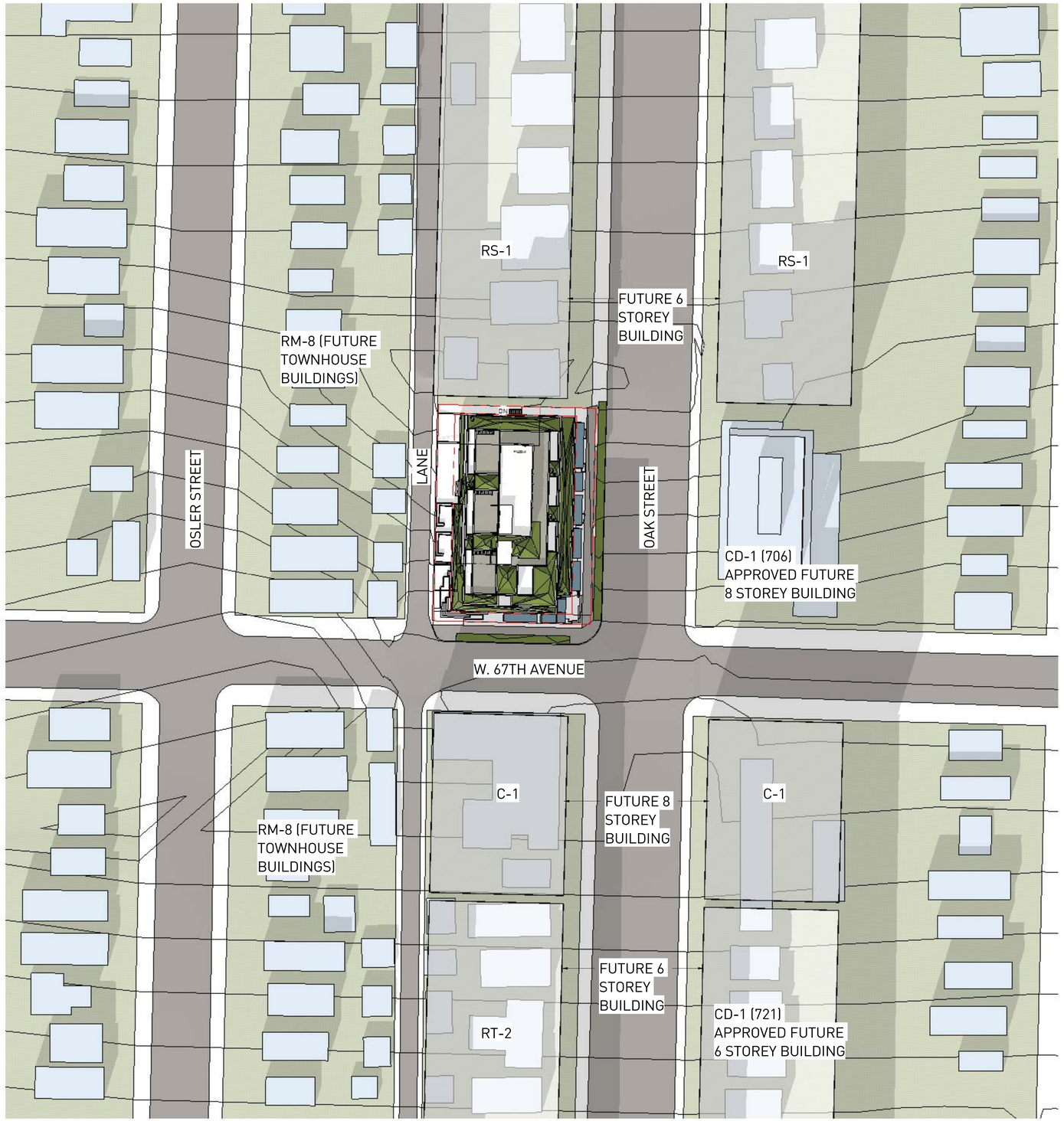
We will implement a management of the site's rainfall through integrated management and Green Infrastructure (GI) through:

Vision, Principles and Actions:
- Return first 24mm of rainwater/day into natural pathways or evapotranspiration
- Treat the next 24mm of rainwater/day to remove pollutants
- Convey safely rainwater from storm events over 48mm per day
- Highlights biodiversity demonstration projects using green rainwater infrastructure

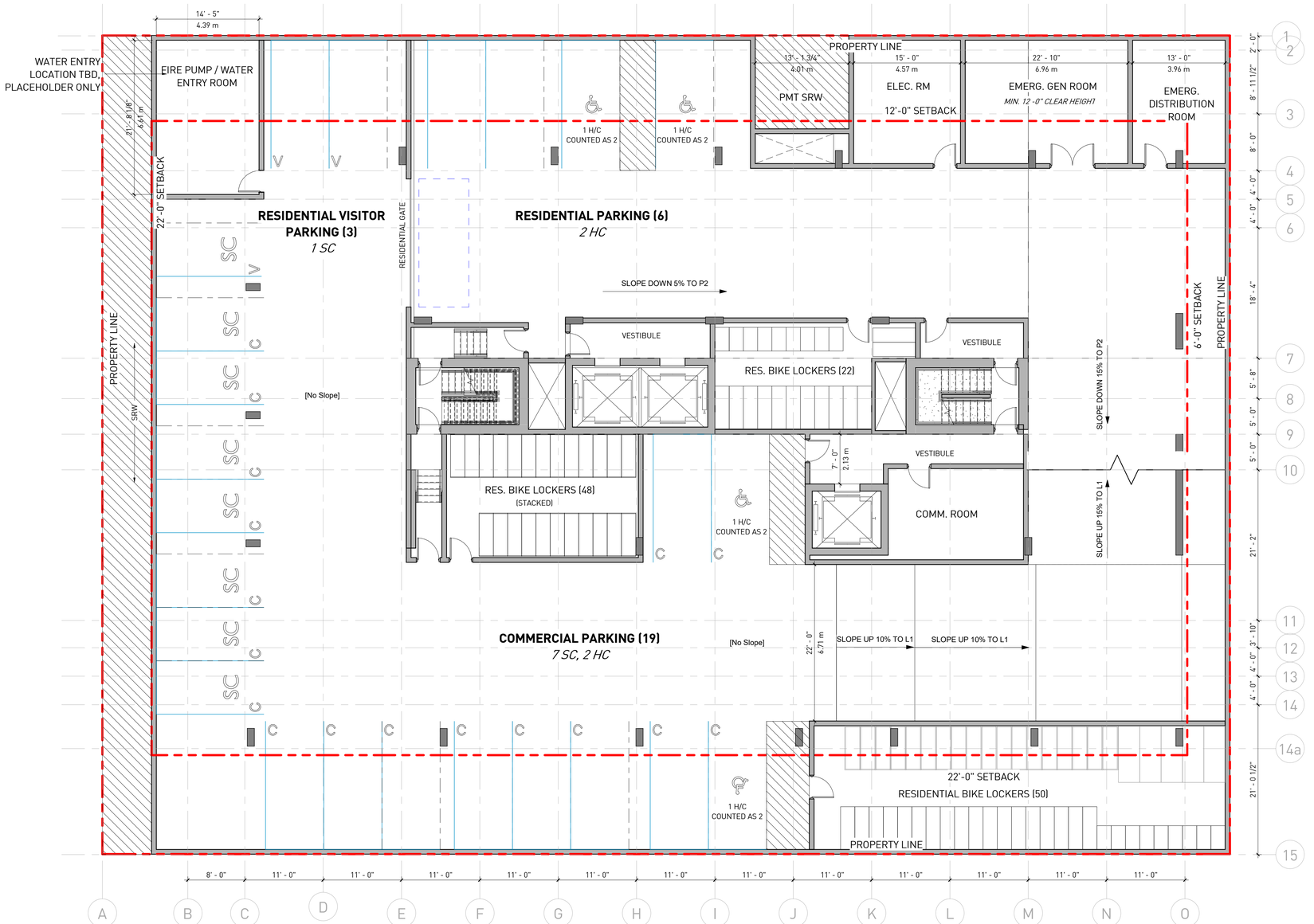
Best management Practive Toolkit:
Grey and green infrastructure measures (CoV website).

RESILIENT DRINKING WATER ACCESS

We will provide a potable water access point capable of operating on city water pressure alone and without electricity to be located on a lower floor.
There will be one fixture every 75 occupants.

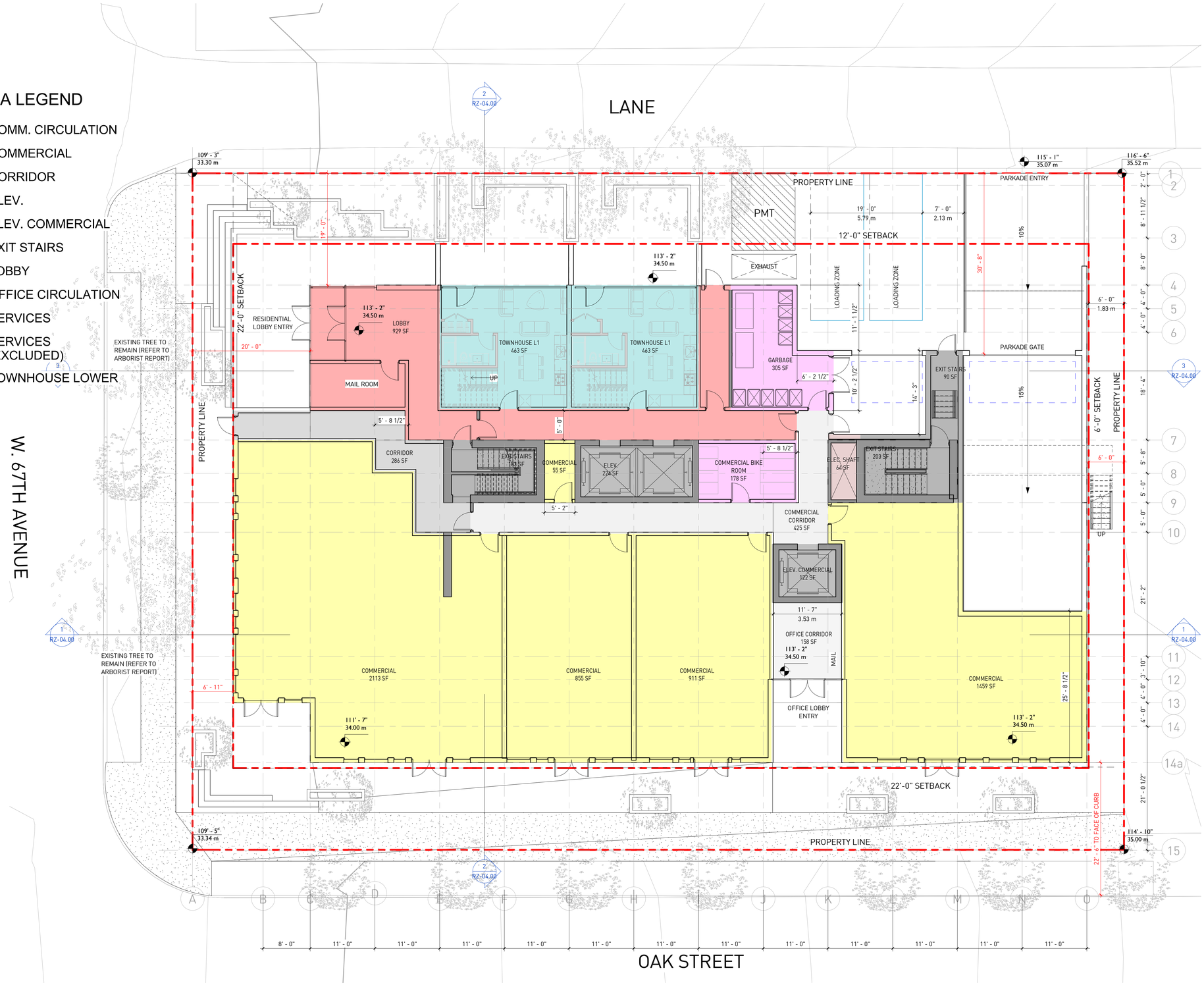


Context Plan


14' - 5"
4.39 m
WATER ENTRY
LOCATION TBD,
PLACEHOLDER ONLY
EIRE PUMP / WATER
ENTRY ROOM
21' - 8 1/8"
6.63 m
22' - 0" SETBACK
RESIDENTIAL VISITOR
PARKING (3)
1 SC
RESIDENTIAL GATE
RESIDENTIAL PARKING (6)
2 HC
1 H/C
COUNTED AS 2
1 H/C
COUNTED AS 2
PROPERTY LINE
13' - 1 3/4"
4.01 m
PMT SRW
15' - 0"
4.57 m
ELEC. RM
12'-0" SETBACK
22' - 10"
6.96 m
EMERG. GEN ROOM
MIN. 12 -0" CLEAR HEIGHT
13' - 0"
3.96 m
EMERG.
DISTRIBUTION
ROOM
SLOPE DOWN 5% TO P2
VESTIBULE
RES. BIKE LOCKERS (22)
VESTIBULE
SLOPE DOWN 15% TO P2
6'-0" SETBACK
PROPERTY LINE
PROPERTY LINE
SRW
[No Slope]
RES. BIKE LOCKERS (48)
[STACKED]
7' - 0"
2.13 m
VESTIBULE
COMM. ROOM
1 H/C
COUNTED AS 2
SLOPE UP 15% TO L1
COMMERCIAL PARKING (19)
7 SC, 2 HC
[No Slope]
22' - 0"
6.71 m
SLOPE UP 10% TO L1
SLOPE UP 10% TO L1
22'-0" SETBACK
RESIDENTIAL BIKE LOCKERS (50)
1 H/C
COUNTED AS 2
PROPERTY LINE
2' - 0"
8' - 11 1/2"
8' - 0"
4' - 0"
4' - 0"
18' - 4"
5' - 8"
5' - 0"
5' - 0"
21' - 2"
3' - 10"
4' - 0"
4' - 0"
21' - 0 1/2"
8' - 0"
11' - 0"
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
12
13
14
14a
15

AREA LEGEND

- COMM. CIRCULATION
- COMMERCIAL
- CORRIDOR
- ELEV.
- ELEV. COMMERCIAL
- EXIT STAIRS
- LOBBY
- OFFICE CIRCULATION
- SERVICES
- SERVICES (EXCLUDED)
- TOWNHOUSE LOWER



LEVEL 1 GROSS AREA		
Level	Name	Area
L1	COMMERCIAL	5393 SF
L1	COMMERCIAL BIKE ROOM	178 SF
L1	COMMERCIAL CORRIDOR	425 SF
L1	CORRIDOR	286 SF
L1	ELEC. SHAFT	64 SF
L1	ELEV.	224 SF
L1	ELEV. COMMERCIAL	122 SF
L1	EXIT STAIRS	477 SF
L1	GARBAGE	305 SF
L1	LOBBY	929 SF
L1	OFFICE CORRIDOR	158 SF
L1	TOWNHOUSE L1	926 SF
Grand total		9487 SF

LEVEL 1 EXCLUSIONS		
Level	Name	Area
L1	COMMERCIAL BIKE ROOM	178 SF
L1	GARBAGE	305 SF
Grand total		483 SF

LEVEL 1 FSR		
Level	Name	Area
L1	COMMERCIAL	5393 SF
L1	COMMERCIAL CORRIDOR	425 SF
L1	CORRIDOR	286 SF
L1	ELEC. SHAFT	64 SF
L1	ELEV.	224 SF
L1	ELEV. COMMERCIAL	122 SF
L1	EXIT STAIRS	477 SF
L1	LOBBY	929 SF
L1	OFFICE CORRIDOR	158 SF
L1	TOWNHOUSE L1	926 SF
Grand total		9004 SF

Level 1

DESIGN DRAWINGS 03

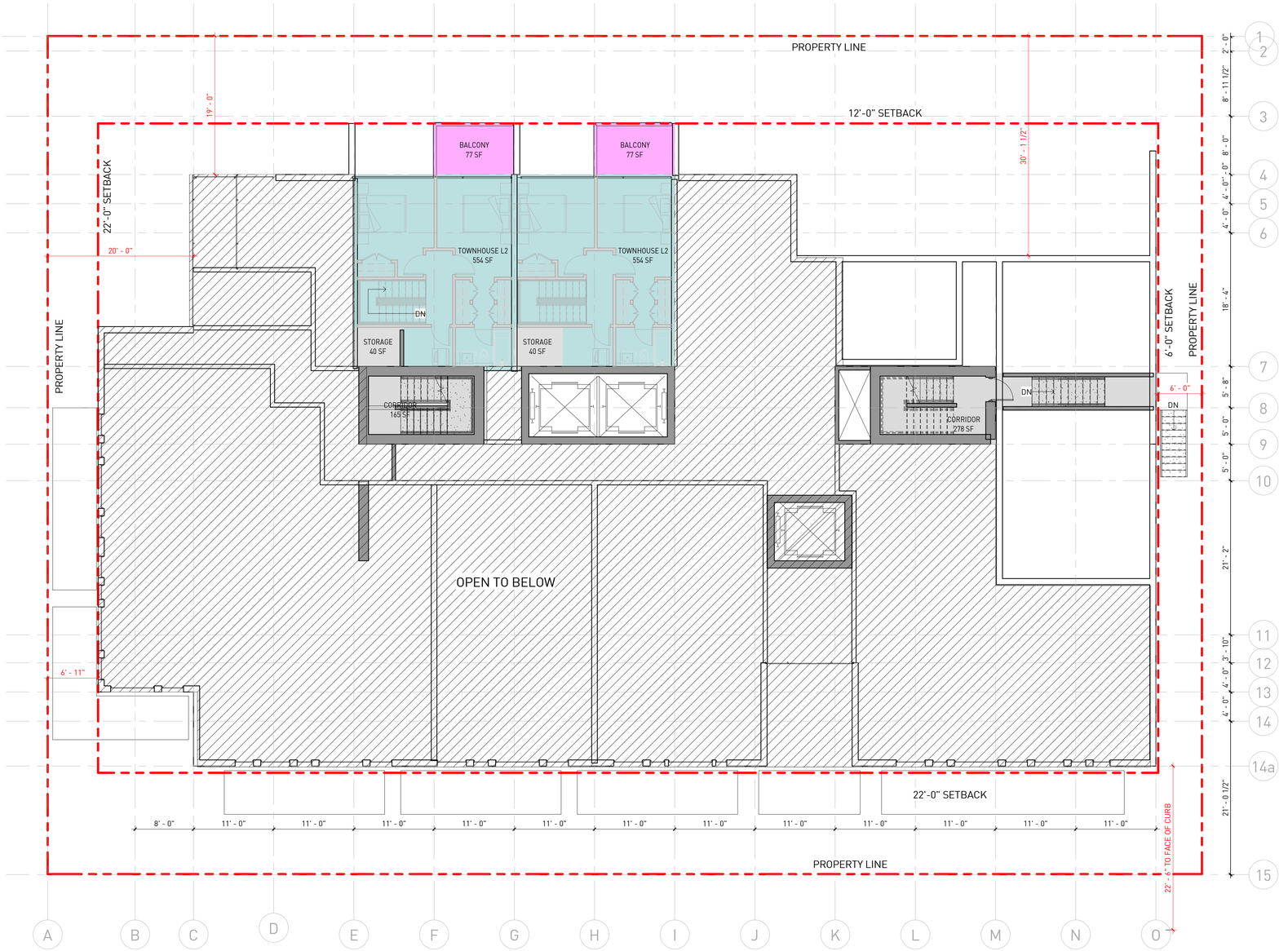
AREA LEGEND

- BALCONY (EXCLUDED)
- CORRIDOR
- STORAGE (EXCLUDED)
- TOWNHOUSE UPPER

LEVEL MEZ. GROSS AREA		
Level	Name	Area
LMEZ.	CORRIDOR	443 SF
LMEZ.	STORAGE	80 SF
LMEZ.	TOWNHOUSE L2	1108 SF
Grand total		1631 SF

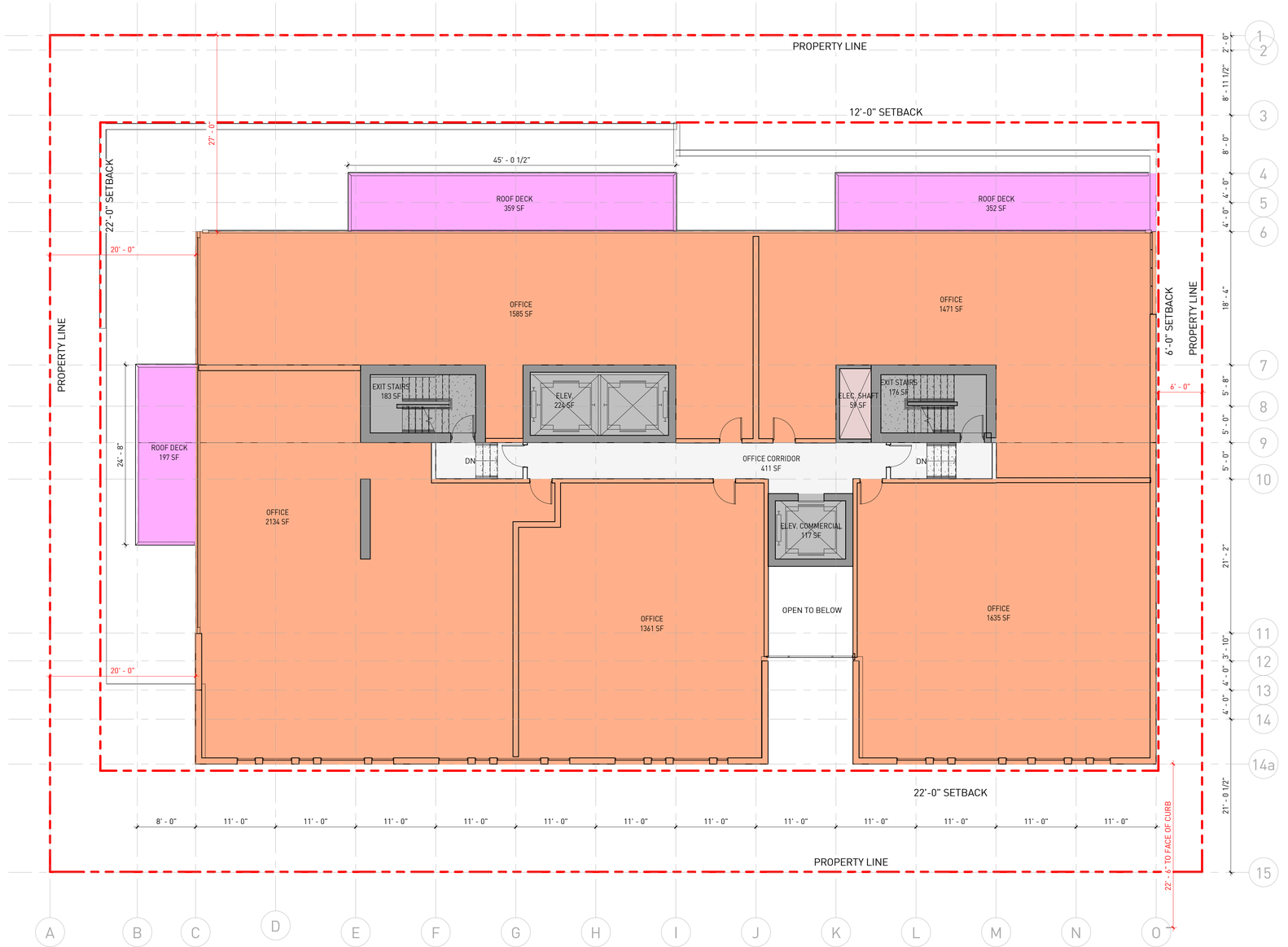
LEVEL MEZ. EXCLUSIONS		
Level	Name	Area
LMEZ.	BALCONY	154 SF
LMEZ.	STORAGE	80 SF
Grand total		234 SF

LEVEL MEZ. FSR		
Level	Name	Area
LMEZ.	CORRIDOR	443 SF
LMEZ.	TOWNHOUSE L2	1108 SF
Grand total		1552 SF



AREA LEGEND

- BALCONY (EXCLUDED)
- ELEV.
- ELEV. COMMERCIAL
- EXIT STAIRS
- OFFICE
- OFFICE CIRCULATION
- SERVICES



LEVEL 2 GROSS AREA		
Level	Name	Area
L2	ELEC. SHAFT	59 SF
L2	ELEV.	224 SF
L2	ELEV. COMMERCIAL	117 SF
L2	EXIT STAIRS	359 SF
L2	OFFICE	8185 SF
L2	OFFICE CORRIDOR	411 SF
Grand total		9355 SF

LEVEL 2 EXCLUSIONS		
Level	Name	Area
L2	ROOF DECK	908 SF
Grand total		908 SF

LEVEL 2 FSR		
Level	Name	Area
L2	ELEC. SHAFT	59 SF
L2	ELEV.	224 SF
L2	ELEV. COMMERCIAL	117 SF
L2	EXIT STAIRS	359 SF
L2	OFFICE	8185 SF
L2	OFFICE CORRIDOR	411 SF
Grand total		9355 SF

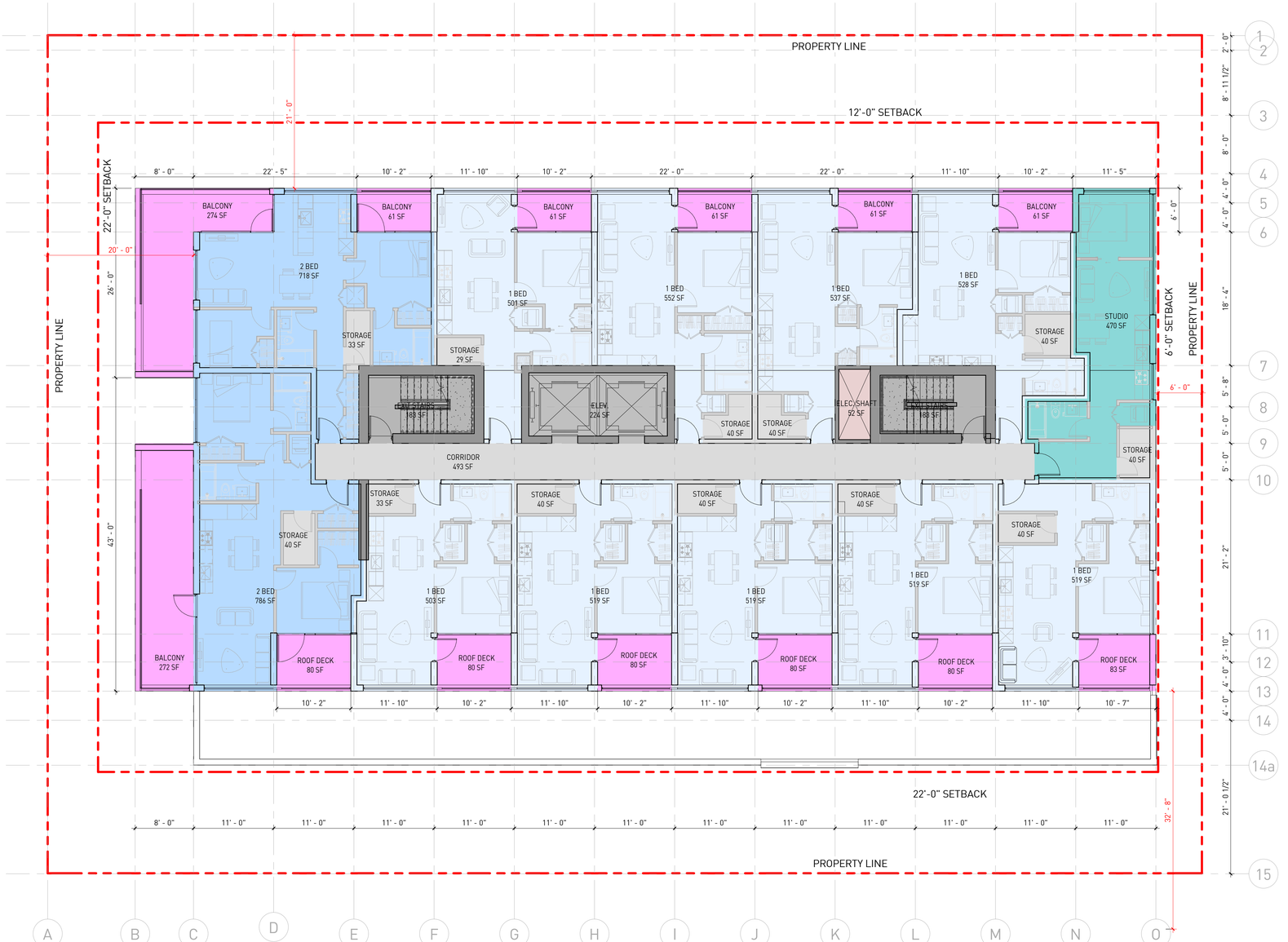
AREA LEGEND

- 1 BED
- 2 BED
- BALCONY (EXCLUDED)
- CORRIDOR
- ELEV.
- EXIT STAIRS
- SERVICES
- STORAGE (EXCLUDED)
- STUDIO

LEVEL 3 GROSS AREA		
Level	Name	Area
L3	1 BED	4695 SF
L3	2 BED	1503 SF
L3	CORRIDOR	493 SF
L3	ELEC. SHAFT	52 SF
L3	ELEV.	224 SF
L3	EXIT STAIRS	366 SF
L3	STORAGE	453 SF
L3	STUDIO	470 SF
Grand total		8257 SF

LEVEL 3 EXCLUSIONS		
Level	Name	Area
L3	BALCONY	851 SF
L3	ROOF DECK	481 SF
L3	STORAGE	453 SF
Grand total		1785 SF

LEVEL 3 FSR		
Level	Name	Area
L3	1 BED	4695 SF
L3	2 BED	1503 SF
L3	CORRIDOR	493 SF
L3	ELEC. SHAFT	52 SF
L3	ELEV.	224 SF
L3	EXIT STAIRS	366 SF
L3	STUDIO	470 SF
Grand total		7803 SF



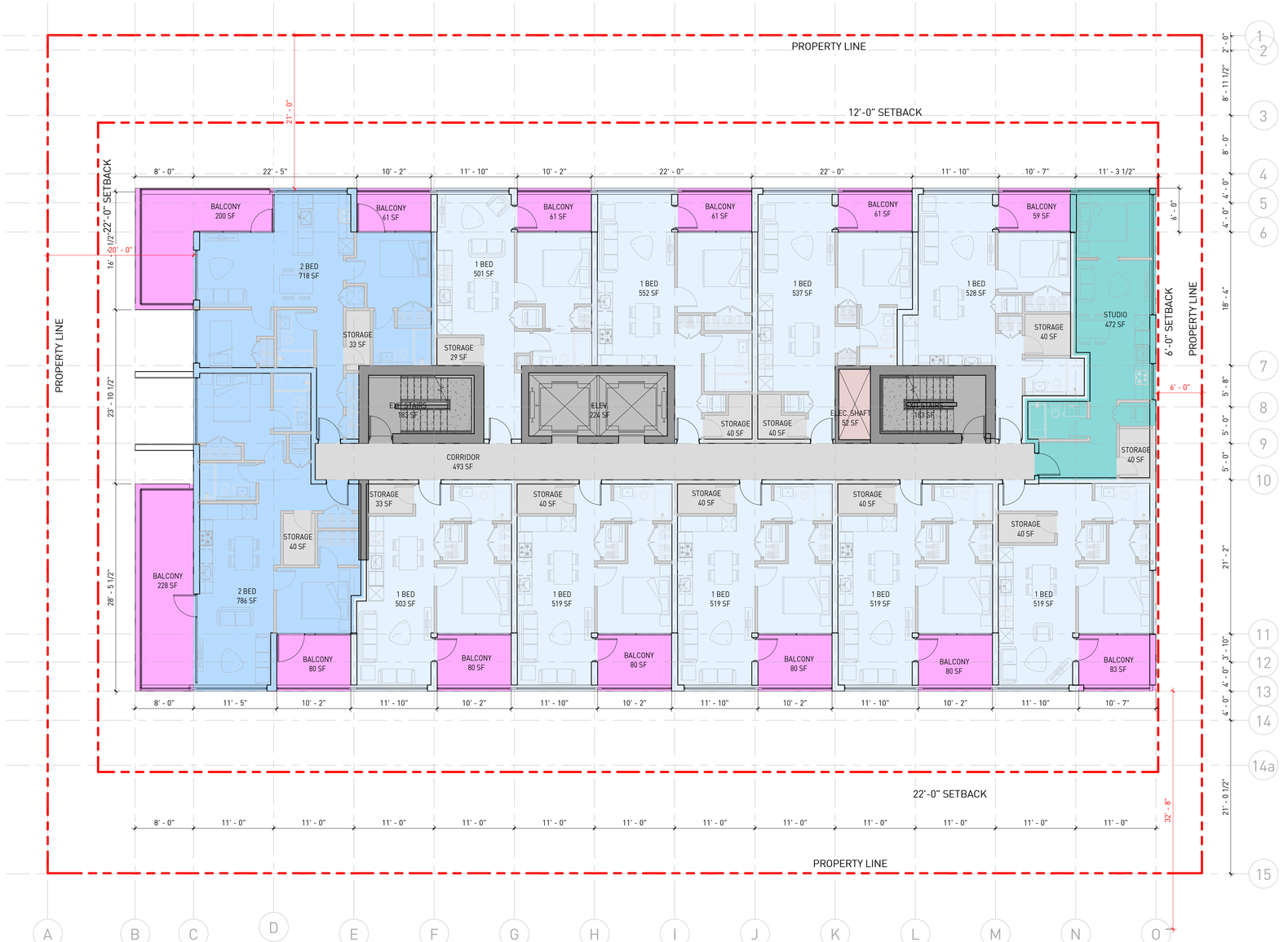
AREA LEGEND

- 1 BED
- 2 BED
- BALCONY (EXCLUDED)
- CORRIDOR
- ELEV.
- EXIT STAIRS
- SERVICES
- STORAGE (EXCLUDED)
- STUDIO

LEVEL 4 GROSS AREA		
Level	Name	Area
L4	1 BED	4695 SF
L4	2 BED	1503 SF
L4	CORRIDOR	493 SF
L4	ELEC. SHAFT	52 SF
L4	ELEV.	224 SF
L4	EXIT STAIRS	366 SF
L4	STORAGE	453 SF
L4	STUDIO	472 SF
Grand total		8259 SF

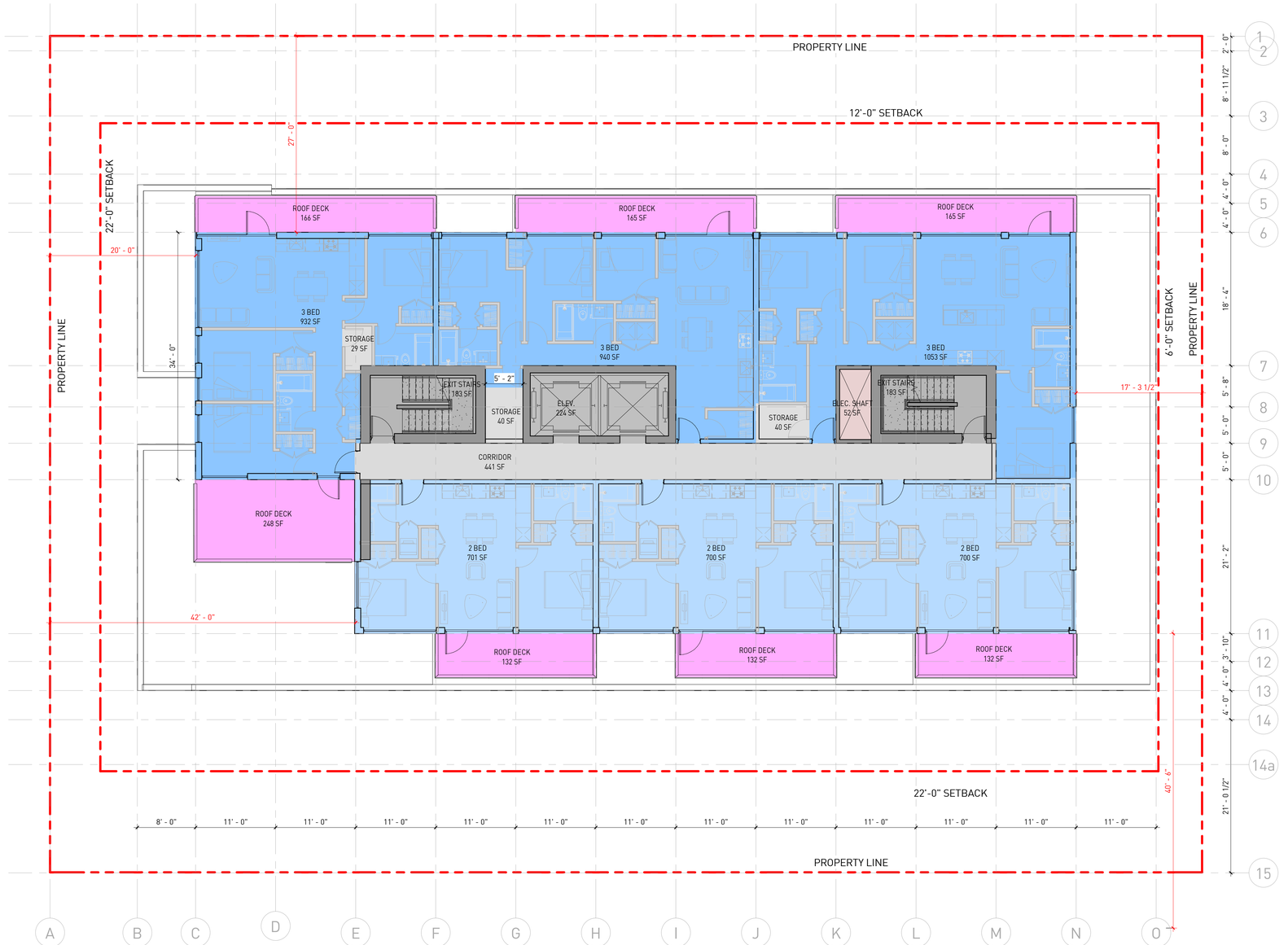
LEVEL 4 EXCLUSIONS		
Level	Name	Area
L4	BALCONY	1211 SF
L4	STORAGE	453 SF
Grand total		1664 SF

LEVEL 4 FSR		
Level	Name	Area
L4	1 BED	4695 SF
L4	2 BED	1503 SF
L4	CORRIDOR	493 SF
L4	ELEC. SHAFT	52 SF
L4	ELEV.	224 SF
L4	EXIT STAIRS	366 SF
L4	STUDIO	472 SF
Grand total		7805 SF



AREA LEGEND

- 2 BED
- 3 BED
- BALCONY (EXCLUDED)
- CORRIDOR
- ELEV.
- EXIT STAIRS
- SERVICES
- STORAGE (EXCLUDED)



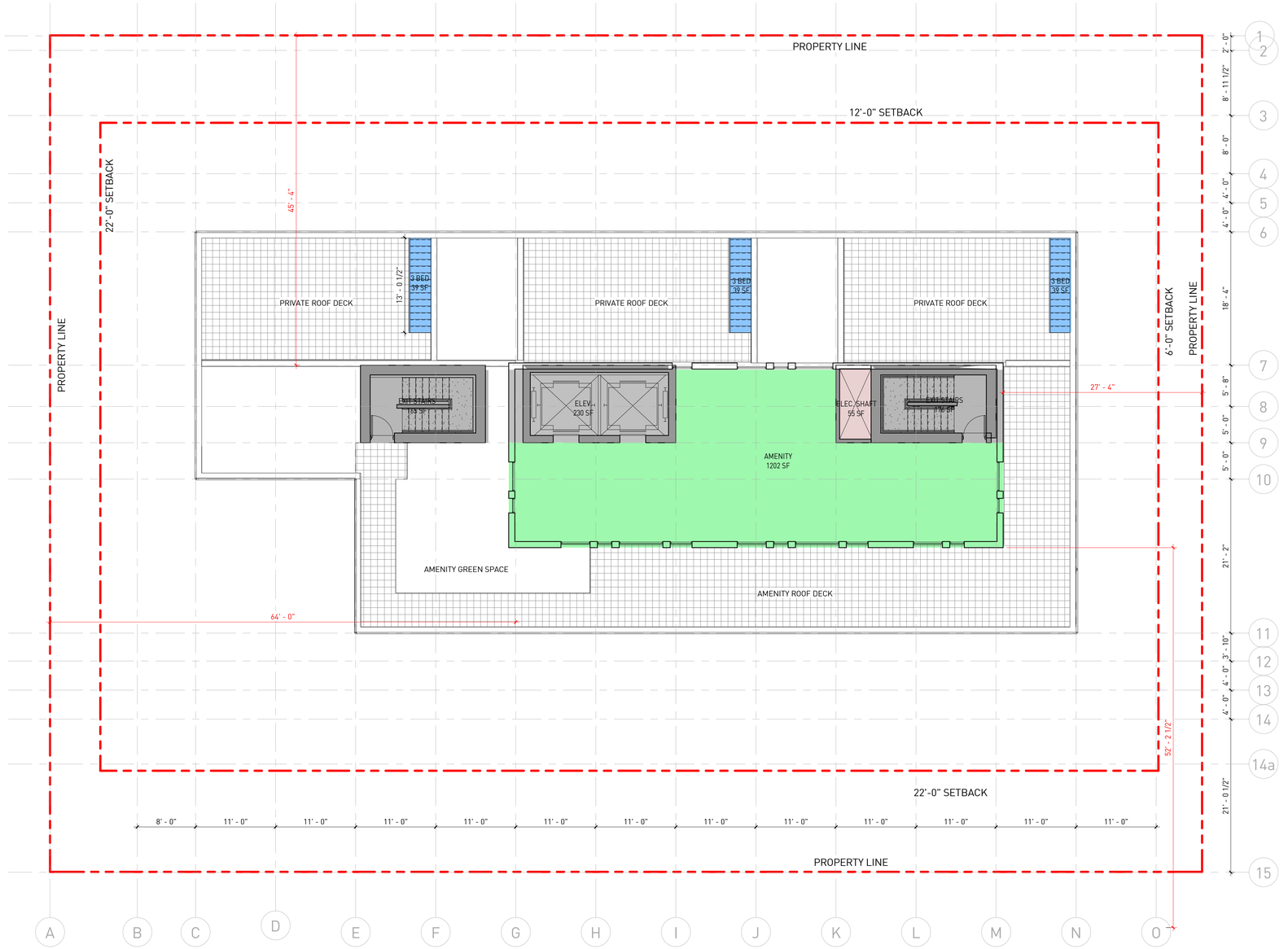
LEVEL 7 GROSS AREA		
Level	Name	Area
L7	2 BED	2101 SF
L7	3 BED	2925 SF
L7	CORRIDOR	441 SF
L7	ELEC. SHAFT	52 SF
L7	ELEV.	224 SF
L7	EXIT STAIRS	366 SF
L7	STORAGE	108 SF
Grand total		6218 SF

LEVEL 7 EXCLUSIONS		
Level	Name	Area
L7	ROOF DECK	1139 SF
L7	STORAGE	108 SF
Grand total		1247 SF

LEVEL 7 FSR		
Level	Name	Area
L7	2 BED	2101 SF
L7	3 BED	2925 SF
L7	CORRIDOR	441 SF
L7	ELEC. SHAFT	52 SF
L7	ELEV.	224 SF
L7	EXIT STAIRS	366 SF
Grand total		6109 SF

AREA LEGEND

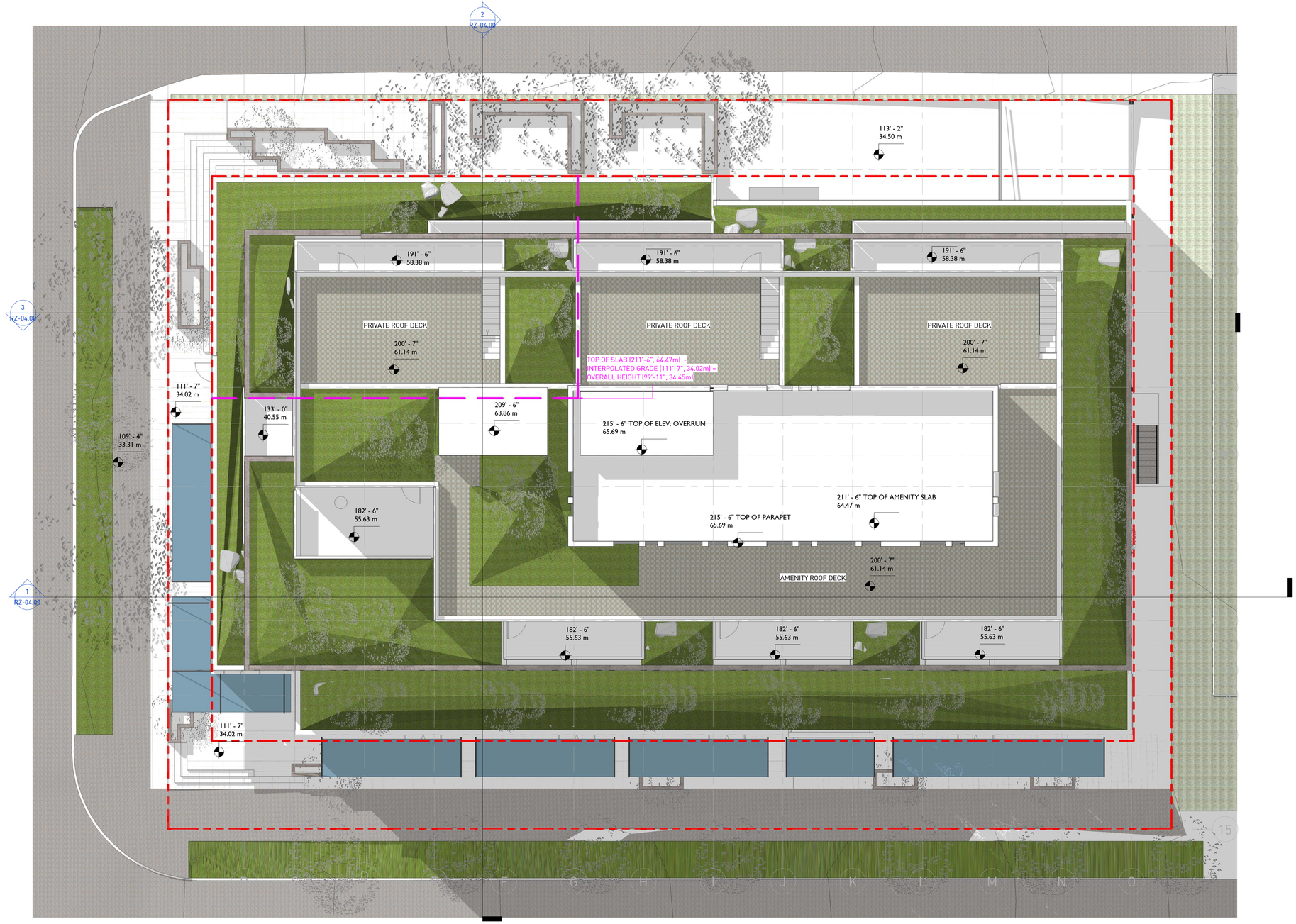
- 3 BED
- AMENITY
- ELEV.
- EXIT STAIRS
- SERVICES

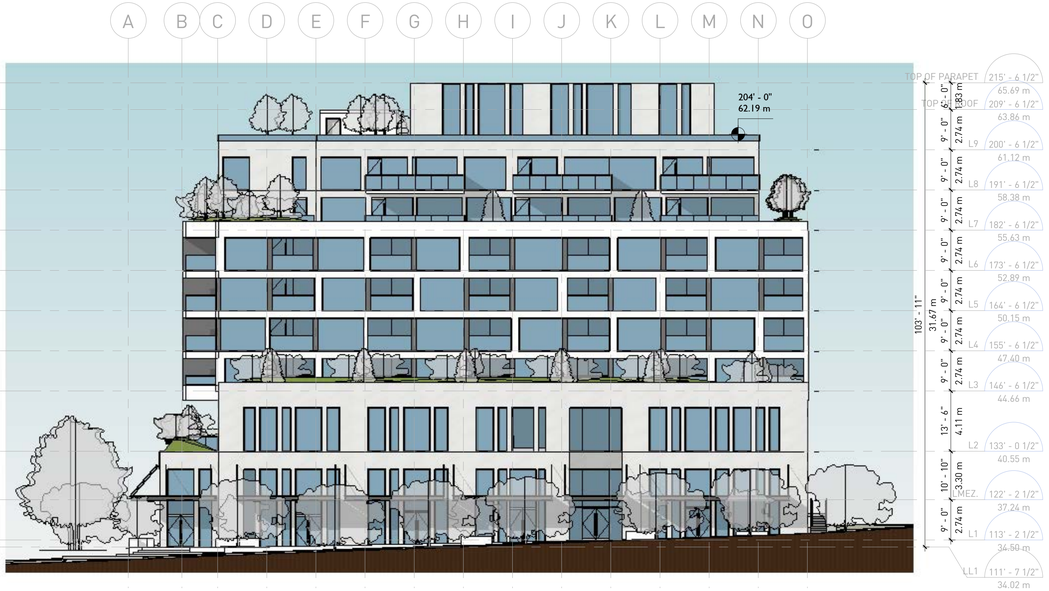


LEVEL 9 GROSS AREA		
Level	Name	Area
L9	3 BED	117 SF
L9	AMENITY	1202 SF
L9	ELEC. SHAFT	55 SF
L9	ELEV.	230 SF
L9	EXIT STAIRS	341 SF
Grand total		1945 SF

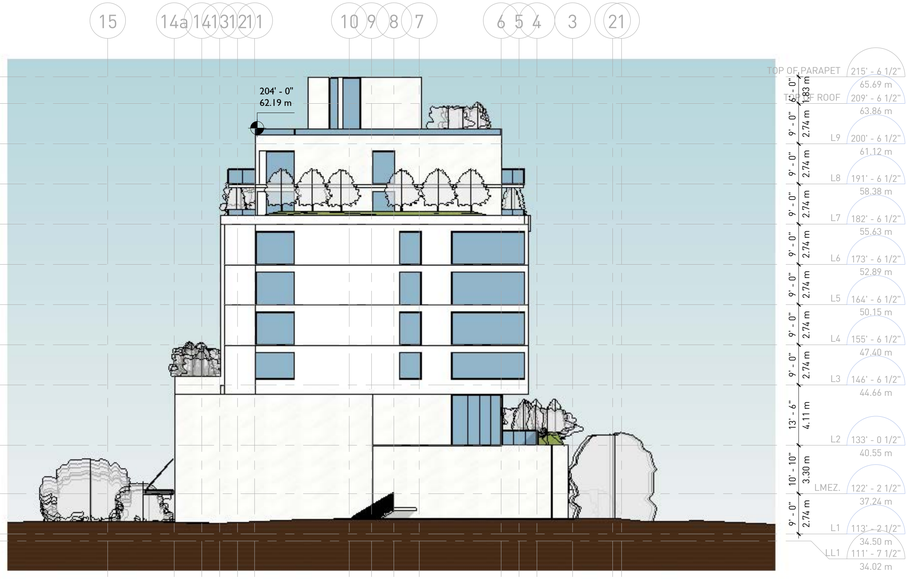
LEVEL 9 EXCLUSIONS		
Level	Name	Area
L9	AMENITY	1202 SF
Grand total		1202 SF

LEVEL 9 FSR		
Level	Name	Area
L9	3 BED	117 SF
L9	ELEC. SHAFT	55 SF
L9	ELEV.	230 SF
L9	EXIT STAIRS	341 SF
Grand total		743 SF

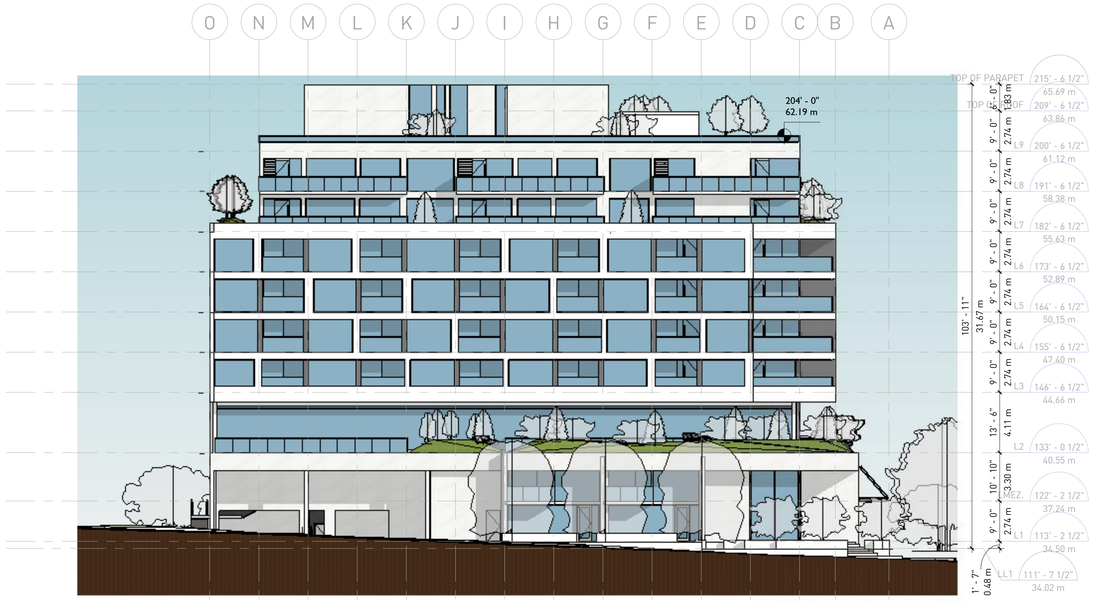

2
RZ-04.00
3
RZ-04.00
1
RZ-04.00
113' - 2"
34.50 m
191' - 6"
58.38 m
191' - 6"
58.38 m
191' - 6"
58.38 m
PRIVATE ROOF DECK
200' - 7"
61.14 m
PRIVATE ROOF DECK
PRIVATE ROOF DECK
200' - 7"
61.14 m
TOP OF SLAB (211'-6", 64.47m) -
INTERPOLATED GRADE (111'-7", 34.02m) =
OVERALL HEIGHT (99'-11", 34.45m)
111' - 7"
34.02 m
133' - 0"
40.55 m
209' - 6"
63.86 m
215' - 6" TOP OF ELEV. OVERRUN
65.69 m
109' - 4"
33.31 m
182' - 6"
55.63 m
211' - 6" TOP OF AMENITY SLAB
64.47 m
215' - 6" TOP OF PARAPET
65.69 m
200' - 7"
61.14 m
AMENITY ROOF DECK
182' - 6"
55.63 m
182' - 6"
55.63 m
182' - 6"
55.63 m
111' - 7"
34.02 m
15
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O



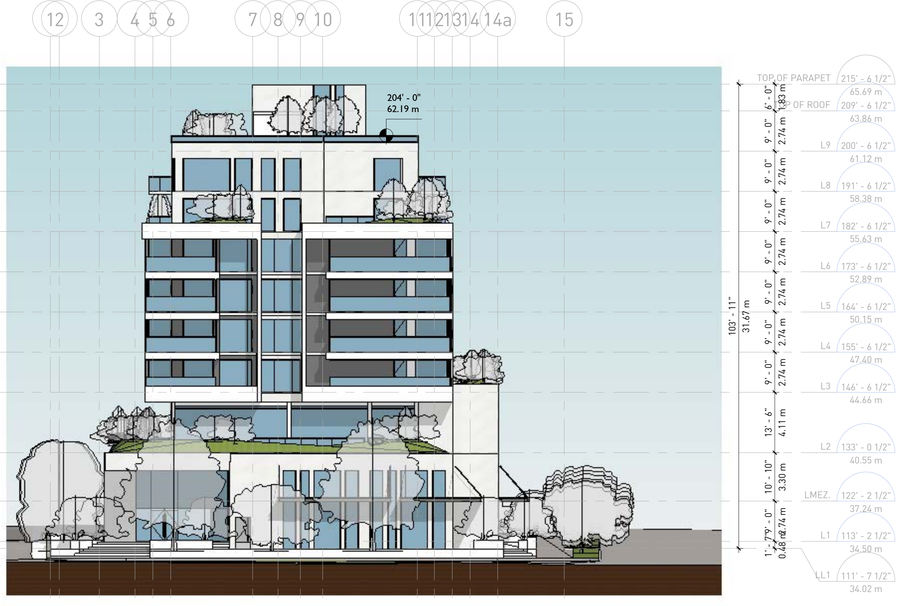
East Elevation



North Elevation



West Elevation

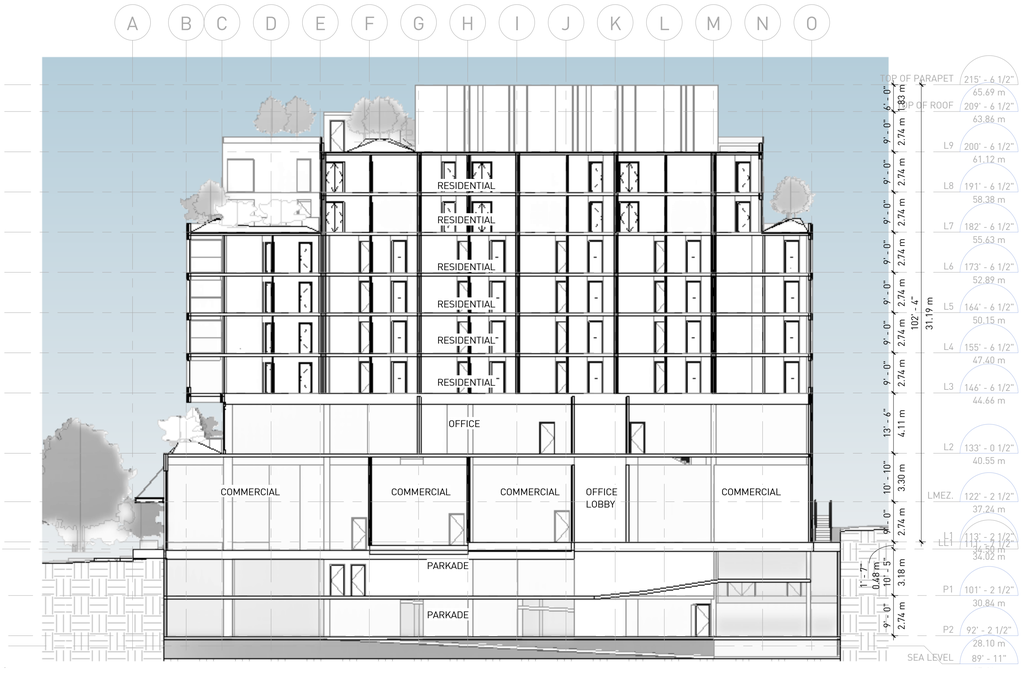


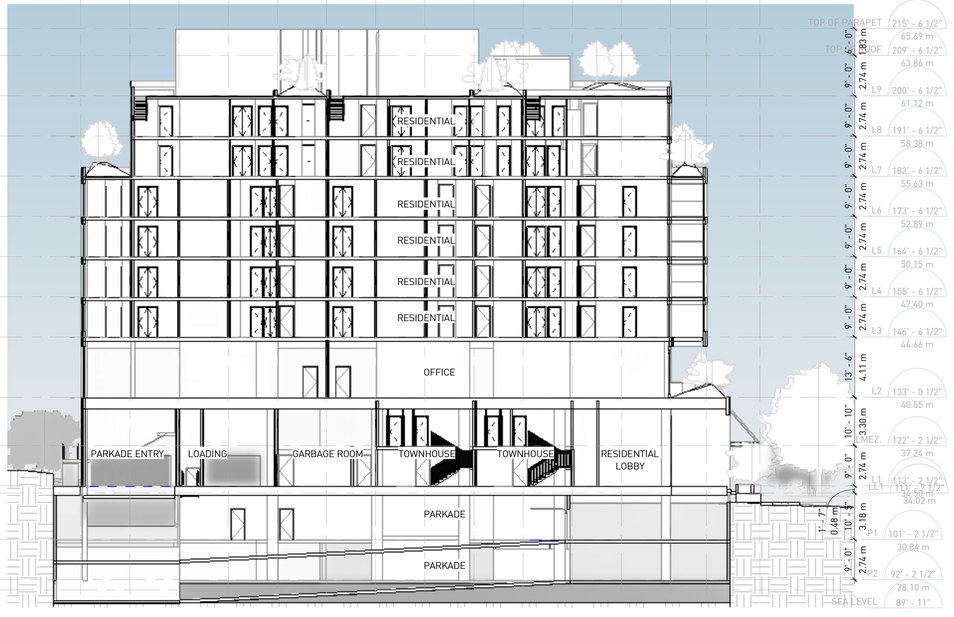
South Elevation

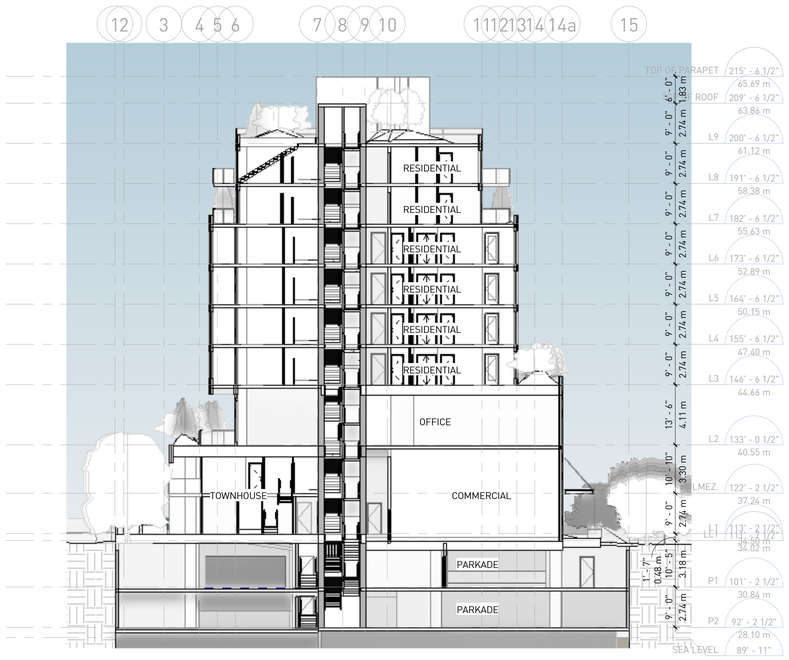
gbl

Elevations

DESIGN DRAWINGS 03







gbl

Sections

DESIGN DRAWINGS 03

new/style

上海帝苑美食
Love My Smile
POLICE
POLICE
POLICE