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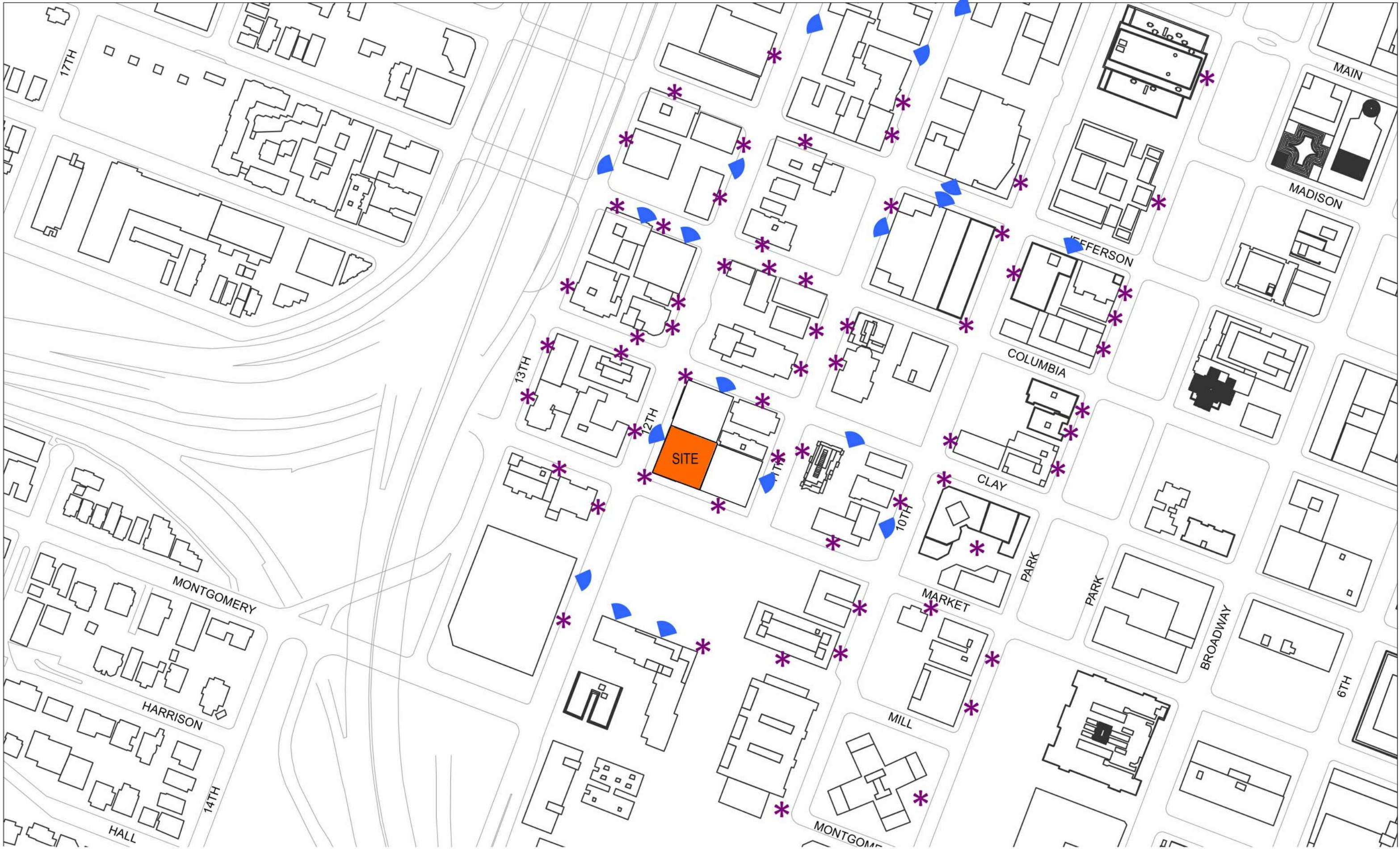
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SITE EXTENTS







VIEW FROM SW 12th AVE



12th AVENUE TERRACE



CLAY TOWER APARTMENTS



HELEN GORDON DEVELOPMENT CENTER



BENSON TOWER



HAMILTON WEST APARTMENTS

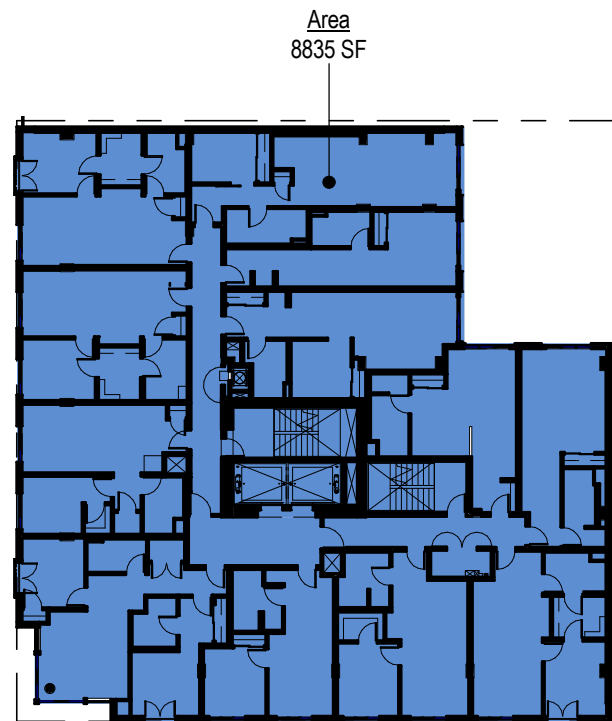


CLAY APARTMENTS





LEVEL 1
1/32" = 1'-0" 1



LEVELS 2-13
1/32" = 1'-0" 2



LEVEL 14 - ROOF
1/32" = 1'-0" 3

| | |
|--------------|-------------------|
| LEVEL 1 | 9,414 SF |
| LEVEL 2 | 8,817 SF |
| LEVEL 3 | 8,817 SF |
| LEVEL 4 | 8,817 SF |
| LEVEL 5 | 8,817 SF |
| LEVEL 6 | 8,817 SF |
| LEVEL 7 | 8,817 SF |
| LEVEL 8 | 8,817 SF |
| LEVEL 9 | 8,817 SF |
| LEVEL 10 | 8,817 SF |
| LEVEL 11 | 8,817 SF |
| LEVEL 12 | 8,817 SF |
| LEVEL 13 | 8,817 SF |
| LEVEL 14 | 4,454 SF |
| TOTAL | 119,672 SF |

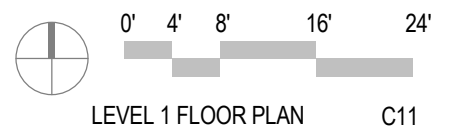
BASE ALLOWABLE FAR = 9:1 (90,000 SF)
BONUSES ALLOWED = 3:1 (30,000 SF)
TOTAL ALLOWABLE FAR = 12:1 (120,000 SF)

FAR BONUS METHOD

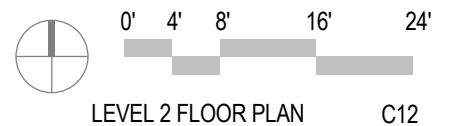
| | | | |
|-----------------------------------|-----|----------------|----------------------------|
| Base FAR: | 8:1 | 10,000 SF x 8= | 80,000 SF |
| West end small development Bonus: | 1:1 | 10,000 SF x 1= | 10,000 SF |
| Large unit bonus: | | | 840 SF |
| Transfer from 1101 SW Market: | | | 10,000 SF |
| <u>EcoRoof Bonus:</u> | | | <u>20,670 SF</u> |
| Total FAR Earned: | | | 121,510 SF (12:1) |
| Max FAR Allowed: | | | 120,000 SF (12:1) |
| Actual FAR: | | | 119,672 SF (11.9:1) |

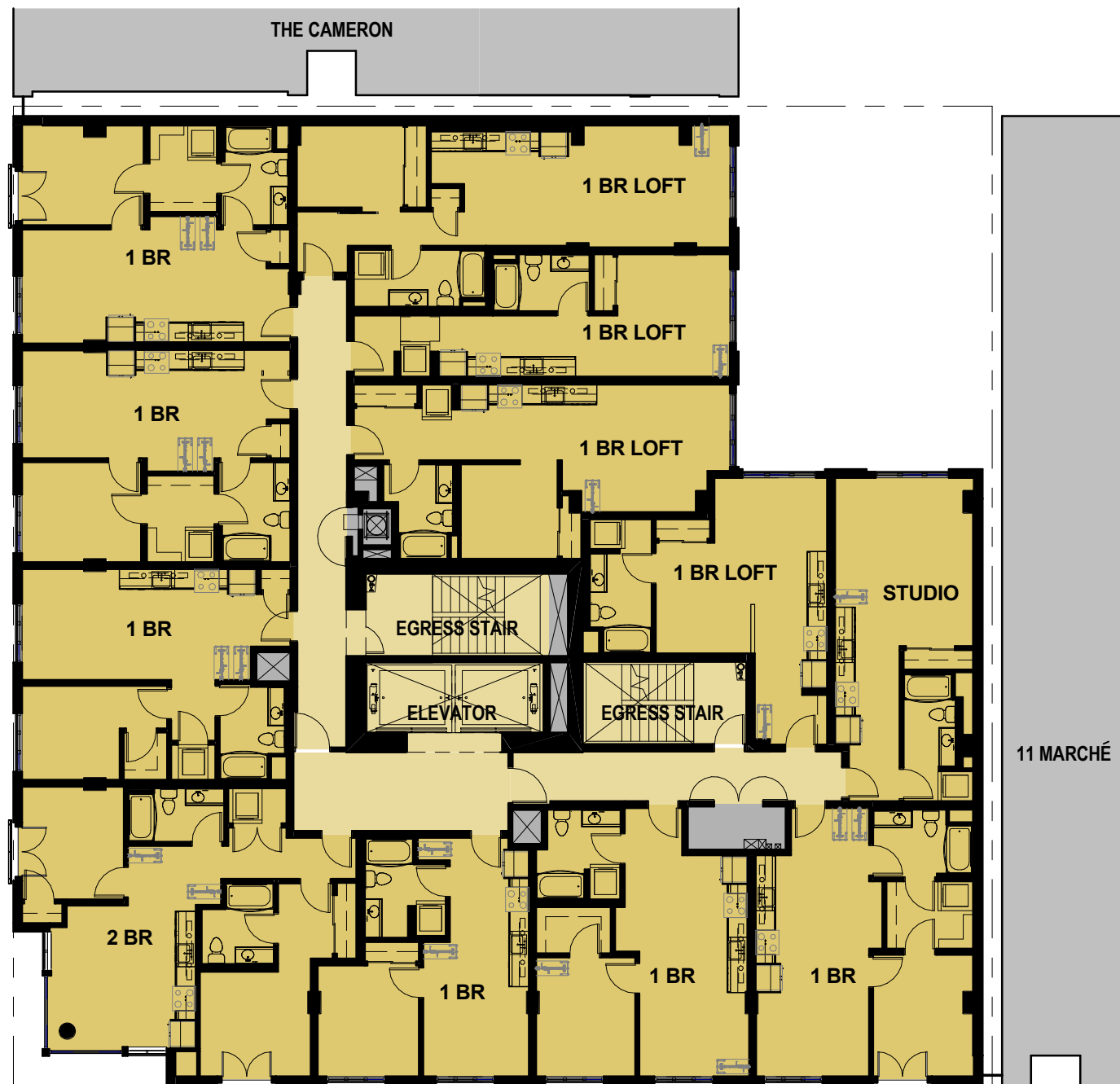
ECO ROOF BONUS:

This project proposes 6,890 SF of eco roof. The total roof area is 9,795 SF. The eco roof comprises 70% of the total roof area (see roof plan). Per 33.510.210 C 10 a 3, when the total area of an eco roof is more than 60% of the building footprint, each square foot of eco roof earns 3 SF of additional floor area. 6,890 SF x 3= 20,670 SF bonus.

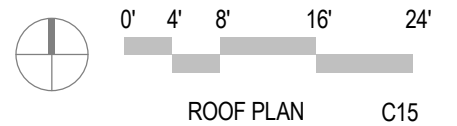
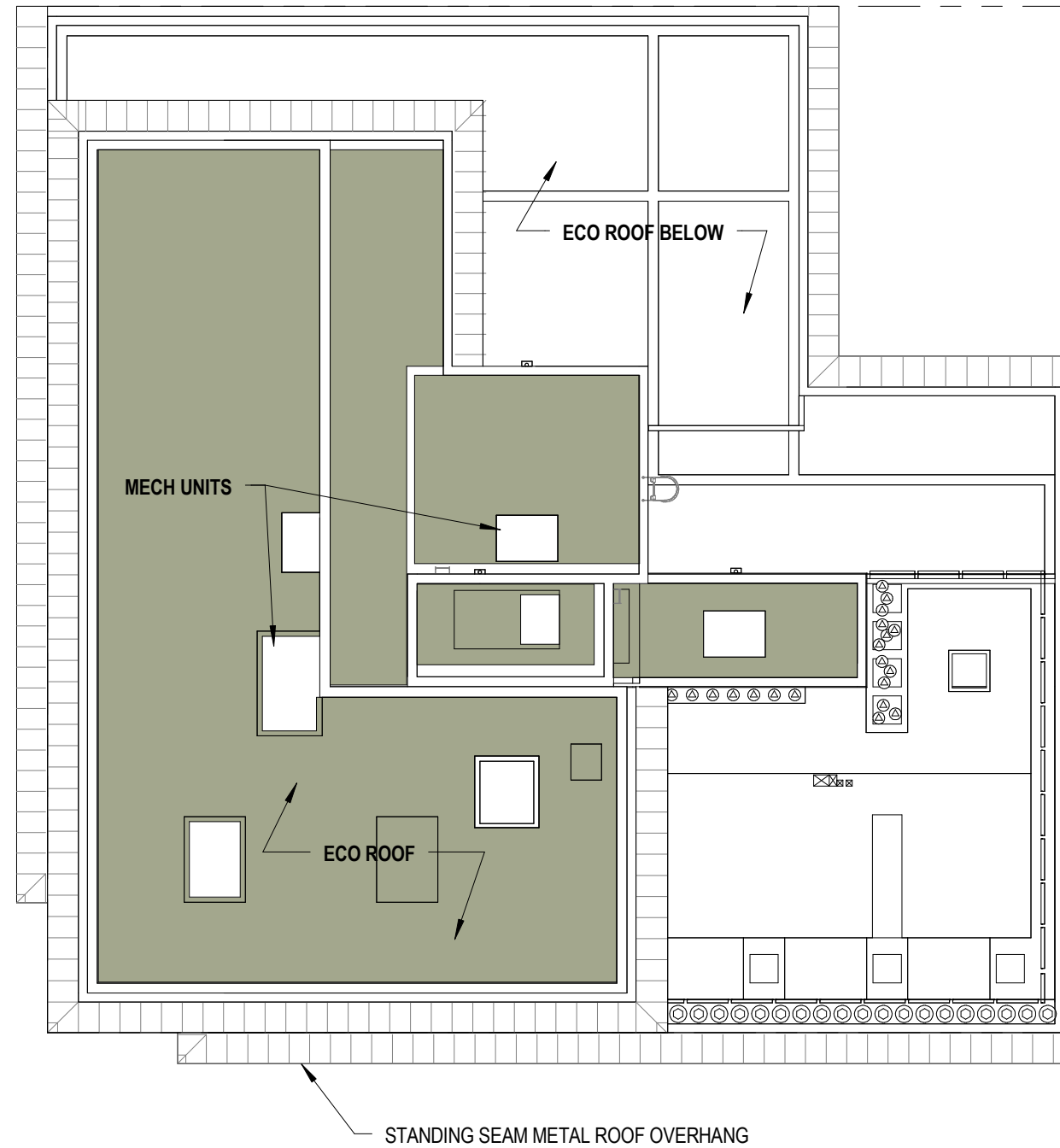


JULIET BALCONIES
LEVELS 2, 3, 5, 7, 9, 11, 13









FURNITURE CHARACTER



WOOD TILE PAVING



PLANTERS SET IN COBBLE



CONC PAVERS



FIRE TABLE

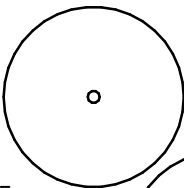


- ECOROOF PLANTING
- WASHED BALLAST MAINTENANCE PATH
- MOVABLE LOUNGE FURNITURE
- FIRE TABLE
- 3' X 3' PLANTERS
- 2' X 2' CONC PAVERS
- BAR HEIGHT WOOD TABLE
- BAR STOOLS
- GAS BARBEQUE
- CAFE TABLES + CHAIRS
- CONCRETE PAVERS
- MOVABLE FURNITURE
- PARAPET
- PERIMETER SAFETY RAILING
- OVERSIZED CONC PAVERS
- WASHED COBBLE
- HEDGE PLANTING

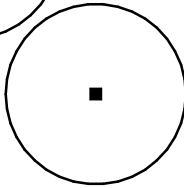
PLANT SCHEDULE

TYPE BOTANICAL | COMMON NAME SIZE

TREES



CARPINUS BETULUS 'FASTIGIATA' | PYRAMIDAL EUROPEAN HORNBEAM 3.5" CAL.



QUERCUS FRAINETTO 'SCHMIDT' | FOREST GREEN OAK 3.5" CAL.

SHRUBS



EUONYMOUS 'GREEN SPIRE' | GREEN SPIRE EUONYMOUS 3 GAL.



ILEX GLABRA 'SHAMROCK' | SHAMROCK INKBERRY 5 GAL.

GRASSES



CAREX ELATA 'AUREA' | BOWLES GOLDEN SEDGE 1 GAL.



HELICTOTRICHON SEMPERVIRENS | BLUE OAT GRASS 1 GAL.

GROUNDCOVERS



"ALL SEASONS" SEDUM MIX PREPLANTED TRAY ECOROOF BY COLUMBIA GREEN NONE



"SHADE MIX" SEDUM MIX PREPLANTED TRAY ECOROOF BY COLUMBIA GREEN NONE



"COLOR MAX" SEDUM MIX PREPLANTED TRAYECOROOF BY COLUMBIA GREEN NONE



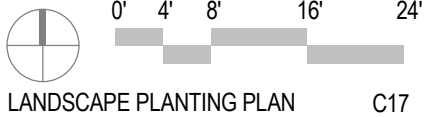
RIGHT OF WAY PLANTER MIX
CORNUS STOLONIFERA 'KELSEY' | KELSEY DOGWOOD 3 GAL.
PENNISETUM ALOPECUROIDES 'HADELN' | DWARF FOUNTAIN GRASS 1 GAL.
RUDEBECKIA FULGIDA 'GOLDSTRUM' | BLACK-EYED SUSAN 1 GAL.



STORMWATER PLANTER MIX
CAREX TESTACEA | ORANGE SEDGE 1 GAL.
JUNCUS PATENS | SPREADING RUSH 1 GAL.
POLYSTICHUM MUNITUM | SWORD FERN 1 GAL.

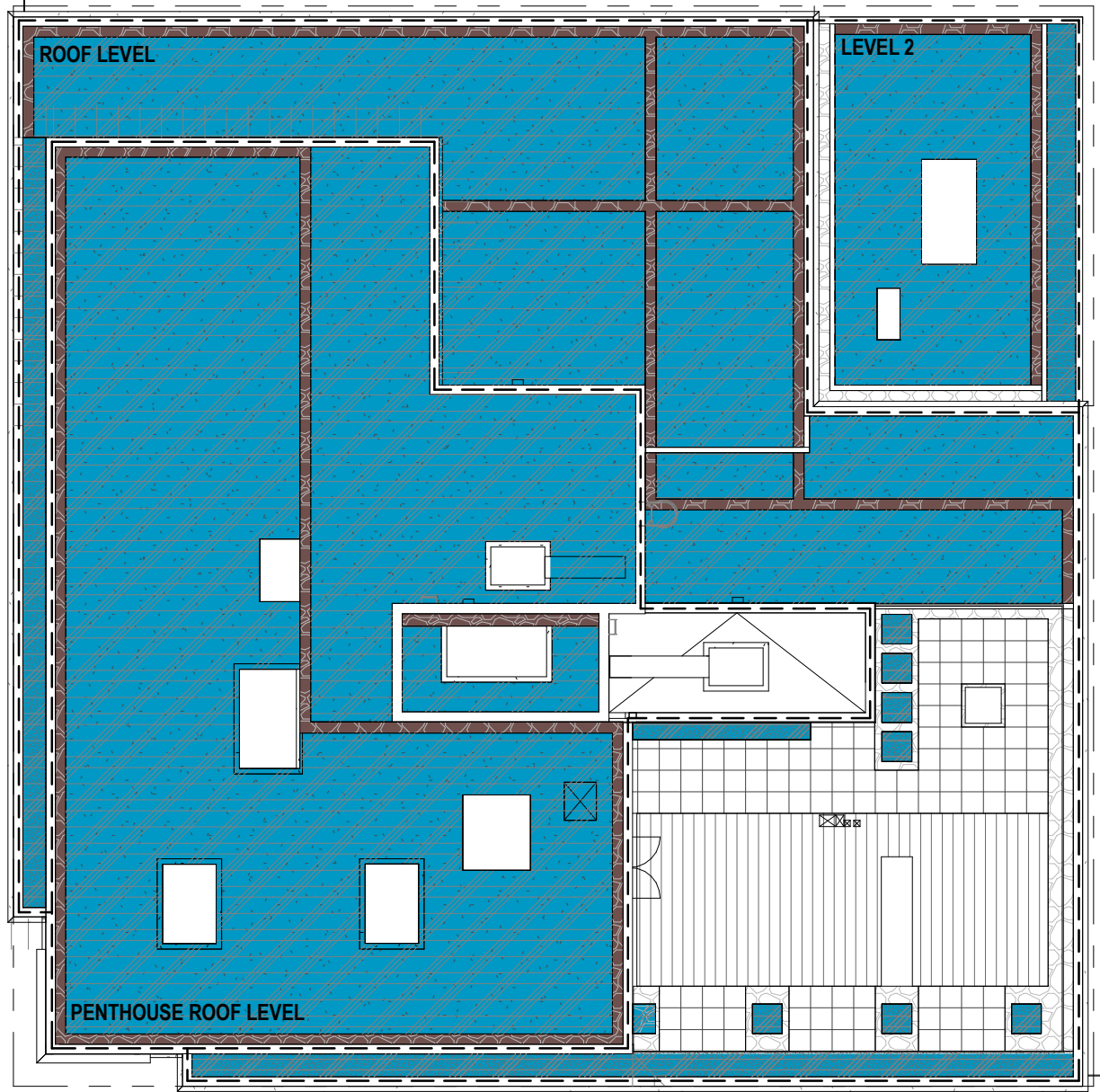
CITY OF PORTLAND ECO-ROOF FAR BONUS INFO:

1. TOTAL BUILDING FOOTPRINT: 9795 sf
(w/o mechanical pads: 9453 sf)
2. ECOROOF PLANTING PLAN SQUARE FOOTAGE BREAKDOWN:
- | | |
|------------------------------------|------------|
| A. PENTHOUSE ROOF PLANTED ECOROOF: | 3310.77 sf |
| B. PENTHOUSE ROOF PATHWAYS: | 288.37 sf |
| C. ROOF LEVEL PLANTED ECOROOF: | 2344.24 sf |
| D. ROOF LEVEL PATHWAYS: | 245.93 sf |
| E. LEVEL 2 PLANTED ECOROOF: | 524.15 sf |
| F. LEVEL 2 PATHWAYS: | 134.8 sf |
3. TOTAL ECOROOF: 6848.26 sf
4. TOTAL PATHWAYS: 669.1 sf
5. %PATHWAYS: 9.7%
6. STORMWATER PLANTER: 94 sf



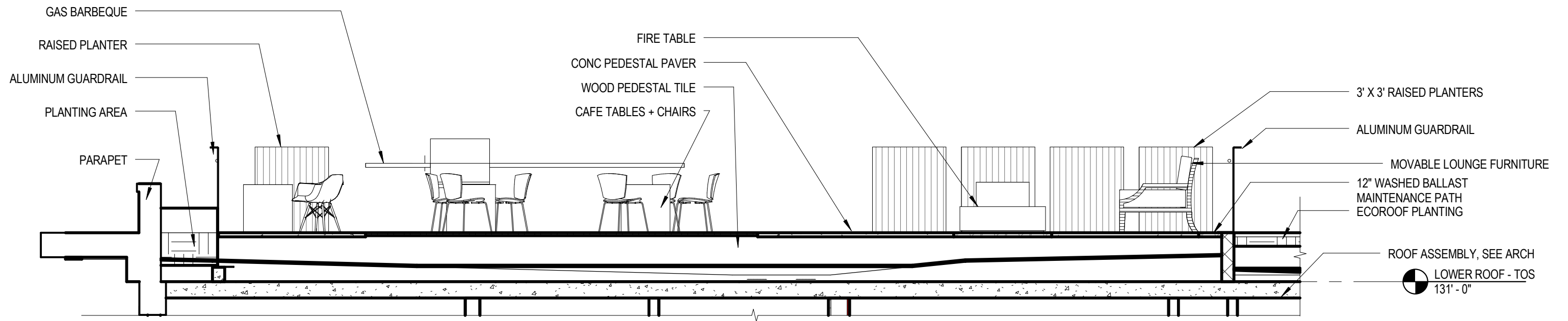
LANDSCAPE PLANTING PLAN C17





LEGEND - IRRIGATION

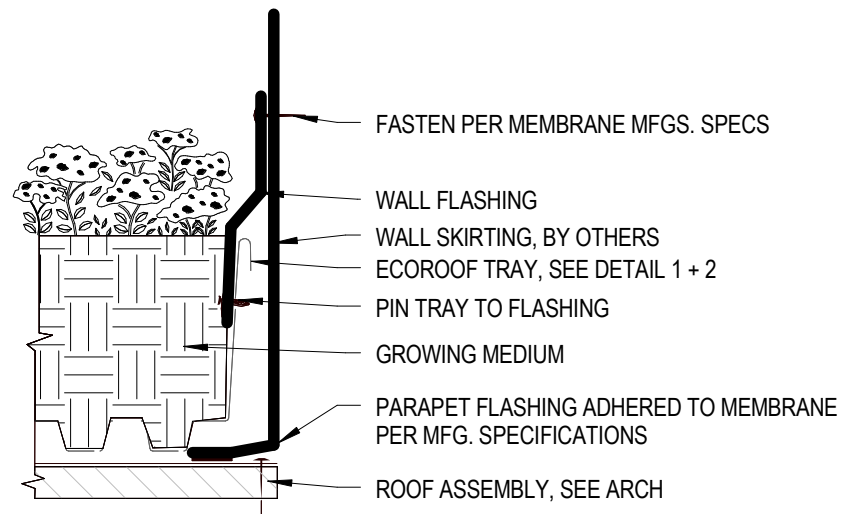
- IN-LINE DRIP IRRIGATION
- P.O.C.
POINT OF CONNECTION, LOCATION TO BE DETERMINED
- AUTOMATIC CONTROL VALVE, LOCATION TO BE DETERMINED
- QUICK COUPLER, LOCATIONS TO BE DETERMINED
- AUTOMATIC "SMART" CONTROLLER, LOCATION TO BE DETERMINED
- IRRIGATION MAINLINE, LOCATION TO BE DETERMINED



TERRACE CROSS SECTION

1

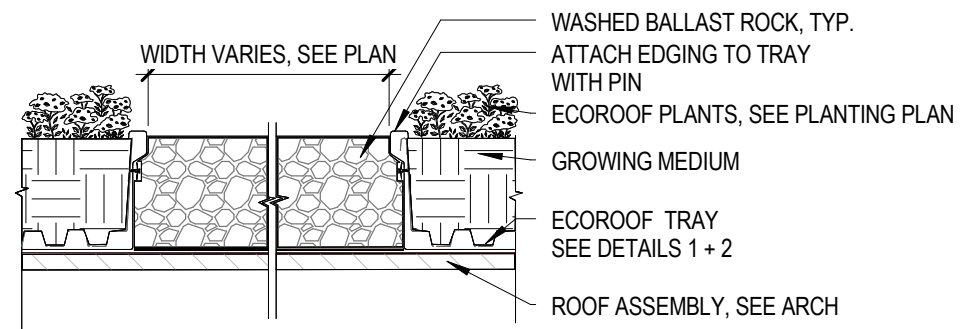
1/4" = 1'-0"



ECOROOF TRAY AT WALL

3" = 1'-0"

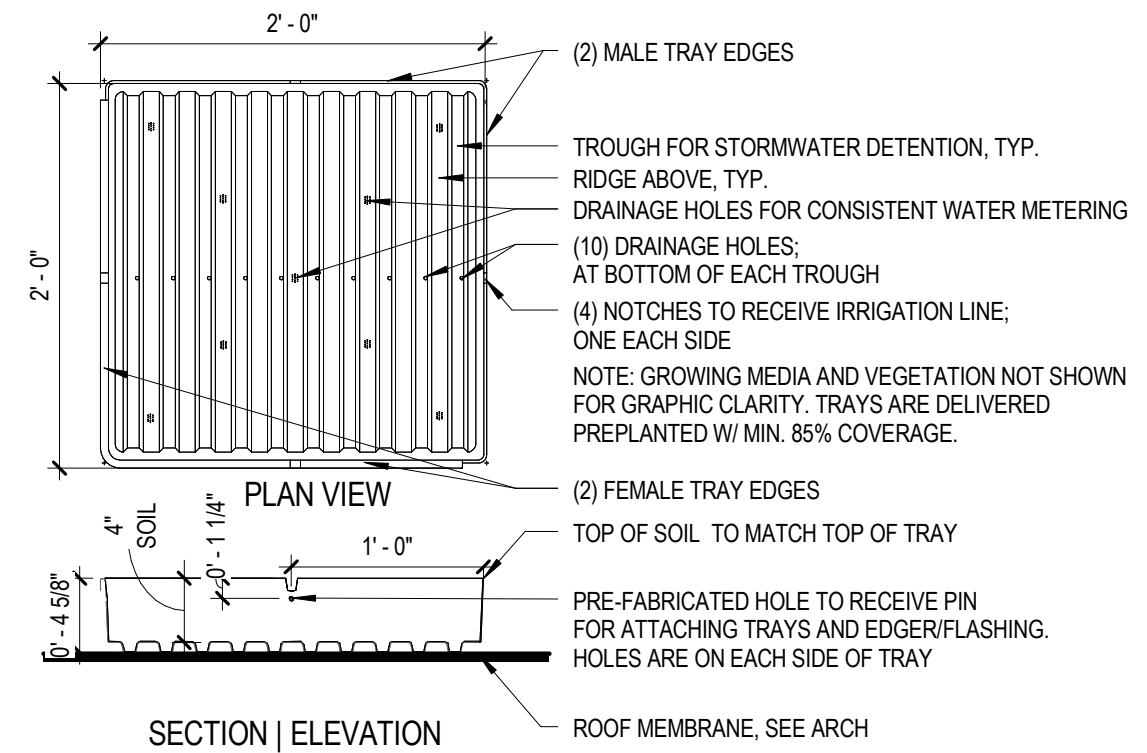
3



ECOROOF AT INTERIOR BALLAST WALK

1 1/2" = 1'-0"

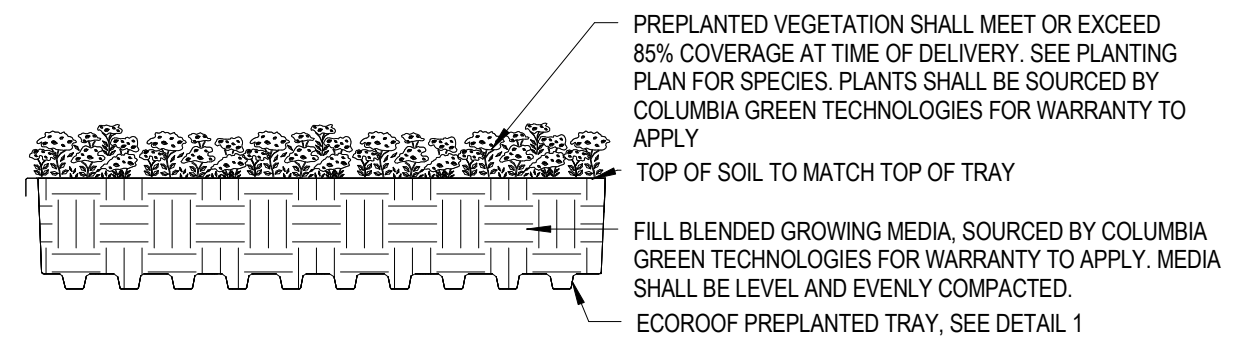
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ECOROOF PREPLANTED TRAY DETAIL

1" = 1'-0"

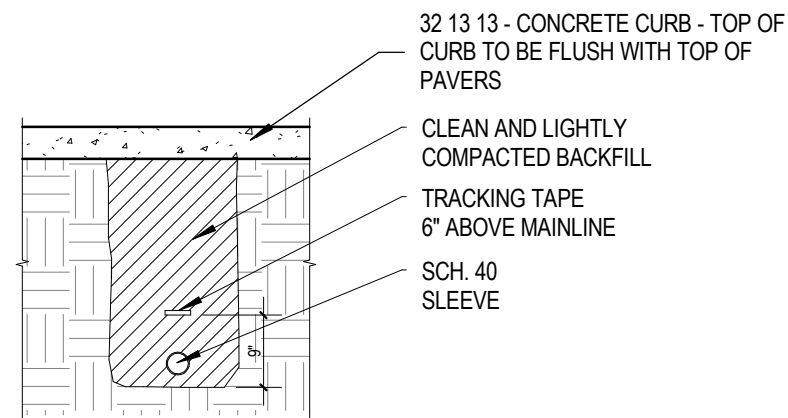
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ECOROOF TRAY PLANTING DETAIL

1 1/2" = 1'-0"

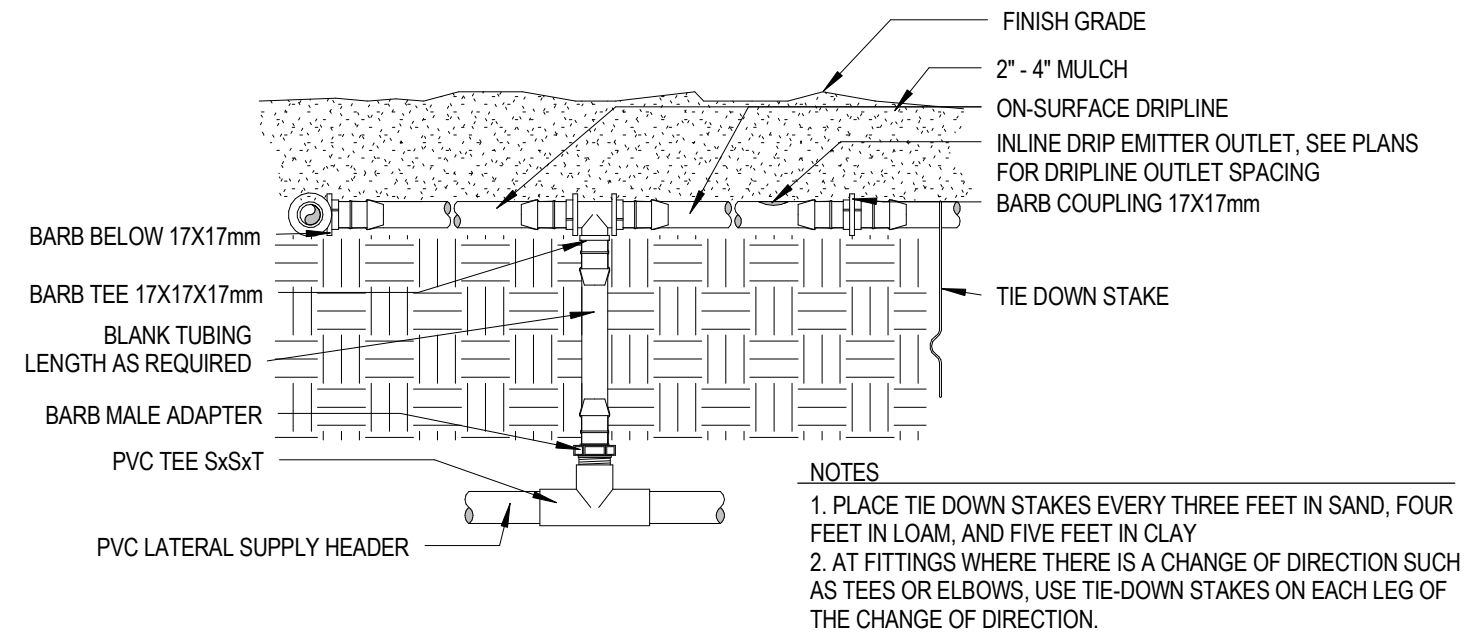
2



IRRIGATION SLEEVE

1/2" = 1'-0"

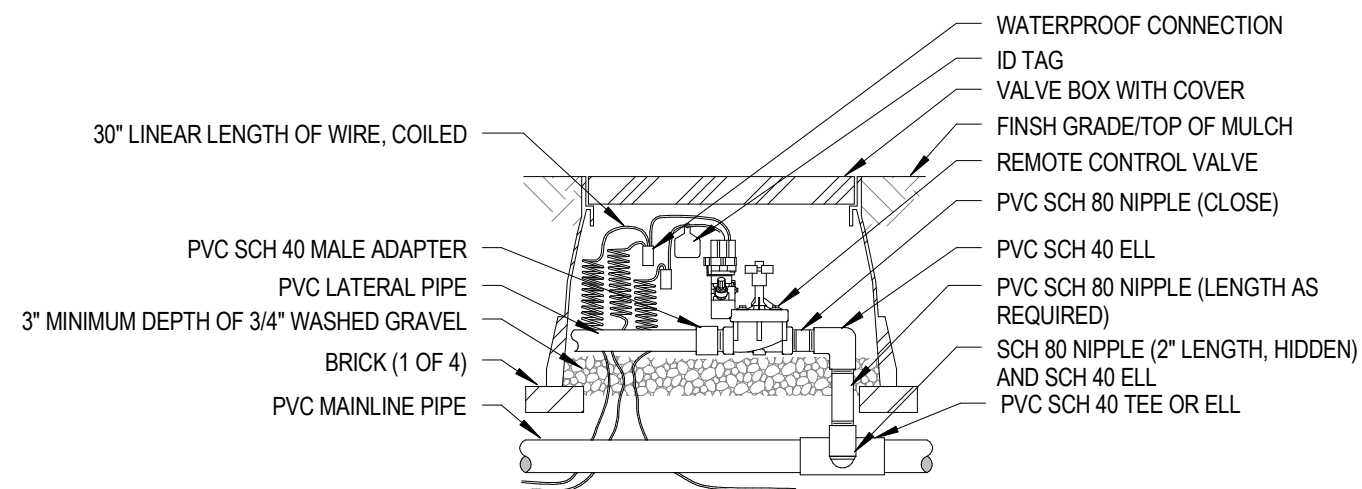
3



ON-SURFACE DRIPLINE RISER ASSEMBLY

1/4" = 1'-0"

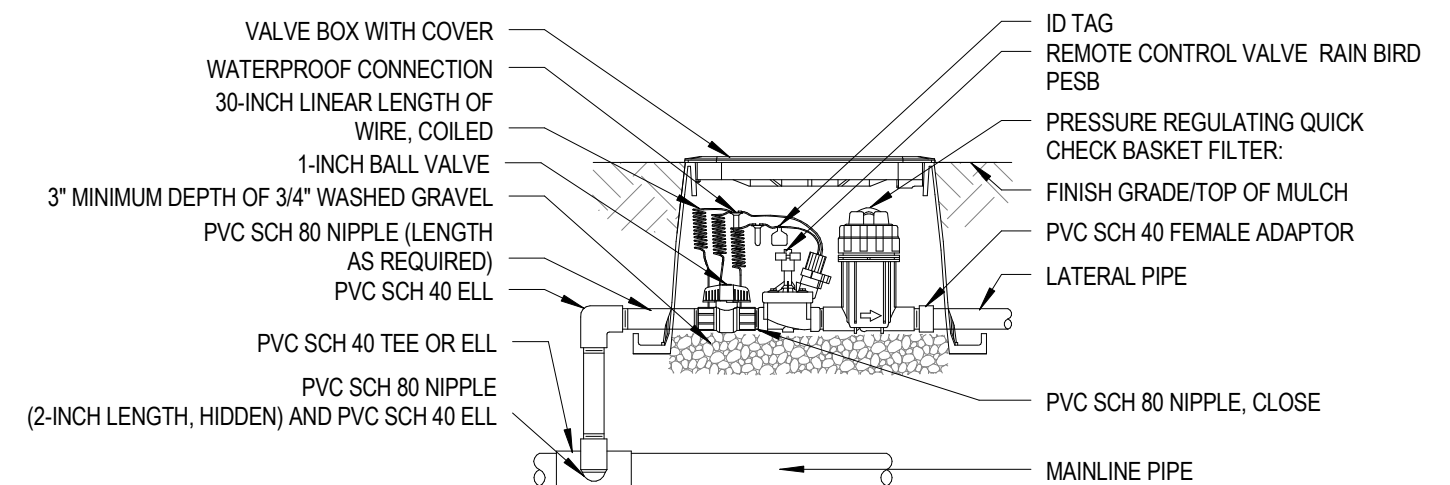
1



ELECTRIC REMOTE-CONTROL VALVE

3/4" = 1'-0"

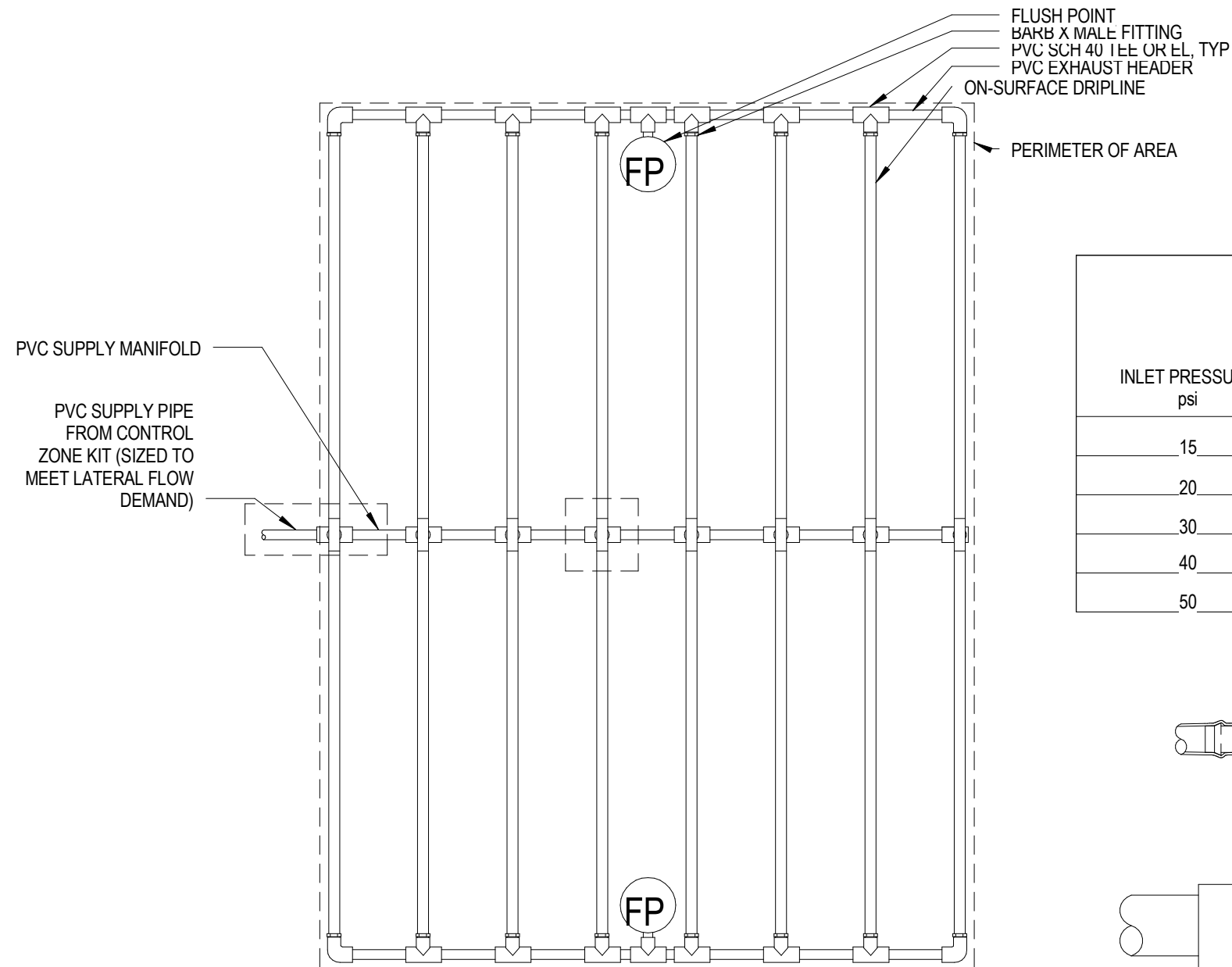
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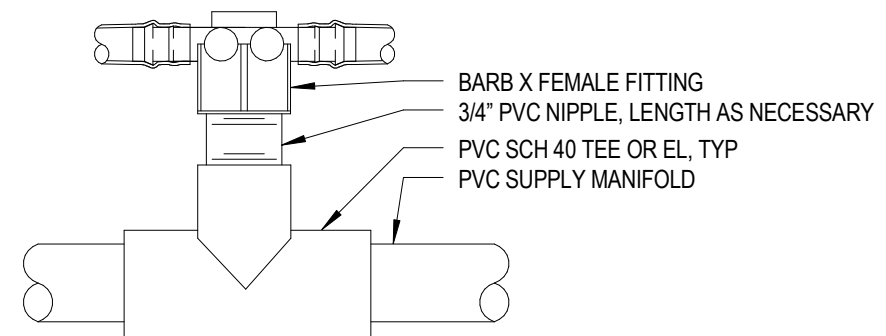
DRIP CONTROL ZONE KIT

3/4" = 1'-0"

2



| INLET PRESSURE psi | 12" SPACING | | 18" SPACING | | 24" SPACING | |
|-----------------------|--------------------|-----|--------------------|-----|--------------------|-----|
| | NOMINAL FLOW (GPH) | | NOMINAL FLOW (GPH) | | NOMINAL FLOW (GPH) | |
| | .6 | .9 | .6 | .9 | .6 | .9 |
| 15 | 255 | 194 | 357 | 273 | 448 | 343 |
| 20 | 291 | 220 | 408 | 313 | 514 | 394 |
| 30 | 350 | 266 | 494 | 378 | 622 | 478 |
| 40 | 396 | 302 | 560 | 428 | 705 | 541 |
| 50 | 434 | 333 | 614 | 470 | 775 | 594 |



NOTES:
 1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION.
 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.

DR - DRIPLINE CENTER + FEED LAYOUT

3/8" = 1'-0"

1

ECOROOF OPERATIONS AND MAINTENANCE MANUAL

Ecoroofs are vegetative systems that retain and filter stormwater and provide aesthetic and energy conservation benefits. The Extensive Ecoroof filters stormwater with a plant palette composed primarily of sedum plants.

Soil medium, vegetation, irrigation and drains shall be inspected for proper operations throughout the life of the ecoroof. All elements shall be inspected annually. Facilities personnel shall keep a log, recording all inspection dates, observations, and maintenance activities. Work orders and invoices shall be kept on file and made available to City inspector upon request. The following items shall be inspected and maintained as stated:

Soil Substrate / Growing Medium shall sustain healthy plant cover and infiltrate within 48 hours

- Growing medium shall be inspected for evidence of erosion from wind, water and settlement. If erosion channels are evident, they shall be stabilized with additional soil substrate/growth medium and covered with additional plants. All depressions as the result of maintenance foot traffic activity, settlement, etc. shall be filled flush with adjacent medium. Plant mortality as a result of foot traffic shall be replaced immediately. Bare soil shall be planted per the planting design. Soil shall drain within 48 hours.

Ecoroof System shall be operated and maintained in accordance with manufacturer’s requirements. Drain inlets shall be kept unrestricted

- Inlet pipe shall be cleared when soil substrate, vegetation, debris, litter or other materials clog the drain inlet. Sources of sediment and debris shall be identified and corrected.
- Determine if drain inlet pipe is in good condition and correct as needed.
- Contact membrane manufacturer if tears or perforations are found in the membrane.

Vegetation shall be maintained to provide 95% plant cover.

- During the Establishment Period, dead or damaged plants shall be replaced by contractor once per month as needed until expiration of warranty after which the Owner or building facilities shall be responsible for maintenance. During the LongTerm Period, dead plants shall generally be replaced once per year in the fall months.
- Fallen leaves and debris from deciduous plant foliage shall be removed.
- Nuisance and prohibited vegetation from the Portland Plant List shall be removed when discovered.
- Weeding shall be manual with no herbicides or pesticides used. Weeds shall be removed regularly and not allowed to accumulate.
- Vegetation must cover at least 90% of the facility at maturity. Plants should be replanted from the original planting plan or can be substituted from the plant list in the SWMM.

Irrigation of Extensive Ecoroof

- During the Establishment Period (2 years), the irrigation timer shall be set to assure plant establishment at a rate of .25 inch every 14th day during the months of June and September (warm periods) and .25 inch every seventh day during July and August (hot dry periods).
- During Long-Term Period (after 2 full years), water at a rate of .25 inch every 14th day during the months of July and August to maintain plant cover. Irrigation at the same rate may be used during the months of May, June, September, and October only as needed. No irrigation is allowed from the beginning of November through the end of April.
- Irrigation watering times shall be modified as needed to accommodate fluctuations in dry and wet periods with the exception that at no time shall the irrigation exceed .5 inches per ten days. Accurate monitoring and assessment of temperature and rainfall shall dictate schedule and watering lengths. Automatic rain shut off valves are to be inspected and any debris removed during irrigation regime.

Spill prevention measures from mechanical systems located on roof shall be exercised when handling substances that can contaminate stormwater

- Release if pollutants shall be corrected as soon as identified.
- Best management practices shall be implemented to prevent hazardous wastes from contaminating stormwater.

Record time, date, weather and site conditions when site activities contaminate stormwater.

Training and/or written guidance information

- A copy of O&M Plan for maintaining Ecoroofs shall be provided to the Owner’s maintenance personnel for reference.

Building facilities / maintenance personnel shall receive instruction as to needs and regular schedules for properly maintaining the health and vigor of the ecoroof plantings and associated drainage surface.

Access and Safety to the Ecoroof

- No tenant circulation or egress routes are proposed or allowed on extensive ecoroof areas. Maintenance personnel shall access roof via utility access points and tie into safety points as needed when inspecting or maintaining perimeter areas that pose a safety concern.

Aesthetics of the Ecoroof shall be maintained as an asset to the property owner and community

- Evidence of damage or vandalism shall be repaired and accumulation of trash debris shall be removed upon discovery.

Insects shall not be harbored at the Ecoroof

- Standing water creating an environment for development of insect larvae shall be eliminated by manual means. Chemical sprays shall not be used.
- Record time, date, weather, and site conditions when insect or rodent activity is observed. Record when insect or rodent activity abated or ended.

Annual Maintenance Schedule:

Summer: Make necessary repairs. Improve growing medium as needed. Clear drains. Irrigate as described above.

Fall: Replace exposed soil and dead plants. Remove sediment and debris from drains. Provide erosion controls for base soil if necessary.

Winter: Monitor infiltration/flow rates. Clear drains as needed.

Spring: Replant exposed soil and dead plants. Remove sediment and debris from drains.

All Seasons: Weed as necessary.



- = (1) WALL-MOUNTED BIKE PARKING SPOT
- = (2) WALL-MOUNTED BIKE PARKING SPOTS

BIKE PARKING PROVIDED:

LEVELS 2-13:
 (1) BIKE PER UNIT x (5) UNITS = (7) BIKES
 (2) BIKES PER UNIT x (7) UNITS = (14) BIKES
 BIKE SPOTS PER LEVEL = (19) BIKES x (12 LEVELS)
 LEVELS 2-13 TOTAL = (228) BIKES

BUILDING TOTAL = (228) BIKE PARKING SPOTS

BIKE PARKING REQUIRED:

LONG TERM:
 (1.5) BIKES PER (146) UNITS = (219) BIKES PARKING SPOTS

SHORT TERM:
 (1) PER (20) UNITS = (8) SPACES VIA BICYCLE PARKING FUND



CHILEHAUS
HAMBURG



CHILEHAUS
HAMBURG

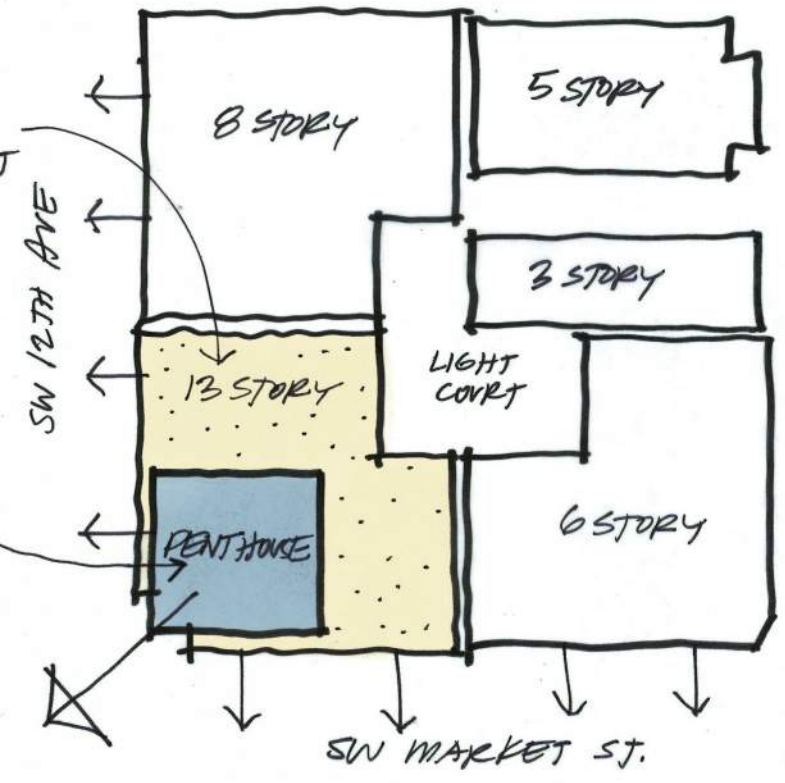


SPALDING BUILDING
PORTLAND

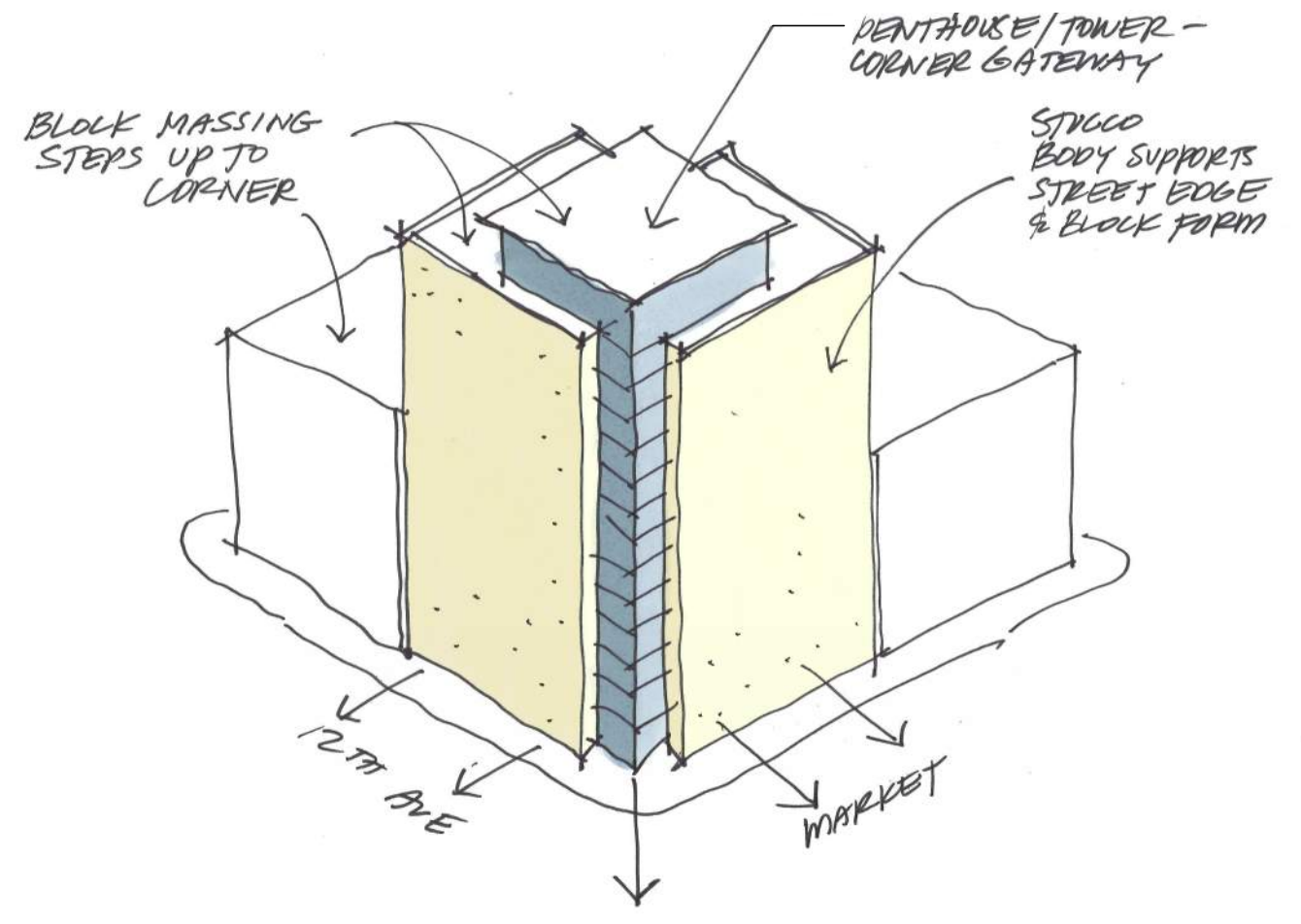


WEATHERLY BUILDING
PORTLAND

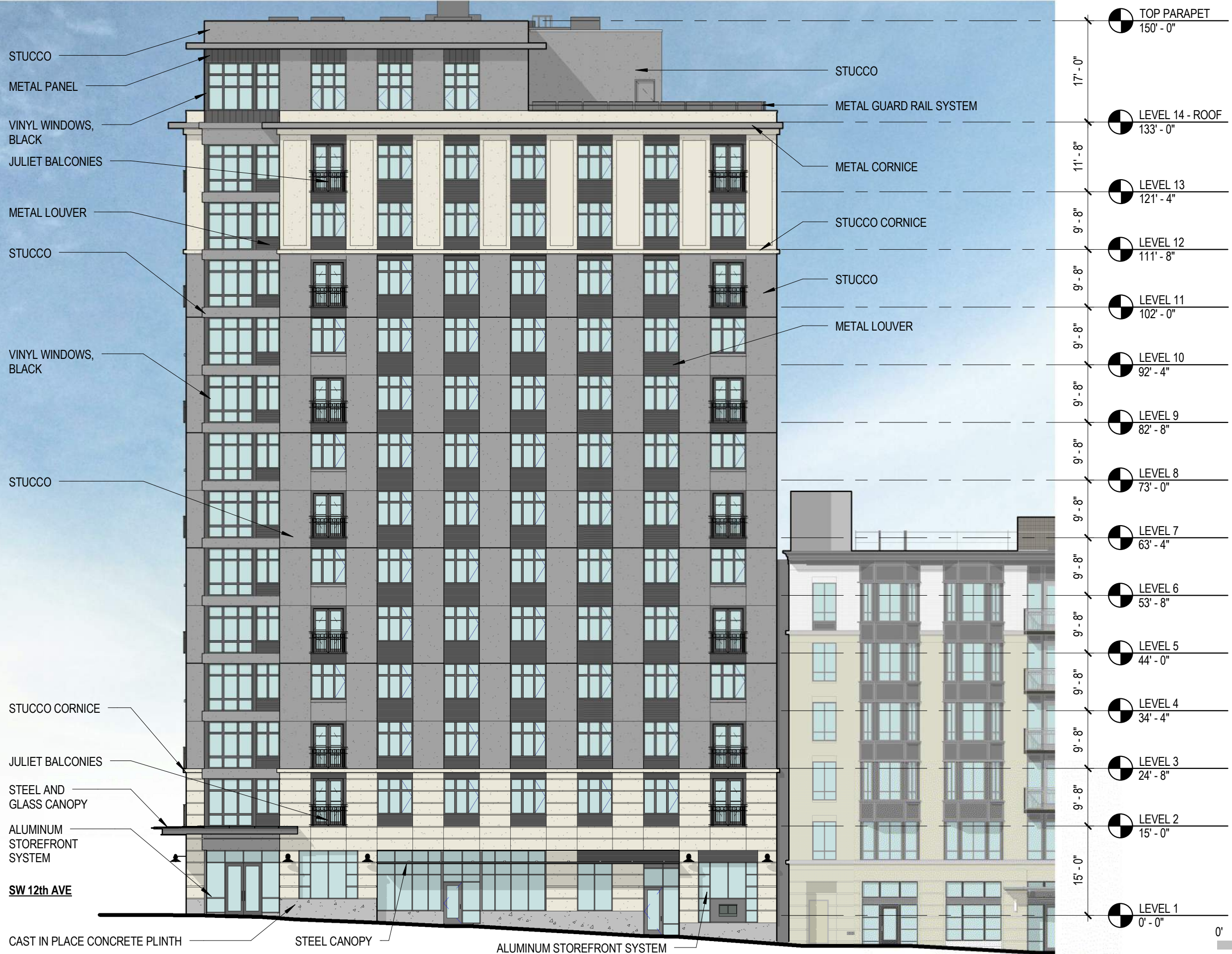
- BLOCK MASSING STEPS UP TO SW CORNER
- STUCCO BODY SUPPORTS STREET EDGE/FABRIC
- PENTHOUSE AT CORNER CREATES GATEWAY

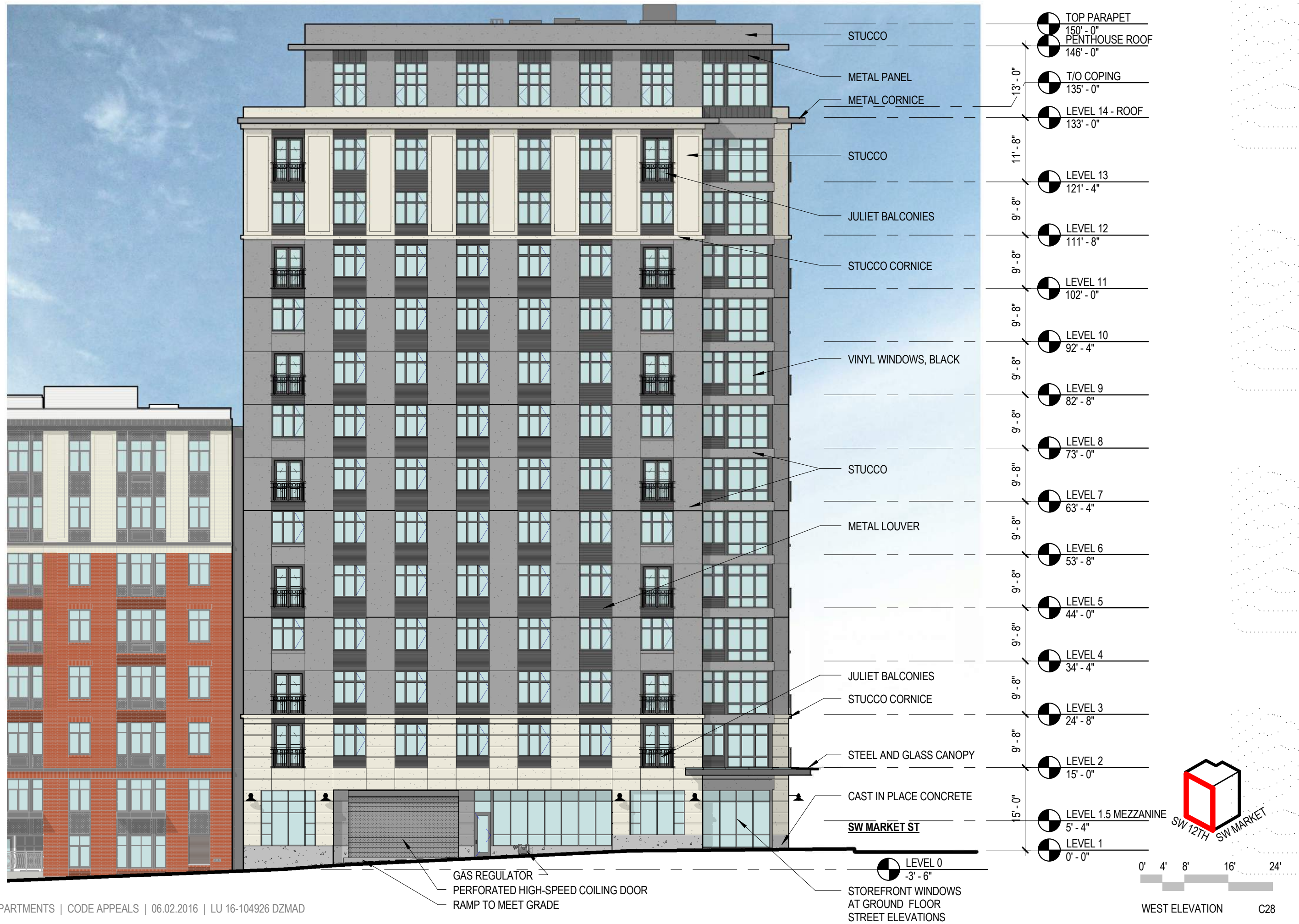


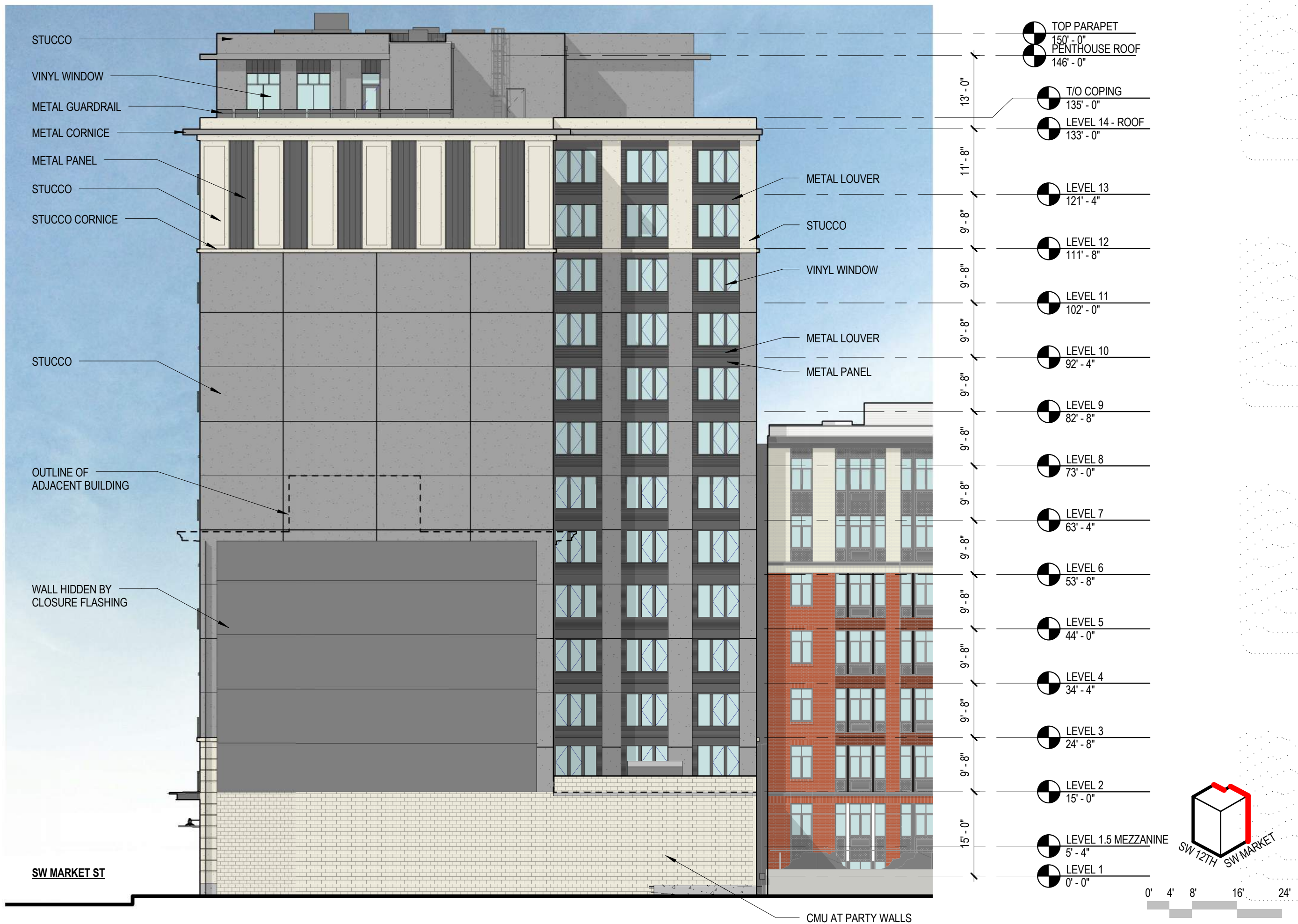
BLOCK MASSING CONCEPT



BUILDING MASSING CONCEPT

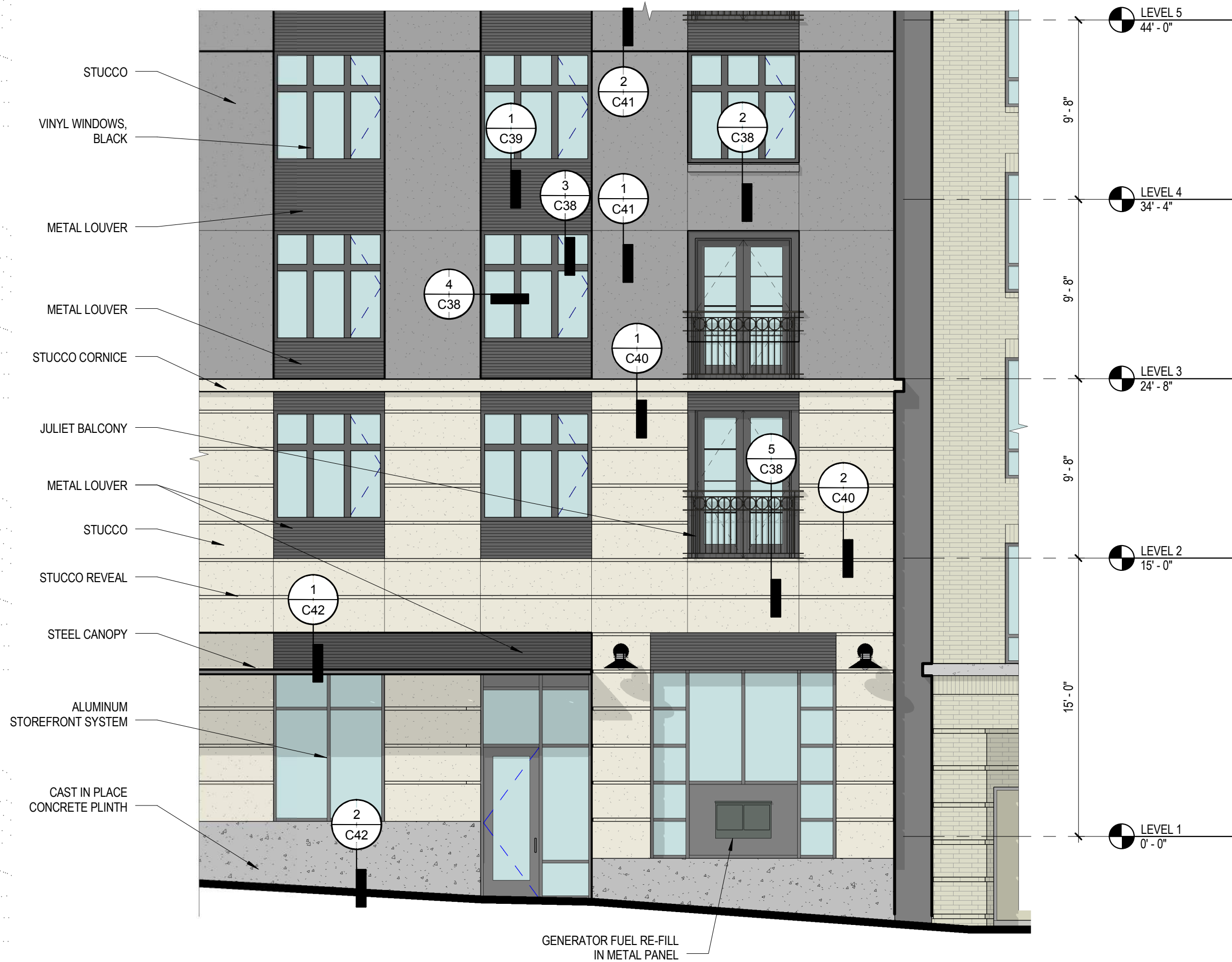


















METAL PANEL - 12" WIDE
FLUSH INTERLOCK

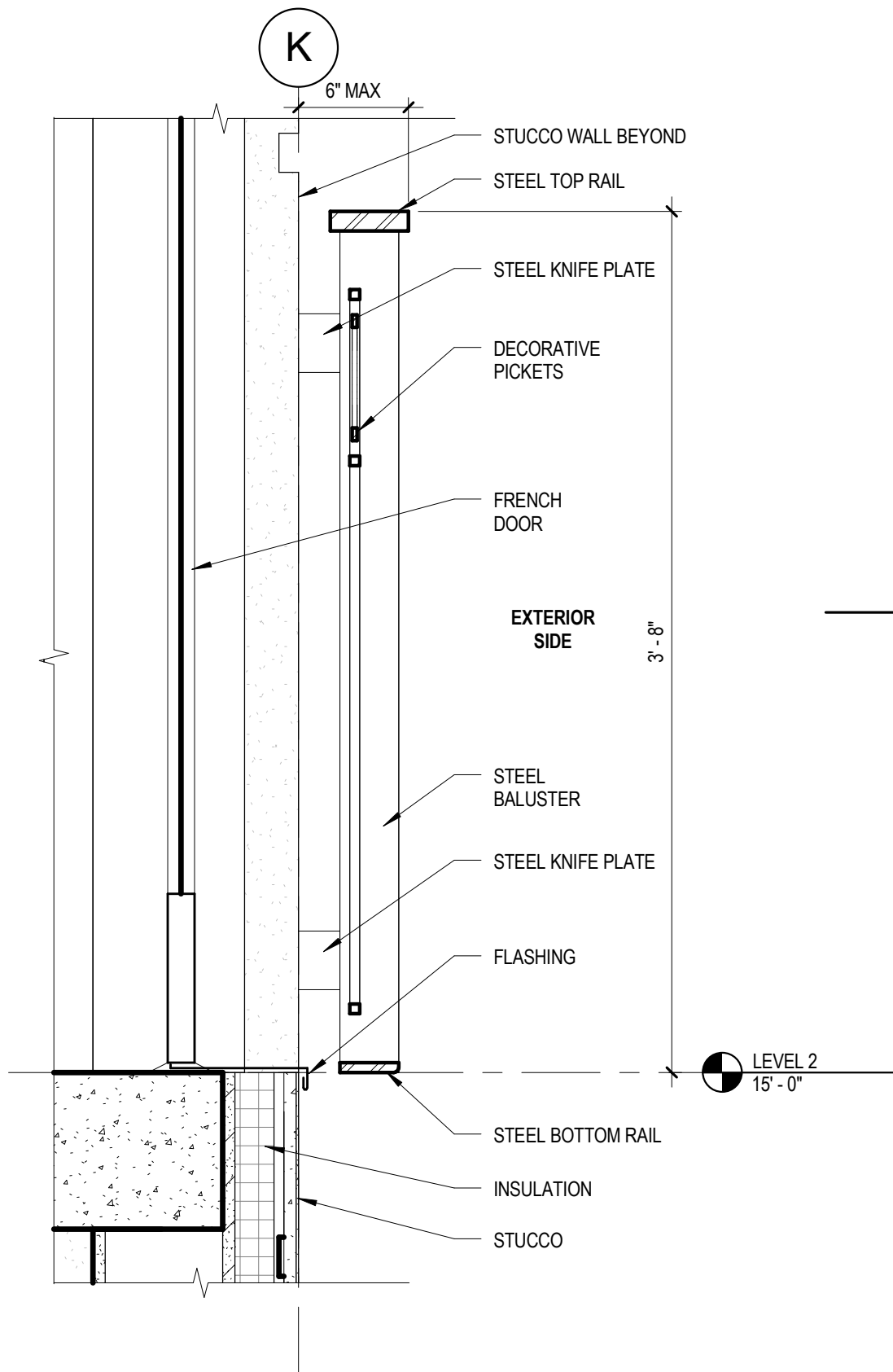


PERFORATED HIGH-SPEED
COILING DOOR



GLASS CANOPY
ALUMINUM
STOREFRONT GLAZING
BLACK VINYL WINDOWS
STUCCO

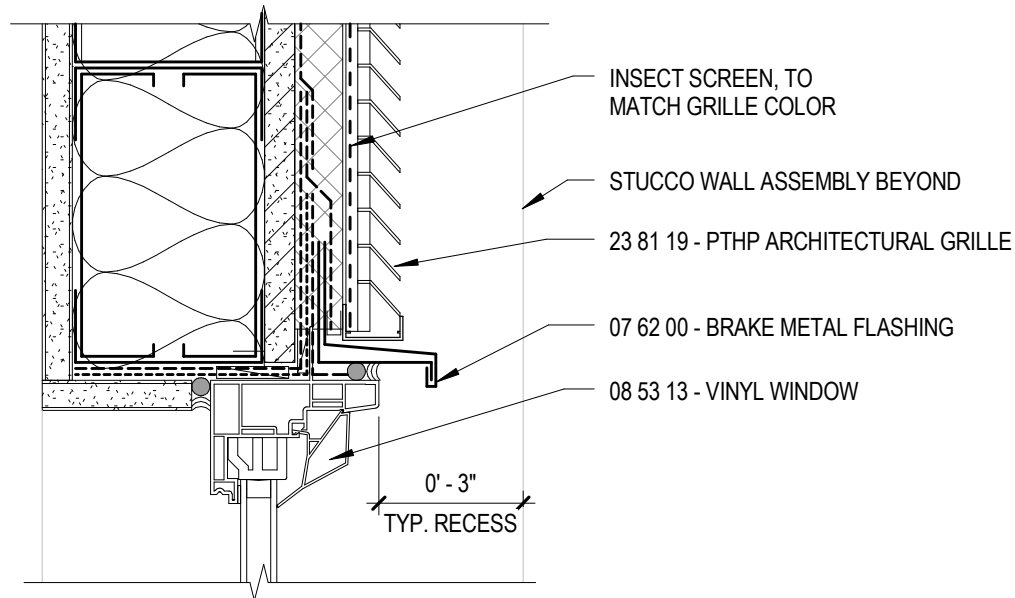




JULIET BALCONY SECTION

1 1/2" = 1'-0"

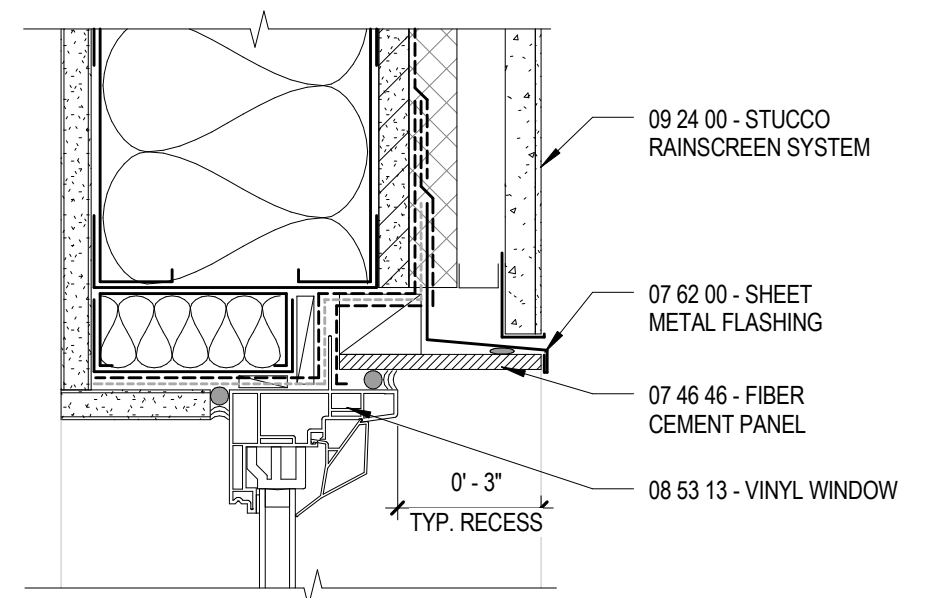
5



WINDOW HEAD @ METAL LOUVER

3" = 1'-0"

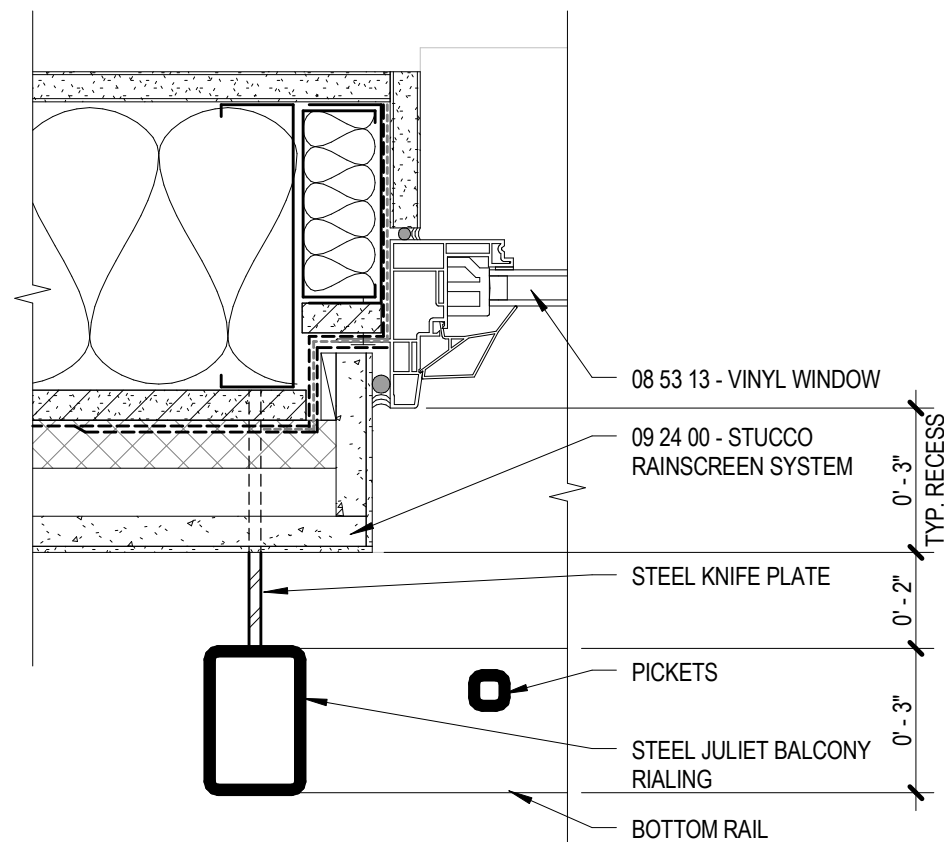
3



WINDOW HEAD @ STUCCO

3" = 1'-0"

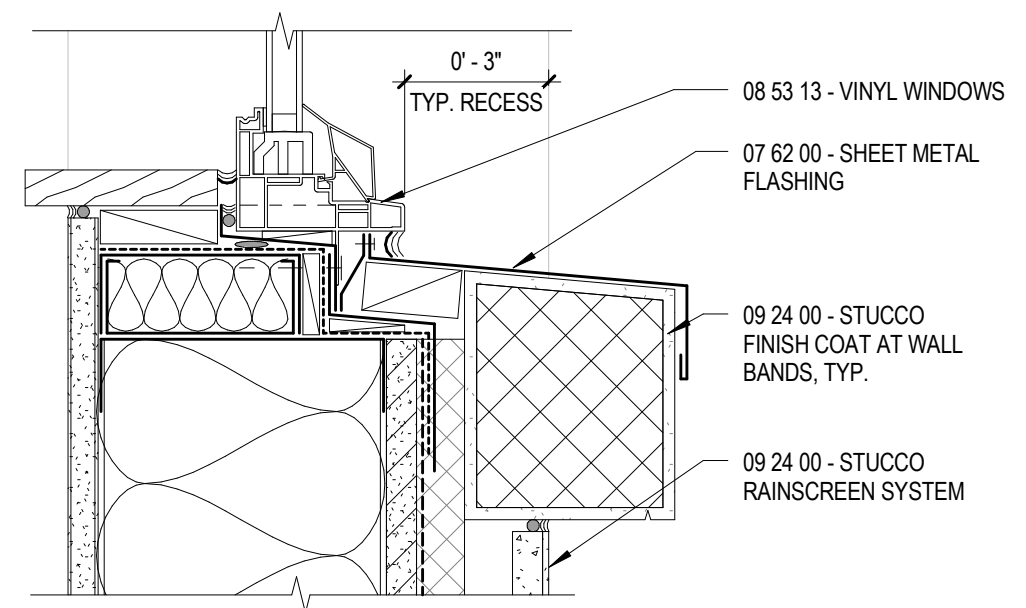
1



WINDOW JAMB @ STUCCO

3" = 1'-0"

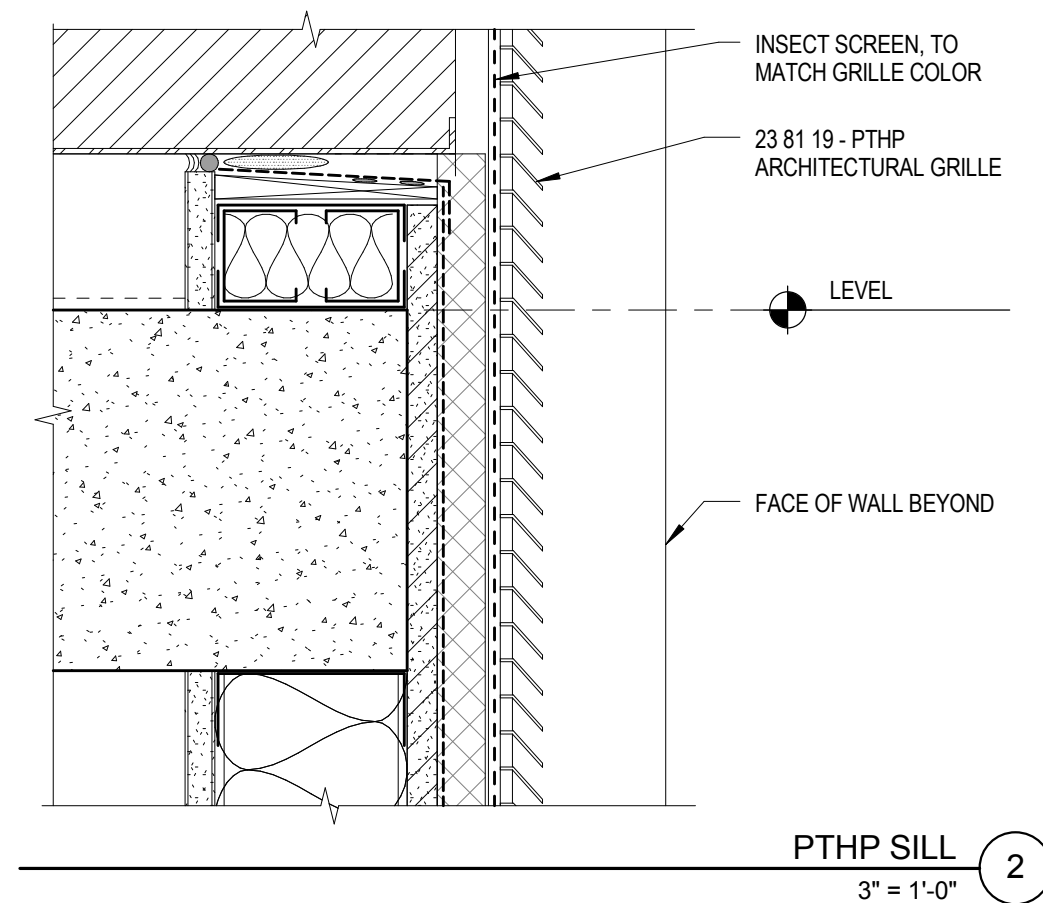
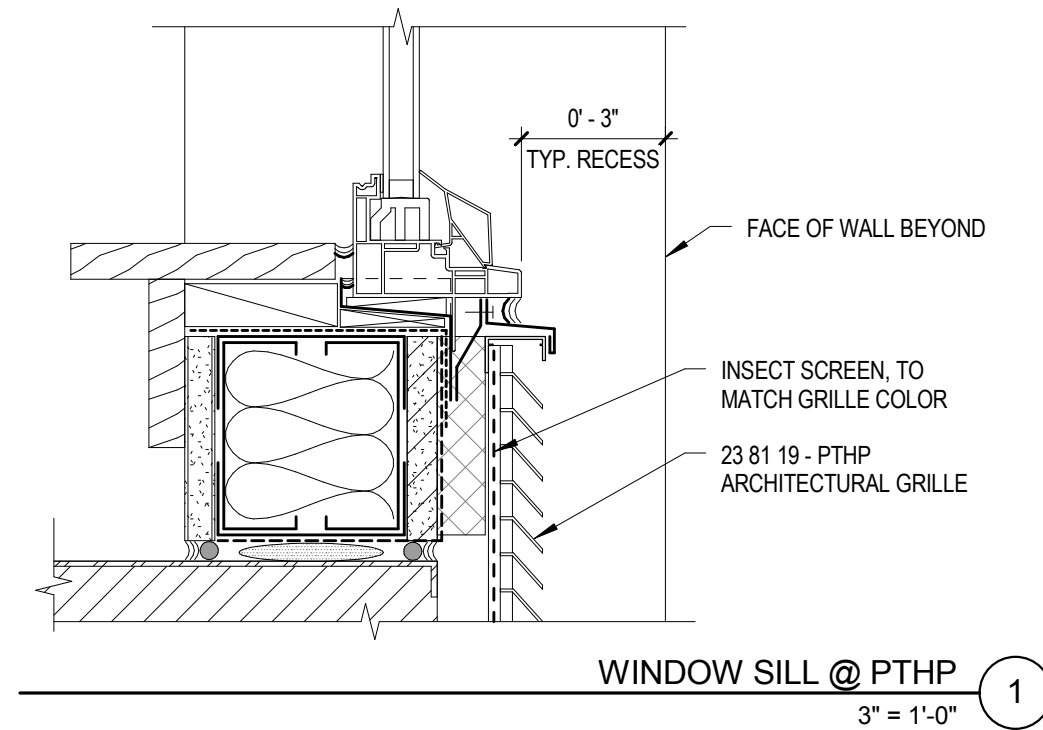
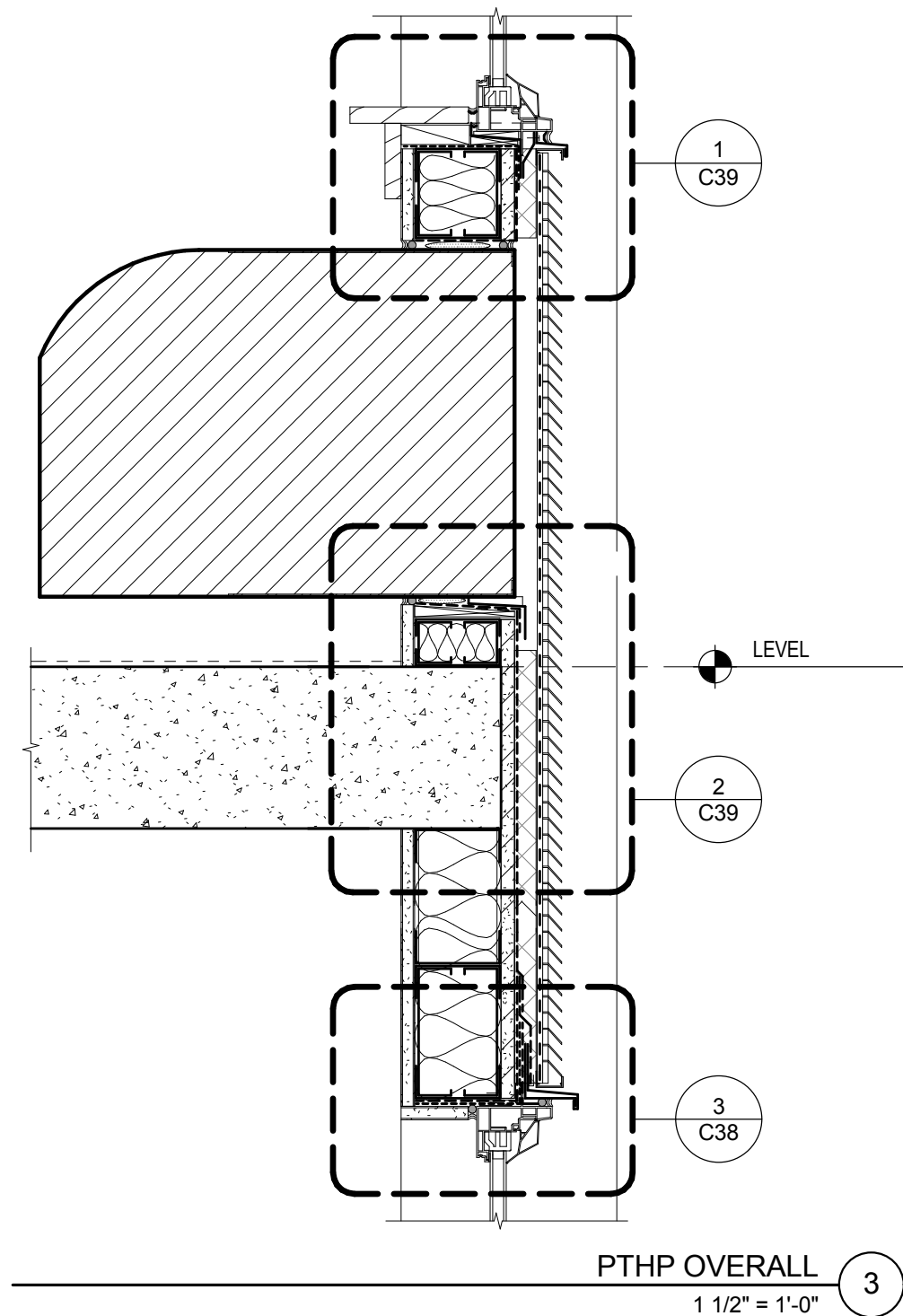
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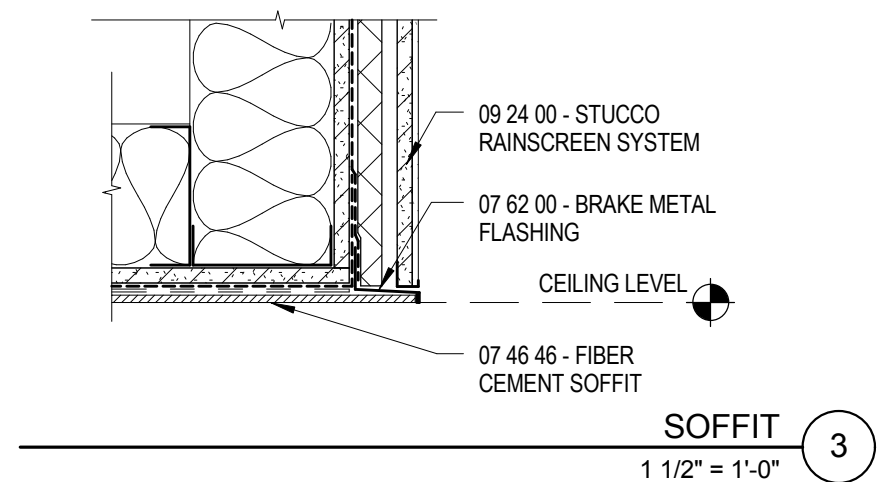
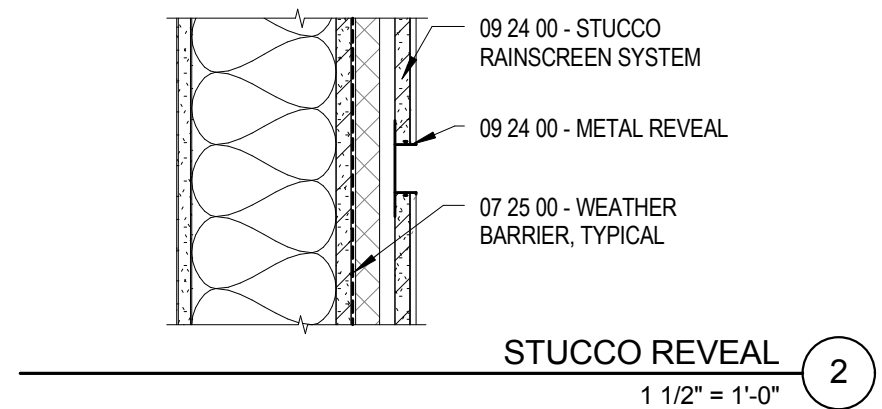
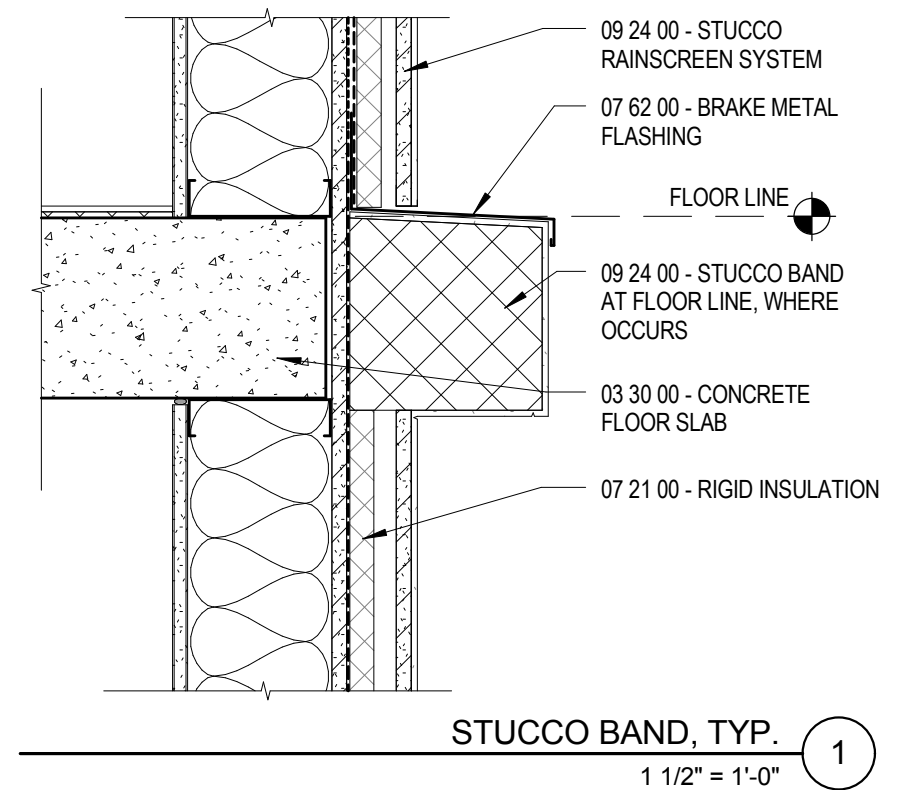
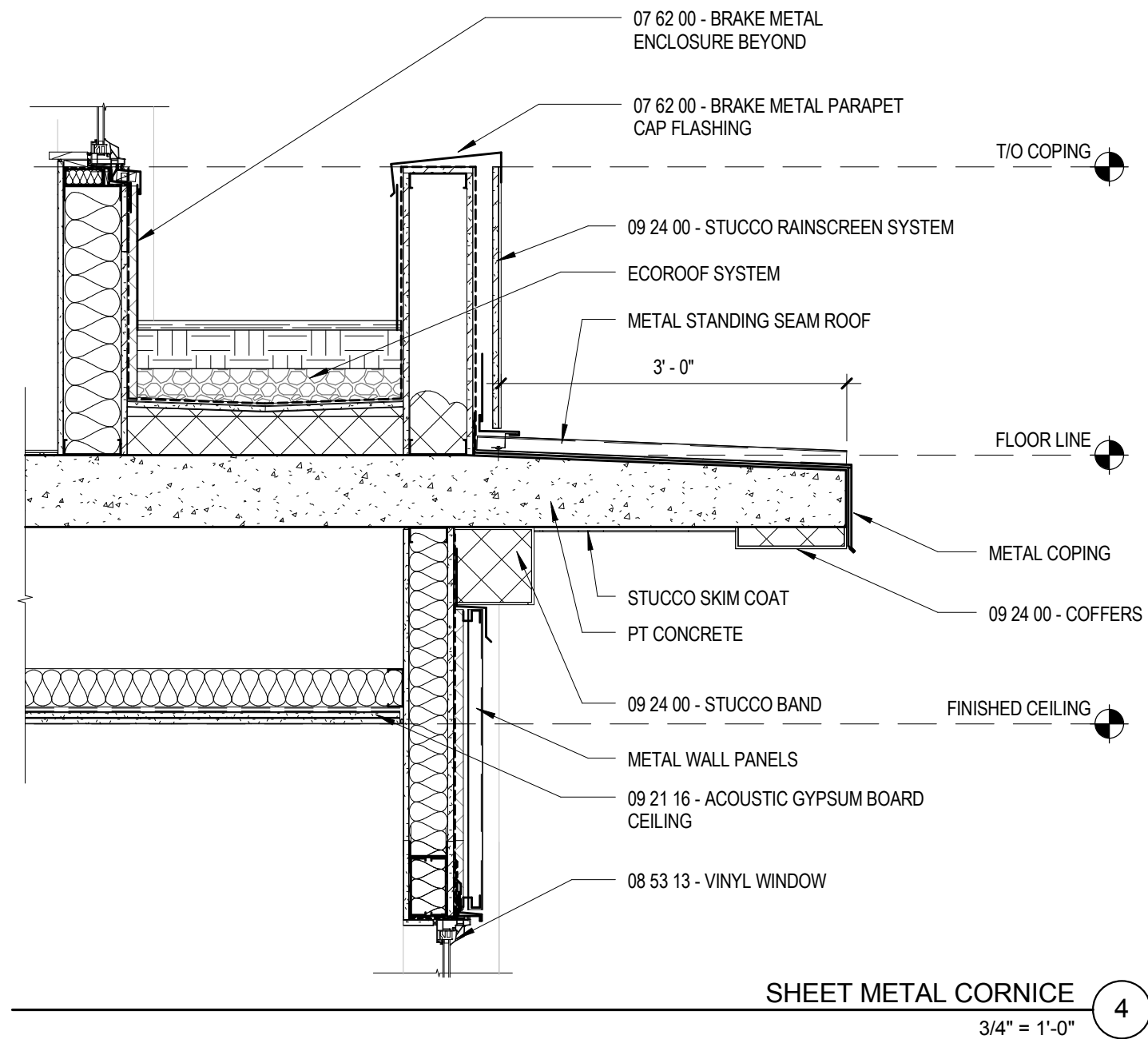


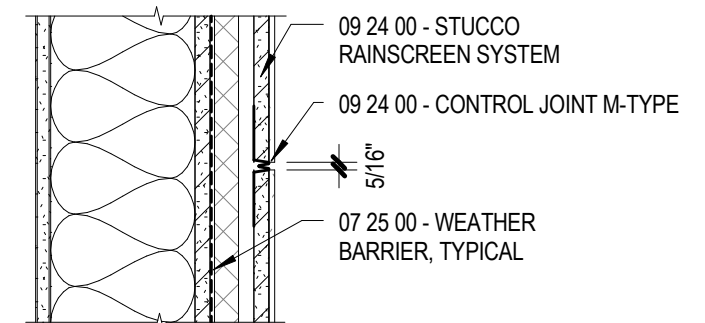
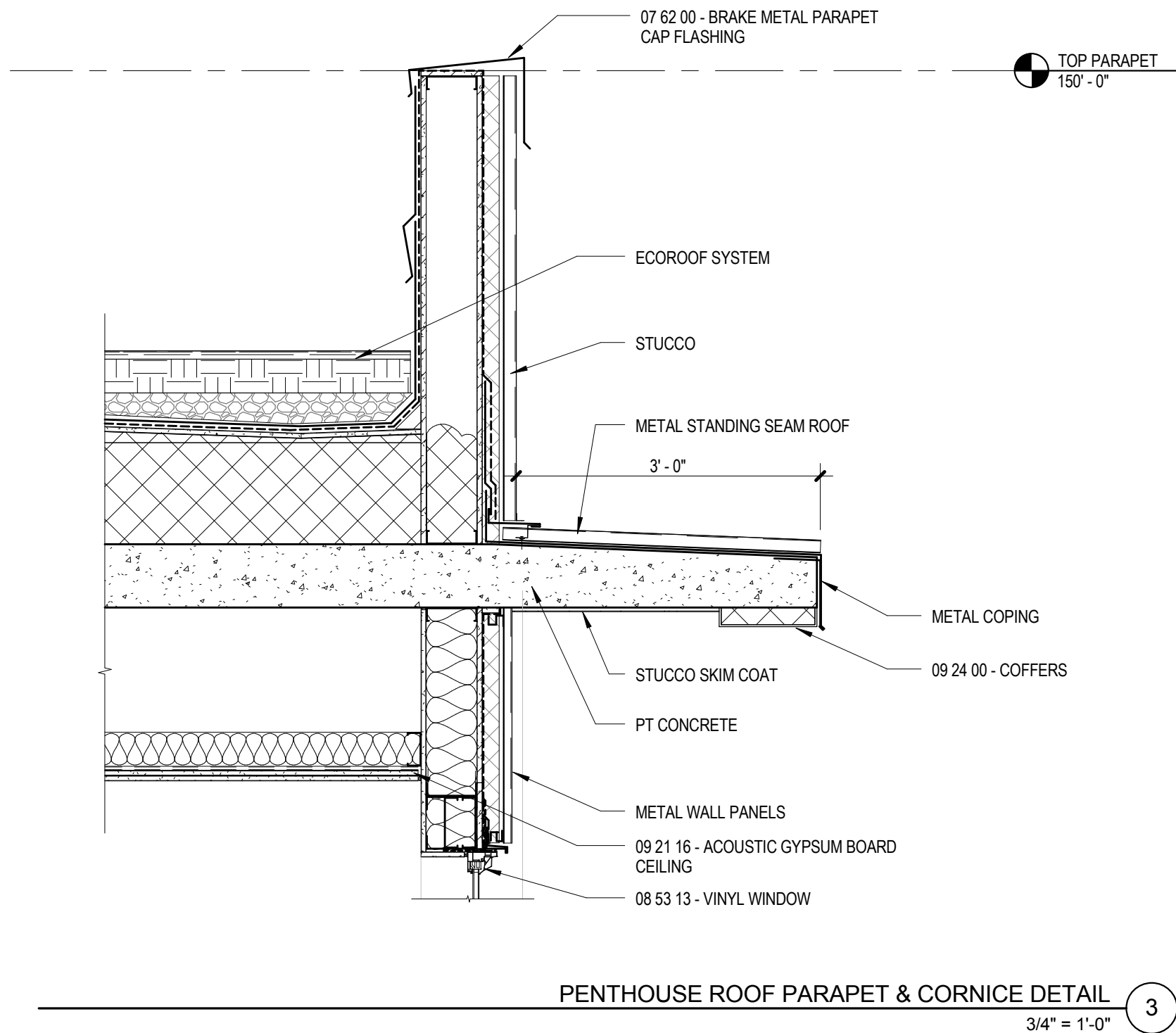
WINDOW SILL @ STUCCO LEDGE

3" = 1'-0"

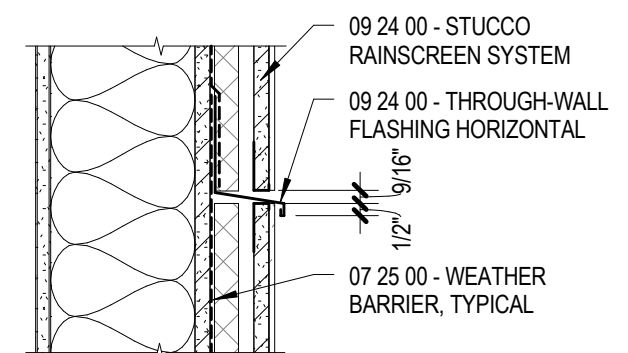
2



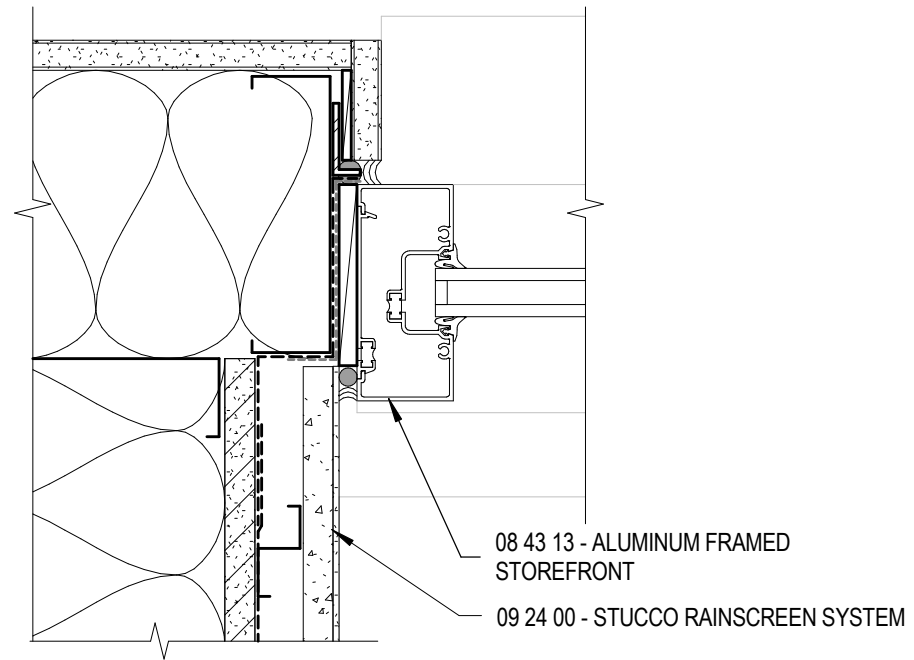




STUCCO - CONTROL JOINT
1 1/2" = 1'-0" **1**



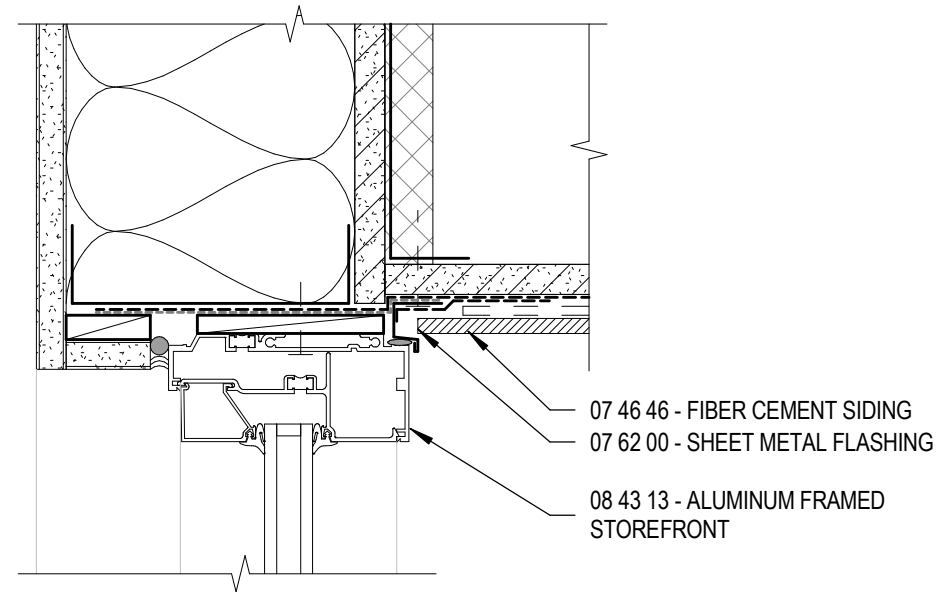
STUCCO - EXPANSION JOINT
1 1/2" = 1'-0" **2**



STOREFRONT JAMB @ STUCCO

3" = 1'-0"

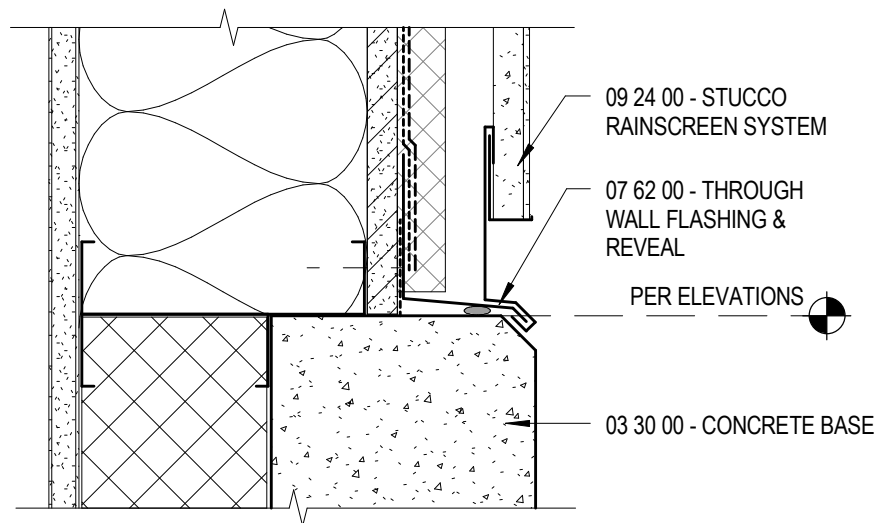
3



STOREFRONT HEAD @ SOFFIT

3" = 1'-0"

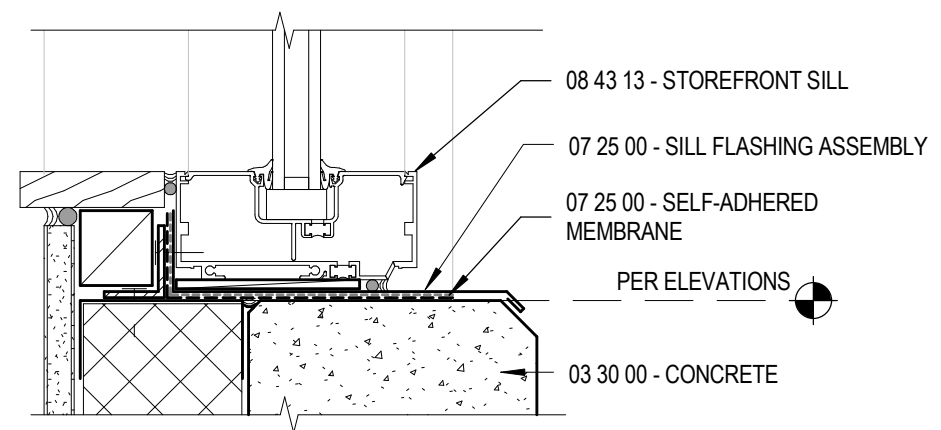
1



STUCCO @ CONC. BASE

3" = 1'-0"

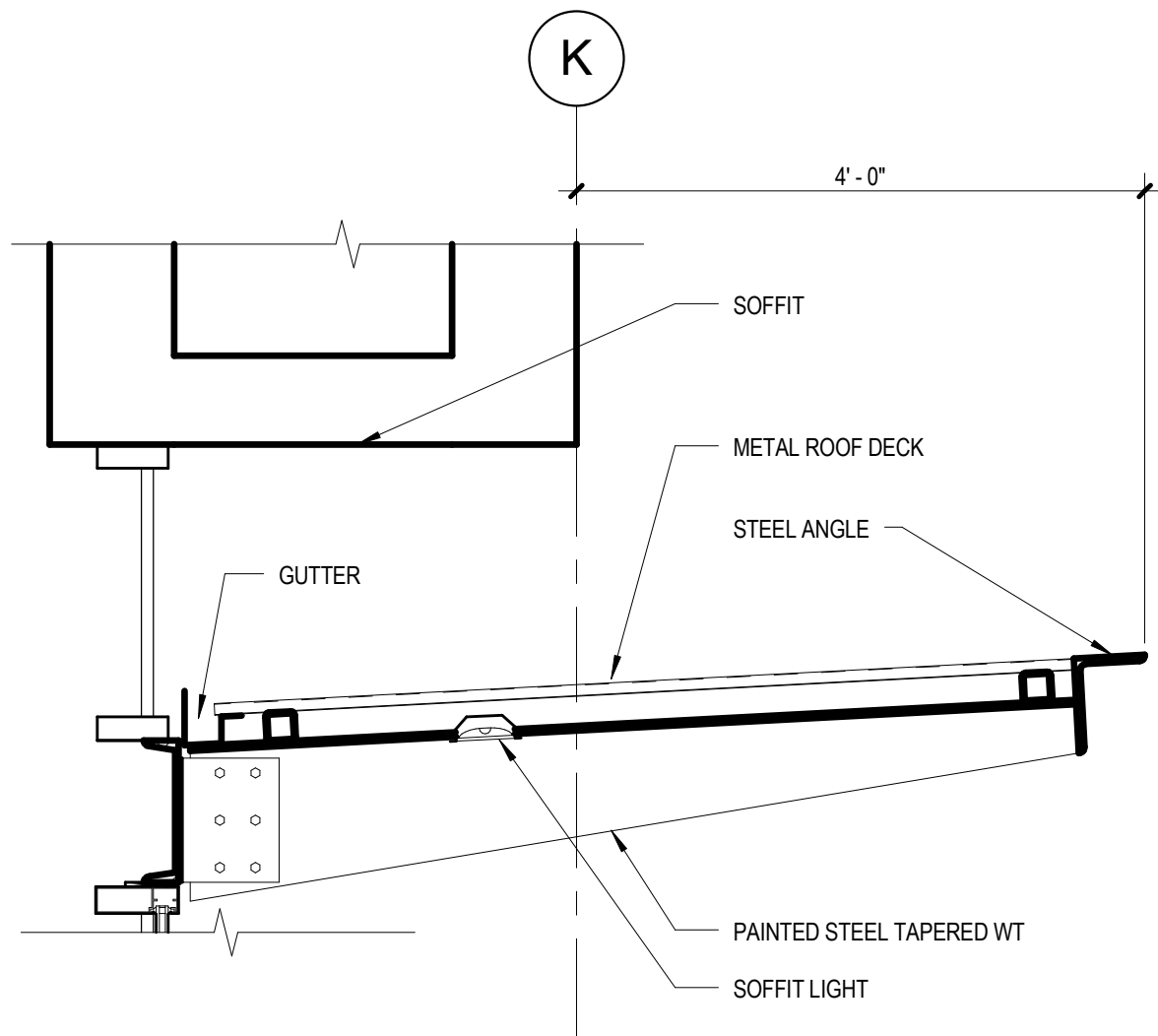
4



STOREFRONT SILL @ CONC. BASE

3" = 1'-0"

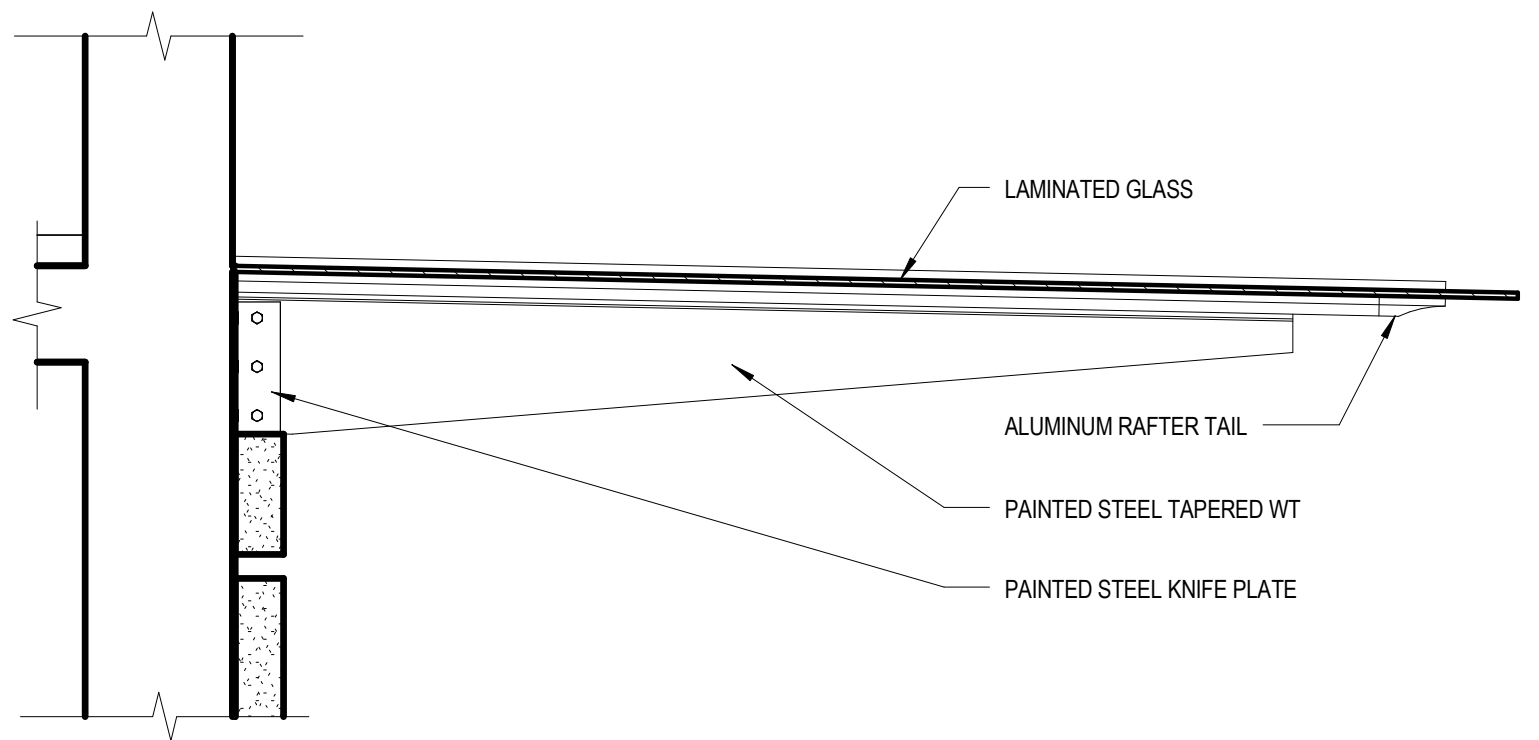
2



CANOPY 2 SECTION

3/4" = 1'-0"

3



GLASS CANOPY 1 SECTION

3/4" = 1'-0"

1



FIXTURE TYPE SF1 & SF2
WALL-MOUNTED STRIP



FIXTURE TYPE SD1
RECESSED SOFFIT

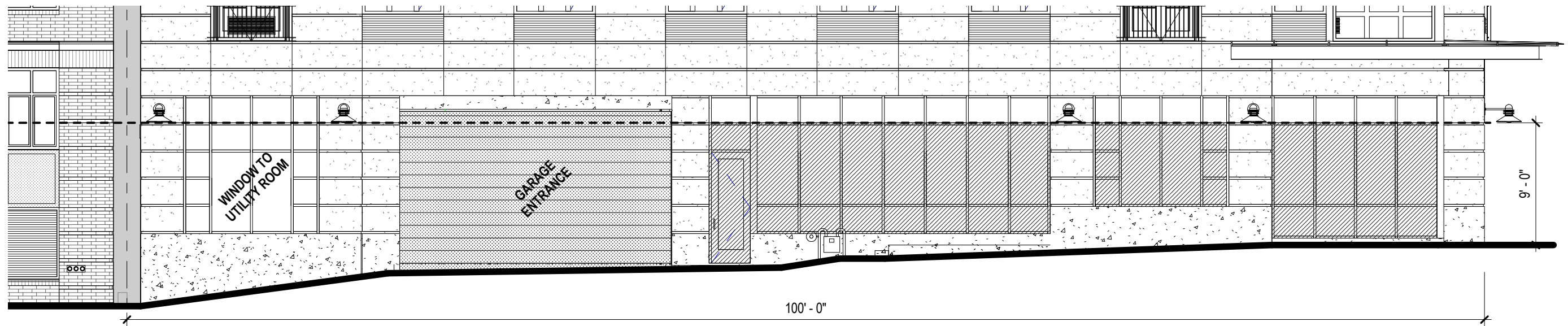


FIXTURE TYPE SG1
WALL-MOUNTED



FIXTURE TYPE SC1
WALL-MOUNTED





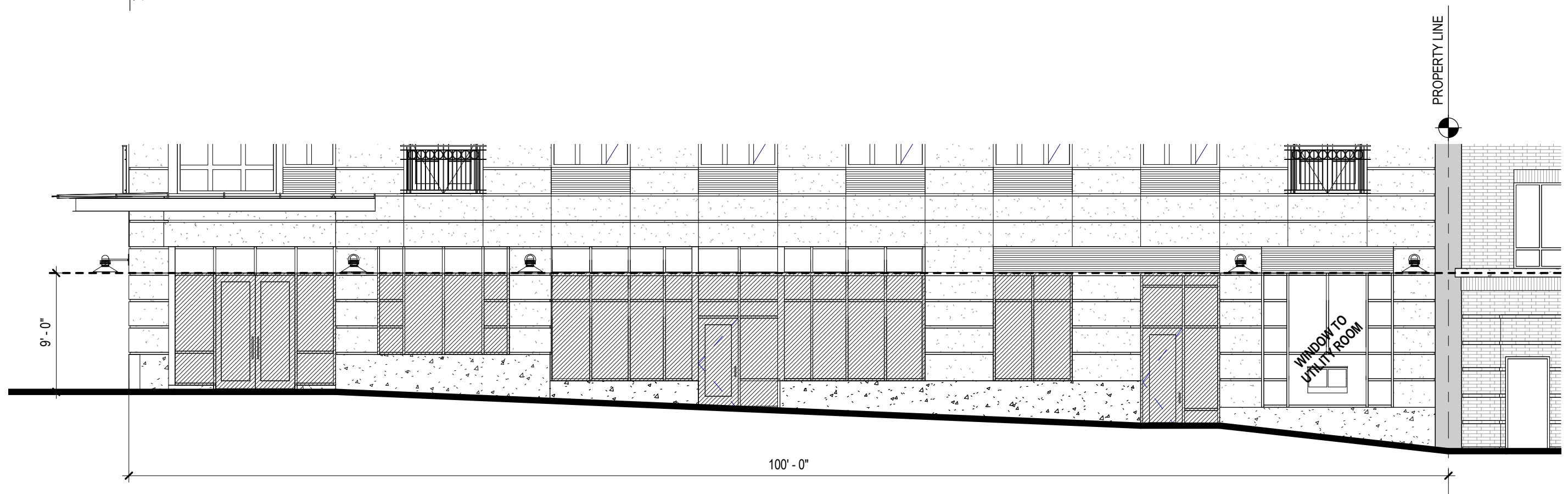
GROUND FLOOR WINDOW STANDARDS:

| | REQUIRED: | PROPOSED: |
|--|-----------|-----------|
| WINDOW LENGTH (MIN 50% WINDOW LENGTH PER TOTAL GROUND LEVEL WALL LENGTH) | 50' | 50' |
| WINDOW AREA (MIN 25% WINDOW AREA PER TOTAL GROUND LEVEL WALL AREA) | 270 SF | 374 SF |

GROUND FLOOR GLAZING - SW 12TH

1/8" = 1'-0"

2



GROUND FLOOR WINDOW STANDARDS:

| | REQUIRED: | PROPOSED: |
|--|-----------|-----------|
| WINDOW LENGTH (MIN 50% WINDOW LENGTH PER TOTAL GROUND LEVEL WALL LENGTH) | 50' | 62'-7" |
| WINDOW AREA (MIN 25% WINDOW AREA PER TOTAL GROUND LEVEL WALL AREA) | 263 SF | 527 SF |

GROUND FLOOR GLAZING - SW MARKET

1/8" = 1'-0"

1

