

From: Bonnie Chiu
To: [Moore-Love, Karla](#)
Cc: [Nielsen, Benjamin](#); [Tim Wybenga](#); ["Patrick Gilligan"](#); [Pfeiffer, Steven L. \(Perkins Coie\)](#)
Subject: RE: Fremont Apartments Appeal -- LU 16-278621 DZM GW -- Additional Record Materials
Date: Wednesday, May 9, 2018 6:45:49 PM
Attachments: [2018-05-09 Fremont Apartments Revised Sheets.pdf](#)
[20180501 Fremont Apartments Technical Landscape Plans.pdf](#)

Karla,

I realized there was a page in the previous file I sent you that did not render correctly. Please discard the previous email and file. Attached is the corrected file.

Additionally, the second file is a set of technical landscape plans that were updated for the purpose of eco-roof review, which has been confirmed by BES that we've earned the eco-roof bonus as specified. We want to add these to the Council record as well.

Please confirm your receipt of these files before our hearing at 2pm tomorrow.

Thank you,

Bonnie Chiu | [TVA Architects](#) | main: 503.220.0668

From: Bonnie Chiu

Sent: Wednesday, May 9, 2018 5:00 PM

To: 'Karla.Moore-Love@portlandoregon.gov'

Cc: 'Nielsen, Benjamin' ; Tim Wybenga

Subject: Fremont Apartments Appeal -- LU 16-278621 DZM GW -- Additional Record Materials

Karla,

Please find attached additional materials for the Fremont Place Apartment appeal and add these to the Council record on this item. They are design review drawing sheets that have changed due to the appeal process revisions, after the BDS design review approval.

Thank you,

Bonnie Chiu, R.A., LEED AP

Associate

[TVA Architects](#)

920 SW Sixth Avenue, Suite 1500

Portland, OR 97204

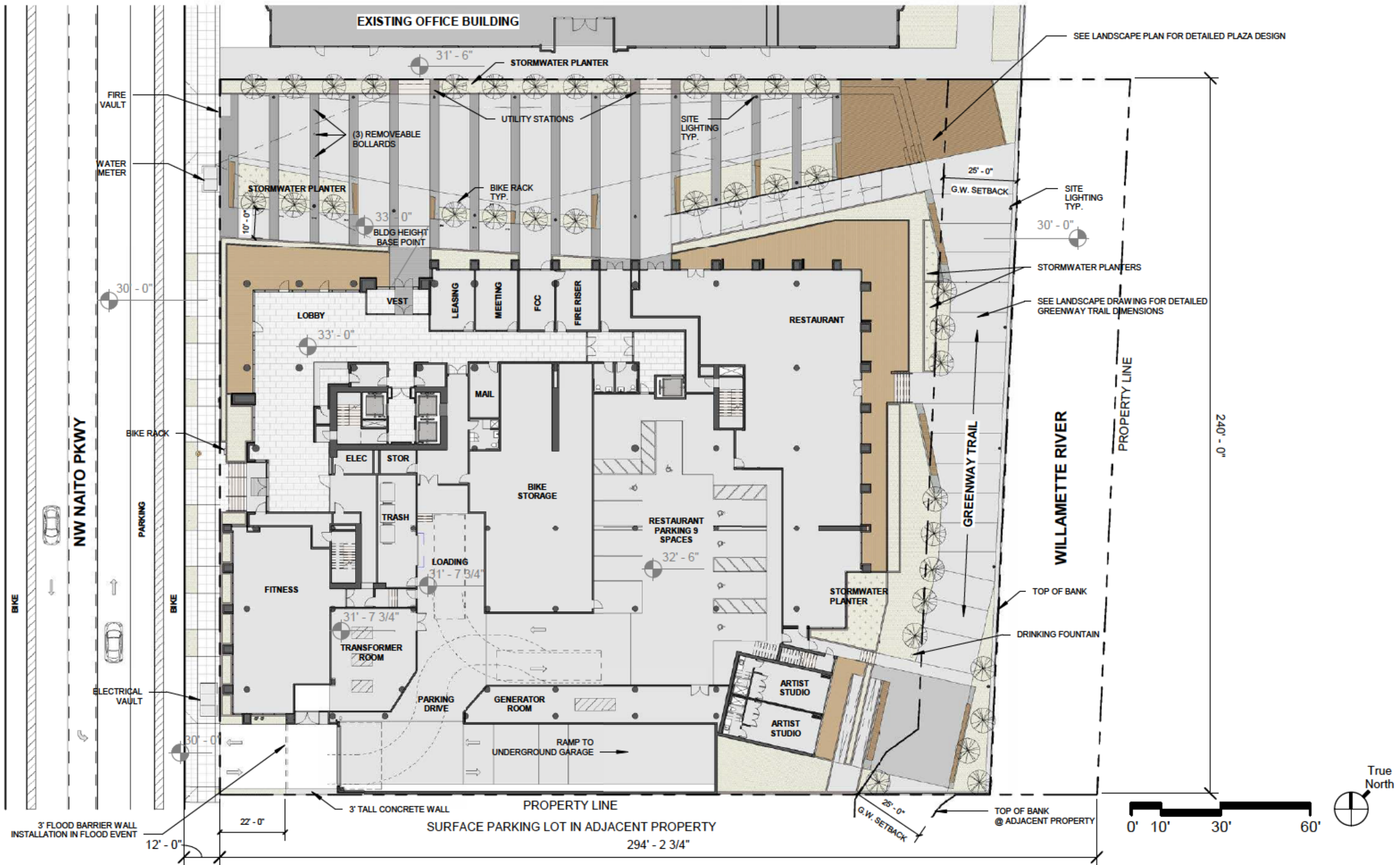
main: 503.220.0668

PROJECT SUMMARY

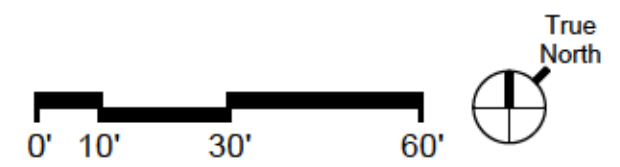
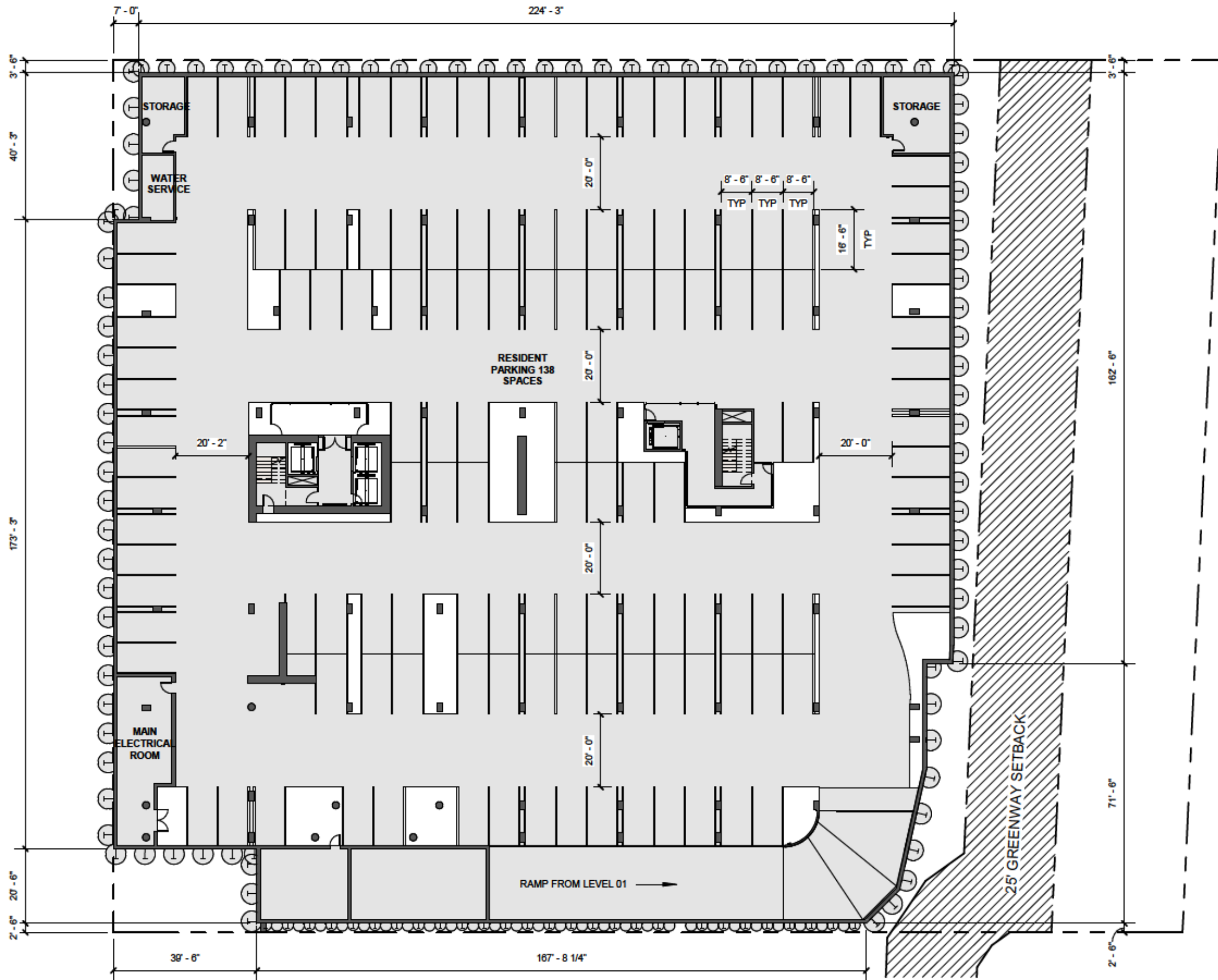
SITE AREA	72,080 sf
BASE FAR	2:1 72,080 sf x 2 = 144,160 sf
RESIDENTIAL BONUS	144,160 sf
ECO ROOF BONUS	33,620 sf
TOTAL AVAILABLE FAR	Base FAR + Residential bonus + Eco-roof bonus 144,160 sf + 144,160 sf + 33,620 sf = 321,940 sf
TOTAL FLOOR AREA ABOVE GRADE	305,936 sf
TOTAL FLOOR AREA UNDER 100'	206,040 sf
FAR DEVELOPED	4.2:1
NUMBER OF LEVELS	17
BUILDING HEIGHT	185'-0" (SEE MODIFICATION)
PARKING (BELOW GRADE)	1 level

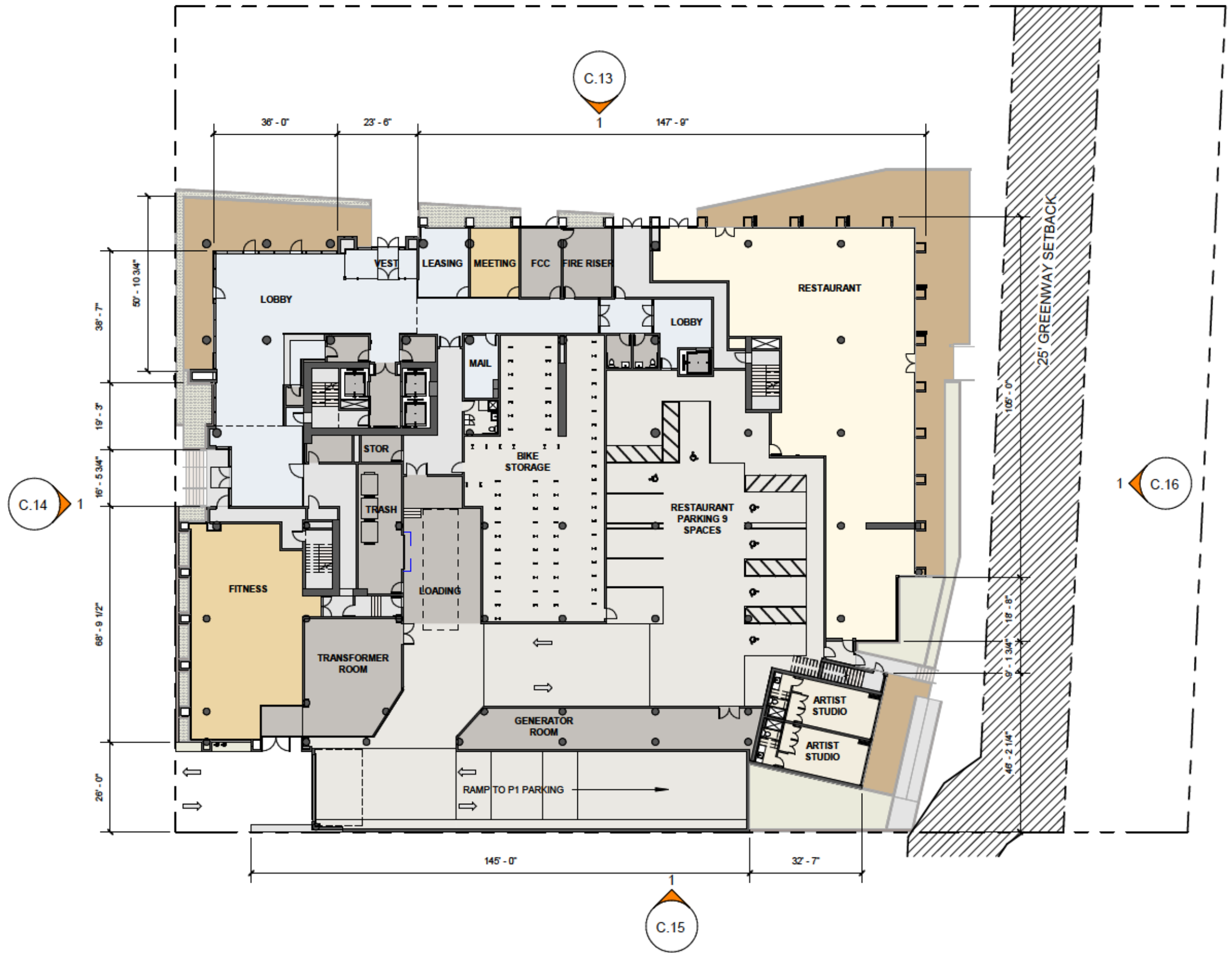
Level 10-17	Residential	
	Total	12,487 sf per level
Level 09	Residential Lounge Outdoor Roof Terrace	
	Total	12,487 sf
Level 08	Residential	
	Total	17,013 sf
Level 07	Residential Lounge Outdoor Roof Terrace	
	Total	16,835 sf
Level 03-06	Residential	
	Total	25,285 sf
Level 02	Residential Outdoor Roof Terrace	
	Total	24,446 sf
Level 01	Lobby Fitness Restaurant Bike Storage Restaurant Parking	
	Total	34,119 sf
Level P1	Parking	
	Total	52,252 sf



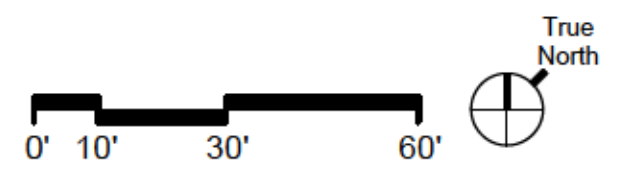


C.02 SITE PLAN





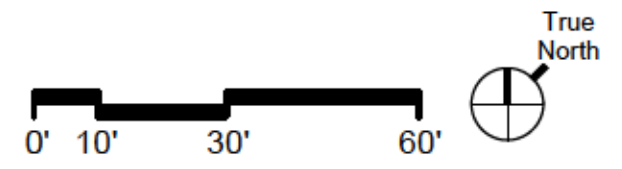
- Amenity
- Lobby
- Parking
- Restaurant
- Service
- Units
- Landscape

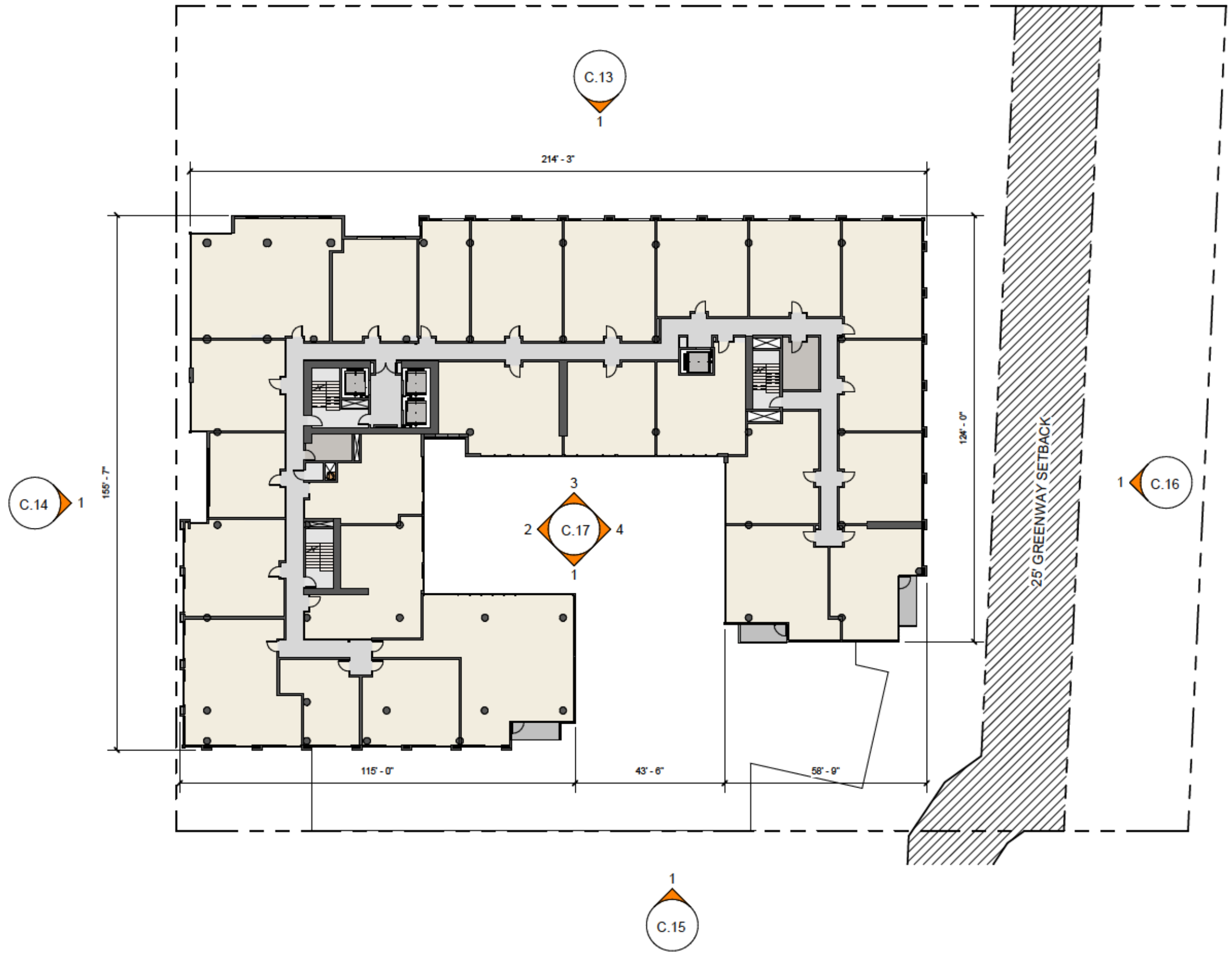


C.04 FLOOR PLAN - LEVEL 01

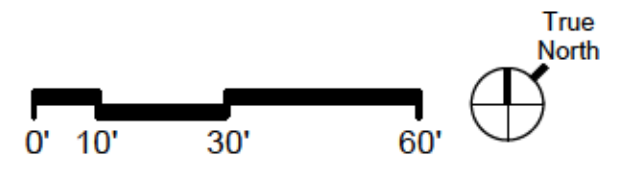


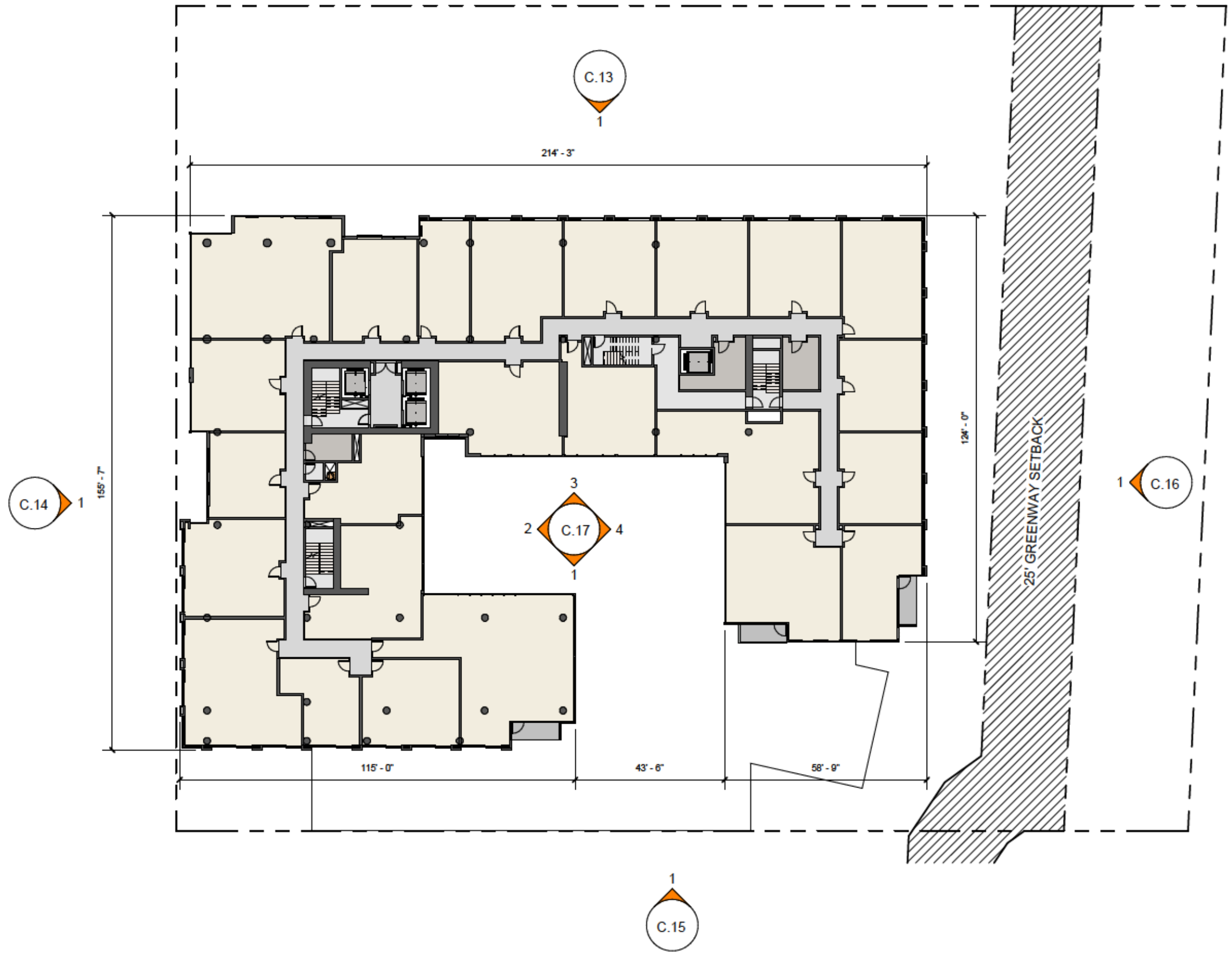
- Circulation
- Service
- Units
- Eco Roof (6,663 SF)



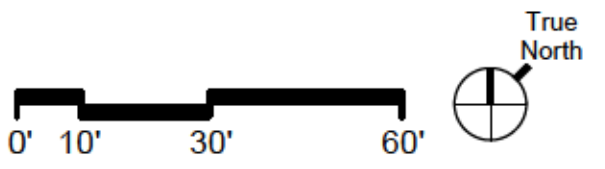


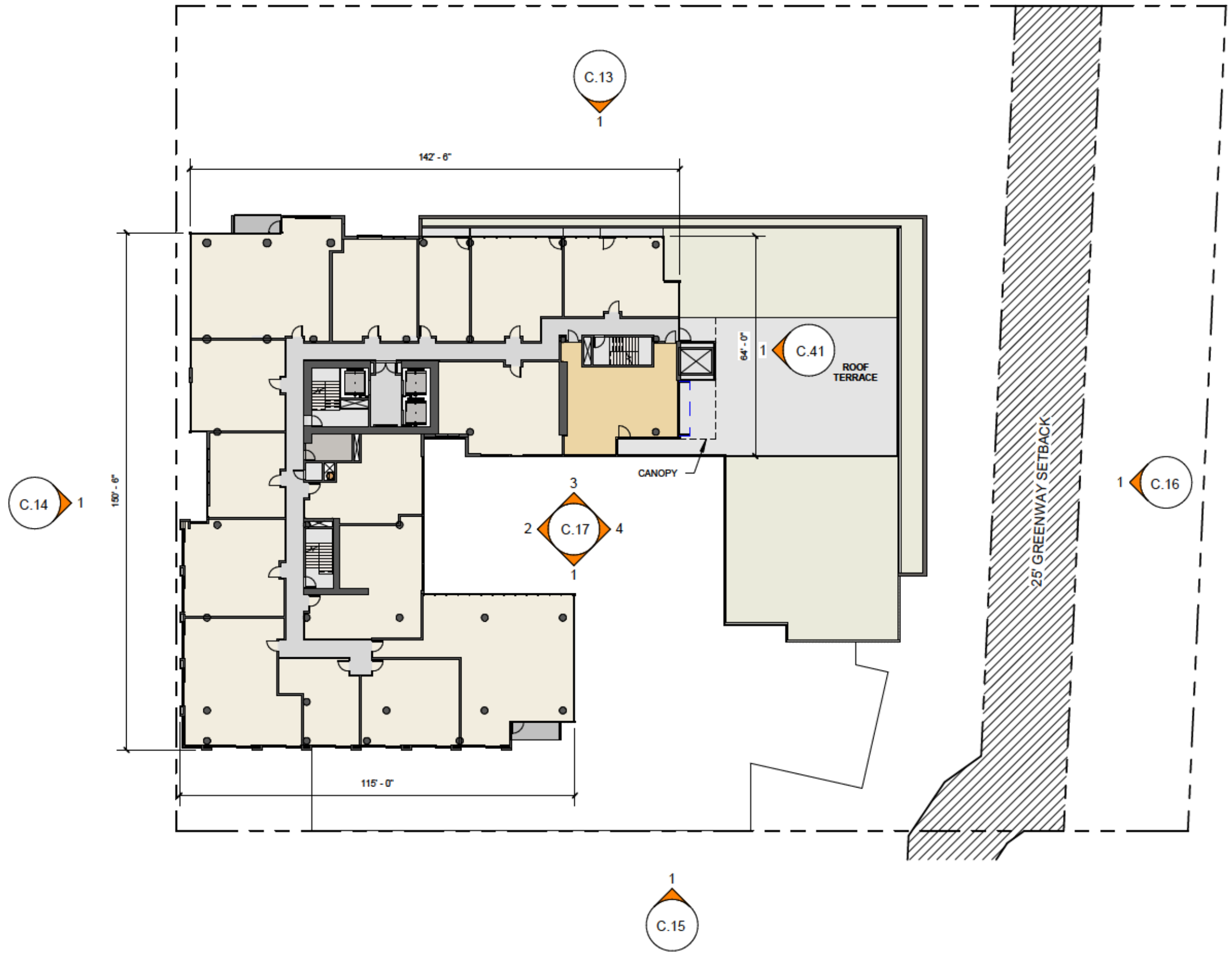
- Circulation
- Service
- Units



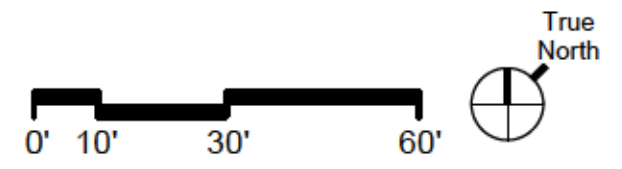


- Circulation
- Service
- Units

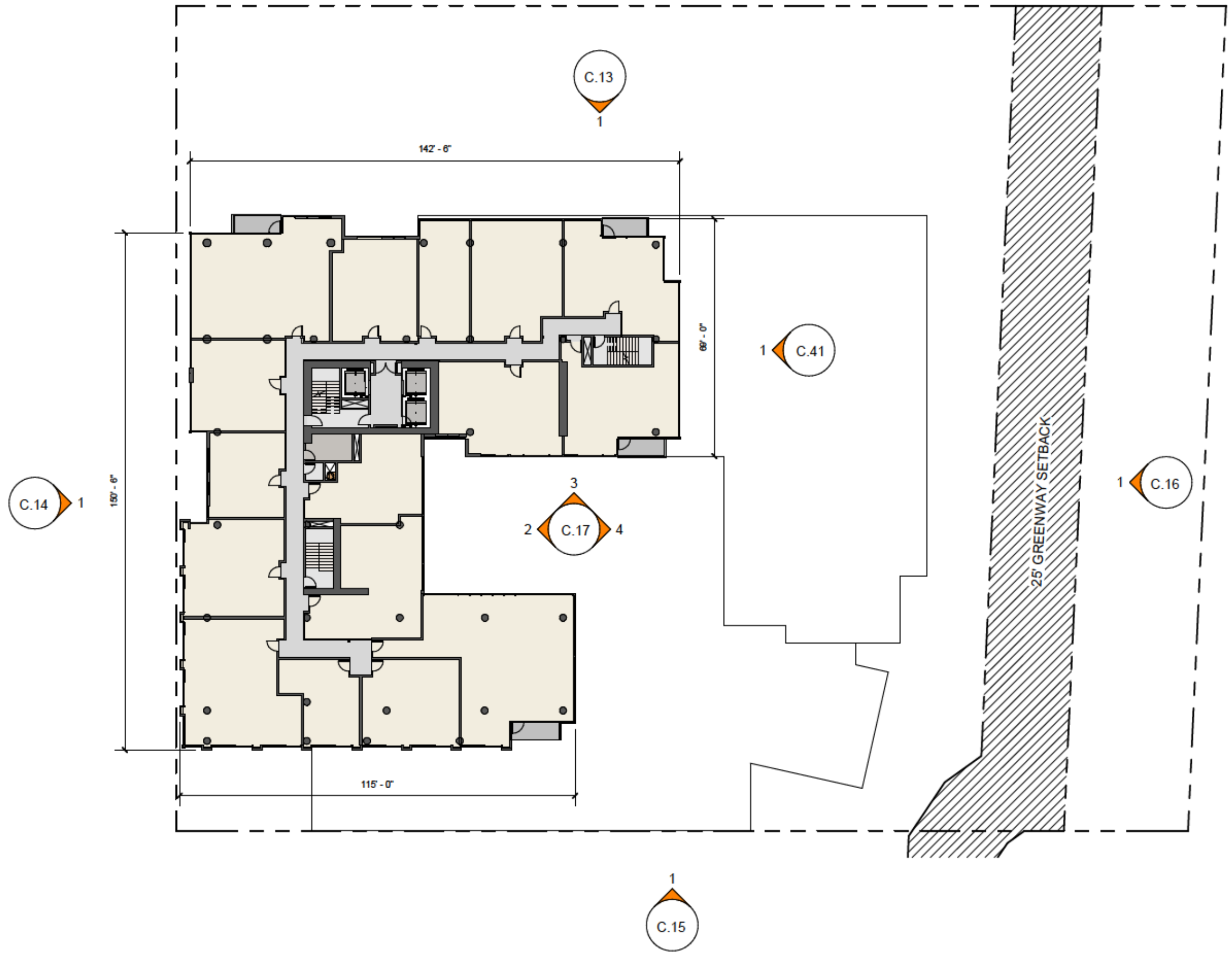




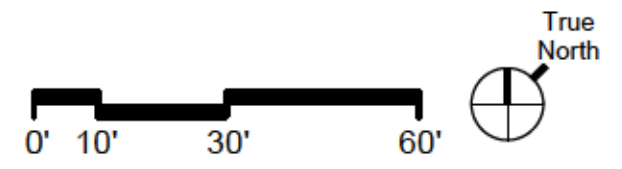
- Amenity
- Circulation
- Service
- Units
- Eco Roof (4,294 SF)

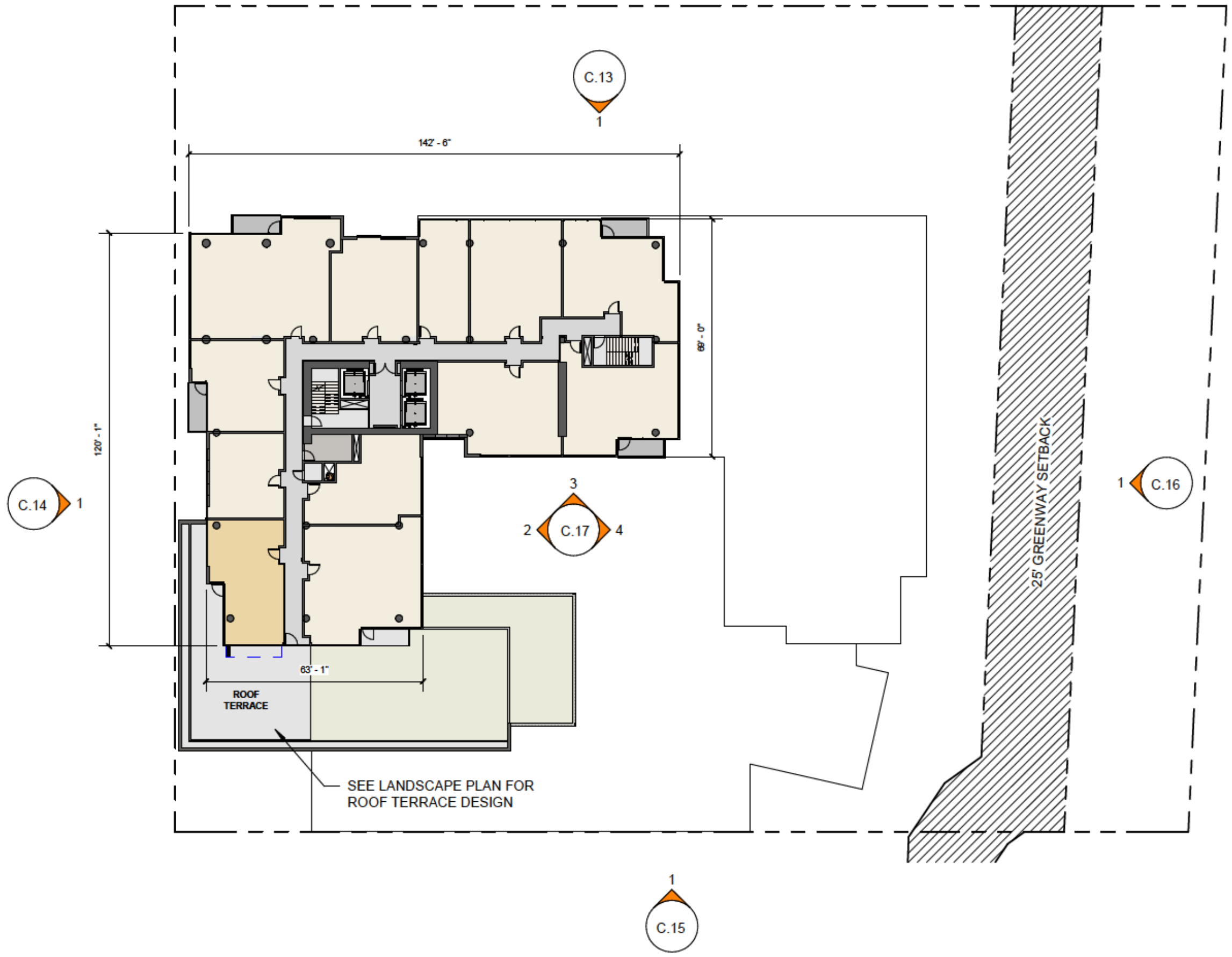


C.08 FLOOR PLAN - LEVEL 07

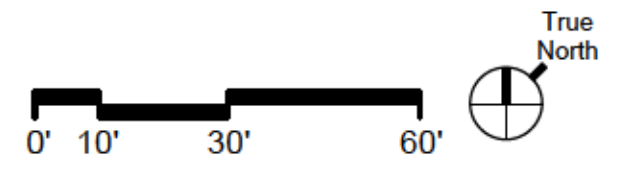


- Circulation
- Service
- Units

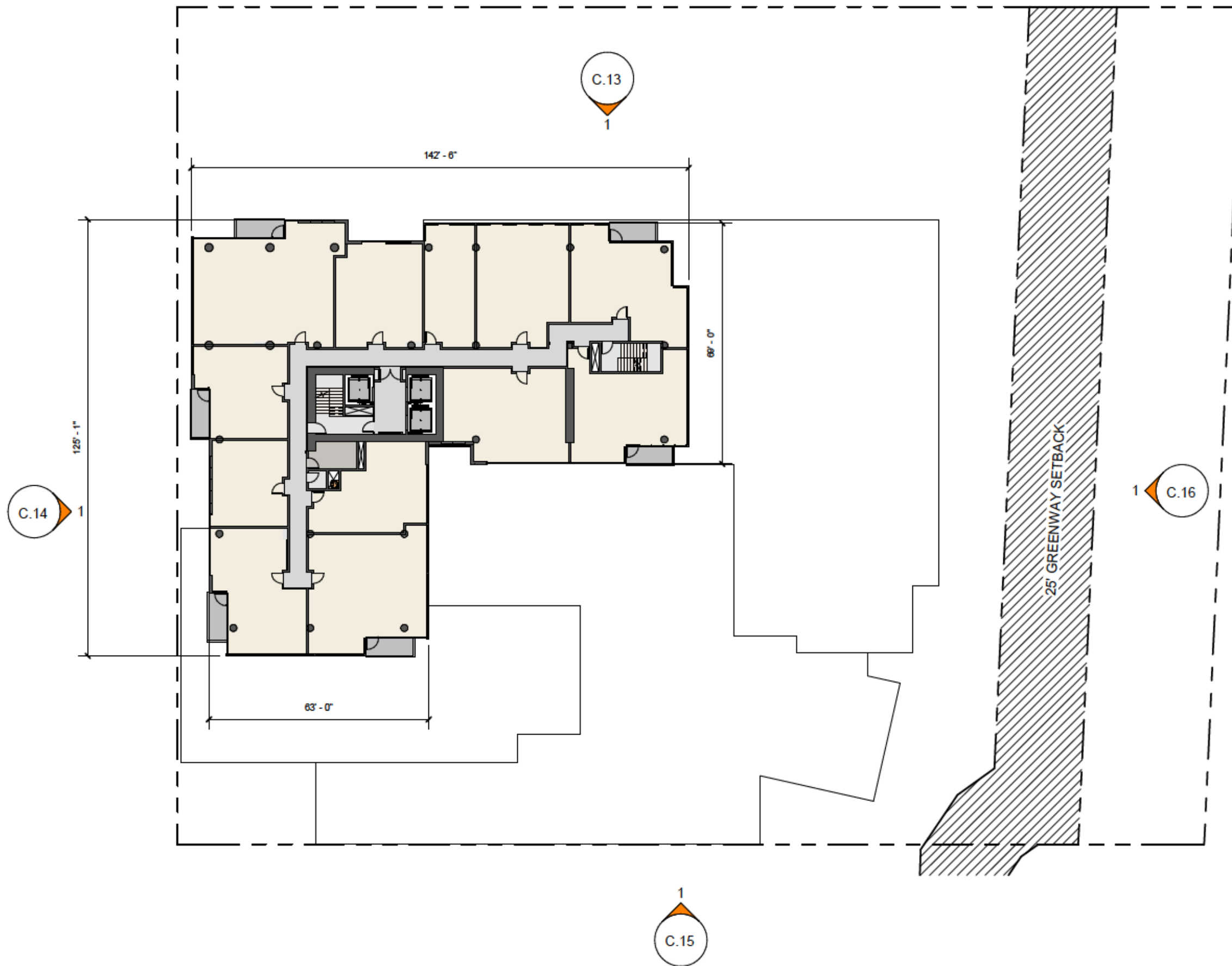




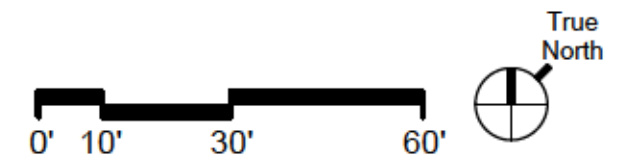
- Amenity
- Circulation
- Service
- Units
- Eco Roof (2,646 SF)

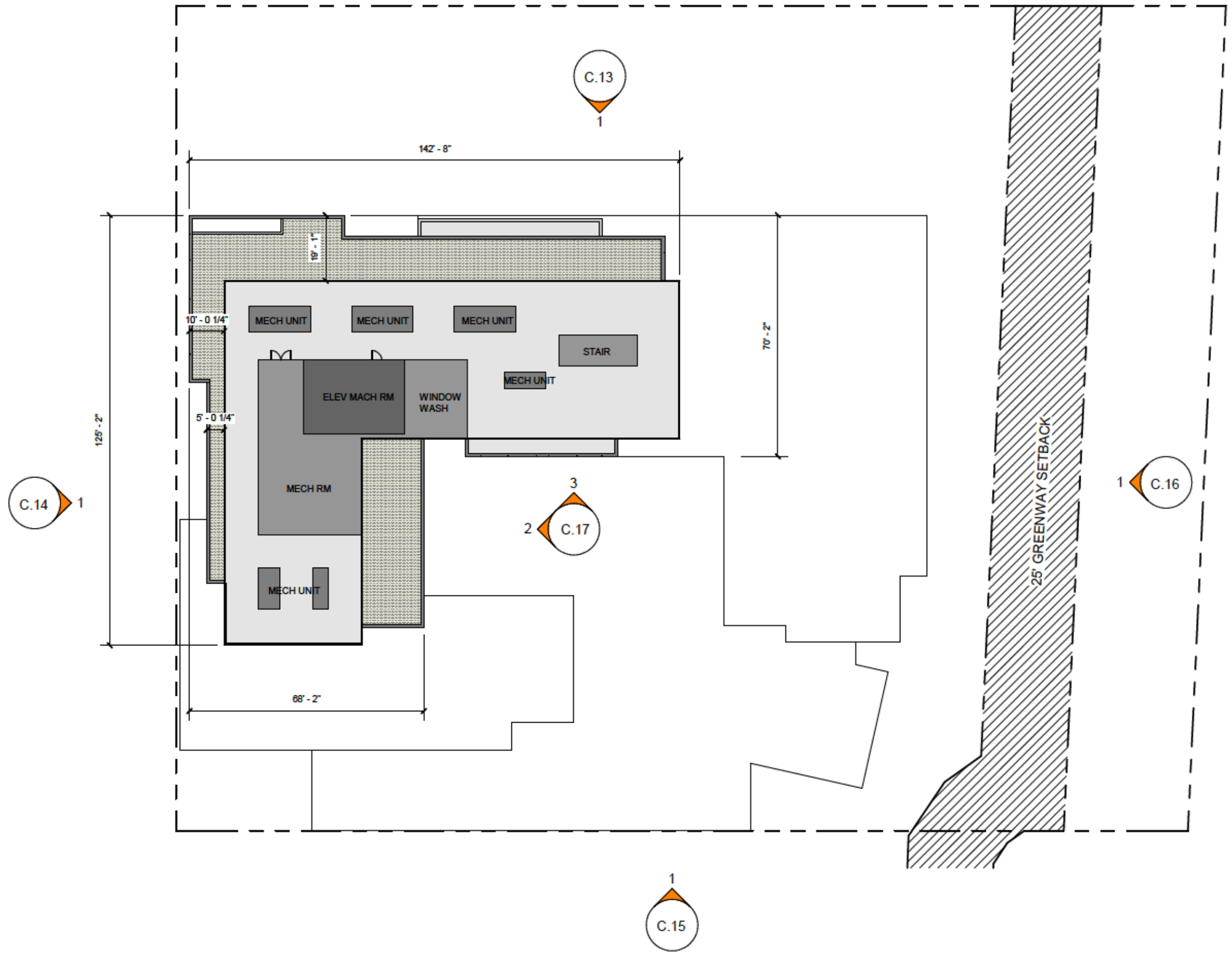


C.10 FLOOR PLAN - LEVEL 09

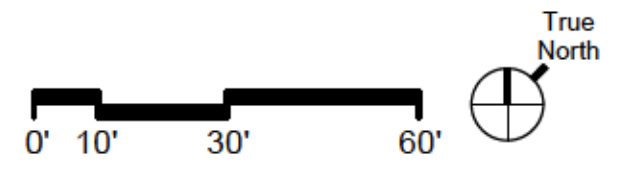


- Circulation
- Service
- Units

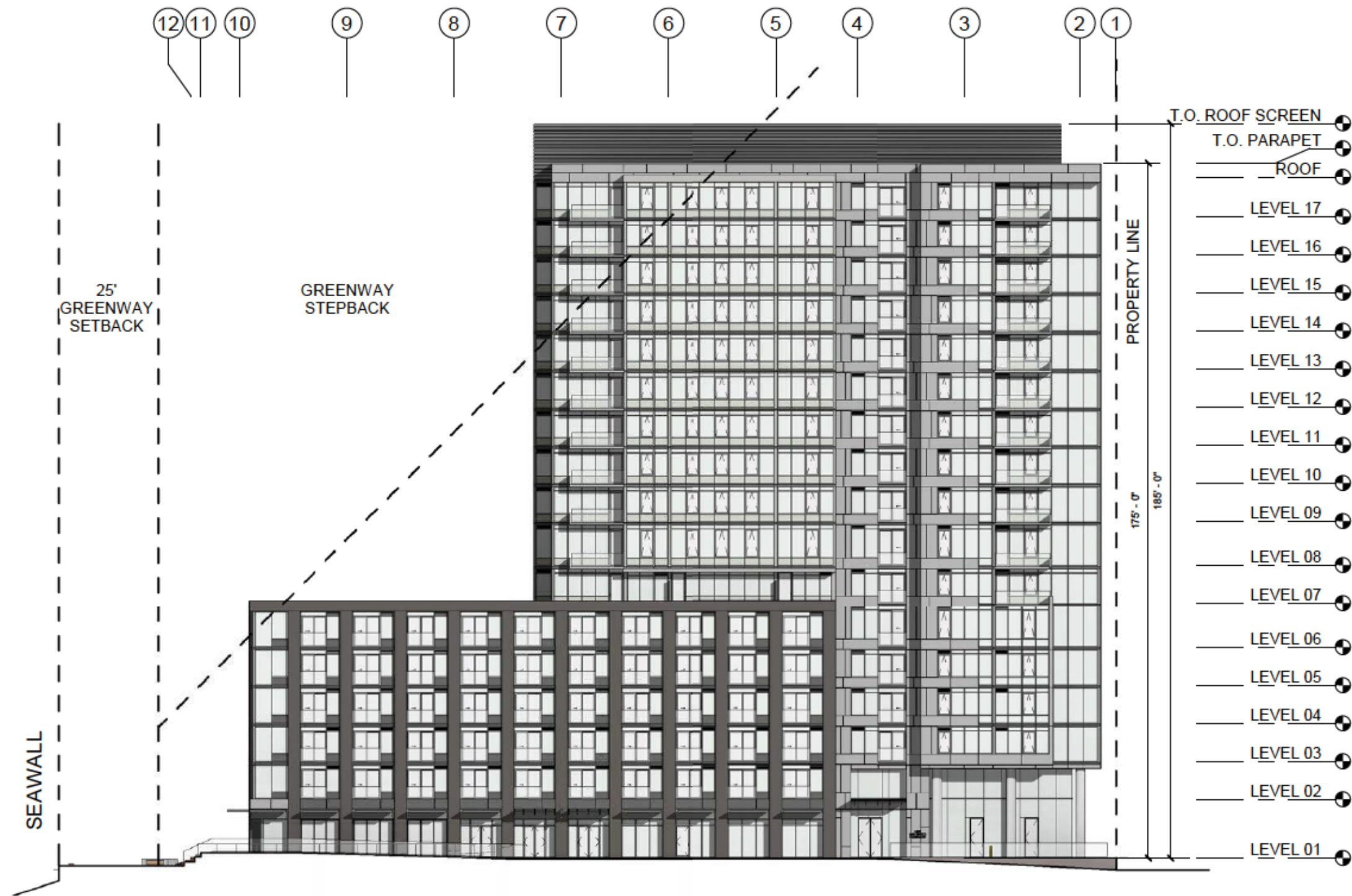




Eco Roof (3,207 SF)



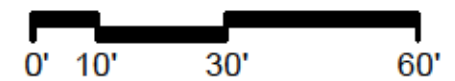
C.12 ROOF PLAN

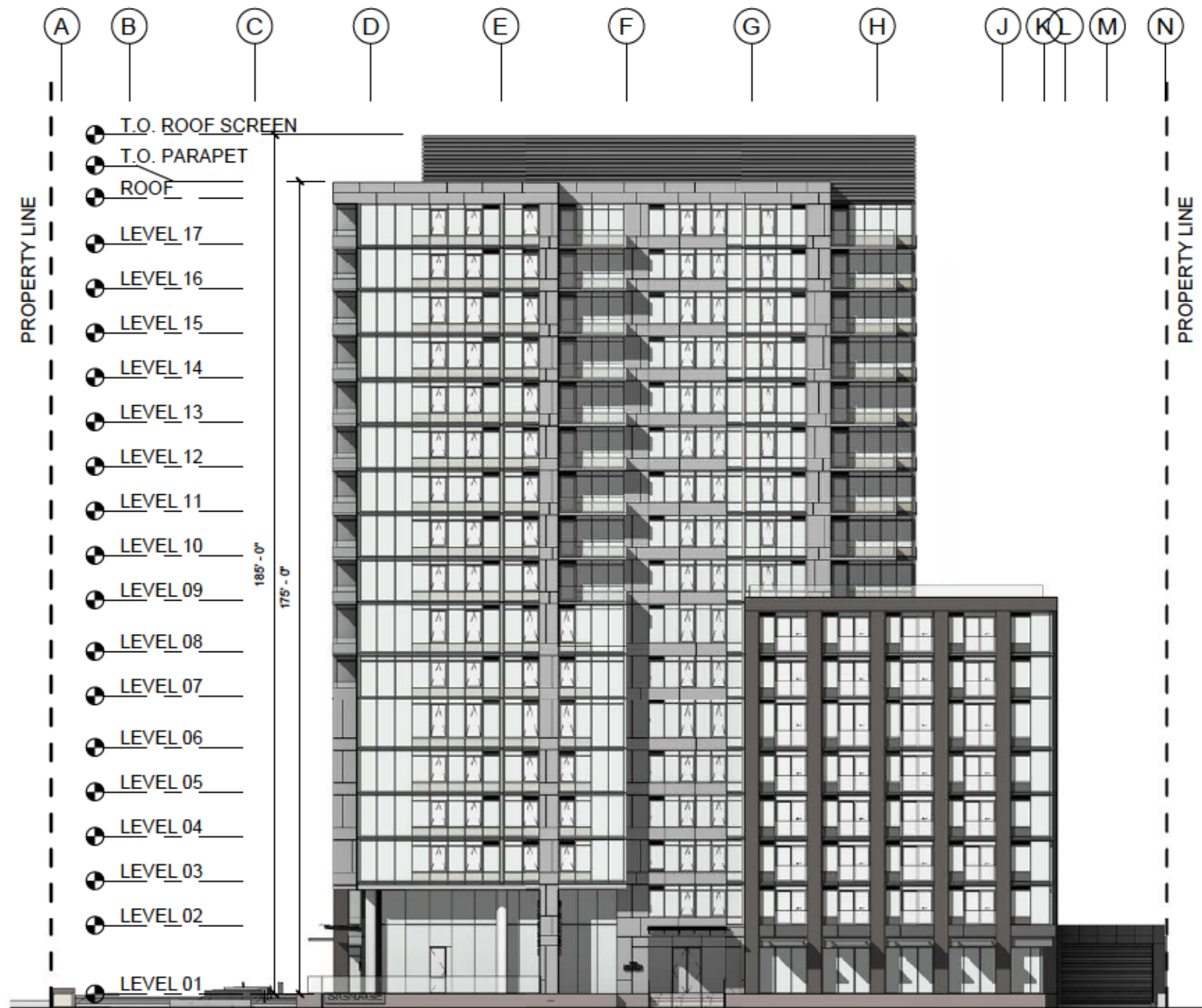


MATERIALS LEGEND - COLOR

- GLASS - CLEAR
- GLASS - SPANDREL - LIGHT
- GLASS - SPANDREL - DARK
- FLAT METAL PANEL - LIGHT
- FLAT METAL PANEL - DARK
- RIBBED METAL PANEL
- FIBER CEMENT PANEL - LIGHT
- FIBER CEMENT PANEL - DARK
- BRICK
- BOARD-FORMED CONCRETE

① BUILDING ELEVATION - NORTH
1" = 30'-0"

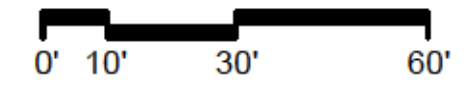


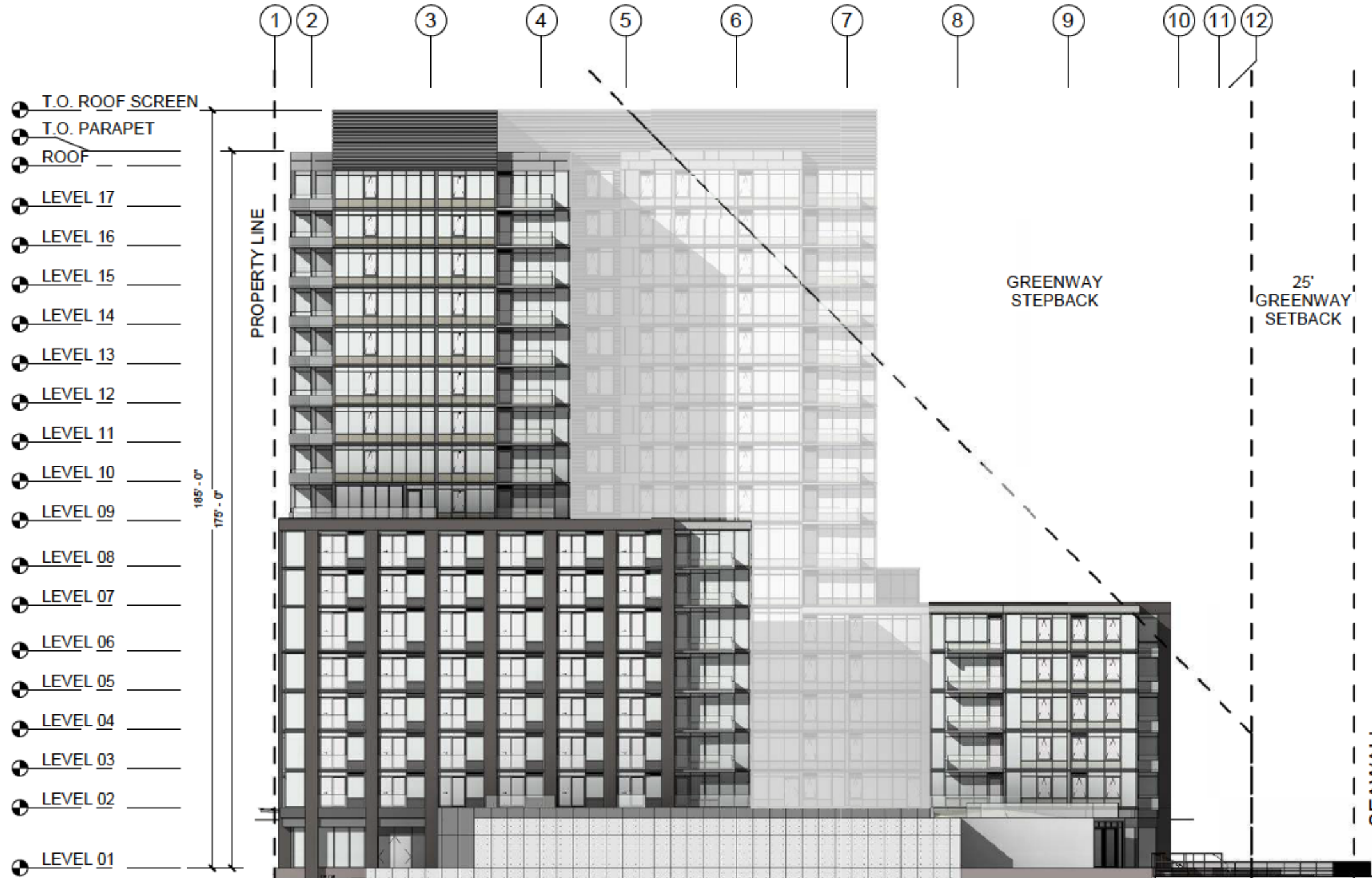


MATERIALS LEGEND - COLOR

[White Box]	GLASS - CLEAR
[Light Gray Box]	GLASS - SPANDREL - LIGHT
[Dark Gray Box]	GLASS - SPANDREL - DARK
[Medium Gray Box]	FLAT METAL PANEL - LIGHT
[Dark Gray Box]	FLAT METAL PANEL - DARK
[Hatched Box]	RIBBED METAL PANEL
[Light Gray Box]	FIBER CEMENT PANEL - LIGHT
[Dark Gray Box]	FIBER CEMENT PANEL - DARK
[Dark Gray Box]	BRICK
[Hatched Box]	BOARD-FORMED CONCRETE

① BUILDING ELEVATION - WEST
1" = 30'-0"

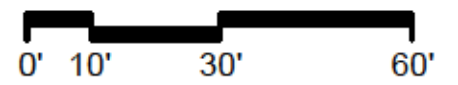


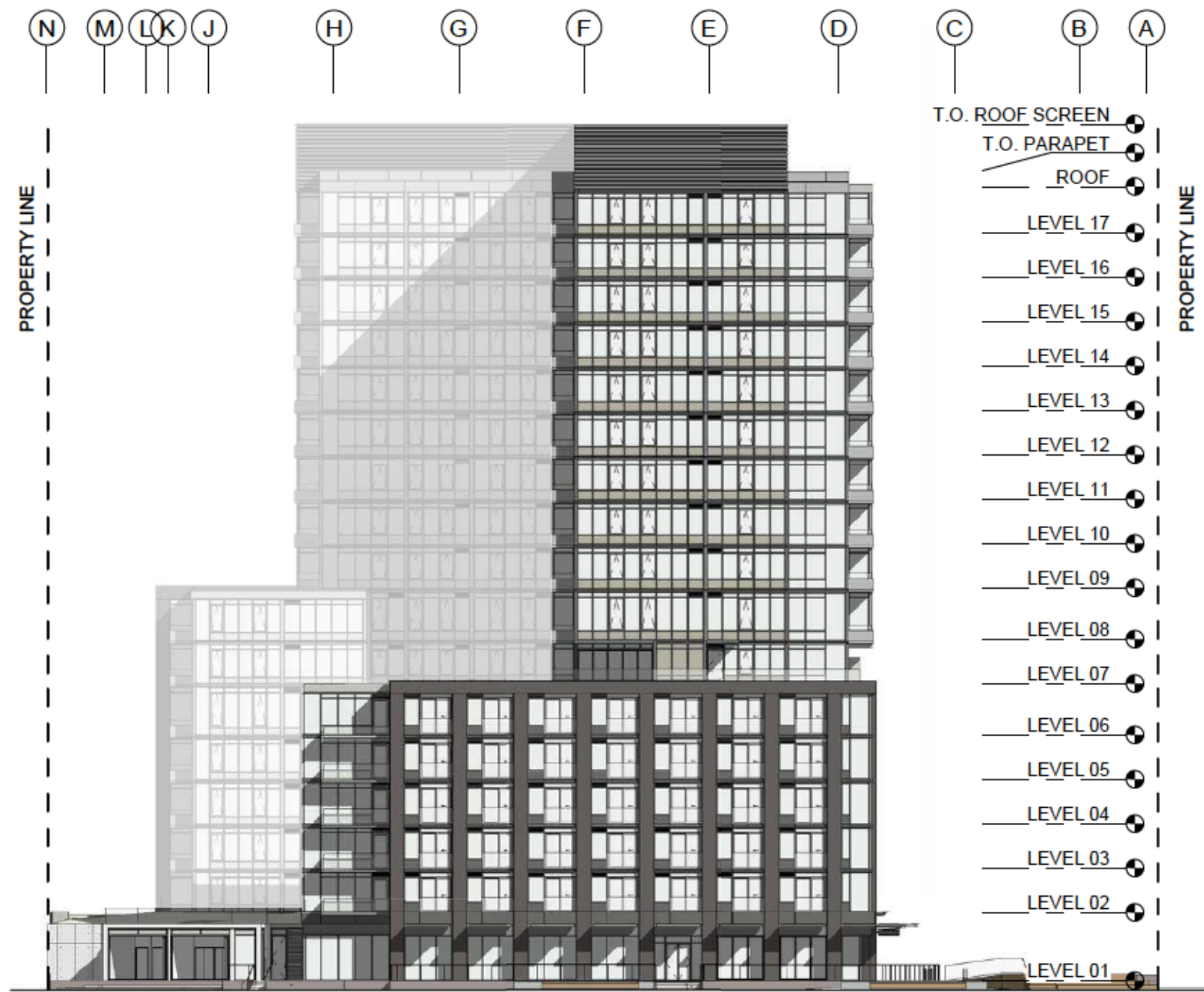


MATERIALS LEGEND - COLOR

[Light Gray Box]	GLASS - CLEAR
[Medium Gray Box]	GLASS - SPANDREL - LIGHT
[Dark Gray Box]	GLASS - SPANDREL - DARK
[Light Gray Box]	FLAT METAL PANEL - LIGHT
[Dark Gray Box]	FLAT METAL PANEL - DARK
[Black Box]	RIBBED METAL PANEL
[Light Gray Box]	FIBER CEMENT PANEL - LIGHT
[Dark Gray Box]	FIBER CEMENT PANEL - DARK
[Black Box]	BRICK
[Hatched Box]	BOARD-FORMED CONCRETE

① BUILDING ELEVATION - SOUTH
1" = 30'-0"

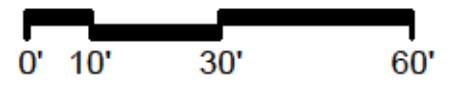


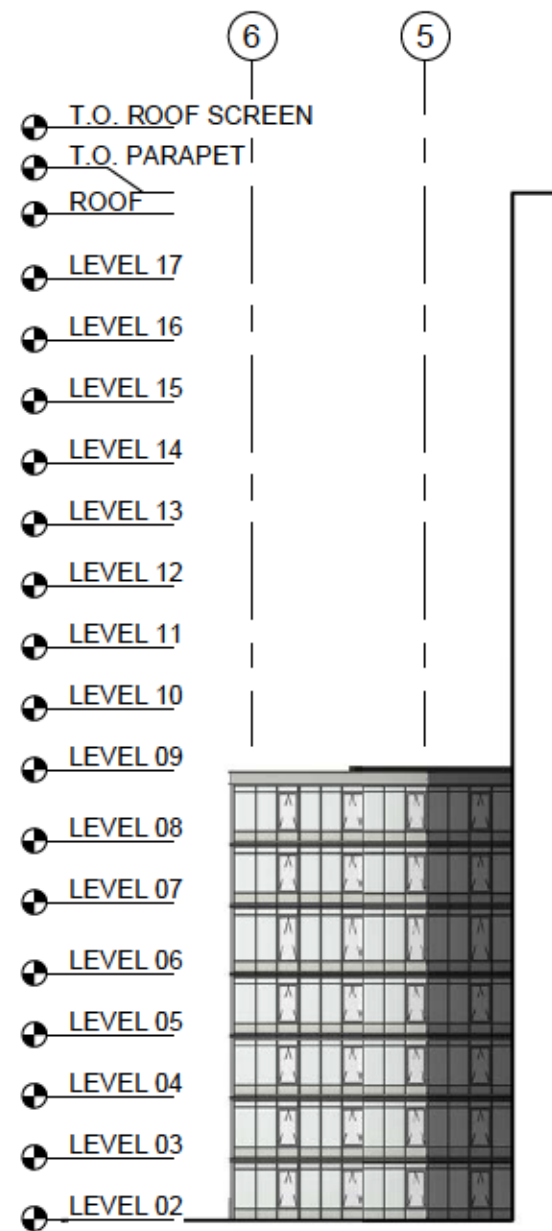


MATERIALS LEGEND - COLOR

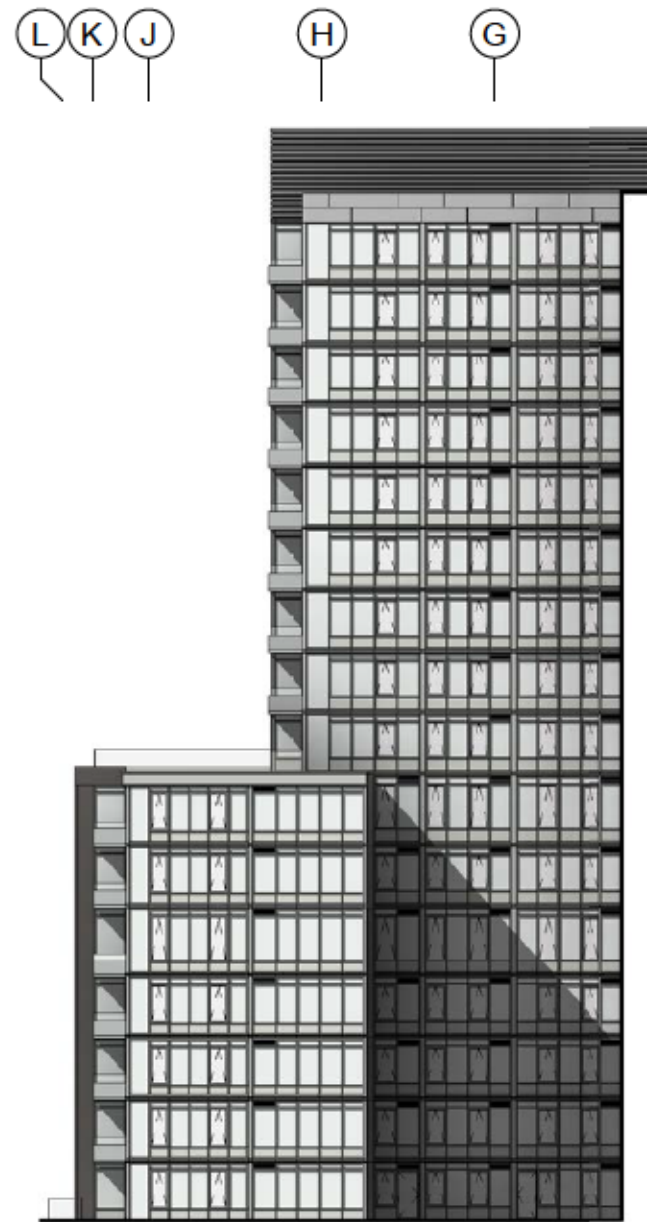
- GLASS - CLEAR
- GLASS - SPANDREL - LIGHT
- GLASS - SPANDREL - DARK
- FLAT METAL PANEL - LIGHT
- FLAT METAL PANEL - DARK
- RIBBED METAL PANEL
- FIBER CEMENT PANEL - LIGHT
- FIBER CEMENT PANEL - DARK
- BRICK
- BOARD-FORMED CONCRETE

① BUILDING ELEVATION - EAST
1" = 30'-0"

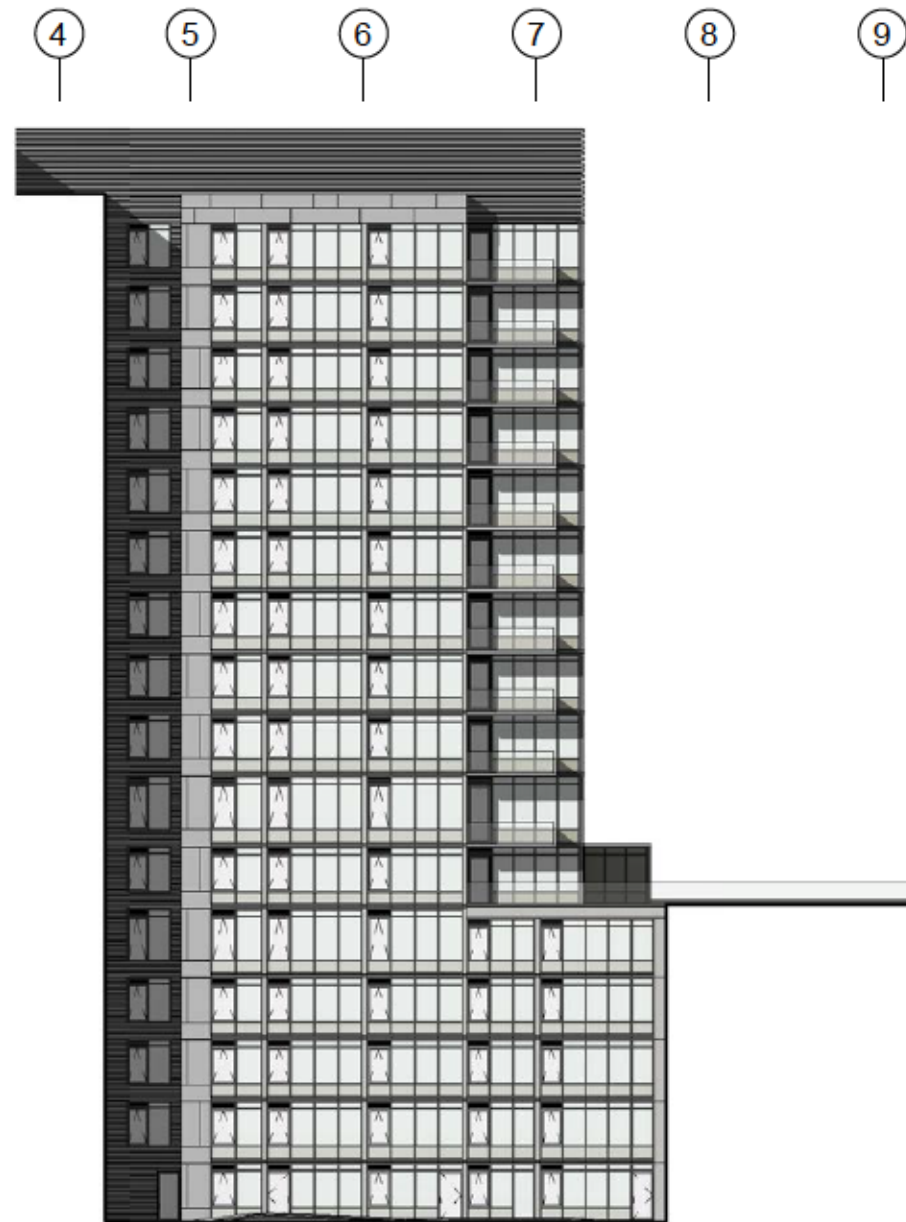




NORTH



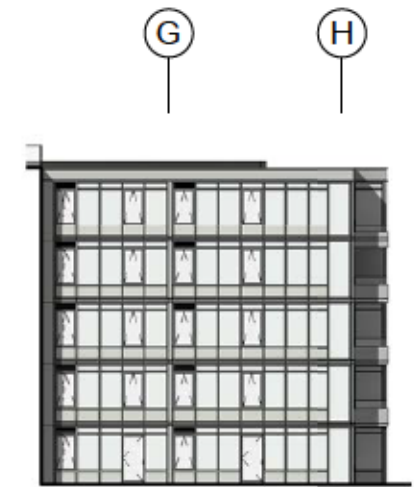
EAST



SOUTH

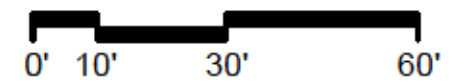
MATERIALS LEGEND - COLOR

	GLASS - CLEAR
	GLASS - SPANDREL - LIGHT
	GLASS - SPANDREL - DARK
	FLAT METAL PANEL - LIGHT
	FLAT METAL PANEL - DARK
	RIBBED METAL PANEL
	FIBER CEMENT PANEL - LIGHT
	FIBER CEMENT PANEL - DARK
	BRICK
	BOARD-FORMED CONCRETE













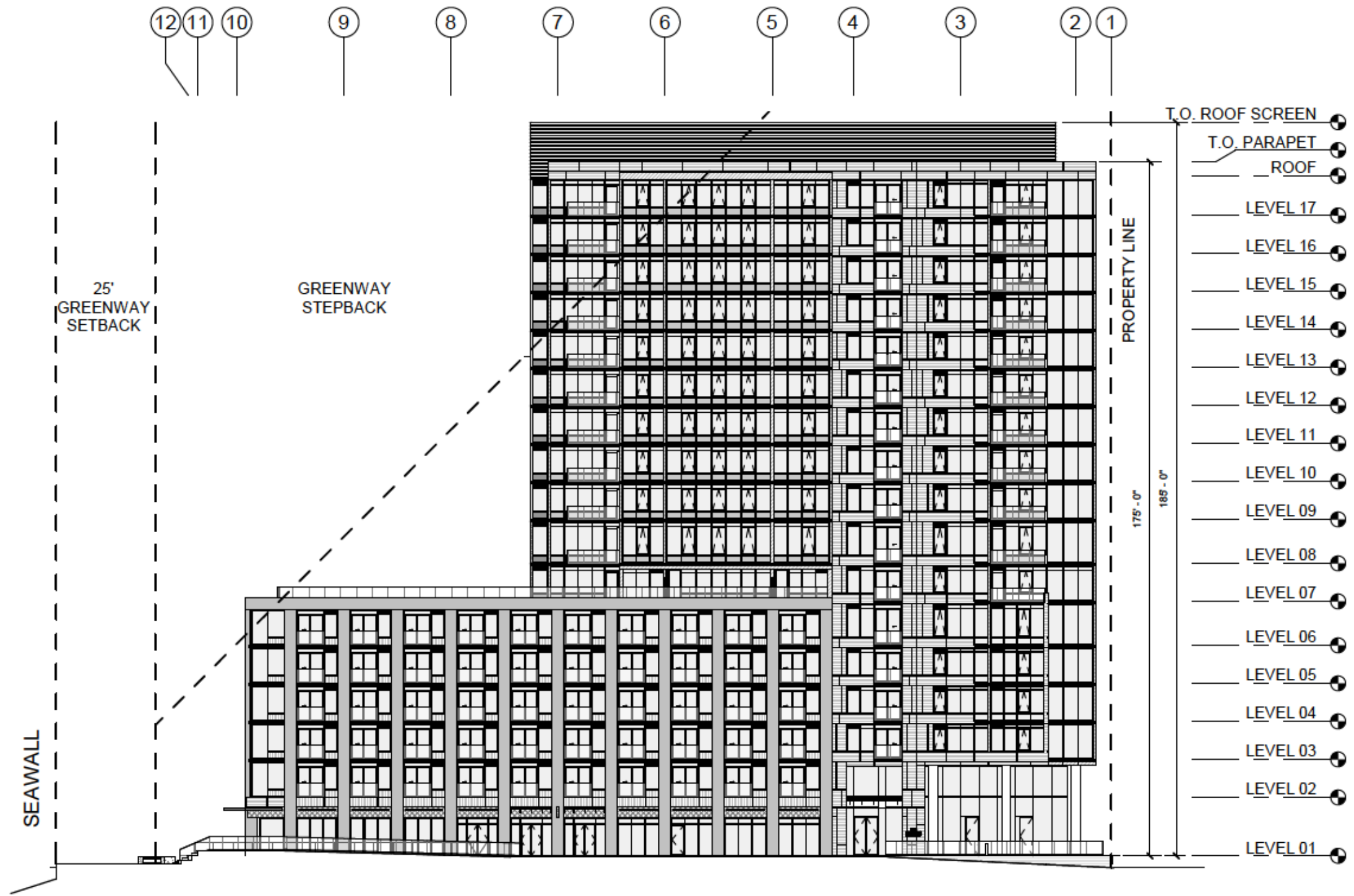
WEST

1 BUILDING ELEVATIONS - COURTYARD
1" = 30'-0"

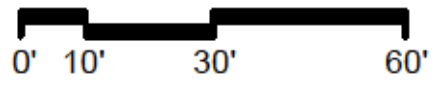


MATERIALS LEGEND - BW





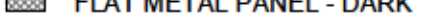



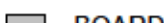

-  GLASS - CLEAR
-  GLASS - SPANDREL - LIGHT
-  GLASS - SPANDREL - DARK
-  FLAT METAL PANEL - LIGHT
-  FLAT METAL PANEL - DARK
-  RIBBED METAL PANEL
-  FIBER CEMENT PANEL - LIGHT
-  FIBER CEMENT PANEL - DARK
-  BRICK
-  BOARD-FORMED CONCRETE

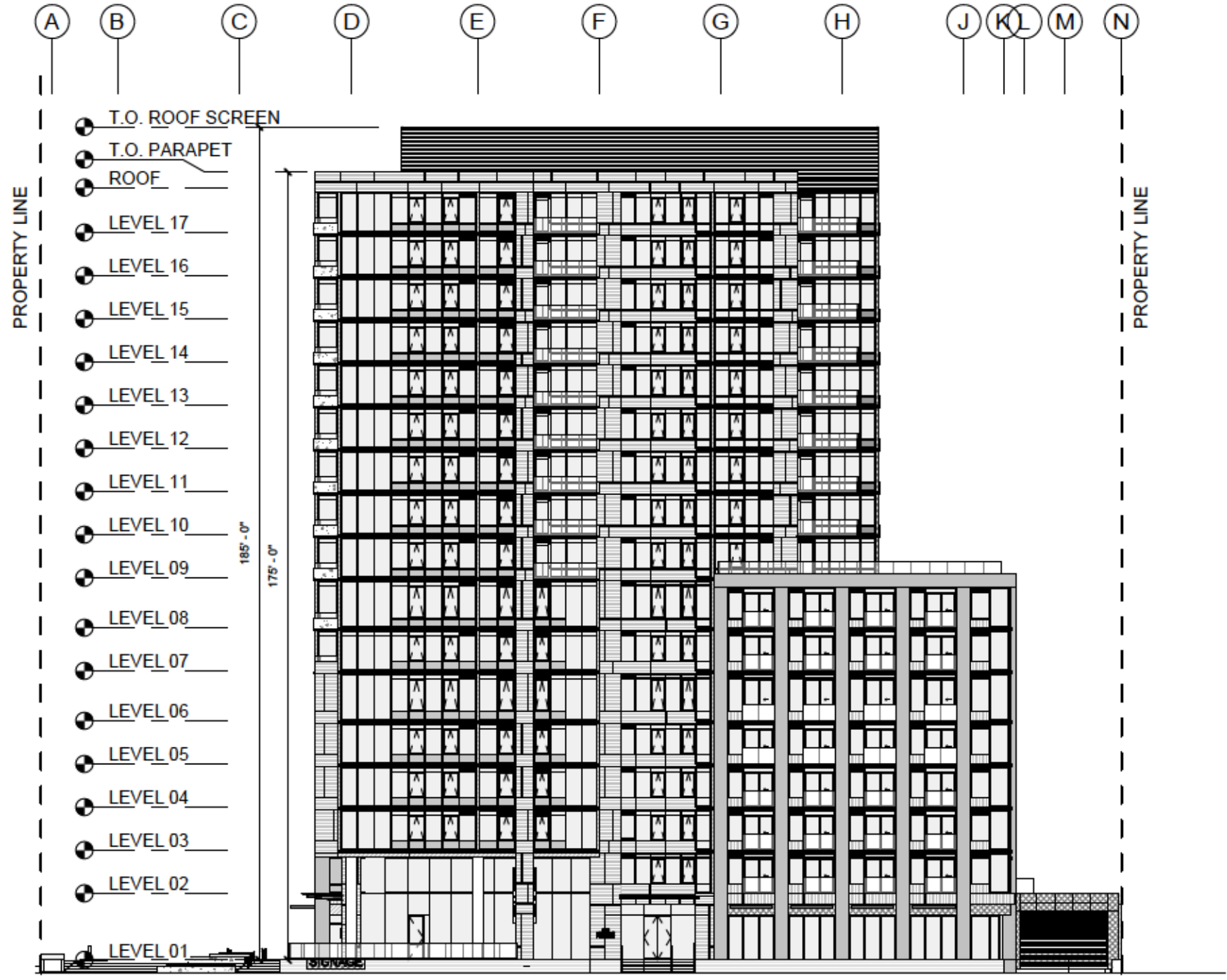


① NORTH ELEVATION
1" = 30'-0"

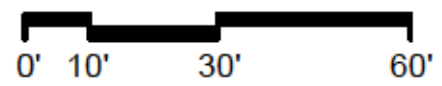


MATERIALS LEGEND - BW











-  GLASS - CLEAR
-  GLASS - SPANDREL - LIGHT
-  GLASS - SPANDREL - DARK
-  FLAT METAL PANEL - LIGHT
-  FLAT METAL PANEL - DARK
-  RIBBED METAL PANEL
-  FIBER CEMENT PANEL - LIGHT
-  FIBER CEMENT PANEL - DARK
-  BRICK
-  BOARD-FORMED CONCRETE

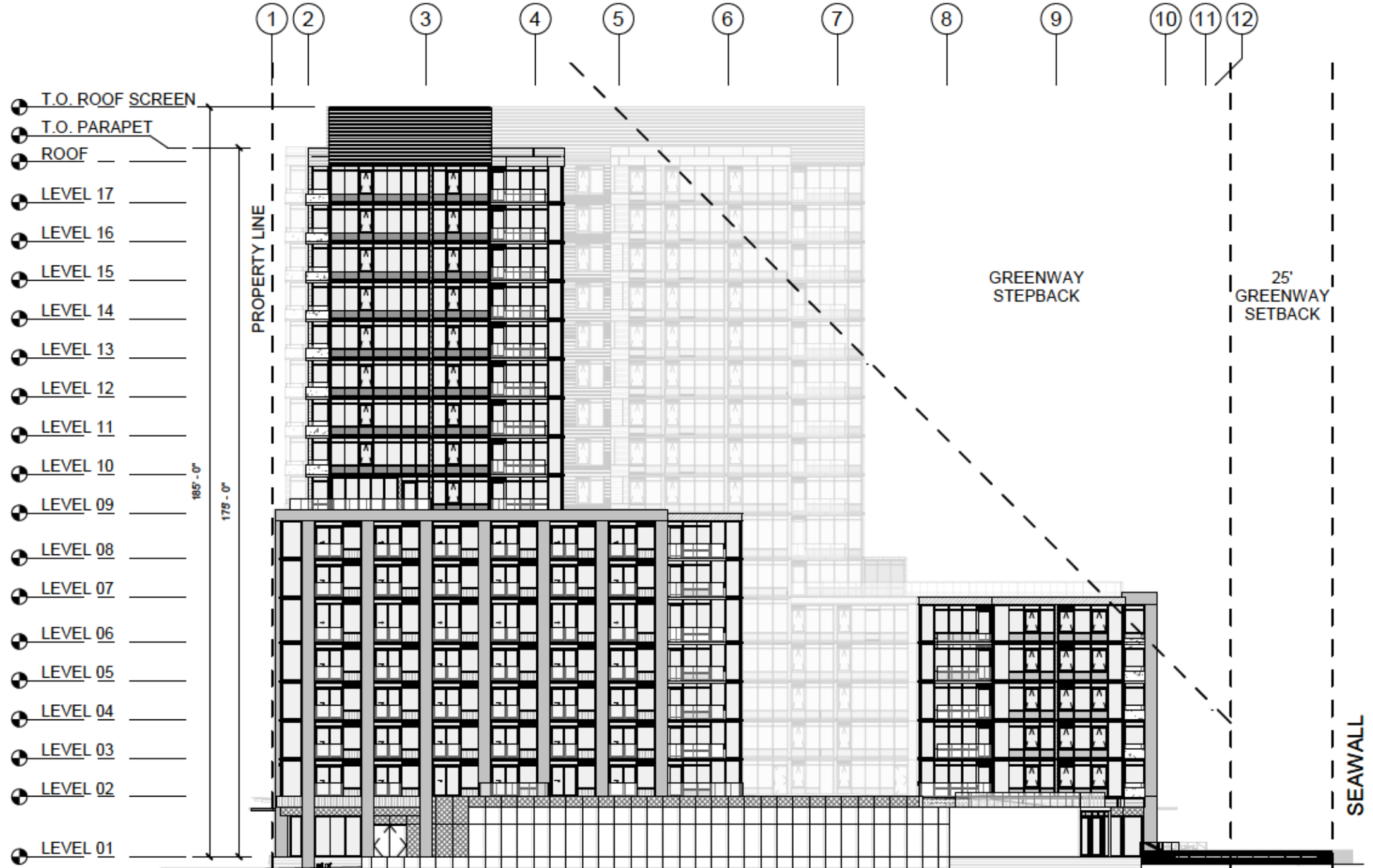


① WEST ELEVATION
1" = 30'-0"

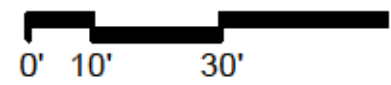


MATERIALS LEGEND - BW











-  GLASS - CLEAR
-  GLASS - SPANDREL - LIGHT
-  GLASS - SPANDREL - DARK
-  FLAT METAL PANEL - LIGHT
-  FLAT METAL PANEL - DARK
-  RIBBED METAL PANEL
-  FIBER CEMENT PANEL - LIGHT
-  FIBER CEMENT PANEL - DARK
-  BRICK
-  BOARD-FORMED CONCRETE

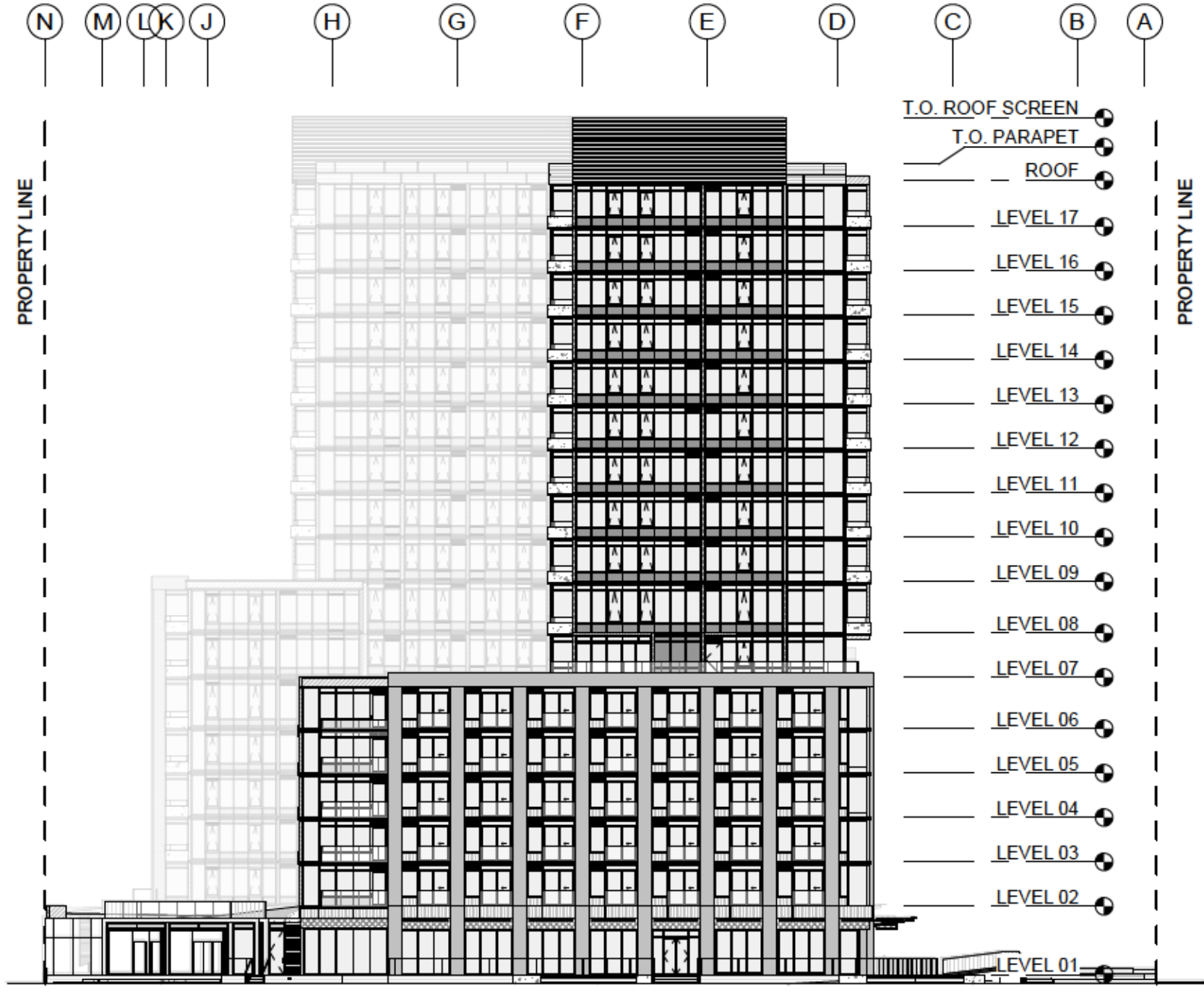


① SOUTH ELEVATION
1" = 30'-0"

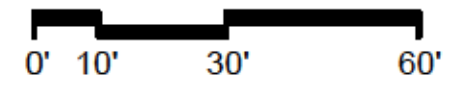


MATERIALS LEGEND - B/W











-  GLASS - CLEAR
-  GLASS - SPANDREL - LIGHT
-  GLASS - SPANDREL - DARK
-  FLAT METAL PANEL - LIGHT
-  FLAT METAL PANEL - DARK
-  RIBBED METAL PANEL
-  FIBER CEMENT PANEL - LIGHT
-  FIBER CEMENT PANEL - DARK
-  BRICK
-  BOARD-FORMED CONCRETE



① EAST ELEVATION
1" = 30'-0"

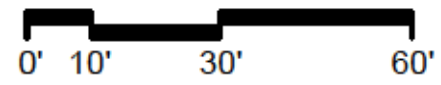


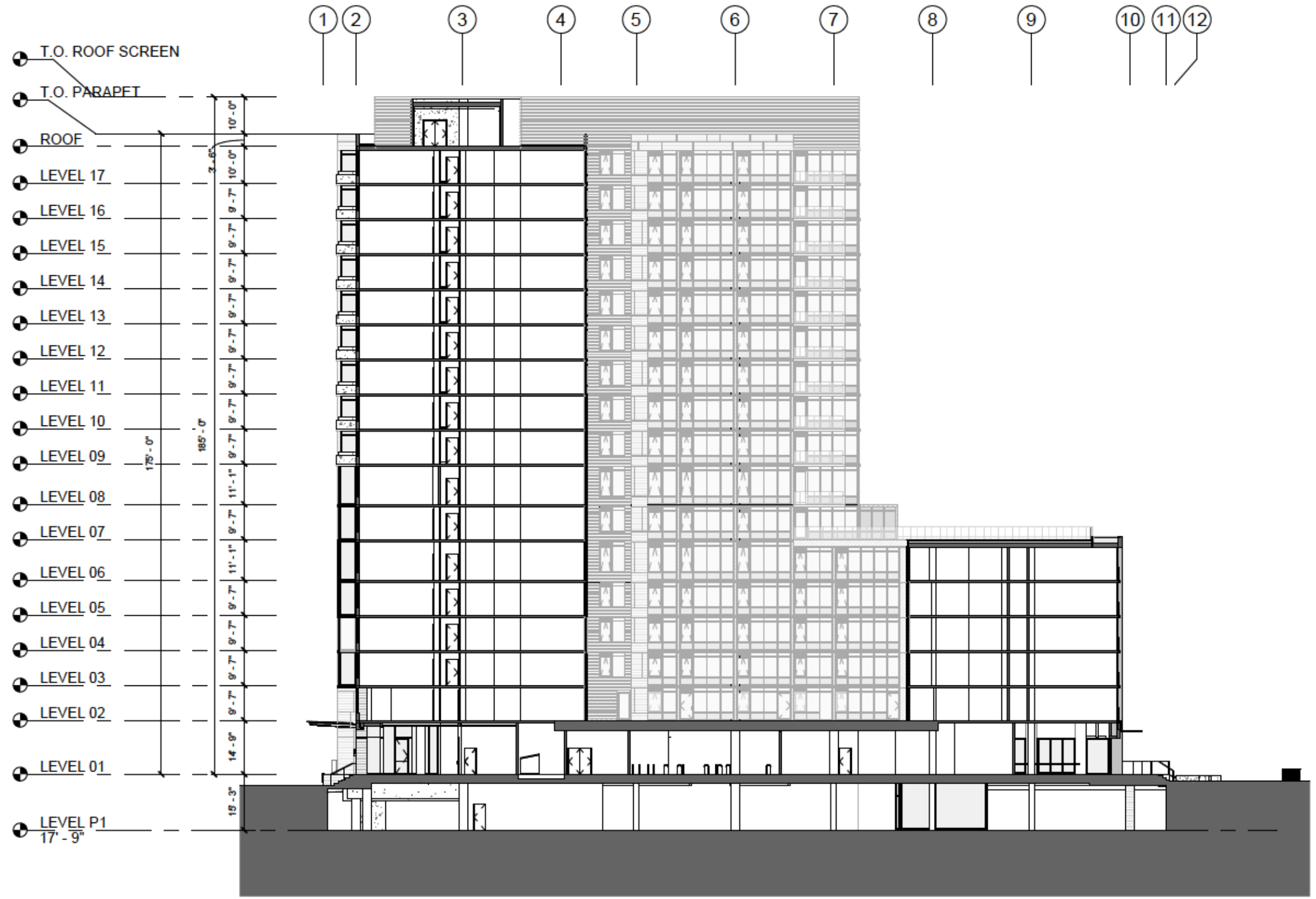
MATERIALS LEGEND - B/W

-  GLASS - CLEAR
-  GLASS - SPANDREL - LIGHT
-  GLASS - SPANDREL - DARK
-  FLAT METAL PANEL - LIGHT
-  FLAT METAL PANEL - DARK
-  RIBBED METAL PANEL
-  FIBER CEMENT PANEL - LIGHT
-  FIBER CEMENT PANEL - DARK
-  BRICK
-  BOARD-FORMED CONCRETE

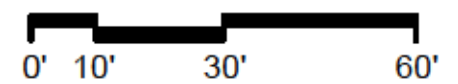


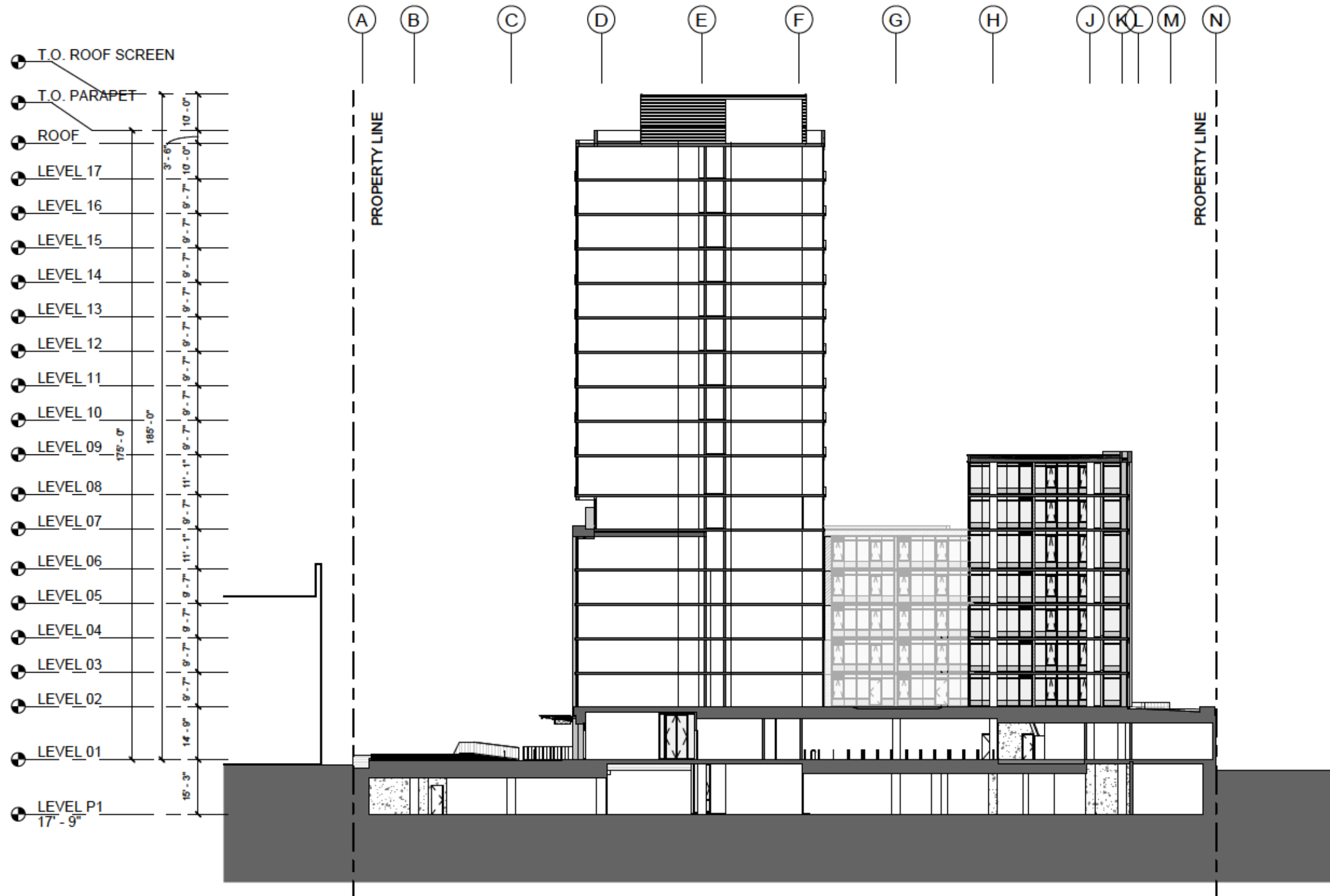
① BUILDING ELEVATIONS - COURTYARD
1" = 30'-0"



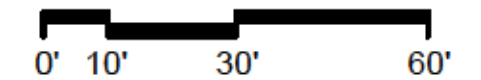


① BUILDING SECTION - E/W
1" = 30'-0"



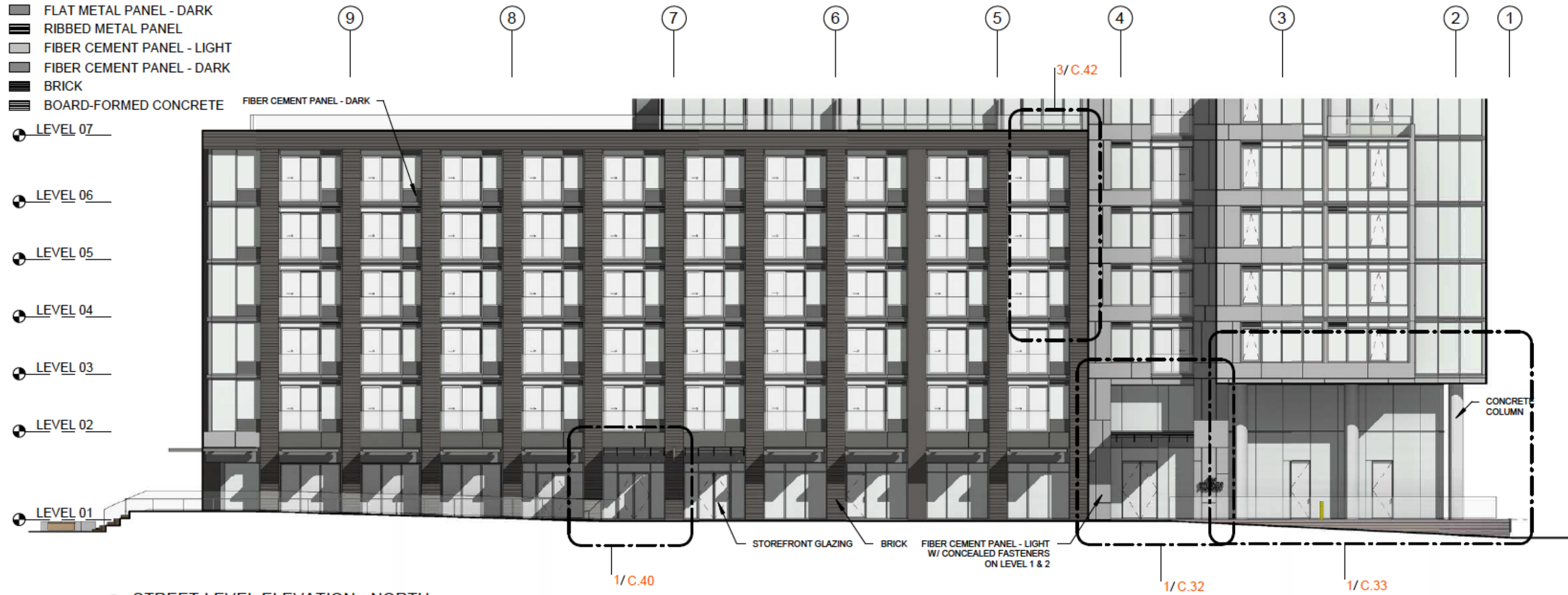


① BUILDING SECTION - N/S
1" = 30'-0"



MATERIALS LEGEND - COLOR

- GLASS - CLEAR
- GLASS - SPANDREL - LIGHT
- GLASS - SPANDREL - DARK
- FLAT METAL PANEL - LIGHT
- FLAT METAL PANEL - DARK
- RIBBED METAL PANEL
- FIBER CEMENT PANEL - LIGHT
- FIBER CEMENT PANEL - DARK
- BRICK
- BOARD-FORMED CONCRETE



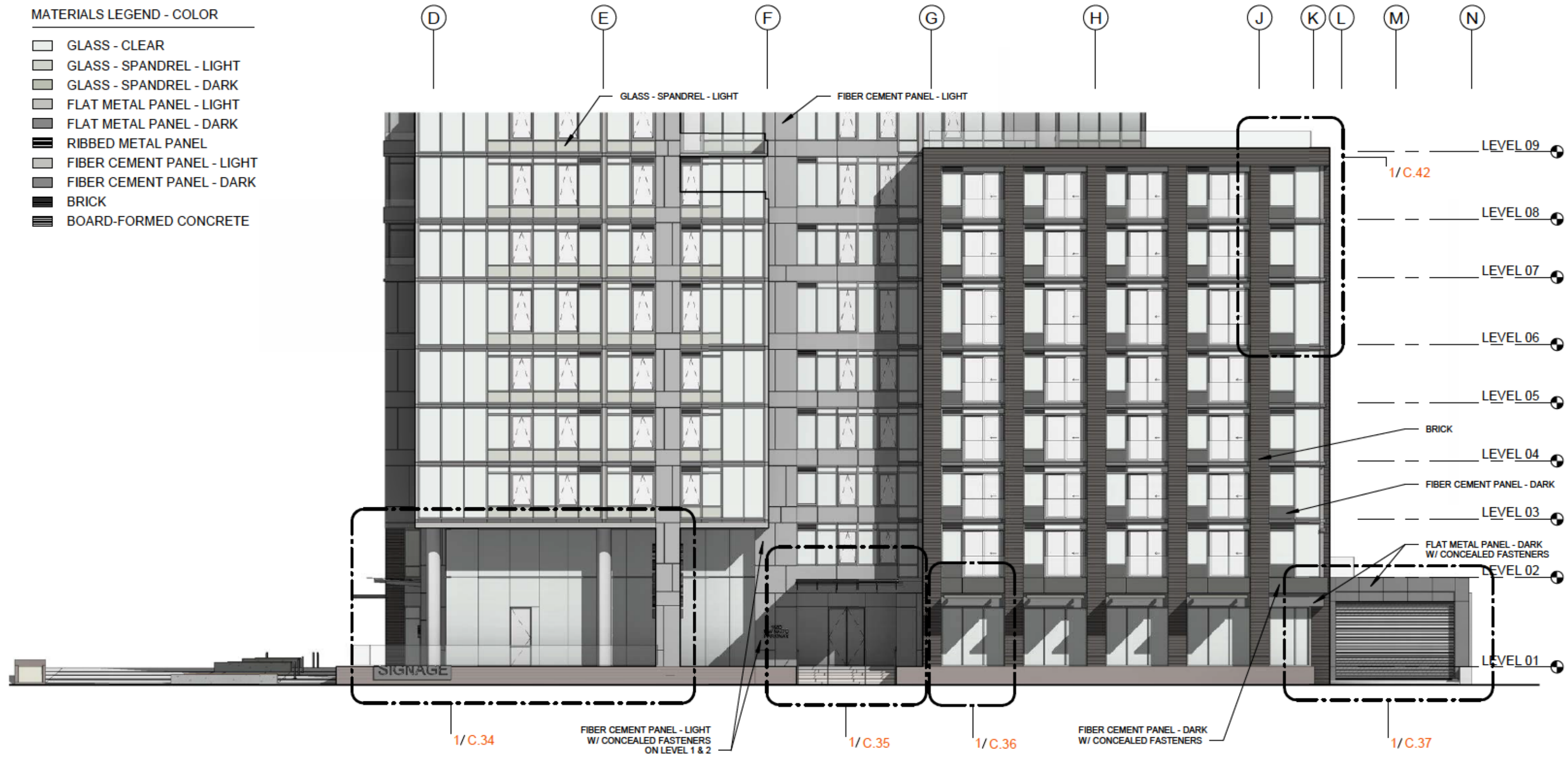
① STREET-LEVEL ELEVATION - NORTH
1/16" = 1'-0"



② STREET-LEVEL ELEVATION - NORTH
PLAZA
1/16" = 1'-0"

MATERIALS LEGEND - COLOR

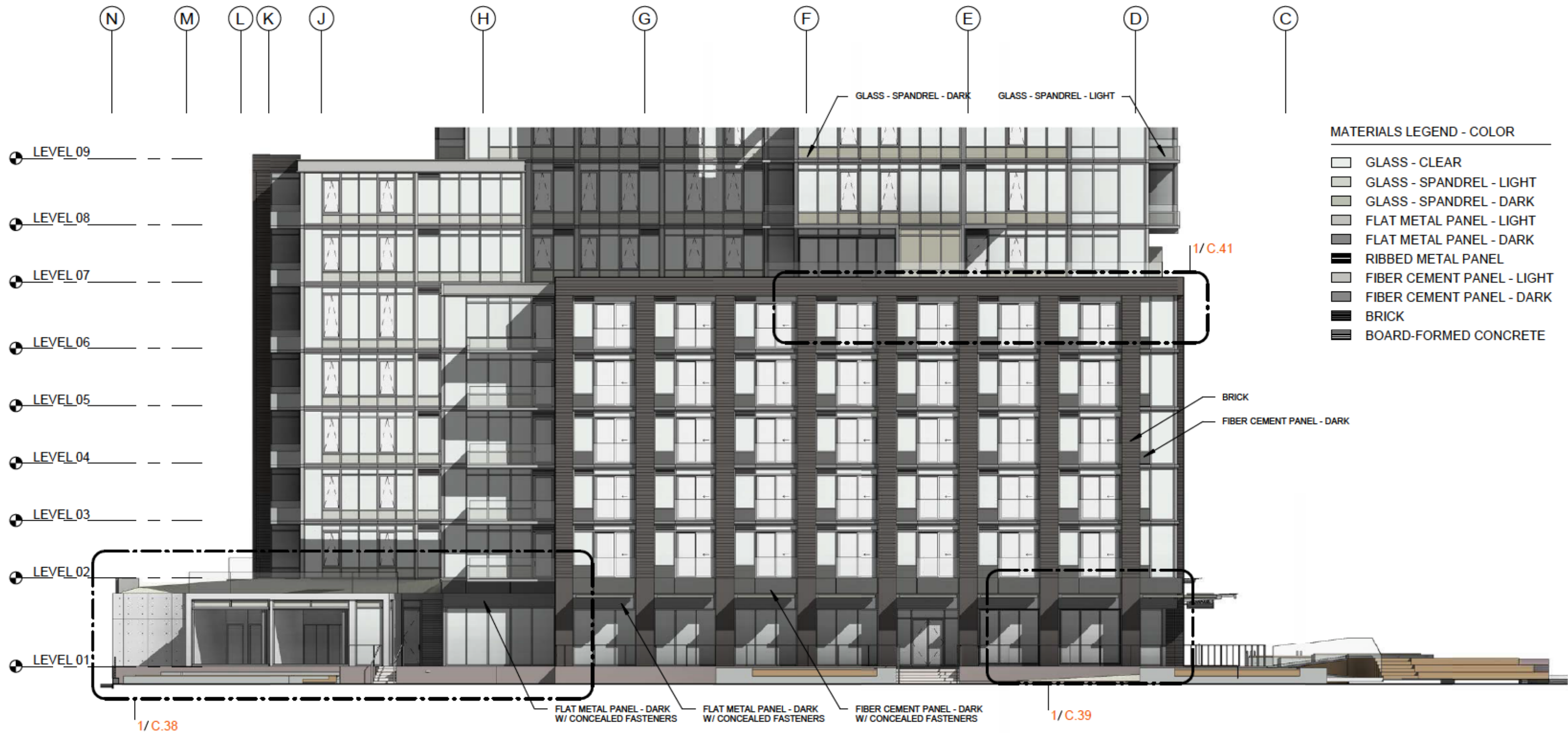
- GLASS - CLEAR
- GLASS - SPANDREL - LIGHT
- GLASS - SPANDREL - DARK
- FLAT METAL PANEL - LIGHT
- FLAT METAL PANEL - DARK
- RIBBED METAL PANEL
- FIBER CEMENT PANEL - LIGHT
- FIBER CEMENT PANEL - DARK
- BRICK
- BOARD-FORMED CONCRETE



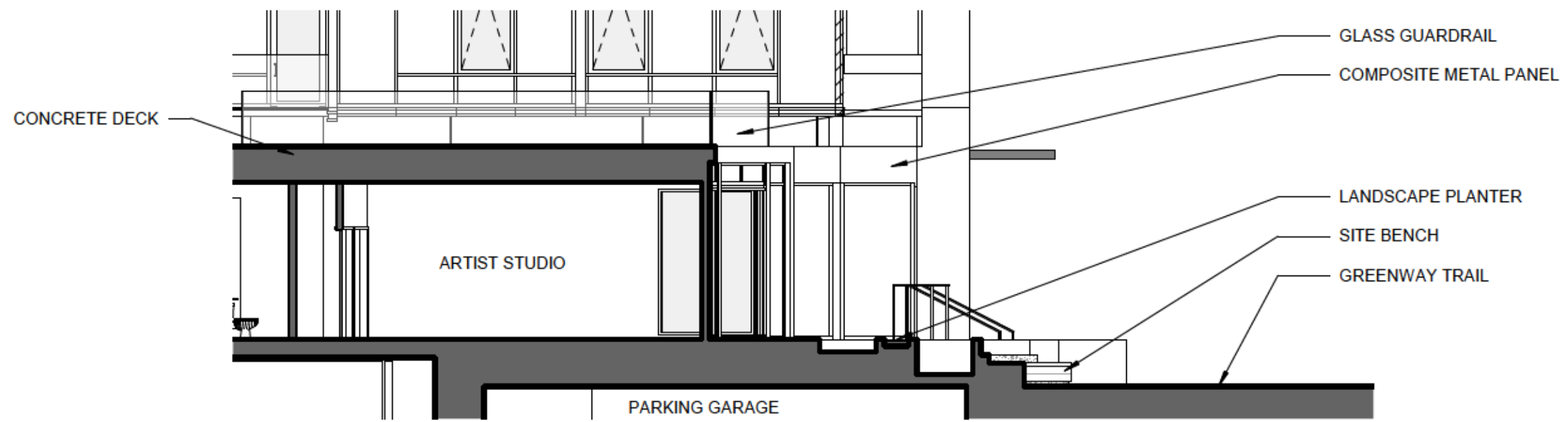
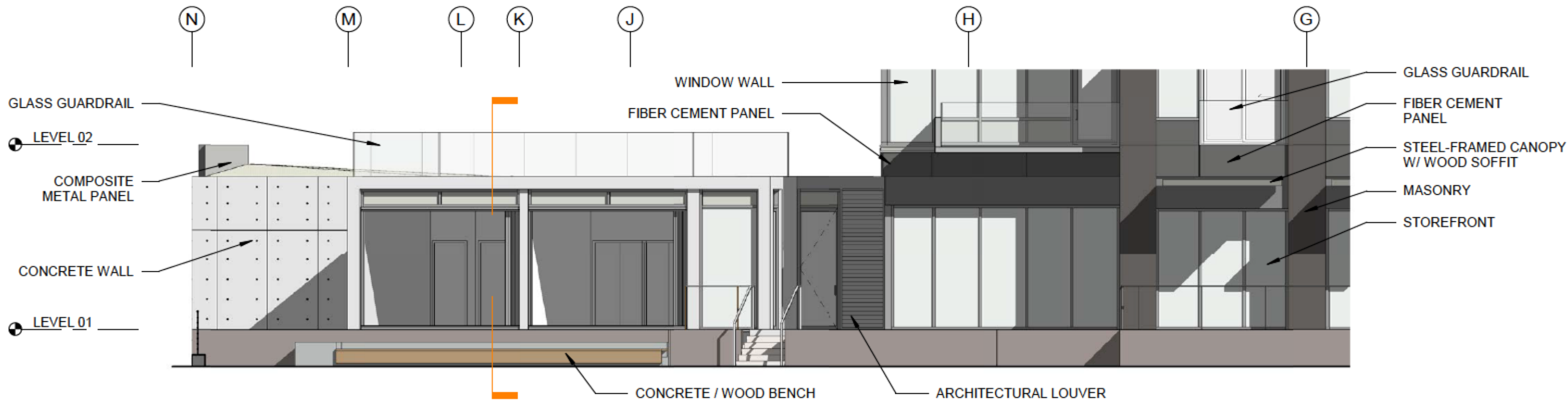
① STREET-LEVEL ELEVATION - WEST
1/16" = 1'-0"



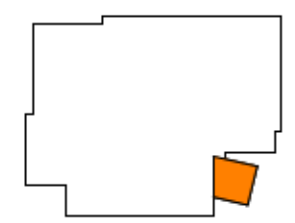
① STREET-LEVEL ELEVATION - SOUTH
1/16" = 1'-0"

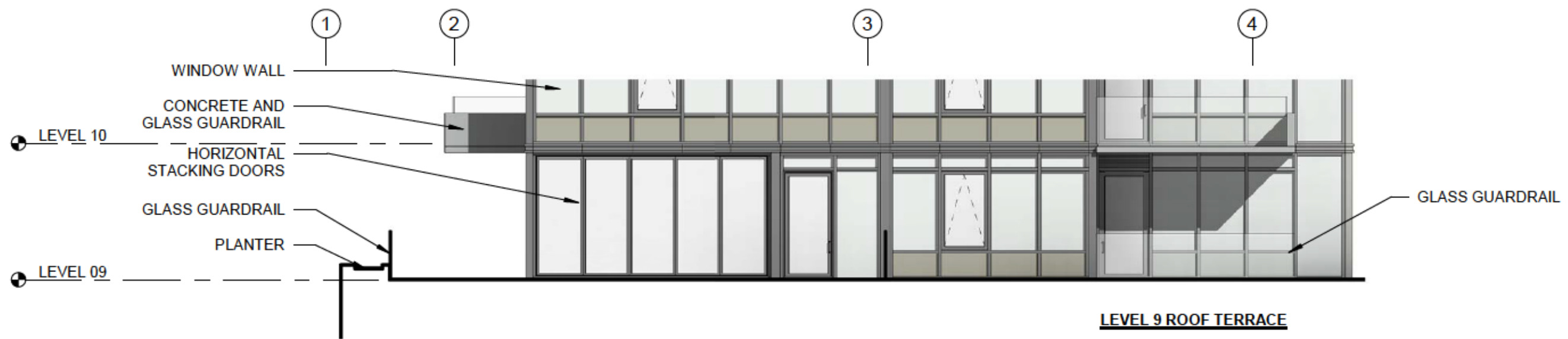
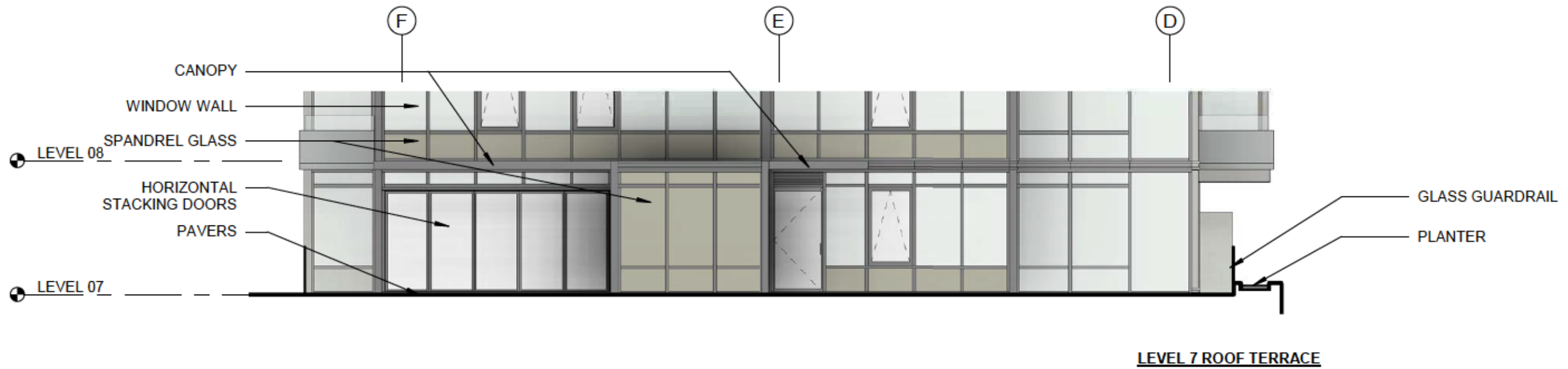


1 STREET-LEVEL ELEVATION - EAST
1/16" = 1'-0"



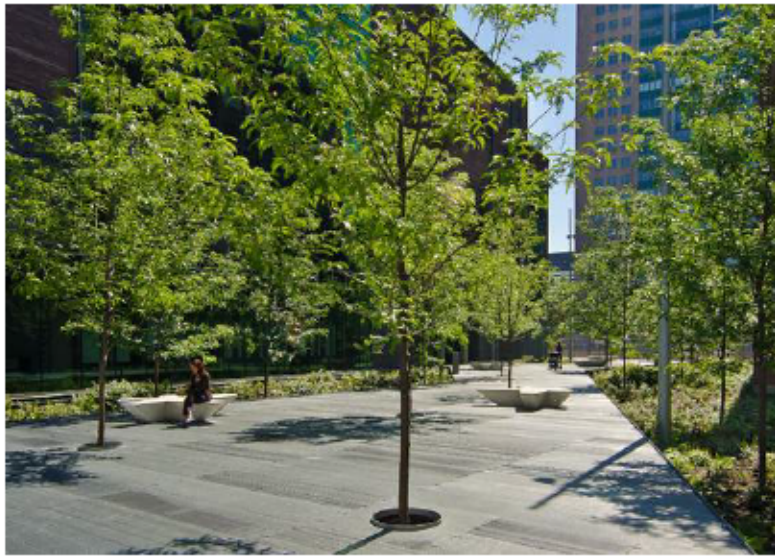
① SE CORNER
1/8" = 1'-0"















Site Level - Landscape Plan



-  Building Entry
-  Restaurant Entry
-  Pedestrian Circulation
-  Grade Break
-  Fire Access
-  Rain Garden
-  Lawn
-  Seating Moments



M1. UNIT PAVERS (4X12")
DARK GREY



M2. UNIT PAVERS (4X12")
LIGHT GREY



M3. CONCRETE PAVING



F1. CONCRETE AND
WOOD SEATING



F2. REMOVABLE
BOLLARDS



M4. METAL GRATE



M5. LAWN PANEL



M6. WOOD DECKING



F3. PEDESTRIAN LIGHTING



F4. BIKE RACK



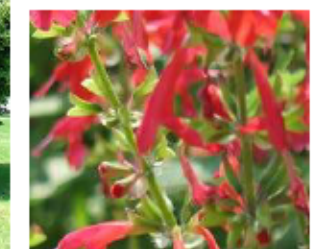
P1. STORMWATER TREE
CASCARA



P2. ENTRY COURT TREE
SILVER LINDEN



P3. STORMWATER PLANTS
VARIOUS SPECIES



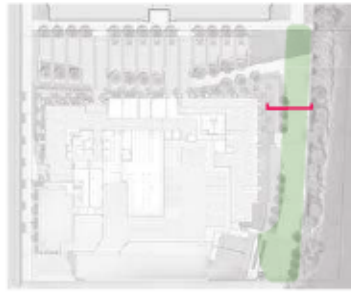
P4. RAISED PLANTER
VARIOUS SPECIES

Entry Court - Site Materials, Furnishings & Planting



FREMONT APARTMENTS
lincoln property company
DESIGN REVIEW # LU 16-278621 DZ GW

PLACE C.63



M1. CONCRETE PAVING



M2. WOOD DECKING



M3. UNIT PAVERS (4X12")
DARK GREY



M4. UNIT PAVERS (4X12")
LIGHT GREY

MATERIALS



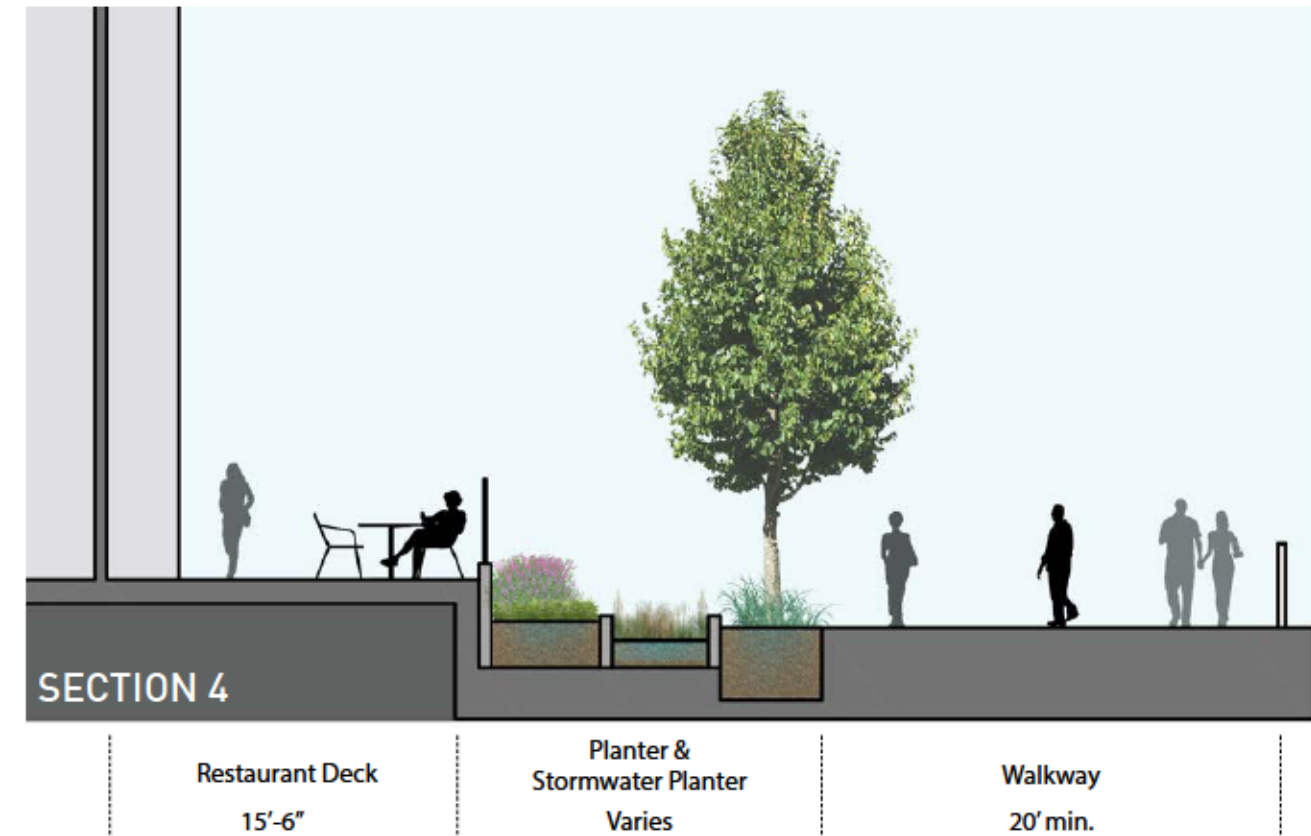
F1. CONCRETE AND
WOOD SEATING



F2. PEDESTRIAN LIGHTING



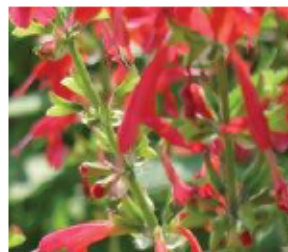
F3. DRINKING FOUNTAIN



P1. GREENWAY TREE
HONEY LOCUST

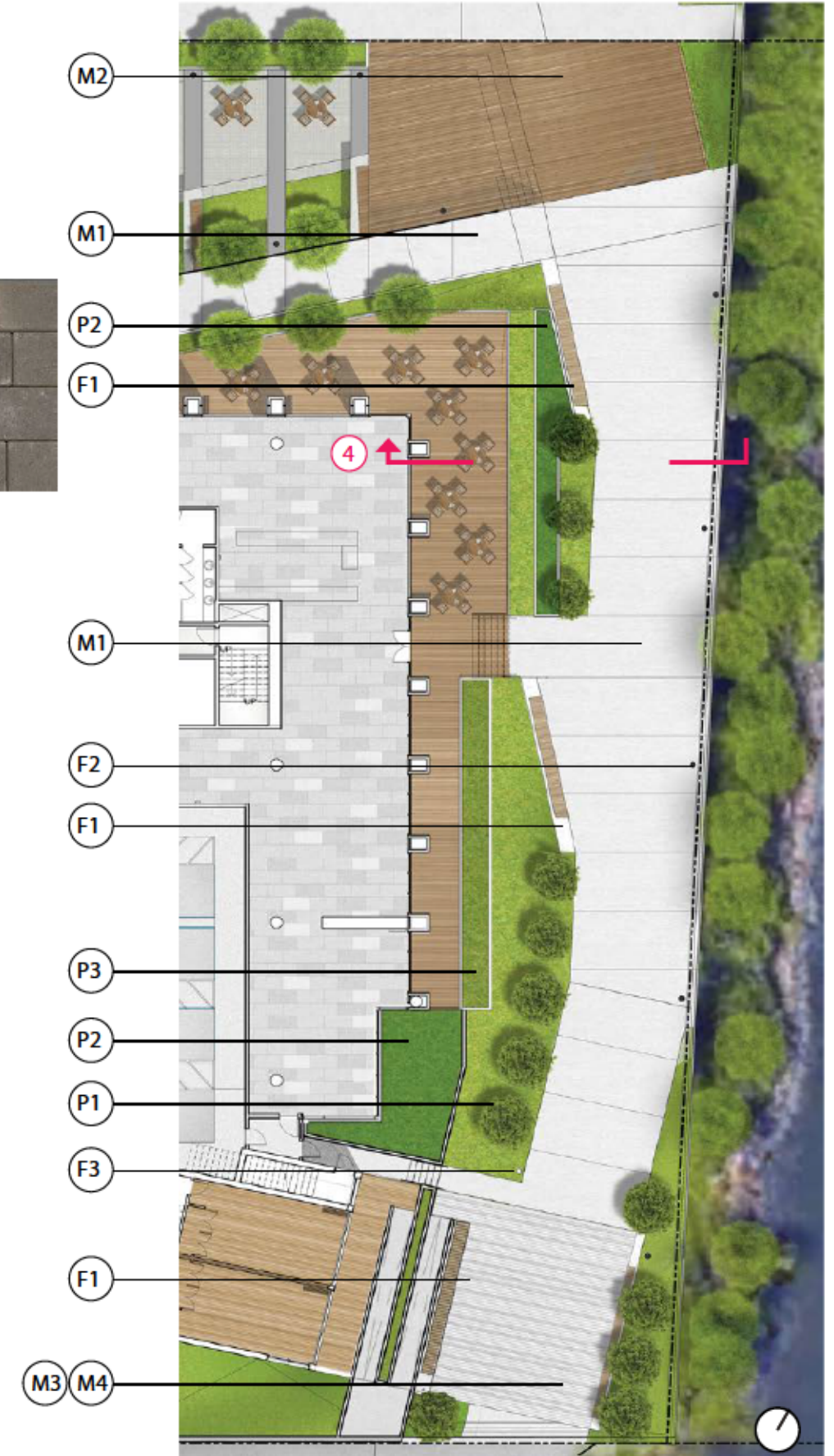


P2. STORMWATER PLANTS
VARIOUS SPECIES



P3. RAISED PLANTER
VARIOUS SPECIES

PLANTING



Greenway - Site Materials, Furnishings & Planting



PLANTING



2. RIGHT OF WAY PLANTING
EVERGREEN SHRUBS & GRASSES

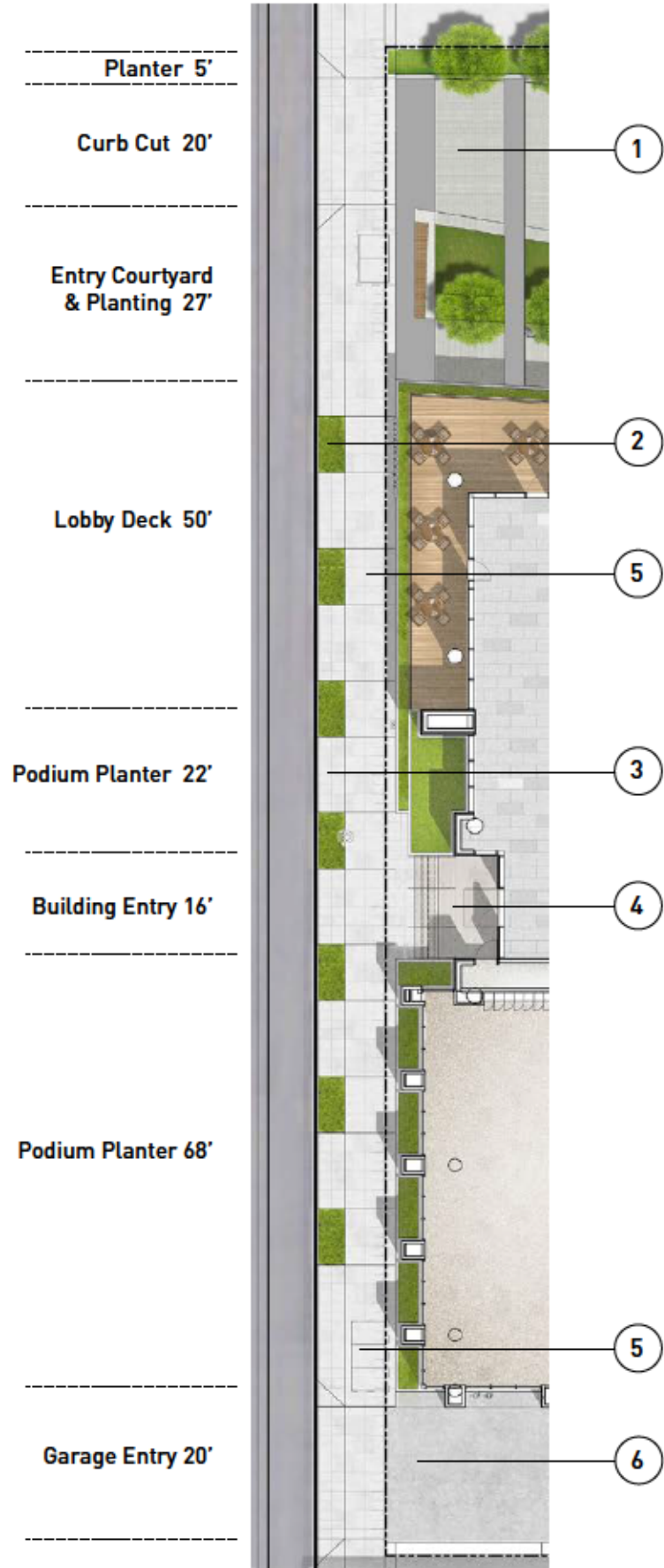
RIGHT OF WAY

- 1. Entry Court
- 2. Right of Way Planting
- 3. Street Light
- 4. Building Entry
- 5. Vaults (See Arch.)
- 6. Garage Entry

NOTE:
NEW STREET TREES WILL NOT BE VIABLE ON THE
FURNISHING ZONE DUE TO EXISTING GAS LINES. SEE CIVIL.

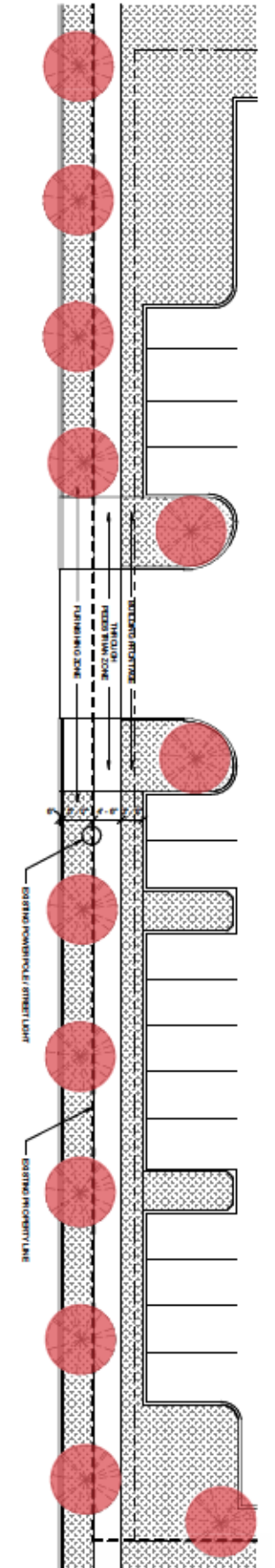
Right of Way - Existing and Proposed

PROPOSED



EXISTING

Removed Trees:
Norway Maple
Acer platanoides

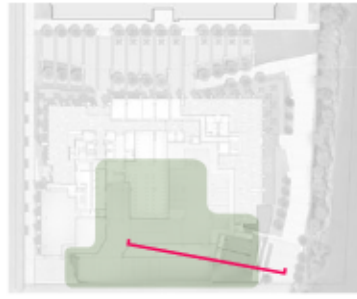




TERRACE - LEVEL 02

- 1. Boardwalk
- 2. Private Patios
- 3. Specimen Tree
- 4. Grassy Dunes
- 5. Screening Shrubs
- 6. Accent Tree
- 6a. Potted Accent Tree
- 7. Sedum Mat
- 8. Roof Terrace
- 9. Level 2 Access
- 10. Bench

Level 02 - Landscape Plan



MATERIALS



M1. BOARDWALK



M2. SQUARE PEDESTAL PAVERS



M3. LINEAR PEDESTAL PAVERS



M4. CAST IN PLACE CONCRETE STAIR

FURNISHINGS



F1. TABLES AND CHAIRS



F2. LOUNGE FURNITURE & FIRE PIT



F5. LARGE PLANTERS



F3. CONCRETE & WOOD BENCH



F4. BBQ

PLANTING



P1. GRASSY MOUNDS - VARIOUS SPECIES



P3. SPECIMEN TREE STEWARTIA



P4. SCREENING HEDGE SARCOCOCCA



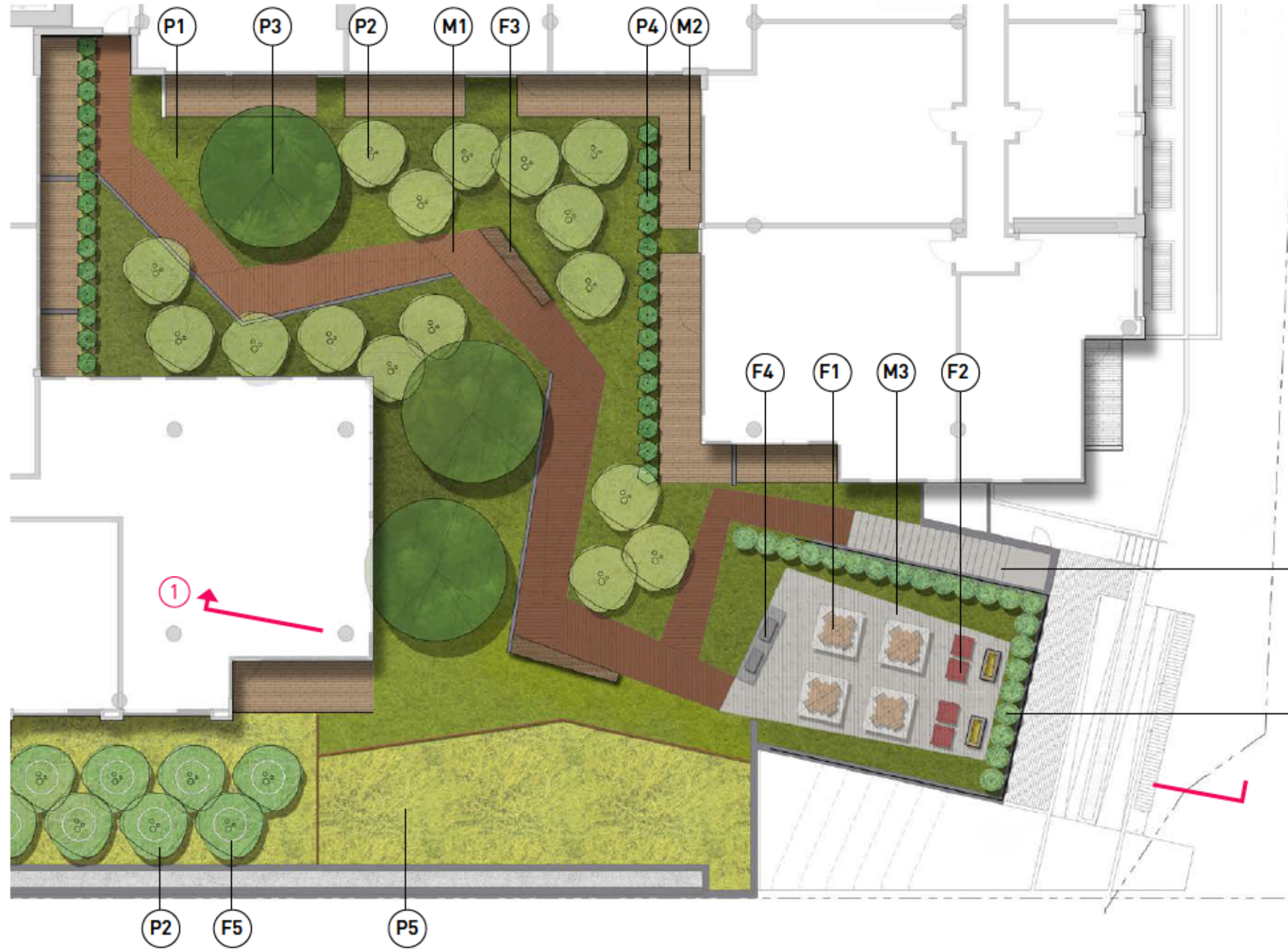
P2. ACCENT TREE DOGWOOD



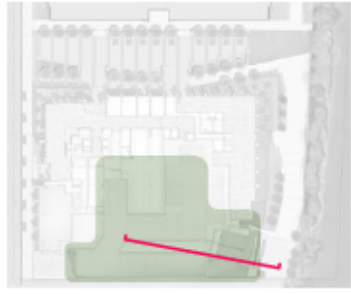
P5. SEDUM MAT - VARIOUS SPECIES



P6. EVERGREEN SHRUBS LAVENDER



Level 02 - Materials Furnishings & Planting



Raised Planters

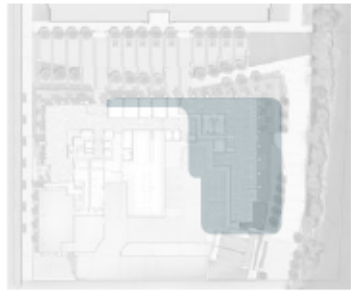
Amenity Roof Terrace

Studio Terraces,
Ramp, Planter &
Bench

Greenway



Level 02 - Section and Precedents

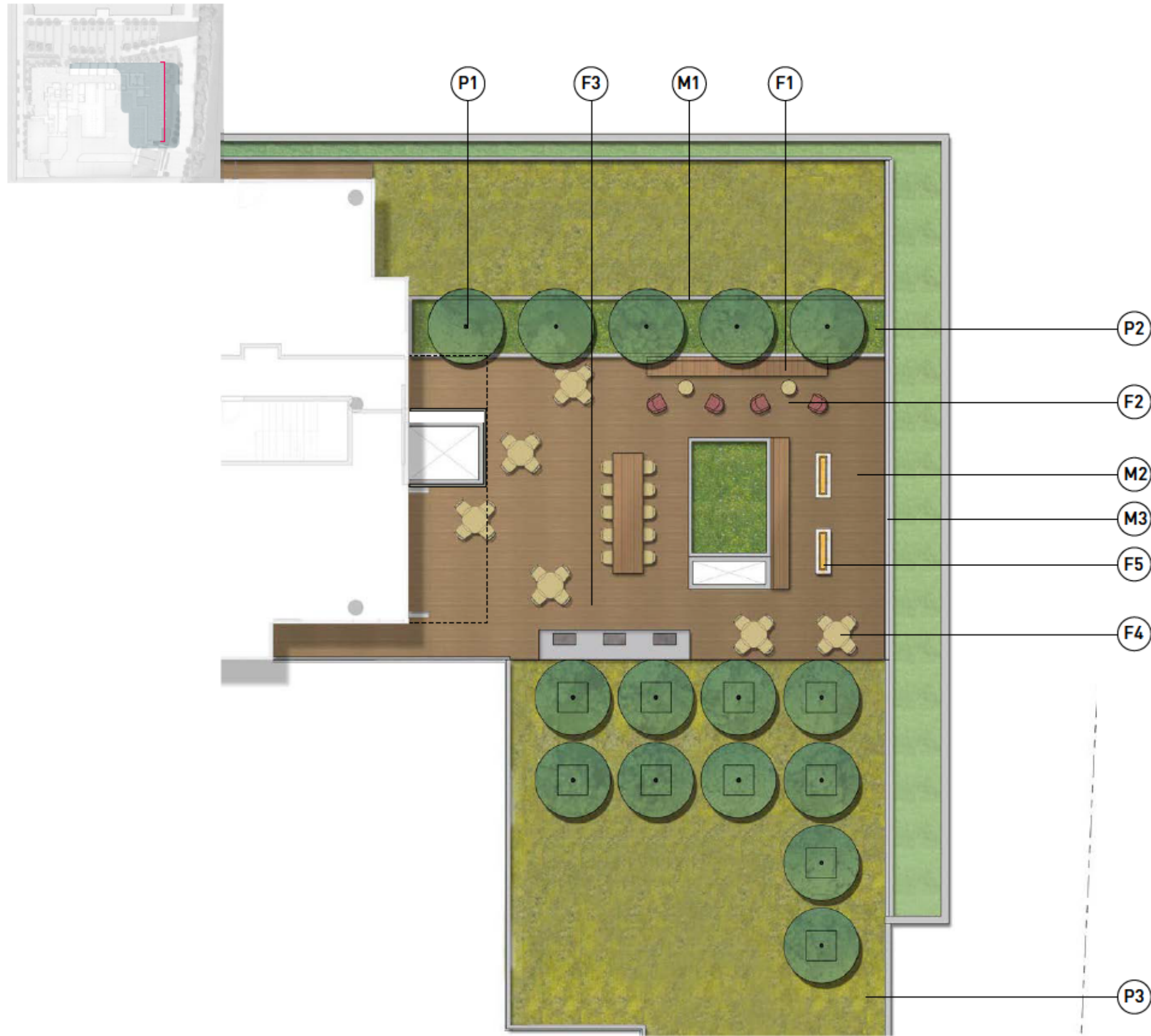


OVERLOOK - LEVEL 06

- 1. Sedum Mat
- 2. Raised Planter
- 3. Lounge Seating
- 4. Dining lounge
- 5. Outdoor Kitchen
- 6. Fire Lounge
- 7. Potted Trees

Overlook - Landscape Plan





MATERIALS



M1. RAISED PLANTER



M2. WOOD DECKING



M3. GLASS GUARDRAIL

FURNISHINGS



F1. WOOD BENCH



F3. OUTDOOR KITCHEN



F5. FIRE TABLE



F2. LOUNGE SEATING



F4. MOVEABLE TABLES & CHAIRS

PLANTING



P1. ACCENT TREE
WESTERN REDBUD

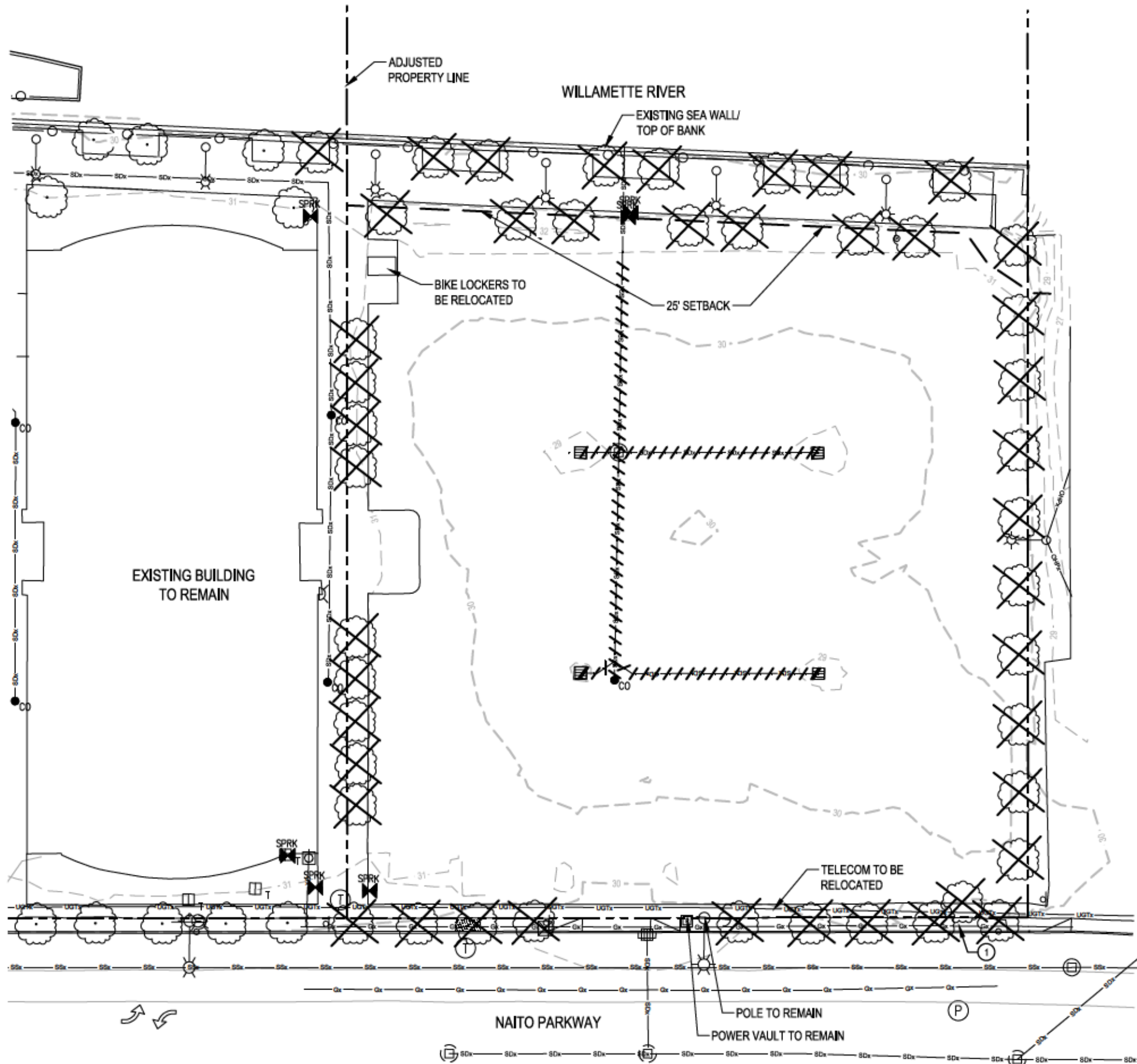


P2. ACCENT PLANTING
ASTILBE



P3. SEDUM MAT
-VARIOUS SPECIES

Overlook - Materials, Furnishings & Planting



LEGEND:

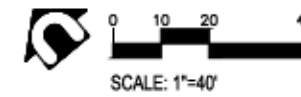
- — — — — PROPERTY LINE
- - - - - EXISTING CONTOUR
- SSx — EXISTING SANITARY SEWER
- SDx — EXISTING STORM LINE
- Gx - Gx - EXISTING GAS LINE
- UGTx — EXISTING UNDERGROUND TELEPHONE LINE
- UGPx — EXISTING UNDERGROUND POWER LINE
- OHPx — EXISTING OVERHEAD POWER LINE
- /// UTILITY TO BE REMOVED
- ⊗ TREE TO BE REMOVED

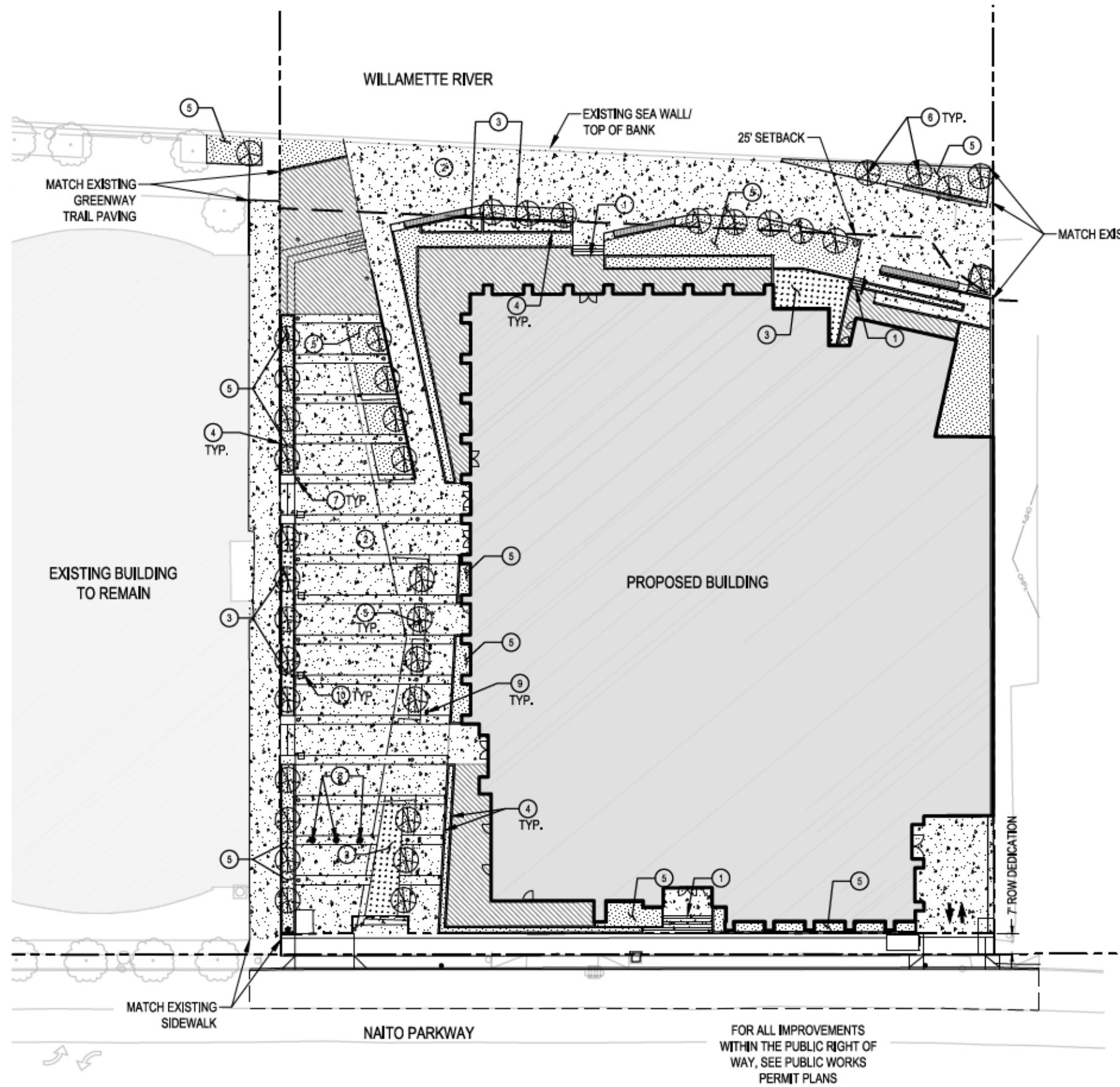
KEYNOTES:

1. 24" NATURAL GAS LINE, USE EXTREME CAUTION!

GENERAL NOTES:

1. ELEVATIONS PER CITY OF PORTLAND DATUM.





LEGEND:

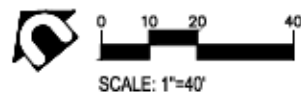
- PROPERTY LINE
- EXISTING OVERHEAD UTILITY
- SAWCUT LINE
- [Pattern] WATER QUALITY PLANTER
- [Pattern] CONCRETE PAVEMENT
- [Pattern] LANDSCAPED AREA
- [Pattern] RAISED DECK PER ARCHITECTURAL
- [Symbol] PROPOSED TREE

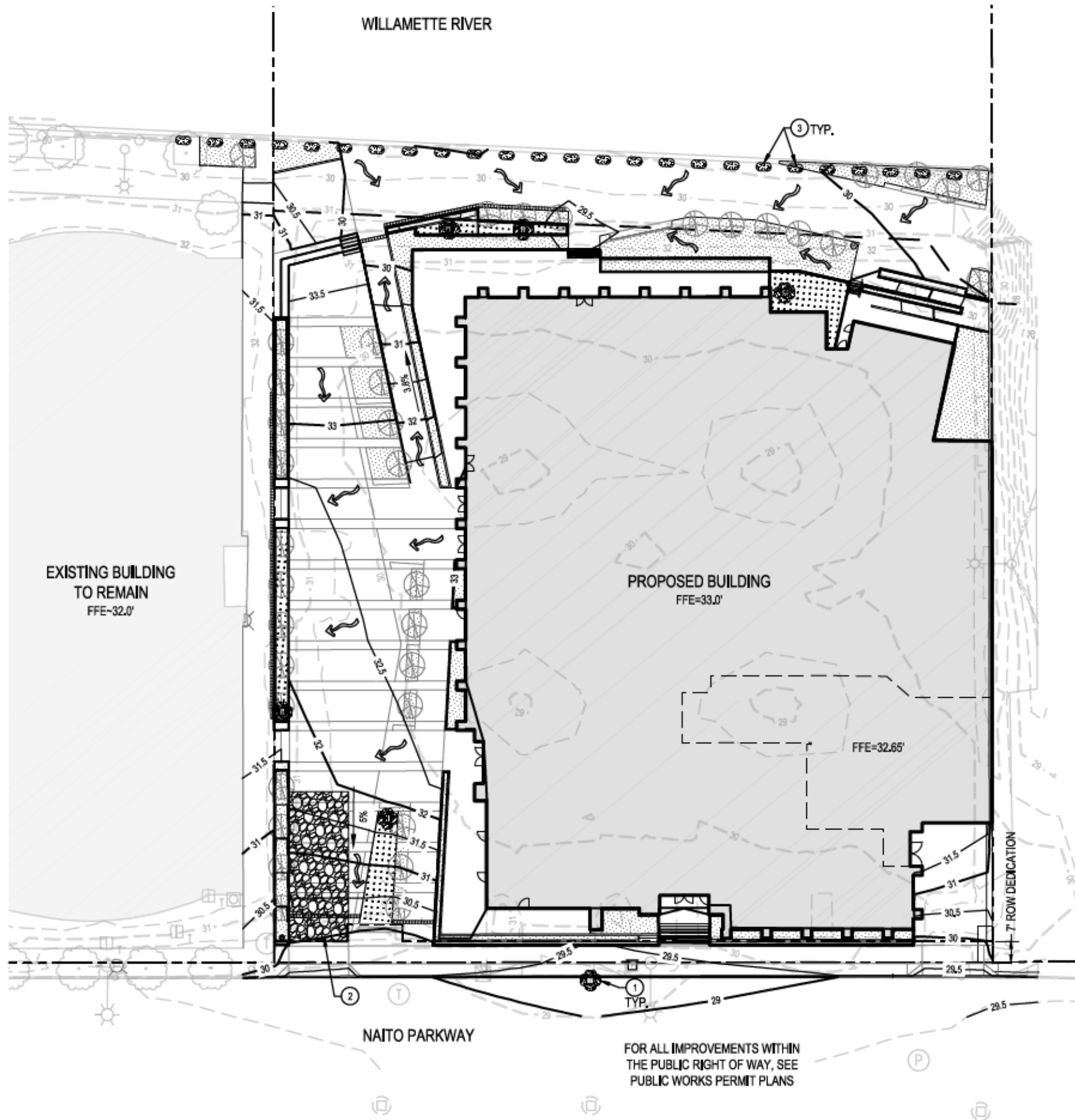
GENERAL NOTES:

1. SEE ARCHITECTURAL PLAN FOR DIMENSIONS AND ADDITIONAL SITE ELEMENTS.
2. SEE PUBLIC STREET IMPROVEMENT DESIGN SET FOR WORK WITHIN R.O.W.

1 CONSTRUCTION KEYNOTES:

1. CONCRETE STEPS PER X/CX.00
2. CONCRETE PAVEMENT PER X/CX.00.
3. WATER QUALITY PLANTER, FOR DETAILS SEE COMPOSITE UTILITY PLAN
4. PLANTER WALL, APPROXIMATELY 2-3' IN HEIGHT, PER X/CX.00
5. LANDSCAPE AREA. SEE LANDSCAPE PLAN FOR DETAILS
6. PROPOSED TREE. SEE LANDSCAPE PLAN FOR DETAILS
7. SITE LIGHTING
8. REMOVABLE BOLLARD PER X/CX.00
9. BIKE RACK
10. UTILITY STATION





LEGEND:

- PROPERTY LINE
- 25' SETBACK
- 200- EXISTING CONTOUR
- 200- PROPOSED CONTOUR
- ⊗ BIO BAG
- ⊗ INLET PROTECTION
- ↪ FLOW ARROW
- ▨ WATER QUALITY PLANTER
- ▨ CONSTRUCTION ENTRANCE
- ⊕ OVERFLOW

① CONSTRUCTION KEYNOTES:

1. INLET PROTECTION PER X/CX.00.
2. CONSTRUCTION ENTRANCE PER X/C0.00.
3. BIO-BAG PER X/C0.00.

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

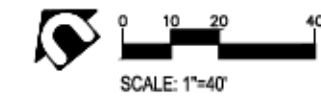
1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS BY OCTOBER 1.
3. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.

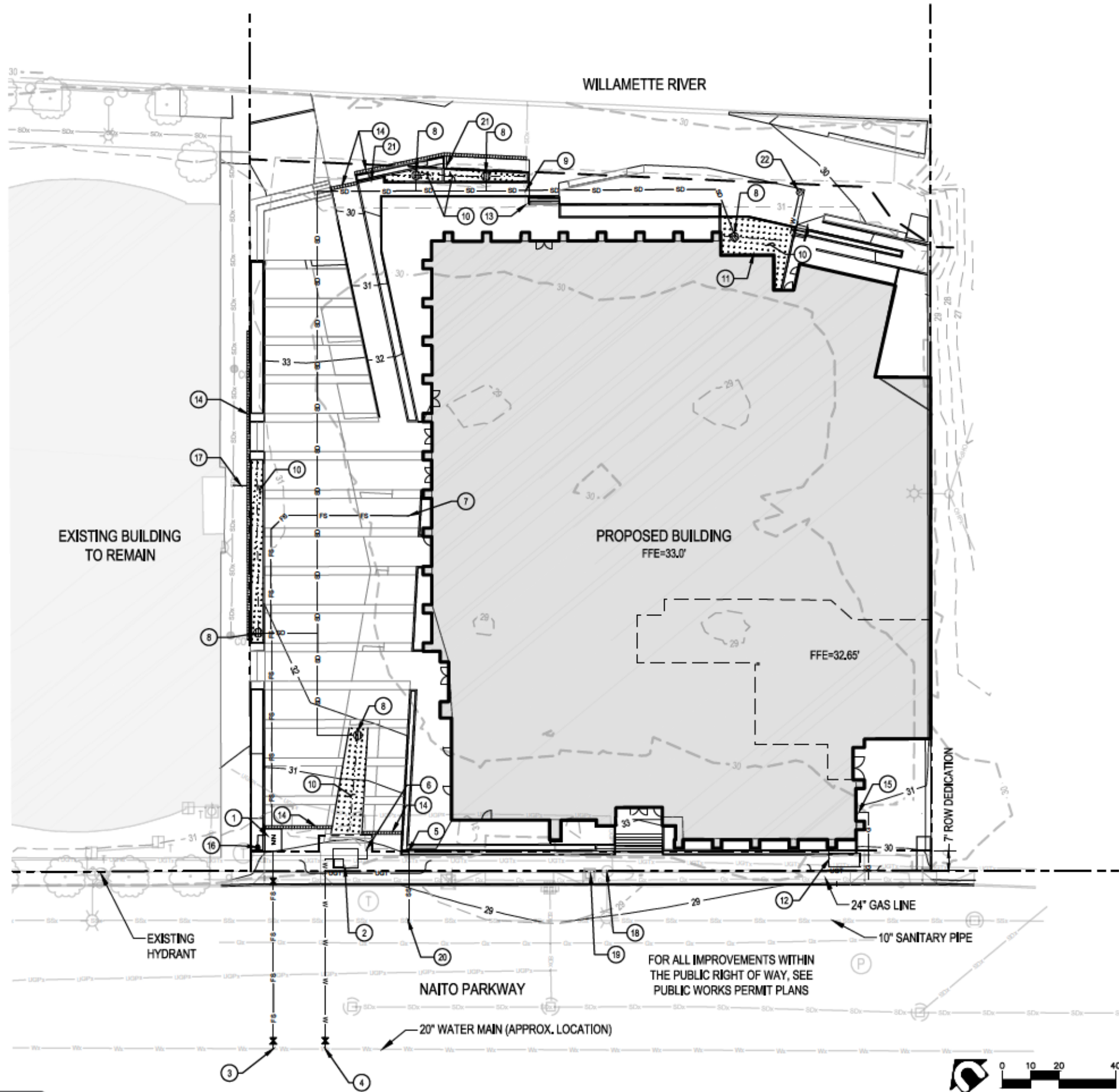
THESE EROSION AND SEDIMENT CONTROL PLANS ASSUME "DRY WEATHER" CONSTRUCTION. "WET WEATHER" CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1ST AND MAY 31ST.

GENERAL NOTES:

1. EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING WORK.
2. ELEVATIONS PER CITY OF PORTLAND DATUM.

FOR ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT OF WAY, SEE PUBLIC WORKS PERMIT PLANS





LEGEND:

---	PROPERTY LINE	-SS-SS-	PROPOSED SANITARY SEWER
- - - -	SAWCUT LINE	-SD-SD-	PROPOSED STORM LINE
---	EXISTING STORM SEWER	-G-G-	PROPOSED GAS SERVICE LINE
---	EXISTING OVERHEAD UTILITY	---	PERFORATED PIPE
---	EXISTING SANITARY SEWER	---	PROPOSED TELECOM LINE
---	EXISTING GAS SERVICE	□	DOMESTIC WATER METER
---	EXISTING CONTOUR	⊕	GATE VALVE
---	PROPOSED CONTOUR	●	OVERFLOW STRUCTURE
-W-W-	PROPOSED WATER LINE	⊕	FIRE DCDV
-FS-FS-	PROPOSED FIRE SERVICE LINE	⊕	STORMWATER QUALITY FACILITY

PRIVATE UTILITY NOTES:

1. UTILITY TRENCHING PER X/CX.X FOR ONSITE WORK.
2. CLEANOUTS SHALL BE INSTALLED PER X/CX.X AND PER THE UNIFORM PLUMBING CODE (MAX. 100' SPACING AND/OR 135' AGGREGATE HORIZONTAL CHANGE IN DIRECTION).
3. ALL WATER LINE TEES, PLUGS, BENDS, REDUCERS, VALVES, AND HYDRANT BRANCHES SHALL BE MECHANICALLY RESTRAINED OR USE THRUST BLOCKING PER X/CX.X.
4. MINIMUM COVER ON WATER PIPES SHALL BE 36".
5. THE CONTRACTOR SHALL CALL FOR ALL INSPECTIONS AND PERFORM THE NECESSARY TESTING REQUIRED BY THE SPECIFICATIONS AND THE PLUMBING PERMIT.
6. MATCH PIPE INVERTS UNLESS OTHERWISE NOTED.
7. ALL SANITARY SEWER PIPE MATERIAL TO BE 3034 PVC, UNLESS NOTED OTHERWISE.
8. ALL STORM SEWER PIPE MATERIAL TO BE HDPE, UNLESS NOTED OTHERWISE.
9. ALL SANITARY PIPE TO PIPE CONNECTIONS SHALL USE WYE FITTINGS, UNLESS NOTED OTHERWISE.

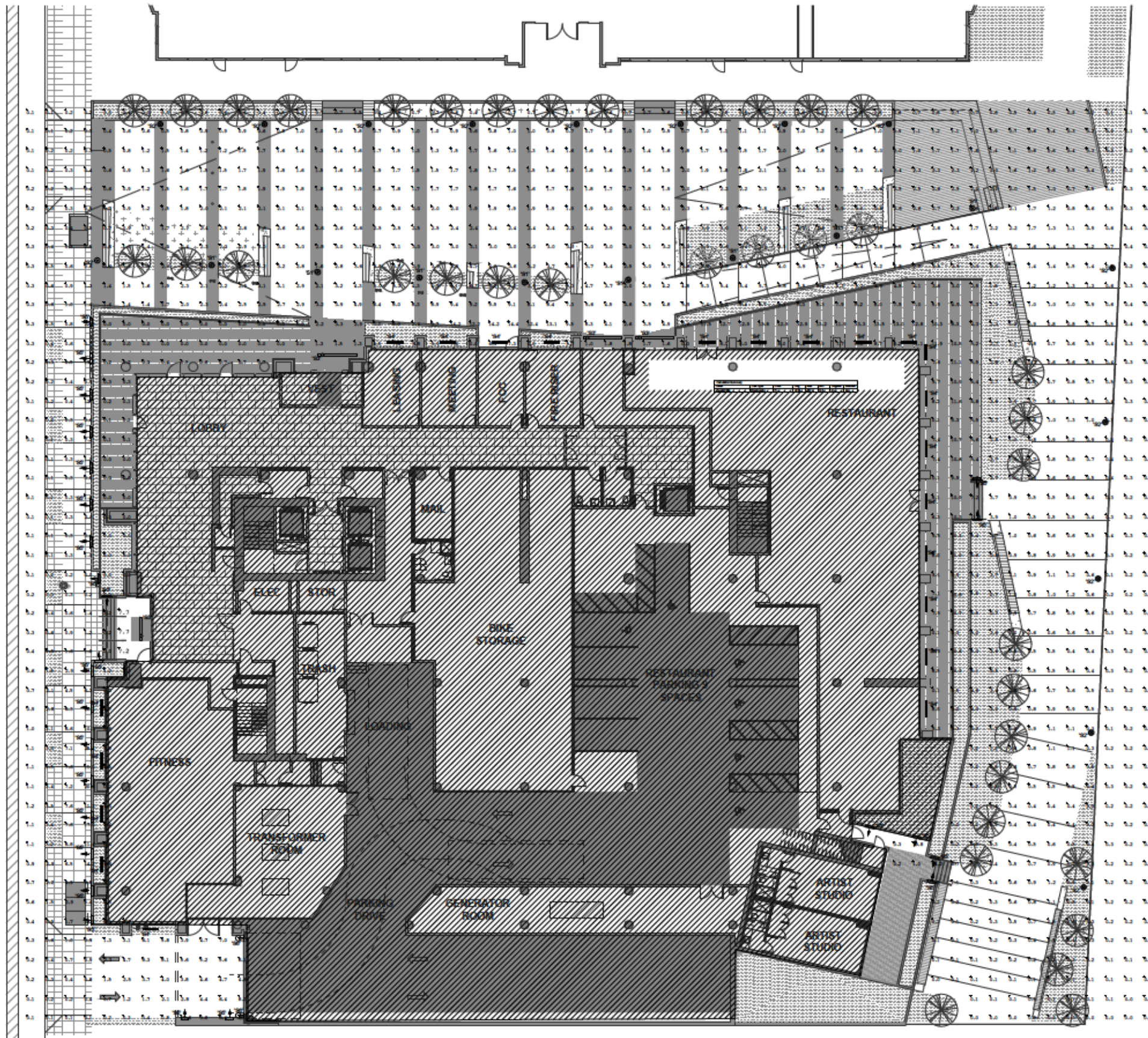
UTILITY KEYNOTES:

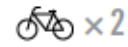
1. FIRE DDCVA PER X/CX.X
2. 6" DOMESTIC WATER METER BY PORTLAND WATER BUREAU
3. FIRE SERVICE LINE BY PORTLAND WATER BUREAU
4. DOMESTIC WATER LINE BY PORTLAND WATER BUREAU
5. SANITARY POINT OF CONNECTION
6. DOMESTIC WATER POINT OF CONNECTION. DCVA LOCATED INSIDE BUILDING.
7. FIRE SERVICE POINT OF CONNECTION
8. OVERFLOW STRUCTURE PER X/CX.X
9. CONNECT TO EXIST. 14" STORM LINE, IE ± 22.00, CONTRACTOR TO VERIFY
10. FLOW THROUGH PLANTER WITH PERFORATED PIPE PER X/CX.X
11. ROOF DRAIN TO DAYLIGHT INTO PLANTER
12. PGE 5106 SWITCH VAULT. COORDINATE WITH PGE.
13. GREEN ROOF TO DISCHARGE DIRECTLY TO EXISTING STORM LINE
14. TRENCH DRAIN
15. GAS POINT OF CONNECTION
16. FIRE DEPARTMENT CONNECTION PER X/CX.X
17. CONNECTION TO EXISTING STORM LINE
18. EXISTING UTILITY POLE TO REMAIN
19. EXISTING ELECTRICAL VAULT TO REMAIN. OVERALL VAULT APPROXIMATELY 3.8' X 3.8' WITH 3'X3' NON-SKIP LID.
20. CONNECT TO EXISTING 10" SANITARY LINE
21. CONNECT TRENCH DRAIN TO PLANTER WITH 6" PVC PIPE.
22. DRINKING FOUNTAIN. CONNECT TO WATER SERVICE IN BUILDING, SEE PLUMBING FOR DETAILS.

LEGEND	
101	BELUX MTR COLUMN LIGHTING, TYPE V DISTRIBUTION
102	BELUX MTR COLUMN LIGHTING, TYPE IV DISTRIBUTION
103	LUMENWERX: LUMENCONE NANO 2.0
104	LUMENWERX: VIA WET RECESSED ASYMMETRIC LIGHT
105	PRISMA ARCHITECTURE: ALU TECH MTRP LIGHT
106	RAW LIGHTING: SLIM



BELUX MTR COLUMN





THE STAPLE

The ever-classic "Staple" style bike rack is Portland City Code approved. Lock it up!

CONSTRUCTION/MATERIAL OPTIONS

- 2" Sch. 40 Round Steel Pipe (shown)
- 2" x 2" Square Steel Tubing (Pipecutter Proof)
- 5/8" x 2 1/2" Steel Flat Bar (Pipecutter Proof)
- Steel Flanges (Varies)

DIMENSIONS

- 30" Length
- 5.5" Width
- 36" Height
- Custom Size Height/Length

MOUNTING OPTIONS

- Flange Mount (Shown) (6) .63" Mounting Holes
- In-Ground 11" Leg Extensions

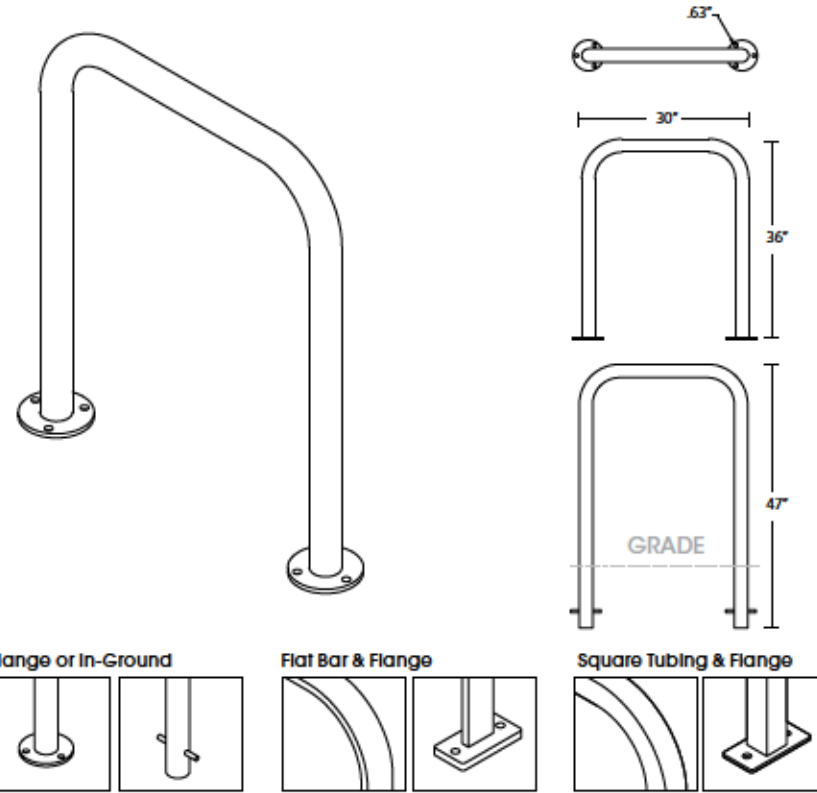
FINISH OPTIONS

- T304 Stainless Steel #4 Satin Finish
- Hot Dipped Galvanized
- Powder Coating # _____
- Thermoplastic Coating # _____

ADDITIONAL OPTIONS

- Flange Cover (available at additional cost on round pipe only)

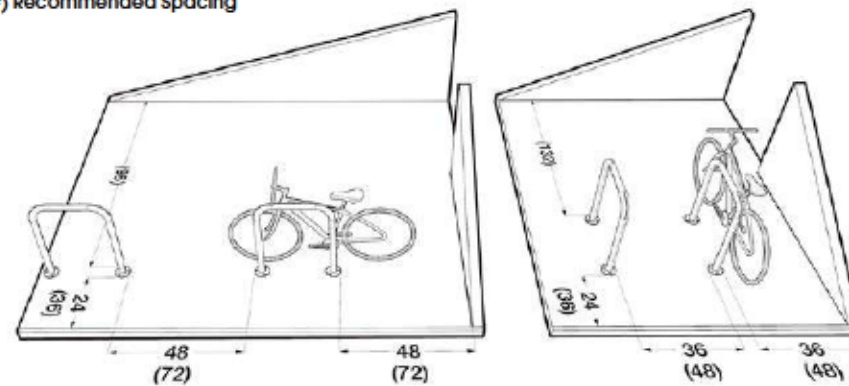
Manufactured in the Pacific Northwest



RECOMMENDED LAYOUT

NOTES:

- "Bike" Is 70"
- # Minimum Spacing
- (#) Recommended Spacing



CONTRACTOR:

JOB:

NOTES:



THE ARC

The Arc rack, a sleek, modern curve that won't overwhelm other architectural elements.

CONSTRUCTION/MATERIAL

- 1.50" Steel Tubing
- 4" Steel Flanges

DIMENSIONS

- 29.5" Length
- 4" Width
- 32" Height

MOUNTING OPTIONS

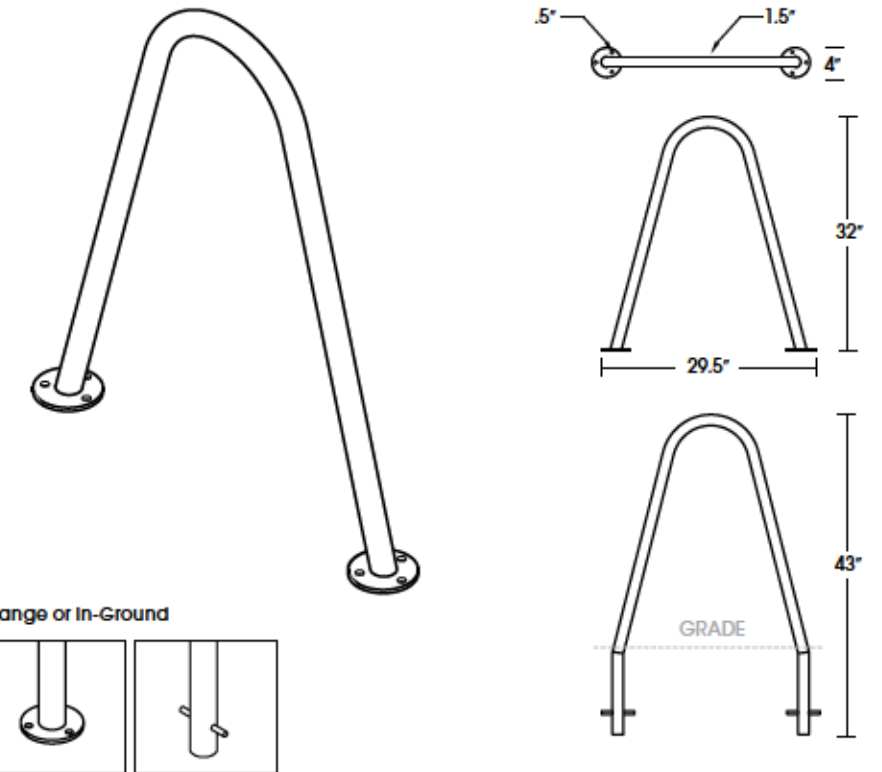
- Flange Mount (Shown) (6) .5" Mounting Holes
- In-Ground 11" Leg Extensions

FINISH OPTIONS

- T304 Stainless Steel #4 Satin Finish
- Hot Dipped Galvanized
- Powder Coating # _____
- Thermoplastic Coating # _____



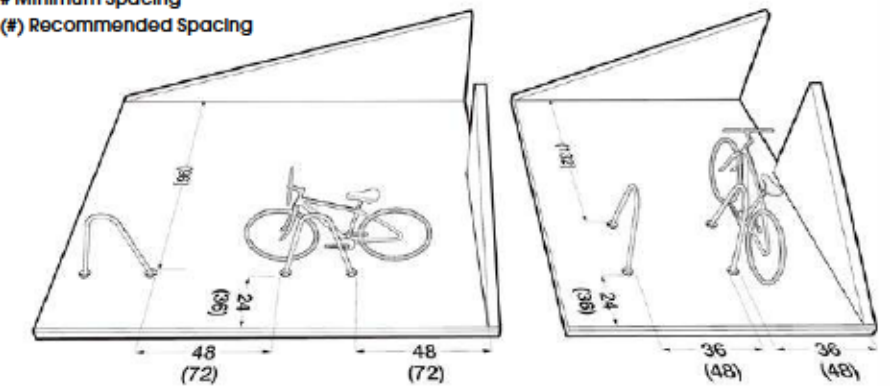
Manufactured in the Pacific Northwest



RECOMMENDED LAYOUT

NOTES:

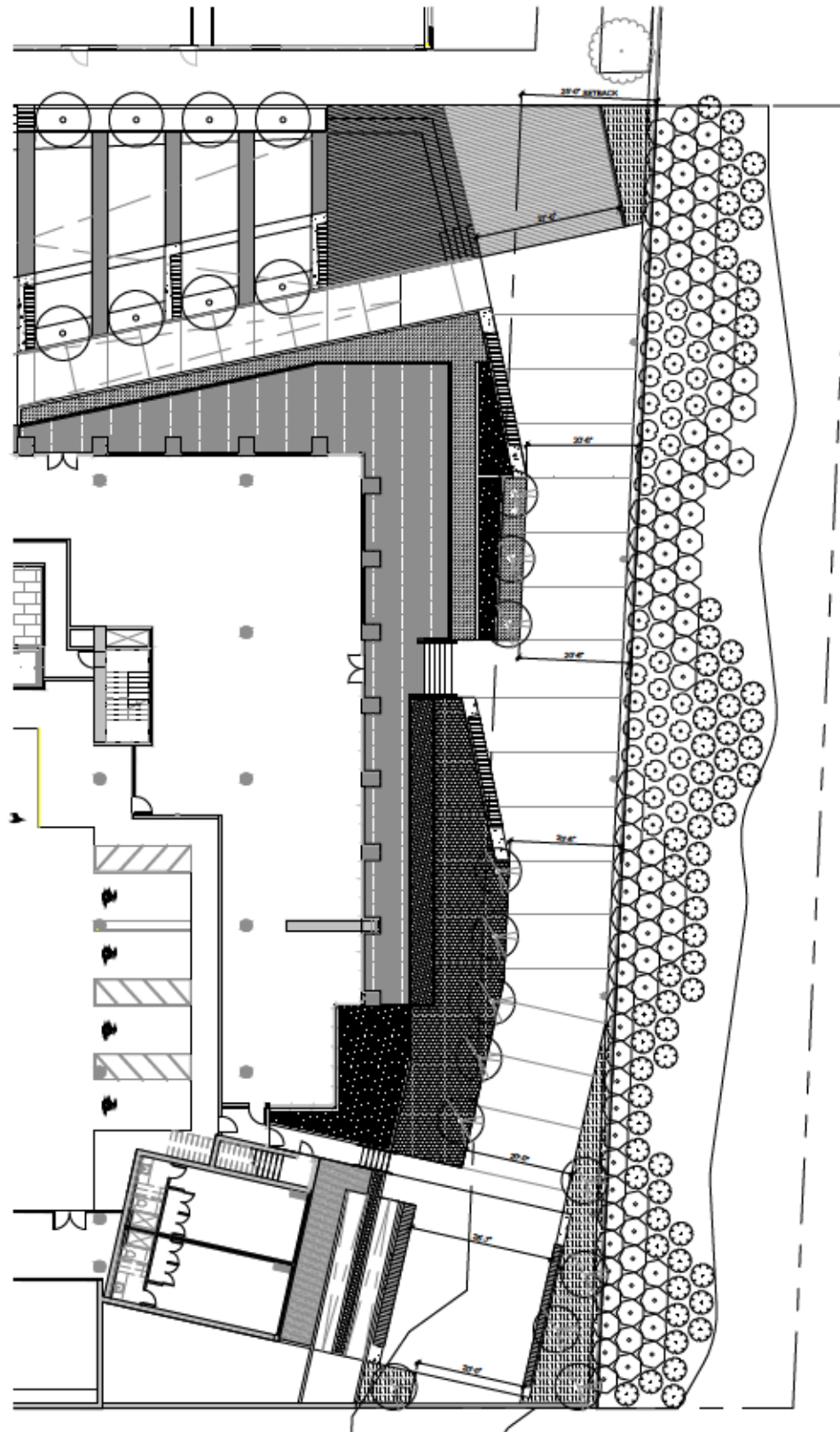
- "Bike" Is 70"
- # Minimum Spacing
- (#) Recommended Spacing



CONTRACTOR:

JOB:

NOTES:



PLANT SCHEDULE							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT. X SPRD.)	SPACING	NOTES	QTY / AREA
TREES							
	GLTR	GLEDTISIA TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2" CAL	AS SHOWN	WITHIN 25' GREENWAY	12 C.T.
	RHPU	RHAMNUS PURSHIANA	CASCARA BUCKTHORN	2" CAL	AS SHOWN		
SHRUBS (RIVERBANK)							
	COSE	CORNUS SERICEA	REDOSIER DOGWOOD	36" SPRD, MIN 5 CANES	5' O.C.		95 CT.
	PHCA	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	36" HT. MIN 5 CANES	5' O.C.		69 CT.
	RISA	RIBES SANGUINEUM	RED-FLOWERING CURRANT	30" HT., 24" SPRD.	5' O.C.		36 CT.
GROUNDCOVERS							
	CEBC	CEANOTHUS 'BLUE CUSHION'	BLUE CUSHION CALIFORNIA LILAC	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	633 SF (317 CT.)
	IRTE	IRIS TENAX	OREGON IRIS	12" HT., 12" SPRD.	18" O.C.		
	TRJA	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	120 SF (60 CT.)
	ZASP	ZAUSCHNERIA SPP.	CALIFORNIA FUSCHIA	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	148 SF (74 CT.)
STORM WATER PLANTER							
	IRDO	IRIS DOUGLASIANA	DOUGLAS IRIS	1 GAL. CONT.	12" O.C.		
	IRSI	IRIS SIBIRICA 'WHITE SWIRL'	SIBERIAN IRIS	1 GAL. CONT.	12" O.C.		
	JUPA	JUNCUS PATENS	GROOVED RUSH	1 GAL. CONT.	12" O.C.		
	POMU	POLYSTICHUM MUNITUM	SWORD FERN	1 GAL. CONT.	12" O.C.		

PLANTING NOTES

1. VERIFY LOCATION OF EXISTING TREES TO REMAIN PRIOR TO SOIL PREPARATION. PROTECT ALL TREES AND SHRUBS INDICATED TO REMAIN.
2. VERIFY AND COORDINATE WORK AROUND ALL UNDERGROUND UTILITIES BEFORE EXCAVATION. NOTIFY ALL UTILITY PROVIDERS AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING WORK.
3. VERIFY THAT THE CONDITIONS ARE SUITABLE TO PROMOTE HEALTHY PLANT GROWTH. DO NOT PROCEED IF CONDITIONS DETRIMENTAL TO HEALTHY GROWING ENVIRONMENT ARE PRESENT, INCLUDING OVER-COMPACTED SOILS, ADVERSE DRAINAGE CONDITIONS, DEBRIS, OR OTHER HARMFUL CIRCUMSTANCES. PROCEEDING WITHOUT NOTIFICATION DENOTES ACCEPTANCE.
4. COORDINATE WITH OTHER SUBCONTRACTORS AND TRADES TO ENSURE PROTECTION OF GROWING CONDITIONS AND PLANT MATERIALS.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL PLANTING REQUIREMENTS, METHODS, AND MATERIALS.
6. VERIFY PLANT QUANTITIES SHOWN ON THE PLANS BASED ON GRAPHIC REPRESENTATION. QUANTITIES SHOWN ARE FOR CONTRACTOR CONVENIENCE ONLY.
7. PROVIDE POSITIVE DRAINAGE FOR ALL PLANTING AREAS.
8. UNLESS OTHERWISE INDICATED, ALL PLANTINGS SHALL BE TRIANGULARLY SPACED.
9. LABELLING REFERS TO ALL ADJACENT IDENTICAL SYMBOLS WHERE PLANTS ARE MASSED. LABEL FOR MASS INDICATES TOTAL NUMBER OF PLANTS IN GROUP, EVEN IF THE GROUP IS SPREAD OVER MORE THAN ONE SHEET.

Greenway - Technical Planting Plan



THE GREENWAY DESIGN HAS BEEN ADJUSTED TO PROVIDE A MORE GENEROUS WIDTH FOR THE MULTI-USE PATH.

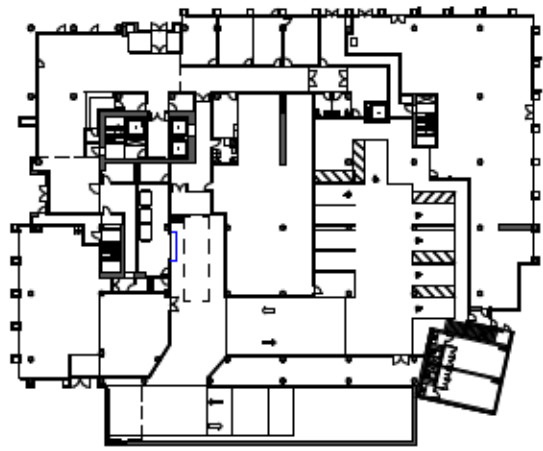
PER PORTLAND PARKS & RECREATION TRAIL DESIGN GUIDELINES, RIVERFRONT ESPLANADES SHOULD BE 12 TO 25 FEET WIDE. THE MINIMUM WIDTH IN THE REVISED GREENWAY PATH IS **20 FT.**

AS NOTED BEFORE, THE GREENWAY PATH INTENDS TO BE A DYNAMIC COMPOSITION THAT VARIES IN WIDTH THAT INCLUDES VEGETATION AND URBAN-SCALE SCULPTURAL BENCHES TO ENHANCE PLACEMAKING, AND ENGAGE THE VIEWS TO THE RIVER, THE BRIDGE AND THE EAST BANK.

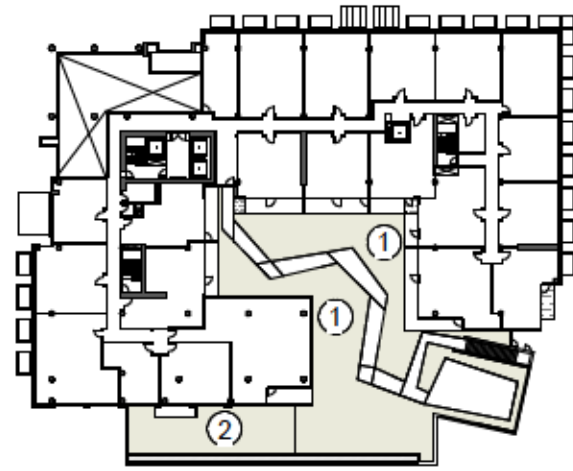


Greenway - Multi-Path Dimensions and Adjustments



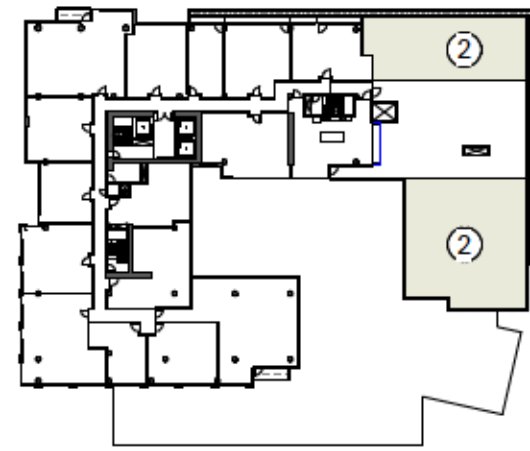


LEVEL 01



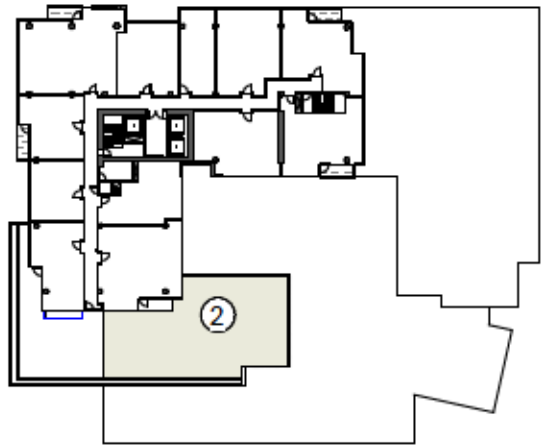
□ Eco Roof = 6,663 SF

LEVEL 02



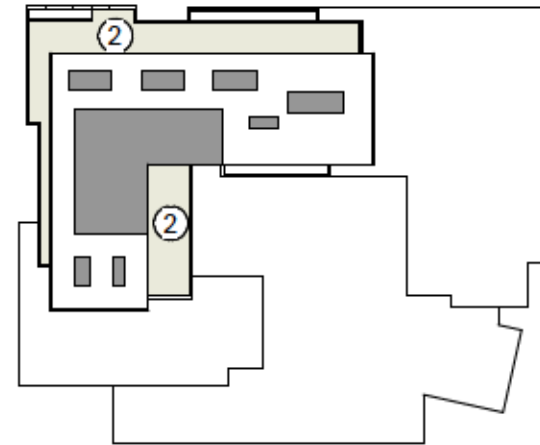
□ Eco Roof = 4,294 SF

LEVEL 07



□ Eco Roof = 2,646 SF

LEVEL 09



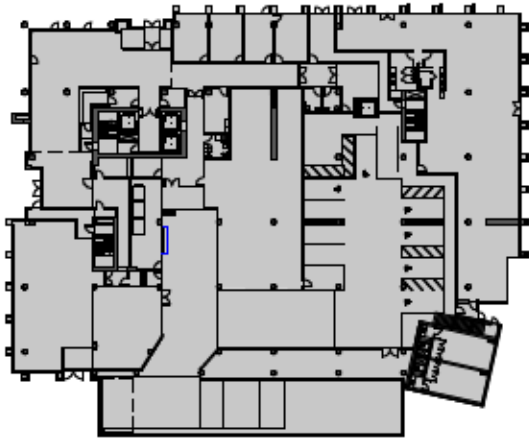
□ Eco Roof (3,207 SF)

ROOF

<p>BASE FAR = 144,160 SF RESIDENTIAL BONUS = 144,160 SF ECO-ROOF BONUS = 16,810 SF x 2 = 33,620 SF (16,810 SF Eco-roof / 52,252 SF overall roof = 32.2%) (1 square foot : 2 additional square foot)</p>
<p>TOTAL AVAILABLE FAR = 321,940 SF</p>
<p>TOTAL BUILDING GROSS AREA = 305,936 SF</p>
<p>BUILDING GROSS AREA UNDER 100' HEIGHT = 206,040 SF</p>

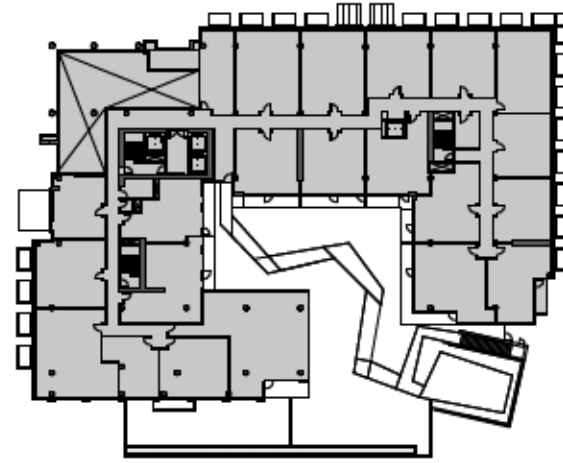
SEE ECO-ROOF DETAILS ON C.62

1. INTENSIVE ECO-ROOF ASSEMBLY
2. EXTENSIVE ECO-ROOF ASSEMBLY



□ FLOOR AREA = 34,119 SF

LEVEL 01



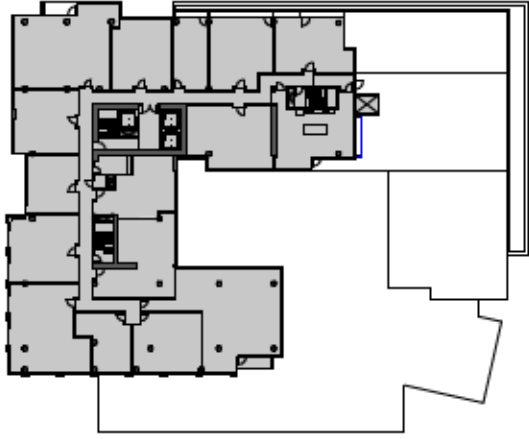
□ FLOOR AREA = 24,446 SF

LEVEL 02



□ FLOOR AREA = 25,285 SF

LEVEL 03-06



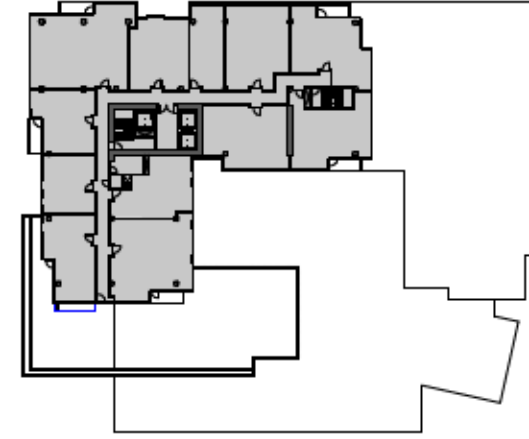
□ FLOOR AREA = 16,835 SF

LEVEL 07



□ FLOOR AREA = 17,013 SF

LEVEL 08



□ FLOOR AREA = 12,487 SF

LEVEL 09



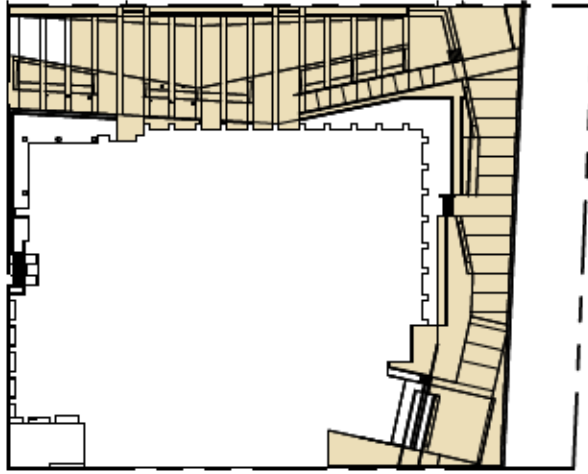
□ FLOOR AREA = 12,487 SF

LEVEL 10-17

TOTAL BUILDING GROSS AREA = 305,936 SF

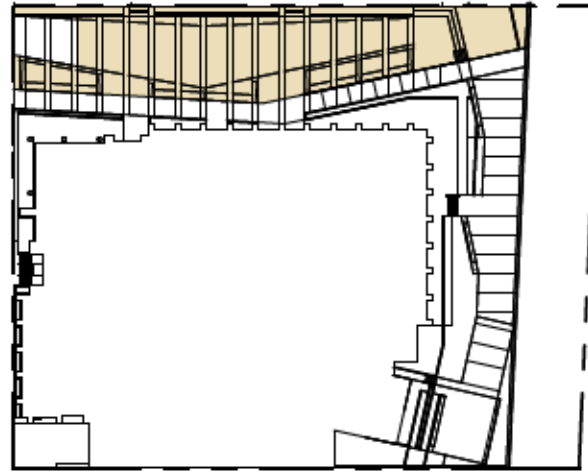
BUILDING GROSS AREA UNDER 100' HEIGHT (LEVEL 1-9) = 206,040 SF





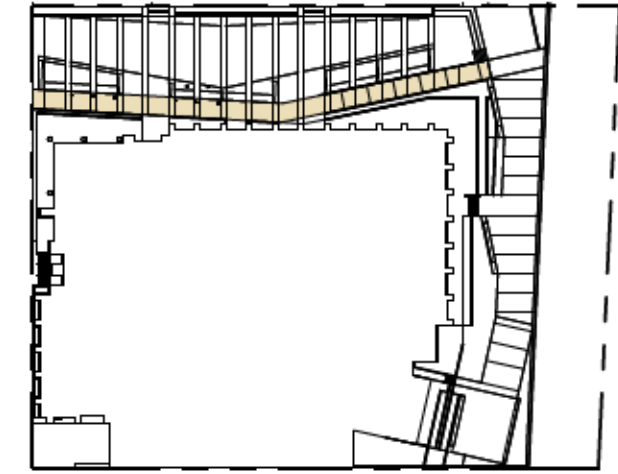
OPEN AREA

REQUIRED = (72,080 SF - 40,000 SF) X 30% = 9,624 SF
 PROVIDED = 22,140 SF



PARK / PLAZA

REQUIRED = 22,140 SF X 50% = 11,070 SF
 PROVIDED = 10,235 SF

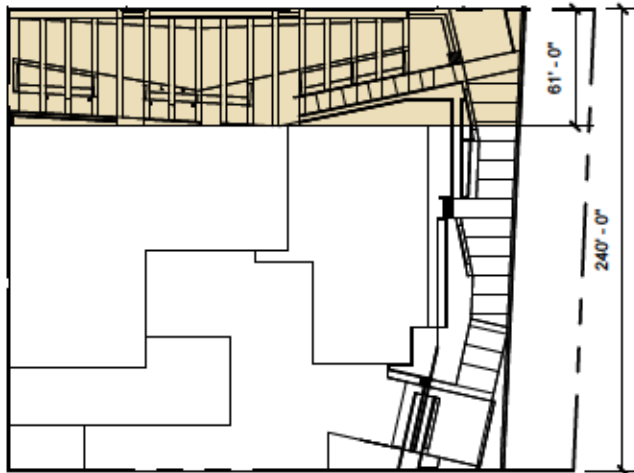


WALKWAYS

MAX. ALLOWED = 22,140 SF X 25% = 5,535 SF
 PROVIDED = 2,346 SF

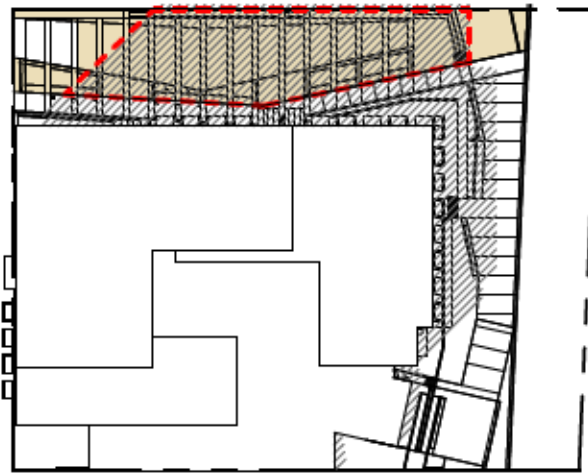
SINGLE PLAZA / SPACE

REQUIRED = 22,140 SF X 25% = 5,535 SF
 PROVIDED = 10,235 SF



VIEW CORRIDOR

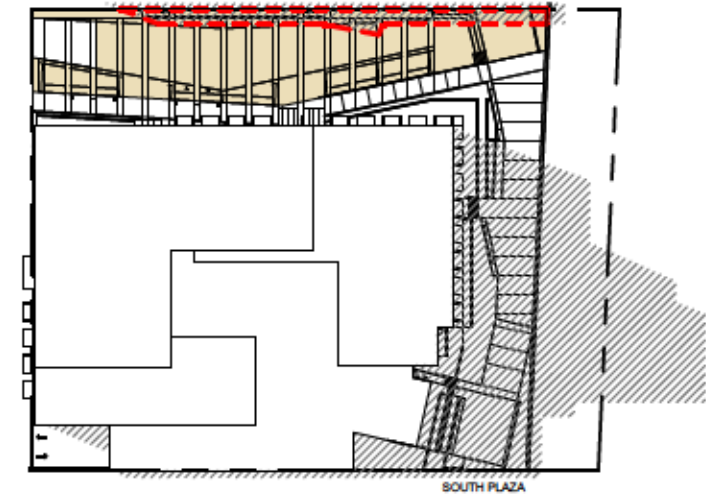
REQUIRED = SITE WIDTH X 25% = 240 FT X 25% = 60 FT
 PROVIDED = 61 FT



SHADOW AT 12PM ON APRIL 21

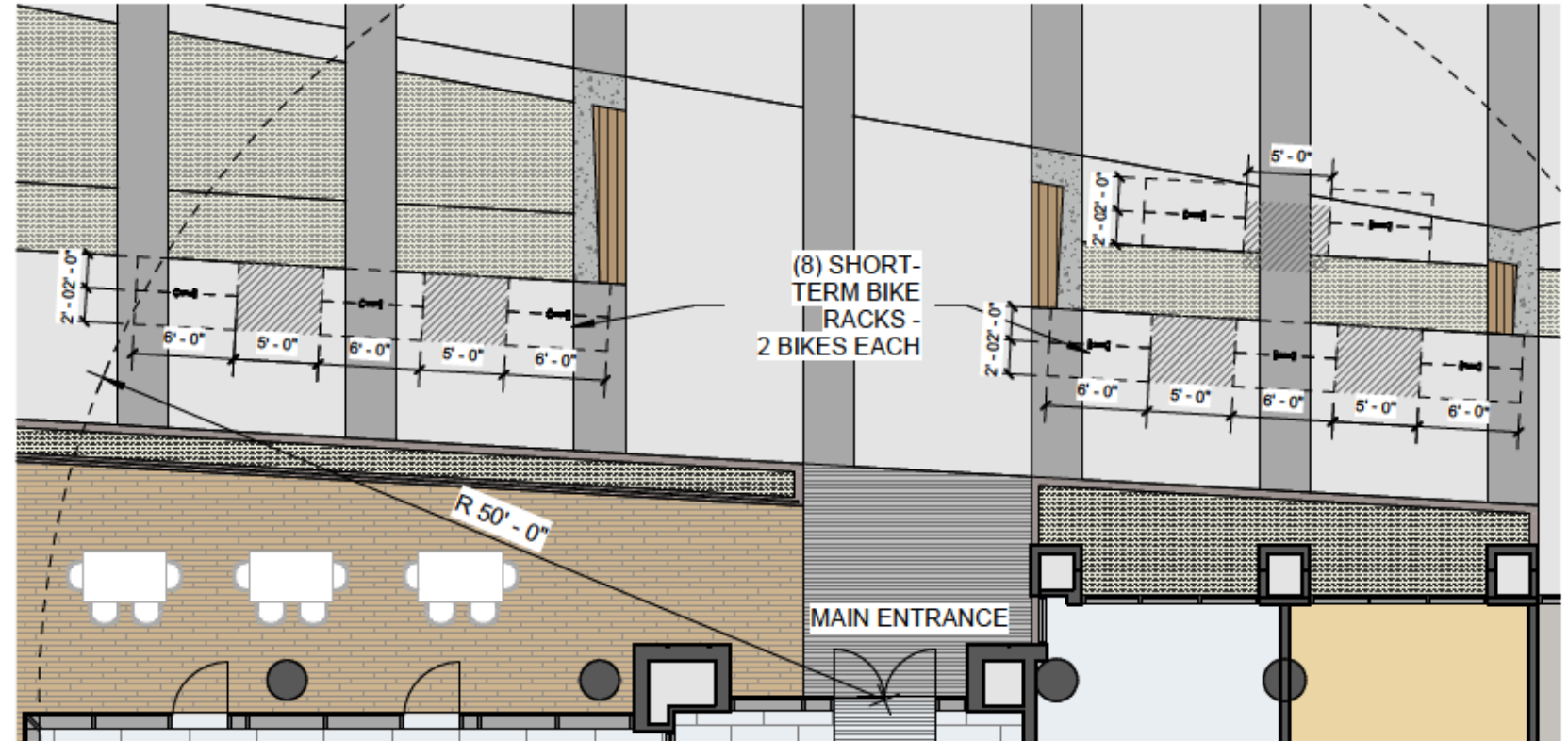
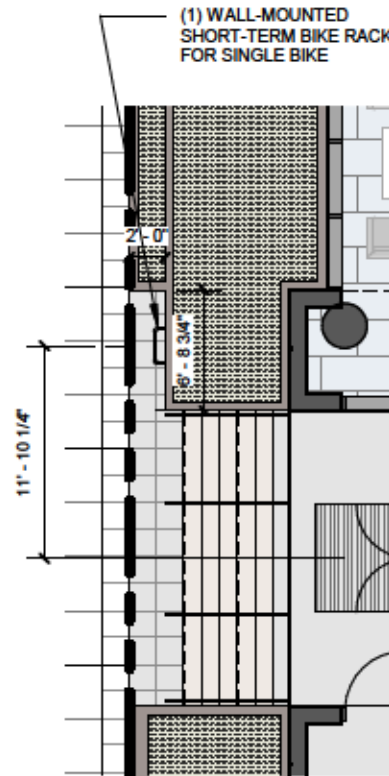
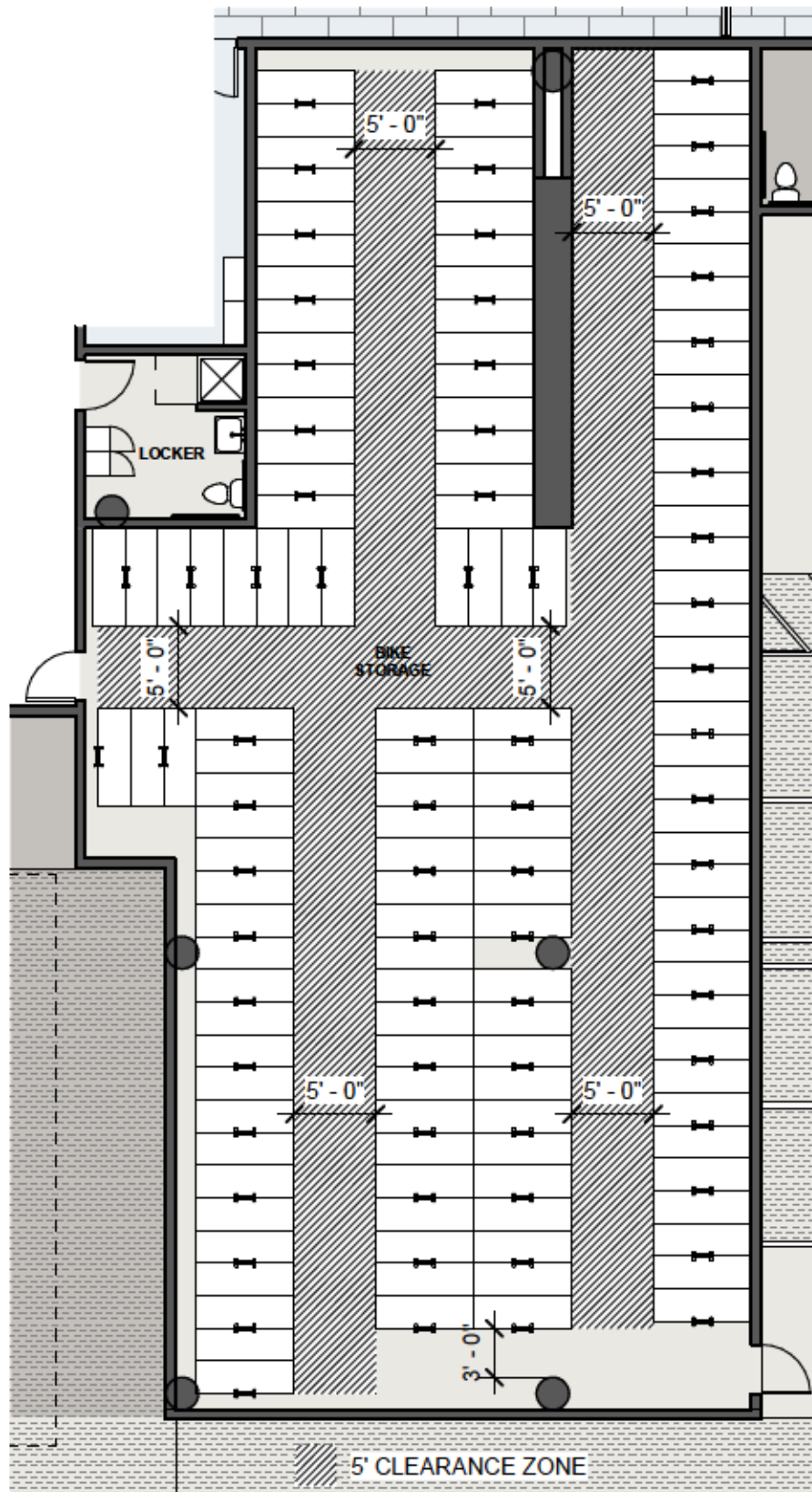
MAX. SHADOW ON PLAZAS = 10,235 SF X 50% = 5,118 SF
 PLAZA AREA IN SHADOW = 8,040 SF

*SEE MODIFICATION #2



SHADOW AT 3PM ON APRIL 21

MAX. SHADOW ON PLAZAS = 10,235 SF X 75% = 7,676 SF
 PLAZA AREA IN SHADOW = 1,728 SF

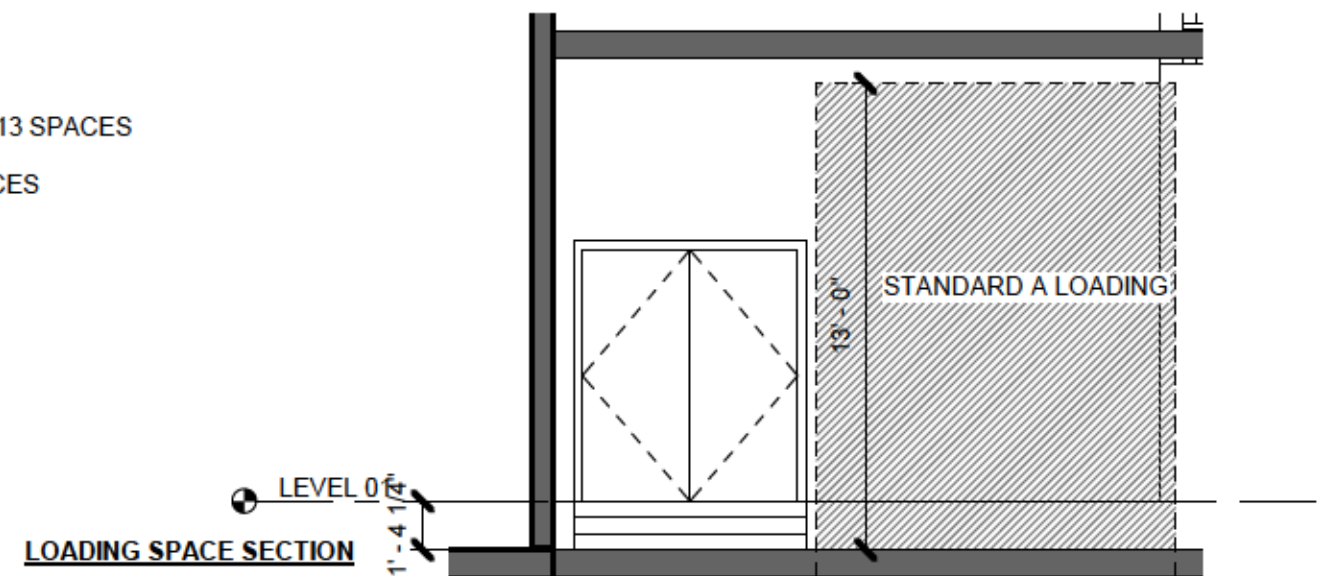


SHORT-TERM BICYCLE PARKING

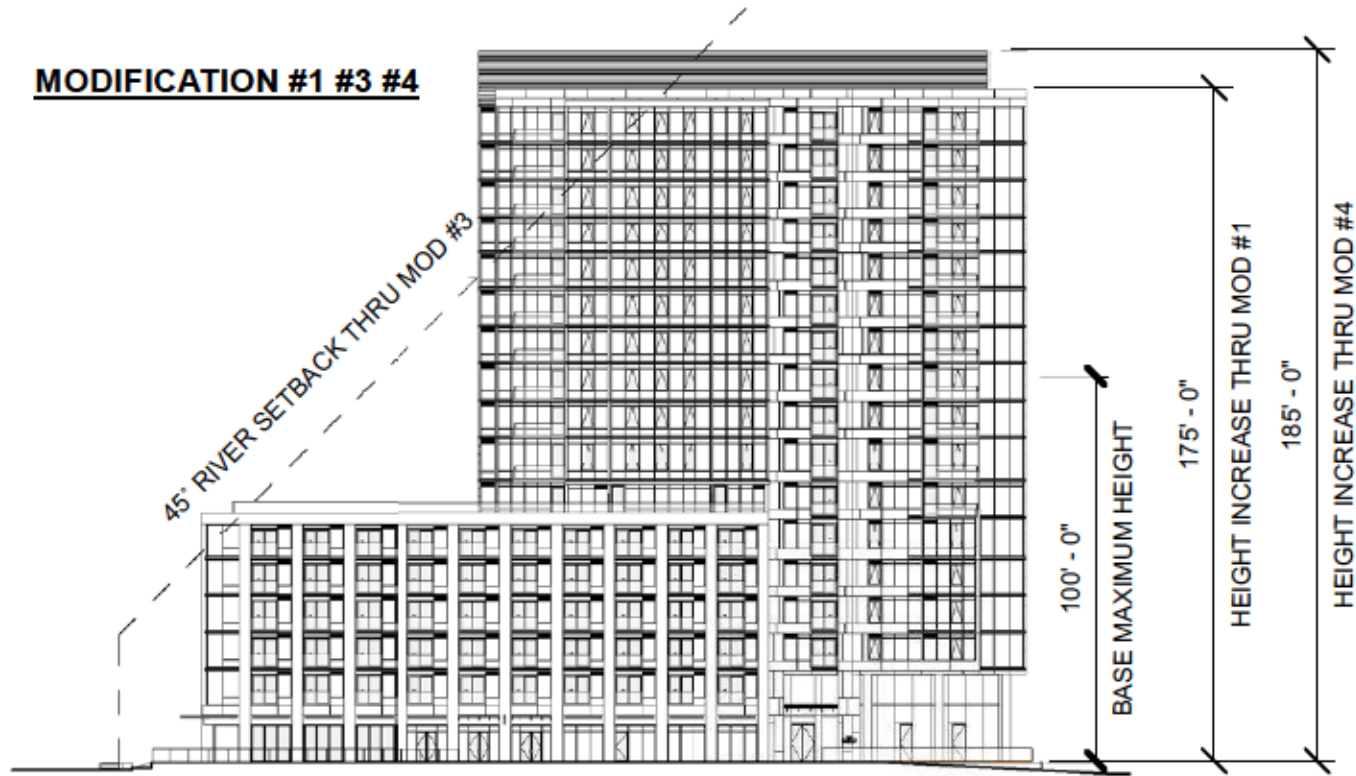
MULTI-DWELLING = 1 SPACE PER 20 UNITS = 275 UNITS / 20 = 14 SPACES
 RETAIL SALES AND SERVICE = 1 SPACE PER 5,000 SF = 4,665 / 5,000 = 1 SPACES
TOTAL REQUIRED = 15 SPACES
TOTAL PROVIDED = 17 SPACES @ 2'x6' SIZE

LONG-TERM BICYCLE PARKING

MULTI-DWELLING = 1.5 SPACE PER 1 UNIT = 275 UNITS X 1.5 = 413 SPACES
 RETAIL SALES AND SERVICE = 1 SPACE PER 12,000 SF = 2 SPACES
TOTAL REQUIRED = 415 SPACES
TOTAL PROVIDED = 275 IN UNITS + 140 IN BIKE STORAGE = 415 SPACES @ 2' X 6' SIZE

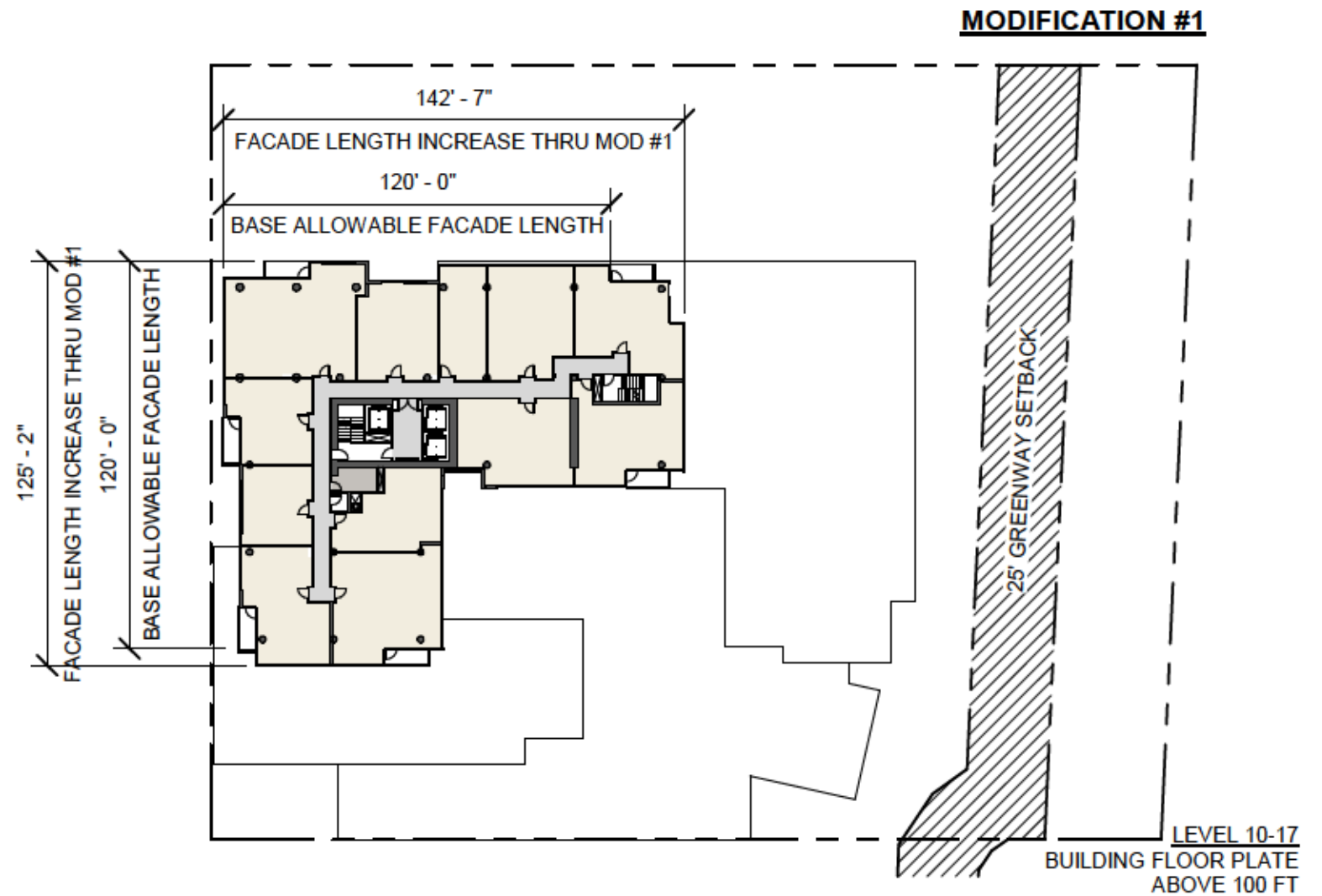
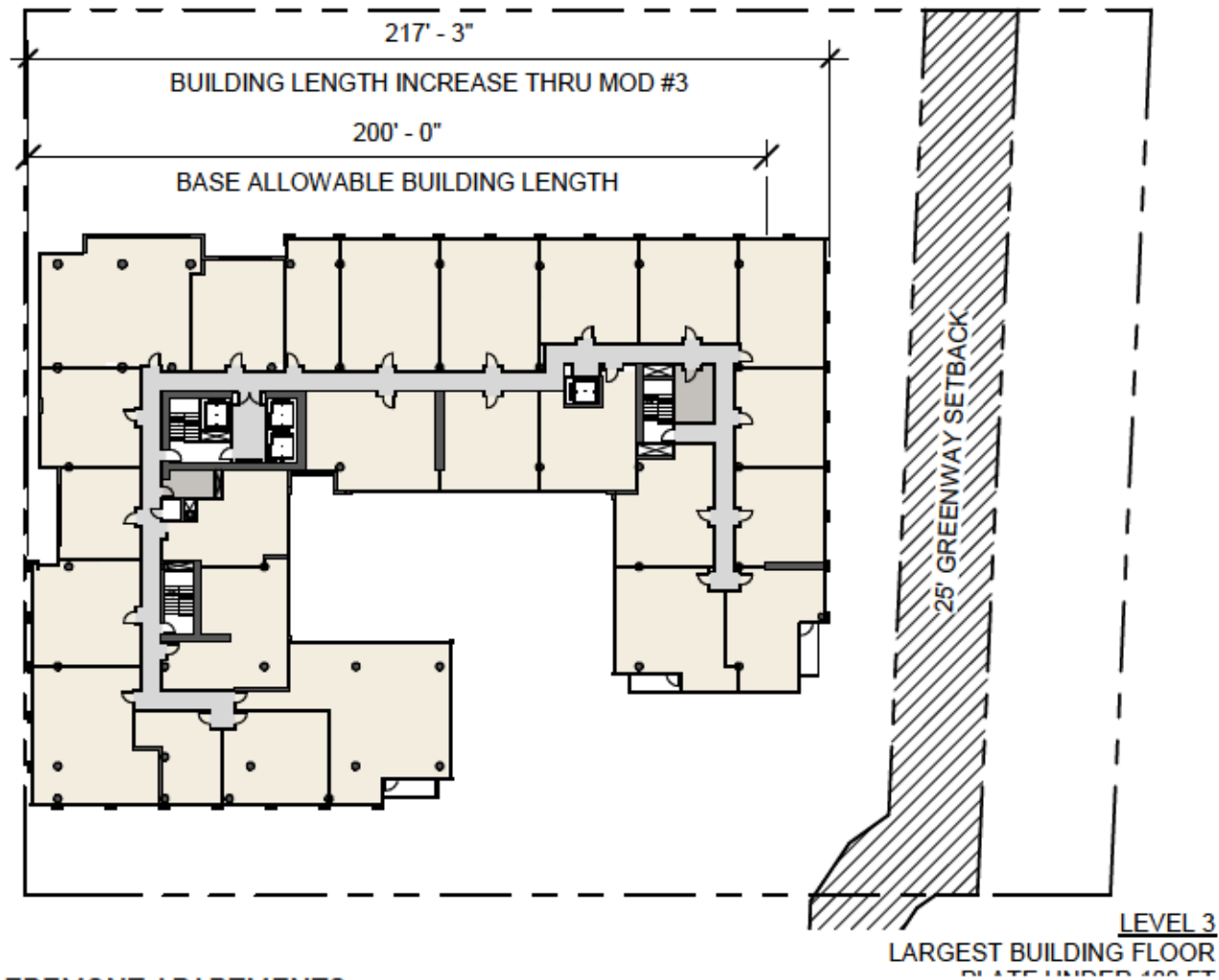


MODIFICATION #1 #3 #4

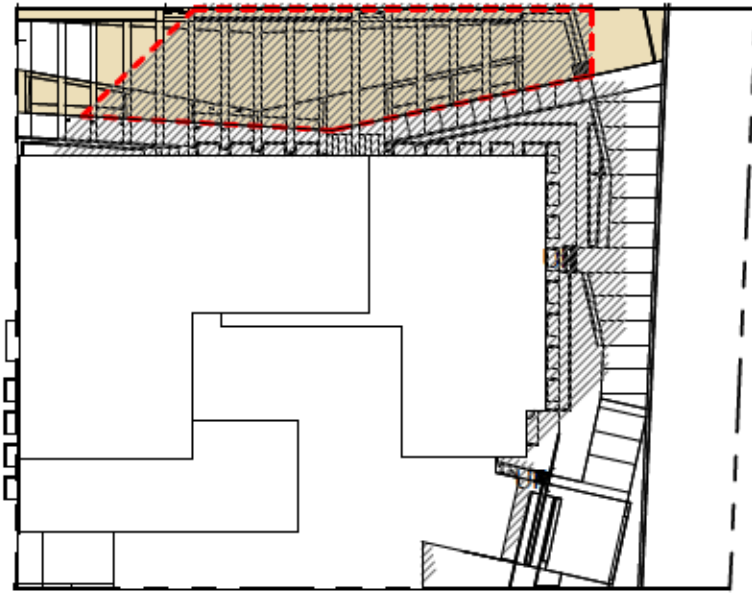


MODIFICATIONS

- | | | |
|----|----------------------|--|
| 1. | 33.510.205.H.2 | North Pearl Subarea Height Opportunity Area |
| 2. | 33.510.251.C.3 | North Pearl Subarea Open Area Development Standards - Shadow Standard |
| 3. | 33.510.251.D.3.b & c | North Pearl Subarea Waterfront Development - Setbacks and Maximum Building Dimension |
| 4. | 33.140.210.B.2 | Height - Rooftop Mechanical Equipment Coverage and Screening |
| 5. | 33.140.240.B.4 | Pedestrian Standards in EX zone - L1 Level Landscape |
| 6. | 33.266.130.G.2.a.(3) | Parking Area Setbacks and Landscaping |



MODIFICATION #2



SHADOW AT 12PM ON APRIL 21 (BASED ON PROVIDED OPEN AREA)

MAX. SHADOW ON PLAZAS = 10,235 SF X 50% = 5,118 SF

PLAZA AREA IN SHADOW = 8,040 SF

ALTERNATIVE CALCULATION:

SHADOW AT 12PM ON APRIL 21 (BASED ON REQUIRED OPEN AREA)

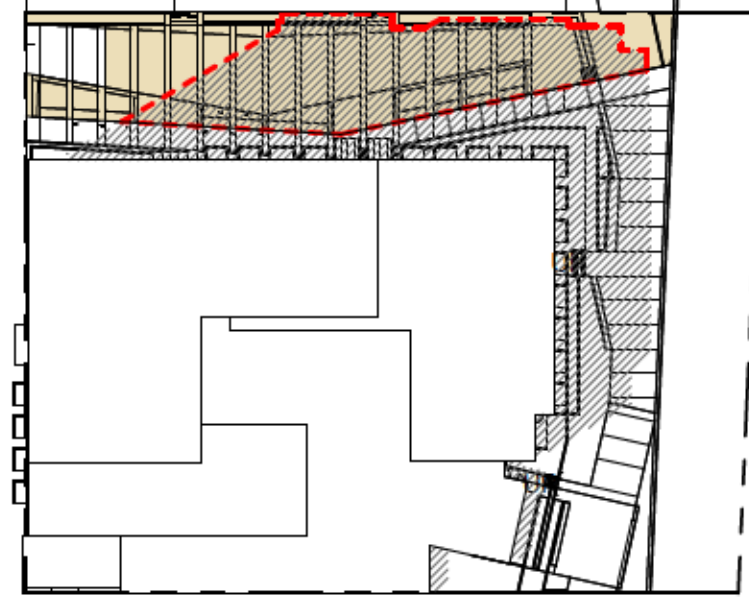
REQUIRED OPEN AREA = 9,624 SF

REQUIRED PLAZA = 9,624 X 50% = 4,812 SF

MIN. SUN ON PLAZAS = 4,812 SF X 50% = 2,406 SF

PLAZA AREA IN SUN = 2,195 SF

*Using the alternative calculation method, the plaza area in sun (2,195sf) is much closer to the minimum required sunlit area (2,406sf) on the plaza.

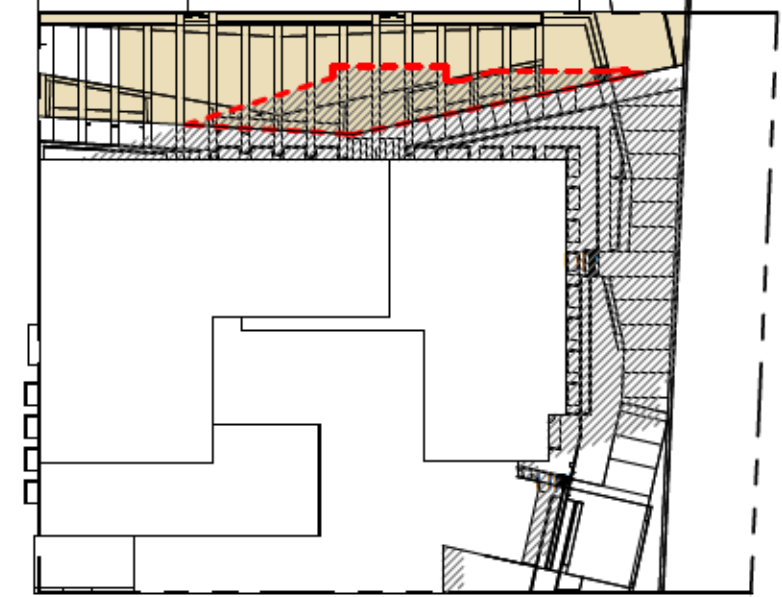


SHADOW AT 12:30PM ON APRIL 21

MAX. SHADOW ON PLAZAS = 10,235 SF X 50% = 5,118 SF

PLAZA AREA IN SHADOW = 6,731 SF

This is an alternative shadow study of the plaza at 12:30pm, just 30 minutes from the shadow measurement benchmark hour at 12pm. At 12:30pm, the shadow has significantly decreased within the plaza area from 78% at 12pm to 66% at 12:30pm.



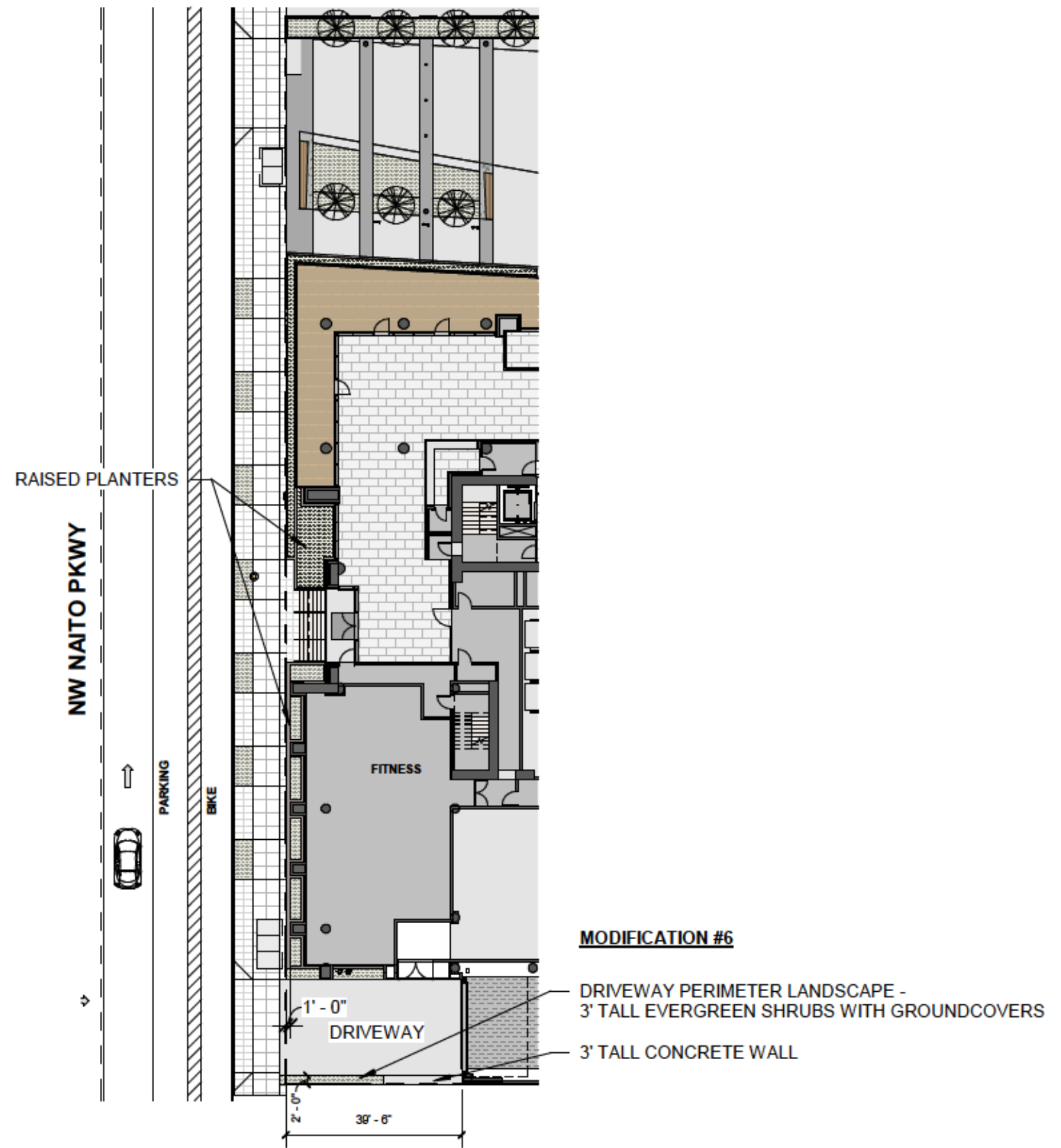
SHADOW AT 1PM ON APRIL 21

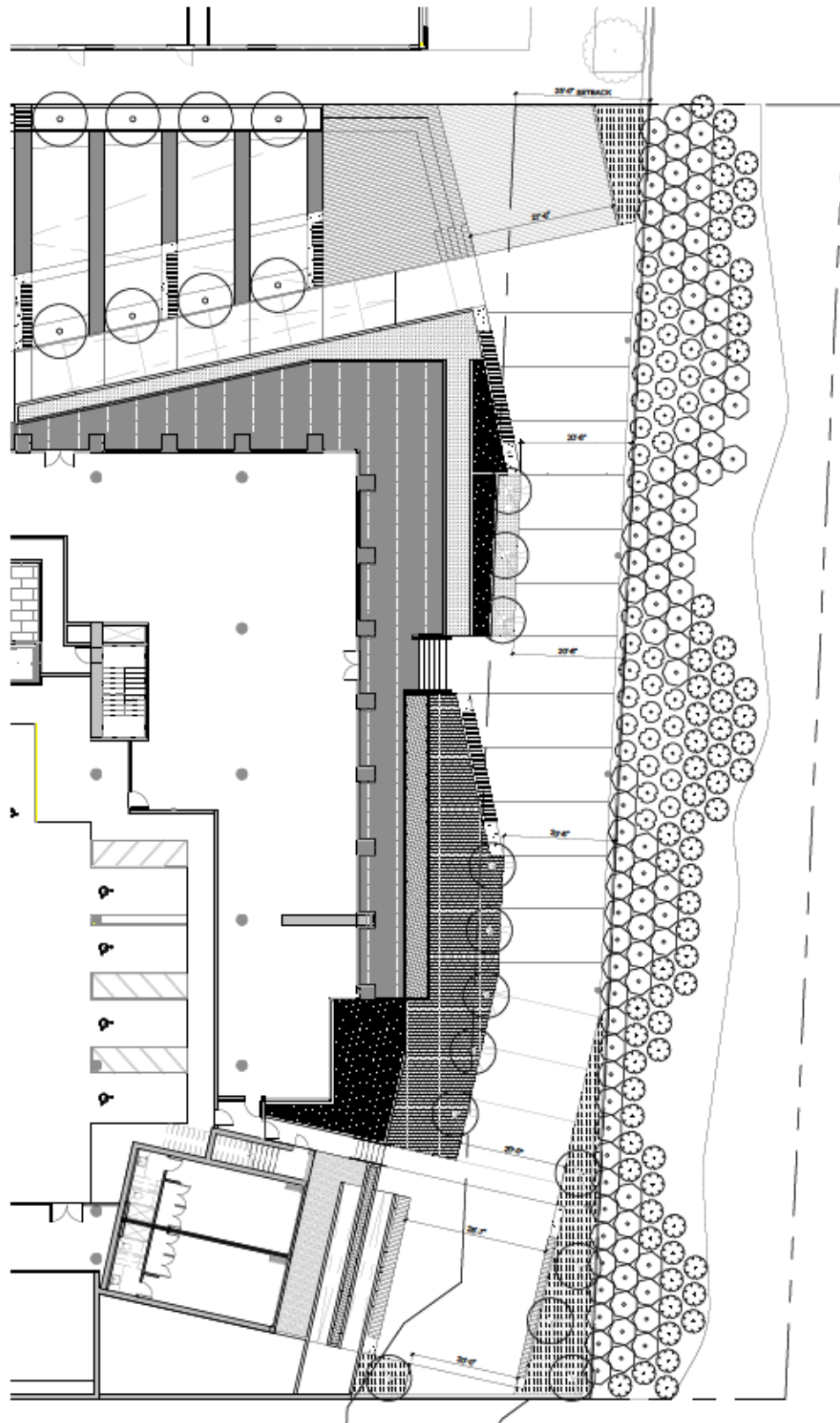
MAX. SHADOW ALLOWED = 10,235 X 50% = 5,118 SF

PLAZA AREA IN SHADOW = 2,552 SF

This is an alternative shadow study of the plaza at 1pm, just 1 hour from the shadow measurement benchmark hour at 12pm. At 1pm, the shadow has significantly decreased within the plaza area from 78% at 12pm to 25% at 1pm.

MODIFICATION #5 & #6



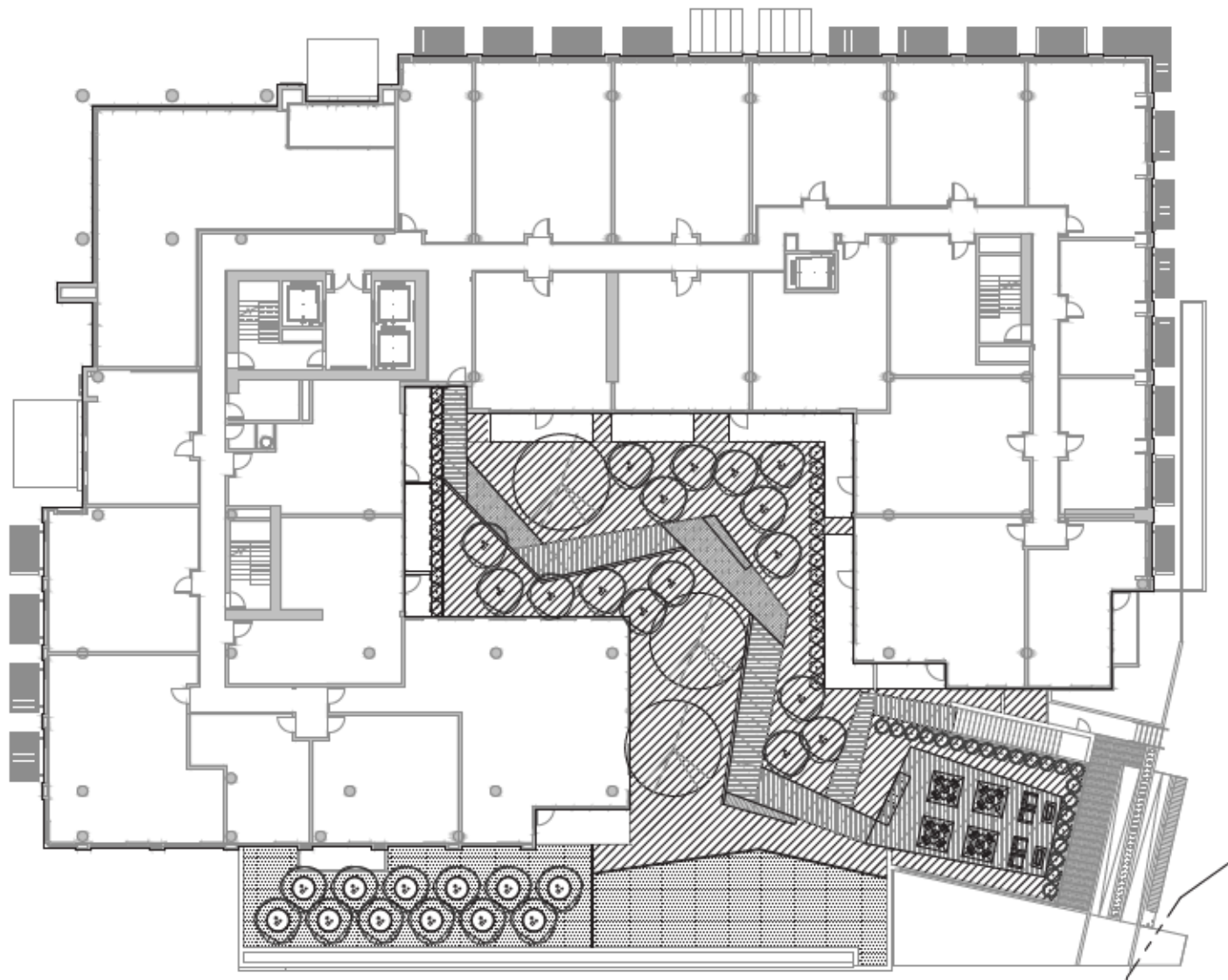


PLANT SCHEDULE							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT. X SPRD.)	SPACING	NOTES	QTY / AREA
TREES							
	GLTR	GLEDTISIA TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2" CAL	AS SHOWN	WITHIN 25' GREENWAY	12 C.T.
	RHPU	RHAMNUS PURSHIANA	CASCARA BUCKTHORN	2" CAL	AS SHOWN		
SHRUBS (RIVERBANK)							
	COSE	CORNUS SERICEA	REDOSIER DOGWOOD	36" SPRD, MIN 5 CANES	5' O.C.		95 CT.
	PHCA	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	36" HT. MIN 5 CANES	5' O.C.		89 CT.
	RISA	RIBES SANGUINEUM	RED-FLOWERING CURRANT	30" HT., 24" SPRD.	5' O.C.		36 CT.
GROUNDCOVERS							
	CEBC	CEANOTHUS 'BLUE CUSHION'	BLUE CUSHION CALIFORNIA LILAC	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	633 SF (317 CT.)
	IRTE	IRIS TENAX	OREGON IRIS	12" HT., 12" SPRD.	18" O.C.		
	TRJA	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	120 SF (60 CT.)
	ZASP	ZAUSCHNERIA SPP.	CALIFORNIA FUSCHIA	12" HT., 12" SPRD.	18" O.C.	WITHIN 25' GREENWAY	148 SF (74 CT.)
STORM WATER PLANTER							
	IRDO	IRIS DOUGLASIANA	DOUGLAS IRIS	1 GAL. CONT.	12" O.C.		
	IRSI	IRIS SIBRICA 'WHITE SWIRL'	SIBERIAN IRIS	1 GAL. CONT.	12" O.C.		
	JUPA	JUNCUS PATENS	GROOVED RUSH	1 GAL. CONT.	12" O.C.		
	POMU	POLYSTICHUM MUNITUM	SWORD FERN	1 GAL. CONT.	12" O.C.		

PLANTING NOTES

1. VERIFY LOCATION OF EXISTING TREES TO REMAIN PRIOR TO SOIL PREPARATION. PROTECT ALL TREES AND SHRUBS INDICATED TO REMAIN.
2. VERIFY AND COORDINATE WORK AROUND ALL UNDERGROUND UTILITIES BEFORE EXCAVATION. NOTIFY ALL UTILITY PROVIDERS AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING WORK.
3. VERIFY THAT THE CONDITIONS ARE SUITABLE TO PROMOTE HEALTHY PLANT GROWTH. DO NOT PROCEED IF CONDITIONS DETRIMENTAL TO HEALTHY GROWING ENVIRONMENT ARE PRESENT, INCLUDING OVER-COMPACTED SOILS, ADVERSE DRAINAGE CONDITIONS, DEBRIS, OR OTHER HARMFUL CIRCUMSTANCES. PROCEEDING WITHOUT NOTIFICATION DENOTES ACCEPTANCE.
4. COORDINATE WITH OTHER SUBCONTRACTORS AND TRADES TO ENSURE PROTECTION OF GROWING CONDITIONS AND PLANT MATERIALS.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL PLANTING REQUIREMENTS, METHODS, AND MATERIALS.
6. VERIFY PLANT QUANTITIES SHOWN ON THE PLANS BASED ON GRAPHIC REPRESENTATION. QUANTITIES SHOWN ARE FOR CONTRACTOR CONVENIENCE ONLY.
7. PROVIDE POSITIVE DRAINAGE FOR ALL PLANTING AREAS.
8. UNLESS OTHERWISE INDICATED, ALL PLANTINGS SHALL BE TRIANGULARLY SPACED.
9. LABELLING REFERS TO ALL ADJACENT IDENTICAL SYMBOLS WHERE PLANTS ARE MASSED. LABEL FOR MASS INDICATES TOTAL NUMBER OF PLANTS IN GROUP, EVEN IF THE GROUP IS SPREAD OVER MORE THAN ONE SHEET.

Greenway - Technical Planting Plan



PLANTING NOTES

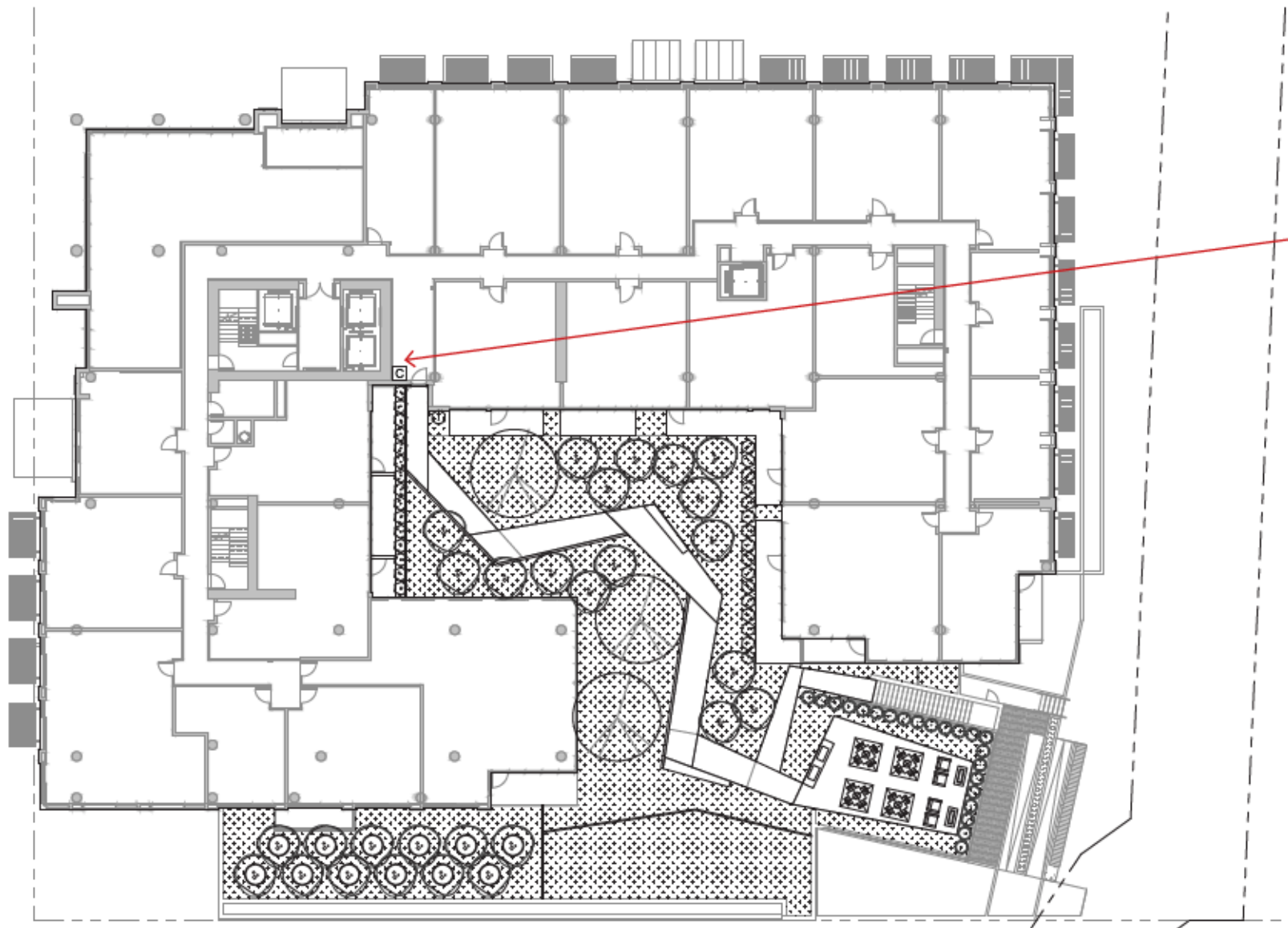
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PLANT SCHEDULE




SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT.X SPRD.)	SPACING	NOTES	AREA
TREES							
	CONU	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	2" CAL	AS SHOWN	MULTISTEM	
	STPS	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	2" CAL	AS SHOWN		
SHRUBS							360 SF
	SARU	SARCOCOCCA RUSCIFOLIA	FRAGRANT SWEETBOX	18" HT., 12" SPRD.	36" O.C.		
	LAHS	LAVANDULA 'HIDCOTE SUPERIOR'	HIDCOTE SUPERIOR LAVENDER	12" HT., 12" SPRD.	AS SHOWN		
SHRUB AND GRASS MIX							4,340 SF
	CAMO	CAREX MORROWII 'EVERGOLD'	EVERGOLD JAPANESE SEDGE	12" HT., 12" SPRD.	12" O.C.		
	DECE	DESCHAMPسيا CESPITOSA	TUFTED HARIGRASS	18" HT., 12" SPRD.	24" O.C.		
	LIMU	LIRIOPE MUSCARI	LILY TURF	12" HT., 12" SPRD.	12" O.C.		
SEDUM MAT MIX							2,022 SF
	SECA	SEDUM CAUTICOLA 'LIDAKENSE'	'LIDAKENSE' SHOWY STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEMO	SEDUM MONTANUM SSP. ORIENTALE	MOUNTAIN STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SERE	SEDUM REFLEXUM 'BLUE SPRUCE'	'BLUE SPRUCE' STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SESI	SEDUM SIEBOLDII	OCTOBER DAPHNE STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEAU	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	4" CONT.	12" O.C.	20% OF TOTAL	

Level 02 - Technical Planting Plan

1/32" = 1' - 0"




LEGEND

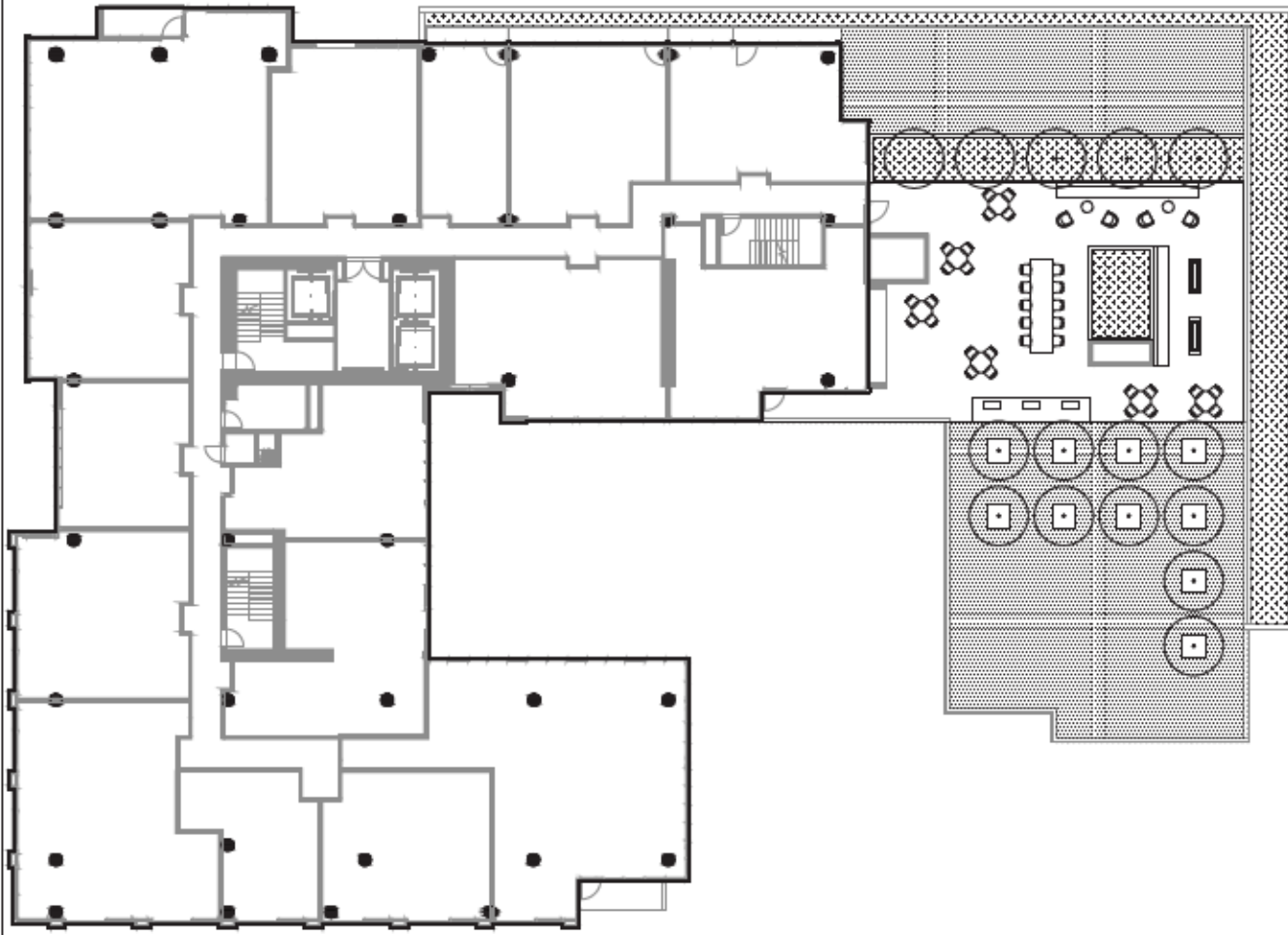
-  NEW IRRIGATED ECO ROOF AREA
-  IRRIGATION CONTROLLER WITH ET SENSOR, MOUNT ON WALL. ELECTRICAL CONTRACTOR TO PROVIDE ELECTRIC SERVICE. EXACT LOCATION TO BE DETERMINED.
-  IRRIGATION WATER POINT OF CONNECTION. SUPPLY STUB-OUT FROM LEVEL BELOW. STUB-OUT FROM PLUMBING CONTRACTOR. EXACT LOCATION TO BE DETERMINED.

IRRIGATION NOTES

1. VERIFY AND COORDINATE WORK AROUND ALL UNDERGROUND UTILITIES BEFORE EXCAVATION. NOTIFY ALL UTILITY PROVIDERS AT LEAST THREE (3) WORKING DAYS PRIOR TO BEGINNING WORK.
2. VERIFY THAT CONDITIONS ARE SUITABLE TO PROVIDE A COMPLETE WORKING SYSTEM. DO NOT PROCEED IF CONDITIONS ARE PRESENT THAT ARE DETRIMENTAL TO THE EQUIPMENT OR WILL NOT SUPPORT A HEALTHY GROWING ENVIRONMENT FOR PLANTS.
3. COORDINATE WITH OTHER SUBCONTRACTORS AND TRADES TO ENSURE PROTECTION OF THE SYSTEM INCLUDING BUT NOT LIMITED TO, WATER SERVICE, WATER METER, BACKFLOW DEVICES, CONTROLLER LOCATION, CONTROLLER ELECTRICAL SERVICE, AND WIRE CONDUITS FOR CONTROLLER.
4. ANY NUMERICAL QUANTITIES SHOWN ARE FOR CONTRACTOR CONVENIENCE; QUANTITIES SHALL BE BASED ON THE GRAPHIC REPRESENTATION ON THE PLANS.
5. INSTALL IRRIGATION SYSTEM IN COMPLIANCE WITH ALL STATE AND LOCAL CODES.
6. IRRIGATION HEADS, EMITTERS, AND OTHER WATERING DEVICES ARE GRAPHICALLY SHOWN IN THE DESIRED LOCATIONS; PIPE AND OTHER SUPPORT EQUIPMENT MAY BE SHOWN IN PAVED AREAS FOR GRAPHIC CLARITY. INSTALL ALL IRRIGATION EQUIPMENT IN LANDSCAPE AREAS UNLESS OTHERWISE INDICATED. PLACE PIPE AND CONTROL WIRE IN COMMON TRENCHES WHERE POSSIBLE.
7. PLACE ALL VALVE BOXES IN PLANTING BEDS WHERE POSSIBLE, AND LOCATE TO ALLOW EASE OF ACCESS FOR MAINTENANCE, CONSIDERING PLANT MATERIAL AND OBSTRUCTIONS. SIZE BOXES TO ACCOMMODATE COMPLETE VALVE ASSEMBLY INCLUDING WIRE, ISOLATION VALVES, AND UNIONS. SET VALVE BOXES IN A UNIFORM MANNER, SQUARE TO ADJACENT PAVING, ALIGN AND EVENLY SPACE GROUPS OF BOXES IN A UNIFORM AND ORDERLY FASHION. ONLY ONE VALVE PER BOX. BOX LOCATIONS SHALL BE STAKED IN FIELD AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
8. ADJUST THE ENTIRE SYSTEM TO PROVIDE UNIFORM EVEN COVERAGE. ELIMINATE ALL FOGGING, AND OVERSPRAY ON TO PAVING, STRUCTURES, OR NON-PLANTED AREAS. PROVIDE A COMPLETE WORKING SYSTEM.
9. STATIC PRESSURE IS UNDERSTOOD TO BE - P.S.J. AT THE POINT OF CONNECTION - VERIFY PRIOR TO COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF ACTUAL FIELD DATA DIFFERS.
10. THE SYSTEM IS DESIGNED TO OPERATE AT A MINIMUM STATIC PRESSURE OF - P.S.J. AT A MINIMUM FLOW OF - GPM AT POINTS-OF-CONNECTION. NOTIFY THE OWNERS REPRESENTATIVE PRIOR TO COMMENCING WORK IF ACTUAL FIELD DATA DIFFERS FROM DESIGN PRESSURE AND FLOWS.
11. INSTALL ALL IRRIGATION PIPE AND WIRE IN CLASS-200 PVC SLEEVES BELOW ALL PAVED SURFACES OR STRUCTURES SUCH AS WALLS, STAIRS, AND OTHER IMPROVEMENTS. SIZE OF SLEEVES SHALL BE MINIMUM TWICE (2X) THE COMBINED DIAMETER OF PIPE TO BE PLACED IN SLEEVE. MINIMUM SIZE 4" WITH 24" COVER. MINIMUM. COORDINATE PLACEMENT OF SLEEVES WITH OTHER TRADES.
12. SIZE PIPE TO ENSURE THAT MAXIMUM WATER VELOCITY DOES NOT EXCEED 5 FT/SEC.

Level 02 - Technical Irrigation Plan

1/32" = 1' - 0" 



PLANT SCHEDULE							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT. X SPRD.)	SPACING	NOTES	AREA
		TREES					
	CEOC	CERCIS OCCIDENTALIS	WESTERN REDBUD	2" CAL	AS SHOWN	MULTISTEM	
		SHRUBS					1,534 SF
	ASCH	ASTILBE CHINENSIS 'DIAMONDS AND PEARLS'	DIAMONDS AND PEARLS ASTILBE	12" HT., 12" SPRD.	12" O.C.		
		SEDUM MAT MIX					3,620 SF
	SECA	SEDUM CAUTICOLA 'LIDAKENSE'	'LIDAKENSE' SHOWY STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEMO	SEDUM MONTANUM SSP. ORIENTALE	MOUNTAIN STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SERE	SEDUM REFLEXUM 'BLUE SPRUCE'	'BLUE SPRUCE' STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SESI	SEDUM SIEBOLDII	OCTOBER DAPHNE STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEAU	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	4" CONT.	12" O.C.	20% OF TOTAL	

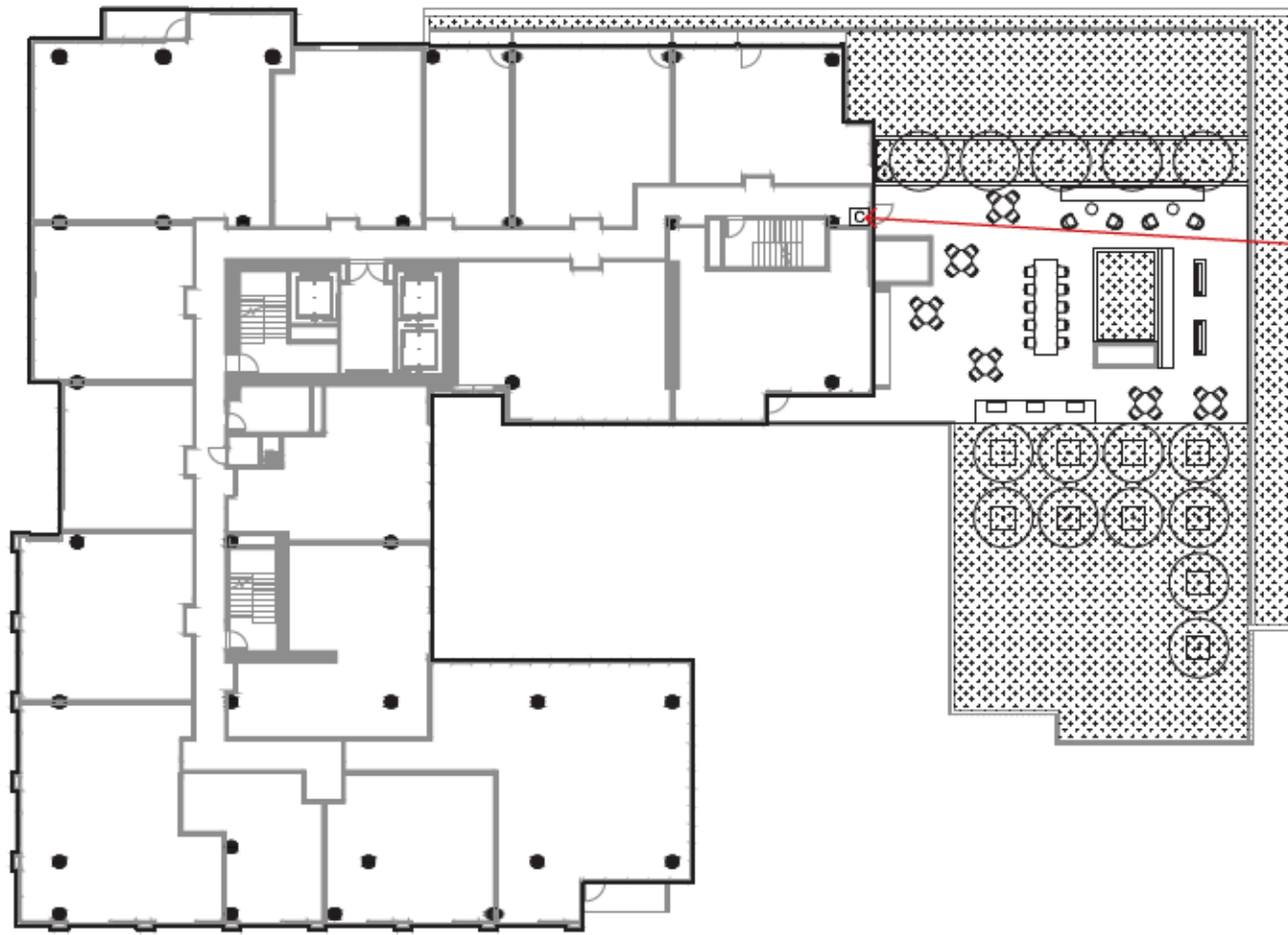
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Overlook - Technical Planting Plan

1/32" = 1' - 0"






LEGEND

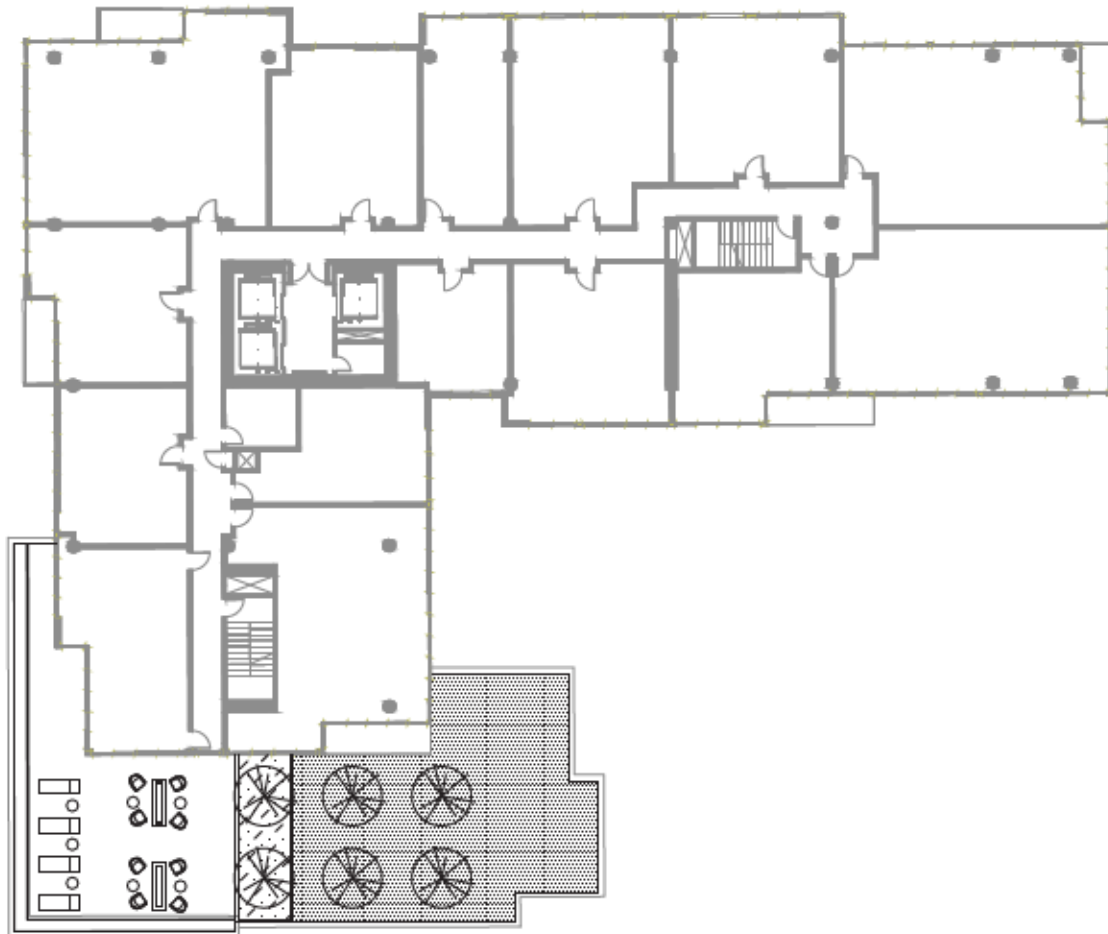
-  NEW IRRIGATED ECO ROOF AREA
-  IRRIGATION CONTROLLER WITH ET SENSOR, MOUNT ON WALL. ELECTRICAL CONTRACTOR TO PROVIDE ELECTRICAL SERVICE. EXACT LOCATION TO BE DETERMINED.
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3. COORDINATE WITH OTHER SUBCONTRACTORS AND TRADES TO ENSURE PROTECTION OF THE SYSTEM INCLUDING BUT NOT LIMITED TO, WATER SERVICE, WATER METER, BACKFLOW DEVICES, CONTROLLER LOCATION, CONTROLLER ELECTRICAL SERVICE, AND WIRE CONDUITS FOR CONTROLLER.
4. ANY NUMERICAL QUANTITIES SHOWN ARE FOR CONTRACTOR CONVENIENCE; QUANTITIES SHALL BE BASED ON THE GRAPHIC REPRESENTATION ON THE PLANS.
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6. IRRIGATION HEADS, EMITTERS, AND OTHER WATERING DEVICES ARE GRAPHICALLY SHOWN IN THE DESIRED LOCATIONS; PIPE AND OTHER SUPPORT EQUIPMENT MAY BE SHOWN IN PAVED AREAS FOR GRAPHIC CLARITY. INSTALL ALL IRRIGATION EQUIPMENT IN LANDSCAPE AREAS UNLESS OTHERWISE INDICATED. PLACE PIPE AND CONTROL WIRE IN COMMON TRENCHES WHERE POSSIBLE.
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12. SIZE PIPE TO ENSURE THAT MAXIMUM WATER VELOCITY DOES NOT EXCEED 5 FT./SEC.

Overlook - Technical Irrigation Plan

1/32" = 1' - 0" 




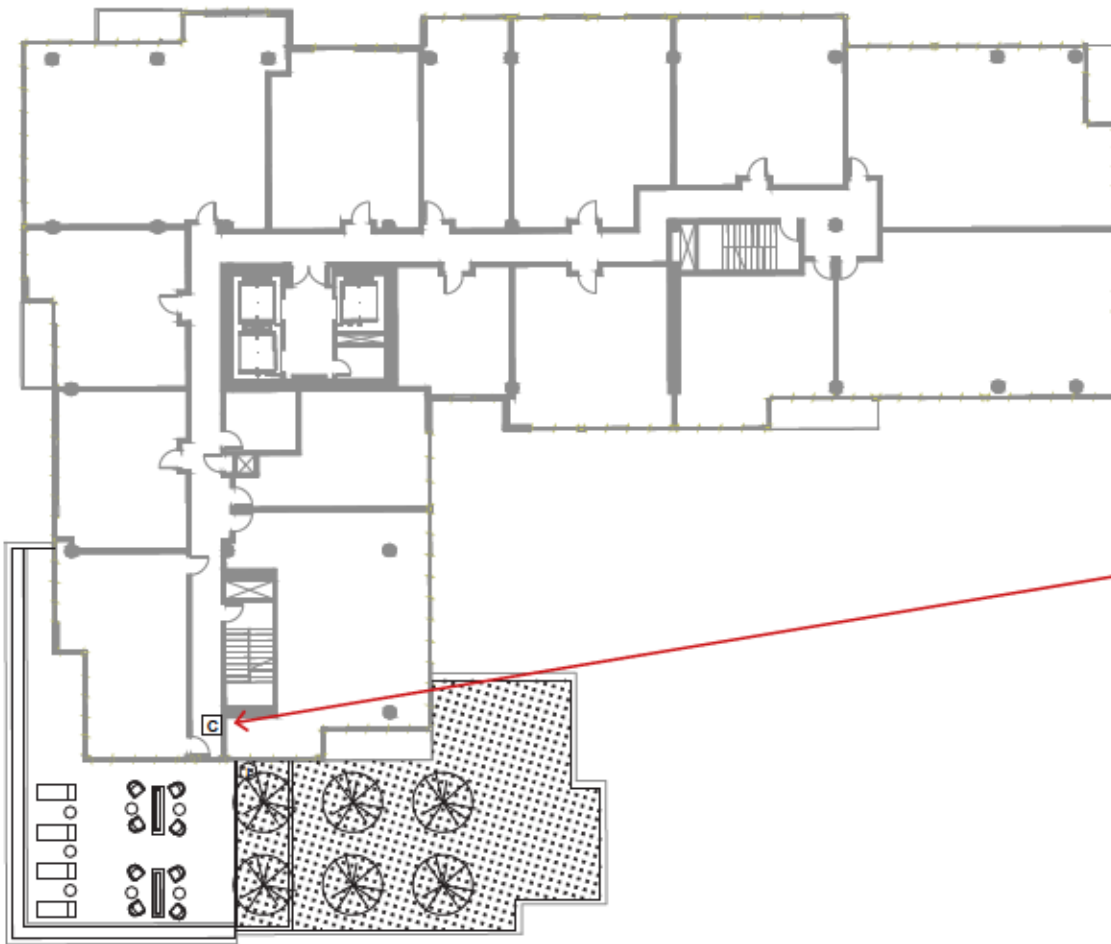
PLANT SCHEDULE							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT.X SPRD.)	SPACING	NOTES	AREA
		TREES					
	ACSH	ACER SHIRASAWANUM 'AUREUM'	FULL MOON MAPLE	2" CAL	AS SHOWN	MULTISTEM	
		SHRUBS					238 SF
	LOCH	LOROPETALUM CHINENSE	FRINGE FLOWER	12" HT., 12" SPRD.	12" O.C.		
		SEDUM MAT MIX					2,502 SF
	SECA	SEDUM CAUTICOLA 'LIDAKENSE'	'LIDAKENSE' SHOWY STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEMO	SEDUM MONTANUM 'SSP. ORIENTALE'	MOUNTAIN STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SERE	SEDUM REFLEXUM 'BLUE SPRUCE'	'BLUE SPRUCE' STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SESI	SEDUM SIEBOLDII	OCTOBER DAPHNE STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEAU	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	4" CONT.	12" O.C.	20% OF TOTAL	

PLANTING NOTES

1. VERIFY LOCATION OF EXISTING TREES TO REMAIN PRIOR TO SOIL PREPARATION. PROTECT ALL TREES AND SHRUBS INDICATED TO REMAIN.
2. VERIFY AND COORDINATE WORK AROUND ALL UNDERGROUND UTILITIES BEFORE EXCAVATION. NOTIFY ALL UTILITY PROVIDERS AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING WORK.
3. VERIFY THAT THE CONDITIONS ARE SUITABLE TO PROMOTE HEALTHY PLANT GROWTH. DO NOT PROCEED IF CONDITIONS DETRIMENTAL TO HEALTHY GROWING ENVIRONMENT ARE PRESENT, INCLUDING OVER-COMPACTED SOILS, ADVERSE DRAINAGE CONDITIONS, DEBRIS, OR OTHER HARMFUL CIRCUMSTANCES. PROCEEDING WITHOUT NOTIFICATION DENOTES ACCEPTANCE.
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5. REFER TO SPECIFICATIONS FOR ADDITIONAL PLANTING REQUIREMENTS, METHODS, AND MATERIALS.
6. VERIFY PLANT QUANTITIES SHOWN ON THE PLANS BASED ON GRAPHIC REPRESENTATION. QUANTITIES SHOWN ARE FOR CONTRACTOR CONVENIENCE ONLY.
7. PROVIDE POSITIVE DRAINAGE FOR ALL PLANTING AREAS.
8. UNLESS OTHERWISE INDICATED, ALL PLANTINGS SHALL BE TRIANGULARLY SPACED.
9. LABELLING REFERS TO ALL ADJACENT IDENTICAL SYMBOLS WHERE PLANTS ARE MASSED. LABEL FOR MASS INDICATES TOTAL NUMBER OF PLANTS IN GROUP, EVEN IF THE GROUP IS SPREAD OVER MORE THAN ONE SHEET.

The Nest - Technical Planting Plan

1/32" = 1' - 0" 



LEGEND



NEW IRRIGATED ECO ROOF AREA



IRRIGATION CONTROLLER WITH ET SENSOR, MOUNT ON WALL. ELECTRICAL CONTRACTOR TO PROVIDE ELECTRIC SERVICE. EXACT LOCATION TO BE DETERMINED.



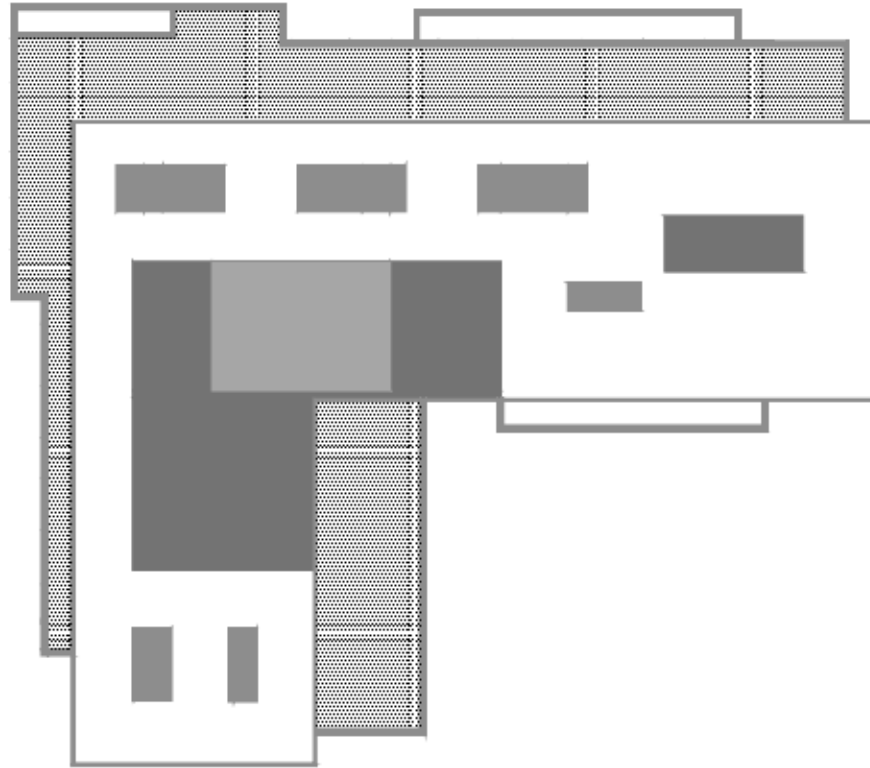
IRRIGATION WATER POINT OF CONNECTION. SUPPLY STUB-OUT FROM LEVEL BELOW. STUB-OUT FROM PLUMBING CONTRACTOR. EXACT LOCATION TO BE DETERMINED.

IRRIGATION NOTES

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The Nest - Technical Irrigation Plan

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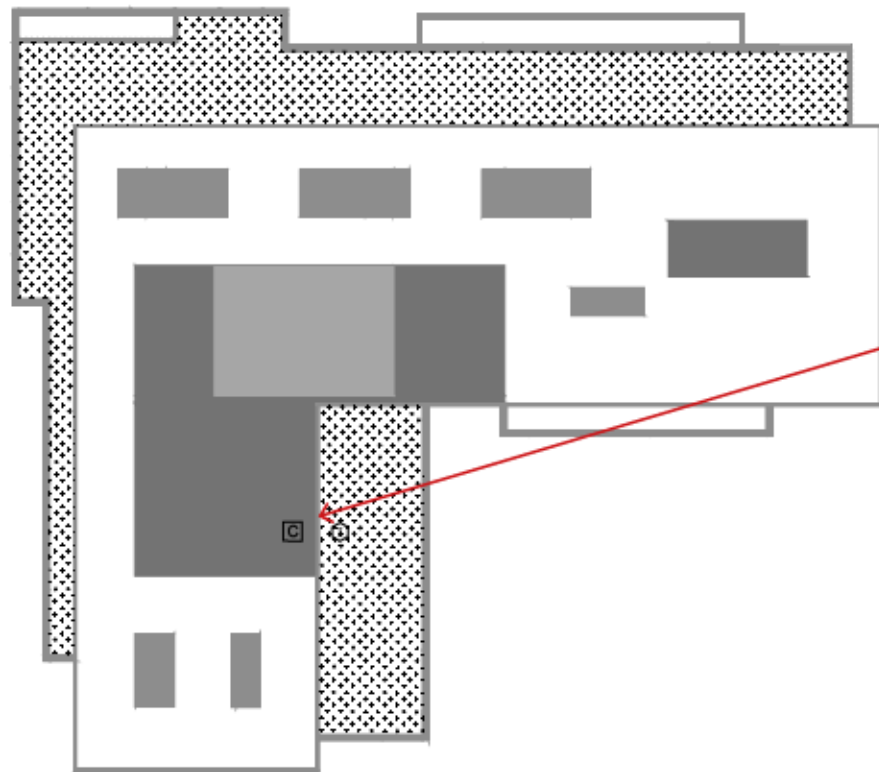


PLANT SCHEDULE							
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE (HT. X SPRD.)	SPACING	NOTES	AREA
		SEDUM MAT MIX					3,213 SF
	SECA	SEDUM CAUTICOLA 'IDAKENSE'	'IDAKENSE' SHOWY STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
	SEMO	SEDUM MONTANUM SSP. ORIENTALE	MOUNTAIN STONECROP	4" CONT.	12" O.C.	20% OF TOTAL	
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Roof - Technical Planting Plan



LEGEND



NEW IRRIGATED ECO ROOF AREA



IRRIGATION CONTROLLER WITH ET SENSOR, MOUNT ON WALL. ELECTRICAL CONTRACTOR TO PROVIDE ELECTRIC SERVICE. EXACT LOCATION TO BE DETERMINED.

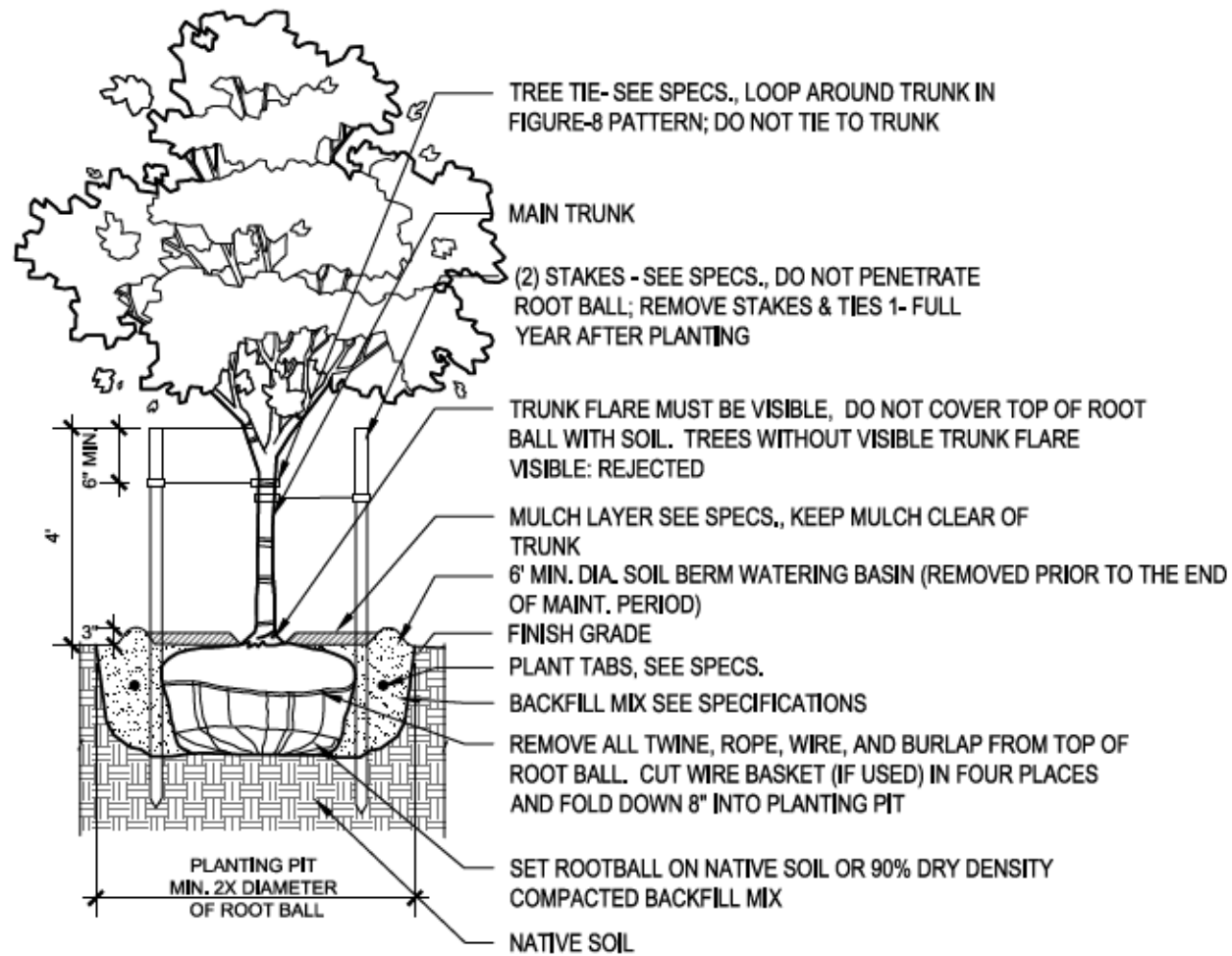


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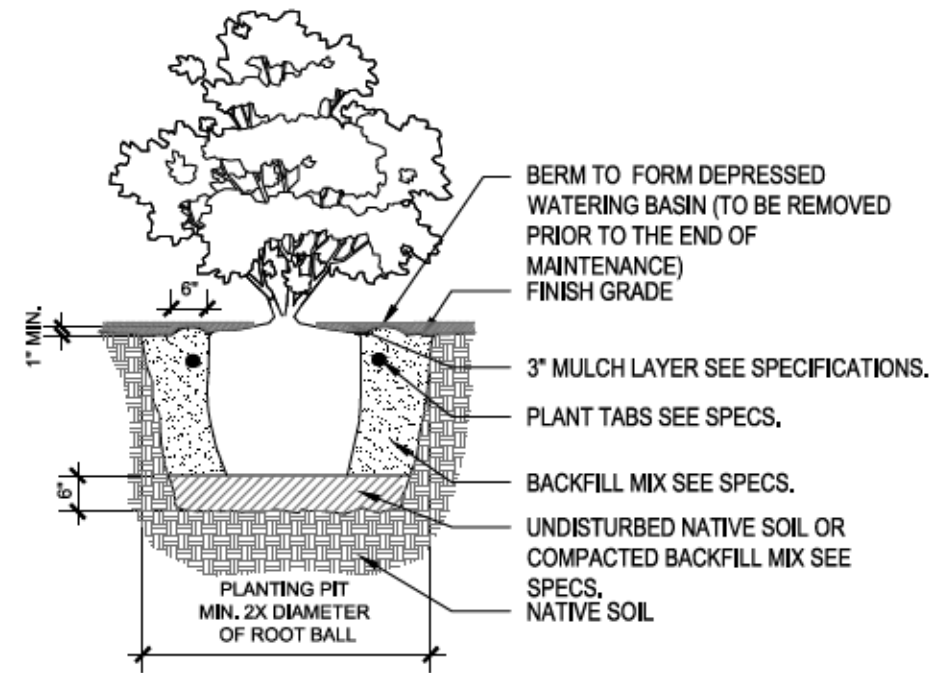
Roof - Technical Irrigation Plan



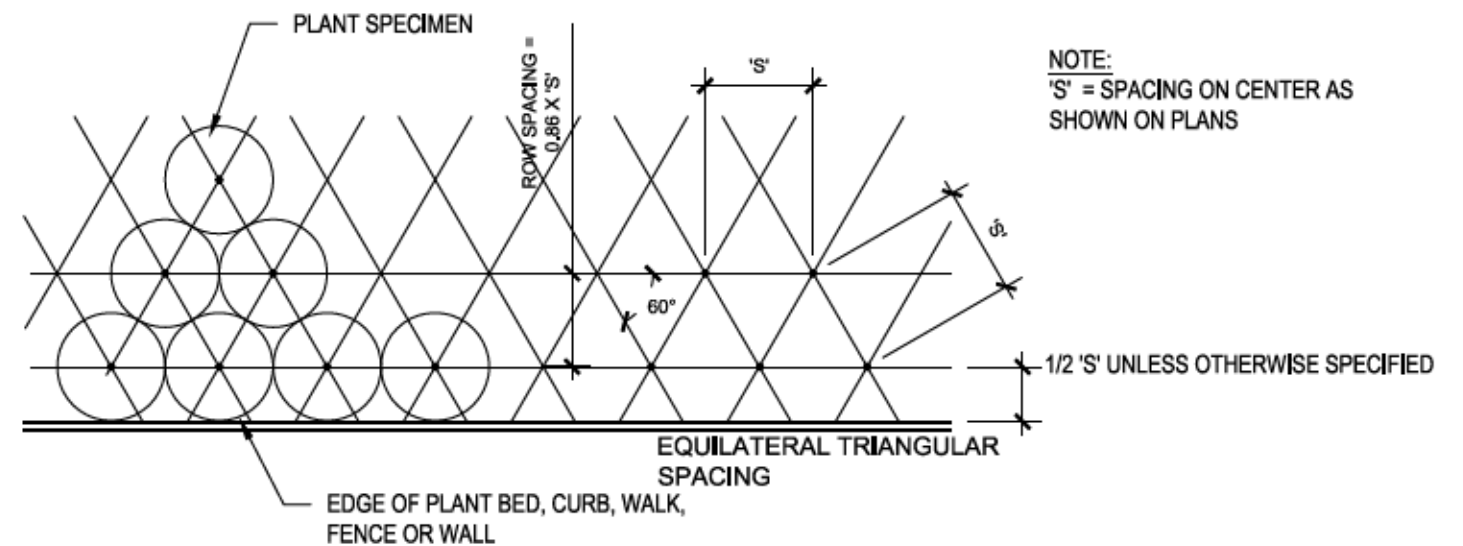
D1. TREE PLANTING ON GRADE

NOTE:

1. PLANTING PITS SHALL BE 2X DIAMETER AND 1 1/2X DEPTH OF ROOTBALL
2. ROOTBALL CROWN TO BE SLIGHTLY ABOVE FINISH GRADE BEFORE MULCH IS APPLIED.
3. CUT AND REMOVE ALL BINDING FROM THE TOP AND SIDES OF THE ROOTBALL BEFORE BACKFILLING. ROUGH UP EXTERIOR SURFACE OF ROOT BALL AND EXTEND CIRCLING ROOTS OUTWARDS INTO PLANTING PIT.
4. KEEP MULCH AWAY FROM WOODY STEMS.

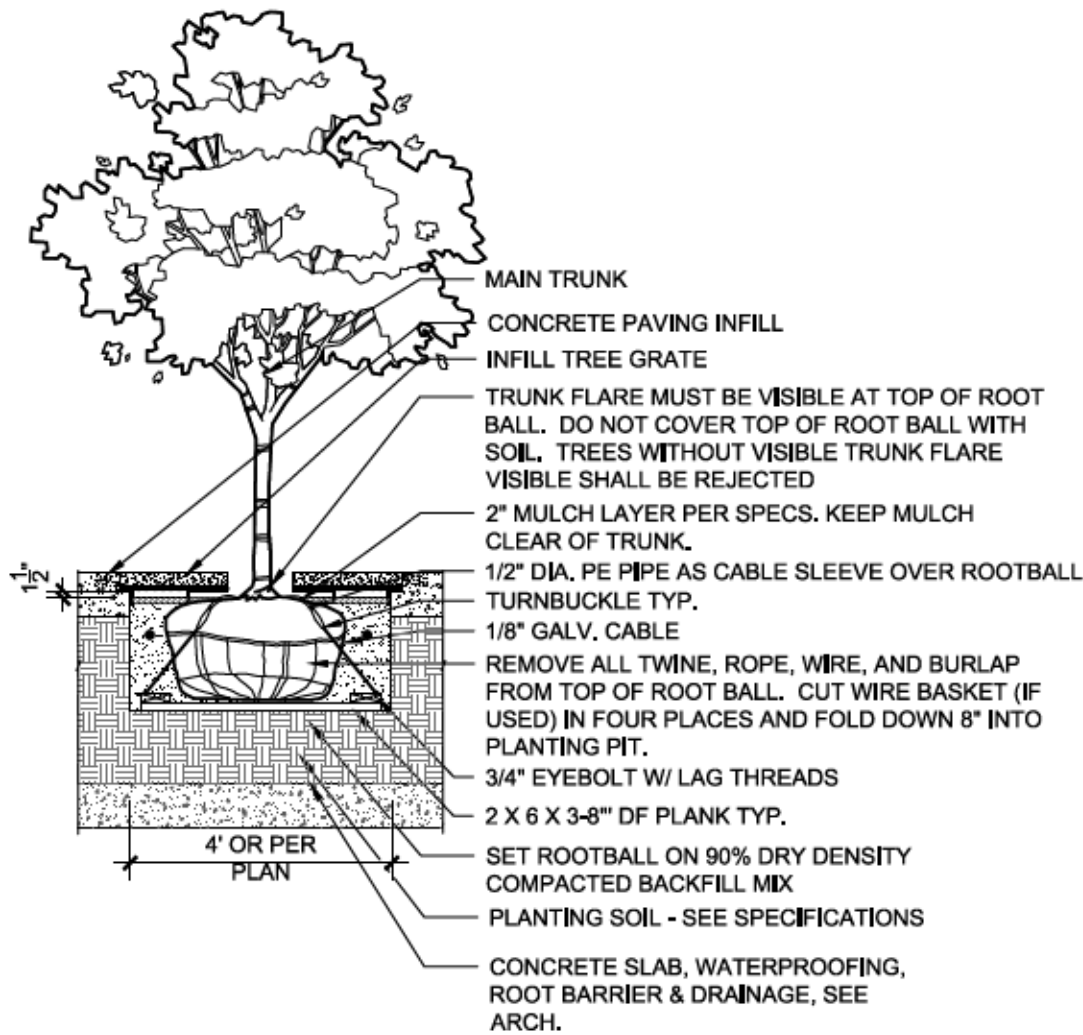


D2. SHRUB PLANTING

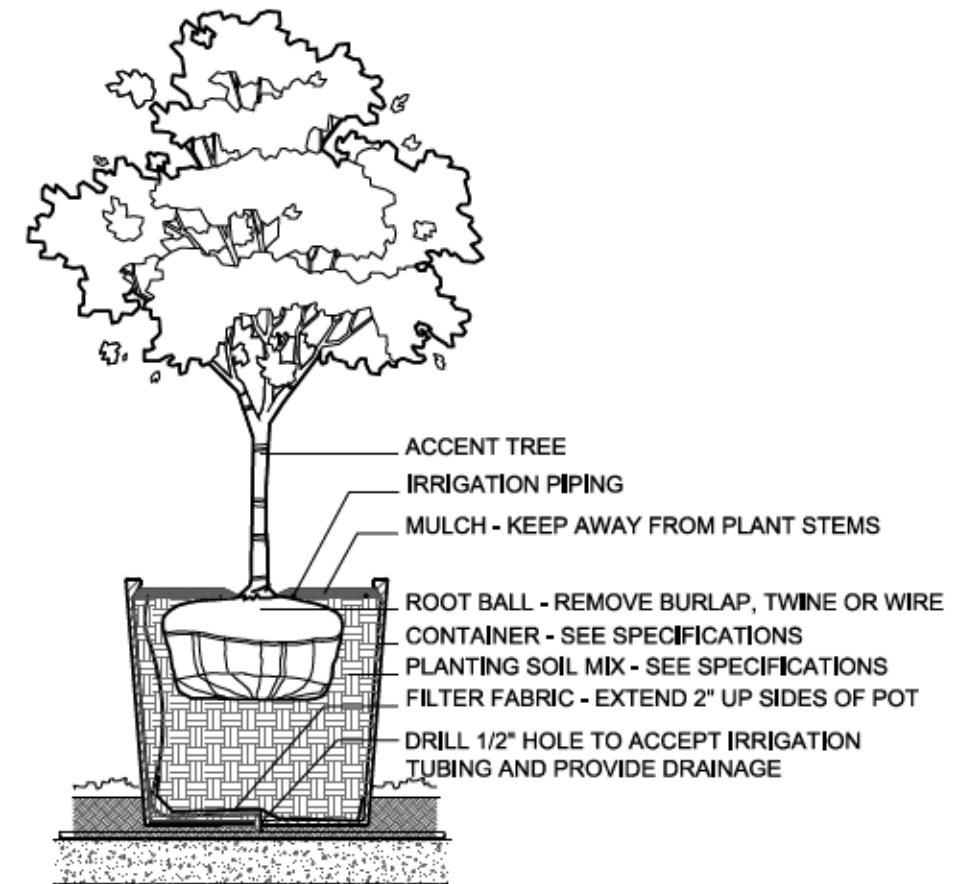


D3. GROUNDCOVER SPACING

Details - Trees and Shrubs on Grade



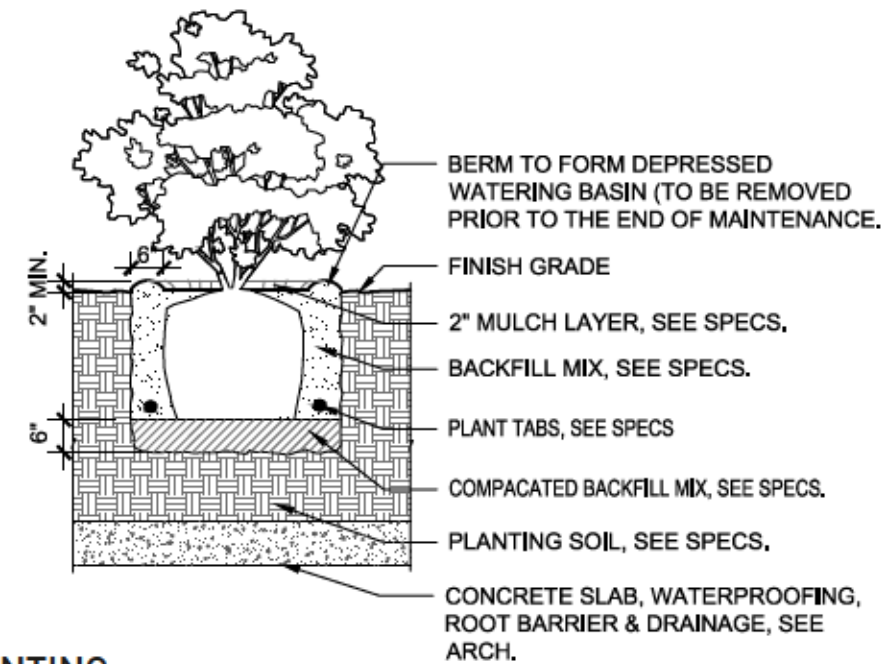
D1. TREE PLANTING



D2. POTTED TREE PLANTING

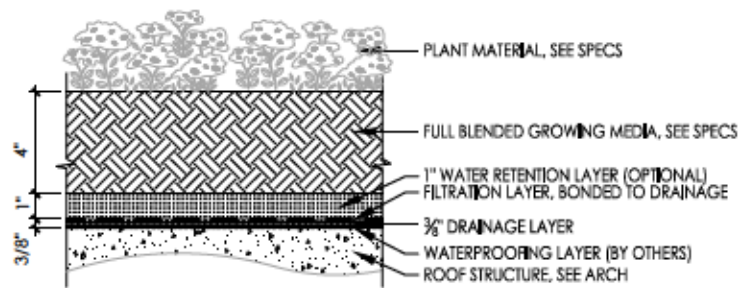
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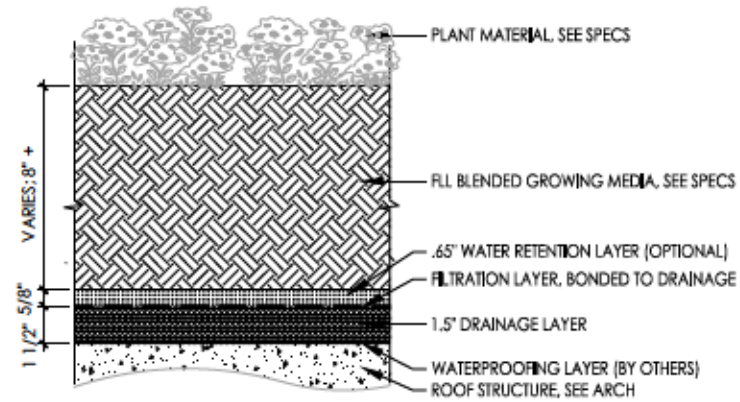
D3. SHRUB PLANTING

Details - Trees and Shrubs on Structure



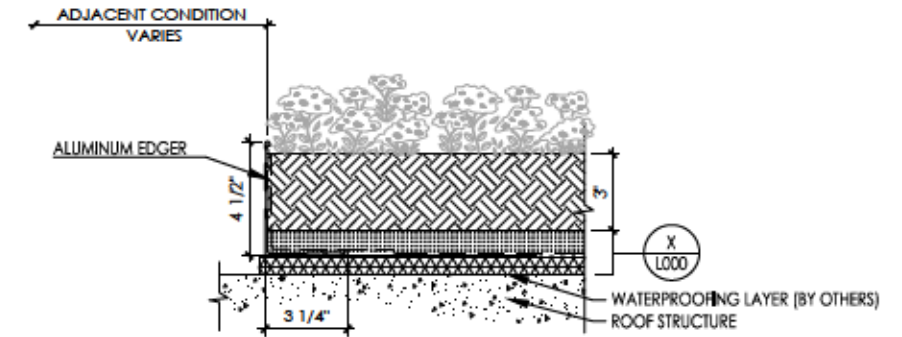
NOTE:
 1. SYSTEM COMPONENTS ARE SHOWN AT NOMINAL SIZE. COMPRESSION WILL OCCUR AT RETENTION LAYER BASED ON AMOUNT (HEIGHT/VOLUME) OF GROWING MEDIA PLACED ON SYSTEM. MAXIMUM COMPRESSION $\frac{1}{8}$ " ±.

D1. EXTENSIVE ECO ROOF SYSTEM - LAYERED

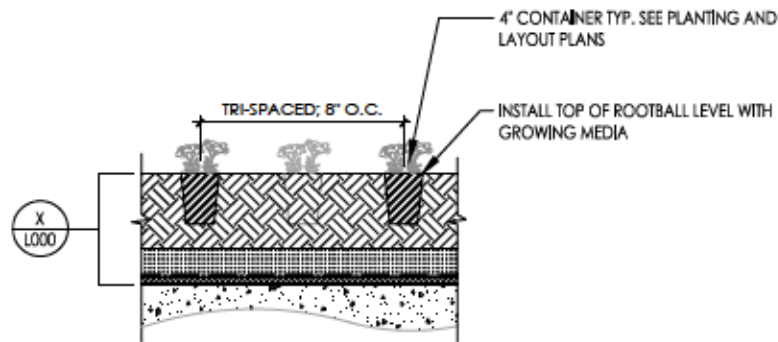


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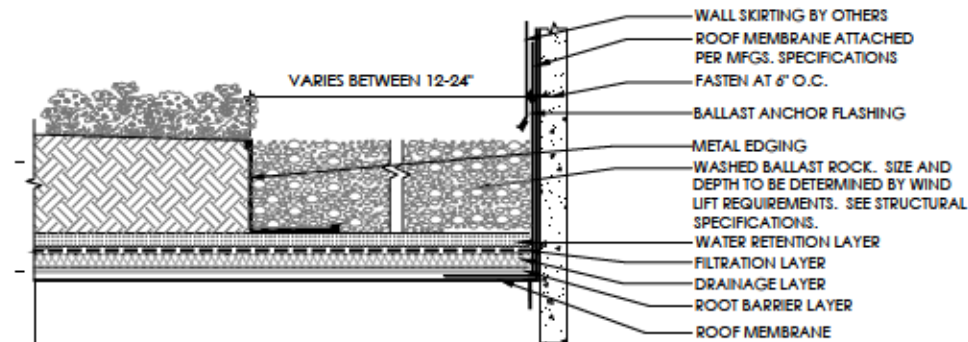
D2. INTENSIVE ECO-ROOF SYSTEM - LAYERED



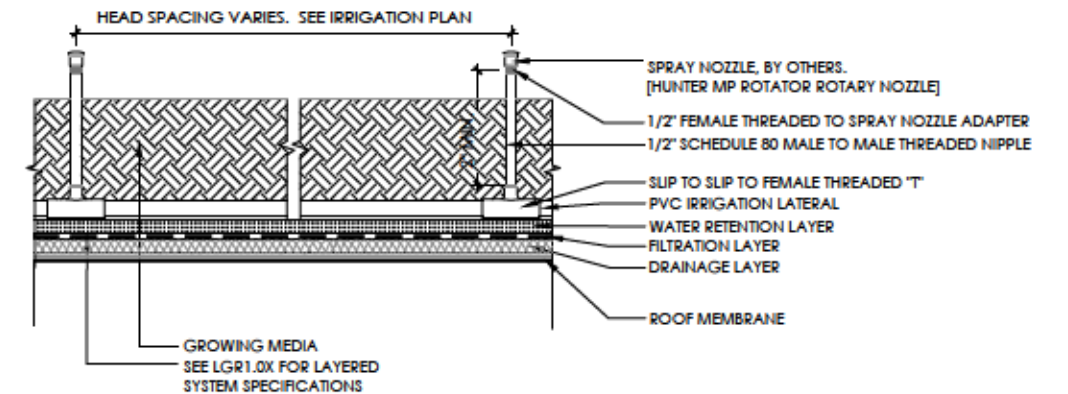
D3. METAL EDGER



D4. SEDUM PLANTING



D5. VEGETATION FREE ZONE - BALLAST



D6. SPRAY IRRIGATION

Details - Ecoroof

PLANTING

TERRACES WILL INCLUDE EXTENSIVE AND INTENSIVE GREEN ROOF SYSTEMS. THESE ARE COMPLEMENTED BY PLANTERS WITH ACCENT AND SMALL TREES, THAT CREATE A VERTICAL INTEREST AND A DYNAMIC DELINEATION BETWEEN DIRECTED VIEWS AND OPEN SPACES.

THE EXTENSIVE ROOF SYSTEM WILL CONSIST OF THE FOLLOWING ELEMENTS:

- A) TYPICAL PLANTINGS: SEDUMS, HERBS AND PERENNIALS
- B) 4" OF EXTENSIVE SOIL MIX
- C) SEPARATION FABRIC
- D) DRAINAGE MAT
- E) PROTECTION MAT / ROOT BARRIER
- F) WATERPROOFING-DRAINAGE & INSULATION MATRIX BY ARCHITECT.
- G) TOPPING SLAB/STRUCTURAL SLAB

THE INTENSIVE ROOF SYSTEM WILL CONSIST OF THE FOLLOWING ELEMENTS:

- A) TYPICAL PLANTINGS: ORNAMENTAL GRASSES, SPECIMEN AND SMALL TREES
- B) 18" TO 36" DEPTH OF INTENSIVE SOIL MIX
- C) SEPARATION FABRIC
- D) DRAINAGE MAT
- E) PROTECTION MAT / ROOT BARRIER
- F) WATERPROOFING-DRAINAGE & INSULATION MATRIX BY ARCHITECT.
- G) TOPPING SLAB/STRUCTURAL SLAB

METHOD OF VEGETATION APPLICATION AND PLANT COVERAGE SPECIFICATION:

A) FOR EXTENSIVE ECOROOF: SEDUMS PLANTED AT 4" DIAMETER SIZE, AT 8" O.C. PURPOSE IS ASSURING 90% COVERAGE OF SOIL WITHIN ONE YEAR, TO PREVENT SOIL LOSS AND DAMAGE TO VEGETATION DUE TO WIND EROSION.

B) FOR INTENSIVE ECOROOF: ORNAMENTAL GRASSES PLANTED AT 2 GALLON SIZE, AT 24" O.C., PROVIDE AT LEAST 12" OF TOPSOIL; SMALL TREES PLANTED AT 6' HEIGHT, PROVIDE AT LEAST 36" OF TOPSOIL.

SOIL SPECIFICATION: COMMERCIALY BLENDED SOIL FOR ROOF GARDEN APPLICATIONS WITH MAXIMUM SATURATED BULK DENSITY OF 85 POUNDS PER CUBIC FOOT.

1. EXHIBITING THE FOLLOWING PHYSICAL PROPERTIES AT 0.0 CENTIBARS SUCTION:

- A. DENSITY OF 76.1 POUNDS PER CUBIC FOOT.
- B. WATER RETENTION VOLUME OF 45.2 PERCENT.
- C. AIR SPACE VOLUME OF 10.1 PERCENT.
- D. WATER RETENTION OF 59 PERCENT DRY WEIGHT.

2. CONSISTING OF THE FOLLOWING COMPOSITION BY VOLUME:

- A. 40% SANDY LOAM (NATURALLY OCCURRING)
- B. 30% SCREENED PUMICE
- C. 15% DIGESTED FIBER
- D. 15% TILLAMOOK COMPOST

SOIL WEIGHT AND DEPTH:

FOR EXTENSIVE ECOROOF SYSTEM: 4" MINIMUM DEPTH AT PARAPET AND EDGES; SATURATED WEIGHT: 24 LBS/FT² (AT 4" DEPTH)

FOR EXTENSIVE ECOROOF SYSTEM: 36" MINIMUM DEPTH AT TREE LOCATIONS; SATURATED WEIGHT: 72 LBS/FT² (AT 12" DEPTH)

OPERATIONS AND MAINTENANCE PLAN

AN EXTERNAL FACILITIES MANAGEMENT CONTRACTED BY THE OWNER WILL BE RESPONSIBLE FOR ALL MAINTENANCE ACTIVITIES, INCLUDING WEEDING, WATERING, AND REPLANTING AS NEEDED TO MAINTAIN THE FULL PERFORMANCE OF THE ECOROOF. IN ADDITION, THE FOLLOWING SPECIFIC TASKS WILL BE PERFORMED:

A) MAINTENANCE OF STRUCTURAL COMPONENTS - ENSURE PROPER OPERATION OF DRAINS AND MEMBRANES.

B) VEGETATION - WEEDING, PRUNING, IRRIGATION AND REPLACEMENT OF DEAD SPECIMENS.

C) GROWING MEDIUM – CORRECTIVE ACTIONS TOWARDS EXPOSED AND ERODED SOILS, RAKING AND AMENDING

TO ENSURE FILTRATION, AND AMENDMENTS TO ALLOW FOR PROPER DRAINAGE.

D) RECORDS – FACILITY OPERATORS ARE REQUIRED TO KEEP AN ANNUAL INSPECTION AND MAINTENANCE LOG.

THE OPERATION MODEL IS THAT THE FACILITIES MANAGER WILL BRING TOOLS AND MATERIALS WITH THEM, AS WELL AS REMOVE ALL COMPOST MATERIALS AND YARD DEBRIS FROM THE BUILDING TERRACES, ELIMINATING THE NEED FOR ON-SITE STORAGE AND COMPOSTING FACILITIES.

NOTE: A NON-VEGETATED STRIP OF 12" WILL BE LEFT ALONG THE EDGE OF THE PARAPETS AND OTHER EDGES AT EXTENSIVE ECOROOF ZONES, AS INDICATED ON THE PLANS TO ALLOW FOR MAINTENANCE ACCESS TO THE ECOROOF. MATERIAL: BALLAST / GRAVEL SET ON TOP OF THE SOIL.

PLANNED IRRIGATION SYSTEM:

A SURFACE IRRIGATION AUTOMATED SYSTEM IS EXPECTED TO BE IMPLEMENTED DURING THE 2-YEAR ESTABLISHMENT PERIOD, AFTER WHICH THE SYSTEM WOULD BE UTILIZED ONLY WHEN REQUIRED DUE TO STRESS AND DRYNESS CIRCUMSTANCES.

FOR ECO ROOFS, POST-ESTABLISHMENT IRRIGATION SHOULD NOT EXCEED 1/4" OF WATER EVERY 14 DAYS BETWEEN THE MONTHS OF MAY AND OCTOBER.

Planting and Maintenance