

PALO ALTO FIRE STATION NO.4 REPLACEMENT PROJECT

3600 MIDDLEFIELD ROAD

OWNER CITY OF PALO ALTO

250 HAMILTON AVENUE FLOOR 6
PALO ALTO, CA 94301
650.329.2397

ARCHITECT BROWN REYNOLDS WATFORD ARCHITECTS, INC.

1620 MONTGOMERY ST. SUITE 320
SAN FRANCISCO, CA 94111
415.749.2670

CIVIL ENGINEER SANDIS

636 9TH STREET
OAKLAND, CA 94607
510.590.3421

LANDSCAPE ARCHITECT HLA GROUP

301 UNIVERSITY AVE. SUITE 110
SACRAMENTO, CA 95825
916.447.7400

ARBORIST MACNAIR & ASSOCIATES

P.O. BOX 1150
GLEN ELLEN, CA, 95442
707.938.1822



VIEW FROM CORNER OF MIDDLEFIELD ROAD & EAST MEADOW DRIVE

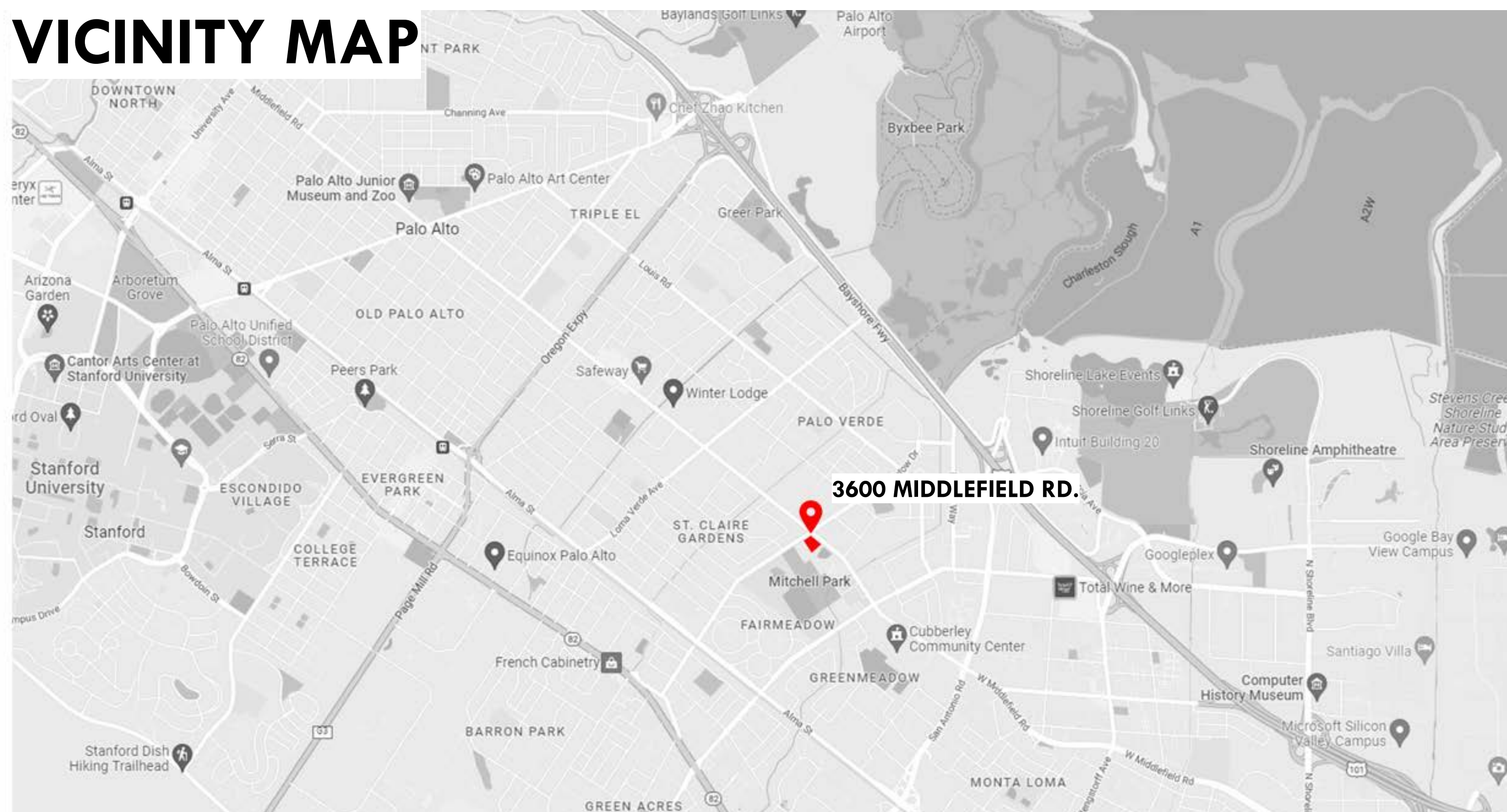
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 - O-1 SCHEMATIC DETAILS - SITE
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 - P-1 GB-1 GREEN BUILDING CHECKLIST
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- TOTAL SHEETS: 34

INDEX OF FILES

- PLANNING APPLICATION WITH VARIANCE (C2_3600MID_APPLY)
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- COLOR & MATERIAL BOARD (C3_3600MID_MATBOARD)
- ARBORIST REPORT WITH 08/25/23 MEMORANDUM (C3_3600MID_ARBORIST)
- COMMUNITY OUTREACH SURVEY RESULTS (C3_3600MID_COMMUNITY)
- SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM PROVISION C.3 DATA FORM (C3_3600MID_SCVURPPP-C.3)

VICINITY MAP



SEPTEMBER 19, 2023





BUILDING SIGN AND NOTICE OF PROPOSED PROJECT SIGN



BUILDING SIGN AND NOTICE OF PROPOSED PROJECT SIGN

PROJECT DATA

OVERVIEW

- ADDRESS: 3600 MIDDLEFIELD ROAD, PALO ALTO, CA 94303
- PARCEL #: 132-06-012
- ZONING DISTRICT (PROJECT LOT): PF (PUBLIC FACILITIES)
- ZONING DISTRICT (ADJ. LOTS): R-1 (8000)
- FLOOD ZONE: X
- FEMA MAP PARCEL: 0036H
- SITE AREA (ENTIRE PARCEL): 82,304 SF (1.89 ACRES)
- SITE AREA (FIRE STATION): 28,490 SF (0.65 ACRES)

ALL ELECTRIC BUILDING.

SITE/AREA COVERAGE - REQUIRED

- MAX. ALLOWABLE SITE COVERAGE: 30%
- *THE REQUIREMENT FOR A MAXIMUM SITE COVERAGE OF 30% DOES NOT APPLY. SEE SECTION 118.28.060 (E) DEVELOPMENT STANDARD EXCEPTION (2) ESSENTIAL SERVICES BUILDINGS.*

SITE/AREA COVERAGE - ENTIRE PARCEL

- CURRENT SITE COVERAGE: 4,504 SF (6%)
- PROPOSED SITE COVERAGE: 9,671 SF (13%)

SITE/AREA COVERAGE - FIRE STATION

- CURRENT SITE COVERAGE: 2,916 SF (10%)
- PROPOSED SITE COVERAGE: 8,094 SF (28%)

FLOOR AREA

- ALLOWABLE FAR: 1:1 = 100%
- GROSS FLOOR AREA: 8,011 SF (NEW BUILDING)
83 SF (TRASH ENCLOSURE)
1,588 SF (SUBSTATION)
9,682 SF (TOTAL)
- PROPOSED FAR: 9,682 SQ.FT / 82,304 SF = 12%

REQUIRED MINIMUM BUILDING SETBACKS

- FRONT (MIDDLEFIELD ROAD): 24'-0"
- STREET SIDE (E. MEADOW DRIVE): 20'-0"
- REAR (SOUTH): 20'-0"
- INTERIOR SIDE (EAST): 8'-0"

PROPOSED BUILDING SETBACKS:

- FRONT (MIDDLEFIELD ROAD): 24'-0"
- STREET SIDE (E. MEADOW DRIVE): 20'-0"
- REAR (SOUTH): 20'-0"
- INTERIOR SIDE (EAST): N/A

BUILDING HEIGHT

- MAX. ALLOWABLE: 35'-0"
- PROPOSED: 25'-0"

AUTOMOBILE PARKING

- REQUIRED - AS DIRECTED BY FIRE DEPARTMENT OPERATIONS
- PUBLIC: (1) ADA VAN + (1) STANDARD
- FIRE DEPT.: (1) ADA + (6) STANDARD
- TOTAL PROPOSED: (9) SPACES

EV PARKING

- (1) PUBLIC
- (1) STAFF

BIKE PARKING

- PUBLIC - (3) RACKS LOCATED ON THE PLAZA
- STAFF - (4) BIKE LOCKERS TO BE LOCATED IN SIDE ACCESS BY STAFF PATIO

CONSTRUCTION TYPE

- TYPE VB - SPRINKLERED

BUILDING OCCUPANCY TYPE (CHAPTER 3)

- BUSINESS (B)
- RESIDENTIAL (R-2)
- LOW HAZARD STORAGE (S-1)

BUILDING OCCUPANCY TYPE FIRE SEPARATIONS (TABLE 508.4)

- B TO S-1: NS
- B TO R-2: 1 HOUR

APPLICABLE BUILDING CODES

- 2022 CALIFORNIA BUILDING CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5564)
- 2022 CALIFORNIA MECHANICAL CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5565)
- 2022 CALIFORNIA PLUMBING CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5567)
- 2022 CALIFORNIA ELECTRICAL CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5568)
- 2022 CALIFORNIA FIRE CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5563)
- 2022 CALIFORNIA BUILDING CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5564)
- 2022 CALIFORNIA BUILDING CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5564)
- 2022 CALIFORNIA ENERGY CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5571)
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE WITH CITY OF PALO ALTO AMENDMENTS (ORD. 5570)

NUMBER OF FLOORS: 1 (WITH MEZZANINE)
 CONSTRUCTION TYPE: TYPE VB
 OCCUPANCY CLASSIFICATION: B, R-2, S-2

SITE / AREA COVERAGE TABLE

LOT SQUARE FOOTAGE: 82,304 SF (1.89 ACRES)
 FIRE STATION: 28,490 SF
 ELECT. SUB-STATION 53,814 SF

FIRE STATION "LOT"	EXISTING	PROPOSED
FIRE STATION	2,916 SF	8,094 SF
LOT AREA	28,490 SF	28,490 SF
BLDG COVERAGE	10%	28%

SUB-STATION	EXISTING
SUB-STATION	1,588 SF
LOT AREA	53,814 SF
BLDG COVERAGE	3%



CONTEXTUAL ELEVATION - MIDDLEFIELD



CONTEXTUAL ELEVATION - EAST MEADOW



CONTEXTUAL AERIAL PHOTO

PHOTO TAKEN VIA DRONE: SEPTEMBER 2022



CHURCH AND APARTMENTS



MITCHELL PARK



RESIDENTIAL CONTEXT



MITCHELL PARK



RESIDENTIAL CONTEXT



RESIDENTIAL CONTEXT



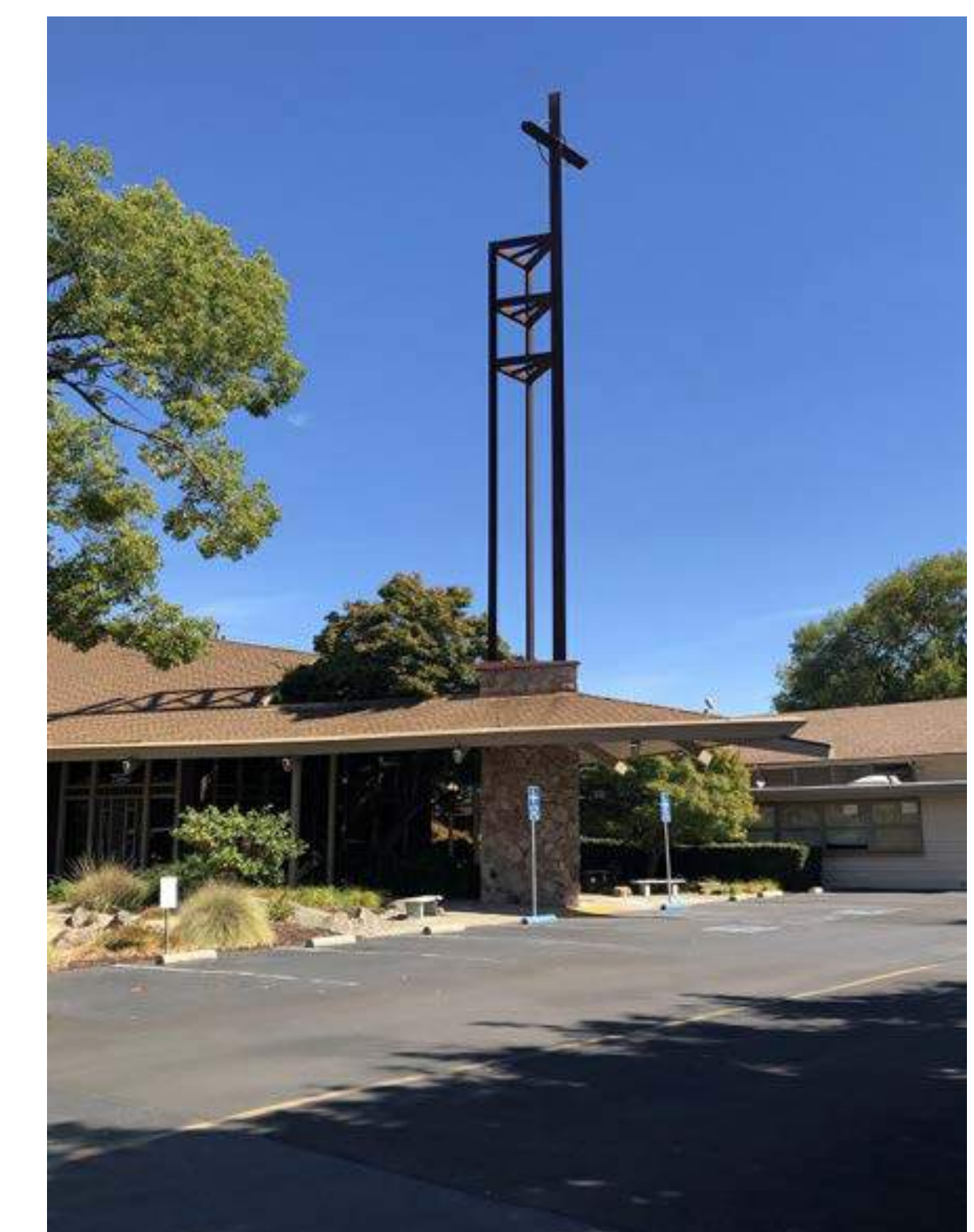
RESIDENTIAL CONTEXT



RESIDENTIAL CONTEXT

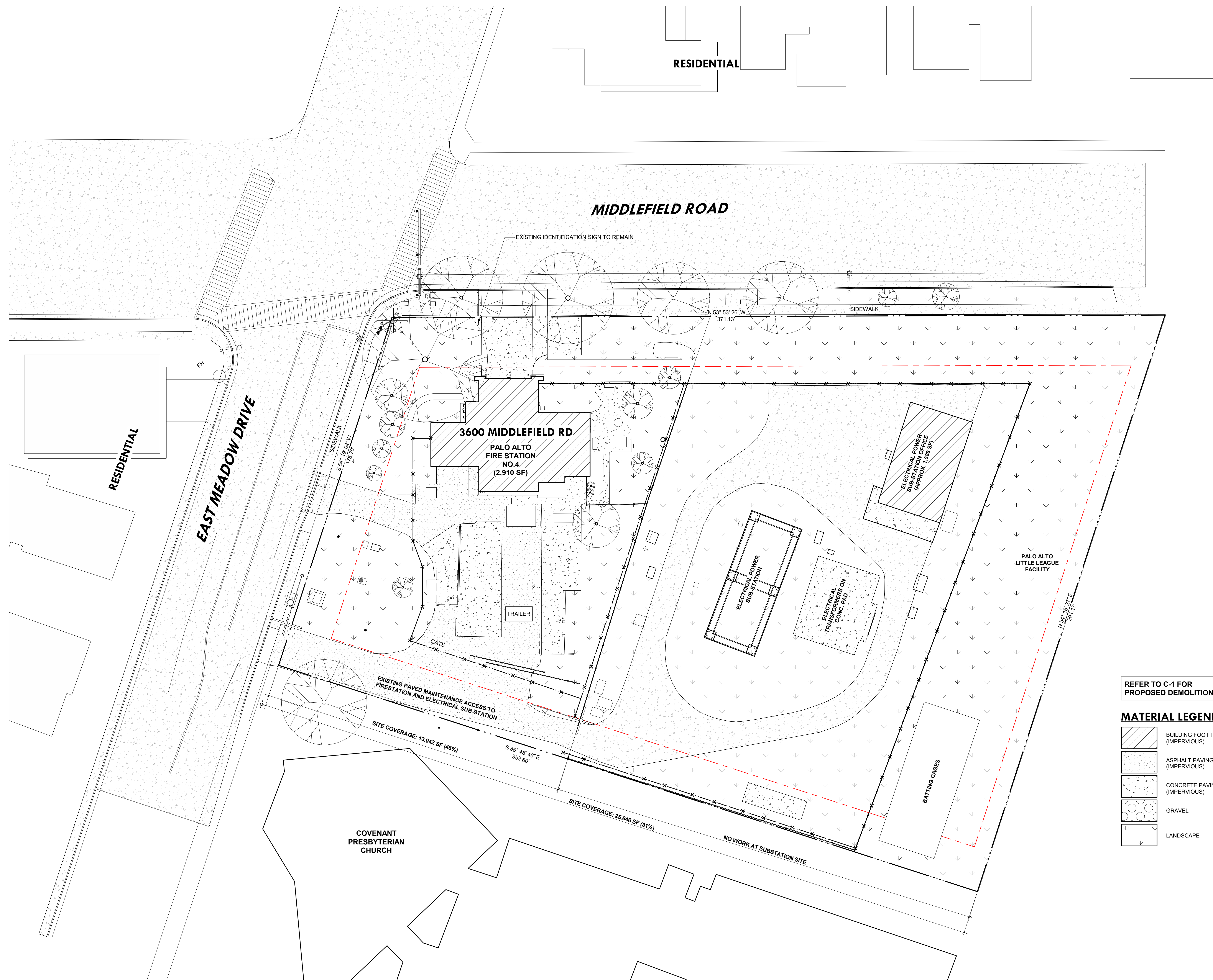


RESIDENTIAL CONTEXT



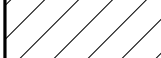




CHURCH



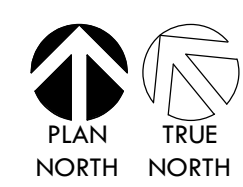


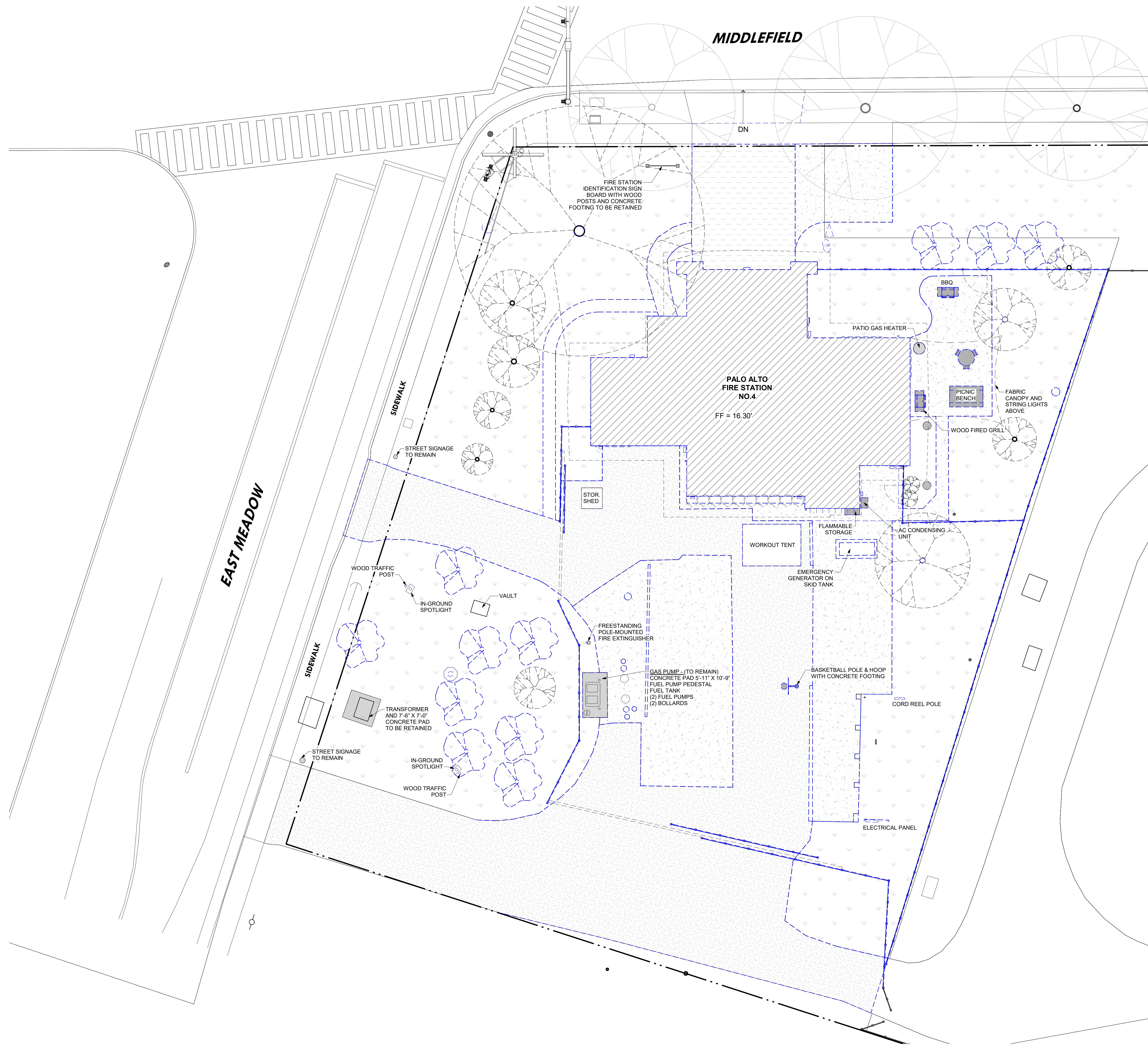
REFER TO C-1 FOR PROPOSED DEMOLITION

MATERIAL LEGEND


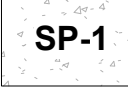
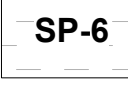
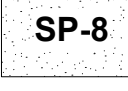
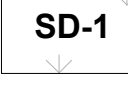
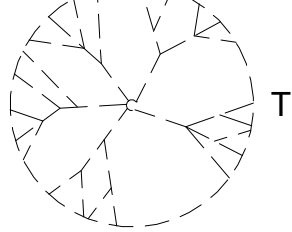
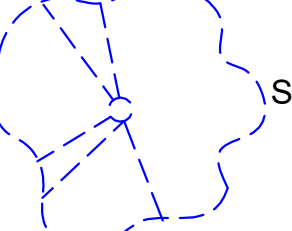
-  BUILDING FOOT PRINT (IMPERVIOUS)
-  ASPHALT PAVING (IMPERVIOUS)
-  CONCRETE PAVING (IMPERVIOUS)
-  GRAVEL
-  LANDSCAPE

1 EXISTING PARCEL SITE PLAN
1" = 20'-0"
0' 10' 20' 40'

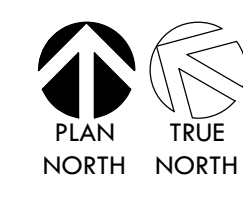


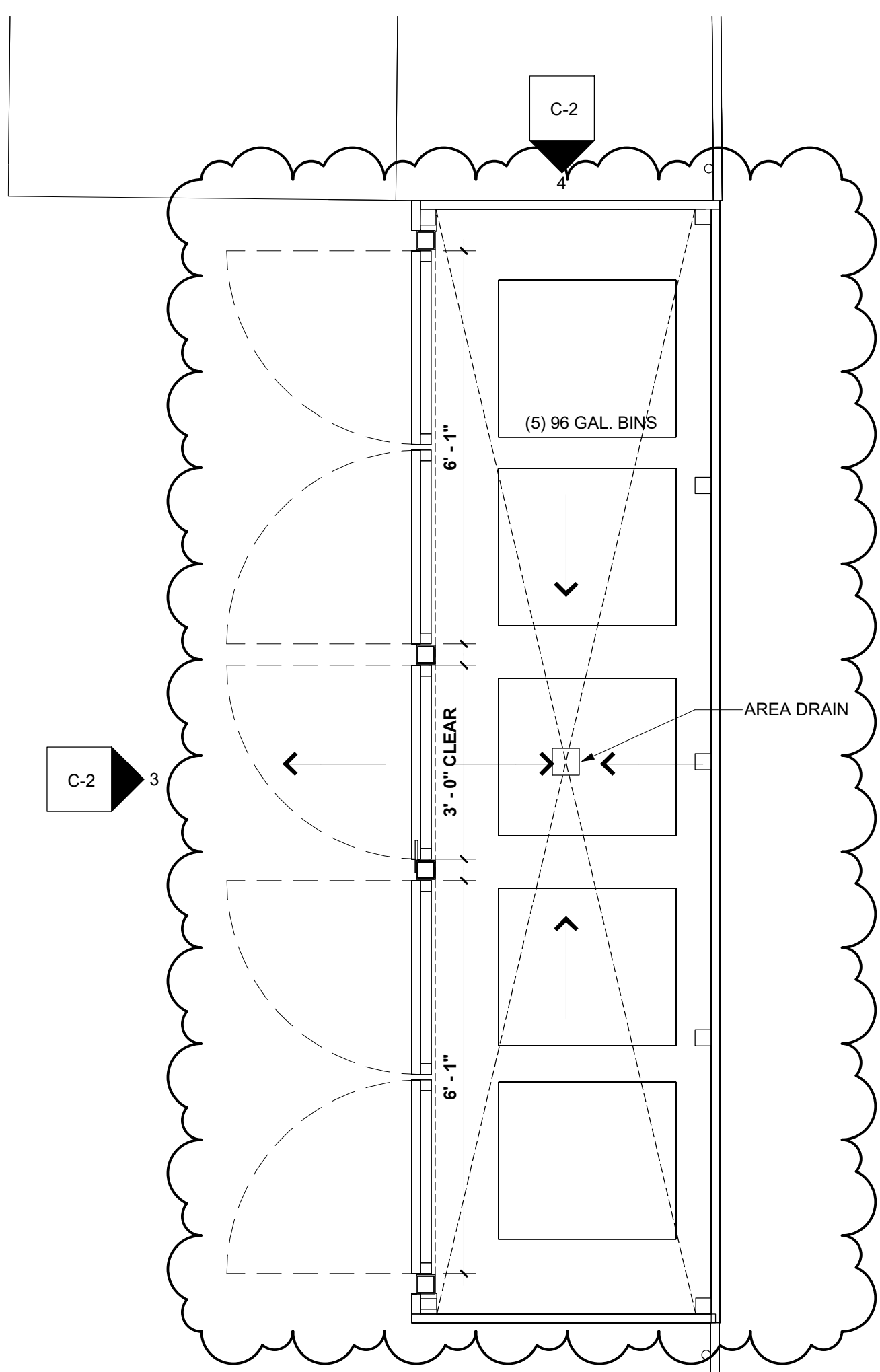


SITE AND BUILDING DEMOLITION LEGEND

-  ONE-STORY WOOD FRAMED BUILDING
-  SP-1 4' THK. CONCRETE PAVING
-  SP-6 APRON PAVING
-  SP-8 AC PAVING
-  SD-1 SHRUBS AND GROUNDCOVER
-  TREE TO BE REMOVED, REF J-2
-  SHRUB TO BE REMOVED

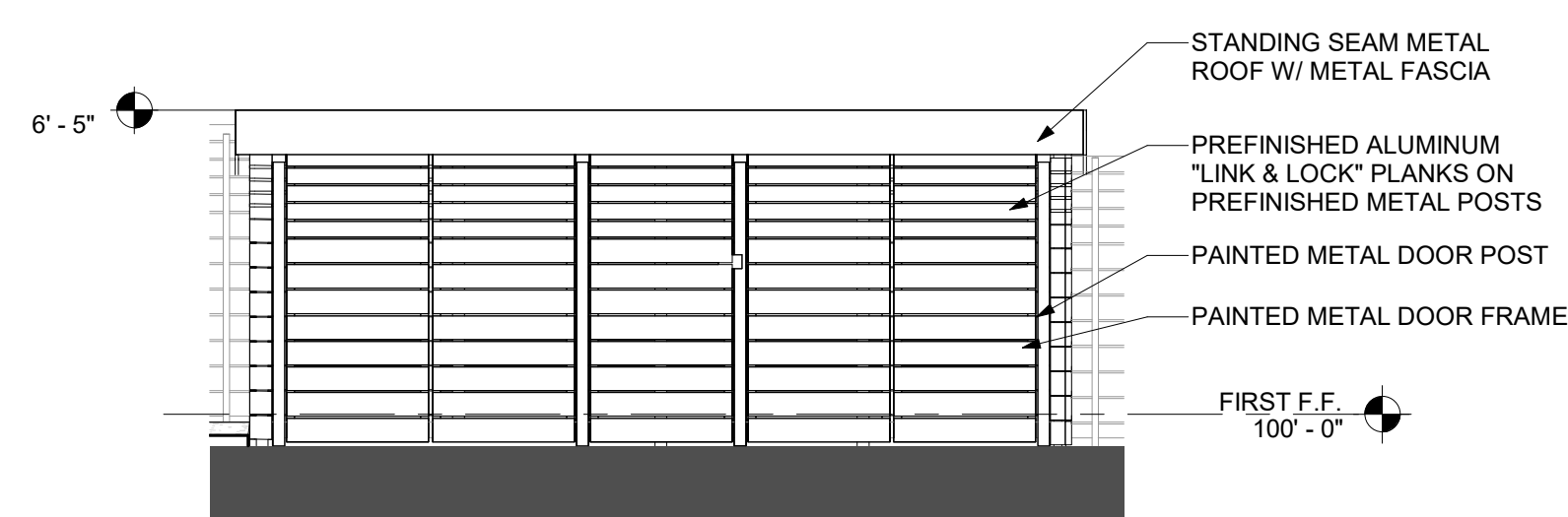
1 SITE DEMOLITION PLAN
1" = 10'-0"





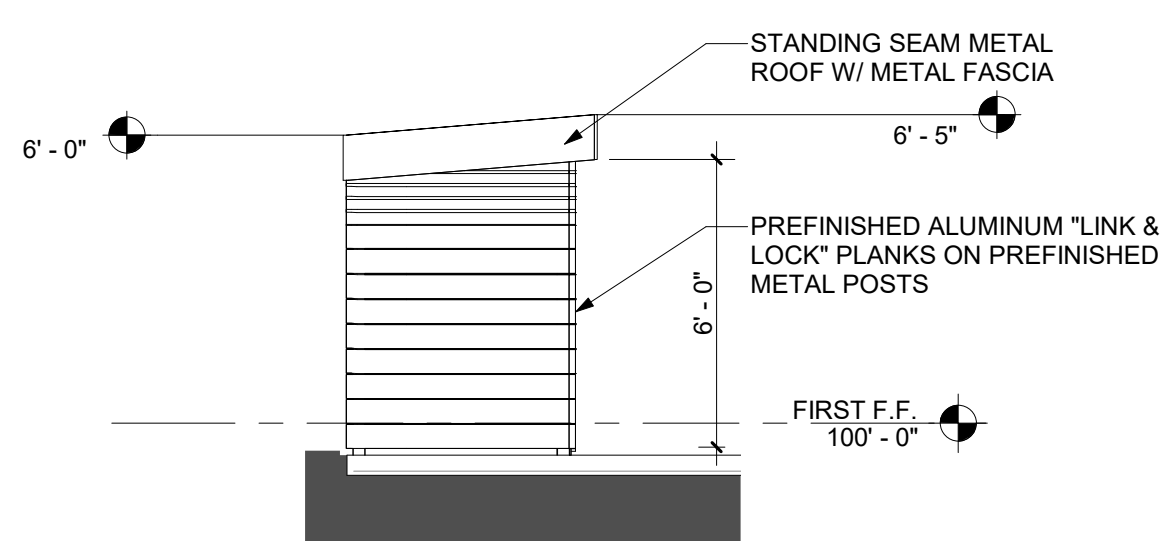
2 ENLARGED TRASH ENCLOSURE PLAN

1/2" = 1'-0"



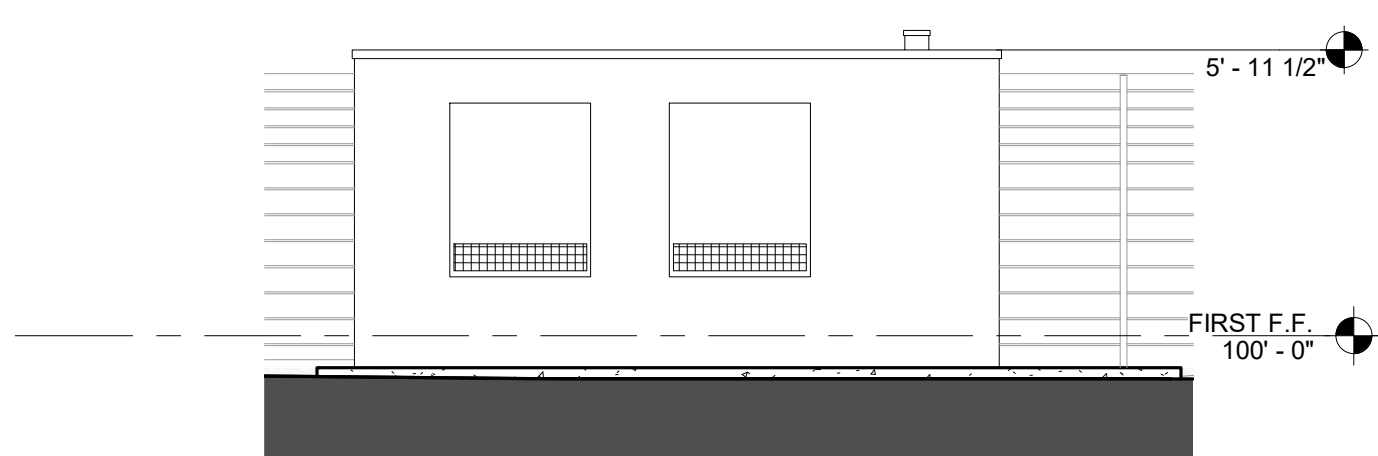
3 ELEVATION - TRASH ENCLOSURE

1/4" = 1'-0"



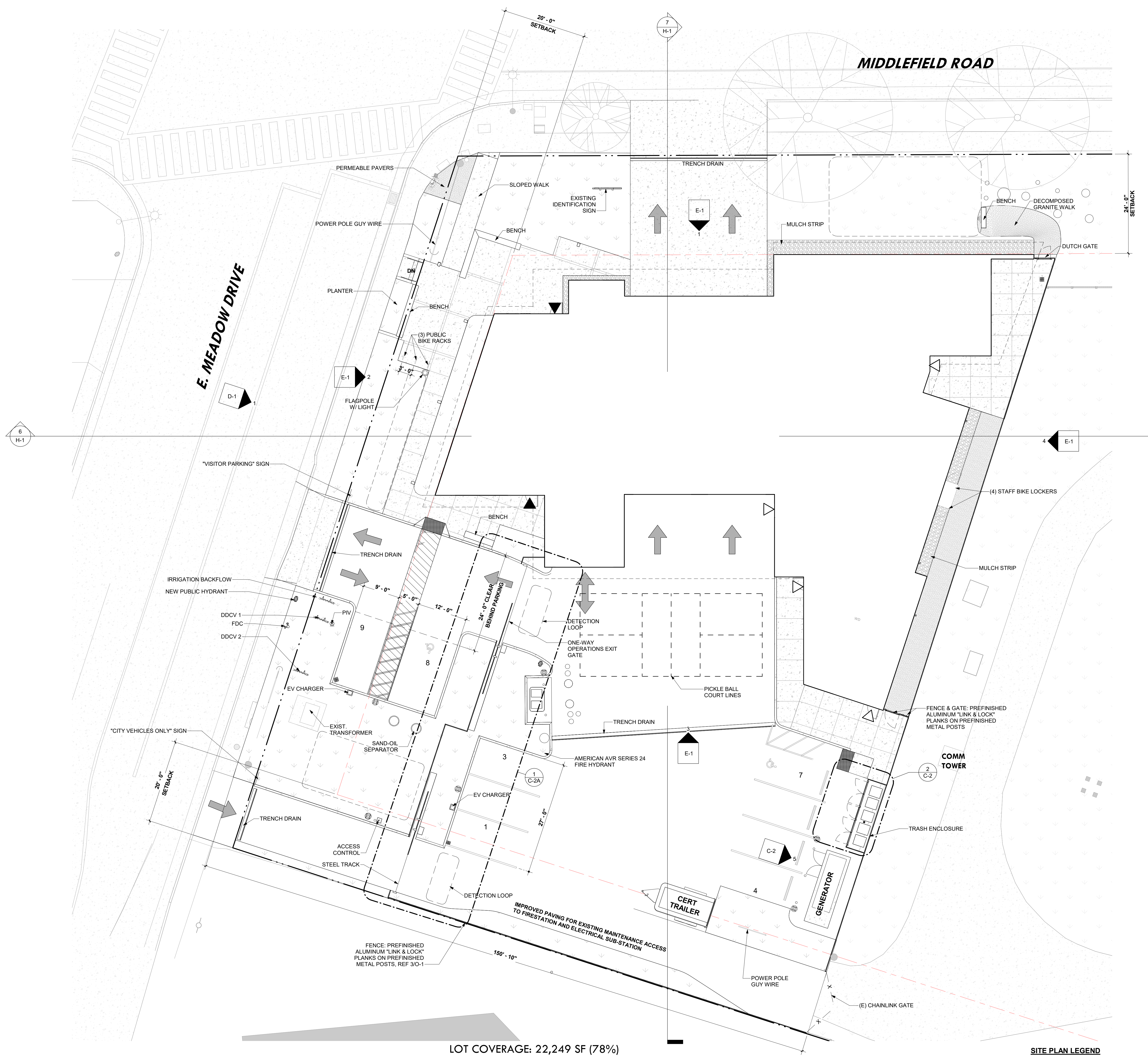
4 ELEVATION - TRASH ENCLOSURE

1/4" = 1'-0"



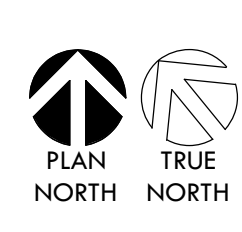
5 ELEVATION - GENERATOR

1/4" = 1'-0"



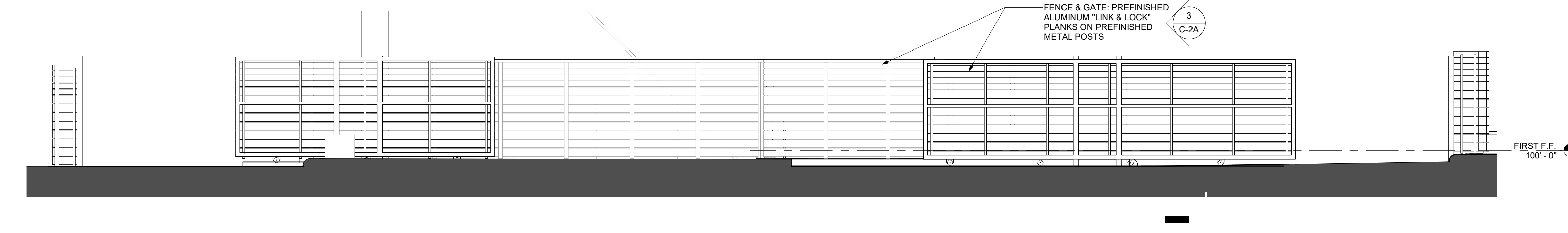
1 SITE PLAN

1" = 10'-0"

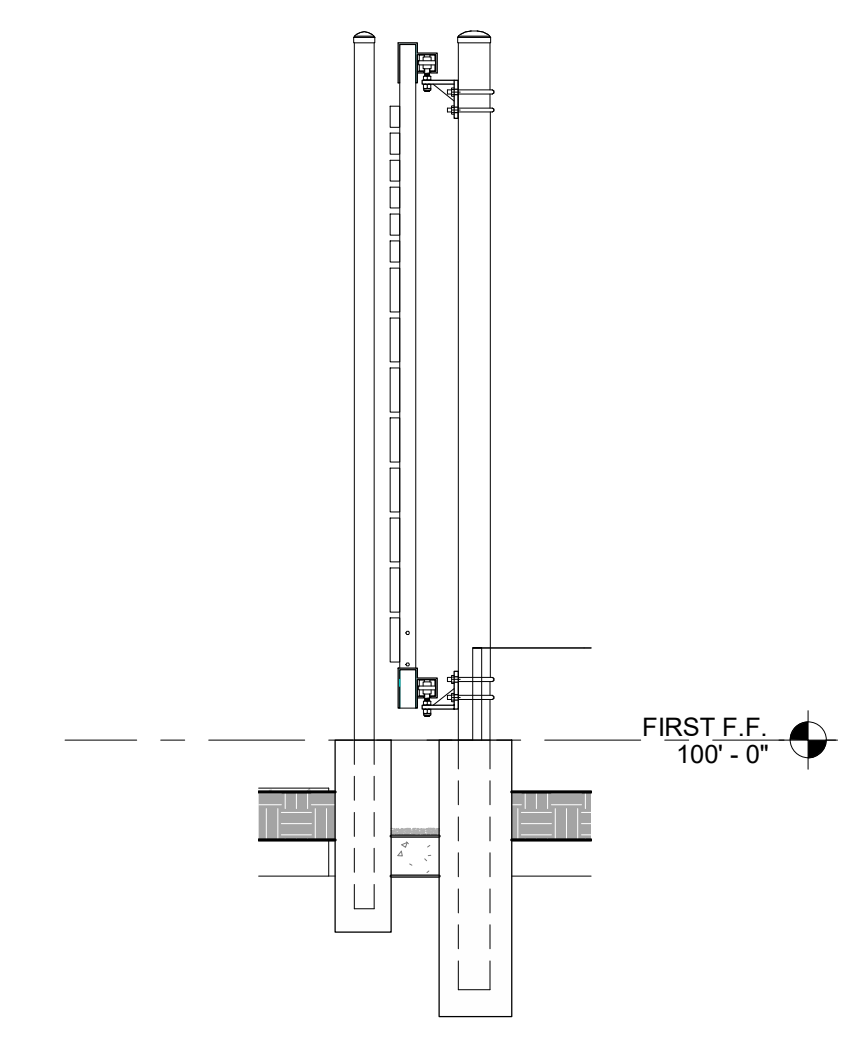


LOT COVERAGE: 22,249 SF (78%)

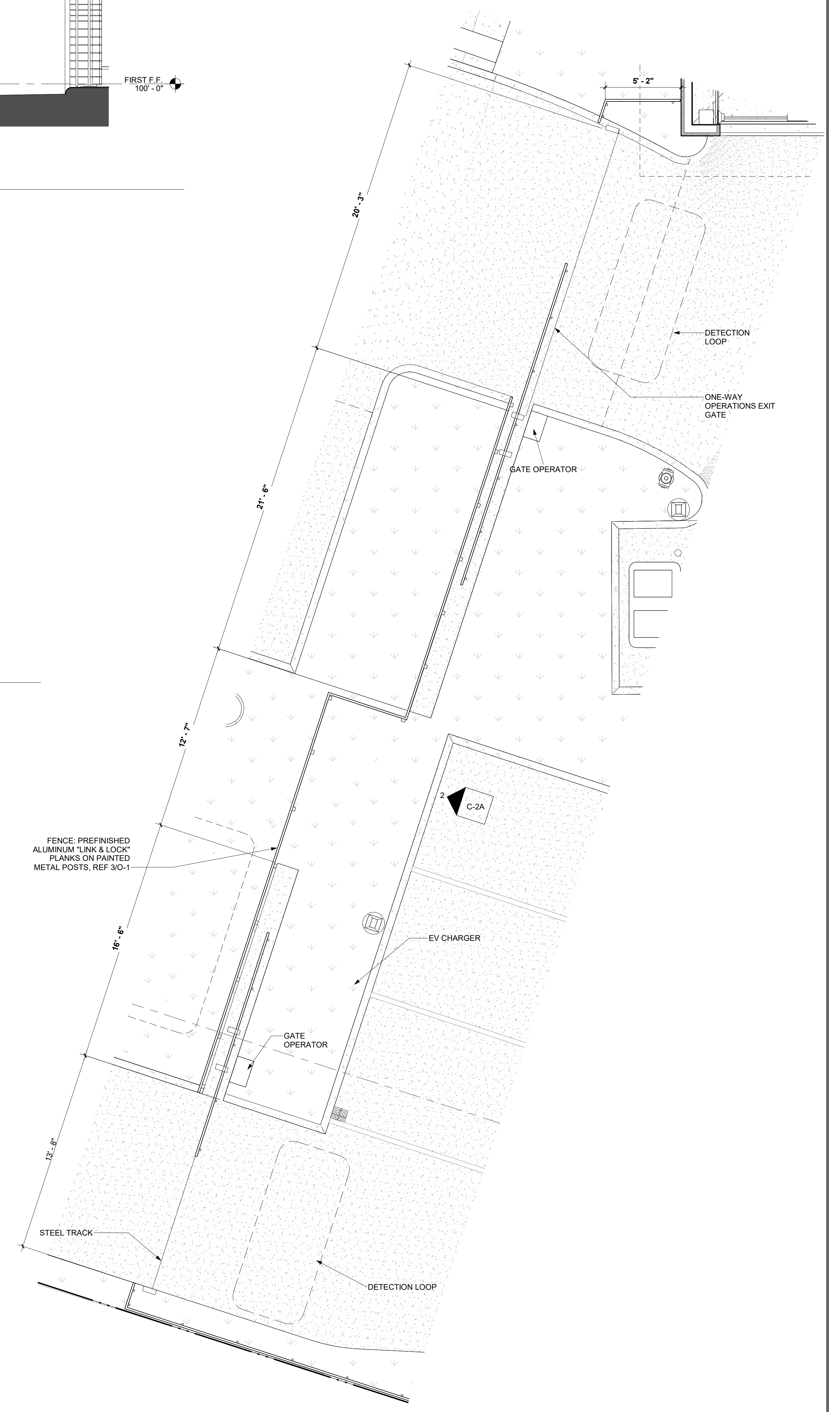
- SITE PLAN LEGEND**
- ACCESSIBLE PUBLIC ENTRANCE
 - ACCESSIBLE ACCESS
 - NEW CHAINLINK FENCE



2 GATE AND FENCE ELEVATION
1/4" = 1'-0"



3 SLIDING GATE SECTION
1/2" = 1'-0"



1 GATE AND FENCE PLAN
1/4" = 1'-0"

POLLUTION PREVENTION — IT'S PART OF THE PLAN

Construction projects are required to implement year-round stormwater BMPs, as they apply to your project.

Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.



MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- Use (but don't overuse) reclaimed water for dust control.
- Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- Keep site clear of litter (e.g. lunch items, cigarette butts).
- Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.



EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking

- Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report any hazardous materials spills immediately! Call City of Palo Alto Communications, (650) 329-2413. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).



EARTHMOVING

Grading and Earthwork

- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells.
 - Buried barrels, debris, or trash.
- If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.



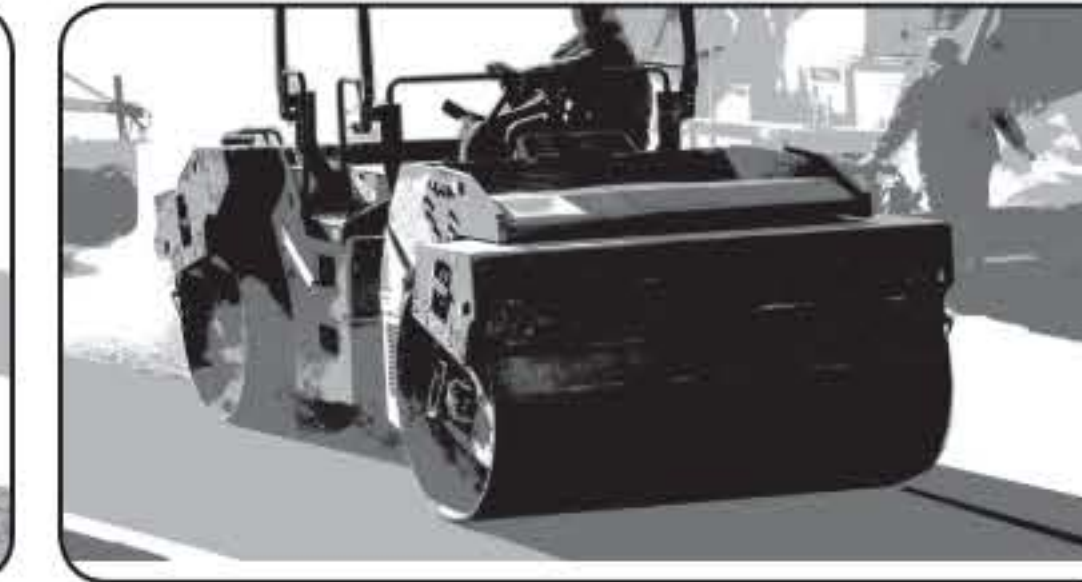
CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at (650) 329-2598 for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.



PAVING/ASPHALT WORK

Paving

- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

Sawcutting & Asphalt/Concrete Removal

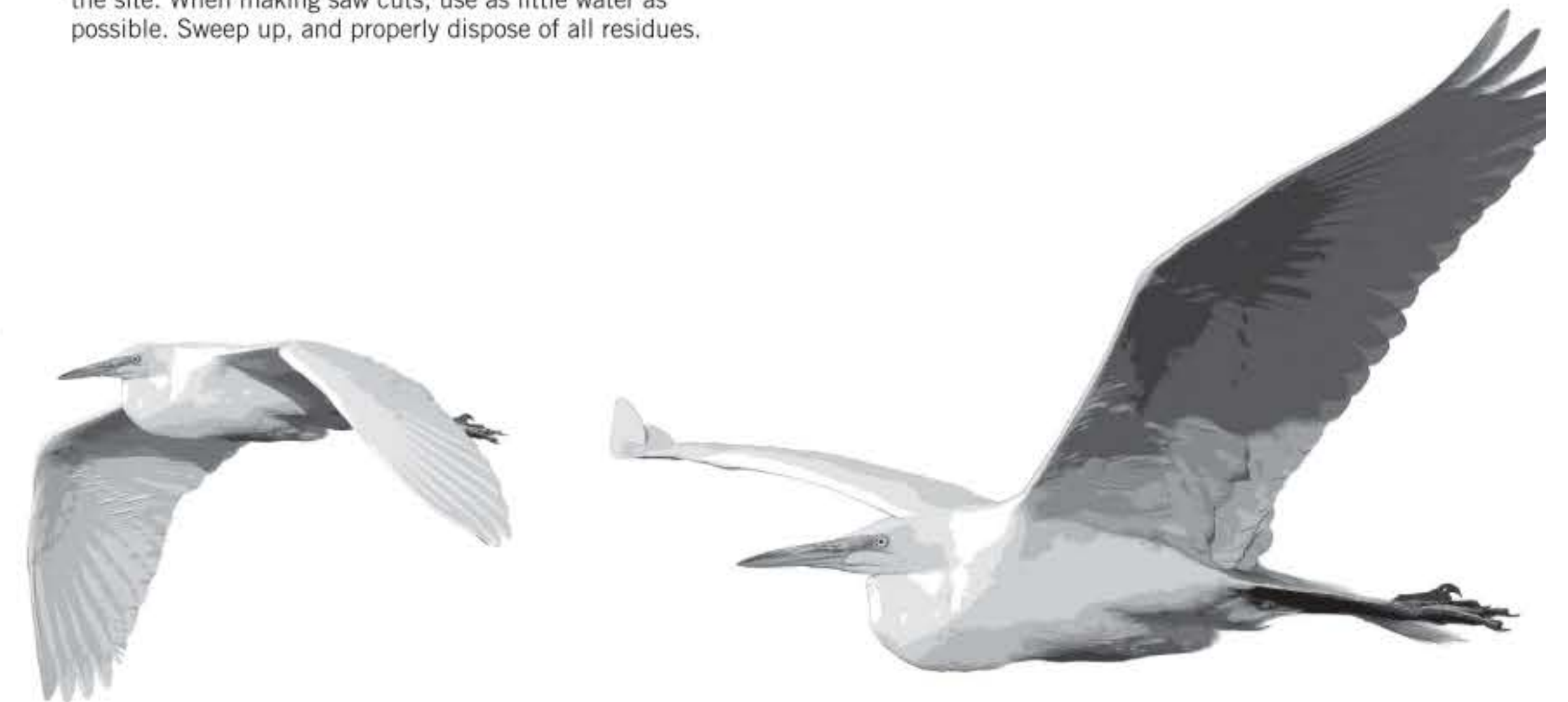
- Protect storm drain inlets during saw cutting.
- If saw cut slurry enters a catch basin, clean it up immediately.
- Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.



PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.



STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$10,000 PER DAY!

250 Hamilton Avenue
Palo Alto, CA 94301
650.329.2211
cityofpaloalto.org



BENCHMARK

THE ELEVATION REFERENCE FOR THIS SURVEY IS A SANTA CLARA VALLEY WATER DISTRICT BENCHMARK, BENCHMARK ID 8M072, RECORDED AS BRASS DISK ON TOP AND CENTER OF SOUTHWEST HEADWALL AT MIDDLEFIELD ROAD AND BARRON CREEK, CITY OF PALO ALTO. ELEV=19.80 FEET (NAVD 88 DATUM)

UNDERGROUND UTILITY NOTE

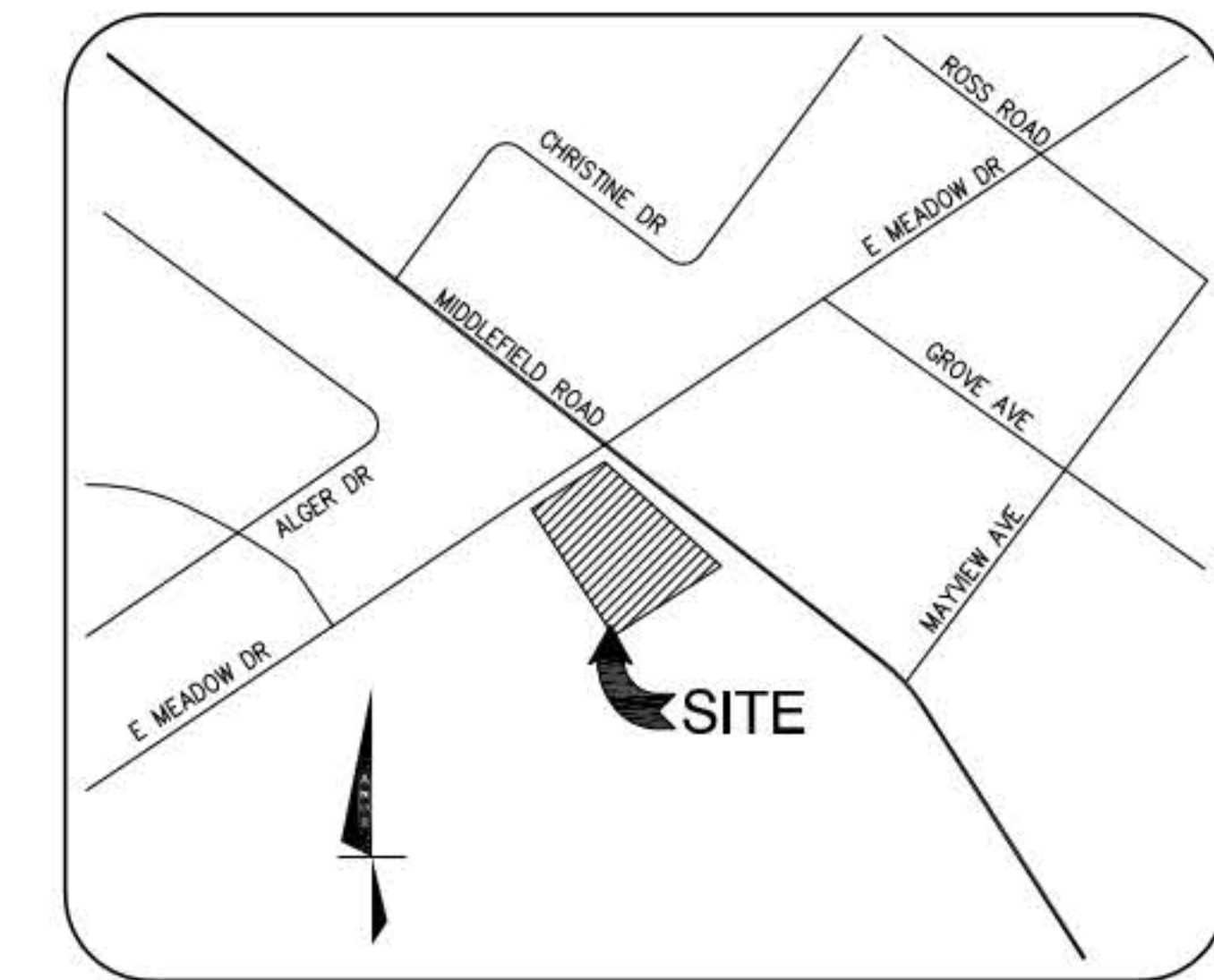
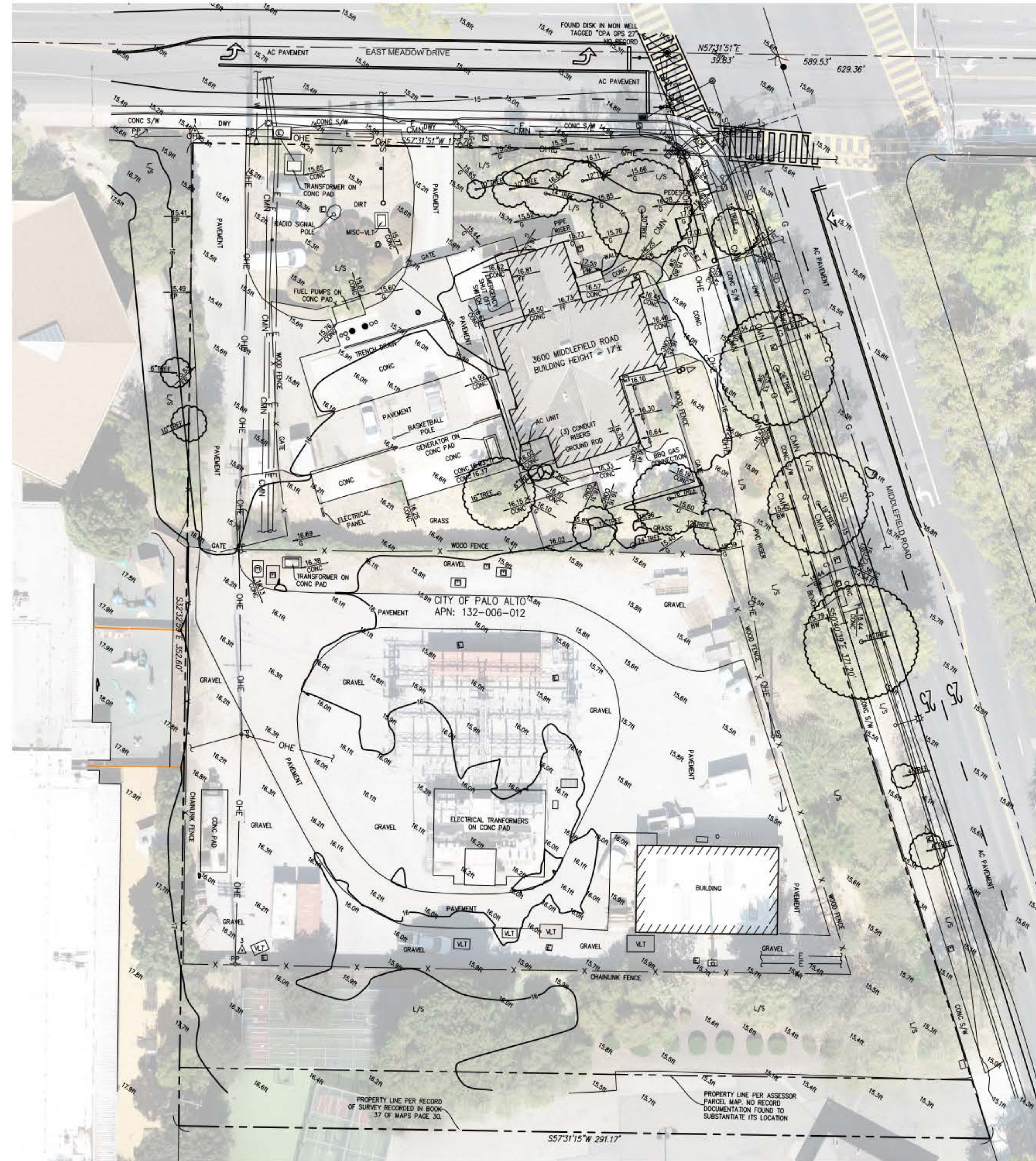
THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THIS SURVEY.

SURVEY NOTES

1. ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. DATES OF FIELD SURVEY: 09/06/2022, 09/07/2022.
3. THE PARCEL LINES SHOWN HEREON ARE BASED UPON RECORD INFORMATION AS SHOWN ON THE RECORD OF SURVEY MAP FILED IN BOOK 37 OF MAPS, PAGE 30, SANTA CLARA COUNTY RECORDS. EXISTING EASEMENTS AFFECTING THE PROPERTY, IF ANY, ARE NOT SHOWN HEREON. PLOTTING OF EXISTING EASEMENTS REQUIRES THE BENEFIT OF A PRELIMINARY TITLE REPORT.
4. HORIZONTAL CONTROL WAS BASED ON A GPS SURVEY USING GNSS RTK METHODS CONNECTED TO THE LIDCA SMARTNET REAL TIME NETWORK TIED INTO CALIFORNIA STATE PLANE COORDINATES NAD83, EPOCH.

LEGEND

- ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
- BUILDING FACE
 - BUILDING OVERHANG
 - EDGE OF PAVEMENT
 - CURB & GUTTER LINE
 - CONTOURS
 - FENCE LINE, TYPE / HEIGHT AS INDICATED
 - STORM DRAIN LINE
 - SANITARY SEWER LINE
 - WATER LINE
 - NATURAL GAS LINE
 - UNDERGROUND ELECTRIC LINE
 - OVERHEAD LINES
 - OVERHEAD LINES
 - LOT LINE
 - BOUNDARY LINE
 - CENTERLINE
 - TIE LINE
 - TRAFFIC SIGNAL ON POLE
 - STORM DRAIN MANHOLE
 - DRAIN INLET ON CURB
 - SANITARY SEWER CLEANOUT
 - WATER METER / BOX
 - BACKFLOW PREVENTOR
 - GAS METER
 - COMMUNICATIONS VAULT / PULLBOX
 - ELECTRIC MANHOLE
 - ELECTRIC VAULT / PULLBOX
 - POWER POLE
 - GUY WIRE ANCHOR
 - TRAFFIC SIGNAL WITH ELECTROLIER
 - STREET LIGHT PULLBOX
 - MISCELLANEOUS CLEANOUT
 - SIGN
 - BOLLARD
 - SPOT ELEVATION
 - TREE WITH DRIPLINE, SIZE AS INDICATED



VICINITY MAP
N.T.S.

SURVEY CONTROL TABLE

Point #	Elevation	Northing	Easting	Description
1	15.29	1980838.64	6092628.88	MAG NAIL/SHNER
2	15.94	1980851.80	6092849.30	CUT X
3	16.00	1980602.50	6092804.80	60 D



ABBREVIATIONS

- BFP - BACKFLOW PREVENTOR
- BLDC - BUILDING CORNER
- BLDL - BUILDING LINE
- BW - BACK OF WALK
- CLF - CHAIN LINK FENCE
- COM-PB - COMMUNICATIONS PULLBOX
- CONC - CONCRETE
- DWY - DRIVEWAY
- EP - EDGE OF PAVEMENT
- EPB - ELECTRICAL PULLBOX
- FF - FINISHED FLOOR
- FL - FLOW LINE
- G - GROUND
- GM - GAS METER
- GRATE - DRAIN INLET GRATE
- GUY - GUY WIRE ANCHOR
- LIP - LIP OF GUTTER
- L/S - LANDSCAPING
- MISC-CO - MISCELLANEOUS CLEANOUT
- MISC-VLT - MISCELLANEOUS VAULT
- PNL - ELECTRIC PANEL
- PP - POWER POLE
- SDMH - STORM DRAIN MANHOLE
- SSCO - SANITARY SEWER CLEANOUT
- STPB - STREET LIGHT PULLBOX
- SW - SIDEWALK
- TC - TOP OF CURB
- TCBCB - TOP OF CURB AT CATCH BASIN
- TOW - TOP OF WALL
- TRAF-S - TRAFFIC SIGNAL POLE
- TRANS - TRANSFORMER
- WF - WOOD FENCE
- WM - WATER METER

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.



build. **o**
sands.net 620097

DATE: 09/26/2022
SCALE: 1"=20'

No.	REVISION	DATE	BY

3600 MIDDLEFIELD ROAD
PALO ALTO CALIFORNIA

TOPOGRAPHIC SURVEY

SHEET
1
OF 1 SHEETS

File: O:\2022\222062 Palo Alto Station 4\03 Design Correspondence\02 Consultant Correspondence\Sandis - Civil\09 26 22 Topo Survey Revised\620097 - 3600 Middlefield Road Fire Station.dwg Date: May 03, 2023 - 3:56 PM

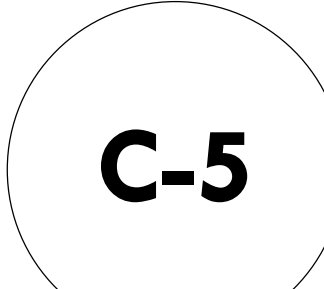
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**PALO ALTO FIRE DEPARTMENT
STATION NO. 4 REPLACEMENT**
3600 MIDDLEFIELD ROAD
PALO ALTO, CA 94303



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TOPO SURVEY

SEPTEMBER 13, 2023



STORMWATER MANAGEMENT PLAN LEGEND

- PROPOSED PEROUS AREA
- PROPOSED IMPERVIOUS AREA
- PROPOSED IMPERVIOUS ROOF AREA
- BIO-RETENTION AREA
- DRAINAGE AREA BOUNDARY
- FLOW LINE
- FLOW DIRECTION

HYDROMODIFICATION NOTE:

THE PROJECT IS EXEMPT FROM HYDROMODIFICATION REQUIREMENTS PER THE SANTA CLARA C.3 TECHNICAL GUIDANCE DOCUMENT. THE PROJECT IS EXEMPT FROM HYDROMODIFICATION DUE TO THE WATER SHED DRAINING INTO A HARDENED CHANNEL.

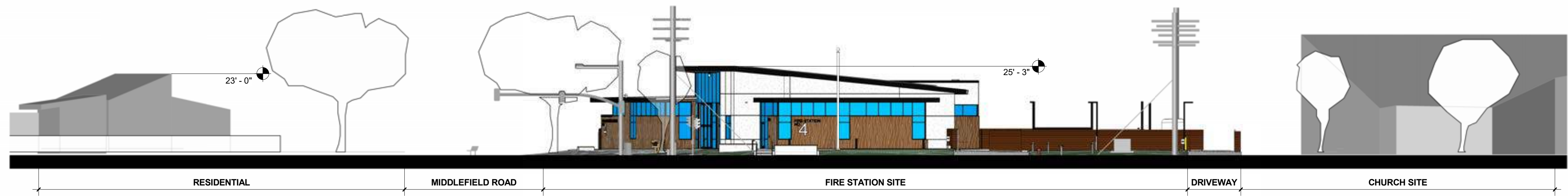
STORMWATER MANAGEMENT NOTES:

1. THIS PLAN PRESENTS METHODS AND CALCULATIONS FOR COMPLYING WITH THE REQUIREMENTS OF PROVISION C.3 OF THE MUNICIPAL REGIONAL STORMWATER PERMIT IN ACCORDANCE WITH THE SANTA CLARA COUNTY PROGRAM AND THE CITY OF PALO ALTO REQUIREMENTS.
2. THE FOLLOWING TREATMENT MEASURES ARE PROPOSED TO REGULATE THE QUALITY OF STORM WATER LEAVING THE SITE.
 - 2.1. BIO-RETENTION AREA - RUNOFF IN THIS AREA IS DIRECTED TO A BIO-RETENTION PLANTER/AREA FOR FILTRATION, INFILTRATION AND EVAPOTRANSPIRATION PRIOR TO EXITING THE SITE. PLANTING AND SOIL REQUIREMENTS APPLY, SEE DETAIL.

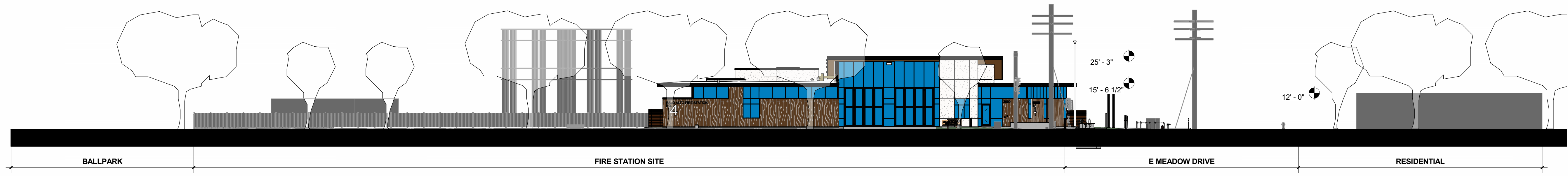
C.3 STORMWATER TREATMENT MEASURES																
DRAINAGE AREA	TOTAL AREA		IMPERVIOUS AREA		PERVIOUS AREA		PERCENT IMPERVIOUS	RUNOFF COEFFICIENT, C	RAINFALL INTENSITY, I** (IN/HR)	Q (CFS)	PONDING DEPTH (IN)	TREATMENT AREA REQUIRED (SF)	SIZING METHOD	TREATMENT CONTROL METHOD*	TREATMENT PROVIDED (SF)	ADEQUATE SIZING (YES/NO)
	SF	AC	SF	AC	SF	AC										
1	2845	0.07	1749	0.04	1096	0.03	62%	0.59	0.2	0.008	6	95***	COMBO	BRA-A	153	YES
2	7351	0.17	5863	0.12	1488	0.03	80%	0.74	0.2	0.02	6	268***	COMBO	BRA-B	405	YES
3	19081	0.44	16998	0.39	2083	0.05	89%	0.81	0.2	0.07	12	434	COMBO	BRA-C	434	YES

NOTES:
 *BRA = BIORETENTION AREA, SRA = SELF-RETAINING AREA, SC = SILVA CELL, STA = SELF-TREATING AREA, FTP = FLOW-THROUGH PLANTER, GR = GREEN ROOF, PP = PEROUS PAVERS/PAVEMENT
 **I=0.2 IN/HR BASED ON GUIDANCE FROM SCVURPPP TECHNICAL GUIDANCE HANDBOOK
 ***SIZED AT 5% OF IMPERVIOUS AREA AS A CONSERVATIVE ESTIMATE

NO.	REVISION	DATE



1 STREETScape ELEVATION - ALONG EAST MEADOW DRIVE
 1" = 20'-0"

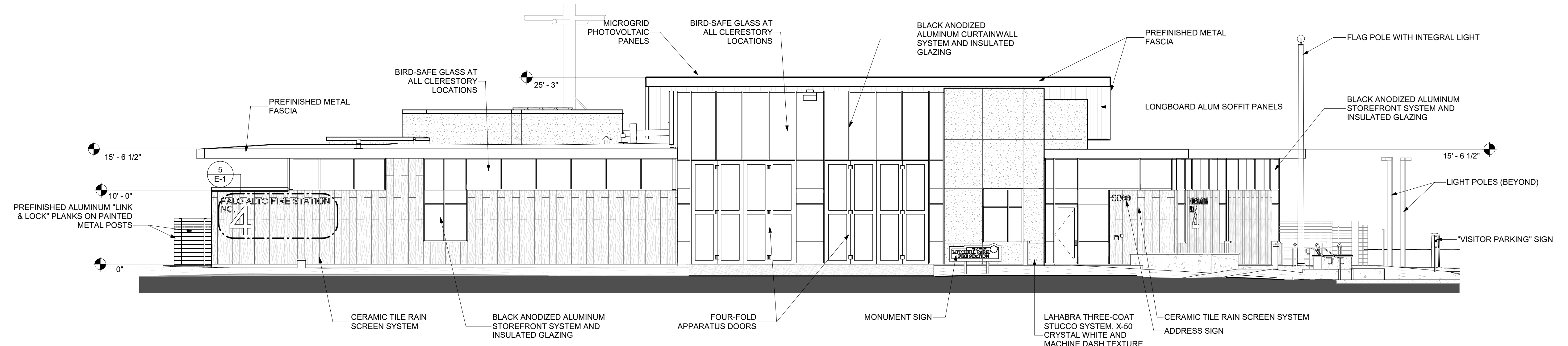


2 STREETScape ELEVATION - ALONG MIDDLEFIELD ROAD
 1" = 20'-0"

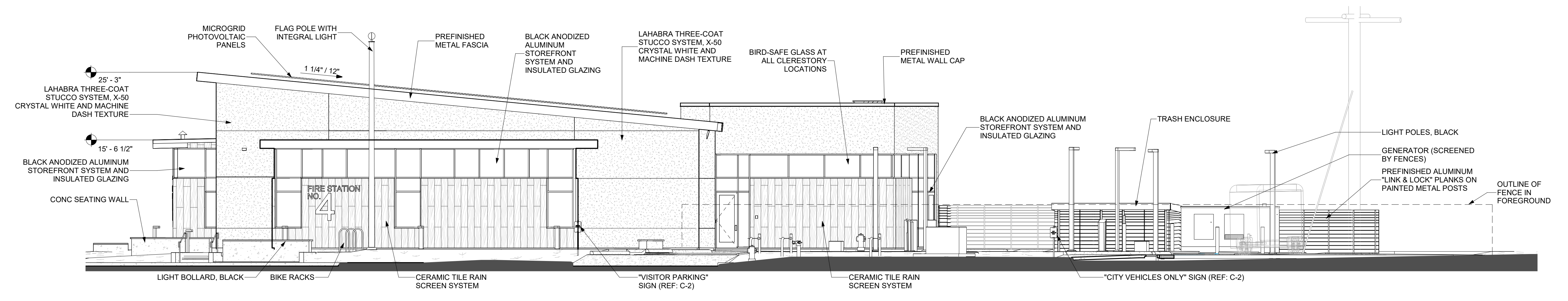


MATERIAL: ALUMINUM
FONT: ARIAL
THICKNESS: 1"
HEIGHT: 10" & 48"

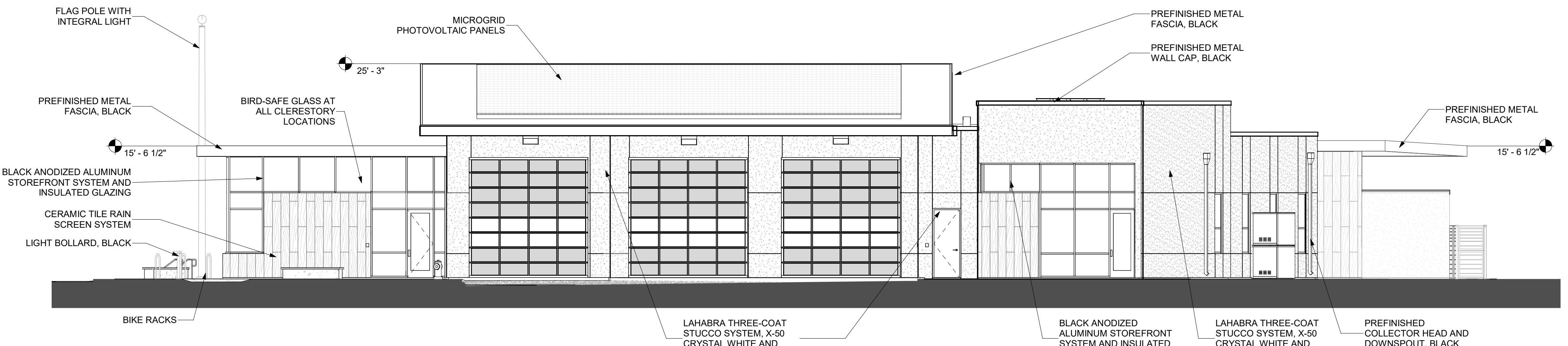
5 SIGNAGE CONCEPT
1/4" = 1'-0"



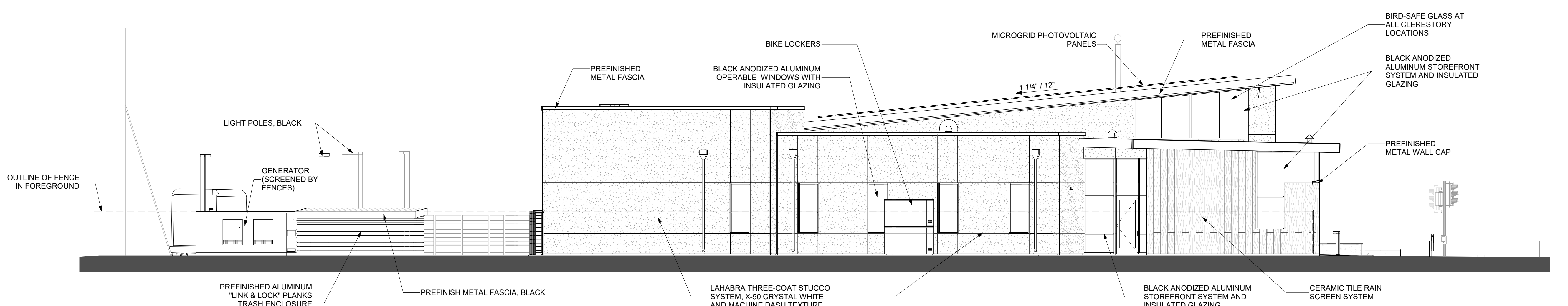
1 EXTERIOR ELEVATION (NORTH)
1/8" = 1'-0"



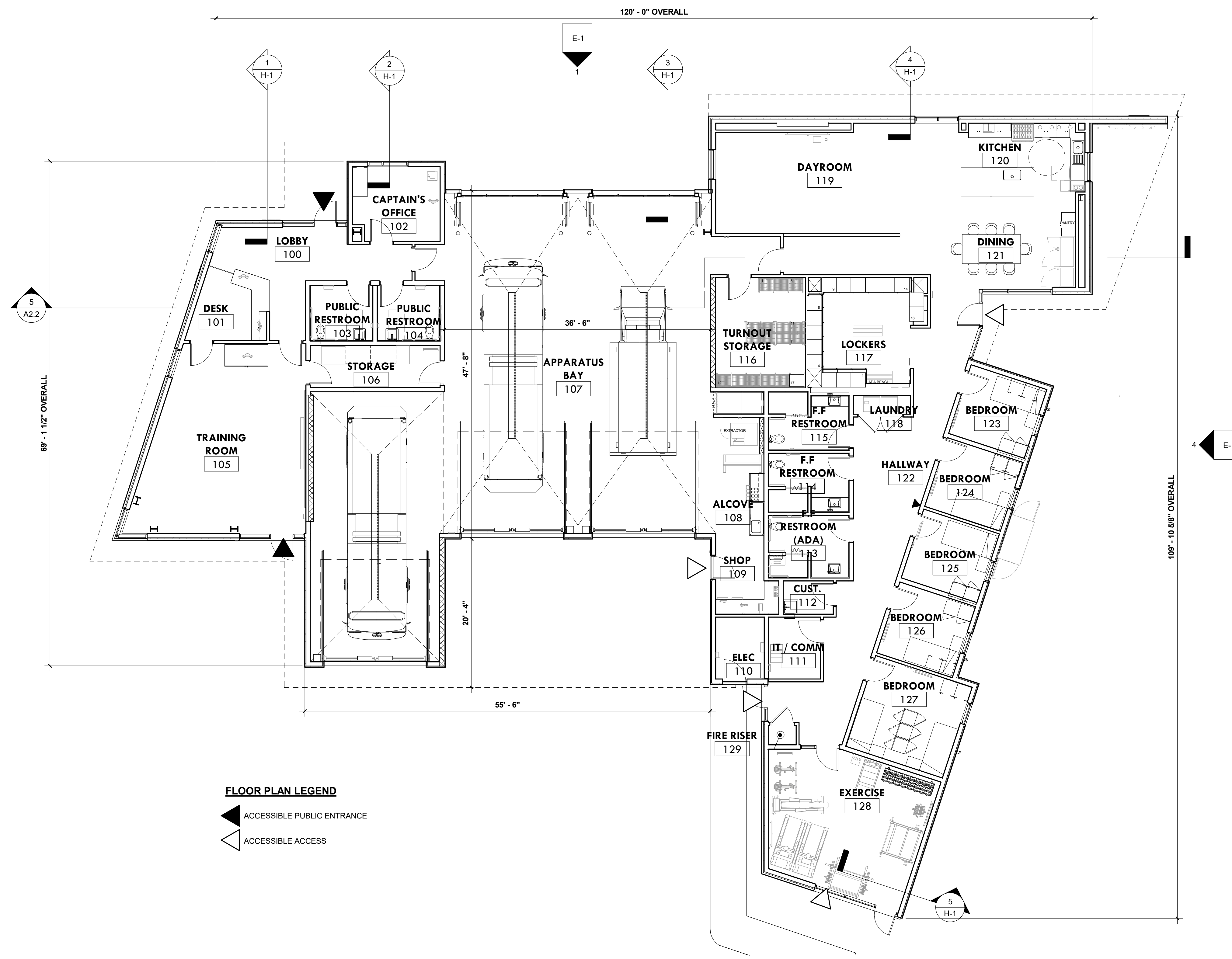
2 EXTERIOR ELEVATION (WEST)
1/8" = 1'-0"



3 EXTERIOR ELEVATION (SOUTH)
1/8" = 1'-0"



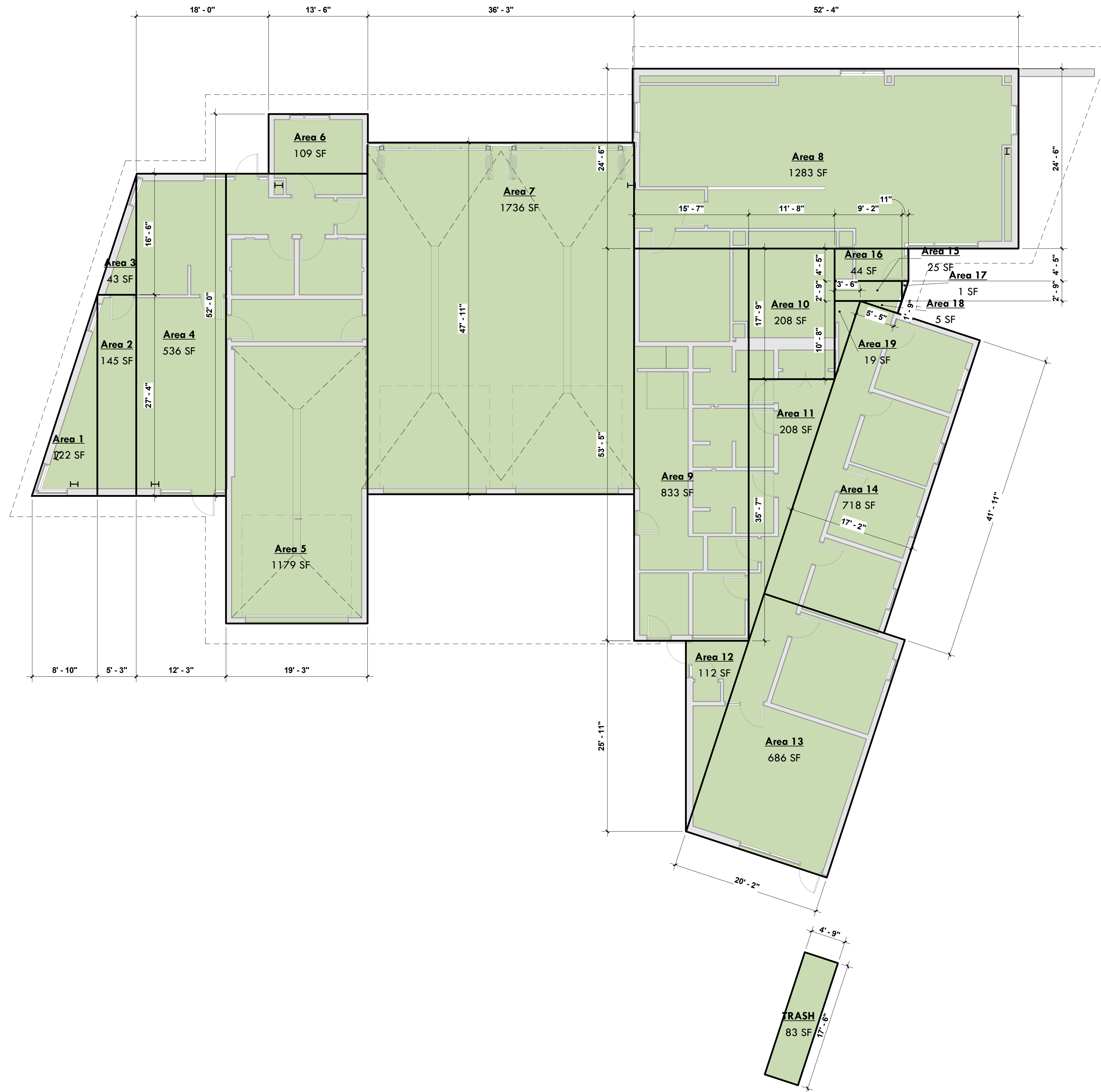
4 EXTERIOR ELEVATION (EAST)
1/8" = 1'-0"



FLOOR PLAN LEGEND

- ▲ ACCESSIBLE PUBLIC ENTRANCE
- ◀ ACCESSIBLE ACCESS

1 FLOOR PLAN
 1/8" = 1'-0"
 PLAN NORTH



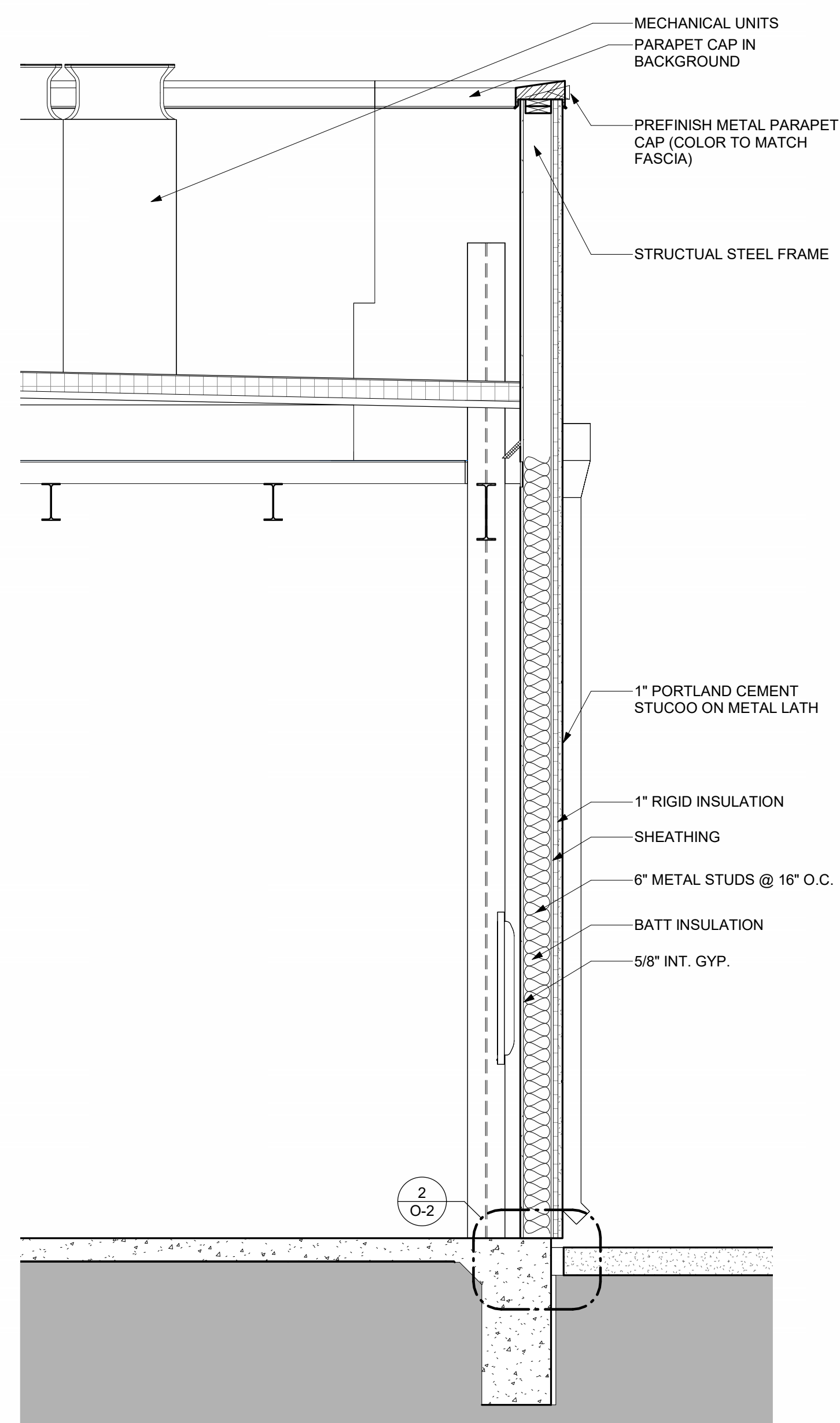
FAR SCHEDULE			
PROPOSED F.S.	Calculation	Area	Level
Area 1	1/2 (8'-10" x 27'-6")	122 SF	FIRST F.F.
Area 2	5'-3" x 27'-6"	145 SF	FIRST F.F.
Area 3	1/2 (5'-3" x 16'-6")	43 SF	FIRST F.F.
Area 4	12'-2" x 44'-0"	536 SF	FIRST F.F.
Area 5	19'-11" x 61'-4"	1179 SF	FIRST F.F.
Area 6	13'-6" x 8'-0"	109 SF	FIRST F.F.
Area 7	36'-3" x 47'-7"	1736 SF	FIRST F.F.
Area 8	52'-4" x 24'-6"	1283 SF	FIRST F.F.
Area 9	15'-7" x 53'-5"	833 SF	FIRST F.F.
Area 10	11'-8" x 17'-9"	208 SF	FIRST F.F.
Area 11	1/2 (11'-8" x 35'-8")	208 SF	FIRST F.F.
Area 12	1/2 (8'-4" x 25'-6")	112 SF	FIRST F.F.
Area 13	20'-2" x 33'-6"	686 SF	FIRST F.F.
Area 14	17'-4" x 42'-0"	718 SF	FIRST F.F.
Area 15	9'-2" x 2'-9"	25 SF	FIRST F.F.
Area 16	10'-1" x 4'-5"	44 SF	FIRST F.F.
Area 17	1/2 (0'-11" x 2'-9")	1 SF	FIRST F.F.
Area 18	1/2 (5'-5" x 1'-9")	5 SF	FIRST F.F.
Area 19	1/2 (3'-6" x 10'-8")	19 SF	FIRST F.F.
		8012 SF	
TRASH	4'-9" x 17'-5"	83 SF	FIRST F.F.
		83 SF	
SUBSTATION	31'-3" x 50'-8"	1588 SF	FIRST F.F.
		1588 SF	
TOTAL AREA:		9683 SF	

ALL DIMENSIONS ARE TO THE EXTERIOR FINISH FACE OF BUILDING.

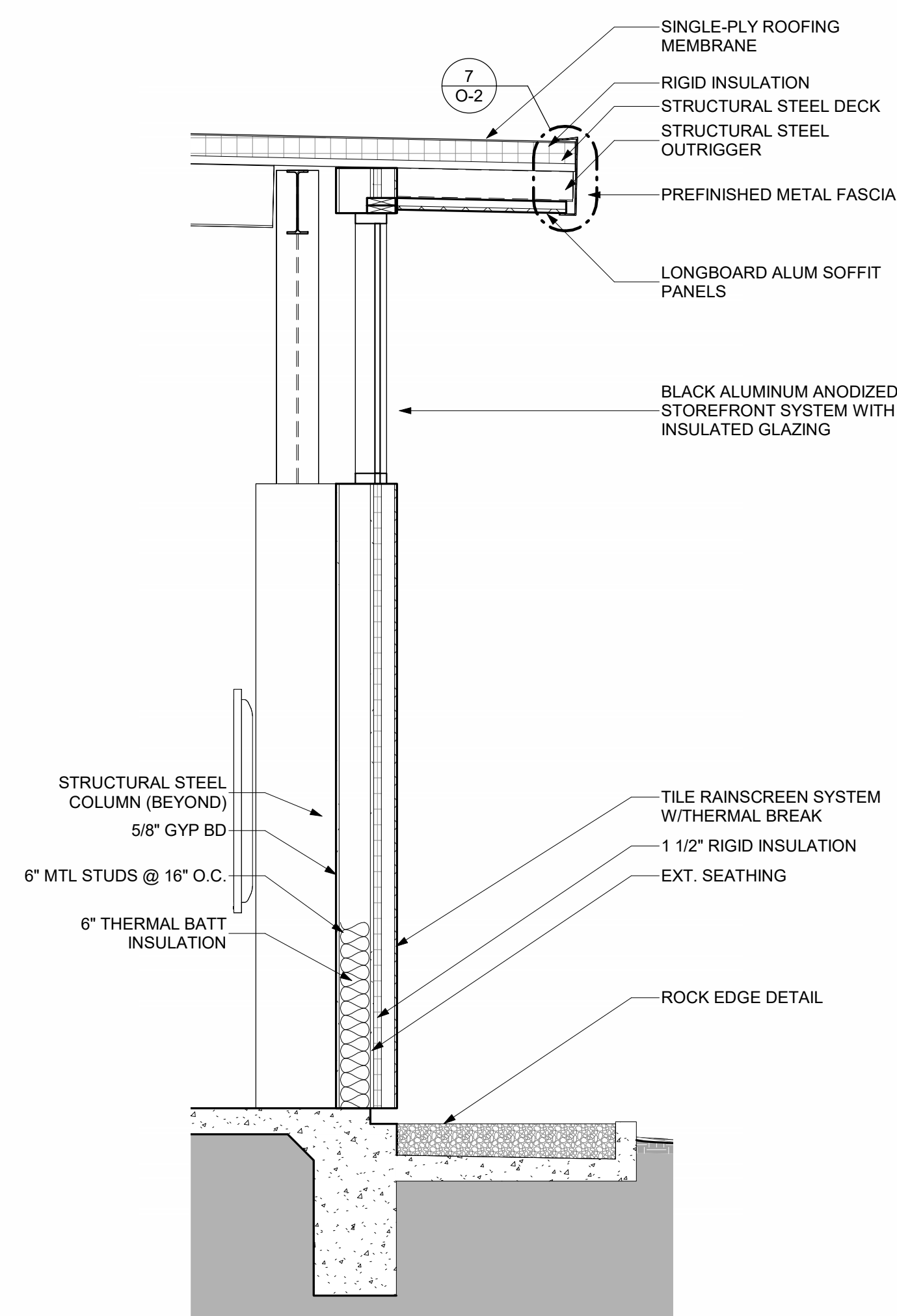


1 FAR DIAGRAM
1/8" = 1'-0"

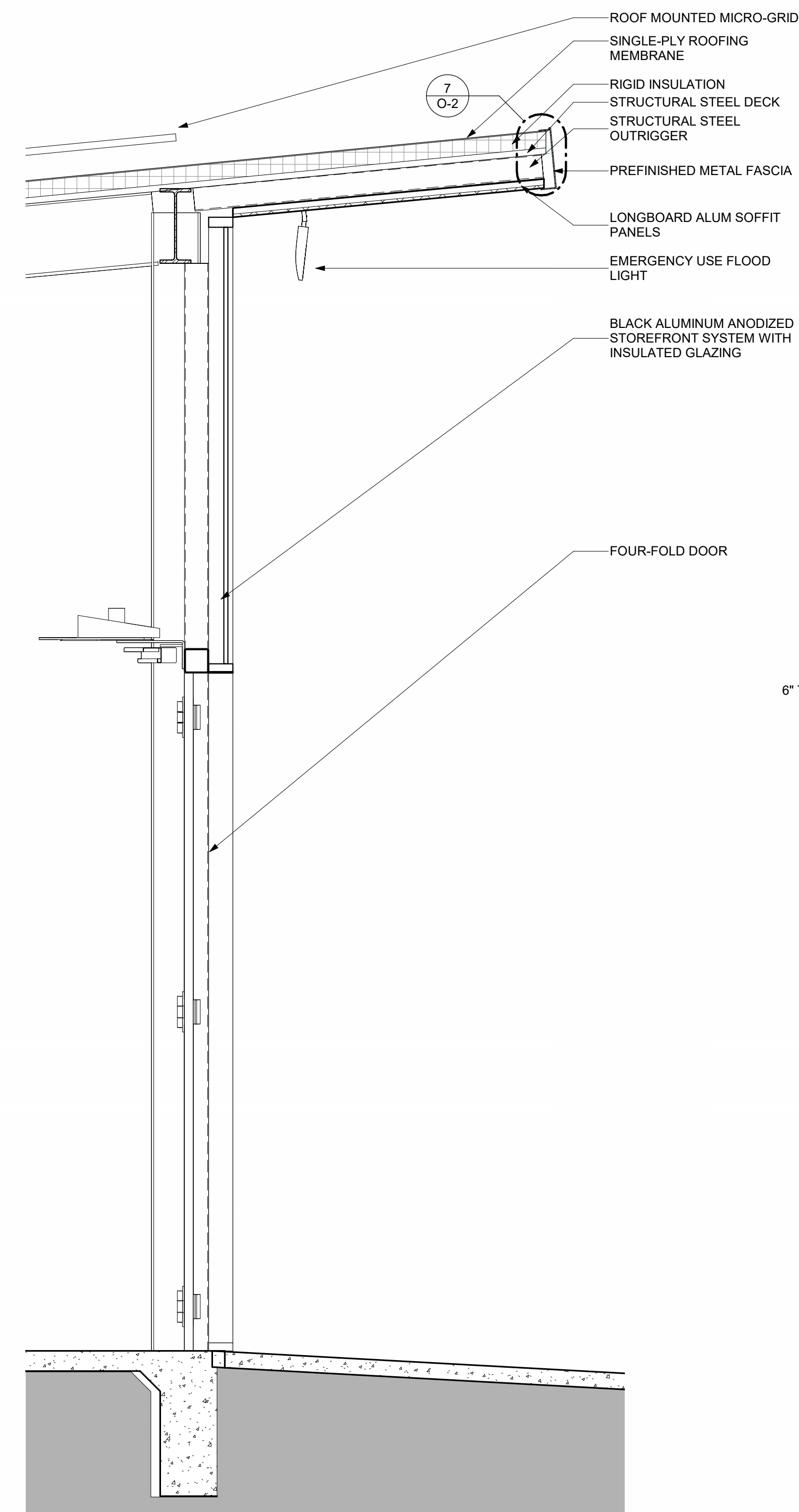




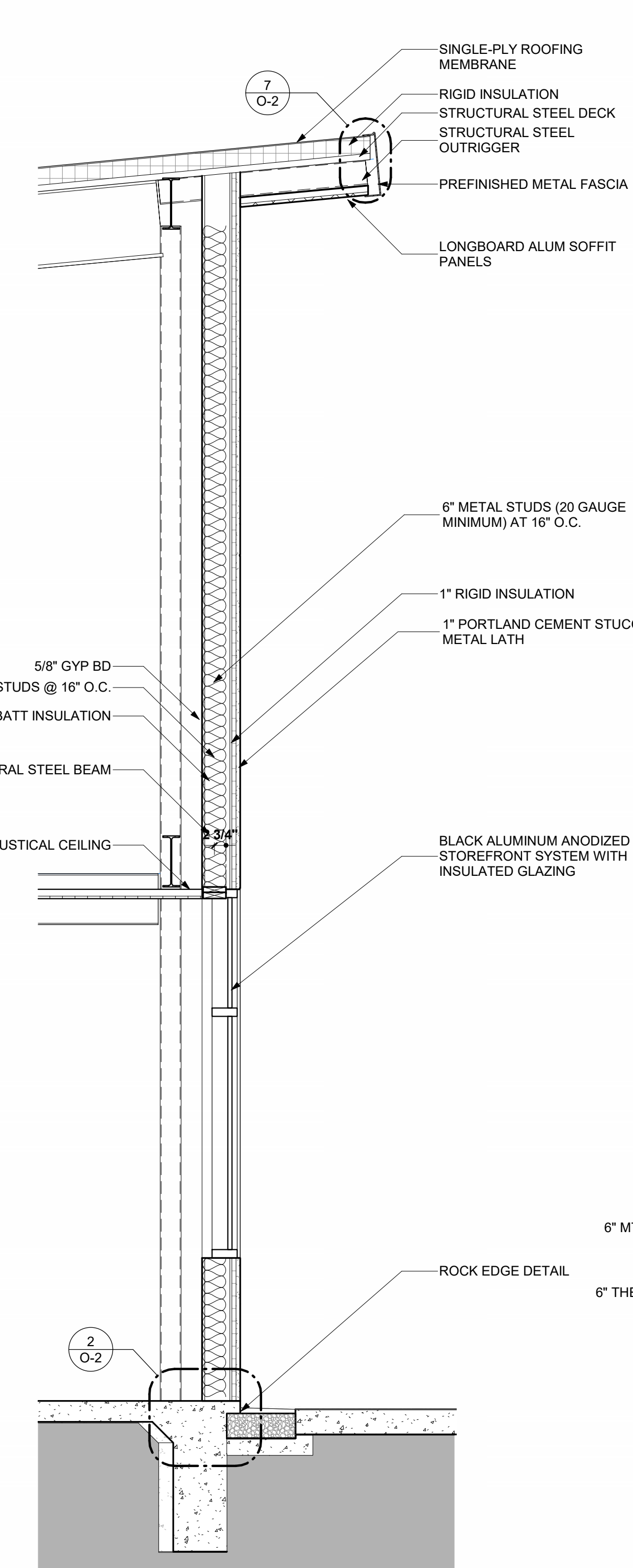
5 WALL SECTION
1/2" = 1'-0"



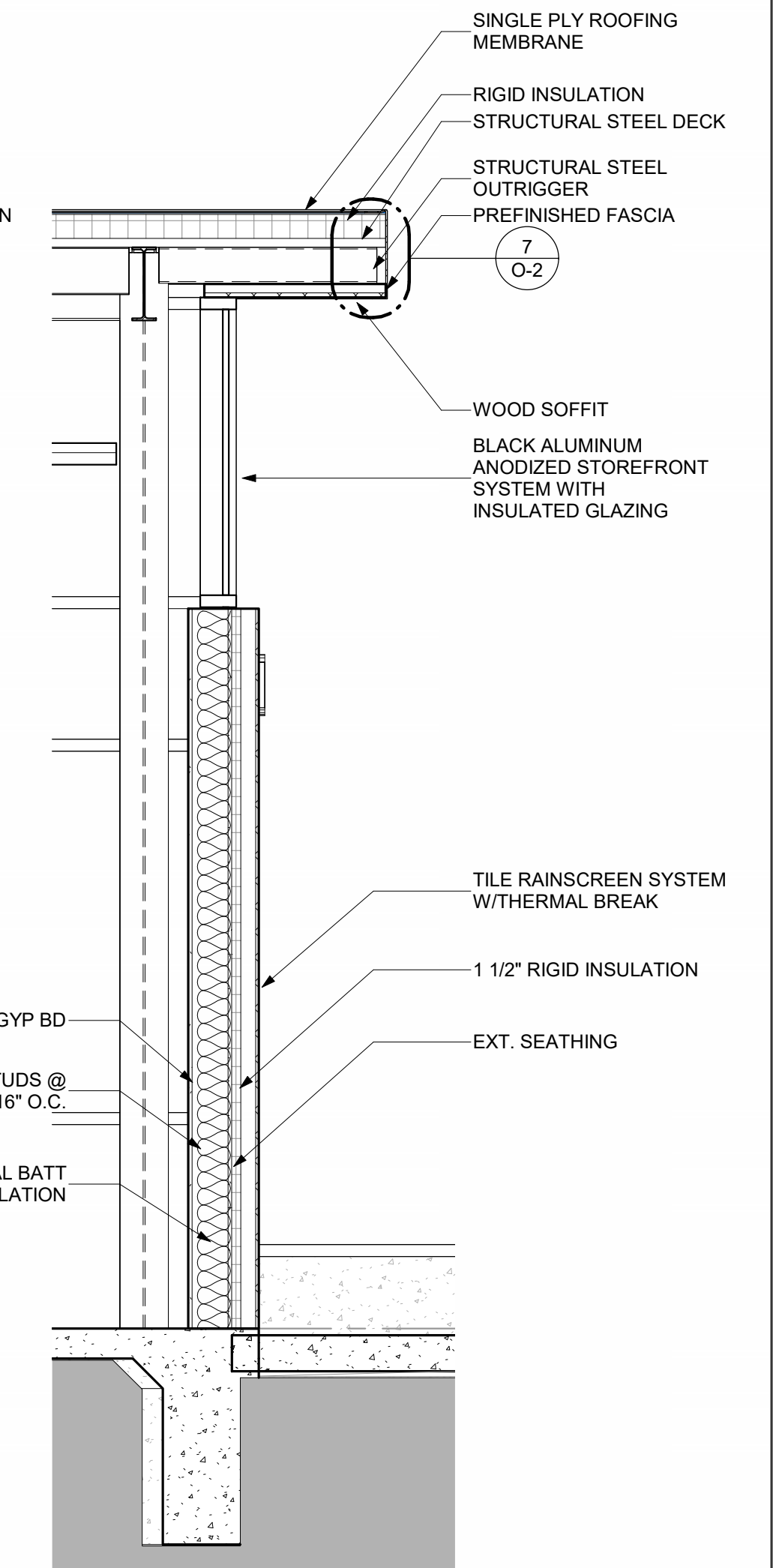
4 WALL SECTION
1/2" = 1'-0"



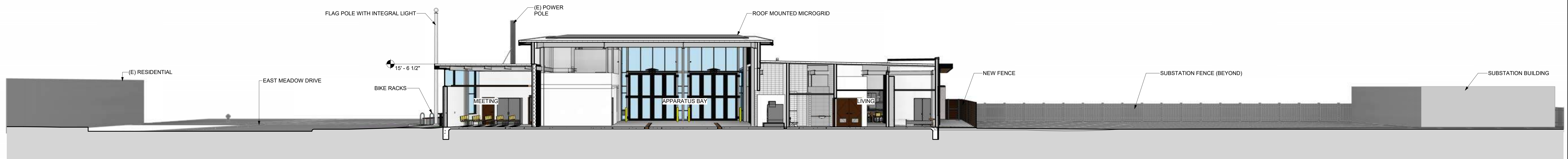
3 WALL SECTION
1/2" = 1'-0"



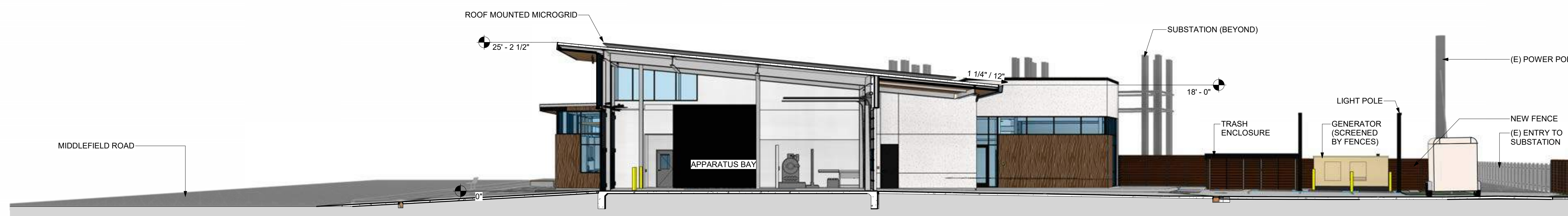
2 WALL SECTION
1/2" = 1'-0"



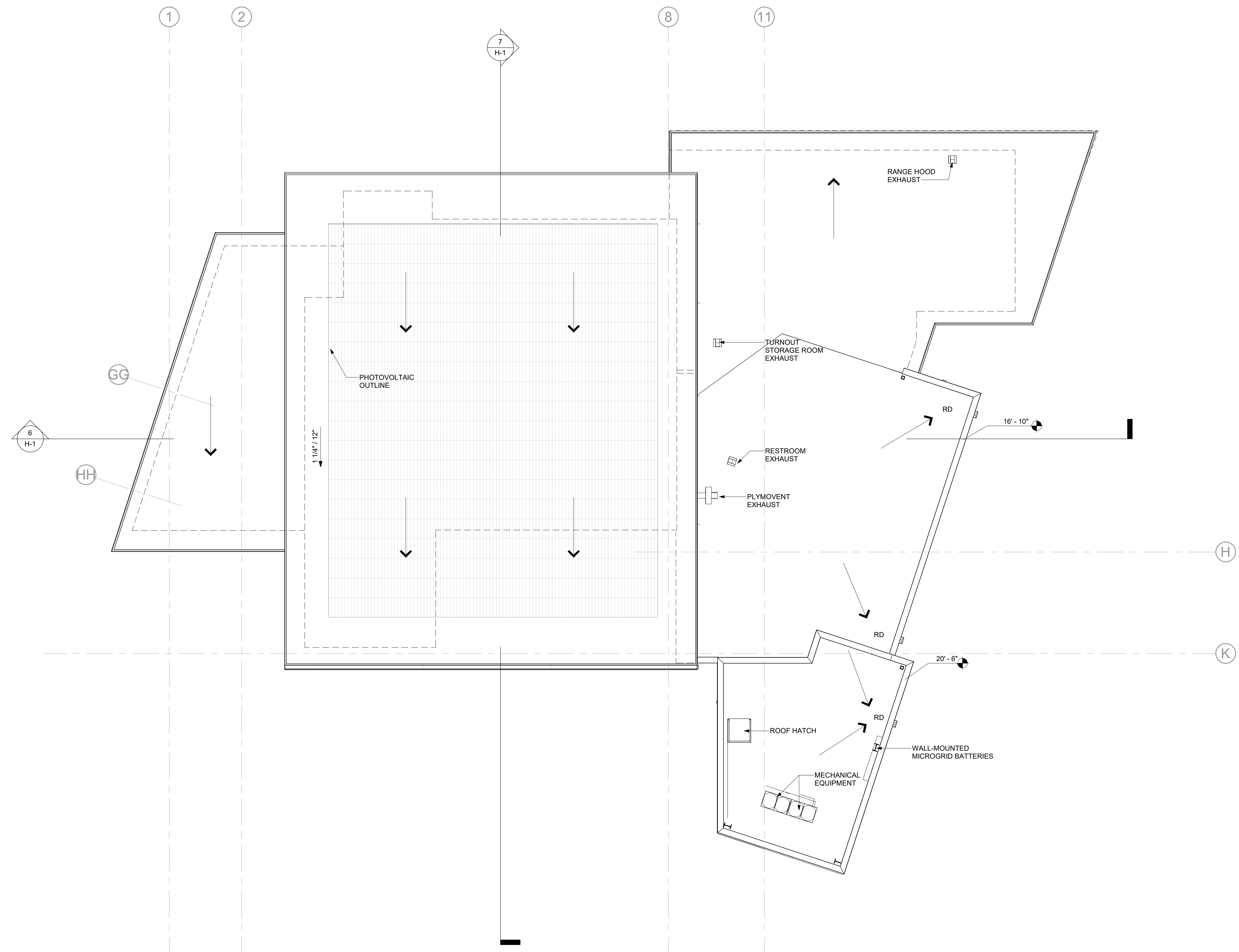
1 WALL SECTION
1/2" = 1'-0"



6 SITE SECTION - EAST/WEST
1" = 10'-0"



7 SITE SECTION - NORTH/SOUTH
1" = 10'-0"



1 ROOF PLAN
 1/8" = 1'-0"



The HLA Group
Landscape Architects
& Planners, Inc.
555 University Avenue,
Suite 154
Sacramento, California 95825
916.447.7400
www.hlagroup.com
CRLA 2770

PALO ALTO FIRE STATION NO. 4
REPLACEMENT
3600 MIDDLEFIELD ROAD
PALO ALTO, CA 94303



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Irrigation System Note

Irrigation system shall utilize domestic water supply and shall comply with the current City and State Model Water Efficient Landscape Ordinance (MWELO). Full construction documents with the required documentation including water efficient landscape worksheet, specific irrigation equipment, scheduling, soil analysis notes, etc. shall be provided for City review and approval prior to construction. Irrigation system shall be privately maintained and operated.

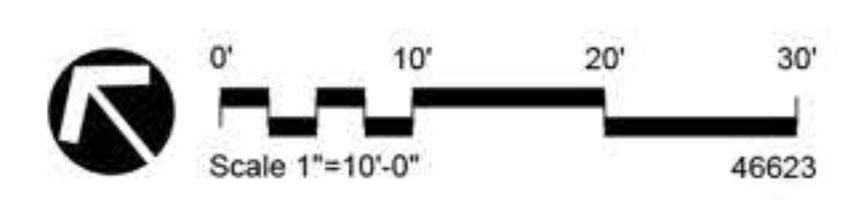
Proposed Plant Legend

Symbol	Botanical Name	Common Name	Size	H x W	Remarks	Wat. Use	Origins	Habitat Forming	Drought Tolerant	Quantity
Street, Accent & Specimen Trees										
ACE	<i>Acer circinatum</i>	Vine Maple	24" Box	25' h x 25' w	-	M	CA Native	All Pollinators	N	6
ARB	<i>Arbutus 'Marina'</i>	Strawberry Tree	24" Box	20' h x 20' w	Standard	L	Mediterranean	-	Y	4
CER	<i>Cercis occidentalis</i>	Western Redbud	24" box	15' h x 15' w	Multi-stem	VL	CA Native	All Pollinators	Y	9
COR	<i>Cornus 'Eddies White Wonder'</i>	Pacific Dogwood	24" box	20' h x 15' w	-	M	North America	-	N	1
HET	<i>Heteromeles arbutifolia</i>	Toyon	24" Box	10' h x 10' w	-	L	CA Native	All Pollinators	Y	4
LAU	<i>Laurus nobilis 'Saratoga'</i>	Bay Laurel	24" Box	25' h x 20' w	-	L	Mediterranean	-	Y	9
MAG	<i>Magnolia stellata 'Royal Star'</i>	Star Magnolia	24" Box	12' h x 10' w	-	M	Japan	-	N	4
PLA	<i>Platanus racemosa</i>	California Sycamore	24" Box	40' h x 30' w	-	M	CA Native	Butterflies	Y	4
QUA	<i>Quercus agrifolia</i>	Coast Live Oak	24" Box	45' h x 30' w	-	VL	CA Native	All Pollinators	Y	6
QUS	<i>Quercus suber</i>	Cork Oak	24" Box	40' h x 40' w	-	L	Mediterranean	-	Y	1
Shrubs										
AM	<i>Achillea x 'Moonshine'</i>	Yarrow	5 gallon	2' h x 2' w	-	L	CA Native	All Pollinators	Y	29
AB	<i>Agave 'Blue Flame'</i>	Agave	5 gallon	2' h x 3' w	-	VL	North America	-	Y	3
BG	<i>Bouteloua gracilis</i>	Blue Grama Grass	5 gallon	2' h x 2.5' w	-	L	CA Native	Insects & Birds	Y	76
CT	<i>Carex tumulicola</i>	Berkeley Sedge	1 gallon	1' h x 2' w	-	L	CA Native	Butterflies & Moths	Y	43
CM	<i>Ceanothus maritimus 'Valley Violet'</i>	California Mountain Lilac	5 gallon	2' h x 3' w	-	L	CA Native	Insects & Birds	Y	9
EW	<i>Erigeron 'Wayne Roderick'</i>	Seaside Daisy	1 gallon	1' h x 2' w	-	M	CA Native	All Pollinators	Y	59
EG	<i>Eriogonum grande var. rubescens</i>	Red Buckwheat	5 gallon	1' h x 3' w	-	L	CA Native	Insects & Birds	Y	21
HR	<i>Heuchera 'Rosada'</i>	Hybrid Coral Bell	1 gallon	2' h x 2' w	-	M	CA Native	Butterflies & Moths	N	9
LG	<i>Lavandula x gingsii 'Goodwin Creek'</i>	English Lavender	5 gallon	2' h x 3' w	-	L	North America	-	Y	15
LL	<i>Leonotis leonurus</i>	Lion's Tail	5 gallon	4' h x 4' w	-	L	South Africa	-	Y	12
LB	<i>Lomandra 'Breeze'</i>	Dwarf Mat Rush	5 gallon	2' h x 3' w	-	L	Australia	-	Y	13
RS	<i>Ribes sanguineum</i>	Pink Flowered Currant	5 gallon	5' h x 5' w	-	L	CA Native	Insects & Birds	Y	11
SJ	<i>Spiraea japonica 'Painted Lady'</i>	Double Play Painted Lady Spirea	5 gallon	3' h x 3' w	-	M	Japan	-	Y	14
TF	<i>Teucrium fruticans 'Azureum'</i>	Bush Germander	5 gallon	3' h x 4' w	-	L	Mediterranean	-	Y	27
Groundcover										
B	<i>Baccharis pilularis 'Pigeon Point'</i>	Pigeon Point Dwarf Coyote Brush	1 gallon	1.5' h x 6' w	72" o.c. spacing	L	CA Native	All Pollinators	Y	30
E	<i>Epilobium 'Select Mattole'</i>	California Fuchsia	1 gallon	1' h x 3' w	36" o.c. spacing	L	CA Native	Hummingbirds	Y	93
R	<i>Rosa 'Meistentmil'</i>	Lemon Drift Rose	2 gallon	1.5' h x 2.5' w	24" o.c. spacing	L	North America	-	Y	25
W	<i>Westringia fruticosa 'Mundi'</i>	Low Coast Rosemary	1 gallon	2' h x 6' w	72" o.c. spacing	L	Australia	-	Y	28
Bioretention										
S	Biofiltration Sod	Biofiltration Sod by Delta Bluegrass Co.	-	-	-	H	-	-	-	-

Note: Proposed shrub and tree legend are subject to change. Some trees noted in this legend may not be used. Legend is provided to show design intent. Final tree and shrub selection to be made during construction document phase. Final planting design shall follow all native plant and drought tolerant requirements.

Project Elements Legend

- 1 Existing 5' concrete sidewalk, curb, and gutter per Architect's Plans, typ.
- 2 Concrete paving per Architect's plans, typ.
- 3 Asphalt paving per Architect's plans, typ.
- 4 Existing utilities per Architect's Plans, typ.
- 5 Existing street tree to remain, typ of 4 trees.
- 6 Site visibility triangle, typ.
- 7 Adjacent Electrical Utilities Yard.
- 8 Parking lot with accessible spaces per Architect's Plans, typ.
- 9 Entry plaza with enhanced paving and seatwalls.
- 10 Bike rack, typ.
- 11 Decorative landscape boulders repurposed from site, typ.
- 12 Bioretention basin with approved planting media per standards. Sized per Civil Engineer's plans.
- 13 New Site trees intended for mitigation of removed trees, typ.
- 14 Multi-stem Native Oak Specimen Tree with Accent Lighting.
- 15 Vertical accent shrub, typ.
- 16 Planting area, typ.
- 17 Decomposed granite paving.
- 18 Utility clearance zone, typ. No trees shall be planted within the overhead utility clearance zone.
- 19 Flag pole with light mounted on Concrete pad.
- 20 Fire Station Sign, per Architect's plans.



J-1

LANDSCAPE PLAN

SEPTEMBER 13, 2023

Proposed Plant Legend

Symbol	Botanical Name	Common Name	Size	H x W	Remarks	Wat. Use	Origins	Habitat Forming	Drought Tolerant	Quantity
Street, Accent & Specimen Trees										
ACE	Acer circinatum	Vine Maple	24" Box	25' h x 25' w	-	M	CA Native	All Pollinators	N	6
ARB	Arbutus 'Marina'	Strawberry Tree	24" Box	20' h x 20' w	Standard	L	Mediterranean	-	Y	4
CER	Cercis occidentalis	Western Redbud	24" box	15' h x 15' w	Multi-stem	VL	CA Native	All Pollinators	Y	9
COR	Cornus 'Eddie's White Wonder'	Pacific Dogwood	24" box	20' h x 15' w	-	M	North America	-	N	1
HET	Heteromeles arbutifolia	Toyon	24" Box	10' h x 10' w	-	L	CA Native	All Pollinators	Y	4
LAU	Laurus nobilis 'Saratoga'	Bay Laurel	24" Box	25' h x 20' w	-	L	Mediterranean	-	Y	9
MAG	Magnolia stellata 'Royal Star'	Star Magnolia	24" Box	12' h x 10' w	-	M	Japan	-	N	4
PLA	Platanus racemosa	California Sycamore	24" Box	40' h x 30' w	-	M	CA Native	Butterflies	Y	4
QUA	Quercus agrifolia	Coast Live Oak	24" Box	45' h x 30' w	-	VL	CA Native	All Pollinators	Y	6
QUS	Quercus suber	Cork Oak	24" Box	40' h x 40' w	-	L	Mediterranean	-	Y	1
Shrubs										
AM	Achillea x 'Moonshine'	Yarrow	5 gallon	2' h x 2' w	-	L	CA Native	All Pollinators	Y	29
AB	Agave 'Blue Flame'	Agave	5 gallon	2' h x 3' w	-	VL	North America	-	Y	3
BG	Bouteloua gracilis	Blue Grama Grass	5 gallon	2' h x 2.5' w	-	L	CA Native	Insects & Birds	Y	76
CT	Carex tumulicola	Berkeley Sedge	1 gallon	1' h x 2' w	-	L	CA Native	Butterflies & Moths	Y	43
CM	Ceanothus maritimus 'Valley Violet'	California Mountain Lilac	5 gallon	2' h x 3' w	-	L	CA Native	Insects & Birds	Y	9
EW	Erigeron 'Wayne Roderick'	Seaside Daisy	1 gallon	1' h x 2' w	-	M	CA Native	All Pollinators	Y	59
EG	Eriogonum grande var. rubescens	Red Buckwheat	5 gallon	1' h x 3' w	-	L	CA Native	Insects & Birds	Y	21
HR	Heuchera 'Rosada'	Hybrid Coral Bell	1 gallon	2' h x 2' w	-	M	CA Native	Butterflies & Moths	N	9
LG	Lavandula x gingsii 'Goodwin Creek'	English Lavender	5 gallon	2' h x 3' w	-	L	North America	-	Y	15
LL	Leonotis leonurus	Lion's Tail	5 gallon	4' h x 4' w	-	L	South Africa	-	Y	12
LB	Lomandra 'Breeze'	Dwarf Mat Rush	5 gallon	2' h x 3' w	-	L	Australia	-	Y	13
RS	Ribes sanguineum	Pink Flowered Currant	5 gallon	5' h x 5' w	-	L	CA Native	Insects & Birds	Y	11
SJ	Spiraea japonica 'Painted Lady'	Double Play Painted Lady Spirea	5 gallon	3' h x 3' w	-	M	Japan	-	Y	14
TF	Teucrium fruticans 'Azureum'	Bush Germander	5 gallon	3' h x 4' w	-	L	Mediterranean	-	Y	27
Groundcover										
B	Baccharis pilularis 'Pigeon Point'	Pigeon Point Dwarf Coyote Brush	1 gallon	1.5' h x 6' w	72" o.c. spacing	L	CA Native	All Pollinators	Y	30
E	Epilobium 'Select Mattole'	California Fuchsia	1 gallon	1' h x 3' w	36" o.c. spacing	L	CA Native	Hummingbirds	Y	93
R	Rosa 'Meistentmil'	Lemon Drift Rose	2 gallon	1.5' h x 2.5' w	24" o.c. spacing	L	North America	-	Y	25
W	Westringia fruticosa 'Mundi'	Low Coast Rosemary	1 gallon	2' h x 6' w	72" o.c. spacing	L	Australia	-	Y	28
Bioretention										
S	Biofiltration Sod	Biofiltration Sod by Delta Bluegrass Co.	-	-	-	H	-	-	-	-

Note: Proposed shrub and tree legend are subject to change. Some trees noted in this legend may not be use. Legend is provided to show design intent. Final tree and shrub selection to be made during construction document phase. Final planting design shall follow all native plant and drought tolerant requirements.

Precedent Imagery



Bioretention with biofiltration sod

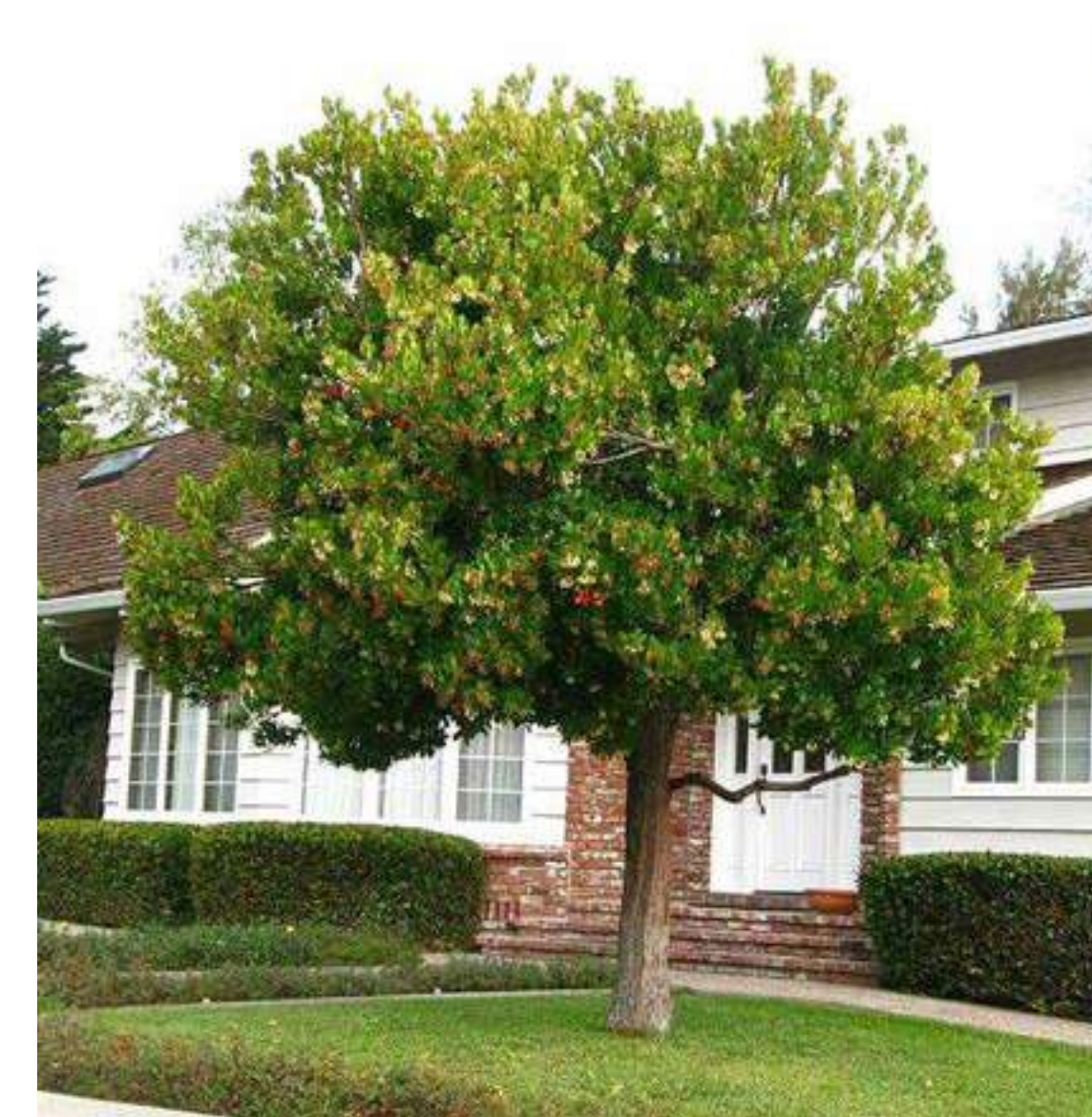


Mitigation native tree grove

Planting - Trees and Shrubs



Acer circinatum / Vine Maple



Arbutus 'Marina' / Strawberry Tree



Cornus nuttallii / Pacific Dogwood



Quercus agrifolia / Coast Live Oak



Achillea x 'Moonshine' / Yarrow



Agave 'Blue Flame' / Agave



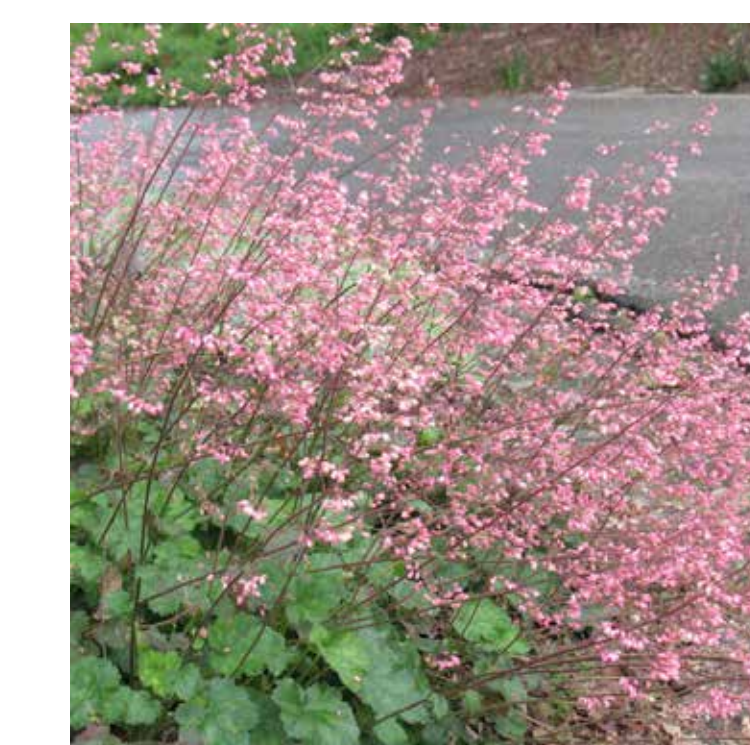
Carex tumulicola / Berkeley Sedge



Ceanothus 'Valley Violet' / California Mountain Lilac



Erigeron 'Wayne Roderick' / Seaside Daisy



Heuchera 'Rosada' / Hybrid Coral Bell



Native and low water use plantings



Cast in place seatwall with wood bench topper



Decorative landscape boulder repurposed from site

Planting - Groundcover



Baccharis pilularis 'Pigeon Point' / Dwarf Coyote Brush



Epilobium 'Select Mattole' / California Fuchsia



Westringia fruticosa 'Mundi' / Low Coast Rosemary



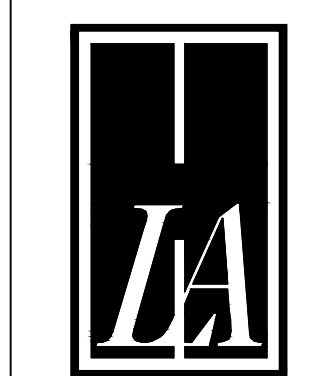
Leonotis leonurus / Lion's Tail



Ribes sanguineum / Pink Flower Currant



Teucrium fruticans 'Azureum' / Bush Germander

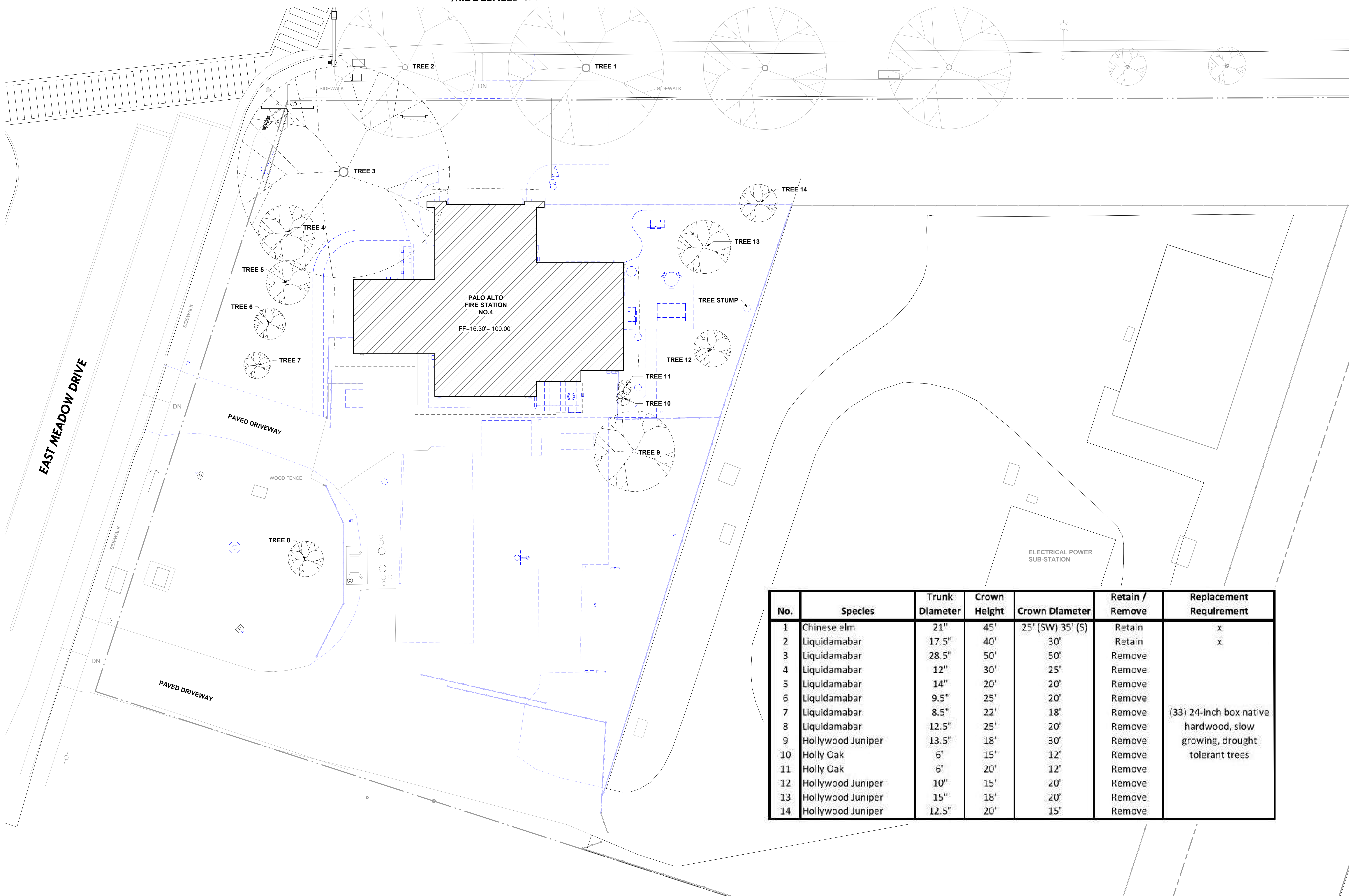


The HLA Group
Landscape Architects
& Planners, Inc.
555 University Avenue,
Suite 154
Sacramento, California 95825
916.447.7400
www.hlagroup.com
CRLA 2770

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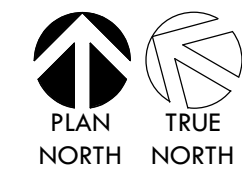


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No.	Species	Trunk Diameter	Crown Height	Crown Diameter	Retain / Remove	Replacement Requirement
1	Chinese elm	21"	45'	25' (SW) 35' (S)	Retain	x
2	Liquidambar	17.5"	40'	30'	Retain	x
3	Liquidambar	28.5"	50'	50'	Remove	
4	Liquidambar	12"	30'	25'	Remove	
5	Liquidambar	14"	20'	20'	Remove	
6	Liquidambar	9.5"	25'	20'	Remove	
7	Liquidambar	8.5"	22'	18'	Remove	(33) 24-inch box native hardwood, slow growing, drought tolerant trees
8	Liquidambar	12.5"	25'	20'	Remove	
9	Hollywood Juniper	13.5"	18'	30'	Remove	
10	Holly Oak	6"	15'	12'	Remove	
11	Holly Oak	6"	20'	12'	Remove	
12	Hollywood Juniper	10"	15'	20'	Remove	
13	Hollywood Juniper	15"	18'	20'	Remove	
14	Hollywood Juniper	12.5"	20'	15'	Remove	

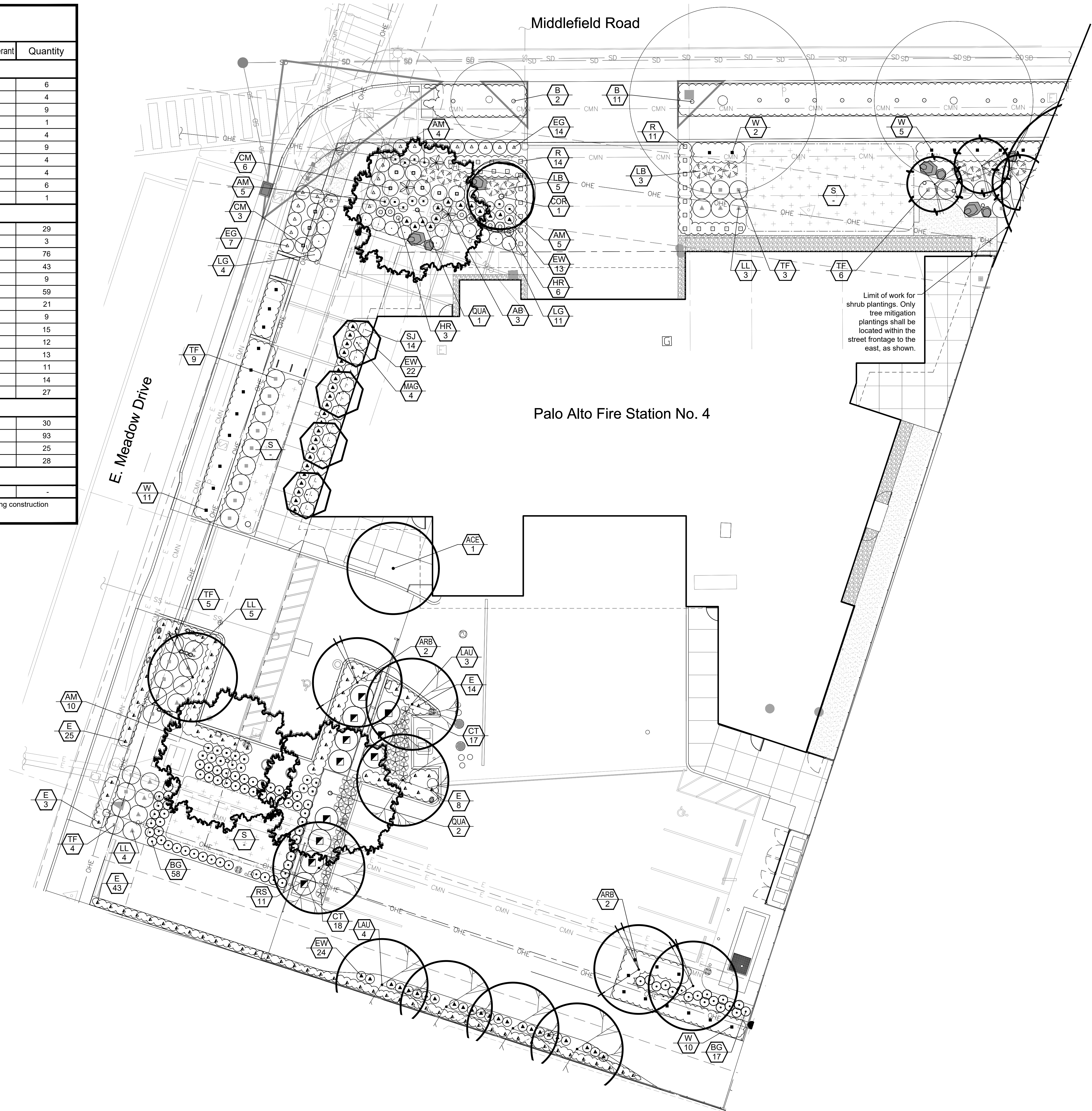
1 TREE REMOVAL PLAN
1" = 10'-0"



Proposed Plant Legend

Symbol	Botanical Name	Common Name	Size	H x W	Remarks	Wat. Use	Origins	Habitat Forming	Drought Tolerant	Quantity
Street, Accent & Specimen Trees										
ACE	<i>Acer circinatum</i>	Vine Maple	24" Box	25' h x 25' w	-	M	CA Native	All Pollinators	N	6
ARB	<i>Arbutus 'Marina'</i>	Strawberry Tree	24" Box	20' h x 20' w	Standard	L	Mediterranean	-	Y	4
CER	<i>Cercis occidentalis</i>	Western Redbud	24" box	15' h x 15' w	Multi-stem	VL	CA Native	All Pollinators	Y	9
COR	<i>Cornus 'Eddies White Wonder'</i>	Pacific Dogwood	24" box	20' h x 15' w	-	M	North America	-	N	1
HET	<i>Heteromeles arbutifolia</i>	Toyon	24" Box	10' h x 10' w	-	L	CA Native	All Pollinators	Y	4
LAU	<i>Laurus nobilis 'Saratoga'</i>	Bay Laurel	24" Box	25' h x 20' w	-	L	Mediterranean	-	Y	9
MAG	<i>Magnolia stellata 'Royal Star'</i>	Star Magnolia	24" Box	12' h x 10' w	-	M	Japan	-	N	4
PLA	<i>Platanus racemosa</i>	California Sycamore	24" Box	40' h x 30' w	-	M	CA Native	Butterflies	Y	4
QUA	<i>Quercus agrifolia</i>	Coast Live Oak	24" Box	45' h x 30' w	-	VL	CA Native	All Pollinators	Y	6
QUS	<i>Quercus suber</i>	Cork Oak	24" Box	40' h x 40' w	-	L	Mediterranean	-	Y	1
Shrubs										
AM	<i>Achillea x 'Moonshine'</i>	Yarrow	5 gallon	2' h x 2' w	-	L	CA Native	All Pollinators	Y	29
AB	<i>Agave Blue Flame'</i>	Agave	5 gallon	2' h x 3' w	-	VL	North America	-	Y	3
BG	<i>Bouteloua gracilis</i>	Blue Grama Grass	5 gallon	2' h x 2.5' w	-	L	CA Native	Insects & Birds	Y	76
CT	<i>Carex tumulicola</i>	Berkeley Sedge	1 gallon	1' h x 2' w	-	L	CA Native	Butterflies & Moths	Y	43
CM	<i>Ceanothus maritimus 'Valley Violet'</i>	California Mountain Lilac	5 gallon	2' h x 3' w	-	L	CA Native	Insects & Birds	Y	9
EW	<i>Erigeron 'Wayne Roderick'</i>	Seaside Daisy	1 gallon	1' h x 2' w	-	M	CA Native	All Pollinators	Y	59
EG	<i>Eriogonum grande var. rubescens</i>	Red Buckwheat	5 gallon	1' h x 3' w	-	L	CA Native	Insects & Birds	Y	21
HR	<i>Heuchera 'Rosada'</i>	Hybrid Coral Bell	1 gallon	2' h x 2' w	-	M	CA Native	Butterflies & Moths	N	9
LG	<i>Lavandula x gingsii 'Goodwin Creek'</i>	English Lavender	5 gallon	2' h x 3' w	-	L	North America	-	Y	15
LL	<i>Leonotis leonurus</i>	Lion's Tail	5 gallon	4' h x 4' w	-	L	South Africa	-	Y	12
LB	<i>Lomandra 'Breeze'</i>	Dwarf Mat Rush	5 gallon	2' h x 3' w	-	L	Australia	-	Y	13
RS	<i>Ribes sanguineum</i>	Pink Flowered Currant	5 gallon	5' h x 5' w	-	L	CA Native	Insects & Birds	Y	11
SJ	<i>Spiraea japonica 'Painted Lady'</i>	Double Play Painted Lady Spirea	5 gallon	3' h x 3' w	-	M	Japan	-	Y	14
TF	<i>Teucrium fruticans 'Azureum'</i>	Bush Germander	5 gallon	3' h x 4' w	-	L	Mediterranean	-	Y	27
Groundcover										
B	<i>Baccharis pilularis 'Pigeon Point'</i>	Pigeon Point Dwarf Coyote Brush	1 gallon	1.5' h x 6' w	72" o.c. spacing	L	CA Native	All Pollinators	Y	30
E	<i>Epilobium 'Select Mattole'</i>	California Fuchsia	1 gallon	1' h x 3' w	36" o.c. spacing	L	CA Native	Hummingbirds	Y	93
R	<i>Rosa 'Meistentmil'</i>	Lemon Drift Rose	2 gallon	1.5' h x 2.5' w	24" o.c. spacing	L	North America	-	Y	25
W	<i>Westringia fruticosa 'Mundi'</i>	Low Coast Rosemary	1 gallon	2' h x 6' w	72" o.c. spacing	L	Australia	-	Y	28
Bioretention										
S	Biofiltration Sod	Biofiltration Sod by Delta Bluegrass Co.				H	-	-	-	-

Note: Proposed shrub and tree legend are subject to change. Some trees noted in this legend may not be use. Legend is provided to show design intent. Final tree and shrub selection to be made during construction document phase. Final planting design shall follow all native plant and drought tolerant requirements.

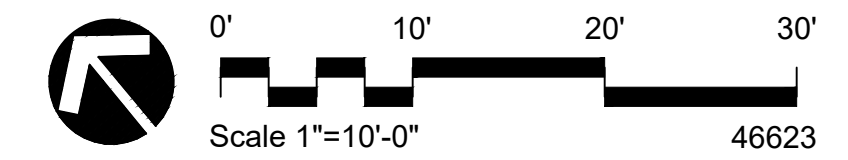


The HLA Group
Landscape Architects
& Planners, Inc.
555 University Avenue,
Suite 154
Sacramento, California 95825
916.447.7400
www.hलगroup.com
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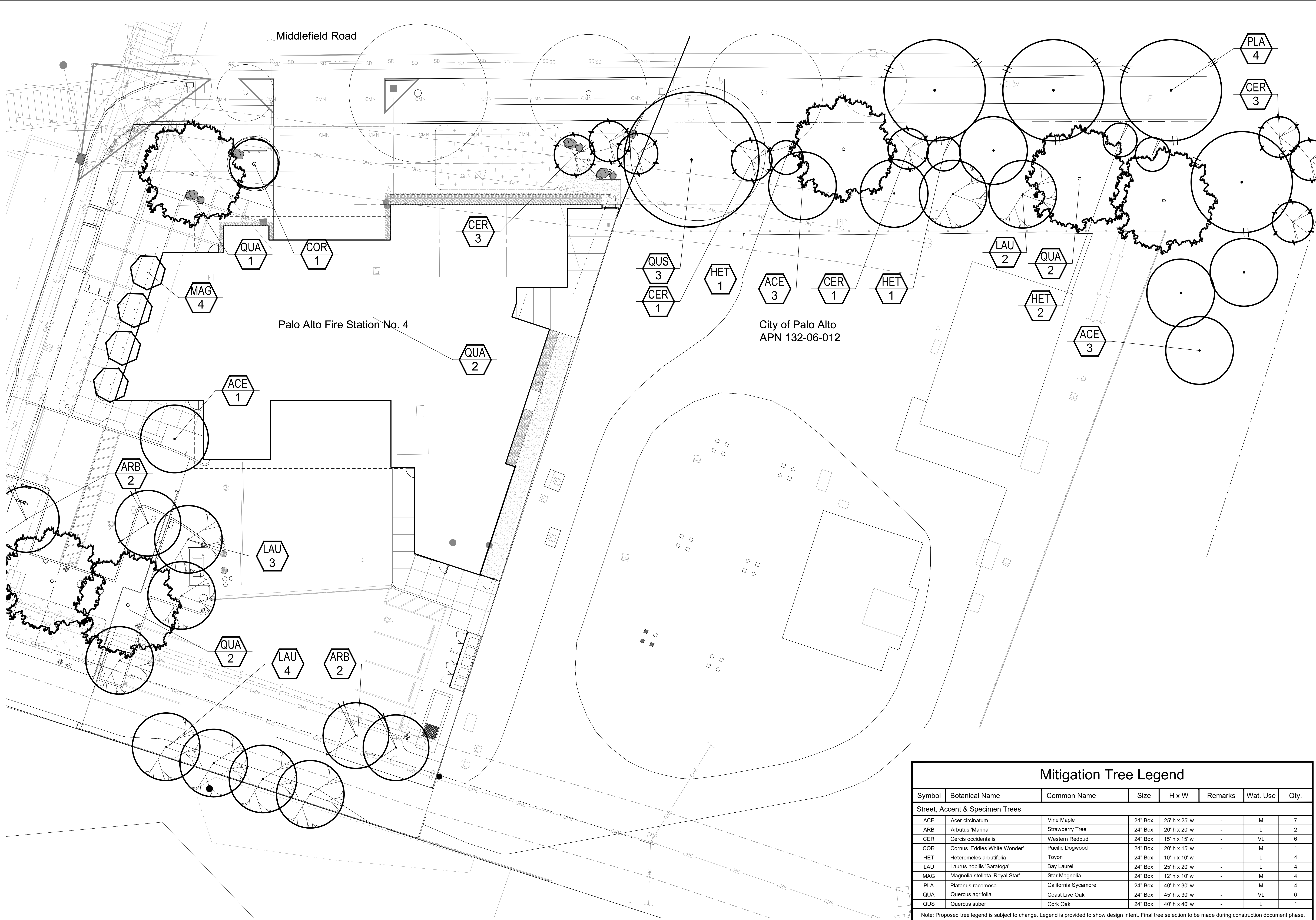
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J-4

PLANTING PLAN &
LEGEND

SEPTEMBER 13, 2023



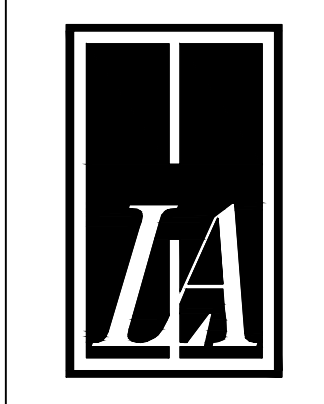
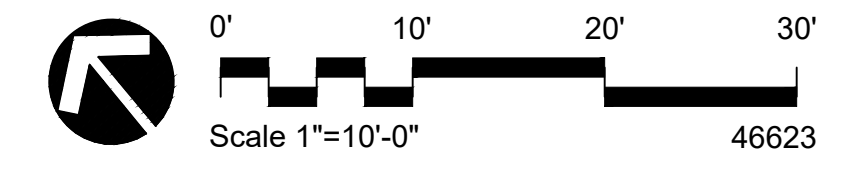
Middlefield Road

Palo Alto Fire Station No. 4

City of Palo Alto
APN 132-06-012

Mitigation Tree Legend							
Symbol	Botanical Name	Common Name	Size	H x W	Remarks	Wat. Use	Qty.
Street, Accent & Specimen Trees							
ACE	<i>Acer circinatum</i>	Vine Maple	24" Box	25' h x 25' w	-	M	7
ARB	<i>Arbutus 'Marina'</i>	Strawberry Tree	24" Box	20' h x 20' w	-	L	2
CER	<i>Cercis occidentalis</i>	Western Redbud	24" Box	15' h x 15' w	-	VL	6
COR	<i>Cornus 'Eddies White Wonder'</i>	Pacific Dogwood	24" Box	20' h x 15' w	-	M	1
HET	<i>Heteromeles arbutifolia</i>	Toyon	24" Box	10' h x 10' w	-	L	4
LAU	<i>Laurus nobilis 'Saratoga'</i>	Bay Laurel	24" Box	25' h x 20' w	-	L	4
MAG	<i>Magnolia stellata 'Royal Star'</i>	Star Magnolia	24" Box	12' h x 10' w	-	M	4
PLA	<i>Platanus racemosa</i>	California Sycamore	24" Box	40' h x 30' w	-	M	4
QUA	<i>Quercus agrifolia</i>	Coast Live Oak	24" Box	45' h x 30' w	-	VL	6
QUS	<i>Quercus suber</i>	Cork Oak	24" Box	40' h x 40' w	-	L	1

Note: Proposed tree legend is subject to change. Legend is provided to show design intent. Final tree selection to be made during construction document phase.



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J-5
TREE MITIGATION
PLAN

SEPTEMBER 13, 2023



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Landscape Architects
& Planners, Inc.
555 University Avenue,
Suite 154
Sacramento, California 95825
916.447.7400
www.hlagroup.com
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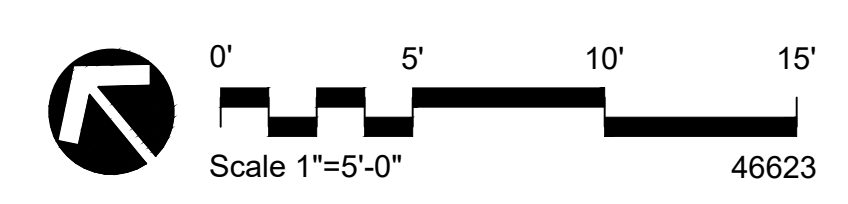
J-6

PARKING LOT SHADE
CALCULATION PLAN

SEPTEMBER 13, 2023



Shade Calculations						
Symbol	Botanical Name / Common Name	Quantity @ Full Shade / Sq. Ft.	Quantity @ 3/4 Shade / Sq. Ft.	Quantity @ 1/2 Shade / Sq. Ft.	Quantity @ 1/4 Shade / Sq. Ft.	Total (Sq. Ft.)
ACE	Acer circunatum / Vine Maple	0 @ 491 SF	0 @ 368 SF	1 @ 245 SF	0 @ 123 SF	245 SF
ARB	Arbutus 'Marina' / Strawberry Tree	0 @ 314 SF	0 @ 235 SF	3 @ 157 SF	1 @ 79 SF	550 SF
LAU	Laurus nobilis 'Saratoga' / Bay Laurel	0 @ 314 SF	0 @ 235 SF	6 @ 157 SF	1 @ 79 SF	1,021 SF
QUA	Quercus agrifolia / Coast Live Oak	0 @ 707 SF	0 @ 530 SF	1 @ 354 SF	1 @ 177 SF	531 SF
TOTAL TREE SHADE =						2,347 SF
Surfaced Area:	Parking Lot	9,831 SF		Total Surfaced Area =		9,831 SF
	Covered Stalls (garages, carports, etc.)	0				
SHADE AREA REQUIRED (51%) =						4,915 SF
TOTAL SHADE PROVIDED =						2,347 SF
PERCENT SHADE =						24%



Tree Images:



Tree #1, a Chinese elm.



The area where the planter will be reduced to allow for widening of the driveway (see site plan). Note sidewalk repair that likely removed roots causing displacement.

MacNair and Associates



Tree #2, a liquidambar. No significant impact expected from driveway work.

MacNair and Associates



Trunk seam from old wound.



Sidewalk repair near tree #2.

MacNair and Associates



Tree #3, a mature liquidambar, that is subject to the most construction impact. The arrows indicate the scaffold limbs subject to significant pruning for clearance for the building expansion.



MacNair and Associates

Palo Alto Fire Station No. 4 - Tree Data Matrix
Tree Evaluation and Construction Impact Assessment

Health and Structural Rating Key:	3.0 = moderate or better condition	2.5 = marginal to moderate	2.0 = marginal condition	1.5 = poor to marginal condition	1.0 = poor condition
Suitability for Preservation Ranges:	Good: Trees in good health and structural condition with high potential for longevity. Moderate: Trees in fair health and/or with structural defects that can be abated with treatment. Fair: Trees in marginal health or structural condition that could possibly be mitigated or improved. Poor: Trees in poor health and/or structural condition that probably cannot be effectively abated.				

Tree #	Species	Trunk Diameter @ 54" (inches)	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based Upon Condition)	Protected Tree Status	Tree Protection Zone (Radius in Feet)	Construction Impact Assessment
1	Chinese elm (Ulmus parviflor)	21"	1	45'	35' (SW) 35' (S)	3.0	3.0	Mature tree with symmetrical crown form and open scaffold limb structure. No significant structural defects observed. Vigor and foliage density are normal. History of sidewalk repairs. Low water table nearby and subject to high voltage electrical distribution lines. Tree has been site pruned for electrical line clearance.	Good	Protected	22'	Limited root impact possible due to north end of planter due to expansion of the driveway. Root pruning procedures required. Root barrier installation recommended.
2	Liquidambar (Liquidambar styraciflua)	17.5"	1	40'	30'	3.0	2.5	Mature tree with upright crown form. Trunk seam present on northwest side of tree at 5' to 7' above grade. Vigor and foliage density are normal. History of sidewalk repairs. Adjacent to high voltage electrical distribution lines. Tree has been pruned for electrical line clearance.	Moderate	Protected	20'	Possible minor root impacts at south end of planter at driveway. Root pruning procedures required. Root barrier installation recommended.

Tree #	Species	Trunk Diameter @ 54" (inches)	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based Upon Condition)	Protected Tree Status	Tree Protection Zone (Radius in Feet)	Construction Impact Assessment
3	Liquidambar	28.5" at 48" + 6"	1	45' 50'	50' (SW) towards building	2.5	2.0	Mature tree with symmetrical crown form. Closely spaced, multiple limb attachments from 5' to 8' with some included attachments. Dense surface layering extended 30' towards existing building. Vigor and foliage density are moderate with sparse branch dieback occurring.	Fair	Protected	30'	Significant root pruning and clearance pruning required. Refer to discussion in report (page 25).
4	Liquidambar	12"	1	30'	25'	1.0	2.5	Narrow crown form with co-dominant limbs forming and significant branch dieback on northwest side and mid-crown.	Poor	No	N/A	Located within future construction limits. Removal required.
5	Liquidambar	34"	1	20'	20'	1.0	1.0	Physically topped tree with closely spaced, multiple limb attachments forming at 5'. Extensive crown dieback.	Poor	No	N/A	Located within future construction limits. Removal required.
6	Liquidambar	9.5"	1	25'	20'	1.5	2.0	Small tree with significant trunk dieback and sparse limb dieback.	Poor	No	N/A	Located within future construction limits. Removal required.
7	Liquidambar	8.5"	1	22'	18'	1.0	1.0	Tree is dead, or mostly dead.	Poor	No	N/A	Located within future construction limits. Removal required.
8	Liquidambar	12.5"	1	25'	20'	2.5	3.0	Semi-mature tree with single trunk structure. Limited open crown branch dieback occurring. Vigor and foliage density are moderate.	Good	No	N/A	Located near underground tank. Removal required.
9	Hollywood juniper (Juniperus chinensis 'horizontalis')	13.5" (dial)	1	18'	30'	2.5	3.0	Mature branch with no significant structural defects. Limited branch dieback occurring.	Moderate	No	N/A	Located within future construction limits. Removal required.
10	Holly oak (Quercus ilex)	6"	1	15'	12'	2.5	2.5	Small tree growing next to tree #11. Asymmetrical crown form extending to the northwest. Foliage has severe sooty mold.	Fair	No	N/A	Located within future construction limits. Removal required.
11	Holly oak	6"	1	20'	12'	2.5	2.5	Upright crown form with no significant structural defects. Aerial dieback and sooty mold.	Fair	No	N/A	Located within future construction limits. Removal required.
12	Hollywood juniper	10"	1	15'	20'	2.0	2.5	Horizontal crown form extending to the northwest. Significant branch dieback occurring.	Poor to Fair	No	N/A	Located within future construction limits. Removal required.

Tree #	Species	Trunk Diameter @ 54" (inches)	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based Upon Condition)	Protected Tree Status	Tree Protection Zone (Radius in Feet)	Construction Impact Assessment
13	Hollywood juniper	15"	1	18'	20'	2.0	3.0	Normal crown form for the species. Significant branch and twig dieback occurring.	Poor to Fair	Protected	N/A	Located within future construction limits. Removal required.
14	Hollywood juniper	12.5"	1	20'	15'	2.5	3.0	Normal crown form for the species. Moderately low vigor and foliage density. Branch and twig dieback occurring.	Fair	No	N/A	Located within future construction limits. Removal required.

REFER TO FULL ARBORIST REPORT DATED 10/20/2022 FOR MORE INFORMATION.

12/3/22

The closely spaced, multiple limb attachments with inclusions. Mature liquidambars are prone to sudden failure.



The dense surface rooting typical of this species.



Surface roots extend 30 feet from the base of the tree. This area will be excavated for the new building foundation.

MacNair and Associates



Tree #4, a liquidambar in poor condition.



Tree #5, a liquidambar in poor condition.

MacNair and Associates



Tree #6, a liquidambar in poor condition.



Tree #7, a liquidambar that is dead.

MacNair and Associates



Tree #8, a liquidambar in good condition.



Tree #9, a Hollywood juniper in moderate condition.

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Trees #10 and #11, two small holly oaks in fair condition.



Tree #12, a Hollywood juniper in poor to fair condition.

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Tree #13, a Hollywood juniper in poor to fair condition. The trunk diameter qualifies the tree as protected status.



Tree #14, a Hollywood juniper in fair condition.

MacNair and Associates

City of Palo Alto Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree.

For detailed information on Palo Alto's regulated trees and protection during development, review the **City Tree Technical Manual (TTM)** found at www.cityofpaloalto.org/trees/.

TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on approved site plans. A completed disclosure statement must accompany all building permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS:

Are there Regulated trees on or adjacent to the property? YES NO (If no, proceed to Section 4)

(Sections 1-4 MUST be completed by the applicant. Please circle and/or check where applicable.)

1. Where are the trees? Check those that apply. (Plans must be submitted showing over 4" diameter trees)

On the property
 On adjacent property overhanging the project site
 In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form by calling Public Works Operations at 493-5953 for inspection of required type I, II or III fencing (see attached Detail #605).

2. Are there any Protected or Designated Trees? YES (Check where applicable) NO

Protected Tree (s)
 Designated Tree (s)
 On or overhanging the property

3. Is there activity or grading within the drip-line? (radius 10 times the trunk diameter) of these trees? YES NO
If yes, a **Tree Preservation Report** must be prepared by an ISA certified arborist and submitted for staff review (see TTM, Section 6.25). Attach this report to Sheet T-1, "Tree Protection, its Part of the Plan", per Site Plan Requirements.

4. Are the Site Plan Requirements** completed? YES NO

**Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy drip-line; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the drip-line, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/tree-frames.htm> (See also TTM, Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: _____ Print: _____ Date: _____
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees: The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. YES NO
(N/A if there are no protected trees, check here)

6. Street Trees: A signed Public Works Street Tree Protection Verification form is attached. YES NO
(N/A if there are no street trees, check here)

Regulated Trees - (a) Street trees - trees on public property; (b) Protected trees - Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade, and Heritage trees are trees designated by City Council; and (c) Designated Trees - commercial or non-commercial property trees, which are part of an approved landscape plan.

Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at <http://www.cityofpaloalto.org/planning-and-community-environment/tree-technical-manual.htm>

S:Plan/Adv/Arborist/Tree Protection Info/Tree Disclosure Statement. Revised 08/06

City of Palo Alto
250 Hamilton Avenue, Palo Alto, CA 94301

Home | Planning & Community Environment

Tree Technical Manual
To purchase the Tree Technical Manual
June, 2001 First Edition

View by section:

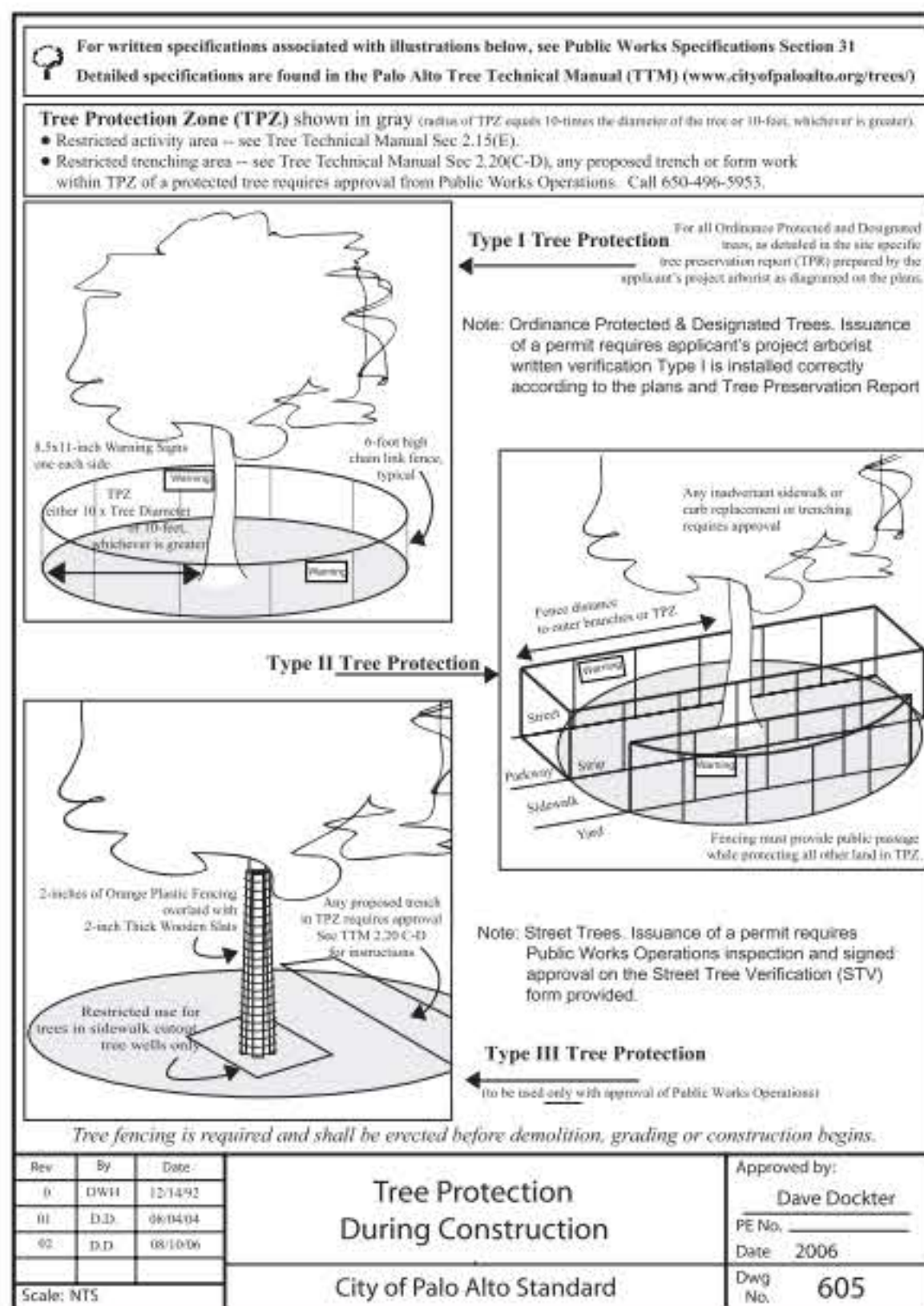
- Table of Contents (PDF, 879KB)
- Intent and Purpose (PDF, 1,039KB)
- Introduction - Use of Manual (PDF, 1,039KB)
- Section 1.0 - Definitions (PDF, 964KB)
- Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 137KB)
- Section 4.0 - Hazardous Trees (PDF, 109KB)
- Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- Section 6.0 - Tree Reports (PDF, 844KB)

View ALL sections:

- Tree Technical Manual - Full (PDF, 1,844KB)

APPENDICES

- A. Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
- B. Tree Care - USA
- C. ISA Hazard Evaluation Form
- D. List of Inherent Failure Patterns for Selected Species (Reference source)
- E. ISA Tree Pruning Guidelines (PDF, 1,859KB)
- F. Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
- G. Pruning Performance Standards, ANSI A300-1995 (Reference source)
- H. Tree Planting Details, Diagram 504 & 505
- I. Tree Disclosure Statement
- J. Palo Alto Standard Tree Protection Instructions



PALO ALTO STREET TREE PROTECTION INSTRUCTIONS -SECTION 31-

31.1 General

A. Tree protection has three primary functions: 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state; and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

The Tree Protection Zone (TPZ) is a circular area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet, whichever is greater, enclosed by fencing.

31.2 Reference Documents

- a. Detail #65 - Illustration of situation described below.
- b. Tree Technical Manual (TTM) Form (<http://www.cityofpaloalto.org/tree-frames.htm>)
 1. Tree Protection Form (TPF) - Section 2.0
 2. Advance Reporting Form (ARF) - Section 2.1
 3. Site Plan Requirements (SLR) - Section 2.2
 4. Tree Disclosure Statement (TDS) - Section 2.3
- c. Street Tree Verification (STV) Form (<http://www.cityofpaloalto.org/tree-frames.htm>)

31.3 Execution

- a. **Type I Tree Protection:** The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In new parking areas, if fencing is located on paving or concrete that will be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.
- b. **Type II Tree Protection:** For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- c. **Type III Tree Protection:** To be used only with approval of Public Works Operations. Trees situated in a tree well or outside planter pit, shall be wrapped with 2 inches of orange plastic fencing from the ground to the first branch and vertical with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Maple limbs may also require plastic fencing as directed by the City Arborist.
- d. **Site type and area to be fenced:** All trees to be protected shall be protected with six (6) five foot high chain link fence. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2 feet or no more than 18-inch spacing. Fencing shall extend to the main branching unless specifically approved on the STV Form.
- e. **Warning signs:** A warning sign shall be weather proof and prominently displayed on each fence in 20-foot intervals. The sign shall be minimum 8.5 inches x 11 inches and clearly state in half inch tall letters: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.114."
- f. **Duration:** Tree fencing shall be erected before demolition, grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work in and around the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public right of way require a Street Work Permit from Public Works.
- g. **During construction**
 1. All neighbors' trees that overhang the project site shall be protected from impact of any kind.
 2. The applicant shall be responsible for the repair or replacement (at penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code)
 3. The following tree preservation measures apply to all trees to be retained:
 - a. No storage of material, equipment, or machinery shall be permitted within the TPZ.
 - b. The ground under and around the tree canopy area shall not be altered.
 - c. Trees to be retained shall be irrigated, sealed and maintained as necessary to ensure survival.

City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, PWS, Section 31
Revised 08/06

**Table 2-2 Palo Alto Tree Technical Manual
CONTRACTOR & ARBORIST INSPECTION SCHEDULE**

Reference the Palo Alto Tree Technical Manual is available at www.cityofpaloalto.org/trees/

ALL CHECKED ITEMS APPLY TO THIS PROJECT:

- Inspection of Protective Tree Fencing** For Public Trees, the Street Tree Verification Form shall be signed by the City Arborist. For Protected Trees, the project site arborist shall provide an annual Monthly Tree Activity Report from with a photograph verifying that he has conducted a field inspection of the trees and that the correct type of protective fencing is in place around the designated tree protection zone (TPZ) prior to issuance of a demolition, grading, or building permit (see TTM, Verification of Tree Protection, Section 1.39).
- Pre-Construction Meeting** Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading operators, project site arborist, City Arborist, and, if a city maintained irrigation system is involved, the Parks Manager (Contact 650-496-6962).
- Inspection of Rough Grading or Trenching** Contractor shall ensure the project site arborist performs an inspection during the course of rough grading or trenching adjacent to or within the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect sensitive systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 24 hours advance notice of such activity.
- Monthly Tree Activity Report Inspection:** The project site arborist shall perform a minimum monthly activity inspection to monitor and advise on conditions, tree health and retention or, immediately if there are any revisions to the approved plans or protection measures. The Tree Technical Manual Monthly Tree Activity Report format shall be used and sent to the Planning Dept. landscape review staff no later than 14 days after issuance of building permit date. Fax to (650) 329-2154. (See TTM, Monthly Tree Activity Inspection Report, Addendum 11 & section 1.17).
- Special activity within the Tree Protection Zone:** Work in the TPZ area (see #7 below) requires the direct onsite supervision of the project arborist (see TTM, Trenching, Excavation & Equipment, Section 2.20 C).
- Landscape Architect Inspection:** For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see TTM, Planting Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The Planning Dept. landscape review staff shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
- List Other (please describe as called out in the site Tree Preservation Report, Sheet T-1, T-2, etc.)**

Approved by: Dave Dockter
Title: PWS
Date: 2006
Dwg No: 605

City of Palo Alto Tree Department Public Works Operations PO Box 10258 Palo Alto, CA 94303 650-869-8933 FAX 650-862-5096 treeinspection@CityOfPaloAlto.org

Verification of Street Tree Protection

Applicant Instructions: Complete upper portion of this form. Mail or FAX this form along with signed Tree Disclosure Statement to Public Works Dept., Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE: _____

ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED: _____

APPLICANT'S NAME: _____

APPLICANT'S ADDRESS: _____

APPLICANT'S TELEPHONE & FAX NUMBERS: _____

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is: _____
 YES NO N/A
 * If N/A, go to #2 below

Inspected by: _____
Date of Inspection: _____

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required: _____
 Indicate how the required modifications were communicated to the applicant: _____

Subsequent Inspection
Street trees at above address were found to be adequately protected: YES NO N/A
 * If N/A, indicate in "Notes" below the disposition of case.

Inspected by: _____
Date of Inspection: _____

Notes: List City street trees by species, size, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.

Return approved sheet to Applicant for demolition or building permit issuance.
S:\PWS\TPF\051017\TreeProtect

City of Palo Alto Tree Technical Manual ADDENDUM 11
BGA/ISA Certified Arborist #021,000
Contract #04-4

Arborist Firm Data Here

Monthly Tree Activity Report- Construction Site

Inspection Date:	Site address:	Contractor- Main Site Contact Information:	Company- Job site superintendent: Email, Job site Office, Cell, Mail:
Inspection #:	Palo Alto, CA		
Distribution:	1 City of Palo Alto 2 Others:	Arborist: Dave Dockter Phone: 650-329-2440	

Provide the requested information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

- Assignment Activity (Demolition/grading/sever/breaching/foundation list relevant visits)
 - a. Pre-construction meeting requirement with site contractors
 - b. Inspect to verify that tree protection measures are in place
 - c. Determine if field adjustments, watering or plan revisions may be needed
- Field Observations (general site-wide and list by individual tree number)
 - a. Tree Protection Fences (TPF) are ...
 - b. Trenching/haul/walk occur
- Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
 - a. Tree Protection Fence (TPF) needs adjusting (see # x, x, x)
 - b. Root zone buffer material (wood chips) can be installed next
 - c. Schedule sever trench, foundation dig work ...
- Photographs (see other)
- Tree Location Map (mandatory 8.5 x 11 sheet)
- Recommendations, notes or monitor items for project/staff/schedule
- Post visits (list carry-over items satisfied/still outstanding)

Respectfully submitted,
Project site arborist
Consultant contact information (include email, cell, and mailing)
Cc: _____
Error Date: CPA Monthly Tree Activity Report, Type site address here Page #1 of 1

---WARNING---

Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at <http://www.cityofpaloalto.org/trees/technical-manual.html>

SPECIAL INSPECTIONS	PLANNING DEPARTMENT
TREE PROTECTION INSPECTIONS MANDATORY	
PAMC 8.10 PROTECTED TREES: CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.	
BUILDING PERMIT DATE: _____	
DATE OF 1 ST TREE ACTIVITY REPORT: _____	
CITY STAFF: _____	
REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT. VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.090. REFERENCE PALO ALTO TREE TECHNICAL MANUAL SECTION 2.00 AND ADDENDUM 11.	

Apply Tree Protection Report on sheet(s) T-2

Use additional "T" sheets as needed

Project
Data

T-1



All other tree-related reports shall be added to the space provided on this sheet (adding as needed) Include this sheet(s) on Project Sheet Index or Legend Page. A copy of T-1 can be downloaded at <http://www.cityofpaloalto.org/civica/filebank/blobdownload.asp?BlobID=6460>

Special Tree Protection Instruction Sheet

City of Palo Alto



T-1

BROWN REYNOLDS WATFORD ARCHITECTS
1620 MONTGOMERY
SAN FRANCISCO, CA 94111
415-749-2670
WWW.BRWARCH.COM

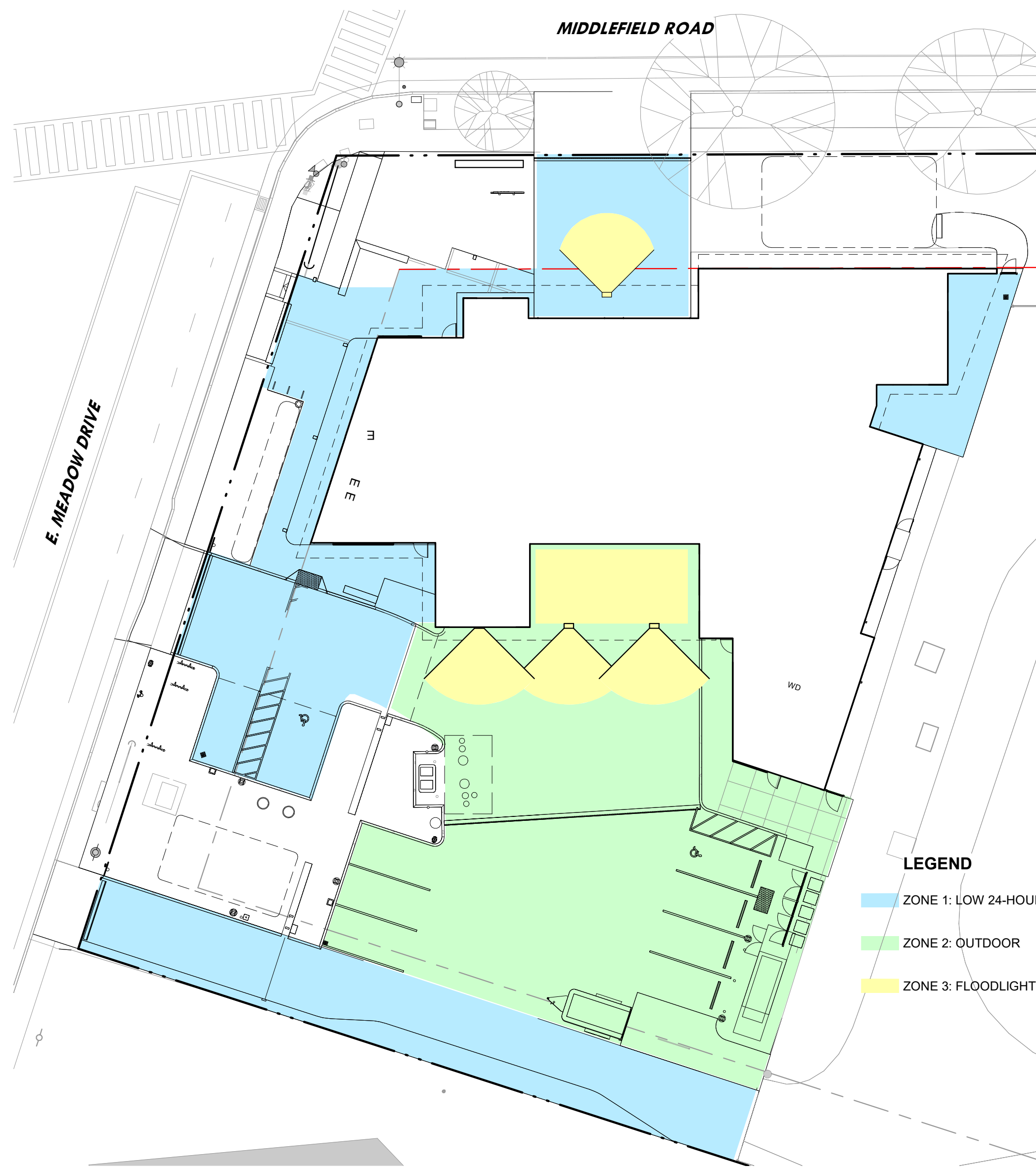
**PALO ALTO FIRE DEPARTMENT
STATION NO. 4 REPLACEMENT**

3600 MIDDLEFIELD ROAD
PALO ALTO, CA 94303

COPYRIGHT © 2003
BROWN REYNOLDS WATFORD ARCHITECTS, INC.

K-2

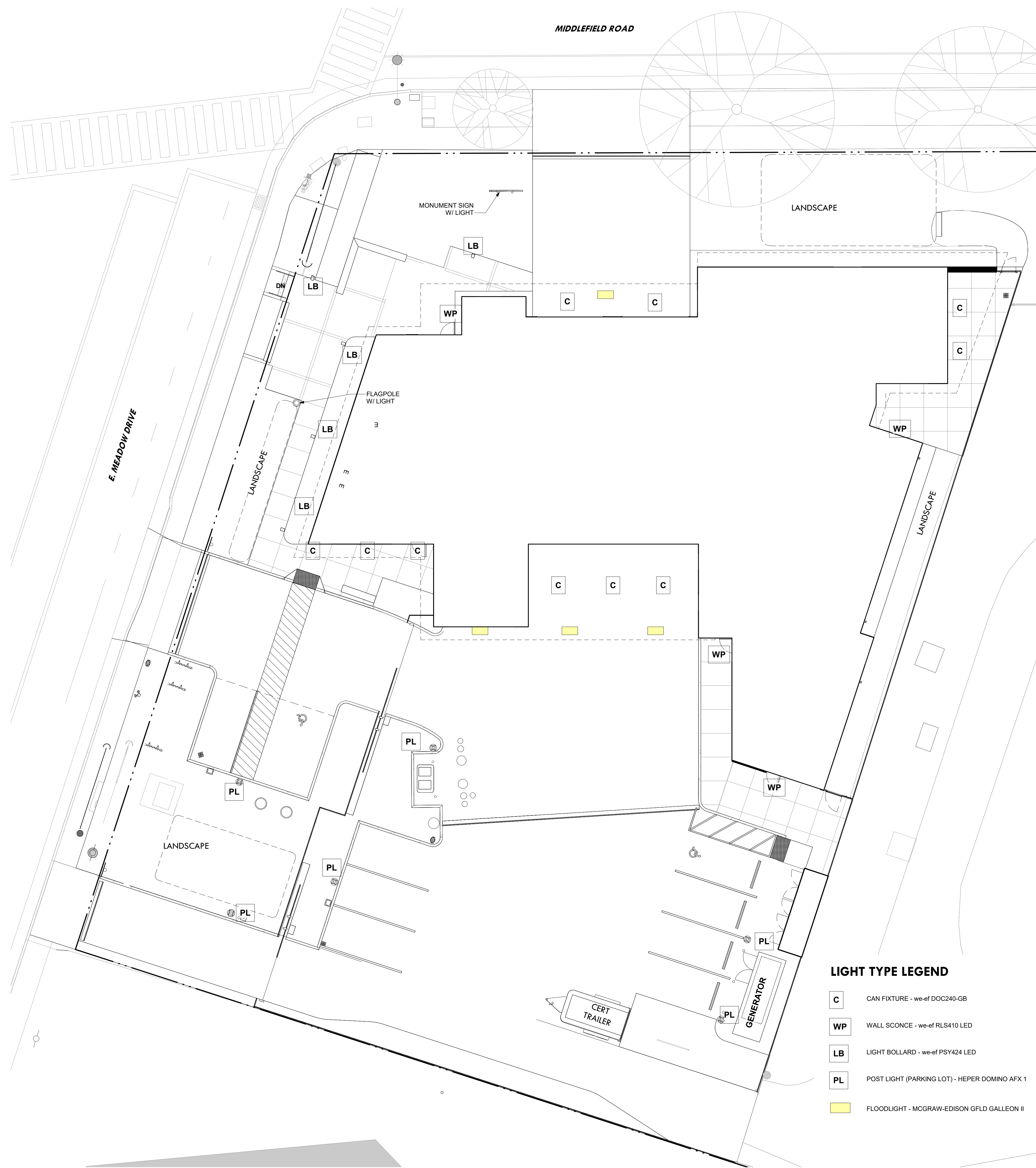
SPECIAL TREE PROTECTION INSTRUCTION SHEET



LEGEND

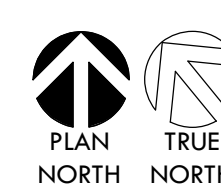
- ZONE 1: LOW 24-HOUR (SAFE HARBOR) LIGHTING
- ZONE 2: OUTDOOR
- ZONE 3: FLOODLIGHTS FOR SPECIAL OPERATIONS

2 OUTDOOR LIGHTING APPROACH DIAGRAM
1" = 20'-0"



LIGHT TYPE LEGEND

- C** CAN FIXTURE - we-ef DOC240-GB
- WP** WALL SCONCE - we-ef RLS410 LED
- LB** LIGHT BOLLARD - we-ef PSY424 LED
- PL** POST LIGHT (PARKING LOT) - HEPER DOMINO AFX 1
- FLOODLIGHT - MCGRAW-EDISON GFLD GALLEON II



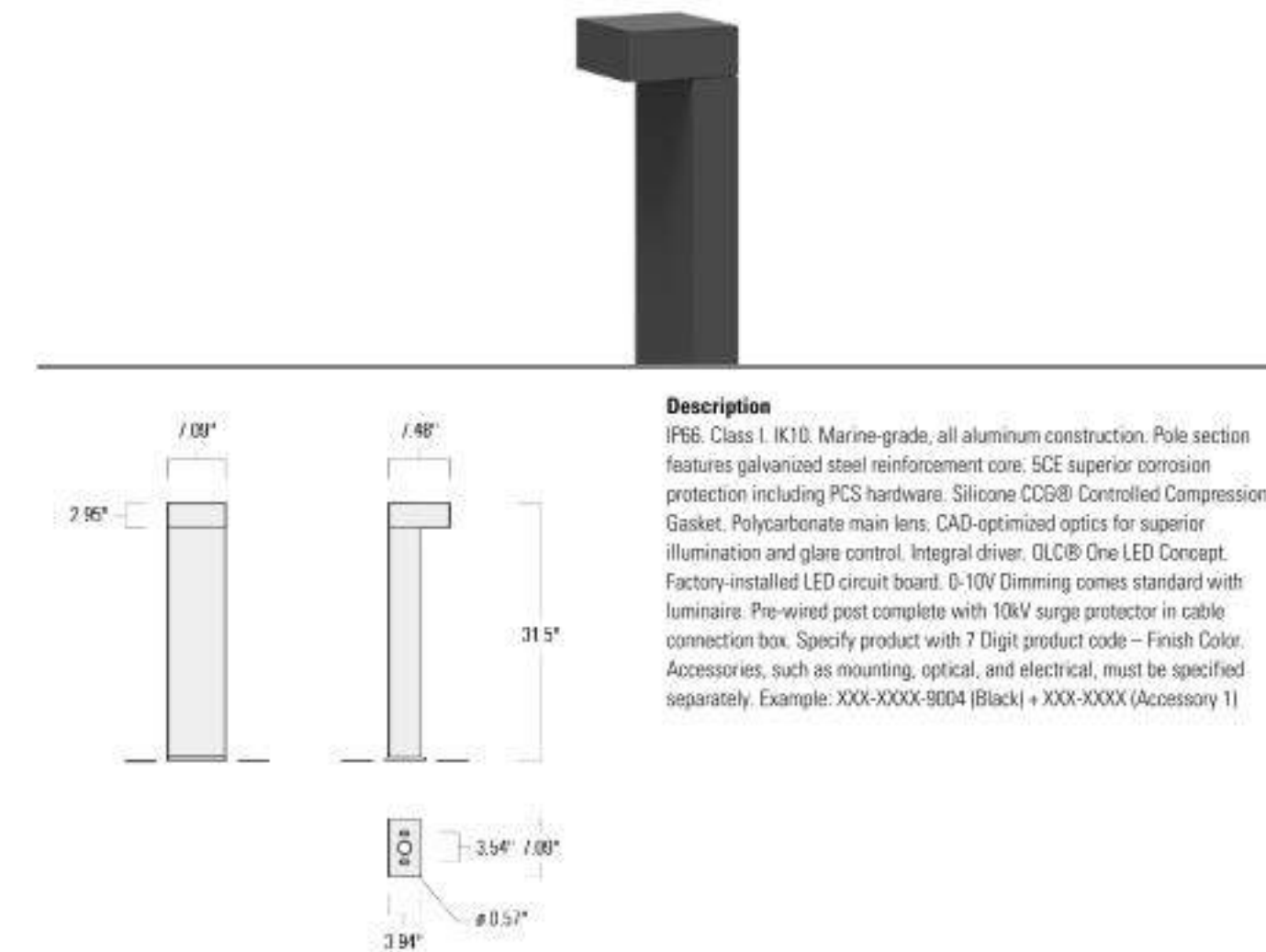
1 SITE LIGHTING PLAN
1" = 10'-0"

LB - LIGHT BOLLARD

PSY414 LED
Bollards and Pathway Luminaires

we-ef

1/5

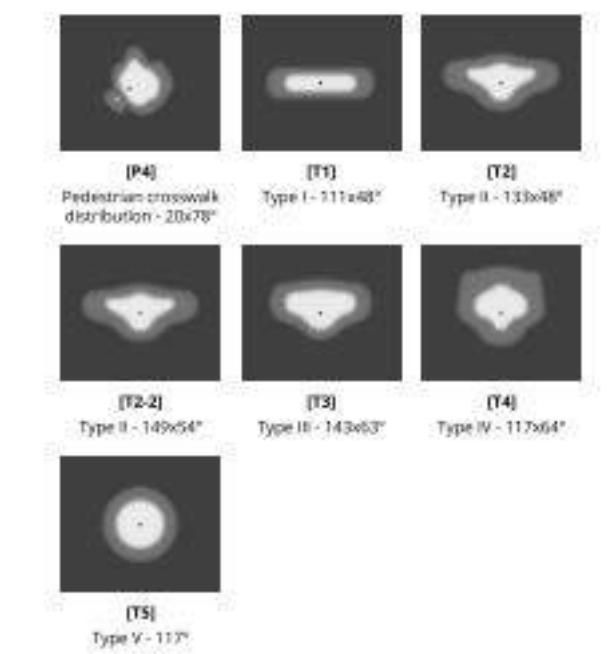
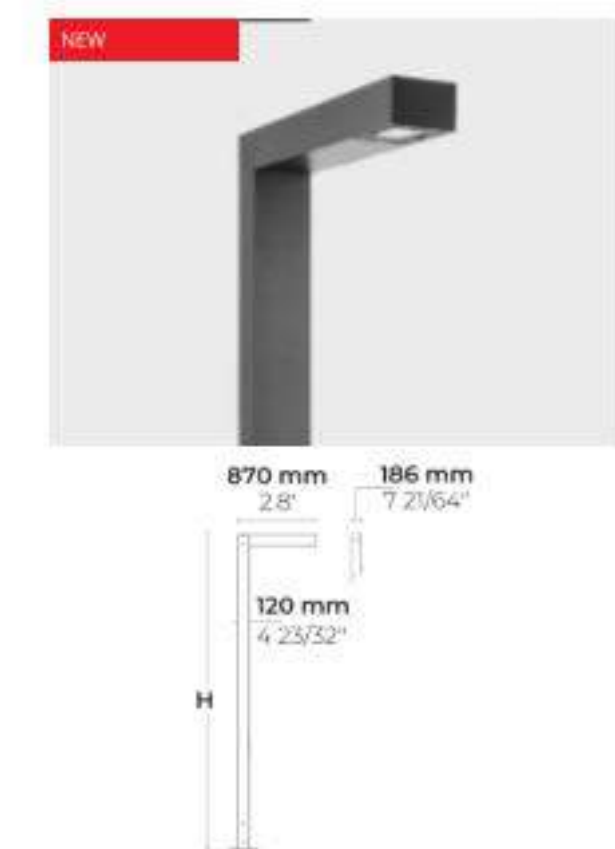


Description
IP66, Class I, IK10. Marine-grade, all aluminum construction. Pole section features galvanized steel reinforcement core. SCE superior corrosion protection including PCS hardware. Silicone CCD® Controlled Compression Gasket. Polycarbonate main lens. CAD-optimized optics for superior illumination and glare control. Integral driver. OLC® One LED Concept. Factory-installed LED circuit board. 0-10V Dimming comes standard with luminaire. Pre-wired post complies with 10kV surge protector in cable connection box. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-8004 (Black) + XXX-XXXX (Accessory 1)

PL - POST LIGHT

DOMINO AFX 1 Module
LP4034.861-US

heper



Configurations
Light distribution [P4] 20x78", [T1] 11x48", [T2] 13x48", [T2-2] 14x54", [T3] 14x63", [T4] 11x66", [T5] 11x7", 19" - 4040lm
Delivered lumens flux 18 - 35 W
Rated input power 2700 K CRI 80, 3000 K CRI 80, 4000 K CRI 70, 4000 K CRI 80
Color temperature B1-U0-G1, B1-U0-G0, B2-U0-G1, B0-U0-G0, B2-U0-G0
BUG rating >102, 000
Lifetime L90 (hour) >102, 000
Lifetime L80 (hour) >102, 000

Options
Control On/OFF, 0-10V
Input voltage 120-277V 50/60Hz
Product colors [Color swatches]
Height 15'-0" CUSTOM HEIGHT (Please specify)

Extras
Connectivity 7 Pin NEMA socket
Light output Constant light output
Consult the factory Motion sensor
Luminaire body options Double powder coating

Technical information
Mounting Surface mountable
Housing Corrosion resistant, marine grade aluminum
Finishing Chromate conversion pretreatment followed by electrostatic powder coating
Fasteners Stainless steel (AISI 304 / EN 1.4301 grade)
Gasket Liquid silicone
Lens / Reflector PMMA lens with high optical efficiency
Glass / Diffuser Tempered safety glass
Impact protection IK08
Ingress protection IP66
Insulation class Class I
Weight 81.86 lbs (10), 93.08 lbs (13)
LED module High power LEDs on metal-core PCB
Driver Internal LED driver
Driver surge protection 10kV
Power factor > 0.95
Through wiring Single power cord entry
Operating temperature -40...50°C
Power cord 20' of outdoor use-rated flexible power cord
Pole detail Poles are supplied with flange plate. Flange cover and anchorage can be ordered separately. Embedded base is optional.

HEPER USA LLC
W227 N2040 Westwood Drive Waukesha, WI 53186
Wisconsin, United States
+1 312 910 9340
info@shepergroup.com

We reserve the right to change specifications without prior written notice. Edition: 15.05.2023. For current version visit heperlighting.com. All flux and power values derived following appropriate IES, CE and applicable standards.

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FLOODLIGHTS

Project	Catalog #	Type
Prepared by	Notes	Date



McGraw-Edison
GFLD Galleon II Floodlight

Floodlight Luminaire

Product Features



Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Mounting Details page 3
- Optical Distributions page 6
- Energy and Performance Data page 7
- Control Options page 14

Product Certifications



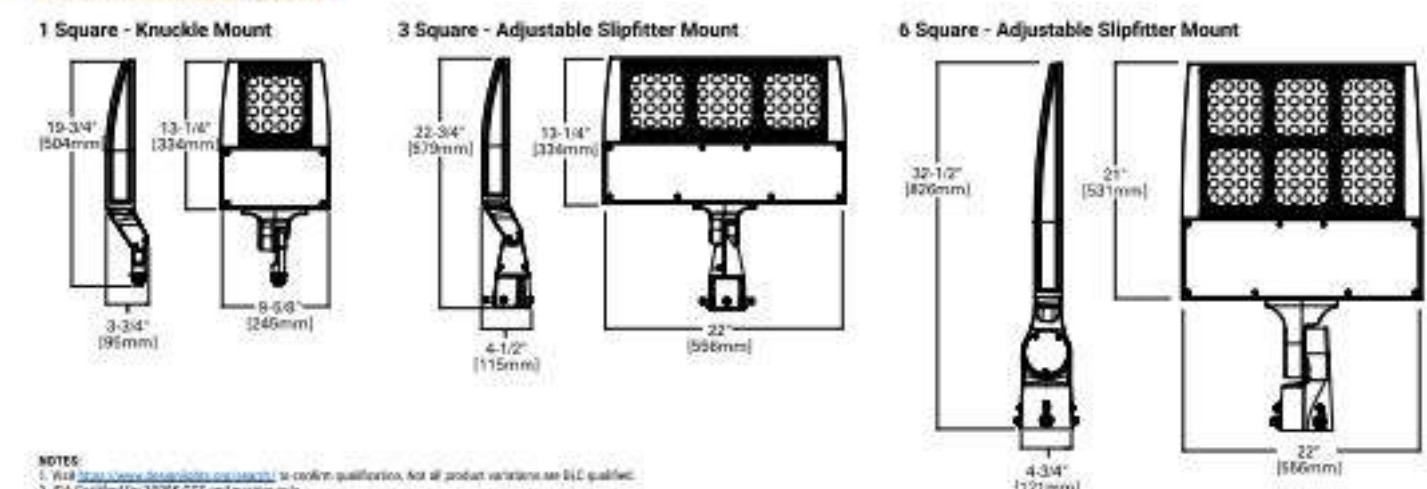
Connected Systems

- WaveLinX Lite
- WaveLinX

Quick Facts

- Lumen packages range from 1,261 - 36,393 (15W - 360W)
- 8 NEMA Type flood distributions
- Efficacy up to 126 lumens per watt

Dimensional Details



NOTES:
1. For product specifications and details, see product specifications for all product variants and B2C portal.
2. Dimensions are approximate and subject to change without notice.

COOPER
Lighting Solutions

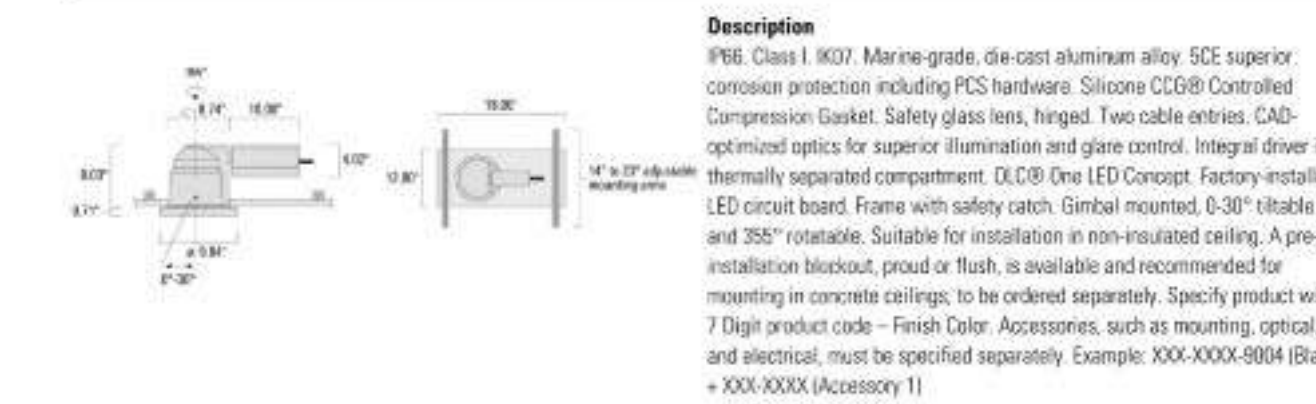
PSY4020201 - page 1
November 09, 2021 09:21:43

C - SOFFIT LIGHTS

DOC240-GB LED
Ceiling Luminaires

we-ef

1/7



Description
IP66, Class I, IK07. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware. Silicone CCD® Controlled Compression Gasket. Safety glass lens, hinged. Two cable entries. CAD-optimized optics for superior illumination and glare control. Integral driver as thermally separated compartment. OLC® One LED Concept. Factory-installed LED circuit board. Frame with safety catch. Simbal mounted. 6-30" (hizable and 360° rotatable). Suitable for installation in non-insulated ceiling. A pre-installation blackout, proud or flush, as available and recommended for mounting in concrete ceiling, to be ordered separately. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-8004 (Black) + XXX-XXXX (Accessory 1)

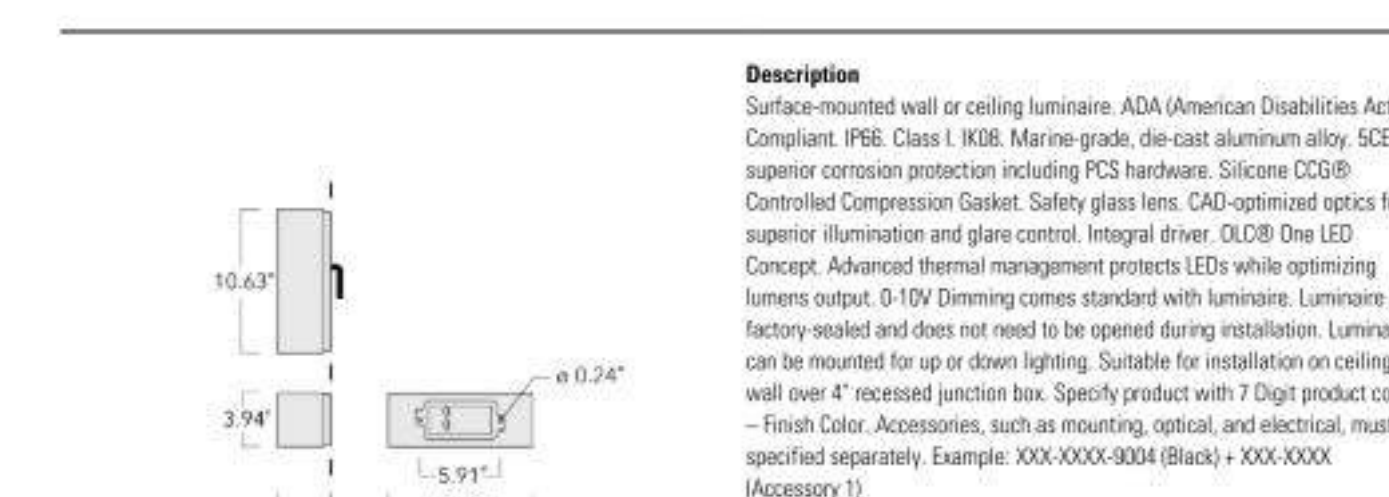
WE-EF LIGHTING USA LLC
Suez Support Center +1 412 782 0240 | 410-D Keystone Drive | Warrington PA 19086 U.S.A. | Tel +1 224 742 8030 | info.usa@we-ef.com | www.we-ef.com | 10-09-2023 12:47
Technical modifications and errors excepted

WP - WALL SCONCE

RLS420 LED
Surface Mounted Wall Luminaires

we-ef

1/5



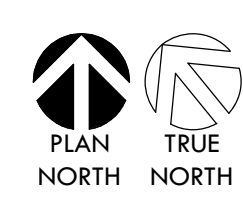
Description
Surface-mounted wall or ceiling luminaire. ADA (American Disabilities Act) Compliant. IP66, Class I, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware. Silicone CCD® Controlled Compression Gasket. Safety glass lens. CAD-optimized optics for superior illumination and glare control. Integral driver. OLC® One LED Concept. Advanced thermal management protects LEDs while optimizing lumens output. 0-10V Dimming comes standard with luminaire. Luminaire is factory-sealed and does not need to be opened during installation. Luminaire can be mounted for up or down lighting. Suitable for installation on ceiling or wall over 4" recessed junction box. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-8004 (Black) + XXX-XXXX (Accessory 1)

WE-EF LIGHTING USA LLC
Suez Support Center +1 412 782 0240 | 410-D Keystone Drive | Warrington PA 19086 U.S.A. | Tel +1 224 742 8030 | info.usa@we-ef.com | www.we-ef.com | 01-09-2023 01:50
Technical modifications and errors excepted

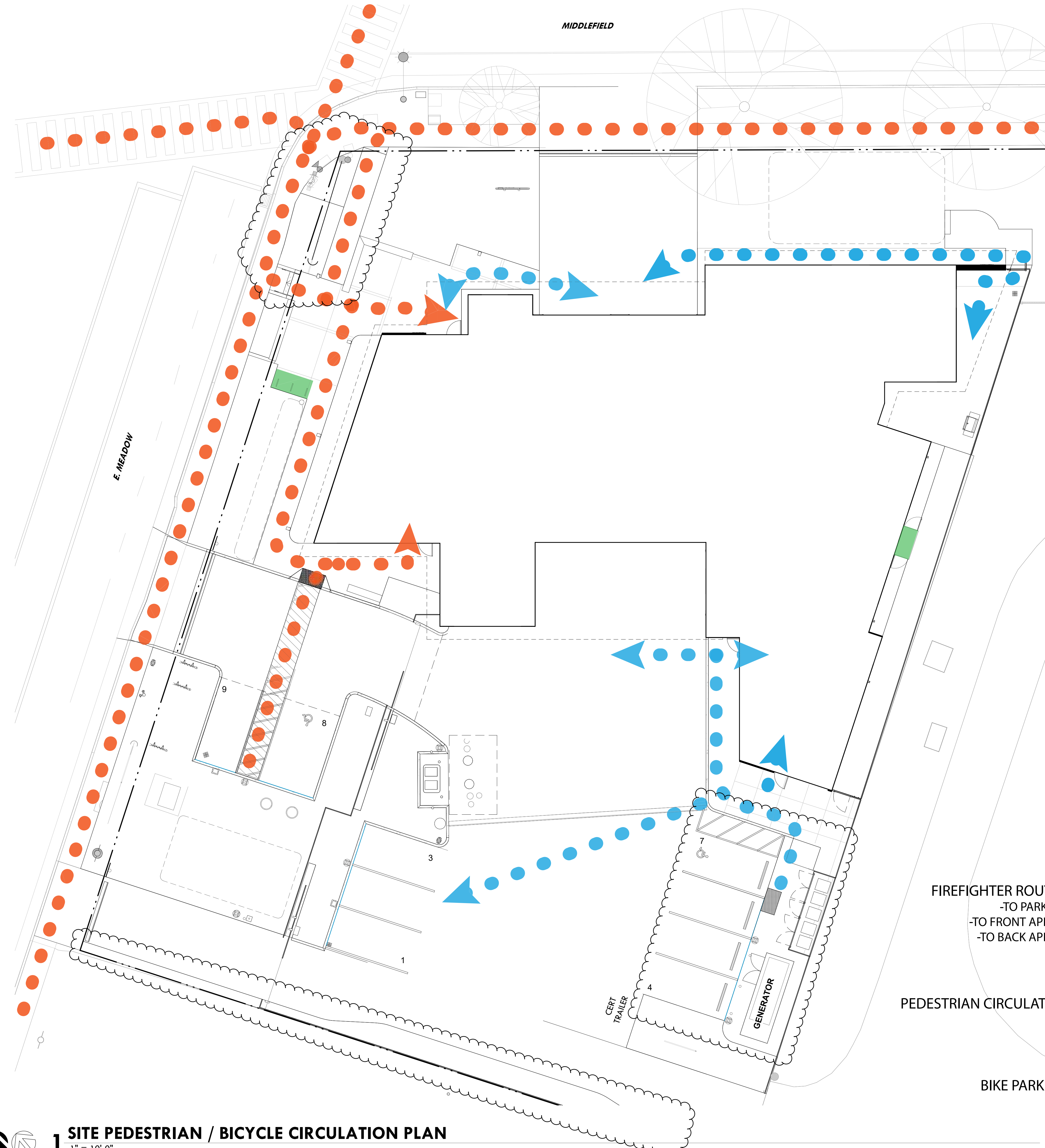




- EV CHARGER
- APPARATUS RESPONSE
- APPARATUS RETURN/
REFUEL/ TOP-OFF
- CITY VEHICLE FUEL
- CREW/ OFFICER VEHICLE
PARKING AND CIRCULATION
- PUBLIC PARKING
PUBLIC CIRCULATION

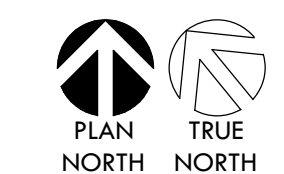


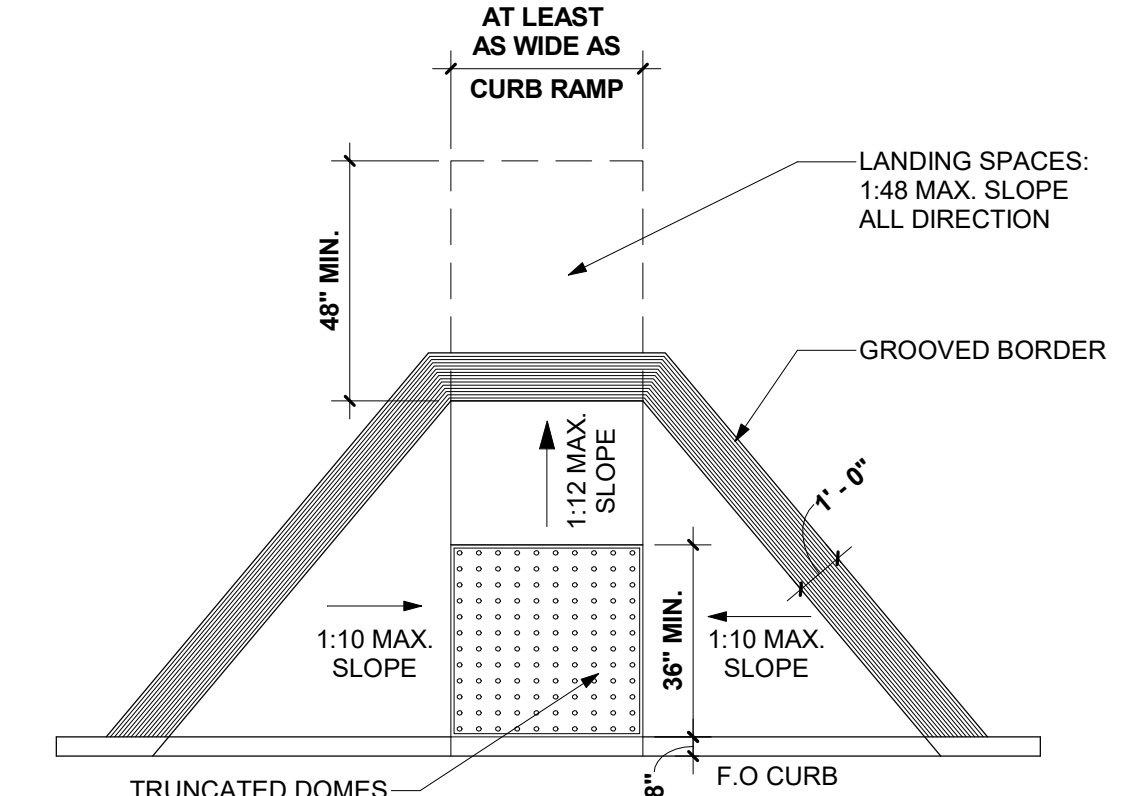
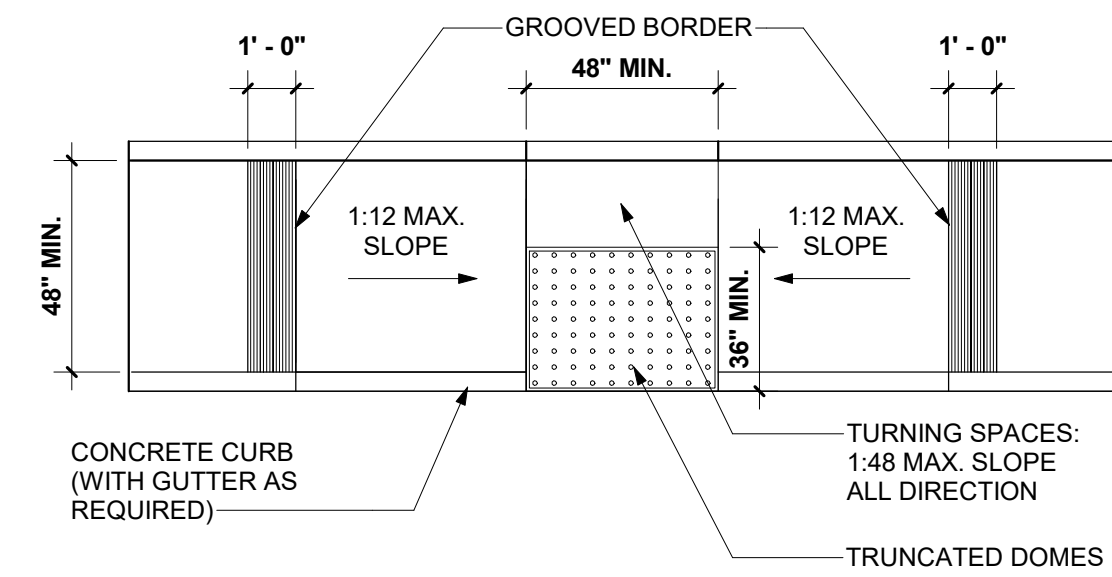
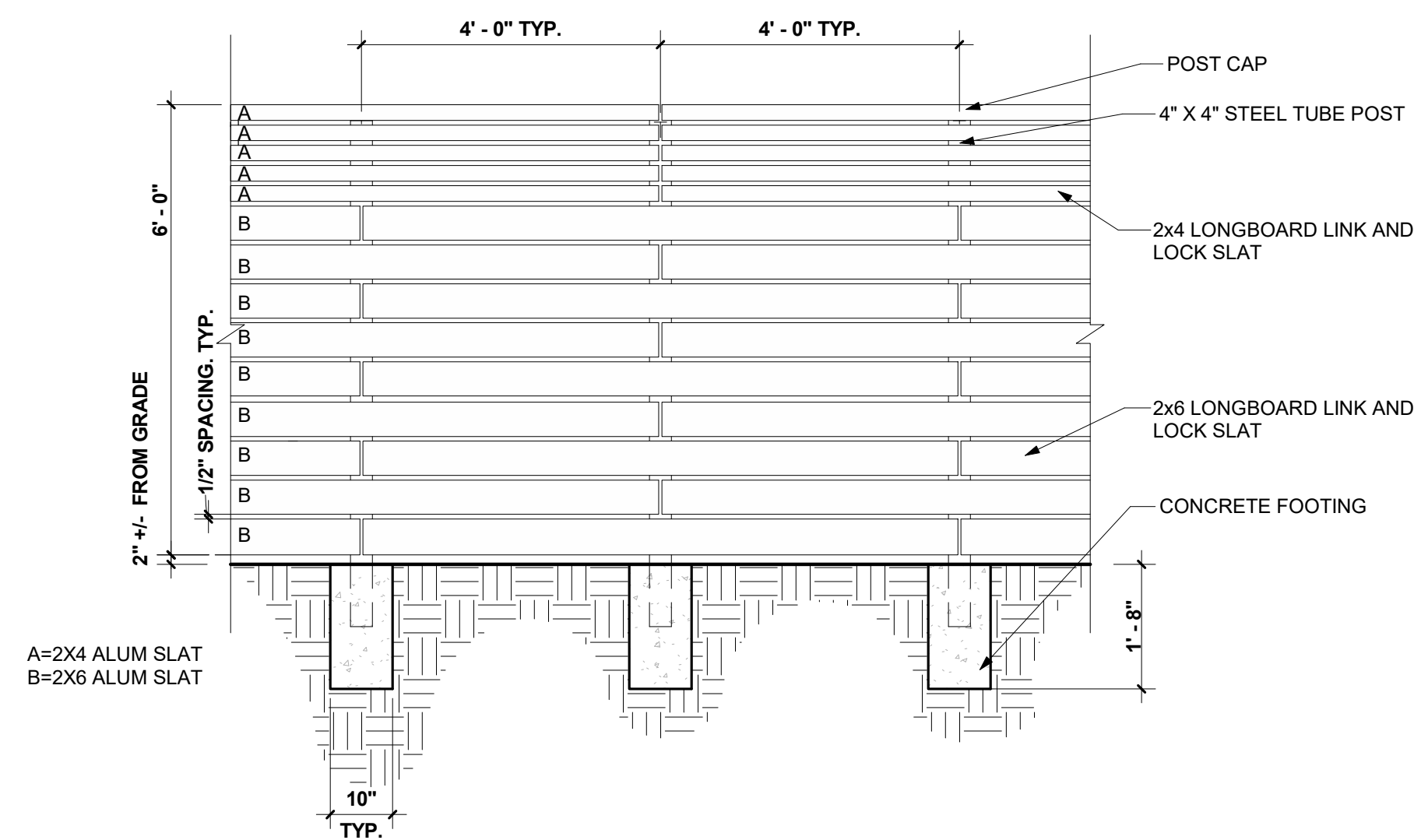
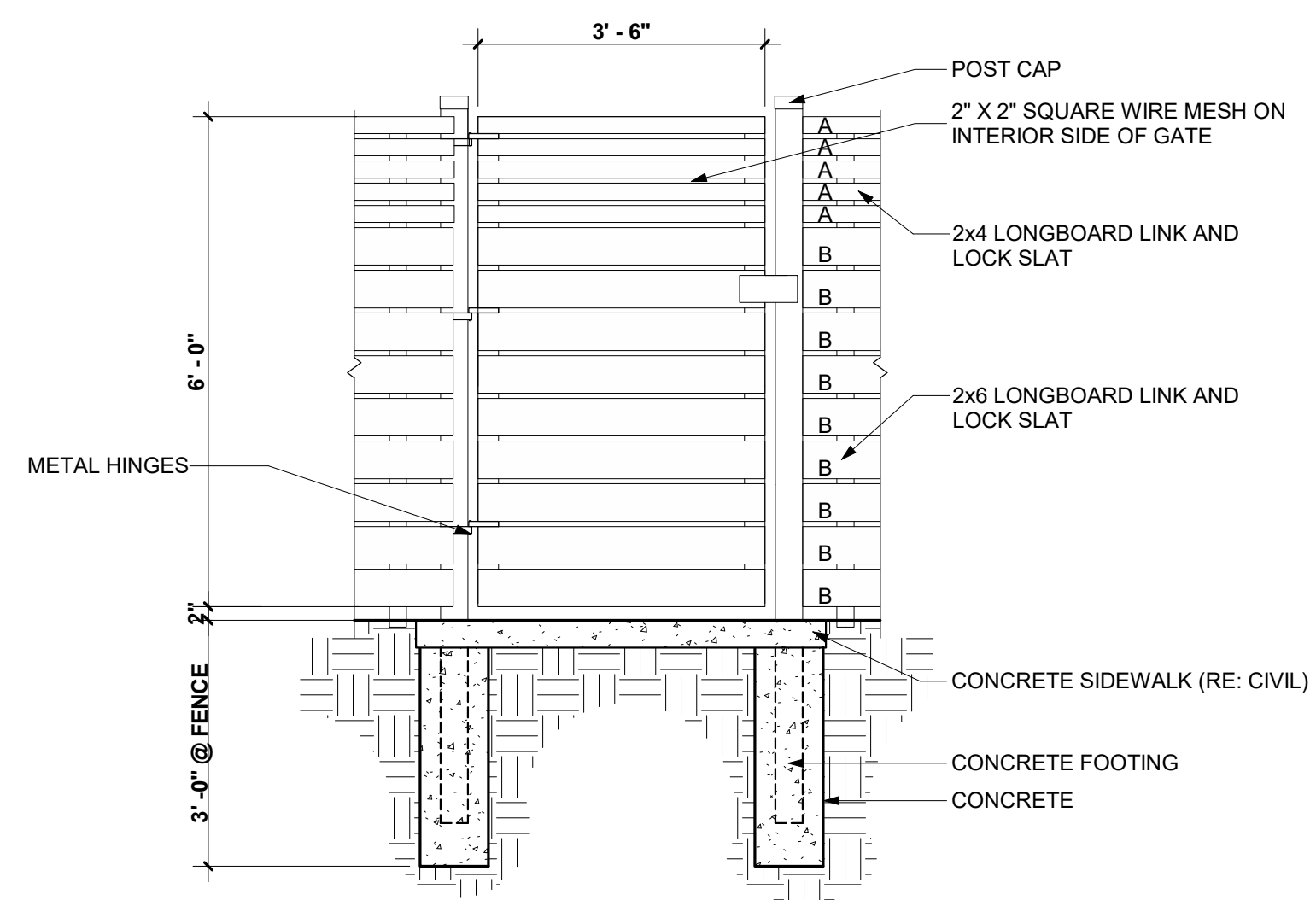
1 PARKING LAYOUT AND CIRCULATION PLAN
1" = 10'-0"



- FIREFIGHTER ROUTES
 - TO PARKING
 - TO FRONT APRON
 - TO BACK APRON
- PEDESTRIAN CIRCULATION
- BIKE PARKING

1 SITE PEDESTRIAN / BICYCLE CIRCULATION PLAN
 1" = 10'-0"





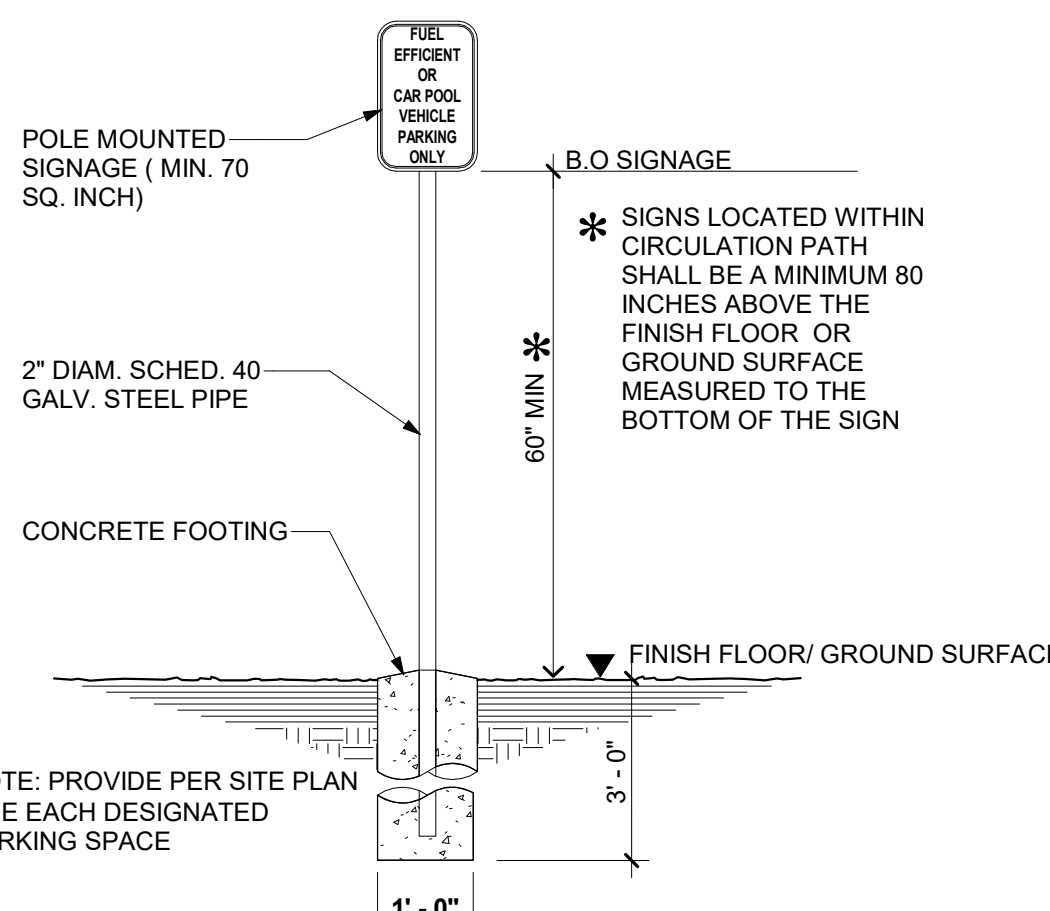
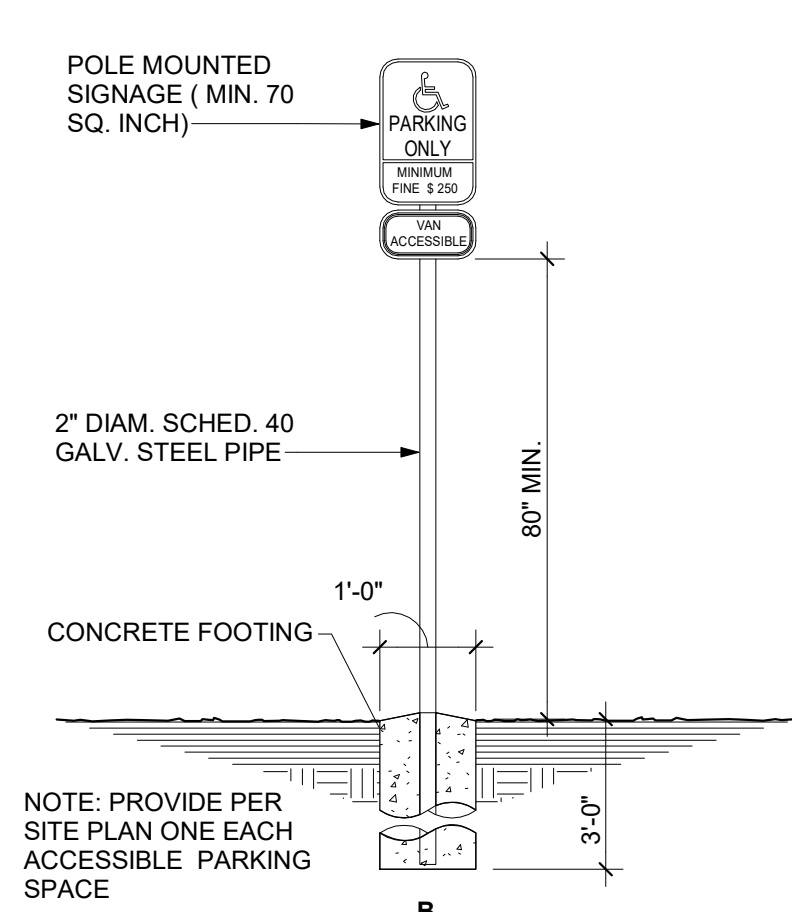
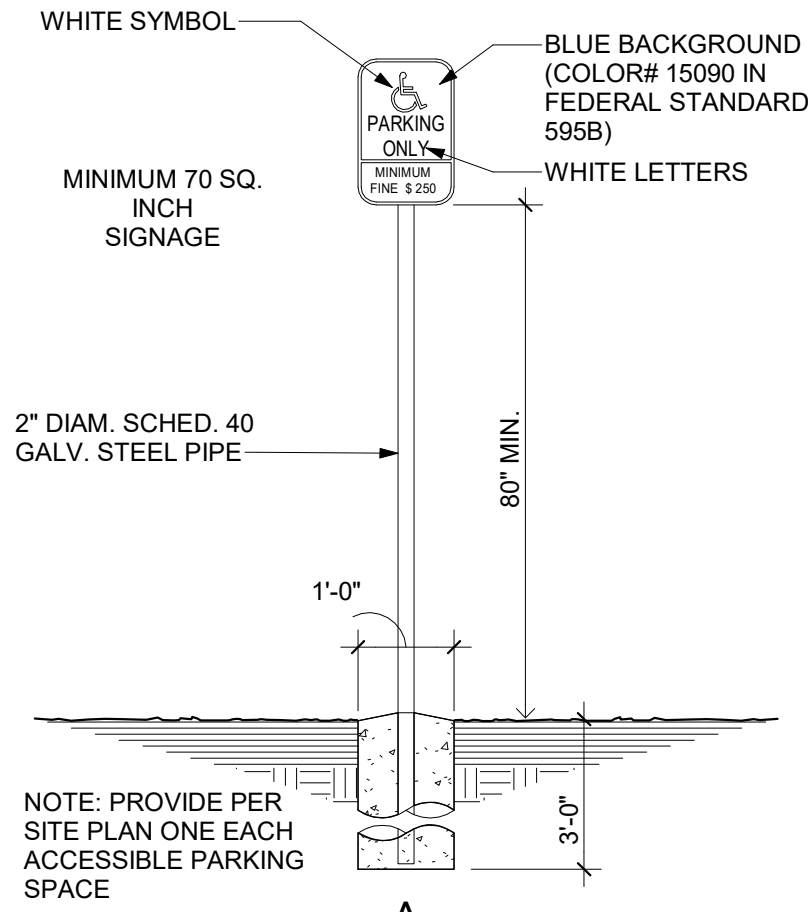
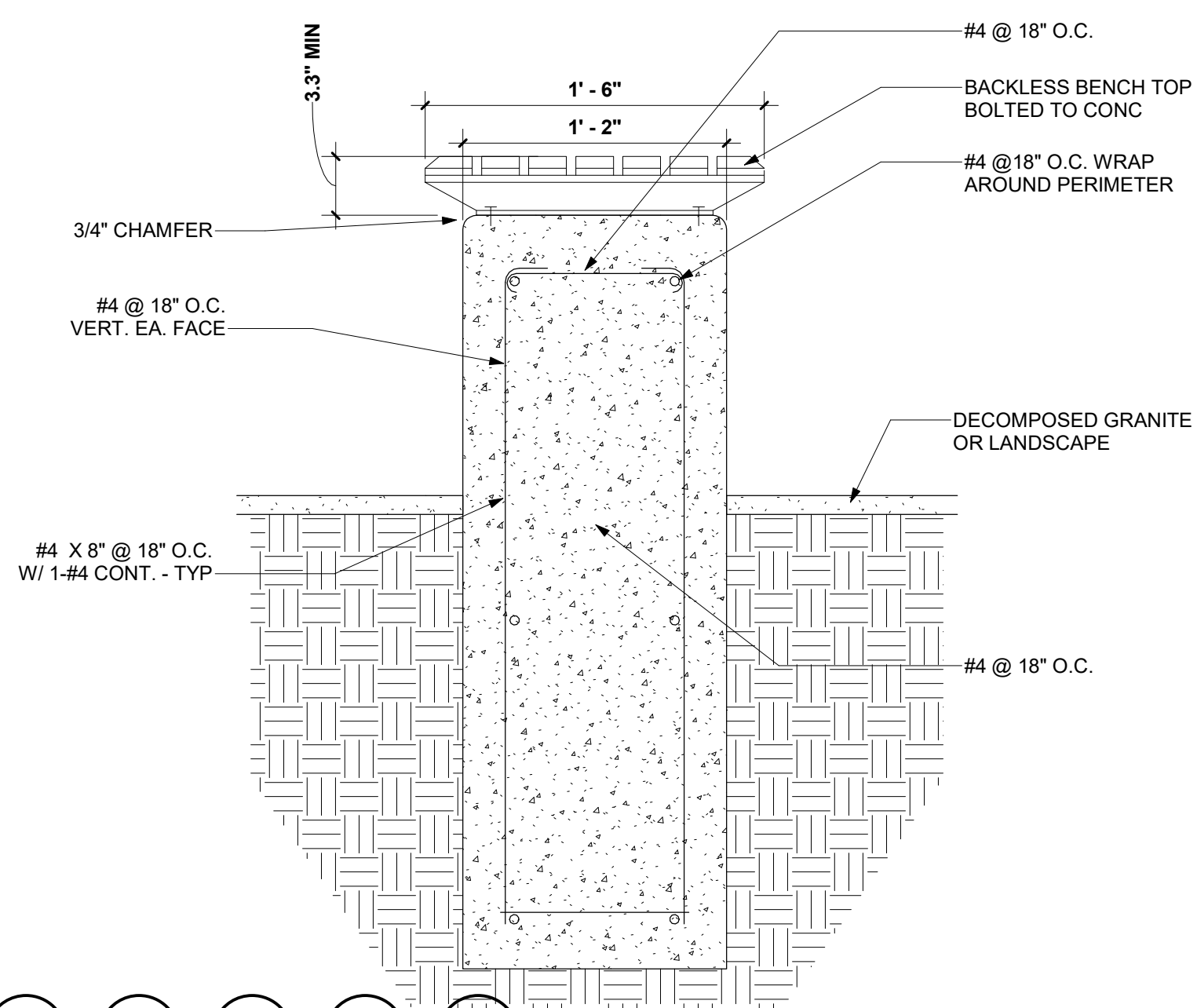
4 PEDESTRIAN GATE DETAIL
1/2" = 1'-0"

3 FENCE ELEVATION
1/2" = 1'-0"

2 CURB RAMP - PARALLEL DETAIL
1/4" = 1'-0"

1 CURB RAMP - PERPENDICULAR DETAIL
1/4" = 1'-0"

- PARALLEL CURB RAMPS:** THE RUNNING SLOPE OF THE CURB RAMP SEGMENTS SHALL BE IN-LINE WITH THE DIRECTION OF SIDEWALK TRAVEL. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12. (PER CBC 11B-406.3.1) AND A TURNING SPACE 48 INCHES MIN. BY 48 INCHES MIN. SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP. THE SLOPE OF THE TURNING SPACE IN ALL DIRECTIONS SHALL BE 1:48 MAX. (PER CBC 11B-406.3.2)
- PER CBC 11B-705.1.2.2 CURB RAMPS:** DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN EXCLUDING ANY FLARED SIDES.
- PER CBC 1112A.8 BORDER:** CALL CURB RAMPS SHALL HAVE A GROOVED BORDER 12 INCHES WIDE AT THE LEVEL SURFACE OF THE SIDEWALK ALONG THE TOP AND EACH SIDE APPROXIMATELY 3/4" INCH ON CENTER.
- PER CBC 11B-406.5.2 WIDTH:** THE CLEAR WIDTH OF CURB RAMP RUNS (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITIONS, AND TURNING SPACES SHALL BE 48 INCHES MINIMUM.
- PER CBC 11B-406.5.3 LANDINGS:** THE LANDING CLEAR LENGTH SHALL BE 48 INCHES MINIMUM. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING ANY FLARED SIDES, OR THE BLENDED TRANSITION LEADING TO THE LANDING. THE SLOPE OF THE LANDING IN ALL DIRECTIONS SHALL BE 1:48 MAXIMUM.
- PER CBC 11B-406.5.11 GROOVED BORDER:** CURB RAMPS SHALL HAVE A GROOVED BORDER 12 INCHES WIDE ALONG THE TOP OF THE CURB RAMP AT THE LEVEL SURFACE OF THE TOP LANDING AND AT THE OUTSIDE EDGES OF THE FLARED SIDES.
- PER CBC 11B-705.1.2.2 CURB RAMPS:** DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WITH OF THE RAMP RUN EXCLUDING ANY FLARED SIDES.

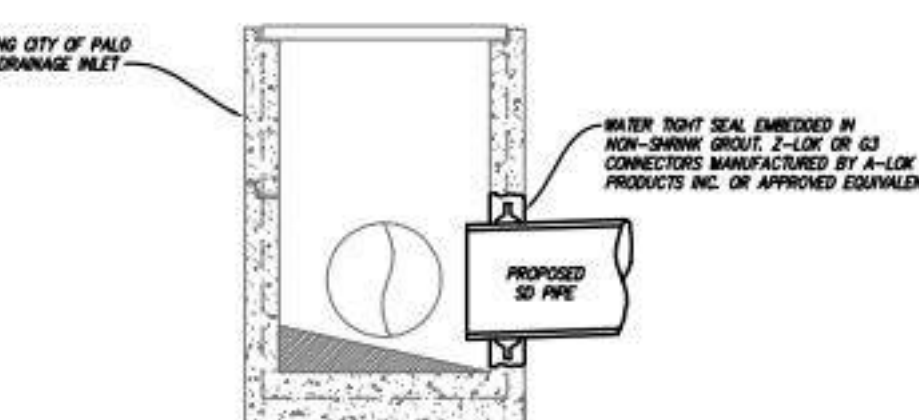
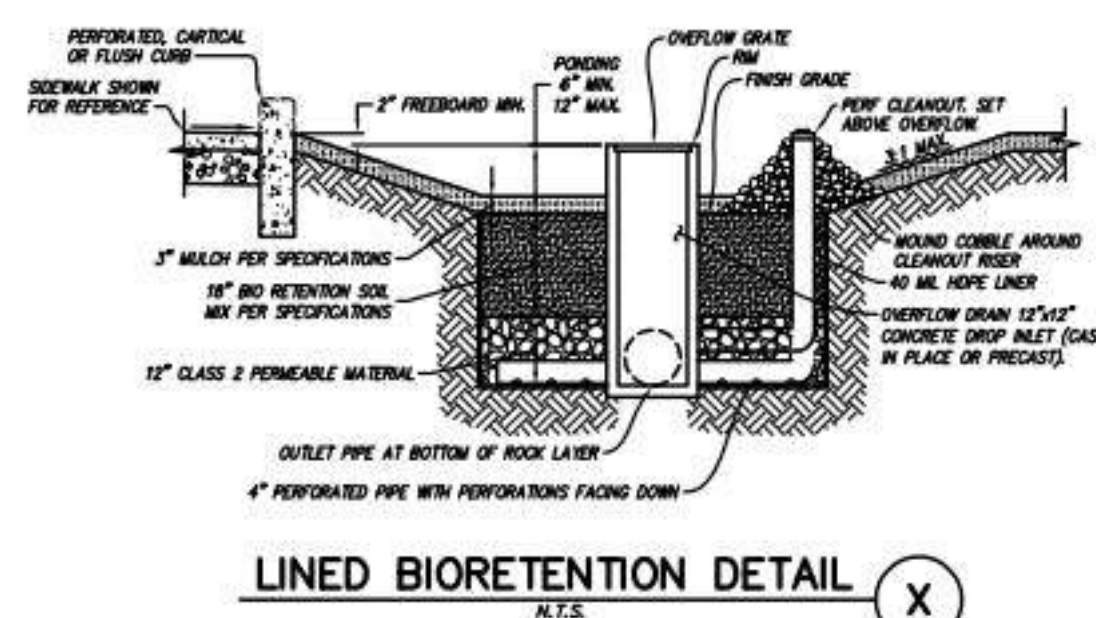


8 BENCH SECTION
1 1/2" = 1'-0"

7 DISABLED PARKING SIGNAGE
1/2" = 1'-0"

6 ACCESSIBLE EV PARKING SIGNAGE
1/2" = 1'-0"

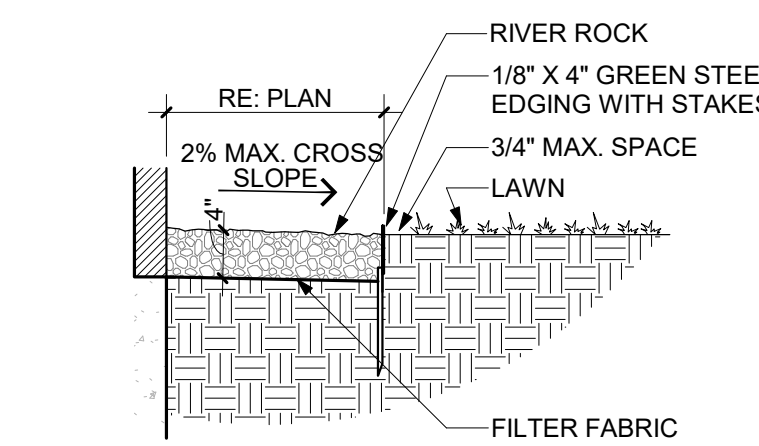
5 VAN ACCESSIBLE PARKING STALL
1/4" = 1'-0"



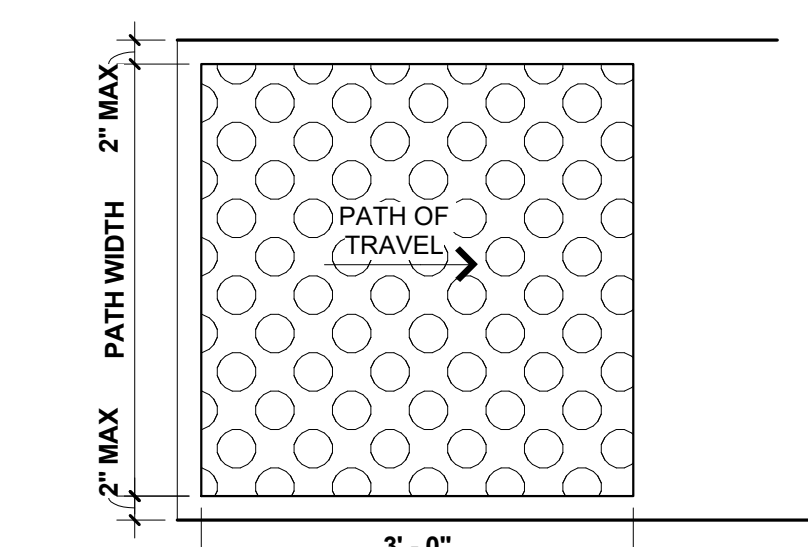
EXISTING INLET PIPE CONNECTION



EXISTING MONUMENT SIGN TO BE REUSED.



10 MOW STRIP DETAIL
3/4" = 1'-0"

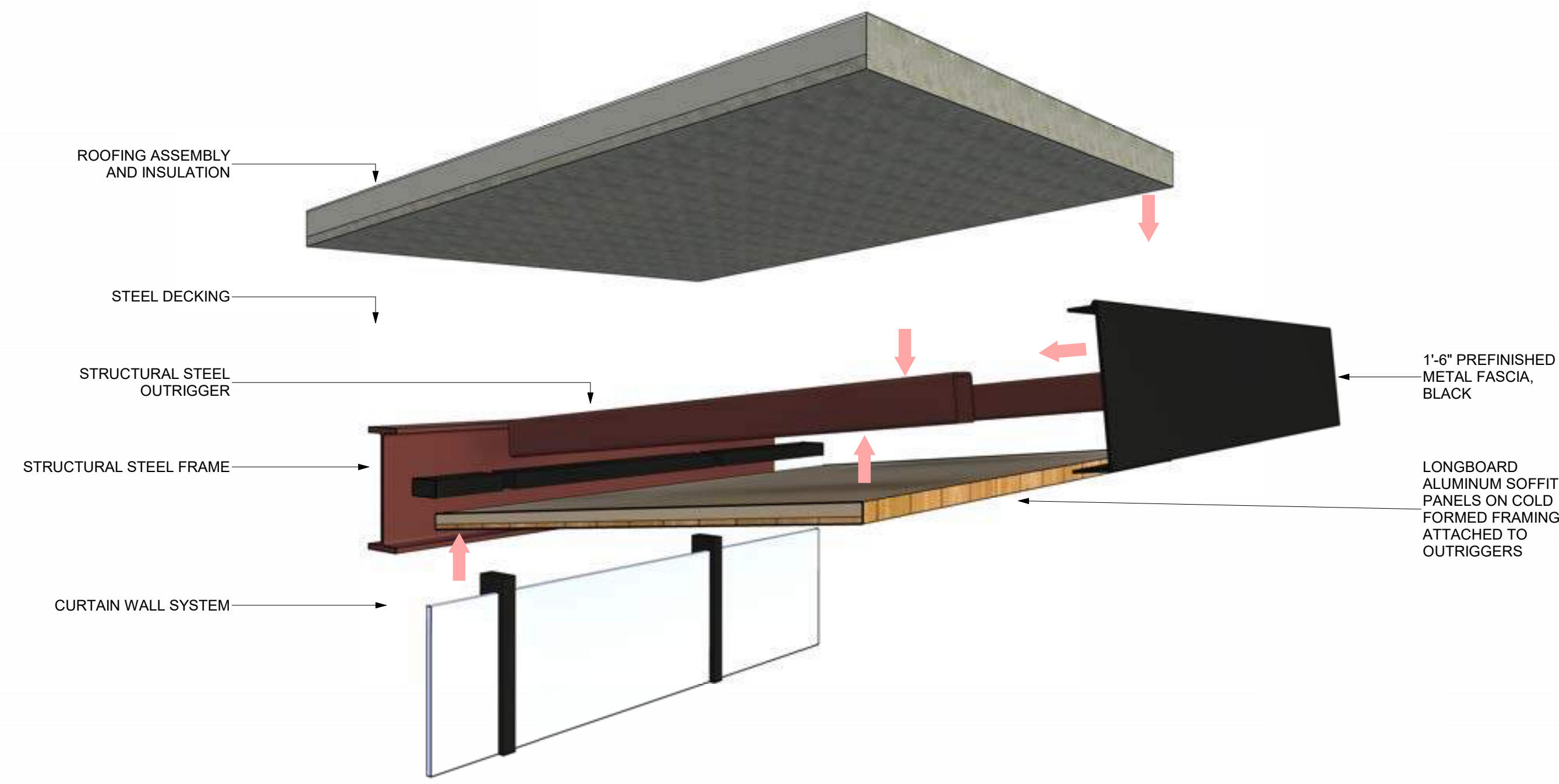


PER CBC SECTION 11B-705.1.2.2 CURB RAMPS: DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES (914 MM) IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN LESS 2 INCHES (51 MM) MAXIMUM ON EACH SIDE, EXCLUDING ANY FLARED SIDES. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES (152 MM) MINIMUM AND 8 INCHES (203 MM) MAXIMUM FROM THE LINE AT THE FACE OF THE CURB MARKING THE TRANSITION BETWEEN THE CURB AND THE GUTTER, STREET OR HIGHWAY.

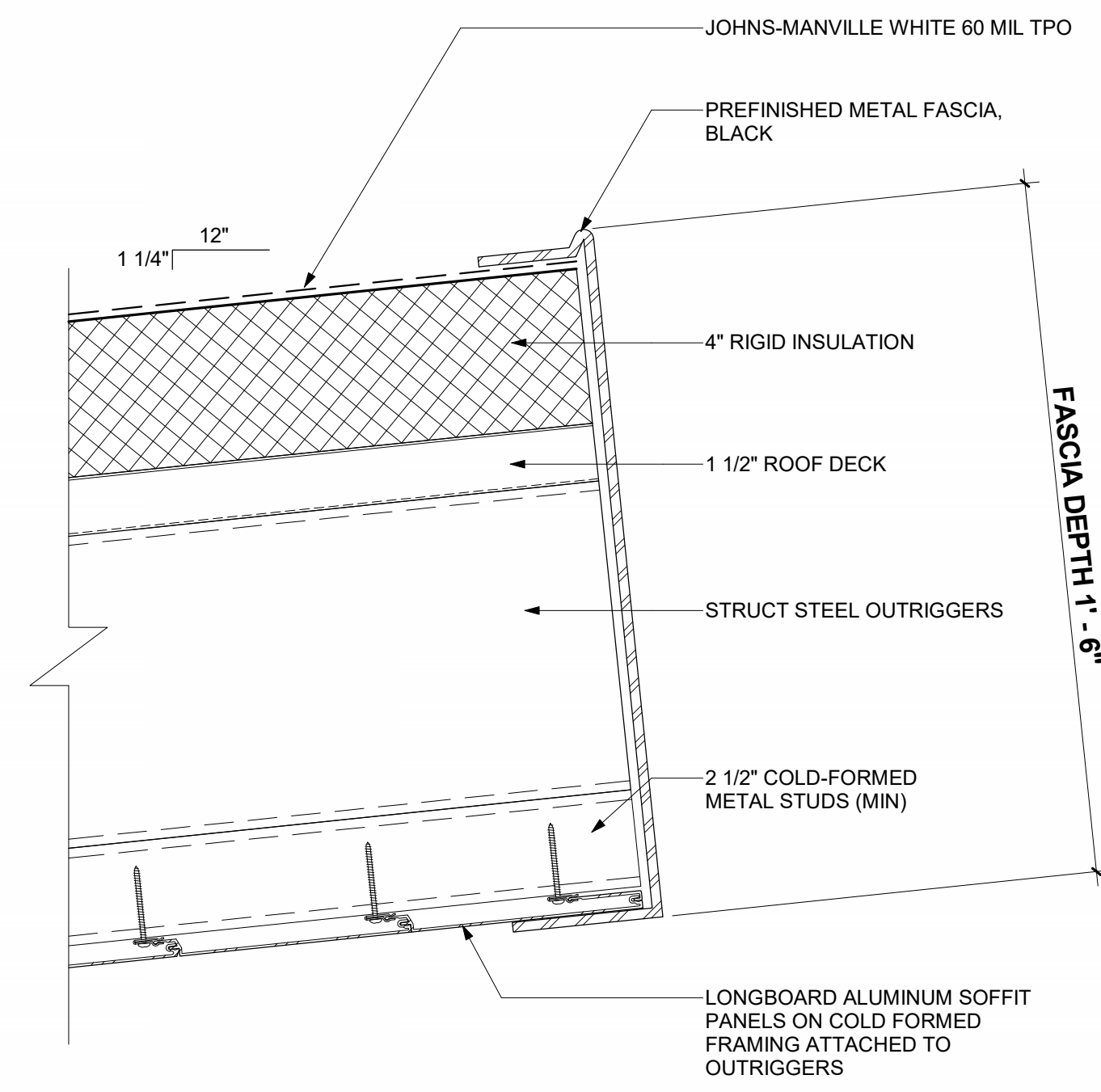
EXCEPTION: ON PARALLEL CURB RAMPS, DETECTABLE WARNINGS SHALL BE PLACED ON THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN THE STREET AND SIDEWALK. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN THE STREET AND THE SIDEWALK LESS 2 INCHES (51 MM) MAXIMUM ON EACH SIDE.

9 DETECTABLE SURFACE
3/4" = 1'-0"

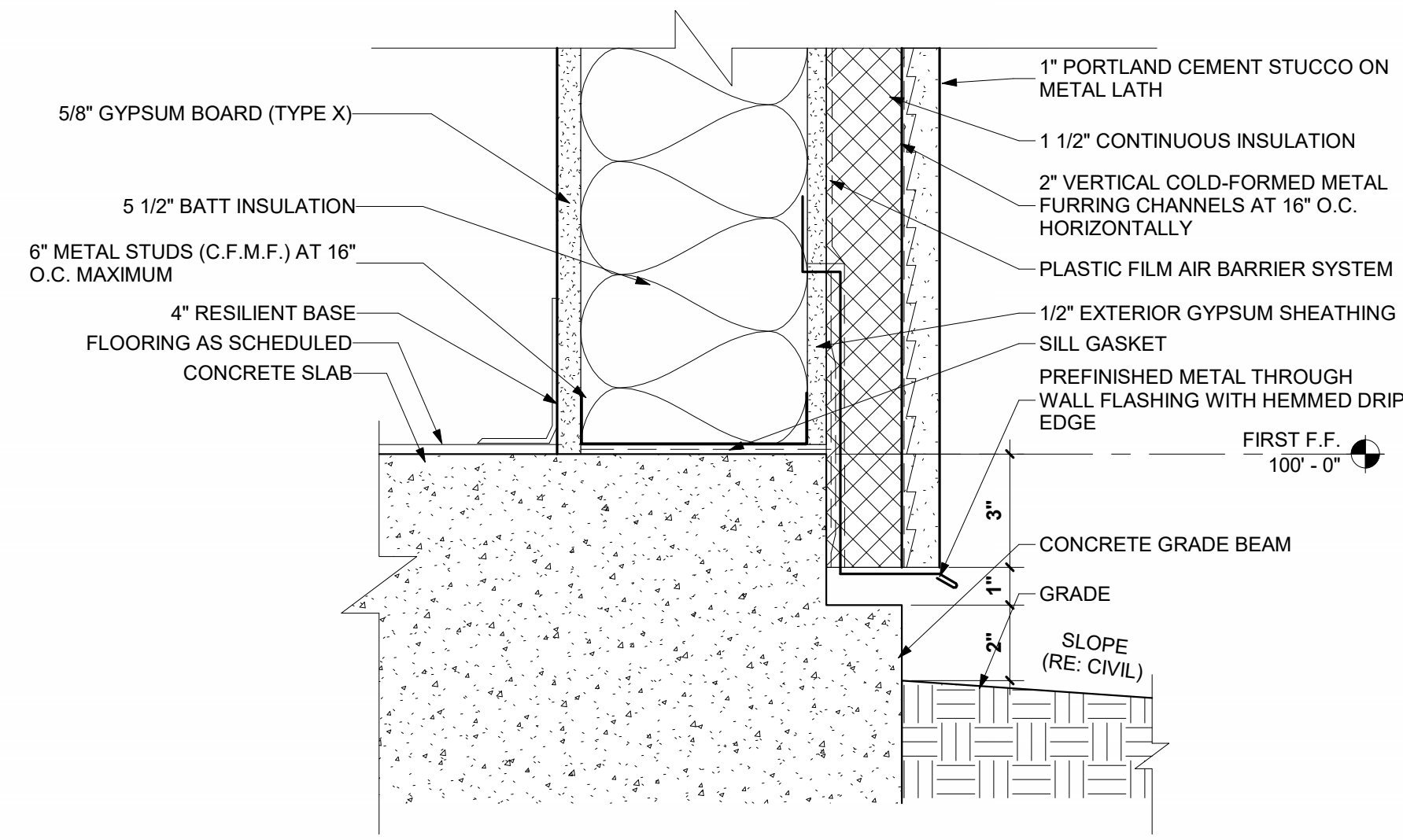
11 STANDARD STORMWATER DETAILS
N.T.S.



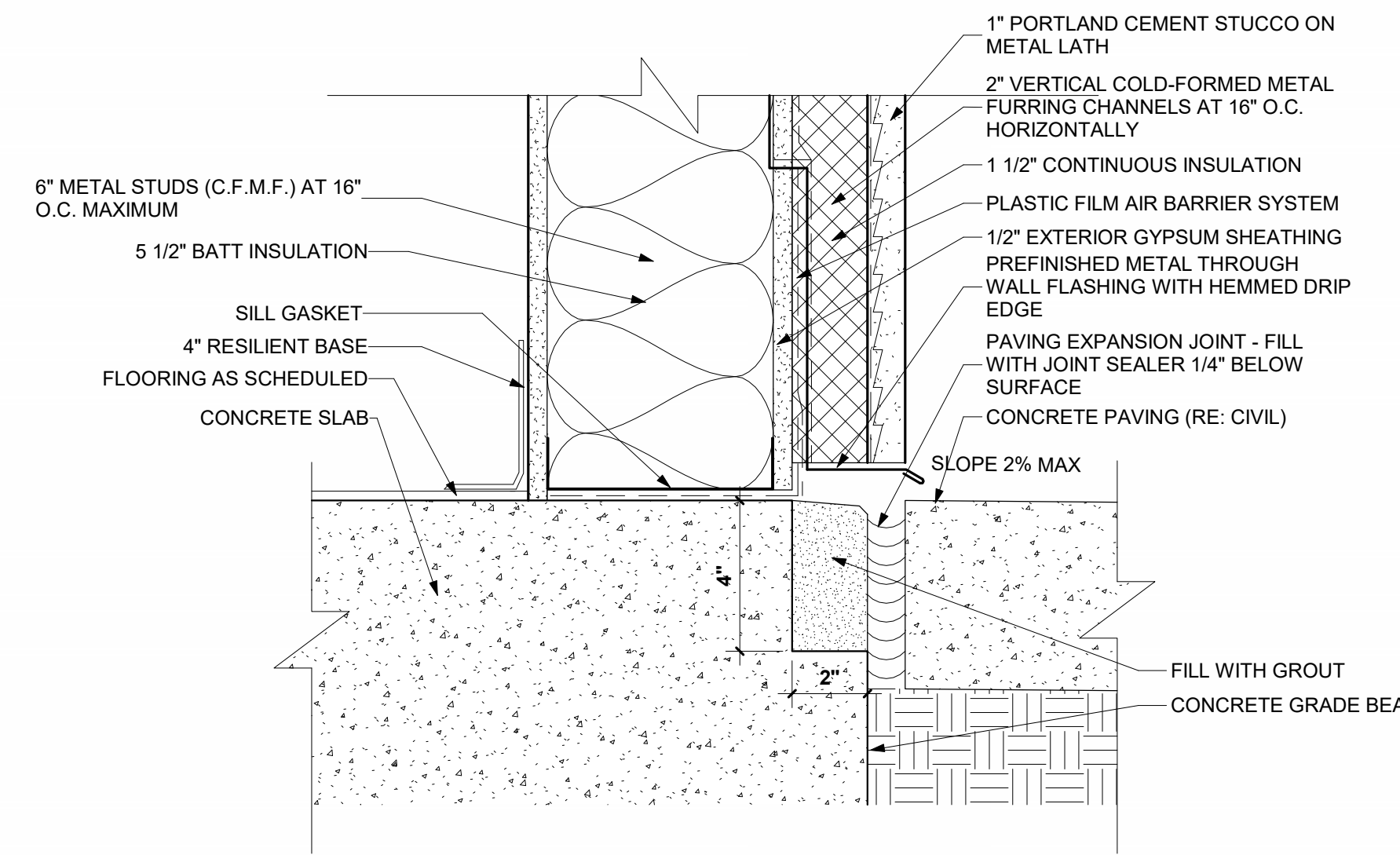
3 3D EXPLODED SOFFIT
N.T.S.



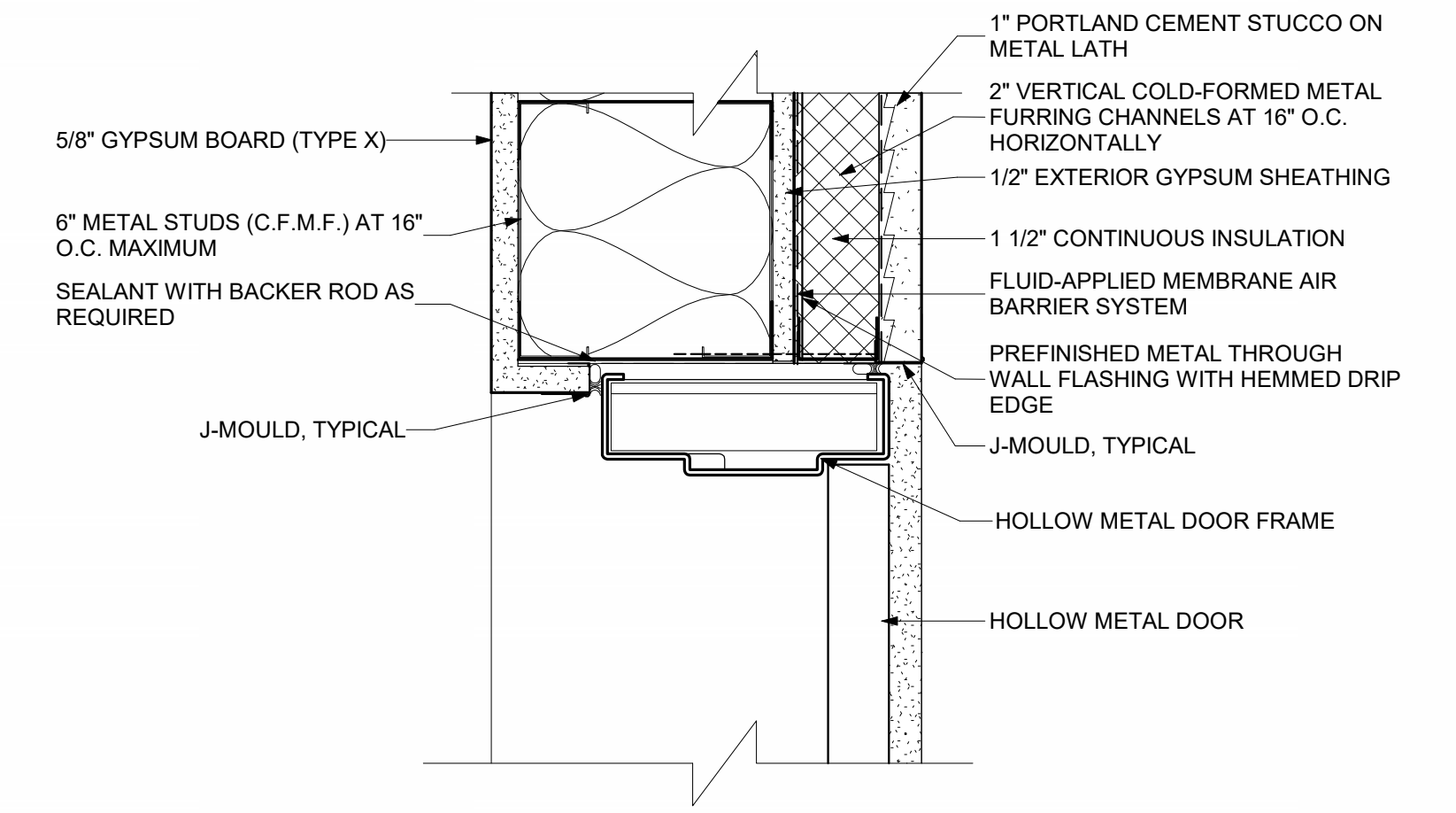
7 FASCIA SECTION
3" = 1'-0"



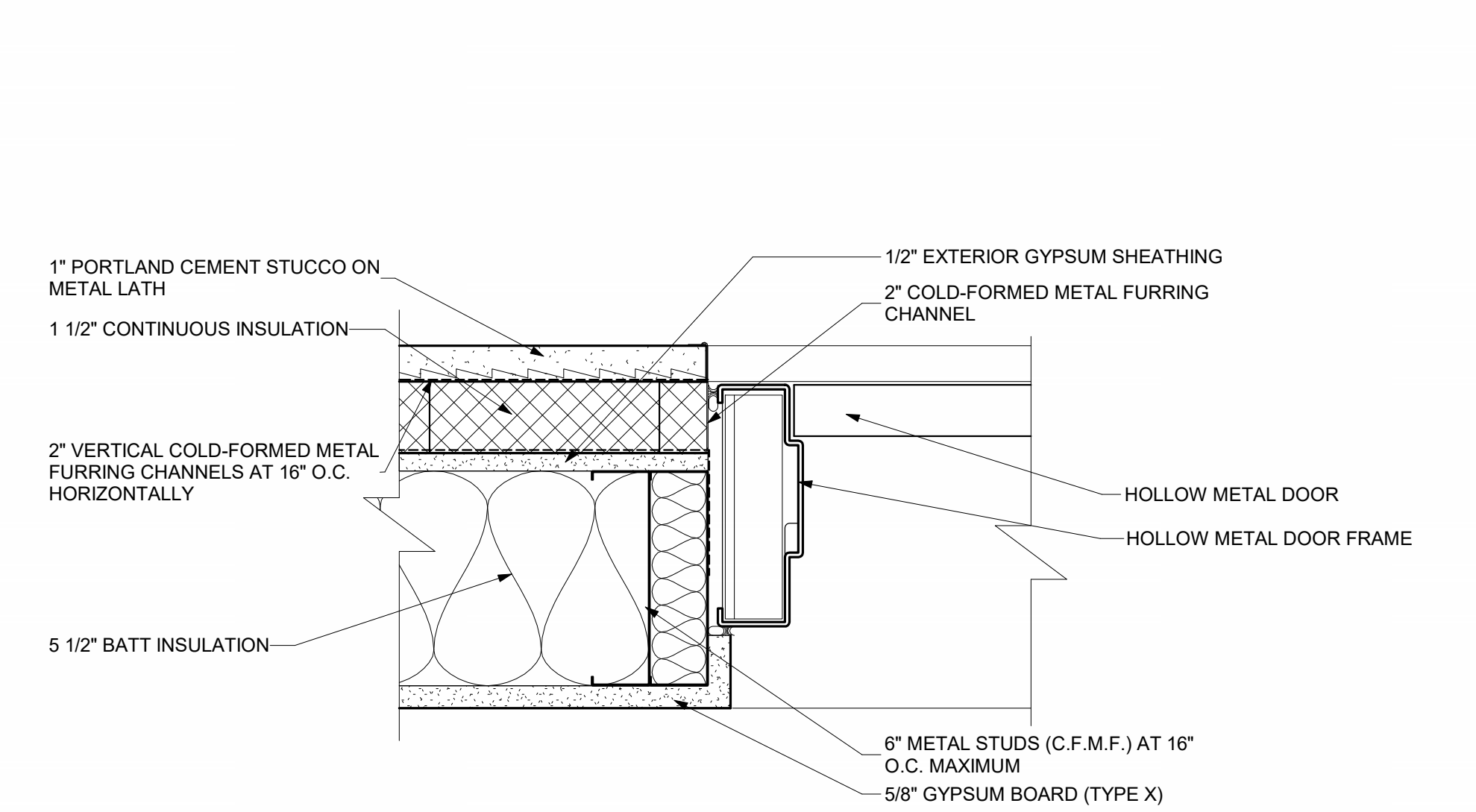
2 SECTION DETAIL
3" = 1'-0"



6 SECTION DETAIL
3" = 1'-0"



1 DOOR HEAD DETAIL
3" = 1'-0"



REFER TO SHEET H-1 FOR 1/2" = 1'-0" DETAILS OF ROOF, PARAPETS, FASCIA, AND RAISCREEN.

5 DOOR JAMB DETAIL
3" = 1'-0"

Code Section	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification					
		Plan Check	Rough GB Inspection I/R # 152		Final Inspection I/R # 153		
			CORR	INITIAL	CORR	INITIAL	CORR
5.1 Planning and Design							
Mandatory Stormwater pollution prevention for projects that disturb > 1 acre of land	PAMC 16.14.290 5.106.1X						
Mandatory Stormwater pollution prevention for projects that disturb 1/4 or more acres of land	PAMC 16.14.290 5.106.2						
Mandatory Best management practices (BMPs)	5.106.1.1X						
Mandatory Short term bicycle parking	5.106.4.1.1X						
Mandatory Long term bicycle parking	5.106.4.1.2X						
Tier 2 Mand. Development plan: 50% of Parking Capacity	PAMC 16.14.330 5.105.5						
Mandatory Electric Vehicle (EV) Charging for Non-Residential Structures (NRS) with 10-20 spaces shall provide 20% EV Capable or EVSE-Ready and 20% Level 2 EVSE installed. (Buildings w/ more than 20 spaces shall provide 10% EV Capable or EVSE-Ready and 10% EVSE installed)	PAMC 16.14.330 5.105.5						
Mandatory Light pollution reduction	PAMC 16.14.290R 5.106.10X						
Mandatory Grading and paving (exception for additions and alterations not altering the drainage path)	PAMC 16.14.290R 5.106.10X						
Tier 2 Mand. Cool roof for reduction of heat island effect	PAMC 16.16.070 5.16.14.080 5.106.11.2						
Tier 2 Mand. 80 Electric Bicycles (New buildings and substantial renovations)	PAMC 16.14.300 Section 5.106.10						
Elective Community connections	AS 105.1						
Elective Brownfield or greyfield site redevelopment or fill area development	AS 103.3						
Elective Reduce development footprint and optimize open space	AS 104.1						
Elective Existing building structure (EBS)	AS 105.1.1						
Elective Existing non-structure elements (NSE)	AS 105.1.2						
Elective Salvage	AS 105.1.3						
Elective Storm water design	AS 105.2						
Elective Low impact development (LID)	AS 106.1						
Elective Openfield or wild site	AS 106.2						
Elective Changing rooms	AS 106.4						
Elective Parking capacity	AS 106.6						
Elective Reduce parking capacity	AS 106.5						
Elective Exterior wall shading: Fenestrations-East and west walls	AS 106.1.1						
Elective Exterior wall shading: Fenestrations-South walls	AS 106.1.2						
Elective Exterior wall shading: Garage wall areas	AS 106.1.3						
Elective Heat Island Effect: Hardscape alternatives and cool roof reduction	AS 106.1.4						
5.2 Water Efficiency and Conservation							
Mandatory Meter, separate submeter or metering device installed as follows:	5.303.1.1X						
Mandatory New buildings or additions in excess of 50,000 square feet	5.303.1.1						
Mandatory Excess consumption (Submeters for additions that consume over 1,000 gal/day)	5.303.1.2						
Tier 2 Mand. Water reduction: 20% savings over the "water use baseline" (Table AS 303.2.3.1)	AS 303.2.3.1X						
Mandatory Indoor Water Use: Water closets (shall not exceed 1.28 gallons per flush)	5.303.3.1						
Mandatory Indoor Water Use: Walk-mounted urinals (0.125 gpf)	5.303.3.2						
Mandatory Indoor Water Use: Floor-mounted urinals (0.5 gpf)	5.303.3.2.2						
Mandatory Indoor Water Use: Single showerhead (1.8 gpm at 60 psi)	5.303.3.3.1						
Mandatory Indoor Water Use: Multiple showerheads serving one shower (flow rate of 1.8 gpm at 60 psi)	5.303.3.3.2						
Mandatory Indoor Water Use: Non-residential lavatory faucets (0.5 gpm at 60 psi)	5.303.3.4.1						
Mandatory Indoor Water Use: Kitchen faucets (1.8 gpm at 60 psi)	5.303.3.4.2						
Mandatory Indoor Water Use: Wash basins (1.8 gpm at 60 psi)	5.303.3.4.3						
Mandatory Indoor Water Use: Metering faucets (0.2 gallon cycle)	5.303.3.4.4						
Mandatory Indoor Water Use: Metering faucets for wash basins (0.2 gallon cycle)	5.303.3.4.5						
Mandatory Commercial kitchen equipment	5.303.4.1						
Mandatory Food waste disposal	5.303.4.1X						
Mandatory Indoor water use: Areas of addition or alteration (AA)	5.303.5						
Mandatory Dual plumbing (locally amended)	PAMC 16.12.035P						
Mandatory Indoor Water Use: Standards for plumbing fixtures and fittings (2022 California Plumbing Code)	5.303.6						
Mandatory Outdoor potable water use in landscape areas (MWELC)	5.304.1X						
Mandatory Recycled water supply systems	PAMC 16.12.030X						
Mandatory Cooling Tower Water Use (locally amended)	PAMC 16.14.330 Section 5.307						
Mandatory Invasive species prohibited	PAMC 16.14.330 Section 5.304.2X						
Mandatory Non-residential enhanced water budget required when use > 1,000 gal/day	PAMC 16.14.340 Section 5.306						
Elective Indoor water use: 20% reduction	AS 303.2.3						
Elective Nonpotable water systems for indoor water use	AS 303.2.3.4						
Elective Appliances and fixtures for commercial application	AS 303.3						
Elective Nonrenewable energy	AS 303.6						
Elective Outdoor Water Use: Restoration of areas disturbed by construction	AS 304.6						
Elective Outdoor Water Use: Previously developed sites, restore or protect 10% of site area	AS 304.7						
Elective Outdoor Water Use: Graywater reutilization system	AS 305.9						
Elective Nonpotable water systems	AS 305.5						
Elective Irrigation system: Recycled water	AS 305.2						
5.4 Material Conservation and Resource Efficiency							
Tier 2 Mand. Weather protection	AS 401.1X						
Mandatory Moisture control: Siphonless	5.407.1						
Mandatory Moisture control: Exterior door openings	5.407.2.1						
Mandatory Moisture control: Exterior door protection	5.407.2.2						
Mandatory Moisture control: Flashing	5.407.2.3						
Mandatory Construction waste management	5.408.1						
Mandatory Construction waste management plan	5.408.1.1						
Mandatory Waste management company	5.408.1.2						
Mandatory Waste stream reduction alternative	5.408.1.3						
Mandatory Documentation: Construction waste management plan, waste management company, waste stream reduction alternative	5.408.1.4						
Mandatory Excavated soil and land clearing: 100% reuse or recycle	5.409.1						
Tier 2 Mand. Enhanced construction waste reduction (10% diversion rate for projects exceeding \$25,000 in value; 85% diversion rate for projects less than \$25,000)	PAMC 16.14.410 5.408.2.1						
Mandatory Recycling by occupants (with exceptions)	5.410.1X						
Mandatory Commissioning (≥ 10,000 SF) [N]	5.410.2						
Mandatory Commissioning plan [N]	5.410.3						
Mandatory Functional performance testing [N]	5.410.2.4X						
Mandatory ENERGY STAR Portfolio Manager profile setup (for projects exceeding \$100,000 in value)	PAMC 16.14.360 / 5.410.4.6X						
Mandatory Performance Review: For projects over 10,000 SF	PAMC 16.14.370 5.410.4.7						
Mandatory Performance Review (For sites > 1 acre)	PAMC 16.14.380 5.410.4.8						
Mandatory Documentation and Training: Systems manual	5.410.2.5.1X						
Mandatory Documentation and Training: Systems operations training [N]	5.410.2.5.2						
Mandatory Commissioning report [N]	5.410.2.6X						
Mandatory Testing and adjusting for new buildings < 10,000 SF or new systems that serve additions or alterations [N] [AA]	5.410.4.1X						
Mandatory Testing and adjusting for systems: Renewable energy, landscape irrigation, and water reuse	5.410.4.2						
Mandatory Testing and adjusting: Procedures	5.410.4.3						
Mandatory Testing and adjusting: HVAC balancing	5.410.4.3.1X						
Mandatory Testing, adjusting and balancing: Reporting for HVAC balancing	5.410.4.4						
Mandatory Operation and maintenance (O&M) manual	5.410.4.5X						
Mandatory Performance reviews: Water (sites > 1 acre)	PAMC 16.14.360 Sect 5.410.4.6						
Mandatory Inspection and reports: New buildings, additions and alterations < 10,000 SF [AA] < [N]	5.410.4.5.1						

Code Section	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification					
		Plan Check	Rough GB Inspection I/R # 152		Final Inspection I/R # 153		
			CORR	INITIAL	CORR	INITIAL	CORR
5.4 Material Conservation and Resource Efficiency, continued							
Elective Wood framing: Structural or fire-resistance integrity	AS 404.1.1						
Elective Wood framing: Fire-resistance specifications	AS 404.1.2						
Elective Regional materials	AS 405.1						
Elective Recycled materials: Reusable/renewable materials	AS 405.2.1						
Elective Recycled materials	AS 405.2						
Elective Cement and concrete: Cement	AS 405.5.1						
Elective Cement and concrete: Concrete	AS 405.5.2						
Elective Additional means of compliance: Cement: Alternative fuels	AS 405.5.3.1						
Elective Additional means of compliance: Cement: Alternative power	AS 405.5.3.2						
Elective Additional means of compliance: Concrete: Alternative energy	AS 405.5.3.3						
Elective Additional means of compliance: Concrete: Recycled aggregate	AS 405.5.3.4						
Elective Additional means of compliance: Concrete: High strength concrete	AS 405.5.3.5						
Elective Choice of materials: Recycled	AS 406.1.3						
Elective Life Cycle Assessment (shall be ISO 14004 compliant)	AS 406.1.4						
Elective Whole building life cycle assessment	AS 406.2						
Elective Materials and systems assessment	AS 406.3						
Elective Substitution of prescriptive standards	AS 406.4						
5.6 Environmental Quality							
Mandatory Temporary ventilation (MERV 8)	5.504.1						
Mandatory Covering of duct openings and protection of mechanical equipment during construction	5.504.3X						
Mandatory Adhesives, sealants and caulks: Comply with VOC limits (Table 5.504.4.1 and 5.504.4.2 for VOC)	5.504.4.1X						
Mandatory Paints and coatings: Comply with VOC Limits (Table 5.504.4.3)	5.504.4.3						
Mandatory Antiest paint and coatings	5.504.4.3.1X						
Mandatory Verification: for paints and coatings	5.504.4.3.2X						
Mandatory Carpet systems: Carpet cushion	5.504.4.4.1						
Mandatory Carpet systems: Carpet adhesive (Table 5.504.4.1 for VOC limits)	5.504.4.4.2X						
Mandatory Composite wood products: Formaldehyde limits (Table 5.504.4.5)	5.504.4.5X						
Mandatory Verification of compliance: for resilient flooring systems	5.504.4.6.1X						
Tier 2 Mand. Resilient flooring system: 100%	PAMC 16.16.070 & 16.14.080 5.504.4.7						
Tier 2 Mand. Thermal insulation: No-silver insulations	PAMC 16.16.070 & 16.14.080 5.504.4.8						
Mandatory Environmental tobacco smoke (ETS) control	5.504.4.9						
Mandatory Outside air delivery (For Indoor Air Quality)	5.506.1X						
Mandatory Carbon dioxide (CO2) monitoring (For Indoor Air Quality)	5.506.2X						
Mandatory Indoor Air Quality Management Plan	PAMC 16.14.360 5.507.1						
Mandatory Acoustical control (STC Values per ASTM E90 and ASTM E413)	5.507.4.1						
Mandatory Exterior noise transmission, prescriptive method (with exceptions)	5.507.4.1.1X						
Mandatory Noise envelope where noise contours are not readily available	5.507.4.1.1.1X						
Mandatory Exterior noise transmission, performance method	5.507.4.1.2						
Mandatory Site features	5.507.4.2.1X						
Mandatory Documentation of compliance	5.507.4.2.2						
Mandatory Interior sound transmission (with note)	5.507.4.3.1X						
Mandatory Ozone depletion and greenhouse gas reductions	5.508.1X						
Mandatory Chlorofluorocarbons (CFCs)	5.508.1.1X						
Mandatory HFCs	5.508.1.2						
Mandatory Supermarket refrigerant leak reduction	5.508.2						
Mandatory Refrigerant piping	5.508.2.1						
Mandatory Refrigerant piping valves	5.508.2.2						
Mandatory Refrigerant piping access valves	5.508.2.3						
Mandatory Refrigerant service case	5.508.2.4						
Mandatory Refrigerant recovery	5.508.2.5						
Mandatory Pressure testing	5.508.2.6						
Mandatory Evacuation (after pressure testing)	5.508.2.6X						
Elective Indoor air quality (IAQ) during construction: Temporary ventilation	AS 504.1.1						
Elective Indoor air quality (IAQ) during construction: Additional IAQ measures	AS 504.1.2						
Elective IAQ postconstruction	AS 504.2						
Elective IAQ testing	AS 504.2.1						
Elective Maximum levels of contaminants	AS 504.2.1.1						
Elective Test protocols	AS 504.2.1.2						
Elective Noncombustible building areas	AS 504.2.1.3						
Elective Acoustical ceiling and wall panels	AS 504.4.9						
Elective Hazardous materials and chemical pollutants	AS 504.5						
Elective Entryway systems (to control pollutants)	AS 504.5.1						
Elective Isolation of pollutant sources (to control pollutants)	AS 504.5.2						
Elective Lighting and thermal comfort controls: Single-occupant spaces: Lighting and Thermal Comfort	AS 507.1.1.1AS 507.1.2						
Elective Lighting and thermal comfort controls: Multi-occupant spaces	AS 507.1.2						
Elective Daylight: Toplighting and sidelighting	AS 507.2						
Elective Views: Clear line of sight to outdoors: interior office spaces	AS 507.3.1						
Elective Views: Multi-occupant spaces	AS 507.3.2						
Elective Hydro-chlorofluorocarbons (HCFCs) (for HVAC and refrigeration equipment)	AS 509.1.3						
Elective Hydro-chlorofluorocarbons (HCFCs) (for HVAC, refrigeration and fire suppression equipment)	AS 509.1.4						
Required Additional Elective (Choose 3 additional Electives from any category)	AS 601.3.1						
Tier 2 Mand.	AS 601.3.4						
Tier 2 Mand.	AS 601.3.4						
Tier 2 Mand.	AS 601.3.4						



FROM MIDDLEFIELD RD



FROM MIDDLEFIELD RD



WINDOW TO FRONT APRON



EXERCISE YARD



EXERCISE ROOM



AERIAL