NEW OPERATIONS FACILITY

COLT STATE PARK

ROUTE 114, BRISTOL, RI 02809

LOCUS MAP : NTS

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3288 POST ROAD
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LANDSCAPE ARCHITECT
LANDSCAPE ELEMENTS, LLC
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OWNER
STATE OF RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PURCHASE, ON BEHALF OF THE USER AGENCY
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PROJECT NAME
NEW OPERATIONS FACILITY
COLT STATE PARK

PROJECT ISSUE
BID SET
08/01/2025

PROJECT NUMBER
BTGA # 2201

COMMON ABBREVIATIONS

(USE OF PUNCTUATION IS OPTIONAL)

ABV	ABOVE
A/C	AIR CONDITION
ACC.	ACCESS(IBLE)
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITY ACT
ADDL	ADDITIONAL
ADJ.	ADJUSTABLE (OR) ADJACENT
A/E	ARCHITECT/ENGINEER
A.S.F	ABOVE SUBFLOOR
A.F.	ABOVE FLOOR
A.F.F.	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AL./ALUM.	ALUMINUM
ALT.	ALTERNATE
ANOD.	ANODIZED
ARCH.	ARCHITECT(URAL)
A.P.	ACCESS PANEL
APP.	APPROXIMATE
APT	APARTMENT
APPROX.	APPROXIMATE
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
AUTO.	AUTOMATIC
AUX.	AUXILIARY
BAS	BUILDING AUTOMATION SYSTEM
BD	BOARD
BDRM	BEDROOM
BFE	BOTTOM OF FROST ELEVATION
BITUM.	BITUMINOUS
BLDG	BUILDING
BLW	BELOW
BSMT	BASEMENT
BOTT.	BOTTOM
B.O.F	BOTTOM OF FOOTING
B.O.	BOTTOM OF
BLKG	BLOCKING
BIT.	BITUMEN OR BITUMENOUS
BLUEBD	BLUEBOARD (VENEER PLASTER BASE)
BRK	BRICK
BRZ	BRONZE
BTWN	BETWEEN
CAB.	CABINET
C.F.M.F.	COLD-FORMED METAL FRAMING
CG	COLUMN GRID
C.L.	CENTER LINE
CLL	CONTRACT LIMIT LINE
CLO	CLOSET
CLG	CEILING
CLR	CLEAR(ANCE)
C.J.	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
CO	CASED OPENING
COL.	COLUMN
COMP.	COMPRESS(ED), (ION). (IBLE)
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUE(D), (OUS)
COORD.	COORDINATE
CPT	CARPET
CPR	COPPER
C.T.	CERAMIC TILE
C.U.H.	CABINET UNIT HEATER
DBL	DOUBLE
DEMO	DEMO(LISH), (LITION)
DEG	DEGREES
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DISP.	DISPOSE
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
DWGS	DRAWINGS
DX	DUPLEX
EA.	EACH
EL	ELEVATION
ELEC.	ELECTRIC(AL)
ELEV.	ELEVATOR
EMER.	EMERGENCY
EMS	EMERGENCY MANAGEMENT SYSTEM
E.J.	EXPANSION JOINT
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EV	EXHAUST VENT
EX.	EXISTING
EXIST.	EXISTING
EXG	EXISTING
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.A.R.	FLOOR AREA RATIO
F.C.U.	FAN COIL UNIT
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT
FGL	FIBERGLASS
FIN.	FINISH
FIN.CLG	FINISH CEILING
FIN.FLR	FINISH FLOOR
FIN.SCH	FINISH SCHEDULE
FIXT.	FIXTURE
FLR.	FLOOR
FLUOR.	FLUORESCENT
FND.	FOUNDATION
F.O.	FACE OF
F.P.	FIRE PROTECTION
F.RATING	FIRE RATING
FR	FIRE RETARDANT
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FEET
FTG	FOOTING
FURN.	FURNITURE
GA	GAGE/GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GL	GLASS
GLAM	GLUE LAMINATED BEAM
GLZ	GLAZING
GWB	GYPSUM BOARD
HC	HANDICAP
HDF	HIGH DENSITY FIBERBOARD
HM	HOLLOW METAL
HDW	HARDWARE
HRW	HARDWARE
HOR.	HORIZONTAL
HR	HOUR
HT	HEIGHT
IN.	INCHES
INCL.	INCLUDE(D),(ING)
INFO.	INFORMATION
INSUL.	INSULATION
INT.	INTERIOR
J.C.	JANITOR'S CLOSET
J-BOX	JUNCTON BOX
JT	JOINT
K.B.	KNOX BOX
KIT.	KITCHEN
LAB.	LABORATORY
LAV.	LAVATORY
LB	POUND(S)
LCC	SEE Z.C.C.
L.E.D.	LIGHT EMITTING DIODE
LF	LIGHT FIXTURE
L.H.	LEFT HAND
LIB.	LIBRARY
LIN	LINOLEUM
LKR	LOCKER
LVL	LAMINATED VENEER LUMBER
LOC.	LOCATION
LVR	LOUVER
LVT	LUXURY VINYL TILE
MACH.	MACHINE
MAS.	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
MCT	MARMOLEUM COMPOSITION TILE
MECH.	MECHANICAL
MED.	MEDIUM
MEMB	MEMBRANE
MDF	MEDIUM DENSITY FIBERBOARD
MIL	MILLIMETER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
M.R.	MOISTURE RESISTANT
MTL	METAL
N.A.	NOT APPLICABLE
NAT.	NATURAL
N.C.	NOISE CRITERIA
N.I.C.	NOT IN CONTRACT
NKL	NICKEL
NOM.	NOMINAL
NO	NUMBER
NR	NOT RATED
N.R.C.	NOISE REDUCTION COEFFICIENT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.H.	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORIG.	ORIGINAL
OHD	OVERHEAD
OZ.	OUNCE
PCC	PRE-CAST CONCRETE
PERP	PERPENDICULAR
PL	PLATE
PLAM	PLASTIC LAMINATE
PNL	PANEL
PNT	PAINT
PPL	PEOPLE
PTD	PAINTED
PR	PAIR
PREP	PREPARATION
P.T.	PRESSURE TREATED
PTN	PARTITION
PWD	PLYWOOD
P.V.	PLUMBING VENT
Q.T.	QUARRY TILE
R#	RADIUS
R	RISER
R.B.	RESILENT BASE
RCP	REFLECTED CEILING PLAN
R&D	REMOVE & DISPOSE
R.D.	ROOF DRAIN
RE:	REFER TO
REF.	REFER
REFR	REFRIGERATOR
REQ.	REQUIRE(D)
RES.	RESILIENT
REV.	REVISION
R.H.	RIGHT HAND
RM	ROOM
RNF	RESINOUS FLOORING
R.O.	ROUGH OPENING
RWB	RUBBER WALL BASE
SCHED.	SCHEDULE
SD	SIDE
SECT.	SECTION
SF	SQUARE FEET
SF	SUB FLOOR
S.GASKET	SMOKE GASKET
SGL	SAFETY GLASS
SHT	SHEET
SHTH	SHEATHING
SIM.	SIMILAR
SPEC.	SPEC (-IFIED) (-IFICATION)
SOG	SLAB ON GRADE
SRL	SUBMITTAL REVIEW LETTER
SQ.	SQUARE
S.S.	STAINLESS STEEL
S.S.M.	SOLID SURFACE MATERIAL
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STOR.	STORAGE
STL	STEEL
STRUCT.	STRUCTURAL
SUSP.	SUSPEND(ED)
SYS.	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
TEL.	TELEPHONE
TEMP	TEMPORARY
TGL	TEMPERED GLASS
THK	THICK(NESS)
THRESH	THRESHOLD
T.O.	TOP OF
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF SHELF
T.O.W.	TOP OF WALL
TS	TUBE STEEL
TSTAT	THERMOSTAT
TYP	TYPICAL
TZ	TERRAZZO
U.H.	UNIT HEATER
U.N.O.	UNLESS NOTED OTHERWISE
V.A.T.	VINYL ASBESTOS TILE
VCT	VINYL COMPOSITION TILE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
V.R.	VAPOR RETARDER
W/	WITH
W.C.	WATER CLOSET
WOM	WALK-OFF MAT
WD	WOOD
WDW	WINDOW
WSU	WATERPROOF SHINGLE UNDERLAYMENT
WWF	WELDED WIRE FABRIC
Z.C.C.	ZINC COATED COPPER
@	AT
&	AND

DRAWING LIST

SHEET	SHEET NAME
GENERAL	
G0.0	COVER SHEET
G0.1	SHEET LIST & COMMON ABBREVIATIONS
G0.2	CODE SUMMARY & EGRESS PLAN
CIVIL	
C1.0	SITE PREPARATION PLAN
C1.1	SITE PLAN
C1.2	GRADING & DRAINAGE PLAN
C1.3	UTILITIES PLAN NO.1
C1.4	UTILITIES PLAN NO. 2
C2.1	CIVIL DETAILS
C2.2	CIVIL DETAILS
C2.3	CIVIL DETAILS
C2.4	CIVIL DETAILS
C2.5	CIVIL DETAILS
C2.6	CIVIL DETAILS
C2.7	CIVIL DETAILS
C2.8	CIVIL DETAILS
LANDSCAPE	
LA1.0	LANDSCAPE NOTES
LA1.1	LANDSCAPE MATERIALS PLAN
LA2.0	LANDSCAPE PLANTING PLAN
LA3.0	LANDSCAPE DETAILS - SHEET 1
LA3.1	LANDSCAPE DETAILS - SHEET 2
STRUCTURAL	
S0.0	GENERAL NOTES
S0.1	GENERAL NOTES CONTINUED AND DESIGN CRITERIA
S1.0	OVERALL FOUNDATION PLAN
S1.1	GARAGE FOUNDATION PLAN
S1.2	MAIN BUILDING FOUNDATION PLAN
S2.0	OVERALL SLAB ON GRADE PLAN
S2.1	GARAGE SLAB ON GRADE PLAN
S2.2	MAIN BUILDING SLAB ON GRADE PLAN
S3.0	OVERALL ROOF FRAMING PLAN
S3.1	GARAGE ROOF FRAMING PLAN
S3.2	MAIN BUILDING ROOF PLAN
S4.0	BUILDING ELEVATIONS - GARAGE
S4.1	BUILDING ELEVATIONS - MAIN BUILDING GABLE ENDS
S4.2	TRUSS LAYOUT ELEVATIONS
S5.0	TYPICAL FOUNDATION DETAILS
S5.1	TYPICAL FOUNDATION DETAILS
S6.0	TYPICAL MASONRY DETAILS
S7.0	TYPICAL WOOD DETAILS
S7.1	TYPICAL WOOD DETAILS
S8.0	STRUCTURAL DETAILS
S9.0	WOOD SHEAR WALL PLAN
S9.1	SHEAR WALL AND UPLIFT DETAILS
ARCHITECTURAL	
A0.1	GENERAL NOTES & WALL TYPES
A1.1	FLOOR PLAN
A1.2	ENLARGED FLOOR PLAN
A1.3	LEVEL 1 RCP
A1.4	ROOF PLAN
A2.1	EXTERIOR ELEVATIONS
A3.1	BUILDING SECTIONS
A3.2	WALL SECTIONS
A3.3	WALL SECTIONS
A4.1	ENLARGED RESTROOM PLANS AND ELEVATIONS
A5.1	EXTERIOR WALL PLAN DETAILS
A5.2	ROOF DETAILS
A5.3	WINDOW AND DOOR DETAILS
A5.4	WOOD, PRECAST AND MASONRY DETAILS
A5.5	PERGOLA DETAILS
A6.1	DOOR AND WINDOW TYPES AND SCHEDULES
A6.2	INTERIOR DETAILS
A7.1	FINISH SCHEDULE, DETAILS, AND FLOOR PLAN
A7.2	FURNITURE & EQUIPMENT PLAN
A7.3	FURNITURE & EQUIPMENT PLAN @ GARAGE
A7.4	INTERIOR ELEVATIONS
A7.5	INTERIOR ELEVATIONS
GR1.0	FABRICATOR SPECIFICATIONS
GR1.1	GRAPHIC WALL - PANEL LAYOUT AND ATTACHMENT
GR1.2	GRAPHIC WALL - ALUM. MOUNTING GRID LAYOUT
MECHANICAL	
M0.1	MECHANICAL NOTES
M1.1	MECHANICAL DUCTWORK PLAN - VENTILATION
M1.2	MECHANICAL DUCTWORK PLAN - HEAT PUMPS
M2.1	MECHANICAL ELEVATIONS
M2.2	MECHANICAL ELEVATIONS
M3.1	MECHANICAL DETAILS
M3.2	MECHANICAL DETAILS
M4.1	MECHANICAL SCHEDULES
PLUMBING	
P0.1	PLUMBING NOTES
P1.1	PLUMBING SANITARY AND VENT PIPING
P1.2	PLUMBING DOMESTIC PIPING
P1.3	PLUMBING CONDENSATE PIPING
P1.4	PLUMBING TRENCH DRAIN PIPING PLAN
P2.1	PLUMBING ELEVATIONS
P3.1	PLUMBING DETAILS I
P3.2	PLUMBING DETAILS II
P4.1	PLUMBING SCHEDULES
ELECTRICAL	
E0.1	ELECTRICAL NOTES & LEGENDS
E0.2	ELECTRICAL SCHEDULES
E0.3	ELECTRICAL DETAILS I
E0.4	ELECTRICAL DETAILS II
E1.1	ELECTRICAL SITE PLAN
E1.2	ELECTRICAL FLOOR PLANS
E1.3	MECHANICAL EQUIPMENT ELECTRICAL CONNECTION PLAN
ES0.1	ELECTRICAL DETAILS & ONE LINE DIAGRAM
ES1.0	OVERALL SITE PLAN
ES1.1	ELECTRICAL SITE PLAN NO. 1
ES1.2	ELECTRICAL SITE PLAN NO. 2
FA1.1	FIRE ALARM PLAN
SECURITY	
Y0.1	SECURITY SYMBOL LEGEND AND NOTES
Y1.1	SECURITY FLOOR PLAN FOR REVIEW
Y2.1	SECURITY DETAILS
Y2.2	SECURITY DETAILS
Y2.3	SECURITY DETAILS
Y2.4	SECURITY DETAILS

NEW OPERATIONS FACILITY
COLT STATE PARK
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JOB NO. 2201 | DATE 08/01/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE

SHEET LIST & COMMON ABBREVIATIONS

SHEET

G0.1

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ENERGY CODE SUMMARY

ENERGY CODE:	RHODE ISLAND STATE ENERGY CONSERVATION CODE 2018 INTERNATIONAL ENERGY CONSERVATION CODE
COMPLIANCE APPROACH:	PRESCRIPTIVE
BUILDING USE:	ADMINISTRATIVE OFFICE, PARKING GARAGE, STORAGE
BUILDING OWNERSHIP:	STATE-OWNED
PROJECT TYPE:	NEW BUILDING

CLIMATE ZONE - TABLE C301.3

EXTERIOR DESIGN CONDITIONS	VALUE
COUNTY	BRISTOL
CLIMATE ZONE	5
MOISTURE DESIGNATION	A-MOIST
WINTER, DESIGN DRY-BULB (DEGREE F)	5
SUMMER DESIGN DRY-BULB	89
SUMMER DESIGN WET-BULB	73
DEGREE DAYS HEATING	5950
DEGREE DAYS COOLING	811

RHODE ISLAND CLIMATE ZONE DEFINITION - TABLE C301.3(2)

ZONE NUMBER	THERMAL CRITERIA	
	IP UNITS	SI UNITS
5	5400<HDD65 F<7200	3000<HDD18 C<4000

INTERIOR DESIGN CONDITIONS. THE INTERIOR DESIGN TEMPERATURE USED FOR ENERGY LOAD CALCULATIONS SHALL BE A MAXIMUM OF 72 DEGREES F (22 C) FOR HEATING AND MINIMUM OF 75 DEGREES F FOR COOLING.

OPAQUE THERMAL ENVELOPE REQUIREMENTS - TABLE C402.1.3

	2018 IECC REQUIREMENT BASE CODE	ACTUAL
ROOFS		
INSULATION ENTIRELY ABOVE DECK	R-30 ci	R-30 ci min. NA
ATTIC & OTHER	R-38	R41.8
WALLS - ABOVE GRADE		
MASS	R-11.4 ci	R15
WOOD-FRAMED & OTHER	U-0.064 OR R-15.625	R-15.625 MIN.
WALLS - BELOW GRADE		
BELOW GRADE WALL	R-7.5 ci	NA
SLAB-ON-GRADE FLOORS		
UNHEATED SLABS	R-10 - 24" BELOW	R-10
OPAQUE DOORS		
SWINGING	U-0.37	U-0.37 MIN.
ROLL-UP	R-4.75	R-4.75 MIN.

BUILDING ENVELOPE REQUIREMENTS: VERTICAL FENESTRATION - TABLE C402.3

	2018 IECC REQUIREMENT BASE CODE	ACTUAL
U-FACTOR		
FIXED FENESTRATION	0.38	0.38 MIN.
OPERABLE FENESTRATION	0.45	0.45 MIN.
ENTRANCE DOORS	0.77	0.77 MIN.
SHGC		
SHGC	0.40	0.40 MIN.
SKYLIGHT		
U-FACTOR	0.50	0.50 MIN.

"ci" = CONTINUOUS INSULATION
INSULATION AND FENESTRATION CRITERIA:
THE BUILDING THERMAL ENVELOPE SHALL EXCEED THE REQUIREMENTS OF TABLES C402.1.2 AND C402.3 OF THE INTERNATIONAL ENERGY CONSERVATION CODE BY NOT LESS THAN 10 PERCENT. SPECIFICALLY, FOR PURPOSES OF COMPLIANCE WITH THIS CODE, EACH U-FACTOR, C-FACTOR, F-FACTOR, AND SHGC IN THE SPECIFIED TABLES SHALL BE REDUCED BY 10 PERCENT TO DETERMINE THE PRESCRIPTIVE CRITERIA FOR THIS CODE.

1 / G0.2 LEVEL 1 - Code Plan
Scale: 1/8" = 1'-0"

EGRESS LEGEND

LIMIT OF WORK		FIRE EXTINGUISHER	F.E.C. F.E.
1 HR SEPARATION		EGRESS PATH	
2 HR SEPARATION			
1 HR CEILING			
ROOM DESIGNATION	ROOM NAME & NUMBER / SQFT / OCCUPANTS	CAPACITY OF EGRESS OPENING	CAPACITY = ##
EGRESS ANNOTATION (DIRECTION + # OCC.)	##	EXISTING TO REMAIN	
TRAVEL DISTANCE		NEW CONSTRUCTION	

CODE SUMMARY

APPLICABLE CODES

Rhode Island State Building Code, SBC-1 (Incorporates International Building Code, 2018 Edition, by reference)
Rhode Island Fire Safety Code 2021 (Includes NFPA1 Fire Code - 2018 & NFPA 101 Life Safety Code - 2018)

Rhode Island Accessibility Code (ADAAG 2010: Accessible and Usable Buildings (ICC A117.1-2009)
Town of Bristol Zoning Ordinance

BUILDING INFORMATION

State Park Offices and Vehicle Storage 12,058 S.F.

ZONING INFORMATION

OS - Open Space

OCCUPANCY CLASS

Use/Occupancy	Business (B): Offices, E.P.O, Ranger Facilities, Workshop; Low-Hazard Storage (S-2): Garage Moderate-Hazard Storage (S-1): Unconditioned Storage	SBC 302.1 NFPA 6.1.14.1.3
Accessory Use	N/A	
Incidental Uses	Paint shop	SBC (Table 509)
Occupancy Separation	Nonseparated Occupancies: B, S-1 and S-2	SBC 508.3
	Occupancy B and Incidental Use: 2 hour	SBC (Table 509)

OCCUPANT LOADING

	REQUIRED	ACTUAL	REFERENCE
Business (B)	150 SF gross/person	60 OCCUPANTS	SBC (Table 1004.5)
Moderate-Hazard Storage (S-1)	500 SF gross/person	NO OCCUPANTS	
Low-Hazard Storage (S-2)	200 SF gross/person	28 OCCUPANTS	

HEIGHT & AREA REQUIREMENTS

Allowable Height & Area

Use Group	Allowable Height*	Max Area**	Proposed Height	Proposed Area	Total Area Allowed
S1 (Most Restrictive Nonseparated Use)	40'-0"	36,000	30'-6"	12,058 sf	36,000

* Values from Table 504.3

TYPES OF CONSTRUCTION

Construction Type:	Type VB		SBC Table 601

MEANS OF EGRESS

Egress Widths	REQUIRED	PROVIDED	REFERENCE
Stairways	.3"/occupant, but not less than 44" (36" if occupant load is less than 50)	N/A	SBC 1005
Corridors	.2"/occupant, but not less than 44" (36" if occupant load is less than 50)	Minimum clear width provided is 60"	SBC 1018.2
Doors	32" minimum clear width	36" minimum at each door	SBC 1008
Aisles in fixed furniture	36" minimum clear width	N/A	SBC 1017

Minimum Number of Exits	REQUIRED	PROVIDED	REFERENCE
	Occupant load 1-500 requires minimum of 2 exits per story.	Minimum 2 exits per story	SBC Table 1021.1
			SBC Table 1015.1
	Occupant load of greater than 50 requires minimum of 2 exits per space.	N/A	SBC 1018.4 & FSC Table A7.6

Travel Requirements	REQUIRED	PROVIDED	REFERENCE
Common Path - Business	75 ft.	36 ft.	LSC 39.2.5
- Storage	100 ft.		LSC 42.2.5
Dead End - Business	20 ft.	N/A	SBC 1020.4
- Storage			
Total Travel - Business	200 ft.	65 ft 9 in.	LSC 39.2.5
- Storage	200 ft.	53 ft 5 in.	LSC 42.2.5

FIRE & SMOKE PROTECTION

Rated Assemblies	REQUIRED		PROVIDED	REFERENCE
Corridor Protection	1 HR required if occupant load is greater than 30		1 HR	SBC Table 1020.1
Exit Stair Protection	Minimum 1 Hour required where exits connect 3 or fewer stories.		N/A	FSC 7.1.3.2 FSC.A7.1.3.2.1
Component	SBC REQ.	FSC REQ.	Proposed construction meets the minimum fire resistance requirements.	SBC Table 601
Structural Frame	0 HR	0 HR		
Bearing Walls (Exterior)	0 HR	0 HR		
Bearing Walls (Interior)	0 HR	0 HR		
Nonbearing Walls	0 HR	0 HR		
Floor	0 HR	0 HR		
Roof	0 HR	0 HR		
Verical Openning Shafts <4 Stories		1 HR	N/A	N/A

PLUMBING CALCULATIONS

Required (44 Business Occupants & 0 Garage Occupants - simultaneous use)			Provided			
	Water Closets/ Urinals	Lavatories		Water Closets/ Urinals	Lavatories	
Mens	2	2	Unisex	5	5	
Womens	2	2				
Drinking Fountains	1		Drinking Fountains	2		
Mop Sink	1		Mop Sink	2		

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NATHANIEL J. GINSBURG 3350 REGISTERED ARCHITECT

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SHEET TITLE
CODE SUMMARY & EGRESS PLAN

SHEET
G0.2

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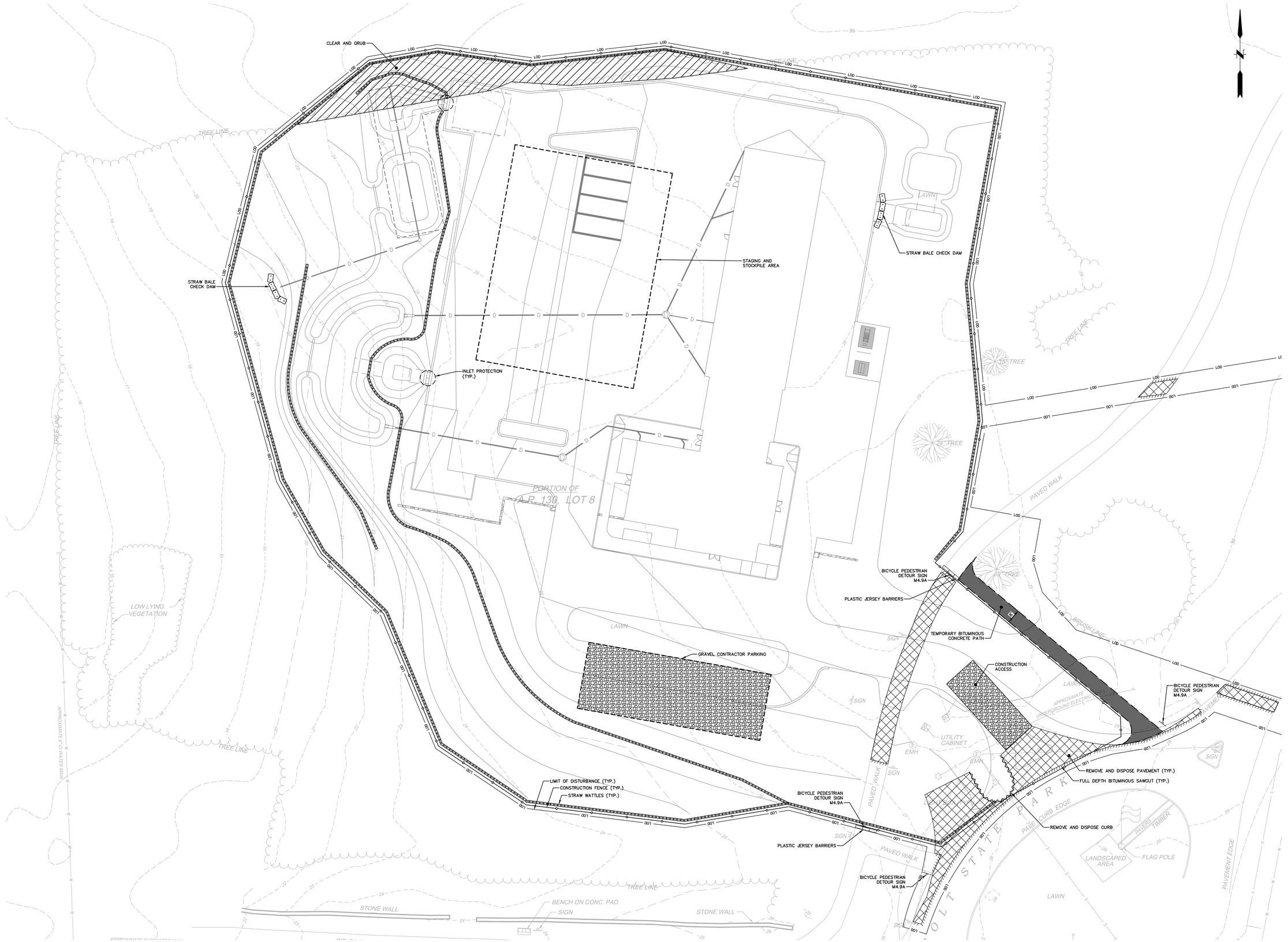

SITE PREPARATION PLAN
1" = 20'

File: J:\DWG\P2021\09\01A10\Civil\Plan\20210901A10_ERG001.dwg Layout: C1.0 Plotted: 2025-07-29 4:19 PM Saved: 2025-07-29 4:10 PM User: Andy.Glines
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Landscape Elements, LLC
Landscape Architecture
Landscape Ecology
Cultural Landscape Preservation

JOB NO.	DATE
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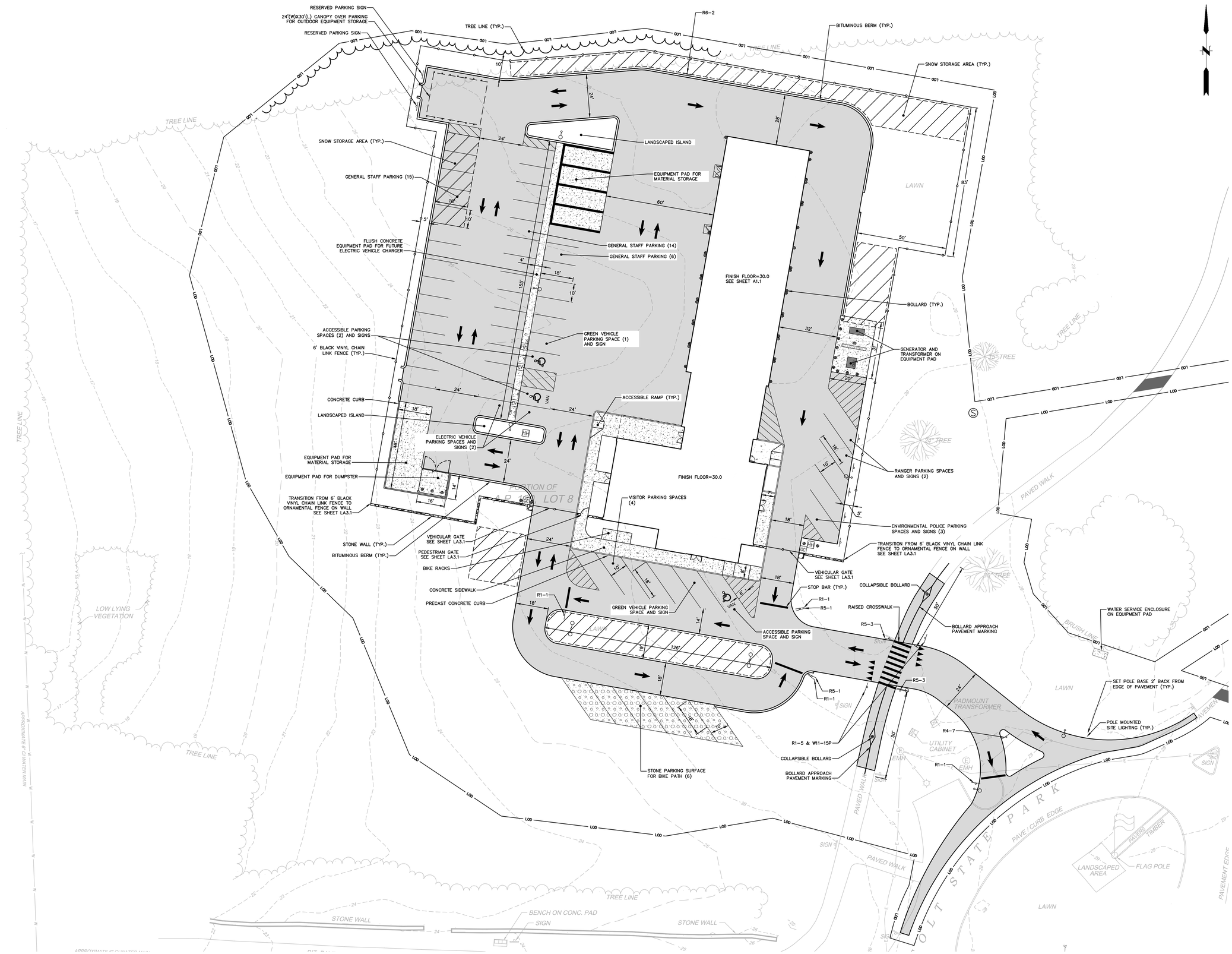
SHEET TITLE
SITE PREPARATION PLAN

SHEET
C1.0



SITE PLAN
1" = 20'

File: J:\DWGP\2021\09\01A10\Civil\Plot\20210901A10_STP01.dwg Layout: C1.1 (SITE PLAN) Plotted: 2025-10-14 3:43 PM Saved: 2025-10-14 3:41 PM User: Andy.Glines
PC3: NONE STB:CTB FO:2008 MONO.CTB

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SHEET TITLE
SITE PLAN

SHEET
C1.1

NOTE:

TO PREVENT COMPACTION OF THE SOIL IN THE QPA, CONSTRUCTION VEHICLES MUST NOT BE ALLOWED TO DRIVE OVER THE AREA. IF IT BECOMES COMPACTED, THE SOIL MUST BE SUITABLY AMENDED, TILLED, AND RE-VEGETATED ONCE CONSTRUCTION IS COMPLETE TO RESTORE INFILTRATION CAPACITY.

DOUBLE CATCH BASIN 1
WITH CATCH BASIN INSERT
RIM=26.00
WEIR=24.00

CLEAN OUT
INV=20.75

SEDIMENT FOREBAY 1

RIPRAP SPILLWAY=24.0

EXTENTS OF GEOMEMBRANE LINER

SAND FILTER 1

UNDERDRAIN, 87 LF
S=0.005 FT/FT

OVERFLOW SPILLWAY
CREST EL.=23.75

6" SDR35 PVC, 82 LF
S=0.005 FT/FT

OUTLET INV=19.90

TURF REINFORCEMENT MATTING

OVERFLOW SPILLWAY
CREST EL.=23.75

RIPRAP SPILLWAY
CREST EL.=24.50

RIPRAP OUTLET PROTECTION
HDPE FLARED END SECTION
INV =24.00

RIPRAP OUTLET PROTECTION
HDPE FLARED END SECTION
INV =24.00

SAND FILTER 2

SEDIMENT FOREBAY 2

DOUBLE CATCH BASIN
2
RIM=26.25
WEIR=24.25

12" HDPE, 94 LF
S=0.027 FT/FT

DRAIN BASIN (SOLID
COVER)
RIM = 25.5
INV. IN= 20.3
INV. OUT=20.3

12" HDPE, 140 LF
S=0.018 FT/FT

DRAIN MANHOLE 1
RIM=29.50
INV. IN (NE)=26.60
INV. IN (E)=26.85
INV. IN (SE)=26.60
INV. OUT=26.50

RIPRAP OUTLET PROTECTION
HDPE FLARED END SECTION
INV=24.00

45 DEG BEND
(TYP.)

DRAIN MANHOLE 2
RIM=28.35
INV. IN=26.60
INV. OUT=26.50

8" HDPE, 43 LF
S=0.01 FT/FT

8" HDPE, 13 LF
S=0.025 FT/FT

WYE FITTING
(TYP.)

8" HDPE, 58 LF
S=0.01 FT/FT

4" PVC, 25 LF
S=0.01 FT/FT

8" HDPE, 38LF
S=0.024 FT/FT

8" HDPE, 27LF
S=0.011 FT/FT

8" HDPE, 25LF
S=0.011 FT/FT

8" HDPE, 29 LF
S=0.011 FT/FT

EXTERNAL DOWNSPOUT =
27.5

EXTERNAL
DOWNSPOUT
DISCHARGE AT
GRADE

CLEANOUT

CONNECTION TO
TRENCH DRAINS
INV.=27.10
SEE SHEET P-101

FINISH FLOOR=30.0
SEE SHEET A1.1

FINISH FLOOR=30.0

SPILLWAY WITH TURF REINFORCEMENT
MATTING
CREST EL.=28.5

SAND FILTER 3

RIPRAP SPILLWAY
CREST EL.=28.0

SEDIMENT FOREBAY 3

QUALIFYING PERVIOUS
AREA (SEE NOTE)

RAISED
CROSSWALK

BENCHMARK
CHISELED SQUARE - S.W. CORNER
ELEV: 28.99' (NAVD 88)

PORTION OF
A.P. 14, LOT 8

COLT STATE PARK

TREE LINE
LOW LYING
VEGETATION
LAWN
BRUSH LINE
PAVED WALK
PAVEMENT
PAVE / CURB EDGE
TIMBER
PAVERS
LANDSCAPED
AREA
FLAG POLE
STONE WALL
BENCH ON CONC. PAD
SIGN
BIT. PAVED
UTILITY
CABINET
EMH
LIGHT BOX (TYP.)
APPROXIMATE 6" CI WATER MAIN

GRADING & DRAINAGE
1" = 20'

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SHEET TITLE
GRADING & DRAINAGE PLAN

SHEET
C1.2

File: \\private\dfs\CadProj\DWGP\2021\069\A10\Civil\Plan\20210691A10_STP01.dwg Layout: C1.2 (GRADING+DRAINAGE) Plotted: 2025-08-14 2:45 PM Saved: 2025-08-14 2:42 PM User: William.Cornwall
PCS: NONE STB:CTB: FO 2008 MONO.CTB

MATCH LINE SEE SHEET C1.4

CHARGEPOINT EV CHARGING STATION (TYP. OF 2) WITH SURFACE MOUNTED BOLLARDS

ELECTRIC HANDHOLE (TYP.) – SEE SHEET E1.1

GENERATOR AND TRANSFORMER ON EQUIPMENT PAD – SEE SHEET E1.1

COORDINATE FINAL BOLLARD LOCATIONS AND QUANTITY WITH UTILITY

8" SDR35 PVC 111 LF S=0.008FT/FT

4"X8"X8" WYE WITH CLEANOUT INV. OUT = 25.0

SEWER MANHOLE 1 RIM=29.0± 8" GRAVITY SERVICE INV. IN=24.11 8" GRAVITY SERVICE INV. OUT=24.01

GATE CONTROLLER (TYP.) – SEE SHEET E1.1

EXTEND PE DOMESTIC WATER SERVICE PIPING INTO BUILDING WITH PROTECTIVE SLEEVE. CHANGE PIPE TYPE ABOVE GROUND IN JANITOR CLOSET

DOMESTIC WATER SERVICE. 2" BLUE PE WATER SERVICE PIPE SDR-9 (ASTM D2737) (250 PSI) FROM WATER SERVICE ENCLOSURE TO INSIDE OF BUILDING. SERVICE PIPE AND INSTALLATION TO MEET BSWA STANDARDS

WATER SERVICE ENCLOSURE

2" TYPE K WATER SERVICE FROM MAIN TO WATER SERVICE ENCLOSURE

ELECTRICAL CONDUIT (TYP.) – SEE SHEET E1.1

CUT, CAP, AND ABANDON EXISTING 4" FORCE MAIN AFTER INSTALLATION OF 8" SDR 35 PVC SEWER MAIN

LOAM AND SEED PIPE TRENCH (TYP.)

SEWER MANHOLE 2 RIM=31.0± 4" FORCE MAIN INV. IN=21.75 8" GRAVITY SERVICE INV. IN=21.75 8" GRAVITY SERVICE INV. OUT=21.65

8" SDR35 PVC 231 LF S=0.006 FT/FT

BITUMINOUS CONCRETE PAVEMENT REPAIR

8" SDR35 PVC 310 LF S=0.008FT/FT

REPLACE AIR VACUUM RELEASE MANHOLE WITH SEWER MANHOLE

APPROXIMATE LOCATION OF EXISTING AIR VACUUM RELEASE MANHOLE

CLEAN OUT

DROP EXISTING 4" FORCE MAIN FROM 26.25 TO 21.75 TO DISCHARGE INTO SANITARY MANHOLE CHANNEL

CLEARING AND GRUBBING TO BE MINIMIZED FOR THE SANITARY SEWER INSTALLATION

RESTORATION OF ALL AREAS DISTURBED FOR THE SANITARY SEWER AND MEDIUM VOLTAGE INSTALLATION TO BE LOAM AND SEED

CURB STOP

FIRE HYDRANT

CONDUCT EXPLORATORY EXCAVATION AT APPROXIMATE SEWER CROSSING PRIOR TO WATER SERVICE INSTALLATION

SERVICE CONNECTION WITH SERVICE SADDLE

TAPPING SLEEVE AND VALVE

6" DI FIRE HYDRANT WATER SERVICE

CROSS WATER SERVICE OVER SANITARY FORCE MAIN IF 4' OF COVER AND 18" OF VERTICAL SEPARATION CAN BE ACHIEVED OTHERWISE, INFORM ENGINEER AND BCWA TO CONFIRM ALTERNATE CROSSING APPROACH

BITUMINOUS CONCRETE PAVEMENT REPAIR

APPROXIMATE EXISTING 4" SEWER FORCE MAIN

APPROXIMATE EXISTING 10" HDPE WATER MAIN

ELECTRICAL CONDUIT (TYP.) – SEE SHEET E1.1

UTILITIES PLAN NO. 1
1" = 30'

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SHEET TITLE
UTILITIES PLAN NO. 1

SHEET
C1.3

File: J:\DWG\P2021\09\01A10\Civil\Plan\20210901A10_STP01.dwg Layout: C1.3 (UTILITY) Plotted: 2025-10-14 3:43 PM Saved: 2025-10-14 3:41 PM User: Andy.Glines
PC3: NONE STB:CTB: FO 2008 MONO.CTB

MATCH LINE SEE SHEET C1.3

UTILITIES PLAN NO. 2
1" = 30'

File: J:\DWG\P2021\0691\A16\Civil\Plan\20210691A10_STP01.dwg Layout: C1.4 (UTILITY) Plotted: 2025-10-14 3:43 PM Saved: 2025-10-14 3:41 PM User: Andy.Glines
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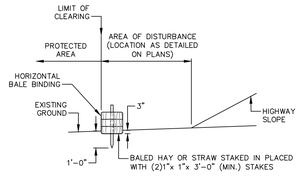
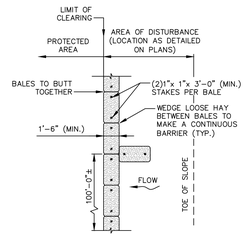
SHEET TITLE
UTILITIES PLAN NO. 2

SHEET
C1.4



ELEVATION



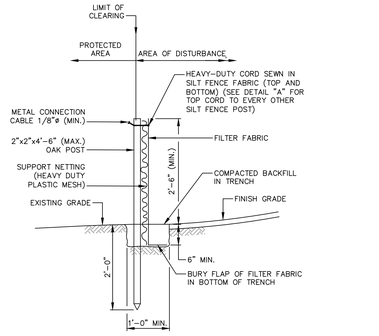
PLAN

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. AT APPROXIMATE 100'-0" INTERVALS A BALE OF HAY IS TO BUTT PERPENDICULARLY.

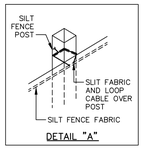
STRAW BALE CHECK DAM

NOT TO SCALE



NOTES:

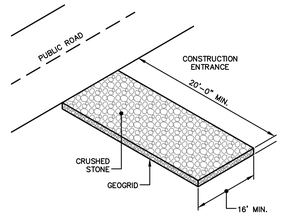
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6" (MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



DETAIL "A"

SILT FENCE DETAIL (R.I. STD. 9.2.0)

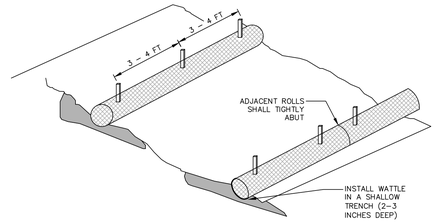
NOT TO SCALE



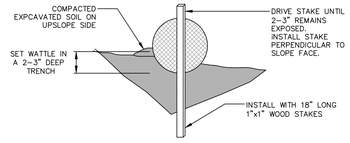
NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

CONSTRUCTION ACCESS (R.I. STD 9.9.0)

NOT TO SCALE



TYPICAL WATTLE INSTALLATION GUIDE



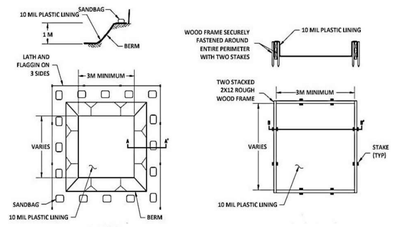
ENTRENCHMENT

NOTES:

1. WATTLES SHALL BE TRENCHED APPROXIMATE 2-3 INCHES AND STAKED SUCH THAT WATTLES DIRECTLY CONTACT SOIL AND PRECLUDE UNDERMINING OR BLOWOUTS. THE TRENCH SHALL BE APPROXIMATELY 9 INCHES WIDE. STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE WATTLE AT A SPACING OF 3-4 FEET ON CENTER AND NO GREATER THAN 6' FROM THE EACH END OF THE WATTLE. STAKES SHALL BE 1-INCH BY 1-INCH WOODEN STAKES WITH A LENGTH OF 18 INCHES. COMPACT SOIL EXCAVATED TO CREATE TRENCH ON UPHILL SIDE SIDE.
2. ENDS OF ADJACENT WATTLES SHALL BE TIGHTLY BUTTED OR OVERLAPPED SO THAT NO OPENING EXISTS FOR WATER TO PASS THROUGH. WATTLES SHALL BE FREE OF DAMAGE OR DEFECTS WHEN DELIVERED TO THE SHIPPER. NO VEHICLES SHALL BE DRIVEN OVER WATTLES.
3. WATTLES SHALL BE 12-INCH SEDIMAX-SW12™ MANUFACTURED BY NORTH AMERICAN GREEN, OR APPROVED EQUAL.

STRAW WATTLES

NOT TO SCALE



PLAN
NOT TO SCALE
TYPE "BELOW GRADE"
SECTION A-A'
NOT TO SCALE

PLAN
NOT TO SCALE
TYPE "ABOVE GRADE" WITH WOOD PLANKS
SECTION B-B'
NOT TO SCALE

NOTES:

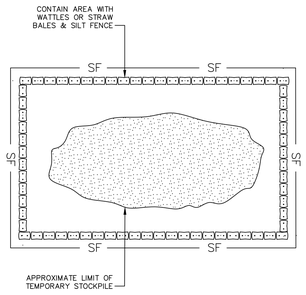
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. FOR REFERENCE PURPOSES ONLY. NOT FOR CONSTRUCTION PURPOSES.

REFERENCE:

RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, ISSUED 1989 (REVISED 2014)

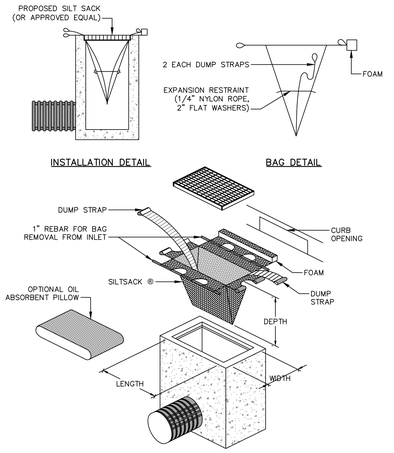
TEMPORARY CONCRETE WASHOUT FACILITY

NOT TO SCALE



TEMPORARY SOIL STOCKPILE

NOT TO SCALE



INLET PROTECTION

NOT TO SCALE

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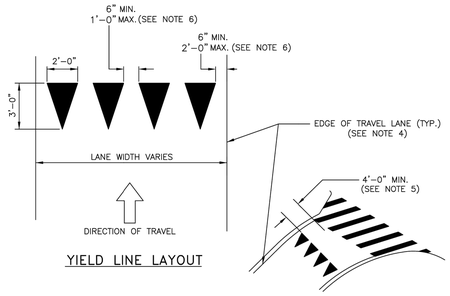
SHEET TITLE
CIVIL DETAILS

SHEET
C2.1



YIELD LINE LAYOUT

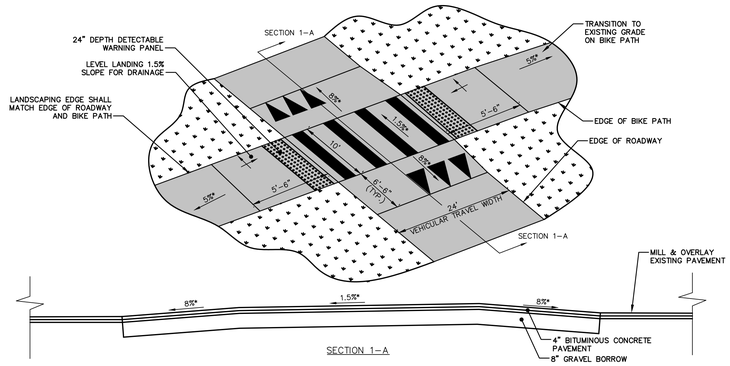
CURVED APPROACH

NOTES:

1. ALL MARKINGS SHALL BE IN ACCORDANCE WITH SECTION T.20 OF THE RI STANDARD SPECIFICATIONS.
2. ALL YIELD LINE MARKINGS SHALL BE WHITE.
3. YIELD LINE MARKINGS SHALL ONLY BE INSTALLED WHERE CALLED FOR ON THE PLANS.
4. THE EDGE OF TRAVEL LANE IS THE EDGE OR LANE LINE PAVEMENT MARKING OR, WHERE NO SUCH MARKING IS PRESENT, THE EDGE OF THE PAVEMENT.
5. THE INDIVIDUAL TRIANGLES OF EACH YIELD LINE SHALL ALL POINT TOWARD APPROACHING VEHICLES IN THE SAME DIRECTION AND ORIENTATION. WHERE THE DOWNSTREAM CROSSWALK (OR IF NONE IS PRESENT, THE EDGE OF THE NEAREST INTERSECTING TRAVEL LANE) IS NOT PERPENDICULAR TO THE APPROACH, THE POINT OF THE TRIANGLE'S BASE THAT IS CLOSEST TO THE CROSSWALK (OR EDGE OF THE NEAREST INTERSECTING TRAVEL LANE) SHALL CONFORM TO THE MINIMUM DISTANCES DESCRIBED IN NOTE 7.
6. THE SPACES BETWEEN THE BASES OF ADJACENT YIELD LINE TRIANGLES SHALL BE IDENTICAL ACROSS THE ENTIRE WIDTH OF THE TRAVEL LANE. THE SPACE BETWEEN THE EDGE OF THE YIELD LINE TRIANGLES CLOSEST TO THE EDGE OF THE TRAVEL LANE AND THE LATTER MAY VARY SUBJECT TO THE DIMENSIONS SHOWN ON THE DETAIL.
7. UNLESS OTHERWISE CALLED FOR ON THE PLANS:
   A. WHERE A MARKED CROSSWALK IS ABSENT FROM A YIELD-CONTROLLED APPROACH, THE YIELD LINE SHOULD BE PLACED AT THE LOCATION OF THE YIELD SIGN(S), BUT SHALL NOT BE PLACED MORE THAN 30'-0" NOR LESS THAN 4'-0" FROM THE NEAREST EDGE OF THE INTERSECTING TRAVEL LANE.
   B. WHERE A MARKED CROSSWALK IS PRESENT ON THE YIELD-CONTROLLED APPROACH, THE YIELD LINE SHOULD BE PLACED AT THE LOCATION OF THE YIELD SIGN(S), BUT SHALL NOT BE PLACED MORE THAN 30'-0" FROM THE NEAREST EDGE OF THE INTERSECTING TRAVEL LANE NOR LESS THAN 4'-0" IN ADVANCE OF THE NEAREST CROSSWALK LINE (OR THE NEAREST EDGE OF THE INTERSECTING TRAVEL LANE).
8. FOR YIELD LINES ON DESIGNATED BICYCLE FACILITIES, REFER TO THE PLANS FOR REDUCED-SIZE YIELD LINE TRIANGLES AND ALTERNATE LAYOUT.

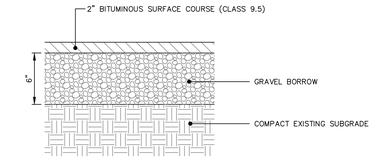
PAVEMENT MARKINGS – YIELD LINE (R.I. STD 20.4.0)

NOT TO SCALE



RAISED CROSSWALK

NOT TO SCALE

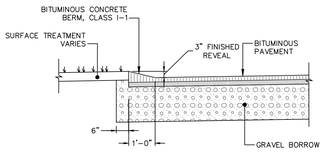


NOTE:

UNSUITABLE MATERIAL WITHIN SUBGRADE SHALL BE REMOVED AND REPLACED WITH GRAVEL BORROW.

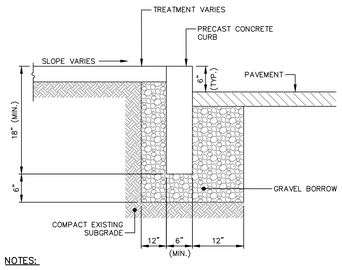
TEMPORARY BITUMINOUS CONCRETE PATH

NOT TO SCALE



BITUMINOUS BERM (R.I. STD. 7.5.1)

NOT TO SCALE

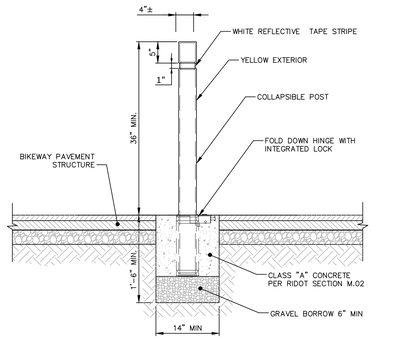


NOTES:

1. 1 INCH DEEP BEVELED JOINT AT TOP AND FACE OF CURB EVERY 10 FEET.
2. 1/2 INCH EXPANSION JOINT AND FILLER EVERY 30 FEET.
3. 1/2 INCH EXPANSION JOINT AND FILLER WHEN CURB IS ADJACENT TO CONCRETE SIDEWALK.
4. NEW CURBING INSTALLED ADJACENT TO EXISTING CURBING SHALL MATCH THE EXISTING REVEAL OR A MINIMUM OF 4 INCHES, WHICHEVER IS GREATER. IF ADJACENT EXISTING REVEAL IS LESS THAN 4 INCHES, THE FIRST SECTION OF NEW CURB SHALL TRANSITION TO 4-INCH REVEAL.
5. UNSUITABLE MATERIAL WITHIN SUBGRADE SHALL BE REMOVED AND REPLACED WITH GRAVEL BORROW.

PRECAST CONCRETE CURB

NOT TO SCALE

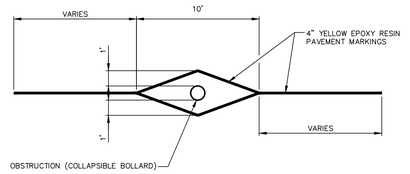


NOTE:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

COLLAPSIBLE BOLLARD

NOT TO SCALE



BOLLARD APPROACH PAVEMENT MARKING

NOT TO SCALE

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Landscape Elements, LLC
Landscape Architecture
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JOB NO. 2201 | DATE 08/01/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
CIVIL DETAILS

SHEET
C2.2

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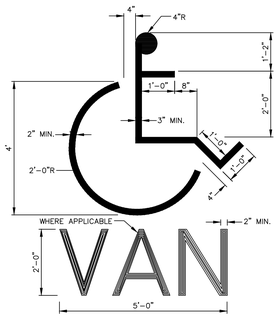
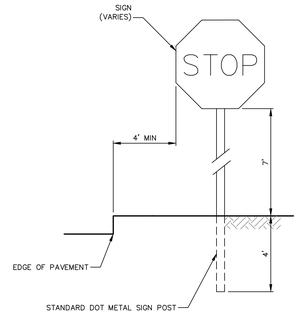
PC3; NONE STB/CTB FO 2008 MONO.CTB



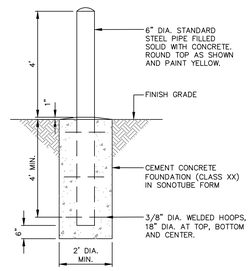
NOTES:

1. SYMBOL SHALL BE CENTERED IN THE PARKING STALL.
2. SYMBOL SHALL BE SOLID WHITE FAST-DRYING WATERBORNE PAINT AND BE CENTERED IN THE PARKING STALL. FOR VAN ACCESSIBLE SPACES, THE WORD "VAN" SHALL BE PAINTED ADJACENT TO HANDICAPPED SYMBOL.

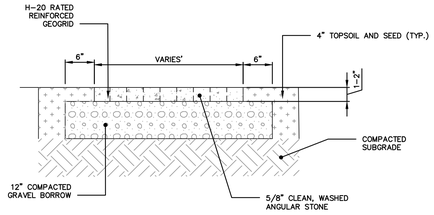
ACCESSIBLE PARKING SYMBOL
NOT TO SCALE



SIGN POST (R.I. STD. 24.2.0)
NOT TO SCALE



BOLLARD
NOT TO SCALE



NOTES:

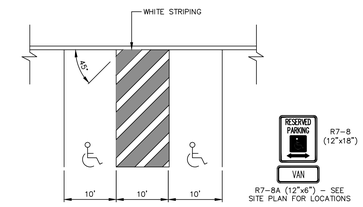
1. REINFORCED GEOGRID SHALL BE TRUEGRID OR APPROVED EQUAL.
2. GRAVEL BASE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.

STONE PARKING SURFACE
NOT TO SCALE

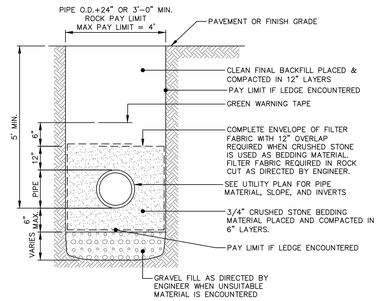
NOTES:

1. INTERNATIONAL SYMBOL ACCESSIBILITY SIGN WITH LETTERING NO LESS THAN 1-INCH HIGH BOLTED TO GALVANIZED STEEL TUBE.
2. REFLECTORIZED 16 GAUGE GALVANIZED STEEL SIGN PANEL WITH PORCELAIN ENAMEL FINISH.
3. WHITE IMAGE ON BLUE FIELD BEADED REFLECTORIZED TEXTURE. COLOR #15090 FED. STANDARD 595a.

ACCESSIBLE PARKING SIGN
NOT TO SCALE



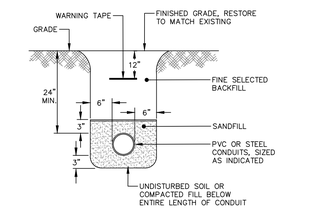
ACCESSIBLE PARKING STALL LAYOUT
NOT TO SCALE



NOTE:

SEWER TO BE INSULATED WITH 2" RIGID FOAM WHEN LESS THAN 4' COVER IS PROVIDED.

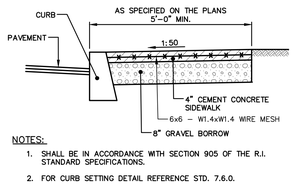
SEWER TRENCH
NOT TO SCALE



NOTES:

ALL DIMENSIONS ARE MINIMUM REQUIREMENTS.

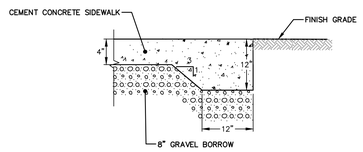
SINGLE CONDUIT IN TRENCH
NOT TO SCALE



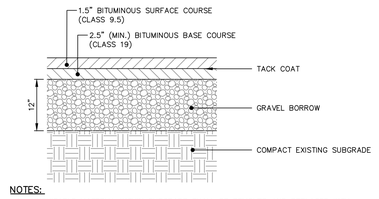
NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

CEMENT CONCRETE SIDEWALK (R.I. STD. 43.1.0)
NOT TO SCALE



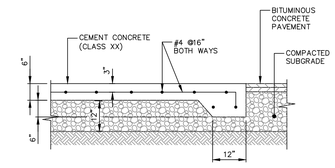
FLUSH CONCRETE SIDEWALK
NOT TO SCALE



NOTES:

1. UNSUITABLE MATERIAL WITHIN SUBGRADE SHALL BE REMOVED AND REPLACED WITH GRAVEL BORROW.
2. PAVEMENT INSTALLED BEYOUND THE PAYMENT LINE MUST BE PRE-APPROVED BY THE ENGINEER AND OWNER
3. CONTRACTOR SHALL RESET ALL STRUCTURES PRIOR TO PAVING. STRUCTURES TO MATCH FINAL GRADE.

BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



NOTE:

PROVIDE TOOLED CONTROL JOINTS AT 5' O.C.

EQUIPMENT PAD
NOT TO SCALE

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SHEET TITLE
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SHEET
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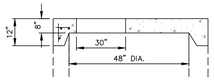
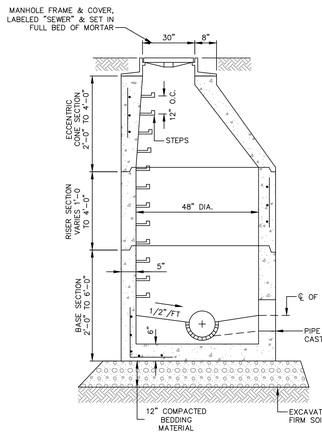


ALTERNATE TOP SLAB

(STEEL REINFORCED FOR HS-25 LOADING)



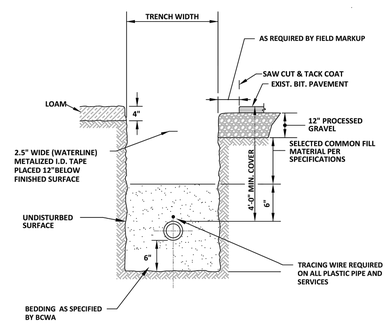
SECTION

NOTES:

1. FRAME AND COVER TO BE R.I. STD. 6.2.1 OR APPROVED EQUAL. LETTERING: "SEWER"
2. FRAMES SHALL BE SET IN FULL BED OF MORTAR. ADJUST TO GRADE WITH RED CLAY BRICKS AND MORTAR.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A-185:
   - 0.12 SQ. IN./LIN. FT. CIRCUMFERENTIAL
   - 0.18 SQ. IN./FT. (BOTH WAYS) BASE BOTTOM
4. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4,000 PSI TYPE II CEMENT.
5. ONE POUR MONOLITHIC BASE SECTION.
6. PROVIDE ASTM C923 RESILIENT CONNECTORS CAST OR FITTED INTO MANHOLE WALLS FOR EACH PIPE CONNECTION.
7. JOINT SEALANT SHALL BE PREFORMED BUTYL RUBBER MASTIC TYPE SEAL THAT COMPLIES WITH AASHTO M198 OR SYNTHETIC RUBBER GASKET THAT COMPLIES WITH ASTM C-443 OR C-361.
8. MANHOLE DESIGN SHALL CONFORM TO ASTM C-478 FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
9. MANHOLE STEPS SHALL BE ASTM A 615/A615M, DEFORMED, 1/2-INCH STEEL REINFORCED RODS ENCASED IN ASTM D 4101, POLYPROPYLENE PLASTIC. THE CENTERLINE OF OPENING MUST BE WITHIN 2'-0" FROM STEPS.
10. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
11. INVERT CONSTRUCTED OF BRICK OR CEMENT CONCRETE, CLASS D.

SEWER MANHOLE

NOT TO SCALE



NOTES:

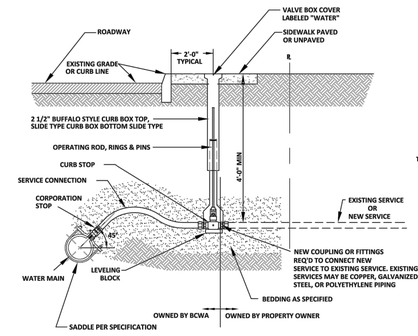
1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS AND SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

2.) ROADWAY AND SIDEWALK RESTORATION SHALL BE PERFOMED IN ACCORDANCE WITH ALL MUNICIPAL OR RIDOT PERMIT REQUIREMENTS.

3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

WATER TRENCH (BCWA DETAIL 1)

NOT TO SCALE



NOTE:

1.) ALL SERVICE MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

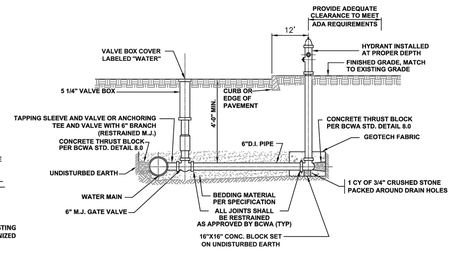
2.) SERVICE LINE FROM CURB BOX TO BUILDING SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

3.) THIS DETAIL REQUIRED FOR ANY SERVICE CONNECTION TO A.C. (TRANSITE), HDPE, PVC PIPE OR 2" SERVICES.

4.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

HDPE PIPE DIRECT TAP SERVICE CONNECTION (BCWA DETAIL 10B)

NOT TO SCALE

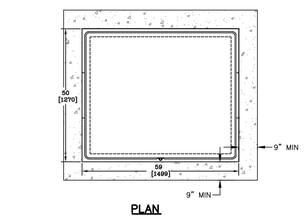


NOTES:

1. ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.
2. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.
3. HYDRANT MUST BE BURIED TO MANUFACTURERS PROPER DEPTH (BURY LINE) TO ALLOW SUFFICIENT CLEARANCE TO BOLT/UNBOLT THE UPPER BARREL AND SAFETY FLANGES AND FOR PROPER BREAK AWAY FUNCTION.
4. USE APPROVED JOINT RESTRAINT GLANDS AND THRUST BLOCKS. THRUST BLOCKING SHALL HAVE A MINIMUM OF 3 SQUARE FEET AGAINST UNDISTURBED EARTH.
5. BARRINGTON HYDRANTS TO BE (OPEN LEFT), 4-1/2" PUMPER NOZZLE WITH CAP THREAD G.A.N.S., TWO 2-1/2" HOSE NOZZLES WITH CAPS , THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES, OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
6. BRISTOL & WARREN HYDRANTS TO BE (OPEN LEFT), 4" PUMPER NOZZLE WITH CAP THREAD G.A.7-465., TWO 2-1/2" HOSE NOZZLES WITH CAPS, THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES, OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
7. FACTORY APPLIED PAINT: BARREL & HEAD - SAFETY YELLOW; BONNET AND CAPS - SILVER ALUMINUM
8. ALL HYDRANTS SHALL HAVE A 5 1/4" DIAMETER MAIN VALVE.
9. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

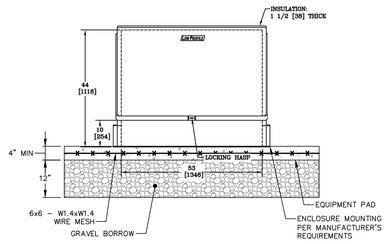
FIRE HYDRANT (BCWA DETAIL 6)

NOT TO SCALE

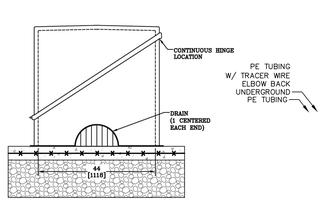


PLAN

INTERIOR ANCHORS



FRONT SECTION



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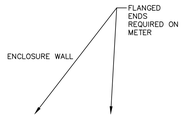


EQUIPMENT PAD

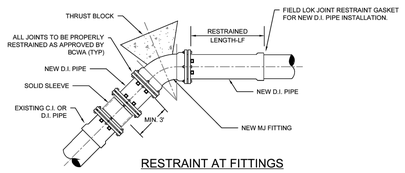
METER INSTALLATION (BCWA DETAIL 12A)

NOTES:

1. HEATER SHALL BE PROVIDED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. HEATER SHALL BE 1000WATT, 120V SINGLE PHASE. SEE ELECTRICAL DRAWINGS FOR WIRING AND SERVICE.
2. ENCLOSURE SHALL BE HOTBOX HEATED FLIP-TOP FIBERGLASS ENCLOSURE, MODEL NUMBER HB4000, COLOR BEIGE. ALL DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER AND CONTRACTOR, AND SHOP DRAWINGS FOR RECOMMENDED MODEL SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL. ENCLOSURE SHALL BE MOUNTED TO CONCRETE SLAB PER MANUFACTURERS' REQUIREMENTS.
3. THE ENCLOSURE SHALL BE MOUNTED ON A REINFORCED CONCRETE EQUIPMENT PAD PER THE MANUFACTURER'S INSTRUCTIONS. EQUIPMENT PAD SHALL BE RIDOT CLASS XX CONCRETE WITH 6"x6" W1.4Xw1.4 WIRE MESH. EQUIPMENT PAD SHALL BE A MINIMUM OF 4" THICK AND SHALL BE 9" LARGER THAN THE EXTERIOR DIMENSIONS OF THE ENCLOSURE.
4. SURFACE GRADE SHALL DRAIN AWAY FROM THE ENCLOSURE.
5. ALL WORK SHALL COMPLY WITH THE RHODE ISLAND STATE REGULATIONS.
6. COORDINATE TEMPORARY WATER SHUTOFF WITH BRISTOL COUNTY WATER AUTHORITY.
7. SUBMIT APPLICATION FOR NEW WATER SERVICE OR METER INSTALLATION, AND COORDINATE AND CONFIRM ALL EQUIPMENT AND ENCLOSURE SIZES/MANUFACTURES/MODELS WITH BRISTOL COUNTY WATER AUTHORITY.
8. SERVICE PIPE TO ENCLOSURE SHALL BE TYPE "K" COPPER ASTM-B88, AWWA C800. SERVICE PIPE FROM ENCLOSURE TO BUILDING AS SHOWN ON PLAN.
9. FITTINGS SHALL BE CEMENT LINED DUCTILE IRON, AWWA C153 (COMPACT), WITH A PRESSURE RATING OF 350 PSI. FITTINGS SHALL HAVE MECHANICAL JOINTS WITH RUBBER GASKETS, AWWA C111.
10. GATE VALVES SHALL BE TYPE 304 STAINLESS STEEL AND SHALL OPEN TO THE RIGHT. GATE VALVES SHALL BE MUELLER A-2362-23, AWWA C509 OR APPROVED EQUAL.
11. METER WILL BE PAID FOR BY THE OWNER AND SUPPLIED/INSTALLED BY BRISTOL COUNTY WATER AUTHORITY. THE METER SHALL BE INSTALLED HORIZONTALLY. UL APPROVED ELECTRICAL JUMPER REQUIRED IF GROUNDING.
12. BACKFLOW PREVENTER SHALL BE A BRISTOL COUNTY WATER AUTHORITY APPROVED TESTABLE BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH BRISTOL COUNTY WATER AUTHORITY RULES AND REGULATIONS. WATTS SERIES REDUCED PRESSURE ZONE ASSEMBLIES LF009M2-QT OR APPROVED EQUAL.
13. BYPASS WILL BE LOCKED BY BRISTOL COUNTY WATER AUTHORITY.
14. COORDINATE INSPECTION(S) AND APPROVALS WITH RIDEM AND BRISTOL COUNTY WATER AUTHORITY.
15. BRISTOL COUNTY WATER AUTHORITY WILL OPEN VALVES UPON FINAL INSPECTION.
16. 12" MIN BELOW RPZ OR METER TO BE MEASURED TO LOWEST PART OF THE MAIN BODIES, NOT THE CENTERLINE IF THE PIPE.
17. PROVIDE PIPE SADDLES TO SUPPORT METER AND RPZ

WATER SERVICE ENCLOSURE

NOT TO SCALE



RESTRAINT AT FITTINGS

MINIMUM SURFACE AREA OF CONCRETE THRUST BLOCK AGAINST UNDISTURBED EARTH -- IN S.F. (SQUARE FEET)
MINIMUM RESTRAINED LENGTH OF PIPE ON EITHER SIDE OF FITTING -- IN L.F. (LINEAR FEET)

PIPE SIZE	PLUG SF	PLUG LF	TEE SF	TEE LF	90° BEND SF	90° BEND LF	45° BEND SF	45° BEND LF	22 1/2° BEND SF	22 1/2° BEND LF	11 1/4° BEND SF	11 1/4° BEND LF
6"	2.8	46	2.8	40	4.0	22	2.1	9	1.1	5	1.0	3
8"	4.8	60	4.8	54	6.8	29	3.7	12	1.9	6	1.0	3
10"	7.3	72	7.3	66	10.3	34	5.6	15	2.8	7	1.4	4
12"	10.3	86	10.3	78	14.5	40	7.9	17	4.0	8	2.0	4
16"	17.8	109	17.8	109	28.2	51	13.6	22	7.0	11	3.5	6
20"	27.5	131	27.5	126	38.8	62	21.0	28	10.7	13	5.4	7
24"	39.2	154	39.2	148	55.4	72	30.0	30	15.3	15	7.7	8

1. ALL CONCRETE TO BE CLASS B (AE)
2. THE "SF" VALUES IN THE ABOVE TABLE ARE BASED ON 3000 p.s.f. SOIL BEARING CAPACITY, 150 p.s.i. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY.
3. THE "LF" VALUES IN THE ABOVE TABLE ARE BASED ON A TYPE 3 LAYING CONDITION. A SAND SILT SOIL DESIGNATION, A 5 FOOT RUN LENGTH, 150 P.S.I. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY AS USED IN THE "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" COMPUTER PROGRAM BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION.
4. IF SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY, THE CONTRACTOR SHALL DESIGN AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST FULL THRUST UNDER ALL CONDITIONS. THE DESIGN SHALL BE SUBJECT TO BCWA APPROVAL.
5. MINIMUM SURFACE AREAS SHALL BE INCREASED BY 50% IF DEEMED NECESSARY BY THE ENGINEER.
6. A MECHANICAL JOINT RESTRAINT SYSTEM MUST BE USED FOR VERTICAL BENDS.
7. AT THE DISCRETION OF THE ENGINEER, A JOINT RESTRAINT SYSTEM MAY BE SUBSTITUTED FOR OR USED IN COMBINATION WITH PROPER THRUST BLOCKING.
8. A 48 HR. CURING PERIOD MUST BE GIVEN BEFORE FULL LINE PRESSURE CAN BE APPLIED TO NEW CONCRETE THRUST BLOCKS.
9. THRUST BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY THE BCWA.
10. THE RESTRAINED LENGTH IS BASED ON DUCTILE IRON PIPE WITH 4 FOOT COVER. IF THE DEPTH VARIES, OR THE DUCTILE IRON PIPE IS POLY WRAPPED THE RESTRAINED LENGTH MUST BE RE-CALCULATED.
11. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

CONCRETE THRUST BLOCK (BCWA DETAIL 8)

NOT TO SCALE

NEW OPERATIONS FACILITY

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JOB NO. 2201 | DATE 08/01/2025

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SHEET TITLE

CIVIL DETAILS

SHEET

C2.4

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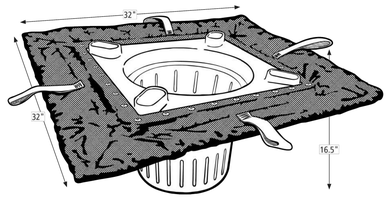
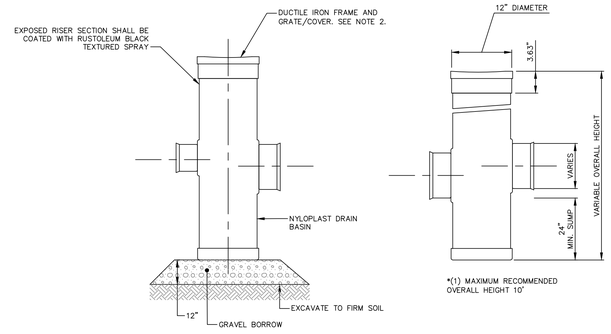
PC3, NONE ST6VCTB FO 2008 MONO.CTB



NOTE:

FILTRATION INSERT SHALL BE FLT752 PIG OIL & SEDIMENT CATCH BASIN FILTRATION INSERT SYSTEM (SMALL) MANUFACTURED BY NEW PIG, OR APPROVED EQUAL.

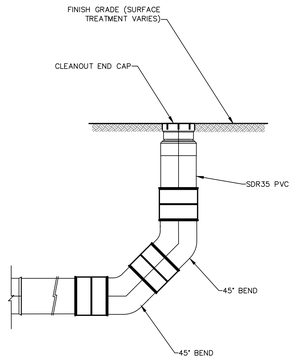
CATCH BASIN INSERT
NOT TO SCALE



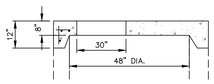
NOTES:

1. SEE DRAINAGE AND GRADING PLAN FOR DRAIN DIAMETER, PIPE SIZE, PIPE, MATERIAL, AND INVERTS.
2. COVER SHALL BE 12-INCH DIAMETER SOLID, H-20, WITH LETTERING "DRAIN"
3. GRAVEL BORROW SHALL BE COMPACTED TO 95-PERCENT MODIFIED PROCTOR.

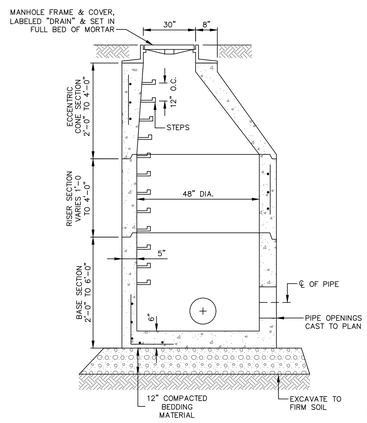
DRAIN BASIN
NOT TO SCALE



CLEANOUT
NOT TO SCALE



ALTERNATE TOP SLAB
(STEEL REINFORCED FOR HS-25 LOADING)

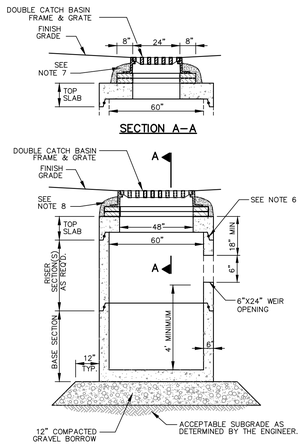


SECTION

NOTES:

1. FRAME AND COVER TO BE R.I. STD. 6.2.1 OR APPROVED EQUAL. LETTERING: "DRAIN"
2. FRAMES SHALL BE SET IN FULL BED OF MORTAR. ADJUST TO GRADE WITH RED CLAY BRICKS AND MORTAR.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A-185:
   - 0.12 SQ. IN./LIN. FT. CIRCUMFERENTIAL
   - 0.18 SQ. IN./FT. (BOTH WAYS) BASE BOTTOM
4. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4,000 PSI TYPE II CEMENT.
5. ONE POUR MONOLITHIC BASE SECTION.
6. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
7. JOINT SEALANT SHALL BE PREFORMED BUTYL RUBBER MASTIC TYPE SEAL THAT COMPLIES WITH AASHTO M198 OR SYNTHETIC RUBBER GASKET THAT COMPLIES WITH ASTM C-443 OR C-361.
8. MANHOLE DESIGN SHALL CONFORM TO ASTM C-478 FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
9. MANHOLE STEPS SHALL BE ASTM A 615/A615M, DEFORMED, 1/2-INCH STEEL REINFORCED RODS ENCASED IN ASTM D 4101, POLYPROPYLENE PLASTIC. THE CENTERLINE OF OPENING MUST BE WITHIN 2'-0" FROM STEPS.
10. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
11. INVERT CONSTRUCTED OF BRICK OR CEMENT CONCRETE, CLASS D.

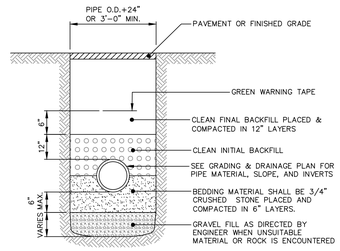
DRAIN MANHOLE
NOT TO SCALE



NOTES:

1. FRAME & GRATE TO BE LeBARON LK120C-400 (4-FLANGE) AND L24SG15-000, RESPECTIVELY. FRAME AND GRATE OF DOUBLE CATCH BASINS TO BE LV2448-2-000 (4-FLANGE) AND L24SG15-000 (TWO GRATES), RESPECTIVELY.
2. BASE SECTION SHALL BE MONOLITHIC WITH 5'X5' INSIDE DIMENSIONS.
3. ALL SECTIONS SHALL BE DESIGNED FOR HS-25 LOADING.
4. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
5. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR HS25 LOADING.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

DOUBLE CATCH BASIN
NOT TO SCALE



STORM DRAIN TRENCH
NOT TO SCALE

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SHEET
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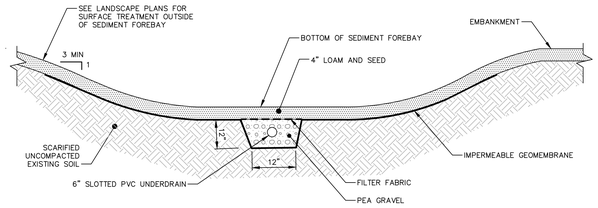
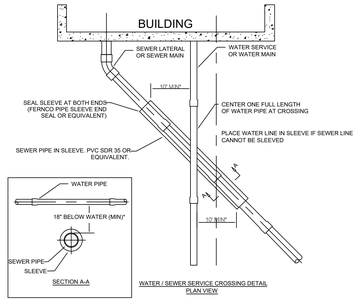


SEDIMENT FOREBAY

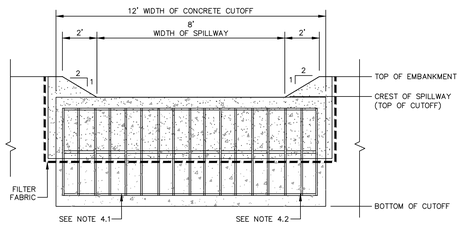
NOT TO SCALE



IF THE 18 INCH MINIMUM VERTICAL SEPARATION CANNOT BE MAINTAINED, CONSTRUCT SEWER USING AWWA APPROVED WATER MAIN PIPE AND PRESSURE TEST TO 150psi. FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PARALLEL TO THE WATER PIPE, OR ENCASE SEWER PIPE IN PVC SLEEVE.

WATER/SEWER SERVICE CROSSINGS

NOT TO SCALE



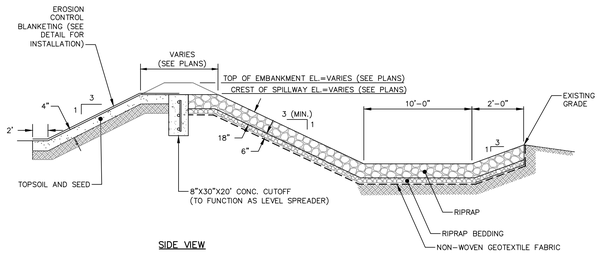
FRONT VIEW

NOTES:

1. SEE EROSION CONTROL BLANKETING DETAIL FOR INSTALLATION GUIDANCE AND PRODUCT INFORMATION.
2. RIPRAP BEDDING SHALL CONFORM TO NSA No. FS-2 GRADATION.
3. RIPRAP SHALL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (AMENDED 2018), SECTION M10.03.2, AND THE FOLLOWING GRADATION.

SPILLWAY No.	NSA No.	D50 STONE SIZE
1	R-4	6"
2	R-4	6"
3	R-4	6"

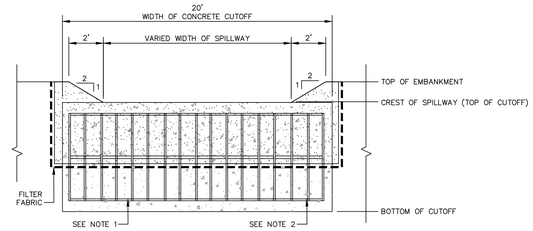
4. CONCRETE CUTOFF NOTES
   - 4.1. LONGITUDINAL REBAR : #4@12" SPACING.
   - 4.2. VERTICAL REBAR : #5@15" SPACING.
   - 4.3. MINIMUM COVER OF REBAR : 3" OF CONCRETE OUTSIDE ANY REINFORCEMENT.
   - 4.4. ALL REINFORCING BARS SHALL BE EPOXY COATED.
   - 4.5. CONTRACTION JOINTS NOT REQUIRED.



SIDE VIEW

RIPRAP SPILLWAY

NOT TO SCALE



CONCRETE CUTOFF NOTES:

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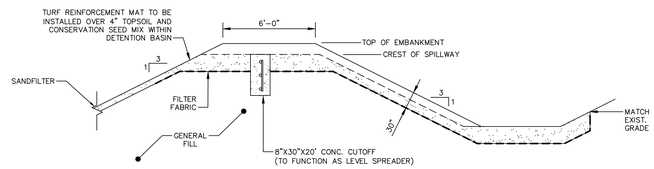
FRONT VIEW



SIDE VIEW

OVERFLOW SPILLWAY

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SHEET
C2.6

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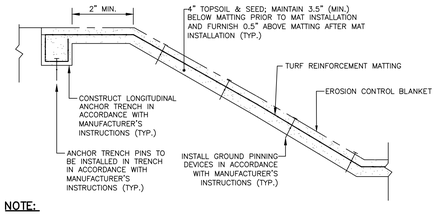
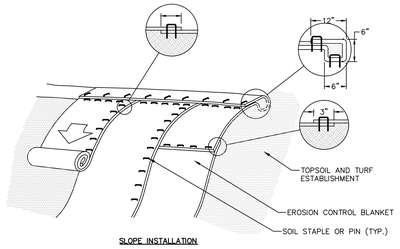


NOTE:

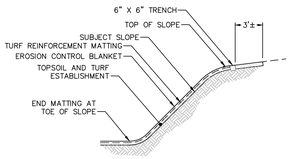
1. TURF REINFORCEMENT MATTING SHALL BE LANDLOK 435 BY PROPEX, OR APPROVED EQUAL.
2. TURF REINFORCEMENT MATTING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
3. TURF REINFORCEMENT MATTING SHALL BE INSTALLED ON SLOPES 3:1 OR GREATER AS INDICATED ON THE SITE PLAN.

TURF REINFORCEMENT MATTING

NOT TO SCALE



SLOPE INSTALLATION



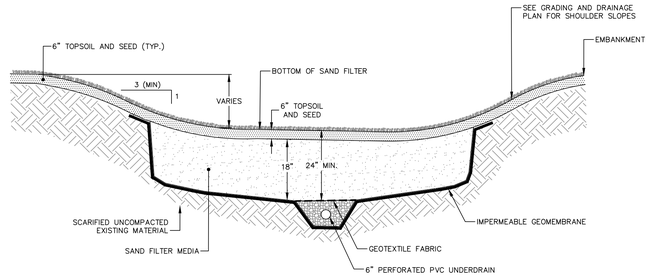
SECTION VIEW

NOTES:

1. EROSION CONTROL BLANKET SHALL BE ECSC-2 DOUBLE NET STRAW/COCONUT ROLLED EROSION CONTROL PRODUCT MANUFACTURED BY EAST COAST EROSION CONTROL OR APPROVED EQUAL.
2. PREPARE TOPSOIL BEFORE INSTALLING BLANKET, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
3. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. IN LOOSE SOIL CONDITIONS THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE MATTING.
5. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON 3:1 SLOPES OR GREATER AS INDICATED ON THE SITE PLAN.

EROSION CONTROL BLANKET

NOT TO SCALE

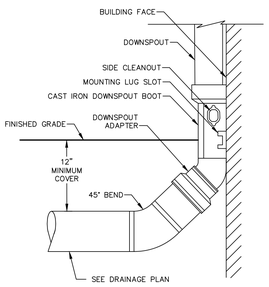


NOTES:

1. SEE GRADING AND DRAINAGE PLAN FOR LIMITS OF SAND FILTER MEDIA.
2. SUBGRADE OF FILTER SHALL BE SCARIFIED TO A DEPTH OF 12-INCHES.
3. SUBGRADE OF FILTER SHALL BE INSPECTED AND APPROVED BY ENGINEER PRIOR TO INSTALLATION OF SAND FILTER MEDIA.

SAND FILTER 1

NOT TO SCALE

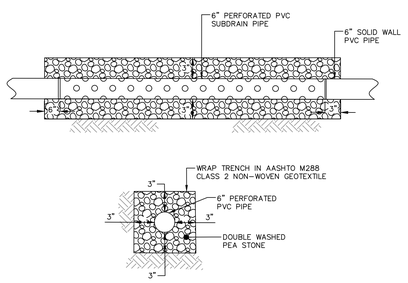


NOTES:

1. CAST IRON DOWNSPOUT BOOTS SHALL INCLUDE SIDE CLEANOUT.

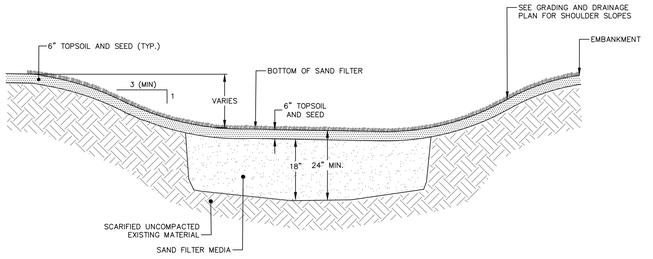
DOWNSPOUT CONNECTION

NOT TO SCALE



UNDERDRAIN

NOT TO SCALE



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SAND FILTER 2 & 3

NOT TO SCALE

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SHEET

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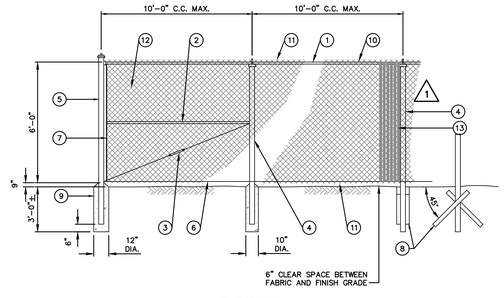


ELEVATION

NOTES:

1. FOOTING DESIGN TO BE CHECKED BY AN ENGINEER FOR WIND LOADS IF SLATS ARE USED OR IF POOR SOIL CONDITIONS EXIST.
1. STRAIGHT RUNS BETWEEN BRACED POSTS SHALL NOT EXCEED 500 FT.
2. FENCE DETAILS ARE INTENDED AS A GUIDE ONLY. ALL FENCE MATERIALS AND CONSTRUCTION METHODS SHALL BE APPROVED BY THE ENGINEER AND FENCE MANUFACTURER.

CHAIN LINK FENCE LEGEND:

(1) 1 5/8" O.D. TOP RAIL ATTACH FABRIC WITH 9 GUAGE WIRE CLIP EVERY 24"

(2) 1 5/8" O.D. BRACE FOR RAIL FENCES OVER 6 FEET HIGH AND ALL FENCES WITHOUT TOP RAIL

(3) 5/16" TRUSS ROD AND TURNBUCKLE

(4) INTERMEDIATE POST:

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	1 7/8"	2"
OVER 6 FEET	2 1/4"	2 1/2"

ATTACH TO C.L. FABRIC WITH CLIPS EVERY 15"

(5) END OR CORNER POST:

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	2"	2 1/2"
OVER 6 FEET	2 1/2"	3"

(6) 6 GAUGE BOTTOM TENSION WIRE ATTACH TO FABRIC WITH HOG RING AT 24" C.C.

(7) TENSION ROD ATTACHED TO END OR CORNER POST

(8) 2 30" MIN. LENGTH DRIVE ANCHORS DRIVEN THROUGH FITTINGS AT 90° TO FENCE LINE INTO EARTH AT 45° (TO BE USED IN PLACE OF CONCRETE FOOTING. SEE FOOTING DESIGN NOTE NO. 1)

(9) CONCRETE FOOTING 36" DEEP WITH 12" DIA. AT END POST AND 10" DIA. AT INTERMEDIATE POST. HOLE CORE IN UNDISTURBED OR COMPACTED SOIL. (SEE NOTE NO. 1)

(10) 6 GAUGE TENSION WIRE WHEN TOP RAIL IS NOT USED.

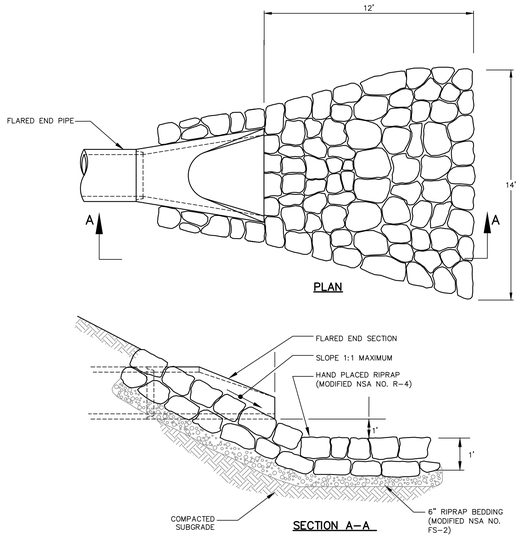
(11) FABRIC SELVAGE:
UNDER 6 FEET SHALL BE KNUCKLED TOP AND BOTTOM
6 FEET AND OVER SHALL BE KNUCKLED BOTTOM AND TWISTED ON THE TOP
RECREATIONAL FENCING, REGARDLESS OF HEIGHT, SHALL BE KNUCKLED TOP AND BOTTOM

(12) 9 GAUGE 2" WIRE MESH BLACK VINYL COATED.

(13) BLACK VINYL PRIVACY SLATS FOR ENTIRE CHAIN LINK FENCE.

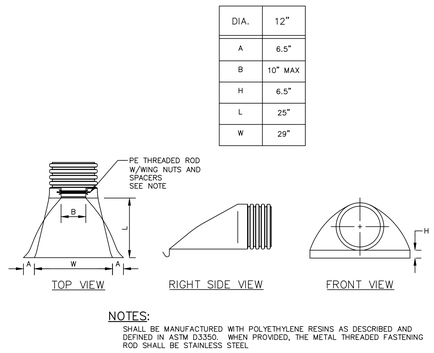
6' BLACK VINYL CHAIN LINK FENCE

NOT TO SCALE



RIPRAP OUTLET PROTECTION

NOT TO SCALE



NOTES:
SHALL BE MANUFACTURED WITH POLYETHYLENE RESINS AS DESCRIBED AND DEFINED IN ASTM D3350. WHEN PROVIDED, THE METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL

HDPE FLARED END SECTION

NOT TO SCALE

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Landscape Elements, LLC
Landscape Architecture
Landscape Ecology
Cultural Landscape Preservation

JOB NO. 2201 | DATE 08/01/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
CIVIL DETAILS

SHEET
C2.8

GENERAL NOTES:

1. ANY DAMAGE TO EXISTING PAVEMENT, UTILITIES, BUILDINGS, CONDUIT, SIDEWALK, FENCES, ETC., THAT ARE OUTSIDE OF THE PROJECT LIMITS AND THAT ARE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE STRUCTURES, WALKS AND ANY PARKING AREAS THAT ARE NOT UNDER CONSTRUCTION, SO AS NOT TO CAUSE A SAFETY HAZARD. PROTECT ALL AREAS IN ACCORDANCE WITH SECTION 106.06 OF THE R.I.D.O.T. STANDARD SPECIFICATION, LATEST EDITION.
3. THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE LANDSCAPE ARCHITECT/PROJECT MANAGER.
4. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT AREA'S LIMIT OF WORK AND AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE OWNER.
5. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED MATERIALS WITHIN THE PROJECT LIMITS. MATERIALS SLATED FOR DISPOSAL SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED. MATERIALS SLATED FOR SALVAGE SHALL BE STORED AT THE OFF SITE LOCATION INDICATED ON THE DRAWINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL DRIVES, WALKWAYS AND OTHER AREAS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
7. NO FUEL STORAGE SHALL BE ALLOWED ON THE PROJECT SITE.
8. PROPERTY LINES INDICATED ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL LIMIT WORK TO THOSE AREAS NOTED ON THE PLANS AS LIMIT OF WORK.
9. THE CONTRACTOR SHALL ENSURE THAT AT THE END OF CONSTRUCTION OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED A PART OF THE CONSTRUCTION SERVICES.

LANDSCAPE SITE PREPARATION NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS AND TO BECOME THOROUGHLY FAMILIAR WITH THE PROJECT AND THE SITE PRIOR TO COMMENCING THE WORK. FOR COMPLETE SITE PREPARATION SEE SHEET LA.01.
2. THE CONTRACTOR SHALL CONTACT "DIG-SAFE", OBTAIN A REGISTRATION NUMBER AND NOTIFY THE LANDSCAPE ARCHITECT/PROJECT MANAGER PRIOR TO THE START OF CONSTRUCTION.
3. THE SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE PLANS AND DETAILS ON THESE DRAWINGS AND THE SPECIFICATIONS AND NOTES ON THESE DRAWINGS.
4. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL STATE AND MUNICIPAL CODES AND REGULATIONS. DISPOSE OF ALL UNSUITABLE MATERIAL IN ACCORDANCE WITH STATE AND MUNICIPAL CODES.
6. PROTECT ALL EXISTING PLANTS AND HARDSCAPES TO REMAIN. PROTECT EXISTING STRUCTURES, MONUMENTS AND ELECTRICAL TO REMAIN FROM DAMAGE DURING CONSTRUCTION WORK. THE CONTRACTOR SHALL REPAIR ANY DAMAGE INCURRED AS A RESULT OF THE CONTRACTOR'S OPERATIONS TO EXISTING SITE ELEMENTS TO REMAIN. THE CONTRACTOR SHALL BEAR THE COST OF THE REPAIR.
7. NO STORAGE OF MATERIALS IS ALLOWED WITHIN THE DRIPLINE OF EXISTING TREES TO REMAIN OR ANYWHERE OUTSIDE THE LIMIT OF WORK.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AND AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS HAVE IMPACTED THE SITE OUTSIDE THE LIMIT OF WORK AND IMPACTED ABUTTING PROPERTIES.
9. STOCKPILE TOPSOIL AND OTHER LANDSCAPE CONSTRUCTION MATERIAL IN AREA (S) DESIGNATED AND AS DIRECTED BY THE LANDSCAPE ARCHITECT/PROJECT MANAGER.
10. PROTECT AND SECURE ALL STOCKPILED MATERIALS FROM WEATHER AND POSSIBLE VANDALISM. SEDIMENT AND EROSION CONTROLS MUST REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONTRACT UNTIL FINAL ACCEPTANCE.
11. THE PROJECT SITE SHALL BE CLEANED DAILY AND SHALL REMAIN FREE OF ANY DEBRIS OR HAZARDS THAT CAN CAUSE INJURY. THE OWNERS AND VISITORS MUST HAVE CLEAR ACCESS TO THE BUILDING AND TO SELECT AREAS FOR PARKING AT THE SITE AT ALL TIMES.
12. SCARIFY AND REMOVE ALL EXISTING VEGETATION, DEBRIS AND UNSUITABLE PLANTING MEDIUM FROM AREAS DESIGNATED FOR NEW CONSTRUCTION, PLANTINGS OR SEEDING. UNSUITABLE MATERIAL SHALL BE DETERMINED BY SOIL TEST AND/OR AS INDICATED BY THE PROJECT MANAGER/LANDSCAPE ARCHITECT AND SHALL BE REMOVED COMPLETELY FROM THE SITE IN ACCORDANCE WITH ALL STATE, MUNICIPAL AND FEDERAL REGULATIONS.
13. CONTRACTOR SHALL ENSURE THAT DUST FROM CONSTRUCTION WORK IS CONTROLLED AT ALL TIMES.

LANDSCAPE LAYOUT AND MATERIALS NOTES:

1) NOTIFY DIG-SAFE AND LOCAL AUTHORITIES PRIOR TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION AT 1-888-344-7233 OR 811 OR WWW.DIGSAFE.COM
2) REFER TO GENERAL CONSTRUCTION NOTES.
3) ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
4) CONTRACTOR SHALL LAYOUT ALL PROPOSED WORK FOR APPROVAL BY LANDSCAPE ARCHITECT AND MAKE ANY NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION.
5) CONTRACTOR SHALL VERIFY DIMENSIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
6) CONTRACTOR TO FIELD MEASURE AND SUBMIT SHOP DRAWINGS FOR APPROVAL FOR ALL FABRICATED ITEMS INCLUDING, BUT NOT LIMITED TO: FENCES, GATES, BALUSTRADES AND FOUNTAINS PRIOR TO CONSTRUCTION.
7) USE DIMENSIONAL INFORMATION GIVEN. DO NOT SCALE DRAWINGS.
8) ANY CHANGES TO THE LAYOUT NECESSITATED BY FIELD CONDITIONS SHALL FIRST BE APPROVED BY THE LANDSCAPE ARCHITECT, AND THEN RECORDED ON DRAWINGS.
9) CONTRACTOR SHALL REFER QUESTIONS ON MATERIALS, FINISHES, LABOR AND/OR PERFORMANCE STANDARDS NOT SPECIFIED HEREIN TO THE LANDSCAPE ARCHITECT.
10) ALL WALKWAYS LEADING TO ENTRANCES ARE TO BE CENTERED ON DOORWAYS UNLESS OTHERWISE NOTED.
11) AT LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW PAVEMENT, CONTRACTOR SHALL BLEND NEW PAVEMENT TO EXISTING CONDITIONS. PAVEMENTS SHALL ALIGN BOTH VERTICALLY AND HORIZONTALLY. PONDING AT JOINTS WILL NOT BE ACCEPTED.
12) ALL MEASUREMENTS ARE IN FEET AND INCHES.
13) SHOP DRAWINGS AND FIELD MEASUREMENTS TO BE MADE PRIOR TO FABRICATING ANY SITE AMENITIES
14) PROVIDE AN EXPANSION JOINT WHEREVER NEW PAVEMENT MEETS WALLS AND BUILDINGS.
15) CONTRACTOR TO PROVIDE SAMPLES OF ALL MATERIALS FOR APPROVAL BY LANDSCAPE ARCHITECT AS STIPULATED IN THE SPECIFICATIONS AND/OR DRAWINGS PRIOR TO ORDERING MATERIALS.

UTILITY NOTES:

1. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH THE "DIG SAFE LAW" ENACTED BY R.I. LEGISLATURE BILL NO. 79S-291, WHICH BECAME EFFECTIVE JULY 1, 1979 AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
5. REFER TO ELECTRICAL DRAWINGS PREPARED UNDER ANOTHER CONTRACT FOR DETAILED INFORMATION REGARDING PROPOSED LIGHTING AND NEW ELECTRICAL CONNECTIONS.

R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

THE FOLLOWING SECTIONS OF THE R.I.D.O.T STANDARD SPECIFICATIONS (LATEST EDITION) SERVE AS SPECIFICATIONS RELEVANT TO THIS PROJECT.

1. SECTION 201 – SITE PREPARATION
2. SECTION 202 – EXCAVATION AND EMBANKMENT
3. SECTION 203 – STRUCTURE EXCAVATION AND BACKFILL
4. SECTION 203 – TRIMMING AND FINE GRADING
5. SECTION 205 – TRENCH EXCAVATION
6. SECTION 209 – STORM DRAIN PROTECTION
7. SECTION 211 – CONSTRUCTION ACCESS
8. SECTION 212 – MAINTENANCE AND CLEANING OF EROSION AND POLLUTION CONTROLS
9. SECTION 301 – AGGREGATE AND GRAVEL BASE COURSES
10. SECTION 302 – GRAVEL BORROW SUBBASE COURSES
11. SECTION 304 – SELECTED LEVELING AND FILLER AGGREGATE
12. SECTION 501 – PORTLAND CEMENT CONCRETE PAVEMENT AND BASE
13. SECTION 505 – PORTLAND CEMENT CONCRETE BASED COURSE WITH CRACK CONTROL
14. SECTION 907 – DUST CONTROL
15. SECTION 914 – FLAGPERSONS
16. SECTION 929 – FIELD OFFICES
17. SECTION 936 – MOBILIZATION
18. PART L – LANDSCAPING – REFER TO SHEET LA3.0 FOR SPECIFIC SECTIONS
19. SECTION M01 – BORROW AND AGGREGATES
20. SECTION M02 – PORTLAND CEMENT CONCRETE
21. SECTION M18 – LANDSCAPING

LANDSCAPE PLANTING AND SEEDING NOTES:

1. CONTRACTOR SHALL COMPY WITH THE SPECIFICATIONS FOR PLANTING AND SEEDING AND FOR LANDSCAPING MATERIALS FOUND IN THE R.I.D.O.T STANDARD SPECIFICATIONS, LATEST EDITION. SPECIFICATION SECTIONS FOR PLANTING AND SEEDING INCLUDE:SECTION L.01 LOAM, PLANTABLE SOIL OR HIGH ORGANIC SOIL, SECTION L.02– SEEDING, SECTION L.05 SEED STABILIZERS, SECTION L.06–PLANTING, SECTION L.07–EXTENDED ESTABLISHMENT PERIOD, SECTION L.14 HERBICIDE, SECTION M.18 LANDSCAPING MATERIALS.
2. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY BY THE LANDSCAPE ARCHITECT.
3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY AND ALL PLANT MATERIAL WHEN DELIVERED TO THE SITE. THE CONTRACTOR SHALL RECEIVE THE PROJECT MANAGER/LANDSCAPE ARCHITECT'S APPROVAL OF PLANT MATERIAL PRIOR TO INSTALLATION.
4. NO SUBSTITUTIONS ON PLANT MATERIAL WILL BE ALLOWED WITHOUT THE APPROVAL OF THE PROJECT MANAGER/LANDSCAPE ARCHITECT.
5. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY THE LANDSCAPE ARCHITECT. BEFORE DIGGING, THE CONTRACTOR SHALL STAKE OUT ALL PLANTING BEDS AND FLAG ALL TREES AND EACH INDIVIDUAL SHRUB PRIOR TO UNLOADING PLANTS FROM THE TRUCK
6. THE LANDSCAPE ARCHITECT MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
7. ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH SECTION M18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL TOPSOIL IN ACCORDANCE WITH THE SPECIFICATIONS AND PROVIDING TEST RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO PLACING THE TOPSOIL.
9. ALL PLANTING BEDS AND PITS TO RECEIVE APPROVED SHREDDED PINE BARK MULCH TO DEPTHS INDICATED ON PLANTING DETAILS.
10. PLANT MIX BACKFILL FOR ALL PLANTING HOLES SHALL BE 1 PART HIGH ORGANIC SOIL MATERIAL TO 2 PARTS TOPSOIL/SCREENED LOAM AND MUST COMPLY WITH SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
11. FERTILIZER FOR PLANT HOLES TO BE ORGANIC SLOW RELEASE FERTILIZER APPLIED AS PER MANUFACTURER'S DIRECTIONS.
12. IF CONTRACTOR USES ORGANIC COMPOST FROM EARTH CARE FARM, CHARLESTOWN, RI, FERTILIZERS ARE NOT REQUIRED. WWW.EARTHCAREFARM.COM 401.364.9930
13. LAWN AREAS TO RECEIVE LOAM AND SEED, APPLY LOAM TO THICKNESS OF 4–INCHES. HYDROSEED TO BE APPLIED AS PER SECTION M18.10.2 OF THE RIDOT STANDARD SPECIFICATIONS
14. THE CONTRACTOR MUST REVEGETATE ALL DISTURBED AREAS OUTSIDE THE PROJECT LIMITS WITH LOAM AND "RI STATE PARK" SEED MIX.
15. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

NEW OPERATIONS FACILITY

COLT STATE PARK

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REGISTERED LANDSCAPE ARCHITECT – ELENA PASCARELLA – No. 467 – STATE OF RHODE ISLAND

JOB NO.	DATE
2201	8/1/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE

LANDSCAPE NOTES

SHEET

LA1.0

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MATERIALS LEGEND

- QUALIFIED PERMEABLE AREA - QPA
- ASPHALT PVMT C.E. DRAWING
- RIVER STONE MULCH
- CONCRETE PVMT C.E. DRAWING
- PERMEABLE PARKING C.E. DRAWING
- STONE WALLS STONE STONE PIERS
- GRAVEL / TRAPROCK C.E. DRAWING
- GROUNDCOVER
- BENCH
- BIKE RACK
- WOOD GUARD RAIL
- LIGHT STANCHION C.E. DRAWING

NOTES:
1. REFER TO SHEET LA1.0 FOR LAYOUT AND MATERIAL NOTES.
2. REFER TO ARCHITECTS PLANS FOR BUILDING.
3. REFER TO ENGINEERS PLANS FOR SITE UTILITIES, GRADING AND DRAINAGE.

PERIMETER FENCE
SEE ENGINEERS DRAWINGS

ELECTRICS TRANS/GEN PAD
SEE ENGINEERS DRAWINGS

(3) LIGHT STANCHION CONCRETE PLINTH — 3 / LA3.1

12 / LA3.0 BIKE RACK 'B' - PLACEMENT TO BE VERIFIED IN FIELD SO NOT TO OBSTRUCT DOORWAY OR RAAMP

1 / LA3.0 TREE PROTECTION DETAIL

13 / LA3.0 (3) BENCH TYP.

11 / LA3.1 RIVERSTONE MULCH BED TYP.

1 / LA3.0 TREE PROTECTION DETAIL

3 / LA3.1 (1) LIGHT STANCHION CONC. PLINTH

2 / LA3.1 EAST GATE DETAIL PLAN

9 / LA3.0 (1) FIELDSTONE PIERS

1 / LA3.0 TREE PROTECTION DETAIL

DUMPSTER ENCLOSURE — 15 / LA3.0

11 / LA3.0 BIKE RACK 'A' TYP.

13 / LA3.0 BENCH TYP.

11 / LA3.1 RIVERSTONE TYP.

WEST GATE DETAIL PLAN — 1 / LA3.1

10 / LA3.0 WOOD GUARD RAIL TYP.

WATER SERVICE ENCLOSURE
SEE ENGINEERS DRAWINGS

GATE CONTROL GOOSENECK TYP. (ALTERNATE LOCATION) — 6 / LA3.1

GATE CONTROL GOOSENECK TYP. (PREFERRED LOCATION) — 6 / LA3.1

4 / LA3.1 (1) LIGHT STANCHION STONE PLINTH

WOOD GUARD RAIL TYP. (QPA PROTECTION) — 10 / LA3.0

(2) LIGHT STANCHION STONE PLINTH TYP. — 4 / LA3.1

(1) FIELDSTONE PIER TYP. — 9 / LA3.0

(1) LIGHT STANCHION STONE PLINTH TYP. — 4 / LA3.1

WOOD GUARD RAIL TYP. (QPA PROTECTION) — 10 / LA3.0

9 / LA3.0 (2) FIELDSTONE PIERS

QUALIFYING PERVIOUS AREA (QPA)

(1) LIGHT STANCHION STONE PLINTH TYP. — 4 / LA3.1

APPROXIMATE LOCATION OF EXISTING AIR VACUUM RELEASE MANHOLE

1 CONCEPT LANDSCAPE PLAN
1" = 20'

NEW OPERATIONS FACILITY
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REGISTERED LANDSCAPE ARCHITECT — GLENN PUSCHELLA — No. 97

JOB NO. 2201 | DATE 8/1/2025

ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
LANDSCAPE MATERIALS PLAN

SHEET
LA1.1

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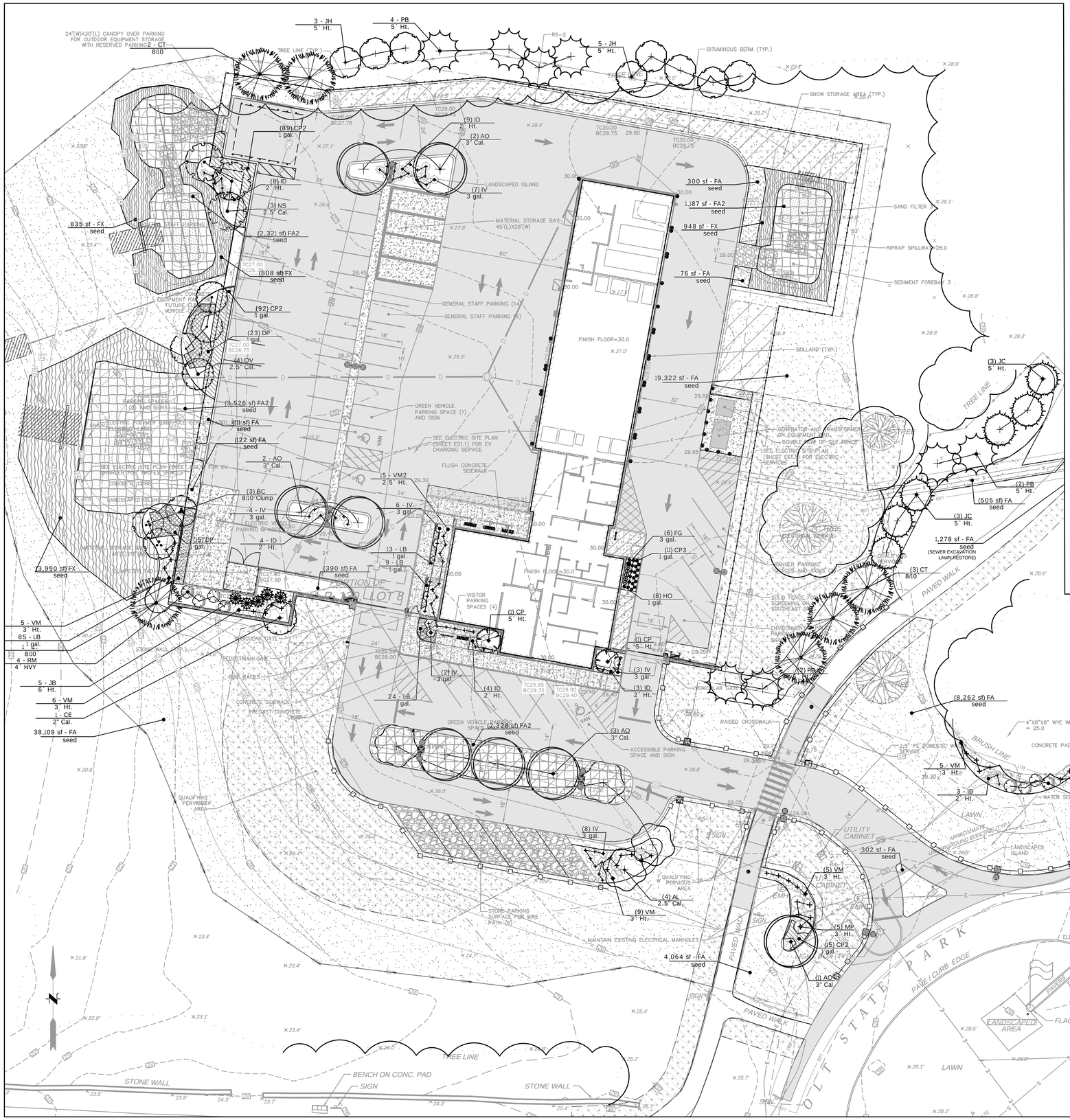

1 CONCEPT LANDSCAPE PLAN
1" = 20'

PLANT SCHEDULE COLT DD

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS	MATURE HEIGHT	MATURE WIDTH
TREES									
	AO	Acer rubrum 'October Glory'	October Glory Red Maple	3" Cal.	B&B	8		25 - ft. ht.	25 - 40ft. w.
	AL	Amelanchier laevis	Allegheny Serviceberry	2.5" Cal.	B&B	4		25 - 40ft. ht.	10 - 15ft. w.
	BC	Betula nigra `Cully Improved'	Heritage Improved River Birch	8/10 Clump	B&B	3		25 - 40ft. ht.	25 - 40ft. w.
	CE	Cercis canadensis	Eastern Redbud Multi-trunk	2" Cal.	B&B	1		15 - 25ft. ht.	10 - ft. w.
	CT	Chamaecyparis thyoides	Atlantic White Cypress	8/10`	B&B	6			
	CP	Cotinus coggygria 'Purpureus'	Purple Smoke Tree	5` Ht.	B&B	2		10 - 15ft. ht.	10 - 15ft. w.
	JB	Juniperus virginiana 'Burkii'	Burk Eastern Redcedar	6` Ht.	B&B	5		15 - ft. ht.	10 - 15ft. w.
	JC	Juniperus virginiana 'Canaertii'	Canaerti Eastern Redcedar	5` Ht.	B&B	6		25 - 40ft. ht.	6 - ft. w.
	JH	Juniperus virginiana 'Hillspire'	Hillspire Eastern Redcedar	5` Ht.	B&B	8		15 - 25ft. ht.	
	NS	Nyssa sylvatica	Tupelo	2.5" Cal.	B&B	3		25 - 40ft. ht.	15 - 25ft. w.
	OV	Ostrya virginiana	American Hophornbeam	2.5" Cal.	B&B	4		25 - 40ft. ht.	10 - ft. w.
	PB	Picea glauca densata	Black Hills Spruce	5` Ht.	B&B	8		25 - 40ft. ht.	15 - 25ft. w.
SHRUBS									
	FG	Fothergilla gardenii	Dwarf Fothergilla	3 gal.	Pot	6		18 - 36in. ht.	3 - 6ft. w.
	ID	Ilex glabra 'Densa'	Inkberry Holly	2` Ht.	B&B	31		3 - 6ft. ht.	1 - 3ft. w.
	IV	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	3 gal.	Pot	30		3 - 6ft. ht.	3 - 6ft. w.
	MP	Myrica pensylvanica	Northern Bayberry	3` Ht.	B&B	8		6 - 10ft. ht.	6 - 10ft. w.
	RM	Rhododendron maximum	Rosebay Rhododendron	4` HVY		8		10 - 15ft. ht.	10 - 15ft. w.
	VM2	Viburnum acerifolium	Mapleleaf Viburnum	2.5` Ht.	B&B	15		3 - 6ft. ht.	6 - 10ft. w.
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	3` Ht.	B&B	30		3 - 1ft. ht.	3 - 1ft. w.
PERENNIALS									
	CP3	Carex pensylvanica	Pennsylvania Sedge	1 gal.	Pot	11		6 - 18in. ht.	< 1ft. w.
	HO	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily	1 gal.	Pot	8		6 - 18in. ht.	1 - 3ft. w.

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	QTY	REMARKS	MATURE HEIGHT	MATURE WIDTH
GROUND COVERS										
	CP2	Carex pensylvanica	Pennsylvania Sedge	1 gal.	Pot	24" o.c.	196		6 - 18in. ht.	< 1ft. w.
	DP	Dennstaedtia punctilobula	Hay-scented Fern	1 gal.	Pot	42" o.c.	38		18 - 36in. ht.	1 - 3ft. w.
	FX	Festuca x -SLOPE MIX	RIDOT SLOPE MIX	seed			6,581 sf			
	FA	Festuca x Lawn Mix	Turf Grass	seed			72,841 sf			
	FA2	Festuca x Wet Mix	Bioretenention Grass	seed			9,362 sf			
	LB	Liriope muscari 'Big Blue'	Big Blue Lilyturf	1 gal.	Pot	18" o.c.	131		6 - 18in. ht.	1 - 3ft. w.

NOTES ON SEED MIXES:

1. ALL DISTURBED AREAS SHALL BE PREPPED AND HYDRO-SEEDED WITH RI PARKS MIX UNLESS OTHERWISE NOTED.
2. THE FOLLOWING SEED MIXES SHALL BE USED FOR SEEDING ALL LAWN AREAS. THIS IS AVAILABLE FROM ALLEN'S SEED SUPPLY, EXETER, RHODE ISLAND. SEED MIX COMPOSITION MUST BE SUBMITTED FOR APPROVAL.
3. ALL BINDERS, MULCHES, FERTILIZERS AND ADDITIVES TO HYDRO-SEED MIX MUST BE SUBMITTED FOR APPROVAL.
4. EQUAL SUBSTITUTIONS WILL BE CONSIDERED.
5. RI STATE PARKS MIX

RI State Park Mix	70% Creeping Red Fescue 15% Ky. Blue 15% Improved Per. Rye	3.5lbs	Mixed to RI State Specs

6. RIDOT SLOPE MIX

RI State Slope Mix	70% Creeping Red Fescue 15% Improved Per. Rye 15% Birdsfoot Trefoil	3.5lbs	Mixed to RI State Specs

7. NEW ENGLAND CONSERVATION MIX

Allen's Conservation Mix	25% Per. Rye 25% Creeping Red Fescue 25% Annual Rye 17% Tall Fescue 5% Ky. Blue 1% Colonial Bentgrass 1% Red Top 1% White Clover	5lbs	A great mix for areas you just want to "let go"

8. REFER TO PLANTING NOTES ON SHEET LA-1.0

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REGISTERED LANDSCAPE ARCHITECT ELENA PASCARELLA No. 45 RHODE ISLAND

JOB NO. 2201 | DATE 8/1/2025
ISSUE: BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
LANDSCAPE PLANTING PLAN

SHEET
LA2.0

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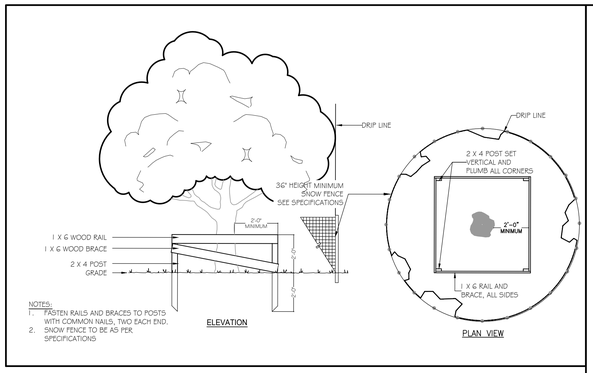
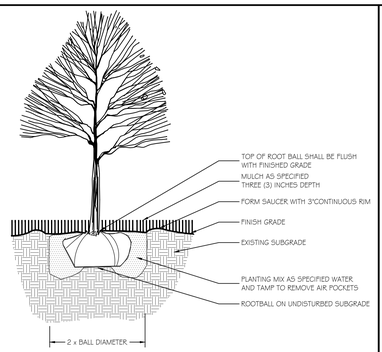


NOTES:
1. FASTEN RAILS AND BRACES TO POSTS WITH COMMON NAILS, TWO EACH END.
2. SNOW FENCE TO BE AS PER SPECIFICATIONS

1 TREE PROTECTION DETAIL

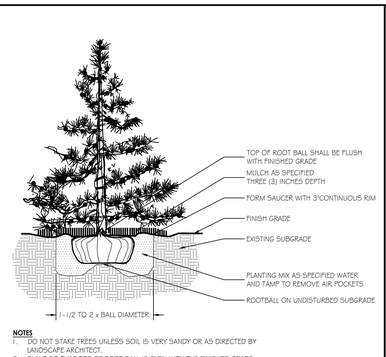
SCALE: 1/2" = 1'-0"



NOTES
1. DO NOT STAKE TREES UNLESS SOIL IS VERY SANDY OR AS DIRECTED BY LANDSCAPE ARCHITECT.
2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
3. PAINT ALL CUTS OVER 1 INCH DIAMETER.

2 DECIDUOUS TREE

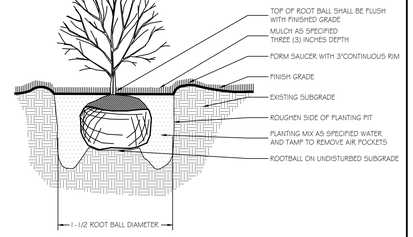
SCALE: 1/2" = 1'-0"



NOTES
1. DO NOT STAKE TREES UNLESS SOIL IS VERY SANDY OR AS DIRECTED BY LANDSCAPE ARCHITECT.
2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
3. PAINT ALL CUTS OVER 1 INCH DIAMETER.

3 EVERGREEN TREE

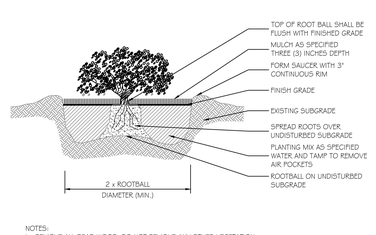
SCALE: 1/2" = 1'-0"



NOTES:
1. REMOVE ALL DEAD WOOD. DO NOT REMOVE ANY OTHER VEGETATION.
2. REMOVE ALL CONTAINERS AND PROTECTION DEVICES PRIOR TO PLANTING.
3. REMOVE BURLAP FROM TOP ONE THIRD OF ROOT BALL.

4 SHRUB BALLED & BURLAPPED

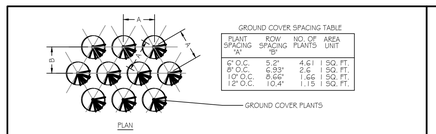
SCALE: 1/2" = 1'-0"

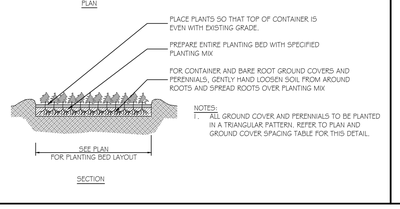


NOTES:
1. REMOVE ALL DEAD WOOD. DO NOT REMOVE ANY OTHER VEGETATION.
2. REMOVE ALL CONTAINERS AND PROTECTION DEVICES PRIOR TO PLANTING.
3. GENTLY HAND LOOSEN SOIL FROM AROUND ROOTBALL WITHOUT SEVERING MAIN ROOTS.

5 SHRUB CONTAINER GROWN

SCALE: 1/2" = 1'-0"

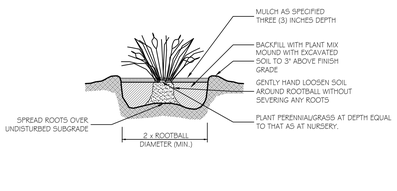




NOTES:
1. ALL GROUND COVER AND PERENNIALS TO BE PLANTED IN A TRIANGULAR PATTERN. REFER TO PLAN AND GROUND COVER SPACING TABLE FOR THIS DETAIL.

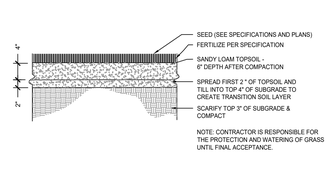
6 GROUND COVER

SCALE: 1/2" = 1'-0"



7 PERENNIAL/ORNAMENTAL GRASSES

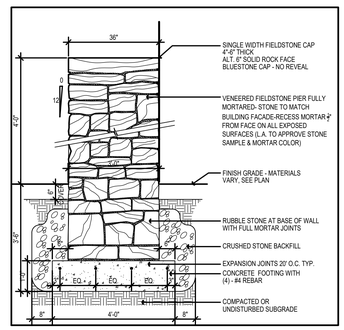
SCALE: 1/2" = 1'-0"



NOTE: CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND WATERING OF GRASS UNTIL FINAL ACCEPTANCE.

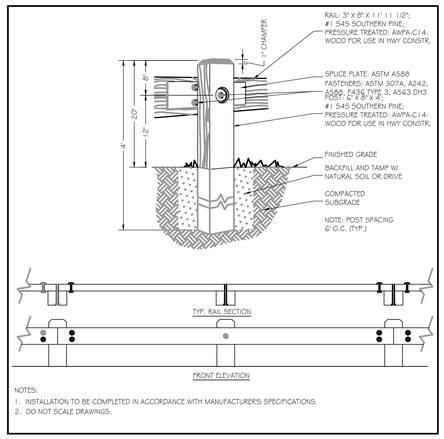
8 LAWN- TOPSOIL PLANTING

SCALE: 1/2" = 1'-0"



9 FIELDSTONE PIERS

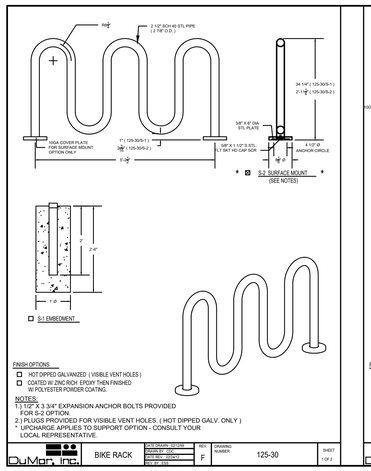
SCALE: 1/2" = 1'-0"



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

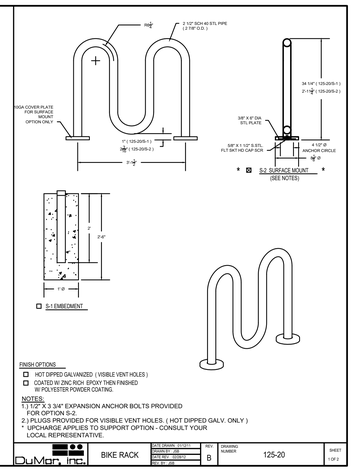
10 WOOD GUARD RAIL (TYP)

SCALE: NTS



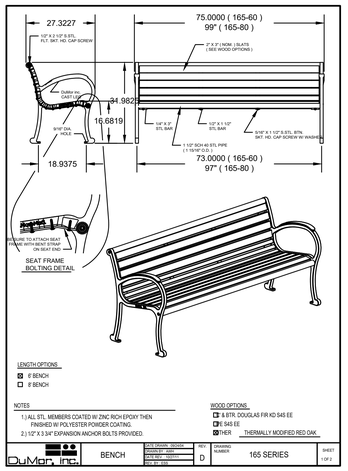
11 BIKE RACK - A

SCALE: NTS



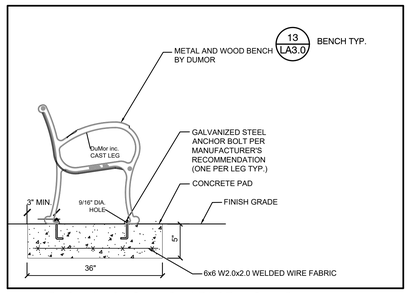
12 BIKE RACK - B

SCALE: NTS



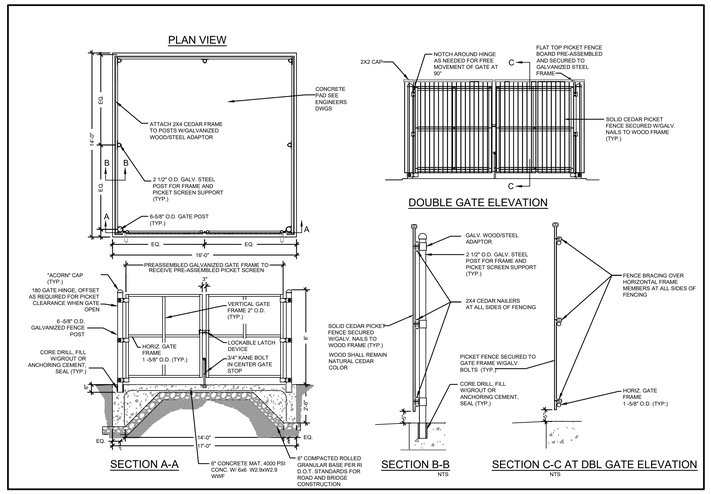
13 BENCH TYP.

SCALE: NTS



14 BENCH ANCHOR - SURFACE MOUNT

SCALE: NTS



15 DUMPSTER ENCLOSURE

SCALE: NTS

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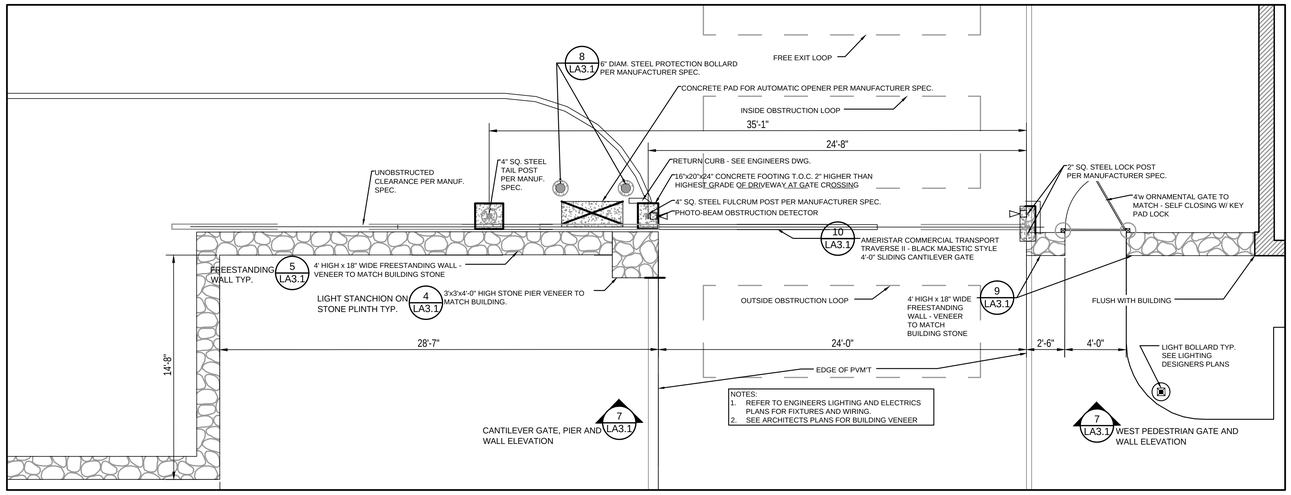
JOB NO. 2201 | DATE 8/1/2025

ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

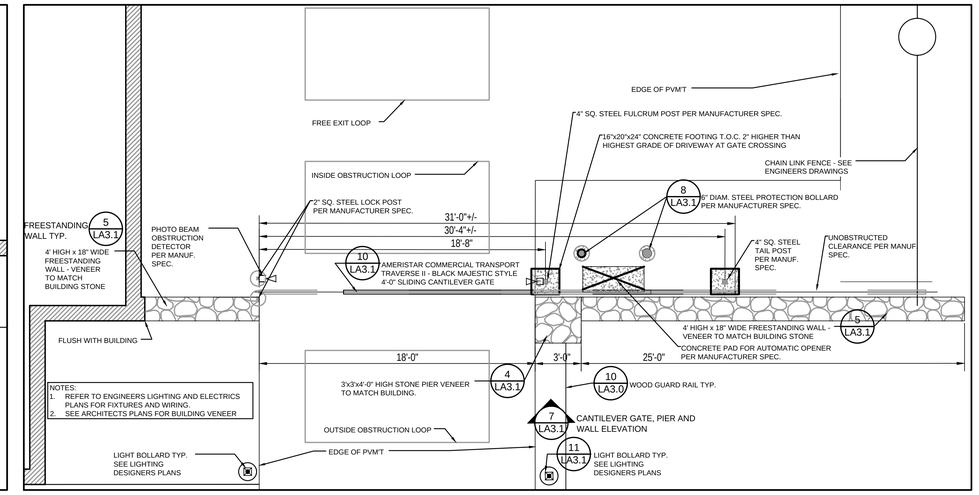
SHEET TITLE
LANDSCAPE DETAILS - SHEET 1

SHEET
LA3.0



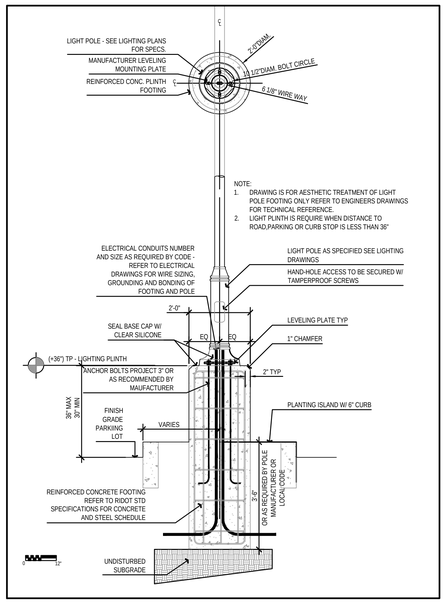
1 WEST GATE DETAIL PLAN

SCALE: 1/4" = 1'-0"



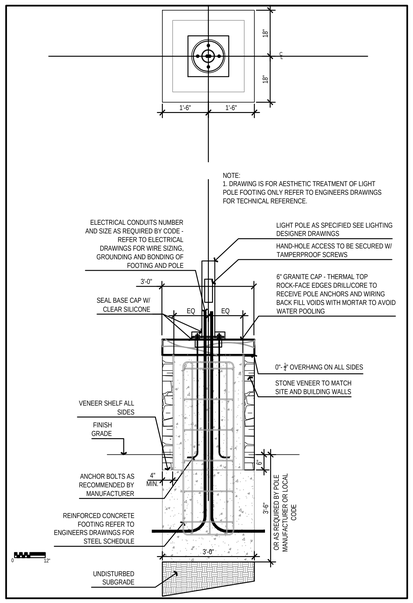
2 EAST GATE DETAIL PLAN

SCALE: 1/4" = 1'-0"



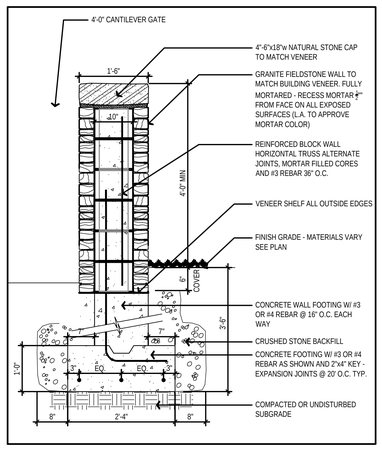
3 LIGHT STANCHION CONCRETE PLINTH TYP.

SCALE: 1/2" = 1'-0"



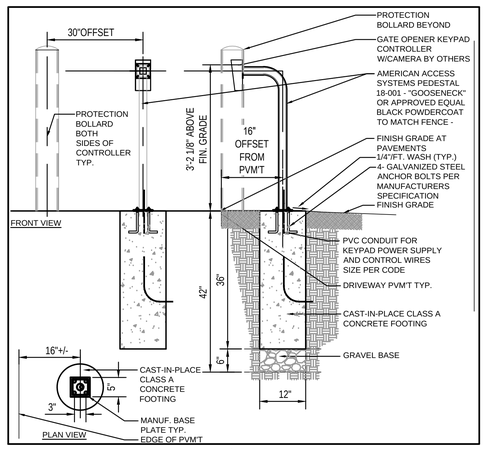
4 LIGHT STANCHION STONE PLINTH TYP.

SCALE: 1/2" = 1'-0"



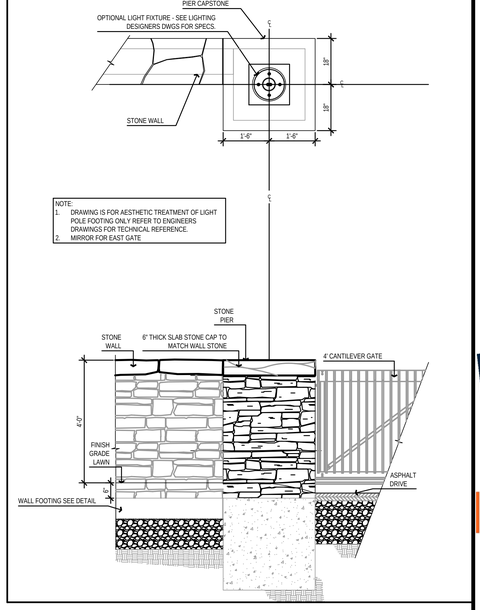
5 FREESTANDING WALL TYP. (AND CANTILEVER GATE)

SCALE: 3/4" = 1'-0"



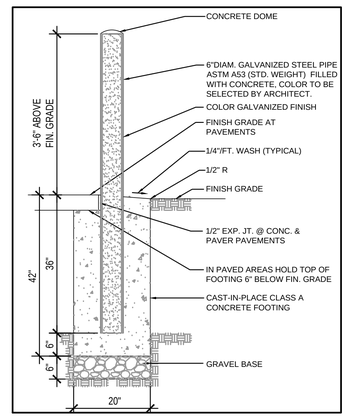
6 DRIVE GATE KEY PAD W/ GOOSENECK POST

SCALE: 3/4" = 1'-0"



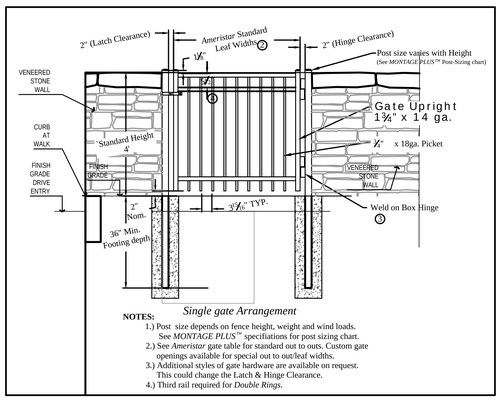
7 CANTILEVER GATE PIER AND WALL ELEVATION

SCALE: 1/2" = 1'-0"



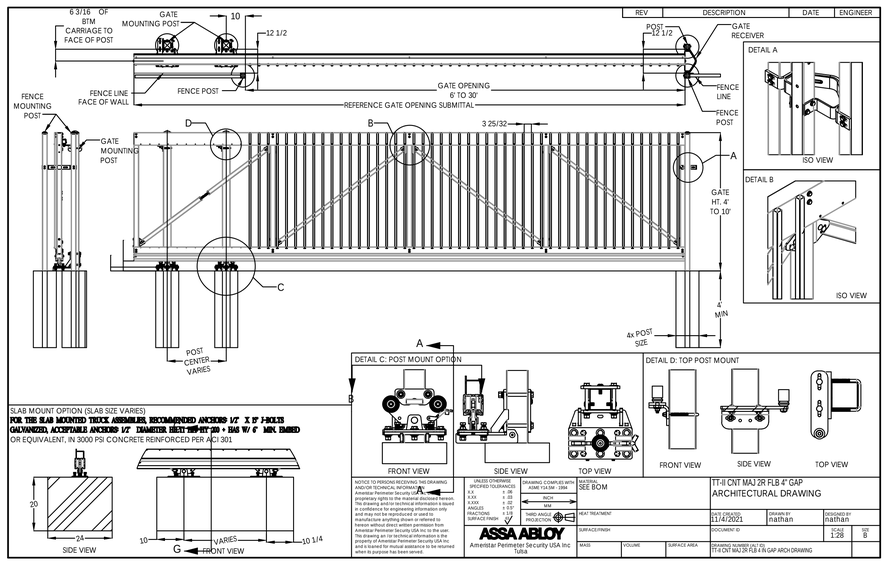
8 STEEL BOLLARD

SCALE: 3/4" = 1'-0"



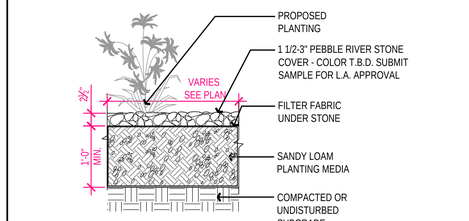
9 WEST PEDESTRIAN GATE AND WALL ELEVATION

SCALE: 1/2" = 1'-0"



10 CANTILEVER GATE DETAIL

SCALE: NTS



11 RIVERSTONE BED MULCH TYP.

SCALE: 1" = 1'-0"

NEW OPERATIONS FACILITY

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JOB NO. 2201 DATE 08/01/2025

ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE

LANDSCAPE DETAILS - SHEET 2

SHEET

LA3.1

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GENERAL NOTES

A. GENERAL

1. ALL WORK SHALL CONFORM TO THE RHODE ISLAND STATE BUILDING CODE SBC-1-2021 (INTERNATIONAL BUILDING CODE [IBC] 2015 WITH AMENDMENTS) AND ITS APPLICABLE REFERENCED STANDARDS (HEREIN REFERRED TO AS THE *BUILDING CODE*).
2. ALL REFERENCES TO THE CONTRACTOR IN THIS SET OF DRAWINGS REFER TO THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, AND OTHER PARTY OR PARTIES RESPONSIBLE FOR THE EXECUTION OF THE PROJECT.
3. ALL REFERENCES TO A PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER, AND GEOTECHNICAL ENGINEER IN THIS SET OF DRAWINGS REFERS TO A PROFESSIONAL ENGINEER COMPETENT IN THE RESPECTIVE FIELD OF DESIGN WHO IS REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AS THEY RELATE TO NEW CONSTRUCTION. REPORT ALL OBSERVATIONS AND ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER OF RECORD AS A REQUEST FOR INFORMATION (RFI) BEFORE PROCEEDING WITH WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE FOR A SAFE AND EFFICIENT METHOD OF SHORING AND BRACING THE STRUCTURE DURING ALL CONSTRUCTION PHASES. ALL SHORING AND BRACING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER. SUBMIT AN OUTLINE OF PROPOSED PROCEDURE AND ITS IMPACT ON THE BUILDING STRUCTURE FOR RECORD TO THE ARCHITECT/ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK.
6. THE EVALUATION OF THE STRUCTURE TO SAFELY SUPPORT ANY AND ALL CONSTRUCTION LOADING (E.G. EQUIPMENT LOADS, TEMPORARY LOADS FROM DEBRIS AND MATERIAL STORAGE) IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE DESIGN TEAM HAS DESIGNED THE STRUCTURE FOR THE PERMANENT DEAD LOADS AND UNIFORM LIVE LOADS INDICATED ON THE STRUCTURAL DRAWINGS ACCORDING TO THE REQUIREMENTS OF THE BUILDING CODE. THE CONTRACTOR SHALL ENGAGE A STRUCTURAL ENGINEER TO EVALUATE PROPOSED CONSTRUCTION LOADING AND TO DESIGN ALL TEMPORARY BRACING AND SHORING SYSTEMS THAT MAY BE REQUIRED DUE TO THE CONTRACTOR'S MEANS AND METHODS AND SEQUENCE OF CONSTRUCTION.
7. WHERE DETAILS FOR SPECIFIC CONDITIONS ARE NOT SHOWN ON THESE DRAWINGS, USE DETAILS FOR THE MOST NEARLY SIMILAR CONDITIONS SHOWN ON THE STRUCTURAL DRAWINGS AS DETERMINED BY THE STRUCTURAL ENGINEER OF RECORD. REPORT ANY COORDINATION ISSUES IMMEDIATELY AS AN RFI FOR REVIEW.
8. COORDINATE WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND DIMENSIONS OF CHASES, OPENINGS, BEAM PENETRATIONS, AND OTHER INFORMATION THAT AFFECTS STRUCTURAL FRAMING AND FOUNDATIONS THAT IS NOT SHOWN ON THESE DRAWINGS. INCLUDE ADDITIONAL FRAMING AND REINFORCEMENT FOR SUCH WORK PER THE TYPICAL STRUCTURAL DETAILS ON THESE DRAWINGS IN BASE CONTRACT.
9. ALL WORK SHALL BE MONITORED AND INSPECTED BY AN INDEPENDENT TESTING AND INSPECTIONS AGENCY HIRED BY THE OWNER TO CARRY OUT ALL REQUIRED TESTING AND INSPECTION WORK IN CONFORMANCE WITH THE PROJECT STATEMENT OF SPECIAL INSPECTIONS. SUBMIT ALL TESTING AND INSPECTION REPORTS IN PDF FORMAT TO THE ARCHITECT/ENGINEER OF RECORD FOR REVIEW.
10. STRUCTURAL MEMBERS SHALL NOT BE MODIFIED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. ANY ANTICIPATED MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS MUST BE SUBMITTED TO THE ARCHITECT/ENGINEER OF RECORD AS AN RFI FOR REVIEW AND COMMENT. IN THE EVENT OF A DISCREPANCY BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS ERROR, THE CONTRACTOR SHALL PREPARE A SKETCH AND CALCULATIONS, PREPARED BY A STRUCTURAL ENGINEER, DOCUMENTING THE PROPOSED CORRECTIVE ACTION AND SUBMIT IT TO THE ARCHITECT/ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PERFORMING ANY CORRECTIVE WORK. ODEH ENGINEERS, INC. CANNOT CERTIFY ANY UNAUTHORIZED DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS.
11. PRIOR TO REQUESTING A SITE VISIT BY OWNER FOR OBSERVATION OF A COMPLETED STAGE OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A STATEMENT TO THE ARCHITECT/ENGINEER OF RECORD THAT ALL WORK HAS BEEN COMPLETED IN CONFORMANCE WITH THE STRUCTURAL CONSTRUCTION DOCUMENTS AND SHOP DRAWINGS WITHOUT EXCEPTION, OR HAS BEEN PERFORMED WITH FORMAL WRITTEN EXCEPTIONS ORIGINATING FROM OR AUTHORIZED BY ODEH ENGINEERS, INC.
12. PRIOR TO RELEASE OF THE FINAL PROJECT PAYMENT TO THE BUILDING OFFICIAL, ODEH ENGINEERS, INC. REQUIRES A LETTER FROM THE CONTRACTOR'S PROJECT EXECUTIVE IN RESPONSIBLE CHARGE STATING THAT ALL WORK INDICATED ON THE STRUCTURAL DRAWINGS HAS BEEN PERFORMED WITHOUT EXCEPTION, OR HAS BEEN PERFORMED WITH FORMAL WRITTEN EXCEPTIONS ORIGINATING FROM OR AUTHORIZED BY ODEH ENGINEERS, INC. IN ADDITION, ODEH ENGINEERS, INC. REQUIRES A LETTER FROM THE PRINCIPAL OF THE TESTING AND INSPECTIONS AGENCY CERTIFYING THAT ALL TESTING AND INSPECTION WORK HAS BEEN COMPLETED IN CONFORMANCE WITH THE PROJECT STATEMENT OF SPECIAL INSPECTIONS AND THAT ALL STRUCTURAL NONCONFORMANCE CONDITIONS FOUND HAVE BEEN BROUGHT INTO CONFORMANCE WITH THE PROJECT STRUCTURAL REQUIREMENTS PRIOR TO PROJECT COMPLETION.
13. THE TRADE CONTRACTORS SHALL SUBMIT SHOP AND ERECTION DRAWINGS AS WELL AS PRODUCT DATA (COLLECTIVELY KNOWN HEREIN AS "SHOP DRAWINGS") FOR REVIEW PRIOR TO PROCEEDING WITH FABRICATION AND/OR CONSTRUCTION.
   a. THE SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND IN CONJUNCTION WITH ADDITIONAL SHOP DRAWING REQUIREMENTS INDICATED ON THESE DRAWINGS.
   b. ALL SHOP DRAWINGS SHALL BE FULLY DEVELOPED BY THE TRADE CONTRACTORS OR BY AGENTS OF THE CONTRACTORS. CAD FILES, PHOTOCOPIES, OR OTHER REPRODUCTIONS OF THE CONTRACT DRAWINGS IN WHOLE OR IN PART SHALL NOT BE USED BY THE TRADE CONTRACTORS OR THEIR AGENTS FOR THE PREPARATION AND DEVELOPMENT OF SHOP DRAWINGS WITHOUT THE EXPRESSED WRITTEN CONSENT OF ODEH ENGINEERS, INC.
   c. ALL SUBMITTALS SHALL BE IN UNLOCKED PDF FORMAT WITH SEARCHABLE TEXT.
14. ALL 3D VIEWS INCLUDED ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. THE 3D VIEWS ONLY SHOW BASIC STRUCTURAL ELEMENTS. THEY DO NOT INCLUDE DETAILS SUCH AS EXTERIOR RAMPS AND STAIRS, SLAB AND ROOF PITCHES, OR SPECIFIC STRUCTURAL DETAILS. REFER TO ALL PLANS, DETAIL SHEETS, AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. DO NOT SCALE OFF OF THESE DRAWINGS.
15. DO NOT SCALE OFF OF THESE DRAWINGS.
16. THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS. IN ALL CASES OF CONFLICT, INFORMATION INDICATED ON THE STRUCTURAL DRAWINGS AND INCLUDED IN THE STRUCTURAL GENERAL NOTES SHALL GOVERN.
17. THIS 100% CONSTRUCTION DOCUMENTATION SET OF DRAWINGS IS BEING PROVIDED FOR FINAL PERMITTING AND CONSTRUCTION OF THE PROJECT. REFERENCE DRAWINGS PROVIDED BY OTHER TRADES AS NEEDED TO OBTAIN A COMPLETE UNDERSTANDING OF ALL SYSTEMS INVOLVED IN THIS PROJECT.
18. THIS 100% CONSTRUCTION DOCUMENTATION SET IS BASED ON ARCHITECTURAL REVIT FILES RECEIVED THROUGH 07/08/2024.

B. ENGINEERING REQUIREMENTS FOR THE CONTRACTOR

1. THE DESIGN OF ALL ENGINEERED SYSTEMS NOTED IN THIS SECTION, INCLUDING CONNECTIONS OF EACH SYSTEM TO THE MAIN BUILDING STRUCTURE, ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL ENGINEERED SYSTEMS SHALL CONFORM TO THE *BUILDING CODE* AND SHALL BE PERFORMED BY AN INDEPENDENT STRUCTURAL ENGINEER ENGAGED BY THE CONTRACTOR.
2. THE FOLLOWING ENGINEERED SYSTEMS ARE REQUIRED AS PART OF THE STRUCTURAL SYSTEMS SPECIFIED ON THIS PROJECT. CALCULATIONS AND SHOP DRAWINGS, BOTH SIGNED AND STAMPED BY A STRUCTURAL ENGINEER, ARE REQUIRED TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW FOR EACH RESPECTIVE ENGINEERED SYSTEM BELOW. ALL SHOP DRAWINGS SHALL INDICATE THE MAGNITUDE, DIRECTION, AND LOCATION OF LOADS IMPOSED ON THE STRUCTURE FROM CONNECTIONS OF THE RESPECTIVE SYSTEMS TO THE MAIN BUILDING STRUCTURE. REFER TO THE RESPECTIVE GENERAL NOTES SECTIONS INCLUDED IN THE STRUCTURAL DOCUMENTS FOR ADDITIONAL ENGINEERING REQUIREMENTS FOR EACH OF THE STRUCTURAL SYSTEMS SPECIFIED FOR USE.
   A. *PANELIZED FACADE SYSTEMS.*
   B. *WOOD TRUSS ROOF SYSTEMS.*
   C. *ARCHITECTURALLY EXPOSED GLULAM TRUSSES & THEIR CONNECTIONS.*
   D. *COLD FORM STEEL TRUSS ROOF SYSTEMS.*
   E. *HANDRAILS AND GUARDRAILS.*
   F. *PRE-FABRICATED COMPONENTS AND BUILDING SYSTEMS.*
   G. PRECAST CONCRETE ELEMENTS.
3. IN ADDITION TO THE STRUCTURAL SYSTEMS LISTED ABOVE, THE FOLLOWING ENGINEERED SYSTEMS ARE REQUIRED FOR THIS PROJECT. CALCULATIONS AND SHOP DRAWINGS, BOTH SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, ARE REQUIRED TO BE SUBMITTED FOR RECORD ONLY TO THE ARCHITECT AND ENGINEER FOR EACH RESPECTIVE ENGINEERED SYSTEM BELOW.
   A. *GEOTECHNICAL SCOPE* - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENGAGING A GEOTECHNICAL ENGINEER TO DESIGN AND OVERSEE THE FOLLOWING, AS APPLICABLE:
      1. GROUND IMPROVEMENT.
      2. SUBGRADE PREPARATION.
   B. *SAFETY TIE-OFF SYSTEMS* - ALL SAFETY TIE-OFF SYSTEMS AND WINDOW-WASHING ANCHORS SHALL BE DESIGNED FOR THE RESPECTIVE MAXIMUM ANTICIPATED LOADS ACTING ON THE ELEMENTS. SAFETY TIE-OFF SYSTEMS SHALL BE ATTACHED TO BUILDING FRAMING ELEMENTS ONLY AT LOCATIONS APPROVED BY THE BUILDING STRUCTURAL ENGINEER OF RECORD.

C. SPECIAL INSPECTIONS

1. UNLESS WAIVED BY THE BUILDING OFFICIAL, A *SPECIAL INSPECTIONS PROGRAM* SHALL BE ESTABLISHED BY THE OWNER AND COORDINATED WITH THE CONTRACTOR AS REQUIRED BY CHAPTER 17 OF THE *BUILDING CODE*. THE *SPECIAL INSPECTIONS PROGRAM* SHALL BE MANAGED BY A *SPECIAL INSPECTIONS COORDINATOR* (ALSO REFERRED TO AS THE *SPECIAL INSPECTOR*), WHO SHALL BE HIRED BY THE OWNER.
2. THE *SPECIAL INSPECTIONS PROGRAM* SHALL NOT RELIEVE THE CONTRACTOR OF QUALITY ASSURANCE AND TESTING REQUIREMENTS OF THE *BUILDING CODE* AS WELL AS ADDITIONAL TESTING AND INSPECTION REQUIREMENTS IN THE CONTRACT DOCUMENTS, WHICH SHALL BE SUPPLEMENTARY TO THE *SPECIAL INSPECTIONS PROGRAM*.
3. *SPECIAL INSPECTIONS* SHALL BE PERFORMED FOR ALL STRUCTURAL SYSTEMS INDICATED IN THE STRUCTURAL *STATEMENT OF SPECIAL INSPECTIONS* ISSUED BY ODEH ENGINEERS. REFER TO THE STRUCTURAL *STATEMENT OF SPECIAL INSPECTIONS* FOR SPECIFIC TESTING AND INSPECTION REQUIREMENTS.
4. ALL WORK FOR WHICH *SPECIAL INSPECTIONS* IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR *SPECIAL INSPECTIONS* PURPOSES UNTIL COMPLETION OF THE REQUIRED *SPECIAL INSPECTIONS PROGRAM*. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE INSPECTIONS TO ALLOW FOR ALL TESTS AND INSPECTIONS TO TAKE PLACE AT THE FREQUENCY INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS.
5. ALL NONCONFORMANCE ITEMS IDENTIFIED BY THE TESTING AND INSPECTION AGENCY AS PART OF THE *SPECIAL INSPECTIONS PROGRAM* MUST BE REINSPECTED ONCE THE REQUIRED REMEDIAL WORK IS COMPLETED IN ORDER TO CONFIRM THAT THE COMPLETED CONSTRUCTION CONFORMS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. REINSPECTION AND/OR RETESTING WORK MUST BE DOCUMENTED BY THE TESTING AND INSPECTION AGENCY IN A FIELD REPORT AND MUST BE SUBMITTED TO THE *SPECIAL INSPECTIONS COORDINATOR* AND DESIGN TEAM FOR RECORD. ALL SUPPLEMENTAL AND FOLLOW-UP REPORTS SUBMITTED BY THE TESTING AND INSPECTION AGENCY MUST CLEARLY CROSS-REFERENCE THE ORIGINAL REPORT FROM WHICH THE NONCONFORMANCE ITEM ORIGINATED.
6. THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION MEETING WITH THE *SPECIAL INSPECTIONS COORDINATOR*, TESTING AND INSPECTIONS AGENCIES, DESIGN TEAM, AND SUBCONTRACTORS TO REVIEW THE *SPECIAL INSPECTIONS PROGRAM* AND IDENTIFY ALL PARTICIPANTS' ROLES AND RESPONSIBILITIES.

D. FOUNDATIONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AS WELL AS ALL APPROPRIATE AGENCIES AND MUNICIPALITIES TO AVOID DAMAGE TO UNDERGROUND UTILITIES PRIOR TO THE START OF ANY SITE WORK.
2. THE GEOTECHNICAL REPORT, PREPARED BY GZA GEOENVIRONMENTAL OF PROVIDENCE, RHODE ISLAND ON JUNE, 21, 2022 (HEREIN KNOWN AS "GEOTECHNICAL REPORT") SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF WORK. ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT MUST BE STRICTLY FOLLOWED AND BE INCLUDED IN THE PROJECT BASE CONTRACT.
3. DEPTHS AND QUANTITIES OF MATERIAL REMOVAL AND REPLACEMENT SHALL BE BASED UPON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. THIS INCLUDES ALL REMOVAL OF UNSUITABLE SOILS, COMPACTION OF EXISTING SOILS, SPECIFICATIONS AND PLACEMENT OF ENGINEERED FILL, AND ANY ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL INCLUDE PROVISIONS IN BASE CONTRACT FOR REMOVAL OF ALL UNSUITABLE MATERIALS AND REPLACEMENT WITH COMPACTED ENGINEERED FILL (AND/OR CRUSHED STONE AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS) UP TO BOTTOM OF FOUNDATIONS AND SLABS. IN ADDITION, THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING ALL GROUNDWATER DURING EXCAVATIONS OF FOUNDATIONS.
4. THE CONTRACTOR SHALL PROVIDE CONTINUOUS CONTROL OF THE SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SUCH THAT FOUNDATION WORK IS DONE IN THE DRY AND ON UNDISTURBED SUBGRADE MATERIAL AS APPLICABLE.
5. ALL FOUNDATIONS AND SLABS SHALL BEAR ON VIRGIN SOIL, COMPACTED ENGINEERED FILL, OR COMPACTED CRUSHED STONE WITH A MINIMUM BEARING CAPACITY OF 4000 PSF AS RECOMMENDED IN THE GEOTECHNICAL REPORT. UNLESS OTHERWISE RECOMMENDED IN THE GEOTECHNICAL REPORT, PROVIDE A MINIMUM 6" LAYER OF CRUSHED STONE BENEATH ALL SLABS AND FOOTINGS.
6. BOTTOMS OF ALL EXTERIOR FOUNDATION ELEMENTS SHALL BE A MINIMUM OF 3'-4" BELOW FINISH GRADE.
7. FOUNDATION ELEMENTS SHALL BE STEPPED AT A MAXIMUM SLOPE OF 2 HORIZONTAL TO 1 VERTICAL, UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT. (SEE TYPICAL DETAILS).
8. FOUNDATION ELEMENTS SHALL BE DROPPED AS REQUIRED AT UTILITY LOCATIONS. LOCATIONS ARE NOT SHOWN ON STRUCTURAL DRAWINGS AND CONTRACTOR SHALL COORDINATE ALL UTILITY LOCATIONS AND INTERACTION WITH FOUNDATIONS.
9. DURING BACKFILL OPERATIONS OF ALL FOUNDATION WALLS, THE FILL ON EITHER SIDE OF THE WALL SHALL NOT EXCEED A 2'-0" DIFFERENTIAL, UNLESS THE WALL IS DESIGNED FOR RETAINING ACTION.

E. CONCRETE

1. ALL CONCRETE WORK SHALL BE IN CONFORMANCE WITH THE *BUILDING CODE* AND ACI 318 AND 301 REQUIREMENTS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, PROPORTIONING OF CONCRETE MIX, CONCRETE TESTING, PLACEMENT OF CONCRETE, AND CURING PROCEDURES.
2. CONCRETE SHALL HAVE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTH, f'_c.
   a. ALL CONCRETE EXCEPT AS NOTED BELOW ..... 4000 PSI
3. PROVIDE TOTAL AIR ENTRAINMENT OF 6% (±1½) FOR ALL CONCRETE EXPOSED TO WEATHER. MAXIMUM WATER/CEMENT RATIO FOR 4000 PSI CONCRETE - W/C = 0.45, UNLESS NOTED OTHERWISE. PROVIDE A HIGH-RANGE WATER REDUCING ADMIXTURE IF REQUIRED TO INCREASE WORKABILITY OF THE CONCRETE.
4. ALL CONCRETE ELEMENTS SHALL BE NORMAL WEIGHT (N.W.) WITH A MAXIMUM DRY DENSITY OF 145 PCF (± 5 PCF).
5. UNLESS NOTED OTHERWISE, FLY ASH CONFORMING TO ASTM C618, CLASS C OR SLAG CEMENT CONFORMING TO ASTM C989, GRADE 120 SHALL BE USED AS A REPLACEMENT FOR 25% OF CEMENTITIOUS MATERIALS BY WEIGHT. REPLACEMENT OF CEMENTITIOUS MATERIALS IN EXCESS OF THIS VALUE OR OTHER CEMENTITIOUS MATERIALS SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTING MIX DESIGNS FOR REVIEW.
6. ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS:
   a. REINFORCING BARS: ASTM A615 (F$_y$=60 KSI, MIN.)
   b. WELDED WIRE REINFORCEMENT: ASTM A1064 (F$_y$=60 KSI, MIN.)
   c. REINFORCING BARS TO BE WELDED: ASTM A615 OR ASTM A706 (F$_y$=60 KSI, MIN.)
   d. EPOXY-COATED REINFORCING BARS: ASTM A775 OR ASTM A934
   e. EPOXY-COATED WELDED WIRE REINFORCEMENT: ASTM A884
7. ALL STIRRUPS AND TIES SHALL BE CLOSED TYPE AND ALL HOOKS SHALL BE STANDARD 90° TYPE, UNLESS OTHERWISE NOTED.
8. WHERE NO REINFORCEMENT IS INDICATED FOR CONCRETE SLABS AND WALLS, PROVIDE A MINIMUM #4 @ 12" O.C. CONTINUOUSLY EACH WAY, TOP AND BOTTOM (OR EACH FACE OF WALL).
9. PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTIONS MATCHING HORIZONTAL REINFORCEMENT WITH 2'-6" MINIMUM LAPS.
10. PROVIDE A MINIMUM OF 1-#5 SUPPORT BAR AT ALL STIRRUP BENDS WHERE PRIMARY BARS DO NOT EXIST.
11. PROVIDE MATCHING DOWELS FOR ALL VERTICAL REINFORCING BARS AT CMU WALLS. DOWEL DIAMETER SHALL MATCH VERTICAL REINFORCING BAR DIAMETER. DOWEL LENGTH SHALL BE 96 BAR DIAMETERS MINIMUM WITH 48 BAR DIAMETER MIN. EMBEDMENT AND 48 BAR DIAMETER MIN. LAP (U.N.O.).
12. SET AND TIE ALL REINFORCEMENT, ANCHOR BOLTS, AND CAST-IN AND EMBEDDED ITEMS PRIOR TO PLACING CONCRETE. SETTING OF DOWELS AND REINFORCEMENT INTO WET CONCRETE SHALL NOT BE ALLOWED.
13. REINFORCING LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI-318 FOR TENSION LAP SPLICES, CLASS B, UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS FOR SPECIAL LAP SPLICE INSTRUCTIONS AT FOUNDATION WALLS AND GRADE BEAM/PILE CAP INTERSECTIONS.
14. DETAILING OF REINFORCEMENT SHALL BE ACCORDING TO THE LATEST EDITION OF THE ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" AND ACI 318 SUPPORTS, SPACERS, AND ACCESSORIES RECOMMENDED IN THE LATEST EDITION OF THE ACI DETAILING MANUAL, PUBLICATION SP-66. ALL ACCESSORIES IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC COATED. PROVIDE SCHEDULE OF ALL ACCESSORIES WITH SHOP DRAWINGS FOR REVIEW.
15. ALL CONCRETE SHALL MEET A MINIMUM OF 40% OF ITS 28 DAY COMPRESSIVE STRENGTH (f'_c) PRIOR TO REMOVING FORMS AND/OR SHORES.
16. UNLESS NOTED OTHERWISE, PROVIDE REINFORCEMENT COVER PER THE TABLE AT THE END OF THIS SECTION.
17. ALL CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS, EXCEPT WHERE SPECIFICALLY INDICATED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN THE CONCRETE WORK SHALL BE MADE AT MIDSPAN. ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH VERTICAL CONSTRUCTION JOINTS.
18. MAXIMUM STRAIGHT LENGTH OF CONCRETE WALL BETWEEN CONSTRUCTION JOINTS SHALL BE 60 FEET.
19. PROVIDE VERTICAL CONTROL JOINTS AT A MAXIMUM SPACING OF 20 FEET O.C. FOR ALL CONTINUOUS WALLS WITH MORE THAN 12" PENETRATIONS ABOVE FINISH GRADE.
20. NOT ALL OPENINGS AND PENETRATIONS THROUGH CONCRETE WALLS AND SLABS ARE SHOWN ON THE STRUCTURAL DRAWINGS. REINFORCE AROUND PENETRATIONS THROUGH CONCRETE WALLS AND SLABS PER THE TYPICAL DETAILS. COORDINATE ALL OPENING LOCATIONS WITH ARCHITECT AND OTHER TRADES.
21. PROVIDE SAWCUT JOINTS IN ALL SLABS ON GRADE USING AN EARLY-ENTRY SAW WITHIN 4 HOURS OF PLACEMENT. PROVIDE SAWCUTS @ 10'-0" O.C. MAX., UNLESS NOTED OTHERWISE.
22. PLACE ALL SLABS PER ACI 301 AND ACI 302.1 SPECIFICATIONS. UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING MINIMUM FLOOR FLATNESS AND LEVELNESS:
   a. SLABS ON GRADE:
      1. OVERALL FLOOR FLATNESS FF = 35
      2. LOCAL FLOOR FLATNESS FF$_L$ = 25
      3. OVERALL FLOOR LEVELNESS FL = 25
      4. LOCAL FLOOR LEVELNESS FL$_L$ = 17
      INDIVIDUAL SECTIONAL BOUNDARIES FOR LOCAL MEASUREMENTS SHALL BE SET AT CONSTRUCTION AND CONTROL JOINT LOCATIONS. IN THE ABSENCE OF CONSTRUCTION AND CONTROL JOINTS, BOUNDARIES SHALL BE COLUMN LINES AND HALF-COLUMN LINES OR 10'-0" WIDE SEGMENTS, WHICHEVER IS LESS.
23. WHERE NECESSARY DUE TO CONGESTED REINFORCEMENT, CONTRACTOR SHALL PROVIDE MECHANICAL BAR COUPLERS AND BAR TERMINATORS IN LIEU OF LAP SPLICES AND HOOKED ENDS PER ACI REQUIREMENTS. THE CONTRACTOR SHALL INCLUDE THE COST OF SUCH MECHANICAL ACCESSORIES IN BASE CONTRACT.
24. ALL CONCRETE TEST CYLINDERS FOR CONCRETE COMPRESSIVE TESTING SHALL BE PREPARED PER ACI REQUIREMENTS AND APPLICABLE ASTM STANDARDS.
25. ALL CONCRETE MIX DURATION TIMES SHALL NOT EXCEED 90 MINUTES.
26. ALL CONCRETE MUST BE PLACED FROM A HEIGHT NOT GREATER THAN 4'-0" ABOVE ITS FINAL POSITION.
27. COORDINATE THE LOCATION, QUANTITY, AND DIMENSIONS OF EMBEDDED ITEMS AND HARDWARE WITH THE ARCHITECT AND WITH RESPECTIVE SYSTEMS MANUFACTURERS (E.G. ELEVATORS AND CURTAIN WALL SYSTEMS).
28. ADDITIONAL REQUIREMENTS FOR CONCRETE EXPOSED TO VEHICULAR TRAFFIC OR WEATHER (NOTED HEREIN AS TRAFFIC AREAS) SHALL BE AS FOLLOWS:
   a. ALL TRAFFIC AREAS SHALL INCLUDE PROVISIONS FOR ADEQUATE DRAINAGE. THE SLOPE OF SLABS SHALL BE CONSTRUCTED IN SUCH A MANNER THAT THE WATER FLOWS IN THE DESIRED DIRECTION WITHOUT PONDING, WITH A MINIMUM SLOPE OF 2%. NO FLOW SHALL BE UNOBSTRUCTED BY ISLANDS, CURBS, AND OTHER FEATURES. WHERE A SLOPE IS NOT INDICATED ON THESE DRAWINGS, AVERAGE ELEVATIONS ARE GIVEN. THE 2% MINIMUM PITCH MUST BE MAINTAINED.
   b. ALL TOP AND MIDDLE SLAB REINFORCEMENT AT TRAFFIC AREAS SHALL BE EPOXY COATED WITH A 1 1/2" MINIMUM COVER.
   c. ALL COLUMN AND WALL REINFORCEMENT WITHIN THE TRAFFIC AREAS SHALL BE EPOXY COATED EXCEPT REINFORCEMENT ON UNEXPOSED FACES MAY BE UNCOATED.
   d. PROVIDE A CORROSION INHIBITING ADMIXTURE, GRACE DCI OR APPROVED EQUAL, 3 GALLONS PER CUBIC YARD, TO ALL CONCRETE IN TRAFFIC AREAS.
   e. PROVIDE A MAXIMUM WATER/CEMENT RATIO, W/C = 0.40 FOR ALL TRAFFIC AREA CONCRETE.
   f. PROVIDE A WATERPROOF HEAVY-DUTY, FLUID-APPLIED, MULTI-LAYER ELASTOMERIC POLYURETHANE TRAFFIC-BEARING MATERIAL WITH INTEGRAL NONSKID TRAFFIC TOPPING AT ALL ELEVATED SLABS AT TRAFFIC AREAS.
   g. PROVIDE AN APPROVED CONCRETE SEALER (SIKA 701W OR APPROVED EQUAL) AT ALL SLABS ON GRADE IN TRAFFIC AREAS.
   h. PROVIDE AN APPROVED CONTINUOUS POLYURETHANE WATER-PROOFING COATING (SIKA FLOOR 450/455 OR APPROVED EQUAL AT ALL JOINTS BETWEEN SLABS AND VERTICAL SURFACES (SUCH AS CONCRETE PIERS AND CONCRETE FOUNDATION WALLS) IN TRAFFIC AREAS.
30. ALL CONCRETE ELEMENTS WITH LEAST DIMENSION OF 5 FEET OR MORE SHALL BE CONSIDERED MASS CONCRETE AND SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 SECTION 8 "MASS CONCRETE".
31. SUBMIT PROPOSED MIX DESIGN OF EACH CONCRETE TYPE AND REINFORCING SHOP DRAWINGS FOR REVIEW.

MINIMUM REINFORCEMENT COVER

CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	MINIMUM COVER[1]
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND[2]	ALL	ALL	3 INCHES
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	NO. 6 THROUGH NO. 18 BARS	2 INCHES
		NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1-1/2 INCHES
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, JOISTS, AND WALLS	NO. 14 AND NO. 18 BARS	1-1/2 INCHES
		NO. 11 BAR AND SMALLER	3/4 INCH
	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1-1/2 INCHES

NOTES:
1. MINIMUM COVER IS INDICATED IN THIS TABLE. SEE STRUCTURAL DETAILS FOR LOCATIONS WHERE GREATER COVER IS REQUIRED.
2. SEE TYPICAL DETAILS FOR COVER REQUIREMENTS AT SLABS ON GRADE.

F. PRECAST CONCRETE

1. ALL PRECAST CONCRETE ELEMENTS SHALL CONFORM TO THE *BUILDING CODE* AS WELL AS ALL APPLICABLE AMERICAN CONCRETE INSTITUTE (ACI) AND PRESTRESSED CONCRETE INSTITUTE (PCI) SPECIFICATIONS AND REQUIREMENTS.
2. PRECAST CONCRETE PLANK ELEMENTS SHALL BE DESIGNED FOR THE FOLLOWING LOADS AT THE SPECIFIED SLAB THICKNESS AND SPANS:
   a. PRECAST CONCRETE SLAB SELF-WEIGHT.
   b. SUPERIMPOSED DEAD LOAD OF 30 PSF.
   c. 20 PSF LIVE LOAD.
3. PROVIDE BEARING STRIPS ON ALL SIDES AND ENDS OF PRECAST CONCRETE ELEMENTS BEARING ON MASONRY.
4. ALL OPENINGS THROUGH PRECAST ELEMENTS MUST BE COORDINATED WITH AND DESIGNED BY THE PRECAST CONCRETE SLAB DESIGNER. ALL OPENINGS LARGER THAN 12"x12" (OR 12" IN DIAMETER) SHALL BE CONTRACT FOR REVIEW BY THE PRECAST ELEMENTS PRIOR TO SHIPMENT TO THE PROJECT SITE. ALL FIELD PENETRATIONS MADE THROUGH PRECAST ELEMENTS SHALL BE LOCATED TO AVOID THE PRESTRESSING STRANDS, AND SHALL BE APPROVED BY THE PRECAST DESIGNER PRIOR TO CREATING THE OPENING.
5. PRECAST CONCRETE SLAB BOX-OUTS FOR COLUMNS, BRACING, BEAMS, ETC. SHALL BE INFILLED WITH MINIMUM 4000 PSI NON-SHRINK GROUT.
6. PROVIDE WEEP HOLES AT PRECAST CONCRETE HOLLOW-CORE SLAB CORES, TYPICAL.
7. GROUT ALL PRECAST KEYS AND END JOINTS WITH MINIMUM 4000 PSI GROUT. PROVIDE REINFORCEMENT IN KEYS AS SPECIFIED ON THESE DRAWINGS.
8. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR REVIEW (SEE SECTION REGARDING *ENGINEERING REQUIREMENTS FOR CONTRACTOR*).

G. STRUCTURAL MASONRY

1. ALL MASONRY WORK SHALL CONFORM TO THE *BUILDING CODE* AS WELL AS THE BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 402/ACI

GENERAL NOTES CONT.

N. STRUCTURAL LUMBER

1. ALL STRUCTURAL CARPENTRY AND LUMBER WORK SHALL BE IN CONFORMANCE WITH THE *BUILDING CODE* AS WELL AS WITH THE STANDARDS, SPECIFICATIONS, AND REQUIREMENTS OF THE AMERICAN FOREST AND PAPER ASSOCIATION (AF&PA) AND APA - THE ENGINEERED WOOD ASSOCIATION (APA).
2. ALL LUMBER USED IN A STRUCTURAL CAPACITY SHALL BE AS FOLLOWS. CONTRACTOR TO OBTAIN ENGINEERED LUMBER FROM A MANUFACTURER THAT PROVIDES THE MINIMUM REFERENCE DESIGN VALUES SHOWN FOR ENGINEERED LUMBER. ALL LUMBER USED IN A STRUCTURAL CAPACITY SHALL BE KILN DRIED WITH A MAXIMUM MOISTURE CONTENT OF 19%.
   a. VISUALLY GRADED DIMENSION LUMBER (2" TO 4" THICK)
      1. UNTREATED LUMBER:
         A. SPRUCE-PINE-FIR (S-P-F) NO.1/NO.2
         B. SOUTHERN PINE (SP) NO.1
      2. PRESERVATIVE TREATED (P.T.) LUMBER:
         A. SOUTHERN PINE (SP) NO.2
      3. FIRE TREATED LUMBER:
         A. SPRUCE-PINE-FIR (S-P-F) NO.1/NO.2
         B. SOUTHERN PINE (SP) NO. 1
   b. VISUALLY GRADED TIMBERS (5"x5" AND LARGER)
      1. BEAMS AND STRINGERS:
         A. DOUGLAS FIR-LARCH (DF-L) SELECT STRUCTURAL
      2. POSTS AND TIMBERS:
         A. DOUGLAS FIR-LARCH (DF-L) SELECT STRUCTURAL
   c. ENGINEERED WOOD BEAMS — F_b / F_c / E / $F_{c\perp}$
      1. PSL: PARALLEL STRAND LUMBER: 2900 psi / 290 psi / 2000 ksi (2.0E) / 2900 psi
      2. LVL: LAMINATED VENEER LUMBER: 2600 psi / 285 psi / 1900 ksi (1.9E) / 2510 psi
      3. LSL: LAMINATED STRAND LUMBER: 2325 psi / 310 psi / 1550 ksi (1.55E) / 2170 psi
   d. ENGINEERED WOOD COLUMNS / WALL STUDS — F_b / F_c / E / $F_{c\perp}$
      1. PSL: PARALLEL STRAND LUMBER: 2400 psi / 190 psi / 1800 ksi (1.8E) / 2500 psi
      2. LSL: LAMINATED STRAND LUMBER: 1700 psi / 425 psi / 1300 ksi (1.3E) / 1835 psi
3. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO THE WEATHER SHALL BE PRESERVATIVE TREATED (P.T.). ALL WOOD COLUMNS LOCATED OUTSIDE OF THE BUILDING ENVELOPE SHALL BE P.T. A WATERPROOFING MEMBRANE SHALL BE USED TO SEPARATE ALL FIRE TREATED LUMBER FROM DIRECT CONTACT WITH CONCRETE OR MASONRY.
4. THE QUANTITY, SIZE, AND PATTERN OF ALL FASTENERS USED FOR FASTENING STRUCTURAL FRAMING (INCLUDING SHEATHING) SHALL CONFORM TO THE REQUIREMENTS OF THE *BUILDING CODE*, AT A MINIMUM. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL FASTENING REQUIREMENTS.
5. ALL NAIL SIZES INDICATED BY PENNYWEIGHT WITHIN THE STRUCTURAL DOCUMENTS SHALL BE ASTM F1667 STEEL WIRE NAILS AS FOLLOWS: 6d = 0.113"x2", 8d = 0.131"x2-1/2", 10d = 0.148"x3", 16d = 0.162"x3-1/2", 20d = 0.192"x4", etc. ALTERNATE NAIL SIZES AND SPACINGS SHALL NOT BE USED WITHOUT APPROVAL FROM THIS OFFICE.
6. ALL WOOD CONNECTORS (JOIST AND BEAM HANGERS, POST CAPS AND BASES, HURRICANE STRAPS, ETC.) SHALL BE GALVANIZED STEEL CONNECTORS AS MANUFACTURED BY "SIMPSON STRONG-TIE" OF PLEASANTON, CA, "USP STRUCTURAL CONNECTORS" OF BURNSVILLE, MN, OR AN APPROVED EQUAL. ALL WOOD CONNECTORS SHALL HAVE ALL FASTENER HOLES FILLED FOR MAXIMUM CAPACITY. WHERE PREMANUFACTURED CONNECTORS CANNOT BE USED, THE CONTRACTOR SHALL HIRE A STRUCTURAL ENGINEER TO DESIGN THE CONNECTIONS AND FASTENERS FOR THE FULL CAPACITY OF THE MEMBERS. ALL ENGINEERED DESIGNS AND DETAILS SHALL BE STAMPED AND SIGNED BY THE SAME ENGINEER AND SUBMITTED FOR REVIEW.
7. ALL CONNECTORS AND FASTENERS EXPOSED TO THE WEATHER AND/OR IN DIRECT CONTACT WITH PRESERVATIVE-TREATED/FIRE-RETARDANT-TREATED LUMBER SHALL BE STAINLESS STEEL, UNLESS AN ALTERNATE PROTECTIVE COATING IS RECOMMENDED BY THE CONNECTOR/FASTENER MANUFACTURER PRESERVED UPON THE SPECIFIC PRESERVATIVE TREATMENT AND WEATHER EXPOSURE CONDITIONS FOR THE PROJECT. SUBMIT PRODUCT DATA FOR REVIEW AND APPROVAL.
8. ALL ROOF AND FLOOR DIAPHRAGMS AND STRUCTURAL WOOD WALL PANELS SHALL BE SHEATHED WITH PLYWOOD STRUCTURAL PANELS WITH A MOISTURE CONTENT NOT LESS THAN 9% NOR FREE BY EIGHT FEET (4' x 8'), EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. SEE TYPICAL DETAILS FOR ADDITIONAL PANEL AND FASTENING REQUIREMENTS. ALL FIRE TREATED WOOD STRUCTURAL PANELS SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 15%. MINIMUM PROPERTIES ARE AS FOLLOWS:
   a. WALL SHEATHING: 15/32" APA-RATED SHEATHING 32/16, EXP-1
   b. ROOF SHEATHING: 23/32" APA-RATED SHEATHING 40/20, EXP-1
   c. EQUIVALENT ORIENTED STRAND BOARD (OSB) PANELS OF EQUAL THICKNESS AND APA-RATING TO THOSE LISTED ABOVE MAY BE USED IN LIEU OF PLYWOOD IN WEATHER PROTECTED AREAS WHERE APPROVED BY THE ARCHITECT.
9. PROVIDE SOLID WOOD BLOCKING (2x4 MIN.) AND DIAPHRAGM EDGE NAILING AT ALL RIDGES, VALLEYS, AND OTHER TRANSITIONS IN ROOF SHEATHING TO MAINTAIN A CONTINUOUS DIAPHRAGM.
10. FASTEN ALL STRUCTURAL WOOD WALLS TO CONCRETE ELEMENTS AS FOLLOWS:
    a. THICKENED SLABS-ON-GRADE:
       1. SHEAR WALLS: SEE SHEAR WALL SCHEDULE
       2. BEARING WALLS: 1/2"ø ASTM F1554 36 KSI ANCHOR RODS WITH 7" EMBEDMENT* @ 48" O.C.
          * - EMBEDMENT MEASURED FROM TOP OF WALL OR SHELF, WHICHEVER IS LOWER.
    b. PROVIDE ADDITIONAL ANCHORS WITHIN 12" OF ALL WALL ENDS AND PLATE INTERRUPTIONS (DOORS, COLUMNS, ETC.). PROVIDE 2 ANCHORS PER WALL SEGMENT, MIN.
    c. ALL ANCHORS IN 2x6 WALLS SHALL HAVE 1/4"x3"x4-1/2" PLATE WASHERS WITH SLOTTED HOLES FOR PLACEMENT
11. ALL LOAD-BEARING WALLS SHALL BE CAPPED WITH DOUBLE TOP PLATES INSTALLED TO PROVIDE OVERLAPPING CORNERS AND INTERSECTIONS. TOP PLATE JOINTS SHALL BE OFFSET NOT LESS THAN 48 INCHES.
12. PROVIDE FULL SUPPORT BELOW ALL WOOD BEAMS, GIRDERS, AND GIRDER TRUSSES. WHERE SPECIFIC POST SIZES ARE NOT INDICATED, PROVIDE A MINIMUM POST EQUAL IN WIDTH TO THE WIDTH OF THE SUPPORTED MEMBER (I.E., PROVIDE (3) 2x6 POSTS IN A 2x6 BEARING WALL SUPPORTING A 4 1/2" WIDE WOOD BEAM, GIRDER OR TRUSS).
13. PROVIDE SOLID WOOD BLOCKING OF EQUAL SIZE AND MATERIAL OF THE WOOD COLUMNS AND SHEAR WALL BOUNDARY STUDS WITHIN ALL FLOOR AND ROOF CAVITIES AS REQUIRED TO MAINTAIN CONTINUOUS LOAD PATH TO FOUNDATION OR SUPPORTING MEMBER. BLOCKING MUST BE IN PLACE BEFORE POINT LOADS FROM ABOVE ARE INSTALLED.
14. PROVIDE PLYWOOD SPACERS IN ALL MULTIPLE 2x HEADERS WITHIN EXTERIOR AND/OR LOAD BEARING WALLS TO MAKE UP DIFFERENCE OF WALL THICKNESS.
15. PROVIDE A MINIMUM OF 3 STUDS AT ALL 90-DEGREE CORNERS IN LOAD-BEARING AND/OR SHEAR WALLS, U.N.O. SEE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS.
16. BORED OR CUT HOLES SHALL NOT EXCEED MORE THAN ONE-THIRD (1/3) OF THE DEPTH OF ANY UNREINFORCED STRUCTURAL WALL STUD. EDGES OF ALL HOLES SHALL NOT BE LOCATED ANY CLOSER THAN 5/8" FROM THE EDGE OF STUD. STRUCTURAL STUDS MAY HAVE BORED OR CUT HOLES UP TO ONE-HALF (1/2) OF THE STUD DEPTH ONLY IF DOUBLED OR REINFORCED WITH A SIMPSON STRONG-TIE TYPE-SS1.5 STUD-SHOE (OR APPROVED EQUAL). HOLES SHALL NOT BE ALLOWED IN POSTS OR COLUMNS UNLESS CLEARLY INDICATED ON THE STRUCTURAL DRAWINGS.
17. ALL NON-LOAD-BEARING PARTITIONS SHALL BE CONSTRUCTED TO ALLOW FOR A VERTICAL LIVE LOAD DEFLECTION OF THE ROOF OR FLOOR SYSTEM. PROVIDE FRAMING CLIPS AS NECESSARY TO STABILIZE WALLS WHILE ALLOWING FOR DEFLECTIONS.
18. ALL BUILT-UP DIMENSIONAL LUMBER MEMBERS SHALL BE FASTENED TOGETHER PER THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) FOR THE MEMBERS TO ACT TOGETHER AS ONE.
19. ALL BUILT-UP ENGINEERED LUMBER MEMBERS SHALL BE FASTENED TOGETHER PER THE MANUFACTURER'S REQUIREMENTS FOR THE MEMBERS TO ACT TOGETHER AS ONE AT THEIR MAXIMUM DESIGN CAPACITY OF THE SPECIFIED LARGER MEMBER.
20. ALL EXTERIOR WALLS SHALL BE FIRE TREATED. ALL FLOOR AND ROOF FRAMING MEMBERS AND DIAPHRAGMS SUPPORTED ON EXTERIOR FIRE-RATED WALLS SHALL ALSO BE FIRE TREATED AS FAR BACK FROM EXTERIOR WALL AS REQUIRED BY THE ARCHITECT. SEE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING FIRE TREATMENT REQUIREMENTS. THE ANALYSIS AND DESIGN OF THE WOOD STRUCTURE HAS USED A 15% REDUCTION IN THE REFERENCE DESIGN VALUES OF THE LUMBER AND SHEATHING DUE TO FIRE TREATMENT. CONTRACTOR TO SUBMIT FOR REVIEW PRODUCT DATA OF FIRE TREATED MEMBERS THAT HAS LESS THAN A 15% REDUCTION IN REFERENCE DESIGN VALUES DUE TO FIRE TREATMENT.

P. WOOD ROOF DECK

1. ALL WOOD DECKING SHALL BE LAMINATED TONGUE AND GROOVE SOUTHERN PINE DECKING WITH THE MINIMUM NOMINAL THICKNESS SPECIFIED BELOW AND THE MINIMUM PROPERTIES AS SPECIFIED ON PLAN
2. ALL DECKING SHALL BE PLACED WITH A RANDOM LENGTH LAYUP.
3. NAILING OF DECKING SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS (MIN.) UNLESS NOTED OTHERWISE ON THE PLANS AND DETAILS.
4. ALL TONGUE AND GROOVE DECKING SHALL HAVE THE FOLLOWING AS MINIMUM ALLOWABLE DESIGN PROPERTIES FOR THE LUMBER:
   A. SPECIES — Fb / Fv / E
      a. SOUTHERN PINE — 2640 PSI / 200 PSI / 1800 KSI
5. ALL 1/2" T&G WOOD SHEATHING INDICATED TO BE FASTENED TO THE T& G WOOD DECKING SHALL BE FASTENED WITH THE NAILING PATTERN INDICATED IN THE TABLE BELOW AND SHALL MEET THE FOLLOWING CRITERIA:
   A. PANEL EDGES SHALL NOT COINCIDE WITH JOINTS IN THE LUMBER DECKING.
   B. ADJACENT PANEL EDGES PARALLEL TO THE DECKING SHALL BE FASTENED TO A COMMON MEMBER.
   C. MINIMUM FASTENER PENETRATION FOR SHEATHING FASTENERS SHALL BE PROVIDED INTO THE T&G DECKING.

WOOD DECK SCHEDULE

DECK MARK	MINIMUM DECK FASTENING		
T&G 3" NOM.	LOCATION	*INTERMEDIATE & END BEARING*	*BOUNDARY MEMBERS AND CORNERS BEARING*
	DECKING	(2)-20d PER SUPPORT	(3)-20d PER SUPPORT
	LOCATION	*PERIMETER & CORNERS*	*FIELD*
	SHEATHING	10d @ 4" O.C.	10d @ 6" O.C.

NOTES:
1. FASTENERS INDICATED IN THIS TABLE ARE MINIMUMS. REFER TO DETAILS FOR ADDITIONAL FASTENER REQUIREMENTS.

Q. PLATE-CONNECTED WOOD TRUSS SYSTEMS

1. TRUSS DESIGN, FABRICATION, AND ERECTION SHALL BE IN CONFORMANCE WITH *BUILDING CODE* AND THE TRUSS PLATE INSTITUTE'S SPECIFICATIONS AND RECOMMENDATIONS, AS WELL AS IN CONFORMANCE WITH THE ICC APPROVAL REPORT REQUIREMENTS. DURING THE ERECTION PROCESS, ERECTION STABILITY BRACING, TRUSS STABILITY BRACING, AND CONTINUOUS LATERAL RESTRAINT OF THE TOP AND BOTTOM CHORDS AND WEB MEMBERS SHALL BE INSTALLED PER THE TRUSS PLATE INSTITUTE GUIDELINES AND INDUSTRY STANDARDS. ALL LATERAL BRACING INSTALLED DURING THE ERECTION PROCESS SHALL REMAIN IN PLACE, AND BE MADE A PART OF THE PERMANENT BRACING SYSTEM.
2. THE WOOD TRUSS FABRICATOR SHALL DESIGN AND FABRICATE EACH ENTIRE FLOOR/ROOF AS A SYSTEM TO SUPPORT THE LOADS INDICATED ON THE LOADING PLANS AND IN THE GENERAL NOTES AND DESIGN LOADS, WITH ALL DESIGNS PERFORMED BY A STRUCTURAL ENGINEER (HEREIN REFERRED TO THE TRUSS DESIGNER). THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL STICK FRAMED SECTIONS, PIGGYBACK TRUSSES, OVERHANGS, FLOOR/ROOF OPENING FRAMING (IF APPLICABLE), TEMPORARY AND PERMANENT TRUSS RESTRAINT AND STABILITY BRACING, AND ALL REQUIRED CONNECTIONS TO OTHER FRAMING MEMBERS AND STRUCTURAL SUPPORTS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL DETAILS AND DIMENSIONS NOT A PART OF STRUCTURAL DRAWINGS.
3. THE WOOD FRAMING MEMBERS INDICATED ON THESE DRAWINGS REPRESENT THE MINIMUM FRAMING REQUIREMENTS. THE FINAL DESIGN USED SHALL BE THAT DEVELOPED BY THE TRUSS FABRICATOR AND TRUSS DESIGNER SUBMITTED TO THE DESIGN TEAM FOR REVIEW.
4. ALL BEARING LINES SHALL BE INDICATED ON THE FLOOR/ROOF FRAMING LAYOUT DRAWINGS TO BE SUBMITTED FOR REVIEW.
5. ALL MEANS AND METHODS REQUIRED FOR SAFE ERECTION OF TRUSS SYSTEMS, INCLUDING BUT NOT LIMITED TO TEMPORARY TRUSS BRACING, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. AT A MINIMUM, ALL INSTALLATION WORK SHALL CONFORM TO THE LATEST EDITION OF THE BUILDING COMPONENT SAFETY INFORMATION (BCSI) BOOK, PRODUCED JOINTLY BY THE STRUCTURAL BUILDING COMPONENTS ASSOCIATION (SBCA) AND THE TRUSS PLATE INSTITUTE (TPI). IN ADDITION TO ERECTION BRACING, THE PERMANENT TRUSS RESTRAINT AND STABILITY BRACING SPECIFIED ON THE TRUSS DESIGN DRAWINGS AND IN THE BCSI SHALL BE INSTALLED.
6. ALL TRUSS BRACING (STRONG-BACKS, VERTICAL X-BRACING, ETC.) INDICATED IN THE PROJECT CONTRACT DOCUMENTS IS MANDATORY PERMANENT TRUSS BRACING AND SHALL BE INSTALLED IN ADDITION TO ALL ERECTION BRACING AND INDIVIDUAL TRUSS MEMBER BRACING THAT IS REQUIRED BY THE TRUSS DESIGNER/MANUFACTURER AND BY THE WOOD TRUSS INDUSTRY STANDARDS.
   a. BOTTOM CHORDS: CONTINUOUS 2x6 BRACING AT 10'-0" O.C. MAX. FASTENED TO WALLS, TRUSSES, OR OTHER FRAMING MEMBERS AT TERMINAL ENDS. PROVIDE DIAGONAL BRACING PER THE BCSI (SIZE TO MATCH CONTINUOUS MEMBERS) TO EXTERIOR WALLS AT TERMINAL ENDS AND AT INTERMEDIATE LOCATIONS AT A SPACING NOT TO EXCEED 20'-0" O.C.
   b. TOP CHORDS: CONTINUOUS PLYWOOD SHEATHING. PLYWOOD SHEATHING MUST BE INSTALLED BELOW ALL VALLEY TRUSSES, BUILT-UP GABLE ROOFS, ETC. FOR DIAPHRAGM CONTINUITY AND TO PROVIDE BRACING TO THE ROOF TRUSSES BELOW.
   c. GABLE END WALLS, TRUSSES: 2x6 VERTICAL CROSS BRACES @ 10'-0" O.C. MAX. FASTENED TO EACH INTERSECTING ROOF TRUSS WEB. THE TRUSS DESIGNER SHALL PROVIDE ADDITIONAL VERTICAL TRUSS WEB MEMBERS AS REQUIRED TO ALLOW FOR GABLE END WALL BRACING MEMBER FASTENING. AT LEAST ONE BRACE SHALL BE LOCATED IN ALIGNMENT WITH THE ROOF RIDGE AT EVERY GABLE END. BRACES SHALL BE SET AS REQUIRED TO ACHIEVE AN ANGLE OF APPROXIMATELY 45º.
7. TRUSS DESIGN, FABRICATION, AND ERECTION SHALL BE IN CONFORMANCE WITH *BUILDING CODE* AND THE TRUSS PLATE INSTITUTE'S SPECIFICATIONS AND RECOMMENDATIONS, AS WELL AS IN CONFORMANCE WITH THE ICC APPROVAL REPORT REQUIREMENTS. DURING THE ERECTION PROCESS, ERECTION STABILITY BRACING, TRUSS STABILITY BRACING, AND CONTINUOUS LATERAL RESTRAINT OF THE TOP AND BOTTOM CHORDS AND WEB MEMBERS SHALL BE INSTALLED PER THE TRUSS PLATE INSTITUTE GUIDELINES AND INDUSTRY STANDARDS. ALL LATERAL BRACING INSTALLED DURING THE ERECTION PROCESS SHALL REMAIN IN PLACE, AND BE MADE A PART OF THE PERMANENT BRACING SYSTEM.
8. THE WOOD TRUSS FABRICATOR SHALL DESIGN AND FABRICATE THE ENTIRE ROOF AS A SYSTEM TO SUPPORT THE LOADS INDICATED ON THE LOADING PLANS AND GENERAL NOTES, WITH ALL DESIGNS PERFORMED BY A STRUCTURAL ENGINEER (HEREIN REFERRED TO THE TRUSS DESIGNER). THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL STICK FRAMED SECTIONS, PIGGYBACK TRUSSES, OVERHANGS, FLOOR/ROOF OPENING FRAMING (IF APPLICABLE), TEMPORARY AND PERMANENT TRUSS RESTRAINT AND STABILITY BRACING, AND ALL REQUIRED CONNECTIONS TO OTHER FRAMING MEMBERS AND STRUCTURAL SUPPORTS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL DETAILS AND DIMENSIONS NOT A PART OF STRUCTURAL DRAWINGS.
9. THE WOOD FRAMING MEMBERS INDICATED ON THESE DRAWINGS REPRESENT THE MINIMUM FRAMING REQUIREMENTS. THE FINAL DESIGN USED SHALL BE THAT DEVELOPED BY THE TRUSS FABRICATOR AND TRUSS DESIGNER SUBMITTED TO THE DESIGN TEAM FOR REVIEW.
10. ALL BEARING LINES SHALL BE INDICATED ON THE FLOOR/ROOF FRAMING LAYOUT DRAWINGS TO BE SUBMITTED FOR REVIEW.
11. ALL MEANS AND METHODS REQUIRED FOR SAFE ERECTION OF TRUSS SYSTEMS, INCLUDING BUT NOT LIMITED TO TEMPORARY TRUSS BRACING, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. AT A MINIMUM, ALL INSTALLATION WORK SHALL CONFORM TO THE LATEST EDITION OF THE BUILDING COMPONENT SAFETY INFORMATION (BCSI) BOOK, PRODUCED JOINTLY BY THE STRUCTURAL BUILDING COMPONENTS ASSOCIATION (SBCA) AND THE TRUSS PLATE INSTITUTE (TPI). IN ADDITION TO ERECTION BRACING, THE PERMANENT TRUSS RESTRAINT AND STABILITY BRACING SPECIFIED ON THE TRUSS DESIGN DRAWINGS AND IN THE BCSI SHALL BE INSTALLED.

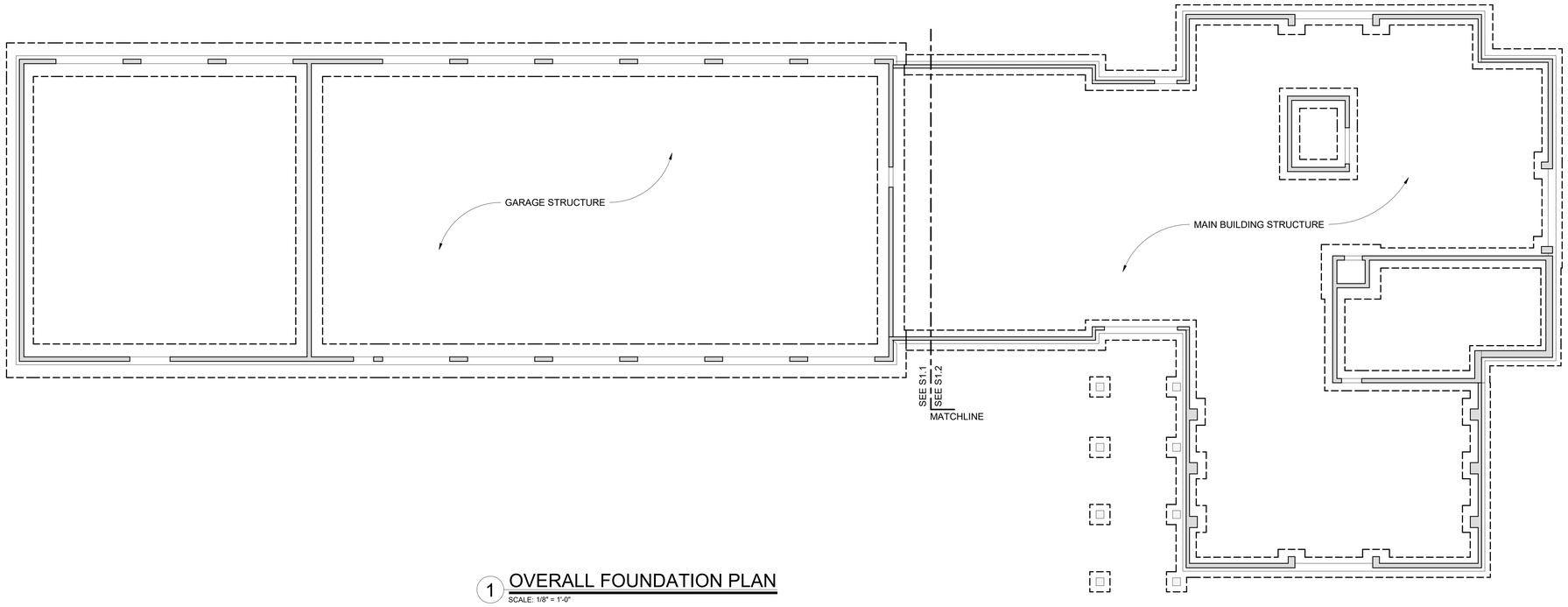
Q. PLATE-CONNECTED WOOD TRUSS SYSTEMS CONT.

12. ALL TRUSS BRACING (STRONG-BACKS, VERTICAL X-BRACING, ETC.) INDICATED IN THE PROJECT CONTRACT DOCUMENTS IS MANDATORY PERMANENT TRUSS BRACING AND SHALL BE INSTALLED IN ADDITION TO ALL ERECTION BRACING AND INDIVIDUAL TRUSS MEMBER BRACING THAT IS REQUIRED BY THE TRUSS DESIGNER/MANUFACTURER AND BY THE WOOD TRUSS INDUSTRY STANDARDS.
    a. BOTTOM CHORDS: CONTINUOUS 2x6 BRACING AT 10'-0" O.C. MAX. FASTENED TO WALLS, TRUSSES, OR OTHER FRAMING MEMBERS AT TERMINAL ENDS. PROVIDE DIAGONAL BRACING PER THE BCSI (SIZE TO MATCH CONTINUOUS MEMBERS) TO EXTERIOR WALLS AT TERMINAL ENDS AND AT INTERMEDIATE LOCATIONS AT A SPACING NOT TO EXCEED 20'-0" O.C.
    b. TOP CHORDS: CONTINUOUS PLYWOOD SHEATHING. PLYWOOD SHEATHING MUST BE INSTALLED BELOW ALL VALLEY TRUSSES, BUILT-UP GABLE ROOFS, ETC. FOR DIAPHRAGM CONTINUITY AND TO PROVIDE BRACING TO THE ROOF TRUSSES BELOW.
    c. GABLE END WALLS, TRUSSES: 2x6 VERTICAL CROSS BRACES @ 10'-0" O.C. MAX. FASTENED TO EACH INTERSECTING ROOF TRUSS WEB. THE TRUSS DESIGNER SHALL PROVIDE ADDITIONAL VERTICAL TRUSS WEB MEMBERS AS REQUIRED TO ALLOW FOR GABLE END WALL BRACING MEMBER FASTENING. AT LEAST ONE BRACE SHALL BE LOCATED IN ALIGNMENT WITH THE ROOF RIDGE AT EVERY GABLE END. BRACES SHALL BE SET AS REQUIRED TO ACHIEVE AN ANGLE OF APPROXIMATELY 45º.
13. TRUSS DESIGN CRITERIA:
    ALL LOADS INDICATED ARE MINIMUM UNFACTORED SERVICE LOADS. THE GREATEST OF THE LOADS INDICATED HEREIN, THOSE PROVIDED IN "DESIGN LOADS", OR THOSE PROVIDED ON THE LOADING PLANS SHALL BE USED TO DESIGN THE TRUSSES. ALL LOADS PROVIDED ARE IN ADDITION TO COMPONENT SELF-WEIGHTS.
    a. ROOF TRUSSES:
       1. TOP CHORD LIVE LOAD.....SEE DESIGN LOADS AND LOADING PLANS
       2. MINIMUM TOP CHORD DEAD LOAD.....15 PSF
       3. MINIMUM BOTTOM CHORD LIVE LOAD.....20 PSF WHERE CLEAR HEIGHT ≥ 42", 5 PSF OTHERWISE
       4. MINIMUM TRUSS COMPONENT SIZES.....2x6 CHORDS, WEBS BY DESIGN
       5. MAXIMUM DEFLECTION LIMIT.....L/360 (LIVE, SNOW), L/240 (TOTAL)
    b. EQUIPMENT LOADS:
       1. ALL TRUSSES SHALL BE DESIGNED TO SUPPORT A 300-POUND POINT LOAD (OR MULTIPLE POINT LOADS TOTALING 300 POUNDS) APPLIED CONCURRENTLY TO BOTH THE TOP AND BOTTOM CHORDS (OR ACTING AT ANY LOCATION ALONG EACH CHORD). POINT LOADS SHALL BE APPLIED CONCURRENTLY WITH ALL OTHER TRUSS DESIGN LOADS.
       2. ALL POINT LOADS IN EXCESS OF 300 POUNDS SHALL BE COORDINATED BY THE CONTRACTOR AND SUPPLIED TO THE TRUSS DESIGNER PRIOR TO SUBMITTING WOOD TRUSS SHOP DRAWINGS FOR REVIEW.
       3. ALL EQUIPMENT SUPPORT CONNECTIONS SHALL BE MADE TO THE TRUSS CHORDS. CONNECTIONS TO WEB MEMBERS ARE NOT ALLOWED.
    c. DRAG TRUSSES:
       1. TRUSSES DESIGNATED AS "DRAG TRUSSES" SHALL BE DESIGNED TO RESIST THE AXIAL (IN-PLANE HORIZONTAL) LOADS INDICATED ON THE LOADING PLANS. ALL LOADS SHALL BE APPLIED TO THE TOP CHORDS THROUGH THE DIAPHRAGMS AND SHALL BE TRANSFERRED TO THE SUPPORTING SHEAR WALLS BELOW OR AT EACH END. MINIMUM DESIGN AXIAL LOAD = 350 PLF.
14. ALL TRUSSES DAMAGED DURING FABRICATION SHALL NOT BE SHIPPED TO THE SITE AND SHALL BE REBUILT WITH SOUND, UNDAMAGED MATERIALS. ALL TRUSSES DAMAGED AFTER FABRICATION SHALL BE REVIEWED BY THE TRUSS DESIGNER AND REPAIRED IN PLACE OR REMOVED AND REPLACED. THE TRUSS DESIGNER SHALL SUBMIT STAMPED AND SIGNED SKETCHES FOR ALL REPAIRS AND SHALL INSPECT THE COMPLETED REPAIRS TO ENSURE WORK IS EXECUTED IN CONFORMANCE WITH THE DESIGN.
15. WHILE EVERY ATTEMPT HAS BEEN MADE TO INDICATE SPECIAL DESIGN REQUIREMENTS AND TRUSS CONFIGURATIONS ON THE STRUCTURAL CONTRACT DRAWINGS, THE CONTRACTOR, TRUSS FABRICATOR, AND TRUSS DESIGNER SHALL COORDINATE THEIR WORK TO INCLUDE WITH OTHER TRADES TO ENSURE THAT SPECIAL WEB CONFIGURATIONS FOR ATTICS, DUCTWORK, OR OTHER SYSTEMS ARE CAPTURED IN THE ORIGINAL TRUSS DESIGN.
16. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR REVIEW (SEE SECTION REGARDING *ENGINEERING REQUIREMENTS FOR CONTRACTOR*). THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
    a. WOOD FRAMING LAYOUT, DEVELOPED BY THE TRUSS MANUFACTURER (COPIES OF STRUCTURAL FRAMING PLANS WILL NOT BE ALLOWED). ALL MEMBERS SHALL BE LABELED AND CROSS REFERENCED TO ANY OTHER WOOD SHOP DRAWINGS SUBMITTED FOR REVIEW. ALL LAYOUT DRAWINGS AND DESIGN SHEETS SHALL BE STAMPED BY THE TRUSS DESIGNER.
    b. TRUSS DESIGN SHEETS AND DESIGN DATA, STAMPED AND SIGNED BY THE TRUSS DESIGNER, INDICATING CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THE BUILDING CODE AND INDUSTRY STANDARDS.
    c. A STATEMENT STAMPED AND SIGNED BY THE TRUSS DESIGNER STATING, "THIS ENGINEER HAS REVIEWED AND COORDINATED THE DESIGN LOADING SPECIFIED ON THE CONSTRUCTION DOCUMENTS WITH THE TRUSS LAYOUT DRAWING AS WELL AS THE LOADING INDICATED ON THE PROJECT CONTRACT DOCUMENTS. THE LOADING REFLECTED ON THE TRUSS SHOP DRAWINGS (TRUSS PLACEMENT DRAWINGS, TRUSS DESIGN DRAWINGS, ETC.) IS IN CONFORMANCE WITH THE DESIGN LOADS SPECIFIED ON THE STRUCTURAL DRAWINGS."
    d. PRODUCT DATA FOR ALL TRUSS COMPONENTS, CONNECTORS, AND FASTENERS. INCLUDE A COPY OF THE ICC APPROVAL OR RESEARCH REPORT FOR THE COMPONENTS TO BE USED.

IN THE ABSENCE OF A LAYOUT DRAWING STAMPED BY THE TRUSS DESIGNER, THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT STRUCTURAL ENGINEER TO REVIEW THE TRUSS DESIGN DRAWINGS AND CONFIRM CONFORMANCE TO THE PROJECT DOCUMENTS AND AFFIX THEIR SEAL ON THE TRUSS LAYOUT DRAWINGS. A CONTINGENCY FOR THIS WORK MUST BE CARRIED IN THE BASE CONTRACT.

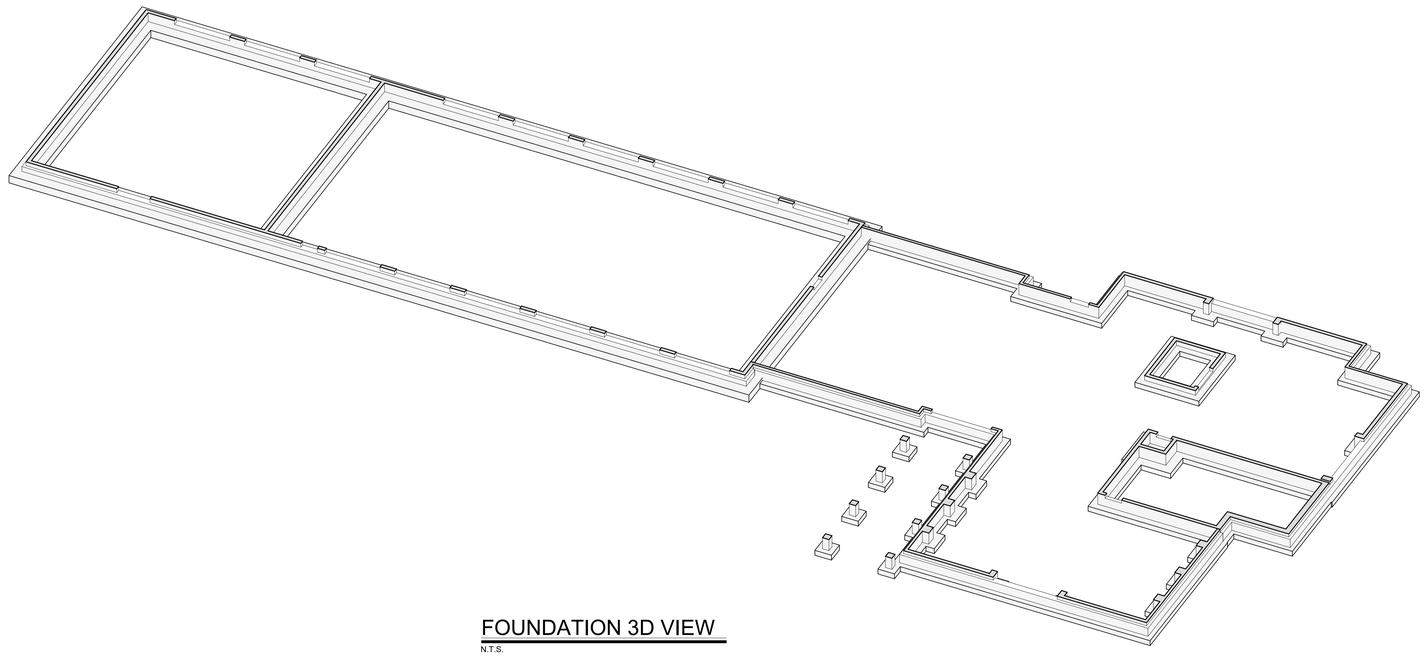
R. MASS TIMBER

1. ALL STRUCTURAL CARPENTRY AND LUMBER WORK SHALL BE IN CONFORMANCE WITH THE *BUILDING CODE* AS WELL AS WITH THE STANDARDS, SPECIFICATIONS, AND REQUIREMENTS OF THE AMERICAN FOREST AND PAPER ASSOCIATION (AF&PA) AND APA - THE ENGINEERED WOOD ASSOCIATION (APA).
2. ALL MASS TIMBER SHALL BE SYP/SPRUCE-PINE-FIR/BLACK SPRUCE AND/OR AUSTRIAN SPRUCE.
3. THE MINIMUM ALLOWABLE DESIGN PROPERTIES FOR THE LUMBER LAMINATIONS USED SHALL BE AS FOLLOWS (OR APPROVED EQUIVALENT):
   a. GLULAM BEAMS — STRESS GRADE — LAYUP — APPEARANCE GRADE
      1. NORDIC LAM+ — 24F-ES/NPG — BALANCED — ARCHITECTURAL
4. ALTERNATE GLULAM AND MASS TIMBER SPECIES ARE PERMITTED PROVIDED A COMPLETE DESIGN IS SUBMITTED INDICATING THAT THE PROPOSED PRODUCTS ARE IN ACCORDANCE WITH THE DESIGN CRITERIA INCLUDED IN THESE DRAWINGS.
5. ALL CONTINUOUS AND CANTILEVER GLULAM MEMBERS AND TRUSS COMPONENTS SHALL BE PROVIDED WITH A BALANCED LAYUP.
6. ALL CONNECTIONS EXPOSED TO VIEW SHALL BE COORDINATED WITH THE ARCHITECT AND SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT PRIOR TO FULL DETAILING AND DESIGN OF THE CONNECTIONS.
7. COORDINATE GLULAM FINISH REQUIREMENTS W/ ARCHITECTURAL REQUIREMENTS.
8. ALL CONNECTION ELEMENTS, INCLUDING BOLTS AND BEARING PLATES, SHALL BE CONCEALED UNLESS APPROVED BY THE ARCHITECT. ALL THRU-BOLTS AND BEARING PLATES SHALL BE CONCEALED USING COUNTER BORED HOLES AND NOTCHES AND SHALL BE PLUGGED WITH GLULAM WOOD THAT MATCHES THE GLULAM MEMBER. ARCHITECT TO REVIEW AND APPROVE ALL PLUG DETAILS.
9. ALL LUMBER EXPOSED TO WEATHER SHALL BE DECAY RESISTANT SPECIES OR SHALL BE PRESSURE TREATED.
10. A WATERPROOFING MEMBRANE (GRACE ICE AND WATER SHIELD OR EQUAL) SHALL BE USED TO SEPARATE ALL TIMBER FROM DIRECT CONTACT WITH CONCRETE OR MASONRY.
11. UNLESS OTHERWISE SPECIFIED, ONE COAT OF CLEAR SEALER SHALL BE APPLIED TO ALL SURFACES, WITH TWO COATS ON THE ENDS OF ALL MEMBERS.
12. MEMBERS SHALL BE BUNDLE WRAPPED DURING SHIPMENT WITH A WATER RESISTANT COVERING.
13. STORE ALL TIMBERS AND TRUSS ASSEMBLIES OFF THE GROUND AND STACKED USING SPACERS TO SEPARATE ALL INDIVIDUAL ELEMENTS. CONTRACTOR RESPONSIBLE FOR TAKING APPROPRIATE MEASURES TO MINIMIZE THE LIKELIHOOD OF STAINING, CRACKING, DISTORTION, WARPING OR OTHER TYPES OF DAMAGE TO THE PANELS.
14. TIMBER SHALL BE ADEQUATELY BRACED UNTIL ALL STRUCTURAL DIAPHRAGMS AND PERMANENT BRACING SYSTEMS ARE INSTALLED AND CONNECTED.
15. STRUCTURAL STEEL FOR CONNECTIONS SHALL CONFORM TO THE CONTRACT DOCUMENTS.
16. THE QUANTITY, SIZE, AND PATTERN OF ALL FASTENERS USED FOR FASTENING STRUCTURAL FRAMING (INCLUDING SHEATHING) SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE, AT A MINIMUM. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL FASTENING REQUIREMENTS.
17. ALL TIMBER FASTENERS AND CONNECTORS SHALL BE THE FOLLOWING (AS NOTED IN TECH DETAILS) OR APPROVED EQUAL
    A. SELF TAPPING ECOFAST VG, SK, AND KOMBI SCREWS BY MTC SOLUTIONS.
18. ALL FASTENERS SHALL BE PRE-DRILLED WHERE SPECIFIED SCREW SPACING OR EDGE/END DISTANCE EXCEEDS LIMITS FOR WHERE SPECIFIED SCREW SPACING IS LESS THAN MANUFACTURER'S PUBLISHED MINIMUM VALUES.
19. WHERE INCLINED FASTENERS ARE USED, FASTENERS SHALL BE INSTALLED USING TAPERED WASHERS BY MYTICON, OR APPROVED EQUAL.
20. ALL STRUCTURAL STEEL CONNECTIONS AND FASTENER



1 OVERALL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



FOUNDATION 3D VIEW

N.T.S.

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M.D. ODEH
No. 3082
REGISTERED
PROFESSIONAL ENGINEER

JOB NO. 2201
DATE 7/08/2024

ISSUE : **BID SET**

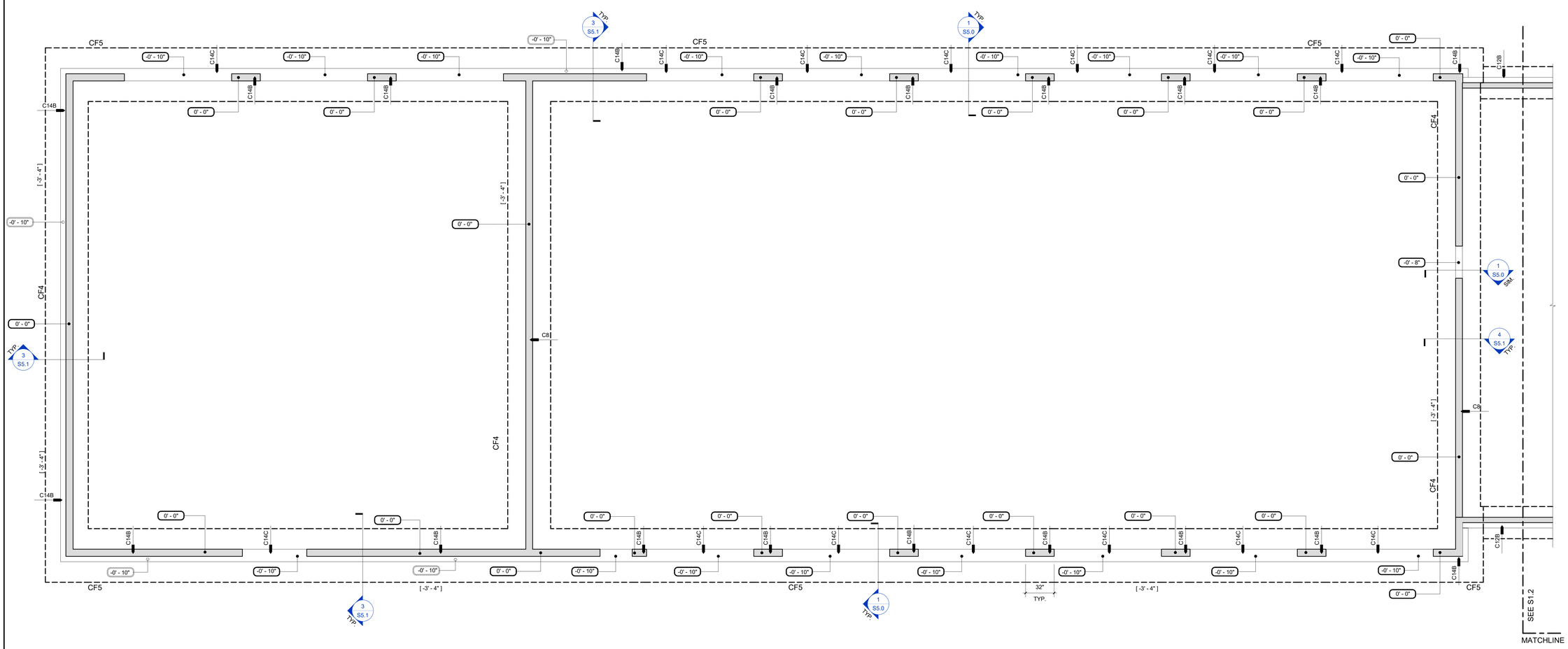
NO.	REVISION DESCRIPTION	DATE

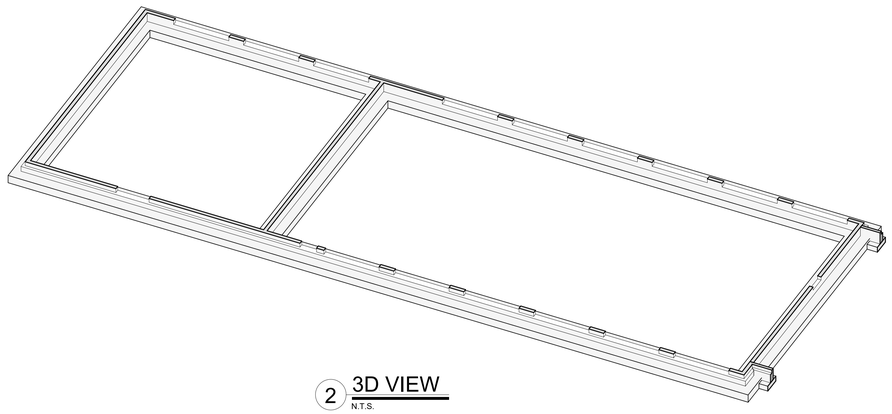
SHEET TITLE

OVERALL FOUNDATION PLAN

SHEET

S1.0





2 3D VIEW
N.T.S.

1 FOUNDATION PLAN - GARAGE
SCALE: 1/4" = 1'-0"

NOTES:
1. COORDINATE ALL WORK (INCLUDING ELEVATIONS, DIMENSIONS, FINISH DETAILS, PENETRATIONS, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. ##'-##" - INDICATES TOP OF NEW CONCRETE FOUNDATION WALL.
   ##'-##" - INDICATES TOP OF NEW CONCRETE FOUNDATION WALL SHELF.
3. [##'-##"] - INDICATES BOTTOM OF NEW CONCRETE FOOTING ELEVATION
4. BOTTOM OF ALL NEW EXTERIOR FOOTINGS SHALL BE LOCATED A MINIMUM OF 3'-4" BELOW FINISH GRADE.
5. CF# - INDICATES NEW CONCRETE CONT. WALL FOOTING TYPE. SEE "FOOTING SCHEDULE" ON THIS SHEET.
6. C# - INDICATES NEW CONCRETE FOUNDATION WALL. SEE " FOUNDATION WALL SCHEDULE" ON THIS SHEET.

FOUNDATION WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT (U.N.O.)
C8	8" CONCRETE WALL	(2) - #5 TOP BARS
C12A	12" CONCRETE WALL	(2) - #5 TOP BARS
C12B	12" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF
C14A	14" CONCRETE WALL	(2) - #5 TOP BARS
C14B	14" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF
C14C	14" CONCRETE WALL	#5 BARS @12" O.C. E.W., E.F.
C18B	18" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF

NOTE: ALL CMU WALLS SUPPORTED BY FOUNDATION WALLS SHALL HAVE 5'-0" LONG DOWELS TO MATCH. VERT. REINF. (TYP. THROUGHOUT)

FOOTING SCHEDULE

MARK	SIZE W (WIDTH)	SIZE L (LENGTH)	SIZE D (DEPTH)	REINFORCEMENT BOTTOM BARS (LONG DIR.)	REINFORCEMENT BOTTOM BARS (SHORT DIR.)
CF3	3' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF4	4' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF5	5' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
F3	3' - 0"	3' - 0"	1' - 0"	(4) - #5	(4) - #5
F4	4' - 0"	4' - 0"	1' - 0"	(5) - #5	(5) - #5

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ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
GARAGE FOUNDATION PLAN

SHEET
S1.1

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FOUNDATION WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT (U.N.O.)
C8	8" CONCRETE WALL	(2) - #5 TOP BARS
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C12B	12" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF
C14A	14" CONCRETE WALL	(2) - #5 TOP BARS
C14B	14" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF
C14C	14" CONCRETE WALL	#5 BARS @12" O.C. E.W., E.F.
C18B	18" CONCRETE WALL w/6" SHELF	#5 BARS @12" O.C. E.W. AT STEM. (1) - # 5 BAR T&B AT SHELF

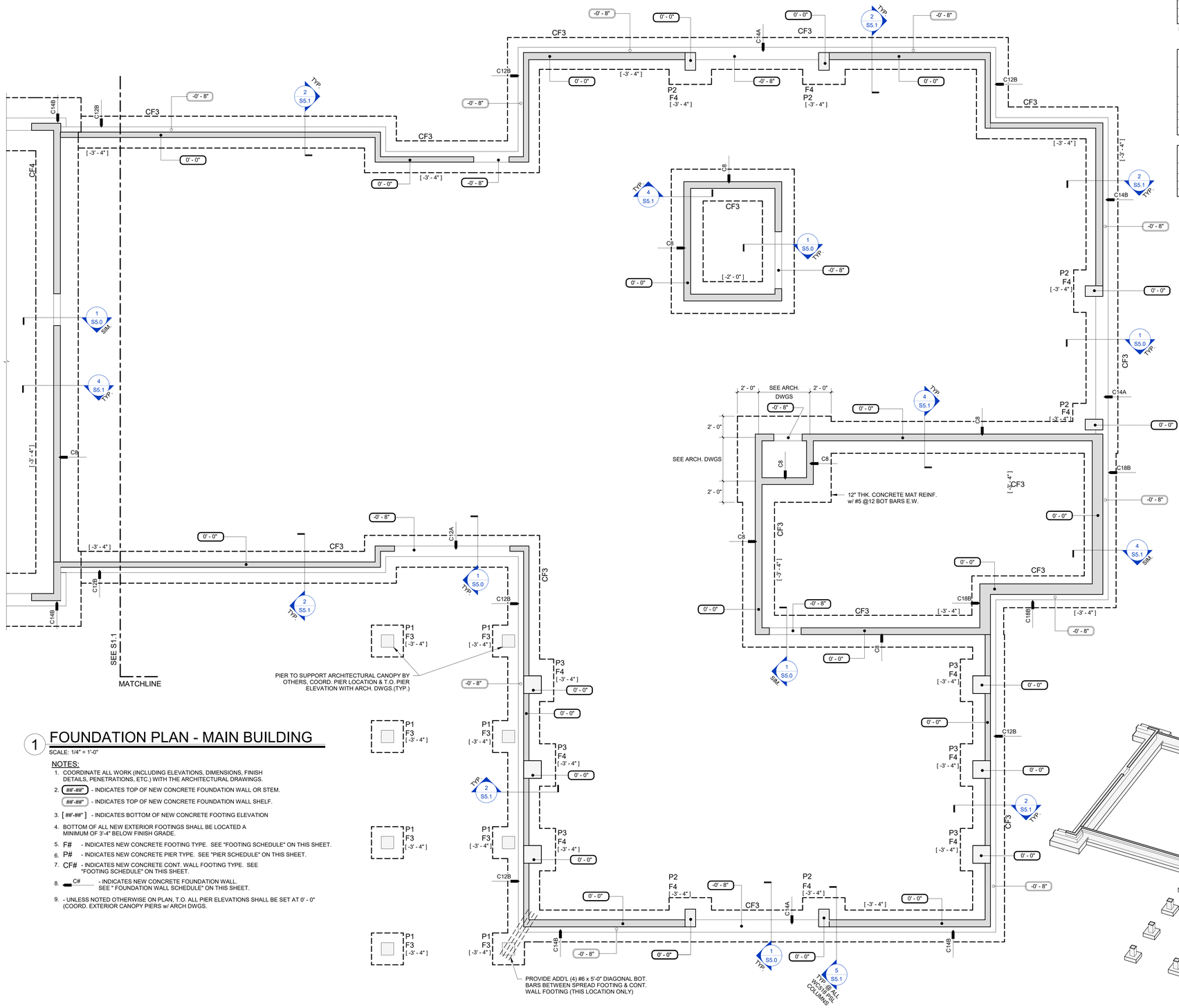
NOTE: ALL CMU WALLS SUPPORTED BY FOUNDATION WALLS SHALL HAVE 5'-0" LONG DOWELS TO MATCH. VERT. REINF. (TYP. THROUGHOUT)

FOOTING SCHEDULE

MARK	SIZE			REINFORCEMENT	
	W (WIDTH)	L (LENGTH)	D (DEPTH)	BOTTOM BARS (LONG DIR.)	BOTTOM BARS (SHORT DIR.)
CF3	3' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF4	4' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF5	5' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
F3	3' - 0"	3' - 0"	1' - 0"	(4) - #5	(4) - #5
F4	4' - 0"	4' - 0"	1' - 0"	(5) - #5	(5) - #5

PIER SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT (U.N.O.)
P1	14"x14" CONCRETE PIER	(8) - #6 BARS VERT, (2) - #4 TIES HORIZ. @ 12" MAX. SPACING
P2	20"x12" CONCRETE PIER	(6) - #6 BARS VERT, (2) - #4 TIES HORIZ. @ 12" MAX. SPACING
P3	20"x20" CONCRETE PIER	(12) - #6 BARS VERT, (2) - #4 TIES HORIZ. @ 12" MAX. SPACING

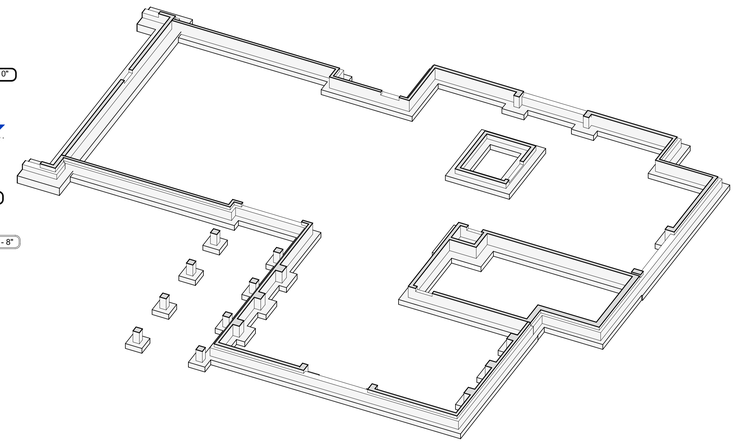


1 FOUNDATION PLAN - MAIN BUILDING

SCALE: 1/4" = 1'-0"

NOTES:

1. COORDINATE ALL WORK (INCLUDING ELEVATIONS, DIMENSIONS, FINISH DETAILS, PENETRATIONS, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. ##'-##" - INDICATES TOP OF NEW CONCRETE FOUNDATION WALL OR STEM.
   ##'-##" - INDICATES TOP OF NEW CONCRETE FOUNDATION WALL SHELF.
3. [##'-##"] - INDICATES BOTTOM OF NEW CONCRETE FOOTING ELEVATION
4. BOTTOM OF ALL NEW EXTERIOR FOOTINGS SHALL BE LOCATED A MINIMUM OF 3'-4" BELOW FINISH GRADE.
5. F# - INDICATES NEW CONCRETE FOOTING TYPE. SEE "FOOTING SCHEDULE" ON THIS SHEET.
6. P# - INDICATES NEW CONCRETE PIER TYPE. SEE "PIER SCHEDULE" ON THIS SHEET.
7. CF# - INDICATES NEW CONCRETE CONT. WALL FOOTING TYPE. SEE "FOOTING SCHEDULE" ON THIS SHEET.
8. C# - INDICATES NEW CONCRETE FOUNDATION WALL. SEE " FOUNDATION WALL SCHEDULE" ON THIS SHEET.
9. - UNLESS NOTED OTHERWISE ON PLAN, T.O. ALL PIER ELEVATIONS SHALL BE SET AT 0' - 0" (COORD. EXTERIOR CANOPY PIERS w/ ARCH DWGS.



2 3D VIEW

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M.D. ODEH
No. 3082
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JOB NO. 2201 | DATE 7/08/2024

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
MAIN BUILDING FOUNDATION PLAN

SHEET
S1.2

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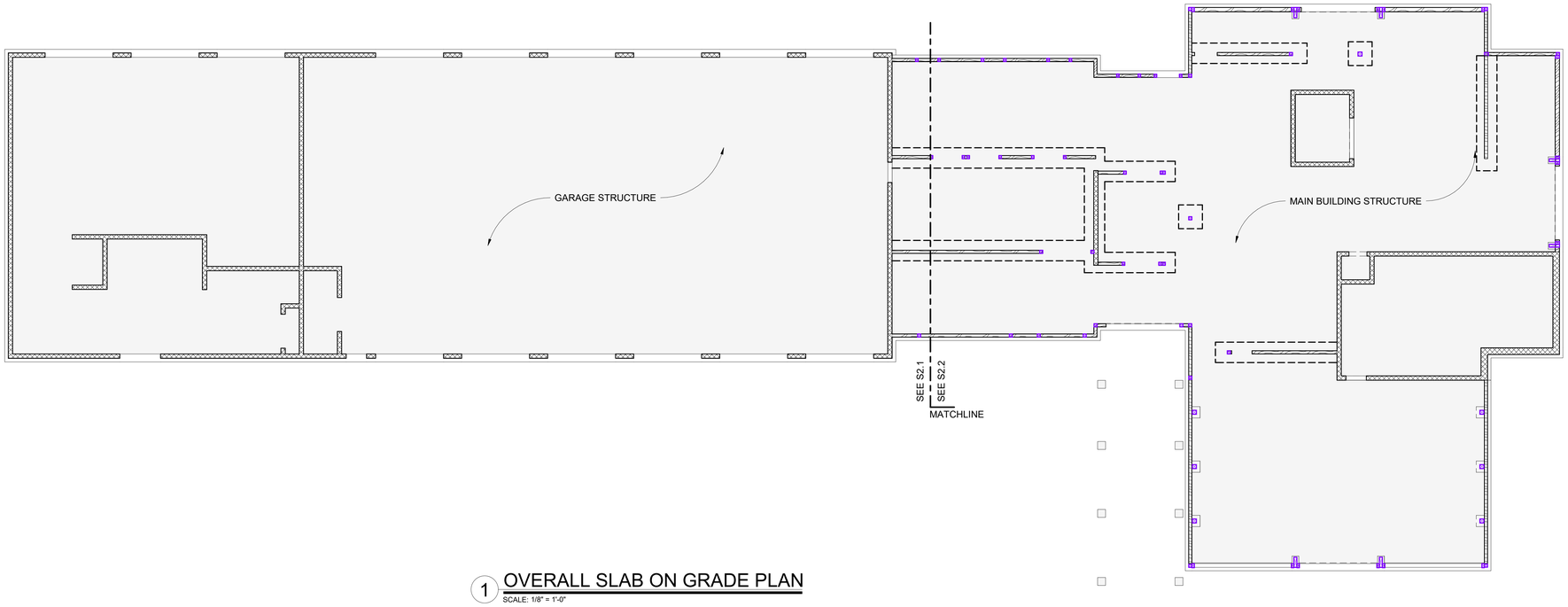
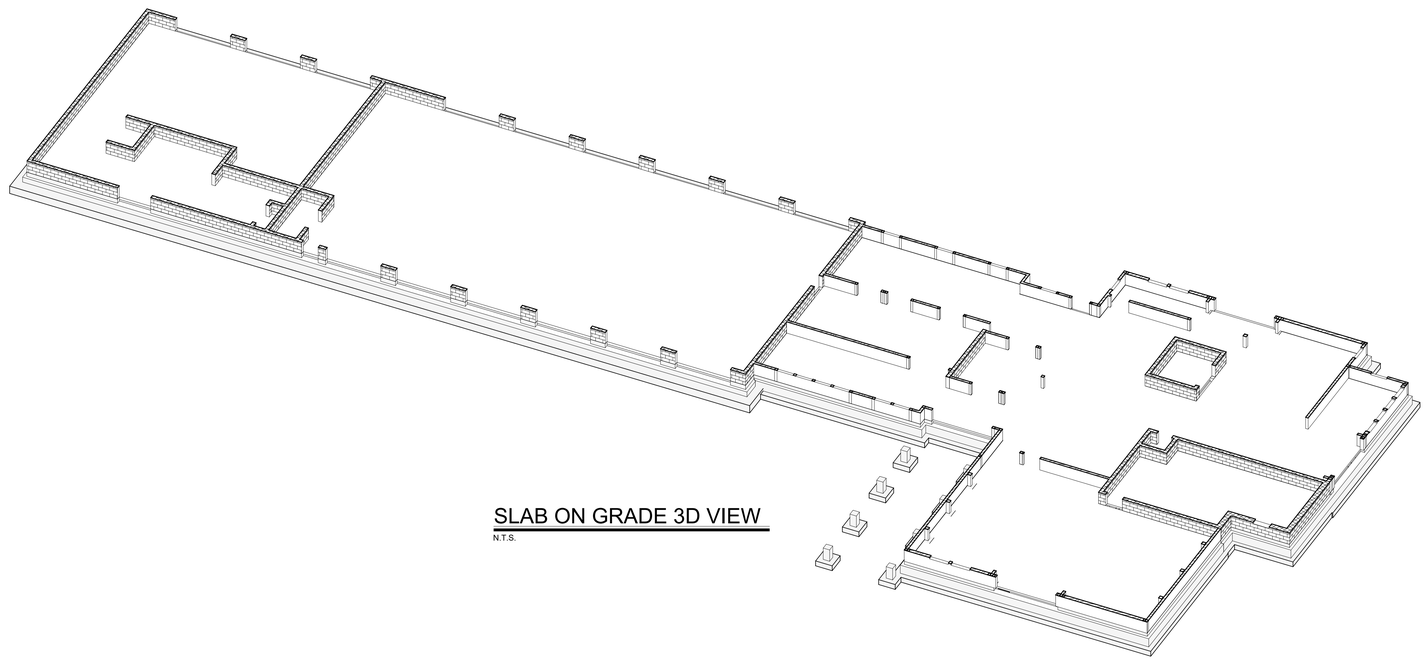


1 OVERALL SLAB ON GRADE PLAN
SCALE: 1/8" = 1'-0"



SLAB ON GRADE 3D VIEW
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NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
OVERALL SLAB ON GRADE PLAN

SHEET
S2.0

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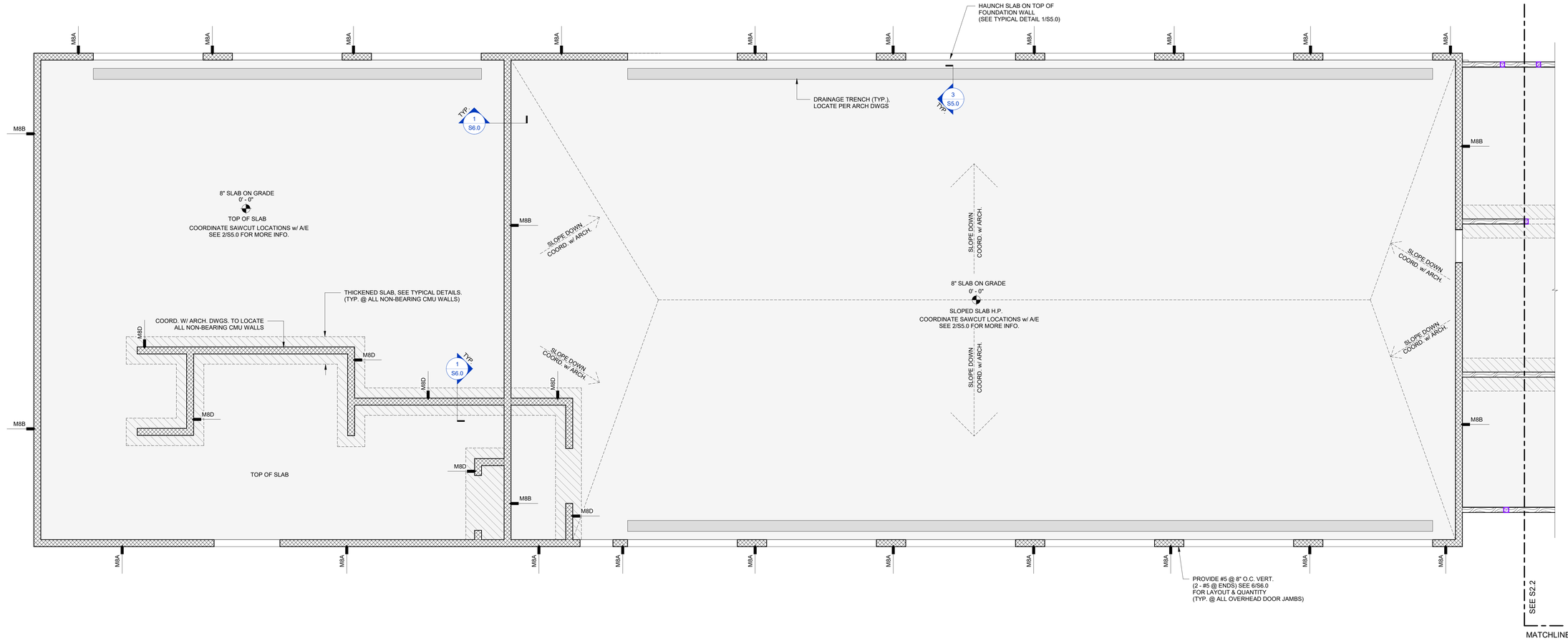
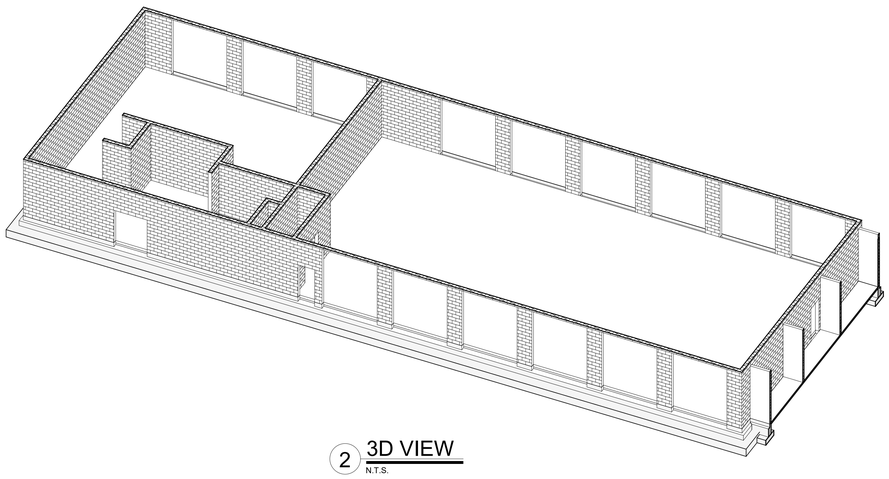


1 SLAB ON GRADE PLAN - GARAGE

SCALE: 1/4" = 1'-0"

NOTES:

1. COORDINATE ALL WORK (INCLUDING FLOOR ELEVATIONS, PITCH, DIMENSIONS, FINISH DETAILS, PENETRATIONS, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. ##'-##" - INDICATES FLOOR ELEVATION (TYP., U.N.O.).
3. (#) - INDICATES NUMBER OF ADDITIONAL #6 VERT. CMU REINFORCEMENT IN GROUT FILLED CORES. PROVIDE MATCHING MASONRY DOWELS IN FOUNDATION WALLS (TYP., U.N.O.). SEE 6/S6.0 FOR TYP. ADD'L REINF REQUIREMENTS
4. F# - INDICATES NEW CONCRETE FOOTING TYPE. SEE "FOOTING SCHEDULE" ON THIS SHEET.
5. P# - INDICATES NEW CONCRETE PIER TYPE. SEE "PIER SCHEDULE" ON SHEET S#.##.
6. TOP OF PIER ELEVATION IS 0' - 0", UNLESS NOTED OTHERWISE.
7. W# OR M# - INDICATES NEW WALL MARK. SEE "WALL SCHEDULE" ON THIS SHEET.
8. ▢ - INDICATES NEW WOOD COLUMN LOCATION. SEE COLUMN SCHEDULE ON THIS SHEET.



2 3D VIEW

N.T.S.

FOOTING SCHEDULE

MARK	SIZE W (WIDTH)	SIZE L (LENGTH)	SIZE D (DEPTH)	REINFORCEMENT BOTTOM BARS (LONG DIR.)	REINFORCEMENT BOTTOM BARS (SHORT DIR.)
CF3	3' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF4	4' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
CF5	5' - 0"	CONT.	1' - 0"	(4) - #5 BARS CONT.	#5 BARS @ 12" O.C.
F3	3' - 0"	3' - 0"	1' - 0"	(4) - #5	(4) - #5
F4	4' - 0"	4' - 0"	1' - 0"	(5) - #5	(5) - #5

WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT / STUD CONFIGURATION
M8A	8" CMU EXTERIOR GARAGE BEARING WALL	#5 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8B	8" CMU GARAGE BEARING WALL. T.O. WALL TO MATCH ROOF PITCH	#6 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8C	8" CMU BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
M8D	8" CMU NON-BEARING WALL	#5 BARS @ 48" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ.
M12	12" CMU EXTERIOR BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
W1	2x6 WOOD STUD WALL	(1) 2x6 @ 16" O.C. SPF
W2	2x6 WOOD STUD WALL	(1) 2x6 @ 12" O.C. SPF
W3	2x8 WOOD STUD WALL	(1) 2x8 @ 16" O.C. SPF

NOTE: SEE PLAN / ELEVATIONS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.

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JOB NO. 2201
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ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
GARAGE SLAB ON GRADE PLAN

SHEET
S2.1

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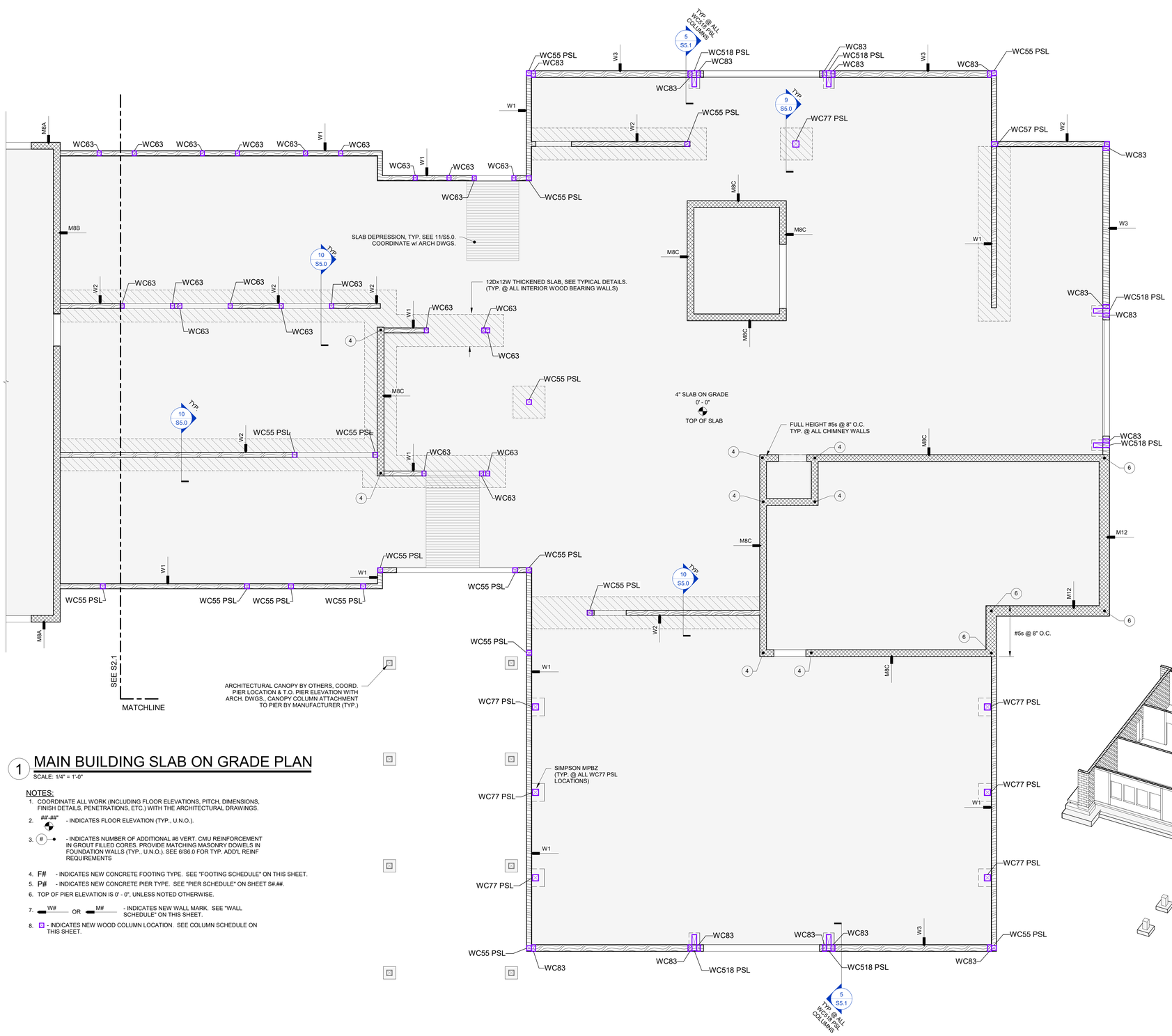


1 MAIN BUILDING SLAB ON GRADE PLAN

SCALE: 1/4" = 1'-0"

NOTES:

1. COORDINATE ALL WORK (INCLUDING FLOOR ELEVATIONS, PITCH, DIMENSIONS, FINISH DETAILS, PENETRATIONS, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. ##'-##" - INDICATES FLOOR ELEVATION (TYP., U.N.O.).
3. (#) - INDICATES NUMBER OF ADDITIONAL #6 VERT. CMU REINFORCEMENT IN GROUT FILLED CORES. PROVIDE MATCHING MASONRY DOWELS IN FOUNDATION WALLS (TYP., U.N.O.). SEE 6/S6.0 FOR TYP. ADD'L REINF REQUIREMENTS
4. F# - INDICATES NEW CONCRETE FOOTING TYPE. SEE "FOOTING SCHEDULE" ON THIS SHEET.
5. P# - INDICATES NEW CONCRETE PIER TYPE. SEE "PIER SCHEDULE" ON SHEET S#.##.
6. TOP OF PIER ELEVATION IS 0' - 0", UNLESS NOTED OTHERWISE.
7. W# OR M# - INDICATES NEW WALL MARK. SEE "WALL SCHEDULE" ON THIS SHEET.
8. - INDICATES NEW WOOD COLUMN LOCATION. SEE COLUMN SCHEDULE ON THIS SHEET.

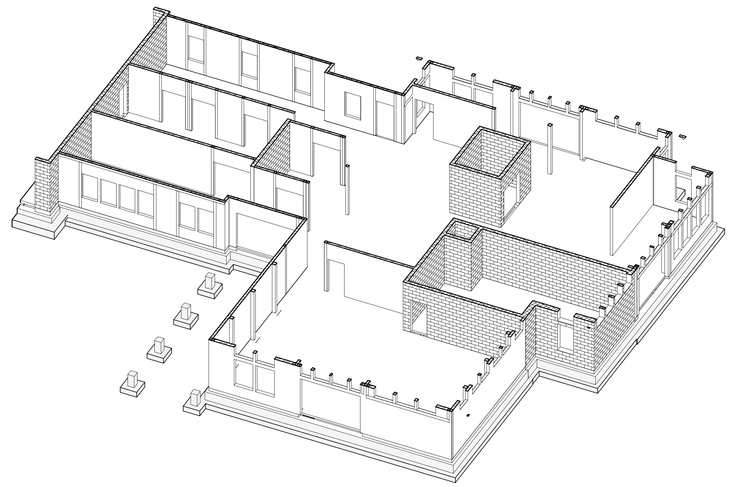
WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT / STUD CONFIGURATION
M8A	8" CMU EXTERIOR GARAGE BEARING WALL	#5 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8B	8" CMU GARAGE BEARING WALL. T.O. WALL TO MATCH ROOF PITCH	#6 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8C	8" CMU BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
M8D	8" CMU NON-BEARING WALL	#5 BARS @ 48" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ.
M12	12" CMU EXTERIOR BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
W1	2x6 WOOD STUD WALL	(1) 2x6 @ 16" O.C. SPF
W2	2x6 WOOD STUD WALL	(1) 2x6 @ 12" O.C. SPF
W3	2x8 WOOD STUD WALL	(1) 2x8 @ 16" O.C. SPF

NOTE: ALL CMU WALLS SUPPORTED BY FOUNDATION WALLS SHALL HAVE 5'-0" LONG DOWELS TO MATCH. VERT. REINF. (TYP. THROUGHOUT)

WOOD COLUMN SCHEDULE

MARK	DESCRIPTION
WC55 PSL	5 1/4" x 5 1/4" PSL
WC57 PSL	5 1/4" x 7" PSL
WC518 PSL	5 1/4" x 18" PSL
WC77 PSL	7" x 7" PSL
WC63	BUILT-UP COLUMN - (3) 2x6 SPF
WC83	BUILT-UP COLUMN - (3) 2x8 SPF



2 3D VIEW

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NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
MAIN BUILDING SLAB ON GRADE PLAN

SHEET
S2.2

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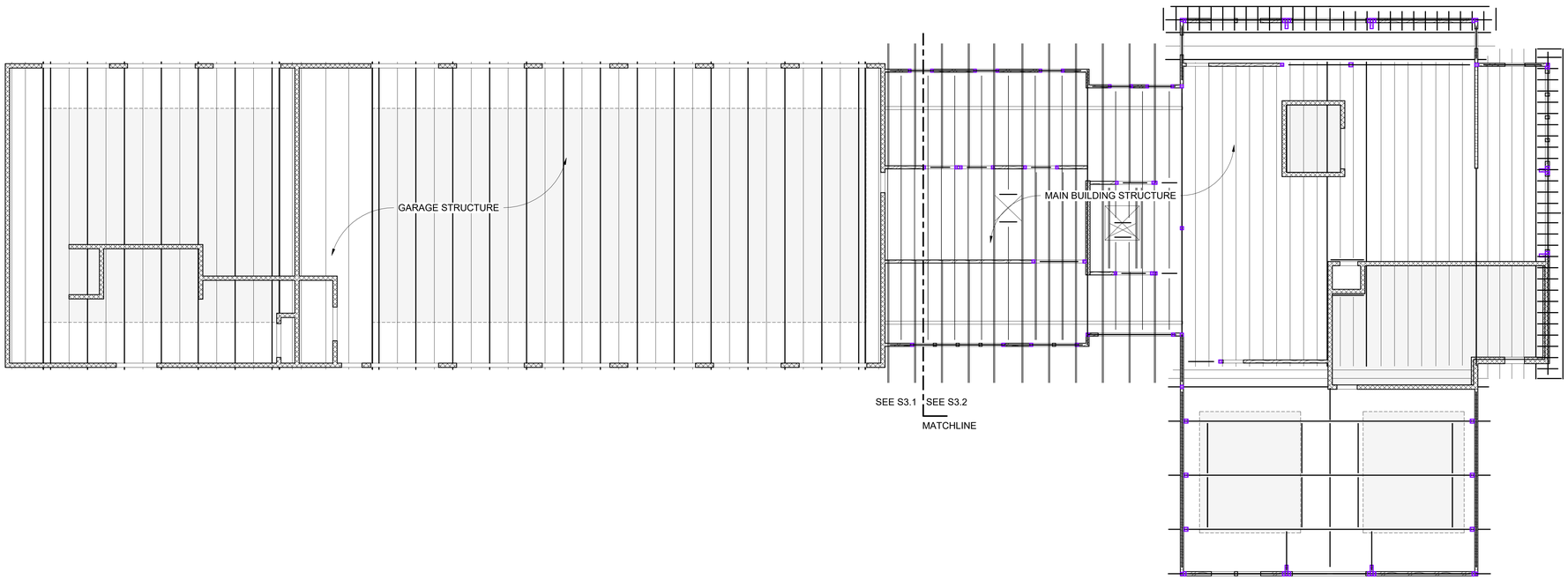
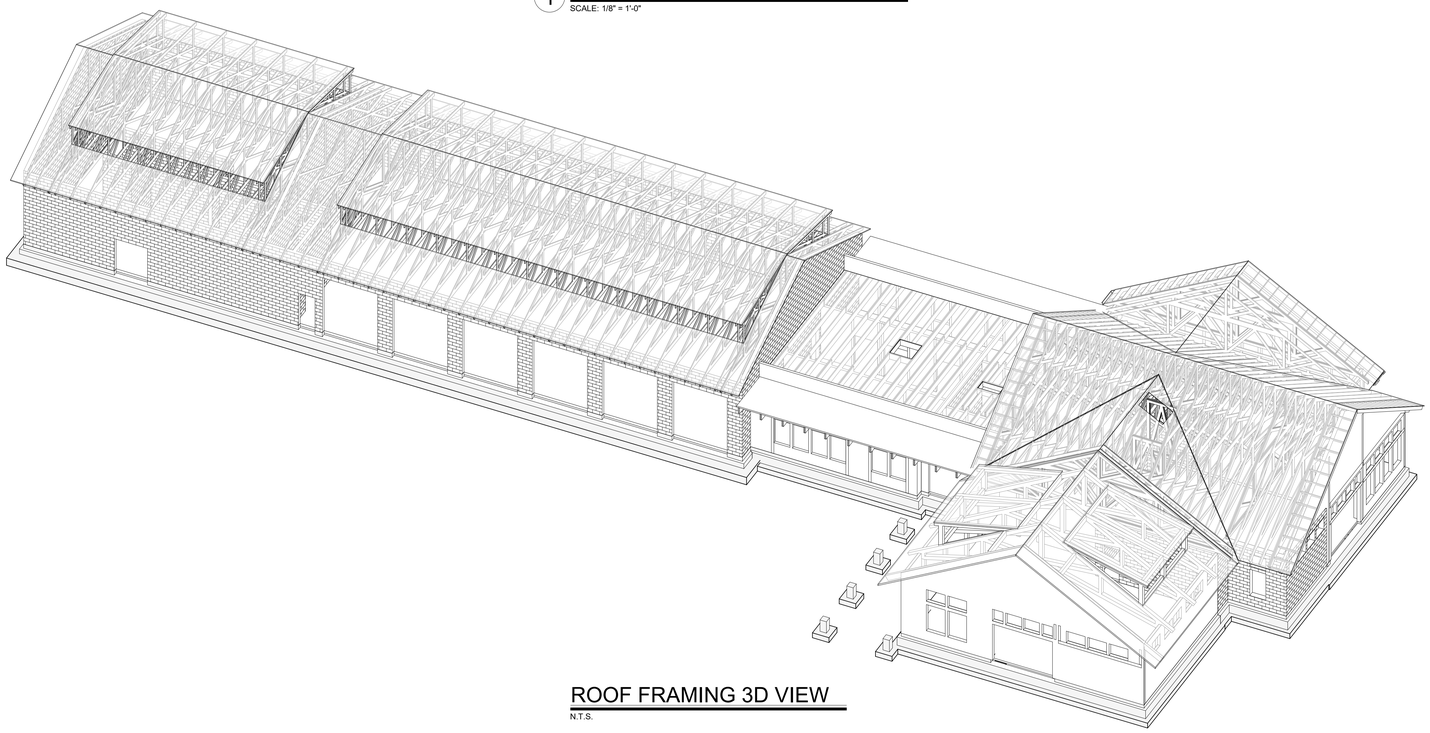


1 OVERALL ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"



ROOF FRAMING 3D VIEW

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SHEET TITLE

OVERALL ROOF FRMAING PLAN

SHEET

S3.0

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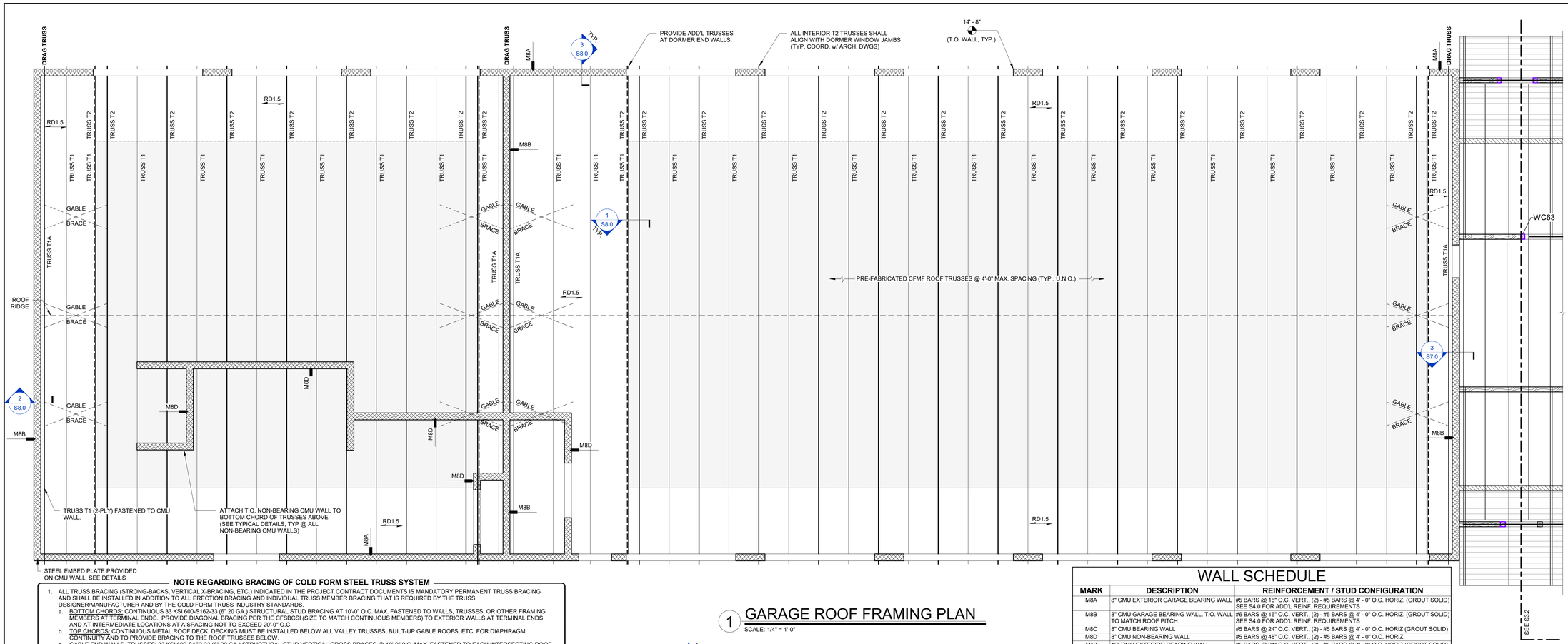


1 GARAGE ROOF FRAMING PLAN

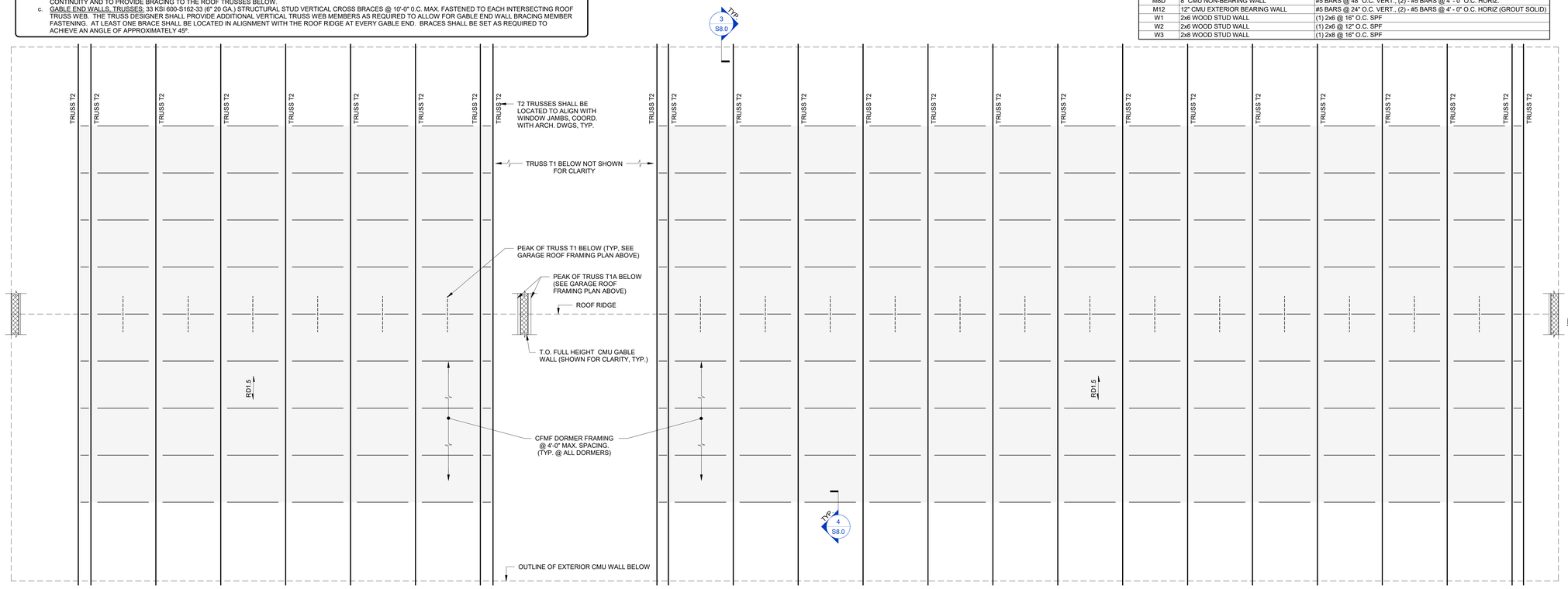
SCALE: 1/4" = 1'-0"

NOTE REGARDING BRACING OF COLD FORM STEEL TRUSS SYSTEM

1. ALL TRUSS BRACING (STRONG-BACKS, VERTICAL X-BRACING, ETC.) INDICATED IN THE PROJECT CONTRACT DOCUMENTS IS MANDATORY PERMANENT TRUSS BRACING AND SHALL BE INSTALLED IN ADDITION TO ALL ERECTION BRACING AND INDIVIDUAL TRUSS MEMBER BRACING THAT IS REQUIRED BY THE TRUSS DESIGNER/MANUFACTURER AND BY THE COLD FORM TRUSS INDUSTRY STANDARDS.
   a. BOTTOM CHORDS: CONTINUOUS 33 KSI 600-S162-33 (6" 20 GA.) STRUCTURAL STUD BRACING AT 10'-0" O.C. MAX. FASTENED TO WALLS, TRUSSES, OR OTHER FRAMING MEMBERS AT TERMINAL ENDS. PROVIDE DIAGONAL BRACING PER THE CFSBCSI (SIZE TO MATCH CONTINUOUS MEMBERS) TO EXTERIOR WALLS AT TERMINAL ENDS AND AT INTERMEDIATE LOCATIONS AT A SPACING NOT TO EXCEED 20'-0" O.C.
   b. TOP CHORDS: CONTINUOUS METAL ROOF DECK. DECKING MUST BE INSTALLED BELOW ALL VALLEY TRUSSES, BUILT-UP GABLE ROOFS, ETC. FOR DIAPHRAGM CONTINUITY AND TO PROVIDE BRACING TO THE ROOF TRUSSES BELOW.
   c. GABLE END WALLS, TRUSSES: 33 KSI 600-S162-33 (6" 20 GA.) STRUCTURAL STUD VERTICAL CROSS BRACES @ 10'-0" O.C. MAX. FASTENED TO EACH INTERSECTING ROOF TRUSS WEB. THE TRUSS DESIGNER SHALL PROVIDE ADDITIONAL VERTICAL TRUSS WEB MEMBERS AS REQUIRED TO ALLOW FOR GABLE END WALL BRACING MEMBER FASTENING. AT LEAST ONE BRACE SHALL BE LOCATED IN ALIGNMENT WITH THE ROOF RIDGE AT EVERY GABLE END. BRACES SHALL BE SET AS REQUIRED TO ACHIEVE AN ANGLE OF APPROXIMATELY 45º.

WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT / STUD CONFIGURATION
M8A	8" CMU EXTERIOR GARAGE BEARING WALL	#5 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8B	8" CMU GARAGE BEARING WALL. T.O. WALL TO MATCH ROOF PITCH	#6 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8C	8" CMU BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
M8D	8" CMU NON-BEARING WALL	#5 BARS @ 48" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ.
M12	12" CMU EXTERIOR BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
W1	2x6 WOOD STUD WALL	(1) 2x6 @ 16" O.C. SPF
W2	2x6 WOOD STUD WALL	(1) 2x6 @ 12" O.C. SPF
W3	2x8 WOOD STUD WALL	(1) 2x8 @ 16" O.C. SPF



2 GARAGE DORMER FRAMING PLAN

SCALE: 1/4" = 1'-0"

NOTE REGARDING STRUCTURAL ROOF ELEMENTS

ALL ROOF ELEMENTS INCLUDING BEARING ELEVATION, PEAK ELEVATION, SLOPE, OVERHANG, AND OPENING LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.

NOTES:

1. COORDINATE ALL WORK (INCLUDING FLOOR ELEVATIONS, DIMENSIONS, FINISH DETAILS, PENETRATIONS, SEQUENCING, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. ##'-##" - INDICATES T.O. BEARING POINT ELEVATION (TYP., U.N.O.).
3. W# - INDICATES NEW WALL MARK. SEE "WALL SCHEDULE" ON THIS SHEET.
4. # - INDICATES NUMBER OF ADDITIONAL #6 VERT. CMU REINFORCEMENT IN GROUT FILLED CORES (2 PER CORE). PROVIDE MATCHING MASONRY DOWELS IN FOUNDATION WALLS (TYP., U.N.O.).
5. - SHADED REGION INDICATES DORMER FRAMING ABOVE.
6. TRUSS T# - SEE S4.2 FOR TRUSS LAYOUT ELEVATIONS.
7. GABLE BRACE - INDICATES CMU GABLE WALL BRACING (SEE 2/S8.0)

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SHEET TITLE
GARAGE ROOF FRAMING PLAN

SHEET
S3.1

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WALL SCHEDULE

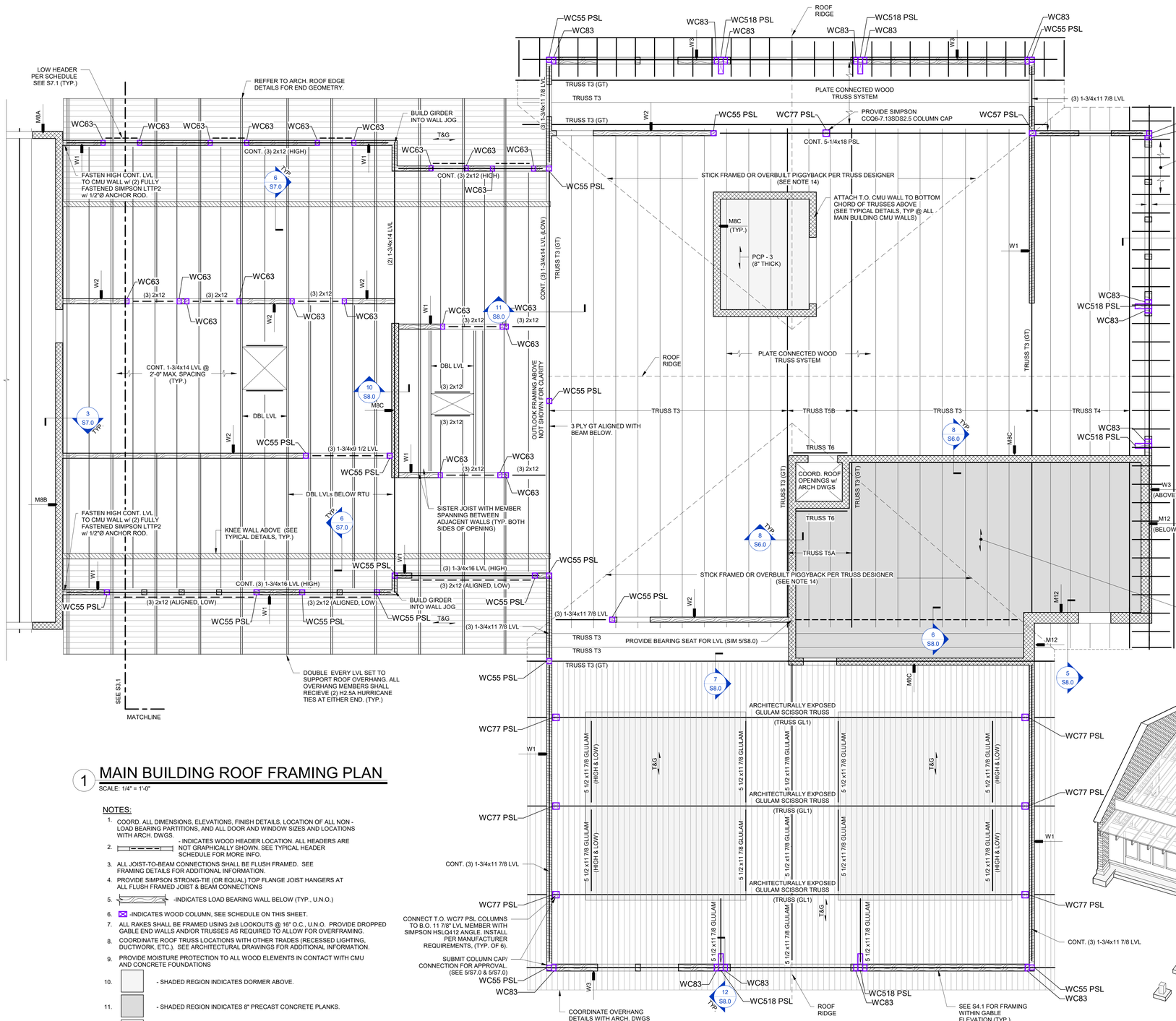
MARK	DESCRIPTION	REINFORCEMENT / STUD CONFIGURATION
M8A	8" CMU EXTERIOR GARAGE BEARING WALL	#5 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8B	8" CMU GARAGE BEARING WALL. T.O. WALL TO MATCH ROOF PITCH	#6 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8C	8" CMU BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
M8D	8" CMU NON-BEARING WALL	#5 BARS @ 48" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ.
M12	12" CMU EXTERIOR BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
W1	2x6 WOOD STUD WALL	(1) 2x6 @ 16" O.C. SPF
W2	2x6 WOOD STUD WALL	(1) 2x6 @ 12" O.C. SPF
W3	2x8 WOOD STUD WALL	(1) 2x8 @ 16" O.C. SPF

WOOD COLUMN SCHEDULE

MARK	DESCRIPTION
WC55 PSL	5 1/4" x 5 1/4" PSL
WC57 PSL	5 1/4" x 7" PSL
WC518 PSL	5 1/4" x 18" PSL
WC77 PSL	7" x 7" PSL
WC63	BUILT-UP COLUMN - (3) 2x6 SPF
WC83	BUILT-UP COLUMN - (3) 2x8 SPF

NOTES REGARDING WOOD COLUMNS

1. REFER TO THE STRUCTURAL PLANS FOR THE LOCATION AND GENERAL LAYOUT OF ALL WOOD COLUMNS.
2. ALL WOOD COLUMNS ARE LOCATED WITHIN ARCHITECTURAL WALLS, BOTH LOAD BEARING AND NON-LOAD BEARING, COORDINATE EXACT LOCATION WITH ARCHITECTURAL WALL GEOMETRY.
3. ALL BUILT-UP WOOD COLUMNS MUST BE FASTENED TOGETHER PER NDS REQUIREMENTS FOR THE INDIVIDUAL STUDS TO ACT TOGETHER AS ONE.
4. ALL WOOD COLUMNS START AT THE BASE OF THE WOOD WALLS, UNLESS NOTED OTHERWISE ON PLANS, AND MUST BE CONTINUOUS TO THEIR TERMINATION POINT. PROVIDE SOLID BLOCKING BETWEEN FLOOR CAVITIES AS REQUIRED TO ACHIEVE A CONTINUOUS LOAD PATH.
5. WOOD COLUMN DESIGNS ASSUME THAT WALL STUD SPACING IS NOT INTERRUPTED BY WOOD COLUMNS (I.E. WOOD COLUMNS DO NOT REPLACE WALL STUDS). ENSURE THAT WALL STUD SPACING BETWEEN TYPICAL STUDS IS MAINTAINED BY NEGLECTING WOOD COLUMN LOCATIONS. REFER TO WOOD WALL SCHEDULE FOR WALL STUD TYPE AND SPACING REQUIREMENTS.



1 MAIN BUILDING ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

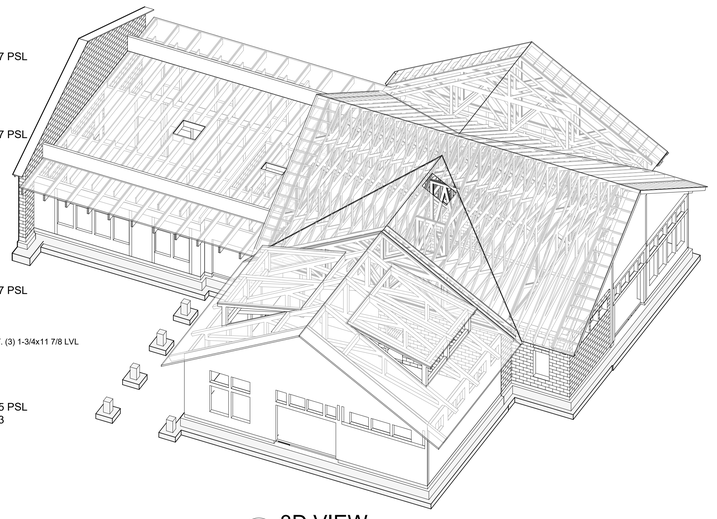
NOTES:

1. COORD. ALL DIMENSIONS, ELEVATIONS, FINISH DETAILS, LOCATION OF ALL NON - LOAD BEARING PARTITIONS, AND ALL DOOR AND WINDOW SIZES AND LOCATIONS WITH ARCH. DWGS.
2. - INDICATES WOOD HEADER LOCATION. ALL HEADERS ARE NOT GRAPHICALLY SHOWN. SEE TYPICAL HEADER SCHEDULE FOR MORE INFO.
3. ALL JOIST-TO-BEAM CONNECTIONS SHALL BE FLUSH FRAMED. SEE FRAMING DETAILS FOR ADDITIONAL INFORMATION.
4. PROVIDE SIMPSON STRONG-TIE (OR EQUAL) TOP FLANGE JOIST HANGERS AT ALL FLUSH FRAMED JOIST & BEAM CONNECTIONS
5. -INDICATES LOAD BEARING WALL BELOW (TYP., U.N.O.)
6. -INDICATES WOOD COLUMN. SEE SCHEDULE ON THIS SHEET.
7. ALL RAKES SHALL BE FRAMED USING 2x8 LOOKOUTS @ 16" O.C., U.N.O. PROVIDE DROPPED GABLE END WALLS AND/OR TRUSSES AS REQUIRED TO ALLOW FOR OVERFRAMING.
8. COORDINATE ROOF TRUSS LOCATIONS WITH OTHER TRADES (RECESSED LIGHTING, DUCTWORK, ETC.). SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
9. PROVIDE MOISTURE PROTECTION TO ALL WOOD ELEMENTS IN CONTACT WITH CMU AND CONCRETE FOUNDATIONS
10. - SHADED REGION INDICATES DORMER ABOVE.
11. - SHADED REGION INDICATES 8" PRECAST CONCRETE PLANKS.
12. T&G - ROOF DECK SHALL BE 3" NOM. (2 7/8" ACTUAL) THICKNESS TONGUE & GROOVE ROOF DECK.
13. ALL ROOF MEMBERS SHALL RECIEVE (1) H2.5A HURRICANE TIE ALL BEARING LOCATIONS UNLESS NOTE OTHERWISE.
14. TRUSS DESIGNER MAY ELECT TO INCORPORATE THE PIGGYBACK TRUSS SYSTEM INTO TRUSS T3 GEOMETRY.
15. **(GT)** - INDICATES MULTI-PLY GIRDER TRUSS

3 PRECAST PLANK CEILING PARTIAL PLAN

SCALE: 1/4" = 1'-0"

NOTE: ALL PRECAST PLANKS SHALL BE DESIGNED FOR ALL ADDITIONAL LOADED NOTED ON PLAN, IN ADDITION TO ALL LOADS NOTED IN THE GENERAL NOTES. COORDINATE ALL CONCENTRATED LOADS w/ ARCH/MEP DWGS.



2 3D VIEW

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JOB NO. 2201 | DATE 7/08/2024

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
MAIN BUILDING ROOF PLAN

SHEET
S3.2

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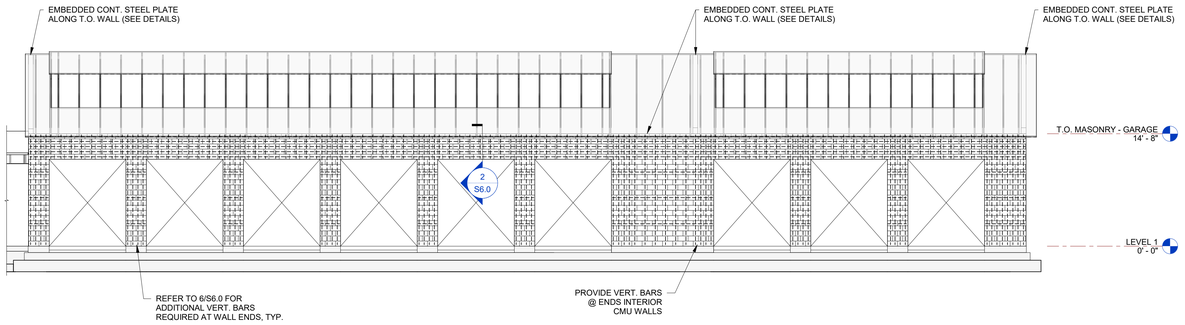
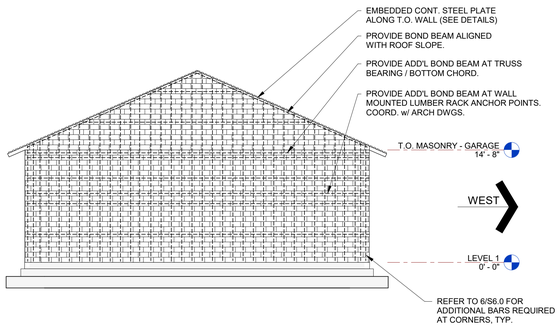
MASONRY REINFORCEMENT ELEVATION NOTES:

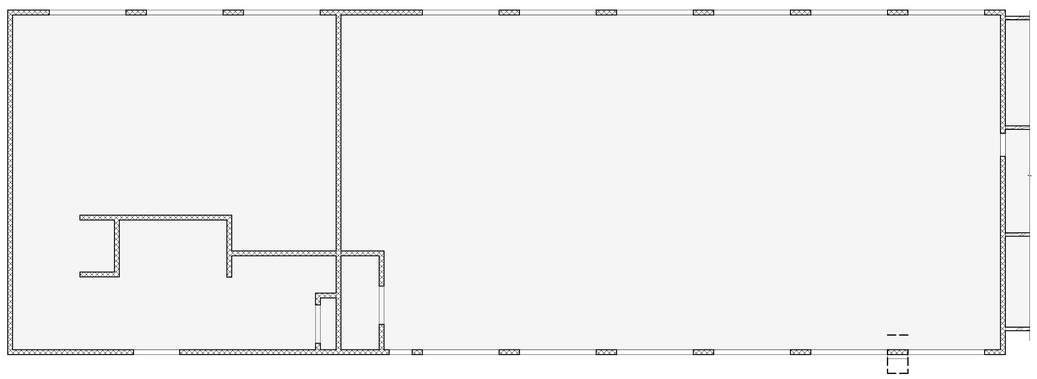
1. COORDINATE ALL WORK (INCLUDING ELEVATIONS, DIMENSIONS, FINISH DETAILS, PENETRATIONS, SEQUENCING, ETC.) WITH THE ARCHITECTURAL DRAWINGS.
2. SEE WALL SCHEDULE ON PLANS FOR TYPICAL. REINFORCEMENT SIZING AND SPACING.
3. - - - - - INDICATES LOCATION OF HORIZONTAL REINFORCEMENT (BOND BEAM/LINTEL)
3. | INDICATES LOCATION OF VERTICAL REINFORCEMENT. PROVIDE FOUNDATION DOWELS TO MATCH.
4. (#)● - INDICATES NUMBER OF ADDITIONAL VERT. CMU REINFORCEMENT IN GROUT FILLED CORES. REQUIRED AT WALL JAMBS, CORNERS, INTERSECTIONS, AND BOUNDARY ELEMENTS. PROVIDE MATCHING MASONRY DOWELS IN FOUNDATION WALLS (TYP., U.N.O.).
5. ALL CMU WALLS SUPPORTED BY FOUNDATION WALLS SHALL HAVE 5'-0" LONG DOWELS TO MATCH. VERT. REINF. (TYP. THROUGHOUT)
6. ALL CMU WALLS TO BE FULLY GROUTED AND UTILZES #5 BARS.



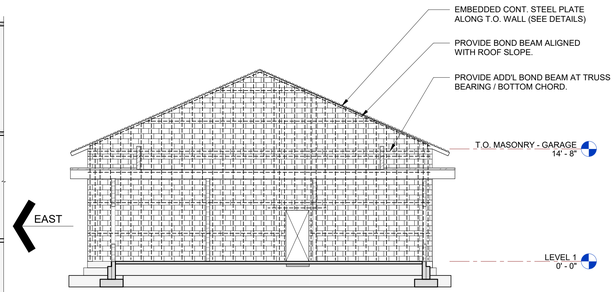
N GARAGE NORTH ELEVATION REINFORCEMENT
SCALE: 1/8" = 1'-0"



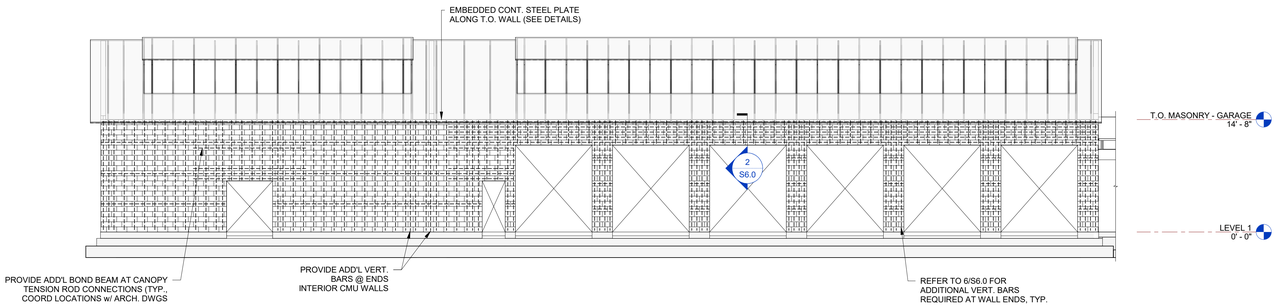
W GARAGE WEST ELEVATION REINFORCEMENT
SCALE: 1/8" = 1'-0"



KEY PLAN
N.T.S.



E GARAGE EAST ELEVATION REINFORCEMENT
SCALE: 1/8" = 1'-0"



S GARAGE SOUTH ELEVATION REINFORCEMENT
SCALE: 1/8" = 1'-0"

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SHEET TITLE
BUILDING ELEVATIONS - GARAGE

SHEET
S4.0

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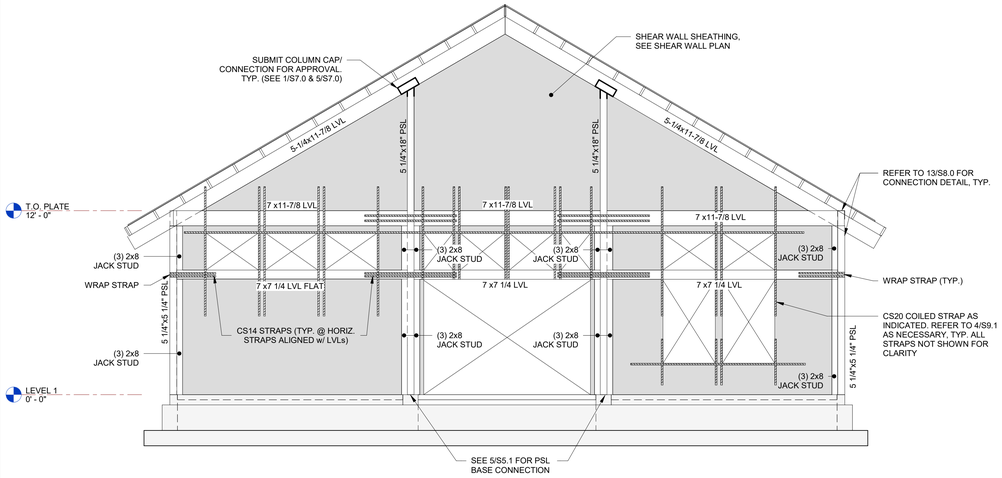
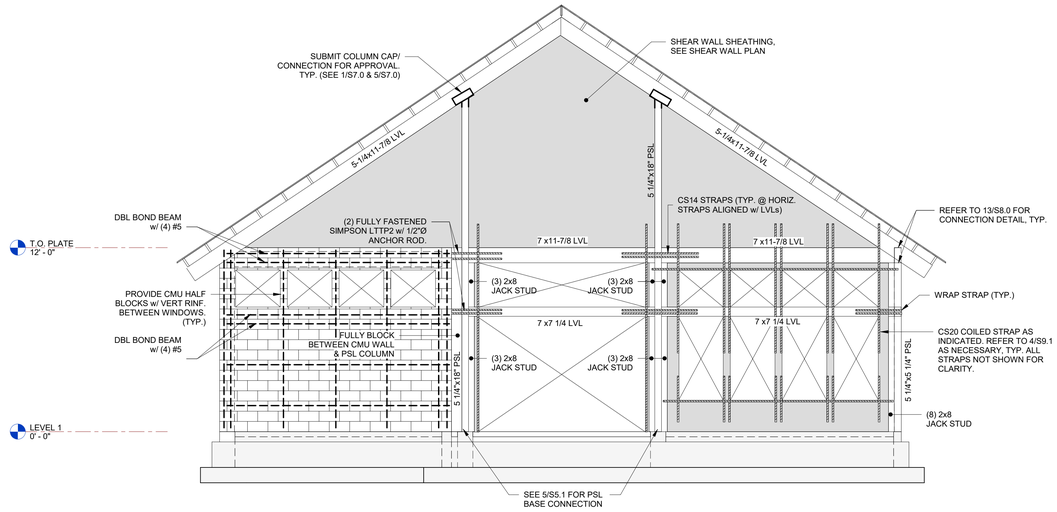


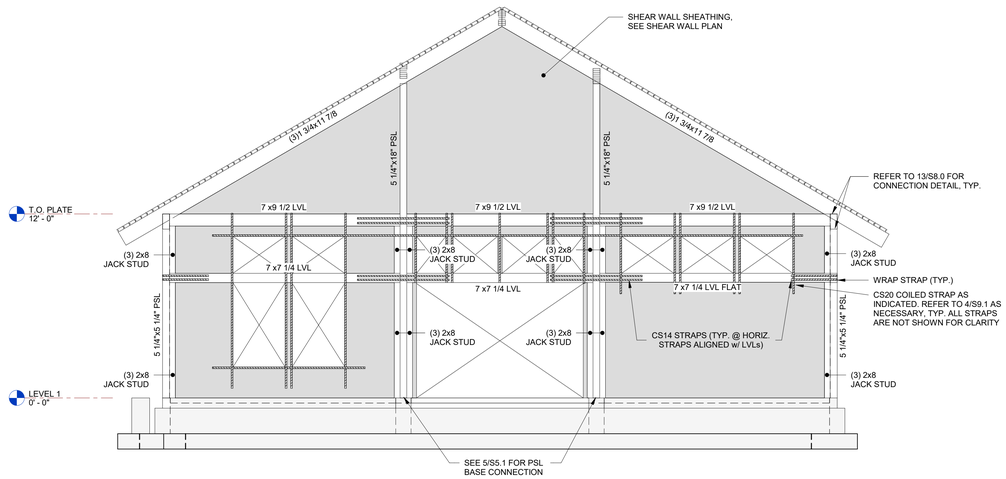
N NORTH GABLE END ELEVATION

SCALE: 1/4" = 1'-0"



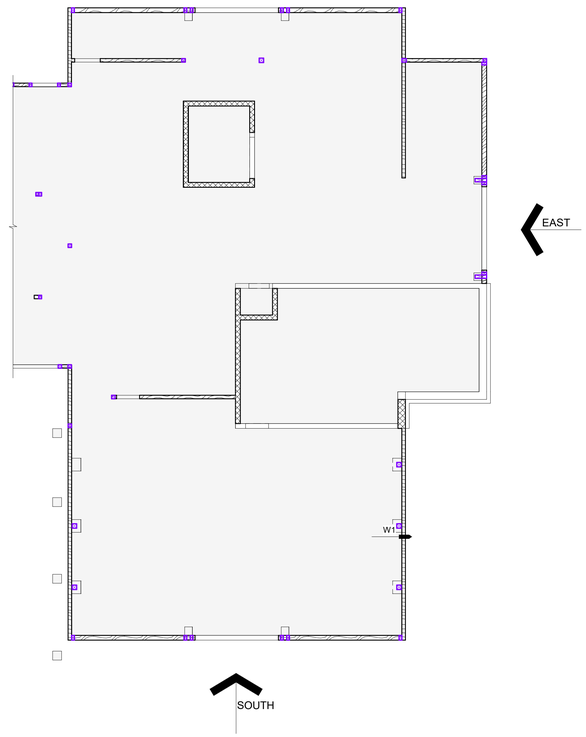
E EAST GABLE END ELEVATION

SCALE: 1/4" = 1'-0"



S SOUTH GABLE END ELEVATION

SCALE: 1/4" = 1'-0"



1 KEY PLAN

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SHEET TITLE

BUILDING ELEVATIONS - MAIN BUILDING GABLE ENDS

SHEET

S4.1

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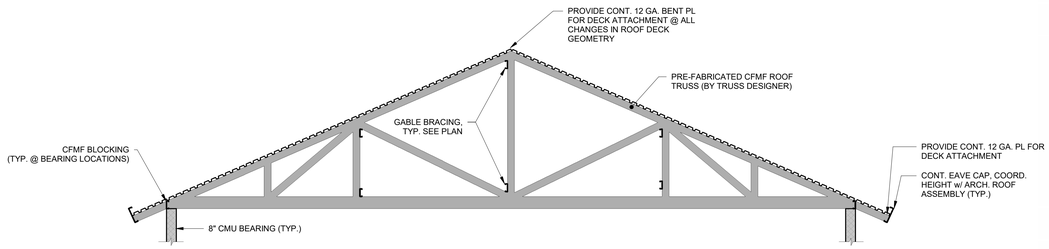
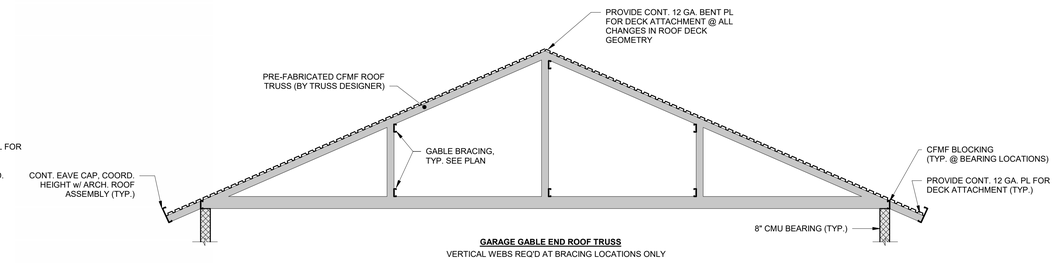


1 ROOF TRUSS - TYPE T1

SCALE: 1/4" = 1'-0"

NOTE: DESIGN OF SUPPLEMENTARY COLD FORM ELEMENTS ATTACHED TO PRE-FABRICATED ROOF TRUSSES SHALL BE CONSIDERED WITHIN THE SCOPE OF THE TRUSS DESIGNER. ELEMENTS SHALL INCLUDE AND ARE NOT LIMITED TO: WINDOW SILL/HEADER, COLD FORM ROOF FRAMING, & EAVE CAP)

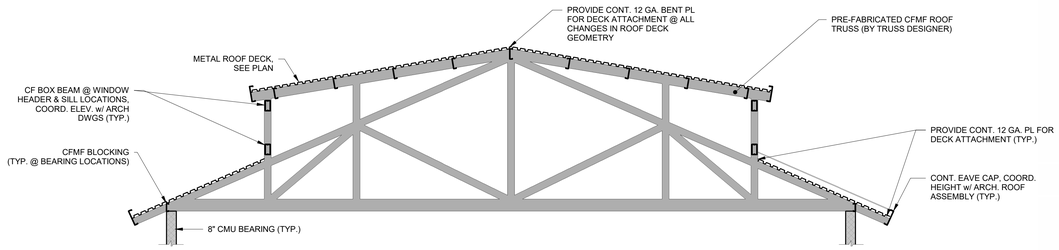


GARAGE GABLE END ROOF TRUSS
VERTICAL WEBS REQ'D AT BRACING LOCATIONS ONLY

2 ROOF TRUSS - TYPE T1A

SCALE: 1/4" = 1'-0"

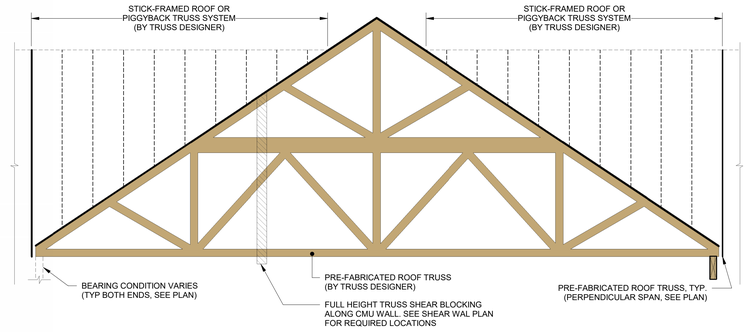
NOTE: DESIGN OF SUPPLEMENTARY COLD FORM ELEMENTS ATTACHED TO PRE-FABRICATED ROOF TRUSSES SHALL BE CONSIDERED WITHIN THE SCOPE OF THE TRUSS DESIGNER. ELEMENTS SHALL INCLUDE AND ARE NOT LIMITED TO: WINDOW SILL/HEADER, COLD FORM ROOF FRAMING, & EAVE CAP)



3 ROOF TRUSS - TYPE T2

SCALE: 1/4" = 1'-0"

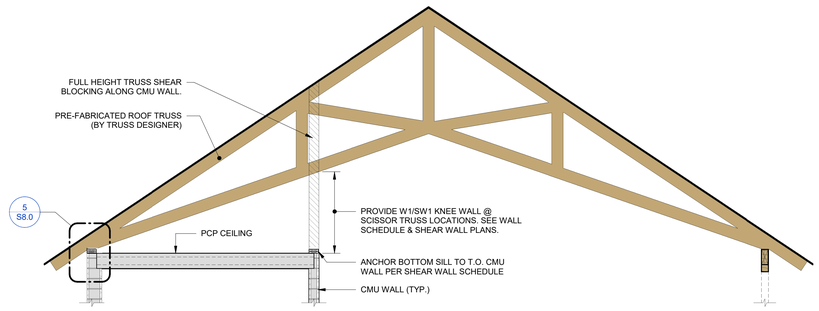
NOTE: DESIGN OF SUPPLEMENTARY COLD FORM ELEMENTS ATTACHED TO PRE-FABRICATED ROOF TRUSSES SHALL BE CONSIDERED WITHIN THE SCOPE OF THE TRUSS DESIGNER. ELEMENTS SHALL INCLUDE AND ARE NOT LIMITED TO: WINDOW SILL/HEADER, COLD FORM ROOF FRAMING, & EAVE CAP)



NOTE: AT TRUSS DESIGNERS OPTION TRUSS LAYOUT MAY BE MODIFIED TO INCORPORATE PIGGYBACK INTO TRUSS GEOMETRY

4 ROOF TRUSS - TYPE T3

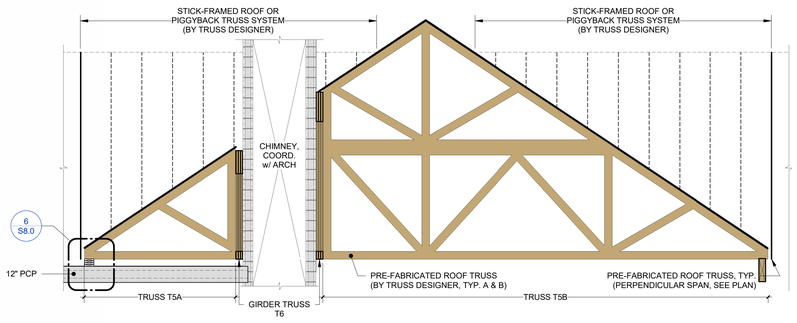
SCALE: 1/4" = 1'-0"



NOTE: ALL SCISSOR TRUSSES SHALL BE DESIGNED SUCH THAT THE THRUST COMPONENT IS RESOLVED INTERNALLY. NO HORIZONTAL LOAD SHALL BE IMPARTED AT THE BEARING LOCATION

5 ROOF TRUSS - TYPE T4

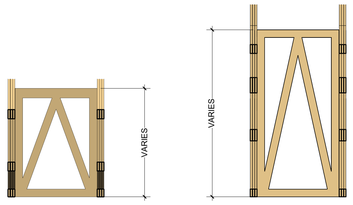
SCALE: 1/4" = 1'-0"



NOTE: AT TRUSS DESIGNERS OPTION TRUSS LAYOUT MAY BE MODIFIED TO INCORPORATE PIGGYBACK INTO TRUSS GEOMETRY

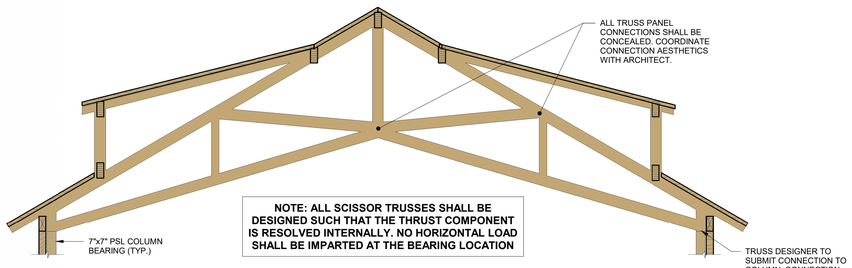
6 ROOF TRUSS - TYPE T5A & T5B

SCALE: 1/4" = 1'-0"



7 ROOF TRUSS - TYPE T6

SCALE: 1/4" = 1'-0"



NOTE: ALL SCISSOR TRUSSES SHALL BE DESIGNED SUCH THAT THE THRUST COMPONENT IS RESOLVED INTERNALLY. NO HORIZONTAL LOAD SHALL BE IMPARTED AT THE BEARING LOCATION

8 ROOF TRUSS - TYPE GL1

SCALE: 1/4" = 1'-0"

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SHEET TITLE
TRUSS LAYOUT ELEVATIONS

SHEET
S4.2

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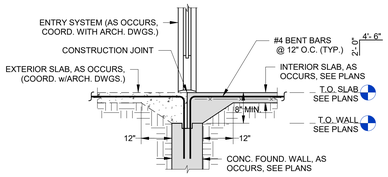
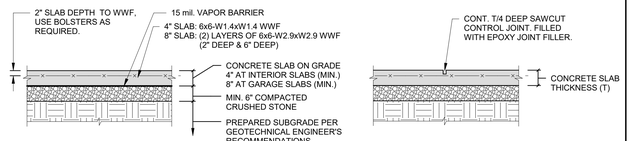


1 TYPICAL SLAB HAUNCH AT EXTERIOR DOORS

NO SCALE

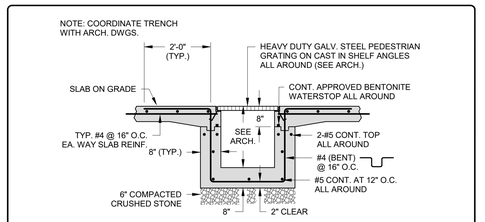


TYPICAL CONCRETE SLAB ON GRADE

TYPICAL SLAB CONTROL JOINT DETAIL
10' - 0" MAX SPACING. SUBMIT LAYOUT FOR APPROVAL BY A/E

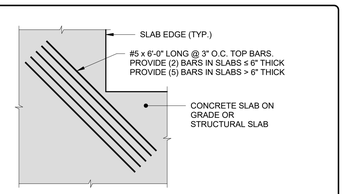
2 TYPICAL CONCRETE SLAB DETAILS

NO SCALE



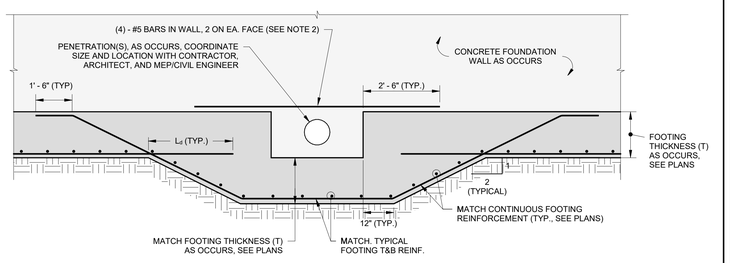
3 TYPICAL CONCRETE TRENCH DETAIL

NO SCALE



4 TYPICAL ADD'L REINFORCEMENT AT SLAB RE-ENTRANT CORNERS

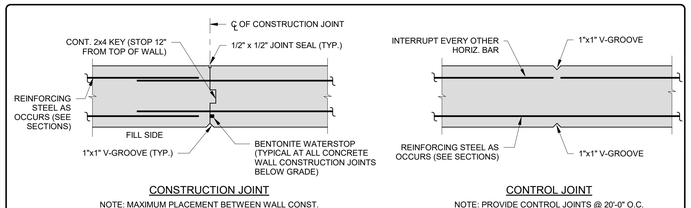
NO SCALE



NOTES:
1. REFER TO ARCH./CIVIL/GEOTECHNICAL DETAILS FOR ADDITIONAL UNDER SLAB & FOUNDATION REQUIREMENTS NOT SHOWN ON THESE DRAWINGS. REQUIREMENTS MAY INCLUDE BUT ARE NOT LIMITED TO: PERIMETER DRAINS, INSULATION, WEEP HOLES, & SITE PREPARATION. REPORT ANY DISCREPANCIES BETWEEN DISCIPLINES TO A/E FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK.
2. WHERE MULTIPLE WALL PENETRATIONS OCCUR, MINIMUM CLEAR DISTANCE BETWEEN ADJACENT PIPES IS 6". IF TOTAL WIDTH OF STEP EXCEEDS 4' - 0", CONSULT EOR AS ADDITIONAL WALL REINF. IS REQUIRED.
3. L_d - INDICATES REINFORCEMENT BAR DEVELOPMENT LENGTH, CALCULATED PER ACI 318 REQUIREMENTS. SEE DEVELOPMENT LENGTH SCHEDULE.

5 TYPICAL FOUNDATION ELEVATION DETAILS AT MEP PENETRATIONS

NO SCALE



CONSTRUCTION JOINT

NOTE: MAXIMUM PLACEMENT BETWEEN WALL CONST. JOINTS (FOR CONT. WALLS) SHALL BE (60) FEET.

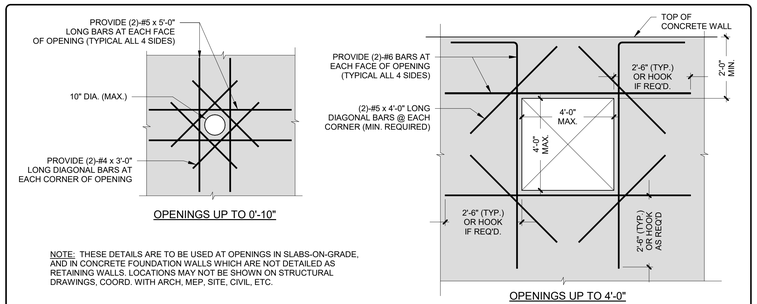
CONTROL JOINT

NOTE: PROVIDE CONTROL JOINTS @ 20'-0" O.C. MAX. @ ALL CONC. WALLS EXPOSED 12" OR GREATER ABOVE FINISH GRADE.

6 TYPICAL CONCRETE WALL JOINT DETAILS

NO SCALE

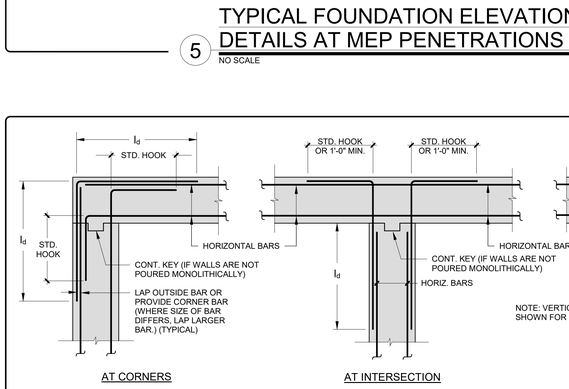
NOTES:
1. THESE DETAILS ARE PROVIDED FOR THE CASES AS STATED ABOVE AND, ADDITIONALLY, FOR CASES WHERE THE CONTRACTOR REQUESTS THESE DETAILS BE USED FOR EASE OF CONSTRUCTION.



NOTE: THESE DETAILS ARE TO BE USED AT OPENINGS IN SLABS-ON-GRADE, AND IN CONCRETE FOUNDATION WALLS WHICH ARE NOT DETAILED AS RETAINING WALLS. LOCATIONS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS, COORD. WITH ARCH, MEP, SITE, CIVIL, ETC.

7 TYPICAL OPENING REINFORCEMENT IN CONCRETE FOUNDATION WALL AND SLAB-ON-GRADE

NO SCALE



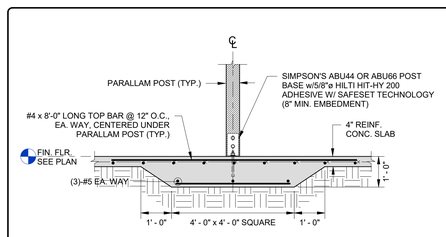
AT CORNERS

AT INTERSECTION

AT OPENINGS & DISCONTINUOUS ENDS

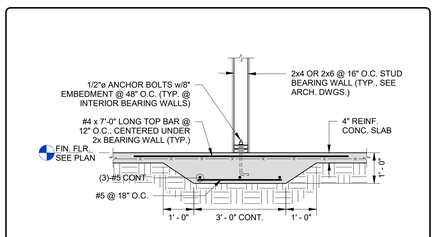
8 TYPICAL PLAN DETAILS AT WALL HORIZ. REINFORCING

NO SCALE



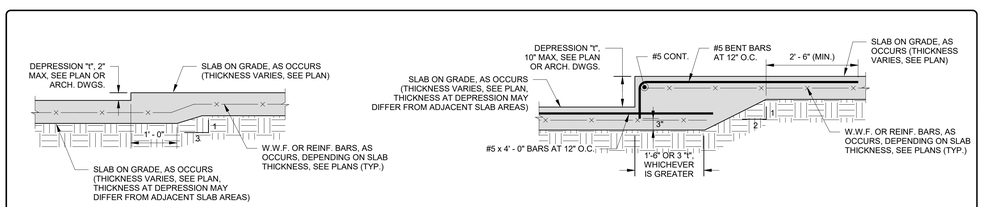
9 TYPICAL THICKENED SLAB AT WOOD COLUMN

NO SCALE



10 TYPICAL THICKENED SLAB AT BEARING WALLS

NO SCALE



DEPRESSION ≤ 2"

2" < DEPRESSION ≤ 10"

11 TYPICAL DEPRESSED SLAB DETAILS

NO SCALE

NOTES:
1. THESE DETAILS SHALL BE USED AT ALL LOCATION WHERE DEPRESSIONS ARE REQUIRED AT SLAB-ON-GRADE LOCATIONS. COORDINATE AND VERIFY DEPRESSED SLAB AREAS WITH ARCH. DWGS. ALL DEPRESSED AREAS MAY NOT BE SHOWN ON STRUCTURAL PLANS.

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REGISTERED PROFESSIONAL ENGINEER

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SHEET TITLE
TYPICAL FOUNDATION DETAILS

SHEET
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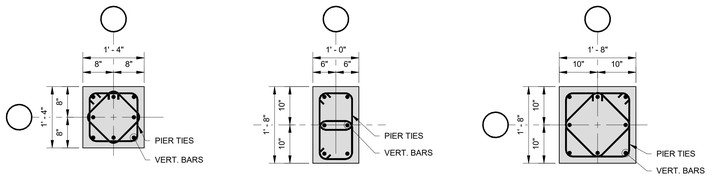
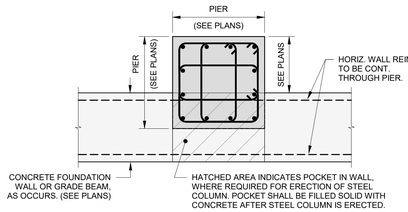


PIER TYPE - P1
(8) - #6 BARS VERTICAL
(2) - #4 TIES @ 12" O.C. MAX. SPACING

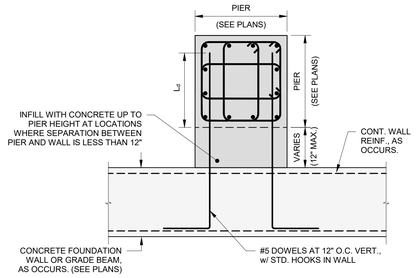
PIER TYPE - P2
(6) - #6 BARS VERTICAL
(2) - #4 TIES @ 12" O.C. MAX. SPACING

PIER TYPE - P3
(8) - #6 BARS VERTICAL
(2)-#4 TIES @ 3" O.C. FOR TOP 9" THEN 12" O.C. MAX. SPACING

NOTES:
1. IT IS STRUCTURALLY ACCEPTABLE TO SUBSTITUTE SINGLE LEG HOOKS FOR CLOSED TIES AT INTERIOR PIER TIE LOCATIONS. OUTER TIE MUST BE CLOSED TYPE. ALTERNATE DIRECTION OF HOOKS AT EVERY OTHER COLUMN TIE PER ACI REQUIREMENTS.
2. PROVIDE ADDITIONAL TIES AT THE TOPS OF ALL PIERS WHICH HAVE EMBEDDED ANCHORS. WHERE #3 STIRRUPS ARE USED PROVIDE (3) ADD'L TIES. WHERE #4 STIRRUPS ARE USED, PROVIDE (2) ADD'L TIES.
3. GENERAL CONTRACTOR MUST VERIFY THAT NO CONFLICTS EXIST WITH THE LOCATIONS OF PIER REINFORCEMENT RELATIVE TO ANY REQUIRED EMBEDDED ANCHOR RODS OR POST-INSTALLED ANCHORS PRIOR TO POURING CONCRETE PIERS. LOCATIONS OF INTERIOR VERTICAL BARS MAY BE ADJUSTED BY NO MORE THAN 2" IN ANY DIRECTION TO ACCOMMODATE ANCHOR RODS.

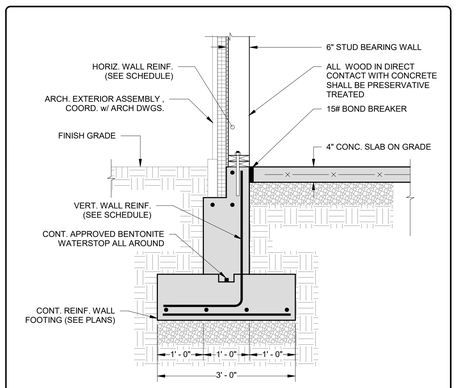


TYPICAL DETAIL OF PIER OVERLAPPING FOUNDATION WALL



TYPICAL DETAIL OF PIER ADJACENT TO FOUNDATION WALL

1 TYPICAL CONCRETE PIER DETAILS
NO SCALE



2 DETAIL
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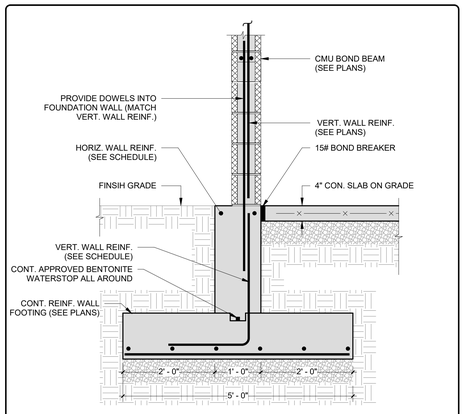

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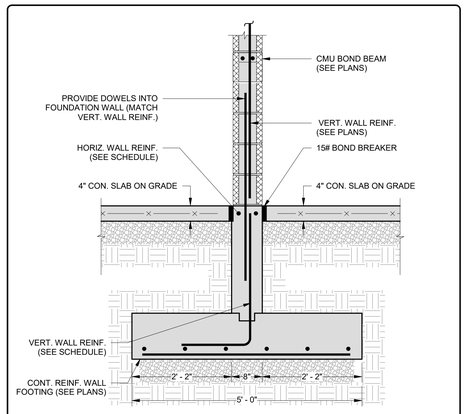
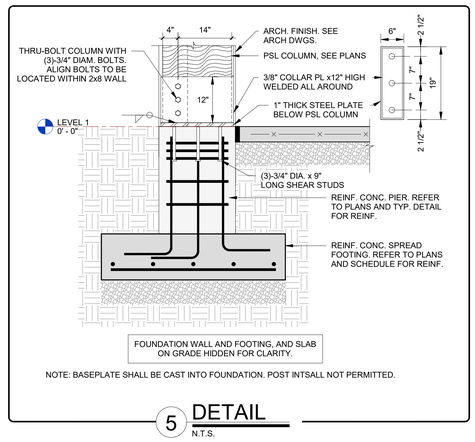
NO SCALE



4 DETAIL
NO SCALE



NOTE: BASEPLATE SHALL BE CAST INTO FOUNDATION. POST INTSALL NOT PERMITTED.

5 DETAIL
N.T.S.

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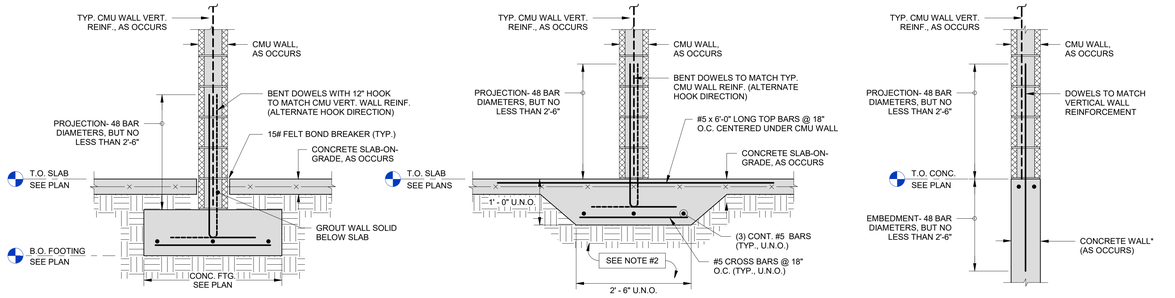


TYPICAL DETAIL FOR CMU WALLS SUPPORTED ON FOOTINGS

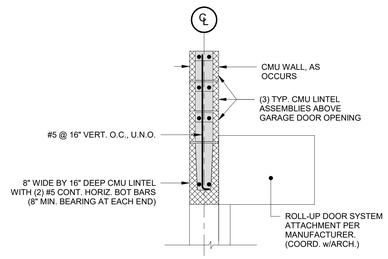
TYPICAL DETAIL FOR CMU WALLS SUPPORTED ON SLAB-ON-GRADE

TYPICAL DETAIL FOR CMU WALLS SUPPORTED ON CONCRETE WALLS
(*) - SIMILAR AT PIERS, PEDESTALS, ETC.

1 TYPICAL BASE DETAILS FOR CMU WALLS

NO SCALE

NOTES:
1. THESE DETAILS ARE REQUIRED AT ALL CMU WALLS. NON-BEARING PARTITIONS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR PARTITION LOCATIONS AND OTHER INFORMATION.
2. WHERE CMU WALLS BEAR ON SLABS ON GROUND, ENSURE THAT SOILS WITHIN 5 FEET OF WALL ARE COMPACTED TO 95% OF THE OPTIMUM DRY DENSITY (SUBMIT TEST RESULTS FOR REVIEW).



2 TYPICAL LINTEL AT GARAGE DOOR OPENING

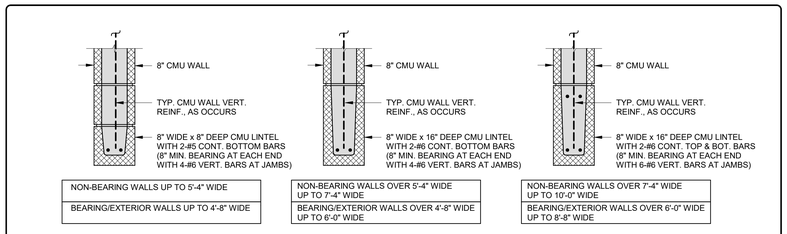
NO SCALE

ROUGH OPENING	STEEL LINTEL
UP TO 6'-4" WIDE	L6x4x3/8 (LLV) GALV. - 8" MIN. END BEARING
OVER 6'-4" UP TO 8'-0" WIDE	L8x4x1/2 (LLV) GALV. - 8" MIN. END BEARING
OVER 8'-0" UP TO 10'-0" WIDE	L8x4x7/8 (LLV) GALV. - 12" MIN. END BEARING

NOTES:
1. SEE DRAWINGS FOR STRUCTURAL LINTELS CONNECTED TO STRUCTURAL ELEMENTS.
2. FOR OPENING WIDTHS GREATER THAN SHOWN, CONSULT STRUCTURAL ENGINEER.
3. SEE ARCHITECTURAL DRAWINGS FOR FLASHING DETAILS AT WINDOW & DOOR OPENINGS.
4. GALV. - INDICATES HOT-DIP GALVANIZED.

3 MASONRY VENEER (LOOSE) LINTEL SCHEDULE

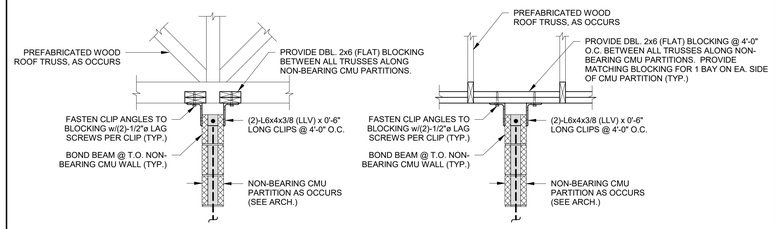
NO SCALE



NOTES:
1. TYPICAL CMU LINTEL DETAILS SHALL BE USED AT ALL CONCRETE MASONRY WALL OPENINGS, EXCEPT WHERE SPECIALLY CONSTRUCTED LINTELS ARE INDICATED. SEE STRUCTURAL PLANS & SECTIONS FOR ALTERNATE CMU LINTEL REQUIREMENTS.
2. ALL REQUIRED CMU LINTELS ARE NOT INDICATED ON STRUCTURAL PLANS. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR COORDINATION OF CMU LINTEL REQUIREMENTS AT ALL WALL OPENINGS AND PENETRATIONS THROUGH BOTH BEARING/EXTERIOR AND NON-BEARING CONCRETE MASONRY WALLS.
3. FOR OPENING WIDTHS GREATER THAN SHOWN, CONSULT STRUCTURAL ENGINEER.

4 CONCRETE MASONRY LINTEL SCHEDULE

NO SCALE



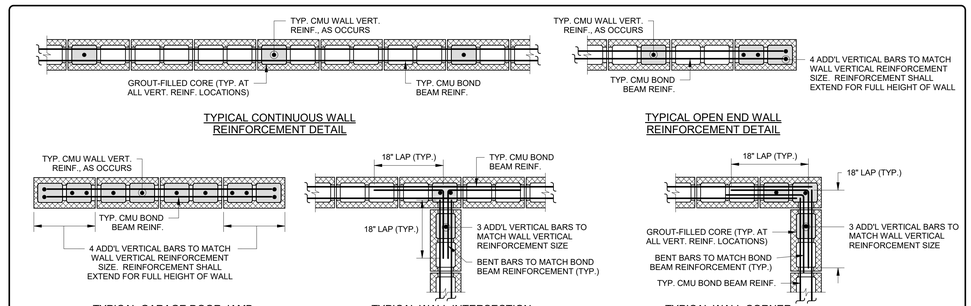
TYPICAL DETAIL FOR LATERAL SUPPORT OF NON-BEARING CMU PARTITIONS CONSTRUCTED PERPENDICULAR TO ROOF FRAMING

TYPICAL DETAIL FOR LATERAL SUPPORT OF NON-BEARING CMU PARTITIONS CONSTRUCTED PARALLEL WITH ROOF FRAMING

5 TYPICAL DETAILS FOR LATERAL SUPPORT OF NON-BEARING CMU PARTITIONS

NO SCALE

NOTES:
1. THESE DETAILS ARE REQUIRED AT ALL NEW NON-BEARING CMU PARTITIONS. SEE ARCHITECTURAL DRAWINGS FOR ALL PARTITION LOCATIONS, TYP.



TYPICAL CONTINUOUS WALL REINFORCEMENT DETAIL

TYPICAL OPEN END WALL REINFORCEMENT DETAIL

TYPICAL GARAGE DOOR JAMB REINFORCEMENT DETAIL

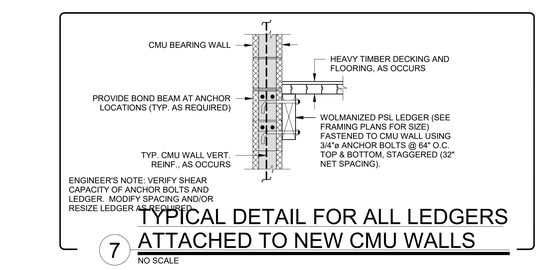
TYPICAL WALL INTERSECTION REINFORCEMENT DETAIL

TYPICAL WALL CORNER REINFORCEMENT DETAIL

6 TYPICAL CMU WALL PLAN DETAILS

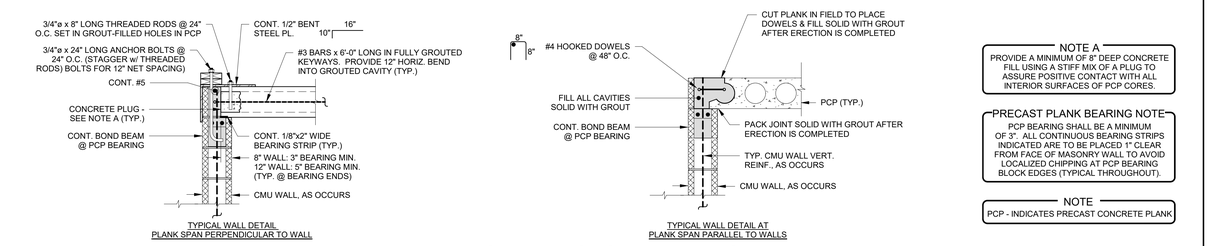
NO SCALE

NOTES:
1. ALL CMU VERTICAL REINFORCED CORES AND HORIZONTAL REINFORCED COURSES (BOND BEAMS) SHALL BE GROUTED SOLID. GROUTING OF HORIZONTAL REINFORCEMENT NOT SHOWN ON THIS DETAIL FOR CLARITY.



7 TYPICAL DETAIL FOR ALL LEDGERS ATTACHED TO NEW CMU WALLS

NO SCALE



TYPICAL WALL DETAIL PLANK SPAN PERPENDICULAR TO WALL

TYPICAL WALL DETAIL AT PLANK SPAN PARALLEL TO WALLS

NOTE A
PROVIDE A MINIMUM OF 8" DEEP CONCRETE FILL USING A STIFF MIX OF A PLUG TO ASSURE POSITIVE CONTACT WITH ALL INTERIOR SURFACES OF PCP CORES.

PRECAST PLANK BEARING NOTE
PCP BEARING SHALL BE A MINIMUM OF 3". ALL CONTINUOUS BEARING STRIPS INDICATED ARE TO BE PLACED 1" CLEAR FROM FACE OF MASONRY WALL TO AVOID LOCALIZED CHIPPING AT PCP BEARING BLOCK EDGES (TYPICAL THROUGHOUT).

NOTE
PCP - INDICATES PRECAST CONCRETE PLANK

8 TYPICAL PRECAST PLANK TO CMU WALL CONNECTION DETAILS

NO SCALE

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TYPICAL MASONRY DETAILS

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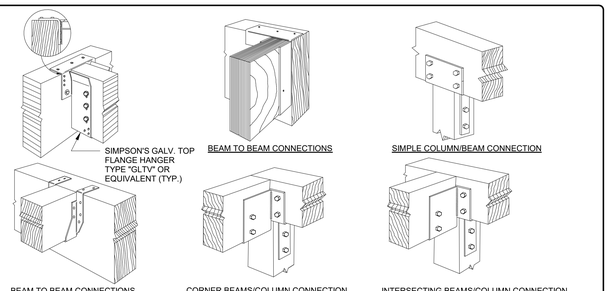
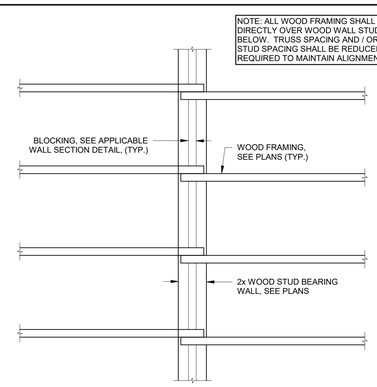


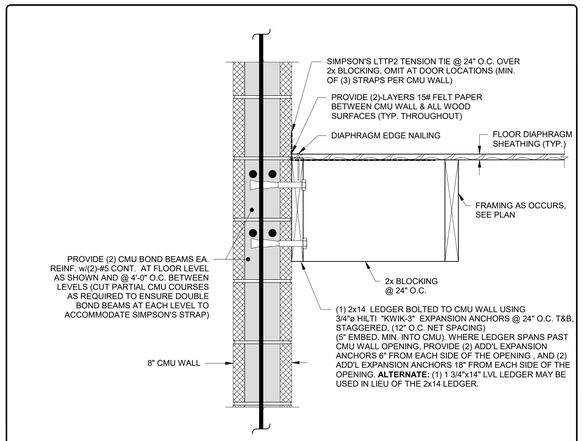
TYPICAL WOOD BEAM ISOMETRIC FRAMING DETAILS

1 NO SCALE



TYPICAL PLAN VIEW OF WOOD FRAMING BEARING ON WOOD STUD WALL

2 NO SCALE



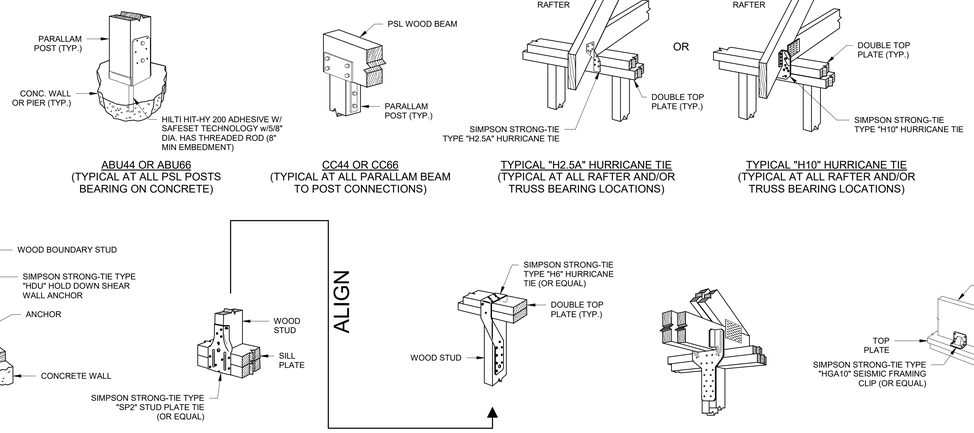
TYPICAL CMU WALL WITH FLOOR FRAMING PARALLEL

3 NO SCALE

SIMPSON STRONG-TIE SCHEDULE

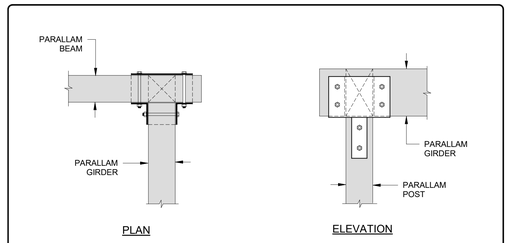
LOCATION	SIMPSON CONNECTOR TYPE
STRAPPING (RAFTERS TO RIDGE BEAM)	"CS18" x 4'-0" LONG @ EA. RAFTER/RIDGE CONN.
RAFTER TO RIDGE BEAM	"LSSU" (ADJ. SLOPEABLE & SKEWABLE SEAT
TRUSS/RAFTER TO TOP PLATE/BEAM	"H2.5" ** (@ EACH TRUSS/RAFTER BEARING)
TOP PLATE TO WALL STUDS	"H6" @ 4'-0" O.C.
FLOOR TO FLOOR TIES	"CS18" x 4'-0" LONG @ 4'-0" O.C.
WALL STUD TO SILL PLATE	"SP1" @ 4'-0" O.C.
SHEAR WALL BOUNDARY STUDS TO FOUNDATION	"HDU5-SDS2.5" HOLDOWN w/ SSTB16 ANCHOR
SHEAR WALL TOP PLATE TO DRAG TRUSS	"DSC2R/L-SDS3" DRAG STRUT CONNECTOR
PSL BEAM TO PSL POST	"CC" COLUMN CAP w/ 5/8"ø THRU-BOLTS
PSL BEAM TO PSL BEAM	"GLTV" TOP FLANGE HANGER
PSL POST TO FOUNDATION	"ABU" POST BASE

NOTES:
1. ALL CONNECTORS SHALL BE FASTENED USING THE MAXIMUM QUANTITY/SIZE OF MANUFACTURER SPECIFIED FASTENERS, TYP.
2. ** - H2.5 REPRESENTS MINIMUM SIZE FASTENER. TRUSS FABRICATOR SHALL SPECIFY SIZE BASED ON UPLIFT REQUIREMENTS, TYPICAL.
3. ALL SIMPSON STRONG-TIE CONNECTORS SHALL BE "Z-MAX" GALVANIZED.
4. ALL CONNECTIONS ARE FOR NEW FRAMING TO EXISTING AND/OR NEW SUPPORTS.



TYPICAL SIMPSON STRONG-TIE CONNECTION DETAILS

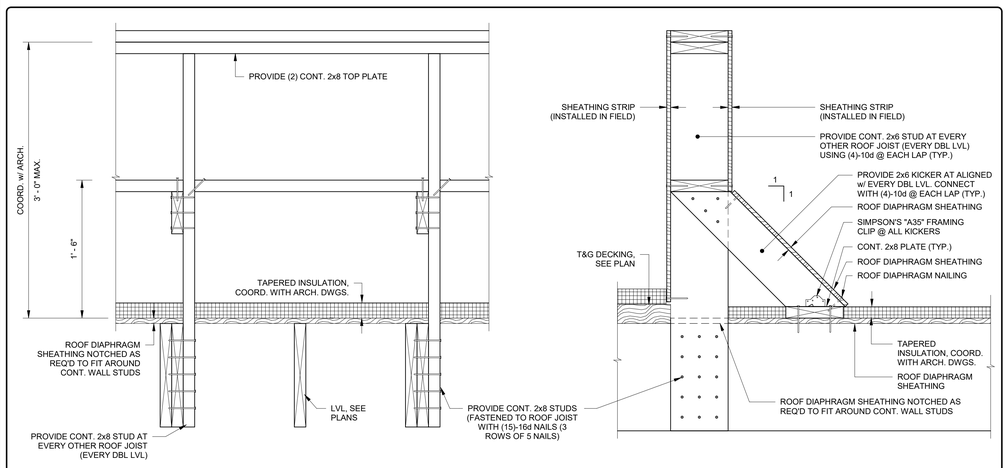
4 NO SCALE



TYPICAL PARALLAM POST CAP DETAIL

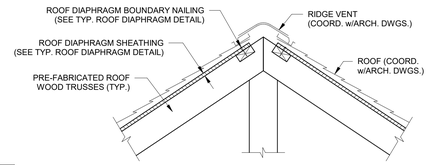
5 NO SCALE

NOTES:
1. THIS DETAIL SHALL BE USED FOR ALL CONNECTIONS WHERE A SIMPSON POST CAP CANNOT BE SELECTED TO FIT CONNECTION GEOMETRY. CONNECTION SHALL BE DESIGNED & STAMPED BY AN ENGINEER ENGAGED BY THE CONTRACTOR. COORDINATE ALL DIMENSIONS w/ MEMBERS SHOWN ON PLAN.
2. ALL 1/4" PLATES, WELDED ALL AROUND
3. 1/2"ø THRU-BOLTS



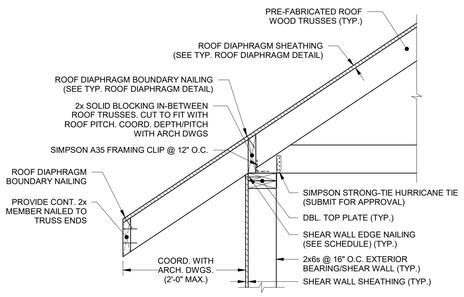
DETAIL AT ROOF KNEE WALL ON LVL FRAMING

6 NO SCALE

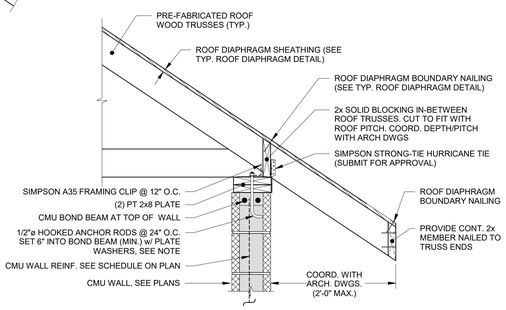


TYPICAL DETAIL AT ROOF RIDGE

TRUSS DESIGNER SHALL COORDINATE ROOF GEOMETRY WITH ARCHITECTURAL DRAWINGS



TYPICAL DETAIL AT ROOF EAVE (STUD WALL BEARING)



TYPICAL DETAIL AT ROOF EAVE (CMU WALL BEARING)

NOTE: ALL ANCHORS SHALL BE CENTERED ON THE WOOD PLATE AND SHALL HAVE 1/4"x3"x6-1/2" PLATE WASHERS w/ SLOTTED HOLES FOR PLACEMENT. STANDARD CUT WASHERS SHALL BE PROVIDED BETWEEN ALL ANCHORS AND PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGES OF THE WOOD PLATE

TYPICAL GABLE ROOF DETAILS

7 NO SCALE

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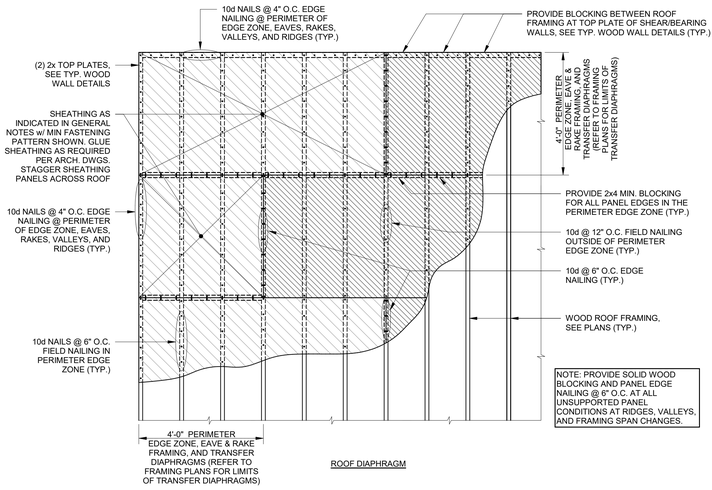
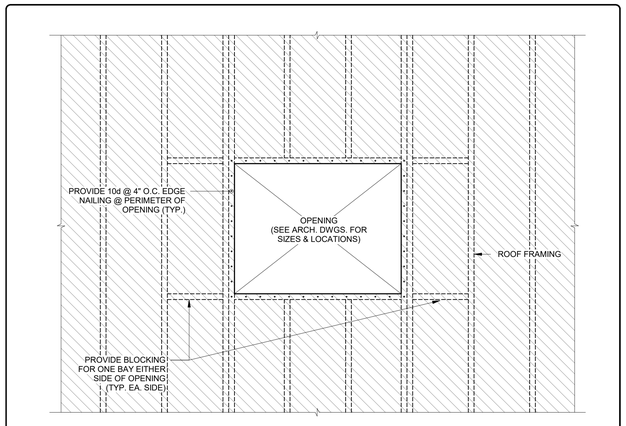


1 ROOF DIAPHRAGM NAILING REQUIREMENTS

NO SCALE

NOTE: DIAPHRAGM EDGE NAILING REQUIREMENTS SHOWN IN THIS DETAIL SHALL BE PROVIDED INTO ALL WOOD SHEAR WALLS BELOW REGARDLESS OF WHETHER OR NOT THERE IS A DIAPHRAGM PANEL EDGE AT THE WOOD SHEAR WALL. WHERE SHEAR WALL EXTENTS ARE ONLY FOR A PORTION OF THE OVERALL WOOD WALL PROVIDE DIAPHRAGM EDGE NAILING INTO THE NON-SHEAR WALL PORTION REGARDLESS OF WHETHER OR NOT THERE IS A DIAPHRAGM PANEL EDGE AT THE WOOD WALL. PROVIDE BLOCKING (FLAT) SET BETWEEN FRAMING MEMBERS TO RECEIVE NAILING.



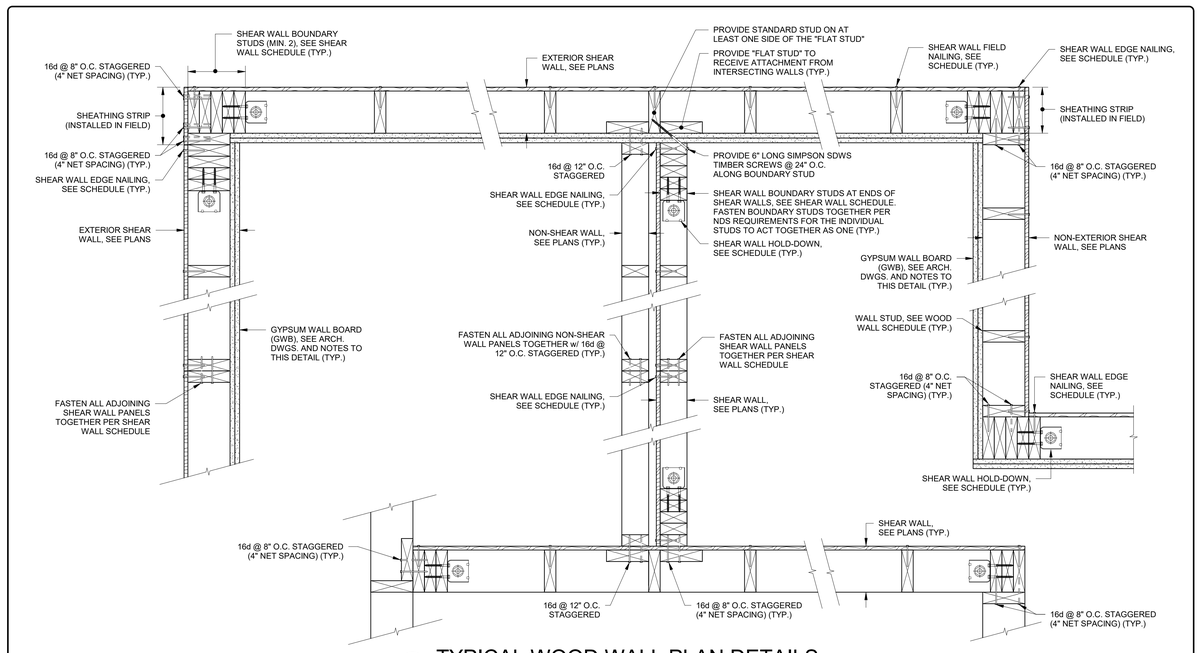
2 TYPICAL ROOF OPENING DETAIL

NO SCALE

TYPICAL 2x6 WALL HEADER SCHEDULE

ROUGH OPENING	WOOD HEADER
UP TO 3'-6" WIDE	(3)-2x8 WITH SINGLE JACK STUD BRG. @ EA. JAMB
OVER 3'-6" UP TO 5'-0" WIDE	(3)-2x10 WITH SINGLE JACK STUD BRG. @ EA. JAMB
OVER 5'-0" UP TO 8'-0" WIDE	(3)-2x12 WITH DOUBLE JACK STUD BRG. @ EA. JAMB

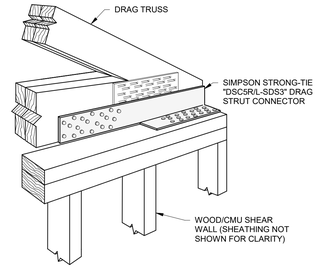
NOTES:
1. FOR OPENING WIDTHS GREATER THAN SHOWN, CONSULT STRUCTURAL ENGINEER.
2. SEE ARCH. DRAWINGS FOR FLASHING DETAILS @ WINDOW & DOOR OPENINGS.
3. PROVIDE PLYWOOD SPACERS IN ALL MULTIPLE 2x HEADERS WITHIN 2x6 EXTERIOR AND/OR LOAD BEARING WALLS TO MAKE UP DIFFERENCE OF WALL THICKNESS.
4. FASTEN MULTIPLE 2x HEADERS TOGETHER AS REQUIRED BY NDS FOR MEMBER TO ACT AS ONE.
5. U.N.O. PROVIDE A MINIMUM OF (1) KING STUD ADJACENT TO JACK STUDS @ EA. JAMB.
6. U.N.O. THE MINIMUM NUMBER OF STUDS @ EA. JAMB SHALL EQUAL 1/2 THE QUANTITY OF WALL STUDS INTERRUPTED BY THE OPENING. ADD ADDITIONAL KING STUDS IN COMBINATION WITH THE REQUIRED JACK STUDS FROM THE SCHEDULE TO ACHIEVE MINIMUM REQUIRED STUDS @ EA. JAMB.
   - E.G. AN 8'-0" WIDE OPENING IN A WALL WITH STUDS SPACED @ 1'-0" O.C. WOULD REQUIRE A MINIMUM OF (4) STUDS @ EA. JAMB. (2) JACK STUDS PER SCHEDULE + (2) KING STUDS.
7. FASTEN THE BUILT-UP KING AND JACK STUD PACK TOGETHER AS REQUIRED BY NDS FOR MEMBER TO ACT AS ONE.
8. ADD ADDITIONAL KING STUDS AS REQUIRED AT OPENINGS IN PERFORATED SHEAR WALLS TO ACHIEVE THE REQUIRED NUMBER OF BUILT-UP BOUNDARY STUDS SPECIFIED BY THE WOOD SHEAR WALL PLANS AND SCHEDULE. PROVIDE CRIPPLE STUDS DIRECTLY ABOVE THE JACK STUDS. SEE "SHEAR WALL REFERENCE ELEVATION" FOR FURTHER CLARIFICATION.



3 TYPICAL WOOD WALL PLAN DETAILS

NO SCALE

NOTES:
1. THE INTENT OF THIS DETAIL IS TO DEPICT THE FASTENING REQUIREMENTS OF INTERSECTING WALLS. ALL INTERSECTING WALLS ARE REQUIRED TO BE FASTENED TOGETHER PER THIS DETAIL. ALTHOUGH THIS DETAIL SHOWS A GENERIC PLAN COVERING COMMON INTERSECTING WALL SITUATIONS, NOT EVERY SITUATION THAT OCCURS IS SHOWN IN THIS DETAIL. CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION OF FASTENING REQUIREMENTS AT INTERSECTIONS NOT COVERED BY THIS DETAIL.
2. WHERE TWO LAYERS OF SHEATHING ARE REQUIRED, SHEATHING ON INTERIOR SIDE OF WALL (OR UNIT SIDE AT DEMISING WALLS) SHOULD BE FIELD APPLIED.
3. HOLD ANY INTERSECTING WALLS BACK A DISTANCE TO ENSURE CONTINUOUS INSTALLMENT OF GWB AND/OR SHEATHING TO THE INTERIOR SIDE OF THE SHEAR WALL.
4. GAPS ARE NOT ALLOWED AT SHEAR WALL LOCATIONS, BUILD WALLS TIGHT TO THE GWB/SHEATHING LAYERS ON THE INTERSECTING WALLS. IF GAPS ARE REQUIRED TO ACCOMMODATE GWB/SHEATHING INSTALLATION, A CONTINUOUS PLYWOOD SHIM STRIP SHALL BE INSTALLED AFTER THE GWB HAS BEEN INSTALLED.
5. ONCE GWB/SHEATHING AND SHIM STRIPS ON THE INTERIOR SIDE IS INSTALLED FASTEN INTERSECTING WALLS TOGETHER PER THIS DETAIL.
6. COORDINATE LOCATIONS THAT DO NOT REQUIRE THE GWB ON THE EXTERIOR WALLS TO BE CONTINUOUS PAST THE INTERSECTING INTERIOR WALLS WITH THE ARCHITECT.
7. AT LOCATIONS THAT DO NOT REQUIRE THE GWB ON THE EXTERIOR WALLS TO BE CONTINUOUS PAST THE INTERSECTING INTERIOR WALLS AS SHOWN IN THIS DETAIL, THE SDWS TIMBER SCREWS USED TO FASTEN THE BOUNDARY STUDS TO THE EXTERIOR WALLS MAY BE REPLACED WITH 16d NAILS @ 8" O.C. WITH 5/8" STAGGER (4" NET SPACING).
   - EXCEPTION: THE SDWS TIMBER SCREW IS STILL REQUIRED IF THE EXTERIOR OR INTERIOR WALLS REQUIRE DOUBLE SIDED SHEATHING, SEE SHEAR WALL PLANS AND SCHEDULE FOR LOCATIONS

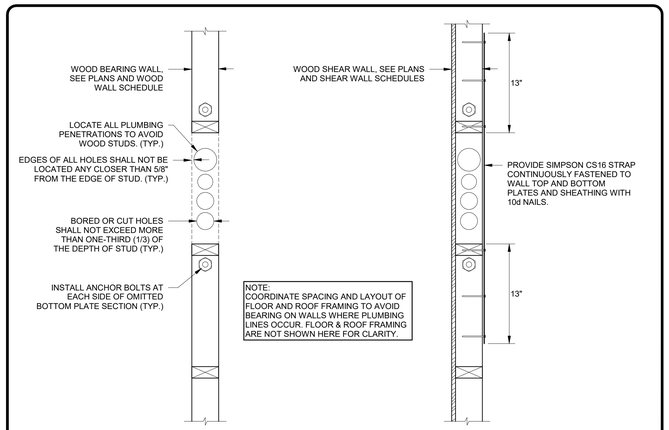


TYPICAL "DSC" HOLDOWN
(WHERE INDICATED ON PLANS)

4 TYPICAL DRAG TRUSS CONNECTOR DETAILS

NO SCALE

NOTES:
1. THE DETAILS SHOWN ABOVE SHALL REPLACE THE CORRESPONDING DETAILS SHOWN AS PART OF 3/S5.01 "TYPICAL SIMPSON STRONG-TIE CONNECTION DETAILS.
2. SEE DRAWING FOR ADDITIONAL HOLD-DOWN CONNECTOR REQUIREMENTS AT SHEAR WALL LOCATIONS.



5 TYPICAL BOTTOM & TOP PLATE REINFORCEMENT AT VERTICAL PLUMBING PENETRATIONS

NO SCALE

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M.D. ODEH
No. 3082
REGISTERED PROFESSIONAL ENGINEER

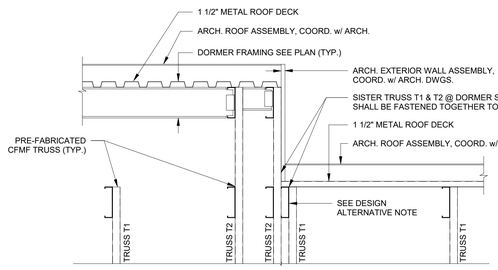
JOB NO.	DATE
2201	7/08/2024

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

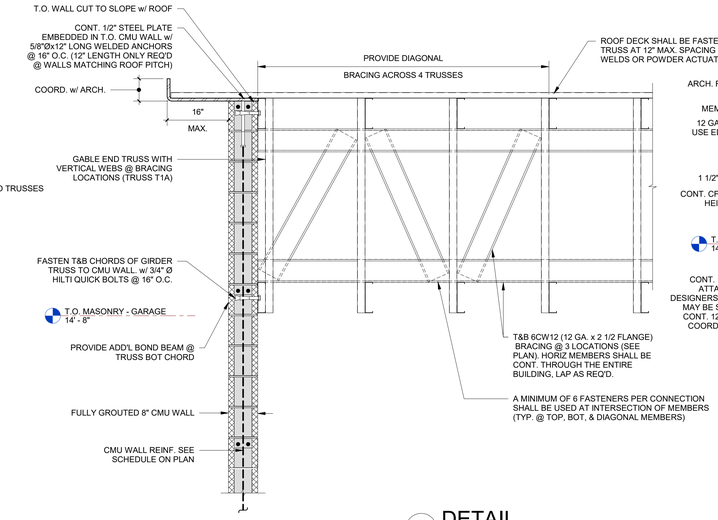
SHEET TITLE
TYPICAL WOOD DETAILS

SHEET
S7.1

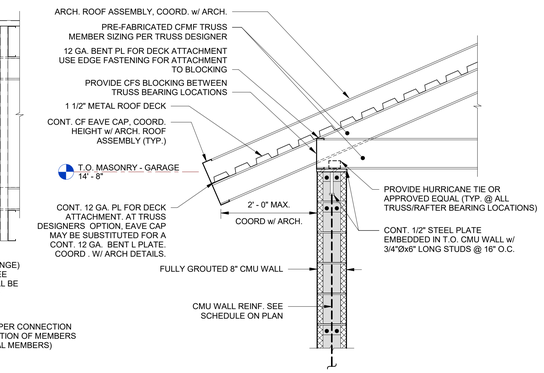


1 DETAIL
SCALE: 3/4" = 1'-0"

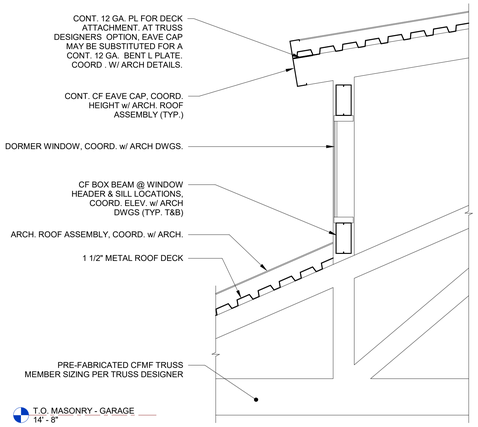
DESIGN ALTERNATIVE: AT TRUSS DESIGNERS OPTION, A COLD FORM LEDGER MAY BE USED TO SUPPORT LOW DECK IN LIEU OF SISTERED T1 & T2. SUBMIT DETAILS FOR APPROVAL.



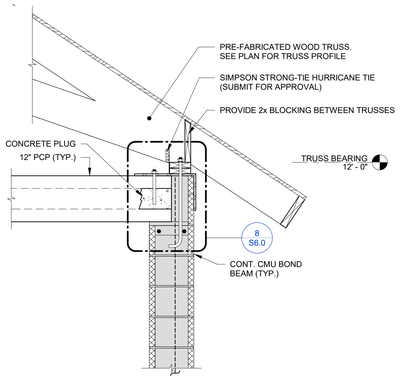
2 DETAIL
SCALE: 3/4" = 1'-0"



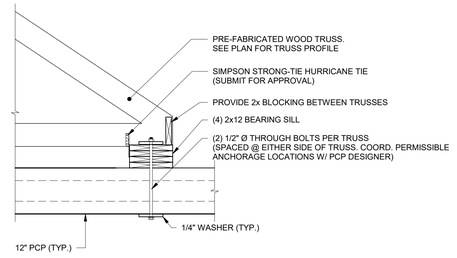
3 DETAIL
SCALE: 3/4" = 1'-0"



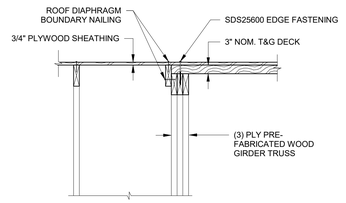
4 DETAIL
SCALE: 3/4" = 1'-0"



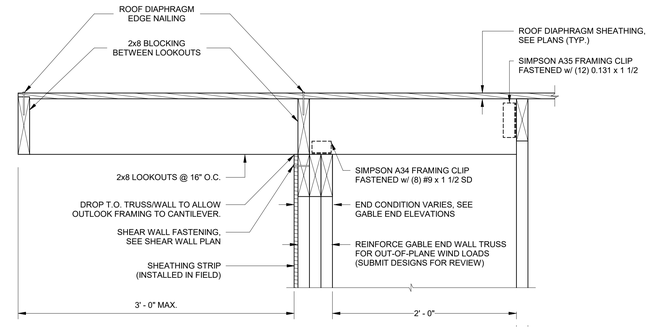
5 DETAIL
SCALE: 3/4" = 1'-0"



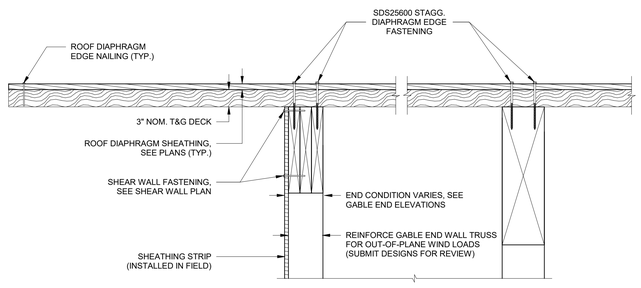
6 DETAIL
SCALE: 3/4" = 1'-0"



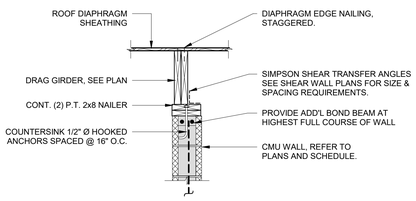
7 DETAIL
SCALE: 3/4" = 1'-0"



8 TYPICAL GABLE END OUTLOOK FRAMING
NO SCALE



9 TYPICAL GABLE END OUTLOOK FRAMING
NO SCALE



10 DETAIL
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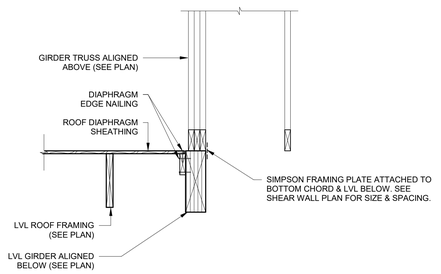
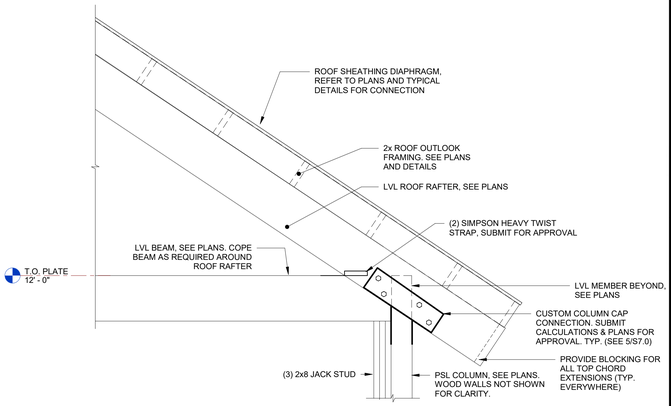
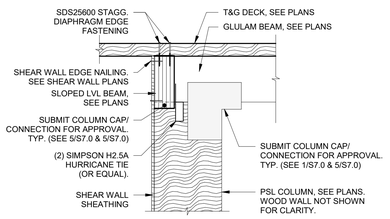


11 DETAIL
N.T.S.



13 DETAIL
SCALE: 3/4" = 1'-0"



12 DETAIL
SCALE: 3/4" = 1'-0"

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M.D. ODEH
No. 3082
REGISTERED PROFESSIONAL ENGINEER

JOB NO. 2201 | DATE 7/08/2024
ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
STRUCTURAL DETAILS

SHEET
S8.0

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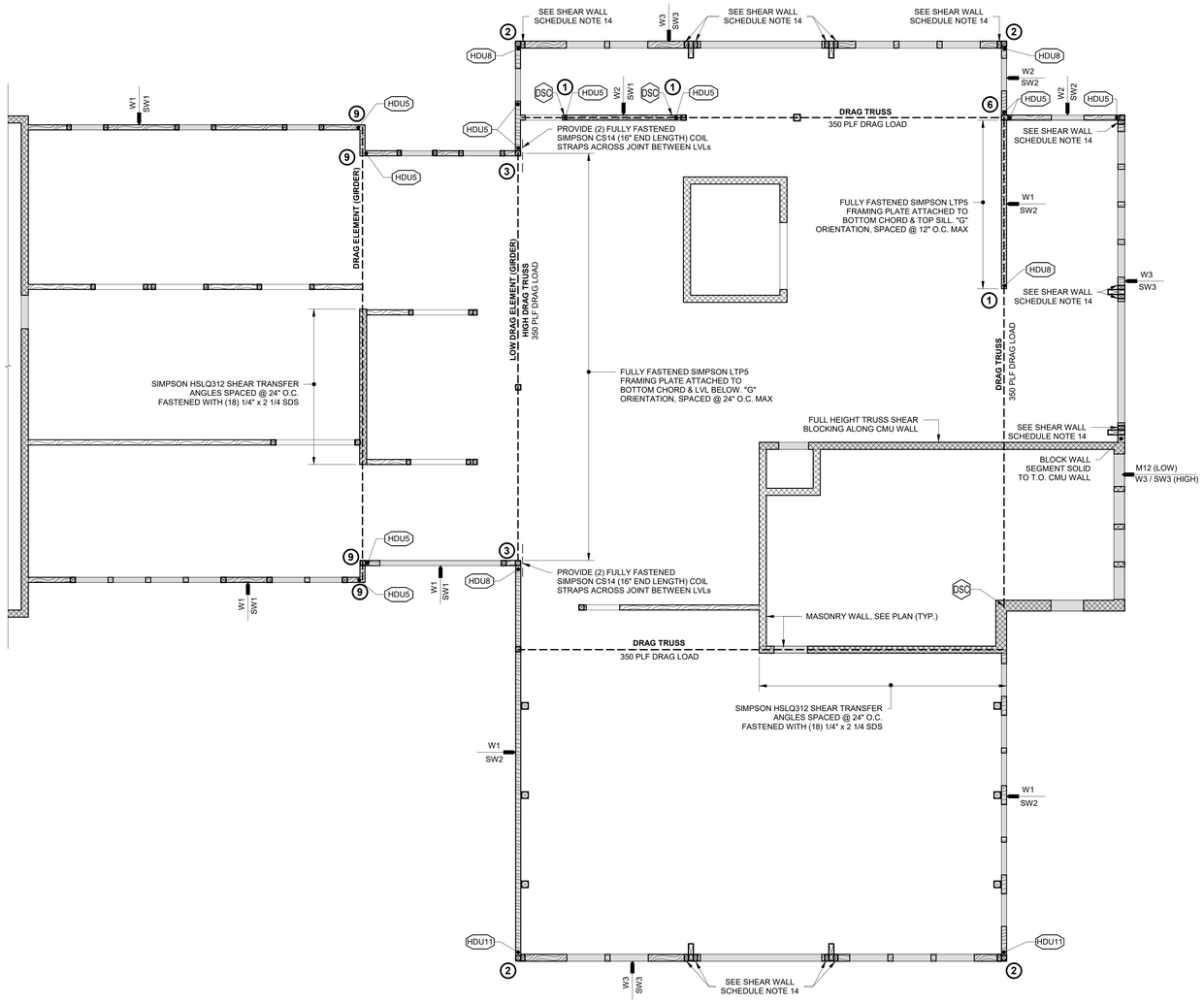


1 MAIN BUILDING SHEAR WALL PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. COORD. ALL DIMENSIONS, ELEVATIONS, FINISH DETAILS, LOCATION OF ALL NON - LOAD BEARING PARTITIONS, AND ALL DOOR AND WINDOW SIZES AND LOCATIONS WITH ARCH. DWGS.
2. - - - - - INDICATES DRAG ELEMENT
3. -INDICATES LOAD BEARING WALL (TYP., U.N.O.)
   -INDICATES WOOD SHEAR WALL (TYP., U.N.O.)
4. W# / SW# - TOP INDICATES WALL TYPE, BOTTOM INDICATES SHEAR WALL TYPE. ARROW POINTS TO SHEATHED FACE
5. DSC - INDICATES SIMPSON STRONG-TIE DRAG STRUT CONNECTOR SEE 4/S7.1 FOR MORE INFORMATION
6. HDU# - INDICATES SIMPSON STRONG-TIE "HDU#-SDS2.5" HOLDOWNS AT THE ENDS OF ALL INTERIOR & EXTERIOR SHEAR WALLS. SEE HARDWARE REQUIREMENTS FOR SIMPSON HDU HOLD-DOWNS ON THIS SHEET FOR ADDITIONAL INFORMATION REGARDING THE SIZE OF THE ANCHOR ROD
7. ALL EXTERIOR WALLS SHALL BE TYPE SW2 U.N.O.
8. WHERE DRAG TRUSSES ARE INDICATED, DESIGN MEMBER FOR A MINIMUM AXIAL LOAD INDICATED ON WOOD SHEAR WALL PLAN. PROVIDE ROOF DIAPHRAGM EDGE NAILING ALONG DRAG TRUSS TOP CHORD.
9. 1 -INDICATES HOLD DOWN CONFIGURATION, SEE SHEAR WALL CORNER PLAN DETAILS ON THIS SHEET.

WALL SCHEDULE

MARK	DESCRIPTION	REINFORCEMENT / STUD CONFIGURATION
M8A	8" CMU EXTERIOR GARAGE BEARING WALL	#5 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8B	8" CMU GARAGE BEARING WALL. T.O. WALL TO MATCH ROOF PITCH	#6 BARS @ 16" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ. (GROUT SOLID) SEE S4.0 FOR ADD'L REINF. REQUIREMENTS
M8C	8" CMU BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
M8D	8" CMU NON-BEARING WALL	#5 BARS @ 48" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ.
M12	12" CMU EXTERIOR BEARING WALL	#5 BARS @ 24" O.C. VERT., (2) - #5 BARS @ 4' - 0" O.C. HORIZ (GROUT SOLID)
W1	2x6 WOOD STUD WALL	(1) 2x6 @ 16" O.C. SPF
W2	2x6 WOOD STUD WALL	(1) 2x6 @ 12" O.C. SPF
W3	2x8 WOOD STUD WALL	(1) 2x8 @ 16" O.C. SPF

	A	B	C	D
TYPE	SHEATHING [4,5,6] (OSB)	EDGE NAILING [6,7,8,10]	FASTENING FOR FIELD-INSTALLED VERY TOP PLATES, BOTTOM PLATES AND ADJOINING SHEAR WALL PANELS [8,9,10,11,12,13]	BOUNDARY STUDS (MINIMUM) [14,15,16,17]
SW1	(1) SIDE 15/32" SWS	10d @ 6" O.C.	SHEAR WALL PANELS: 16d @ 4" O.C. NET SILL PLATES: ANCHOR BOLTS	(3) 2x6
SW2	(1) SIDE 15/32" SWS	10d @ 3" O.C.	SHEAR WALL PANELS: 16d @ 4" O.C. NET SILL PLATES: ANCHOR BOLTS	(3) 2x6
SW3	(1) SIDE 15/32" SWS	10d @ 3" O.C.	SHEAR WALL PANELS: 16d @ 4" O.C. NET SILL PLATES: ANCHOR BOLTS	(3) 2x8

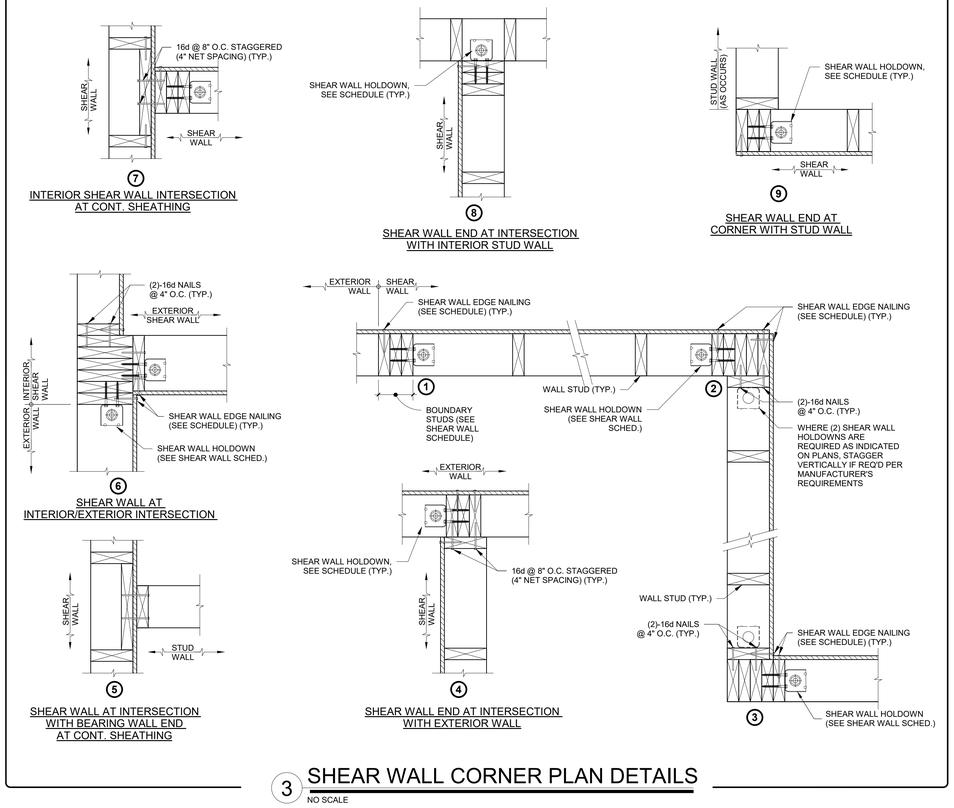
E	HARDWARE REQUIREMENTS FOR SIMPSON HDU HOLD-DOWNS		
HOLD DOWN TYPE	THREADED ROD SIZE	POST FASTENERS	UPLIFT [2] CAPACITY
HDU5	FOUNDATION WALL - 5/8"ø THREADED ROD (30" EMBED)	(14) 1/4"x2-1/2" SDS	4,340 LBS
	THICKENED SLAB - 5/8"ø PAB ANCHOR BOLT (9" EMBED)		
HDU8	FOUNDATION WALL - 7/8"ø THREADED ROD (30" EMBED)	(20) 1/4"x2-1/2" SDS	6,580 LBS
	THICKENED SLAB - 7/8"ø PAB ANCHOR BOLT (9" EMBED)		
HDU11	FOUNDATION WALL - 1"ø THREADED ROD (30" EMBED)	(30) 1/4"x2-1/2" SDS	TO SPF: 9,610 LBS
	THICKENED SLAB - 1"ø PAB ANCHOR BOLT (9" EMBED)		TO PSL: 11,175 LBS

NOTES:
1. SIMPSON STRONG-TIE IS BASIS OF DESIGN. REFER TO SIMPSON STRONG-TIE PRODUCT INFORMATION FOR ADDITIONAL INSTALLATION AND HARDWARE NOTES AND REQUIREMENTS. SUBMIT SUBSTITUTION REQUESTS PRIOR TO BID.
2. PER SIMPSON STRONG-TIE DATA. ALL LOADS ARE ALLOWABLE LOADS.

NOTES:
1. SEE TYPICAL SHEAR WALL DETAILS AND GENERAL NOTES FOR FURTHER INFORMATION.
2. SEE PLANS AND WOOD WALL SCHEDULE FOR WALL STUD REQUIREMENTS. COORDINATE WOOD SPECIES REQUIREMENTS FOR STANDARD WALL STUDS, TOP PLATES, AND BOTTOM PLATE WITH WOOD WALL SCHEDULE AND GENERAL NOTES.
3. SHEAR WALL LABELS ON OVERALL WOOD SHEAR WALL PLANS REFER TO THE START OF THE SHEAR WALL TYPE.
4. WALL SHEATHING TO BE MINIMUM 48" WIDE STRUCTURAL PANELS. SHEATHING PANELS MAY BE ORIENTED HORIZONTALLY OR VERTICALLY. ALL OSB SHEATHING PANELS SHALL BE WEATHER PROTECTED FROM MOISTURE UNLESS NOT SPECIFICALLY REQUIRED BY MANUFACTURER.
5. WHERE TWO LAYERS OF SHEATHING ARE REQUIRED, SHEATHING ON INTERIOR SIDE OF WALL (OR UNIT SIDE AT DEMISING WALLS) SHOULD BE FIELD APPLIED AFTER MECHANICAL SYSTEMS AND INSULATION ARE INSTALLED. HOLD ANY INTERSECTING WALLS BACK A DISTANCE TO ENSURE CONTINUOUS INSTALLMENT OF SHEATHING TO SHEAR WALL. ONCE SHEATHING ON INTERIOR SIDE IS INSTALLED FASTEN INTERSECTING WALL TO SHEAR WALL PER TYPICAL DETAIL.
6. WHERE SHEATHING IS SHOP-INSTALLED CONTINUOUS AND FIELD-CUT AT OPENINGS, ENSURE SHEAR WALL EDGE NAILING IS PROVIDED ON ALL SIDES OF OPENING.
7. BLOCK AND EDGE NAIL ALL SHEATHING PANEL EDGES. NAIL SIZE FOR FIELD NAILING SHALL MATCH NAIL SIZE SPECIFIED FOR EDGE NAILING. ALL FIELD NAILING SHALL BE @ 12" O.C. TYPICALLY. FIELD NAILING SHALL BE @ 6" O.C. FOR SHEAR WALLS USING 7/16" SHEATHING WITH STUDS @ 24" O.C.
8. NAILS INDICATED ON THESE DRAWINGS SHALL BE COMMON WIRE NAILS WITH THE FOLLOWING DIMENSIONS:
   - 8d = 0.131" ø x 2 1/2" LONG
   - 10d = 0.148" ø x 3" LONG
   - 16d = 0.162" ø x 3 1/2" LONG
9. SDWS TIMBER - INDICATES SIMPSON STRONG DRIVE SDWS TIMBER SCREWS. PROVIDE MINIMUM END DISTANCES AND EDGE DISTANCES PER SIMPSON STRONG DRIVE SDWS TIMBER SCREW REQUIREMENTS.
10. AT LOCATIONS WHERE 10d NAILS ARE SPACED AT 3" O.C. OR LESS, PROVIDE DOUBLE 2x WALL STUDS AT ALL PANEL EDGES TO ACCOMMODATE STAGGERED NAILING.
11. FIELD-INSTALLED VERY TOP PLATES AND BOTTOM PLATES SHALL BE FASTENED WITH THE NAILS OR SCREWS INDICATED IN THE SHEAR WALL SCHEDULE SET IN (2) ROWS SPACED AT 8" O.C. STAGGERED TO PROVIDE A 4" NET SPACING U.N.O. IN DETAILS.
12. ALL ADJOINING WALL PANELS WITHIN THE SHEAR WALL EXTENTS SHALL BE FASTENED TOGETHER WITH THE NAILS OR SCREWS INDICATED IN THE SHEAR WALL SCHEDULE SET IN (2) ROWS SPACED AT 8" O.C. STAGGERED TO PROVIDE A 4" NET SPACING U.N.O. IN DETAILS.
13. ANCHOR BOLTS SHALL BE GALVANIZED 1/2"ø SIMPSON TITEN HD ANCHORS @ 24" O.C. MAX, WITH A 2 3/4" EMBEDMENT INTO FOUNDATION AT ALL SHEAR WALLS. PROVIDE ADDITIONAL ANCHORS WITHIN 12" OF ALL WALL ENDS AND SILL PLATE INTERRUPTIONS (DOORS, COLUMNS, ETC.) PROVIDE A MINIMUM OF (2) ANCHORS PER WALL SEGMENT. ALL ANCHORS SHALL BE CENTERED ON THE WOOD SILL PLATE. ALL ANCHORS IN 2x6 WALLS SHALL HAVE 1/4"x3"x4-1/2" PLATE WASHERS WITH SLOTTED HOLES FOR PLACEMENT. STANDARD CUT WASHERS SHALL BE PROVIDED BETWEEN ALL ANCHORS AND PLATE WASHERS. ALL ANCHORS IN 2x8 WALLS SHALL HAVE 1/4"x4"x6-1/2" PLATE WASHERS WITH SLOTTED HOLES FOR PLACEMENT. STANDARD CUT WASHERS SHALL BE PROVIDED BETWEEN ALL ANCHORS AND PLATE WASHERS. ALL PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING.
14. FASTEN ALL BUILT-UP STUDS (BOUNDARY STUDS) TOGETHER AS REQUIRED BY NDS FOR MEMBERS TO ACT AS ONE. JACK STUDS ABUTTING COLUMNS ACTING AS BOUNDARY STUDS SHALL BE FULLY FASTENED TO COLUMN SIMILARLY.
15. ADDNL STUDS MAY BE REQUIRED TO MAINTAIN ALIGNMENT OF BOUNDARY STUDS THROUGH BUILDING HEIGHT (i.e. AT OPENINGS). BOUNDARY STUDS SHALL CONTINUE FROM TOP OF WALL OR LEVEL ABOVE HIGHEST OPENING TO THE BASE OF THE WALL.
16. WHERE BOUNDARY STUD LOCATIONS CONFLICT WITH WOOD COLUMN SIZES SHOWN ON THE FRAMING PLANS AND DETAILS, THE LARGER MEMBER SIZE AND STRONGER LUMBER TYPE SHALL GOVERN. IF IT IS UNCLEAR WHICH MEMBER TYPE TO USE THEN THE CONTRACTOR SHALL BASE PRICING ON THE MORE EXPENSIVE OPTION AND SHALL CONTACT STRUCTURAL ENGINEER OR CLOUD DISCREPANCY IN SHOP DRAWINGS FOR CLARIFICATION ON WHICH MEMBER TYPE TO USE.
17. CONTRACTOR'S OPTION: THE SPECIFIED HOLD-DOWNS, AND/OR CONTINUOUS ROD TIE-DOWN SYSTEMS MAY BE SUBSTITUTED WITH AN EQUIVALENT APPROVED SYSTEM OF HOLD-DOWNS, TIES, AND STRAPS ENGINEERED FOR THE TENSILE CAPACITY INDICATED FOR EACH TIE-DOWN TYPE (ALL LOADS ARE ALLOWABLE LOADS).
18. WHERE TIE-DOWN LOCATIONS CONFLICT WITH TIE-DOWNS SPECIFIED ELSEWHERE IN THE STRUCTURAL DRAWINGS (E.G. WIND UPLIFT PLANS AND SCHEDULE, FRAMING PLANS, DETAILS, ETC.), THE TIE-DOWN WITH THE GREATER TENSILE CAPACITY SHALL GOVERN. IF IT IS UNCLEAR WHICH TYPE TO USE THEN THE CONTRACTOR SHALL BASE PRICING ON THE MORE EXPENSIVE OPTION AND SHALL CONTACT STRUCTURAL ENGINEER OR CLOUD DISCREPANCY IN SHOP DRAWINGS FOR CLARIFICATION ON WHICH MEMBER TYPE TO USE.
19. TRUSS SHEAR BLOCKS SHALL BE DESIGNED TO RESIST THE AXIAL (IN-PLANE HORIZONTAL) LOADS INDICATED IN THE SHEAR WALL SCHEDULE. ALL LOADS SHALL BE APPLIED TO THE TOP CHORDS THROUGH THE DIAPHRAGMS AND SHALL BE TRANSFERRED TO THE SUPPORTING SHEAR WALLS BELOW. (ALL LOADS ARE ALLOWABLE LOADS)
20. HOLD DOWNS LOCATED ADJACENT TO PSL CORNER COLUMNS SHALL BE FASTENED THROUGH (1) 2x STUD INTO THE CORNER COLUMN.

2 WOOD SHEAR WALL SCHEDULES

NO SCALE



3 SHEAR WALL CORNER PLAN DETAILS

NO SCALE

WSP USA Buildings Inc.
1223 Mineral Spring Avenue
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(401) 724-1771
www.wsp.com/usa

NEW OPERATIONS FACILITY
COLT STATE PARK
ROUTE 114, BRISTOL, RI 02809

BREWSTER THORNTON GROUP ARCHITECTS LLP
317 Iron Horse Way, Suite 202
Providence, RI 02908
401.861.1600
brewsterthornton.com

M.D. ODEH No. 3082 REGISTERED PROFESSIONAL ENGINEER

JOB NO.	DATE
2201	7/08/2024

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
WOOD SHEAR WALL PLAN

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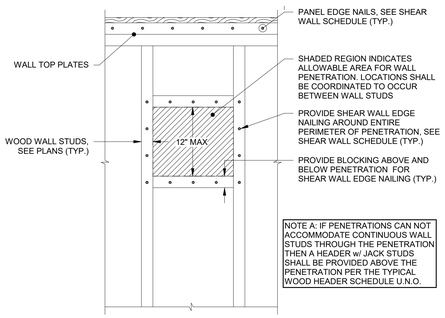
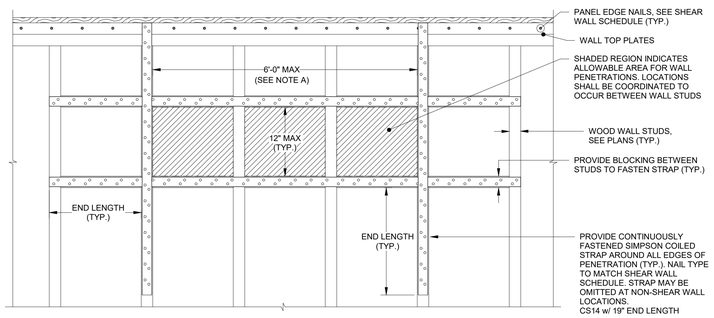


PENETRATION TYPE-A
FOR SINGLE PENETRATION BETWEEN WALL STUDS
(ELEVATION VIEW)

NOTES:
- TYPE-A APPLIES FOR SINGLE PENETRATION LENGTHS ≤ 10.5" IN WOOD WALLS w/ STUDS @ 12" O.C. AND FOR SINGLE PENETRATION LENGTHS ≤ 14.5" IN WOOD WALLS w/ STUDS @ 16" O.C.
- ADDN'L PENETRATIONS MUST BE LOCATED MORE THAN 24" AWAY HORIZONTALLY FROM THIS PENETRATION

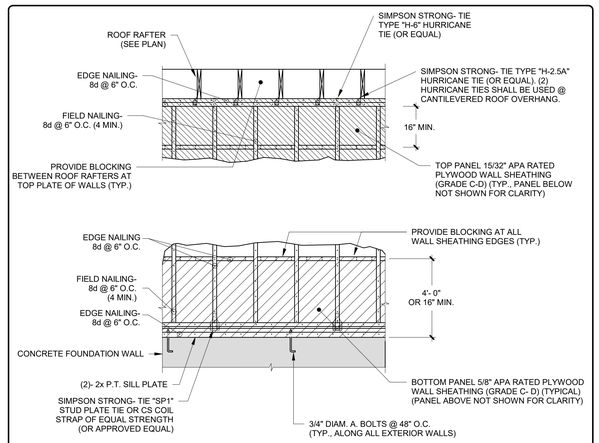


PENETRATION TYPE-B
FOR MULTIPLE PENETRATIONS LOCATED ≤ 12" APART
(ELEVATION VIEW)

1 TYPICAL REINFORCEMENT AT PENETRATIONS IN WOOD SHEAR WALLS

NO SCALE

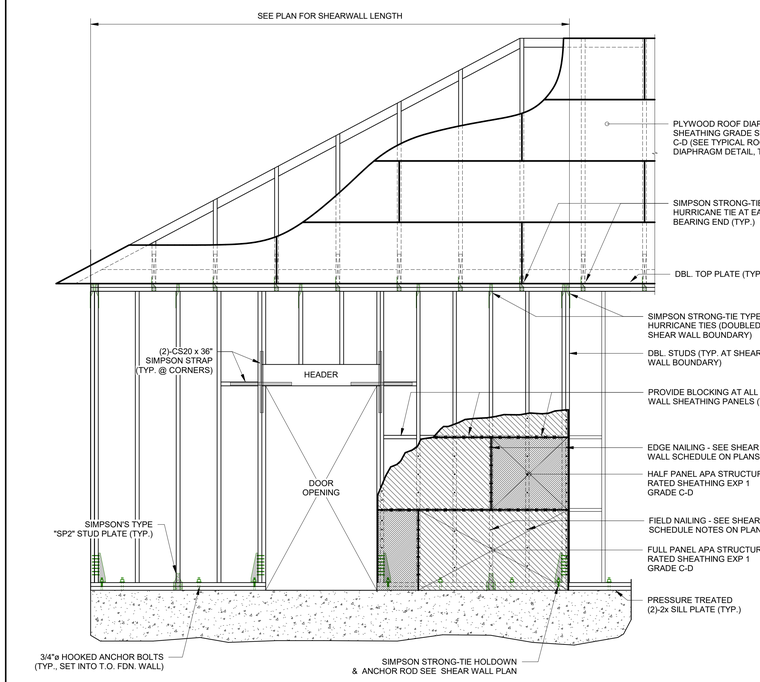
NOTES:
1. WALL SHEATHING NOT SHOWN FOR CLARITY.
2. FLOOR FRAMING SPAN DIRECTION AND BEARING CONDITIONS VARY, SEE PLANS AND DETAILS. OPENING SHALL NOT PENETRATE THROUGH WALL STUDS, FRAMING MEMBERS BEARING ON THE WALL, OR WALL TOP PLATE AND BOTTOM PLATES.
3. ALL PENETRATIONS SHALL BE LOCATED A MINIMUM OF 12" AWAY FROM EACH OTHER HORIZONTALLY. ANY PENETRATIONS LOCATED LESS THAN 12" SHALL BE CONSIDERED AS (1) PENETRATION WITH A LENGTH EQUAL TO THE FARTHEST EXTENTS BETWEEN THE OPENINGS AND THE REQUIREMENTS SHOWN IN TYPE-B SHALL APPLY.
4. PENETRATIONS SHALL NOT BE STACKED VERTICALLY OVER EACH OTHER WITHIN A LEVEL. MAX VERTICAL WIDTH OF PENETRATIONS IS 12".
5. DETAILS ARE SIMILAR WHERE PENETRATIONS ARE WITHIN A FLOOR CAVITY. LOCATIONS SHALL BE COORDINATED TO OCCUR BETWEEN FRAMING MEMBERS BEARING ON THE WALL. SIMILAR TO AS SHOWN IN THESE DETAILS, VERTICAL SHEAR WALL EDGE NAILING AND NAILING OF THE STRAP SHALL BE PROVIDED INTO THE FRAMING MEMBERS ON THE SIDES OF THE OPENINGS AND BLOCKING SHALL BE PROVIDED ABOVE AND BELOW OPENINGS FOR HORIZONTAL SHEAR WALL EDGE NAILING AND NAILING OF THE STRAP.



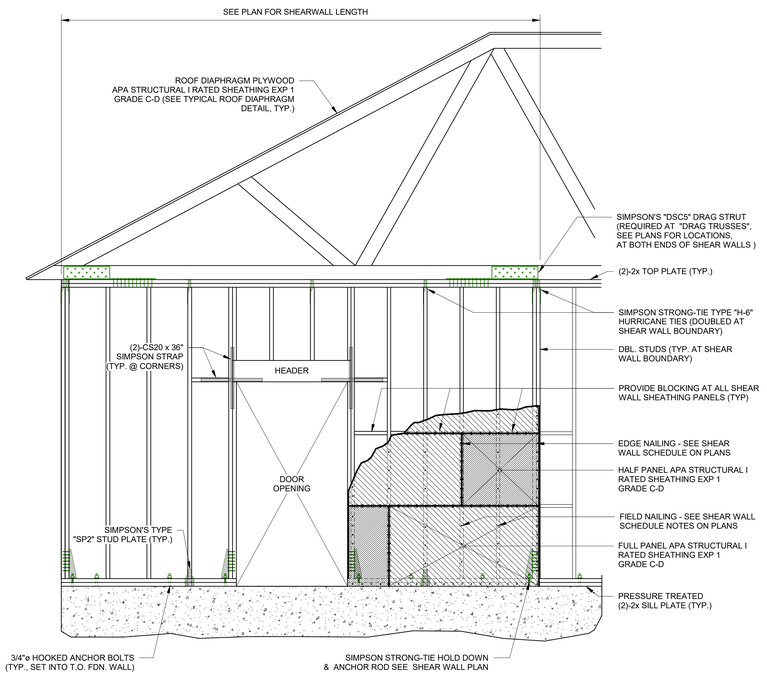
2 TYPICAL EXTERIOR WALL ELEVATION DETAIL

NO SCALE

NOTES:
1. MINIMUM FASTENING REQUIREMENTS: 8d @ 6" O.C. EDGE NAILING
   8d @ 6" O.C. FIELDING NAILING
   SEE ABOVE DETAIL FOR ADDITIONAL FASTENING AND SHEATHING REQUIREMENTS.
2. PROVIDE BLOCKING @ ALL SHEATHING EDGE LOCATIONS.
3. SEE EXTERIOR WALL OPENING DETAIL ABOVE FOR ADDITIONAL WALL COMPONENTS.
4. WALL SHEATHING IS 15/32" APA RATED PLYWOOD (GRADE C-D) ON THE EXTERIOR FACE OF WALL.
5. THIS DETAIL SHOWS MINIMUM FASTENING REQUIREMENTS. SEE SHEAR WALL PLAN FOR ALL FASTENING REQUIREMENTS SPECIFIC TO EACH WALL.



SHEAR WALL ELEVATION AT FRAMING PERPENDICULAR TO WALL

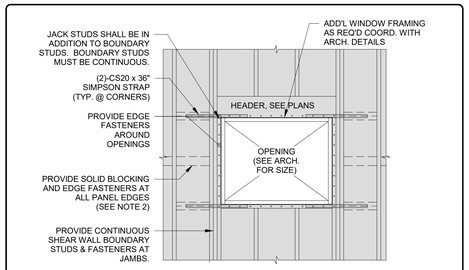


SHEAR WALL ELEVATION AT FRAMING PARALLEL TO WALL

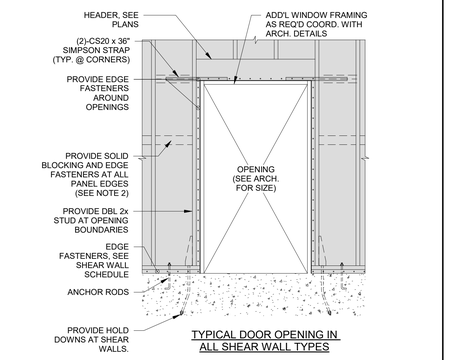
NOTES:
1. SEE SHEAR WALL SCHEDULE & NOTES ON PLANS (TYP.)
2. COORDINATE ALL WINDOW/DOOR OPENING LOCATIONS WITH ARCHITECTURAL DRAWINGS (TYP.).

3 TYPICAL SHEAR WALL ELEVATION DETAILS

NO SCALE



TYPICAL WINDOW OPENING IN SHEAR WALL



TYPICAL DOOR OPENING IN ALL SHEAR WALL TYPES

4 TYPICAL OPENING IN SHEAR WALL DETAILS

NO SCALE

NOTES:
1. COORD. SIZE AND POSITION OF OPENINGS w/ARCH.
2. PROVIDE ADDITIONAL BLOCKING AT WALL MID-HEIGHT IF SHEATHING IS APPLIED VERTICALLY OR IF STUD UNBRACED LENGTH EQUALS OR EXCEEDS 5'-0".

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317 Iron Horse Way, Suite 202
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M.D. ODEH
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SHEET TITLE
SHEAR WALL AND UPLIFT DETAILS

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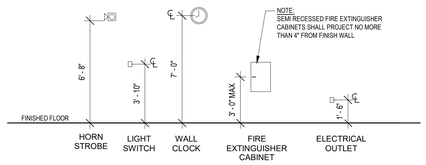
TYPICAL MOUNTING HEIGHTS



GENERAL NOTES

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS IN EFFECT AT THE PROJECT SITE.
2. DO NOT SCALE DRAWINGS. FIELD VERIFY ALL DIMENSIONS.
3. THE CONTRACTOR SHALL REPORT ANY AND ALL DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING.
4. ALL DIMENSIONS OF NEW WORK ARE TO THE FACE OF CONCRETE AND MASONRY, AND THE CENTER OF WOOD STUDS AND FRAME OPENINGS U.N.O.
5. DIMENSIONS NOTED TO EXISTING PLANES SHALL REFER TO THE FINISHED SURFACE OF THE WALL, FLOOR, OR CEILING PLANE, UNLESS NOTED OTHERWISE.
6. ALL ITEMS OF WORK ARE TO BE NEW UNLESS NOTED AS EXISTING.
7. CONTRACTOR SHALL VERIFY ALL DOOR AND WINDOW DIMENSIONS IN FIELD BEFORE PURCHASE.
8. ALL DRAWINGS ARE COMPLIMENTARY AND MUST BE USED AS A SET FOR COMPLETE CONSTRUCTION INFORMATION.
9. IT SHALL BE THE DUTY OF THE CONTRACTOR TO REQUEST FROM THE ARCHITECT ALL NECESSARY INTERPRETATION OF THE CONTRACT DOCUMENTS.
10. DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT SHOW ALL DEMOLITION WORK REQUIRED TO COMPLETE THE CONTRACT WORK.
11. DIMENSIONS AND ELEVATIONS INDICATED ON THE DRAWINGS IN REFERENCE TO EXISTING STRUCTURES ARE THE BEST AVAILABLE DATA OBTAINABLE BUT ARE NOT GUARANTEED BY THE OWNER AND THE OWNER WILL NOT BE RESPONSIBLE FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD CHECK AND VERIFY ALL DIMENSIONS, GRADES, LINES, LEVELS, OR OTHER CONDITIONS OF LIMITATIONS AT THE SITE TO AVOID CONSTRUCTION ERRORS. IF ANY WORK IS PERFORMED BY THE CONTRACTOR OR ANY OF HIS SUB-CONTRACTORS PRIOR TO ADEQUATE VERIFICATION OF APPLICABLE DATA, ANY RESULTANT EXTRA COST FOR ADJUSTMENT OF WORK AS REQUIRED TO CONFORM TO EXISTING LIMITATIONS SHALL BE ASSUMED BY THE CONTRACTOR WITHOUT REIMBURSEMENT OF COMPENSATION BY THE OWNER.
12. OMISSION FROM THE DRAWINGS AND SPECIFICATIONS OF ITEMS WHICH OBVIOUSLY ARE NEEDED TO PROPERLY PERFORM THE WORK, SUCH AS ATTACHMENTS, BOLTS, HANGERS, ETC., SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THEM. IT IS INTENDED THAT ALL DIMENSIONS AND FIGURES ON THE DRAWINGS SHALL AGREE. THE CONTRACTOR SHALL CONFIRM THEM BEFORE STARTING THE WORK AND SHALL REPORT IN WRITING ALL DISCREPANCIES TO THE ARCHITECT FOR ADJUSTMENT.
13. PRIOR TO BEGINNING ANY MECHANICAL, ELECTRICAL, PLUMBING, OR FIRE PROTECTION WORK THE CONTRACTOR WILL PROVIDE COMPLETE CAD BASED COORDINATION DRAWINGS THAT CONFIRM ALL DESIRED CEILING HEIGHTS. ANY CONFLICTS THAT WILL AFFECT THE DESIGN INTENT OR DESIGNED CEILING HEIGHTS WILL BE REPORTED TO THE ARCHITECT PROMPTLY IN ADVANCE OF ENGAGING IN THE WORK.
14. AFTER THE CONTRACT HAS BEEN AWARDED, THE CONTRACTOR WILL SUBMIT A FULL BAR CHART TYPE SCHEDULE THAT WILL INDICATE ALL MAJOR AND MINOR MILESTONES FOR THE WORK. THE CONTRACTOR WILL ALSO SUBMIT A FULL SUBMITTAL AND SHOP DRAWING SCHEDULE FOR ALL COMPONENTS
15. ALL SUBMITTALS AND SHOP DRAWINGS WILL NEED TO BE STAMPED AS HAVING BEEN REVIEWED AND APPROVED BY THE CONTRACTOR FOR CONFORMANCE WITH THE PROJECT PRIOR TO SUBMITTING TO THE ARCHITECT. ANY SUBMITTAL WITHOUT THIS STAMP WILL BE PROMPTLY REJECTED AND RETURNED.
16. CHECKING OF THE SUBMITTALS AND SHOP DRAWINGS BY THE ARCHITECT IS ONLY FOR LIMITED GENERAL CONFORMANCE WITH THE INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR QUANTITIES AND DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOBSITE; CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND JOBSITE SAFETY; AND COORDINATION OF THEIR WORK WITH THAT OF THE OTHER TRADES.
17. CAREFULLY REVIEW THE SPECIFICATIONS FOR REQUIREMENTS RELATED TO FIELD APPROVED "MOCKUPS". ANY WORK BEGUN WITHOUT THE AUTHORIZATION OF AN APPROVED MOCKUP BY THE OWNER AND THE ARCHITECT IS AT THE CONTRACTOR'S RISK. UNSATISFACTORY WORK IS SUBJECT TO POSSIBLE REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
18. IF DISCREPANCIES OCCUR BETWEEN THE DRAWINGS AND SPECIFICATIONS, CONSULT ARCHITECT FOR CLARIFICATION OF DESIRED METHOD. DURING THE BIDDING PHASE IF DISCREPANCIES ARE FOUND IN THE CONTRACT DOCUMENTS, CARRY THE AMOUNT OF WORK WHICH WOULD COME AT A GREATER COST.
19. CERTIFY AS PART OF EACH APPLICATION FOR PAYMENT THAT THE PROJECT RECORD DOCUMENTS "AS-BUILTS" ARE CURRENT AT THE TIME OF THE APPLICATION SUBMITTED. SUCH DRAWINGS ARE REQUIRED TO BE CURRENT AS A CONDITION OF APPROVING ANY PAYMENT TO THE CONTRACTOR OR SUB-CONTRACTOR.

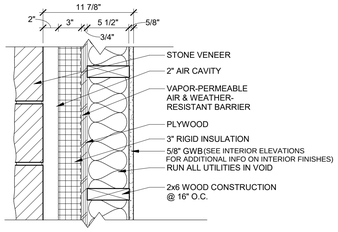
GENERAL LEGEND

- BATT INSULATION
- BRICK
- CONCRETE
- CONCRETE BLOCK
- CULTURED STONE
- DISTURBED EARTH
- UNDISTURBED EARTH
- ENGINEERED WOOD (MDF, HDF, ETC.)
- FLOORING TYPE - SEE FINISH PLANS
- FRP
- GLASS, VERTICAL SURFACE
- GYPSUM WALLBOARD
- MARBLE/ GRANITE
- MILLWORK
- PLASTIC/PVC
- PLYWOOD
- RIGID INSULATION
- RUBBLE
- FIBERGLASS REINFORCED PLASTIC (FRP)
- STEEL/METAL
- V-GROOVE
- WALK-OFF MAT
- WOOD SHINGLES
- WOOD

DISCLAIMER: HATCH PATTERN SCALE ADJUSTS BY DRAWING SCALE. SEE OTHER DESIGN DISCIPLINES FOR ADDITIONAL LEGEND & SCHEDULE INFORMATION.

- EXTERIOR ELEVATION (# / A#)
- INTERIOR ELEVATION (# / A# / #)
- SECTION (# / A#)
- DETAIL (# / A#)
- DETAIL KEY (# / A#)
- DETAIL CALLOUT (# / A#)
- NAME / EL. ELEVATION — BENCHMARK ELEVATION
- SPOT ELEVATION
- NORTH — PROJECT NORTH SYMBOL (DASHED INDICATES TRUE NORTH)
- # — COLUMN GRID LINE / NEW CONSTRUCTION
- ROOM NAME / ## — ROOM NAME AND MARK
- L.O.C. — LIMITS OF CONSTRUCTION
- ### — DOOR MARK
- X — WALL TYPE
- # — WINDOW TYPE
- ## — KEY NOTE
- EXISTING PARTITION / EXISTING CONSTRUCTION
- NEW PARTITION
- # — REVISION
- ## — PHOTO SYMBOL
- X — ACCESSORY/ FURNITURE / SPECIALTY EQUIPMENT MARK
- FLOOR CHANGE LINE
- REVISION CLOUD
- FIRE EXTINGUISHER CABINET (F.E.C.)

EXTERIOR WALL TYPES



TYPICAL WALL TYPE "AA" PLAN

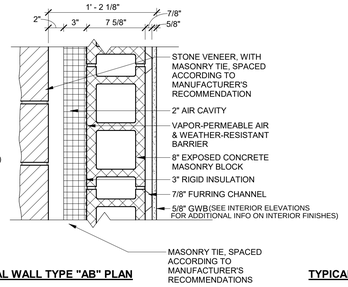
EXTERIOR WALL FINISH - WET LAYED GRANITE STONE VENEER ON PT WOOD BLOCKING

GENERALLY LOCATED ALONG THE BASE OF EXTERIOR PERIMETER OF THE ADMINISTRATIVE BUILDING.

3 5/8" STONE VENEER, SECURED OVER 1" MORTAR NET, 2" AIR CAVITY THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE, 2X6 WOOD STUDS & 5/8" INTERIOR GWB. ALL STONE VENEER FASTENING REQUIREMENTS SHALL BE DESCRIBED WITHIN THE PROJECT MANUAL.

1. STONE VENEER
2. 2" AIR CAVITY
3. 3" RIGID INSULATION
4. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
5. 3/4" PLYWOOD
6. 2x6 WOOD STUDS
7. 5/8" INTERIOR GYPSUM BOARD

EXTERIOR ASSEMBLY R-VALUE:



TYPICAL WALL TYPE "AB" PLAN

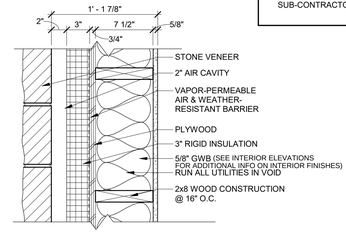
EXTERIOR WALL FINISH - WET LAYED GRANITE STONE VENEER ON PT WOOD BLOCKING

GENERALLY LOCATED ALONG THE BASE OF EXTERIOR PERIMETER OF THE ADMINISTRATIVE BUILDING.

3 5/8" STONE VENEER, SECURED OVER 1" MORTAR NET, 2" AIR CAVITY THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE, 8" CMU BLOCK & 5/8" INTERIOR GWB. ALL STONE VENEER FASTENING REQUIREMENTS SHALL BE DESCRIBED WITHIN THE PROJECT MANUAL.

1. STONE VENEER
2. 2" AIR CAVITY
3. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
4. 8" CONCRETE MASONRY UNIT
5. 7/8 METAL FURRING CHANNEL
6. 5/8" INTERIOR GYPSUM BOARD

EXTERIOR ASSEMBLY R-VALUE:



TYPICAL WALL TYPE "AC" PLAN

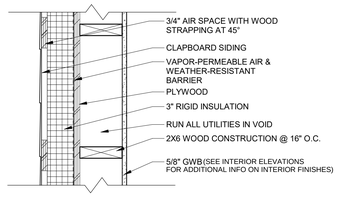
EXTERIOR WALL FINISH - WET LAYED GRANITE STONE VENEER ON PT WOOD BLOCKING

GENERALLY LOCATED ALONG THE BASE OF EXTERIOR PERIMETER OF THE ADMINISTRATIVE BUILDING.

3 5/8" STONE VENEER, SECURED OVER 1" MORTAR NET, 2" AIR CAVITY THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE, 2x8 WOOD STUDS & 5/8" INTERIOR GWB. ALL STONE VENEER FASTENING REQUIREMENTS SHALL BE DESCRIBED WITHIN THE PROJECT MANUAL.

1. STONE VENEER
2. 2" AIR CAVITY
3. 3" RIGID INSULATION
4. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
5. 3/4" PLYWOOD
6. 2x8 WOOD STUDS
7. 5/8" INTERIOR GYPSUM BOARD

EXTERIOR ASSEMBLY R-VALUE:



TYPICAL WALL TYPE "BA" PLAN

EXTERIOR WALL FINISH - CLAPBOARD ON PT WOOD BLOCKING

GENERALLY LOCATED ALONG THE TOP OF EXTERIOR PERIMETER OF THE ADMINISTRATIVE BUILDING.

COMPOSITE CLAPBOARD, AIR / VAPOR BARRIER AND SECURED NAILBASE. THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE 2x6 WOOD STUDS AND 5/8" INTERIOR GWB.

1. COMPOSITE CLAPBOARD
2. 3/4" PLYWOOD STRAPPING AT 45°
3. 3" RIGID INSULATION
4. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
5. 3/4" PLYWOOD
6. 2x6 WOOD STUDS
7. 5/8" INTERIOR GYPSUM BOARD

EXTERIOR ASSEMBLY R-VALUE:

TYPICAL WALL TYPE "BB" PLAN

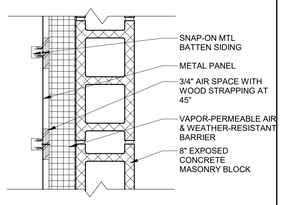
EXTERIOR WALL FINISH - CLAPBOARD ON PT WOOD BLOCKING

GENERALLY LOCATED ALONG THE TOP OF EXTERIOR PERIMETER OF THE ADMINISTRATIVE BUILDING.

COMPOSITE VERT. BEAD BOARD, AIR / VAPOR BARRIER AND SECURED NAILBASE. THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE 2x6 WOOD STUDS AND 5/8" INTERIOR GWB.

1. COMPOSITE VERT. BEAD BOARD
2. 3/4" PLYWOOD STRAPPING AT 45°
3. 3" RIGID INSULATION
4. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
5. 3/4" PLYWOOD
6. 2x6 WOOD STUDS
7. 5/8" INTERIOR GYPSUM BOARD

EXTERIOR ASSEMBLY R-VALUE:



TYPICAL WALL TYPE "CC" PLAN

EXTERIOR WALL FINISH - DECORATIVE METAL PANEL ON NAILBASE (SIP) AND CONCRETE MASONRY BACKER

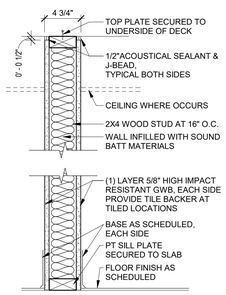
LOCATED AT THE GARAGE AND STORAGE BUILDING.

METAL PANEL. AIR/ VAPOR BARRIER AND SECURED NAILBASE. THE STRUCTURE OF THE EXTERIOR WALL TYPE SHALL BE 8" CONCRETE MASONRY BLOCK.

1. METAL PANEL
2. 3/4" PLYWOOD STRAPPING AT 45°
3. 3" RIGID INSULATION
4. VAPOR-PERMEABLE AIR & WEATHER-RESISTANT BARRIER
5. 8" CONCRETE MASONRY UNIT

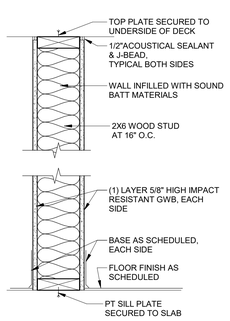
EXTERIOR ASSEMBLY R-VALUE:

INTERIOR WALL TYPES



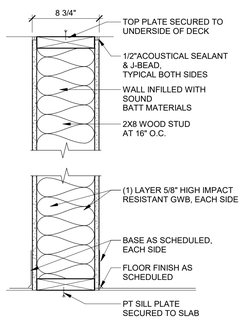
TYPE A

TYPE A1 - 1 HR UL# U423
TYPE A2 - GWB AND FINISHES, ONE SIDE ONLY



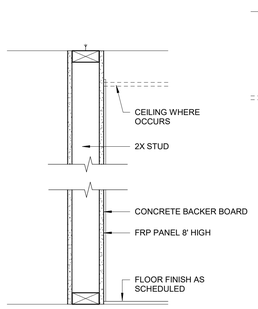
TYPE B

TYPE B1



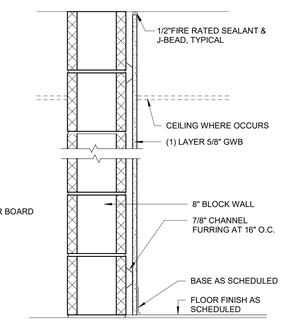
TYPE C

TYPE C1 - 1 HR UL# U423



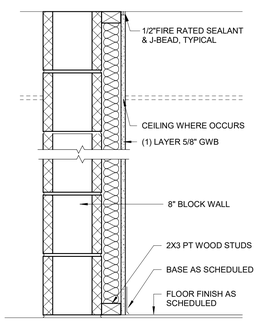
TYPE G

INTERIOR TOILET ROOM WALL
G-1 - GWB & FRP FINISHES ON ONLY ONE SIDE
G-2 - GWB & FRP FINISH ON BOTH SIDES (2x6)
G-2.2 - SAME AS G-2 BUT 2X4
G-3 - 2X8 WOOD STUD W. FRP ONE SIDE & GWB ON BOTH



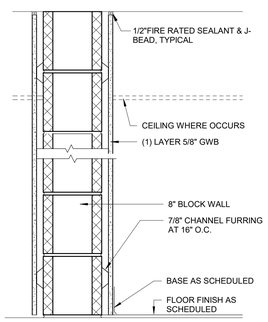
TYPE E

INTERIOR CMU WALL
2 HOUR RATING
UL#905



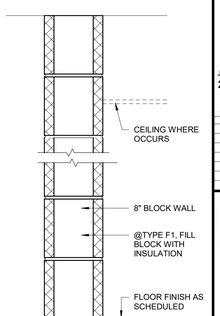
TYPE E2

INTERIOR CMU WALL
2 HOUR RATING
UL#905
E-2.2 (FRP ON ONE SIDE)



TYPE E3

INTERIOR CMU WALL
2 HOUR RATING
UL#905



TYPE F

INTERIOR CMU WALL
TYPE F1 - INSULATED CMU WALL
UL#905

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JOB NO. 2201 | DATE 08/01/2025
ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
GENERAL NOTES & WALL TYPES

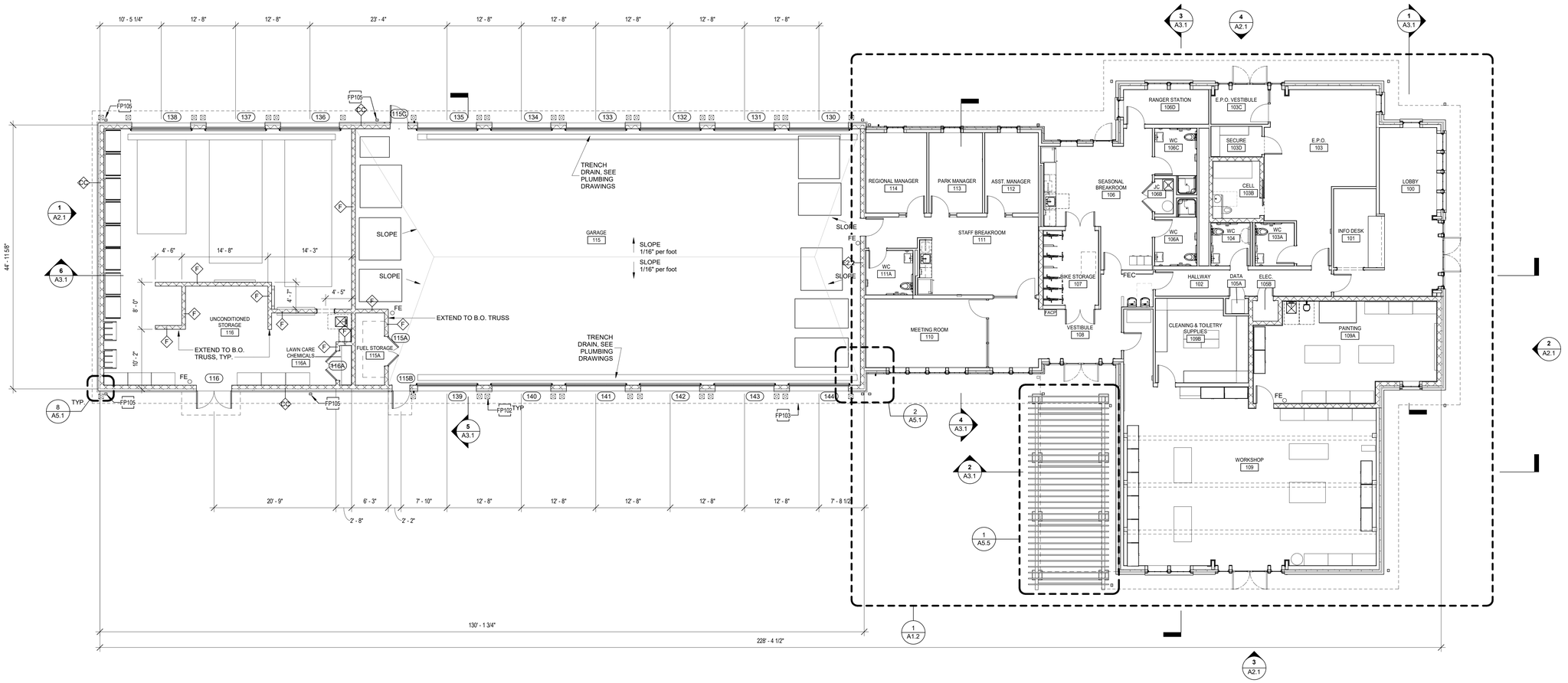
SHEET
A0.1

FLOOR PLAN NOTES

1. SLOPE GARAGE FLOOR 1/8" PER FOOT MINIMUM.

FLOOR PLAN KEYNOTES

KEYNOTE NUMBER	KEYNOTE
FP101	VENTED HOOD
FP102	STEEL PIPE BALLARDS
FP103	EXTENT OF ROOF OVERHANG ABOVE
FP104	DUAL STATION ADA DRINKING FOUNTAIN
FP105	DOWNSPOUT
FP106	WALL MOUNTED BIKE RACKS
FP107	FULL HEIGHT ACCESS PANEL



1 / A1.1 LEVEL 1 PLAN
Scale: 1/8" = 1'-0"

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SHEET TITLE
FLOOR PLAN

SHEET
A1.1

FLOOR PLAN NOTES

1. SLOPE GARAGE FLOOR 1/8" PER FOOT MINIMUM.

FLOOR PLAN KEYNOTES

KEYNOTE NUMBER	KEYNOTE
FP101	VENTED HOOD
FP102	STEEL PIPE BALLARDS
FP103	EXTENT OF ROOF OVERHANG ABOVE
FP104	DUAL STATION ADA DRINKING FOUNTAIN
FP105	DOWNSPOUT
FP106	WALL MOUNTED BIKE RACKS
FP107	FULL HEIGHT ACCESS PANEL

1 / A1.2 LEVEL 1 - ENLARGED PLAN
Scale: 1/4" = 1'-0"

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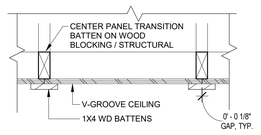
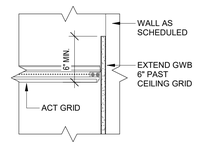
SHEET TITLE
ENLARGED FLOOR PLAN

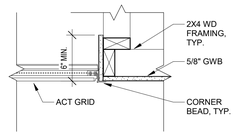
SHEET
A1.2



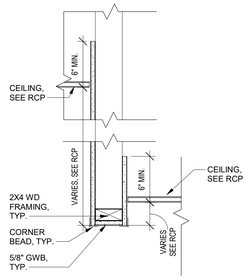
2 A1.3 TYP. V-GROOVE CEILING DETAIL
Scale: 1 1/2" = 1'-0"



3 A1.3 TYP. ACT EDGE DETAIL
Scale: 1 1/2" = 1'-0"



4 A1.3 ACT TO GWB TRANSITION FLUSH DETAIL
Scale: 1 1/2" = 1'-0"



5 A1.3 TYP. ACT SOFFIT TYPICAL DETAIL
Scale: 1 1/2" = 1'-0"

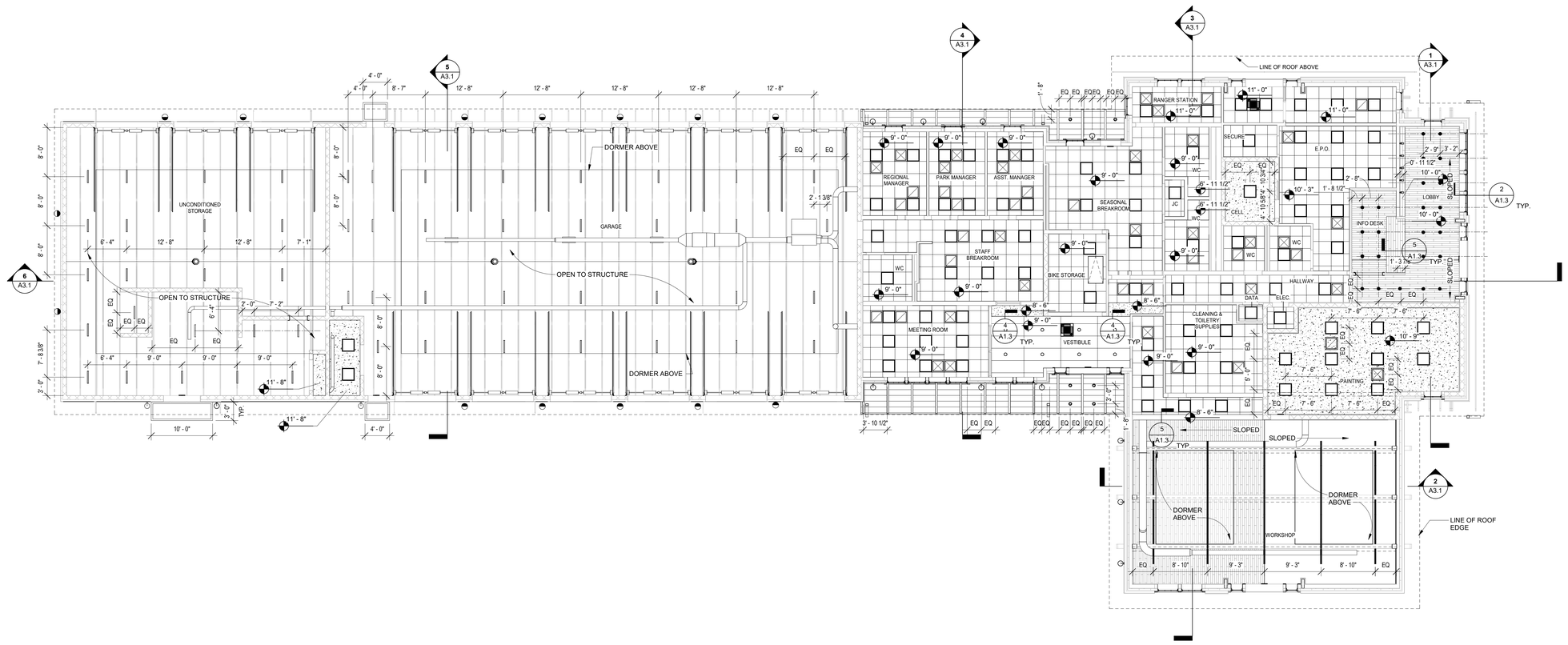
RCP LEGEND

REFER TO MEP PLANS FOR ADDITIONAL INFORMATION

- ABOVE
- 2'X2' ACOUSTIC CEILING TILE AND GRID
- 2'X6' ACOUSTIC CEILING TILE AND GRID
- GWB CEILING
- V-GROOVE CEILING
- CONCRETE PLANK CEILING
- CEILING HVAC SUPPLY DIFFUSER
- CEILING HVAC RETURN GRILLE
- EXIT LIGHT
- HEAT DETECTOR
- MOTION DETECTOR
- SUSPENDED LIGHT AT WORKSHOP
- SUSPENDED LIGHT AT GARAGE
- CEILING HEIGHT
- CEILING-MOUNT STROBE
- C — 2x2 RECESSED FIXTURE
- S — 2x2 SURFACE MOUNTED FIXTURE
- EXTERIOR WALL MOUNTED FIXTURE - 1
- EXTERIOR WALL MOUNTED FIXTURE - 2
- EXTERIOR RECESSED CAN LIGHT
- PHOTOELECTRIC SMOKE DETECTOR
- SD — SMOKE DETECTOR
- F — CEILING-MOUNTED STROBE AND HORN
- S — CEILING-MOUNTED STROBE
- OC — OCCUPANCY SENSOR
- CEILING-MOUNT SPEAKER/STROBE
- INTERIOR RECESSED CAN LIGHT
- PENDANT LIGHT
- TRACK LIGHT
- HVAC EQUIPMENT

RCP GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WITH ALL DISCIPLINES FOR SYSTEM EXTENTS & INSTALLATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR COORDINATION OR EXACT LOCATIONS OF ALL DEVICES, LIGHT TRACKS, AND FIXTURES. OBTAIN ARCHITECT'S APPROVAL OF ALL CONDUIT, LIGHT TRACK, AND DEVICE LOCATIONS BEFORE INSTALLATION.
2. ALL LIGHT FIXTURES ARE CENTERED IN ROOM AND EQUALLY SPACED UNLESS OTHERWISE NOTED.
3. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION FOR ALL FIXTURES, EQUIPMENT, AND DEVICES.
4. FIRE ALARM DEVICES SHOWN FOR LOCATION & COORDINATION PURPOSES ONLY. REFER TO FA DRAWINGS FOR COMPLETE SYSTEMS.
5. ALL CEILING HEIGHTS MEASURED FROM T.O. SLAB, V.I.F.
6. COORDINATE MEP HEIGHTS TO ENSURE DOOR SWINGS & MILLWORK DO NOT CONFLICT. - V.I.F. W/ ARCHITECT.
7. REVIEW LAYOUT OF CEILING GRID WITH ARCHITECT PRIOR TO INSTALLATION.



1 A1.3 LEVEL 1 RCP
Scale: 1/8" = 1'-0"

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SHEET TITLE
LEVEL 1 RCP

SHEET
A1.3

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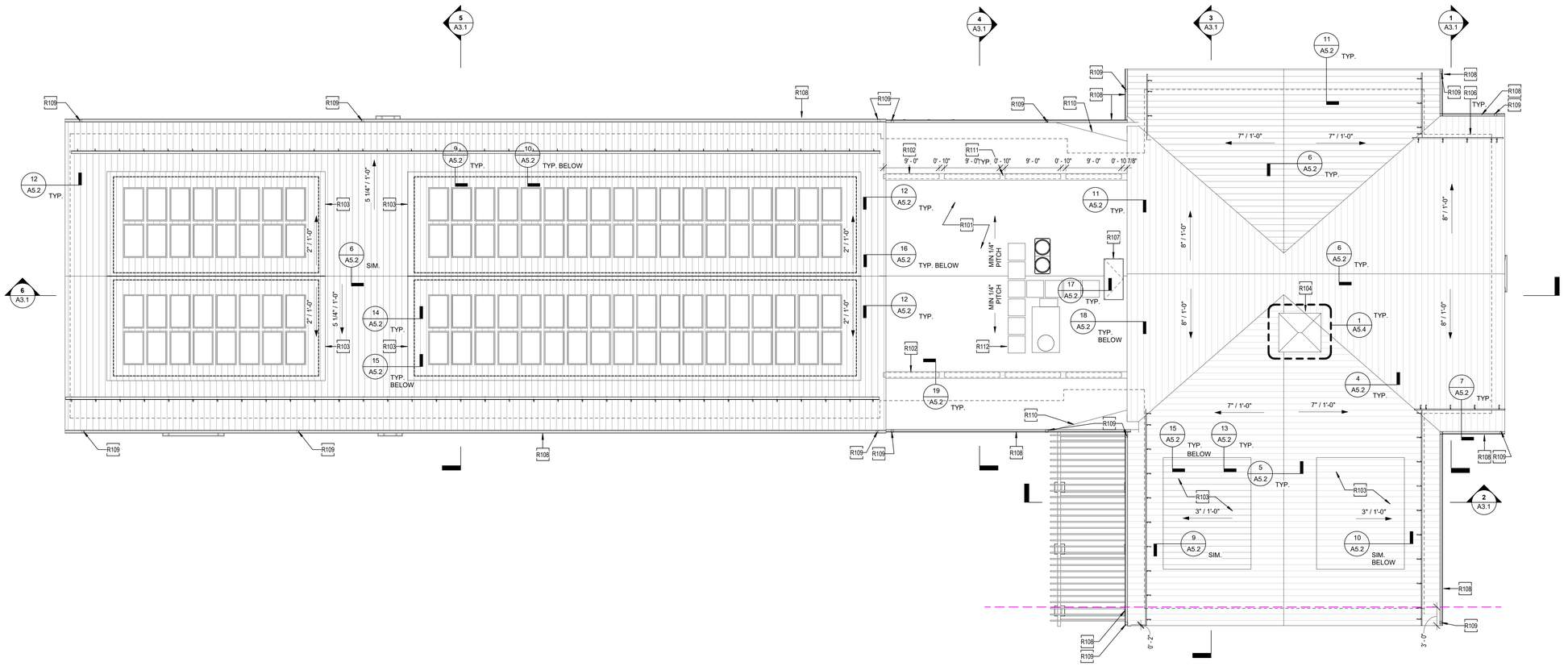
ROOF PLAN KEYNOTES

KEYNOTE NUMBER	KEYNOTE
R101	PVC ROOF AT CONNECTOR
R102	PARAPET WALL
R103	METAL ROOF DORMER.
R104	CHIMNEY
R106	SNOW GUARD, SEE SPECIFICATIONS.
R107	ROOF HATCH
R108	GUTTER
R109	DOWNSPOUT
R110	DIVERTER
R111	SCUPPER OPENINGS
R112	ROOF WALKING PADS

ROOF LEGEND

- OVERFRAMING
- ICE & WATER SHIELD
- STANDING SEAM METAL ROOF
- VENT STACK
- 6" / 12" — DIRECTION OF ROOF SLOPE & PITCH
- DOWNSPOUT
- GUTTER



1 A1.4 ROOF PLAN
Scale: 1/8" = 1'-0"

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SHEET TITLE
ROOF PLAN

SHEET
A1.4

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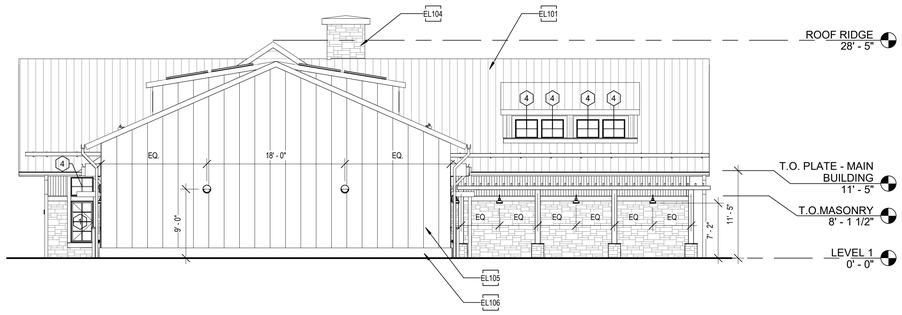
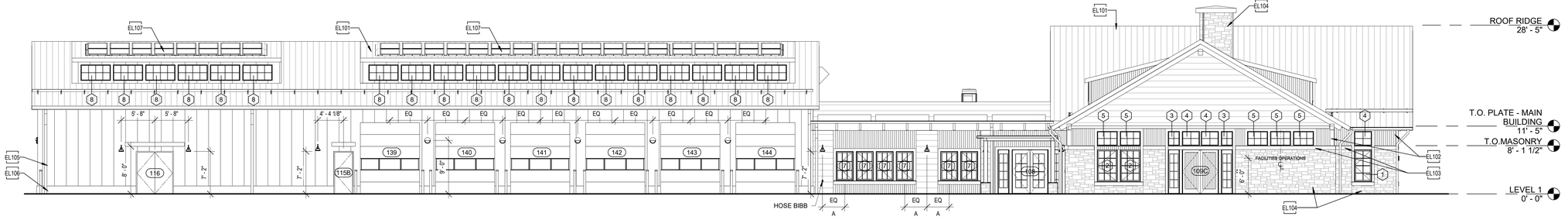
ELEVATION KEYNOTES

KEYNOTE NUMBER	KEYNOTE
EL101	METAL ROOF, TYPCAL.
EL102	V-GROOVE PANEL, TYP.
EL103	PRECAST CONCRETE CAP, TYP.
EL104	STONE VENEER, TYP.
EL105	METAL SIDING, TYP.
EL106	GRANITE BASE, TYP.
EL107	PHOTOVOLTAIC PANELS



1 A2.1 ELEVATION - NORTH
Scale: 1/8" = 1'-0"

2 A2.1 ELEVATION - SOUTH
Scale: 1/8" = 1'-0"



3 A2.1 ELEVATION - WEST
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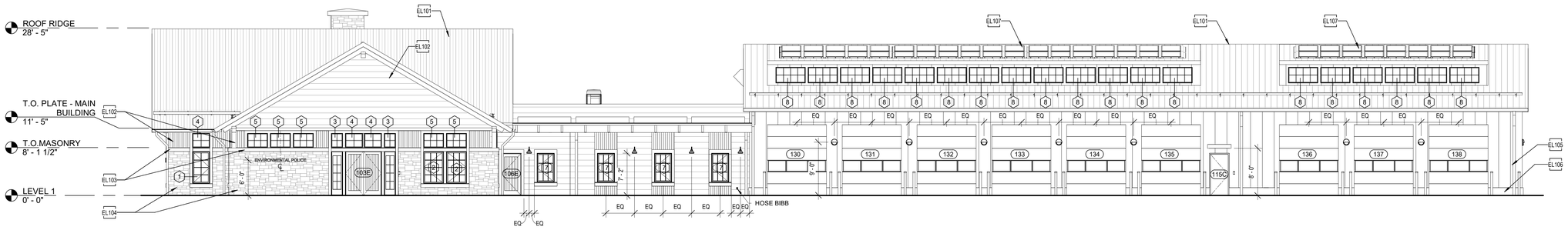

4 A2.1 ELEVATION - EAST
Scale: 1/8" = 1'-0"

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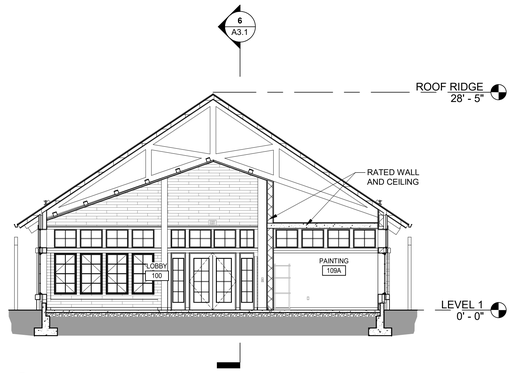
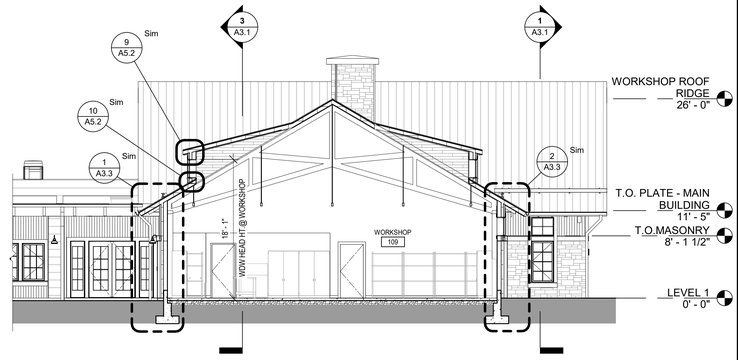
SHEET TITLE
EXTERIOR ELEVATIONS

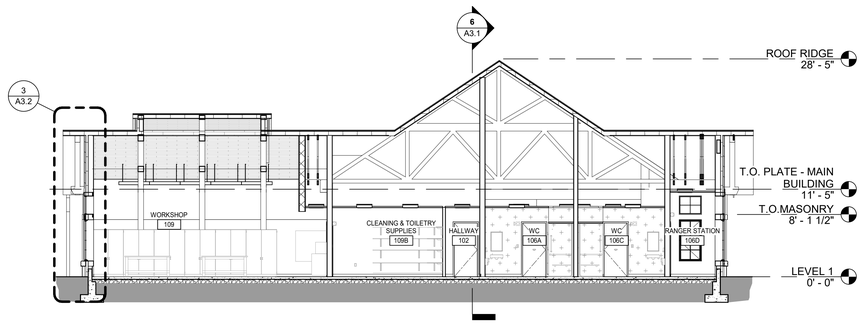
SHEET
A2.1



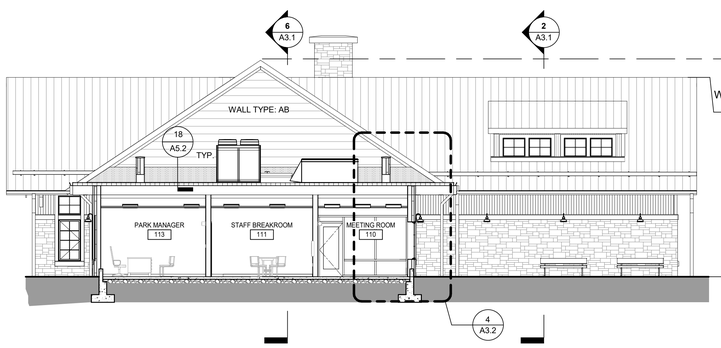
1 A3.1 E-W SECTION AT LOBBY
Scale: 1/8" = 1'-0"



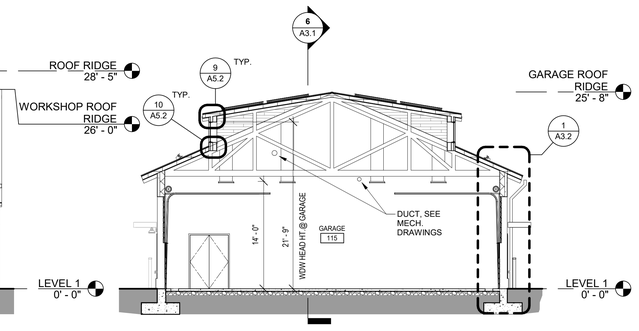
2 A3.1 N-S SECTION AT WORKSHOP
Scale: 1/8" = 1'-0"



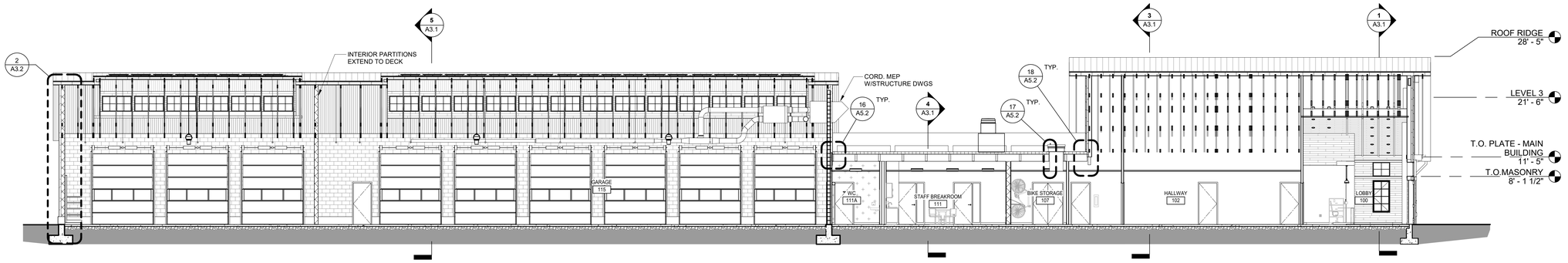
3 A3.1 E-W SECTION AT ADMIN BUILDING
Scale: 1/8" = 1'-0"



4 A3.1 E-W SECTION AT STAFF OFFICES
Scale: 1/8" = 1'-0"



5 A3.1 E-W SECTION AT GARAGE
Scale: 1/8" = 1'-0"



6 A3.1 N-S BUILDING SECTION
Scale: 1/8" = 1'-0"

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SHEET TITLE
BUILDING SECTIONS

SHEET
A3.1

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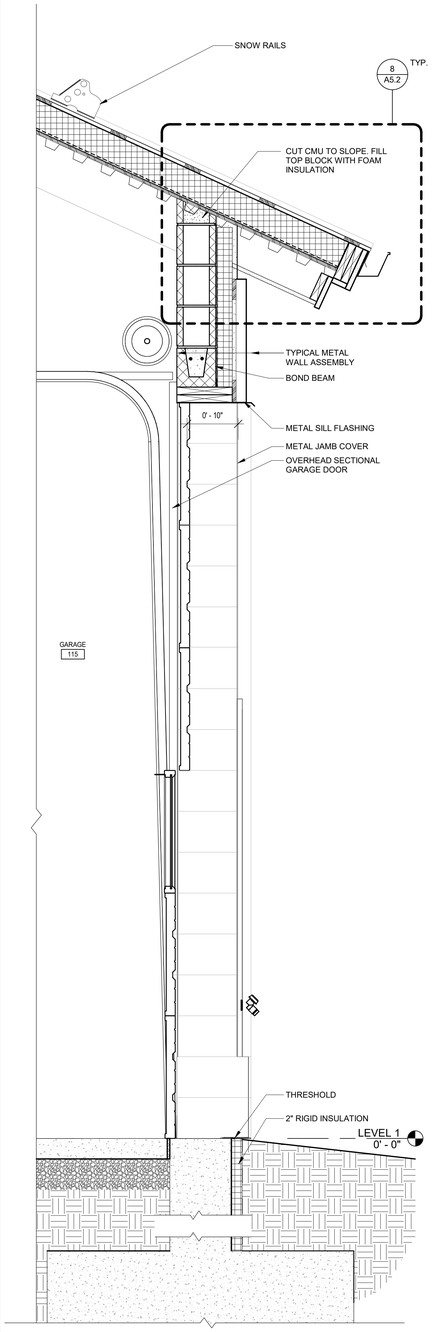
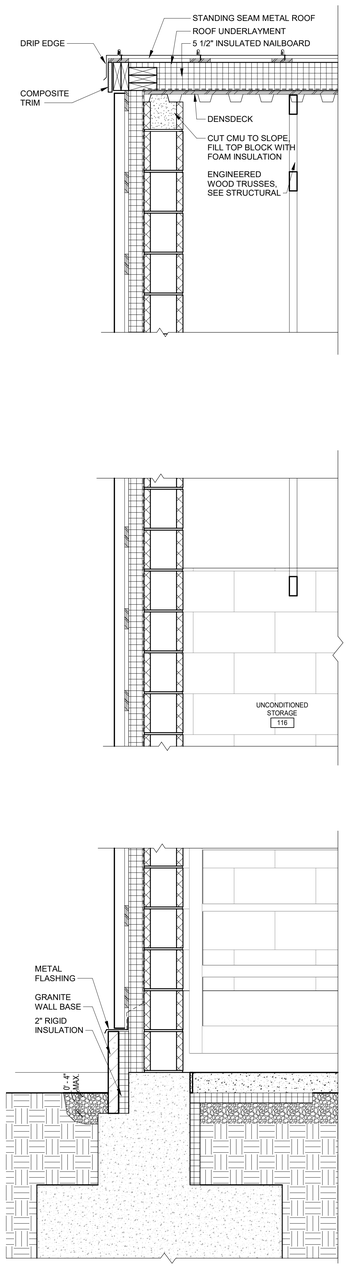
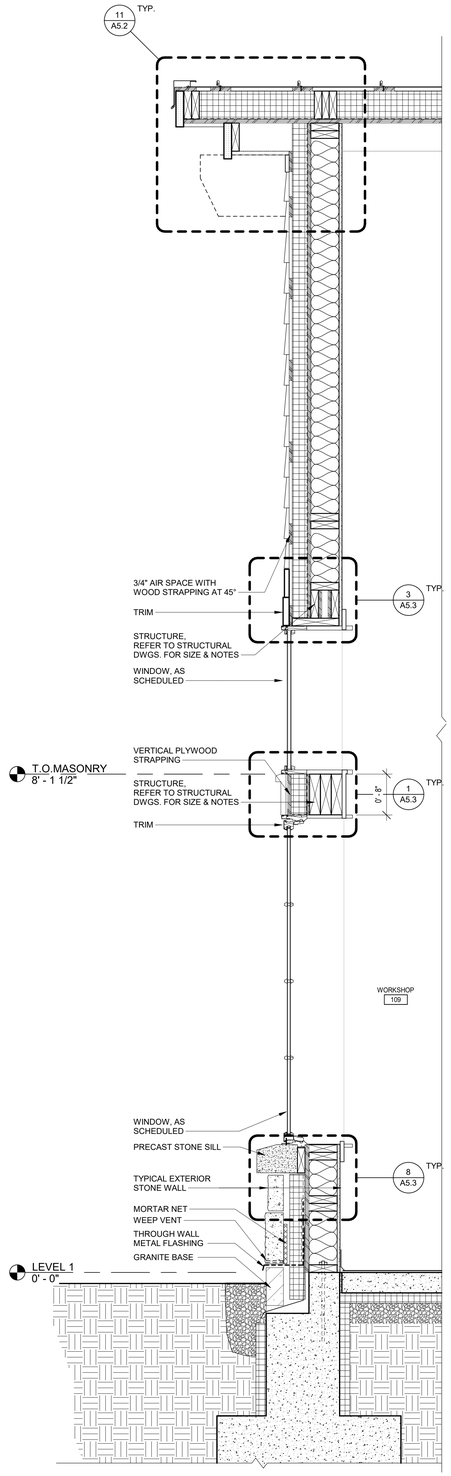


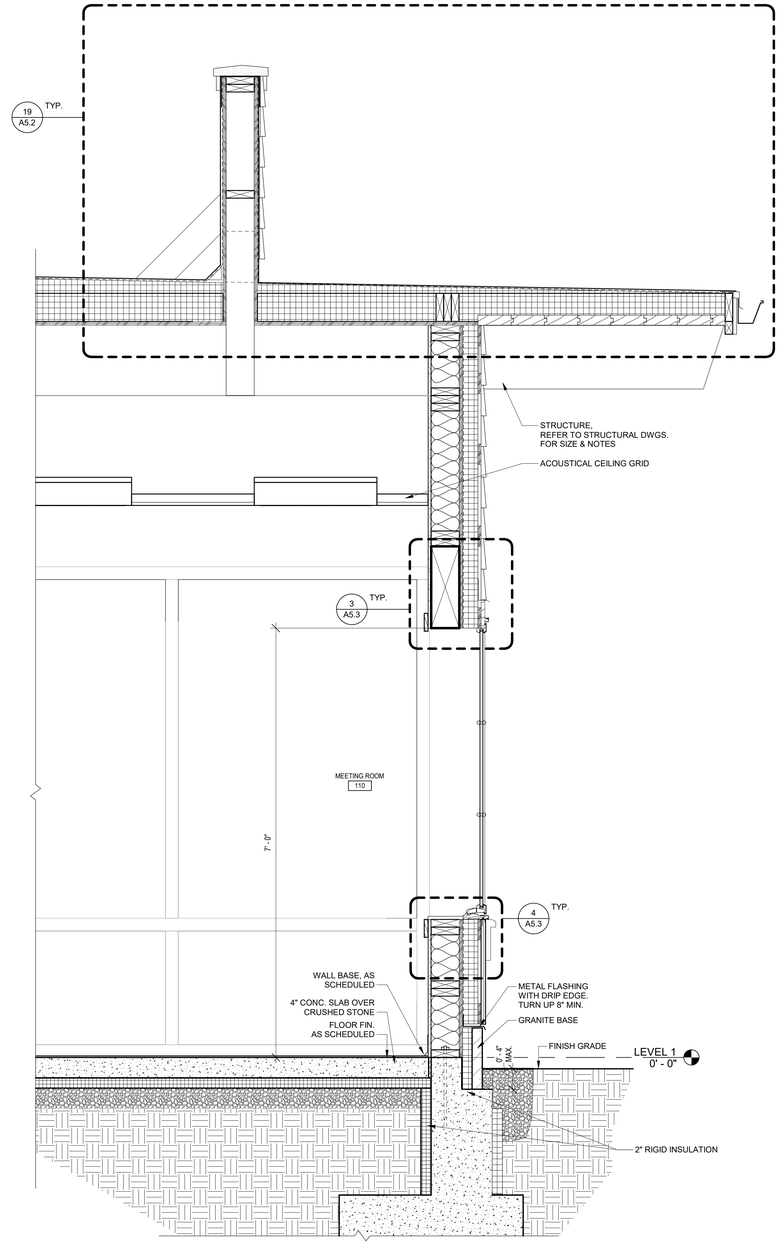
1 A3.2 WALL SECTION - GARAGE DOOR
Scale: 1" = 1'-0"



2 A3.2 WALL SECTION - GARAGE GABLE-END
Scale: 1" = 1'-0"



3 A3.2 WALL SECTION - STONE VENEER
Scale: 1" = 1'-0"



4 A3.2 WALL SECTION - CONNECTOR BUILDING
Scale: 1" = 1'-0"

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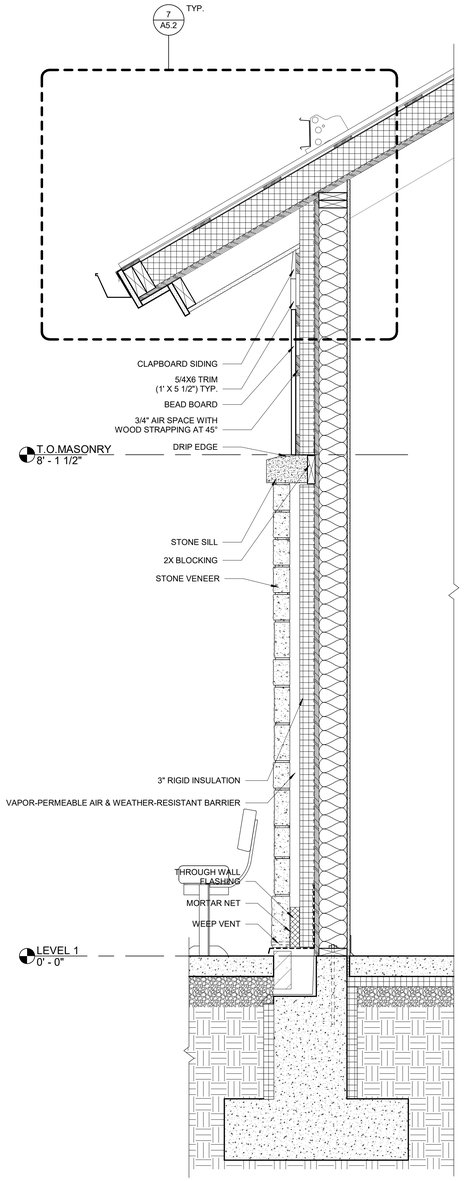
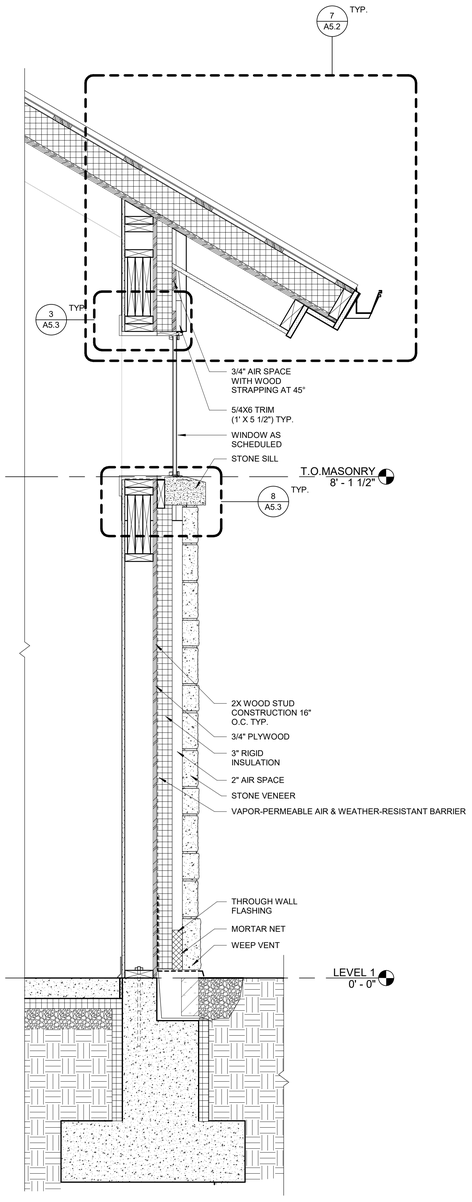
SHEET TITLE
WALL SECTIONS

SHEET
A3.2



1 A3.3 WORKSHOP - WEST WALL
Scale: 1" = 1'-0"



2 A3.3 WORKSHOP - EAST WALL
Scale: 1" = 1'-0"

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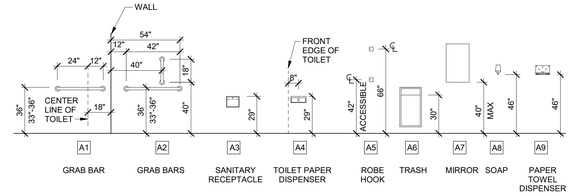
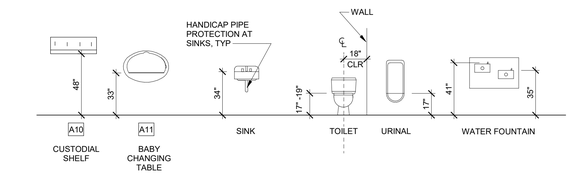
WALL SECTIONS

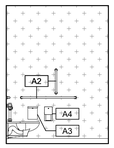
SHEET
A3.3

PLUMBING AND ACCESSORIES MOUNTING HEIGHT LEGEND

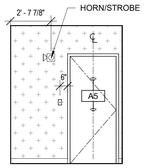




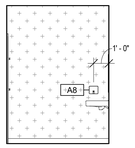
SEE SPECIFICATION FOR ADDITIONAL ACCESSORY INFORMATION. REFER TO PLUMBING DRAWINGS FOR FIXTURE INFORMATION.



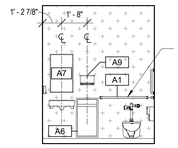
1 A4.1 1 WC - NORTH
Scale: 1/4" = 1'-0"



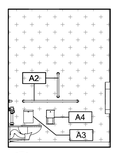
2 A4.1 1 WC - EAST
Scale: 1/4" = 1'-0"



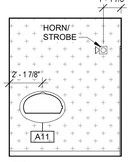
3 A4.1 1 WC - SOUTH
Scale: 1/4" = 1'-0"



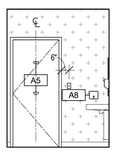
4 A4.1 1 WC - WEST
Scale: 1/4" = 1'-0"



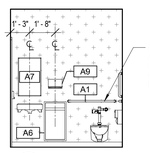
5 A4.1 2 WC - NORTH
Scale: 1/4" = 1'-0"



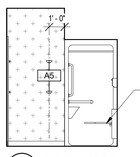
6 A4.1 2 WC - EAST
Scale: 1/4" = 1'-0"



7 A4.1 2 WC - SOUTH
Scale: 1/4" = 1'-0"

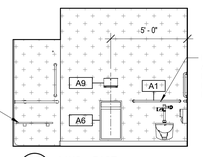


8 A4.1 2 WC - WEST
Scale: 1/4" = 1'-0"

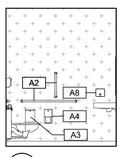


FOLDING SHOWER SEAT

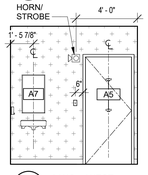
9 A4.1 3 WC - NORTH
Scale: 1/4" = 1'-0"



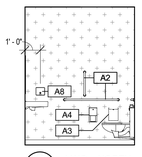
10 A4.1 3 WC - EAST
Scale: 1/4" = 1'-0"



11 A4.1 3 WC - SOUTH
Scale: 1/4" = 1'-0"

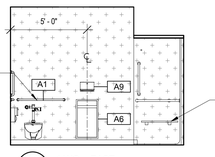


12 A4.1 3 WC - WEST
Scale: 1/4" = 1'-0"



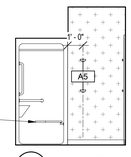
FOR ACCESSORY AND PLUMBING FIXTURE MOUNTING HEIGHTS, SEE LEGEND, TYP

13 A4.1 4 WC - NORTH
Scale: 1/4" = 1'-0"

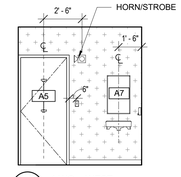


FOLDING SHOWER SEAT

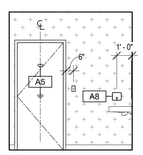
14 A4.1 4 WC - EAST
Scale: 1/4" = 1'-0"



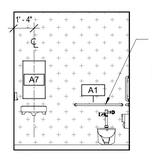
15 A4.1 4 WC - SOUTH
Scale: 1/4" = 1'-0"



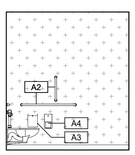
16 A4.1 4 WC - WEST
Scale: 1/4" = 1'-0"



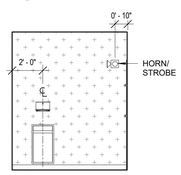
17 A4.1 5 WC - NORTH
Scale: 1/4" = 1'-0"



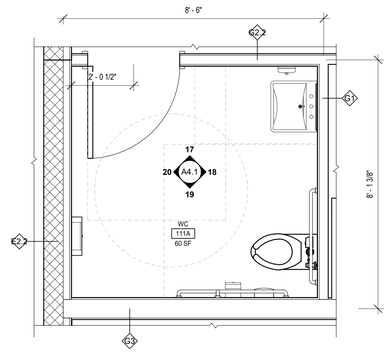
18 A4.1 5 WC - EAST
Scale: 1/4" = 1'-0"



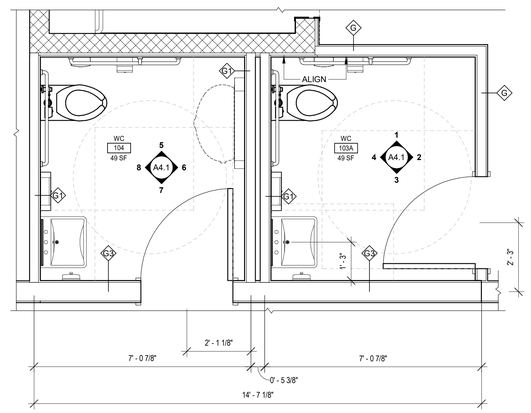
19 A4.1 5 WC - SOUTH
Scale: 1/4" = 1'-0"



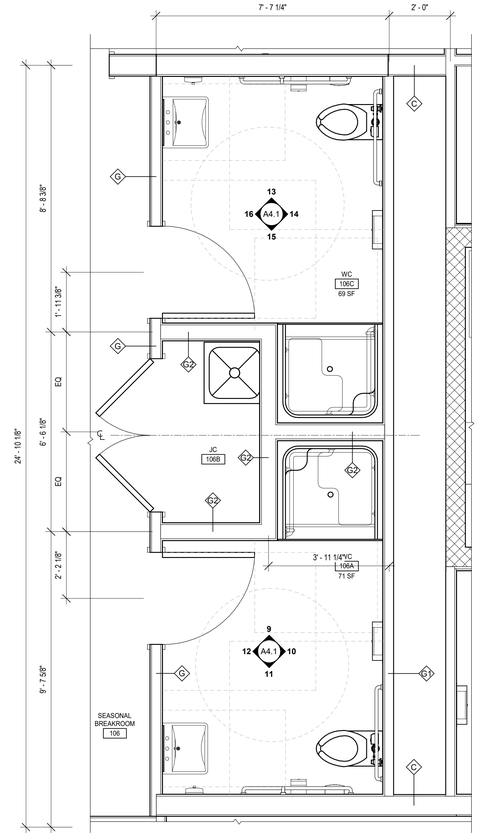
20 A4.1 5 WC - WEST
Scale: 1/4" = 1'-0"



21 A4.1 BATHROOM KEY PLAN - C
Scale: 1/2" = 1'-0"



23 A4.1 BATHROOM KEY PLAN B
Scale: 1/2" = 1'-0"



22 A4.1 BATHROOM KEY PLAN - A
Scale: 1/2" = 1'-0"

9/16/2025 11:07:40 AM

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NATHANIEL J. GINSBURG 3350 REGISTERED ARCHITECT

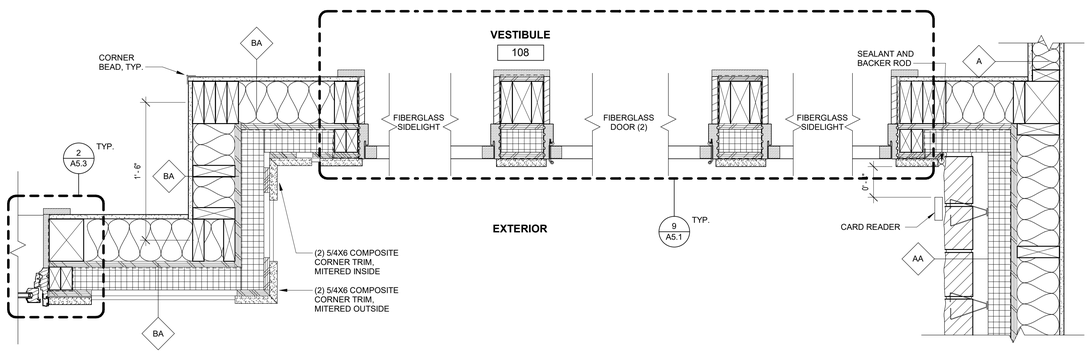
JOB NO. 2201 | DATE 08/01/2025

ISSUE : BID SET

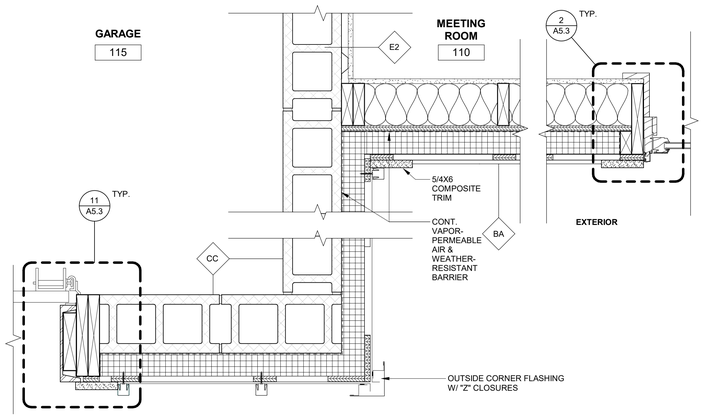
NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
ENLARGED RESTROOM PLANS AND ELEVATIONS

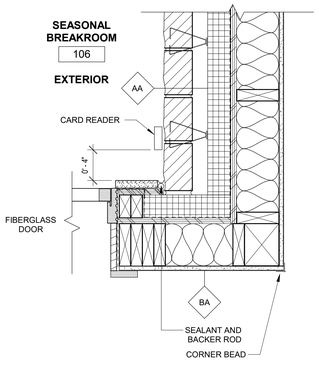
SHEET
A4.1



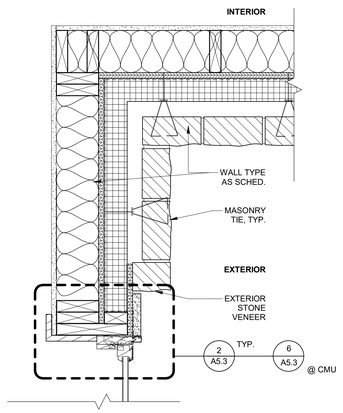
1 A5.1 STAFF ENTRY ENLARGED PLAN
Scale: 1 1/2" = 1'-0"



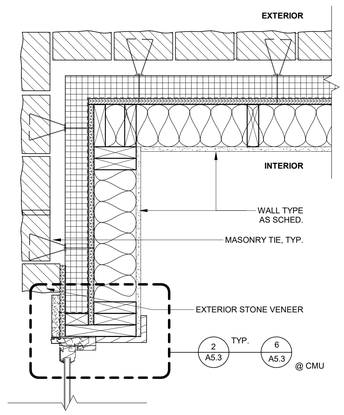
2 A5.1 PLAN DETAIL AT METAL PANEL TO SIDING CORNER
Scale: 1 1/2" = 1'-0"



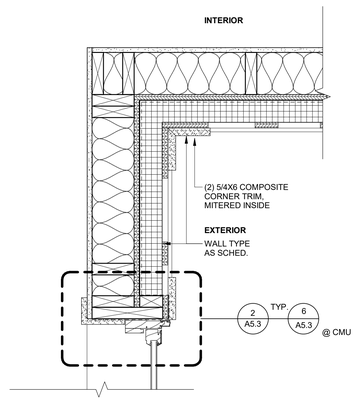
3 A5.1 SEASONAL BREAKROOM ENLARGED PLAN
Scale: 1 1/2" = 1'-0"



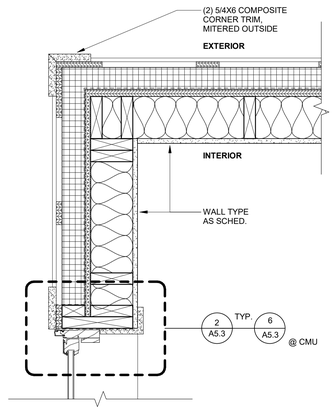
4 A5.1 INSIDE CORNER PLAN DETAIL @ STONE VENEER
Scale: 1 1/2" = 1'-0"



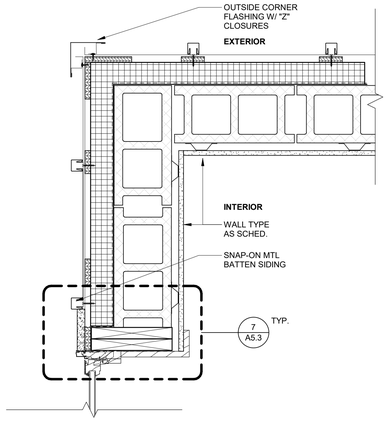
5 A5.1 OUTSIDE CORNER PLAN DETAIL @ STONE VENEER
Scale: 1 1/2" = 1'-0"



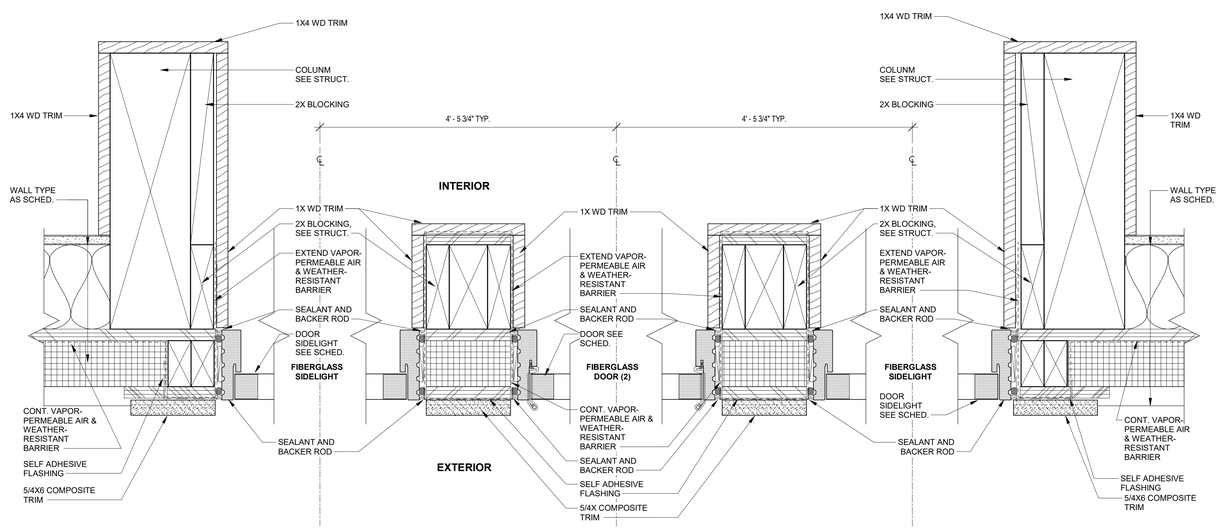
6 A5.1 INSIDE CORNER PLAN DETAIL @ WOOD SIDING
Scale: 1 1/2" = 1'-0"



7 A5.1 OUTSIDE CORNER PLAN DETAIL @ WOOD SIDING
Scale: 1 1/2" = 1'-0"



8 A5.1 PLAN DETAIL AT METAL PANEL CORNER
Scale: 1 1/2" = 1'-0"



9 A5.1 TYP. ENTRY DOOR ASSEMBLY JAMB @ WOOD FRAMING
Scale: 3" = 1'-0"

9/16/2025 11:07:43 AM

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NATHANIEL J. GUSTAFSON
No. 9355
REGISTERED ARCHITECT

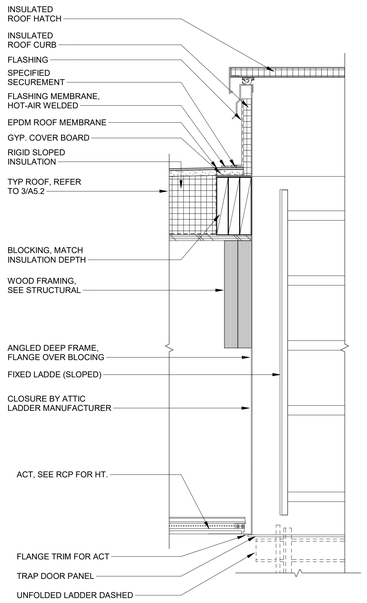
JOB NO.	DATE
2201	08/01/2025

ISSUE : **BID SET**

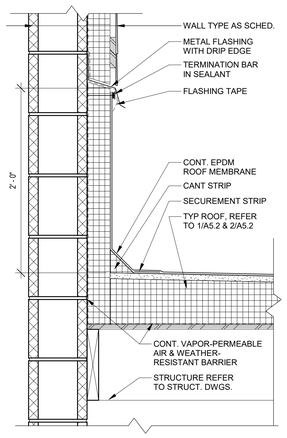
NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
EXTERIOR WALL PLAN DETAILS

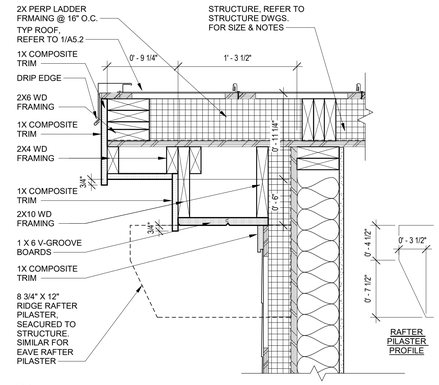
SHEET
A5.1



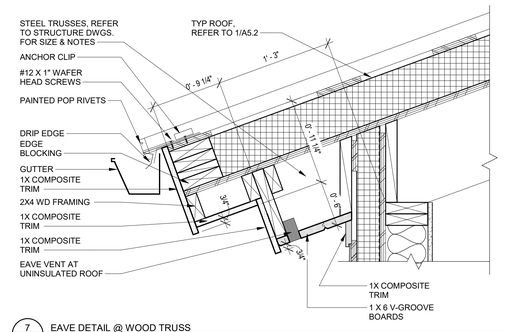
17 A5.2 ROOF HATCH DETAIL
Scale: 1 1/2" = 1'-0"



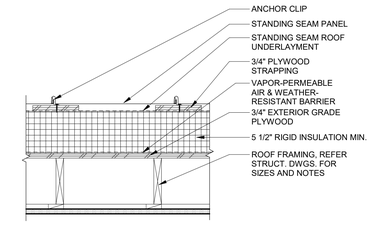
16 A5.2 WALL TO ROOF TRANSITION DETAIL @ FLAT ROOF 1
Scale: 1 1/2" = 1'-0"



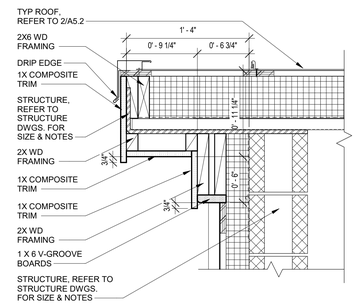
11 A5.2 RAKE DETAIL @ WOOD TRUSS
Scale: 1 1/2" = 1'-0"



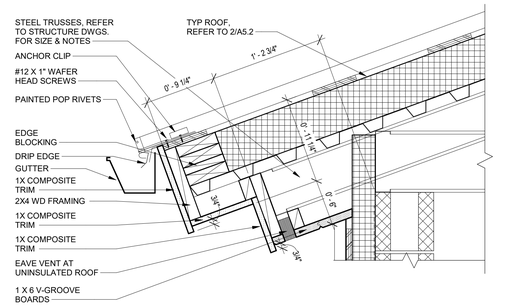
7 A5.2 EAVE DETAIL @ WOOD TRUSS
Scale: 1 1/2" = 1'-0"



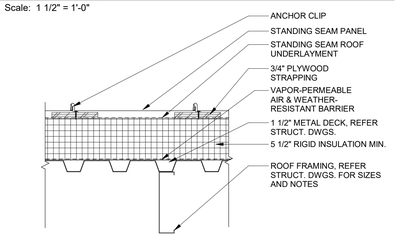
1 A5.2 TYP. METAL ROOF @ WOOD TRUSS
Scale: 1 1/2" = 1'-0"



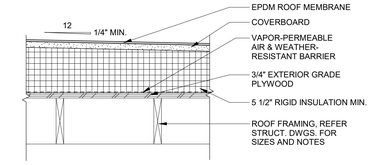
12 A5.2 RAKE DETAIL @ METAL TRUS
Scale: 1 1/2" = 1'-0"



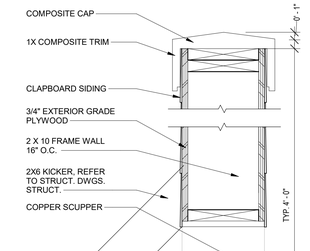
8 A5.2 EAVE DETAIL @ METAL TRUSS
Scale: 1 1/2" = 1'-0"



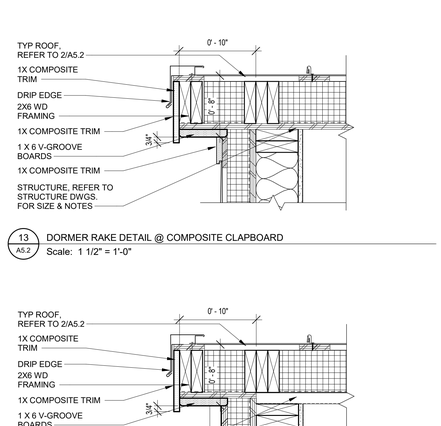
2 A5.2 TYP. METAL ROOF @ METAL TRUSS
Scale: 1 1/2" = 1'-0"

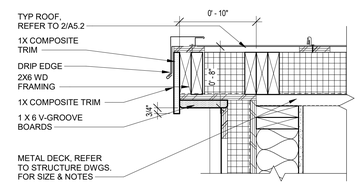


3 A5.2 TYP. METAL ROOF @ LOW SLOPE ROOF
Scale: 1 1/2" = 1'-0"

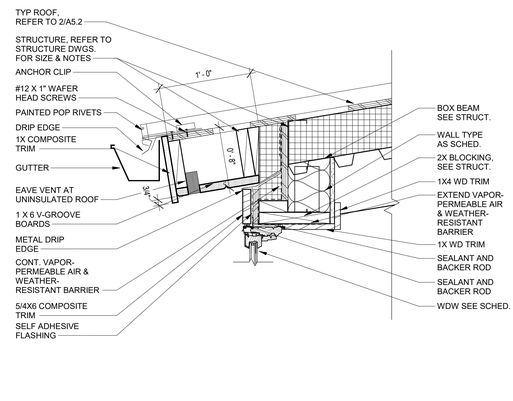


18 A5.2 WALL TO ROOF TRANSITION DETAIL @ FLAT ROOF 2
Scale: 1 1/2" = 1'-0"

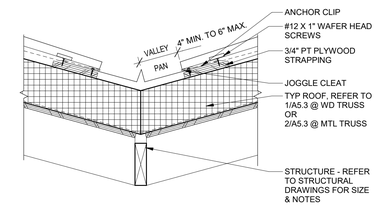




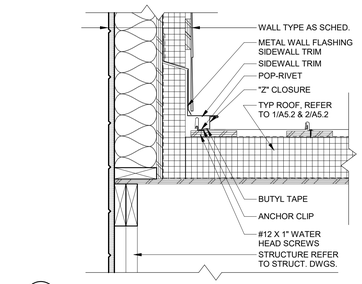
13 A5.2 DORMER RAKE DETAIL @ COMPOSITE CLAPBOARD
Scale: 1 1/2" = 1'-0"



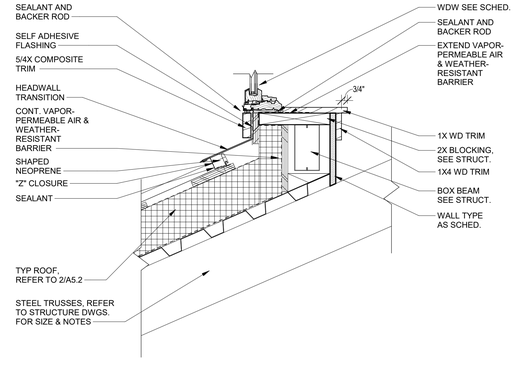
9 A5.2 DORMER EAVE/HEAD DETAIL
Scale: 1 1/2" = 1'-0"



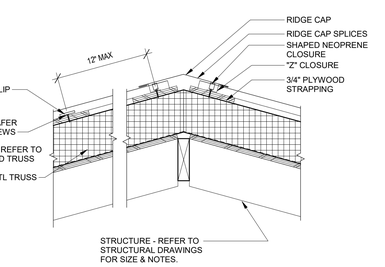
4 A5.2 SECTION DETAIL AT VALLEY, TYP
Scale: 1 1/2" = 1'-0"



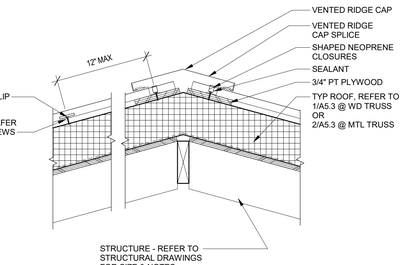
14 A5.2 DORMER RAKE DETAIL @ METAL PANEL
Scale: 1 1/2" = 1'-0"



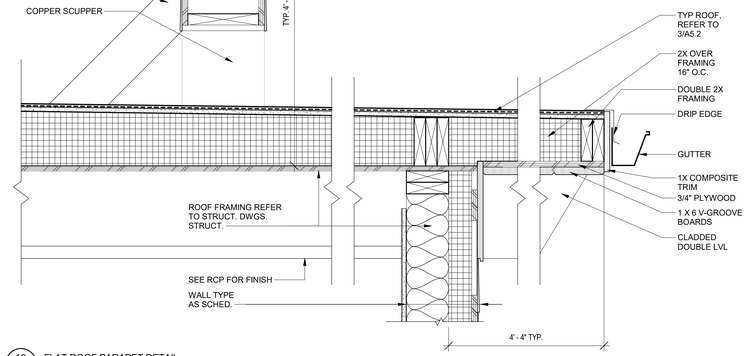
10 A5.2 DORMER SILL DETAIL
Scale: 1 1/2" = 1'-0"



6 A5.2 SECTION DETAIL AT NON-VENTED RIDGE
Scale: 1 1/2" = 1'-0"



5 A5.2 SECTION DETAIL AT VENTED RIDGE
Scale: 1 1/2" = 1'-0"



19 A5.2 FLAT ROOF PARAPET DETAIL
Scale: 1 1/2" = 1'-0"

15 A5.2 WALL TO ROOF TRANSITION DETAIL @ DORMER
Scale: 1 1/2" = 1'-0"

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JOB NO. 2201 | DATE 08/01/2025

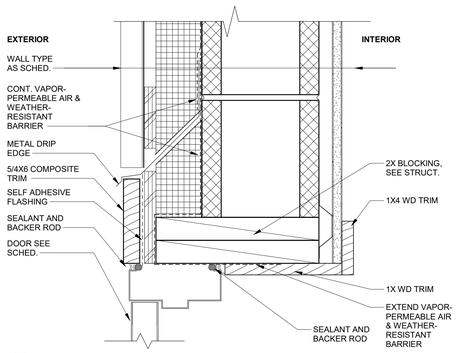
ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

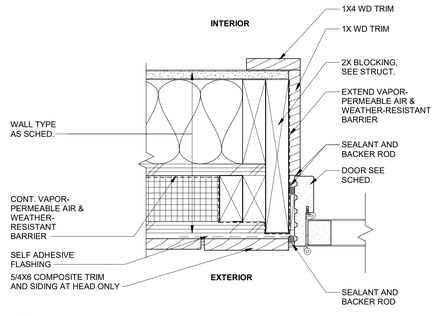
SHEET TITLE
ROOF DETAILS

SHEET
A5.2

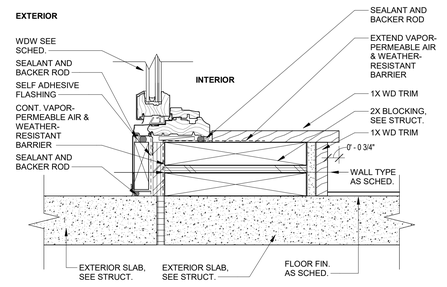
9/16/2025 11:07:43 AM



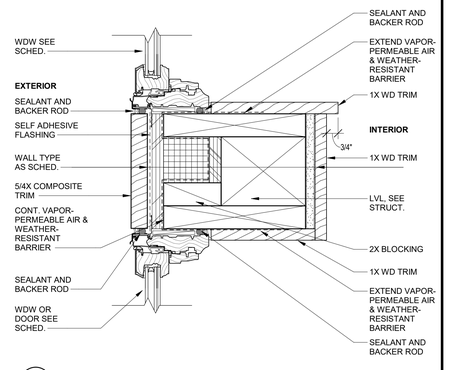
13 A5.3 TYP. DOOR HEAD DETAIL @ CMU
Scale: 3" = 1'-0"



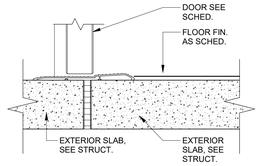
9 A5.3 TYP. DOOR JAMB DETAIL @ WOOD FRAMING
Scale: 3" = 1'-0"



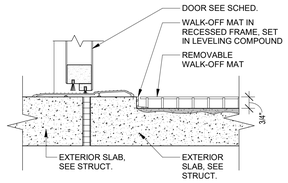
5 A5.3 TYPICAL SIDELIGHT SILL DETAIL
Scale: 3" = 1'-0"



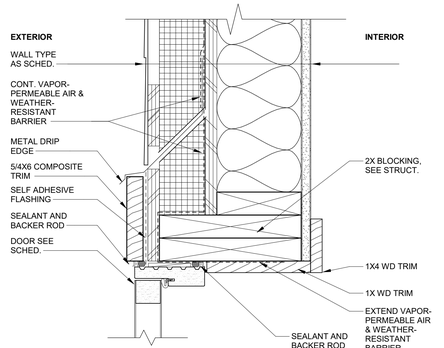
1 A5.3 TYPICAL COUPLED WINDOW HEADER AND SILL DETAIL
Scale: 3" = 1'-0"



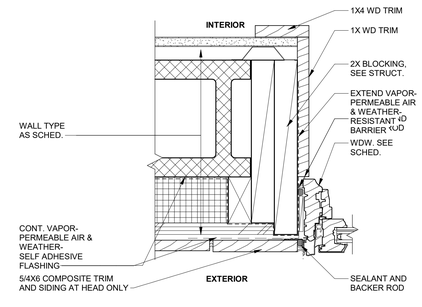
14 A5.3 TYP. DOOR SILL DETAIL
Scale: 3" = 1'-0"



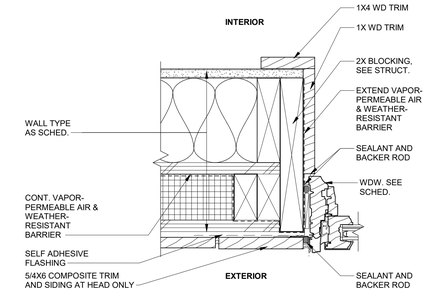
15 A5.3 TYP. DOOR SILL DETAIL WITH WALK-OFF MAT
Scale: 3" = 1'-0"



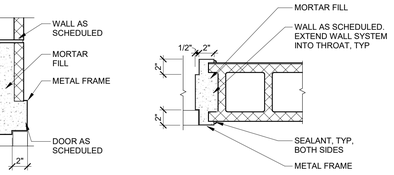
10 A5.3 TYP. DOOR HEAD DETAIL @ WOOD FRAMING
Scale: 3" = 1'-0"



6 A5.3 TYP. WINDOW JAMB @ CMU
Scale: 3" = 1'-0"

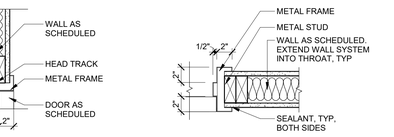


2 A5.3 TYP. WINDOW JAMB DETAIL @ WOOD FRAMING
Scale: 3" = 1'-0"



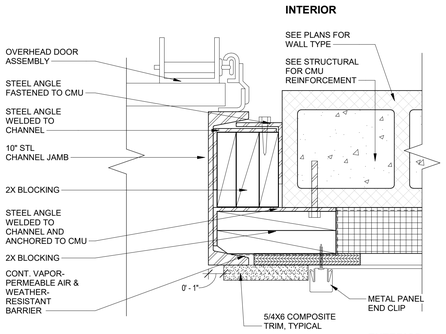
16 A5.3 TYPICAL CMU HEAD DETAIL
Scale: 1 1/2" = 1'-0"

17 A5.3 TYPICAL CMU JAMB DETAIL
Scale: 1 1/2" = 1'-0"

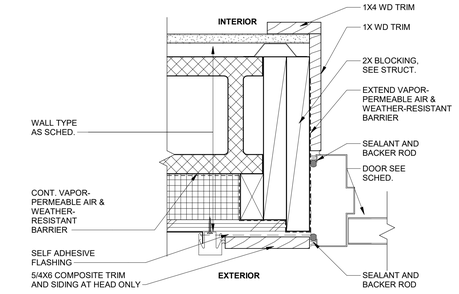


18 A5.3 TYPICAL GWB HEAD DETAIL
Scale: 1 1/2" = 1'-0"

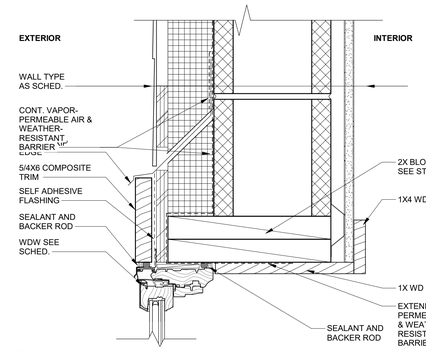
19 A5.3 TYPICAL GWB JAMB DETAIL
Scale: 1 1/2" = 1'-0"



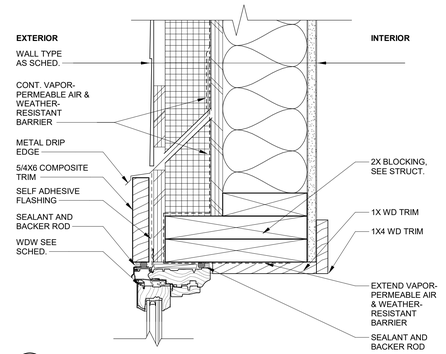
11 A5.3 OVERHEAD DOOR JAMB DETAIL
Scale: 3" = 1'-0"



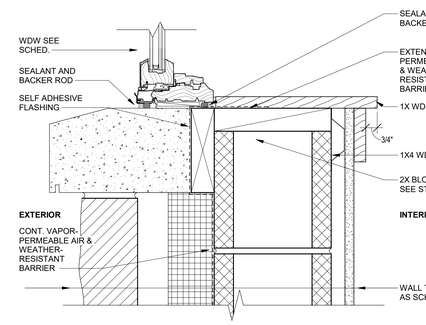
12 A5.3 TYP. DOOR JAMB @ CMU
Scale: 3" = 1'-0"



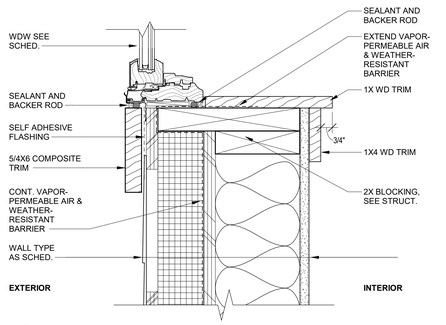
7 A5.3 TYP. WINDOW HEAD DETAIL @ CMU
Scale: 3" = 1'-0"



3 A5.3 TYP. WINDOW HEAD DETAIL @ WOOD FRAMING
Scale: 3" = 1'-0"



8 A5.3 TYP. WINDOW SILL DETAIL @ CMU
Scale: 3" = 1'-0"



4 A5.3 TYP. WINDOW SILL DETAIL @ WOOD FRAMING
Scale: 3" = 1'-0"

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NATHANIEL J. GINSBERG
No. 9352
REGISTERED ARCHITECT

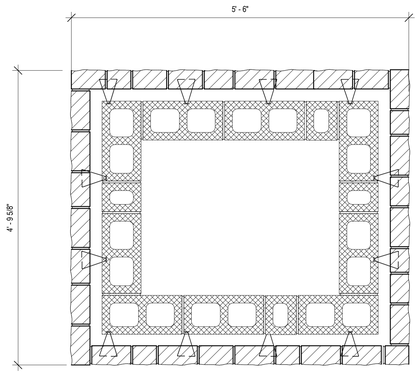
JOB NO. 2201 | DATE 08/01/2025
ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

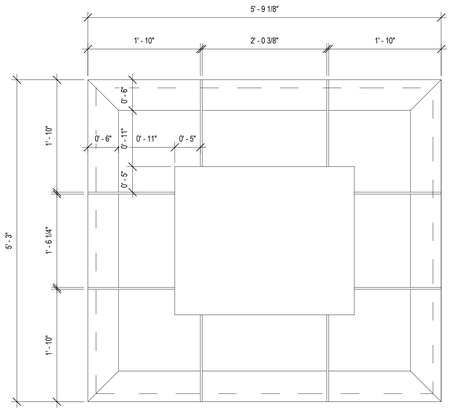
SHEET TITLE
WINDOW AND DOOR DETAILS

SHEET
A5.3

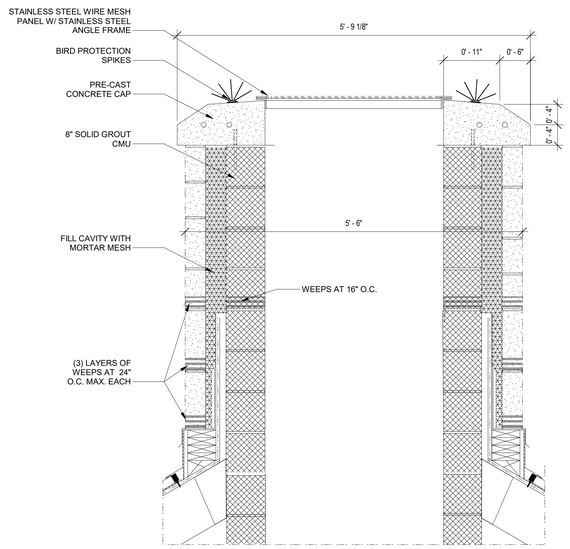
9/16/2025 11:07:47 AM



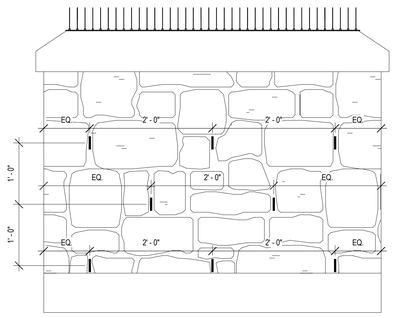
1 / A5.4 CHIMNEY MASONRY PLAN
Scale: 1" = 1'-0"



2 / A5.4 CHIMNEY PRECAST LAYOUT
Scale: 1" = 1'-0"



3 / A5.4 CHIMNEY DETAIL
Scale: 1" = 1'-0"



4 / A5.4 TYPICAL WEEP PATTERN
NOT TO SCALE 1"

10/14/2025 11:17:17 AM

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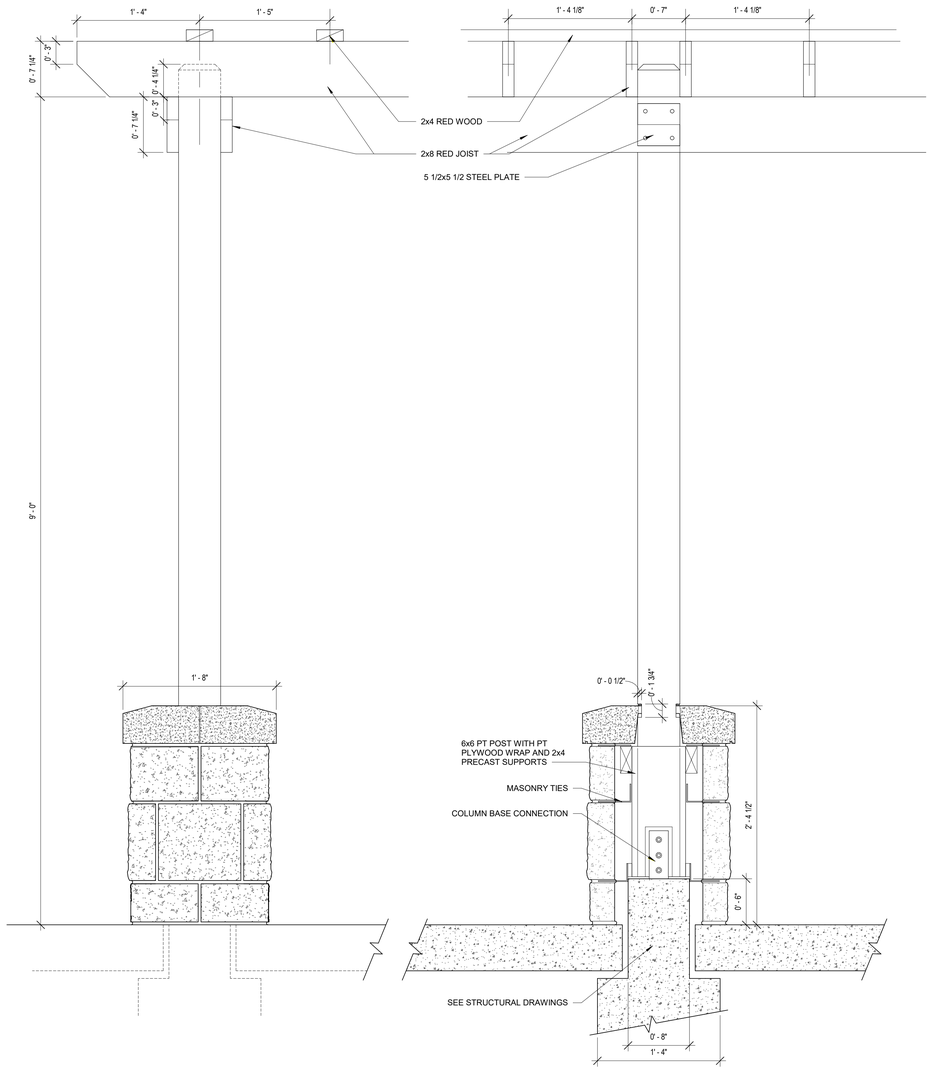
STATE OF RHODE ISLAND

JOB NO. 2201
DATE 08/01/2025
ISSUE : BID SET

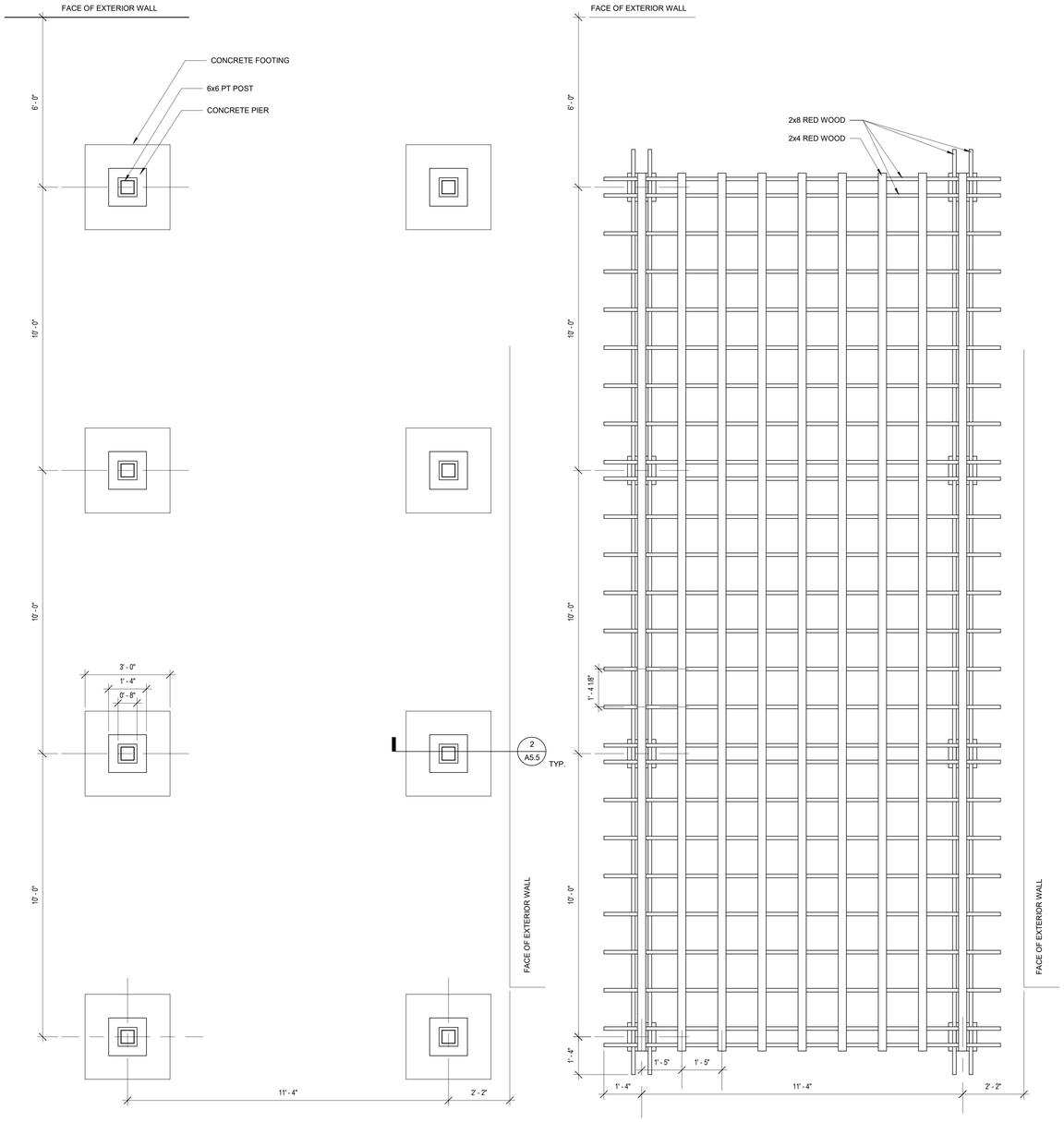
NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
WOOD, PRECAST AND MASONRY DETAILS

SHEET
A5.4



2 / A5.5 PERGOLA BASE AND RAFTER DETAIL
Scale: 1 1/2" = 1'-0"



1 / A5.5 PERGOLA FOOTING AND JOIST PLANS
Scale: 1/2" = 1'-0"

9/16/2025 11:07:48 AM

NEW OPERATIONS FACILITY
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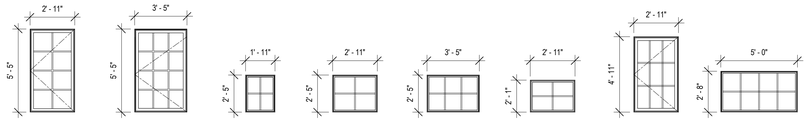
JOB NO. 2201
DATE 08/01/2025
ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

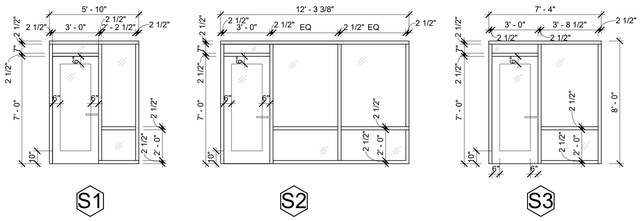
SHEET TITLE
PERGOLA DETAILS

SHEET
A5.5



CASEMENT WINDOW 1 | CASEMENT WINDOW 2 | FIXED WINDOW 3 | FIXED WINDOW 4 | FIXED WINDOW 5 | FIXED WINDOW 6 | CASEMENT WINDOW 7 | FIXED WINDOW 8

WINDOW LEGEND



S1 | S2 | S3

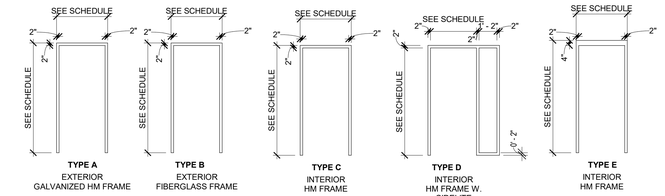
ALUMINUM STOREFRONT LEGEND

DOOR SCHEDULE

DOOR NUMBER	TYPE	MATERIAL	WIDTH	WIDTH	HEIGHT	THICKNESS	FRAME TYPE	FRAME MATERIAL	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HARDWARE	NOTES
100	C + C1	FGL	6' - 1 1/2"	(2) 3 '- 0"	7' - 6"	1 3/4"	B	ALUM		1/A5.1			CR, (2) DC, KPD & DR BEHIND DESK. PAIR OF DOORS W/ SIDELIGHTS AT BOTH SIDES
101	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
102	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
103	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			MECHANICAL LOCK CORRIDOR SIDE, LATCH ON SECURE SIDE
103A	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
103B	J	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM					JAIL CELL POCKET DOOR
103C	D	ALUM	3' - 0 1/4"	3' -0"	7' - 0"	1 3/4"	S1	ALUM	5/A6.1	6/A6.1			ALUM. STOREFRONT - S1
103D	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
103E	B + C1	FGL	6' - 1 1/2"	(2) 3 '- 0"	7' - 6"	1 3/4"	B	FGL		1/A5.1			CR, (2) DC, KPD. PAIR OF DOORS W/ SIDELIGHTS AT BOTH SIDES
104	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
105A	H	HM	2' - 8"	2' -8"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
105B	H	HM	2' - 8"	2' -8"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106A	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106B	F	WD	5' - 0"	(2) 2' - 6"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106C	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106D	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
106E	B	FGL	3' - 1 7/8"	3 '- 0"	7' - 2"	1 3/4"	B	FGL		1/A5.1			CR, DC
107A	F	WD	5' - 0"	(2) 2' - 6"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
107B	F	WD	5' - 0"	(2) 2' - 6"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
108	C + C1	FGL	6' - 1 1/2"	(2) 3'-0"	7' - 6"	1 3/4"	B	ALUM		1/A5.1			CR, (2) DC. PAIR OF DOORS W/ SIDELIGHTS AT BOTH SIDES
109	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
109A	E	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	3/A6.1	4/A6.1			
109B	E	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
109C	B + C1	FGL	6' - 1 1/2"	(2) 3'-0"	7' - 6"	1 3/4"	B	FGL		1/A5.1			CR, (2) DC. PAIR OF DOORS W/ SIDELIGHTS AT BOTH SIDES
110	D	ALUM	3' - 0"	3' -0"	7' - 0"	1 3/4"	S2	ALUM	5/A6.1	6/A6.1			ALUM. STOREFRONT - S2
111	D	ALUM	3' - 0 1/4"	3' -0"	7' - 0"	1 3/4"	S3	ALUM	5/A6.1	6/A6.1			ALUM. STOREFRONT - S3
111A	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	1/A6.1	2/A6.1			
112	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	D	HM	1/A6.1	2/A6.1			
113	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	D	HM	1/A6.1	2/A6.1			
114	F	WD	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	D	HM	1/A6.1	2/A6.1			
115	E	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	C	HM	3/A6.1	4/A6.1			
115A	E	HM	5' - 0"	(2) 2' - 6"	7' - 0"	1 3/4"	C	HM	3/A6.1	4/A6.1			
115B	A	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	A	HM					CR
115C	A	HM	3' - 0"	3 '- 0"	7' - 0"	1 3/4"	A	HM					CR
116	A	HM	6' - 0"	(2) 3'-0"	7' - 0"	1 3/4"	A	HM					CR, (2) DC, KPD
116A	E	HM	5' - 0"	(2) 2' - 6"	7' - 0"	1 3/4"	C	HM	3/A6.1	4/A6.1			
130	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
131	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
132	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
133	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
134	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
135	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
136	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
137	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
138	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
139	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
140	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
141	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
142	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
143	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC
144	G	HM	10' - 0"	10' - 0"	12' - 0"	1 3/4"	OH	HM		2/A5.1			OVERHEAD DOOR. DC

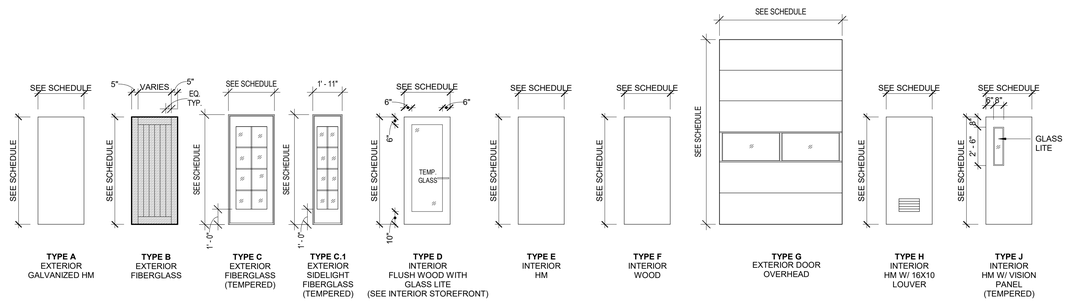
DOOR SCHEDULE ABBREVIATIONS

CR - CARD READER
DC - DOOR CLOSER
DR - DOOR RELEASE
KPD - KEYPAD



TYPE A EXTERIOR GALVANIZED HM FRAME
TYPE B EXTERIOR FIBERGLASS FRAME
TYPE C INTERIOR HM FRAME
TYPE D INTERIOR HM FRAME W. SIDELITE (TEMPERED)
TYPE E INTERIOR HM FRAME

06 - DOOR FRAME LEGEND
1/4" = 1'-0"



TYPE A EXTERIOR GALVANIZED HM
TYPE B EXTERIOR FIBERGLASS
TYPE C EXTERIOR FIBERGLASS (TEMPERED)
TYPE C.1 EXTERIOR SIDELIGHT FIBERGLASS (TEMPERED)
TYPE D INTERIOR FLUSH WOOD WITH GLASS LITE (SEE INTERIOR STOREFRONT)
TYPE E INTERIOR HM
TYPE F INTERIOR WOOD
TYPE G EXTERIOR DOOR OVERHEAD
TYPE H INTERIOR HM W/ 16X10 LOUVER
TYPE J INTERIOR HM W/ VISION PANEL (TEMPERED)

06 - DOOR TYPE LEGEND
1/4" = 1'-0"

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SHEET TITLE
DOOR AND WINDOW TYPES AND SCHEDULES

SHEET
A6.1

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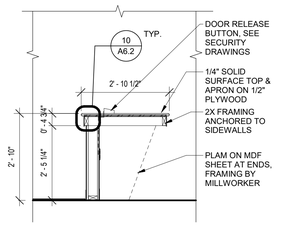
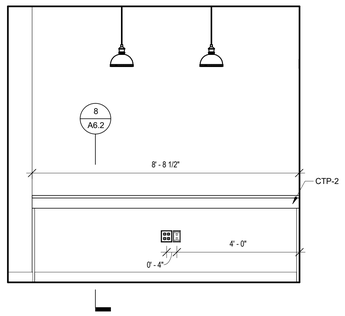
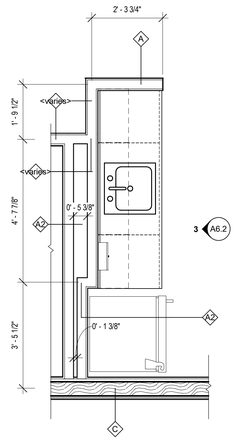


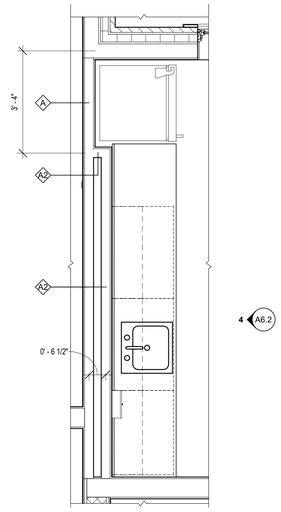
8 A6.2 MILWORK DETAIL SECTION C
Scale: 1/2" = 1'-0"



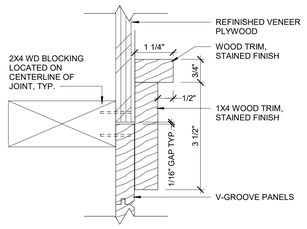
5 A6.2 INFO. DESK - EAST MILWORK DETAIL
Scale: 1/2" = 1'-0"



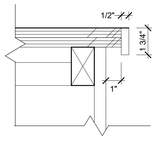
2 A6.2 STAFF BREAK ROOM KITCHENETTE
Scale: 1/2" = 1'-0"



1 A6.2 SEASONAL BREAK ROOM KITCHENETTE PLAN
Scale: 1/2" = 1'-0"



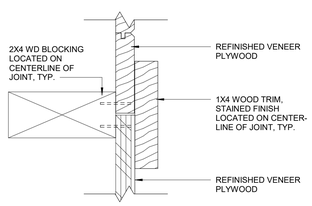
12 A6.2 WALL FINISH TRANSITION DETAIL
Scale: 6" = 1'-0"



9 A6.2 TYPICAL COUNTER SECTION DETAIL
Scale: 3" = 1'-0"

BREAK ROOM CABINETS
VENEER: PLAM
SUBSTRATE: PARTICLE BD.
HARDWARE:4" WIRE PULLS CHROME
BASE: RUBBER
COUNTER:PLAM
EDGE BAND: MAPLE
SUBSTRATE: APRTICLE BD.
DOOR STYLE: FLUSH FULL OVERLAY

3 A6.2 STAFF BREAK ROOM MILWORK DETAIL
Scale: 1/2" = 1'-0"

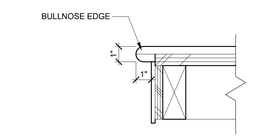


13 A6.2 WALL FINISH - TRANSITION DETAIL
Scale: 6" = 1'-0"

BREAK ROOM CABINETS
VENEER: PLAM
SUBSTRATE: PARTICLE BD.
HARDWARE:4" WIRE PULLS CHROME
BASE: RUBBER
COUNTER:PLAM
EDGE BAND: MAPLE
SUBSTRATE: APRTICLE BD.
DOOR STYLE: FLUSH FULL OVERLAY

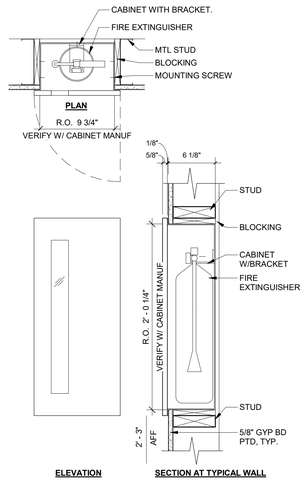
4 A6.2 SEASONAL BREAK ROOM MILL WORK DETAIL
Scale: 1/2" = 1'-0"

14 A6.2 WALL FINISH - VERTICAL BATTEN & BASE
Scale: 6" = 1'-0"



10 A6.2 TYPICAL RECEPTION COUNTER SECTION DETAIL
Scale: 3" = 1'-0"

6 A6.2 TYPICAL BASE CABINET SECTION
Scale: 1/2" = 1'-0"



11 A6.2 FIRE EXTINGUISHER CABINET DETAIL
Scale: 1 1/2" = 1'-0"

BREAK ROOM CABINETS
VENEER: PLAM
SUBSTRATE: PARTICLE BD.
HARDWARE:4" WIRE PULLS CHROME
BASE: RUBBER
COUNTER:PLAM
EDGE BAND: MAPLE
SUBSTRATE: APRTICLE BD.
DOOR STYLE: FLUSH FULL OVERLAY

4 A6.2 SEASONAL BREAK ROOM MILL WORK DETAIL
Scale: 1/2" = 1'-0"

7 A6.2 TYPICAL BASE CABINET SECTION AT SINK
Scale: 1/2" = 1'-0"

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SHEET TITLE
INTERIOR DETAILS

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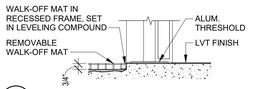
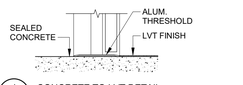
MATERIAL SCHEDULE

INTERIOR FINISHES ABBREVIATION KEY

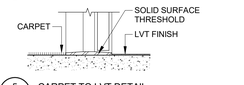
MARK	MANUFACTURER	MATERIAL	SERIES / STYLE	COLOR	Size	LOCATION	REMARKS
1 FLOOR COVERING SCHEDULE							
EG	ENTRANCE MAT	SEE SPEC	MATSINC	SEE SPEC	N/A	VESTIBULES	THRESHOLDS SHOULD BE THERMALLY BROKEN
EP RESIN	STONHARD	EPOXY FLOORING	STONTEC	CUSTOM: F1410 25% F1800 25% F9972 25% F5252 25%	N/A	MEN'S & WOMEN'S TOILET, CELL	
LVT-1	ALTRO	FIELD LUXURY VINYL TILE	LEVANCIA	FARMHOUSE WHISKEY	6" X 48"	SEE FINISH PLAN & SCHEDULE	
LVT-2	ALTRO	FIELD LUXURY VINYL TILE	LAVENCIA	ANTIQUE BURLED OAK	6" X 48"	SEE FINISH PLANS & SCHEDULE	
SEAL	SEE SPECS	SEALED CONCRETE	SEE SPECS	SEE SPECS	N/A	SEE FINISH PLAN & SCHEDULE	
2 WALL BASE							
B-1	SEE SPEC	WOOD	SEE SPECS	STAINED TO MATCH SURROUNDING	4"	LOBBY BASE	
B-2	TARKETT/JOHNSONITE	RUBBER WALL BASE	SEE SPECS	23 VAPOR GREY CG	4"	ALL LOCATIONS U.O.N.	
4 CEILING							
ACT 1	ARMSTRONG	ACOUSTIC PANEL CEILING	ULTIMA `	FLAT WHITE	24X24	GENERAL CEILING TILE	
ACT 2	ARMSTRONG	ACOUSTIC PANEL CEILING	MARS 88985	FLAT WHITE	24X72	VESTIBULE 108	
5 MILLWORK SCHEDULE							
CTP-1	CORIAN QUARTZ	QUARTZ COUNTERTOP	DOUBLE EASED EDGE	INDIGO SWIRL	N/A	KITCHENETTE COUNTERTOPS	
CTP-2	VIATURA	QUARTZ COUNTERTOP	DOUBLE EASED EDGE	VIATERA	N/A	LOBBY FRONT DESK	
PLAM1	WILSONART	PLASTIC LAMINATE		LANDMARK WOOD	N/A	CABINETRY IN KITCHENS	PVC EDGEBANDING TO MATCH LAMINATE
PLAM2	WILSONART	PLASTIC LAMINATE		NEPAL TEAK	N/A	FURNITURE IN ROOMS WITH LVT 2.	PVC EDGEBANDING TO MATCH.
WD	SEE SPECS	SOLID WOOD MILLWORK	SEE SPECS	CLEAR/SEE SPECS	N/A	BUILT-IN BENCHES & LAB CASEWORK	
6 WALL							
FRP	MARLITE	FIBER REINFORCED PLASTIC	SEE SPEC		FULL SHEET	ALL WET AREAS - SEE INTERIOR ELEVATIONS, FINISH PLAN & SCHEDULE	
P-1	SHERWIN WILLIAMS	PAINT	SEE SPEC	SW 7551 GREEK VILLA	N/A	FIELD COLOR - SEE INTERIOR ELEVAITIONS, FINISH PLAN & SCHEDULE	
P-2	SHERWIN WILLIAMS	PAINT	SEE SPEC	SW 7072 ONLINE	N/A	FIELD COLOR 2 - SEE INTERIOR ELEVATIONS, FINISH PLAN & SCHEDULE	
P-3	SHERWIN WILLIAMS	PAINT	SEE SPEC	SW 6488 GRAND CANAL	N/A	ACCENT COLOR - SEE INTERIOR ELEVATIONS, FINISH PLAN & SCHEDULE	
P-4	SHERWIN WILLIAMS	PAINT	SEE SPEC	SW 7008 ALABASTER	N/A	SEE INTERIOR ELEVATIONS, FINISH PLAN & SCHEDULE	
WC1	KOROSEAL WALLTALKERS	TACK BOARD WALLCOVERING	TACWALL	TAC-WALL AZTEC 48"	48" ROLL	SEE INTERIOR ELEVATIONS AND FINISH PLAN	
WC4	KOROSEAL WALLTALKERS	TACK BOARD WALLCOVERING	TACWALL	TAC-WALL PEWTER 48"	48" ROLL	SEE INTERIOR ELEVATIONS AND FINISH PLAN	
8 ACCESSORIES							
	DRAPER	WINDOW SHADES	SEE SPEC	SEE SPEC		ADMINISTRATIVE OFFICES, MEETING ROOM, SEASONAL BREAKROOM, E.P.O	OPENNESS FACTOR 12%. CLEAR ANODIZED FRAME.



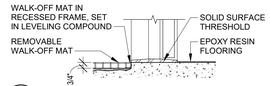
3 A7.1 CONCRETE TO WALK-OFF MAT
Scale: 1 1/2" = 1'-0"



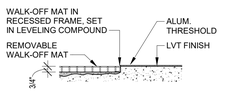
4 A7.1 CONCRETE TO LVT DETAIL
Scale: 1 1/2" = 1'-0"



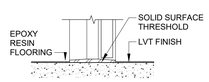
5 A7.1 CARPET TO LVT DETAIL
Scale: 1 1/2" = 1'-0"



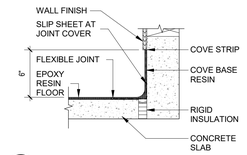
6 A7.1 RESINOUS FLOORING TO WALK-OFF MAT
Scale: 1 1/2" = 1'-0"



2 A7.1 FINISH FLOOR TO WALK-OFF MAT
Scale: 1 1/2" = 1'-0"



7 A7.1 RESINOUS FLOORING TO LVT DETAIL
Scale: 1 1/2" = 1'-0"



8 A7.1 RESIN COVE BASE DETAIL
Scale: 1 1/2" = 1'-0"

FINISH LEGEND

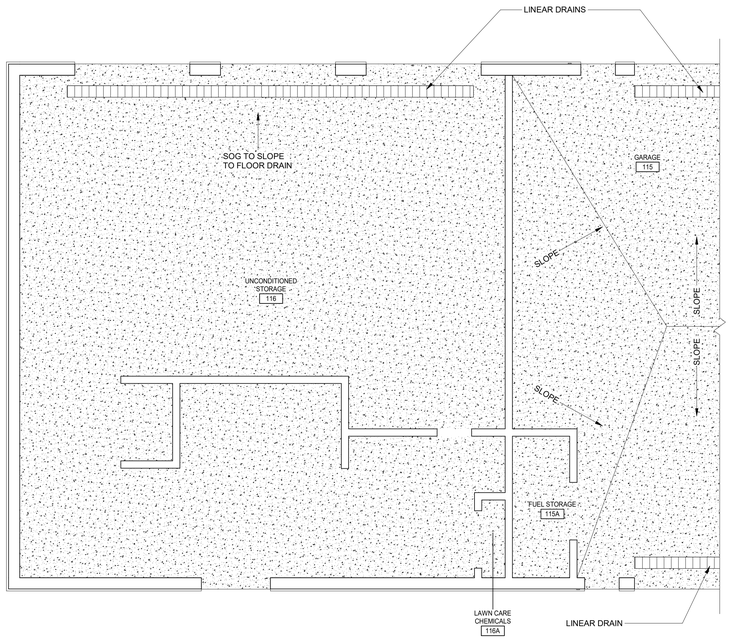
- RESINOUS FLOORING
- LVT-1
- LVT - 2
- SEALED CONCRETE
- WALK-OFF MAT

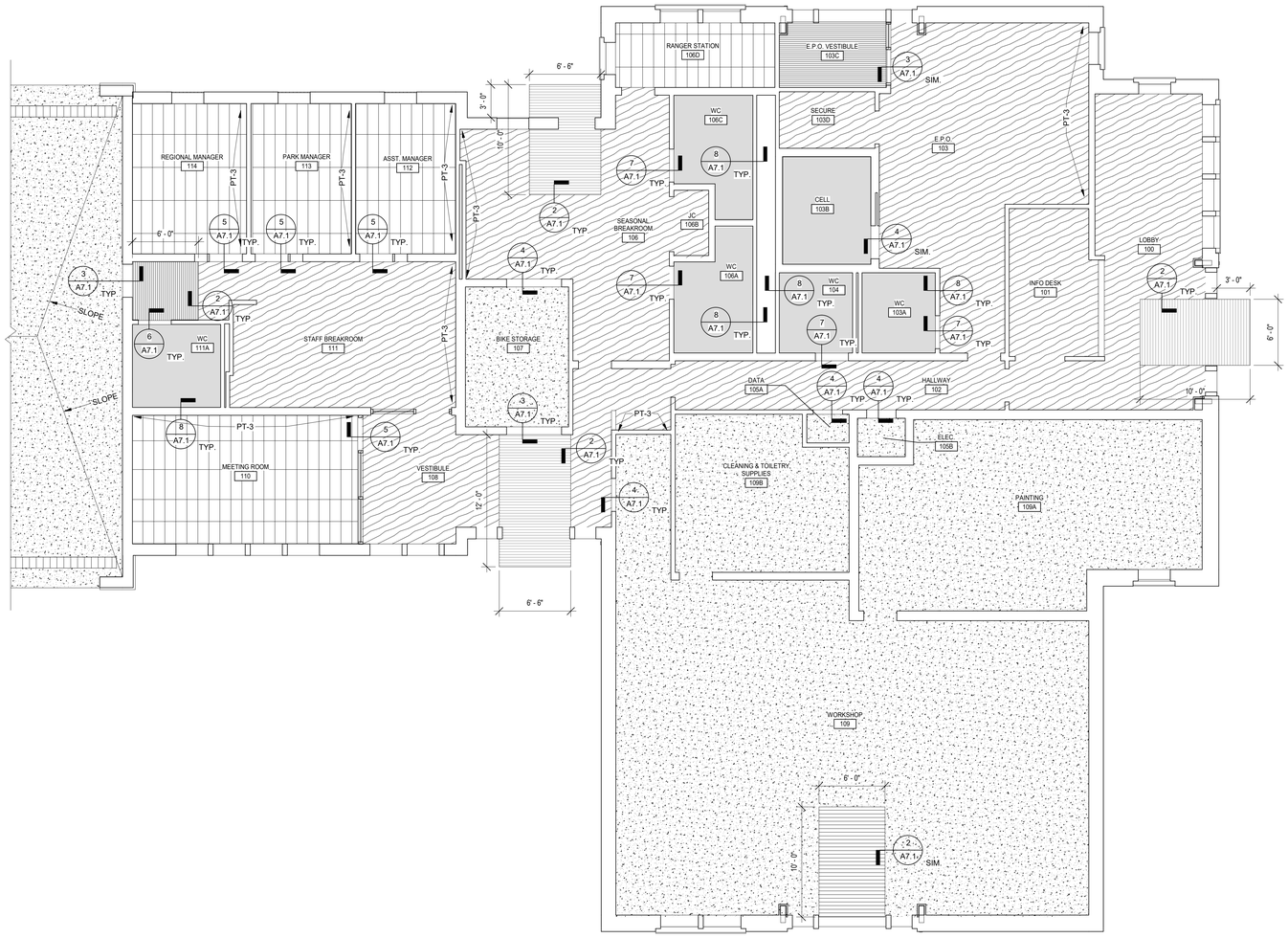
FINISH SCHEDULE

ROOM #	NAME	FLOOR	WALLS BASE	NORTH	EAST	SOUTH	WEST
100	LOBBY	LVT-1	WD	WD	WD	WD	WD
101	INFO DESK	LVT-1	WD	WD	WD	WD	WD
102	HALLWAY	LVT-1	RB	PT-1	PT-1	PT-1	PT-1
103	E.P.O.	LVT-1	RB	PT-1	PT-1/3	PT-1	PT-1
103A	WC	RESIN	EP. RESIN	FRP	FRP	FRP	FRP
103B	CELL	RESIN	RESIN	PT-2	PT-2	PT-2	PT-2
103C	E.P.O. VESTIBULE	WOM	RB	PT-1	PT-1	PT-1	PT-1
103D	SECURE	LVT-1	RB	PT-1	PT-1	PT-1	PT-1
104	WC	RESIN	EP. RESIN	FRP	FRP	FRP	FRP
105A	DATA	CONC.	RB	PT-1	PT-1	PT-1	PT-1
105B	ELEC.	CONC.	RB	PT-1	PT-1	PT-1	PT-1
106	SEASONAL BREAKROOM	LVT-1	RB	PT-1	PT-1	PT-1	PT-3
106A	WC	RESIN	EP. RESIN	FRP	PT-1	PT-1	PT-1
106B	JC	LVT-1	RB	PT-1	PT-1	PT-1	PT-1
106C	WC	RESIN	EP. RESIN	FRP	FRP	FRP	FRP
106D	RANGER STATION	LVT-2	RB	PT-1	PT-1	PT-3	PT-1
107	BIKE STORAGE	CONC.	RB	PT-1	PT-1	PT-1	PT-1
108	VESTIBULE	LVT-1	RB	PT-1	PT-1	PT-1	PT-1
109	WORKSHOP	CONC.	RB	PT-1	PT-1	PT-1	PT-1
109A	PAINTING	CONC.	RB	PT-1	PT-1	PT-1	PT-1
109B	CLEANING & TOILETRY SUPPLIES	CONC.	RB	PT-1	PT-1	PT-1	PT-1
110	MEETING ROOM	LVT-2	RB	PT-3	PT-1	PT-1	PT-1
111	STAFF BREAKROOM	LVT-1	RB	PT-1	PT-3	PT-1	PT-1
111A	WC	RESIN	EP. RESIN	FRP	FRP	FRP	FRP
112	ASST. MANAGER	LVT-2	RB	PT-1	PT-3	PT-1	PT-1
113	PARK MANAGER	LVT-2	RB	PT-1	PT-3	PT-1	PT-1
114	REGIONAL MANAGER	LVT-2	RB	PT-1	PT-3	PT-1	PT-1
115	GARAGE	CONC.	RB	PT-1	PT-1	PT-1	PT-1
115A	FUEL STORAGE	CONC.	RB	PT-1	PT-1	PT-1	PT-1
116	UNCONDITIONED STORAGE	CONC.	RB	PT-1	PT-1	PT-1	PT-1
116A	LAWN CARE CHEMICALS	CONC.	RB	PT-1	PT-1	PT-1	PT-1

FINISH FLOOR PLAN GENERAL NOTES

1. FLOOR AT GARAGE BAYS TO SLOPE TOWARDS DRAINS.
2. FLOOR FINISH TO RUN UNDER CASEWORK/MILLWORK.





1 A7.1 FINISH FLOOR PLAN
Scale: 3/16" = 1'-0"

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SHEET TITLE
FINISH SCHEDULE, DETAILS, AND FLOOR PLAN

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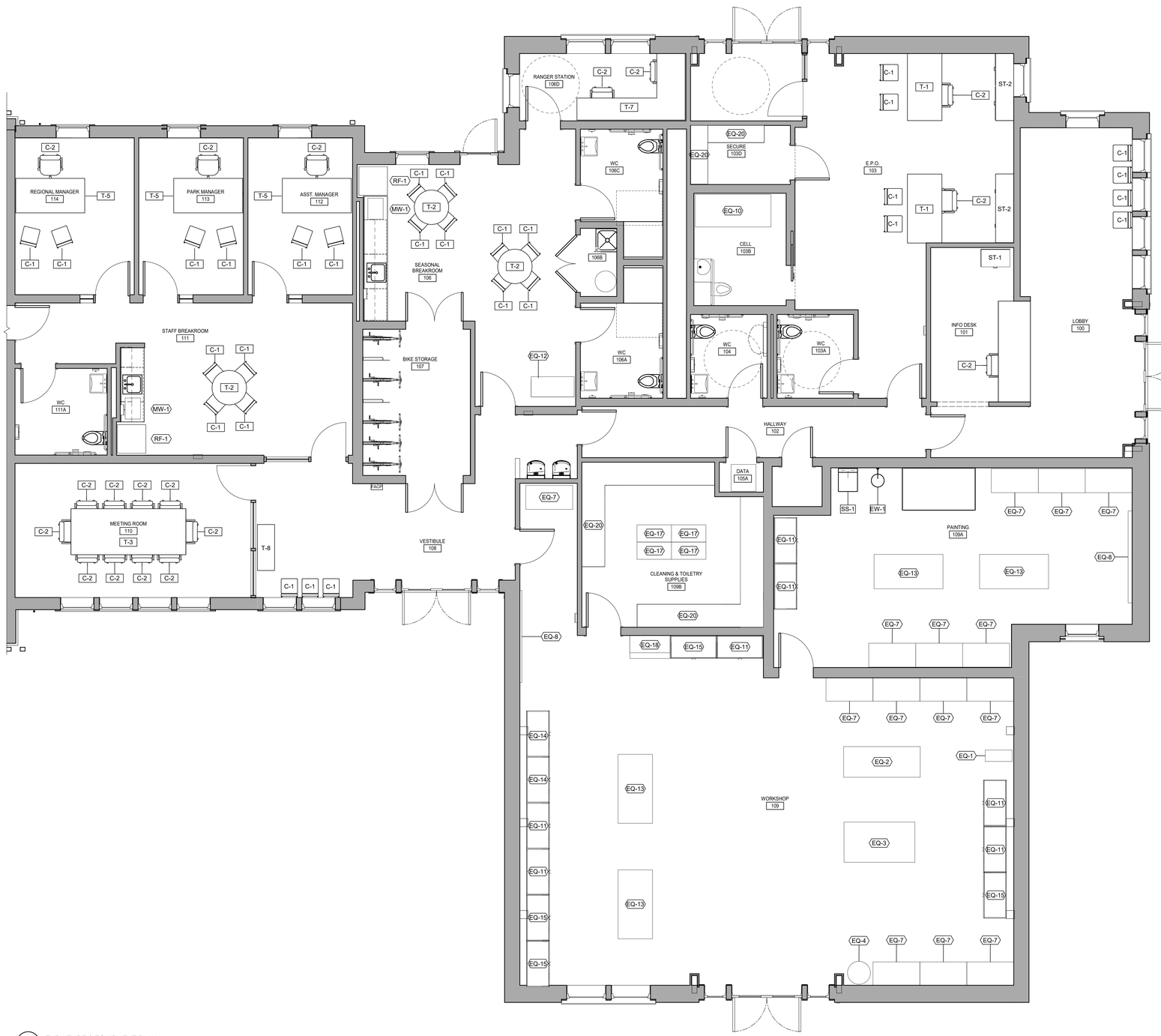

2 A7.2 FURNITURE & EQUIPMENT PLAN
Scale: 1/4" = 1'-0"

EQUIPMENT SCHEDULE -

MARK	PRODUCT	MANUFACTURER	SIZE	MODEL NAME	MODEL NUMBER	FINISH	NOTES	COUNT
EQ-1	DRILL PRESS	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-2	ROTARY SAW	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-3	SAW TABLE	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-4	AIR COMPRESSOR	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-7	WAREHOUSE SHELVING	GRAINGER	48"W24"Dx78"H	EDSAL BULK STORAGE RACK	ER7824W4	BLACK POWDER COAT	MEDIUM DUTY STEEL WIRE 4 SHELVES555.99 each	20
EQ-8	PEG BOARD	U-LINE	96"x48"	STEEL PEGBOARD	H-6450BL	BLACK POWDER COAT		3
EQ-9	LUMBER STORAGE	GLOBAL INDUSTRIAL	72"Wx45"Dx120"H	SINGLE SIDED CANTILIEVER RACK	T9A248373L	GRAY ENAMEL		8
EQ-10	CELL BENCH	CORTECH	15H"x79"Lx31"D	ENDURENCE BED 0.0	7500GY	GRAY POLYETHYLENE		1
EQ-11	METAL STORAGE	U-LINE	36"x24"Dx72"H	INDUSTRIAL STORAGE CABINET	H-2216ABL	BLACK POWDER COAT		7
EQ-12	LOCKERS	U-LINE	36"Wx18"Dx72"H	DELUXE SIX TIER LOCKERS	H-8489	GRAY POWDER COAT		1
EQ-13	WORK TABLE	U-LINE	36"wx72"L	DELUXE WORKSTATIONS	H-5770	GRAY POWDER COAT	COMPOSITE WOOD SURFACE	4
EQ-14	METAL STORAGE	U-LINE	36"x24"78"	BIN STORAGE CABINET 138 BINS	H-8347BL	GRAY POWDER COAT	BLACK PLASTIC BINS	2
EQ-15	METAL STORAGE	U-LINE	36"x24"x78"	BIN STORAGE CABINET 90 BINS	H-8345BL	GRAY POWDER COAT	BLACK PLASTIC BINS	4
EQ-16	LUMBER STORAGE	GLOBAL INDUSTRIAL	39"Wx24"Dx84"H	VERTICAL BAR RACK	T9A798899	BLUE ENAMEL PAINT		2
EQ-17	METAL STORAGE	U-LINE	36"Wx18"Dx78"H	STORAGE CABINET HEAVY DUTY	H-2217ABL	BLACK POWDER COAT		4
EQ-18	EXISTING CRAFTSMAN TOOLBOX	-	-	-	-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-19	HANGING TOOL STORAGE	ULINE	37"x4"x2"	GARAGE TOOL HOLDERS	H-7867			2
EQ-20	WALL MOUNTED SHELVING	GLOBAL INDUSTRIAL						6
EQ-21	WALL MOUNTED RACK	GLOBAL INDUSTRIAL						1
EQ-22	CLOSET SHELVING	GLOBAL INDUSTRIAL	72"x18"x63"	POLY-GREEN WALL MOUNT WIRE SHELVES	WBB1137106GZ			1
EQ-23	FUEL STORAGE SHELVING	GLOBAL INDUSTRIAL	60"x18"x63"	POLY-GREEN WALL MOUNT WIRE SHELVES	WBB1137000GZ			4

FURNITURE SCHEDULE

MARK	PRODUCT	MANUFACTURER	SIZE	MODEL NAME	MODEL NUMBER	BASE/FRAME FINISH	SURFACE FINISH	NOTES	COUNT
C-1	SIDE CHAIR	BAY PRODUCT	20"Wx23"Dx34"H	PIERCE SIDE CHAIR		GRAY POWDER COAT	BLACK POLYPROPYLENE SHELL	ON GLIDES	29
C-2	TASK CHAIR	BAY PRODUCT	27"Wx26"Dx37"-42"H	DEVENS TASK CHAIR		BLACK POLYPROPYLENE	BLACK MESH/ASH UPHOLSTRY	ON BLACK CASTERS	18
ST-1	INFO DESK STORAGE CABINET	BAY PRODUCT	30"x18"	CALIBRATE CASEGOODS					1
ST-2	EPO OFFICE STORAGE CABINET	BAY PRODUCT	36"Wx18"H	CALIBRATE CASEGOODS					4
T-1	EPO OFFICE DESK	BAY PRODUCT	72"x36"	CALIBRATE CASEGOODS				WITH MODESTY PANEL AND PEDESTAL STORAGE	2
T-2	BREAKROOM TABLE	BAY PRODUCT	36" DIA	DAY TO DAY TABLE ROUND				STEEL X-BASE WITH GLIDES	3
T-3	CONFERENCE TABLE	BAY PRODUCT	48"Wx120"L	CALIBRATE CONFERENCE				3-BASE TABLE	1
T-5	MANAGERS OFFICE DESK	BAY PRODUCT	72"x36"	CALIBRATE SERIES				WITH MODESTY PANEL AND PEDESTAL STORAGE	3
T-7	RANGER DESK	BAY PRODUCT		CALIBRATE CASEGOODS				STANDARD L SHAPED TABLE	1
T-8	CHECK IN TABLE	BAY PRODUCT		DAY TO DAY TABLE				END PANEL FLUSHED TABLE	1

APPLIANCE SCHEDULE

MARK	PRODUCT	MANUFACTURER	MODEL	COMMENTS
MW-1	MICROWAVE	LG	LMC1575_	BASE BID
RF-1	REFRIGERATOR	FRIGIDAIRE	FFTR1835VB	BASE BID

NEW OPERATIONS FACILITY
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Providence, RI 02908
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JOB NO. 2201
DATE 08/01/2025
ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
FURNITURE & EQUIPMENT PLAN

SHEET
A7.2

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OWNER EXISTING VEHICLE INVENTORY

TYPE	MANUFACTURER	MODEL	COMMENTS
V01	JOHN DEER	GATOR TX 4X2	
V02	EXMARK	LZ27LKA604	
V03	EXMARK	LZE801GKA60RA1	
V04	HURRICANE	Z3	
V05	MCT	BLACK CUSTOM TRAILER	
V06	WRIGHT	RED FLATBED TRAILER	
V07	UNKNOWN	BOAT TRAILER	

FOR REFERENCE ONLY. NOT IN CONTRACT.

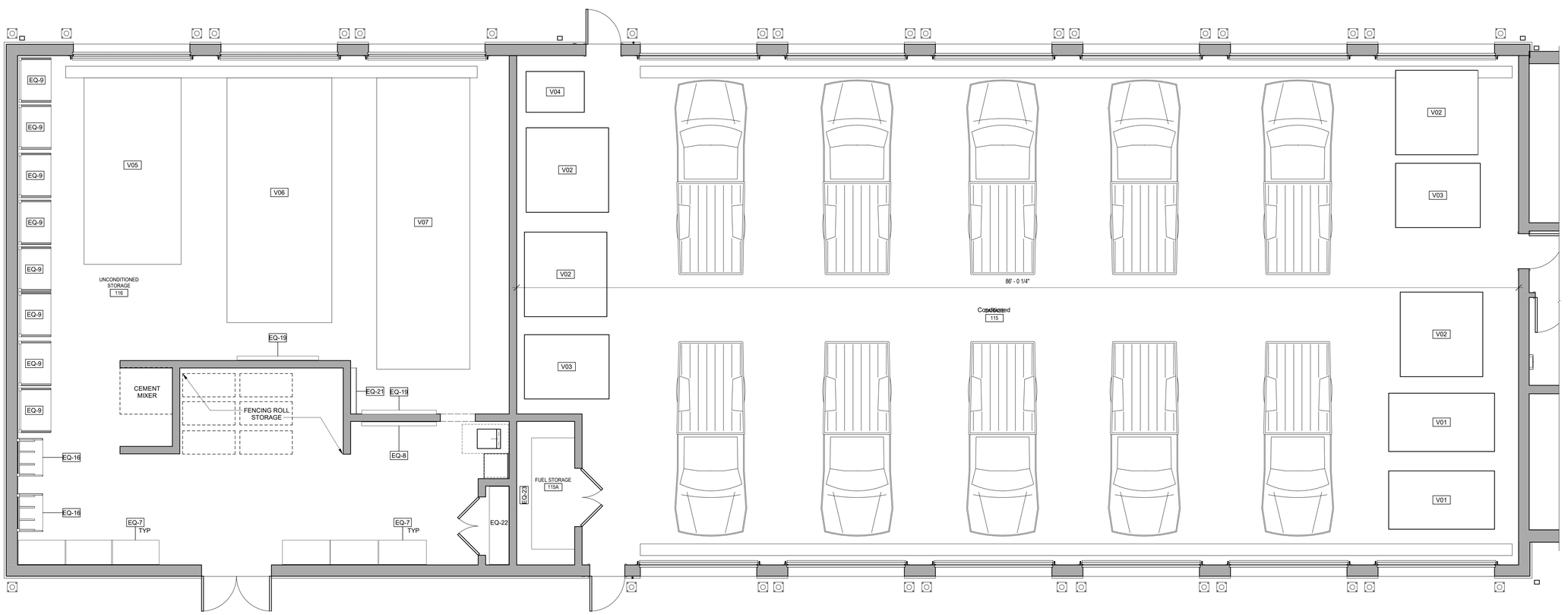
FURNITURE SCHEDULE

MARK	PRODUCT	MANUFACTURER	SIZE	MODEL NAME	MODEL NUMBER	BASE/FRAME FINISH	SURFACE FINISH	NOTES	COUNT
C-1	SIDE CHAIR	BAY PRODUCT	20"Wx23"Dx34"H	PIERCE SIDE CHAIR		GRAY POWDER COAT	BLACK POLYPROPYLENE SHELL	ON GLIDES	29
C-2	TASK CHAIR	BAY PRODUCT	27"Wx26"Dx37"-42"H	DEVENS TASK CHAIR		BLACK POLYPROPYLENE	BLACK MESH/ASH UPHOLSTRY	ON BLACK CASTERS	18
ST-1	INFO DESK STORAGE CABINET	BAY PRODUCT	30"x18"	CALIBRATE CASEGOODS					1
ST-2	EPO OFFICE STORAGE CABINET	BAY PRODUCT	36"Wx18"H	CALIBRATE CASEGOODS					4
T-1	EPO OFFICE DESK	BAY PRODUCT	72"x36"	CALIBRATE CASEGOODS				WITH MODESTY PANEL AND PEDESTAL STORAGE	2
T-2	BREAKROOM TABLE	BAY PRODUCT	36" DIA	DAY TO DAY TABLE ROUND				STEEL X-BASE WITH GLIDES	3
T-3	CONFERENCE TABLE	BAY PRODUCT	48"Wx120"L	CALIBRATE CONFERENCE				3-BASE TABLE	1
T-5	MANAGERS OFFICE DESK	BAY PRODUCT	72"x36"	CALIBRATE SERIES				WITH MODESTY PANEL AND PEDESTAL STORAGE	3
T-7	RANGER DESK	BAY PRODUCT		CALIBRATE CASEGOODS				STANDARD L SHAPED TABLE	1
T-8	CHECK IN TABLE	BAY PRODUCT		DAY TO DAY TABLE				END PANEL FLUSHED TABLE	1

EQUIPMENT SCHEDULE

MARK	PRODUCT	MANUFACTURER	SIZE	MODEL NAME	MODEL NUMBER	FINISH	NOTES	COUNT
EQ-1	DRILL PRESS	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-2	ROTARY SAW	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-3	SAW TABLE	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-4	AIR COMPRESSOR	-			-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-7	WAREHOUSE SHELVING	GRAINGER	48"W24"Dx78"H	EDSAL BULK STORAGE RACK	ER7824W4	BLACK POWDER COAT	MEDIUM DUTY STEEL WIRE 4 SHELVES555.99 each	20
EQ-8	PEG BOARD	U-LINE	96"x48"	STEEL PEGBOARD	H-6450BL	BLACK POWDER COAT		3
EQ-9	LUMBER STORAGE	GLOBAL INDUSTRIAL	72"Wx45"Dx120"H	SINGLE SIDED CANTILIEVER RACK	T9A248373L	GRAY ENAMEL		8
EQ-10	CELL BENCH	CORTECH	15H"x79"Lx31"D	ENDURENCE BED 0.0	7500GY	GRAY POLYETHYLENE		1
EQ-11	METAL STORAGE	U-LINE	36"x24"Dx72"H	INDUSTRIAL STORAGE CABINET	H-2216ABL	BLACK POWDER COAT		7
EQ-12	LOCKERS	U-LINE	36"Wx18"Dx72"H	DELUXE SIX TIER LOCKERS	H-8489	GRAY POWDER COAT		1
EQ-13	WORK TABLE	U-LINE	36"wx72"L	DELUXE WORKSTATIONS	H-5770	GRAY POWDER COAT	COMPOSITE WOOD SURFACE	4
EQ-14	METAL STORAGE	U-LINE	36"x24"78"	BIN STORAGE CABINET 138 BINS	H-8347BL	GRAY POWDER COAT	BLACK PLASTIC BINS	2
EQ-15	METAL STORAGE	U-LINE	36"x24"x78"	BIN STORAGE CABINET 90 BINS	H-8345BL	GRAY POWDER COAT	BLACK PLASTIC BINS	4
EQ-16	LUMBER STORAGE	GLOBAL INDUSTRIAL	39"Wx24"Dx84"H	VERTICAL BAR RACK	T9A798899	BLUE ENAMEL PAINT		2
EQ-17	METAL STORAGE	U-LINE	36"Wx18"Dx78"H	STORAGE CABINET HEAVY DUTY	H-2217ABL	BLACK POWDER COAT		4
EQ-18	EXISTING CRAFTSMAN TOOLBOX	-	-	-	-	-	OWNER PROVIDED CONTRACTOR INSTALLED.	1
EQ-19	HANGING TOOL STORAGE	ULINE	37"x4"x2"	GARAGE TOOL HOLDERS	H-7867			2
EQ-20	WALL MOUNTED SHELVING	GLOBAL INDUSTRIAL						6
EQ-21	WALL MOUNTED RACK	GLOBAL INDUSTRIAL						1
EQ-22	CLOSET SHELVING	GLOBAL INDUSTRIAL	72"x18"x63"	POLY-GREEN WALL MOUNT WIRE SHELVES	WBB1137106GZ			1
EQ-23	FUEL STORAGE SHELVING	GLOBAL INDUSTRIAL	60"x18"x63"	POLY-GREEN WALL MOUNT WIRE SHELVES	WBB1137000GZ			4

NOTE:
ALL EQUIPMENT SHALL BE PART OF THE BASE BID U.N.O.



1 / A7.3 FURNITURE & EQUIPMENT PLAN @ GARAGE
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NEW OPERATIONS FACILITY
COLT STATE PARK
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MICHAEL J. GNESHIN — No. 3358 — REGISTERED ARCHITECT — STATE OF RHODE ISLAND

JOB NO. 2201 | DATE 08/01/2025

ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
FURNITURE & EQUIPMENT PLAN @ GARAGE

SHEET
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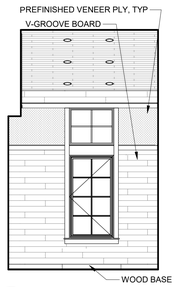

1 / A7.4 LOBBY - NORTH
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2 / A7.4 LOBBY - EAST
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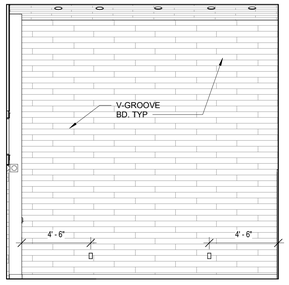

3 / A7.4 LOBBY - SOUTH
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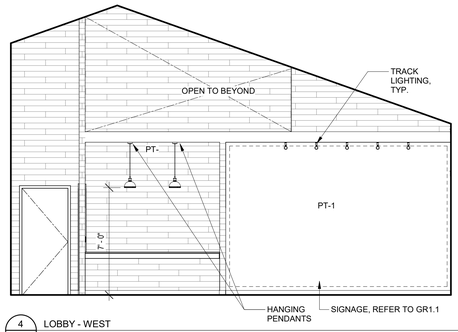

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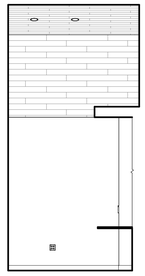

5 / A7.4 INFO. DESK - NORTH
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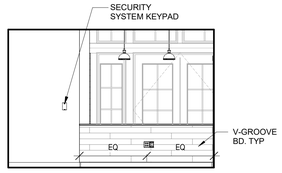

6 / A7.4 INFO. DESK - EAST
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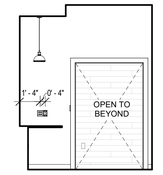

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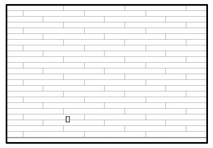

8 / A7.4 INFO. DESK - WEST
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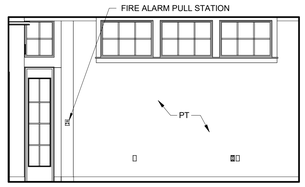

9 / A7.4 E.P.O - NORTH
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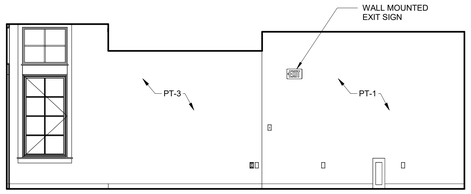

10 / A7.4 E.P.O - EAST
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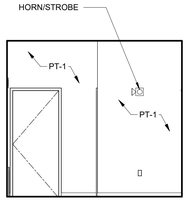

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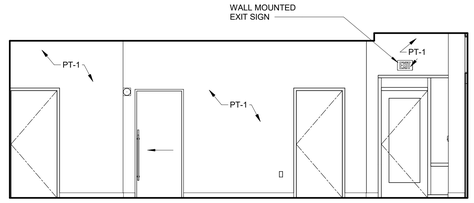

12 / A7.4 E.P.O - WEST
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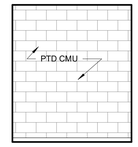

13 / A7.4 CELL - NORTH
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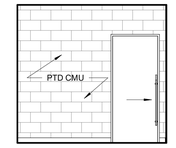

14 / A7.4 CELL - EAST
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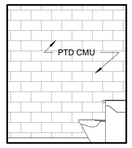
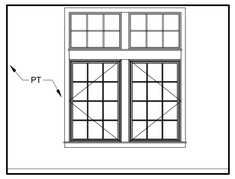


15 / A7.4 CELL - SOUTH
Scale: 1/4" = 1'-0"

16 / A7.4 CELL - WEST
Scale: 1/4" = 1'-0"



17 / A7.4 RANGER STATION - NORTH
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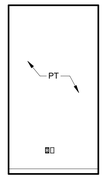

18 / A7.4 RANGER STATION - EAST
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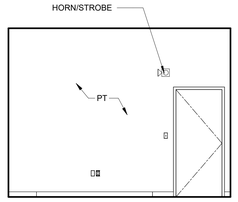

19 / A7.4 RANGER STATION - SOUTH
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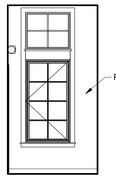

20 / A7.4 RANGER STATION - WEST
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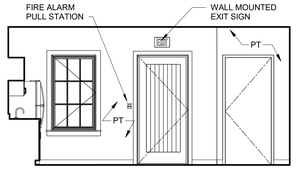

21 / A7.4 SEASONAL BREAK ROOM - NORTH
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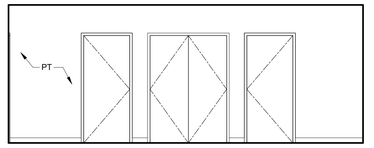

22 / A7.4 SEASONAL BREAK ROOM - EAST
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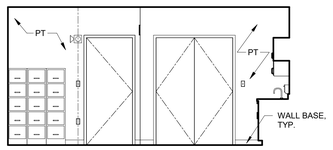

23 / A7.4 SEASONAL BREAK ROOM - SOUTH
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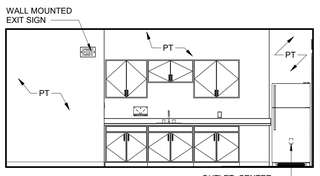

24 / A7.4 SEASONAL BREAK ROOM - WEST
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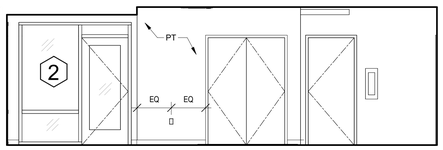
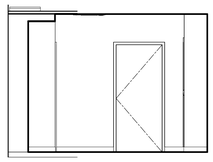


25 / A7.4 VESTIBULE - NORTH
Scale: 1/4" = 1'-0"



26 / A7.4 VESTIBULE - EAST
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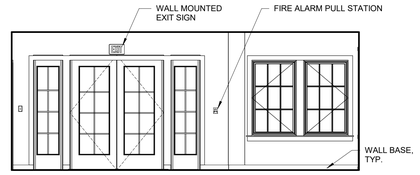

27 / A7.4 VESTIBULE - SOUTH
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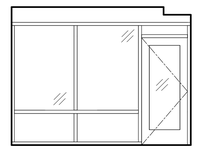

28 / A7.4 VESTIBULE - WEST
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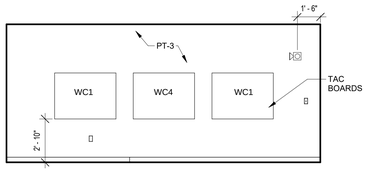

29 / A7.4 MEETING ROOM - NORTH
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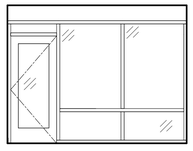

30 / A7.4 MEETING ROOM - EAST
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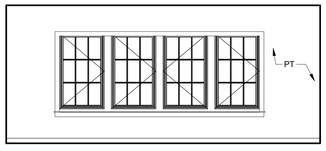

31 / A7.4 MEETING ROOM - SOUTH
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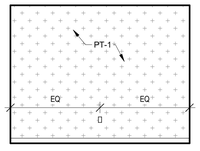

32 / A7.4 MEETING ROOM - WEST
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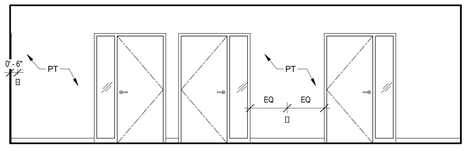

33 / A7.4 STAFF BREAK ROOM - NORTH
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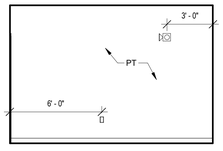
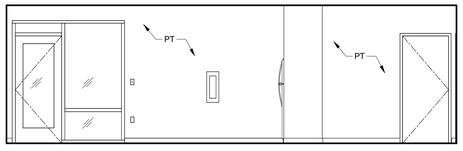
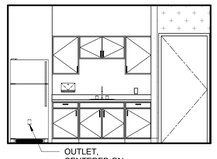


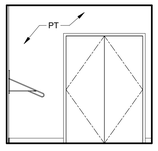
34 / A7.4 STAFF BREAK ROOM - EAST
Scale: 1/4" = 1'-0"



35 / A7.4 STAFF BREAK ROOM - SOUTH
Scale: 1/4" = 1'-0"



36 / A7.4 STAFF BREAK ROOM - WEST
Scale: 1/4" = 1'-0"



37 / A7.4 BIKE STORAGE - NORTH
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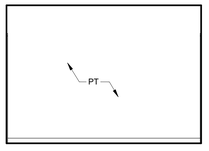
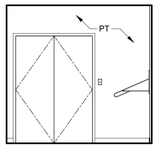
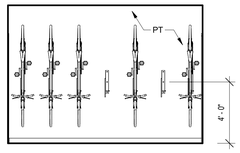


38 / A7.4 BIKE STORAGE - EAST
Scale: 1/4" = 1'-0"



39 / A7.4 BIKE STORAGE - SOUTH
Scale: 1/4" = 1'-0"



40 / A7.4 BIKE STORAGE - WEST
Scale: 1/4" = 1'-0"

9/16/2025 11:08:28 AM

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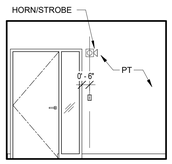
NATHANIEL J. GINSBERG
No. 3380
REGISTERED ARCHITECT
STATE OF RHODE ISLAND

JOB NO. 2201
DATE 08/01/2025
ISSUE : BID SET

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
INTERIOR ELEVATIONS

SHEET
A7.4



1 A7.5 REGIONAL MGR. - SOUTH
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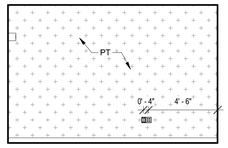

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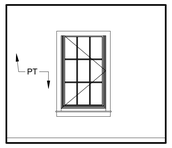

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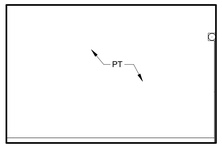

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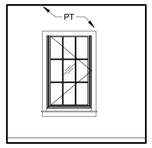

5 A7.5 ASST. MGR. - NORTH
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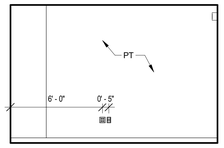

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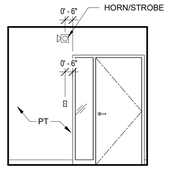

7 A7.5 ASST. MGR. - SOUTH
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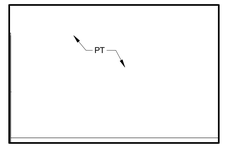

8 A7.5 ASST. MGR. - WEST
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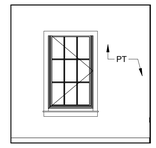

9 A7.5 PARK MGR. - NORTH
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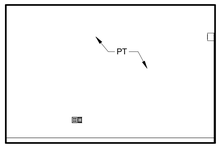

10 A7.5 PARK MGR. - EAST
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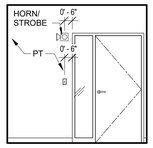

11 A7.5 PARK MGR. - SOUTH
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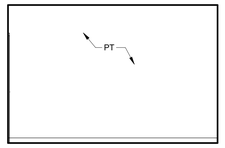

12 A7.5 PARK MGR. - WEST
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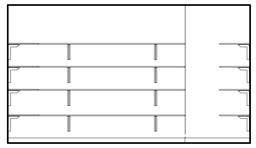

13 A7.5 SUPPLIES - NORTH
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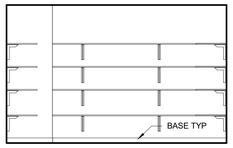

14 A7.5 SUPPLIES - EAST
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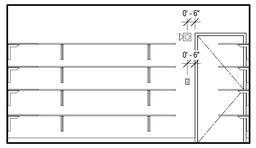

15 A7.5 SUPPLIES - SOUTH
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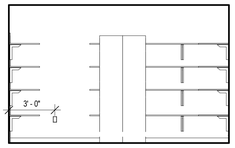

16 A7.5 SUPPLIES - WEST
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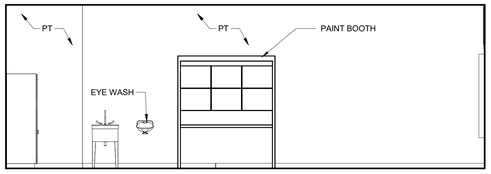
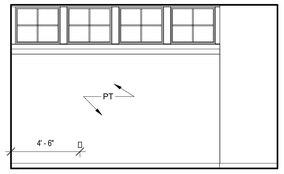


17 A7.5 PAINTING - NORTH
Scale: 1/4" = 1'-0"



18 A7.5 PAINTING - EAST
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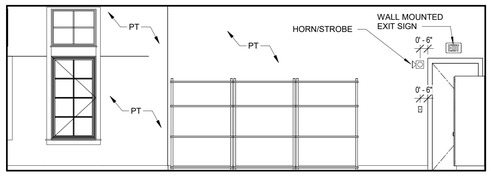

19 A7.5 PAINTING - SOUTH
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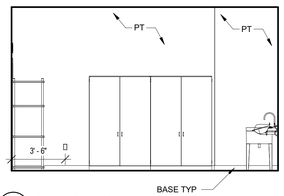

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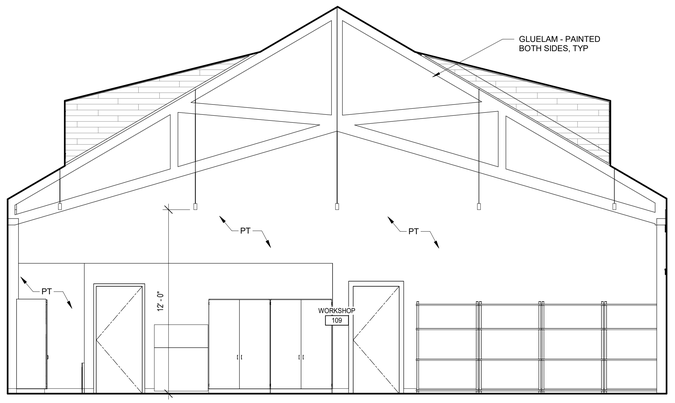
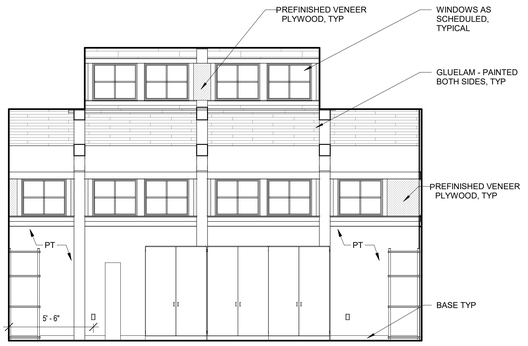


21 A7.5 WORKSHOP - NORTH
Scale: 1/4" = 1'-0"



22 A7.5 WORKSHOP - EAST
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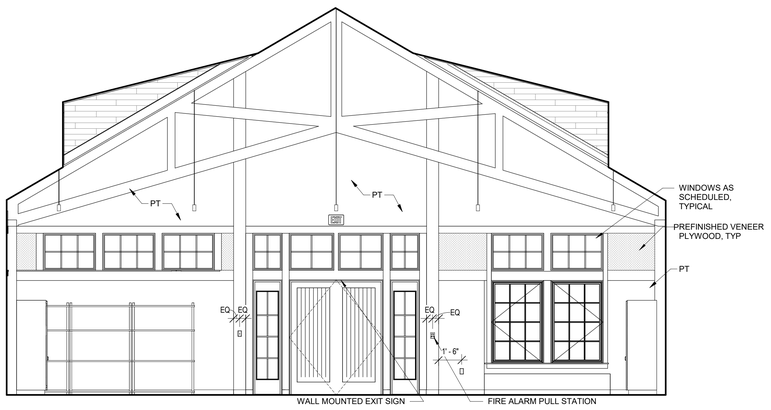

23 A7.5 WORKSHOP - SOUTH
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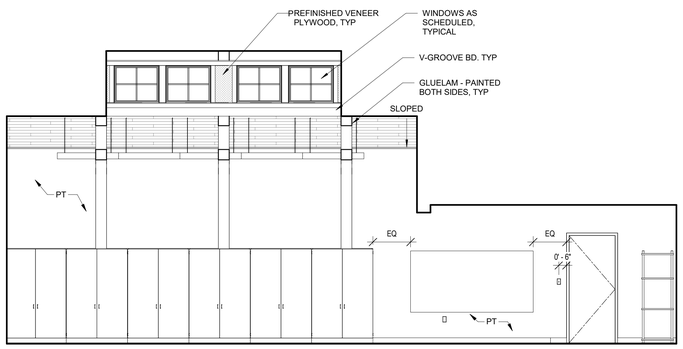

24 A7.5 WORKSHOP - WEST
Scale: 1/4" = 1'-0"

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IMMANUEL J. GIANCOLA — No. 3333 — REGISTERED ARCHITECT — RHODE ISLAND

JOB NO. 2201 | DATE 08/01/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
INTERIOR ELEVATIONS

SHEET
A7.5

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FABRICATOR SPECIFICATIONS

WORK INCLUDED

(a) Sign Fabrication: Types of signs, messages, and graphics are indicated on the Drawings and herein, and require various materials, various finishes, and various fabrication and installation techniques.

(b) Shop drawings, layouts, mock-ups, samples, and prototypes for Owner and Designer approval.

(c) Structural design and calculations when appropriate to substantiate design. This includes certified engineers licensed in the state of RI review stamp and approval as required.

(e) Installation of all fabricated signs, including all fasteners.

(f) Coordination with Owner and Designer during all phases of development, fabrication and installation.

(g) Coordination with other trades, i.e., electrical contractors, etc.

(h) Coordination and verification of all artwork with owner. Designer to provide complete artwork for production.

QUALITY ASSURANCE

(a) Design criteria:

1. Structural design: Details on Drawings indicate a design approach for sign fabrication but do not necessarily include all fabricating details required for the complete structural integrity of the signs, including consideration for static, dynamic, and erection loads during handling, erecting, and service at the installed locations, nor do they necessarily consider the preferred shop practices of the individual sign fabricators. Therefore, it shall be the responsibility of the fabricator to perform the complete structural design of the signs and to incorporate all the reasonable safety factors necessary to protect the Owner, its representatives, and Designer against public liability. Designs which survive rational engineering analysis will be acceptable, provided that shop drawings, including structural design, are approved by the Owner. Signs must meet all applicable local, state, and national codes, as well as testing laboratory listings where required.

SHOP DRAWINGS

(a) The drawings in this package are for design intent only. The Sign Fabricator is respon-sible for the proper engineering of all items and verification on site of all installation requirements. The internal structure, dimensions, and specifications for all items shall be indicated in the shop drawings.

(b) Description: Provide shop drawings for all items including:

1. Complete fabrication and installation drawings for each sign type. Indicate dimensions, materials, finishes, fastening, anchorage, joining, sealing, backing, utility requirements, rough-in, and adjacent related site conditions.
2. Each sign type with all graphic elements.
3. All letter styles shall be accurately reproduced.

(c) Provide (2) complete sets to Designer for review.

(d) Provide (1) complete set to Owner for review.

SUBMITTALS

(a) Procedure: Selected Fabricator will be required to submit the following:

1. Notes on Drawings referring to actions by Designer.
2. First article of production-run items, both large and small, will be reviewed by the Owner and Designer before production run is commenced.
3. It shall be the responsibility of the fabricator to schedule all review meetings with the Owner and Designer.

(b) Submit physical samples of sufficient size and quantity (see list below) to illustrate materials, finishes, equipment or workmanship, and to establish standards by which completed work will be judged. Samples must represent the functional characteristics of the product or material, with integrally related parts and attachment devices, colors, and finishes.

(c) All samples to have a place for stamp approval.

(d) Submit (2) complete sets of samples to Designer for review.

(e) Submit (1) complete set of samples for Owner review.

(f) Required samples for review:

- **Painted aluminum channel and magnetic attachment**
- **Full size sintra panel showing printed graphic and magnetic attachment**
- **Full size wood veneer panel showing magnetic attachment**
- **Full size painted aluminum letter**

RESUBMITTAL REQUIREMENTS

(a) Shop drawings:

1. Review drawings and indicate revisions date as required, and resubmit as specified for initial submittal.
2. Indicate on drawings all changes that are different than those requested by the Designer.

(b) Product data and samples: Submit new data and samples in accord with same criteria as required for first submittals.

DESIGNER'S RESPONSIBILITIES

(a) Review submittals with reasonable promptness on basis of design concept of project and information contained in Design Development Documents.

1. Attention is directed to the fact that Designer review is only to check for general conformance with the design concept of the project and general compliance with Design Intent Documents. No responsibility is assumed by Designer for correctness of dimensions, details, quantities, procedures shown on shop drawings, or submittals.
2. Omission in shop drawings of materials indicated in Design Intent Documents mentioned in Specifications, or required for proper execution and completion of work, does not relieve the Fabricator from responsibility for providing such materials. Fabricator is responsible for accuracy, dimensions, quantities, strength of connection, coordination with various trades, and conformance to project requirements.
3. Approval of a separate or specified item does not necessarily constitute approval of an assembly in which item function.

(b) Affix stamp and initials or signature acknowledging review of submittal as follows:

1. Approved.
2. Approved with notations, resubmittal not required.
3. Not approved. Resubmittal required.

(c) Designer to provide artwork on electronic disk, Illustrator 9.0.

FABRICATION - GENERAL

(a) Intent of Specifications: It is intended that all finished work be of the highest quality to pass eye-level examination and scrutiny by the Owner and Designer.

1. Construct all work to eliminate burrs, dents, cutting edges, and sharp corners.
2. Finish welds on exposed surfaces to be imperceptible in the finished work.
3. Except as indicated or directed otherwise, finish all surfaces smooth.
4. Surfaces which are intended to be flat shall be without dents, bulges, oil canning, gaps, or other physical deformities.
5. Surfaces which are intended to be curved shall be smoothly free-flowing to required shapes.
6. Except where approved otherwise by Designer, conceal all fasteners.
7. Make access panels tight-fitting, lightproof, and flush with adjacent surfaces.
8. Conceal all identification labels and U.L. labels to conform to U.L. Codes.
9. Carefully follow manufacturer's recommended fabricating procedures regarding expansion/ contraction, fastening, and restraining of acrylic plastic.
10. Exercise care to assure that painted, polished, and plated surfaces are unblemished in the finished work.
11. Isolate dissimilar materials. Exercise particular care to isolate nonferrous metals from ferrous metals.
12. All illumination shall be even and without hotspots.
13. Ease all exposed metal edges.

INSPECTION

(a) Owner and Designer reserves the right to inspect work in the fabrication shop before it is shipped to the job site for installation.

(b) Sign Fabricator shall inspect installation locations for conditions which will adversely affect execution, permanence and quality of work, and shall not proceed with installation until unsatisfactory conditions have been corrected.

INSTALLATION - GENERAL

(a) Verify the exact location with the Designer and Owner for all signs which are not precisely dimensioned on the Drawings.

(b) Except as may be specifically indicated otherwise on the drawings, install prefabricated work plumb, level, square, and true to line.

(c) Securely anchor work in proper location using anchors, fasteners, or other methods approved on shop and erection drawings. All anchors/fasteners shall be appropriate for the anchorage condition.

(d) Sign mounting shall be specific to individual mounting conditions if necessary. Mounting brackets shall not damage or compromise the integrity of the surface to which they are mounted.

PUNCH LIST

(a) When Sign Fabricator considers the work has reached final completion (that is, when less than one percent of the Contract remains to be completed), submit written notice, together with a written list of items to be completed or corrected.

(b) The Owner and Designer will inspect the status of completion and prepare a "Punch List" setting forth in detail any items on the Sign Fabricator's list and additional items found unacceptable. When the Punch List is complete, the Owner will arrange a meeting with the Sign Fabricator to identify and explain all items and respond to questions regarding the work which must be done before final acceptance.

(c) Sign Fabricator shall correct Punch List items within a time frame established when the punch list is made. The time frame for completion of the Punch List items shall not exceed the completion date of the Contract. The Contract shall not be considered complete until Punch List items are completed.

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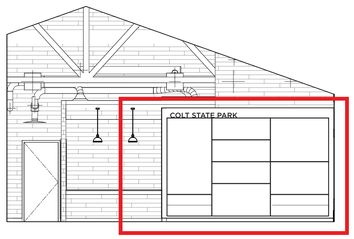
JOB NO. 2201 | DATE 08.01.25

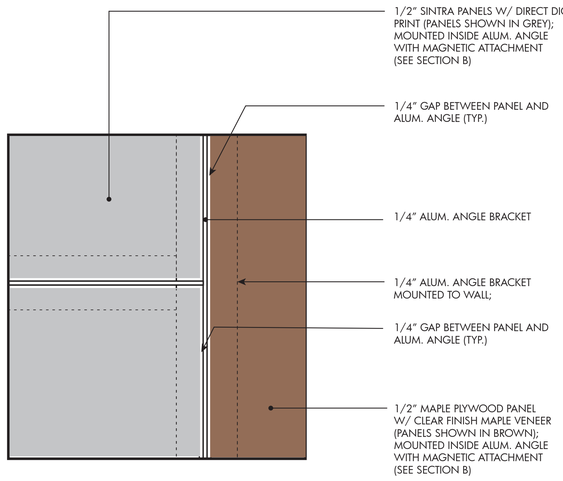
ISSUE : **PERMIT SET**

NO.	REVISION DESCRIPTION	DATE

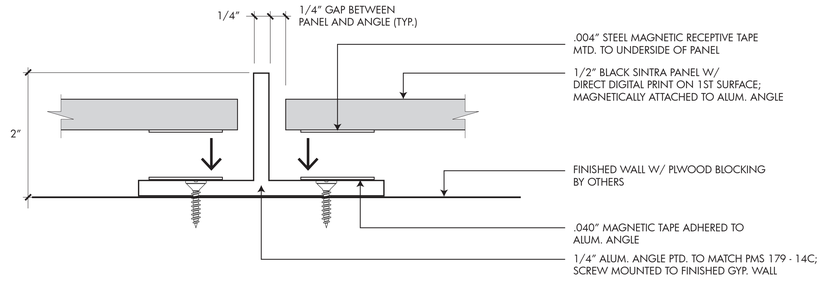
SHEET TITLE
FABRICATOR SPECIFICATIONS

SHEET
GR1.0

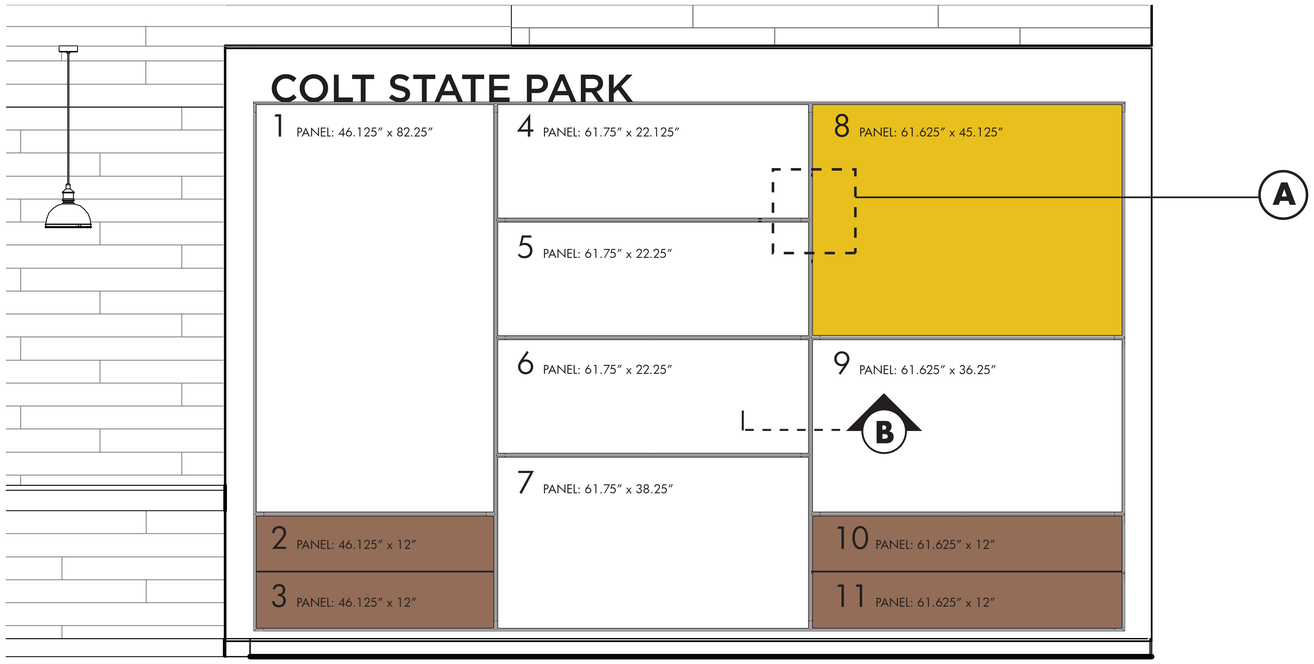




A **PLAN DETAIL**
(PANEL AND ALUM. ANGLE ALIGNMENT)



B **SECTION**
(ALUM. ANGLE AND PANEL ATTACHMENT)



WALL ELEVATION (W/ PANELS SHOWN)
SCALE 1" = 1' - 0"

PANEL SPECIFICATIONS

PANELS: 1,2,4 - 7,9
1/2" BLACK SINTRA (W/ DIRECT DIGITAL PRINT)

PANELS: 2,3,10,11
1/2" PLYWOOD W/ CLEAR FINISH MAPLE VENEER (NO GRAPHIC)

PANEL: 8
1/2" PLYWOOD W/ CLEAR FINISH MAPLE VENEER (W/ DIRECT DIGITAL PRINT)

NOTE:
PANEL DIMENSIONS SHOWN ARE APPROXIMATE +/— .25".
FINAL DIMENSIONS DETERMINED BY FABRICATOR BASED ON ALUM. ANGLE GRID DIEMNSIONS AND CLEARANCES FOR ATTACHMENT.

PANELS ARE MOUNTED TO ALUM. ANGLE W/ MAG. TAPE AND STEEL ECEPTIVE TAPE. (SEE SECTION B).

PANELS TO BE REMOVED WITH SUCTION CUP.

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JOB NO. 2201 | DATE 08.01.25
ISSUE : **PERMIT SET**

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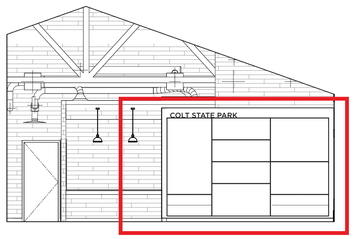
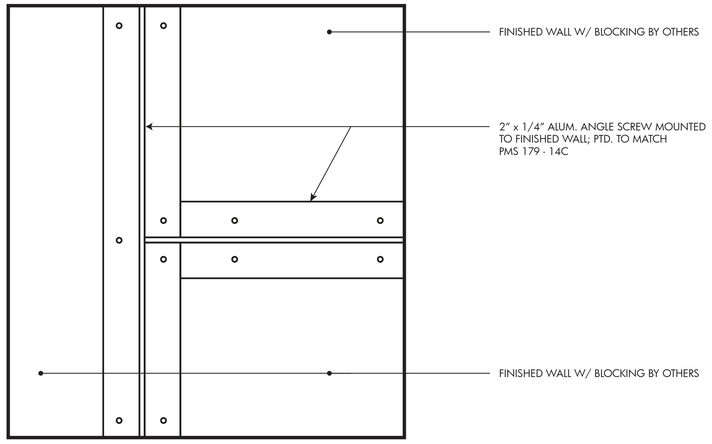
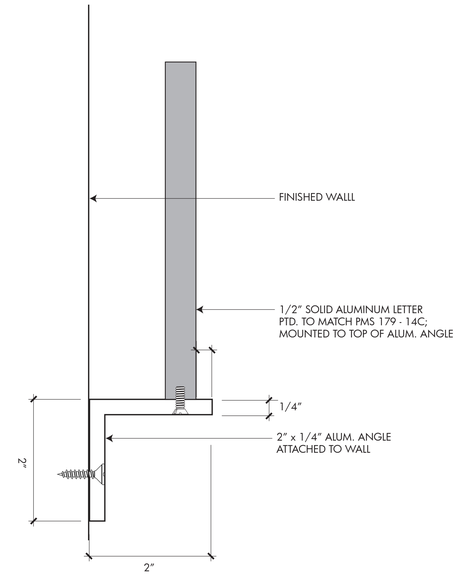
SHEET TITLE
GRAPHIC WALL — PANEL LAYOUT AND ATTACHMENT

SHEET
GR1.1

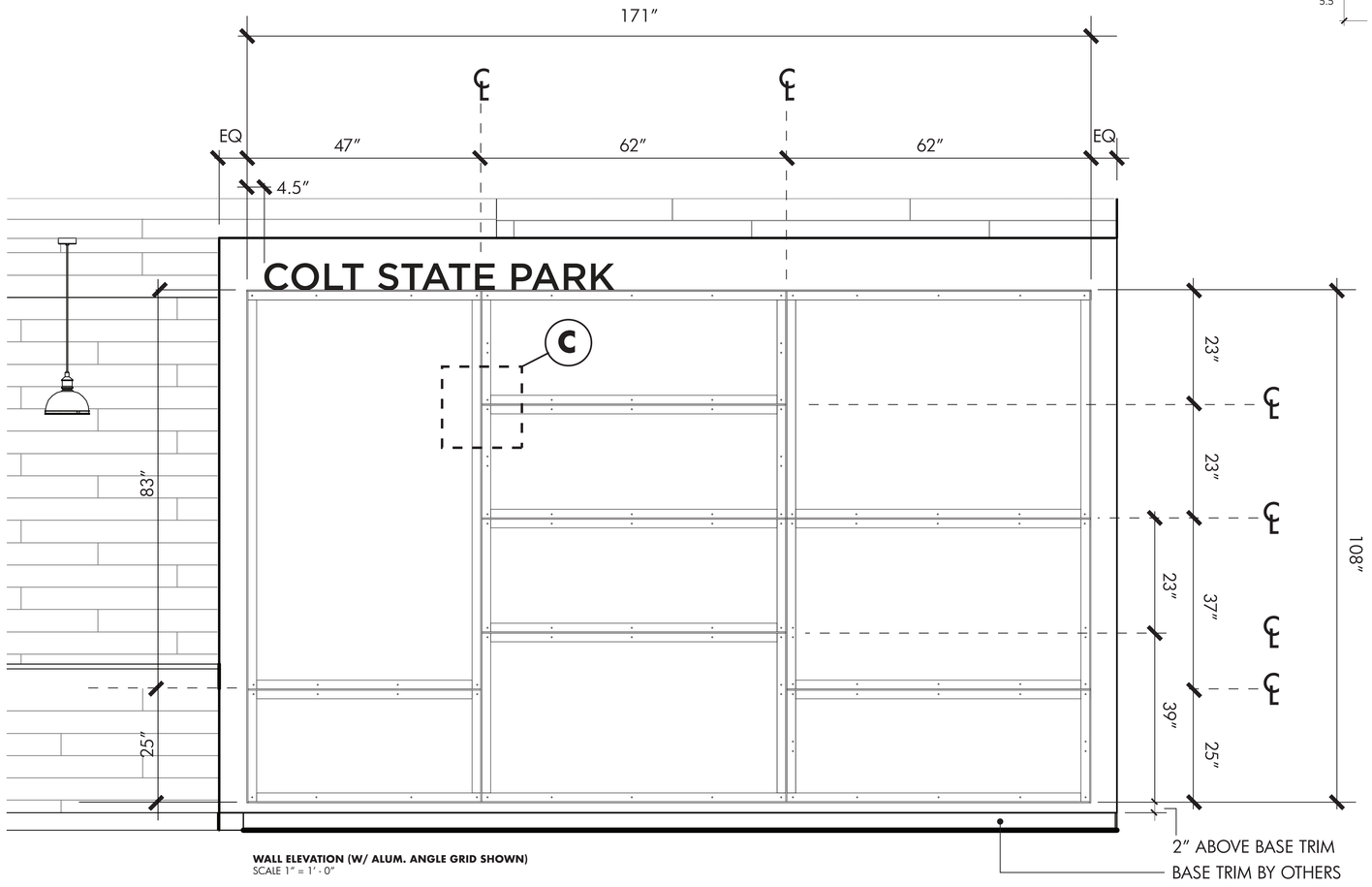




C **PLAN DETAIL**
(ALUM. ANGLE ATTACHMENT — NO PANELS SHOWN)
SCALE: 1" = 1"



SECTION
SCALE: 1.5" = 1"



WALL ELEVATION (W/ ALUM. ANGLE GRID SHOWN)
SCALE 1" = 1' - 0"

5.5"

COLT STATE PARK

SOLID 1/2" ALUM. LETTERS, PAINTED TO MATCH PMS 178 - 14C

FONT: **GOTHAM MEDIUM**

TRACKING: 84

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SHEET TITLE
GRAPHIC WALL — ALUM. MOUNTING GRID LAYOUT

SHEET
GR1.2

GENERAL NOTES

1. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
2. ALL CONTRACTORS SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS INCLUDING PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATION AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL ENGINEERING.
3. THE INFORMATION SHOWN ON THE DRAWINGS IS DIAGRAMMATIC, INDICATING THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT, AND THEIR ASSOCIATED ACCESS AREAS, WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED BY INSTALLATION BY ANY CONTRACTOR SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL CONFLICTS BETWEEN DRAWINGS AND SPECIFICATIONS, OR BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS. FOR EACH CONFLICT, CONTRACTOR SHALL CARRY THE MORE EXPENSIVE OR LARGER QUANTITY OPTION.
5. SUBMISSION OF PROPOSAL DIRECTLY OR INDIRECTLY IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING EQUIPMENT LOCATIONS IN THE FIELD, AND SHALL ADVISE THE ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
7. ALL WORK SHALL CONFORM TO ALL APPLICABLE CURRENT BUILDING CODES, RULES, REGULATIONS AND ORDINANCES, INCLUDING THE ONES WRITTEN BY:
   - 7.1. REGULATORY AUTHORITIES HAVING JURISDICTION.
   - 7.2. OWNER'S INSURANCE CARRIER.
8. CONTRACTOR SHALL SECURE ALL PERMITS AND APPLICATIONS AND PAY ALL FEES PERTAINING TO THE CONTRACT.
9. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS WITH CODE OR MANUFACTURER-REQUIRED ACCESS SPACES. IF EQUIPMENT IS INSTALLED IN AN INACCESSIBLE LOCATION THE CONTRACTOR SHALL PROVIDE REQUIRED FIRE-RATED ACCESS DOORS, COORDINATED WITH THE ARCHITECT OR ENGINEER.
10. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL PROVIDE ALL HANGERS AND SUPPORTS REQUIRED FOR A COMPLETE INSTALLATION.
11. EACH CONTRACTOR SHALL COORDINATE THE LOCATION OF THEIR WORK WITH ALL OTHER TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE SYSTEM LAYOUT REQUIRED FOR INSTALLATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR TO RESTORE ANY EXISTING SYSTEMS, DEVICES, FINISHES, ETC., THAT ARE DAMAGED OR ALTERED DUE TO THE NEW WORK, TO ACCEPTABLE CONDITION AS DETERMINED BY THE OWNER AND ENGINEER.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR WORKER IDENTIFICATION AND BADGING, SITE SAFETY AND FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, BARRICADES, WARNING SIGNS, TRASH REMOVAL, CUTTING AND PATCHING.
14. CONTRACTOR SHALL SCHEDULE ALL SHUTDOWNS THAT AFFECT UTILITIES AND PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION WITH THE OWNER.
15. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER AND ALL OTHER CONTRACTORS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING AND PROTECTION OF MATERIALS.
17. CONTRACTOR SHALL PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT AND TRANSFER TO POINT OF INSTALLATION, OWNER FURNISHED ITEMS.
18. CONTRACTORS SHALL PROVIDE SLEEVES AND SEALS FOR ALL PIPING OR CONDUIT THAT PENETRATES WALLS OR FLOOR SLABS.
19. WHERE CONDUIT, CABLES, DUCTWORK OR PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A LISTED FIRE STOP MATERIAL THAT MEETS ALL OF THE REQUIREMENTS OF THE STATE AND LOCAL BUILDING CODES AND THE LOCAL AUTHORITIES HAVING JURISDICTION. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR. THE FIRE-STOP INSTALLING CONTRACTOR SHALL BE CERTIFIED BY THE FIRE-STOPPING SYSTEM MANUFACTURER.
20. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ALL WALL AND FLOOR CORINGS TO STRUCTURAL ENGINEER FOR REVIEW BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO CORINGS INSTALLED, AT NO COST TO OWNER. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.
21. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ANY PROPOSED STRUCTURAL MEMBER PENETRATIONS TO THE STRUCTURAL ENGINEER FOR REVIEW AND DETAILING BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO PENETRATIONS INSTALLED, AT NO COST TO OWNER. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.
22. CONTRACTOR AND SUBCONTRACTORS SHALL COLLECTIVELY PREPARE TRADE COORDINATION DRAWINGS IN SUFFICIENT DETAIL TO PREVENT TRADE CONFLICTS IN AREAS OF CONGESTED WORK. THE TRADE COORDINATION DRAWINGS SHALL BE BASED ON SHOP DRAWINGS PREPARED BY ALL MEP TRADES INCLUDING SPRINKLER CONTRACTOR.
23. ALL PIPING AND DUCTWORK LAYOUTS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL INSTALL ALL REQUIRED OFFSETS AND TRANSITIONS TO PREVENT INTERFERENCE WITH FIELD CONDITIONS AND TO COORDINATE WITH OTHER TRADES AT NO COST TO THE OWNER.
24. ALL REQUIRED OPENINGS THROUGH WALLS, FLOORS, AND CEILINGS SHALL BE COORDINATED BY THE CONTRACTOR USING ENGINEER AND ARCHITECT REVIEWED & APPROVED EQUIPMENT SHOP DRAWINGS.
25. PROVIDE A VOLUME DAMPER FOR EACH SUPPLY, RETURN, AND EXHAUST AIR TAKE-OFF, AND EVERY DUCT SPLIT OR WYE.
26. PROVIDE A BALANCING VALVE FOR EACH HYDRONIC PIECE OF EQUIPMENT.
27. THE HVAC CONTROL SYSTEM SHALL BE A COMPLETE SYSTEM. EACH HVAC ZONE SHALL BE AT A MINIMUM THERMOSTATICALLY CONTROLLED BY A SENSOR, THERMOSTAT, OR CONTROLLER WHETHER OR NOT ONE IS SHOWN ON THE DRAWINGS.
28. ALL HVAC SYSTEMS SHALL BE TESTED AND BALANCED BY A CERTIFIED (NEBB OR TABB) SUB-CONTRACTOR THAT THE CONTRACTOR CARRIES IN HIS/HER BID PRICE.
29. NO PIPING OR DUCTS SHALL BE INSTALLED OVER ELECTRICAL PANELS, TRANSFORMERS, OR ELEVATOR MACHINE ROOM EQUIPMENT. CONTRACTOR SHALL COORDINATE PIPING AND DUCTWORK WITH ELECTRICAL EQUIPMENT IN FIELD AS PART OF COORDINATION DRAWINGS.
30. PROVIDE SPRING-ISOLATED & SEISMICALLY-RATED HANGERS FOR EQUIPMENT, DUCTS, AND PIPING ACCORDING TO THE VIBRATION ISOLATION SCHEDULE. INCLUDE DETAILS AND LOCATIONS ON COORDINATION DRAWINGS.
31. PROVIDE AIR VENTS AT ALL HIGH POINTS AND DRAINS AT LOW POINTS.
32. PROVIDE CODE-REQUIRED LIFE/SAFETY DAMPERS FOR EACH DUCT PENETRATION OF RATED CONSTRUCTION.
33. WHEN ROOF ACCESS IS REQUIRED, CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT THE ROOF WARRANTY DURING THE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ROOF DAMAGE AND SHALL REPAIR THE DAMAGE AT NO COST TO THE OWNER.
34. HYDROSTATIC TESTING SHALL BE PERFORMED ON ALL EQUIPMENT AND PIPING THAT IS SUBJECTED TO PRESSURES ABOVE AMBIENT. THE MECHANICAL CONTRACTOR SHALL DEVELOP A TEST SEQUENCE AND PHASES BASED UPON THE SYSTEM DESIGN, THE SYSTEM COMPONENTS THAT REQUIRE TESTING, AND THE CONSTRUCTION SEQUENCE OF THOSE COMPONENTS. THE CONTRACTOR SHALL PROVIDE THIS TEST SEQUENCE TO THE OWNER AND ENGINEER FOR REVIEW. THE CONTRACTOR SHALL GIVE THE ENGINEER AND OWNER 48 HOURS NOTICE BEFORE PERFORMING ANY SYSTEM COMPONENT PRESSURE TEST. THE CONTRACTOR SHALL NOT USE A COMPRESSIBLE FLUID, SUCH AS COMPRESSED AIR, FOR THE HYDROSTATIC TESTS. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE ENGINEER AND OWNER THAT THE PRESSURE TEST EQUIPMENT, INCLUDING PRESSURE SENSORS AND GAGES, HAS BEEN CALIBRATED BEFORE USE. THE CONTRACTOR SHALL ISOLATE ALL EQUIPMENT AND PIPING THAT IS NOT UNDERGOING TESTING USING FLANGES OR CAPS, NOT SHUTOFF VALVES.

MECHANICAL ABBREVIATIONS

AE	AIR ELIMINATOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BD	BACKDRAFT DAMPER
CBF	CARBON FILTER
CF	CIRCULATING FAN
CFM	CUBIC FEET PER MINUTE
CPU	CENTRAL PROCESSING UNIT
DDC	DIRECT DIGITAL CONTROL
EF	EXHAUST FAN
EXPT	EXPANSION TANK
FCFU	CO2 PURGING FAN/CARBON FILTER UNIT
FLR	FLOOR
GPM	GALLON PER MINUTE
GV	GRAVITY VENT
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
LCD	LIQUID CRYSTAL DISPLAY
M	MOTORIZED DAMPER
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
P	PUMP
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
ROV	ROOF GRAVITY VENTILATOR
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SFT	SHOT FEEDER TANK
TCU	TEMPERATURE CONTROL UNIT
TDV	TRIPLE DUTY VALVE
TYP	TYPICAL
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
TCC	TEMPERATURE CONTROLS CONTRACTOR
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
ZD	ZONE DAMPER

MECHANICAL SYMBOL LEGEND

	BALL VALVE
	TWO WAY CONTROL VALVE
	THREE WAY CONTROL VALVE
	GATE VALVE
	GLOBE VALVE
	BALANCE VALVE
	O.S. & Y VALVE
	CHECK VALVE
	HOSE BIB WITH VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	FLOW SWITCH
	STRAINER
	AIR VENT
	PIPE UP
	PIPE DOWN
	TEE DOWN
	TEE
	UNION
	VIBRATION ISOLATOR
	ONE WAY CEILING DIFFUSER
	TWO WAY CEILING DIFFUSER
	TWO WAY CEILING DIFFUSER (CORNER)
	THREE WAY CEILING DIFFUSER
	FOUR WAY CEILING DIFFUSER
	CEILING RETURN GRILLE (TYPICAL)
	CEILING LINEAR SLOT DIFFUSER
	22° DUCT ELBOW
	45° DUCT ELBOW
	90° ROUND DUCT ELBOW
	90° MITERED DUCT ELBOW
	45° BRANCH DUCT TAKEOFF
	FLEX DUCT CONNECTION
	FIRE DAMPER
V. D.	VOLUME DAMPER
	PRESSURE GAUGE WITH VALVE
	THERMOMETER
CO	CO SENSOR
CO2	CO2 SENSOR
T	SPACE AIR TEMPERATURE SENSOR
RH	RELATIVE HUMIDITY SENSOR
T	TEMP CONTROLLER (HEAT/COOL) BY EQUIP MFGR
VFD	VARIABLE FREQUENCY DRIVE
ATC	AUTOMATIC TEMPERATURE CONTROLS PANEL
DS	DUCT TYPE SMOKE DETECTOR

ELIZABETH YANG LANDRY
No. 12560
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

7/30/2025 9:24:56 AM

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JOB NO. 2201 | DATE 8/1/2025

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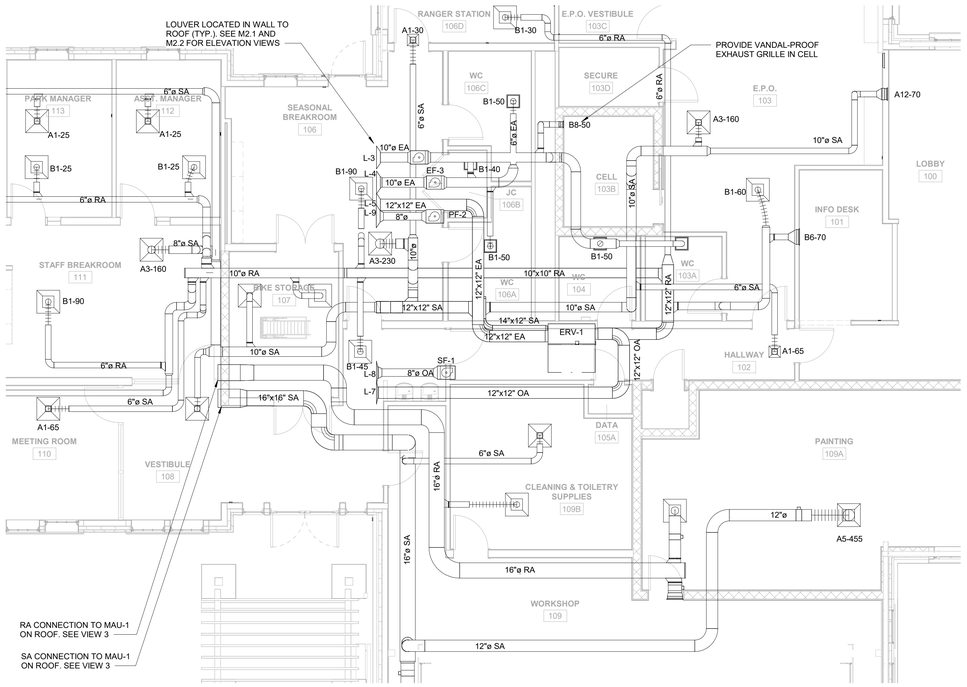
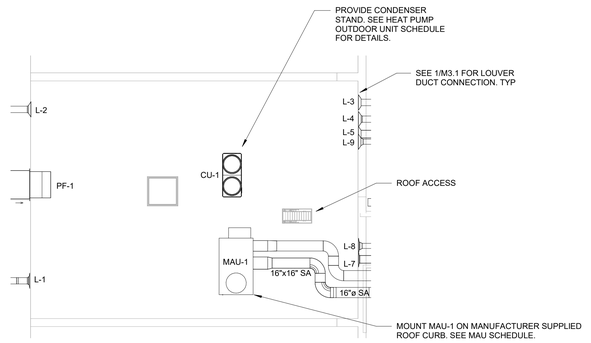
SHEET TITLE
MECHANICAL NOTES

SHEET
M0.1



2 MECHANICAL DUCTWORK DUCTWORK PLAN - VENTILATION ENLARGED VIEW
3/16" = 1'-0"



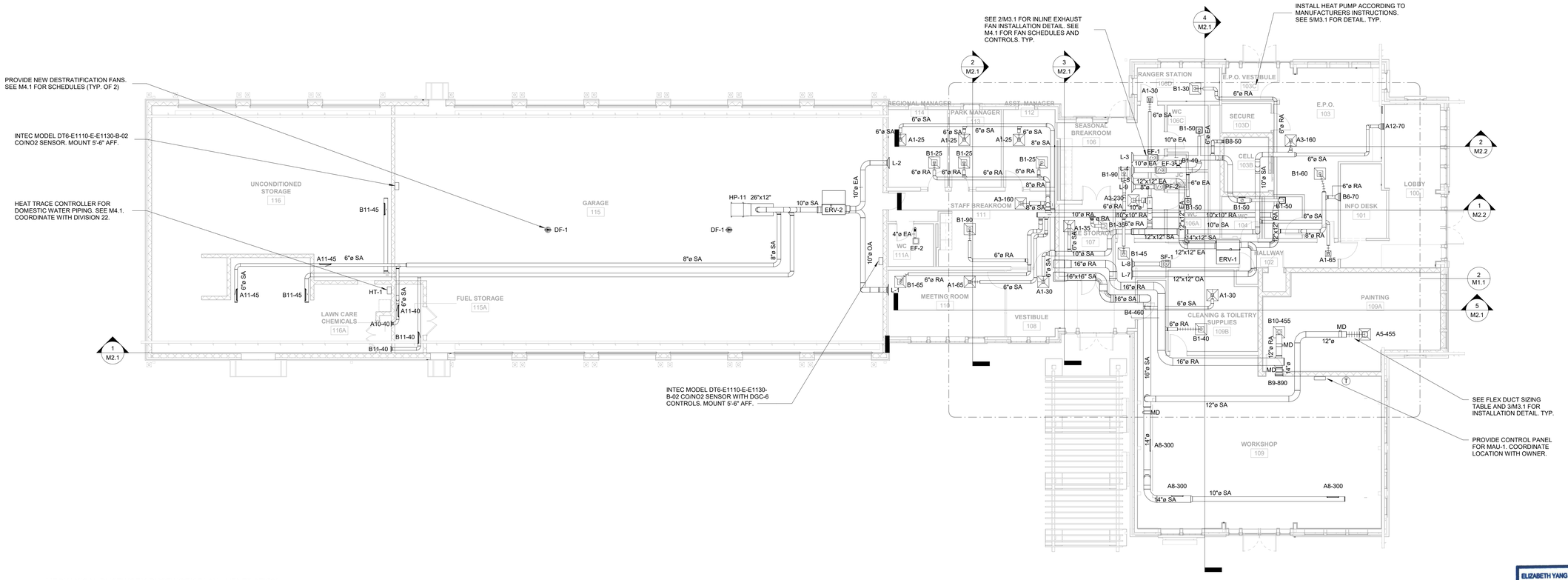
3 MECHANICAL-ROOF-OVERALL PLAN
1/8" = 1'-0"

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 09/29/2023

NOTES:
1. SEE DRAWING M4.1 FOR EQUIPMENT, DIFFUSERS, AND GRILLES.
2. ROUTE ALL DUCTWORK ABOVE CEILING UNLESS OTHERWISE NOTED.
3. SEE M2.1 AND M2.2 FOR ELEVATION VIEWS.
4. LOCATE ERV'S, BRANCH CONTROLLER, AND HEAT PUMPS ABOVE CEILING UNLESS OTHERWISE NOTED.
5. PROVIDE A VOLUME DAMPER FOR EACH SUPPLY, RETURN, AND EXHAUST AIR TAKE-OFF AS WELL AS EVERY DUCT SPLIT OR WYE.
6. PROVIDE HUMIDITY SENSOR IN ATTIC SPACE.
7. DESIGN IS BASED ON ASSUMPTION THAT VEHICLES WILL NOT BE LEFT RUNNING INSIDE OF GARAGE A.

FLEX DUCT SIZING		
DIAMETER (IN)	MINIMUM FLOW (CFM)	MAXIMUM FLOW (CFM)
6	40	50
8	50	100
10	100	200
12	200	350
14	350	500
16	500	800
18	800	1200
20	1200	1700



1 MECHANICAL DUCTWORK DUCTWORK PLAN - VENTILATION
1/8" = 1'-0"

7/30/2025 9:25:00 AM

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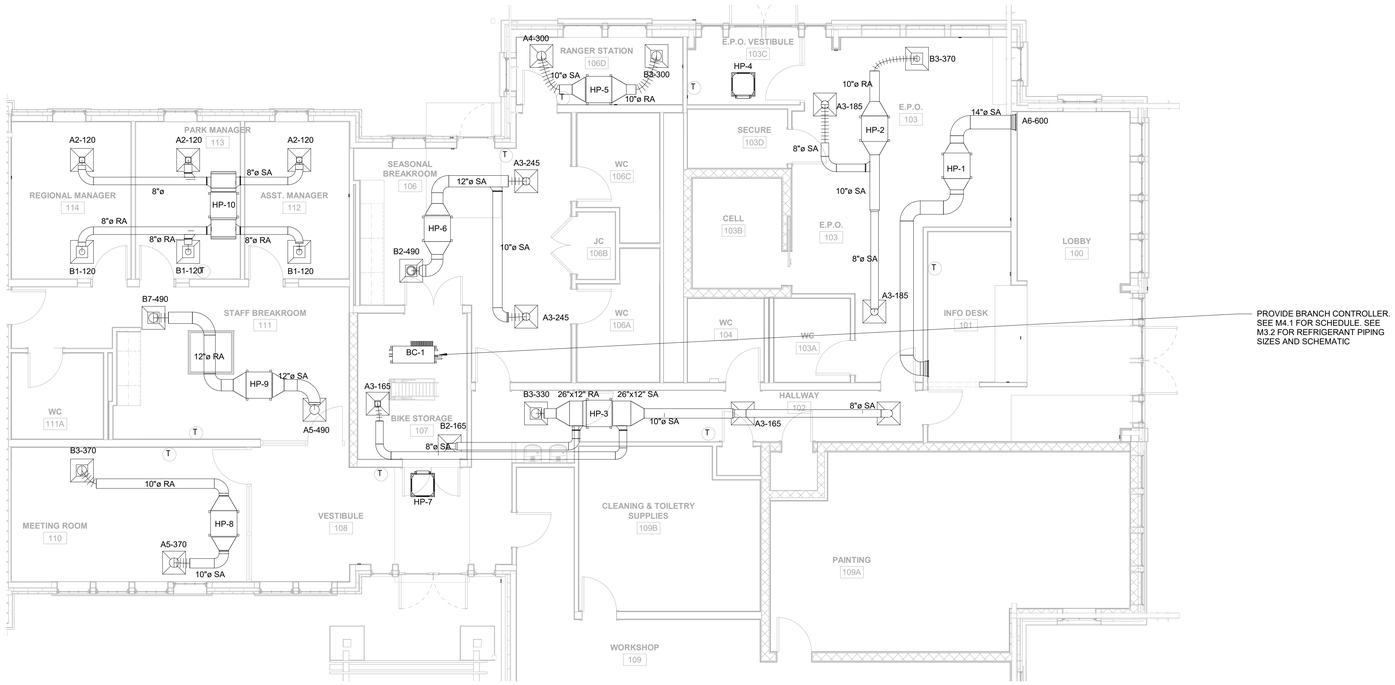
SHEET TITLE
MECHANICAL DUCTWORK PLAN - VENTILATION

SHEET
M1.1

ELIZABETH YANG LANDRY No. 12560 REGISTERED PROFESSIONAL ENGINEER MECHANICAL



PROVIDE BRANCH CONTROLLER. SEE M4.1 FOR SCHEDULE. SEE M3.2 FOR REFRIGERANT PIPING SIZES AND SCHEMATIC

2 MECHANICAL DUCTWORK PLAN - HEAT PUMPS ENLARGED VIEW
3/16" = 1'-0"

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 09/29/2023

NOTES:
1. SEE DRAWING M-4.1 FOR EQUIPMENT, DIFFUSERS, AND GRILLES
2. ROUTE ALL DUCTWORK ABOVE CEILING UNLESS OTHERWISE NOTED. SEE M2.1 AND M2.2 FOR ELEVATION VIEWS
3. LOCATE ERV'S AND HEAT PUMPS ABOVE CEILING UNLESS OTHERWISE NOTED
4. PROVIDE A VOLUME DAMPER FOR EACH SUPPLY, RETURN, AND EXHAUST AIR TAKE-OFF AS WELL AS EVERY DUCT SPLIT OR WYE.

FLEX DUCT SIZING		
DIAMETER (IN)	MINIMUM FLOW (CFM)	MAXIMUM FLOW (CFM)
6	40	50
8	50	100
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16	500	800
18	800	1200
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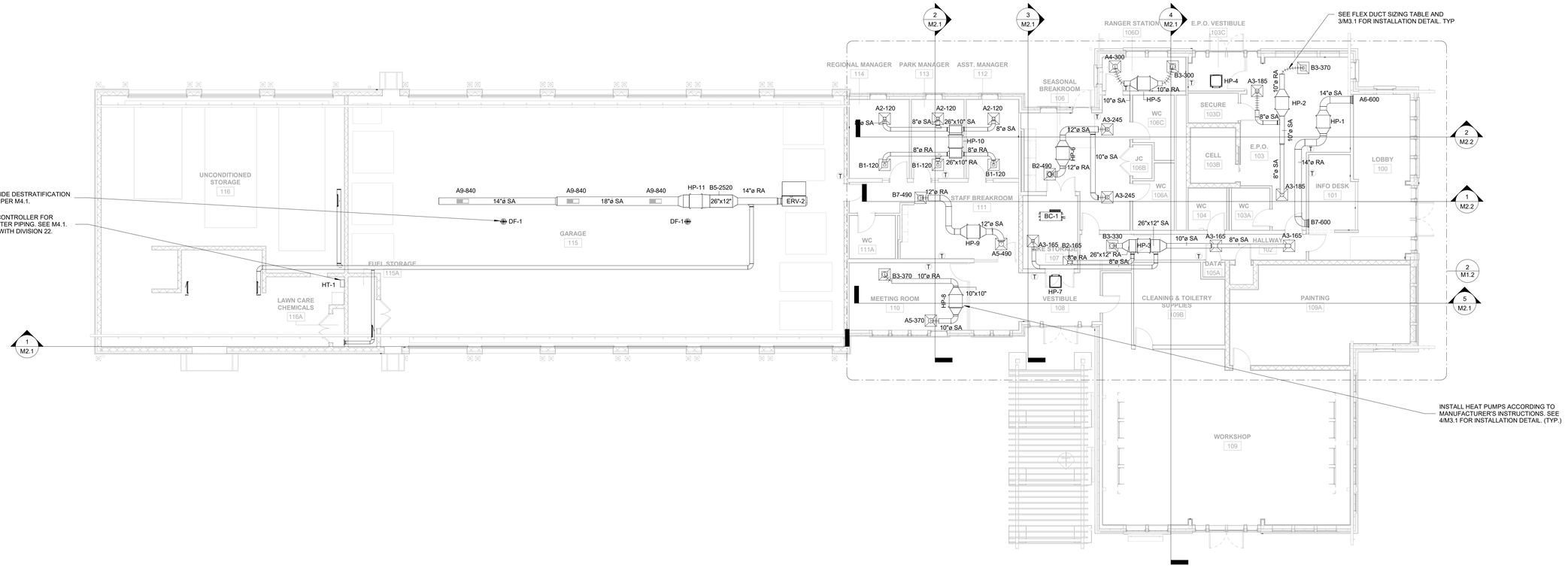

1 MECHANICAL DUCTWORK PLAN - HEAT PUMPS
1/8" = 1'-0"

ELIZABETH YANG LANDRY
No. 12560
REGISTERED
PROFESSIONAL ENGINEER
MECHANICAL

NEW OPERATIONS FACILITY
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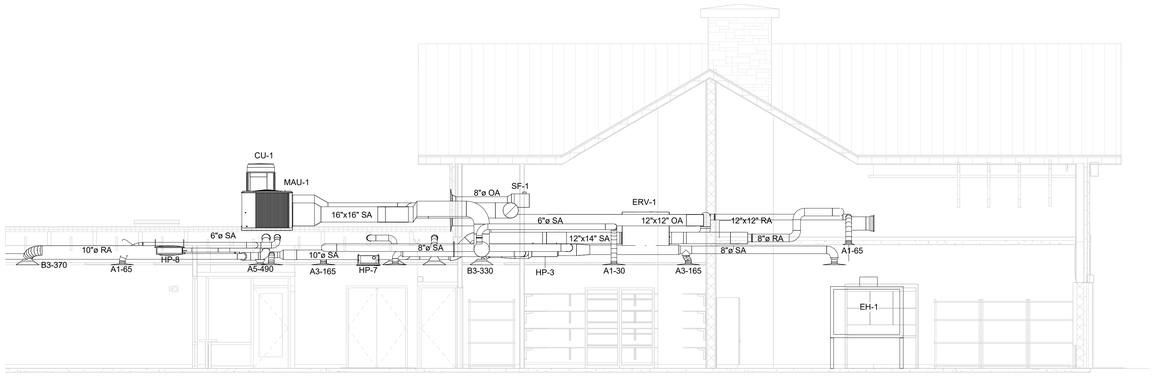
SHEET TITLE
MECHANICAL DUCTWORK PLAN - HEAT PUMPS

SHEET
M1.2

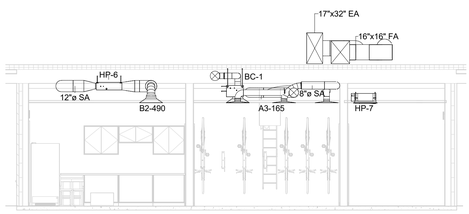
7/30/2025 9:25:03 AM

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

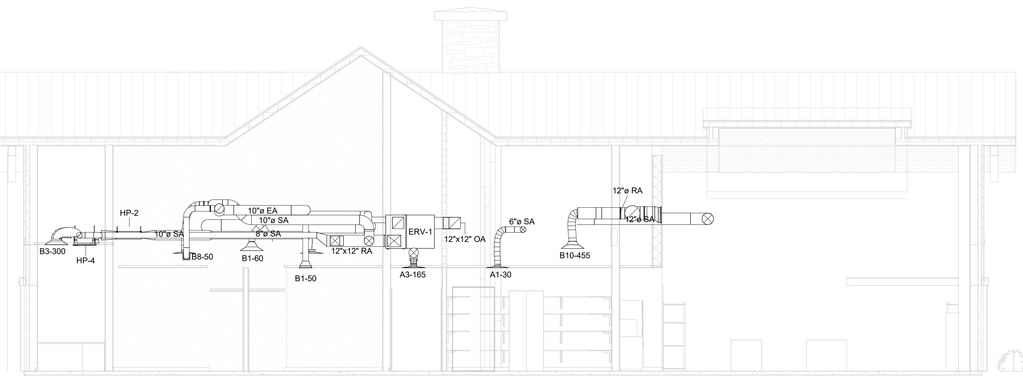
MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 09/29/2023



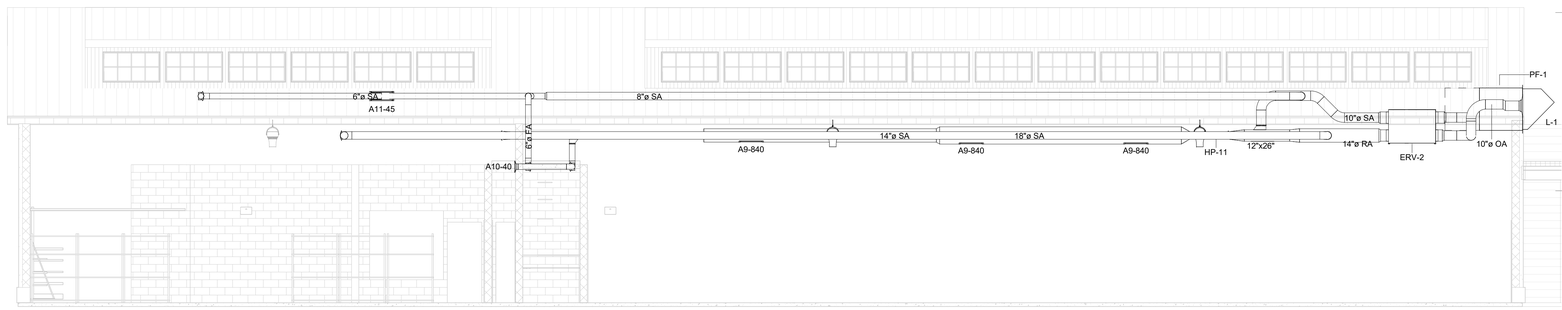
5 MECHANICAL DUCTWORK SECTION 4
3/16" = 1'-0"



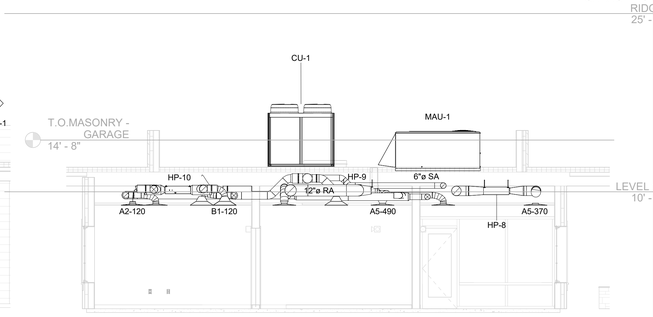
3 MECHANICAL DUCTWORK SECTION 2
3/16" = 1'-0"



4 MECHANICAL DUCTWORK SECTION 3
3/16" = 1'-0"



1 GARAGE MECHANICAL DUCTWORK SECTION
3/16" = 1'-0"



2 MECHANICAL DUCTWORK SECTION 1
3/16" = 1'-0"

ELIZABETH YANG LANDRY
No. 12560
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

7/30/2025 9:25:06 AM

NEW OPERATIONS FACILITY
COLT STATE PARK
ROUTE 114, BRISTOL RI 02809

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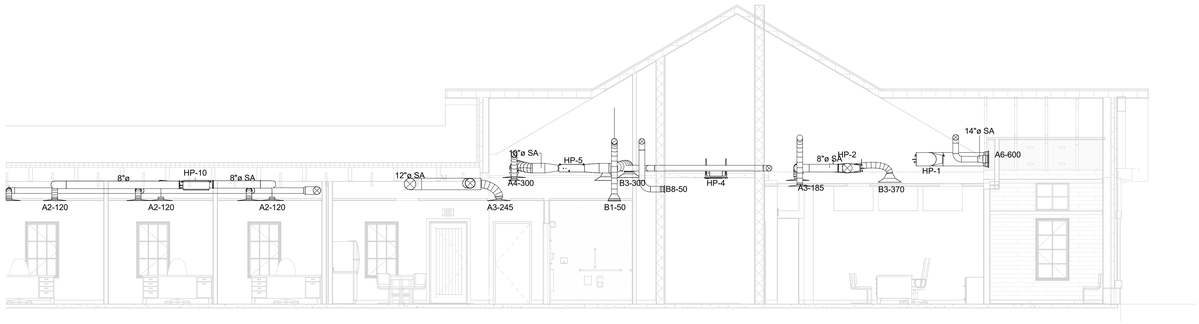
MECHANICAL ELEVATIONS

SHEET
M2.1

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 09/29/2023



2 MECHANICAL DUCTWORK SECTION 6
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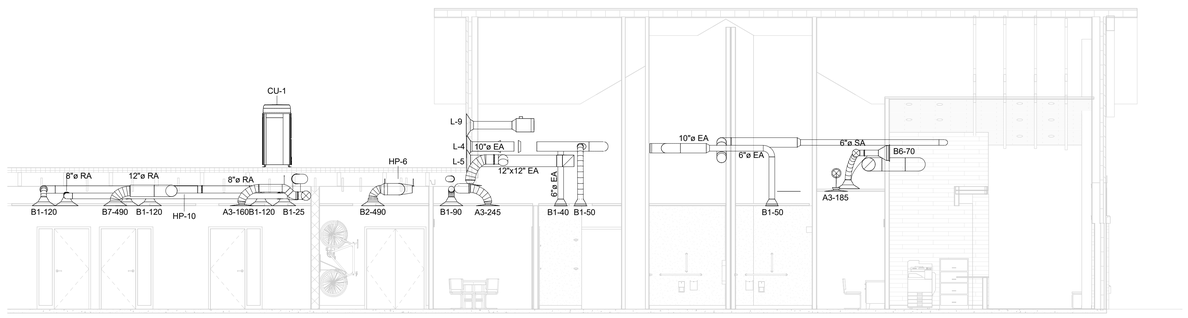

1 MECHANICAL DUCTWORK SECTION 5
3/16" = 1'-0"

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ELIZABETH YANG LANDRY
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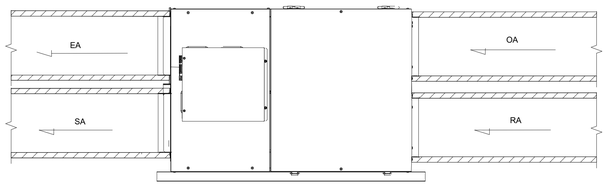
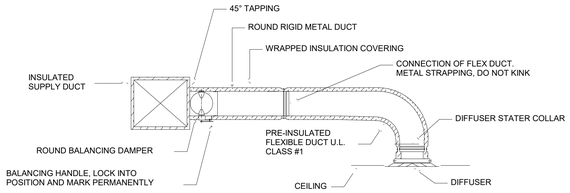
MECHANICAL

SHEET
M2.2



4 ERV-1 DUCTWORK DETAIL

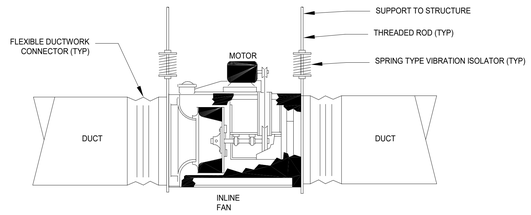
NOT TO SCALE



NOTES:
1. PROVIDE AT FLEXIBLE DUCT CONNECTION METAL OR "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX. SECURE THE INSULATION OVER THE DRAWBAND WITH AN ADDITIONAL DRAWBAND.
2. PROVIDE BEADING ON ROUND METAL DUCT 12" OR LARGER IN DIAMETER.
3. PROVIDE MINIMUM 2" COLLARS FOR ATTACHEMENT OF THE FLEX DUCT TO ROUND DUCT, DAMPERS, AND DIFFUSERS.
4. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.
5. PROVIDE 45° TAKE-OFF WHERE DUCT HEIGHT WILL NOT ACCOMMODATE A BELLMOUTH TYPE FITTING.

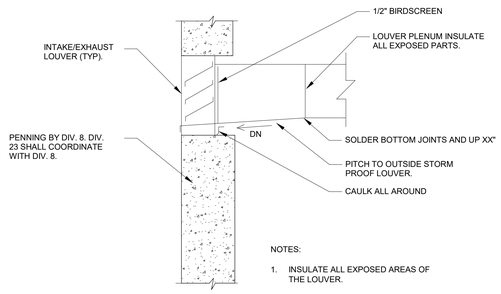
3 FLEX DUCT INSTALLATION

NOT TO SCALE



2 INLINE FAN DETAIL

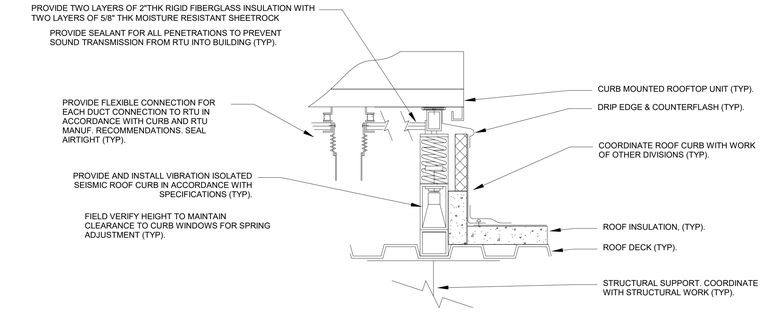
NOT TO SCALE



NOTES:
1. INSULATE ALL EXPOSED AREAS OF THE LOUVER.

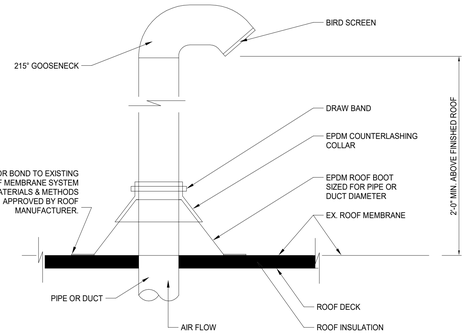
1 LOUVER DUCT CONNECTION

NOT TO SCALE



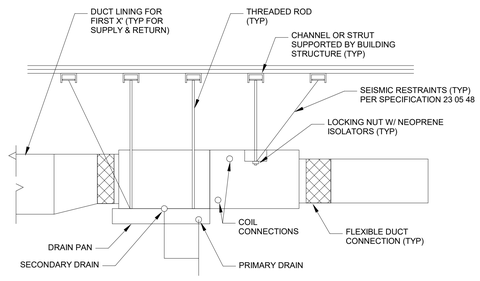
7 ROOF CURB DETAIL

NOT TO SCALE



6 PIPE OR DUCT ROOF PENETRATION DETAIL

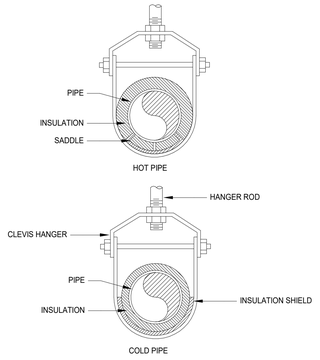
NOT TO SCALE



NOTES:
1. INSULATE DUCT PER SPECIFCATION 21 31 13.
2. SEE MECHANICAL PLANS FOR HP LOCATIONS AND CONNECTION SIZES.

5 TYPICAL HP UNIT DETAIL

NOT TO SCALE



8 CLEVIS HANGER DETAIL

NOT TO SCALE

ELIZABETH YANG LANDRY
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MECHANICAL

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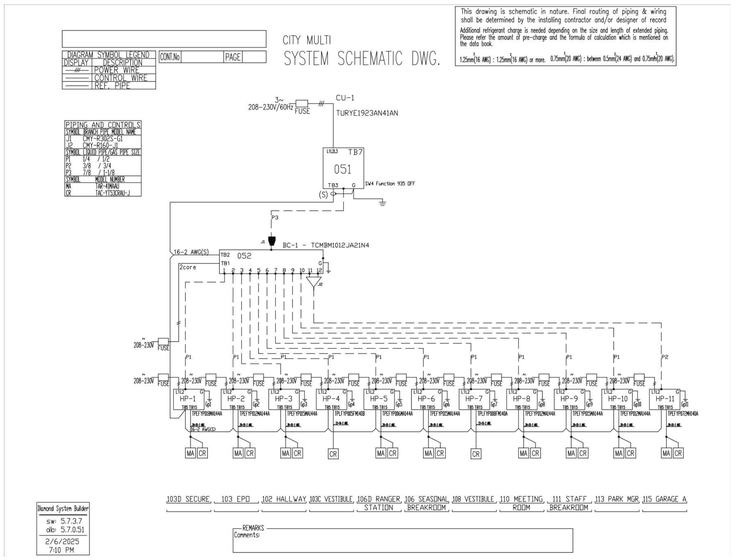

1 VRF REFRIGERANT PIPING SCHEMATIC
NOT TO SCALE

SEQUENCE OF OPERATION:

AIR MONITORING SYSTEM AND PURGE FAN
1. WARNING STAGE DRY RELAY CONTACT TO ENERGIZE WHEN CO LEVEL REACHES 25 PPM (ADO) OR N02 LEVEL REACHES 1 PPM (ADJ). DRY CONTACT ACTIVATION TO START EXHAUST FAN PF-1.
2. ALARM STAGE DRY RELAY CONTACT TO ENERGIZE WHEN CO LEVEL REACHES 100 PPM (ADJ) OR N02 LEVEL REACHES 3 PPM (ADJ) ONBOARD HORN AND STROBE.

MAKEUP AIR UNIT (MAU—1)
OCCUPIED MODE
1. THE MAU SHALL ENERGIZE WHENEVER THE BUILDING IS SCHEDULED TO BE OCCUPIED VIA THE PACKAGED CONTROLLER.
2. THE MAU SPACE TEMPERATURE AND RELATIVE HUMIDITY SETPOINTS SHALL BE PROGRAMMED VIA THE PACKAGED CONTROL PANEL MOUNTED ON THE UNIT. THE REMOTE-MOUNTED CONTROL PANEL SHALL BE MOUNTED IN THE WORKSHOP (TO BE COORDINATED WITH OWNER).
3. WHEN THE MAU IS OPERATING, A LOCAL THERMOSTAT SHALL SIGNAL THE MAU ON-BOARD CONTROLLER TO ENABLE THE HEAT PUMP HEATING OR DX COOLING COILS AS NEEDED.
4. RELATIVE HUMIDITY SHALL BE CONTROLLED BY A RELATIVE HUMIDITY SENSOR LOCATED WITHIN THE SUPPLY FAN SECTION OF MAU.
5. THE MAU SUPPLY FAN SPEED SHALL BE CONTROLLED BY A DEDICATED ONBOARD VFD. THE VFD SPEED SHALL SETTING SHALL BE CONTROLLED BY A DIFFERENTIAL PRESSURE SENSOR LOCATED IN THE WORKROOM SUPPLY AIR DUCT. THE VFD SHALL MODULATE THE FAN SPEED TO MAINTAIN A DUCT PRESSURE OF 0.1" W.G. (ADJ). THE MAU RETURN FAN SHALL MODULATE TO EXHAUST THE SAME AIRFLOW AS THE SUPPLY FAN.
6. THE MAU MOUNTED CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE SETPOINT TO WITHIN 4-DEG F (ADJ) OF SETPOINT.

UNOCCUPIED MODE.
1. THE MAU SUPPLY AND RETURN FANS SHALL SHUT DOWN.
2. ON A SIGNAL FROM THE SPACE TEMPERATURE SENSOR THAT THE SPACE TEMPERATURE IS OUTSIDE THE UNOCCUPIED SETPOINT FOR EHATING OR COOLING, THE MAU-MOUNTED CONTROLLER SHALL ENABLE EITHER HEATING OR COOLING AND MODULATE THE FAN SPEED AS NEEDED.

PAINT ROOM SUPPLY/RETURN DUCT MOTORIZED DAMPERS
1. THE MOTORIZED DAMPERS FEEDING THE PAINT ROOM SHALL BE INTERLOCKED WITH THE PAINT ROOM LIGHT SWITCH/OCCUPANCY SENSOR.
2. UPON ACTIVATION OF THE PAINT ROOM LIGHT SWITCH OR OCCUPANCY SENSOR, THE MOTORIZED DAMPER ON THE PAINT ROOM SUPPLY AND RETURN DUCTS SHALL OPEN. THE DUCT-MOUNTED PRESSURE SENSOR WILL ACTIVATE THE MAU SUPPLY AND RETURN FANS PER SEQUENCE ABOVE.

TOILET EXHAUST FANS
1. EXHAUST FANS EF-1 AND EF-3 SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.
2. EXHAUST FAN EF-2 SHALL BE INTERLOCKED WITH THE TOILET ROOM LIGHT SWITCH.

HEAT PUMPS
1. PROVIDE THE FOLLOWING FOR ALL HEAT PUMP UNITS:
   a. WALL-MOUNTED TEMPERATURE SENSOR, INTEGRAL DISPLAY, SLIDING SCALE SETPOINT ADJUSTMENT. SEE EQUIPMENT SCHEDULE.
   b. HEATING AND COOLING CONTROL
   c. FAN CONTROL OCCUPIED MODE (AS SCHEDULED IN THE DEDICATED CONTROL PANEL)
2. UPON A CALL FOR HEATING OR COOLING, THE HEAT PUMP FAN SHALL FIRST PROVE FAN ON PRIOR TO COMPRESSOR START.
3. UNIT CONTROLS SHALL OPERATE TO SATISFY TEMPERATURE SETPOINT.

ENERGY RECOVERY VENTILATOR (ERV-1)
1. OCCUPIED AND UNOCCUPIED SCHEDULES SHALL BE PROGRAMMED INTO THE INTEGRATED PROGRAMMABLE CONTROLS.
2. THE ERV SHALL OPERATE CONTINUOUSLY DURING OCCUPIED MODE.
3. THE ERV SHALL BE DE-ENERGIZED DURING UNOCCUPIED MODE.

ATTIC FAN
1. ATTIC FANS PF-2 & SF-1 SHALL BECOME ENERGIZED WHEN THE ATTIC LOCAL RELATIVE HUMIDITY SENSOR EXCEEDS 60% RH (ADJ).

DESTRATIFICATION FANS
1. DESTRATIFICATION FANS SHALL BE INTERLOCKED WITH LOCAL WALL SWITCH.

1 SEQUENCE OF OPERATION
NOT TO SCALE

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ELIZABETH YANG LANDRY No. 12560 REGISTERED PROFESSIONAL ENGINEER MECHANICAL

SHEET TITLE
MECHANICAL DETAILS

SHEET
M3.2

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HEAT PUMP INDOOR UNIT SCHEDULE
(BASED ON MITSUBISHI)

SYSTEM TAG	CONDENSING UNIT	ROOM NAME	MODEL	TYPE	NOMINAL COOLING CAPACITY (BTU/H)	NOMINAL HEATING CAPACITY (BTU/H)	COOLING DESIGN ENTERING TEMP DB/WB (°F) / (WATER IN TEMP]	HEATING DESIGN ENTERING TEMP DB/WB (°F) / (WATER IN TEMP]	CORRECTED CAPACITY				REFRIG PIPE DIM LIQUID/SUCTION (INCH)	PEAK FAN AIRFLOW (CFM)	VOLTAGE / PHASE	ELECTRICAL MCA/MFS
									COOLING DIVERSITY FULL/PARTIAL (SEE NOTE 5, 6)	COOLING TOTAL CAPACITY (BTU/H)	COOLING SENSIBLE CAPACITY (BTU/H)	HEATING DIVERSITY FULL/PARTIAL (SEE NOTE 5, 6)	HEATING CAPACITY (BTU/H)			
HP-1	CU-1	LOBBY	TPEFYP018MA144A	CONCEALED DUCTED	18,000	20,000	80.0/67.0	70.0	FULL DEMAND	17,985.1	13,709.6	FULL DEMAND	10,433.3	1/4 / 1/2	600	208/230V/1-PHASE	2.94/15
HP-2	CU-1	EPO	TPEFYP012MA144A	CONCEALED DUCTED	12,000	13,500	80.0/67.0	70.0	FULL DEMAND	11,990.1	8,355.3	FULL DEMAND	8,868.3	1/4 / 1/2	371	208/230V/1-PHASE	2.13/15
HP-3	CU-1	HALLWAY 102	TPEFYP015MA144A	CONCEALED DUCTED	15,000	17,000	80.0/67.0	70.0	FULL DEMAND	14,987.6	11,358.6	FULL DEMAND	8,868.3	1/4 / 1/2	494	208/230V/1-PHASE	2.88/15
HP-4	CU-1	EPO VESTIBULE 103C	TPLFYP005FM140A	CEILING RECESSED	5,000	5,600	80.0/67.0	70.0	FULL DEMAND	4,995.9	4,381.8	FULL DEMAND	2,921.3	1/4 / 1/2	280	208/230V/1-PHASE	0.24/15
HP-5	CU-1	RANGER STATION 106D	TPEFYP006MA144A	CONCEALED DUCTED	6,000	6,700	80.0/67.0	70.0	FULL DEMAND	5,995	5,758.8	FULL DEMAND	3,495.1	1/4 / 1/2	300	208/230V/1-PHASE	1.75/15
HP-6	CU-1	SEASONAL BREAK RM 106	TPEFYP015MA144A	CONCEALED DUCTED	15,000	17,000	80.0/67.0	70.0	FULL DEMAND	14,987.6	11,358.6	FULL DEMAND	8,868.3	1/4 / 1/2	494	208/230V/1-PHASE	2.88/15
HP-7	CU-1	VESTIBULE 108	TPLFYP008FM140A	CEILING RECESSED	8,000	9,000	80.0/67.0	70.0	FULL DEMAND	7,993.4	6,214.8	FULL DEMAND	4,695	1/4 / 1/2	315	208/230V/1-PHASE	0.28/15
HP-8	CU-1	MEETING ROOM 110	TPEFYP012MA144A	CONCEALED DUCTED	12,000	13,500	80.0/67.0	70.0	FULL DEMAND	11,990.1	8,355.3	FULL DEMAND	7,042.5	1/4 / 1/2	371	208/230V/1-PHASE	2.13/15
HP-9	CU-1	STAFF BREAK RM 111	TPEFYP015MA144A	CONCEALED DUCTED	15,000	17,000	80.0/67.0	70.0	FULL DEMAND	14,987.6	11,358.6	FULL DEMAND	8,868.3	1/4 / 1/2	494	208/230V/1-PHASE	2.88/15
HP-10	CU-1	OFFICES 112-114	TPEFYP012MA144A	CONCEALED DUCTED	12,000	13,500	80.0/67.0	70.0	FULL DEMAND	11,990.1	8,355.3	FULL DEMAND	7,042.5	1/4 / 1/2	371	208/230V/1-PHASE	2.13/15
HP-11	CU-1	GARAGE A 115	TPEFYP072MH140A	CONCEALED DUCTED	72,000	80,000	80.0/67.0	70.0	FULL DEMAND	71,940.5	56,755.8	FULL DEMAND	41,733.1	3/8 / 3/4	2,542	208/230V/1-PHASE	10.3/15

NOTES & OPTIONS:
1. POWER, WIRING, RACEWAY, AND DISCONNECT BY DIVISION 26.
2. PROVIDE ONE SET OF SPARE MERV 13 FILTERS FOR EACH HEAT PUMP.
3. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
4. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
5. SEE OUTDOOR UNIT SCHEDULE FOR OUTDOOR AMBIENT CONDITIONS, CONNECTED CAPACITY, AND OTHER FACTORS ASSOCIATED WITH CORRECTED CAPACITIES
6. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
7. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT SCHEDULE FOR ASSOCIATED SYSTEM. PARTIAL CORRECTED CAPACITY ASSUMES SUFFICIENT DIVERSITY EXISTS SUCH THAT THE CONNECTED CAPACITY DE-RATE DOES NOT APPLY. IT IS THE DESIGNER'S RESPONSIBILITY TO ENSURE "DIAMOND SYSTEM BUILDER" IS SET IN THE APPROPRIATE OUTPUT CAPACITY SETTING (FULL DEMAND/PARTIAL DEMAND) PRIOR TO GENERATING THIS SCHEDULE.
8. IT IS RECOMMENDED TO ALWAYS BASE HEATING CORRECTED CAPACITY ON FULL DEMAND.
9. INCLUDE KUMO TOUCH REDLINK WIRELESS CONTROLLER MHK2 WITH ALL INDOOR UNITS.
10. INCLUDE DIAMONDBACK LINESETS FOR ALL MINI-SPLIT SYSTEMS.
11. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

HEAT PUMP OUTDOOR UNIT SCHEDULE
(BASED ON MITSUBISHI)

SYSTEM TAG	MODEL NUMBER	NOMINAL COOLING CAPACITY (BTU/H)	NOMINAL HEATING CAPACITY (BTU/H)	DESIGN COOLING OUTDOOR TEMP DB (°F)	DESIGN HEATING OUTDOOR TEMP WB (°F)	CORRECTED COOLING TOTAL CAPACITY (BTU/H)	CORRECTED HEATING CAPACITY (BTU/H)	VOLTAGE / PHASE	MCA 208/230	RFS	MOCP	NET WEIGHT
CU-1	TURYE1923AN41AN	192,000	215,000	89.0	4.3	192,440.8	111,010.1	208/230V / 3-PHASE	80/75	80/80	125/125	887

NOTES & OPTIONS:
1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
3. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
4. FOR SYSTEMS WITH MULTIPLE MODULES, REFRIGERANT PIPE DIMENSIONS INDICATE TOTAL SYSTEM COMBINED PIPING DOWNSTREAM OF MODULE TWINNING.
5. ADDED FIELD CHARGE LISTED IS IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.
6. FACTORY REPRESENTATIVES SHALL STARTUP AND COMMISSION CITY MULTI EQUIPMENT UPON COMPLETION OF EQUIPMENT INSTALLATIONS
6. PROVIDE CONDENSER STAND MODEL - BFS1318 18" BIGFOOT STAND KIT

LOUVER SCHEDULE
(BASED ON GREENHECK)

UNIT	MOUNTING	SIZE (W X H)	BLADE ANGLE	BLADE CENTERS	FREE AREA (SQ FT)	MAX PRESSURE DROP (IN WG)	CFM	MODEL	NOTES
L-1	WALL	16 X 16	37°	4"	0.6	0.05	355	ESD-435	INTAKE
L-2	WALL	14 X 12	37°	4"	0.4	0.05	205	ESD-435	EXHAUST
L-3	WALL	14 X 14	37°	4"	0.4	0.07	275	ESD-435	EXHAUST
L-4	WALL	12 X 12	37°	4"	0.3	0.03	140	ESD-435	EXHAUST
L-5	WALL	18 X 18	37°	4"	0.9	0.05	550	ESD-435	EXHAUST
L-6	WALL	24 X 24	37°	4"	1.8	0.04	985	ESD-435	EXHAUST
L-7	WALL	22 X 22	37°	4"	1.5	0.05	890	ESD-435	INTAKE
L-8	WALL	14 X 10	37°	4"	0.2	0.04	105	ESD-435	INTAKE
L-9	WALL	14 X 10	37°	4"	0.2	0.03	105	ESD-435	EXHAUST

NOTES:
1. PROVIDE INSECT SCREEN.

GRILLE AND DIFFUSER SCHEDULE

UNIT	DESCRIPTION	CONSTRUCTION	MFGR	MODEL	FLOW RANGE		NOMINAL SIZE (IN)	NECK DIAMETER (IN)	PERFORMANCE		MOUNTING SELECTION
					MIN (CFM)	MAX (CFM)			MAX NC	MAX NECK VEL (FPM)	
A1	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	35	70	12 X 12	4	-	700	CEILING
A2	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	78	137	24 X 24	6	-	700	CEILING
A3	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	140	244	24 X 24	8	-	700	CEILING
A4	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	218	382	24 X 24	10	18	700	CEILING
A5	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	314	550	24 X 24	12	21	600	CEILING
A6	4-WAY SUPPLY DIFFUSER	ALUMINUM	PRICE	ASPD	491	736	24 X 24	15	19	600	CEILING
A7	SUPPLY SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDG	102	238	10 X 6	-	18	700	DUCT
A8	SUPPLY SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDG	270	540	16 X 10	-	18	600	DUCT
A9	SUPPLY SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDG	402	938	18 X 12	-	24	700	DUCT
A10	SUPPLY WALL REGISTER	ALUMINUM	PRICE	610	40	105	7 X 4	-	15	700	WALL
A11	SUPPLY SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDG	40	154	10 X 4	-	16	700	DUCT
A12	SUPPLY WALL REGISTER	ALUMINUM	PRICE	610	45	120	6 X 5	-	19	800	WALL
A13	SUPPLY WALL REGISTER	ALUMINUM	PRICE	610	275	420	12 x 8	-	20	800	WALL
B1	RETURN GRILLE	ALUMINUM	PRICE	ASPD	39	137	24 X 24	6	-	700	CEILING
B2	RETURN GRILLE	ALUMINUM	PRICE	ASPD	70	244	24 X 24	8	-	700	CEILING
B3	RETURN GRILLE	ALUMINUM	PRICE	ASPD	157	393	24 X 24	12	16	500	CEILING
B4	RETURN SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDGR	120	300	12 X 10	-	20	500	DUCT
B5	RETURN GRILLE	ALUMINUM	PRICE	80	1287	3003	28 X 24	-	21	700	DUCT
B6	RETURN GRILLE	ALUMINUM	PRICE	630	30	75	7 X 4	-	19	500	WALL
B7	RETURN GRILLE	ALUMINUM	PRICE	730	320	640	16 X 16	-	19	400	WALL
B8	RETURN GRILLE	ALUMINUM	PRICE	MSL	50	150	6 X 6	-	-	600	WALL
B9	RETURN GRILLE	ALUMINUM	PRICE	80FF	708	944	20 X 10	-	21	800	WALL
B10	RETURN GRILLE	ALUMINUM	PRICE	80FF	360	480	10 X 10	-	19	800	CEILING
B11	RETURN SPIRAL DUCT REGISTER	ALUMINUM	PRICE	SDGR	30	75	6 X 5	-	20	500	DUCT

NOTES:
1. PROVIDE AIR FLOW (CFM) AND FLOW PATTERN AS SHOWN ON DRAWINGS.
2. DUCT-MOUNTED DESIGN BASED ON 22" DIFFUSER MOUNT.
3. COLOR AND FINISH OF ALL GRILLES, REGISTERS, AND DIFFUSERS AS SELECTED BY ARCHITECT.
4. INCLUDE OPPOSED BLADE DAMPER ON ALL DUCT MOUNTED REGISTERS

GRILLE AND DIFFUSER NOMENCLATURE:
A1-250
- TAG AS SPECIFIED ON PLANS
- FLOW RATE (CFM)
- SYMBOL

ERV SCHEDULE
(BASED ON RENEWAIRE)

UNIT	MODEL	AIRFLOW (CFM)	ESP (IN WC)	MOTORS		ELECTRICAL			DIMENSIONS (LXWXH)	WEIGHT (LBS)
				QTY	HP	VOLT/PHASE	FLA	MOCP		
ERV-1	HE1XINH	920	0.25	2	0.75	208/3	2.3	15	54-3/4" X 23-3/4" X 35-5/8"	275
ERV-2	HE1XINH	290	1.5	2	0.75	208/3	2.3	15	54-3/4" X 23-3/4" X 35-5/8"	275

NOTES:
1. POWER WIRING AND RACEWAY BY DIVISION 26.
2. FUSED DISCONNECT BY DIVISION 23.
3. PROVIDE THE FOLLOWING:
   - 3.1. FILTER ALARMS.
   - 3.2. ONE SET OF SPARE MERV 8 FILTERS.
   - 3.3. BACKDRAFT DAMPERS
   - 3.4. VIBRATION ISOLATION KIT
   - 3.5. MERV 8 FILTERS
   - 3.6. WALL CAP
   - 3.7. HANGING BRACKET KIT
   - 3.8. SOLID STATE SPEED CONTROL KIT
   - 3.9. VARIABLE SPEED/ECM DIRECT DRIVE MOTORS.
   - 3.10. INTEGRATED PROGRAMMABLE CONTROLS.
   - 3.11. 10" LOUVER ROUND DUCT CONNECTION.

VRF BRANCH CONTROLLER SCHEDULE
(BASED ON MITSUBISHI)

TAG REFERENCE	CONNECTED OUTDOOR UNIT	M-NET ADDRESS	MODEL NUMBER	TYPE (DOUBLE/MAIN/SUB)	NUMBER OF PORTS	CONNECTED CAPACITY TO BC	VOLTAGE/PHASE	NOTES/OPTIONS
BC-1	CU-1	52	TCMBM1012JA11N4	MAIN	12	178,000.00	208/230V/1-PHASE	1, 2

NOTES:
1. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT, 410A RATED.

FAN SCHEDULE

UNIT	MANUFACTURER	MODEL	SERVING	CFM	ESP (IN WG)	SONES	TYPE	FAN RPM	POWER (W)	MOTOR HP	WEIGHT (LBS)	INTERLOCK WITH	ELECTRICAL			
													VOLTS	PHASE	HZ	FLA
EF-1	GREENHECK	SQ-80-DGEX-QD	EPO AREA	120	0.375	5.5	INLINE	1300	-	1/12	38	OCCUPANCY SCHEDULE	115	1	60	-
EF-2	PANASONIC	FV-0511VQ2	WC-111A	70	0.1	0.3	CEILING	756	4.0	-	12	LIGHTING CONTROLS	115	1	60	-
EF-3	GREENHECK	SQ-80-DGEX-QD	SEASONAL ROOMS	120	0.375	5.5	INLINE	1300	-	1/12	38	OCCUPANCY SCHEDULE	115	1	60	-
PF-1	GREENHECK	AER-E36C-905-VG	GARAGE	3,750	0.25	1.8	WALL	624	-	1	111	AIR MONITORING SYSTEM	115	1	60	-
PF-2	GREENHECK	SQ-80-DGEX-QD	ATTIC	105	0.25	3.9	INLINE	1050	33	1/12	38	ATTIC HUMIDITY SENSOR	115	1	60	-
SF-1	GREENHECK	SQ-80-DGEX-QD	ATTIC	105	0.25	3.9	INLINE	1050	33	1/12	38	ATTIC HUMIDITY SENSOR	115	1	60	-
DF-1	AIRIUS	A-25-SP-STD-120W	GARAGE	-	-	-	DESTRAT	1670	37	-	9	-	120	1	60	-

NOTES:
1. POWER WIRING, RACEWAY, AND DISCONNECT BY DIVISION 26.
2. INCLUDE MOTION SENSOR FV-MSVK1 WITH EF-1, EF-2, EF-3, AND EF-4.
3. INTERLOCK PF-1 TOXALERT GAS SENSOR CONTROL PANEL.
4. PROVIDE GRAVITY DAMPER AND BIRDSCREEN AT PENETRATION FOR PF-1.
5. PROVIDE HUMIDITY SENSOR IN ATTIC SPACE. SF-1 AND PF-2 SHALL AUTOMATICALLY OPERATE WHEN THE RELATIVE HUMIDITY EXCEEDS 60 PERCENT. PROVIDE GRAVITY DAMPERS.
6. SEE SEQUENCE OF OPERATIONS.

MAKEUP AIR UNIT SCHEDULE
(BASED ON TRANE)

UNIT	MODEL	AREA SERVED	TYPE	CFM	ESP ("WC)	OA (CFM)	COOLING SECTION				REHEATING SECTION		HEATING SECTION			FAN DATA			POWER SPECIFICATIONS			DIMENSIONS (IN) H X L X W	WEIGHT (LBS)
							EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	TOTAL MBH	SENS. MBH	LAT DB(F)	LAT WB(F)	HEAT TYPE	HEATING OUTPUT CAPACITY MBH(KW)	EAT (°F)	LAT (°F)	RPM	HP	BHP	PHASE	VOLT	MCA		
MAU-1	OABE048D3-D1B4G1KE-D3F00ACAKE5A12E0A4A0	WORKSHOP AND PAINTING ROOM	PACKAGED DX	1385	1.0	1385	74.6/62.6	50.6/50.4	42.2	32.3	72	59.5	HEAT PUMP	24.8 (28)	54.8	118.7	2040	1	0.75	3	208	128.3	55 X 161 X 52	1962

NOTES:
1. POWER, WIRING, RACEWAY, AND DISCONNECT BY DIVISION 26.
2. PROVIDE THE FOLLOWING:
   - 2.1. ENERGY RECOVERY WHEEL MODEL: ERC-3014C
   - 2.2. MANUFACTURER SPECIFIED 2" VIR AUX MOD KNOCKDOWN ROOF CURB AOL-AM AUX WITH VIBRATION ISOLATORS
   - 2.3. TRANE UC600 - DISCHARGE AIR CONTROL WITH TD7 REMOTE DISPLAY
   - 2.4. RETURN AIR SMOKE DETECTOR
   - 2.5. CONDENSER HAIL GUARD
   - 2.6. IFM PIEZO RING AND PE PIEZO RING/TAP AIR FLOW MONITORING
   - 2.7. MODULATING OUTDOOR AIR AND RETURN AIR DAMPER FOR ECONOMIZER CONTROL
   - 2.8. BELIMO MODULATING DAMPER ACTUATORS.
   - 2.9. ONE SET OF MERV 8 AND MERV 13 FILTERS.

HEAT TRACE SCHEDULE

SYMBOL	MAKE	MODEL	OUTPUT W/FT	VOLTS	LINE STARTUP CURRENT (A)	CKT STARTUP CURRENT (A)	CKT TFMR LOAD (KW)	TOTAL NOMINAL CURRENT (A)	MAX MAINT. TEMP	MAX EXPOSURE TEMP	MAX CIRCUIT LENGTH
HT-1	CHROMALOX	CPM5-2CT	6.2@50F	208-277	5.4	5.4	0.814	2.5	302F	420F	750 FT

NOTES:
1. PROVIDE INTELLITRACE MODEL CTC1000 COMMERCIAL HEAT TRACE CONTROLLER, 120 VAC, FIBERGLASS ENCLOSURE, SINGLE CIRCUIT.
2. PROVIDE CHROMALOX FT-66 FIBERGLASS TAPE FOR HEAT TRACE, STRAP AT 1 FOOT INTERVALS.
3. PROVIDE CHROMALOX SS-3 STAINLESS STEEL PIPE STRAPS, PCN 512719.
4. PROVIDE CHROMALOX WL-05 ELECTRIC HEAT TRACE CAUTION LABELS, PCN 512743.
5. PROVIDE CHROMALOX RTD AS-BM AMBIENT SENSING HEAT TRACE, PCN 512823.
6. PROVIDE CHROMALOX RTES END SEAL KIT, RTPC POWER CONNECTION KIT.
7. INSTALL ALL COMPONENTS PER MANUFACTURER'S INSTRUCTIONS.

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SHEET TITLE
MECHANICAL SCHEDULES

SHEET
M4.1

GENERAL NOTES

1. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
2. ALL CONTRACTORS SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS INCLUDING PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATION AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL ENGINEERING.
3. THE INFORMATION SHOWN ON THE DRAWINGS IS DIAGRAMMATIC, INDICATING THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT, AND THEIR ASSOCIATED ACCESS AREAS, WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED BY INSTALLATION BY ANY CONTRACTOR SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL CONFLICTS BETWEEN DRAWINGS AND SPECIFICATIONS, OR BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS. FOR EACH CONFLICT, CONTRACTOR SHALL CARRY THE MORE EXPENSIVE OR LARGER QUANTITY OPTION.
5. SUBMISSION OF PROPOSAL DIRECTLY OR INDIRECTLY IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING EQUIPMENT LOCATIONS IN THE FIELD, AND SHALL ADVISE THE ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
7. ALL WORK SHALL CONFORM TO ALL APPLICABLE CURRENT BUILDING CODES, RULES, REGULATIONS AND ORDINANCES, INCLUDING THE ONES WRITTEN BY:
   - 7.1. REGULATORY AUTHORITIES HAVING JURISDICTION.
   - 7.2. OWNER'S INSURANCE CARRIER.
8. CONTRACTOR SHALL SECURE ALL PERMITS AND APPLICATIONS AND PAY ALL FEES PERTAINING TO THE CONTRACT.
9. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS WITH CODE OR MANUFACTURER-REQUIRED ACCESS SPACES. IF EQUIPMENT IS INSTALLED IN AN INACCESSIBLE LOCATION THE CONTRACTOR SHALL PROVIDE REQUIRED FIRE-RATED ACCESS DOORS, COORDINATED WITH THE ARCHITECT OR ENGINEER.
10. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL PROVIDE ALL HANGERS AND SUPPORTS REQUIRED FOR A COMPLETE INSTALLATION.
11. EACH CONTRACTOR SHALL COORDINATE THE LOCATION OF THEIR WORK WITH ALL OTHER TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE SYSTEM LAYOUT REQUIRED FOR INSTALLATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR TO RESTORE ANY EXISTING SYSTEMS, DEVICES, FINISHES, ETC., THAT ARE DAMAGED OR ALTERED DUE TO THE NEW WORK, TO ACCEPTABLE CONDITION AS DETERMINED BY THE OWNER AND ENGINEER.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR WORKER IDENTIFICATION AND BADGING, SITE SAFETY AND FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, BARRICADES, WARNING SIGNS, TRASH REMOVAL, CUTTING AND PATCHING.
14. CONTRACTOR SHALL SCHEDULE ALL SHUTDOWNS THAT AFFECT UTILITIES AND PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION WITH THE OWNER.
15. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER AND ALL OTHER CONTRACTORS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING AND PROTECTION OF MATERIALS.
17. CONTRACTOR SHALL PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT AND TRANSFER TO POINT OF INSTALLATION, OWNER FURNISHED ITEMS.
18. CONTRACTORS SHALL PROVIDE SLEEVES AND SEALS FOR ALL PIPING OR CONDUIT THAT PENETRATES WALLS OR FLOOR SLABS.
19. WHERE CONDUIT, CABLES, DUCTWORK OR PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A LISTED FIRE STOP MATERIAL THAT MEETS ALL OF THE REQUIREMENTS OF THE STATE AND LOCAL BUILDING CODES AND THE LOCAL AUTHORITIES HAVING JURISDICTION. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR. THE FIRE-STOP INSTALLING CONTRACTOR SHALL BE CERTIFIED BY THE FIRE-STOPPING SYSTEM MANUFACTURER.
20. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ALL WALL AND FLOOR CORINGS TO STRUCTURAL ENGINEER FOR REVIEW BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO CORINGS INSTALLED, AT NO COST TO OWNER. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.
21. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ANY PROPOSED STRUCTURAL MEMBER PENETRATIONS TO THE STRUCTURAL ENGINEER FOR REVIEW AND DETAILING BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO PENETRATIONS INSTALLED, AT NO COST TO OWNER. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.
22. CONTRACTOR AND SUBCONTRACTORS SHALL COLLECTIVELY PREPARE TRADE COORDINATION DRAWINGS IN SUFFICIENT DETAIL TO PREVENT TRADE CONFLICTS IN AREAS OF CONGESTED WORK. THE TRADE COORDINATION DRAWINGS SHALL BE BASED ON SHOP DRAWINGS PREPARED BY ALL MEP TRADES INCLUDING SPRINKLER CONTRACTOR.
23. ALL PIPING LAYOUTS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL INSTALL ALL REQUIRED OFFSETS AND TRANSITIONS TO PREVENT INTERFERENCE WITH FIELD CONDITIONS AND TO COORDINATE WITH OTHER TRADES AT NO COST TO THE OWNER.
24. ALL REQUIRED OPENINGS THROUGH WALLS, FLOORS, AND CEILINGS SHALL BE COORDINATED BY THE CONTRACTOR USING ENGINEER AND ARCHITECT REVIEWED & APPROVED EQUIPMENT SHOP DRAWINGS.
25. NO PIPING OR DUCTS SHALL BE INSTALLED OVER ELECTRICAL PANELS, TRANSFORMERS, OR ELEVATOR MACHINE ROOM EQUIPMENT. CONTRACTOR SHALL COORDINATE PIPING AND DUCTWORK WITH ELECTRICAL EQUIPMENT IN FIELD AS PART OF COORDINATION DRAWINGS.
26. PROVIDE AIR VENTS AT ALL HIGH POINTS AND DRAINS AT LOW POINTS.
27. PROVIDE SHUTOFF VALVES AT ALL PIPING BRANCHES IN AN ACCESSIBLE LOCATION. PROVIDE ACCESS PANELS AS REQUIRED.
28. WHEN ROOF ACCESS IS REQUIRED, CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT THE ROOF WARRANTY DURING THE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ROOF DAMAGE AND SHALL REPAIR THE DAMAGE AT NO COST TO THE OWNER.
29. ALL NEW DOMESTIC WATER SYSTEMS SHALL BE DISINFECTED PER STATE AND LOCAL CODES. ALL PIPING SHALL BE HYDROSTATICALLY PRESSURE TESTED PRIOR TO SUBSTANTIAL COMPLETION.

PLUMBING ABBREVIATIONS

S	=	SANITARY
W	=	WASTE
W&V	=	COMBINATION WASTE & VENT
V	=	VENT
VTR	=	VENT THROUGH ROOF
C	=	COLD WATER
H	=	HOT WATER
HWR	=	HOT WATER RETURN
TYP	=	TYPICAL
GPM	=	GALLONS PER MINUTE
TW	=	TEPID WATER
AFF	=	ABOVE FINISHED FLOOR
ETR	=	EXISTING TO REMAIN

PLUMBING SYMBOL LEGEND

	CHECK VALVE
	BALL VALVE
	BALANCE VALVE
	HOSE BIB WITH VALVE
	PIPE UP
	PIPE DOWN
	TEE DOWN
	UNION
	FLOOR CLEANOUT
	FIXTURE TRAP
	CLEANOUT
	GAS COCK
	THERMOMETER
	FLOOR DRAIN
M	WATER METER
	WATER HAMMER ARRESTOR

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SHEET TITLE
PLUMBING NOTES

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P0.1

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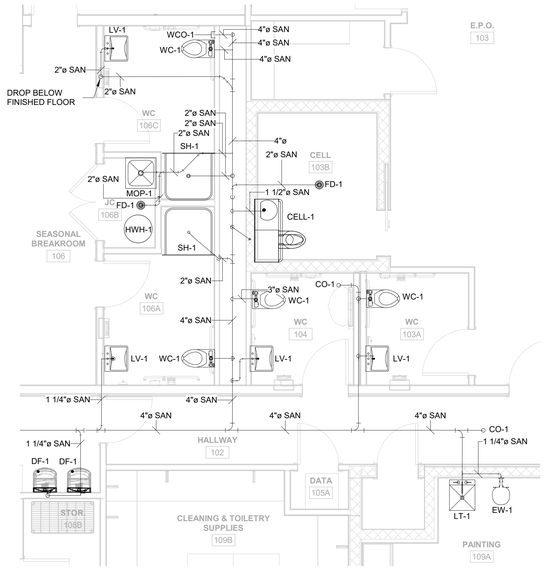
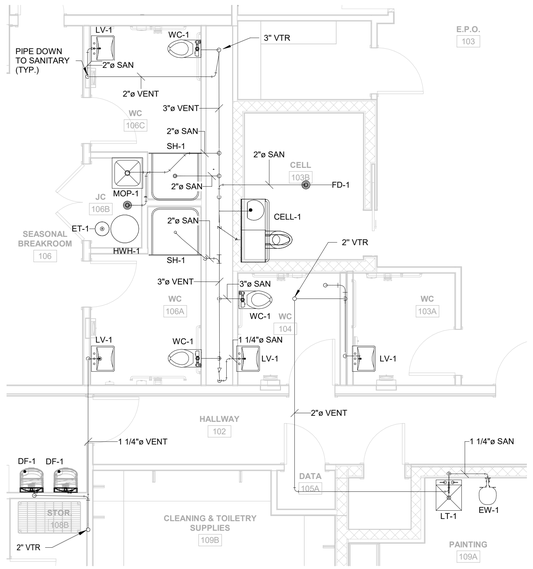


2 PLUMBING SANITARY ENLARGED VIEW
1/4" = 1'-0"



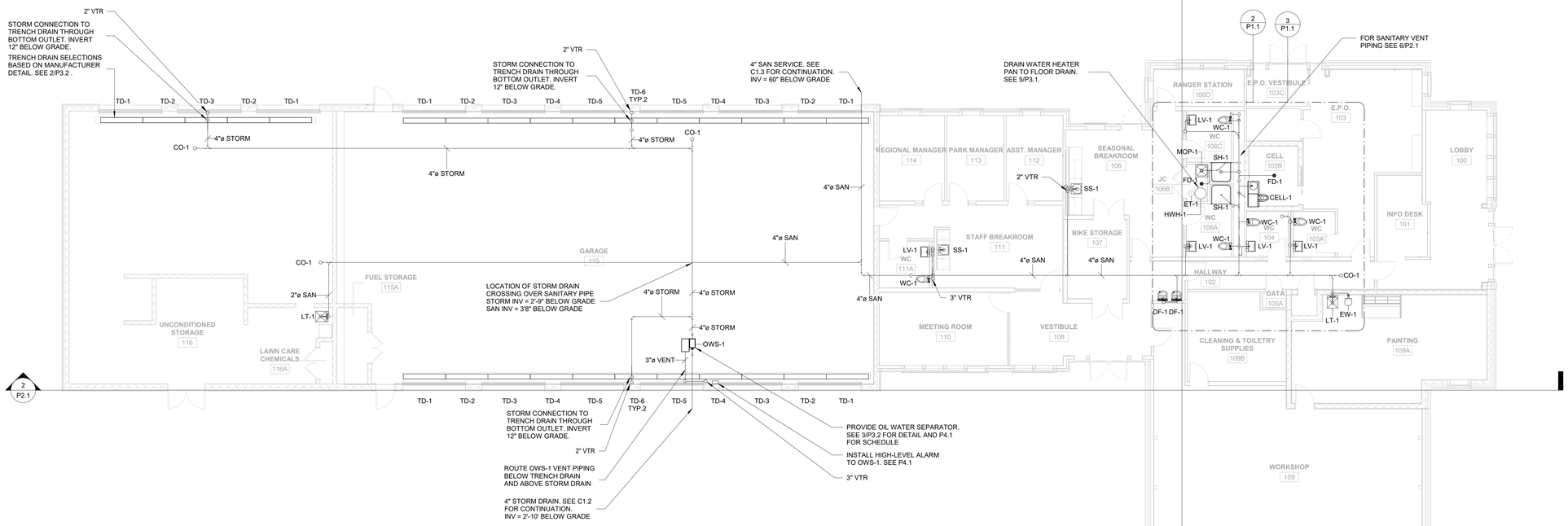
3 PLUMBING VENT ENLARGED VIEW
1/4" = 1'-0"

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 07/03/2023

NOTES:

1. SLOPE GRAVITY-DRAINED PIPING AS FOLLOWS:
   A. 3/8" - 2-1/2" = 1/4" PER HORIZONTAL FOOT
   B. 3" - 6" = 1/8" PER HORIZONTAL FOOT



1 PLUMBING SANITARY AND VENT PIPING-FIRST FLOOR-PLAN
1/8" = 1'-0"

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SHEET TITLE
PLUMBING SANITARY AND VENT PIPING

SHEET
P1.1

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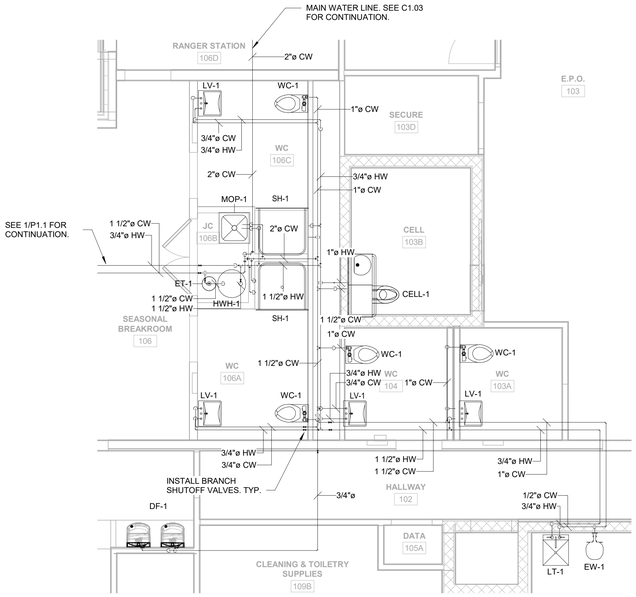
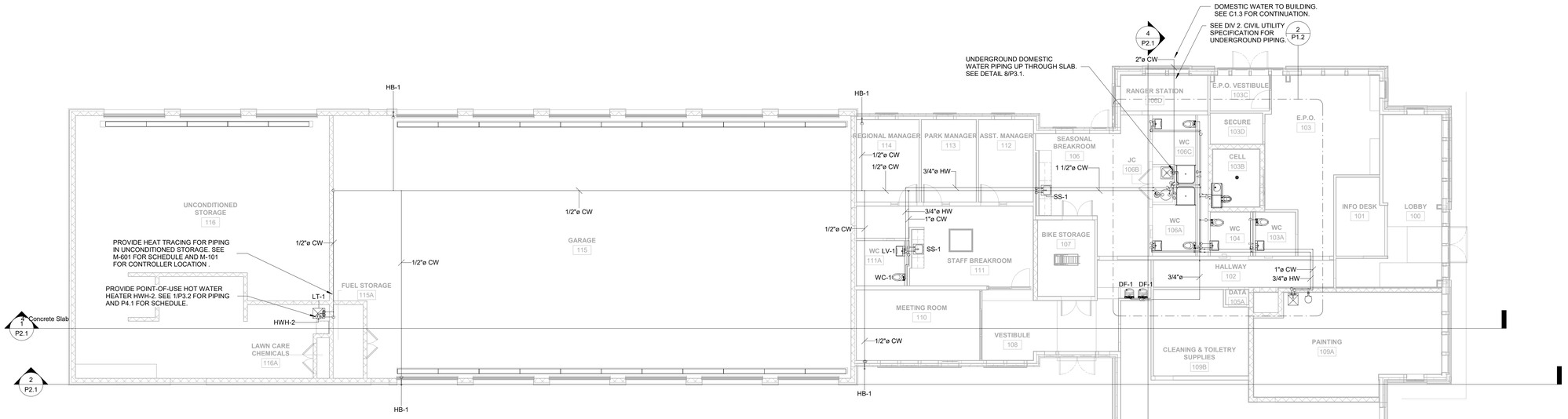


2 PLUMBING DOMESTIC PIPING-FIRST FLOOR-PLAN - DW CALLOUT
1/4" = 1'-0"



1 PLUMBING DOMESTIC PIPING-FIRST FLOOR-PLAN
1/8" = 1'-0"

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 07/03/2023

NOTES:

1. ALL DOMESTIC COLD AND HOT WATER PIPING FIXTURE CONNECTIONS SHALL BE INSTALLED WITH ACCESSIBLE FULL SIZE SHUT-OFF VALVE.
2. ALL DOMESTIC COLD AND HOT WATER TAKEOFFS SHALL BE INSTALLED WITH ACCESSIBLE FULL SIZE SHUT-OFF VALVE.
3. FOR PIPE SIZE CONNECTIONS TO PLUMBING FIXTURES SEE PLUMBING SCHEDULE. RE: P4.1

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SHEET TITLE
PLUMBING DOMESTIC PIPING

SHEET
P1.2

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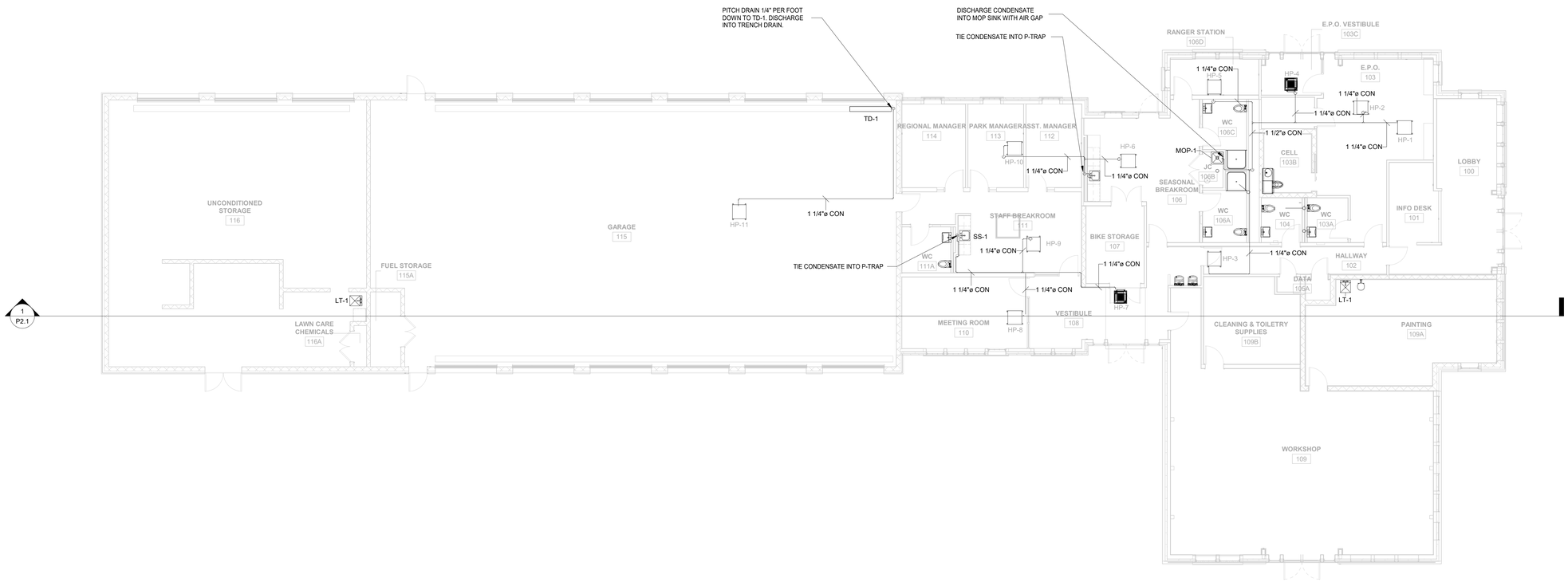
LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 07/03/2023

NOTES:

1. SEE 2/P3.1 FOR CONDENSATE PIPING CONNECTION DETAIL.
2. CONDENSATE PIPING TO BE PITCHED AT 1/4" PER FOOT TOWARDS DRAIN DISCHARGE INTO SANITARY.
3. ALL CONDENSATE PIPE TEE CONECTIONS TO SHALL BE TEE WYES.



1 PLUMBING CONDENSATE PIPING-FIRST FLOOR-PLAN
1/8" = 1'-0"

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SHEET TITLE
PLUMBING CONDENSATE PIPING

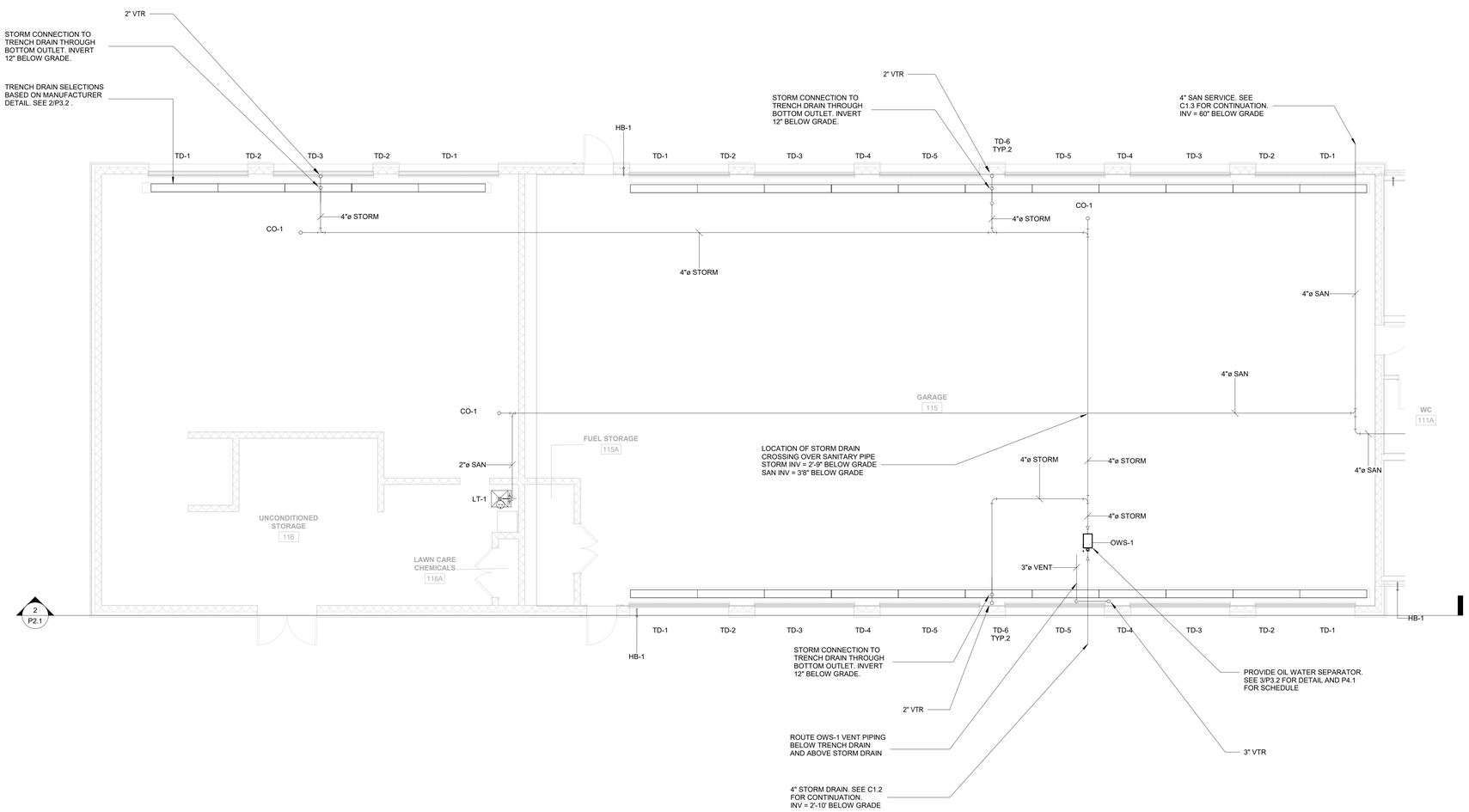
SHEET
P1.3

LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK

MAP REFERENCE
ARCHITECTURAL BACKGROUND RECEIVED FROM BREWSTER THORNTON GROUP ARCHITECTS ON 07/03/2023

NOTES:

1. SLOPE GRAVITY-DRAINED PIPING AS FOLLOWS:
   A. 3/8" - 2-1/2" = 1/4" PER HORIZONTAL FOOT
   B. 3" - 6" = 1/8" PER HORIZONTAL FOOT



1 PLUMBING TRENCH DRAIN PIPING
3/16" = 1'-0"

7/29/2025 6:25:19 PM

NEW OPERATIONS FACILITY
COLT STATE PARK
ROUTE 114, BRISTOL RI 02809

BREWSTER THORNTON GROUP ARCHITECTS LLP
317 Iron Horse Way, Suite 202
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401.861.1600
brewsterthornton.com

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JOB NO.	DATE
2201	8/1/2025

ISSUE : **BID SET**

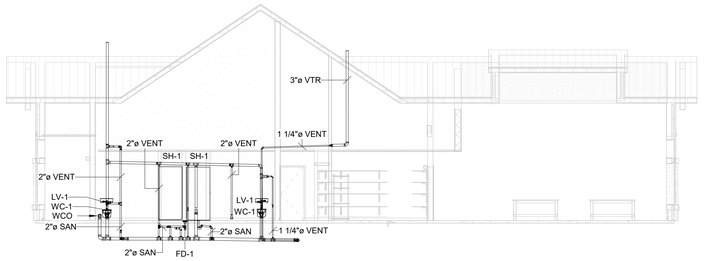
NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
PLUMBING TRENCH DRAIN PIPING PLAN

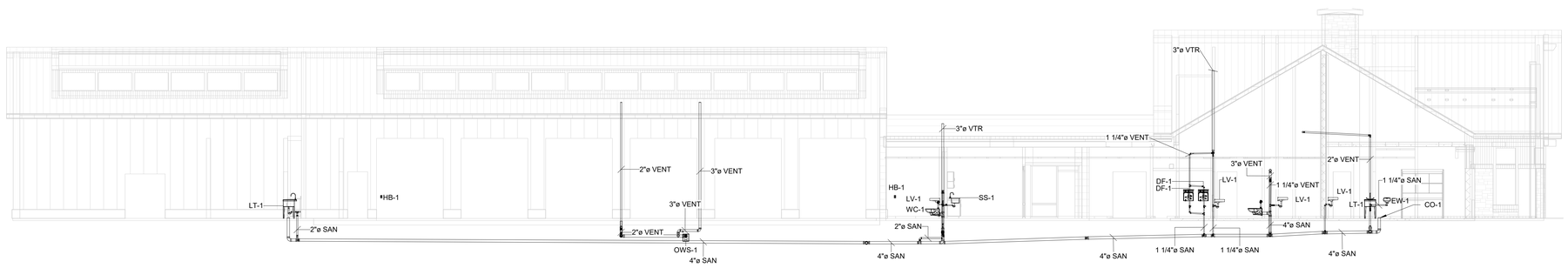
SHEET
P1.4

ELIZABETH YANG LANDRY
No. 12560
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

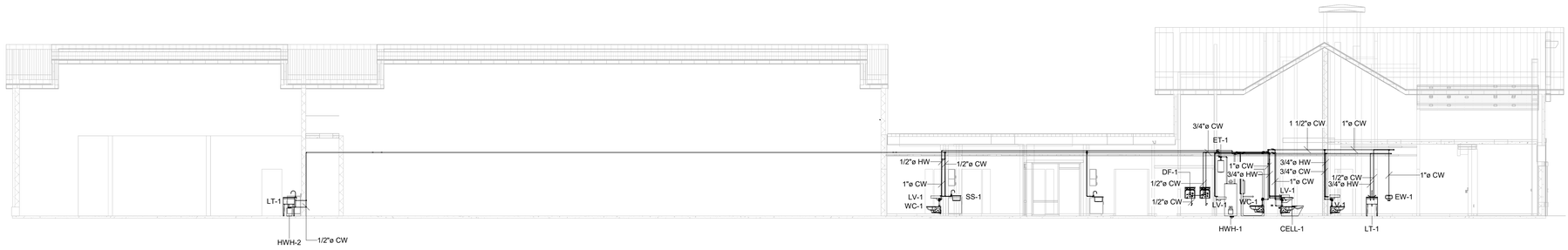
LINETYPE LEGEND	
	ARCHITECTURAL BACKGROUND
	NEW WORK



4 PLUMBING SANITARY SECTION VIEW 2
1/8" = 1'-0"



2 PLUMBING SANITARY SECTION VIEW 1
1/8" = 1'-0"



1 PLUMBING DOMESTIC SECTION VIEW 1
1/8" = 1'-0"

ELIZABETH YANG LANDRY
No. 12560
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

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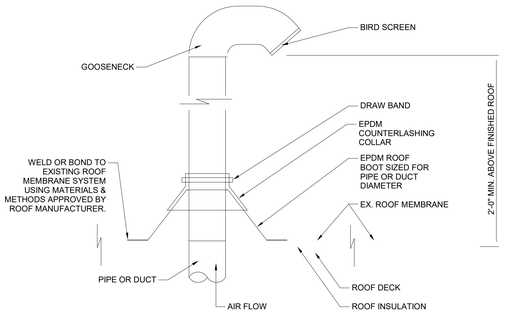
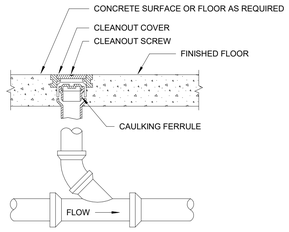
SHEET TITLE
PLUMBING ELEVATIONS

SHEET
P2.1



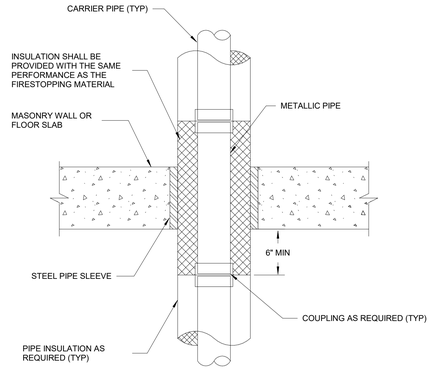
3 TYPICAL PIPE OR DUCT THROUGH ROOF DETAIL

SCALE: N.T.S.



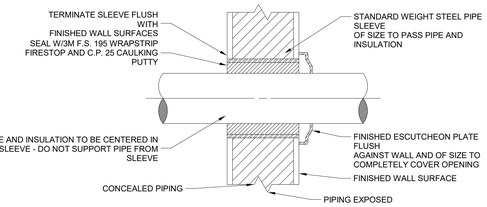
6 TYPICAL FLOOR CLEANOUT DETAIL

SCALE: N.T.S.



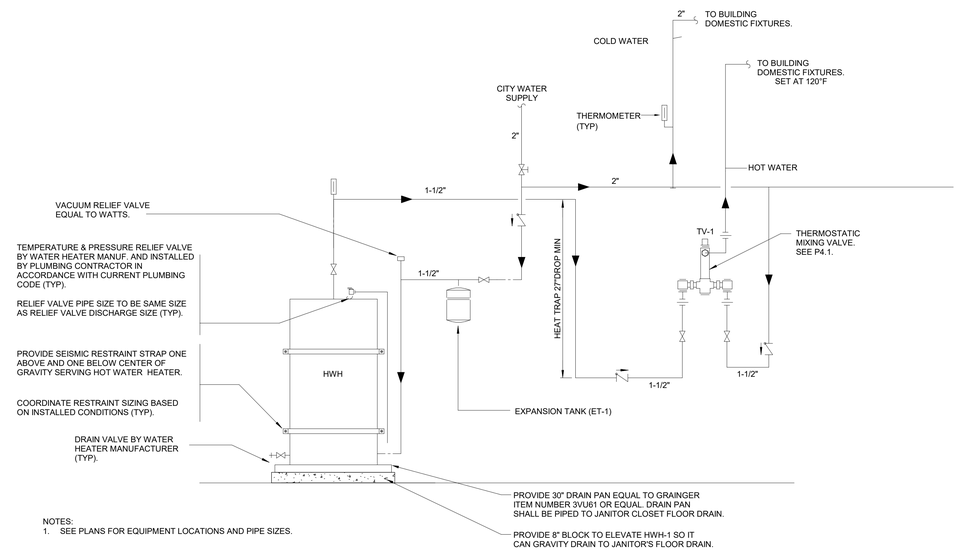
8 TYPICAL PIPING THROUGH FLOOR DETAIL

SCALE: N.T.S.



2 INTERIOR WALL AND FLOOR PIPING PENETRATION DETAIL

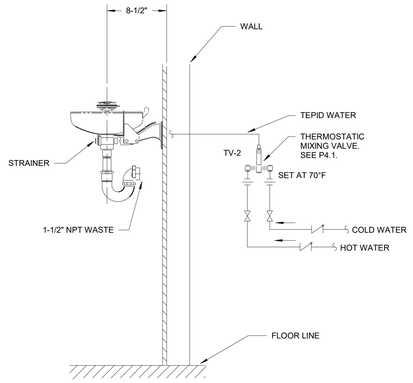
SCALE: N.T.S.



NOTES:
1. SEE PLANS FOR EQUIPMENT LOCATIONS AND PIPE SIZES.

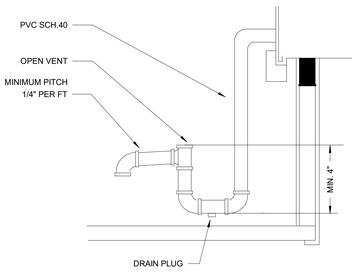
9 DOMESTIC HOT WATER PIPING DETAIL

SCALE: N.T.S.



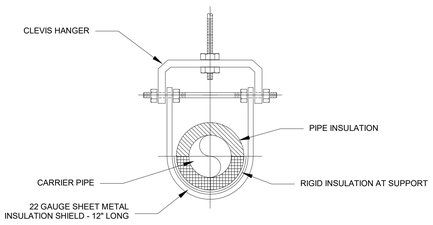
1 EYE WASH STATION DETAIL

SCALE: N.T.S.



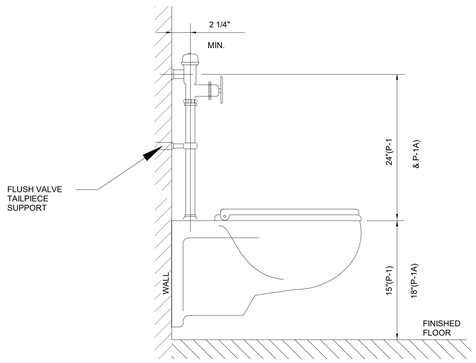
4 CONDENSATE DRAIN PIPING DETAIL

SCALE: N.T.S.



5 INSULATED PIPE HANGER DETAIL

SCALE: N.T.S.



7 FLUSH VALVE WATER CLOSET DETAIL

SCALE: N.T.S.

ELIZABETH YANG LANDRY
No. 12560
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

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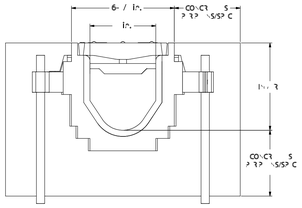
SHEET TITLE
PLUMBING DETAILS I

SHEET
P3.1

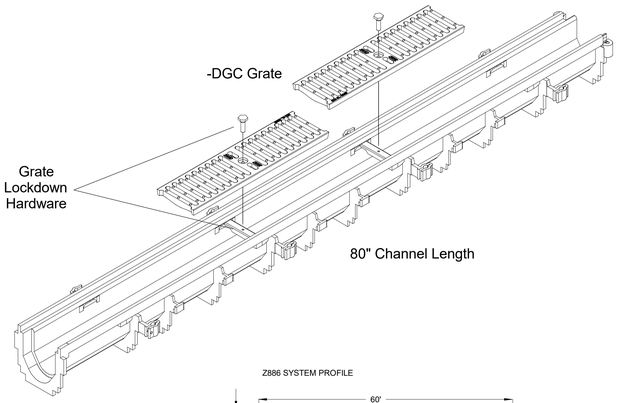
Installation Specification



4" Throat / 6-1/4" Overall Width

Consult Plans and Specifications

TRENCH NUMBER	DIMENSIONS IN INCHES [MM]		MAX. FLOW RATE			APPROX. WEIGHT LESS GRATE (LB [KG])
	SHALLOW INVERT	DEEP INVERT	GPM	LPS	CFS	
8601	3.50 [89]	4.10 [104]	93	6	0.207	14 [6.2]
8602	4.10 [104]	4.70 [119]	122	8	0.272	15 [6.8]
8603	4.70 [119]	5.30 [135]	152	10	0.339	16 [7.4]
8603N	5.30 [135]	5.30 [135]	–	–	–	17 [7.7]
8604	5.30 [135]	5.90 [150]	183	12	0.408	18 [8.3]
8605	5.90 [150]	6.50 [165]	214	14	0.477	20 [8.9]
8606	6.50 [165]	7.10 [180]	245	16	0.546	21 [9.5]
8606N	7.10 [180]	7.10 [180]	–	–	–	22 [10]
8607	7.10 [180]	7.70 [196]	276	17	0.615	23 [10.6]
8608	7.70 [196]	8.30 [211]	308	19	0.686	25 [11.2]
8609	8.30 [211]	8.90 [226]	339	21	0.755	26 [11.8]
8610	8.90 [226]	9.50 [241]	371	23	0.827	27 [12.4]
8611	9.50 [241]	10.1 [257]	403	26	0.898	29 [13]
8612	10.10 [257]	10.7 [272]	435	28	0.969	30 [13.6]
8612N	10.70 [272]	10.7 [272]	–	–	–	30 [13.6]
8613	10.70 [272]	11.3 [287]	467	30	1.041	31 [14.2]
8614	11.30 [287]	11.9 [302]	498	32	1.11	33 [14.8]
8615	11.90 [302]	12.5 [318]	530	34	1.181	34 [15.4]



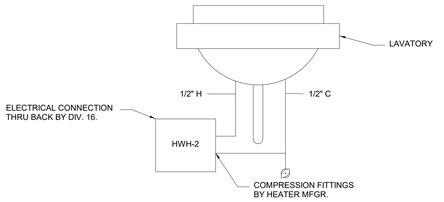
Closed End Cap (E1)

End Outlet (2", 3", 4", 6" NH)

Bottom Outlet (2", 3", 4", 6" NH)

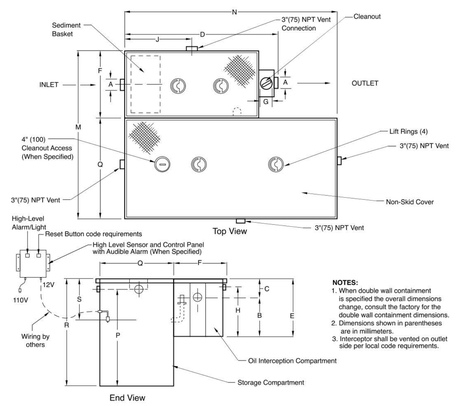
2 TRENCH DRAIN SIZING PROFILE

SCALE: N.T.S.



1 POINT-OF-USE HOT WATER HEATER PIPNG DETAIL

SCALE: N.T.S.



NOTES:
1. When double wall containment is specified the overall dimensions change, consult the factory for the double wall containment dimensions.
2. Dimensions shown in parentheses are in millimeters.
3. Interceptor shall be vented on outlet side per local code requirements.

MODEL NUMBER	GPM	OIL INTERCEPTOR COMPARTMENT										STORAGE TANK COMPARTMENT						
		A*	B	C	D	E	F	G	H	J	Gals. Capacity	M	N	P	Q	R	S
●8599-10-5	10	02 (50)	9 1/2 (240)	3 3/4 (95)	21 1/4 (540)	13 1/4 (335)	13 (330)	2 (51)	9 3/4 (250)	9 1/2 (240)	5	24 (610)	21 1/4 (540)	10 1/4 (260)	11 (279)	13 1/4 (335)	9 1/4 (235)
8599-10-50	10	02 (50)	9 1/2 (240)	3 3/4 (95)	21 1/4 (540)	13 1/4 (335)	13 (330)	2 (51)	9 3/4 (250)	9 1/2 (240)	50	25 (635)	30 (760)	50 3/4 (1290)	12 (305)	55 (1397)	9 1/4 (235)
8599-15-50	15	02 (50)	12 (305)	3 1/2 (89)	25 (635)	15 1/2 (395)	14 (355)	2 (51)	12 (305)	10 1/4 (260)	50	26 (660)	30 (760)	50 3/4 (1290)	12 (305)	55 (1397)	9 3/4 (250)
8599-20-50	20	03 (75)	13 (330)	4 (100)	28 1/2 (725)	17 (430)	15 3/4 (400)	2 (51)	13 1/2 (345)	12 (305)	50	27 3/4 (705)	30 (760)	50 3/4 (1290)	12 (305)	55 (1397)	12 1/2 (320)
8599-25-100	25	03 (75)	15 1/4 (390)	4 1/2 (115)	30 (760)	19 3/4 (500)	16 3/4 (425)	2 (51)	16 1/4 (415)	12 3/4 (325)	100	31 3/4 (805)	50 3/4 (1290)	56 3/4 (1441)	15 (380)	61 (1550)	13 1/2 (345)
8599-35-100	35	03 (75)	16 (405)	5 (125)	32 1/2 (825)	21 (535)	18 1/4 (465)	2 (51)	17 1/2 (445)	14 1/2 (370)	100	33 1/4 (845)	50 3/4 (1290)	56 3/4 (1441)	15 (380)	61 (1550)	14 (355)
8599-50-100	50	03 (80)	17 1/2 (445)	6 3/4 (170)	35 1/2 (900)	24 1/4 (615)	20 3/4 (525)	2 (51)	20 3/4 (525)	16 (405)	100	36 1/4 (920)	50 3/4 (1290)	56 3/4 (1441)	15 (380)	61 (1550)	16 3/4 (425)
8599-75-100	75	04 (100)	21 1/2 (545)	15 1/2 (395)	50 3/4 (1290)	37 (940)	30 1/2 (775)	3 (76)	32 3/4 (830)	21 (535)	100	45 1/2 (1155)	50 3/4 (1290)	56 3/4 (1441)	15 (380)	61 (1550)	24 (610)
8599-100-250	100	04 (100)	27 (685)	16 1/2 (420)	54 3/4 (1390)	43 1/2 (1105)	33 1/2 (850)	3 (76)	39 1/4 (995)	23 (585)	250	58 1/2 (1485)	60 3/4 (1543)	60 3/4 (1543)	25 (635)	65 (1650)	25 (635)
8599-150-250	150	05 (125)	33 (840)	17 1/2 (445)	60 3/4 (1543)	50 1/2 (1283)	38 1/2 (980)	4 (100)	46 1/4 (1175)	25 1/2 (650)	250	63 1/2 (1613)	60 3/4 (1543)	60 3/4 (1543)	25 (635)	65 (1650)	27 (685)
8599-200-250	200	05 (125)	37 (940)	17 1/2 (445)	67 3/4 (1720)	54 1/2 (1385)	43 1/2 (1105)	4 (100)	50 1/4 (1275)	29 (735)	250	68 1/2 (1740)	60 3/4 (1543)	60 3/4 (1543)	25 (635)	65 (1650)	27 (685)
8599-250-500	250	05 (125)	40 (1015)	18 (455)	73 3/4 (1875)	58 (1473)	47 1/2 (1205)	4 (100)	53 3/4 (1365)	32 (815)	500	79 1/2 (2019)	90 3/4 (2305)	71 3/4 (1822)	32 (815)	76 (1930)	27 1/2 (700)
8599-300-500	300	05 (125)	43 1/2 (1105)	18 (455)	85 3/4 (2178)	61 1/2 (1562)	54 1/2 (1385)	4 (100)	57 1/4 (1454)	38 (965)	500	86 1/2 (2197)	90 3/4 (2305)	71 3/4 (1822)	32 (815)	76 (1930)	27 1/2 (700)
8599-350-500	350	05 (125)	43 1/2 (1105)	18 (455)	85 3/4 (2178)	61 1/2 (1562)	54 1/2 (1385)	4 (100)	57 1/4 (1454)	38 (965)	500	86 1/2 (2197)	90 3/4 (2305)	71 3/4 (1822)	32 (815)	76 (1930)	27 1/2 (700)
8599-400-500	400	06 (150)	43 1/2 (1105)	18 (455)	85 3/4 (2178)	61 1/2 (1562)	54 1/2 (1385)	4 (100)	57 1/4 (1454)	38 (965)	500	86 1/2 (2197)	90 3/4 (2305)	71 3/4 (1822)	32 (815)	76 (1930)	27 1/2 (700)
8599-450-500	450	06 (150)	48 (1220)	18 (455)	103 1/4 (2635)	66 (1675)	64 1/2 (1640)	5 (125)	61 3/4 (1570)	46 (1170)	500	96 1/2 (2451)	90 3/4 (2305)	71 3/4 (1822)	32 (815)	76 (1930)	28 (710)
8599-500-750	500	06 (150)	48 (1220)	18 (455)	103 1/4 (2635)	66 (1675)	64 1/2 (1640)	5 (125)	61 3/4 (1570)	46 (1170)	750	99 1/2 (2524)	103 1/4 (2635)	83 3/4 (2127)	35 (890)	88 (2235)	28 (710)

*Larger Inlet and Outlet Size Available Specify Required Size.

NOTE: Model number is defined as: 8599-10-50
- 8599 — Series number
- 10 — Size of storage tank compartment in gallons.
- 50 — GPM flow rate for oil interceptor.

●Recommended for Elevator Pits.

NOTE: Dimensions shown in parentheses are in millimeters.

NOTE: Any unit exceeding 92"(2337mm) in width, 96"(2438mm) in height or weighing more than 3,500 lbs.(1,588 KG.) is an over sized and/or over weight product requiring special shipping and handling considerations. Contact Smith Customer Service as standard FFA terms do not apply.

3 OIL INTERCEPTOR DETAIL

SCALE: N.T.S.

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NEW OPERATIONS FACILITY
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ROUTE 114, BRISTOL RI 02809

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JOB NO. 2201 | DATE 8/1/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
PLUMBING DETAILS II

SHEET
P3.2

ELIZABETH YANG LANDRY No. 12560 REGISTERED PROFESSIONAL ENGINEER MECHANICAL

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	PIPE SIZE					MOUNTING	FIXTURE MFG	FIXTURE DESCRIPTION	TRIM DESCRIPTION
		TEPID	HW	CW	SAN	VENT				
WC-1	TOILET	-	-	1"	4"	3"	WALL	AMERICAN STANDARD	AFWALL FLOWISE ADA RETROFIT ELONGATED FLUSHOMETER TOILET WITH EVERCLEAN: ELONGATED BOWL, VITREOUS CHINA, 1.28 GPF, FULLY GLAZED TRAPWAY, COLOR: WHITE, ADA COMPLIANT.	5905.100 HEAVY DUTY OPEN FRONT LESS COVER. MANUAL AMERICAL STANDARD 6047.121.002 FLUSHOMETER VALVE, 1.28 GPF. PROVIDE WATTS ISCA-121 FIXTURE CARRIER.
LV-1	LAVATORY	-	1/2"	1/2"	1 1/4"	1 1/4"	WALL	KOHLER	K-1999-4N BRENHAM OVAL WALL-MOUNT SINGLE BOWL BATHROOM SINK WITH SHROUD, 4" CENTERSET FAUCET HOLES, AND OVERFLOW. VITREOUS CHINA. ADA COMPLIANT.	K-400T20-4ANA-CP TRITON BOWE 0.5 GP CENTERSET BATHROOM SINK FAUCET WITH AERATED FLOW AND LEVER HANDLES. COLOR: POLISHED CHROME. ADA COMPLIANT.PROVIDE CA-481 WALL SUPPORT PLATE
DF-1	DRINKING FOUNTAIN	-	-	3/8"	1 1/4"	1 1/4"	WALL	ELKAY	LZSG8WSSK ELKAY EZH20 BOTTLE FILLING STATION & SINGLE ADA COOLER, HIGH EFFICIENCY, FILTERED, REFRIGERATED, STAINLESS	MLP1-- IN-WALL CARRIER.WATERSENTRY PLUS FILTER SYSTEM.
CELL-1	LAV/WC	-	1/2" LAV	1/2" LAV 1" WC	1 1/2" LAV 2 3/8" WC	3"	FLOOR	ACORN	LR1449-RO-2-04-DMB SECUR-CARE LAV/TOILET LIGATURE RESISTANT COMBY, OFFEST TOILET BOWL, ADA COMPLIANT	LR1449-RO HOT & COLD METERING VALVE, 1.28 GPF FLUSHOMETER VALVE, WALL OUTLET
EW-1	EYEWASH	1/2"	-	-	1 1/4"	1 1/4"	WALL	BRADLEY	S19224DCPT SERIES WALL-MOUNT HALO EYEWASH, FULLY-ASSEMBLED, BARRIER FREE, EYEWASH PADDLE, 1/2" NPT WATER SUPPLY INLET, ADA COMPLIANT	NAVIGATOR S19-2000 EFX8 EMERGENCY THERMOSTATIC MIXING VALVE. PRVIDE WITH ZURN CA-481 WALL SUPPORT PLATE
HB-1	HOSE BIBB	-	-	3/4"	-	-	WALL	ZURN	Z1345 NON-FREEZE ANTI-SIPHON AUTOMATIC DRAINING WALL FAUCET. EXTERIOR CHROME FINISH, BRASS CASING, ALL BRONZE INTERIOR PARTS CONSTRUCTION WITH VACUUM BREAKER, ¾" CONNECTION.	
MOP-1	MOP SINK	-	1/2"	1/2"	3"	1 1/4"	FLOOR	CHICAGO	814-WBCP WALL-MOUNTED MANUAL SINK FAUCET WITH ADJUSTABLE CENTERS, 6" VANDAL-PROOF ELBOW BLADE HANDLE, 7-1/2" RIGID SPOUT WITH PAIL HOOK AND PIPE SUPPORT, ADA-COMPLIANT	FIAT MSBID2424 MOLDED STONE INTEGRAL DRAIN MOP SERVICE BASIN, STAINLESS STEEL STRAINER INCLUDED, 24" X 24" X 10"
SH-1	SHOWER	-	1/2"	1/2"	1 1/4"	1 1/4"	FLOOR	COMFORT DESIGNS	3636BFSC ACCESSIBLE SHOWERS, SMOOTH WALL, ADA-COMPLIANT,36" X 36" X 80-7/16" CAST ACRYLIC	3636368FSC ADA-COMPLIANT HAND-HELD SHOWER ASSEMBLY WITH SLIDE BAR, PRESSURE BALANCING MIXING VALVE, GRAB BARS
LT-1	LAUNDRY TUB	-	1/2"	1/2"	1 1/4"	1 1/4"	FLOOR	ELKAY	ESSB2319C STAINLESS STEEL 23" X 18-1/2" X 12" WALL HUNG SERVICE SINK KIT, SINGLE BOWL, ADA COMPLIANT	ESSB2319 SINK, LK940BR03L2H FAUCET, LK173 CAST IRON P-TRAP, ADA COMPLIANT
SS-1	SERVICE SINK	-	1/2"	1/2"	1 1/2"	1 1/2"	TOP MOUNT	KOHLER	STACCATO K-3363-3 BAR SINK WITH 3 FAUCET HOLES, 18 GAUGE STAINLESS STEEL, TOP MOUNT, SINGLE BOWL, ADA COMPLIANT.	K-15173-F CORALAIS KITCHEN FAUCET WITH SIDESPRAY, 1.5 GPM, 4" CENTERS, ADA COMPLIANT.
CO-1	CLEANOUT	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS					FLOOR	WADE	8560-NH CLEANOUT TEE & PLUG, ADJUSTABLE FLOOR & GRADE CLEANOUT. CAST IRON BODY WITH COUNTERSUNK ABS PLUG	
TD	TRENCH DRAIN	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS SEE					FLOOR	ZURN	Z886 6-1/4" WIDE REVEAL TRENCH DRAIN SYSTEM HDPE MODULAR CHANNELS, DUCTILE IRON SLOTTED GRATE CLASS C SEE TRENCH DRAIN SCHEDULE FOR TRENCH NUMBER.	TRAP SEAL DEVICE MODEL Z1072-4 SHIELD
FD-1	FLOOR DRAIN	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS					FLOOR	WADE	1100-A6-1-3NH FLOOR DRAIN WITH ROUND ADJUSTABLE TOP WITH PERFORATED GRATE, CAST IRON BODY WITH ANCHOR FLANGE, 1#2" TRAP PRIMER TAP, BOTTOM OUTLET, SATIN FINISH NICKEL BRONZE TOP, NO HUB OUTLET. LIGHT DUTY RATING.	TRAP SEAL DEVICE MODEL 4405
TV-1	THERMOSTATIC MIXING VALVE	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS					PIPING	WATTS	SERIES LFN170 HOT WATER MASTER TEMPERING VALVE, LEAD FREE BRASS BODY CONSTRUCTION, PARAFFIN-BASED THERMOSTAT, MAX OPERATING PRESSURE 125 PSIG, MAX HOT WATER PRESSURE 200F, HOT WATER INLET RANGE 120-180F, COLD WATER INLET RANGE 40-80F	
TV-2	THERMOSTATIC MIXING VALVE	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS					PIPING	BRADLEY	REFER TO EW-1 TRIM	
OWS-1	OIL WATER SEPARATOR	SIZE OF UNIT TO MATCH PIPE SIZE SHOWN ON PLANS					FLOOR	J R. SMITH	8599 SERIES 8599-75-100 LARGE CAPACITY STEEL OIL INTERCEPTORS, WITH INTEGRAL STORAGE COMPARTMENT, TRAFFIC RATED H-20 NON-SKID COVER, HIGH LEVEL SENSOR AND CONTROL PANEL WITH AUDIBLE ALARM, AND EXTENSION VARIATION	

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHT DETAILS.

ELECTRIC HOT WATER HEATER SCHEDULE

SYMBOL	LOCATION	MAKE	MODEL	ELEMENT WATTS	TOTAL STORAGE CAPACITY (GAL)	ELECTRICAL	
						VOLTS/ PHASE	FLA
HWH-1	JANITOR'S CLOSET 106B	AO SMITH	HPTU-66N	-	67	208/1	-
HWH-2	UNCONDITIONED STORAGE	BOSCH	TRONIC ES4	1440	4	110-120/1	12

NOTES:
1. WIRING AND RACEWAY BY ELECTRICAL CONTRACTOR.
2. SCA CARTIFIED AND ASME RATED T&P RELIEF VALVE.
3. EACH HEATER SHALL BE U.L. LISTED, ASME APPROVED AND ASHRAE 90.16-1992 COMPLIANT.
4. PROVIDE 3-YEAR TANK WARRANTY.

TRENCH DRAIN SCHEDULE
(BASED ON ZURN)

SYMBOL	TRENCH NUMBER	DIMENSIONS IN INCHES [MM]		MAX. FLOW RATE			APPROX. WEIGHT LESS GRATE (LB [KG])
		SHALLOW INVERT	DEEP INVERT	GPM	LPS	CFS	
TD-1	8601	3.50 [89]	4.10 [104]	93	6	0.207	14 [6.2]
TD-2	8602	4.10 [104]	4.70 [119]	122	8	0.272	15 [6.8]
TD-3	8603	4.70 [119]	5.30 [135]	152	10	0.339	16 [7.4]
TD-4	8604	5.30 [135]	5.90 [150]	183	12	0.408	18 [8.3]
TD-5	8605	5.90 [150]	6.50 [165]	214	14	0.477	20 [8.9]
TD-6	8606	6.50 [165]	7.10 [180]	245	16	0.546	21 [9.5]

EXPANSION TANK SCHEDULE

SYMBOL	MAKE	MODEL	WORKING FLUID	ACCEPTANCE VOLUME (GAL)	TANK SIZE (GAL)	MAWP	DIAMETER X HEIGHT (IN)	NPT FITTING (IN)	SHIPPING WEIGHT (LBS)	NOTES
ET-1	AO SMITH	PMI-7	WATER	7.3	7.3	150	11 X 21-1/16	3/4	14	1

NOTES:
1. PROVIDE ASME LISTED, BLADDER-TYPE, FULL ACCEPTANCE EXPANSION TANK

ELIZABETH YANG LANDRY
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REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

7/29/2025 6:25:22 PM

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SHEET TITLE
PLUMBING SCHEDULES

SHEET
P4.1

LIGHTING CONTROL

SWITCH; "X" DENOTES TYPE
a: CONTROL GROUP
2: DOUBLE POLE
3: THREE-WAY
4: FOUR-WAY
D: DIMMER
WP: WEATHER-PROOF
OS: OCCUPANCY SENSOR

Sx

PC — PHOTCELL

TC — TIME CLOCK

LOW VOLTAGE

XX — CEILING-MOUNTED SENSOR
OS = OCCUPANCY SENSOR
VS = VACANCY SENSOR

XX — WALL MOUNTED SENSOR
OS = OCCUPANCY SENSOR
VS = VACANCY SENSOR

WS — WALL SWITCH; SEE LIGHTING CONTROL SCHEDULE

RC — ROOM CONTROLLER

MOTORS

2 — MOTOR (NEC 430); NUMBER INDICATES HORSE POWER RATING

G — GENERATOR

NEMA STARTER: FULL VOLTAGE WITH SOLID STATE OVERLOAD RELAY

COMBINATION SAFETY SWITCH WITH NEMA STARTER

VFD — VARIABLE FREQUENCY DRIVE, UL508 LISTED WITH BUILT-IN INTERLOCKED LOCKABLE DISCONNECT SWITCH

COMBINATION MOTOR CONTROLLER UL508 LISTED WITH LOCKABLE DISCONNECT, OVERLOAD & SHORT-CIRCUIT PROTECTION, AND PHASE LOSS SENSITIVITY

M — MOTOR STARTING TOGGLE SWITCH UL508 LISTED "SUITABLE AS A MOTOR DISCONNECT", "T" DENOTES THERMAL UNITS, PROVIDE MANUFACTURER'S SPECIFIED THERMAL UNITS

LIGHTING

ARCHITECTURAL

A / 2a — TROFFER, "A" DENOTES TYPE (SEE LUMINAIRE SCHEDULE), "2" DENOTES CIRCUIT NUMBER, "A" DENOTES SWITCH CONTROL

STRIP LIGHT,

RECESSED OR SURFACE MOUNTED DOWNLIGHT

PENDANT

WALL-MOUNTED

WALL WASH OR DIRECTIONAL

TRACK LIGHTING; LENGTH AND HEAD COUNT AS SHOWN

EMERGENCY

EXIT SIGN; CEILING-MOUNTED; SINGLE OR DOUBLE FACED AS INDICATED, ARROW DENOTES DIRECTION OF EGRESS

EXIT SIGN, WALL-MOUNTED

EMERGENCY BATTERY UNIT WITH REMOTE CAPABILITY

REMOTED HEAD, SINGLE OR DOUBLE HEAD AS SHOWN

SITE

WALL PACK

POLE-MOUNTED AREA LIGHT

DISTRIBUTION

PANELBOARD

HEAVY DUTY NON-FUSED SAFETY SWITCH (UL98 LISTED)

HEAVY DUTY FUSED SAFETY SWITCH (UL98 LISTED)

DT — DUBLE THROW SAFETY SWITCH WITH PADLOCKING CAPABILITY

PB — PULL BOX

JB — JUNCTION BOX SIZED PER NEC

RECEPTACLES

DUPLEX RECEPTACLE
No.: CIRCUIT NUMBER
T: TAMPER PROOF
IG: ISOLATED GROUND
WP: WEATHER PROOF IN-USE COVER
GFI: GROUND FAULT INTERRUPTER

SIMPLEX RECEPTACLE

DOUBLE DUPLEX RECEPTACLE

GROUND FAULT CIRCUIT INTERUPTER

COUNTER RECEPTACLE; SEE MOUNTING HEIGHT DETAIL

F/C — FLOOR/CEILING MOUNTED RECEPTACLE AS INDICATED

X — SPECIAL PURPOSE RECEPTACLE

VOICE/DATA

- PROVIDE A 4" SQUARE DEEP BACK BOX WITH SINGLE GANG MUD RING AND A 1" CONDUIT WITH PULL-STRING TO AN ACCESSIBLE AREA 18" ABOVE CEILING FOR EACH OUTLET LOCATION.

VOICE OUTLET, PROVIDE ONE WHITE CAT6 CABLE, "W" DENOTES WALL PHONE AT 54"

DATA OUTLET, PROVIDE TWO BLUE CAT6 CABLES

VOICE/DATA OUTLET COMBINATION

FLOOR MOUNTED OUTLET

WAP — CEILING MOUNTED WIRELESS ACCESS POINT

SITE

T — PAD MOUNT TRANSFORMER

TB — TAP BOX

HH — OPEN BOTTOM HAND HOLE

MH — MANHOLE

ONE-LINE DIAGRAM

POWER TRANSFORMER; VOLTAGE, KVA, AND CONNECTION TYPES AS NOTED

CONNECT YPES:
Y WYE
Δ DELTA
Y WYEG
Λ OPEN DELTA

LOW VOLTAGE FUSE (<1KV)

CIRCUIT BREAKER

DISCONNECT SWITCH

SURGE ARRESTER

LIVE FRONT TERMINATION

SPD — SURGE PROTECTIVE DEVICE

TRANSFER SWITCH

GROUND ROD W/ WELL

GROUND ROD

LINE TYPES

EXISTING

NEW WORK (BOLD)

DEMO WORK

WIRING & RACEWAYS

E — BRANCH CIRCUIT/FEEDER

P — PRIMARY DUCT BANK

S — SECONDARY DUCT BANK

OH — OVERHEAD

MV — MEDIUM VOLTAGE

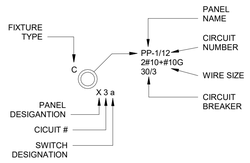
G — GROUNDING ELECTRODE CONDUCTOR

ELECTRICAL NOTES

1. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL."
2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF SYSTEMS AND WORK SCOPE. ALL ITEMS NOT SHOWN ON THE DRAWINGS BUT NECESSARY FOR A PROPER AND COMPLETE ELECTRICAL INSTALLATION SHALL BE PROVIDED AS PART OF THE PROJECT.
3. ALL ELCTRICAL INSTALLATIONS AND GROUNDING SHALL BE IN STRICT ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE LOCAL, STATE, AND NATIONAL CODES.
4. MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR KIND AND IN FULL ACCORDANCE WITH THE MOST MODERN ELECTRICAL CONSTRUCTION STANDARDS. ALL MATERIAL SHALL BE NEW (UNLESS OTHERWISE NOTED) AND FREE OF DEFECTS.
5. ALL WORK SEQUENCES SHALL BE COORDINATED WITH THE G.C., OTHER BUILDING TRADES, BUILDING SCHEDULES.
6. ALL BRANCH CIRCUITS RATED AT 120 VOLTS, 20 AMPERES EXCEEDING 100 FEET SHALL BE BE #10 AWG MINIMUM.
7. THE E.C. SHALL COORDINATE WITH THE LOCAL UTILITY AND TELEPHONE COMPANIES AND PROVIDE ALL MATERIAL AND LABOR REQUIRED TO COMPLY WITH THE UTILITY'S REQUIREMENTS AND STANDARDS.
8. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES AND AMENDMENTS.
9. THE CONTRACTOR SHALL OBTAIN AND BEAR THE COST OF ALL PERMITS REQUIRED TO PERFORM THE WORK.
10. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS.
11. CONDUITS AND WIRING SHALL BE INSTALLED CONCEALED WHEREVER POSSIBLE AND SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ALL BUILDING LINES.
12. ALL WIRE SHALL BE 600V INSULATED TYPES THWN OR XHHW, 75°C, COPPER, UNLESS OTHERWISE INDICATED.
13. BRANCH CIRCUIT WIRING SHALL BE MINIMUM ¾ C-2#12, 1# 12 GND. BRANCH CIRCUIT WIRING AND HOMERUNS WITH LENGTHS EXCEEDING 100 FEET FOR 120V AND 200 FEET FOR 277V SHALL USE #10 AWG, THOSE EXCEEDING 150 FEET FOR 120V SHALL USE #8 AWG CONDUCTORS. NO MORE THAN THREE PHASES MAY BE COMBINED IN A SINGLE HOMERUN AND EACH PHASE SHALL BE PROVIDED WITH AN INDIVIDUAL NEUTRAL.
14. ALL CUTTING, PATCHING AND FIRESTOPPING RELATED TO ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
15. PROVIDE CONDUIT SLEEVES FILLED WITH AN APPROVED FIRE-RESISTANT MATERIAL TO MAINTAIN RATING, WHERE FIRE-RATED WALLS, FLOORS OR CEILINGS ARE PENETRATED. APPROVED WATERTIGHT CONDUIT SLEEVES SHALL BE INSTALLED WHERE WALLS ARE PENETRATED EITHER ENTERING OR LEAVING A BUILDING.
16. FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES AND EQUIPMENT, REFER TO ARCHITECTURAL DRAWINGS. COLORS AND FINISHES OF DEVICES, COVER PLATES, LIGHTING FIXTURES, ETC., SHALL BE APPROVED BY THE ARCHITECT DURING THE SHOP DRAWING PHASE OF CONSTRUCTION.
17. COORDINATE CONDUITS ENTERING OR LEAVING THE BUILDING WITH THE SITE CONTRACTOR(S) BEFORE INSTALLATION. COORDINATE INVERTS WITH THE STRUCTURE AND SYSTEM REQUIREMENTS PRIOR TO INSTALLATION.
18. COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF LIGHT FIXTURES WITH THE ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND REFLECTED CEILING PLANS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR FINAL DISPOSITION.
19. INSTALL ALL EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE EQUIPMENT MUST BE INSTALLED ABOVE AN INACCESSIBLE CEILING OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED AND THE LOCATION SHALL BE COORDINATED WITH THE ARCHITECT.

ABBREVIATIONS

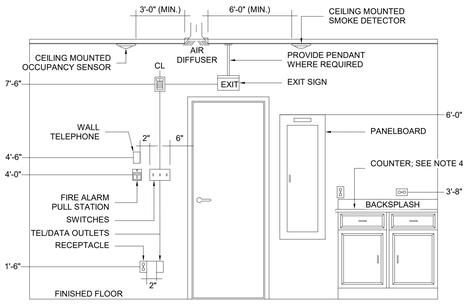
A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GUAGE
BFG	BELOW FINISHED GRADE
C	CONDUIT
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
EC	ELECTRICAL CONTRACTOR
ED	EXISTING TO BE DEMO'D
ETR	EXITING TO REMAIN
ETRL	EXISTING TO BE RELOCATED
ETRP	EXISTING TO BE REPLACED
FLA	FULL LOAD AMP
FLC	FULL LOAD CURRENT
G/GND	GROUND
HP	HORSEPOWER
KCMIL	ONE THOUSAND CIRCULAR MILS
LB	LOAD BANK
LC	LIGHTING CONTACTOR
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MMP	MANUAL MOTOR PROTECTOR
MMS	MANUAL MOTOR STARTER
MRT	MOTOR RATED TOGGLE SWITCH
NF	NON-FUSED
NFD	NON-FUSED DISCONNECT
P	POLE
PF	POWER FACTOR
PH	PHASE
PNL	PANELBOARD
PT	POTENTIAL TRANSFORMER
SE	SERVICE ENTRANCE
ST	SHUNT TRIP
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W	WATT
WP	WEATHERPROOF



BRANCH CIRCUIT WIRING FOR FIXTURES, DEVICES, EQUIPMENT, ETC, IS INDICATED BY ADJACENT CIRCUIT NUMBERS. SPECIFIC ROUTING IS SHOWN FOR SPECIAL CONDITIONS ONLY.

CIRCUITING DETAIL

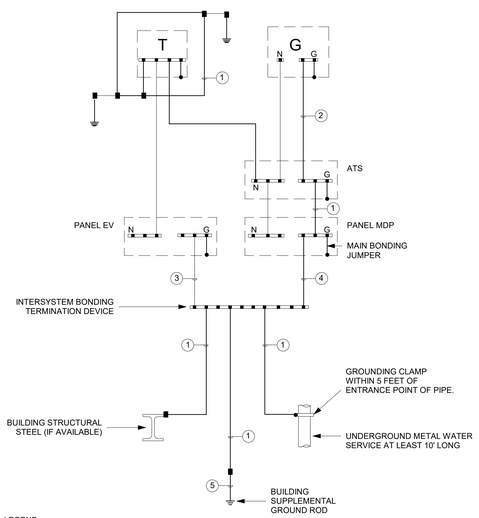
NOT TO SCALE



1. TO AVOID INTERFERENCE WITH CASEWORK, FURNITURE, WINDOWS, MIRRORS, EQUIPMENT, ETC., DEVICE LOCATIONS AND MOUNTING HEIGHTS SHALL BE CHECKED AGAINST THE ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH-IN.
2. OUTLET AND EQUIPMENT LOCATIONS AS INDICATED ON THE DRAWINGS ARE APPROXIMATE. THE EXACT CENTER OF ALL OUTLETS SHALL BE PLACED IN COOPERATION WITH THE GENERAL CONTRACTOR AND ARCHITECT. THE CONTRACTOR SHALL EXAMINE ALL EXTERIOR DETAILS OF THE CONSTRUCTION DRAWINGS FOR OUTLET LOCATIONS NOT CONFORMING TO THE DETAIL ABOVE. WHERE DETAILED TO SPECIFIC LOCAIONS, THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE. IF AN OUTLET IS INSTALLED IN SUCH A LOCATION AS TO BE OUT OF PROPER RELATION, SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR UNDER THE DIRECTION OF THE ARCHITECT OR ENGINEER.
3. DEVICES SHALL BE CENTERED IN A COMMON VERTICAL PLANE. HEIGHT SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS AND FIRE ALARM SIGNALS. COORDINATE LOCATIONS WITH MATERIALS SUCH AS MASONRY UNITS.
4. REFER TO THE ARCHITECT'S ELEVATION DETAILS FOR EXACT MOUNTING HEIGHT AND LENGTH OF SURFACE RACEWAYS. RECEPTACLE MOUNTING HEIGHT ABOVE COUNTERS SHALL BE COORDINATED WITH CASEWORK HEIGHTS.

MOUNTING HEIGHT DETAIL

NOT TO SCALE



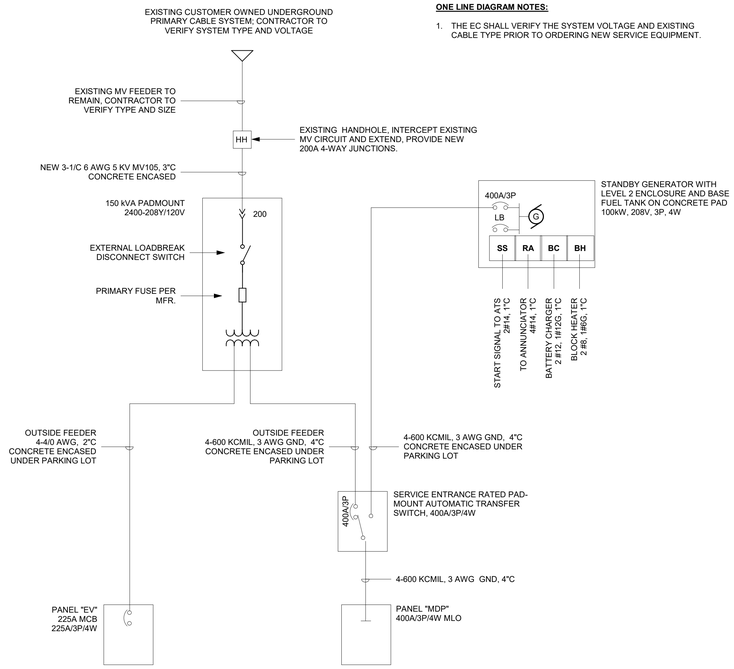
LEGEND:

- ● INDICATES BOLTED CONNECTION
- ■ INDICATES EXOTHERMIC WELD CONNECTION COMPATIBLE WITH MATERIALS BEING JOINED
- (1) 2/0 AWG BARE COPPER GROUND CONDUCTOR
- (2) 3 AWG INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR
- (3) 2 AWG INSULATED COPPER GROUNDING CONDUCTOR
- (4) 1/0 AWG INSULATED COPPER GROUNDING ELECTRODE CONDUCTOR
- (5) 3/4" x 10'-0" COPPER-CLAD GROUND ROD DRIVEN WITH TOP 12" BELOW GRADE

SYSTEM GROUNDING DETAIL

ONE LINE DIAGRAM NOTES:

1. THE EC SHALL VERIFY THE SYSTEM VOLTAGE AND EXISTING CABLE TYPE PRIOR TO ORDERING NEW SERVICE EQUIPMENT.



ONE LINE DIAGRAM

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SHEET TITLE
ELECTRICAL NOTES, LEGEND, & ONE LINE DIAGRAM

SHEET
E0.1

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LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER & CATALOG NUMBER	VOLTS	WATTS	LUMENS	TEMP	NOTE
A	2'-0" LED SURFACE MOUNTED VAPOR TIGHT	ORACLE 2-OW1IP-LED-3000L-DIM10-MVOLT-40K-85	MVOLT	25	3000L	40K	
A1	2'-0" LED SURFACE MOUNTED VAPOR TIGHT W/ EMERGENCY BACK-UP	ORACLE 2-OW1IP-LED-3000L-DIM10-MVOLT-40K-85-0-EMG-LED-10W	MVOLT	25	3000L	40K	
B	4" ARCHITECTURAL HIGH LUMEN LED DOWNLIGHT	MAXILUME HH4-LED-1500L-DIM10-MVOLT-MD-35K-90/HH4-4501-CL-WH	MVOLT	20	1699L	35K	
B1	4" ARCHITECTURAL HIGH LUMEN LED DOWNLIGHT WITH EMERGENCY BACK-UP	MAXILUME HH4-LED-1500L-DIM10-MVOLT-MD-35K-90-EMG-LED-20W-HH4-4501-CL-WH	MVOLT	20	1500L	35K	
C	2' X 2' ARCHITECTRUAL LED FLAT PANEL	ORACLE 22-FPL-BL-LED-4000L-DIM10-MVOLT-40K-85	MVOLT	19	2591L	35K	
C1	2' X 2' ARCHITECTRUAL LED FLAT PANEL WITH EMERGENCY BALLAST	ORACLE 22-FPL-BL-LED-3000L-DIM10-MVOLT-40K-85-0-EMG-LED-10W	MVOLT	19	2591L	35K	
D	ARCHITECTURAL LED SUSPENDED LINEAR - DIRECT	ORACLE OLS-D-LED-2-S-4-500L-DIM10-MVOLT-35K-80-WH	MVOLT	4.5/FT	500L/FT	35K	
D	ARCHITECTURAL LED SUSPENDED LINEAR - DIRECT WITH EMERGENCY BACK-UP	ORACLE OLS-D-LED-2-S-4-500L-DIM10-MVOLT-35K-90-WH-0-EMG-LED-10W	MVOLT	4.5/FT	500L/FT	35K	
E	GENERAL PURPOSE LED WALL PACK		MVOLT				
F	MILLENIUM ROUND EYELID STYLE ARCHITECTURAL LED WALL MOUNT	KENALL MR13EL-PP-DB-20L40K-120	120	24	1682	40K	
G	CLASSIC DEEP BOWL WALL LIGHT	H-16812-B-91/9W/LED2/35/WBCM-1	120	9	850	35K	
P1	SINGLE AREA LIGHT W/ TYPE 2 LED	LUMEC DMS55-72W32LED3K-G3-ACDR-LE2F-VOLT-FINISH-HS	MVOLT	72	6770	35K	MOUNTED 20'-0" ABOVE FINISHED GRADE
P2	SINGLE AREA LIGHT W/ TYPE 3 LED	LUMEC DMS55-72W32LED3K-G3-ACDR-LE2F-VOLT-FINISH-HS	MVOLT	72	6719	35K	MOUNTED 20'-0" ABOVE FINISHED GRADE
P3	BACK-TO-BACK AREA LIGHT W/ TYPE 3 LED	LUMEC DMS55-72W32LED3K-G3-ACDR-LE2F-VOLT-FINISH-HS	MVOLT	72	6719	35K	MOUNTED 20'-0" ABOVE FINISHED GRADE
P4	SINGLE AREA LIGHT W/ TYPE 5 LED	LUMEC DMS55-72W32LED3K-G3-ACDR-LE2F-VOLT-FINISH-HS	MVOLT	72	500L/FT	35K	MOUNTED 20'-0" ABOVE FINISHED GRADE
	LOW PROFILE LED DIE-CAST ALUMINUM EXIT SIGN W/ REMOTE CAPABILITY AND EMERGENCY BATTERY BACK-UP						MOUNTED 12" ABOVE CENTER OF DOOR
	OUTDOOR DIE-CAST LED EMERGENCY LIGHT WITH BATTERY BACK-UP	MAXILUME ELM-LED-859-OT		1			MOUNT ABOVE DOOR OR IN OVERHEAD CANOPY WHERE PRESENT; CONNECT TO REMOTE CAPABLE EXIT SIGN

LIGHT CONTROL SCHEDULE

TAG	DESCRIPTION	MANUFACTURER & CATALOG NUMBER	TECH.	VOLTS	DIMMING	RATED LOAD	NOTES
WS	LINE VOLTAGE DIMMING OCCUPANCY WALL SWITCH	ACUITY BRAND: WSX-PDT-D-VA	DT	120	0-10V	800W	
OS HB	HIGH BAY LINE VOLTAGE CEILING MOUNT OCCUPANCY SENSOR	ACUITY BRAND: CMR-PDT-6-LT	PDT	120	0-10V	800W	
OS	SMALL MOTION LINE VOLTAGE CEILING MOUNT OCCUPANCY SENSOR	ACUITY BRAND: CMR-PDT-9	PDT	120	0-10V	800W	

Branch Panel: MDP

Location: DATA 105A
Supply From: T-SVC
Mounting: Surface
Enclosure: Type 1

Volts: 208V/3
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Exhaust Fans	20 A	1	0.26 / 0.56			1	20 A	Lighting	2
3	Receptacle	20 A	1		0.36 / 0.6		1	20 A	Lighting	4
5	Receptacle	20 A	1			0.36 / 0.6	1	20 A	Lighting	6
7	Receptacle	20 A	1	0.68 / 1			1	20 A	Workshop Floor Receptacle	8
9	Receptacle	20 A	1		0.72 / 1		1	20 A	Workshop Power Pole	10
11	Receptacle	20 A	1			0.9 / 1.08	1	20 A	Receptacle	12
13	Receptacle	20 A	1	0.72 / 0.4			1	20 A	Lighting	14
15	Generator Battery Charger	20 A	1		8.78 / 0.36		1	20 A	Receptacle	16
17	Lighting	20 A	1			0.56 / 1.26	1	20 A	Receptacle	18
19	Generator Block Heater	20 A	1	1.5 / 1.62			1	20 A	Receptacle	20
21	Lighting - Exterior	20 A	2		0.43 / 0.18		1	20 A	Parapit Receptacle	22
23						0.43 / 0.82	2	20 A	HVAC	24
25	Receptacle	20 A	1	0.36 / 0.82						26
27	Water Heater	30 A	2		2.25 / 0.36		1	20 A	Receptacle	28
29						2.25 / 5.14	2	15 A	HVAC	30
31	Overhead Garage Door	20 A	2	3.17 / 5.14						32
33					3.17 / 0.55		1	20 A	Lighting	34
35	Receptacle	20 A	1			0.36 / 0.51	1	20 A	Lighting	36
37	HVAC	20 A	1	0.05 / 0.55						38
39	Motor	20 A	1		0.07 / 0.55		3	15 A	HVAC	40
41	Lighting	20 A	1			0.59 / 0.55				42
43				0 / 7.69						44
45	MUA-1	125 A	3		12.32 / 7.69		3	125 A	CU-1	46
47						12.32 / 7.69				48
49				12.32 / 1.59						50
51	Motor	20 A	2		3.17 / 1.59		2	20 A	Motor	52
53						3.17 / 0				54
55										56
57										58
59										60

Branch Panel: EV

Location: DATA 105A
Supply From: T-SVC
Mounting: Surface
Enclosure: Type 1

Volts: 208V/3
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EV 1-1	40 A	2	3.33 / 3.33			2	40 A	EV 1-2	2
3					3.33 / 3.33					4
5	EV 2-2 (Future)	40 A	2			3.33 / 0				6
7				3.33 / 0						8
9	EV 2-1 (Future)	40 A	2		3.33 / 0					10
11						3.33 / 0				12
13										14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30

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SHEET TITLE
ELECTRICAL SCHEDULES

SHEET
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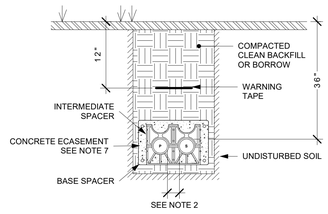
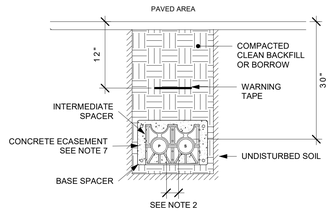
TRENCH DETAIL NOTES:

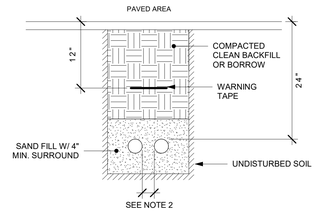
1. ALL DEPTHS AND RESULTING COVER REQUIREMENTS ARE MEASURED FROM TOP OF DUCT TO FINAL GRADE
2. MAINTAIN A MINIMUM OF 3" OF SEPARATION BETWEEN CONDUITS.
3. DUCT BANKS LARGER THAN 1x3 SHALL BE STACKED AND CONCRETE ENCASED (SEE DETAIL).
4. BACKFILL EVENLY WITH CLEAN DRY NATIVE EARTH OR BORROW AND MECHANICALLY TAMP IN 12" LIFTS.
5. A MINIMUM 12 INCH RADIAL SEPARATION SHALL BE MAINTAINED BETWEEN THE DUCT BANK AND OTHER UTILITIES OR SYSTEMS.
6. PROVIDE CONCRETE ENCASEMENT FOR MV FEEDERS AND AS INDICATED ON THE PLANS. SEE CONCRETE ENCASEMENT DETAIL ABOVE.
7. PROVIDE A 3,000 PSI CONCRETE ENVELOPE WITH 3" SURROUND;UTILIZE HIGH IMPACT SPACERS INSTALLED AT SEVEN FOOT INERVALS THAT MAINTAIN A THREE INCH SEPARATION BETWEEN DUCTS; ECURE DUCTS TO SPACERS AND SPACERS TO EARTH TO PREVENT FLOATING DURING CONCRETING



PRIMARY FEEDER TRENCH

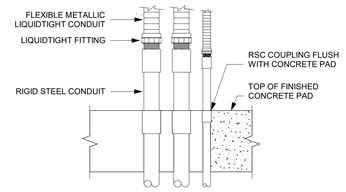


SECONDARY FEEDER TRENCH



BRANCH CIRCUIT PARKING LOT TRENCH

2 TRENCH DETAILS
NOT TO SCALE



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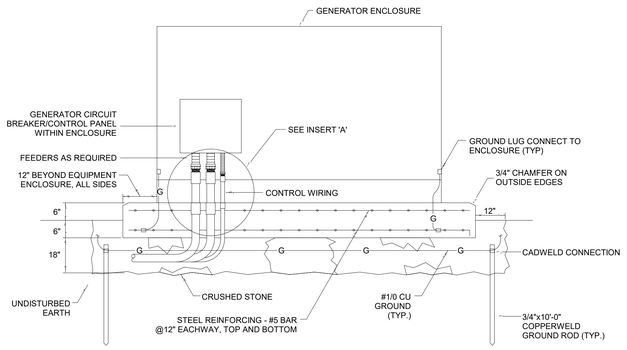
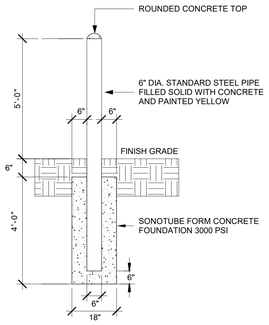


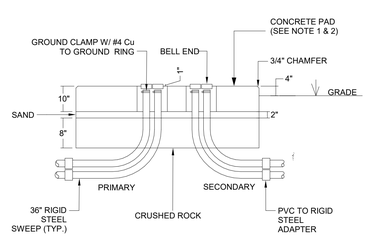
4 GENERATOR PAD DETAIL
NOT TO SCALE



BOLLARD DETAIL NOTES:

1. BOLLARDS SHALL CONSIST OF 6 INCH MINIMUM DIAMETER HOT DIP GLAVANIZED OR PAINTED STEEL PIPES FILLED WITH CONCRETE.
2. BOLLARDS SHALL BE 5 FEET ABOVE GROUND AND A MINIMUM OF 4 FEET BELOW GROUND.
3. BOLLARDS SHALL BE SUPPORTED WITH A 12" MINIMUM DIAMETER CONCRETE FOOTING 6" BELOW GRADE TO THE BASE OF THE BOLLARD
4. MAINTAIN 6 FOOT OF CLEARANCE AROUND OIL CURBS

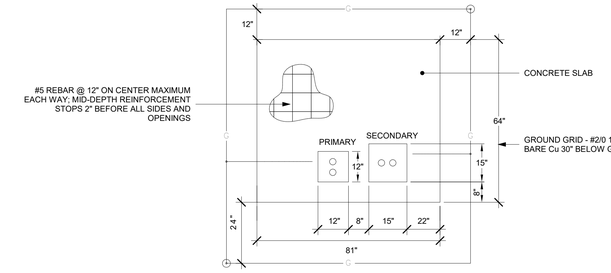
3 TRANSFORMER PROTECTION BOLLARD DETAIL
NOT TO SCALE



SECTION

NOTES:

1. PROVIDE CAST-IN-PLACE PAD (SEE EQUIPMENT PAD DETAIL) OR OLDCASTLE INFRASTRUCTURE PRECAST TRANSFORMER PAD (MODEL: NGRID2582 OR EQUAL).
2. THE EC SHALL PROVIDE SUFFICIENT NOTICE FOR THE EOR TO INSPECT THE FORMING AND REINFORCING OF THE PAD (IF APPLICABLE), THE SUB GRADE PREPARATION, AND THE GROUND GRID PRIOR TO POURING THE CONCRETE.



PLAN

1 TRANSFORMER PAD DETAIL
NOT TO SCALE

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SHEET TITLE
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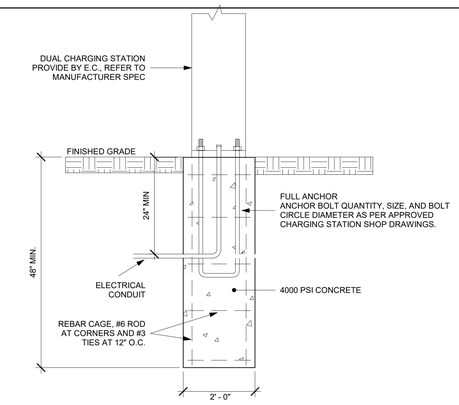
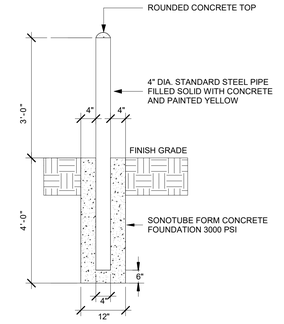


3 EV CHARGER BASE DETAIL

NOT TO SCALE

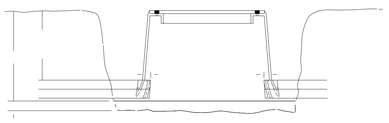


BOLLARD DETAIL NOTES:

1. BOLLARDS SHALL CONSIST OF 4 INCH MINIMUM DIAMETER HOT DIP GLAVANIZED OR PAINTED STEEL PIPES FILLED WITH CONCRETE.
2. BOLLARDS SHALL BE 3 FEET ABOVE GROUND AND A MINIMUM OF 4 FEET BELOW GROUND.
3. BOLLARDS SHALL BE SUPPORTED WITH A 12" MINIMUM DIAMETER CONCRETE FOOTING.

2 EV PROTECTION BOLLARD DETAIL

NOT TO SCALE

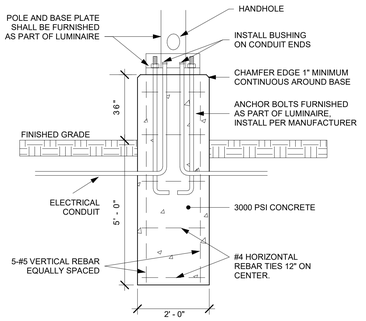


HANDHOLE NOTES

1. PROVIDE OPEN BOTTOM QUAZITE STYLE HANDHOLE WITH FLARED DESIGN ON TOP OF 6" PEA GRAVEL; SUITABLE FOR TIER 8 LOADING. IN AREAS OF VEHICLE TRAFFIC, PROVIDE HANDHOLES SUITABLE FOR H20 LOADING. HANDHOLE SHALL CONFORM TO ANSI/SCTE 77-2010 FOR VEHICULAR LOADING.
2. COVER SHALL BE STAMPED "ELECTRIC." PROVIDE WITH BASES AND SS HEX BOLTS.
3. CONTRACTOR TO FIELD LOCATE; PROVIDE AS NECESARY.
4. SEPARATE HANDHOLES REQUIRED FOR COMMUNICATION AND POWER ACCESS.

5 HANDHOLE DETAIL

NOT TO SCALE



4 POLE BASE DETAIL

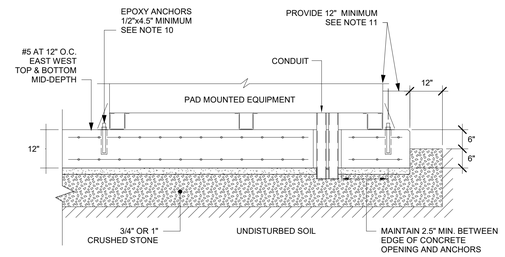
NOT TO SCALE

NOTES:

1. MAINTAIN 1-FOOT STANDOFF DISTANCE BETWEEN THE IMPACT SIDE OF THE BOLLARD AND THE FACE OF THE CHARGER.
2. CENTER THE CHARGING STATION ON THE PARKING STRIPE, AND THE BOLLARDS ON THE CHARGING STATION.

1 EV CHARGER LAYOUT

NOT TO SCALE



CAST-IN-PLACE PAD DETAILS

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 AND BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
3. REBARS SHALL HAVE A MINIMUM CONCRETE COVER AS FOLLOWS:
   - CONCRETE DEPOSITED AGAINST GROUND.....3 IN.
   - CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     a. FOR BARS #5 AND LARGER.....2 IN.
     b. FOR BARS SMALLER THAN #5.....1 1/2 IN.
   - CONCRETE NOT EXPOSED TO THE WEATHER OR THE GROUND:
     a. SLABS AND WALLS.....3/4 IN.
4. ALL REINFORCING BARS SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 48 BAR DIAMETERS AT ALL SPLICES, CORNERS, AND INTERSECTIONS UNLESS NOTED OTHERWISE.
5. ALL REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPOSED LOCATION PRIOR TO AND DURING PLACEMENT OF CONCRETE USING APPROVED CHAIRS, SPACERS AND TIE WIRE AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER.
6. CONCRETE PROTECTION FOR REINFORCEMENT SHALL IN ALL CASES BE AT LEAST EQUAL TO THE DIAMETER OF THE BAR EXCEPT FOR CONCRETE SLABS.
7. ALL CONCRETE SHALL BE CAST-IN-PLACE, NORMAL WEIGHT CONCRETE AND SHALL DEVELOP A COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS. CONCRETE SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 3/4 INCH, A MINIMUM CEMENT CONTENT OF 560 LBS/CU. YD., AND A MAXIMUM SLUMP OF 4 INCHES.
8. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED AND ALL EDGES SHALL HAVE A 3/4 INCH CHAMFER UNLESS NOTED OTHERWISE.
9. SIZES AND LOCATIONS OF ALL REQUIRED EMBEDDED ITEMS FOR ALL TRADES SUCH AS ANCHOR BOLTS, PIPING SLEEVES, HOLDOWN ANCHORS, ETC., SHALL BE COORDINATED BY THE CONTRACTOR WITH OTHER TRADES.
10. SECURELY ANCHOR EQUIPMENT TO CONCRETE PAD W/ EPOXY ANCHORS IN LOCATIONS PROVIDED BY THE MANUFACTURER. PROVIDE AT LEAST FOUR ANCHORS NEAR CORNERS PER PIECE OR EQUIPMENT. ANCHORS SHALL BE 1/2" AND EMBEDDED 4.5" MINIMUM.
11. PROVIDE 12" FROM CENTER OF ANCHOR BOLT OR EDGE OF EQUIPMENT TO EDGE OF PAD, WHICHEVER IS CLOSER TO PAD EDGE.

6 EQUIPMENT PAD

12" = 1'-0"

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SHEET TITLE
ELECTRICAL DETAILS II

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ELECTRICAL

SHEET
E0.4

SHEET NOTES

1. THE EC SHALL PROVIDE A THREE PHASE, 120/208 VOLT ELECTRIC SERVICE SUPPLIED FROM THE CUSTOMER OWNED M/V CABLE SYSTEM VIA PADMOUNT TRANSFORMER, INCLUDING BUT NOT LIMITED TO: THE PRIMARY AND SECONDARY CONDUITS AND CABLE, CONCRETE ENCASEMENT, TRANSFORMER PAD, REINFORCEMENT & GROUNDING, TRANSFORMER, AND BOLLARDS.

   THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCHING, EXCAVATING, BACKFILLING, AND INSTALLATION OF THE CONCRETE ENCASED DUCT BANK SYSTEM(S).

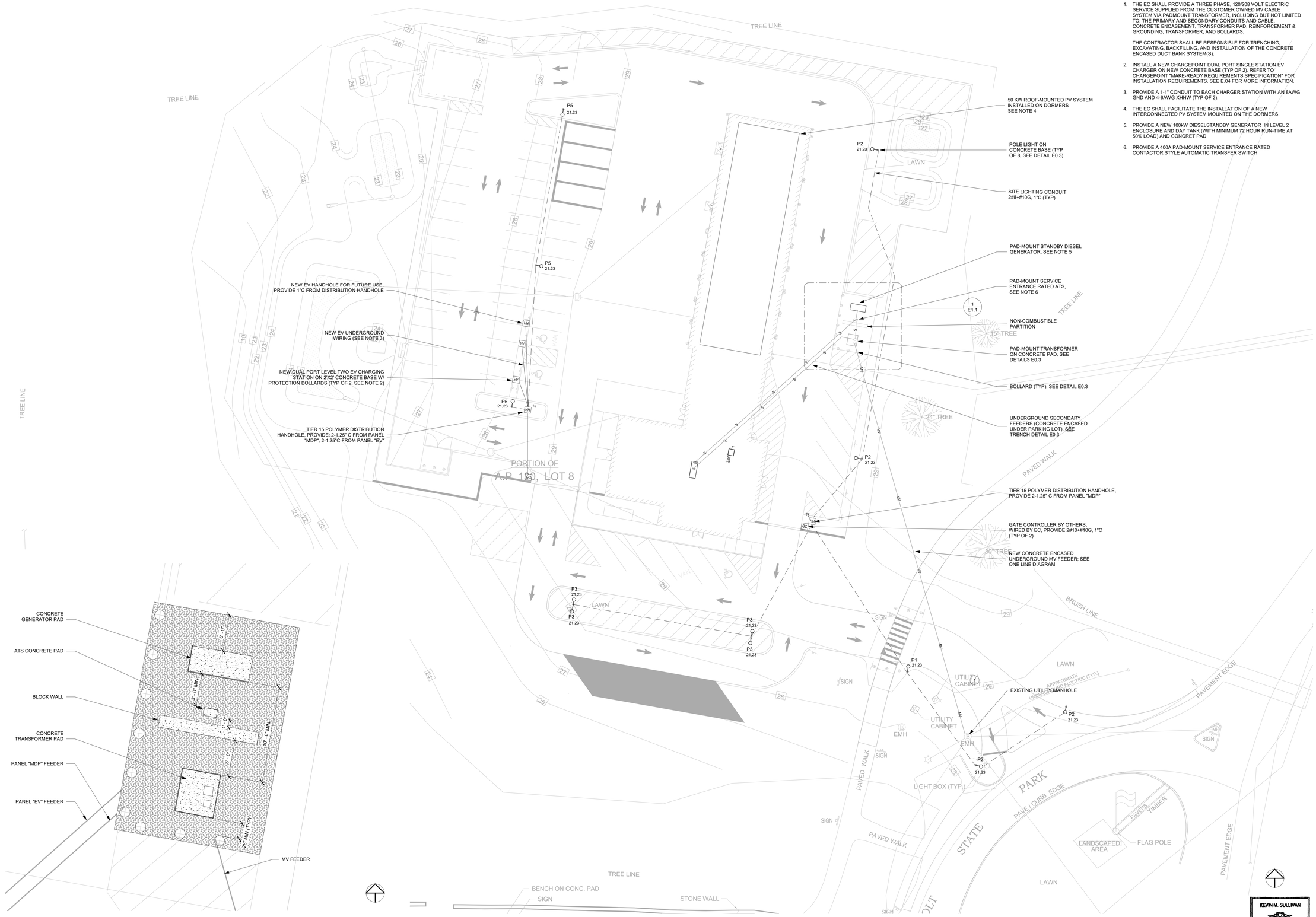
2. INSTALL A NEW CHARGEPOINT DUAL PORT SINGLE STATION EV CHARGER ON NEW CONCRETE BASE (TYP OF 2). REFER TO CHARGEPOINT "MAKE-READY REQUIREMENTS SPECIFICATION" FOR INSTALLATION REQUIREMENTS. SEE E.04 FOR MORE INFORMATION.

3. PROVIDE A 1-1" CONDUIT TO EACH CHARGER STATION WITH AN 8AWG GND AND 4-6AWG XHHW (TYP OF 2).

4. THE EC SHALL FACILITATE THE INSTALLATION OF A NEW INTERCONNECTED PV SYSTEM MOUNTED ON THE DORMERS.

5. PROVIDE A NEW 100kW DIESELSTANDBY GENERATOR IN LEVEL 2 ENCLOSURE AND DAY TANK (WITH MINIMUM 72 HOUR RUN-TIME AT 50% LOAD) AND CONCRET PAD

6. PROVIDE A 400A PAD-MOUNT SERVICE ENTRANCE RATED CONTACTOR STYLE AUTOMATIC TRANSFER SWITCH



1 ENLARGED SITE PLAN
1" = 5'-0"

ELECTRICAL SITE PLAN
1" = 20'-0"

0' 10'-0" 20'-0" 40'-0"
0" 1/2" 1" 2"

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SHEET TITLE
ELECTRICAL SITE PLAN

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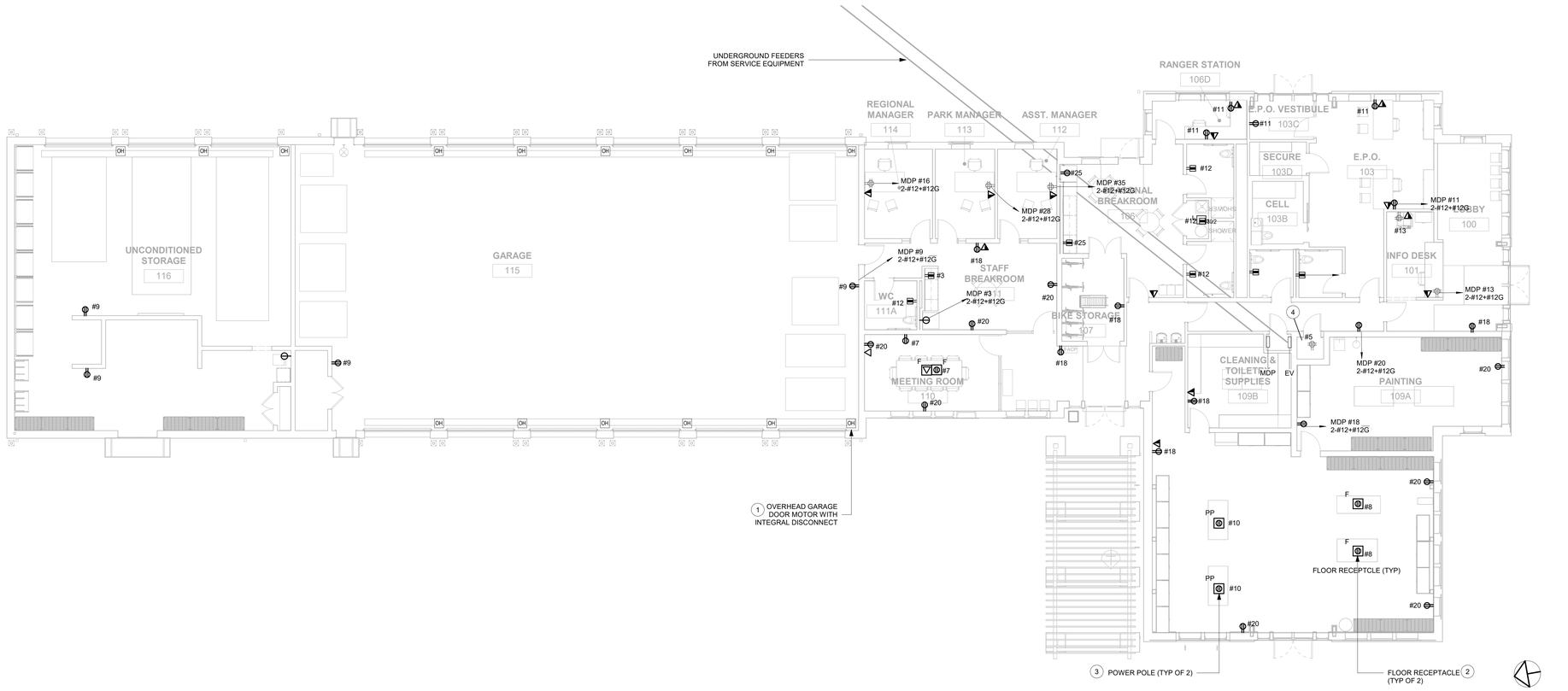


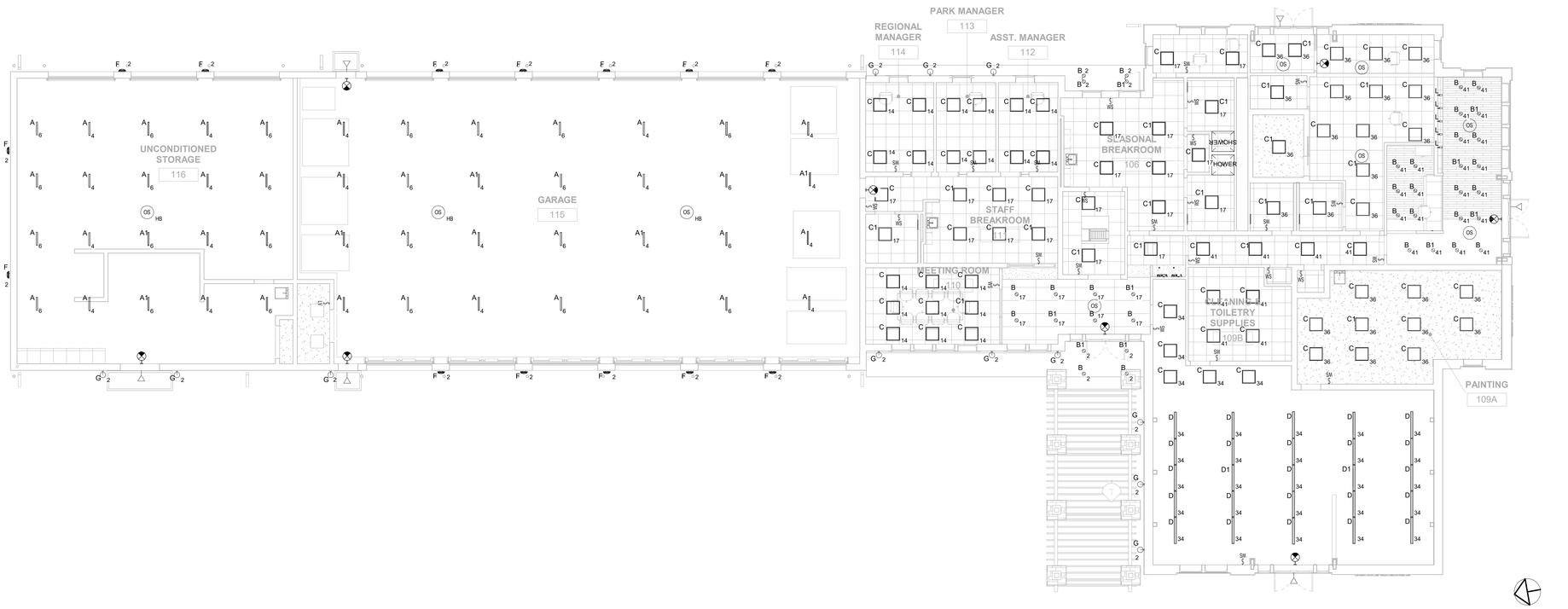
2 POWER PLAN

1/8" = 1'-0"

0' 4'-0" 8'-0" 16'-0"
0" 1/2" 1" 2"

KEY NOTES

1. OVERHEAD GARAGE DOOR MOTOR. PROVIDE A CEILING MOUNTED MOTOR RATED TOGGLE SWITCH (20A) OR SINGLE RECEPTACLE AS NEEDED (TYP).
2. FLOOR-MOUNTED RECEPTACLE; COORDINATE EXACT TYPE WITH EXISTING EQUIPMENT.
3. POWER POLE WITH 20A DUPLEX RECEPTACLE. COORDINATE FINAL LOCATION WITH OWNER.
4. PROVIDE A 4"SCH40 CONDUIT TO COX MANHOLE. COORDINATE WITH COX FOR FINAL LOCATION



1 LIGHTING PLAN

1/8" = 1'-0"

0' 4'-0" 8'-0" 16'-0"
0" 1/2" 1" 2"

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SHEET TITLE
ELECTRICAL FLOOR PLANS

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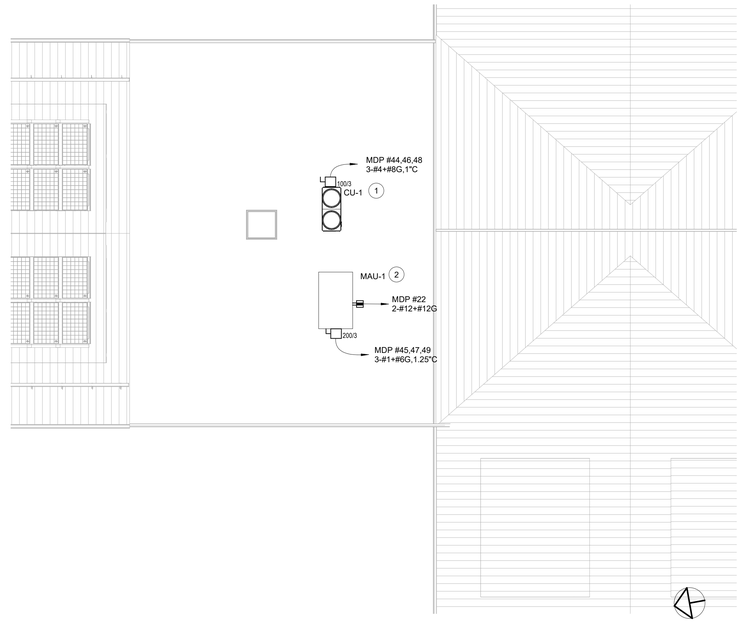
No. 8948
REGISTERED PROFESSIONAL ENGINEER
ELECTRICAL

SHEET
E1.2



1 PARAPIT ENLARGED ELECTRICAL PLAN

1/8" = 1'-0"

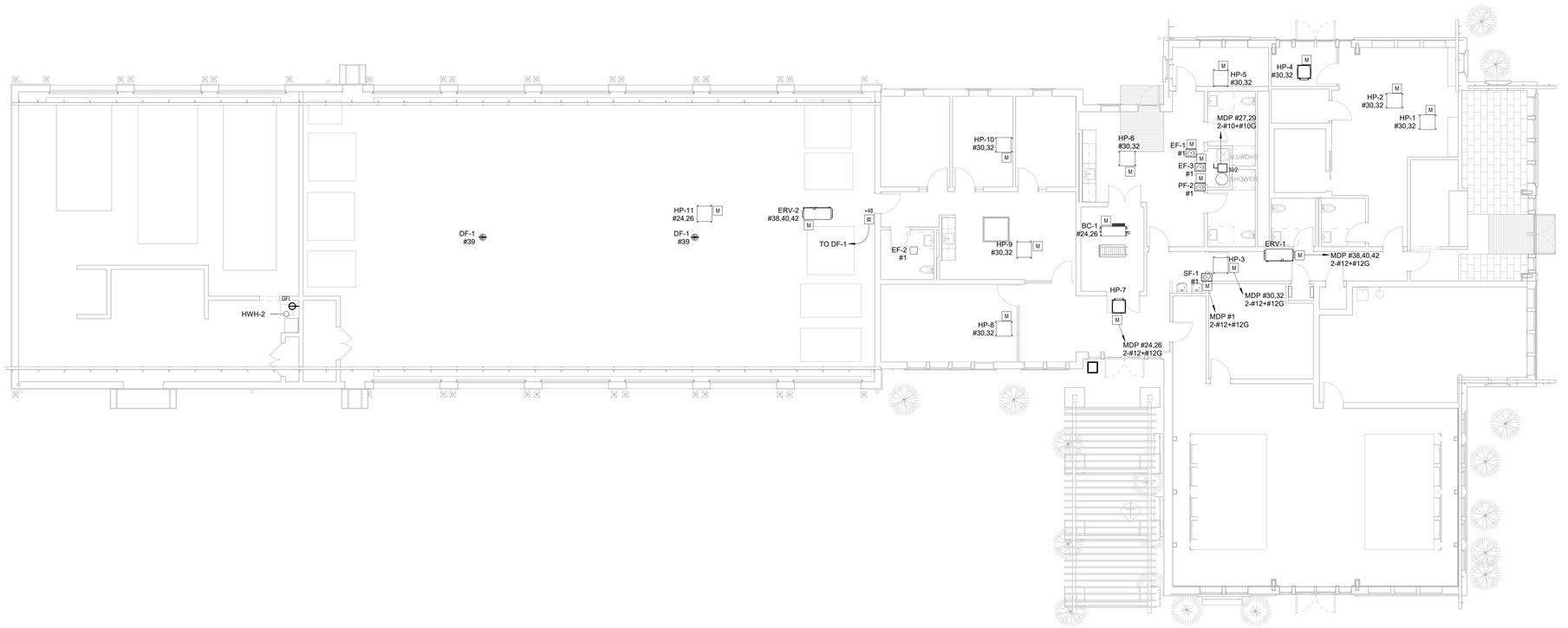
0' 4'-0" 8'-0" 16'-0"
0" 1/2" 1" 2"

SHEET NOTE

1. PROVIDE A 20A MOTOR RATED TOGGLE SWITCH FOR ALL HEAT PUMPS AND EXHAUST FANS.

KEY NOTES

1. PROVIDE A 100/3P/NF/3R SAFETY SWITCH.
2. PROVIDE A 200A/3P/NF/3R SAFETY SWITCH, A SERVICE LIGHT, AND GFI SERVICE RECEPTACLE.



MECHANICAL EQUIPMENT CONNECTION PLAN

1/8" = 1'-0"

0' 4'-0" 8'-0" 16'-0"
0" 1/2" 1" 2"

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MECHANICAL EQUIPMENT ELECTRICAL CONNECTION PLAN

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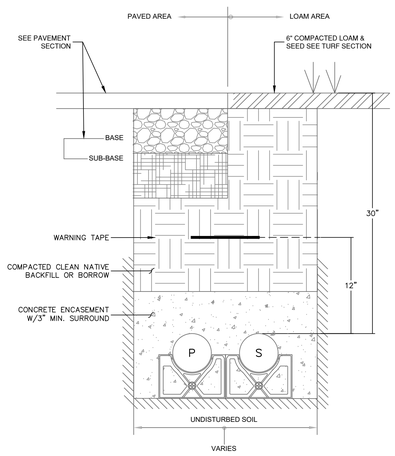


NOTES:

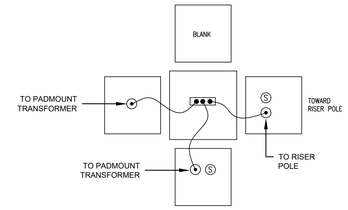
1. ALL DEPTHS AND RESULTING COVER REQUIREMENTS ARE MEASURED FROM TOP OF DUCT TO FINAL GRADE.
2. THE E.C. SHALL COORDINATE ALL UNDER GROUND ELECTRICAL INSTALLATIONS W/SANITARY & WATER CONTRACTORS PRIOR TO BEGINNING WORK.
3. TWO SWEEPS NO LESS THAN 36" IN RADIUS SHALL BE ALLOWED IN THE CONDUIT LINE. ALL OTHER BENDS SHALL BE MADE WITH 5-DEGREE COUPLINGS WITH A MINIMUM OF 42 INCHES BETWEEN EACH COUPLING AND THE RADIUS OF CURVATURE SHALL NOT BE LESS THAN 40 FEET.
4. BACKFILL EVENLY WITH CLEAN DRY NATIVE EARTH (NO ROCKS) OR BORROW AND MECHANICALLY TAMP IN 12" LIFTS.
5. A MINIMUM 12 INCH RADIAL SEPARATION SHALL BE MAINTAINED BETWEEN THE DUCT BANK AND OTHER UTILITIES OR SYSTEMS.
6. PROVIDE CONCRETE ENCASEMENT FOR PRIMARY FEEDERS.
7. SECURE SPACERS TO EARTH AND DUCTS TO PREVENT FLOATING DURING CONCRETING.
8. UTILIZE HIGH IMPACT SPACERS INSTALLED AT 7 FOOT INTERVALS THAT MAINTAIN A THREE INCH SEPARATION BETWEEN DUCTS.

LEGEND

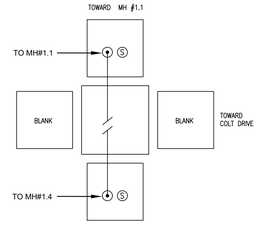
P = PRIMARY CABLES
S = SPARE W/NYLON PULL STRING

DUCT BANK DETAIL – DIRECT BURIED

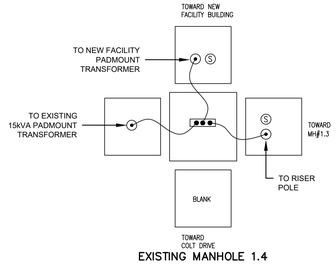
NOT TO SCALE



EXISTING MANHOLE 1.1



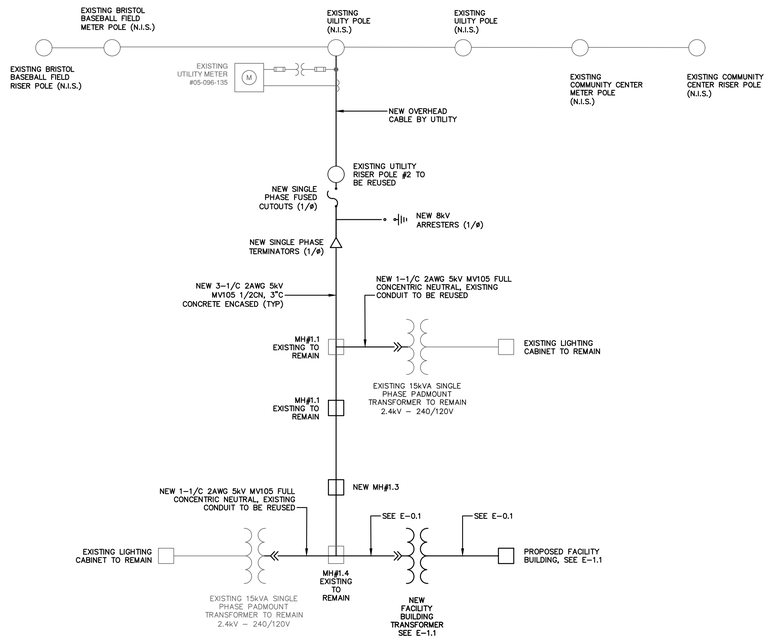
NEW MANHOLE 1.2 & 1.3



EXISTING MANHOLE 1.4

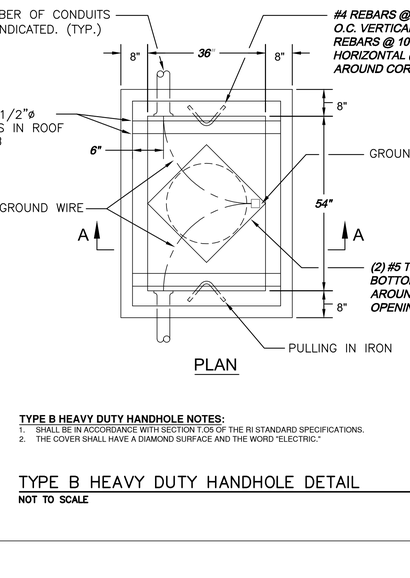
EXISTING MANHOLE WALL DETAILS

NOT TO SCALE



ONE LINE DIAGRAM

NOT TO SCALE



SECTION A - A

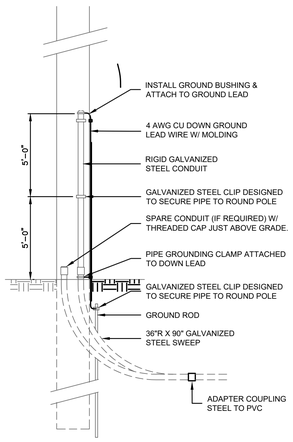
PLAN

TYPE B HEAVY DUTY HANDHOLE NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION T.05 OF THE RI STANDARD SPECIFICATIONS.
2. THE COVER SHALL HAVE A DIAMOND SURFACE AND THE WORD "ELECTRIC."

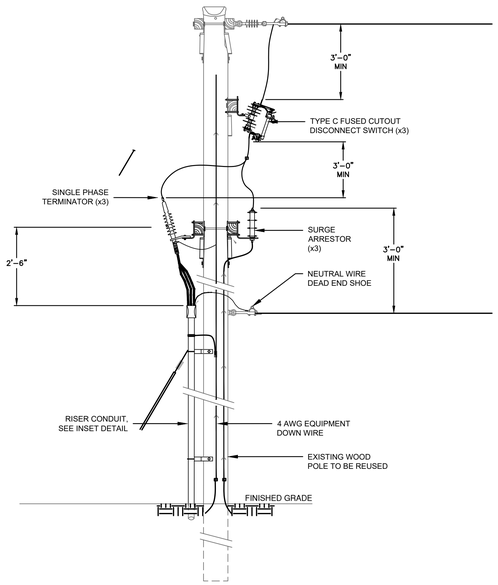
TYPE B HEAVY DUTY HANDHOLE DETAIL

NOT TO SCALE



CUSTOMER RISER POLE DETAIL

NOT TO SCALE



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Landscape Elements, LLC
Landscape Architecture
Landscape Ecology
Cultural Landscape Preservation

JOB NO. 2201 | DATE 08/01/2025

ISSUE : **BID SET**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
PARK - ELECTRICAL DETAILS & ONE LINE DIAGRAM

SHEET
ES0.1

File: J:\DWG\P2021\9691\A16\MEP\Electrical\20210691A10_ES001.dwg Layout: ES0.1 Plotted: 2025-10-14 5:20 PM Saved: 2025-10-14 5:18 PM User: Cole.wright
PCS: NONE STB/CTB: FO 2008 MONO.CTB

PARK - OVERALL ELECTRICAL SITE PLAN
1" = 250'

File: J:\DWG\P2021\09\91A10\MEP\Electrical\20210691A10_ES101.dwg Layout: ES1.0 Plotted: 2025-10-14 5:20 PM Saved: 2025-10-14 5:00 PM User: Cole.wright
PC3: NONE STB:CTB: FO 20% MONO.CTB

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SHEET TITLE
PARK - OVERALL ELECTRICAL SITE PLAN

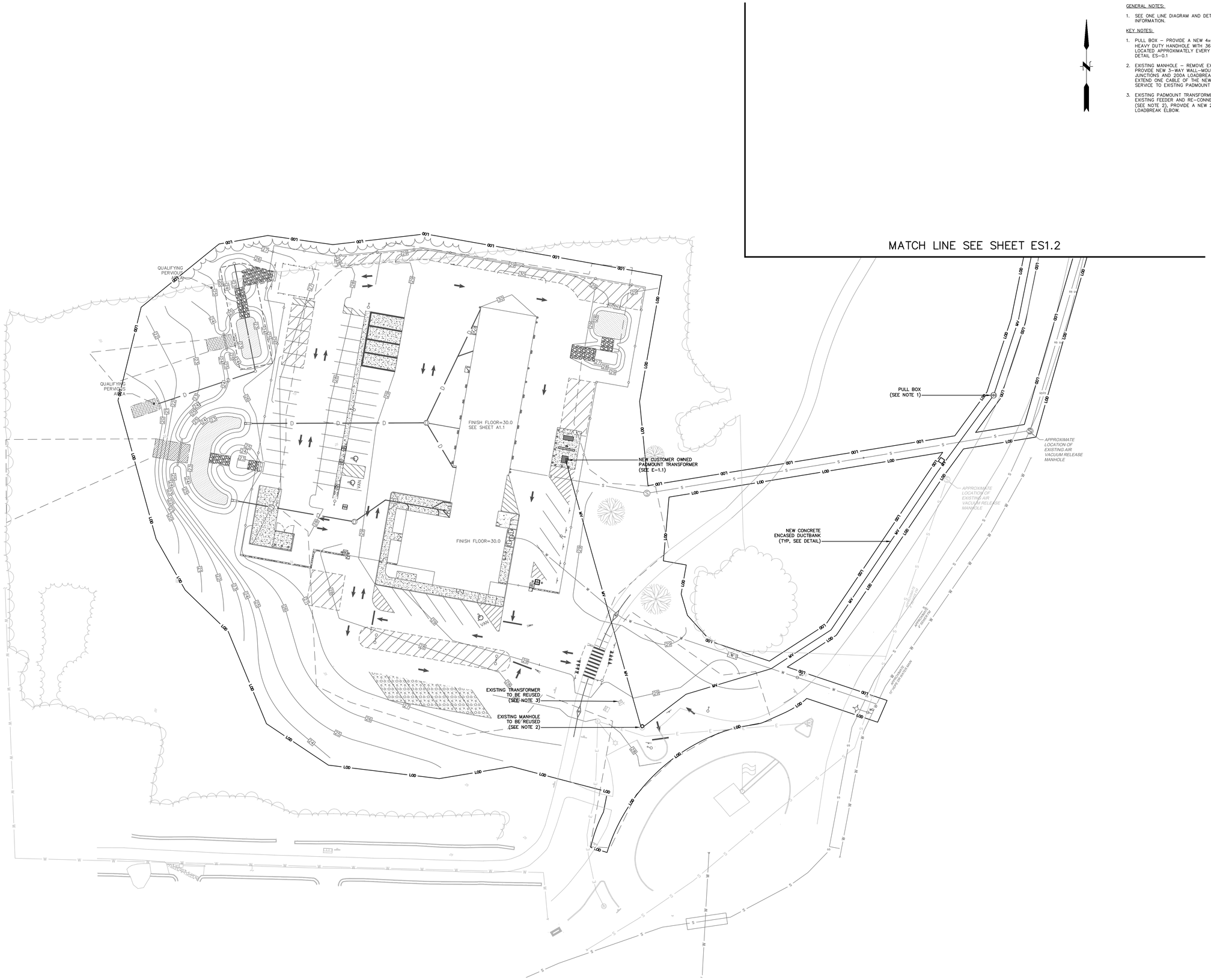
SHEET
ES1.0

GENERAL NOTES:

1. SEE ONE LINE DIAGRAM AND DETAILS FOR MORE INFORMATION.

KEY NOTES:

1. PULL BOX – PROVIDE A NEW 4x4x4 CONCRETE HEAVY DUTY HANDHOLE WITH 36" ROUND COVER LOCATED APPROXIMATELY EVERY 325 FEET, SEE DETAIL ES-0.1
2. EXISTING MANHOLE – REMOVE EXISTING CABLE, PROVIDE NEW 3-WAY WALL-MOUNTED JUNCTIONS AND 200A LOADBREAK ELBOWS. EXTEND ONE CABLE OF THE NEW THREE PHASE SERVICE TO EXISTING PADMOUNT TRANSFORMER.
3. EXISTING PADMOUNT TRANSFORMER – REMOVE EXISTING FEEDER AND RE-CONNECT WITH NEW (SEE NOTE 2), PROVIDE A NEW 200A LOADBREAK ELBOW.



PARK - ELECTRICAL SITE PLAN NO. 1
1" = 30'

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PC3: NONE STB/CTB: FO 2008 MONO.CTB

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SHEET TITLE
PARK - ELECTRICAL SITE PLAN NO. 1

SHEET
ES1.1

MATCH LINE SEE SHEET ES1.1

PARK - ELECTRICAL SITE PLAN NO. 2
1" = 30'

GENERAL NOTES:

1. SEE ONE LINE DIAGRAM AND DETAILS FOR MORE INFORMATION.

KEY NOTES:

1. EXISTING RISER POLE – UPGRADE THE PRIMARY METERED ELECTRICAL SERVICE TO THREE PHASE. REMOVE ALL EXISTING SINGLE PHASE EQUIPMENT AND PROVIDE NEW CUT-OUTS, FUSES, ARRESTERS, FEEDER, TERMINATORS, AND CONDUIT, RE-USE EXISTING POLE AND CROSSARMS. EXTEND NEW RISER TO EXISTING MANHOLE AND RECONNECT EXISTING TRANSFORMER, "PM11". SEE ONE LINE DIAGRAM AND DETAILS FOR MORE INFORMATION.
2. EXISTING MANHOLE – REMOVE EXISTING CABLE, PROVIDE NEW 3-WAY WALL-MOUNTED JUNCTIONS AND 200A LOADBREAK ELBOWS. EXTEND ONE CABLE OF THE NEW THREE PHASE SERVICE TO EXISTING PADMOUNT TRANSFORMER.
3. EXISTING PADMOUNT TRANSFORMER – REMOVE EXISTING FEEDER AND RE-CONNECT WITH NEW (SEE NOTE 2). PROVIDE A NEW 200A LOADBREAK ELBOW.
4. PULL BOX – PROVIDE A NEW 4x4x4 CONCRETE HEAVY DUTY HANDHOLE WITH 36" ROUND COVER LOCATED APPROXIMATELY EVERY 325 FEET, SEE DETAIL ES-0.1

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SHEET TITLE
PARK - ELECTRICAL SITE PLAN NO. 2

SHEET
ES1.2

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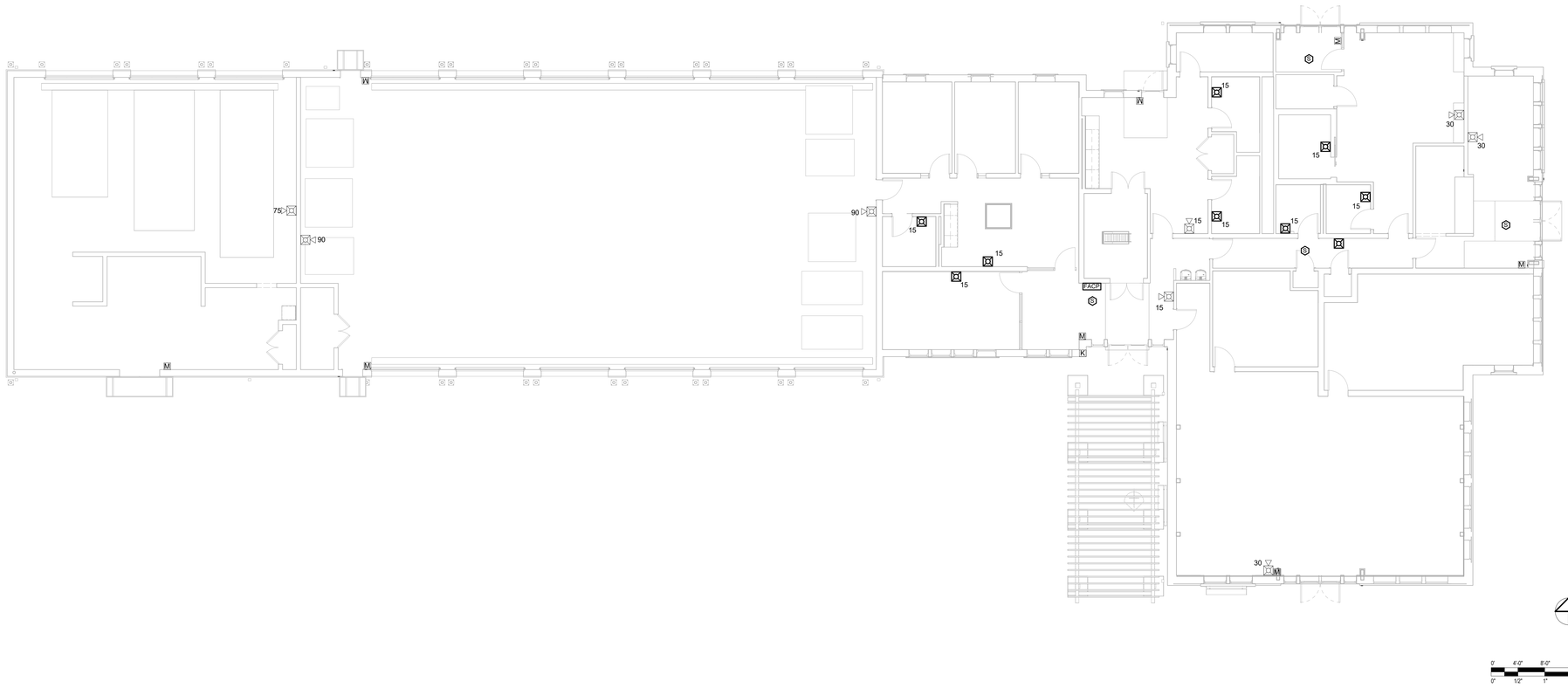

FIRE ALARM NOTES

1. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF DEVICES.
2. ALL FIRE ALARM NOTIFICATION AND SIGNALING CIRCUITS SHALL BE CLASS A AND PER MANUFACTURER'S RECOMMENDATIONS.
3. ALL FIRE ALARM WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF NFPA, STATE, AND LOCAL BUILDING CODES AND THE AMERICANS WITH DISABILITIES ACT (ADA).
4. HORN/STROBE CIRCUITS SHALL BE 4-WIRE TYPE TO ALLOW STOBES TO REMAIN FLASHING WHILE HORNS ARE SILENCED.

FIRE ALARM LEGEND

FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM REMOTE ANNUNCIATOR
FATC	FIRE ALARM TERMINAL CABINET
M	MANUAL PULL STATION MOUNTED 48" AFF
S	SMOKE DETECTOR
H	HEAT DETECTOR
CD C	HORN/STROBE CD=STROBE CANDELA, C=CEILING MOUNTED
F C	HORN C=CEILING
CD	WALL STROBE CD=STROBE CANDELA

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SHEET TITLE
FIRE ALARM PLAN

SHEET
FA1.1

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SECURITY

SYMBOL	DESCRIPTION	MANUFACTURER PART NUMBER	1 G - 2-1/2" DP	1-PORT SURFACE MOUNTED BOX	RJ-45 JACK	4G - 2-1/2"DP	4G - 2-1/2"DP	4 x 4" x 2-1/8" DP	1G DEVICE RING	2G DEVICE RING	4G DEVICE RING	3/4" C	1" C	1/2" FLEX	1-1/2" C	CAT 6A, 24 AWG, 10' PATCH CABLE	CAT 6A, 24 AWG, 1' PATCH CABLE	ACS COMPOSITE CABLE	CAT 6 PLENUM RATED CABLE	#22 - 2C PLENUM	#14 - 4C PLENUM	#18 - 2C PLENUM	#18 - 6C SHLD PLENUM	#18 - 4C PLENUM	#22 - 4C PLENUM	PLENUM CABLE-A/R	#18 - 6C PLENUM	COMMENTS
C-XXX	Wall Mounted Fixed Camera	Refer to Camera Schedule on Y301		1												1*			1									1* - Use indoor/outdoor rated patch cable for exterior cameras. Coordinate location and Ethernet cabling with contractor responsible for Div. 27.
C-XXX	Ceiling Mounted Fixed Camera	Refer to Camera Schedule on Y301		1												1*			1									1* - Use indoor/outdoor rated patch cable for exterior cameras. Coordinate location and Ethernet cabling with contractor responsible for Div. 27.
C-XXX	Multi-Lens Camera	Refer to Camera Schedule on Y301		1												1*			1									1* - Use indoor/outdoor rated patch cable for exterior cameras. Coordinate location and Ethernet cabling with contractor responsible for Div. 27.
CR PARK	Multi-Class Card Reader - Parks Dept.	HID multiCLASS SE or equivalent Refer to 28 1300						1		1								1										Use mullion mount card reader where noted. Card Readers with "Park" designation shall terminate to Parks Dept. Feenics System.
CR	Multi-Class Card Reader	HID multiCLASS SE or equivalent Refer to 28 1300						1		1								1										Use mullion mount card reader where noted. Card Readers with "EPO" designation shall terminate to EPO Dept. Genetec System.
DC	Door Position Switch (Door Contact)	Specified in Div. 08 Contact shall be DPDT												1						2								Terminate cable on IDS & Feenics ACS system panel.
JB	Junction Box	Coordinate above ceiling at each door where required						1					1	A/R														Required at every door with security devices. Refer to Y200 for conduit requirements.
STK	Electric Locking Mechanism	Specified in Div. 08																						1				Refer to door hardware schedule for electric locking mechanisms.
PS	Power Supply for Door Hardware	Refer to 28 1300																						1				
R	Integrated Request To Exit Switch	Specified in Div. 08												1												1		
KPD	Intrusion Detection System Keypad	Refer to 28 1600						1				1											1					Mount 54" AFF.
M	360° Motion Sensor	Refer to 28 1600						1				1									1							
G	Ceiling Mounting Glassbreak Sensor	Refer to 28 1600						1				1									1							Mount at least 3' from any HVAC devices.
●	Duress Button	Refer to 28 1600						1	1					1													2	Refer to Duress Button detail for installation requirements. Terminate on ACS & IDS panel.
DR	Door Release Button	Dortronics #5276-HD29 or equivalent FSR #DSKB_385 or equivalent																								1		Mount switch to desktop box. Secure desktop box to desk. Coordinate pathway with furniture contractor. Device shall release door from ACS.
SM	Client Viewing Single Display	Refer to 28 2300 Section 2.07, B.	1									1					1										1	Mount 60" AFF unless otherwise noted.
MU	Microphone Mute Switch	Custom toggle switch to mute/unmute camera microphone.						1				1															1	Coordinate height with Owner prior to rough-in. Mount 48" AFF.

GENERAL SYMBOLS

- 1 / Y1.1 — DETAIL NUMBER / DETAIL/PLAN IDENTIFIER / SHEET NUMBER
- A / Y1.1 — DETAIL NUMBER / SECTION IDENTIFIER / SHEET NUMBER
- A / Y1.1 — DETAIL NUMBER / ELEVATION IDENTIFIER / SHEET NUMBER
- 1 — DRAWINGS KEYNOTE NOTE TAG
- 1 — EQUIPMENT NOTE TAG
- CONDUIT SLEEVE - THROUGH CEILING TO ABOVE FLOOR
- CONDUIT SLEEVES - THROUGH FLOOR TO BELOW FLOOR
- CONDUIT SLEEVES - HORIZONTAL

SECURITY ABBREVIATIONS

(NOTE: NOT ALL ABBREVIATIONS APPLICABLE)

AFF	ABOVE FINISH FLOOR
A/C	ABOVE COUNTER
ACS	ACCESS CONTROL SYSTEM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
BNC	BAYONET NEIL-CONCELMAN
C	CONDUIT(S)
DEMARC	DEMARCATION
DPDT	DOUBLE THROW DOUBLE PULL
EIA	ELECTRONICS INDUSTRIES ALLIANCE
EMT	ELECTRICAL METALLIC TUBING
FACP	FIRE ALARM CONTROL PANEL
F	FACSIMILE (FAX)
IDS	INTRUSION DETECTION SYSTEM
LAN	LOCAL AREA NETWORK
MER	MAIN EQUIPMENT ROOM
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
OFE	OWNER FURNISHED EQUIPMENT
PA	PUBLIC ADDRESS
PBX	PRIVATE BRANCH EXCHANGE
PC	PERSONAL COMPUTER
PoE	POWER OVER ETHERNET
PP	PATCH PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
QYT	QUANTITY
STP	SHIELDED TWISTED PAIR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATIONS
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
TV	TELEVISION
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VGA	VIDEO GRAPHICS ARRAY
VoIP	VOICE OVER INTERNET PROTOCOL
VSS	VIDEO SURVEILLANCE SYSTEM
W	WALL TELEPHONE (VOICE)
WAN	WIDE AREA NETWORK
WAO	WORK AREA OUTLET
WAP	WIRELESS (DATA) ACCESS POINT
WG	WIRE GUARD
WP	WEATHERPROOF

GENERAL NOTES

1. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT.
2. COORDINATE ALL DEVICE PLACEMENT ON WALLS WITH ARCHITECTURAL PLANS.
3. DEVICE CABLING SHALL BE TERMINATED WITHIN THE INDICATED DATA ROOMS ON T001, T002, T003, & T004.
4. COORDINATE SECURITY CABINETS WITH THE TECHNOLOGY DRAWINGS AND LOW-VOLTAGE CONTRACTOR IN TELECOMMUNICATION ROOMS.
11. COLOR AND STYLE OF ANY PUBLIC FACING DEVICE SHALL MATCH ELECTRICAL FACE PLATES AND BE COORDINATED WITH AND CONFIRMED BY THE ARCHITECT DURING THE PRODUCT SUBMITTAL.
12. LOCATIONS OF EQUIPMENT FOR ALL OTHER TRADES SHALL BE COORDINATED BEFORE CONSTRUCTION.
13. CONTRACTOR SHALL COORDINATE LAYOUT LOCATIONS AND CLEARANCE OF ALL EQUIPMENT WITH OTHER TRADES AND ATTAIN OWNER'S APPROVAL PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL COORDINATE ALL RACEWAYS, LOCATIONS, AND POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
10. PLACEMENT OF ALL SECURITY VIDEO SURVEILLANCE CAMERAS MUST BE APPROVED BY THE SECURITY CONSULTANT AND/OR OWNER PRIOR TO CONSTRUCTION.
11. ALL DEVICES SHOWN ON THESE PLANS MUST BE COORDINATED AND APPROVED BY THE ARCHITECT. THE INSTALLATION CONTRACTOR SHALL DEPICT ALL DEVICES ONTO ELEVATION SUBMITTALS BEFORE INSTALLATION. ANY DEVICE THAT IS NOT APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION MAY BE REQUIRED TO BE RELOCATED AS DIRECTED BY THE ARCHITECT AND CORRECTED BY THE CONTRACTOR WITH NO ADDITIONAL CHARGE TO THIS PROJECT.
12. ALL PATHWAYS, INCLUDING ALL WALL AND CEILING PENETRATIONS ARE REQUIRED TO INSTALL CABLING TO THE END DEVICE AND SHALL BE COORDINATED BETWEEN THE LOW VOLTAGE AND SECURITY CONTRACTOR AND THE ELECTRICAL CONTRACTOR AND SHALL BE INCLUDED AS PART OF THIS SECTION.
13. ALL CABLING SHALL BE LABELED AT BOTH ENDS.
14. SEISMIC PERFORMANCE: ALL WALL MOUNTED DEVICES SHALL BE MOUNTED, SECURED AND INSTALLED IN ACCORDANCE WITH SEI/ASCE 7 AND SHALL ADDITIONALLY WITHSTAND THE EFFECTS OF ANY MOTIONS WITHIN THE BUILDING AS DETERMINED BY SEI/ASCE 7.
15. THE TERM 'WITHSTAND' MEANS "THE UNITS ILL REMAIN IN PLACE WITHOUT SEPARATION OF ANY PARTS FROM THE DEVICE WHEN SUBJECTED TO SEISMIC FORCES SPECIFIED AND THE UNIT WILL BE FULLY OPERATIONAL AFTER THE SEISMIC EVENT."
16. CONFIGURATION OF THE DURESS BUTTONS AND LOCKDOWN BUTTONS SHALL BE REVIEWED WITH THE SECURITY CONTRACTOR, SECURITY CONSULTANT, SECURITY DIRECTOR FOR THE FACILITY, AND THE AHJ PRIOR TO PROJECT HANDOVER. THIS MAY INCLUDE DIAL-OUT FUNCTIONALITY, ALARM NOTIFICATION VIA MAGIC MONITOR, SMS, AND EMAIL, INTEGRATION WITH THE PUBLIC ADDRESS SYSTEM, AND SECURITY STROBE LIGHTS.
17. CONFIGURATION OF THE VIDEO SURVEILLANCE CAMERAS ON THE FACILITY'S LAN SHALL BE REVIEWED WITH THE SECURITY CONTRACTOR, SECURITY CONSULTANT, SECURITY DIRECTOR FOR THE FACILITY, AND THE OWNER'S IT TEAM PRIOR TO CONFIGURATION.
18. UPON CAMERA INSTALLATION COMPLETION, THE SECURITY CONTRACTOR SHALL SEND SCREENSHOTS OF EVERY CAMERA IMAGE TO BE REVIEWED AND COMMENTED ON BY THE SECURITY CONSULTANT AND SECURITY DIRECTOR.
19. S2 NODES AND LICENSES FOR NEW ACCESS CONTROLLED DOORS IS REQUIRED AS PART OF THIS PROJECT.
20. COORDINATE CAMERAS AT DOORS WITH SWING OF DOOR.
21. ALL CEILING MOUNTED DEVICES MUST BE SECURED TO DECK ABOVE PER MANUFACTURER'S RECOMMENDATIONS.

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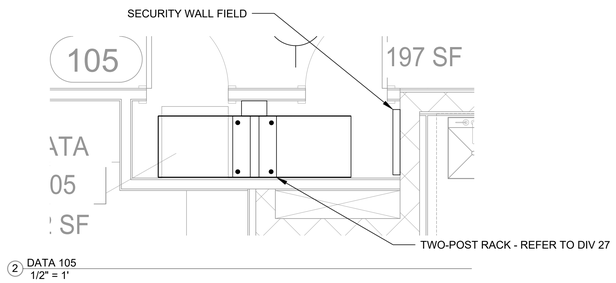
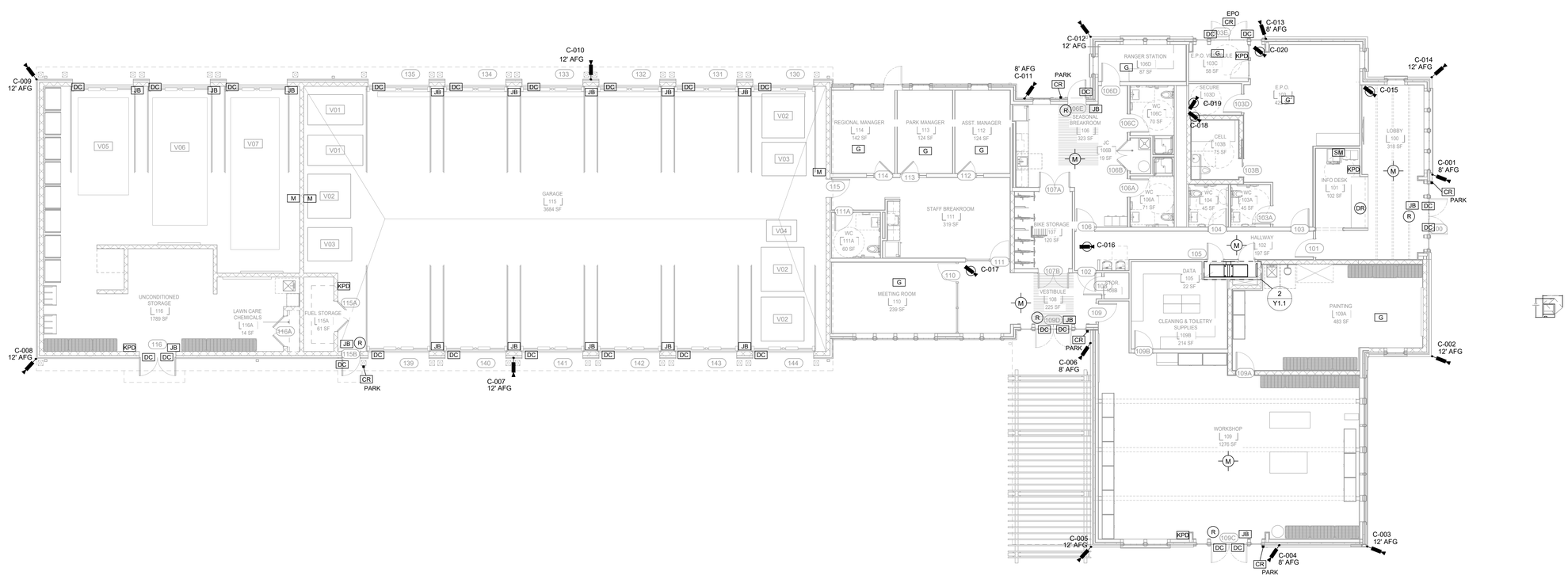
SHEET TITLE
SECURITY SYMBOL LEGEND AND NOTES

SHEET
Y0.1



2 DATA 105
1/2" = 1'



1 LEVEL 1
1/8" = 1'-0"

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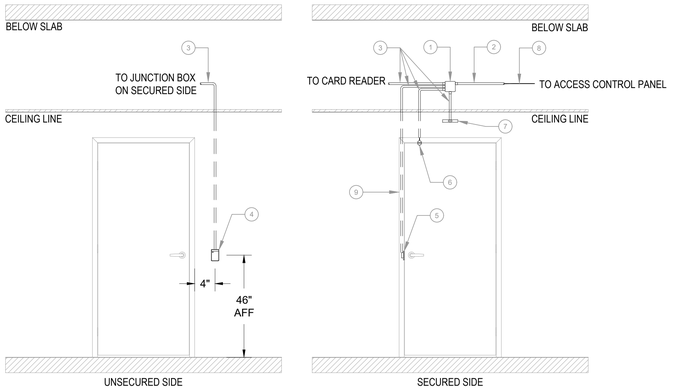
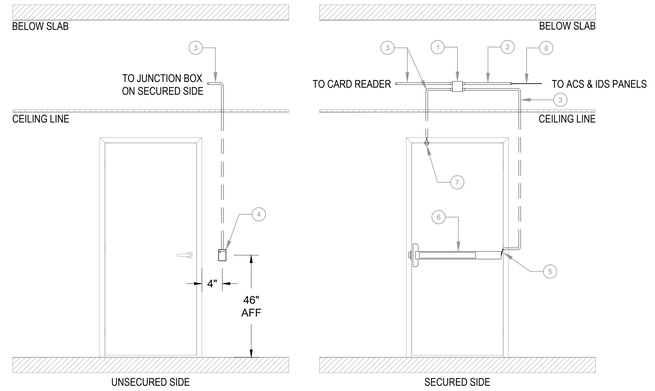
SHEET TITLE
SECURITY FLOOR PLAN FOR REVIEW

SHEET
Y1.1



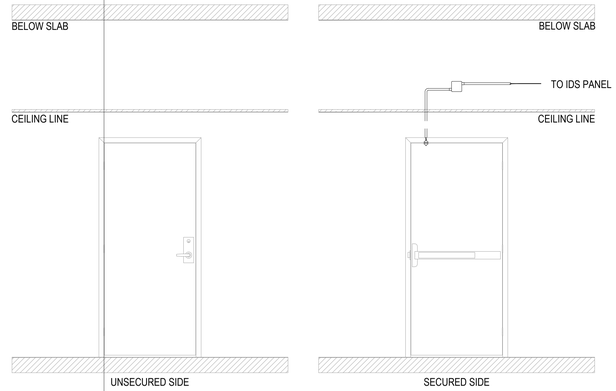
KEY NOTES
1. 4"X4"X2-1/8" DEEP JUNCTION BOX (JB) ON SECURE SIDE, ABOVE ACCESSIBLE CEILING - FURNISHED BY GENERAL CONTRACTOR.
2. 1" CONDUIT TO (JB) FOR SECURITY COMPOSITE CABLE - FURNISHED BY SECURITY CONTRACTOR.
3. 3/4" CONDUIT TO (JB) FOR SECURITY DEVICES - FURNISHED BY GENERAL CONTRACTOR. TYPICAL FOR ALL DEVICES.
4. READER - FURNISHED AND INSTALLED BY SECURITY CONTRACTOR. SINGLE GANG ELECTRICAL BOX FLUSH MOUNTED 46" A.F.F. ON UNSECURED SIDE - FURNISHED BY GENERAL CONTRACTOR.
5. ELECTRIC STRIKE FURNISHED BY DIVISION 08. CABLE AND CONNECTION BY SECURITY CONTRACTOR.
6. DOOR POSITION SWITCH - FURNISHED BY DIVISION 08. CABLED BY SECURITY CONTRACTOR. DOOR AND FRAME PREP BY GENERAL CONTRACTOR.
7. REQUEST-TO-EXIT MOTION. LOCATED ON THE SECURED SIDE OF THE DOOR - FURNISHED AND INSTALLED BY SECURITY CONTRACTOR. SINGLE GANG ELECTRICAL BOX FLUSH MOUNTED HORIZONTALLY 6"-8" ABOVE DOOR FRAME ON UNSECURED SIDE - FURNISHED BY GENERAL CONTRACTOR.
8. COMPOSITE ACCESS CONTROL CABLE - FURNISHED BY AND INSTALLED BY OWNER.
9. DOOR FRAME WITH WIRE CHASE/CONDUIT FOR SECURITY CABLING - FURNISHED BY GENERAL CONTRACTOR.

CARD ACCESS SINGLE DOOR WITH ELECTRIC STRIKE | NTS | 01



KEY NOTES
1. 4"X4"X2-1/8" DEEP JUNCTION BOX (JB) ON SECURE SIDE, ABOVE ACCESSIBLE CEILING - FURNISHED BY GENERAL CONTRACTOR.
2. 1" CONDUIT TO (JB) FOR SECURITY COMPOSITE CABLE- FURNISHED BY GENERAL CONTRACTOR.
3. 3/4" CONDUIT TO (JB) FOR SECURITY DEVICES - FURNISHED BY GENERAL CONTRACTOR. TYPICAL FOR ALL DEVICES.
4. READER - FURNISHED AND INSTALLED BY SECURITY CONTRACTOR. SINGLE GANG ELECTRICAL BOX FLUSH MOUNTED 46" A.F.F. ON UNSECURED SIDE - FURNISHED BY GENERAL CONTRACTOR.
5. ELECTRIFIED TRANSFER HINGE (12 CONDUCTOR MINIMUM) AND WIREWAY TO CRASH BAR, FURNISHED BY DIVISION 08
6. CRASH BAR WITH ELECTRIFIED TRIM AND INTEGRATED REQUEST-TO-EXIT "REX" - CRASH BAR AND TRIM FURNISHED BY DIVISION 08. CONNECTION TO ELECTRIFIED TRANSFER HINGE FOR LOCK AND REX BY SECURITY CONTRACTOR. DOOR PREP BY GENERAL CONTRACTOR.
7. DOOR POSITION SWITCH - FURNISHED AND INSTALLED BY SECURITY CONTRACTOR. DOOR AND FRAME PREP BY DIVISION 08.
8. COMPOSITE ACCESS CONTROL CABLE - FURNISHED BY AND INSTALLED BY SECURITY CONTRACTOR.

CARD ACCESS SINGLE DOOR WITH CARD READER & ELECTRIFIED TRANSFER HINGE | NTS | 02



KEY NOTES
1. 4"X4"X2-1/8" DEEP JUNCTION BOX (JB) ON SECURE SIDE, ABOVE ACCESSIBLE CEILING - FURNISHED BY GENERAL CONTRACTOR.
2. 1" CONDUIT TO (JB) FOR SECURITY COMPOSITE CABLE- FURNISHED BY SECURITY CONTRACTOR.
3. 3/4" CONDUIT TO (JB) FOR SECURITY DEVICES - FURNISHED BY GENERAL CONTRACTOR. TYPICAL FOR ALL DEVICES.
4. MANUAL CRASH BAR - FURNISHED BY DIVISION 08
5. DOOR POSITION SWITCH - FURNISHED BY DIVISION 08, CABLED BY SECURITY CONTRACTOR. DOOR AND FRAME PREP BY GENERAL CONTRACTOR.
6. 18AWG, 4C OR COMPOSITE ACCESS CONTROL CABLE - FURNISHED BY AND INSTALLED BY SECURITY CONTRACTOR.

SINGLE DOOR WITH DOOR POSITION SWITCH ONLY | NTS | 03

KEY NOTES
1. 4"X4"X2-1/8" DEEP JUNCTION BOX (JB) ON SECURE SIDE, ABOVE ACCESSIBLE CEILING - FURNISHED BY GENERAL CONTRACTOR.
2. 1" CONDUIT TO (JB) FOR SECURITY COMPOSITE CABLE- FURNISHED BY SECURITY CONTRACTOR.
3. 3/4" CONDUIT TO (JB) FOR SECURITY DEVICES - FURNISHED BY GENERAL CONTRACTOR. TYPICAL FOR ALL DEVICES.
4. READER - FURNISHED AND INSTALLED BY SECURITY CONTRACTOR. SINGLE GANG ELECTRICAL BOX FLUSH MOUNTED 46" A.F.F. ON UNSECURED SIDE - FURNISHED BY GENERAL CONTRACTOR.
5. ELECTRIFIED TRANSFER HINGE (12 CONDUCTOR MINIMUM) AND WIREWAY TO CRASH BAR, FURNISHED BY DIVISION 08.
6. CRASH BAR WITH ELECTRIFIED TRIM AND INTEGRATED REQUEST-TO-EXIT "REX" - CRASH BAR AND TRIM FURNISHED BY DIVISION 08. CONNECTION TO ELECTRIFIED TRANSFER HINGE FOR LOCK AND REX BY SECURITY CONTRACTOR. DOOR PREP BY GENERAL CONTRACTOR.
7. NON-ELECTRIFIED CRASH BAR AND TRIM LOCK, FURNISHED BY DIVISION 08.
8. DOOR POSITION SWITCH - FURNISHED BY DIVISION 08. CABLED BY SECURITY CONTRACTOR. DOOR AND FRAME PREP BY GENERAL CONTRACTOR.
9. COMPOSITE ACCESS CONTROL CABLE - FURNISHED BY AND INSTALLED BY SECURITY CONTRACTOR.

CARD ACCESS DOUBLE DOOR WITH ELECTRIC TRANSFER HINGE | NTS | 04

OVERHEAD DOOR CONTACT | NTS | 05

KEY NOTES
1. 4"X4"X2-1/8" DEEP JUNCTION BOX (JB) ON SECURE SIDE, ABOVE ACCESSIBLE CEILING - FURNISHED BY GENERAL CONTRACTOR.
2. 1" CONDUIT TO (JB) FOR SECURITY COMPOSITE CABLE- FURNISHED BY SECURITY CONTRACTOR.
3. 3/4" CONDUIT TO (JB) FOR SECURITY DEVICES - FURNISHED BY GENERAL CONTRACTOR. TYPICAL FOR ALL DEVICES.
4. MANUAL CRASH BAR, CRASH BARS FURNISHED BY DIVISION 08.
5. DOOR POSITION SWITCH - FURNISHED BY DIVISION 08. CABLED BY SECURITY CONTRACTOR. DOOR AND FRAME PREP BY GENERAL CONTRACTOR.
6. COMPOSITE ACCESS CONTROL CABLE - FURNISHED BY AND INSTALLED BY SECURITY CONTRACTOR.

DOUBLE DOOR POSITION SWITCH | NTS | 06

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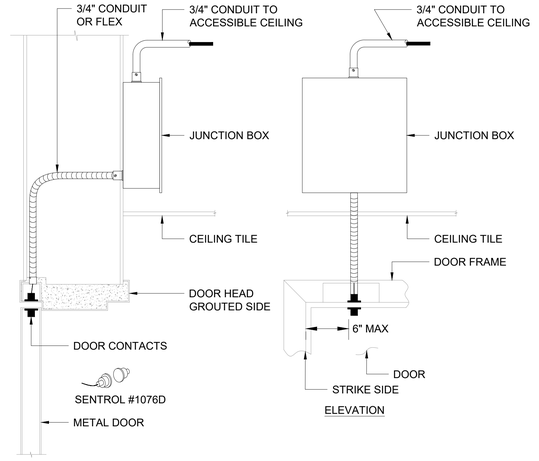
JOB NO. 2201 | DATE 08/01/2025

ISSUE **Bid Set**

NO.	REVISION DESCRIPTION	DATE

SHEET TITLE
SECURITY DETAILS

SHEET
Y2.1

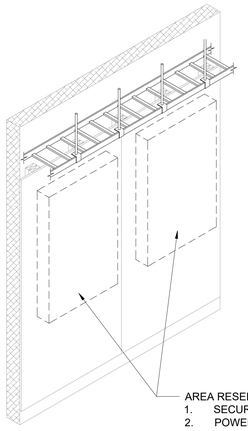


HEAD SECTION

NOTE:
1. SECURITY CONTRACTOR SHALL COORDINATE ALL DIMENSIONS FOR THE DOOR CONTACTS AND CONDUIT REQUIRED. SECURITY CONTRACTOR SHALL ENSURE THAT ALL CONTACTS ARE SECURELY FASTENED VIA THREAD & SCREWS WHILE USING FACTORY APPLIED MOUNTING TABS.

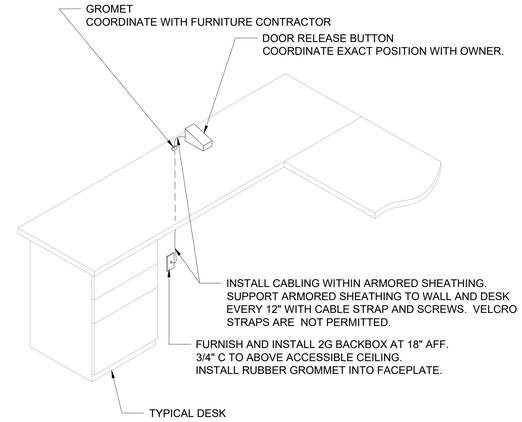
SYMBOL:	DC

JB - JUNCTION BOX & DOOR CONTACT DETAIL | NTS | 01



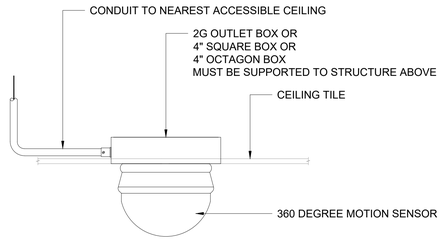
NOTES:
1. REFER TO TELECOMMUNICATIONS ROOM PARTIAL PLANS FOR WALLFIELD LOCATIONS AND MOUNTING SURFACES.
2. THIS DETAIL IS FOR BASIC WALLFIELD CONFIGURATIONS ONLY, CABLE CONTRACTOR TO PROVIDE ALL NECESSARY EQUIPMENT TO ENSURE A NEAT AND WORKMANLIKE INSTALLATION OF ALL VIDEO SURVEILLANCE CAMERA CABLING.
3. COORDINATE POWER FOR SECURITY PANELS.

SECURITY PANEL DETAIL | NTS | 02



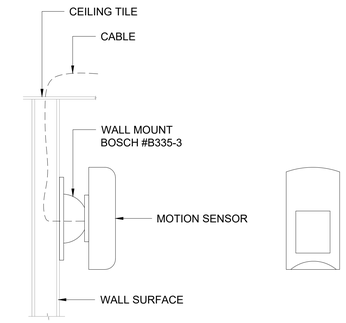
SYMBOL:	DR

DOOR RELEASE BUTTON | NTS | 03



SYMBOL:	M

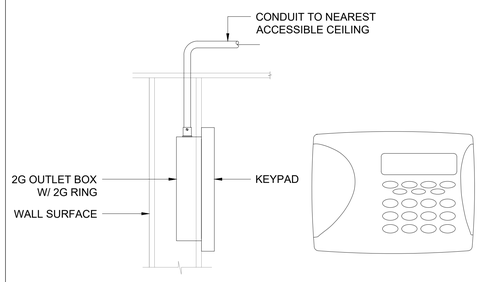
360 DEGREE MOTION SENSOR CEILING MOUNTED | NTS | 04



NOTES:
1. MOUNTING HEIGHT SHALL BE BETWEEN 7-1/2 & 9 FT AFF.

SYMBOL:	M

MOTION SENSOR WALL MOUNTED | NTS | 05



SYMBOL:	KPD

SECURITY KEYPAD DETAIL | NTS | 06

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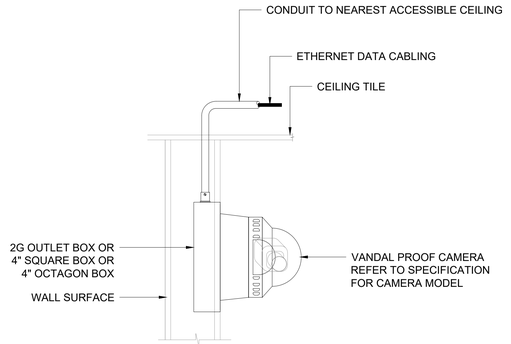
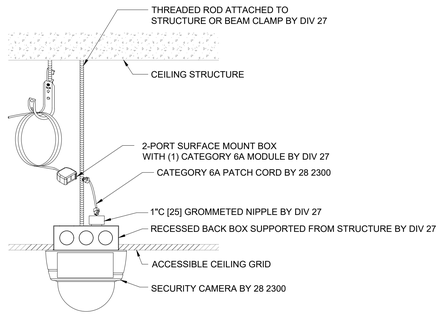
SHEET TITLE
SECURITY DETAILS

SHEET
Y2.2



SYMBOL:

INTERIOR CAMERA - WALL MOUNTED | NTS | 01



ELEVATION VIEW

NOTES:
1. PROVIDE BRACING AND/OR SUPPORT FOR CAMERA WHERE NECESSARY.
2. NOT ALL PARTS SHOWN. CONTRACTOR SHALL ENSURE A COMPLETE WORKING INSTALLATION INCLUDING MISCELLANEOUS APPURTENANCES.

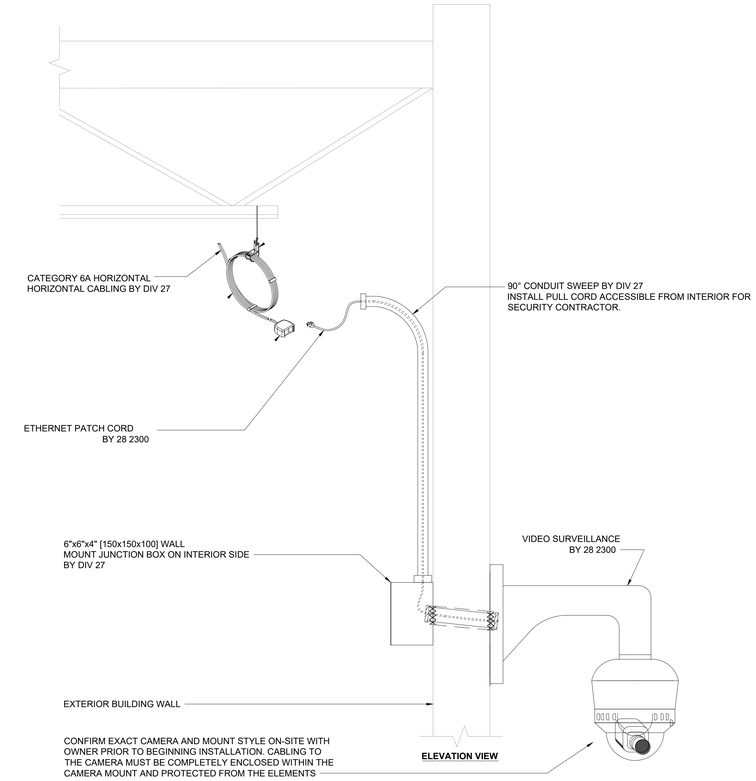
SYMBOL:

INTERIOR CAMERA - CEILING MOUNTED | NTS | 02

CAMERA SCHEDULE

DEVICE #	MANUFACTURER	PART #	MOUNTING ASSEMBLY	MOUNTING HEIGHT	NOTES
C-001	AXIS	P3267-LVE	WALL	8'-0" AFG	
C-002	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-003	AXIS	P3719-PLE	WALL PENDANT	12'-0" AFG	
C-004	AXIS	P3267-LVE	WALL	8'-0" AFG	
C-005	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-006	AXIS	P3267-LVE	WALL	8'-0" AFG	
C-007	AXIS	P3818-PVE	WALL PENDANT	12' AFG	
C-008	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-009	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-010	AXIS	P3818-PVE	WALL PENDANT	12' AFG	
C-011	AXIS	P3267-LVE	WALL	8'-0" AFG	
C-012	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-013	AXIS	P3267-LVE	WALL	8'-0" AFG	
C-014	AXIS	P3719-PLE	CORNER PENDANT	12'-0" AFG	
C-015	AXIS	P3267-LV	CEILING	CEILING	
C-016	AXIS	P3267-LV	CEILING	CEILING	
C-017	AXIS	P3267-LV	CEILING	CEILING	
C-018	AXIS	Q9216-SLV	WALL / CORNER	CEILING	Use steel camera. Do not connect to Owner's LAN. Connect directly to NVR. Refer to Y0.1
C-019	AXIS	P3267-LV	CEILING	CEILING	
C-020	AXIS	P3267-LV	CEILING	CEILING	

CAMERA SCHEDULE | NTS | 03

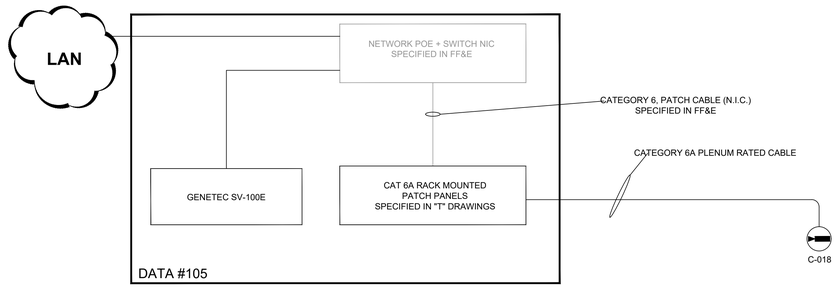


ELEVATION VIEW

NOTES:
1. LOCATION OF PENETRATION AND JUNCTION BOX SHALL BE COORDINATED BY THE TELECOMMUNICATIONS CONTRACTOR AND PROVIDED BY THE GENERAL CONTRACTOR. CONDUIT SHALL BE INSTALLED AT AN ANGLE, THE TOP OF THE CONDUIT (EXTERIOR) SHALL BE BELOW THE BOTTOM OF THE CONDUIT (INTERIOR) AS SHOWN ABOVE. PROVIDE A WATER TIGHT SEAL IN CONDUIT AFTER INSTALLATION.
2. NOT ALL PARTS SHOWN. CONTRACTOR SHALL ENSURE A COMPLETE WORKING INSTALLATION INCLUDING MISCELLANEOUS APPURTENANCES.

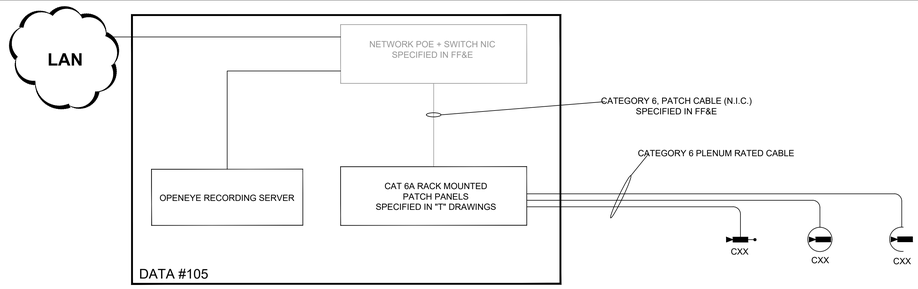
SYMBOL:

EXTERIOR CAMERA - WALL MOUNT | NTS | 04



NOTES:
1. CAMERA SHALL BE CONFIGURED TO RECORD AUDIO FROM INTEGRATED MICROPHONE AND VIDEO.
2. INCLUDE GENETEC INTERVIEW ROOM APPLICATION LICENSE.

EPO VIDEO SURVEILLANCE SYSTEM WIRING DIAGRAM - GENETEC | NTS | 05



VIDEO SURVEILLANCE WIRING DIAGRAM - PARKS OPENEYE | NTS | 06

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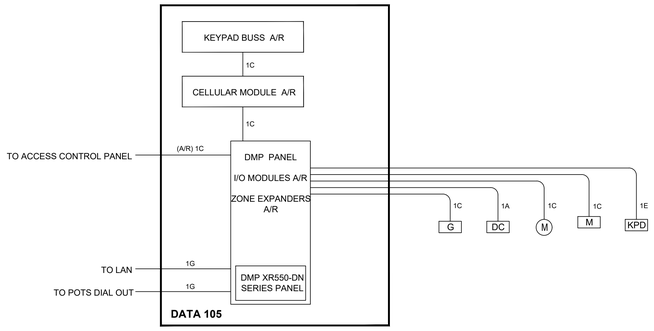
SHEET TITLE
SECURITY DETAILS

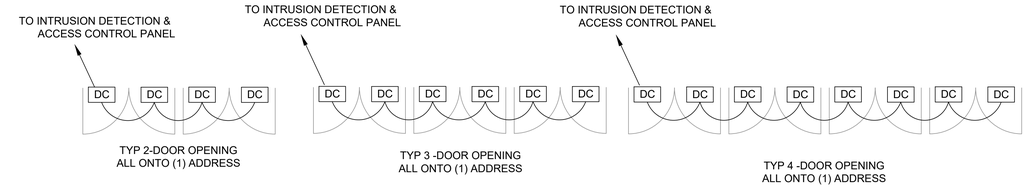
SHEET
Y2.3



EXPANSION MODULES CABLE DISTANCES BASED UPON CURRENT DRAW AND CABLE GAUGE (IF USING SHIELDED CABLE, DIVIDE THESE VALUES IN HALF)

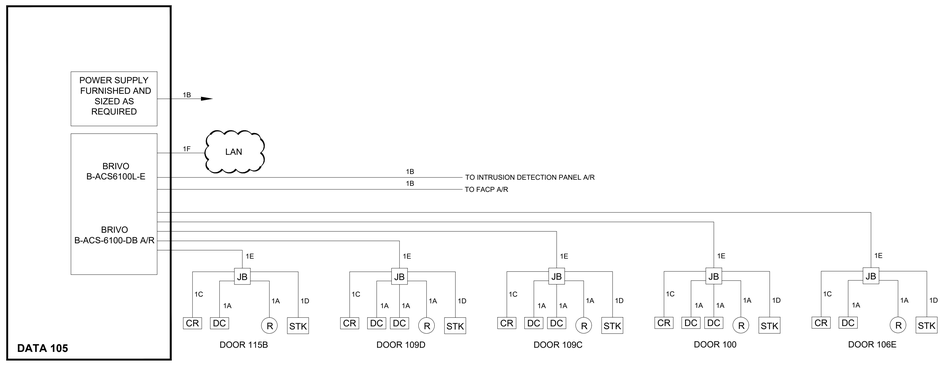
TOTAL LOAD (MA @ 11.5 VDC)	22 AWG	20 AWG	18 AWG	16 AWG
1-8 MA	12,000 FEET	12,000 FEET	12,000 FEET	12,000 FEET
9-16 MA	7,270 FEET	11,710 FEET	12,000 FEET	12,000 FEET
17-24 MA	4,850 FEET	7,810 FEET	12,000 FEET	12,000 FEET
25-32 MA	3,640 FEET	5,850 FEET	9,260 FEET	12,000 FEET
33-40 MA	2,910 FEET	4,680 FEET	7,410 FEET	11,760 FEET
41-48 MA	2,420 FEET	3,900 FEET	6,170 FEET	9,800 FEET
49-56 MA	2,080 FEET	3,350 FEET	5,290 FEET	8,400 FEET
57-64 MA	1,820 FEET	2,930 FEET	4,630 FEET	7,350 FEET
65-72 MA	1,620 FEET	2,600 FEET	4,110 FEET	6,540 FEET
73-80 MA	1,450 FEET	2,340 FEET	3,700 FEET	5,880 FEET
81-88 MA	1,320 FEET	2,130 FEET	3,370 FEET	5,350 FEET
89-96 MA	1,210 FEET	1,950 FEET	3,090 FEET	4,900 FEET
97-104 MA	1,120 FEET	1,800 FEET	2,850 FEET	4,520 FEET
105-112 MA	1,040 FEET	1,670 FEET	2,650 FEET	4,200 FEET
113-120 MA	970 FEET	1,560 FEET	2,470 FEET	3,920 FEET
121-128 MA	910 FEET	1,460 FEET	2,310 FEET	3,680 FEET

DESIGNATION	WIRE TYPE
1A	#22 - 2C PLENUM
1B	#22 - 4C PLENUM
1C	#14 - 4C PLENUM
1D	#18 - 4C PLENUM
1E	#18 - 6C SHL'D PLENUM
1G	CAT 6 PLENUM CABLE
1H	CAT 6 PATCH CABLE
1J	#18-2C SOLID CONDUCTOR
1K	#22-6C PLENUM
1L	#18 - 2C INDOOR/OUTDOOR
1M	#14 - 2C INDOOR/OUTDOOR

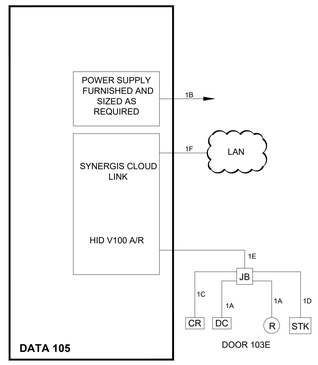


NOTES:
1. QUANTITY OF DMP ZONE EXPANDERS AS REQUIRED IN EACH DATA ROOM.
2. ALL ZONE EXPANDERS SHALL BE LOCATED WITHIN THE DATA ROOMS.
3. ALL ZONE EXPANDERS MUST CONNECT VIA A #22-6C PLENUM RATED CABLE. THIS INCLUDES CONNECTIVITY OF ZONE EXPANDERS BETWEEN ALL DATA ROOMS AND THE SERVER ROOM.
4. ALL ENCLOSURES, CABLING, TERMINATIONS, CONFIGURATION AND FINAL TESTING IS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.
5. . EACH ENDPOINT, INCLUDING SENSORS, BUTTONS, AND DOOR CONTACTS, SHALL HAVE A UNIQUE IDENTIFIER ON THE SYSTEM AND SHALL TRANSMIT THAT UNIQUE IDENTIFIER TO THE CENTRAL MONITORING COMPANY.
6. THE SECURITY CABLES SHALL NOT SHARE ANY SLEEVE OR CONDUIT ASSIGNED TO THE TELA-DATA CABLING.
7. ALL CABLING SHALL BE LABELED AT BOTH ENDS.

INTRUSION DETECTION WIRING DIAGRAM | NTS | 01



PARKS DEPT ACCESS CONTROL WIRING DIAGRAM - BRIVO | NTS | 02



EPO DEPT ACCESS CONTROL WIRING DIAGRAM - GENETEC | NTS | 03

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