



POSTAL PROJECT NUMBER: C32085

CRYSTAL CITY, TEXAS - MAIN POST OFFICE

ISSUE FOR CONSTRUCTION



Fisher Heck
ARCHITECTS



8/7/2020

PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE

SHEET TITLE: TITLE SHEET

PROJECT NO: 1921 A1

REVISIONS DATE

OWNER

ZAVALA COUNTY
200 E. UVALDE STREET
CRYSTAL CITY, TX 78839
PH: (830) 374-3810
CONTACT: CARLOS PEREDA, JR.
EMAIL: carlosapereda@yahoo.com
www.co.zavala.tx.us

TENANT

UNITED STATES POSTAL SERVICE
660 DATA DRIVE, STE 300
PLANO, TX 75075
PH: (214) 819-7298
CONTACT: JOEL K. ROITENBERG
EMAIL: joel.k.roitenberg@usps.gov
www.usps.gov

ARCHITECT

FISHER HECK ARCHITECTS
915 S. ST. MARY'S STREET
SAN ANTONIO, TX 78205
PH: (210) 299-1500
CONTACT: MARK NAVARRO
EMAIL: mnavarro@fisherheck.com
www.fisherheck.com

MEP ENGINEER

ESA MECHANICAL & ELECTRICAL
ENGINEERING, INC.
1100 NW LOOP 410, STE. 810
SAN ANTONIO, TX 78213
PH: (210) 342-3483
CONTACT: STEPHEN MITCHELL, P.E.
EMAIL: stephen@esaengineering.net

STRUCTURAL ENGINEER

LEHMANN ENGINEERING, INC.
1006 BECKETT
SAN ANTONIO, TX 78213
PH: (210) 348-8889
CONTACT: AARON STAAS, P.E.
EMAIL: astaas@lehmanneng.com
www.lehmanneng.com

CIVIL ENGINEER

HEJL, LEE & ASSOCIATES, INC.
206 TAYLOR STREET
HUTTO, TX 78634
PH: (512) 642-3292
CONTACT: CHIEN LEE, P.E.
EMAIL: hlainc@austin.rr.com
www.hejll.com

LANDSCAPE ARCHITECT

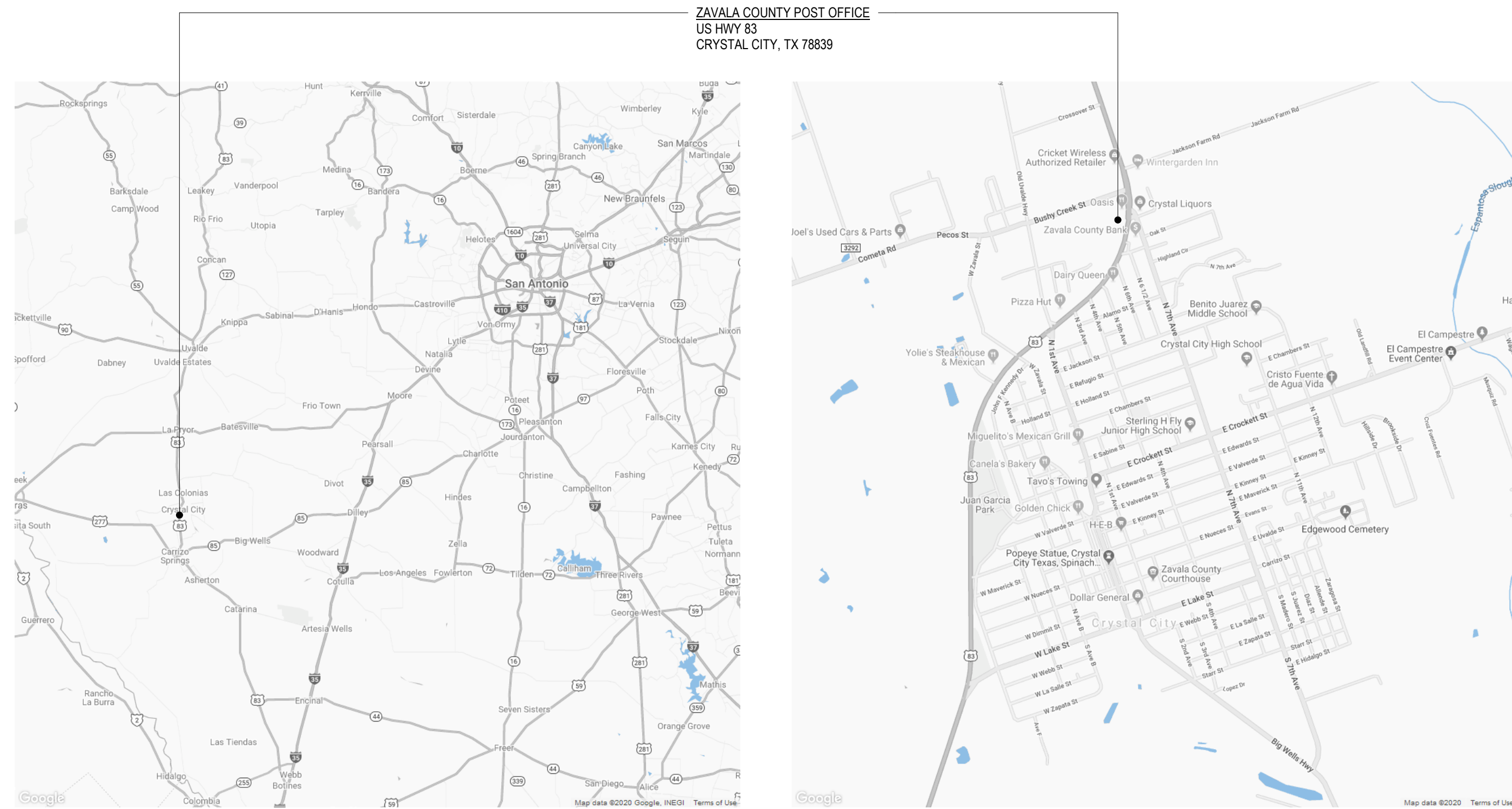
MP STUDIO
201 GROVETON
SAN ANTONIO, TX 78210
PH: (210) 314-5582
CONTACT: MARK PADILLA, RLA
EMAIL: mark@mpstud.io
www.mps-la.com

SHEET NO:

G-100

8/7/2020 8:48:37 AM

LOCATION MAPS



CODE INFO & ANALYSIS

APPLICABLE CODES AND STANDARDS:

THIS PROJECT IS IN THE CITY OF CRYSTAL CITY, TEXAS.

- 2015 INTERNATIONAL EXISTING BUILDING CODE
- 2015 INTERNATIONAL BUILDING CODE
- 2015 INTERNATIONAL FIRE CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2015 INTERNATIONAL PLUMBING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE
- USPS 2019 STANDARD DESIGN CRITERIA

OCCUPANCY CLASSIFICATION:

- GROUP B

CONSTRUCTION CLASSIFICATION:

- TYPE - V-B

FIRE RESISTANCE RATINGS REQUIRED

- BUILDING ELEMENT HOURS
- STRUCTURAL FRAME 0
- BEARING WALLS 0
- EXTERIOR INTERIOR 0
- NONBEARING WALLS & PARTITIONS 0
- EXTERIOR INTERIOR 0
- FLOOR CONSTRUCTION INCLUDING BEAMS AND JOISTS 0
- ROOF CONSTRUCTION INCLUDING BEAMS AND JOISTS 0

FIRE PROTECTION SYSTEMS

-

AREAS:

- ALLOWABLE TOTAL AREA 9,000 SF
- PROPOSED TOTAL AREA (GROSS) 4,926 SF
- PROPOSED NET AREA 4,010 SF

EGRESS CAPACITY (OCCUPANT LOAD):

- ACTUAL TOTAL - 43 O.L.

ENERGY CONSERVATION

- OPAQUE THERMAL ENVELOPE
- ROOF: R-38
- WALLS: R-20 or R-13+R-3.8ci
- OPAQUE DOORS: R-4.75
- FENESTRATION (U-FACTOR)
- FIXED: R-38
- OPERABLE: R-20 or R-13+R-3.8ci
- ENTRANCE DOORS: R-4.75

FENESTRATION (SHGC)

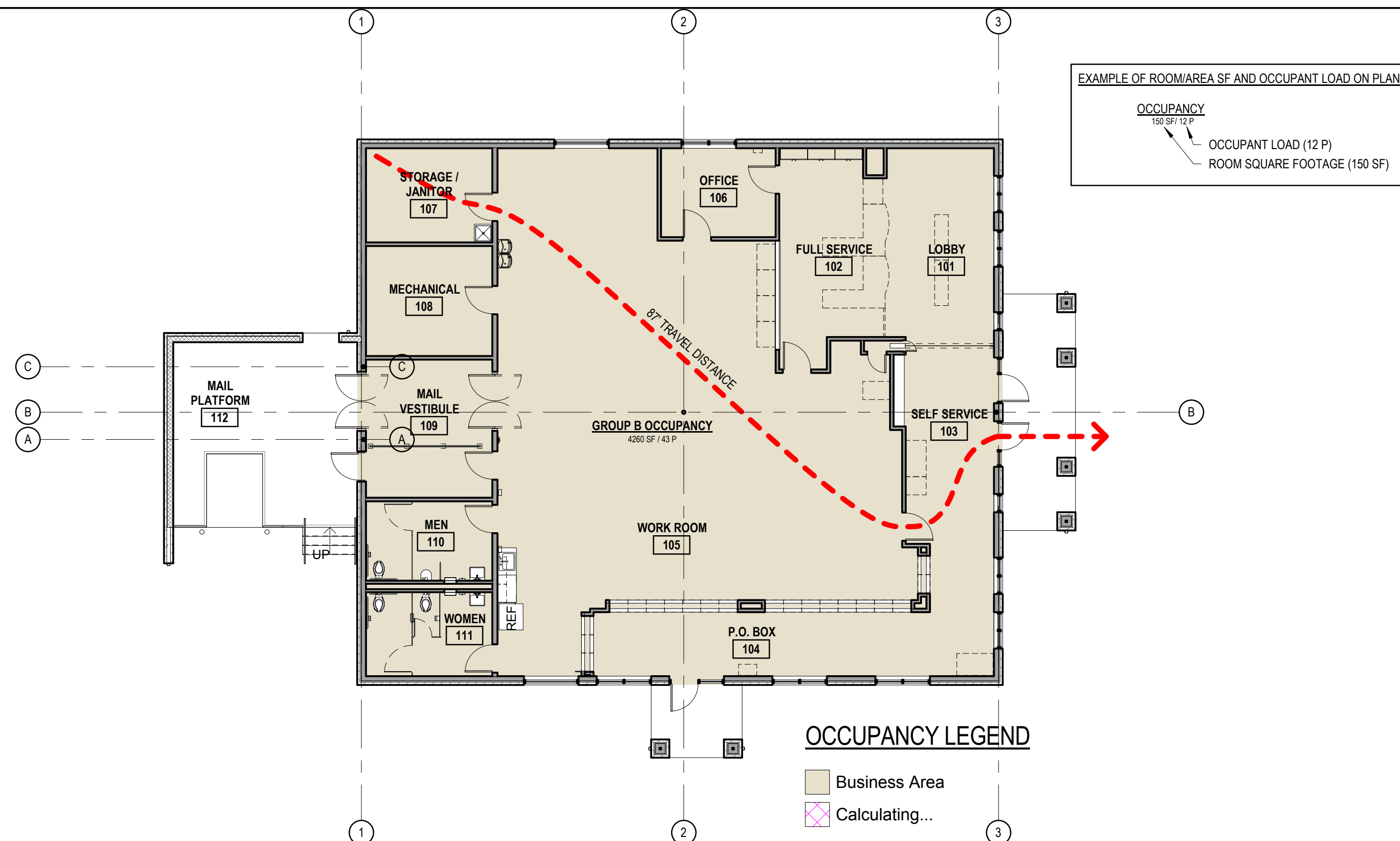
- PF-0.2 0.25(SEW) 0.33 (N)
- 0.2+PF<0.5 0.30(SEW) 0.37 (N)
- PF>0.5 0.40(SEW) 0.40 (N)

SPECIAL INSPECTIONS

IBC SECTION		APPLICABLE	NOT APPLICABLE
1705.1.1	SPECIAL CASES	-	X
1705.2	STEEL CONSTRUCTION	-	X
1705.3	CONCRETE CONSTRUCTION	X	-
1705.4	MASONRY CONSTRUCTION	-	X
1705.5	WOOD CONSTRUCTION	-	X
1705.6	SOILS	-	X
1705.7	DRIVEN DEEP FOUNDATIONS	-	X
1705.8	CAST-IN-PLACE DEEP FOUNDATIONS	-	X
1705.9	HELICAL PILE FOUNDATIONS	-	X
1705.10	FABRICATED ITEMS	-	X
1705.11	SPECIAL INSPECTIONS FOR WIND RESISTANCE	-	X
1705.12	SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE	-	X
1705.13	TESTING FOR SEISMIC RESISTANCE	-	X
1705.14	SPRAYED FIRE RESISTANT MATERIALS	-	X
1705.15	MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS	-	X
1705.16	EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)	-	X
1705.17	FIRE-RESISTANT PENETRATIONS AND JOINTS	-	X
1705.18	TESTING FOR SMOKE CONTROL	-	X
1706	DESIGN STRENGTHS OF MATERIALS	-	X
1707	ALTERNATIVE TEST PROCEDURES	-	X
1708	IN-SITU LOAD TESTS	-	X
1709	PRECONSTRUCTION LOAD TESTS	-	X

The owner shall pay for all special inspections associated with this project.

CODE REVIEW PLANS



PLUMBING FIXTURE ANALYSIS

OCCUPANCY	WATER CLOSETS		LAVATORIES		BATHTUBS/SHOWERS	DRINKING FOUNTAIN	OTHER
	MALE	FEMALE	MALE	FEMALE			
Occupant Load: 43							
B	1*	1	1	1	0	1	1 service sink

DRAWING INDEX

GENERAL

- G-100 TITLE SHEET
- G-101 SHEET INDEX & CODE ANALYSIS
- G-102 SITE BOUNDARY SURVEY

CIVIL

- C-101 DIMENSIONAL CONTROL & PAVING PLAN
- C-102 EROSION AND SEDIMENTATION CONTROL PLAN
- C-103 UTILITY PLAN
- C-104 DRAINAGE & GRADING PLAN
- C-105 PAVEMENT JOINT PLAN
- C-106 TRAFFIC CONTROL PLAN
- C-107 DETAILS
- C-108 DETAILS
- C-109 DETAILS
- C-110 DETAILS

ARCHITECTURAL

- A-001 GENERAL NOTES, ABBREVIATIONS & SYMBOLS
- A-002 DOOR, WINDOW, & FINISH SCHEDULES
- A-003 WALL PARTITIONS

WARM SHELL

- AS-100 SITE PLAN
- AS-101 FLOOR PLAN
- AS-102 REFLECTED CEILING PLAN & ROOF PLAN
- AS-200 EXTERIOR ELEVATIONS & BUILDING SECTIONS
- AS-301 WALL SECTIONS
- AS-302 WALL SECTIONS
- AS-500 DOOR & WINDOW DETAILS

INTERIOR FINISHOUT

- AI-101 FLOOR PLAN
- AI-200 REFLECTED CEILING PLAN & INTERIOR ELEVATIONS
- AI-500 P.O. BOX & PARCEL LOCKER DETAILS
- AI-501 MILLWORK DETAILS
- AI-502 SIGNAGE & BUILDING IDENTIFICATION DETAILS
- AI-503 DOOR DETAILS

STRUCTURAL

- S-101 NOTES, SECTIONS, & DETAILS
- S-201 FOUNDATION PLAN
- S-202 ROOF FRAMING PLAN
- S-301 FOUNDATION SECTIONS AND DETAILS
- S-401 WOOD FRAMING NOTES AND DETAILS
- S-501 MASONRY NOTES AND DETAILS

MECHANICAL

WARM SHELL

- MEPS-101 MECHANICAL, ELECTRICAL AND PLUMBING SITE PLAN
- MS-101 MECHANICAL FLOOR PLAN
- MS-201 MECHANICAL SCHEDULES, NOTES, AND LEGEND
- MS-301 MECHANICAL DETAILS

INTERIOR FINISHOUT

- MI-101 MECHANICAL FLOOR PLAN
- MI-201 MECHANICAL SCHEDULES, NOTES, AND LEGEND
- MI-301 MECHANICAL DETAILS

PLUMBING

WARM SHELL

- PS-101 PLUMBING FLOOR PLAN - SHELL
- PS-201 PLUMBING DETAILS AND NOTES

INTERIOR FINISHOUT

- PI-101 PLUMBING FLOOR PLAN - INTERIOR

ELECTRICAL

WARM SHELL

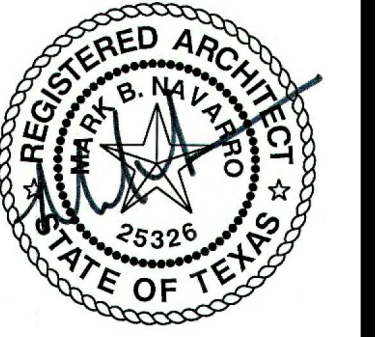
- ES-100 ELECTRICAL LEGEND, DETAILS AND SCHEDULES
- ES-101 LIGHTING PLAN
- ES-201 POWER AND SIGNAL PLAN

INTERIOR FINISHOUT

- EI-100 ELECTRICAL LEGEND, DETAILS AND SCHEDULES
- EI-101 LIGHTING PLAN
- EI-201 POWER AND SIGNAL PLAN

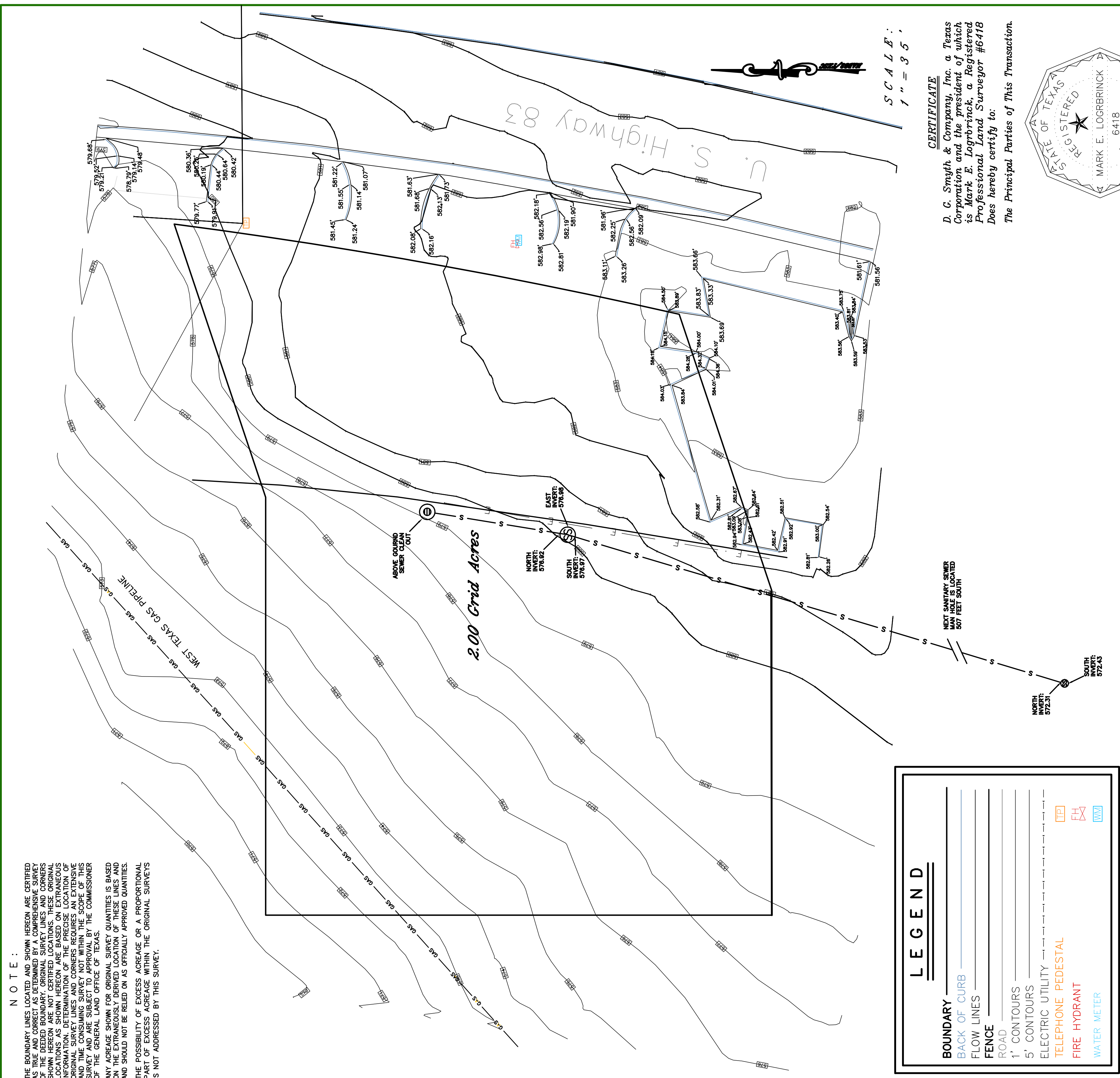
LANDSCAPE

- LP-1.1 PLANTING PLAN
- LP-2.1 PLANT LEGEND & DETAILS
- LP-2.2 PLANT NOTES
- LI-1.0 IRRIGATION LEGEND & NOTES
- LI-1.1 IRRIGATION PLAN
- LI-2.1 IRRIGATION DETAILS



8/7/2020

NOTE:
 THE BOUNDARY LINES LOCATED AND SHOWN HEREON ARE CERTIFIED TO BE THE BOUNDARY LINES OF THE BEHELD BOUNDARY. ORIGINAL SURVEY LINES AND CORNERS SHOWN HEREON ARE NOT CERTIFIED LOCATIONS. THESE ORIGINAL SURVEY LINES AND CORNERS ARE SHOWN FOR INFORMATION ONLY. DETERMINATION OF THE PRECISE LOCATION OF ORIGINAL SURVEY LINES AND CORNERS REQUIRES AN EXTENSIVE AND TIME CONSUMING SURVEY NOW WITHIN THE SCOPE OF THIS SURVEY. THE BOUNDARY LINES SHOWN ON THIS PLAT ARE BASED ON THE GENERAL LAND OFFICE OF TEXAS.
 ANY ACREAGE SHOWN FOR ORIGINAL SURVEY QUANTITIES IS BASED ON THE EXTRANEOUSLY DERIVED LOCATION OF THESE LINES AND SHOULD NOT BE RELIED ON AS OFFICIALLY APPROVED QUANTITIES. THE POSSIBILITY OF EXCESS ACREAGE OR A PROPORTIONAL PART OF EXCESS ACREAGE WITHIN THE ORIGINAL SURVEYS IS NOT ADDRESSED BY THIS SURVEY.



LEGEND	
BOUNDARY	—
BACK OF CURB	—
FLOW LINES	—
FENCE	—
ROAD	—
1' CONTOURS	—
5' CONTOURS	—
ELECTRIC UTILITY	—
TELEPHONE PEDESTAL	—
FIRE HYDRANT	—
WATER METER	—

PLAT SHOWING:
Being a Topographic Survey of 2.00 Grid Acres, more or less, lying in Zavala County, Texas.

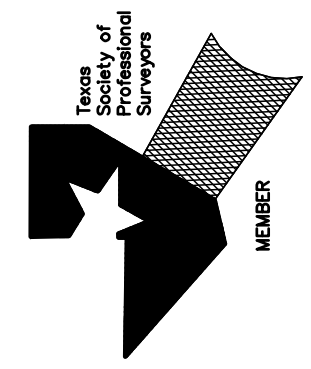
NOTES:
 IMPROVEMENTS SHOWN ARE LIMITED TO MAJOR STRUCTURES AND VISIBLE SALENT FEATURES. BEARINGS, DISTANCES, AND AREAS SHOWN HEREON CONFORM TO THE TEXAS COORDINATE SYSTEM NORTH AMERICAN DATUM 1983, TEXAS SOUTH CENTRAL ZONE. 1/2" DIAMETER BEAR WITH IDENTIFICATION CAP'S STAMPED "RPLS/6418" SET AT ALL CORNERS UNLESS OTHERWISE NOTED OR SHOWN.

WARNING: UNAUTHORIZED ALTERATION OF CERTIFIED MATERIAL IS FORGERY.

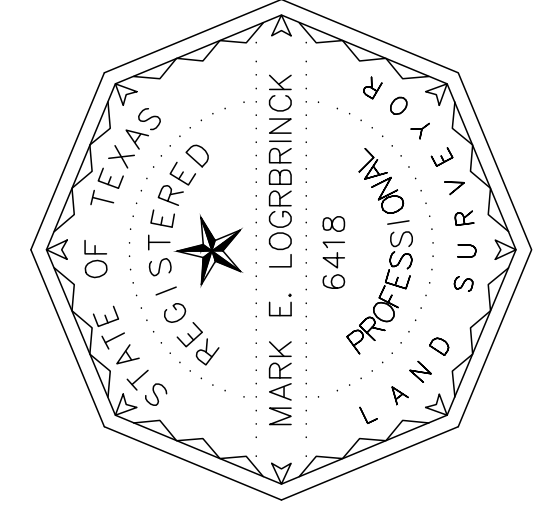
D. G. Smyth & Co. Inc. FIRM #10008800
 235 N. GETTY ST.
 SUITE B
 UVALDE, TEXAS 78801
 PHONE 830-591-0858

PREPARED FOR:
 CONDOMINIUM DEVELOPER
 C/O CARLOS FERRADA

PURPOSE OF SURVEY:
 TOPOGRAPHIC



CERTIFICATE
 D. G. Smyth & Company, Inc. a Texas Corporation and the president of which is Mark E. Logbrinck, a Registered Professional Land Surveyor #6418 Does hereby certify to:
 The Principal Parties of This Transaction.



STATE OF TEXAS:
 COUNTY OF UVALDE:

I, MARK E. LOGBRINCK, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND BY MEN WHOSE NAMES ARE SHOWN ON THE PLAT. THE SAME IS TRUE AND CORRECT ACCORDING TO SAID SURVEY. THE PLAT AS PREPARED HAS A LIKENESS OF MY SEAL, IN THE COLOR RED, HEREON, AND IS ALSO EMBOSSED WITH MY IMPRESSION SEAL. IF THIS PLAT DOES NOT HAVE THESE TWO CONDITIONS FULFILLED, IT IS VOID AND I ASSUME NO RESPONSIBILITY FOR COPIES OF THE PLAT OTHER THAN THE COPIES BEARING MY ORIGINAL SEALS AND SIGNATURE.
 COMPLETED: APRIL 03, 2020

PROJECT NO. 19-7506
 DRAWING NO. 19-7506
 DATE: APRIL 03, 2020
 CHK'D BY:

UPDATED: 04/17/2020 TO SHOW EXISTING SANITARY SEWER LINE AND WEST TEXAS GAS PIPELINE.

SHEET NO:
G-102

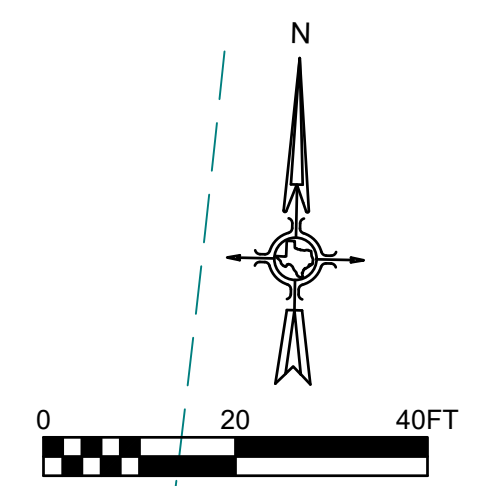
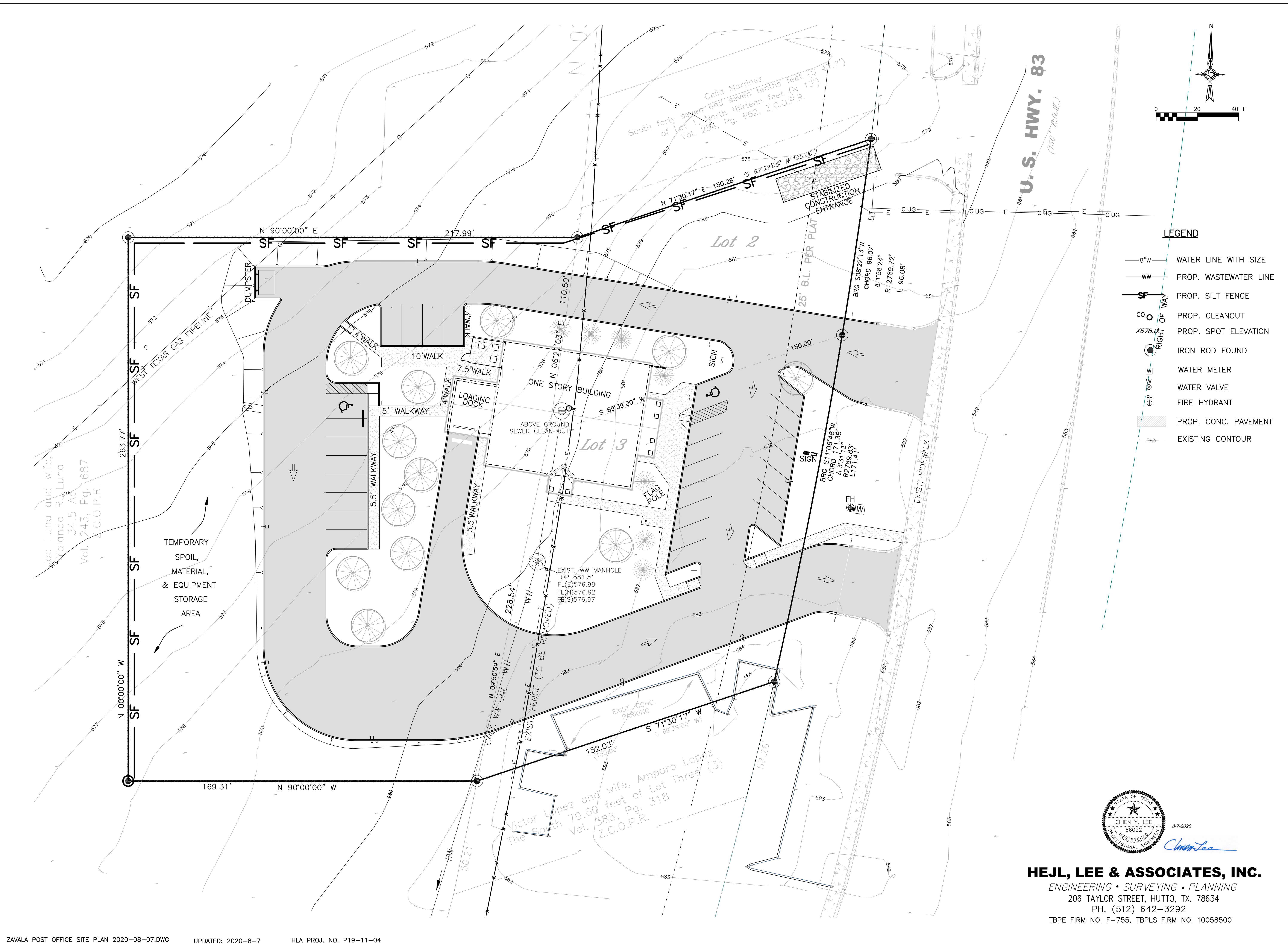


PROJECT NO:

PROJECT:
CRYSTAL CITY, TEXAS - MAIN POST OFFICE
 SHEET TITLE:
SITE BOUNDARY SURVEY

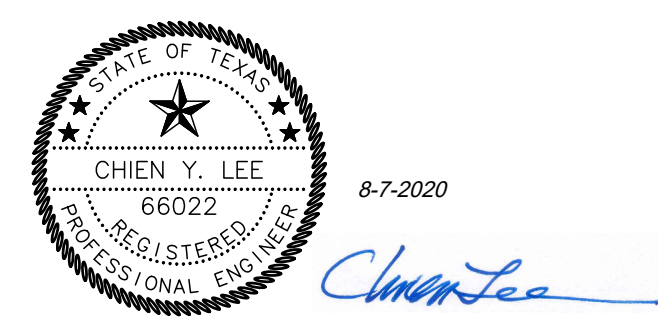
Fisher Heck
 ARCHITECTS

915 SOUTH ST MARY'S STREET
 SAN ANTONIO, TEXAS 78205
 FISHERHECK.COM
 210-596-1500

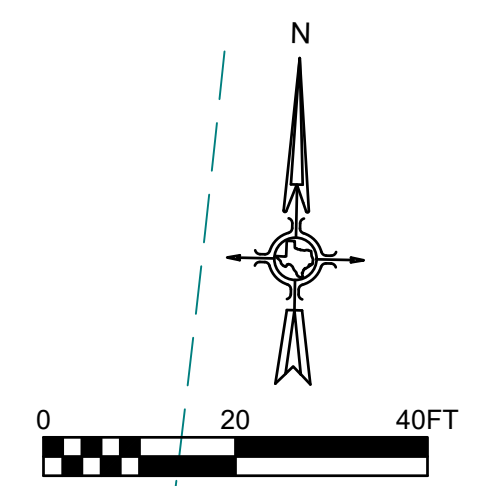
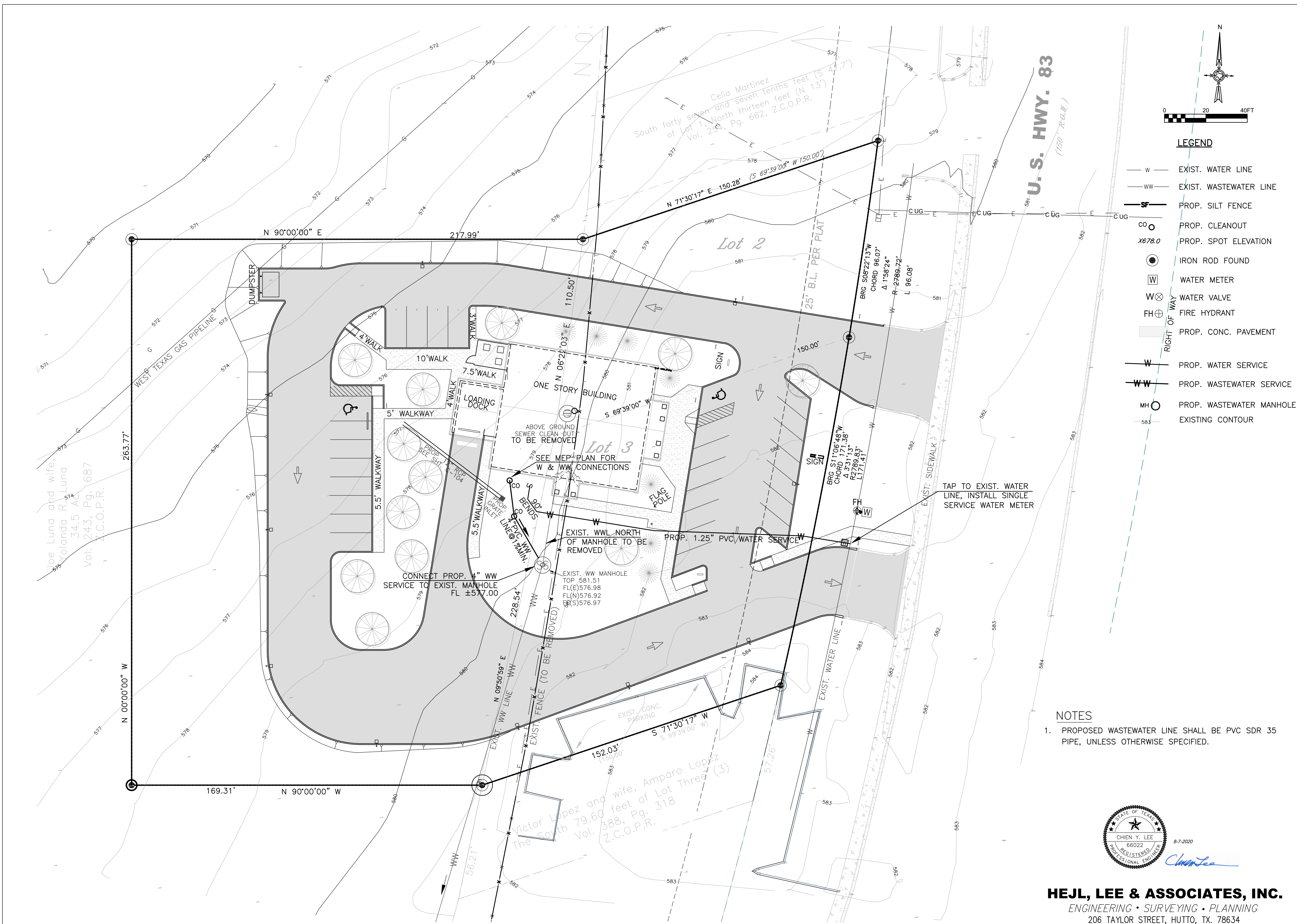


LEGEND

- 8" W WATER LINE WITH SIZE
- WW PROP. WASTEWATER LINE
- SF PROP. SILT FENCE
- CO PROP. CLEANOUT
- x678 PROP. SPOT ELEVATION
- IRON ROD FOUND
- ⊕ WATER METER
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ▨ PROP. CONC. PAVEMENT
- 583 EXISTING CONTOUR



HEJL, LEE & ASSOCIATES, INC.
 ENGINEERING • SURVEYING • PLANNING
 206 TAYLOR STREET, HUTTO, TX. 78634
 PH. (512) 642-3292
 TBPE FIRM NO. F-755, TBPLS FIRM NO. 10058500

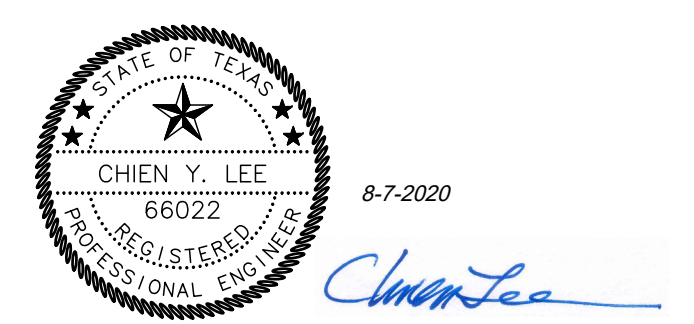


LEGEND

- W — EXIST. WATER LINE
- WW — EXIST. WASTEWATER LINE
- SF — PROP. SILT FENCE
- CO ○ PROP. CLEANOUT
- x678.0 PROP. SPOT ELEVATION
- IRON ROD FOUND
- W ⊗ WATER METER
- W ⊗ WATER VALVE
- FH ⊕ FIRE HYDRANT
- ▨ PROP. CONC. PAVEMENT
- W — PROP. WATER SERVICE
- WW — PROP. WASTEWATER SERVICE
- MH ○ PROP. WASTEWATER MANHOLE
- 583 EXISTING CONTOUR

NOTES

1. PROPOSED WASTEWATER LINE SHALL BE PVC SDR 35 PIPE, UNLESS OTHERWISE SPECIFIED.



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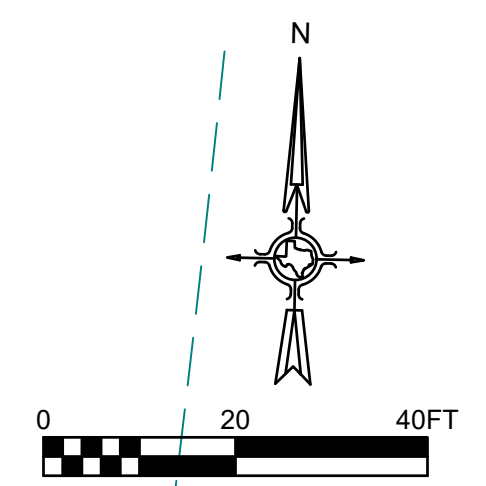
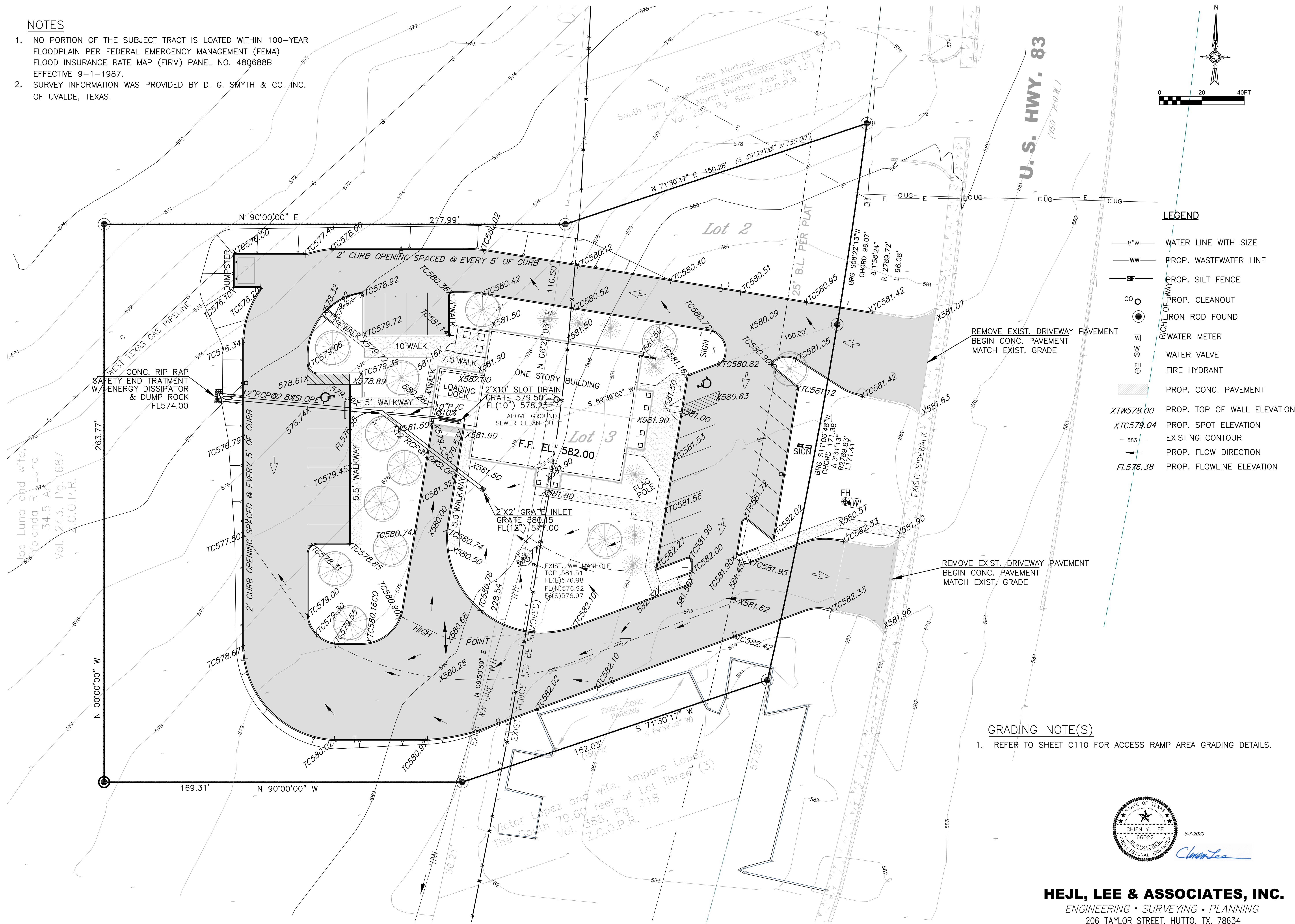
PROJECT NO: 1921 A1

△ REVISIONS DATE

SHEET NO:
C-103

NOTES

- NO PORTION OF THE SUBJECT TRACT IS LOATED WITHIN 100-YEAR FLOODPLAIN PER FEDERAL EMERGENCY MANAGEMENT (FEMA) FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 480688B EFFECTIVE 9-1-1987.
- SURVEY INFORMATION WAS PROVIDED BY D. G. SMYTH & CO. INC. OF UVALDE, TEXAS.

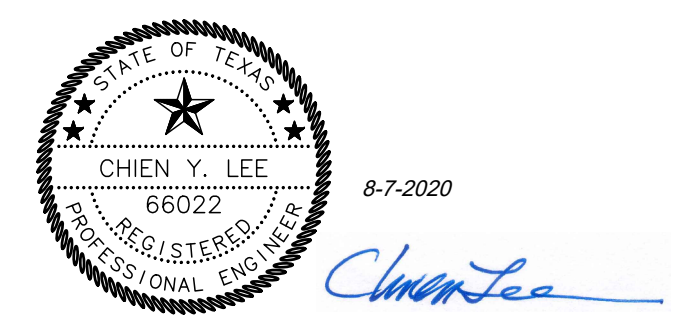


LEGEND

- 8" W — WATER LINE WITH SIZE
- WW — PROP. WASTEWATER LINE
- SF — PROP. SILT FENCE
- CO ○ — PROP. CLEANOUT
- — IRON ROD FOUND
- RW — RIGHT OF WAY
- ⊞ — WATER METER
- ⊞ — WATER VALVE
- ⊞ — FIRE HYDRANT
- ▨ — PROP. CONC. PAVEMENT
- XTW578.00 — PROP. TOP OF WALL ELEVATION
- XTC579.04 — PROP. SPOT ELEVATION
- 583 — EXISTING CONTOUR
- — PROP. FLOW DIRECTION
- FL576.38 — PROP. FLOWLINE ELEVATION

GRADING NOTE(S)

- REFER TO SHEET C110 FOR ACCESS RAMP AREA GRADING DETAILS.



HEJL, LEE & ASSOCIATES, INC.

ENGINEERING • SURVEYING • PLANNING
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 TBPE FIRM NO. F-755, TBPLS FIRM NO. 10058500

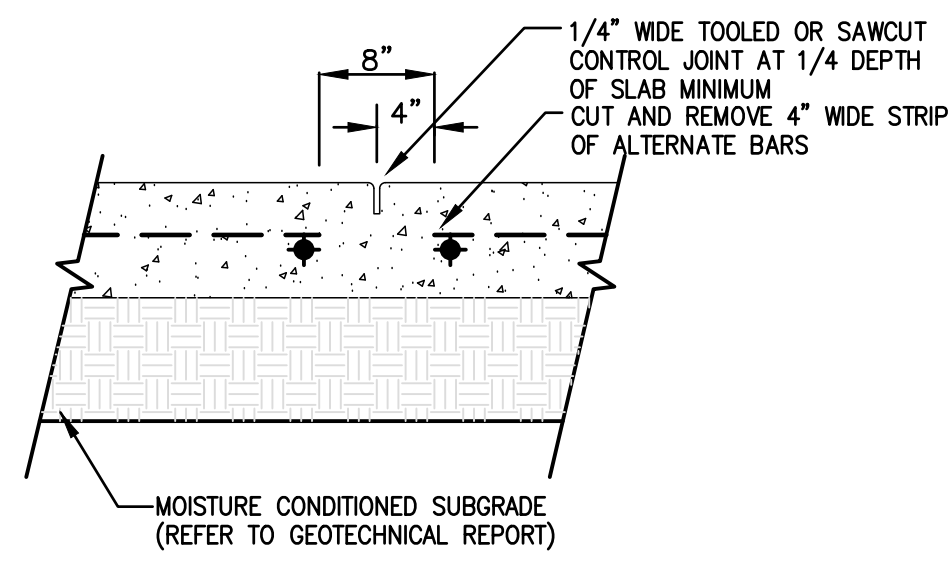
Fisher Heck
 ARCHITECTS

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**
 SHEET TITLE: **DRAINAGE & GRADING PLAN**

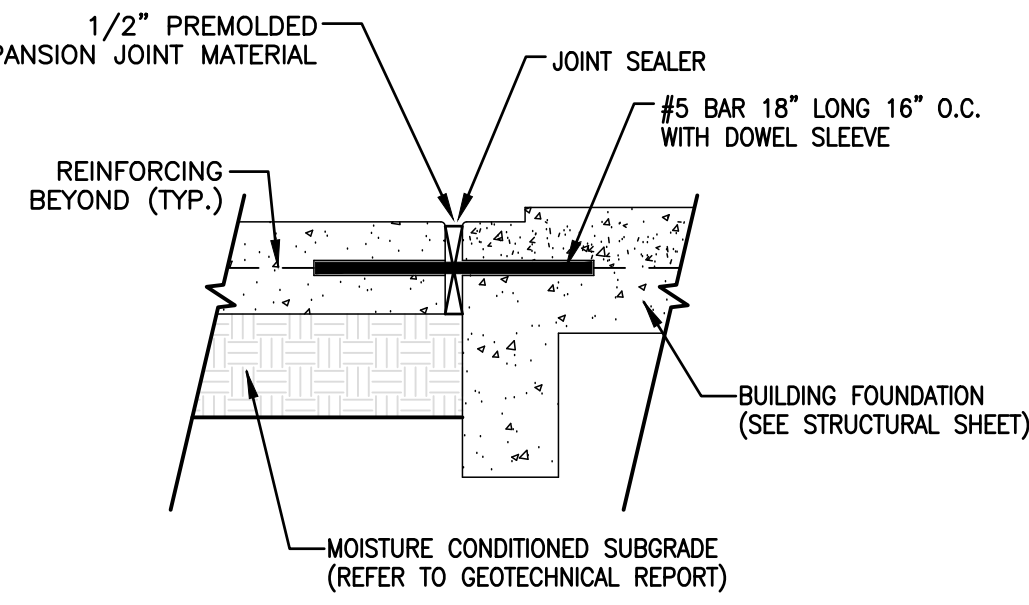
PROJECT NO: 1921 A1

△ REVISIONS DATE

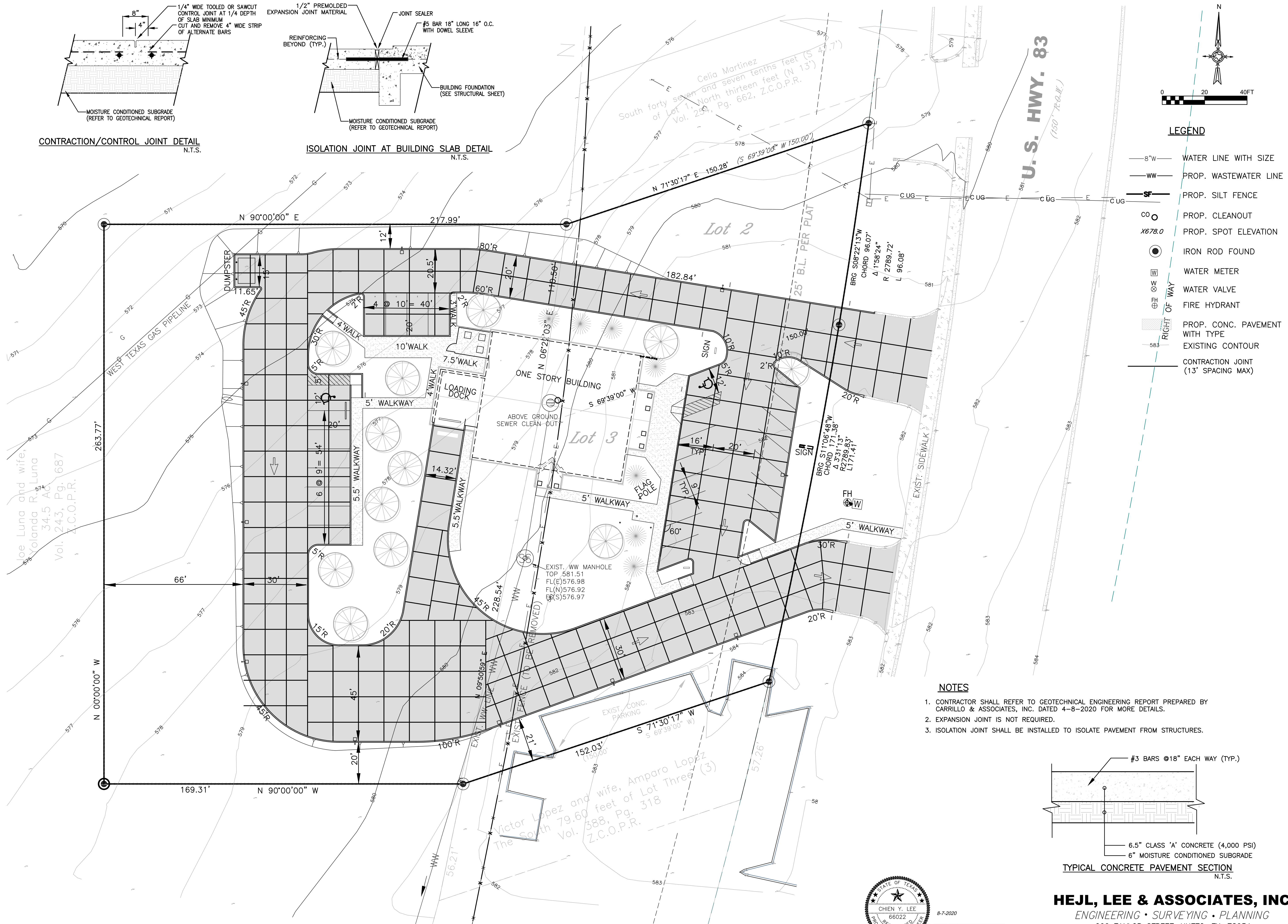
SHEET NO:
C-104



CONTRACTION/CONTROL JOINT DETAIL
N.T.S.



ISOLATION JOINT AT BUILDING SLAB DETAIL
N.T.S.

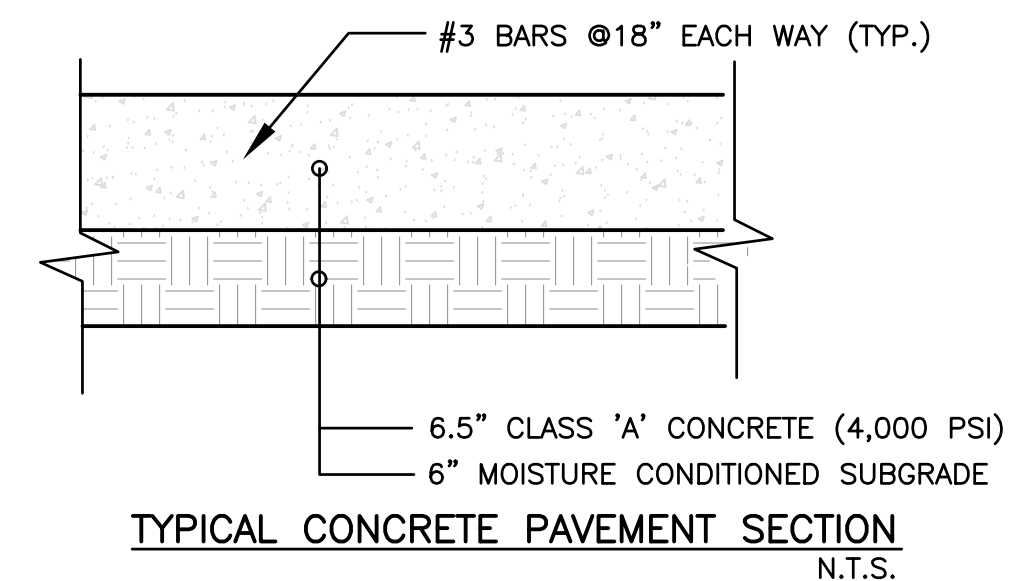


LEGEND

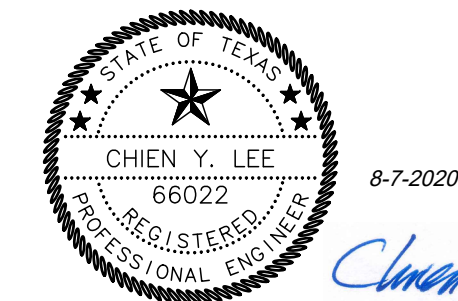
- 8" W WATER LINE WITH SIZE
- WW PROP. WASTEWATER LINE
- SF PROP. SILT FENCE
- OO PROP. CLEANOUT
- X678.0 PROP. SPOT ELEVATION
- IRON ROD FOUND
- ⊠ WATER METER
- ⊞ WATER VALVE
- ⊕ FIRE HYDRANT
- ▨ PROP. CONC. PAVEMENT WITH TYPE
- 583 EXISTING CONTOUR
- - - CONTRACTION JOINT (13' SPACING MAX)

NOTES

1. CONTRACTOR SHALL REFER TO GEOTECHNICAL ENGINEERING REPORT PREPARED BY CARRILLO & ASSOCIATES, INC. DATED 4-8-2020 FOR MORE DETAILS.
2. EXPANSION JOINT IS NOT REQUIRED.
3. ISOLATION JOINT SHALL BE INSTALLED TO ISOLATE PAVEMENT FROM STRUCTURES.



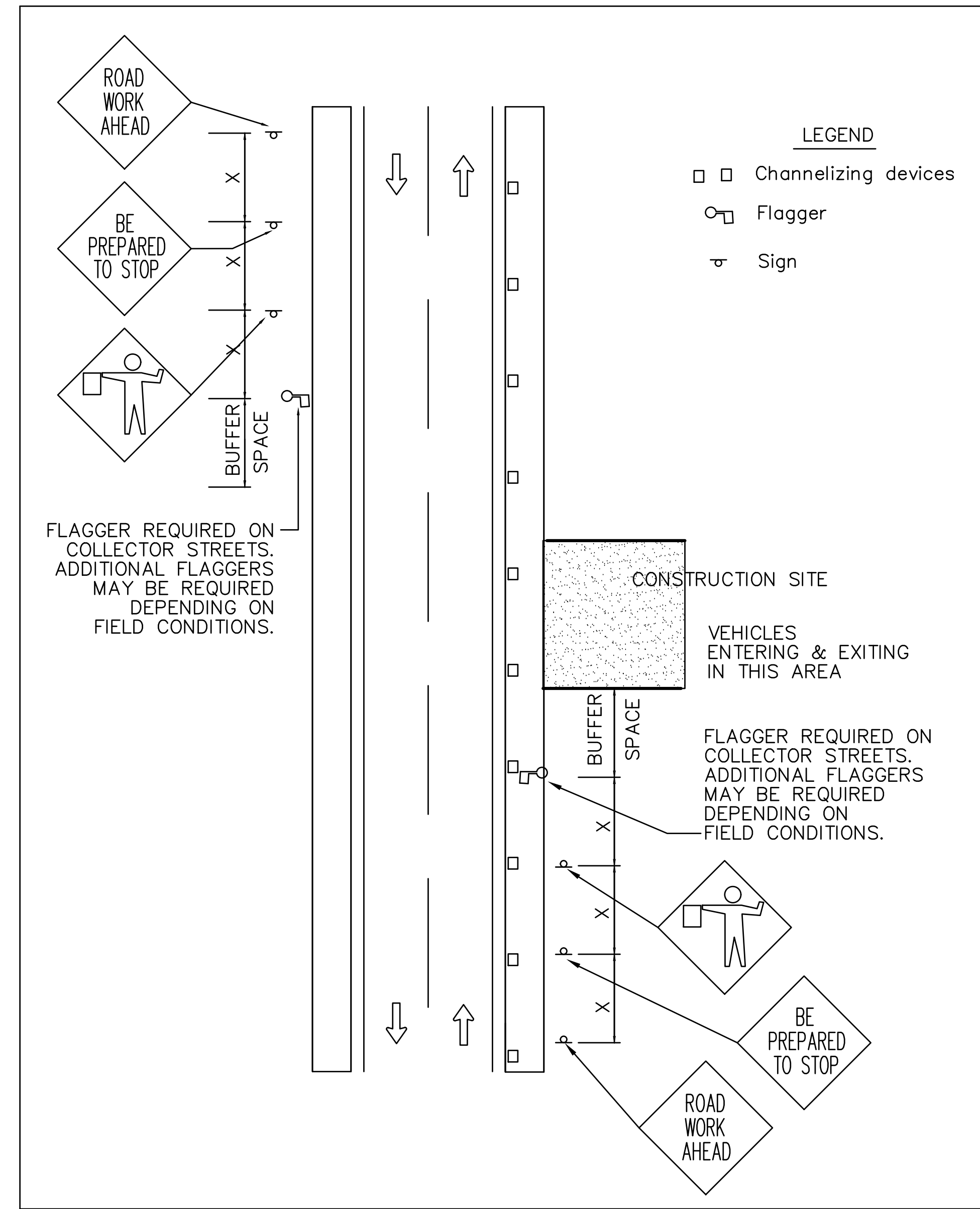
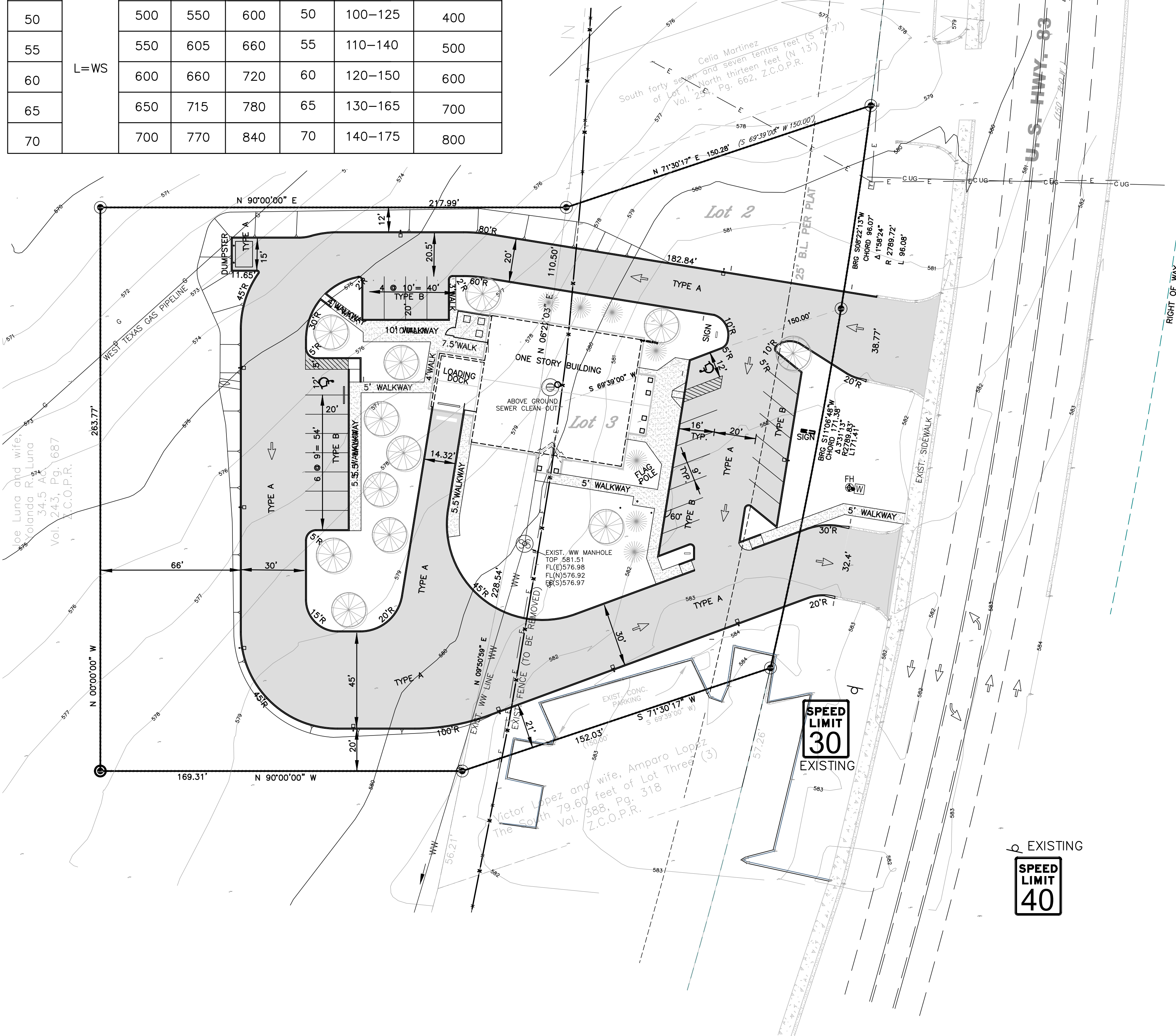
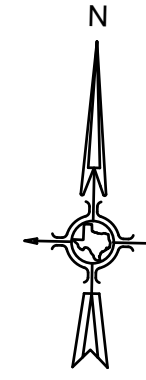
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206 TAYLOR STREET, HUTTO, TX. 78634
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TBPE FIRM NO. F-755, TBPLS FIRM NO. 10058500



Typical Transition Lengths and Suggested Maximum Spacing of Devices

Posted Speed MPH	Formula	Minimum Desirable Taper Lengths (L) (Feet)			Suggested Max. Device Spacing		Suggested Sign Spacing (Feet)
		3.0(10) Offset (feet)	3.3(11) Offset (feet)	3.6(12) Offset (feet)	On a taper (feet)	On a tangent (feet)	
30	$L = \frac{WS^2}{60}$	150	165	180	30	60-75	120
35		205	225	245	35	70-90	160
40		265	295	320	40	80-100	240
45	L=WS	450	495	540	45	90-110	320
50		500	550	600	50	100-125	400
55		550	605	660	55	110-140	500
60		600	660	720	60	120-150	600
65		650	715	780	65	130-165	700
70		700	770	840	70	140-175	800

- LEGEND**
- 8" W — WATER LINE WITH SIZE
 - WW — PROP. WASTEWATER LINE
 - S — PROP. SILT FENCE
 - ○ — PROP. CLEANOUT
 - ○ — PROP. SPOT ELEVATION
 - — IRON ROD FOUND
 - ⊕ — WATER METER
 - ⊕ — WATER VALVE
 - ⊕ — FIRE HYDRANT
 - ▨ — PROP. CONC. PAVEMENT WITH TYPE
 - 583 — EXISTING CONTOUR



FLAGGER SETUP FOR VEHICLES ENTERING & EXITING WORK SITE

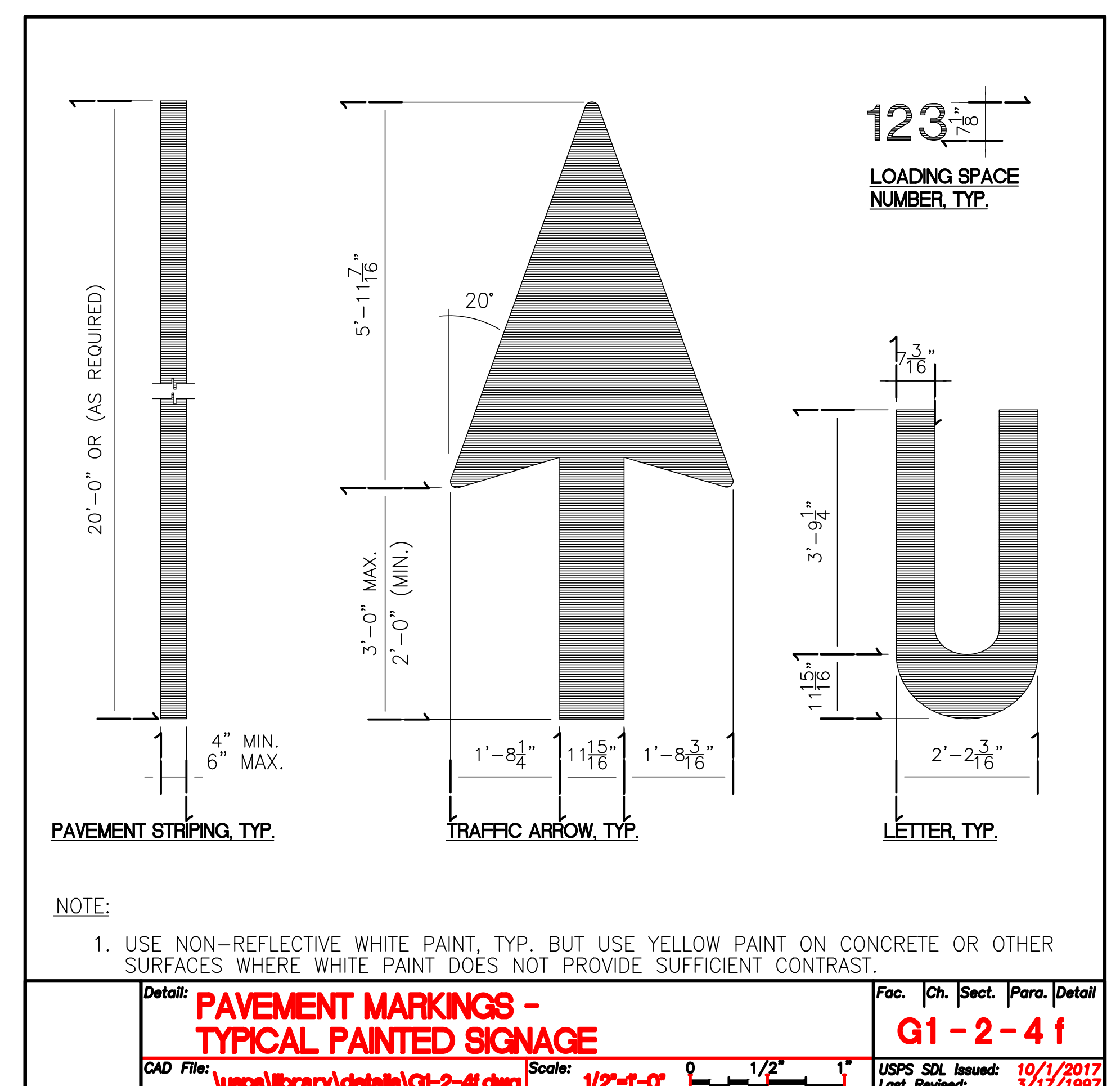
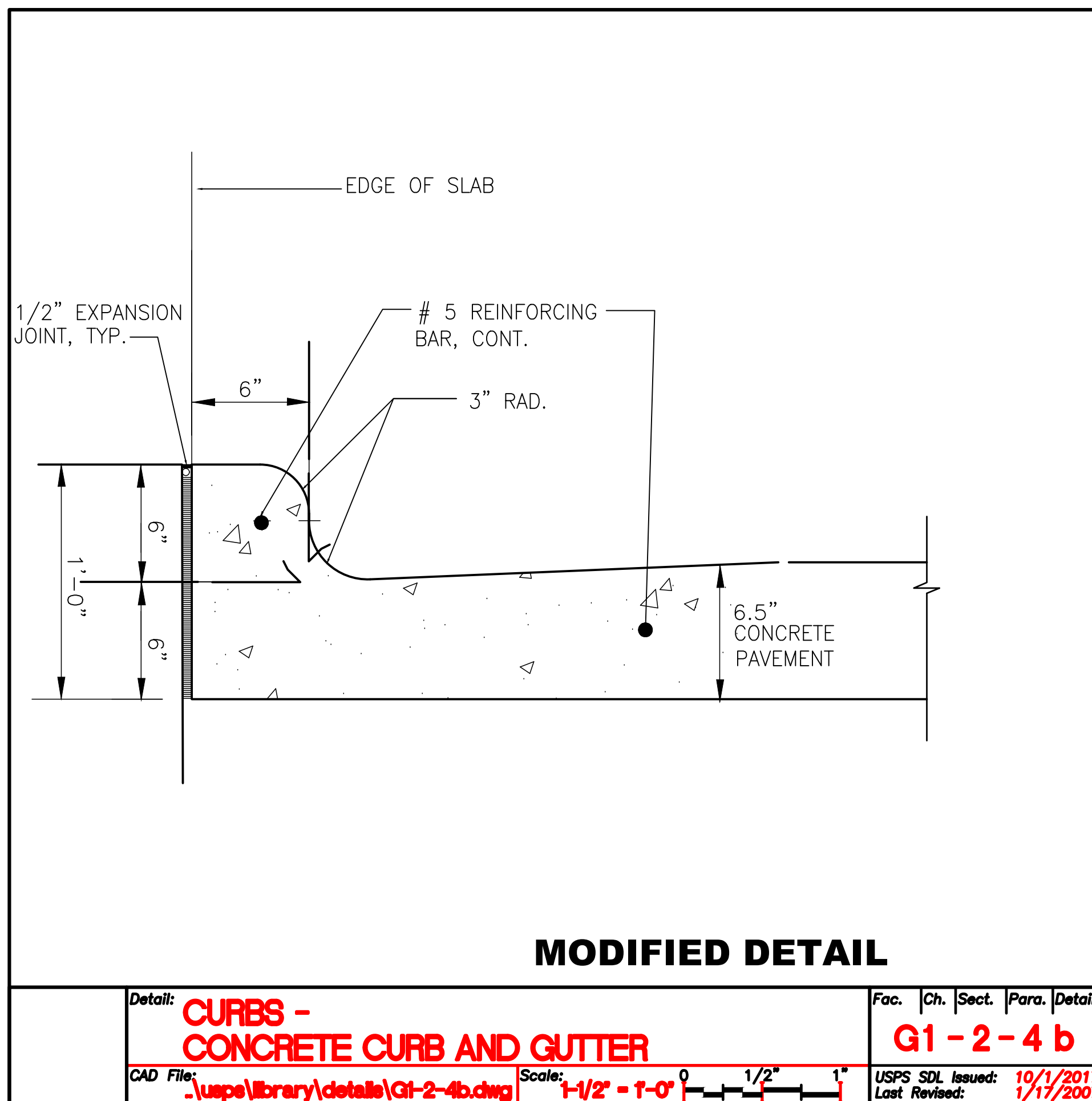
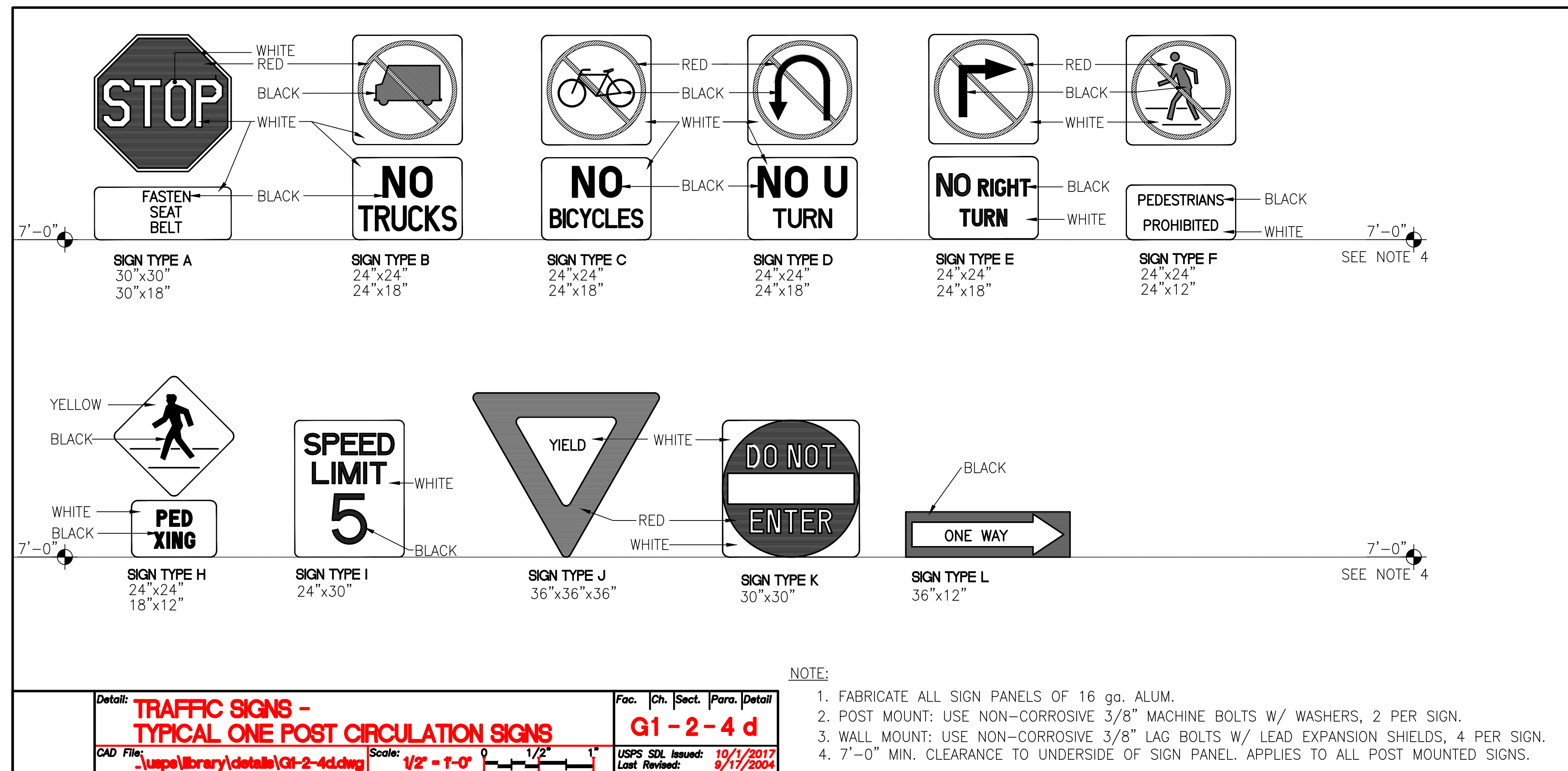
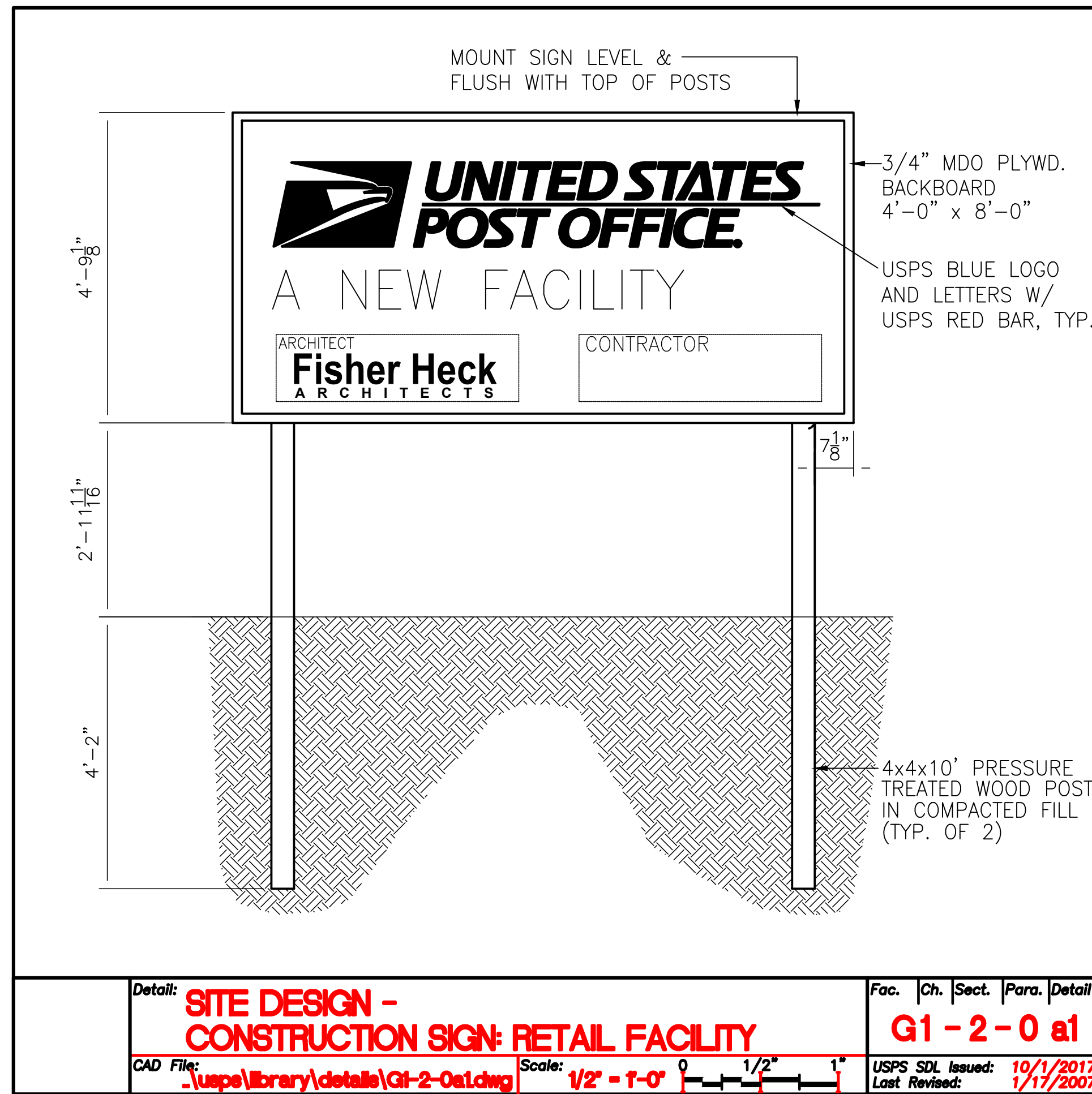
NOTES

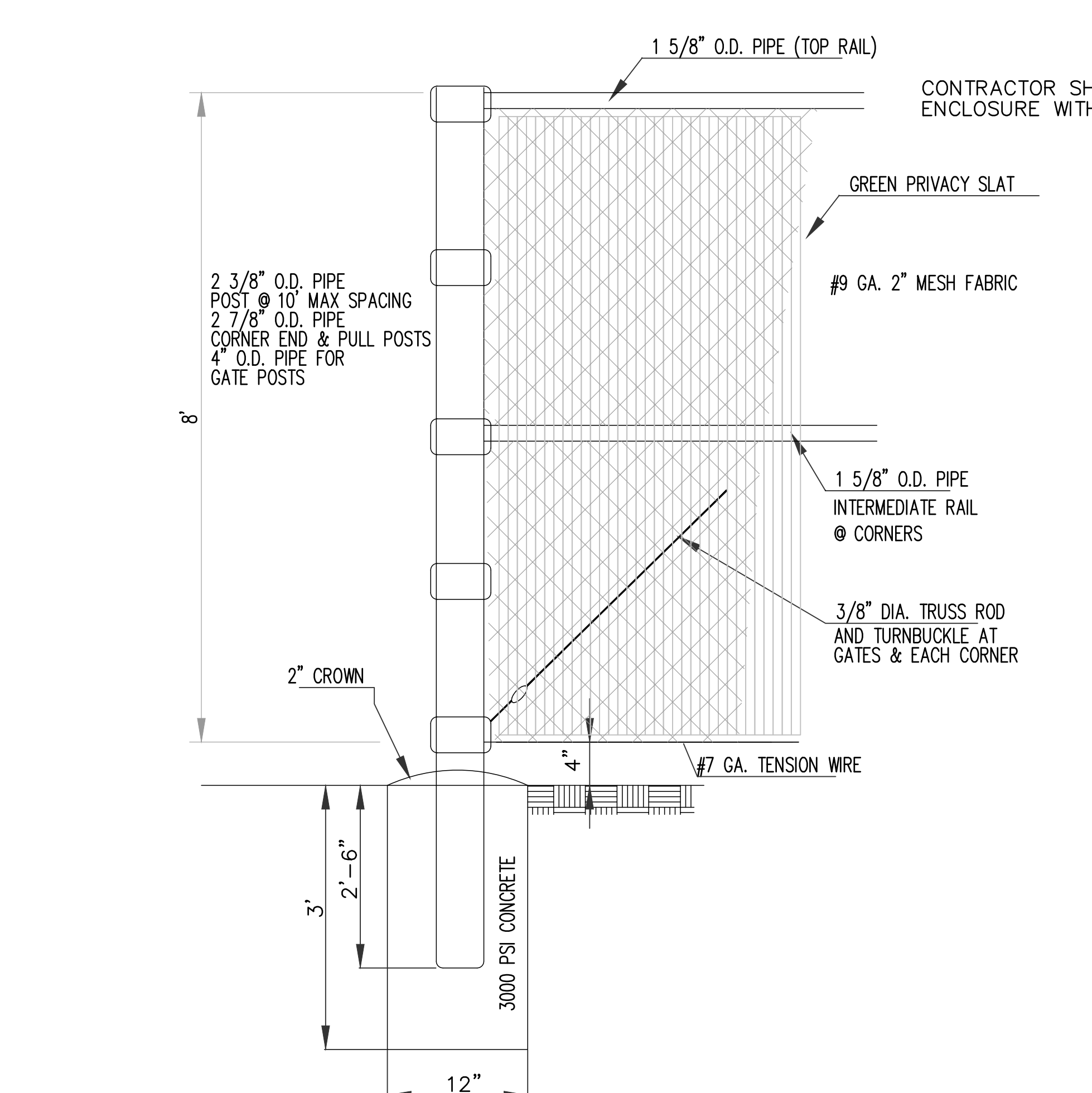
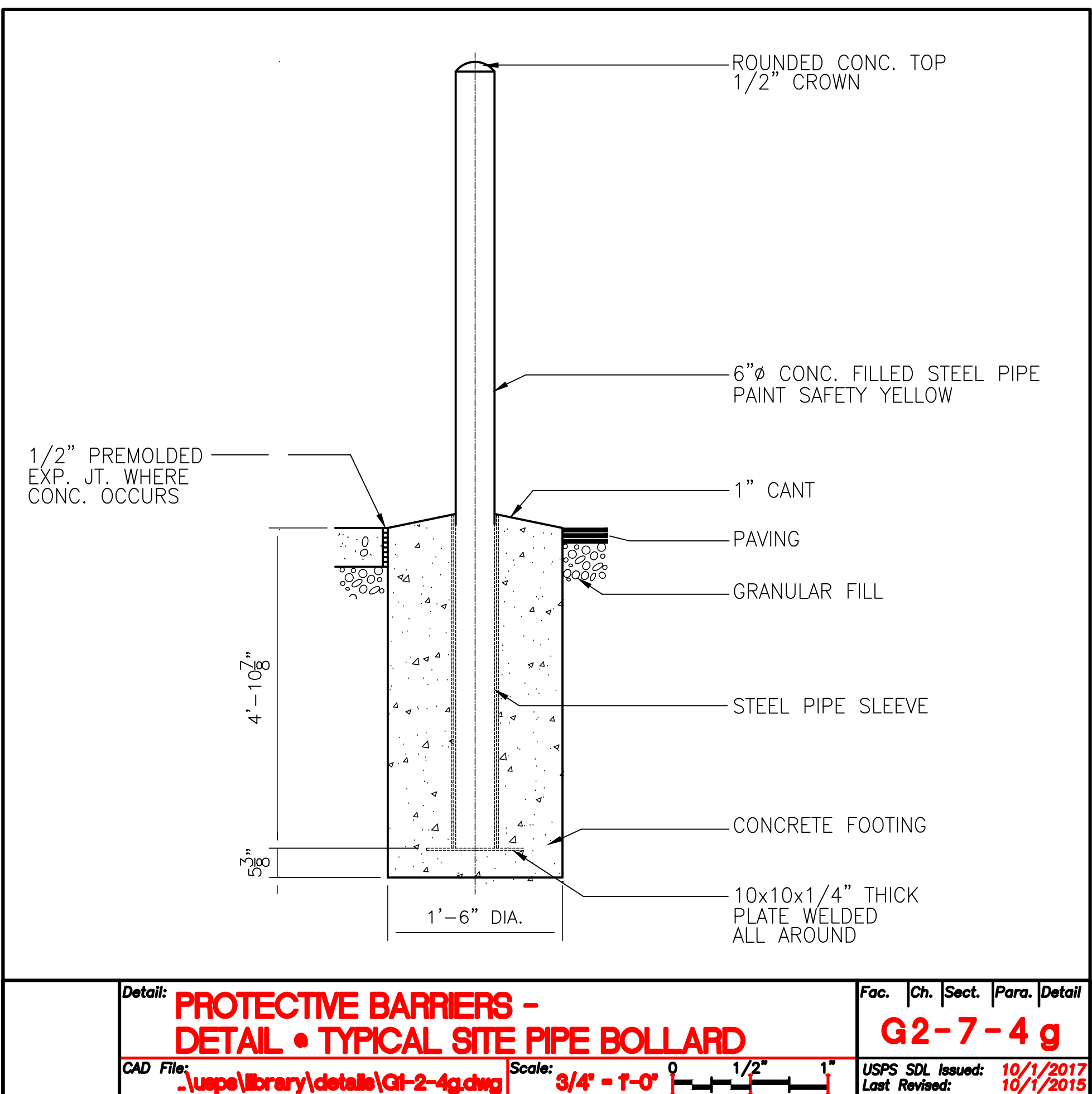
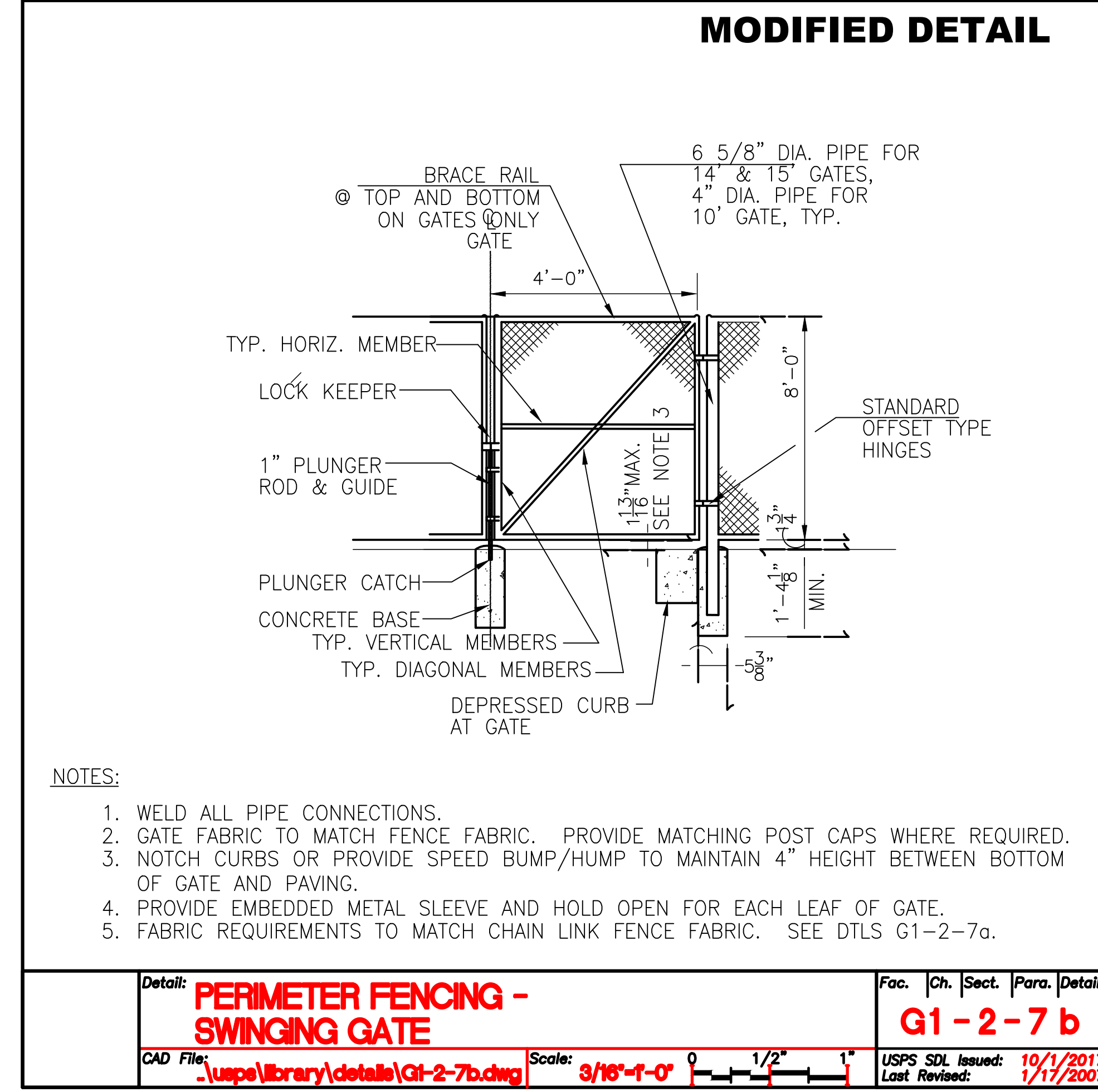
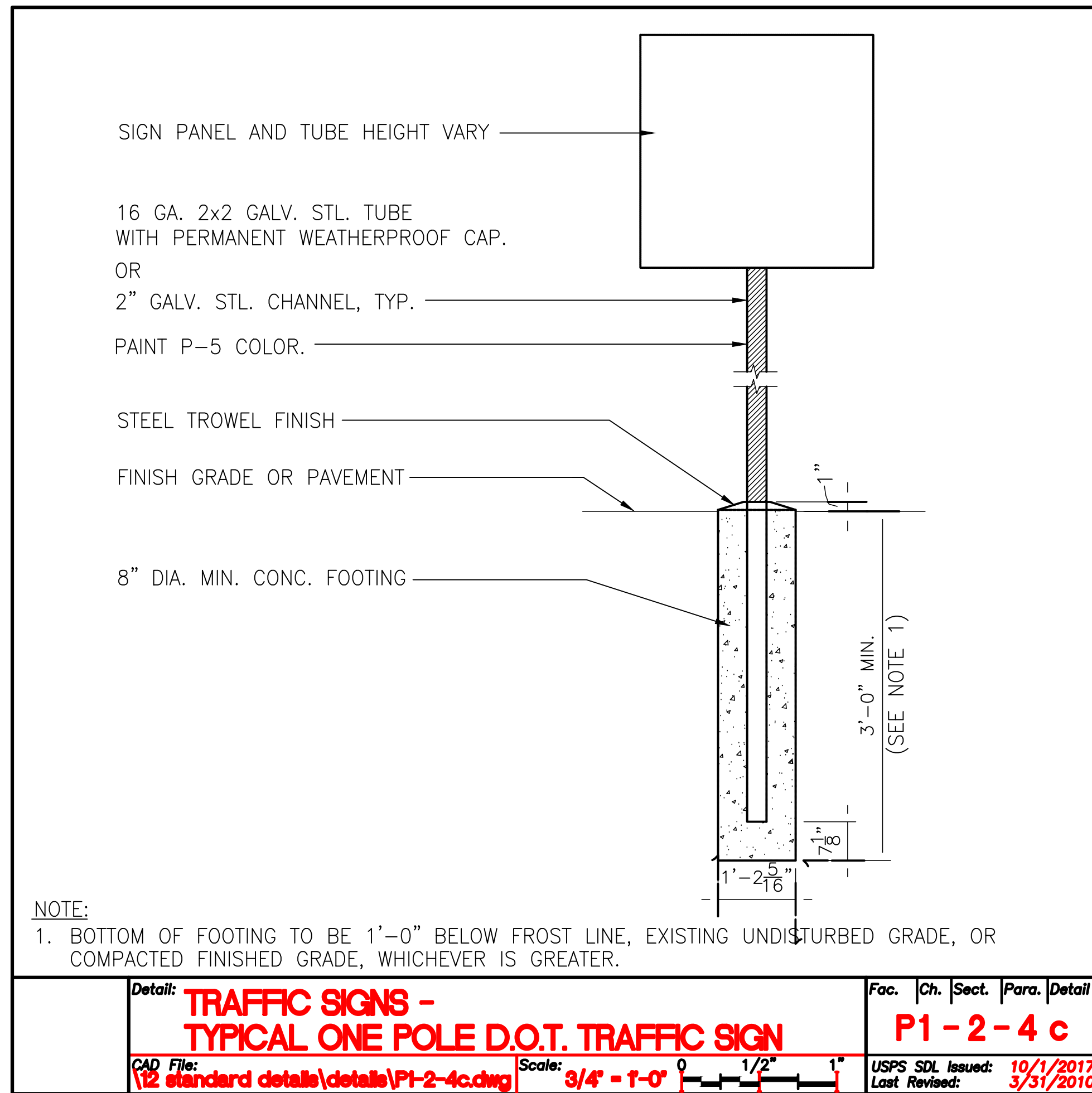
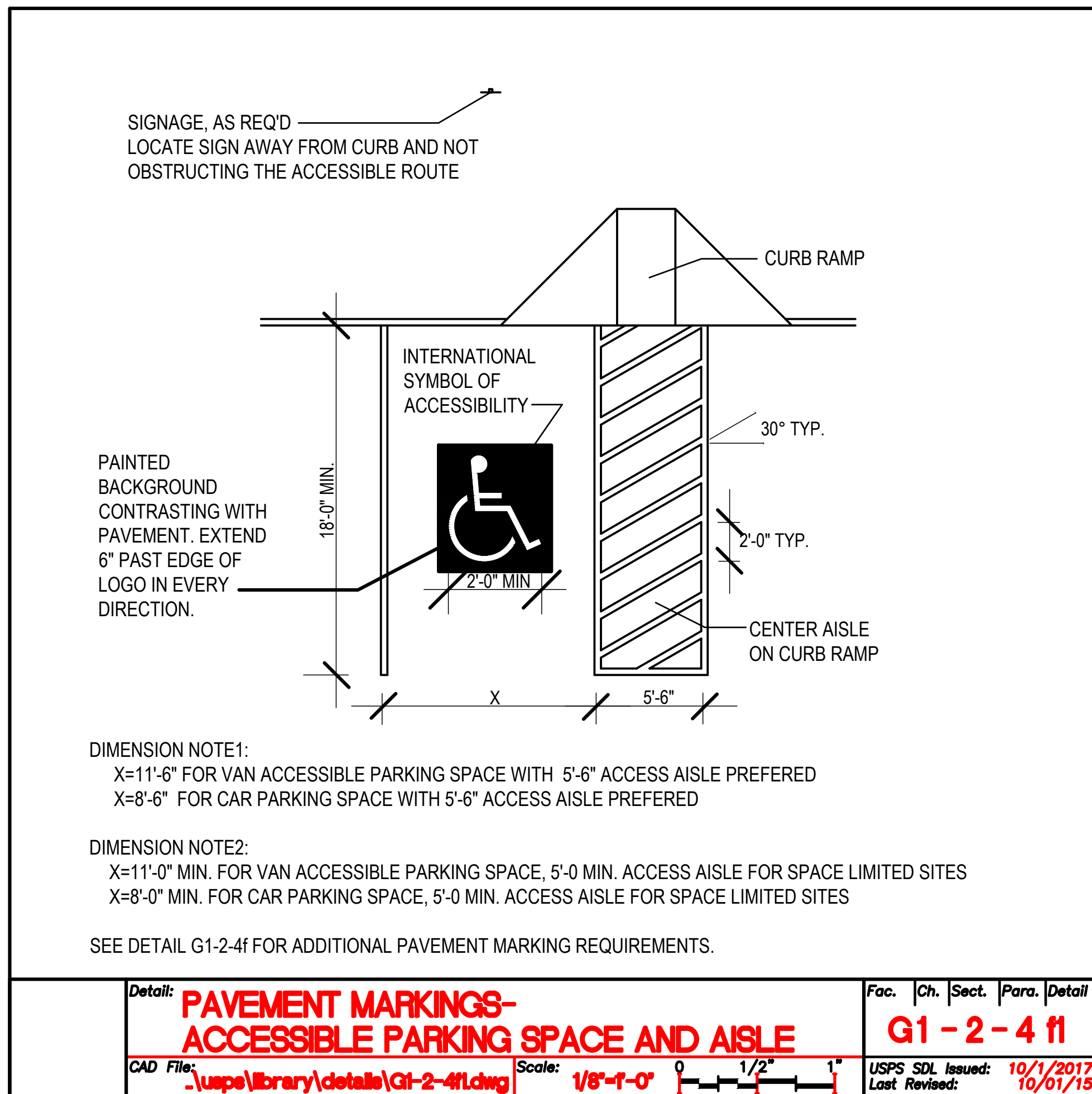
- FOR DAYTIME WORK, THE FLAGGER SHALL WEAR AN APPROVED BRIGHTLY COLORED VEST. FOR NIGHTTIME WORK, THE VEST SHALL BE RETROREFLECTIVE. THE RETRO-REFLECTIVE MATERIAL SHALL BE ORANGE, YELLOW, WHITE, SILVER, STRONG YELLOW-GREEN OR A FLOURESCENT VERSION OF THESE COLORS AND SHALL BE VISIBLE AT A MINIMUM DISTANCE OF 1,000 FEET.
- FOR LOW-VOLUME APPLICATIONS, A SINGLE FLAGGER MAY BE ADEQUATE. WHERE ONE FLAGGER CAN BE USED, SUCH AS FOR SHORT WORK AREAS ON STRAIGHT ROADWAYS, THE FLAGGER MUST BE VISIBLE TO APPROACHING TRAFFIC FROM BOTH DIRECTIONS.
- FLAGGERS SHALL USE ONLY STOP/SLOW PADDLE TO DIRECT TRAFFIC UNLESS WORKING IN A SIGNALIZED INTERSECTION WHERE DRIVERS MAY BE CONFUSED BY THE SIGN PADDLE. HAND SIGNAL MAY BE USED IN THESE SITUATIONS.
- FLAGGERS SHALL ENSURE THAT ALL REQUIRED SIGNING IS IN PLACE PRIOR TO BEGINNING FLAGGING OPERATIONS.
- FLAGGERS SHALL NOT PERFORM WORK THAT IS NOT RELATED TO FLAGGING WHILE ON DUTY.
- FLAGGERS MAY CARRY AIR HORNS OR WHISTLES TO WARN WORKERS OF AN EMERGENCY CONDITION.
- FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS WHEN OUT OF CLEAR VIEW OF EACH OTHER.
- FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

POST SPEED
 NORTH BOUND 40 MPH
 SOUTH BOUND 30 MPH



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 PH. (512) 642-3292
 TBPE FIRM NO. F-755, TBPLS FIRM NO. 10058500

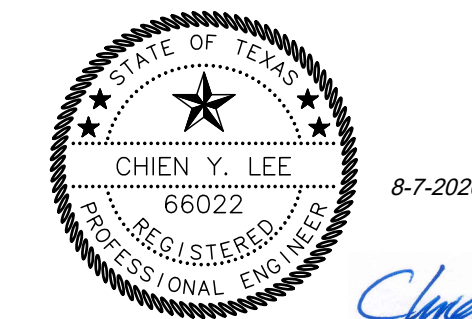
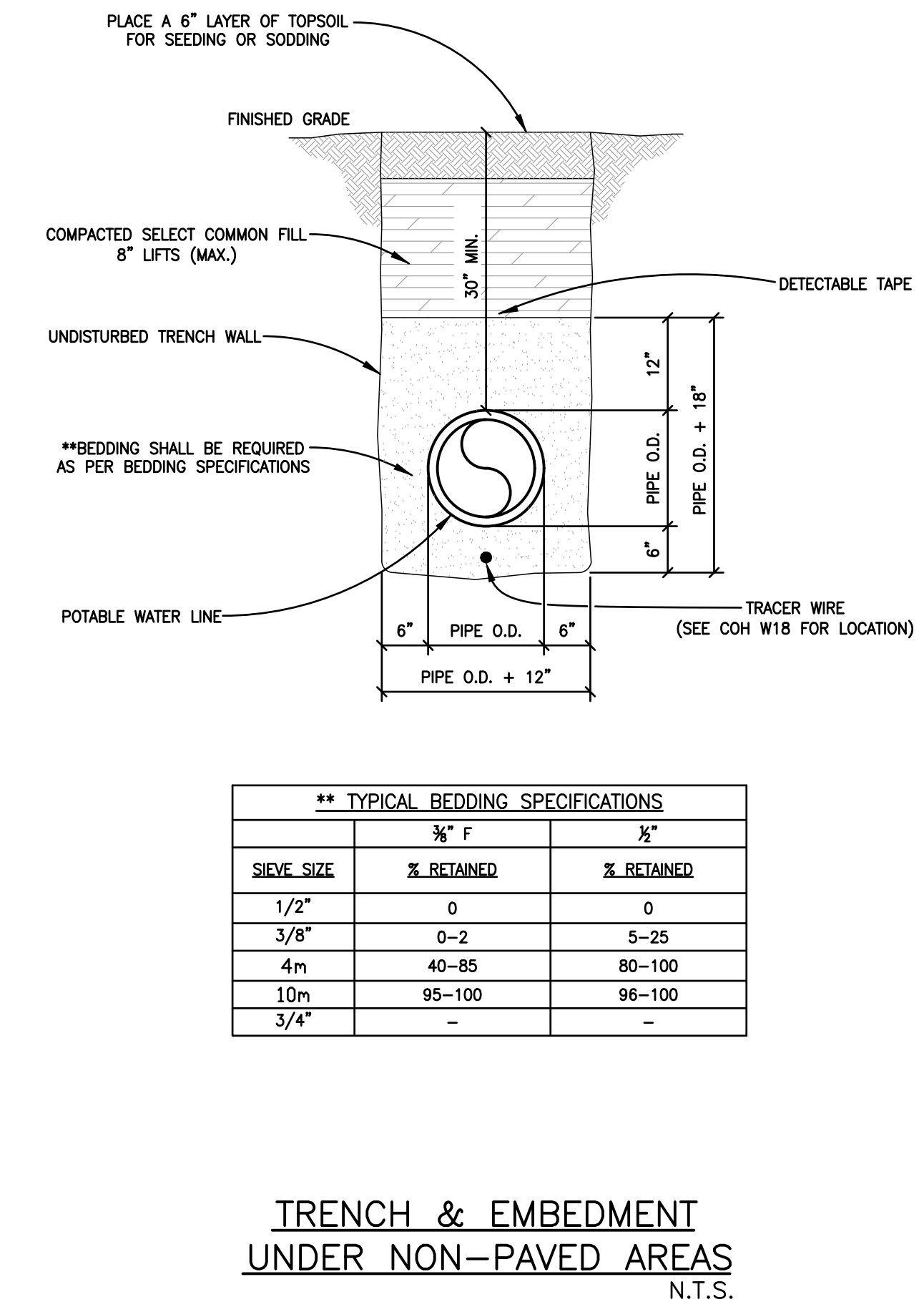
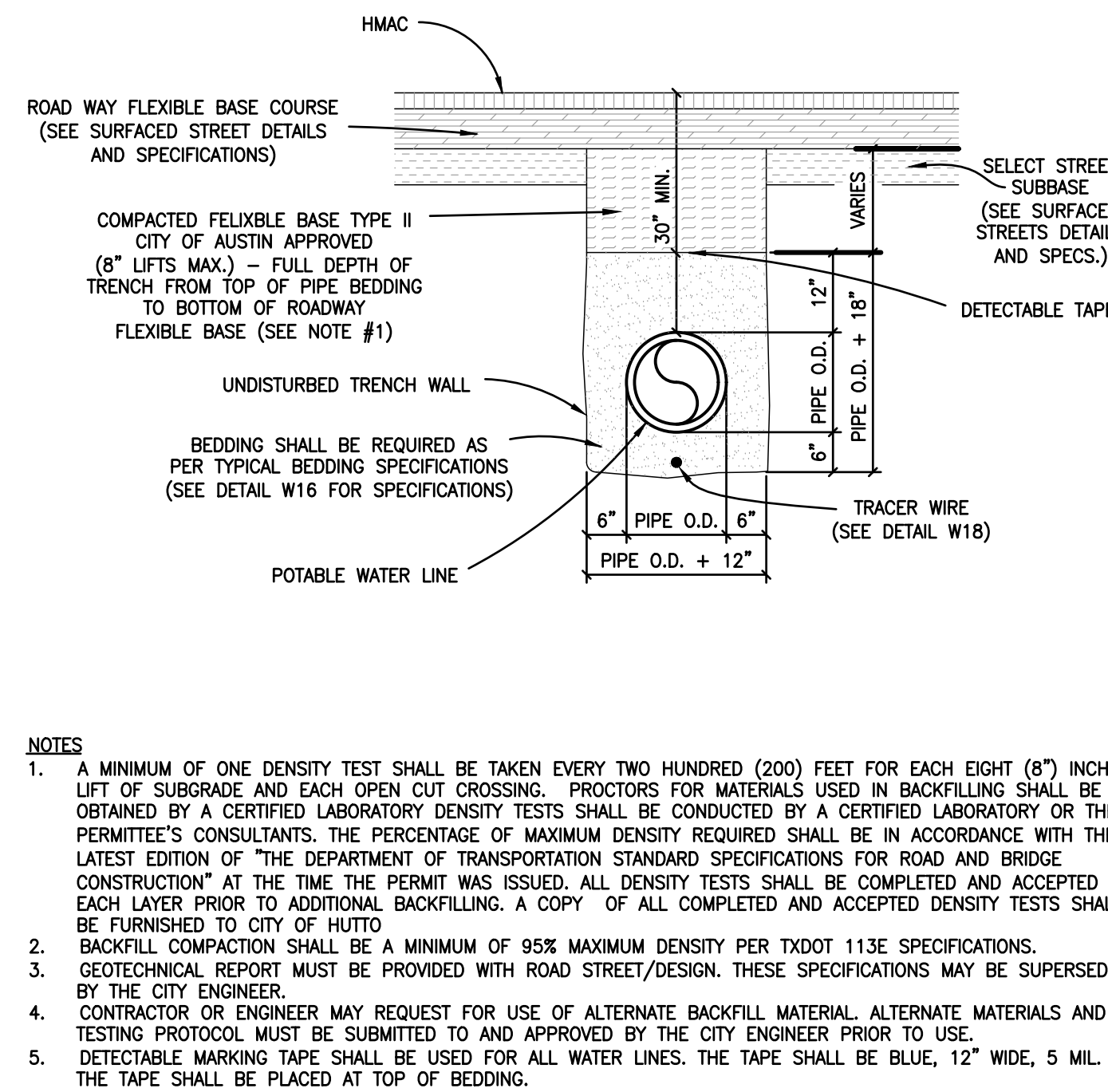
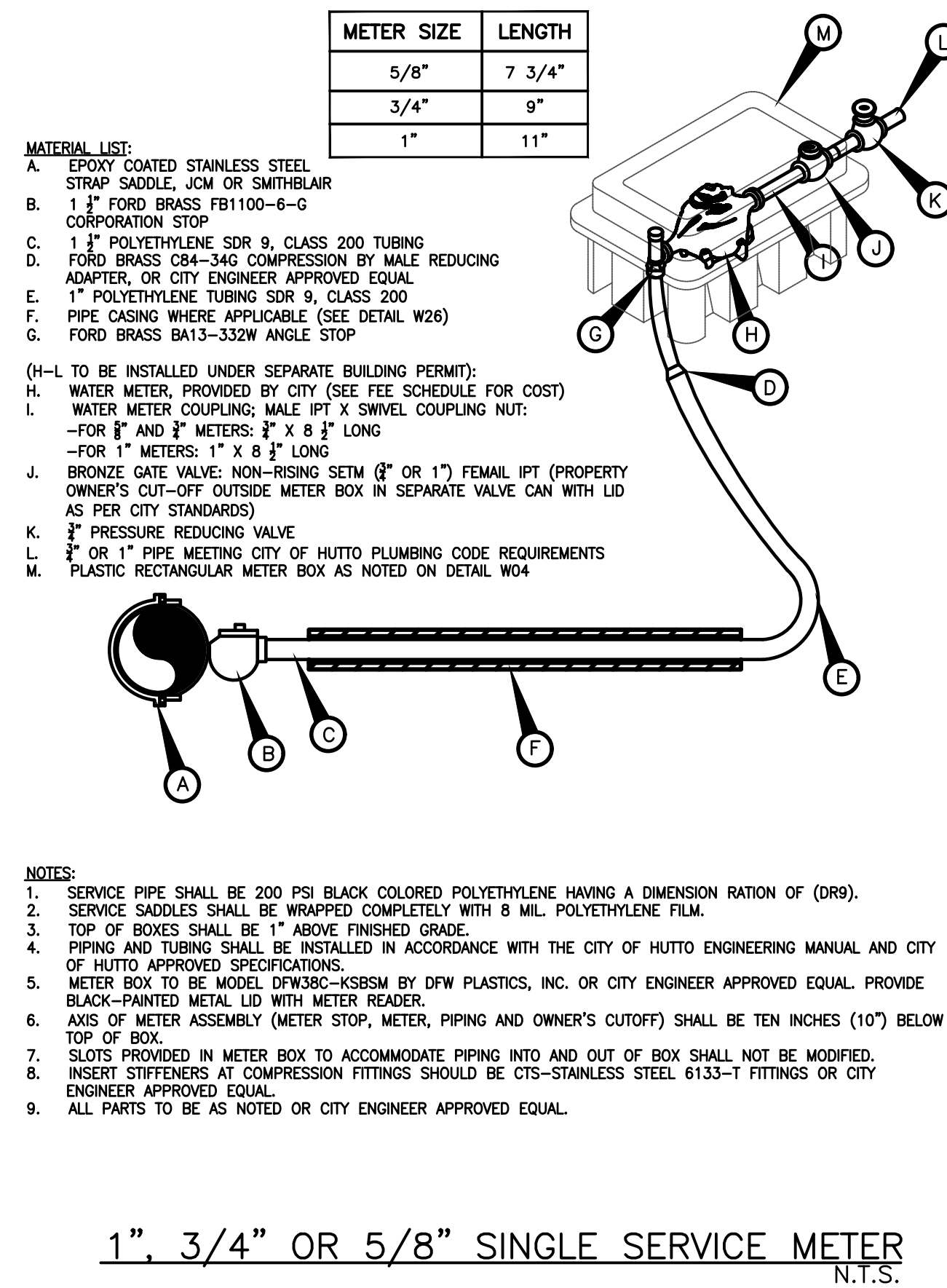
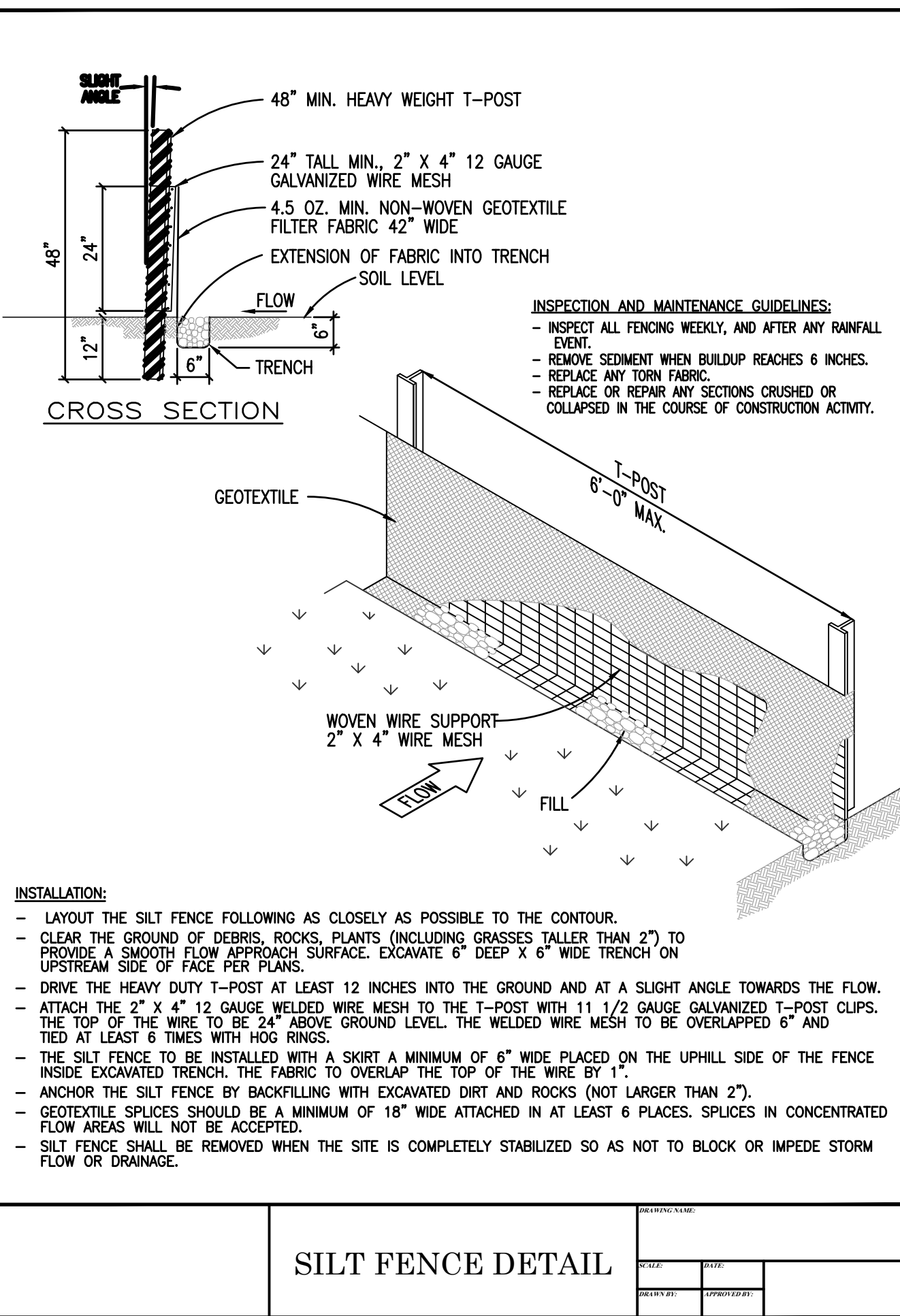
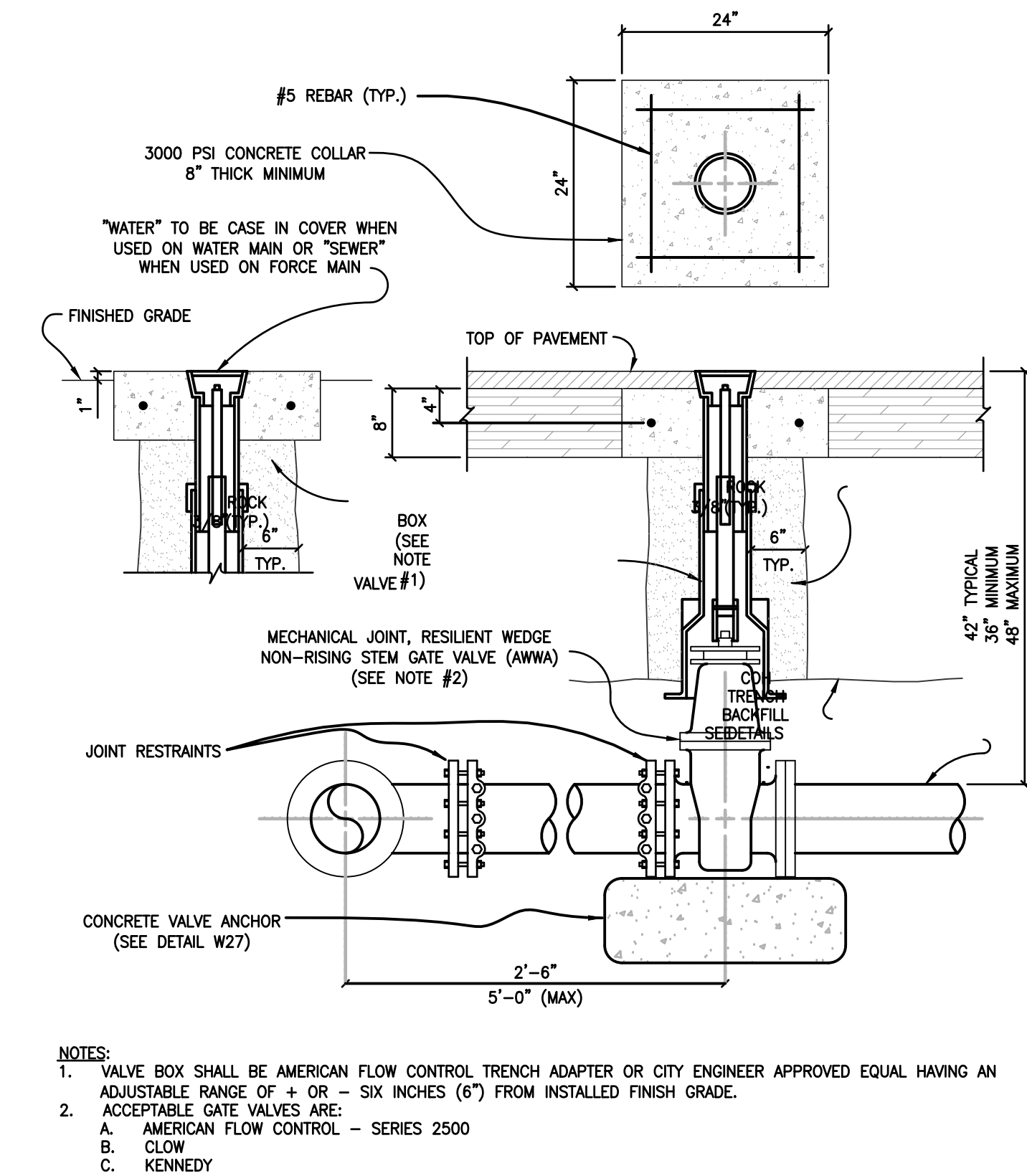
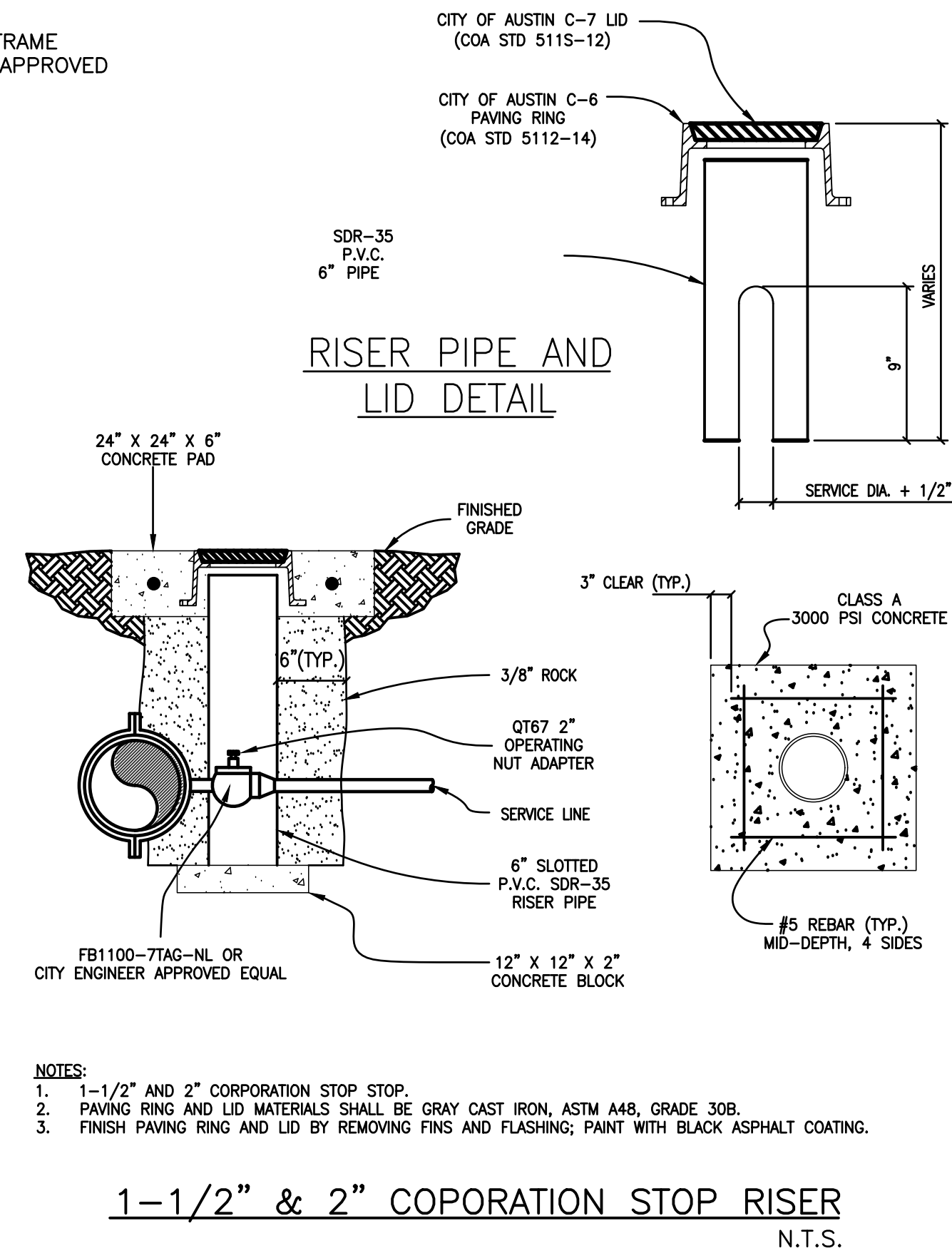
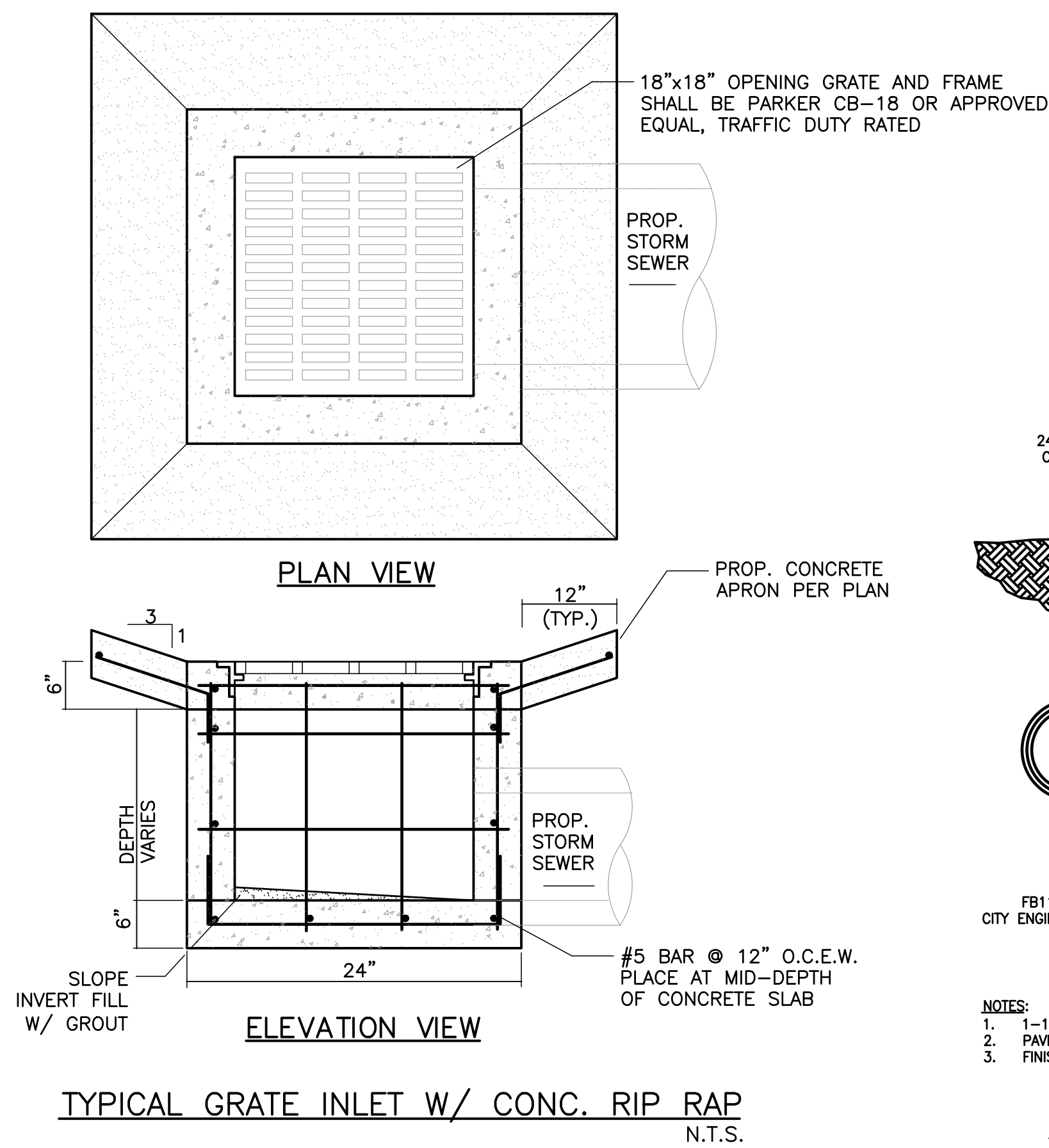
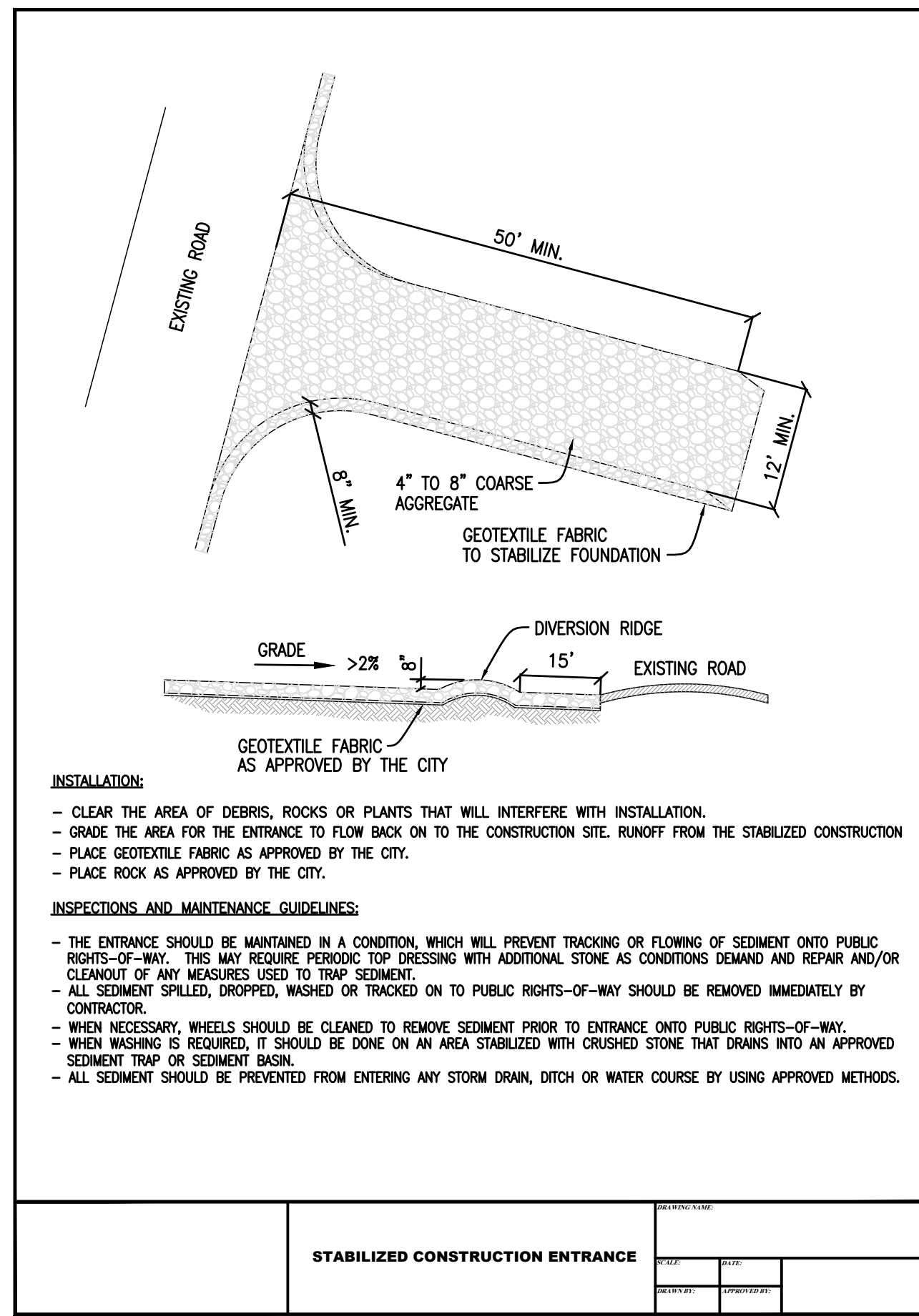




Detail: PROTECTIVE BARRIERS - DETAIL • TYPICAL SITE PIPE BOLLARD
G2-7-4 g
 CAD File: [\\uspe\library\details\G2-7-4g.dwg](#) Scale: 3/4" = 1'-0"
 USPS SDL Issued: 10/1/2017 Last Revised: 10/1/2015

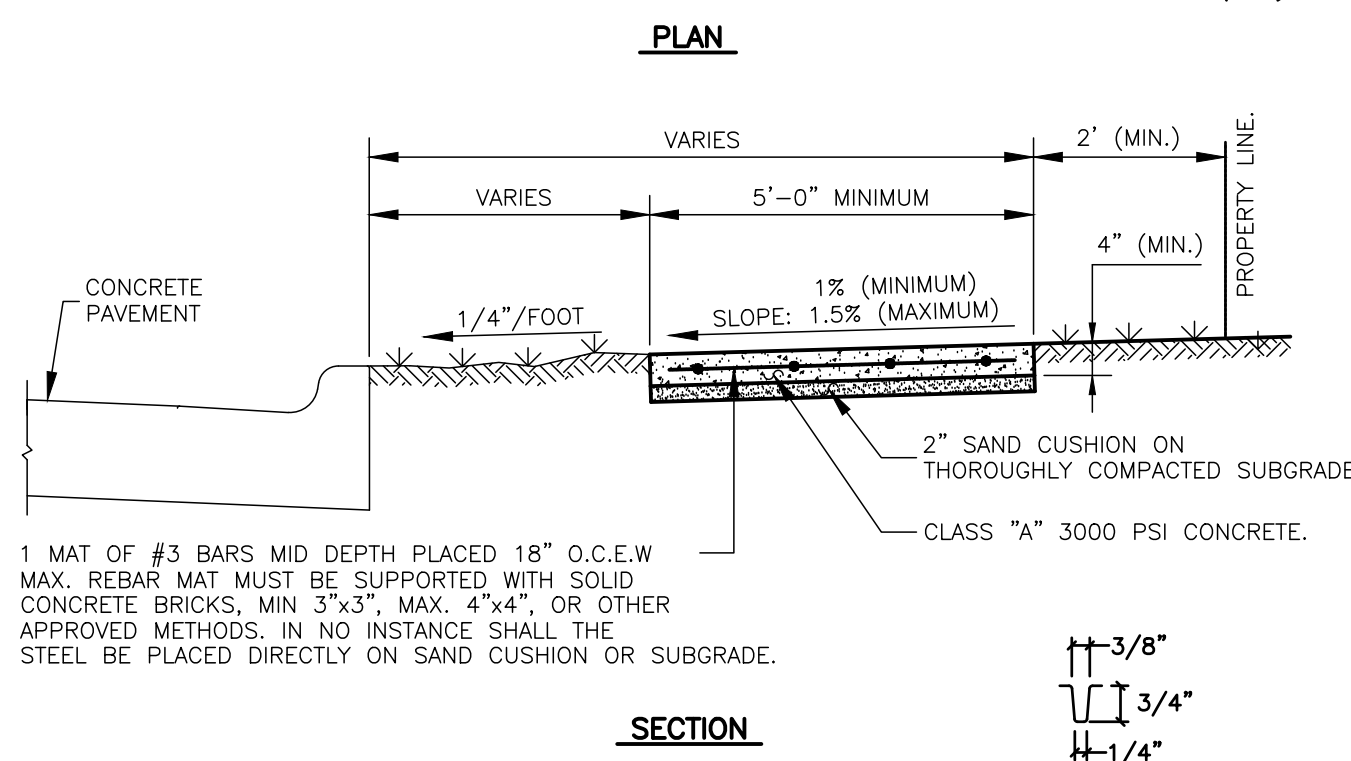
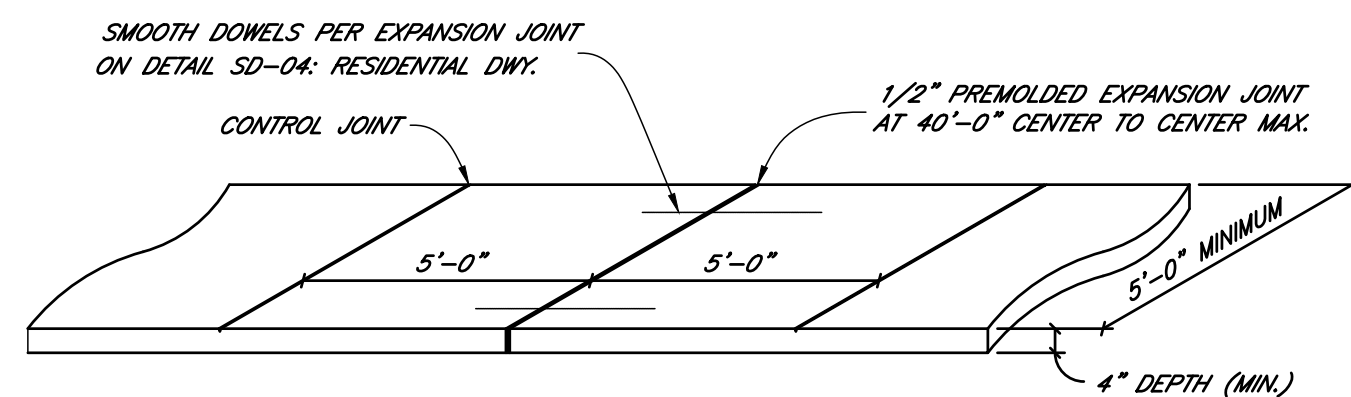
CHAIN LINK FENCE DETAIL
 ALL PARTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION

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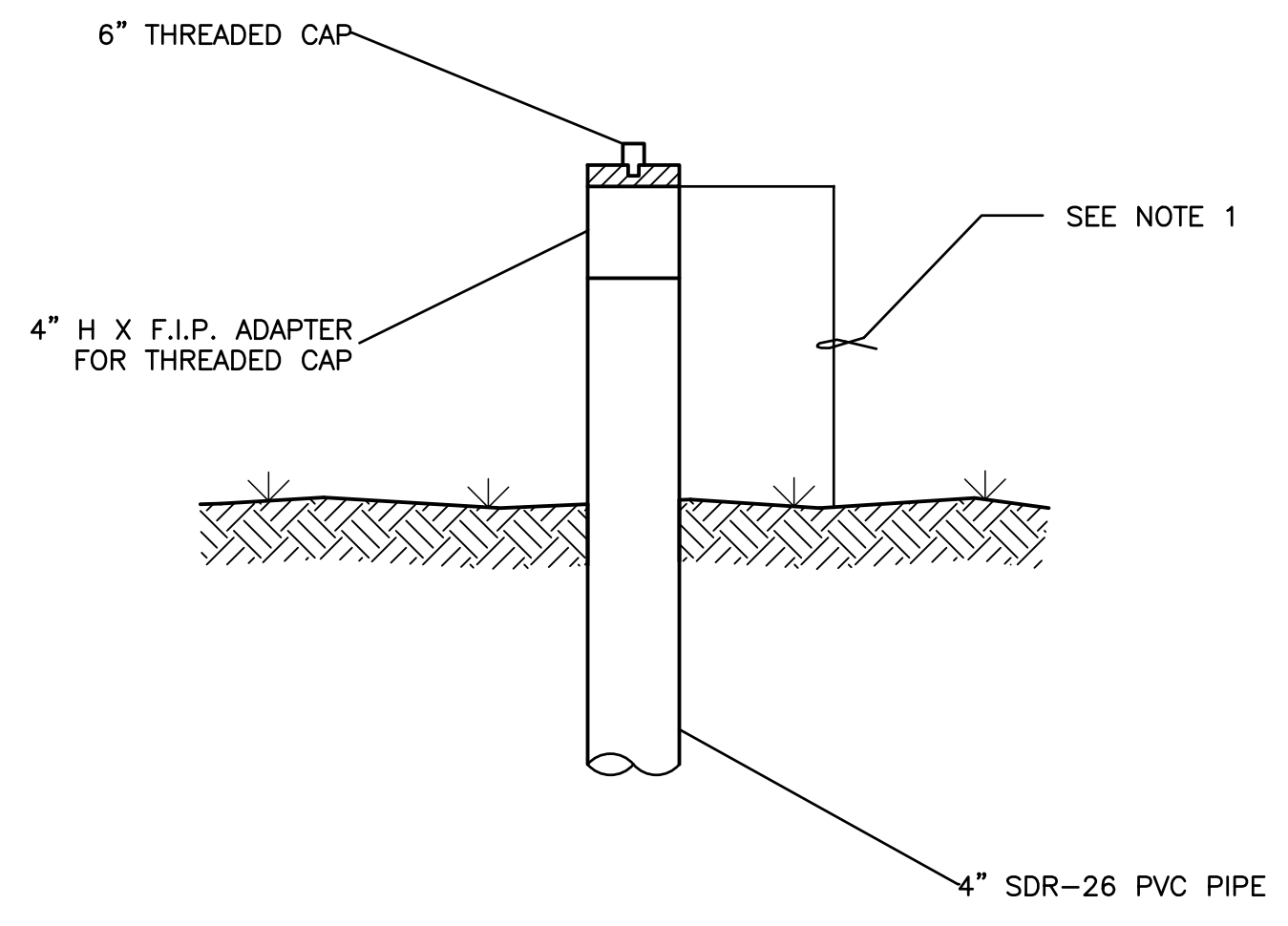
Chien Lee





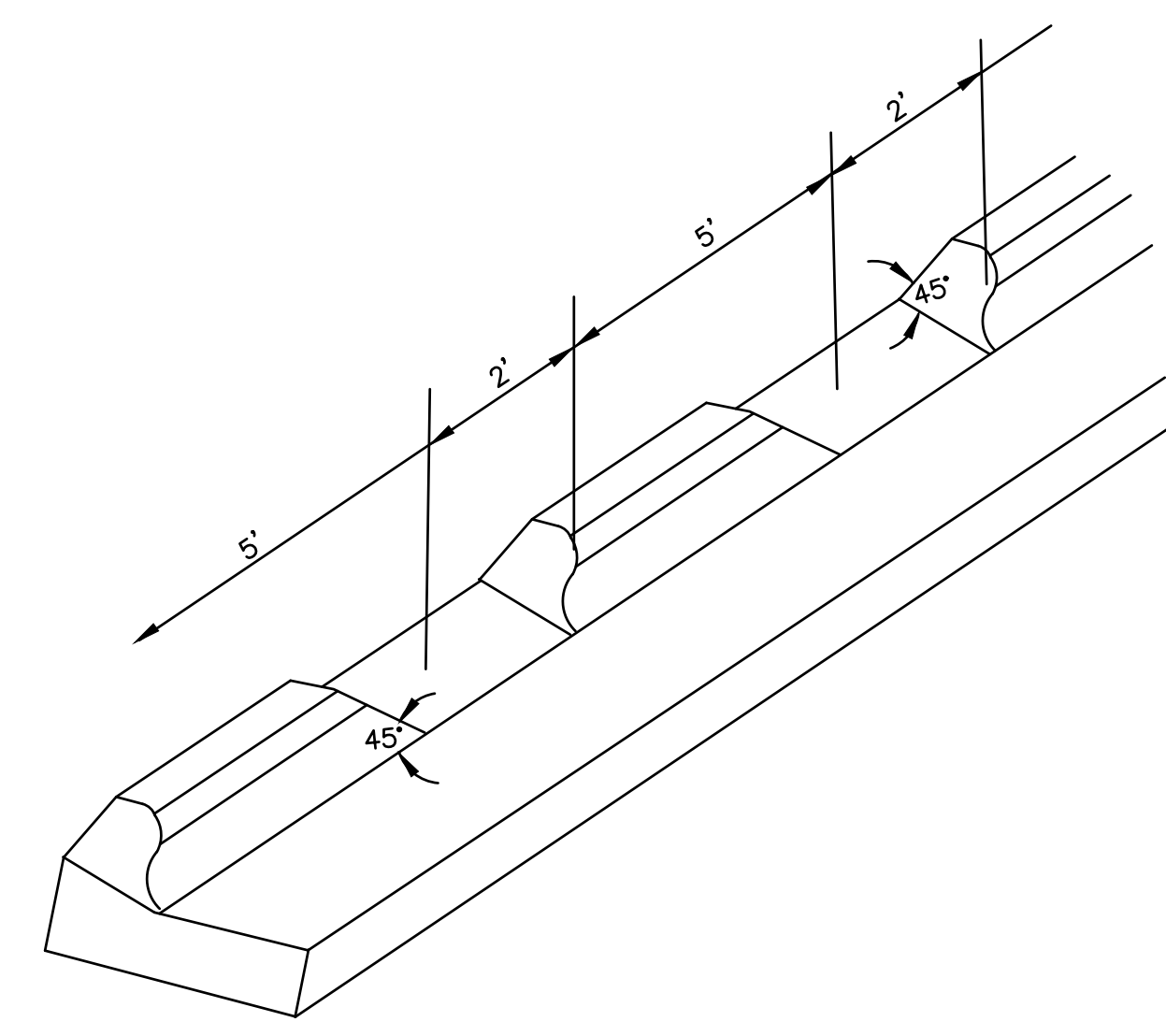
- NOTES:
- FOR ROLLER STAMPED SIDEWALK: MATCH TO SPECIFICATIONS.
 - STANDARD LOCATION OF SIDEWALK IS OFF BACK OF CURB. SPECIAL DESIGNS MAY BE APPROVED BY THE CITY ENGINEER, PRIOR TO FINAL DESIGN.
 - SIDEWALK SHALL CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS.
 - IF REQUIRED ALL SIDEWALKS SHALL BE SUBMITTED AND APPROVED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION BY THE ENGINEER OF RECORD.
 - ANY VARIANCE IN TEXTURE, GRADE OR ALIGNMENT MUST BE APPROVED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION.

SIDEWALK DETAIL
N.T.S.

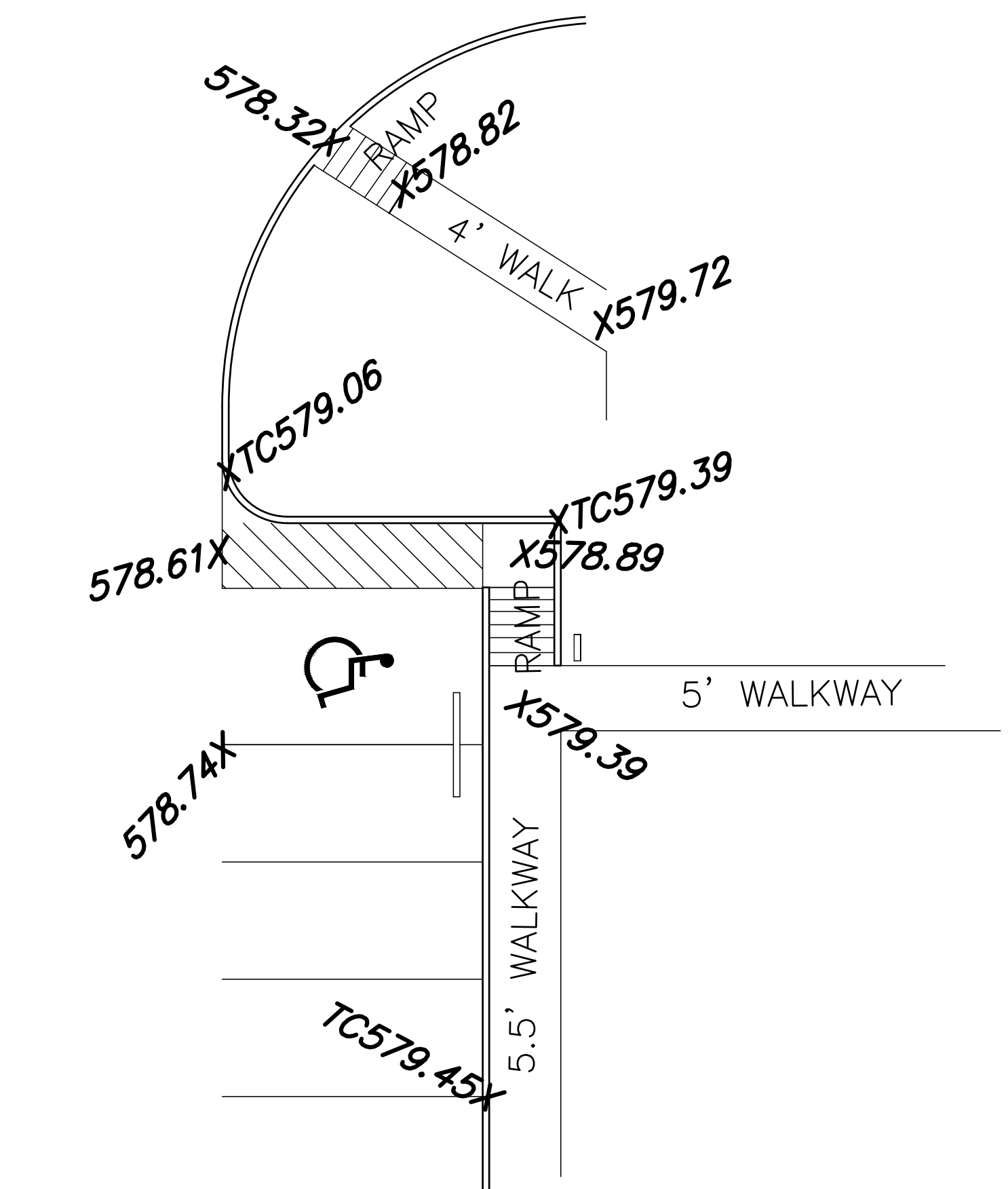


- NOTES:
- MINIMUM 24", MAXIMUM 36" ABOVE FINISHED GRADE. (ADJUSTMENT TO FINISHED GRADE SHALL OCCUR PRIOR TO ACCEPTANCE OR ISSUANCE OF CERTIFICATE OF OCCUPANCY)
 - FOR CLEAN-OUTS LOCATED IN CONCRETE SURFACES, SEE CITY OF AUSTIN DETAIL 520S-4.

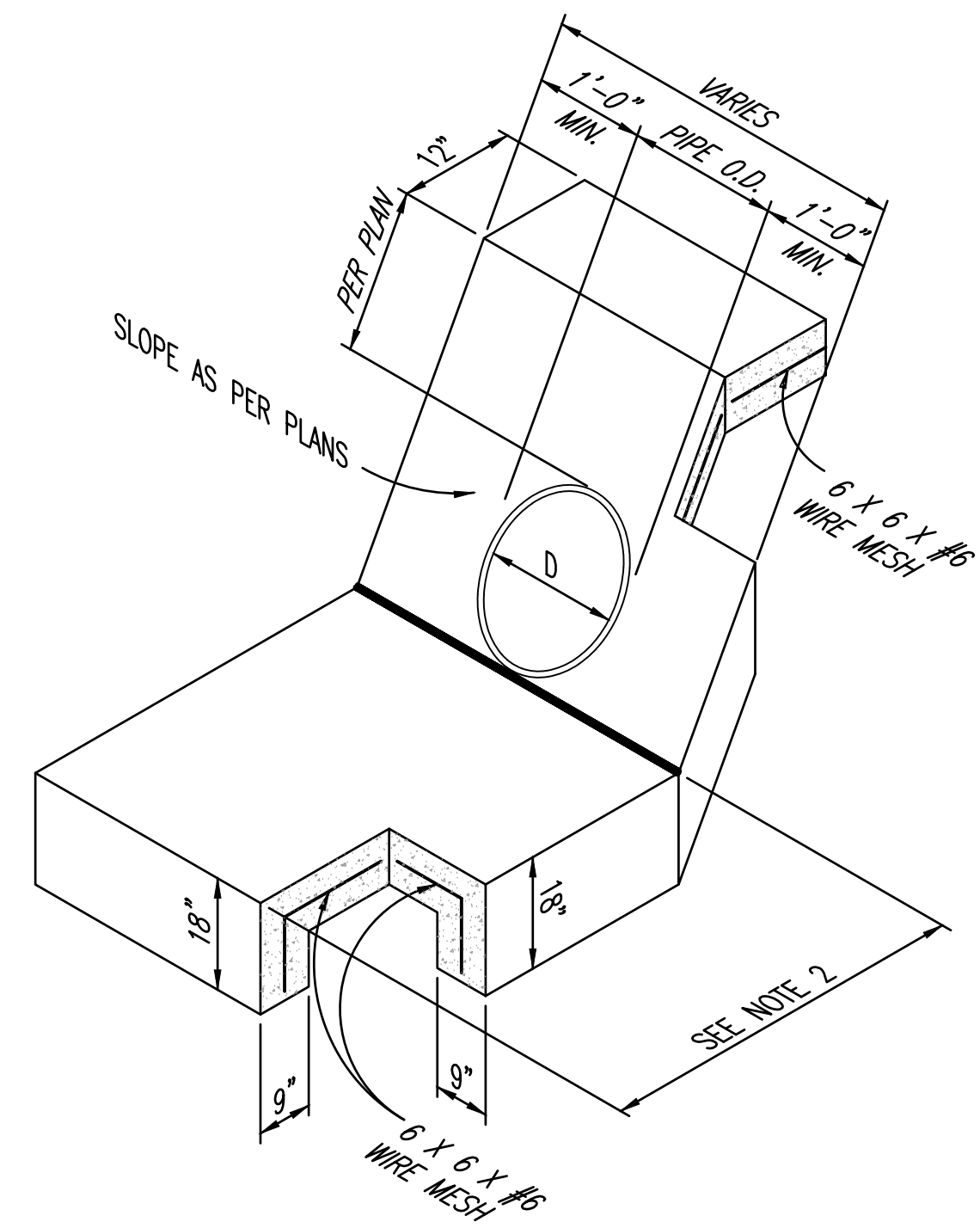
SEWER CLEAN-OUT DETAIL
N.T.S.



CURB OPENING DETAIL
N.T.S.

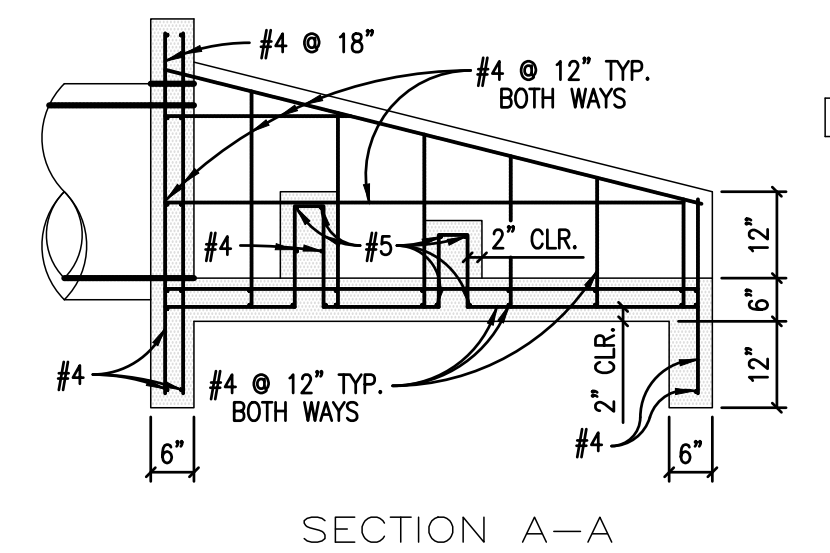
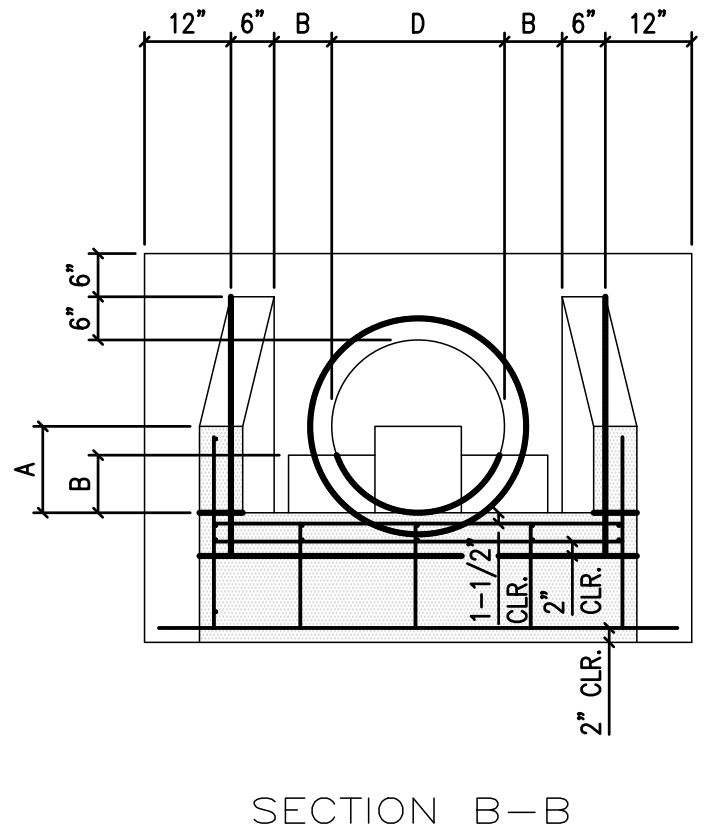
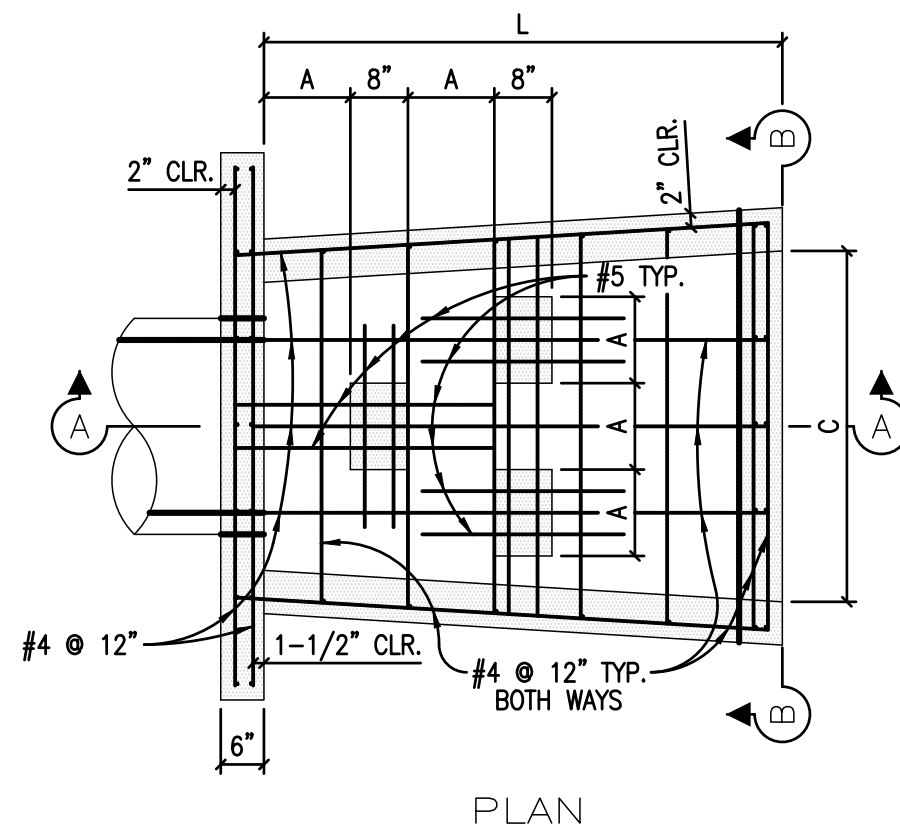


WEST ACCESS RAMP AREA GRADING DETAIL
N.T.S.



- NOTE(S):
- CONCRETE SHALL BE CLASS A, 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 - FIVE FOOT MINIMUM FOR THE ONE WITH ENERGY DISSIPATOR. TWO TIMES PIPE DIAMETER FOR OTHERS.

CONCRETE SAFETY END TREATMENT/
CONCRETE AROUND PIPE DETAIL
N.T.S.

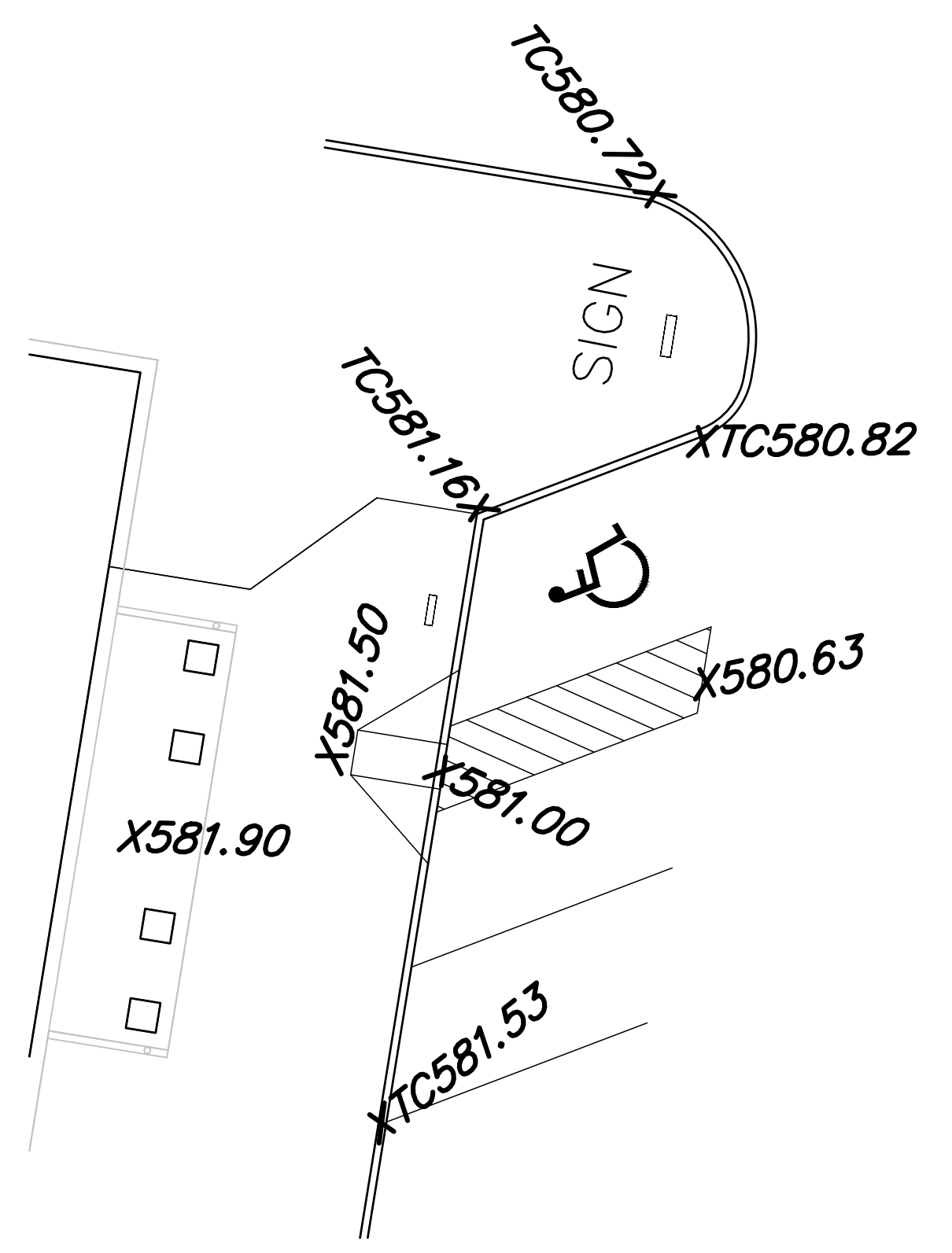


DIMENSIONS IN INCHES

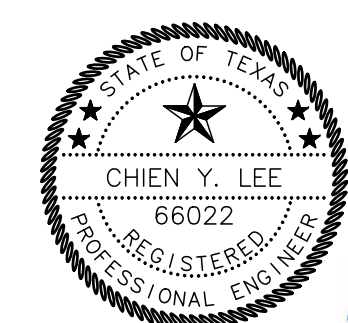
PIPE I.D.	18	21	24	27	30	33	36	42	48	54	60
A	9	10	12	14	15	16	18	21	24	27	30
B	6	7	8	9	10	11	12	14	16	18	20
C	32	42	48	54	60	66	72	84	96	108	120
L	54	63	72	81	90	99	108	126	144	162	180

- NOTE(S):
- CONCRETE SHALL BE CLASS A, 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 - THIS DETAIL IS FOR THE ENERGY DISSIPATOR AND CONCRETE APRON DETAIL. REFER TO OTHER DETAIL FOR THE CONCRETE HEADWALL OR SAFETY END TREATMENT.

CONCRETE ENERGY DISSIPATOR DETAIL
N.T.S.



EAST ACCESS RAMP AREA GRADING DETAIL
N.T.S.



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Fisher Heck
ARCHITECTS
915 SOUTH LAMAR STREET
SAN ANTONIO, TEXAS
FISHERHECK.COM
210-296-1900

PROJECT:
CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE:
DETAILS

PROJECT NO: 1921 A1

SHEET NO:
C-110

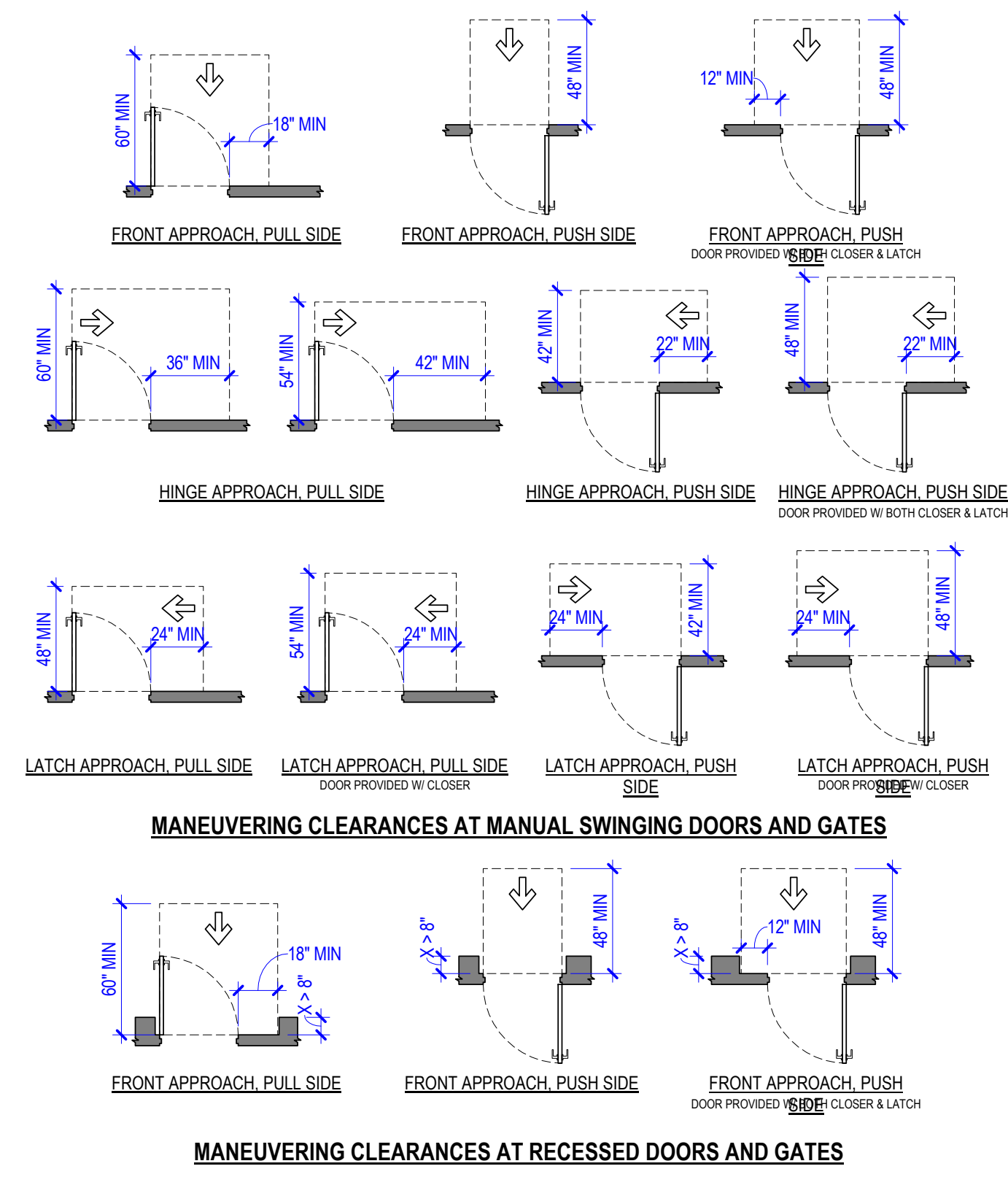
ABBREVIATIONS

&	AND	MAS	MASONRY
@	AT	MAX	MAXIMUM
#	POUND NUMBER	MDP	MAIN DISTRIBUTION PANEL
¢	CENTER LINE	MECH	MECHANICAL
		MED	MEDIUM
ACT	ACOUSTICAL CEILING	MFR	MANUFACTURER
ADDN	ADDITION	MH	MANHOLE
ADDNL	ADDITIONAL	MN	MINIMUM
ADJ	ADJUSTABLE	MISC	MISCELLANEOUS
AF	ABOVE FINISHED FLOORS	MO	MASONRY OPENING
AHU	AIR HANDLING UNIT	MTD	MOUNTED
ALT	ALTERNATE	MTL	METAL
ALUM	ALUMINUM		
APPROX	APPROXIMATE	N	NORTH
ARCH	ARCHITECT, ARCHITECTURE	NIC	NOT IN CONTRACT
		NO	NO
B.O.	BOTTOM OF	NOM	NOMINAL
BCS	BOY CHANGING STATION	NTS	NOT TO SCALE
BD	BOARD		
BLDG	BUILDING	OC	ON CENTER
		OD	OUTSIDE DIAMETER
CFM	CUBIC FEET PER MINUTE	O.H.	OPPOSITE HAND
CFT	CERAMIC FLOOR TILE	OPP	OPPOSITE
CJ	CONTROL JOINT	OZ	OUNCE
CFA	CLEAR FLOOR AREA		
CLG	CEILING	P	PAINT
CLR	CLEAR	PCF	POUNDS PER CUBIC FOOT
CMU	CONCRETE MASONRY UNIT	PERF	PERFORATED
CO	CLEAN OUT	PL	PLATE
COL	COLUMN	PLAM	PLASTIC LAMINATE
CONC	CONCRETE	PLUM	PLUMBING
CONST CONT	CONSTRUCTION-CONTINUOUS	PLF	POUNDS PER LINEAR FOOT
CPT	CARPET	PLYWD	PLYWOOD
CPTB	CARPET BASE	PR	PAIR
CTB	CERAMIC TILE BASE	PSF	POUNDS PER SQUARE FOOT
CWT	CERAMIC WALL TILE	PSI	POUNDS PER SQUARE INCH
CJ	CONDENSING UNIT	PT	POINT
CUH	CABINET UNIT HEATER	PTD	PAINTED
CW	COLD WATER	PVC	POLYVINYL CHLORIDE
		PVMT	PAVEMENT
DTL	DETAIL	QT	QUARRY TILE
DIA	DIAMETER	QTY	QUANTITY
DIM	DIMENSION		
DISP	DISPENSER	R	RISER, RADIUS
DN	DOWN	RB	RUBBER BASE BOARD
DS	DOWNSPROUT	RCP	REFLECTED CEILING PLAN
DW	DUMB WAITER	RD	ROOF DRAIN
DWG	DRAWING	RE:	REFER TO
		REF	REFRIGERATOR
E	EAST	REINF	REINFORCE (D)
EA	EACH	REQ	REQUIRED
EJ	EXPANSION JOINT	REV	REVISIONS
ELEV	ELEVATION	RF	RESILIENT FLOORING
ELEC	ELECTRICAL	RH	RIGHT HAND
EP	ELECTRICAL PANEL	RM	ROOM
EQ	EQUAL	RO	ROUGH OPENING
EQUIP	EQUIPMENT	ROW	RIGHT OF WAY
EW	ELECTRIC WATER COOLER	RS	ROUGH SAWN
EWV	ELECTRIC WATER HEATER	RTU	ROOF TOP UNIT
EXH	EXHAUST		
EXP	EXPANSION	S	SOUTH
EXT	EXTERIOR	SAN	SANITARY
		SAT	SUSPENDED ACOUSTICAL TILE
FA	FIRE ALARM	SC	SOLID CORE / OVERFLOW SCUPPER
FACP	FIRE ALARM CONTROL PANEL	SCHED	SCHEDULE
FD	FLOOR DRAIN, FIRE DAMPER	SECT	SECTION
FE	FIRE EXTINGUISHER	SERV	SERVICE
FEC	FIRE EXTINGUISHER CABINET	SF	SQUARE FEET
FF	FINISHED FLOOR	SIM	SIMILAR
FG	FINISHED GRADE	SPEC	SPECIFICATIONS
FIN	FINISHED	SQ	SQUARE
FLR(G)	FLOORING	SS	STAINLESS STEEL
FO	FACE OF	ST	STORM
FT	FOOT, FEET	STD	STANDARD
FTG	FOOTING	STL	STEEL
FURN	FURNISHED	STRUCT	STRUCTURAL
FWC	FABRIC WALL COVERING	SUSP	SUSPENDED
		SWG	STANDARD WIRE GAUGE
GA	GAUGE	SYM	SYMMETRICAL
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR	T	TREAD
GFI	GROUND FAULT INTERRUPTER	T&B	TOP AND BOTTOM
GL	GLASS	T&G	TONGUE AND GROOVE
GYP	GYPSPUM	TEL	TELEPHONE
		TEMP	TEMPERATURE, TEMPERED
HB	HOSE BIBB	THK	THICK (NESS)
HC	HOLLOW CORE	T.O.	TOP OF
HWD	HARDWOOD	TYP	TYPICAL
HID	HIGH INTENSITY DISCHARGE	TV	TELEVISION
HM	HOLLOW METAL		
HORIZ	HORIZONTAL	UG	UNDERGROUND
HVAC	HEAT, VENT, A/C	UH	UNIT HEATER
HW	HOT WATER	UNO	UNLESS NOTED OTHERWISE
		VB	VINYL BASE BOARD
ID	INSIDE DIAMETER	VCT	VINYL COMPOSITION TILE
INCL	INCLUDING	VERT	VERTICAL
INT	INTERIOR	VIF	VERIFY IN FIELD
INV	INVERT	VWC	VINYL WALL COVERING
JB	JUNCTION BOX		
JST	JOIST	W	WEST
		W/O	WITHOUT
K	KIP (1,000 POUNDS)	WB	WOOD BASE BOARD
		WC	WATER CLOSET
LAM	LAMINATED	WD	WOOD
LAV	LAVATORY	WH	WATER HEATER
LB	POUND	WP	WATERPROOF, WORK POINT
LF	LINEAR FEET	WT	WEIGHT
LH	LEFT HAND	WWF	WELDED WIRE FABRIC
LL	LIVE LOAD		
LLH	LONG LEG HORIZONTAL	YD	YARD
LLV	LONG LEG VERTICAL		
LP	LIGHTNING PANEL		
LTWT	LIGHTWEIGHT		

SYMBOLS

	ROOM NAME DESIGNATION		EXISTING CONSTRUCTION
	WINDOW DESIGNATION		EXISTING WALL CONSTRUCTION
	EXTERIOR ELEVATION DESIGNATION		NEW CONSTRUCTION
	DETAIL NUMBER		NEW FRAMED WALL CONSTRUCTION
	SHEET REFERENCE		NEW CONCRETE WALL CONSTRUCTION
	INTERIOR ELEVATION DESIGNATION		NEW CMU WALL CONSTRUCTION
	DETAIL NUMBER		OBJECT TO BE DEMOLISHED
	SHEET REFERENCE		WALL TO BE DEMOLISHED
	BUILDING SECTION DESIGNATION		
	DETAIL NUMBER		
	SHEET REFERENCE		
	SECTION DETAIL DESIGNATION		
	DETAIL NUMBER / SHEET REFERENCE		
	ENLARGED DETAIL DESIGNATION		
	WALL PARTITION TYPE		
	KEYNOTE DESIGNATION		
	NORTH ARROW		

TAS DOORS



GENERAL NOTES

- THESE DOCUMENTS SHOULD NOT BE CONSIDERED AS A SURVEY OF EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS, AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS BEFORE COMMENCING ANY WORK AND REQUEST CLARIFICATION.
- ALL NOTES REFERENCE NEW WORK UNLESS NOTED AS EXISTING.
- INSTALL SOUND ATTENUATION BATTS IN ALL PARTITIONS UNLESS NOTED OTHERWISE.
- PATCH ALL SURFACES AND AREAS AFFECTED BY DEMOLITION AND PREPARE FOR NEW CONSTRUCTION.
- THE EXTENT OF DEMOLITION WORK IS SHOWN ON THE DRAWINGS. IT IS NOT POSSIBLE TO SHOW REQUIRED DEMOLITION, REMODELING AND PATCHING IN EVERY DETAIL. THE CONTRACTOR SHALL VISIT THE FACILITY TO DETERMINE THE EXTENT OF DEMOLITION AND REMODELING WORK, AND TO FAMILIARIZE HIMSELF WITH THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ADDITIONAL WORK REQUIRED AS A RESULT OF THE WORK INDICATED HEREIN OR FOR PATCHING REQUIRED AS A RESULT OF NEW WORK, REMODELING OR DEMOLITION.
- AREAS OF CONSTRUCTION SHALL BE SEALED OFF FROM OCCUPIED AREAS BY A DUST BARRIER OF FIRE-RETARDANT PLASTIC SHEETING. TAPE TIGHTLY AROUND PERIMETER AND AT INTERIOR JOINTS. DAMAGE TO SENSITIVE EQUIPMENT CAUSED BY CONSTRUCTION DUST SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- UNLESS SPECIFICALLY DESIGNATED FOR SALVAGE, DEMOLITION INCLUDES REMOVAL AND DISPOSAL OF DEMOLISHED MATERIALS. CONTRACTOR SHALL PROVIDE SUITABLE MEANS FOR DISPOSAL OF DEMOLISHED MATERIALS AND CONSTRUCTION DEBRIS.
- ITEMS INDICATED FOR SALVAGE BY OWNER SHALL BE REMOVED BY THE CONTRACTOR AND DELIVERED TO OWNER'S DESIGNATED STORAGE AREA.
- REMOVE ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND NEW CONSTRUCTION OPERATIONS.
- ALL MATERIALS NOT DESIGNATED FOR SALVAGE BY OWNER SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
- REPAIR AT NO COST TO THE OWNER, DAMAGE CAUSED TO ADJACENT AREAS, MATERIALS AND EQUIPMENT BY DEMOLITION AND NEW CONSTRUCTION OPERATIONS.
- WHERE PLUMBING FIXTURES ARE INDICATED TO BE REMOVED, PROPERLY TERMINATE ALL SUPPLY, WASTE AND VENT LINES BELOW SLAB AND/OR ABOVE FINISHED CEILING AS APPROPRIATE. WATER SUPPLY LINES SHALL BE REMOVED BACK TO NEAREST LIVE BRANCH LINE. CLOSE VENT PIPES THROUGH ROOF.
- WHERE ELECTRICAL DEVICES ARE SHOWN TO BE REMOVED, PROPERLY TERMINATE ALL WIRING.
- ALL WALL CEILING AND FLOOR CONSTRUCTION WHICH IS AFFECTED BY MEP REGULATIONS IS TO BE PATCHED AND PREPARED FOR NEW CONSTRUCTION.
- THE GENERAL AND SUBCONTRACTOR(S) MUST COMPLY WITH ALL RULES AND REGULATIONS OF AGENCIES HAVING JURISDICTION AND SHALL CONFORM TO ALL CITY, STATE, AND FEDERAL CONSTRUCTION SAFETY AND SANITARY LAWS, CODES, STATUTES, AND ORDINANCES.
- ALL CONDENSATE LINES AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM STRUCTURE SIDEWALL.
- VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT W/ CONTRACTOR SUPPLIED MILLWORK & CASEWORK.

Fisher Heck
ARCHITECTS

915 SOUTH MARY'S STREET
SAN ANTONIO, TEXAS 78205
210-290-1500

8/7/2020

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**

SHEET TITLE: **GENERAL NOTES, ABBREVIATIONS & SYMBOLS**

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO:
A-001

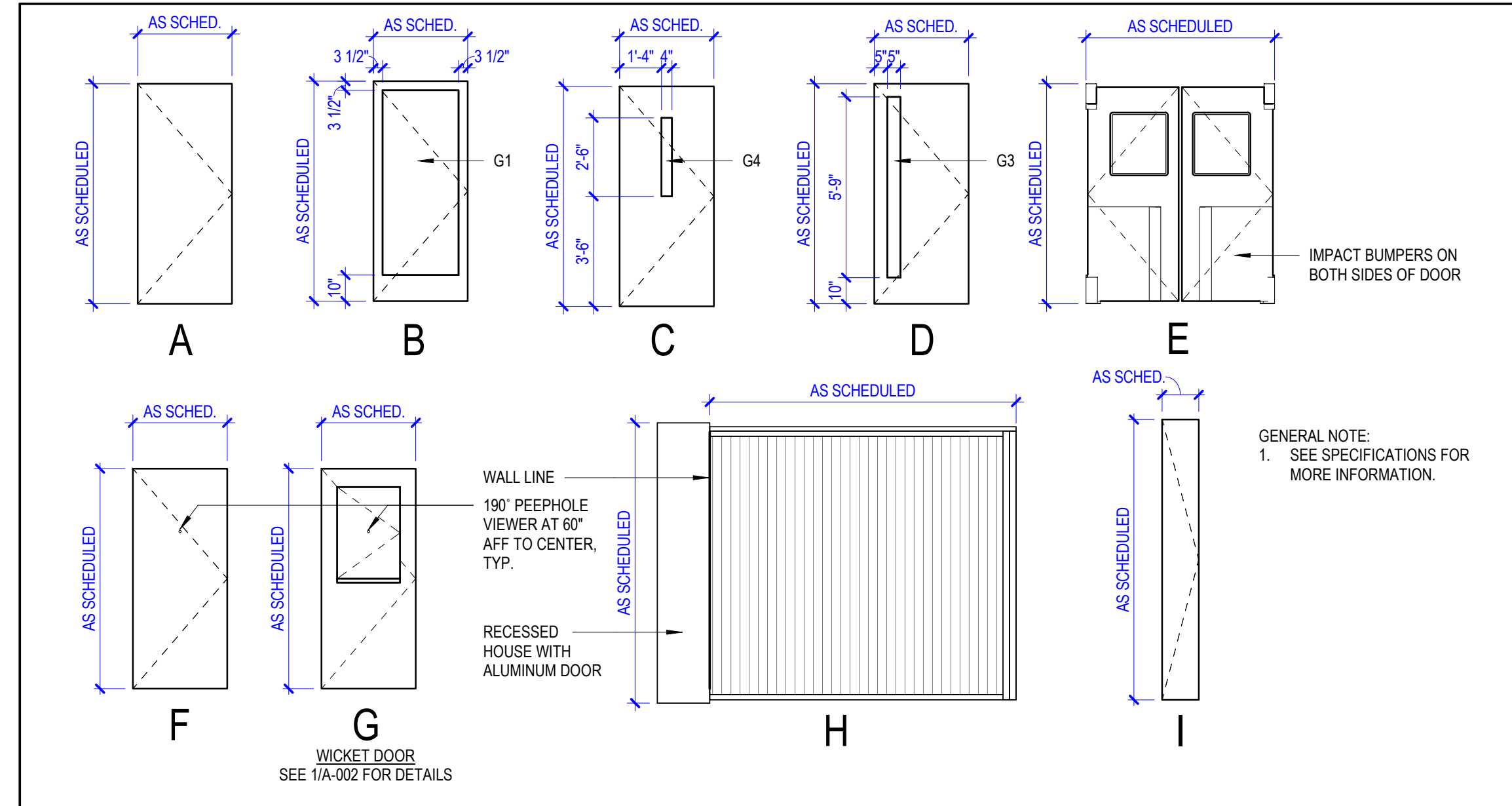
DOOR SCHEDULE

WARM SHELL														
NUMBER	TYPE	PANEL			GLAZING	FRAME		DETAILS			HARDWARE	FIRE RATING	SIGNAGE (NOTE D)	COMMENTS
		WIDTH	HEIGHT	MATERIAL		TYPE	MATERIAL	HEAD	JAMB	THRESHOLD				
103A	B	3'-0"	7'-0"	AL	G1	6	AL	4/AS-500 SIM	3/AS-500 SIM	6/AS-500	3		X	SEE NOTE C
103B	B	3'-0"	7'-0"	AL	G1	6	AL	4/AS-500 SIM	3/AS-500 SIM	6/AS-500	3		X	SEE NOTE C
104	A	3'-0"	7'-0"	AL	G1	5	AL	4/AS-500 SIM	3/AS-500 SIM	6/AS-500	1		X	
107	A	3'-0"	7'-0"	SCWD	-	1	HM	4/AL-503	3/AL-503		12		X	
108	A	3'-0"	7'-0"	SCWD	-	1	HM	4/AL-503	3/AL-503		12		X	
110	A	3'-0"	7'-0"	SCWD	-	1	HM	4/AL-503	3/AL-503		6		X	
111	A	3'-0"	7'-0"	SCWD	-	1	HM	4/AL-503	3/AL-503		6		X	
112A	E	6'-0"	7'-0"	SEE SPEC		4	STL	11/AS-500	10/AS-500	9/AS-500	10			IMPACT DOOR, SEE NOTE E & H
112B	C	3'-0"	7'-0"	HM	G4	2	HM	8/AS-500	7/AS-500	6/AS-500	8			

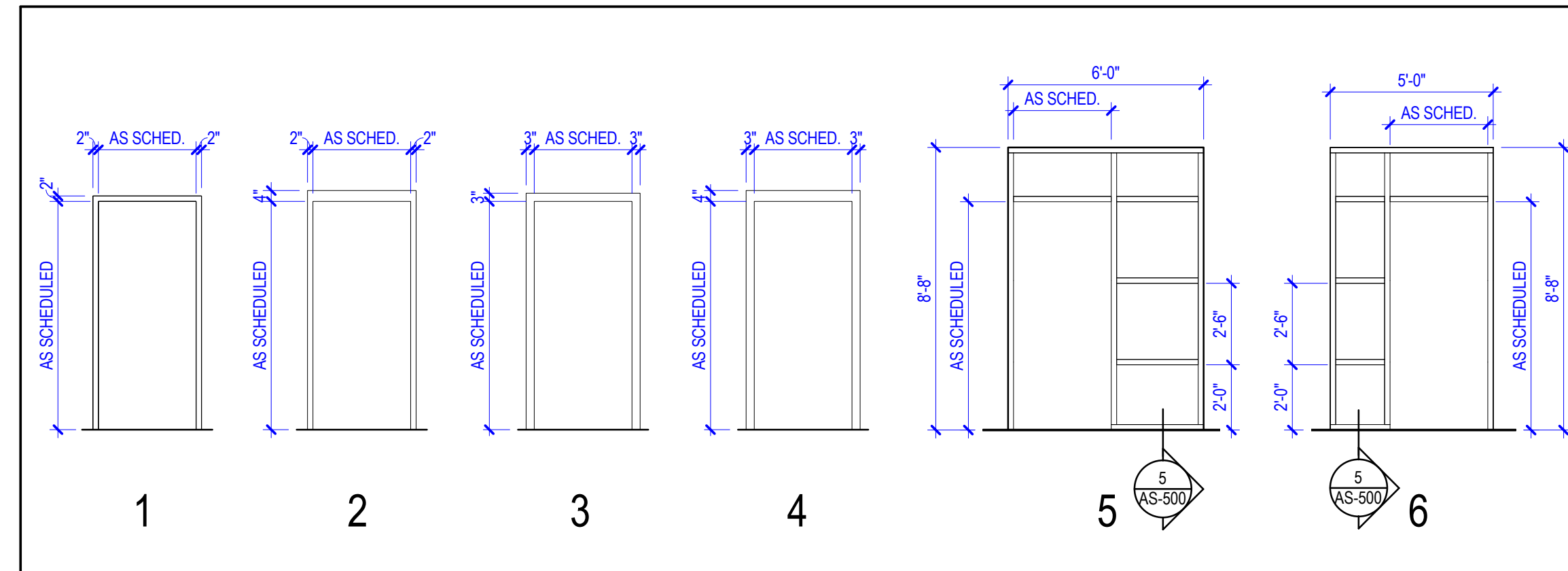
INTERIOR FINISHOUT														
NUMBER	TYPE	PANEL			GLAZING	FRAME		DETAILS			HARDWARE	FIRE RATING	SIGNAGE (NOTE D)	COMMENTS
		WIDTH	HEIGHT	MATERIAL		TYPE	MATERIAL	HEAD	JAMB	THRESHOLD				
101	H	9'-9"	8'-11"	SEE SPEC	-	MFGR	AL	7/AL-503			15			FOLDING DOOR
101A	I	1'-2"	8'-11"	PLAM	-	WD	6/AL-503	5/AL-503			14			
101B	A	2'-0"	7'-0"	SCWD	-	1	HM	4/AL-503	3/AL-503		12			
102	D	3'-0"	7'-0"	SCWD	G3	1	HM	4/AL-503	3/AL-503		29			
105	G	3'-0"	7'-0"	SCWD	SCWD		HM	4/AL-503	3/AL-503		17		X	SEE NOTE F
106A	D	3'-0"	7'-0"	SCWD	G3	1	HM	4/AL-503	3/AL-503		11			
106B	D	3'-0"	7'-0"	SCWD	G3	1	HM	4/AL-503	3/AL-503		13		X	
109A	E	6'-0"	7'-0"	SEE SPEC		3	STL	2/AL-503	1/AL-503	9/AS-500	10			IMPACT DOOR, SEE NOTE E & H
109B	C	3'-0"	7'-0"	SCWD	G4	1	HM	4/AL-503	3/AL-503		8			

LEGEND			COMMENTS
DOOR MATERIAL TYPES	GLAZING TYPES	DOOR FRAME MATERIAL TYPES	A. SEE SPECS FOR DOOR AND FRAME PAINT FINISH. B. SEE SPECS FOR GLASS TYPE OF DOOR LIGHTS AND SIDELIGHTS. C. AUTOMATIC DOOR OPERATOR. USE HARDWARE SET INDICATED, BUT DELETE CLOSER AND ADD AUTOMATIC DOOR OPERATOR AND PUSH PLATES PER SEC. SECTION 084229. ROOM OR EXIT DOOR SIGNAGE REQUIRED. SEE 1/A-502 & 4/AI-502. D. ROOM OR EXIT DOOR SIGNAGE REQUIRED. SEE 1/A-502 & 4/AI-502. E. PROVIDE DOOR LIMITING OVERHEAD. SEE DETAIL 16/AS-500. F. ADJUST DOOR SHOE TO LIMIT GAP UNDER DOOR SHOE TO 1/8" MAX. G. DOORS AND FRAMES ARE TO BE PAINTED TO MATCH THEIR ADJACENT WALLS UNLESS NOTED OTHERWISE. H. PROVIDE EMBED PLATE, SEE STRUCTURAL.
AL - ALUMINUM	G1 - GLASS TYPE 1	HM - HOLLOW METAL, PAINT	
HM - HOLLOW METAL, PAINT	G2 - GLASS TYPE 2	AL - ALUMINUM	
SCWD - SOLID CORE WOOD DOOR, PAINT	G3 - GLASS TYPE 3	STL - STEEL, PAINT	
PLAM - SOLID CORE WOOD DOOR, PLASTIC LAMINATE FINISH	G4 - GLASS TYPE 4	WD - WOOD, PAINT	

PANEL TYPES



FRAME TYPES



ROOM FINISH SCHEDULE

WARM SHELL FINISHES												
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING	COMMENTS			
				NORTH	SOUTH	EAST	WEST					
100	OPEN AREA								SEE NOTE C			
107	STORAGE / JANITOR	SC-1	VB-1	P-2	P-2	P-2	P-2	GYP-1				
108	MECHANICAL	SC-1	VB-1	P-2	P-2	P-2	P-2	GYP-1				
110	MEN	EP-1	EP-1	FRP	P-1	FRP	P-1	FRP	SEE NOTE A			
111	WOMEN	EP-1	EP-1	FRP	P-1	FRP	P-1	FRP	SEE NOTE A			
112	MAIL PLATFORM	SC-1						PLY-1				

INTERIOR FINISHOUT FINISHES												
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING	COMMENTS			
				NORTH	SOUTH	EAST	WEST					
101	LOBBY	RFT-1	VB-1	P-5		P-5	P-5	ACT-1				
102	FULL SERVICE	RFT-2	VB-1	P-4	P-4	P-5	P-4/PL-2	ACT-1				
103	SELF SERVICE	RFT-1	VB-1	P-5		P-5	P-5	ACT-1GYP-1				
104	P.O. BOX	RFT-1	VB-1	P-5	P-5	P-5	P-5	ACT-1				
105	WORK ROOM	SC-1	VB-1	P-1/FRP	P-1/FRP	P-1/FRP	P-1/FRP	ACT-1	SEE NOTE B			
106	OFFICE	RFT-1	VB-1	P-1	P-1	P-1	P-1	ACT-1				
109	MAIL VESTIBULE	SC-1	VB-1	P-2/FRP	P-2/FRP	P-2/FRP	P-2/FRP	PLY-1	SEE NOTE B			

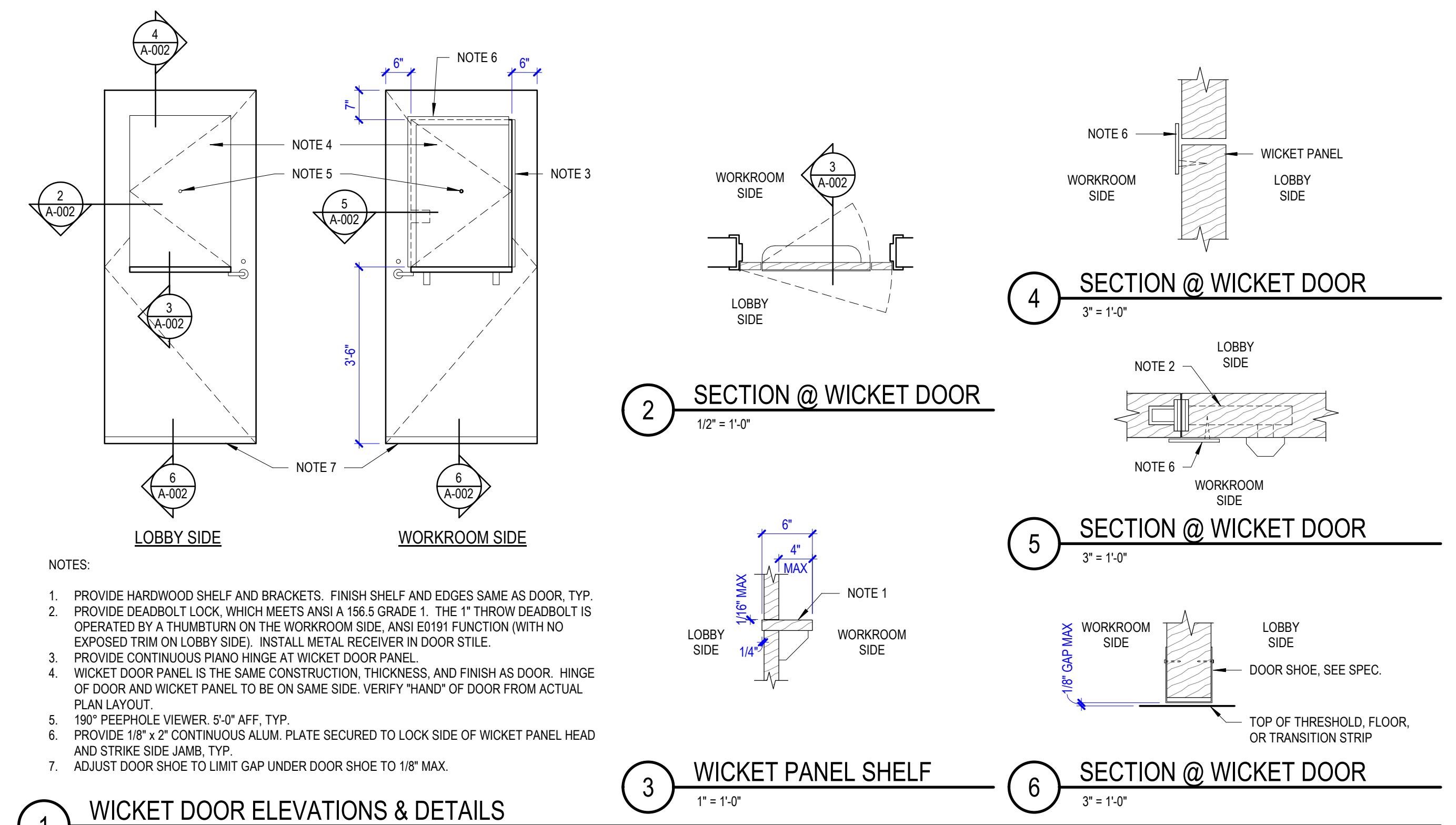
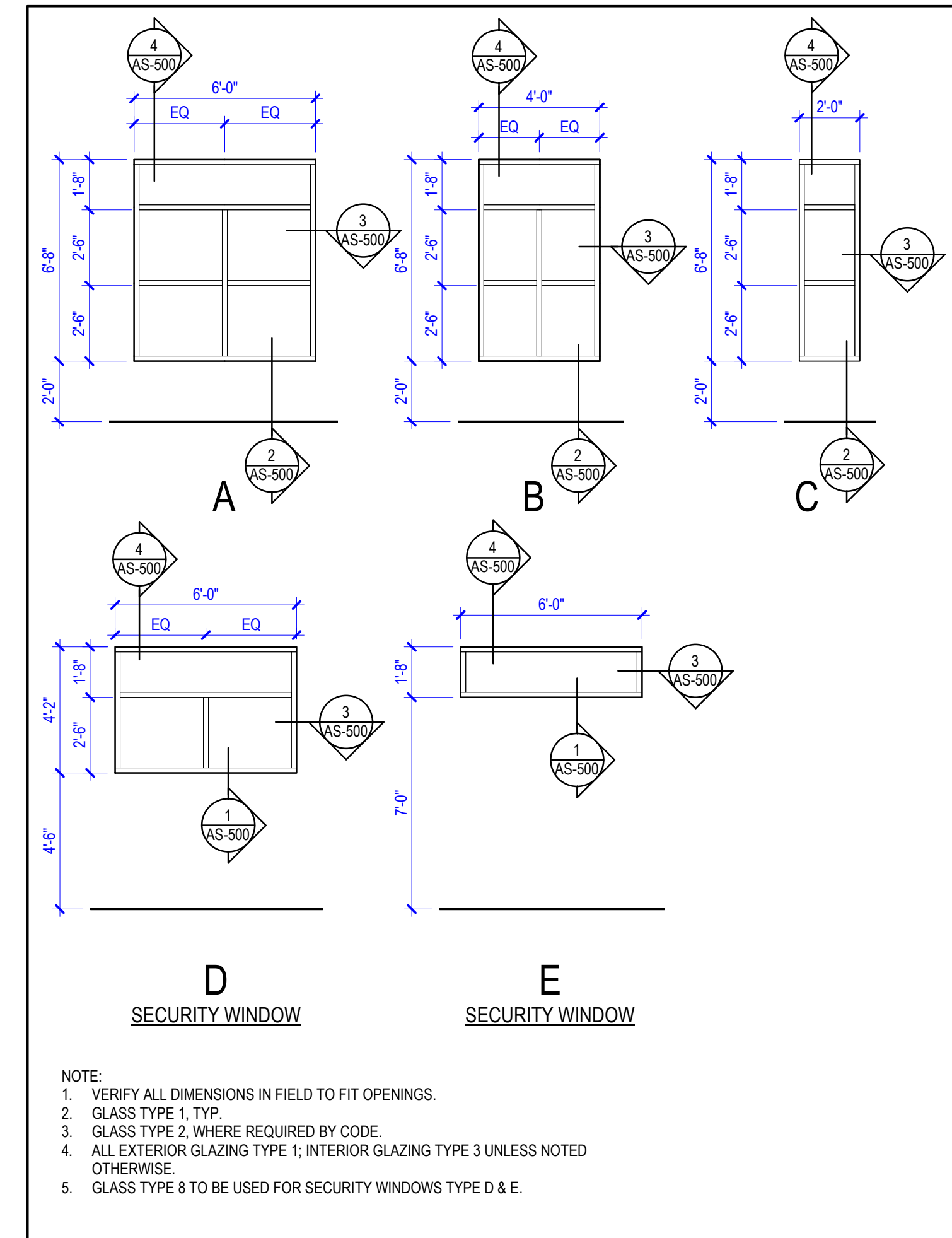
COMMENTS

A. EPOXY BASE TO BE INTEGRAL WITH EPOXY FLOOR AND SHALL EXTEND UP THE WALL 4".
 B. PROVIDE 4" HIGH FRP WAINSCOT ON WALL INDICATED IN SCHEDULE.
 C. GYPSUM WALL BOARD TO BE PROVIDED AND INSTALLED UNDER INTERIOR FINISHOUT SCOPE OF WORK.

MATERIAL SCHEDULE

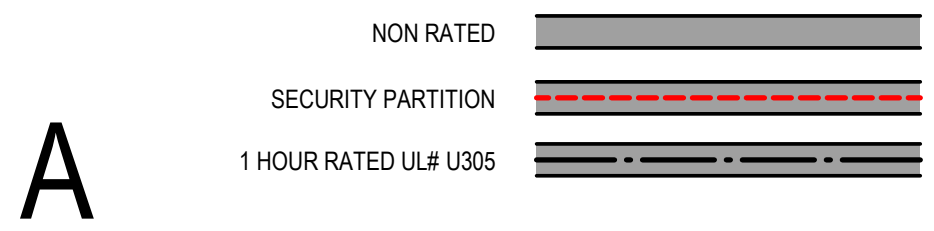
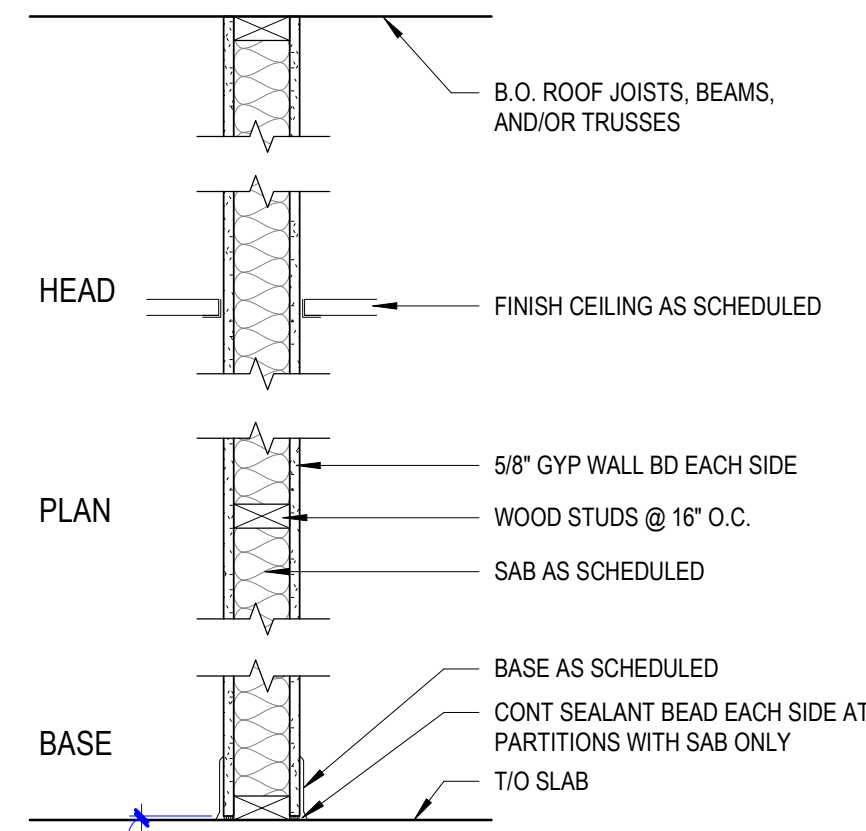
TYPE MARK	PRODUCT IDENTIFICATION	MANUFACTURER	COMMENTS
RESILIENT FLOOR TILE			
RFT-1	24"x24"x0.08" THICK, 9306 CHARCOAL CD	ALTRO	
RFT-2	24"x24"x0.08" THICK, 9302 ROCK SALT CD	ALTRO	
CONCRETE			
SC-1	SEALED CONCRETE		
BASE			
VB-1	STANDARD 4" WALL BASE, BLACK		
EPOXY FLOOR AND WALL COATING			
EP-1	LIGHT GRAY		
PAINT (SEE NOTE 1)			
P-1	#50YY 83/057	GLIDDEN (ICI)	GYPSUM WALL BOARD, PAINT
P-2	#50BG 62/007	GLIDDEN (ICI)	GYPSUM WALL BOARD, PAINT
P-4	PMS 485 C "POSTAL RED"		GYPSUM WALL BOARD, PAINT
P-5	PMS 301 C "POSTAL BLUE"		GYPSUM WALL BOARD, PAINT
P-6	#SW1232 "DUBLIN GRAY"	SHERWIN WILLIAMS	GYPSUM WALL BOARD, PAINT
P-7	EGGSHELL SEMI-GLOSS BLACK		GYPSUM WALL BOARD, PAINT
CEILING			
ACT-1	FINE FISSURED #1729, WHITE, 24"x48"x5/8" LAYIN	ARMSTRONG	
GYP-1	GYPSUM WALL BOARD, PAINT (P-1)		
PLY-1	PLYWOOD, PAINT (P-1)		
PLASTIC LAMINATE			
PL-1	#S-7-27T, TEXTURED FINISH, "SMOKEY WHITE"	NEVAMAR	
PL-2	#6902-58 "GRENADINE"	FORMICA	
PL-3	#914-58 "MARBLE BLUE"	FORMICA	
PL-4	#142-60 "GREY GLACE"	WILSONART	
PL-5	#186 "Z'LEAD"	FORBO, WALTON, UNI	
SOLID SURFACING			
S-1	"SOLID BRIGHT WHITE"	SAMSUNG STARON	Rendering appearance not upgraded
FIBERGLASS REINFORCED PLASTIC PANELS			
FRP	1207 GRAY OR EQUAL	STRUCTOGLAS FRP	

WINDOW TYPES

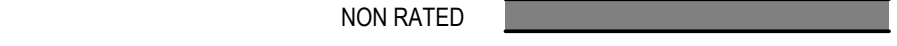
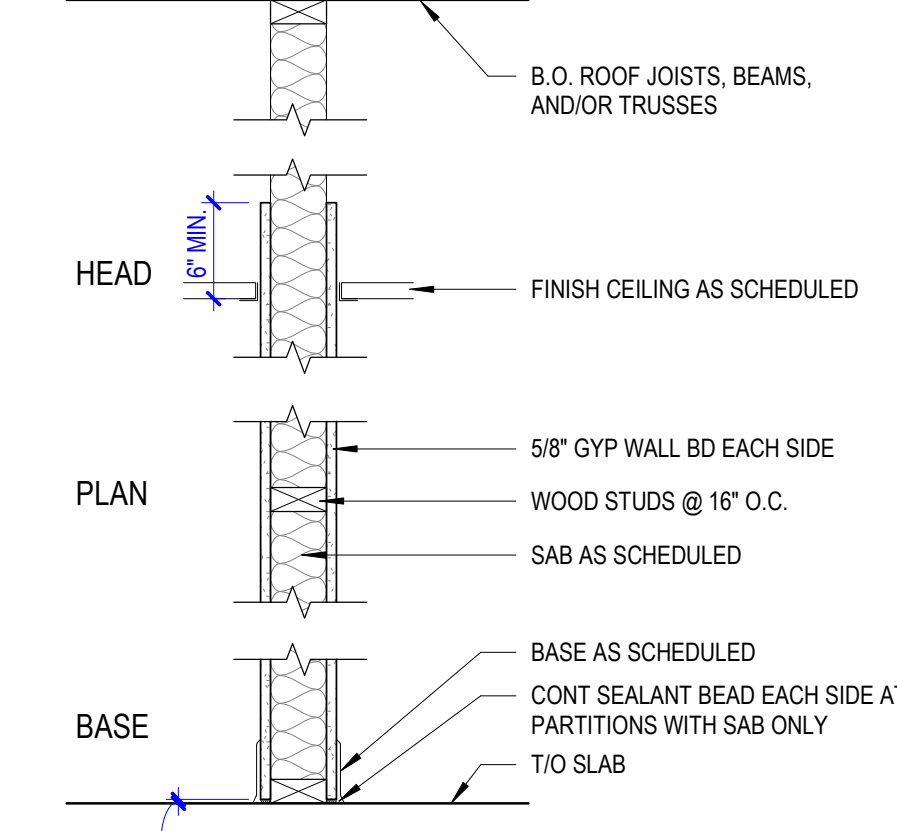


GENERAL NOTES

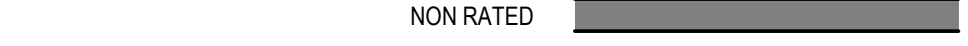
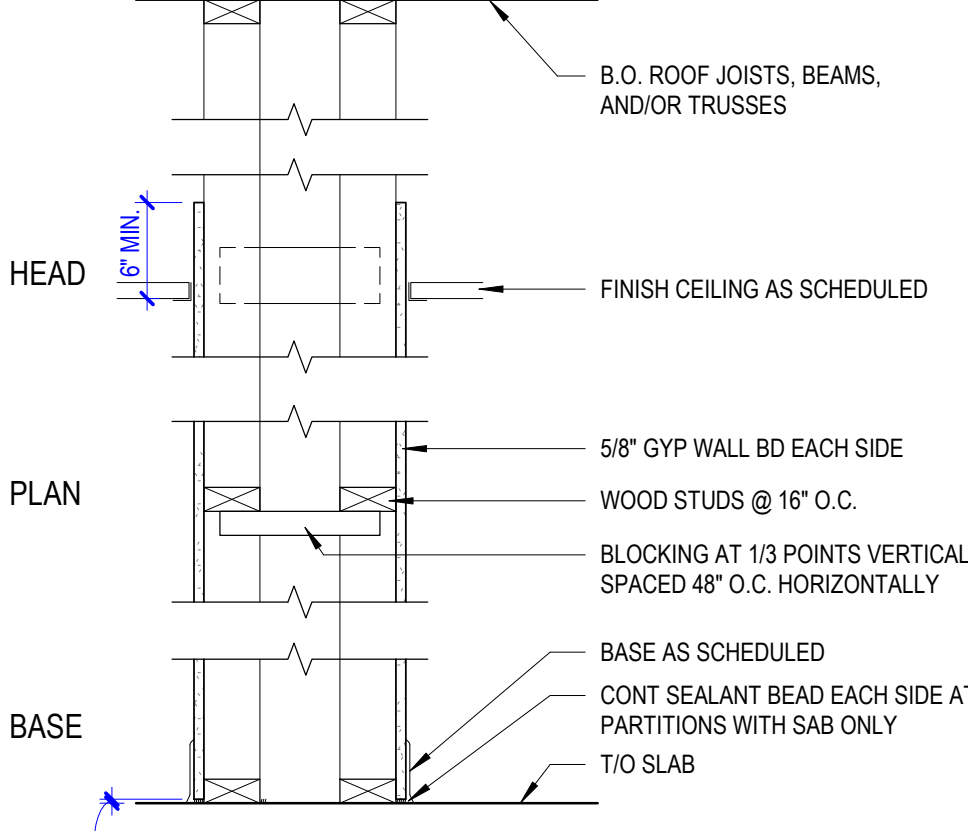
- ALL WALL TYPES TO BE A4S UNLESS NOTED OTHERWISE.
- FOR HEIGHTS OF WALL SEE BLDG 'G' SECTIONS OR ELEVATIONS.
- EVERY WALL SHOWN ON PLAN SHALL BE ONE OF THE WALL TYPES SHOWN WHETHER KEYED ON THE PLAN OR NOT. IF WALL DOES NOT HAVE KEY, PROVIDE WALL TYPE TO MATCH ADJACENT OR NEAREST KEY.
- SEE ROOM FINISH SCHEDULE & RCP FOR FINISHES AND CEILING HEIGHTS.
- FIRE TAPE OR SEAL ALL PENETRATIONS.
- ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. COPE SHEETROCK AROUND CONCRETE PAN.
- ALL SOUND WALLS TO RECEIVE SEALANT AROUND CRACKS & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES.
- PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME, THE WALL MAY BE CONSIDERED A BRACE.
- ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
- ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
- INTERIOR PARTITIONS ARE TO BE ABLE TO RESIST THE LOADS TO WHICH THEY SUBJECTED, BUT NOT LESS THAN A 5 PSF HORIZONTAL LOAD.
- PROVIDE DOUBLE 20 GA STUDS MIN. AT ALL DOOR JAMBS.
- PROVIDE GYP. BOARD CONTROL JOINTS AT 30'-0" O.C. MIN. UNLESS NOTED OTHERWISE.
- CONTRACTOR TO SPECIFY MANUFACTURER OF METAL STUD SYSTEM.
- ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O.
- INSTALLATION OF METAL STUD AND GYPSUM BOARD PARTITIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS.
- ALL SURFACES IN BATHROOMS AND OTHER "WET" AREAS ARE TO BE WATER RESISTANT GYPSUM BOARD.
- PROVIDE METAL CORNER BEAD, TRIM AND CASING FOR ALL EDGES AND CORNERS OF GYPSUM BOARD SURFACES ON PAINTED WALLS.
- MATCH EXISTING WALL PARTITION CONSTRUCTION WHEN INFILLING EXISTING OPENINGS. U.O.N.



TYPE	STUD SIZE	SAB	WALL THK
A4	3-1/2"	-	3-3/4"
A4S	3-1/2"	1-1/2"	3-3/4"
A6	5-1/2"	-	4-7/8"
A6S	5-1/2"	1-1/2"	4-7/8"



TYPE	STUD SIZE	SAB	WALL THK
B4	3-1/2"	-	3-3/4"
B4S	3-1/2"	1-1/2"	3-3/4"
B6	5-1/2"	-	4-7/8"
B6S	5-1/2"	1-1/2"	4-7/8"



TYPE	STUD SIZE	SAB	WALL THK
C4	3-1/2"	-	SEE PLAN
C6	5-1/2"	-	SEE PLAN

Fisher Heck
ARCHITECTS

915 SOUTH ST. MARY'S STREET
SAN ANTONIO, TEXAS
78205-1500
210-269-1500

8/7/2020

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**

SHEET TITLE: **WALL PARTITIONS**

PROJECT NO: 1921 A1

REVISIONS DATE

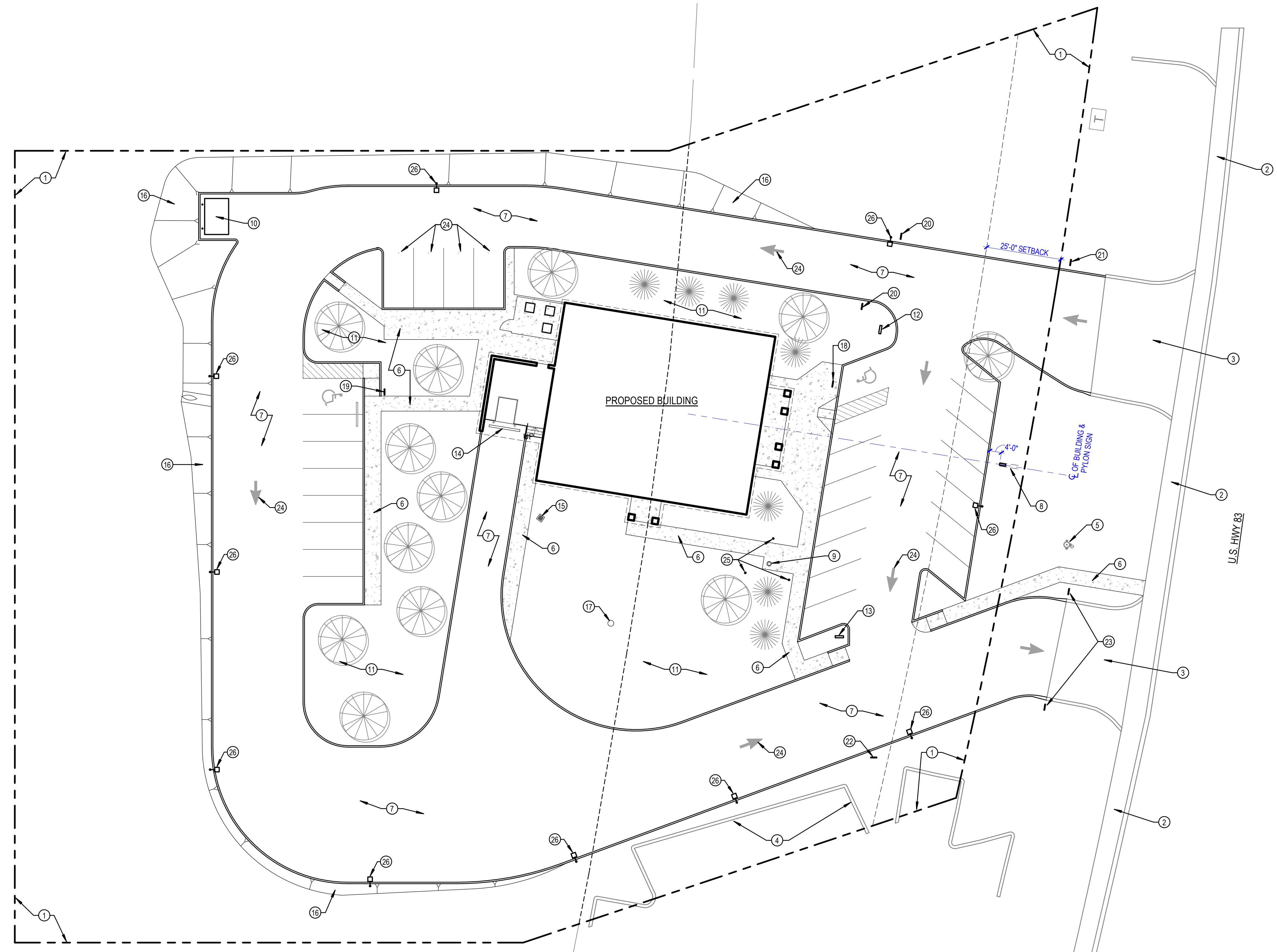
SHEET NO:
A-003

GENERAL NOTES

- REFER TO ELECTRICAL AND LANDSCAPE FOR UNDER PAVING SLEEVE PLACEMENT FOR UTILITIES AND IRRIGATION.

KEYNOTES

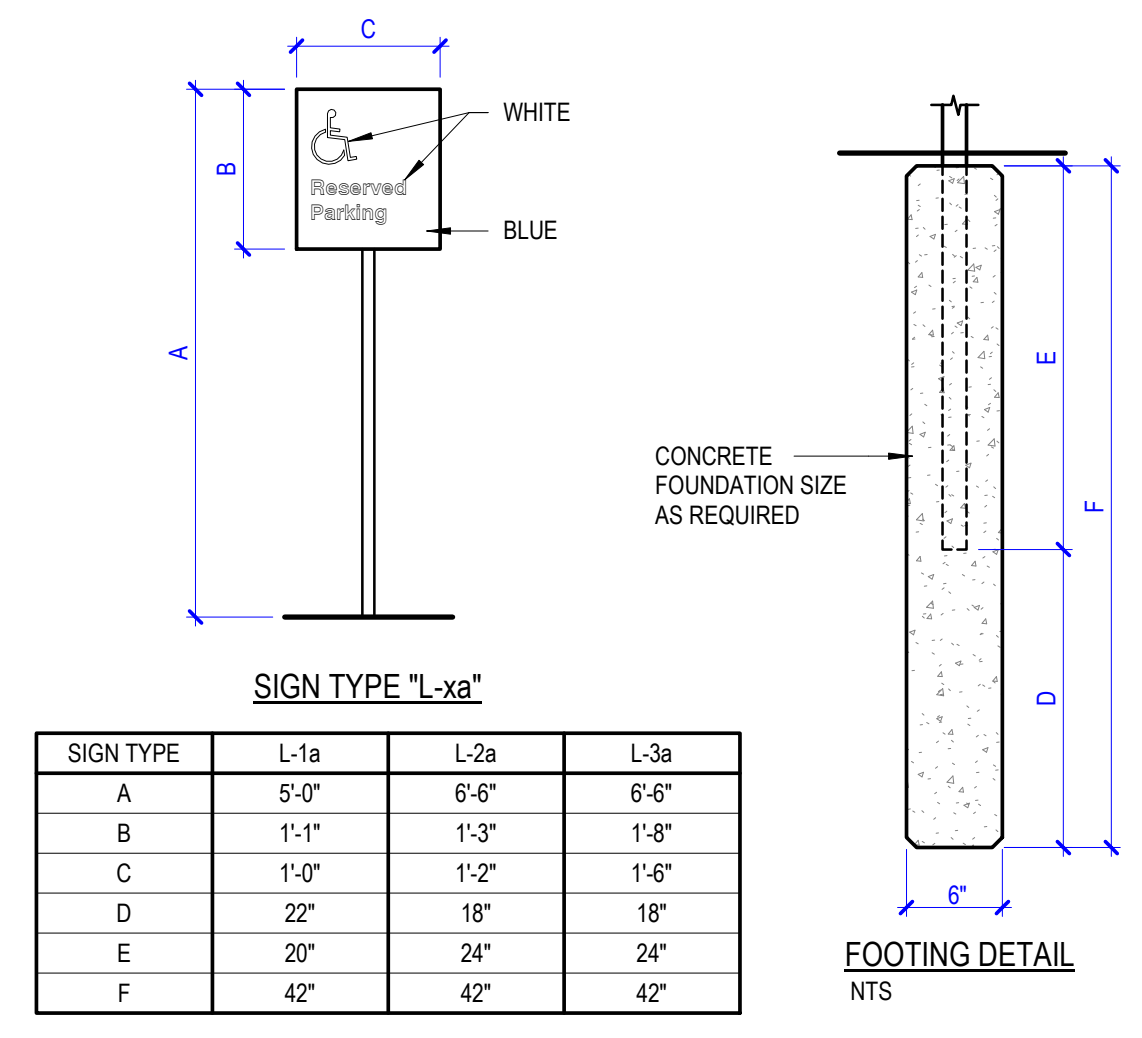
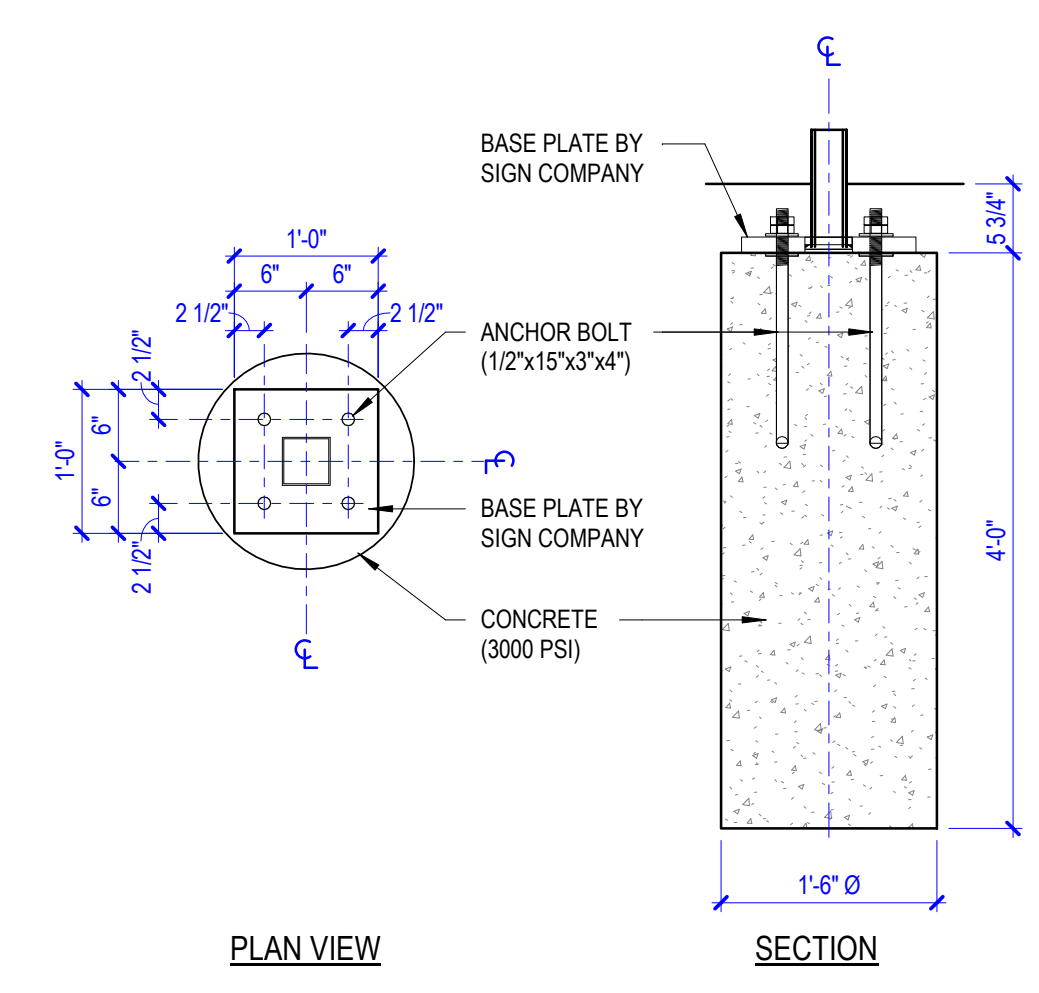
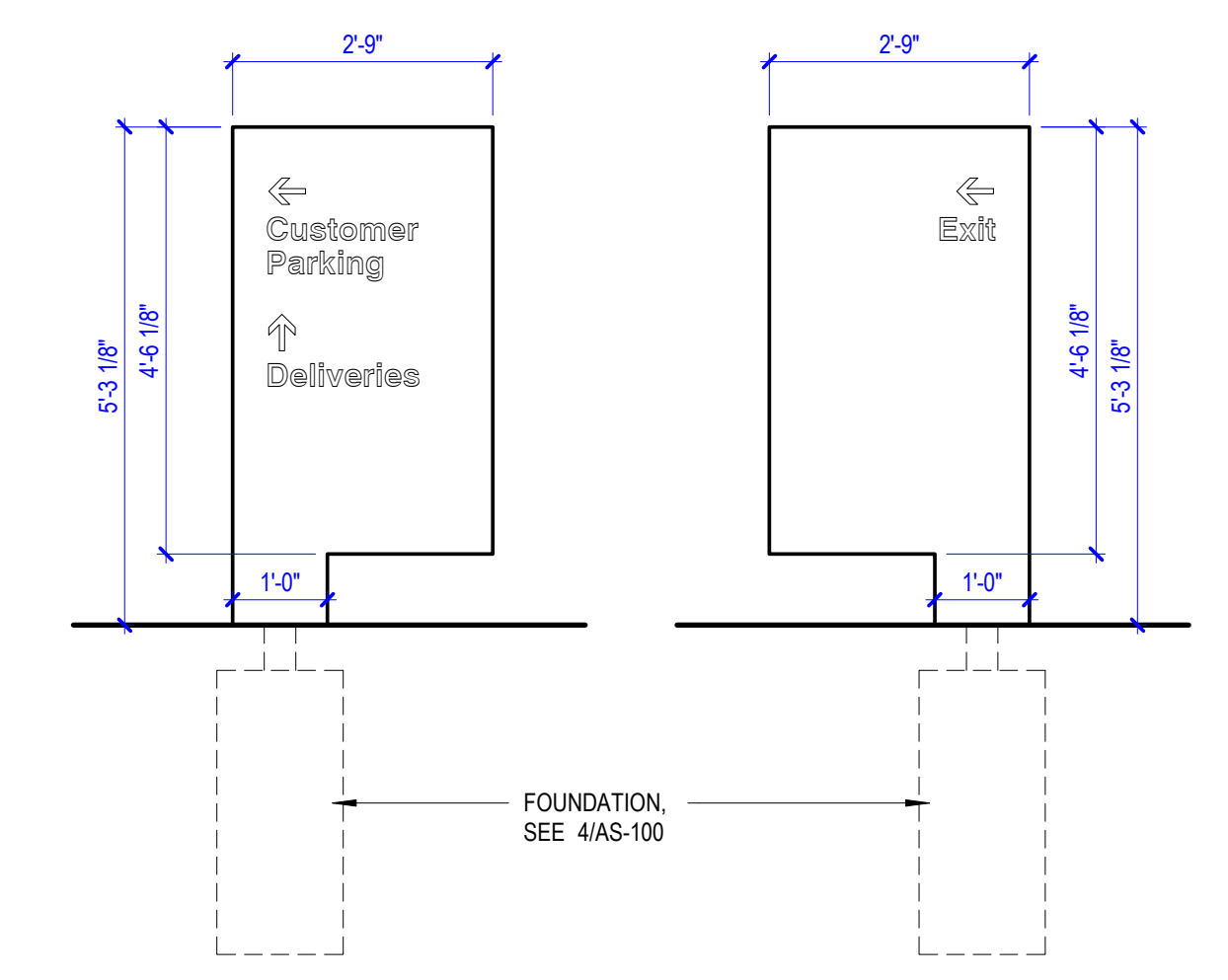
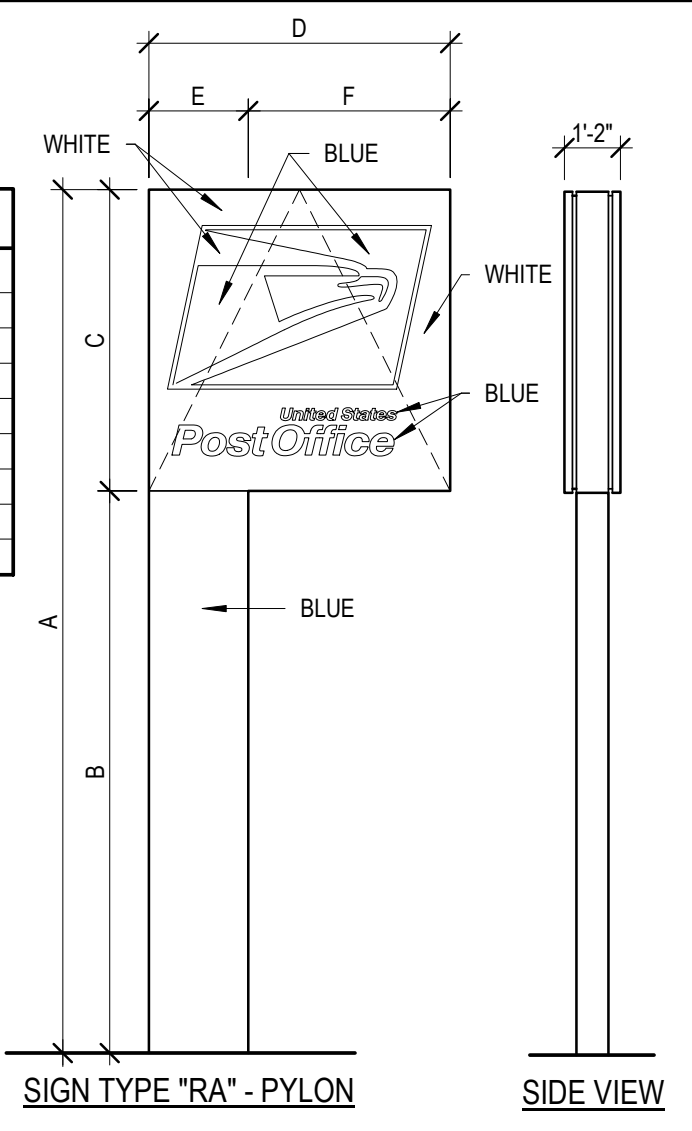
- PROPERTY LINE
- EXISTING SIDEWALK TO REMAIN
- RECONSTRUCTED APPROACH, SEE CIVIL
- EXISTING CURB TO REMAIN
- EXISTING FIRE HYDRANT
- NEW CONCRETE SIDEWALK
- NEW PAVING, SEE CIVIL
- NEW PYLON SIGN (RA18), SEE 2/AS-100
- NEW FLAGPOLE ON 4x4 CONCRETE BASE
- NEW DUMPSTER ON CONCRETE PAD W/ BOLLARDS @ 8'-0" O.C.
- LANDSCAPE AREA
- DIRECTIONAL SIGN (K-6) W/ "Customer Parking" & "Deliveries", BOTH WITH DIRECTIONAL ARROWS, SEE 3/AS-100
- DIRECTIONAL SIGN (K-6) W/ "Exit", PROVIDE DIRECTIONAL ARROWS, SEE 3/AS-100
- TRENCH DRAIN, SEE CIVIL
- AREA DRAIN, SEE CIVIL
- CONCRETE RIPRAP, SEE CIVIL
- EXISTING MANHOLE, SEE CIVIL
- REGULATORY SIGN (L-2a) W/ "Reserved Parking Van Accessible" (with handicap glyph), SEE 5/AS-100 SIM
- REGULATORY SIGN (L-2a) W/ "Reserved Parking" (with handicap glyph), SEE 5/AS-100
- REGULATORY SIGN (L-3a) W/ "Authorized Postal Vehicles", SEE 5/AS-100 SIM
- TRAFFIC SIGN "SPEED LIMIT", SEE SHEET C-107
- TRAFFIC SIGN "ONE WAY", SEE SHEET C-107
- TRAFFIC SIGN "STOP" & "DO NOT ENTER", SEE SHEET C-107
- PAVEMENT MARKINGS, SEE CIVIL
- NEW FLAGPOLE LIGHT FIXTURES, SEE ELECTRICAL
- NEW LIGHT FIXTURES, SEE ELECTRICAL



1 SITE PLAN
1" = 20'-0"

SIGN TYPE	RA18	RA20	RA25
A	18'-0"	20'-0"	25'-0"
B	11'-8 5/8"	12'-8 5/8"	16'-8 5/8"
C	6'-3 3/8"	7'-3 3/8"	8'-3 3/8"
D	6'-3 3/8"	7'-3 3/8"	8'-3 3/8"
E	2'-0 7/8"	2'-4 7/8"	2'-8 3/4"
F	4'-2 1/2"	4'-10 1/2"	5'-6 5/8"
AMPS REQ.	4.4	6.0	6.6
VOLTS	120V	120V	120V
APPROX. WT.	1175	1540	2400

- NOTES:**
- SEE STRUCTURAL FOR FOUNDATION DETAILS
 - PYLON SIGN MUST BE INSTALLED SO THE BLUE BASE IS NEAREST TO THE BUILDING AND THE "FLAG" POINTS TOWARD THE STREET.



SIGN TYPE "L-xa"

SIGN TYPE	L-1a	L-2a	L-3a
A	5'-0"	6'-6"	6'-6"
B	1'-1"	1'-3"	1'-8"
C	1'-0"	1'-2"	1'-6"
D	22"	18"	18"
E	20"	24"	24"
F	42"	42"	42"

2 BUILDING IDENTIFICATION - RETAIL PYLON
1/4" = 1'-0"

3 DIRECTIONAL SIGN (K-6)
1/2" = 1'-0"

4 SIGN FOUNDATION DETAIL (K-6)
3/4" = 1'-0"

5 REGULATORY SIGN DETAIL (L-1a, L-2a, L-3a)
1/2" = 1'-0"

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**

SHEET TITLE: **SITE PLAN**

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO: **AS-100**

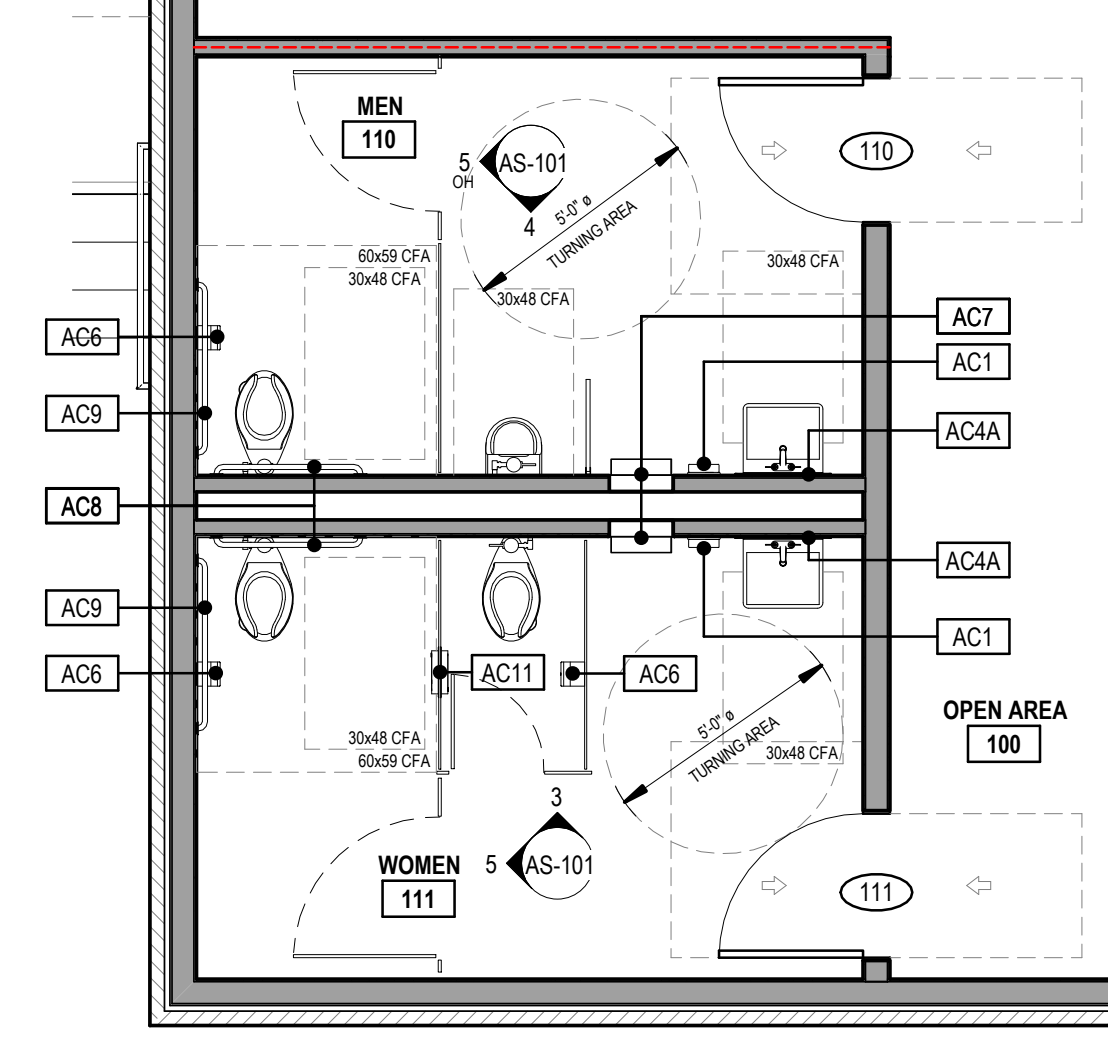
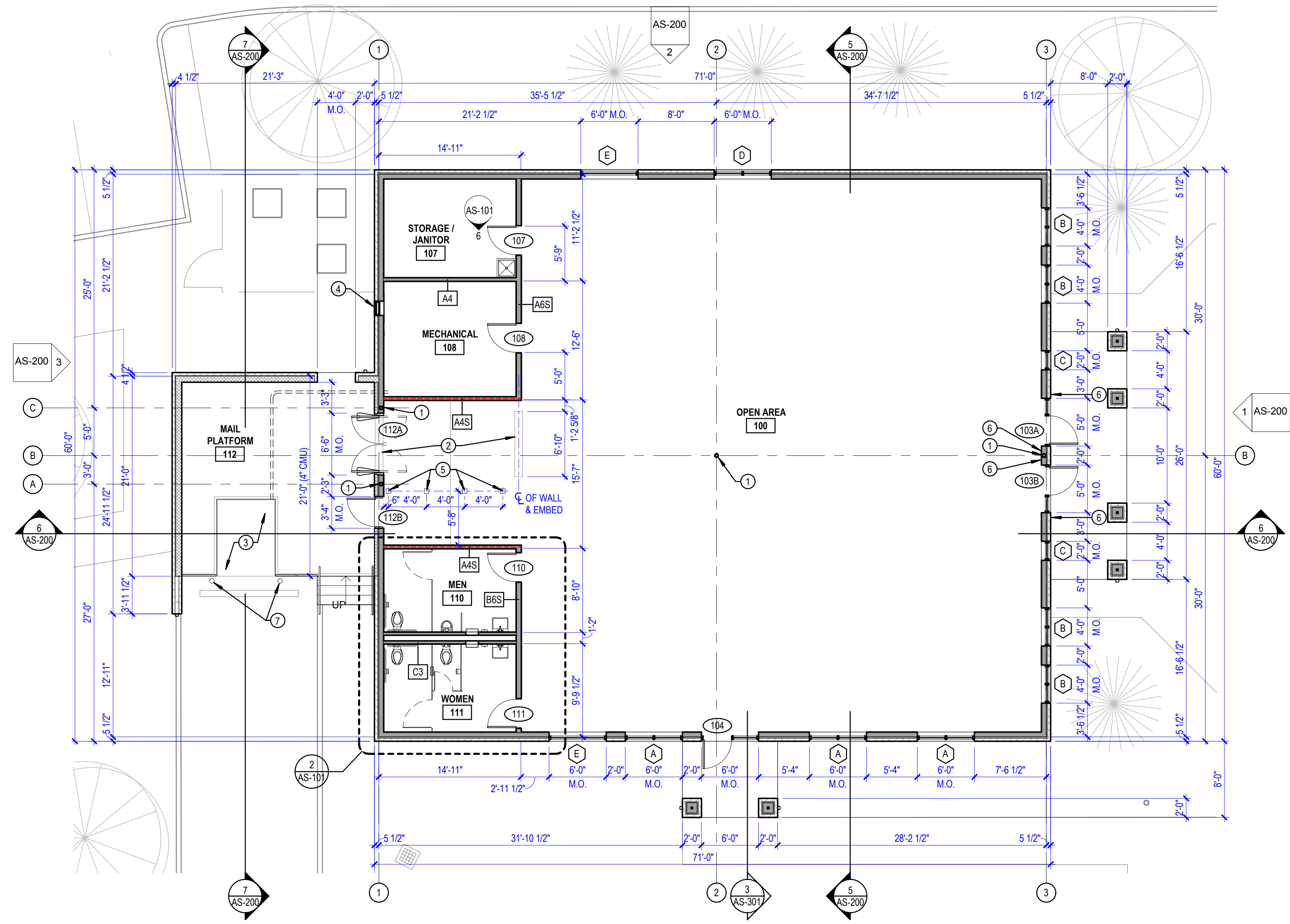
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GENERAL NOTES

- GYPSUM WALL BOARD IN OPEN AREA 100 TO BE PROVIDED AND INSTALLED UNDER INTERIOR FINISHOUT SCOPE OF WORK.

KEYNOTES

- STEEL COLUMN, SEE STRUCTURAL.
- STEEL EMBEDS ANCHORS, SEE STRUCTURAL.
- SCISSOR LIFT AS SPECIFIED, CONTRACTOR TO VERIFY ALL ROUGH-IN DIMENSIONS WITH MANUFACTURER.
- FRESH AIR INTAKE LOUVER, SEE MECHANICAL.
- 6"x6" EMBED PLATES, SEE STRUCTURAL.
- AUTOMATIC DOOR PUSH BUTTON
- 6"Ø CONCRETE FILLED STEEL PIPE BOLLAR WITH PLASTIC COVER

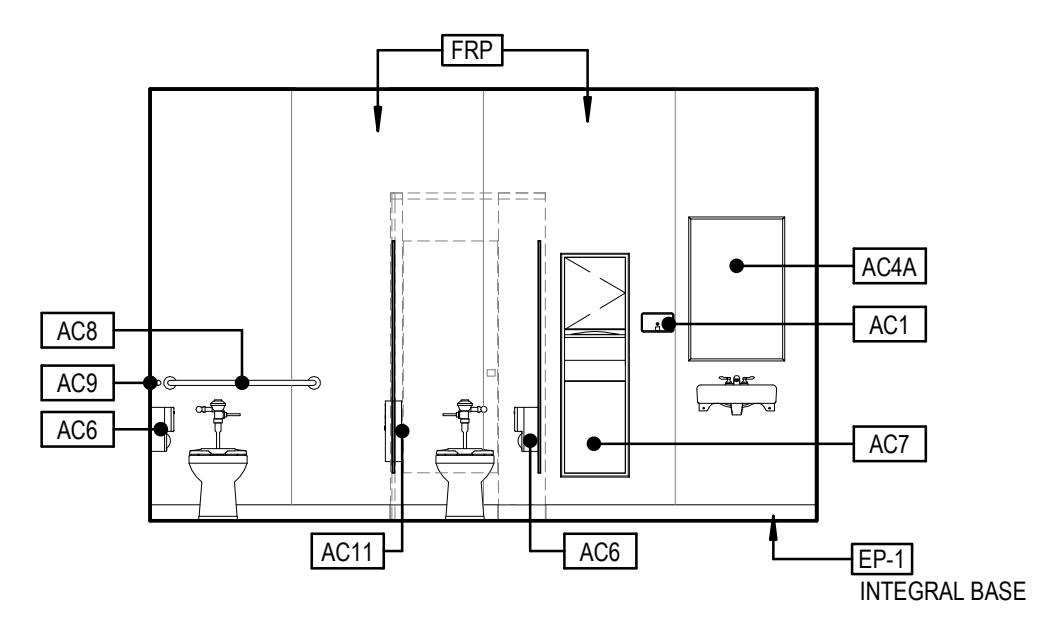


TOILET ACCESSORY SCHEDULE

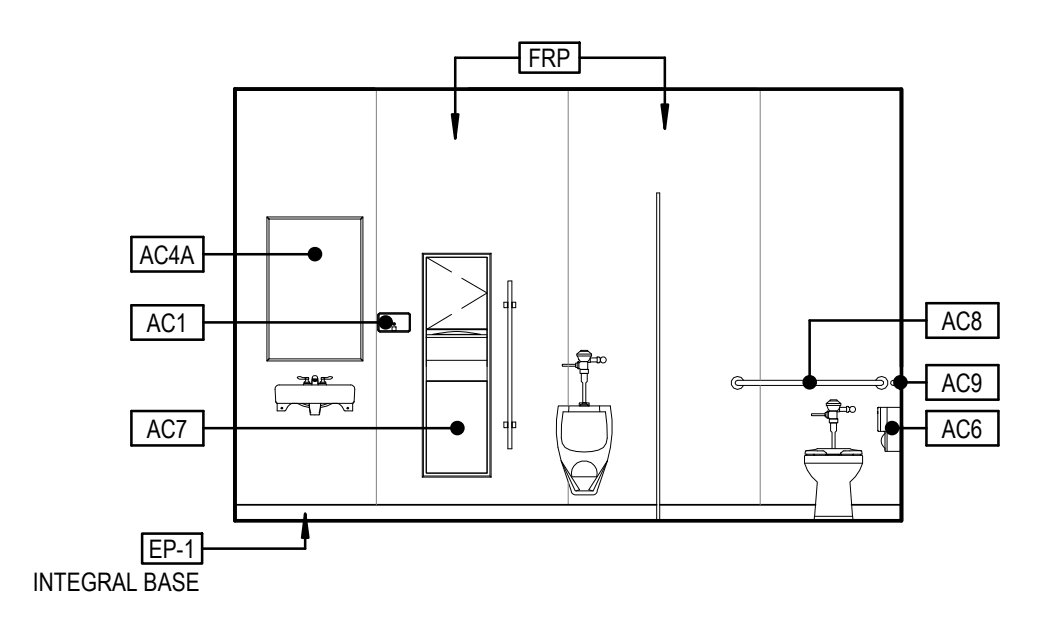
MARK	DESCRIPTION	MANUFACTURER	MODEL NO.
AC1	SOAP DISPENSER	SEE SPECS	SEE SPECS
AC4A	24" X 36" MIRROR	SEE SPECS	SEE SPECS
AC5	MOP & BROOM HOLDER	SEE SPECS	SEE SPECS
AC6	TOILET PAPER DISPENSER	SEE SPECS	SEE SPECS
AC7	PAPER TOWEL DISPENSER WASTE RECEPTACLE	SEE SPECS	SEE SPECS
AC8	36" GRAB BAR	SEE SPECS	SEE SPECS
AC9	42" GRAB BAR	SEE SPECS	SEE SPECS
AC11	SANITARY NAPKIN RECEPTACLE	SEE SPECS	SEE SPECS

2 ENLARGED FLOOR PLAN
1/4" = 1'-0"

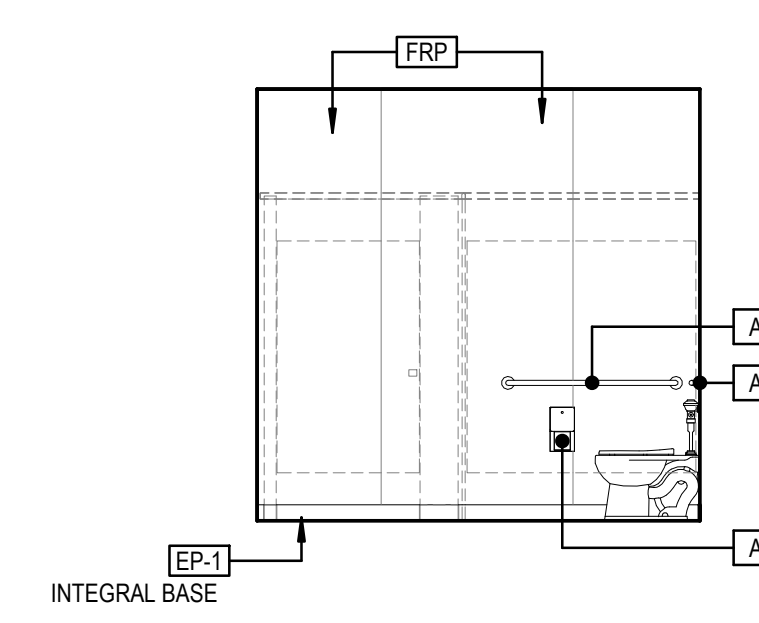
1 FLOOR PLAN - WARM SHELL
1/8" = 1'-0"



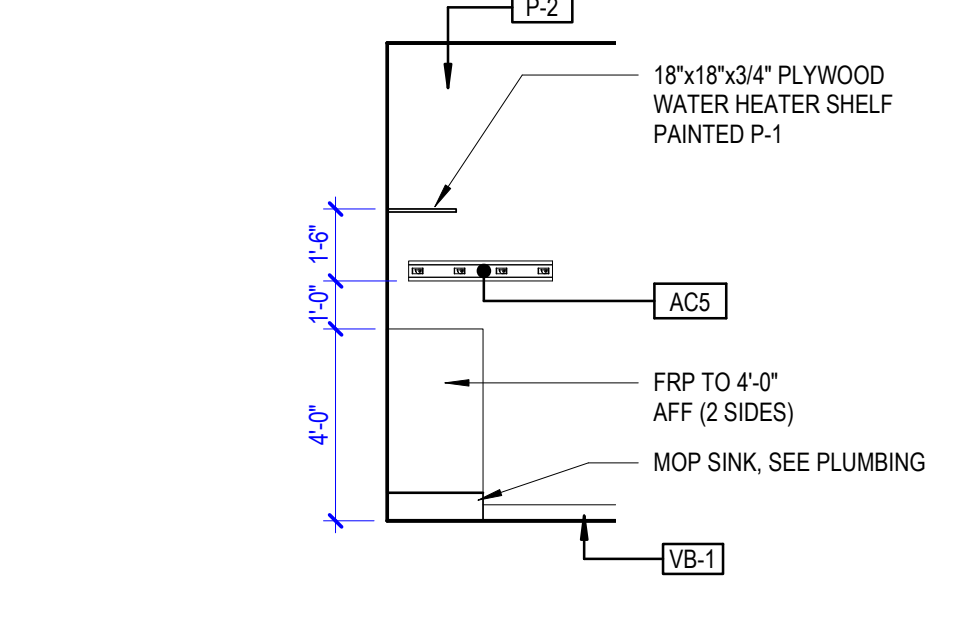
3 INTERIOR ELEVATION - WOMEN 111
1/4" = 1'-0"



4 INTERIOR ELEVATION - MEN 110
1/4" = 1'-0"

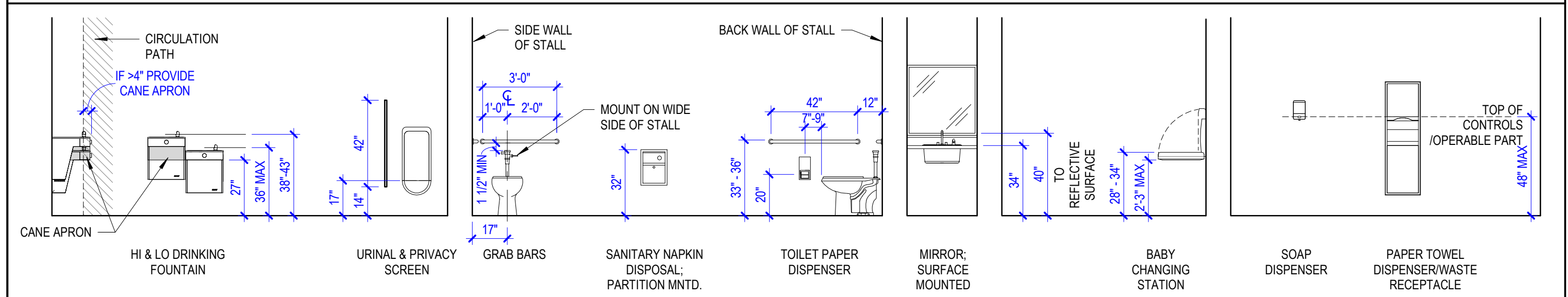


5 INTERIOR ELEVATION
1/4" = 1'-0"



6 INTERIOR ELEVATION - JANITOR 107
1/4" = 1'-0"

TYPICAL MOUNTING HEIGHTS



PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: FLOOR PLAN

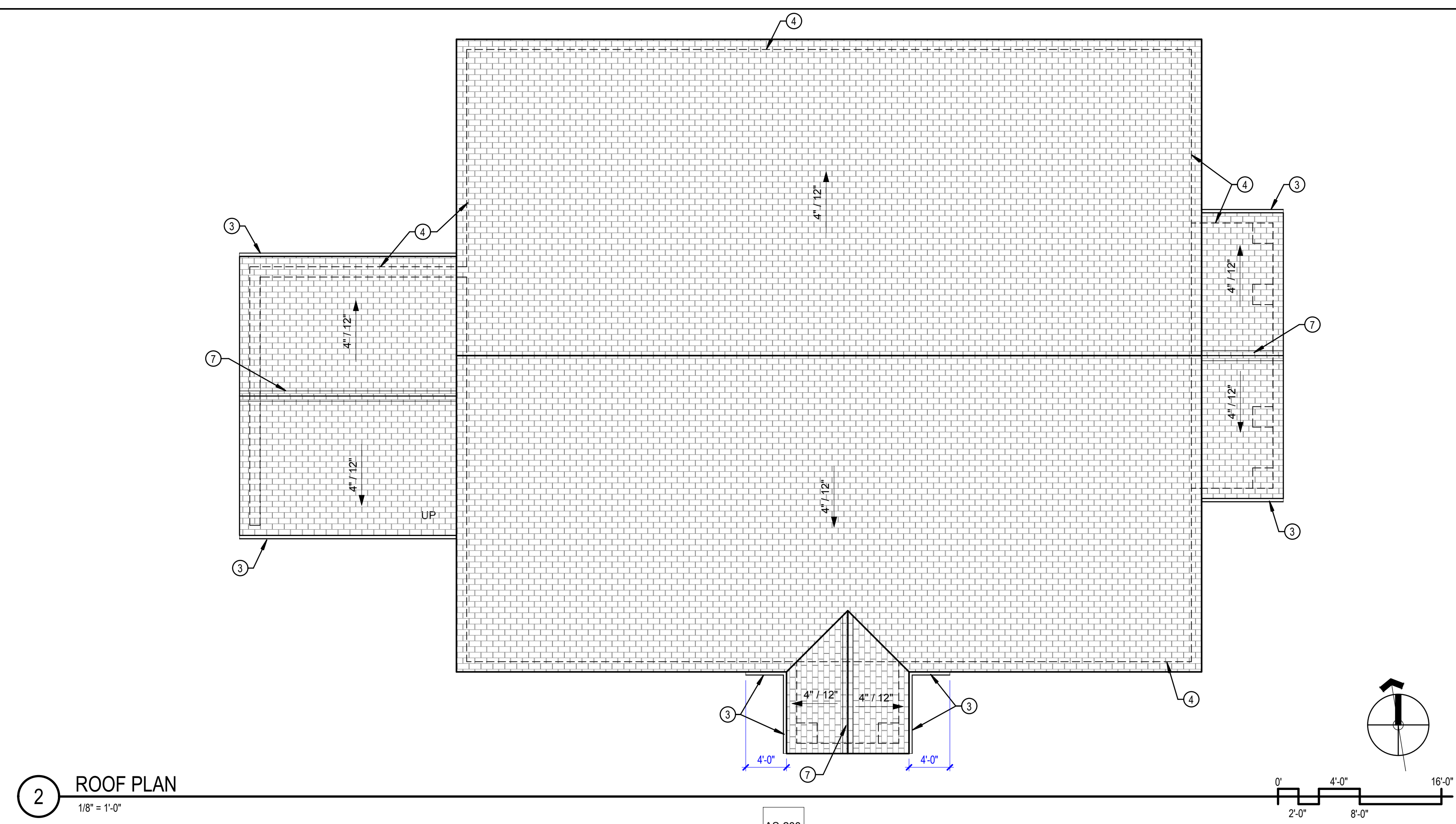
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REVISIONS DATE

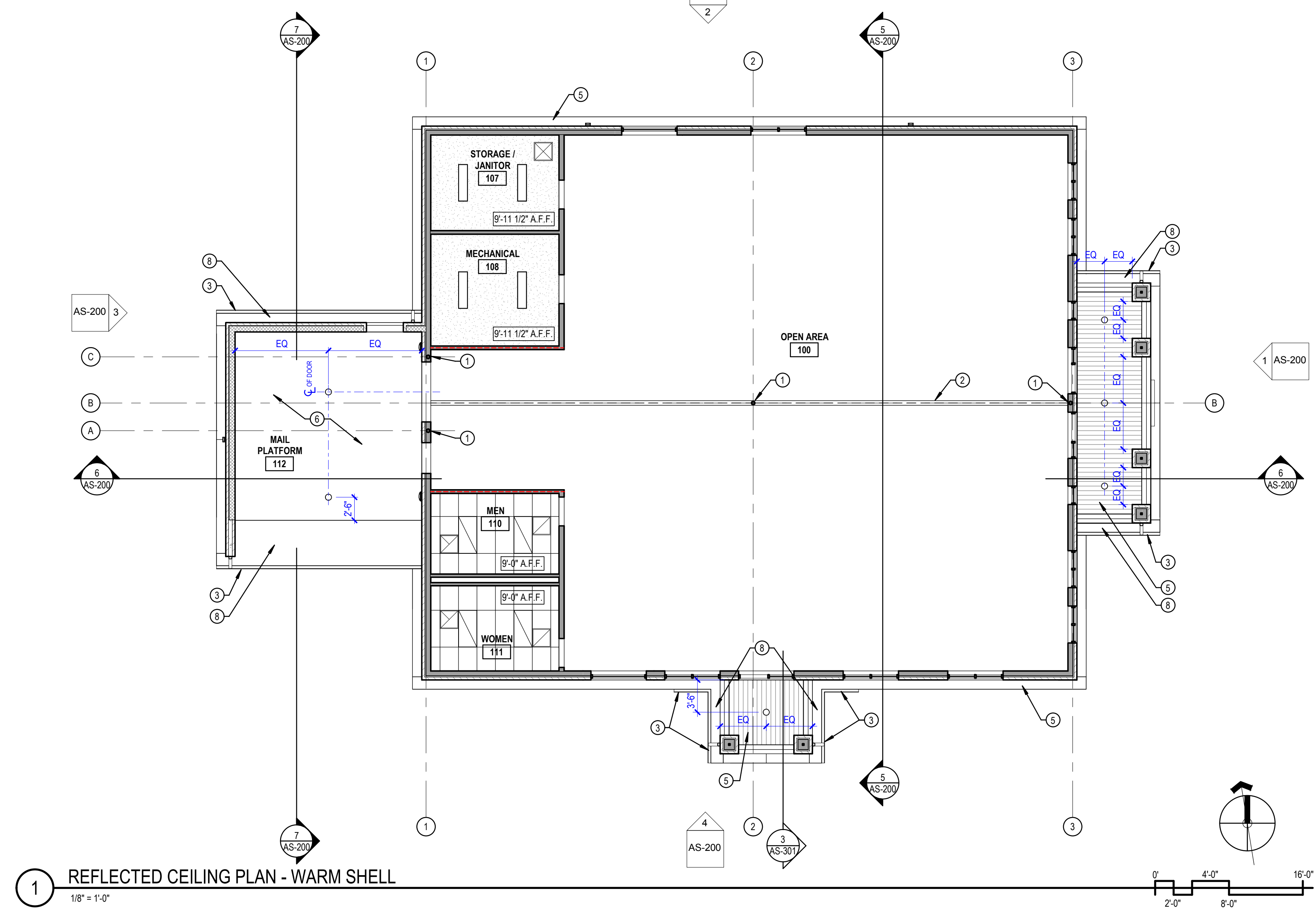
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2 ROOF PLAN
1/8" = 1'-0"



1 REFLECTED CEILING PLAN - WARM SHELL
1/8" = 1'-0"

KEYNOTES

- 1 STEEL COLUMN, SEE STRUCTURAL.
- 2 STEEL BEAM, SEE STRUCTURAL.
- 3 PREFINISHED GUTTER AND DOWNSPOUT
- 4 OUTLINE OF EXTERIOR WALL BELOW
- 5 VINYL SOFFIT
- 6 5/8" EXT. GRADE PLYWOOD SECURITY CEILING PROVIDE NAILERS AS REQUIRED, PAINT
- 7 RIDGE VENT
- 8 PROVIDE VENTED VINYL SOFFITS AT LOCATIONS INDICATED

REFLECTED CEILING PLAN LEGEND

- 2' X 4' FLUORESCENT FIXTURE
- RECESSED LIGHT FIXTURE
- EXTERIOR WALL PACK
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- RETURN AIR GRILLE
- GYPSUM BOARD CEILING
- 2' X 4' SUSPENDED ACOUSTICAL CEILING
- NO CEILING (EXPOSED TO STRUCTURE), U.N.O
- 9'-0" A.F.F. CEILING HEIGHT ABOVE FINISH FLOOR

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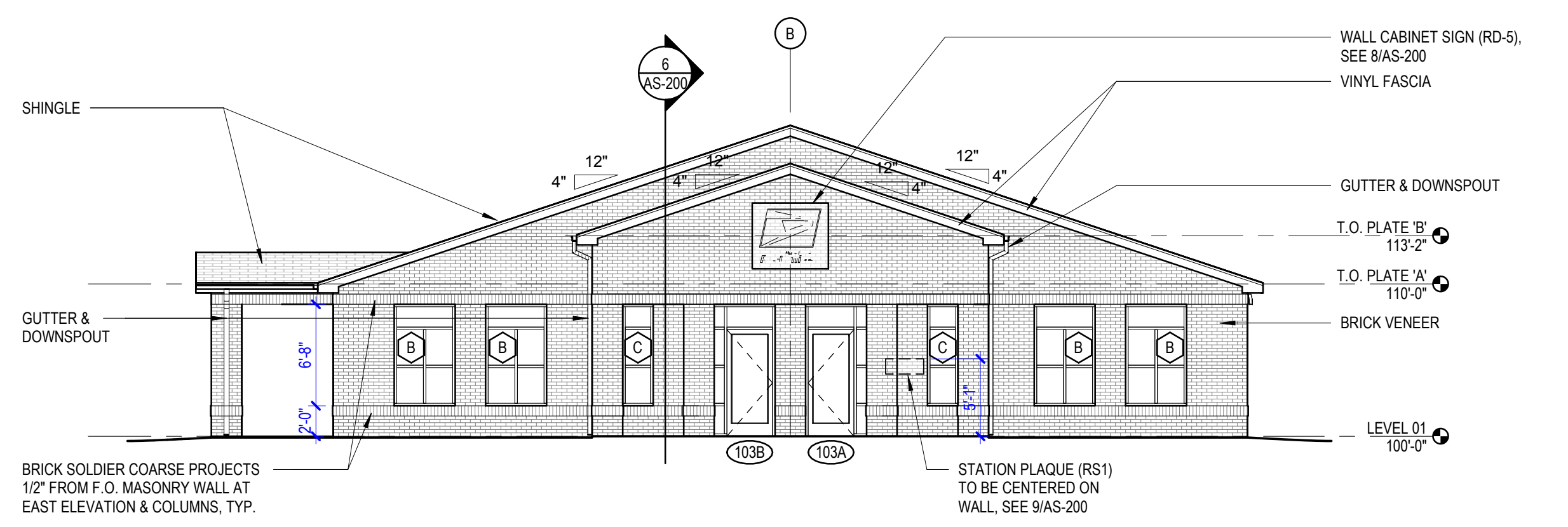
8/7/2020

PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: REFLECTED CEILING PLAN & ROOF PLAN

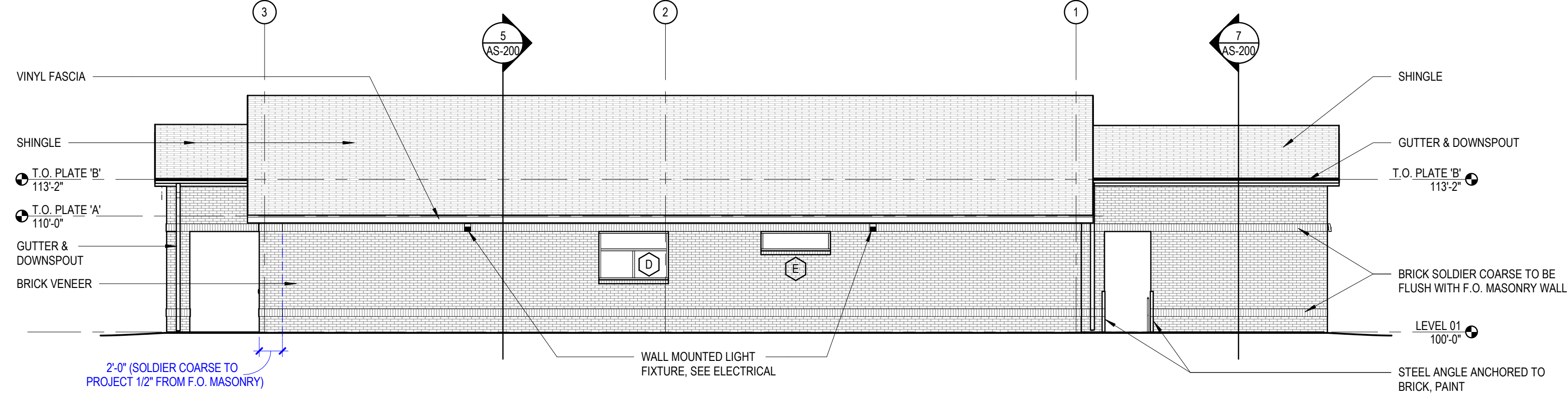
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REVISIONS DATE

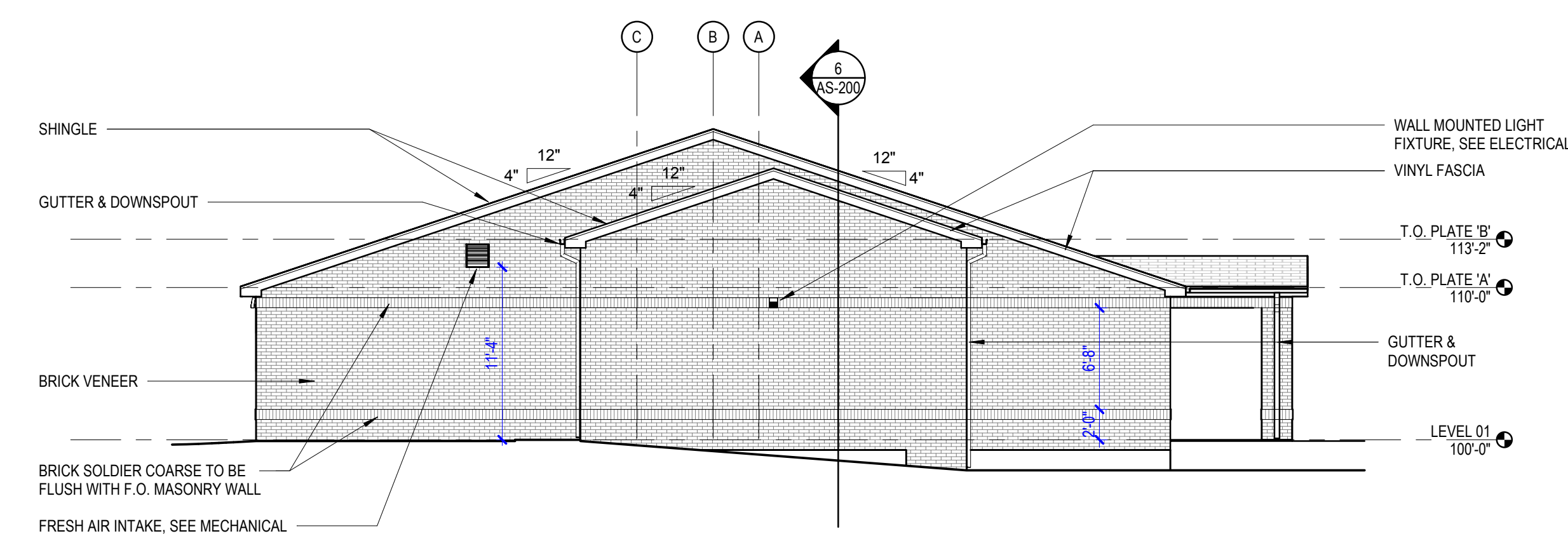
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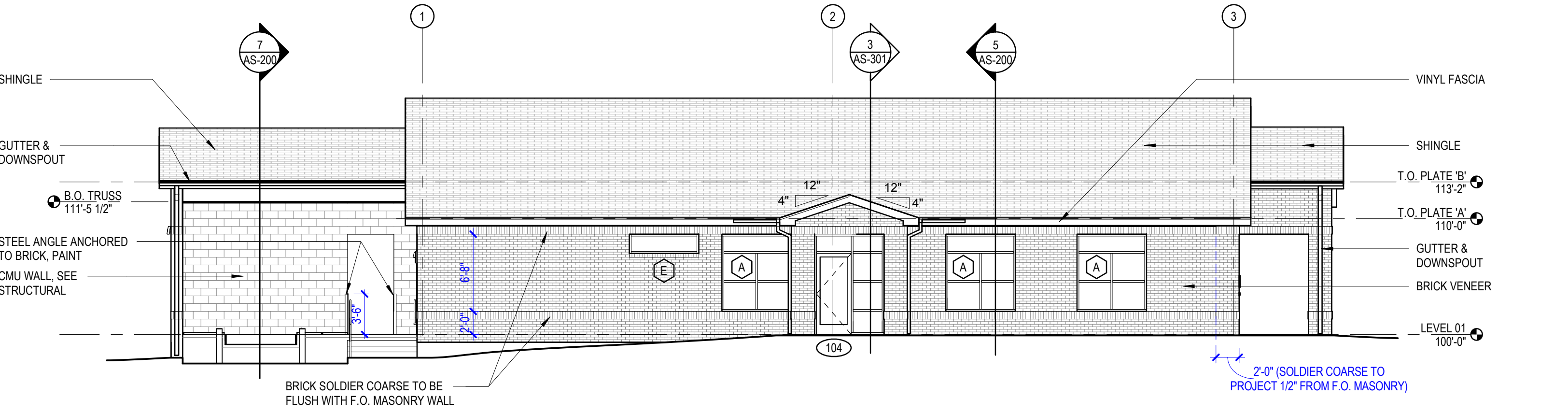
1 EAST ELEVATION
1/8" = 1'-0"



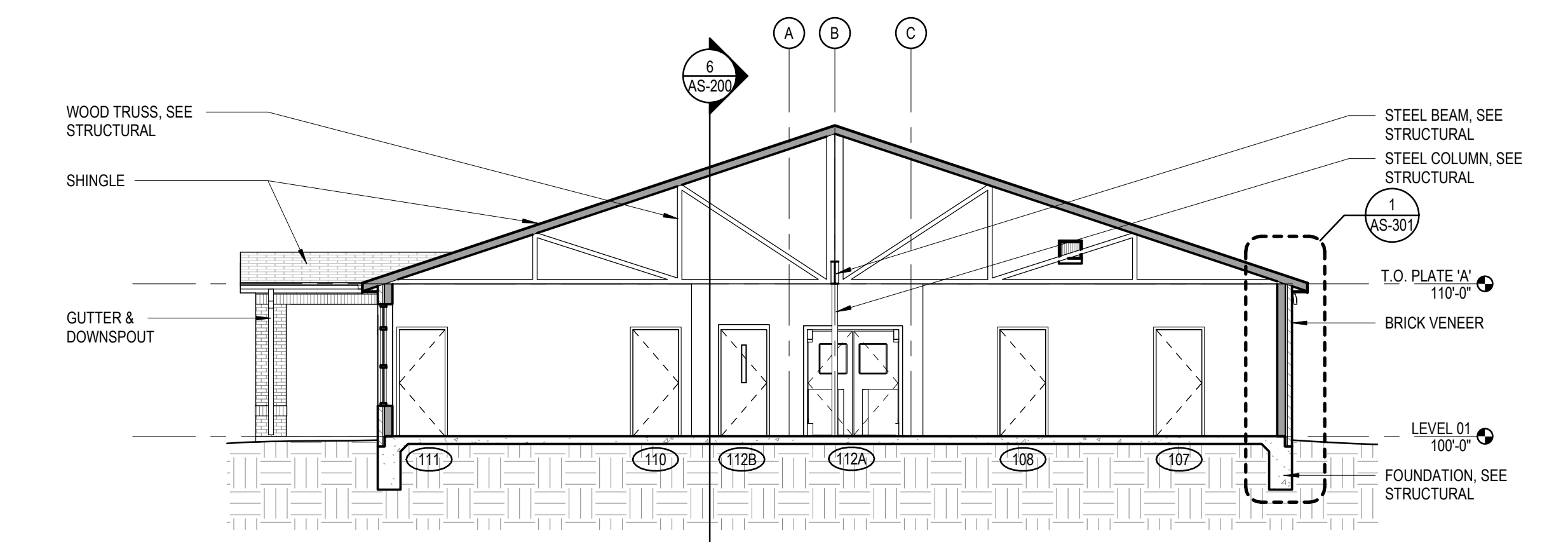
2 NORTH ELEVATION
1/8" = 1'-0"



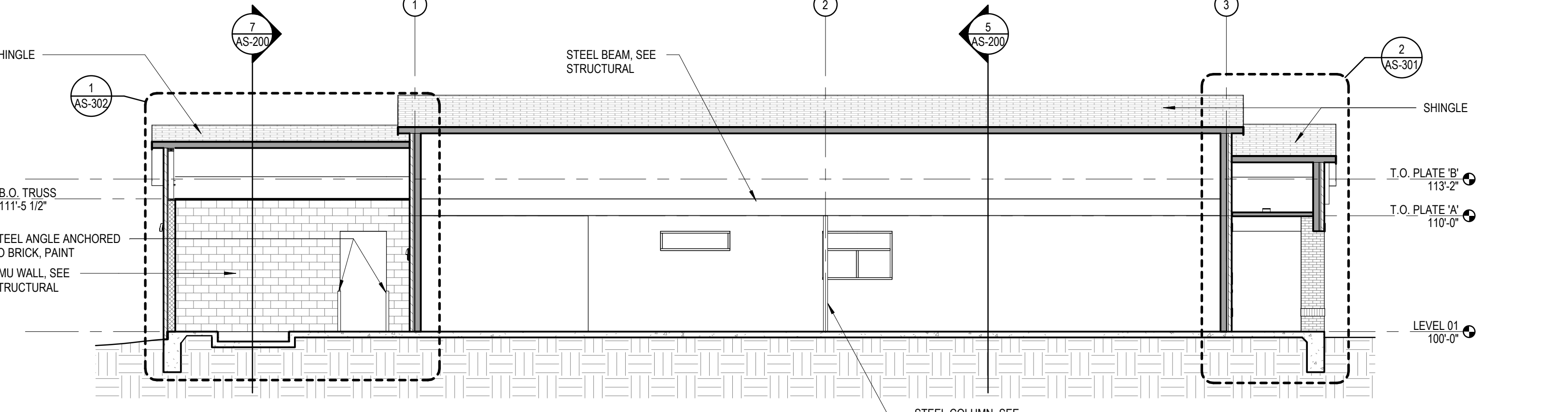
3 WEST ELEVATION
1/8" = 1'-0"



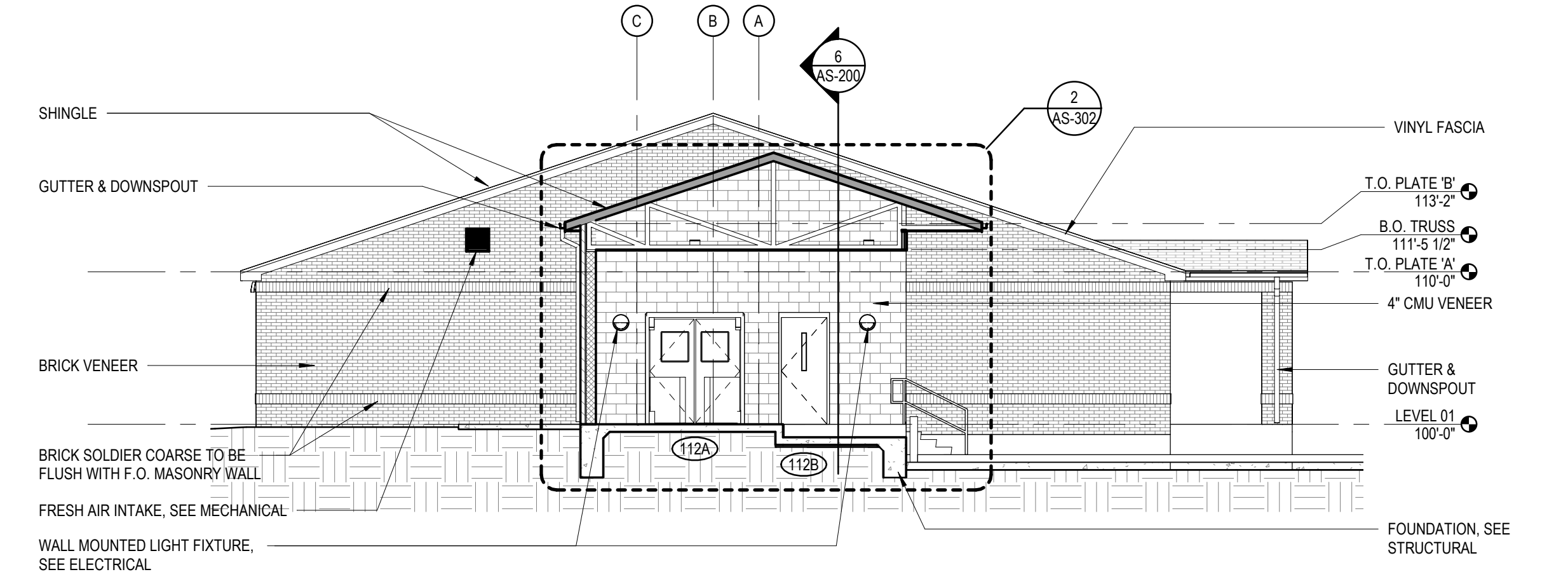
4 SOUTH ELEVATION
1/8" = 1'-0"



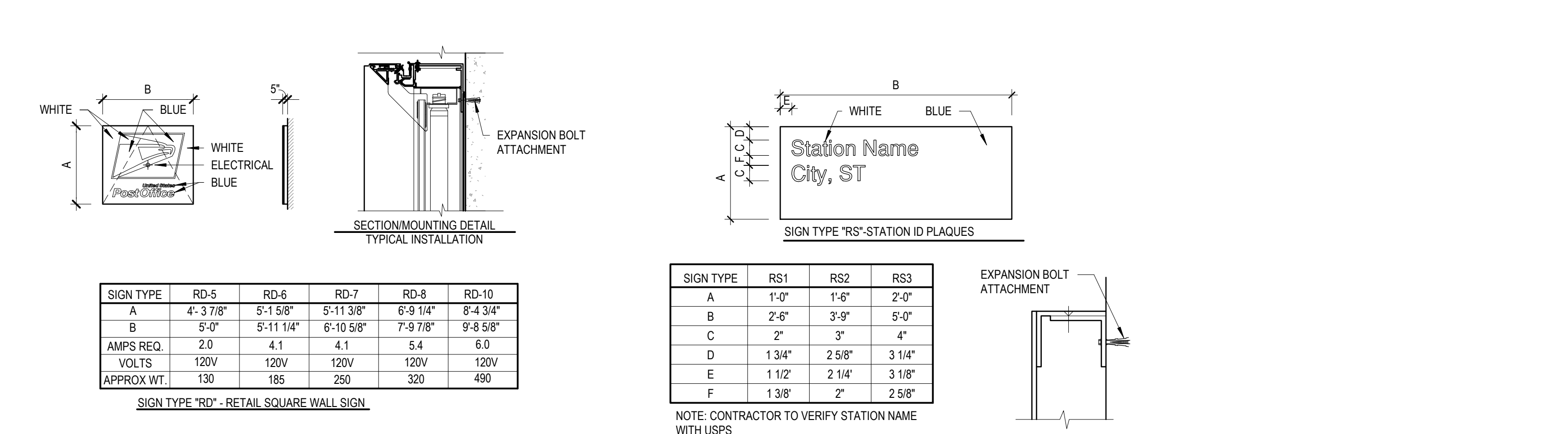
5 TRANSVERSE BUILDING SECTION
1/8" = 1'-0"



6 LONGITUDINAL BUILDING SECTION
1/8" = 1'-0"



7 BUILDING SECTION AT MAIL PLATFORM
1/8" = 1'-0"



8 WALL CABINET SIGN (RD-5) DETAIL
1/8" = 1'-0"

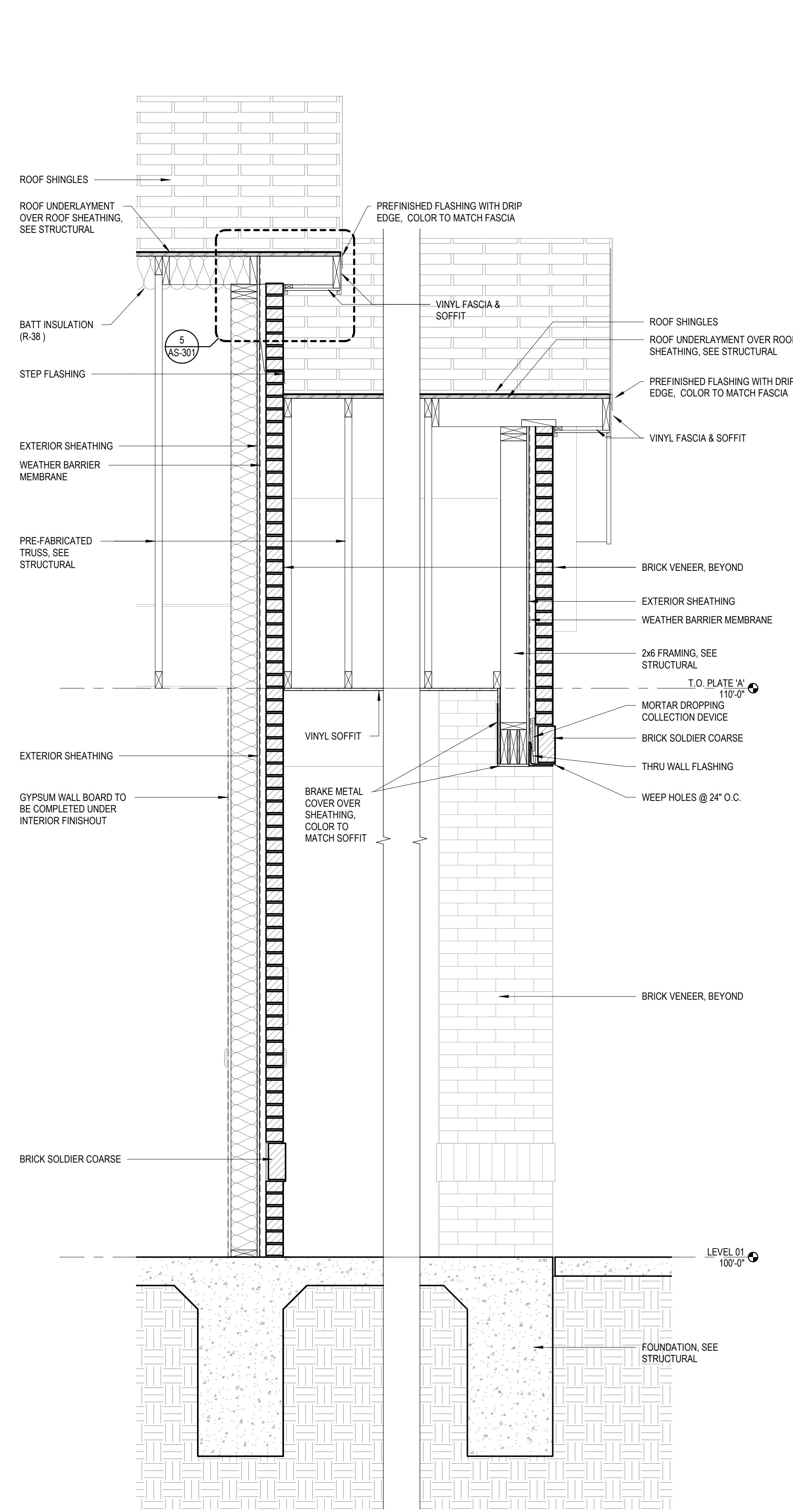
9 STATION ID PLAQUE (RS1) DETAIL
1" = 1'-0"

8/7/2020 8:48:23 AM

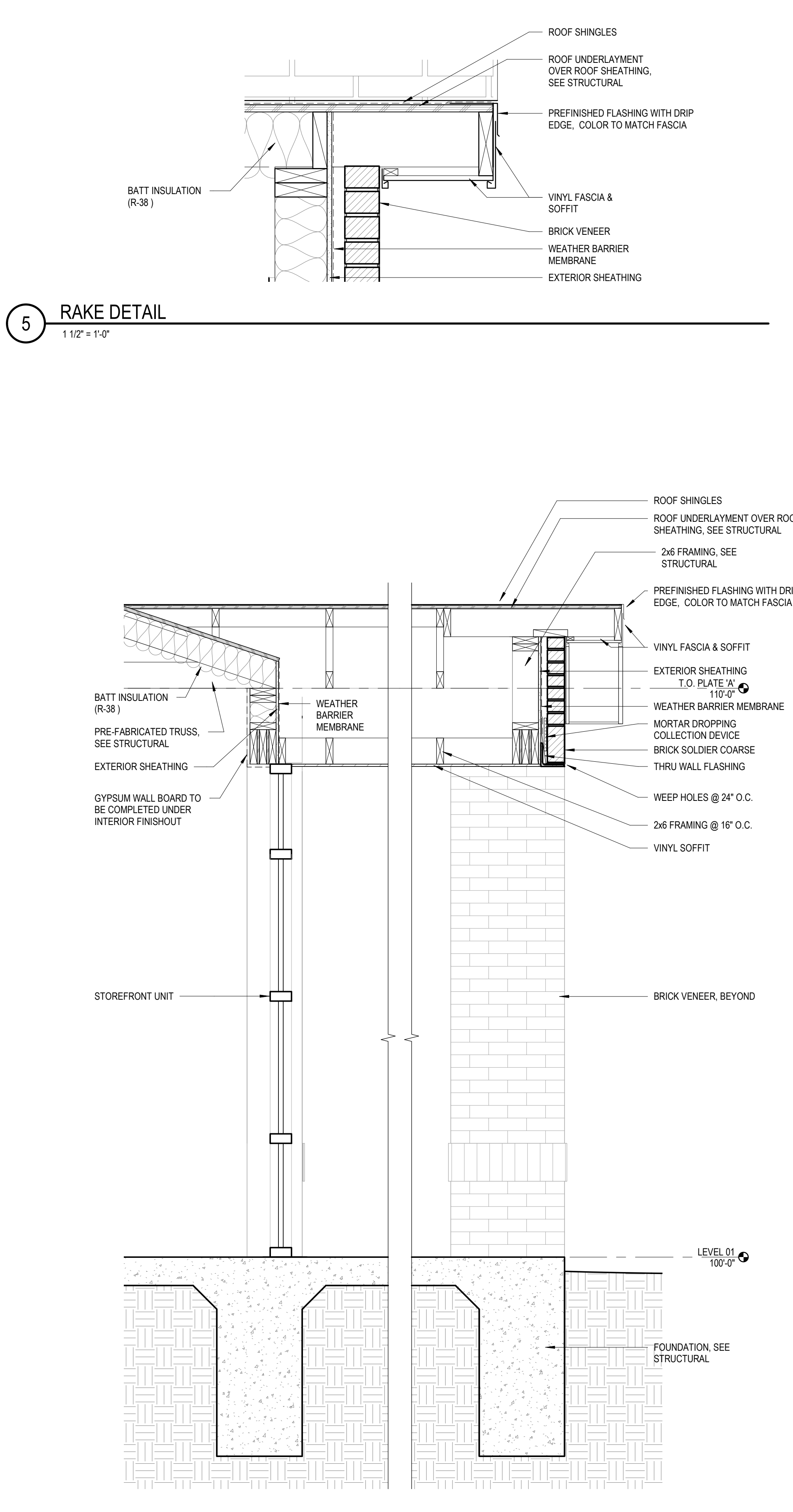
PROJECT NO: 1921 A1

REVISIONS DATE

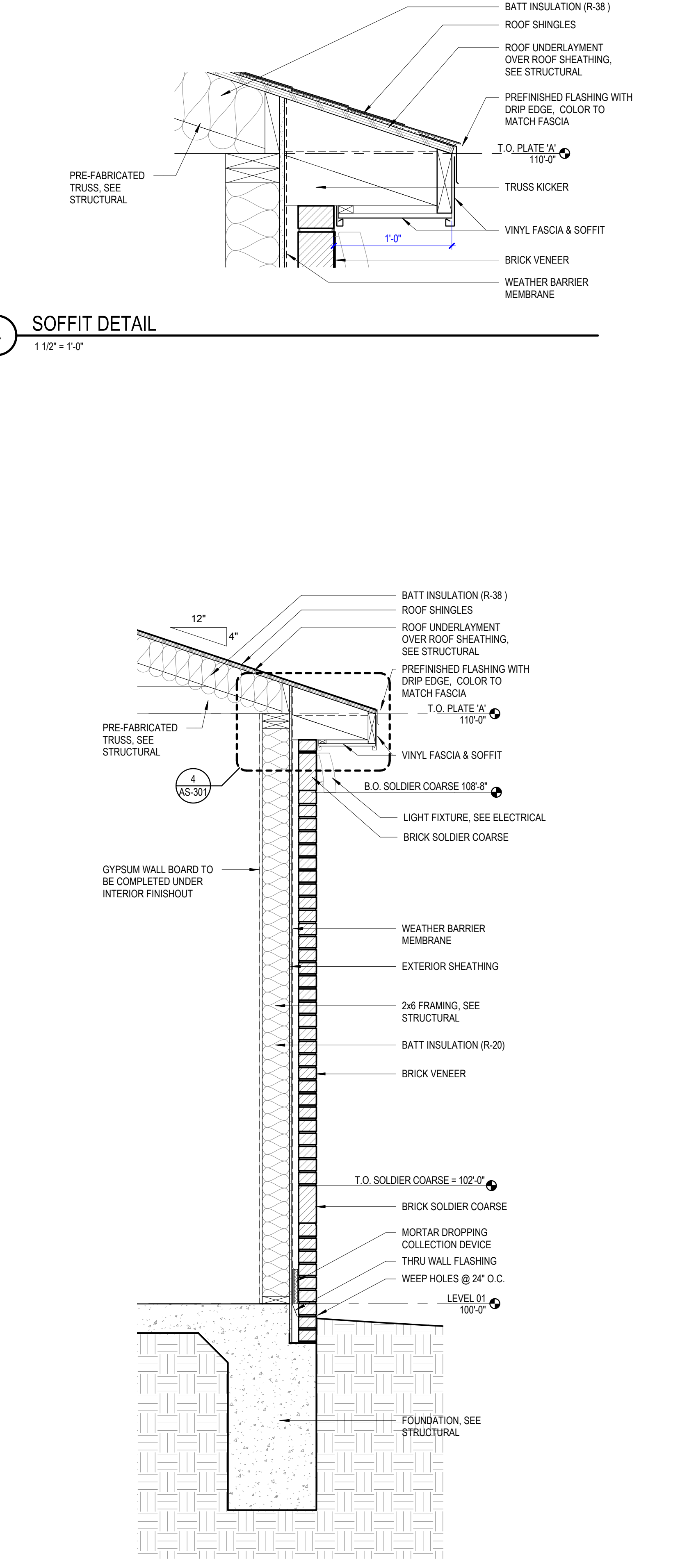
SHEET NO:
AS-200



2 WALL SECTION @ MAIN ENTRANCE
3/4" = 1'-0"

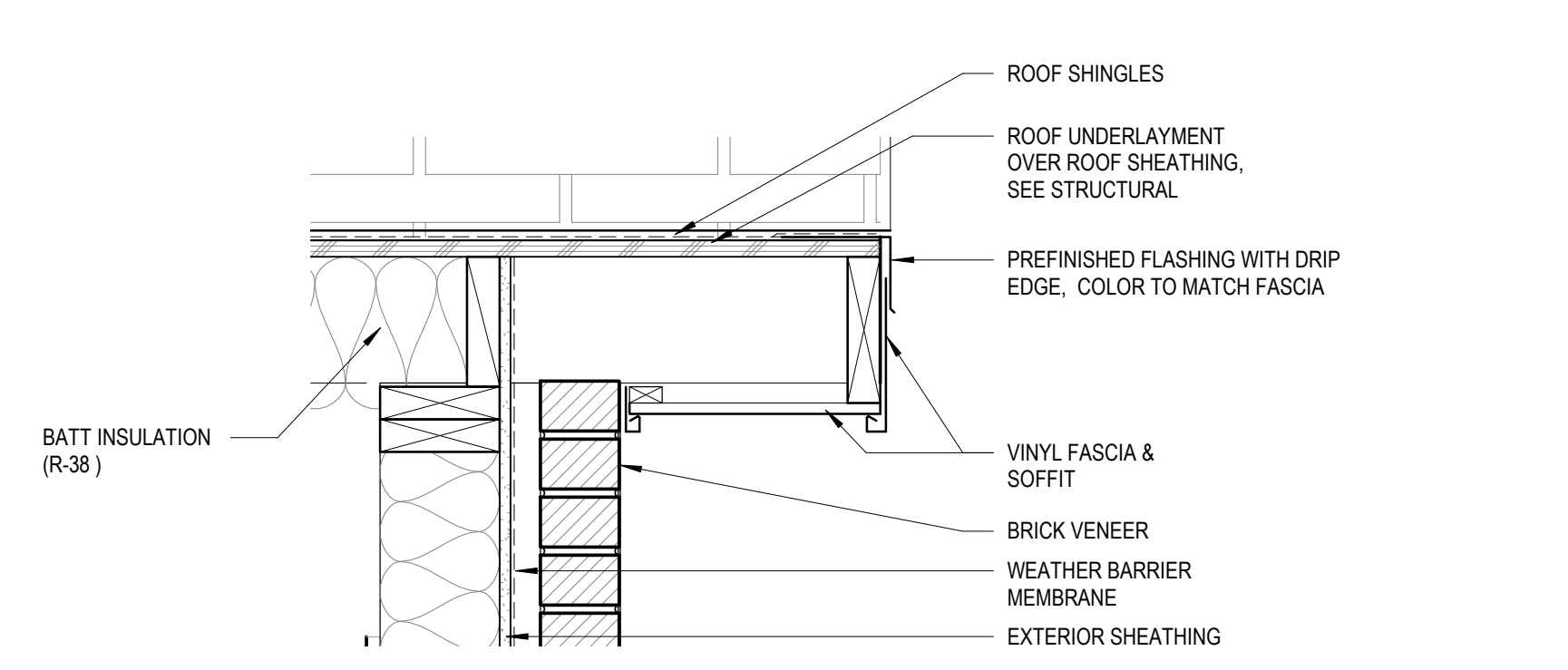


3 WALL SECTION AT BOX LOBBY ENTRANCE
3/4" = 1'-0"

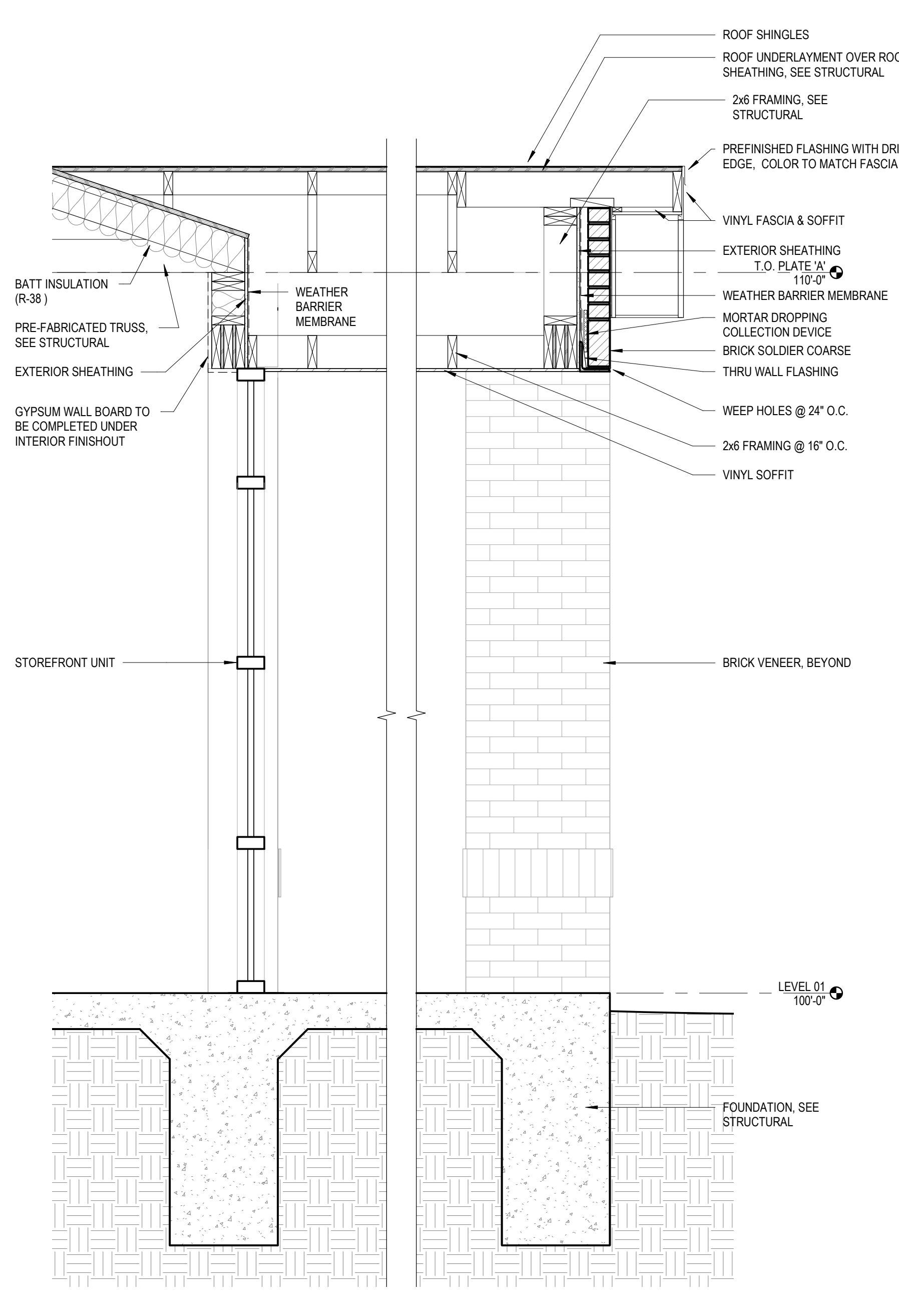
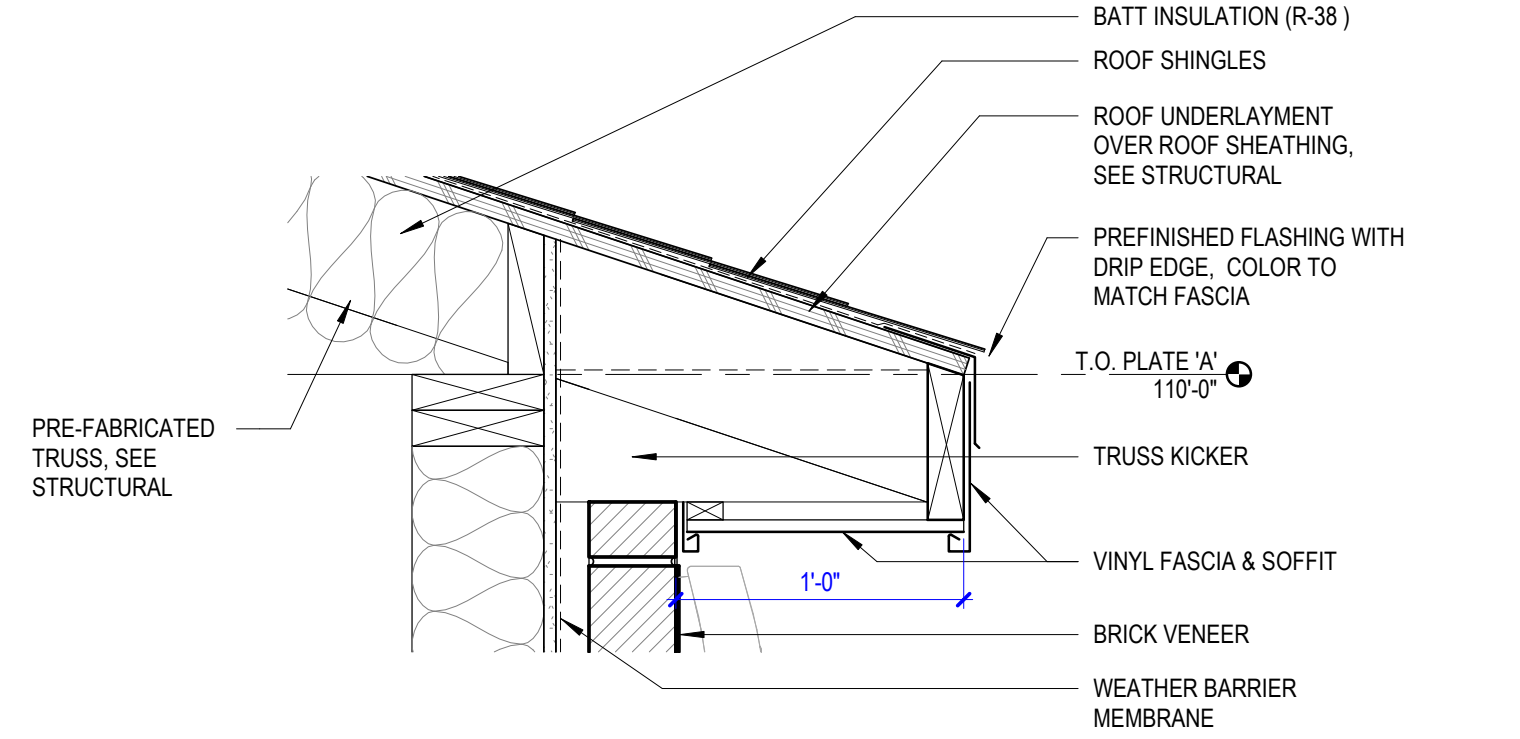


1 WALL SECTION, TYPICAL
3/4" = 1'-0"

5 RAKE DETAIL
1 1/2" = 1'-0"



4 SOFFIT DETAIL
1 1/2" = 1'-0"



3 WALL SECTION AT STOREFRONT UNIT
3/4" = 1'-0"

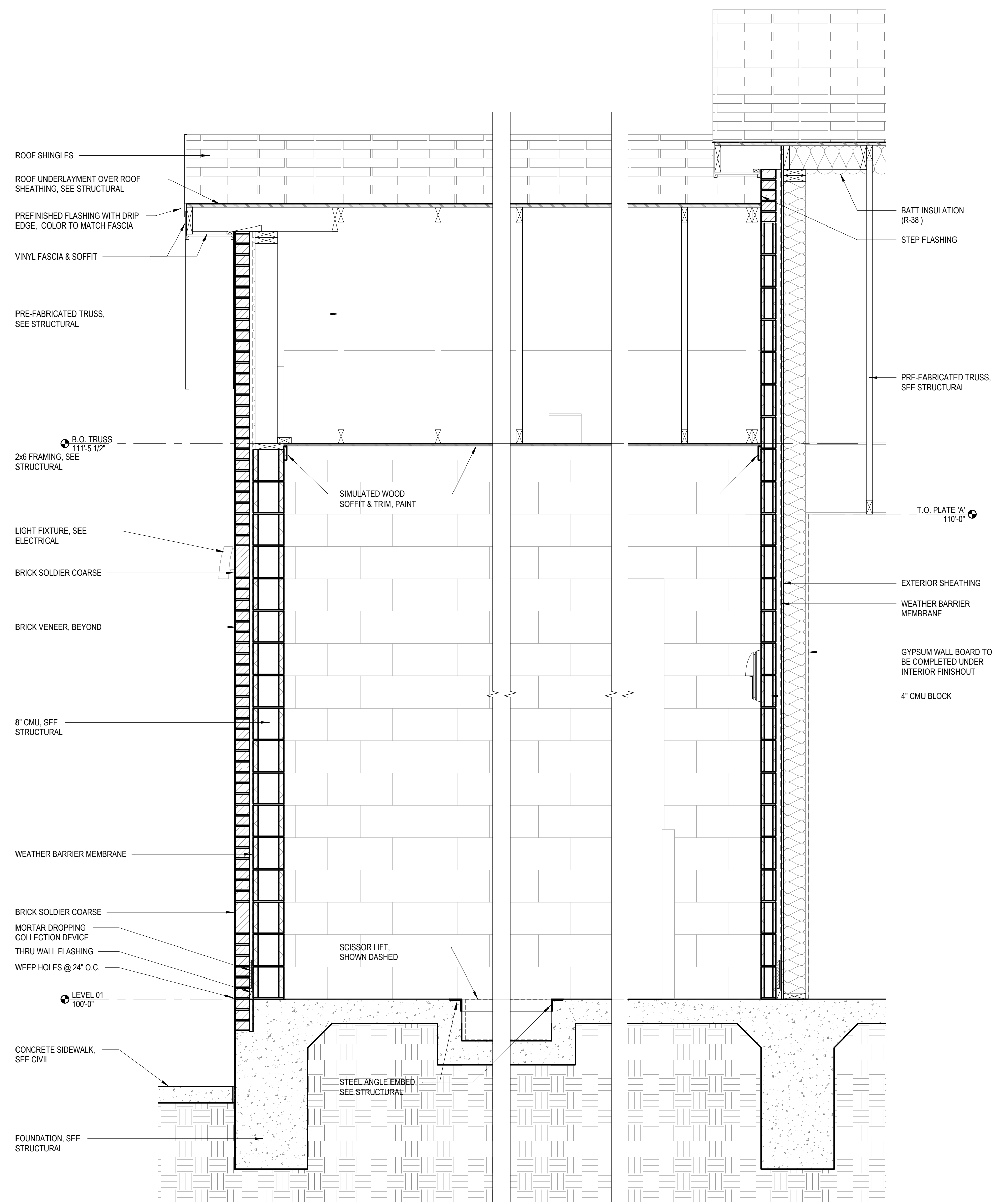
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PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: WALL SECTIONS

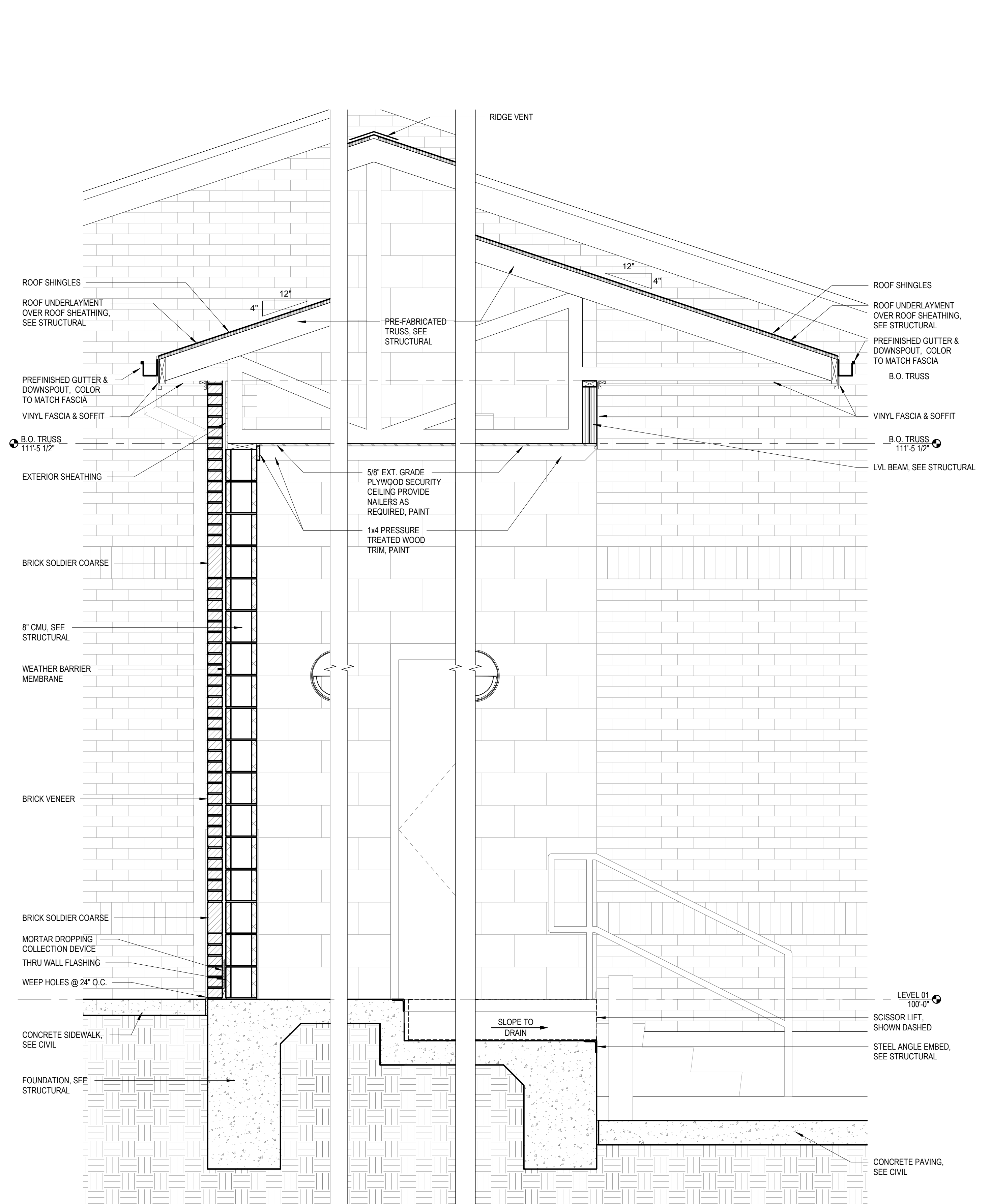
PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO: AS-301



1 WALL SECTION @ LOADING DOCK
3/4" = 1'-0"



2 WALL SECTION @ LOADING DOCK
3/4" = 1'-0"

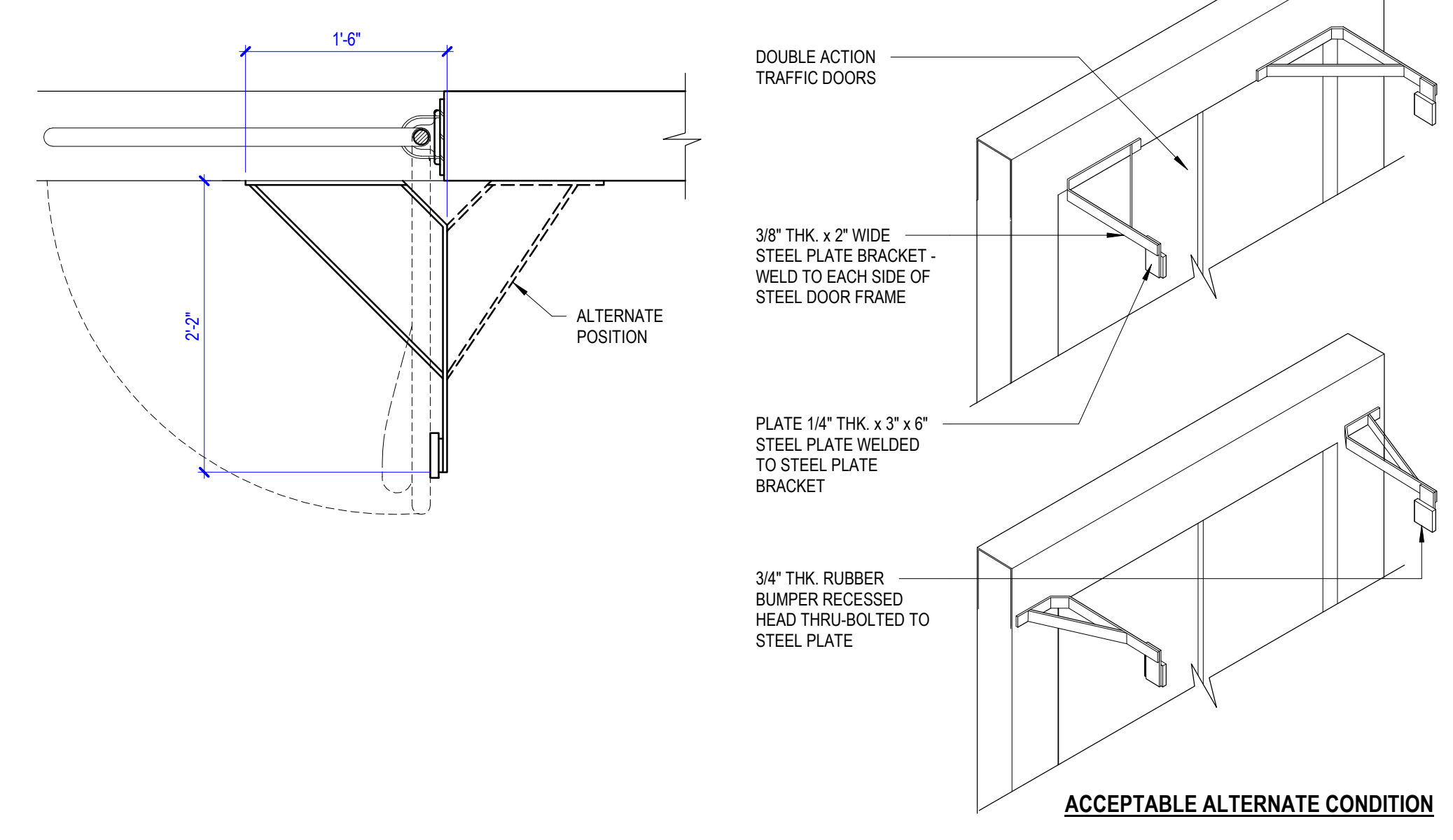
PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: WALL SECTIONS

PROJECT NO: 1921 A1

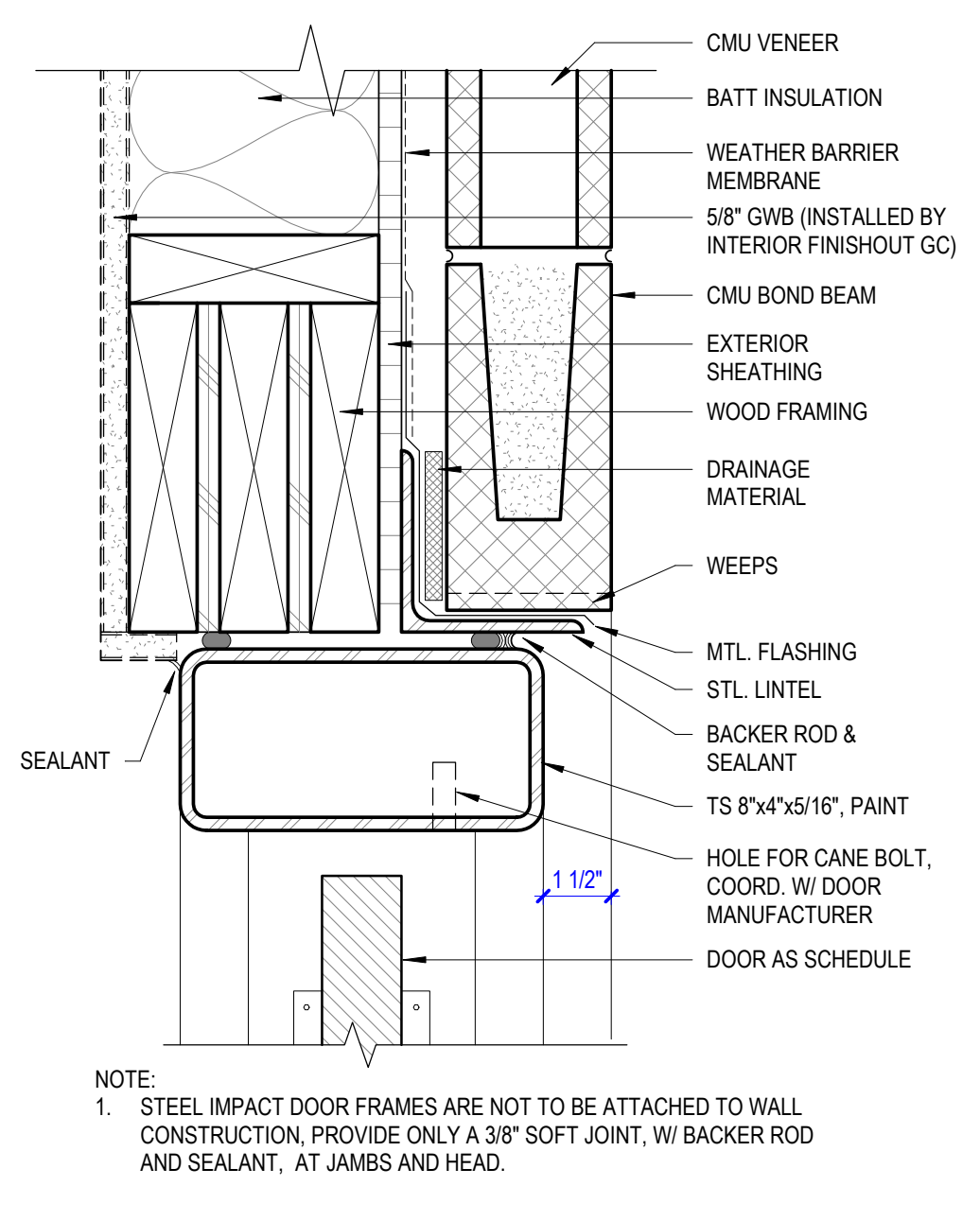
REVISIONS DATE

SHEET NO: AS-302

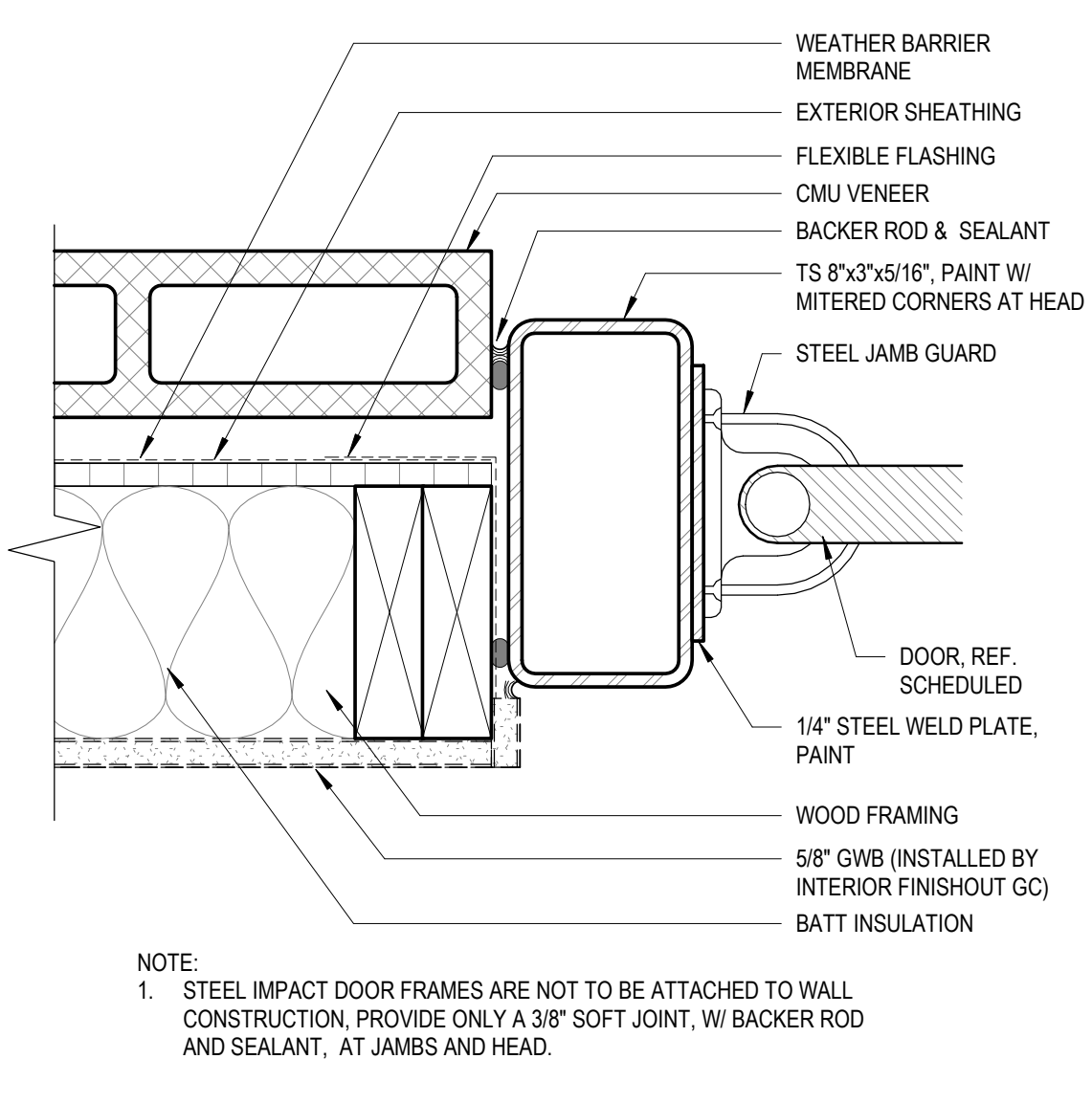
8/7/2020 8:48:29 AM



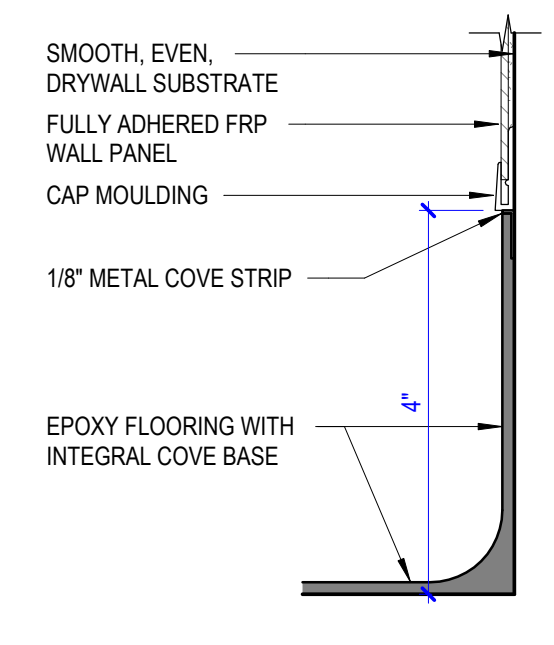
16 OVERHEAD DOOR STOP DETAIL
1' = 1'-0"



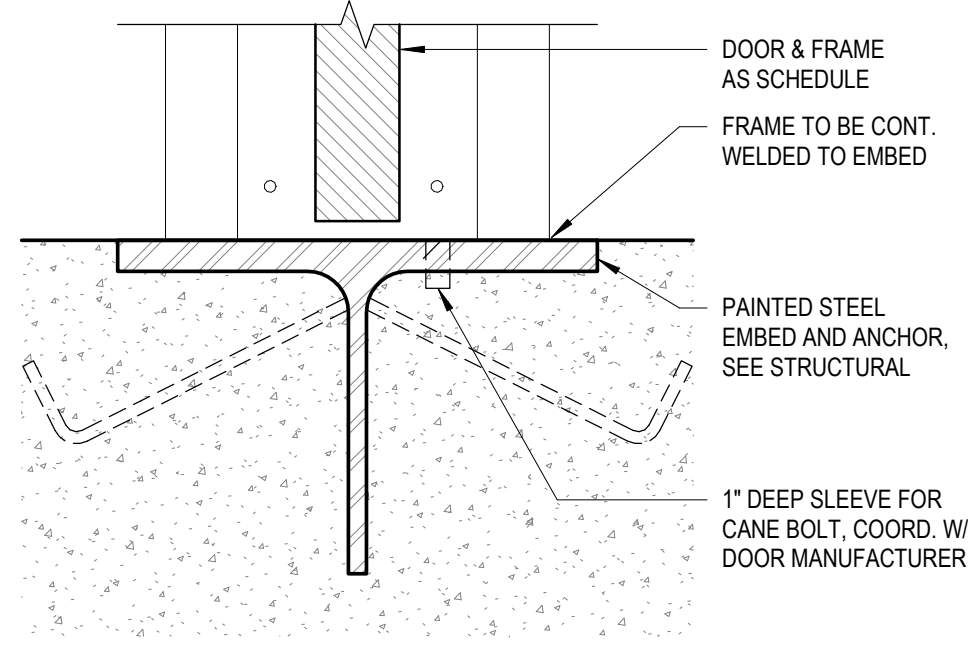
11 IMPACT DOOR HEAD DETAIL
3' = 1'-0"



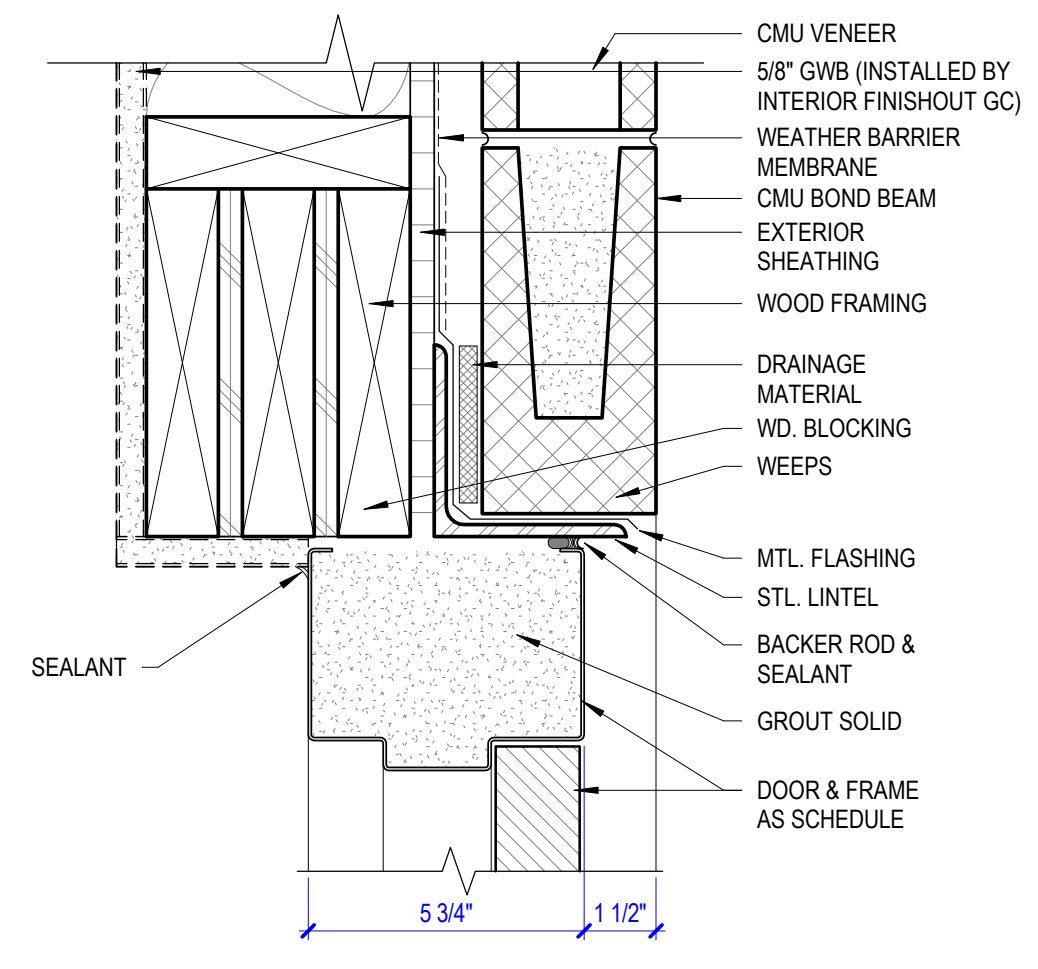
10 IMPACT DOOR JAMB DETAIL
3' = 1'-0"



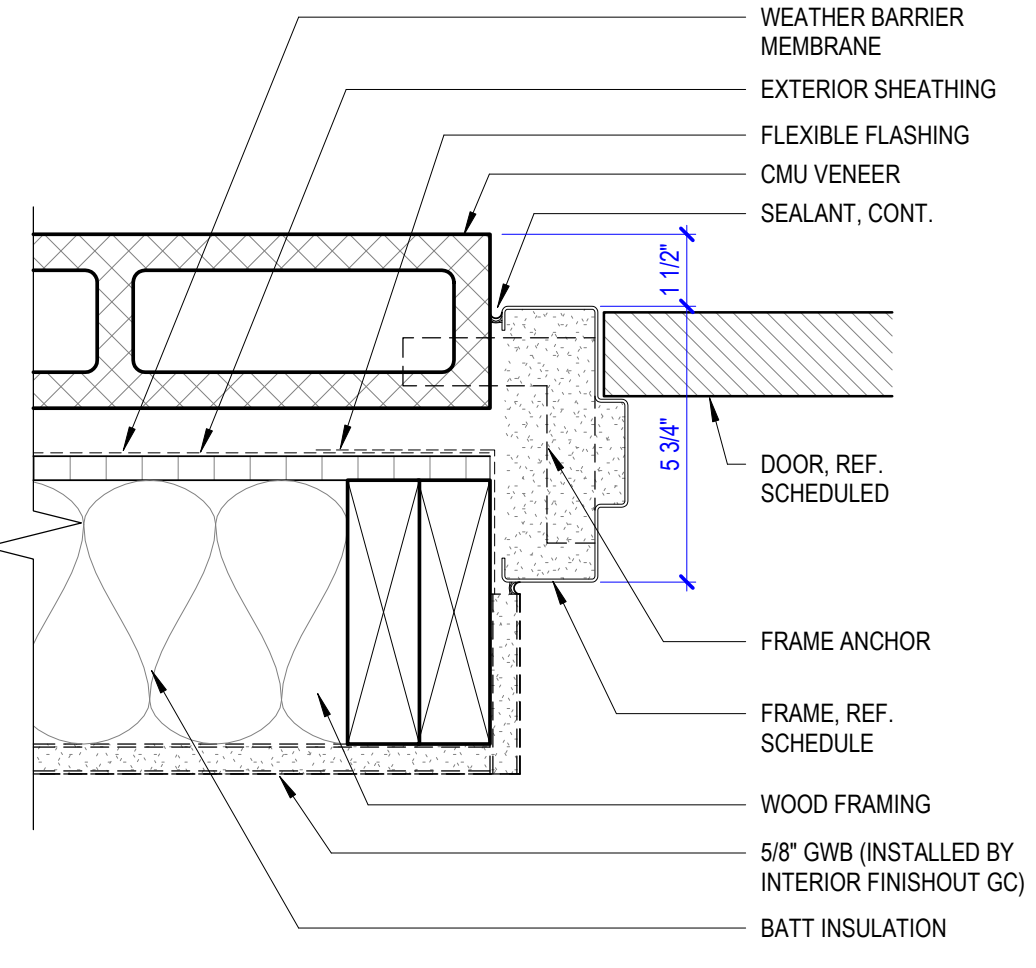
12 INTEGRAL COVE BASE DETAIL
6' = 1'-0"



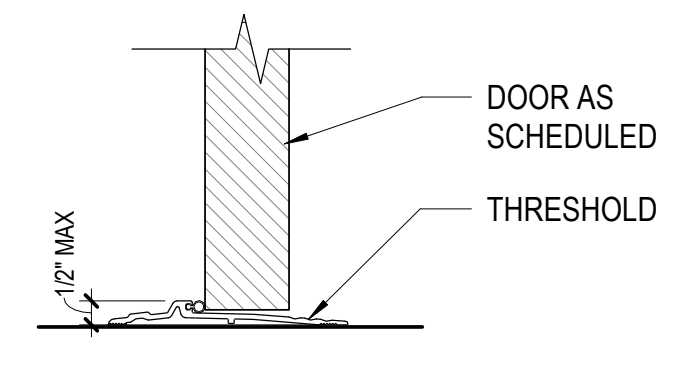
9 IMPACT DOOR THRESHOLD DETAIL
3' = 1'-0"



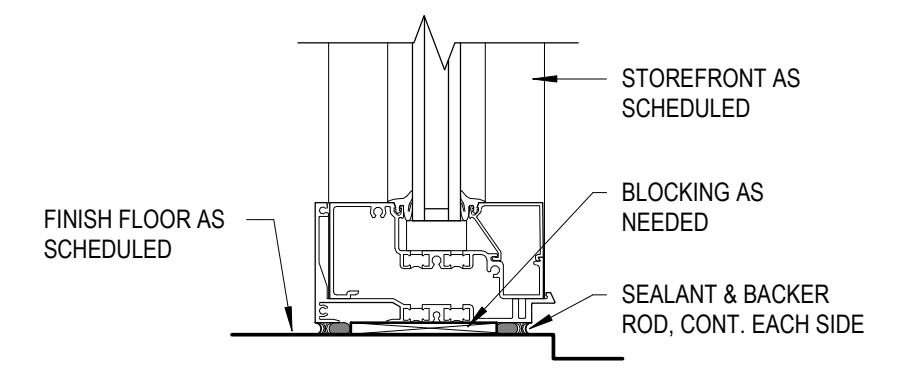
8 DOOR HEAD DETAIL
3' = 1'-0"



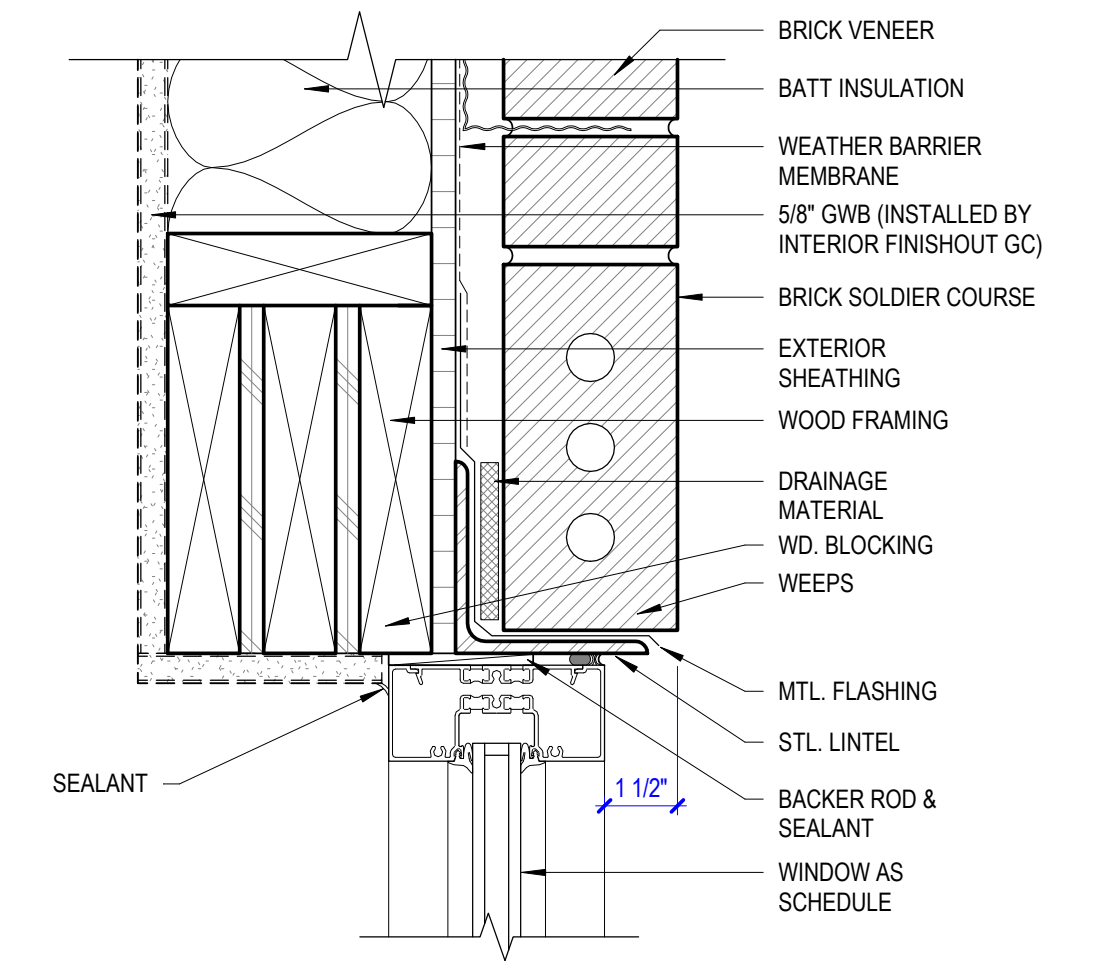
7 DOOR JAMB DETAIL
3' = 1'-0"



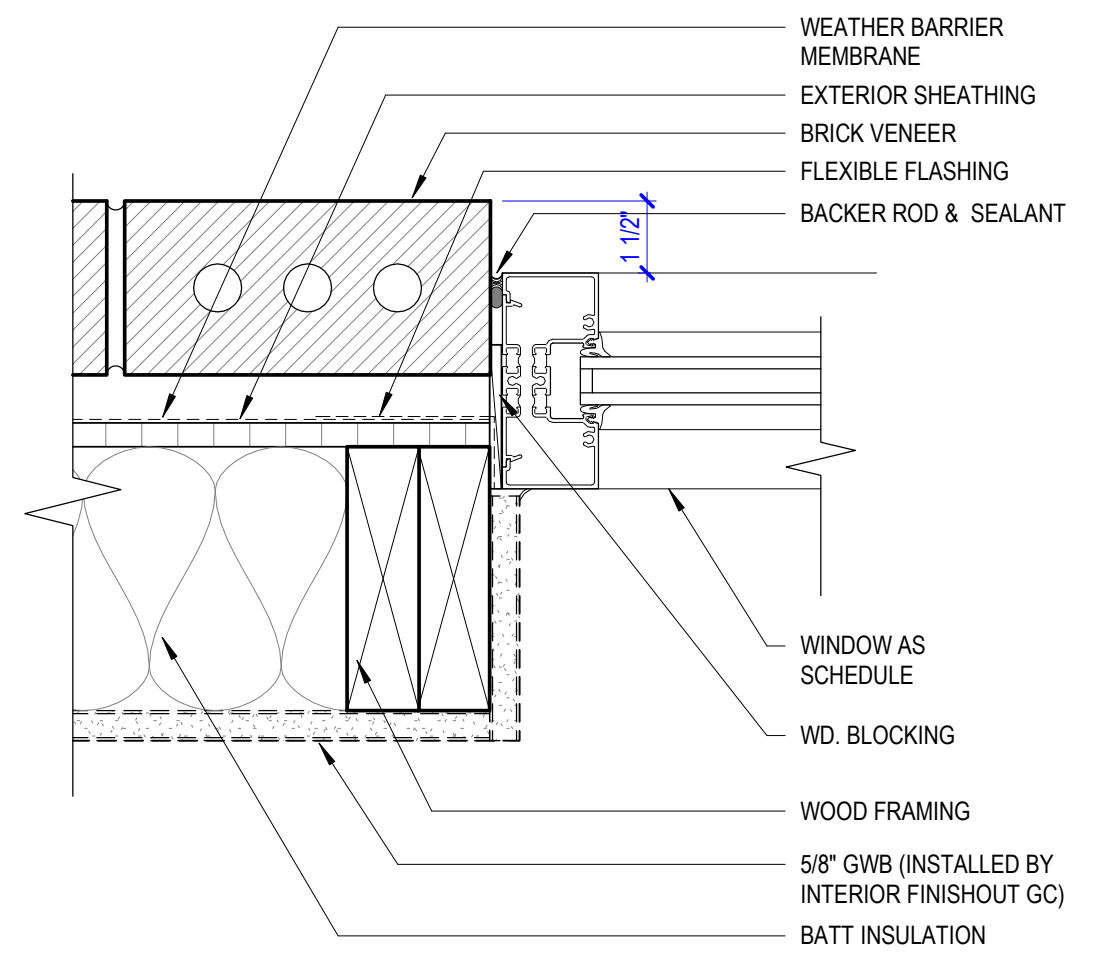
6 THRESHOLD DETAIL
3' = 1'-0"



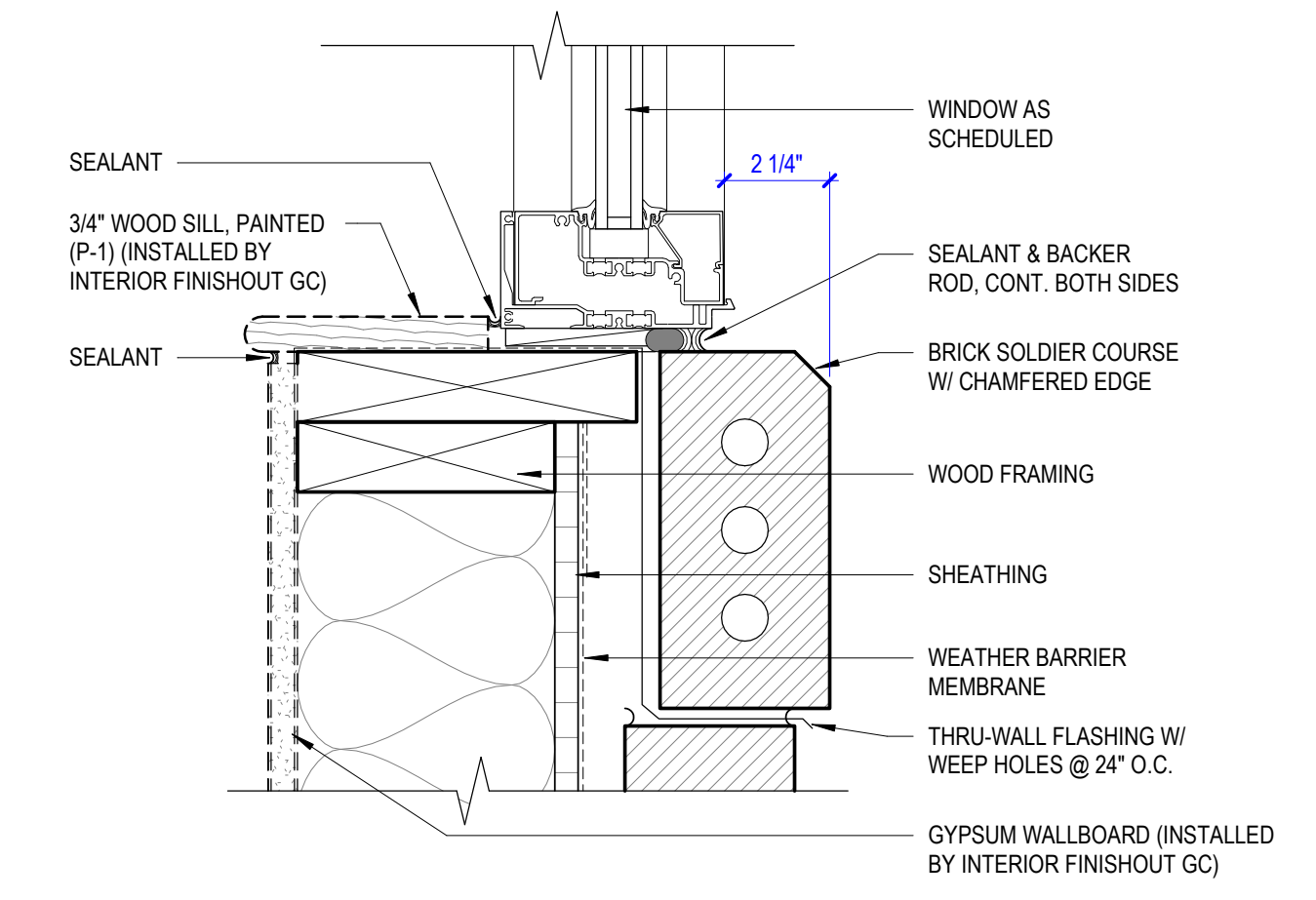
5 WINDOW SILL DETAIL
3' = 1'-0"



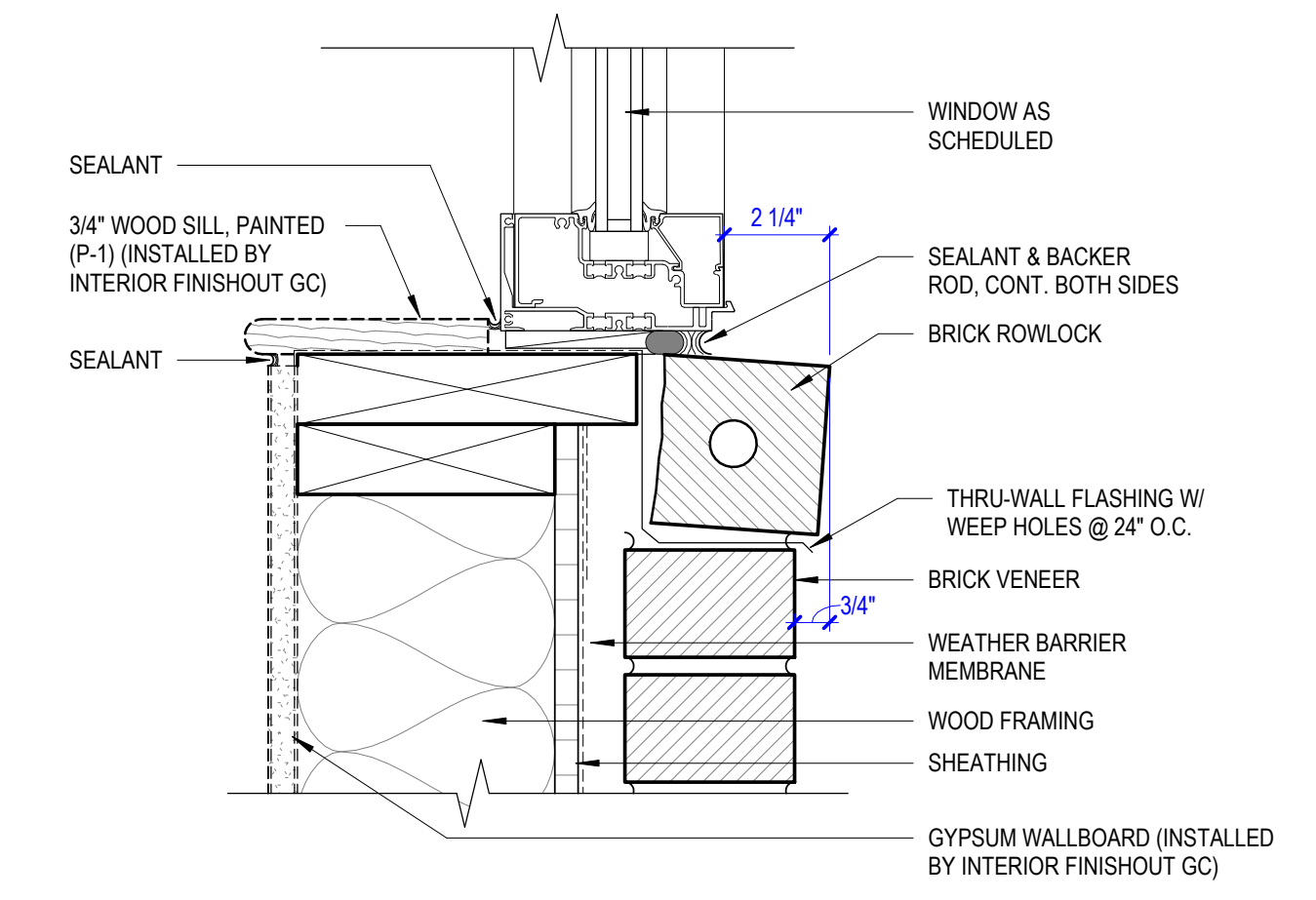
4 WINDOW HEAD DETAIL
3' = 1'-0"



3 WINDOW JAMB DETAIL
3' = 1'-0"



2 WINDOW SILL DETAIL
3' = 1'-0"



1 WINDOW SILL DETAIL
3' = 1'-0"

PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE

SHEET TITLE: DOOR & WINDOW DETAILS

PROJECT NO: 1921 A1

REVISIONS DATE

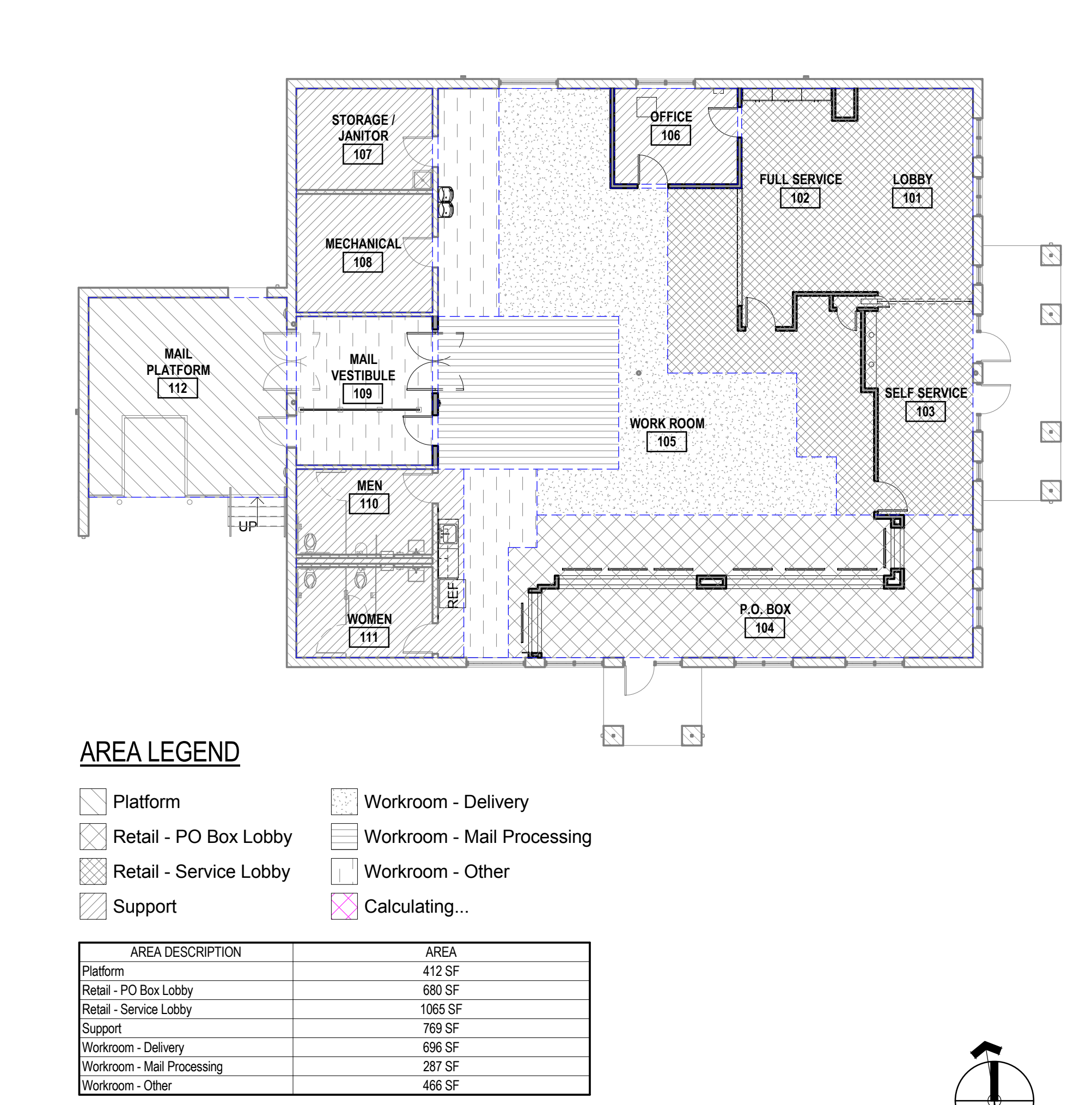
SHEET NO: AS-500

RACK #	1	2	3	4	5	6	7	8	9
RACK 1	11	21	31	41	51	61	71	81	91
RACK 2	101	111	121	131	141	151	161	171	181
RACK 3	191	201	211	221	231	241	251	261	271
RACK 4	281	291	301	311	321	331	341	351	361
RACK 5	371	381	391	401	411	421	431	441	451
RACK 6	461	471	481	491	501	511	521	531	541
RACK 7	551	561	571	581	591	601	611	621	631
RACK 8	641	651	661	671	681	691	701	711	721
RACK 9	731	741	751	761	771	781	791	801	811
RACK 10	821	831	841	851	861	871	881	891	901
RACK 11	911	921	931	941	951	961	971	981	991
RACK 12	1001	1011	1021	1031	1041	1051	1061	1071	1081
RACK 13	1091	1101	1111	1121	1131	1141	1151	1161	1171
RACK 14	1181	1191	1201	1211	1221	1231	1241	1251	1261
RACK 15	1271	1281	1291	1301	1311	1321	1331	1341	1351

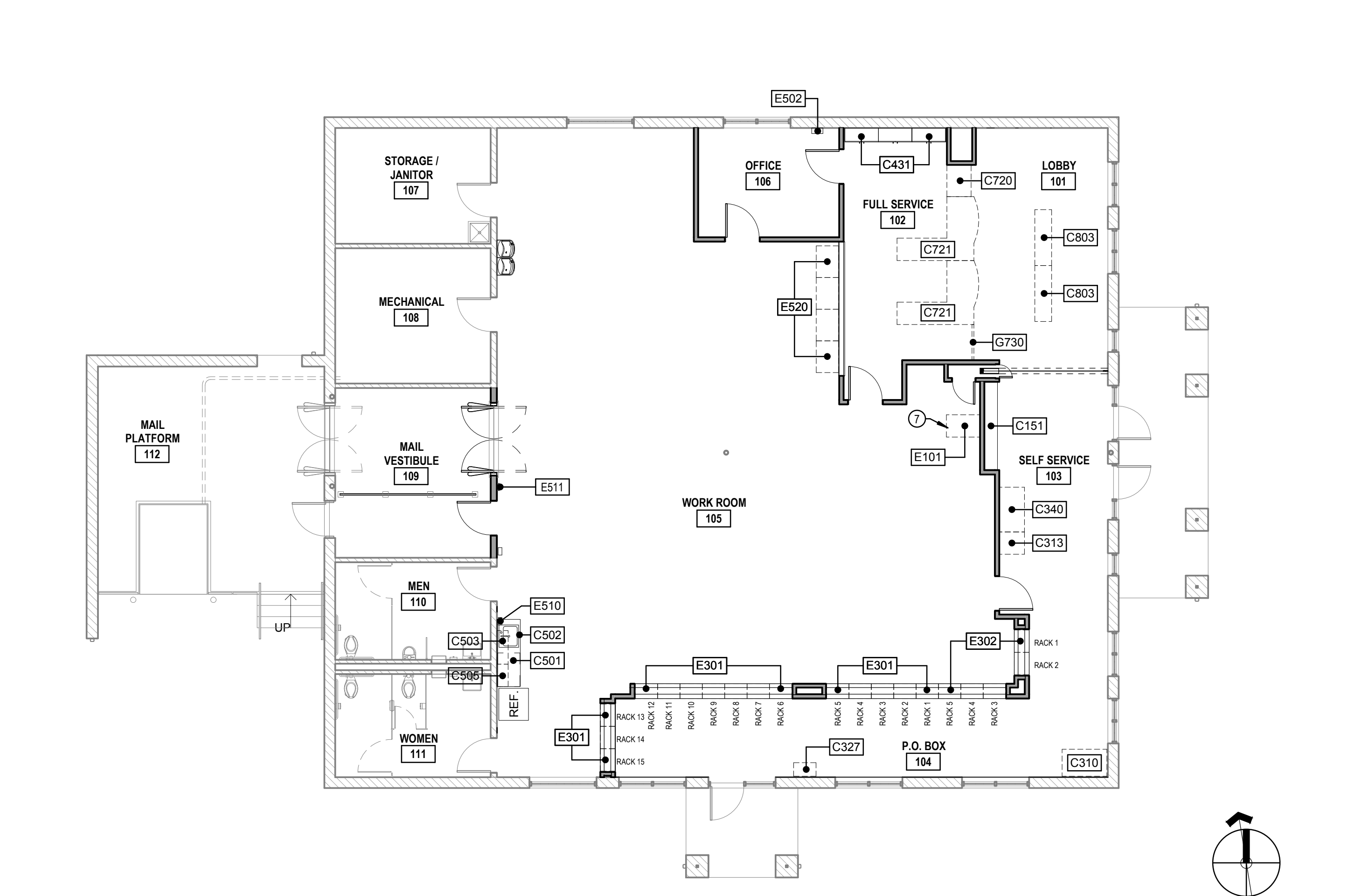
NOTE: REFER TO FIXTURE PLAN 2/AI-101 FOR RACK LOCATIONS
5 POST OFFICE BOX SEQUENCE CHART
 N.T.S.

RACK #	1	2	3	4	5
RACK 1	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD
RACK 2	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD
RACK 3	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD
RACK 4	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD
RACK 5	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD	PL 1-RD

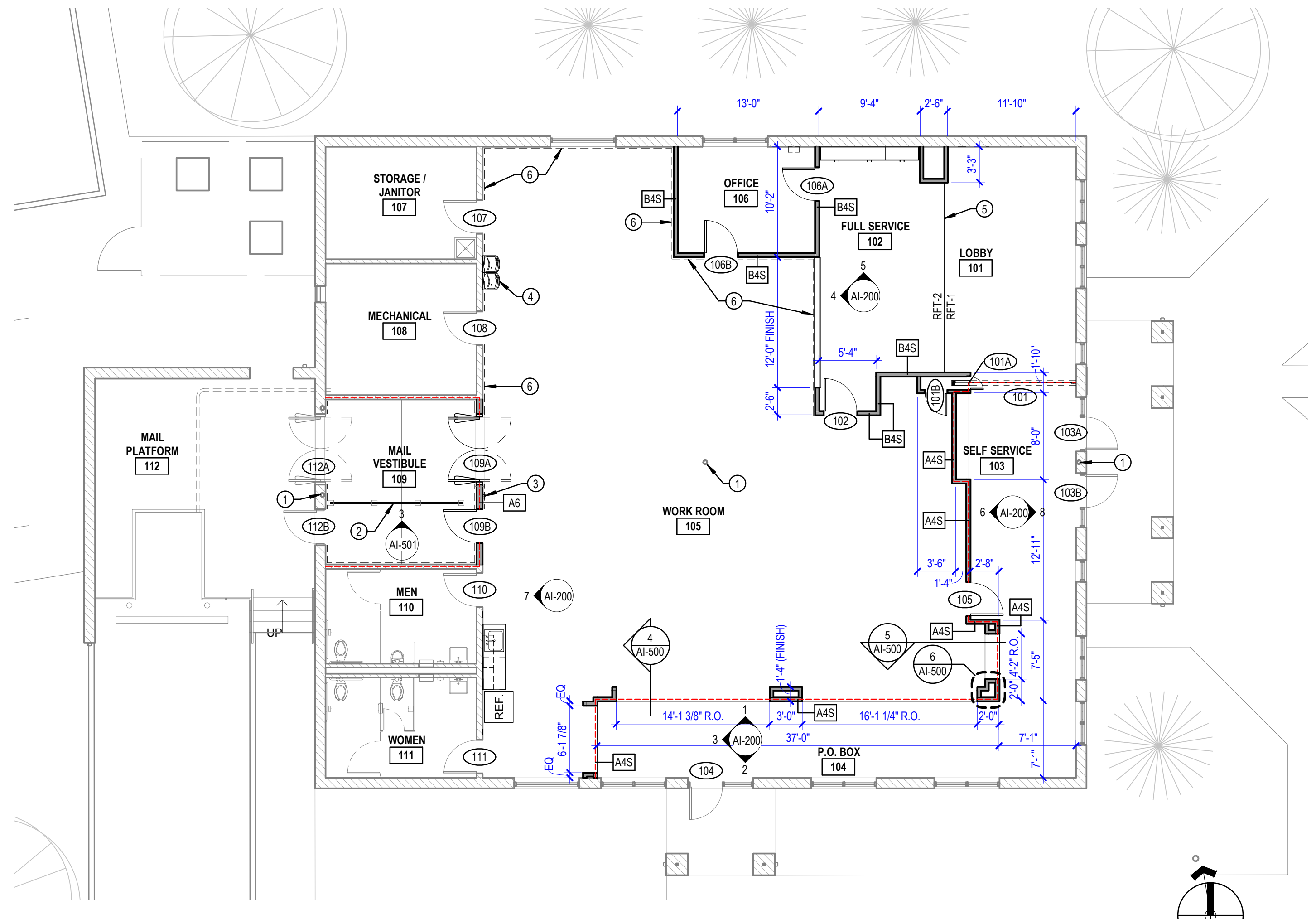
NOTE: REFER TO FIXTURE PLAN 2/AI-101 FOR RACK LOCATIONS
6 PARCEL LOCKER SEQUENCE CHART
 N.T.S.



3 BUILDING USE FLOOR PLAN
 3/32" = 1'-0"



2 FIXTURE PLAN
 1/8" = 1'-0"



1 FLOOR PLAN - INTERIOR FINISHOUT
 1/8" = 1'-0"

CASEWORK SCHEDULE

ITEM #	DESCRIPTION	QUANTITY
C151	MAIL DROP COUNTER	1
C310	WRITING DESK / STORAGE / RECYCLE *	1
C313	RECYCLE UNIT *	1
C327	BASE CABINET / RECYCLE & WRITE, UNFINISHED BACK **	1
C340	ACCESSIBLE WRITING DESK / FORMS	1
C431	STORAGE CABINET - 15"D	3
C501	BREAK ROOM BASE CABINET - 36"	1
C502	BREAK ROOM BASE SINK CABINET - 36"	1
C503	BREAK ROOM WALL CABINET - 36"	1
C505	BREAK ROOM WALL CABINET - 24"	1
C720	ACCESSIBLE ADD-ON COUNTER	1
C721	FULL SERVICE COUNTER BASE UNIT	2
C803	5" PARCEL SLIDE SECTION - 1 FINISHED END, 2 LEGS	2
G730	BY-PASS COUNTER DOOR	1

* CONTRACTOR TO PROVIDE WASTE/RECYCLE INSERT (RUBBERMAID MODEL# FG356700GRAY - 18"x18"x29")
 ** CONTRACTOR TO PROVIDE WASTE/RECYCLE INSERT (RUBBERMAID MODEL# FGLR14 - 8"x17"x27")

- REFER TO SPECIFICATION SECTION 123504 FOR ADDITIONAL INFORMATION.
- NIC = NOT IN CONTRACT, USPS FURNISHED AND INSTALLED

EQUIPMENT SCHEDULE

ITEM #	DESCRIPTION	QUANTITY
E101	LETTER DROP UNIT	1
E301	P.O. BOX	15
E302	PARCEL LOCKERS	5
E502	KEY WALL MOUNT (NIC)	1
E510	FIRST AID CABINET	2
E511	FIRE EXTINGUISHER	1
E520	NIC	4

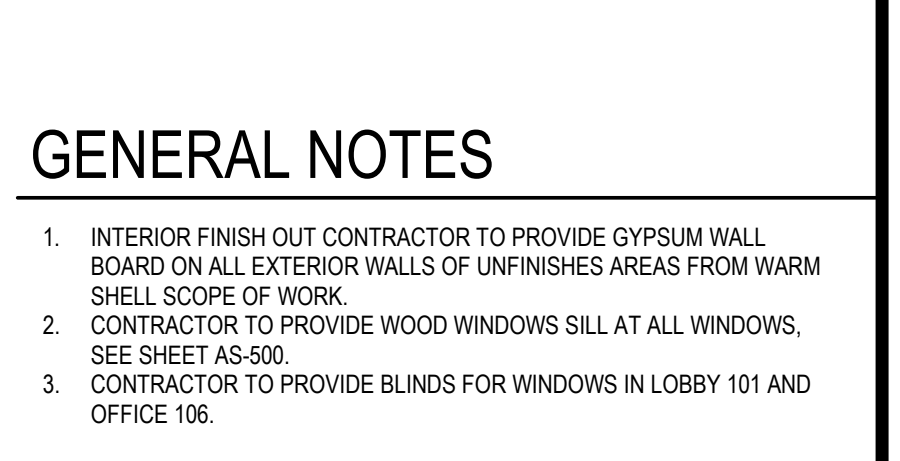
- REFER TO SPECIFICATION SECTION 011000 FOR ADDITIONAL INFORMATION.
- NIC = NOT IN CONTRACT, USPS FURNISHED AND INSTALLED

GENERAL NOTES

- INTERIOR FINISH OUT CONTRACTOR TO PROVIDE GYPSUM WALL BOARD ON ALL EXTERIOR WALLS OF UNFINISHED AREAS FROM WARM SHELL SCOPE OF WORK.
- CONTRACTOR TO PROVIDE WOOD WINDOWS SILL AT ALL WINDOWS, SEE SHEET AS-500.
- CONTRACTOR TO PROVIDE BLINDS FOR WINDOWS IN LOBBY 101 AND OFFICE 106.

KEYNOTES

- STEEL COLUMN, SEE STRUCTURAL.
- NEW GUARDRAIL WELDED TO EMBEDS INSTALLED UNDER SHELL SCOPE OF WORK
- WALL MOUNTED FIRE EXTINGUISHER
- HILLO DRINKING FOUNTAIN WITH CANE APRON, SEE AS-101 FOR FLOOR MOUNTING HEIGHTS
- FLOOR MATERIAL CHANGE LINE
- FRP WALL PROTECTION TO 4'-0" A.F.F.
- CONTRACTOR TO ENSURE EQUIPMENT IS POSITIONED TO NOT INTERFERE WITH DOOR SWING



VINYL LETTERING (RN1) DETAIL
 1" = 1'-0"

SIGN TYPE	RN1
A	VARIABLES
B	VARIES
C	1"
D	3/4"
E	1/2"
F	2"

Full Service Hours:
 Mon. - Fri. 00:00 am - 00:00 pm
 Saturday 00:00 am - 00:00 pm
 Self Service Hours:
 Mon. - Fri. 00:00 pm - 00:00 pm
 Thursday 00:00 am - 00:00 pm
 Saturday 00:00 am - 00:00 pm
 SIGN TYPE "RN1" - HOURS VINYL

4 VINYL LETTERING (RN1) DETAIL
 1" = 1'-0"



PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
 SHEET TITLE: FLOOR PLAN
 PROJECT NO: 1921 A1
 REVISIONS: DATE

SHEET NO: AI-101
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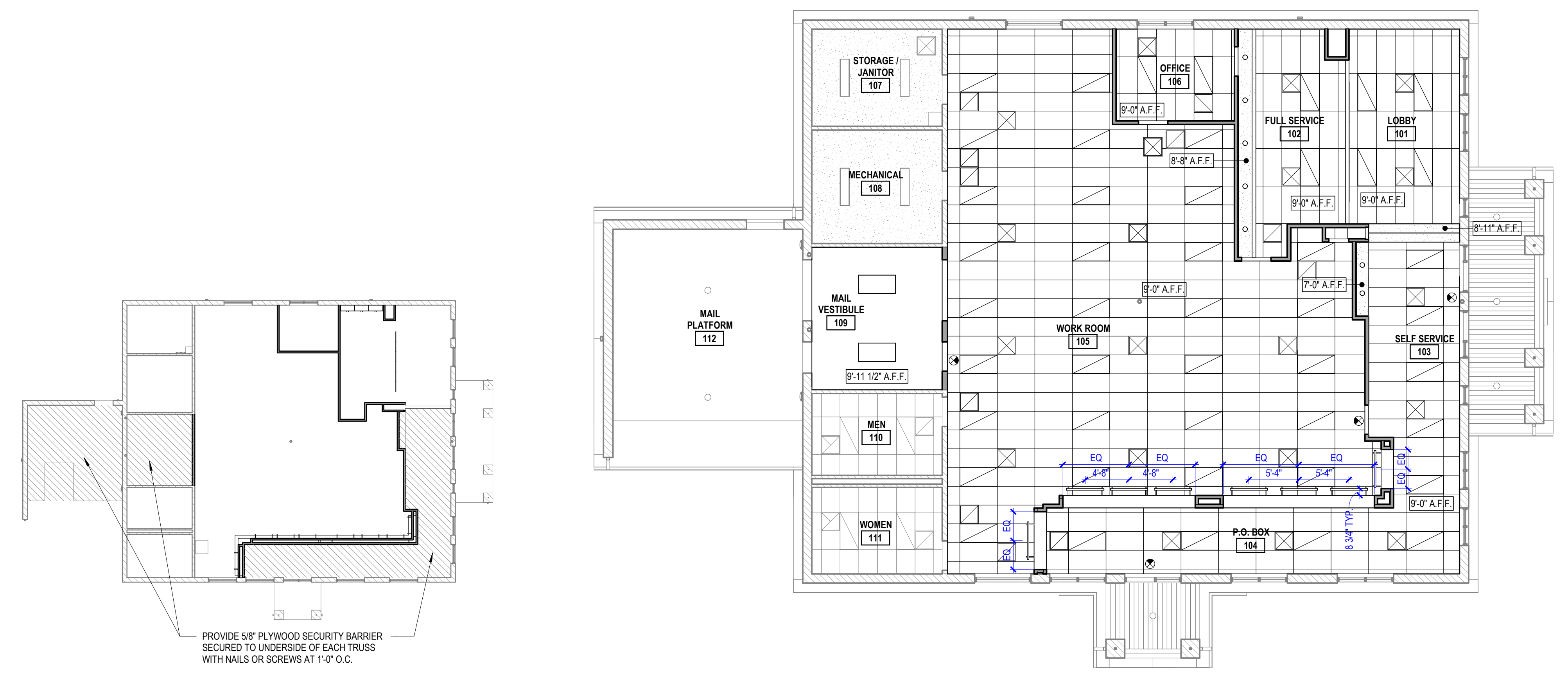
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REFLECTED CEILING PLAN LEGEND

- 2' X 4' FLUORESCENT FIXTURE
- 4' STRIPE LIGHT FIXTURE (MOUNTED ON UNISTRUTS)
- RECESSED LIGHT FIXTURE
- EXIT SIGN
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- RETURN AIR GRILLE
- GYPSUM BOARD CEILING
- 2' X 4' SUSPENDED ACOUSTICAL CEILING
- NO CEILING (EXPOSED TO STRUCTURE), U.N.O.
- 9'-0" A.F.F. CEILING HEIGHT ABOVE FINISH FLOOR

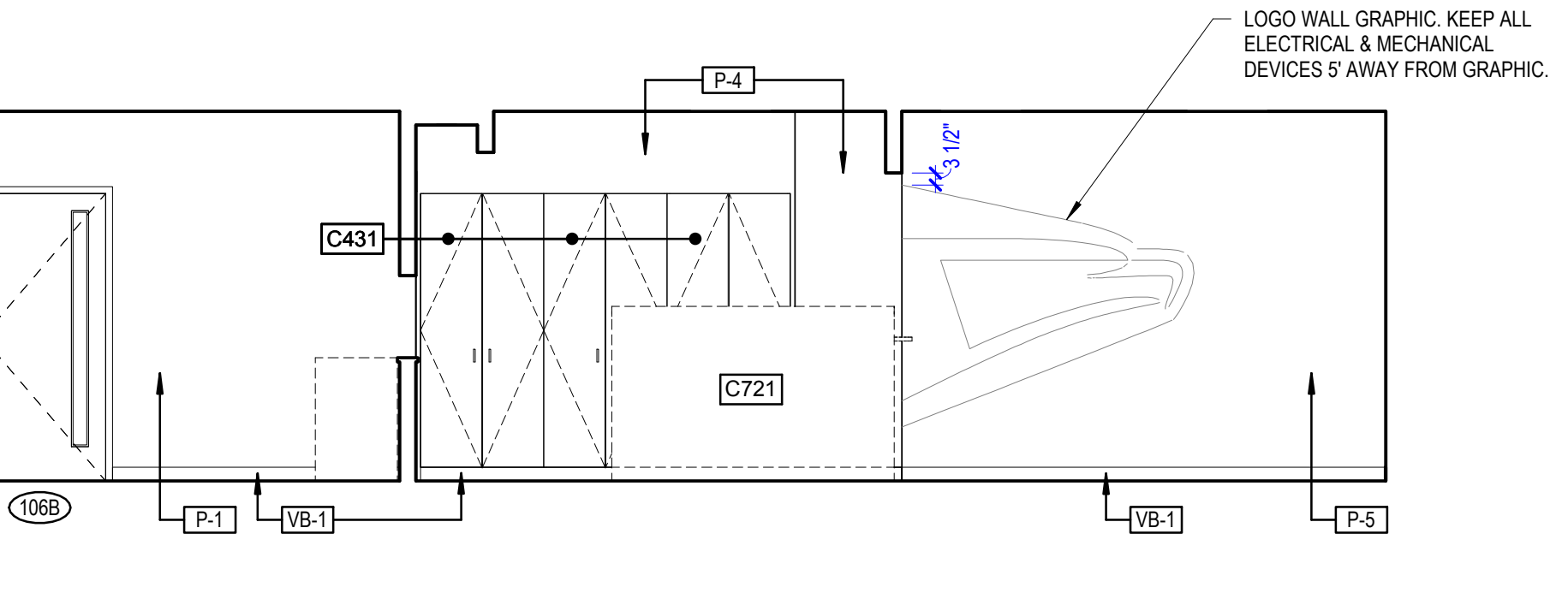
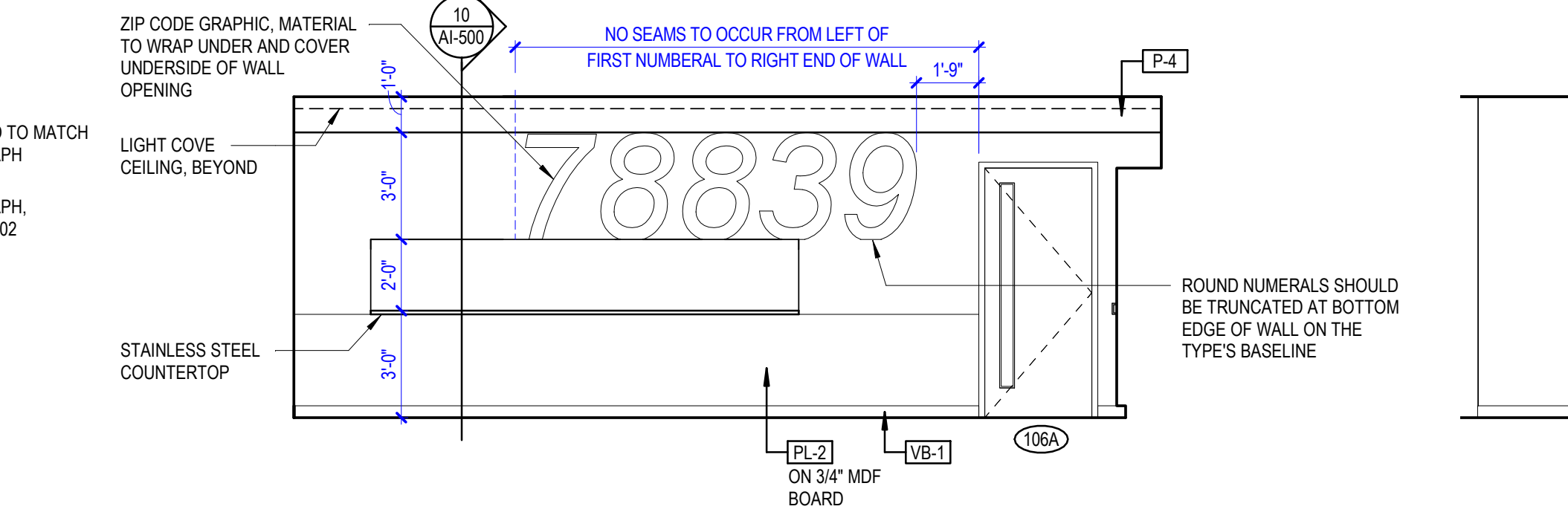
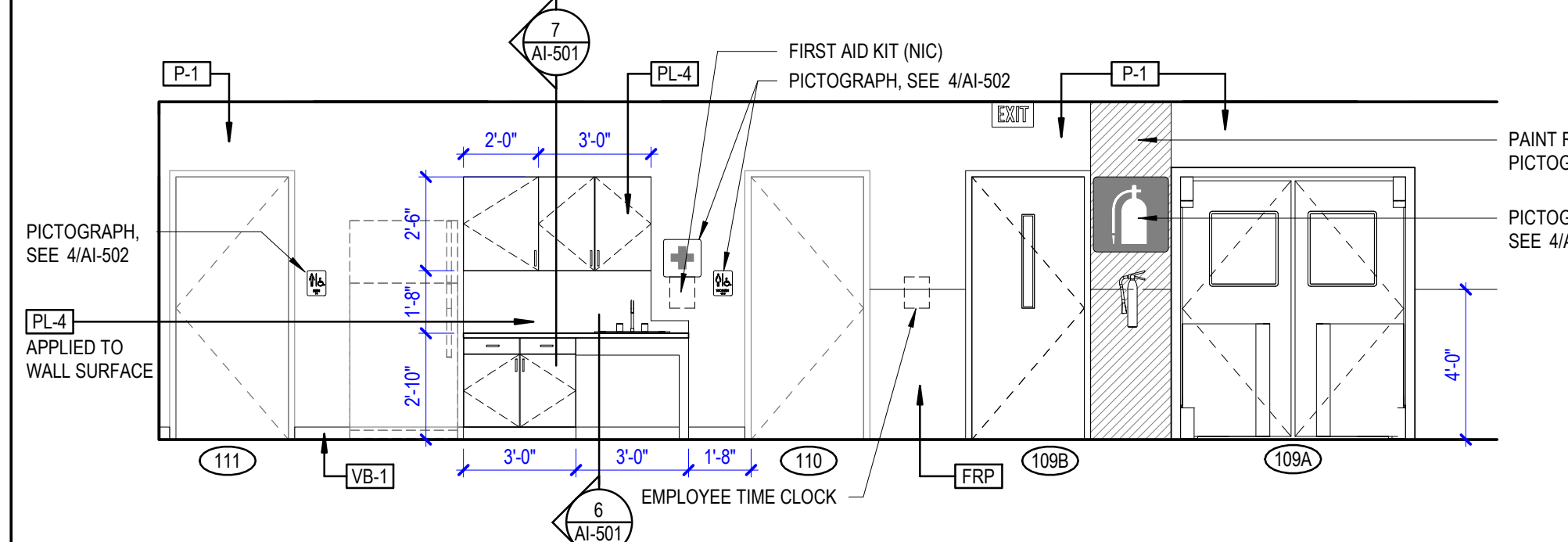
GENERAL NOTES

1. ALL GRAPHICS TO COMPLY WITH UPSP 2019 STANDARD DESIGN CRITERIA, HANDBOOK AS-503.



10 SECURITY CEILING PLAN - INTERIOR FINISHOUT
1/16" = 1'-0"

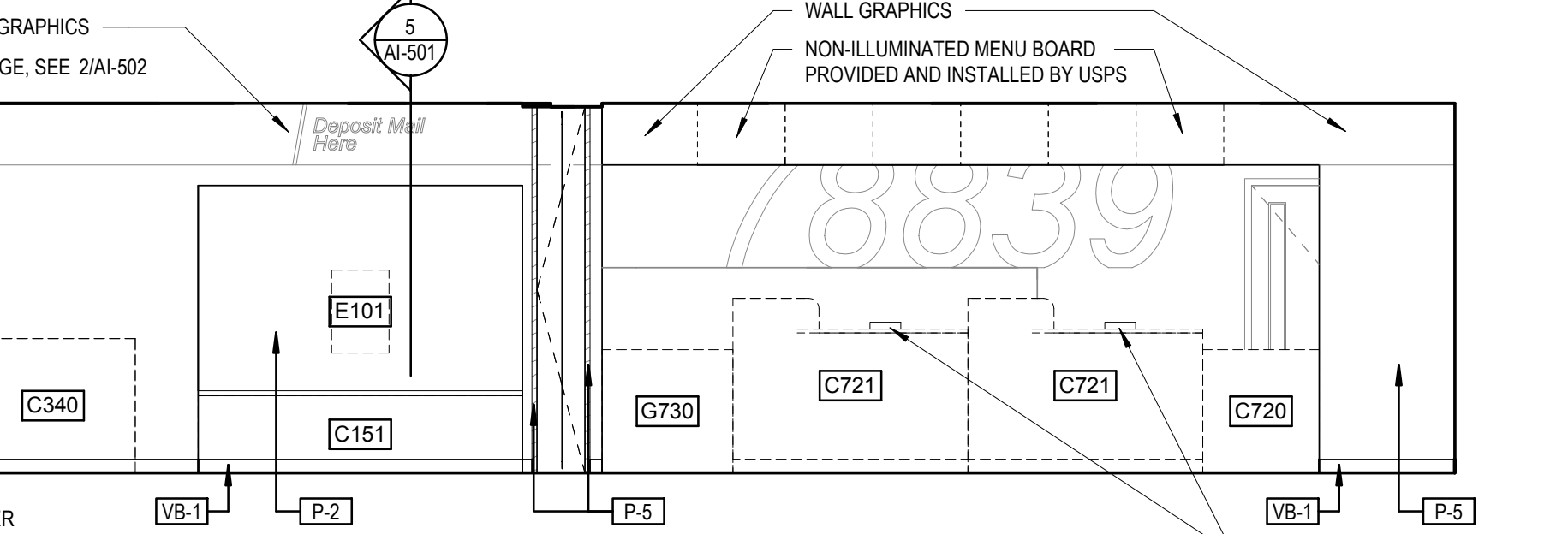
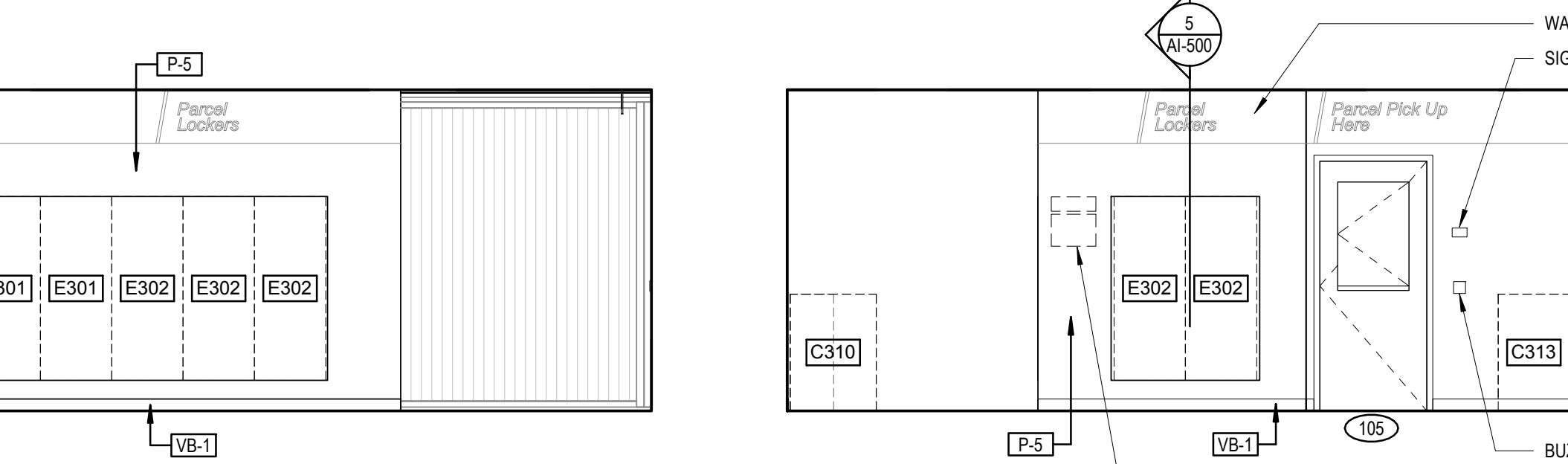
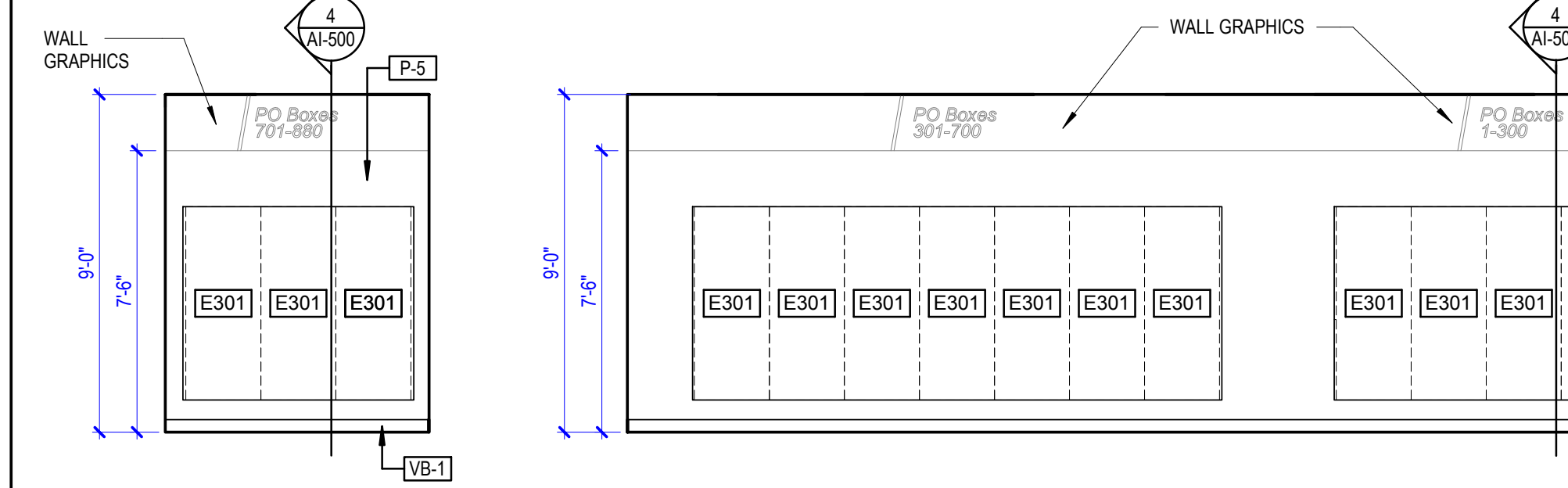
9 REFLECTED CEILING PLAN - INTERIOR FINISHOUT
1/8" = 1'-0"



7 INTERIOR ELEVATION - WORKROOM 105
1/4" = 1'-0"

4 INTERIOR ELEVATION - FULL SERVICE 102
1/4" = 1'-0"

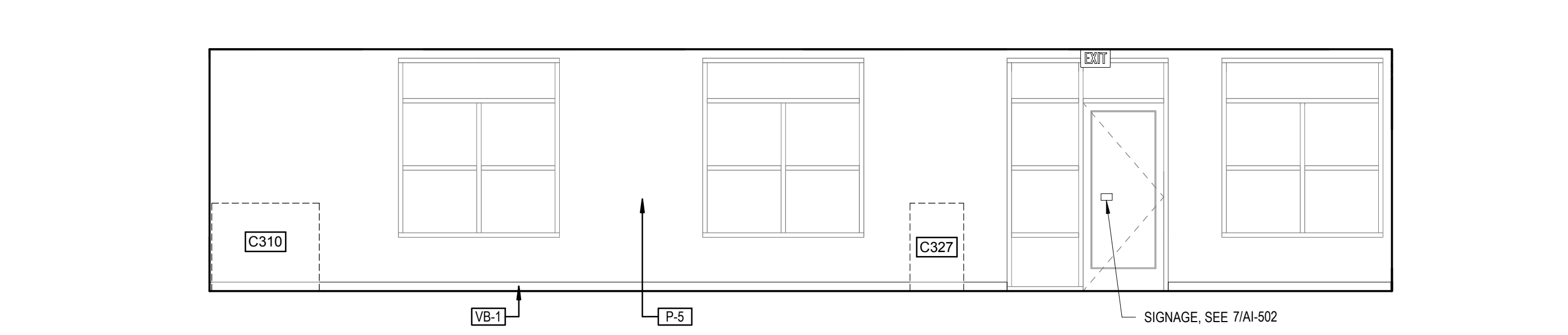
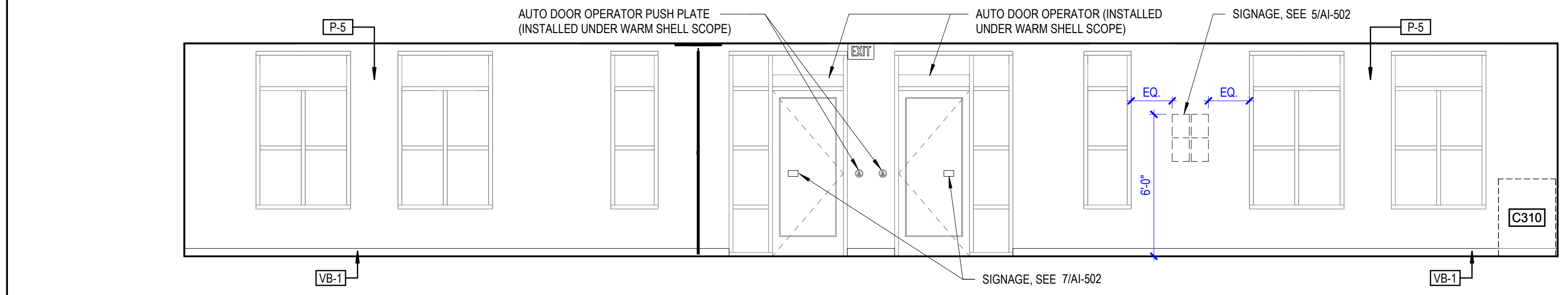
5 INTERIOR ELEVATION - FULL SERVICE 102
1/4" = 1'-0"



3 INT. ELEV. - P.O. BOX 104
1/4" = 1'-0"

1 INTERIOR ELEVATION - P.O. BOX 104
1/4" = 1'-0"

6 INTERIOR ELEVATION - SELF SERVICE 103 & FULL SERVICE 102
1/4" = 1'-0"



8 INTERIOR ELEVATION - SELF SERVICE 103 & FULL SERVICE 102
1/4" = 1'-0"

2 INTERIOR ELEVATION - P.O. BOX 104
1/4" = 1'-0"

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**

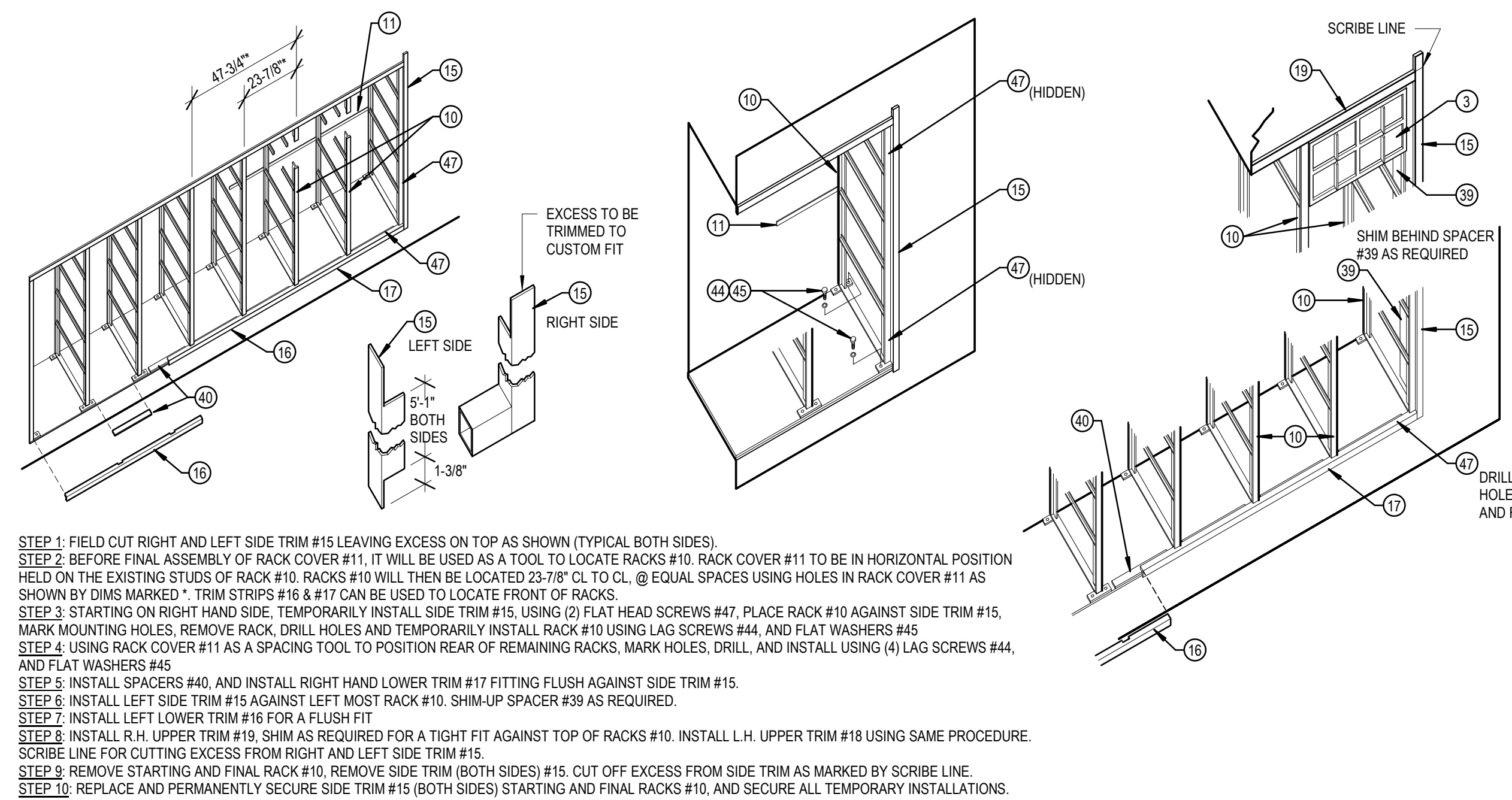
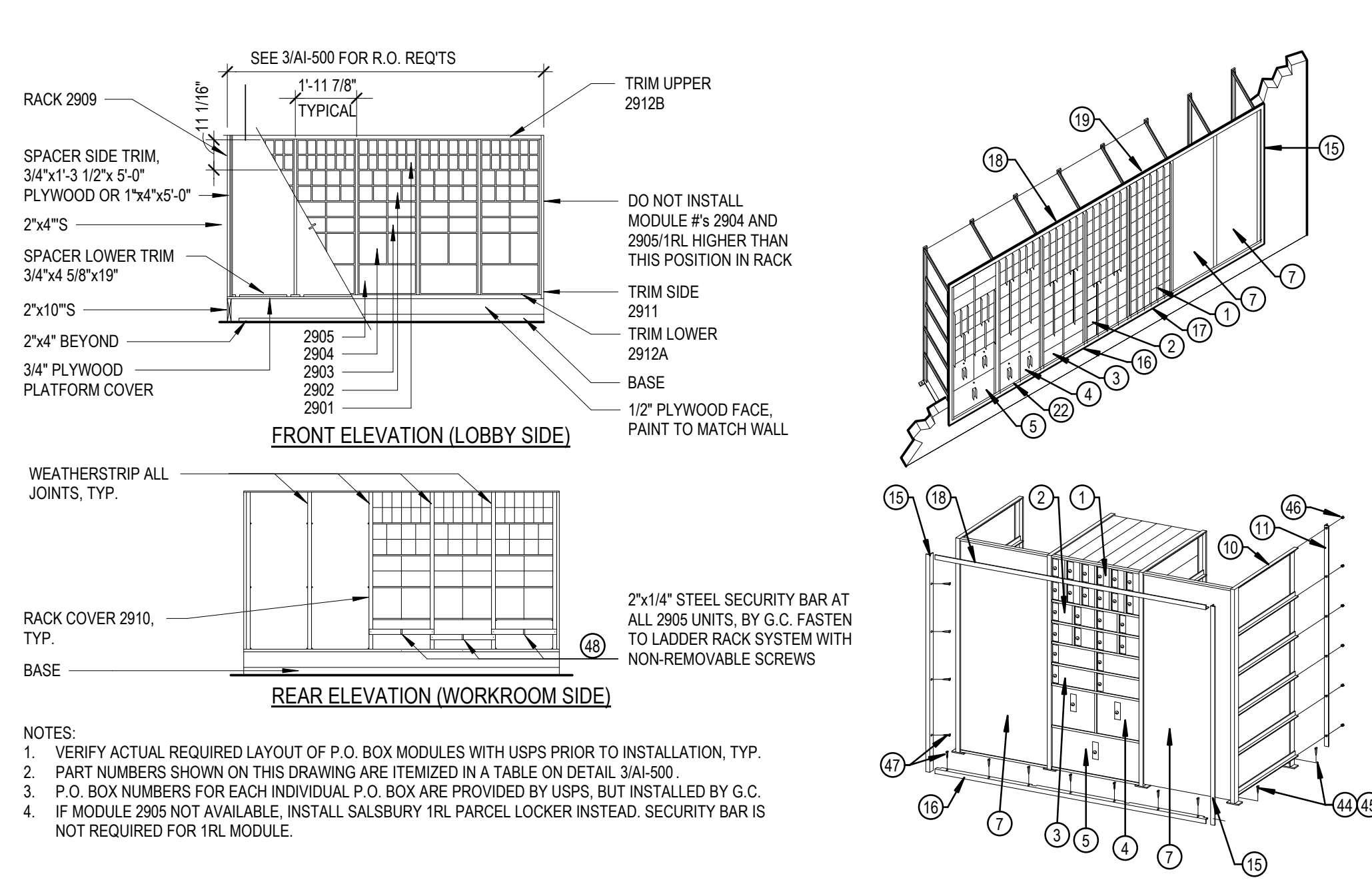
SHEET TITLE: **REFLECTED CEILING PLAN & INTERIOR ELEVATIONS**

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO: **AI-200**

8/7/2020 8:47:42 AM



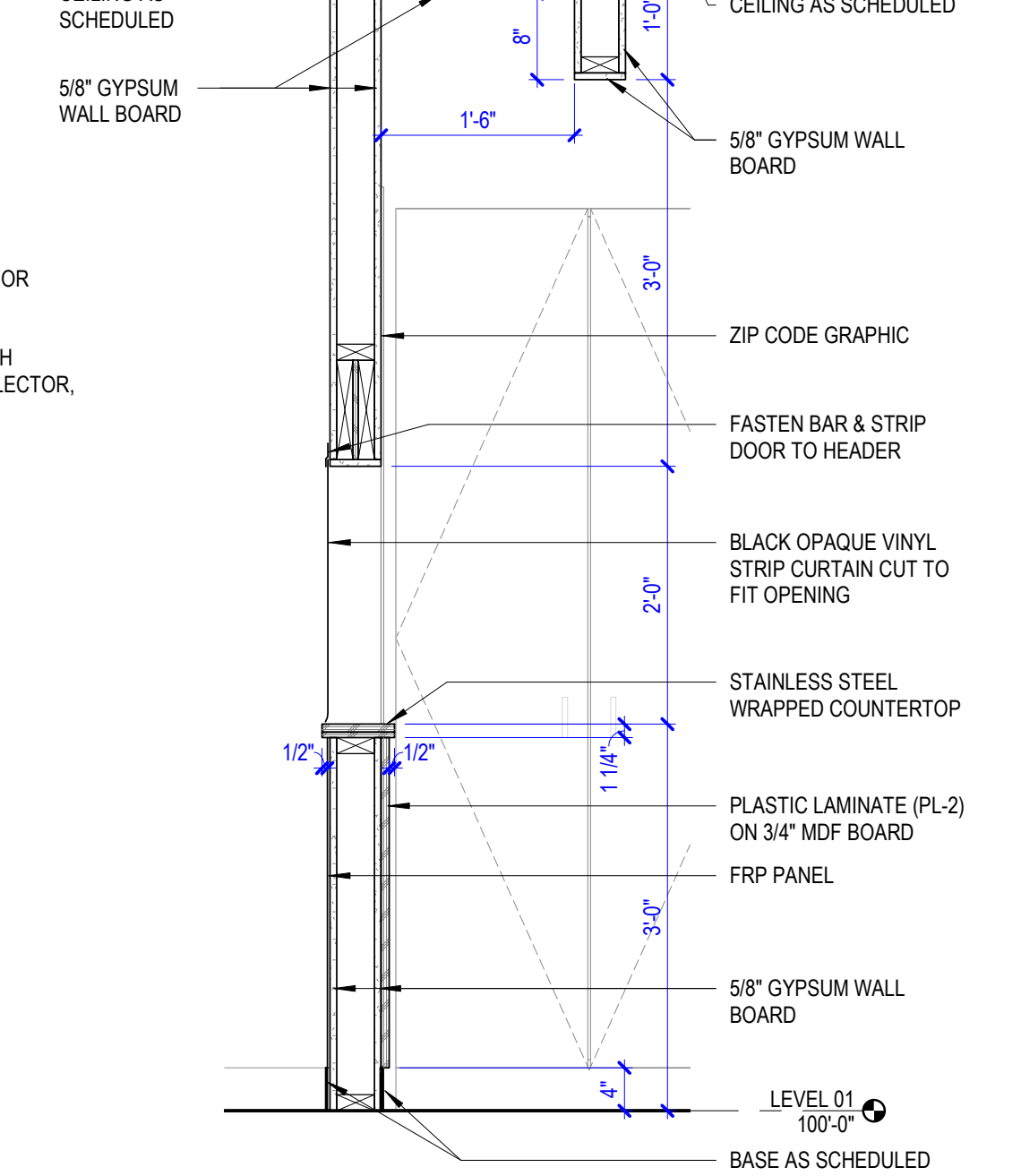
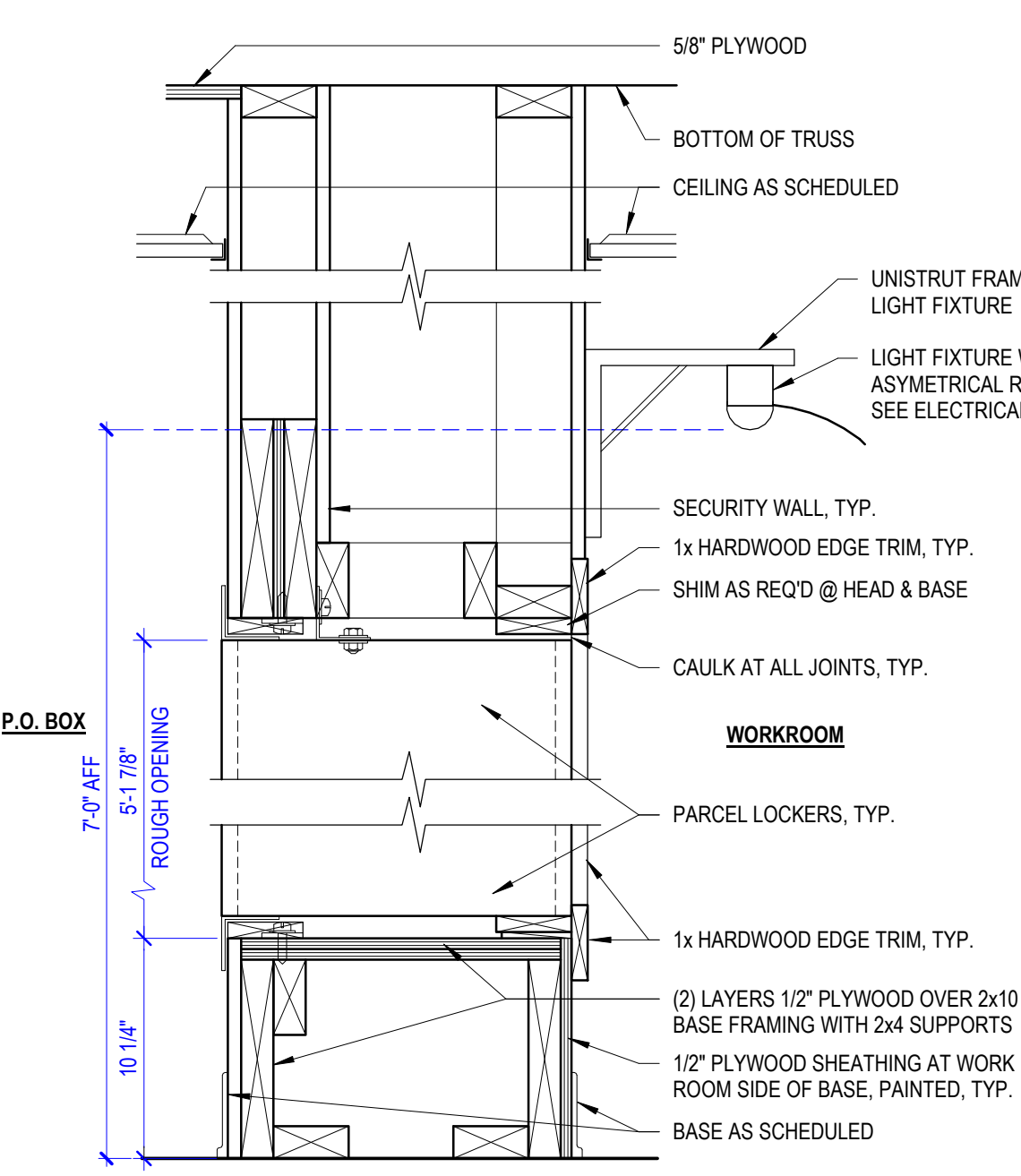
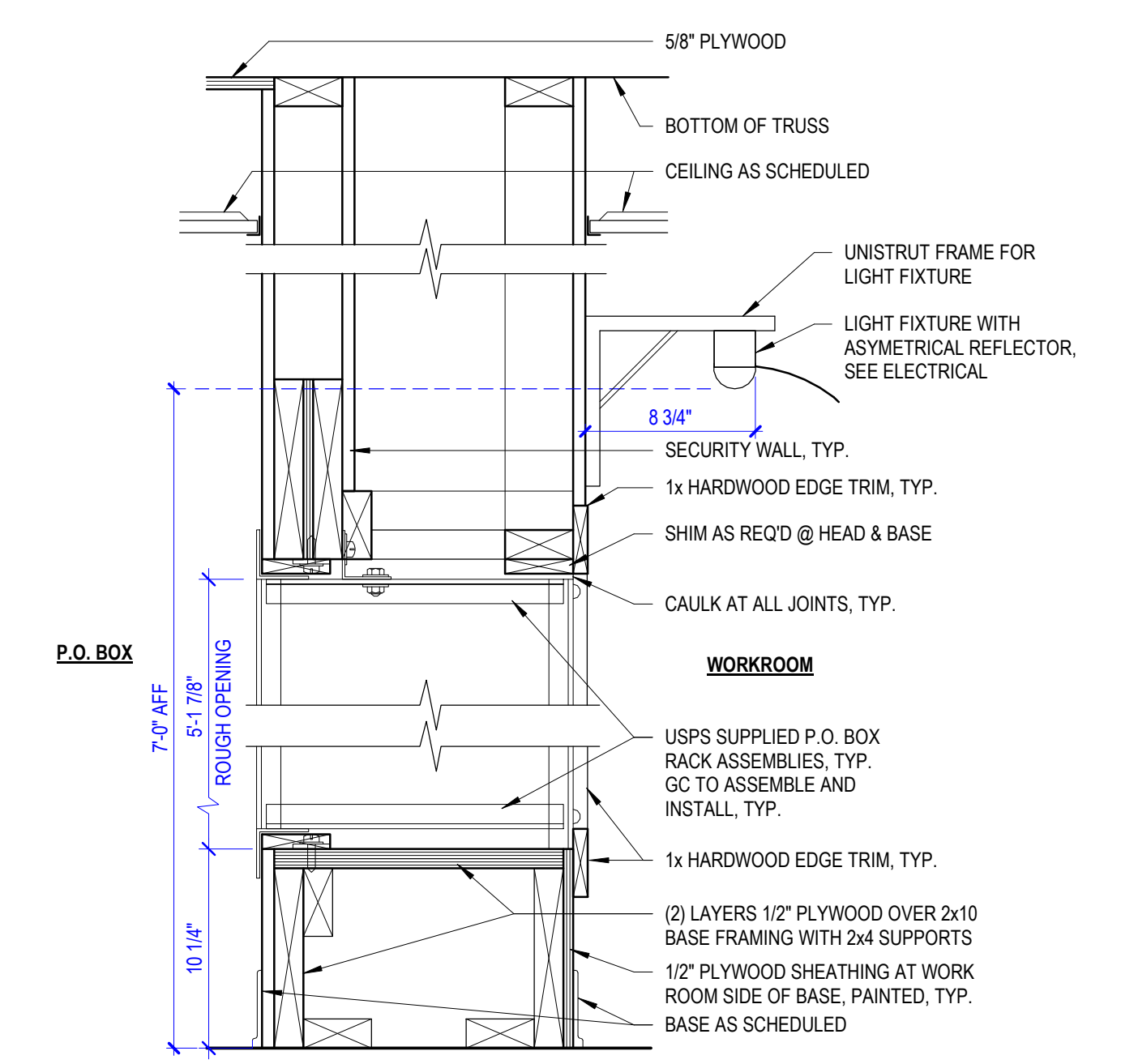
1 P.O. BOX - TYP. ELEVATIONS
1/4" = 1'-0"

2 P.O. BOX - ASSEMBLY INSTRUCTIONS
1/4" = 1'-0"

PARTS LIST		
ITEM	NOMENCLATURE	IDEN. NO.
ITEMS PROVIDED BY USPS BUT INSTALLED BY GC		
1.	MODULE NO. 1 ASSEMBLY	2901
2.	MODULE NO. 2 ASSEMBLY	2902
3.	MODULE NO. 3 ASSEMBLY	2903
4.	MODULE NO. 4 ASSEMBLY	2904
5.	MODULE NO. 5 ASSEMBLY	2905/1RL
10.	MODULAR RACK ASSEMBLY	2909
11.	RACK COVER	2910
15.	TRIM SIDE	2911
16.	TRIM, L.H. LOWER (17 RH)	2912-A
18.	TRIM, L.H. UPPER (19 RH)	2912-B
22.	NUMBER	2913
ITEMS FURNISHED & INSTALLED BY GC		
7.	BLANK PANEL (SEE G2-5-4g1 FOR MORE INFO.)	
39.	SPACER, SIDE TRIM 3/8" x 1-1/2" FIR	
40.	SPACER, PLYWOOD 3/4" x 4" x 16"	
44.	LAG SCREW, 1/4 x 1-1/8 INCH LONG	
45.	WASHER, FLAT, 1/4" I.D.	
46.	HEXHEAD CAP NUT 5/16" x 3/4" JC-24-T	
47.	SCREW, PAN HEAD, # 8 x 5/8" LG	
48.	STEEL SECURITY BAR @ EA 2905 UNIT	

PANEL OPENINGS			
SCHEDULE OF PANEL OPENINGS			
NO. OF PANELS	FINISHED OPG.	ROUGH OPG.	
1	2'-1 3/8"	2'-2 1/8"	
2	4'-1 1/4"	4'-2"	
3	6'-1 1/8"	6'-1 7/8"	
4	8'-1"	8'-1 3/4"	
5	10'-0 7/8"	10'-1 5/8"	
6	12'-0 3/4"	12'-1 1/2"	
7	14'-0 5/8"	14'-1 3/8"	
8**	16'-0 1/2"	16'-1 1/4"	

- NOTES:**
- ASSEMBLE AND INSTALL ALL USPS PROVIDED P.O. BOX MODULES, RACK ASSEMBLIES AND TRIM ANGLES.
 - INSTALL STACKS OF UP TO 5 P.O. BOX MODULES IN EACH SET OF RACKS PROVIDED BY USPS.
 - THE TRIM, 2900 SERIES, IS FURNISHED IN 8'-0" LENGTHS AND MUST BE CUT AND MITERED BY THE GC TO FIT THE UNIT FRAMES AND PROVIDE FLUSH JOINTS. SCREWS USED SHALL MATCH THE COLOR OF THE TRIM.
 - GC SHALL FURNISH ALL SCREWS, BOLTS, WASHERS, AND NUTS AS REQUIRED.
 - GC SHALL VERIFY THE DIMENSIONS OF THE WALL OPENINGS AND EQUIPMENT PRIOR TO ASSEMBLY AND INSTALLATION, AND SHALL INSTALL THE P.O. BOX RACKS LEVEL AND PLUMB BY USE OF SHIMS AS NECESSARY.
 - ALL P.O. BOX PANELS AND ASSEMBLIES SHALL BE INSTALLED TO ENSURE LIGHT-PROOF JOINTS AT THE INTERSECTIONS OF COMPONENT PARTS WITH BLACK WEATHERSTRIPPING (5/16" THICK x 3/8" WIDE WITH FABRIC IMPREGNATED BACK AND PRESSURE SENSITIVE ADHESIVE ON ONE SURFACE).
 - ALL EDGES AND ADJACENT SURFACES OF PARTS THAT ARE FIELD CUT MUST BE PATCHED AND TOUCHED UP WITH PAINT.
 - GC SHALL INSTALL ALL P.O. BOX NUMBERS AND LETTER DROP SIGNS.
 - PLYWOOD USED TO BE A-B INT-APA GRADE OR BETTER AND ALL EXPOSED EDGES TO HAVE SOLID HARDWOOD EDGE BANDING.
 - P.O. BOXES, 2900 SERIES, TO BE FACTORY FINISHED SILVER.
 - PARCEL LOCKERS SHALL BE 5'-0" HIGH, SO THE VERTICAL R.O. IS THE SAME AS FOR THE P.O. BOXES.
 - IF MODULE 2905 IS NOT AVAILABLE, INSTALL SALSBURY 1RL PARCEL LOCKER INSTEAD. SECURITY BAR IS NOT REQUIRED FOR THIS MODULE.

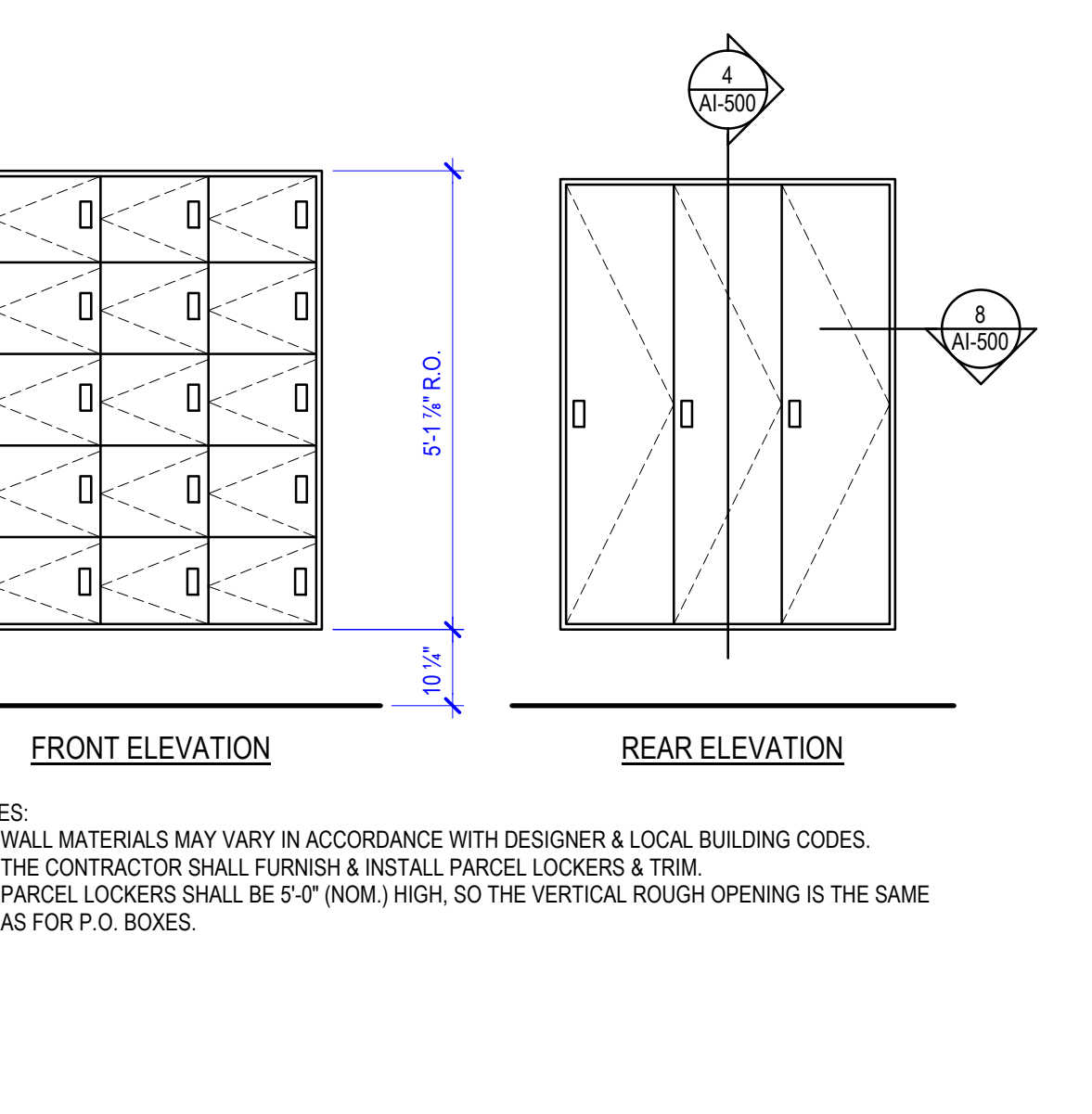
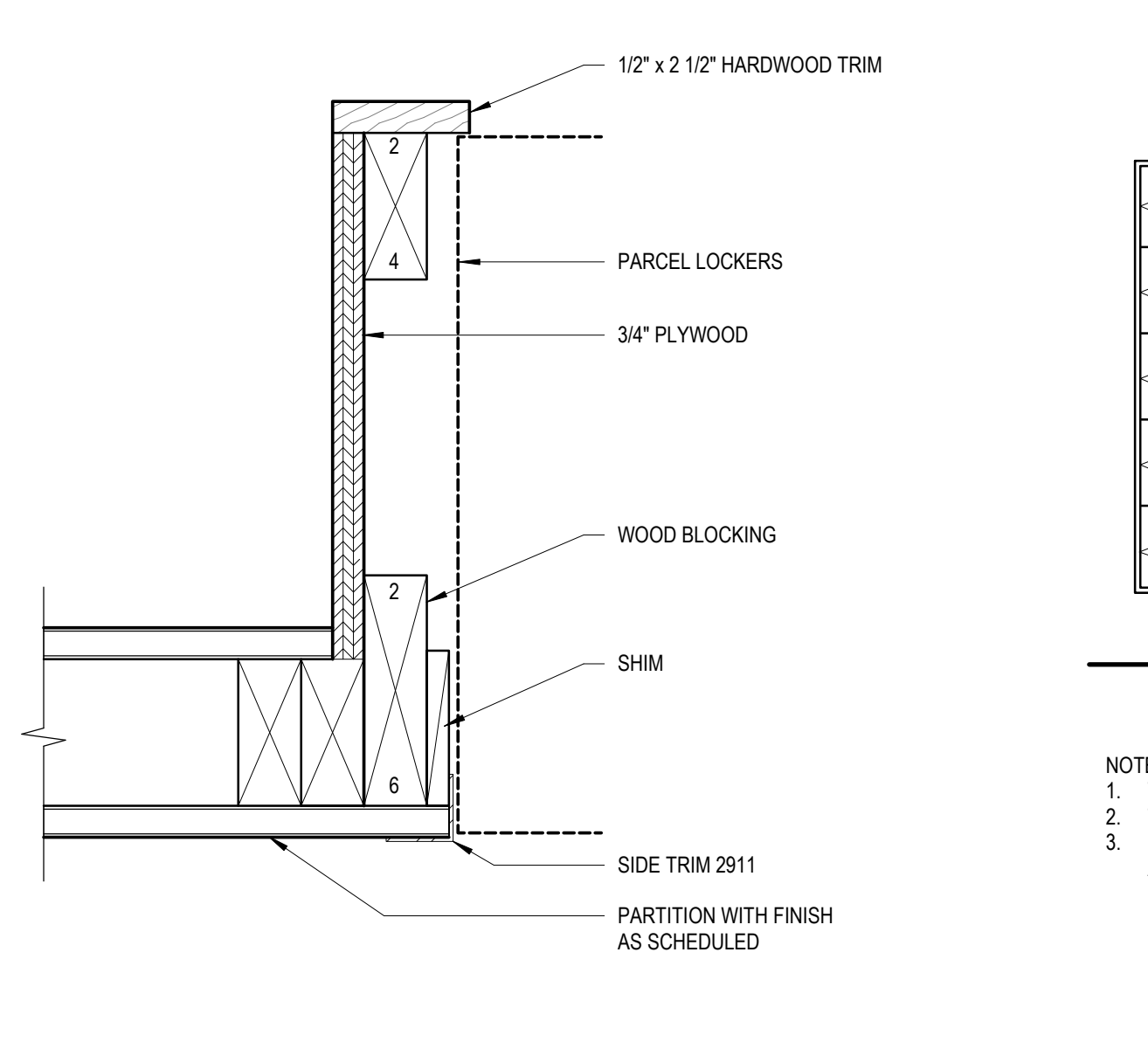
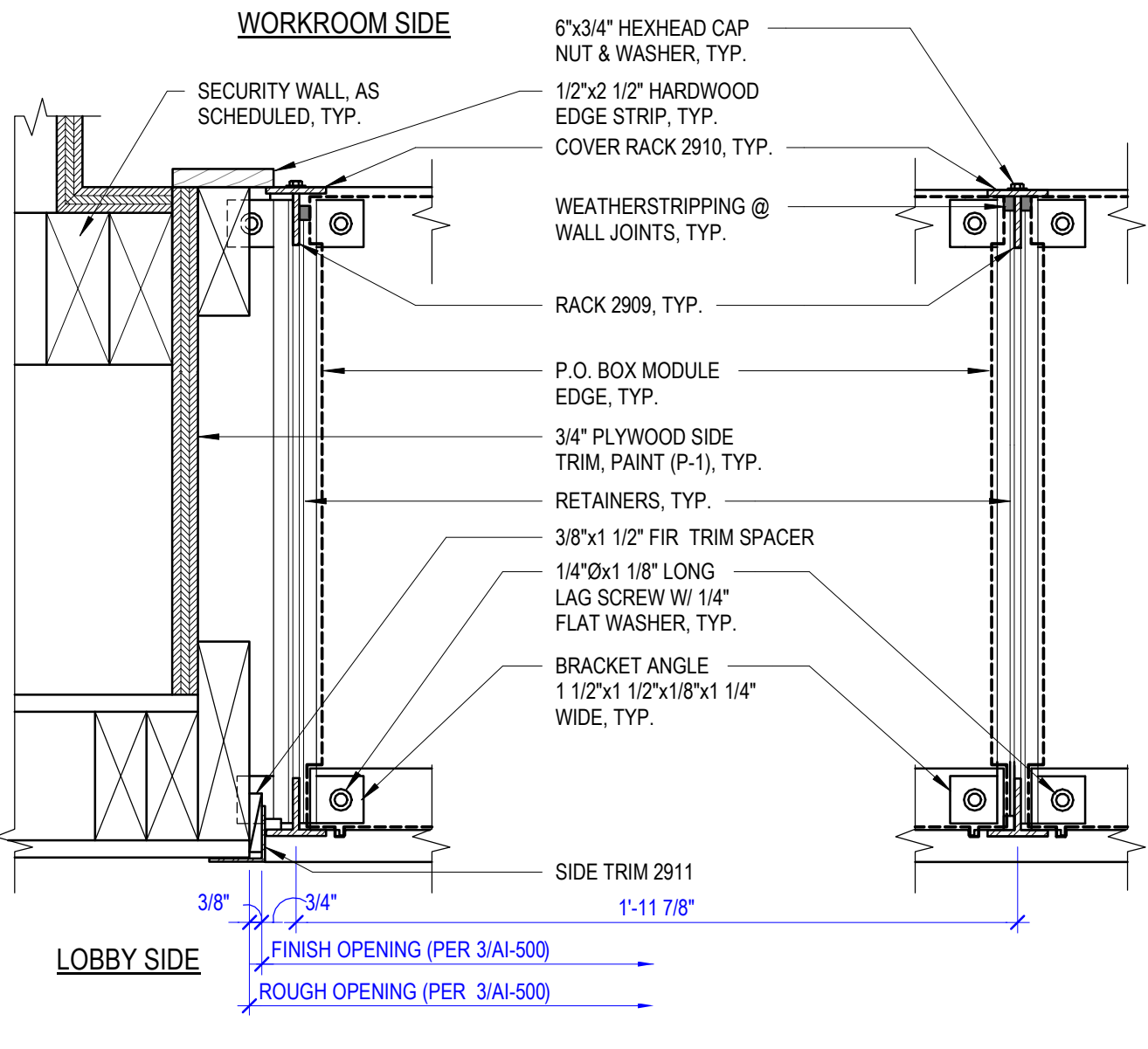
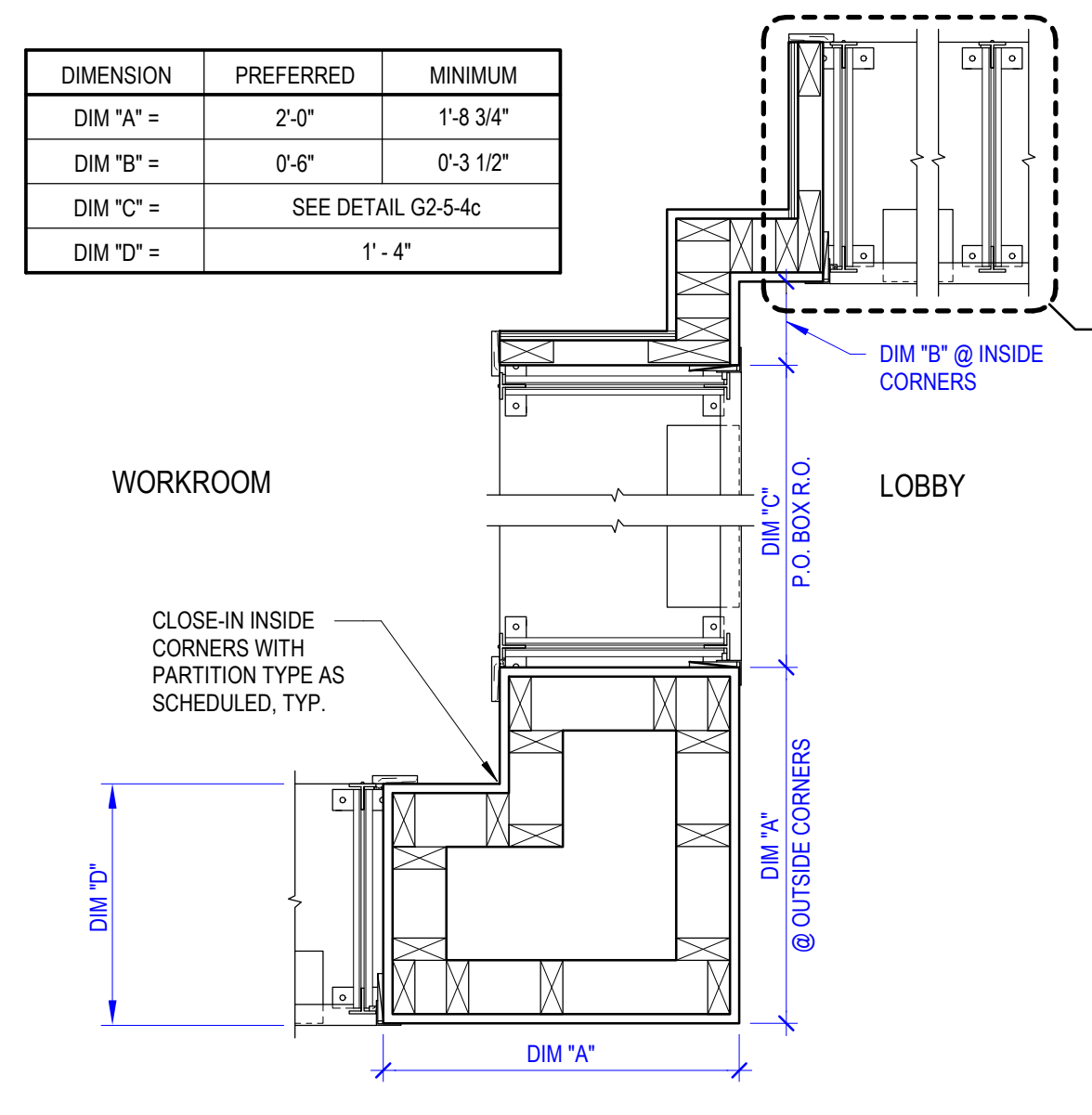


3 P.O. BOX PARTS LIST, SCHEDULE & NOTES
1/2" = 1'-0"

4 DETAIL - P.O. BOX HEAD & BASE
1 1/2" = 1'-0"

5 DETAIL - PARCEL LOCKER HEAD & BASE
1 1/2" = 1'-0"

10 WALL SECTION @ SCREENLINE
3/4" = 1'-0"

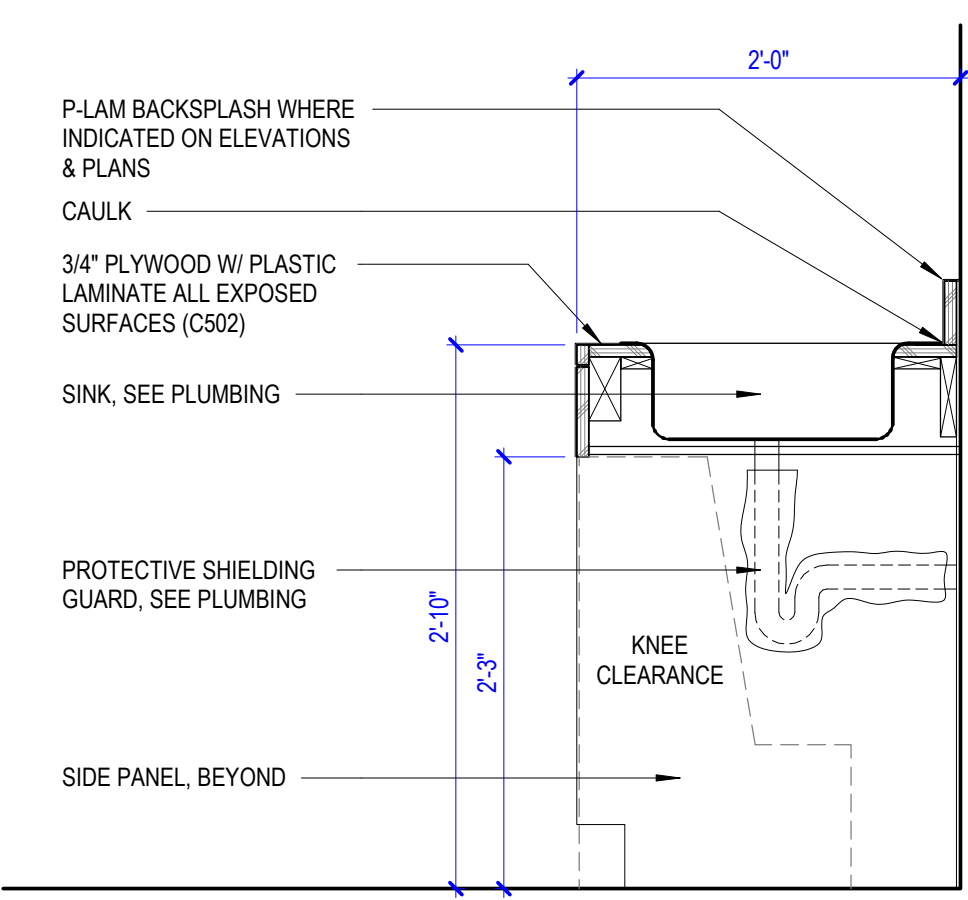


6 DETAIL - P.O. BOX CORNERS
1" = 1'-0"

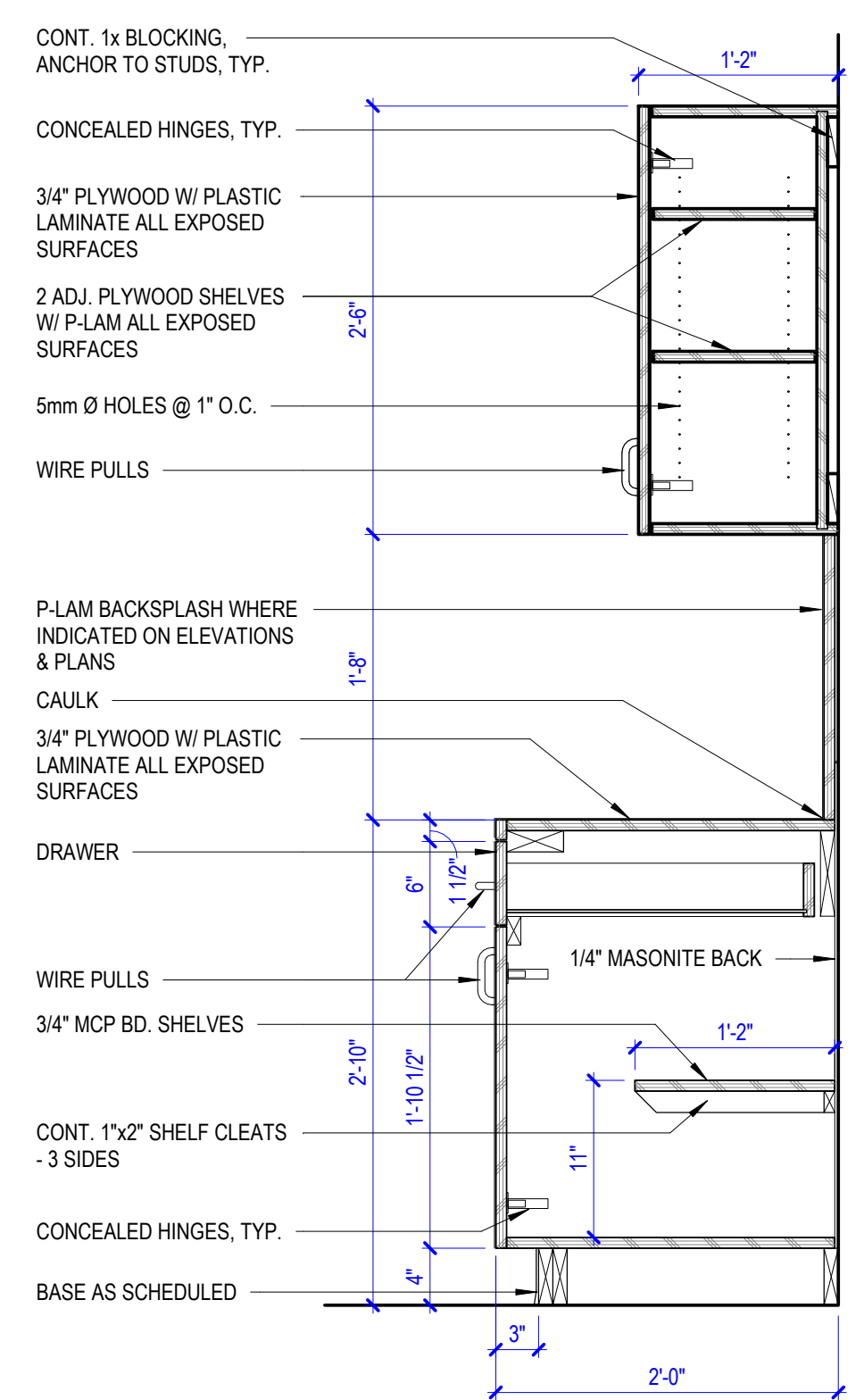
7 DETAIL - P.O. BOX JAMBS
3" = 1'-0"

8 DETAIL - PARCEL LOCKER JAMB
3" = 1'-0"

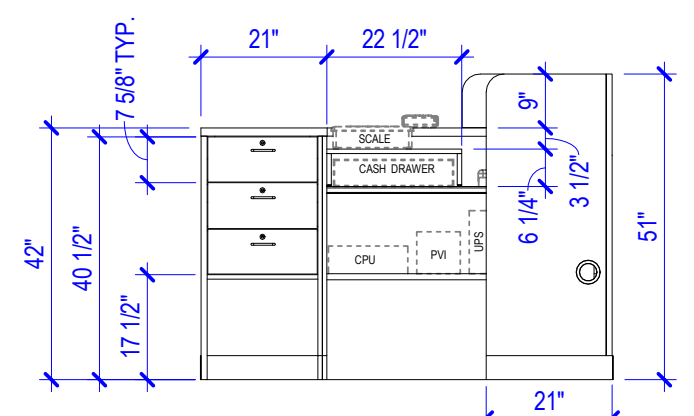
9 PARCEL LOCKER ELEVATION
1/2" = 1'-0"



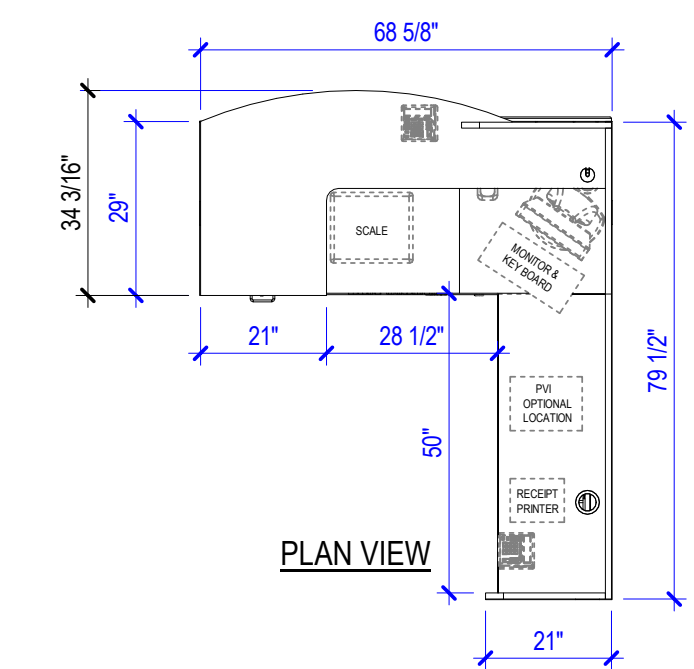
6 MILLWORK SINK WORKROOM 105
1" = 1'-0"



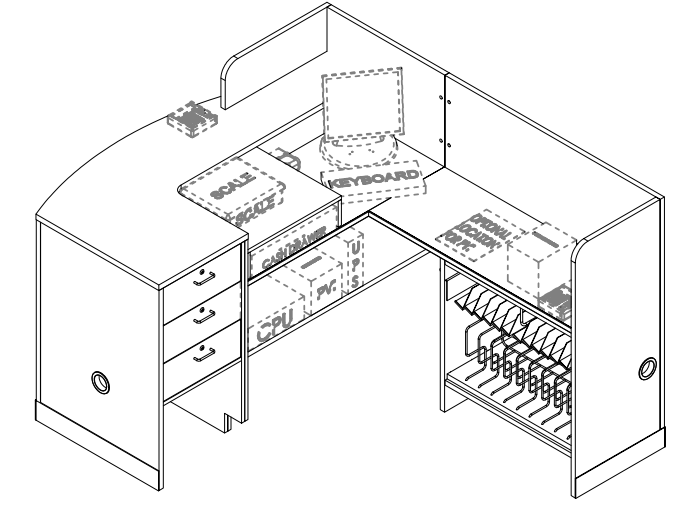
7 MILLWORK DETAIL - WORKROOM 105
1" = 1'-0"



REAR ELEVATION



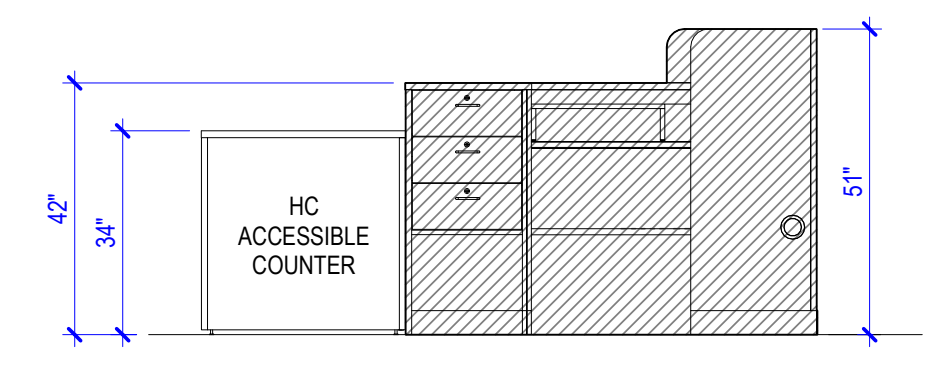
PLAN VIEW



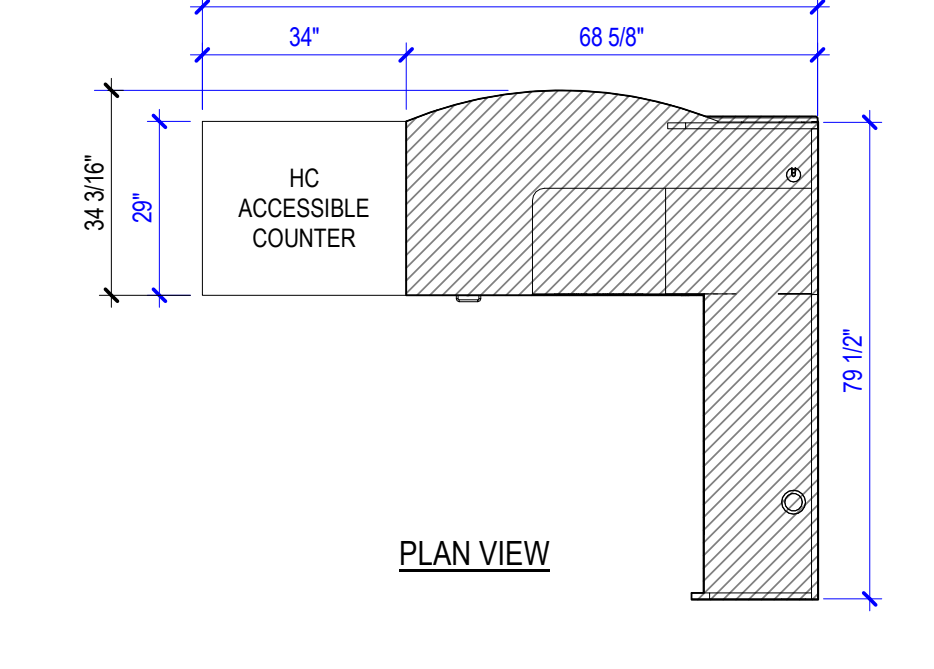
ISOMETRIC VIEW

NOTE:
THE CONTRACTOR IS TO PURCHASE, UNLOAD, ASSEMBLE, AND INSTALL WORKSTATIONS.
EQUIPMENT SHOWN IS FOR INFORMATION PURPOSES ONLY, POS EQUIPMENT IS N.I.C.

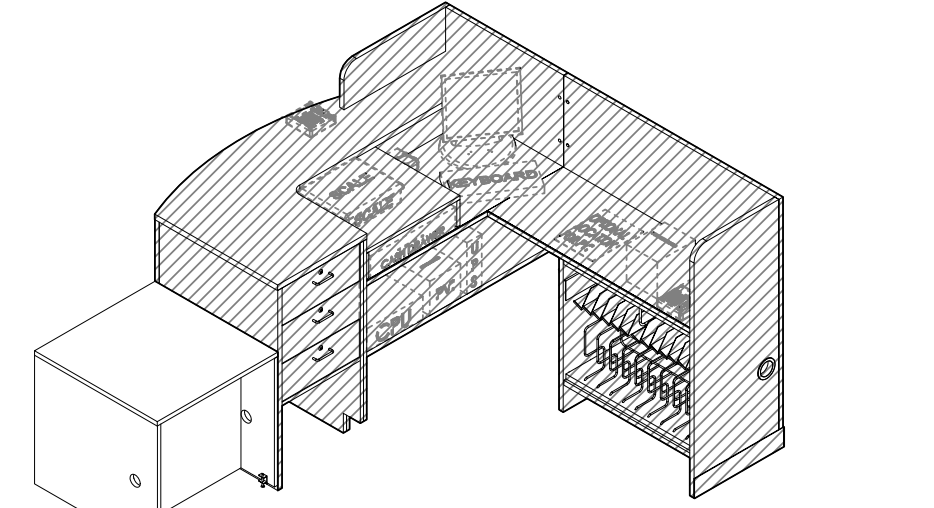
2 STANDARD FULL SERVICE COUNTER (E401)
3/8" = 1'-0"



REAR ELEVATION



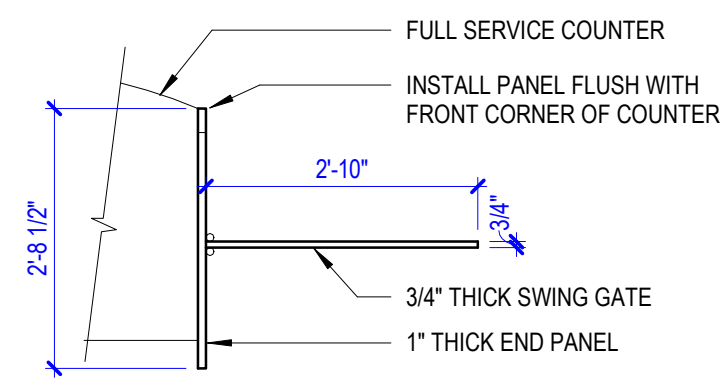
PLAN VIEW



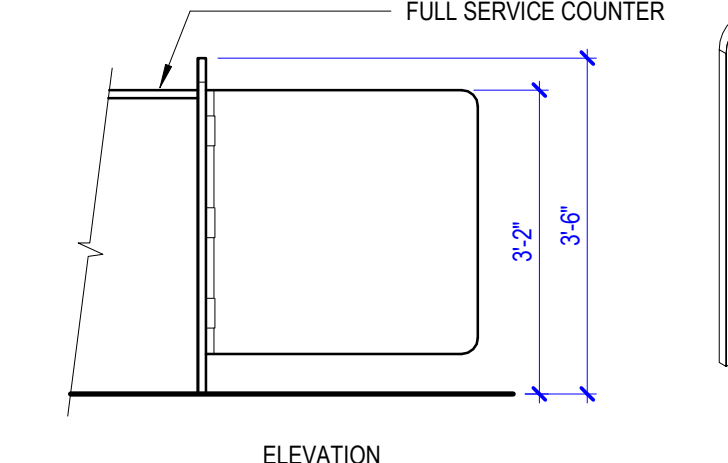
ISOMETRIC VIEW

NOTE:
THE CONTRACTOR IS TO PURCHASE, UNLOAD, ASSEMBLE, AND INSTALL WORKSTATIONS.
EQUIPMENT SHOWN IS FOR INFORMATION PURPOSES ONLY, POS EQUIPMENT IS N.I.C.

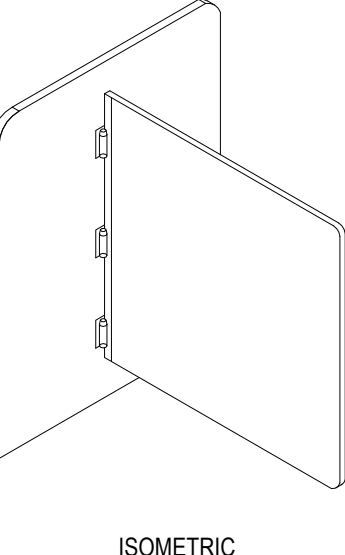
1 COUNTER ADD-ON ACCESSIBLE COUNTER 'A'
3/8" = 1'-0"



PLAN



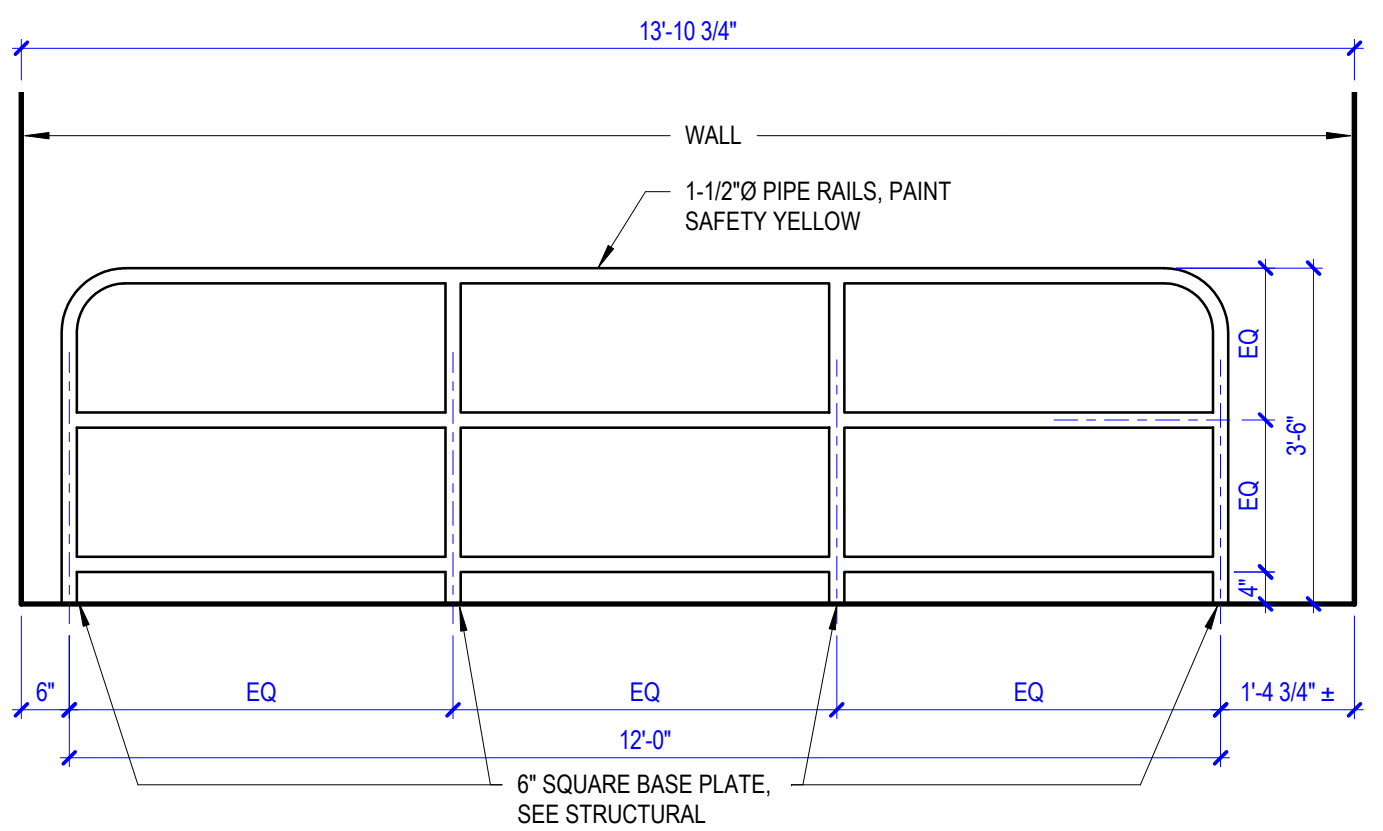
ELEVATION



ISOMETRIC

NOTES:
1. INSTALL SWING GATE ASSEMBLY TO APPROPRIATE SERVICE COUNTER THEN POSITION SERVICE COUNTER TO ALLOW MIN. 1/2" CLEARANCE BETWEEN GATE AND ADJACENT COUNTER.
2. THE CONTRACTOR IS TO PURCHASE, UNLOAD, ASSEMBLE, AND INSTALL SWING GATES.

4 SWING GATE ASSEMBLY (G730)
1/2" = 1'-0"

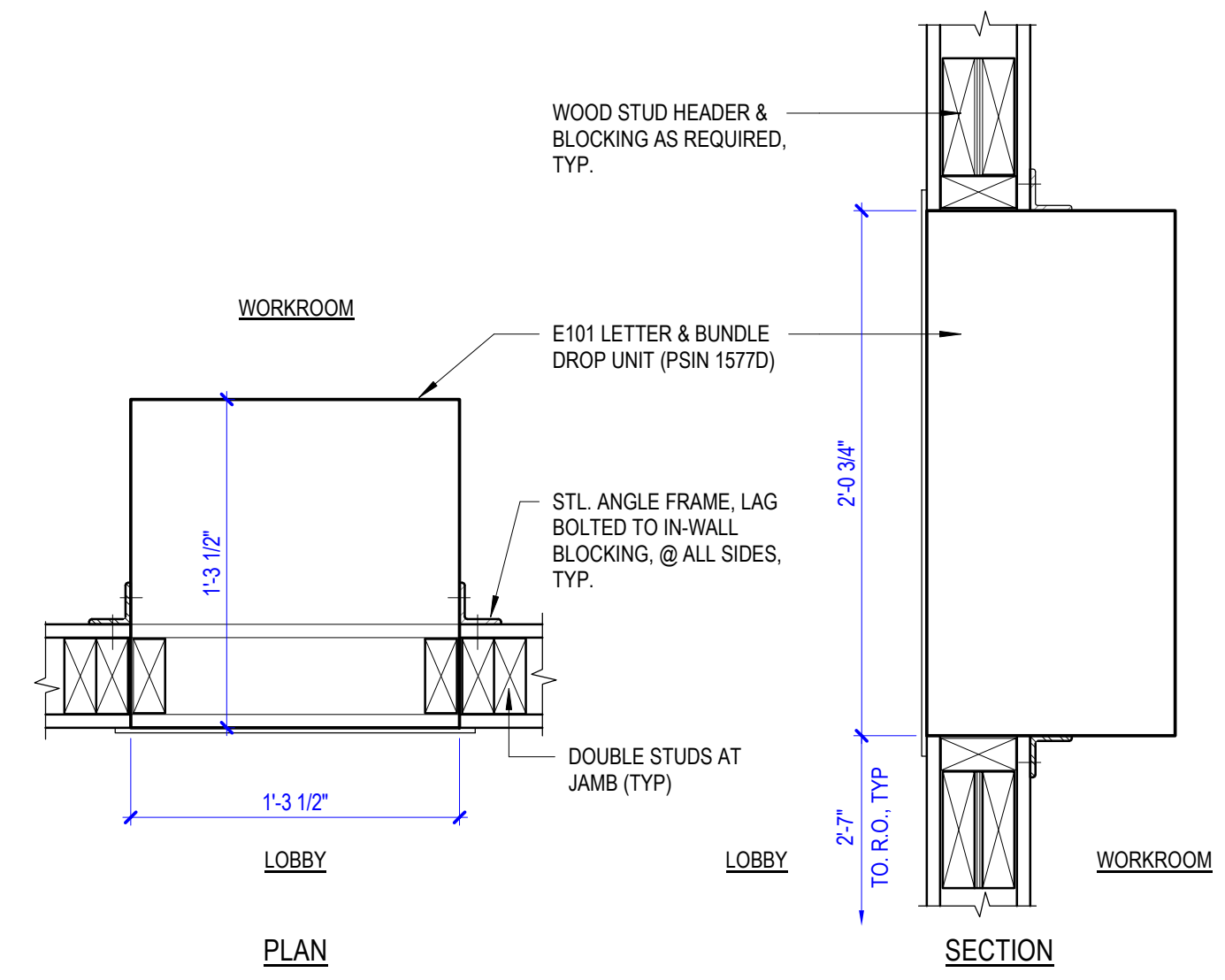


NOTE: CONTRACTOR TO VERIFY DIMENSIONS WITH IN-SLAB PLATES INSTALLED DURING WARM SHELL SCOPE OF WORK.

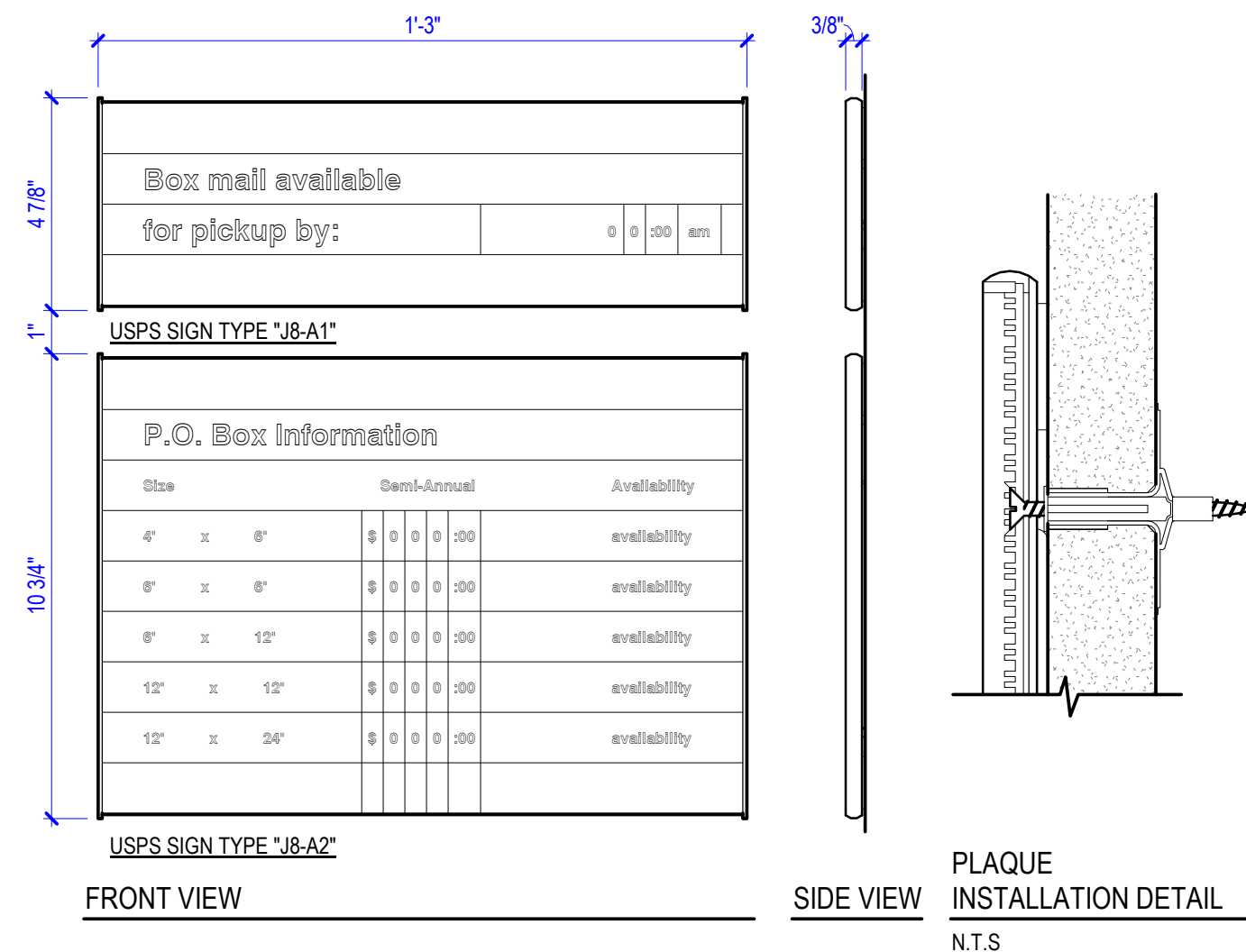
3 GUARD RAIL ELEVATION - MAIL VESTIBULE 109
1/2" = 1'-0"

FULL SERVICE COUNTER GAP FILLER INSTRUCTIONS

GAP SIZE	SUGGESTED METHOD
LESS THAN 1/2"	COMPRESSIVE BLACK NEOPRENE STRIPS - HORIZONTAL PIECES SET DOWN AT LEAST 1/2" FROM THE TOP EDGES OF THE SIDE PANELS, AND VERTICAL PIECES SET BACK AT LEAST 1/2" BEHIND THE CORNER POSTS, TO FALL IN A SHADOW LINE.
1" TO 1 1/2"	SCRIBED TRIM PIECES OF BLACK PLASTIC LAMINATE OVER BOARD. HORIZONTAL PIECES SET DOWN AT LEAST 1/2" FROM THE TOP EDGES OF THE SIDE PANELS, AND VERTICAL PIECES SET BACK AT LEAST 1/2" BEHIND THE CORNER POSTS, TO FALL IN A SHADOW LINE.
GREATER THAN 1 1/2"	SCRIBED TRIM PIECES OF PLASTIC LAMINATE OVER BOARD, MATCHING THE FULL SERVICE COUNTERS (LIGHT GRAY = WILSONART 4142-60 "GREY GLACE"; DARK GRAY = WILSONART D91-60 "SLATE GRAY"). HORIZONTAL PIECES ADJACENT TO THE WORKTOPS (LIGHT GRAY) WOULD NEED BULLNOSE EDGES TO MATCH THE ADJACENT WORKTOPS, AND SHOULD ABUT THE WORKTOPS. HORIZONTAL PIECE AT TALL SIDE PANEL (DARK GRAY) SHOULD BE SET DOWN 1/2" INTO SHADOW LINE. VERTICAL PIECES (LIGHT GRAY AT FRONT, DARK GRAY AT REAR) SHOULD BE SET BACK JUST BEHIND THE CORNER POSTS, AND NEED TO BE NOTCHED AROUND THE BASE.
FULL SERVICE COUNTERS WITH ROUND CORNER POSTS AND OLD BLUE WORKTOPS	SCRIBED TRIM PIECES OF PLASTIC LAMINATE OVER BOARD, MATCHING THE FULL SERVICE COUNTERS (OLD BLUE = WILSONART D417-60 "LAPIS BLUE"; LIGHT GRAY = WILSONART 4142-60 "GRAY GLACE"; DARK GRAY = WILSONART D91-60 "SLATE GRAY"). HORIZONTAL PIECES ADJACENT TO THE WORKTOPS (OLD BLUE) WOULD NEED BULLNOSE EDGES TO MATCH THE ADJACENT WORKTOPS, AND SHOULD ABUT THE WORKTOPS. HORIZONTAL PIECE AT TALL SIDE PANEL (DARK GRAY) SHOULD BE SET DOWN 1/2" INTO SHADOW LINE. VERTICAL PIECES (LIGHT GRAY AT FRONT, DARK GRAY AT REAR) SHOULD BE SET BACK JUST BEHIND THE CORNER POSTS, AND NEED TO BE NOTCHED AROUND THE BASE.
FULL SERVICE COUNTERS WITH SQUARE CORNER POSTS AND NEW BLUE WORKTOPS	SCRIBED TRIM PIECES OF PLASTIC LAMINATE OVER BOARD, MATCHING THE FULL SERVICE COUNTERS (NEW BLUE = FORMICA 65961-58 "EXPRESS BLUE"; GRAY = WILSONART 4142-60 "GRAY GLACE"). HORIZONTAL PIECES ADJACENT TO THE WORKTOPS (NEW BLUE) WOULD NEED BULLNOSE EDGES TO MATCH THE ADJACENT WORKTOPS, AND SHOULD ABUT THE WORKTOPS. HORIZONTAL PIECE AT TALL SIDE PANEL (GRAY) SHOULD BE SET DOWN 1/2" INTO SHADOW LINE. VERTICAL PIECES (GRAY AT BOTH FRONT AND REAR) SHOULD BE SET BACK JUST BEHIND THE CORNER POSTS.



5 DETAIL - LETTER DROP
1 1/2" = 1'-0"

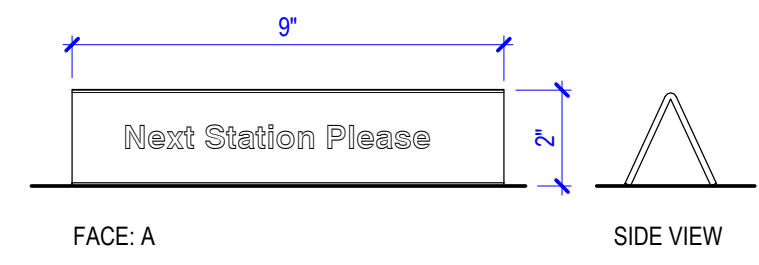


USPS SIGN TYPE 'J8-A1'
USPS SIGN TYPE 'J8-A2'

FRONT VIEW **SIDE VIEW** **PLAQUE INSTALLATION DETAIL**
 N.T.S.

NOTE:

1. USING THE SIGN TOOL, REMOVE BARS THAT INTERFERE WITH MOUNTING HOLES.
2. MARK THE PILOT HOLE LOCATION IN THE WALL AS PER THE SPECIFIED MOUNTING LOCATION.
3. DRILL PILOT HOLE FOR KWIK-TOG TYPE OR APPROPRIATE FASTENER.
4. REMOVE PROTECTIVE FILM ON DOUBLE FACE FOAM TAPE AT BACK OF SIGN.
5. FASTEN FRAME TO WALL WITH COUNTERSUNK FLATHEAD SCREWS AS REQUIRED INTO FASTENER.
6. RETURN ALL REMOVED BAR EXTRUSIONS TO THEIR ORIGINAL LOCATION ON SIGN.
7. ALL BARS TO BE FLUSH WITH SIGN BODY.
8. ATTACHED REPLACEMENT KIT TO BE LEFT WITH STATION MANAGER. HOURS SET-UP TO BE COMPLETED BY FACILITY.



FACE A **SIDE VIEW**

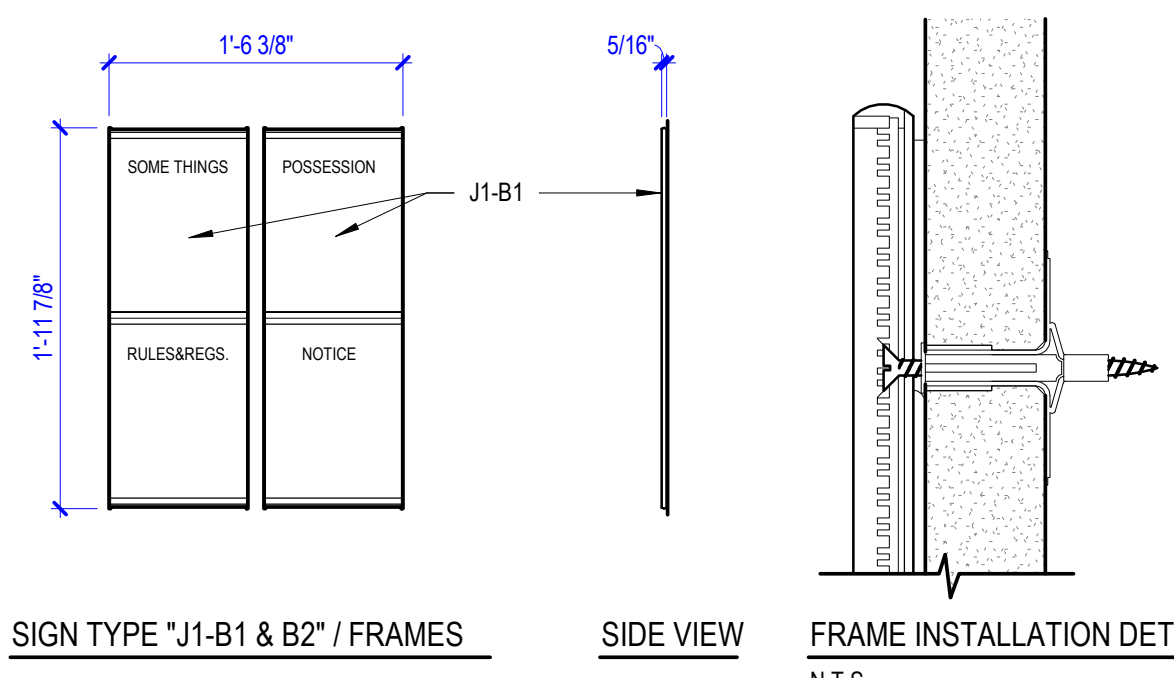
USPS SIGN TYPE 'J11-A1'

NOTE:

1. LEAVE ONE SIGN AT EACH IRT/POS LOCATION. DO NOT FASTEN TO COUNTER TOP.

6 P.O. BOX INFORMATION PLAQUE
 3" = 1'-0"

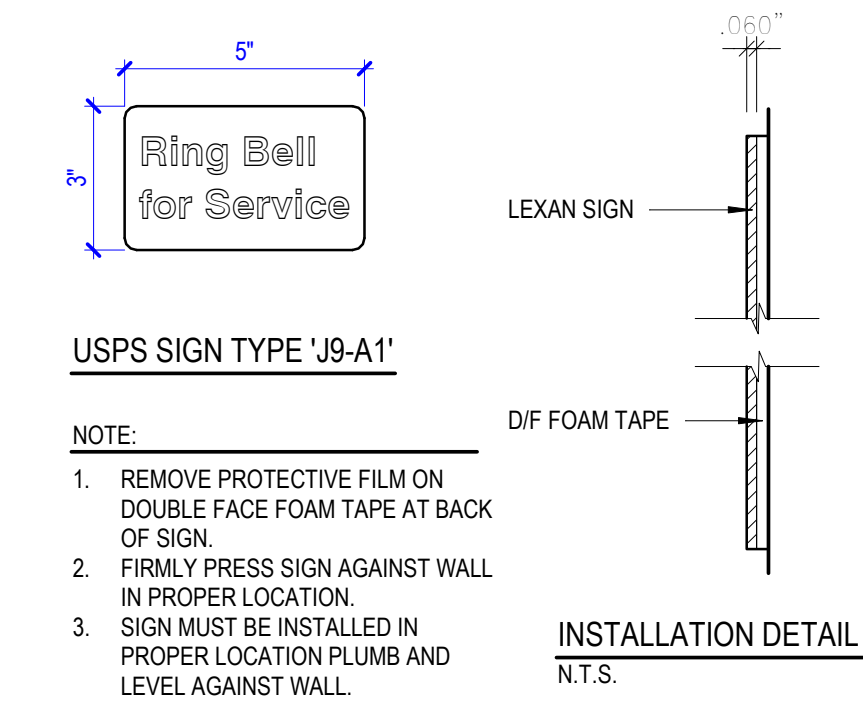
3 NEXT STATION PLAQUE
 3" = 1'-0"



SIGN TYPE 'J1-B1 & B2' / FRAMES **SIDE VIEW** **FRAME INSTALLATION DETAIL**
 N.T.S.

NOTE:

1. USING FRAME TOOL, REMOVE POSTERS AND FRAME LENSES FOR INSTALLATION. PRY WITH SIGN TOOL TO LIFT LENS HOLDER.
2. MARK PILOT HOLE LOCATION ON WALL AS PER LOCATION SPECIFICATION.
3. DRILL PILOT HOLE FOR KWIK-TOG TYPE OR APPROPRIATE FASTENER.
4. REMOVE PROTECTIVE FILM ON DOUBLE FACE FOAM TAPE AT BACK OF SIGN.
5. FASTEN FRAME TO WALL WITH COUNTERSUNK FLATHEAD SCREWS AS REQUIRED INTO FASTENER.
6. REPLACE POSTERS AND LENS ASSEMBLY INTO FRAME. ALL ALUM. EXTRUSIONS SHOULD BE FLUSH WITH FRAME. POSTERS MUST BE RETURNED TO THEIR ORIGINAL ORDER.



USPS SIGN TYPE 'J9-A1'

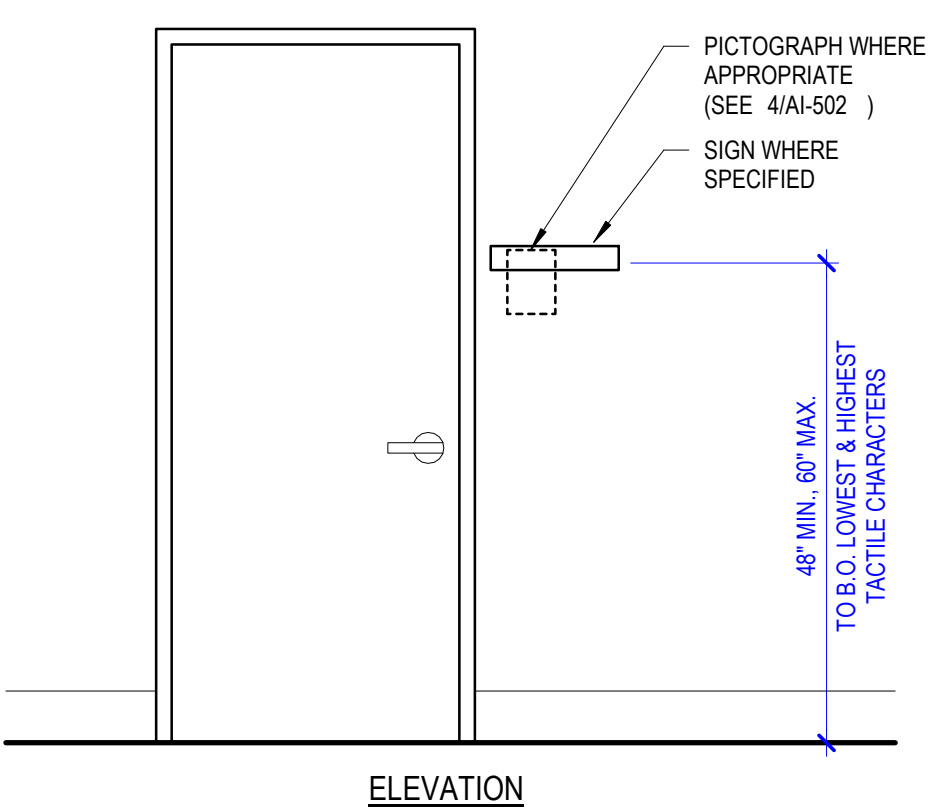
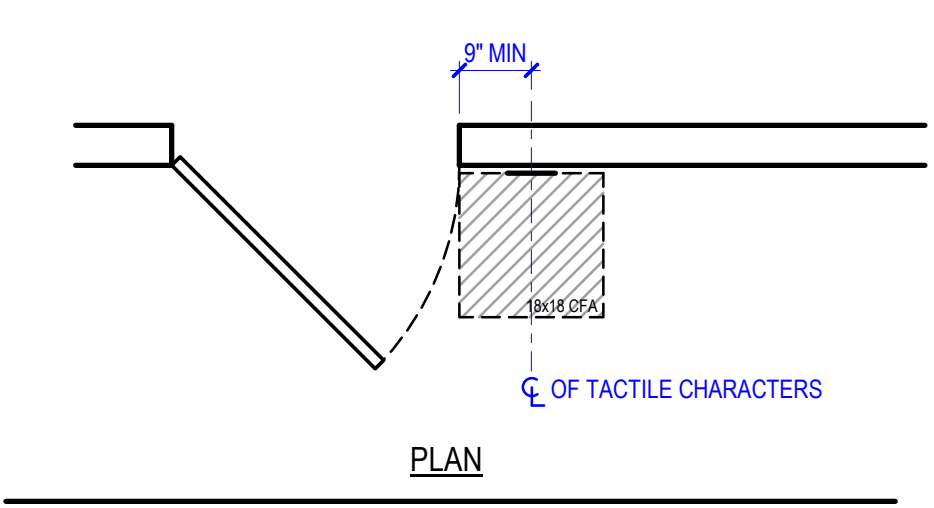
NOTE:

1. REMOVE PROTECTIVE FILM ON DOUBLE FACE FOAM TAPE AT BACK OF SIGN.
2. FIRMLY PRESS SIGN AGAINST WALL IN PROPER LOCATION.
3. SIGN MUST BE INSTALLED IN PROPER LOCATION PLUMB AND LEVEL AGAINST WALL.

INSTALLATION DETAIL
 N.T.S.

2 RING BELL SIGN
 3" = 1'-0"

5 POSTER FRAME INSTALLATION DETAIL
 1" = 1'-0"

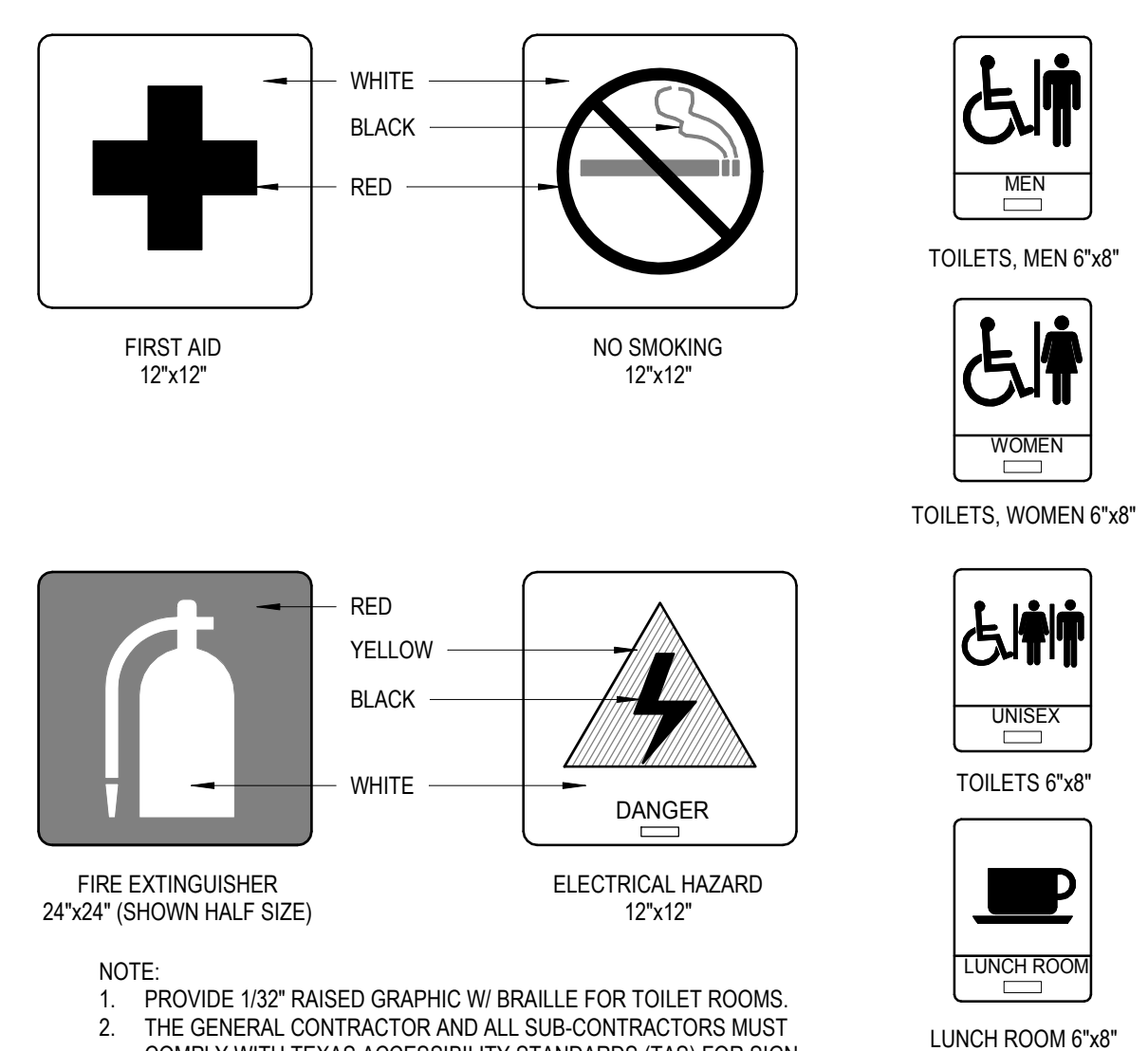


ELEVATION

NOTES:

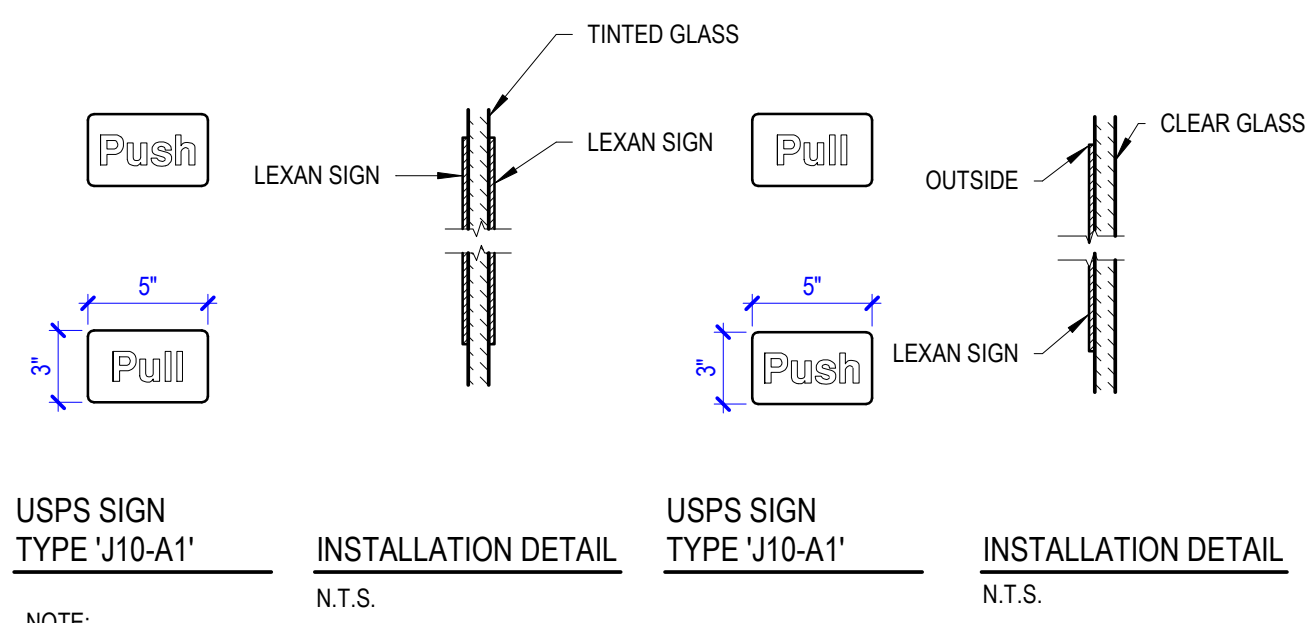
1. MOUNT SIGN PANELS WITH SCREWS AND EXPANSION SLEEVES AS REQUIRED.
2. SIGNAGE SHALL BE MOUNTED ON THE LATCH SIDE OF DOOR.

4 ROOM SIGNAGE PICTOGRAPHS
 1 1/2" = 1'-0"



NOTE:

1. PROVIDE 1/32" RAISED GRAPHIC W/ BRAILLE FOR TOILET ROOMS.
2. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS MUST COMPLY WITH TEXAS ACCESSIBILITY STANDARDS (TAS) FOR SIGN DESIGN, MOUNTING HEIGHTS AND LOCATIONS.



USPS SIGN TYPE 'J10-A1' **INSTALLATION DETAIL** **USPS SIGN TYPE 'J10-A1'** **INSTALLATION DETAIL**
 N.T.S.

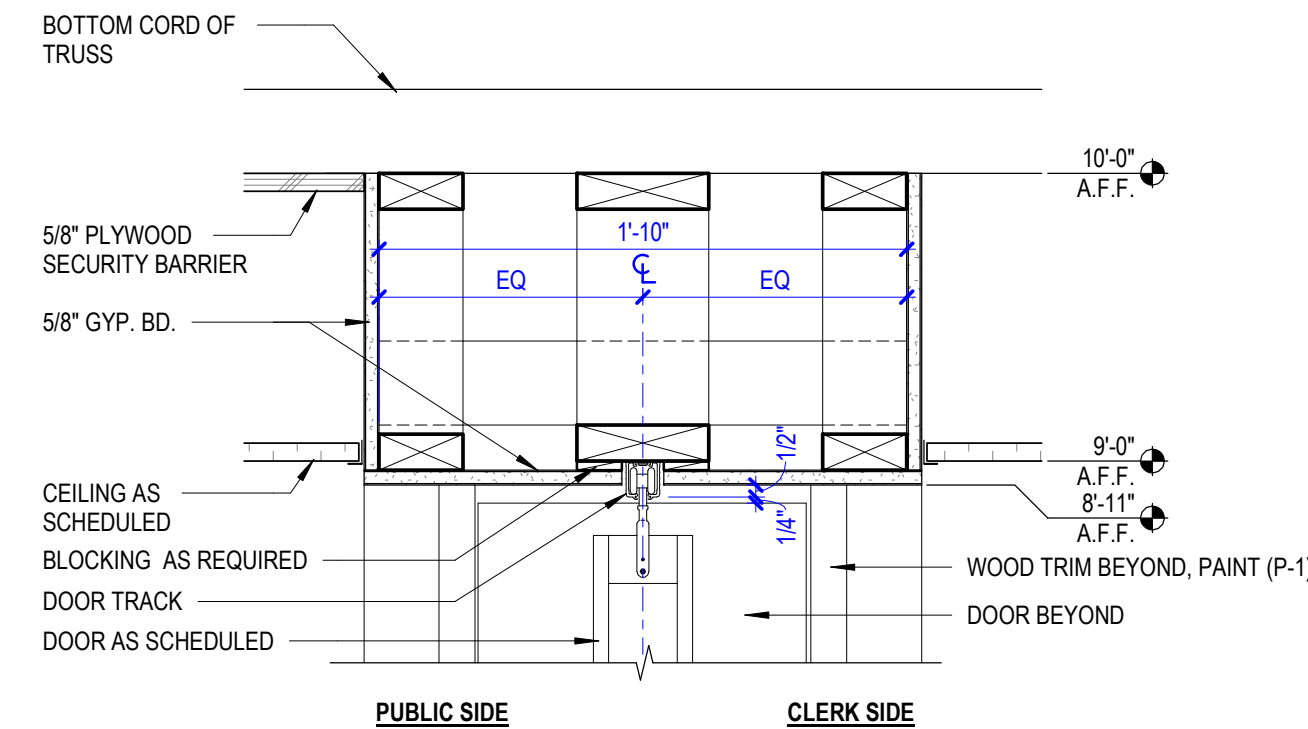
NOTE:

1. SELECT SIGN FOR DOOR SWING TO CALL OUT PROPER PUSH/PULL MOVEMENT.
2. REMOVE PROTECTIVE FILM ON DIF ADHESIVE AT BACK OF SIGN.
3. PRESS SIGN FIRMLY INTO PLACE AT PROPER LOCATION AS SPECIFIED.
4. ROLL AIR BUBBLES OUT FROM BEHIND SIGN.
5. APPLY SECOND SIGN AS PER ABOVE PROCESS. ALIGN SIGN TO EXACT ALIGNMENT FROM OPPOSITE SIDE OF GLASS.
6. IF CLEAR GLASS IS ON DOOR, ONLY INSTALL ONE SIGN PER DOOR ON OUTSIDE OF GLASS. ALL AIR BUBBLES MUST BE REMOVED FROM UNDER SIGN.

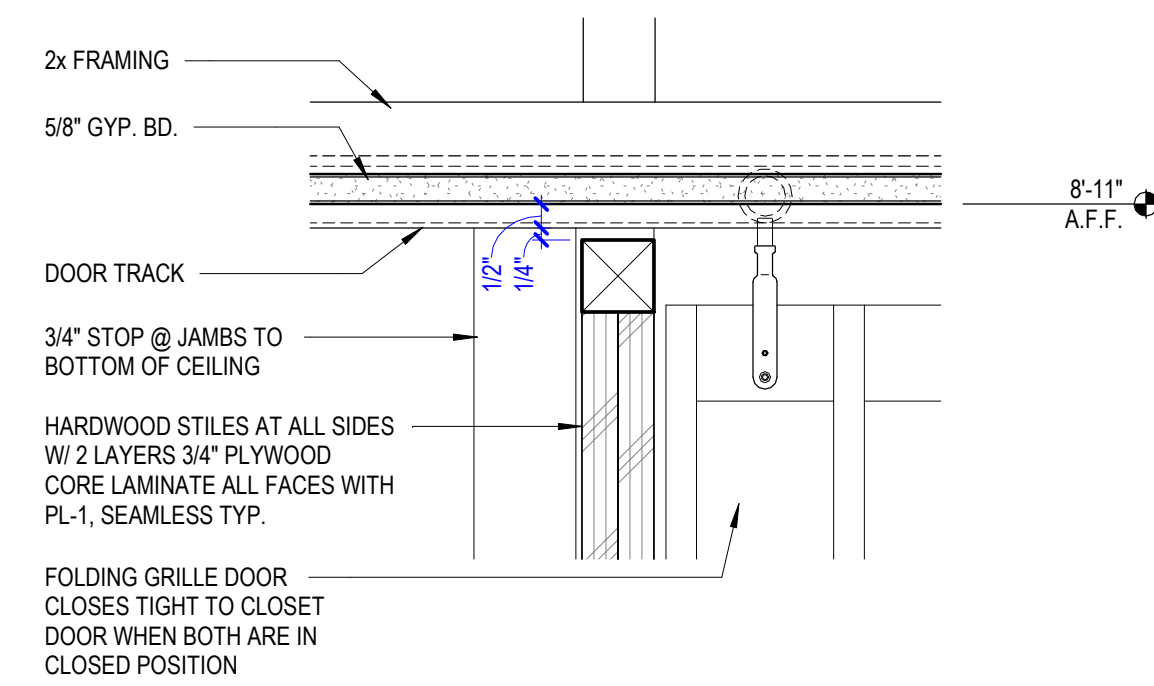
7 PUSH/PULL DOOR SIGN
 1 1/2" = 1'-0"

1 ROOM SIGNAGE
 1/2" = 1'-0"

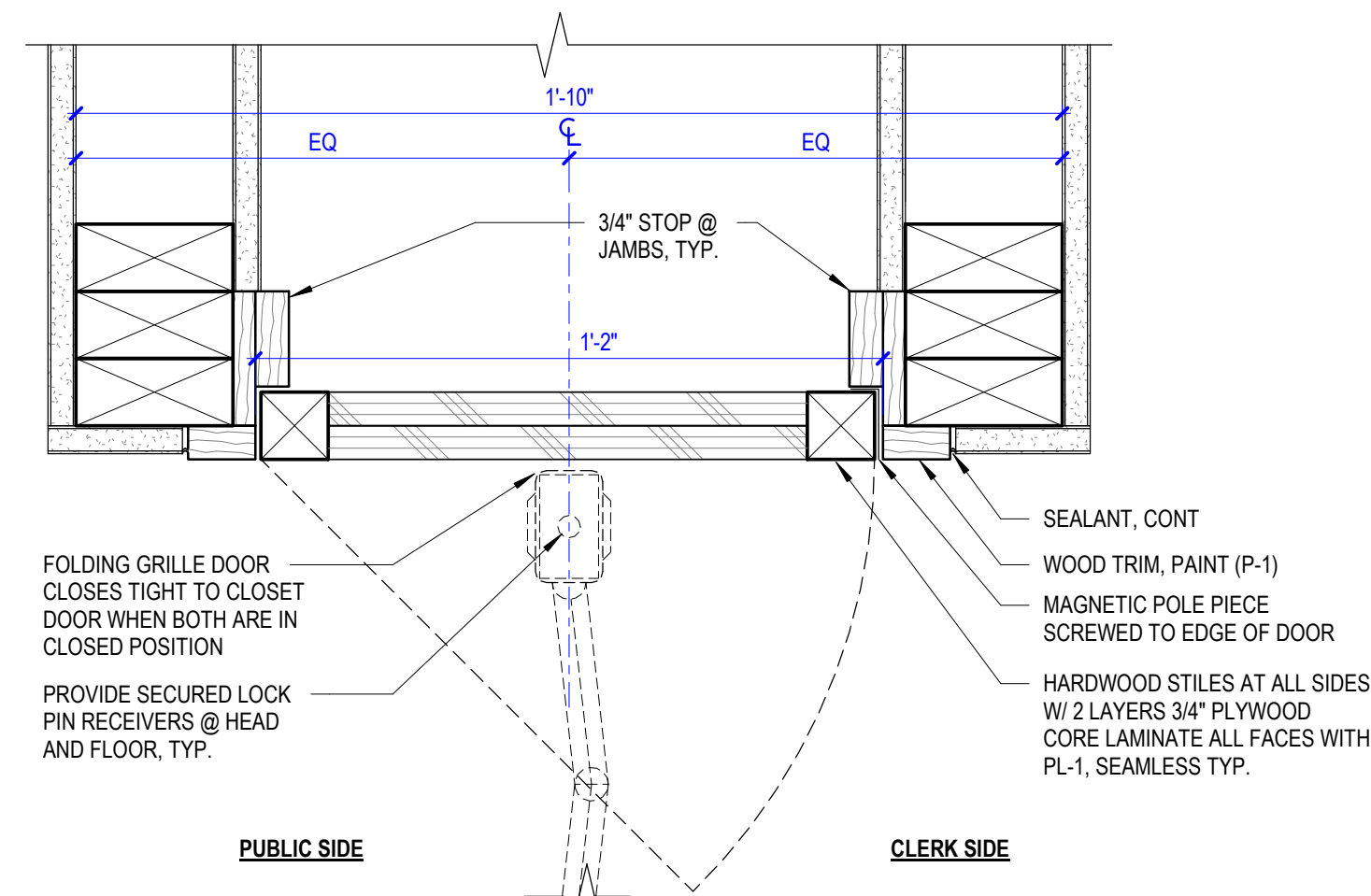
8/7/2020 8:47:57 AM



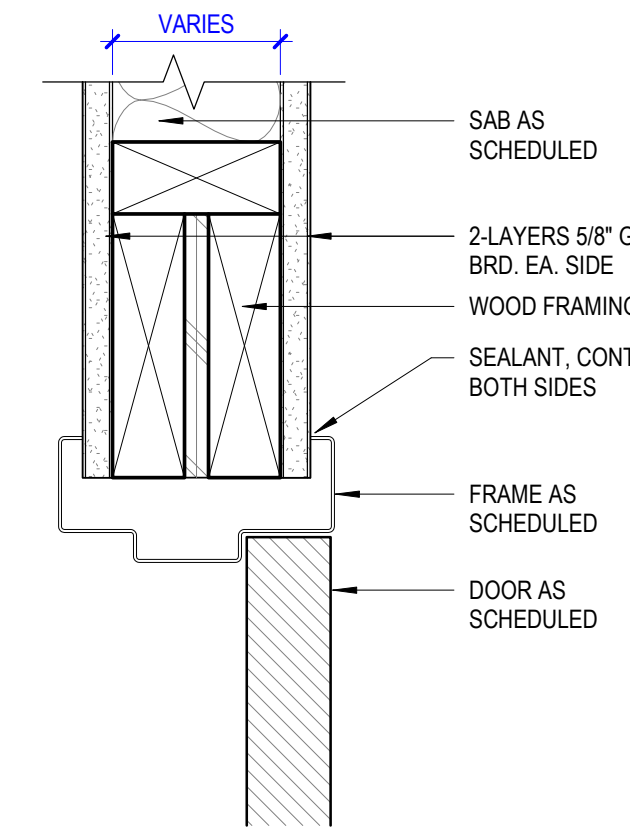
7 SLIDING DOOR HEAD DETAIL
1 1/2" = 1'-0"



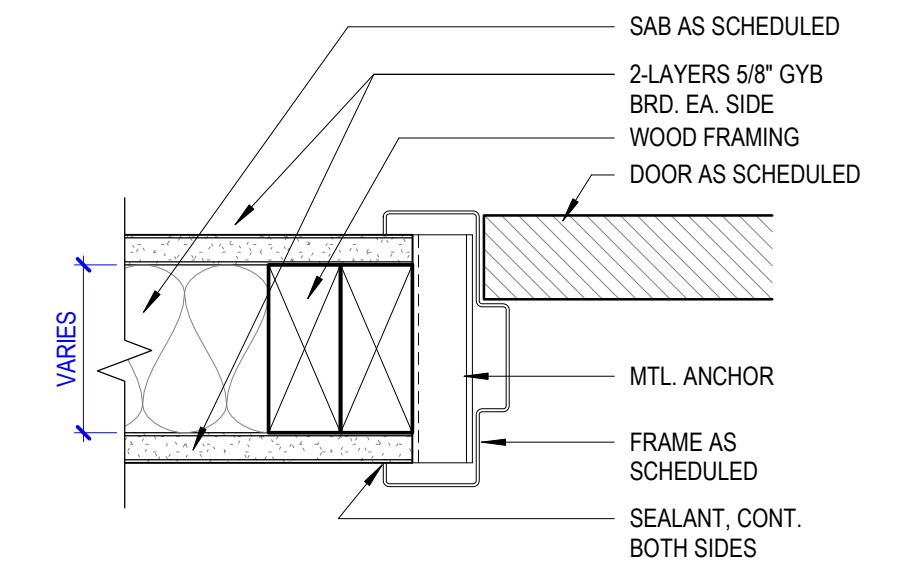
6 POCKET DOOR HEAD DETAIL
3" = 1'-0"



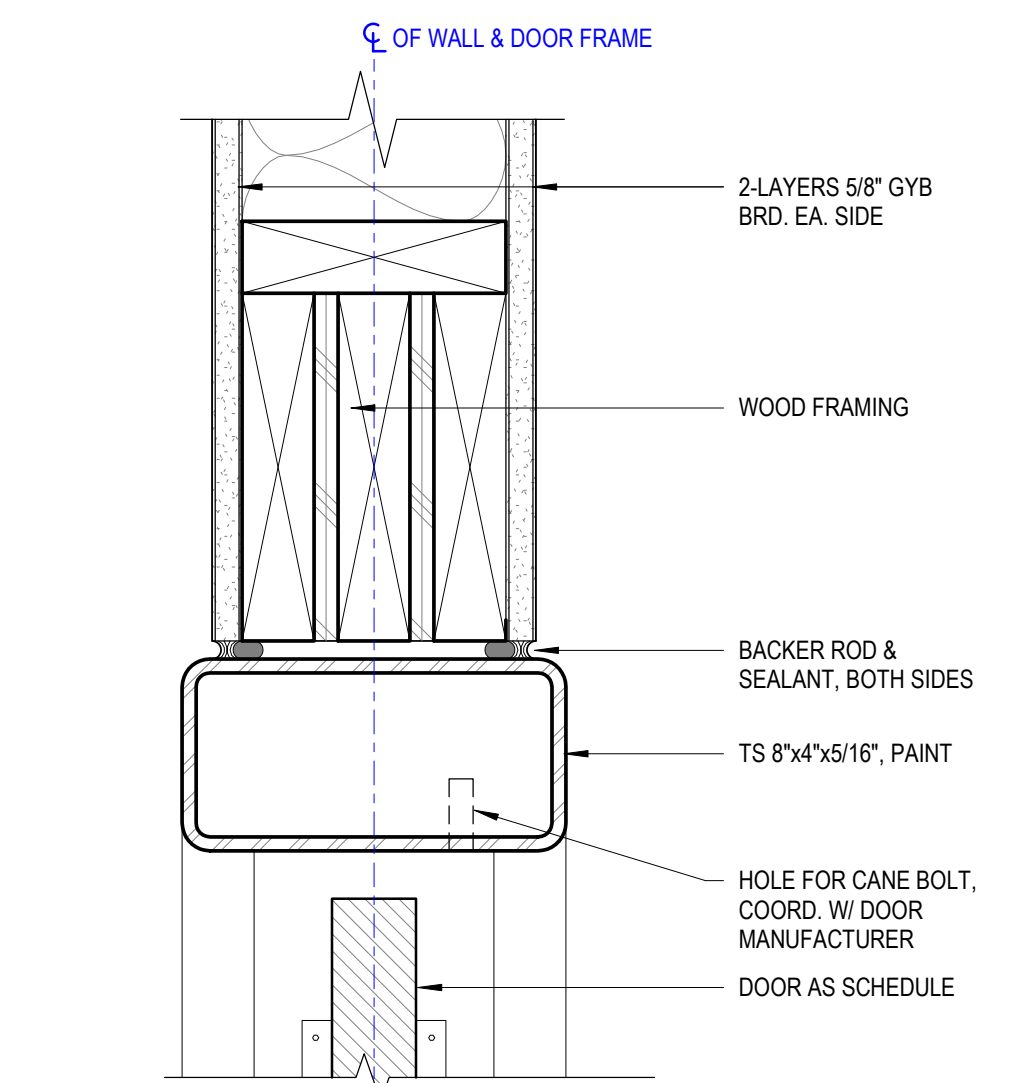
5 POCKET DOOR JAMB DETAIL
3" = 1'-0"



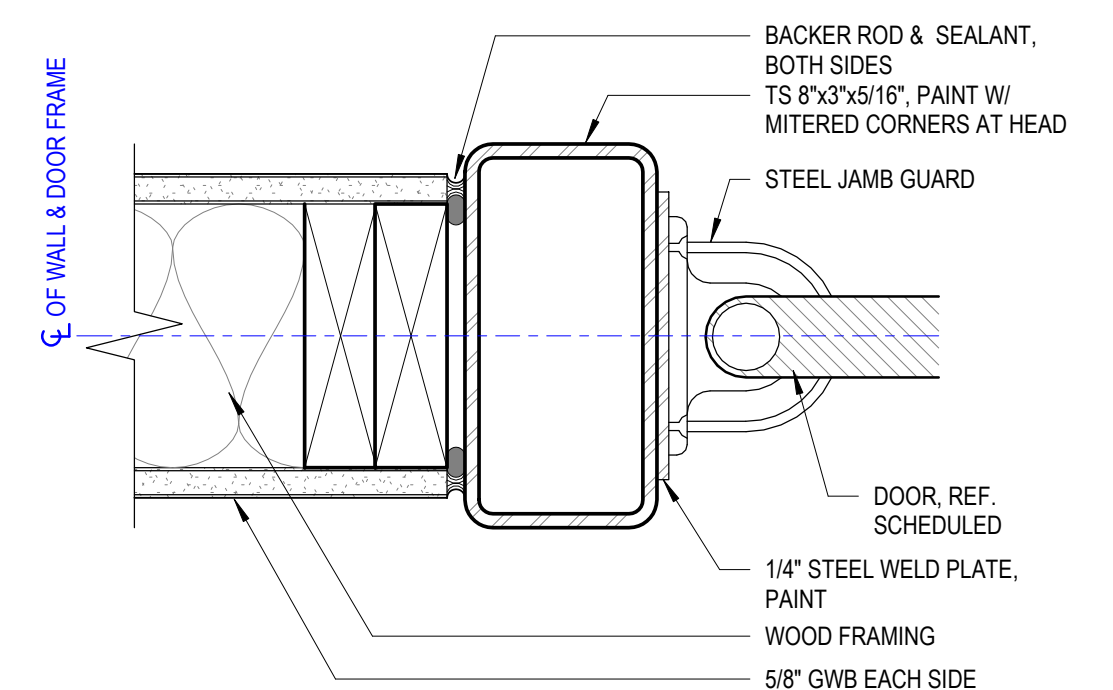
4 DOOR HEAD DETAIL
3" = 1'-0"



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



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



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

NOTES:
1. PROVIDE AND SECURE ALL STRUCTURE AND BRACING AS REQUIRED BY THE DOOR MANUFACTURER. EXTEND SECURITY WALL TO UNDERSIDE OF DECK/SECURITY CEILING.

NOTE:
1. STEEL IMPACT DOOR FRAMES ARE NOT TO BE ATTACHED TO WALL CONSTRUCTION. PROVIDE ONLY A 3/8\"/>

NOTES:
1. HEAD DETAIL IS SIMILAR TO STRIKE SIDE JAMB.
2. SET DOOR PRIOR TO INSTALLATION OF ADJACENT GYP. BD. FINISHES.
3. FOR SPECIAL HARDWARE REQUIREMENTS. SEE SPECIFICATIONS.
4. SEE FLOOR PLAN FOR ACTUAL WALL CONFIGURATION ADJACENT TO BOTH SIDES OF DOOR.

NOTE:
1. STEEL IMPACT DOOR FRAMES ARE NOT TO BE ATTACHED TO WALL CONSTRUCTION. PROVIDE ONLY A 3/8\"/>

IBC 1705.4 - MASONRY CONSTRUCTION			TMS 402-11(A)C150-11ASCEES-11 TMS602-11(A)C150-11ASCEES-11
LEVEL B QUALITY ASSURANCE (ENGINEERED MASONRY IN NONESSENTIAL FACILITIES, ESSENTIAL FACILITIES WITH EMPIRICALLY DESIGNED MASONRY, GLASS UNIT MASONRY, MASONRY VENEER)			
VERIFICATION OF SLIP FLOW AND VISUAL STABILITY INDEX AS DELIVERED TO PROJECT SITE		X	ART. 1.5 B1.b.3
VERIFICATION OF THE AND TAAC PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXCEPTED		X	ART. 1.4B
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X	ART. 1.5
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. PROPORTIONS OF SITE-PREPARED MORTAR		X	ART. 2.1, 2.6 A
b. CONSTRUCTION OF MORTAR JOINTS		X	ART. 3.3 B
c. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES		X	ART. 2.4 B, 2.4 H
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES		X	ART. 3.4, 3.6 A
e. PRESTRESSING TECHNIQUE		X	ART. 3.6 B
1. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	CONTINUOUS FIRST 5000 FT PERIODIC AFTER		ART. 2.1 C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. GROUT SPACE		X	ART. 3.2 D, 3.2 F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES		X	SEC. 1.1 B ART. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES		X	SEC. 1.1 S ART. 3.2 E, 3.4, 3.6 A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS		X	ART. 2.6 B, 2.4 G, 1 b
e. CONSTRUCTION OF MORTAR JOINTS		X	ART. 3.3 B
4. VERIFY DURING CONSTRUCTION:			
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X	ART. 3.3 F
b. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OR TENSION TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION		X	SEC. 1.16.4.3, 1.17.1
c. WELDING OF REINFORCEMENT		X	SEC. 2.1.8.7.3, 3.3.3.4 (f), 8.3.3.4(b)
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER, BELOW 41°F OR HOT WEATHER, ABOVE 90°F		X	ART. 1.8 C, 1.8 D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE		X	ART. 3.6 B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE		X	ART. 3.5, 3.6 C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	CONTINUOUS FIRST 5000 FT PERIODIC AFTER		ART. 3.3 B.8
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		X	ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4
IBC 1705.5 - WOOD CONSTRUCTION			
1. PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES			SEC. 1704.2.5
2. HIGH-LOAD DIAPHRAGMS DESIGNED IN ACCORDANCE WITH IBC SECTION 2206.2	NOT REQ'D	NOT REQ'D	
3. METAL-PLATE CONNECTED WOOD TRUSSES SPANNING 60 FEET OR GREATER	NOT REQ'D	NOT REQ'D	
IBC 1705.6 - SOILS			
EXCEPTIONS:			
1. WHERE IBC SECTION 1803 DOES NOT REQUIRE REPORTING OF MATERIALS AND PROCEDURES FOR FILL PLACEMENT, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE IN PLACE DRY DENSITY OF THE COMPACTED FILL IS NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D 1557.			
VERIFICATION THAT PROPER MATERIALS AND PROCEDURES ARE USED DURING FILL PLACEMENT IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT		X	
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X	
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL		X	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.		X	
IBC 1705.7 - DRIVEN DEEP FOUNDATIONS	NOT REQ'D	NOT REQ'D	
IBC 1705.8 - CAST-IN-PLACE DEEP FOUNDATIONS	NOT REQ'D	NOT REQ'D	
IBC 1705.9 - HELICAL PILE FOUNDATIONS	NOT REQ'D	NOT REQ'D	
IBC 1705.10 - SPECIAL INSPECTIONS FOR WIND RESISTANCE	NOT REQ'D	NOT REQ'D	
IBC 1705.11 - SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE	NOT REQ'D	NOT REQ'D	
IBC 1705.12 - TESTING FOR SEISMIC RESISTANCE	NOT REQ'D	NOT REQ'D	

SITE OBSERVATIONS BY STRUCTURAL ENGINEER		
SITE OBSERVATIONS SHALL BE MADE BY THE ENGINEER OF RECORD OR APPROVED AGENT AT THE STAGES OF CONSTRUCTION LISTED BELOW. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN CONSTRUCTION HAS REACHED THE STAGE LISTED BELOW AND BEFORE THE WORK TO BE OBSERVED IS COVERED UP, WALLED IN, OR BECOMES OTHERWISE HIDDEN FROM VIEW OR ACCESSIBLE TO ANY NECESSARY CORRECTIONS. AT THE CONCLUSION OF THE PROJECT, THE ENGINEER OF RECORD SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE BUILDING HAS BEEN BUILT IN GENERAL CONFORMANCE TO THE STRUCTURAL PLANS AND SPECIFICATIONS.		
OBSERVATION	STAGE OF CONSTRUCTION	DATE OBSERVED
SLAB ON GRADE	FORMS, VAPOR BARRIER, & REINFORCING IN PLACE, PRIOR TO CONCRETE PLACEMENT	
WOOD FRAMING	DECKING AND SHEATHING IN PLACE AND FULLY BLOCKED/NAILED, PRIOR TO INSULATION AND HOUSE WRAP	

REQUIRED STRUCTURAL SPECIAL INSPECTIONS			
SPECIAL INSPECTION	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
IBC 1704.2.6 - INSPECTION OF FABRICATORS			
WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION.	X		
EXCEPTIONS:			
1. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL.			
2. SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5.2.			
IBC 1705.2 - STEEL CONSTRUCTION			
STRUCTURAL STEEL IN ACCORDANCE WITH QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISI 360			AISI 360
IBC 1705.2.2 - COLD-FORMED STEEL DECK			
	NOT REQ'D	NOT REQ'D	
IBC 1705.2.3 - OPEN WEBB STEEL JOISTS AND JOISTS GIRDERS			
	NOT REQ'D	NOT REQ'D	
IBC 1705.2.4 - COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER			
	NOT REQ'D	NOT REQ'D	
IBC 1705.3 - CONCRETE CONSTRUCTION			
	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
1. INSPECT REINFORCING STEEL, INCLUDING PRE STRESSING TENDONS, AND PLACEMENT.		X	ACI 218 CH. 20, 25.2, 25.3, 26.5.1, 26.5.3
2. REINFORCING BAR WELDING:			
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 708		X	AWS D1.4 ACI 318: 28.5.4
b. INSPECT SINGLE-PASS FILET WELDS, MAXIMUM 5/16"		X	
c. INSPECT ALL OTHER WELDS		X	
3. INSPECT ANCHORS CAST IN CONCRETE		X	ACI 318: 17.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS			
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSIONS LOADS		X	ACI 318: 17.8.2.4
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a		X	ACI 318: 17.8.2
5. VERIFY USE OF REQUIRED DESIGN MIX		X	ACI 318: CH. 19, 26.4.3, 26.4.4
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		X	ASTM C 172 ASTM C 31 ACI 318: 26.4.5, 26.12
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.		X	ACI 318: 26.4.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X	ACI 318: 26.4.7, 26.4.9
9. INSPECTION OF PRESTRESSED CONCRETE FOR:			
a. APPLICATION OF PRESTRESSING FORCES		X	ACI 318: 26.9.2.1
b. GROUTING OF BONDED PRESTRESSING TENDONS		X	ACI 318: 26.9.2.3
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS		X	ACI 318: CH. 28.8
11. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X	ACI 318: 28.10.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X	ACI 318: 26.10.1(B)

STRUCTURAL EARTHWORK FOR GRADE SUPPORTED FOUNDATIONS:

- SE-1** THE CONCRETE FOUNDATION WAS DESIGNED FOR A BUILDING PAD WITH A MAXIMUM PWR OF 1" THE BUILDING PAD WAS DESIGNED AND RECOMMENDATIONS PREPARED BY CARROLLO & ASSOCIATES, INC. OF SAN ANTONIO IN REPORT NO. 72-363. BUILDING PAD CUT AND FILL RECOMMENDATIONS FOR A 1" PWR HAVE BEEN REPRODUCED BELOW FOR CONVENIENCE. THE SOILS REPORT ALSO INCLUDES OTHER RECOMMENDATIONS THAT EFFECT THE LONG TERM PERFORMANCE OF THE FOUNDATION WHICH ARE BEYOND THE SCOPE OF LEHMANN ENGINEERING'S SERVICES. THE CONTRACTOR AND OWNER SHALL REVIEW THE SOILS REPORT AND IMPLEMENT RECOMMENDATIONS PROVIDED WITHIN (I.E. LANDSCAPING VEGETATION, ROOT BARRIERS, SITE DRAINAGE, BUILDING PAD DRAINAGE SYSTEMS, ROOT DRAINAGE, SOIL MOISTURE MAINTENANCE, ETC.)
- SE-2** BEFORE ANY CONSTRUCTION IS BEGUN, PERFORM ROUGH GRADING AND CUT SWALES SO THAT GROUNDS WILL DRAIN AWAY FROM THE BUILDING. MAINTAIN DRAINAGE DURING ALL PHASES OF CONSTRUCTION SO THAT STORM WATER WILL BE CONDUCTED AWAY FROM THE BUILDING. KEEP EXCAVATIONS PUMPED FREE OF STORM WATER AT ALL TIMES.
- SE-3** PRECAUTIONS SHALL BE TAKEN TO PROTECT OPEN EXCAVATIONS FROM EXCESSIVE LOSS OR GAIN IN NATURAL MOISTURE LEVEL PRIOR TO PLACEMENT OF BASE MATERIAL. KEEP MOIST DURING DRY WEATHER AND KEEP STORM WATER PUMPED OUT, INCLUDING NIGHTS AND WEEKENDS, DURING RAINS.
- SE-4** IN THE AREA OCCUPIED BY THE FOUNDATION, PLUS 3'-0", REMOVE ALL ORGANIC MATERIALS, ROOTS, ETC. FROM THE SITE. REMOVE ADDITIONAL MATERIAL AS NECESSARY TO PROVIDE A MINIMUM OF 0'-6" OF SELECT FILL. THE EXCAVATION SHALL BE BENCHMARKED IN HORIZONTAL PLANES AS REQUIRED TO MEET MINIMUM CUT AND FILL REQUIREMENTS.
- SE-5** THE SUB GRADE SHALL BE SCARIFIED JUST PRIOR TO FILL PLACEMENT TO A MINIMUM DEPTH OF 12" AND RECOMPACTED TO MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698 COMPACTION TEST, MAINTAINING MOISTURE CONTENT BETWEEN -2 AND +2 PERCENTAGE POINTS UNTIL COVERED.
- SE-7** IMPORTED SELECT FILL SHALL CONFORM TO T4007 SPECIFICATIONS, ITEM 247, TYPE "A" GRADE 2. STOCKPILED CLEAN ON SITE FILL SHALL BE APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER. NO DIRT FILL SHALL BE USED UNDER THE BUILDING FOUNDATION. SUBMIT WRITTEN CERTIFICATION OF COMPLIANCE WITH T4007, ITEM 247 SPECIFICATIONS BY TEST PERFORMED ON FIELD EXAMPLES FOR IMPORTED FILL.
- SE-8** FOR A DISTANCE OF 3'-0" OUTSIDE OF THE BUILDING LINE, AND BEGINNING AT THE LOW END, BUILD UP TO THE ELEVATION OF THE BOTTOM OF THE SLAB WITH SELECT FILL. REFERENCE SE-4 FOR MINIMUM FILL THICKNESS REQUIREMENTS. ALL FILL SHALL BE PLACED IN 8" LOOSE HORIZONTAL LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698 COMPACTION TEST.
- SE-9** PERFORM ALL EARTHWORK DESCRIBED ABOVE BEFORE TRENCHING FOR GRADE BEAMS OR MECHANICAL LINES.
- SE-10** EXCESS FILL AT BUILDING PERIMETER SHALL BE CUT AND GRADED TO COMPLY WITH FINISHED GRADE REQUIREMENTS INCLUDING PLANTING SOIL OVER A 2'-0" THICK IMPROVED SOIL CAP LAYER. CLEAN CLAY WITH P.I. 35% FOR A DISTANCE OF 5'-0" FROM BUILDING LINE. INCREASE AS REQUIRED TO COMPLETELY CAP SELECT FILL. FINISH GRADE SHALL PROVIDE PERMANENT DRAINAGE AWAY FROM BUILDING. PLACE IN 8" THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY PER ASTM D698.
- SE-11** OWNER SHALL EMPLOY GEOTECHNICAL ENGINEER TO VERIFY EXCAVATION DEPTH AND TAKE DENSITY TESTS OF RECOMPACTED SCARIFIED MATERIAL AND DENSITY TESTS OF EACH LIFT OF SELECT FILL AT THE RATE OF ONE TEST PER EACH 3,000 SQ. FT. WITH A MINIMUM OF THREE (3) TESTS PER LIFT.

STRUCTURAL SPECIAL INSPECTION NOTES

SI-1 SPECIAL INSPECTIONS ARE NOT REQUIRED FOR CONSTRUCTION OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL.

SI-2 UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL, SPECIAL INSPECTIONS ARE NOT REQUIRED FOR GROUP U OCCUPANCIES THAT ARE ACCESSORY TO A RESIDENTIAL OCCUPANCY INCLUDING, BUT NOT LIMITED TO, THOSE LISTED IN IBC SECTION 312.1.

SI-3 SPECIAL INSPECTIONS ARE NOT REQUIRED FOR PORTIONS OF STRUCTURES DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION PROVISIONS OF IBC SECTION 2311.7 OR THE CONVENTIONAL LIGHT-FRAME CONSTRUCTION PROVISIONS OF IBC SECTION 2308.

SI-4 THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED UNDER SECTION 1705 OF THE INTERNATIONAL BUILDING CODE (2015). THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS IDENTIFIED IN SECTION 110.

SI-5 DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

A. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY WHO SHALL PROVE TO THE SATISFACTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE BUILDING OFFICIAL THAT HE/SHE HAS THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.

B. THE SPECIAL INSPECTOR IS RESPONSIBLE TO REVIEW THE APPROVED CONSTRUCTION DOCUMENTS THOROUGHLY AND SUFFICIENTLY AHEAD OF CONSTRUCTION TO ESTABLISH THEIR ABILITY TO INSPECTION OF THOSE ITEMS ENTRUSTED TO THEM. ALL ERRORS AND/OR OMISSIONS IN THE APPROVED PLANS THAT CREATE AND FORM OF AMBIGUITY OR DOUBT FOR THE SPECIAL INSPECTOR SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

C. THE SPECIAL INSPECTOR IS RESPONSIBLE FOR VERIFICATION OF ITEMS DETAILED IN THE DESIGN DRAWINGS AND SPECIFICATIONS BUILT INTO THE PROJECT.

D. THE SPECIAL INSPECTOR SHALL NOT SUGGEST, DIRECT, OR APPROVE DEVIATION FROM THE DESIGN DRAWINGS AND SPECIFICATIONS OR THE APPROVED SHOP AND ERECTION DRAWINGS, OR APPROVE SUCH DEVIATION, WITHOUT THE WRITTEN APPROVAL BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

E. THE SPECIAL INSPECTOR SHALL BRING NON-COMPLYING ITEMS TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. IF CORRECTING THE NON-COMPLYING ITEMS IS NOT A TIMELY MATTER OR IGNORED, THE SPECIAL INSPECTOR IS TO PREPARE, SIGN AND SUBMIT A NOTICE OF NON-COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, THE BUILDING OFFICIAL, THE CONTRACTOR AND THE OWNER.

F. THE SPECIAL INSPECTOR IS RESPONSIBLE TO KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL PREPARE, SIGN AND SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF REQUIRED SPECIAL INSPECTIONS. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS.

G. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTIONS WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE. CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON PRIOR TO THE START OF WORK BY THE APPLICANT AND THE BUILDING OFFICIAL.

SI-6 WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS WILL NOT BE REQUIRED.

CONCRETE NOTES:

CN-1 ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."

CN-2 CONSTRUCTION TOLERANCES SHALL CONFORM TO ACI 117 "STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."

CN-3 CONTRACTOR SHALL SUBMIT THE FOLLOWING SHOP DRAWINGS:

REINFORCING STEEL - DETAILING FABRICATION AND ERECTION OF ALL REINFORCING BARS INCLUDING ACCESSORIES IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE."

CONCRETE MIX DESIGN - FOR EACH TYPE OF CONCRETE TO BE USED BASED ON AGGREGATE SIZE AND CEMENT PROPORTION. MIX DESIGN SHALL INCLUDE CERTIFICATION OF COMPLIANCE WITH SPECIFIED MATERIALS BASED ON FIELD SAMPLES AND COMPRESSION TEST DATA FOR LABORATORY PREPARED TRIAL MIX OR FIELD TEST DATA FOR SPECIFIED MIX. FIELD TEST DATA SHALL BE FROM AN IDENTICAL MIX DESIGN SUPPLIED FROM PROPOSED BATCH PLANT AND SHALL HAVE BEEN PREPARED WITHIN THE PRECEDING SIX MONTHS.

CN-4 CONTRACTOR SHALL DESIGN, CONSTRUCT, ERECT, SHORE, BRACE AND MAINTAIN FORM WORK ACCORDING TO ACI 301. WOOD FORM WORK SHALL BE #2 COMMON OR BETTER PLYWOOD. EXPOSED SURFACES SHALL BE NEW OR LIKE NEW MOISTURE RESISTANT FIR FORM PLYWOOD. LIGHTLY COAT FORMS WITH NON-STAINING FORM OIL. REMOVE SURPLUS OIL.

CN-5 REINFORCING STEEL SHALL BE DOMESTIC NEW BULLET STEEL CONFORMING TO ASTM A615 GRADE 60, EXCEPT TIES AND STIRRUPS MAY BE GRADE 40. BARS DESIGNATED AS CONTINUOUS SHALL BE LAPPED 48 BAR DIAMETERS WELDED WIRE FABRIC SHALL CONFORM TO ASTM A675 AND SHALL BE LAPPED 8" MINIMUM AT SPICE POINTS OR 1.12 MESHES, WHICHEVER IS GREATER.

CN-6 PORTLAND CEMENT SHALL COMPLY WITH ASTM C-150, TYPE 1. FLY ASH SHALL CONFORM TO ASTM C-618. NORMAL WEIGHT AGGREGATE SHALL COMPLY WITH ASTM C33. WATER SHALL BE POTABLE AND COMPLY WITH ASTM C54.

CN-7 CONCRETE SHALL BE NORMAL WEIGHT, LABORATORY DESIGNED TO DEVELOP MINIMUM SPECIFIED 28 DAY COMPRESSIVE STRENGTH AND PROPORTIONED AS FOLLOWS:

CONCRETE MIXTURE REQUIREMENTS					
APPLICATION	DESIGN STRENGTH	MAX W/C RATIO	MAX AGGREGATE SIZE	AIR ENTRAINMENT	EXPOSURE CLASS
SLAB ON GRADE	3000 PSI	0.50	1 1/2"	NA	NA

W/C RATIOS NOT SPECIFIED SHALL BE AS REQUIRED TO ACHIEVE DESIGN STRENGTH. IF AN EXPOSURE CLASS IS SPECIFIED, PROVIDE MIX DESIGNS PER ACI 301.

CN-8 ALL REINFORCING STEEL SHALL BE FREE OF RUST, SCALE AND DRIED CONCRETE, AND SHALL BE ACCURATELY BENT AND SECURELY TIED INTO POSITION TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT. RAISING REINFORCEMENT DURING POUR WILL NOT BE PERMITTED.

CN-9 CONCRETE COVER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

A. CONCRETE CAST AGAINST EARTH - 3"

B. CONCRETE EXPOSED TO EARTH OR WEATHER: BARS 3/4" AND LARGER IN DIAMETER - 2 INCHES. BARS SMALLER THAN 3/4" IN DIAMETER - 1 1/2"

C. CONCRETE NOT EXPOSED TO WEATHER OR GROUND: SLAB ON GRADE - 1 1/2" FROM TOP OF SLAB.

CN-10 SET AND BUILD ANCHORAGE AND OTHER EMBEDDED ITEMS INTO FORM WORK AS REQUIRED FOR OTHER WORK THAT IS ATTACHED TO OR SUPPORTED BY CONCRETE. COORDINATE WITH OTHER DISCIPLINES.

CN-11 CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94 "STANDARD SPECIFICATION FOR READY-MIXED CONCRETE."

CN-12 CONCRETE WHEN DEPOSITED SHALL HAVE A TEMPERATURE NOT BELOW 50°F OR ABOVE 90°F. APPROPRIATE MEASURES SHALL BE TAKEN TO MAINTAIN TEMPERATURE RANGE AND PREVENT WATER EVAPORATION FOR 3 DAYS AFTER PLACEMENT. SALT OR OTHER CHEMICALS SHALL NOT BE ADDED TO PREVENT FREEZING.

CN-13 CONCRETE SHALL BE CONVEYED TO AND DEPOSITED IN FORM WORK NEAR ITS FINAL POSITION, WITH A FREE VERTICAL DROP NOT EXCEEDING 3 FEET. PLACE CONCRETE IN 12 INCH MAXIMUM LAYERS AND COMPACT EACH LAYER BY MECHANICAL VIBRATING.

CN-14 CONSTRUCTION JOINTS IN MONOLITHIC FRAMING SHALL HAVE PRIOR APPROVAL OF THE ARCHITECT/ENGINEER, I.A.O.

CN-15 SCREEDING, RE-STRAIGHTENING, AND FINISHING OPERATIONS SHALL COMPLY WITH ACI 302.1R. COORDINATE ALL FINISHES WITH ARCHITECTURAL DRAWINGS AND FLOOR FINISH REQUIREMENTS. CAREFULLY TOOL ALL EXPOSED EDGES.

CN-16 CURE CONCRETE FOR AT LEAST SEVEN DAYS BY MOISTURE CURING, SEALED MOISTURE RETAINING COVER CURING, OR A CLEAR WATER SOURCE CURING CONFORMING TO ASTM C309.

CN-17 SIDE FORMS MAY BE REMOVED AFTER CUMULATIVE CURING AT NOT LESS THAN 50°F FOR 24 HOURS AFTER PLACING CONCRETE.

CN-18 PATCH MONOCYMBL, TIE HOLES, AND MINOR DEFECTS WITH ONE PART CEMENT AND TWO PARTS SAND IMMEDIATELY AFTER REMOVING FORMS.

CN-19 EXPOSED CONCRETE SHALL BE RUBBED WITH CARBORUNDUM BRICKS AND WATER AFTER 48 HOURS BUT BEFORE ONE WEEK. PLASTERING SURFACES WILL NOT BE PERMITTED.

CN-20 NOTIFY ENGINEER WHEN FORM WORK AND REINFORCING IS IN PLACE SO ENGINEER CAN OBSERVE REINFORCING STEEL PRIOR TO ALL CONCRETE POURS.

CN-21 INDEPENDENT TESTING LABORATORY SHALL TAKE SAMPLES AND PERFORM SLUMP AND COMPRESSION TESTS PER ASTM C-39 ON CONCRETE PLACED EACH DAY AT THE RATE OF ONE SET OF FOUR CYLINDERS FOR EACH 80 CU. YDS. OR FRACTION THEREOF WITH A MINIMUM INTERVAL OF 50 CU. YDS. BETWEEN SAMPLES.

GENERAL NOTES:

GN-1 THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2015) AS AMENDED AND ADOPTED BY THE CITY OF SAN ANTONIO, AND APPLICABLE INDUSTRY STANDARDS (AISC, A.C.I. ETC.)

GN-2 DESIGN CRITERIA: DEAD LOADS - THE WEIGHT OF MATERIALS FORMING THE PERMANENT PART OF THE BUILDING, A SUPERIMPOSED DEAD LOAD OF 5 PSF HAS BEEN APPLIED FOR MECHANICAL DUCTS, CONDOLITS, CEILING, ETC.

GN-3 THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. CONTRACTOR SHALL CONSIDER ALL LOADS APPLIED TO THE PARTIALLY COMPLETED STRUCTURE AND PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS ARE MADE. ANY PROPOSED APPLICATION OF CONSTRUCTION LOADS WHICH EXCEED THE DESIGN LOADS WILL REQUIRE REANALYSIS AND PROBABLE REDESIGN.

GN-4 THE FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL ENGINEERING STUDY PREPARED BY CARROLLO & ASSOCIATES, INC. (PROJECT NO. 72-363, DATED APRIL 8, 2020). THE GEOTECHNICAL ENGINEERING STUDY REPORT INCLUDES OTHER RECOMMENDATIONS THAT EFFECT THE LONG TERM PERFORMANCE OF THE FOUNDATION WHICH ARE BEYOND THE SCOPE OF LEHMANN ENGINEERING'S SERVICES. THE CONTRACTOR AND OWNER SHALL REVIEW THE SOILS REPORT AND IMPLEMENT RECOMMENDATIONS PROVIDED WITHIN (I.E. LANDSCAPING VEGETATION, ROOT BARRIERS, SITE DRAINAGE, ROOT DRAINAGE, SOIL MOISTURE MAINTENANCE, ETC.)

GN-5 PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND FABRICATOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND CONDITIONS AND NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

GN-6 VERIFY REQUIREMENTS OF OTHER TRADES (MECHANICAL, ELECTRICAL, ETC.) PRIOR TO PROCEEDING WITH FABRICATION OR INSTALLATION OF MATERIALS.

GN-7 UTILITIES PENETRATING BUILDING SHALL BE FLEXIBLE, USING SLEEVE JOINTS, BENDS, LOOPS, ETC. TO PERMIT MOVEMENTS DUE TO EXPANSIVE UNDERLYING SOILS.

GN-8 THE DETAILS DESIGNATED AS "TYPICAL DETAILS", APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN DETAILS.

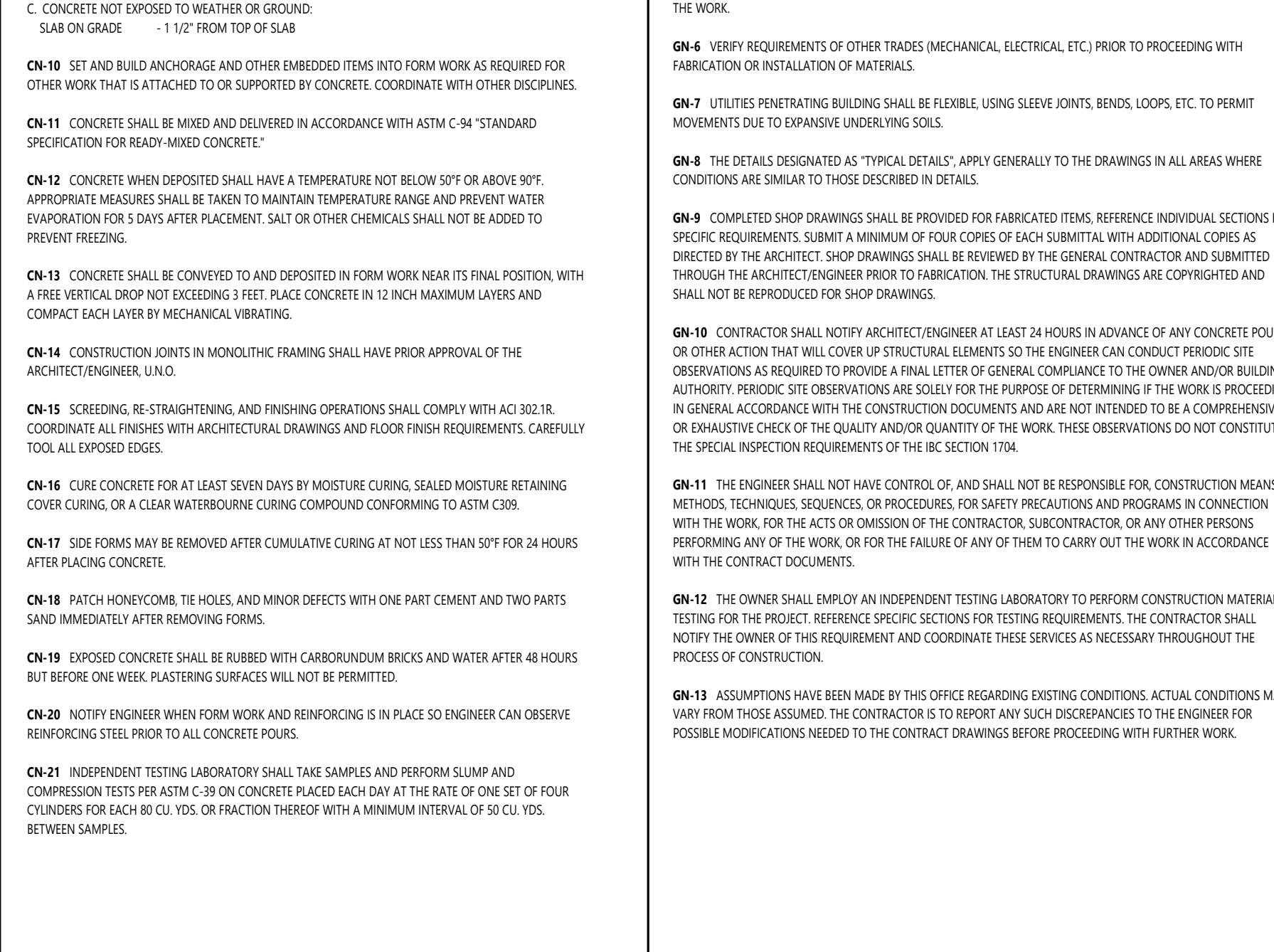
GN-9 COMPLETED SHOP DRAWINGS SHALL BE PROVIDED FOR FABRICATED ITEMS. REFERENCE INDIVIDUAL SECTIONS FOR SPECIFIC REQUIREMENTS. SUBMIT A MINIMUM OF FOUR COPIES OF EACH SUBMITTAL WITH ADDITIONAL COPIES AS DIRECTED BY THE ARCHITECT. SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR AND SUBMITTED THROUGH THE ARCHITECT/ENGINEER PRIOR TO FABRICATION. THE STRUCTURAL DRAWINGS ARE COPYRIGHTED AND SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS.

GN-10 CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER AT LEAST 24 HOURS IN ADVANCE OF ANY CONCRETE POUR OR OTHER ACTION THAT WILL COVER UP STRUCTURAL ELEMENTS SO THE ENGINEER CAN CONDUCT PERIODIC SITE OBSERVATIONS AS REQUIRED TO PROVIDE A FINAL LETTER OF GENERAL COMPLIANCE TO THE OWNER AND/OR BUILDING AUTHORITY. PERIODIC SITE OBSERVATIONS ARE SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK IS PROCEEDING IN GENERAL ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND ARE NOT INTENDED TO BE A COMPREHENSIVE OR EXHAUSTIVE CHECK OF THE QUALITY AND/OR QUANTITY OF THE WORK. THESE OBSERVATIONS DO NOT CONSTITUTE THE SPECIAL INSPECTION REQUIREMENTS OF THE IBC SECTION 1705.

GN-11 THE ENGINEER SHALL NOT HAVE CONTROL OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION METHODS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GN-12 THE OWNER SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY TO PERFORM CONSTRUCTION MATERIALS TESTING FOR THE PROJECT. REFERENCE SPECIFIC SECTIONS FOR TESTING REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE OWNER OF THIS REQUIREMENT AND COORDINATE THESE SERVICES AS NECESSARY THROUGHOUT THE PROCESS OF CONSTRUCTION.

GN-13 ASSUMPTIONS HAVE BEEN MADE BY THIS OFFICE REGARDING EXISTING CONDITIONS. ACTUAL CONDITIONS MAY VARY FROM THOSE ASSUMED. THE CONTRACTOR IS TO REPORT ANY SUCH DISCREPANCIES TO THE ENGINEER FOR POSSIBLE MODIFICATIONS NEEDED TO THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH FURTHER WORK.



DEFERRED SUBMITTALS	
FOR THE PURPOSE OF THIS SECTIONAL DEFERRED SUBMITTALS ARE DEFINED AS PER SECTION 107.3.4.1 OF THE IBC. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER, ARCHITECT AND BUILDING OFFICIAL FOR THEIR REVIEW FOR GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE:	
BUILDING COMPONENT	SUBMITTAL REQUIREMENT
STEEL STAIRS, HANDRAILS, & GUARD RAILS	DESIGNED, SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS
PRE-ENGINEERED WOOD TRUSSES	SHOP DRAWINGS DESIGNED, SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS. SUBMITTAL SHALL INCLUDE ANCHORAGE PLACEMENT PLANS, ERECTION PLANS, AND DETAIL DRAWINGS INCLUDING BRIDGING, BRACING, CONNECTIONS METHODS OF ASSEMBLY, ETC.



PROJECT: CRYSTAL CITY MAIN POST OFFICE

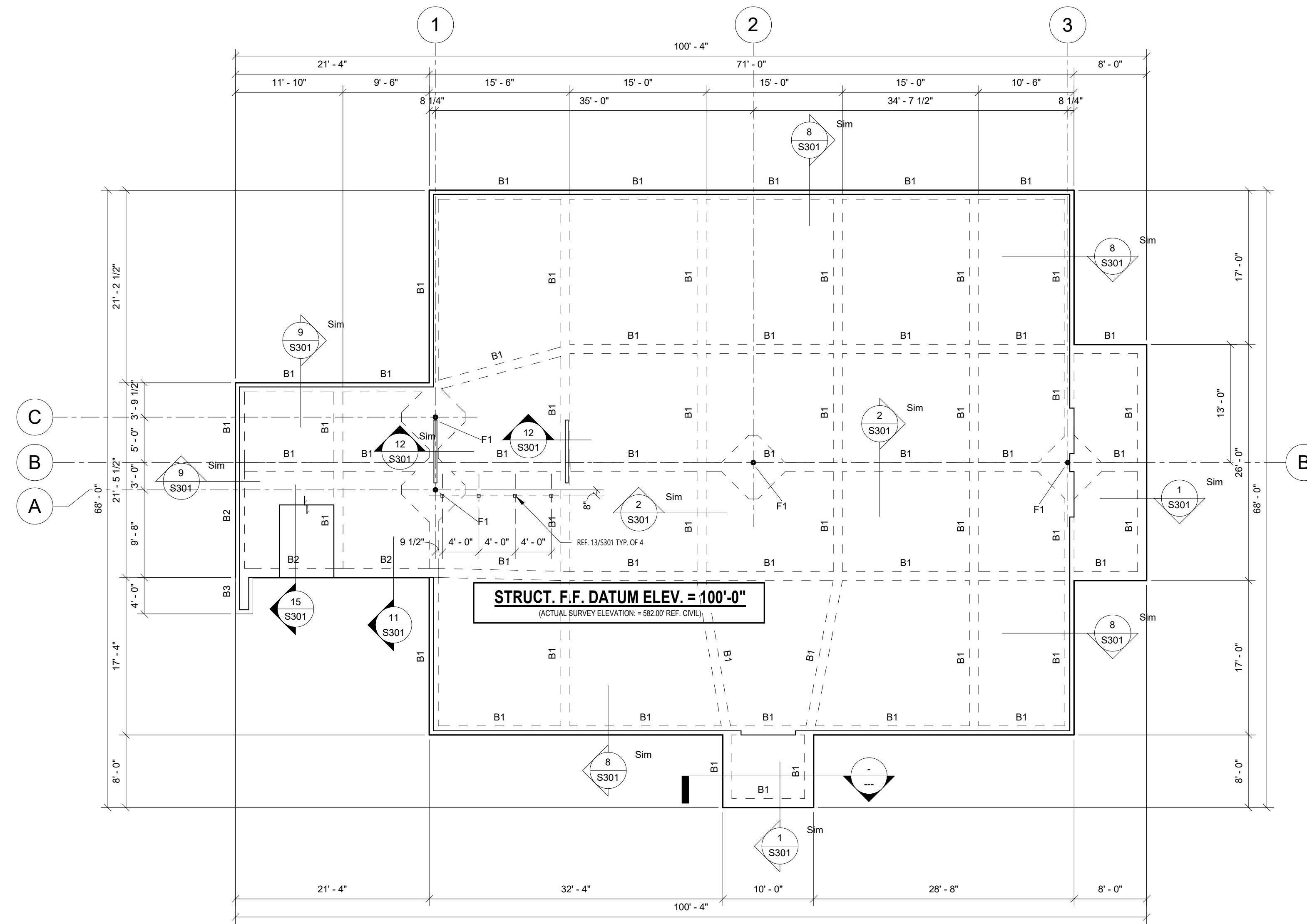
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PROJECT NO.: 19-03550

REVISIONS: DATE

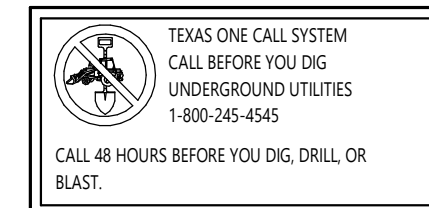
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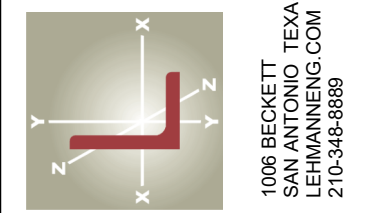
1 Foundation Plan
1/8" = 1'-0"

TRUE NORTH
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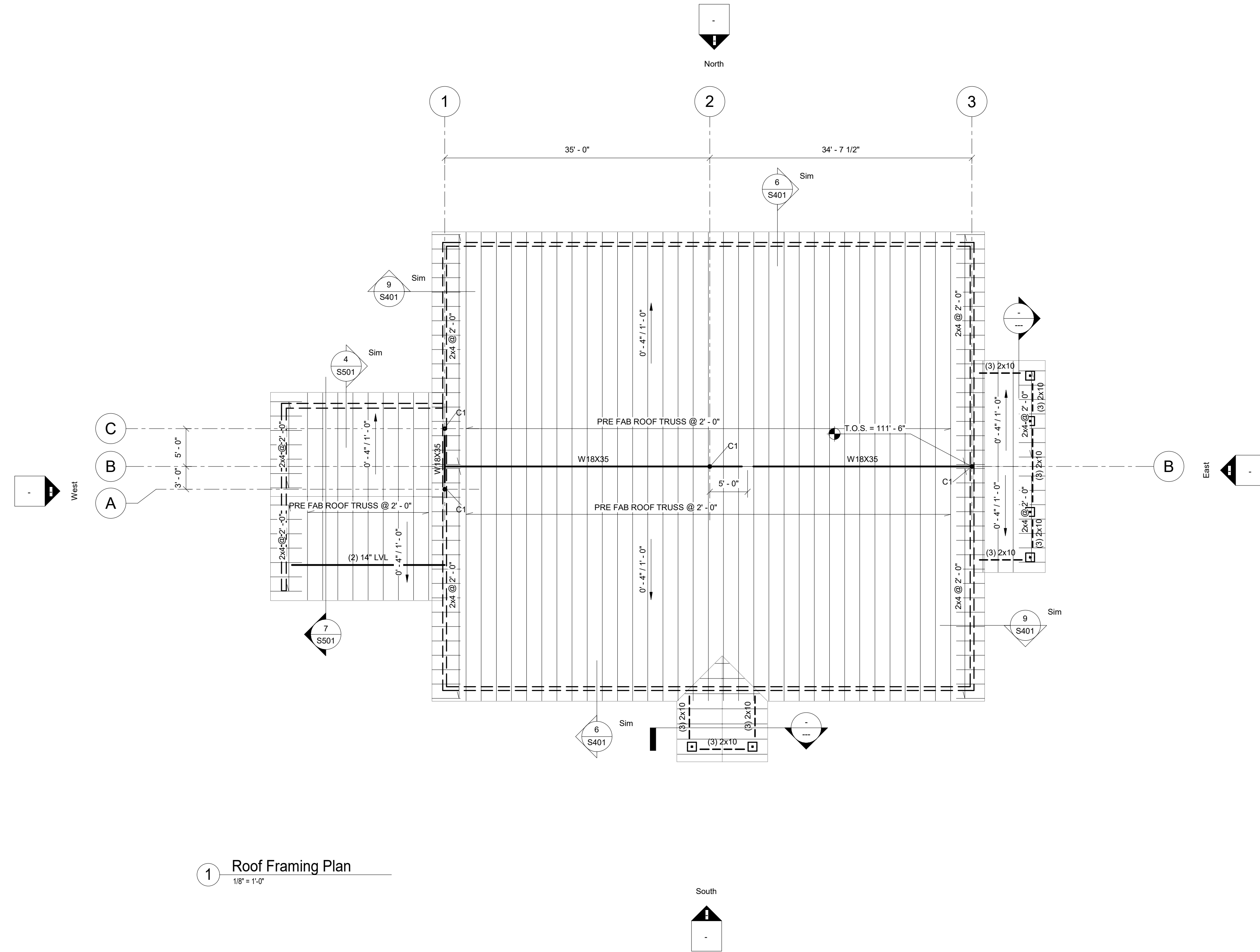
PLAN NOTES:

1. B1 - REF. GRADE BEAM SCHEDULE ON SHEET S301
2. F1 - REF. CONCRETE SPREAD FOOTING SCHEDULE ON SHEET S301
3. T.O.C. - DENOTES TOP OF CONCRETE ELEVATION RELATIVE TO STRUCTURAL DATUM



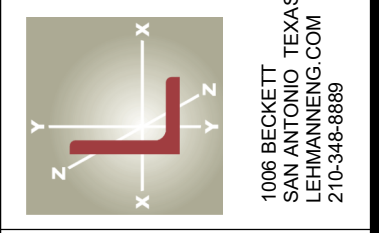
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1 Roof Framing Plan
1/8" = 1'-0"

- PLAN NOTES (CONTINUED):**
1. C1 - REF. STEEL COLUMN SCHEDULE ON SHEET S501
 2. T.O.S. - DENOTES TOP OF STEEL ELEVATION RELATIVE TO STRUCTURAL DATUM
 3. T.O.J. - DENOTES TOP OF STEEL JOIST RELATIVE TO STRUCTURAL DATUM
 4. T.O.B. - DENOTES TOP OF STEEL BEAM RELATIVE TO STRUCTURAL DATUM
 5. T.O.P. - DENOTES TOP OF PLATE RELATIVE TO STRUCTURAL DATUM



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SAN ANTONIO, TEXAS 78205
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LEWISVILLE, TEXAS 75040
LEHMANENG.COM
210-348-8889



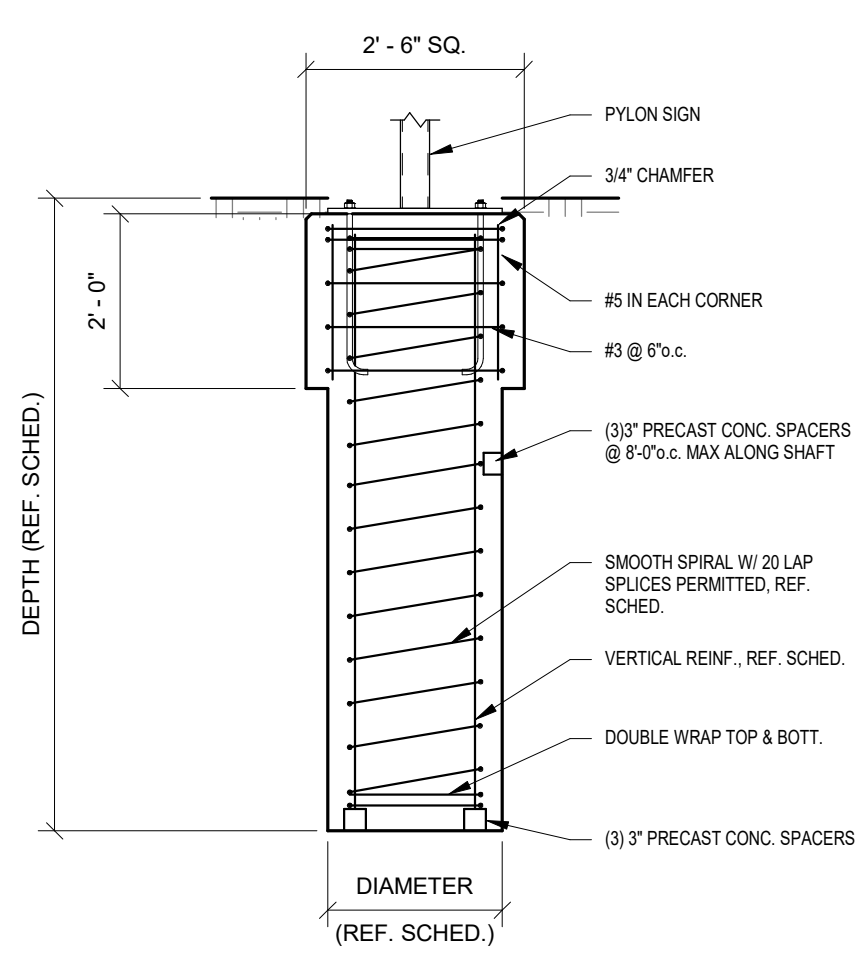
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PROJECT: **CRYSTAL CITY MAIN POST OFFICE**
SHEET TITLE: **Roof Framing Plan**

PROJECT NO: 19-03550

△	REVISIONS	DATE

SHEET NO:
S202



PYLON SIGN FOOTING SCHEDULE				
MK	SHAFT DIA.	VERT. BARS	SPIRAL	DEPTH
RA-25	24"	(8) #6	3/8" @ 6" PITCH	8'-0"

PYLON SIGN FOOTING NOTES:

PS-1 FORM TOP OF SHAFT WITH FIBERFORM AT LEAST 2'-0" BELOW GRADE, OR DEEPER IF IMPROPERLY DRILLED OVERSIZE OR OUT OF ROUND.

PS-2 REINFORCING CAGE SHALL BE HELD SECURELY AWAY FROM EARTH AT SIDES & BOTTOM BY SETS OF 3 PRECAST CONCRETE SPACER BLOCKS EVERY 4'-0" ALONG CAGE AND AT BOTTOM. DO NOT RAISE CAGE OFF OF BOTTOM.

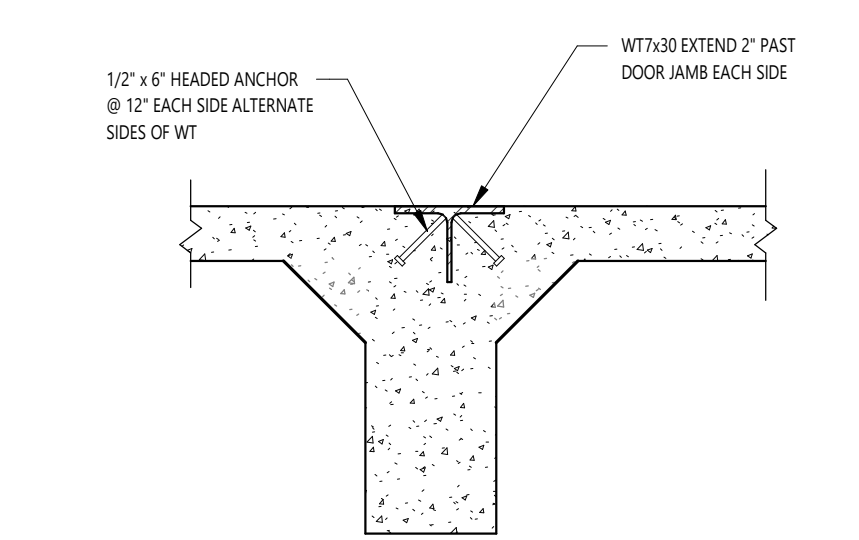
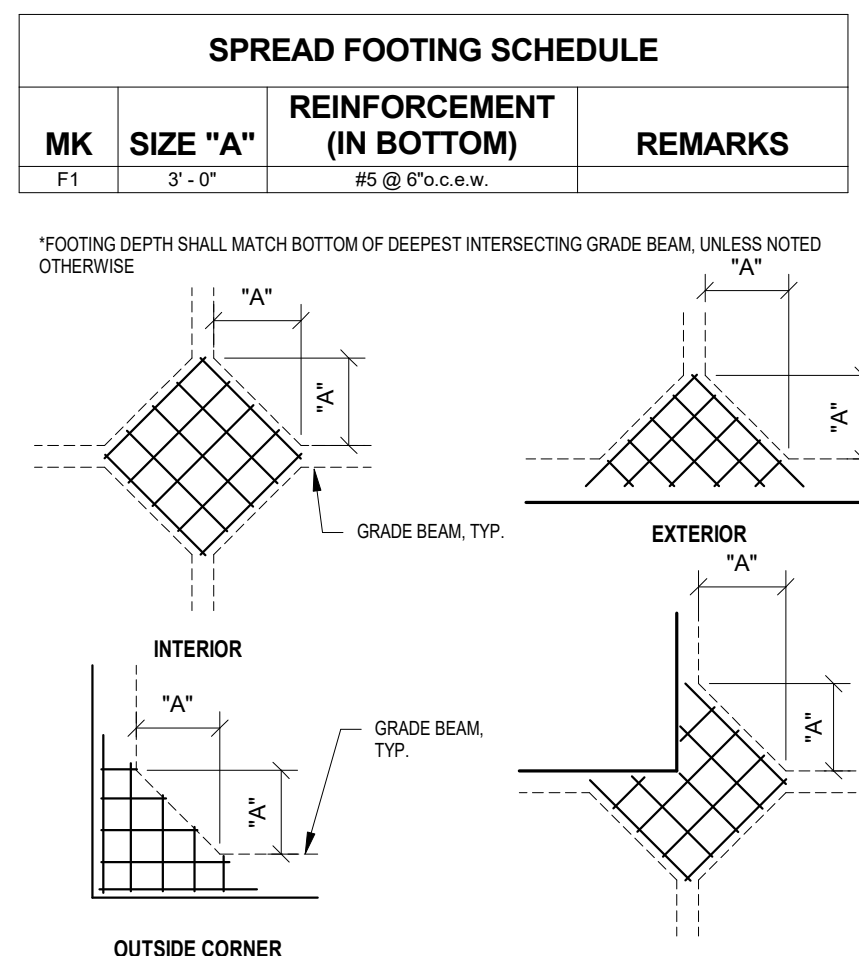
PS-3 ALL FOOTING EXCAVATIONS SHALL BE FREE OF WATER PRIOR TO PLACING CONCRETE.

PS-4 PIER SHAFT SHALL BE DRILLED PLUMB ALONG ITS TOTAL LENGTH WITHIN 1/2" PER 10'-0" OF DEPTH.

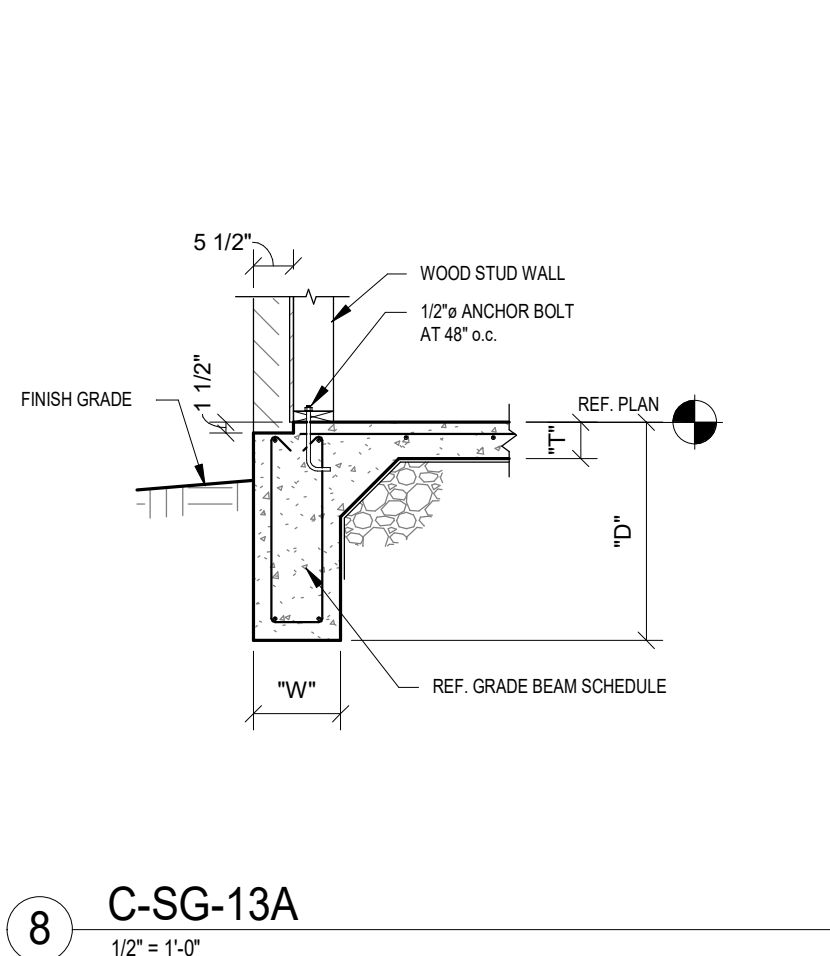
PS-5 BOTTOM OF FOOTING SHALL BE CLEAN AND FREE OF ALL LOOSE MATERIALS AND RECOMPACTED CUTTING PRIOR TO PLACING CONCRETE.

PS-6 PLACEMENT OF CONCRETE AND REINFORCING IN SHAFT SHALL BE THE SAME DAY OF DRILLING.

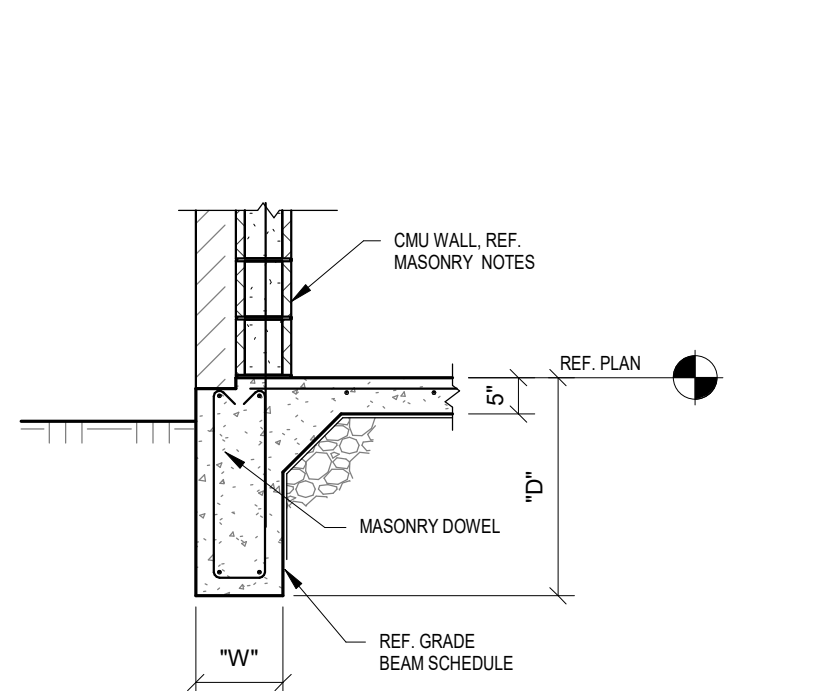
14 Pylon Sign Footing
1/2" = 1'-0"



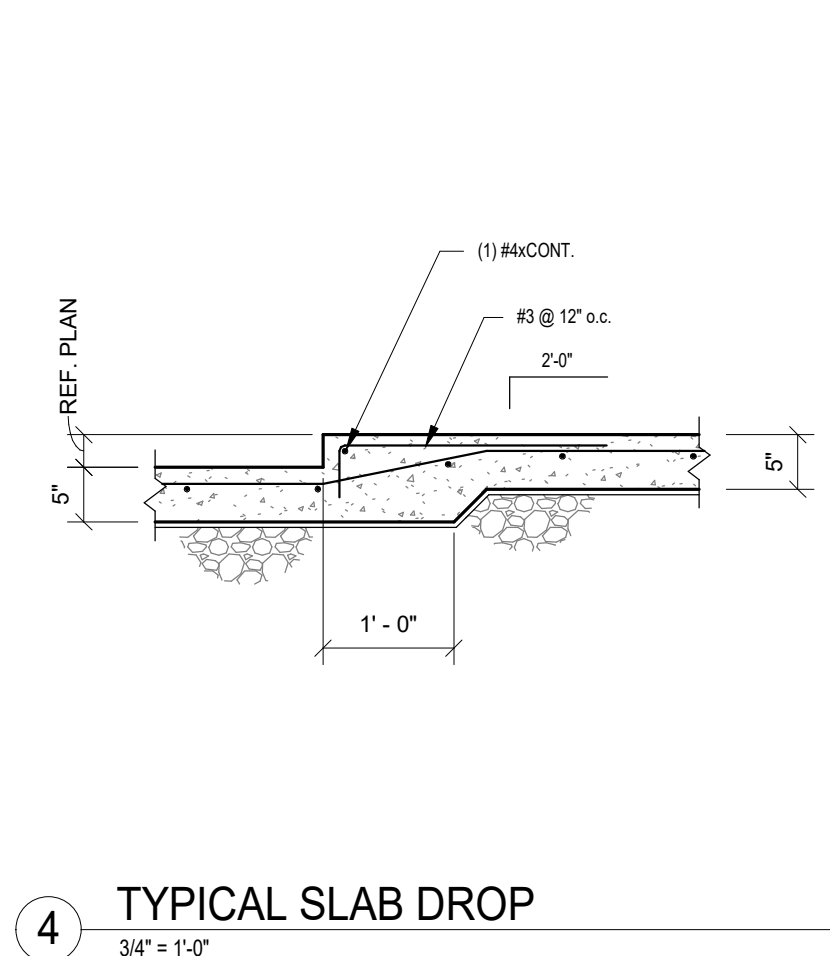
12 Impact Door Threshold
3/4" = 1'-0"



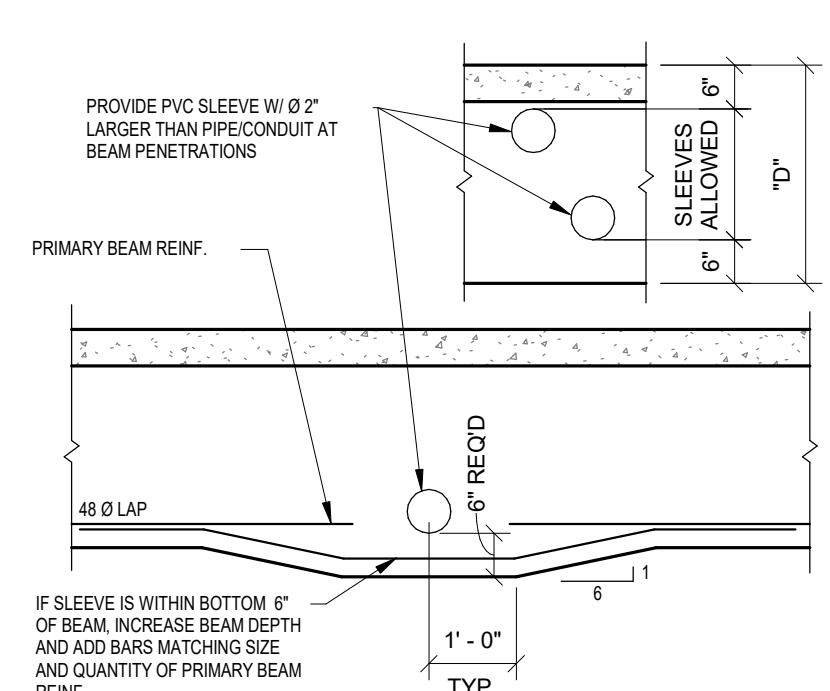
8 C-SG-13A
1/2" = 1'-0"



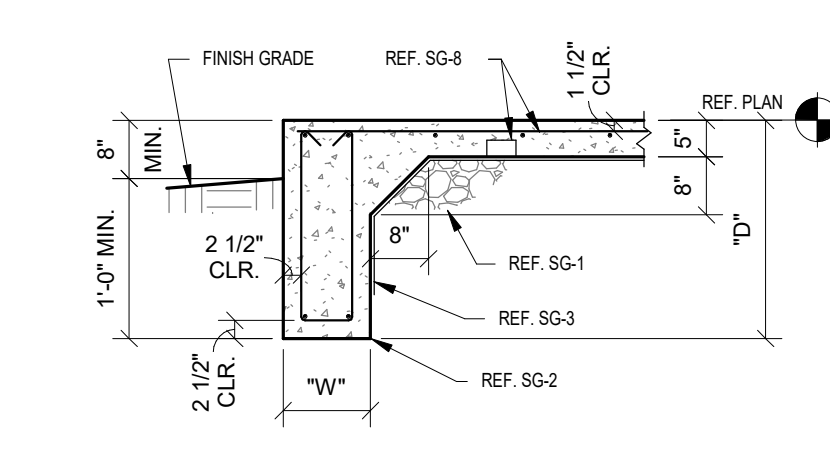
9 C-SG-26
1/2" = 1'-0"



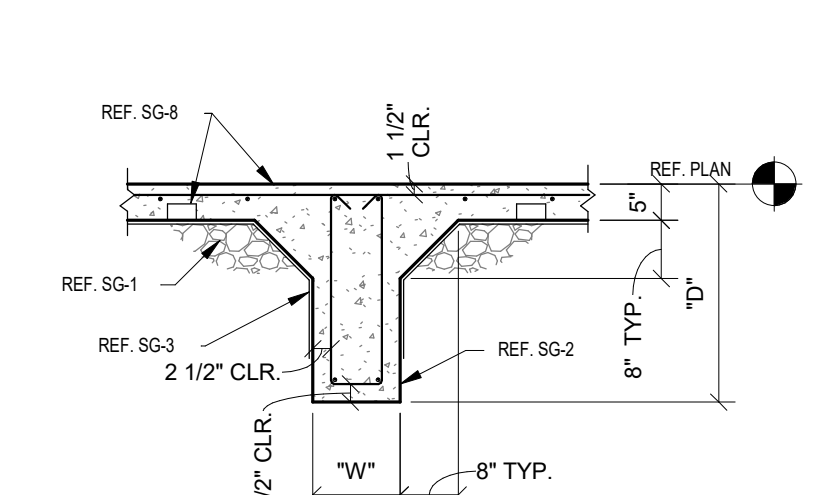
4 TYPICAL SLAB DROP
3/4" = 1'-0"



5 TYPICAL BEAM PENETRATION
1/2" = 1'-0"



1 Typical Exterior Grade Beam
1/2" = 1'-0"



2 Typical Interior Grade Beam
1/2" = 1'-0"

GRADE BEAM SCHEDULE				
MK	"D"	"W"	MAIN REINFORCEMENT	STIRRUPS
B1	2'-6"	1'-0"	(2) #7 TOP & BOTTOM	#3 @ 24" o.c.
B2	3'-6"	1'-0"	(2) #7 TOP & BOTTOM	#3 @ 24" o.c.
B3	3'-6"	1'-11"	(3) #7 TOP & BOTTOM	#3 @ 24" o.c.

SLAB ON GRADE FOUNDATION NOTES:

SG-1 PREPARE BUILDING PAD PER "STRUCTURAL EARTHWORK FOR GRADE SUPPORTED FOUNDATION" NOTES.

SG-2 CAREFULLY TRENCH AND SHAPE GRADE BEAMS AND SLAB TURNDOVNS WITH A SMOOTH MOUTHED BUCKET. IF A TIGHTENED BUCKET IS USED, DIGGATION SHALL BE STOPPED 6" ABOVE FINAL GRADE AND THE REMAINING EXCAVATION ACCOMPLISHED WITH A SMOOTH MOUTHED BUCKET OR BY HAND LABOR TO REMOVE ALL LOOSE SOILS DISTURBED BY THE BUCKET TECH.

SG-3 PROVIDE 10 MIL POLYOLEFIN STESGO WRAP OR EQUIVALENT VAPOR BARRIER ON TOP OF SELECT FILL WITH 12" LAPPED AND TAPED JOINTS, CUT AROUND ROUGH-IN PIPES AND SEAL WITH TAPE. DO NOT INSTALL VAPOR BARRIER ON BEAM SOFFITS AND BOTTOM 6" OF TRENCHES, ATTACH TO TRENCH WALLS TO PREVENT FROM HANGING LOOSELY.

SG-4 WOOD FORM EXPOSED FACES TO A DEPTH OF 8" BELOW FINISHED GRADE.

SG-5 ALL BEAM SOFFITS SHALL BEAR 12" MINIMUM INTO NATURAL GRADE OR COMPACTED FILL ON PERIMETER. INCREASE SCHEDULED BEAM DEPTH AS REQUIRED FOR SOFFIT TO BEAR 12" MINIMUM BELOW FINISH GRADE. CONTRACTOR COORDINATE BEAM DEPTHS WITH REINFORCING STEEL SUPPLIER TO ALLOW PROPER REINFORCING BARS AT TRANSITIONS.

SG-6 WHEN SOLID ROCK IS ENCOUNTERED AT BEAM TRENCHES, THE BEAM DEPTH MAY BE REDUCED TO TOP OF SOLID ROCK BUT NOT LESS THAN 18" DEEP.

SG-7 TRENCHES SHALL BE VERIFIED FOR SIZE TO MAINTAIN CLEARANCES AROUND REINFORCEMENT PRIOR TO PLACING REINFORCEMENT.

SG-8 PROVIDE 5" THICK CONCRETE SLAB REINFORCED W/ #4 @ 12" o.c. EACH WAY IN TOP, TYPICAL UNLESS NOTED OTHERWISE. SUPPORT MAT AT 4'-0" o.c. EACH WAY WITH CONCRETE BLOCKS OR BRICKS. SUPPORT BOTTOM BEAM REINFORCEMENT AT 4'-0" INTERVALS.

SG-9 GRADE BEAM AND SLAB REINFORCEMENT SHALL BE CONTINUOUS WITH 48 BAR DIAMETER LAP SPLICES.

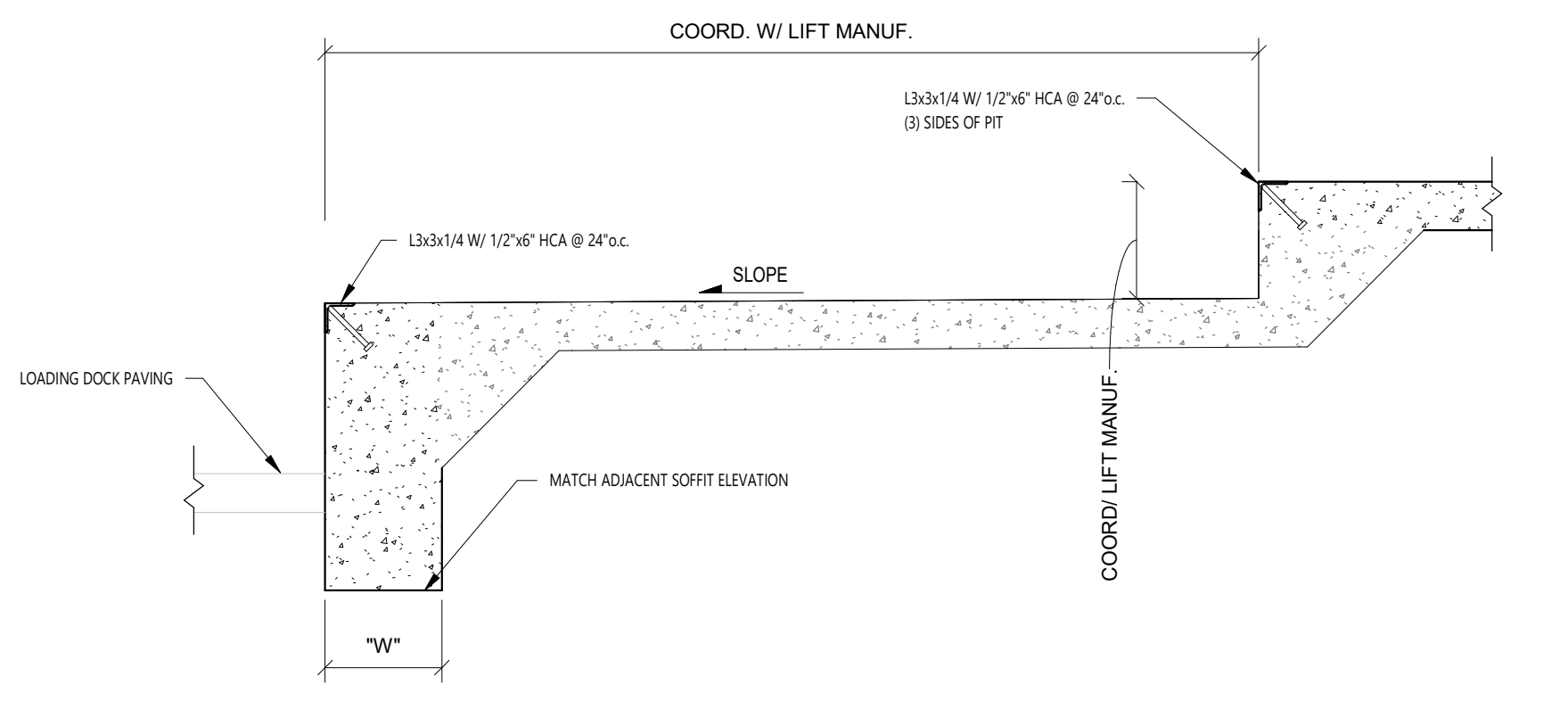
SG-10 PROVIDE FOUR CORNER BARS AT ALL BEAM CORNERS & T-INTERSECTIONS (2 TOP AND 2 BOTTOM). BARS TO EQUAL SIZE OF SCHEDULED BEAM REINFORCEMENT AND SHALL LAP BEAM REINFORCEMENT 48 BAR DIAMETERS.

SG-11 WHERE BEAM DEPTH EXCEEDS 36", ADD #4 @ 12" o.c. IN EACH FACE OF BEAM.

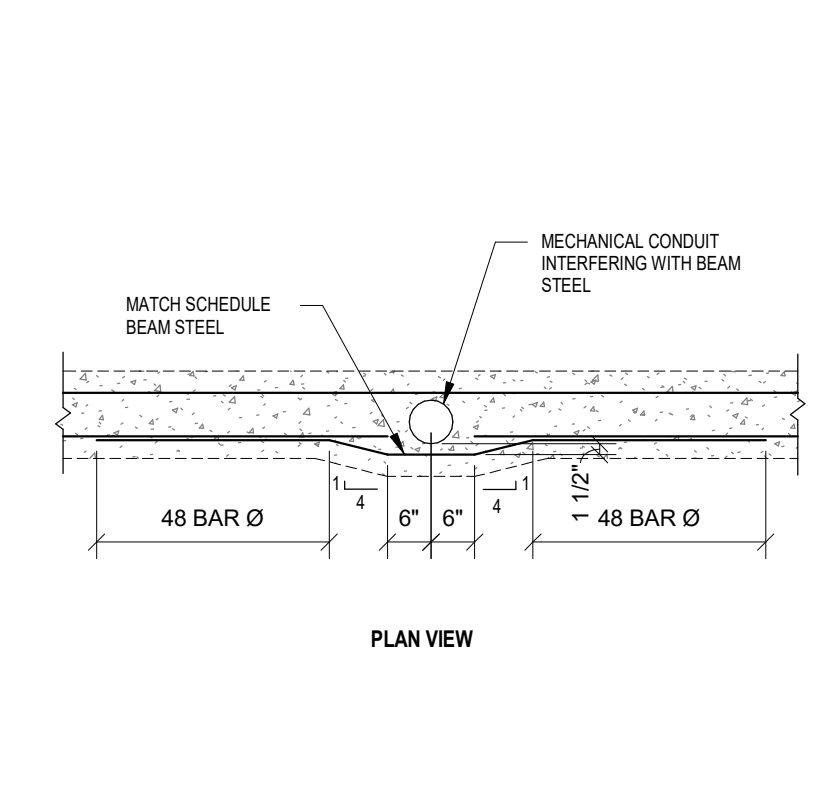
SG-12 CONDUITS IN SLAB SHALL RUN UNDER THE TOP LAYER OF SLAB REINFORCING. PROVIDE A MINIMUM OF 1 1/2" CLEAR BETWEEN CONDUITS AND BETWEEN CONDUITS AND PARALLEL REINFORCING. DO NOT BUNDLE CONDUITS.



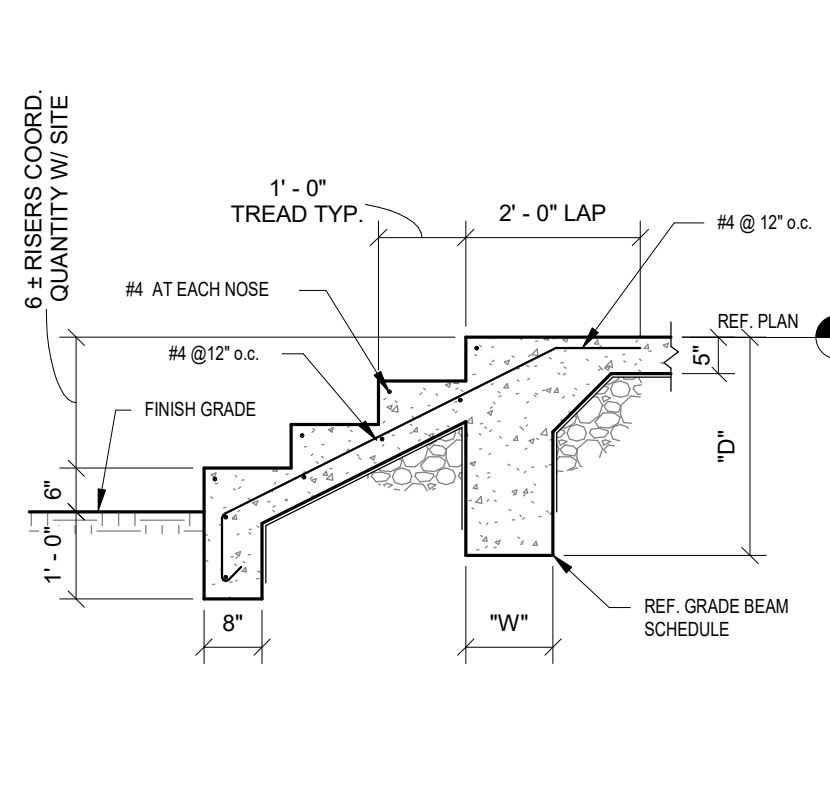
6 C-SG-05
1/2" = 1'-0"



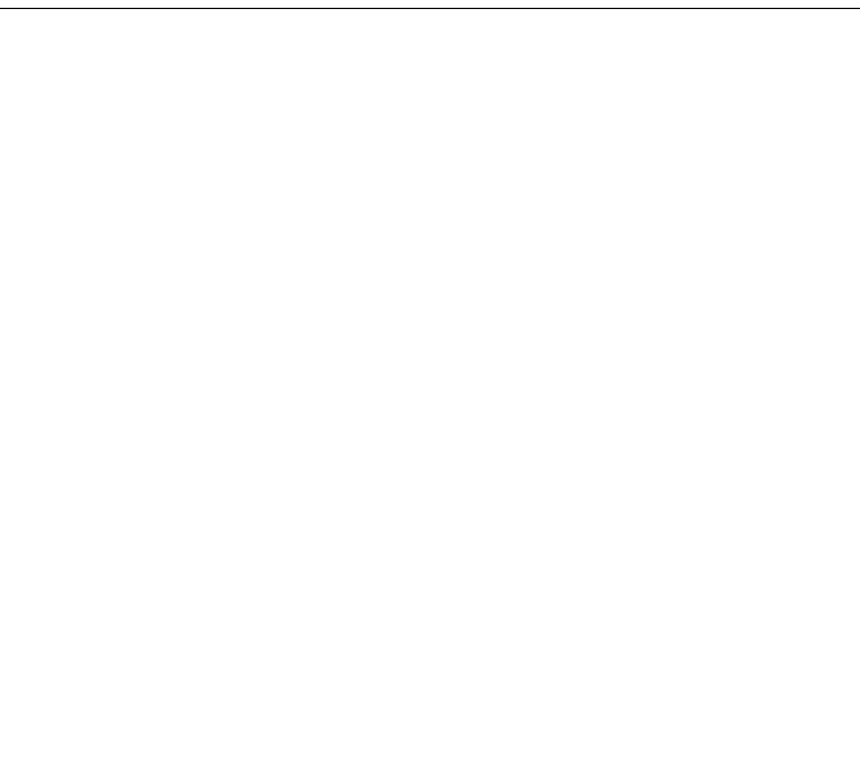
15 Section 5
3/4" = 1'-0"



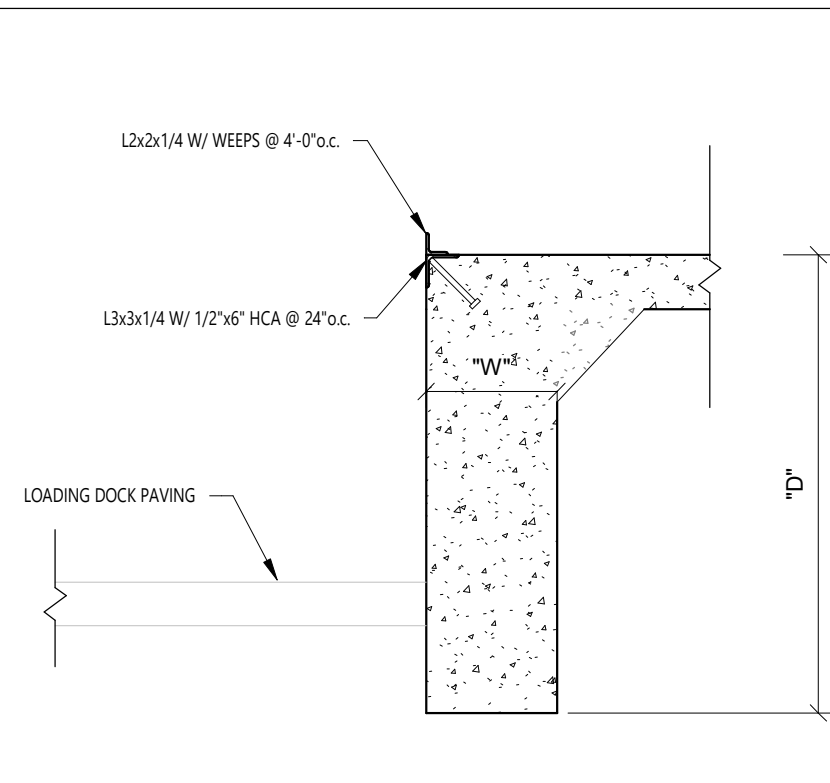
10 Typical Vertical Beam Penetration
1/2" = 1'-0"



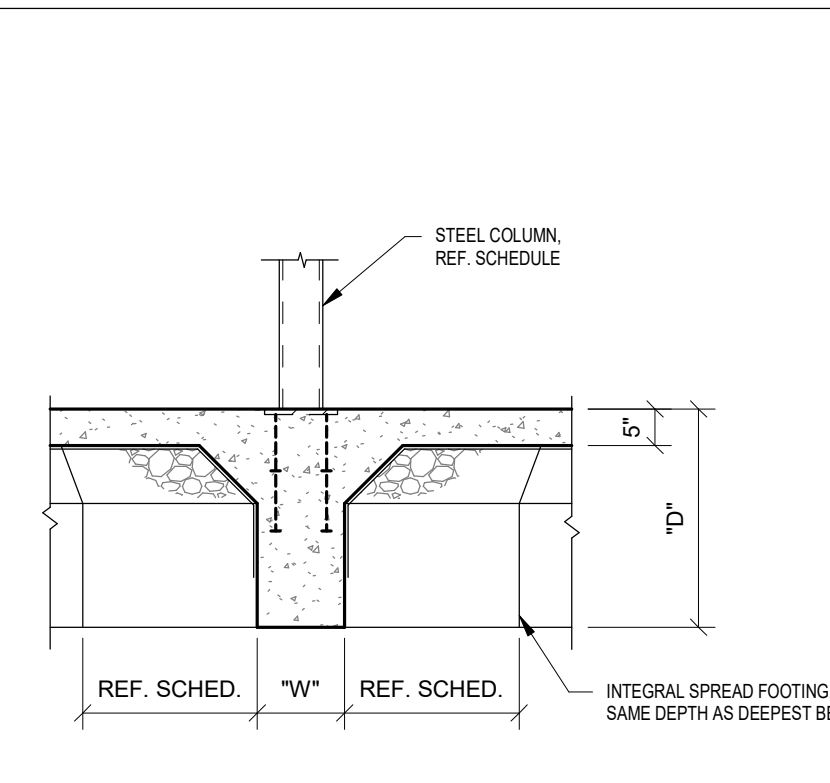
6 C-SG-05
1/2" = 1'-0"



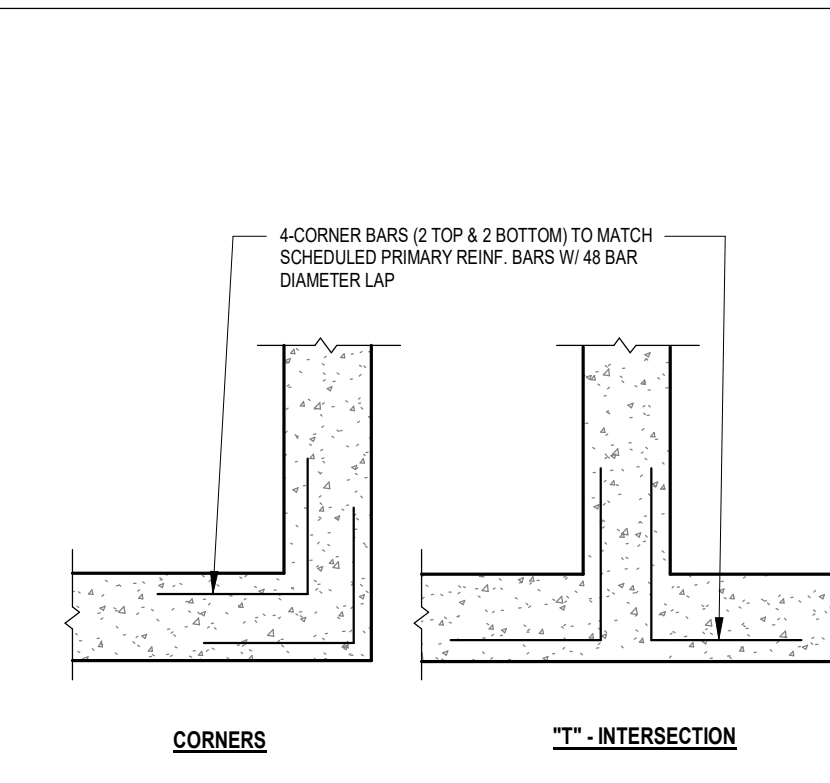
13 Handrail Anchor
3/4" = 1'-0"



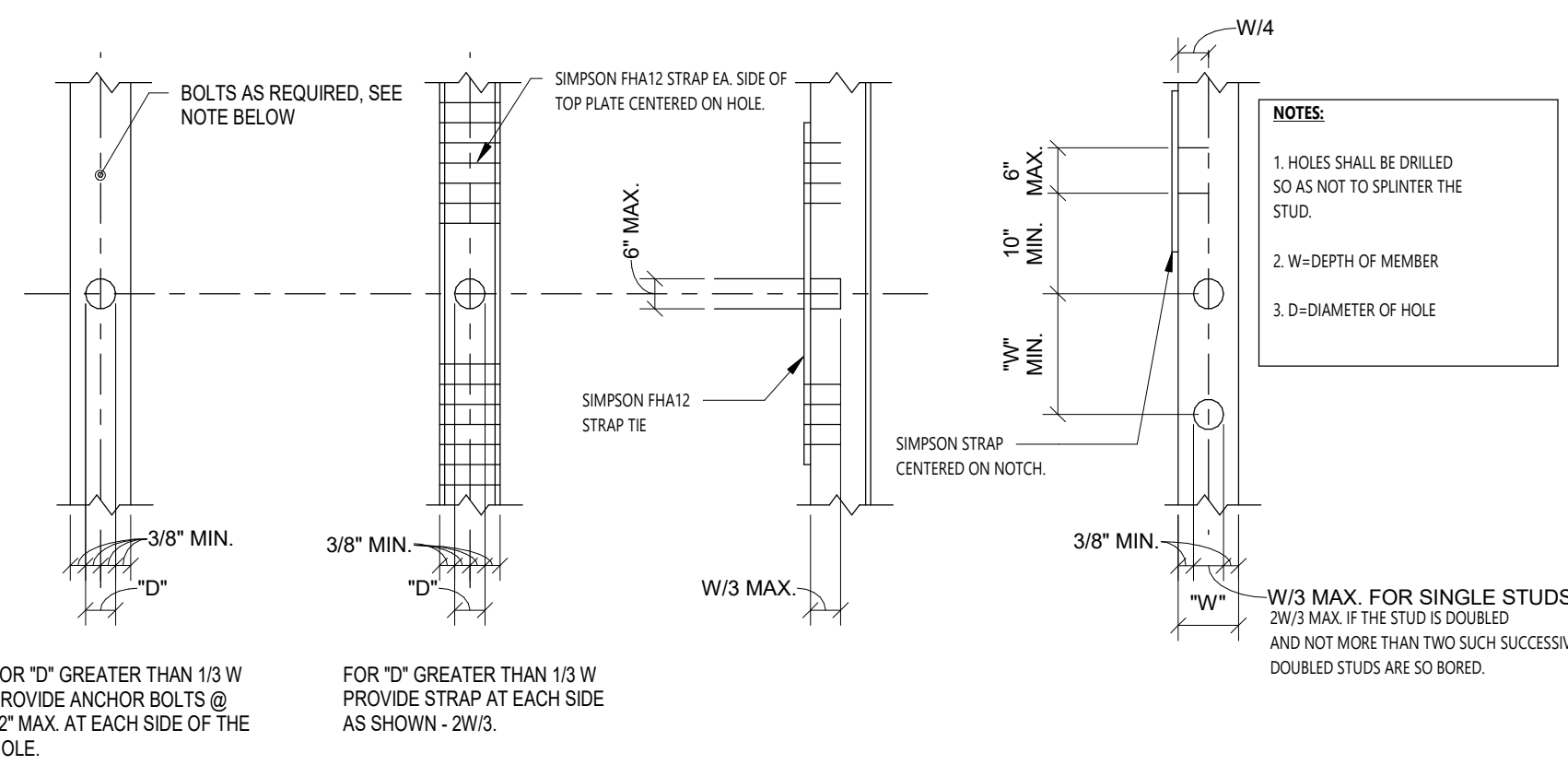
11 Section 4
3/4" = 1'-0"



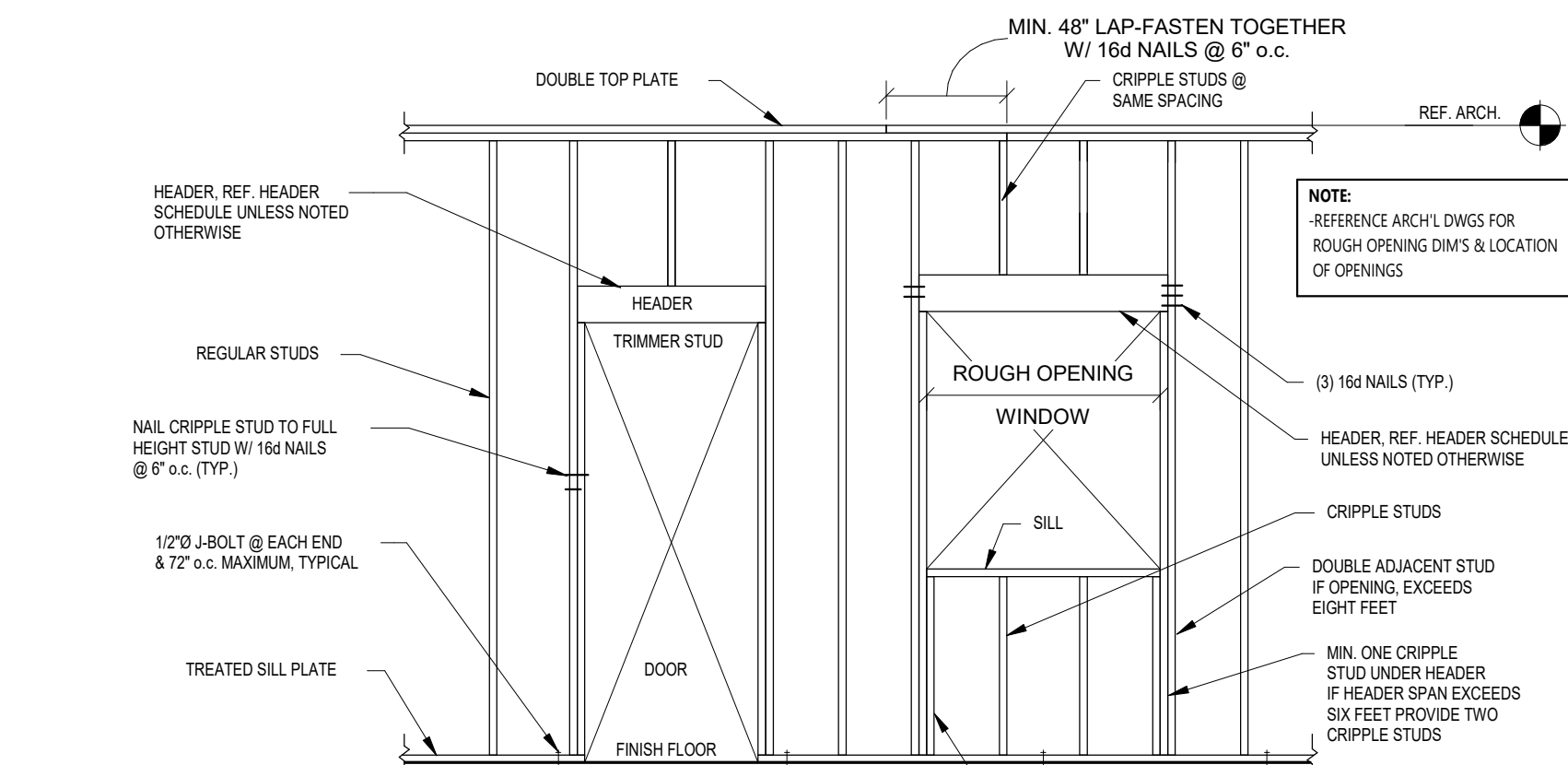
7 Section
1/2" = 1'-0"



3 TYPICAL CORNER BARS
1/2" = 1'-0"



8 TYPICAL
3/4" = 1'-0"

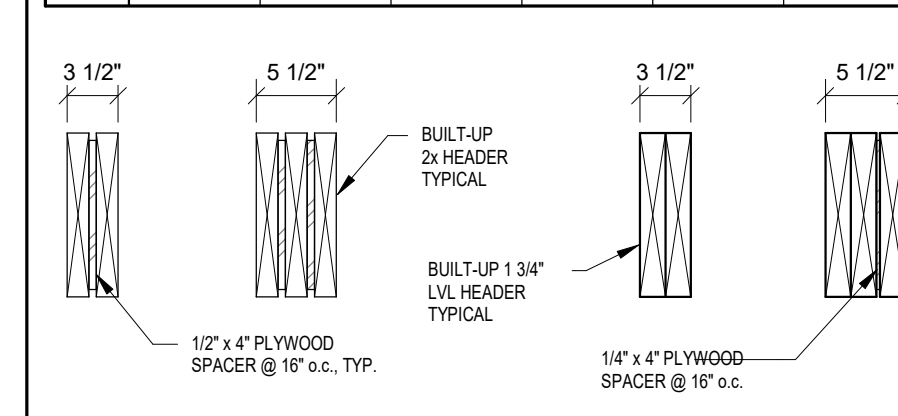


3 DETAIL
3/8" = 1'-0"

WOOD HEADER SCHEDULE

MAX. HEADER SPAN	MAX. SPAN OF SUPPORTED STRUCTURE (ROOF ONLY)					
	16'-0"	20'-0"	24'-0"	28'-0"	32'-0"	36'-0"
4'-0"	(2) 2x4	(2) 2x4	(2) 2x6	(2) 2x6	(2) 2x6	(2) 2x6
6'-0"	(2) 2x4	(3) 2x4	(3) 2x4	(3) 2x4	(3) 2x4	(3) 2x6
8'-0"	(2) 2x4	(2) 2x6	(2) 2x6	(2) 2x6	(2) 2x6	(2) 2x10
10'-0"	(2) 2x4	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x6
12'-0"	(2) 2x4	(2) 2x10	(2) 2x10	(2) 2x12	(2) 2x12	(2) 2x12
14'-0"	(3) 2x4	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x10	(3) 2x10
16'-0"	(2) 2x10	(2) 2x12	(2) 2x12	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
18'-0"	(3) 2x4	(3) 2x10	(3) 2x10	(3) 2x12	(3) 2x12	(3) 11 7/8" LVL
20'-0"	(2) 2x12	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
22'-0"	(3) 2x10	(3) 2x12	(3) 2x12	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL

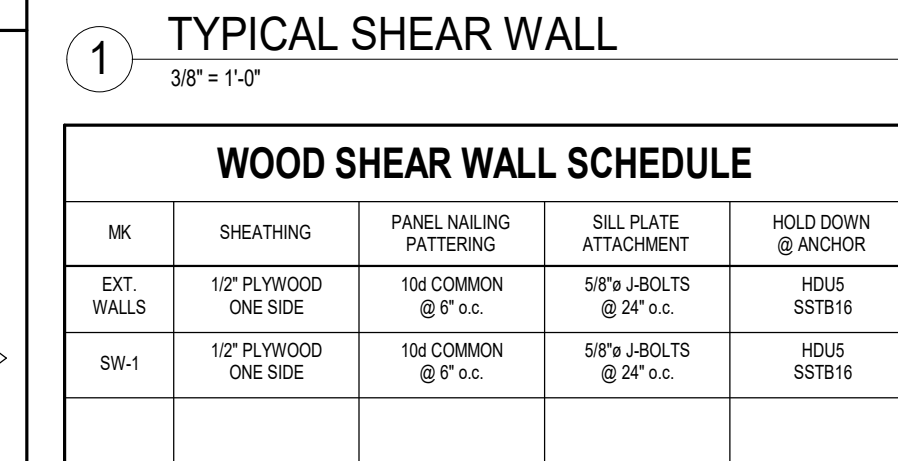
MAX. HEADER SPAN	MAX. SPAN OF SUPPORTED STRUCTURE (ONE FLOOR + ROOF)					
	16'-0"	20'-0"	24'-0"	28'-0"	32'-0"	36'-0"
4'-0"	(2) 2x6	(2) 2x6	(2) 2x6	(2) 2x6	(2) 2x10	(2) 2x10
6'-0"	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x6	(3) 2x6
8'-0"	(2) 2x10	(2) 2x12	(2) 2x12	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
10'-0"	(3) 2x6	(3) 2x6	(3) 2x10	(3) 2x10	(3) 2x12	(3) 2x12
12'-0"	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
14'-0"	(3) 2x10	(3) 2x12	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL
16'-0"	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL
18'-0"	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
20'-0"	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL
22'-0"	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL	(2) 11 7/8" LVL
24'-0"	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL	(3) 11 7/8" LVL



1 TYPICAL SHEAR WALL
3/8" = 1'-0"

WOOD SHEAR WALL SCHEDULE

Wk	SHEATHING	PANEL NAILING PATTERNING	SILL PLATE ATTACHMENT	HOLD DOWN @ ANCHOR
EXT. WALLS	1/2" PLYWOOD ONE SIDE	10x COMMON @ 6" o.c.	5/8" x J-BOLTS @ 24" o.c.	HDUS SSBT16
SW-1	1/2" PLYWOOD ONE SIDE	10x COMMON @ 6" o.c.	5/8" x J-BOLTS @ 24" o.c.	HDUS SSBT16



2 TYP. TOP PLATE SPLICE
1 1/2" = 1'-0"

WOOD FRAMING NOTES:

WF-1 VISUALLY GRADED LUMBER SHALL CONSIST OF SOUTHERN YELLOW PINE (SPY) AND/OR DOUGLAS FIR LARCH (DFL) KILN DRIED WITH A MOISTURE CONTENT OF 19% MAXIMUM AT THE TIME OF INSTALLATION, UNLESS NOTED OTHERWISE.

WF-2 ENGINEER LUMBER INCLUDING GLULAMS, LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:

DESIGN PROPERTY GLULAM LVL PSL

A. MODULUS OF ELASTICITY, E (ksi) 1,700 2,000 2,000

B. FLEXURAL STRESS, F_b (psi) 2,400 2,300 2,300

C. COMPRESSION, F_c (psi) 650 750 750

D. COMPRESSION, F_c PARALLEL TO GRAIN, F_c (psi) 1,050 3,000 2,500

E. TENSION PARALLEL TO GRAIN, F_t (psi) 1,150 2,150 2,150

F. HORIZONTAL SHEAR, F_v (psi) 240 285 290

WF-3 ALL LUMBER SHALL BE STAMPED WITH GRADE, SPECIES, AND GRADING AGENCY FOR EACH APPLICATION AS FOLLOWS:

APPLICATION GRADE AND SPECIES

STUDS AND COLUMNS STUD - DFL

TOP AND BOTTOM PLATES CONSTRUCTION - DFL

HEADERS #2 PLY OR LVL

BEAMS AND JOISTS #2 SPY

NON-STRUCTURAL UTILITY - DFL

WF-4 PREFABRICATED TRUSS SUPPLIER SHALL SUBMIT FABRICATION AND ERECTION DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED ENGINEER IN THE STATE OF TEXAS AND SHALL CLEARLY INDICATE DESIGN LOADS, MEMBER STRESSES, LUMBER GRADES, SPLICE LOCATIONS, REQUIRED BLOCKING, BRIDGING, BRACING, PLACEMENT, DESIGNATION, BUILDING NUMBER, AND NAME OF PROJECT.

WF-5 WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD U1-02.

WF-6 ROOF SHEATHING SHALL BE 5/8" EXTERIOR PLYWOOD OR OSB OVER WOOD JOISTS. PROVIDE ADEQUATE BLOCKING, TONGUE AND GROOVE EDGES OR PLYPLIS (2 FOR 4" SPAN). USE 10d NAILS (1" PENETRATION) AT 6" o.c. AT END JOISTS.

WF-7 PLYWOOD FLOOR OR OSB SHEATHING SHALL BE 3/4" TONGUE AND GROOVE STRUCTURAL GRADE 1 CD (48/24).

WF-8 PLACE PLYWOOD PANELS WITH LONG DIMENSION RUNNING PERPENDICULAR TO JOISTS WITH END JOISTS STAGGERED 1/2 PANEL. USE 10d NAILS SPACED AT 6" o.c. AT END JOISTS OF PANELS AND AT WALL CONNECTIONS. FIELD NAILING OF INTERMEDIATE SUPPORTS SHALL BE AT 10" o.c. FOR FLOOR AND AT 12" o.c. FOR ROOF.

WF-9 PROVIDE A SINGLE PLATE (PRESSURE TREATED) AT THE BOTTOM AND A DOUBLE PLATE AT THE TOP OF ALL STUD WALLS. SILL PLATES SHALL BE CONNECTED WITH GALVANIZED ANCHOR BOLTS (1/2" Ø MINIMUM, EMBEDDED 7" MINIMUM INTO FOUNDATION AND SPACED 6" o.c. MAXIMUM WITH A MINIMUM OF 2 BOLTS PER PIECE OF PLATE AND ONE BOLT LOCATED WITHIN 4" TO 12" FROM EACH END).

WF-10 ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 1/2" THICK EXTERIOR GRADE PLYWOOD PER DETAIL _____. ONE FACE OF INTERIOR SHEAR WALLS SHALL BE SHEATHED WITH 1/2" THICK PLYWOOD PER DETAIL ____.

WF-11 STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, BEAM SUPPORTS, AND AROUND ALL OPENINGS.

WF-12 PROVIDE SOLID BLOCKING IN ALL SPANS OVER 8'-0". MAXIMUM DISTANCE BETWEEN BLOCKING AND BEARING SHALL BE 8'-0". PROVIDE SOLID BLOCKING AT ALL SUPPORTS.

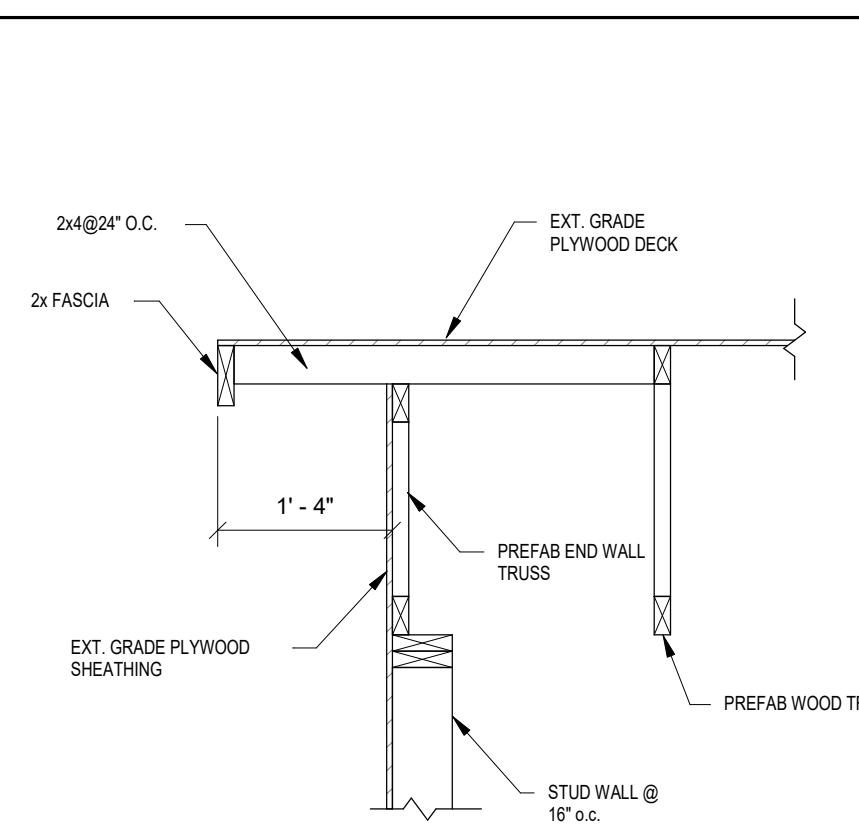
WF-13 UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL CANTILEVERED JOISTS SHALL EXTEND INTO THE BUILDING A DISTANCE EQUAL TO THE CANTILEVER. CANTILEVERED JOISTS RUNNING PERPENDICULAR TO FRAMING INSIDE THE BUILDING SHALL BE CONNECTED TO INSIDE MEMBER WITH STANDARD JOIST HANGERS. CANTILEVERED JOISTS RUNNING PARALLEL TO FRAMING INSIDE THE BUILDING SHALL BE NAILED TO THE SIDE OF THE INSIDE MEMBERS WITH 10d NAILS AT 12" o.c. TOP AND BOTTOM.

WF-14 UNLESS OTHERWISE INDICATED, USE WOOD CONNECTORS AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY OR APPROVED EQUIVALENT. CONNECTOR TYPE SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION AND INSTALLED WITH MANUFACTURER RECOMMENDED FASTENERS TO DEVELOP THE FULL CAPACITY OF THE CONNECTOR. CONNECTORS EXPOSED TO MOISTURE AND OTHER CORROSIVE ELEMENTS SHALL BE HOT DIPPED GALVANIZED OR Z-MAX WITH HOT DIPPED GALVANIZED FASTENERS.

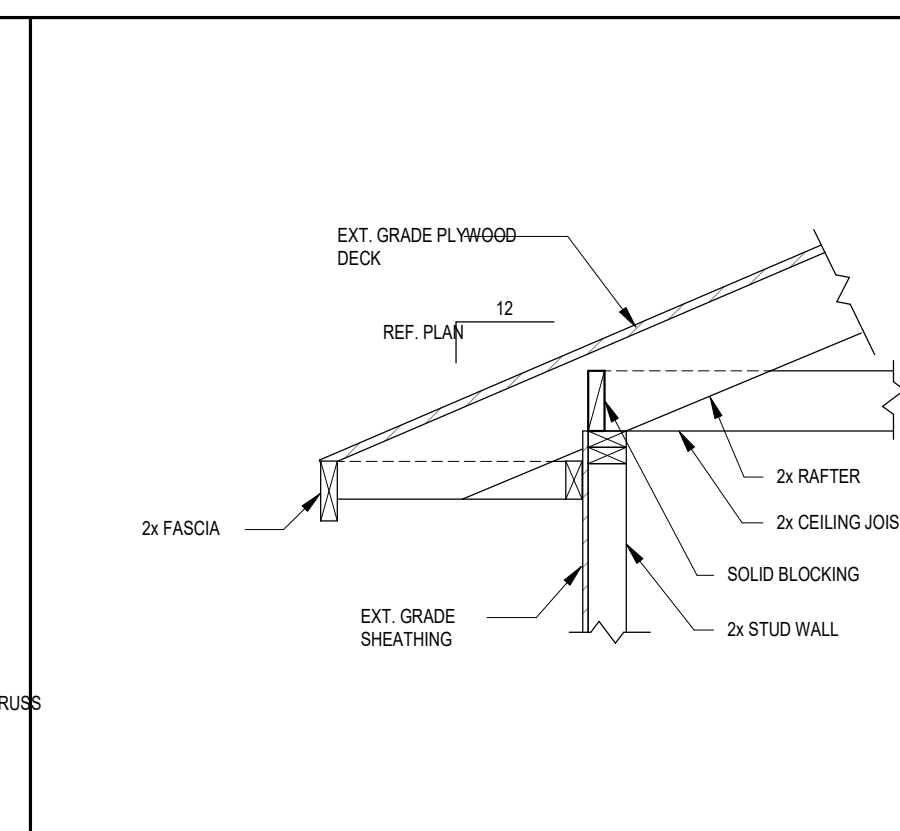
WF-15 CONVENTIONAL FRAMING FOR ROOF ELEMENTS BUILT ABOVE ROOF TRUSSES AND EXISTING ROOF SHALL BE CONSTRUCTED ON ACCORDANCE WITH THE FOLLOWING TABLE:

NOMINAL SIZE LUMBER	SPACING	MAXIMUM SPAN
2x6	24" o.c.	10'
2x8	16" o.c.	12'
2x8	24" o.c.	16'

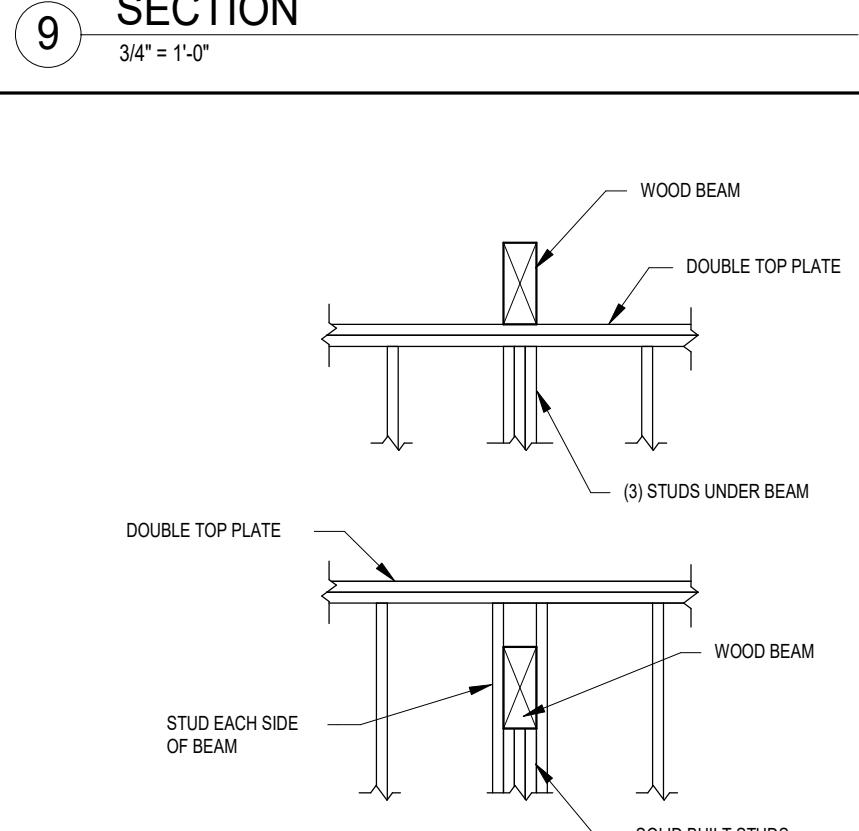
WF-16 PROVIDE ROOF WALL CONSTRUCTION AT WALL BETWEEN TRUSS FRAMING AT WALLS WHERE ROOF LOAD IS BEARING ON WALLS ABOVE.



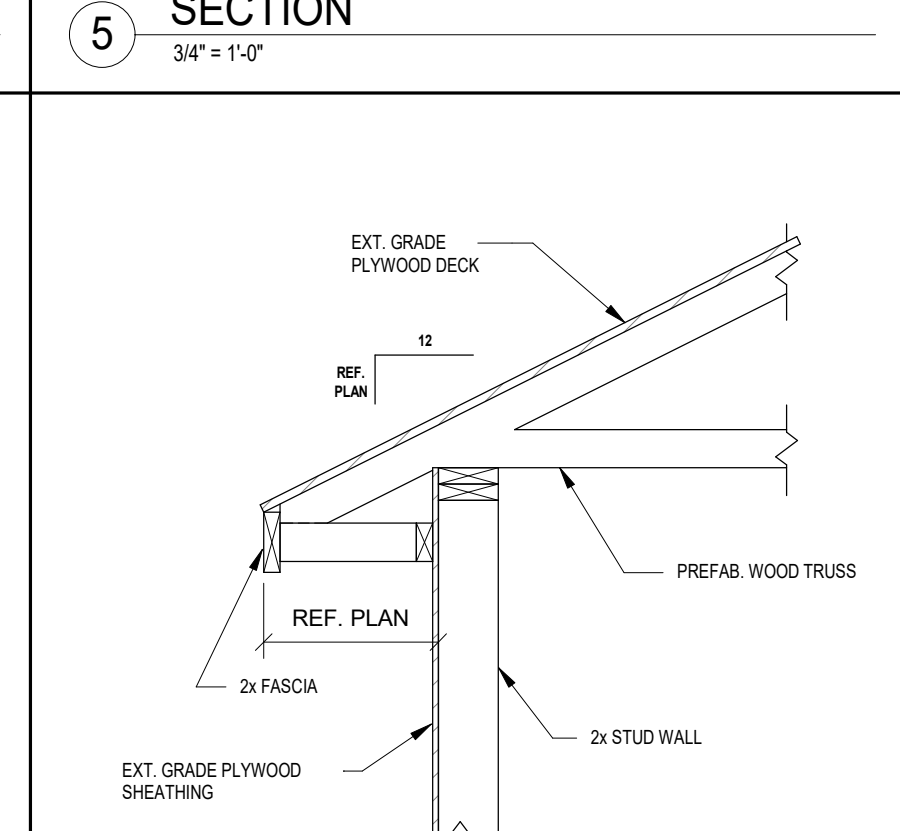
9 SECTION
3/4" = 1'-0"



5 SECTION
3/4" = 1'-0"



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



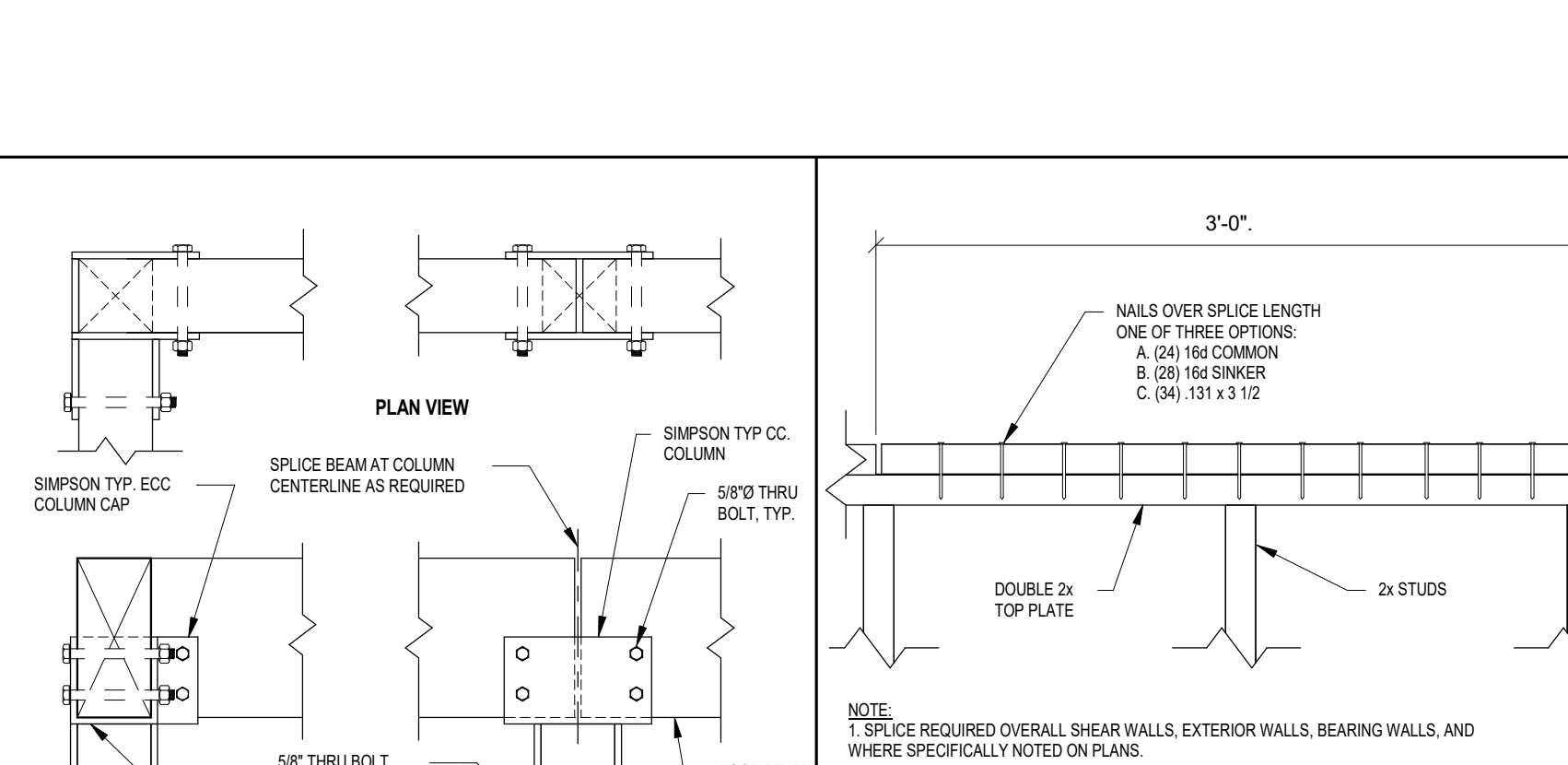
6 SECTION
3/4" = 1'-0"

NAILING SCHEDULE

CONNECTION	NAILING	LOCATION
1. JOIST TO SILL OR GIRDER	(3) 8d COMMON	TOENAIL
2. BRIDGING TO JOIST	(2) 8d COMMON	TOENAIL EACH END
3. SOLE PLATE TO JOIST OR BLOCKING	16d @ 16" o.c.	TOENAIL EACH END
4. TOP PLAT TO STUD	(2) 16d COMMON	END NAIL
5. STUD TO SOLE PLATE	(4) 8d COMMON	TOENAIL
6. DOUBLE STUD	(2) 16d COMMON	END NAIL
7. DOUBLE TOP PLATE	16d @ 24" o.c.	FACE NAIL
8. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	(3) 8d COMMON	TOENAIL
9. RIM JOIST TO TOP PLATE	8d @ 6" o.c.	TOENAIL
10. TOP PLATE LAPS AND INTERSECTIONS	(2) 16d COMMON	FACE NAIL
11. CONTINUOUS HEADER, TWO PIECES	(1) 16d COMMON	16" o.c. ALONG EDGE
12. CEILING JOISTS TO PLATE	(3) 8d COMMON	TOENAIL
13. CONTINUOUS HEADER TO STUD	(4) 8d COMMON	TOENAIL
14. CEILING JOIST, LAPS OVER PARTITIONS	(3) 16d COMMON	FACE NAIL
15. CEILING JOISTS TO PARALLEL RAFTERS	(3) 16d COMMON	FACE NAIL
16. RAFTER TO PLATE	(3) 8d COMMON	TOENAIL
17. BUILT-UP CORNER STUDS	(1) 16d COMMON	24" o.c.
18. BUILT-UP GIRDER AND BEAMS	20d COMMON @ 32" o.c.	FACE NAIL @ TOP & BOTTOM STAGGERED ON OPPOSITE SIDES
19. COLLAR TIE TO RAFTER	(2) 20d COMMON	FACE NAIL @ EACH END @ SPLICE
20. JACK RAFTER TO HIP	(3) 10d COMMON	FACE NAIL
21. ROOF RAFTER TO 2x RIDGE BEAM	(3) 10d COMMON	TOENAIL
	(2) 16d COMMON	FACE NAIL
	(2) 16d COMMON	FACE NAIL



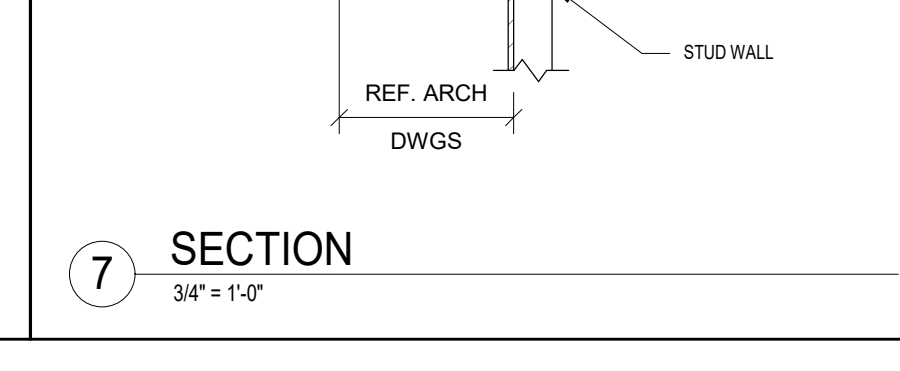
4 TYP. WOOD BEAM TO COL. CONN.
1" = 1'-0"



2 TYP. TOP PLATE SPLICE
1 1/2" = 1'-0"



7 SECTION
3/4" = 1'-0"



3 DETAIL
3/8" = 1'-0"

Fisher Heck ARCHITECTS

915 SOUTH ST. MARY'S STREET
SUITE 100
FISHERHECK.COM
210-296-1900

1000 BECKETT
SUITE 100
LEHMANENG.COM
210-348-8889

STATE OF TEXAS
AARON M. STAS
104806
LICENSED PROFESSIONAL ENGINEER
02/22/17

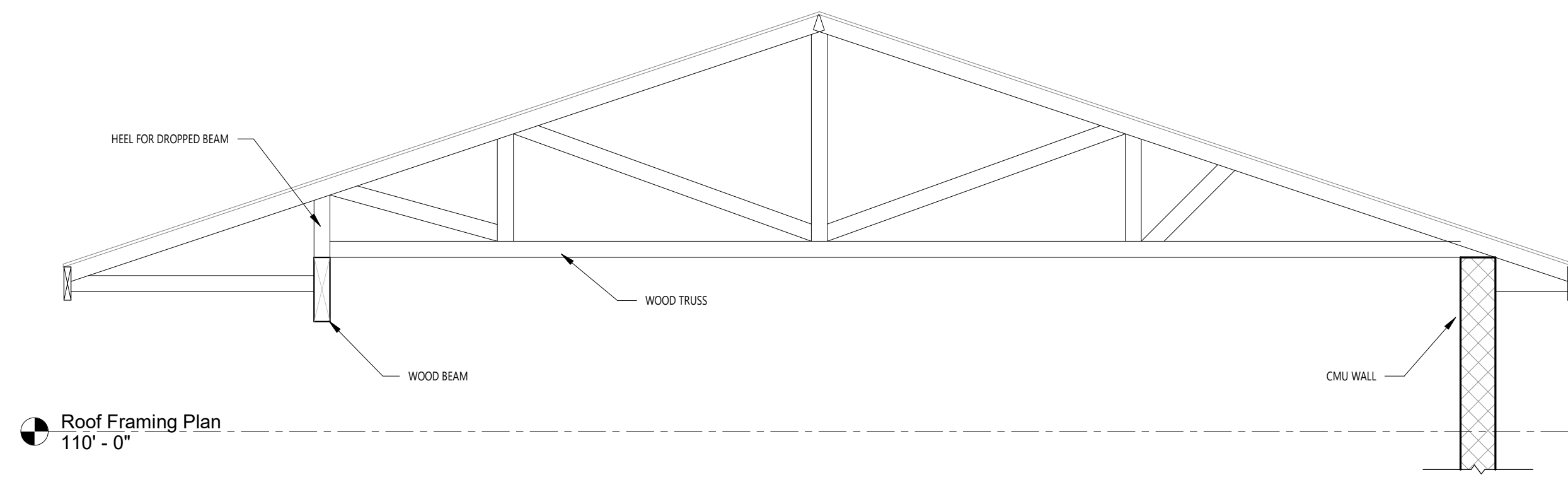
PROJECT: **CRYSTAL CITY MAIN POST OFFICE**

SHEET TITLE: **Wood Framing Notes & Details**

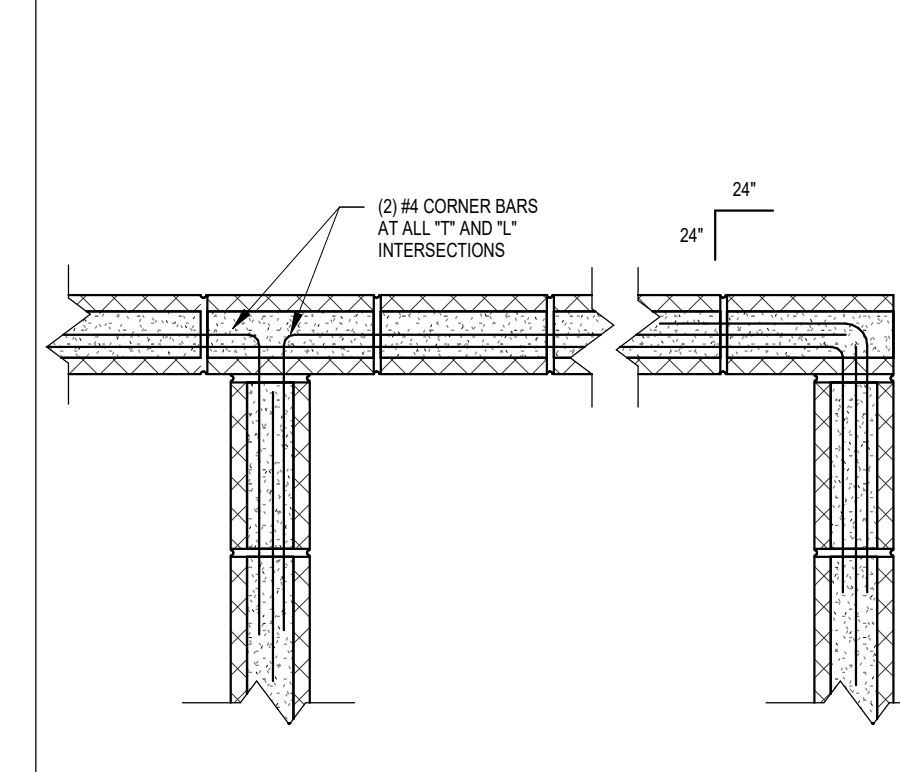
PROJECT NO: **19-03550**

REVISIONS DATE

SHEET NO: **S401**



7 Section 6
1/2" = 1'-0"



3 Typical Bond Beam Corner Bars
1 1/2" = 1'-0"

REINFORCED CONCRETE MASONRY NOTES:

MN-1 ALL CONCRETE MASONRY SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," AD 530.

MN-2 CONCRETE MASONRY UNITS (CMU) SHALL BE HOLLOW, LOAD BEARING LIGHTWEIGHT UNITS CONFORMING TO ASTM C90 GRADE N, TYPE 1.

MN-3 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. HORIZONTAL JOINT REINFORCING SHALL BE TRUSS TYPE CONFORMING TO ASTM B2. HOT DIP GALVANIZED JOINT REINFORCING AFTER FABRICATION TO COMPLY WITH ASTM A153, CLASS B2.

MN-4 MORTAR SHALL CONFORM TO ASTM C270, TYPE "S".

MN-5 GROUT FOR FILLING CELLS SHALL CONFORM TO ASTM C476. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.

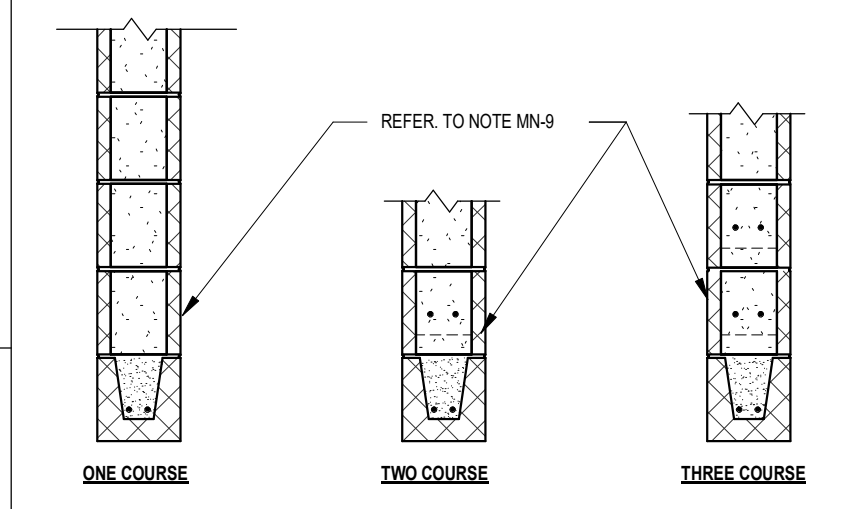
MN-6 REINFORCED CMU SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF $f_m=1,500$ PSI. COMPRESSIVE WALL DESIGN STRENGTH (ϕm) SHALL BE VERIFIED BY INDEPENDENT TESTING LAB BY PRISM TESTS BEFORE MASONRY CONSTRUCTION BEGINS.

MN-7 PROVIDE GROUTED REINFORCED VERTICAL CELLS AND HORIZONTAL BOND BEAMS AT WALL TOP EDGES, CORNERS, FREE ENDS, WINDOW AND DOOR JAMBS, LINTELS AND OTHER LOCATIONS WHERE SHOWN ON ARCHITECTURAL DRAWINGS. REINFORCE EACH GROUTED CELL AND BOND BEAM WITH 1 #4 BAR CONTINUOUS (REINFORCE LINTELS AS SPECIFIED BELOW). PROVIDE MATCHING DOVELS IN FOUNDATION FOR VERTICAL REINFORCEMENT.

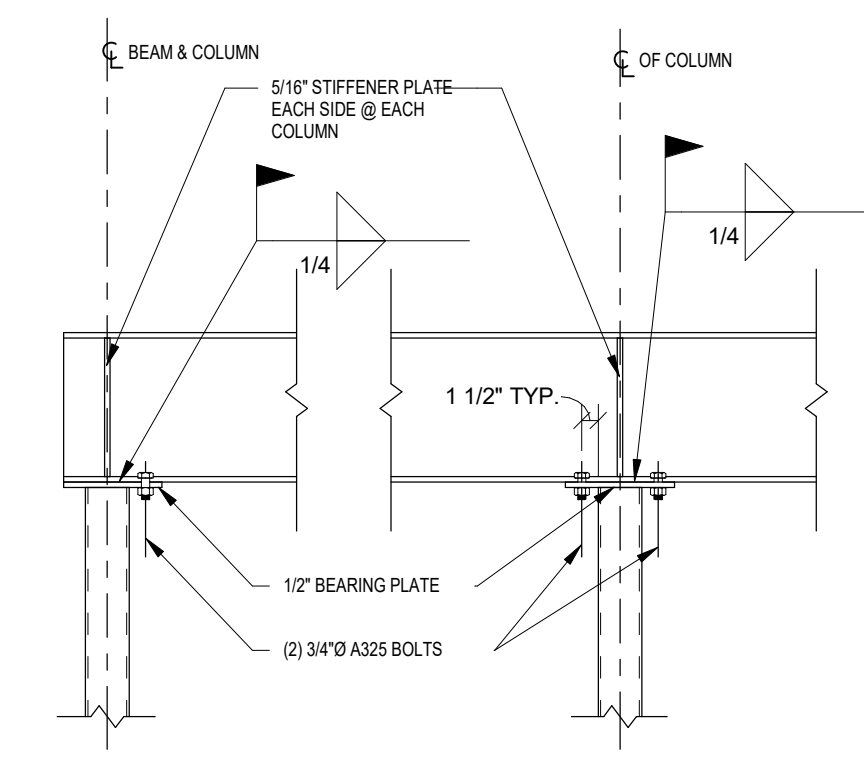
MN-8 BASIC VERTICAL REINFORCEMENT FOR EXTERIOR WALLS SHALL BE #4 @ 32" o.c. EVERY 4th VERTICAL CELL. REINFORCE EVERY OTHER HORIZONTAL MASONRY JOINT. VERTICAL SPACING OF 16" o.c. WITH JOINT REINFORCING (3/16 INCH SIDE RAILS AND 3/16 INCH CROSS TIES), OVERLAP 6" AT SPLICES.

MN-9 PROVIDE GROUTED REINFORCED LINTELS WITH 8" BEARING EACH END OF ALL DOORS, WINDOWS, AND OTHER OPENINGS. USE ONE-COURSE LINTELS FOR OPENINGS UP TO 4'-0"; TWO-COURSE LINTELS FOR OPENINGS UP TO 8'-0"; THREE-COURSE LINTELS FOR OPENINGS UP TO 14'-0". REINFORCE EACH COURSE WITH 2 #5 BAR CONTINUOUS.

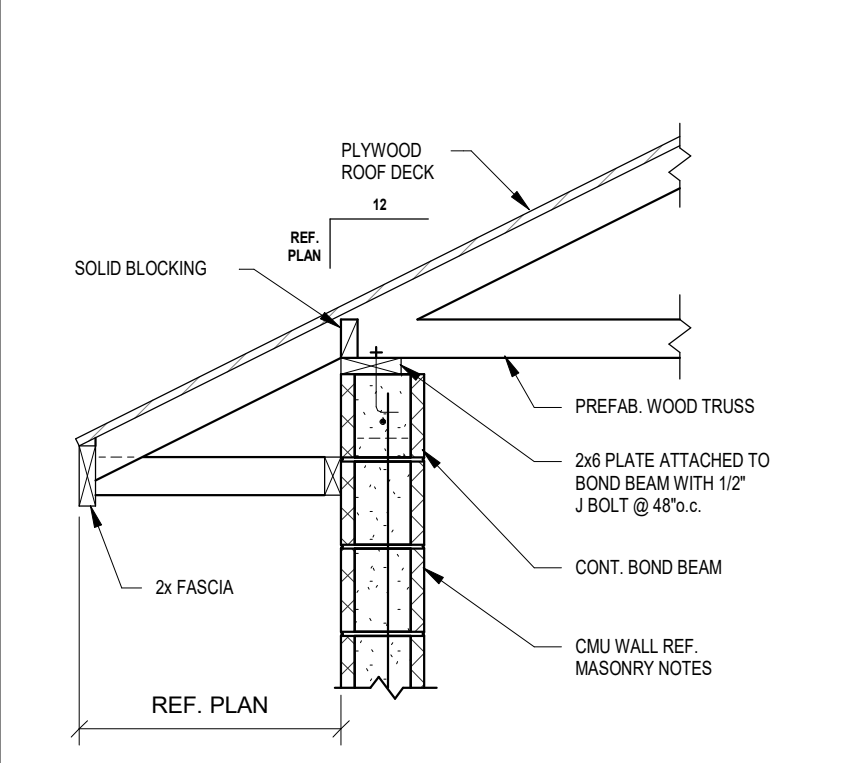
CMU LINTEL SCHEDULE			
SIZE	CLEAR OPENING		REMARKS
	GREATER THAN	UP TO	
ONE COURSE	-	4'-0"	8" BEARING @ EACH END
TWO COURSE	4'-0"	8'-6"	8" BEARING @ EACH END
THREE COURSE	8'-0"	14'-0"	8" BEARING @ EACH END



1 MN1
3/4" = 1'-0"



5 Top Beam to Col. Conn.
3/4" = 1'-0"



4 M-RF-01
3/4" = 1'-0"

STEEL FRAMING NOTES:

SF-1 STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM 992. $F_y=50$ KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. $F_y=46$ KSI. PIPES SHALL CONFORM TO ASTM A501, $F_y=36$ KSI OR ASTM A53, TYPE S OR X, GRADE B, $F_y=35$ KSI. STEEL PLATES, BARS, AND OTHER SHAPES SHALL CONFORM TO ASTM A36, $F_y=36$ KSI. CONNECTIONS SHALL CONFORM TO REQUIREMENTS OF AISC.

SF-2 WELDING SHALL BE BY WELDERS HOLDING VALID CERTIFICATES AND CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS. ALL WELDING DONE BY E70XX SERIES LOW HYDROGEN RODS. FOR ASTM A615 GRADE 60 REINFORCING BARS, USE 706 SERIES. ALL WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS, UNLESS NOTED OTHERWISE.

SF-3 STRUCTURAL FRAMING CONNECTIONS SHALL BE SEATED COLUMN CAPS, CLIP ANGLES OR WEB PLATES AS INDICATED ON DETAILS. USE A325 HIGH STRENGTH BOLTS OR WELDS SUFFICIENT TO DEVELOP REACTION CAPACITY ALLOWABLE UNIFORM LOAD/SPAN DIVIDED BY TWO AS SHOWN IN AISC MANUAL, SECTION 2 (9th EDITION).

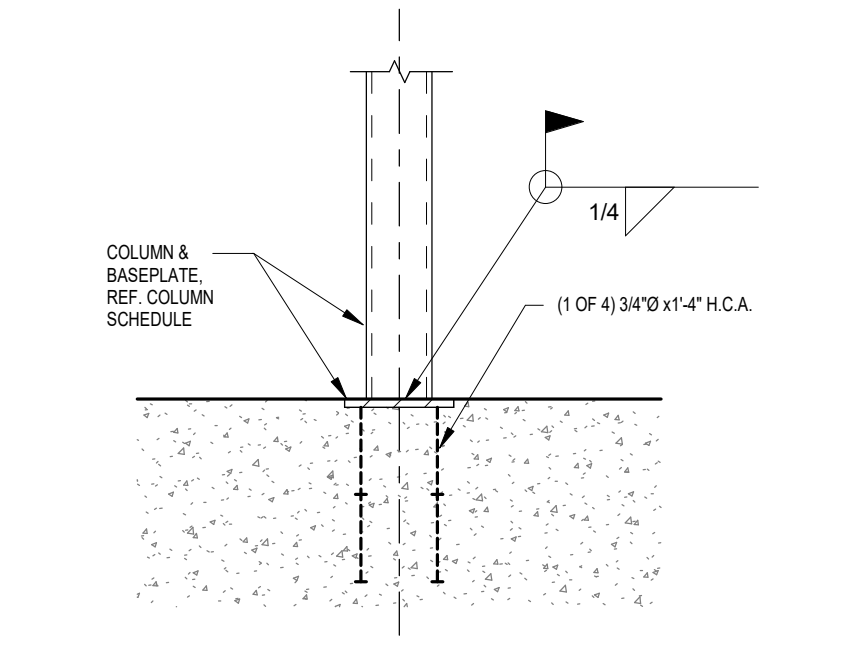
SF-4 DECK STOP ANGLES, FASCIA ANGLES, HANGERS, CLIPS AND OTHER STRUCTURAL AND MISCELLANEOUS MEMBERS SHALL BE CONNECTED OR JOINED USING 3/16" OR LARGER FILLET OR GROOVE WELDS AS REQUIRED FOR ADEQUATE CONNECTION.

SF-5 ALL EXPOSED STRUCTURAL STEEL AND LINTEL ANGLES SHALL BE CLEANED AND GALVANIZED. APPLY ZINC COATING BY THE HOT-DIP PROCESS AND ACCORDING TO A.S.T.M. A123. FIELD WELDS, BOLTED CONNECTIONS AND ABRASSED AREAS SHALL BE CLEANED AND "TOUCHED UP" WITH GALVANIZING REPAIR PAINT IN ACCORDANCE WITH A.S.T.M. A780. THE GALVANIZING REPAIR PAINT SHALL HAVE A HIGH ZINC DUST CONTENT WITH DRY FILM CONTAINING NO LESS THAN 95% ZINC DUST BY WEIGHT, AND COMPLYING WITH THE DOD-P-21055A OR SSPC-PART 20.

SF-6 CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION DURING ALL FIELD WELDING OPERATIONS. A FIRE EXTINGUISHER SHALL BE ON THE JOB SITE AND IN THE IMMEDIATE WORKING AREA OF ALL FIELD WELDING.

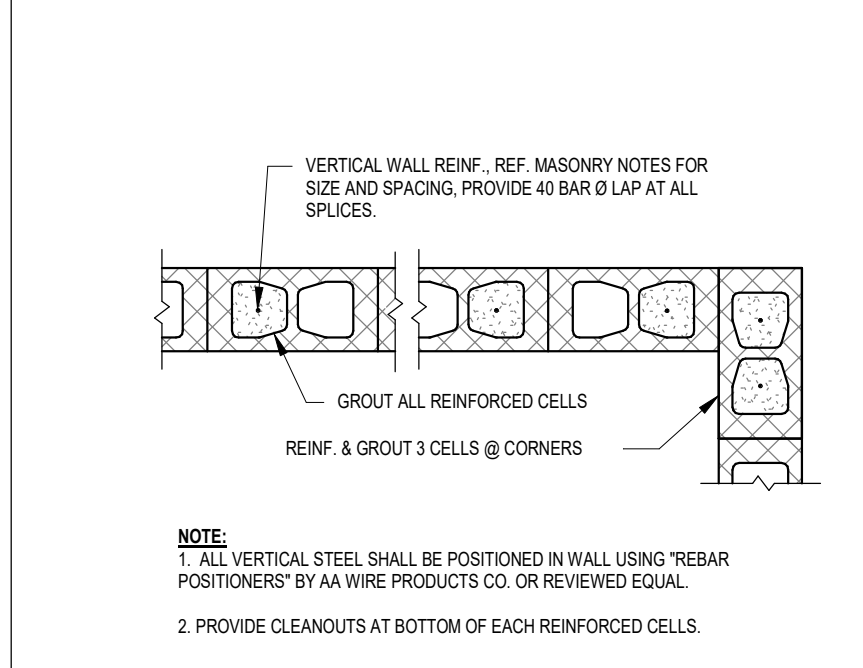
SF-7 CONTRACTOR SHALL SUBMIT STRUCTURAL STEEL SHOP DRAWINGS SHOWING ANCHORAGE PLACING PLANS, ERECTION PLANS, AND DETAIL DRAWINGS FOR ALL STEEL FRAMING MEMBERS INCLUDING BRIDGING, BRACING, CONNECTIONS, METHODS OR ASSEMBLY, ETC.

SF-8 STEEL STAIRS SHALL BE DESIGNED AND DETAILED FOR A 100 PSF LIVE LOAD BY FABRICATOR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE PROJECT. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE ENGINEER.



6 Typical Column Base Conn.
3/4" = 1'-0"

STEEL COLUMN SCHEDULE					
MK	SECTION	BASE PLATE		TOP CONN.	REMARKS
		WxDth	ANCHORS		
C1	4" STD. PIPE	8x6x3/4	(4) 3/4" DIA. 1'-4" H.C.A.	6/SS01	



2 Typical CMU Wall Reinforcing
1/2" = 1'-0"

NOTE:
1. ALL VERTICAL STEEL SHALL BE POSITIONED IN WALL USING "REBAR POSITIONERS" BY AA WIRE PRODUCTS CO. OR REVIEWED EQUAL.
2. PROVIDE CLEANOUTS AT BOTTOM OF EACH REINFORCED CELLS.

Fisher Heck ARCHITECTS
915 SOUTH ST. MARY'S STREET
SUITE 100
FISHERHECK.COM
210-296-1500

1008 BECKETT STREET
SUITE 100
LEHMANENGINEERING.COM
210-348-8889



09/03/10

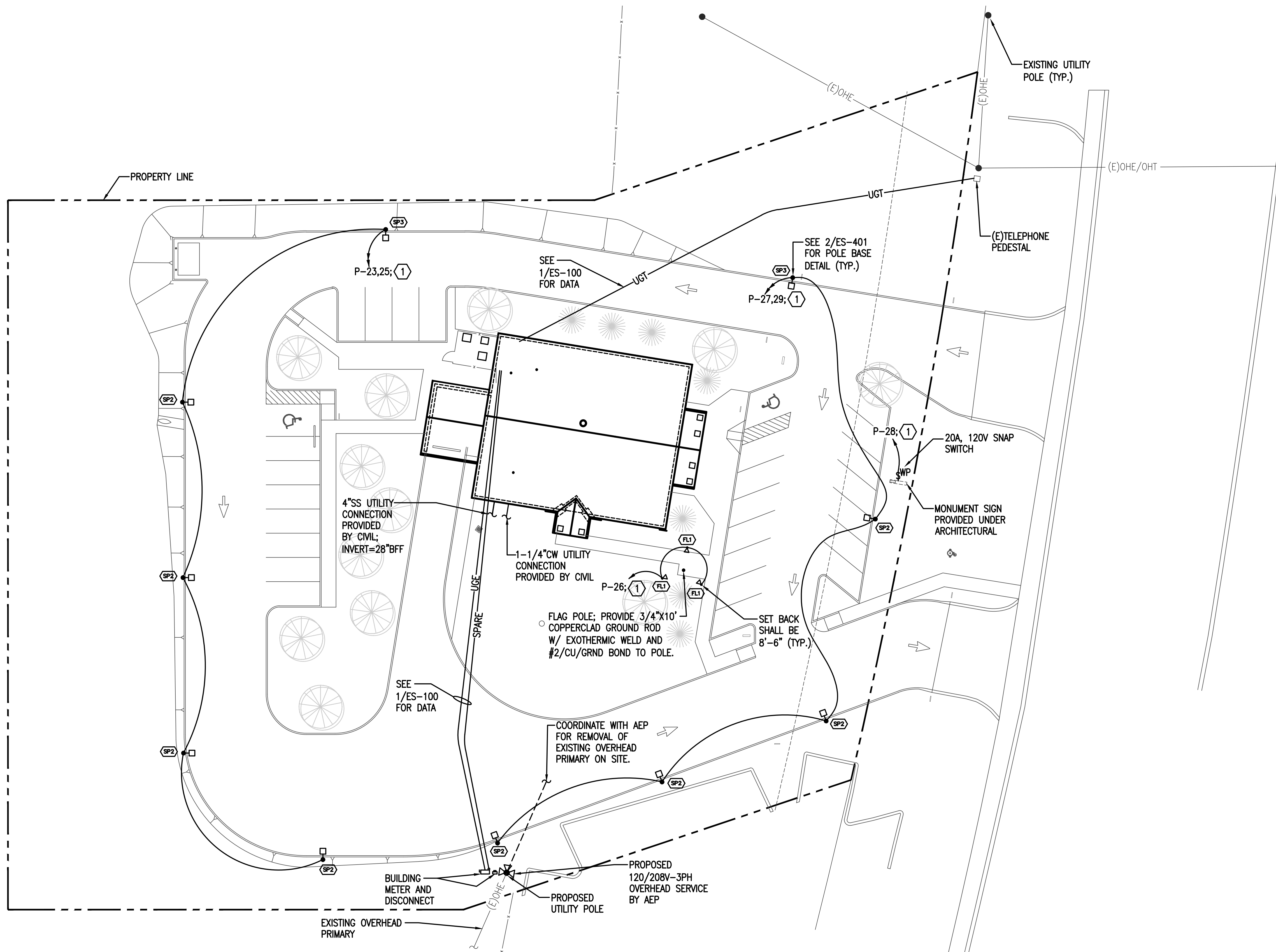
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SHEET TITLE: **Masonry Notes & Details**

PROJECT NO: 19-03550

REVISIONS DATE

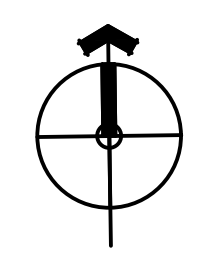
SHEET NO: **S501**

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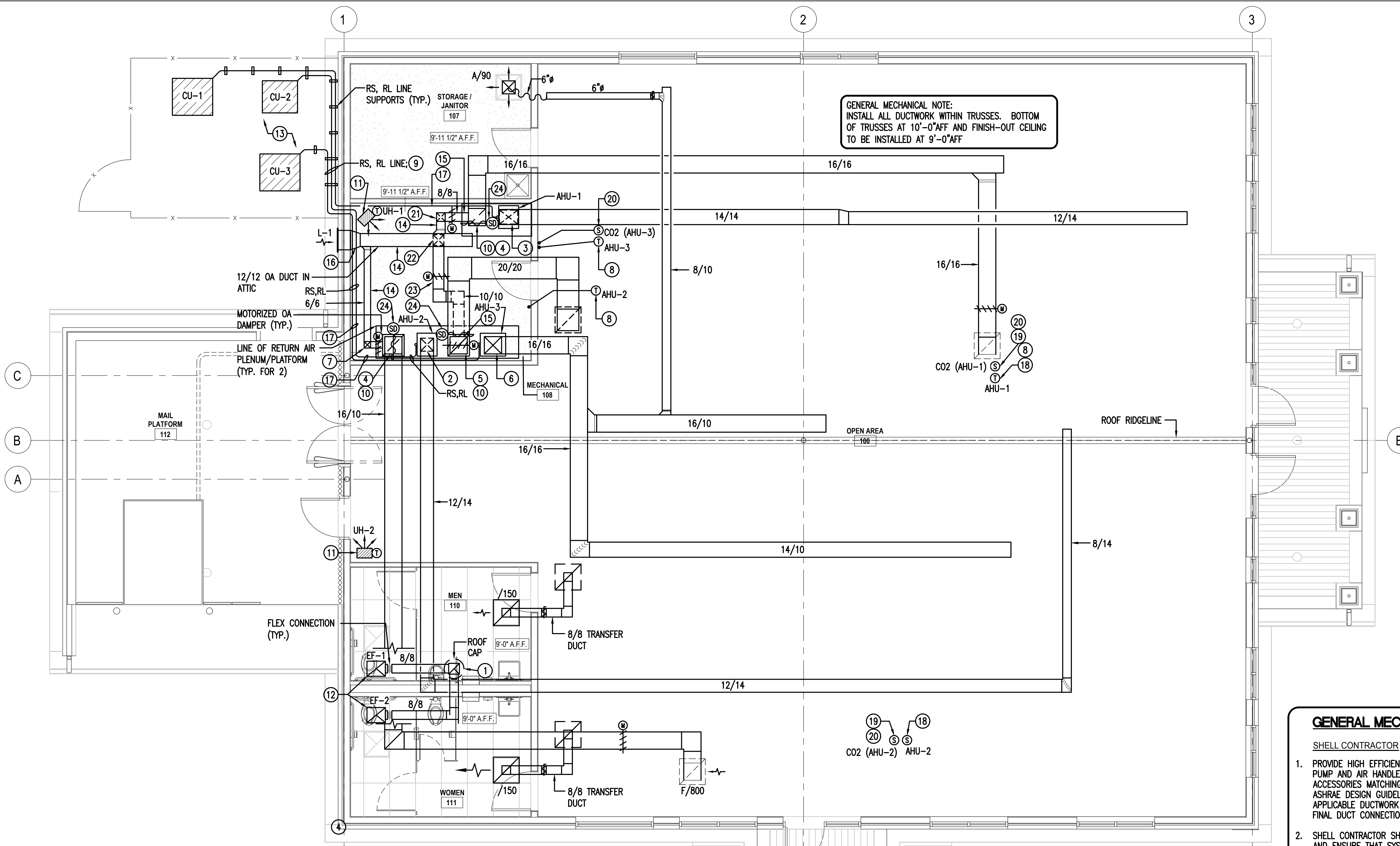
- GENERAL SITE ELECTRICAL NOTES:
1. CALL 811 TO SUBMIT A LOCATE REQUEST. CONTRACTOR TO DETERMINE THE PRESENCE AND LOCATION OF ANY UNDERGROUND UTILITIES SUCH AS TELEPHONE, ELECTRIC POWER, WATER, GAS, SEWAGE LINES, ETC. WHETHER PREVIOUSLY EXISTING OR AS INSTALLED BY OTHER TRADES, PRIOR TO THE START OF CONSTRUCTION.
 2. HAND DIG IN AREAS SUSPECTED TO CONTAIN EXISTING OR NEW UTILITIES.
 3. ALL SITE UNDERGROUND CONDUIT SHALL BE BURIED A MINIMUM OF 24 INCHES DEEP BELOW FINISHED GRADE UNLESS OTHERWISE NOTED. MINIMUM CONDUIT SIZE BELOW GRADE SHALL BE 3/4".
 4. PROVIDE ANSI COLOR TAPE FOR IDENTIFICATION AT 18 INCHES DEEP ABOVE SERVICE CONDUIT RUNS.
 5. ALL CONDUIT ELBOWS AND TURNS SHALL BE MADE WITH LONG SWEEP ELLS.
 6. CONTRACTOR SHALL PROVIDE ALL EXCAVATING AND BACK FILLING REQUIRED FOR ALL NEW WORK INCLUDING FILL, COMPACTION, SURFACE, ETC. TO MEET ALL REQUIREMENTS AS APPLICABLE FOR THE AREA.
 7. TELEPHONE AND CABLE TV CONDUITS SHALL BE BURIED 24" MINIMUM BELOW GRADE, WITH LONG SWEEP TURNS AND A MINIMUM SEPARATION OF 2'-0" FROM POWER CONDUITS. COORDINATE ALL SERVICE CONDUIT ROUTING WITH UTILITY COMPANY REPRESENTATIVES.
 8. COORDINATE ALL ELECTRICAL SERVICE REQUIREMENTS WITH POWER UTILITY COMPANY REPRESENTATIVE PRIOR TO BEGINNING WORK.
 9. CONTRACTOR SHALL MAINTAIN AN AS-BUILT DIMENSIONAL DRAWING ON SITE SHOWING ALL UNDERGROUND CONDUIT ROUTING AND TERMINATION POINTS.
 10. SECONDARY POWER CONDUIT, TELEPHONE SERVICE CONDUIT, AND CABLE TV CONDUIT ROUTING SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. ACTUAL ROUTING AND TERMINATION POINTS SHALL BE VERIFIED AND COORDINATED WITH OWNER AND LOCAL UTILITIES PRIOR TO START OF WORK.
 11. PROVIDE PULL-STRING IN ALL EMPTY CONDUITS. CAP EMPTY CONDUITS BELOW GRADE WATER TIGHT.
 12. REPAIR AT NO ADDITIONAL COST TO OWNER OR A/E DAMAGE TO ALL EXISTING SITE ELEMENTS AS REQUIRED TO MATCH EXISTING PRECONSTRUCTION CONDITIONS.

1 MECHANICAL, ELECTRICAL AND PLUMBING SITE PLAN
 1" = 20'-0"
 ELECTRICAL SITE PLAN KEYED NOTES (SHEET MEPS-101 ONLY)
 1 CIRCUIT THROUGH LIGHTING CONTACTOR. SEE 2/ES-101 FOR DETAIL.



ESA Mechanical & Electrical
 Engineering, Inc.

1100 NW Loop 410, Suite 810 210.342.3483
 San Antonio, Texas 78213 F 210.342.3641
 TPE FIRM REGISTRATION NO. F-4137
 JOB NO.: 19074



GENERAL MECHANICAL NOTE:
INSTALL ALL DUCTWORK WITHIN TRUSSES. BOTTOM
OF TRUSSES AT 10'-0" AFF AND FINISH-OUT CEILING
TO BE INSTALLED AT 9'-0" AFF

GENERAL MECHANICAL NOTES

- SHELL CONTRACTOR**
1. PROVIDE HIGH EFFICIENCY R410A, TRANE SPLIT SYSTEM HEAT PUMP AND AIR HANDLER WITH LOW AMBIENT CONTROLS AND ACCESSORIES MATCHING CLIMATE ZONE HVAC LOADS PER ASHRAE DESIGN GUIDELINES. INSTALL AIR HANDLER AND APPLICABLE DUCTWORK READY FOR OPERATION EXCEPT FOR FINAL DUCT CONNECTIONS BY FINISH-OUT CONTRACTOR.
 2. SHELL CONTRACTOR SHALL STARTUP EQUIPMENT, BALANCE AND ENSURE THAT SYSTEM IS OPERATING PER DESIGN REQUIREMENTS.
- FINISH OUT CONTRACTOR**
1. FINISH OUT CONTRACTOR SHALL PROVIDE SUPPLY/RETURN DUCTS, THERMOSTATS/SENSORS, AND FLEX DUCTS NOT PROVIDED BY SHELL CONTRACTOR.

MECHANICAL FLOOR PLAN-SHELL

1/4" = 1'-0"
MECHANICAL KEYED NOTES (SHEET MS-101 ONLY):

- | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ① 10/10 EA RISER UP TO ROOF CAP; PROVIDE TRANSITION TO ROOF CAP. ② 17/13 SA RISER FROM AHU TRANSITION TO 12/14. ③ 17/13 SA RISER FROM AHU TRANSITION TO 14/14. ④ 16/16 RA DROP INTO TOP OF RETURN PLENUM. ⑤ 20/20 RA DROP INTO TOP OF RETURN PLENUM. ⑥ 22/13 SA RISER FROM AHU TRANSITION TO 16/16. ⑦ 6/6 OA DUCT DROP INTO MECHANICAL ROOM. ⑧ DIGITAL 7-DAY PROGRAMMABLE THERMOSTAT WITH HUMIDITY CONTROL FOR A/C OPERATION. ⑨ INSTALL INSULATED REFRIGERANT LINES ALONG WALL. ⑩ FOR ALL AHUS, OA MOTORIZED DAMPER SHALL CLOSE WHILE UNIT IS OFF. | <ul style="list-style-type: none"> ⑪ PROVIDE ELECTRIC UNIT HEATER WITH OVERHEAT PROTECTION AND INTEGRAL THERMOSTAT FOR MAIL VESTIBULE AND MECHANICAL ROOM. ⑫ INTERLOCK EXHAUST FAN WITH RESTROOM LIGHT SWITCH. ⑬ CONCRETE SLAB IN MECHANICAL YARD PROVIDED BY GENERAL CONTRACTOR. ⑭ OUTSIDE AIR DUCTS SHALL BE INSTALLED ABOVE MECHANICAL ROOM. INDIVIDUAL DUCT BRANCHES SHALL DROP INTO MECHANICAL ROOM FOR CONNECTION TO RETURN DUCTWORK. ⑮ CONNECT OUTSIDE AIR DUCT TO RA DUCT BELOW CEILING. ⑯ 12/12 OA DUCT TRANSITION TO 18/18 LOUVER. COORDINATE TRANSITION WITH EXACT LOUVER DIMENSIONS. ⑰ ROUTE REFRIGERANT LINES ALONG WALL. | <ul style="list-style-type: none"> ⑱ HANG THERMOSTAT/SENSOR AND CONTROL CABLE FROM STRUCTURE. FINISH-OUT CONTRACTOR SHALL INSTALL THERMOSTAT ON WALLS CONSTRUCTED DURING FINISH-OUT PHASE. ⑲ HANG CO2 SENSOR AND CONTROL CABLE FROM STRUCTURE. FINISH-OUT CONTRACTOR SHALL INSTALL CO2 SENSOR ON WALLS CONSTRUCTED DURING FINISH-OUT PHASE. ⑳ SET CO2 LEVEL AT 1000 PPM. ㉑ 8/8 OA DUCT DROP INTO MECHANICAL ROOM. ㉒ 10/10 OA DUCT DROP INTO MECHANICAL ROOM. ㉓ ROUTE DUCT AS HIGH AS POSSIBLE IN MECHANICAL ROOM. ㉔ INSTALL DUCT SMOKE DETECTOR PER LOCALLY ADOPTED CODES. |
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AIR DEVICE SCHEDULE									
MARK	CFM RANGE	SUPPLY	RETURN	TRAVEL EXH.	NECK SIZE	THROW	DAMPER	LOCATION	REMARKS (TITUS MODEL #)
A	5-105	•			6"ø	3W	YES	SURFACE	TDC, TYPE 1 BORDER; 24"x24" MODULE
B	110-195	•			8"ø	4W	NO	LAY-IN CEILING	TDC, TYPE 3 BORDER; 24"x24" MODULE
C	200-330	•			10"ø	4W	NO	LAY-IN CEILING	TDC, TYPE 3 BORDER; 24"x24" MODULE
D	110-200	•			8"ø	4W	YES	SURFACE	TDC, TYPE 1 BORDER; 12"x12" MODULE
E	0-375		•	•	12"x12"	-	NO	LAY-IN CEILING	350RL, TYPE 3 BORDER 24"x24" FACE
F	780-1410		•	•	22"x22"	-	NO	LAY-IN CEILING	350RL, TYPE 3 BORDER 24"x24" FACE

EQUIVALENT MANUFACTURERS : RUSKIN AND TUTTLE & BAILEY

LOUVER SCHEDULE									
MARK	CFM	MAX SP	•INTAKE RELIEF•	SIZE W X H	FREE AREA	DAMPER	LOCATION	REMARKS (RUSKIN MODEL #)	
L-1	440	0.15"	•	18" X 18"	0.55"	NO	WALL	EMES20DD ①	

① UNIT SHALL BE FURNISHED IN MILL FINISH (PRIME/PAINTING SHALL BE PROVIDED UNDER ARCH. WORK) WITH 3/4" X 0.051" EXPANDED, FLATTENED ALUMINUM BIRD SCREEN IN REMOVABLE FRAME.

EQUIVALENT MANUFACTURERS: GREENHECK, ARROW, LOUVERS AND DAMPERS, NCA AND METAL-AIRE

ELECTRIC UNIT HEATER SCHEDULE									
MARK	TYPE	CFM	KW	MOTOR (V/PH)	FLA	MOCOP	OPER. WT.	REMARKS (MARKEL MODEL#)	
UH-1, UH-2	HORIZONTAL DISCHARGE	400	2.5	208/3	6.9	15	25#	HF2B5103N ① ②	

① UNIT SHALL BE FURNISHED WITH ADJUSTABLE LOUVERS, LOW VOLTAGE WALL THERMOSTAT (STAND ALONE), SUMMER FAN SWITCH, AND CEILING SUSPENSION KITS.

② HORIZONTAL DISCHARGE UNIT. PROVIDE WALL/CEILING MOUNT BRACKET.

EQUIVALENT MANUFACTURERS: REDD-I, Q-MARK AND TRANE

OUTSIDE AIR SCHEDULE							
UNIT	AREA SERVED	AREA	CFM/ PEOPLE	CFM/ SF	NO. PEOPLE	O/A REQUIRED	O/A PROVIDED MAX/MIN
AHU-1	LOBBY/SALES	514	7.5	0.12	14	167	180/135
AHU-1	OFFICES	124	5	0.06	1	12	
AHU-2	SELF SERVICE	223	7.5	0.12	3	49	75/55
AHU-2	P.O. BOXES	362	0	0.06	0	22	
AHU-3	WORKROOM/STORAGE/JANITOR/RESTROOMS	1880	10	0.12	8	306	310/135
	BUILDING TOTAL	3103				556	565/325

NOTES:

1. MINIMUM OA CALCULATION BASE ON TABLE 403.3, 2018 INTERNATIONAL MECHANICAL CODE.
 $(CFM/PER) * (\# \text{ OF PEOPLE}) + (CFM/SQ.FT.) * (SQ.FT.) = OA \text{ REQUIRED}$

LOUVER SCHEDULE									
MARK	CFM	MAX SP	•INTAKE RELIEF•	SIZE	FREE AREA ③	DAMPER	LOCATION	REMARKS (RUSKIN)	
L-1	565	0.05	•	18"Wx18"H	1.08 SQ. FT.	NONE	EXTERIOR WALL	ELF6350DMP WITH BIRDSCREEN ① ②	

① PROVIDE LOUVER IN HERRING BONE (37) COLOR. FINALIZE FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING.

② PROVIDE REAR SECURITY BARS BEHIND LOUVER.

③ COORDINATE FRAME STYLE AND OPTIONS WITH ARCHITECT.

AIR HANDLING UNIT SCHEDULE – ELECTRIC HEAT														
MARK	TOTAL AIR	OUTSIDE AIR	EXT. SP. IN WTR.	EAT* DB/WB	COOLING MBTUH ①	MBTUH HEAT ②	KW HEAT ③	FAN HP	ELEC. (V/ø)	MCA	MOCOP	WT.	REMARKS (TRANE MODEL #)	
AHU-1	1000	180	0.5	80/64.3	26.9	24.7	27.8	5.77	1/3	208/1	38	40	117	TEM6A0B30H21SA ② ③ ④ ⑥
AHU-2	800	75	0.5	77.8/63.2	21.6	19.8	22.0	5.77	1/3	208/1	38	40	117	TEM6A0B24H21SA ② ③ ④ ⑥
AHU-3	1600	310	0.5	80/64.4	43.4	36.1	42.5	7.2	3/4	208/1	52	60	174	TEM6A0C48H41SA ② ③ ④ ⑥

① AT 105°F AMBIENT AND COIL ENTERING AIR TEMPERATURE WITH CORRESPONDING CONDENSING UNIT.

② UNIT SHALL BE FURNISHED WITH PROGRAMMABLE THERMOSTAT WITH NIGHT SETBACK, AND 1" THICK THROWAWAY FILTERS.

③ PROVIDE 1" THICK FILTER IN E-Z FILTER BASE (E-Z FILTER BASE MANUFACTURING: 214-328-9800; AVAILABLE THRU INSCO AND OTHER LOCAL SUPPLIER).

④ PROVIDE THERMOSTAT GUARD WITH LOCKING COVER.

⑤ WITH CORRESPONDING HEAT PUMP CONDENSING UNIT.

⑥ DUCT SMOKE DETECTOR SHALL BE FURNISHED, INSTALLED, AND WIRED BY MECHANICAL CONTRACTOR.

EQUIVALENT MANUFACTURERS: CARRIER, YORK, AND LENNOX

HEAT PUMP CONDENSING UNIT SCHEDULE														
MARK	TOT. MBTUH/ SENS. MBTUH ①	NOM. CAPACITY	AMBIENT TEMP.	MIN. EFFIC.Y.	ELEC V/ø/FLA	COP	HSPF	MCA	MOCOP	OPER. WT.	REMARKS (TRANE MODEL #)			
CU-1	26.9/24.7	2.5	105°F	15 SEER	208/1/13.6	4.10	9.5	17	25	216	4TWR5030 ②			
CU-2	21.6/19.8	2	105°F	15 SEER	208/1/11.6	4.0	9.5	14	25	174	4TWR5024 ②			
CU-3	43.4/36.1	4	105°F	15 SEER	208/1/19.5	3.7	8.55	24	40	250	4TWR5048 ②			

① AT 105°F AMBIENT WITH CORRESPONDING COOLING COIL EAT

② UNIT SHALL BE FURNISHED WITH FACTORY LOW AMBIENT CONTROLLER, EVAPORATOR FREEZESTAT, CYCLE PROTECTOR, CONDENSER COIL HAIL GUARD, CRANKCASE HEATER AND FILTER DRIER.

EQUIVALENT MANUFACTURERS: CARRIER, YORK, AND LENNOX

EXHAUST FAN SCHEDULE									
MARK	AREA SERVED	CFM	ESP IN. WG	DRIVE	ELEC. V/ø	TYPE	CONTROL WITH	OPER. WT.	REMARKS (COOK MODEL #) ② ③
EF-1	MEN 110	150	0.375	DIRECT	115/1/150 WATTS	CEILING EXHAUST	INTERLOCK WITH LIGHT SWITCH	36#	GC-340 ①
EF-2	WOMEN 111	150	0.375	DIRECT	115/1/150 WATTS	CEILING EXHAUST	INTERLOCK WITH LIGHT SWITCH	36#	GC-340 ①

① UNIT SHALL BE U.L. LISTED, A.M.C.A. CERTIFIED AND FURNISHED WITH FACTORY WHITE POLYMER GRILLE, SPEED CONTROLLER (MOUNTED IN AN ACCESSIBLE LOCATION), BACKDRAFT DAMPER, GEMINI ISOLATOR KIT, AND DISCONNECT SWITCH.

② PROVIDE COOK #PR8F GALVANIZED ROOF CAP WITH SLOPED ROOF CURB (SEE ARCH DRAWINGS FOR ROOF SLOPE).

③ ROOF CURB SHALL BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ROOFING CONTRACTOR.

EQUIVALENT MANUFACTURERS: GREENHECK, ACME, BREIDERT AND PENN VENTILATOR

GENERAL NOTES

- MECHANICAL CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE BIDDING/ORDERING AND INSTALLATION
- SHELL CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT BEFORE BIDDING/ORDERING AND INSTALLATION.
- ALL CONTROL WIRING SHALL BE INCLUDED AS PART OF MECHANICAL WORK. REFER TO ELECTRICAL SPECIFICATIONS FOR CONDUIT AND WIRING REQUIREMENTS. SHELL CONTRACTOR SHALL ENSURE THAT ELECTRICAL INTERFACE DEVICES NECESSARY IN THE ELECTRICAL COMPONENTS ARE COORDINATED WITH THE FINISH-OUT CONTRACTOR (IE SITE VOLTAGE, SITE AMPERAGE, ETC.).
- UNLESS OTHERWISE NOTED MOTOR STARTERS AND DISCONNECTS SHALL BE FURNISHED AND INSTALLED BY SHELL CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE SHELL CONTRACTOR TO PROVIDE A COMPLETE MECHANICAL SYSTEM WHICH CAN BE PROPERLY BALANCED. PROVIDE ALL NECESSARY ACCESSORIES AS REQUIRED. SHELL CONTRACTOR SHALL COORDINATE WITH FINISH-OUT CONTRACTOR TO ENSURE SYSTEM IS CODE COMPLIANT.
- THE FINISH-OUT CONTRACTOR SHALL UTILIZE COMPONENTS AND MATERIALS PROVIDED BY THE SHELL CONTRACTOR TO MAKE FINAL CONNECTIONS TO THE HVAC EQUIPMENT.
- SHELL CONTRACTOR SHALL PROVIDE ALL MATERIAL AND COMPONENTS WITH MINOR FINAL CONNECTIONS BY FINISH-OUT CONTRACTOR. SHELL CONTRACTOR SHALL BE RESPONSIBLE FOR STARTUP OF EQUIPMENT, BALANCING AND ENSURING THAT SYSTEM IS OPERATING PER DESIGN REQUIREMENTS
- PROVIDE UNCAPPED DUCTWORK FOR START-UP TESTING.

GENERAL MECHANICAL NOTES:

- ALL DUCT DIMENSIONS ARE CLEAR INSIDE AIR FLOW DIMENSIONS AND DOES NOT TAKE INTO ACCOUNT DUCT INSULATION THICKNESS.
- COORDINATE INSTALLATION OF DUCTWORK WITH ELECTRICAL AND PLUMBING CONTRACTORS.
- PROVIDE DUCT SMOKE DETECTORS FOR ALL AHUS. LOCATE DUCT SMOKE DETECTOR IN SUPPLY OR RETURN DUCT AS REQUIRED TO MEET LOCAL CODES.
- DUCT SMOKE DETECTOR SHALL BE INTERLOCKED WITH CORRESPONDING AHU/CU COMBINATION. AHU/CU SHALL SHUT DOWN UPON DETECTION OF SMOKE.
- EXPOSED SHEET METAL DUCTWORK SHALL HAVE JOINTS SEALED TO PREVENT AIR LEAKAGE AND DUST ACCUMULATION ON DUCTWORK. SEALING SHALL BE BY MASTIC OR GASKETS SUITABLE FOR USE ON DUCTWORK. SEALANT INSTALLATION SHALL NOT BE FORCED OUT OF THE JOINT AND VISIBLE ONCE JOINT CONNECTION IS COMPLETE. ANY MASTIC OR SEALANT THAT IS VISIBLE SHALL BE REMOVED.
- MOTORIZED OUTSIDE AIR DAMPERS SHALL OPEN DURING AHU OPERATION AND CLOSE WHEN THE AHU SHUTS DOWN.
- ALL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY WRAPPED RIGID SHEETMETAL.
- MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING. ALL CONTROL WIRING SHALL BE INSTALLED IN CONDUIT.
- PROVIDE ALL HANGERS FOR ALL AIR DEVICES AND DUCTWORK IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- PROVIDE WRAP AT ALL DUCT CONNECTIONS.
- FLEXIBLE DUCTS SHALL BE LISTED AND LABELED. FLEXIBLE DUCTS SHALL BE INSTALLED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND USING APPROVED CLAMPS, HANGERS, AND FITTINGS.
- ALL AIR DEVICES SHALL BE FURNISHED IN A BAKED OFF-WHITE FINISH UNLESS OTHERWISE NOTED.
- ALL AIR DEVICES SHALL BE FURNISHED WITH SQUARE-TO-ROUND NECK TRANSITIONS WHEN CONNECTED TO ROUND DUCT.
- ALL HVAC INSTALLATION SHALL MEET 2015 IMC WITH LOCAL CODE AMENDMENTS.
- MAINTAIN A MINIMUM OF 10'-0" BETWEEN ANY OUTSIDE AIR INTAKES AND VTRS OR EXHAUST CAPS. COORDINATE OUTSIDE AIR INTAKE LOCATIONS WITH PLUMBING CONTRACTOR.
- COVER SHARP EDGES OF ALL EQUIPMENT AND SUPPORTS BELOW 8 FEET ABOVE FINISHED FLOOR WITH INSULATING MATERIAL FOR PROTECTION.

MECHANICAL CONSTRUCTION NOTES:
IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
EQUIPMENT SUBMITTALS SHALL MEET SCHEDULED DESIGN CHARACTERISTICS FOR THE CLIMATE ZONE IN WHICH THE COMPACT WILL BE INSTALLED. PROVIDE EQUIPMENT SUBMITTALS TO USPS FOR REVIEW AND APPROVAL.
ALL WALL MOUNTED THERMOSTATS, TEMPERATURE SENSORS, AND CO2 SENSORS SHALL BE INSTALLED AT AN ELEVATION OF ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED THERMOSTAT SHALL BE COORDINATED WITH OTHER TRADES FOR A NEAT APPEARANCE.
ALL SUPPLY AIR GRILLES SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED. SHELL CONTRACTOR SHALL PAINT INSIDE EACH RETURN GRILLE'S PLENUM AND DUCT CONNECTION FLAT BLACK TO CONCEAL CONNECTION. COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES. PRIOR TO INSTALLATION, THE SHELL CONTRACTOR IS TO REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR ACTUAL FINAL LOCATIONS OF AIR DEVICES.
SHELL CONTRACTOR SHALL COORDINATE DIFFUSER/GRILLE LOCATIONS WITH STRUCTURE TO ENSURE AIR IS NOT DIRECTLY SUPPLIED OR RETURNED OVER STRUCTURE OR OTHER TRADE COMPONENTS SUCH AS ELECTRICAL CONDUIT, PLUMBING PIPING, ETC... CAUSING DUST ACCUMULATION. DUCTWORK ALONG WITH DIFFUSER/GRILLE LOCATIONS SHALL BE INSTALLED SYMMETRICALLY WITH ANY ADJACENT DUCTWORK/GRILLES. CENTER DIFFUSERS/GRILLES BETWEEN CEILING GRID LINES.
SHELL CONTRACTOR SHALL PROVIDE TESTING AND BALANCING OF THE HVAC SYSTEM(S) MEETING AABC OR NEBB AGENCY REQUIREMENTS. THE SHELL CONTRACTOR SHALL PROVIDE A REPORT TO USPS DURING CLOSEOUT INDICATING THAT THE SYSTEM IS BALANCED TO MEET THE AIRFLOW TO SPACES AS DESIGNATED.
ALL AIR-HANDLING UNITS SHALL BE MECHANICALLY ATTACHED TO OTHER AIR DISTRIBUTION SYSTEM COMPONENTS. AIR-HANDLING UNITS LOCATED OUTSIDE THE CONDITIONED SPACE SHALL BE SEALED USING APPROVED CLOSURE SYSTEMS.
FINISH-OUT CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION OF DUCTWORK, THERMOSTATS/SENSORS, AND AIR DEVICES NOT COVERED IN THE SHELL MECHANICAL DRAWINGS.
SHELL CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND/SUPPORT MECHANICAL EQUIPMENT AND MATERIALS.
PROVIDE A TRAP IN ALL CONDENSATE PIPING LOCATED AT THE AIR HANDLING EQUIPMENT. INSULATE ALL CONDENSATE LINES WITH 1/2" THICK CLOSED CELL FOAM INSULATION. ALL PIPING EXPOSED TO EXTERNAL ELEMENTS SHALL BE JACKETED WITH UV STABILIZED PVC OR ALUMINUM SHEETING.
ALL HVAC EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS UNLESS INDICATED OTHERWISE.
SHELL CONTRACTOR SHALL PROVIDE A PERMANENT/PROFESSIONAL LABEL FOR EACH PIECE OF EQUIPMENT, ASSOCIATED THERMOSTAT(S) AND/OR SENSOR(S).
DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.
ALL EXHAUST DUCTWORK AND OUTSIDE AIR DUCTWORK SHALL BE SHEETMETAL WITH EXTERNAL WRAP INSULATION TO PREVENT SWEATING IN COLD WET WEATHER.
FLEXIBLE DUCT SHALL HAVE CONTINUOUS TEAR RESISTANT LNER ENCASED BY INSULATING MATERIAL WITH AN OUTER VAPOR JACKET CONFORMING TO UL181.
COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES.
CLOSE OUT DOCUMENTS: SHELL CONTRACTOR AND FINISH-OUT SITE CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS AND KEEP CURRENT DURING CONSTRUCTION OF THE PROJECT. IT IS TO INCLUDE ALL MODIFICATIONS AND CLARIFICATIONS. THIS SET TOGETHER WITH ALL SHOP DRAWINGS SHALL BE TURNED OVER TO THE ARCHITECT/ENGINEER AFTER CONSTRUCTION COMPLETION.

MECHANICAL LEGEND

- ☒ SUPPLY GRILLE WITH DAMPER
- ☒ CEILING MOUNTED EXHAUST FAN
- ☒ RETURN OR TRANSFER
- ~ FLEX-DUCT
- ① DIGITAL PROGRAMMABLE THERMOSTAT
- ⊗ DRAWING NOTE
- ├ DUCT TAP
- ┌ SINGLE LINE DUCT
- └ END CAP
- ↔ INDICATES RETURN AIRFLOW
- ↳ 3/4" DOOR UNDERCUT
- SG SUPPLY GRILLE WITH BALANCE DAMPER
- EF EXHAUST FAN
- RG RETURN GRILLE
- TG TRANSFER GRILLE



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Fisher Heck ARCHITECTS

915 SOUTH ST. MARIS STREET SAN ANTONIO, TEXAS FISHERHECK.COM 210-691-1500

PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE

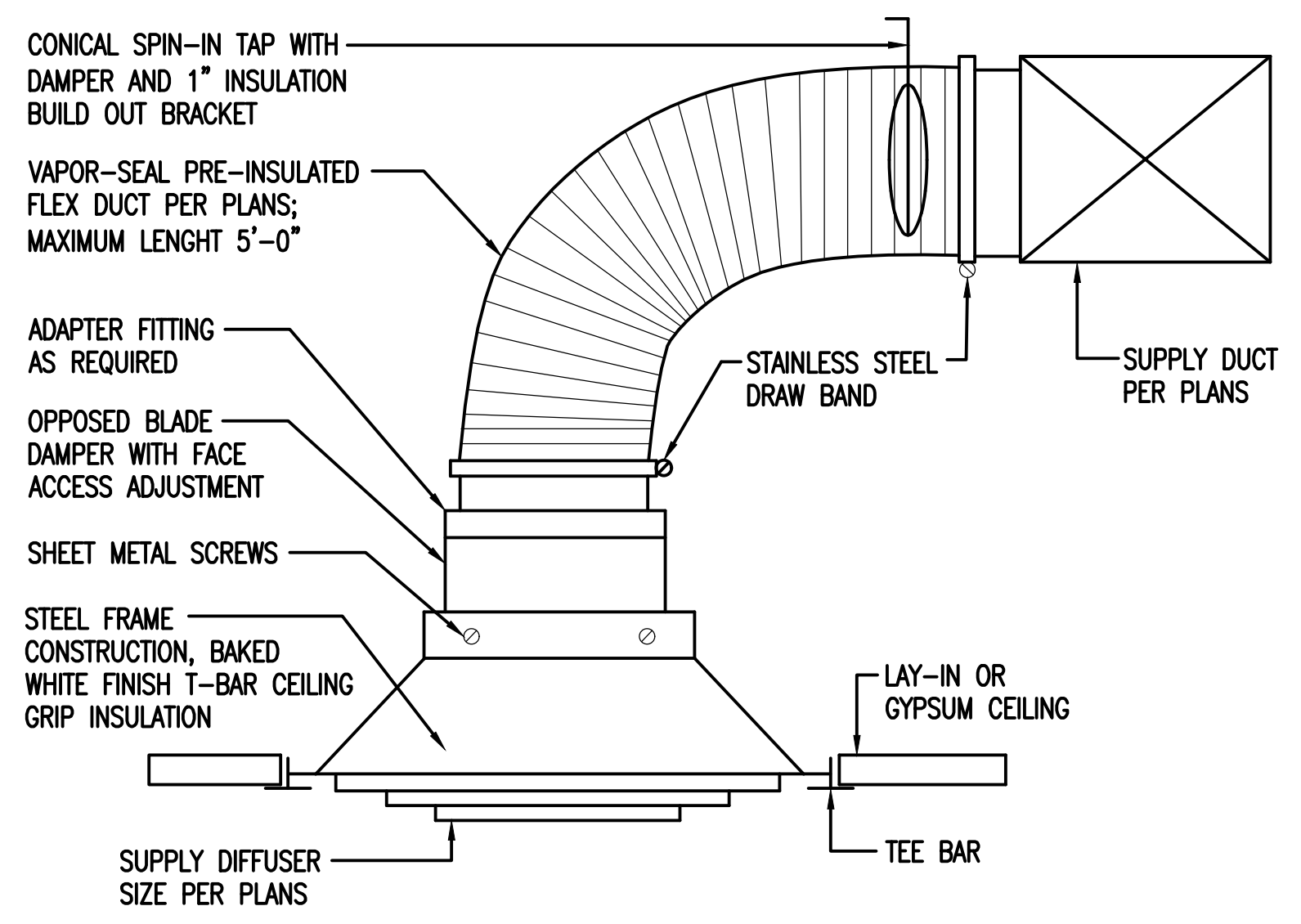
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PROJECT NO: 1921 A1

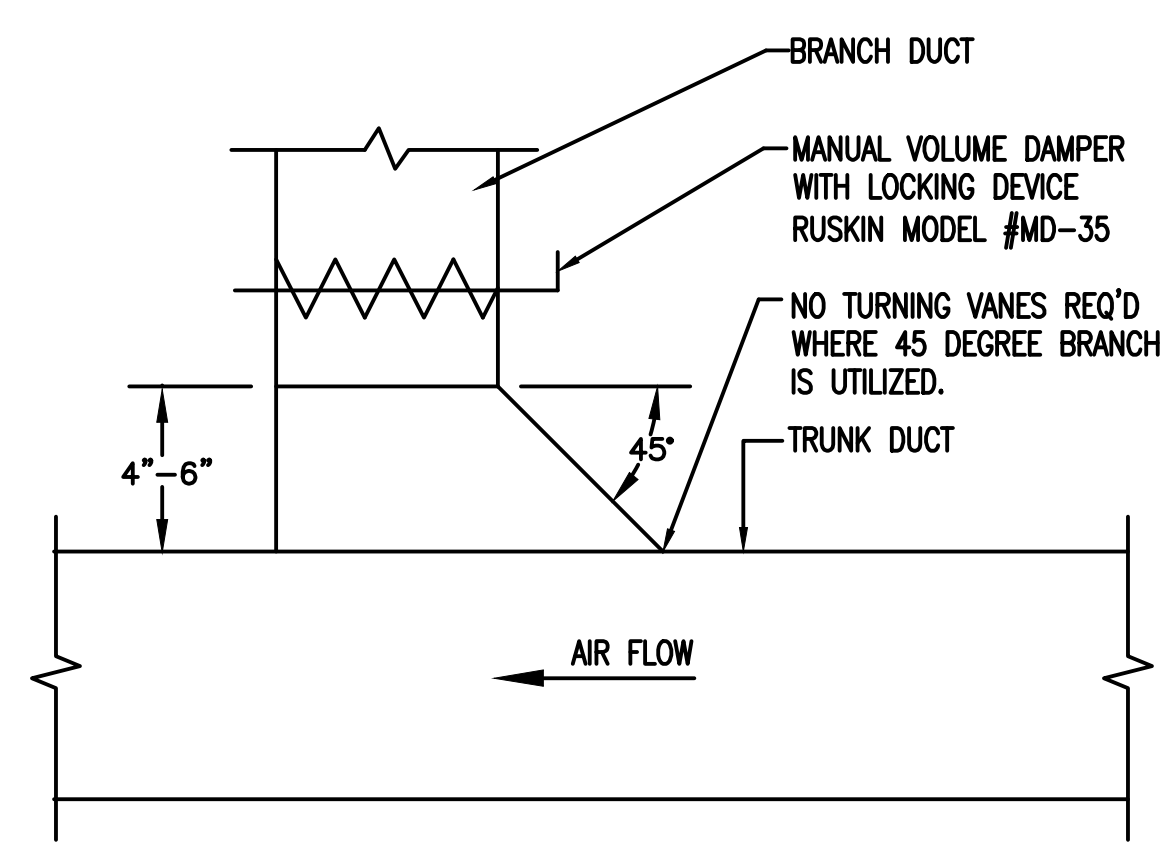
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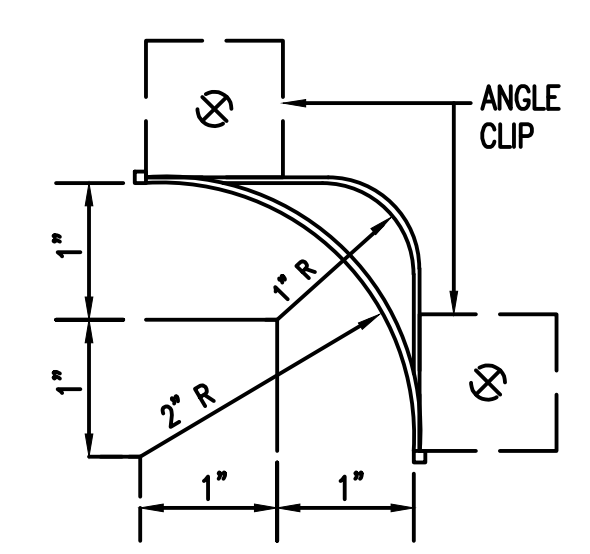
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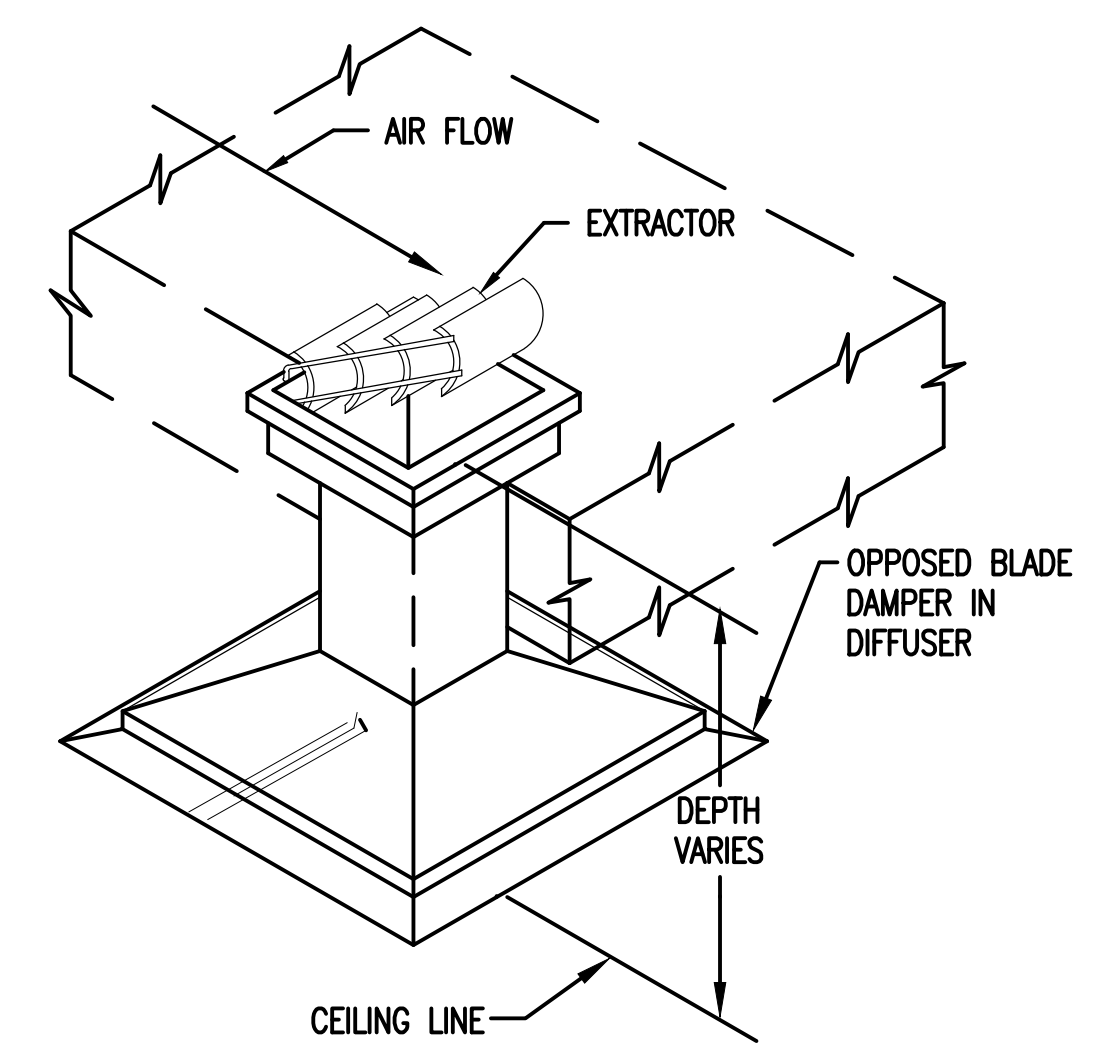
1 FLEX DUCT INSTALLATION
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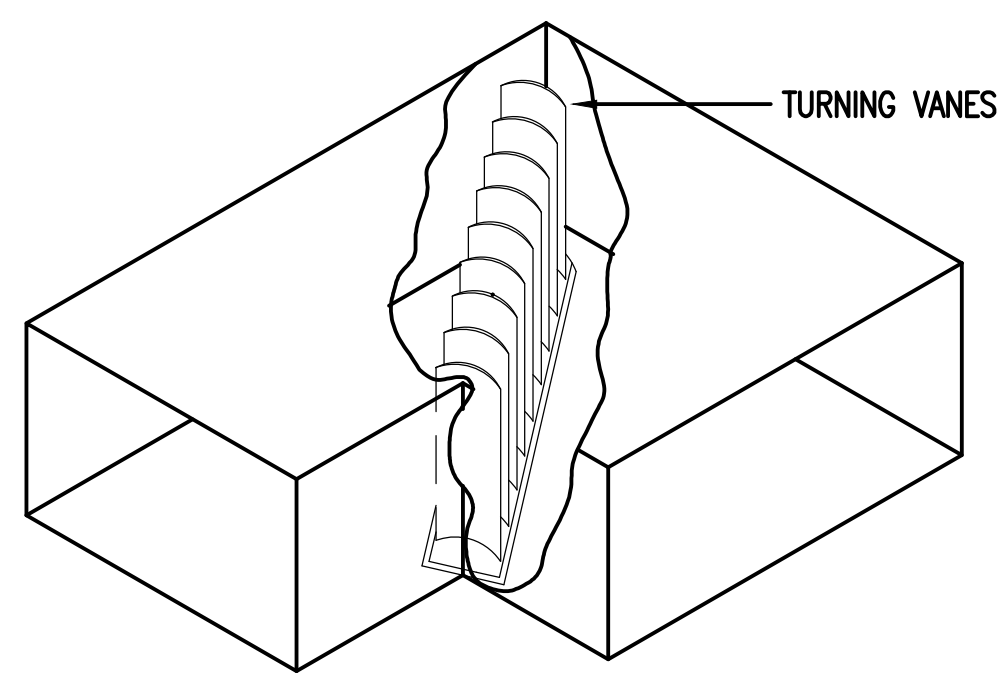
2 BRANCH TAKE OFF
N.T.S.



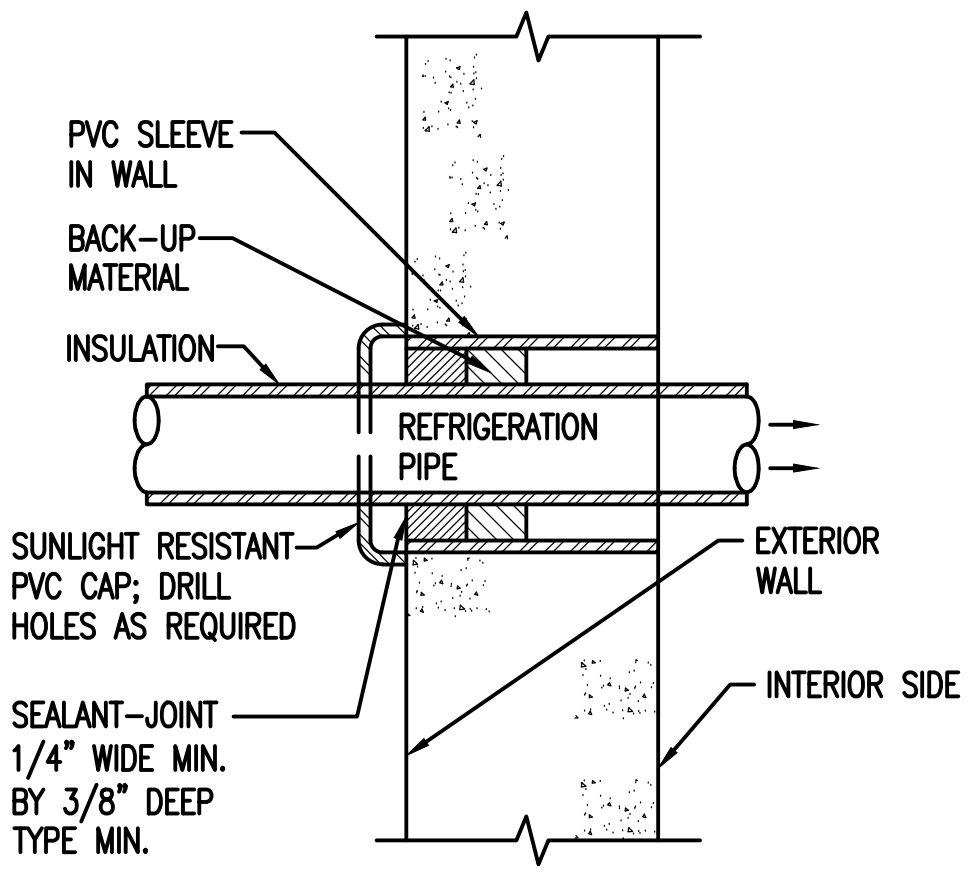
3 TURNING VANE
N.T.S.



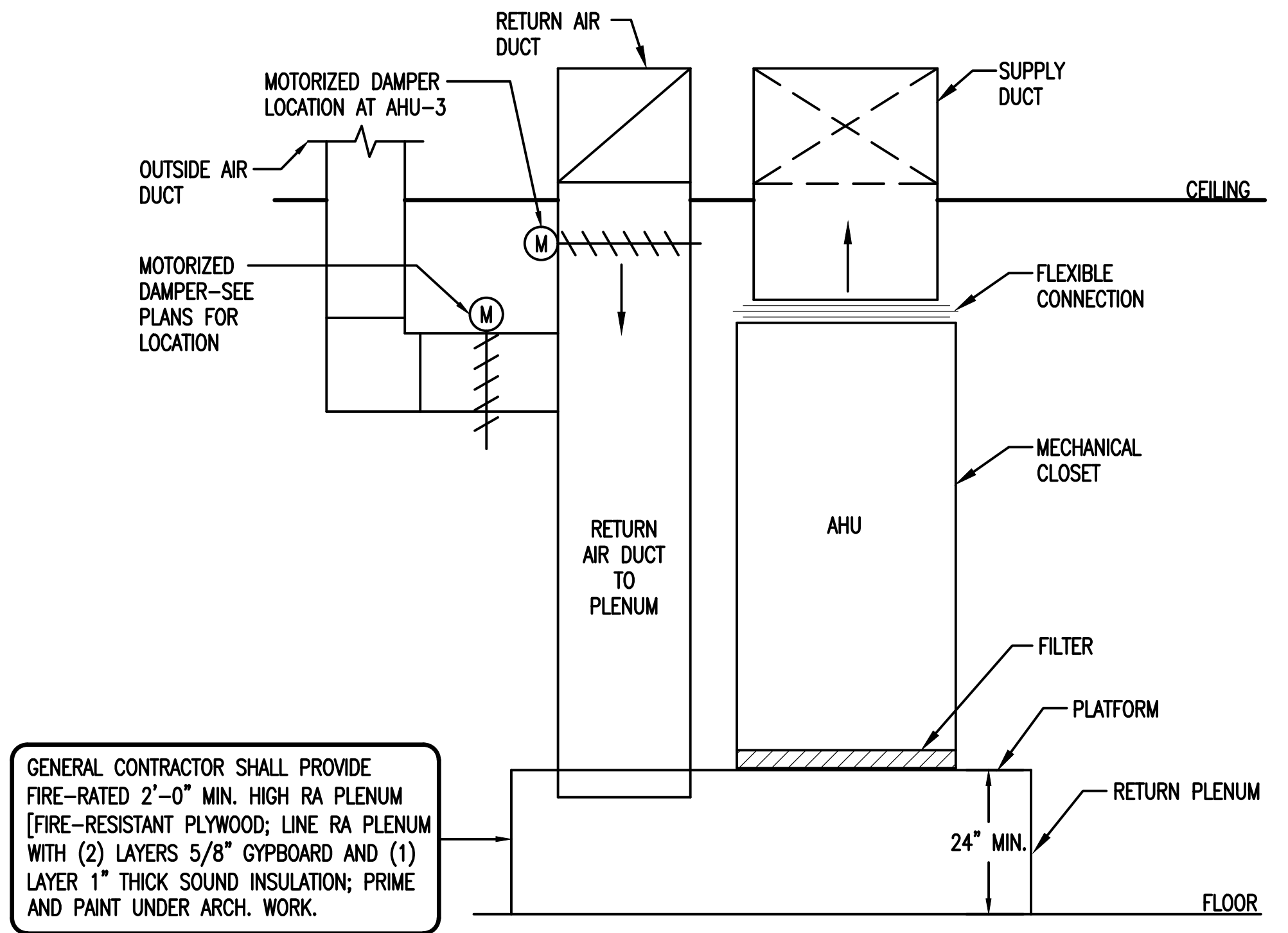
4 DIFFUSER DROP DETAIL
N.T.S.



5 ELBOW DETAIL
N.T.S.

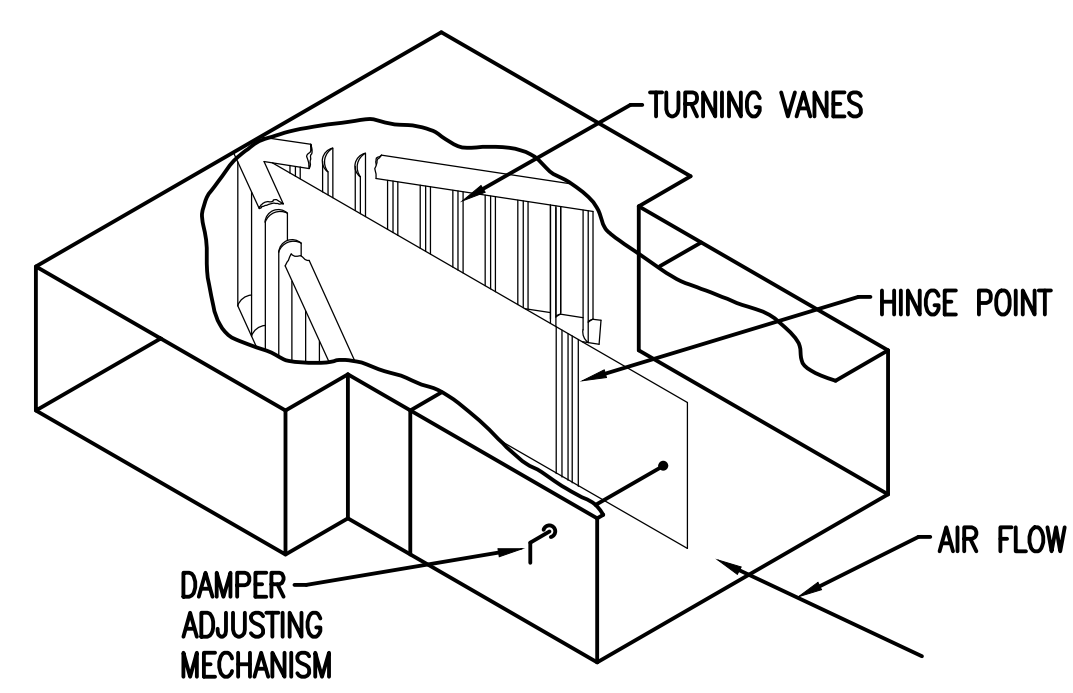


6 PIPE SLEEVE FOR RS/RL PIPE THRU WALL
N.T.S.



GENERAL CONTRACTOR SHALL PROVIDE FIRE-RATED 2'-0" MIN. HIGH RA PLENUM [FIRE-RESISTANT PLYWOOD; LINE RA PLENUM WITH (2) LAYERS 5/8" GYPBOARD AND (1) LAYER 1" THICK SOUND INSULATION; PRIME AND PAINT UNDER ARCH. WORK.]

8 AHU MOUNTING DETAIL
N.T.S.



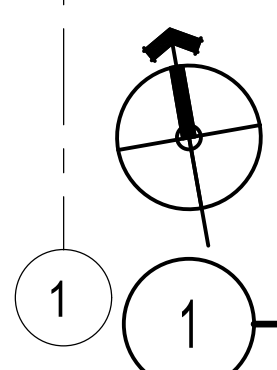
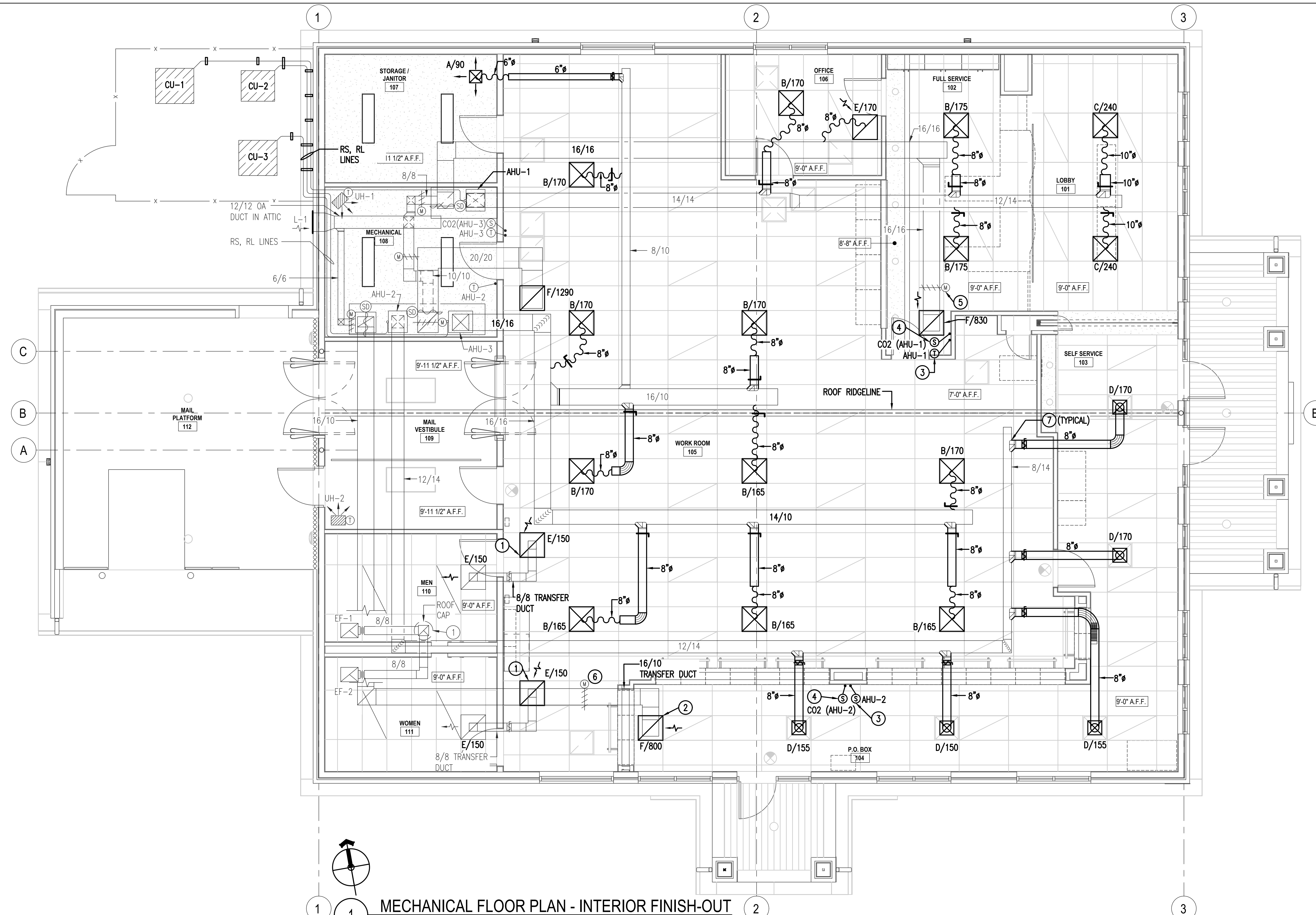
7 SPLITTER DAMPER
N.T.S.



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MECHANICAL FLOOR PLAN - INTERIOR FINISH-OUT

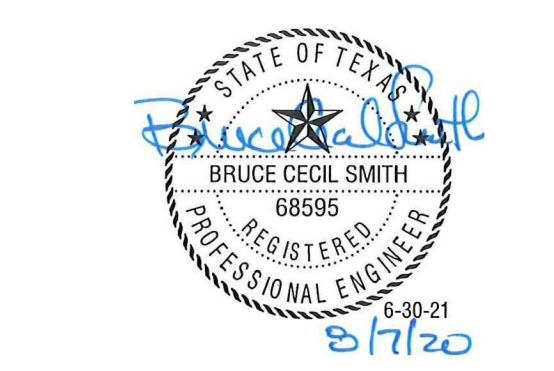
1/4" = 1'-0"
MECHANICAL KEYED NOTES (SHEET MI-101 ONLY):

- ① CONNECT NEW TRANSFER GRILLE TO END OF TRANSFER DUCT. PROVIDE DUCT TRANSITION TO GRILLE DUCT CONNECTION SIZE.
- ② PROVIDE SLEEVE BARRIER GRILLE WITH SECURITY BARS. INSTALL AT PLYWOOD CEILING, INSIDE DUCTWORK BEHIND GRILLE. TITUS# SG-BG-SLV OR EQUAL.
- ③ INSTALL THERMOSTAT/SENSOR ON NEW WALL.
- ④ INSTALL CO2 SENSOR ON NEW WALL.
- ⑤ 650 CFM AT MAXIMUM OA, 830 CFM AT MINIMUM OA.
- ⑥ 725 CFM AT MAXIMUM OA, 800 CFM AT MINIMUM OA.
- ⑦ CONNECT NEW BRANCH DUCT TO MAIN TRUNK DUCTS INSTALLED DURING SHELL CONSTRUCTION PHASE.

GENERAL MECHANICAL NOTES

FINISH OUT CONTRACTOR

1. FINISH OUT CONTRACTOR SHALL PROVIDE SUPPLY/RETURN DUCTS, THERMOSTAT/SENSORS, AND FLEX DUCTS NOT PROVIDED BY SHELL CONTRACTOR.
2. SHELL OUT CONTRACTOR SHALL STARTUP EQUIPMENT, BALANCE AND ENSURE THAT SYSTEM IS OPERATING PER DESIGN REQUIREMENTS.



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AIR DEVICE SCHEDULE									
MARK	CFM RANGE	SUPPLY	RETURN	TRAVEL/ EXH.	NECK SIZE	THROW	DAMPER	LOCATION	REMARKS (TITUS MODEL #)
A	5-105	•			6"ø	3W	YES	SURFACE	TDC, TYPE 1 BORDER; 24"x24" MODULE
B	110-195	•			8"ø	4W	NO	LAY-IN CEILING	TDC, TYPE 3 BORDER; 24"x24" MODULE
C	200-330	•			10"ø	4W	NO	LAY-IN CEILING	TDC, TYPE 3 BORDER; 24"x24" MODULE
D	110-200	•			8"ø	4W	YES	SURFACE	TDC, TYPE 1 BORDER; 12"x12" MODULE
E	0-375	•	•		12"x12"	-	NO	LAY-IN CEILING	350RL, TYPE 3 BORDER 24"x24" FACE
F	780-1410	•	•		22"x22"	-	NO	LAY-IN CEILING	350RL, TYPE 3 BORDER 24"x24" FACE

EQUIVALENT MANUFACTURERS : RUSKIN AND TUTTLE & BAILEY

- GENERAL MECHANICAL NOTES:
- ALL DUCT DIMENSIONS ARE CLEAR INSIDE AIR FLOW DIMENSIONS AND DOES NOT TAKE INTO ACCOUNT DUCT INSULATION THICKNESS.
 - COORDINATE INSTALLATION OF DUCTWORK WITH ELECTRICAL AND PLUMBING CONTRACTORS.
 - EXPOSED SHEET METAL DUCTWORK SHALL HAVE JOINTS SEALED TO PREVENT AIR LEAKAGE AND DUST ACCUMULATION ON DUCTWORK. SEALING SHALL BE BY MASTIC OR GASKETS SUITABLE FOR USE ON DUCTWORK. SEALANT INSTALLATION SHALL NOT BE FORCED OUT OF THE JOINT AND VISIBLE ONCE JOINT CONNECTION IS COMPLETE. ANY MASTIC OR SEALANT THAT IS VISIBLE SHALL BE REMOVED.
 - ALL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY WRAPPED RIGID SHEETMETAL.
 - PROVIDE ALL HANGERS FOR ALL AIR DEVICES AND DUCTWORK IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
 - PROVIDE WRAP AT ALL DUCT CONNECTIONS.
 - FLEXIBLE DUCTS SHALL BE LISTED AND LABELED. FLEXIBLE DUCTS SHALL BE INSTALLED ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND USING APPROVED CLAMPS, HANGERS, AND FITTINGS.
 - ALL AIR DEVICES SHALL BE FURNISHED IN A BAKED OFF-WHITE FINISH UNLESS OTHERWISE NOTED.
 - ALL AIR DEVICES SHALL BE FURNISHED WITH SQUARE-TO-ROUND NECK TRANSITIONS WHEN CONNECTED TO ROUND DUCT.
 - ALL HVAC INSTALLATION SHALL MEET 2015 IMC WITH LOCAL CODE AMENDMENTS.
 - COVER SHARP EDGES OF ALL EQUIPMENT AND SUPPORTS BELOW 8 FEET ABOVE FINISHED FLOOR WITH INSULATING MATERIAL FOR PROTECTION.
 - ENSURE ALL AIR FILTERS ARE REPLACED PRIOR TO FINAL AIR CONDITIONING SYSTEM ACCEPTANCE. PROVIDE AT LEAST ONE SPARE SET OF FILTERS FOR EACH AIR CONDITIONING SYSTEM.
 - IN ORDER TO ALLOW FOR INITIAL OFF-GASSING OF THE FACILITY, SIGNIFICANTLY GREATER LEVELS OF AIR DISTRIBUTION ALONG WITH FRESH AIR INTAKE AND EXHAUST DURING INSTALLATION OF INTERIOR FINISHES AND DURING INITIAL OCCUPANCY MUST BE ATTAINED. THE HVAC SYSTEM MUST BE CONTINUOUSLY OPERATED FOR ONE (1) WEEK PRIOR TO OCCUPANCY WITH MAXIMIZED USE OF OUTSIDE AIR WHILE MAINTAINING THE INDOOR DESIGN CONDITIONS INSIDE THE SPACE. AFTER CONSTRUCTION, TESTING AND BALANCING OF THE HVAC SYSTEM SHALL BE PERFORMED TO ENSURE PEAK PERFORMANCE.

MECHANICAL CONSTRUCTION NOTES:

IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.

EQUIPMENT SUBMITTALS SHALL MEET SCHEDULED DESIGN CHARACTERISTICS FOR THE CLIMATE ZONE IN WHICH THE COMPACT WILL BE INSTALLED. PROVIDE EQUIPMENT SUBMITTALS TO USPS FOR REVIEW AND APPROVAL.

ALL WALL MOUNTED THERMOSTATS, TEMPERATURE SENSORS, AND CO2 SENSORS SHALL BE INSTALLED AT AN ELEVATION OF ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED THERMOSTAT SHALL BE COORDINATED WITH OTHER TRADES FOR A NEAT APPEARANCE.

ALL SUPPLY AIR GRILLES SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED. FINISH-OUT CONTRACTOR SHALL PAINT INSIDE EACH RETURN GRILLE'S PLENUM AND DUCT CONNECTION FLAT BLACK TO CONCEAL CONNECTION. COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES PRIOR TO INSTALLATION. THE FINISH-OUT CONTRACTOR IS TO REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR ACTUAL FINAL LOCATIONS OF AIR DEVICES.

FINISH-OUT CONTRACTOR SHALL COORDINATE DIFFUSER/GRILLE LOCATIONS WITH STRUCTURE TO ENSURE AIR IS NOT DIRECTLY SUPPLIED OR RETURNED OVER STRUCTURE OR OTHER TRADE COMPONENTS SUCH AS ELECTRICAL CONDUIT, PLUMBING PIPING, ETC... CAUSING DUST ACCUMULATION. DUCTWORK ALONG WITH DIFFUSER/GRILLE LOCATIONS SHALL BE INSTALLED SYMMETRICALLY WITH ANY ADJACENT DUCTWORK/GRILLES. CENTER DIFFUSERS/GRILLES BETWEEN CEILING GRID LINES.

SHELL CONTRACTOR SHALL PROVIDE TESTING AND BALANCING OF THE HVAC SYSTEM(S) MEETING AABC OR NEBB AGENCY REQUIREMENTS. THE SHELL CONTRACTOR SHALL PROVIDE A REPORT TO USPS DURING CLOSEOUT INDICATING THAT THE SYSTEM IS BALANCED TO MEET THE AIRFLOW TO SPACES AS DESIGNATED.

FINISH-OUT CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION OF DUCTWORK, THERMOSTATS/SENSORS, AND AIR DEVICES NOT COVERED IN THE SHELL MECHANICAL DRAWINGS.

FINISH-OUT CONTRACTOR SHALL PROVIDE A PERMANENT/PROFESSIONAL LABEL FOR EACH PIECE OF EQUIPMENT, ASSOCIATED THERMOSTAT(S) AND/OR SENSOR(S).

DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.

FLEXIBLE DUCT SHALL HAVE CONTINUOUS TEAR RESISTANT LINER ENCASED BY INSULATING MATERIAL WITH AN OUTER VAPOR JACKET CONFORMING TO UL181.

COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES.

CLOSE OUT DOCUMENTS: SHELL CONTRACTOR AND FINISH-OUT CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS AND KEEP CURRENT DURING CONSTRUCTION OF THE PROJECT. IT IS TO INCLUDE ALL MODIFICATIONS AND CLARIFICATIONS. THIS SET TOGETHER WITH ALL SHOP DRAWINGS SHALL BE TURNED OVER TO THE ARCHITECT/ENGINEER AFTER CONSTRUCTION COMPLETION.

GENERAL NOTES

- MECHANICAL CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE BIDDING/ORDERING AND INSTALLATION
- ALL CONTROL WIRING SHALL BE INCLUDED AS PART OF MECHANICAL WORK. REFER TO ELECTRICAL SPECIFICATIONS FOR CONDUIT AND WIRING REQUIREMENTS. SHELL CONTRACTOR SHALL ENSURE THAT ELECTRICAL INTERFACE DEVICES NECESSARY IN THE ELECTRICAL COMPONENTS ARE COORDINATED WITH THE FINISH-OUT CONTRACTOR (IE SITE VOLTAGE, SITE AMPERAGE, ETC.).
- UNLESS OTHERWISE NOTED MOTOR STARTERS AND DISCONNECTS SHALL BE FURNISHED AND INSTALLED BY SHELL CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE SHELL CONTRACTOR TO PROVIDE A COMPLETE MECHANICAL SYSTEM WHICH CAN BE PROPERLY BALANCED. PROVIDE ALL NECESSARY ACCESSORIES AS REQUIRED. COMPACT MANUFACTURER SHALL COORDINATE WITH FINISH-OUT CONTRACTOR TO ENSURE SYSTEM IS CODE COMPLIANT.
- THE FINISH-OUT CONTRACTOR SHALL UTILIZE COMPONENTS AND MATERIALS PROVIDED BY THE SHELL CONTRACTOR TO MAKE FINAL CONNECTIONS TO THE HVAC EQUIPMENT.
- SHELL CONTRACTOR SHALL PROVIDE ALL MATERIAL AND COMPONENTS WITH MINOR FINAL CONNECTIONS BY FINISH-OUT CONTRACTOR. SHELL CONTRACTOR SHALL BE RESPONSIBLE FOR STARTUP OF EQUIPMENT, BALANCING AND ENSURING THAT SYSTEM IS OPERATING PER DESIGN REQUIREMENTS

MECHANICAL LEGEND

- SUPPLY GRILLE WITH DAMPER
- CEILING MOUNTED EXHAUST FAN
- RETURN OR TRANSFER
- FLEX-DUCT
- DIGITAL PROGRAMMABLE THERMOSTAT
- DRAWING NOTE
- DUCT TAP
- SINGLE LINE DUCT
- END CAP
- INDICATES RETURN AIRFLOW
- 3/4" DOOR UNDERCUT
- SUPPLY GRILLE WITH BALANCE DAMPER
- EXHAUST FAN
- RETURN GRILLE
- TRANSFER GRILLE

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ARCHITECTS

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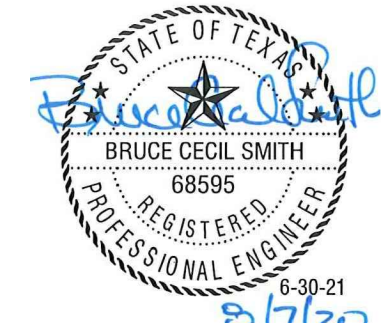
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SHEET TITLE: MECHANICAL SCHEDULES, NOTES, AND LEGEND

PROJECT NO: 1921 A1

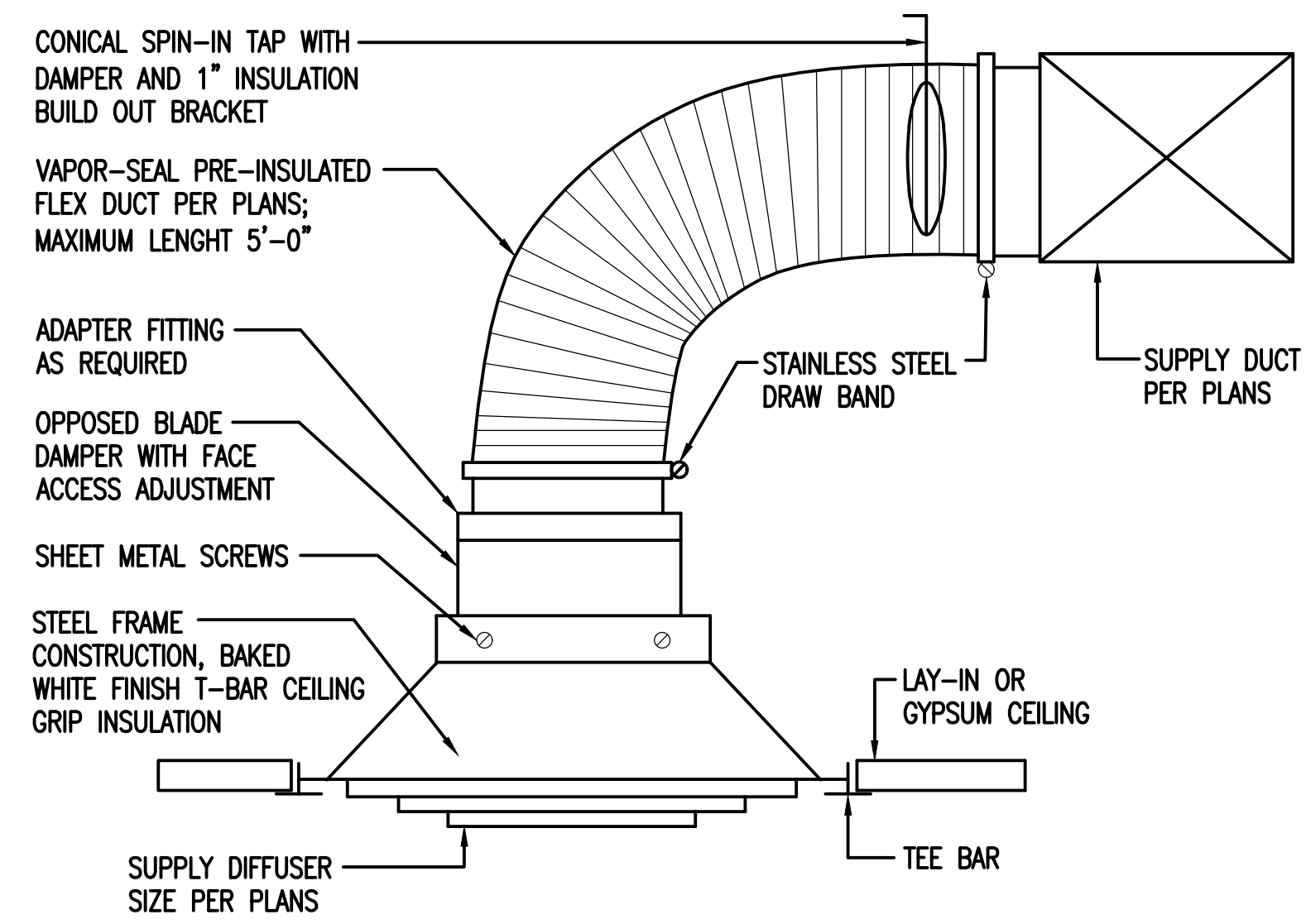
REVISIONS DATE

SHEET NO: MI-201

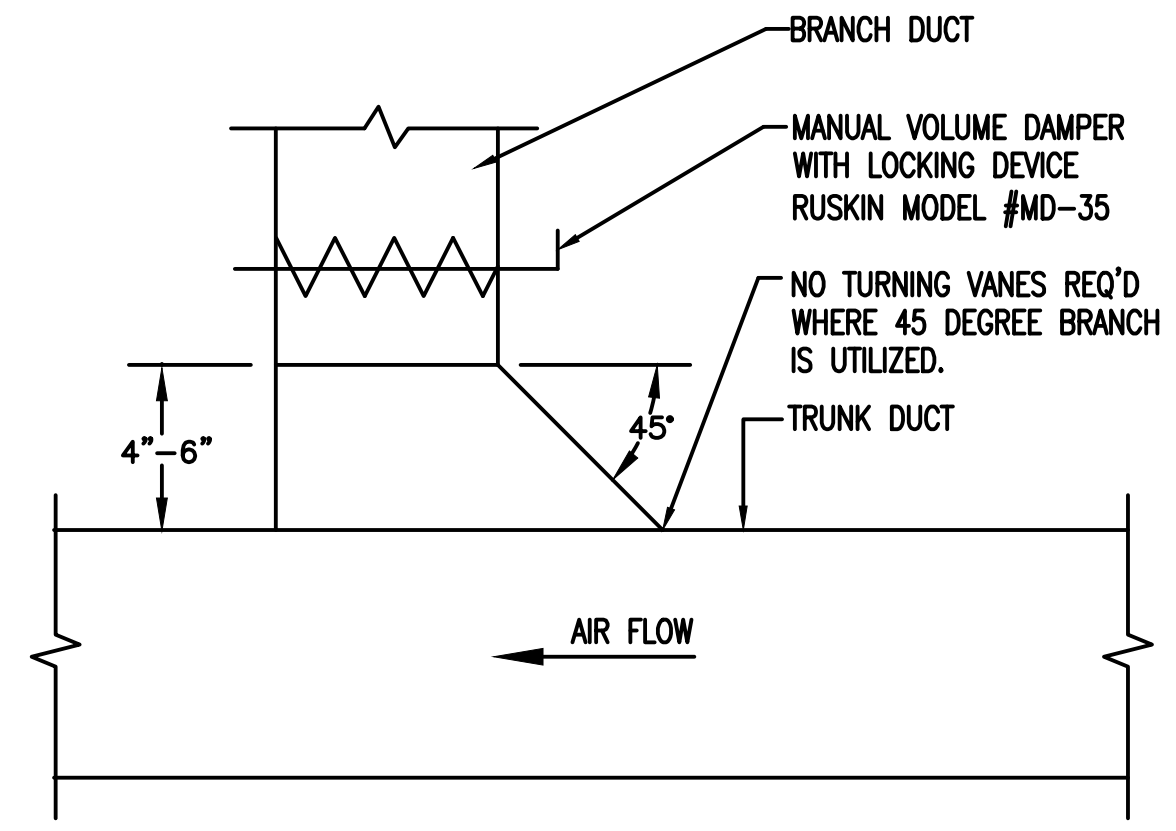


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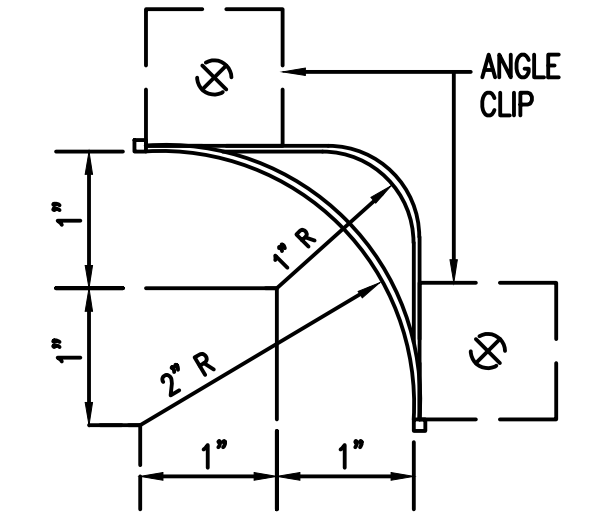
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San Antonio, Texas 78213 F 210.342.3641
TBEF FIRM REGISTRATION NO. F-4137
JOB NO.: 19074



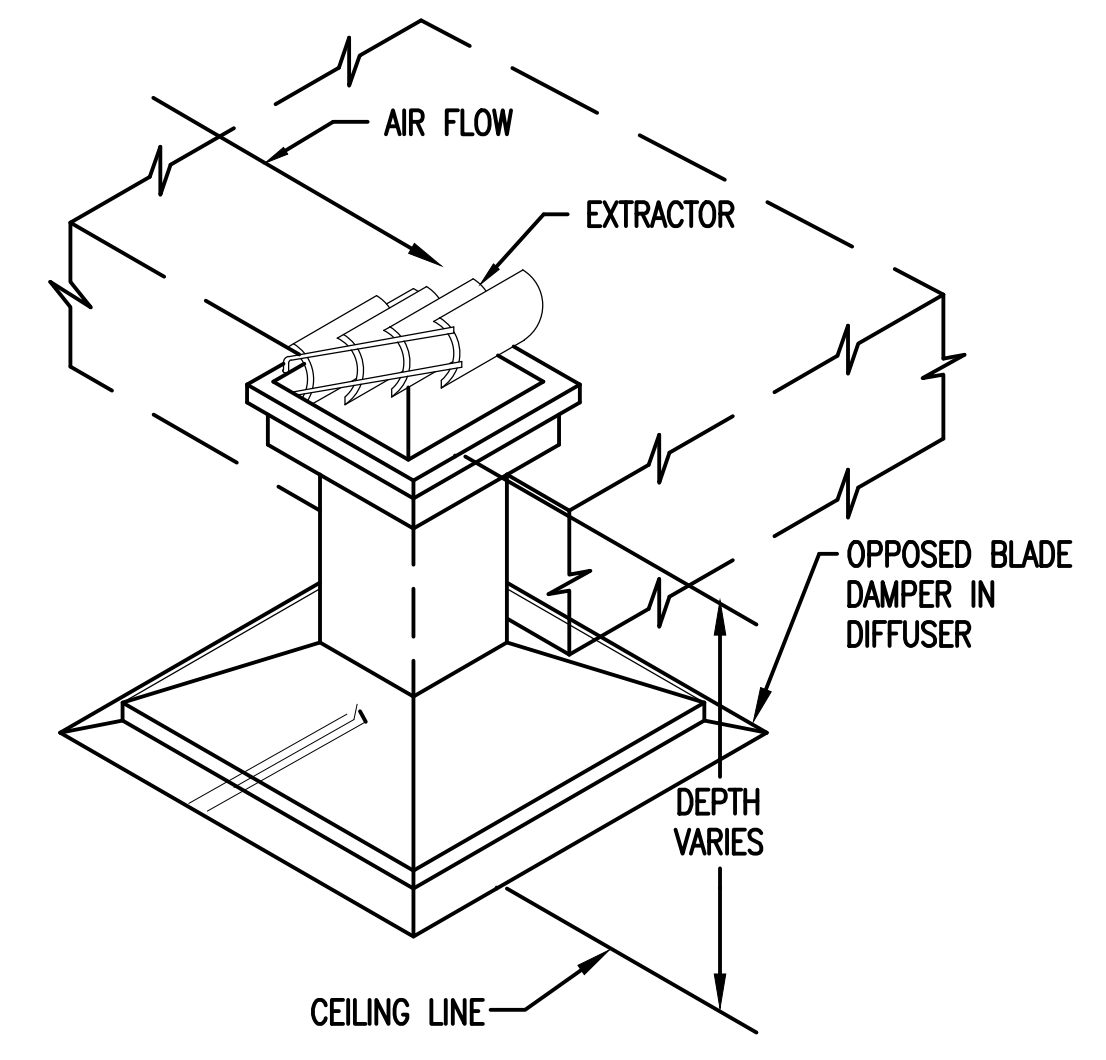
1 FLEX DUCT INSTALLATION
N.T.S.



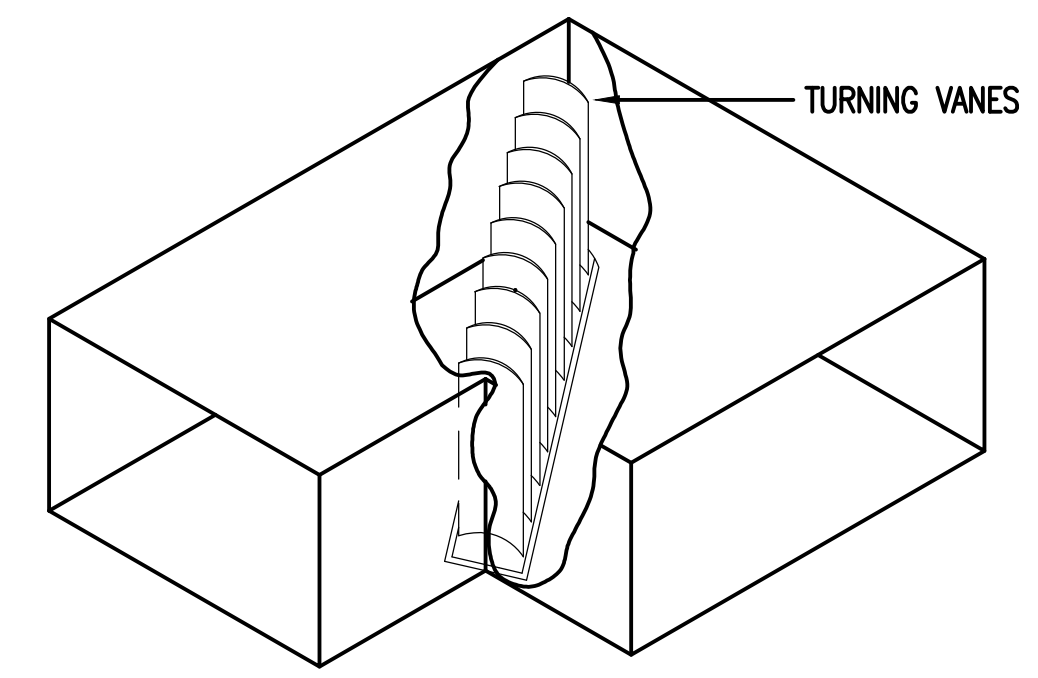
2 BRANCH TAKE OFF
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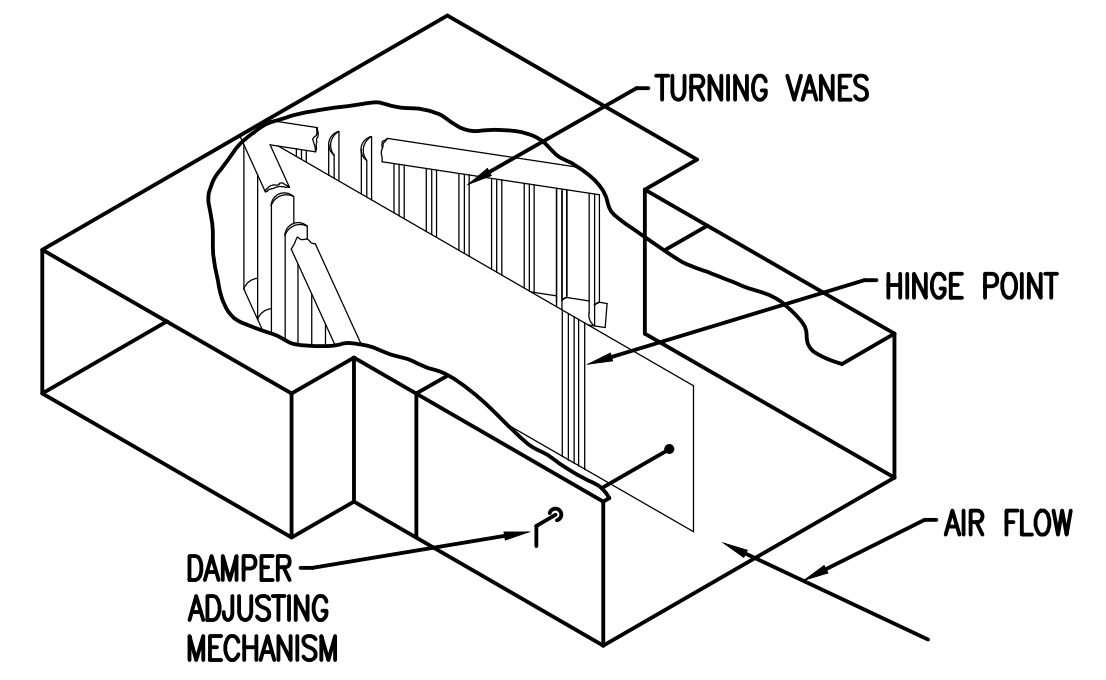
3 TURNING VANE
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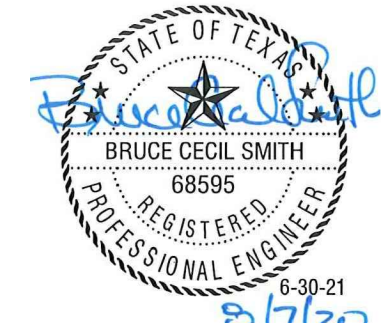
4 DIFFUSER DROP DETAIL
N.T.S.



5 ELBOW DETAIL
N.T.S.

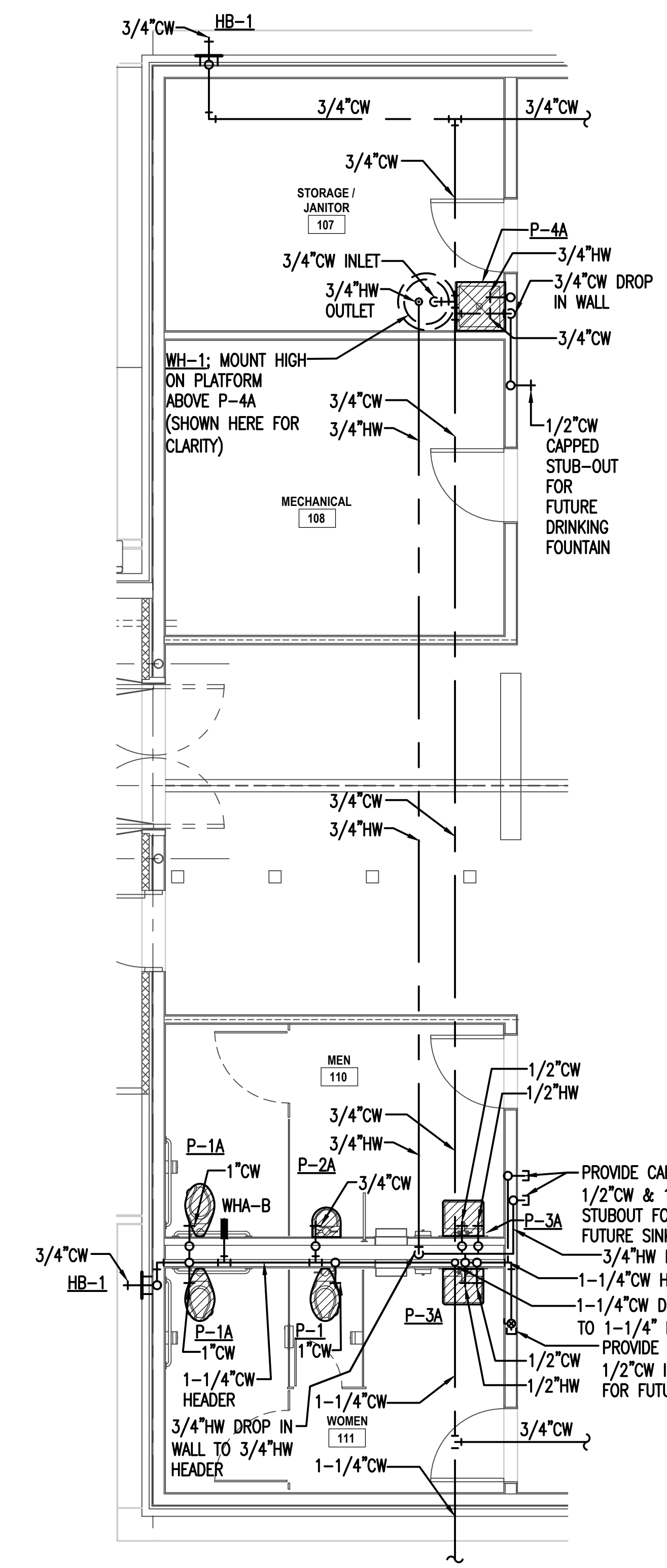


6 SPLITTER DAMPER
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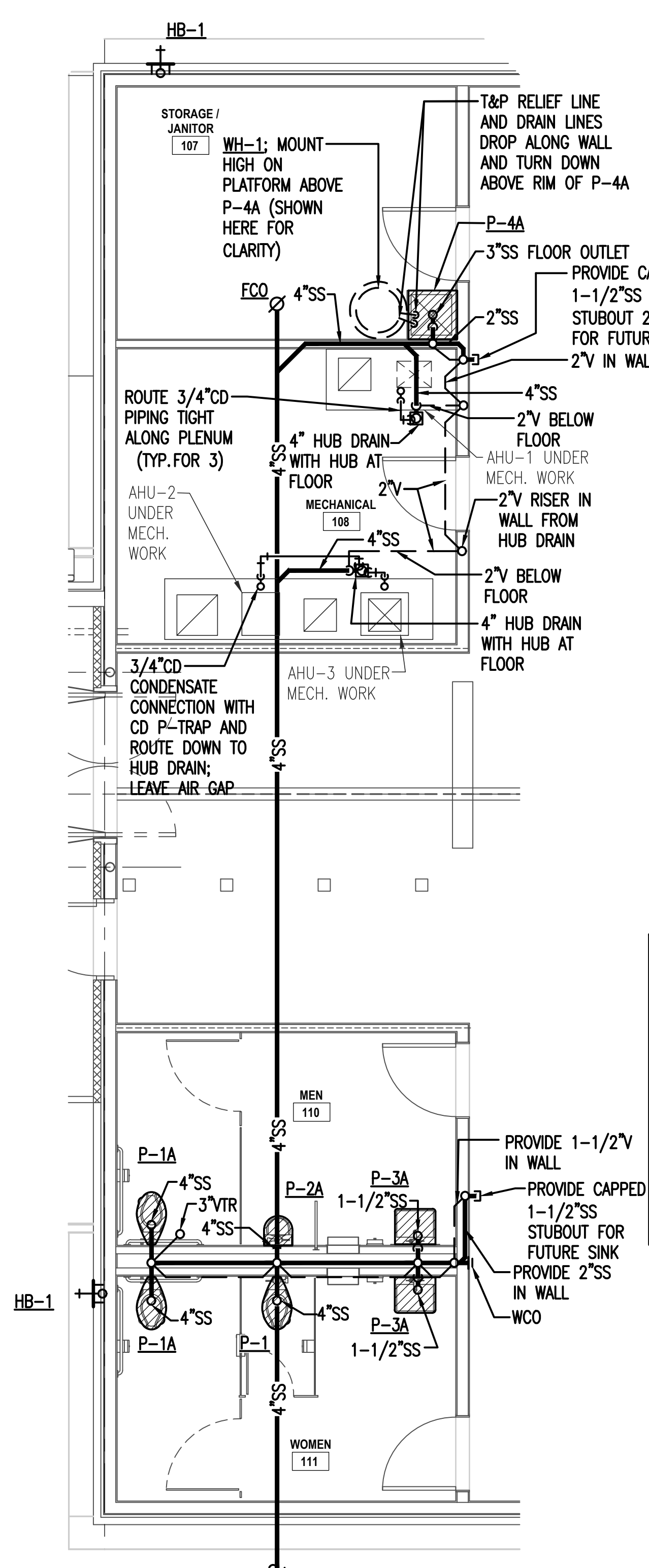


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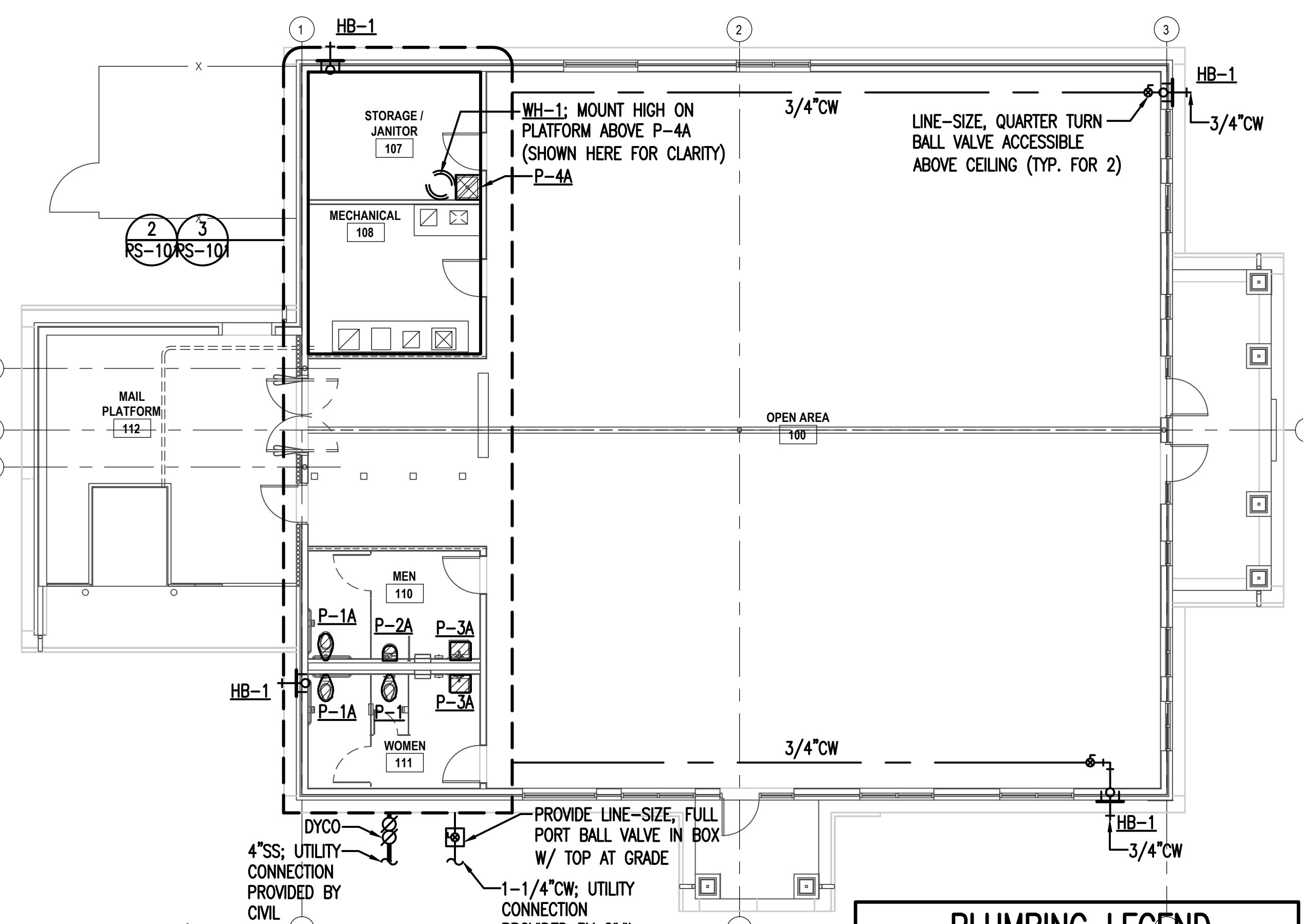
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ENLARGED PLUMBING PLAN - DOMESTIC WATER
1/4" = 1'-0"



ENLARGED PLUMBING PLAN - WASTE AND VENT
1/4" = 1'-0"



PLUMBING FLOOR PLAN - SHELL
1/8" = 1'-0"

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	WASTE	VENT	CW	HW	REMARKS
P-1A, P-1	WATER CLOSET	4"	2"	1/2"	-	-
P-2A	URINAL	3"	2"	3/4"	-	-
P-3A	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	-
P-4A	MOP SINK	2"	1-1/2"	1/2"	1/2"	-
HB-1	NO-FREEZE HOSE BIBB	-	-	3/4"	-	1
WH-1	POINT OF USE WATER HEATER	-	-	3/4"	3/4"	2

NOTES
 1. PROVIDE WITH KEYLOCK.
 2. A.O. SMITH DEL-15, 15 GALLON, 3 KW, 208V, SINGLE PHASE

WATER HAMMER ARRESTER SCHEDULE

"PDI" CROSS REF.	N.P.T.	FIXTURE UNIT CAPACITY	LOCATION	SIoux CHIEF MODEL NO. OR EQUAL	REMARKS
AA	1/2"	1-4	ACCESSIBLE VIA ACCESS PANEL	660	PISTON OPERATED, MAINTENANCE FREE, MIL-D-82036, TYPE II, NON-BLADDER TYPE. PD-WH-201 (R1983)
A	1/2"	5-11		652-A	PISTON OPERATED, MAINTENANCE FREE, MIL-D-82036, TYPE II, NON-BLADDER TYPE. PD-WH-201 (R1983)
B	3/4"	12-32		653-B	PISTON OPERATED, MAINTENANCE FREE, MIL-D-82036, TYPE II, NON-BLADDER TYPE. PD-WH-201 (R1983)
C	1"	33-60		654-C	PISTON OPERATED, MAINTENANCE FREE, MIL-D-82036, TYPE II, NON-BLADDER TYPE. PD-WH-201 (R1983)
D	1"	61-113		655-D	PISTON OPERATED, MAINTENANCE FREE, MIL-D-82036, TYPE II, NON-BLADDER TYPE. PD-WH-201 (R1983)

PLUMBING LEGEND	
MARK	DESCRIPTION
CW	COLD WATER
HW	HOT WATER PIPING (120°)
SS	NEW SANITARY SEWER PIPING
V	VENT PIPING
→	FLOW OR DIRECTION
FCO	FLOOR CLEANOUT
YCO	YARD CLEANOUT
P-X	FIXTURE WITH MARK
⌋	ELBOW DOWN
⌋	ELBOW UP
⌋	ELBOW FITTING
⌋	TEE FITTING
⌋	P-TRAP
FD	FLOOR DRAIN
⌋	BALL VALVE
⌋	HOSE BIBB
⌋	CLEANOUT
⌋	WATER HAMMER ARRESTER (PISTON TYPE)
POC	POINT OF CONNECTION
VTR	VENT THRU ROOF
AP-1	ACCESS PANEL
AC	ABOVE CEILING
BF	BELOW FLOOR

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**

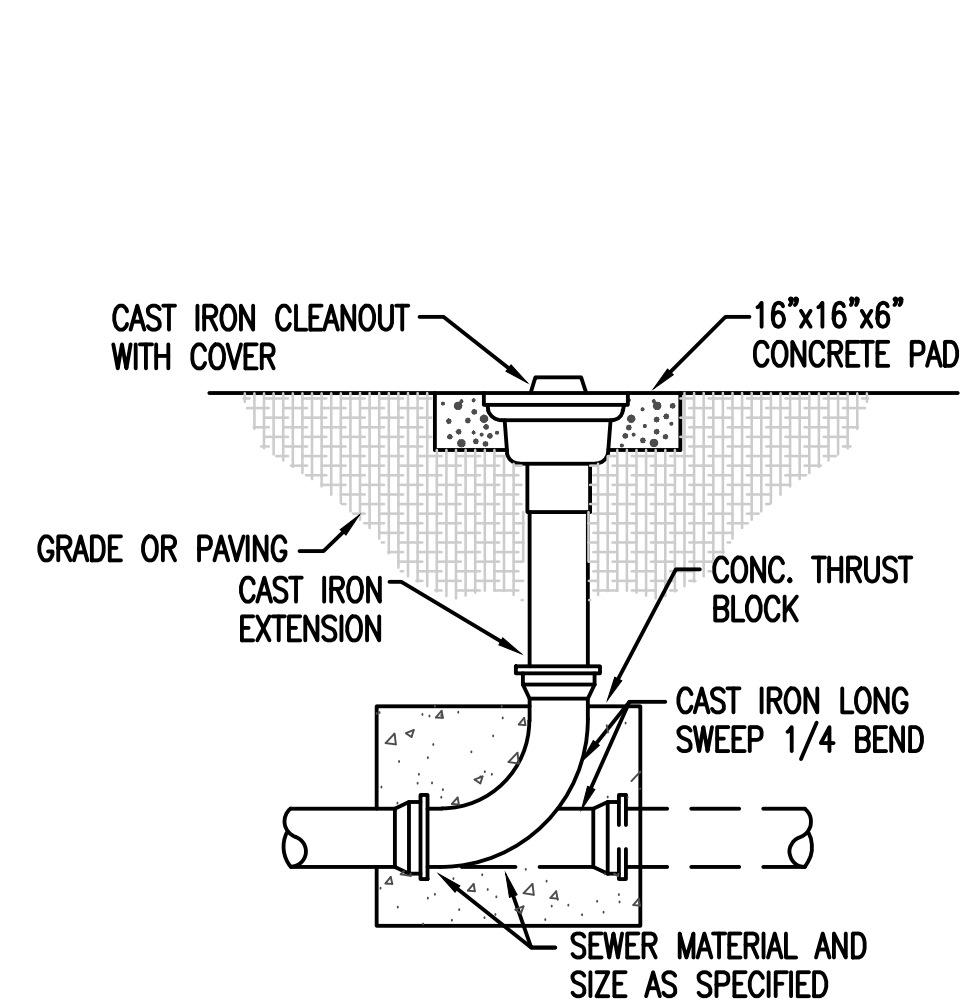
PROJECT NO: 1921 A1

REVISIONS DATE

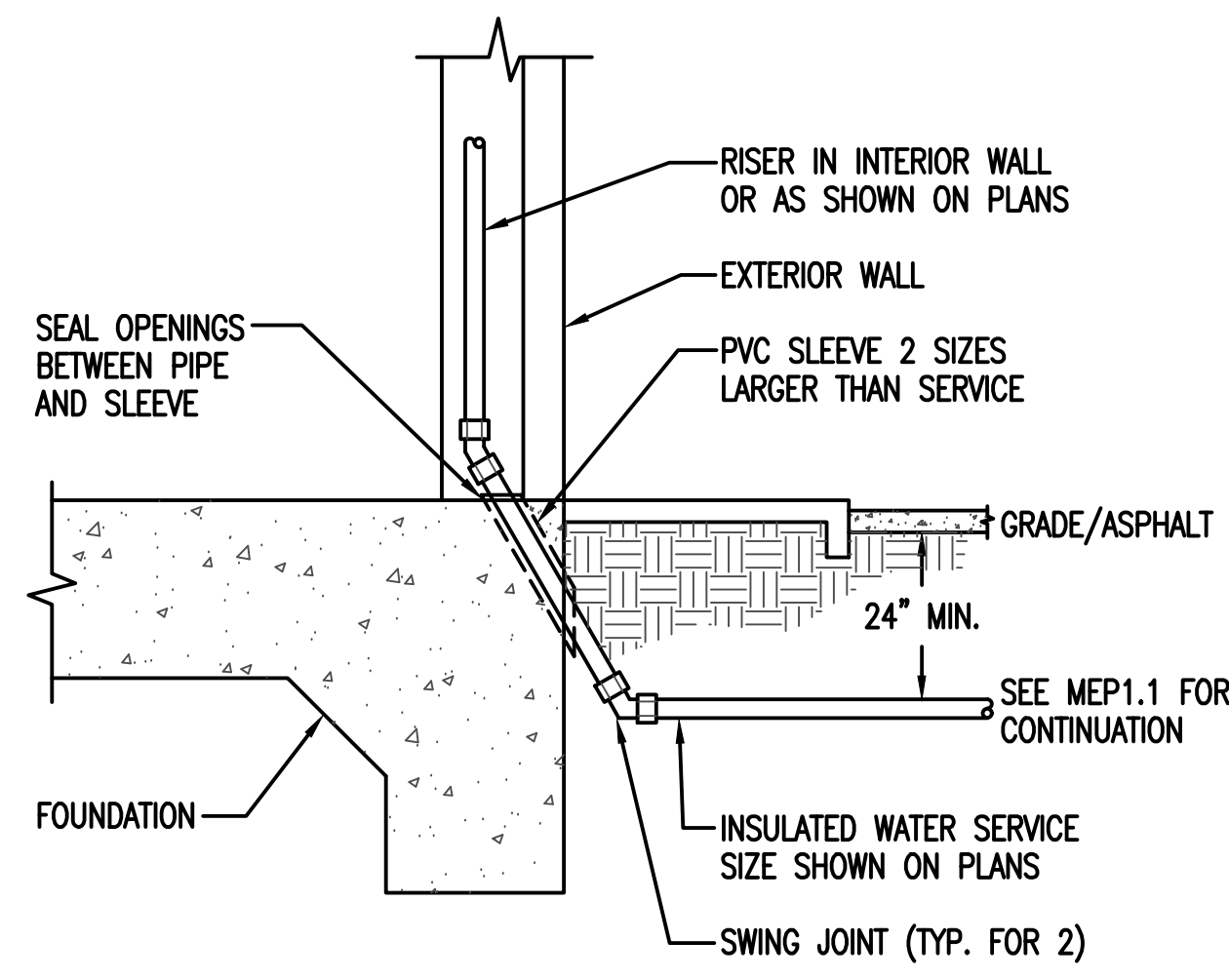
SHEET NO: **PS-101**



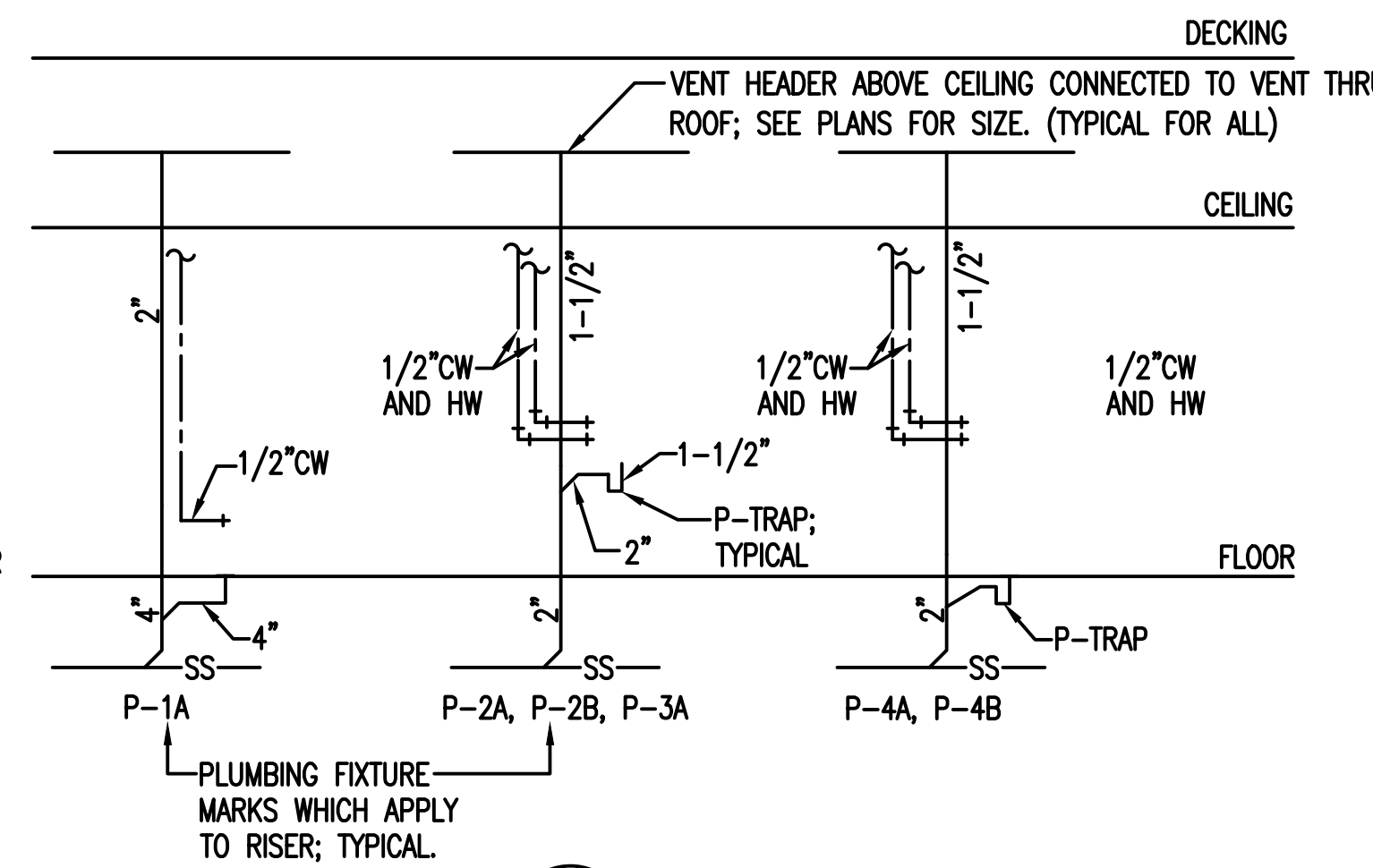
ESA Mechanical & Electrical Engineering, Inc.
 1100 NW Loop 410, Suite 810
 San Antonio, Texas 78213
 210.342.3483
 F 210.342.3641
 TBEF FIRM REGISTRATION NO. F-4137
 JOB NO.: 19074



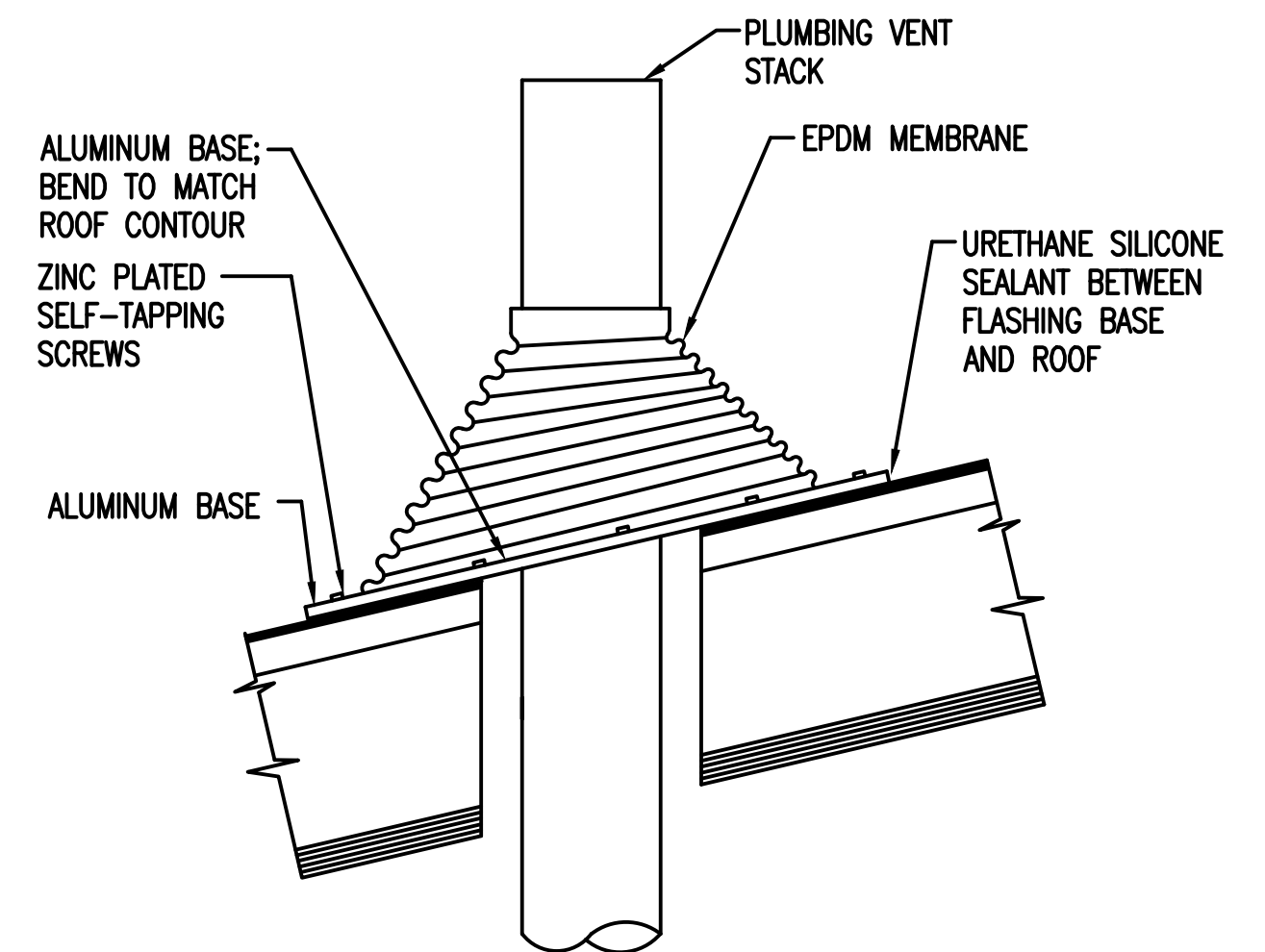
4 YARD CLEANOUT DETAIL
N.T.S.



3 WATER ENTRANCE DETAIL
N.T.S.



2 PLUMBING RISER DIAGRAM
N.T.S.

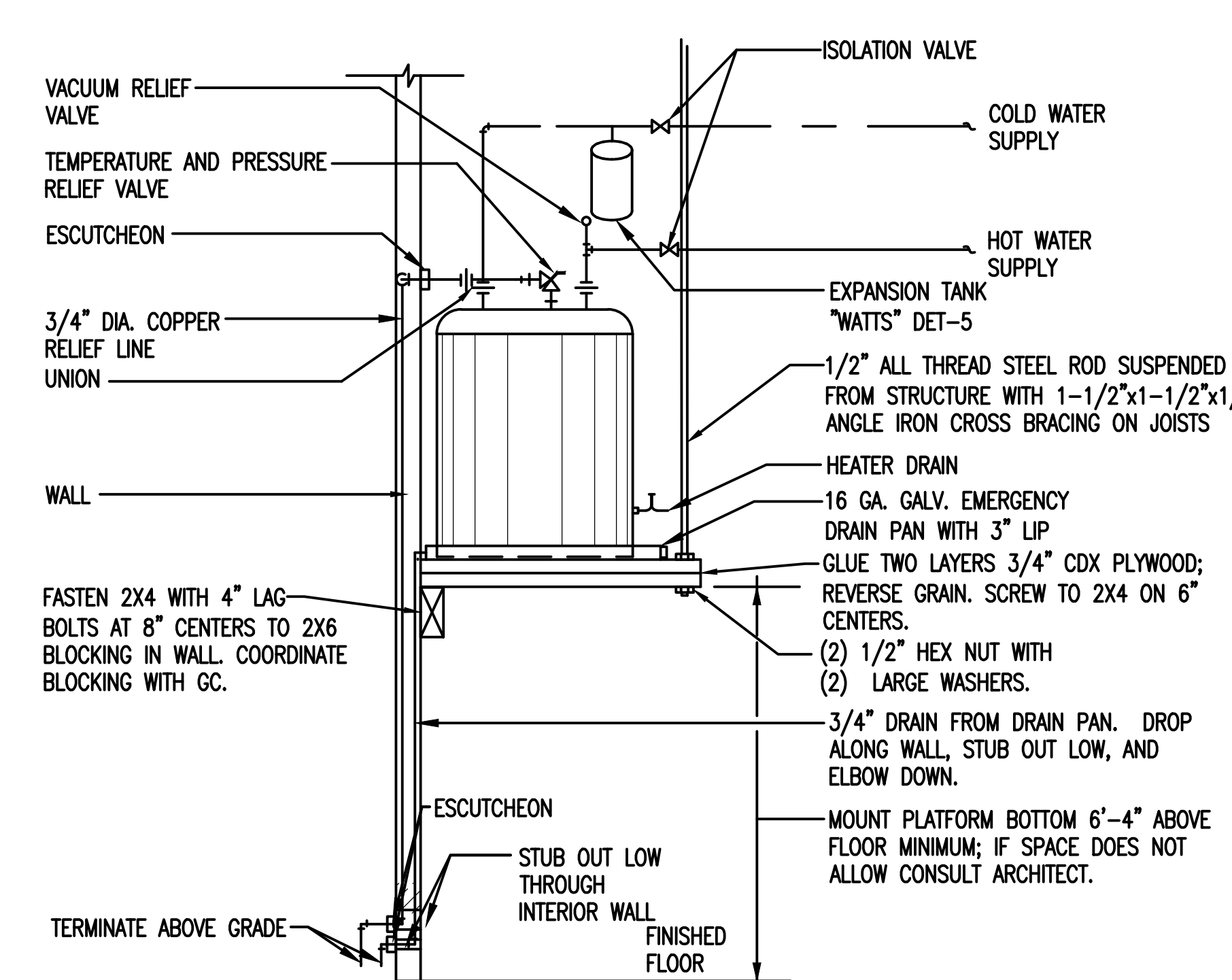


1 VENT THRU ROOF DETAIL
N.T.S.

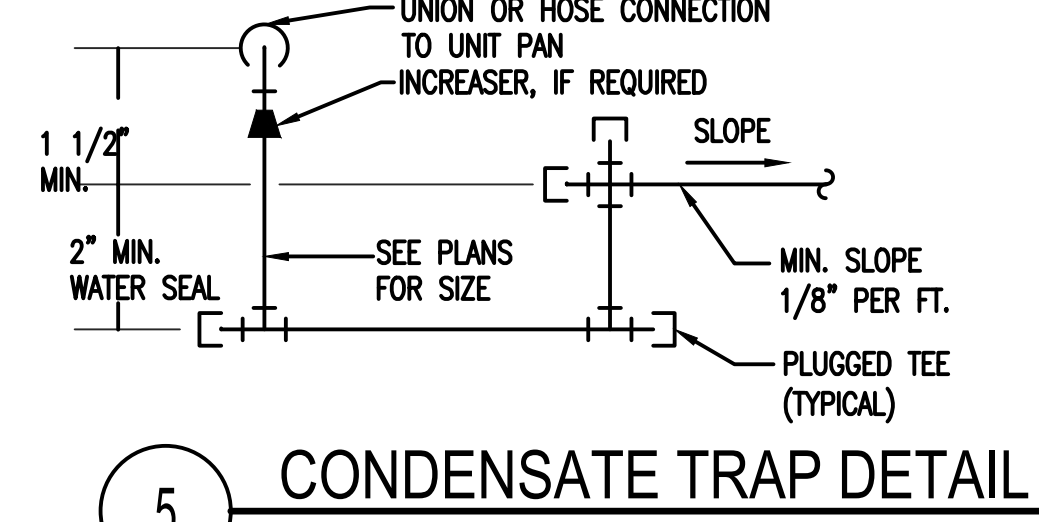
PROJECT: CRYSTAL CITY USPS		PROJECT #: 19074		PLUMBING FIXTURE DEMAND			
DATE: 27-May-20				CW FU		HW FU	
MARK	PLUMBING FIXTURE	QTY	CW FU	HW FU	W FU	TOTAL	TOTAL
		ENTER					
	WATER CLOSET-PUBLIC FV	3	5	0	6	15	0
	URINAL-PUBLIC	7	4	0	3	4	0
	LAVATORY-PUBLIC	2	1	1	2	2	2
	FUTURE BREAK SINK FAUCETS	7	2	2	2	2	2
	MOP SINK-PUBLIC	7	3	3	3	3	3
	FUTURE DRINKING FOUNTAIN	7	0.5	0	2	0.5	0
	FIRST HOSE BIBB	7	2.5	0	0	2.5	0
	ADDITIONAL HOSE BIBBS	3	1	0	0	3	0
						CW FU TOTAL	HW FU TOTAL
TOTAL FIXTURES		13				32	7

WATER CALCULATIONS			
TOTAL WATER FIXTURE UNITS:			32.0
TOTAL DEMAND (GPM):			40.0
BLDG. SERVICE SIZE:			1.3
PRESSURE AVAILABLE MIN.	60	MAX. 80	= 60.00
SAFETY FACTOR: 10%			= -6.00
LOSS AT METER	SIZE(INCH) 1	LOSS:	12 = -12.00
LOSS AT BACKFLOW F	SIZE(INCH) N/A	LOSS:	0 = 0.00
LOSS AT TAP	SIZE(INCH) 1.25	LOSS:	1.23 = -1.23
LOSS DUE TO BLDG. H	HEIGHT(F) 20 x 0.433		= 8.66
PRESSURE REQUIRED FLUSH VALVE = 20 PSI			= -20
PRESSURE AVAILABLE FOR FRICTION LOSS (PSI)			12.11
AVAILABLE PSI:	12.11	100 = PSI/100 FT	6.06
LGTH OF PIPE RUN:	200		

CALCULATION BASED ON A STREET PRESSURE RANGING FROM 60 TO 80 PSI. NOTIFY ENGINEER IF LESS THAN 60 PSI. IF GREATER THAN 80 PSI, PROVIDE AND INSTALL PRESSURE REDUCING VALVE TO LOWER PRESSURE TO 80 PSI.



6 WATER HEATER DETAIL
N.T.S.



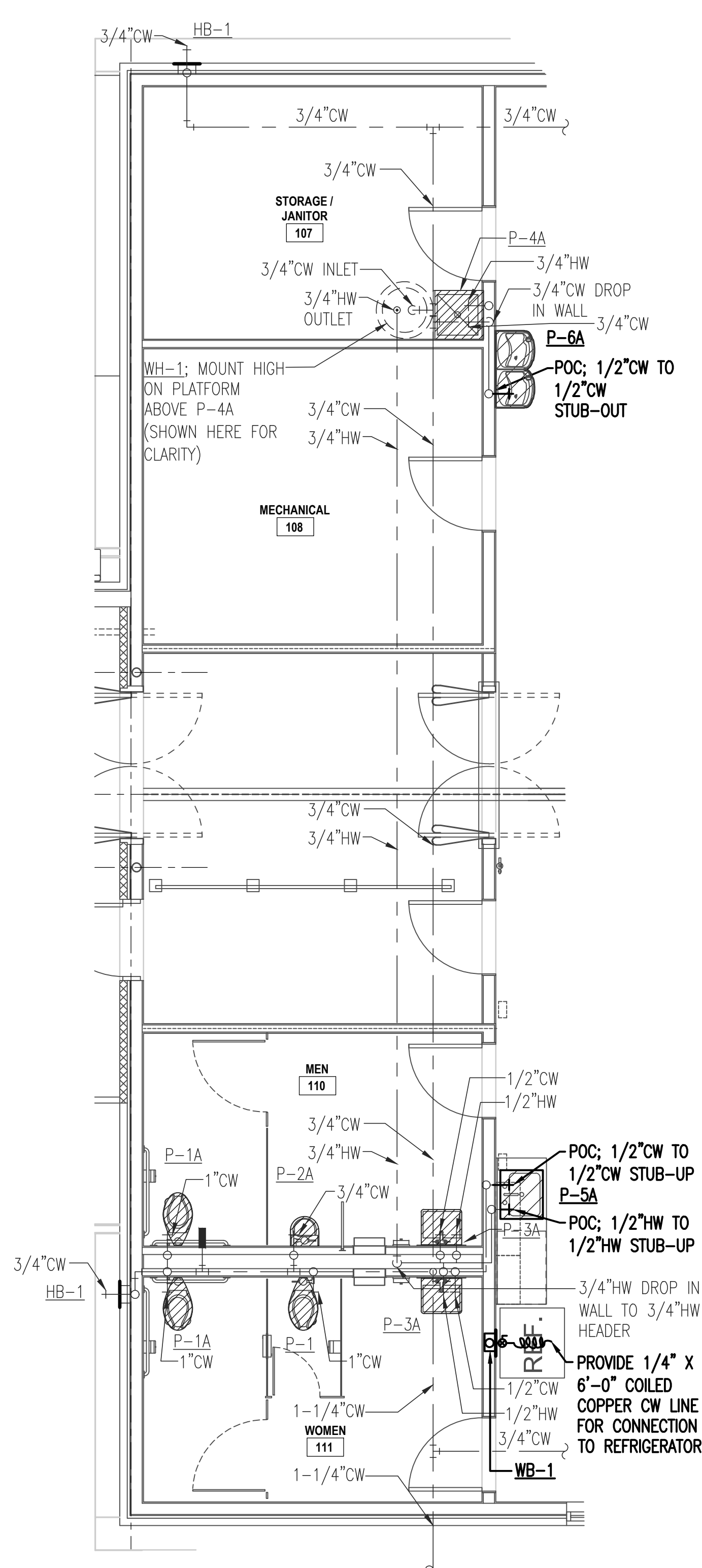
5 CONDENSATE TRAP DETAIL
N.T.S.

- GENERAL PLUMBING NOTES:**
- ALL PLUMBING INSTALLATIONS TO BE MADE IN ACCORDANCE WITH CURRENT A.D.A. CRITERIA.
 - WASTE AND VENT LINES TO BE SCHEDULE 40 PVC.
 - COPPER LINES IN CONCRETE TO BE PROTECTED WITH PLASTIC JACKET.
 - INSULATE ALL HOT WATER, HOT WATER RETURN LINES AND PVC CONDENSATE LINES (INCLUDING LINES RUN ABOVE CEILING) WITH 1" OWENS-CORNING FIBERGLASS ASJ /SSL-11 OR EQUIVALENT FOR PIPE SIZES 1-1/2" AND SMALLER; PROVIDE 1-1/2" THICK INSULATION FOR PIPE SIZES LARGER THAN 1-1/2".
 - ALL PIPING BELOW GRADE SHALL HAVE NO JOINTS BELOW GRADE.
 - ALL CONDENSATE DRAIN LINES SHALL SLOPE AT 1/8" PER FOOT.
 - ALL SANITARY SEWER WASTE LINES SHALL SLOPE AT 1/4" PER FOOT.
 - FIRE-SEAL ALL PIPE PENETRATIONS THRU FIRE-RATED WALLS.
 - ALL INTERIOR CONDENSATE PIPING SHALL BE INSULATED SCHEDULE 40 PVC.
 - ALL EXTERIOR CONDENSATE PIPING SHALL BE TYPE "L" HARD COPPER.
 - DO NOT INSTALL WATER LINES OR VENT LINES ABOVE ELECTRICAL PANELBOARDS. COORDINATE PANELBOARD LOCATIONS WITH ELECTRICAL CONTRACTOR.
 - ALL POTABLE COLD WATER, HOT WATER, AND TEMPERED WATER PIPING SHALL BE HARD COPPER.
 - ALL PLUMBING SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, OR SPECIFICATIONS.
 - ALL FIXTURES SHALL BE PROPERLY VENTED TO THE ATMOSPHERE.
 - REFER TO MECHANICAL SHEETS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND CORRELATE ALL WORK TO FIT AVAILABLE SPACE.
 - FOR INDIVIDUAL LINE SIZES TO FIXTURES SEE PLUMBING FIXTURE SCHEDULE.
 - REFER TO ARCHITECTURAL DRAWINGS FOR ADA MOUNTING HEIGHTS.
 - PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES.
 - ENSURE ALL PEX, PVC, OR PLASTIC PIPING INSTALLED IN ANTICIPATED PLENUM CEILING SPACE ARE WRAPPED WITH AN ASTM E-84 25/50 FLAME SPREAD/SMOKE DEVELOPED TEST COMPLIANT INSULATION.
 - MAINTAIN A MINIMUM OF 10 FEET BETWEEN VTRS AND OUTSIDE AIR INTAKES, RTUS, WINDOWS, ETC.
 - PROVIDE WATER HAMMER ARRESTERS AT SHOWER VALVE UNITS AND LAVATORY SUPPLIES WITHIN WALLS.
 - THE FOLLOWING TYPES OF JOINTS AND CONNECTIONS SHALL BE PROHIBITED: CEMENT OR CONCRETE JOINTS, JOINTS MADE WITH FITTINGS NOT APPROVED FOR THE SPECIFIED INSTALLATION, SOLVENT-CEMENT JOINTS BETWEEN DIFFERENT TYPES OF PLASTIC PIPE, AND SADDLE-TYPE FITTINGS.



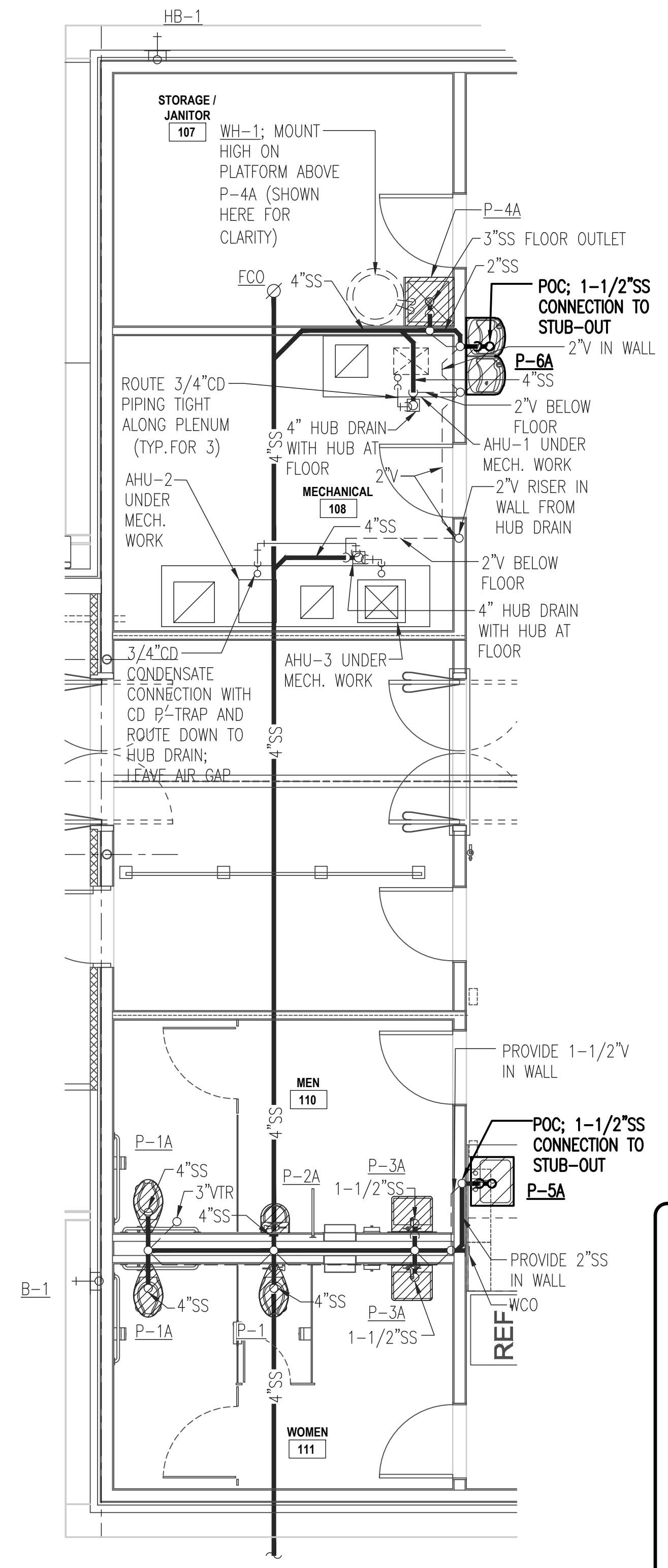
ESA Mechanical & Electrical Engineering, Inc.

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TBEPE FIRM REGISTRATION NO. F-4137
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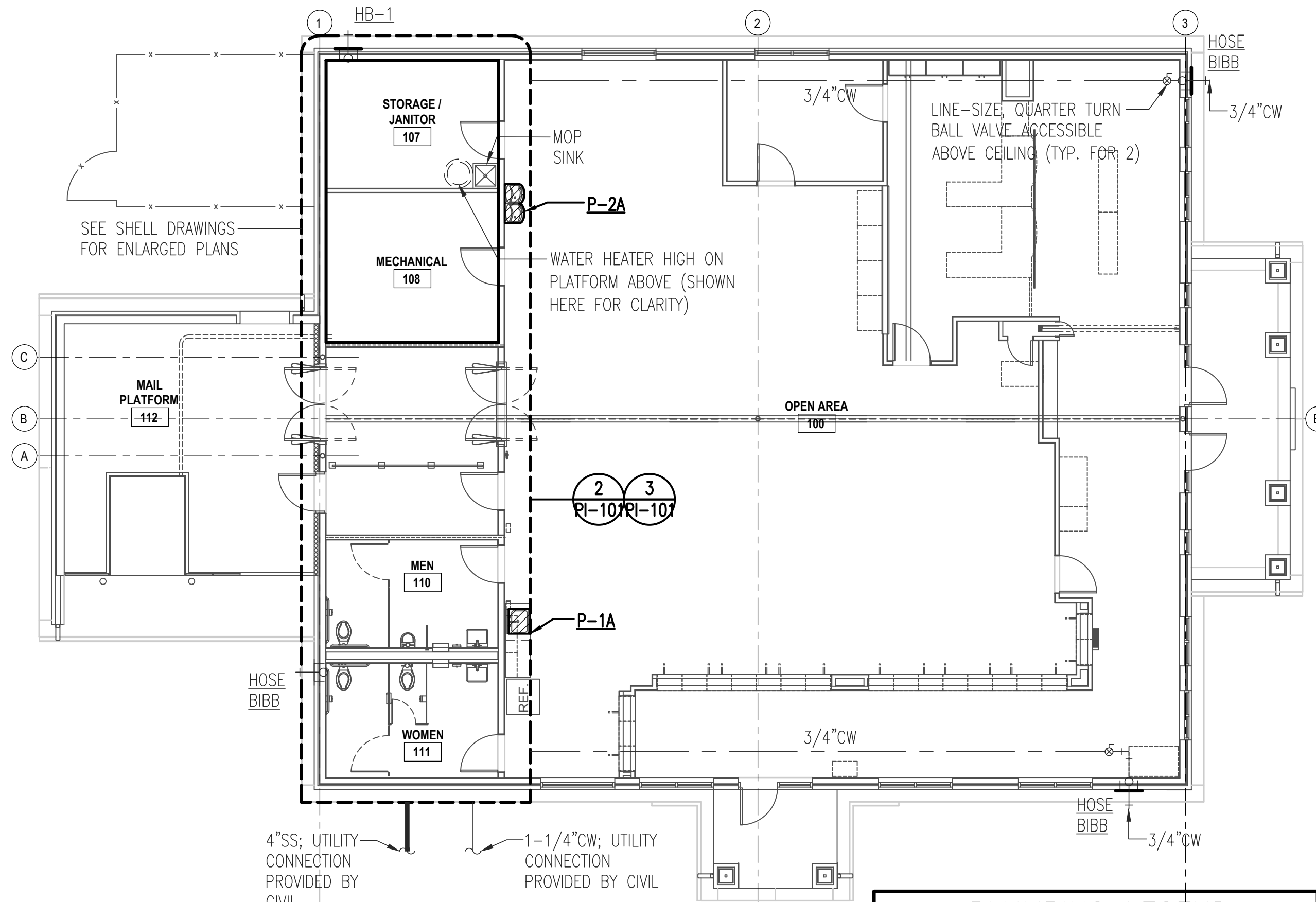
ENLARGED PLUMBING PLAN - DOMESTIC WATER

1/4" = 1'-0"



ENLARGED PLUMBING PLAN - WASTE AND VENT

1/4" = 1'-0"



PLUMBING FLOOR PLAN - INTERIOR

1/8" = 1'-0"

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	WASTE	VENT	CW	HW	REMARKS
P-5A	BREAK SINK	2"	1-1/2"	1/2"	1/2"	-
P-6A	ELEC. DRINKING FOUNTAIN	-	-	3/4"	-	-
WB-1	REFRIGERATOR WALL BOX	-	-	1/2"	-	-

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PLUMBING LEGEND

MARK	DESCRIPTION
CW	COLD WATER
HW	HOT WATER PIPING (120°)
SS	NEW SANITARY SEWER PIPING
V	VENT PIPING
FCO	FLOOR CLEANOUT
YCO	YARD CLEANOUT
P-X	FIXTURE WITH MARK
ELBOW DOWN	ELBOW DOWN
ELBOW UP	ELBOW UP
ELBOW FITTING	ELBOW FITTING
TEE FITTING	TEE FITTING
P-TRAP	P-TRAP
FD	FLOOR DRAIN
BV	BALL VALVE
HB	HOSE BIBB
CO	CLEANOUT
WA	WATER HAMMER ARRESTOR (PISTON TYPE)
POC	POINT OF CONNECTION
VTR	VENT THRU ROOF
AP-1	ACCESS PANEL
AC	ABOVE CEILING
BF	BELOW FLOOR



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LUMINAIRE SCHEDULE					
FIXTURE NO.	DESCRIPTION	LAMPS	MOUNTING	MANUFACTURER / #	REMARKS
(A1)	GENERAL PURPOSE 2'x4' LED INTERIOR TROFFER	3000 LUMENS; 4000K 23.26 WATTS	RECESSED	LITHONIA #ZBLT430LADPEZ1 MVOLTPB40	
(A1E)	GENERAL PURPOSE 2'x4' LED INTERIOR TROFFER, BATTERY PACK	3000 LUMENS; 4000K 23.26 WATTS	RECESSED	LITHONIA #ZBLT430LADPEZ1 MVOLTPB40EL14L	EQUIPPED WITH EMERGENCY BATTERY PACK
(CL1)	4 FT. LONG, LED STRIP LUMINAIRE WITH PROTECTIVE LENS/DIFFUSER	3000 LUMENS; 4000K 25W	SURFACE	LITHONIA #ZLN-L48-3000LM-FST-MVOLT-40K-80CRI	
(CL1E)	4 FT. LONG, LED STRIP LUMINAIRE WITH PROTECTIVE LENS/DIFFUSER, BATTERY PACK	3000 LUMENS; 4000K 25W	SURFACE	LITHONIA #ZLN-L48-3000LM-FST-MVOLT-40K-80CRI -E7W	EQUIPPED WITH EMERGENCY BATTERY PACK
(PL4E)	EXTERIOR WALL LUMINAIRE	LED-18 WATT; 5000K	WALL	KENALL #MR13ELPPM18L50K SCC120LEL (WHITE FINISH)	PROVIDE RECESSED OUTLET BOX & EQUIPPED WITH EMERGENCY BATTERY PACK
(PL5)	EXTERIOR CEILING LUMINAIRE	LED-18 WATT; 5000K	CEILING	KENALL #MR13FLPPM18L50K SCC120LEL	PROVIDE RECESSED OUTLET BOX
(PL5E)	EXTERIOR CEILING LUMINAIRE	LED-18 WATT; 5000K	CEILING	KENALL #MR13FLPPM18L50K SCC120LEL (WHITE FINISH)	PROVIDE RECESSED OUTLET BOX & EQUIPPED WITH EMERGENCY BATTERY PACK
(X1)	BATTERY OPERATED EMERGENCY EXIT LUMINAIRE	LED-2 WATT	CEILING	LITHONIA #LQMS3RELN (WHITE FINISH)	
(SP2)	RECTILINEAR ARCHITECTURAL ARM-MOUNTED FULL CUT-OFF, SOLID STATE, LED LUMINAIRE	LED-138 WATT	POLE ON CONC. BASE	LITHONIA #DSX1LED P540KT3MMVOLT	
(SP3)	RECTILINEAR ARCHITECTURAL ARM-MOUNTED FULL CUT-OFF, SOLID STATE, LED LUMINAIRE	LED-138 WATT	POLE ON CONC. BASE	LITHONIA #DSX1LED P540KT2MMVOLT	
(MH3)	HALF CYLINDER WALL MOUNT FULL CUT-OFF, SOLID STATE, LED LUMINAIRE	LED-48 WATT	WALL	LITHONIA #MRWLEDP3SR340KMVOLT	
(FL1)	GROUND MOUNTED FLOOR LIGHT, SOLID STATE, LED LUMINAIRE	LED	ON CONC. BASE	LITHONIA #DSXF3LED6-X-40K70CRI-X MVOLTHKFDVDBXD	

LOAD ANALYSIS					
PROJECT: USPS MAIN POST OFFICE, CRYSTAL CITY TX.					
AREA (SF): 9,000		VOLTS: 208		THREE PHASE	
LOAD DESCRIPTION	CONNECTED KVA	DIVERSITY	DEMAND KVA		
LIGHTING AND SIGNS:	4	1.25	5		
RECEPTACLES:	10	1.0/0.5	10		
HVAC (HEATING GREATER THAN COOLING):	36	1.00	36		
MISC. MOTORS:	1	1.00	1		
LARGEST MOTOR:	6	0.25	1.6		
WATER HEATING:	3	1.00	3.0		
TOTAL LOAD KVA:			56		
TOTAL AMPS:			157		
SERVICE ENTRANCE SIZE, AMPS:			200		

GENERAL ELECTRICAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEC 2017, AND ANY OTHER APPLICABLE LOCAL ORDINANCES.
- ELECTRICAL PANELS SHALL NOT BE USED AS RACEWAYS.
- ALL WIRE SHALL BE COPPER (#12/AWG. MIN) WITH "THIN"/"THIN" INSULATION, UNLESS OTHERWISE NOTED.
- PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS.
- ALL MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH INDIVIDUAL NEUTRALS. SHARING OF NEUTRALS IS PROHIBITED.
- ALL CONDUITS SHALL BE CONCEALED IN CEILINGS, WALLS OR UNDERGROUND EXCEPT WHERE OTHERWISE SHOWN. CONDUIT SHALL NOT BE ROUTED EXPOSED, UNLESS OTHERWISE SHOWN.
- CROSS-HATCHING DENOTES LUMINAIRE EQUIPPED W/BATTERY PACK (TYPICAL).
- COORD. LUMINAIRE LOC'NS. W/ARCHITECTURAL REFLECTED CLG. PLANS, DUCTWORK, DIFFUSERS, STRUCTURAL BEAMS, ETC. PRIOR TO THEIR INSTALLATION.

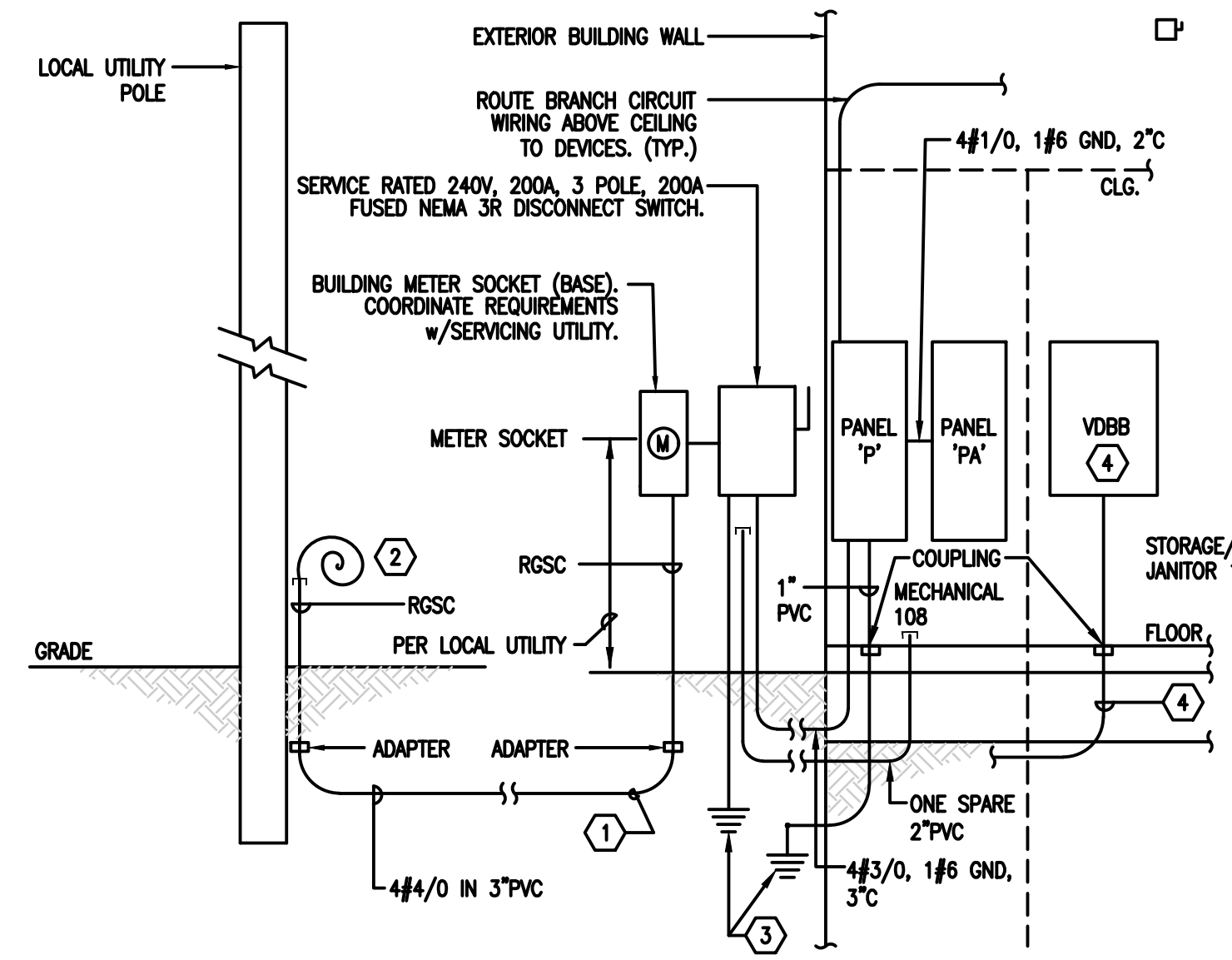
LEGEND AND ABBREVIATIONS

- RECESSED 2'x4' LED LUMINAIRE
- RECESSED 2'x4' LED LUMINAIRE W/INTEGRAL EMERGENCY BATTERY PACK
- RECESSED 1'x4' LED LUMINAIRE
- RECESSED 1'x4' FLUORESCENT LUMINAIRE W/INTEGRAL EMERGENCY BATTERY PACK
- WALL MOUNTED LED LUMINAIRE. ALL EXTERIOR LUMINAIRES TO BE CONTROLLED BY PHOTOCELL AND TIME SWITCH (CLOCK).
- WALL MOUNTED, EXTERIOR LUMINAIRE W/INTEGRAL EMERGENCY BATTERY PACK
- RECESSED LED DOWN LIGHT
- RECESSED LED DOWN LIGHT W/ INTEGRAL EMERGENCY BATTERY PACK
- LED FLOOD LIGHT
- EMERGENCY BATTERY OPERATED EXIT LIGHT
-
-
-
- WIRELESS ACCESS POINT CEILING MTD. PROVIDE (1) RJ45, CAT 6 JACK & ROUTE (1) CAT 6 CABLE, 3/4\"/>
- ELECTRIC MOTOR CONNECTION WITH FLEXIBLE CONDUIT.
-
-
-
- DUAL TECHNOLOGY, 24 VDC, OCCUPANCY SENSOR, CLG. MTD.
-
- BRANCH CIRCUIT PANEL
- FUSED HEAVY DUTY DISCONNECT SWITCH
-
-
-
-
-
-
-
-
-
- ABOVE FINISHED FLOOR
- BALLAST FACTOR
- CIRCUIT
- COPPER
- DISCONNECT
- GROUND, GROUNDING CONDUCTOR
- MAIN CIRCUIT BREAKER
- MOUNTING
- NOT TO SCALE
- NON METALLIC CONDUIT SCHEDULE 40
- RIGID GALVANIZED STEEL CONDUIT
- TOTAL HARMONIC DISTORTION
- UNLESS OTHERWISE NOTED
- WITH
- WEATHERPROOF
- HORSE POWER RATED SWITCH
- VOICE/DATA

PANEL		P		COMMENTS:												
LOCATION:		MECH														
120/ 208		VOLTS, 3 PHASE, 4 WIRE		225 AMP												
CIRCUIT DATA		LOAD		MAIN LUGS ONLY												
NR	WIRE	CONC	C	CB POLE NR	CB TRIP A	CB LOAD VA	PHASE A	PHASE B	PHASE C	CB LOAD VA	CB TRIP A	CB POLE NR	LOAD	OKT NR	CIRCUIT DATA	
3	8	10	3/4"	1	AHU-1	40	3172	6344		3172	40	2	AHU-2	2	3 8 10 10 3/4"	
3	6	10	3/4"	5	AHU-3	60	4306		5717	1411	25	2	CU-1	6	3 10 10 10 1/2"	
3	10	10	1/2"	9	CU-2	25	1200		3221	2021	40	2	CU-3	10	3 8 10 10 3/4"	
4	12	12	1/2"	13	UH-1	15	828	1656		828	15	3	UH-2	14	4 12 12 12 1/2"	
2	12	12	1/2"	19	WATER HEATER	20	1500	3600		2100	35	3	DOCK LIFT-5 HP	20	4 8 10 10 3/4"	
2	10	12	1"	23	POLE LIGHTS	20	345	645		2445	20	1	FLAG LIGHTS	24	2 10 12 12 1"	
2	10	12	1"	27	POLE LIGHTS	20	345		445	100	20	1	MONUMENT SIGN	28	2 10 12 12 1"	
2	12	12	1/2"	31	MECH ROOM AND EXT. RECEPT.	1	20	600		633	288	20	1	BUILDING EXTERIOR LIGHTS	30	2 12 12 12 1/2"
				33	SPARE	1	20			240	20	1	SPARE	32	2 12 12 12 1/2"	
				35	SPARE	1	20			0	20	1	SPARE	34		
				37	PANEL PA	3	150	753		0	20	1	SPARE	38		
				39	SPARE	1	20			460	20	1	SPARE	40		
				41	SPARE	1	20			100	20	1	SPARE	42		
PANEL TYPE :		NEMA 1		TOTAL CONNECTED LOAD		49		KVA		100		% SPARE CAPACITY		20		
MOUNTING :		SURFACE		CONNECTED + SPARE LOAD		59		KVA		100		% DEMAND FACTOR		100		
FED FROM :		SEE RISER		TOTAL DEMAND		59		KVA		136		AMPS CONNECTED		136		
				TOTAL DEMAND, AMPS		16.3		Amps		AT		208		VOLTS		

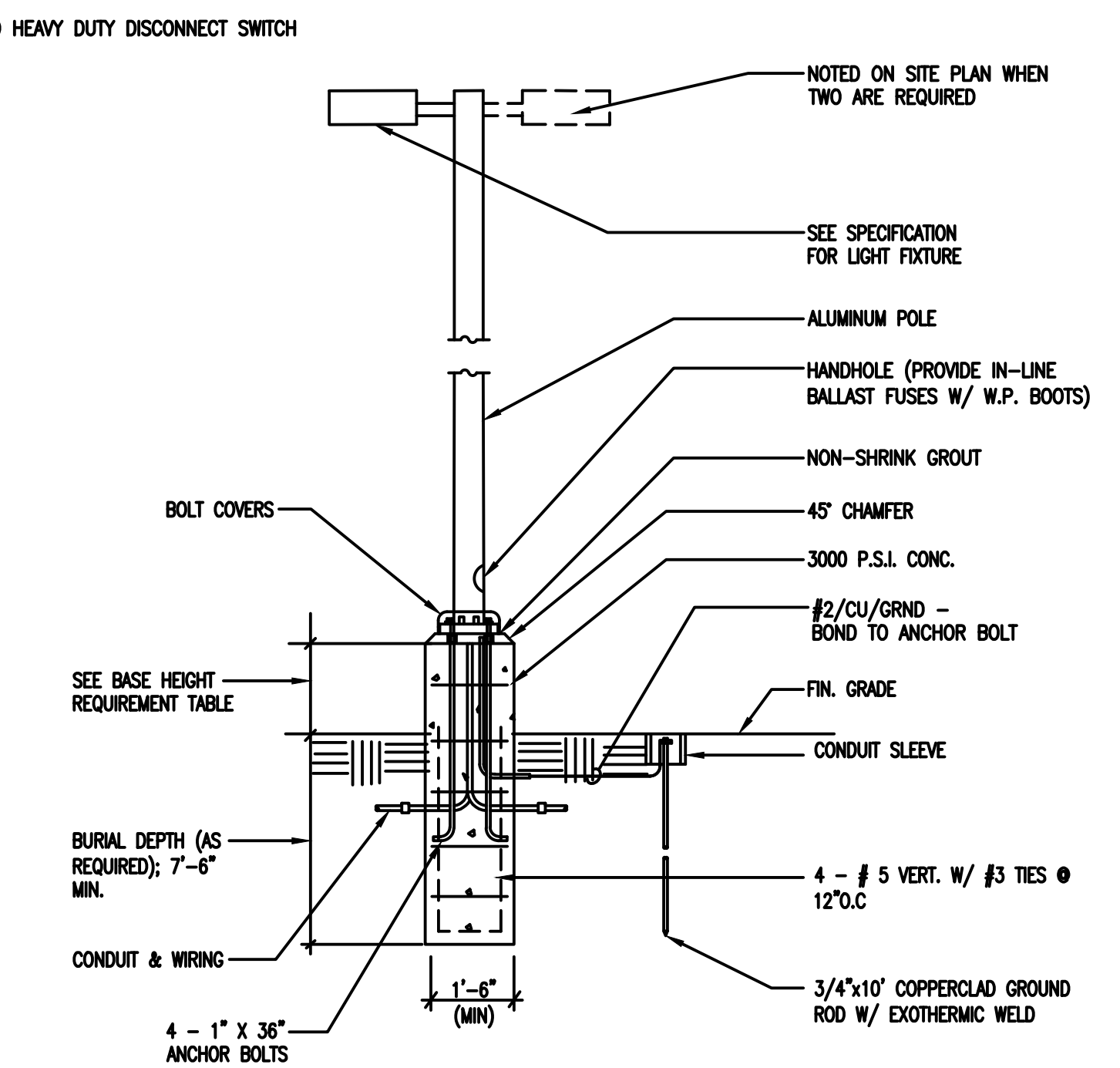
PANEL CIRCUIT DATA NOTES:
1. COORDINATE EXACT CIRCUIT BREAKER, WIRE SIZE, WIRE QUANTITY, AND CONDUIT SIZE WITH EQUIPMENT.

PANEL		PA		COMMENTS:											
LOCATION:		MECH													
120/ 208		VOLTS, 3 PHASE, 4 WIRE		225 AMP											
CIRCUIT DATA		LOAD		MAIN LUGS ONLY											
NR	WIRE	CONC	C	CB POLE NR	CB TRIP A	CB LOAD VA	PHASE A	PHASE B	PHASE C	CB LOAD VA	CB TRIP A	CB POLE NR	LOAD	OKT NR	CIRCUIT DATA
2	12	12	1/2"	1	LIGHTS-RESTROOM, MECHANICAL, STORAGE	1	20	393	753	360	20	1	TELEPHONE BOARD RECEPTACLE	2	2 12 12 12 1/2"
2	12	12	1/2"	3	RECEPTACLES-RESTROOM GFI	1	20	360		100	20	1	MOTORIZED DAMPERS	4	2 12 12 12 1/2"
2	12	12	1/2"	5	MOTORIZED FRONT DOOR	1	20	100		100	20	1	SPARE	6	
				7	SPARE	1	20			0	20	1	SPARE	8	
				9	SPARE	1	20			0	20	1	SPARE	10	
				11	SPARE	1	20			0	20	1	SPARE	12	
				13	SPARE	1	20			0	20	1	SPARE	14	
				15	SPARE	1	20			0	20	1	SPARE	16	
				17	SPARE	1	20			0	20	1	SPARE	18	
				19	SPARE	1	20			0	20	1	SPARE	20	
				21	SPARE	1	20			0	20	1	SPARE	22	
				23	SPARE	1	20			0	20	1	SPARE	24	
				25	SPARE	1	20			0	20	1	SPARE	26	
				27	SPARE	1	20			0	20	1	SPARE	28	
				29	SPARE	1	20			0	20	1	SPARE	30	
				31	SPARE	1	20			0	20	1	SPARE	32	
				33	SPARE	1	20			0	20	1	SPARE	34	
				35	SPARE	1	20			0	20	1	SPARE	36	
				37	SPARE	1	20			0	20	1	SPARE	38	
				39	SPARE	1	20			0	20	1	SPARE	40	
				41	SPARE	1	20			0	20	1	SPARE	42	
PANEL TYPE :		NEMA 1		TOTAL CONNECTED LOAD		1		KVA		100		% SPARE CAPACITY		20	
MOUNTING :		SURFACE		CONNECTED + SPARE LOAD		2		KVA		100		% DEMAND FACTOR		100	
FED FROM :		PANEL P		TOTAL DEMAND		2		KVA		4		AMPS CONNECTED		4	
				TOTAL DEMAND, AMPS		4		Amps		AT		208		VOLTS	



1 N.T.S.
SINGLE LINE DIAGRAM NOTES: (1/ES-100)
120/208 VOLTS, THREE PHASE, 3 WIRE, UNDERGROUND ELECTRIC SERVICE. COORDINATE CONDUIT, CONDUCTOR SIZES AND ROUTING WITH AEP AND THE USPS REPRESENTATIVE.

- SERVICE ENTRANCE CONDUITS AND CONDUCTORS AS DIRECTED BY AEP.
- ELECTRIC SERVICE GROUND. 3/4" DIAMETER AND 10' LONG COPPER WELD DRIVEN GROUND ROD, WITH TOP 6" BELOW FINISHED GRADE. PROVIDE 1-#2 AWG COPPER GROUNDING CONDUCTOR IN 1" PVC TO THE NEUTRAL BUS IN THE PANELBOARD. CADWELD CONNECTION AT THE DRIVEN GROUND ROD.
- PROVIDE THREE (3) EMPTY 3" PVC UNDERGROUND TELEPHONE SERVICE CONDUITS. COORDINATE ROUTING WITH THE SERVING UTILITY COMPANY AND THE USPS REPRESENTATIVE.



2 N.T.S.
POLE BASE DETAIL NOTES: (2/ES-100)
1. FIXTURE ASSEMBLY ANCHOR BOLTS AND CONC. BASE SHALL BE PROPERLY SIZED FOR THE APPLICABLE WIND LOADING.
2. POLES TO BE MOUNTED IN COASTAL OR SUBTROPICAL CLIMATES SHALL BE PROVIDED WITH STAINLESS STEEL ANCHOR BOLTS & HARDWARE.
3. PROVIDE SURGE SUPPRESSION UNITS IF DICTATED BY THE "LIGHTNING PROTECTION RISK ASSESSMENT CALCULATION."

BASE HEIGHT REQUIREMENTS TABLE: (2/ES-100)	
WITHIN 10'-0" FROM FACE OF CURB AT TRUCK PARKING AREAS AND DRIVES	4'-0"
WITHIN 3'-0" FROM FACE OF CURB AT CAR PARKING AREAS AND DRIVES	3'-0"
ALL OTHER AREAS	6"



ESA Mechanical & Electrical Engineering, Inc.
1100 NW Loop 410, Suite 810 San Antonio, Texas 78213
210.342.3483 F 210.342.3641
TPE FIRM REGISTRATION NO. F-4137 JOB NO.: 19074

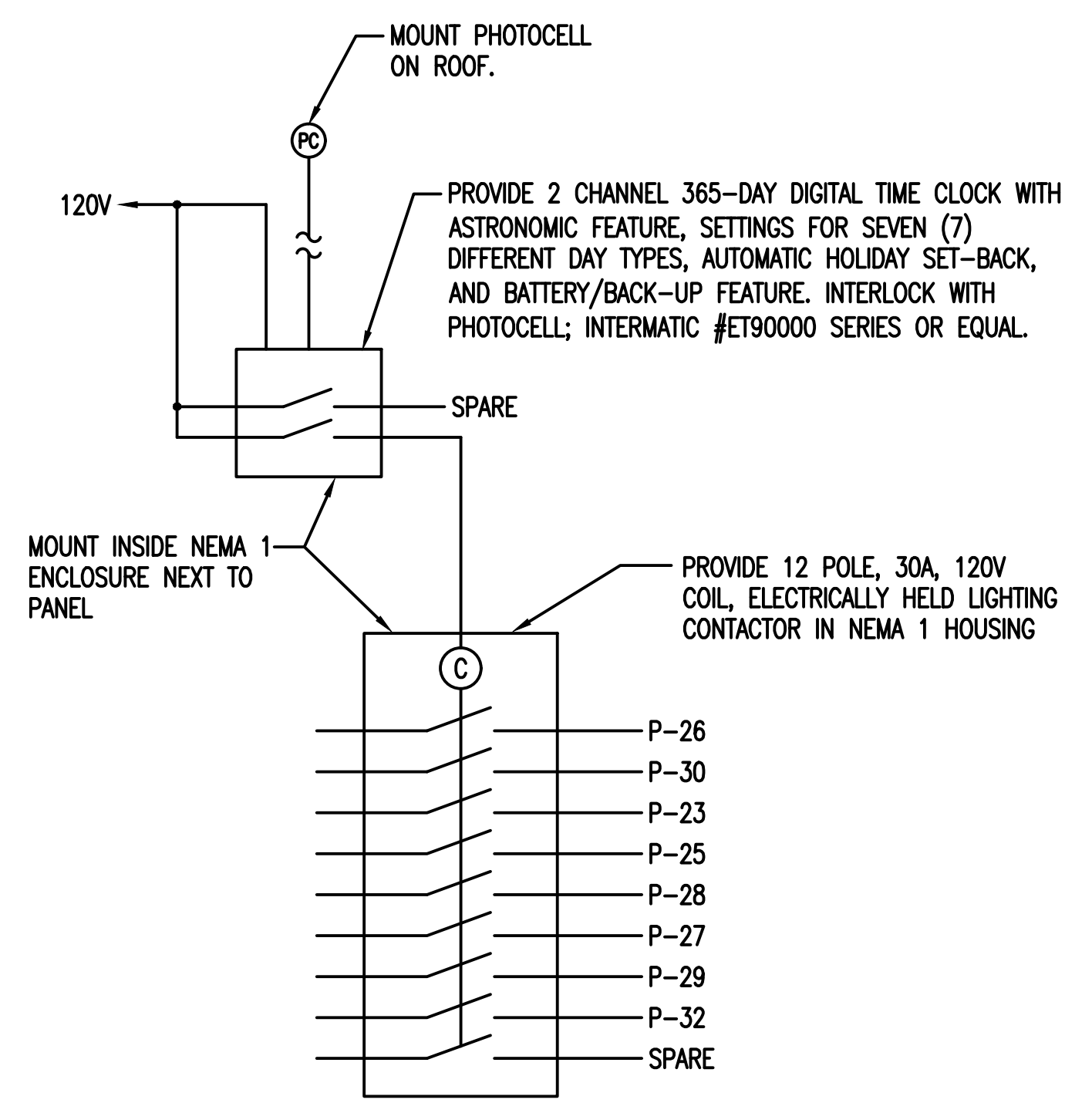
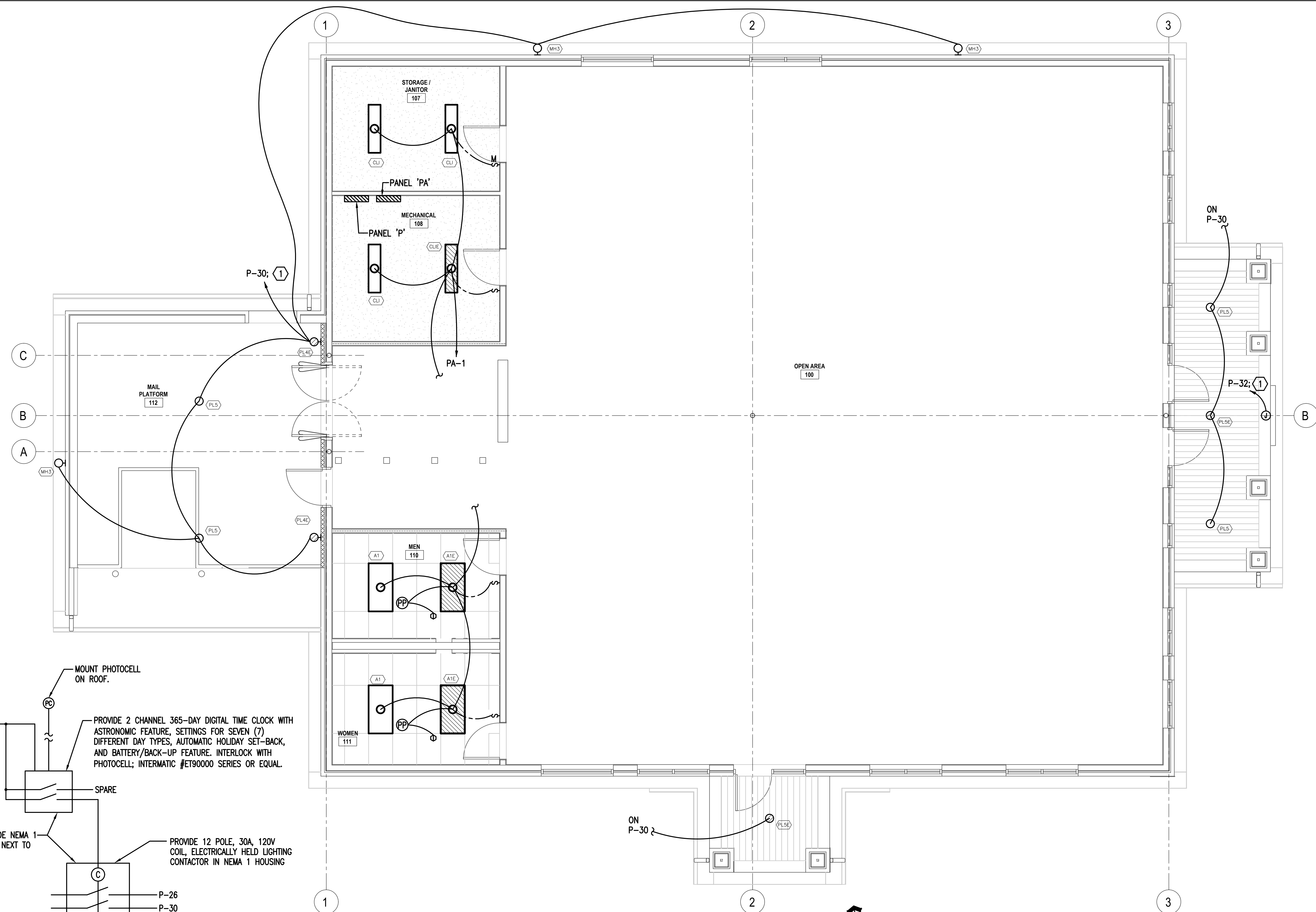
Fisher Heck ARCHITECTS
916 SOUTH ST. MARVIN, TEXAS 78151
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210.399.1500

PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: ELECTRICAL LEGEND, DETAILS AND SCHEDULES

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO: ES-100



2 LIGHTING CONTROL SCHEMATIC
N.T.S.

1 LIGHTING PLAN
1/4" = 1'-0"

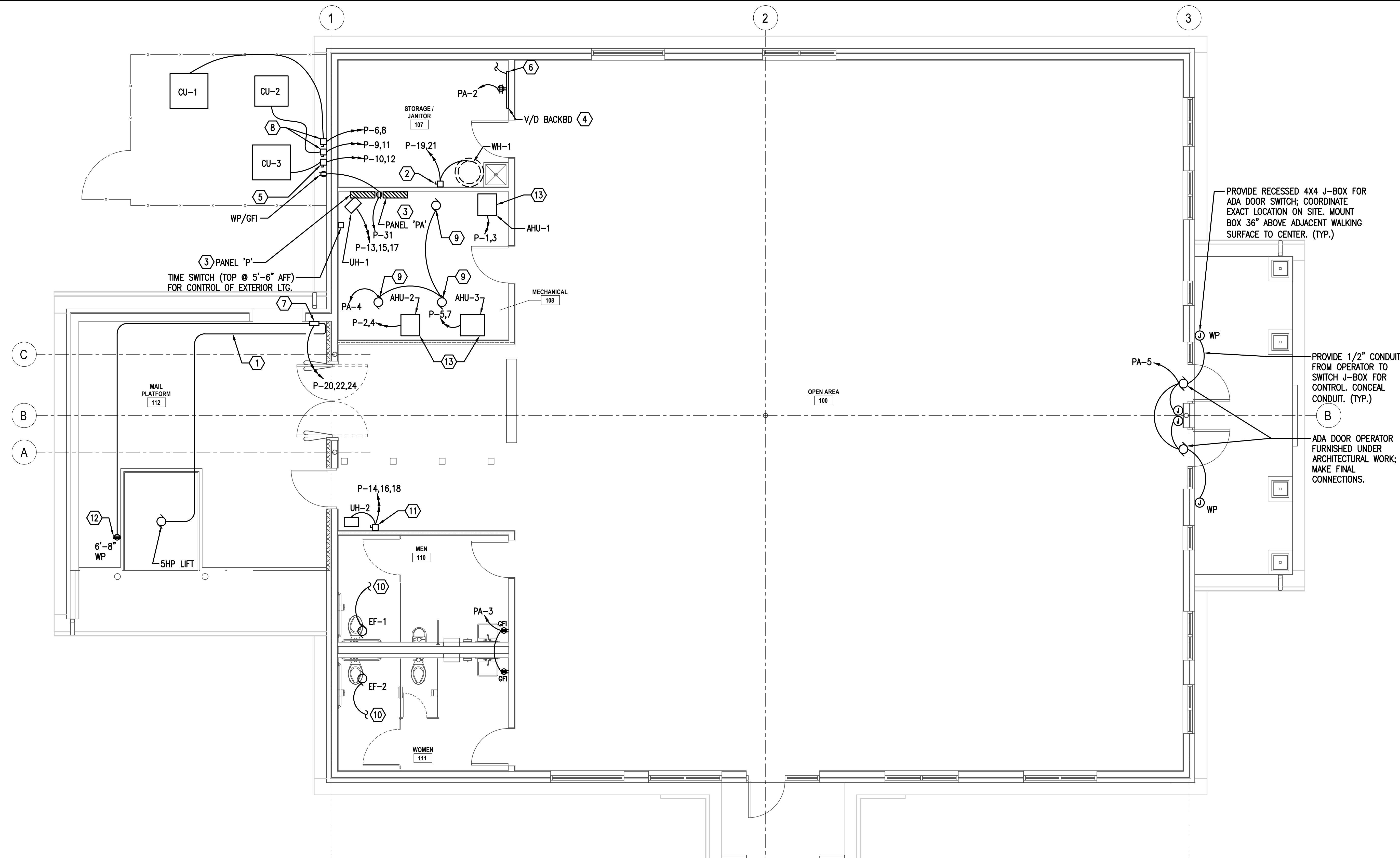
LIGHTING PLAN KEYED NOTE (P-30): (SHEET ES-101 ONLY)

(1) CIRCUIT THROUGH LIGHTING CONTACTOR; SEE 2/ES-101 FOR DETAIL.



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PROVIDE RECESSED 4X4 J-BOX FOR ADA DOOR SWITCH; COORDINATE EXACT LOCATION ON SITE. MOUNT BOX 36" ABOVE ADJACENT WALKING SURFACE TO CENTER. (TYP.)

PROVIDE 1/2" CONDUIT FROM OPERATOR TO SWITCH J-BOX FOR CONTROL. CONCEAL CONDUIT. (TYP.)

ADA DOOR OPERATOR FURNISHED UNDER ARCHITECTURAL WORK; MAKE FINAL CONNECTIONS.

1 POWER AND SIGNAL PLAN
1/4" = 1'-0"

POWER AND SIGNAL PLAN NOTES

- 1 STUB-OUT 1-1" EMPTY CONDUIT WITH PULL-STRING FOR DOCK LIFT IN CONCRETE DOCK FROM CONTROLLER. COORDINATE EXACT LOCATION WITH DOCK LIFT PROVIDER ON SITE PRIOR TO ROUGH-IN.
- 2 30A, 2 POLE NON-FUSED NEMA 1 DISCONNECT SWITCH TO SERVE WATER HEATER.
- 3 SERVICE ENTRANCE AND BRANCH CIRCUIT ELECTRIC PANEL WITH NEUTRAL AND GROUND BUSES BONDED. PROVIDE MAIN AND BRANCH CIRCUIT BREAKERS REQUIRED. PROVIDE 20% SPARE BREAKERS AND 20% SPACES FOR FUTURE LOADS. REFER TO DETAIL 1/EI-100.
- 4 3'x4'x3/4" SQ. FIRE RATED PLYWOOD VOICE/DATA BACKBOARD MTD. TOP @ 7'-9" AFF & EQUIPPED W/OPEN HALF-HEIGHT RACK, RACK MTD 1.5 KVA UPS (120V-120V) & 48 PORT. CAT 6 PATCH PANEL FOR TERMINATION OF CAT 6 CABLING. PROVIDE 2" CONDUIT WITH COUPLING STUBBED DOWN FOR EXTENSION BY THE SITE CONTRACTOR FOR UNDERGROUND TELEPHONE SERVICE. REFER TO DETAIL 1/EI-100.

- 5 60A, 2 POLE NON-FUSED NEMA 3R DISCONNECT SWITCH TO SERVE CONDENSING UNIT.
- 6 PROVIDE CU GRND BAR @ BACKBOARD AND BOND TO PANEL GRND BUS USING #6/INSULATED/CU/GRND CONDUCTOR.
- 7 60A, 3 POLE NON-FUSED, NEMA 3R DISCONNECT TO SERVE LIFT CONTROLLER; VERIFY EXACT LOCATION ON SITE. PROVIDE ALL CONDUIT AND LINE VOLTAGE CONNECTIONS.
- 8 30A, 2 POLE NON-FUSED NEMA 3R DISCONNECT SWITCH TO SERVE CONDENSING UNIT.
- 9 PROVIDE POWER FOR MOTORIZED OUTSIDE AIR DAMPER. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL CONTRACTOR.
- 10 RESTROOM EXHAUST FAN INTERLOCKED WITH LIGHT SWITCH.
- 11 30A, 3 POLE NON-FUSED NEMA 1 DISCONNECT SWITCH TO SERVE UNIT HEATER.
- 12 PROVIDE NEMA L15-50R TWIST-LOCK RECEPTACLE SUSPENDED FROM CEILING. COORDINATE EXACT LOCATION WITH DOCK LIFT PROVIDER ON SITE PRIOR TO ROUGH-IN.

- 13 PROVIDE DUCT SMOKE DETECTOR WITH SHUTDOWN RELAY FOR EACH AIR HANDLER.



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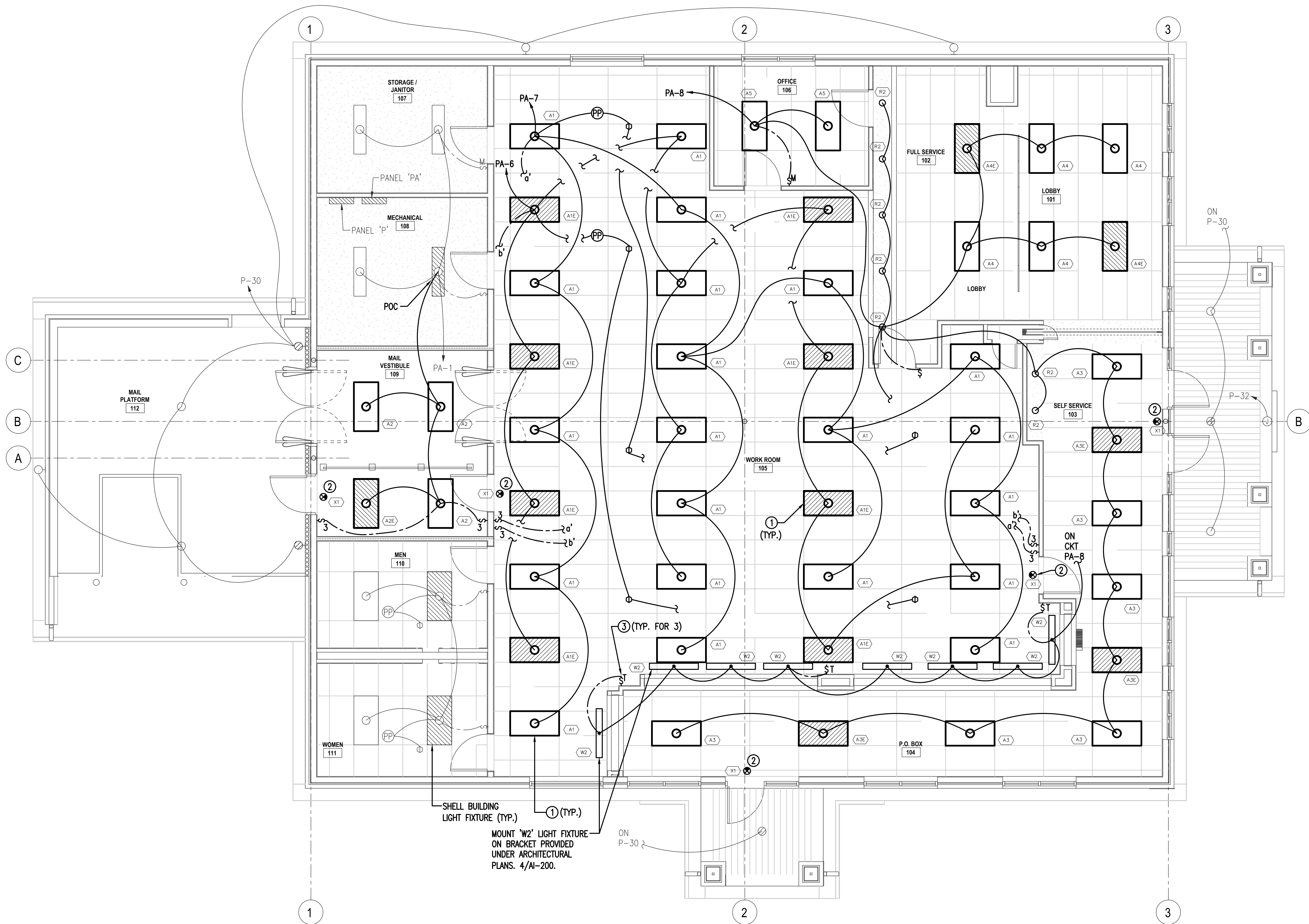
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TPE FIRM REGISTRATION NO. F-4137
JOB NO.: 19074

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**
SHEET TITLE: **POWER AND SIGNAL PLAN**

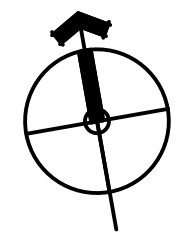
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REVISIONS DATE

SHEET NO: **ES-201**



1 LIGHTING PLAN
1/4" = 1'-0"



LIGHTING PLAN NOTES

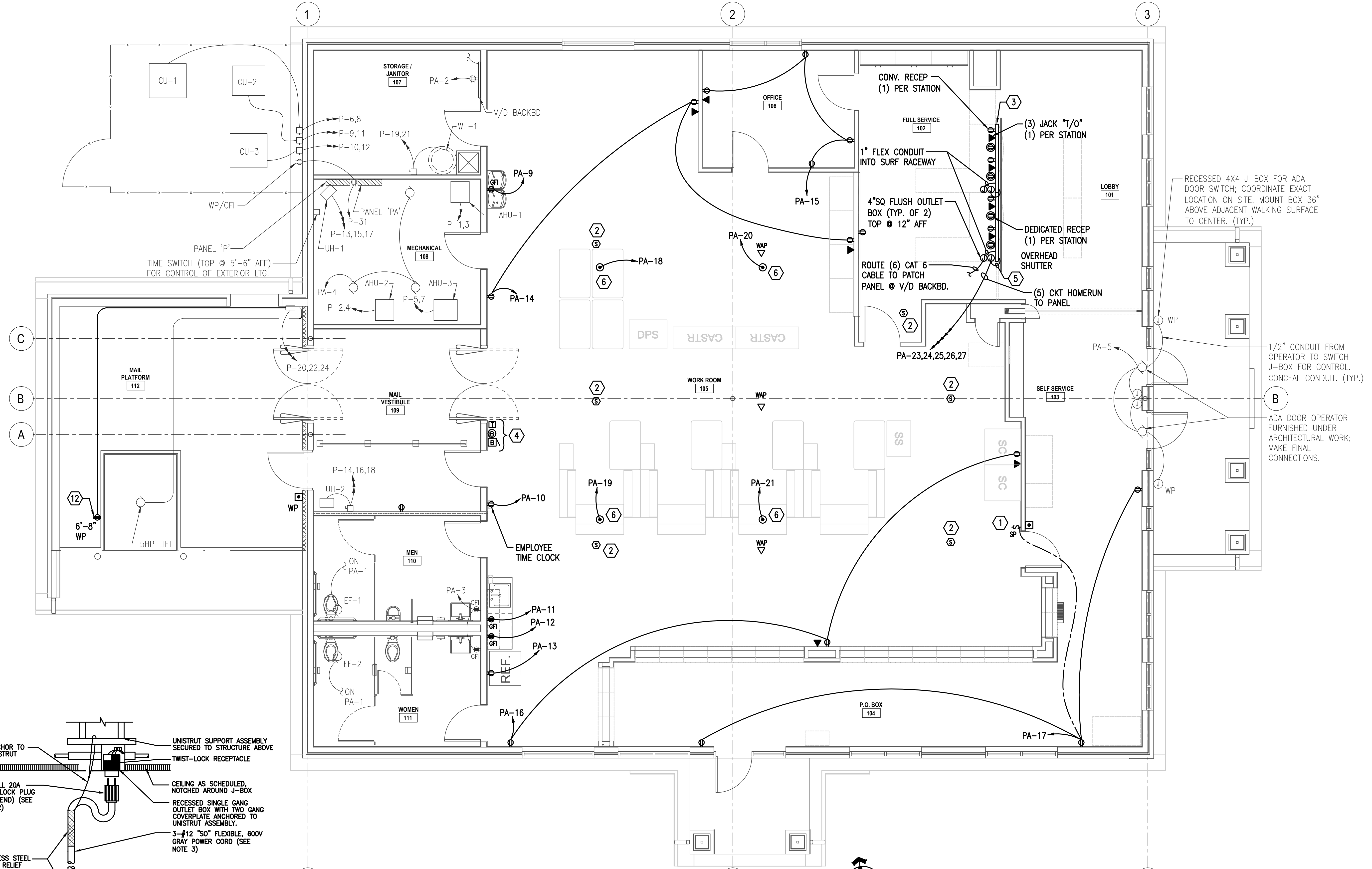
- ① MOUNT LUMINAIRES AS SHOWN, ALL WIRE AND CONDUIT TO BE RUN ABOVE CEILING AND/OR CONCEALED IN WALL.
- ② EXIT SIGNS TO BE CONNECTED TO "HOT" WIRE ONLY, LUMINAIRE IS NOT TO BE SWITCHED.
- ③ PROVIDE DIGITAL TIMER SWITCH FOR TYPE 'W2' LIGHTS.

SHELL BUILDING LIGHT FIXTURE (TYP.)
① (TYP.)
MOUNT 'W2' LIGHT FIXTURE ON BRACKET PROVIDED UNDER ARCHITECTURAL PLANS. 4/AI-200.



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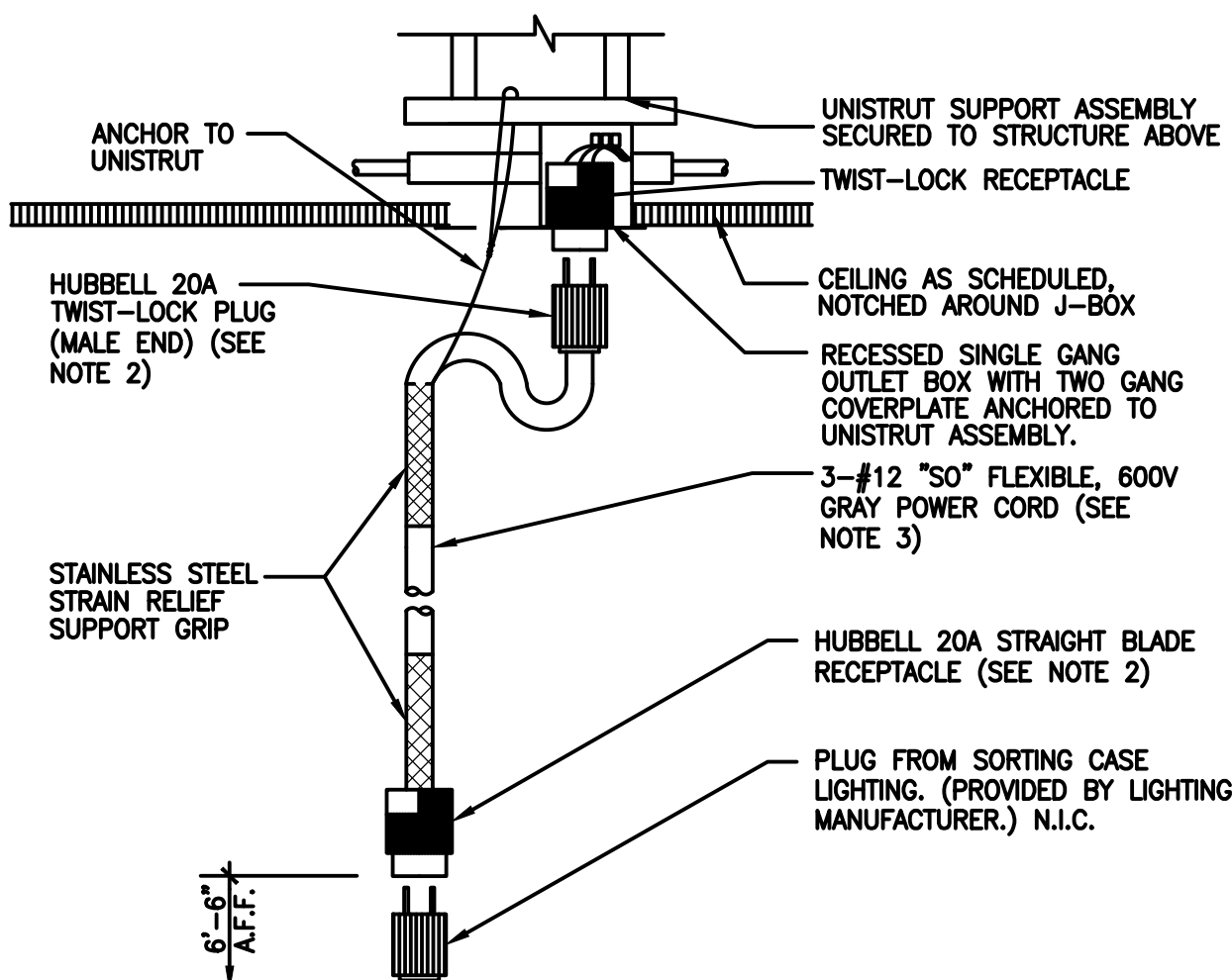
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RECESSED 4X4 J-BOX FOR ADA
DOOR SWITCH; COORDINATE EXACT
LOCATION ON SITE. MOUNT BOX 36"
ABOVE ADJACENT WALKING SURFACE
TO CENTER. (TYP.)

1/2" CONDUIT FROM
OPERATOR TO SWITCH
J-BOX FOR CONTROL.
CONCEAL CONDUIT. (TYP.)

ADA DOOR OPERATOR
FURNISHED UNDER
ARCHITECTURAL WORK;
MAKE FINAL
CONNECTIONS.



- NOTES:**
1. THIS INSTALLATION IS FOR SERVICE TO WORKROOM SORTING CASE LIGHTING (120 V).
 2. USE TYPE OF CONNECTOR BODY THAT GRIPS ON INSULATION OF "SO" CORD SO THAT TENSION IS NOT TRANSMITTED TO CONDUCTORS OR TERMINAL SCREWS.
 3. USE CONTINUOUS LENGTHS OF "SO" CORD AT EACH LOCATION. SPLICES ARE NOT PERMITTED.

2 CONVENIENCE OUTLETS - TWIST - LOCK DROP CORD
N.T.S.

1 POWER AND SIGNAL PLAN
1/4" = 1'-0"

POWER AND SIGNAL PLAN NOTES

- 1 PILOT LIGHTED, TOGGLE SWITCH CONTROLLING LOBBY RECEPS, FEED FROM DEDICATED CKT.
- 2 AREA SMOKE DETECTOR CEILING MOUNTED. 120VAC. HARD WIRED TO THE NEAREST UNSWITCHED RECEPTACLE CIRCUIT. COORD. FIRE ALARM ROOMS. W/ LOCAL FIRE MARSHAL.
- 3 CONTINUOUS LENGTH OF PREWIRED (2) SECTION. MULTI-OUTLET RACEWAY CONT'G. RECEPS AND T/O'S AS SHOWN. SURFACE MOUNTED BELOW COUNTER. BASIS OF DESIGN: WIREMOLD #AL4000.
- 4 PROVIDE COMPLETE SYSTEM OF DOOR BELL AND DOOR BELL PUSH BUTTON AND STEP DOWN TRANSFORMER, WALL MOUNT NEAR CEILING. CONNECT TO THE NEAREST RECEPTACLE CIRCUIT, WHERE REQUIRED.
- 5 10-#12 & 1-#12/GRND. 3/4" FLEX Routed INTO SURF RACEWAY.
- 6 CEILING MOUNTED DROP CORD RECEPTACLE. PROVIDE DEDICATED CIRCUIT. REFER TO DETAIL 2.



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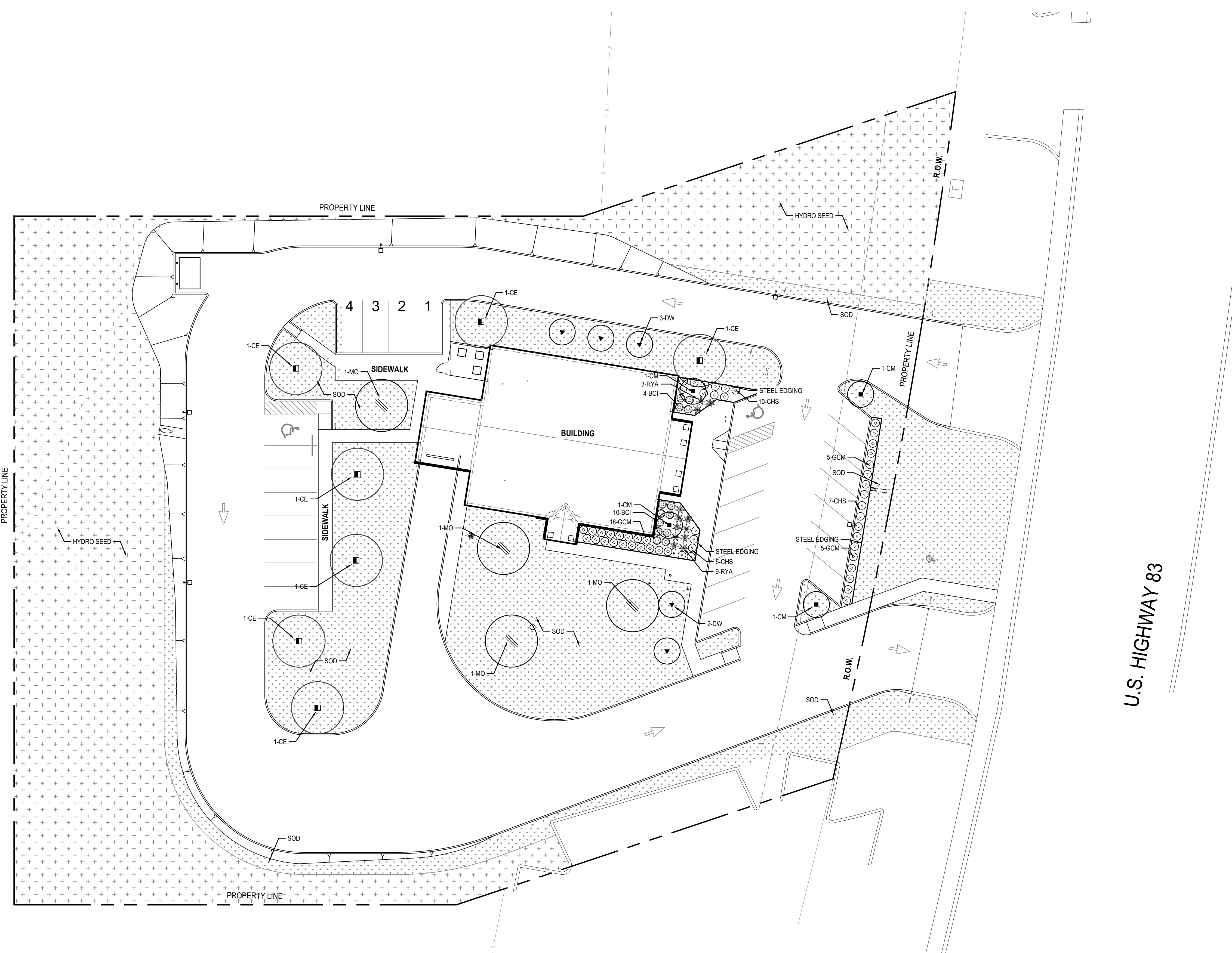
SHEET TITLE: **POWER AND SIGNAL PLAN**

PROJECT NO: 1921 A1

REVISIONS DATE

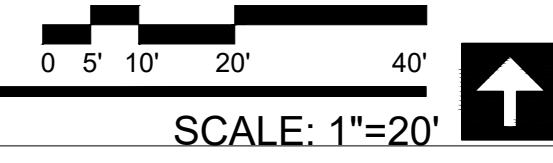
SHEET NO:

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U.S. HIGHWAY 83

1 PLANTING
PLAN

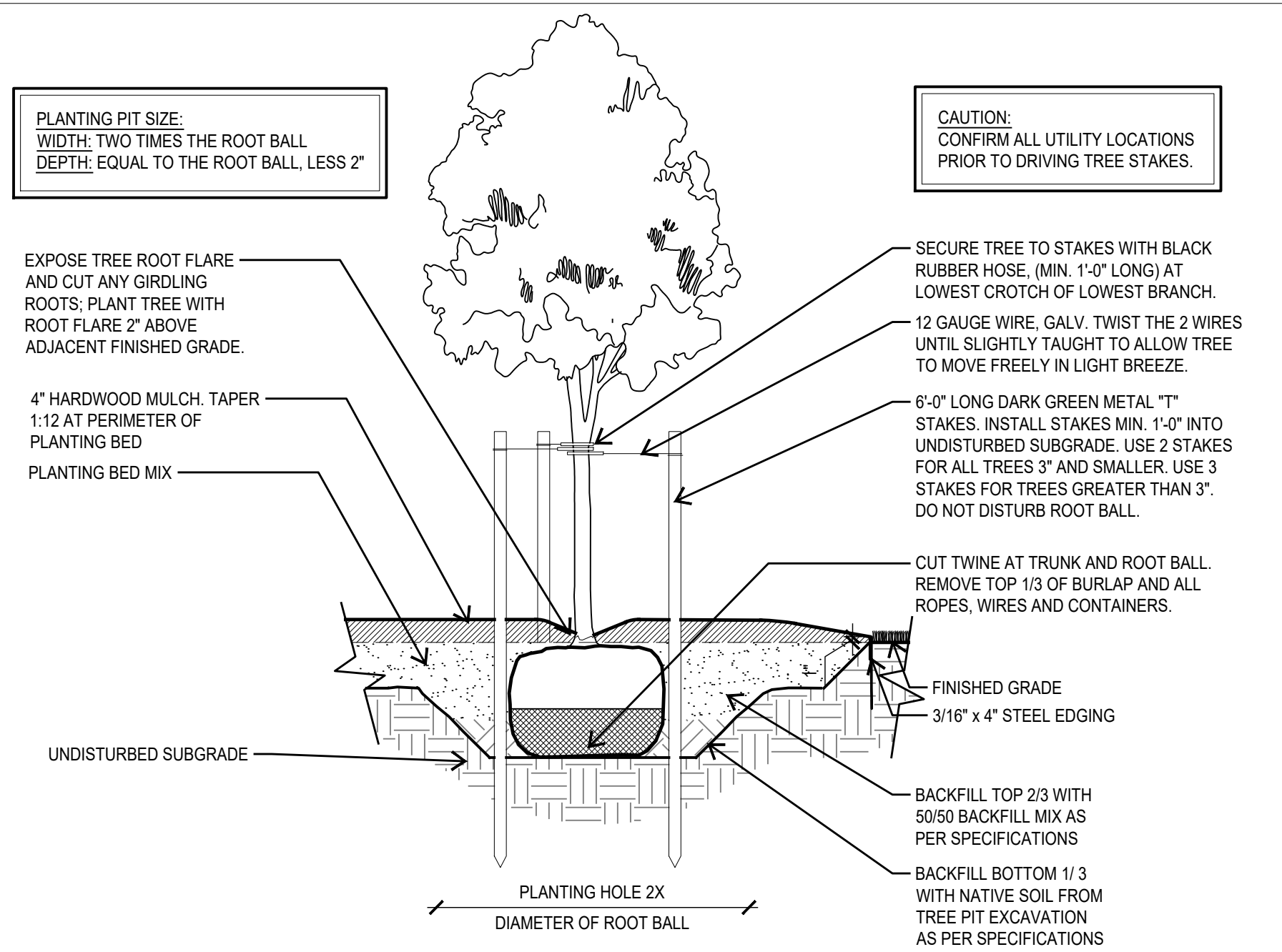


PROJECT: CRYSTAL CITY, TEXAS - MAIN POST OFFICE
SHEET TITLE: PLANTING PLAN

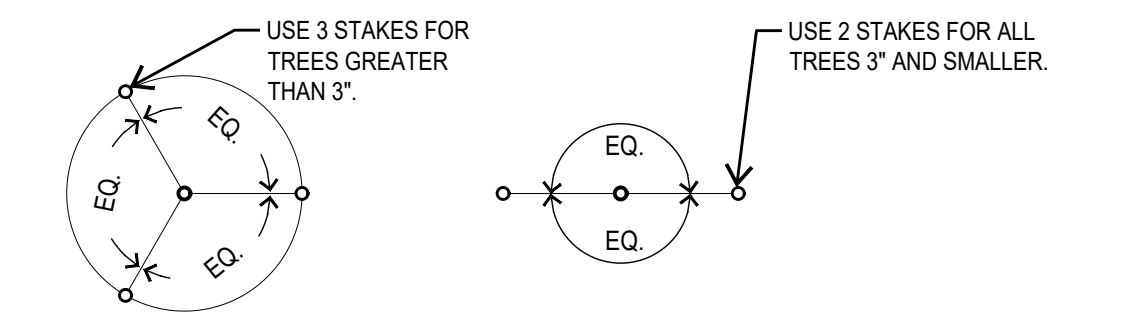
PROJECT NO: 1921 A1

△ REVISIONS DATE

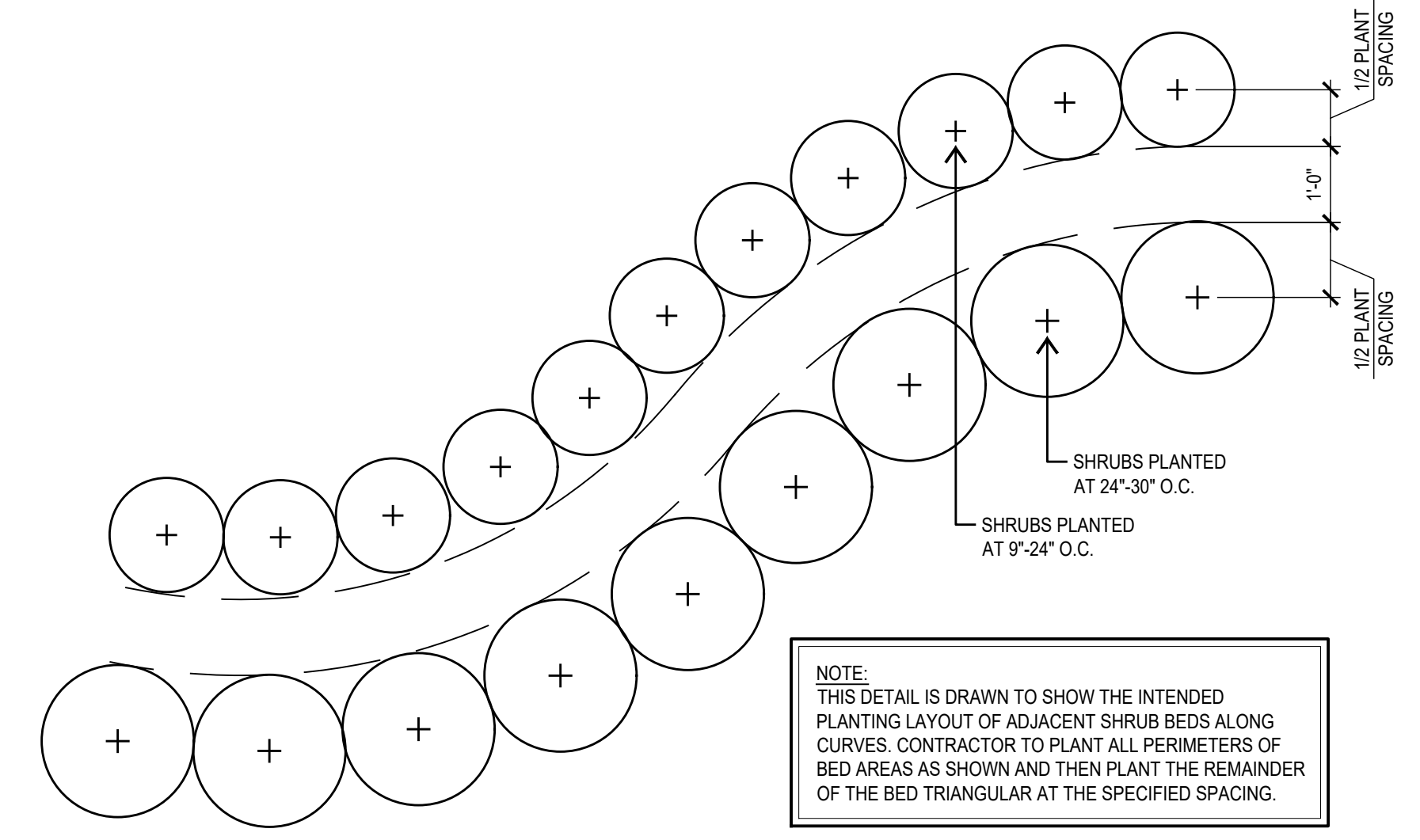
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LP 1.1



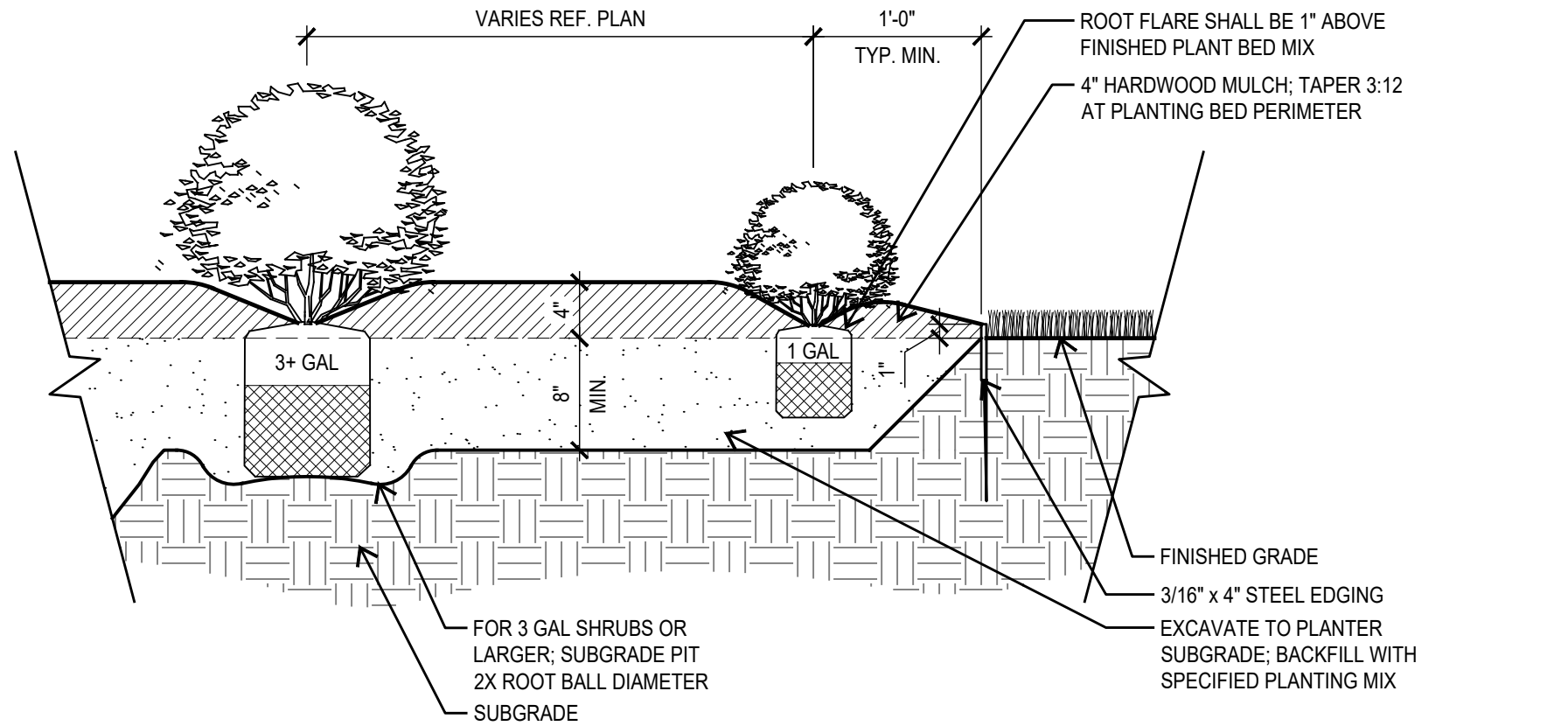
1 TYPICAL TREE PLANTING AT BED
SECTION NOT TO SCALE



2 TYPICAL TREE STAKING
PLAN NOT TO SCALE



3 TYPICAL SHRUB SPACING
PLAN NOT TO SCALE



4 TYPICAL SHRUB PLANTING
SECTION NOT TO SCALE

PLANT LIST

TREES

SYMBOL	CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
MO	4	4	MONTERREY OAK QUERCUS POLYMORPHA	4" CAL.; MIN 12' HT.; MIN. 6" SPRD.	MULTI-TRUNK B&B; STRAIGHT TRUNK WITH FULL AND UNIFORM CANOPY; PARK GRADE NOT ACCEPTABLE
CE	7	7	CEDAR ELM ULMUS CRASSIFOLIA	4" CAL.; MIN 12' HT.; MIN. 6" SPRD.	MULTI-TRUNK B&B; STRAIGHT TRUNK WITH FULL AND UNIFORM CANOPY; PARK GRADE NOT ACCEPTABLE

ORNAMENTAL TREES

SYMBOL	CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
CM	4	4	CRAPE MYRTLE LAGERSTROEMIA INDICA	2" CAL.; MIN 12' HT. MIN. 6" SPRD.	B&B OR CONTAINER, MULTI-TRUNK, 3-5 TRUNKS, 1-1/2" MIN CANE CAL., FULL CANOPY, DARK GREEN
DW	5	5	DESERT WILLOW CHILOPSIS LINEARIS	2" CAL.; MIN 12' HT. MIN. 6" SPRD.	B&B OR CONTAINER, MULTI-TRUNK, 3-5 TRUNKS, 1-1/2" MIN CANE CAL., FULL CANOPY, DARK GREEN

SHRUBS

SYMBOL	CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
GCM	57	57	GULF COAST MUHLY MUHLENBERGIA CAPILLARIS	5 GAL.; 24" HT. 24" SPRD.	DARK GREEN; FULL; PLANT 48" O.C. / OR AS SHOWN ON PLANS
RY	12	12	RED YUCCA HESPERALOE PARVIFLORA	5 GAL.; 24" HT. 24" SPRD.	DARK GREEN; FULL; PLANT 60" O.C.
BCI	13	13	BICOLOR IRIS DIETES BICOLOR	5 GAL MIN.; 36" HT. 36" SPRD.	DARK GREEN; FULL; PLANT 36" O.C.
CHS	13	13	CHERRY SAGE RHAPHIOLEPIS INDICA	3 GAL MIN.; 20" HT. 36" SPRD.	DARK GREEN; FULL; PLANT 48" O.C.

GROUND COVER

SYMBOL	CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
MULCH	FIELD VERIFY		HARDWOOD MULCH (APPLY WEED BARRIER FABRIC)	STANDARD	4" THICK PER DETAILS. REFERENCE PLANTING MATERIALS NOTES. KELLER MATERIAL LIMITED; PH:(210) 967-1300.

TURF

SYMBOL	CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
SOD	FIELD VERIFY		COMMON BERMUDA CYNODON DACTYLON	SOLID SOD	CONTINUOUS SOLID SOD STRIP ALONG BACK OF CURB. CONTRACTOR TO FIELD VERIFY QUANTITY OF LAWN REQUIRED.



201 GROVETON | SATX 78210
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Fisher Heck
ARCHITECTS
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210-298-1500

PROJECT: **CRYSTAL CITY, TEXAS - MAIN POST OFFICE**
SHEET TITLE: **PLANT LEGEND & DETAILS**

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO:
LP 2.1

GENERAL LANDSCAPE NOTES

PART 1 :

LANDSCAPE CONTRACTOR SHALL ACCEPT THE SITE IN ITS EXISTING CONDITION AND SHALL TIE NEW WORK TO EXISTING CONDITIONS AND CONTROLS (SUCH AS EXISTING GRADES AND WALK ELEVATIONS) AS NECESSARY TO MEET THE INTENT OF THE PLANS.

BEFORE PROCEEDING WITH ANY WORK IN AN AREA, LANDSCAPE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LAYOUTS AND SIZES AND SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL SITE CONDITIONS. IF ANY UTILITIES OR OBSTRUCTIONS ARE DISCOVERED DURING CONTRACT WHICH MAY NOT HAVE BEEN KNOWN DURING DESIGN, CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT BEFORE PROCEEDING. LANDSCAPE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGE IF WORK PROCEEDS IN EITHER OF THE ABOVE SITUATIONS WITHOUT NOTIFYING LANDSCAPE ARCHITECT.

PRIOR TO ANY EXCAVATION, LANDSCAPE CONTRACTOR SHALL CONTACT APPROPRIATE AUTHORITIES INCLUDING, BUT NOT LIMITED TO, TEXAS ONE CALL SYSTEM AT 1-800-245-4545 TO LOCATE EXISTING UNDERGROUND UTILITIES.

LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGE TO ANY UTILITIES OR PROPERTY THAT MAY OCCUR IN THE EXECUTION OF HIS CONTRACT WORK. WHEN WORK REQUIRES CROSSING EXISTING WALKS OR CURBS WITH EQUIPMENT, LANDSCAPE CONTRACTOR SHALL PROVIDE APPROVED BRIDGE MATERIAL SUCH AS WOOD PLANKS AND EARTH TO PREVENT DAMAGE TO FINISHED WORK. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS THAT MAY BE WORKING ON THE SITE SIMULTANEOUSLY AND SHALL COORDINATE STAGING OF HIS WORK WITH OWNER AND LANDSCAPE ARCHITECT. ALL TRASH AND DEBRIS GENERATED FROM CONTRACT OPERATIONS SHALL BE REMOVED ON A DAILY BASIS. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY IN CONJUNCTION WITH HIS CONTRACT WORK.

REFERENCES

- A.) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) Z60.1 - NURSERY STOCK.
- B.) TEXAS STATE DEPARTMENT OF AGRICULTURE (TDA) - NURSERY FLORAL LICENSING PROGRAM.

1.1 SUBMITTALS FOR REVIEW

A.) PRODUCT DATE: LIST OF CHEMICALS TO BE USED ON SITE.

B.) SAMPLES:

1. 1 QUART SAMPLES OF EACH SOIL AMENDMENT WITH ANALYTICAL DATA FROM A RECOGNIZED TESTING LABORATORY SHOWING MANUFACTURER'S GUARANTEED ANALYSIS.
2. 1 CUBIC FOOT SAMPLES OF PREMIXED BACKFILL MIXES.

C.) TEST RESULTS:

1. PROVIDE SOIL SAMPLE TEST RESULTS INDICATING PH, FERTILITY LEVELS, AND PERCENTAGES OF SAND, SILT, AND CLAY.
2. PROVIDE RECOMMENDATIONS FOR SOIL AMENDMENTS AND FERTILIZERS BASED ON SOIL ANALYSIS; FOR CONTRACT PURPOSES, USE MIXTURE SPECIFIED IN THIS SECTION.

D.) NURSERY QUALIFICATIONS: COMPANY SPECIALIZING IN GROWING AND CULTIVATING PLANTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEAR DOCUMENTED EXPERIENCE, AND CERTIFIED BY THE STATE OF TEXAS.

E.) INSTALLER QUALIFICATIONS:

1. COMPANY SPECIALIZING IN LANDSCAPE INSTALLATION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.
2. PROVIDE FULL-TIME SUPERINTENDENT ON-SITE DURING INSTALLATION.

F.) PLANT MATERIALS:

1. PLANT MATERIALS ARE SUBJECT TO EXAMINATION BY LANDSCAPE ARCHITECT AT PLACE OF GROWTH OR UPON DELIVERY TO PROJECT.

1.2 DELIVERY, STORAGE AND HANDLING

A.) DELIVER FERTILIZER IN WATERPROOF BAGS SHOWING WEIGHT, GUARANTEED CHEMICAL ANALYSIS, MANUFACTURER AND BRAND NAME, AND APPROVALS OF AUTHORITIES HAVING JURISDICTION.

B.) DELIVER PLANT MATERIAL WITH IDENTIFICATION TAG SHOWING BOTANICAL NAME AND PLANT SIZE.

C.) DELIVER PLANT MATERIAL IMMEDIATELY PRIOR TO INSTALLATION; PLANT MATERIALS ON SAME DAY AS DELIVERED, IF PLANTING CANNOT BE ACCOMPLISHED ON SAME DAY AS DELIVERY, PROVIDE ADDITIONAL PROTECTION TO MAINTAIN PLANTS IN HEALTHY AND VIGOROUS CONDITION.

D.) KEEP PLANT MATERIAL MOIST AND PROTECT FROM DAMAGE AND DESICCATION OF LEAVES UNTIL PLANTING.

E.) DO NOT HANDLE PLANT MATERIALS BY STEM OR TRUNK.

F.) KEEP CONTAINERS INTACT UNTIL JUST PRIOR TO PLANTING.

1.3 SEQUENCING

A.) INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWNS.

1.4 WARRANTY

A.) FURNISH WRITTEN WARRANTY THAT PLANT MATERIALS WILL BE IN HEALTHY, VIGOROUS, GROWING CONDITION ONE (1) YEAR AFTER FINAL ACCEPTANCE. DAMAGE DUE TO ACTS OF GOD, VANDALISM, OR NEGLIGENCE BY OWNER IS EXCLUDED.

B.) REPLACE DEAD, UNHEALTHY AND UNSIGHTLY PLANT MATERIALS WITHIN WARRANTY PERIOD, UPON NOTIFICATION BY OWNER OR LANDSCAPE ARCHITECT.

C.) NOTIFY OWNER AND LANDSCAPE ARCHITECT 30 DAYS PRIOR TO EXPIRATION OF WARRANTY PERIOD AND ARRANGE FINAL ACCEPTANCE INSPECTION BY ALL PARTIES.

1. REMOVE DEAD, UNHEALTHY, AND UNSIGHTLY PLANT MATERIALS.
2. REMOVE GUYING AND STAKING MATERIALS.
3. WARRANT REPLACEMENT PLANTS UNDER SAME PROVISIONS AND FOR SAME TIME PERIOD AS ORIGINAL PLANTS.

1.5 MAINTENANCE

1. MAINTAIN PLANT LIFE IMMEDIATELY AFTER PLACEMENT AND FOR NINETY (90 DAYS) AFTER FINAL ACCEPTANCE...
2. REPLACE DEAD OR DYING PLANTS WITH PLANTS OF SAME SIZE AND SPECIES SPECIFIED.
3. REMOVE TRASH, DEBRIS, AND LITTER, WATER, PRUNE, FERTILIZE, WEED, AND MOW. SPOT APPLY HERBICIDES, AND FUNGICIDE ONLY AS REQUIRED.
4. REMOVE CLIPPINGS AND DEBRIS FROM SITE PROMPTLY.
5. COORDINATE WITH OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING ADEQUATE WATER FROM IRRIGATION SYSTEM.
6. RESET SETTLED PLANTS.
7. REAPPLY MULCH TO BARE AND THIN AREAS.

1.6 MATERIALS

A.) PLANT MATERIALS:

1. CERTIFIED IN ACCORDANCE WITH TDA REQUIREMENTS.
2. SPECIES AND SIZE AS INDICATED IN PLANT SCHEDULE. LARGER SIZE MAY BE SUBSTITUTE WITHOUT ADDITIONAL COST TO OWNER, PROVIDED ROOT BALL OR SPREAD INCREASES PROPORTIONATELY.
3. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.
4. GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE AT SITE. FREE FROM DISEASE, INSECT INFESTATIONS, DEFECTS INCLUDING WEAK OR BROKEN LIMBS, CROTCHES, AND DAMAGED TRUNKS, ROOTS OR LEAVES, SUN SCALD, FRESH BARK ABRASIONS, EXCESSIVE ABRASIONS, AND OBJECTIONABLE DISFIGUREMENTS.
5. EXHIBIT NORMAL GROWTH HABITS; VIGOROUS, HEALTHY, FULL, WELL-PROPORTIONED, AND SYMMETRICAL.
6. TREE TRUNKS TO BE STURDY AND EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.
7. NOT PRUNED, TRIMMED, OR TOPPED.
8. CONTAINER-GROWN STOCK: GROWN IN CONTAINERS FROM SEEDING.

B.) TOPSOIL:

1. USE SITE GENERATED SOIL FROM PLANTING PREPARATIONS, REASONABLY FREE FROM CLAY LUMPS, COARSE SANDS, STONES, ROOTS, FOREIGN MATTER.
2. IF SUFFICIENT ON-SITE MATERIALS DO NOT EXIST, PROVIDE SIMILAR OFF-SITE TOPSOIL FROM APPROVED LOCAL SOURCE. SUBMIT SAMPLE AND SOURCE FOR APPROVAL PRIOR TO DELIVERY OF ANY SOIL TO SITE.

C.) MULCH:

1. SHREDDED, COMPOSTED HARDWOOD BARK OF VARYING LENGTH BY NEW EARTH LLC, ph. 210-6615180 OR APPROVED SUBSTITUTE. PARTIALLY DECOMPOSED; FREE FROM STICKS, STONES, CLAY, AND GROWTH AND GERMINATION-INHIBITING INGREDIENTS.

D.) SOIL AMENDMENTS:

1. SOIL SULFUR: AGRICULTURAL GRADE SULFUR CONTAINING MINIMUM 99 PERCENT SULFUR EXPRESSED AS ELEMENTAL.
2. IRON SULFATE: 20 PERCENT IRON EXPRESSED AS METALLIC IRON DERIVED FROM FERRIC AND FERROUS SULFATE AND 10 PERCENT SULFUR EXPRESSED AS ELEMENTAL. WHEN REQUIRED BY SOIL TESTS.
3. GYPSUM: AGRICULTURAL GRADE, CONTAINING MINIMUM 98 PERCENT CALCIUM SULFATE, WHEN REQUIRED BY SOIL TEST.
4. HERBICIDE: PRE-EMERGENT TYPE; SURFLAN OR APPROVED SUBSTITUTE.
5. FERTILIZER FOR TREES AT PLANTING: PLANT HEALTH CARE GROUP "PHC TREE SAVER" APPLIED AS PER P.H.C.G. DIRECTIONS AND APPLICATION RATES.
6. FERTILIZER FOR LAWN: PLANT HEALTH CARE GROUP "PHC FOR TURF 15-1-6" APPLIED AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET.
7. SOIL INOCULATES FOLLOWING TREE PLANTING: PLANT HEALTH CARE GROUP "PHC INJECTABLE INOCULANT FOR TREES" APPLIED AS PER PHCG MIXING DIRECTIONS AND APPLICATION RATES.
8. FERTILIZER FOR PLANTER BED MIX: PLANT HEALTH CARE GROUP "HEALTHY START 3-4-3" APPLIED AT A RATE OF 25 POUNDS CUBIC YARD OF PLANT BED MIX.

H.) TURF:

1. ALL SEED USED SHALL BE HIGH QUALITY, EXTRA FANCY, TREATED LAWN TYPE SEED AT 98% PURITY AND 85% GERMINATION, AND SHALL BE FURNISHED IN SEALED STANDARD CONTAINERS WITH SIGNED COPIES OF A STATEMENT FROM THE VENDOR CERTIFYING THAT EACH CONTAINER OF SEED DELIVERED IS FULLY LABELED IN ACCORDANCE WITH THE TEXAS STATE AGRICULTURAL CODE AND IS EQUAL TO OR BETTER THAN THE REQUIREMENT OF THESE SPECIFICATIONS. LAWN SEED TO BE FREE OF WEEDS OR NOXIOUS GRASS SEEDS.
2. SEED WHICH HAS BECOME WET, MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE WILL NOT BE ACCEPTED.
3. GRASS SEED SCHEDULE:
 - A. BERMUDA GRASS SEED:
 - B. MARCH-OCTOBER SHALL BE SPECIFIED BERMUDA.
 - C. OCTOBER-MARCH SHALL BE ANNUAL RYE GRASS.
 - 4. "HYDRO-MULCH" AS MANUFACTURED BY CONVED, OR APPROVAL EQUAL.
 - 5. THE HYDRO-MULCH SHALL BE COMPOSED OF WOOD CELLULOSE FIBER AND CONTAIN NO GERMINATION OR GROWTH-INHIBITING FACTORS.
 - 6. HYDRO-SEEDING ADDITIVE (BINDER): ECOLOGY CONTROL-M BINDER ORGANIC SEEDING ADDITIVE.
 - 7. SOD: PROVIDE FULL, DARK GREEN, UNIFORM, STRONGLY ROOTED SOD IN 16" X 24" STRIPS FREE FROM WEEDS, UNDESIRABLE GRASSES, DISEASES AND PESTS. SOD SHALL BE CUT FROM THE FIELD NO LONGER THAN 48 HOURS BEFORE PLANTING. ROOTS OF SOD SHALL BE KEPT MOIST.
 - 8. BRACING: TREE ANCHORS SHALL BE AS PER DETAILS.
 - 9. TREE PAINT: MORRISIN TREE SEAL, CABORT TREE PAINT, OR OTHER PRODUCT APPROVED BY LANDSCAPE ARCHITECT.
 - 10. PLANTER BED EDGING SHALL BE 3/16" X 4" STEEL EDGING WITH MANUFACTURERS STANDARD GREEN FINISH.

F.) MIXES:

1. PLANT BED MIX: PLANT BED MIX (BACKFILL MIX) SHALL BE NEW EARTH'S 4 WAY MIX AS PRODUCED BY NEW EARTH LLC, PH. 210-661-5180. DOCUMENTATION OF PURCHASE OF THIS SPECIFIC MIX SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT. IF EQUAL IS PROPOSED, CONTRACTOR SHALL SUBMIT SAMPLE AND COMPLETE ANALYSIS WITH TEST RESULTS AND METHOD OF PRODUCTION FOR EVALUATION AS AN EQUAL SUBSTITUTE.

PART 2 EXECUTION:

2.1 PREPARATION

LANDSCAPE CONTRACTOR SHALL RECEIVE THE SITE AT APPROXIMATELY FINISH GRADE LESS ANY SETTLEMENT THAT MAY HAVE OCCURRED SINCE SITE CONSTRUCTION AND BACKFILLING. THIS GRADE SHALL BE RAKED TO REMOVE ALL DEBRIS INCLUDING STICKS, CLODS, AND STONES AND SHALL BE FINE GRADED TO ELIMINATE ALL HUMPS, RUTS, DEPRESSIONS AND ABRUPT CHANGES IN GRADE AND ANY AREA THAT COULD CAUSE WATER TO POND.

A.) IF VEGETATION IS GROWING IN PLANTING/LAWN AREA, APPLY HERBICIDE AT RATES RECOMMENDED BY MANUFACTURER. ALLOW TO DIE, AND THEN GRUB OUT ROOTS TO MINIMUM 1/2 INCH DEPTH.

B.) MARK LOCATION OF TREES AND OUTLINES OF PLANTS BEDS USING COLORED WOOD STAKES OR FLAGS PRIOR TO BEGINNING PLANTING; OBTAIN LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO PROCEEDING.

2.2 PLANTING TREES AND SHRUBS

- A.) REMOVE CONTAINERS WITHOUT DAMAGE TO ROOTS.
- B.) REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS; REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING. PREVENT DAMAGE TO ROOTS.
- C.) REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAP TREES AFTER PLACEMENT.
- D.) PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. PULL ANY WEEDS GROWING IN TREE BALL AND EXPOSE ROOT FLARE (THIS WILL BE THE TOP MOST IDENTIFIABLE ROOT), REMOVE ANY GIRDLING ROOTS AND SET PLANT SO THAT ROOT FLARE IS 1" ABOVE FINISH GRADE. ORIENT PLANTS FOR BEST APPEARANCE. BACKFILL THE BOTTOM 1/3 OF THE EXCAVATION WITH SOIL CUT FROM EXCAVATION OF PIT AND THOROUGHLY WATER THIS SOIL TO SETTLE IN. BACKFILL THE REMAINDER OF THE EXCAVATION WITH A 50/50 MIX OF NEW EARTH'S 4 WAY MIX AND NATIVE SOIL EXCAVATED FROM THE PIT. PLACE PLANT HEALTH CARE GROUP'S "TREE SAVER" IN BACKFILL AS PER P.H.C.G. DIRECTION AND APPLICATION RATES. LIGHTLY TAMP AND WATER SOIL TO REMOVE ALL AIR POCKETS. FOR PLANTS OUTSIDE OF PLANTING BEDS, CONSTRUCT 3 INCH HIGH WATER CONTAINMENT RING AROUND PLANT. SPREAD MULCH TO MINIMUM 4 INCH DEPTH OVER PLANT BASIN.

E.) ADJUST PLANT HEIGHT IF SETTLEMENT OCCURS AFTER BACKFILL AND STAKE AS DETAILED.

1. TWO TO THREE WEEKS FOLLOWING PLANTING, INJECT PLANT HEALTH CARE INJECTABLE INOCULANT AROUND ROOT BALL FOLLOWING MANUFACTURER'S DIRECTIONS AND APPLICATION RATES. CONTACT LANDSCAPE ARCHITECT TO OBSERVE THIS OPERATION.

F.) TRIM PLANTS TO REMOVE DEAD AND INJURED BRANCHES ONLY. TREAT CUTS OVER 3/4 INCH DIAMETER WITH TREE PAINT.

- G.) BRACE PLANTS OVER 65 GALLONS SIZE IMMEDIATELY AFTER PLANTING.
 1. FOR TREES 2" CAL. AND GREATER PROVIDE STAKING AS DETAILED. POSITION TO PREVENT HAZARDS TO PEDESTRIANS.
 2. DO NOT RESTRICT PLANT MOVEMENT UNDER LIGHT WIND LOADS OR DAMAGE BARK.

2.3 PLANTING MASS SHRUBS, GROUNDCOVERS, AND ANNUALS (SEE DETAILS)

- A.) EXCAVATE PLANT BED TO DEPTH AS DETAILED ON PLANS.
- B.) BACKFILL WITH SPECIFIED 4-WAY MIX AND TILL IN SPECIFIED PLANT HEALTH CARE'S, "HEALTHY START 3-4-3" AT A RATE OF 25 LBS. PER CUBIC YARD OF PLANT BED MIX.
- C.) INSTALL METAL EDGINGS TO SEPARATE ALL PLANTER BEDS FROM TURF AND AT LOCATIONS INDICATED ON PLANS.
- D.) PLACE PLANTS IN STRAIGHT, EVENLY SPACED ROWS AT SPACING INDICATED ON DRAWINGS, TO UNIFORMLY FILL BEDS. USE TRIANGULAR SPACING METHOD UNLESS OTHERWISE INDICATED.
- E.) WATER PLANTS THOROUGHLY IMMEDIATELY AFTER PLANTING. REPAIR SETTLED AREAS.
- F.) ADJUST FINAL GRADES TO 1/2 INCH BELOW ADJACENT PAVING CURBS.
- G.) SPREAD MULCH TO MINIMUM 4 INCH DEPTH OVER PLANTING BEDS AS DETAILED.

2.4 CLEANING AND ADJUSTING

- A.) REMOVE PLANT CONTAINERS, TRASH, RUBBISH, AND EXCESS SOILS FROM SITE DAILY AND AT COMPLETION OF TREE, SHRUBS AND GROUNDCOVER PLANTING.
- B.) REPAIR RUTS, HOLES AND SCARS IN GROWING SURFACE.

2.4 LAWN APPLICATION (AT COMPLETION OF TREE, SHRUB AND GROUNDCOVER PLANTINGS)

- A.) COORDINATION:
 1. HYDROMULCH AND SOD AFTER TREE, SHRUB AND GROUNDCOVER INSTALLATION IS COMPLETE.
 1. CONTRACTOR TO COORDINATE WITH IRRIGATION CONTRACTOR TO INSURE FUNCTIONAL IRRIGATION SYSTEM PRIOR TO ANY LAWN INSTALLATION.
- B.) PREPARATION:
 1. PRE-PLANT WEED CONTROL:
 - IF WEEDS EXIST WITHIN PROPOSED LANDSCAPE AREAS AT THE BEGINNING OF WORK, SPRAY WITH A NON SELECTIVE SYSTEMIC CONTACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED APPLICATOR. CLEAR AND REMOVE THESE EXISTING WEEDS UPON HERBICIDE'S COMPLETED ACTION BY RUBBING OFF ALL PLANTS AT LEAST 1/2"-1" BELOW THE SURFACE OF THE SOIL.
 2. CONTRACTOR TO SCARIFY GROUND SURFACE TO A MINIMUM 2" DEPTH FOR ALL GRASSES AND REMOVE ALL STICKS, TRASH, ROCKS AND OTHER DEBRIS AND DISPOSE OFF SITE.
 3. IF EXISTING SOIL IN AN AREA IS FOUND TO BE CONTAMINATED OR OTHERWISE UNSUITABLE, CONTRACTOR SHALL PROVIDE COST PER CUBIC YARD TO REPLACE WITH SOIL SUITABLE FOR TURF.
 4. CONTRACTOR TO RAKE ENTIRE AREA, LEVELING ANY IMPERFECTIONS IN THE GRADE. LANDSCAPE CONTRACTOR TO ENSURE THAT THERE WILL BE POSITIVE DRAINAGE AND NO PONDING ON SITE. FINISHED GRADE OF LAWN AREAS TO BE 1/2" BELOW TOP OF CURBS, SIDEWALKS AND OTHER PAVEMENTS. REMOVE ANY LARGE (GREATER THAN 1") DIRT CLODS, ROCKS, AND TRASH AND PREPARE A SMOOTH, LEVEL, LOOSE AND COARSE SURFACE. LANDSCAPE ARCHITECT TO APPROVE FINE GRADING PRIOR TO ANY LAWN INSTALLATION. LAWN BED SHALL BE MOIST (BUT NOT MUDDY) TO RECEIVE SEED AND SOD.

C.) HYDROMULCH APPLICATION:

1. FOR ALL HYDROMULCH AREAS, INSTALL SOD STRIPS OF BERMUDA GRASS AT ALL BACKS OF CURBS WITHIN THE LIMITS OF CONSTRUCTION.
2. LAWN AREAS TO BE SEEDED IMMEDIATELY AFTER PREPARATION OF THE BED. APPLY A UNIFORM COAT OF HYDROMULCH AT THE RATES SPECIFIED BELOW:
 - A. SEED (REF. SCHEDULE 1.6 H.3):
 - 1) BERMUDA (HULLED)-2 LBS./1,000 S.F.
 - 2) ANNUAL RYE GRASS-8 LBS./1,000 S.F.
 - B. WOOD CELLULOSE FIBER MULCH - 60 LBS./1,000 S.F.
 - C. FERTILIZER: "PHC FOR TURF" AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET.
 - D. INCORPORATE A TACKIFIER WITH MULCH CAP. DELAY IRRIGATION 8 HOURS TO PERMIT TACKIFIER TO SET.
3. SEED AREAS WITHIN SEEDING LIMITS INDICATED ON THE PLAN AND AREAS DISTURBED BY CONSTRUCTION OPERATIONS. PROTECT EXISTING UTILITIES (INCLUDING IRRIGATION SYSTEM), PLANTING, PAVING, FENCING, AND OTHER SITE AMENITIES FROM DAMAGE CAUSED BY HYDROMULCHING OPERATION.
5. IMMEDIATELY FOLLOWING APPLICATION OF HYDROMULCH, THE CONTRACTOR SHALL WASH EXCESS HYDROMULCHING MATERIAL FROM PREVIOUSLY PLANTED MATERIAL, ARCHITECTURAL FEATURES, ETC. CARE SHALL BE EXERCISED TO AVOID WASHING OR ERODING MULCH MATERIALS FROM LAWN AREA.
6. UPON ESTABLISHMENT OF LAWN, APPLY A POST EMERGENT HERBICIDE FOR CONTROL OF NUT GRASS AND WEEDS. FERTILIZE AT 45 DAY INTERVALS WITH SPECIFIED PLANT HEALTH GROUP'S FERTILIZER AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET DURING AT 45 DAY INTERVALS DURING THE 90 DAY MAINTENANCE PERIOD.
7. DURING THE MONTHS OF OCTOBER THROUGH MARCH CONTRACTOR SHALL HYDROSEED ALL LAWN AREAS WITH ANNUAL RYE GRASS. THE CONTRACTOR SHALL RETURN TO THE SITE BETWEEN APRIL 1ST AND MAY 15 TO RE-PREPARE SEED BED AND HYDROMULCH WITH SPECIFIED BERMUDA SEED IN ORDER TO ESTABLISH A PERMANENT TURF COVER IN ALL LAWN AREAS.

D.) SOD INSTALLATION:

1. INCORPORATE SPECIFIED LAWN FERTILIZER AT SEVEN (7) POUNDS PER 1000 SQUARE FEET OF LAWN AREA FOR SOD.
2. PRE-EMERGE HERBICIDE APPLICATION: APPLY RECOMMENDED HERBICIDE TO LABEL INSTRUCTIONS IN TWO APPLICATIONS. THE FIRST APPLICATION WILL BE UP TO 10 DAYS PRIOR TO PLANTING. THE SECOND APPLICATION WILL BE 5 DAYS PRIOR TO PLANTING. USE CARE TO AVOID WIND DRIFT OR RUNOFF TO ADJACENT ORNAMENTAL TREE OR SHRUB PLANTINGS.
3. LAY SOD WITHIN 24 HOURS FROM TIME OF STRIPPING.
2. LAY SOD TO FORM SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED SOIL INTO MINOR CRACKS BETWEEN PIECES OF SOD; REMOVE EXCESS SOD TO AVOID SMOTHERING ADJACENT GRASS.
5. SOD PADS SHALL BE OF FULLEST SIZE POSSIBLE-NO SOD SLIVERS WILL BE PERMITTED.
6. FINISHED GRADE OF NEW SOD SHALL BE FLUSH WITH ADJACENT LAWN AND PAVEMENT. ENSURE POSITIVE DRAINAGE.
7. ROLL ENTIRE SODDED AREA WITH SOD ROLLER, WATER SOD THOROUGHLY.
8. CONTRACTOR SHALL OVERSEED SOD AREAS WITH ANNUAL RYE GRASS IF LAWN INSTALLATION OCCURS SEPTEMBER 15 THROUGH APRIL 15 AT 8 LBS. 1,000 S.F.
9. SHOULD LAWN AREAS BE SEEDED WITH ANNUAL RYE GRASS THE CONTRACTOR SHALL RETURN TO THE SITE BETWEEN APRIL 15 AND MAY 15 TO RE-PREPARE SEED BED AND SEED WITH BERMUDA.

2.5 ACCEPTANCE

- A.) PRIOR TO SCHEDULING A SUBSTANTIAL COMPLETION INSPECTION LANDSCAPE CONTRACTOR SHALL THOROUGHLY CLEAN SITE OF ALL DEBRIS AND TRASH AND REPAIR ANY DAMAGE TO FINISH GRADE. WHEN LANDSCAPE WORK IS COMPLETE A SUBSTANTIAL COMPLETION INSPECTION WILL BE HELD. FOLLOWING COMPLETION OF ANY PUNCH LIST ITEMS GENERATED FROM THE SUBSTANTIAL COMPLETION INSPECTION A FINAL INSPECTION WILL BE HELD AND IF FOUND ACCEPTABLE A CERTIFICATE OF FINAL ACCEPTANCE WILL BE ISSUED.
- B.) LANDSCAPE CONTRACTOR SHALL CONTINUE MAINTENANCE UNTIL FINAL ACCEPTANCE AT WHICH TIME THE SPECIFIED MAINTENANCE PERIOD WILL BEGIN.

END OF SPECIFICATIONS

REV11/27/07



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08-07-2020

Fisher Heck
ARCHITECTS

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SAN ANTONIO, TEXAS
78205
210-294-1500

PROJECT:
CRYSTAL CITY, TEXAS - MAIN POST OFFICE

SHEET TITLE:

PLANT NOTES

PROJECT NO: 1921 A1

REVISIONS DATE

SHEET NO:

LP 2.2

WATERING SCHEDULE

PRECIPITATION RATE (IN/HR)	WATER DESIRED (IN/WK)	TIME/CYCLE (MIN)	NUMBER OF ZONES	TOTAL TIME MIN.	TOTAL TIME HRS
MP ROTATOR SPRAY (.44)	.80	107.0	7	749	12.49
TREE BUBBLERS (3.87)	.80	12.0	2	24	.40
DRIP/EMITTER ZONE (.64)	.80	75.0	1	75	1.25
TOTAL SYSTEM HOURS OF OPERATION PER WEEK:				14.14	

NOTE: A TYPICAL SCHEDULE WOULD ALLOW WATERING TO OCCUR TWO TIMES PER WEEK. TOTAL WATERING TIME WOULD BE DIVIDED BY THE NUMBER OF WATERING DAYS. THIS SCHEDULE IS DESIGNED FOR SUMMER WATER USAGE AND ESTABLISHMENT OF NEW PLANTING.

PRESSURE CALCULATIONS @ Zone #5

DESIGN STATISTICS FOR CALCULATIONS	
TOTAL ZONE FLOW:	31.2 g.p.m.
ELECTRIC VALVE SIZE:	1.5"
STATIC PRESSURE LESS 10% (STATIC @ 65 psi):	58.5 p.s.i.
ACCUMULATIVE LOSSES FROM CITY MAIN TO FURTHEST HEAD:	
SPRINKLER HEAD REQUIREMENT:	40.0 p.s.i.
ZONE PIPE/FITTING LOSS:	3.6 p.s.i.
1.5" ELECTRIC VALVE LOSS:	1.5 p.s.i.
ELEVATION NET LOSS: (+ - FT):	n/a
SYSTEM MAINLINE LOSS (2 1/2" SCH 40 Loop):	1.2 p.s.i.
BACKFLOW PREVENTOR LOSS (1.5"):	4.0 p.s.i.
WATER METER LOSS (1 1/4"):	4.0 p.s.i.
MASTER ELECTRIC VALVE LOSS (1.5"):	1.5 p.s.i.
TYPE K COPPER SERVICE LOSS:	
TOTAL NET LOSS:	15.8 p.s.i.
DESIGN PRESSURE:	55.8 p.s.i.

Statement of Conformance:
I, JOSEPH A. FERDIN, LICENSED IRRIGATOR #0022076, HEREBY CERTIFIES THAT THIS IRRIGATION DESIGN CONFORMS TO THE DESIGN AND INSTALLATION PARAMETERS OF THE IRRIGATION DESIGN AND EQUIPMENT STANDARDS SET OUT 35-510(J) AND 35-511(C) (6) OF THE CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE.

Jah
Joseph A Ferdin TX LI # 22076

IRRIGATION CONSTRUCTION NOTES

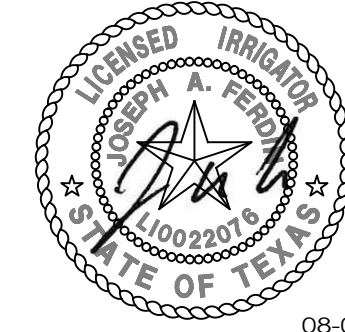
- IT IS THE IRRIGATION CONTRACTORS SOLE RESPONSIBILITY TO CONFIRM THE ACTUAL ONSITE WATER PRESSURE FROM THE SOURCE. IF WATER PRESSURE IS LESS THAN MANDATED THEN IMMEDIATELY NOTIFY THE OWNERS REPRESENTATIVE. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A PRESSURE REDUCING VALVE SHALL BE INSTALLED.
- DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGN WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- THE IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THEMSELVES FAMILIAR WITH ALL UNDERGROUND UTILITIES AND PIPES. IRRIGATION CONTRACTORS SHALL TAKE SOLE RESPONSIBILITY FOR ANY COSTS INCURRED DUE TO DAMAGE OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.
- DUE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED. IRRIGATION CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY. FURNISHINGS SUCH FITTINGS, ETC AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING, AND ARCHITECTURAL FEATURES. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND WITHIN PROPERTY LINES.
- LATERAL PIPE SHALL BE INSTALLED AT MIN. DEPTH OF 12" WITH MAINLINE PIPE / WIRE TO BE INSTALLED AT A MINIMUM OF 18". NO MACHINE TRENCHING IS TO BE DONE WITHIN DRIPLINE OF TREES. TRENCHING IS TO BE DONE BY HAND OR BY TUNNELING UNDER ROOT SYSTEM BY METHOD APPROVED BY OWNER'S REPRESENTATIVE. PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND EXISTING PLANT MATERIAL TO AVOID DAMAGE TO EXISTING PLANTS. DO NOT CUT ANY ROOT OVER 3/4" DIAMETER. ANY CUTS MADE SHALL BE CLEAN AND WITHOUT FRAYED ENDS.
- IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVES WHEREVER PIPING OR CONDUIT PASSES, UNDER ALL PAVING, THROUGH WALLS, ETC. ALL SLEEVE LOCATIONS MAY NOT BE SHOWN ON PLAN, COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. GENERAL CONTRACTOR, AND OTHER SUBCONTRACTORS AS REQUIRED. ALL SLEEVES SHALL BE SCH 40 PVC, SIZED TWICE THE DIAMETER OF PIPE OR COMBINATION OF PIPES ENCLOSED WITHIN THE SLEEVE.
- ALL PIPE CONNECTIONS SHALL BE PRIMED WITH AN APPROVED COLOR PRIMER BEFORE BEING CHEMICAL WELDED.
- IT IS THE IRRIGATION CONTRACTORS RESPONSIBILITY TO COORDINATE PIPING WITH THE LANDSCAPE SUBCONTRACTOR TO AVOID CONFLICT WITH PLANTING BEDS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION SUBCONTRACTOR TO MOVE PIPING TO ALLOW PROPER ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE. ALL SPRAY HEADS SHALL BE LOCATED 6" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE.
- USE RIGID SCH 80 PVC SWING JOINT ASSEMBLIES TO CONNECT ALL ROTARY HEADS AND QUICK COUPLERS.
- ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC.
- ALL LANDSCAPE PLANTING AREAS IRRIGATED WITH DRIP SHOULD BE INSTALLED AT 18" SPACING.
- ALL TURF AREAS IRRIGATED WITH DRIP SHOULD BE INSTALLED 12" SPACING.
- ALL IRRIGATION WIRES SHALL BE UL LISTED FOR DIRECT BURIAL AND BE A MINIMUM #14 GAUGE. WIRE SPLICES SHALL INCLUDE DBY CONNECTORS AS RECOMMENDED BY 3M COMPANY.
- ELECTRIC POWER SHALL BE PROVIDED TO CONTROLLER LOCATION BY GENERAL CONTRACTOR. IRRIGATION CONTRACTOR SHALL PROVIDE FINAL HARD-WIRE TO CONTROLLERS.
- VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NECESSARY. INSTALL 3" OF PEA GRAVEL BELOW THE VALVE. USE 12" X 17" RECTANGULAR VALVE BOXES WITH A PURPLE LID FOR QUICK COUPLING VALVES AND 10" ROUND BOXES FOR ELECTRIC VALVES UNLESS NOTED OTHERWISE.
- VALVE AND CIRCUIT SHALL BE SEPARATED BASED ON WATER USE, SO THAT TURF AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUNDCOVER AREAS. IRRIGATION HEADS IN THE TURF AREAS WILL BE VALVED SEPARATELY FROM SHRUB AND/OR GROUNDCOVER AREAS. IT IS RECOMMENDED THAT SEASONAL COLOR AREAS BE WATERED SEPARATELY. UNDER NO CIRCUMSTANCES ARE ZONE TYPES TO BE COMBINED.
- FINAL LOCATION OF CONTROLLER, WATER METER, BACKFLOW DEVICE, MASTER VALVE, FLOW SENSOR, AND WEATHER SENSOR SHALL BE APPROVED BY GENERAL CONTRACTOR, LANDSCAPE ARCHITECT, OR AN OWNERS REPRESENTATIVE.
- AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE ORDERED FROM SUPPLIERS OR DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE LANDSCAPE ARCHITECT OR OWNERS'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN ACCEPTANCE.
- IRRIGATION CONTRACTOR WILL SUPPLY A COMPLETE AS BUILT DRAWING TO INCLUDE EXACT LOCATION OF ALL MAINLINE, VALVES, CONTROLLERS, QUICK COUPLERS, POINT OF CONNECTION, AND WIRE PATH. IRRIGATION CONTRACTOR WILL SUPPLY A COMPLETE SET OF OPERATION AND MAINTENANCE MANUALS.
- PROVIDE A COLORED LAMINATED ZONE MAP AND INSTALL AT THE CONTROLLER.
- THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND SHALL SECURE ALL NECESSARY PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ANY DISCREPANCIES SHALL BE DISCUSSED PRIOR TO CONSTRUCTION.

IRRIGATION LEGEND

KEY	EXPLANATION
W	1 1/4" EXISTING IRRIGATION METER
DC	1.5" DOUBLE CHECK BACKFLOW DEVICE IN SEPARATE VALVE BOX PER LOCAL CODES.
MV	1.5" MASTER VALVE, HUNTER ICV-151G NORMALLY CLOSED VALVE
MP	MP ROTATOR NOZZLE: M8-MP800SR, MC-MP CORNER, MR/MS/ML - MP SIDESTRIPS AND ENDSTRIPS
H	NOTE: ALL MP ROTATOR HEADS ARE TO BE INSTALLED ON HUNTER PROS-06-PRS-CV-R FOR TURF AREAS AND HUNTER PROS-12-PRS40-CV-R SPRAYS FOR PLANTING BEDS
T	TREE BUBBLER ASSEMBLY - ON 6" POP UP
C	IRRIGATION CONTROLLER HUNTER PRO-C. FINAL LOCATION TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE ARCHITECT
W	WEATHER SENSOR HUNTER SOLAR-SYNC. FINAL LOCATION TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE ARCHITECT
H	HUNTER ICV-AS-ADJ SERIES - REMOTE CONTROL VALVE
R	RAINBIRD DRIP CONTROL ZONE VALVE - REF DETAILS
I	MANUAL ISOLATION VALVE - SIZE OF MAINLINE
D	DRIPLINE: RAINBIRD XF SERIES DRIPLINE. FOR BED AREAS USE XFD-09-18
T	DRIPLINE: RAINBIRD XF SERIES DRIPLINE. FOR TURF AREAS USE XFS-09-12
M	MAIN LINE - USE SCH-40 PVC PIPE AS DESIGNATED ON PLANS
L	LATERAL LINE - SIZE AS NOTED ON PLANS. USE CLASS 315 ON 1/2" PIPE AND CLASS 200 IPS PVC ON 3/4" AND LARGER PIPE.
S	IRRIGATION SLEEVE - USE 2 SIZES LARGER THAN TOTAL DIAMETER OF PIPE/S DESIGNATED FOR CROSSING PAVING. VALVE WIRING MAY RUN IN THE SAME SLEEVES. USE SCH 40 PVC PIPE.
#	ZONE IDENTIFICATION
f	IRRIGATION ZONE SIZE IN GALLONS PER MINUTE
-	ZONE SIZE



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08-07-2020

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PROJECT:
CRYSTAL CITY, TEXAS - MAIN POST OFFICE

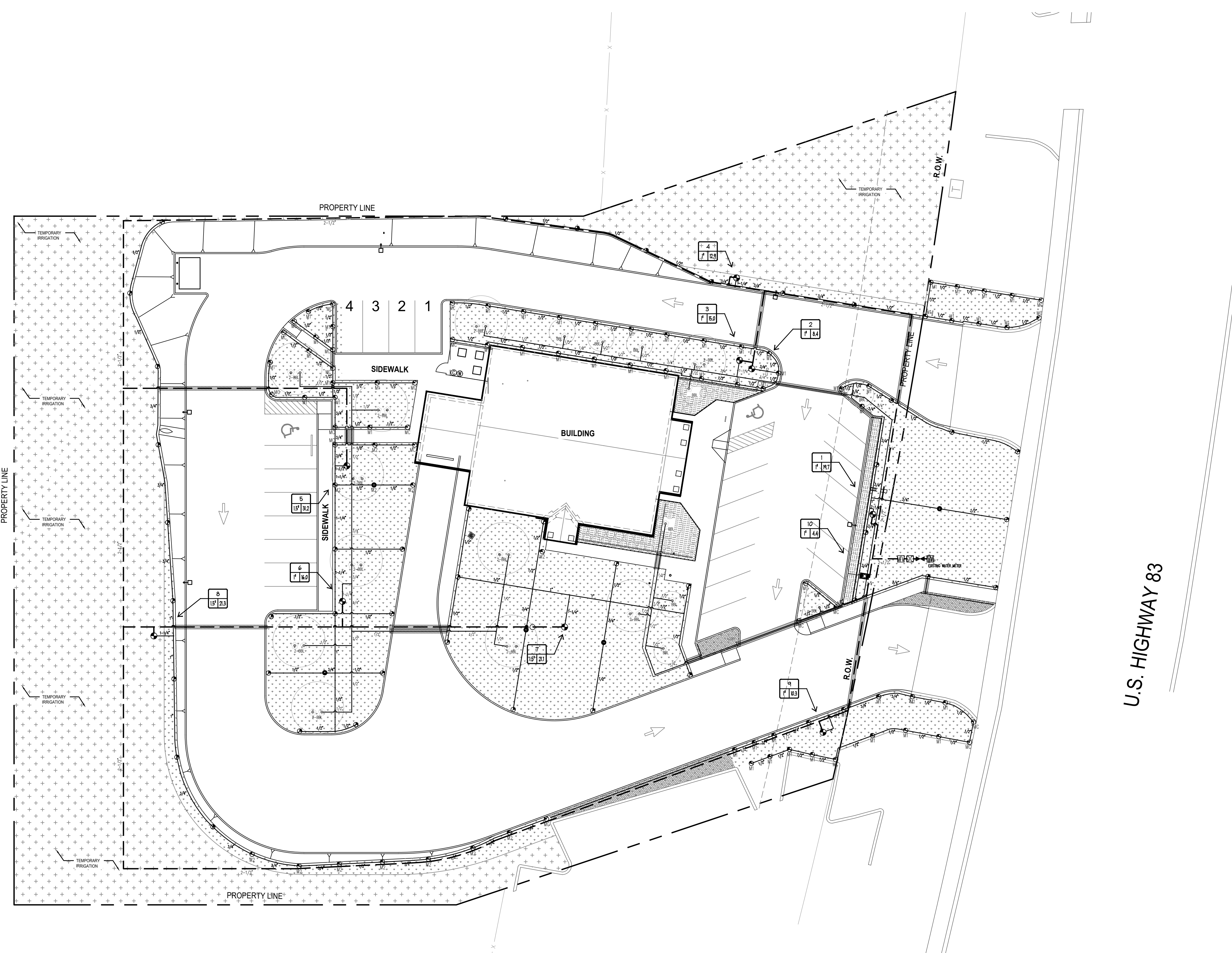
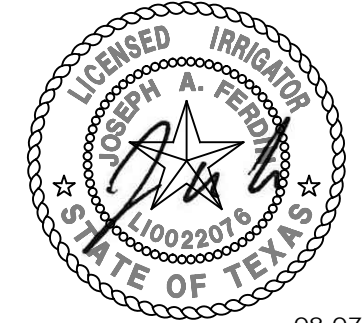
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IRRIGATION LEGEND & NOTES

PROJECT NO: 1921 A1

△ REVISIONS DATE

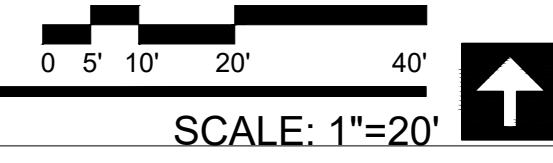
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U.S. HIGHWAY 83

1 IRRIGATION
PLAN



SCALE: 1"=20'

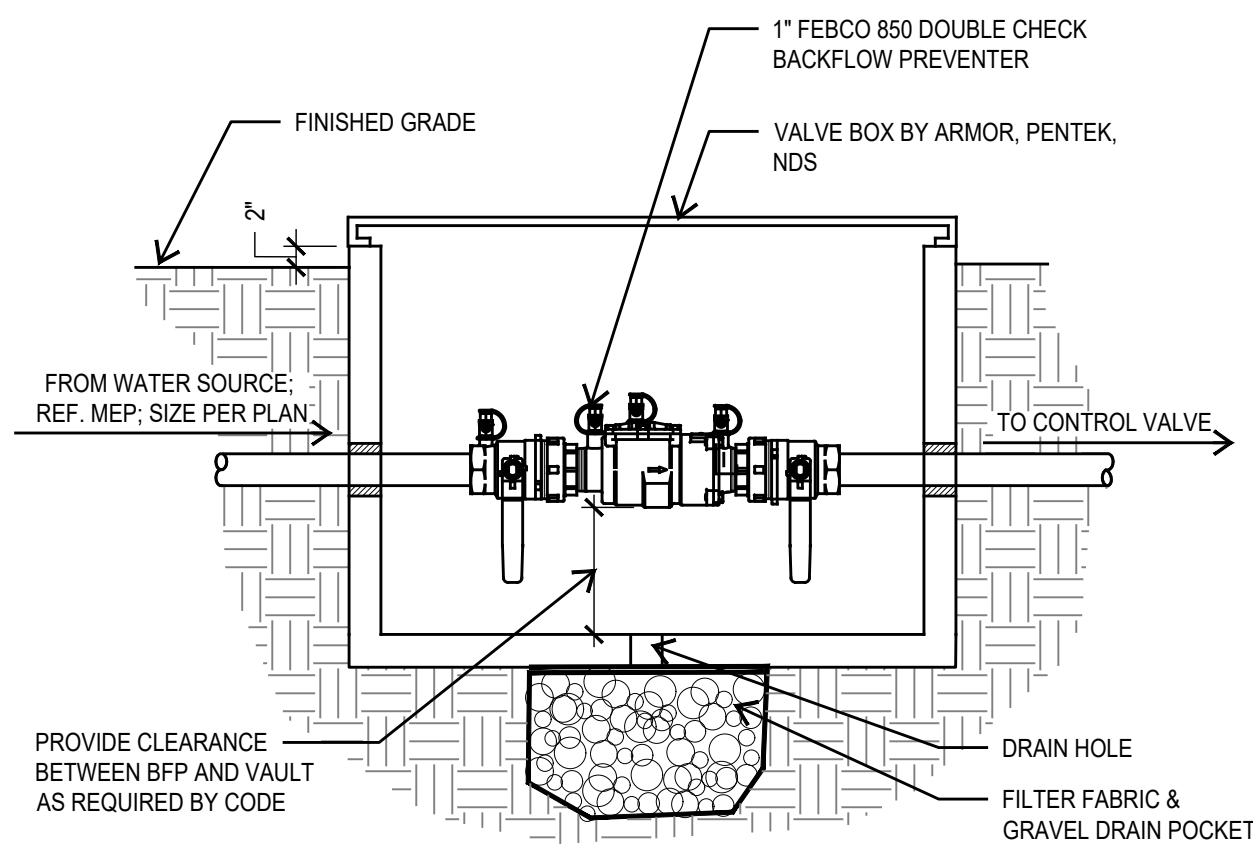
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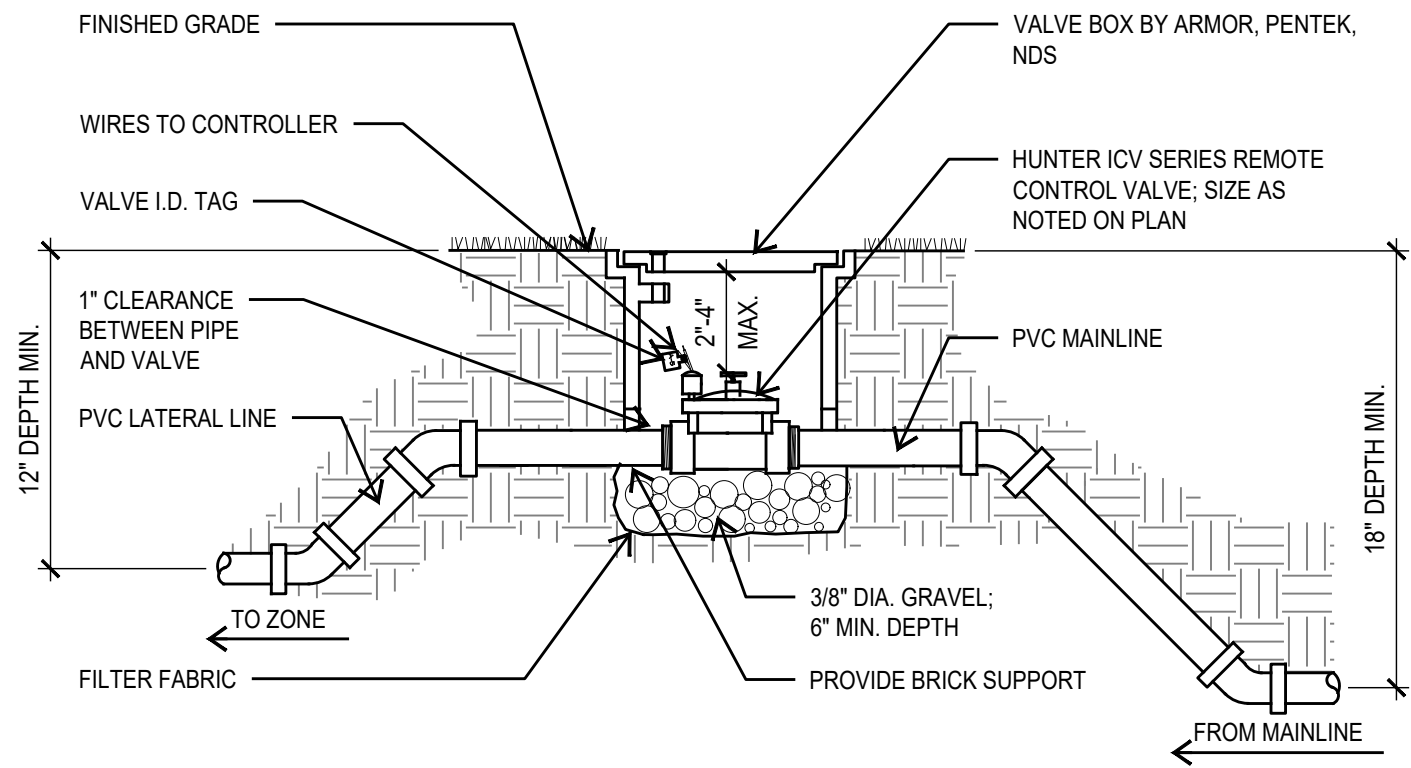
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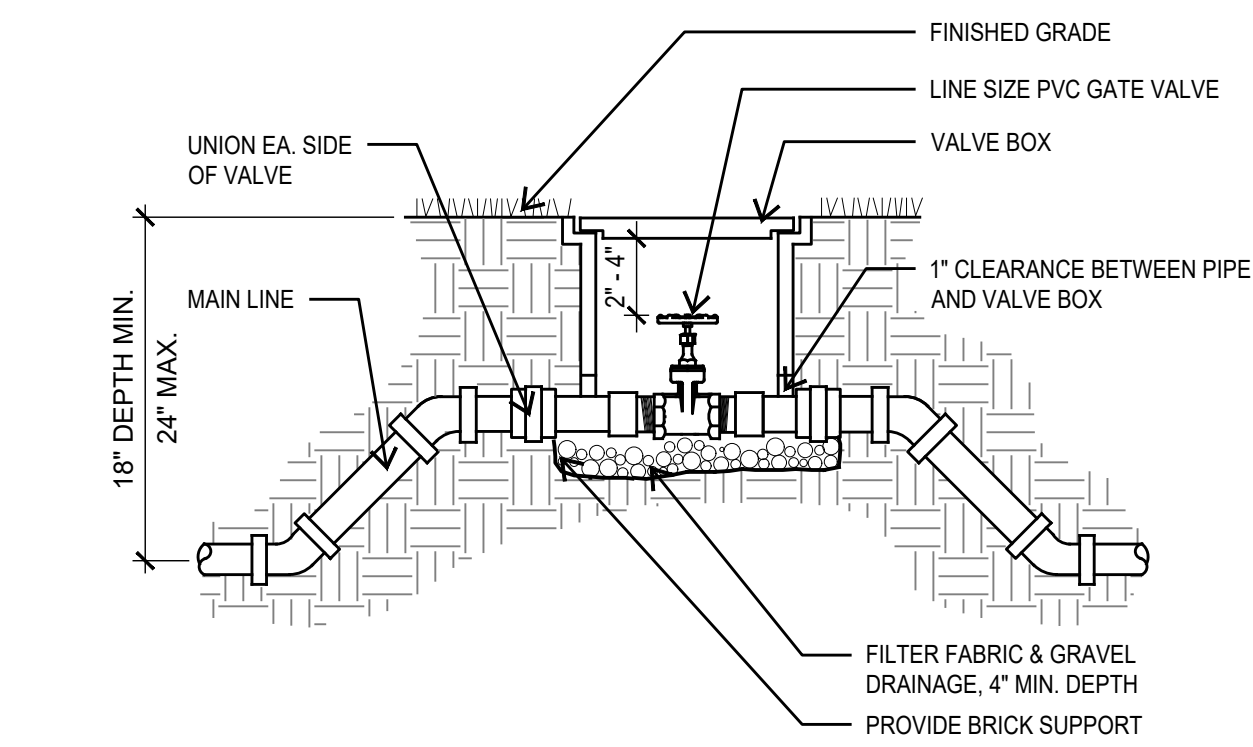
SHEET NO:
1.1



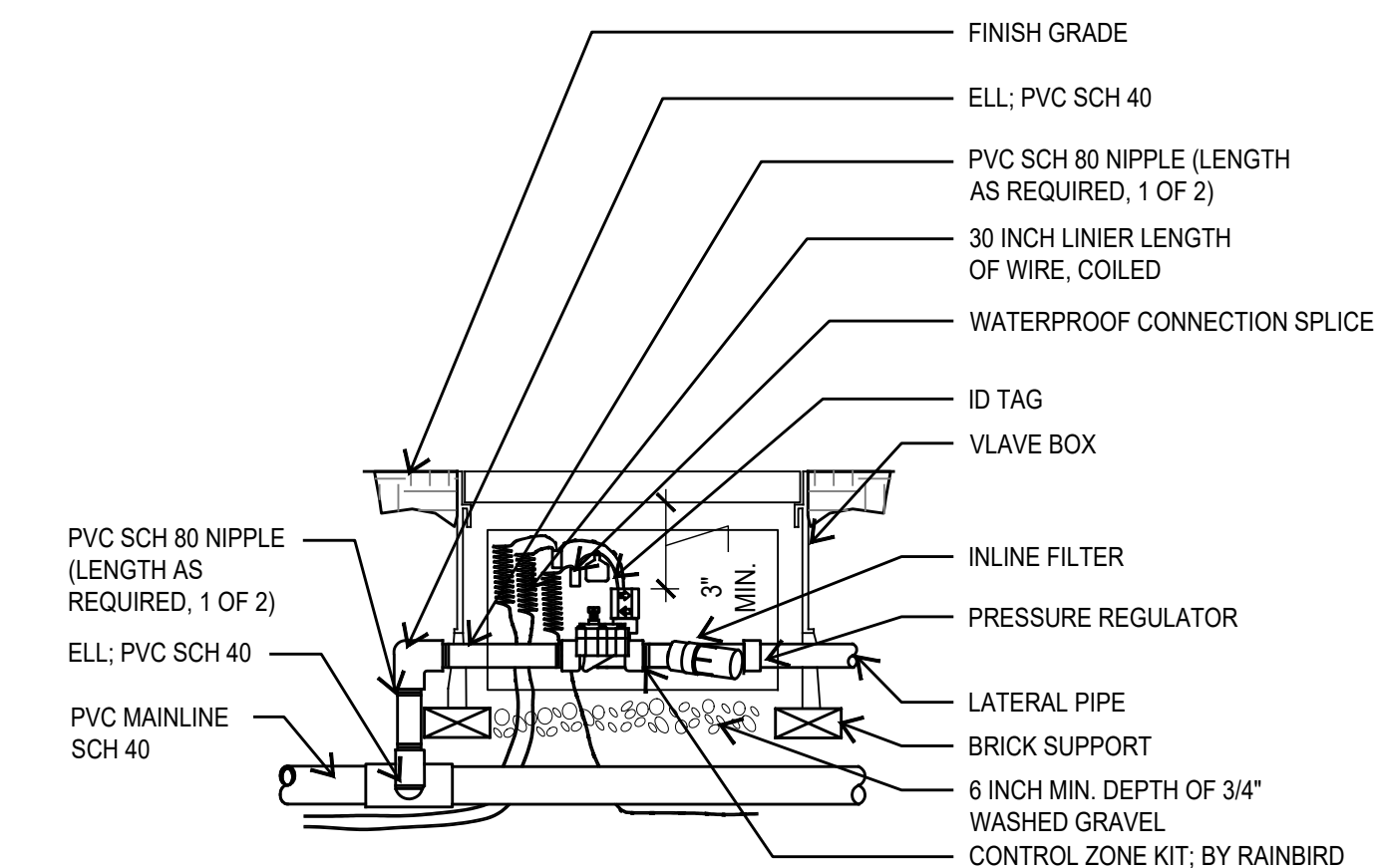
1 BACKFLOW DEVICE
SECTION NOT TO SCALE



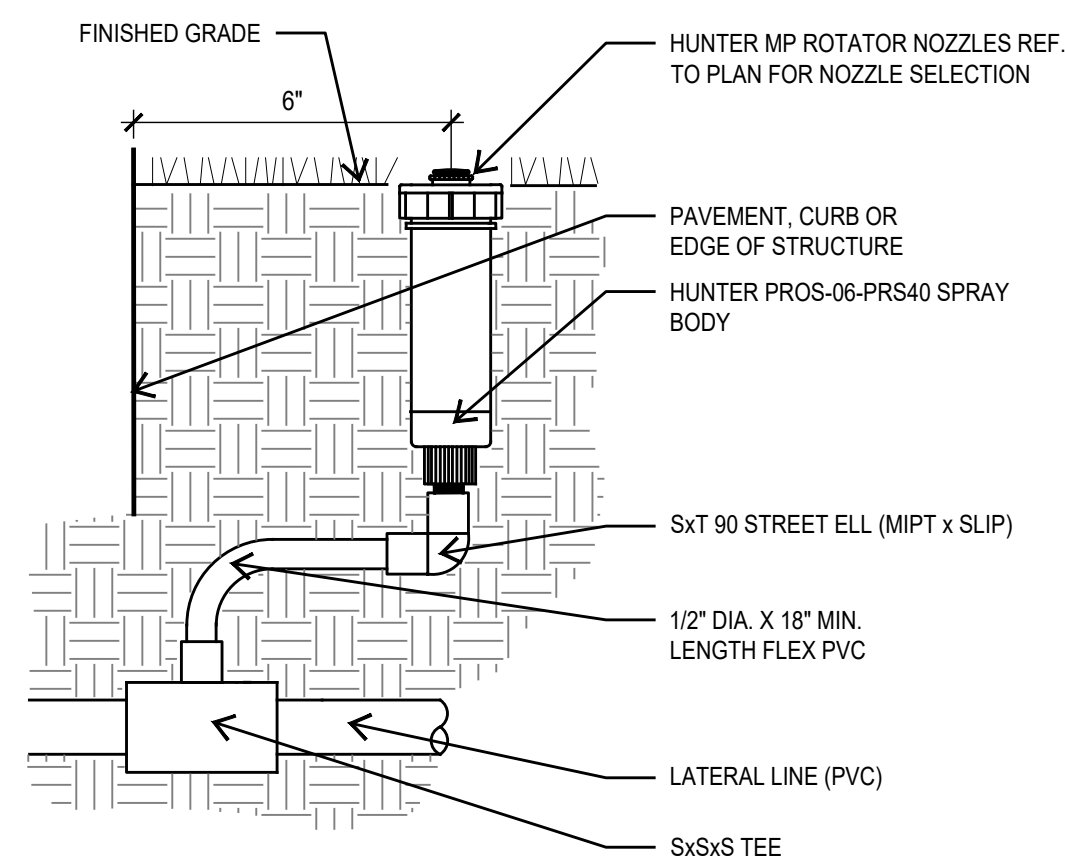
2 ZONE VALVE
SECTION NOT TO SCALE



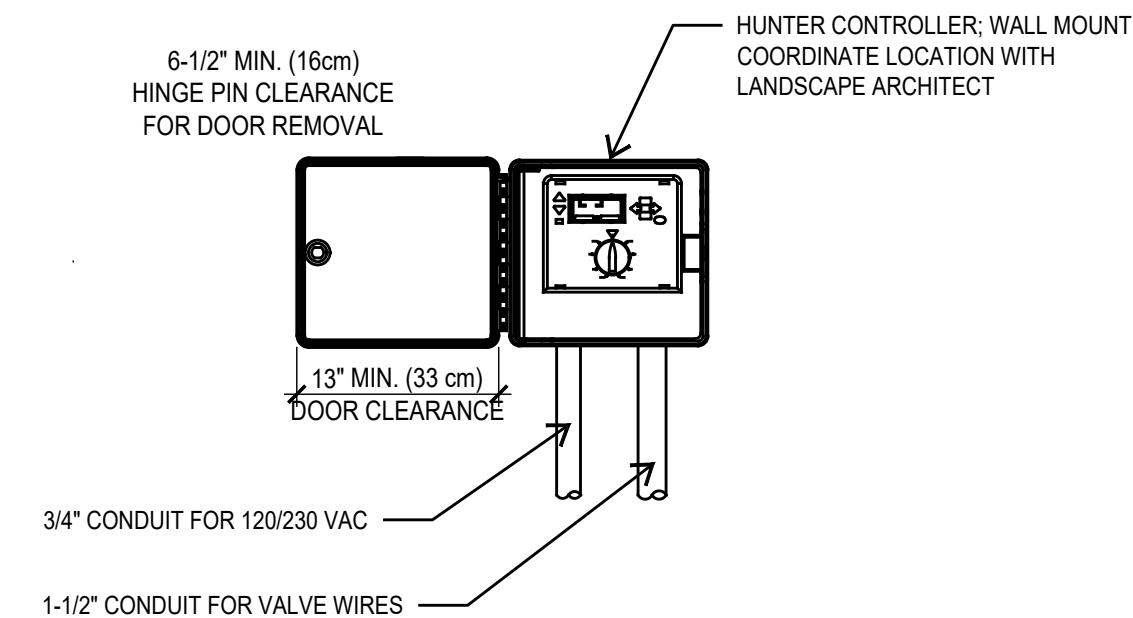
3 MANUAL ISOLATION VALVE
SECTION NOT TO SCALE



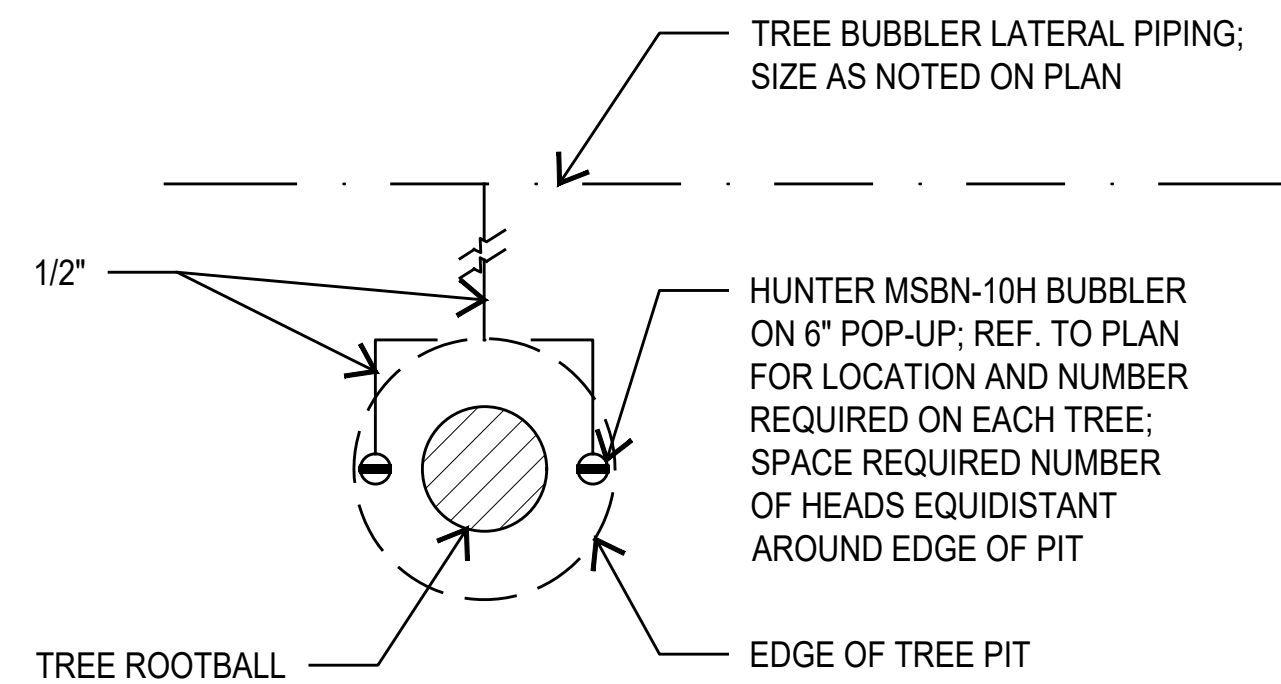
4 DRIP CONTROL ZONE KIT
SECTION NOT TO SCALE



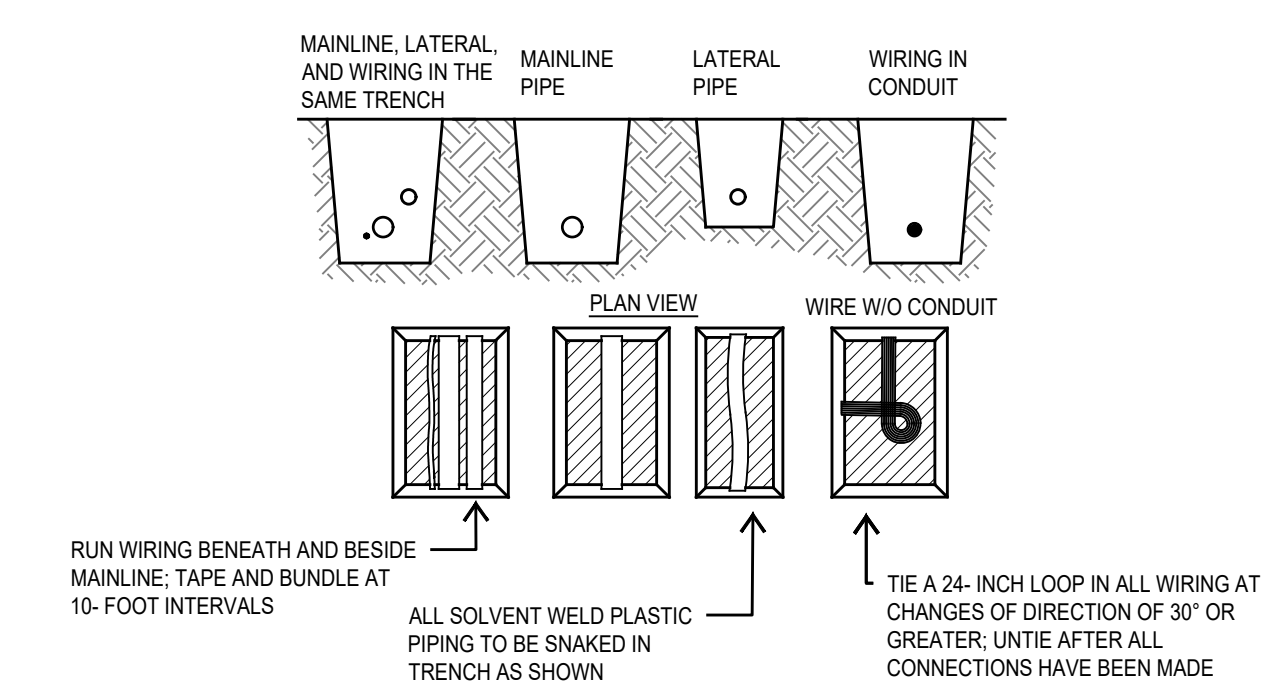
5 MP ROTATOR ON POP-UP DETAIL
SECTION NOT TO SCALE



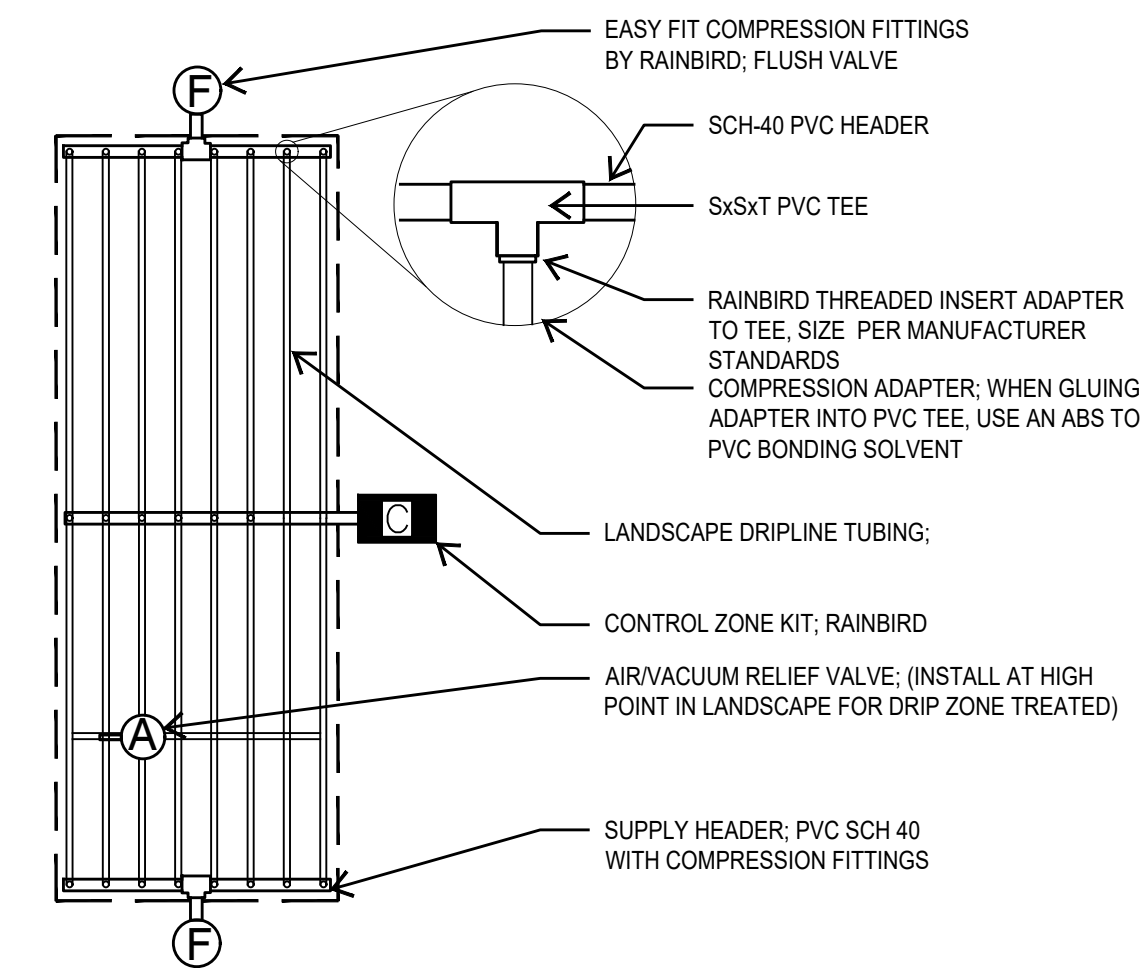
6 IRRIGATION CONTROLLER
SECTION NOT TO SCALE



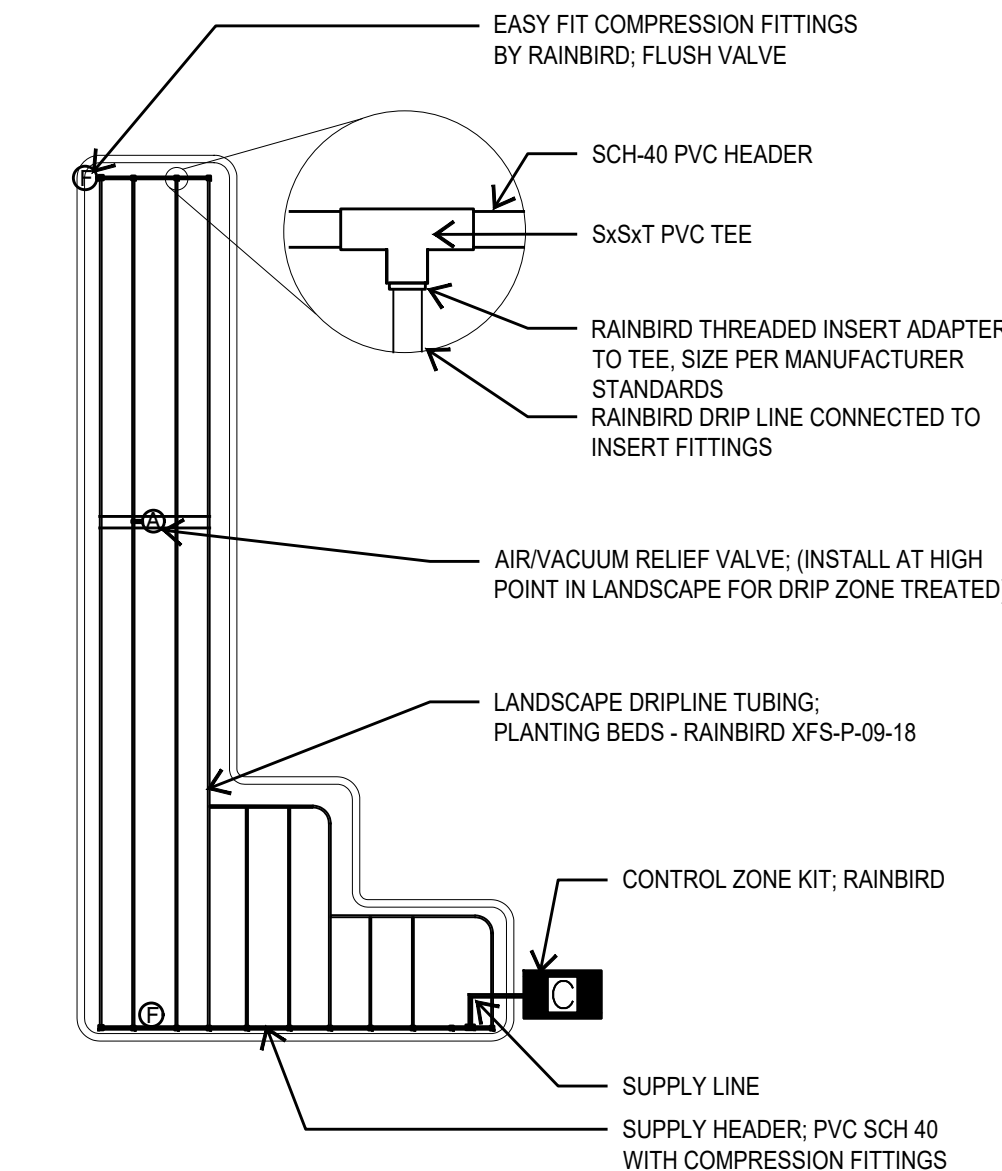
7 TREE BUBBLER ASSEMBLY
SECTION NOT TO SCALE



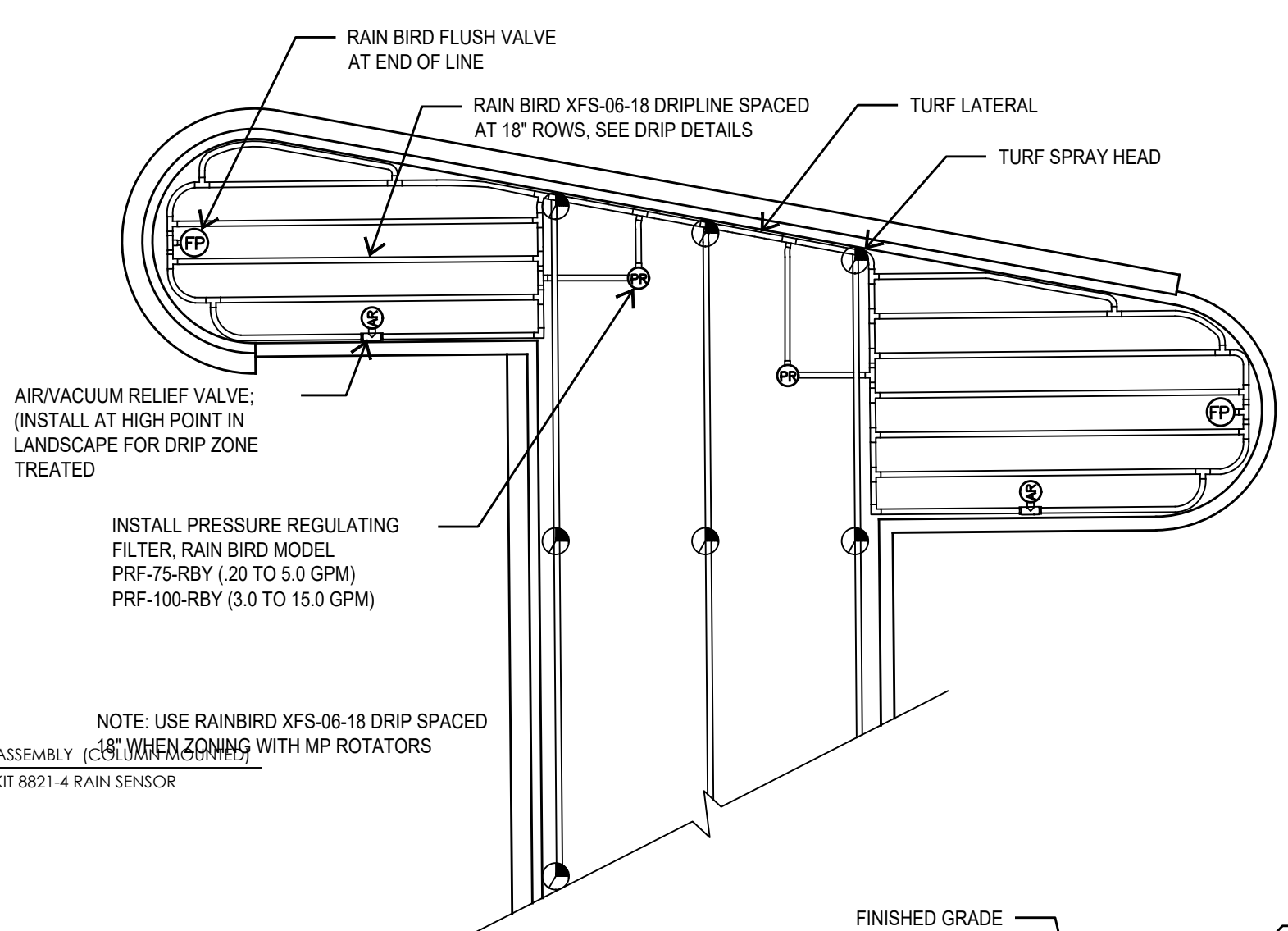
8 IRRIGATION TRENCH
SECTION NOT TO SCALE



9 DRIPLINE (CENTER FEED)
SECTION NOT TO SCALE



10 DRIPLINE (END FEED)
SECTION NOT TO SCALE



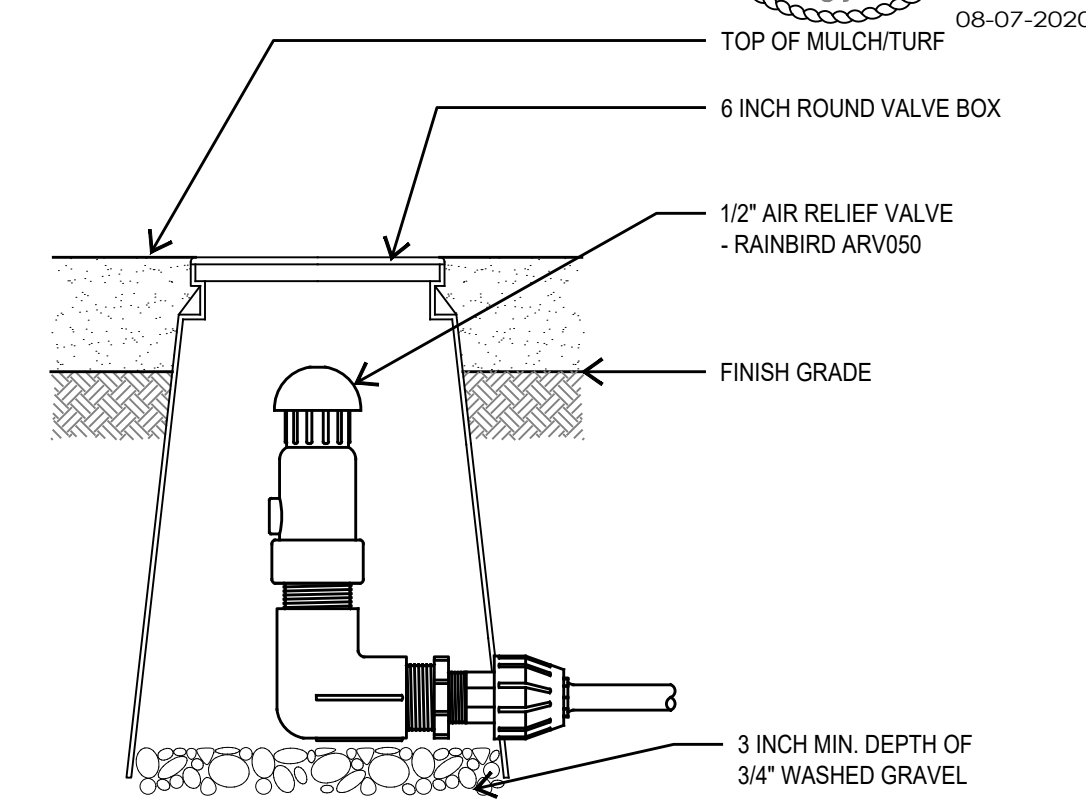
11 TURF DRIP WITH MP ROTATORS
SECTION NOT TO SCALE

DRIP IRRIGATION DESIGN NOTES

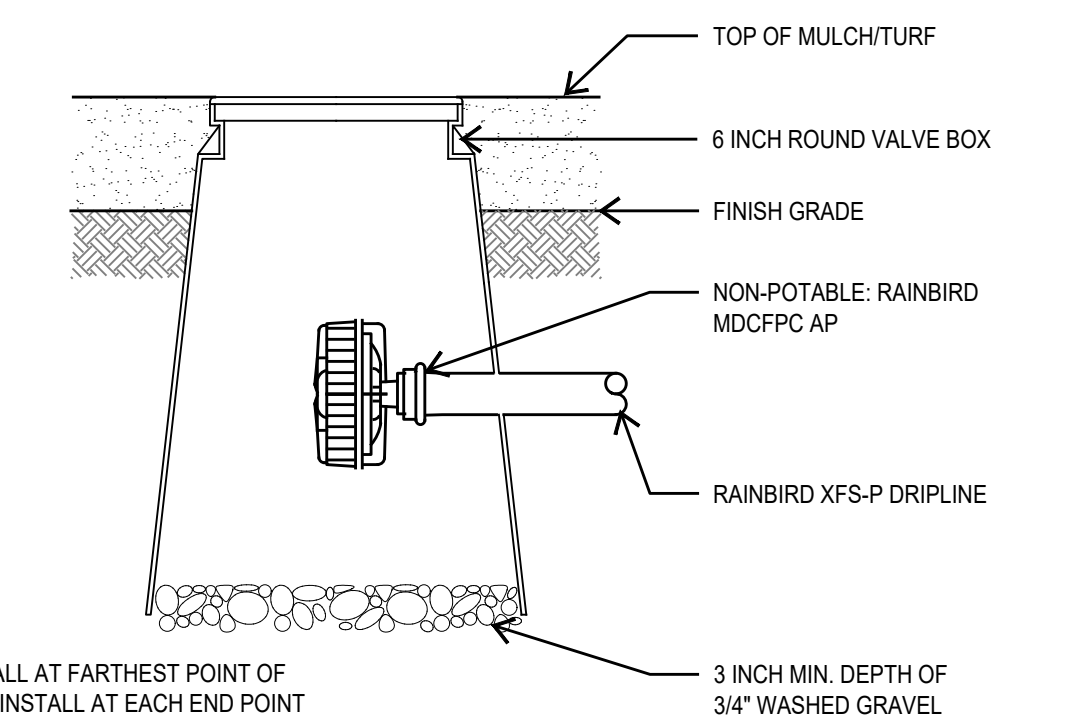
1. DRIPLINE SHALL BE BURIED 3" TO 5" BELOW FINISHED SOIL GRADE IN PLANTING BEDS AFTER PLANTING AND BEFORE MULCH AND 4" TO 6" BELOW FINISHED GRADE IN TURF AREAS.
2. ALL DRIPLINE SHALL BE SECURED USING SOIL STAPLES AS SUPPLIED BY THE MANUFACTURER SPACED A MAXIMUM OF 3" ON CENTER.
3. RAINBIRD XFS SERIES DRIPLINE SHALL BE USED AS FOLLOWS; TURF AREAS - XFS-06-12 AND BED AREAS - XFS-09-12. IN BED AREAS WITH A SLOPE OF 3:1 OR MORE USE RAINBIRD XFCV-06-18.
4. WHEN CONFLICTS OCCUR BETWEEN THESE DRAWINGS AND THE MANUFACTURER'S SPECIFICATIONS DEFER TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
5. EACH DRIP ZONE SHALL HAVE A DRIP SYSTEM OPERATION INDICATOR, RAINBIRD MODEL OPERIND. INSTALL PER RAINBIRD RECOMMENDATIONS.



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12 AIR RELIEF VALVE
SECTION NOT TO SCALE



13 FLUSH VALVE
SECTION NOT TO SCALE

PROPER SIZING OF SUPPLY AND EXHAUST HEADERS

TOTAL ZONE FLOW	PIPE SIZE
UP TO 5 GPM	1/2" SCH 40 PVC OR 1/2" CLASS 315 PVC
5.1 TO 8 GPM	3/4" CLASS 200 PVC
8.1 TO 13 GPM	1" CLASS 200 PVC
13 GPM TO 22 GPM	1 1/4" CLASS 200 PVC
22.1 TO 31 GPM	1 1/2" CLASS 200 PVC

NOTE: A 45 PSI PRESSURE REGULATOR IS RECOMMENDED TO OBTAIN MAXIMUM RUN LENGTHS AND MAXIMIZE ZONE SIZE WHEN INSTALLING XF SERIES DRIPLINE