

HH ARCHITECTURE

ADDENDUM #1

April 18, 2025

Project Name: **East Wake Site - Fire & Rescue Training Center**

Owner: Wake Technical Community College

NCCS Project #: 2303
HH Project #: 22-086

From: **HH Architecture**
James G. Briglia, AIA jbriglia@hh-arch.com

To: Samet Corporation
Andrew Gotschall agotschall@sametcorp.com

Message: Bidders are hereby informed that the following additions, deletions, changes, and clarifications supersede and supplement the Contract Documents for the above-referenced project. It forms a part of the previously issued Construction Documents dated **March 14, 2025**.

This addendum may include revised pages and drawings, which shall be inserted before the corresponding page or drawings in the previously issued documents.

REVISIONS TO SPECIFICATIONS

1. **012100 Allowances: REPLACE** in its entirety section **012100 Allowances** issued previously with the attached version dated 04/14/2025
 - a. Allowance quantities changed, and additional allowances.
2. **102600 Wall and Door Protection: Delete** Section **102600 Wall and Door Protection**
3. **221116 Facility Water Distribution Piping: REPLACE** in its entirety section **221116 Facility Water Distribution Piping** with the attached **221117 SITE WATER DISTRIBUTION PIPING** revision dated 04/14/2025.
 - a. The section was renumbered and renamed to clarify where sections are to be applied.
4. **221126 Domestic Water Pumps: Delete** section **221126 Domestic Water Pumps** this work is not included in the project.

5. **251510 Energy Mgt Info Systems: REPLACE** in its entirety section **251510 Energy Mgt Info Systems** issued previously with the attached version dated 04/14/2025
 - a. Page 8, replace lines section 5 of "Graphics Required" with the following:

"Fire and Rescue Training Facility shall be added to the existing energy dashboard to allow input of utility bill information similar to current buildings using the energy dashboard in Skyspark"
6. **262713 – Electrical Metering Equipment: REPLACE** in its entirety section 262713 – Electrical Metering Equipment issued previously with the attached version dated 04/14/2025
 - a. Add text to page 2, line 37 and page 3, line 26 with the following:

"The Meter shall have Ethernet port and RS-485 terminals for communication to external devices."

REVISIONS TO DRAWINGS

7. **REPLACE H401** with the attached **H401** dated 4/14/2025.
 - a. Added controls for BAS integration to electric meter.
8. **REPLACE E002** with the attached **E002** dated 4/14/2025.
 - a. Moved two camera locations to different poles and added one new camera location and circuit.
 - b. Added raceways from restroom building to Training Tower and Burn Building for fiber cable with keynote 12.
9. **REPLACE E111** with the attached **E111** dated 4/14/2025.
 - a. Added data cable for camera in corner of restroom building with keynote 13.
 - b. Added circuits for future ERRC to electrical room with keynote 14.
 - c. Added conduit for network connection from meter to BAS with keynote 15.
10. **REPLACE E301** with the attached **E301** dated 4/14/2025.
 - a. Added detail 10/E301 raceway rough in for future owner use.
11. **REPLACE E401** with the attached **E401** dated 4/14/2025.
 - a. Added circuits 38 and 40 to panel P2.
12. **BURN BUILDING BB DRAWINGS:** Replace the following drawings with the attached drawings dated 4/14/2025
 - a. **BB001:** Updated notes for clarification.

- b. **BB002:** Updated note 4 under expansion anchor schedule.
- c. **BB201:** Added shaded area for ladder grooves to coordinate with Civil drawings, updated exterior steel stair dimensions, and updated notes for clarification.
- d. **BB202 – BB206:** Updated exterior steel stair dimensions, and updated notes for clarification.
- e. **BB207:** Updated exterior steel stair dimensions, added dimensions to clarify parapet, and updated notes for clarification.
- f. **BB208:** Update wall joint at third floor balcony.
- g. **BB301-BB303:** Updated height of debris chute.
- h. **BB306 – BB307:** Updated thermal lining at ceiling extents and rollover, and updated notes for clarification.
- i. **BB401:** Updated exterior steel stair dimensions.
- j. **BB402-BB407:** Updated exterior steel stair framing, updated additional reinforcing notes, added debris chute framing to plans.
- k. **BB501 – BB606, BB610:** Updated dimensions and notes on details for clarification.
- l. **BB609:** Updated debris chute details.

13. TRAINING TOWER TT DRAWINGS: Replace the following drawings with the attached drawings dated 4/14/2025

- a. **TT302:** Updated masonry control joint locations.
- b. **TT403:** Updated note for clarification.
- c. **TT502:** Updated dimensions and notes on details for clarification.
- d. **TT504:** Updated exterior steel stair framing, and updated notes on details for clarification.
- e. **TT505:** Updated notes on concrete stair sections for clarification.
- f. **TT603-TT604, TT606-TT608:** Updated notes on details for clarification.

14. **REPLACE TT003** with the attached **TT003** dated 3/14/2025

15. **ADD** the attached **BB003** dated 3/14/2025.

CLARIFICATIONS

16. Please note the previously issued **STRUCTURAL S DRAWINGS** have an issue date of **3/19/2025**.

17. **DELETE E003-SITE PLAN PHOTOMETRICS** from the drawing index on G000, it is not provided as part of the set.

ATTACHEMENTS

012100 Allowances Add1 25-0414
221117 Site Water Distribution Piping
251510 Energy Mgt Info Systems Add1 25-0414
262713 Electrical Metering Equipment Add1 25-0414
E002 SITE PLAN ADD1-2025-0414
E111 PLANS -RESTROOM BUILDING ADD1-2025-0414
E301 ELECTRICAL DETAILS ADD1-2025-0414
E401 PANEL SCHEDULES ADD1-2025-0414
H401 CONTROLS & SCHEDULES ADD1-2025-0414
BB001 BURN BUILDING -GENERAL NOTES ADD1-2025-0414
BB002 BURN BUILDING -TABLES, LEGEND & ABBREVIATIONS ADD1-2025-0414
BB003 BURN BUILDING -LIFE SAFETY PLAN ADD1-2025-0414
BB201 BURN BUILDING -FIRST FLOOR PLAN ADD1-2025-0414
BB202 BURN BUILDING -SECOND FLOOR PLAN ADD1-2025-0414
BB203 BURN BUILDING -THIRD FLOOR PLAN ADD1-2025-0414
BB204 BURN BUILDING -FOURTH FLOOR PLAN ADD1-2025-0414
BB205 BURN BUILDING -FIFTH FLOOR PLAN ADD1-2025-0414
BB206 BURN BUILDING -SIXTH FLOOR PLAN ADD1-2025-0414
BB207 BURN BUILDING -HIGH ROOF & STAIR ROOF PLANS ADD1-2025-0414
BB208 BURN BUILDING -EXTERIOR WALL BRACING PLANS ADD1-2025-0414
BB301 BURN BUILDING -SOUTH ELEVATION ADD1-2025-0414
BB302 BURN BUILDING -WEST & EAST ELEVATIONS ADD1-2025-0414
BB303 BURN BUILDING -NORTH ELEVATION ADD1-2025-0414
BB306 BURN BUILDING -BUILDINGSECTIONS ADD1-2025-0414
BB307 BURN BUILDING -BUILDINGSECTIONS ADD1-2025-0414
BB401 BURN BUILDING -FOUNDATION PLAN ADD1-2025-0414
BB402 BURN BUILDING -SECOND FLOOR FRAMING PLAN ADD1-2025-0414
BB403 BURN BUILDING -THIRD FLOOR FRAMING PLAN ADD1-2025-0414
BB404 BURN BUILDING -FOURTH FLOOR FRAMING PLAN ADD1-2025-0414
BB405 BURN BUILDING -FIFTH FLOOR FRAMING PLAN ADD1-2025-0414
BB406 BURN BUILDING -SIXTH FLOOR FRAMING PLAN ADD1-2025-0414
BB407 BURN BUILDING -HIGH ROOF & STAIR ROOF FRAMING PLANS ADD1-2025-0414
BB501 BURN BUILDING -TYPICALCONCRETEDETAILS ADD1-2025-0414
BB502 BURN BUILDING -FOUNDATIONDETAILS ADD1-2025-0414
BB503 BURN BUILDING -CONCRETE SLAB SECTIONS ADD1-2025-0414
BB504 BURN BUILDING -EXTERIOR STEEL STAIR DETAILS ADD1-2025-0414
BB505 BURN BUILDING -EXTERIOR STEEL STAIR DETAILS ADD1-2025-0414
BB506 BURN BUILDING -CONCRETE STAIR SECTIONS ADD1-2025-0414
BB601 BURN BUILDING -TYPICAL MASONRY DETAILS ADD1-2025-0414

BB602 BURN BUILDING -THERMAL LINING AND CMU PARAPET DETAILS ADD1-2025-0414
BB603 BURN BUILDING -TYPICAL SCUPPER DETAILS ADD1-2025-0414
BB604 BURN BUILDING -TYPICAL STEEL PLATE DOOR DETAILS ADD1-2025-0414
BB605 BURN BUILDING -DOUBLE STEEL PLATE DOOR DETAILS ADD1-2025-0414
BB606 BURN BUILDING -TYPICAL STEEL PLATE SHUTTER DETAILS ADD1-2025-0414
BB609 BURN BUILDING -DEBRIS CHUTE DETAILS ADD1-2025-0414
BB610 BURN BUILDING -MISCELLANEOUSDETAILS ADD1-2025-0414
TT003 TRAINING TOWER -LIFE SAFETY PLAN ADD1-2025-0414
TT302 TRAINING TOWER -EAST & NORTH ELEVATIONS ADD1-2025-0414
TT403 TRAINING TOWER -FIFTH FLOOR & HIGH ROOF FRAMING PLANS ADD1-2025-0414
TT502 TRAINING TOWER -STRUCTURAL STEEL FRAMING DETAILS ADD1-2025-0414
TT504 TRAINING TOWER -EXTERIOR STEEL STAIR DETAILS ADD1-2025-0414
TT505 TRAINING TOWER -CONCRETE STAIR SECTIONS ADD1-2025-0414
TT603 TRAINING TOWER -DOOR DETAILS AND SCHEDULES ADD1-2025-0414
TT604 TRAINING TOWER -TYPICAL WINDOW SHUTTER DETAILS ADD1-2025-0414
TT606 TRAINING TOWER -GUARDRAIL GATE AT PARAPET ADD1-2025-0414
TT607 TRAINING TOWER -MISCELLANEOUS DETAILS ADD1-2025-0414
TT608 TRAINING TOWER -MISCELLANEOUS DETAILS ADD1-2025-0414

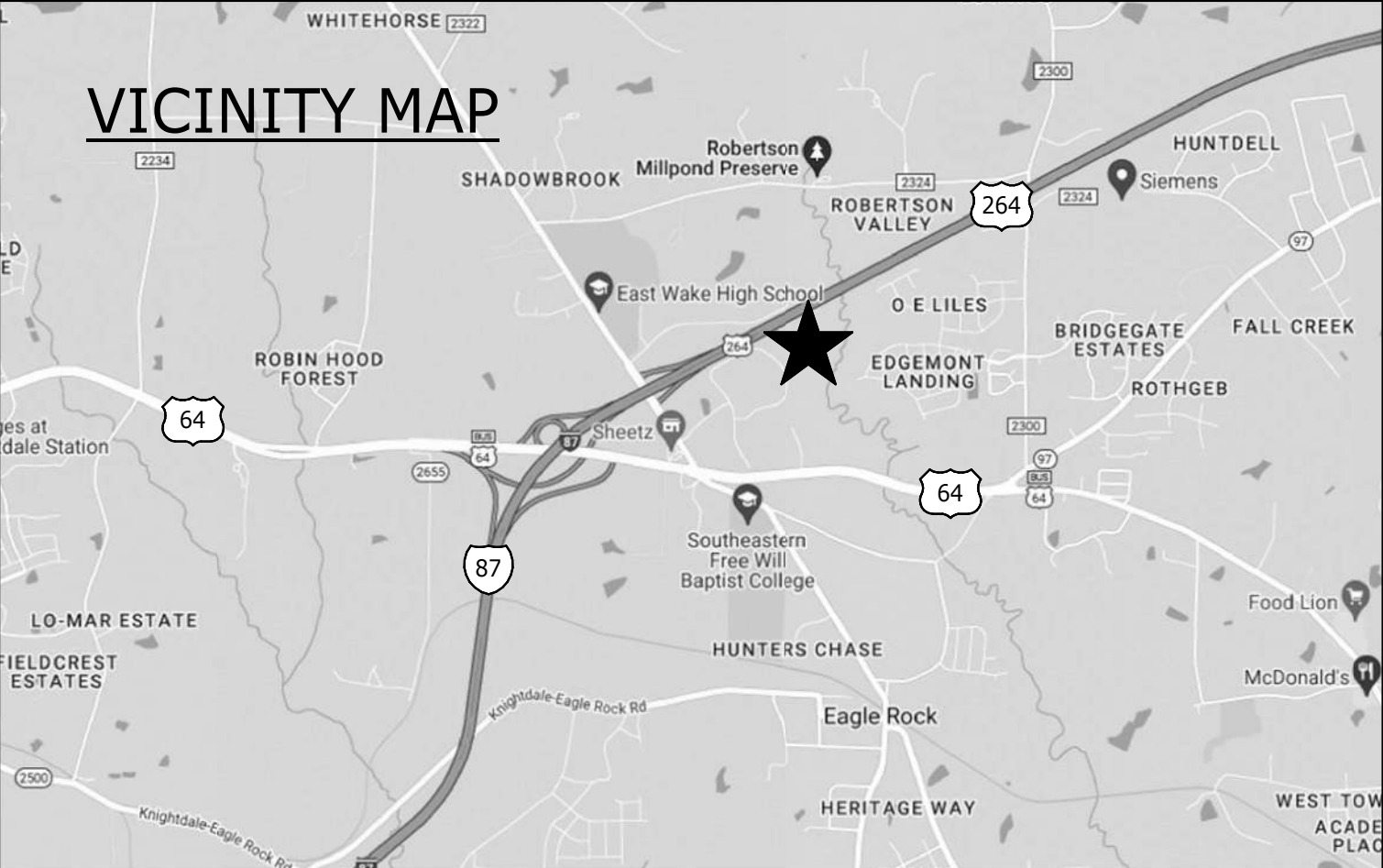
END OF ADDENDUM #1

WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303



HH

ARCHITECTURE

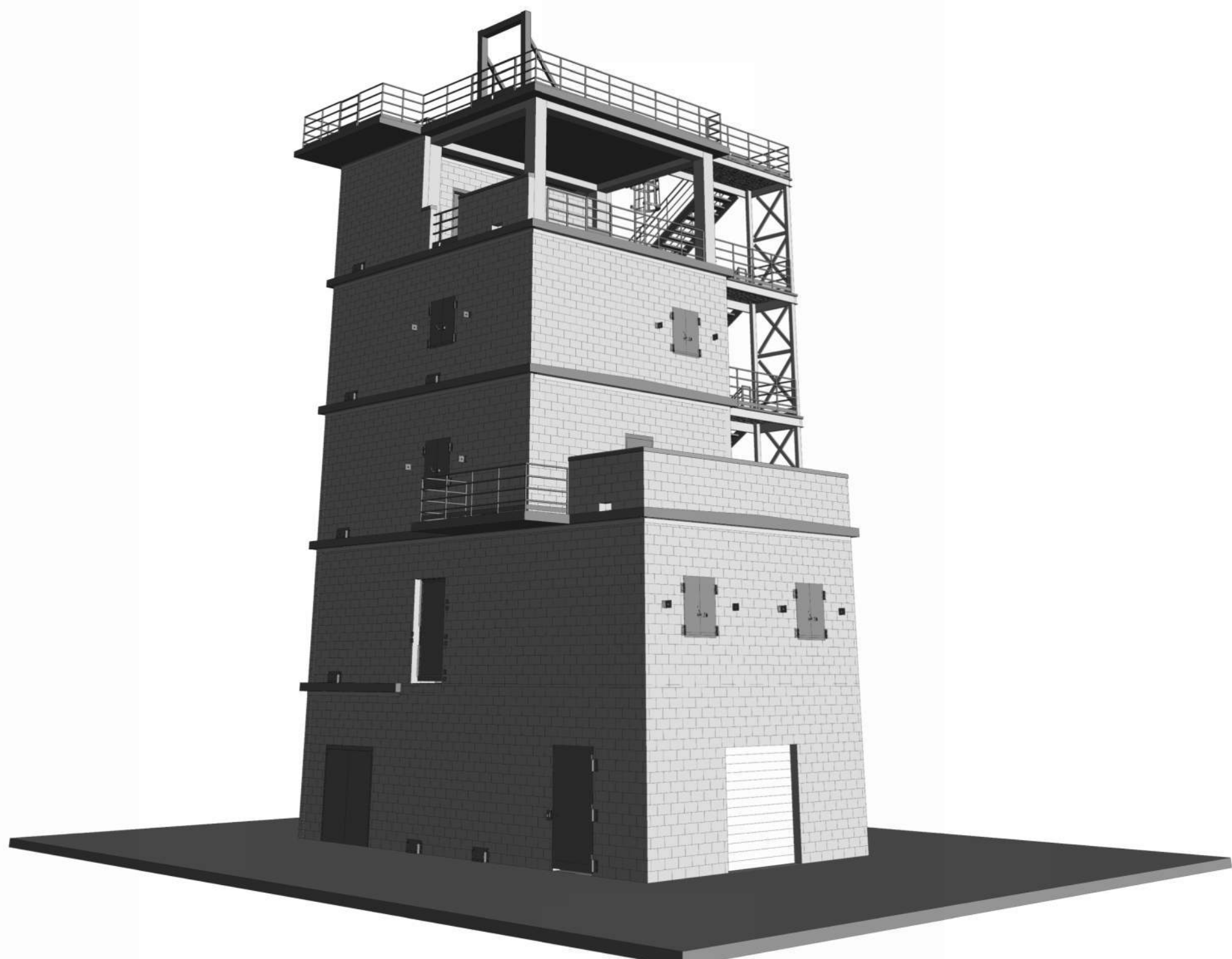
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com



RESTROOM BUILDING



BURN BUILDING



TRAINING TOWER

DRAWING LIST

00 - COVER/GENERAL	
G000	COVER SHEET
G001	GENERAL ARCHITECTURAL NOTES
G002	BUILDING CODE SUMMARY - RESTROOM BLDG
G003	BUILDING CODE SUMMARY - COVERED STORAGE BLDG
G111	RESTROOM BUILDING - LIFE SAFETY PLAN

01 - CIVIL	
C-001	EXISTING CONDITIONS
C-100	SITE PLAN
C-101	STRIPING PLAN
C-102	PAVEMENT MATERIALS PLAN
C-103	NOT USED
C-104	NOT USED
C-105	SITE DETAILS
C-106	SITE DETAILS
C-200	STORMWATER PLAN
C-201	WET POND 01 DETAIL
C-202	GRADING ENLARGEMENT
C-300	UTILITY PLAN
C-301	STREAM CROSSING PLAN
C-400	EROSION CONTROL PHASE 1
C-401	EROSION CONTROL PHASE 2
C-402	EROSION CONTROL STREAM CROSSING
D-100	EROSION CONTROL DETAILS
D-101	EROSION CONTROL DETAILS
D-102	EROSION CONTROL DETAILS
D-103	EROSION CONTROL DETAILS
D-104	SANITARY SEWER DETAILS
D-105	SANITARY SEWER DETAILS
D-106	WATER DETAILS
D-107	WATER DETAILS
D-108	WATER DETAILS
D-109	STORM WATER DETAILS
D-110	STORM WATER DETAILS
NCG01-1	NPDES STABILIZATION PLAN
NCG01-2	NPDES DETAIL SHEET

02 - LANDSCAPE	
L131	LANDSCAPE MATERIAL PLAN
L161	PLANTING PLAN
L162	PLANTING PLAN ENLARGEMENT
L501	LANDSCAPE DETAILS
L502	LANDSCAPE DETAILS

03 - ARCHITECTURAL	
A001	WALL, DOOR, LOUVER TYPES & SIGNAGE
A111	PLANS - RESTROOM BUILDING
A112	RCP & FINISH PLAN - RESTROOM BUILDING
A121	PLANS, ELEVATIONS & SECTIONS - COVERED STORAGE
A301	BUILDING ELEVATIONS & SECTIONS - RESTROOM BLDG
A510	TYPICAL TOILET AND BATH ACCESSORIES
A511	TOILET ELEVATIONS - RESTROOM BUILDING
A601	RESTROOM BUILDING - DETAILS

04 - STRUCTURAL	
S001	GENERAL NOTES
S002	ABBREVIATIONS / DRAWINGS LEGEND
S111	FOUNDATION AND SLAB PLANS
S131	ROOF FRAMING AND DECK PLANS
S301	SECTIONS
S501	TYPICAL DETAILS
S502	TYPICAL DETAILS
S503	TYPICAL DETAILS

05 - PLUMBING	
P001	STANDARDS, SYMBOLS & ABBREVIATIONS
P111	PLANS - RESTROOM BUILDING
P112	PLANS - TRAINING TOWER
P113	PLANS - TRAINING TOWER
P401	DETAILS
P401	SCHEDULES

06 - MECHANICAL	
H001	STANDARDS, SYMBOLS & ABBREVIATIONS
H111	PLANS - RESTROOM BUILDING
H301	DETAILS
H401	CONTROLS & SCHEDULES Revised in Addendum #1

07 - ELECTRICAL	
E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	SITE PLAN Revised in Addendum #1
E003	SITE PLAN PHOTOMETRICS
E111	PLANS - RESTROOM BUILDING Revised in Addendum #1
E112	PLANS - TRAINING TOWER
E113	PLANS - TRAINING TOWER
E114	PLANS - TRAINING TOWER
E301	ELECTRICAL DETAILS Revised in Addendum #1
E401	PANEL SCHEDULES Revised in Addendum #1
E501	LIGHTING FIXTURE SCHEDULE
E511	TELECOMMUNICATION SYSTEMS
E601	ELECTRICAL DISTRIBUTION SYSTEM

08 - FIRE PROTECTION	
FP001	STANDARDS, SYMBOLS & ABBREVIATIONS
FP112	PLANS - TRAINING TOWER
FP113	PLANS - TRAINING TOWER
FP114	PLANS - TRAINING TOWER
FP115	PLANS - BURN BUILDING
FP116	PLANS - BURN BUILDING
FP117	PLANS - BURN BUILDING
FP118	PLANS - BURN BUILDING
FP200	DETAILS

09 - DRAFTING P/T	
DP001	DRAFTING P/T - GENERAL NOTES
DP002	DRAFTING P/T - TABLES, LEGEND & ABBREVIATIONS
DP100	DRAFTING P/T - PLANS & SECTIONS
DP101	DRAFTING P/T - DETAILS
DP102	DRAFTING P/T - DETAILS

10 - BURN BUILDING	
BB001	BURN BUILDING - GENERAL NOTES Revised in Addendum #1
BB002	BURN BUILDING - TABLES, LEGEND & ABBREVIATIONS Rev in Add #1
BB201	BURN BUILDING - FIRST FLOOR PLAN Rev in Add #1
BB202	BURN BUILDING - SECOND FLOOR PLAN Rev in Add #1
BB203	BURN BUILDING - THIRD FLOOR PLAN Rev in Add #1
BB204	BURN BUILDING - FOURTH FLOOR PLAN Rev in Add #1
BB205	BURN BUILDING - FIFTH FLOOR PLAN Rev in Add #1
BB206	BURN BUILDING - SIXTH FLOOR PLAN Rev in Add #1
BB207	BURN BUILDING - HIGH ROOF & STAIR ROOF PLANS Rev in Add #1
BB208	BURN BUILDING - EXTERIOR WALL BRACING PLANS Rev in Add #1
BB209	BURN BUILDING - EXTERIOR WALL BRACING PLANS
BB301	BURN BUILDING - SOUTH ELEVATION Rev in Add #1
BB302	BURN BUILDING - WEST & EAST ELEVATIONS Rev in Add #1
BB303	BURN BUILDING - NORTH ELEVATION Rev in Add #1
BB304	BURN BUILDING - NW & SW PERSPECTIVES
BB305	BURN BUILDING - NE & SE PERSPECTIVES
BB306	BURN BUILDING - BUILDING SECTIONS Rev in Add #1
BB307	BURN BUILDING - BUILDING SECTIONS Rev in Add #1
BB401	BURN BUILDING - FOUNDATION PLAN Rev in Add #1
BB402	BURN BUILDING - SECOND FLOOR FRAMING PLAN Rev in Add #1
BB403	BURN BUILDING - THIRD FLOOR FRAMING PLAN Rev in Add #1
BB404	BURN BUILDING - FOURTH FLOOR FRAMING PLAN Rev in Add #1
BB405	BURN BUILDING - FIFTH FLOOR FRAMING PLAN Rev in Add #1
BB406	BURN BUILDING - SIXTH FLOOR FRAMING PLAN Rev in Add #1
BB407	BURN BUILDING - HIGH ROOF & STAIR ROOF FRAMING PLAN Rev in Add #1
BB501	BURN BUILDING - TYPICAL CONCRETE DETAILS Rev in Add #1
BB502	BURN BUILDING - FOUNDATION DETAILS Rev in Add #1
BB503	BURN BUILDING - CONCRETE SLAB SECTIONS Rev in Add #1
BB504	BURN BUILDING - EXTERIOR STEEL STAIR DETAILS Rev in Add #1
BB505	BURN BUILDING - EXTERIOR STEEL STAIR DETAILS Rev in Add #1
BB506	BURN BUILDING - CONCRETE STAIR SECTIONS Rev in Add #1
BB601	BURN BUILDING - TYPICAL MASONRY DETAILS Rev in Add #1
BB602	BURN BUILDING - THERMAL LINING AND CMU PARAPET DETAILS Rev in Add #1
BB603	BURN BUILDING - TYPICAL SCUPPER DETAILS Rev in Add #1
BB604	BURN BUILDING - TYPICAL STEEL PLATE DOOR DETAILS Rev in Add #1
BB605	BURN BUILDING - DOUBLE STEEL PLATE DOOR DETAILS Rev in Add #1
BB606	BURN BUILDING - TYPICAL STEEL PLATE SHUTTER DETAILS Rev in Add #1
BB607	BURN BUILDING - RAILING DETAILS
BB608	BURN BUILDING - GUARDRAIL GATE AT PARAPET Rev in Add #1
BB609	BURN BUILDING - DEBRIS CHUTE DETAILS Rev in Add #1
BB610	BURN BUILDING - MISCELLANEOUS DETAILS Rev in Add #1

11 - TRAINING TOWER	
TT001	TRAINING TOWER - GENERAL NOTES
TT002	TRAINING TOWER - LEGENDS, & ABBREVIATIONS
TT201	TRAINING TOWER - FIRST & SECOND FLOOR PLANS
TT202	TRAINING TOWER - THIRD & FOURTH FLOOR PLANS
TT203	TRAINING TOWER - FIFTH FLOOR & HIGH ROOF PLANS
TT301	TRAINING TOWER - WEST & SOUTH ELEVATIONS
TT302	TRAINING TOWER - EAST & NORTH ELEVATIONS Rev in Add #1
TT303	TRAINING TOWER - PERSPECTIVES
TT304	TRAINING TOWER - PERSPECTIVES
TT305	TRAINING TOWER - PERSPECTIVES
TT401	TRAINING TOWER - FOUNDATION & SECOND FLOOR FRAMING PLAN
TT402	TRAINING TOWER - THIRD & FOURTH FLOOR FRAMING PLAN
TT403	TRAINING TOWER - FIFTH FLOOR & HIGH ROOF FRAMING PLAN Rev in Add #1
TT501	TRAINING TOWER - TYPICAL CONCRETE DETAILS
TT502	TRAINING TOWER - STRUCTURAL STEEL FRAMING DETAILS Rev in Add #1
TT503	TRAINING TOWER - CONCRETE SLAB SECTIONS
TT504	TRAINING TOWER - EXTERIOR STEEL STAIR DETAILS Rev in Add #1
TT505	TRAINING TOWER - CONCRETE STAIR SECTIONS Rev in Add #1
TT601	TRAINING TOWER - TYPICAL MASONRY DETAILS
TT602	TRAINING TOWER - TYPICAL SCUPPER DETAILS
TT603	TRAINING TOWER - DOOR DETAILS & SCHEDULES Rev in Add #1
TT604	TRAINING TOWER - TYPICAL WINDOW SHUTTER DETAILS Rev in Add #1
TT605	TRAINING TOWER - TYPICAL RAILING DETAILS
TT606	TRAINING TOWER - GUARDRAIL GATE AT PARAPET Rev in Add #1
TT607	TRAINING TOWER - MISCELLANEOUS DETAILS Rev in Add #1
TT608	TRAINING TOWER - MISCELLANEOUS DETAILS Rev in Add #1

DESIGN TEAM

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PME ENGINEERING & FIRE PROTECTION	
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FIRE TRAINING FACILITY DESIGN	
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PHONE: 703.321.2100	
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PROJECT NARRATIVE

WAKE TECHNICAL COMMUNITY COLLEGE (WTCC) IS UNDERTAKING THE CREATION OF A NEW DEDICATED FIRE AND RESCUE TRAINING CENTER TO SUPPORT THE SPECIALIZED TRAINING REQUIREMENT OF THE FIRE AND RESCUE COMMUNITY OF WAKE COUNTY AND THE SURROUNDING REGION. THE NEW CENTER WILL BE LOCATED ON THE RECENTLY CONSTRUCTED EASTERN WAKE SITE (EWS) IN WENDELL, NC. THIS NEW FACILITY EXPANDS AND ENHANCES THE COLLEGE'S PUBLIC SAFETY EDUCATIONAL PROGRAMS.

THE PRIMARY FOCUS OF THE NEW FIRE AND RESCUE TRAINING CENTER IS TO PROVIDE SPECIALIZED TRAINING FACILITIES WHICH CAN BE USED TO PREPARE STUDENTS AND RECRUITS FOR REAL-WORLD EMERGENCY SCENARIOS. THE CENTER WILL ALSO BE USED TO SUPPORT ACTIVE FIRST RESPONDERS IN MAINTAINING CERTIFICATIONS AND UPDATED TRAINING AS THE RESPONSE TO VARIOUS EMERGENCY SITUATIONS EVOLVES.

DEVELOPMENT OF THE TRAINING GROUNDS WILL PROVIDE AREAS THAT SUPPORT THE VARIOUS TRAINING PROPS. THE PRIORITY OF THE PROJECT WILL BEGIN WITH THE BURN BUILDING (LIVE FIRE TRAINING STRUCTURE) AND THE TRAINING TOWER. THESE ARE MULTI-STORY STRUCTURES BUILT TO PROVIDE VARIABLE TRAINING CONDITIONS UNDER LIVE BURN CONDITIONS AND TO SIMULATE ELEVATED TECHNICAL RESCUE CIRCUMSTANCES.

ANCILLARY STRUCTURES TO SUPPORT THE TRAINING FUNCTIONS INCLUDE A SHADE STRUCTURE/SHOWER & TOILET ROOMS, AND A STORAGE STRUCTURE FOR BURN MATERIALS.

RECEIVED
03/25/2025
SAMET

WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
COVER SHEET

ISSUE FOR CONSTRUCTION
03/14/2025

G000

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	F.E.	FIRE EXTINGUISHER	MECH	MECHANICAL	SQ. FT.	SQUARE FEET
A.R.A.	AREA OF RESCUE ASSISTANCE	F.F.E.	FURNITURE, FIXTURES, EQUIPMENT	MFR	MANUFACTURER	SQ. IN.	SQUARE INCH
ADJ	ADJACENT	F.O.E.W.	FACE OF EXISTING WALL	MIN	MINIMUM	STD	STANDARD
ALUM	ALUMINUM	F.O.M.	FACE OF MASONRY	MISC	MISCELLANEOUS	STL	STEEL
APC	ACOUSTICAL PANEL CEILING	F.O.S.	FACE OF STUD	MTL	METAL	STRUC	STRUCTURAL
APPROX	APPROXIMATE	F.P.H.B	FREEZE-PROOF HOSE BIB				
		FACT	FACTORY FINISH	N.I.C.	NOT IN CONTRACT	T.O.S.	TOP OF STEEL
BD	BOARD	FE (SM)	SURFACE MOUNTED	N.T.S.	NOT TO SCALE	TELE	TELEPHONE
BLDG	BUILDING	FE (SR)	SEMI-RECESSED	NOM	NOMINAL	THR'LD	THRESHOLD
BOT	BOTTOM	FIN	FINISH			TYP	TYPICAL
BSMT	BASEMENT	FLR	FLOOR	O.C.	ON CENTER		
		FLUR	FLUORESCENT	O.D.	OUTSIDE DIAMETER	U.N.O.	UNLESS NOTED OTHERWISE
C.J.	CONTROL JOINTS	FRP	FIBERGLASS REINFORCED PANELS	O.H.	OPPOSITE HAND		
C.O.	CLEAN OUT	FTG	FOOTING	OVHD	OVERHEAD	V.C.T.	VINYL COMPOSITION TILE
C.T.	CERAMIC TILE					V.W.C.	VINYL WALL COVERING
CLG	CEILING	G.C.	GENERAL CONTRACTOR	P.L.	PLASTIC LAMINATE	VERT	VERTICAL
CLR	CLEAR	G.D.S.	GUTTER DOWNSPOUT	P.S.F.	POUNDS PER SQ. FOOT		
CMU	CONCRETE MASONRY UNIT	GA	GAUGE	P.S.I.	POUNDS PER SQ. INCH	W.C.	WATER CLOSET
COL	COLUMN	GALV	GALVANIZED	PART	PARTITION	W.G.	WIRE GLASS
CONC	CONCRETE	GWB	GYP SUM WALL BOARD	PLY	PLYWOOD	W.W.F.	WELDED WIRE FABRIC
CONST	CONSTRUCTION			PROP	PROPERTY	W/	WITH
CONT	CONTINUOUS	H.D.	HEAVY DUTY	PT	PAINT	WD	WOOD
CPT	CARPET	H.M.	HOLLOW METAL	PVC	POLYVINYL CHLORIDE		
		HDW	HARDWARE				
		HT	HEIGHT	R	RADIUS		
DEPT	DEPARTMENT			R.D.	ROOF DRAIN		
DIA	DIAMETER	I.D.	INSIDE DIAMETER	R.D.L.	ROOF DRAIN LEADER		
DIM	DIMENSION	INSUL	INSULATION	R/A	RETURN AIR		
DWG	DRAWING	INT	INTERIOR	REBAR	REINFORCING BAR		
				REF	REFERENCE		
E.J.	EXPANSION JOINT			REINF	REINFORCING		
E.W.C.	ELECTRIC WATER COOLER	JT	JOINT	REQ'D	REQUIRED		
EA	EACH			REV	REVISION		
ELEC	ELECTRICAL	K	KIPS	RM	ROOM		
ELEV	ELEVATION						
EQ	EQUAL	LAM	LAMINATE				
EQUIP	EQUIPMENT	LAV	LAVATORY	S.C.	SOLID CORE		
EXIST	EXISTING			S.S.	STAINLESS STEEL		
EXT	EXTERIOR	M.O.	MASONRY OPENING	SHT	SHEET		
		MAT'L	MATERIAL	SIM.	SIMILAR		
F.D.	FLOOR DRAIN	MAX	MAXIMUM	SPEC	SPECIFICATION		

KEYNOTES - OVERALL

033000	CAST-IN-PLACE CONCRETE
033000.A	CAST-IN-PLACE CONCRETE, SEE STRUCTURAL
033000.B	UNDER SLAB VAPOR BARRIER
042000	UNIT MASONRY
042000.B8	CONCRETE MASONRY UNITS, 8x8x16 NOMINAL, SEE STRUCTURAL
042000.K	MASONRY JAMB ANCHOR
051200	STRUCTURAL STEEL FRAMING, SEE STRUCTURAL
052100	STEEL JOIST FRAMING, SEE STRUCTURAL
053100	STEEL DECKING, SEE STRUCTURAL
054000.M2	COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 2 1/2"
054000.M6	COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 6"
054000.M10	COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 10"
061000.B	P.T. WOOD BLOCKING
061600.C	PLYWOOD SHEATHING
072100.A.1	EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD (XPS), R-7.5
072100.B.10	FIBERGLASS BATT INSULATION, R-35
074113	STANDING SEAM METAL ROOF SYSTEM
074113.A	STANDING SEAM METAL ROOF PANELS
074113.F	PREFINISHED METAL FASCIA WITH DRIP EDGE
074213.B	SUB-FRAMING & FURRING
074213.F	ROOF PANEL METAL RIDGE CAP
074293.A	METAL SOFFIT PANELS
074293.B	METAL SOFFIT PANEL FLASHING & TRIM
076200.D	CONTINUOUS HEAD FLASHING
076200.M	PREFINISHED HANGING GUTTER
076200.Q	PREFINISHED DOWNSPOUT
076200.S	1x8 PREFINISHED METAL WRAPPED EXTERIOR GRADE TRIM
079200.A	JOINT SEALANTS
079200.B	BACKER ROD & JOINT SEALANT
081113	HOLLOW METAL DOORS AND FRAMES
087100.B	DOOR HARDWARE, ALUMINUM THRESHOLD
089119.A	FIXED LOUVER
092216.M3	STEEL STUD FRAMING, 3 5/8"
092216.M6	STEEL STUD FRAMING, 6"
092900.A	GYP SUM WALLBOARD, 5/8"
092900.D	GLASS-MAT BACKING BOARD, 5/8"
092900.F	SOUND ATTENUATION BLANKET
092900.K	GLASS-MAT CEILING BOARD, 5/8"
102800.01	GRAB BAR 54"x42"
102800.02	GRAB BAR 18"
102800.03	TOILET TISSUE DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.05	PAPER TOWEL DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.07	SOAP DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.08	SANITARY NAPKIN DISPOSAL; OWNER PROVIDED, OWNER INSTALLED
102800.09	SEAT COVER-DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.12	SHOWER CURTAIN & ROD
102800.13	FOLDING SHOWER SEAT
102800.15	CUSTODIAL MOP AND BROOM HOLDER
102800.16	MIRROR UNIT
102800.18	SHOWER GRAB BAR 18"x36"
102800.19	GRAB BAR 24"
104313	AED CABINET. TYPE AIVIA 200 OUTDOOR. CFCI
104316	FIRST AID CABINET/LIFE SAFETY STATIONS. TYPE AED.US SKU:LSSO
104413.C	EXTERIOR GRADE FIRE EXTINGUISHER & CABINET. TYPE SAFETY ONE MODEL HDOC-10-SS
220000.C	ACCESSIBLE SHOWER STALL & ACCESSORIES.-SLOPE STALL FLOOR TO DRAIN AND FINISH WITH EPOXY PAINT SYSTEM; SEE PLUMBING
220000.D	WATER COOLER; SEE PLUMBING
220000.F	FREEZE-PROOF HOSE BIBB; SEE PLUMBING
220000.M	MOP SINK 36"x36"; SEE PLUMBING
220000.S	ACCESSIBLE SHOWER HEAD; SEE PLUMBING
233100.1	EXHAUST DUCT; SEE MECHANICAL
235543.1	WALL MOUNTED UNIT HEATER; SEE MECHANICAL
238116.N	DUCTLESS SPLIT SYSTEM INDOOR UNIT; SEE MECHANICAL
238116.O	DUCTLESS SPLIT SYSTEM OUTDOOR UNIT; SEE MECHANICAL
265000.A	LINEAR LIGHT FIXTURE; SEE ELECTRICAL

SYMBOLS LEGEND

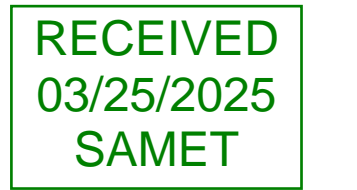
ROOM NAME	ROOM / AREA
101	
101	DOOR ID.
N	NORTH ARROW
01 A101	DETAIL
01 A000	EXTERIOR ELEVATION CALLOUT
01/A000	INTERIOR ELEVATION CALLOUT
01 A000	SECTION CALLOUT
12' - 0"	CEILING ELEVATION HEIGHT (SEE FINISH SCHEDULE FOR CEILING TYPE)
X' - X"	SPOT ELEVATION
A	WINDOW TYPE
MXXX	PARTITION TYPE
CW-X	CASEWORK TYPE

GENERAL ARCHITECTURAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
2. SEE SITE, CIVIL, AND LANDSCAPE PLANS FOR CONTINUATION OF WORK OUTSIDE OF BUILDING.
3. PROVIDE TEMPERED GLASS AT DOOR AND WINDOW LITES.
4. ALL DIMENSIONS ARE TO THE FACE OF CMU, FACE OF EXISTING WALL, OR FACE OF STUD.
5. ALL DOOR HINGE-SIDE JAMBS TO BE 4" FROM FACE OF THE PERPENDICULAR WALL TO THE INSIDE FACE OF THE METAL JAMB, TYP., U.N.O.
6. REFERENCED FIRST FLOOR ELEVATION = 0'-0".
7. FOR FINISHES, NEW AND EXISTING, SEE FINISH PLAN SHEETS.
8. KEYNOTES ARE PROVIDED FOR REFERENCE ONLY. GENERAL CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. KEYNOTES DO NOT EXCLUDE CONTRACTOR FROM REPAIRING AND PATCHING ALL FLOORS, WALLS AND CEILINGS AS NEEDED AS A RESULT OF DEMOLITION WORK. GENERAL CONTRACTOR TO PREPARE ALL FLOORS AND WALL SUBSTRATES AS REQUIRED TO APPLY NEW FINISH AS INDICATED IN THE FINISH PLANS AND SPECIFICATIONS.



1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com



WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
GENERAL ARCHITECTURAL NOTES

NAME OF PROJECT: WTCC, EAST WAKE SITE FIRE & RESCUE TRAINING CENTER - RESTROOM BUILDING
ADDRESS: 5345 ROLESVILLE RD, WENDELL, NC 27591 ZIP CODE: 27591
OWNER/AUTHORIZED AGENT: WAKE TECHNICAL COMMUNITY COLLEGE PHONE: 919.866.6152 EMAIL: WLennon@waketech.edu
OWNED BY: ☐ CITY/COUNTY ☐ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ☐ CITY - ☒ COUNTY WAKE ☒ STATE

CONTACT: KRISTEN M. HESS, AIA					
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
ARCHITECTURAL	HH ARCHITECTURE	KRISTEN M. HESS, AIA	9290	919.826.2321	khess@hh-arch.com
CIVIL	NVS	MICHAEL ALLEN	02514	919.836.4800	michael.allen@nvs.com
ELECTRICAL	SALAS O'BRIEN	MATTHEW JOHNSON	039503	919.832.8118	matt.johnson@salasobrien.com
FIRE ALARM	SALAS O'BRIEN	MATTHEW JOHNSON	039503	919.832.8118	matt.johnson@salasobrien.com
PUMPING	SALAS O'BRIEN	KEVIN ALLEN	032567	919.832.8118	kevin.allen@salasobrien.com
MECHANICAL	SALAS O'BRIEN	KEVIN ALLEN	032567	919.832.8118	kevin.allen@salasobrien.com
SPRINKLER/SHOUPFE					
STRUCTURAL	LYNCH MYKINS	DELANEY ORTIZ	055705	984.222.1385	dortiz@lynchmykins.com
RETAINING WALLS & HIGH			-	-	-
PRE-CAST			-	-	-
TRUSS			-	-	-
LANDSCAPE	SURFACE 678	ERIC DAVIS	01330	919.282.9122	edavis@surface678.com
HAZMAT					

CONSTRUCTED (date): _____ - **CURRENT OCCUPANCY(S)** (Ch. 3): _____ -
RENOVATED (date): _____ - **PROPOSED OCCUPANCY(S)** (Ch. 3): STORAGE

BASIC BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ II-A ☐ III-A ☐ IV-A ☐ V-A
☐ I-B ☐ II-B ☐ III-B ☐ V-B
 (check all that apply)

SPRINKLERS: ☒ NO ☐ PARTIAL ☐ YES ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D

STAIRWELLS: ☒ NO ☐ YES ☐ CLASS ☐ I ☐ II ☐ III ☐ WET ☐ DRY

FIRE DISTRICT: ☒ NO ☐ YES

FLOOD HAZARD AREA: ☒ NO ☐ YES

SPECIAL INSPECTIONS REQUIRED: ☐ NO ☒ YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES AND REQUIREMENTS.)

ALLOWABLE AREA	
PRIMARY OCCUPANCY CLASSIFICATION(S):	
ASSEMBLY	<input type="checkbox"/> A-1 <input type="checkbox"/> A-2 <input type="checkbox"/> A-3 <input type="checkbox"/> A-4 <input type="checkbox"/> A-5
BUSINESS	<input type="checkbox"/>
EDUCATIONAL	<input type="checkbox"/>
FACTORY	<input type="checkbox"/> F-1 MODERATE <input type="checkbox"/> F-2 LOW
HAZARDOUS	<input type="checkbox"/> H-1 DETONATE <input type="checkbox"/> H-2 DEFLAGRATE <input type="checkbox"/> H-3 COMBUST <input type="checkbox"/> H-4 HEALTH <input type="checkbox"/> H-5 HPM
INSTITUTIONAL	<input type="checkbox"/> I-1 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2
	<input type="checkbox"/> I-2 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2
	<input type="checkbox"/> I-3 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
	<input type="checkbox"/> I-4
MERCANTILE	<input type="checkbox"/>
RESIDENTIAL	<input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4
STORAGE	<input checked="" type="checkbox"/> S-1 MODERATE <input type="checkbox"/> S-2 LOW <input type="checkbox"/> HIGH-PILED
	<input type="checkbox"/> PARKING GARAGE <input type="checkbox"/> OPEN <input type="checkbox"/> ENCLOSED <input type="checkbox"/> REPAIR GARAGE
UTILITY AND MISCELLANEOUS	<input type="checkbox"/>
ACCESSORY OCCUPANCY CLASSIFICATION(S):	
INCIDENTAL USES (Table 509):	
SPECIAL USES (Chapter 4 - List Code Sections):	
SPECIAL PROVISIONS (Chapter 5 - List Code Sections):	
MIXED OCCUPANCY	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
SEPARATION:	<input type="text" value="0"/> HR. EXCEPTION: <input type="text" value=""/>

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1.00 \quad \text{AREA} \frac{\div}{\div} + \frac{\div}{\div} = X \leq 1.00$$

Frontage area increases from Section 506.2 are computed thus:

- Perimeter which fronts a public way or open space having 20 feet minimum width = $\frac{169'-0''}{2}$ (F)
- Total building perimeter = $\frac{169'-0''}{2}$ (F)
- Ratio $F(P) = \frac{1}{2}$ (F/P)
- W = Minimum width of public way = $\frac{30'}{2}$ (W)
- Percent of frontage increase formula: $I_r = [100(F/P) \cdot 0.25] \times W/30 = \underline{75}$ (F)

2) Unlimited area applicable under condition of section 507

3) Maximum Building Area = total number of stories in the building X (maximum 3 stories) (506.2).

4) The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.2.2.

5) Frontage increase is based on the unspinkered area value in Table 506.2.

¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (w/1H+1R REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	-	0 HR	0 HR	-	-	-	-
BEARING WALLS	-	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-	-
NORTH	> 30'	0 HR	0 HR	-	-	-	-
EAST	> 30'	0 HR	0 HR	-	-	-	-
WEST	> 30'	0 HR	0 HR	-	-	-	-
SOUTH	> 30'	0 HR	0 HR	-	-	-	-
INTERIOR	0 HR	0 HR	-	-	-	-	-
NONBEARING WALLS AND PARTITIONS	-	-	-	-	-	-	-
EXTERIOR WALLS	-	-	-	-	-	-	-
NORTH	> 30'	0 HR	0 HR	-	-	-	-
EAST	> 30'	0 HR	0 HR	-	-	-	-
WEST	> 30'	0 HR	0 HR	-	-	-	-
SOUTH	> 30'	0 HR	0 HR	-	-	-	-
INTERIOR WALLS & PARTITIONS	0 HR	0 HR	-	-	-	-	-
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	0 HR	0 HR	-	-	-	-	-
FLOOR CEILING ASSEMBLY	0 HR	0 HR	-	-	-	-	-
COLUMNS SUPPORTING FLOORS	0 HR	0 HR	-	-	-	-	-
ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS	0 HR	0 HR	-	-	-	-	-
ROOF CEILING ASSEMBLY	0 HR	0 HR	-	-	-	-	-
COLUMNS SUPPORTING ROOF	0 HR	0 HR	-	-	-	-	-
SHAFT ENCLOSURES - EXIT	N/A	N/A	-	-	-	-	-
SHAFT ENCLOSURES - OTHER	N/A	N/A	-	-	-	-	-
CORRIDOR SEPARATION	N/A	N/A	-	-	-	-	-
OCCUPANCY/FIRE BARRIER SEPARATION	N/A	N/A	-	-	-	-	-
PARTY/FIRE WALL SEPARATION	N/A	N/A	-	-	-	-	-
SMOKE BARRIER SEPARATION	N/A	N/A	-	-	-	-	-
SMOKE PARTITION	N/A	N/A	-	-	-	-	-
TENANT / DWELLING UNIT / SLEEPING UNIT SEPARATION	N/A	N/A	-	-	-	-	-
INCIDENTAL USE SEPARATION	N/A	N/A	-	-	-	-	-

* Indicates section number permitting reduction

EMERGENCY LIGHTING: ☐ NO ☒ YES
EXIT SIGNS: ☒ NO ☐ YES
FIRE ALARM: ☒ NO ☐ YES
SMOKE DETECTION SYSTEM: ☐ NO ☐ YES ☒ PARTIAL _____
CARBON MONOXIDE DETECTION: ☐ NO ☒ YES

LIFE SAFETY PLAN SHEET #: G-112

- ☐ FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
- ☐ ASSUMED AND REAL PROPERTY LINE LOCATIONS (IF NOT ON THE SITE PLAN)
- ☐ EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
- ☐ OCCUPANCY USE FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)
- ☐ OCCUPANT LOADS FOR EACH AREA
- ☐ EXIT ACCESS TRAVEL DISTANCES (1017)
- ☐ COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
- ☐ LEAD END LENGTHS (1020.4)
- ☐ CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
- ☐ WALK, CALCULATED CROWD, LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON GROSS WIDTH (1009)
- ☐ ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR
- ☐ A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS REQUIRED FOR PURPOSES OF OCCUPANCY SEPARATION
- ☐ LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10)
- ☐ LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7)
- ☐ LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.9.9)
- ☐ LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
- ☐ LOCATION OF EMERGENCY ESCAPE WINDOWS (1030)
- ☐ THE SQUARE FOOTAGE OF EACH FIRE AREA (1022)
- ☐ THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION I-2 (407.5)
- ☐ NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE PARKING (SECTION 1106)					
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		TOTAL # OF PARKING SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 15' ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
TOTAL					

	URINALS	LAVATORIES		
X		MALE	FEMALE	

ENERGY REQUIREMENTS:
THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF PERFORMANCE METHOD, STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.

THERMAL ENVELOPE (PRESCRPTIVE METHOD ONLY)	
ROOF / CEILING ASSEMBLY (EACH ASSEMBLY)	
DESCRIPTION OF ASSEMBLY:	_____
U-VALUE OF TOTAL ASSEMBLY:	_____
R-VALUE OF INSULATION:	_____
SKYLIGHTS IN EACH ASSEMBLY:	_____
U-VALUE OF SKYLIGHT:	_____
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY:	_____
EXTERIOR WALLS (EACH ASSEMBLY)	
DESCRIPTION OF ASSEMBLY:	_____
U-VALUE OF TOTAL ASSEMBLY:	_____
R-VALUE OF INSULATION:	_____
OPENINGS (WINDOWS OR DOORS WITH GLAZING):	_____
U-VALUE OF ASSEMBLY:	_____
SOLAR HEAT GAIN COEFFICIENT:	_____
PROTECTION FACTOR:	_____
DOOR R-VALUES:	_____
WALLS BELOW GRADE (EACH ASSEMBLY)	
DESCRIPTION OF ASSEMBLY:	_____
U-VALUE OF TOTAL ASSEMBLY:	_____
R-VALUE OF INSULATION:	_____
FLOORS OVER UNCONDITION SPACE (EACH ASSEMBLY)	
DESCRIPTION OF ASSEMBLY:	_____
U-VALUE OF TOTAL ASSEMBLY:	_____
R-VALUE OF INSULATION:	_____
FLOORS SLAB ON GRADE	
DESCRIPTION OF ASSEMBLY:	_____
U-VALUE OF TOTAL ASSEMBLY:	_____
R-VALUE OF INSULATION:	_____
HORIZONTAL/VERTICAL REQUIREMENT:	_____
SLAB HEATED:	_____

DESIGN LOADS:

IMPORTANCE FACTORS:	SNOW SEISMIC	(Is) (Ie)	<u>1.0</u> <u>1.0</u>
LIVE LOADS:	ROOF MEZZANINE FLOOR		<u>20</u> psf <u>N/A</u> psf <u>100</u> psf
GROUND SNOW LOAD:			<u>10</u> psf
WIND LOAD:	ULTIMATE WIND SPEED EXPOSURE CATEGORY		<u>130</u> mph (ASCE-7) <u>B</u>

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

RISK CATEGORY (Table 1604.5) ☐ I ☒ II ☐ III ☐ IV

SPECTRAL RESPONSE ACCELERATION S_s 14.7 % S_1 7.4 %

SITE CLASSIFICATION (ASCE 7) ☐ A ☐ B ☒ C ☐ D

DATA SOURCE: ☐ Field Test ☐ Presumptive ☐ Historical Data

BASIC STRUCTURAL SYSTEM ☒ Bearing Wall ☐ Dual w/ Special Moment Frame
 ☐ Building Frame ☐ Dual w/ Intermediate R/C or Special Steel
 ☐ Moment Frame ☐ Inverted Pendulum

ANALYSIS PROCEDURE: ☐ Simplified ☒ Equivalent Lateral Force ☐ Dynamic

ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? ☒ YES ☐ NO

LATERAL DESIGN CONTROL: ☐ EARTHQUAKE ☒ WIND

SOIL BEARING CAPACITIES

FIELD TEST (provide copy of geotechnical report and addendum) 4,000 psf (GROUND IMPROVEMENTS)

PRESUMPTIVE BEARING CAPACITY _____ psf

PILE SIZE, TYPE, AND CAPACITY _____ _____

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT	
THERMAL ZONE:	
WINTER DRY BULB:	<u>21°F</u>
SUMMER DRY BULB:	<u>93.7°F / 73.2°F WB</u>
INTERIOR DESIGN CONDITIONS:	
WINTER DRY BULB:	<u>70°F</u>
SUMMER DRY BULB:	<u>75°F</u>
RELATIVE HUMIDITY	<u>50%</u>
BUILDING HEATING LOAD:	<u>-</u>
BUILDING COOLING LOAD:	<u>-</u>
MECHANICAL SPACING CONDITIONING SYSTEM	
UNITARY	
DESCRIPTION OF UNIT:	<u>-</u>
HEATING EFFICIENCY:	<u>-</u>
COOLING EFFICIENCY:	<u>-</u>
SIZE CATEGORY OF UNIT:	<u>-</u>
SEE PLANS AND SPECIFICATIONS	
BOILER	
SIZE CATEGORY. IF OVERSIZED, STATE REASON:	<u>SEE PLANS</u>
CHILLER	
SIZE CATEGORY. IF OVERSIZED, STATE REASON:	<u>SEE PLANS</u>
LIST EQUIPMENT EFFICIENCIES: <u>SEE PLANS AND SPECIFICATIONS</u>	

ELECTRICAL SYSTEMS AND EQUIPMENT:					
METHOD OF COMPLIANCE:	ENERGY CODE	<input type="checkbox"/> PERFORMANCE	<input checked="" type="checkbox"/> PRESCRIPTIVE		
	ASHRAE 90.1	<input type="checkbox"/> PERFORMANCE	<input type="checkbox"/> PRESCRIPTIVE		
LIGHTING SCHEDULE: (each fixture type)					
LAMP TYPE REQUIRED IN FIXTURE		SEE FIXTURE SCHEDULE ON DRAWING SHEET E501			
NUMBER OF LAMPS IN FIXTURE					
BALLAST TYPE USED IN THE FIXTURE					
TOTAL NUMBER OF BALLASTS IN FIXTURE					
TOTAL WATTAGE PER FIXTURE					
TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED (WHOLE BUILDING OR SPACE BY SPACE)		0.2 VS. 0.37			
TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED		0.15 VS. 0.36			
ADDITIONAL EFFICIENCY PACKAGE OPTIONS					
(WHEN USING THE 2018 IECC; NOT REQUIRED FOR ASHRAE 90.1)					
<input type="checkbox"/> C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE <input checked="" type="checkbox"/> C406.3 REDUCED LIGHTING POWER DENSITY <input type="checkbox"/> C406.4 ENHANCED DIGITAL LIGHTING CONTROLS <input type="checkbox"/> C406.5 ON-SITE RENEWABLE ENERGY <input type="checkbox"/> C406.6 DEDICATED OUTDOOR AIR SYSTEM <input type="checkbox"/> C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING					

[illegible]

JOB NUMBER
22-086

DATE ISSUED
03/14/2025

PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET
**BUILDING CODE
SUMMARY -
RESTROOM BLDG**

G002

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL
COMMERCIAL PROJECTS

NAME OF PROJECT: WTCC, EAST WAKE SITE FIRE & RESCUE TRAINING CENTER - COVERED STORAGE BUILDING
ADDRESS: 5345 ROLESVILLE RD, WENDELL, NC 27591
OWNER/AUTHORIZED AGENT: WAKE TECHNICAL COMMUNITY COLLEGE PHONE: 919.866.6152 EMAIL: WLennon@waketech.edu
OWNED BY: CITY/COUNTY PRIVATE STATE
CODE ENFORCEMENT JURISDICTION: CITY COUNTY WAKE STATE

CONTACT: KRISTEN M. HESS, AIA				
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #
ARCHITECTURAL	HH ARCHITECTURE	KRISTEN M. HESS, AIA	9290	919.828.2301
CIVIL	NVS	MICHAEL ALLEN	022514	919.836.4800
ELECTRICAL	SALAS O'BRIEN	MATTHEW JOHNSON	035503	919.837.8118
FIRE ALARM	-	-	-	-
PLUMBING	-	-	-	-
MECHANICAL	-	-	-	-
SPRINKLER/STANDPIPE	-	-	-	-
STRUCTURAL	LYNCH MYKINS	DELANEY ORTIZ	055705	984.222.1385
RETAINING WALLS & SHOR	-	-	-	-
PRE-CAST	-	-	-	-
TRUSS	-	-	-	-
LANDSCAPE	SURFACE 678	ERIC DAVIS	01330	919.282.9122
HAZMAT	-	-	-	-

2018 NC BUILDING CODE: NEW BUILDING ADDITION RENOVATION
1st TIME INTERIOR COMPLETION
SHELL/CORE - CONTACT THE LOCAL INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES AND REQUIREMENTS
PHASED CONSTRUCTION - SHELL/CORE - CONTACT THE LOCAL INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES AND REQUIREMENTS

2018 NC EXISTING BUILDING CODE: EXISTING: PRESRIPTIVE REPAIR CHAPTER 14
ALTERATION: LEVEL I LEVEL II LEVEL III CHANGE OF USE
HISTORIC PROPERTY

CONSTRUCTED (date): - CURRENT OCCUPANCY(S) (Ch. 3): -
RENOVATED (date): - PROPOSED OCCUPANCY(S) (Ch. 3): STORAGE

RISK CATEGORY (Table 1604.5): CURRENT: I II III IV
PROPOSED: I II III IV

BASIC BUILDING DATA
CONSTRUCTION TYPE: I-A I-B I-II-A I-II-B I-III-A I-III-B I-IV-A I-IV-B I-V-A
(check all that apply)
SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R NFPA 13D
STANDPIPES: NO YES CLASS I II III WET DRY
FIRE DISTRICT: NO YES
FLOOD HAZARD AREA: NO YES
SPECIAL INSPECTIONS REQUIRED: NO YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES AND REQUIREMENTS.)

GROSS BUILDING AREA TABLE			
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd FLOOR	-	-	-
2nd FLOOR	-	-	-
MEZZANINE	-	-	-
1st FLOOR	-	-	-
BASEMENT	-	-	-
TOTAL	-	-	-

ALLOWABLE AREA
PRIMARY OCCUPANCY CLASSIFICATION(S):
ASSEMBLY A-1 A-2 A-3 A-4 A-5
BUSINESS
EDUCATIONAL
FACTORY F-1 MODERATE F-2 LOW
HAZARDOUS H-1 DETONATE H-2 DEFLAGRATE H-3 COMBUST H-4 HEALTH H-5 HPM
INSTITUTIONAL I-1 CONDITION I-2 I-3 CONDITION I-4
MERCANTILE
RESIDENTIAL R-1 R-2 R-3 R-4
STORAGE S-1 MODERATE S-2 LOW
UTILITY AND MISCELLANEOUS
ACCESSORY OCCUPANCY CLASSIFICATION(S):
INCIDENTAL USES (Table 509):
SPECIAL USES (Chapter 4 - List Code Sections):
SPECIAL PROVISIONS (Chapter 5 - List Code Sections):
MIXED OCCUPANCY: NO YES SEPARATION: 0 HR. EXCEPTION: -

NON-SEPARATED USE (508.3) - THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION, SO DETERMINED, SHALL APPLY TO THE ENTIRE BUILDING.
SEPARATED USE (508.4) - SEE BELOW FOR AREA CALCULATIONS FOR EACH STORY. THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy B / Allowable Area of Occupancy B ≤ 1.00 AREA - + = X ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2.4 AREA	(C) AREA FOR FRONTAGE INCREASE 1.5	(D) ALLOWABLE AREA PER STORY OR UNLIMITED 1.5
1	STORAGE	-	UNLIMITED	NA	UNLIMITED

1 Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 169'-0" (F)
b. Total building perimeter = 169'-0" (P)
c. Ratio (F/P) = 1 (F/P)
d. W = Minimum width of public way = 30' (W)
e. Percent of frontage increase formula: 1 = 100[(F/P - 0.25) x W/30 = 75 (%)
2 Unlimited area applicable under conditions of section 507.
3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
4 The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5 Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT			
	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
BUILDING HEIGHT IN FEET (Table 504.3)	UNLIMITED	15'-6"	504.3
BUILDING HEIGHT IN STORIES (Table 504.4)	1	1	504.4

1 Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS						
BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATINGS REQ'D	PROVIDED (w/HR* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION
STRUCTURAL FRAME, INCLUDING COLUMNS, GRIDERS, TRUSSES	-	0 HR	0 HR	-	-	-
BEARING WALLS	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-
NORTH	> 30'	0 HR	0 HR	-	-	-
EAST	> 30'	0 HR	0 HR	-	-	-
WEST	> 30'	0 HR	0 HR	-	-	-
SOUTH	> 30'	0 HR	0 HR	-	-	-
INTERIOR	-	0 HR	0 HR	-	-	-
NONBEARING WALLS AND PARTITIONS	-	-	-	-	-	-
EXTERIOR WALLS	-	-	-	-	-	-
NORTH	> 30'	0 HR	0 HR	-	-	-
EAST	> 30'	0 HR	0 HR	-	-	-
WEST	> 30'	0 HR	0 HR	-	-	-
SOUTH	> 30'	0 HR	0 HR	-	-	-
INTERIOR WALLS & PARTITIONS	-	0 HR	0 HR	-	-	-
FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS	-	0 HR	0 HR	-	-	-
FLOOR CEILING ASSEMBLY	-	0 HR	0 HR	-	-	-
COLUMNS SUPPORTING FLOORS	-	0 HR	0 HR	-	-	-
ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS	-	0 HR	0 HR	-	-	-
ROOF CEILING ASSEMBLY	-	0 HR	0 HR	-	-	-
COLUMNS SUPPORTING ROOF	-	0 HR	0 HR	-	-	-
SHAFT ENCLOSURES - EXIT	-	N/A	N/A	-	-	-
SHAFT ENCLOSURES - OTHER	-	N/A	N/A	-	-	-
CORRIDOR SEPARATION	-	N/A	N/A	-	-	-
OCCUPANCY/FIRE BARRIER SEPARATION	-	N/A	N/A	-	-	-
PARTY/FIRE WALL SEPARATION	-	N/A	N/A	-	-	-
SMOKE BARRIER SEPARATION	-	N/A	N/A	-	-	-
SMOKE PARTITION	-	N/A	N/A	-	-	-
TENANT / DWELLING UNIT / SLEEPING UNIT SEPARATION	-	N/A	N/A	-	-	-
INCIDENTAL USE SEPARATION	-	N/A	N/A	-	-	-

* Indicates section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS			
FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
> 30'	UP, NS	NO LIMIT	-

LIFE SAFETY SYSTEM REQUIREMENTS
EMERGENCY LIGHTING: NO YES
EXIT SIGNS: NO YES
FIRE ALARM: NO YES
SMOKE DETECTION SYSTEM: NO YES PARTIAL
CARBON MONOXIDE DETECTION: NO YES

LIFE SAFETY PLAN REQUIREMENTS
LIFE SAFETY PLAN SHEET #: -
FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
ASSUMED AND REAL PROPERTY LINE LOCATIONS (IF NOT ON THE SITE PLAN)
EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
OCCUPANCY USE FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)
OCCUPANT LOADS FOR EACH AREA
EXIT ACCESS TRAVEL DISTANCES (1017)
COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
DEAD END LENGTHS (1020.4)
CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
MAX. CALCULATED OCC. LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.3)
ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR
A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION
LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10)
LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7)
LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.9.9)
LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
LOCATION OF EMERGENCY ESCAPE WINDOWS (1030)
THE SQUARE FOOTAGE OF EACH FIRE AREA (102)
THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION 1-2 (407.5)
NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE DWELLING (SECTION 1106)						
TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)					
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF TYPE A SPACES PROVIDED	VAN SPACES WITH 15' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL					

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)										
USE		WATER CLOSERS			URINALS		SHOWERS / TUBS		DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX	MALE	UNISEX			REGULAR	ACCESSIBLE

SPECIAL APPROVALS
SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)
WAKE COUNTY

ENERGY SUMMARY

ENERGY REQUIREMENTS:
THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF PERFORMANCE METHOD, STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.

EXISTING BUILDING COMPLIES WITH CODE: NO YES (THE REMAINDER OF THIS SECTION IS NOT APPLICABLE)
EXEMPT BUILDING: NO YES (PROVIDE CODE OR STATUTORY REFERENCE): N.C.G.S 143-138 (b18)
CLIMATE ZONE: 3A 4A 5A
BUILDING IS CLASSIFIED AS GROUP-U OCCUPANCY, NO ECC PROVISIONS SHALL APPLY.
METHOD OF COMPLIANCE: ENERGY CODE PERFORMANCE PRESRIPTIVE
ASHRAE 90.1 PERFORMANCE PRESRIPTIVE
(IF "OTHER" SPECIFY SOURCE HERE)

THERMAL ENVELOPE (PRESRIPTIVE METHOD ONLY)

ROOF / CEILING ASSEMBLY (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION:
SKYLIGHTS IN EACH ASSEMBLY:
U-VALUE OF SKYLIGHT:
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY:

EXTERIOR WALLS (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION:
DOORWAYS (WINDOWS OR DOORS WITH GLAZING):
U-VALUE OF ASSEMBLY:
SOLAR HEAT GAIN COEFFICIENT:
PROTECTION FACTOR:
DOOR R-VALUES:

WALLS BELOW GRADE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION:
HORIZONTAL/VERTICAL REQUIREMENT:
SLAB R-VALUES:

FLOORS OVER UNCONDITION SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION:
HORIZONTAL/VERTICAL REQUIREMENT:
SLAB R-VALUES:

FLOORS SLAB ON GRADE
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION:
HORIZONTAL/VERTICAL REQUIREMENT:
SLAB R-VALUES:

STRUCTURAL SUMMARY

DESIGN LOADS:
IMPORTANCE FACTORS: SNOW (I_s) 1.0
SEISMIC (I_e) 1.0
LIVE LOADS: ROOF 20 psf
MEZZANINE N/A psf
FLOOR 100 psf
GROUND SNOW LOAD: 15 psf
WIND LOAD: ULTIMATE WIND SPEED 130 mph (ASCE-7)
EXPOSURE CATEGORY C

SEISMIC DESIGN CATEGORY: A B C D
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
RISK CATEGORY (Table 1604.5) I II III IV
SPECTRAL RESPONSE ACCELERATION S_s 14.7 %g S_i 7.4 %g
SITE CLASSIFICATION (ASCE 7) A B C D
DATA SOURCE: Field Test Presumptive Historical Data
BASIC STRUCTURAL SYSTEM: Bearing Wall Dual w/ Special Moment Frame
Building Frame Dual w/ Intermediate R/C or Special Steel
Moment Frame Inverted Pendulum
ANALYSIS PROCEDURE: Simplified Equivalent Lateral Force Dynamic
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? YES NO
LATERAL DESIGN CONTROL: EARTHQUAKE WIND

SOIL BEARING CAPACITIES
FIELD TEST (provide copy of geotechnical report and addendum) 4,000 psf (GROUND IMPROVEMENTS)
PRESUMPTIVE BEARING CAPACITY
PILE SIZE, TYPE, AND CAPACITY

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE: WINTER DRY BULB
SUMMER DRY BULB:
INTERIOR DESIGN CONDITIONS: WINTER DRY BULB
SUMMER DRY BULB
RELATIVE HUMIDITY
BUILDING HEATING LOAD:
BUILDING COOLING LOAD:
MECHANICAL SPACING CONDITION:
UNITARY
DESCRIPTION OF UNIT:
HEATING EFFICIENCY:
COOLING EFFICIENCY:
SIZE CATEGORY OF UNIT:
BOILER
SIZE CATEGORY, IF OVERSIZED, STATE REASON:
CHILLER
SIZE CATEGORY, IF OVERSIZED, STATE REASON:
LIST EQUIPMENT EFFICIENCIES:

ELECTRICAL SUMMARY

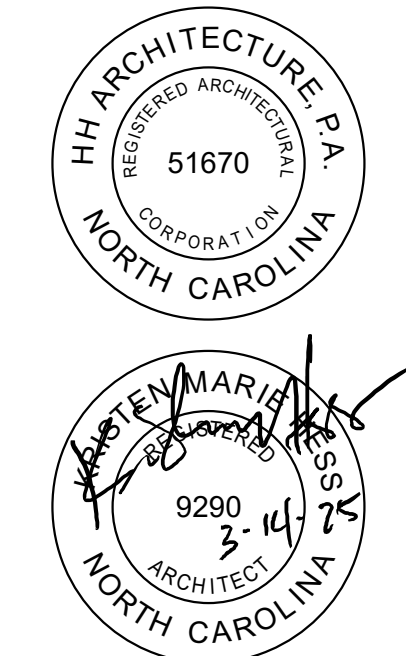
ELECTRICAL SYSTEMS AND EQUIPMENT:
METHOD OF COMPLIANCE: ENERGY CODE PERFORMANCE PRESRIPTIVE
ASHRAE 90.1 PERFORMANCE PRESRIPTIVE
LIGHTING SCHEDULE (each fixture type)
LAMP TYPE REQUIRED IN FIXTURE
NUMBER OF LAMPS IN FIXTURE
BALLAST TYPE USED IN THE FIXTURE
NUMBER OF BALLASTS IN FIXTURE
TOTAL WATTAGE PER FIXTURE
TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED 0.2 VS. 0.37
(WHOLE BUILDING OR SPACE BY SPACE)
TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED 0.15 VS. 0.36
ADDITIONAL EFFICIENCY PACKAGE OPTIONS
(WHEN USING THE 2018 NCECC, NOT REQUIRED FOR ASHRAE 90.1)
C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
C406.3 REDUCED LIGHTING POWER DENSITY
C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
C406.5 ON-SITE RENEWABLE ENERGY
C406.6 DEDICATED OUTDOOR AIR SYSTEM
C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING



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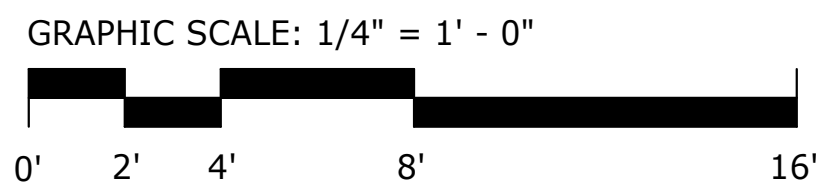
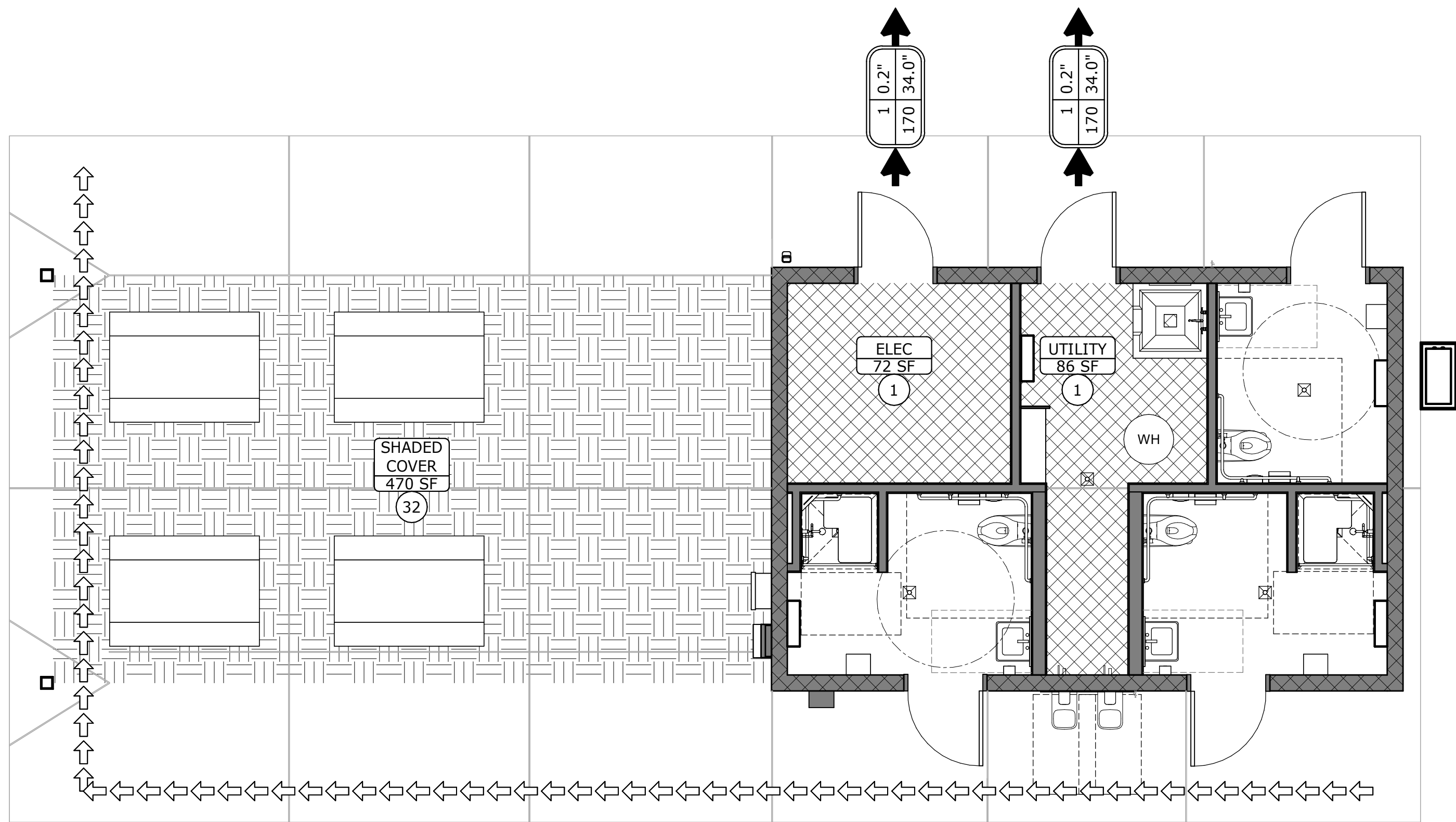
WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE

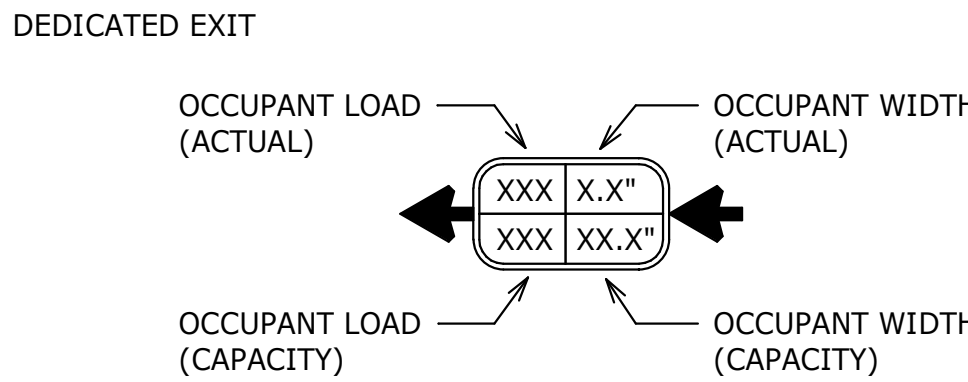
JOB NUMBER
22-086
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
BUILDING CODE SUMMARY - COVERED STORAGE BLDG

G003



LIFE SAFETY PLAN LEGEND

- ⇄⇄⇄⇄ WORST-CASE TRAVEL DISTANCE = 76'-8"
(MAX. ALLOWABLE 200')
- ◆◆◆◆ WORST-CASE TO COMMON PATH OF TRAVEL = N/A
(MAX ALLOWABLE 75')
- WORST-CASE DEAD END CORRIDOR = N/A
(MAX ALLOWABLE 20')
- ROOM EXIT
- NUMBER OF OCCUPANTS



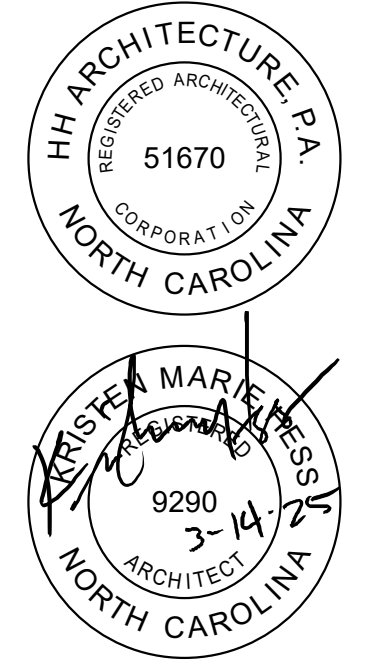
- DENOTES **A-5 OCCUPANCY**
ASSEMBLY W/ UNCONCENTRATED SEATS
(1 PERSON PER **15SF NET**)
- DENOTES **S-1 OCCUPANCY**
STORAGE
(1 PERSON PER **300 SF GROSS**)
- DENOTES **UNOCCUPIED SPACE**
BATHROOM/CORRIDOR
(0 - OCCUPANTS CONSIDERED
PART OF PRIMARY OCCUPANCY A-5)

OCCUPANCY SCHEDULE

NAME	OCCUPIABLE	S.F.PER PERSON	OCCUPANT LOAD
ELEC	72 SF	300	1
UTILITY	86 SF	300	1
SHADED COVER	470 SF	15	32
	628 SF		34

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SHEET
RESTROOM BUILDING - LIFE SAFETY PLAN

G111

1. LOCATION AND SIZE OF EXISTING UTILITIES ARE SHOWN AS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTAL AND VERTICAL LOCATION AND THE DEPTH OF ALL UTILITIES. UTILITIES ARE SHOWN (AND NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE.
2. BOUNDARY INFORMATION TAKEN FROM OWNER SUPPLIED COPY OF AN ALTA SURVEY PREPARED BY DAVID B. JORDAN PREPARED 10-08-2020.
3. TOPOGRAPHIC & UTILITY INFORMATION, EXCEPT AS NOTED, TAKEN FROM AN ELECTRONIC COPY OF A SURVEY PREPARED BY SEPIENGINEERING, DATED FEBRUARY 18, 2021, DATUM 1985. ADDITIONAL CADASTRAL AND UTILITY INFORMATION OBTAINED FROM WAKE COUNTY G.I.S. AND ARE SHOWN FOR REFERENCE ONLY. EXISTING CONDITIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO STARTING AND WORK.
4. ADDITIONAL INFORMATION TAKEN FROM WTCG EWS - PHASE ONE SITE INFRASTRUCTURE PLANS PROVIDED BY OWNER.
5. EXISTING TOWN OF WENDELL SEWER EASEMENTS TRANSFERRED TO RALEIGH AFTER MERGER.



5 ENGINEERS & CONSULTANTS, INC.
00 REGENCY PARKWAY
RY, NC 27518
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License # F-1333
 for CALYX Engineers & Consultants



WICC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

NCCCS NO. 2303

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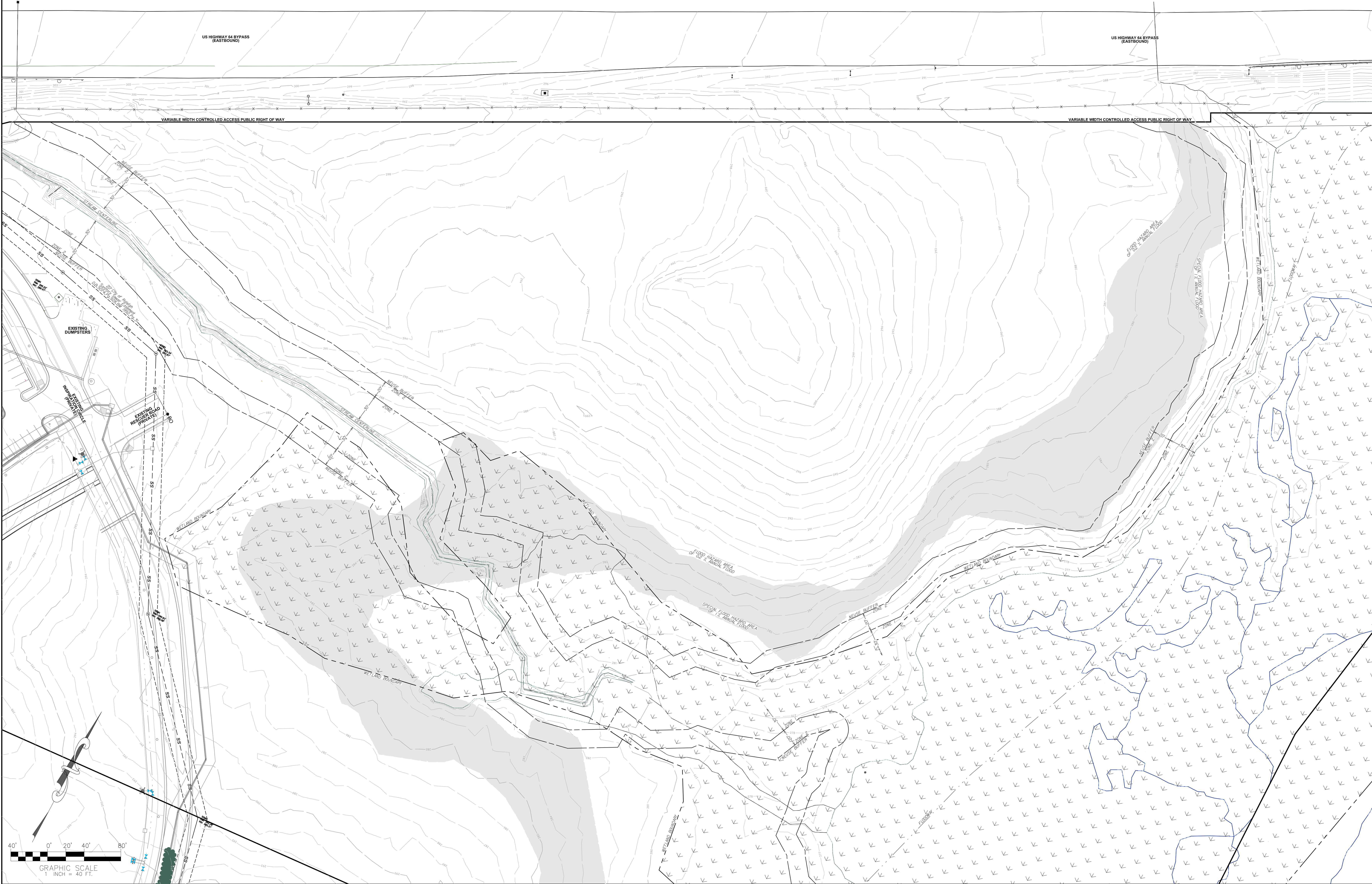
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PROJECT STATUS
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CONSTRUCTION**

SHEET

**EXISTING
CONDITIONS**

C-001



1. REFER TO SHEET C-102 FOR PAVEMENT TYPES.
2. ALL PROPOSED SIGNS TO MATCH EXISTING CAMPUS SIGNAGE

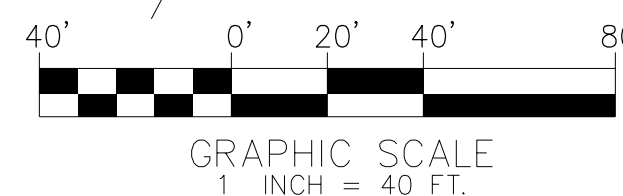
<u>BUILDING SQUARE FOOTAGE</u>	
PROPOSED RESTROOM BUILDING:	882 SF
FUTURE CLASSROOM BUILDING:	8,000 SF
FUTURE APPARATUS BAY:	3,600 SF
TOTAL BUILDING SQUARE FOOTAGE:	12,482 SF

PARKING REQUIRED: 25 SPACES
(2 SPACES PER 1,000 SF):

PARKING PROVIDED: 45 SPACES
(INCLUDES 2 ADA SPACES)

NOTE: ADDITIONAL PARKING PROVIDED FOR OUTDOOR PROP AREA.

BICYCLE PARKING REQUIRED: (1/20 AUTO SPACES):	2.5 SPACES
BICYCLE PARKING PROVIDED: (ADDITIONAL SPACES WILL BE PROVIDED WITH CLASSROOM BUILDING)	2 SPACES



ARCHITECTURE
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WAKE TECHNICAL COMMUNITY COLLEGE

5401 ROLESVILLE ROAD WENDELL, NC 27591

NCCCS NO. 2303

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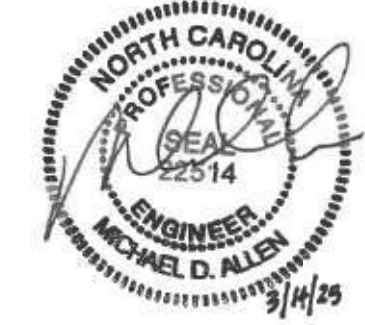
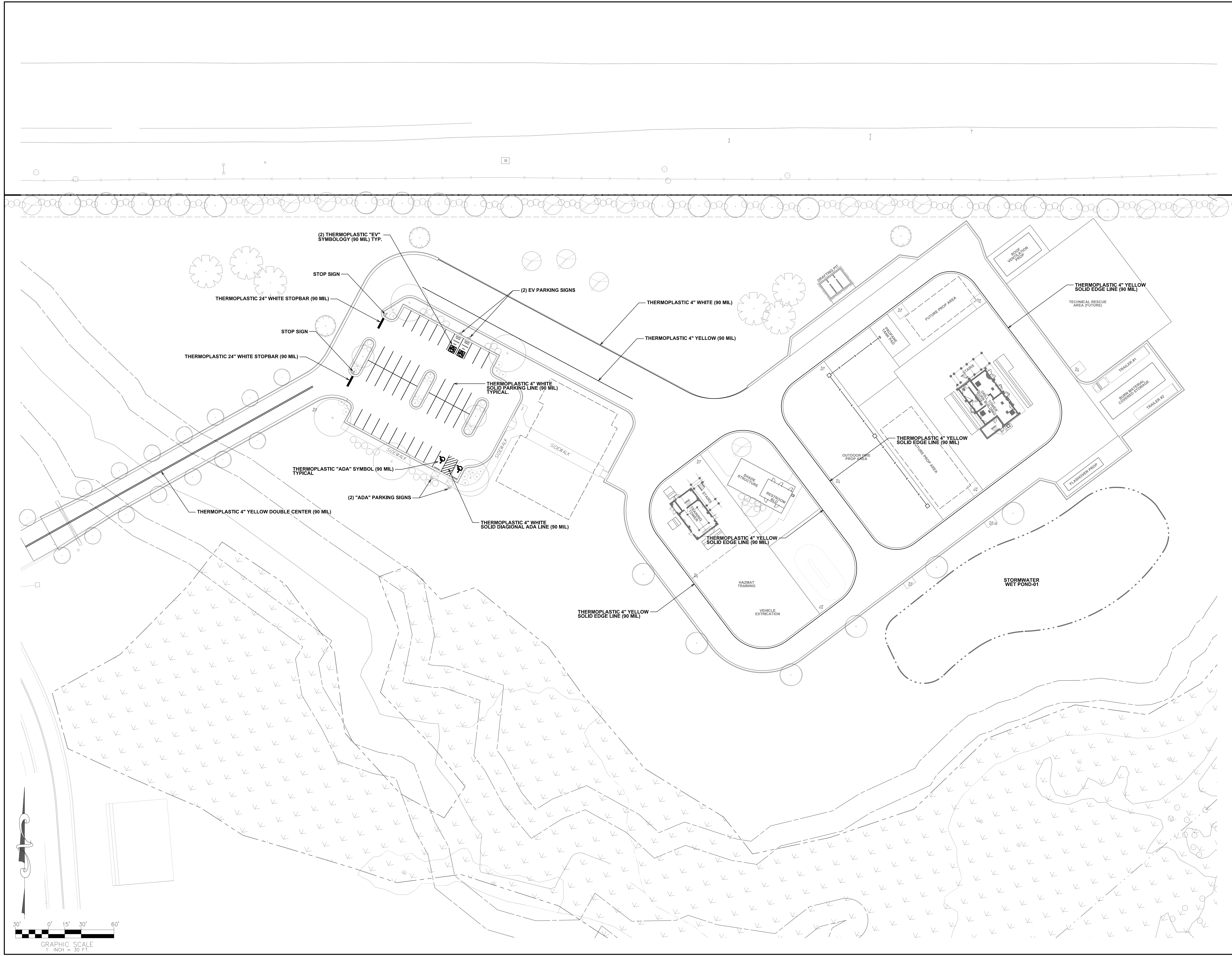
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PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET
**SITE
PLAN**

C-100



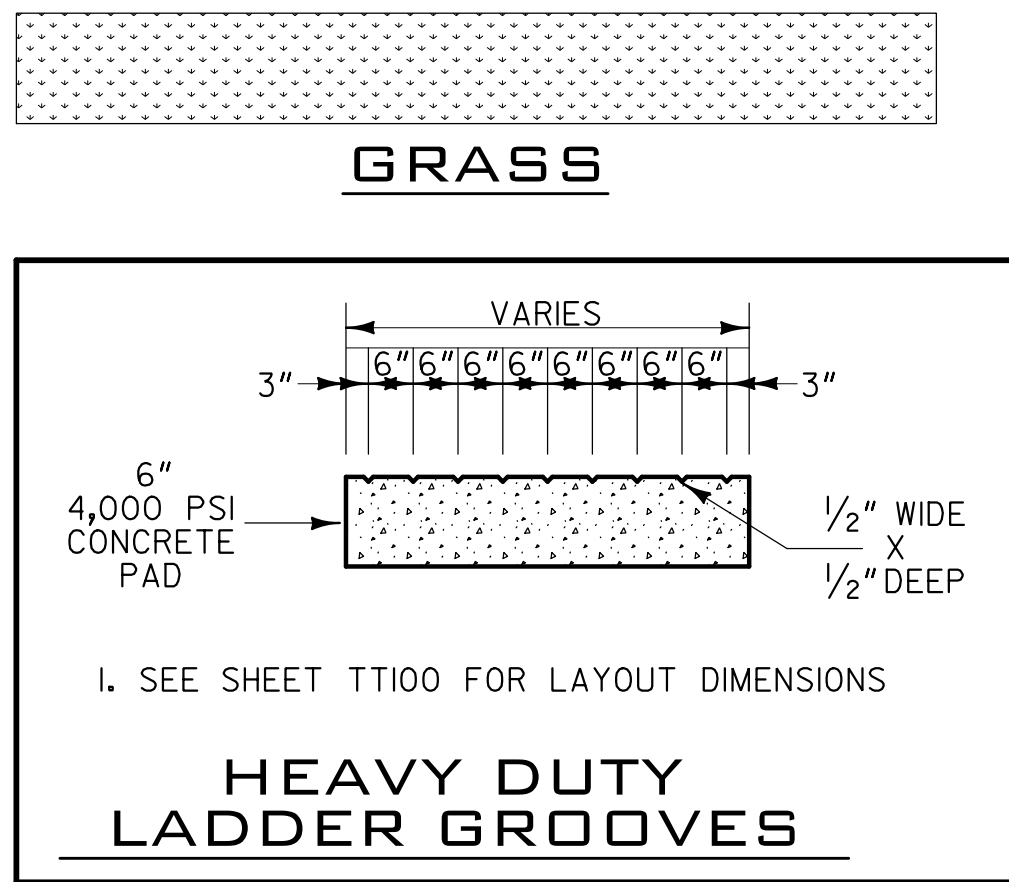
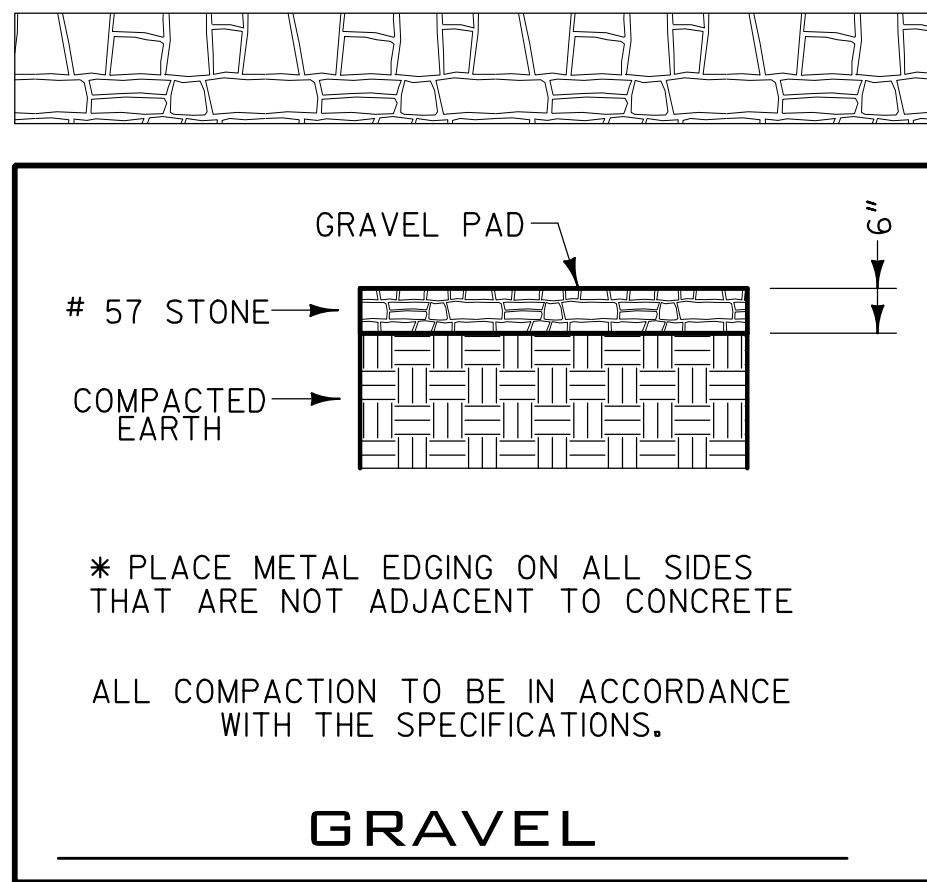
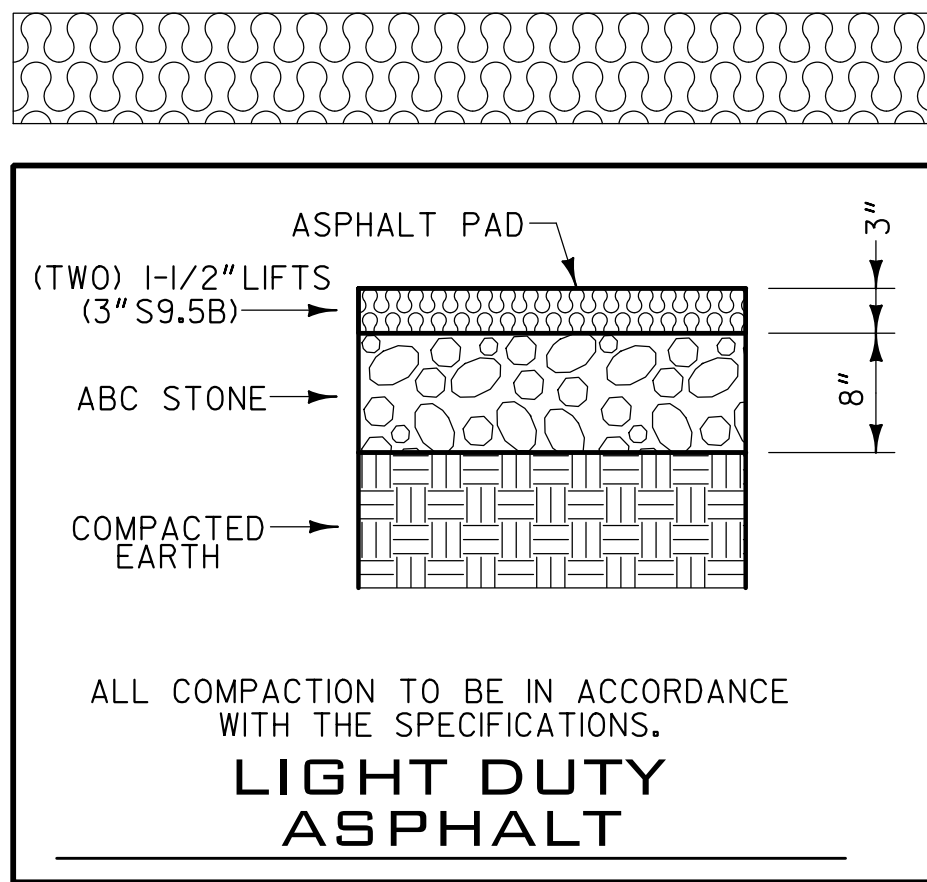
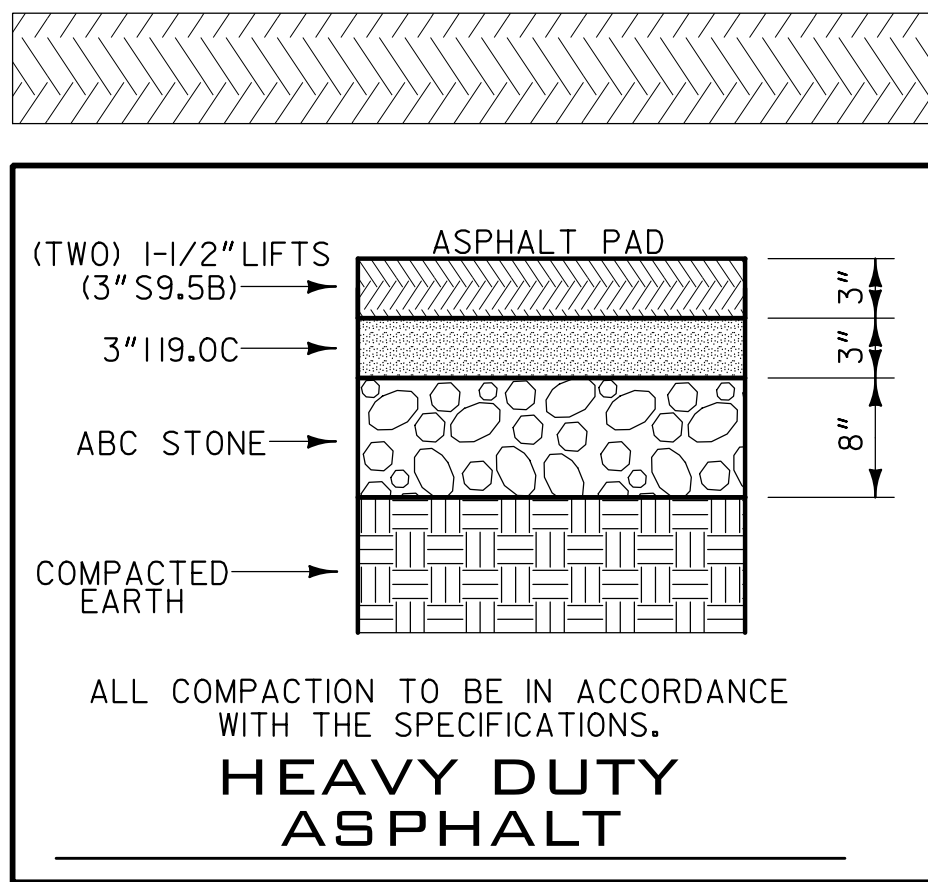
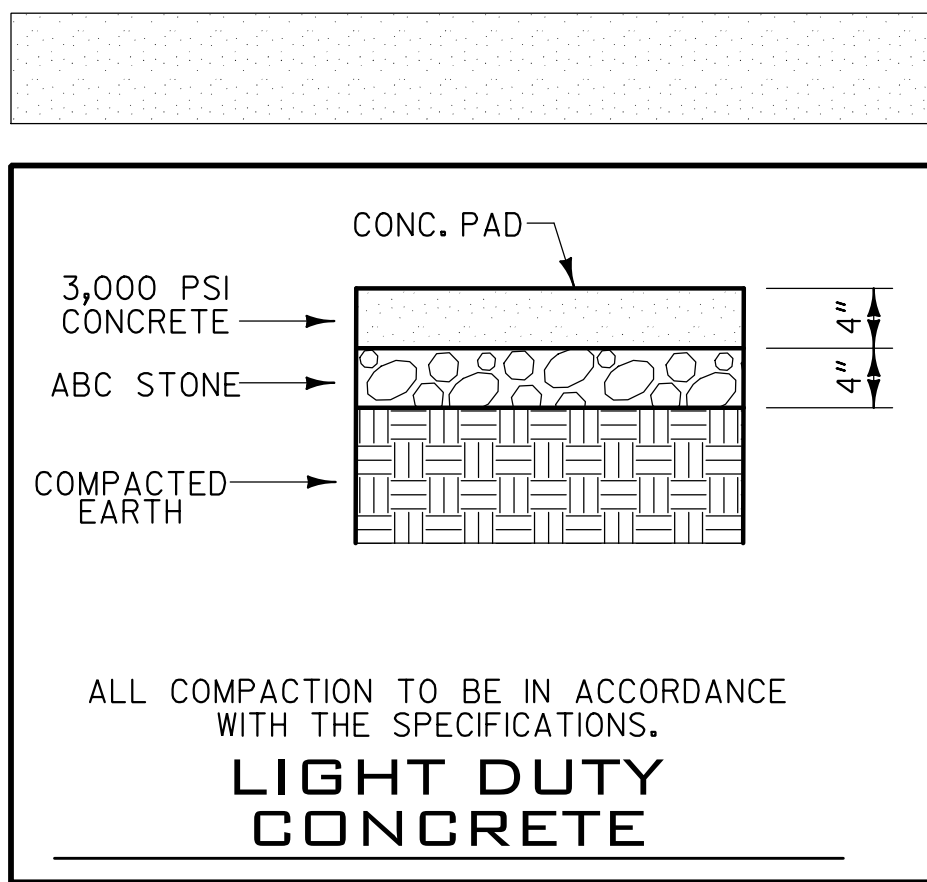
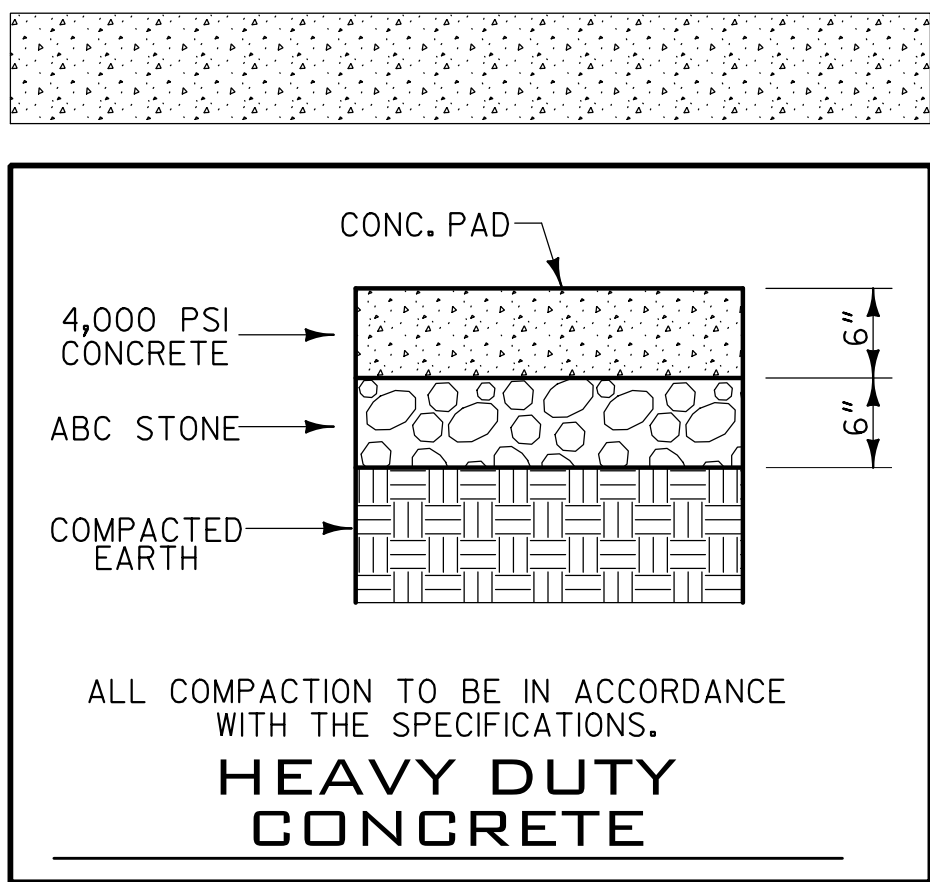
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NCCCS NO. 2303

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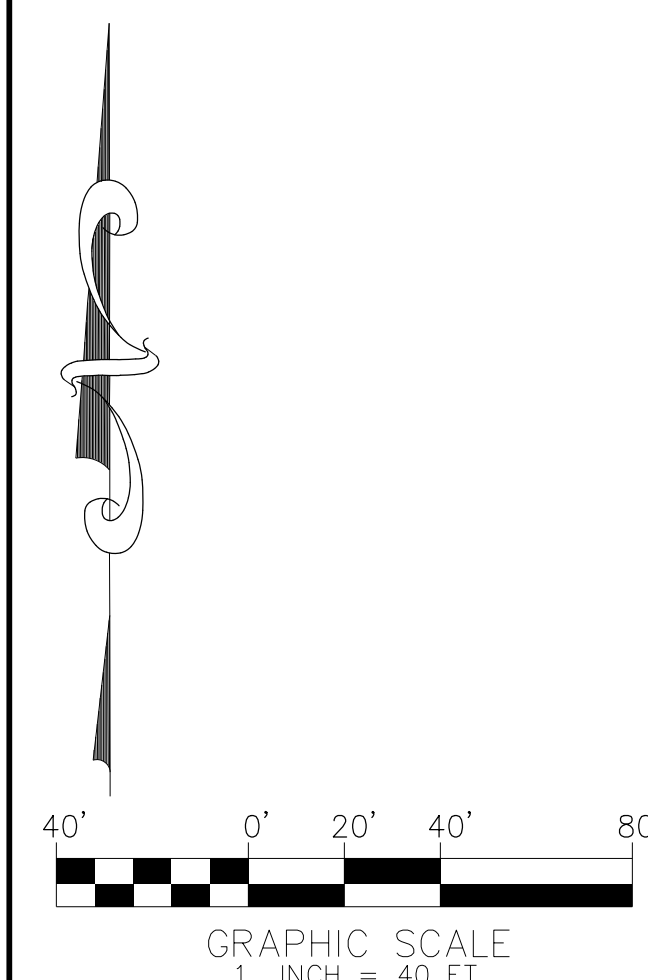
JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
STRIPING PLAN



NOTES:
ALL CONCRETE WITHIN DESIGNATED TRAINING AREAS TO HAVE A BROOM FINISH.

CONCRETE LADDER GROOVES (SEE DETAIL ON THIS SHEET). REFER TO FIRE PROTECTION DRAWINGS

CONCRETE LADDER GROOVES (SEE DETAIL ON THIS SHEET). REFER TO FIRE PROTECTION DRAWINGS



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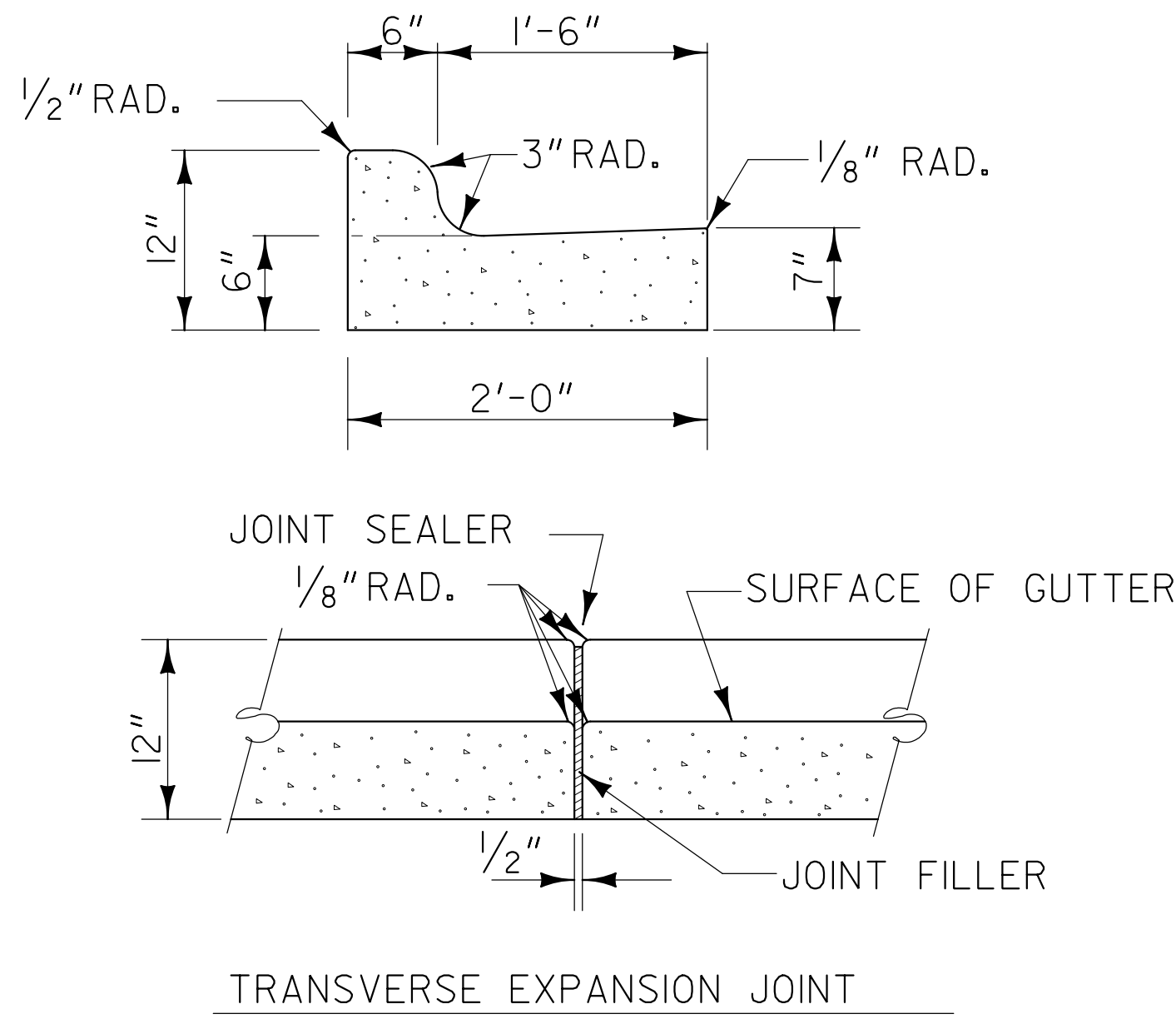
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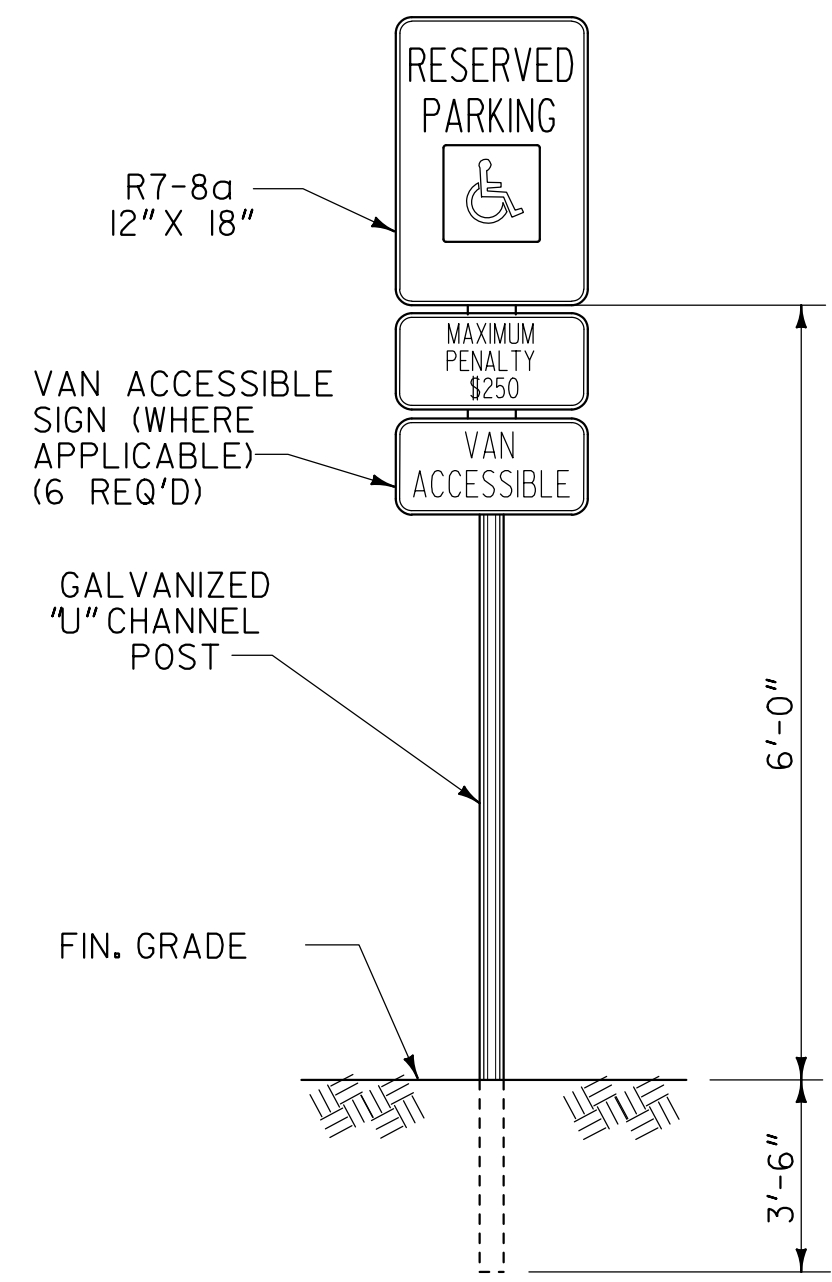
PROJECT STATUS
ISSUE FOR CONSTRUCTION

SHEET
PAVEMENT MATERIALS PLAN

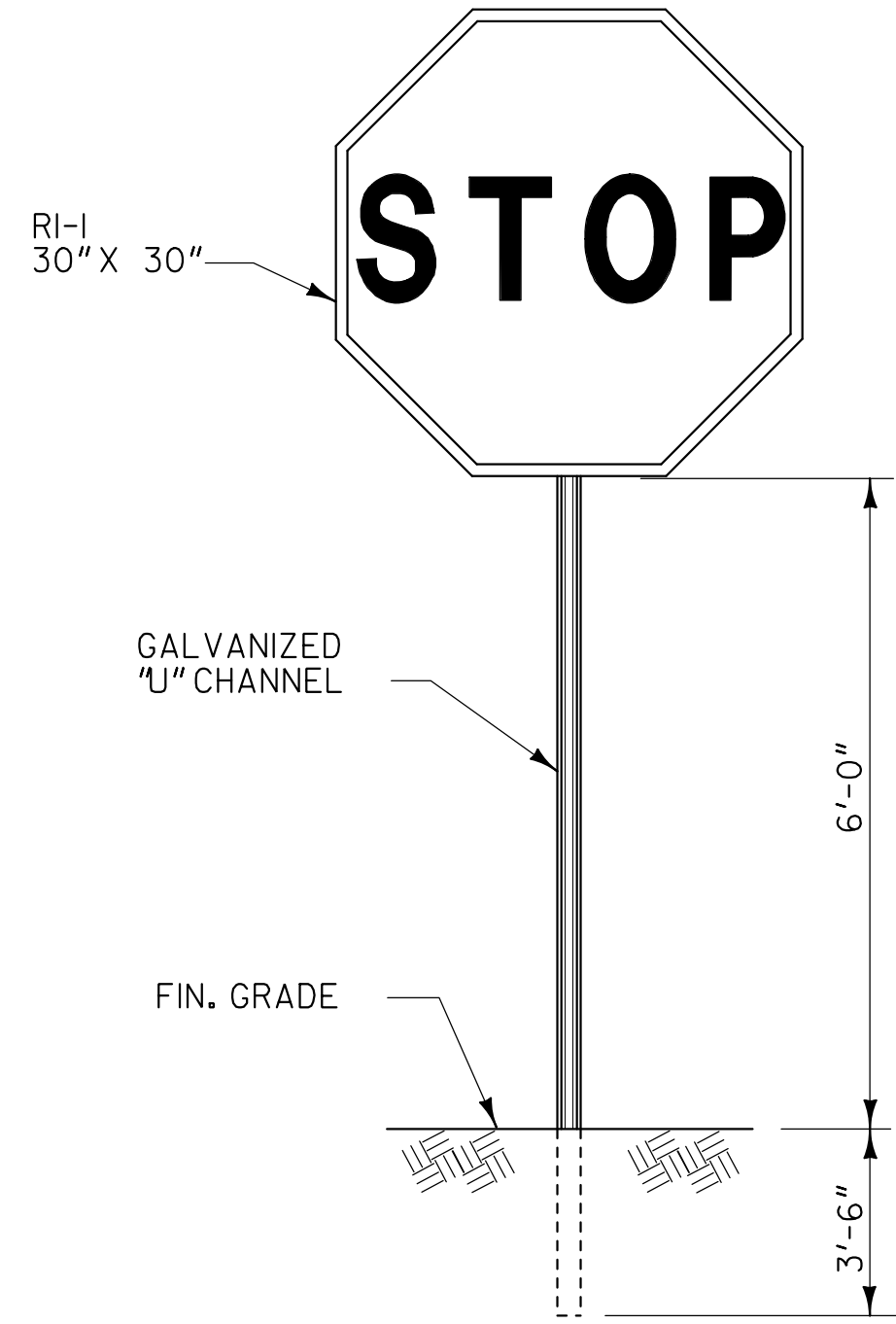


24" CURB & GUTTER

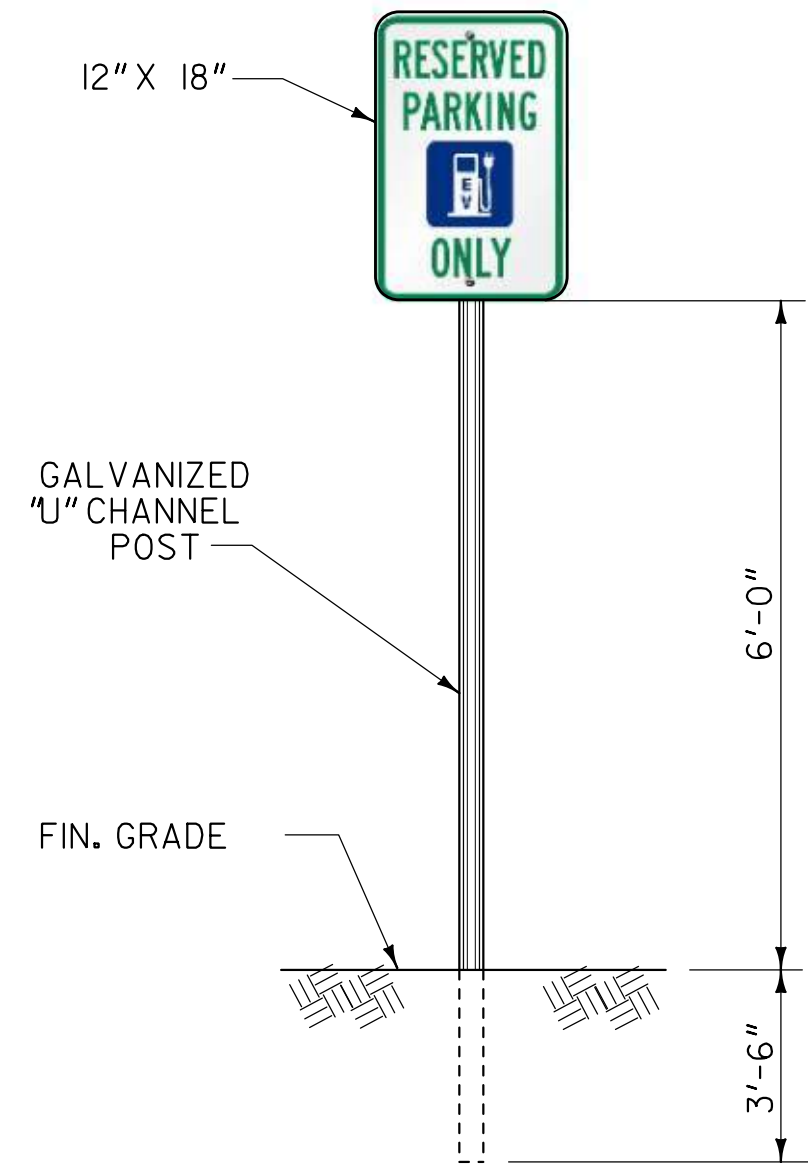
1. SEE TOWN OF WENDELL STANDARD DETAIL "CURB & GUTTER" SHEET C-105 FOR ADDITIONAL NOTES.



HANDICAP SIGN



STOP SIGN



ELECTRIC VEHICLE
PARKING SIGN

HH

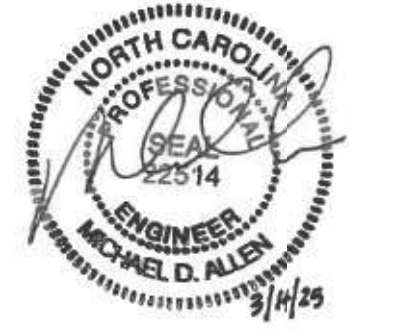
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NO.	REVISION	DATE

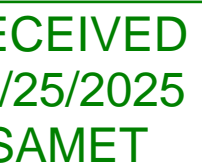
JOB NUMBER
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DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
SITE DETAILS

C-106



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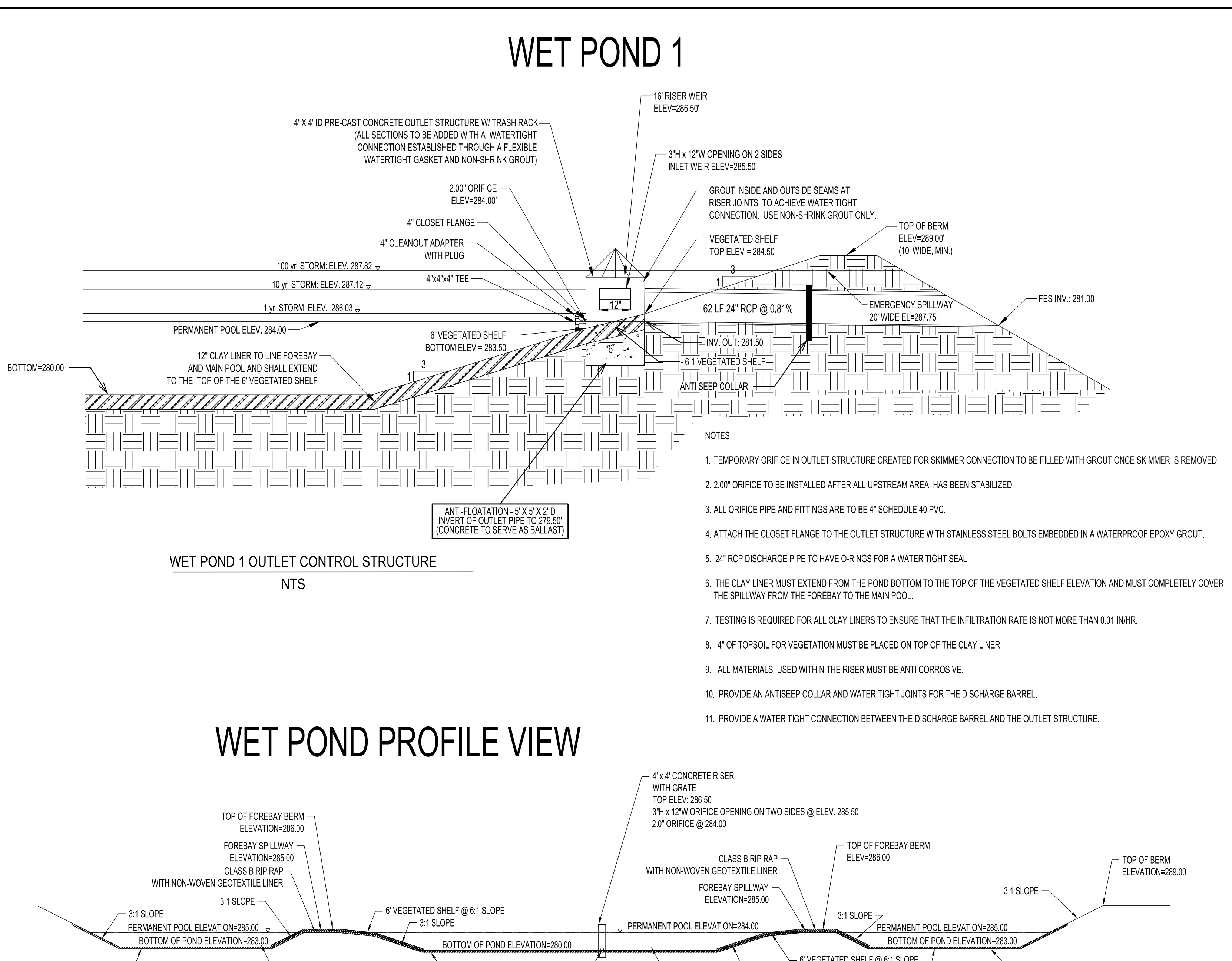
PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET

**STORMWATER
& GRADING
PLAN**

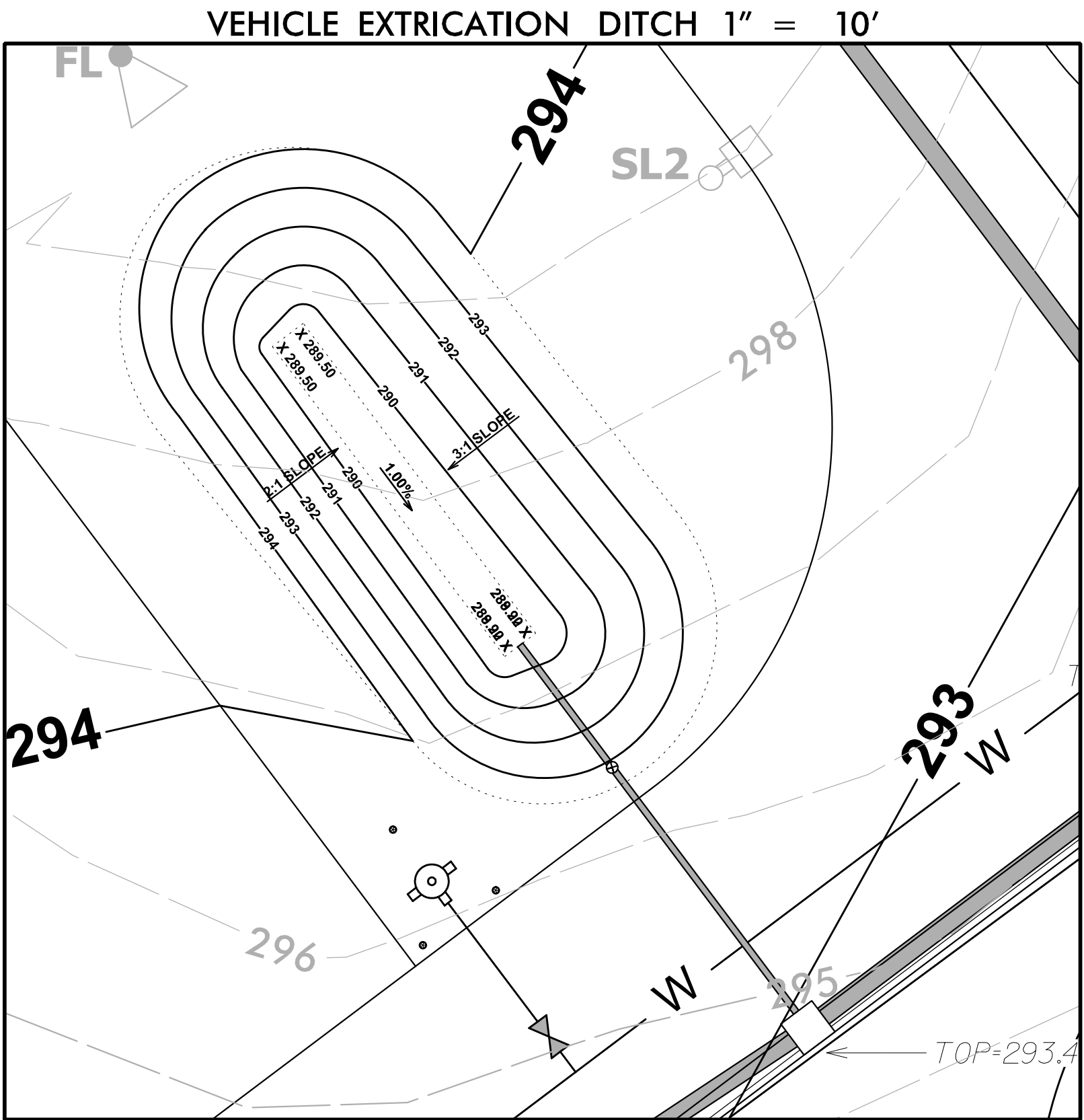
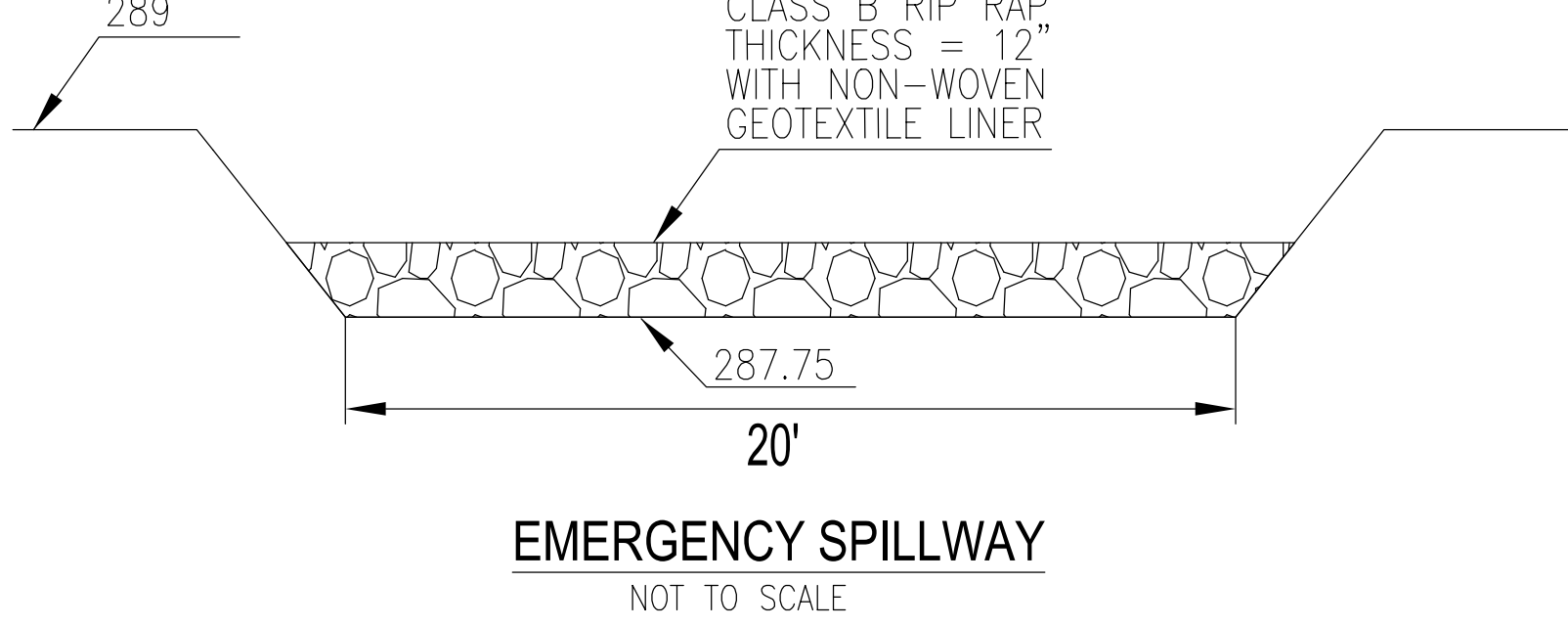
C-200



[illegible]

ALL DROP INLETS LOCATED WITHIN PAVEMENT OR CONCRETE SHALL BE TRAFFIC RATED.

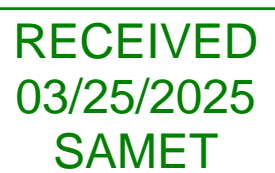
PIPE TABLE - START NETWORK 1						
PIPE NAME	DIAMETER	LENGTH	START INVERT	END INVERT	SLOPE	PIPE MATERIAL
THENCH TO D6-6	8.00	11.47	292.40	291.40	3.18%	DIP
TRENCH TO D6-6	8.00	33.31	292.32	291.40	1.54%	DIP
CB-40 TO CB-39	15.00	108.51	291.60	290.90	0.62%	Reinforced Concrete Pipes
CB-35 TO CB-34	15.00	19.34	291.50	291.25	0.66%	Reinforced Concrete Pipes
CB-34 TO CB-33	15.00	79.87	291.05	290.60	0.57%	Reinforced Concrete Pipes
CB-39 TO CB-38	15.00	97.62	290.70	290.10	0.61%	Reinforced Concrete Pipes
CB-33 TO D12-32	15.00	140.02	290.40	289.80	0.58%	Reinforced Concrete Pipes
CB-37 TO CB-36	15.00	90.52	290.30	289.70	0.66%	Reinforced Concrete Pipes
D12 D12 TO D9	15.00	49.61	290.00	289.70	0.60%	Reinforced Concrete Pipes
CB-36 TO CB-35	15.00	15.24	289.90	289.70	0.57%	Reinforced Concrete Pipes
D14C TO D14C-28	15.00	17.57	289.75	289.00	1.30%	Reinforced Concrete Pipes
D12 TO D12 D7	15.00	43.31	289.60	289.20	0.92%	Reinforced Concrete Pipes
D12 TO D13-31	15.00	106.65	289.60	288.75	0.88%	Reinforced Concrete Pipes
CB-22 TO CB-21-14	15.00	40.02	289.30	289.00	0.74%	Reinforced Concrete Pipes
D9 TO CB-9	15.00	104.53	289.20	288.60	0.66%	Reinforced Concrete Pipes
CB-26 TO D12-31	15.00	91.51	289.20	288.75	0.82%	Reinforced Concrete Pipes
CB-28 TO D12-31	15.00	38.13	289.40	290.20	0.71%	Reinforced Concrete Pipes
D12 TO D13-31	15.00	36.02	289.30	288.90	1.05%	Reinforced Concrete Pipes
OPEN DRAIN D7 TO CB-16	6.00	18.38	289.20	289.70	1.41%	DIP
D12 TO D12-26	15.00	97.02	289.00	288.50	0.88%	Reinforced Concrete Pipes
CB-30 TO CB-29	15.00	97.53	288.70	288.00	0.72%	Reinforced Concrete Pipes
D12 TO CB-9	15.00	234	288.64	288.60	1.76%	Reinforced Concrete Pipes
D13 TO D13-30	15.00	43.99	288.50	288.15	0.93%	Reinforced Concrete Pipes
CB-9 TO CB-8	15.00	49.35	288.40	288.03	0.81%	Reinforced Concrete Pipes
D13 TO D13-29	15.00	90.12	288.30	288.00	0.77%	Reinforced Concrete Pipes
D13 TO D14-31	15.00	136.40	287.95	287.15	0.95%	Reinforced Concrete Pipes
D12 TO D12-24	15.00	98.85	287.80	287.40	1.02%	Reinforced Concrete Pipes
CB-8 TO CB-7	15.00	49.20	287.80	286.80	1.12%	Reinforced Concrete Pipes
CB-19 TO CB-18	15.00	60.57	287.80	287.40	0.66%	Reinforced Concrete Pipes
CB-18 TO CB-16	15.00	79.14	287.20	286.70	0.63%	Reinforced Concrete Pipes
CB-17 TO CB-17	18.00	91.85	286.95	286.45	0.54%	Reinforced Concrete Pipes
CB-54 TO CB-53	15.00	72.38	286.60	286.10	0.69%	Reinforced Concrete Pipes
CB-14 TO CB-13	15.00	38.84	286.30	286.20	0.77%	Reinforced Concrete Pipes
CB-7 TO CB-7	18.00	80.31	286.45	286.20	0.64%	Reinforced Concrete Pipes
CB-23 TO CB-14	18.00	76.87	286.25	285.70	0.72%	Reinforced Concrete Pipes
D14B TO CB-13	15.00	36.78	286.20	283.85	0.69%	Reinforced Concrete Pipes
CB-15 TO CB-14	15.00	174	286.00	285.95	2.88%	Reinforced Concrete Pipes
CB-5 TO CB-4	18.00	139	285.65	285.54	2.05%	Reinforced Concrete Pipes
CB-14 TO FHS-13	18.00	29.11	285.50	285.00	1.72%	Reinforced Concrete Pipes
CB-14 TO FHS-3	15.00	42.70	284.50	284.00	0.96%	Reinforced Concrete Pipes
F x 3 Rise 2 TO FHS-1	24.00	60.44	281.50	281.00	0.83%	Reinforced Concrete Pipes





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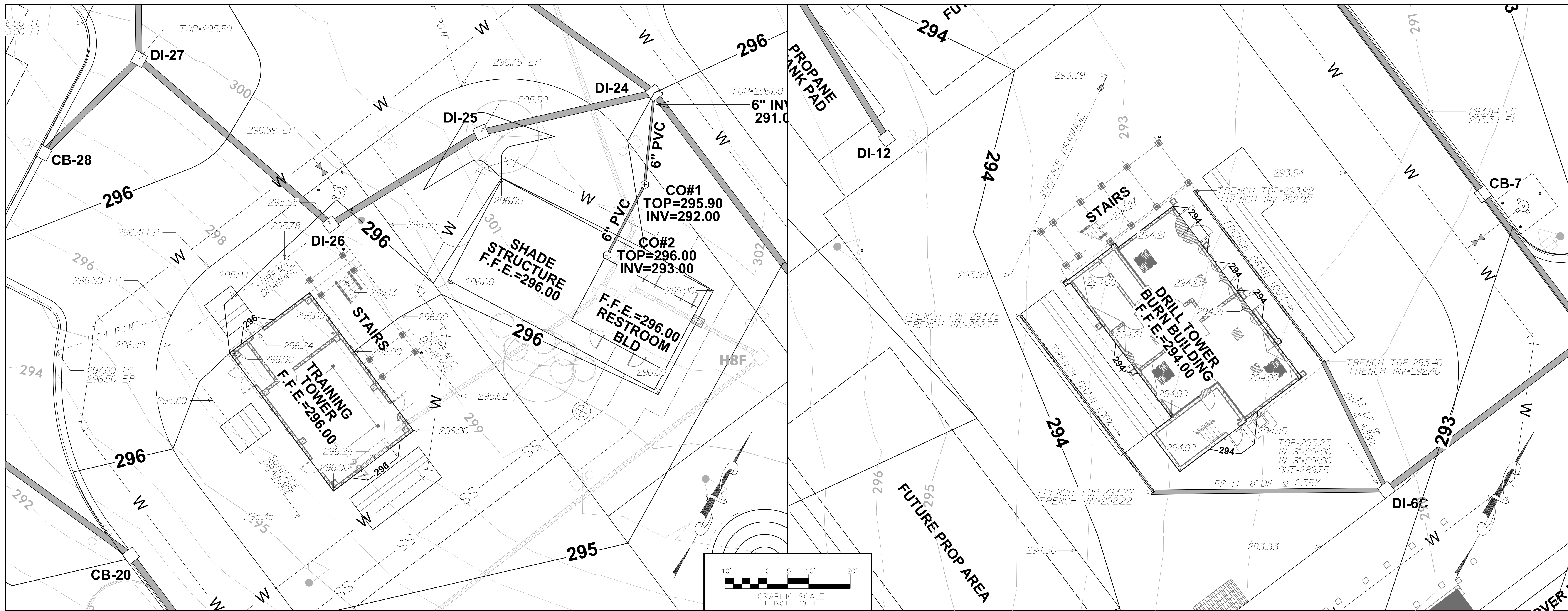
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PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

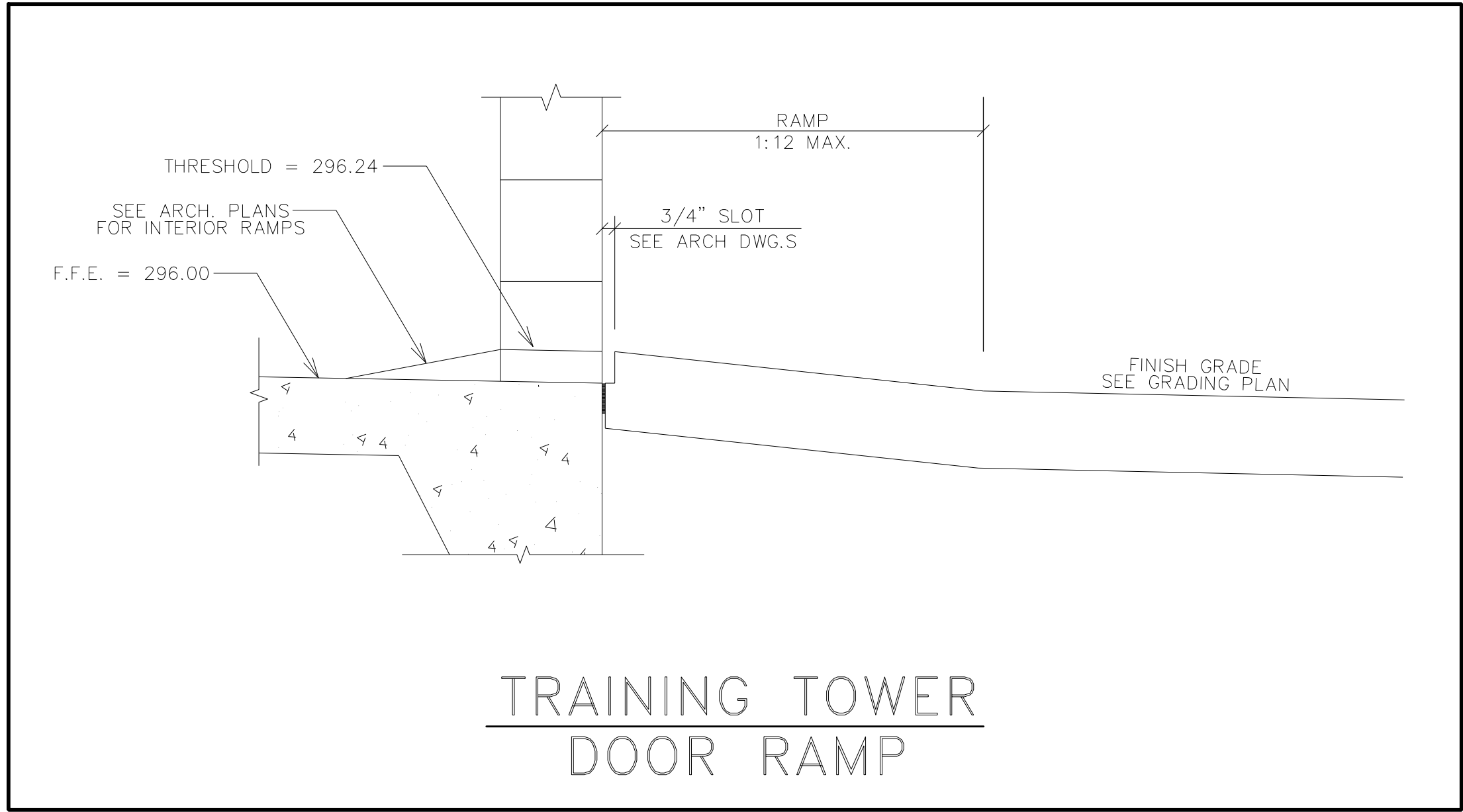
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**Grading
Enlargement**

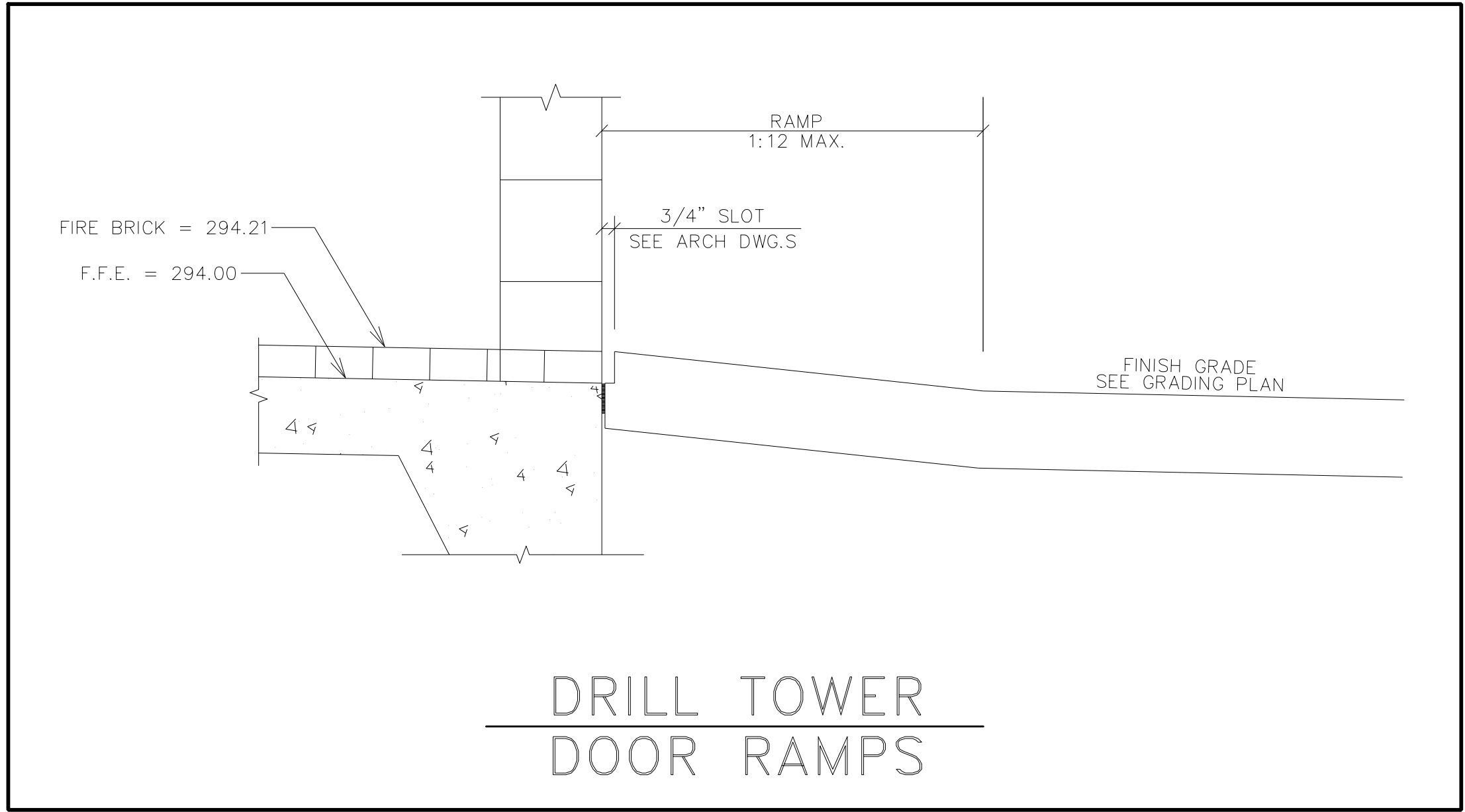
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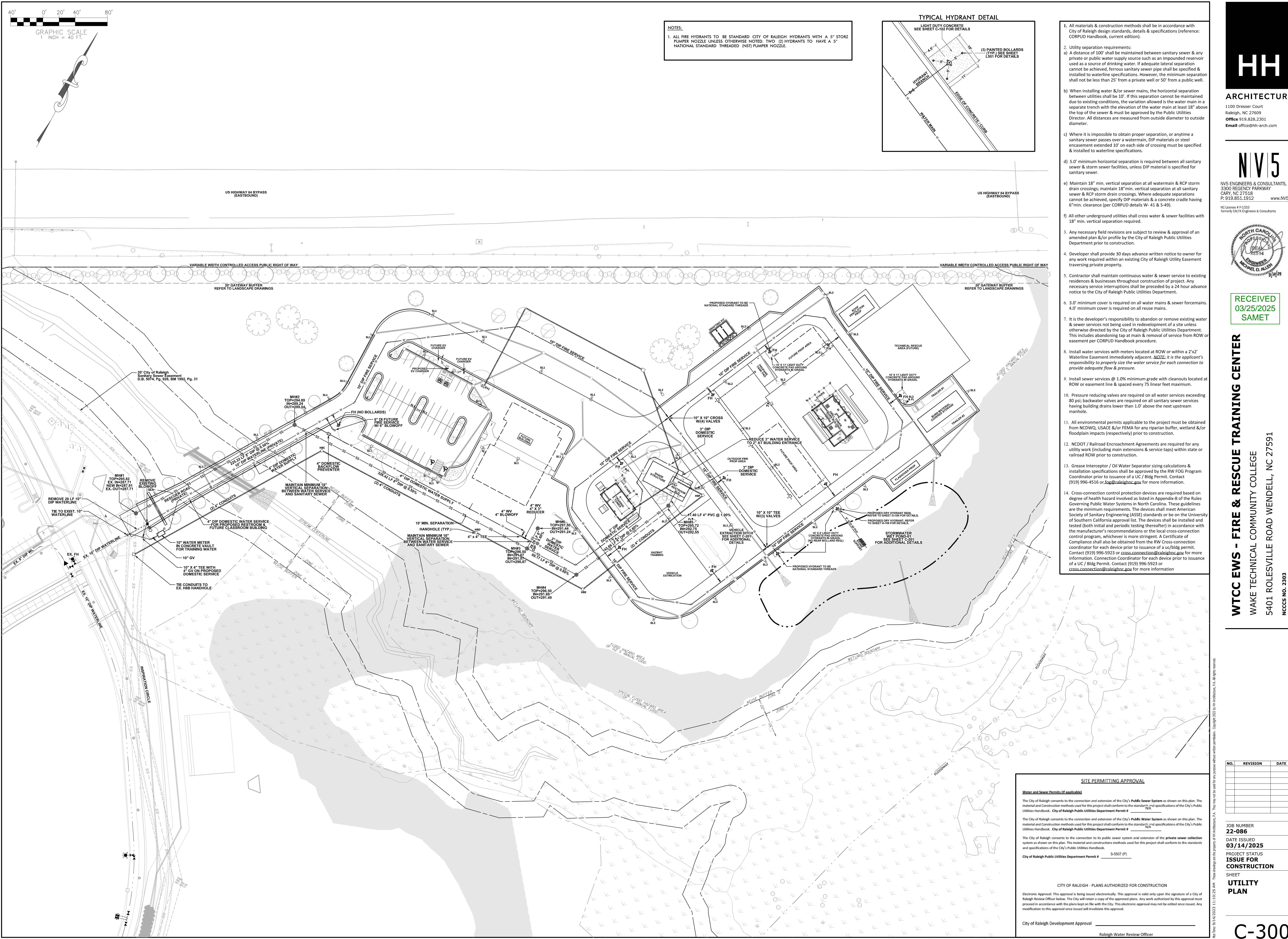
TRAINING TOWER GRADING ENLARGEMENT



DRILL TOWER GRADING ENLARGEMENT



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1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition).
2. Utility separation requirements:
a) A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to wateline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
b) When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
c) Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to wateline specifications.
d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer.
e) Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W-41 & S-49).
f) All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24 hour advance notice to the City of Raleigh Public Utilities Department.
6. 3.0' minimum cover is required on all water mains & sewer forcemains. 4.0' minimum cover is required on all reuse mains.
7. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure.
8. Install water services with meters located at ROW or within a 2"x2' Waterline Easement immediately adjacent. *NOTE: it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.*
9. Install sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum.
10. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
11. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
12. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
13. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC / Bldg Permit. Contact: (919) 996-4516 or fog@raleighnc.gov for more information.
14. Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of Sanitary Engineering (ASSE) standards or be on the University of Southern California approval list. The devices shall be installed and tested (both initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross-connection control program, whichever is more stringent. A Certificate of Compliance shall also be obtained from the RW Cross-connection coordinator for each device prior to issuance of a u/bldg permit. Contact: (919) 996-5923 or cross.connection@raleighnc.gov for more information. Connection Coordinator for each device prior to issuance of a UC / Bldg Permit. Contact: (919) 996-5923 or cross.connection@raleighnc.gov for more information

SITE PERMITTING APPROVAL

Water and Sewer Permit (if applicable)

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # N/A

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # N/A

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # S-5507 (P)

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____
Raleigh Water Review Officer _____

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JOB NUMBER

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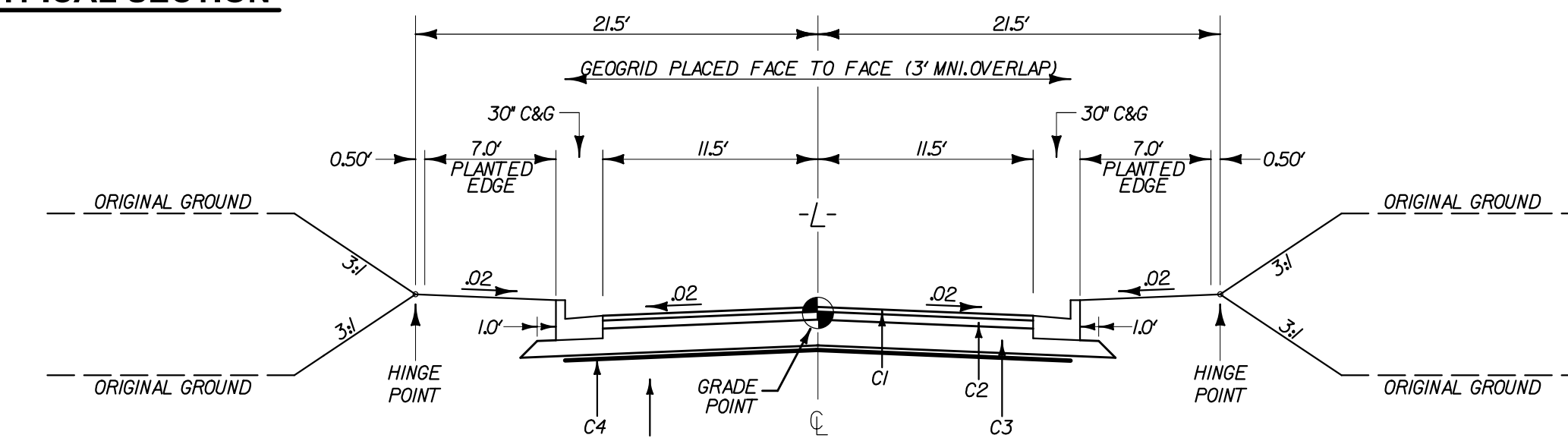
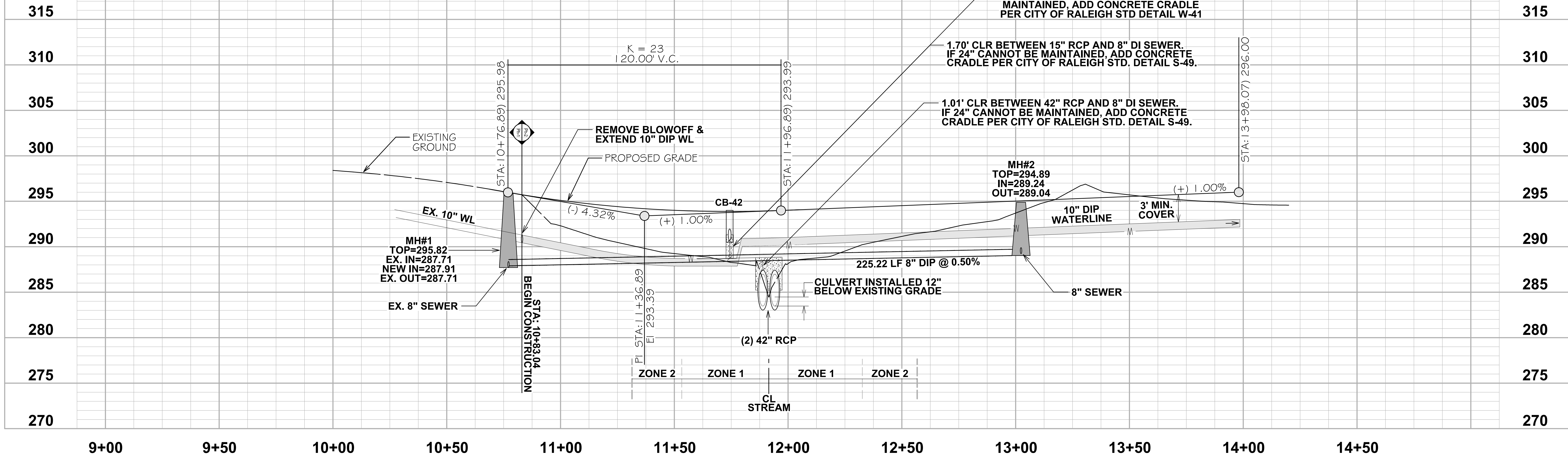
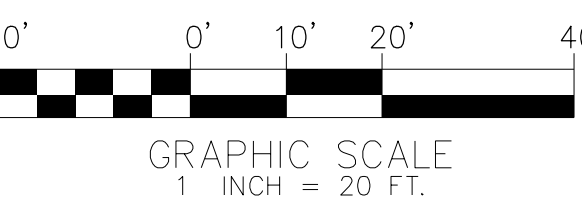
PROJECT STATUS

ISSUE FOR CONSTRUCTION

SHEET

UTILITY PLAN

1. STREAM, BANK/ALLUPL SOIL MECHANICAL STABILIZATION MAY BE ACHIEVED BY COMPACTING NCDOT CLASS B OR CLASS A RIP-RAP INTO THE EXPOSED SOFT WEILS USING TRACK MOUNTED EQUIPMENT SUCH AS A DOZER. ONCE INITIAL MECHANICAL STABILIZATION IS ACHIEVED WITH RIP-RAP, PROGRESSIVELY SMALLER CRUSHED STONE SUCH AS NCDOT TYPE #4 OR #56 SHOULD BE PLACED OVER THE RIP-RAP TO PROVIDE AN ADDITIONAL LAYER OF MECHANICAL TRACK MOUNTED EQUIPMENT. AFTER SUFFICIENT MECHANICAL SOIL STABILIZATION IS ACHIEVED, A NCDOT TYPE 4 GEOTEXTILE FABRIC SHOULD BE PLACED OVER THE CRUSHED STONE PRIOR TO STRUCTURAL FILL SOIL PLACEMENT AND COMPACTION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL MAINTAIN RECORDS OF THE TYPE AND QUANTITY OF THE GEOTECHNICAL ENGINEER'S REPRESENTATIVE SHOULD OBSERVE MECHANICAL SOIL STABILIZATION ACTIVITIES ON A FULL-TIME BASIS AND PROVIDE STABILIZATION RECOMMENDATIONS BASED ON THE ACTUAL SUBGRADE SOIL CONDITIONS ENCOUNTERED AT THE PROJECT LOCATION.



PAVEMENT SCHEDULE	
C1	2" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5B
C2	4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I 19.0D
C3	8" ABC
C4	GEOGRID (BX1200 OR EQUIVALENT)
C5	COMPACTED SUBGRADE



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SHEET

STREAM CROSSING PLAN

C-301



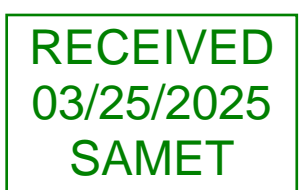
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PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET
**PROPOSED GAS
DISTRIBUTION
LAYOUT**

C-302

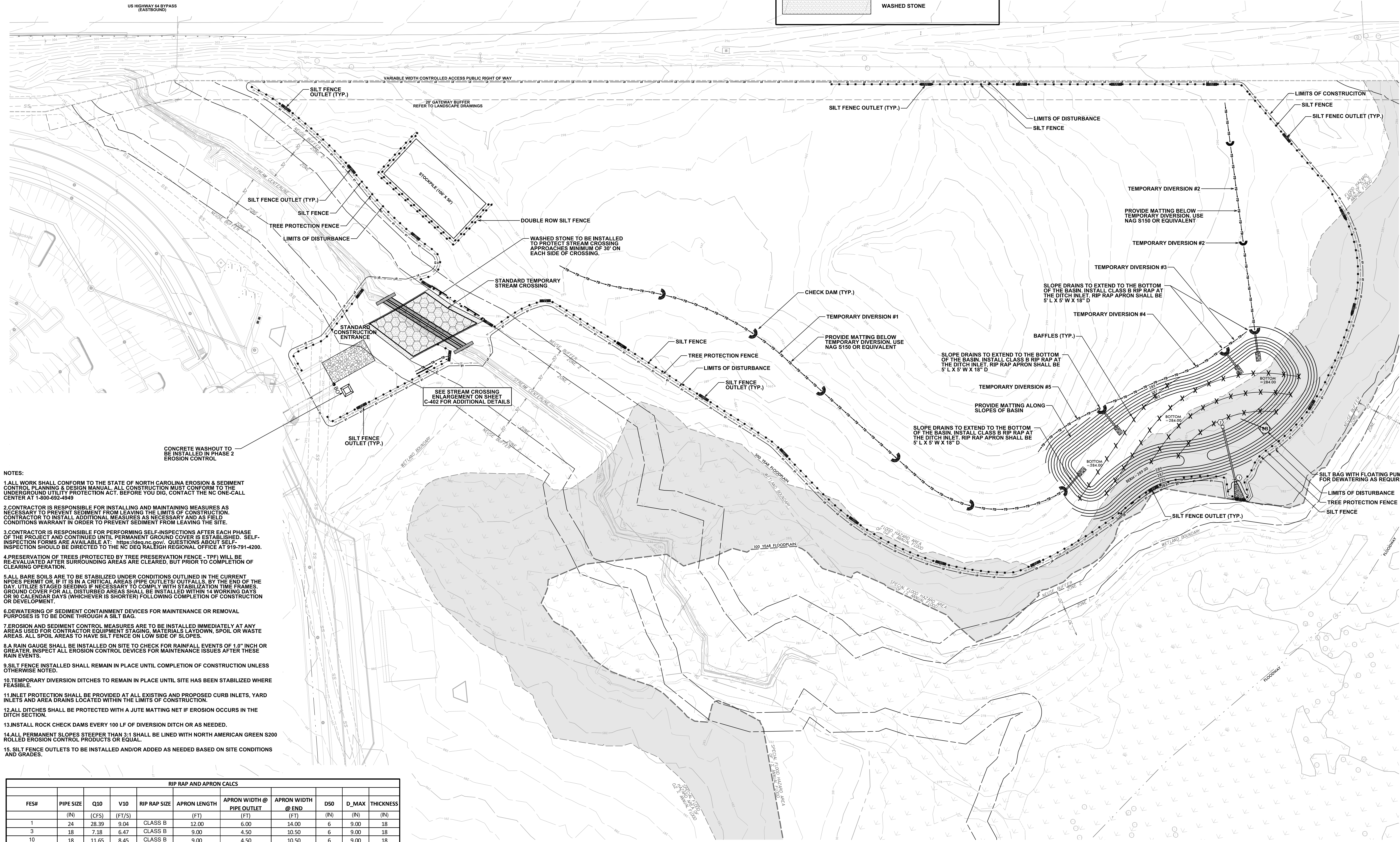
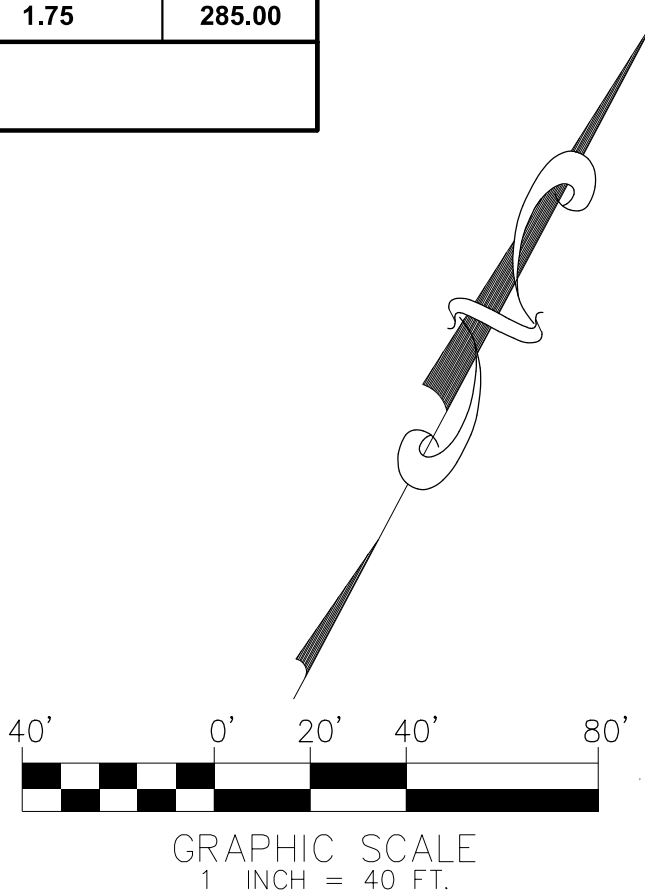
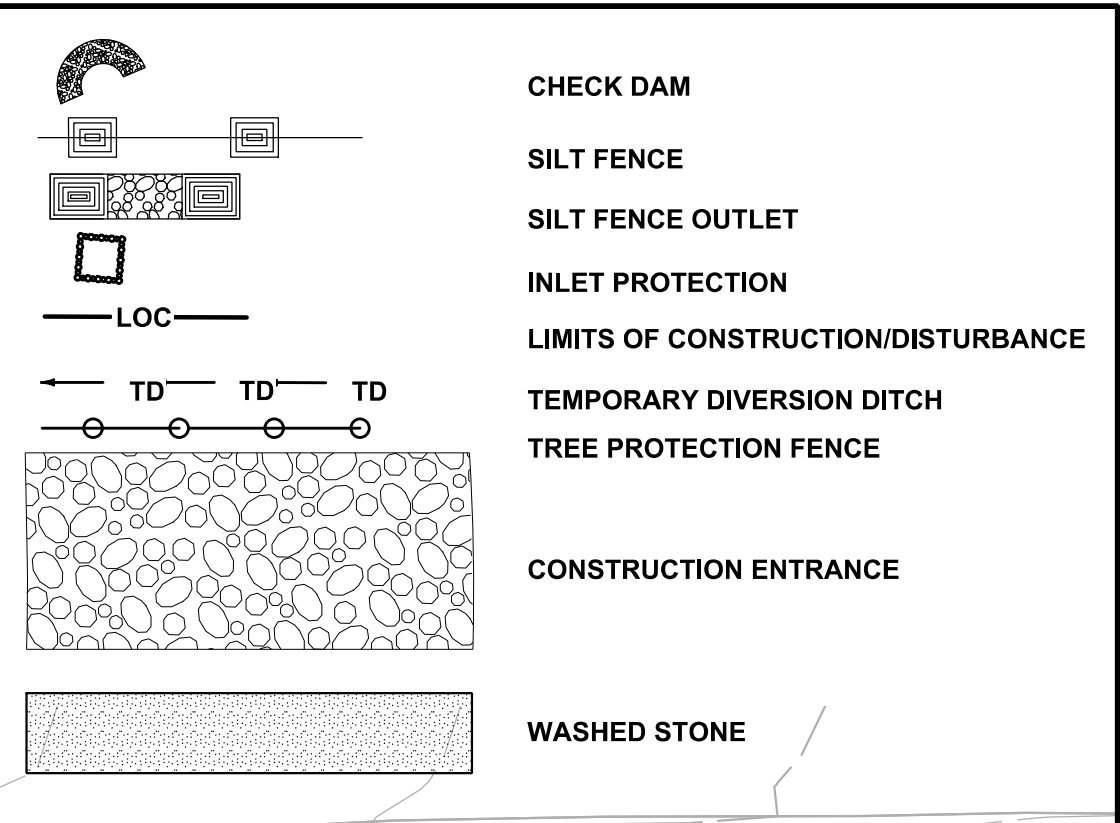
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1. EROSION AND SEDIMENT CONTROL (E&S) PERMIT AND CERTIFICATE OF COVERAGE FOR THE PROJECT MUST BE OBTAINED PRIOR TO ANY LAND DISTURBING ACTIVITIES, INCLUDING TIMBERING AND DEMOLITION, OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT AND THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT <http://www.dnr.state.nj.us/land/soil/erosion/>. THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS ARE APPROVED. A COPY OF THE E&S PERMIT, THE COC, AND THE E-NOI FORM MUST BE SUBMITTED TO THE PROJECT AREA SUPERVISOR IN A PERMITS BOOK, AND ACCESSIBLE DURING INSPECTIONS.
2. CONTACT NCDENR/LE RALEIGH REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO CONSTRUCTION OF THE ANDERSON AND THE HANCOCK TRAILS. THE CONTACT NUMBER IS (919) 791-2400 (15A NCAC 04B.106(b)).
3. ADD GRAVEL CONSTRUCTION ENTRANCE.
 - IF CULVERTS ARE NOT INSTALLED AND ACCESS IS NEEDED ON-SPOT, INSTALL TEMPORARY STREAM CROSSING PER DETAIL ON SHEET D-102. ALL TIMBER MATS MUST BE SECURED TO THE GROUND WITH NAILS OR GRAPES THAT INCLUDE SIDE BARS WHICH ARE AT LEAST 1 INCHES THICK. INSTALL WASHED STONE TO THE TOP OF THE MATS THAT EXTENDS AT LEAST 10 FEET BEYOND EACH SIDE OF THE CROSSING WITH BERM TO DIRECT RUN-OFF TO SILT FENCE OUTLETS.
5. INSTALL SILT FENCE, AND SILT FENCE OUTLETS CLEARING ONLY AS NECESSARY TO INSTALL THE DEVICE.
6. INCREASE SKIMMER DEPOSIT BASIN(S) ACCORDING TO PLAN, SEED, MULCH AND ANCHOR BERM AND SOILS AROUND AND BELOW BASIN UPON CONSTRUCTION. USE REEF FOR STABILIZATION OF ALL 2:1 SLOPES. PLACE SILT FENCE ON DOWNHILL SIDE OF SKIMMER.
7. CONTACT NCDENR/AT (919) 791-2400 FOR INSPECTION OF THESE MEASURES. UPON APPROVAL, INSTALL TEMPORARY DIVERSION DITCHES AND THE REMAINING EROSION CONTROL MEASURES.
8. LIMIT DISTURBANCES TO THE LENGTH THAT CAN BE STABILIZED AT THE END OF THE WORKDAY (15A NCAC 04B.0106(d)).

1. DUE TO THE LOCATION OF THIS PROJECT, IT SHOULD BE NOTED THAT A RULE TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE RIVER BASIN BECAME EFFECTIVE ON JULY 22, 1997. THE NEUSE RIVER RIPARIAN AREA PROTECTION AND MAINTENANCE RULE (15A NCAC 2B.0233) APPLIES TO ALL PERENNIAL AND INTERMITTENT STREAMS, LAKES, PONDS AND ESTUARIES IN THE NEUSE RIVER BASIN WITH FOREST VEGETATION ON THE ADJACENT LAND OR "RIPARIAN AREA".

BASIN #	DRAINAGE AREA	LENGTH	WIDTH	BOTTOM	TOP OF BERM	WEIR LENGTH	WEIR ELEVATION	SKIMMER SIZE	ORIFICE SIZE	SKIMMER
	(ACRES)	(FT)	(FT)	ELEVATION	ELEVATION	(FT)		(IN)	(IN)	INVERT
#1	5.21	NA	NA	284	289	20	287.75	2.0	1.75	285.00

DITCH #	LINER TYPE	BOTTOM WIDTH	SIDE SLOPE	DEPTH
1	NAG-S150	0 FT	2:1	2 FEET
2	NAG-S150	0 FT	2:1	2 FEET
3	NAG-S150	0 FT	2:1	2 FEET
4	NAG-S150	0 FT	2:1	2 FEET
5	NAG-S150	0 FT	2:1	2 FEET

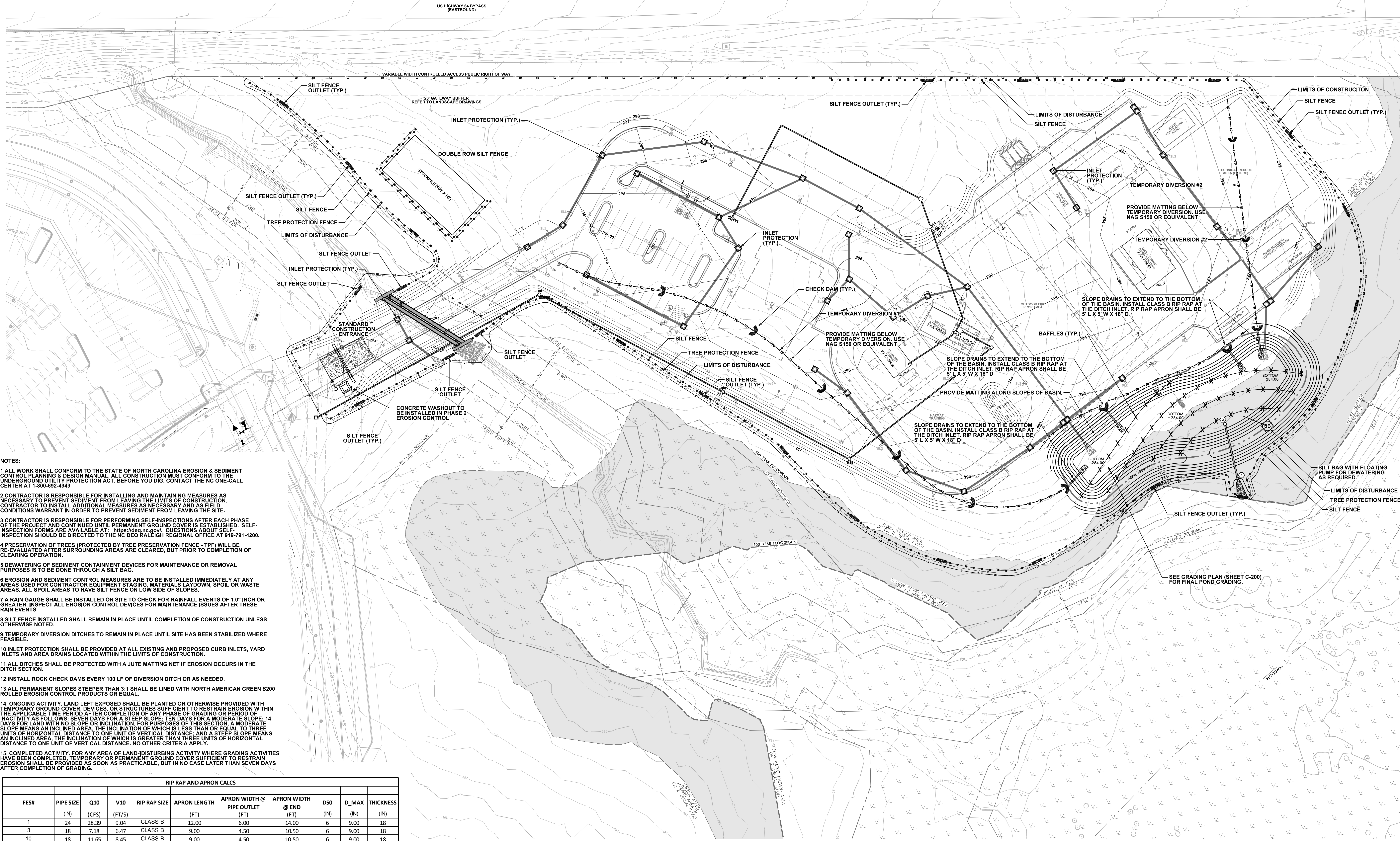
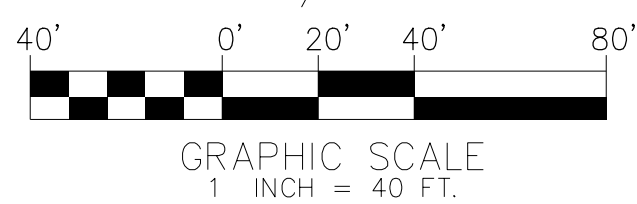


RIP RAP AND APRON CALCS										
FES#	PIPE SIZE	Q10	V10	RIP RAP SIZE	APRON LENGTH	APRON WIDTH @ PIPE OUTLET	APRON WIDTH @ END	D50	D_MAX	THICKNESS
	(IN)	(CFS)	(FT/S)		(FT)	(FT)	(FT)	(IN)	(IN)	(IN)
1	24	28.39	9.04	CLASS B	12.00	6.00	14.00	6	9.00	18
3	18	7.18	6.47	CLASS B	9.00	4.50	10.50	6	9.00	18
10	18	11.65	8.45	CLASS B	9.00	4.50	10.50	6	9.00	18

11. WHEN THE PROJECT IS COMPLETE, AND PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION HAS BEEN ESTABLISHED, THE PERMITTEE SHALL CONTACT NCDEMLR TO CLOSE OUT THE E&SC PLAN. AFTER NCDEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT [HTTPS://WWW.DEQ.NC.GOV/NCG01](https://www.deq.nc.gov/ncg01) TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$120 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

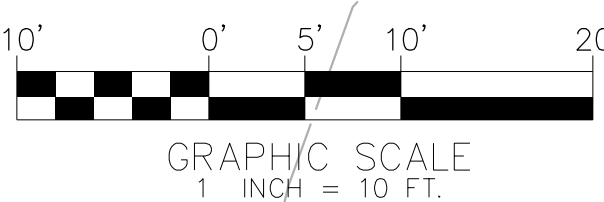
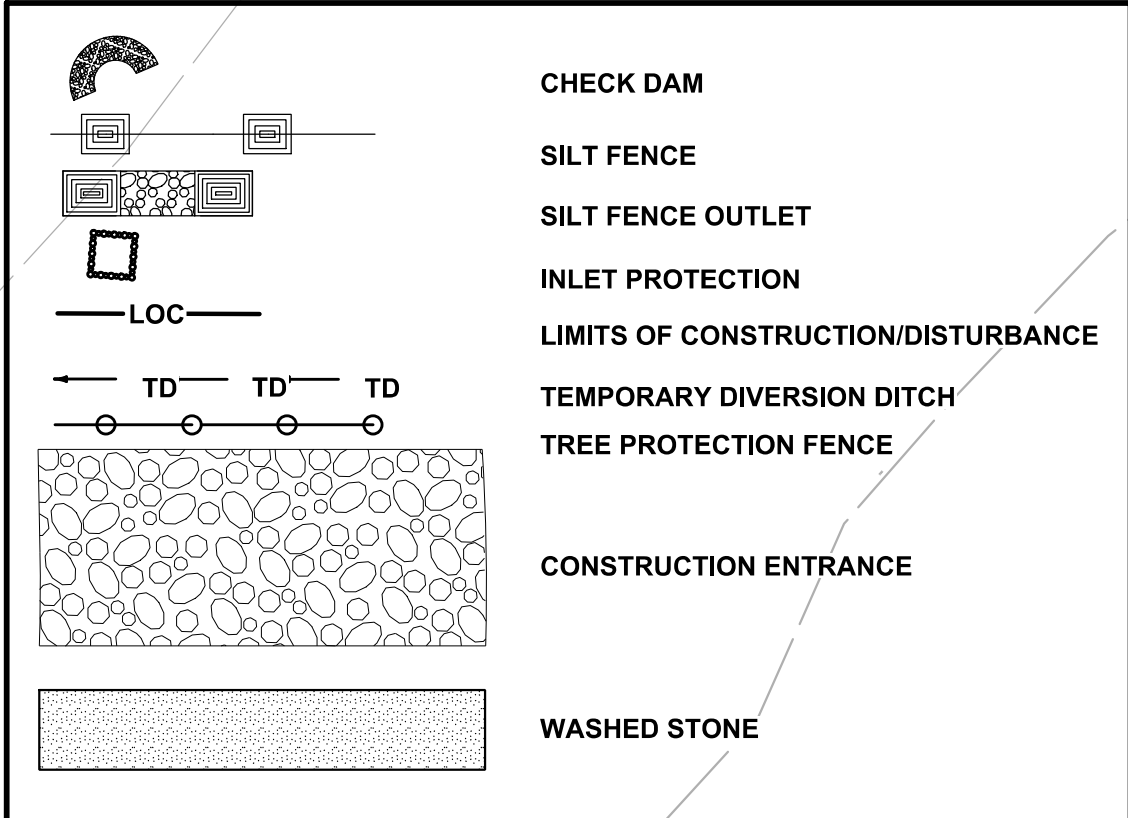
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TOTAL DISTURBED AREA = 9.260 ACRES

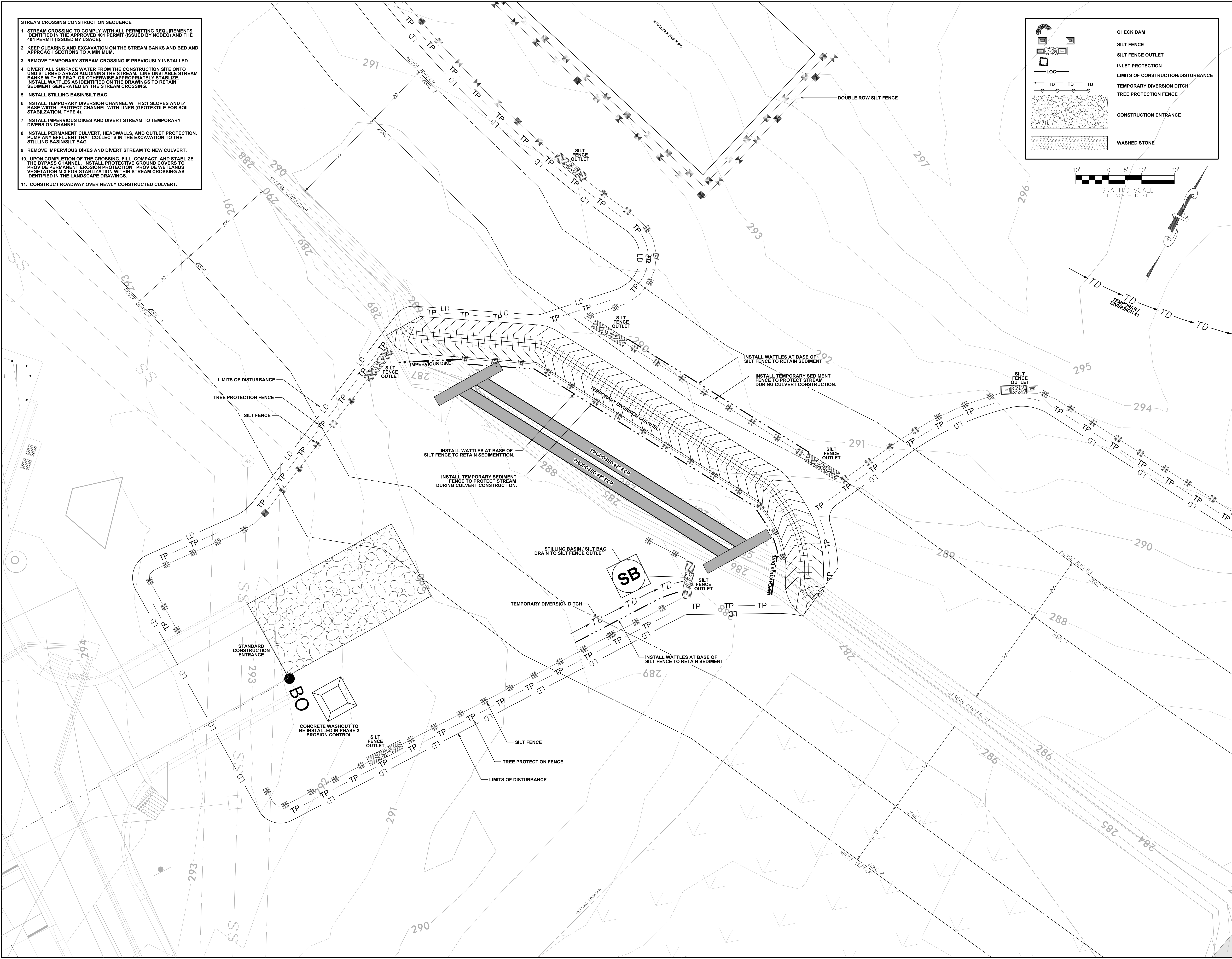


RIP RAP AND APRON CALCS										
FESH	PIPE SIZE	Q10	V10	RIP RAP SIZE	APRON LENGTH	APRON WIDTH @ PIPE OUTLET	APRON WIDTH @ END	D50	D_MAX	THICKNESS
	(IN)	(CFS)	(FT/S)		(FT)	(FT)	(FT)	(IN)	(IN)	(IN)
1	24	28.39	9.04	CLASS B	12.00	6.00	14.00	6	9.00	18
3	18	7.18	6.47	CLASS B	9.00	4.50	10.50	6	9.00	18
10	18	11.65	8.45	CLASS B	9.00	4.50	10.50	6	9.00	18

- STREAM CROSSING CONSTRUCTION SEQUENCE
1. STREAM CROSSING TO COMPLY WITH ALL PERMITTING REQUIREMENTS IDENTIFIED IN THE APPROVED 401 PERMIT (ISSUED BY NCDEQ) AND THE 404 PERMIT (ISSUED BY USACE).
 2. KEEP CLEARING AND EXCAVATION ON THE STREAM BANKS AND BED AND APPROACH SECTIONS TO A MINIMUM.
 3. REMOVE TEMPORARY STREAM CROSSING IF PREVIOUSLY INSTALLED.
 4. DIVERT ALL SURFACE WATER FROM THE CONSTRUCTION SITE ONTO UNDISTURBED AREAS ADJOINING THE STREAM. LINE UNSTABLE STREAM BANKS WITH RIPRAP, OR OTHERWISE APPROPRIATELY STABILIZE. INSTALL WATTLES AS IDENTIFIED ON THE DRAWINGS TO RETAIN SEDIMENT GENERATED BY THE STREAM CROSSING.
 5. INSTALL STILLING BASIN/SILT BAG.
 6. INSTALL TEMPORARY DIVERSION CHANNEL WITH 2:1 SLOPES AND 5' BASE WIDTH. PROTECT CHANNEL WITH LINER (GEOTEXTILE FOR SOIL STABILIZATION, TYPE 4).
 7. INSTALL IMPERVIOUS DIKES AND DIVERT STREAM TO TEMPORARY DIVERSION CHANNEL.
 8. INSTALL PERMANENT CULVERT, HEADWALLS, AND OUTLET PROTECTION. PUMP ANY EFFLUENT THAT COLLECTS IN THE EXCAVATION TO THE STILLING BASIN/SILT BAG.
 9. REMOVE IMPERVIOUS DIKES AND DIVERT STREAM TO NEW CULVERT.
 10. UPON COMPLETION OF THE CROSSING, FILL, COMPACT, AND STABILIZE THE BYPASS CHANNEL. INSTALL PROTECTIVE GROUND COVERS TO PROVIDE PERMANENT EROSION PROTECTION. PROVIDE WETLANDS VEGETATION MIX FOR STABILIZATION WITHIN STREAM CROSSING AS IDENTIFIED IN THE LANDSCAPE DRAWINGS.
 11. CONSTRUCT ROADWAY OVER NEWLY CONSTRUCTED CULVERT.



GRAPHIC SCALE
1" = 10' FT.



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WAKE TECHNICAL COMMUNITY COLLEGE
5401 ROLESVILLE ROAD WENDELL, NC 27591
NCCCS NO. 2303

File: 03-14-2025 11:02:25 AM These drawings are the property of HH Architecture, P.A. They may not be used for any purpose without written permission. Copyright 2023 by HH Architecture, P.A. All rights reserved.

NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
EROSION CONTROL STREAM CROSSING

C-402

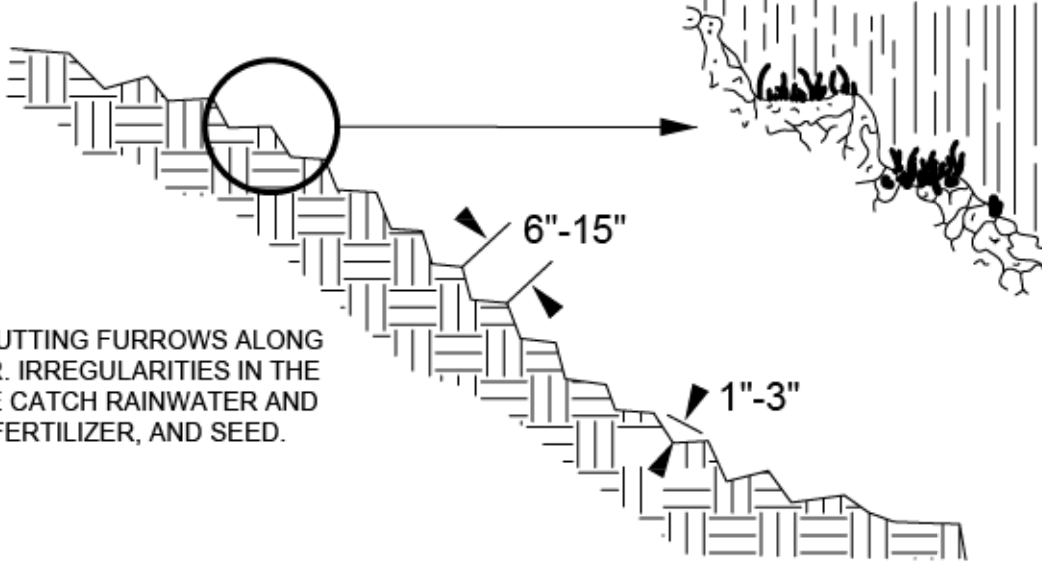
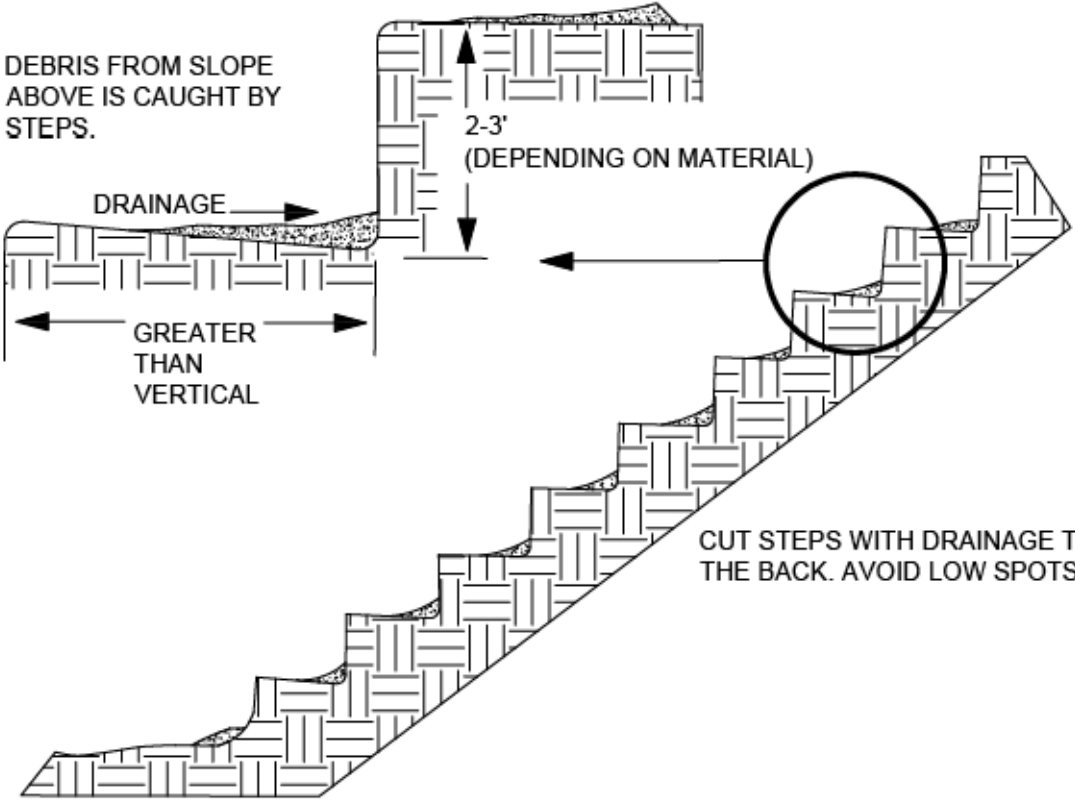

DATE: _____	PAGE: _____
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CONSIDERATIONS FOR CONSTRUCTION SCHEDULING	
<u>CONSTRUCTION ACTIVITY</u>	<u>SCHEDULE CONSIDERATION</u>
CONSTRUCTION ACCESS: Construction entrance, construction routes, equipment parking areas.	First land-disturbing activity- Stabilize bare areas immediately with gravel and temporary vegetation as construction takes place.
SEDIMENT TRAPS AND BARRIERS: Basin traps, sediment fences, and outlet protection.	Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
RUNOFF CONTROL: Diversions, perimeter dikes, water bars, and outlet protection.	Install key practices after principal sediment traps and before land grading. Install additional runoff-control measures during grading.
RUNOFF CONVEYANCE SYSTEM: Stabilize streambanks, storm drains, channels, inlet and outlet protection, and slope drains.	Where necessary, stabilize streambanks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
LANDING CLEARING AND GRADING: Site preparation- cutting, filling and grading, sediment traps, barriers, diversions, drains, and surface roughening.	Begin major clearing and grading AFTER principal sediment and key runoff-control measures are installed. Clear borrow and disposal areas only as needed. Install additional control measures as grading progresses. Mark trees and buffer areas for preservation.
SURFACE STABILIZATION: Temporary and permanent seeding, mulching, sodding and riprap.	Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
BUILDING CONSTRUCTION: Buildings, utilities, and paving.	Install necessary additional erosion and sedimentation control practices as work takes place.
LANDSCAPE AND FINAL STABILIZATION: Topsoiling, trees and shrubs, permanent seeding, mulching, sodding, and riprap.	Last construction phase: Stabilize all open areas, including borrow and spoil areas. Remove and stabilize all temporary control areas.

NOTE: The above are the main aspects of a typical construction sequence in general terms. A detailed Construction Sequence should be site specific based on your project and site needs. As a minimum, the construction sequence schedule should show the following:

- The erosion and sedimentation control practices to be installed,
- Principal development activities,
- What measures should be in place before other activities are begun, and
- Compatibility with the general construction schedule of the contract.

Many timely construction techniques can reduce the erosion potential of a site, such as (1) shaping earthen fills daily to prevent overflows and (2) constructing temporary diversions ahead of anticipated storms. These types of activities cannot be put on the construction sequence schedule, but should be used whenever possible.

<div>DATE: <div></div></div>		<div>PAGE: <div></div></div>	
<div><p>GROOVE BY CUTTING FURROWS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND RETAIN LIME, FERTILIZER, AND SEED.</p><p>GROOVING SLOPES</p></div>		<div><p>CUT SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED:</p><ol style="list-style-type: none">1. Stair-step grade or groove cut slopes with a gradient steeper than 3:1.2. Use stair-step grading on any erodible material soft enough to be ripped with a bulldozer. Slopes consisting of soft rock with some subsoil are particularly suited to stair-stepping.3. Make the vertical cut distance less than the horizontal distance, and slightly slope the horizontal position of the "step" in toward the vertical wall.4. Do not make individual vertical cuts more than 2 feet in soft materials or more than 3 feet in rocky materials.5. Grooving uses machinery to create a series of ridges and depressions that run across the slope (on the contour).6. Groove using any appropriate implement that can be safely operated on the slope. Such as disks, tillers, spring harrows, or the teeth on a front-end loader bucket. Do not make such grooves less than 3 inches deep nor more than 15 inches apart.</div>	
<div><p>DEBRIS FROM SLOPE ABOVE IS CAUGHT BY STEPS.</p><p>STAIR STEPPING CUT SLOPES</p></div>		<div><p>FILL SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED:</p><ol style="list-style-type: none">1. Place fill slopes with a gradient steeper than 3:1 in lifts not to exceed 9 inches, and make sure each lift is properly compacted. Ensure that the face of the slope consists of loose, uncompacted fill 4 to 6 inches deep. Use grooving, as described above, to roughen the face of the slopes, if necessary.2. Do not blade or scrape the final slope face.</div> <div><p>CUTS, FILLS, AND GRADED AREAS THAT WILL BE MOWED:</p><ol style="list-style-type: none">1. Make mowed slopes no steeper than 3:12. Roughen these areas to shallow grooves by normal tilling, disking, harrowing, or use of a cultipacker-seeder. Make the final pass of any such tillage implement on the contour.3. Make grooves, formed by such implements, close together (less than 10 inches) and not less than 1 inch deep.4. Excessive roughness is undesirable where mowing is planned.</div> <div><p>ROUGHENING WITH TRACKED MACHINERY:</p><ol style="list-style-type: none">1. Limit roughening with tracked machinery to sandy soils to avoid undue compaction of the soil surface. Tracking is generally not as effective as the other roughening methods described.2. Operate tracked machinery up and down the slope to leave horizontal depressions in the soil. Do not back-blade during the final grading operation.</div>	
<div><p>SEED AND MULCH ROUGHENED AREAS IMMEDIATELY TO OBTAIN OPTIMUM SEED GERMINATION AND GROWTH.</p></div>		<div><p>EFFECTIVE DATE: 9/1/2023 IN ACCORDANCE WITH THE 2013 DESIGN MANUAL UPDATES</p></div>	
<div><div></div><div><h1>SURFACE ROUGHENING</h1></div></div>			

DATE:	PAGE:								
<p>TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING</p> <table> <tr> <th>Seeding Mixture</th><th>Rate (lb/acre)</th></tr> <tr> <td>Species</td><td></td></tr> <tr> <td>Rye (grain)</td><td>120</td></tr> <tr> <td>Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)</td><td>50</td></tr> </table> <p>Omit annual lespedeza when duration of temporary cover is not to extend beyond June.</p> <p>Maintenance Dates Mountains—Above 2500 feet: Feb. 15 - May 15 Below 2500 feet: Feb. 1 - May 1 Piedmont—Jan. 1 - May 1 Coastal Plain—Dec. 1 - Apr. 15</p> <p>Mulch Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.</p> <p>Maintenance Reestablish if growth is not fully adequate. Reseed, fertilize, and mulch immediately following erosion or other damage.</p>		Seeding Mixture	Rate (lb/acre)	Species		Rye (grain)	120	Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50
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<p>TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER</p> <table> <tr> <th>Seeding Mixture</th><th>Rate (lb/acre)</th></tr> <tr> <td>Species</td><td></td></tr> <tr> <td>German millet</td><td>40</td></tr> </table> <p>In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.</p> <p>Seeding Dates Mountains—May 15 - Aug. 15 Piedmont—May 1 - Aug. 15 Coastal Plain—Apr. 15 - Aug. 15</p> <p>Mulch Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.</p> <p>Maintenance Reestablish if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.</p>		Seeding Mixture	Rate (lb/acre)	Species		German millet	40		
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Seeding Mixture	Rate (lb/acre)								
Species									
Rye (grain)	120								
<p>SEED BED PREPARATION:</p> <p>LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.</p> <p>FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.</p> <p>SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.</p>									
	<p>Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates</p>								
<p>TEMPORARY SEEDING</p>									

DATE:

PAGE:

SPACING GUIDE FOR SLOPE BREAKS

	SLOPE	SPACING (FT)
Steep Slopes	2:1	20
	3:1	35
	4:1	45
Long Slopes	15-25%	50
	10-15%	80
	6-10%	125
	3-6%	200
	<3%	300


Use slope breaks, such as diversions, wattles, or benches, as appropriate, to reduce the length of cut-and-fill slope to limit sheet and rill erosion and prevent gullying.

MAINTENANCE:

- Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls.
- Promptly remove all sediment from diversions and other water-disposal practices.
- If washouts or breaks occur, repair immediately.
- Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

NOTES:

- Construct and maintain all erosion and sediment control practices and measures in accordance with the approved sedimentation control plan and construction schedule.
- Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
- Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil.
- Clear and grub areas to be filled by removing trees, vegetation, roots, or other objectionable material that would affect the planned stability of the fill.
- Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
- Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
- Do not incorporate frozen, soft, mucky, or highly compressible materials into fill slopes.
- Do not place fill on a frozen foundation, due to possible subsidence and slippage.
- Keep diversions and other water conveyance measures free of sediment during all phases of development.
- Handle seeps or springs encountered during construction in accordance with approved methods (subsurface drain).
- Permanently stabilize all graded areas immediately after final grading is completed on each area in the grading plan. Apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed for 30 days or longer.
- Show topsoil, stockpiles, borrow areas, and spoil areas on the plans, and make sure they are adequately protected from erosion. Include final stabilization of these areas in the plan.



LAND GRADING

Effective Date: 9/1/2023

In accordance with the 2013 Design Manual Updates

DATE:	NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING	PAGE:														
	<p>SEEDING MIXTURE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Species</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>Centipede</td> <td>5 lbs/acre</td> </tr> <tr> <td>Indian Woodoats</td> <td>1.5-2.5 lbs/acre*</td> </tr> <tr> <td>Virginia Wild Rye</td> <td>4-6 lbs/acre</td> </tr> </tbody> </table> <p>*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.</p> <p>Seeding Dates Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1 Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1 Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15</p> <p>Maintenance: Significant maintenance may be required to obtain desired cover.</p>	Species	Rate	Centipede	5 lbs/acre	Indian Woodoats	1.5-2.5 lbs/acre*	Virginia Wild Rye	4-6 lbs/acre							
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	<p>NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR SUMMER</p> <p>SEEDING MIXTURE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Species</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>Indian Woodoats</td> <td>1.5-2.5 lbs/acre*</td> </tr> <tr> <td>Virginia Wild Rye</td> <td>4-6 lbs/acre*</td> </tr> </tbody> </table> <p>*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.</p> <p>Seeding Dates Mountains - July 15- Aug 15 Piedmont - Aug 15 - Oct 15</p> <p>Maintenance: Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.</p>	Species	Rate	Indian Woodoats	1.5-2.5 lbs/acre*	Virginia Wild Rye	4-6 lbs/acre*									
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Virginia Wild Rye	4-6 lbs/acre*															
	<p align="center">SEED BED PREPARATION:</p> <p>LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1½ tons/acre on coarse textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.</p> <p>FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.</p> <p>SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seeded preparation is completed.</p>															
	<p>NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR FALL</p> <p>SEEDING MIXTURE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Species</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>Hard Fescue</td> <td>15 lbs/acre</td> </tr> <tr> <td>Switchgrass</td> <td>2.5-3.5 lbs/acre*</td> </tr> <tr> <td>Indian Grass</td> <td>5-7 lbs/acre*</td> </tr> <tr> <td>Big Bluestem</td> <td>5-7 lbs/acre*</td> </tr> <tr> <td>Indian Woodoats</td> <td>1.5-2.5 lbs/acre*</td> </tr> <tr> <td>Virginia Wild Rye</td> <td>4-6 lbs/acre*</td> </tr> </tbody> </table> <p>*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.</p> <p>Seeding Dates Mountains - Hard Fescue- Aug 1 - June 1 Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15 Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1 Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1</p> <p>Maintenance: Hard Fescue is not recommended for slopes > 5%. Prefers shade.</p>	Species	Rate	Hard Fescue	15 lbs/acre	Switchgrass	2.5-3.5 lbs/acre*	Indian Grass	5-7 lbs/acre*	Big Bluestem	5-7 lbs/acre*	Indian Woodoats	1.5-2.5 lbs/acre*	Virginia Wild Rye	4-6 lbs/acre*	
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Indian Woodoats	1.5-2.5 lbs/acre*															
Virginia Wild Rye	4-6 lbs/acre*															
	<p>NOTES:</p> <ol style="list-style-type: none"> Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted. Use a seeding mix that will produce fastgrowing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at least 80% of the soil surface. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion. 															

DATE: PAGE:

PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL

PLAN

SECTION A

La = Length of Riprap Apron
d = Thickness of Riprap Apron

NOTES:

1. Compact any fill required in the subgrade to the density of the surrounding undisturbed material. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.
2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.
3. Filter cloth, when used, must meet design requirements, and be properly protected from punching or tearing during installation. Repair any damage by removing the riprap and placing another piece over the damaged area. If the damage is extensive, replace the entire filter cloth.
4. All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.
5. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".
6. Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather-resistant and well graded.
7. Construct the apron on zero grade with no overfill at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.
8. Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed, place in the upper section of the apron.

MAINTENANCE:

1. Inspect outlet structures at least weekly and after each rainfall of 1.0 inch or greater.
2. Check outlets for erosion around or below riprap and for if stones have been dislodged. Make repairs immediately to prevent further damage.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE: PAGE:

NOTES:

1. Install temporary sediment basins to the approved design. If the basin will eventually be converted to a permanent SCM device, the basin must function as a temporary sediment basin and meet the following parameters until completion of the project:
 - Maximum Drainage Area: 100 acres
 - Minimum Sediment Storage Volume: 1900 cubic feet per acre of disturbed area
 - Minimum Surface Area: 435 square feet per cfs of Q_{10} peak inflow
 - Minimum dewatering time: 48 hours
2. Clear, grub, and strip topsoil from areas under the embankment to remove trees, vegetation, roots, and other objectionable material. Delay clearing the pool area until the dam is complete. Stockpile all topsoil or soil containing organic matter for use on the outer shell of the embankment to facilitate vegetative establishment.
3. Place temporary sediment control measures below the basin and stockpile as needed.
4. Excavate a cut-off trench along the center line of the earth fill embankment. Cut trench to stable soil material, but in no case make it less than 2 feet deep with maximum side slopes no steeper than 1:1. Compaction requirements are the same as those for the embankment.
5. Extend the cut-off trench into both abutments to at least the elevation of the riser crest.
6. Keep the trench dry during backfilling and compaction operations.
7. Fill material should be clean mineral soil, free of roots, woody vegetation, rocks, and other objectionable material. Areas of approved fill should be shown on the plans.
8. Scarify areas on which fill is to be placed prior to placing. Ensure that fill material contains sufficient moisture so it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction.
9. Place fill material in 6 to 8 inch continuous layers over the entire length of fill area and compact.
10. Construct the embankment to an elevation 10% higher than the design height to allow for settling.
11. Securely attach the riser to the barrel or barrel stub to make a watertight structural connection. All connections should be made using approved watertight assemblies.
12. If no riser structure is to be used, couple the skimmer arm directly into the embankment 1 foot from the bottom of the basin.
13. The arm pipe connecting the skimmer to the riser shall have a minimum length of 6 feet.
14. Place barrel and riser on a firm, smooth foundation of impervious soil.
15. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe or anti-seep collars.
16. Place fill material around the pipe spillway in 8-inch layers, and compact it under and around the pipe to at least the same density as the adjacent embankment.
17. Place a minimum depth of 2 feet of compacted backfill over the pipe spillway before crossing it with any construction equipment.
18. Anchor riser in place by concrete or other satisfactory means to prevent flotation.
19. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.
20. Install the emergency spillway in undisturbed soil.
21. Discharge water into the basin in a manner to prevent erosion.
22. Construct basin so that the disturbed area is minimized, divert surface water from bare areas and complete the embankment before the area is cleared.
23. Stabilize the emergency spillway embankment and all other disturbed area above the crest of the principal spillway immediately after construction.
24. Seed and place matting for erosion control on interior and exterior side slopes.
25. Install Porous Baffles as specified on following sheets.

MAINTENANCE:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any repairs immediately.
2. Remove sediment and restore basin to its original dimensions when it accumulates to one-half the design depth.
3. Place removed sediment in an area with sediment control measures to ensure no loss of sediment off-site.
4. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement.
5. Remove all trash and other debris from the riser and pool area.

Acceptable Dimensions for Basin Embankment

Fill Height	Minimum Top Width
Less than 10.0 ft	6.0 ft
10.0 ft to 15.0 ft	10.0 ft

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE: PAGE:

DRAPED Baffle Material OVER WIRE STRAND AND SECURE WITH PLASTIC TIES AT POSTS AND ON WIRE EVERY 12"

EXTEND 9 GAUGE WIRE TO BASIN SIDE OR INSTALL T-POST TO ANCHOR Baffle TO SIDE OF BASIN AND SECURE TO VERTICAL POST.

4" MAX.

3" MIN.

9 GAUGE MIN. HIGH TENSION WIRE STRAND SHALL BE SECURED TO POST TO SUPPORT Baffle MATERIAL

BAFFLE MATERIAL

SECURE BOTTOM OF Baffle TO GROUND WITH 12" STAPLES AT 12" MAXIMUM SPACING

STEEL POST

11 GAUGE LANDSCAPING STAPLE

BAFFLE MATERIAL SHOULD BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPING STAPLES

MAINTENANCE:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Maintain access to baffles. If the fabric collapses, tears, decomposes, or becomes ineffective, replace immediately.
3. Remove sediment deposits when it reaches half full. Replace if baffle fabric is damaged during clean-out operations. Sediment depth should never exceed half the designed storage depth.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE: PAGE:

DEWATERING

CONCRETE BLOCKS

2:1 SLOPE GRAVEL FILTER

TEMPORARY SEDIMENT POOL

WIRE SCREEN

DEWATERING

1' MIN.
2' MAX.

SEDIMENT

DROP INLET WITH GRATE

NOTES:

1. Lay one block, on each side of the structure, on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. Place the bottom row of blocks against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, give lateral support to subsequent rows by placing 2 inch x 4 inch wood studs through block openings.
2. Carefully fit hardware cloth or comparable wire mesh with 1/2-inch openings over all block openings to hold gravel in place.
3. Use clean gravel 1/2 to 3/4 inch in diameter, placed 2 inches below the top of the block on a 2:1 slope or flatter and smooth it to an even grade. NCDOT #57 washed stone is recommended.

MAINTENANCE:

1. Inspect all measures at least weekly and after every rainfall of 1.0 inch or greater; repair immediately.
2. Remove sediment as necessary to provide adequate storage volume for subsequent rains.
3. When the contributing drainage area has been adequately stabilized, remove all materials and any unstable soil, and either salvage or dispose of it properly. Bring the disturbed area to proper grade, then smooth and compact before stabilizing.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE: PAGE:

8' MAX. STANDARD STRENGTH FABRIC WITH WIRE FENCE
6' MAX. EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE

STEEL POST

WIRE FENCE

18-24"

24"

8" DOWN & 4" FORWARD ALONG THE TRENCH

STEEL POST

WIRE FENCE

24"

4" MIN.

8" MIN.

CROSS SECTION VIEW

Max. Slope Length and Slope for Which Sediment Fence is Applicable

Slope	Slope Length (ft)	Max. Area (ft ²)
<2%	100	10,000
2 to 5%	75	7,500
5 to 10%	50	5,000
10 to 20%	25	2,500
>20%	15	1,500

Notes:

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.
4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches. Wire mesh should be a minimum 14-gauge with 6 inch mesh spacing.
6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.
11. Do not place across ditches, streams, or any other areas of concentrated flow.

MAINTENANCE:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.
3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.
4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE: PAGE:

5' MAX. BANK HEIGHT

SURFACE FLOW DIVERSION

ORIGINAL STREAMBANK

STONE APPROACH SECTION
5:1 MAX. SLOPE ON ROAD

CLEAN STONE OVER GEOTEXTILE FABRIC

TEMPORARY FORD CROSSING SECTION VIEW

TEMPORARY CULVERT SECTION VIEW

Flow

CLASS B EROSION STONE

TEMPORARY CULVERT PLAN VIEW

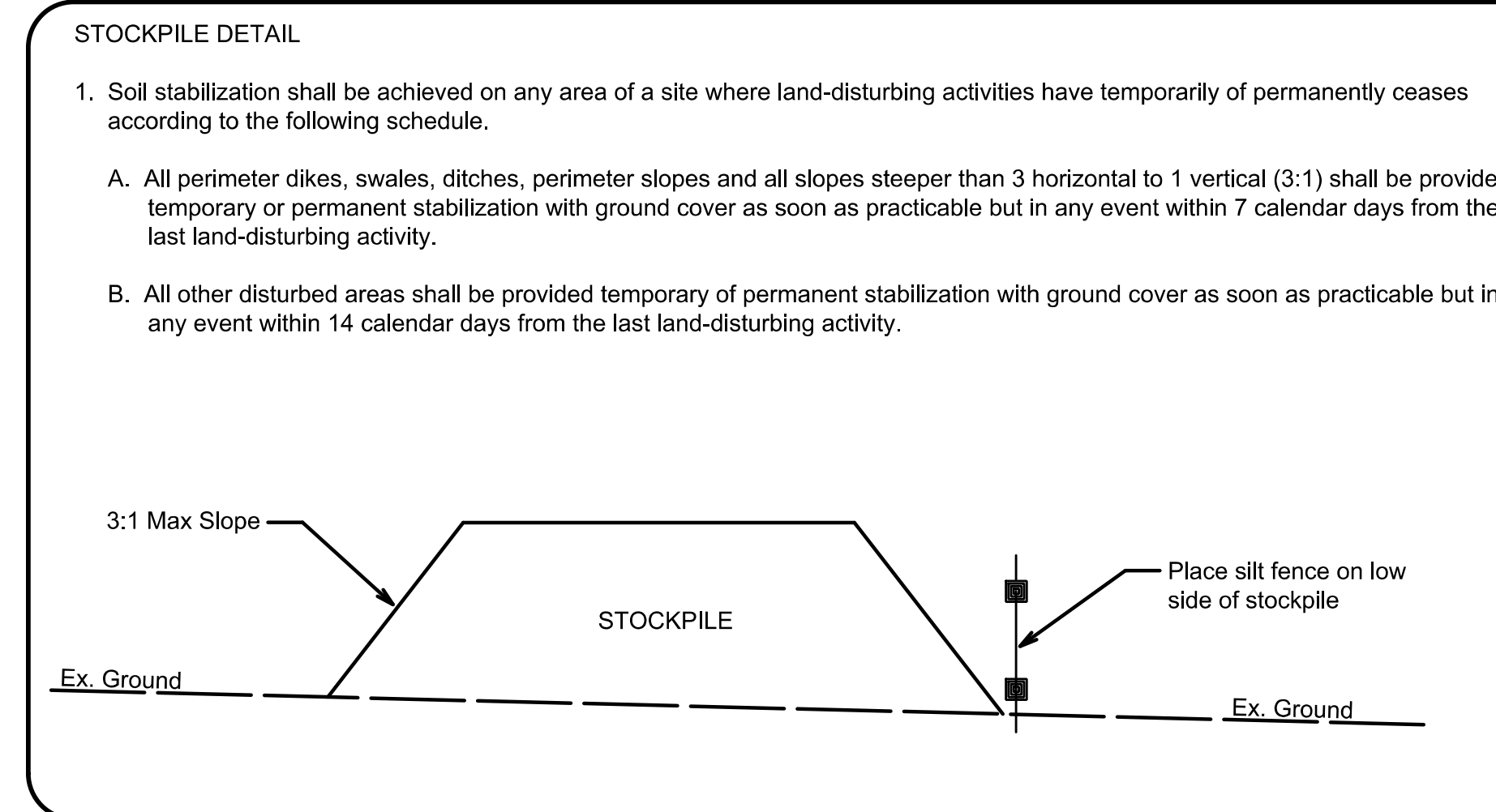
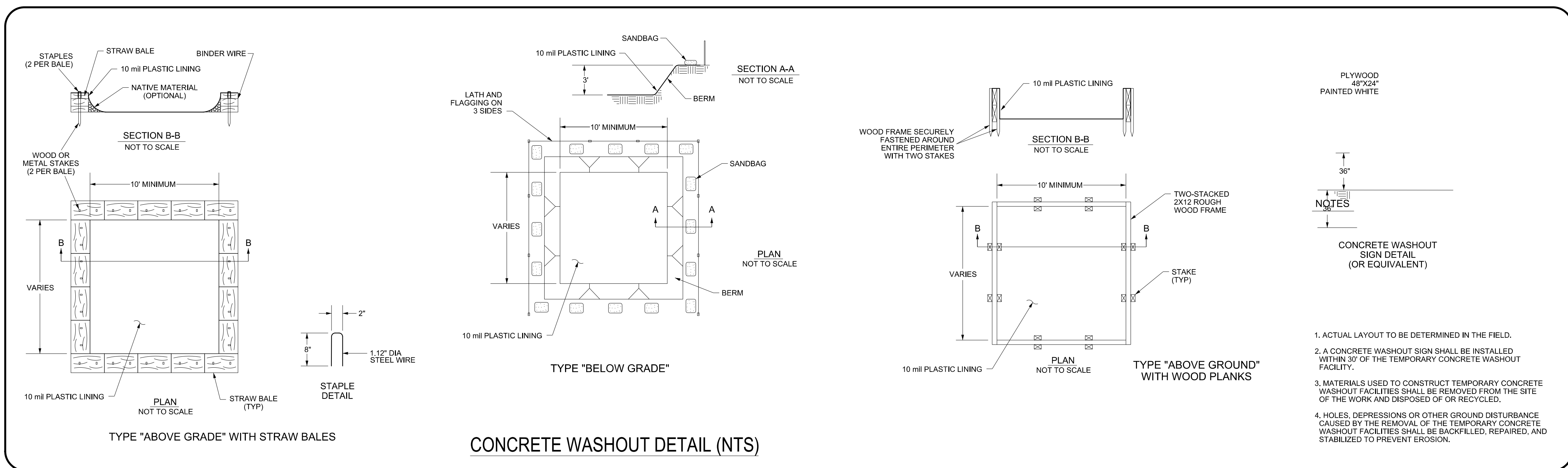
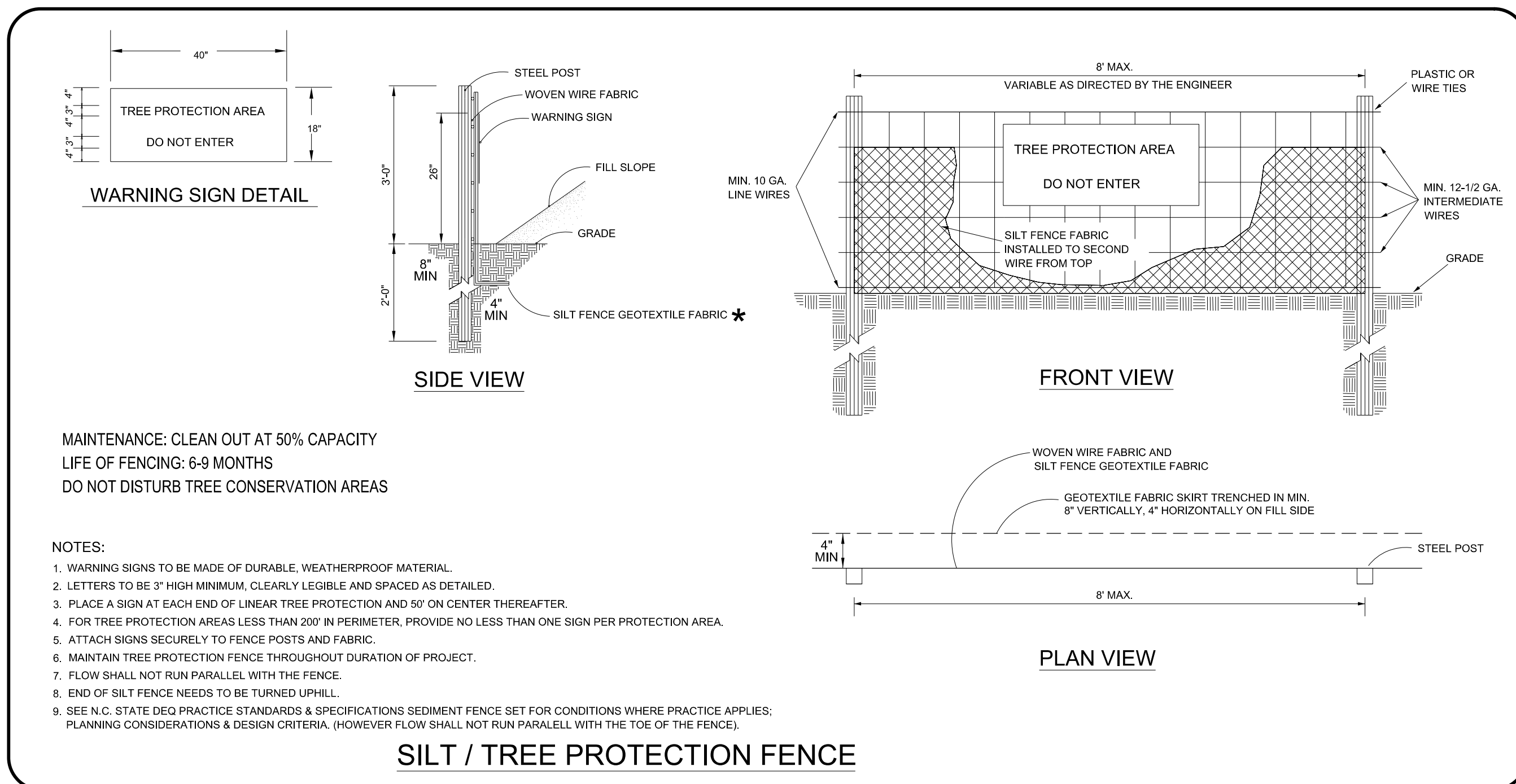
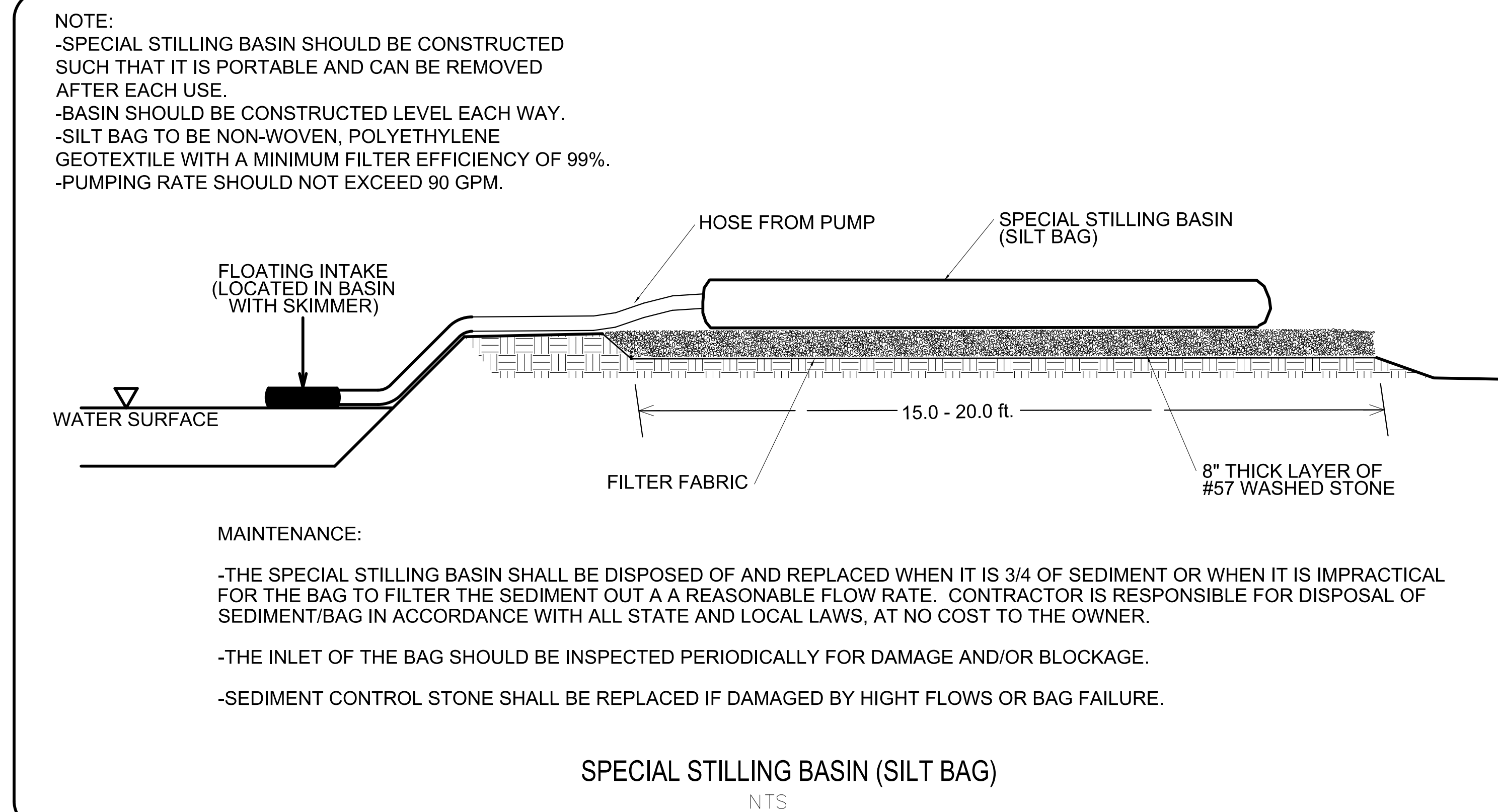
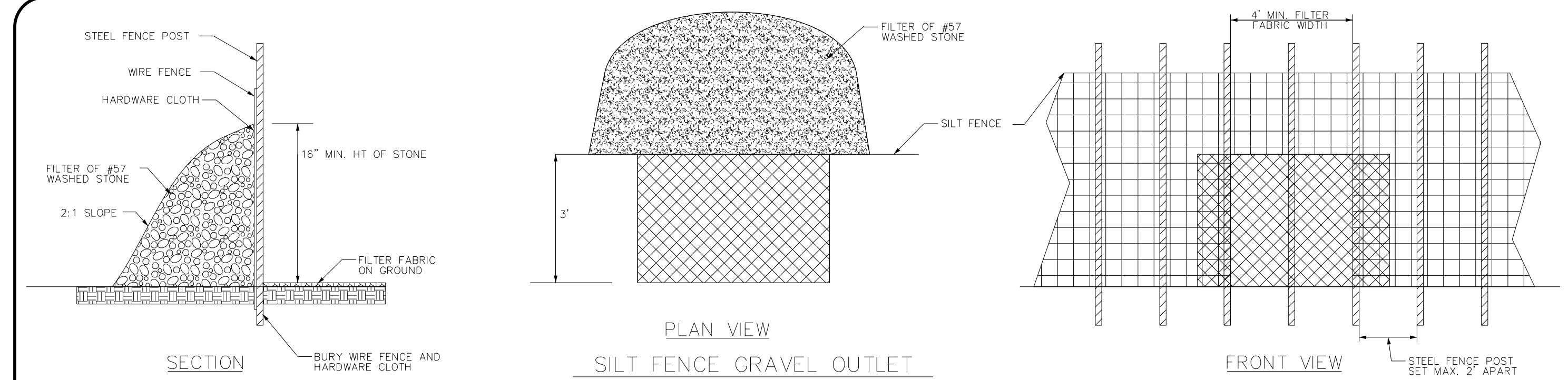
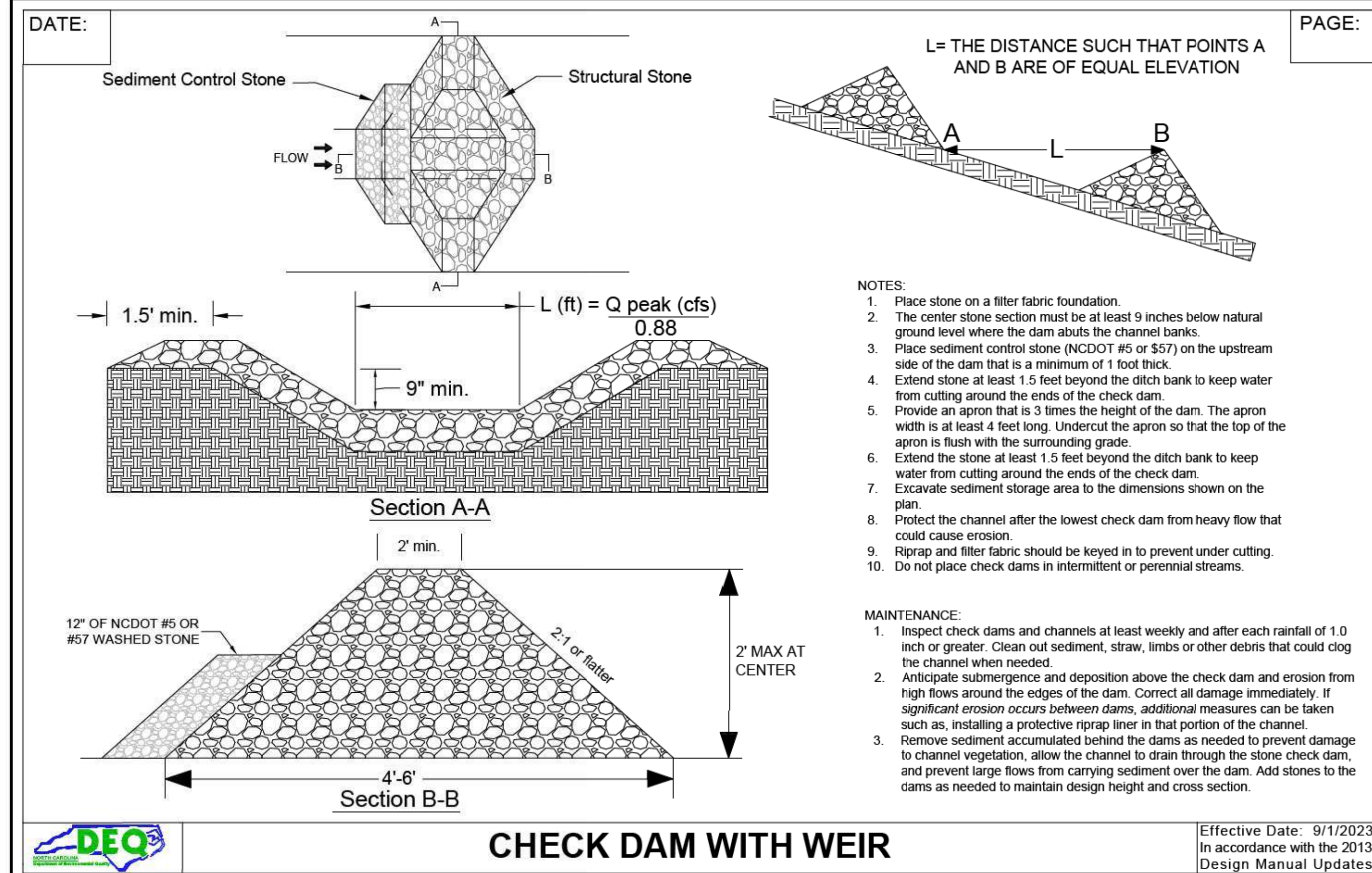
NOTES:

1. Stream crossings shall adhere to all permitting requirements from the U.S. Army Corps of Engineers (Permit 404) and NC Division of Water Quality (Permit 401).
2. If permanent utility crossings are planned, stream crossings at those locations should be considered to minimize stream impacts.
3. Keep clearing and excavation of the stream banks, bed and approach sections to a minimum.
4. Divert all surface water from the construction site onto undisturbed areas adjoining the stream.
5. Keep all stream crossings at right angles to the stream flow.
6. Align road approaches with the center line of the crossing for a minimum distance of 30 feet. Raise bridge abutments and culvert fills a minimum of 1 foot above the adjoining approach sections to prevent erosion from surface runoff and to allow flood flows to pass around the structure.
7. Ford approaches shall not exceed a slope of 5:1.
8. Bank heights at ford crossings shall not exceed 5 feet at any point.
9. Stabilize all disturbed areas subject to flowing water, including planned overflow areas, with riprap or other suitable means if design velocity exceed the allowable for in-place soil.
10. Ensure that bypass channels necessary to dewater the crossing site are stable before diverting the stream. Upon completion of the crossing; fill, compact, and stabilize all disturbed areas.
11. Remove temporary stream crossings immediately when they are no longer needed. Restore channel to its original cross-section, smooth and appropriately stabilize all disturbed area.

MAINTENANCE:

1. Inspect temporary stream crossings at least weekly and after each rainfall of 1.0 inch or greater.
2. Check for blockage in the channel, erosion of abutments, channel scour, riprap displacement, or piping.
3. Make all repairs immediately to prevent further damage to the installation.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

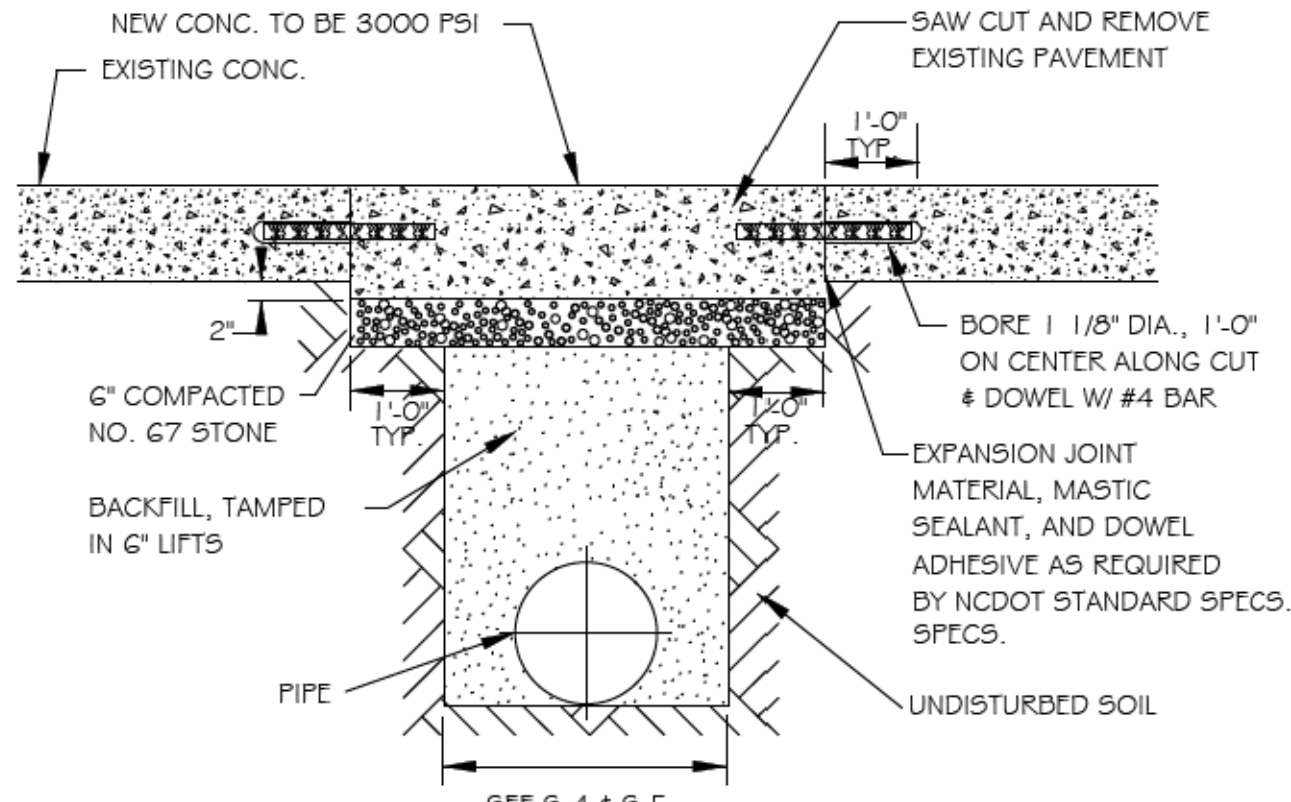
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JOB NUMBER
22-086

DATE ISSUED
03/14/2025

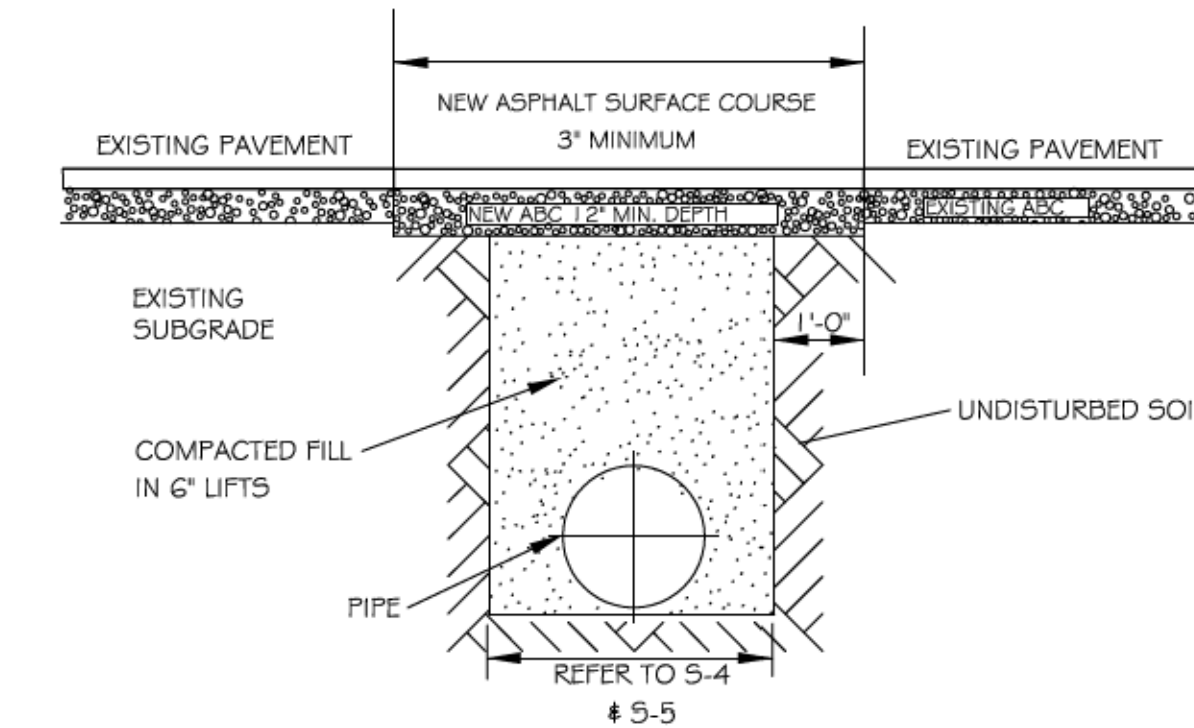
PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET
**EROSION
CONTROL
DETAILS**



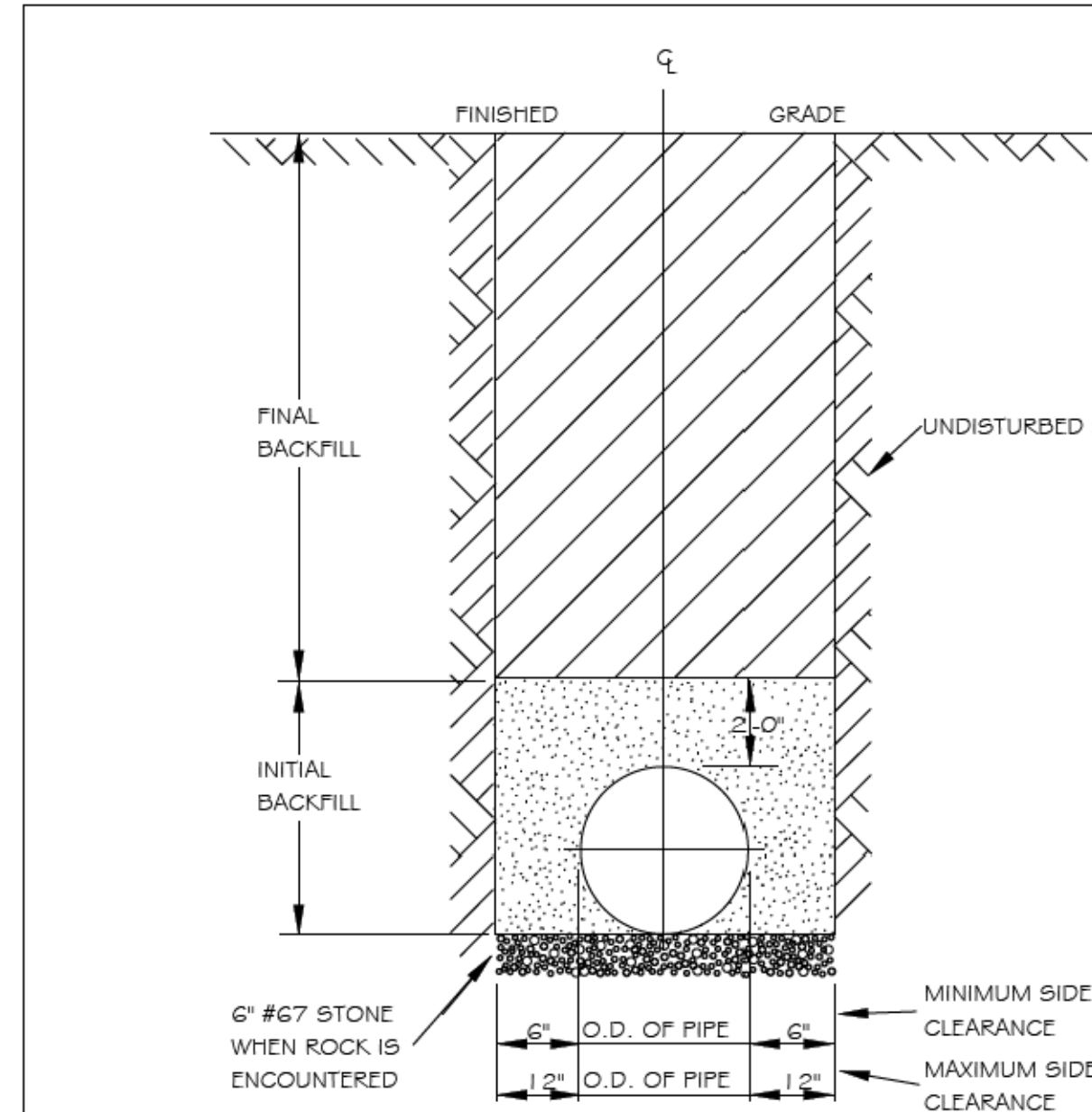
- NOTES:
1. See City of Raleigh standards for trenches and pipe bedding (S-4 & S-5) for additional details.
 2. Pavement cuts over 5'-0" in width shall be reinforced to N.C.D.O.T. standards.
 3. Pavement cuts shall be made with an appropriate saw cut machine.
 4. Pavement cuts within NCDOT ROW shall conform to the approved on site encroachment permit.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD CONCRETE				
PAVEMENT PATCH DETAIL				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-2	D.W.C.	6-23-99	A.B.B.	4-19-04
	RRH	3-30-00	J.F.S.	10-8-10



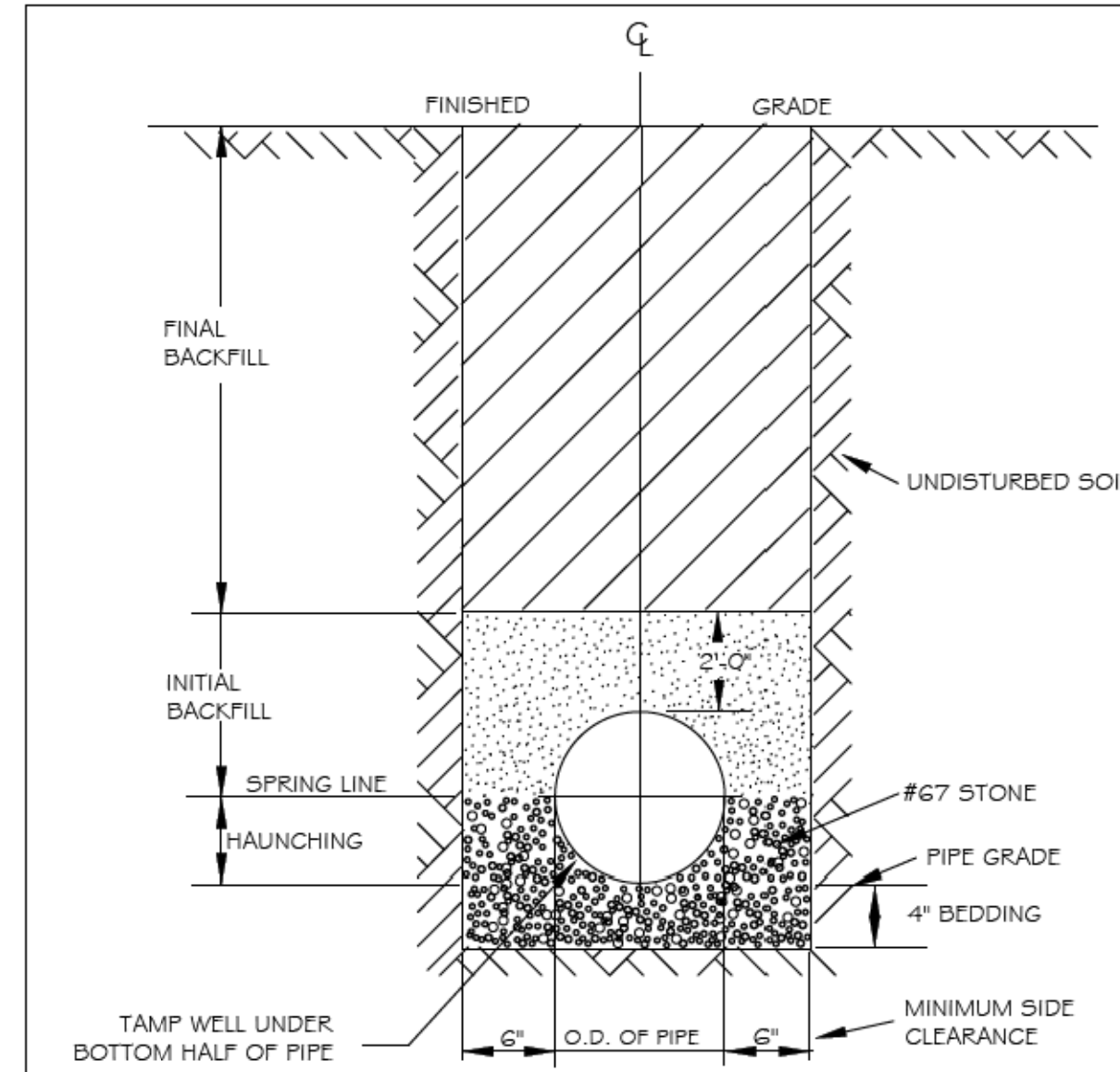
- NOTES:
1. IN NCDOT MAINTAINED ROADWAYS ENCROACHMENT PAVEMENT PATCH REQUIREMENTS SHALL TAKE PRECEDENCE.
 2. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SAWCUT MACHINE.
 3. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
 4. THE FINAL 1" OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
 5. THE ENTIRE THICKNESS AND VERTICAL EDGE OF CUT SHALL BE TACKED.
 6. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 3" THICK.
 7. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH.
 8. REFER TO CITY OF RALEIGH STANDARDS FOR TRENCHES AND PIPE BEDDING (S-4 & S-5) FOR ADDITIONAL DETAILS.
 9. NO HAND PATCHING ALLOWED.
 10. PAVEMENT CUTS WITHIN NCDOT ROW SHALL CONFORM TO THE APPROVED ON SITE ENCROACHMENT PERMIT.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD ASPHALT				
PAVEMENT PATCH DETAIL				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-3	D.W.C.	11-1-99	A.B.B.	4-19-04
	RRH	3-30-00	J.F.S.	10-8-10



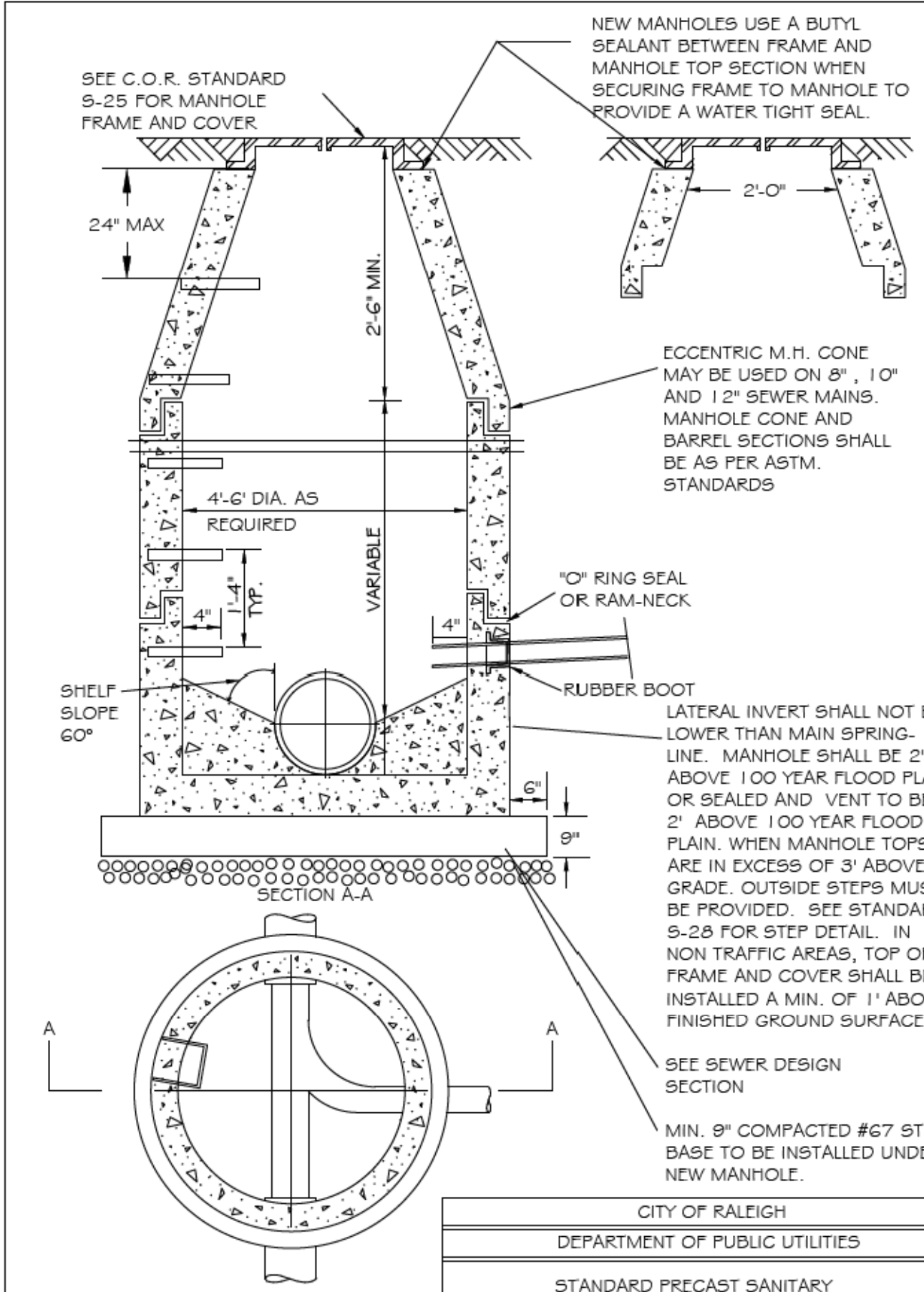
- NOTES:
1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
 3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
 4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.
 5. ACHIEVE 80% COMPACTION IN NON-TRAFFIC AREAS, AND 95% COMPACTION IN TRAFFIC AREAS.
 6. IF IN EASEMENT 4" TOPSOIL, AND 12" CLEAN SELECT FILL MAY BE REQUIRED.
 7. NO BOULDERS 8" IN DIAMETER OR GREATER ALLOWED IN FINAL BACKFILL.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TRENCH BOTTOM DIMENSIONS & BACKFILLING				
REQUIREMENTS FOR DUCTILE IRON				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-4	D.W.C.	9-3-99		
	RRH	3-30-00		

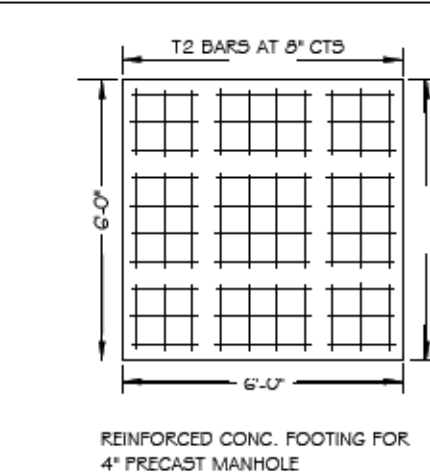


- NOTES:
1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
 3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
 4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

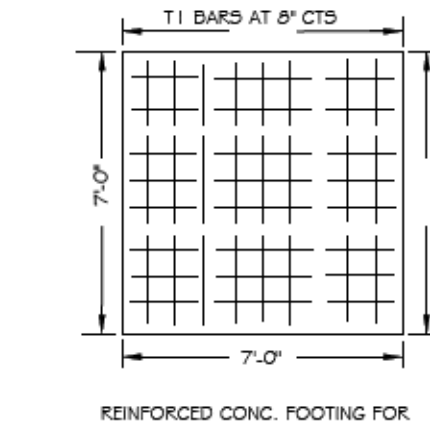
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TRENCH BOTTOM DIMENSIONS AND BACKFILLING				
REQUIREMENTS FOR PVC GRAVITY SEWER MAIN				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-5	TO NOTES	3-1-97	D.W.C.	9-3-99
		7-2-82	RRH	8-30-00



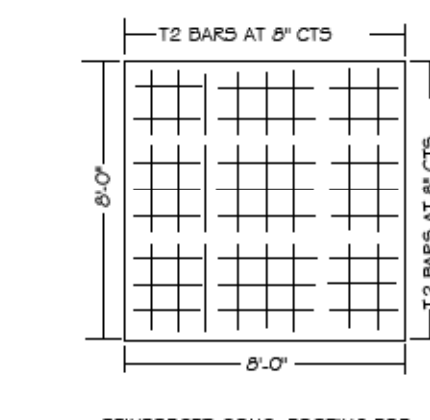
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD PRECAST SANITARY SEWER MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20	Y.C.A.	12-31-92	ABD	2-21-06
	RRH	3-30-00	D.H.L.	6-16-08



BILL OF MATERIAL FOR 4' MANHOLE				
BAR	SIZE	LENGTH	NO.	WT. LBS.
T2	#6	6'-6"	18	103
CL. 1/4" CONCRETE TOTAL CU. YDS.				.000



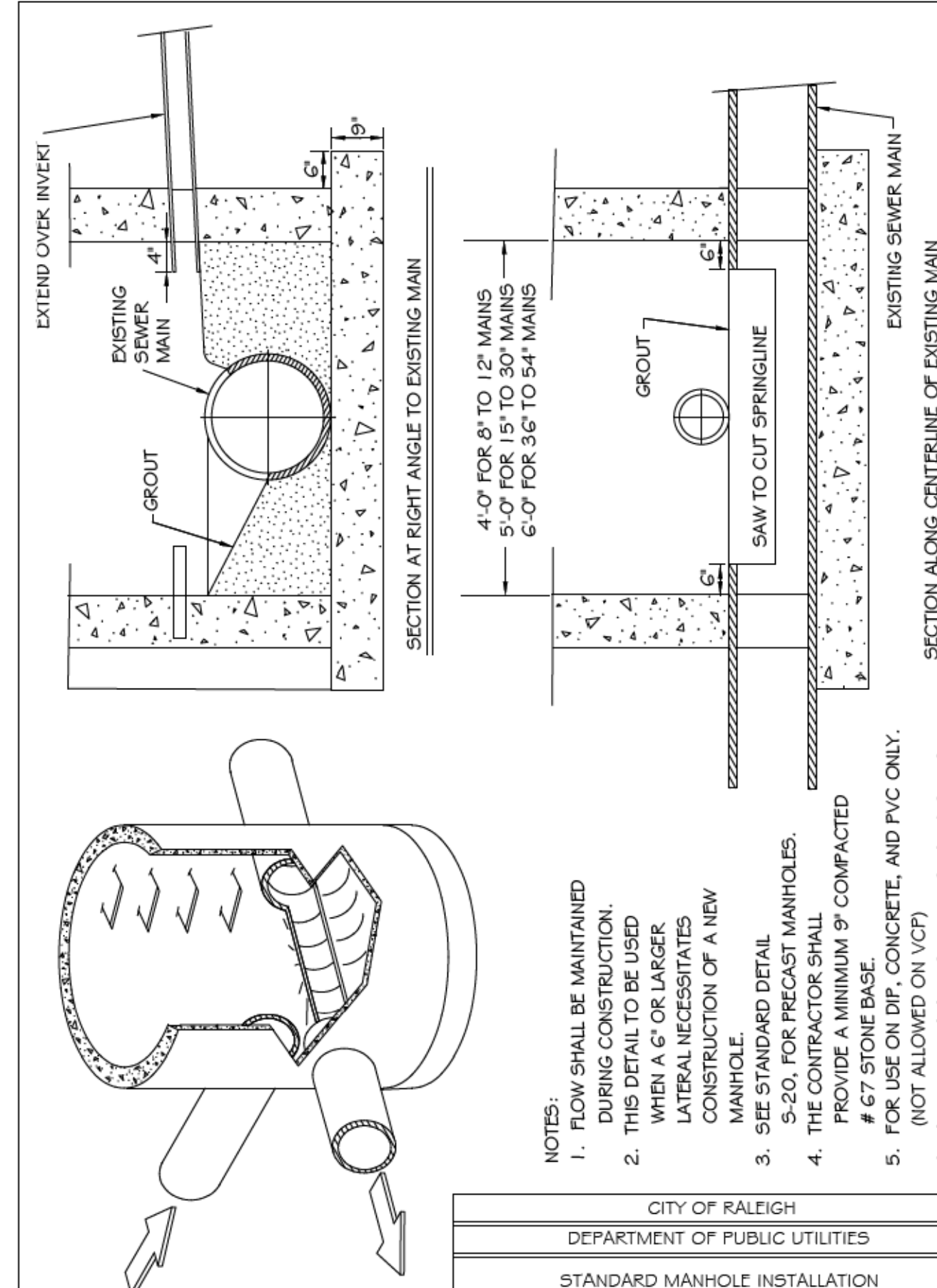
BILL OF MATERIAL FOR 6' MANHOLE				
BAR	SIZE	LENGTH	NO.	WT. LBS.
T1	#6	7'-6"	20	136
CL. 1/4" CONCRETE TOTAL CU. YDS.				.361



BILL OF MATERIAL FOR 6' MANHOLE				
BAR	SIZE	LENGTH	NO.	WT. LBS.
T2	#6	7'-6"	24	166
CL. 1/4" CONCRETE TOTAL CU. YDS.				.778

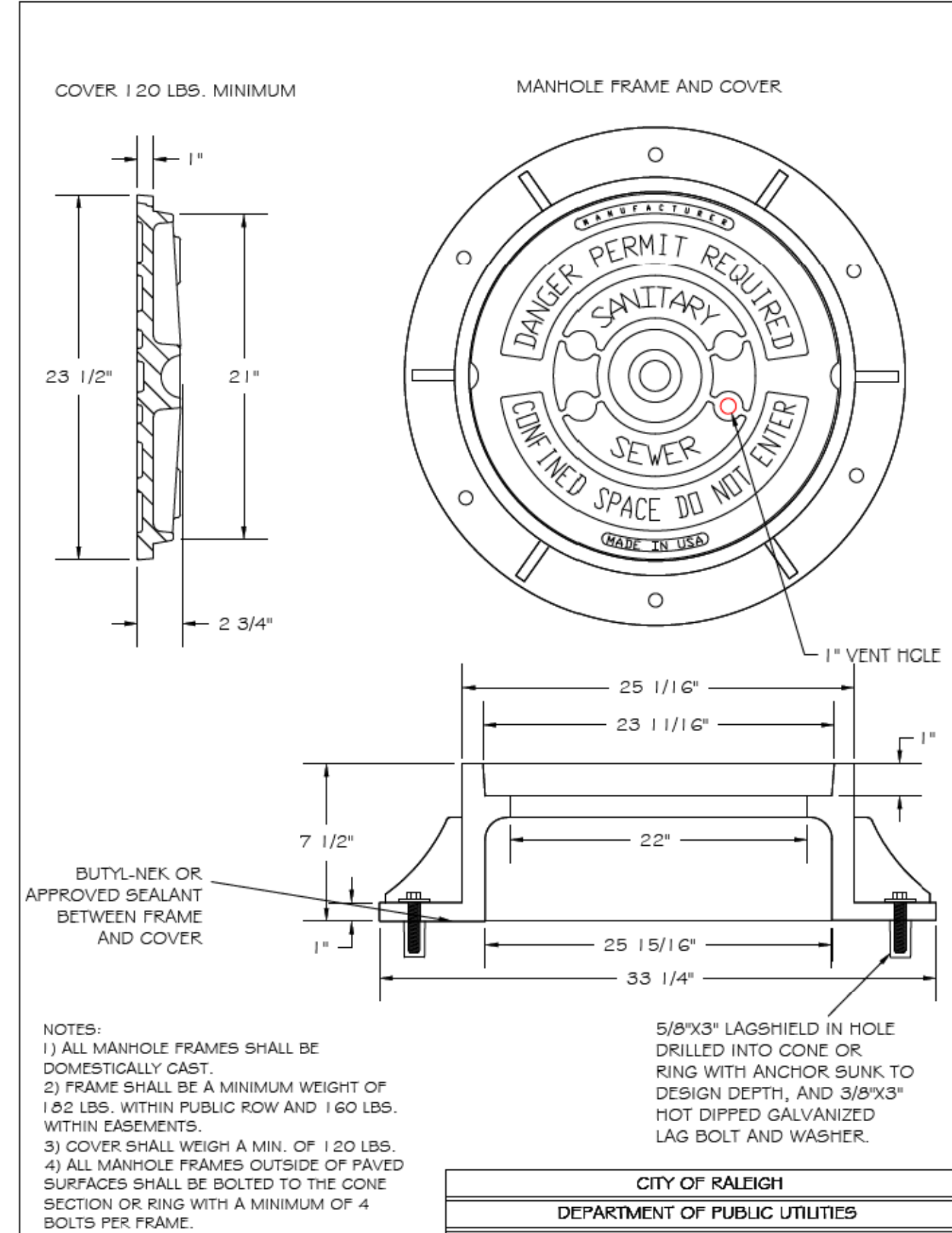
* ALL BASES ARE MINIMUM 9" THICK

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
EXTENDED BASE OR CAST-IN-PLACE REINFORCED CONCRETE BASE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-21	RRH	3-1-97	ABD	2-2-06
		3-30-00		



- NOTES:
1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
 2. THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL REQUIRES CONSTRUCTION OF A NEW MANHOLE.
 3. SEE STANDARD DETAIL S-20 FOR PRECAST MANHOLES.
 4. THE CONTRACTOR SHALL PROVIDE A MINIMUM 9" COMPACTED #67 STONE BASE.
 5. FILL SHALL BE 100% GRAVEL, AND PVC ONLY.
 6. SEE DETAIL S-21 FOR REINFORCING OF FOUND IN-PLACE BASE

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD MANHOLE INSTALLATION OVER EXISTING SEWER MAIN				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-22	Y.C.A.	12-31-91	A.B.B.	1-19-06
	RRH	3-30-00	D.H.L.	6-16-08



- NOTES:
- 1) ALL MANHOLE FRAMES SHALL BE DOMESTICALLY CAST.
 - 2) FRAME SHALL BE A MINIMUM WEIGHT OF 120 LBS. WITHIN PUBLIC ROW AND 160 LBS. WITHIN EASEMENTS.
 - 3) COVER SHALL WEIGH A MIN. OF 120 LBS.
 - 4) ALL MANHOLE FRAMES OUTSIDE OF PAVED SURFACES SHALL BE BOLTED TO THE CONE SECTION OR RING WITH A MINIMUM OF 4 BOLTS PER FRAME.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD MANHOLE COVER				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-25	3-1-97	3-1-97	A.B.B.	2-9-05
	RRH	3-30-00	D.H.L.	6-16-08

HH

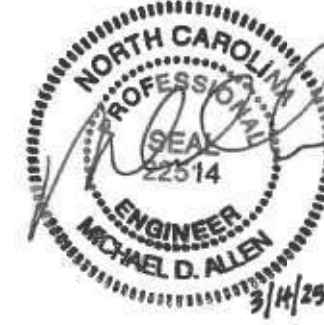
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WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

5401 ROLESVILLE ROAD WENDELL, NC 27591

NCCCS NO. 2303

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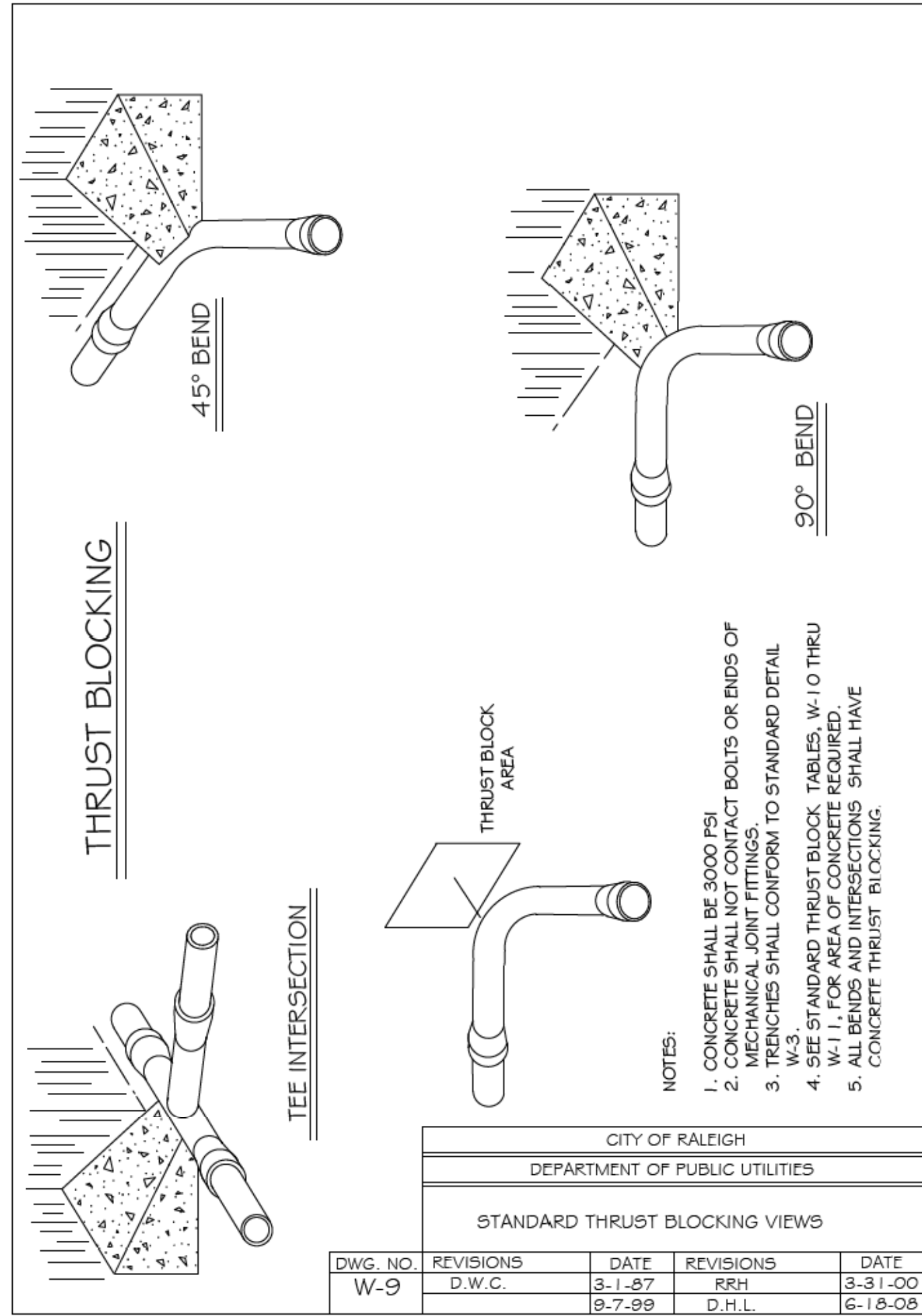
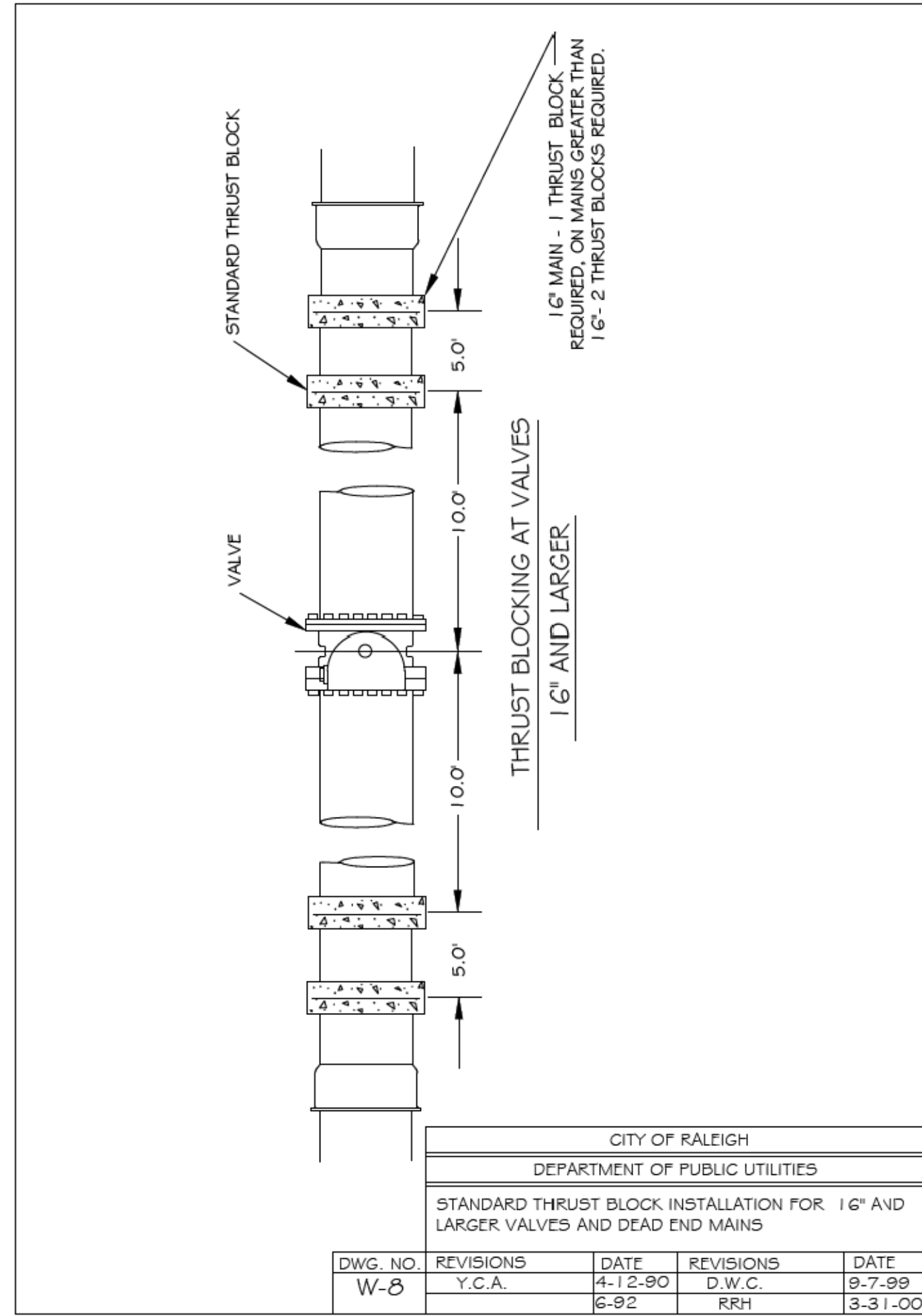
NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
SANITARY SEWER DETAILS

D-104

NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
WATER DETAILS



REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
BASED ON TEST PRESSURE OF 200 P.S.I.

ALL AREAS GIVEN IN SQUARE FEET.

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND	RODDED DRY CEMENT SAND
6"									
11 1/4"	1,108	1	1	1	1	1	1	2	1
22 1/2"	2,207	1	2	2	1	1	1	3	1
45"	4,328	2	3	3	1	1	2	5	1
90"	7,996	2	4	5	1	1	2	8	1
PLUG	5,655	2	3	4	1	1	2	6	1
8"									
11 1/4"	1,970	1	1	2	1	1	1	2	1
22 1/2"	3,922	1	2	3	1	1	1	4	1
45"	7,694	2	4	5	1	1	2	8	1
90"	14,215	4	8	9	2	2	4	15	2
PLUG	10,053	3	5	6	2	2	3	10	1
12"									
11 1/4"	4,433	2	3	3	1	1	2	5	1
22 1/2"	8,826	3	5	6	2	2	3	9	1
45"	17,312	5	9	11	3	3	5	18	2
90"	31,883	8	16	19	4	4	8	32	4
PLUG	22,619	6	12	14	3	3	6	23	3
16"									
11 1/4"	7,881	2	4	5	1	1	2	8	1
22 1/2"	15,691	4	8	10	2	2	4	16	2
45"	30,779	8	16	19	4	4	8	31	4
90"	56,861	15	29	35	8	8	15	57	6
PLUG	40,213	10	21	25	5	5	10	41	5

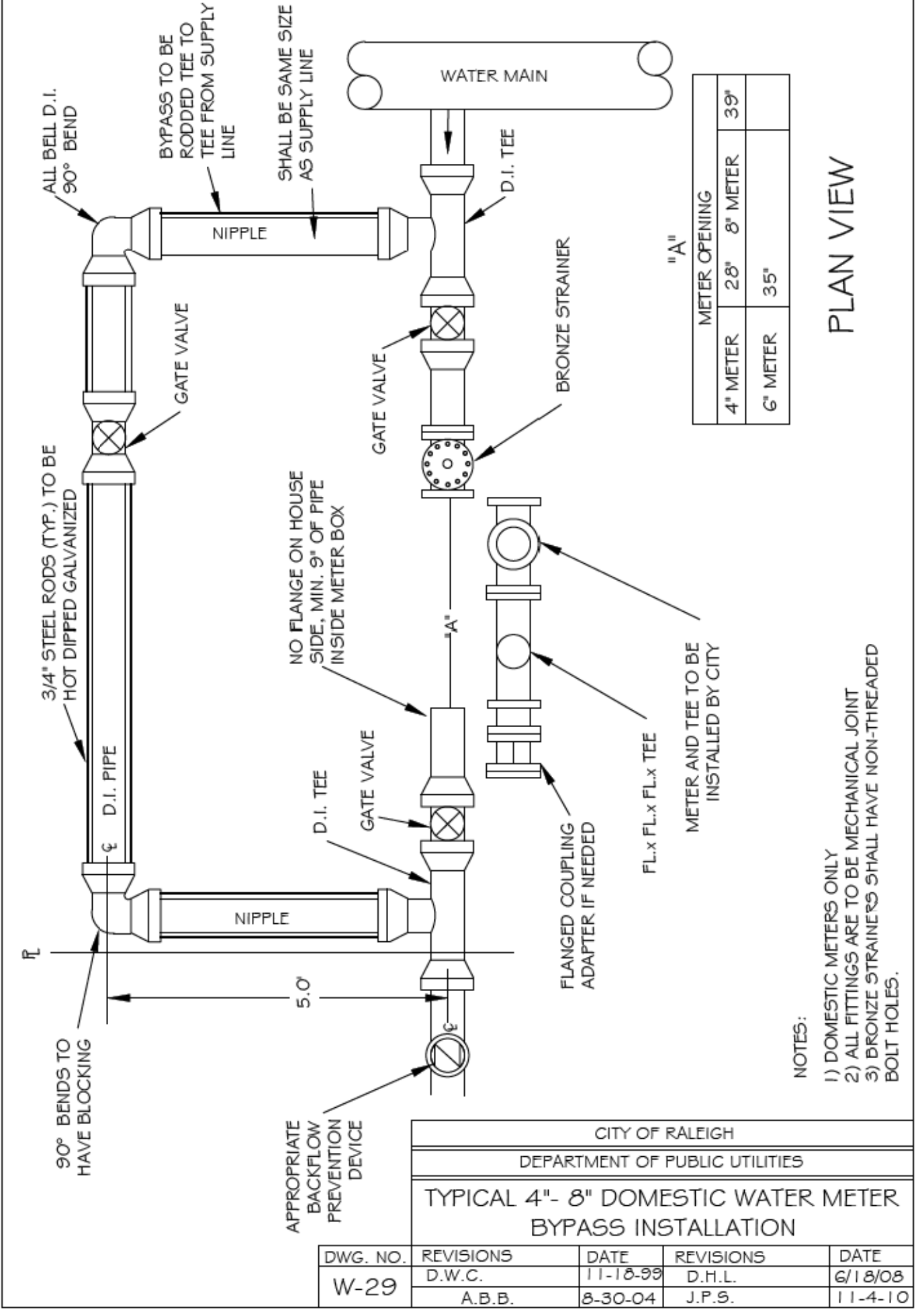
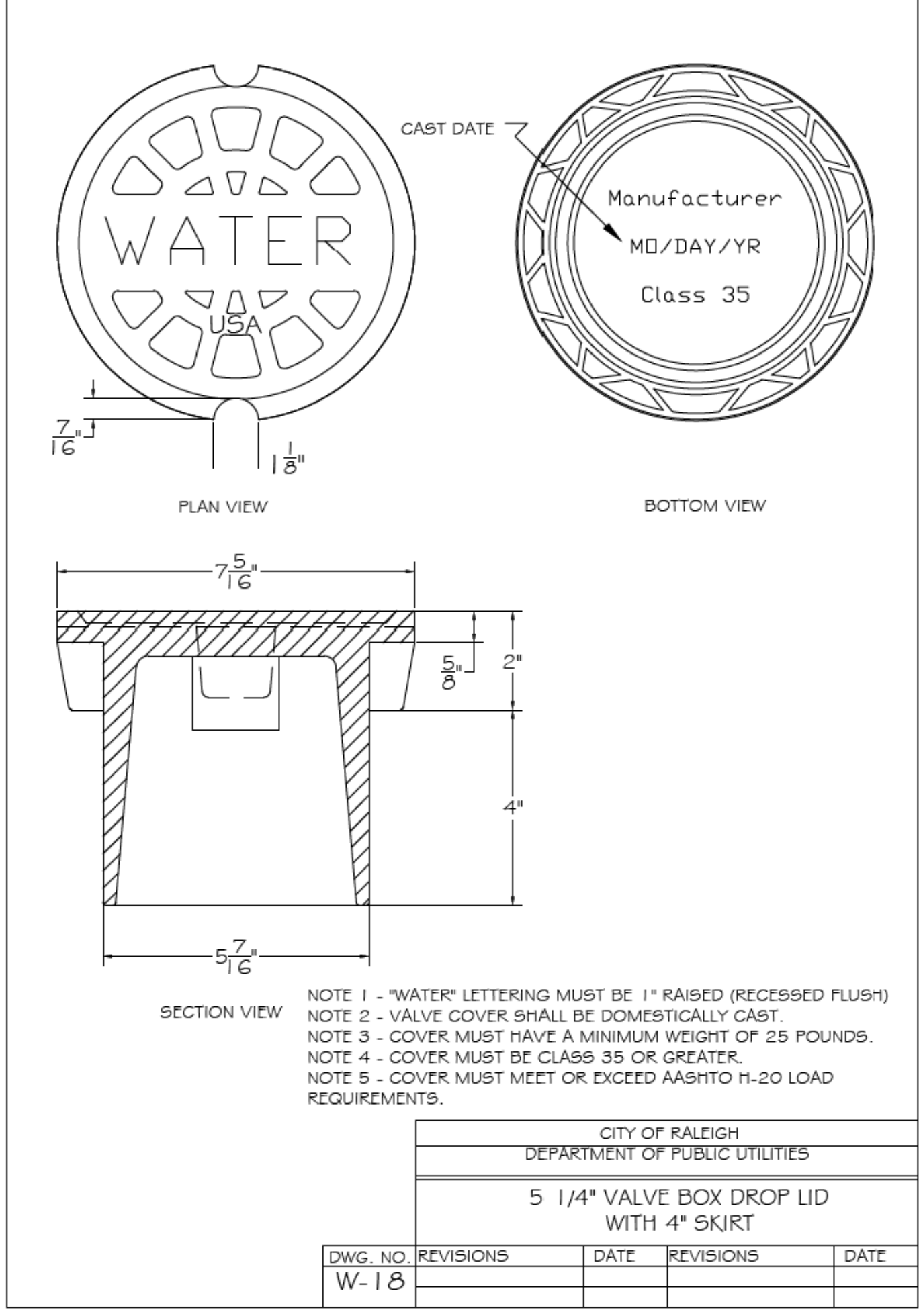
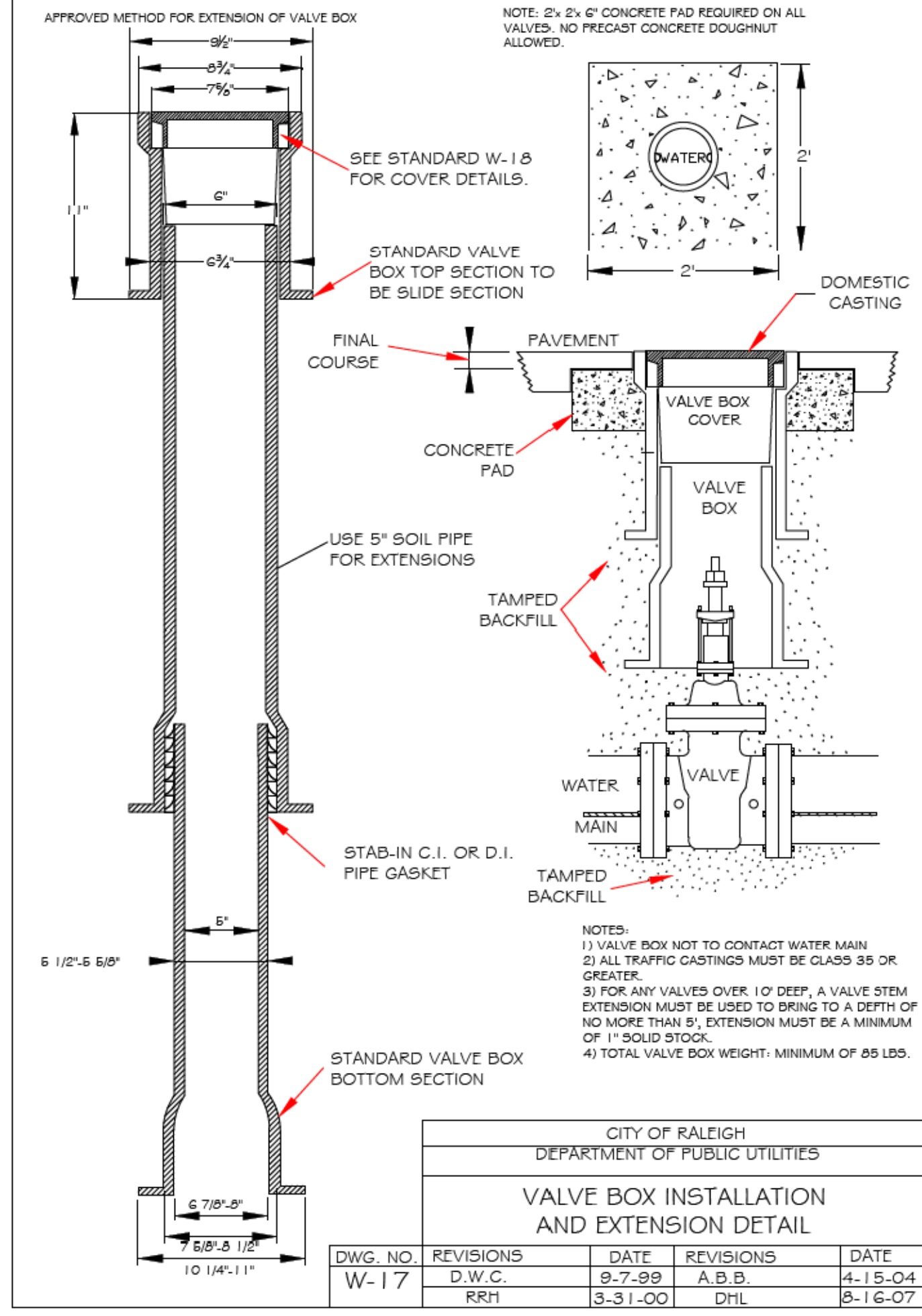
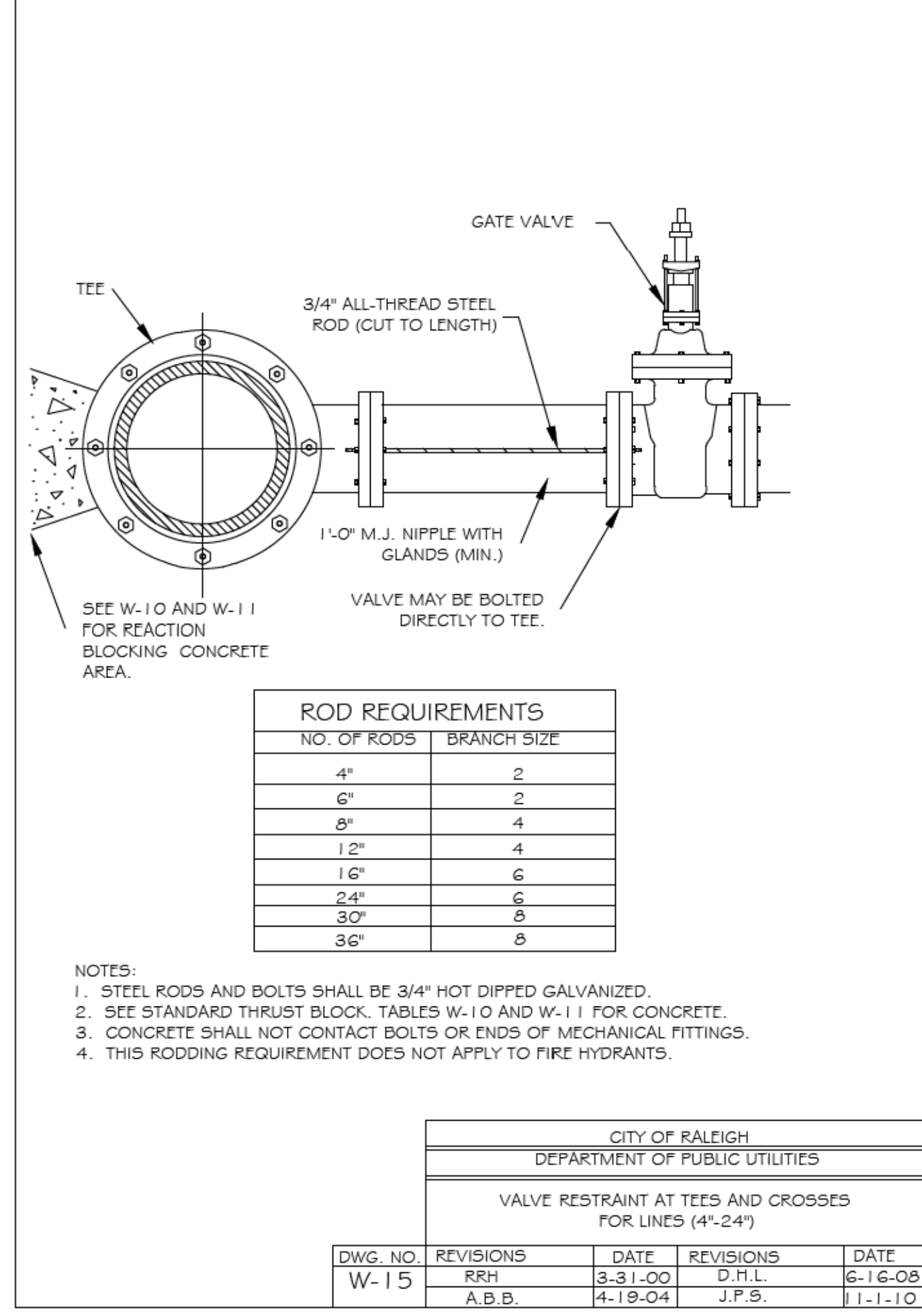
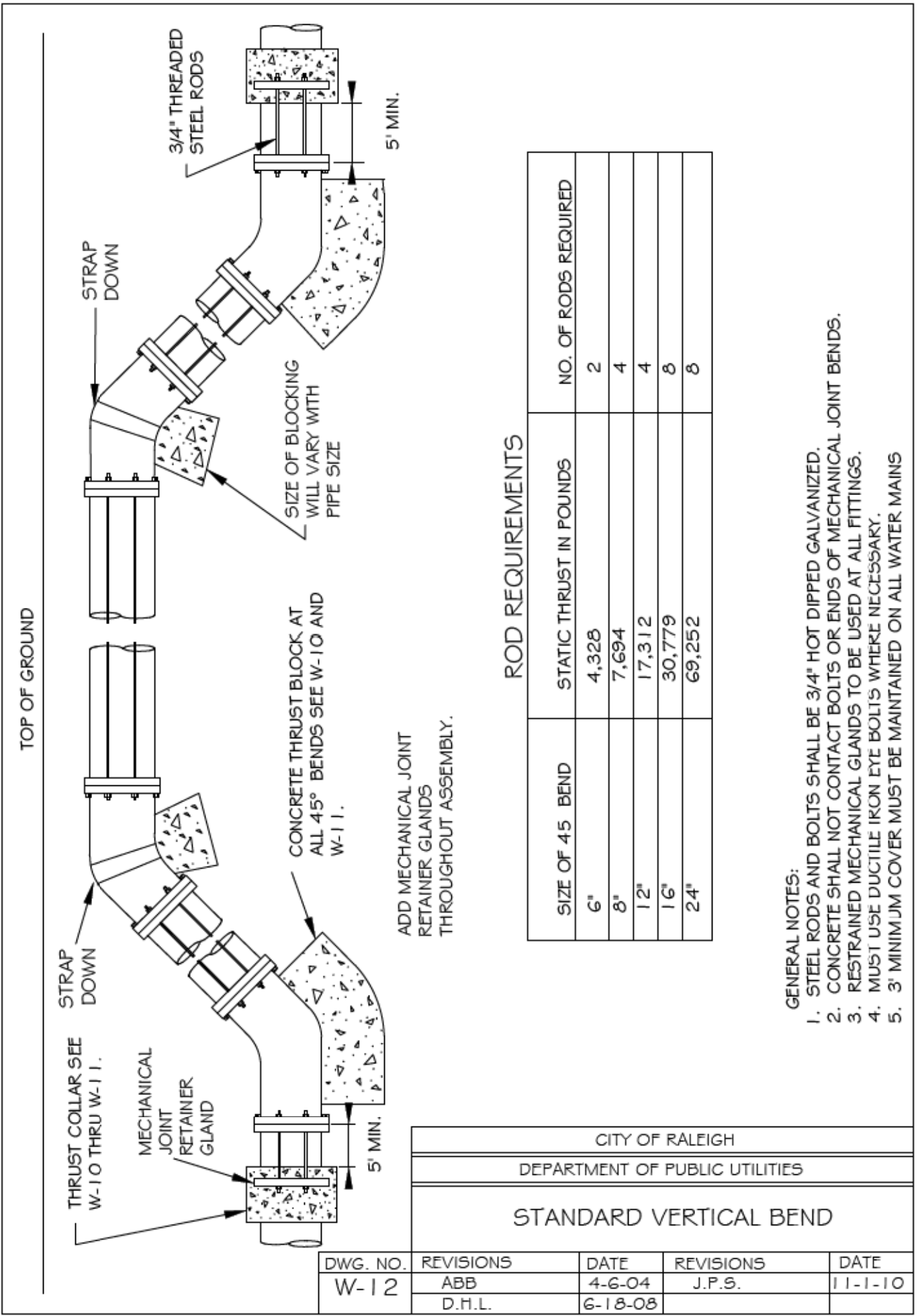
REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE "RANCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

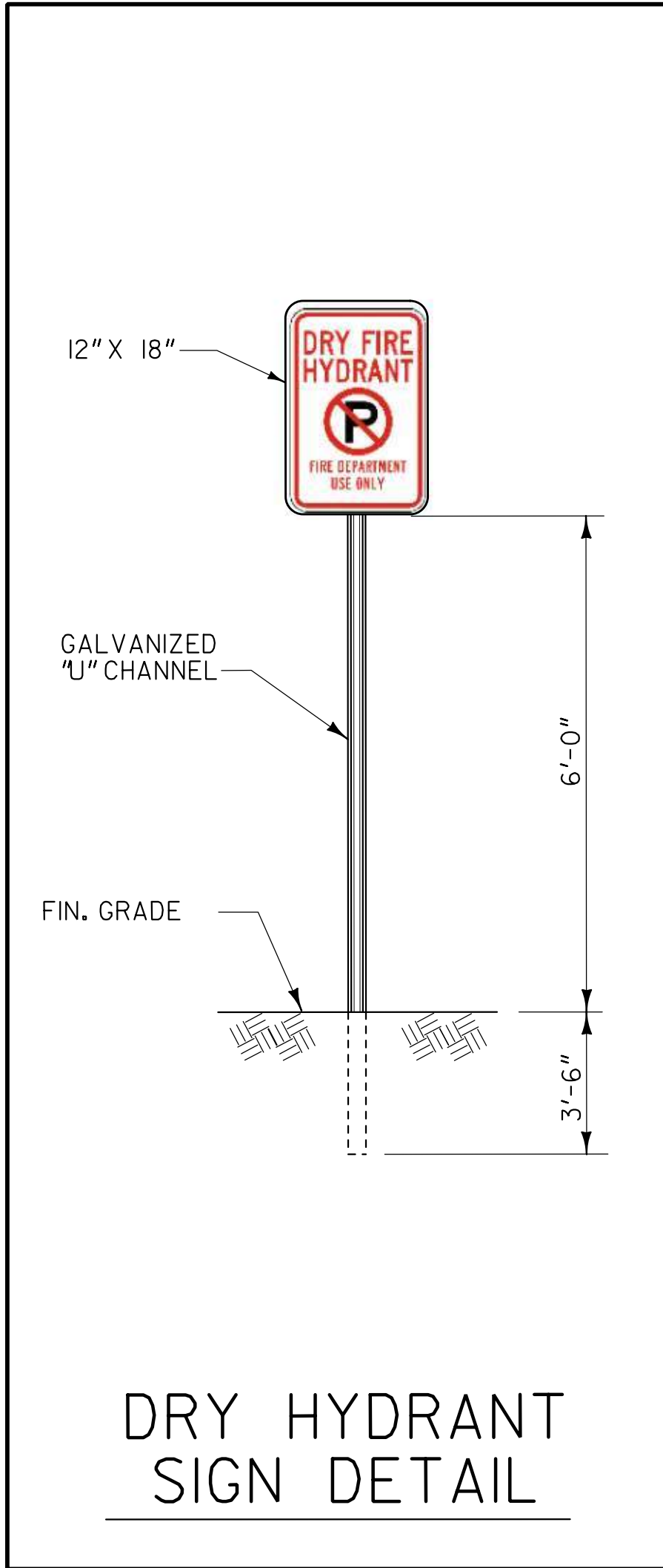
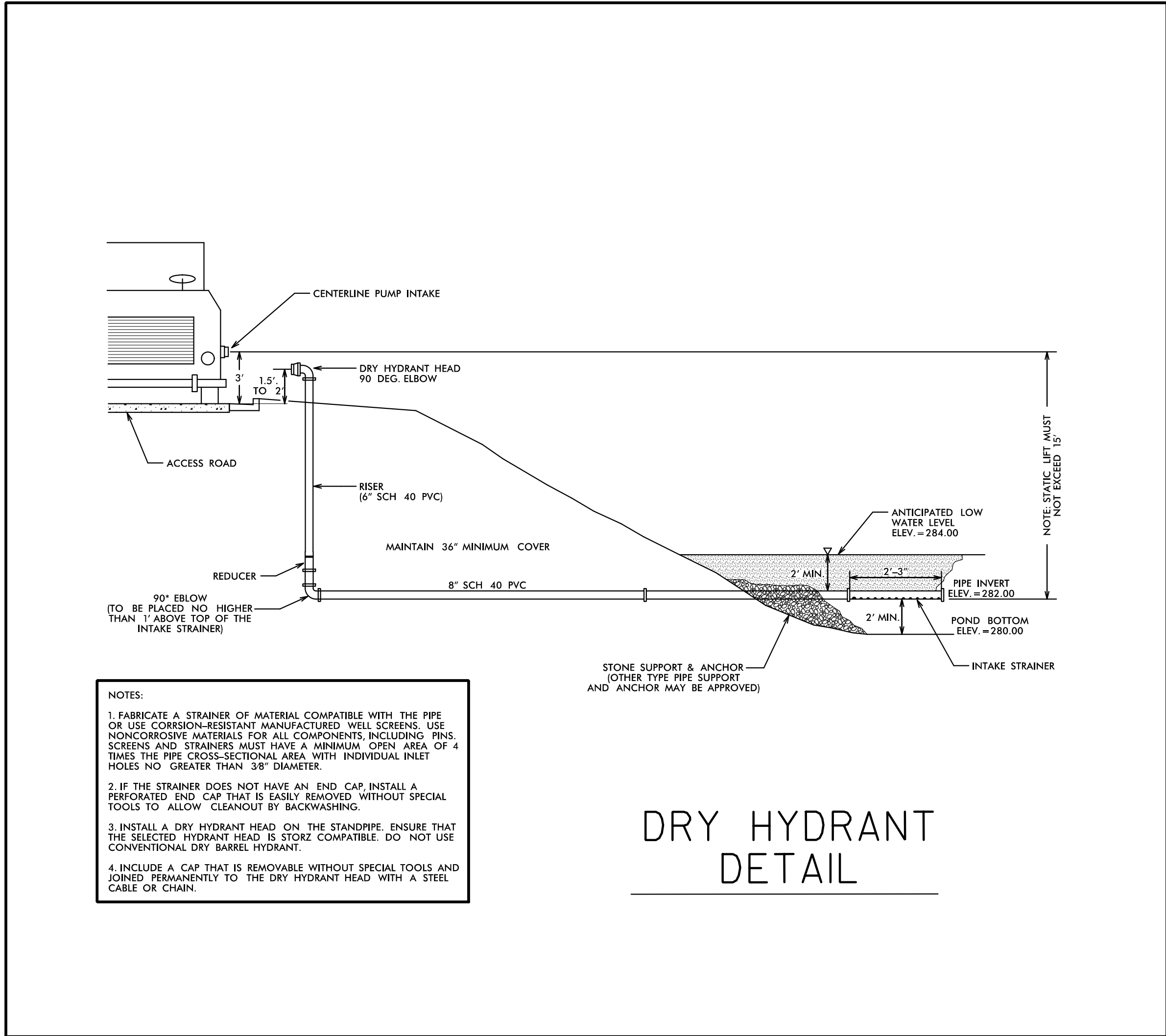
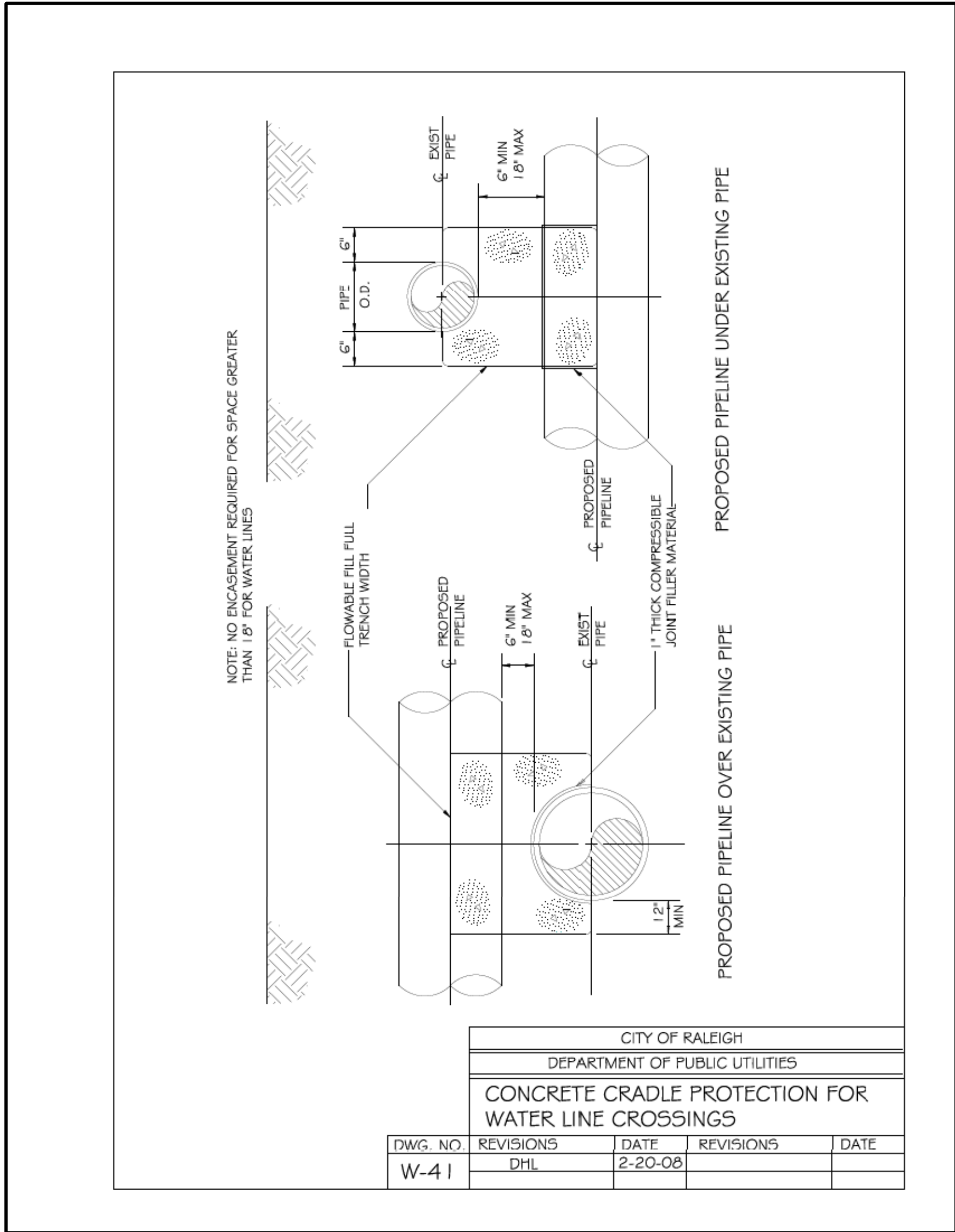
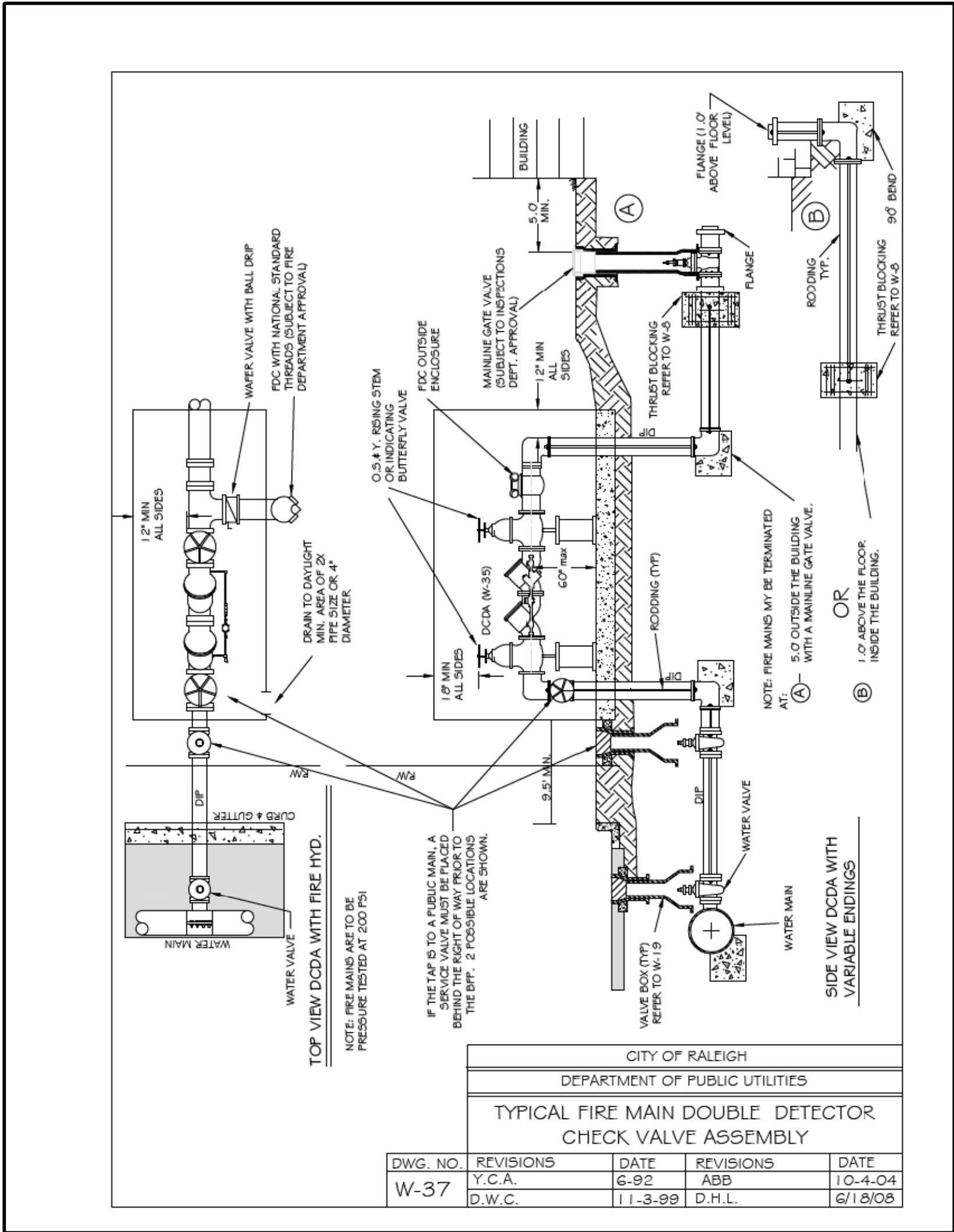
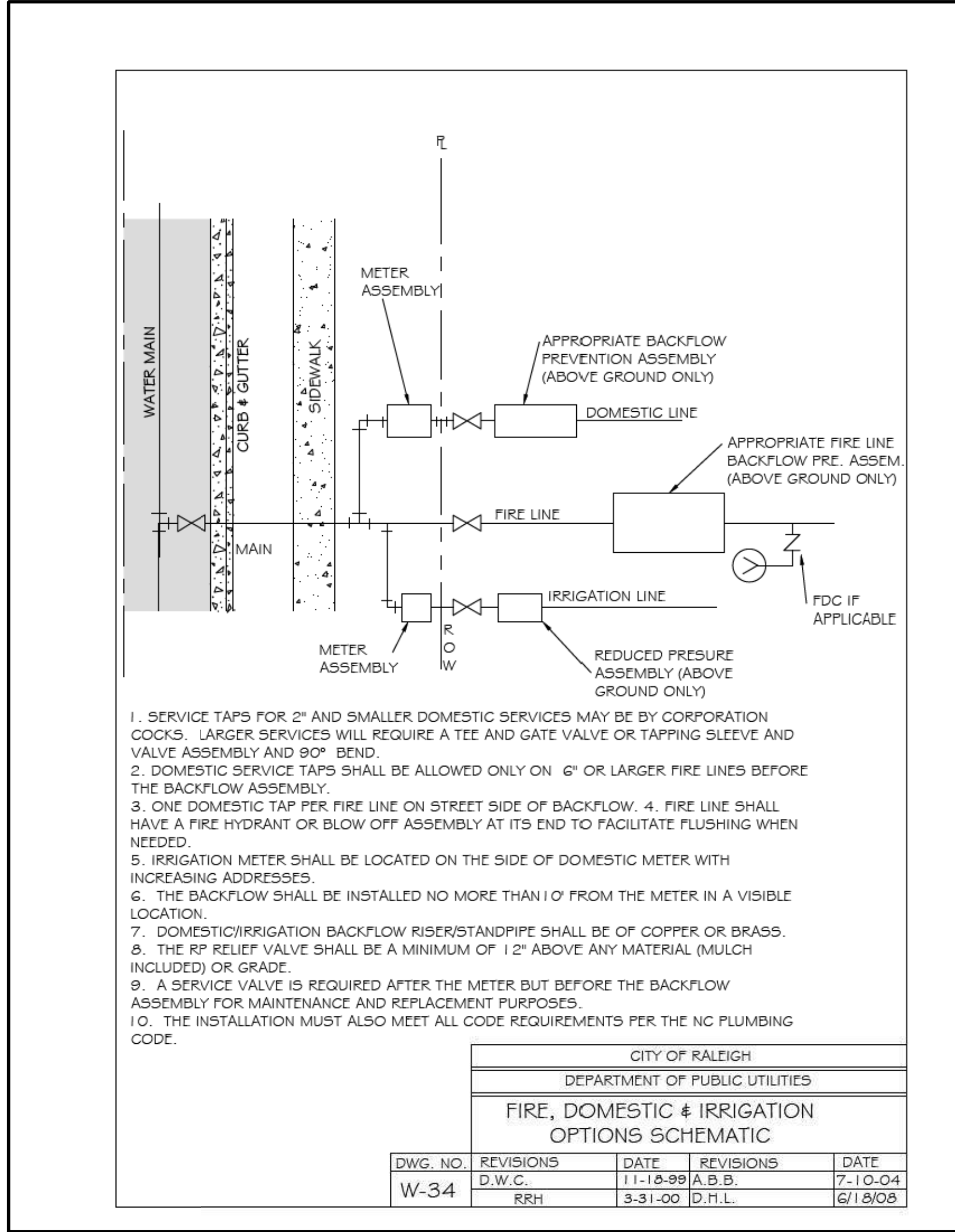
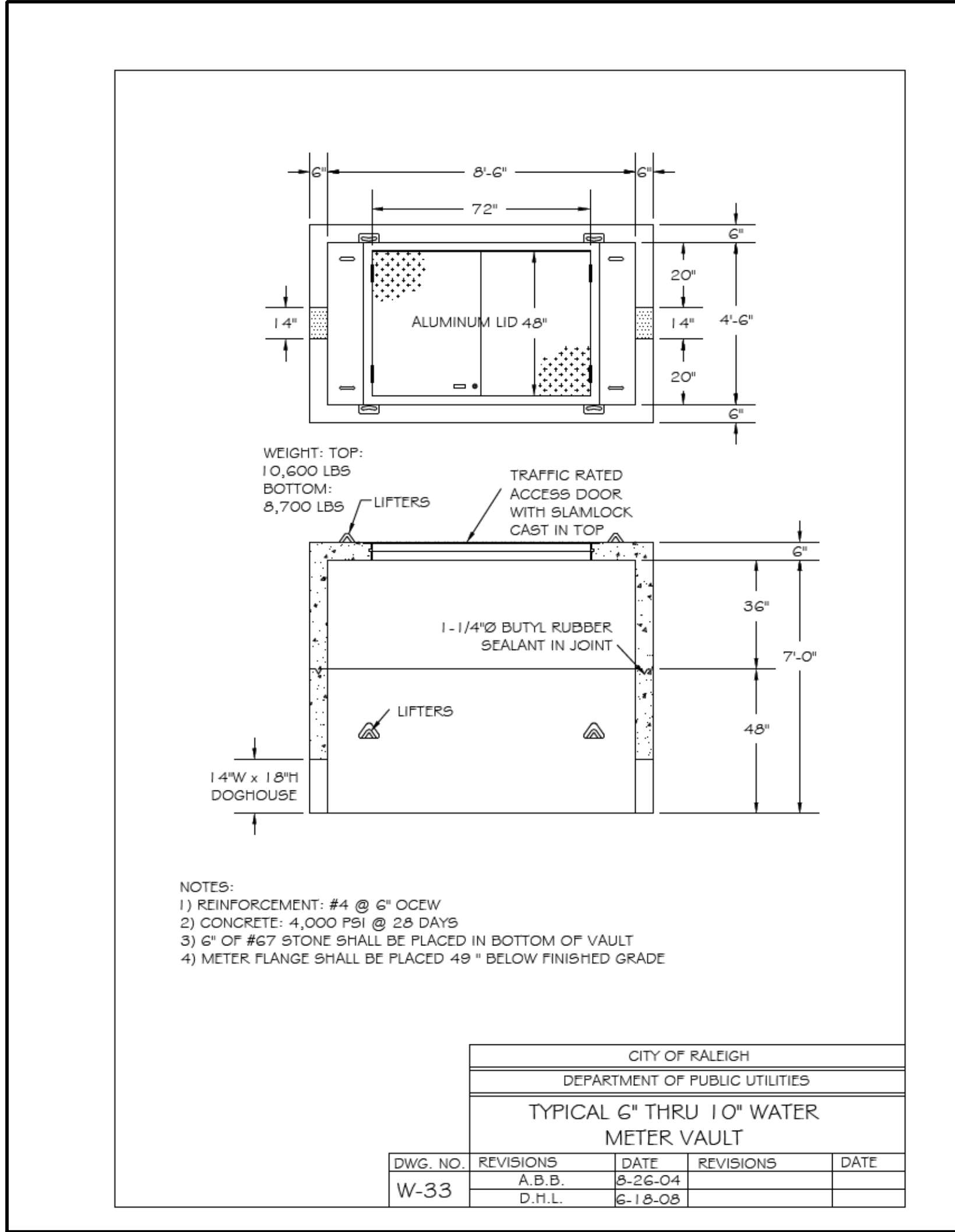
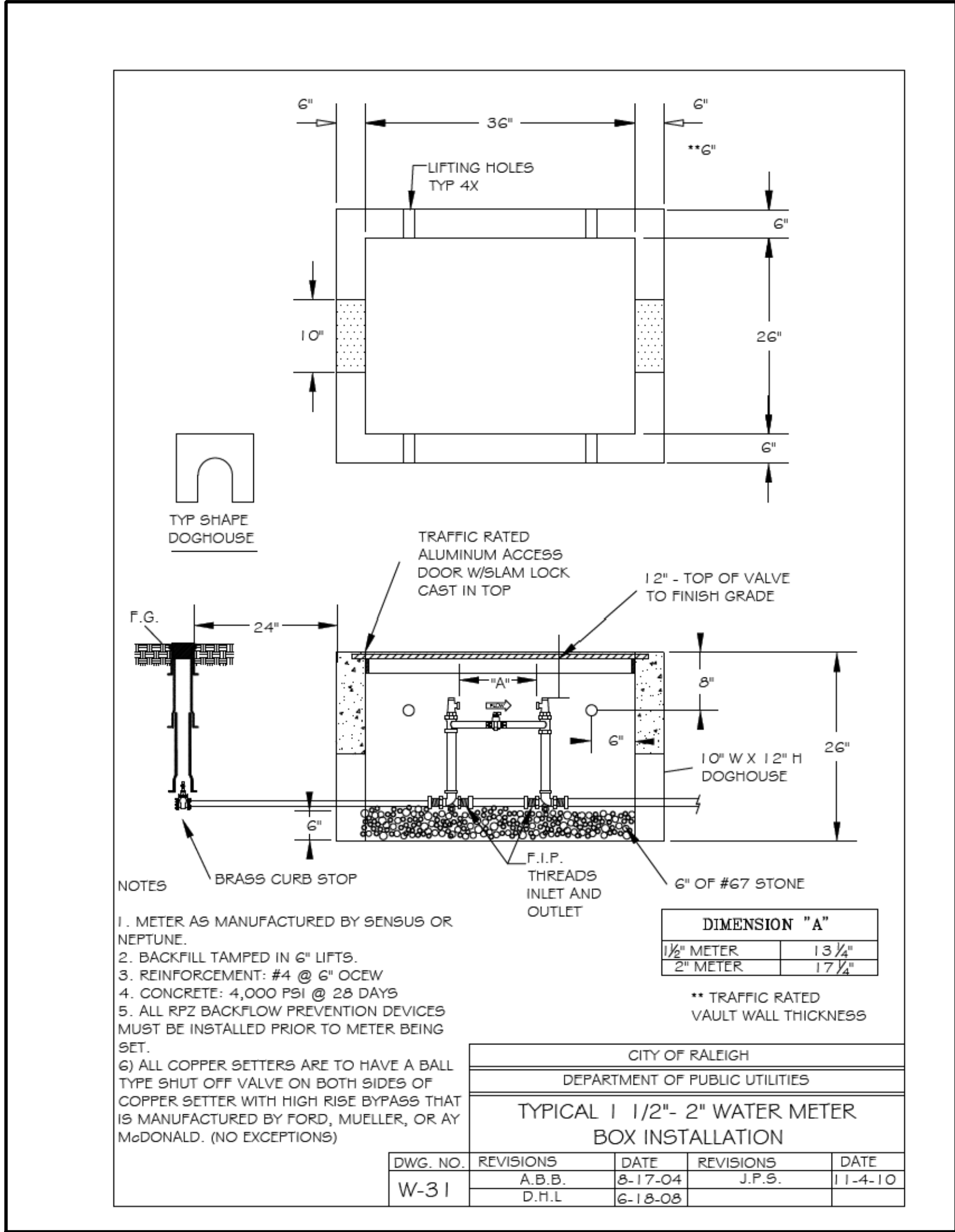
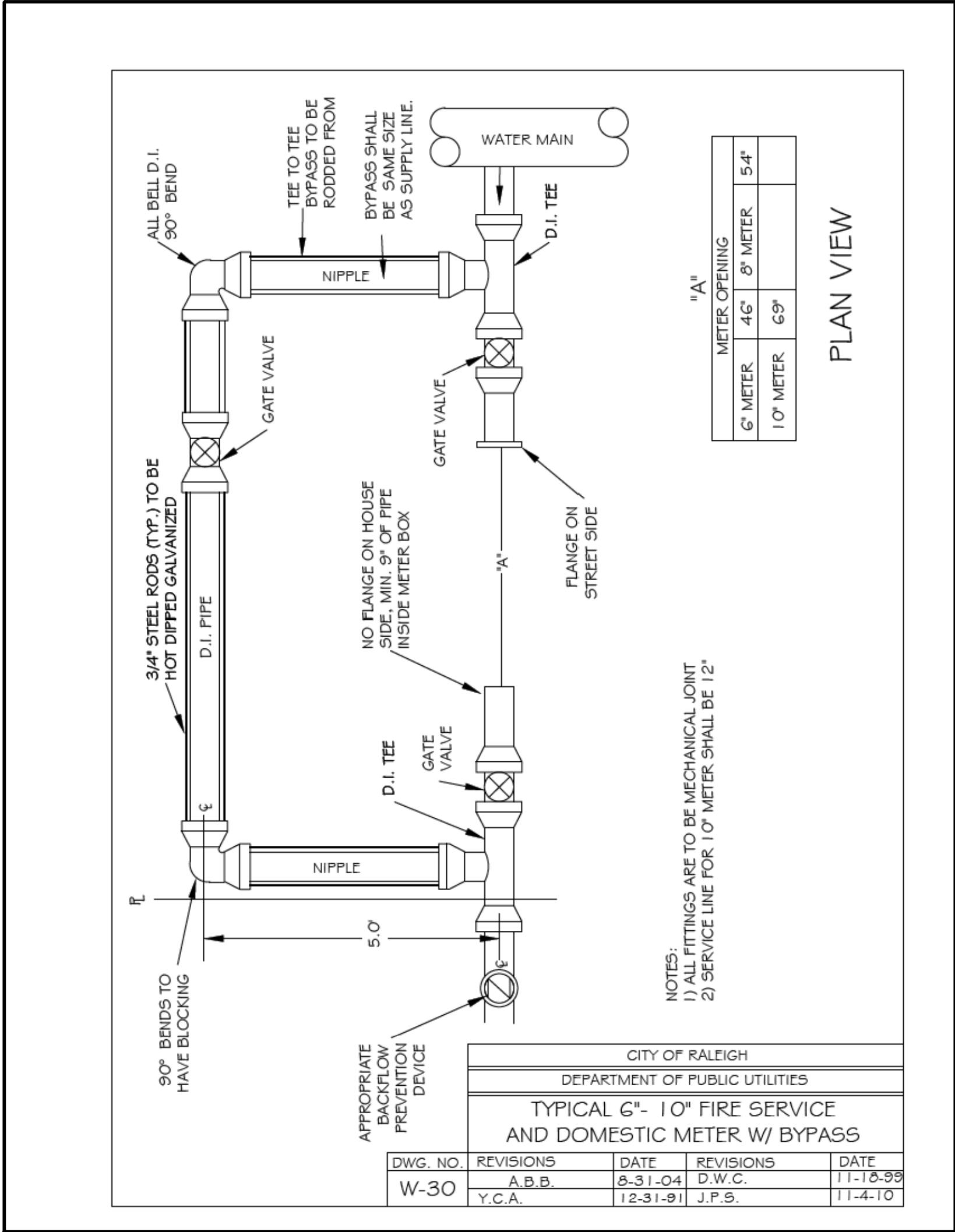
USE 6" - 80 DEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

THRUST BLOCKING DESIGN QUANTITY TABLE

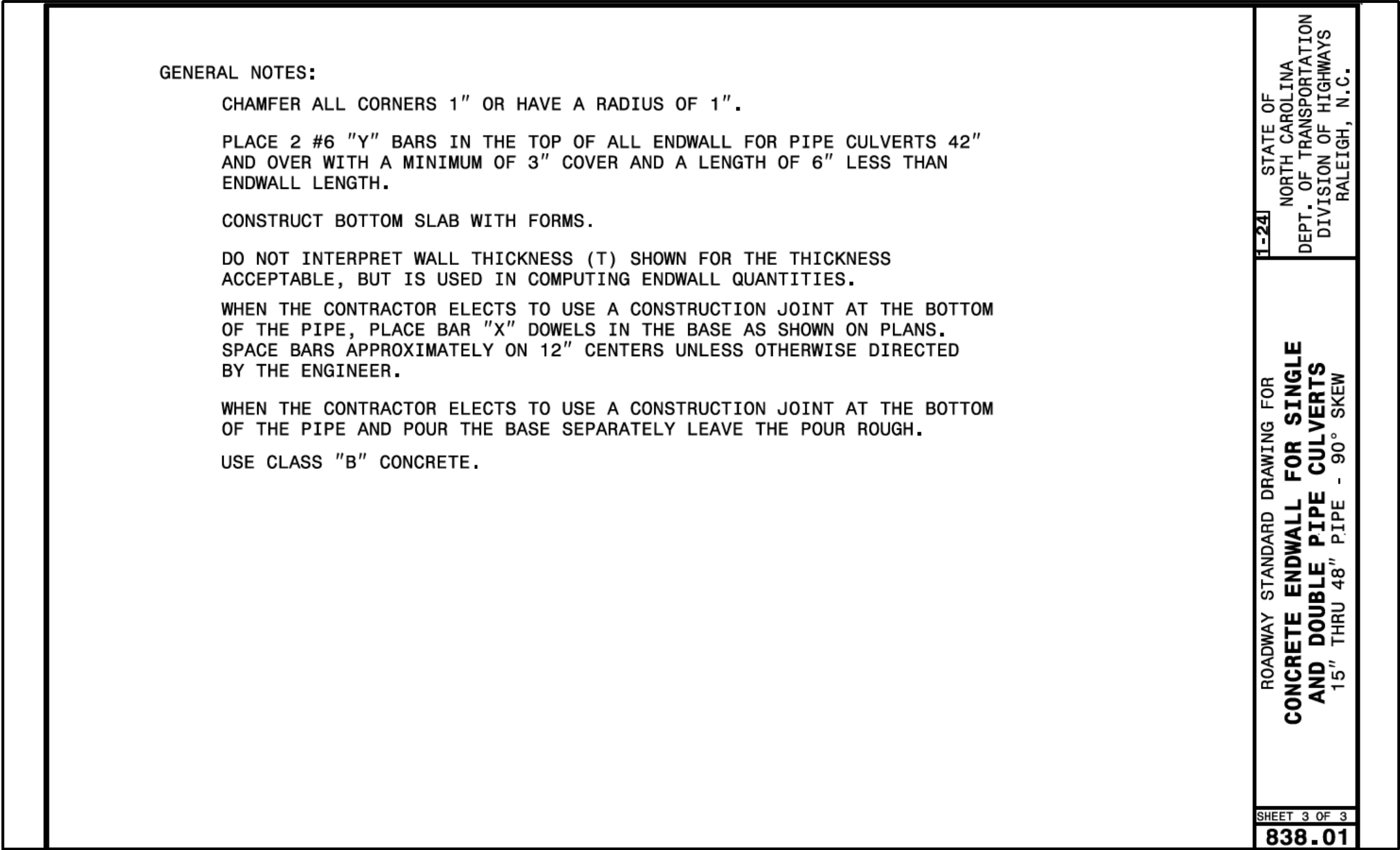
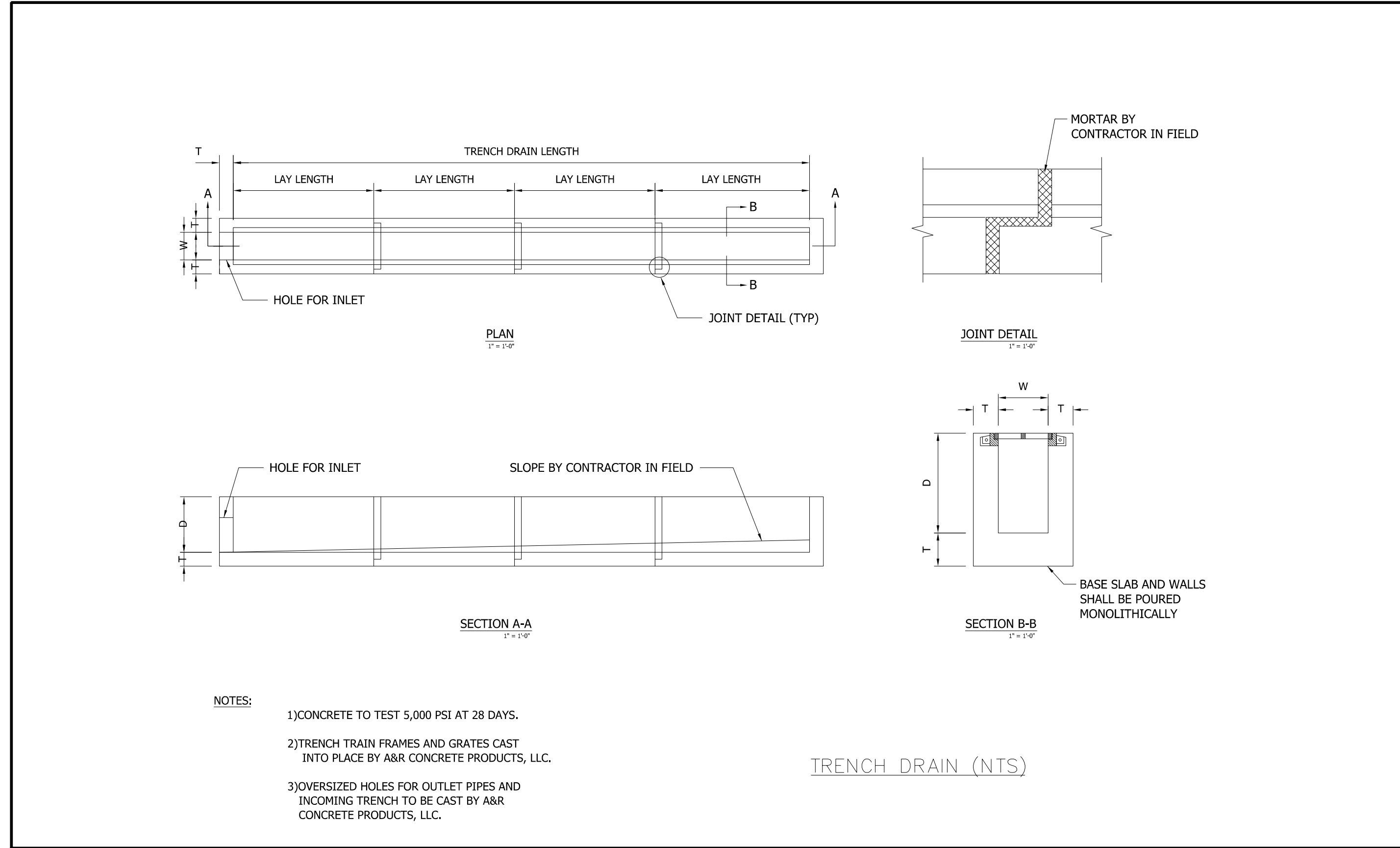
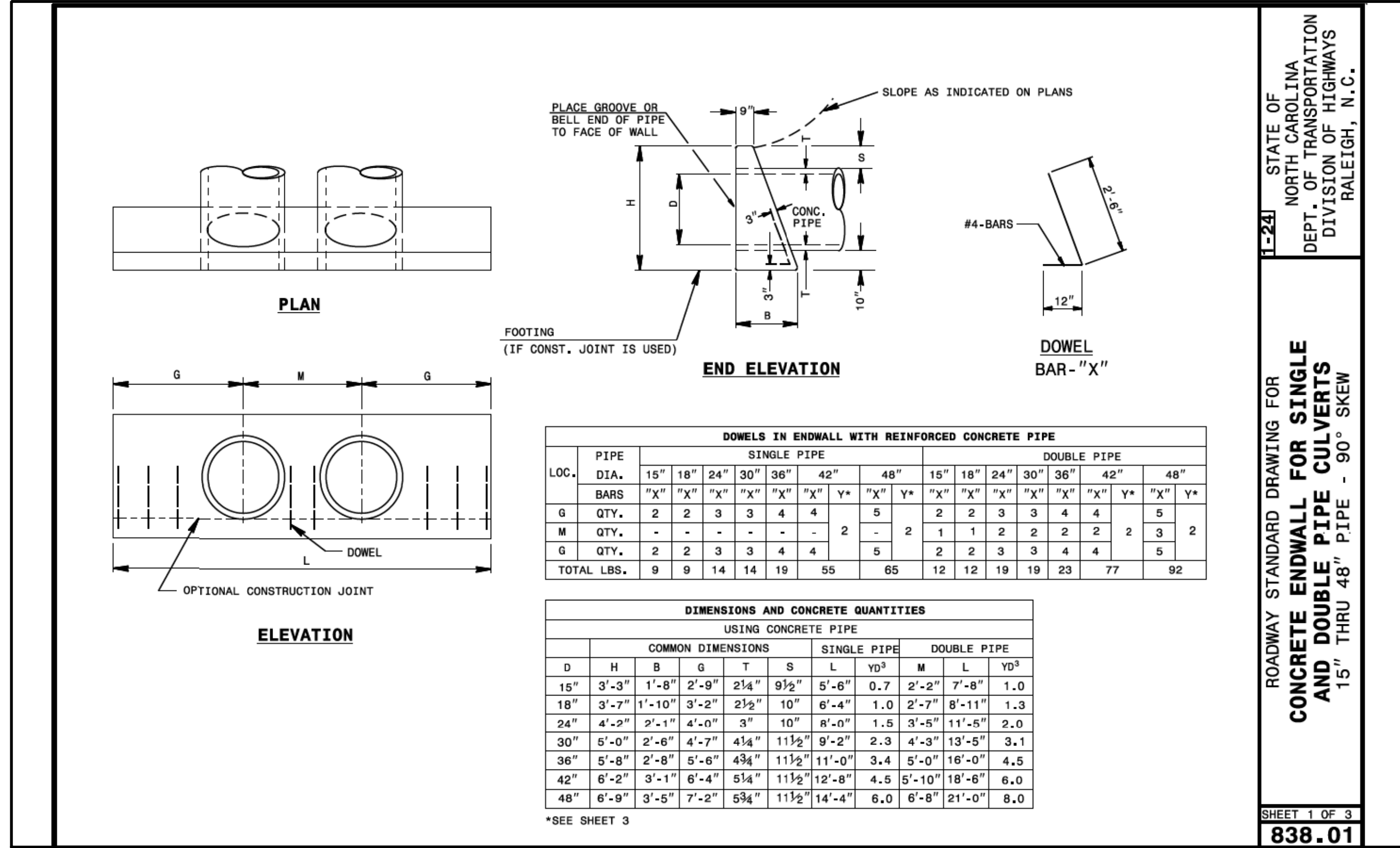
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-10	D.W.C.	6-23-99		





NO.	REVISION	DATE

JOB NUMBER	22-086
DATE ISSUED	03/14/2025
PROJECT STATUS	ISSUE FOR CONSTRUCTION
SHEET	WATER DETAILS



LEGEND






7 DAY GROUND COVER

40' 0' 20' 40' 80'

GRAPHIC SCALE
1" = 40'

North Arrow



STABILIZATION TIMEFRAMES (Effective Aug. 3, 2015)		
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
 Perimeter dikes, swales, ditches, slopes	7 days	None
 High Quality Water (HQP) Zones	7 days	None
 Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
 Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length.
 All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

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WAKE TECHNICAL COMMUNITY COLLEGE

5401 ROLESVILLE ROAD WENDELL, NC 27591

NCCCS NO. 2303

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1)

NCEM/DIVISION of Energy, Mineral and Land Resources

NO. REVISION DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR
CONSTRUCTION
SHEET
NPDES
STABILIZATION
PLAN

NCGO1-1

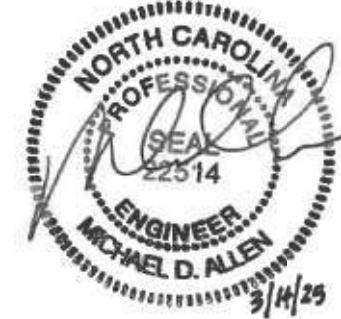


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WAKE TECHNICAL COMMUNITY COLLEGE

5401 ROLESVILLE ROAD WENDELL, NC 27591

NCCCS NO. 2303

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones
(e) Areas with slopes flatter than 4:1	14	-10 days for Falls Lake Watershed -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseedingRollled erosion control products with or without temporary grass seedAppropriately applied straw or other mulchPlastic sheeting	<ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrubs or other permanent plantings covered with mulchUniform and evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRollled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

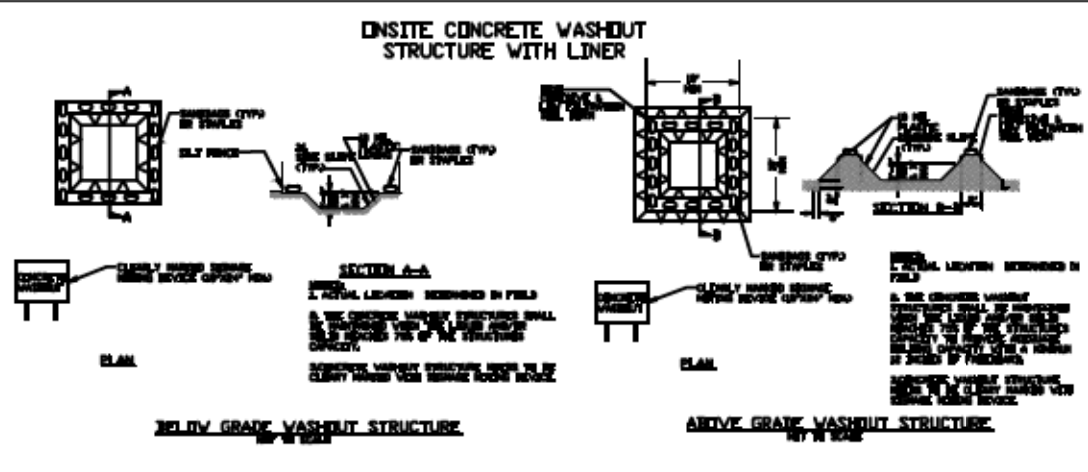
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sited and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout must not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement; for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain monitoring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Visible sedimentation is found outside site limits, then a record of the following shall be made: a. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands on-site or off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: a. Description, evidence and date of corrective actions taken, and b. Records of the required reports to the appropriate Division 24-hour Office per Part III, Section C, Item 2(f)(4) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (consolidation of perimeter E&S measures, clearing and grubbing, installation of storm drainage facilities, completion of all final disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an extension that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&S Plan Documentation

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&S measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S plan.	Initial and date each E&S measure on a copy of the approved E&S plan or complete, date and sign an inspection report that lists each E&S measure shown on the approved E&S plan. This documentation is required upon the initial installation of the E&S measures or if the E&S measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S plan.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S measures.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&S plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This General Permit as well as the Certificate of Coverage, after it is received.

- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4)

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

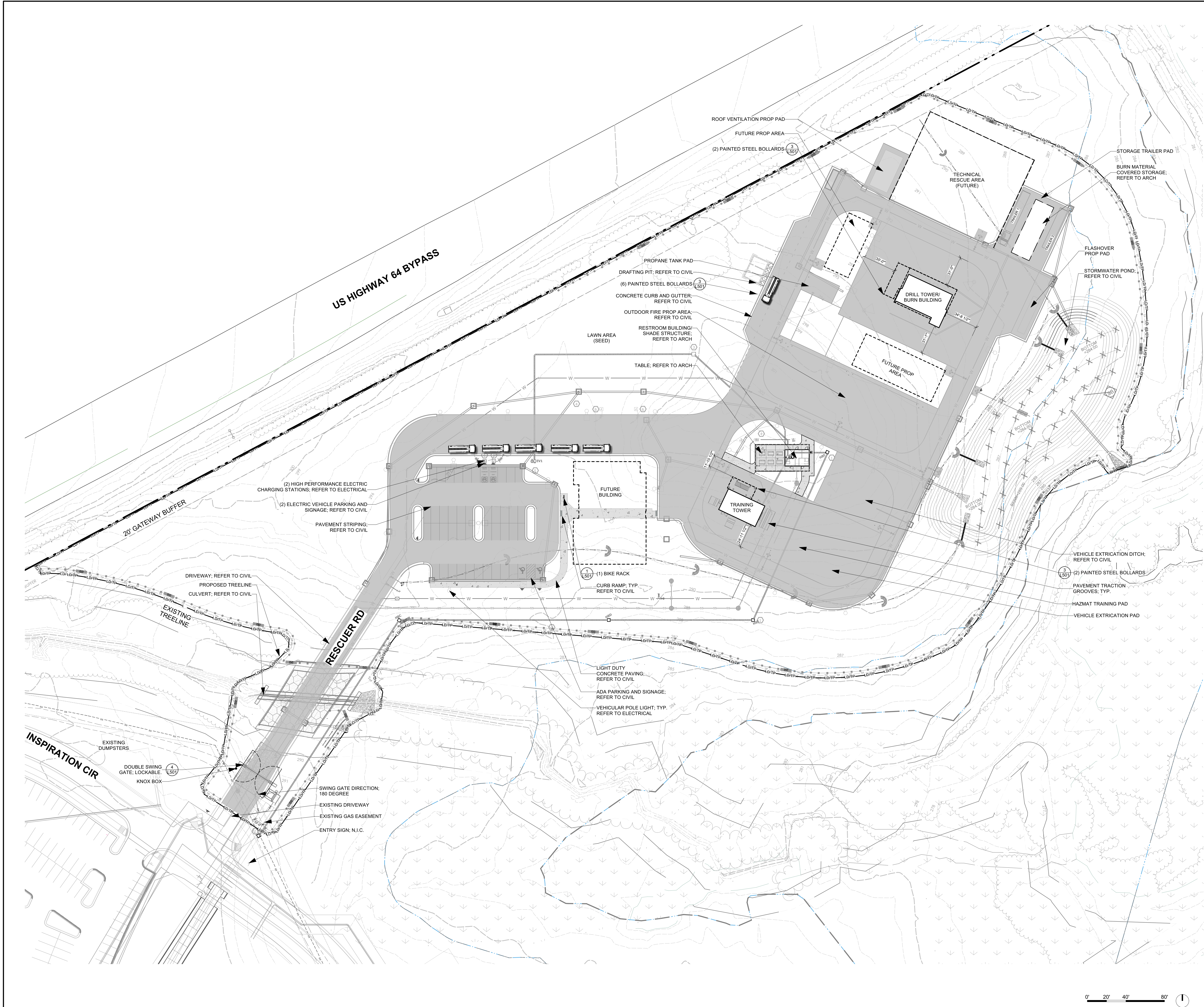
- The E&S plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&S plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2(f)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
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NCG01-2



MATERIAL LEGEND		QUANTITY	
	PAINTED STEEL BOLLARD	52	

HH

ARCHITECTURE

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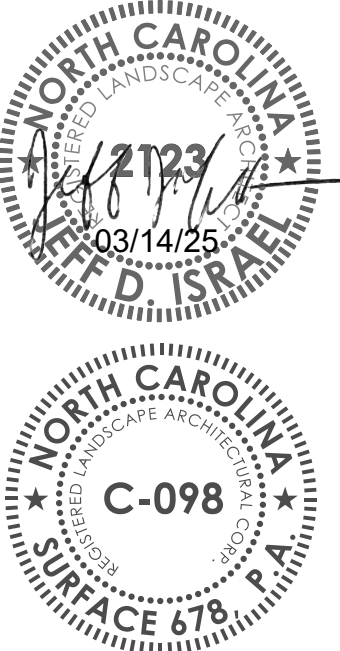
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NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22-086
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
LANDSCAPE MATERIAL PLAN

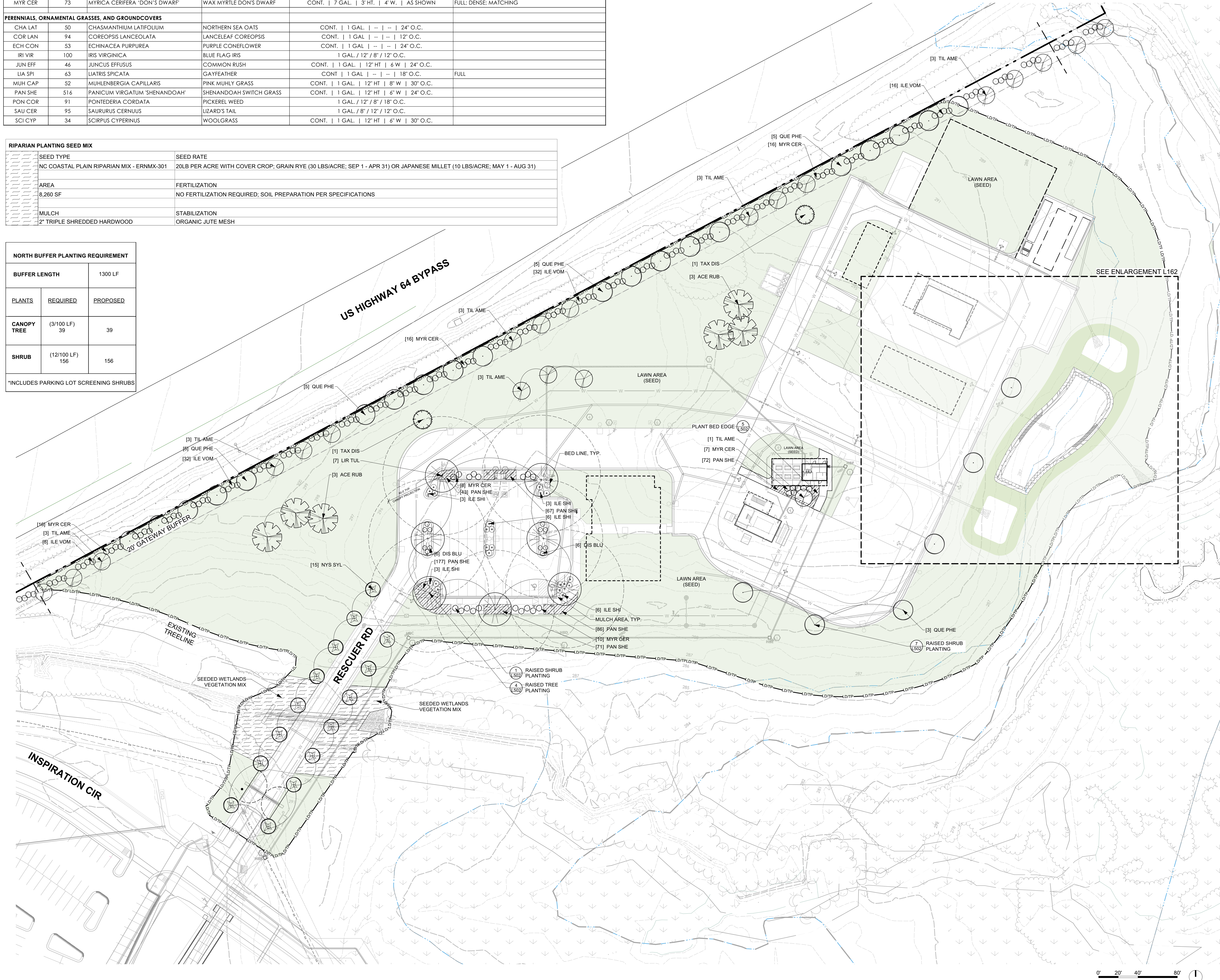
L131

- SITE PLANNING NOTES**
1. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION AS AMENDED, AND ARE THE CONTRACTOR'S RESPONSIBILITY.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR CITY RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
 3. CONTRACTOR SHALL PROVIDE SAW CUTS AT THE UNION BETWEEN EXISTING CONDITIONS AND PROPOSED CONSTRUCTION UNLESS OTHERWISE NOTED. REFER TO PLANS FOR ADDITIONAL INFORMATION.
 4. UNLESS NOTED ON THE DRAWINGS ALL BUFFERS, WETLANDS, STREAM CHANNELS, SETBACKS AND TREE PROTECTION AREAS SHALL BE PROTECTED WITH NO CONSTRUCTION ACCESS, STORAGE OR USE OF ANY KIND. THE CONTRACTOR SHALL KEEP CONSTRUCTION ACTIVITIES WITHIN THE "PROJECT LIMITS" SHOWN ON THE DRAWINGS.
 5. ALL DIMENSIONS INDICATING "VERIFY" SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO STARTING CONSTRUCTION - REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
 6. ALL DIMENSIONS LABELED "EQ" ARE TO INDICATE EQUAL MEASUREMENTS BETWEEN THE DIMENSIONS END POINTS ON THE DRAWING.
 7. REFER TO CIVIL DRAWINGS FOR ALL STREET DIMENSIONS.
 8. THE CONTRACTOR SHALL STAKE THE LAYOUT AND ALIGNMENT OF ALL PAVEMENTS, WALLS, AND OTHER SITE FEATURES IN THE FIELD FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO START OF CONSTRUCTION.
 9. THE CONTRACTOR SHALL PROVIDE SMOOTH LAYOUT ALIGNMENTS BETWEEN EXISTING CONDITIONS AND PROPOSED SITE IMPROVEMENTS.
 10. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 11. UNLESS OTHERWISE NOTED, CONCRETE SCORE AND EXPANSION JOINTS SHALL BE ALIGNED WITH BUILDING FEATURES AND WITH CORNERS OF PAVEMENT. SPACE THE ADDITIONAL JOINTS BETWEEN THESE POINTS EQUALLY.
 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING JOB CONDITIONS. ANY ADVERSE EXISTING CONDITIONS AFFECTING THE WORK SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR POSSIBLE CLARIFICATION OR RECONCILIATION.
 13. ITEMS LABELED AS "BY OTHERS" OR "NIC" ARE FOR COORDINATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ANY SUCH ITEMS WITH THE OWNER'S REPRESENTATIVE.

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KEY	QTY	LATIN NAME	COMMON NAME	CONTAINER SIZE HT W SPACING	COMMENTS
TREES					
ACE RUB	6	ACER RUBRUM	RED MAPLE	B&B 3" CAL. 16' HT. 8' W. AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
LIR TUL	7	LIRODENDRON TULIPIFERA	TULIP POPLAR	B&B 3" CAL. 16' HT. 8' W. AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
NYS SYL	15	NYSSA SYLVATICA	BLACK GUM	B&B 3" CAL. 12' HT 6' W AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
QUE PHE	20	QUERCUS PHELLOS 'RT3'	UPPERTOWN WILLOW OAK	B&B 3" CAL. 12' HT 6' W AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
TAX DIS	2	TAXODIUM DISTICHUM 'SOFINE'	AUTUMN GOLD BALD CYPRESS	B&B 3" CAL. 9' HT 4' W AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
TIL AME	23	TILIA AMERICANA	AMERICAN BASSWOOD	B&B 3" CAL. 12' HT 6' W AS SHOWN	STRONG CENTRAL LEADER; EVENLY BRANCHED; FULL
SHRUBS					
DIS BLU	12	DISTYLUM 'BLUE CASCADE'	BLUE CASCADE DISTYLUM	CONT. 7 GAL. 3' HT. 4' W. AS SHOWN	FULL; DENSE
ILE VOM	108	ILEX VOMITORIA	YAUPOIN HOLLY	CONT. 7 GAL. 3' HT 18" W 3' O.C.	N/A
ILE SHI	21	ILEX VOMITORIA 'SCHILLINGS DWARF'	DWARF YAUPOIN HOLLY	CONTAINER / 24' / 18" / AS SHOWN	FULL, DENSE, MATCHING
MYR CER	73	MYRICA CERIFERA 'DON'S DWARF'	WAX MYRTLE DON'S DWARF	CONT. 7 GAL. 3' HT. 4' W. AS SHOWN	FULL; DENSE; MATCHING
PERENNIALS, ORNAMENTAL GRASSES, AND GROUNDCOVERS					
CHA LAT	50	CHASMANTHIUM LATIFOLIUM	NORTHERN SEA OATS	CONT. 1 GAL. -- -- 24" O.C.	
COR LAN	94	COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS	CONT. 1 GAL -- -- 12" O.C.	
ECH CON	53	ECHINACEA PURPUREA	PURPLE CONEFLOWER	CONT. 1 GAL -- -- 24" O.C.	
IRI VIR	100	IRIS VIRGINICA	BLUE FLAG IRIS	1 GAL. / 12' / 8' / 12" O.C.	
JUN EFF	46	JUNCUS EFFUSUS	COMMON RUSH	CONT. 1 GAL. 12' HT 6' W 24" O.C.	
LIA SPI	63	LIATRIS SPICATA	GAYFEATHER	CONT 1 GAL -- -- 18" O.C.	FULL
MUH CAP	52	MUHLERBERGIA CAPILLARIS	PINK MUHLY GRASS	CONT. 1 GAL. 12' HT 8" W 30" O.C.	
PAN SHE	516	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	CONT. 1 GAL. 12' HT 6" W 24" O.C.	
PON COR	91	PONTERDEA CORDATA	PICKEREL WEED	1 GAL. / 12' / 8' / 18" O.C.	
SAU CER	95	SAURURUS CERNUUS	LIZARD'S TAIL	1 GAL. / 8' / 12' / 12" O.C.	
SCI CYP	34	SCIRPUS CYPERINUS	WOOLGRASS	CONT. 1 GAL. 12' HT 6" W 30" O.C.	

NORTH BUFFER PLANTING REQUIREMENT		
BUFFER LENGTH		1300 LF
PLANTS	REQUIRED	PROPOSED
CANOPY TREE	(3/100 LF) 39	39
SHRUB	(12/100 LF) 156	156
*INCLUDES PARKING LOT SCREENING SHRUBS		

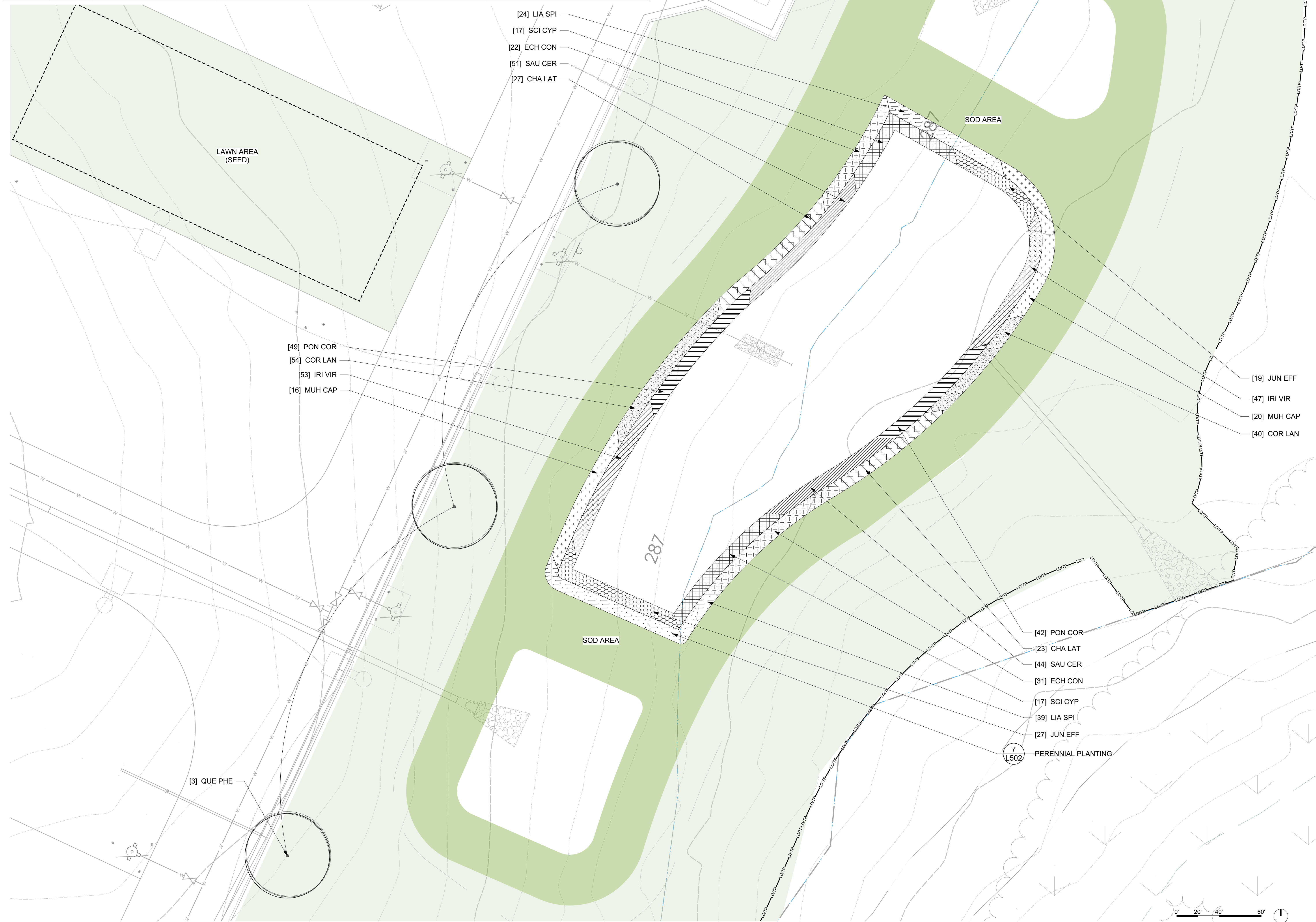


1. EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. IDENTIFY LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND EXISTING UTILITIES TO REMAIN.
2. PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND PLANT LIST QUANTITIES, THE PLAN SHALL TAKE PRECEDENCE.
3. AFTER THE SITE IS STABILIZED AND FREE OF SEDIMENTATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES: SILT, RIP RAP AND TEMPORARY STONE STAGING AREAS FOR REPLACEMENT WITH PLANTING SOIL. PROVIDE PLANTING ACCORDING TO THE LANDSCAPE PLAN.
4. TEMPORARY EROSION CONTROL SEED MUST BE FULLY REMOVED PRIOR TO PREPARATION OF PERMANENT SEED, SOD OR LANDSCAPE BEDS.
5. UNLESS OTHERWISE NOTED IN THE PLANT LIST, OWNER SHALL OBTAIN AND INSTALL ONLY PLANT MATERIAL THAT IS GROWN ON ITS OWN ROOT - GRAFTED OR BUDDED PLANT MATERIAL WILL BE REJECTED.
6. ALL TREES SHALL BE OBTAINED FROM THE NURSERY WITH EXPOSED ROOT CROWNS. 8&B MATERIAL DELIVERED TO SITE WITH BURIED OR RECENTLY BURIED ROOT CROWNS WILL BE REJECTED.
7. OWNER WILL NOTIFY LANDSCAPE ARCHITECT OF PLANT SUBSTITUTIONS IN ANY MEASUREMENT OR SPECIES INDICATED. SEE SPECIFICATIONS FOR FULL NOTIFICATION REQUIREMENTS.
8. CONTRACTOR SHALL STAKE ALL PLANT LOCATIONS IN THE FIELD. OBTAIN APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO STARTING PLANT INSTALLATIONS
9. DO NOT PLANT IN STORM WATER CONVEYANCE SWALES OR PROVIDE FINE GRADING THAT DISRUPTS FLOW OR CHANGES LONGITUDINAL SLOPES.
10. PLANT THE OUTER EDGES OF EACH PLANTING GROUP FOLLOWING THE BED OUTLINE ACCORDING TO THE PLAN. ONCE A SATISFACTORY MATCHED OUTER SHAPE IS OBTAINED, FILL THE CENTER OF EACH AREA WITH PLANTS ACCORDING TO THE PLAN AND SPACING NOTES.
11. THE PLANTING LAYOUT WITHIN PLANTING BEDS SHOULD BE SHIFTED TO MINIMIZE CONFLICTS WITH EXISTING TREE ROOTS AND OTHER STRUCTURES.
12. DISTURBED EARTH AREAS BEYOND PROJECT LIMITS THAT ARE DIRECTLY CAUSED BY CONTRACTOR MEANS AND METHODS SHALL BE RESTORED WITH FESCUE SOD UNLESS OTHERWISE NOTED.
13. ALL LANDSCAPING SHALL BE MAINTAINED IN PERPETUITY.
14. ALL HOTOBBES AND OTHER ON GROUND/FREESTANDING MECHANICAL SHALL BE SCREENED WITH VEGETATION PRIOR TO THE ISSUANCE OF CERTIFICATE OF A COMPLIANCE/OCCUPANCY.

1. DURING INITIAL CONTRACT BIDDING, LANDSCAPE CONTRACTOR SHALL REVIEW THE PLANT SCHEDULE AND INQUIRE WITH NURSERIES ABOUT AVAILABILITY OF SPECIFIED PLANTS. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO REASONABLY DETERMINE SUBMITTED BID ADEQUATELY REFLECTS THE PROPOSED PLANTING PLAN. AT THE TIME OF PLANT INSTALLATION, REQUESTS FOR PLANT SUBSTITUTIONS DUE TO UNAVAILABILITY OF SPECIFIED PLANTS ARE GRANTED TO BE AVAILABLE TO BE OBTAINED FROM OTHER REPUTABLE NURSERY SOURCES. NURSERY SOURCES SHALL NOT BE LIMITED TO THE LOCAL VICINITY OF THE PROJECT.
2. LANDSCAPE CONTRACTOR IS REQUIRED TO COORDINATE WITH GENERAL CONTRACTOR ALL ANTICIPATED PROJECT SCHEDULING REQUIREMENTS FOR PLANT MATERIAL. PLANT MATERIALS ARE GRANTED TO BE AVAILABLE TO BE OBTAINED FROM OTHER REPUTABLE NURSERY SOURCES. LANDSCAPE CONTRACTOR RELATED SUBMITTALS FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.
3. LANDSCAPE CONTRACTOR SHALL SOURCE ALL PLANT MATERIAL EARLY IN THE CONSTRUCTION PROCESS TO ALLOW ADEQUATE TIME FOR PLANT MATERIAL APPROVAL. PLANT MATERIALS SUBMITTED IN RESPONSE TO REQUESTS DUE TO SPECIFICATION ALLOWED REASONS.
4. SEE SPECIFICATIONS FOR PLANT PRE-APPROVAL REQUIREMENTS INCLUDING SUBMISSION OF NURSERY STOCK PHOTOS VERIFYING PLANTS TO BE USED ON THE PROJECT MEET SPECIFICATION REQUIREMENTS IN SIZE, SHAPE, AND NUMBER. SUBMITTED PHOTOS SHALL CLEARLY BE CAPTIONED FOR LANDSCAPE ARCHITECT TO REPRESENT THE ACTUAL NURSERY AND NURSERY STOCK INTENDED TO BE USED ON THE PROJECT.
5. REFER TO PLANTING NOTES AND SPECIFICATIONS FOR FULL REQUIREMENTS RELATED TO SUBSTITUTIONS. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING ALL REQUESTS FOR PLANT SUBSTITUTIONS TO LANDSCAPE ARCHITECT IN WRITING AND PROPOSING SUBSTITUTIONS IN WRITING FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.
6. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DELIVERING HEALTHY PLANT MATERIAL SATISFYING ALL SPECIFICATION REQUIREMENTS. OWNER SHALL NOT BE RESPONSIBLE FOR ANY REJECTED PLANT MATERIAL OR NOT MEETING PROJECT SPECIFICATIONS.

PLANT SCHEDULE - CONTRACTOR SHALL SATISFY ALL MEASUREMENTS NOTED - EXCEED SIZES UPON APPROVAL

KEY	QTY	LATIN NAME	COMMON NAME	CONTAINER SIZE HT W SPACING	COMMENTS
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- PLANTING NOTES:**
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 - SEE SPECIFICATIONS FOR PLANT PRE-APPROVAL REQUIREMENTS INCLUDING SUBMISSION OF NURSERY STOCK PHOTOS VERIFYING PLANTS TO BE USED ON THE PROJECT MEET SPECIFICATION REQUIREMENTS IN SIZE, SHAPE, AND FORM. ALL SUBMITTAL PHOTOS SHALL ONLY BE ACCEPTABLE IF PHOTOS REPRESENT THE ACTUAL NURSERY AND NURSERY STOCK INTENDED TO BE USED ON THE PROJECT.
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NCCCS NO. 2303

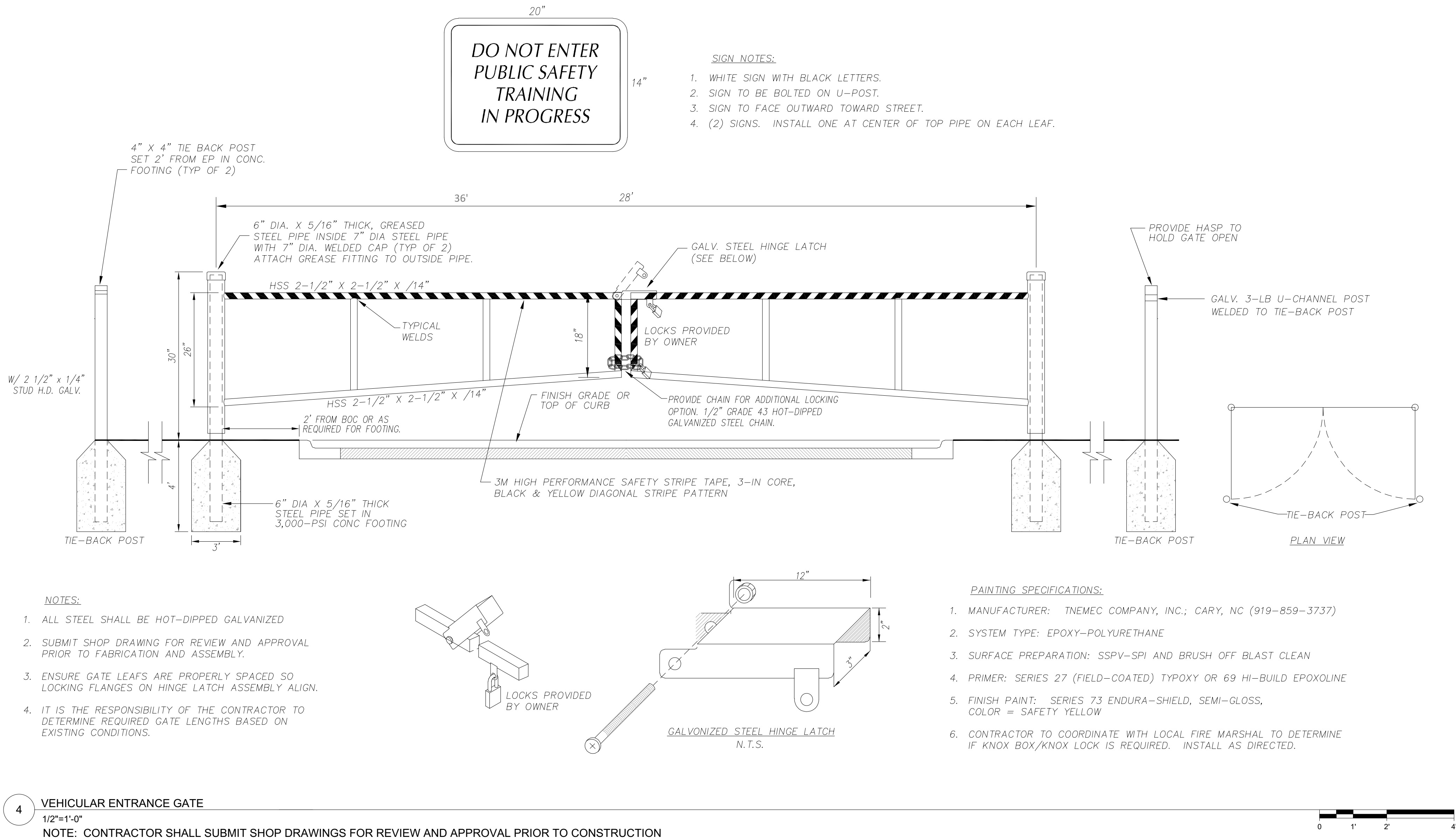
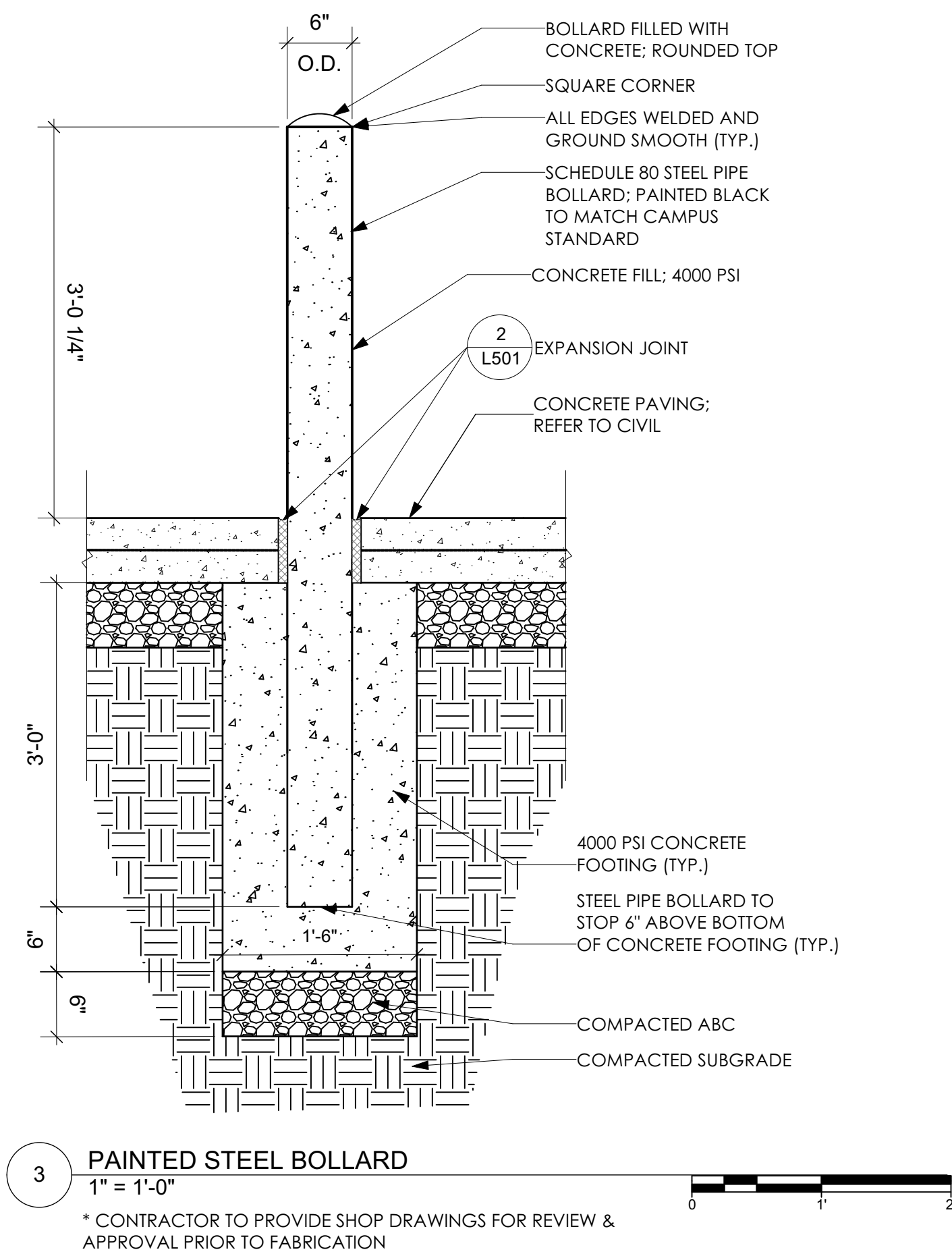
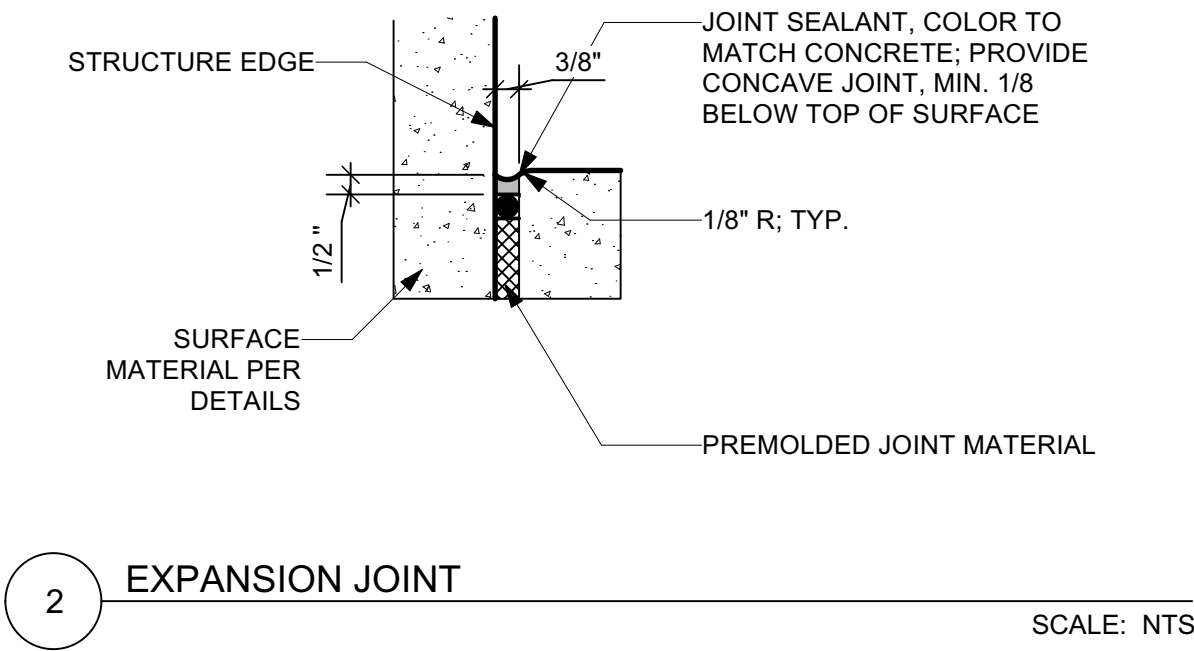
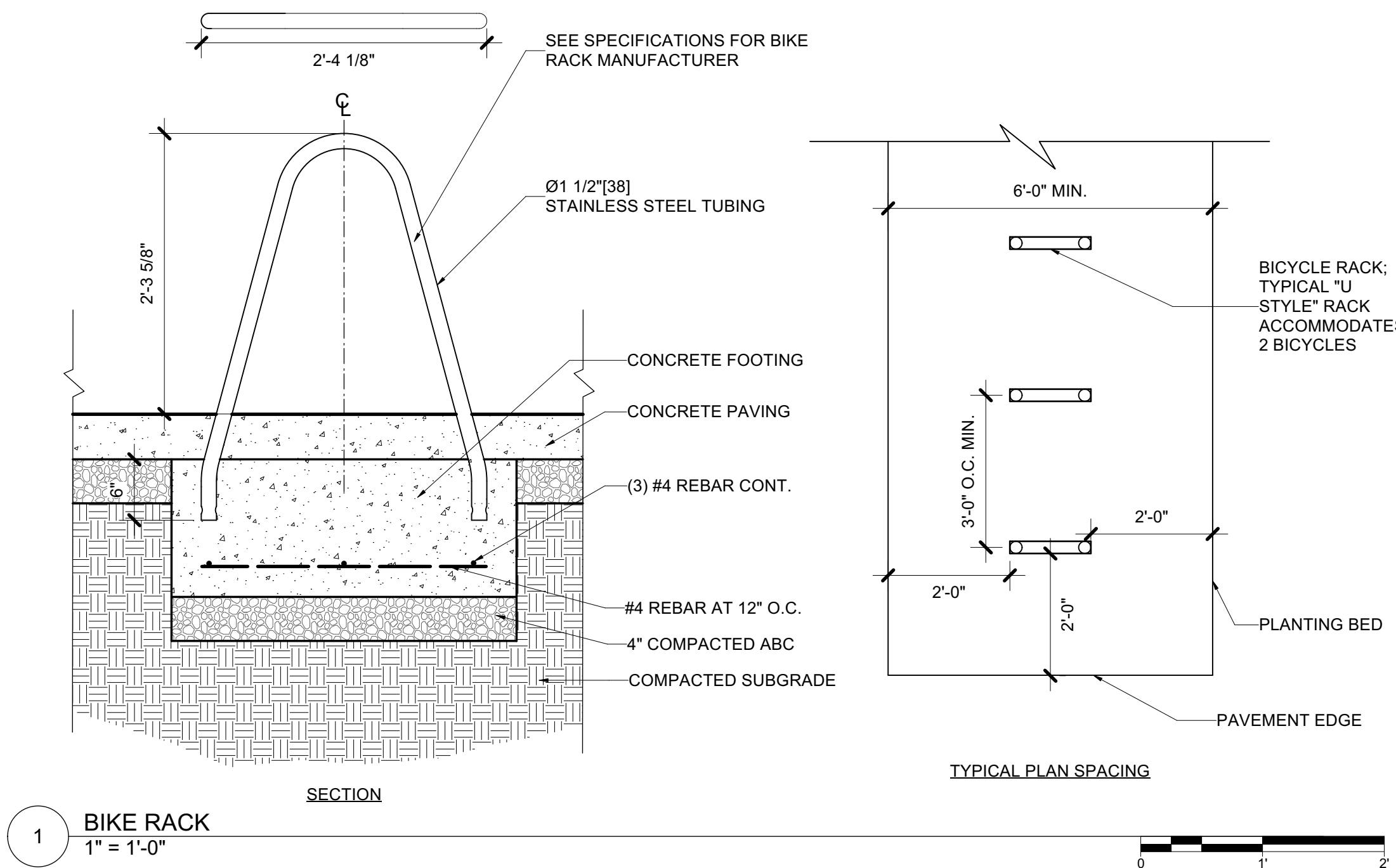


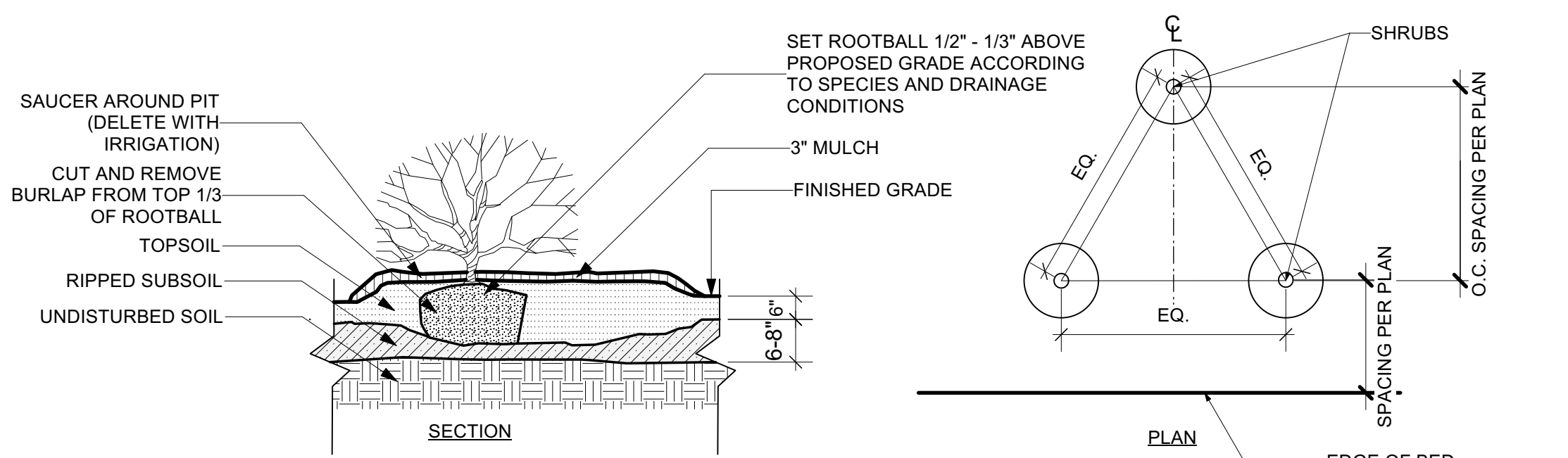
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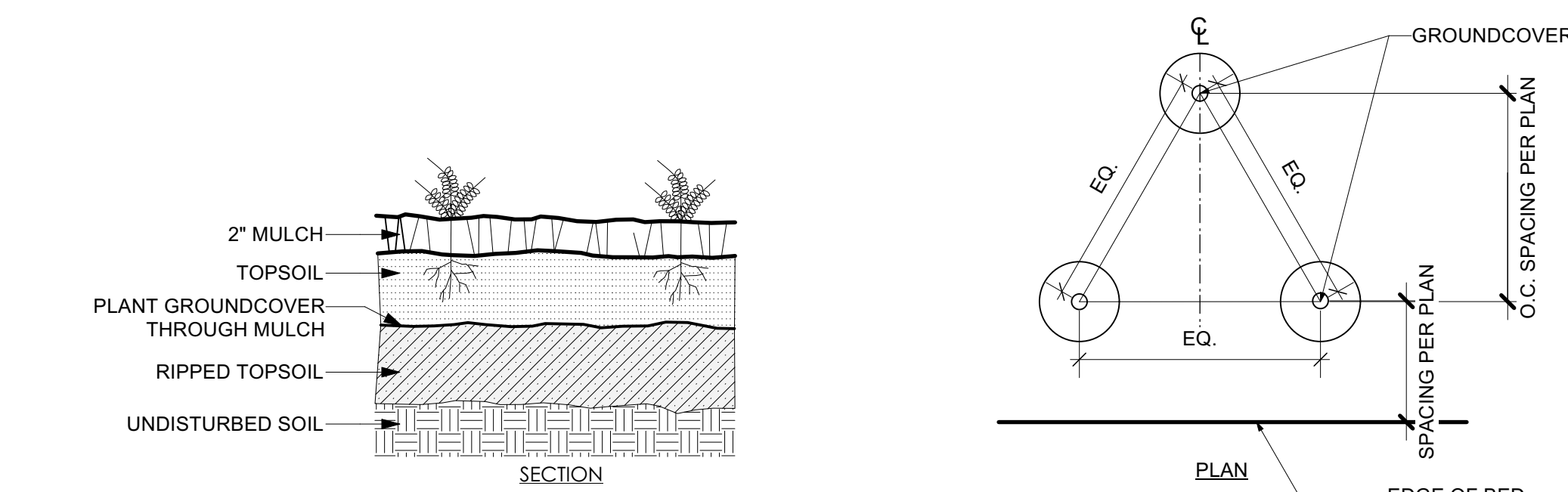
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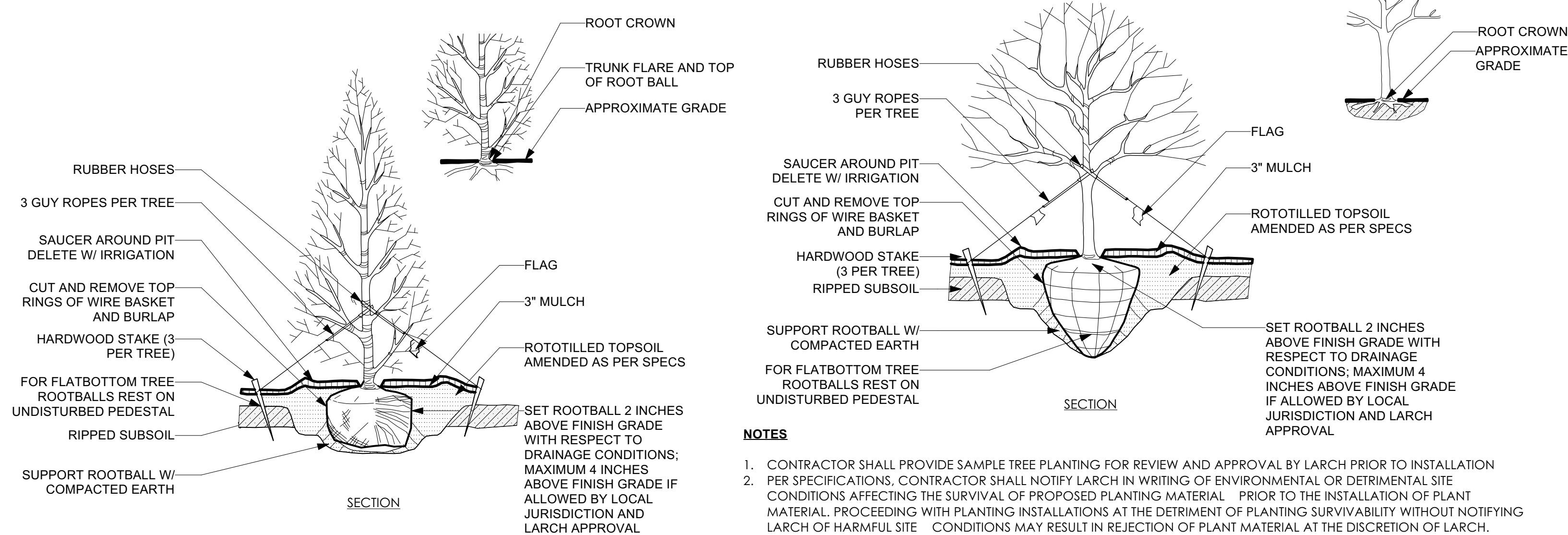




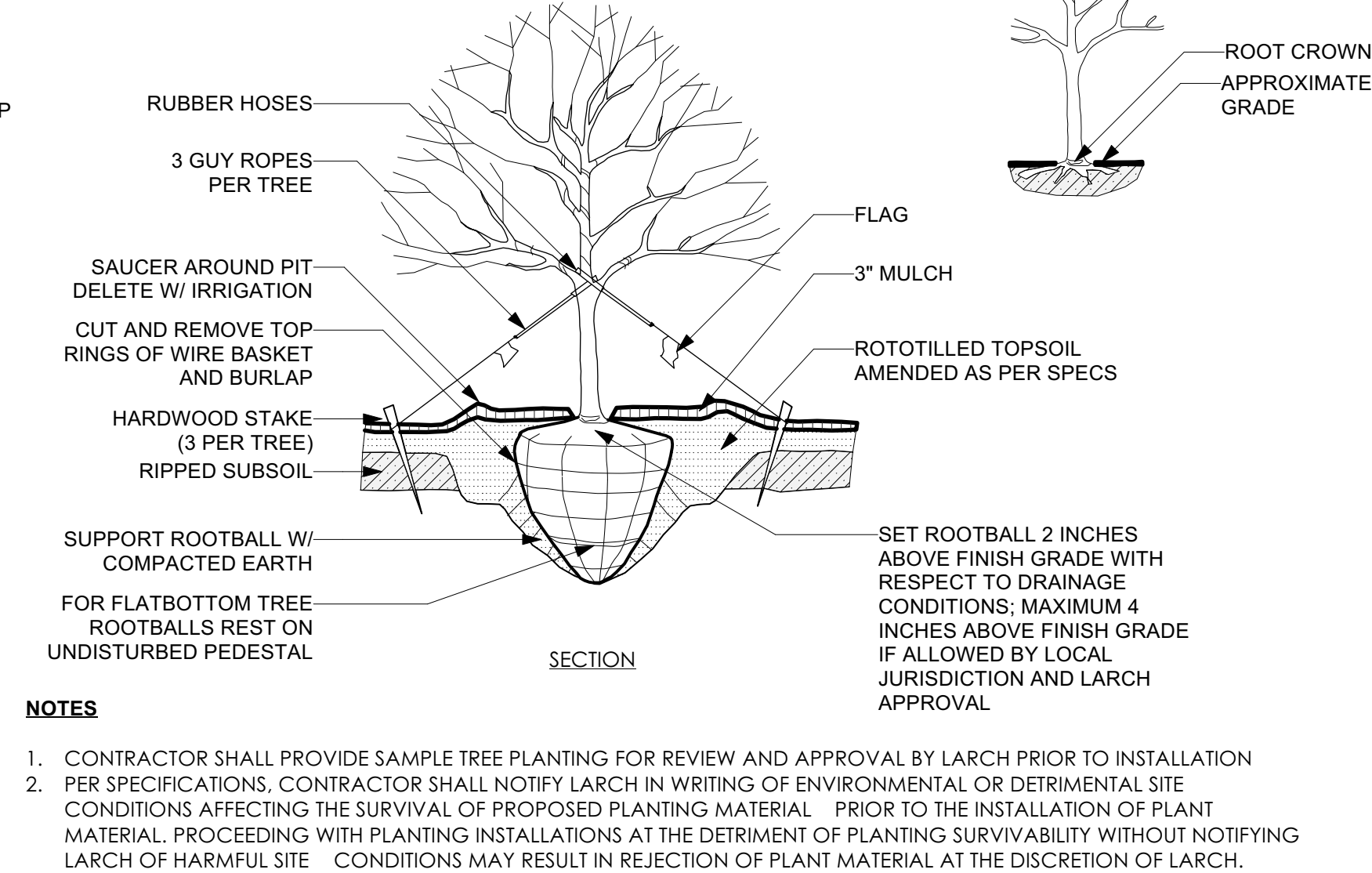
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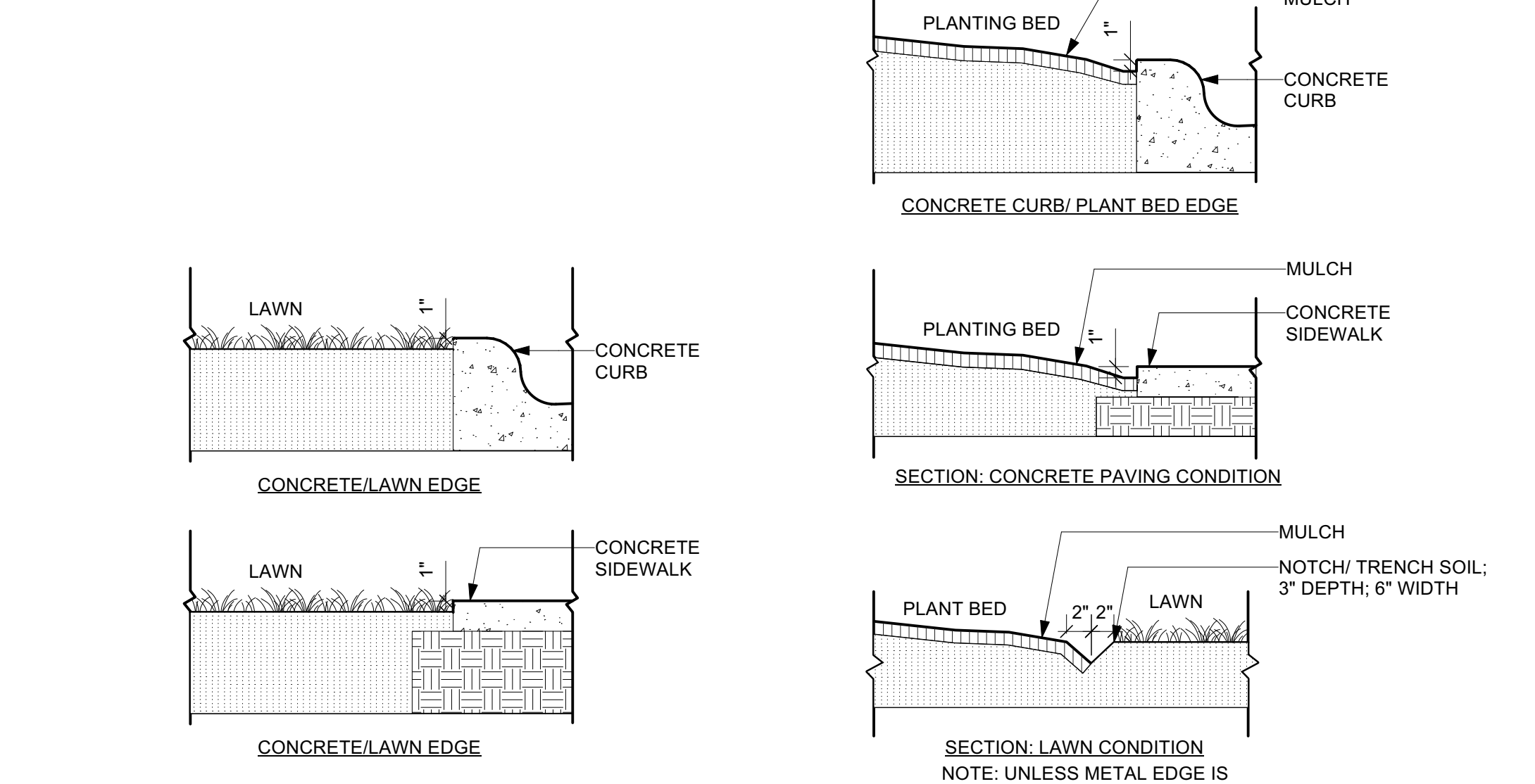
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SCALE: NTS



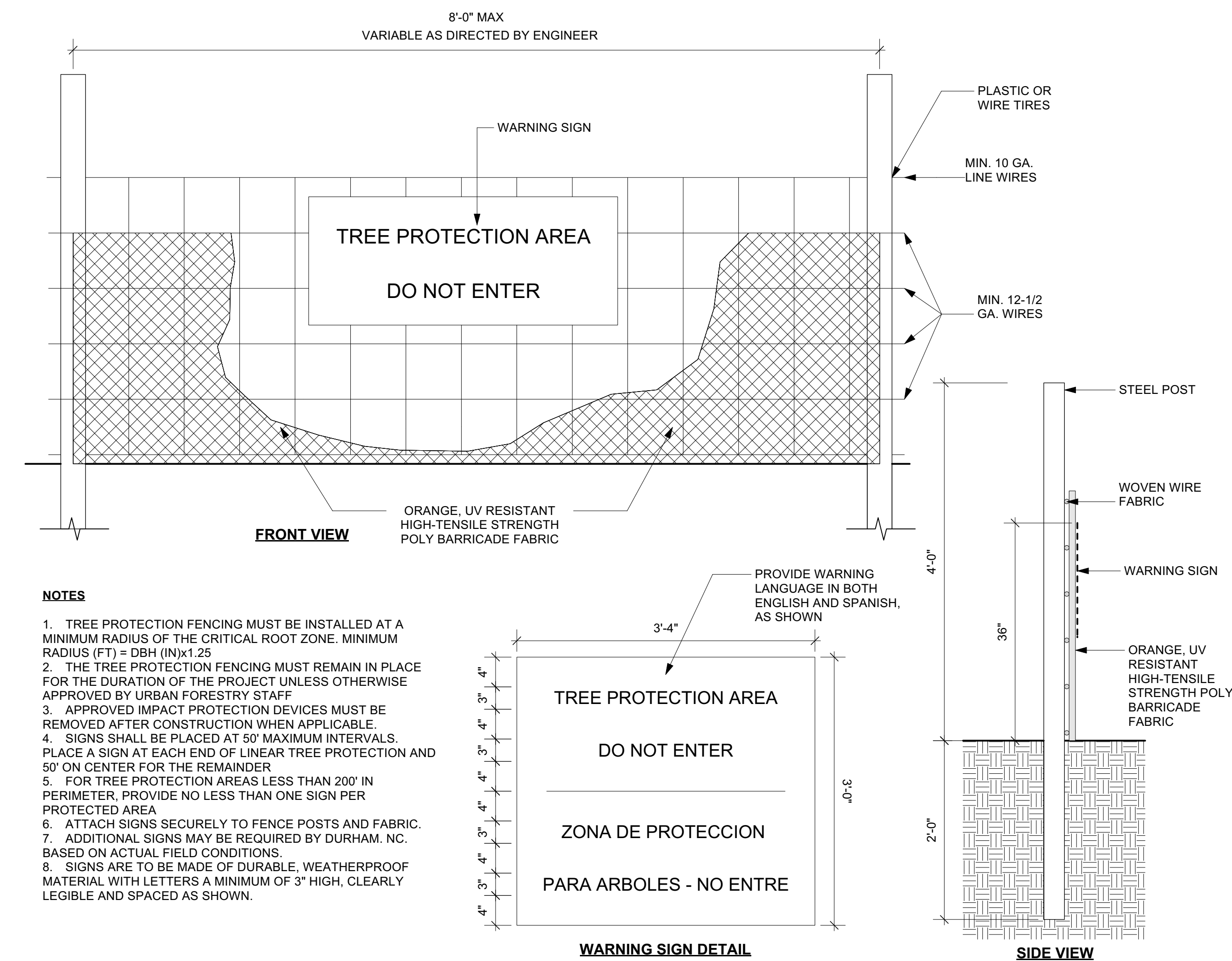
3 EVERGREEN TREE PLANTING
SCALE: NTS



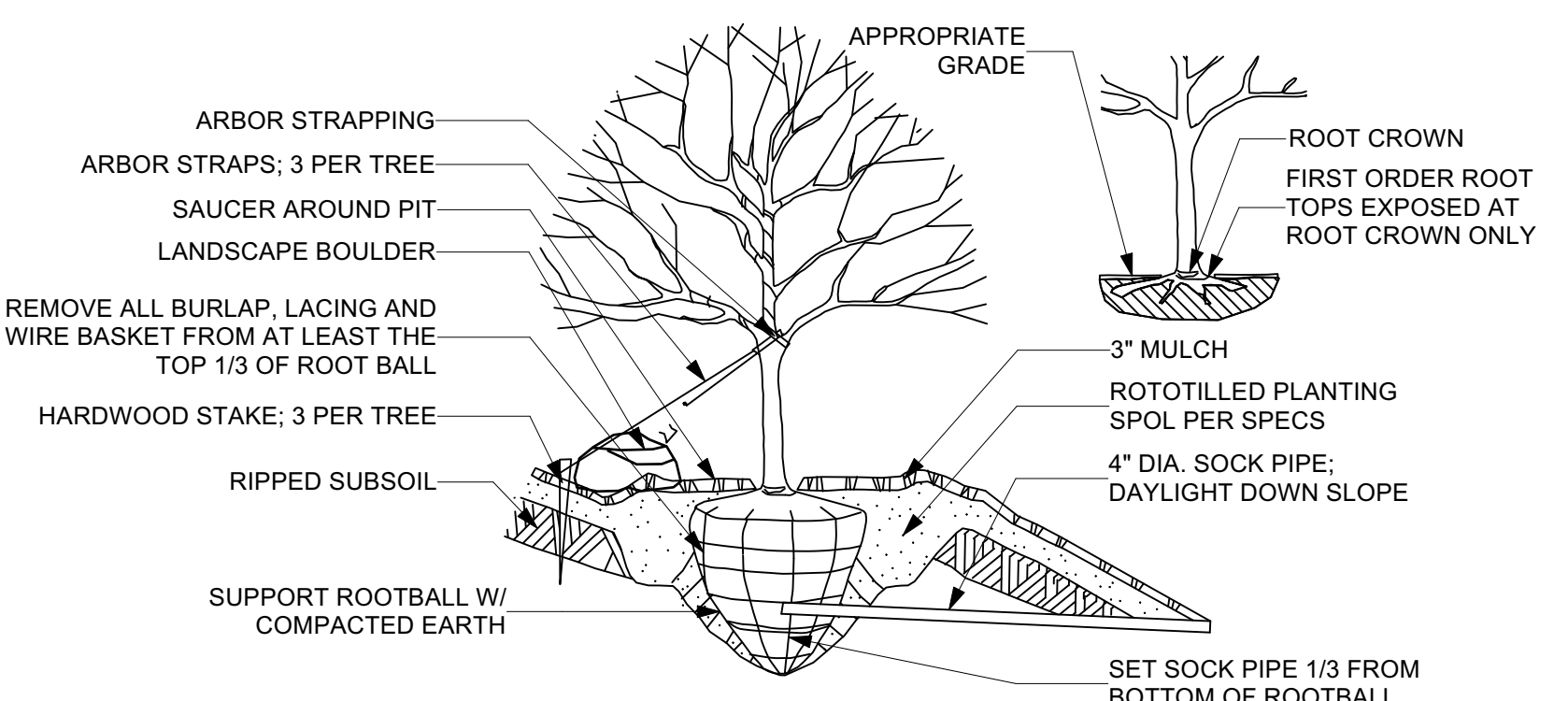
4 RAISED TREE PLANTING
SCALE: NTS



5 PLANTING BED EDGE
1" = 1'-0"



6 TREE PROTECTION FENCE
1" = 1'-0"



7 TREE PLANTING ON SLOPE
SCALE: NTS

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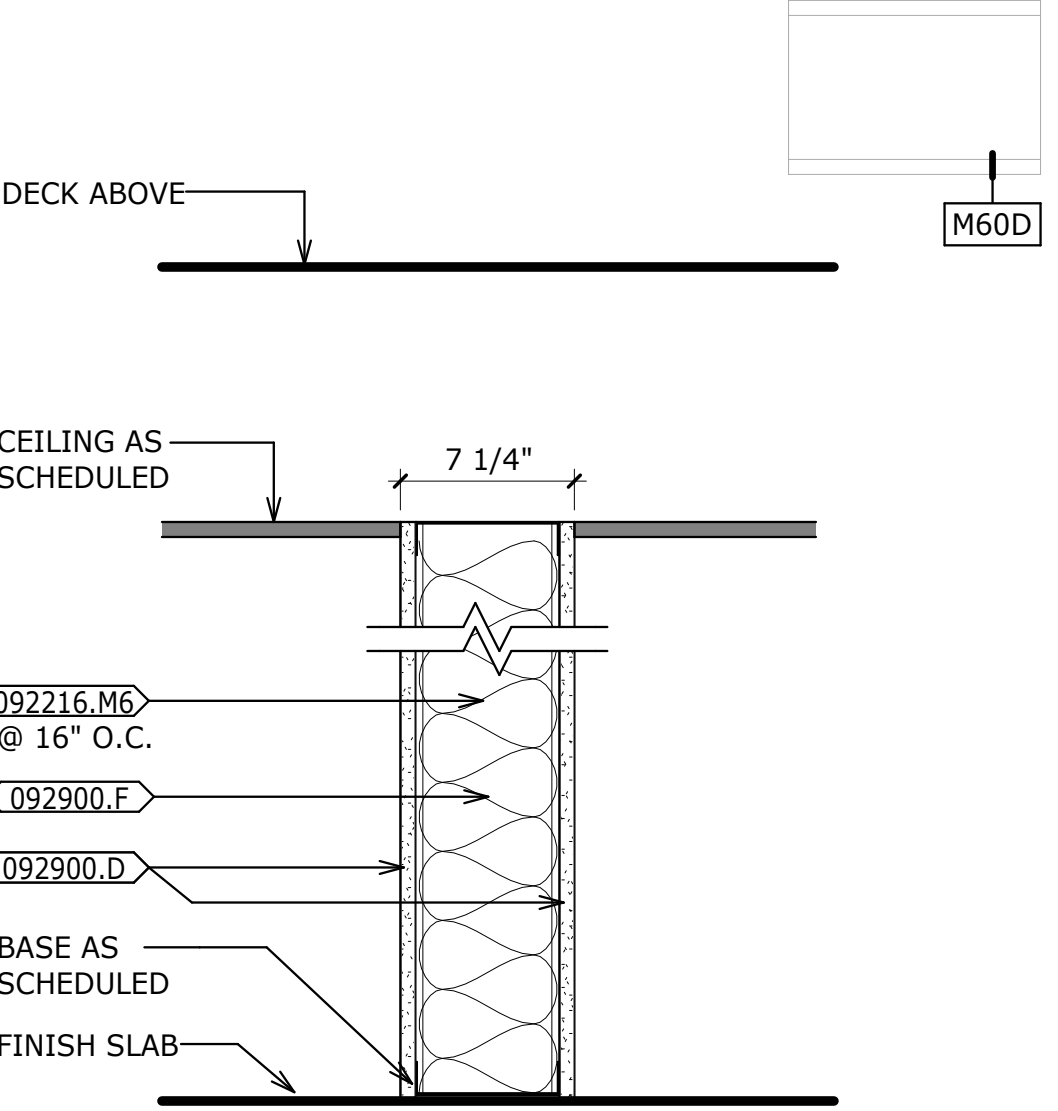
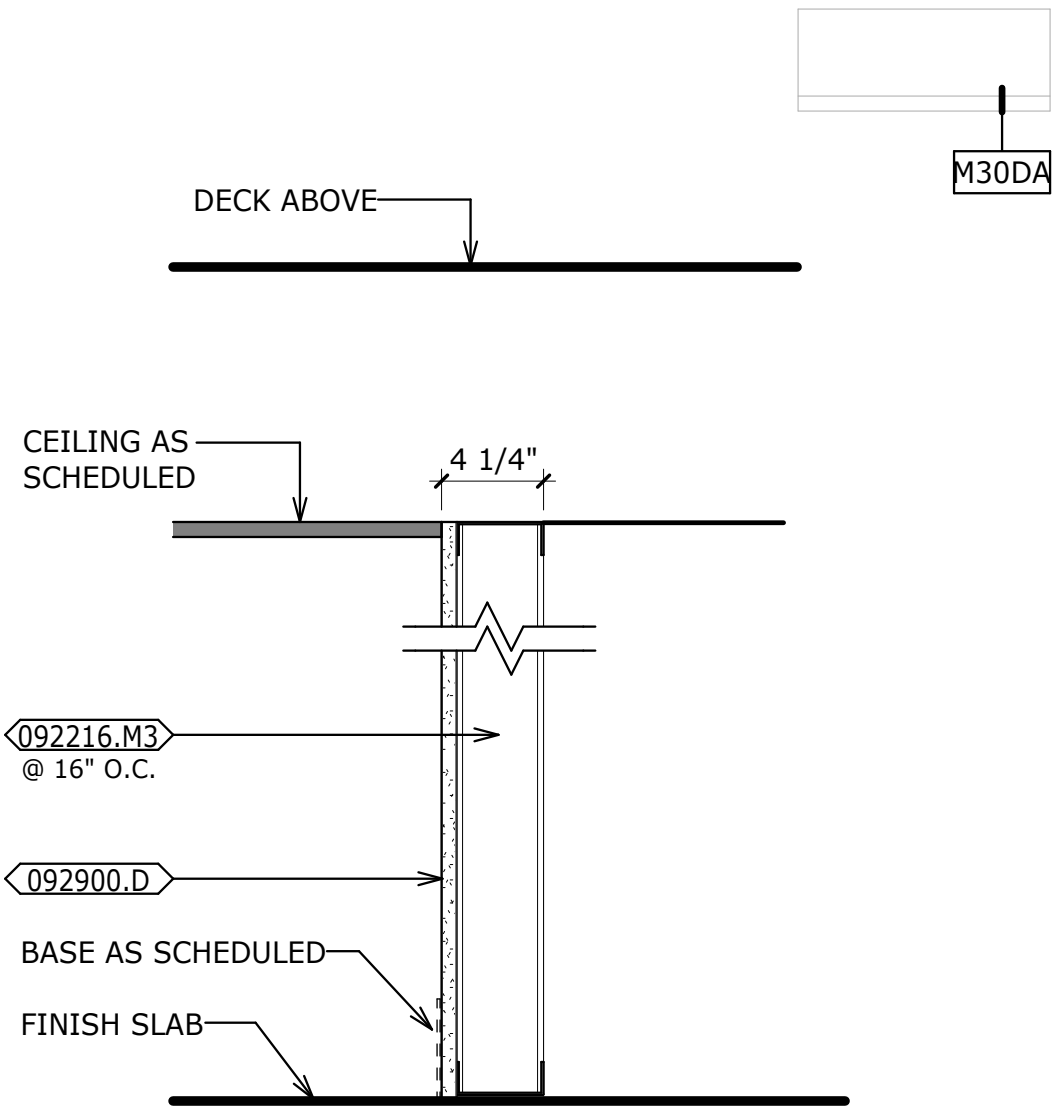
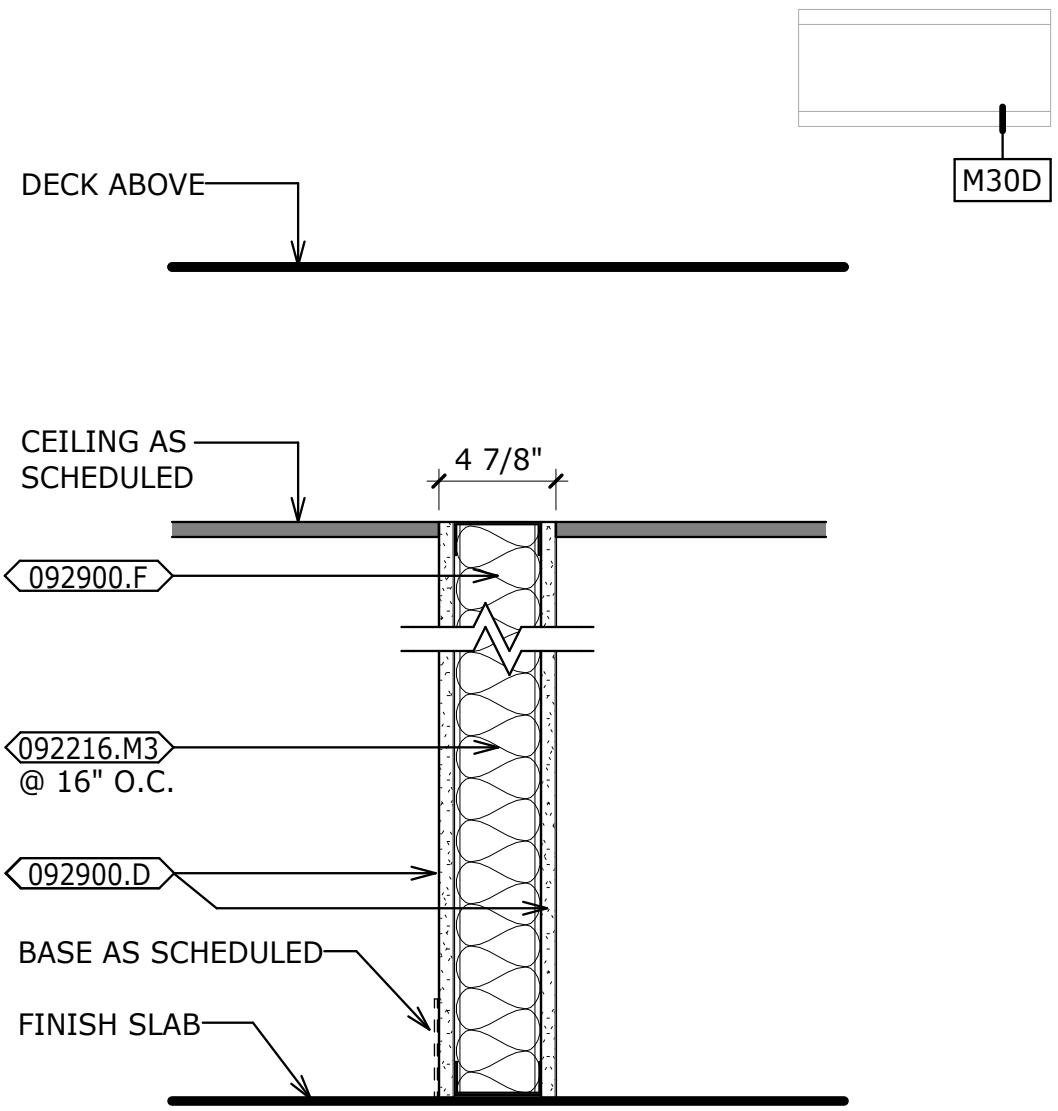
WTCC EWS - FIRE & RESCUE TRAINING CENTER
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NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
LANDSCAPE DETAILS

INTERIOR ASSEMBLIES - WALLS



M30D

3-5/8" METAL STUDS TO DECK, 5/8" GLASS-MAT BACKING BOARD BOTH SIDES

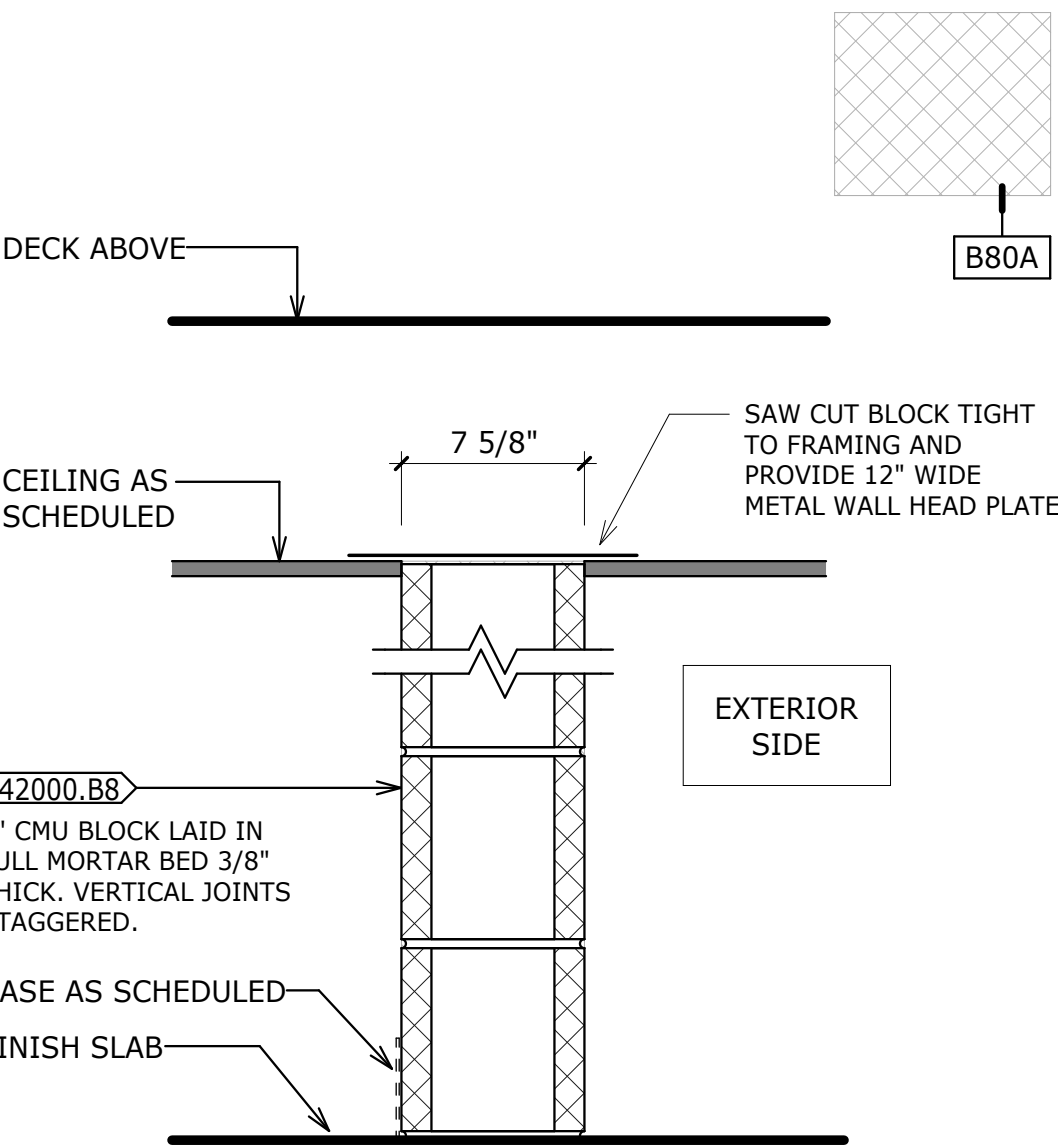
M30DA

3-5/8" METAL STUDS TO DECK, 5/8" GLASS-MAT BACKING BOARD ONE SIDE

M60D

6" METAL STUDS TO DECK, 5/8" GLASS-MAT BACKING BOARD BOTH SIDES

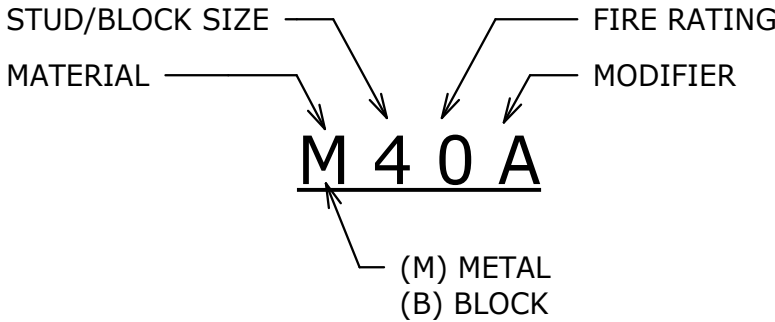
EXTERIOR WALL ASSEMBLY



B80A

8" CMU, WALL TO EXTEND TO UNDERSIDE OF DECK, U.N.O.

INTERIOR PARTITION NAMING LEGEND



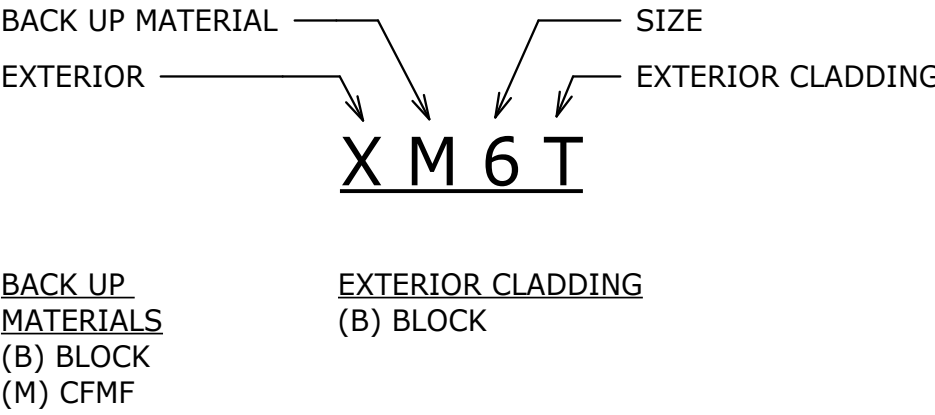
KEYNOTES

- 042000.B8 CONCRETE MASONRY UNITS, 8x8x16 NOMINAL, SEE STRUCTURAL
- 092216.M3 STEEL STUD FRAMING, 3 5/8"
- 092216.M6 STEEL STUD FRAMING, 6"
- 092900.D GLASS-MAT BACKING BOARD, 5/8"
- 092900.F SOUND ATTENUATION BLANKET

PARTITION NOTES:

- U.N.O. ALL INTERIOR PARTITIONS TO BE TYPE 'M30A'; SEE PLANS FOR PARTITION TYPES.
- SEAL PERIMETER OF ALL WALLS, TYP.
- USE 5/8" CEMENTITIOUS TILE BACKING SHEETS IN LIEU OF 5/8" GWB IN SHOWER AND RESTROOM ROOMS, TYPICAL.
- SEE FINISH SCHEDULE AND FINISH PLANS FOR WALL FINISHES.
- INTERIOR WALLS AND PARTITION FRAMING SHALL EXTEND OR BE BRACED TO THE DECK ABOVE WITH 45-DEGREE KICKERS AT A MINIMUM OF 4'-0" O.C. TO PROVIDE ADEQUATE STRENGTH AND STIFFNESS TO RESIST THE LOADS TO WHICH THEY ARE TO BE SUBJECTED BUT NO LESS THAN A HORIZ. LOAD OF 5 PSF.
- PROVIDE CONTINUOUS DEFLECTION TRACK AT ALL PARTITIONS THAT EXTEND TO UNDERSIDE OF DECKING OR STRUCTURE ABOVE.

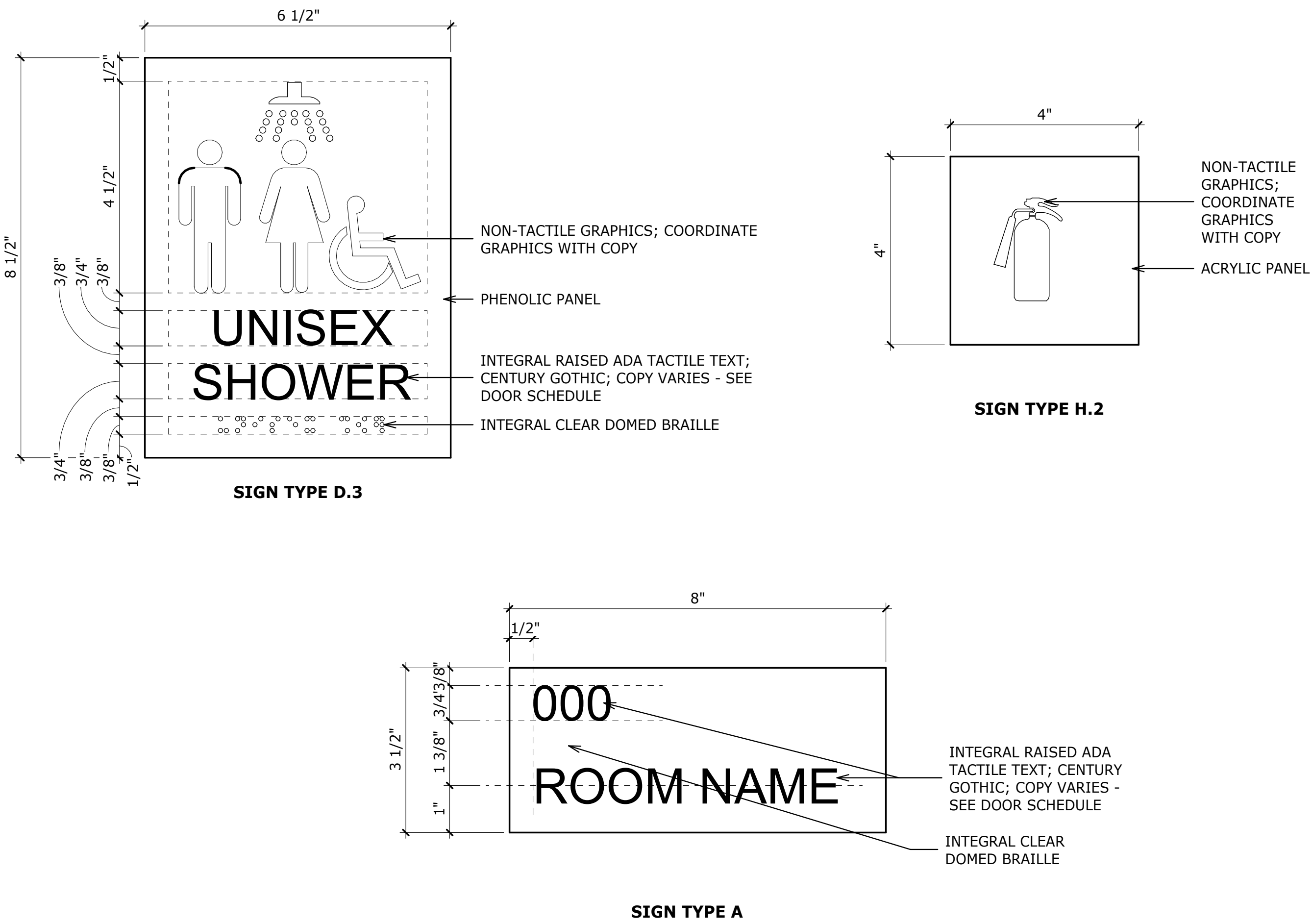
EXTERIOR WALL ASSEMBLIES NAMING LEGEND



DOOR SCHEDULE

DOOR #	ROOM	DOOR							FRAME			THR'LD	HARDWARE SET	COMMENTS
		ELEV.	WIDTH	HEIGHT	THICK	MAT'L	FINISH		ELEV.	MAT'L	FINISH			
101	SHOWER ROOM	L	3' - 0"	7' - 0"	1 3/4"	HM	PT		I	HM	PT	ALUM	004	SEE 4 & 7/A601 FOR DOOR DETAILS
102	SHOWER ROOM	L	3' - 0"	7' - 0"	1 3/4"	HM	PT		I	HM	PT	ALUM	004	SEE 4 & 7/A601 FOR DOOR DETAILS
103	TOILET ROOM	L	3' - 0"	7' - 0"	1 3/4"	HM	PT		I	HM	PT	ALUM	004	SEE 4 & 7/A601 FOR DOOR DETAILS
104	UTILITY ROOM	L	3' - 0"	7' - 0"	1 3/4"	HM	PT		I	HM	PT	ALUM	005	SEE 4 & 7/A601 FOR DOOR DETAILS
105	ELEC/ IT	L	3' - 0"	7' - 0"	1 3/4"	HM	PT		I	HM	PT	ALUM	005	SEE 4 & 7/A601 FOR DOOR DETAILS

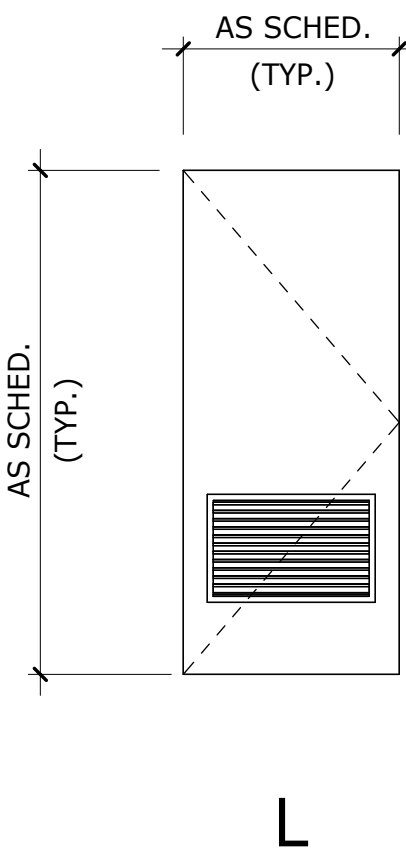
SIGNAGE TYPE DETAILS



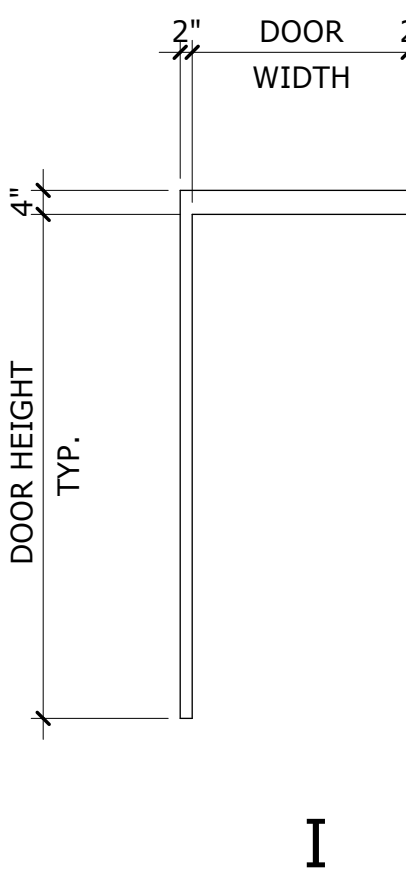
DOOR & FRAME NOTES

- SEE DETAILS FOR HEAD, JAMB, AND THRESHOLD CONDITIONS AT DOORS.
- ALL HOLLOW METAL FRAMES TO BE 2" WIDE FACE FRAME, U.N.O.
- AT RATED DOORS WITH GLAZING, PROVIDE FIRE-RATED IMPACT-SAFETY GLAZING IN ACCORDANCE WITH REQUIRED RATING; SEE SPECIFICATIONS.
- ALL GLAZING TO BE TEMPERED SAFETY GLAZING, U.N.O.
- ALL FRAMES AT MASONRY WALLS 6" DEEP, TYPICAL, U.N.O.
- EXTERIOR DOORS ARE TO BE RECESSED 1-1/2" FROM FACE OF EXTERIOR MASONRY, TYP. U.N.O.
- VERIFY FRAME DEPTH AT ALL WALL CONDITIONS.

DOOR ELEVATIONS



FRAME ELEVATIONS



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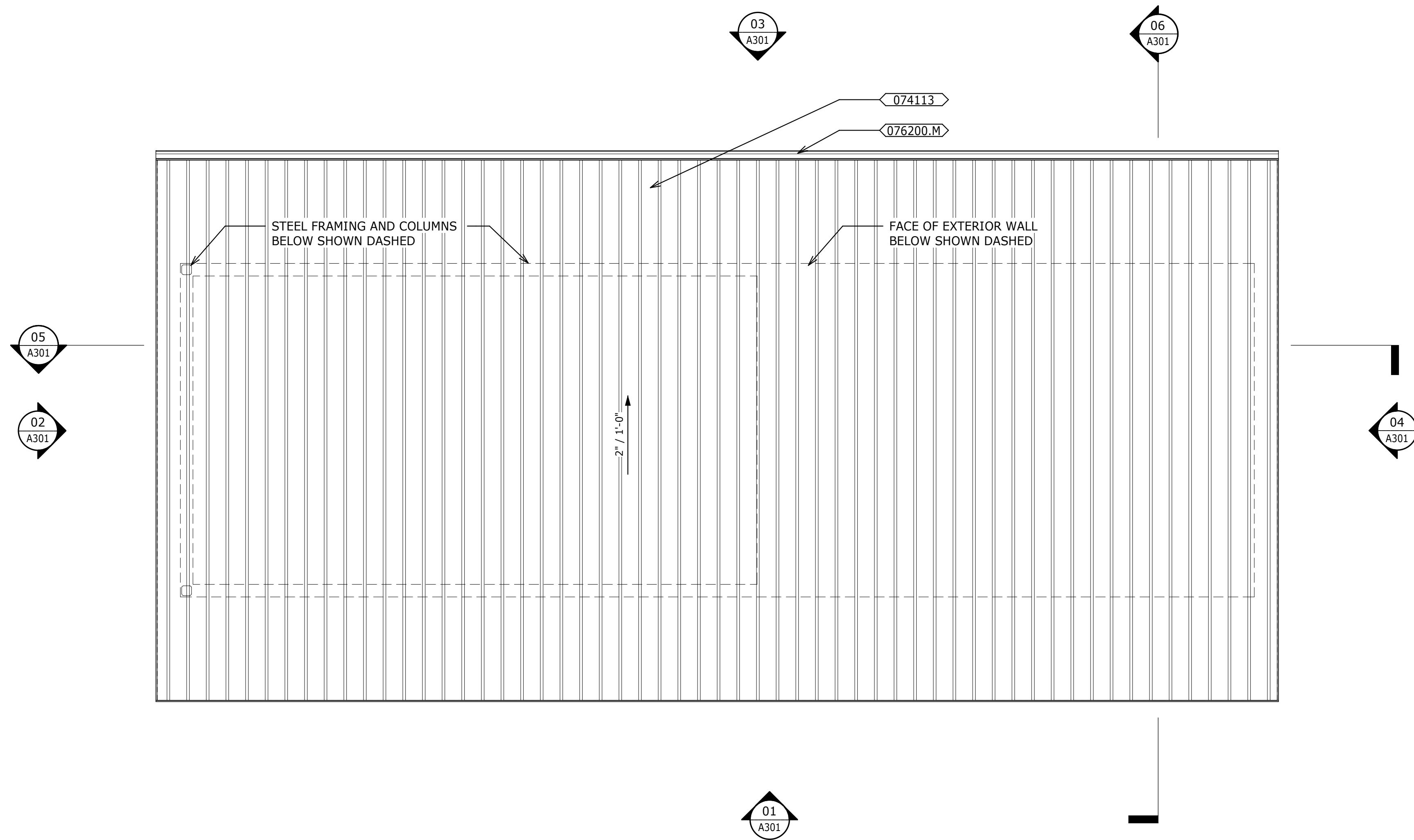


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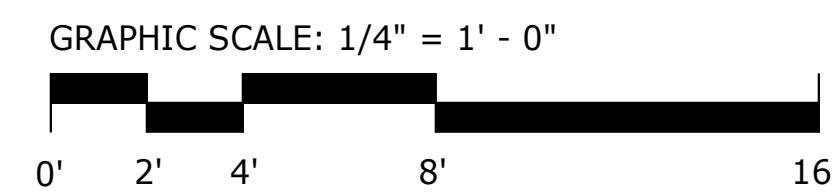
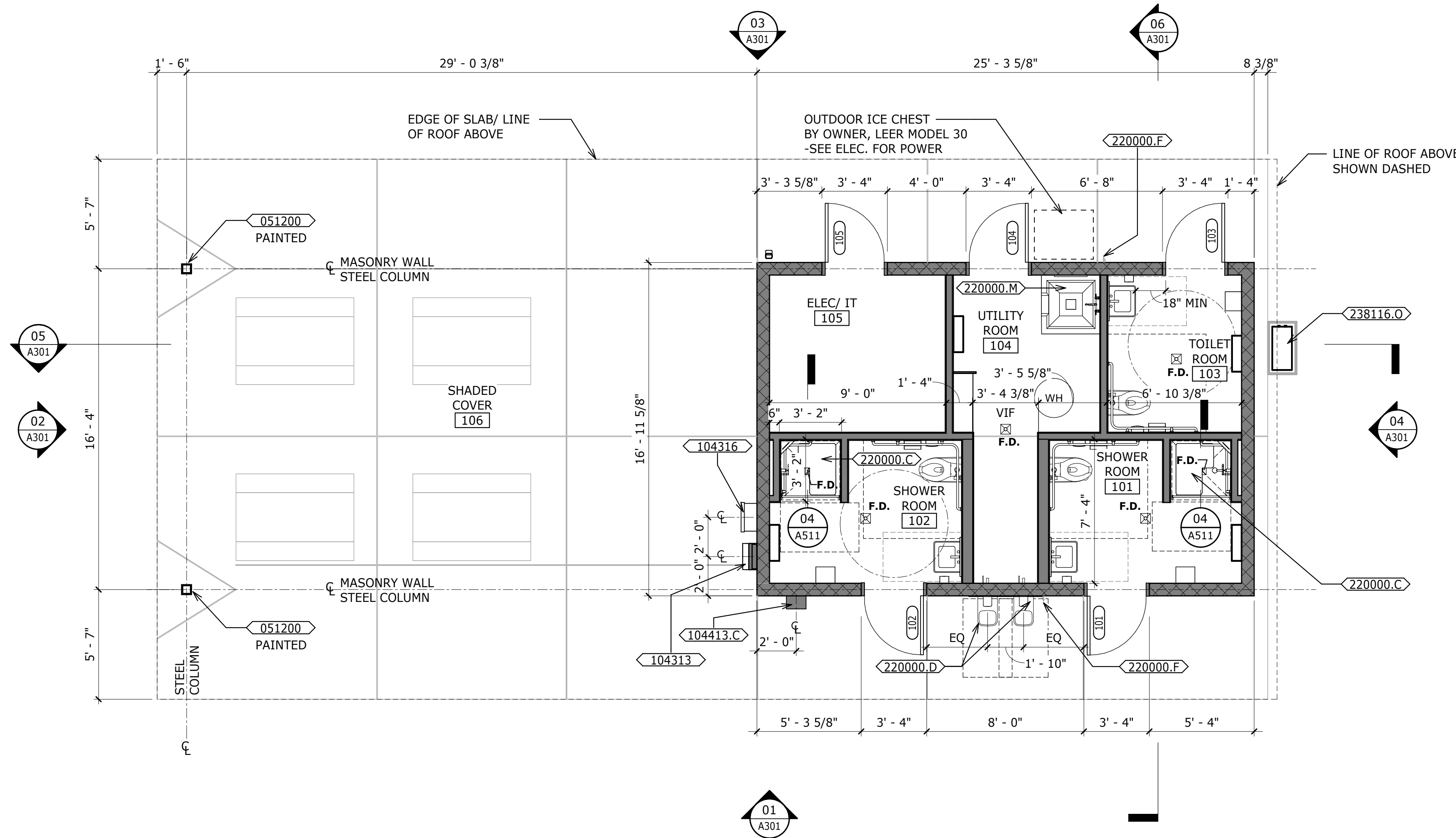
JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
WALL, DOOR, LOUVER TYPES & SIGNAGE

A001

01 ROOF PLAN - RESTROOM/SHADE STRUCTURE
1/4" = 1'-0"



02 FLOOR PLAN - RESTROOM/SHADE STRUCTURE
1/4" = 1'-0"



KEYNOTES

- 051200** STRUCTURAL STEEL FRAMING, SEE STRUCTURAL
074113 STANDING SEAM METAL ROOF SYSTEM
076200.M PREFINISHED HANGING GUTTER
104313 AED CABINET. TYPE AIVIA 200 OUTDOOR. CFCI
104316 FIRST AID CABINET/LIFE SAFETY STATIONS. TYPE AED.US SKU-L550
104413.C EXTERIOR GRADE FIRE EXTINGUISHER & CABINET. TYPE SAFETY ONE MODEL HD0C-10-SS
220000.C ACCESSIBLE SHOWER STALL & ACCESSORIES.-SLOPE STALL FLOOR TO DRAIN AND FINISH WITH EPOXY PAINT SYSTEM; SEE PLUMBING
220000.D WATER COOLER; SEE PLUMBING
220000.F FREEZE-PROOF HOSE BIBB; SEE PLUMBING
220000.M MOP SINK 36"X36"; SEE PLUMBING
238116.O DUCTLESS SPLIT SYSTEM OUTDOOR UNIT; SEE MECHANICAL

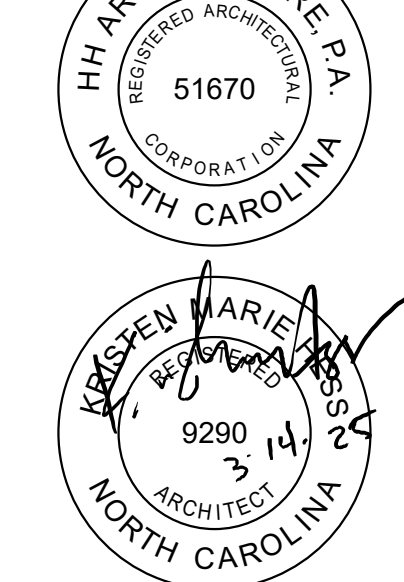
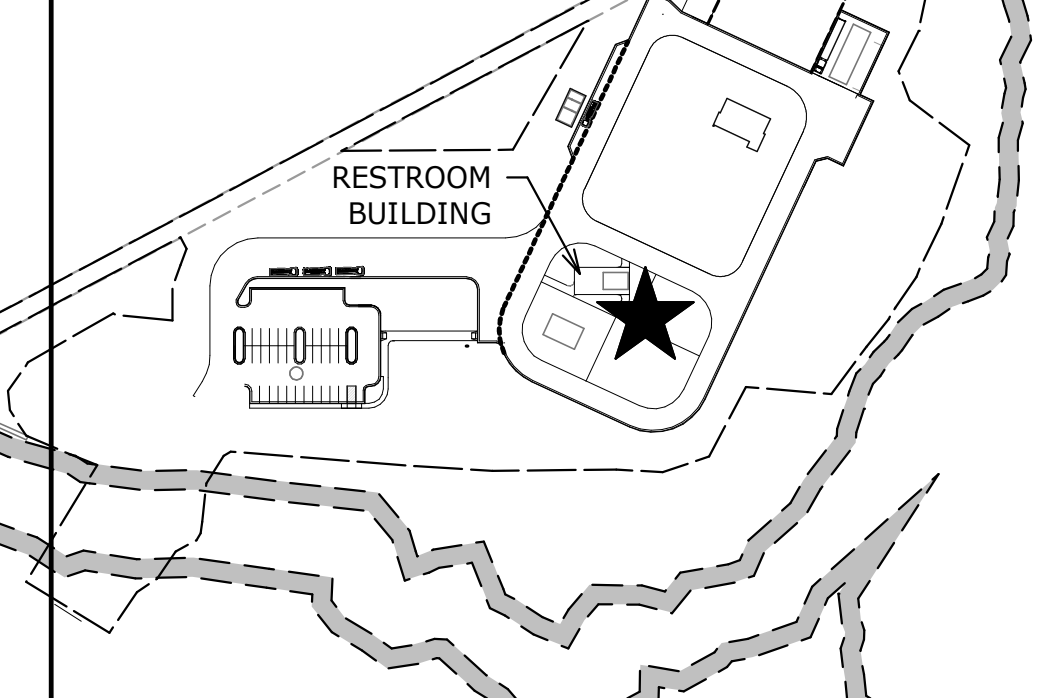
PLAN LEGEND

NEW WALL CONSTRUCTION

AREA SCHEDULE

RESTROOM/SHADE STRUCTURE (GROSS ENCLOSED): 429 SQ. FT.
ROOF: 1,722 SQ. FT.

KEY PLAN



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PROJECT STATUS
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PLANS - RESTROOM BUILDING

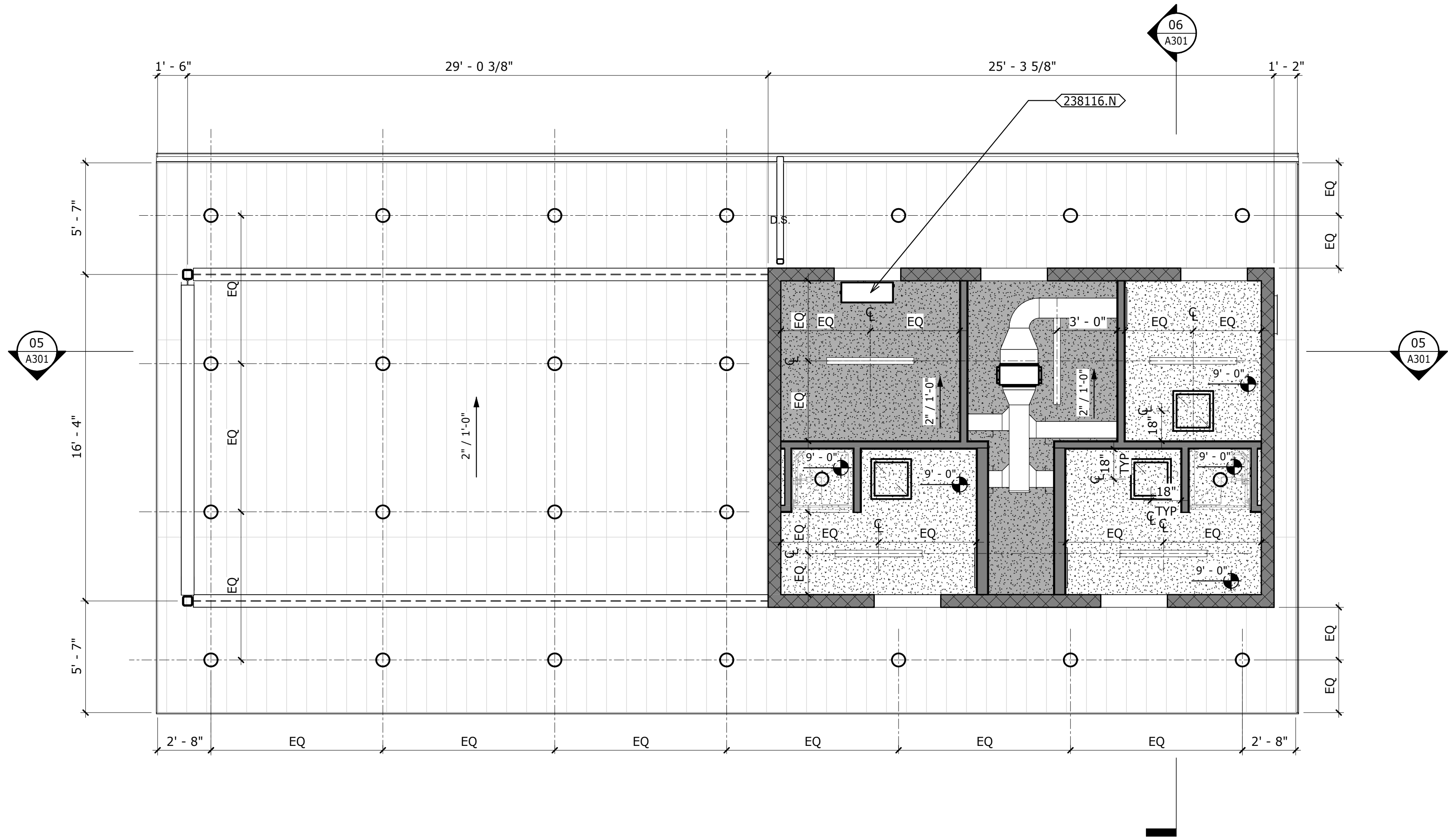
A111

HH ARCHITECTURE, P.A.
REGISTERED ARCHITECT
51670
CORPORATION
NORTH CAROLINA
KASPER MARIE
REGISTERED ARCHITECT
9290
ARCHITECT
NORTH CAROLINA
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HH
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1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com



01 REFLECTED CEILING PLAN - RESTROOM/SHADE STRUCTURE
A112 1/4" = 1'-0"

RCP GENERAL NOTES

- GC IS REQUIRED TO PROVIDE COORDINATION DRAWINGS FOR ALL MEP SYSTEMS OVERHEAD AND IN CEILINGS.
- SEE MEP SHEETS FOR ADDITIONAL CEILING NOTES.

KEYNOTES

238116.N DUCTLESS SPLIT SYSTEM INDOOR UNIT; SEE MECHANICAL

RCP LEGEND

- NEW GFRB CEILING; PAINT PT-4
-RETAIN BATT INSULATION WITHIN
JOIST SPACE ABOVE CEILING
- NEW SLOPED GFRB CEILING;
PAINT PT-4
- PRE-FINISHED METAL SOFFIT PANEL
- NEW RECESSED LIGHT FIXTURE INSTALLED
BETWEEN JOISTS; SEE ELECTRICAL
- NEW LINEAR LIGHT FIXTURE;
SEE ELECTRICAL
- MECHANICAL REGISTER;
SEE MECHANICAL

FINISH PLAN GENERAL NOTES

- ALL MATERIALS TO BE FIELD VERIFIED PRIOR TO ORDERING. DO NOT SCALE FROM DRAWINGS.
- ALL MATERIALS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS WITH APPROVED ADHESIVES.
- IF THERE ARE QUESTIONS ABOUT THE DESIGN INTENT OF ANY PATTERN OR MATERIAL TO BE INSTALLED, THE GC SHALL SUBMIT A REQUEST FOR INFORMATION TO THE DESIGNER FOR CLARIFICATION PRIOR TO ORDERING THE MATERIALS.
- THE GC SHALL PROVIDE ALL FINISHING PIECES AND TRANSITIONS WHERE DIFFERENT FLOORING THICKNESSES MEET, U.N.O. THE GC SHALL SUBMIT A SAMPLE OF THE COLOR/FINISH TO THE DESIGNER FOR APPROVAL.
- ALL WALLS TO BE FIELD PAINT, EPX-1, U.N.O. ALL GYP. BD. PARTITIONS TO RECEIVE A LEVEL 4 FINISH.
- ALL INTERIOR DOOR FRAMES EXPOSED STEEL STRUCTURE TO RECEIVE PAINT IN GLOSS FINISH, PT-2, U.N.O.
- ALL INTERIOR GYP. BD. PARTITIONS TO RECEIVE RUBBER BASE, RB-1, U.N.O.

FINISH PLAN KEY

- EPX-F RESINOUS EPOXY FLOOR SYSTEM WITH
4" COVE WALL BASE -
- SC SEALED CONCRETE

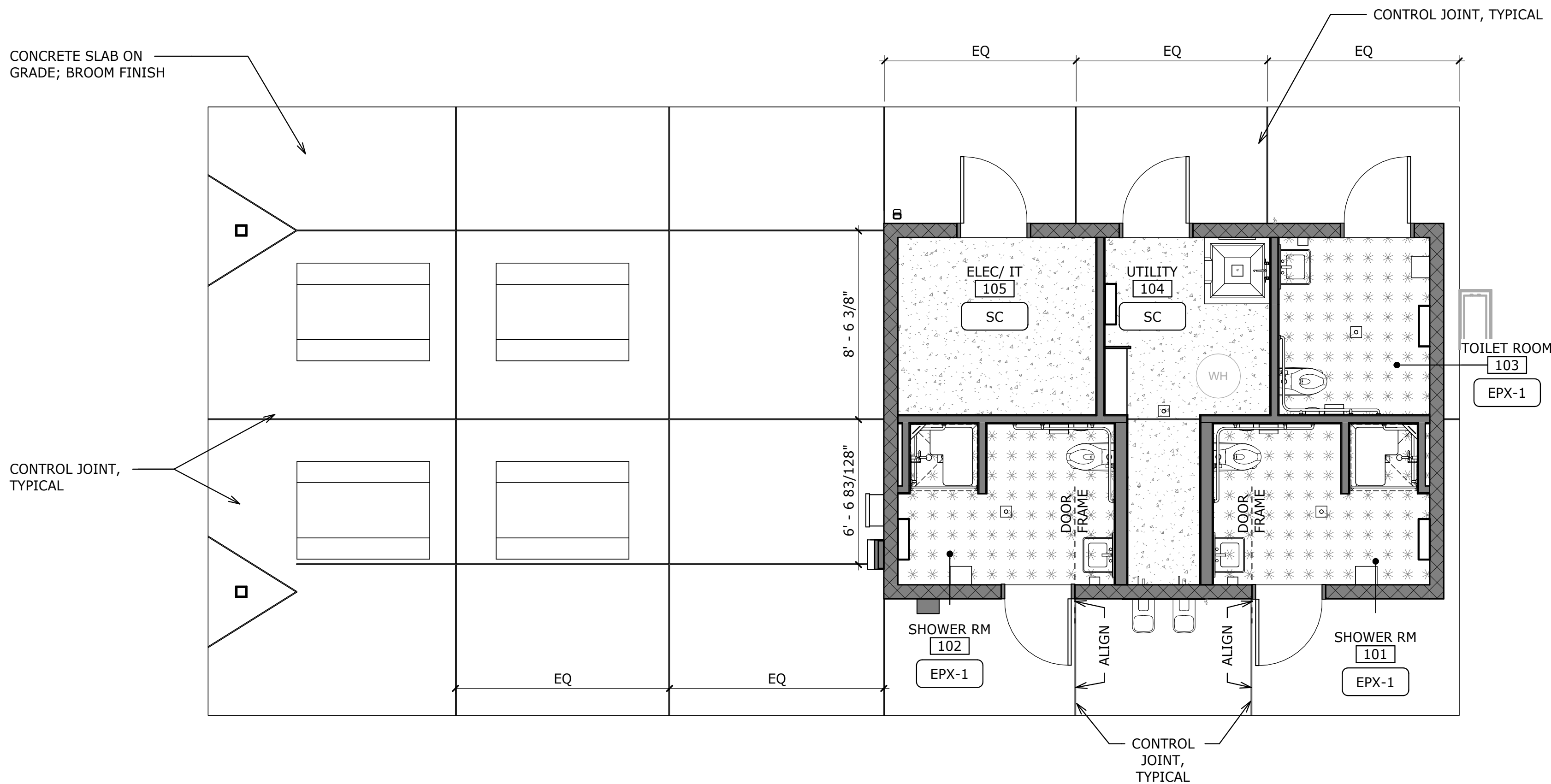
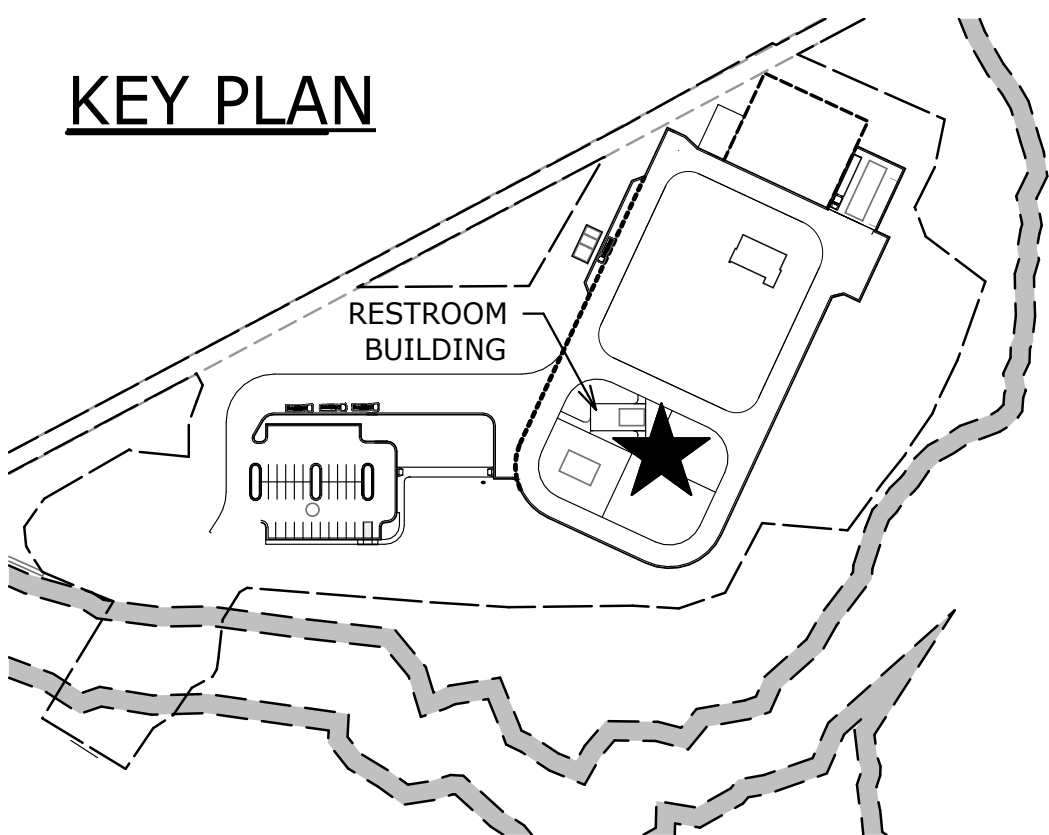
FINISH PLAN LEGEND

- ACCENT PAINT CALLOUT
- WALL TILE

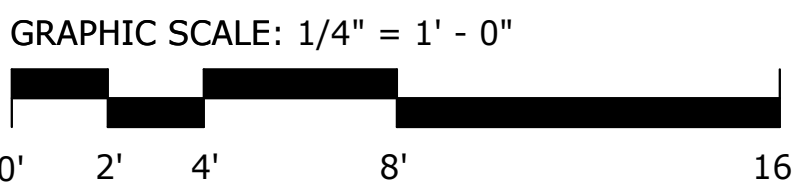
FINISH SCHEDULE

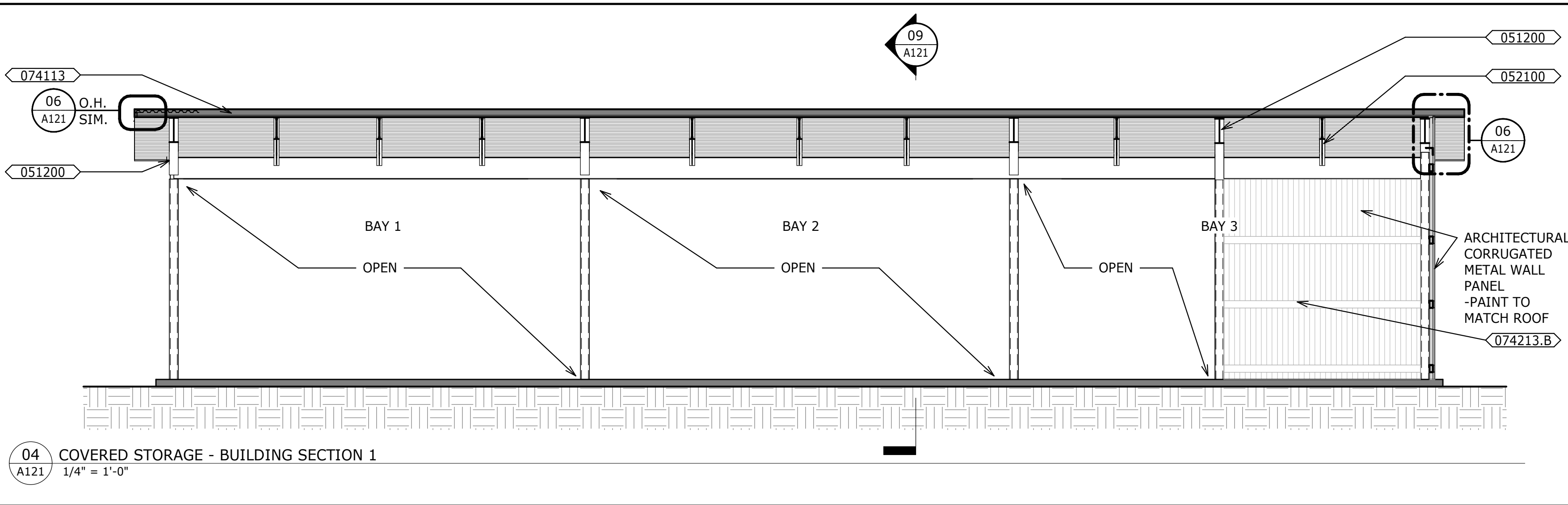
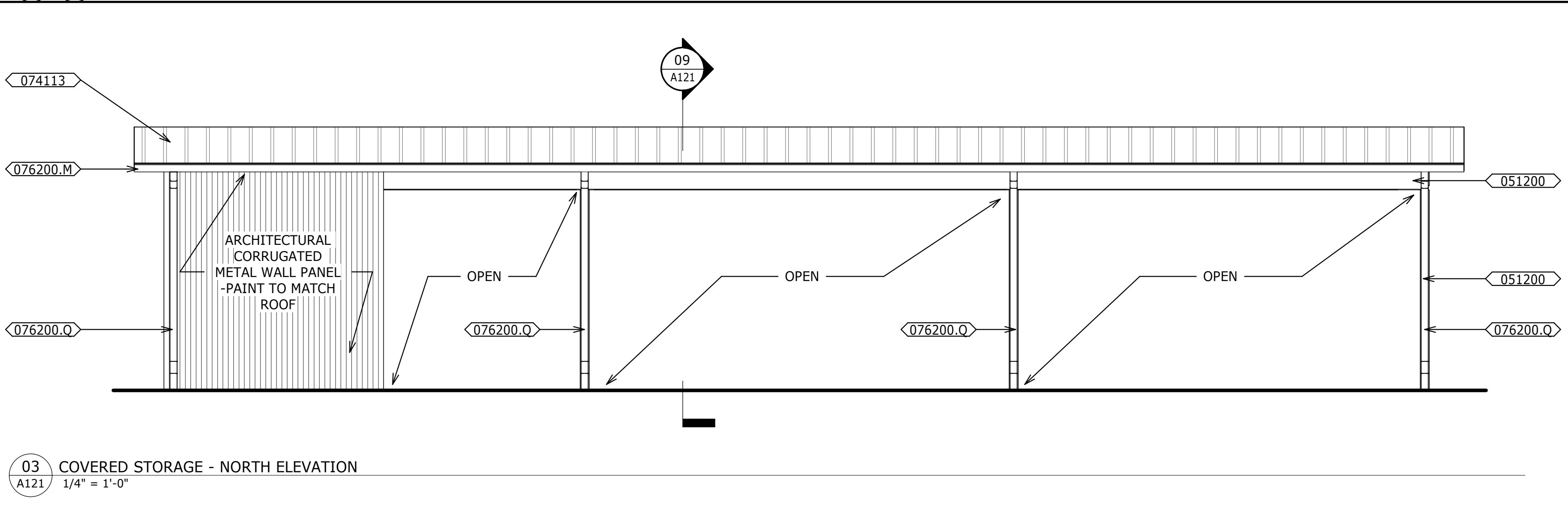
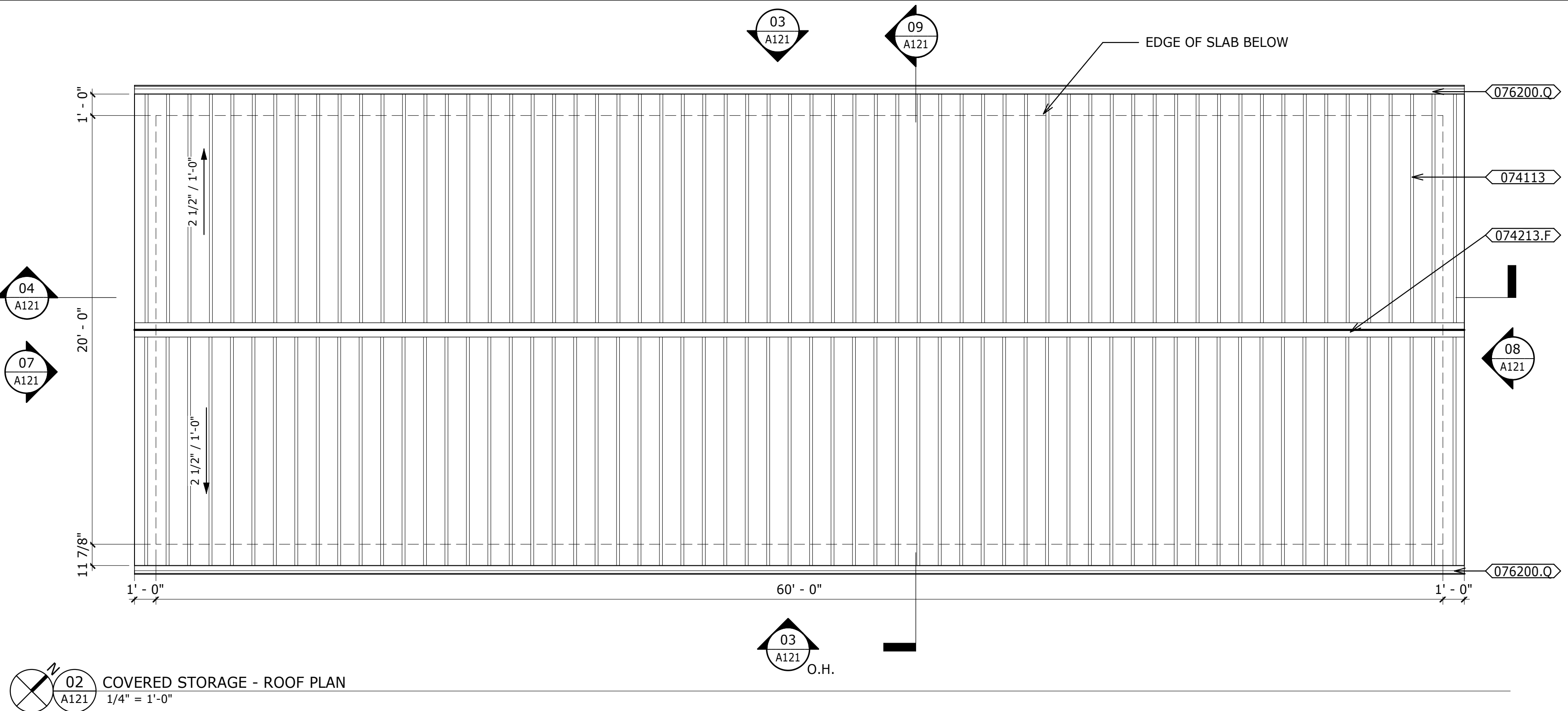
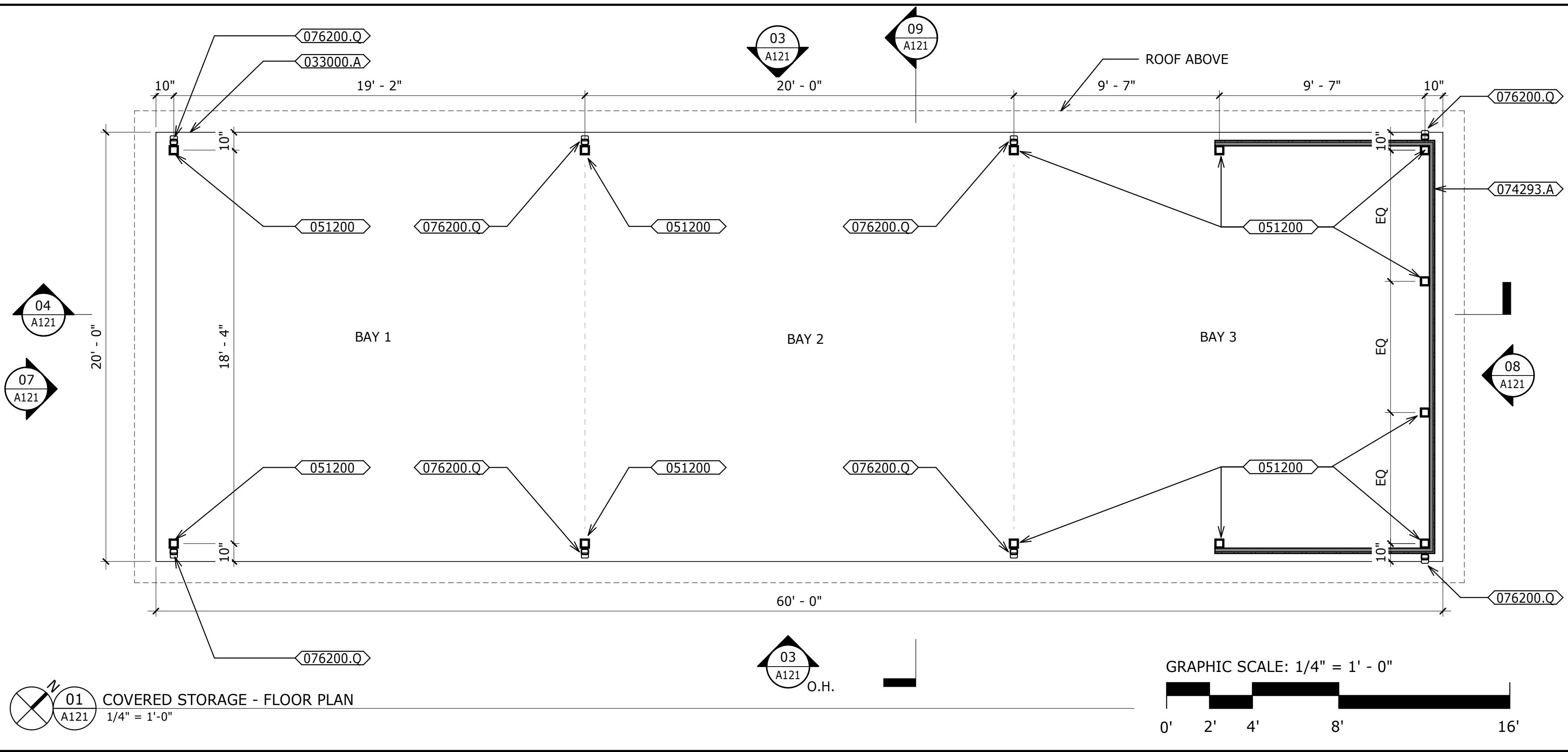
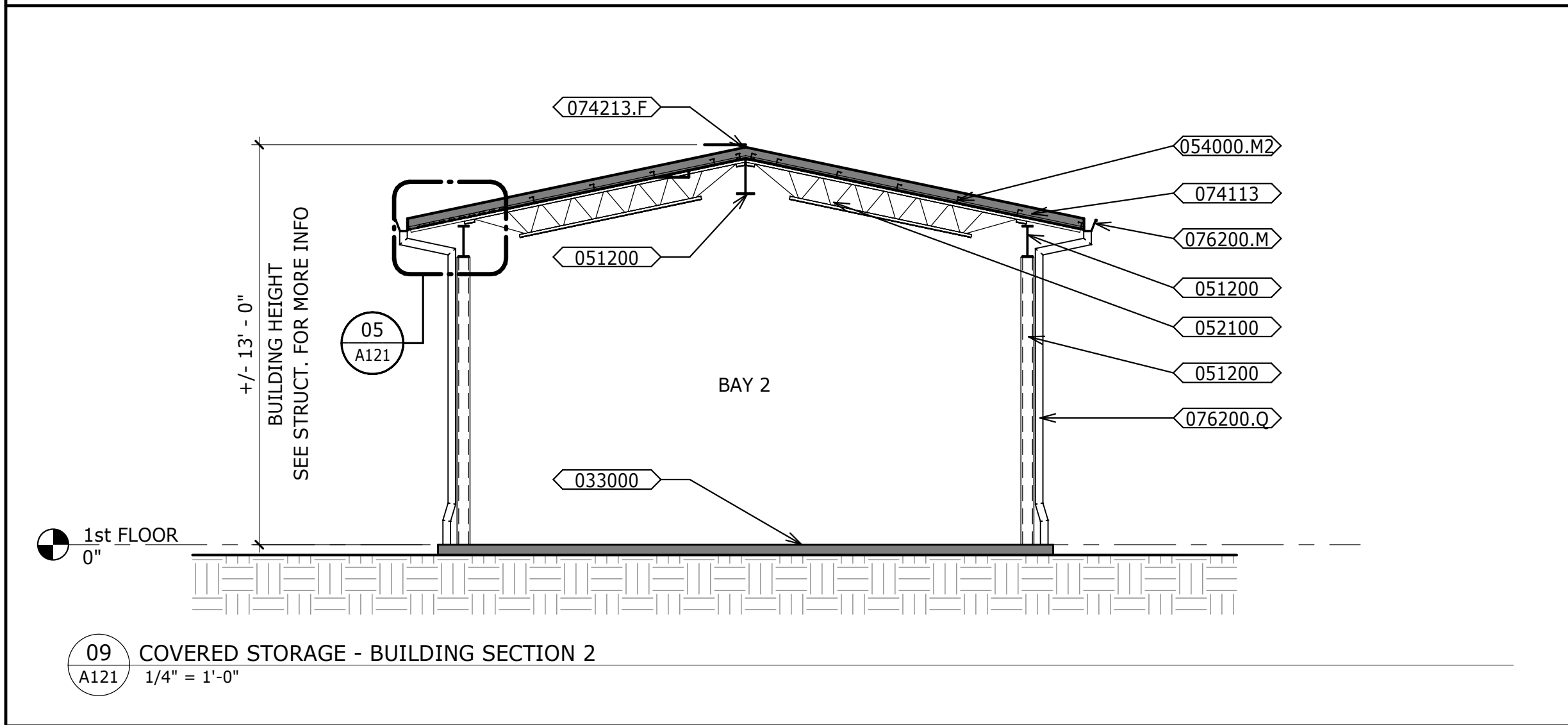
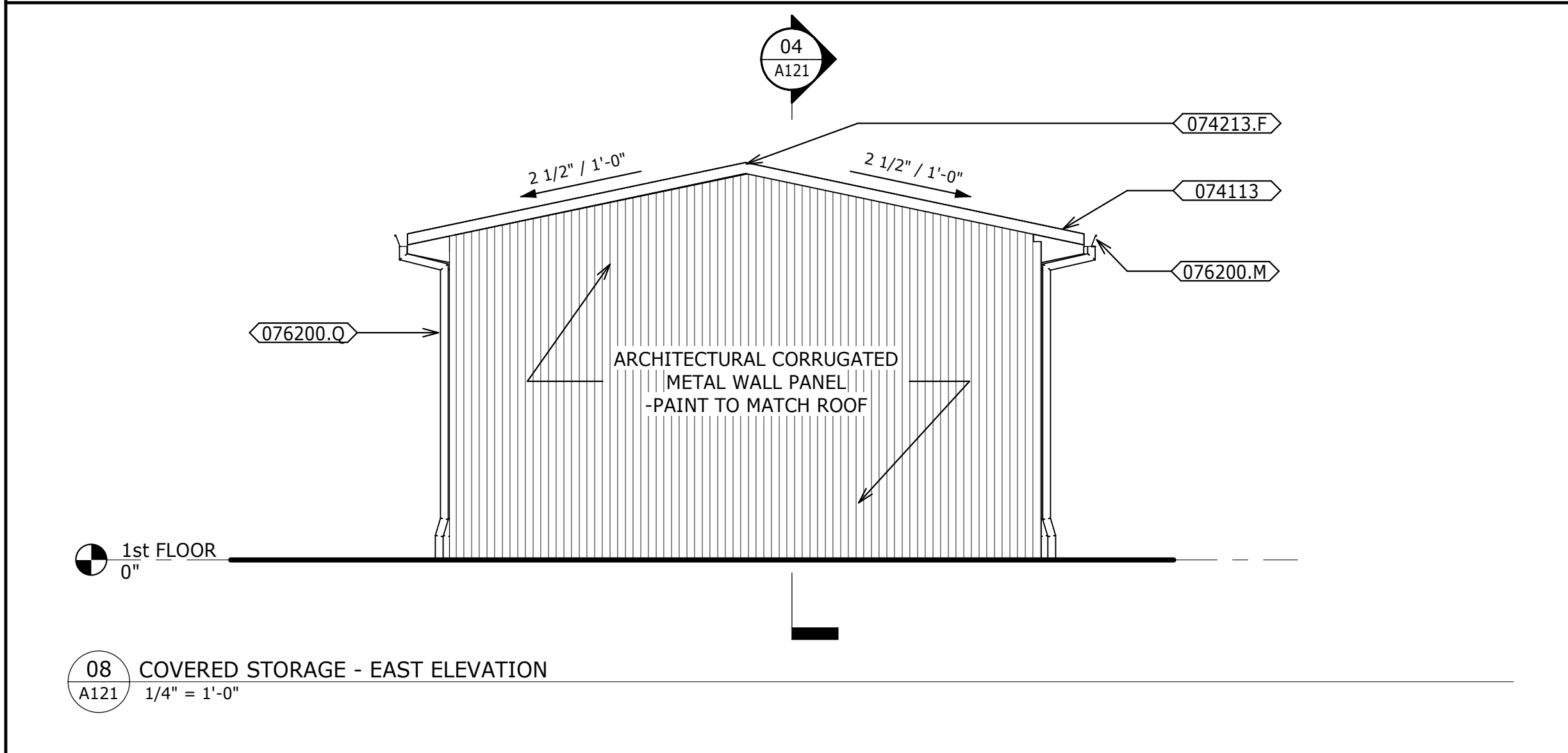
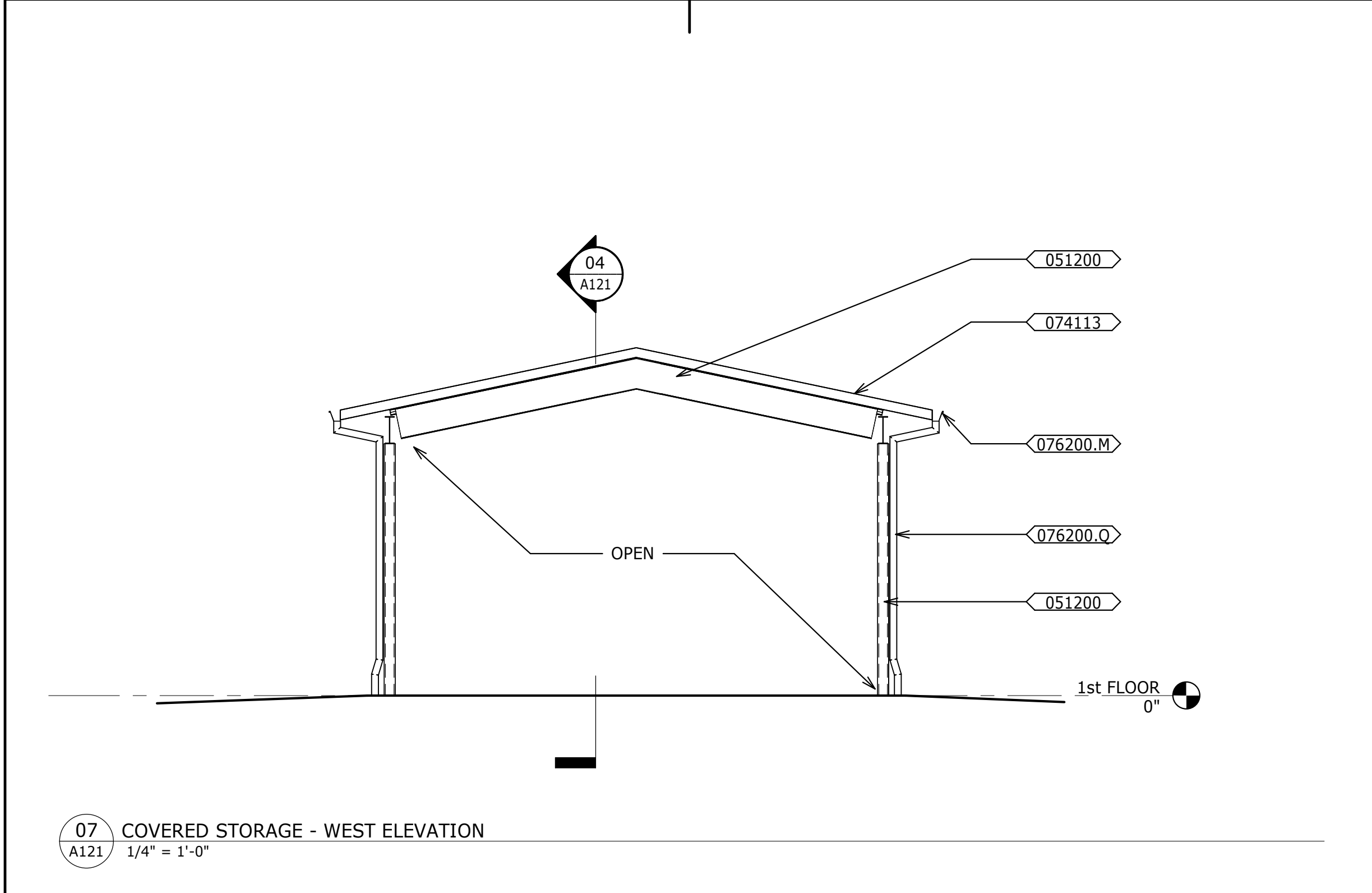
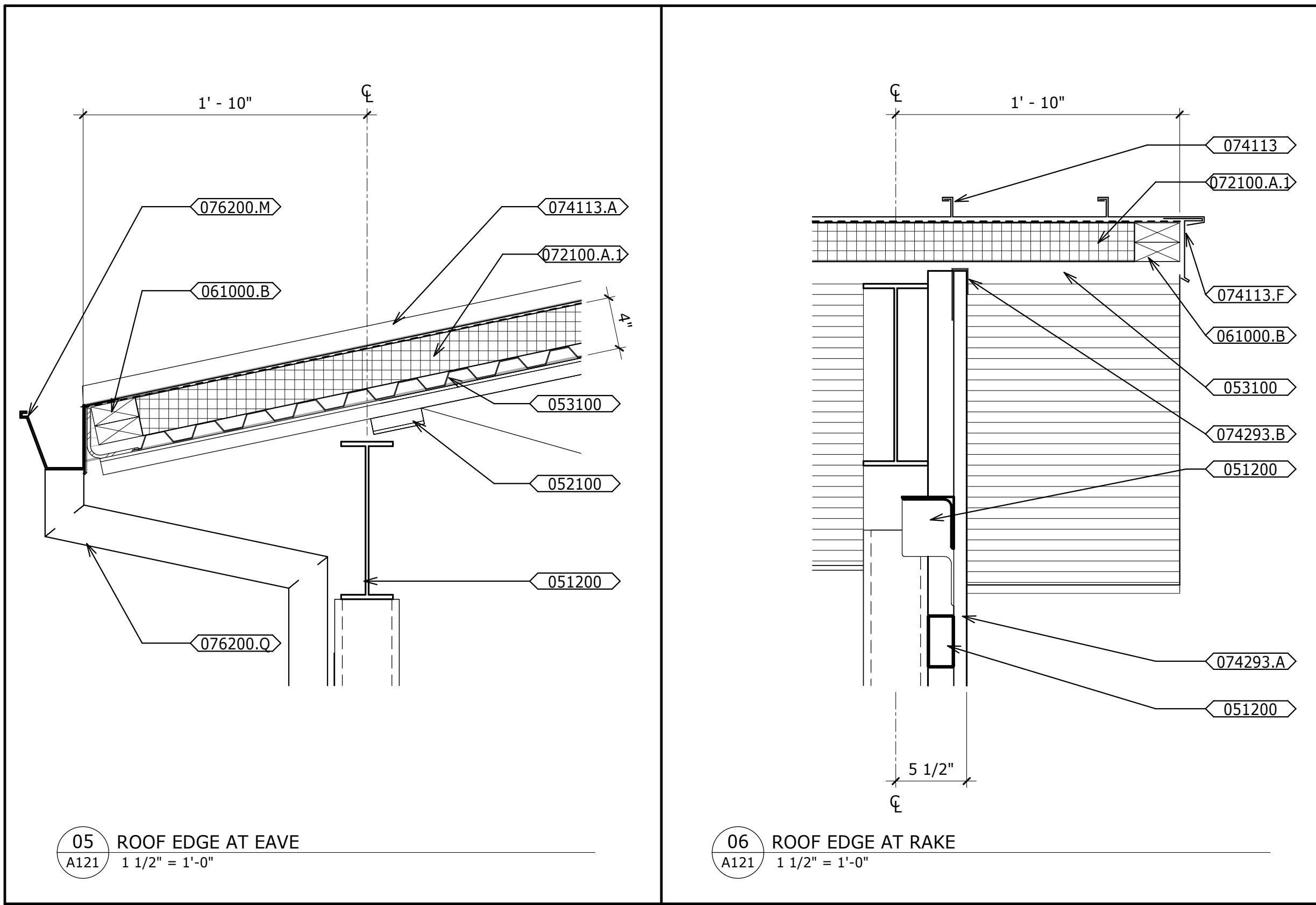
ROOM #	ROOM NAME	BASE	FLOOR	WALL	CEILING
101	SHOWER ROOM	EB-1	EPX-1	EPX-1	EPX-1
102	SHOWER ROOM	EB-1	EPX-1	EPX-1	EPX-1
103	TOILET ROOM	EB-1	EPX-1	EPX-1	EPX-1
104	UTILITY ROOM	NONE	SC	PT-1	PT-1
105	ELEC/ IT	RB	SC	PT-1	PT-1
106	SHADED COVER	RB	SC	CMU	PREFIN
121	BAY 1	NONE	SC	PT-2	PT-2
122	BAY 2	NONE	SC	PT-2	PT-2
123	BAY 3	NONE	SC	PT-2	PT-2

KEY PLAN



02 FINISH PLAN - RESTROOM/SHADE STRUCTURE
A112 1/4" = 1'-0"



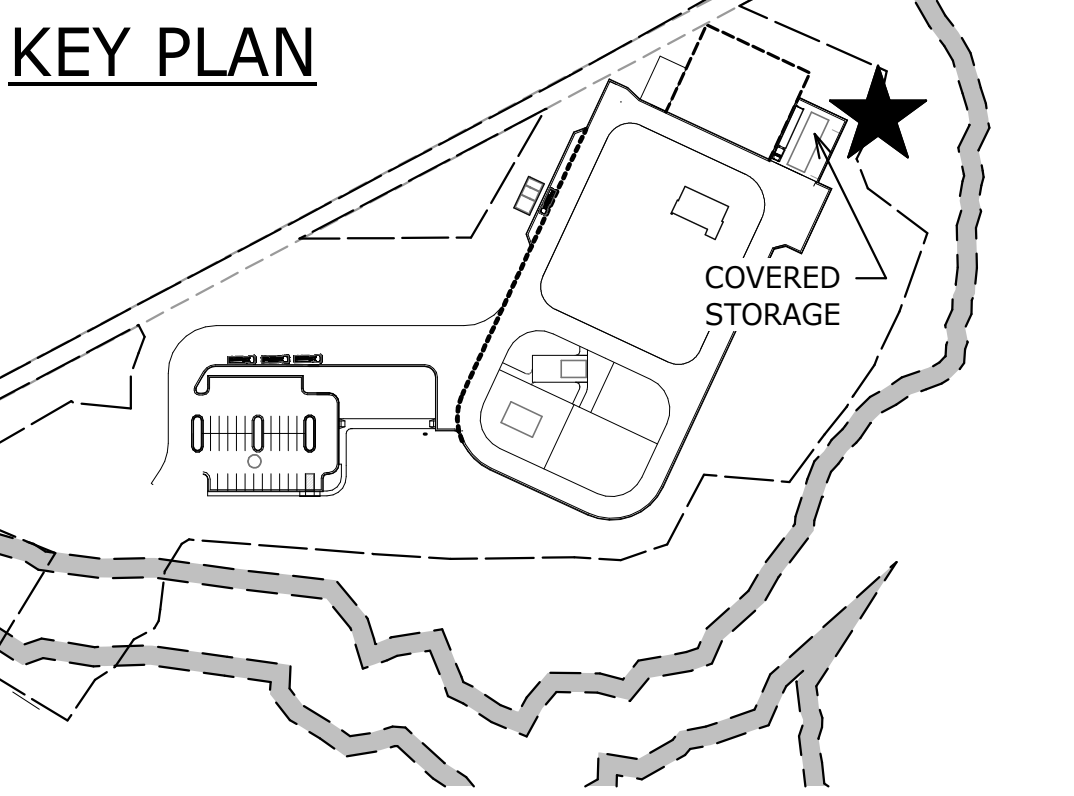


- ### KEYNOTES
- 033000 CAST-IN-PLACE CONCRETE
 - 033000.A CAST-IN-PLACE CONCRETE, SEE STRUCTURAL
 - 051200 STRUCTURAL STEEL FRAMING, SEE STRUCTURAL
 - 052100 STEEL JOIST FRAMING, SEE STRUCTURAL
 - 053100 STEEL DECKING, SEE STRUCTURAL
 - 054000.M2 COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 2 1/2"
 - 061000.B P.T. WOOD BLOCKING
 - 072100.A.1 EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD (XPS), R-7.5
 - 074113 STANDING SEAM METAL ROOF SYSTEM
 - 074113.A STANDING SEAM METAL ROOF PANELS
 - 074113.F PREFINISHED METAL FASCIA WITH DRIP EDGE
 - 074213.B SUB-FRAMING & FURRING
 - 074213.F ROOF PANEL METAL RIDGE CAP
 - 074293.A METAL SOFFIT PANELS
 - 074293.B METAL SOFFIT PANEL FLASHING & TRIM
 - 076200.M PREFINISHED HANGING GUTTER
 - 076200.Q PREFINISHED DOWNSPOUT

- ### PLAN LEGEND
- NEW WALL CONSTRUCTION

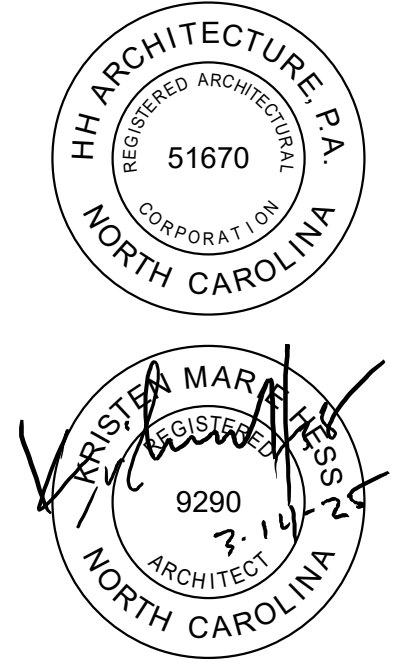
AREA SCHEDULE

BURN BUILDING STORAGE: 1,200 SQ. FT.
ROOF: 1,393 SQ. FT.



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JOB NUMBER
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DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
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PLANS, ELEVATIONS & SECTIONS - COVERED STORAGE

A121

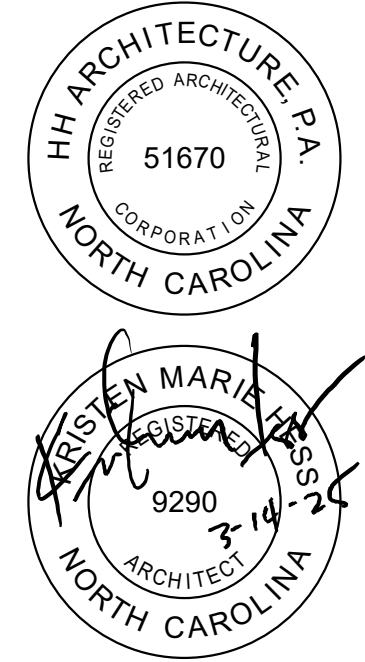
KEYNOTES

- 042000 UNIT MASONRY
- 051200 STRUCTURAL STEEL FRAMING, SEE STRUCTURAL
- 074113 STANDING SEAM METAL ROOF SYSTEM
- 076200.M PREFINISHED HANGING GUTTER
- 076200.Q PREFINISHED DOWNSPOUT
- 081113 HOLLOW METAL DOORS AND FRAMES
- 089119.A FIXED LOUVER
- 092900.K GLASS-MAT CEILING BOARD, 5/8"
- 102800.07 SOAP DISPENSER; OWNER PROVIDED, OWNER INSTALLED
- 102800.16 MIRROR UNIT
- 104313 AED CABINET. TYPE AVIA 200 OUTDOOR. CFCI
- 104316 FIRST AID CABINET/LIFE SAFETY STATIONS. TYPE AED.US SKU:LSSO
- 104413.C EXTERIOR GRADE FIRE EXTINGUISHER & CABINET. TYPE SAFETY ONE MODEL HD0C-10-SS
- 220000.D WATER COOLER; SEE PLUMBING
- 233100.1 FREEZE-PROOF HOSE BIBB; SEE PLUMBING
- 238116.0 EXHAUST DUCT; SEE MECHANICAL
- 265000.A DUCTLESS SPLIT SYSTEM OUTDOOR UNIT; SEE MECHANICAL
- 265000.A LINEAR LIGHT FIXTURE; SEE ELECTRICAL

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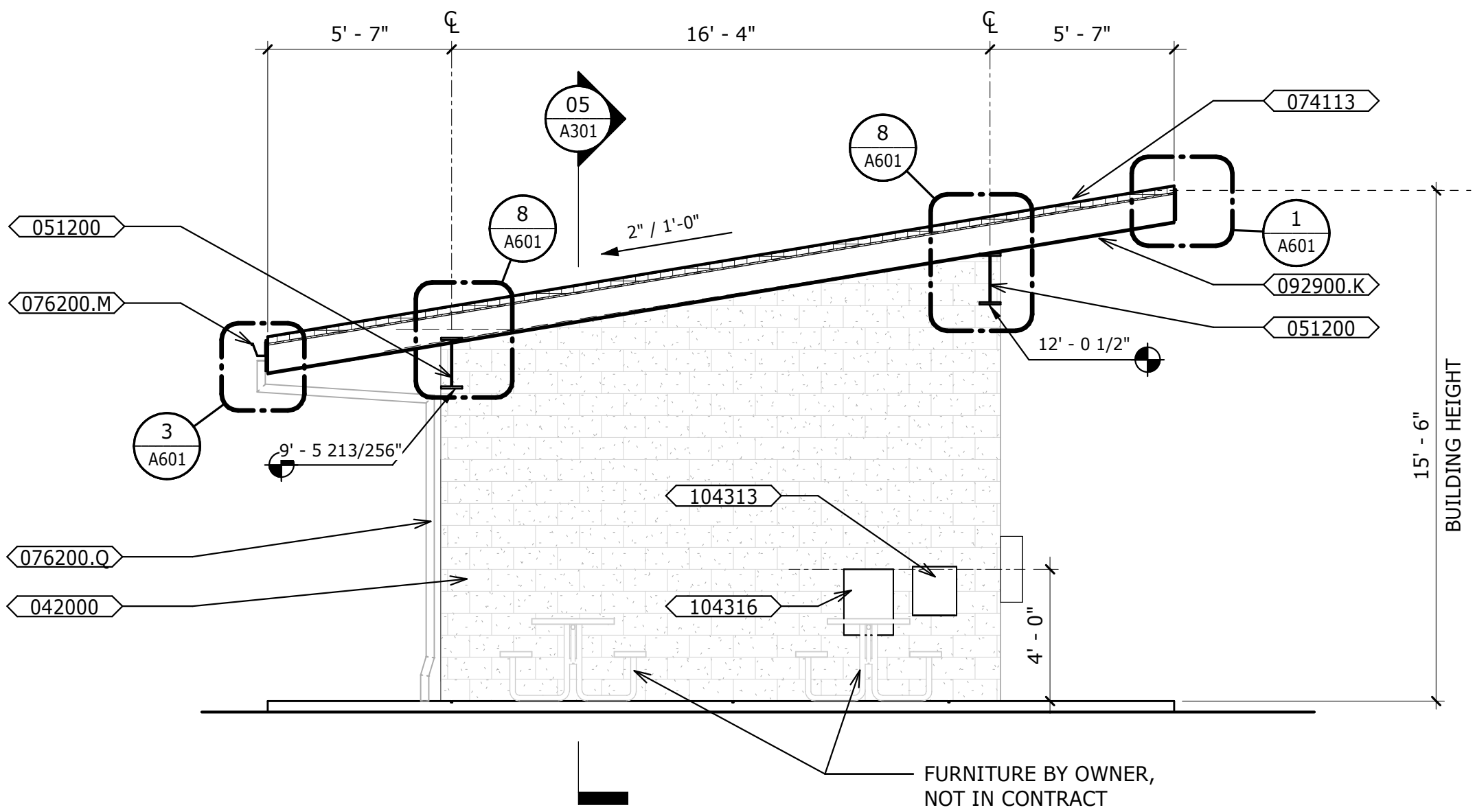


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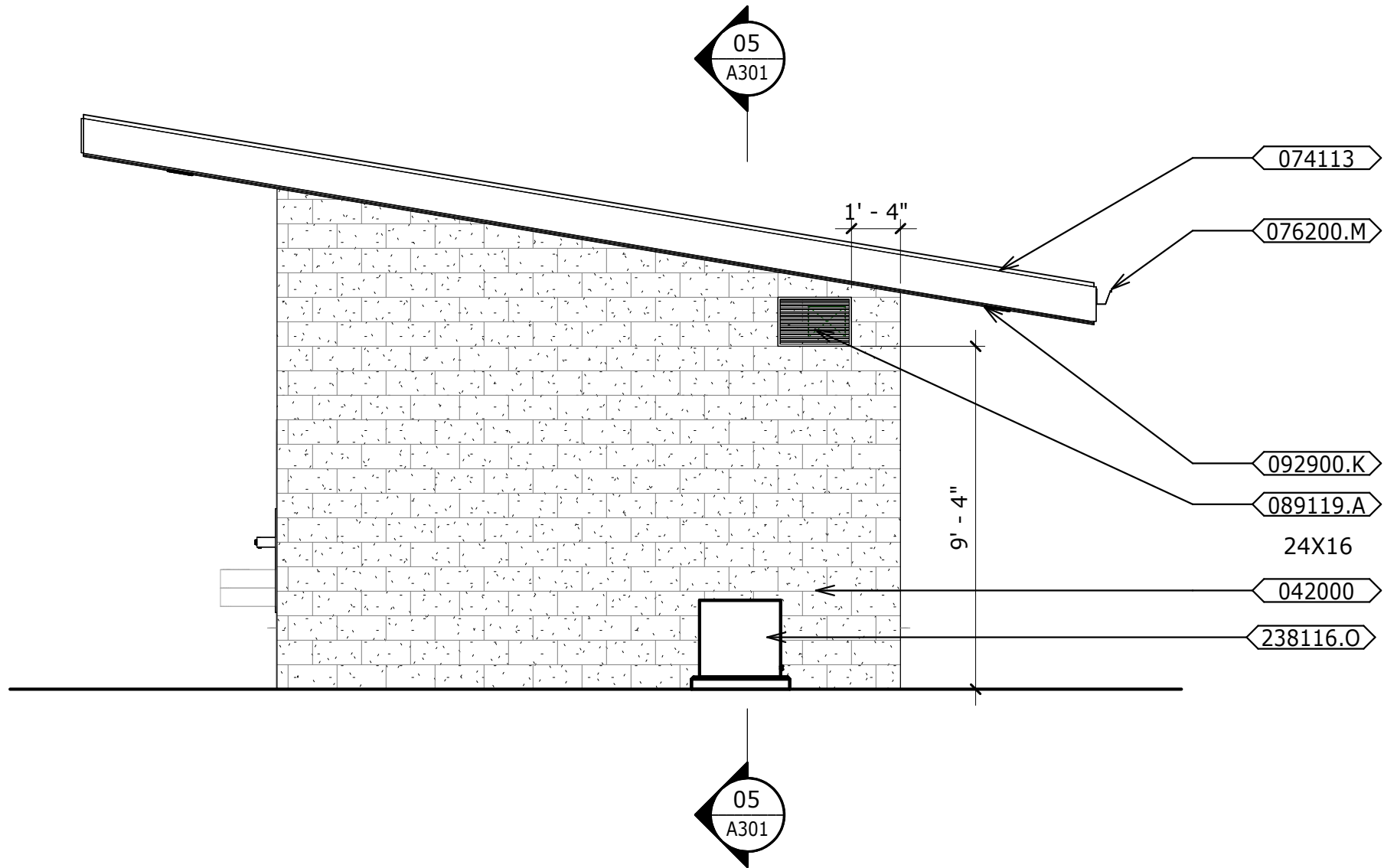
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22-086
DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
BUILDING ELEVATIONS & SECTIONS - RESTROOM BLDG

A301



02 ELEVATION - EAST
A301 1/4" = 1'-0"

NOTE: SIZE LOUVER
TO FIT BLOCK MODULE
AS SHOWN

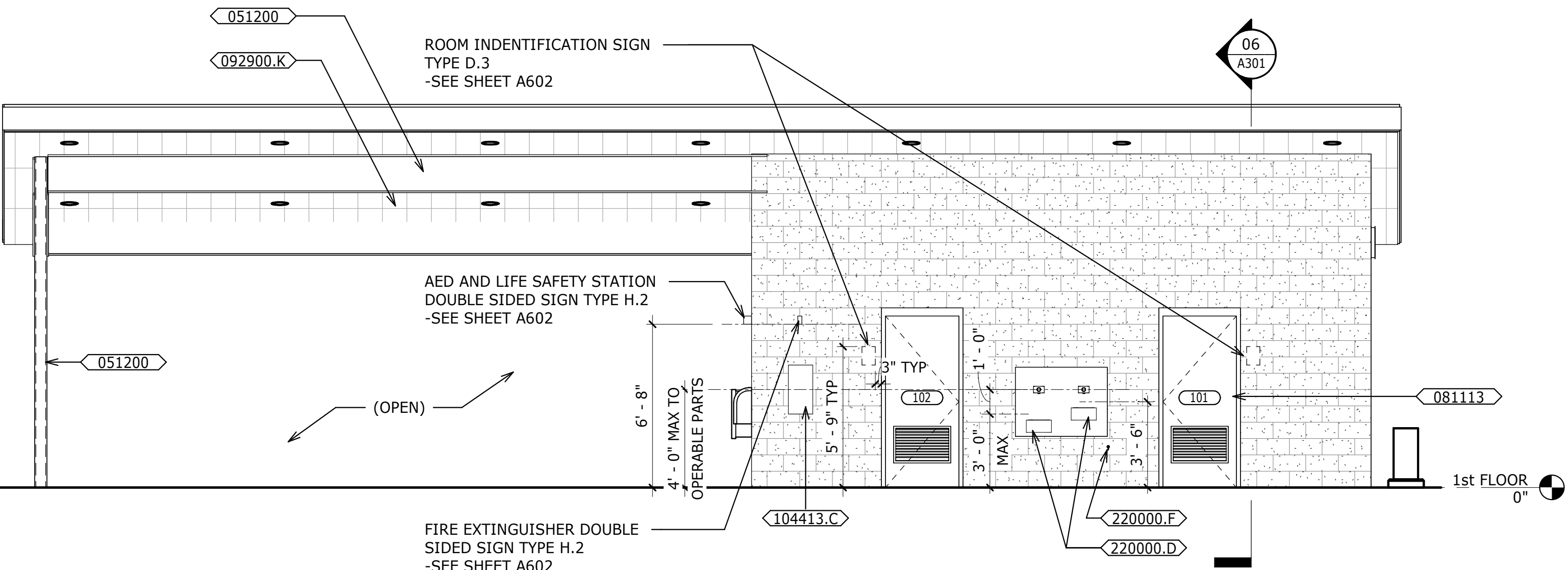
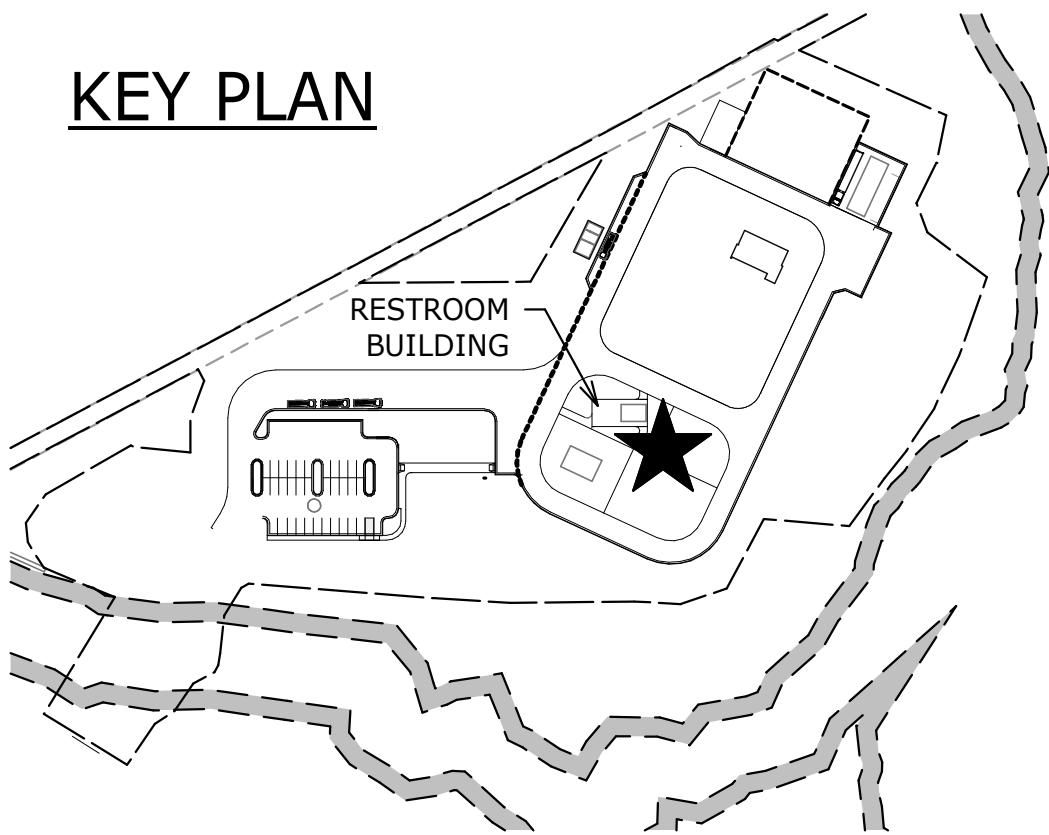


04 ELEVATION - WEST
A301 1/4" = 1'-0"

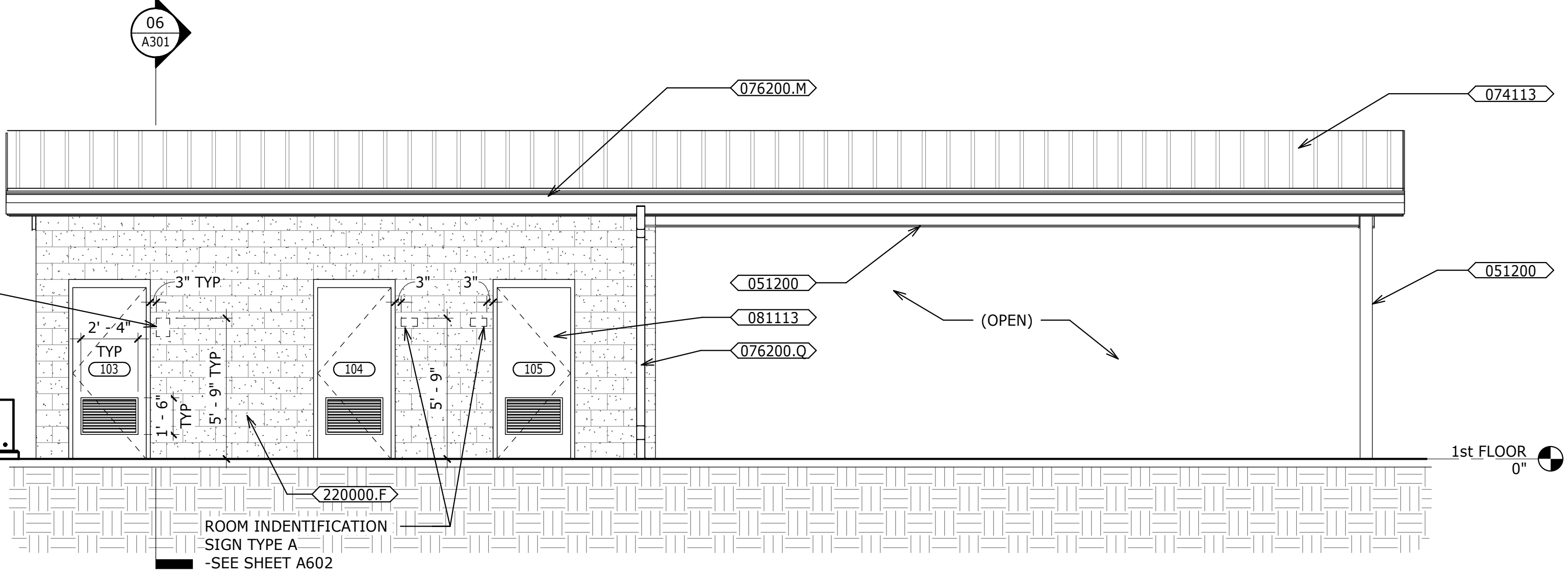
ELEVATION LEGEND

MASONRY UNIT WALL
COLOR: INTEGRAL DARK GRAY
(CONFIRM SELECTION WITH OWNER)

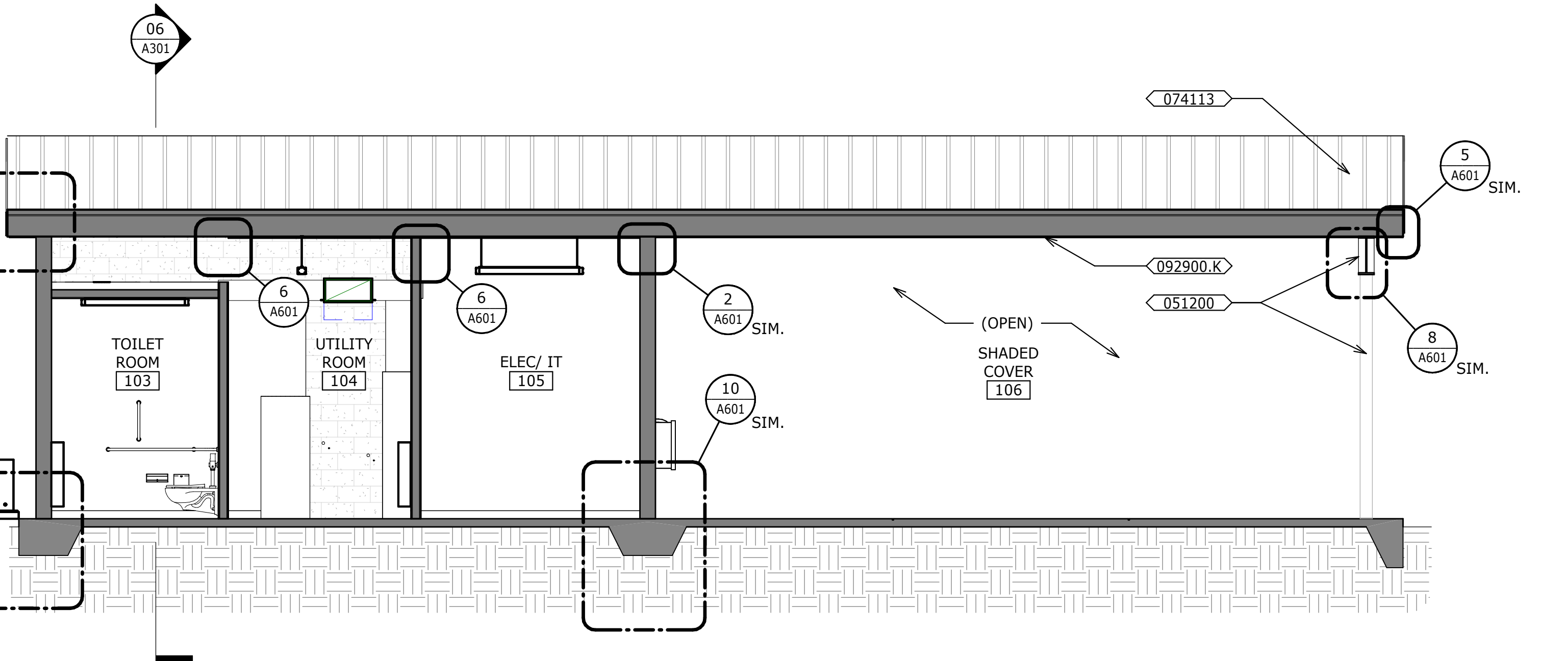
KEY PLAN



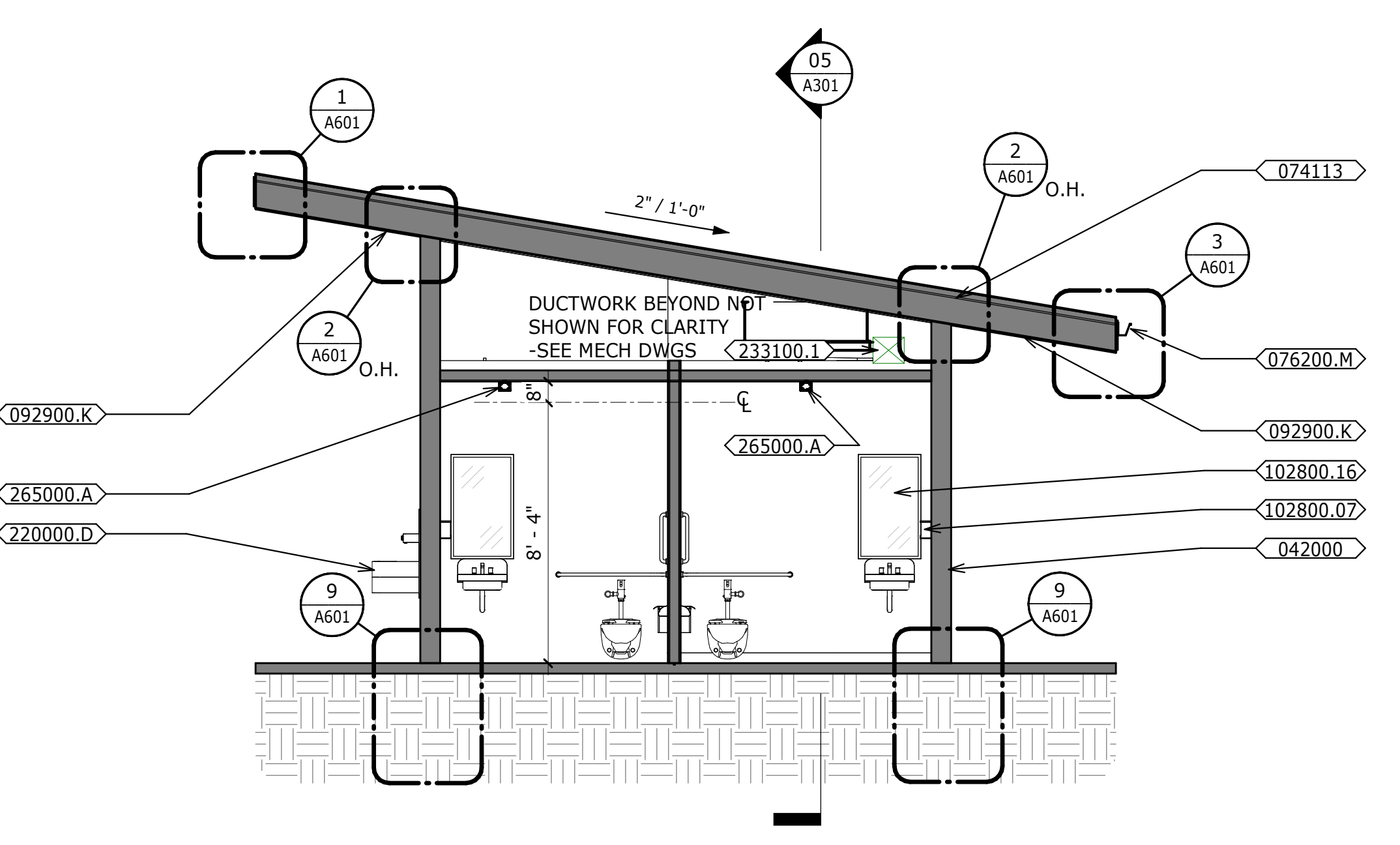
01 ELEVATION - NORTH
A301 1/4" = 1'-0"



03 ELEVATION - SOUTH
A301 1/4" = 1'-0"



05 EAST-WEST BUILDING SECTION
A301 1/4" = 1'-0"



06 NORTH-SOUTH BUILDING SECTION
A301 1/4" = 1'-0"

KEYNOTES

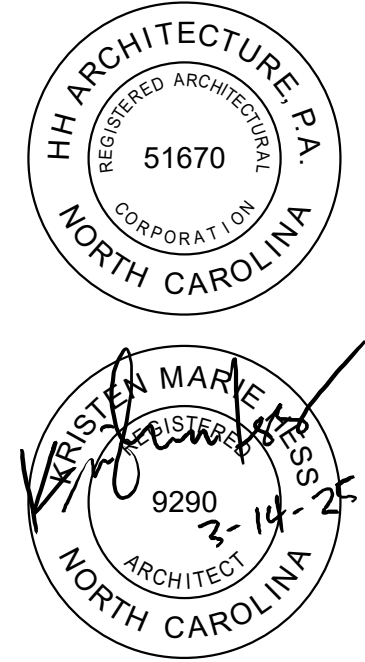
- 102800.01 GRAB BAR 54"x42"
102800.02 GRAB BAR 18"
102800.03 TOILET TISSUE DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.07 SOAP DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.08 SANITARY NAPKIN DISPOSAL; OWNER PROVIDED, OWNER INSTALLED
102800.09 SEAT COVER-DISPENSER; OWNER PROVIDED, OWNER INSTALLED
102800.12 SHOWER CURTAIN & ROD
102800.13 FOLDING SHOWER SEAT
102800.15 CUSTODIAL MOP AND BROOM HOLDER
102800.18 SHOWER GRAB BAR 18"x36"
220000.S ACCESSIBLE SHOWER HEAD; SEE PLUMBING

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TOILET ACCESSORIES
GENERAL NOTES

1. COORDINATE BLOCKING FOR ALL WALL-MOUNTED ACCESSORIES.
2. PROVIDE TOILET ACCESSORIES NOTED AT EACH PLAN LOCATION OF CORRESPONDING TYPICAL KEYED FIXTURE ELEVATION, AND AS NOTED OTHERWISE.
3. ALL ACCESSIBLE DETAILS TO COMPLY WITH CURRENT **NC ACCESSIBILITY CODE**.
4. FOR ALL PLUMBING FIXTURES, SEE PLUMBING.
5. COORDINATE THERMAL INSULATION AT ALL EXPOSED PIPING BELOW SINKS / LAVATORIES.

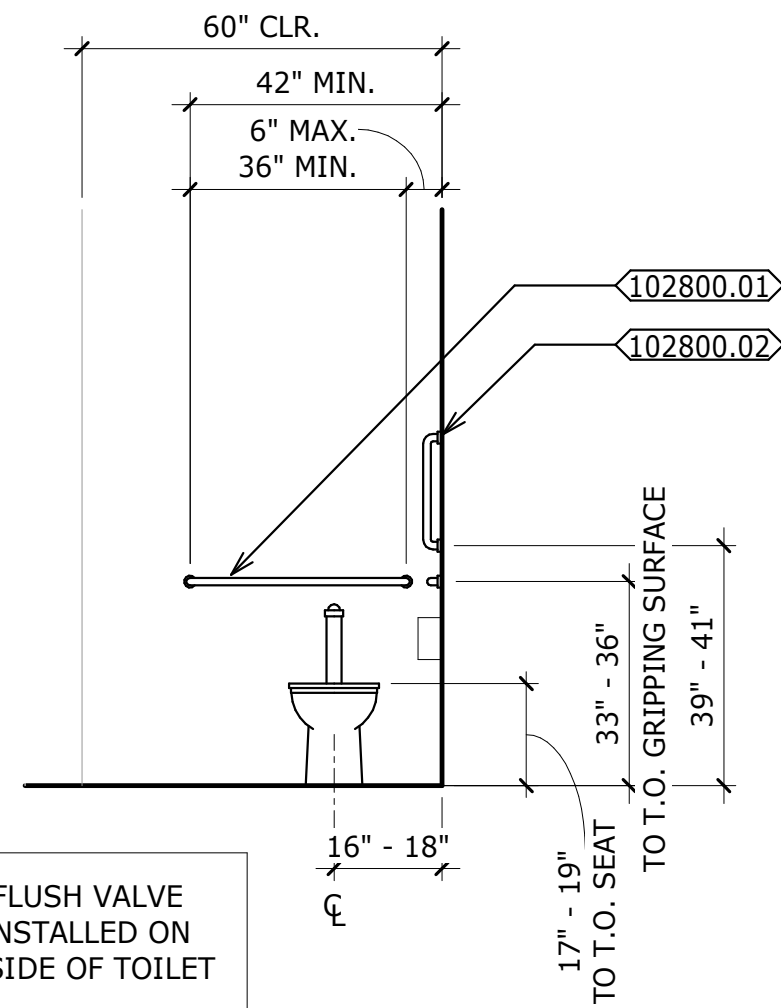
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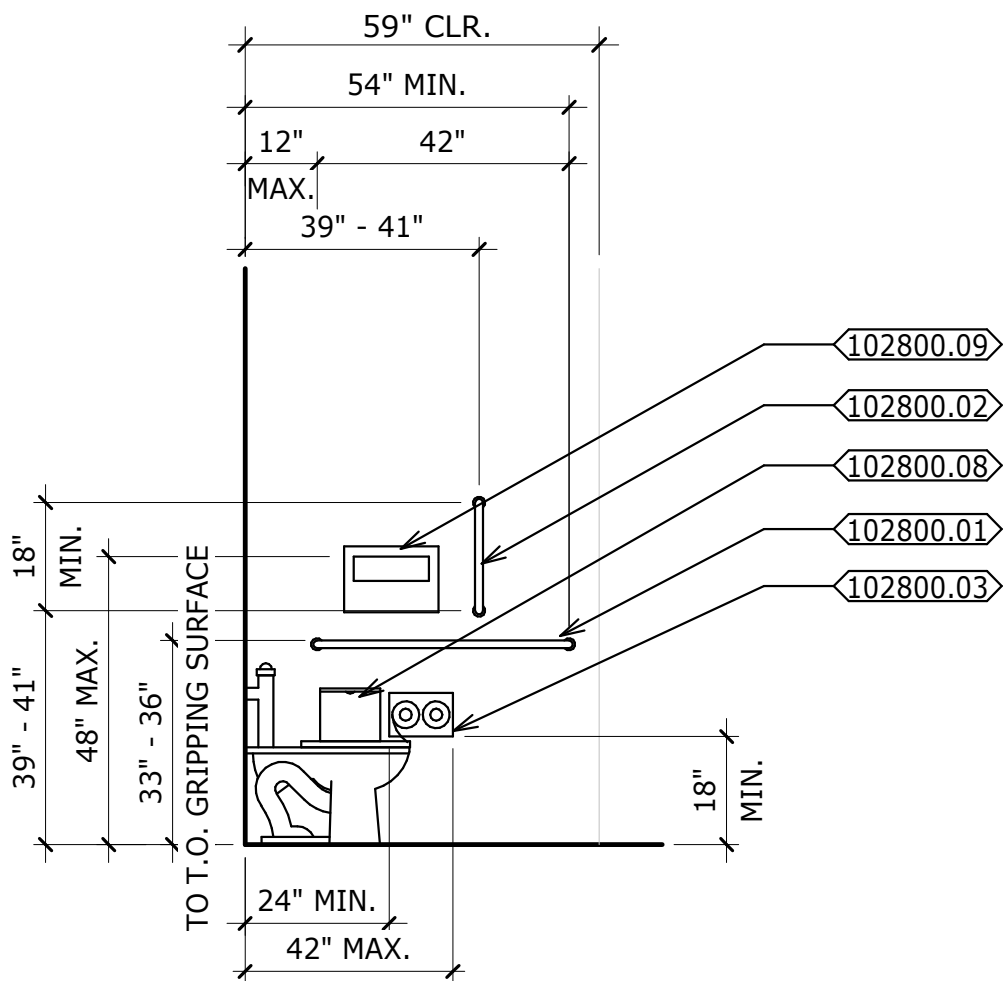
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DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
TYPICAL TOILET AND BATH ACCESSORIES

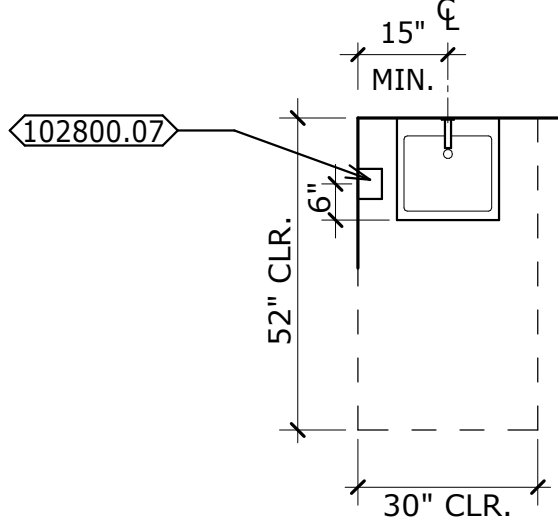
A510



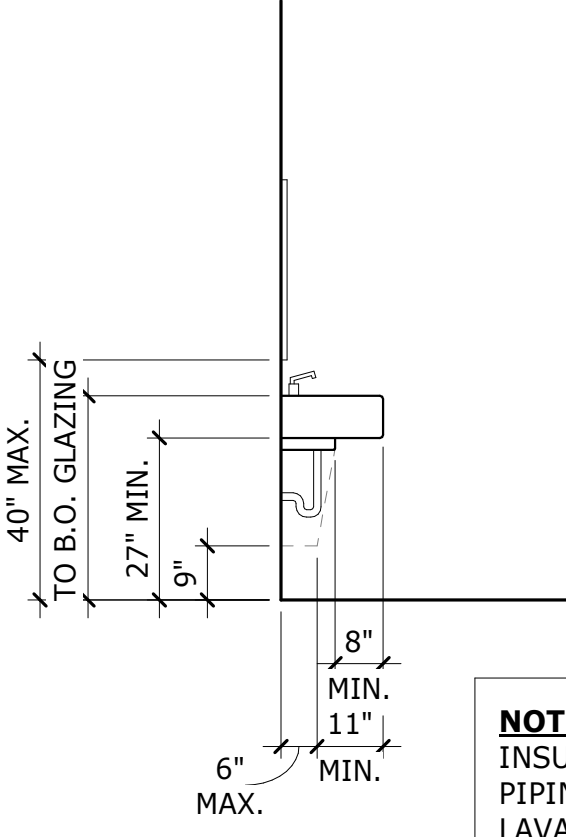
ADA TOILET,
FRONT ELEVATION



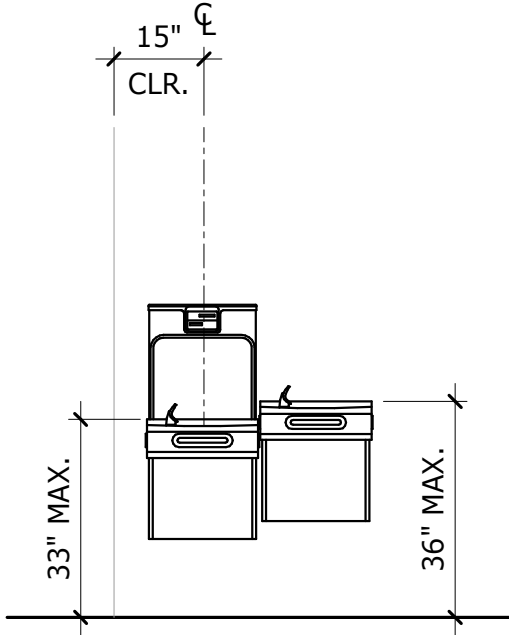
ADA TOILET,
SIDE ELEVATION



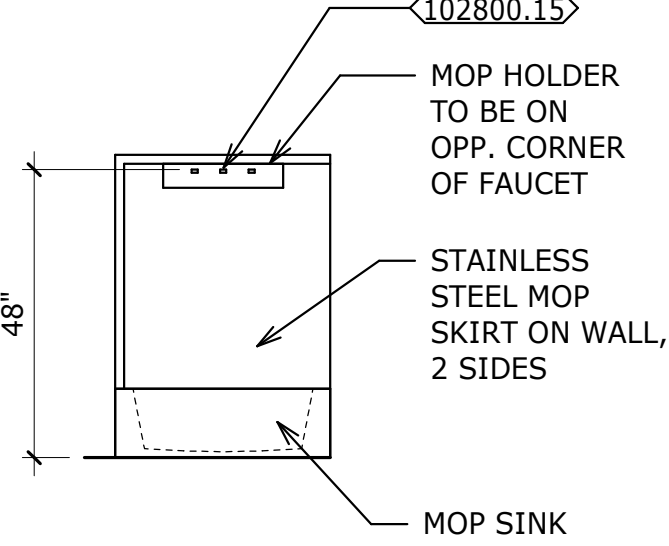
LAVATORY CLEARANCES,
PLAN



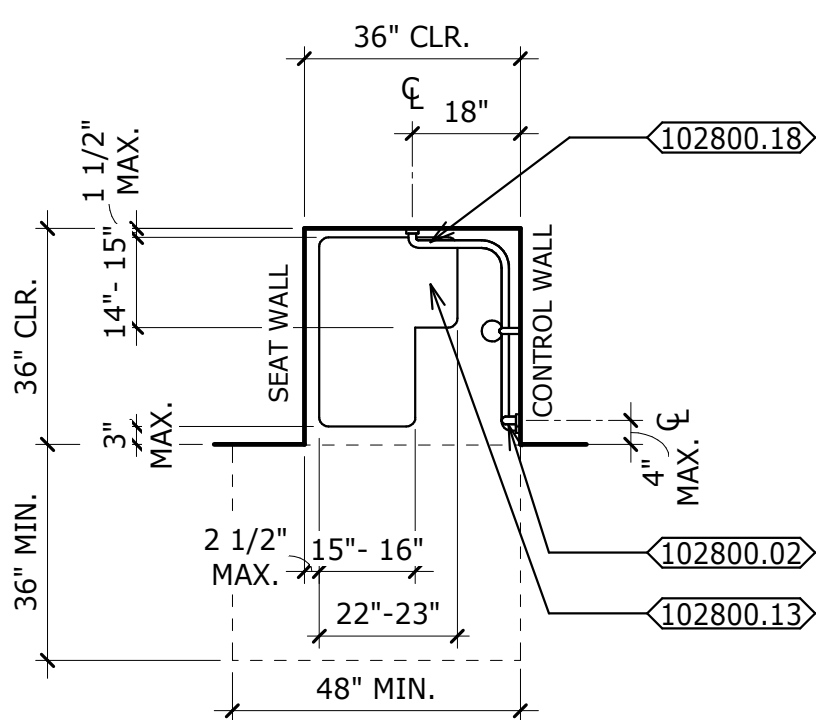
LAVATORY,
SIDE ELEVATION



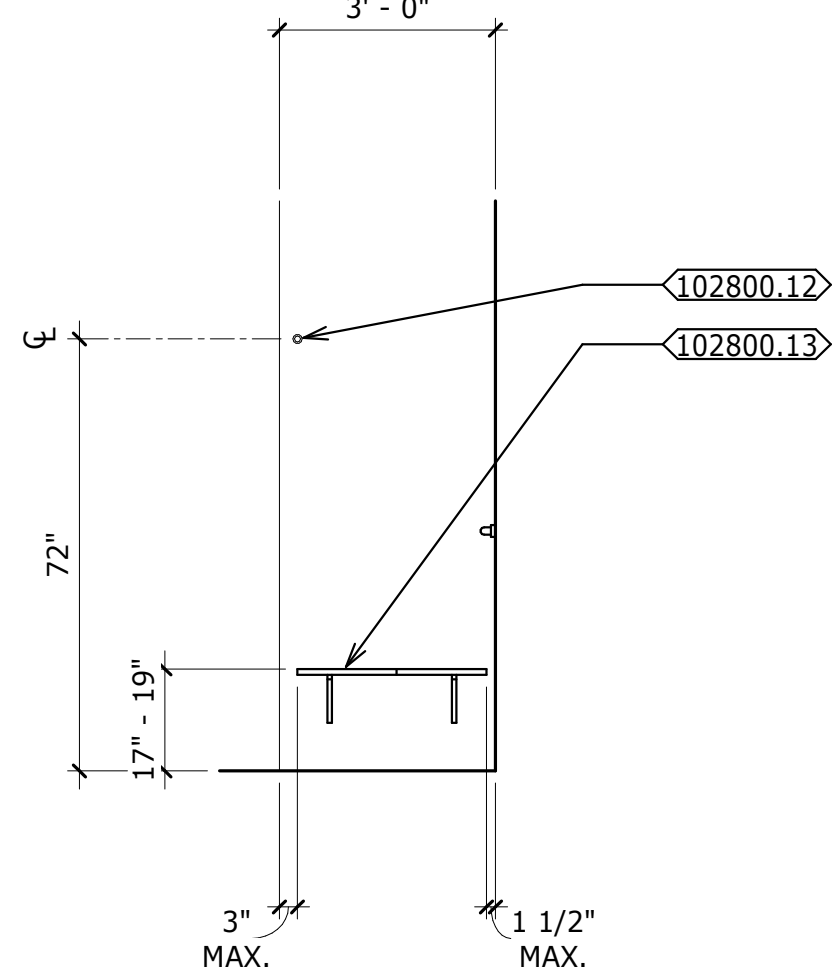
BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER,
FRONT ELEVATION



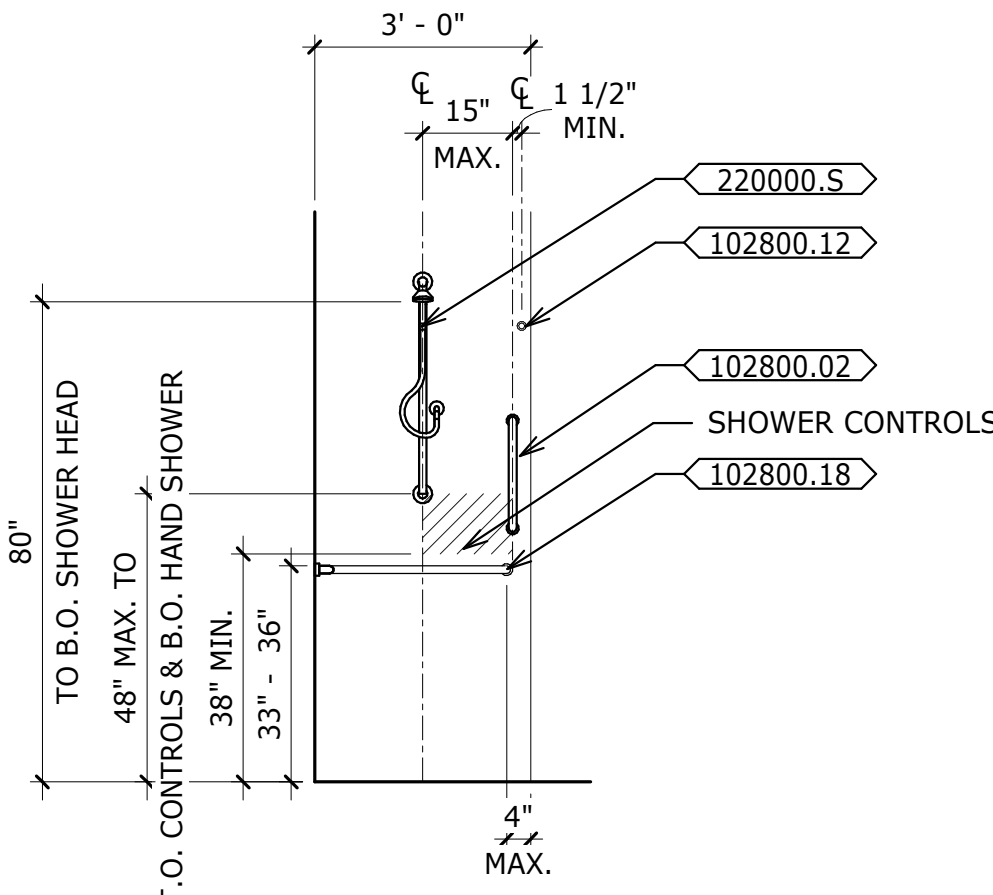
MOP SINK,
FRONT ELEVATION



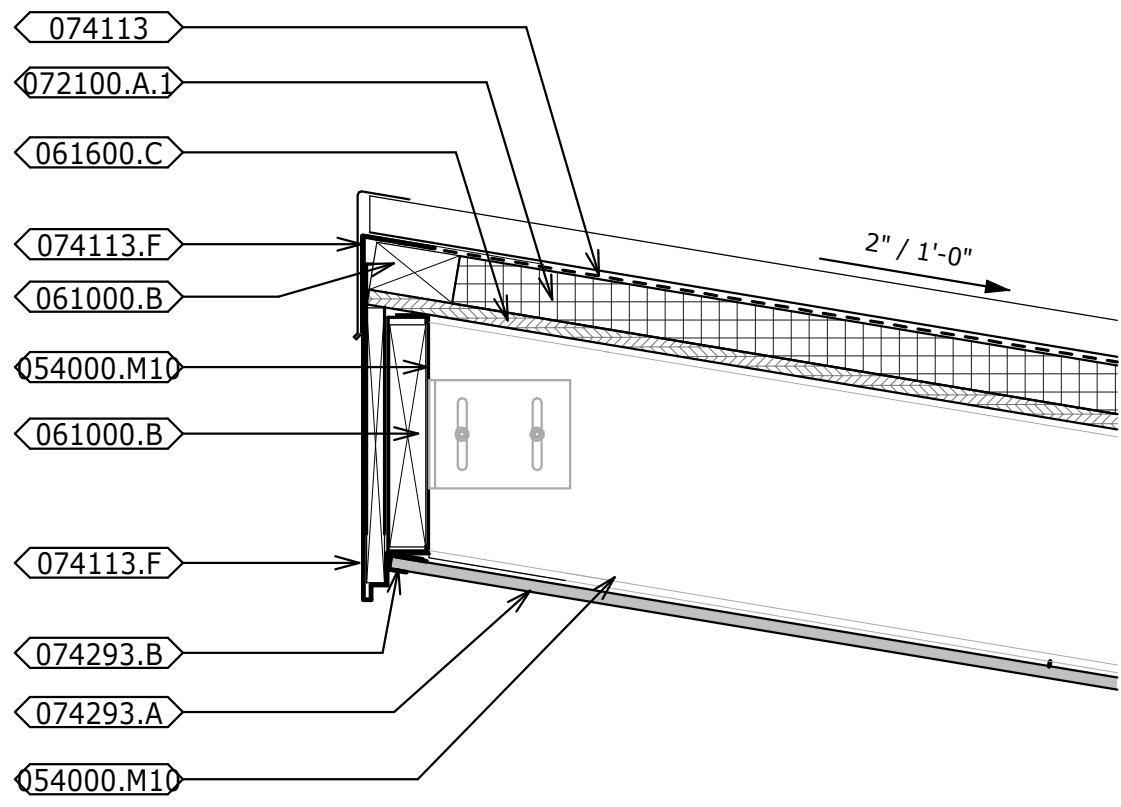
ADA TRANSFER SHOWER,
PLAN VIEW



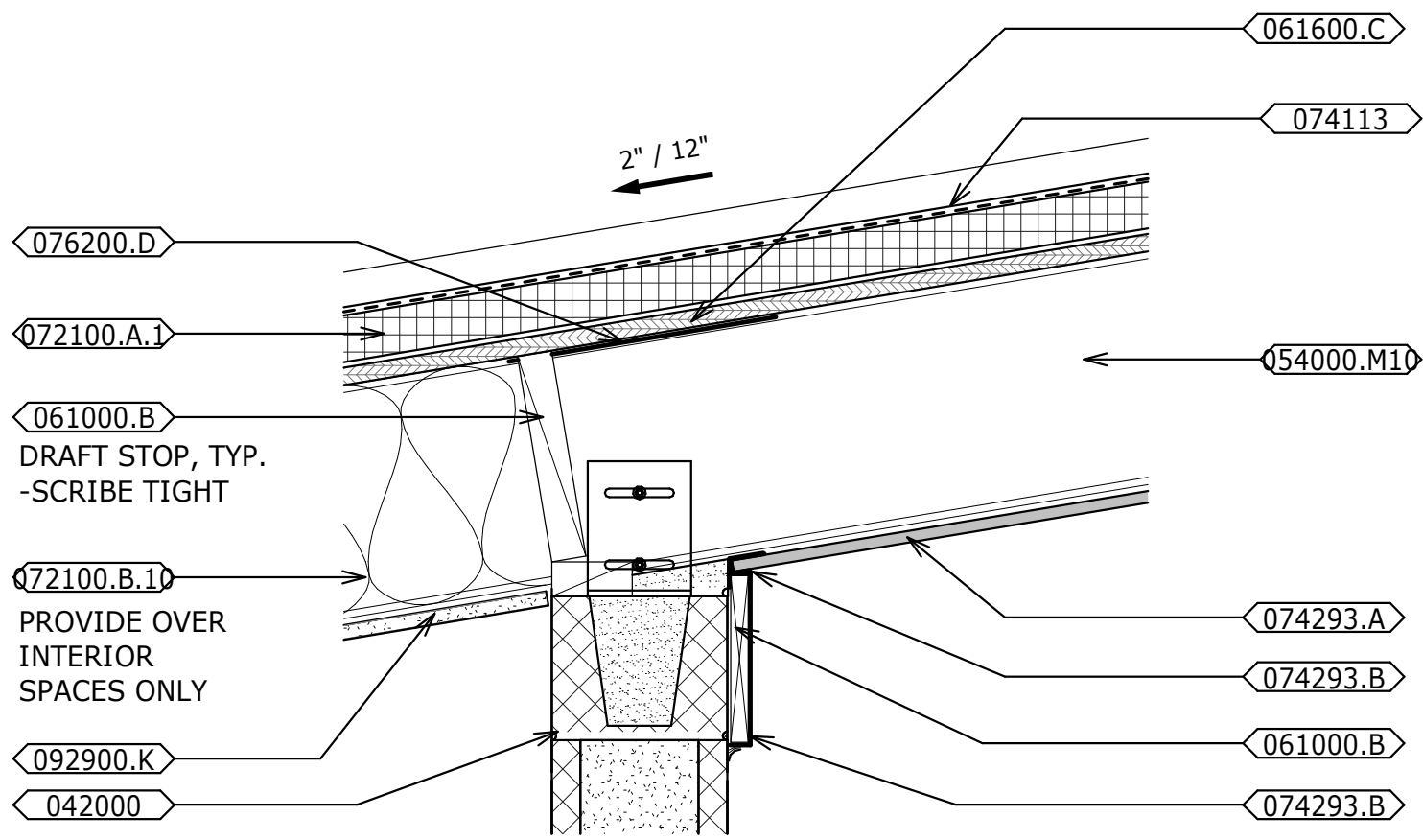
ADA TRANSFER SHOWER,
BENCH ELEVATION



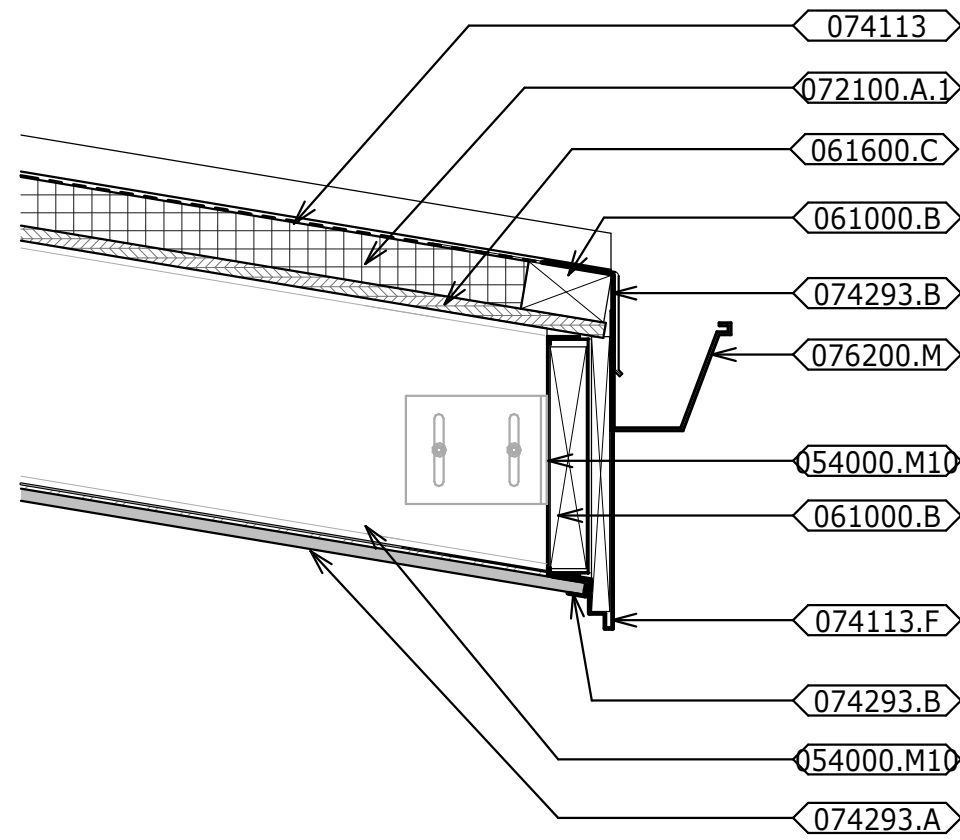
ADA TRANSFER SHOWER,
CONTROL ELEVATION



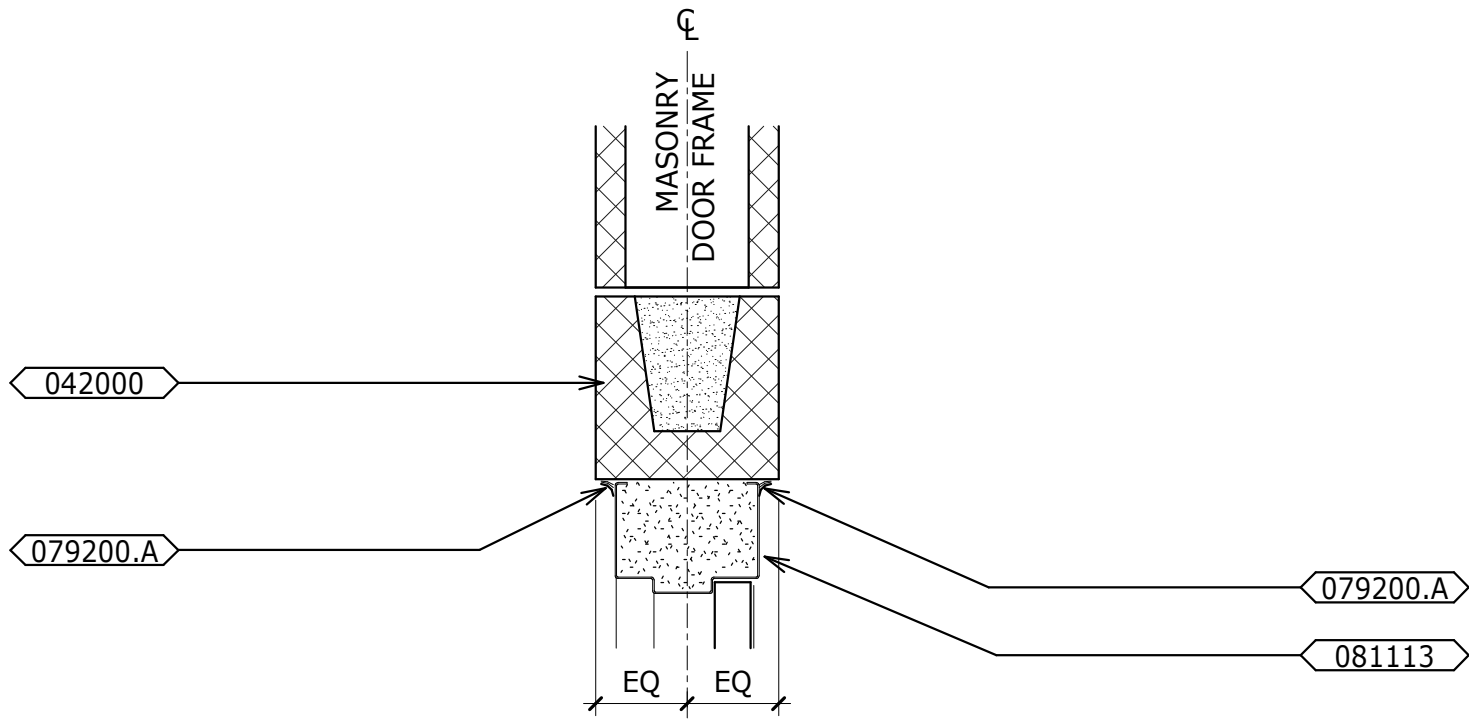
1 DETAIL - ROOF EDGE AT HIGH EAVE
1 1/2" = 1'-0"



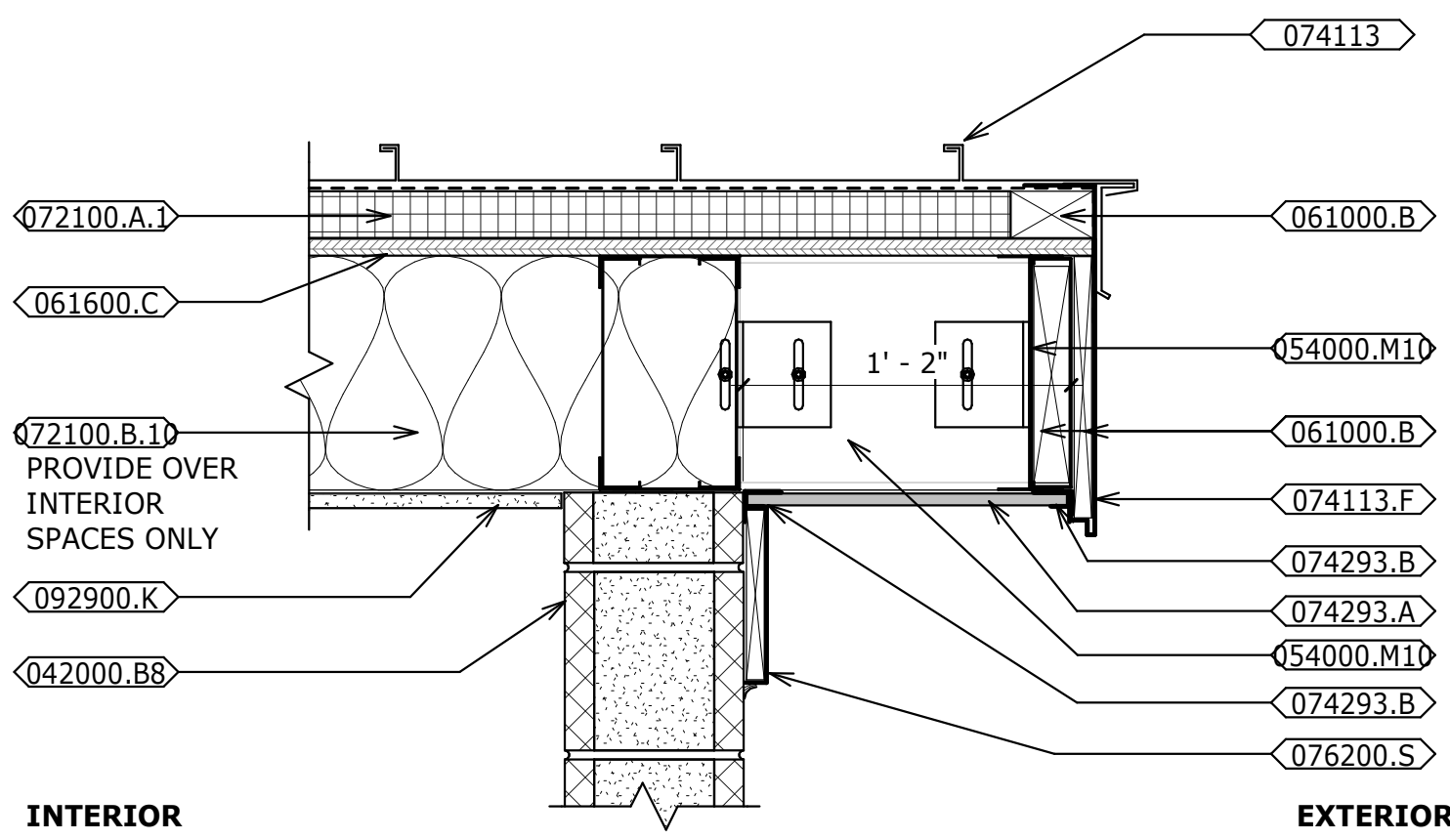
2 DETAIL - ROOF AT OVERHANG
1 1/2" = 1'-0"



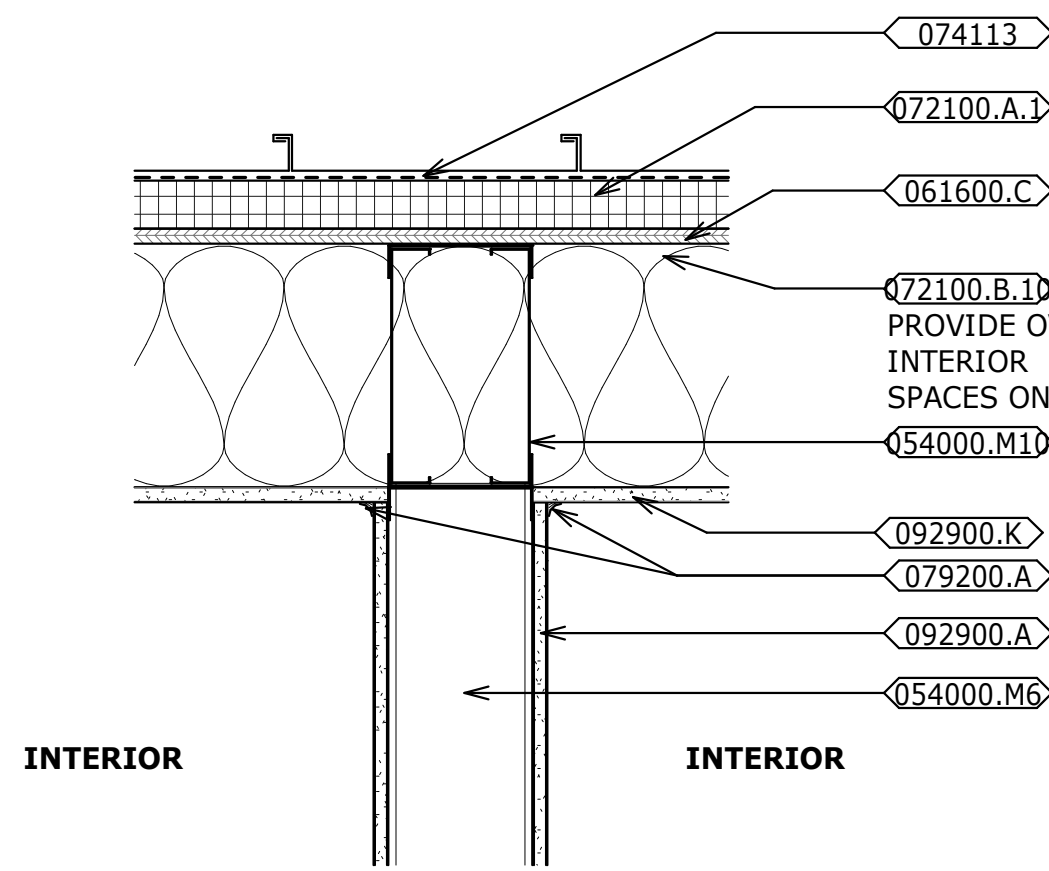
3 DETAIL - ROOF EDGE AT LOW EAVE & GUTTER
1 1/2" = 1'-0"



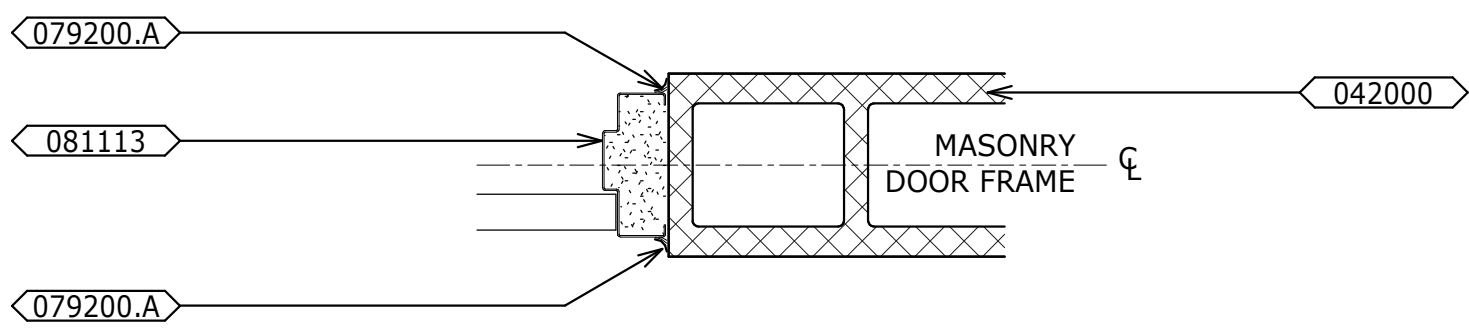
4 DETAIL - EXTERIOR H.M. DOOR HEAD
1 1/2" = 1'-0"



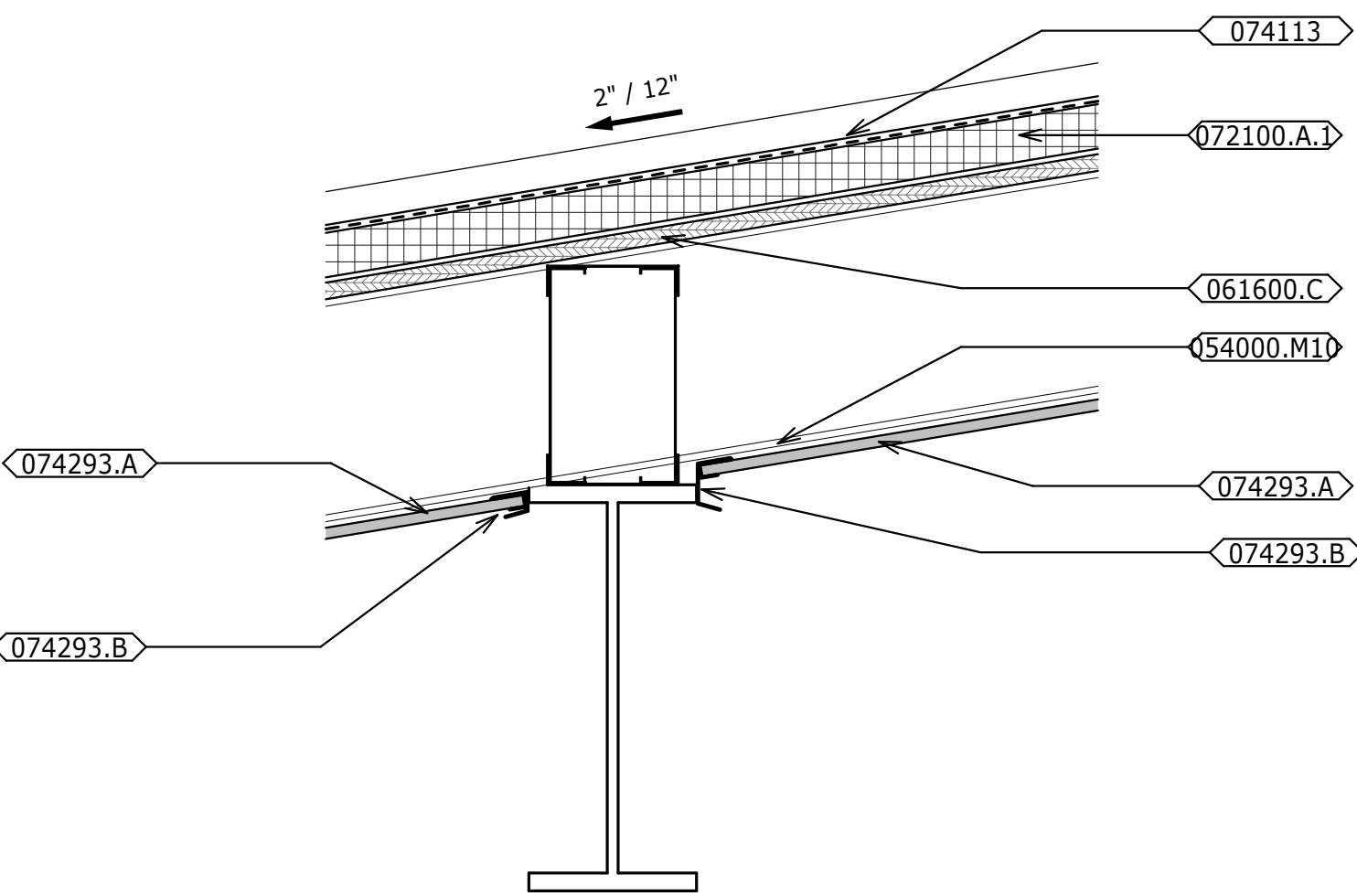
5 DETAIL - ROOF RAKE
1 1/2" = 1'-0"



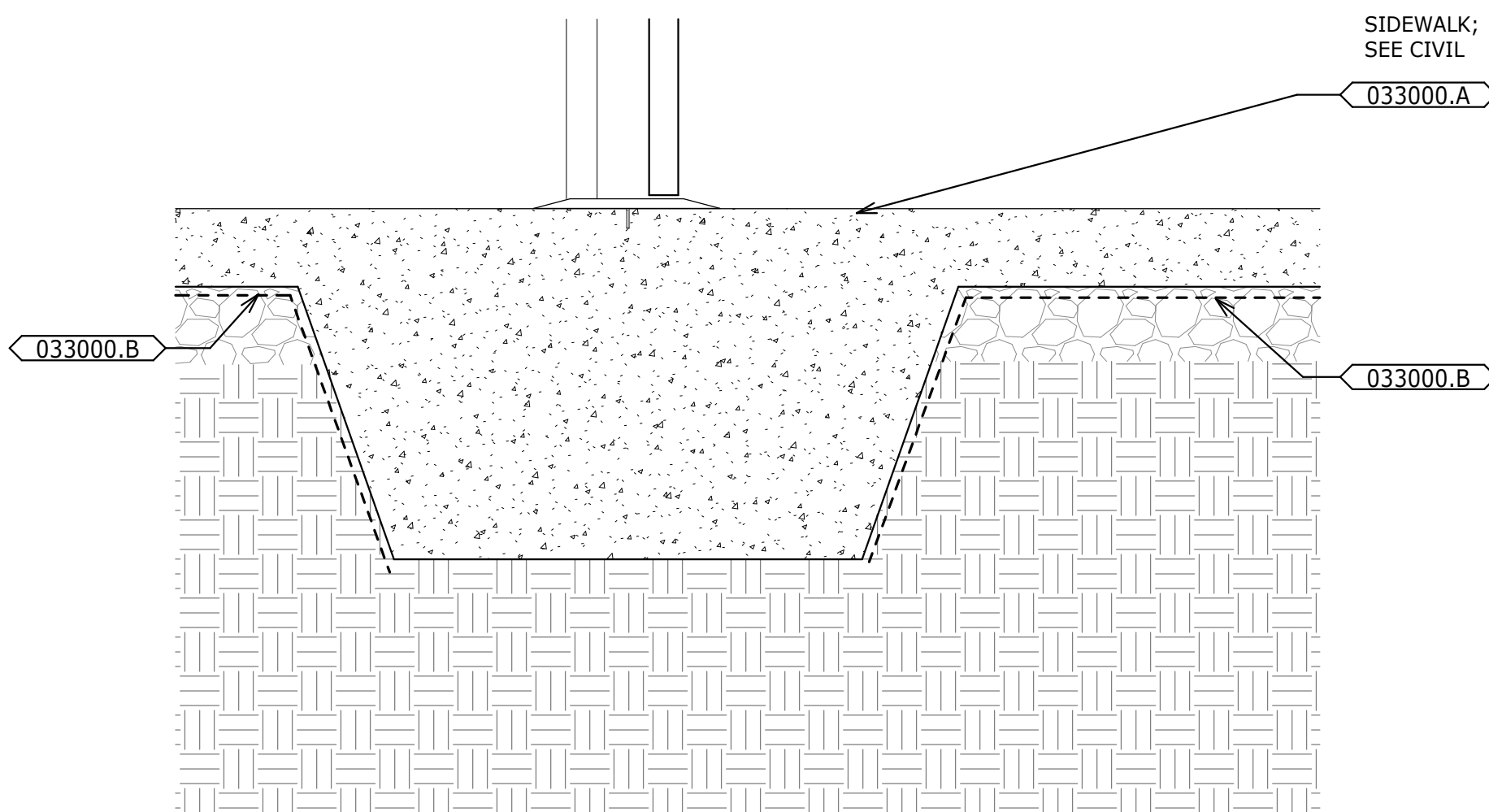
6 DETAIL - ROOF AT INTERIOR WALL
1 1/2" = 1'-0"



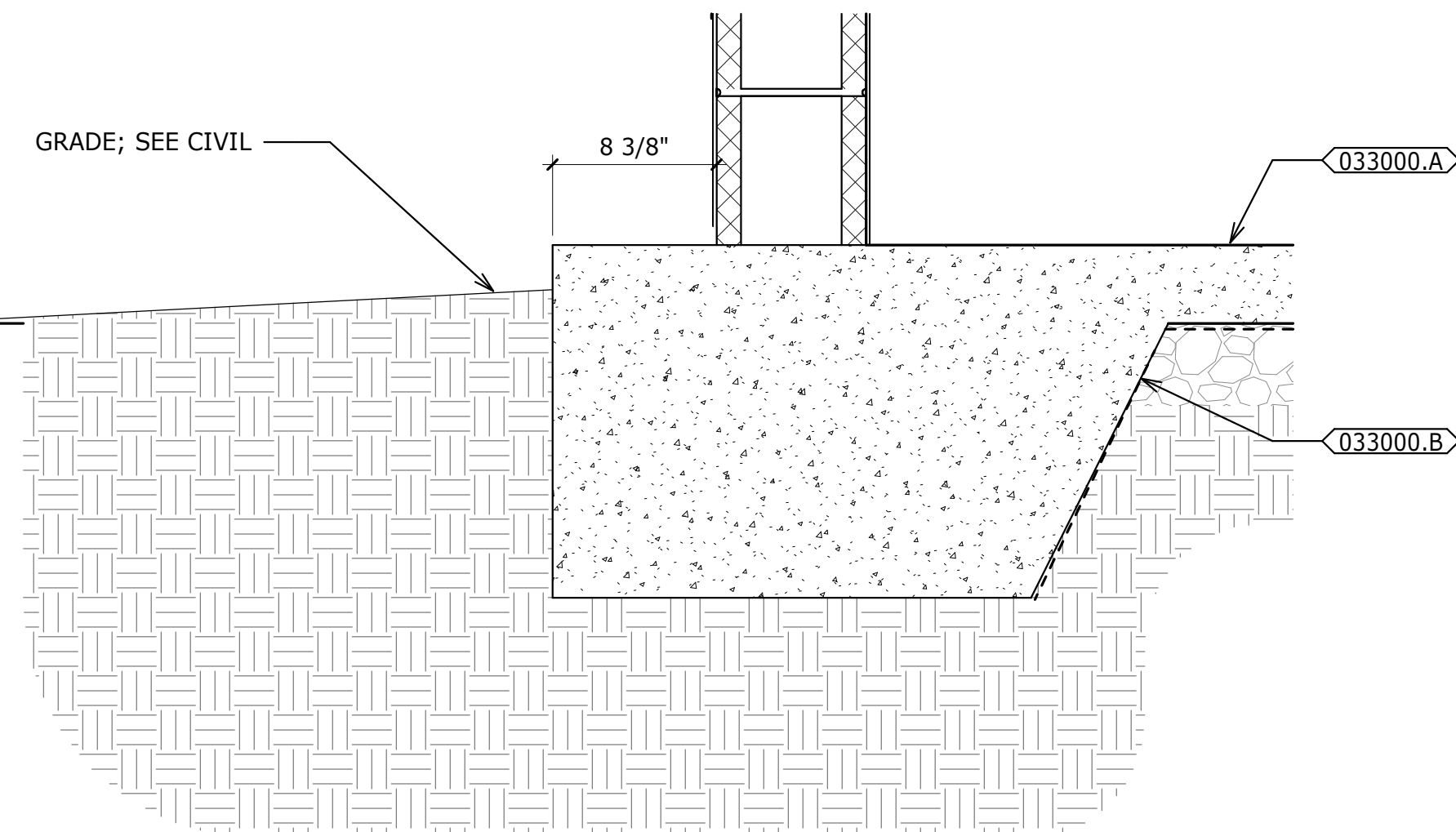
7 DETAIL - EXTERIOR H.M. DOOR JAMB
1 1/2" = 1'-0"



8 SOFFIT AT STEEL BEAM DETAIL
1 1/2" = 1'-0"



9 DETAIL - FOUNDATION AT H.M. DOOR THRESHOLD
1 1/2" = 1'-0"



10 DETAIL - FOUNDATION AT NORTH EXTERIOR WALL
1 1/2" = 1'-0"

KEYNOTES

- 033000.A** CAST-IN-PLACE CONCRETE, SEE STRUCTURAL
- 033000.B** UNDER SLAB VAPOR BARRIER
- 042000** UNIT MASONRY
- 042000.B8** CONCRETE MASONRY UNITS, 8x8x16 NOMINAL, SEE STRUCTURAL
- 054000.M6** COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 6"
- 054000.M10** COLD-FORMED METAL FRAMING, C-SHAPED STUDS, 10"
- 061000.B** P.T. WOOD BLOCKING
- 061600.C** PLYWOOD SHEATHING
- 072100.A.1** EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD (XPS), R-7.5
- 072100.B.10** FIBERGLASS BATT INSULATION, R-35
- 074113** STANDING SEAM METAL ROOF SYSTEM
- 074113.F** PREFINISHED METAL FASCIA WITH DRIP EDGE
- 074293.A** METAL SOFFIT PANELS
- 074293.B** METAL SOFFIT PANEL FLASHING & TRIM
- 076200.D** CONTINUOUS HEAD FLASHING
- 076200.M** PREFINISHED HANGING GUTTER
- 076200.S** 1x8 PREFINISHED METAL WRAPPED EXTERIOR GRADE TRIM
- 079200.A** JOINT SEALANTS
- 081113** HOLLOW METAL DOORS AND FRAMES
- 092900.A** GYPSUM WALLBOARD, 5/8"
- 092900.K** GLASS-MAT CEILING BOARD, 5/8"

RECEIVED
03/25/2025
SAMET

WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
RESTROOM BUILDING - DETAILS

A601

GENERAL NOTES:

- THE STRUCTURAL DRAWINGS MUST BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS, AND THE SPECIFICATIONS. THE CONTRACTOR MUST VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE NORTH CAROLINA STATE BUILDING CODE, 2018 EDITION.
- THE CONTRACTOR MUST PROVIDE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.
- DISCREPANCIES WITHIN DRAWINGS, BETWEEN THE SPECIFICATIONS AND THE DRAWINGS, OR WITHIN THE SPECIFICATIONS, MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER DURING THE BIDDING PROCESS IN TIME TO PERMIT CLARIFICATION BY ADDENDUM. IF INCONSISTENCIES, DISCREPANCIES OR CONTRADICTIONS IN THE CONTRACT DOCUMENTS ARE DISCOVERED AFTER THE CLOSE OF BIDDING QUESTIONS, THE CONTRACTOR MUST BE DEEMED BY SUBMITTAL OF THEIR BID, TO HAVE BID THE MOST COSTLY AS TO LABOR, MATERIALS, DURATION, SEQUENCE AND METHOD OF CONSTRUCTION TO PROVIDE THE WORK.
- THESE STRUCTURAL DRAWINGS ARE ISSUED ON THE DATE INDICATED FOR THE PURPOSE DESIGNATED. THESE DRAWINGS MUST NOT BE ISSUED OR RELEASED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN AUTHORIZATION OF THE STRUCTURAL ENGINEER OF RECORD.
- DETAILS LABELED "TYPICAL DETAIL" WITHIN THE DOCUMENTS APPLY TO SITUATIONS ON THE PROJECT THAT MAY OCCUR THROUGHOUT THE PROJECT. SUCH DETAILS APPLY WHETHER OR NOT THE DETAIL IS SPECIFICALLY REFERENCED AT EACH INSTANCE. NOTIFY ENGINEER IF CLARIFICATIONS ARE REQUIRED REGARDING THE APPLICABILITY OF THE "TYPICAL DETAIL".
- DESIGN CRITERIA:

CLASSIFICATION OF BUILDING

RISK CATEGORY II

SUPERIMPOSED ROOF DEAD LOADS - UNIFORM:

1 1/2" INSULATION AND ROOF MEMBRANE3 PSF
CEILING2 PSF
SPRINKLERS3 PSF
DUCTS, LIGHTS, MISC. MECHANICAL3 PSF

LIVE LOADS - UNIFORM:

SLAB ON GRADE100 PSF
ROOF20 PSF

LIVE LOADS - CONCENTRATED:

FLOOR1,000#
ROOFS300#

UNLESS OTHERWISE NOTED, CONCENTRATED LOADS ARE APPLIED UNIFORMLY OVER 2'-6" x 2'-6" AREA.

SPECIAL LOADS:

MAXIMUM CONSTRUCTION LOADS ON STEEL DECK20 PSF

RAIN LOADS:

RAIN INTENSITY (15 MINUTE)6.2 IN/HR

SNOW LOADS:

GROUND SNOW LOAD (Pg)15 PSF
FLAT ROOF LOAD (Pf)15 PSF
IMPORTANCE FACTOR (Is)1.0
THERMAL FACTOR (Ct)1.2
EXPOSURE FACTOR (Ce)1.2

WIND LOADS:

BASIC WIND SPEED (Vult)115 MPH
EXPOSURE CATEGORYC
INTERNAL PRESSURE COEFFICIENT+0.18
COMPONENT AND CLADDING PRESSURES:
WALLS, ZONE 5 (10 SF)39 PSF
ROOF, ZONE 3 (10 SF)82 PSF
COVERED STORAGE
VE-W2.5 KIPS
VN-S10.7 KIPS
RESTROOM AND SHADE STRUCUTRE:
VE-W3.6 KIPS
VN-S11.5 KIPS

SEISMIC LOADS:

SITE CLASSIFICATIOND
SEISMIC DESIGN CATEGORYB
IMPORTANCE FACTOR (IE)1.0
SPECTRAL RESPONSE ACCELERATIONS:
Ss0.147 S10.074
Sms0.236 Sm10.178
Sds0.157 Sd10.118

ANALYSIS PROCEDUREEQUIVALENT LATERAL FORCE

COVERED STORAGE:

LATERAL FORCESTEEL SYSTEMS NOT
RESISTING SYSTEMSPECIFICALLY DETAILED
FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION FACTOR3.0
SEISMIC RESPONSE COEFFICIENT (Cs)0.052
ULTIMATE SEISMIC BASE SHEAR2.0K

RESTROOM AND SHADE STRUCUTRE:

LATERAL FORCEINTERMEDIATE
RESISTING SYSTEMREINFORCED
MASONRY WALLS
RESPONSE MODIFICATION FACTOR3.5
SEISMIC RESPONSE COEFFICIENT (Cs)0.045
ULTIMATE SEISMIC BASE SHEAR5.0K

CONTROLLING LATERAL LOADS:

COVERED STORAGE:

VE-WWIND
VN-SWIND

RESTROOM AND SHADE STRUCTURE:

VE-WSEISMIC
VN-SWIND

FOUNDATION NOTES:

- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC., DATED JANUARY 11, 2024.
- FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 2500 PSF.
- TOP OF FOOTING ELEVATIONS MUST BE A MINIMUM DEPTH OF 2'-0" BELOW LOWEST ADJACENT SOIL GRADE.
- PRIOR TO PLACING FOUNDATION CONCRETE, ALL FOUNDATION EXCAVATIONS MUST BE INSPECTED BY THE OWNER'S GEOTECHNICAL TESTING AGENCY TO EXPLORE THE EXTENT OF LOOSE, SOFT, EXPANSIVE, OR OTHERWISE UNSATISFACTORY SOIL MATERIAL AND TO VERIFY DESIGN BEARING PRESSURE. DIRECTION FOR CORRECTIVE ACTION WILL BE PROVIDED BY THE OWNER'S GEOTECHNICAL TESTING AGENCY WHERE UNSATISFACTORY SOILS ARE PRESENT.
- CONTROL GROUNDWATER AND SURFACE RUNOFF THROUGHOUT THE CONSTRUCTION PROCESS. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES WHICH RESULT IN DETERIORATION OF BEARING MUST BE PREVENTED.

CAST-IN-PLACE CONCRETE NOTES:

- CONCRETE MUST BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301 AND 318.
- CONCRETE MUST BE NORMAL WEIGHT AND MUST OBTAIN 28 DAY COMPRESSIVE STRENGTHS AS NOTED IN THE CONCRETE MIX DESIGN NOTES.
- REINFORCING MATERIALS MUST BE AS FOLLOWS:
A. REINFORCING BARS - ASTM A615, GRADE 60, DEFORMED.
B. WELDED WIRE REINFORCEMENT - ASTM A1064, WELDED STEEL WIRE REINFORCEMENT; PROVIDE SHEET TYPE, ROLL TYPE IS NOT ACCEPTABLE.
- ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR RODS AND WELD PLATES MUST BE ACCURATELY PLACED AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.
- CONCRETE COVER TO REINFORCING STEEL MUST CONFORM TO THE MINIMUM COVER RECOMMENDATIONS IN ACI 318, UNLESS THE DRAWINGS SHOW GREATER COVER REQUIREMENTS.
- LAP CONTINUOUS REINFORCING STEEL 57 X BAR DIAMETER, TYPICAL UNLESS OTHERWISE NOTED.

CONCRETE MASONRY NOTES:

- CONCRETE MASONRY MATERIALS AND CONSTRUCTION MUST CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) 530.
- CONCRETE MASONRY UNITS MUST CONFORM TO ASTM C90 AND MUST BE MADE WITH NORMAL WEIGHT AGGREGATE. MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY UNITS MUST BE 2,000 PSI AT 28 DAYS.
- COMPRESSIVE STRENGTH OF MASONRY MUST BE DETERMINED BY THE UNIT STRENGTH METHOD AS SET FORTH IN ACI 530.1. THE NET AREA COMPRESSIVE STRENGTH OF MASONRY, fm, MUST BE 2,000 PSI AT 28 DAYS.
- MORTAR MUST BE TYPE 'M' OR 'S' AND MUST COMPLY WITH ASTM C270, PROPORTIONS OR PROPERTIES SPECIFICATION.
- GROUT MUST COMPLY WITH EITHER THE PROPORTIONS OR PROPERTIES SPECIFICATION OF ASTM C476 AND AS FOLLOWS:
A. PROPORTIONS SPECIFICATION: THIS MIX CANNOT CONTAIN ADMIXTURES. WATER MUST BE ADDED IN THE FIELD IN ORDER TO ACHIEVE A SLUMP OF 8-11 INCHES WHEN PLACED IN THE CONCRETE MASONRY UNITS. MORTAR, PEA GRAVEL, CONCRETE, OR "CHART" MIXES ARE NOT ACCEPTABLE SUBSTITUTES FOR THE SPECIFIED GROUT.
B. PROPERTIES SPECIFICATION: THIS MIX MUST BE PROPORTIONED TO OBTAIN A DOCUMENTED 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI, WITH AN 8-11 INCH SLUMP WHEN PLACED IN THE CONCRETE MASONRY UNITS.
- GROUT MUST COMPLY WITH EITHER THE PROPORTIONS OR PROPERTIES SPECIFICATION OF ASTM C476 AND THIS MIX MUST BE PROPORTIONED TO OBTAIN A DOCUMENTED 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI, WITH AN 8-11 INCH SLUMP WHEN PLACED IN THE CONCRETE MASONRY UNITS.
- REINFORCING STEEL MUST COMPLY WITH ASTM A615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.
- ALL BOND BEAMS, REINFORCED CELLS AND CELLS WITH EXPANSION BOLTS, EMBED PLATES OR OTHER ANCHORS AND ALL CELLS BELOW GRADE MUST BE GROUTED SOLID. GROUT PROCEDURE MUST COMPLY WITH ACI 530.1.
- ALL CMU WALLS MUST BE REINFORCED CONTINUOUSLY FROM FOUNDATION TO TOP OF WALL. WHERE REINFORCING IS INTERRUPTED, OFFSET AND LAP ADDITIONAL BARS PER THE "TYPICAL OFFSET SPLICE AT MASONRY WALL DETAILS."
- LAP ALL REINFORCING PER SCHEDULE BELOW, TYPICAL UNLESS OTHERWISE NOTED:

MASONRY LAP SCHEDULE

REINF SIZE	52 x BAR DIAMETER
#5	33"

- ALL WALLS MUST BE REINFORCED WITH #5 VERTICAL BARS AT 24 INCHES ON CENTER, TYPICAL UNLESS OTHERWISE NOTED.
- PROVIDE REINFORCING STEEL DOWELS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING FROM THE SUPPORTING STRUCTURE. DOWELS MUST HAVE STANDARD ACI HOOKS. DOWELS MAY BE POST-INSTALLED AT THE CONTRACTOR'S OPTION.
- PROVIDE STANDARD 9 GAGE LADDER TYPE HORIZONTAL JOINT REINFORCING IN CMU WALLS AT 16 INCHES ON CENTER AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENING, EXCEPT AT CONTROL JOINTS.
- PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS SHOWN IN THE SECTIONS AND DETAILS. DISCONTINUE ALL HORIZONTAL REINFORCING AT CONTROL JOINTS.
- DO NOT LOCATE CONTROL JOINTS WITHIN TWO FEET OF STEEL BEAM BEARING LOCATIONS.

CONCRETE MIX DESIGN NOTES:

- MIX DESIGNS COMPRESSIVE STRENGTHS (fc) BASED ON 28 DAY DESIGN STRENGTH, UNLESS OTHERWISE NOTED.
- CONCRETE NOT OTHERWISE NOTED:
A. MINIMUM COMPRESSIVE STRENGTH (fc) = 3000 PSI
- FOUNDATIONS (SPREAD FOOTINGS, MAT FOOTINGS):
A. EXPOSURE CLASS = ACI 318 F0, S0, W0, C1
B. MINIMUM COMPRESSIVE STRENGTH (fc) = 3,000PSI
C. MAXIMUM W/CM = 0.5
D. BLENDED HYDRAULIC CEMENT = ASTM C595 TYPE 1L
E. SLUMP = 5" MAX PLUS OR MINUS 1", OR 8" MAX, PLUS OR MINUS 1" FOR CONCRETE WITH A VERIFIED SLUMP OF 3" PLUS OR MINUS 1" BEFORE ADDING HIGH-RANGE WATER-REDUCING OR PLASTICIZING ADMIXTURE
F. AIR CONTENT = NO REQUIREMENTS
G. AGGREGATE = NORMAL WEIGHT, ¾" NOMINAL
H. LIMIT WATER-SOLUBLE, CHLORIDE-ION CONTENT IN HARDENED CONCRETE TO 0.30 PERCENT BY WEIGHT OF CEMENT
- SLAB-ON-GRADE:
A. EXPOSURE CLASS = ACI 318 F1, S0, W0, C2
B. MINIMUM COMPRESSIVE STRENGTH (fc) = 5,000PSI
C. MAXIMUM W/CM = 0.4
D. BLENDED HYDRAULIC CEMENT = ASTM C595 TYPE 1L
E. SLUMP = 5" MAX PLUS OR MINUS 1", OR 8" MAX, PLUS OR MINUS 1" FOR CONCRETE WITH A VERIFIED SLUMP OF 3" PLUS OR MINUS 1" BEFORE ADDING HIGH-RANGE WATER-REDUCING OR PLASTICIZING ADMIXTURE
F. AIR CONTENT = 0.06
G. AGGREGATE = NORMAL WEIGHT, ¾" NOMINAL
H. LIMIT WATER-SOLUBLE, CHLORIDE-ION CONTENT IN HARDENED CONCRETE TO 0.15 PERCENT BY WEIGHT OF CEMENT

STRUCTURAL STEEL NOTES:

- STRUCTURAL STEEL MUST BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360.
- STRUCTURAL STEEL FABRICATOR MUST PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND BE A DESIGNATED AISC-CERTIFIED PLANT.
- STRUCTURAL STEEL INSTALLER MUST PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND BE A DESIGNATED AISC-CERTIFIED ERECTOR.
- STRUCTURAL STEEL MUST COMPLY WITH THE FOLLOWING SPECIFICATIONS:
A. STRUCTURAL STEEL SHAPES, PLATES AND BARS UNLESS OTHERWISE NOTED - ASTM A572, Fy = 50 KSI
B. STRUCTURAL STEEL W-SHAPES - ASTM A992, Fy = 50 KSI
C. HOLLOW STRUCTURAL SECTIONS (HSS):
a. SQUARE & RECTANGULAR - ASTM A500, GRADE C, Fy = 50 KSI
b. ROUND - ASTM A500, GRADE C, Fy = 46 KSI
D. ANCHOR RODS - ASTM F1554, GRADE 36
E. HIGH STRENGTH BOLTS - ASTM A325 (TYPICAL UON)
F. WASHERS - ASTM F436
G. NUTS - ASTM A563
H. HEADED STUDS - ASTM A29, GRADE 1010 THROUGH 1020
- UNLESS OTHERWISE NOTED, ALL REQUIRED DESIGN STRENGTHS AND REACTIONS INDICATED ARE BASED ON THE "LOADING COMBINATIONS USING STRENGTH DESIGN OR LOAD AND RESISTANCE FACTOR DESIGN" PER SECTION 1605.2 OF THE BUILDING CODE.
- STRUCTURAL STEEL FRAME IS CONSIDERED AS UNRESTRAINED FOR FIRE PROTECTION PURPOSES.
- ALL STEEL CONNECTIONS AND MEMBER REINFORCEMENT MUST BE DESIGNED BY FABRICATOR'S QUALIFIED PROFESSIONAL ENGINEER FOR LOADS INDICATED ON THE DRAWINGS, PER OPTION 3B OF ANSII/AISC 303 AND COMPLETE THE FOLLOWING:
A. SUBMIT STRUCTURAL CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA RESPONSIBLE FOR THEIR PREPARATION.
B. THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST REVIEW THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO VERIFY THAT THE CONNECTIONS AS DETAILED ON THE SHOP DRAWINGS COMPLY WITH THE CONNECTION DESIGN REQUIREMENTS OF THE FINAL CALCULATIONS.
C. A REVIEW LETTER, SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST BE PROVIDED WITH THE SHOP DRAWINGS AND CALCULATION SUBMITTAL STATING THAT THIS REVIEW AND VERIFICATION HAS BEEN COMPLETED.
- HIGH STRENGTH BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION, UNLESS OTHERWISE NOTED.
- BOLTED CONNECTIONS MAY USE NON-STANDARD HOLES, EXCEPT IN THE FOLLOWING LOCATIONS:
ALL FRAMING CONNECTIONS AT MOMENT FRAMES.
- PROVIDE ANGLE FRAMING AROUND OPENINGS LARGER THAN 6 INCHES IN ANY DIMENSION (INCLUDING ROOF DRAINS) TO SUPPORT STEEL DECK. REFERENCE PLANS AND TYPICAL DETAILS FOR SIZING REQUIREMENTS.
- WELDING MUST BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES MUST BE E70XX LOW HYDROGEN, UNLESS OTHERWISE NOTED. PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE REQUIRED BY TABLE J2.4 AISC 360.
- WELDING MUST BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES MUST BE E70XX LOW HYDROGEN, UNLESS OTHERWISE NOTED. PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE REQUIRED BY TABLE J2.4 AISC 360.
- SHOP PRIME STEEL SURFACES, EXCEPT THE FOLLOWING:
A. SURFACES EMBEDDED IN CONCRETE OR MORTAR. EXTEND PRIMING OF PARTIALLY EMBEDDED MEMBERS TO A DEPTH OF 2 INCHES.
B. SURFACES TO BE WELDED.
C. SURFACES TO RECEIVE SPRAYED FIRE-RESISTIVE MATERIALS.
D. GALVANIZED SURFACES.
E. SURFACES ENCLOSED IN INTERIOR CONSTRUCTION.
- CLEAN ALL STEEL SURFACES TO BE PAINTED. REMOVE LOOSE RUST, MILL SCALE, SPATTER, SLAG, OR FLUX DEPOSITS. PREPARE SURFACES IN ACCORDANCE WITH SSPC-SP3 SPECIFICATION AND STANDARD.
- HOT-DIP GALVANIZE AFTER FABRICATION THE FOLLOWING:
A. ANGLES AND PLATES SUPPORTING MASONRY IN EXTERIOR WALLS.
B. LINTELS AND LINTEL ASSEMBLIES SUPPORTING MASONRY IN EXTERIOR WALLS.
C. ALL STEEL EXPOSED TO WEATHER IN THE FINAL CONSTRUCTION.
D. ITEMS IDENTIFIED AS GALVANIZED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.
- STEEL MEMBERS MUST BE SPLICED ONLY WHERE INDICATED.

STEEL JOIST NOTES:

- STEEL JOISTS MUST BE IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI) STANDARD SPECIFICATIONS.
- JOIST BRIDGING MUST CONFORM TO SJI SPECIFICATIONS, INCLUDING BRIDGING REQUIRED FOR JOISTS SUBJECTED TO UPLIFT LOADS. PROVIDE CROSS-BRIDGING AT ENDS OF BRIDGING LINES AND CHANGES IN JOIST BRIDGING AND AT ROLLED STEEL SHAPES RUNNING PARALLEL TO JOISTS. BRIDGING SHOWN MUST BE PROVIDED, IN ADDITION TO THE REQUIRED STANDARD BRIDGING. ENDS OF ALL BRIDGING LINES MUST BE ANCHORED TO WALLS OR BEAMS.
- ROOF JOISTS MUST BE DESIGNED FOR A NET UPLIFT LOAD (LRFD) OR (ULTIMATE) OF 42 PSF.
- ALL JOISTS MUST BE DESIGNED FOR A CONCENTRATED LOAD OF 300 LBS. HUNG FROM THE JOIST TOP OR BOTTOM CHORD AT ANY POINT ALONG THE SPAN.
- PERMANENT SUSPENDED LOADS MUST NOT BE SUPPORTED BY JOIST BRIDGING.
- COMPLY WITH OSHA SAFETY STANDARDS FOR THE ERECTION OF STEEL JOISTS.

STEEL DECK NOTES:

- STEEL DECK MUST BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND THE STEEL DECK INSTITUTE (SDI), "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS."
- STEEL DECK INSTALLATION MUST COMPLY WITH THE FOLLOWING:
ROOF DECK: 1 1/2" x 20 GAGE TYPE 'B' GALVANIZED, UNLESS OTHERWISE NOTED. ATTACH DECK TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS IN ALL RIBS WHERE END LAPS OCCUR AND AT 16 INCHES ON CENTER ALONG SUPPORTS WITH A 36/4 PATTERN. FASTEN SIDE LAPS WITH #10 SELF-TAPPING HEX HEAD SCREWS AT 1/3 POINTS BETWEEN SUPPORTS. FASTEN EDGESTMOST DECK PANEL TO STEEL FRAMING WITH 5/8 INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.
- STEEL DECK MUST BE INSTALLED PERPENDICULAR TO SUPPORTS AND MUST HAVE A MINIMUM OF THREE CONTINUOUS SPANS. ENDLAPS MUST ONLY OCCUR AT SUPPORTS.
- WELDING MUST BE IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL".
- PERMANENT SUSPENDED LOADS MUST NOT BE SUPPORTED BY STEEL ROOF DECK.

COLD-FORMED METAL FRAMING NOTES:

- COLD-FORMED METAL FRAMING MUST BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS".
- SUBMITTED SHOP DRAWINGS MUST INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE CONNECTIONS, SUPPLEMENTAL STRAPPING, BRACING, SPLICES, BRIDGING, ACCESSORIES AND DETAILS AND CONSTRUCTION SEQUENCE REQUIRED FOR PROPER AND SAFE INSTALLATION.
- WELDING MUST BE IN ACCORDANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL". TOUCH UP ALL WELDS WITH SPECIFIED COATING SYSTEMS.
- COLD-FORMED METAL FRAMING MEMBERS MUST CONFORM TO ASTM C955, AND BE FORMED OF CORROSION-RESISTANT STEEL CONFORMING TO ASTM A653 AND ASTM C955 WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 43 MIL AND THINNER MEMBERS AND 50 KSI FOR ALL OTHER MEMBERS.
- MEMBER SECTION PROPERTIES MUST CONFORM TO PART 'I' OF THE "COLD-FORMED STEEL DESIGN MANUAL."

ROUGH CARPENTRY NOTES:

- ROUGH CARPENTRY MUST BE IN ACCORDANCE WITH THE AMERICAN WOOD COUNCIL (AWC) "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."
- WOOD STRUCTURAL PANELS (WSP) MUST COMPLY WITH PS 1 "U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" FOR PLYWOOD CONSTRUCTION PANELS AND THE FOLLOWING REQUIREMENTS:
A. ROOF SHEATHING: 9/16" INCH, APA RATED SHEATHING, EXTERIOR EXPOSURE DURABILITY CLASSIFICATION. PROVIDE TONGUE-AND-GROOVE EDGES OR USE "PLY-CLIPS" AT MID-SPAN BETWEEN EACH SUPPORT.
- ALL CONNECTION HARDWARE IN CONTACT WITH PRESERVATIVE TREATED WOOD MUST BE HOT-DIP GALVANIZED COATED.
- POWDER ACTUATED FASTENERS (PAF) MUST HAVE A MINIMUM ALLOWABLE CAPACITY INTO THE BASE MATERIAL AS FOLLOWS UNLESS OTHERWISE NOTED:
A. STEEL: SHEAR = 800 LBS
TENSION = 250 LBS

POST-INSTALLED ANCHOR NOTES:

- ALL POST INSTALLED ANCHORS INDICATED ON THE DRAWINGS ARE BY HILTI, INC. AND MUST BE CONSIDERED THE BASIS OF DESIGN PRODUCT. WHERE NOT EXPLICITLY INDICATED IN THE DRAWINGS, THE FOLLOWING ANCHORS/ADHESIVES MUST BE USED:
A. ANCHORAGE TO CONCRETE
1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC40U) WITH STEEL THREADED ROD PER ICC ESR-3187.
2. SCREW ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR-3027.
B. REBAR DOWELING INTO CONCRETE
1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC 40-U) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187.
C. ANCHORAGE TO SOLID GROUTED MASONRY
1. ADHESIVE ANCHORS USE:
a. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM (ICC PENDING).
b. STEEL ANCHOR ELEMENT MUST BE HILTI HAS-E CONTINUOUSLY THREADED ROD.
2. MECHANICAL ANCHORS USE:
a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR 3056.
- ALTERNATE POST INSTALLED ANCHOR PRODUCTS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW AND POSSIBLE APPROVAL. ALL SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE. ALTERNATE PRODUCTS MAY REQUIRE MODIFICATIONS TO ANCHOR DIAMETER, SPACING, AND EMBEDMENT.
- INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
- THE CONTRACTOR MUST ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.
- ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR MUST LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY FERROSCAN OR GPR.
- ALL POST INSTALLED ANCHORS REQUIRE CONTINUOUS INSPECTIONS BY THE OWNER'S MATERIALS TESTING AGENCY TO VERIFY INSTALLATION HAS BEEN PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

SHOP DRAWINGS AND SUBMITTALS:

- THESE DRAWINGS SHALL BE CHECKED AND COORDINATED WITH OTHER MATERIALS AND CONTRACTS BY THE GENERAL CONTRACTOR. SHOP DRAWINGS AND SUBMITTALS MUST BEAR THE CONTRACTOR'S REVIEW STAMP WITH CHECKER'S INITIALS BEFORE BEING SUBMITTED TO THE ARCHITECT FOR APPROVAL.
- WHEN THE FABRICATOR HAS BEEN AUTHORIZED TO USE THE ARCHITECT'S AND / OR ENGINEER'S DRAWINGS AS ERECTION DRAWINGS, THE FABRICATOR MUST REMOVE ALL TITLE BLOCKS, PROFESSIONAL SEALS, AND ANY OTHER REFERENCE TO THE ARCHITECT AND / OR ENGINEER FROM THAT ERECTION DRAWING.
- WHERE DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION COULD AFFECT THE NEW CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE FIELD MEASUREMENTS REQUIRED FOR INCORPORATION IN THE SHOP DRAWING AND PRIOR TO FABRICATION.

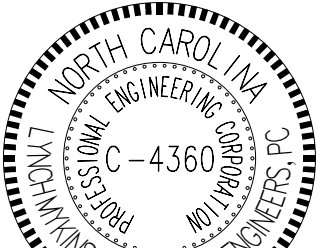
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03/19/2025

NO.	REVISION	DATE

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PROJECT STATUS
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GENERAL NOTES



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LM Project Number: LM23.030.1
Corporation No. C-4360

THESE DRAWINGS ARE RELEASED FOR THE FOLLOWING USE: ANY OTHER USE OF THE DRAWINGS IS AT THE RISK OF THE CONTRACTOR OR OTHER USER. THESE DRAWINGS FOR THAT UNAUTHORIZED USE. LYNCH MYKINS IS NOT RESPONSIBLE FOR ADDITIONAL COSTS DUE TO CHANGES, COORDINATION OR ADDITIONAL SCOPE OF WORK REQUIRED DUE TO SUCH UNAUTHORIZED USE.
[] PRELIMINARY DESIGN PRICING
[] EARLY FOUNDATION PACKAGE
[] EARLY ELEVATION PACKAGE
[] EARLY FLOOR PLAN PACKAGE
[] PRELIM SET
[] CONSTRUCTION SET

S001

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	KCJ	KEYED CONSTRUCTION JOINT
ARCH	ARCHITECT	Ld	REBAR TENSION
BD	BAR DIAMETER	Ldc	DEVELOPMENT LENGTH
BF	BRACED FRAME	Ldh	REBAR COMPRESSION
BEJ	BUILDING EXPANSION JOINT	Ldh	DEVELOPMENT LENGTH
BLDG	BUILDING	Ls	HOOKED REBAR TENSION
BM	BEAM	Ls	DEVELOPMENT LENGTH
BOD	BOTTOM OF DECK	Lsc	REBAR TENSION SPLICE
BOS	BOTTOM OF STEEL	Lsc	LENGTH
BOT, B	BOTTOM	Lsc	REBAR COMPRESSION SPLICE
BRG	BEARING	L	LENGTH
BTWN	BETWEEN	L	LOW
C TO C	CENTER TO CENTER	LLH	LONG LEG HORIZONTAL
CFMF	COLD-FORMED METAL FRAMING	LLV	LONG LEG VERTICAL
CJ	CONTROL JOINT	LSH	LONG SIDE HORIZONTAL
CL	CENTERLINE	LSV	LONG SIDE VERTICAL
CLR	CLEAR	LTWT	LIGHTWEIGHT
CMU	CONCRETE MASONRY UNIT	LWC	LIGHTWEIGHT CONCRETE
COL	COLUMN	MAS	MASONRY
CONC	CONCRETE	MATL	MATERIAL
CONN	CONNECTION	MAX	MAXIMUM
CONSTR	CONSTRUCTION	MECH	MECHANICAL
CONT	CONTINUOUS	MF	MOMENT FRAME
COORD	COORDINATE	MFR	MANUFACTURER
CTR	CENTER	MID	MIDDLE
CTRD	CENTERED	MIN	MINIMUM
DBA	DEFORMED BAR ANCHOR	MOD	MODIFY
DBL	DOUBLE	MOS	MIDDEPTH OF SLAB
DC	DIAPHRAGM CHORD	NOM	NOMINAL
DCJ	DOWELED CONSTRUCTION JOINT	NS	NEAR SIDE
DIA, Ø	DIAMETER	NTS	NOT TO SCALE
DIST	DISTANCE	OC	ON CENTER
DJ	DOUBLE JOIST	OPH	OPPOSITE HAND
DWGS	DRAWINGS	OPNG	OPENING
EA	EACH	PAF	POWDER ACTUATED FASTENER
EF	EACH FACE	PAR	PARALLEL
EJ	EXPANSION JOINT	PC	PIECE
EL	ELEVATION	PEMB	PRE-ENGINEERED METAL BUILDING
ELEV	ELEVATOR	PEN	PENETRATE, PENETRATION
EMBED	EMBEDMENT	PERP	PERPENDICULAR
EOD	EDGE OF DECK	PL	PLATE
EOS	EDGE OF SLAB	PT	POST-TENSIONED (CONC)
EQ	EQUAL	PT	PRESSURE TREATED (WOOD)
EW	EACH WAY	R	RADIUS
EXIST	EXISTING	REF	REFERENCE, REFER TO
EXP	EXPANSION	REINF	REINFORCE, REINFORCED, REINFORCING
EXT	EXTERIOR	REQD	REQUIRED
FD	FLOOR DRAIN	REQMTS	REQUIREMENTS
FDN	FOUNDATION	SCHED	SCHEDULE
FO	FACE OF	SF	STEPPED FOOTING
FF EL	FINISHED FLOOR ELEVATION	SGB	STEPPED GRADE BEAM
FIN	FINISH	SIM	SIMILAR
FIN FLR	FINISHED FLOOR	SJ	SAWED JOINT
FOB	FACE OF BUILDING	SL	SLOPE
FOC	FACE OF CONCRETE	SOG	SLAB-ON-GRADE
FOM	FACE OF MASONRY	SPF	SIDEPLATE FRAME
FOS	FACE OF SLAB/ STUD	STD	STANDARD
FRMG	FRAMING	STIFF	STIFFENER
FTG	FOOTING	TBE	TRUSS BEARING ELEVATION
FS	FAR SIDE	T&B	TOP & BOTTOM
FV, ±	FIELD VERIFY	T&G	TONGUE AND GROOVE
GALV	GALVANIZED	THK	THICKNESS
GC	GENERAL CONTRACTOR	TOC	TOP OF CONCRETE
GEN	GENERAL	TOF	TOP OF FOOTING
GR BM	GRADE BEAM	TOM	TOP OF MASONRY
H	HIGH	TOCP	TOP OF CONCRETE PEDESTAL
HK	HOOK	TOS	TOP OF STEEL
HORIZ	HORIZONTAL	TS	THICKENED SLAB
HSS	HOLLOW STRUCTURAL SECTION	TS/STR	THICKENED SLAB AT STAIR
HSA	HEADED STUD ANCHOR	TYP	TYPICAL
HT	HEIGHT	UON	UNLESS OTHERWISE NOTED
HVY	HEAVY	VERT	VERTICAL
INT	INTERIOR	W/	WITH
JBE	JOIST BEARING ELEVATION	WP	WORKING POINT
JT	JOINT	WSP	WOOD STRUCTURAL PANEL(S)
KCJ	KEYED CONSTRUCTION JOINT	WWR	WELDED WIRE REINFORCING

DRAWINGS LEGEND		
GENERAL ANNOTATIONS	ELEVATIONS	MASONRY
<div>SECTIONS</div> <div><div><div>X</div><div>SX</div></div><div>SECTION/DETAIL NUMBER/LETTER</div><div>= SECTION/DETAIL MARK</div><div>SHEET NUMBER WHERE SECTION/DETAIL MARK IS DRAWN</div></div>	<div>FOUNDATIONS</div> <div><div><div>(-X'-X")</div><div>=</div><div>TOP OF FOOTING ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div><div><div><div>X'-X"</div><div>=</div><div>TOP OF SLAB ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div></div></div> <div>FLOORS AND ROOF</div> <div><div><div>BOD = +X'-X"</div><div>=</div><div>BOTTOM OF DECK ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div><div><div><div>TOS = +X'-X"</div><div>=</div><div>TOP OF STEEL ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div><div><div><div>BOS = +X'-X"</div><div>=</div><div>BOTTOM OF STEEL ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div><div><div><div>TOM = +X'-X"</div><div>=</div><div>TOP OF MASONRY ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div><div><div><div>TBE = +X'-X"</div><div>=</div><div>TRUSS BEARING ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"</div></div></div></div></div></div></div>	<div>WALLS</div> <div><div><div><div><div></div></div></div><div>=</div><div>BEARING WALL EXTENDING ABOVE FLOOR / ROOF</div></div><div><div><div><div></div></div></div><div>=</div><div>BEARING WALL TERMINATING BELOW FLOOR / ROOF</div></div><div><div><div><div></div></div></div><div>=</div><div>NON-BEARING WALL BEARING ON FLOOR BELOW</div></div></div>
<div>COLUMNS</div> <div><div><div>GRID</div></div><div>= COLUMN GRID MARK</div></div>		
<div>GENERAL PLANS</div> <div><div><div><div>X</div></div></div><div>= PLAN KEY NOTE MARK</div><div><div><div>±</div></div><div>= FIELD VERIFY</div><div><div><div>SL</div></div><div>= DIRECTION OF SLOPE</div><div><div><div></div></div><div>= CHANGE IN ELEVATION</div><div><div><div></div></div><div>= CHANGE IN SLOPE</div></div></div></div></div></div>		
<div>SHALLOW FOUNDATIONS</div> <div><div><div><div></div></div></div><div>= SLAB-ON-GRADE JOINT</div><div><div><div>WFX</div></div><div>= WALL FOOTING MARK</div><div><div><div>CFX</div></div><div>= COLUMN FOOTING MARK</div></div></div></div>	<div>STEEL</div> <div><div>CONNECTIONS</div><div><div><div><div></div></div></div><div>= MOMENT CONNECTION</div><div><div><div><div></div></div></div><div>= KNUCKLED BEAM</div></div></div></div>	

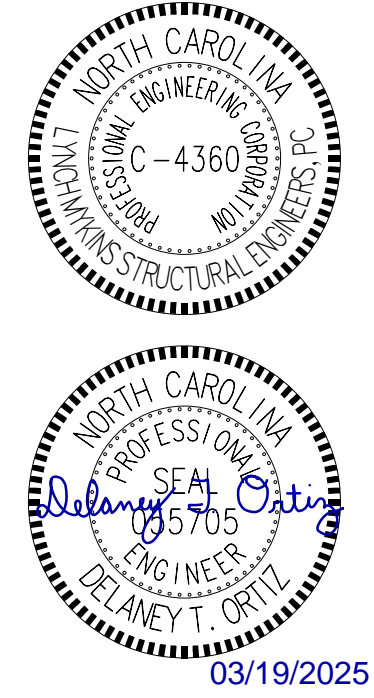
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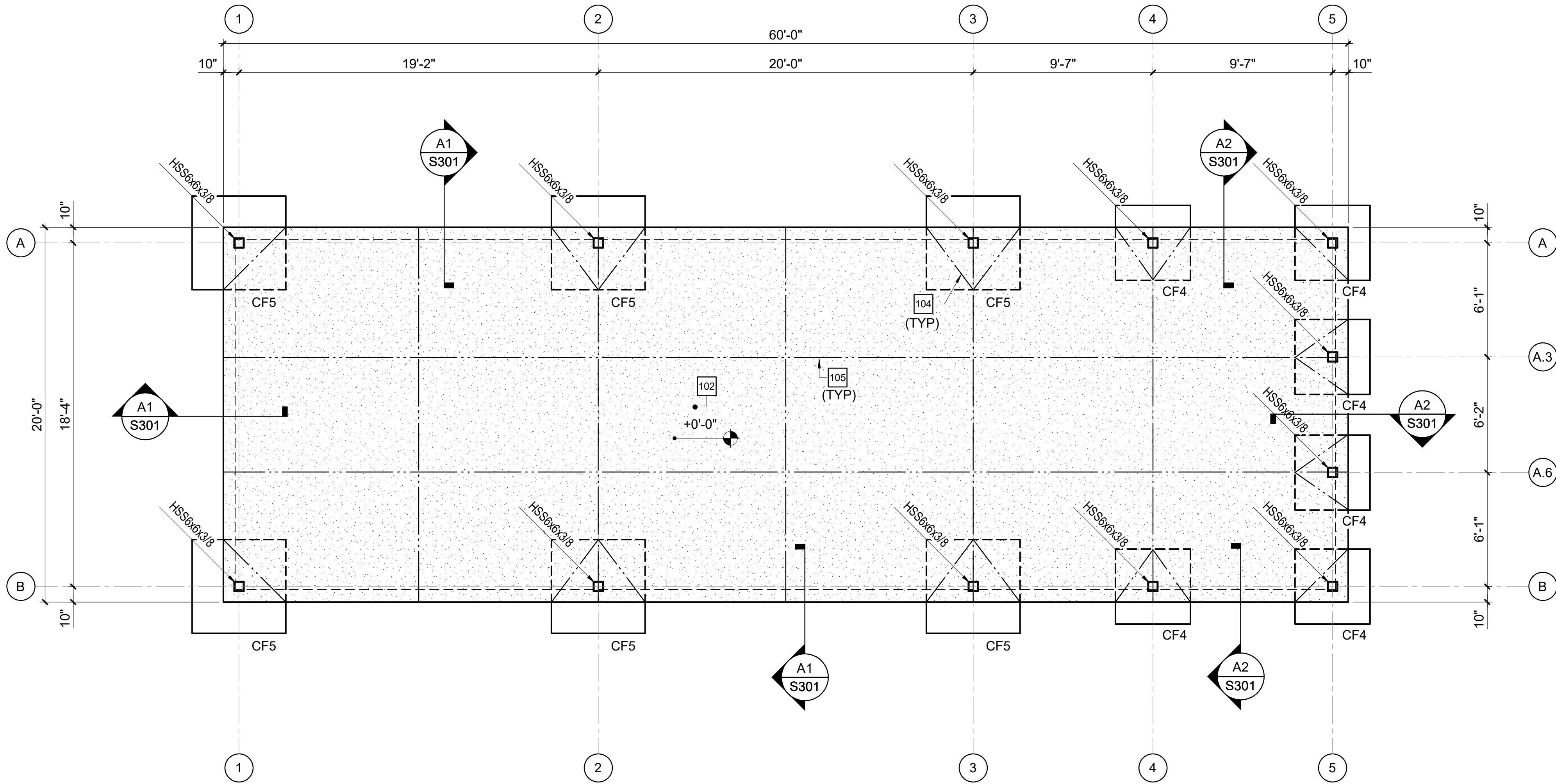
COLUMN FOOTING SCHEDULE						
MARK	SIZE			REINFORCING		REMARKS
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP	
CF4	4' - 0"	4' - 0"	1'-6"	(5) #5 EW	(5) #5 EW	-
CF5	5' - 0"	5' - 0"	1'-6"	(6) #5 EW	(6) #5 EW	-

FOUNDATION AND SLAB PLAN NOTES

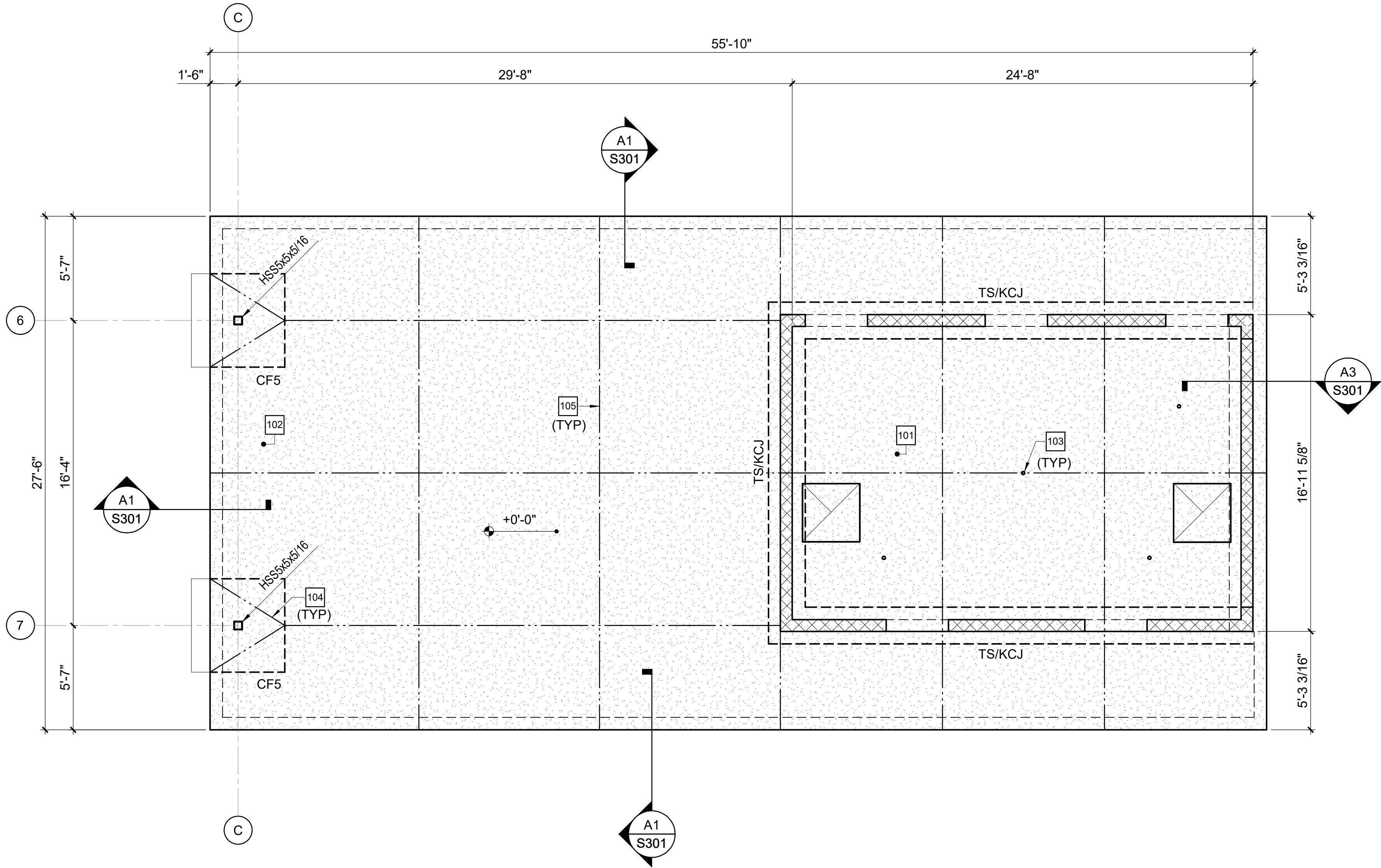
- A. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.
- B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS +288'-0" FOR THE COVERED STORAGE AND +296'-0" FOR THE RESTROOM AND SHADE STRUCTURE. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.
- C. TOP OF ALL FOOTINGS MUST BE AT ELEVATION -2'-0" UNLESS OTHERWISE NOTED.
- D. NO UTILITY LOCATIONS ARE SHOWN ON PLAN. THE CONTRACTOR MUST COORDINATE THE LOCATIONS, SIZES, AND INVERTS OF UTILITIES. THE CONTRACTOR MAY, AT HIS/HER OPTION, SLEEVE THE UTILITY THROUGH THE FOUNDATION PER THE "TYPICAL PIPE SLEEVE AT TURN DOWN FOOTING DETAILS."
- E. DIMENSIONS SHOWN ON FOUNDATION PLAN ARE TO COLUMN GRIDLINES, SLAB EDGE, AND OUTSIDE FACE OF CMU WALLS, UNLESS OTHERWISE NOTED.
- F. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT LIMITS OF SLAB DEPRESSIONS AND OMITTED SLABS.
- G. NOT ALL FLOOR SINKS AND DRAINS ARE NOT SHOWN ON PLAN. REFERENCE PME DRAWINGS FOR LOCATIONS.
- H. REFERENCE CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE SLABS AND PAVING.
- I. SLAB-ON-GRADE JOINTS MUST BE SAWED JOINTS OR KEYED CONSTRUCTION JOINTS. UNLESS OTHERWISE NOTED, CONTRACTOR MUST COORDINATE ALL SLAB JOINTS WITH JOINTS IN BONDED FLOOR FINISHES. REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR FINISH JOINT LOCATIONS.

KEY NOTES

- 101 4" CONCRETE SLAB-ON-GRADE. OVER VAPOR RETARBER AND 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH 6x6-W2.9xW2.9 PLACED 1 1/2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.
- 102 5" CONCRETE SLAB-ON-GRADE. OVER VAPOR RETARBER AND 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH 6x6-W2.9xW2.9 PLACED 1 1/2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.
- 103 FLOOR DRAINS. REFERENCE ARCHITECTURAL AND PME DRAWINGS.
- 104 DENOTES DIAMOND ISOLATION POUR. REFERENCE "TYPICAL COLUMN ISOLATION JOINT DETAILS." B4/S501.
- 105 DENOTES SAWCUT CONTROL JOINTS. REFERENCE "TYPICAL SAWED JOINT DETAIL." B1/S501



B1 FOUNDATION AND SLAB PLAN - COVERED STORAGE
1/4" = 1'-0"



A1 FOUNDATION AND SLAB PLAN - RESTROOM AND SHADE STRUCTURE
1/4" = 1'-0"



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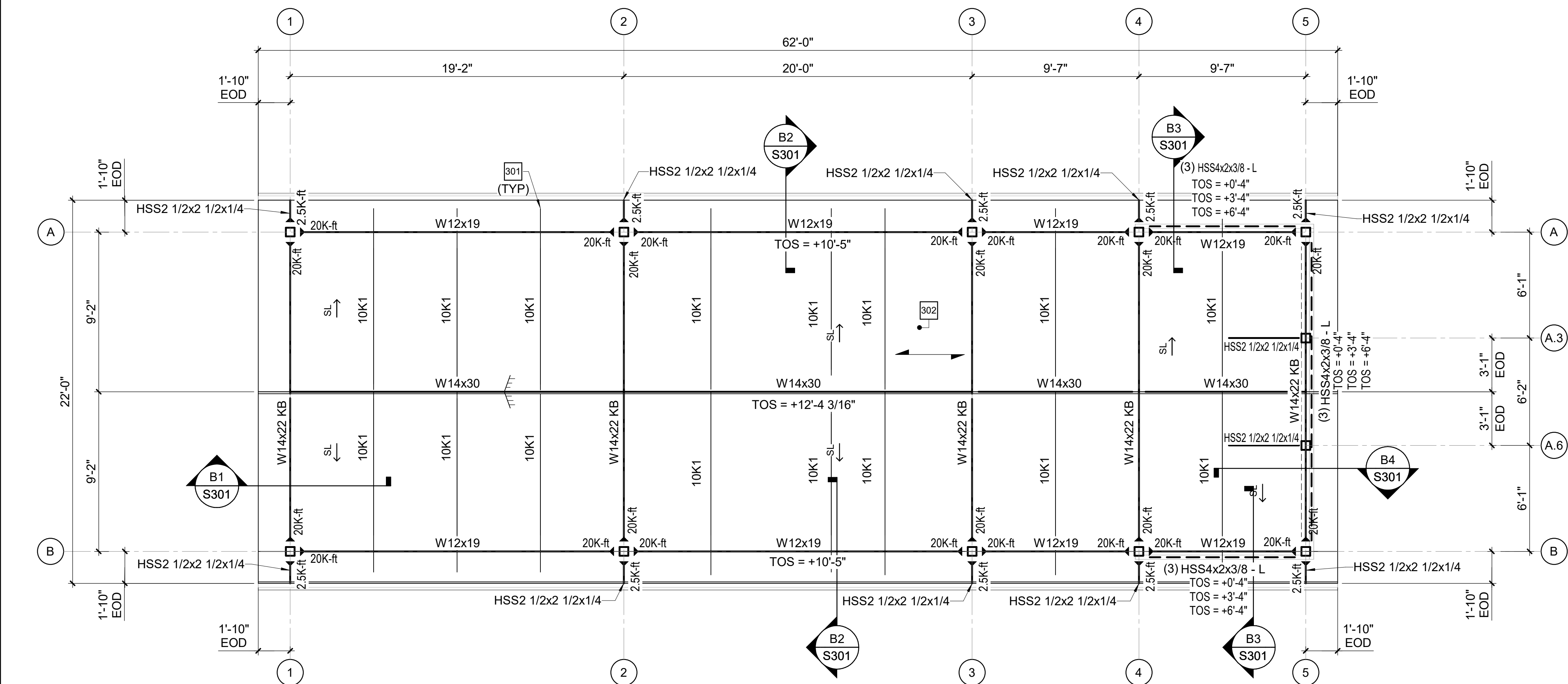


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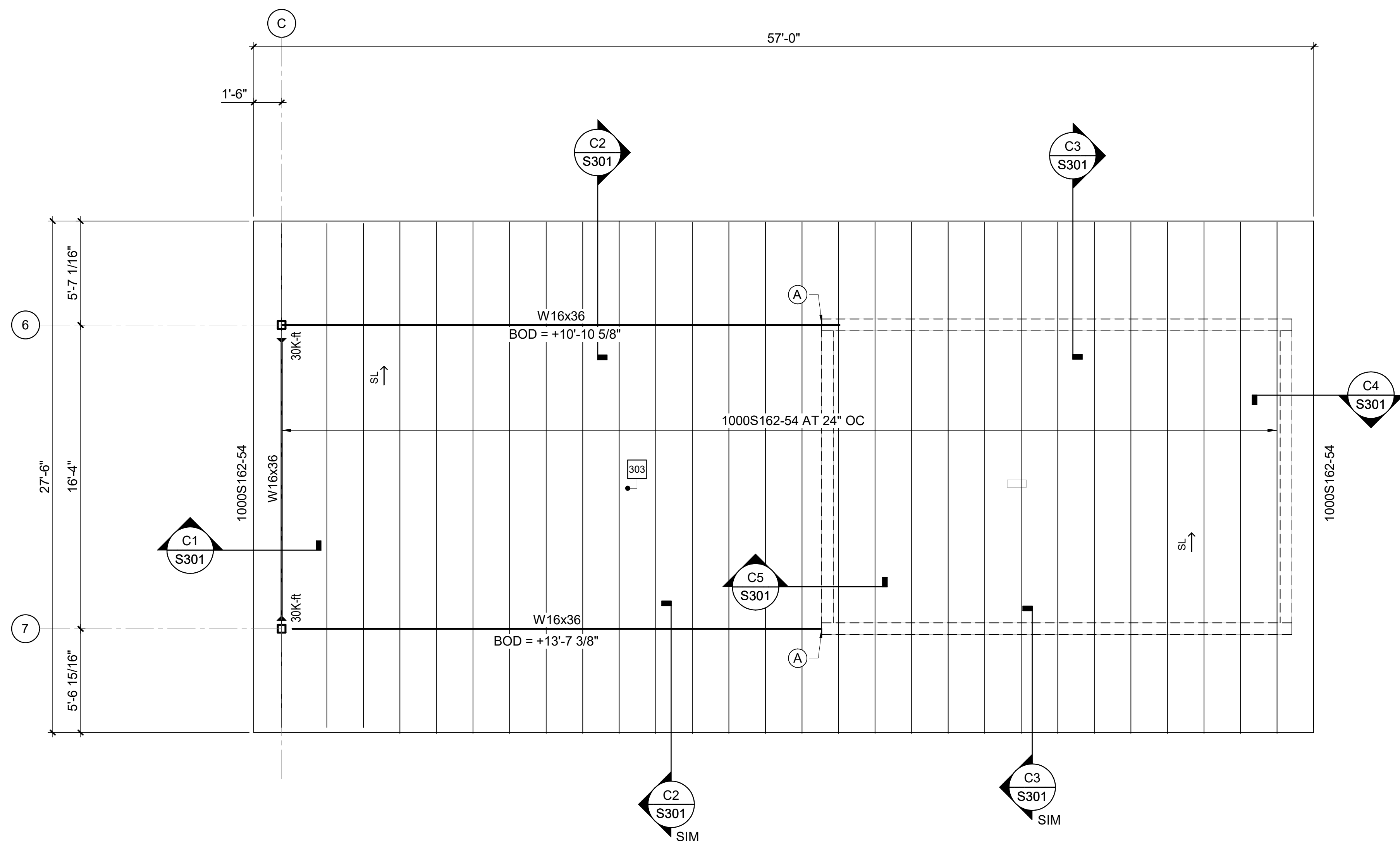
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FOUNDATION AND SLAB PLANS

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Corporation No. C-4360



B1 ROOF FRAMING AND DECK PLAN - COVERED STORAGE
1/4" = 1'-0"



A1 ROOF FRAMING AND DECK PLAN - RESTROOM AND SHADE STRUCTURE
1/4" = 1'-0"

FRAMING PLAN NOTES

- REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- STEEL ROOF FRAMING SUPPORTING 1 1/2" STEEL ROOF DECK MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 5'-0" ON-CENTER).
- AT STEEL ROOF FRAMING, BOTTOM OF DECK ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS MUST BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.
- COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

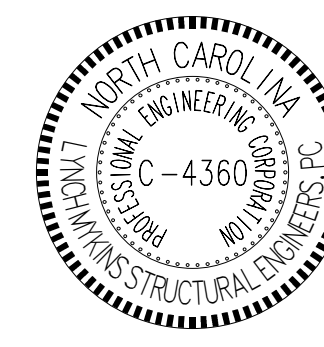
KEY NOTES

- R1 TOP CHORD EXTENSION.
- 1" x 20 GAGE ROOF DECK. REFERENCE "STEEL DECK NOTES" ON SHEET S-001 OF THE GENERAL NOTES.
- PLYWOOD SHEATHING. REFERENCE "ROUGH CARPENTRY NOTES" ON SHEET S-001 OF THE GENERAL NOTES.

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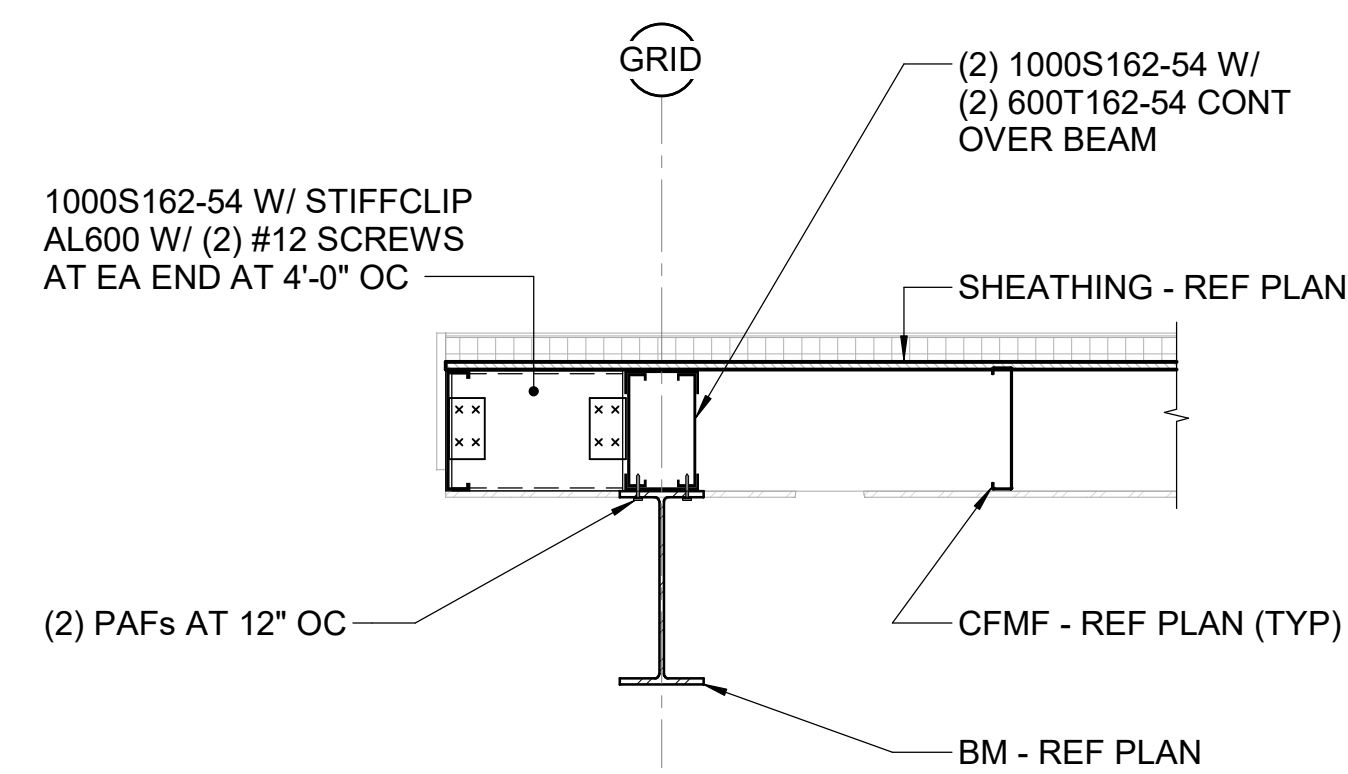
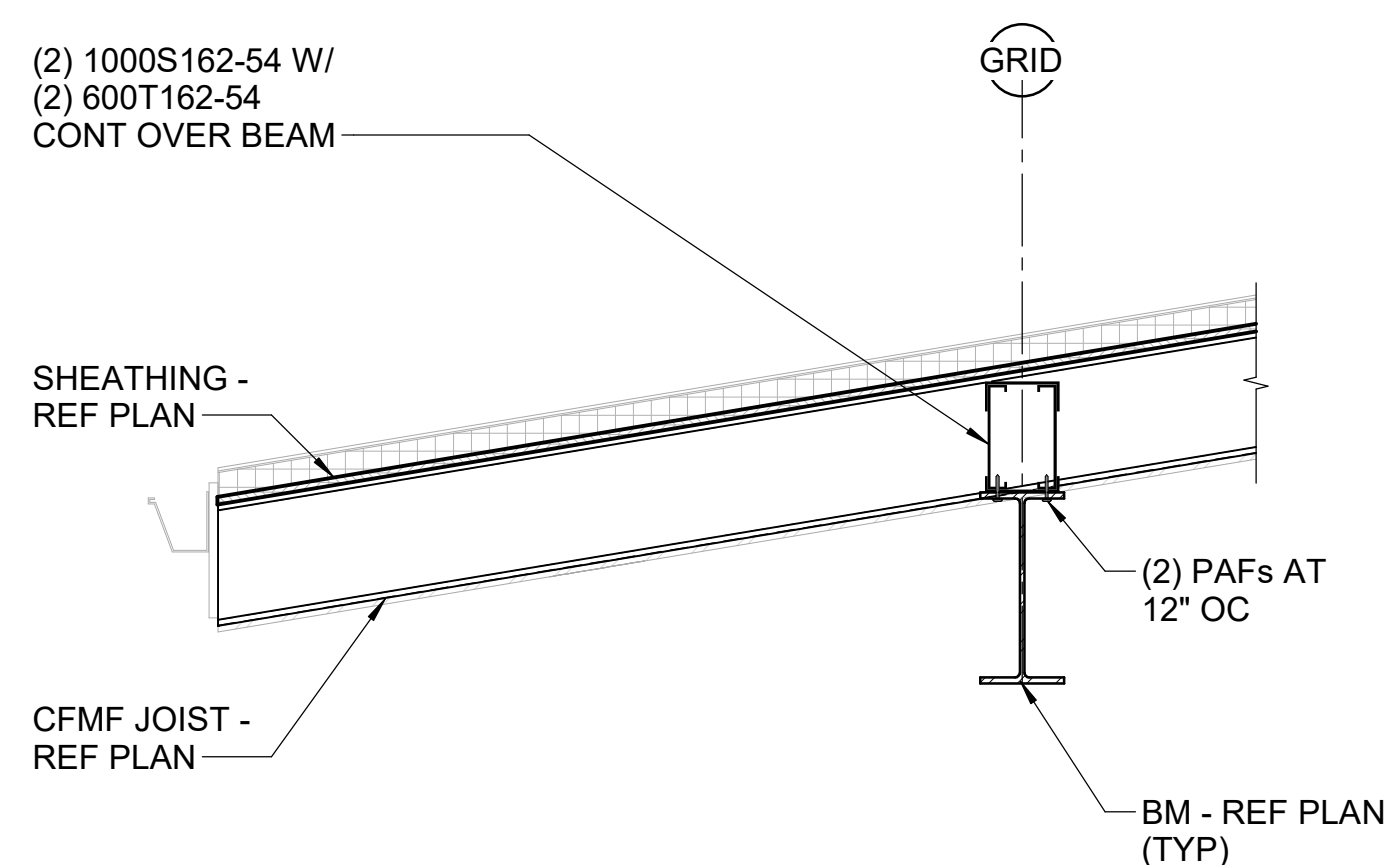
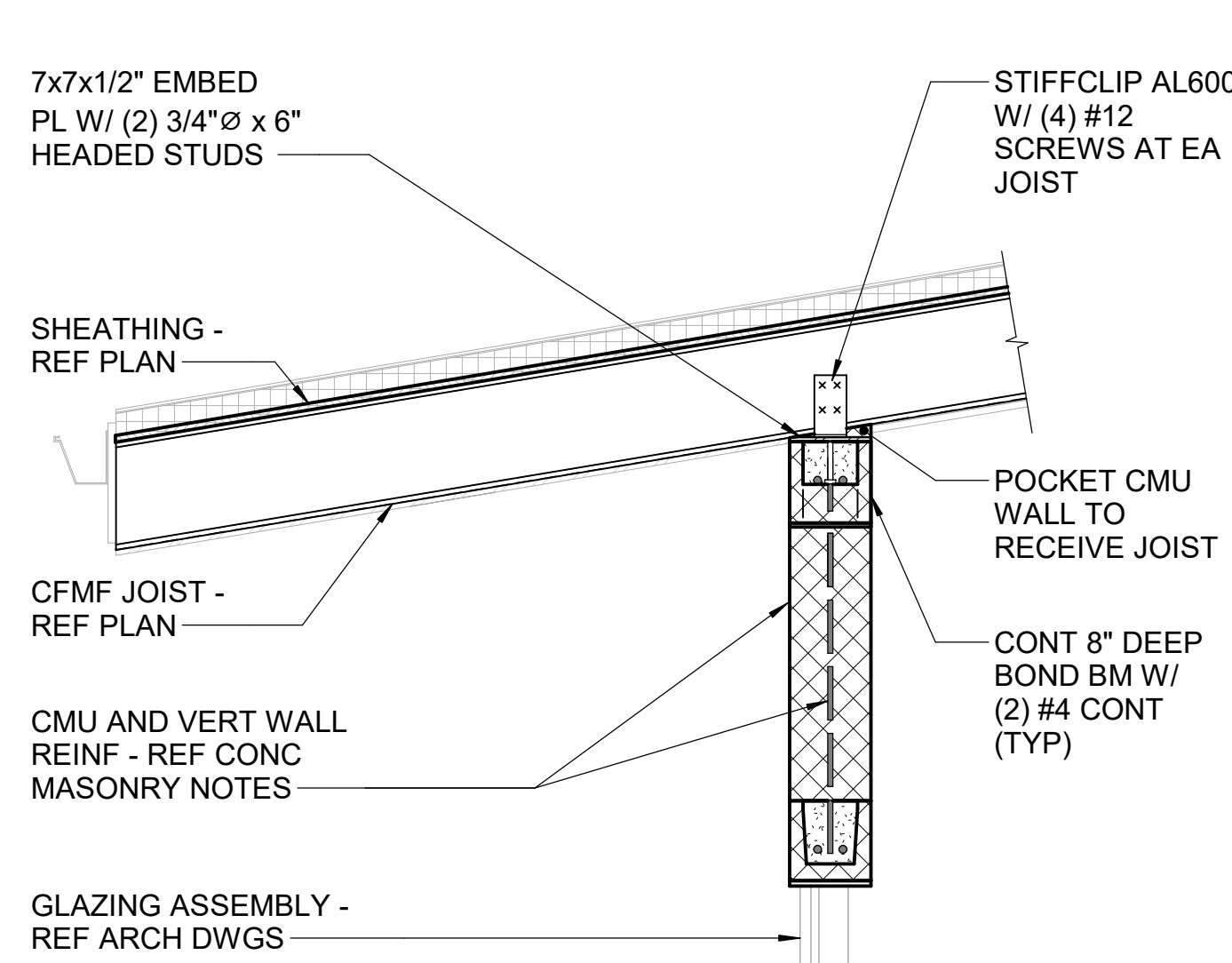
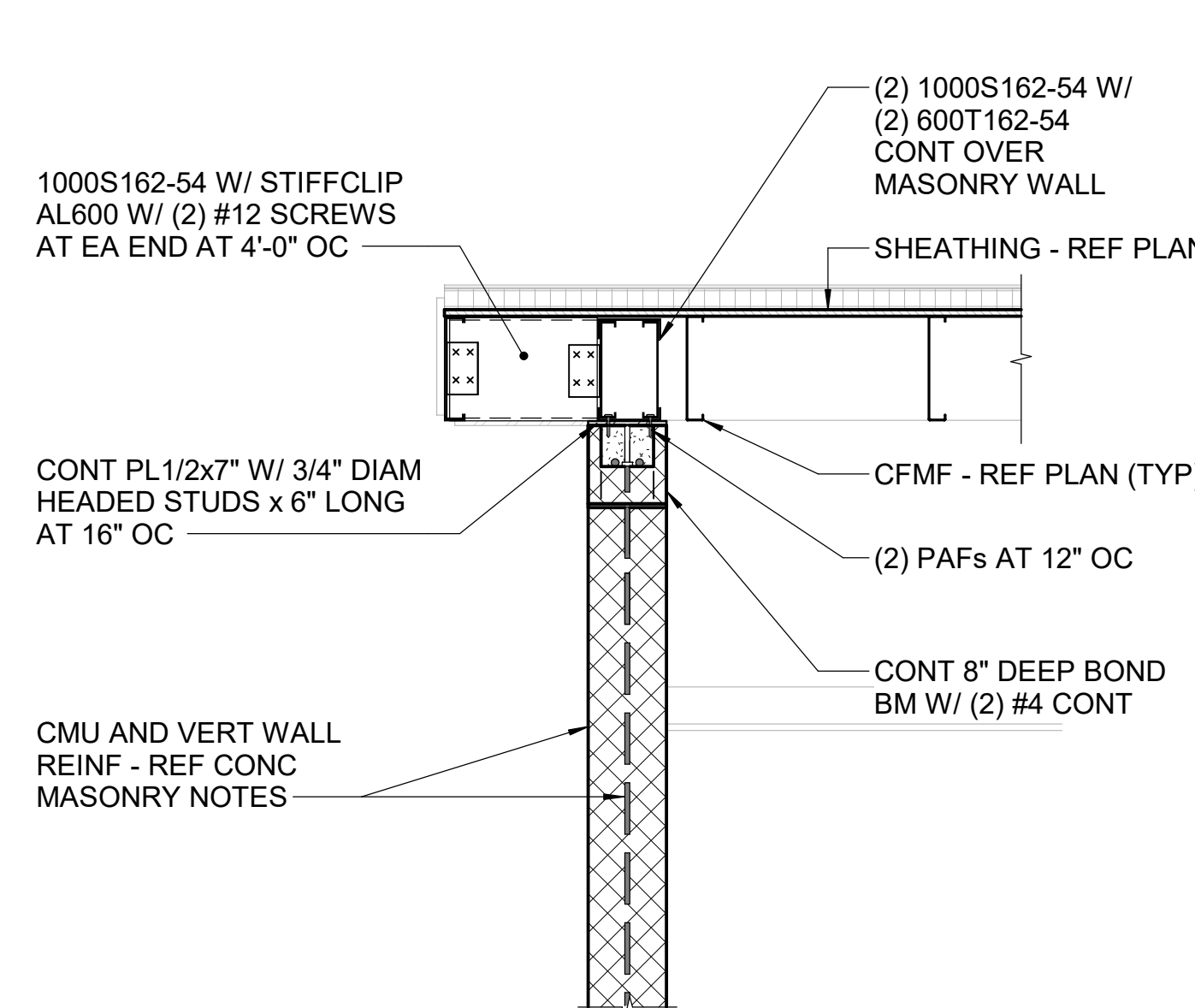
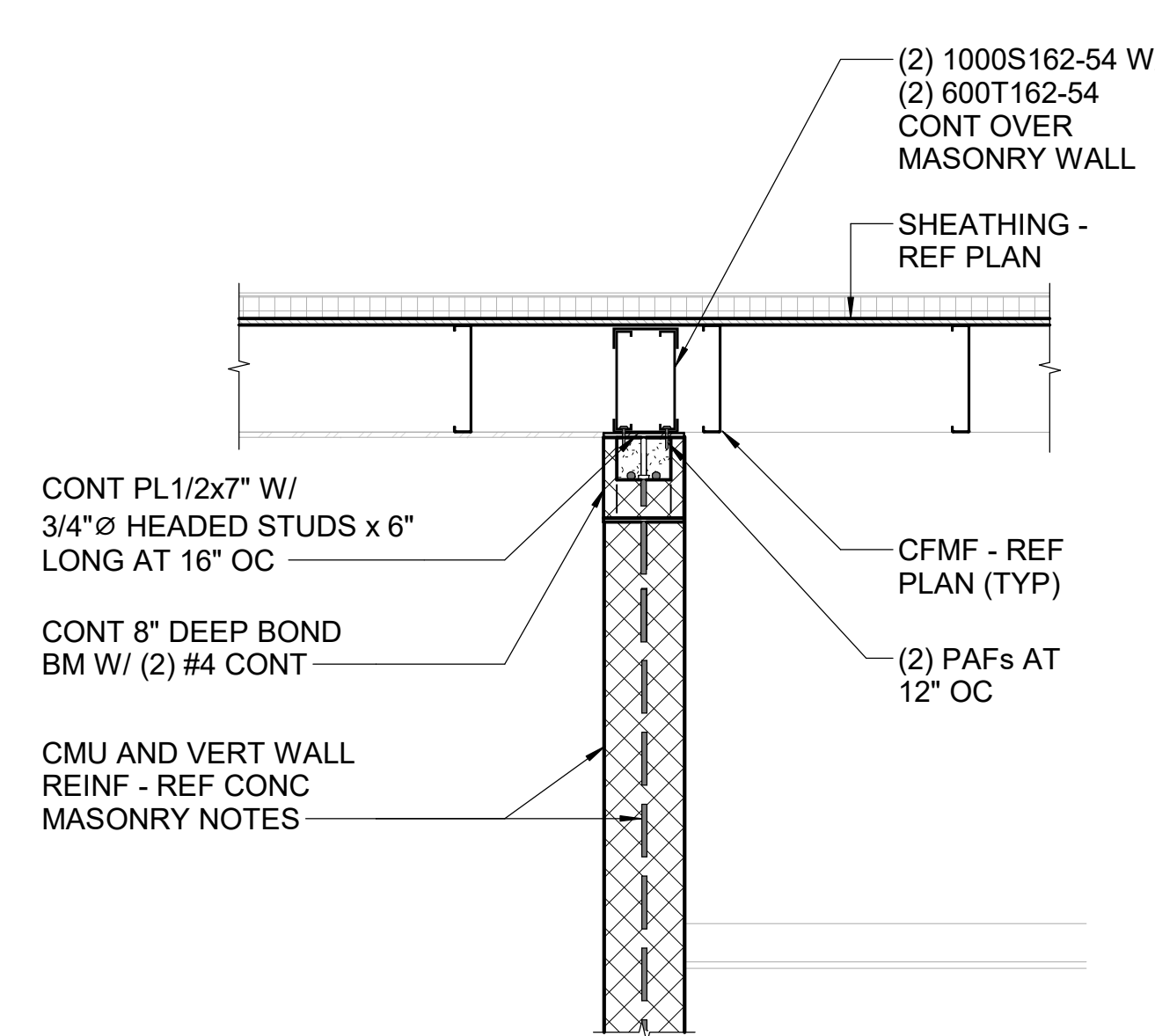
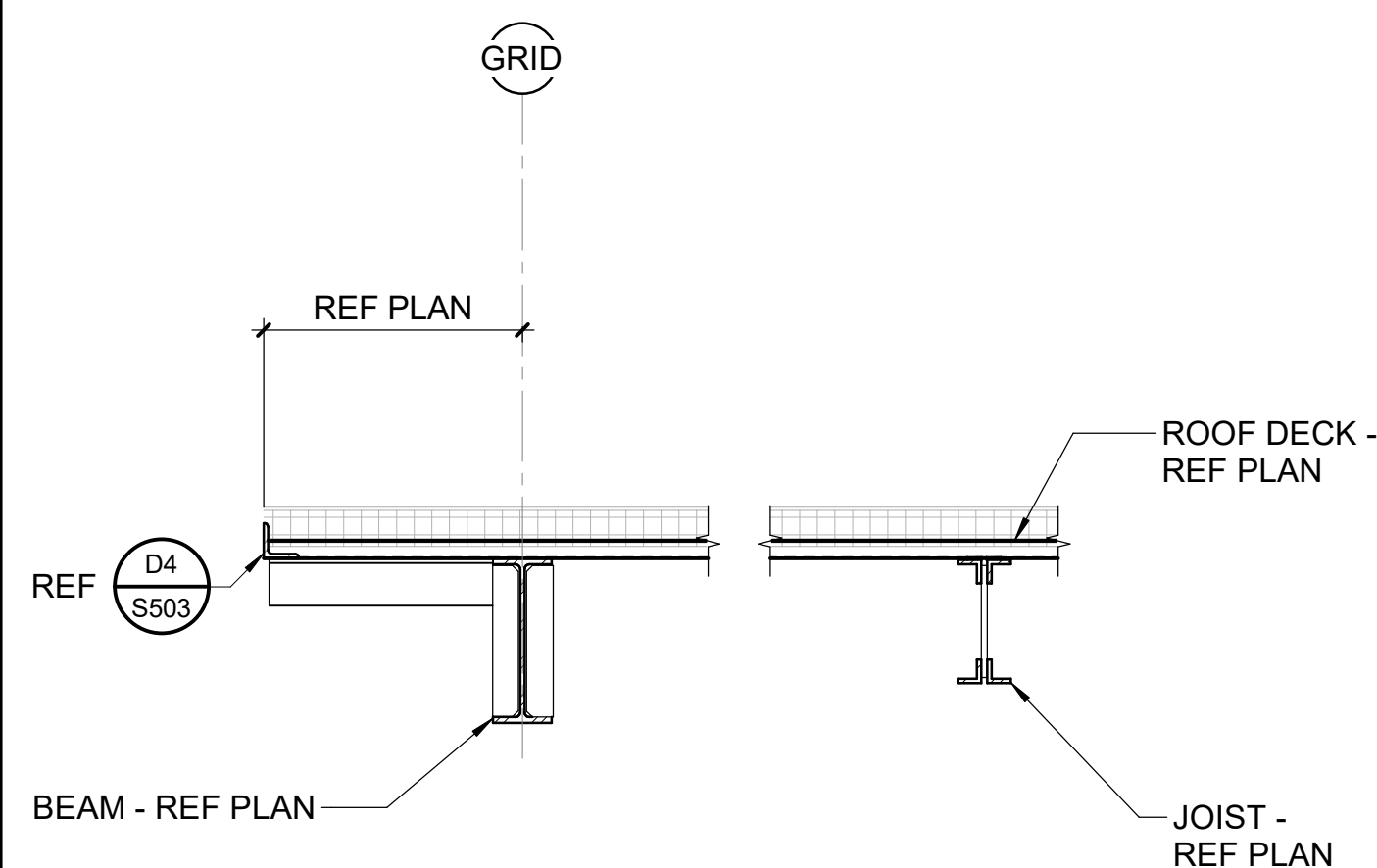
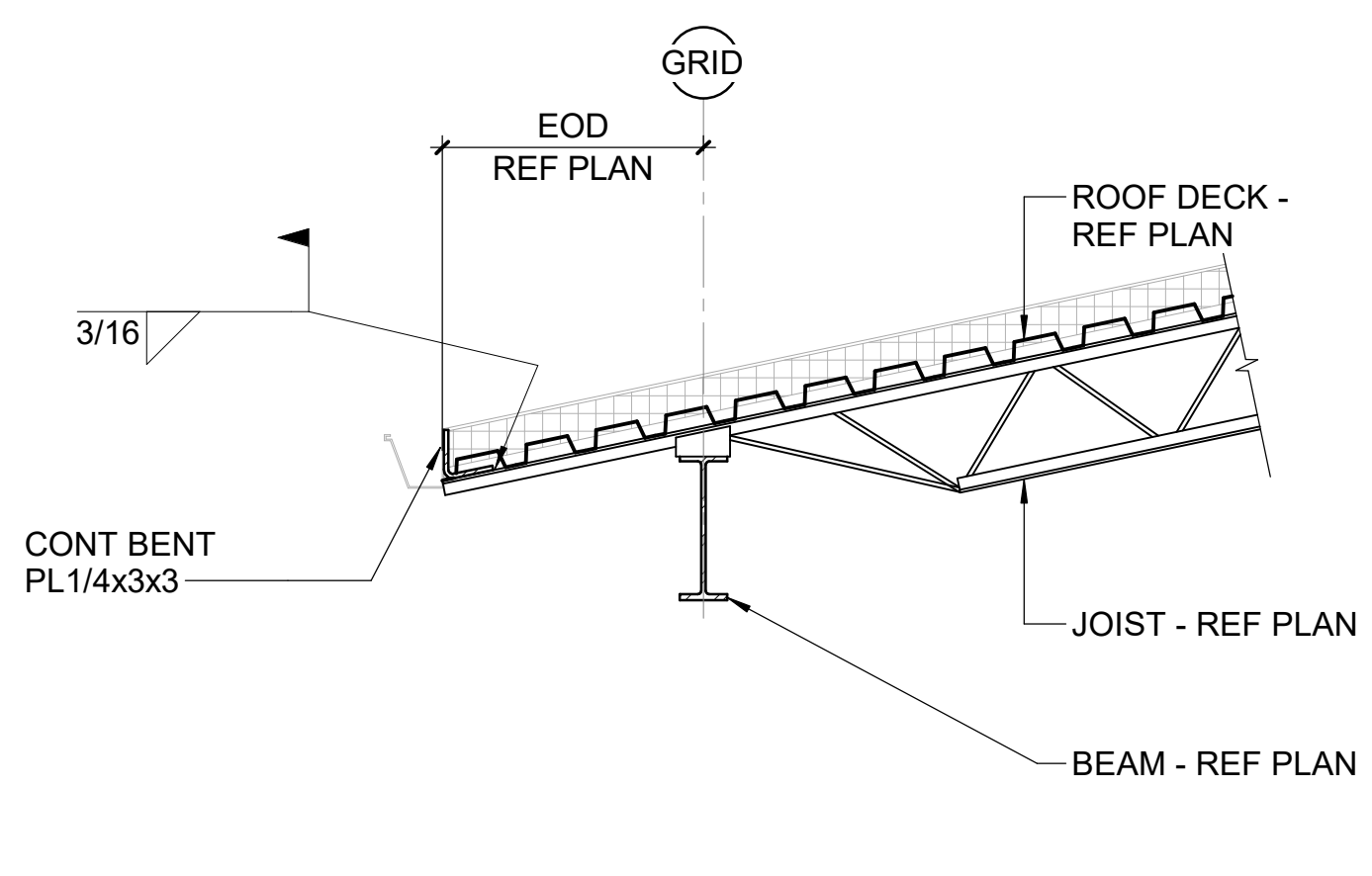
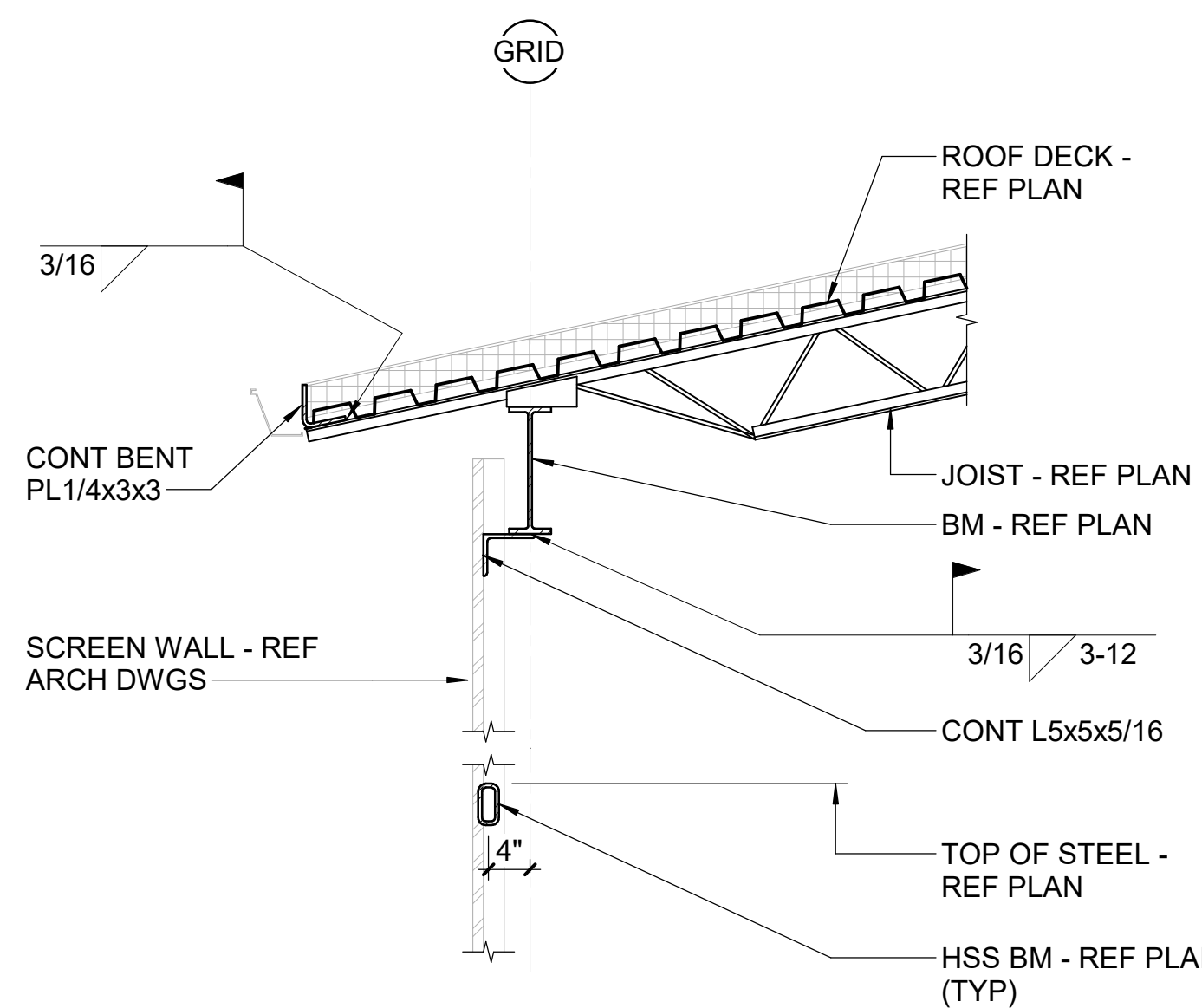
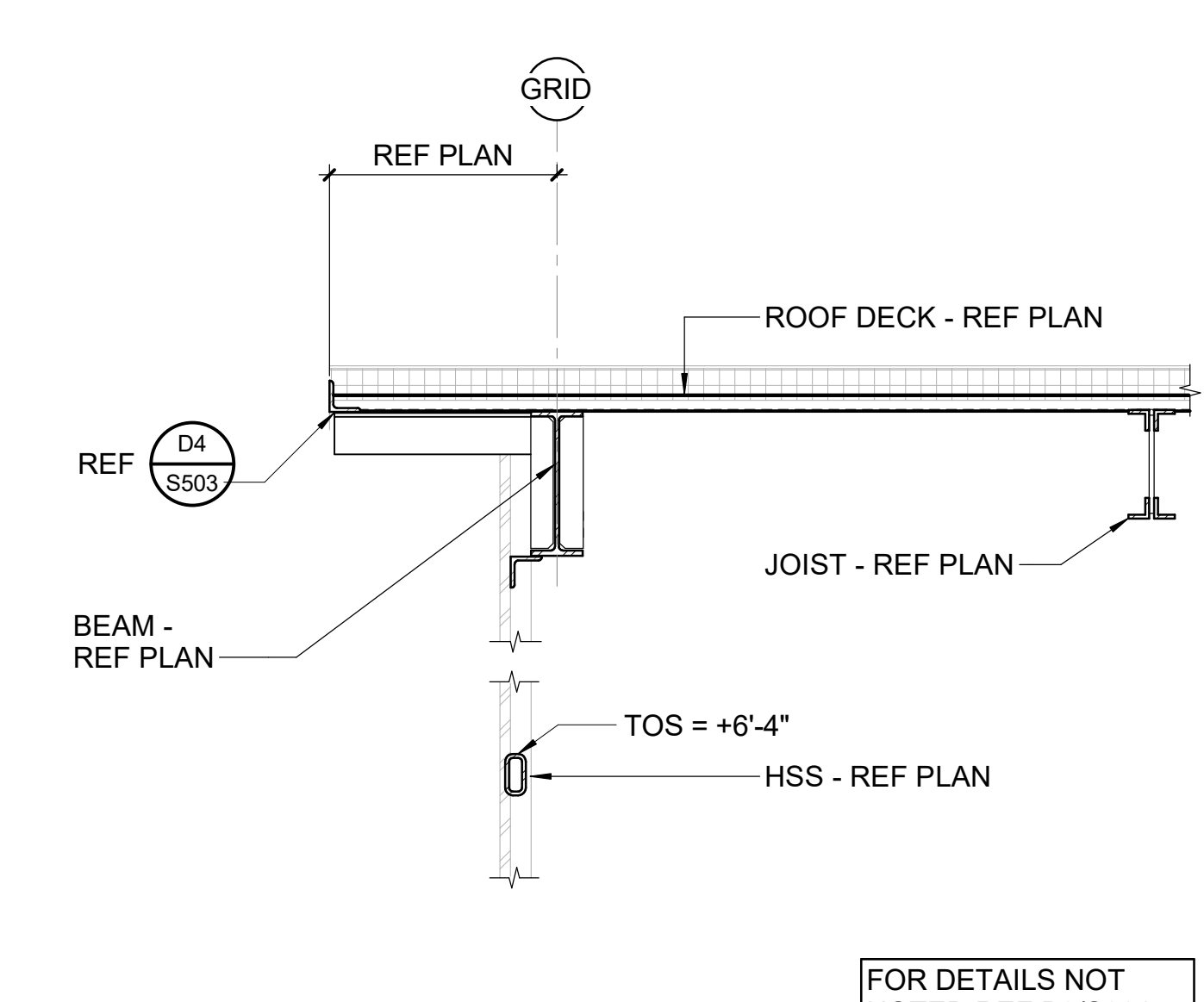
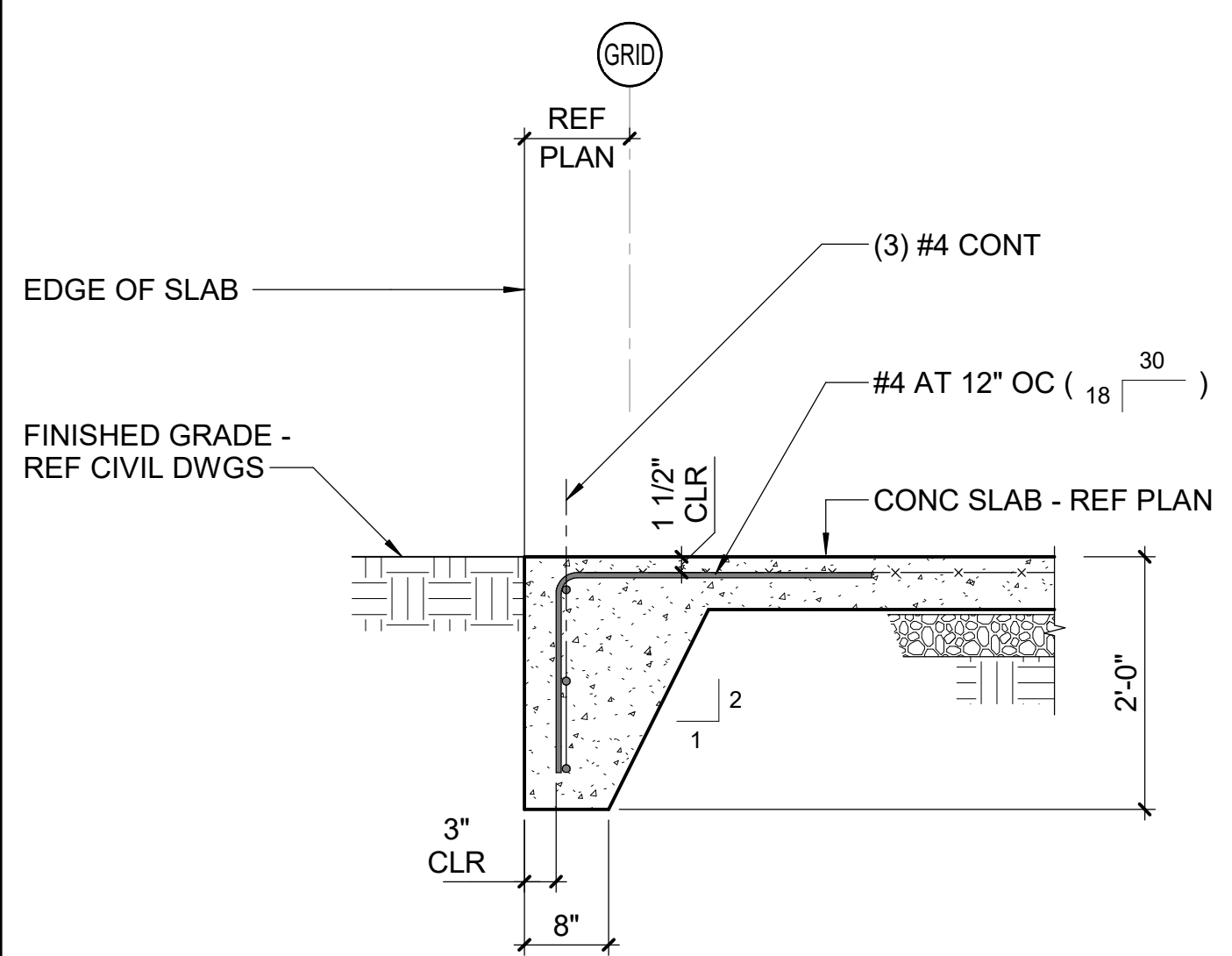
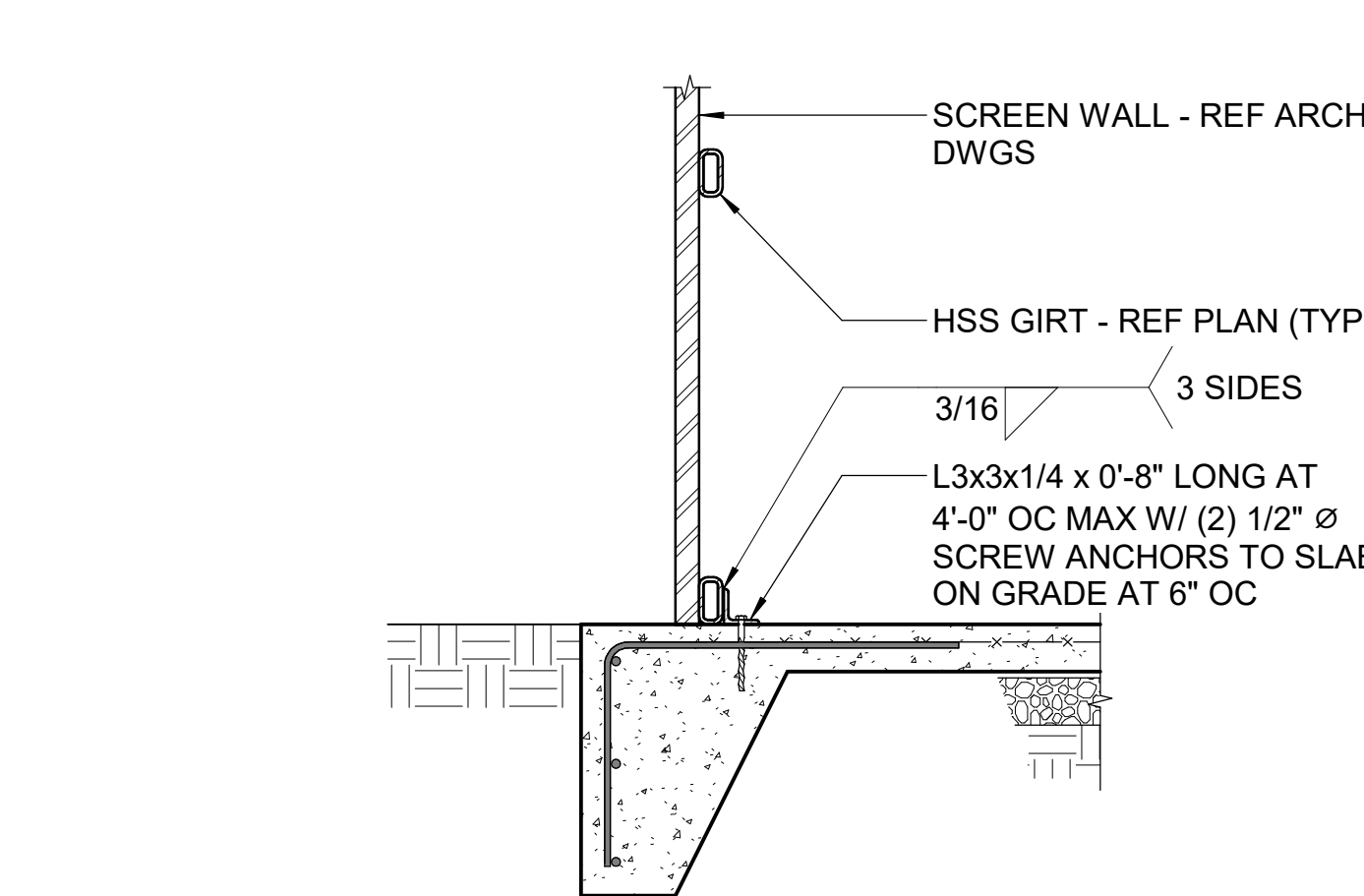
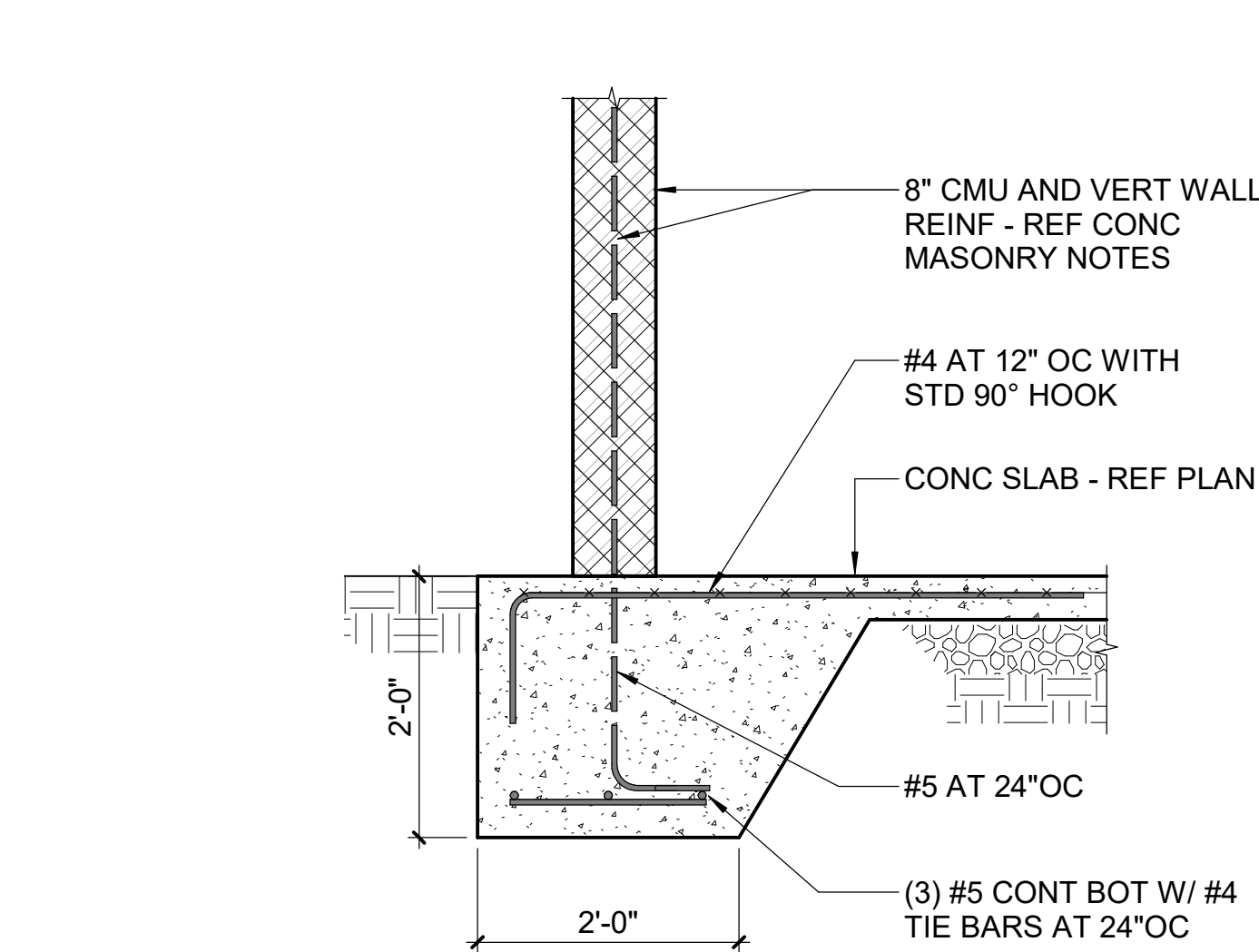
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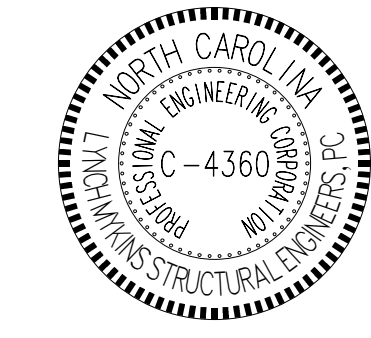
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5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303

NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/19/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
SECTIONSStructural Engineers
301 N West St., Suite 105
Raleigh, NC 27603
919.782.1833 - lynchmykins.com
LM Project Number: LM23.030.1
Corporation No. C-4360

S301

C1 SECTION
3/4" = 1'-0"C2 SECTION
3/4" = 1'-0"C3 SECTION
3/4" = 1'-0"C4 SECTION
3/4" = 1'-0"C5 SECTION
3/4" = 1'-0"B1 SECTION
3/4" = 1'-0"B2 SECTION
3/4" = 1'-0"B3 SECTION
3/4" = 1'-0"B4 SECTION
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3/4" = 1'-0"A2 SECTION
3/4" = 1'-0"A3 SECTION
3/4" = 1'-0"

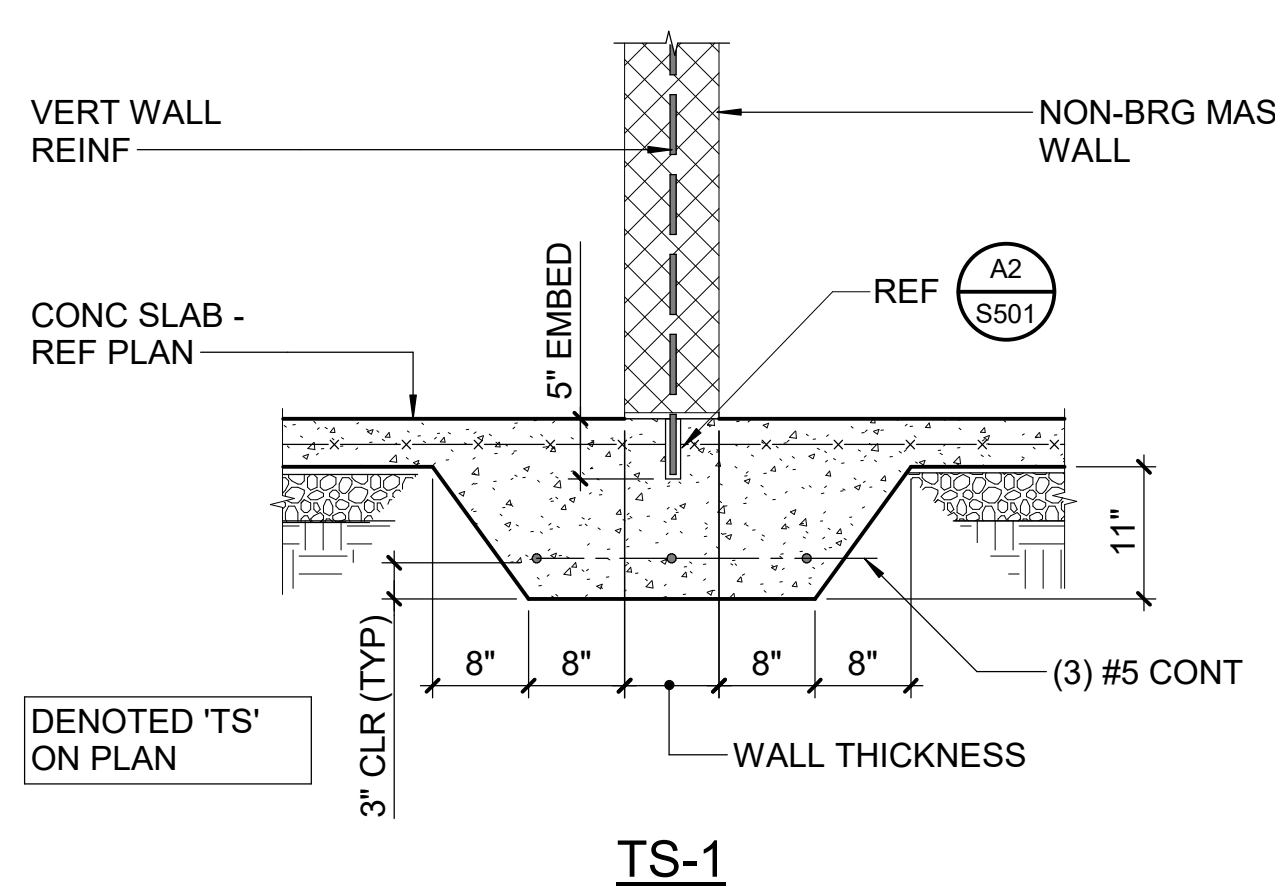


NO.	REVISION	DATE

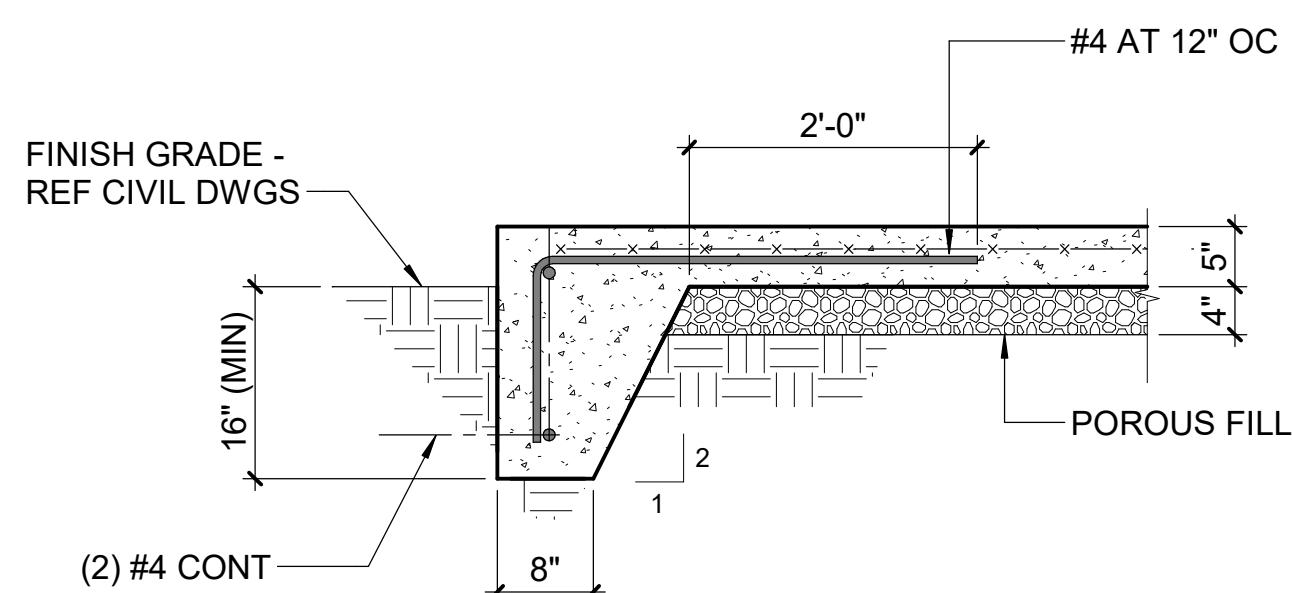
JOB NUMBER
22-086
DATE ISSUED
03/19/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
TYPICAL DETAILS



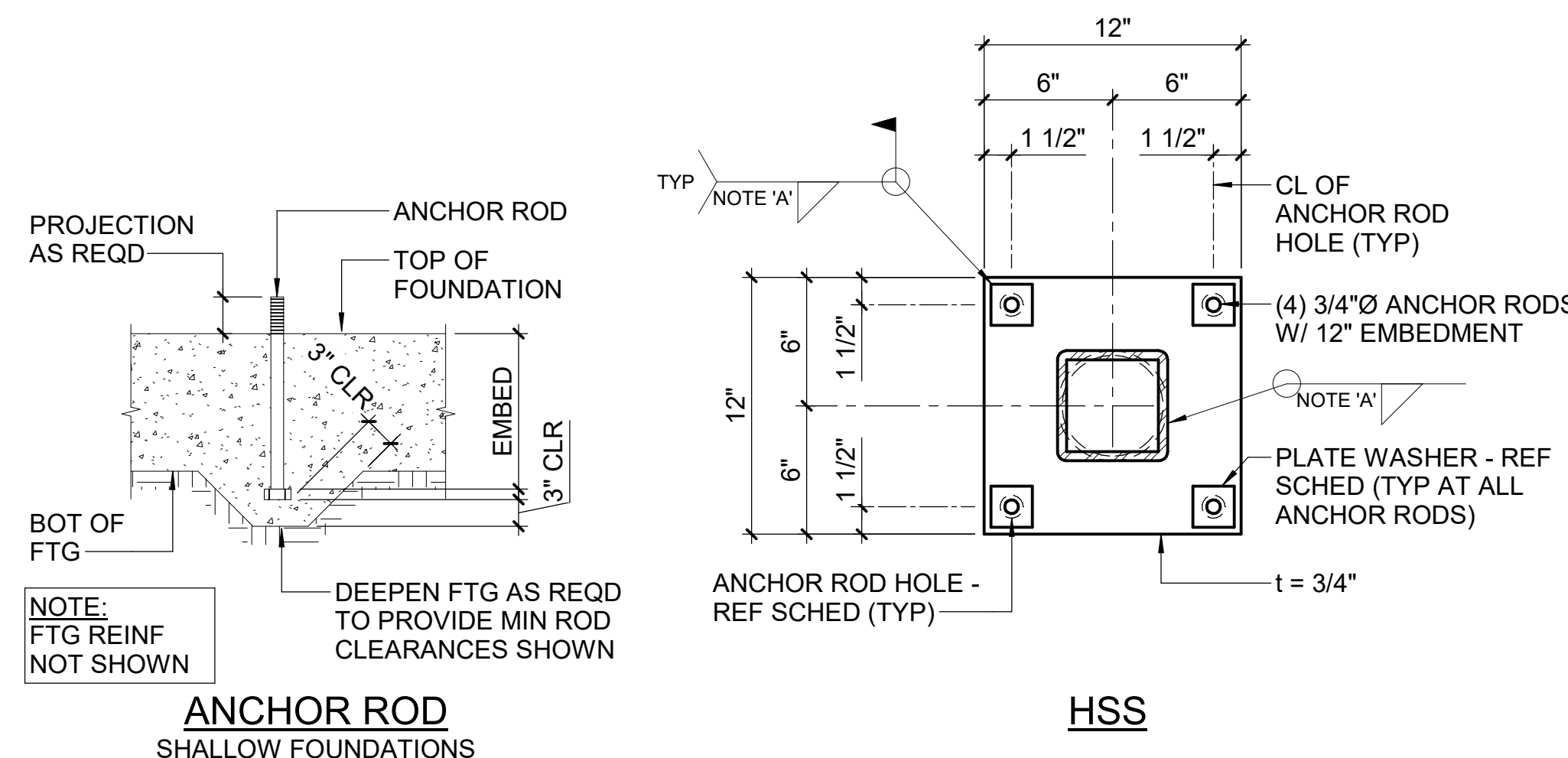
Structural Engineers
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Corporation No. C-4360



C1 TYPICAL THICKENED SLAB DETAIL
NTS



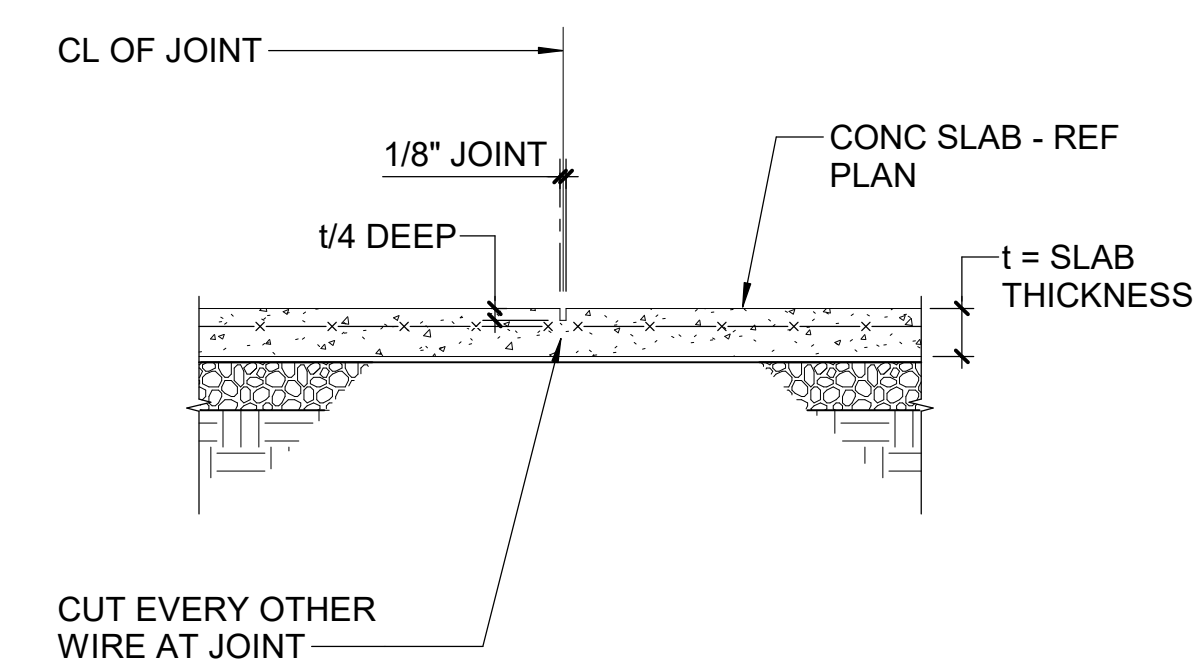
C2 TYPICAL EXTERIOR SLAB TURNDOWN DETAIL
NTS



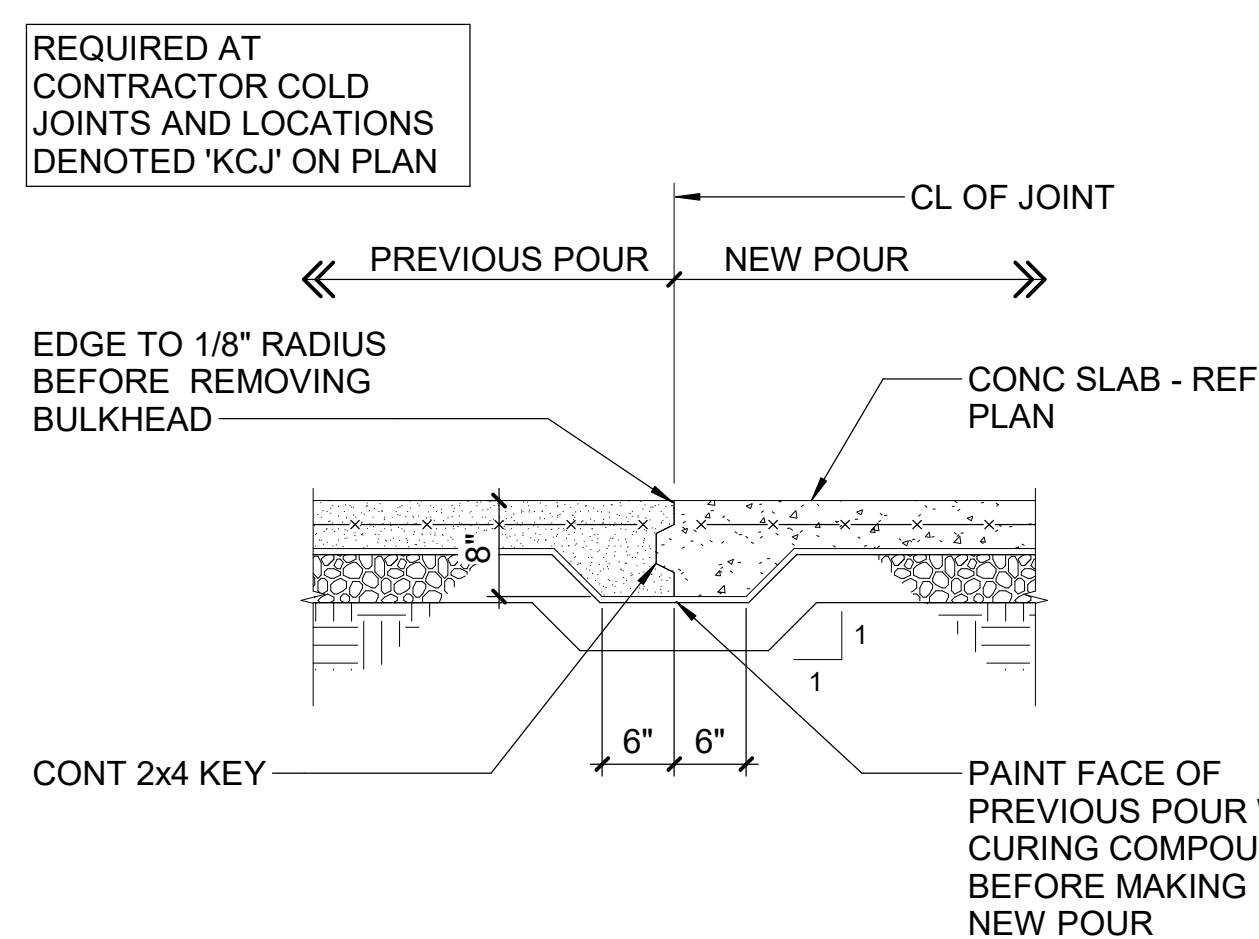
C3 TYPICAL COLUMN BASE PLATE AND ANCHOR ROD DETAILS
NTS

ANCHOR ROD HOLES AND WASHER SCHEDULE						
ANCHOR ROD	OVERSIZED HOLE WITH PLATE WASHER				STANDARD HOLE	
	BASE PLATE HOLE	WASHER SIZE	WASHER HOLE	WASHER THICKNESS	BASE PLATE HOLE	WASHER
3/4"Ø	1 5/16"Ø	2" SQ	13/16"Ø	1/4"	1 1/16"Ø	ASTM F844

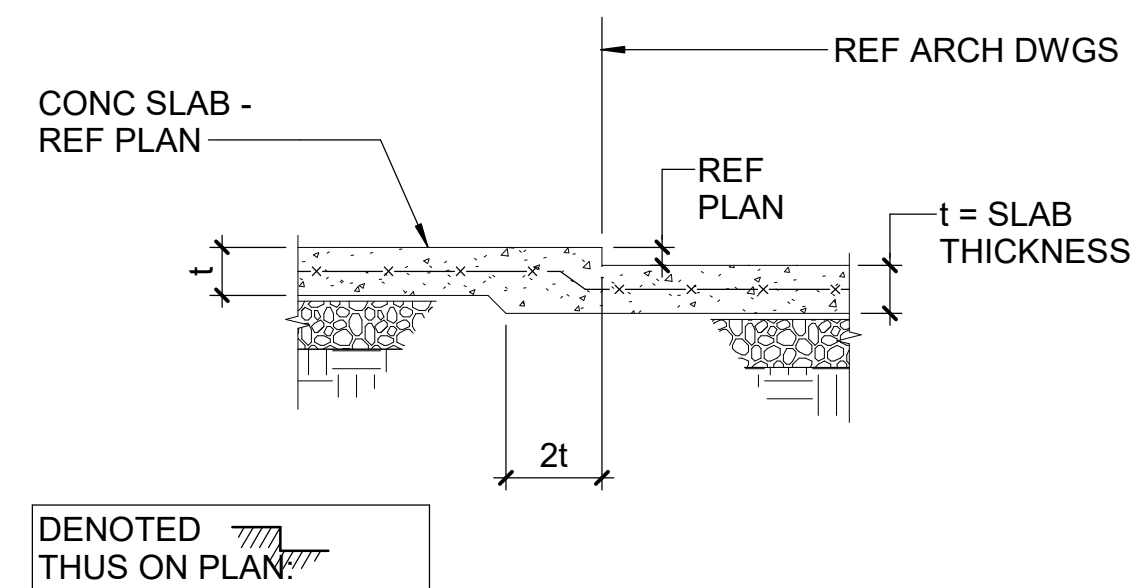
NOTE:
A. PROVIDE MINIMUM SIZE WELD PER AISC TABLE J2.4.
B. GENERAL CONTRACTOR'S OPTION TO USE STANDARD OR OVERSIZED HOLES IN GRAVITY COLUMN BASE PLATES. NO WELDING REQUIRED AT PLATE WASHERS USED WITH OVERSIZED HOLES.



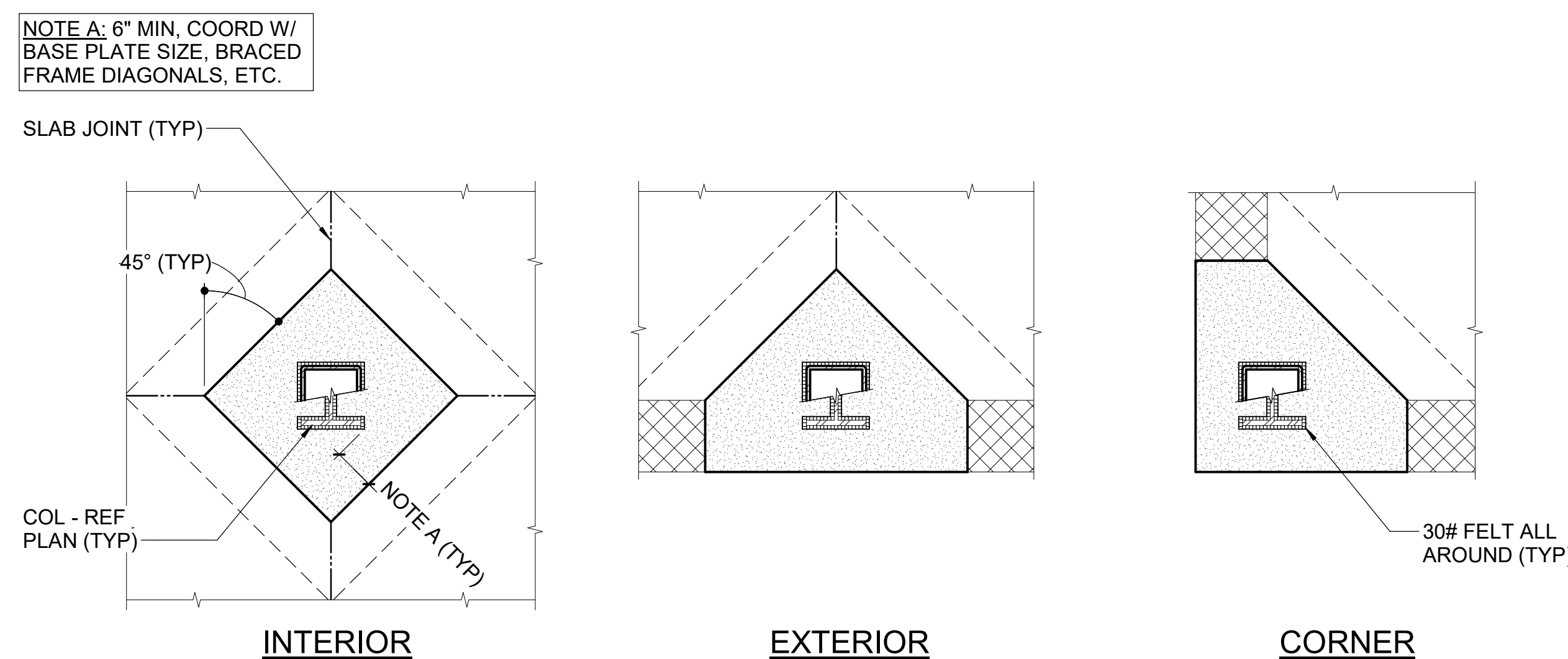
B1 TYPICAL SAWED JOINT DETAIL
NTS



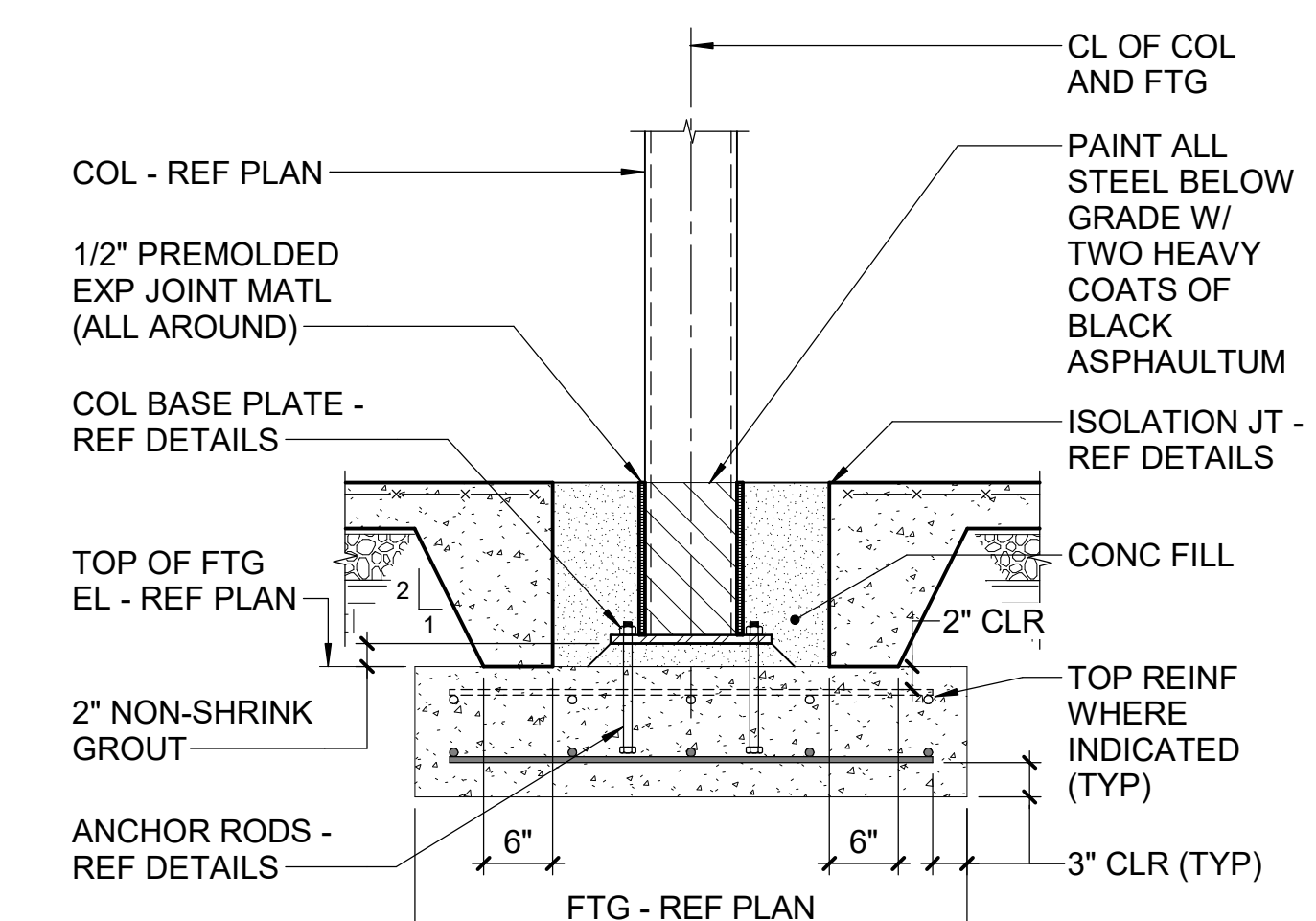
B2 TYPICAL KEYED CONSTRUCTION JOINT DETAIL
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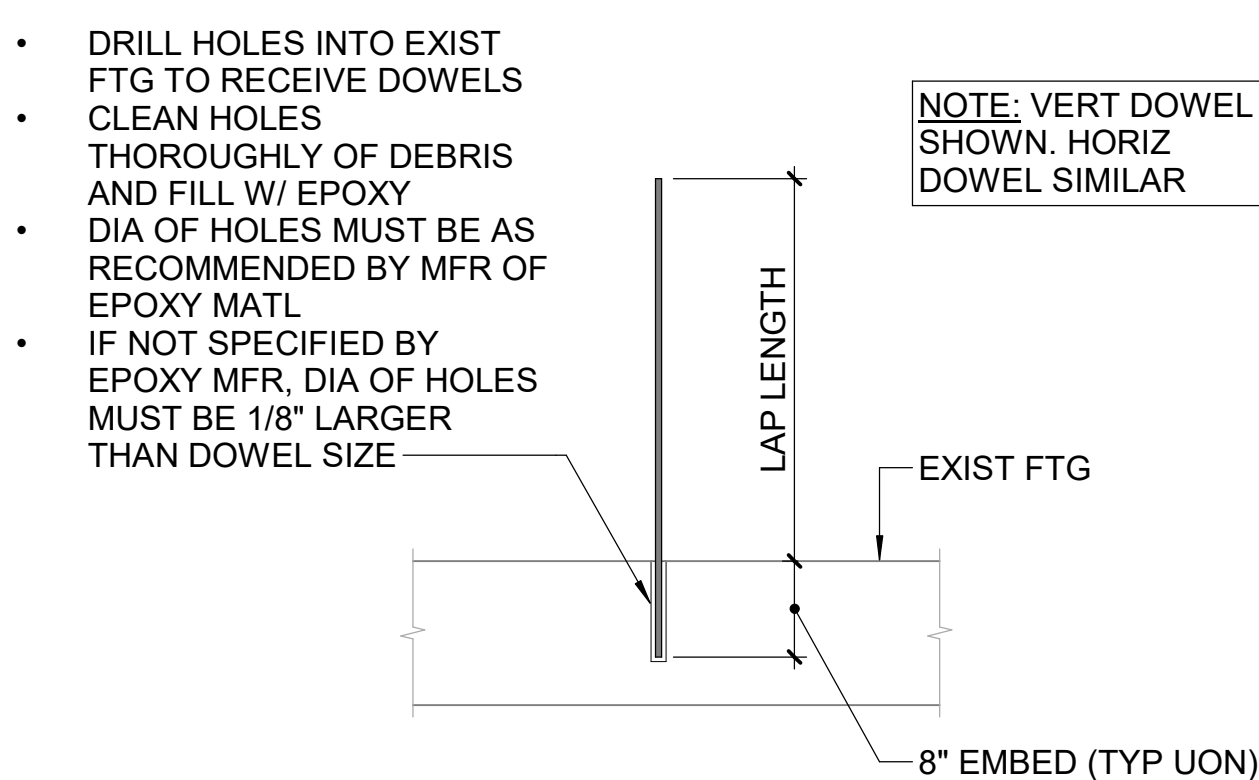
B3 TYPICAL DEPRESSED SLAB DETAIL
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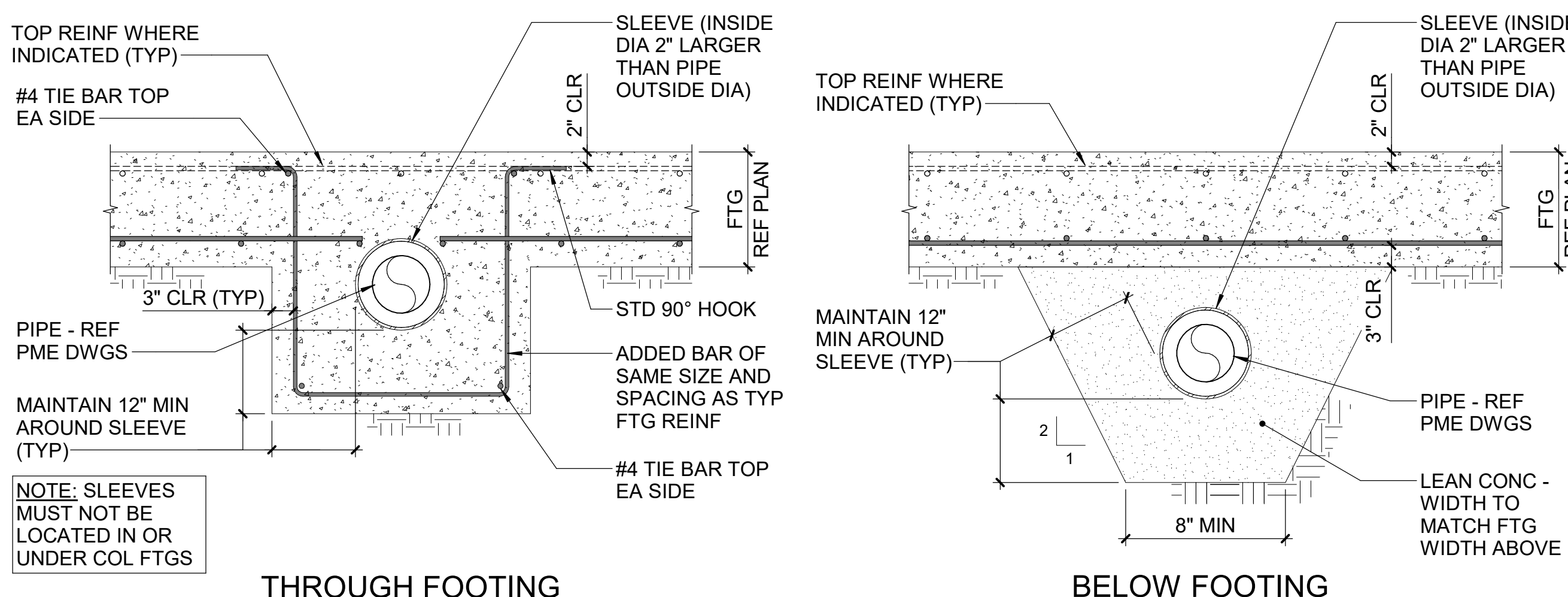
B4 TYPICAL COLUMN ISOLATION JOINT DETAIL
NTS



A1 TYPICAL COLUMN & FOOTING DETAIL
NTS



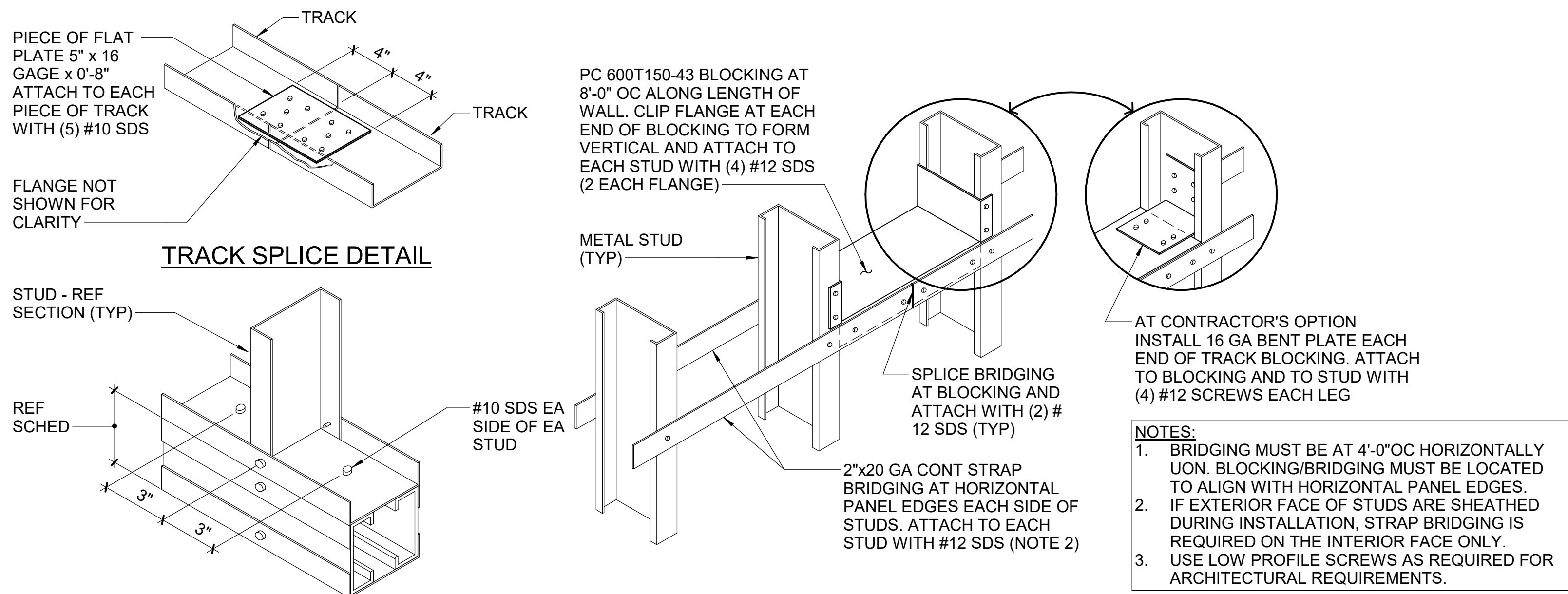
A2 TYPICAL EPOXY DOWEL DETAIL
NTS



A3 TYPICAL PIPE SLEEVE AT TURN DOWN SLAB DETAILS
NTS

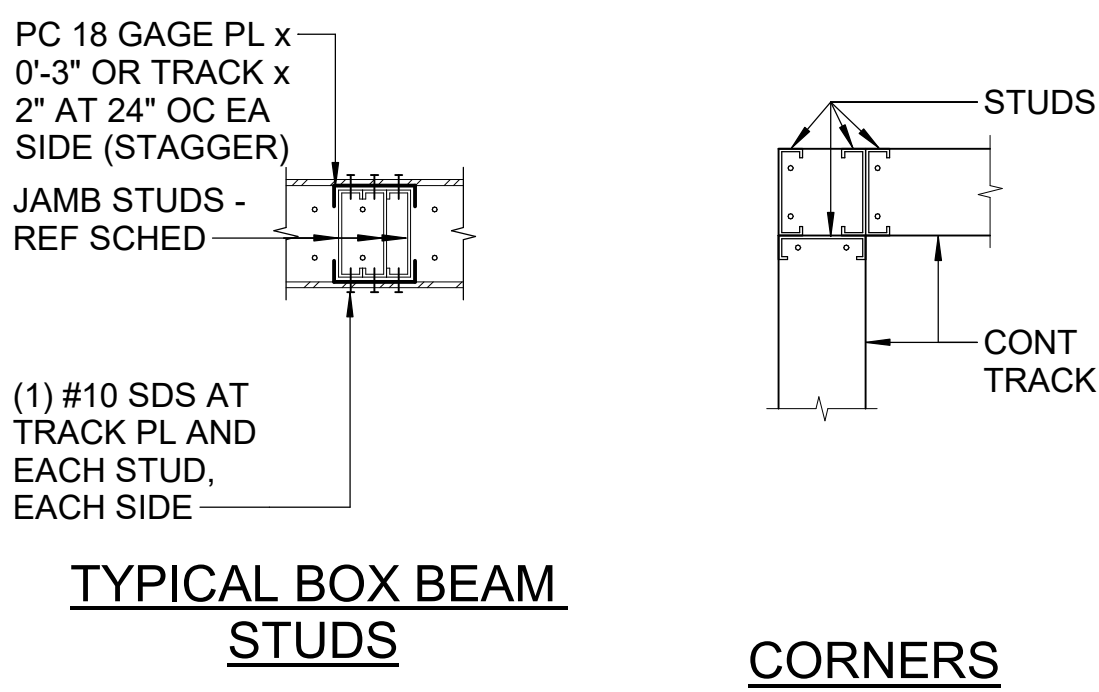
NO.	REVISION	DATE

JOB NUMBER 22-086
DATE ISSUED 03/19/2025
PROJECT STATUS ISSUE FOR CONSTRUCTION
SHEET TYPICAL DETAILS



METAL STUD FRAMING NOTES:

- PROVIDE INSULATION INDICATED ON THE ARCH DWGS IN AREAS BETWEEN BUILT-UP MEMBERS INCLUDING HEADERS, SILL, JAMB, ETC.
- SCREWS ARE SELF DRILLING SCREWS (SDS). MINIMUM SCREW SPACING AND EDGE DISTANCE MUST BE 3/4" IN ANY DIRECTION, TYPICAL.
- POWDER ACTUATED FASTENERS (PAF) MUST HAVE A MINIMUM ALLOWABLE CAPACITY INTO THE BASE MATERIAL AS FOLLOWS, UNLESS OTHERWISE NOTED:
A. STEEL: SHEAR = 600 LBS; TENSION = 250 LBS
B. CONCRETE: SHEAR = 260 LBS; TENSION = 255 LBS
- USE LOW PROFILE SCREWS AS REQUIRED FOR ARCHITECTURAL REQUIREMENTS.



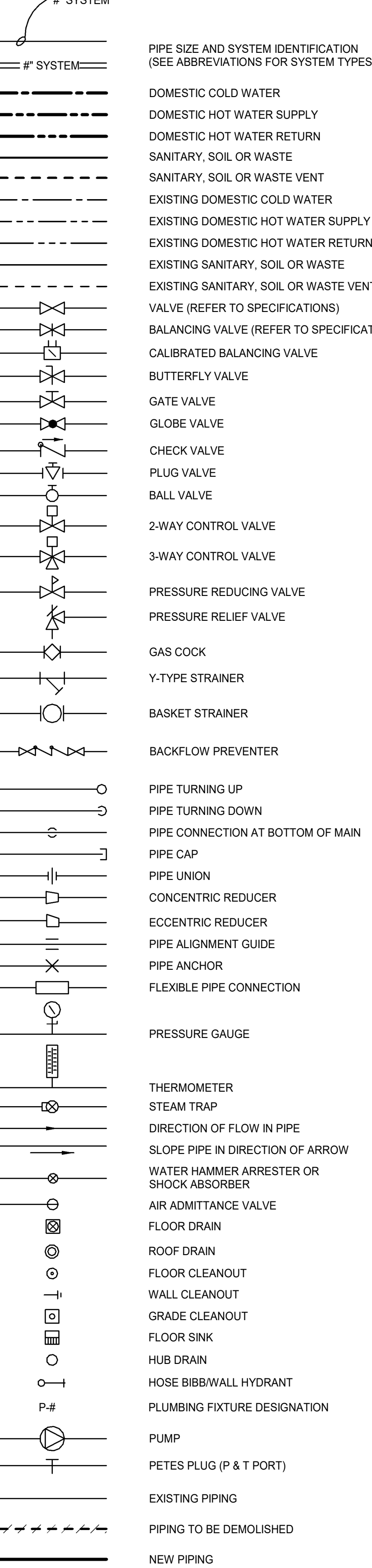
PLUMBING ABBREVIATIONS

POUNDS, NUMBER
A COMPRESSED AIR
AAV AIR ADMITTANCE VALVE
ACFM ACTUAL CUBIC FEET PER MINUTE
AFC ABOVE FINISHED CEILING
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AFH ANTI-FREEZE HYDRANT
ALT ALTERNATE
ARCH ARCHITECTURAL ARCHITECT
AUTO AUTOMATIC
AV ACID VENT
AW ACID WASTE
BAS BUILDING AUTOMATION SYSTEM
BFF BELOW FINISHED FLOOR
BHP BRAKE HORSEPOWER
BOP BOTTOM OF PIPE
BOS BOTTOM OF STEEL
BP BACKFLOW PREVENTER
BTU BRITISH THERMAL UNIT
BTUH BRITISH THERMAL UNIT PER HOUR
C CELSIUS
CD CONDENSATE DRAIN
CFH CUBIC FEET PER HOUR
CI CAST IRON
CLG CEILING
CO CLEAN OUT
CO2 CARBON DIOXIDE
CONC CONCRETE
CPVC CHLORINATED POLYVINYL CHLORIDE
CTR CENTER
CU COPPER
CUFT CUBIC FOOT, CUBIC FEET
CYD CUBIC YARD
CW COLD WATER
DDC DIRECT DIGITAL CONTROLS
DI DUCTILE IRON
DIA DIAMETER
DIV DIVISION
DW DEIONIZED WATER
DN DOWN
DWG DRAWING
EA EACH
EFF EFFICIENCY
ELEC ELECTRICAL
ELEV ELEVATION
EQUIP EQUIPMENT
EWC ELECTRIC WATER COOLER
EWH ELECTRIC WATER HEATER
EXIST EXISTING
EXP EXPANSION
F FAHRENHEIT
FCO FLOOR CLEANOUT
FD FLOOR DRAIN
FFE FINISHED FLOOR ELEVATION
FLFLR FLOOR
FLA FULL LOAD AMPS
FLEX FLEXIBLE
FS FLOOR SINK
FT FOOT, FEET
G NATURAL GAS
GA GAGE
GAL GALLONS
GC GENERAL CONTRACTOR
GCO GRADE CLEANOUT
GPH GALLONS PER HOUR
GPM GALLONS PER MINUTE
GWH GAS WATER HEATER
HB HOSE BIBB
HD HUB DRAIN, HEAT DETECTOR
HORIZ HORIZONTAL
HP HIGH PRESSURE OR HORSEPOWER
HT HEIGHT
HTG HEATING
HW HOT WATER
HWR HOT WATER RETURN
HX HEAT EXCHANGER
ID INDIRECT DRAIN OR INSIDE DIAMETER
IN INCH
INV INVERT
KW KILOWATT
LP LOW PRESSURE
LPG LIQUID PETROLEUM GAS
MA MEDICAL AIR
MAX MAXIMUM

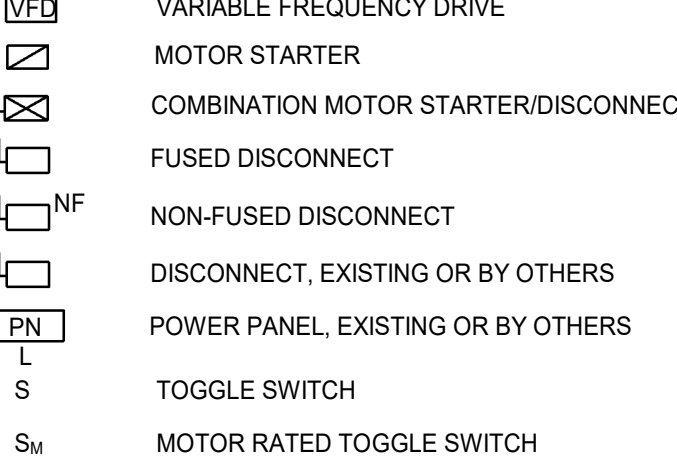
PLUMBING ABBREVIATIONS

MBH 1000 BRITISH THERMAL UNITS PER HOUR
MCA MINIMUM CIRCUIT AMPS
MECH MECHANICAL
MFR MANUFACTURER
MH MANHOLE
MIN MINIMUM
MOC MAXIMUM OVER CURRENT PROTECTION
MPP MEDIUM PRESSURE
MRT MOTOR RATED TOGGLE SWITCH
MS MOTOR STARTER
MSD COMBINATION MOTOR STARTER & DISCONNECT
MTD MOUNTED
N NITROGEN
N.C. NORMALLY CLOSED
N.O. NORMALLY OPEN
NIC NOT IN CONTRACT
NIO NITROUS OXIDE
NTS NOT TO SCALE
O OXYGEN
OC ON CENTER
OD OUTSIDE DIAMETER, OVERFLOW (EMERGENCY) DRAIN
ODL OVERFLOW (EMERGENCY) DRAIN LEADER
OSD OPEN SIGHT DRAIN
P PUMP
PD PRESSURE DROP, PUMPED DISCHARGE
PRV PRESSURE REDUCING VALVE, PRESSURE RELIEF VALVE
PSI POUNDS PER SQUARE INCH
PSIA POUNDS PER SQUARE INCH ABSOLUTE
PSIG POUNDS PER SQUARE INCH GAUGE
PVC POLYVINYL CHLORIDE
QTY QUANTITY
RD ROUND ROOF DRAIN
ROL ROOF DRAIN LEADER
RECIRC RECIRCULATING
REINF REINFORCING
REV REVISION
RL ROOF LEADER
RM ROOM
RO REVERSE OSMOSIS
RPM REVOLUTIONS PER MINUTE
RPZ REDUCED PRESSURE ZONE
SCFM STANDARD CUBIC FEET PER MINUTE
SCH SCHEDULE
SD STORM DRAIN
SECT SECTION
SF SQUARE FEET
SM SMOKE PIPE
SPEC SPECIFICATION
SRV SAFETY RELIEF VALVE
SS SERVICE SINK; STAINLESS STEEL; SANITARY SEWER
ST STORM
TD TRENCH DRAIN
TMV THERMOSTATIC MIXING VALVE
TOP TOP OF PIPE
TOS TOP OF STEEL
TWH TANKLESS WATER HEATER
TYP TYPICAL
UL UNDERWRITERS LABORATORIES
V VENT
VAC VACUUM (SUCTION)
VERT VERTICAL
VFD VARIABLE FREQUENCY DRIVE
VTR VENT THRU ROOF
W WASTE
W/ WITH
WO WITHOUT
WC WATER CLOSET/WATER COLUMN
WCO WALL CLEANOUT
WH WATER HEATER
WPD WORKING PRESSURE DROP
XT THERMAL EXPANSION TANK
Ø ROUND, DIAMETER, PHASE

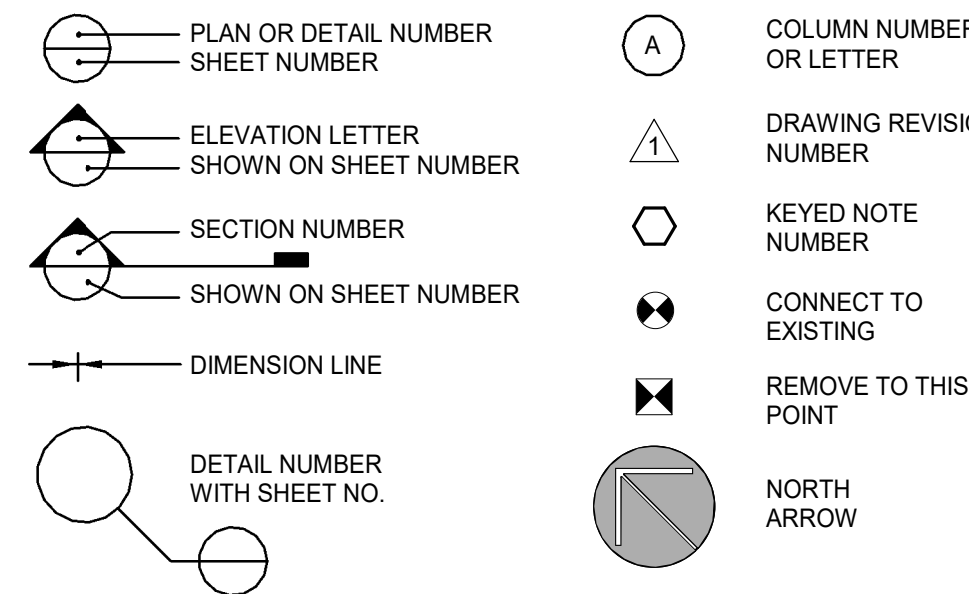
PLUMBING PIPING SYMBOLS



ELECTRICAL SYMBOLS



GENERAL SYMBOLS



PLUMBING GENERAL NOTES

- COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF ANY PIPING, OR EQUIPMENT. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
- REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- ALL PIPING LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS REQUIRED TO COMPLETE WORK. COORDINATE THE PIPING LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION, INCLUDING CONDUITS AND CABLE TRAYS. PROVIDE ALL PIPING OFFSETS REQUIRED FOR THE COMPLETE INSTALLATION OF THE SYSTEM WHETHER OR NOT THE OFFSETS ARE INDICATED ON THE PLANS. INSTALL PIPING HIGH ENOUGH TO AVOID LIGHTS, CONDUIT AND MISCELLANEOUS PIPING, BUT LOW ENOUGH TO ALLOW FOR EASY ACCESS TO SYSTEM BALANCING DEVICES. DO NOT BLOCK ACCESS TO DEVICES.
- LOCATE PIPING AND EQUIPMENT SUCH THAT ACCESS PANELS MAY BE FULLY OPENED (VIA TILE CEILING) FOR SERVICING VALVES. COORDINATE LOCATION WITH LIGHTING FIXTURES OR ANY OTHER EQUIPMENT.
- COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF EQUIPMENT AND MATERIALS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- INSTALL ALL EQUIPMENT WITH THE MANUFACTURER'S RECOMMENDATION AND CODE REQUIRED CLEARANCES. INSURE ALL ITEMS FURNISHED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PURCHASE AND INSTALLATION.
- COORDINATE EXACT SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH ALL TRADES.
- COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXPOSED ITEMS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND DETAILS. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: SENSORS, WALL DEVICES, CONTROL PANELS, AND ALARMS.
- FURNISH 24"x24" ACCESS DOORS (UNLESS OTHERWISE INDICATED) AT ALL MAINTENANCE ITEMS THAT ARE CONCEALED, SUCH AS EQUIPMENT, VALVES, SENSORS, ETC. COORDINATE EXACT LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- THE SIZE OF COLD AND HOT WATER PIPE RUNOUTS TO FIXTURES SHALL BE THE SAME AS THE POTABLE WATER CONNECTIONS LISTED IN THE PLUMBING FIXTURE SCHEDULE, UNLESS NOTED OTHERWISE.
- THE SIZE OF SANITARY WASTE AND VENT PIPING TO FIXTURE SHALL BE THE SAME AS WASTE AND VENT CONNECTIONS LISTED IN THE PLUMBING FIXTURE SCHEDULE, UNLESS NOTED OTHERWISE.

WATER & SANITARY LOAD SUMMARY

SANITARY (FIXTURE UNITS)	WATER (FIXTURE UNITS)	WATER DEMAND (GPM)
22	47.5	49.0

PLUMBING DRAWING LIST

NO.	TITLE
P001	STANDARDS, SYMBOLS & ABBREVIATIONS
P111	PLANS - RESTROOM BUILDING
P112	PLANS - TRAINING TOWER
P113	PLANS - TRAINING TOWER
P301	DETAILS
P401	SCHEDULES



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WAKE TECHNICAL COMMUNITY COLLEGE

5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303

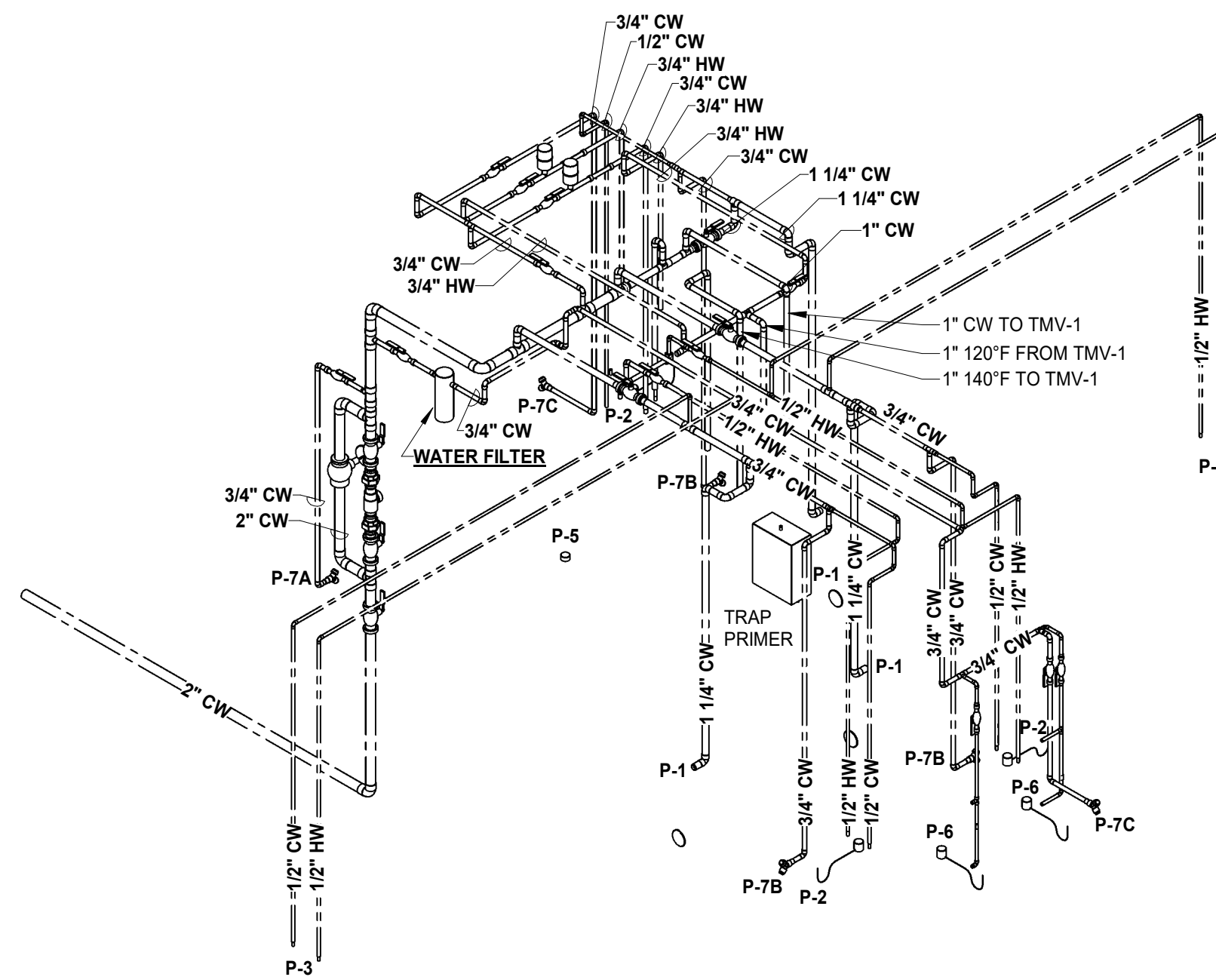


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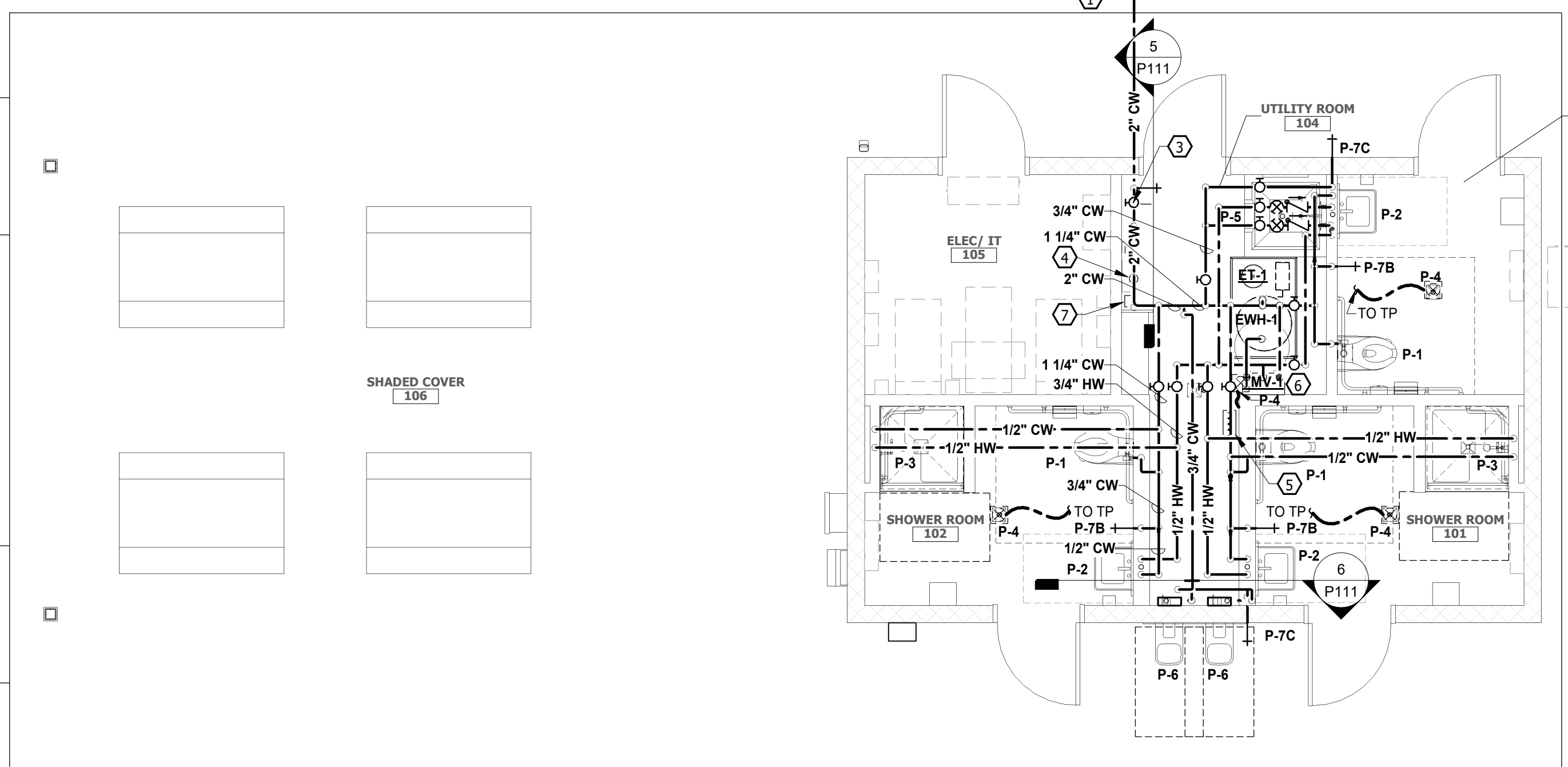
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SHEET
STANDARDS, SYMBOLS & ABBREVIATIONS

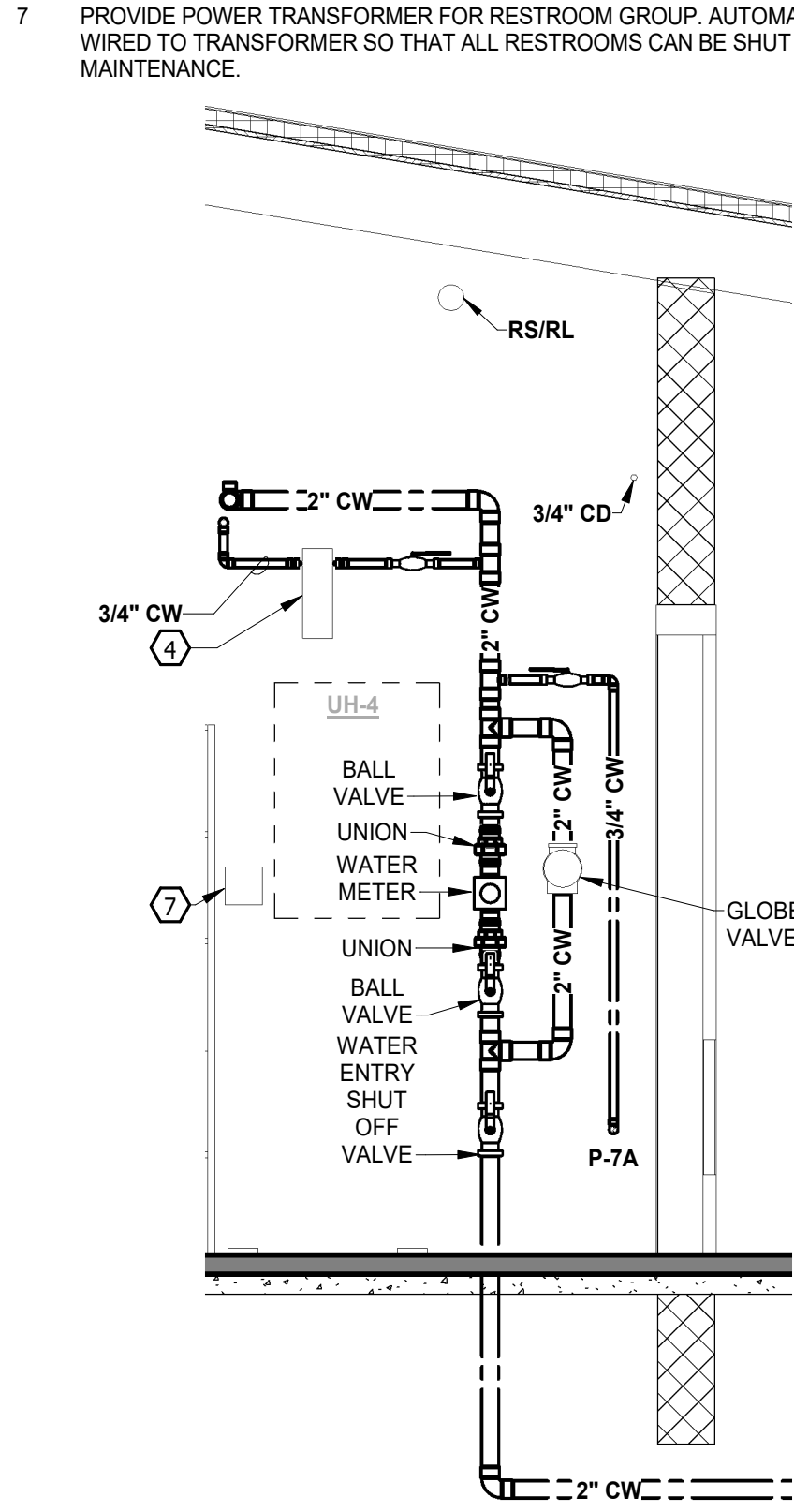
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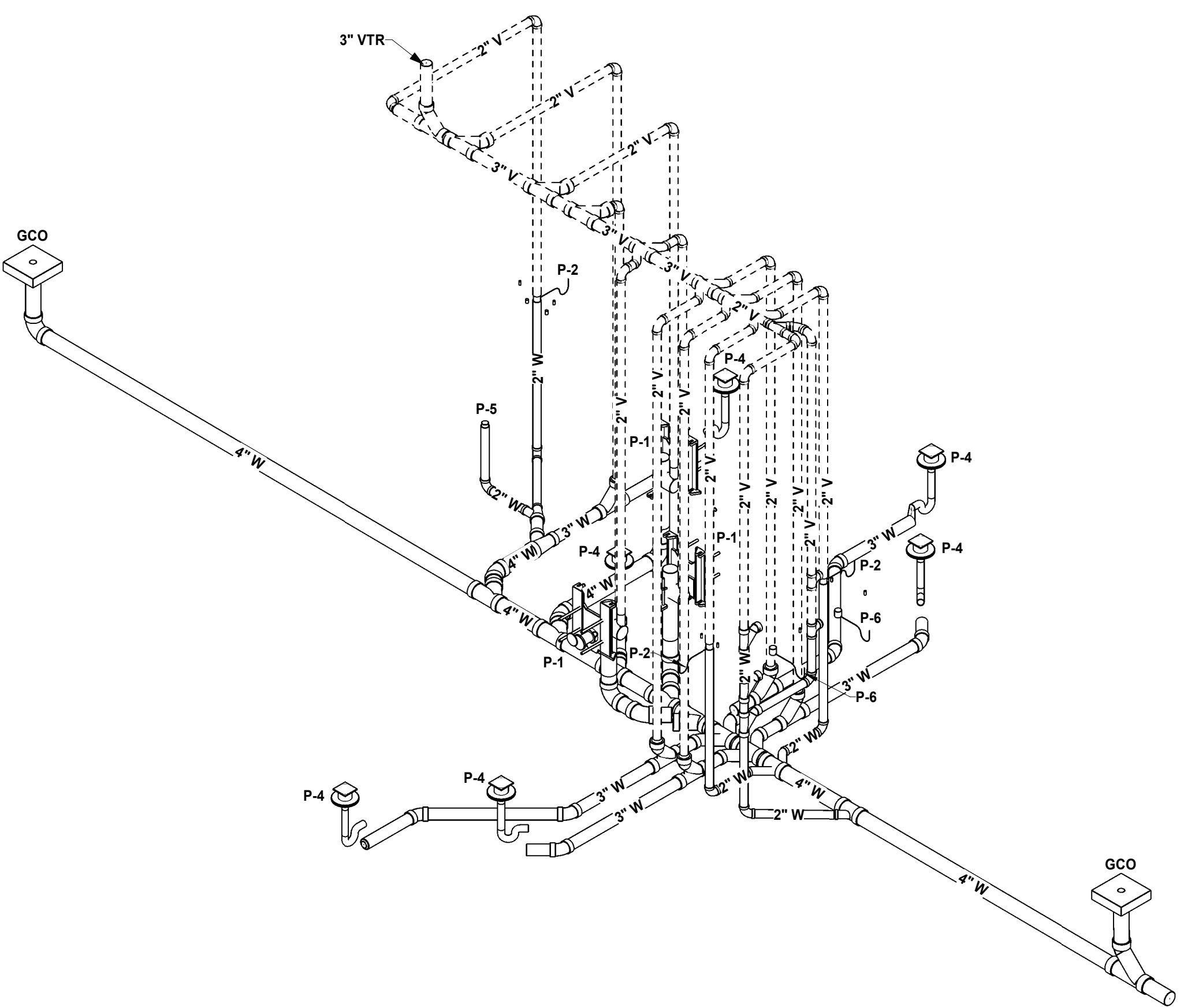
3 DOMESTIC WATER RISER
P111 SCALE: NTS



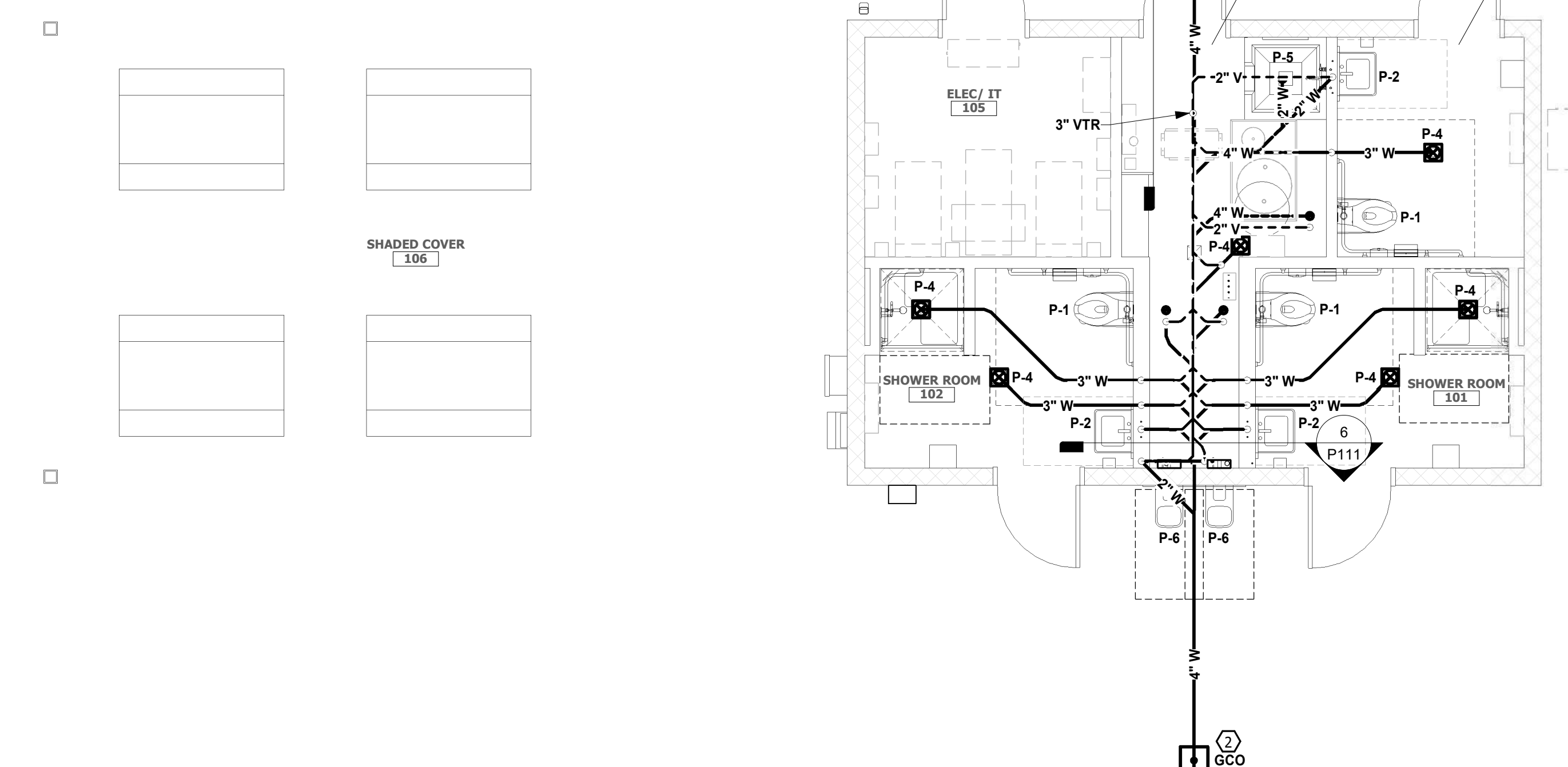
1 FLOOR PLAN - RESTROOM/SHADE STRUCTURE - DOMESTIC WATER
P111 SCALE: 1/4\"/>



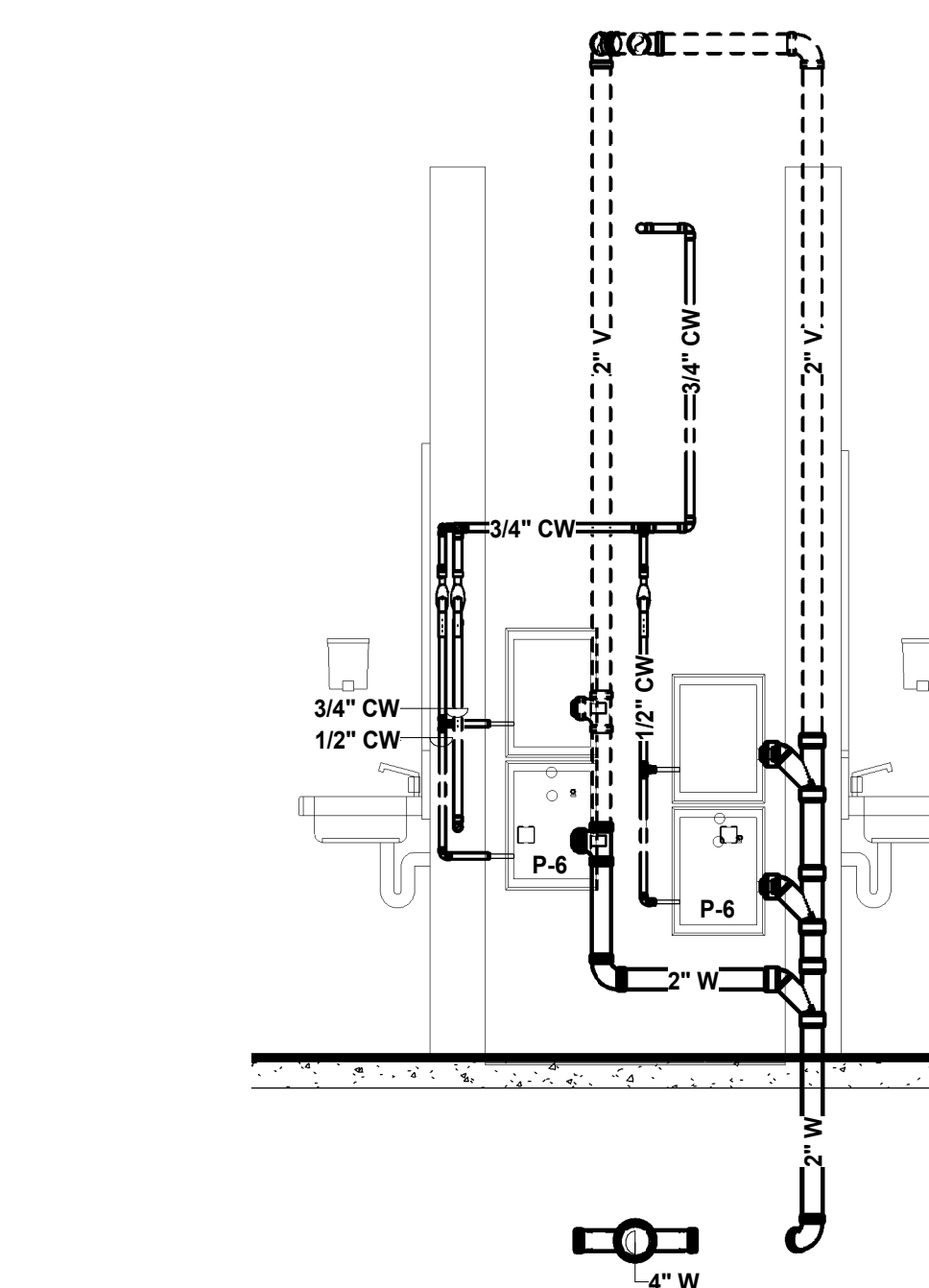
5 WATER ENTRY - SECTION VIEW
P111 SCALE: 1/2\"/>



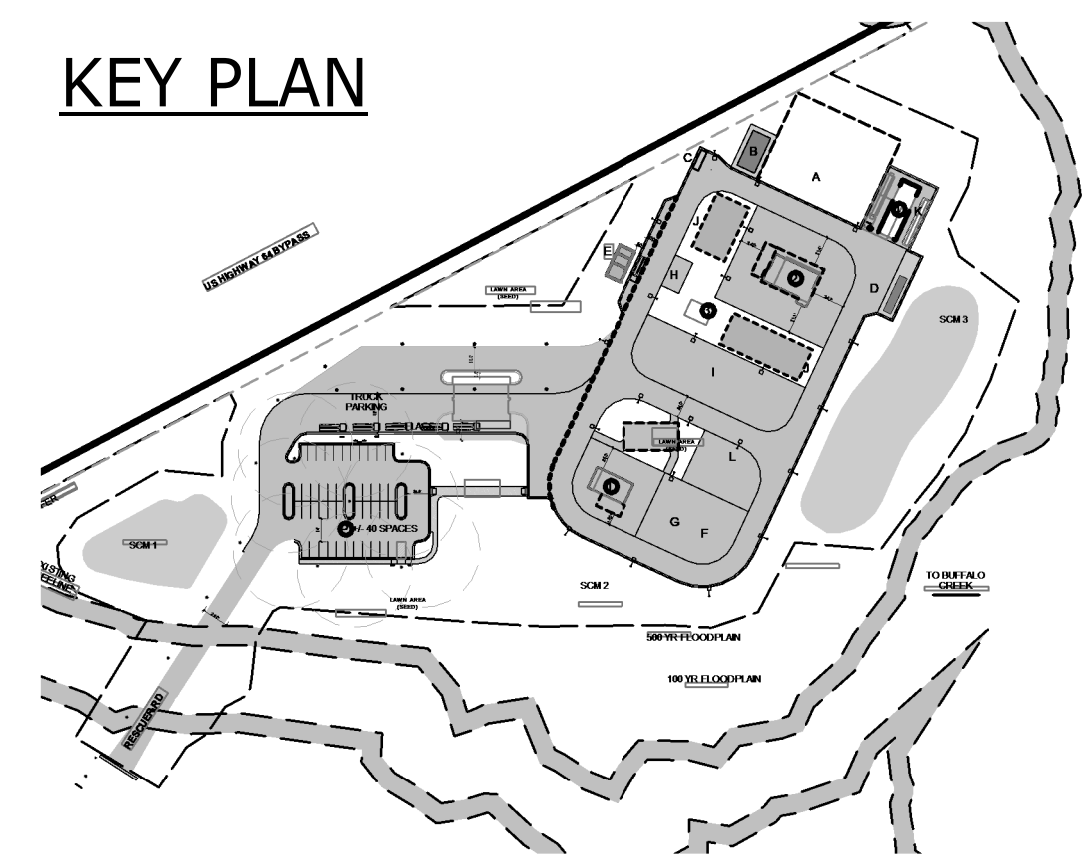
4 SANITARY WASTE RISER
P111 SCALE: NTS



2 FLOOR PLAN - RESTROOM/SHADE STRUCTURE - SANITARY WASTE & VENT
P111 SCALE: 1/4\"/>



6 UTILITY ROOM - SECTION VIEW
P111 SCALE: 1/2\"/>



KEY PLAN

- KEY NOTES TO P111
- CONNECT TO DOMESTIC WATER SERVICE AT BUILDING 10' LINE. COORDINATE WITH UTILITY CONTRACTOR.
 - CONNECT TO SANITARY WASTE SERVICE AT BUILDING 10' LINE. COORDINATE WITH UTILITY CONTRACTOR.
 - PROVIDE MAIN SHUTOFF VALVE 18" AFF.
 - WATTS MODEL PW0WHCUC1 WATER FILTER OR EQUIVALENT. PROVIDE UNIONS ON EACH SIDE OF WATER FILTER.
 - ELECTRONIC TRAP PRIMER (TP), MOUNT AT 60" AFF.
 - THERMOSTATIC MIXING VALVE.
 - PROVIDE POWER TRANSFORMER FOR RESTROOM GROUP. AUTOMATIC LAVATORIES TO BE WIRED TO TRANSFORMER SO THAT ALL RESTROOMS CAN BE SHUT OFF AT ONCE FOR MAINTENANCE.

Kevin R. Allen
ENGINEER
03/14/2025

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PLANS - RESTROOM BUILDING

P111

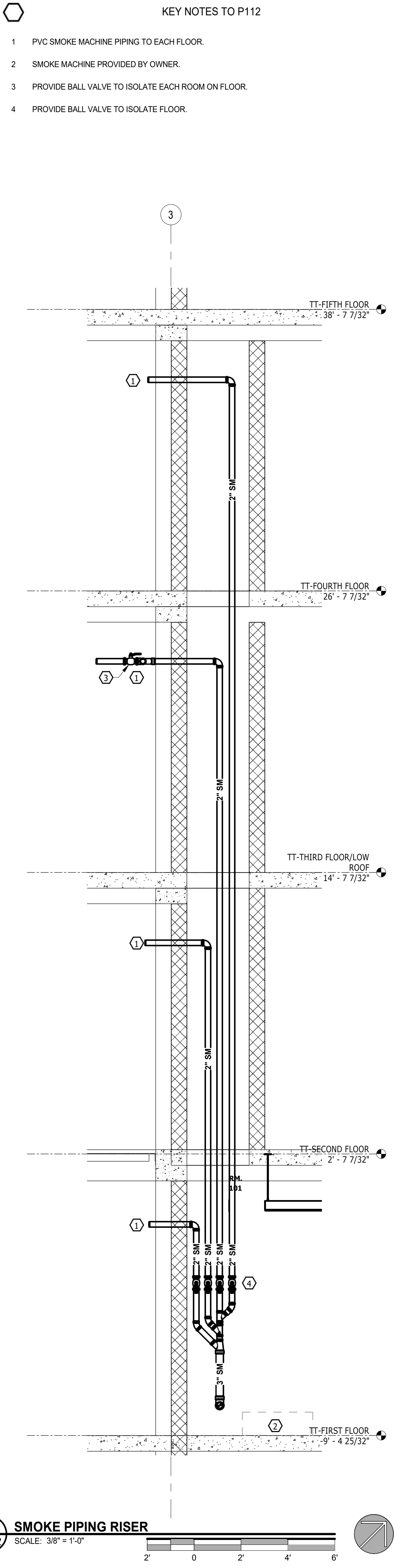
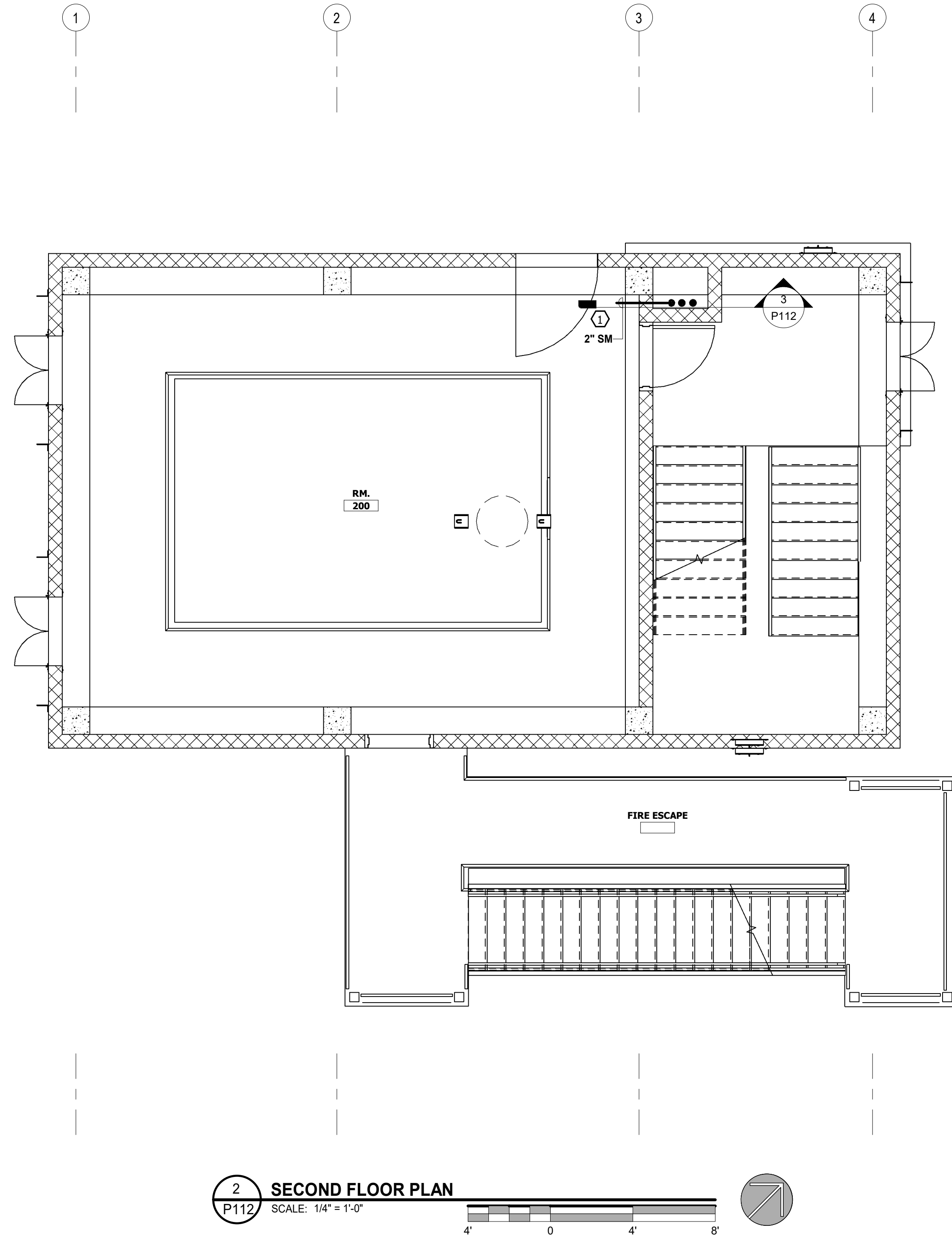
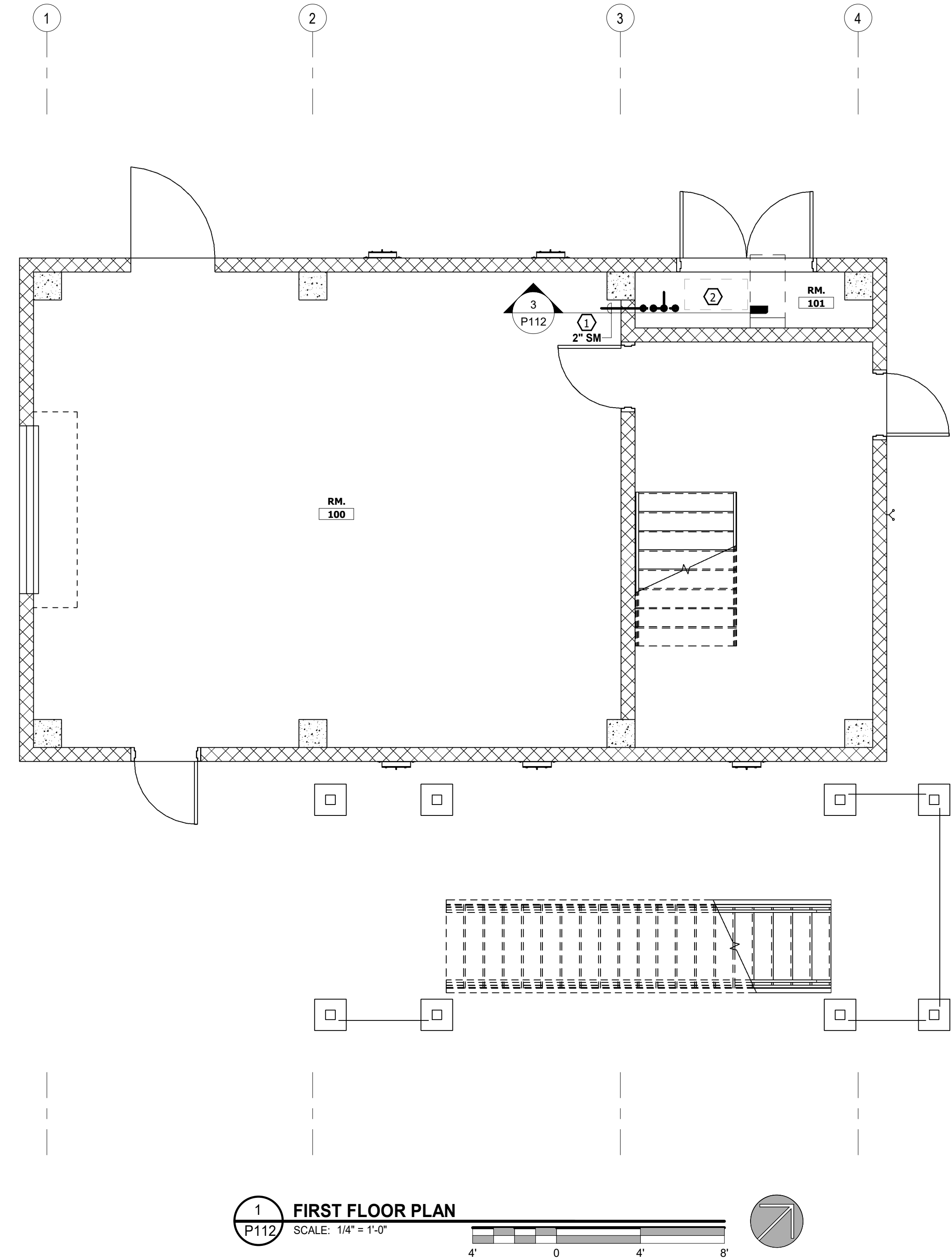
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HH



- KEY NOTES TO P112
- 1 PVC SMOKE MACHINE PIPING TO EACH FLOOR.
 - 2 SMOKE MACHINE PROVIDED BY OWNER.
 - 3 PROVIDE BALL VALVE TO ISOLATE EACH ROOM ON FLOOR.
 - 4 PROVIDE BALL VALVE TO ISOLATE FLOOR.

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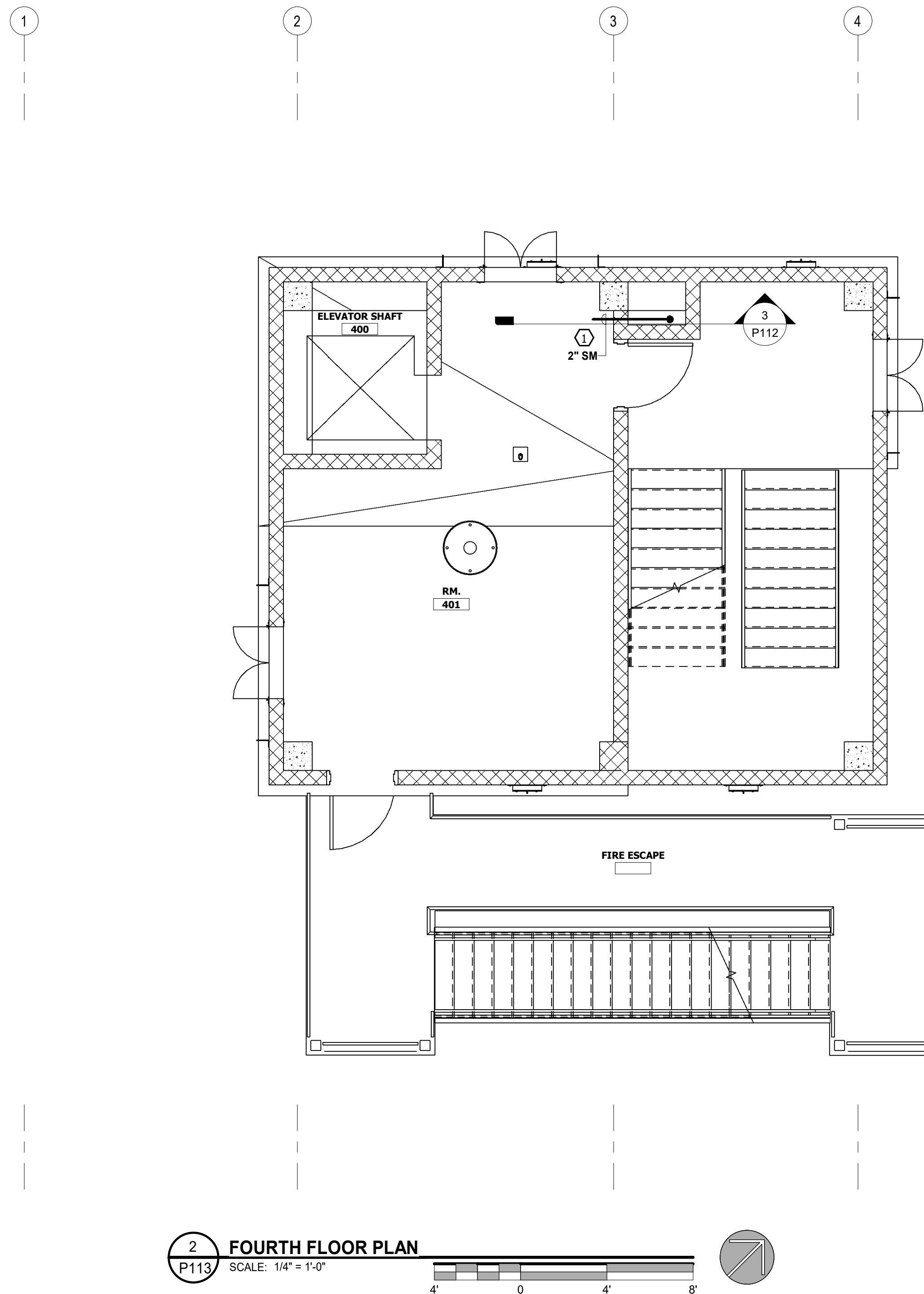
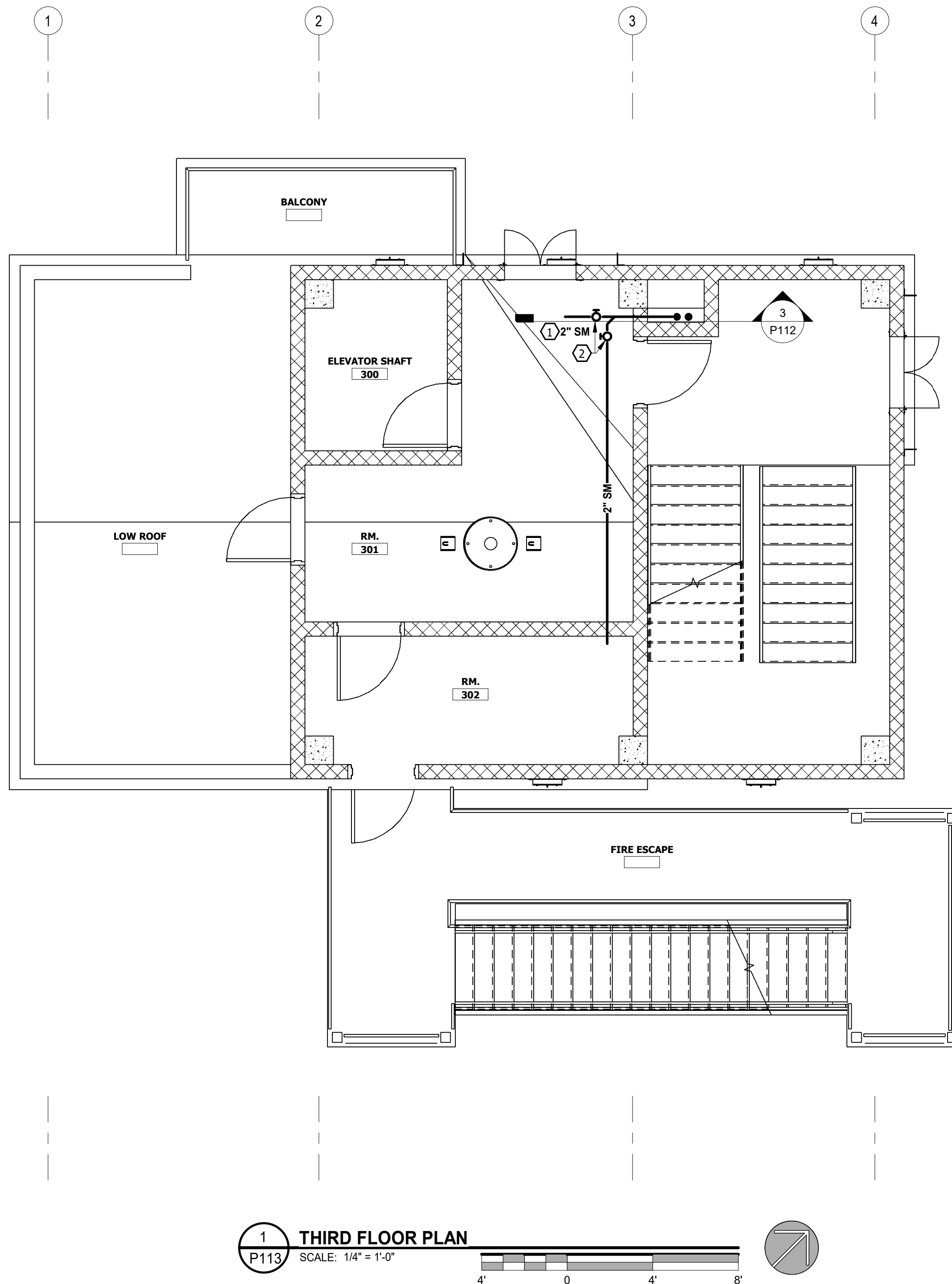
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SHEET
PLANS - TRAINING TOWER

P112



KEY NOTES TO P113

- 1 PVC SMOKE MACHINE PIPING TO EACH FLOOR.
- 2 PROVIDE BALL VALVE TO ISOLATE EACH ROOM ON FLOOR.



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Kevin R. Allen
ENGINEER
KEVIN R. ALLEN
03/14/2025

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P113

PLUMBING-FIXTURE SCHEDULE											
TAG	ADA	FIXTURE DESCRIPTION	BASIS OF DESIGN	CW	HW	WASTE	VENT	MOUNTING HEIGHT	REMARKS	IMAGE #1	IMAGE #2
P-1	Yes	WATER CLOSET	BOWL: KOHLER KINGSTON K-8432S, ELONGATED BOWL, WALL MOUNTED, VITREOUS CHINA, WHITE. FLUSH VALVE: SLOAN WES 111, MANUAL DUAL FLUSH, POLISHED CHROME FINISH, 1.6/1.1 GPF. CARRIER: ZURN SIPHON JET CARRIER SYSTEM. SEAT: KOHLER K-4670-SC, ELONGATED, OPEN-FRONT, SELF-SUSTAINING CHECK HINGES.	1-1/4"	-	4"	2"	RIM 17" AFF			
P-2	Yes	LAVATORY	SINK: KOHLER HUDSON K-2867, WALL MOUNTED, 4" CENTERED FAUCET HOLES, 20" WIDE x 18" FRONT TO BACK. FAUCET: AMERICAN STANDARD SELECTRONIC 805B 105, SENSOR OPERATED, HARD WIRED, DECK MOUNTED, 5-7/16" SPOUT LENGTH, CHROME FINISH, 0.5 GPM, 605XTMV1070 ASSE 1070 THERMOSTATIC MIXING VALVE, 605P 400 4" BRASS DECK PLATE, PK00.MAC MULTI-AC ADAPTER AND 10" EXTENSION CABLE. DRAINTAILPIECE: MCGUIRE 155A, OPEN GRID CHROME PLATED PO PLUG, 1-1/4" x 6" TAILPIECE. P-TRAP: MCGUIRE 8902DF, 1-1/4" x 1-1/2", ADJUSTABLE, CLEANOUT PLUG, 11-1/2" CENTER TO END LENGTH. SUPPLIES: MCGUIRE LFH2165, WHEEL HANDLE SUPPLY KIT, 1/2" IPS x 3/8" OD ANGLE STOP VALVE, 1/2" FLEXIBLE COPPER RISERS. PIPING COVERS: TRUEBRO LAV GUARD 2 102-EZ, P-TRAP COVER AND TWO ANGLE VALVE COVERS, PAINTABLE WHITE FINISH, REUSABLE FASTENERS.	1/2"	1/2"	2"	2"	34" AFF			
P-3	Yes	SHOWER	SHOWER TRIM: SYMMONS IDENTITY S6798TRM, FIXED SHOWER HEAD, HAND SHOWER, CONTROL VALVE WITH INTEGRAL DIVERTER, WALL HOOK FOR HAND SHOWER, 60" METAL HOSE, 2.0 GPM FLOW. SHOWER VALVE: SYMMONS TEMPTROL, PRESSURE BALANCING SHOWER VALVE.	1/2"	1/2"	2"	2"				
P-4		FLOOR DRAIN	ZURN MODEL ZN415B, 6" DIAMETER FLOOR/SHOWER DRAIN, DURA-COATED CAST IRON BODY, MEMBRANE CLAMP WITH ADJUSTABLE COLLAR "TYPE B" POLISHED NICKEL BRONZE, LIGHT-DUTY STRAINER WITH TRAP PRIMER CONNECTION.	-	-	2/3/4"	2"				
P-5		MOP RECEPTOR	SINK: FIAT MODEL TSB-3001, 32" x 32" x 12" WITH 6" DROP FRONT, STAINLESS STEEL CAPS ON ALL CURBS, 3" INTEGRAL STAINLESS STEEL DRAIN BODY FOR CAULKED CONNECTION, STAINLESS STEEL STRAINER, POLISHED TERRAZZO OF BLACK AND WHITE CHIPS CAST IN GRAY PORTLAND CEMENT. FAUCET: FIAT MODEL 830AA FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD SPOUT. ACCESSORIES: FIAT MODEL 832-AA HOSE AND STAINLESS STEEL BRACKET; FIAT MODEL 889-CC STAINLESS STEEL MOP HANGER; FIAT MSG323Z STAINLESS STEEL WALL GUARDS. SUPPLIES: INSTALL CHECK AND BALL VALVES IN WATER SUPPLY PIPES IN ACCESSIBLE LOCATIONS.	3/4"	3/4"	3"	2"	FAUCET 36" AFF			
P-6	Yes	OUTDOOR DRINKING FOUNTAIN / BOTTLE FILLER	DRINKING FOUNTAIN AND BOTTLE FILLER: HAWS 1109FRP, WALL MOUNTED DRINKING FOUNTAIN, NON-REFRIGERATED, NON-FILTERED, STAINLESS STEEL, FREEZE RESISTANT, BOTTLE FILLER, FREEZE-RESISTANT STAINLESS STEEL, FREEZE-RESISTANT VALVES, MOUNTED IN CABINET, INSTALLED ON INSIDE OF ROOM, PNEUMATIC OPERATED, SURFACE MOUNTED, POLISHED CHROME-PLATED BRASS BUBBLER HEAD, VADAL RESISTANT.	1/2"	-	2"	2"	AS RECOMMENDED BY MANUFACTURER FOR ADA COMPLIANCE			
P-7A		HOSE BIBB - MECHANICAL	WOODFORD MODEL 24, ANTI-SIPHON, VACUUM BREAKER PROTECTED, METAL WHEEL HANDLE, 3/4" MALE HOSE THREAD OUTLET.	3/4"	-	-	-	18" AFF			
P-7B		HOSE BIBB - RESTROOM	CHICAGO FAUCETS MODEL 387-E27CP, POLISHED CHROME PLATED, SOLID BRASS BODY CONSTRUCTION, 2-1/4" TEE HANDLE, IN-LINE VACUUM BREAKER, 3/4" MALE HOSE THREAD OUTLET.	1/2"	-	-	-	WALL MOUNT, 18" AFF			
P-7C		NON-FREEZE WALL HYDRANT	ZURN MODEL Z1300, "ANTI-SIPHON" AUTOMATIC DRAINING, NON-FREEZE WALL HYDRANT FOR FLUSH INSTALLATION; INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK AND "WATER" CAST ON COVER.	3/4"	-	-	-	24" AFG	PROVIDE ADEQUATE LENGTH SO THAT VALVE IS ON HEATED SIDE OF WALL.		

ELECTRIC WATER HEATER SCHEDULE							
DESIGNATION	SERVICE	TYPE	TEMPERATURE SETTING (F)	STORAGE CAPACITY (GAL)	RECOVERY (GPH)	No. OF ELEMENTS	SIMULTANEOUS OPERATION
EWH-1	RESTROOM BUILDING	ELECTRIC TANK	140	65	55 @ 90°F	3	YES
CAPACITY PER ELEMENT 4050							
VOLTAGE/PHASE 480/3							
NOTES: 1 PROVIDE EXTERNAL DISCONNECT SWITCH FOR SINGLE POINT OF CONNECTION. 2 BASIS OF DESIGN: RHEEM E85-12-G							

EXPANSION TANK SCHEDULE					
DESIGNATION	SERVICE	TYPE	TOTAL VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIMENSIONS (DIA X HT)
ET-1	RESTROOM BUILDING	PARTIAL ACCEPTANCE BLADDER	10	10.00	10" X 37"
NOTES: 1 BASIS OF DESIGN: AMTROL ST-35CL					

THERMOSTATIC MIXING VALVE SCHEDULE									
DESIGNATION	SERVICE	TYPE	CAPACITY (GPM)	MIN FLOW (GPM)	WPD (PSI)	CW EWT (F)	HW EWT (F)	HW LWT (F)	VOLTAGE/PHASE
TMV-1	RESTROOM BUILDING	ASSE 1017	25	0.5	10	50	140	120	120V/1
NOTES: 1 WPD IS BASED ON DESIGN FLOW CAPACITY. 2 BASIS OF DESIGN: LEONARD P/VN-100-LF									



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P401

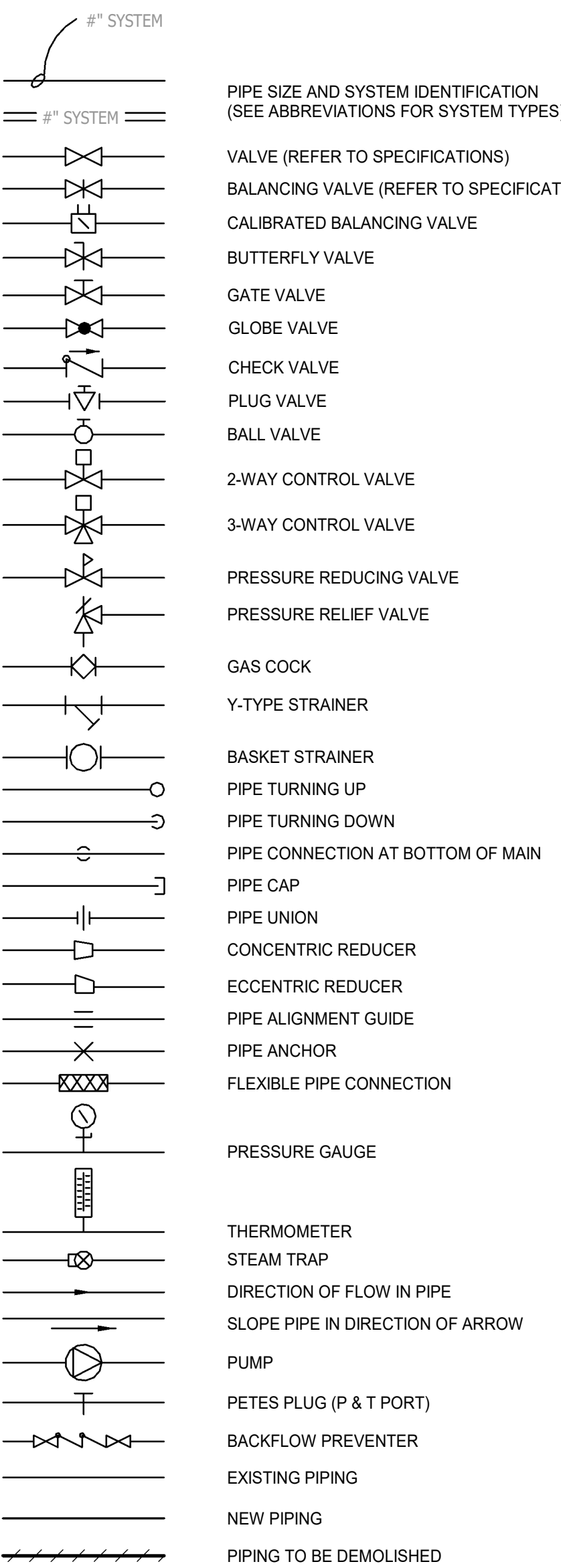
HVAC ABBREVIATIONS

POUNDS, NUMBER
A COMPRESSED AIR
ACFM ACTUAL CUBIC FEET PER MINUTE
ACH AIR CHANGES PER HOUR
AD ACCESS DOOR
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHU AIR HANDLING UNIT
ALT ALTERNATE
ARCH ARCHITECTURAL; ARCHITECT
AS AIR SEPARATOR
AUTO AUTOMATIC
AV ACID VENT
AW ACID WASTE
BAS BUILDING AUTOMATION SYSTEM
BBD BOILER BLOWDOWN
BFF BELOW FINISHED FLOOR
BFW BOILER FEED WATER
BHP BRAKE HORSEPOWER
BOD BOTTOM OF DUCT
BOP BOTTOM OF PIPE
BOT BOTTOM
BP BACKFLOW PREVENTER
BTU BRITISH THERMAL UNIT
BTUH BRITISH THERMAL UNIT PER HOUR
C CELSIUS; COMMON PORT
CD CONDENSATE DRAIN
CDWP CONDENSER WATER PUMP
CDWR CONDENSER WATER RETURN
CDWS CONDENSER WATER SUPPLY
CF CHEMICAL FEED
CFH CUBIC FEET PER HOUR
CFM CUBIC FEET PER MINUTE
CHWP CHILLED WATER PUMP
CHWR CHILLED WATER RETURN
CHWS CHILLED WATER SUPPLY
CI CAST IRON
CLG CEILING
CO CLEAN OUT; CARBON MONOXIDE
CO2 CARBON DIOXIDE
CONC CONCRETE
COP COEFFICIENT OF PERFORMANCE
CPVC CHLORINATED POLYVINYL CHLORIDE
CT COOLING TOWER
CTR CENTER
CU COPPER; CONDENSING UNIT
CUFT CUBIC FOOT; CUBIC FEET
CUH CABINET UNIT HEATER
CUDY CUBIC YARD
CW COLD WATER
DB DRY BULB
DO DUCT MOUNTED SMOKE DETECTOR
DDC DIRECT DIGITAL CONTROLS
DI DUCTILE IRON
DIA DIAMETER
DN DOWN
DP DIFFERENTIAL PRESSURE
DTWR DUAL TEMPERATURE WATER RETURN
DTWS DUAL TEMPERATURE WATER SUPPLY
DWG DRAWING
DX DIRECT EXPANSION
EA EACH
EAT ENTERING AIR TEMPERATURE
EFF EFFICIENCY
EL ELEVATION
ELEC ELECTRICAL
EQUIP EQUIPMENT
ESP EXTERNAL STATIC PRESSURE
ESS EMERGENCY STOP SWITCH
EWT ENTERING WATER TEMPERATURE
EXH EXHAUST; EXHAUST AIR; EXHAUST FAN
EXIST EXISTING
EXP EXPANSION
F FAHRENHEIT
FCU FAN COIL UNIT
FD FIRE DAMPER
FFE FINISHED FLOOR ELEVATION
FL FLOOR
FLEX FLEXIBLE
FOB FLAT ON BOTTOM
FOR FUEL OIL RETURN
FOS FUEL OIL SUPPLY
FOT FLAT ON TOP
FOV FUEL OIL VENT
FPM FEET PER MINUTE
FPS FEET PER SECOND
FSD FIRE/SMOKE DAMPER
FT FEET; FOOT
G NATURAL GAS
GA GAUGE
GAL GALLON
GC GENERAL CONTRACTOR
GEX GREASE EXHAUST AIR
GPH GALLON PER HOUR
GPM GALLON PER MINUTE
HD HUB DRAIN; HEAT DETECTOR
HEX HAZARDOUS EXHAUST
HOA HANDS-OFF-AUTOMATIC
HORIZ HORIZONTAL
HP HIGH PRESSURE
HPR HIGH PRESSURE CONDENSATE RETURN
HPS HIGH PRESSURE STEAM
HSTAT HUMIDISTAT
HTG HEATING
HVAC HEATING, VENTILATION AND AIR CONDITIONING
HWR HEATING WATER RETURN

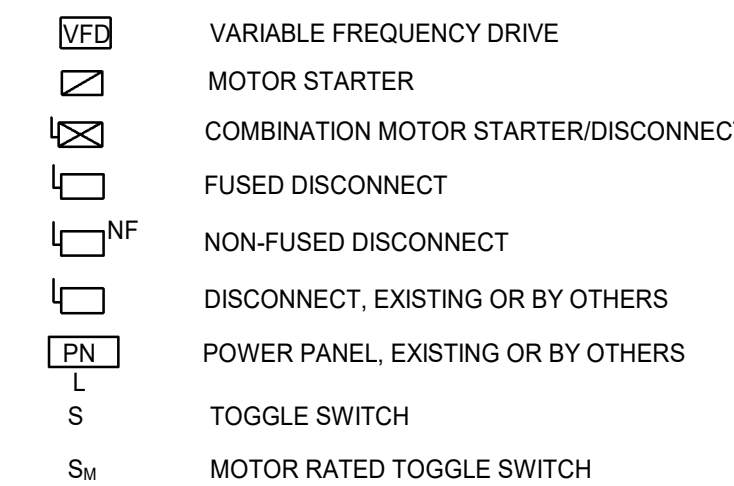
HVAC ABBREVIATIONS

HWS HEATING WATER SUPPLY
HX HEAT EXCHANGER
ID INDIRECT DRAIN; INSIDE DIAMETER
IN INCH
INVERT INVERT
ISP INTERNAL STATIC PRESSURE
KW KILOWATT
KWH KILOWATT HOUR
LAT LEAVING AIR TEMPERATURE
LBSH POUNDS PER HOUR
LP LOW PRESSURE
LPG LIQUID PETROLEUM GAS
LPR LOW PRESSURE CONDENSATE RETURN
LPS LOW PRESSURE CONDENSATE SUPPLY
LWT LEAVING WATER TEMPERATURE
MAX MAXIMUM
MBH 1000 BRITISH THERMAL UNITS PER HOUR
MFR MANUFACTURER
MH MANHOLE
MIN MINIMUM
MP MEDIUM PRESSURE
MRT MOTOR RATED TOGGLE SWITCH
MS MOTOR STARTER
MSD COMBINATION MOTOR STARTER AND DISCONNECT
MTO MOUNTED
MUA MAKE UP AIR
MVD MANUAL VOLUME DAMPER
N NITROGEN
NCL NORMALLY CLOSED
N.O. NORMALLY OPEN
NIC NOT IN CONTRACT
NO NITROUS OXIDE; NUMBER
NPSH NET POSITIVE SUCTION HEAD
NTS NOT TO SCALE
O OXYGEN
OA OUTSIDE AIR
OBD OPPOSED BLADE DAMPER
OC ON CENTER
OD OUTSIDE DIAMETER
P PUMP
PC PLUMBING CONTRACTOR
PCHWP PRIMARY CHILLED WATER PUMP
PCV POLYVINYL CHLORIDE
PD PRESSURE DROP
PHWP PRIMARY HOT WATER PUMP
PI PRESSURE INDEPENDENT
PICV PRESSURE INDEPENDENT CONTROL VALVE
PIL PANEL
PPH POUNDS PER HOUR
PR PUMPED CONDENSATE RETURN
PRV PRESSURE REDUCING VALVE
PSI POUNDS PER SQUARE INCH
PSIA POUNDS PER SQUARE INCH ABSOLUTE
PSIG POUNDS PER SQUARE INCH GAUGE
PT POINT
QTY QUANTITY
RA RETURN AIR
RD ROUND
RECIR RECIRCULATING
C REINFORCING
REL RELIEF; RELIEF AIR
REV REVISION
RF RETURN FAN
RH RELATIVE HUMIDITY
RL REFRIGERANT LIQUID
RM ROOM
RPM REVOLUTIONS PER MINUTE
RPZ REDUCED PRESSURE ZONE
RS REFRIGERANT SUCTION
SA SUPPLY AIR
SCFM STANDARD CUBIC FEET PER MINUTE
SCHWP SECONDARY CHILLED WATER PUMP
SD SMOKE DAMPER
SECT SECTION
SF SUPPLY FAN; SQUARE FEET
SHWP SECONDARY HOT WATER PUMP
SP STATIC PRESSURE
SPEC SPECIFICATION
SPL STATIC PRESSURE LOSS
SS STAINLESS STEEL
STM STEAM
TA TRANSFER AIR
TAB TEST AND BALANCE
TOD TOP OF DUCT
TOP TOP OF PIPE
TOS TOP OF STEEL
TSP TOTAL STATIC PRESSURE
TSTAT THERMOSTAT
TU TERMINAL UNIT
TYP TYPICAL
UH UNIT HEATER
UL UNDERWRITERS LABORATORIES INC.
V VENT
VA VENTILATION AIR
VAC VACUUM (SUCTION)
VERT VERTICAL
VFD VARIABLE FREQUENCY DRIVE
W WITH
WO WITHOUT
WB WET BULB
WG WATER GAUGE
XT EXPANSION TANK
Ø ROUND; DIAMETER; PHASE

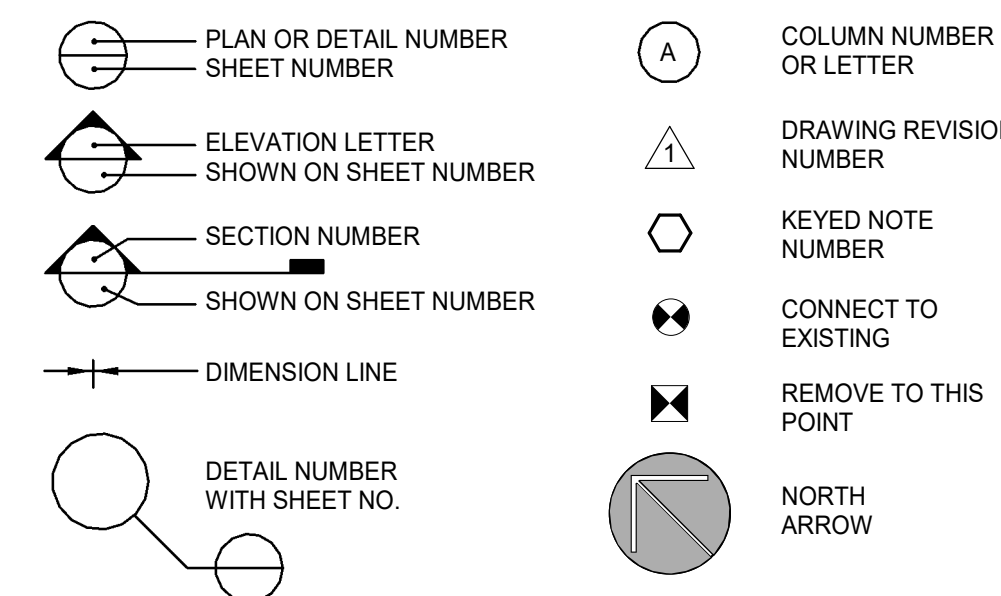
PIPING SYMBOLS



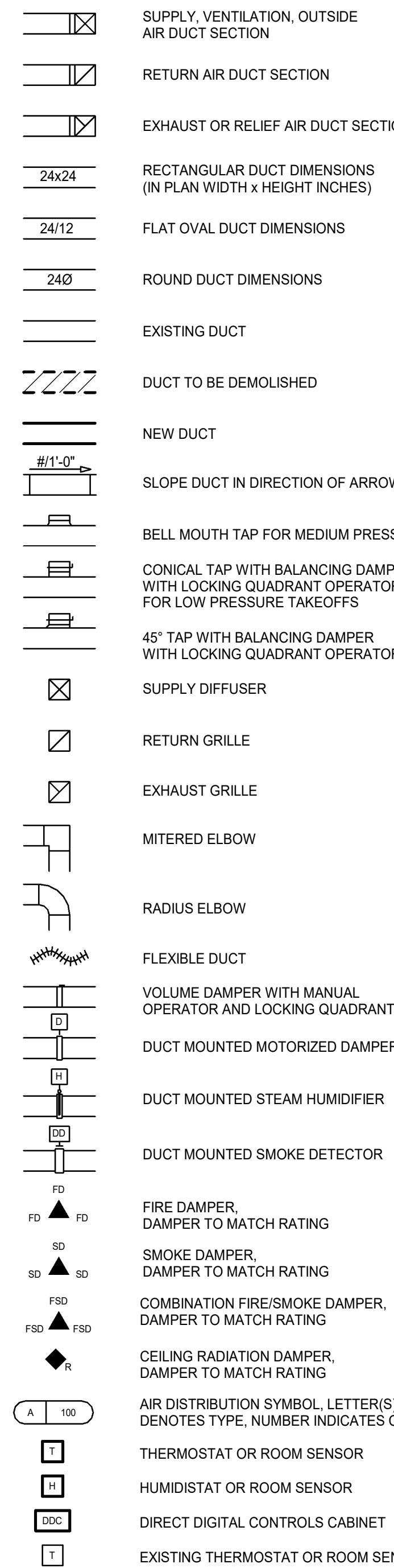
ELECTRICAL SYMBOLS



GENERAL SYMBOLS



DUCTWORK SYMBOLS



HVAC GENERAL NOTES

- COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF ANY PIPING, DUCTWORK OR EQUIPMENT. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
- REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- ALL DUCT AND PIPING LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS REQUIRED TO COMPLETE WORK. COORDINATE THE DUCT AND PIPING LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION, INCLUDING CONDUITS AND CABLE TRAYS. PROVIDE ALL DUCT AND/OR PIPING OFFSETS REQUIRED FOR THE COMPLETE INSTALLATION OF THE SYSTEM WHETHER OR NOT THE OFFSETS ARE INDICATED ON THE PLANS. INSTALL DUCTWORK AND PIPING HIGH ENOUGH TO AVOID LIGHTS, CONDUIT AND MISCELLANEOUS PIPING, BUT LOW ENOUGH TO ALLOW FOR EASY ACCESS TO SYSTEM BALANCING DEVICES. DO NOT BLOCK ACCESS TO DEVICES.
- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS AND ARCHITECTURAL DETAILS FOR EXACT LOCATION OF ALL CEILING AND SIDEWALL AIR DISTRIBUTION AND DEVICES.
- LOCATE UNITS SUCH THAT ACCESS PANELS MAY BE FULLY OPENED (VIA TILE CEILING) FOR SERVICING UNIT. COORDINATE LOCATION WITH LIGHTING FIXTURES OR ANY OTHER EQUIPMENT. DUCT RUNOUTS TO DIFFUSERS SHALL BE SAME SIZE AS INLET SIZE SCHEDULED, UNLESS NOTED OTHERWISE.
- ALL DUCT DIMENSIONS ARE INSIDE CLEAR. SEE DETAILS AND SPECIFICATIONS FOR INSULATION REQUIREMENTS.
- PROVIDE BALANCING DAMPERS WHERE INDICATED ON THE PLANS AND WHERE REQUIRED FOR SYSTEM BALANCING.
- INSTALL ALL EQUIPMENT WITH THE MANUFACTURER'S RECOMMENDATION AND CODE REQUIRED CLEARANCES. INSURE ALL ITEMS FURNISHED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PURCHASE AND INSTALLATION.
- COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXPOSED MECHANICAL ITEMS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND DETAILS. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: SENSORS, WALL DEVICES, SIDEWALL GRILLES, CONTROL PANELS, AND ALARMS.
- FURNISH 24"X24" ACCESS DOORS (UNLESS OTHERWISE INDICATED) AT ALL MAINTENANCE ITEMS THAT ARE CONCEALED, SUCH AS EQUIPMENT, VALVES, DAMPERS, SENSORS, ETC. COORDINATE EXACT LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

APPENDIX B 2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN	
MECHANICAL SUMMARY	
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT	
Thermal Zone:	2021 ASHRAE FUNDAMENTALS, RALEIGH-DURHAM, NC, 3A
winter dry bulb:	20°F
summer dry bulb:	95°F
Interior design conditions	
winter dry bulb:	70°F
summer dry bulb:	N/A
relative humidity:	
Building heating load:	N/A
Building cooling load:	N/A
Mechanical Spacing Conditioning System	
Unitary	
description of unit:	-
heating efficiency:	-
cooling efficiency:	-
size category of unit:	-
Boiler	
Size category, if oversized, state reason:	N/A
Chiller	
Size category, if oversized, state reason:	N/A
List equipment efficiencies:	SEE PLANS AND SPECIFICATIONS

HVAC DRAWING LIST

NO.	TITLE
H001	STANDARDS, SYMBOLS & ABBREVIATIONS
H111	PLANS - RESTROOM BUILDING
H301	DETAILS
H401	CONTROLS & SCHEDULES



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WAKE TECHNICAL COMMUNITY COLLEGE

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NCCCS NO. 2303



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H001



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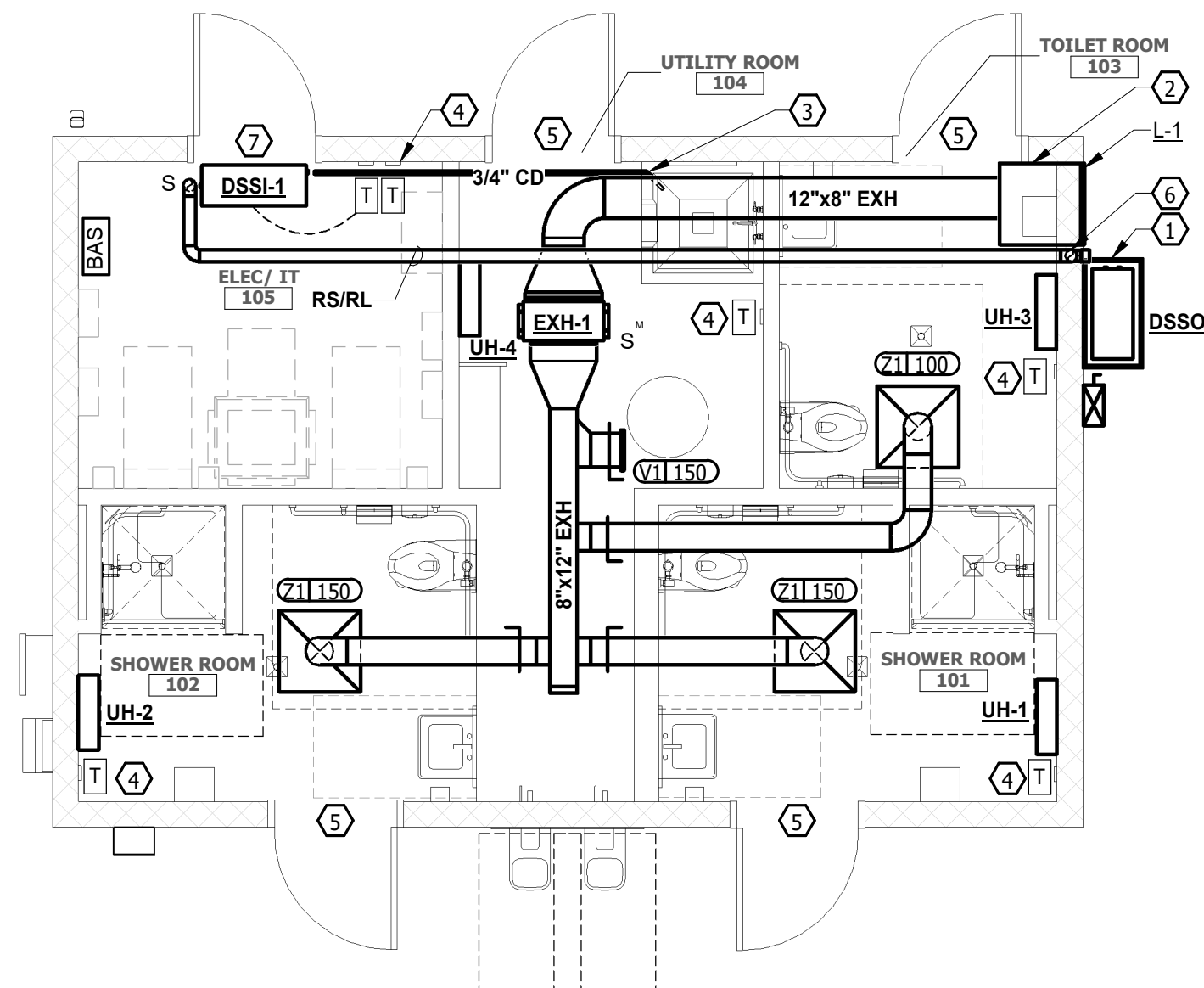
Karin R. Allen
03/20/25
ENGINEER
KARIN R. ALLEN
03/14/2025

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PLANS - RESTROOM BUILDING

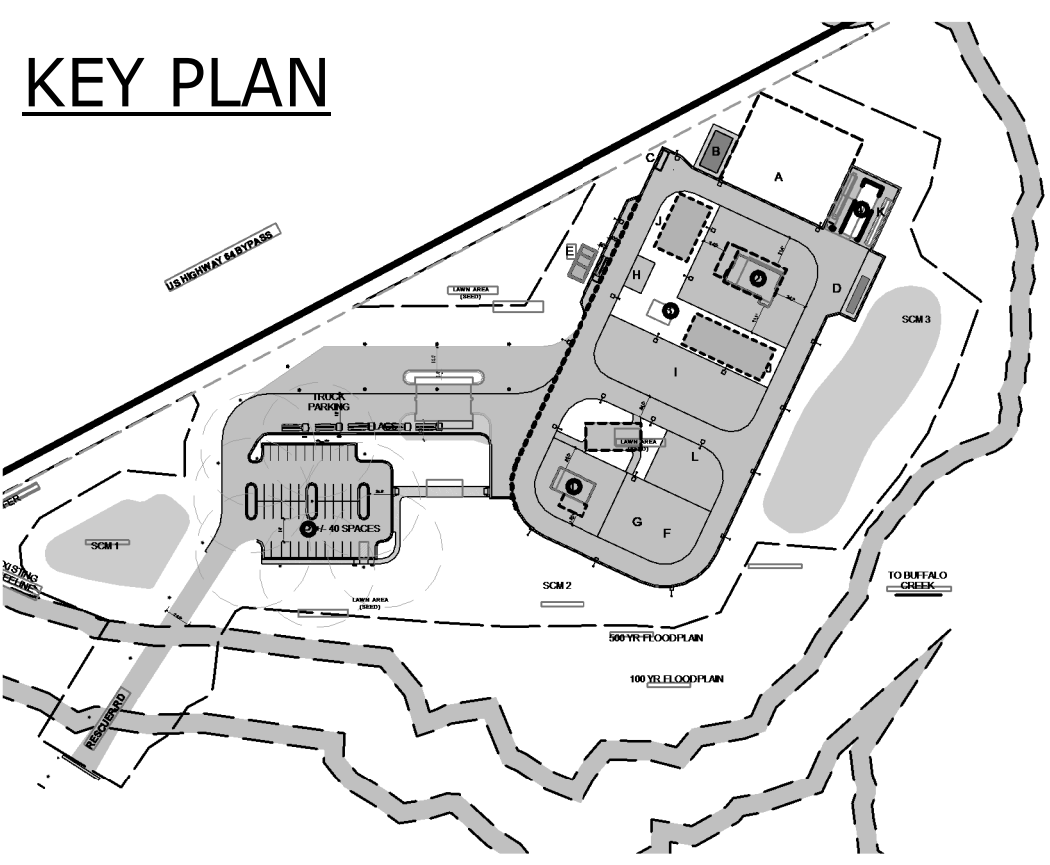
H111

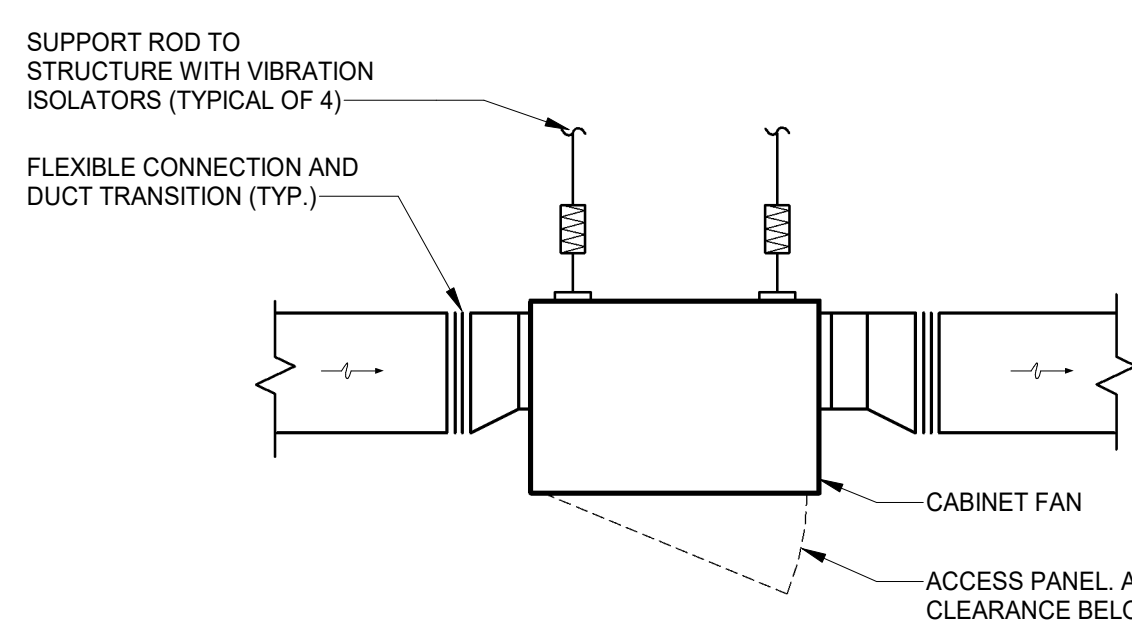
- KEY NOTES TO H111
- 1 PROVIDE 4" HOUSE KEEPING PAD FOR MECHANICAL EQUIPMENT.
 - 2 PROVIDE 2'-0" PLENUM BOX BEHIND LOUVER AND SEAL WEATHERTIGHT.
 - 3 ROUTE CONDENSATE TO MOP SINK. TERMINATE 6" ABOVE SINK LIP.
 - 4 PROVIDE THERMOSTAT FOR BAS MONITORING.
 - 5 LOUVER BY ARCHITECT.
 - 6 ROUTE REFRIGERANT SUPPLY & RETURN PIPING DOWN WALL CAVITY TO DSSO-1.
 - 7 DSSI SHALL BE MOUNED NO LOWER THAN 8'-6" AFF.



FLOOR PLAN - RESTROOM/SHADE STRUCTURE
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

KEY PLAN

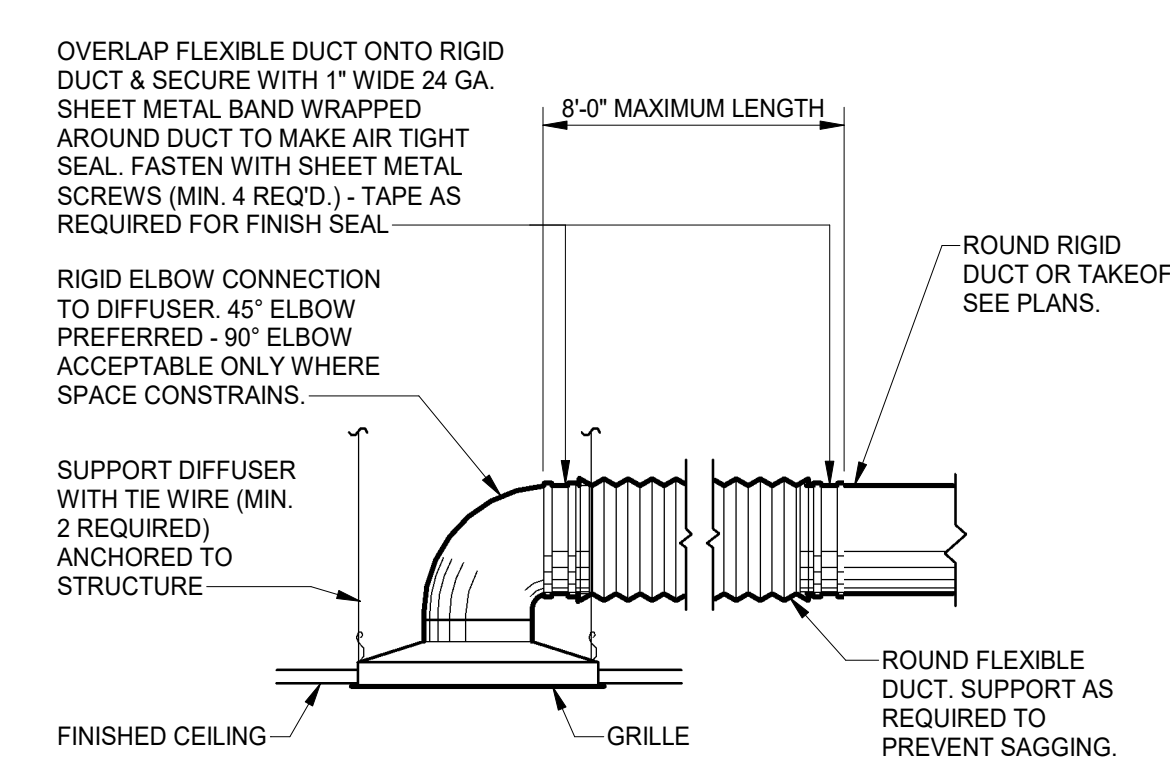




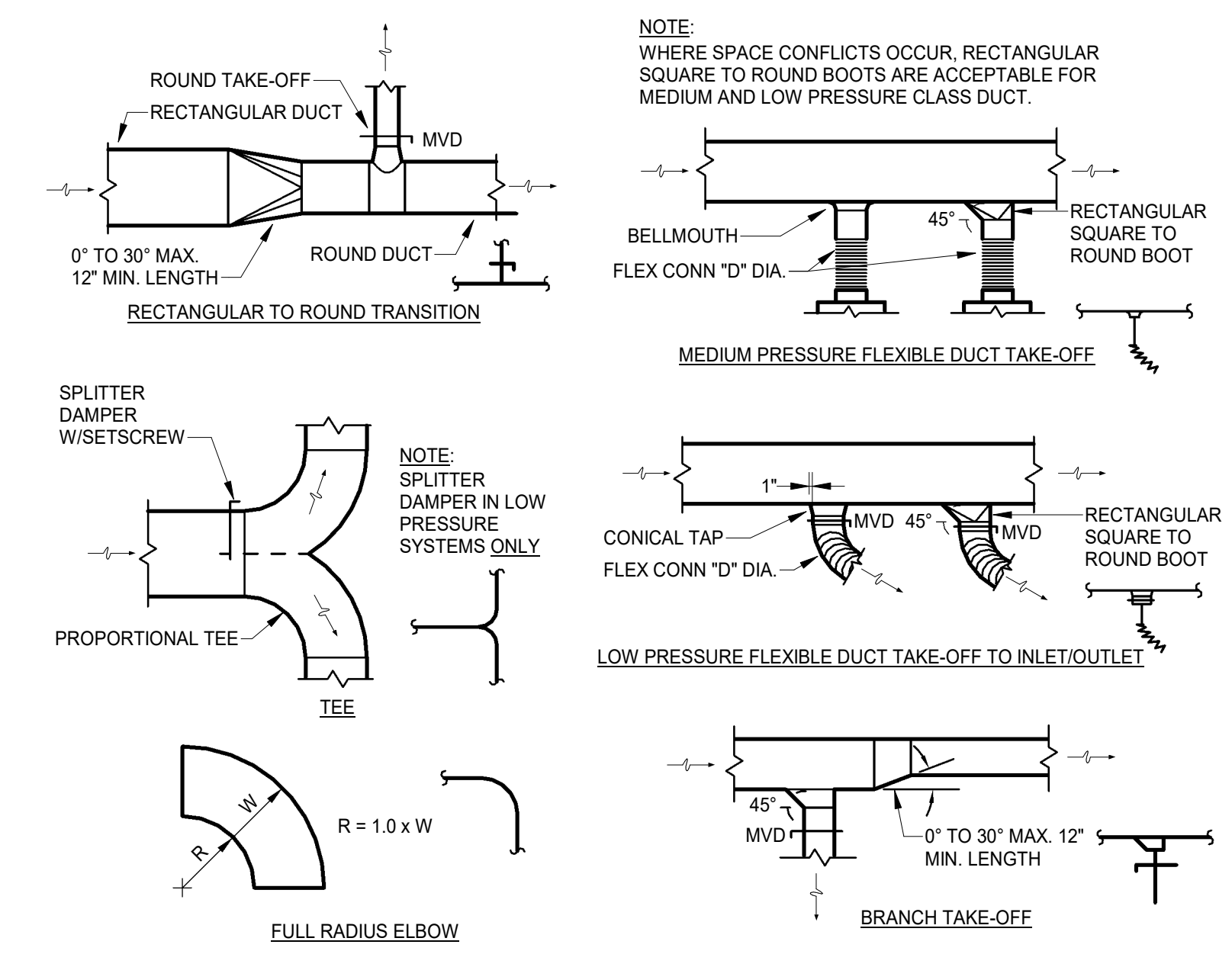
NOTE:
1. REFER TO PLANS FOR EXACT DUCT ARRANGEMENT.

SO DETAIL: F06A

6 IN-LINE CABINET FAN DETAIL
H301 SCALE: NTS



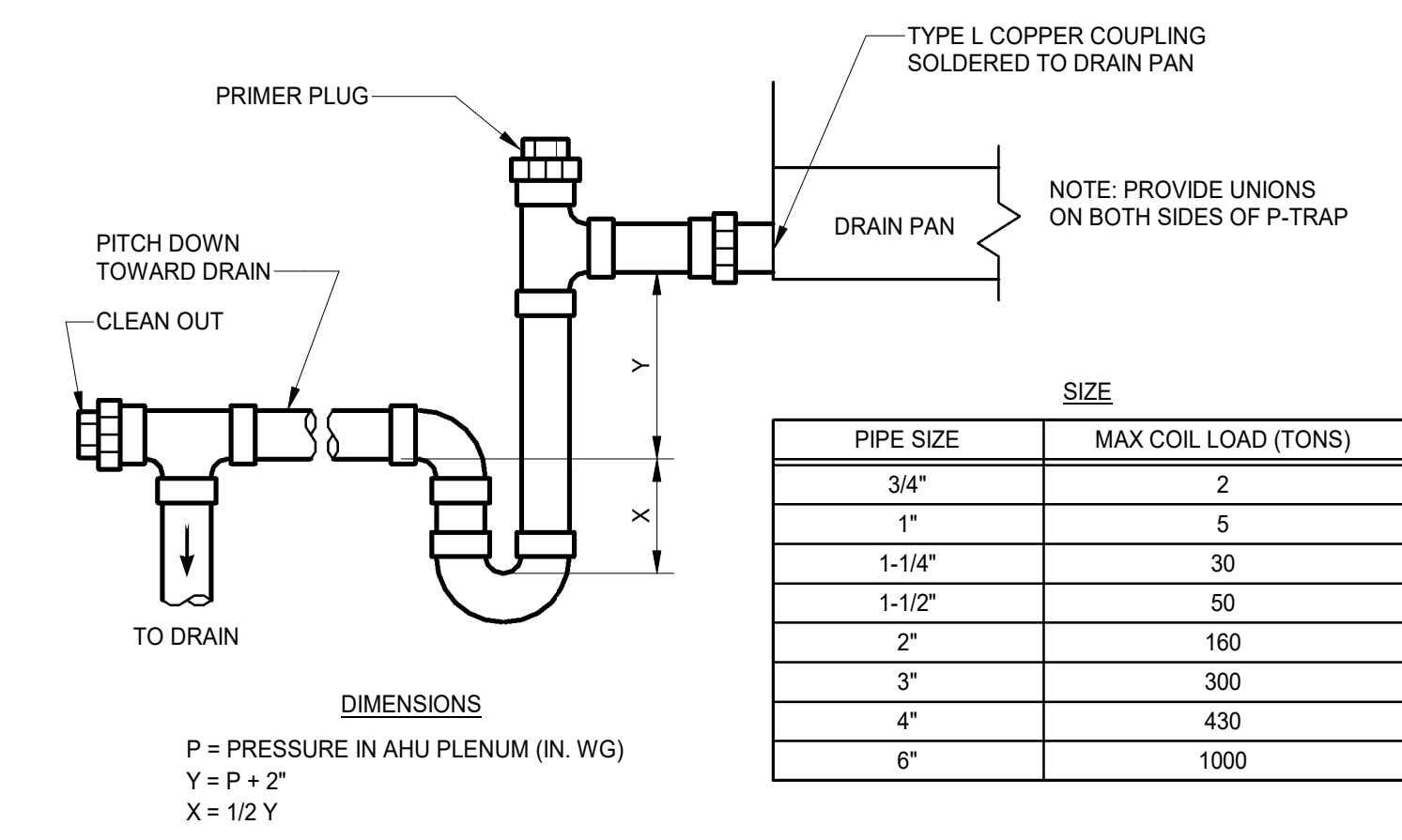
7 CEILING EXHAUST GRILLE INSTALLATION
H301 SCALE: NTS



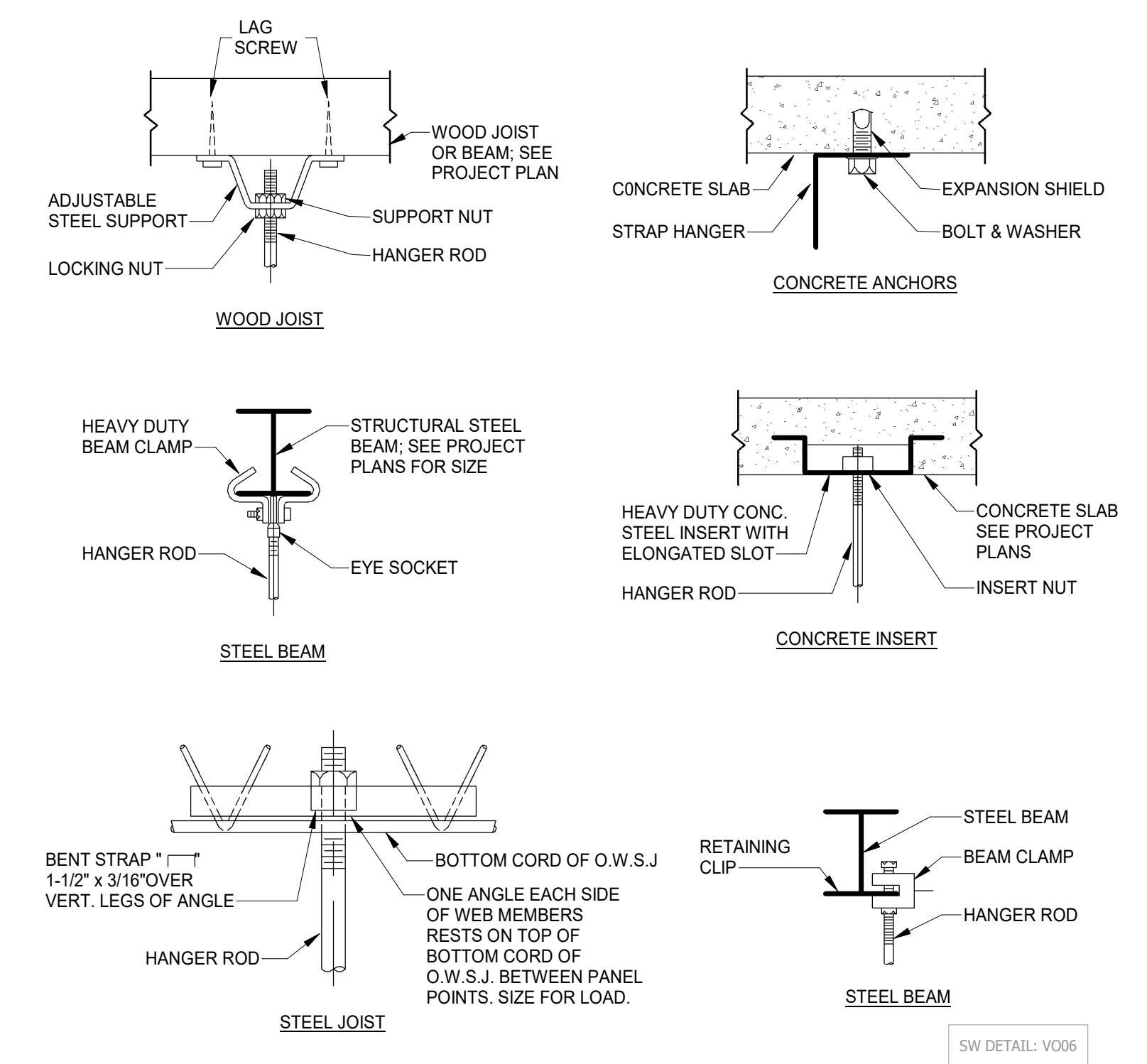
NOTE:
UNLESS NOTED OTHERWISE ALL MITERED 90 DEGREE ELBOWS SHALL HAVE TURNING VANES. 45 DEGREE ELBOWS SHALL NOT HAVE TURNING VANES.

SO DETAIL: D01

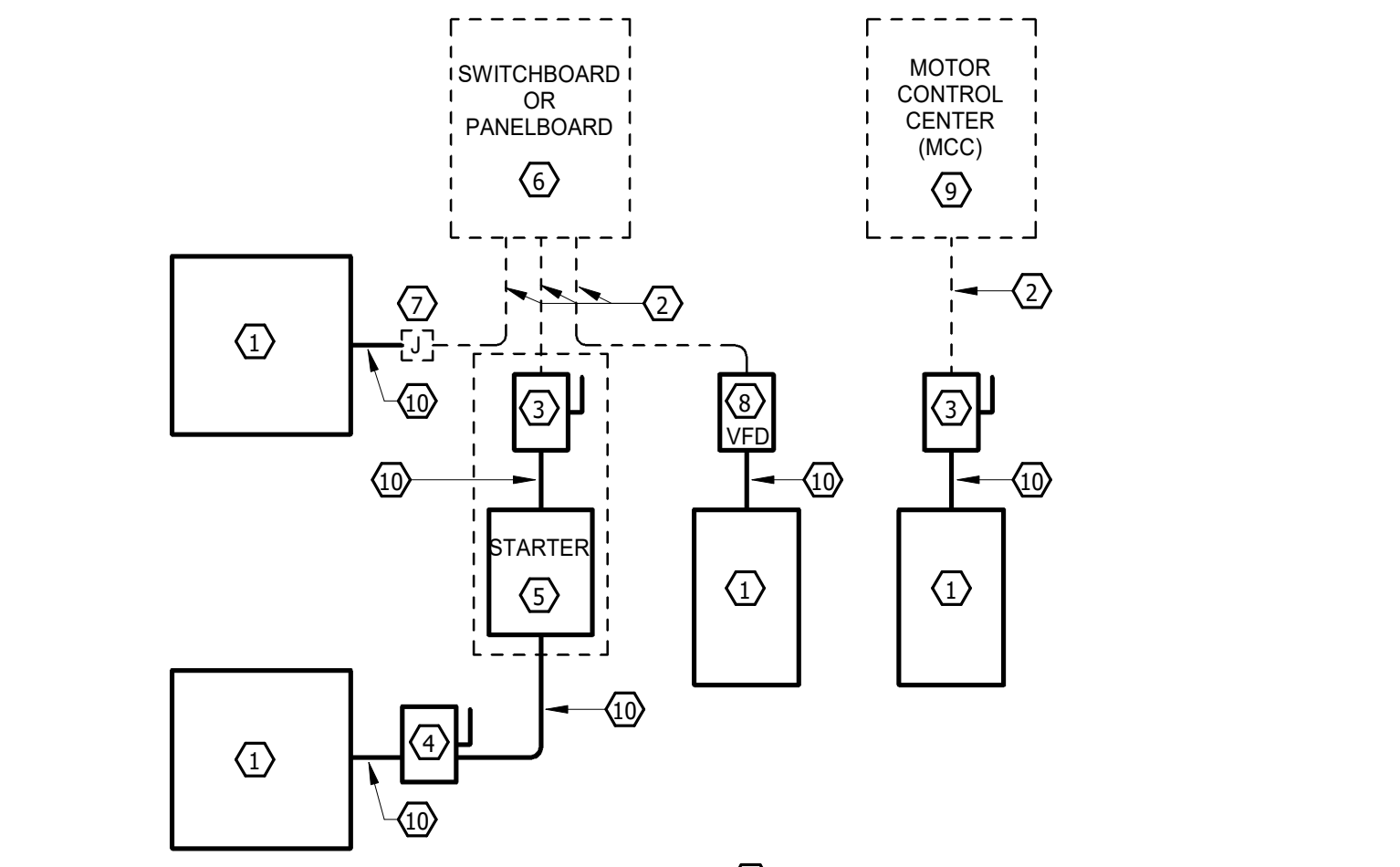
3 STANDARD DUCT CONSTRUCTION
H301 SCALE: NTS



4 COOLING COIL DRAIN PIPING
H301 SCALE: NTS



5 HANGER SUPPORT DETAILS
H301 SCALE: NTS



KEYED NOTES:
1. EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
2. CONDUIT & WIRING BY DIVISION 26 CONTRACTOR.
3. PROVIDE DISCONNECT AND FUSING.
4. PROVIDE ADDITIONAL DISCONNECT IF REQUIRED BY NEC.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER.
6. POWER DISTRIBUTION EQUIPMENT BY DIVISION 26 CONTRACTOR.
7. JUNCTION BOX REQUIRED BY THE DIVISION 26 CONTRACTOR FOR EQUIPMENT IF NO STARTER IS REQUIRED. PROVIDE MOTOR-RATED DISCONNECT SWITCH WHERE REQUIRED BY CODE. THE DIVISION 26 CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE DISCONNECT. PROVIDE LOAD SIDE WIRING.
8. PROVIDE VARIABLE FREQUENCY DRIVE (VFD) WHERE NECESSARY.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC SHALL BE PROVIDED BY THE DIVISION 26 CONTRACTOR.
10. PROVIDE RACEWAY & WIRING IN ACCORDANCE WITH REQUIREMENTS FOR RACEWAYS AND WIRING METHODS IN DIVISION 26 SPECIFICATIONS.

SO DETAIL: MR01

1 ELECTRICAL CONNECTIONS TO EQUIPMENT
H301 SCALE: NTS

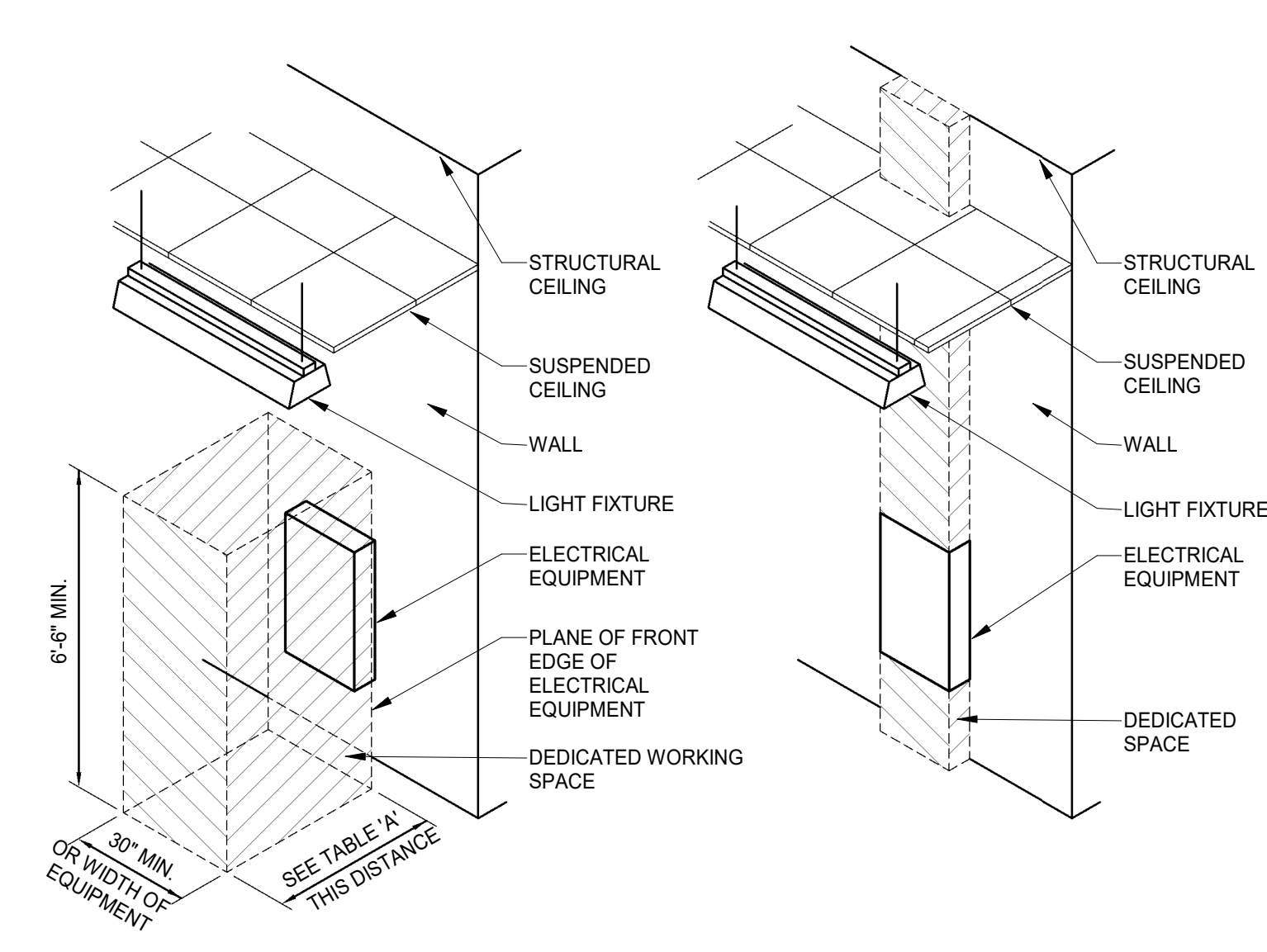


TABLE A - WORKING CLEARANCES				
VOLTAGE TO GROUND NOMINAL	CONDITION	1	2	3
0-150		3	3	3
151-600		3	3 1/2	4

- WHERE THE CONDITIONS ARE AS FOLLOWS:
- EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
 - EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1), WITH THE OPERATOR BETWEEN.

- NOTES:
- THESE FIGURES ILLUSTRATE THE WORKING CLEARANCE AND DEDICATED SPACE AROUND ELECTRICAL EQUIPMENT AS REQUIRED BY NEC SECTION 110-26.
 - DEDICATED SPACE RUNS TO A HEIGHT OF 6'-0" ABOVE EQUIPMENT. DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING OR UP TO STRUCTURAL CEILING. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THIS SPACE. (FIGURE 2)

2 CLEARANCES FOR ELECTRICAL EQUIPMENT
H301 SCALE: NTS

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03/25/2025
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Karin R. Allen
03/20/25
REGISTERED PROFESSIONAL ENGINEER
KARIN R. ALLEN
03/14/2025

NO.	REVISION	DATE

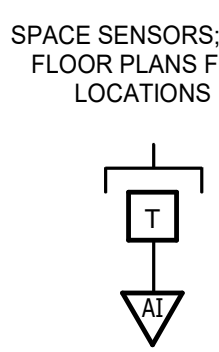
JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
DETAILS

STANDARD CONTROL SYMBOLS

CONTROLLERS / SENSORS	DDC I/O SYMBOLS	FINAL CONTROL ELEMENTS
SPACE THERMOSTAT OR TEMPERATURE SENSOR	DIGITAL (BINARY) INPUT POINT	TWO-WAY CONTROL VALVE, HYDRONIC OR STEAM
THERMOSTAT OR TEMPERATURE SENSOR WITH AIRFLOW AVERAGING ELEMENT	ANALOG INPUT POINT	THREE-WAY CONTROL VALVE, HYDRONIC
THERMOSTAT OR TEMPERATURE SENSOR WITH SENSING BULB IN HYDRONIC PIPE WELL	DIGITAL (BINARY) OUTPUT POINT	ELECTRIC MOTOR
THERMOSTAT OR TEMPERATURE SENSOR WITH SENSING BULB AND PROTECTIVE SHIELD	ANALOG OUTPUT POINT	FAN AND MOTOR
SPACE HUMIDISTAT OR HUMIDITY SENSOR		PUMP AND MOTOR
DUCT-MOUNTED HUMIDISTAT OR HUMIDITY SENSOR		ELECTRIC / ELECTRONIC DAMPER ACTUATOR
PRESSURE SENSOR		ELECTRIC / ELECTRONIC VALVE ACTUATOR
DIFFERENTIAL PRESSURE SENSOR		VARIABLE FREQUENCY DRIVE
AIR STATIC PRESSURE SENSOR		AIR FLOW MONITORING STATION
AIR VELOCITY PRESSURE SENSOR		
SPACE OCCUPANCY/VACANCY SENSOR		
CARBON DIOXIDE CONCENTRATION SENSOR		
DRAIN PAN CONDENSATE LEVEL SENSOR		
DUCT SMOKE DETECTOR		
REFRIGERANT CONCENTRATION SENSOR		
FLOW METER		
DEW POINT		
SWITCH		

SWITCHES	PNEUMATIC COMPONENTS
DAMPER END SWITCH	MAIN AIR SUPPLY, 20 PSIG
EMERGENCY START OR STOP SWITCH	MAIN AIR SUPPLY, 80 PSIG
MOTOR STARTER HOLDING COIL	DAMPER VALVE ACTUATOR WITH PILOT POSITIONER
CONTACTOR HOLDING COIL	CONTROL VALVE OPERATOR WITH PILOT POSITIONER
CONTROL RELAY HOLDING COIL	ELECTRONIC-TO-PNEUMATIC TRANSDUCER
CURRENT SWITCH	

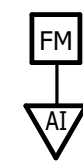
DESCRIPTION
TEMPERATURE SENSOR FOR MONITORING IT ROOM SPACE TEMPERATURE



SEQUENCE OF OPERATIONS:
IF SPACE TEMPERATURE EXCEEDS 85°F (ADJ.) AN ALARM SHALL BE INITIATED. ALARM SHALL BE SET UP AS A CRITICAL IT ALARM (BACNET PRIORITY LEVEL 15).

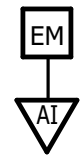
3FH401 IT ROOM MONITORING

DESCRIPTION
DOMESTIC WATER FLOW METERING PROVIDED BY DIV 23. REFER TO DIV 22 DOCUMENTS FOR LOCATION.



4FH401 DOMESTIC WATER METERING

DESCRIPTION
ENERGY METERING PROVIDED BY DIV 26. REFER TO DIV 26 DOCUMENTS FOR LOCATION. METER SHALL BE INTEGRATED TO.



6FH401 ENERGY METERING

5FH401 RESTROOM BUILDING POINTS LIST

INPUT / OUTPUT SUMMARY TABLE																		
POINT DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS				ALARMS (BY DIV 25)						TREND (BY DIV 25)	SHOW ON GRAPHIC (BY DIV 25)		
	INPUTS		OUTPUTS		ANALOG VALUE	BINARY VALUE	SCHED.	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAILURE						
	DIGITAL	ANALOG	DIGITAL	ANALOG														
HO POINT TOTAL	4	5	1	0	3	0	0	1	0	0	1	0	3	13				
POINT DESCRIPTION	DI	AI	DO	AO	AV	BV	SCHED	H.LIMIT	L.LIMIT	BINARY	LATCH	SENSOR FAIL	TREND	GRAPHIC				
105- ELECIT SPACE TEMPERATURE		X						X						X				
101- SHOWER ROOM SPACE TEMPERATURE		X												X				
102- SHOWER ROOM SPACE TEMPERATURE		X												X				
103- TOILET ROOM SPACE TEMPERATURE		X												X				
104- UTILITY ROOM SPACE TEMPERATURE		X												X				
101- SHOWER ROOM OCCUPANCY CONTACT	X													X				
102- SHOWER ROOM SPACE OCCUPANCY CONTACT	X													X				
103- TOILET ROOM SPACE OCCUPANCY CONTACT	X													X				
EXH-1 COMMAND			X											X				
EXH-1 STATUS	X										X			X				
DOMESTIC WATER METER FLOW					X									X				
ENERGY USAGE					X									X				
TOTAL ENERGY USAGE										X				X				

DUCTLESS SPLIT SYSTEM INDOOR UNIT SCHEDULE

DESIGNATION	SERVICE	TYPE	SOURCE	MOUNTING	AIRFLOW (CFM)	CAPACITY
DSS1-1	ELEC/IT	SINGLE ZONE	DSSO-1	WALL	300	COOLING (MBH) 12 HEATING (MBH) 13.5

- NOTES:
1 SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS.
2 PROVIDE EXTERNAL DISCONNECT SWITCH AT OUTDOOR UNIT.
3 PROVIDE EXTERNAL MOTOR RATED TOGGLE SWITCH AT INDOOR UNIT.
4 INDOOR UNIT SHALL BE POWERED BY THE OUTDOOR UNIT.

LOUVER SCHEDULE

DESIGNATION	SERVICE	TYPE	AIRFLOW (CFM)	APD (IN)	SIZE (INxIN)
L-1	EXH-1	SIDEWALL	550	0.1	24X16

- NOTES:
1 MINIMUM FREE AREA SHALL BE 0.7 SQFT.

DUCTLESS SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

DESIGNATION	TOTAL CAPACITY (MBH)	COOLING	HEATING	ELEC
DSSO-1	12	EFFICIENCY (SEER2) 21	AMBIENT TEMPERATURE (°F) 95	AMBIENT TEMPERATURE (°F) 5

FAN SCHEDULE

DESIGNATION	SERVICE	TYPE	AIRFLOW (CFM)	ESP (IN)	DRIVE TYPE	FAN SPEED (RPM)	BRAKE MOTOR SIZE (HP)	FAN MOTOR SIZE (HP)	VOLTAGE/PHASE	EXT START/DISCONNECT MEANS	MAX SOUND LEVEL (dBA)	CONTROL
EXH-1	RESTROOM BLD	INLINE CABINET	550	1.00	DIRECT	1035	0.14	1/2	120/1	MRT	38	DDC

- NOTES:
1 PROVIDE EXTERNAL STARTER/DISCONNECTING MEANS AS SCHEDULED. (C/P, MRT/MSD, VFD)

UNIT HEATER SCHEDULE

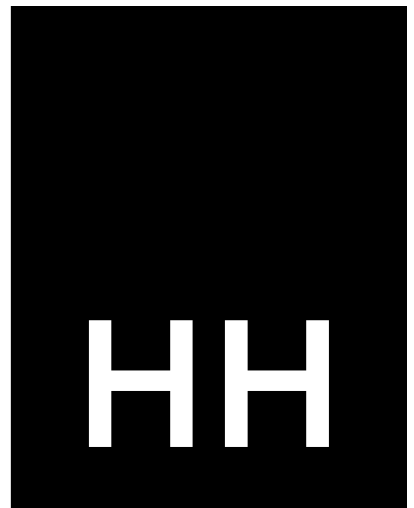
DESIGNATION	SERVICE	TYPE	ELEC CAPACITY (KW)	VOLTAGE/PHASE
UH-1	SHOWER ROOM	CABINET	5.0	208/1
UH-2	SHOWER ROOM	CABINET	5.0	208/1
UH-3	TOILET ROOM	CABINET	4.0	208/1
UH-4	UTILITY ROOM	CABINET	5.0	208/1

- NOTES:
1 PROVIDE ELECTRICAL UNIT HEATER WITH INTEGRAL THERMOSTAT.

AIR DISTRIBUTION SCHEDULE

DESIGNATION	SERVICE	TYPE	MAX. AIRFLOW (CFM)	FACE SIZE (INxIN, ø IN)	NECK SIZE (INxIN, ø IN)	APD (IN)	MAX. NC	VOL. CONTROL DAMPER (Y/N)
V1	EXHAUST	STD BLADE SIDEWALL	150	12x8	10x6	0.1	20	No
Z1	EXHAUST	PERFORATED	200	24x24	8	0.1	20	No

- NOTES:
1 VERIFY MOUNTING FRAME STYLE WITH ARCHITECTURAL FINISH SCHEDULE.



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04/18/2025
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WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



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SHEET
CONTROLS & SCHEDULES

H401

ELECTRICAL ABBREVIATIONS

A	AMPERES OR AMP METER
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFB	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECTURAL
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAGE
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
C	CELSIUS; COIL
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION SYSTEM
CD/CD4	CANDELA
CLG	CEILING
COAX	COAXIAL CABLE
CONTR	CONTRACTOR
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
ETR	EXISTING TO REMAIN
EWG	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINATION CABINET
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FLA	FULL LOAD AMPS
FLC	FLEXIBLE LIQUIDTIGHT CONDUIT
FLEX	FLEXIBLE
FMC	FLEXIBLE METAL CONDUIT
FT	FEET; FOOT
FU	FUSE
GA	GAUGE; GAGE
GB	GROUND BUS
GC	GENERAL CONTRACTOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT (CIRCUIT) INTERRUPTER
GFCI	
GND	GROUND
HD	HEAVY DUTY
HQA	HANDS-OFF-AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LRA	LOCKED ROTOR AMPS
LS	LIFE SAFETY
LTS	LIGHTING
M	MOTOR; METERING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PROTECTOR
MCS	MOLDED CASE SWITCH
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUG ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN; NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OL	OVERLOAD
P	POLE
PB	PULL BOX
PC	PHOTOCELL
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POINT; POTENTIAL TRANSFORMER
PUN	PER UNIT NAMEPLATE
PVC	POLYVINYL CHLORIDE (CONDUIT)
RD	ROUND

ELECTRICAL ABBREVIATIONS

REV	REVISION
RLA	RATED LOAD AMPS
RMC	RIGID METAL CONDUIT
SN	SOLID NEUTRAL
SNAC	SIGNAL NOTIFICATION APPLIANCE CIRCUIT
SP	SURGE PROTECTED
SPD	SURGE PROTECTED DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE SINGLE THROW
SO	SQUARE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBB	TELEPHONE BACK BOARD
TELEC	TELECOMMUNICATIONS
OM	
TEMP	TEMPERATURE
THD	TOTAL HARMONIC DISTORTION
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES INC.
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE; VOLT
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WIRE
W	WITH
WG	WIREGUARD
WP	WEATHERPROOF
EM	EMERGENCY
XP	EXPLOSION PROOF
Z	IMPEDANCE
ø	ROUND; DIAMETER; PHASE

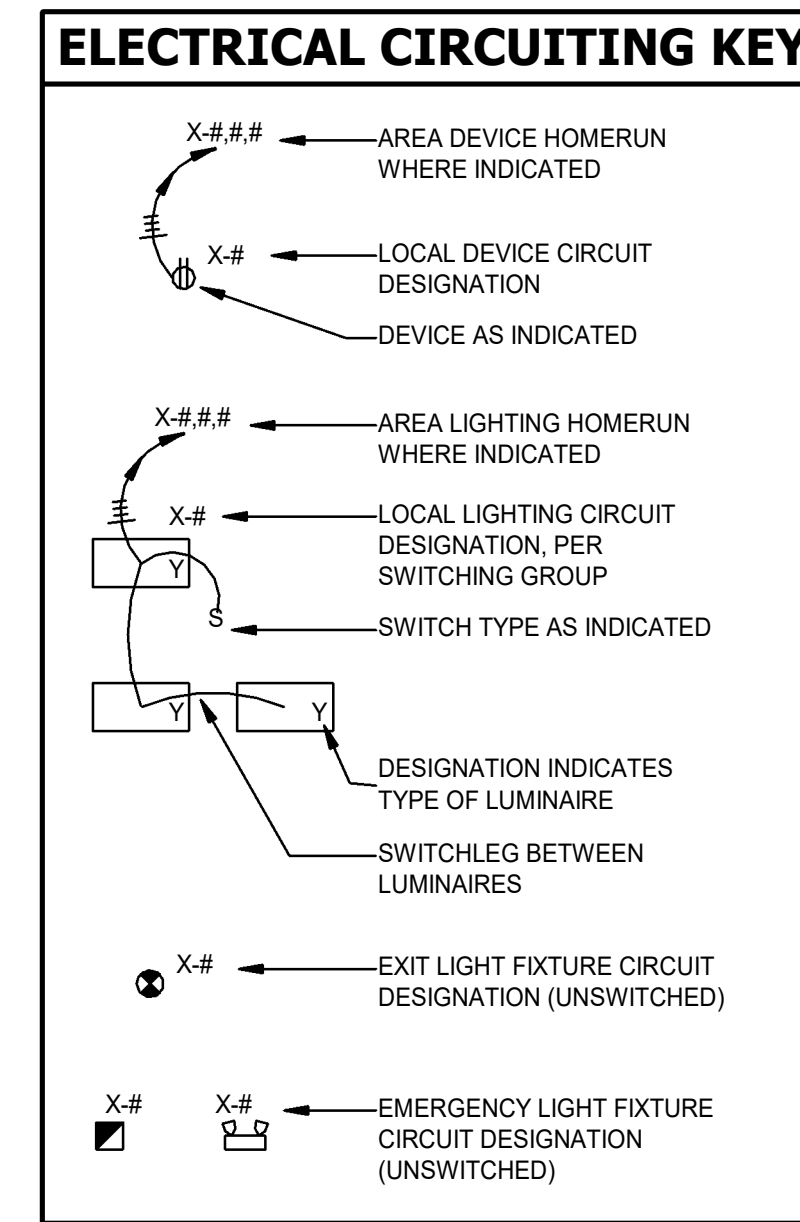
WALL MTD LIGHTING FIXTURE AND OUTLET
PENDANT LIGHTING FIXTURE AND OUTLET
DOWNLIGHT LIGHTING FIXTURE AND OUTLET
WALL MTD LIGHTING FIXTURE AND OUTLET
PENDENT MOUNTED STRIP FIXTURE
CEILING MTD LIGHTING FIXTURE AND OUTLET
WALL MTD EXIT SIGN AND OUTLET, SINGLE FACE. ARROW INDICATES DIRECTION.
CEILING MTD EXIT SIGN AND OUTLET, DUAL FACE. ARROWS INDICATE DIRECTION.
EMERGENCY LIGHT BATTERY PACK - TWO HEAD UNIT.
CEILING MOUNTED EMERGENCY BATTERY LIGHT
EMERGENCY LIGHT REMOTE HEAD
GROUND MOUNTED FLOODLIGHT AND OUTLET
AREA LUMINAIR AND STANDARD
FLUSH MTD TOGGLE SWITCH, SPST, 20A, 120/277V
FLUSH MTD TOGGLE SWITCH, DPST, 20A, 120/277V
FLUSH MTD 3-WAY TOGGLE SWITCH, 20A, 120/277V
FLUSH MTD 4-WAY TOGGLE SWITCH, 20A, 120/277V
FLUSH MTD DIMMER SWITCH, 20A, 120/277V
FLUSH MTD KEY SWITCH, 20A, 120/277V
FLUSH MTD OCCUPANCY SENSOR SWITCH, 20A, 120/277V
FLUSH MTD LIGHTED HANDLE TOGGLE SWITCH, SPST, 20A, 120V. LIGHT ON WITH OPEN SWITCH
FLUSH MTD TOGGLE SWITCH WITH PILOT LIGHT. LIGHT ON WITH CLOSED SWITCH.
TIMED SWITCH
CEILING MTD INFRA-RED OCCUPANCY SENSOR SWITCH
CEILING MTD ULTRASONIC OCCUPANCY SENSOR SWITCH
CEILING MTD DUAL TECHNOLOGY (IR, U) OCCUPANCY SENSOR SWITCH
PHOTOCELL
FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W
FLUSH MTD DUPLEX GFCI RECEPTACLE, 20A, 125V, 3W
FLUSH MTD DUPLEX RECEPTACLE WITH DUPLEX USB OUTLETS, 20A, 125V, 3W
FLUSH MTD SINGLE RECEPTACLE, 20A, 125V, 3W
FLUSH MTD QUADRUPLX RECEPTACLE, 20A, 125V, 3W
FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, SPLIT WIRED WITH TOP OUTLET SWITCHED.
FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPASH OR COUNTERTOP IF NO BACKSPASH EXISTS.
FLUSH MTD QUADRUPLX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPASH OR COUNTERTOP IF NO BACKSPASH EXISTS.
WALL MOUNTED POWER DEVICE
FLOOR BOX WITH DEVICE(S). REFER TO SCHEDULES FOR MARK
WALL MTD TELECOM OUTLET. REFER TO SCHEDULES FOR MARK
CEILING MTD RECEPTACLE AND OUTLET, 20A, 125V
CEILING MTD TELECOM OUTLET. REFER TO SCHEDULES FOR MARK
CEILING MTD DUPLEX RECEPTACLE & TELECOM OUTLET. REFER TO SCHEDULES FOR MARK
CEILING MTD PUBLIC ADDRESS SPEAKER
FLUSH MTD VOLUME CONTROL FOR SPEAKER
WALL MTD TELEVISION ANTENNA/ELECTRICAL OUTLET. REFER TO SCHEDULES FOR MARK
(WIFI) WIRELESS ACCESS POINT.
PANELBOARD, 250V LEVEL
PANELBOARD, 600V LEVEL
HOMERUN: ARROW HEADS INDICATE NUMBER OF CIRCUITS, LETTERS AND NUMBERS DESIGNATE PANEL. AND CIRCUITS. SHORT TICK MARKS INDICATE NUMBER OF CURRENT CARRYING PHASE CONDUCTORS. LONG TICK MARK(S) INDICATE NEUTRAL(S). GROUNDING CONDUCTORS REQUIRED BY SPECIFICATIONS ARE NOT SHOWN. CONDUCTOR SIZES SPECIFIED ON THE PANEL SCHEDULES ARE MANDATORY FOR THE ENTIRE CIRCUIT EXCEPT WHERE SPECIFICATIONS REQUIRE A SIZE INCREASE FOR VOLTAGE DROP.
SURFACE METAL RACEWAY WITH DEVICES. LETTER DESIGNATES TYPE
PENDANT MTD, PLUG-IN BUS DUCT WITH PLUG-IN CIRCUIT BREAKER OR FUSIBLE SWITCH AND TAP BOX. DUCT AND SWITCH RATING AS NOTED
TOP # - DEVICE MAXIMUM RATING OR FRAME SIZE
BOTTOM # - FUSE SIZE OR DEVICE SETTING
DISCONNECT SWITCH
COMBINATION DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. SEE SCHEDULE OR NOTE
FLUSH MTD MANUAL MOTOR STARTER SWITCH WITHOUT OVERLOAD HEATERS
MAGNETIC MOTOR STARTER
3 POLE CIRCUIT BREAKER IN ENCLOSURE. # INDICATES CB RATING.
VARIABLE FREQUENCY DRIVE CONTROLLER, 40" AFF. PROVIDED BY HVAC OR PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR
MAGNETIC CONTACTOR, SIZE PER SCHEDULE
JUNCTION, PULL, TAP OR OUTLET BOX (CODE SIZE)
TIME CLOCK
MAGNETIC RELAY, SIZE PER SCHEDULE

ELECTRICAL SYMBOLS

FLUSH MOUNTED MUSHROOM HEAD PUSH BUTTON
FLUSH MOUNTED PUSH BUTTON
SUPPLEMENTAL GROUND BAR
GROUND PER NEC
ELECTRICAL DEMAND METER
SURGE PROTECTION DEVICE
WALL MTD FIRE ALARM PULL STATION
SMOKE DETECTOR, CEILING MTD
SMOKE DETECTOR FOR ELEVATOR RECALL, CEILING MTD
SMOKE DETECTOR WITH SOUNDER BASE, CEILING MTD
SMOKE DETECTOR, CEILING MTD, MULTI SENSOR
CEILING MTD REMOTE ALARM INDICATOR LAMP
CARBON MONOXIDE DETECTOR
SMOKE DETECTOR, DUCT MTD (WITH RAIL)
HEAT DETECTOR, CEILING MTD
SMOKE DETECTOR, WALL MTD
SMOKE DETECTOR WITH SOUNDER BASE, WALL MTD
WALL MTD HEAT DETECTOR
WALL MTD REMOTE ALARM INDICATOR LAMP (RAIL)
WALL MTD HORN TYPE AUDIO/VISUAL APPLIANCE
WALL MTD SPEAKER TYPE AUDIO/VISUAL APPLIANCE
WALL MTD CHIME TYPE AUDIO/VISUAL APPLIANCE
WALL MTD VISUAL ALARM APPLIANCE
CEILING MTD HORN TYPE AUDIO/VISUAL ALARM APPLIANCE
CEILING MTD SPEAKER TYPE AUDIO/VISUAL ALARM APPLIANCE
CEILING MTD CHIME TYPE AUDIO/VISUAL ALARM APPLIANCE
CEILING MTD FIRE ALARM VISUAL DEVICE
DOOR HOLDER
FIRE ALARM MONITOR MODULE
FLOW SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
TAMPER SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
POST INDICATOR VALVE FIRE ALARM CONNECTION, VALVE PROVIDED BY OTHERS
FIRE ALARM TEMPERATURE SENSOR
FIRE ALARM CONTROL MODULE OR RELAY
CEILING MTD FIRE ALARM SPEAKER
CLOCK
FIRE ALARM BELL; # INDICATED DIAMETER IN INCHES
LINEAR BEAM TRANSMITTER
LINEAR BEAM RECEIVER
FIRE ALARM WALL MTD SPEAKER
FIREMAN'S 2-WAY TELEPHONE
FIRE ALARM ISOLATION MODULE
FIRE ALARM ASPIRATION SMOKE DETECTOR
DIGITAL ALARM COMMUNICATIONS TRANSMITTER
FIRE ALARM ANNUNCIATOR PANEL
FIRE ALARM CONTROL PANEL
FIRE ALARM TERMINAL CABINET
SUPPLEMENTAL NOTIFICATION APPLIANCE CABINET
DOOR CONTROL ID TAG
SECURITY SYSTEM KEYPAD, 42" AFF
ACCESS CONTROL CARD READER
SECURITY PANIC BUTTON
CCTV SECURITY CAMERA WITH FIXED MOUNT
CCTV SECURITY CAMERA WITH PTZ FEATURES
CCTV DOME SECURITY CAMERA WITH 360 FEATURES
EMERGENCY TELEPHONE
MASTER RESCUE ASSISTANCE STATION
RESCUE ASSISTANCE STATION
RESCUE ASSISTANCE LIGHT
CORD REEL
NEW WORK
EXISTING TO REMAIN
EXISTING TO BE DEMOLISHED

ELECTRICAL GENERAL NOTES

- ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED FOR THIS PROJECT.
- SYMBOLS NOT SHOWN ON THIS ELECTRICAL SYMBOL LEGEND ARE IDENTIFIED ON THE DRAWINGS WHERE THEY OCCUR.
- UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS, MOUNTING HEIGHT OF DEVICES IS TO BE THE CENTERLINE OF THE DEVICE.
- UNLESS OTHERWISE INDICATED, SWITCHES AND SIMILAR DEVICES ARE TO BE LOCATED 42" AFF; RECEPTACLES ARE TO BE VERTICALLY MOUNTED AT 18" AFF WITH THE GROUNDING TERMINAL ON THE BOTTOM.
- TELEPHONE & DATA OUTLETS ARE TO BE MOUNTED AT 18" AFF UNLESS OTHERWISE INDICATED. "W" INDICATES MOUNTING AT 42" AFF; "C" INDICATES MOUNTING ABOVE/COUNTERTOP WITH ALIGNMENT AND HEIGHT AS INDICATED FOR RECEPTACLES SIMILARLY MOUNTED.
- FIRE ALARM PULL STATIONS ARE TO BE VERTICALLY MOUNTED AT 42" AFF.
- FIRE ALARM INDICATING APPLIANCES SHALL BE 15 Cg RATING, UNLESS NOTED OTHERWISE ON THE PLANS.
- FIRE ALARM INDICATING APPLIANCES ARE TO BE MOUNTED WITH THE LOWER EDGE OF THE VISUAL ELEMENT AT 6'-8" AFF OR 6" BFC, WHICHEVER IS LOWER. WHERE DUCTWORK, CONDUIT, OR OTHER OBSTRUCTIONS BLOCK DIRECT VIEW OF APPLIANCE, MOUNT 6" BELOW SUCH OBSTRUCTIONS.
- CEILING MOUNTED SMOKE DETECTORS ARE SHOWN IN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH CEILING FEATURES. WALL MOUNTED SMOKE DETECTORS ARE TO BE MOUNTED 10" BELOW FINISHED CEILING TO THE CENTER OF DEVICE AND A MINIMUM OF 12" FROM ADJACENT WALLS OR OTHER OBSTRUCTIONS.
- COORDINATE SMOKE DETECTOR AND HEAT DETECTOR LOCATIONS WITH HVAC SUPPLY AND RETURN GRILLES. MAINTAIN 5'-0" CLEARANCE BETWEEN EDGE OF SUPPLY GRILL AND EDGE OF SMOKE DETECTOR.
- UPPER CASE LETTER (OR LETTER/NUMBER COMBINATION) ADJACENT TO FIXTURE OR SWITCH DESIGNATES TYPE. SEE FIXTURE SCHEDULE FOR DETAILS.
- LOWER CASE LETTER ADJACENT TO FIXTURE OR SWITCH DESIGNATES CONTROL RELATIONSHIP.
- NUMBER ADJACENT TO FIXTURE, SWITCH, OR RECEPTACLE DESIGNATES CIRCUIT CONNECTION. SINGLE DIAGONAL LINE ACROSS A FIXTURE INDICATES FIXTURE IS UNSWITCHED FOR 24 HOUR OPERATION.



ELECTRICAL DRAWING LIST

NO.	TITLE
E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	SITE PLAN
E111	PLANS - RESTROOM BUILDING
E112	PLANS - TRAINING TOWER
E113	PLANS - TRAINING TOWER
E114	PLANS - TRAINING TOWER
E301	ELECTRICAL DETAILS
E401	PANEL SCHEDULES
E501	LIGHTING FIXTURE SCHEDULE
E511	TELECOMMUNICATIONS SYSTEMS
E601	ELECTRICAL DISTRIBUTION SYSTEM

GENERAL SYMBOLS

PLAN OR DETAIL NUMBER SHEET NUMBER	COLUMN NUMBER OR LETTER
ELEVATION LETTER SHOWN ON SHEET NUMBER	DRAWING REVISION NUMBER
SECTION NUMBER SHOWN ON SHEET NUMBER	KEYED NOTE NUMBER
DIMENSION LINE	CONNECT TO EXISTING
DETAIL NUMBER WITH SHEET NO.	REMOVE TO THIS POINT
	NORTH ARROW

APPENDIX B
2018 BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:	
Energy Code:	<input checked="" type="checkbox"/> Prescriptive <input type="checkbox"/> Performance
ASHRAE 90.1:	<input type="checkbox"/> Prescriptive <input type="checkbox"/> Performance
Lighting schedule (each fixture type)	
lamp type required in fixture	See fixture Schedule on Drawing Sheet
number of lamps in fixture	
ballast type used in the fixture	
number of ballasts in fixture	
total wattage per fixture	
total interior wattage specified vs. allowed: (whole building or space by space)	1,237 VA vs. 3,523 VA
total exterior wattage specified vs. allowed:	5,487 VA vs. 6,408 VA
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)	
<input type="checkbox"/> C406.2 More Efficient Mechanical Equipment	
<input type="checkbox"/> C406.3 Reduced Lighting Power Density	
<input type="checkbox"/> C406.4 Enhanced Digital Lighting Controls	
<input type="checkbox"/> C406.5 On-Site Renewable Energy	
<input type="checkbox"/> C406.6 Dedicated Outdoor Air System	
<input type="checkbox"/> C406.7 Reduced Energy Use in Service Water Heating	

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03/14/2025

NO.	REVISION	DATE

JOB NUMBER 22-086
DATE ISSUED 03/14/2025
PROJECT STATUS ISSUE FOR CONSTRUCTION
SHEET STANDARDS, SYMBOLS & ABBREVIATIONS

E001



ARCHITECTURE

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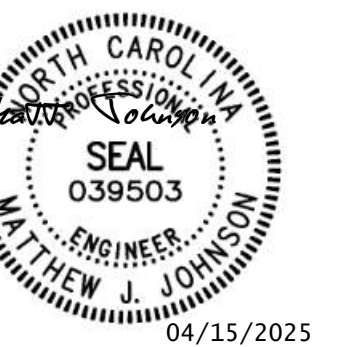
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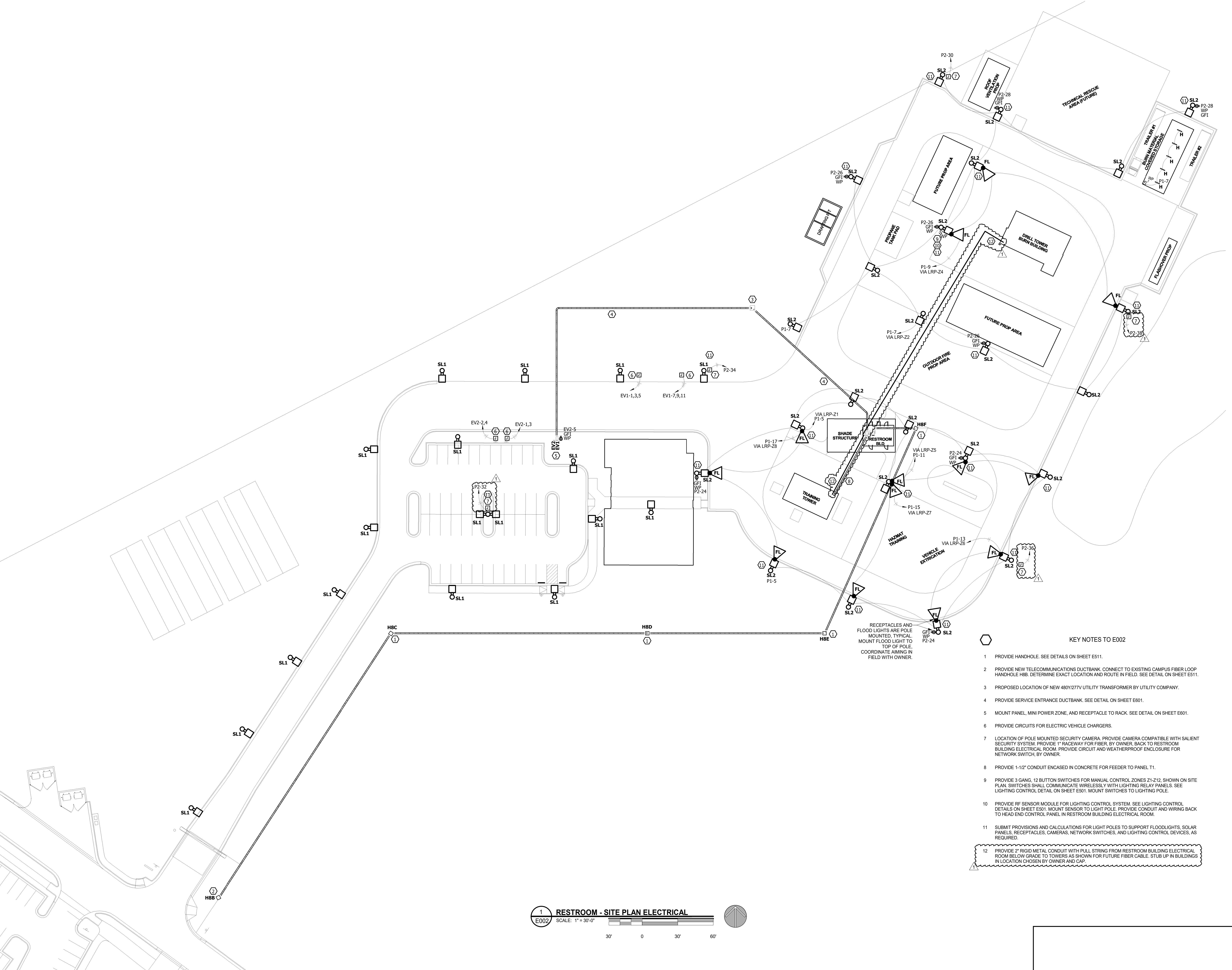


04/15/2025

NO.	REVISION	DATE
1	ADDENDUM 01	04/14/25

JOB NUMBER
22-086
DATE ISSUED
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ISSUE FOR CONSTRUCTION
SHEET
SITE PLAN

E002



1 RESTROOM - SITE PLAN ELECTRICAL
E002 SCALE: 1" = 30'-0"

- KEY NOTES TO E002
- 1 PROVIDE HANDHOLE. SEE DETAILS ON SHEET E511.
 - 2 PROVIDE NEW TELECOMMUNICATIONS DUCTBANK. CONNECT TO EXISTING CAMPUS FIBER LOOP HANDHOLE H8B. DETERMINE EXACT LOCATION AND ROUTE IN FIELD. SEE DETAIL ON SHEET E511.
 - 3 PROPOSED LOCATION OF NEW 480Y/277V UTILITY TRANSFORMER BY UTILITY COMPANY.
 - 4 PROVIDE SERVICE ENTRANCE DUCTBANK. SEE DETAIL ON SHEET E601.
 - 5 MOUNT PANEL, MINI POWER ZONE, AND RECEPTACLE TO RACK. SEE DETAIL ON SHEET E601.
 - 6 PROVIDE CIRCUITS FOR ELECTRIC VEHICLE CHARGERS.
 - 7 LOCATION OF POLE MOUNTED SECURITY CAMERA. PROVIDE CAMERA COMPATIBLE WITH SALIENT SECURITY SYSTEM. PROVIDE 1" RACEWAY FOR FIBER, BY OWNER, BACK TO RESTROOM BUILDING ELECTRICAL ROOM. PROVIDE CIRCUIT AND WEATHERPROOF ENCLOSURE FOR NETWORK SWITCH, BY OWNER.
 - 8 PROVIDE 1-1/2" CONDUIT ENCASED IN CONCRETE FOR FEEDER TO PANEL T1.
 - 9 PROVIDE 3 GANG, 12 BUTTON SWITCHES FOR MANUAL CONTROL ZONES Z1-Z12, SHOWN ON SITE PLAN. SWITCHES SHALL COMMUNICATE WIRELESSLY WITH LIGHTING RELAY PANELS. SEE LIGHTING CONTROL DETAIL ON SHEET E501. MOUNT SWITCHES TO LIGHTING POLE.
 - 10 PROVIDE RF SENSOR MODULE FOR LIGHTING CONTROL SYSTEM. SEE LIGHTING CONTROL DETAILS ON SHEET E501. MOUNT SENSOR TO LIGHT POLE. PROVIDE CONDUIT AND WIRING BACK TO HEAD END CONTROL PANEL IN RESTROOM BUILDING ELECTRICAL ROOM.
 - 11 SUBMIT PROVISIONS AND CALCULATIONS FOR LIGHT POLES TO SUPPORT FLOODLIGHTS, SOLAR PANELS, RECEPTACLES, CAMERAS, NETWORK SWITCHES, AND LIGHTING CONTROL DEVICES, AS REQUIRED.
 - 12 PROVIDE 2" RIGID METAL CONDUIT WITH PULL STRING FROM RESTROOM BUILDING ELECTRICAL ROOM BELOW GRADE TO TOWERS AS SHOWN FOR FUTURE FIBER CABLE. STUB UP IN BUILDINGS IN LOCATION CHOSEN BY OWNER AND CAP.

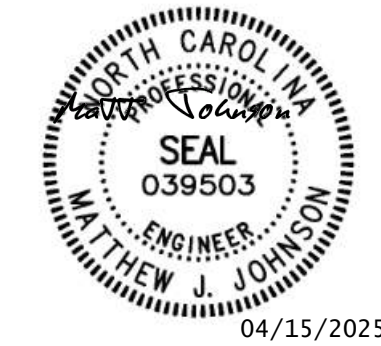


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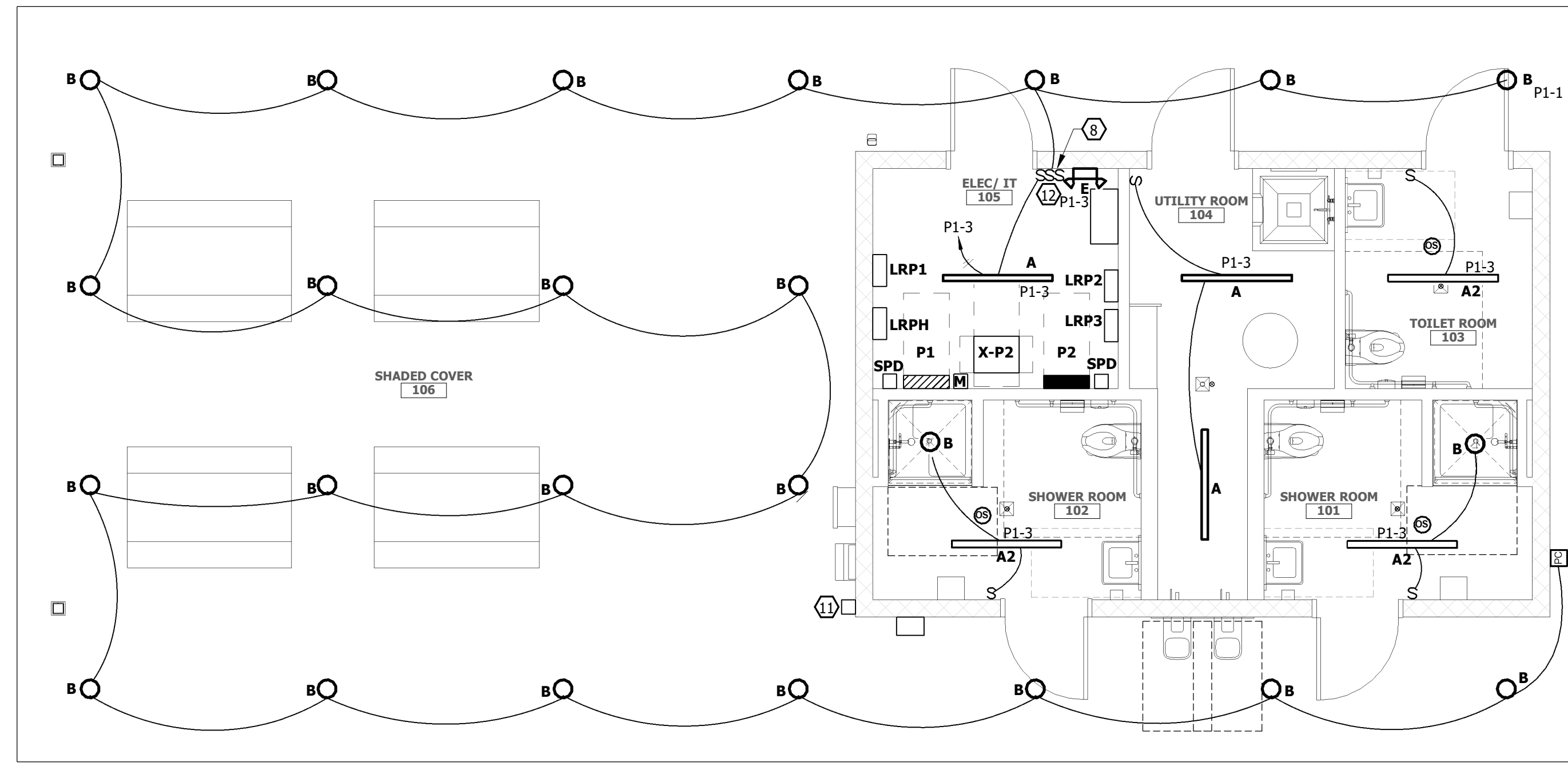
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1	ADDENDUM 01	04/14/25

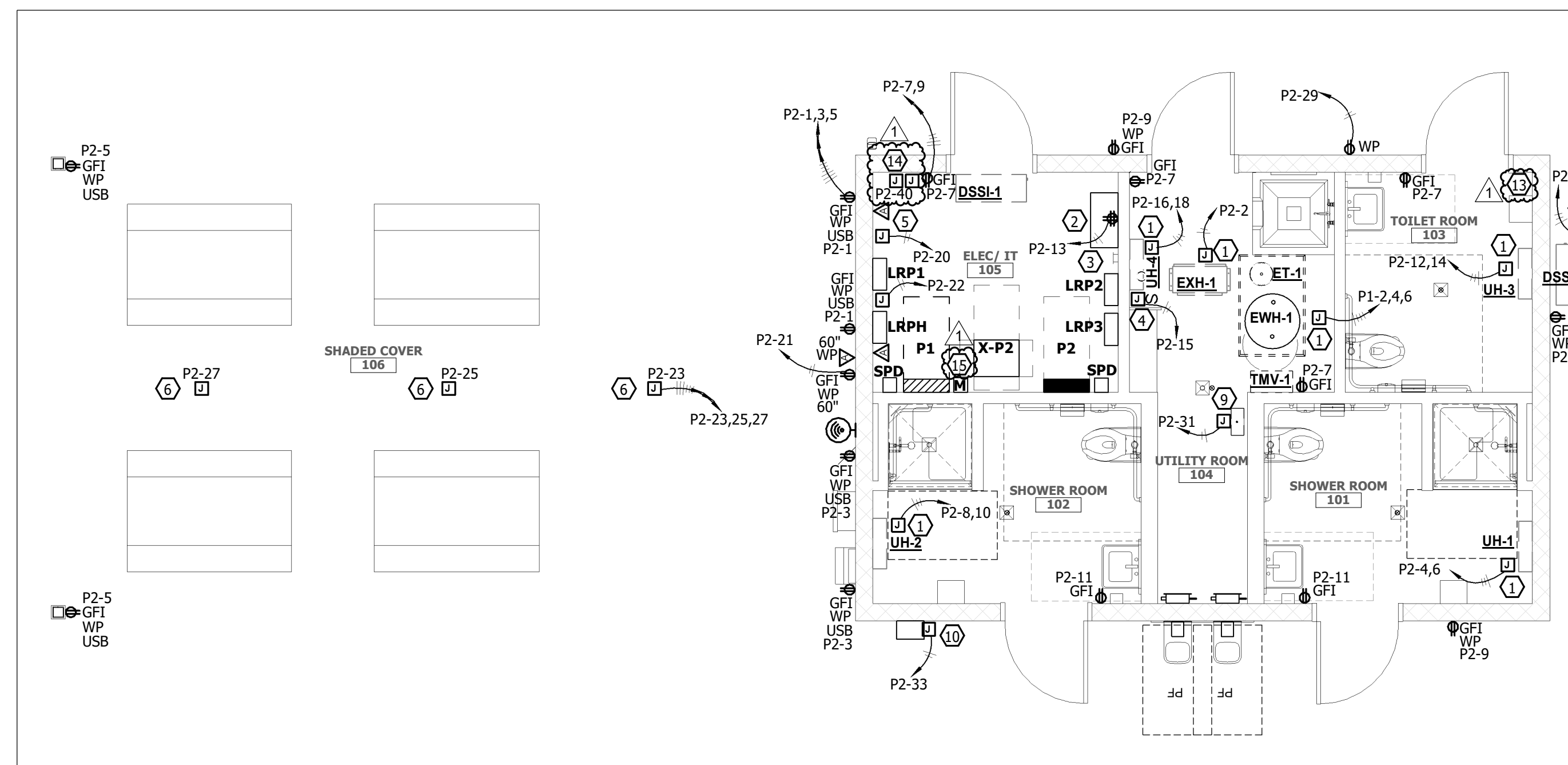
JOB NUMBER
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DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
PLANS - RESTROOM BUILDING

E111

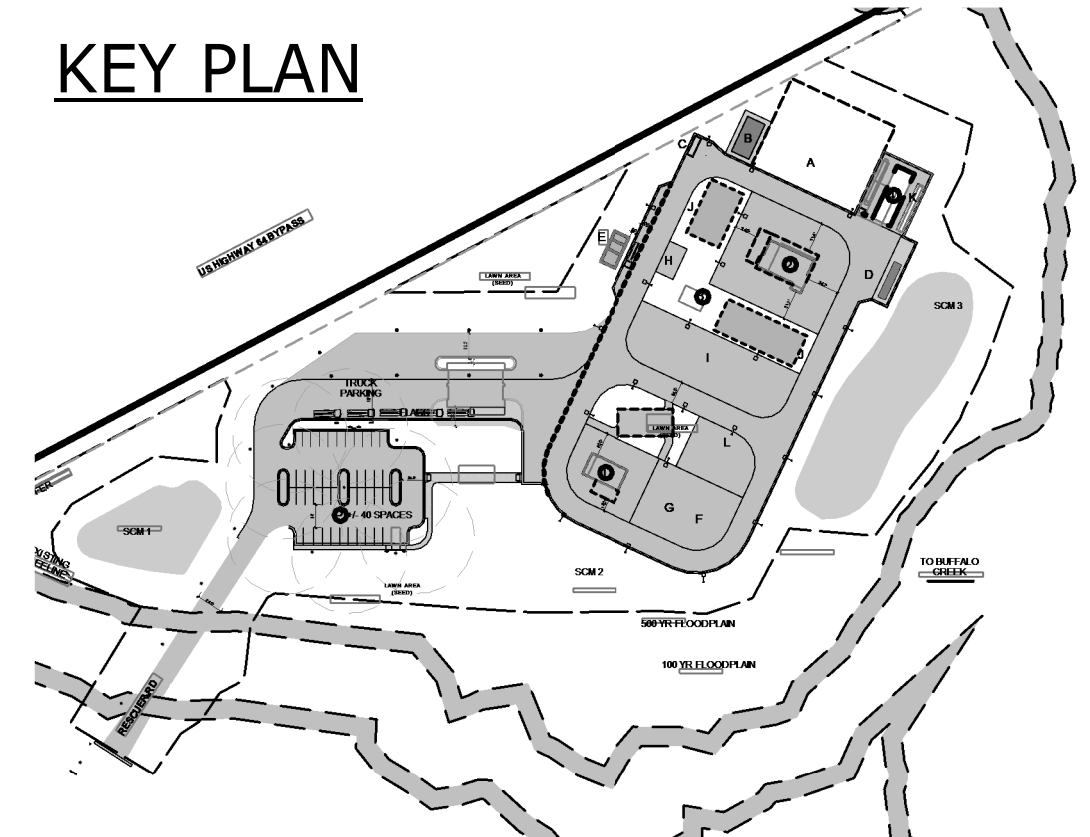


- KEY NOTES TO E111**
- CONNECT CIRCUIT TO DISCONNECTING MEANS OF EQUIPMENT PROVIDED BY OTHER TRADES.
 - PROVIDE WALL MOUNTED TELECOMMUNICATIONS EQUIPMENT RACK. SEE DETAILS ON SHEET E511.
 - PROVIDE WALL MOUNTED GROUND BUS. SEE DETAIL ON SHEET E601.
 - PROVIDE LINE SIDE WIRING AND CONDUIT TO WALL MOUNTED SWITCH FOR PLUMBING VALVE TRANSFORMER. COORDINATE EXACT LOCATIONS AND CONNECTIONS WITH DIVISION 22.
 - PROVIDE CIRCUIT AND DATA FOR BAS PANEL. CONFIRM EXACT LOCATION WITH MECHANICAL CONTRACTOR.
 - PROVIDE CIRCUIT FOR CEILING FANS BY OWNER. COORDINATE EXACT LOCATION AND CONNECTIONS WITH OWNER.
 - PROVIDE 2000 WATT, WEATHERPROOF PHOTOCELL FOR OUTDOOR LIGHTING CONTROL. MOUNT AT 10' AFG AWAY FROM ARTIFICIAL LIGHT SOURCES.
 - PROVIDE 3 GANG, 12 BUTTON WALL SWITCHES FOR MANUAL CONTROL ZONES Z1-Z12, SHOWN ON SITE PLAN. SWITCHES SHALL COMMUNICATE WIRELESSLY WITH LIGHTING RELAY PANELS. SEE LIGHTING CONTROL DETAIL ON SHEET E501.
 - CONNECT CIRCUIT TO ELECTRIC TRAP PRIMER BY PLUMBING.
 - PROVIDE CIRCUIT FOR WALL MOUNTED AED DEVICE BY OWNER. COORDINATE CONNECTIONS WITH EQUIPMENT VENDOR.
 - PROVIDE RF SENSOR MODULE FOR LIGHTING CONTROL SYSTEM. SEE LIGHTING CONTROL DETAILS ON SHEET E501.
 - PROVIDE MANUAL SWITCH FOR CONTROL OF EXTERIOR LIGHTING IN SERIES WITH PHOTOCELL.
 - PROVIDE CAT6A DATA CABLE TO INTERIOR SIDE OF BUILDING CORNER. LEAVE 20' COIL OF CABLE AND LABEL FOR FUTURE CAMERA.
 - PROVIDE CIRCUIT, JUNCTION BOXES, AND RACEWAYS AS DESCRIBED IN DETAIL 10/E301 FOR FUTURE OWNER USE.
 - PROVIDE 1" CONDUIT FROM METER TO BAS FOR NETWORK CONNECTION BY MECHANICAL CONTRACTOR.

2 FLOOR PLAN - RESTROOM/SHADE STRUCTURE - LIGHTING
E111 SCALE: 1/4" = 1'-0"



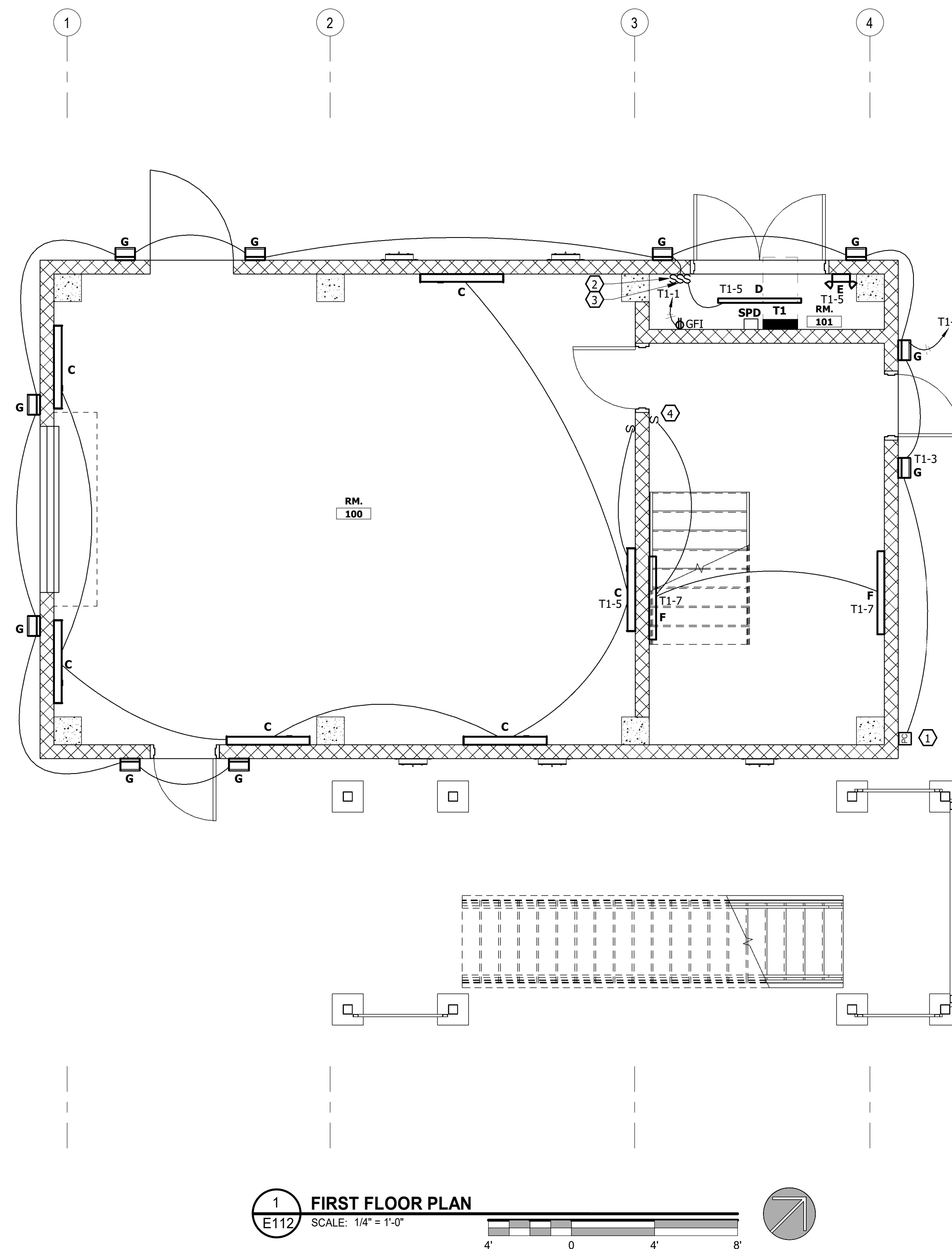
1 FLOOR PLAN - RESTROOM/SHADE STRUCTURE - POWER
E111 SCALE: 1/4" = 1'-0"



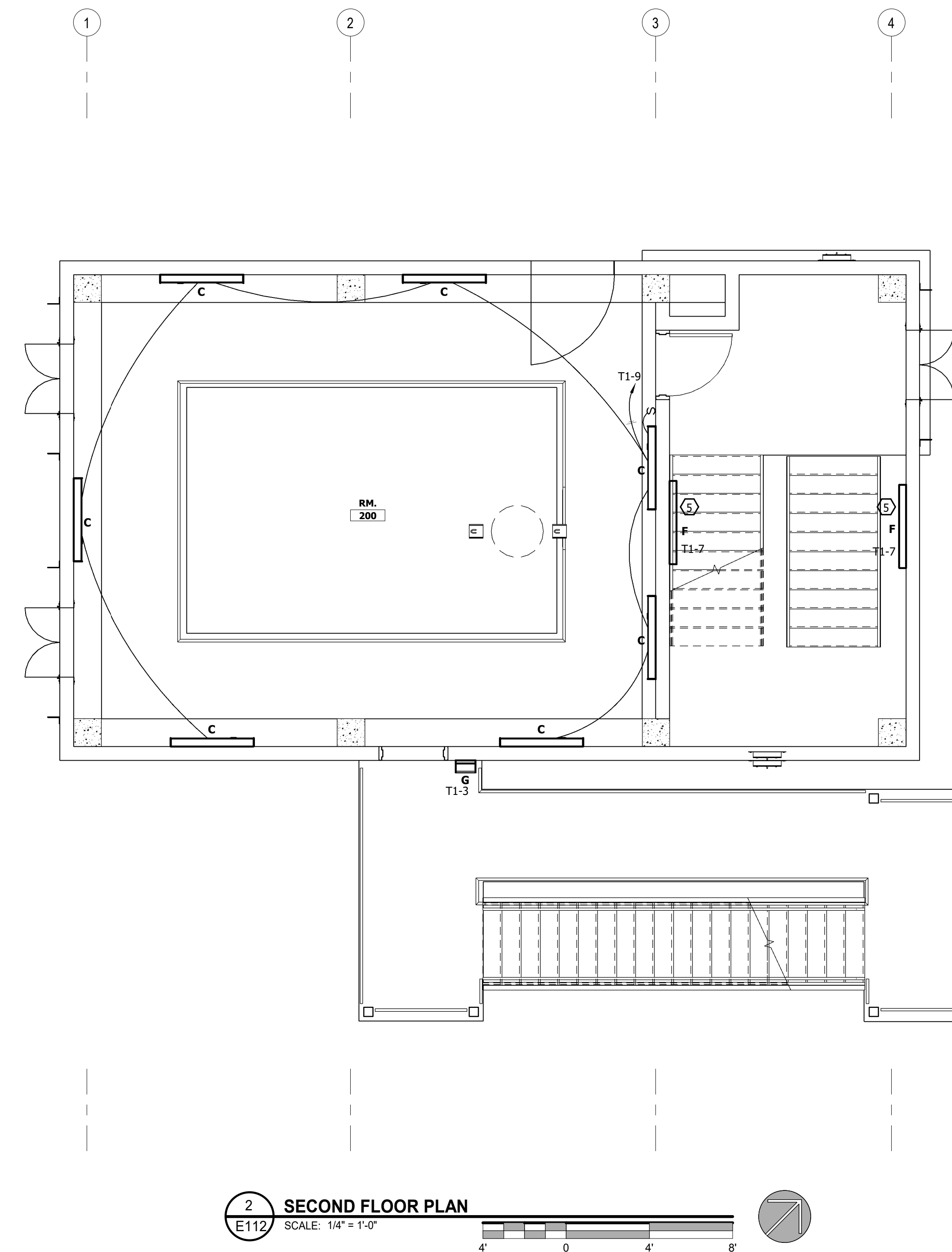
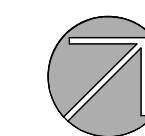


KEY NOTES TO E112

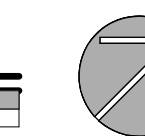
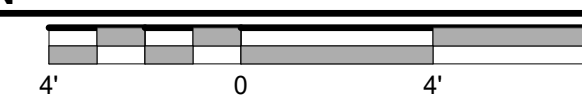
- 1 PROVIDE 2000 WATT, WEATHERPROOF PHOTOCELL FOR OUTDOOR LIGHTING CONTROL. MOUNT AT 10' AFG AWAY FROM ARTIFICIAL LIGHT SOURCES.
- 2 PROVIDE 3 GANG, 12 BUTTON WALL SWITCHES FOR MANUAL CONTROL ZONES Z1-Z12, SHOWN ON SITE PLAN. SWITCHES SHALL COMMUNICATE WIRELESSLY WITH LIGHTING RELAY PANELS. SEE LIGHTING CONTROL DETAIL ON SHEET E501.
- 3 PROVIDE MANUAL SWITCH FOR CONTROL OF EXTERIOR LIGHTING IN SERIES WITH PHOTOCELL.
- 4 SWITCH SHALL CONTROL ALL STAIR LIGHTING.
- 5 STAIR LIGHTS SHALL BE CONTROLLED BY SWITCH SHOWN ON FIRST FLOOR PLAN.



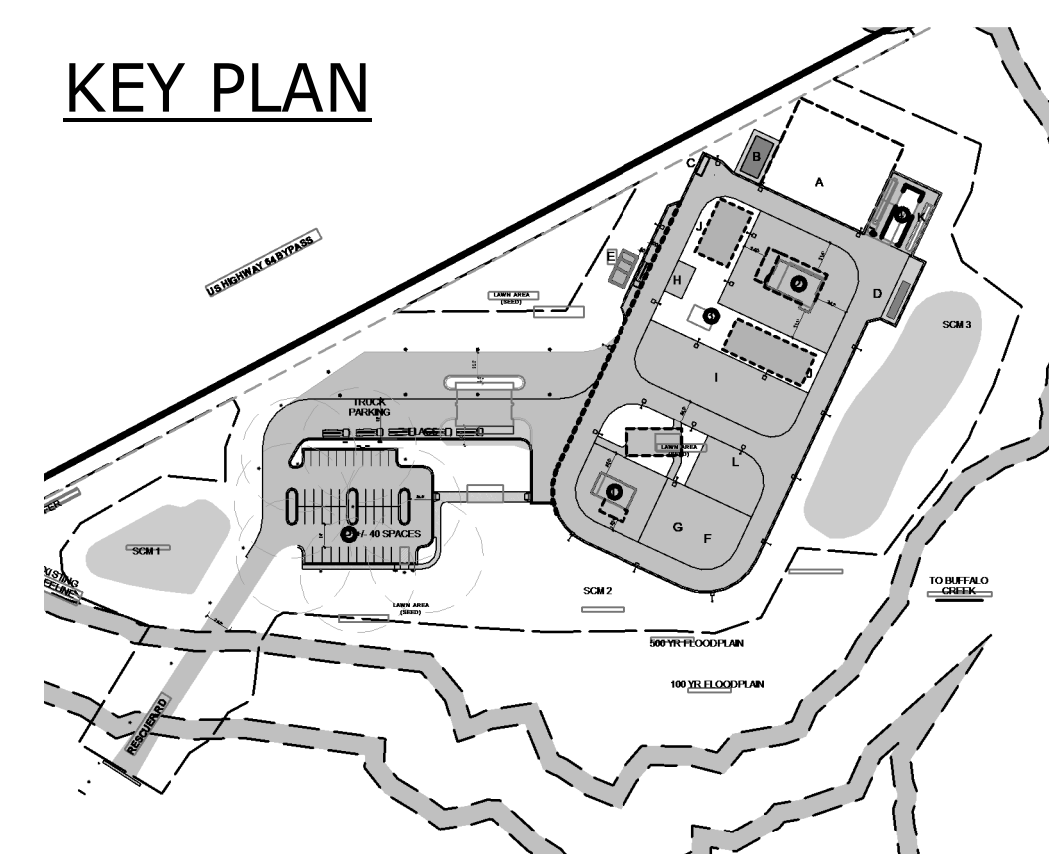
1
E112
FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



2
E112
SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"



KEY PLAN



03/14/2025

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DATE ISSUED
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PLANS - TRAINING TOWER

E112



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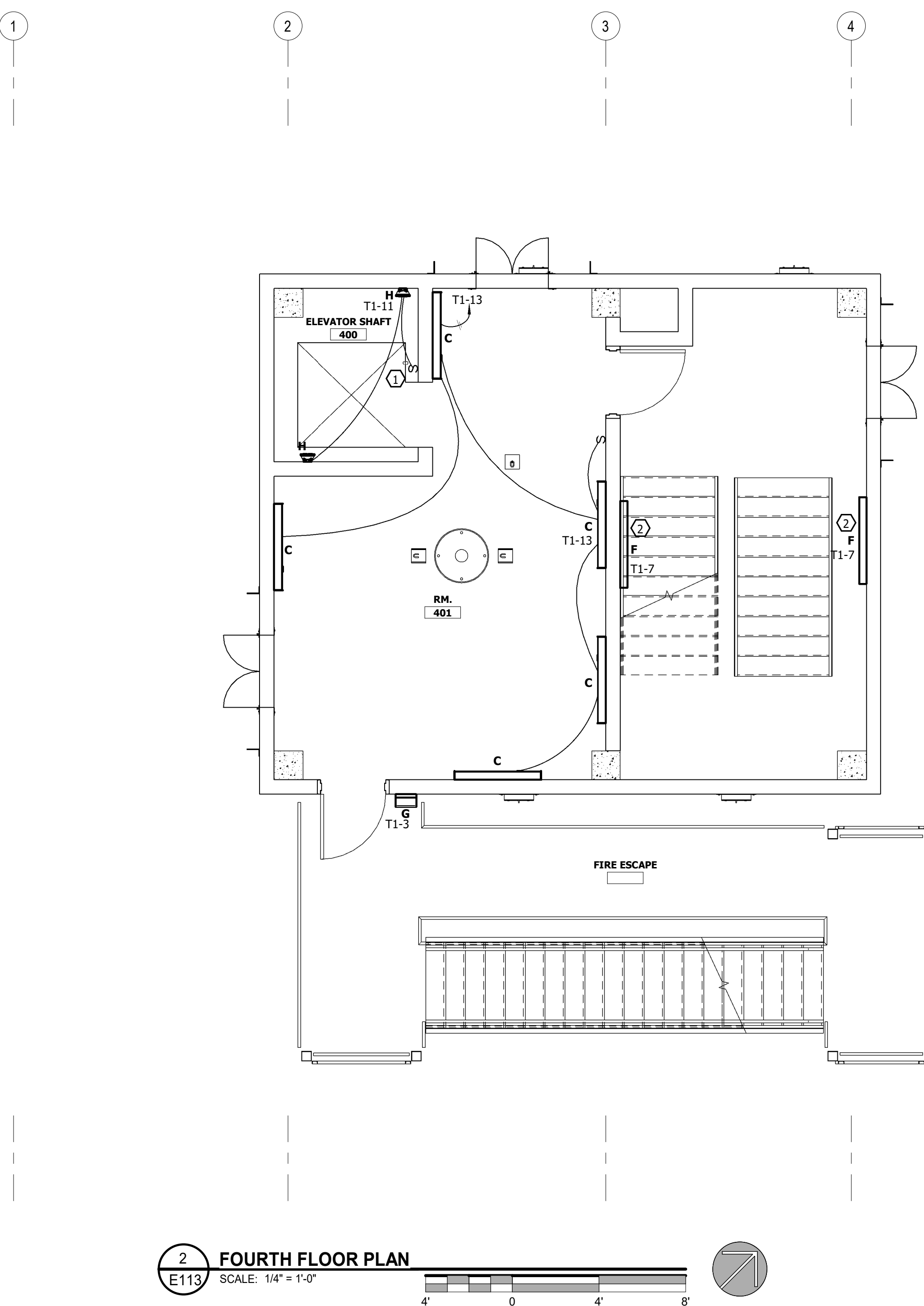
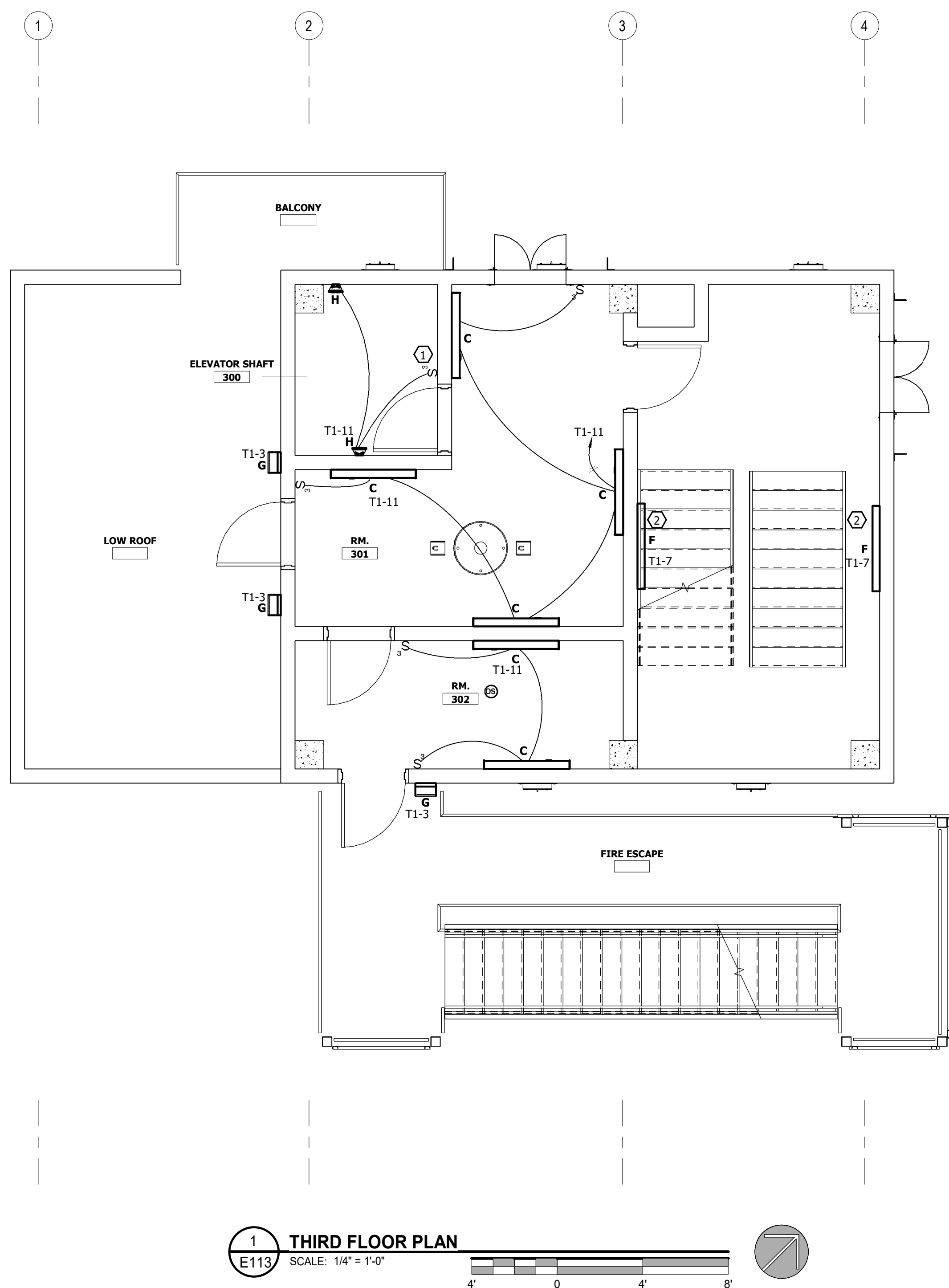
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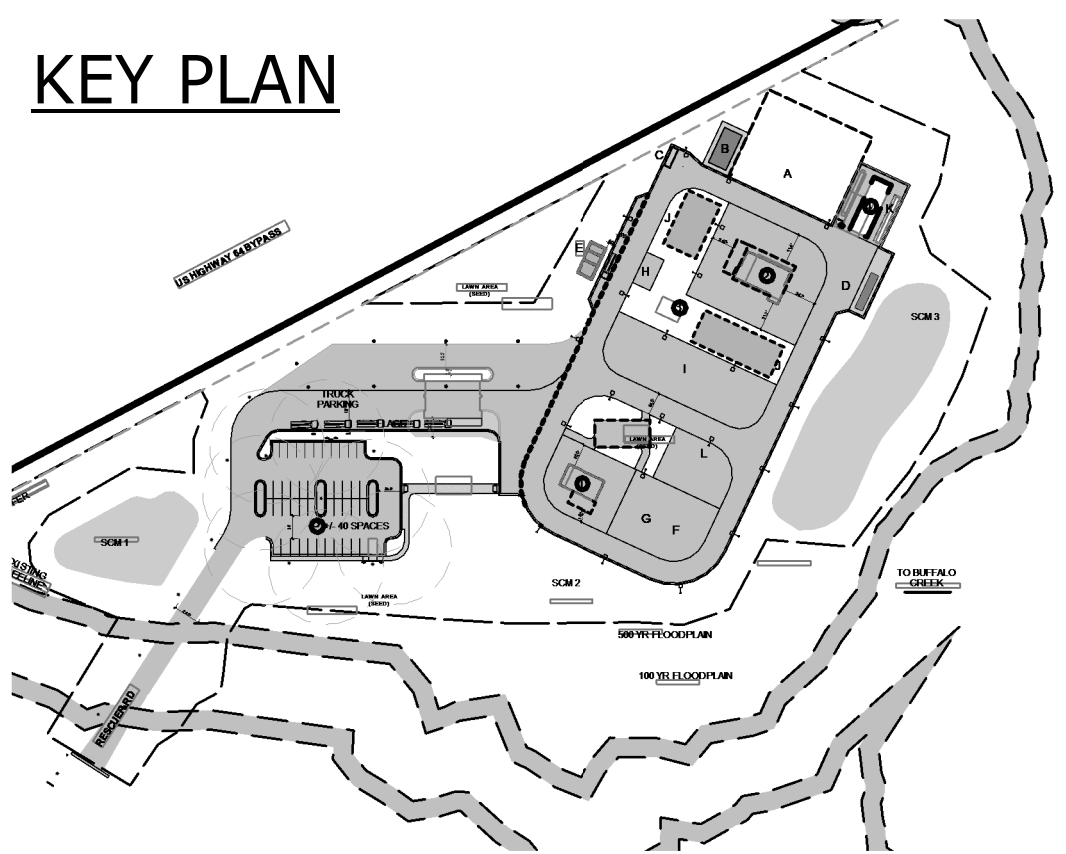
E113

KEY NOTES TO E113

- 1 SHAFT LIGHT FIXTURES SHALL BE CONTROLLED TOGETHER BY THREE WAY SWITCHES ON EITHER LEVEL.
- 2 STAIR LIGHTS SHALL BE CONTROLLED BY SWITCH SHOWN ON FIRST FLOOR PLAN.



KEY PLAN



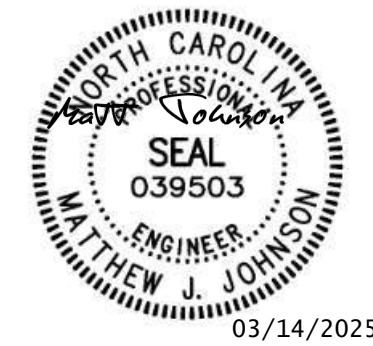


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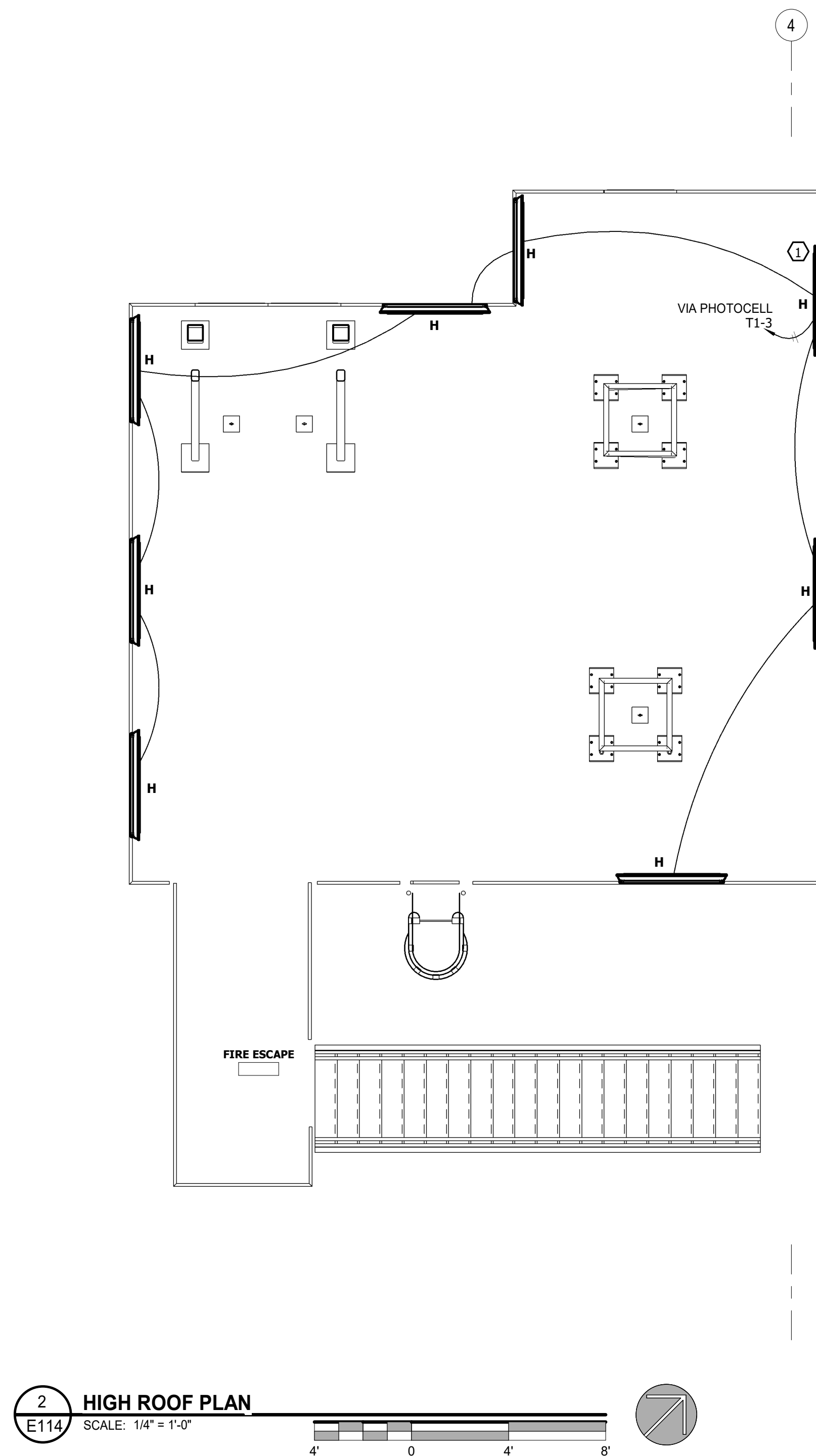
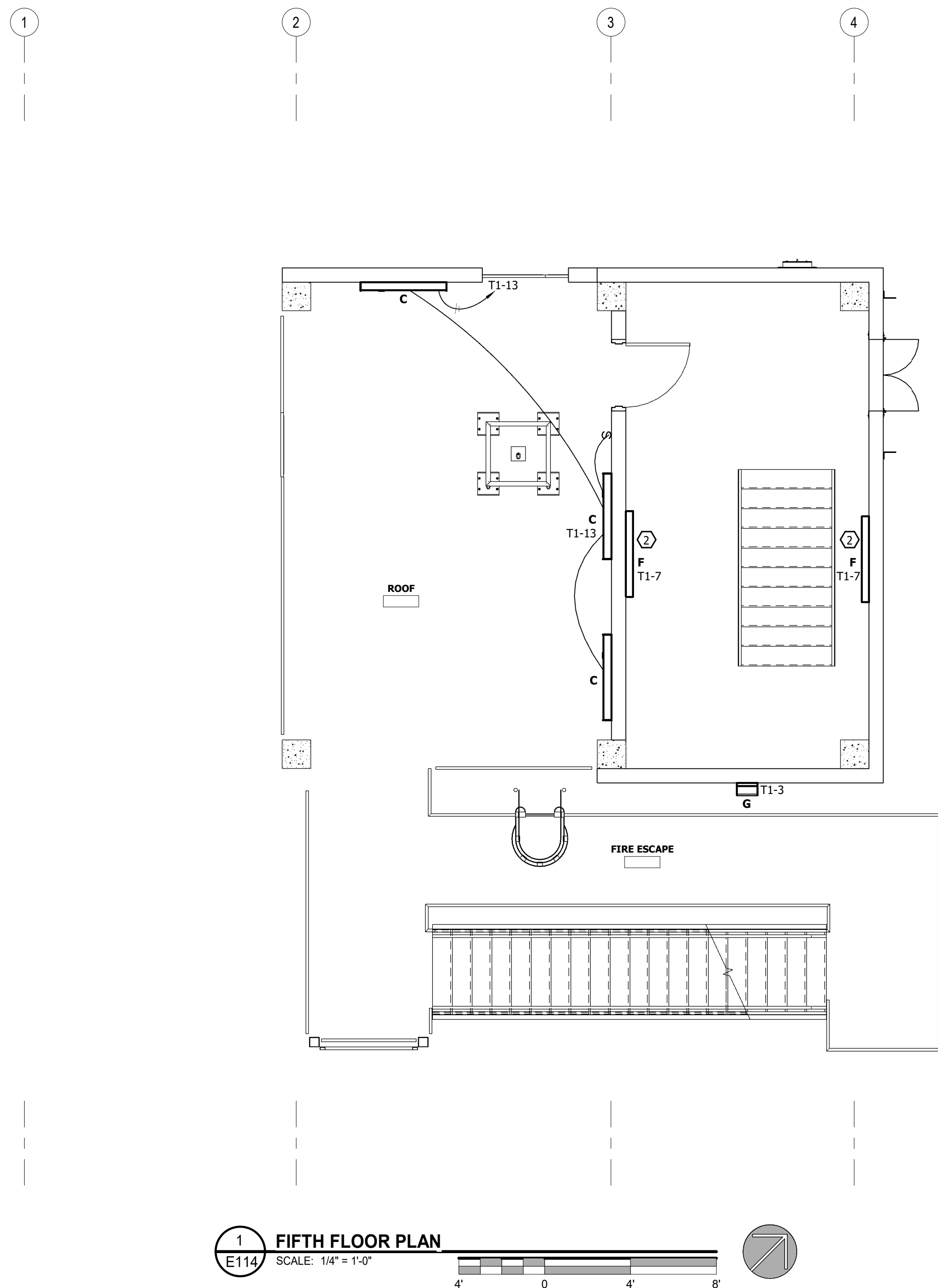
JOB NUMBER
22-086
DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
PLANS - TRAINING TOWER

E114

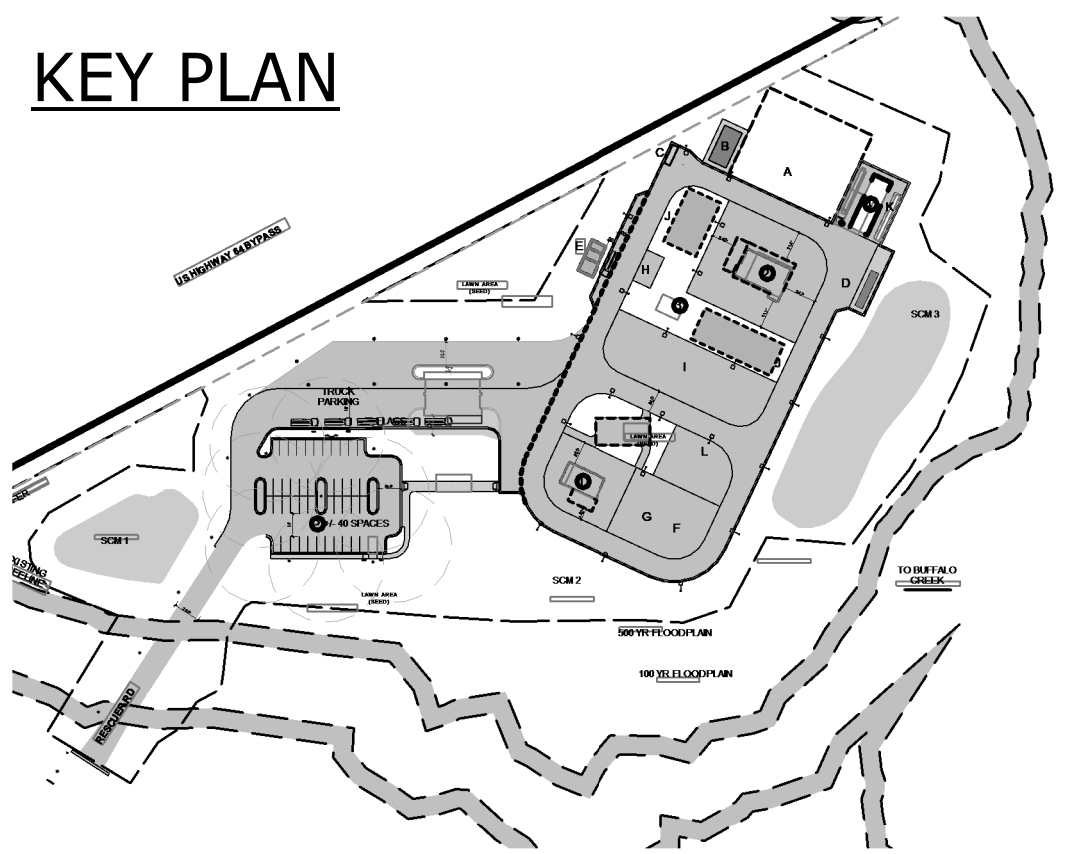


KEY NOTES TO E114

- 1 MOUNT LIGHT FIXTURES HORIZONTALLY TO TOP OF GUARD RAIL. PROVIDE MOUNTING HARDWARE AS REQUIRED. LIGHT FIXTURES SHALL BE CONTROLLED VIA PHOTOCELL ON FIRST FLOOR AND SWITCH IN ELECTRICAL ROOM TYPICAL FOR ALL.
- 2 STAIR LIGHTS SHALL BE CONTROLLED BY SWITCH SHOWN ON FIRST FLOOR PLAN.



KEY PLAN

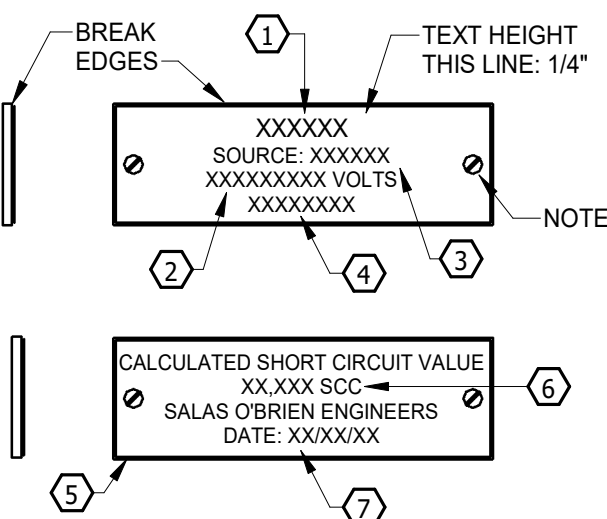


GENERAL NOTES:

1. INSTALL NEW LABELS ON ALL PROJECT EQUIPMENT (PANELBOARDS, ENCLOSED BREAKERS, DISCONNECTS, TRANSFORMERS)
2. CONSTRUCT LABELS FROM 2 COLOR PLASTIC LAMINATE. DIMENSIONS ARE 5" WIDE X 1 1/2" HIGH. TEXT HEIGHT IS 3/16". EXCEPT AS NOTED OTHERWISE.
3. LABEL COLORS ARE TO BE SELECTED FROM THE FOLLOWING CHOICES:
NORMAL SYSTEM 208Y/120V OR 240/120V: BLUE BACKGROUND/WHITE LETTER
NORMAL SYSTEM 480Y/277V: BLACK BACKGROUND/WHITE LETTERS
4. SECURE TO TOP CENTER OF EQUIPMENT COVER WITH #4-40 STAINLESS STEEL SCREWS WITH MATCHING NUTS AND LOCKWASHERS. USE OF ADHESIVES TO SECURE LABEL TO EQUIPMENT IS NOT ACCEPTABLE.

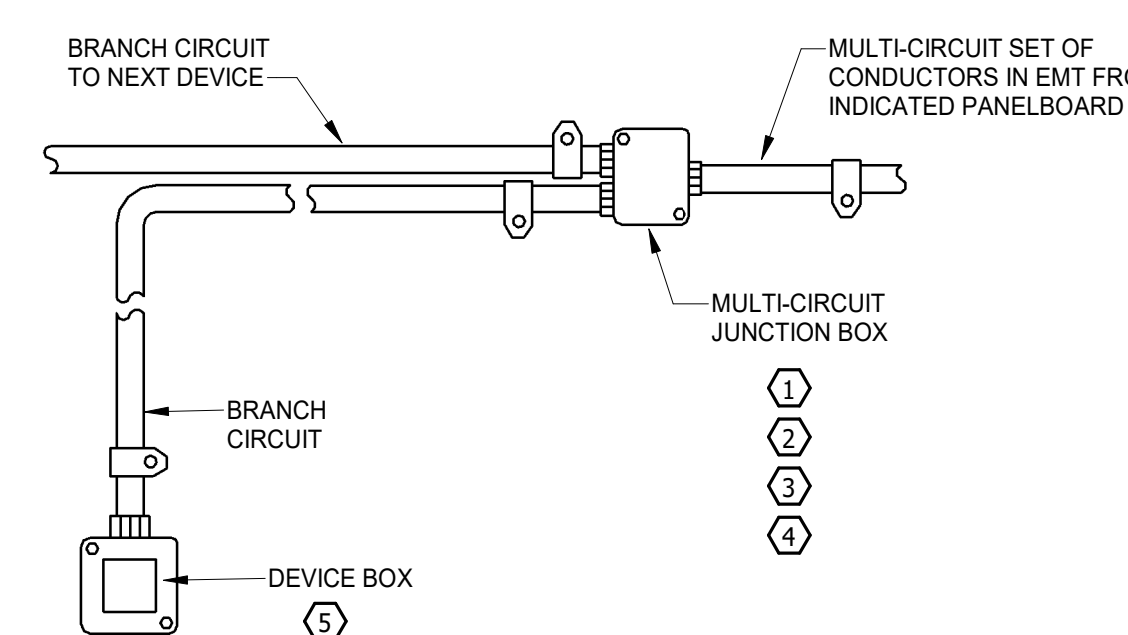
KEYED NOTES:

1. INSERT EQUIPMENT DESIGNATION WHERE X'S ARE INDICATED.
2. INSERT VOLTAGE WHERE X'S ARE INDICATED. POSSIBLE VOLTAGES ARE:
"480Y/277"
"208Y/120"
"240/120"
"480: 208Y/120"
"480: 240/120"
3. INSERT SUPPLY SOURCE DESIGNATION HERE.
4. INSERT SUPPLY SYSTEM WHERE X'S ARE INDICATED. POSSIBLE CHOICES ARE:
"NORMAL POWER"
5. ADD THIS LABEL AT SERVICE EQUIPMENT, PANELBOARDS, MECHANICAL SYSTEM MOTOR CONTROLLERS (VARIABLE DRIVE UNITS).
6. INSERT VALUE INDICATED ON PROJECT ELECTRICAL DRAWINGS.
7. INSERT DATE OF PROJECT DRAWING BID SET.



8 EQUIPMENT LABEL
SCALE: NTS

SO DETAIL: LA0003 R2

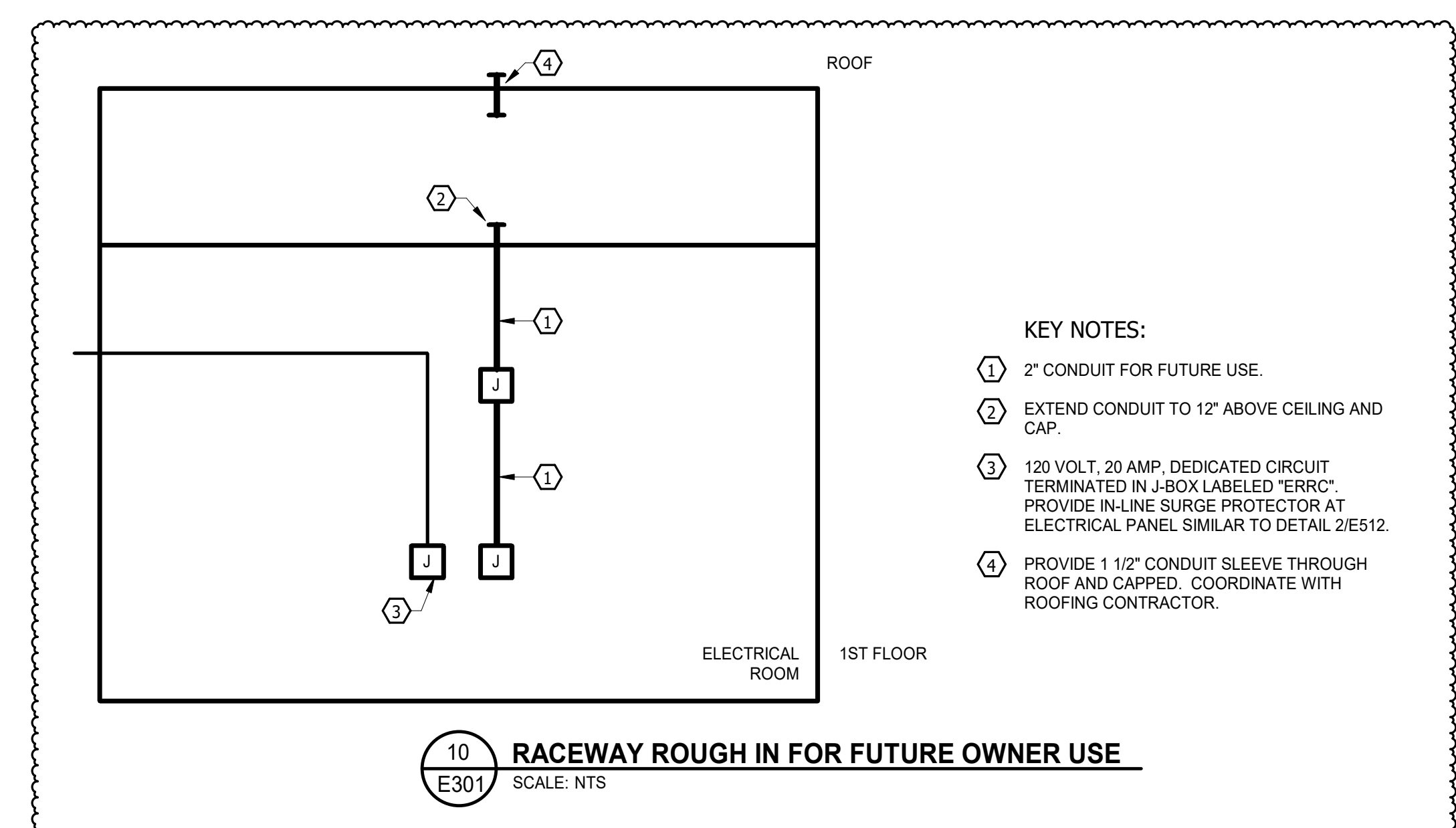


KEYED NOTES:

1. PROVIDE DEDICATED NEUTRAL CONDUCTOR WITH EACH PHASE CONDUCTOR.
2. LABEL EACH PHASE CONDUCTOR AND MATING NEUTRAL CONDUCTOR AT ALL BOX LOCATIONS FOR IDENTIFICATION.
3. BOND GROUND CONDUCTOR TO ALL BOXES.
4. MULTI-CIRCUIT JUNCTION BOXES SHALL NOT BE USED FOR DEVICE LOCATIONS.
5. DEVICE BOX SHALL NOT BE USED FOR MULTI-CIRCUIT DISTRIBUTION.

9 MULTI-CIRCUIT HOMERUN WIRING DETAIL
SCALE: NTS

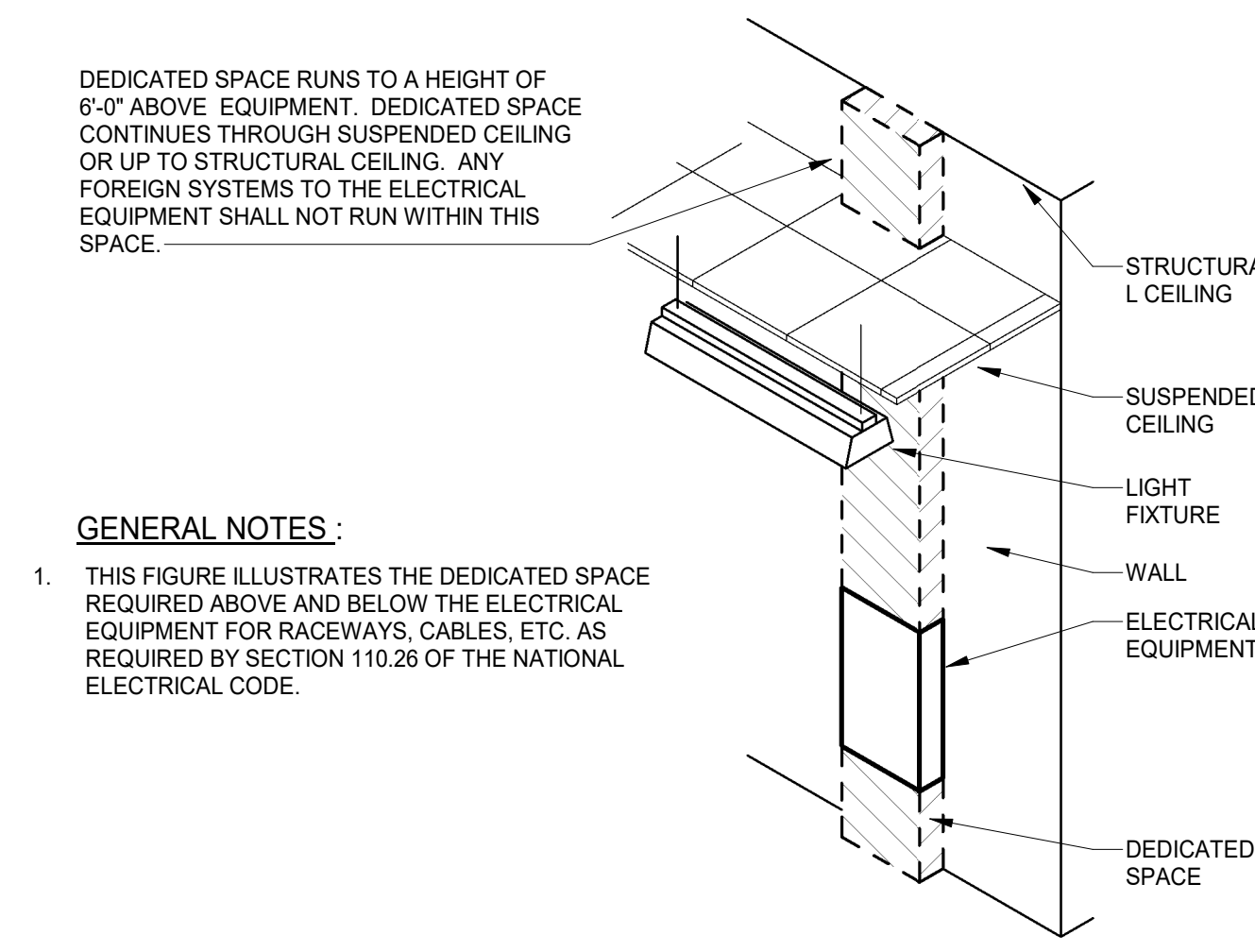
SO DETAIL: GE0042



KEY NOTES:

1. 2" CONDUIT FOR FUTURE USE.
2. EXTEND CONDUIT TO 12" ABOVE CEILING AND CAP.
3. 120 VOLT, 20 AMP, DEDICATED CIRCUIT TERMINATED IN J-BOX LABELED "ERRC". PROVIDE IN-LINE SURGE PROTECTOR AT ELECTRICAL PANEL SIMILAR TO DETAIL 2E512.
4. PROVIDE 1 1/2" CONDUIT SLEEVE THROUGH ROOF AND CAPPED. COORDINATE WITH ROOFING CONTRACTOR.

10 RACEWAY ROUGH IN FOR FUTURE OWNER USE
SCALE: NTS



GENERAL NOTES:

1. THIS FIGURE ILLUSTRATES THE DEDICATED SPACE REQUIRED ABOVE AND BELOW THE ELECTRICAL EQUIPMENT FOR RACEWAYS, CABLES, ETC. AS REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

5 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
SCALE: NTS

SO DETAIL: GE0030

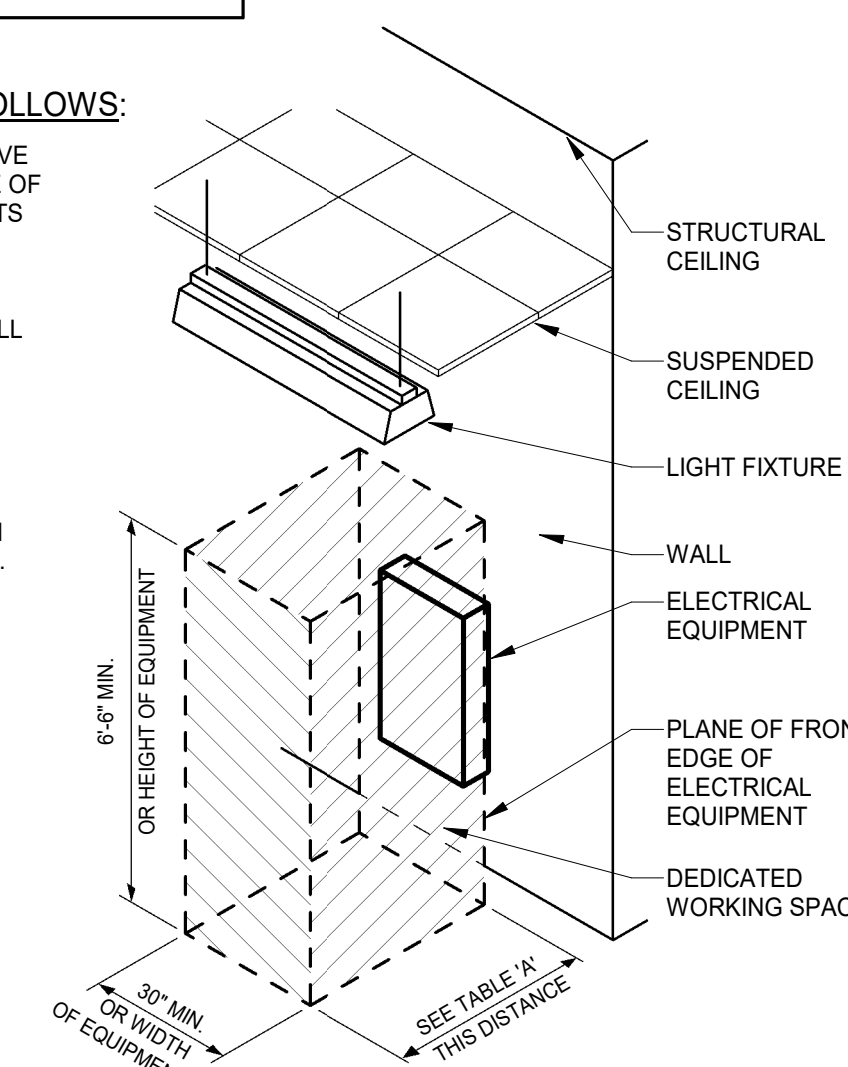
TABLE A - WORKING CLEARANCES			
NOMINAL VOLTAGE TO GROUND	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3	3	3
151-600	3	3 1/2	4

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

GENERAL NOTES:

1. THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT AS REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.



6 WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT
SCALE: NTS

SO DETAIL: GE0029

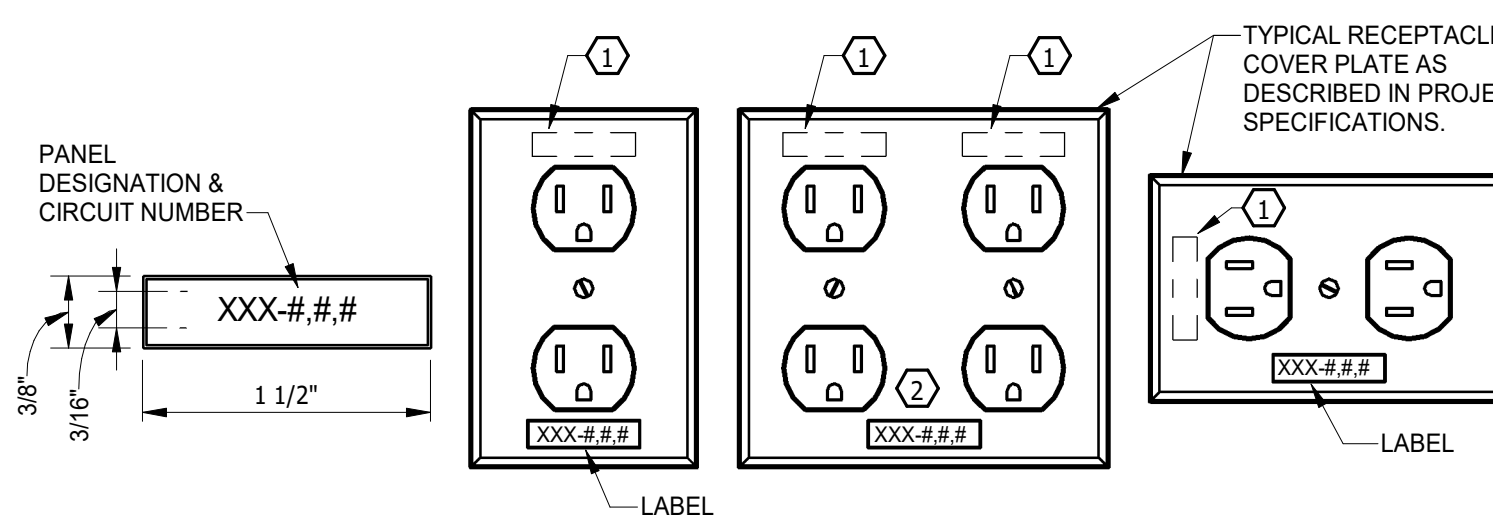


FIG. 1 - LABEL DIMENSIONS

FIG. 2 - LABEL LOCATION ON DEVICE PLATE

KEYED NOTES:

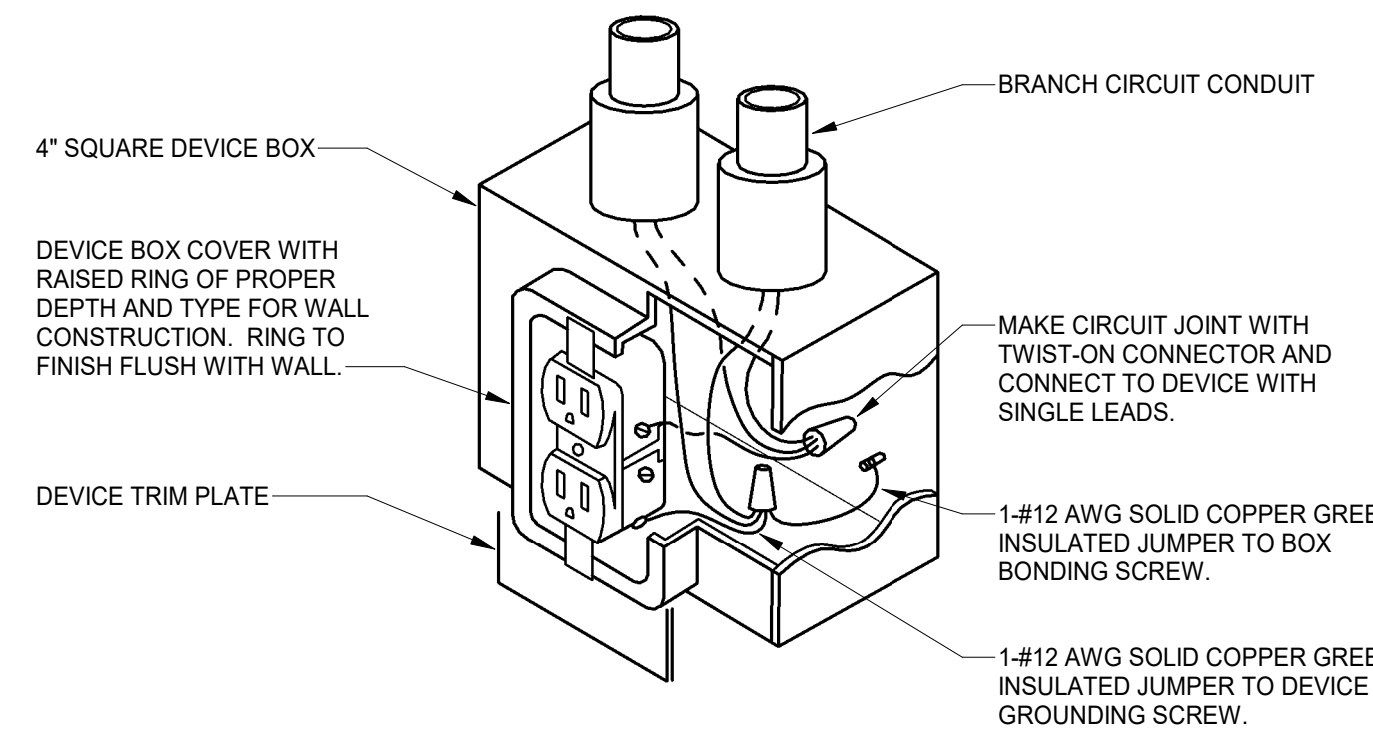
1. WRITE PANEL DESIGNATION NUMBER ON DEVICE YOKE WITH A FINE TIP, PERMANENT MARKER AS AN AID TO PROPER FACEPLATE LOCATION. ALL MARKING ON DEVICES MUST BE COVERED BY FACEPLATE.
2. FOR DUPLEX RECEPTACLES CENTER LABEL IF BOTH DEVICES ARE SUPPLIED BY THE SAME CIRCUIT. IF DEVICES ARE SUPPLIED BY DIFFERENT CIRCUITS PROVIDE A LABEL BELOW EACH RECEPTACLE.

GENERAL NOTES:

1. LABELS ARE TO BE MACHINE PRODUCED USING A THERMAL TRANSFER PROCESS WITH DIMENSIONS AS SHOWN ABOVE. LABELS ARE TO BE SUITABLE FOR EITHER INDOOR OR OUTDOOR USE.
2. LABEL COLOR TO BE CLEAR WITH BLACK LETTERING.
3. LABELS ARE TO BE ATTACHED AS INDICATED ABOVE TO ALL PROJECT RECEPTACLE COVER PLATES.

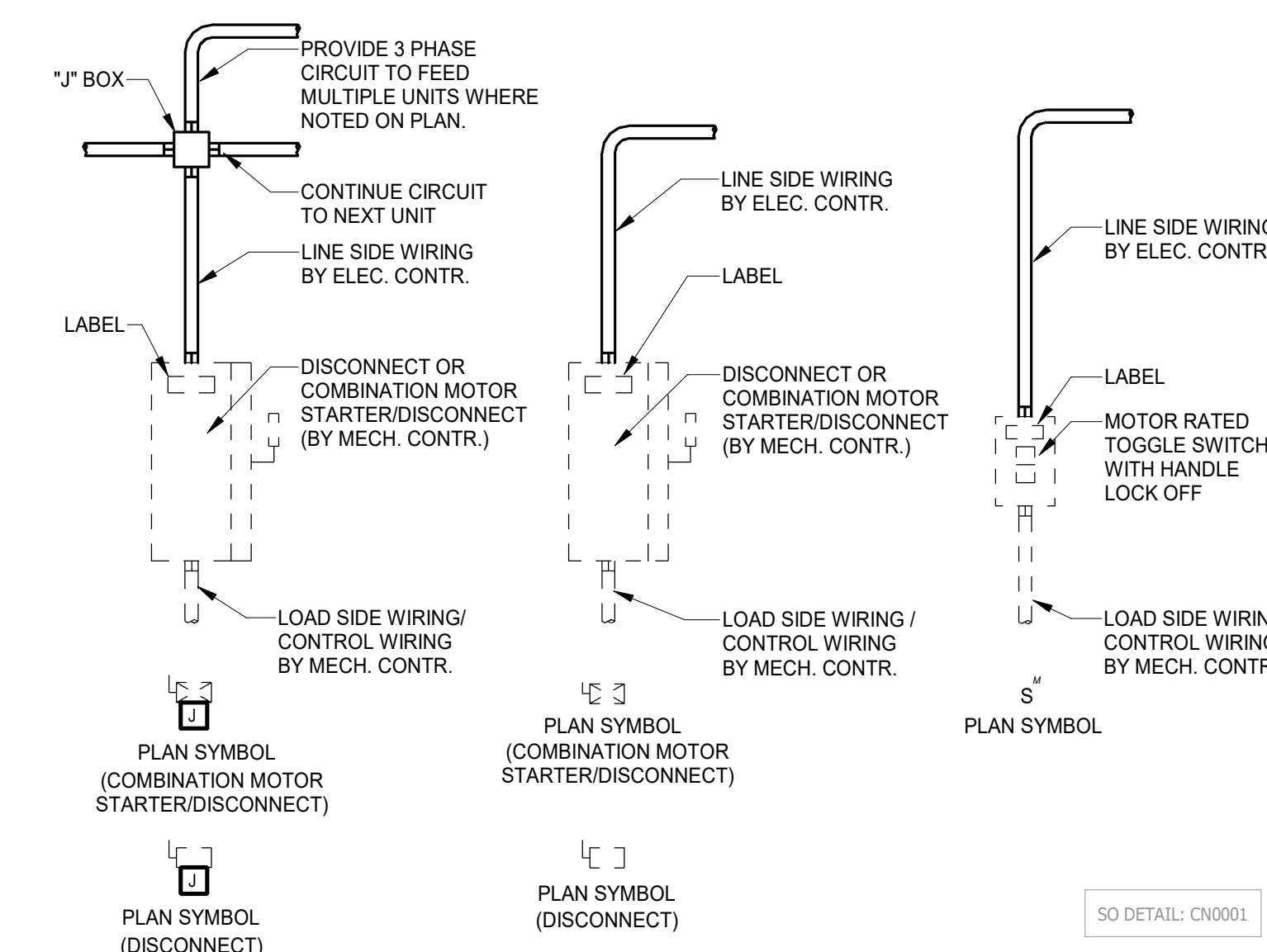
7 DEVICE LABELS
SCALE: NTS

SO DETAIL: LA0002



4 RECEPTACLE GROUNDING DETAIL
SCALE: NTS

SO DETAIL: GE0033

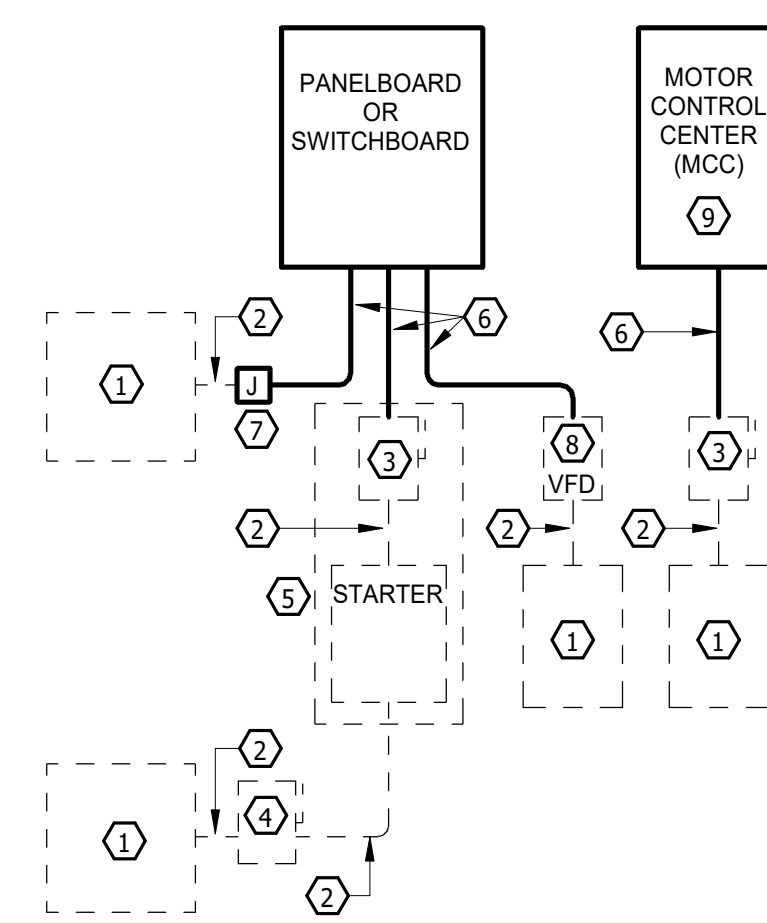


1 MECHANICAL UNIT WIRING DETAILS
SCALE: NTS

SO DETAIL: CN0001

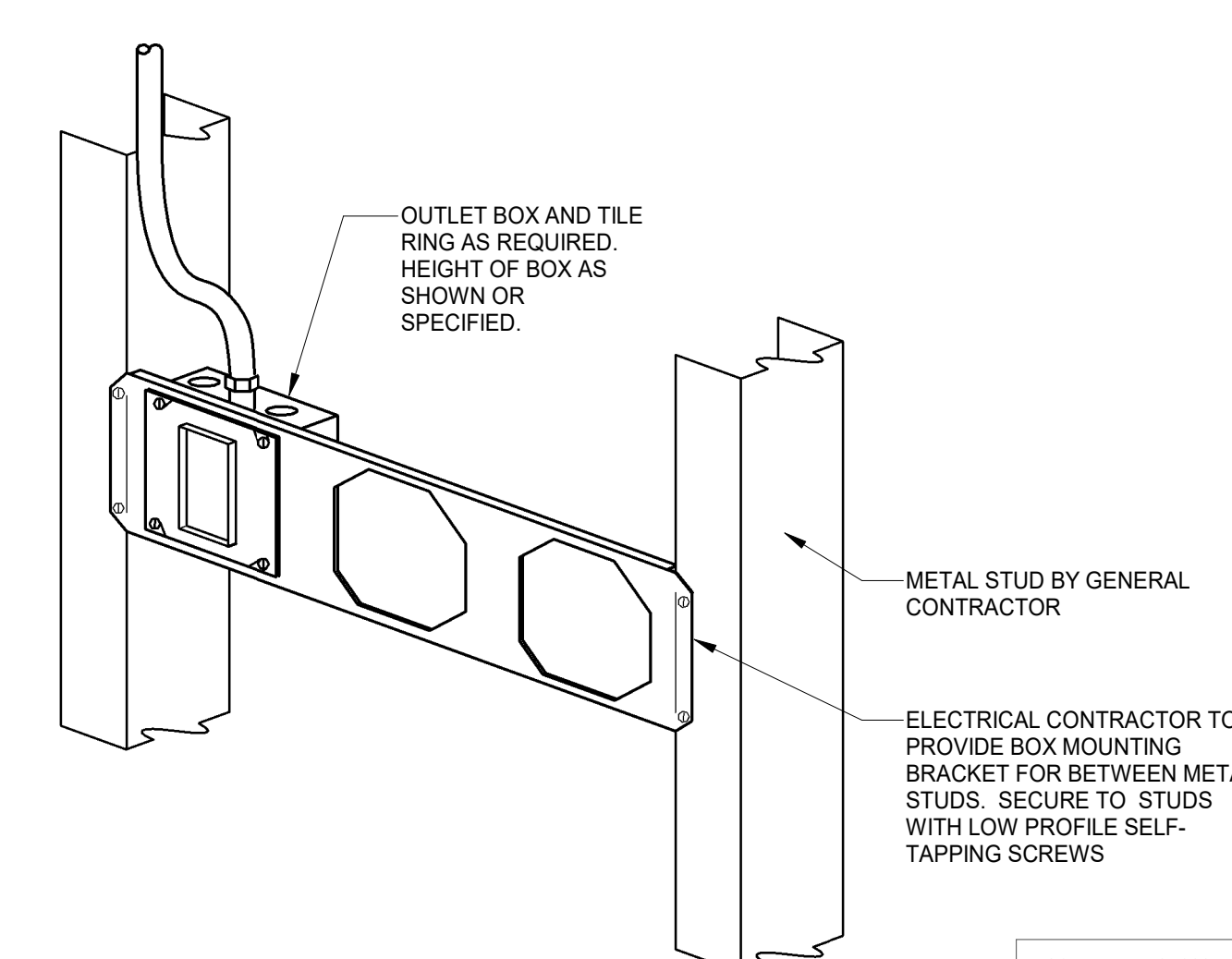
KEYED NOTES:

1. EQUIPMENT PROVIDED AND INSTALLED BY OTHER CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
2. CONDUIT & WIRING BY OTHER CONTRACTOR PROVIDING EQUIPMENT.
3. DISCONNECT PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
4. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. A COMBINATION STARTER SHALL BE PROVIDED AND INSTALLED BY THE OTHER CONTRACTOR PROVIDING THE EQUIPMENT.
6. FEEDER AND CONDUIT BY ELECTRICAL CONTRACTOR. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES TO OTHER EQUIPMENT. TERMINATE FEEDER AT LINE SIDE OF DISCONNECTING MEANS.
7. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT IF NO STARTER IS REQUIRED. INSTALL JUNCTION BOX ADJACENT TO THE EQUIPMENT AND PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. MOTOR RATED DISCONNECT SHALL BE PROVIDED BY CONTRACTOR PROVIDING EQUIPMENT WHERE REQUIRED BY CODE.
8. VARIABLE FREQUENCY DRIVE (VFD) PROVIDED AND INSTALLED BY OTHER CONTRACTOR PROVIDING EQUIPMENT. VFD IS SUPPLIED WITH INTEGRAL DISCONNECTING MEANS.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.



SO DETAIL: CN0002

2 MECHANICAL UNIT WIRING DETAILS
SCALE: NTS



3 OUTLET BOX SUPPORT
SCALE: NTS

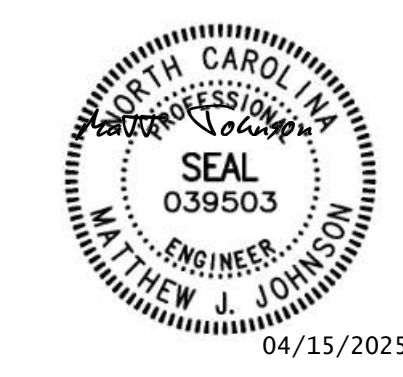
SO DETAIL: GE0001

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5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE
1	ADDENDUM 01	04/14/25

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
ELECTRICAL DETAILS

E301

PANEL ID: EV1		VOLTAGE: 480Y/277		SERVICE EQUIP: Yes		MOUNTING: RACK MOUNTED							
SOURCE: UTILITY		AMPS: 600		PANEL AIC: 10,000		TYPE: BOLT ON - NEMA 3R							
LOCATION: SITE		MAIN: MCB		CALC SCC: 5,379		APPROX. DIM: 20"W X 5.75"D X 50"H							
LOAD	NO TE	COND	Phase, Neu, Grd Size	PO LE	BKR CKT	A	B	C	CKT BKR	Phase, Neu, Grd Size	COND	NO TE	LOAD
EV APPARATUS CHARGER		3	3-#250, 1-#250, 1-#4	3	250	5	55400	--	55400	--	4	--	SPACE
					5				55400	--	6	--	SPACE
					7	55400	--				8	--	SPACE
EV APPARATUS CHARGER		3	3-#250, 1-#250, 1-#4	3	250	9	55400	--	55400	--	10	--	SPACE
					11				55400	--	12	--	SPACE
					13	4220	--				14	--	SPACE
EV2		3/4	3-#10, 1-#10, 1-#10	3	30	15	4220	--	4220	--	16	--	SPACE
					17				4220	--	18	--	SPACE
SPACE	--	--	--	1	19	--	--	--			20	--	SPACE
SPACE	--	--	--	1	21	--	--	--			22	--	SPACE
SPACE	--	--	--	1	23	--	--	--			24	--	SPACE
SPACE	--	--	--	1	25	--	--	--			26	--	SPACE
SPACE	--	--	--	1	27	--	--	--			28	--	SPACE
SPACE	--	--	--	1	29	--	--	--			30	--	SPACE
SPACE	--	--	--	1	31	--	--	--			32	--	SPACE
SPACE	--	--	--	1	33	--	--	--			34	--	SPACE
SPACE	--	--	--	1	35	--	--	--			36	--	SPACE
SPACE	--	--	--	1	37	--	0	--			38	--	SPACE
SPACE	--	--	--	1	39	--	--	0			40	--	SPACE
SPACE	--	--	--	1	41	--	--	0			42	--	SPACE
				115020 VA 415 A		115020 VA 415 A		115020 VA 415 A					
Load Classification		Connected Load		Demand Factor		Estimated Demand				Panel Totals			
Power		345000 VA		100.00%		345000 VA				CONNECTED LOAD 345000 VA DEMAND LOAD 345000 VA			
										AVG. CONNECTED CURRENT 415 A AVG. DEMAND CURRENT 415 A			
NOTES:													

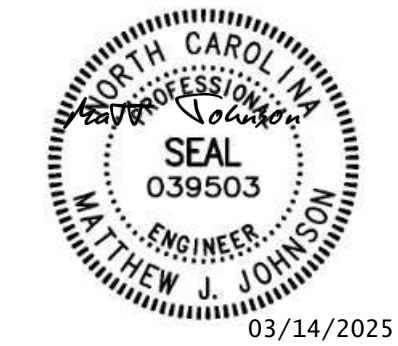


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WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



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PROJECT STATUS
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SHEET
LIGHTING FIXTURE SCHEDULE

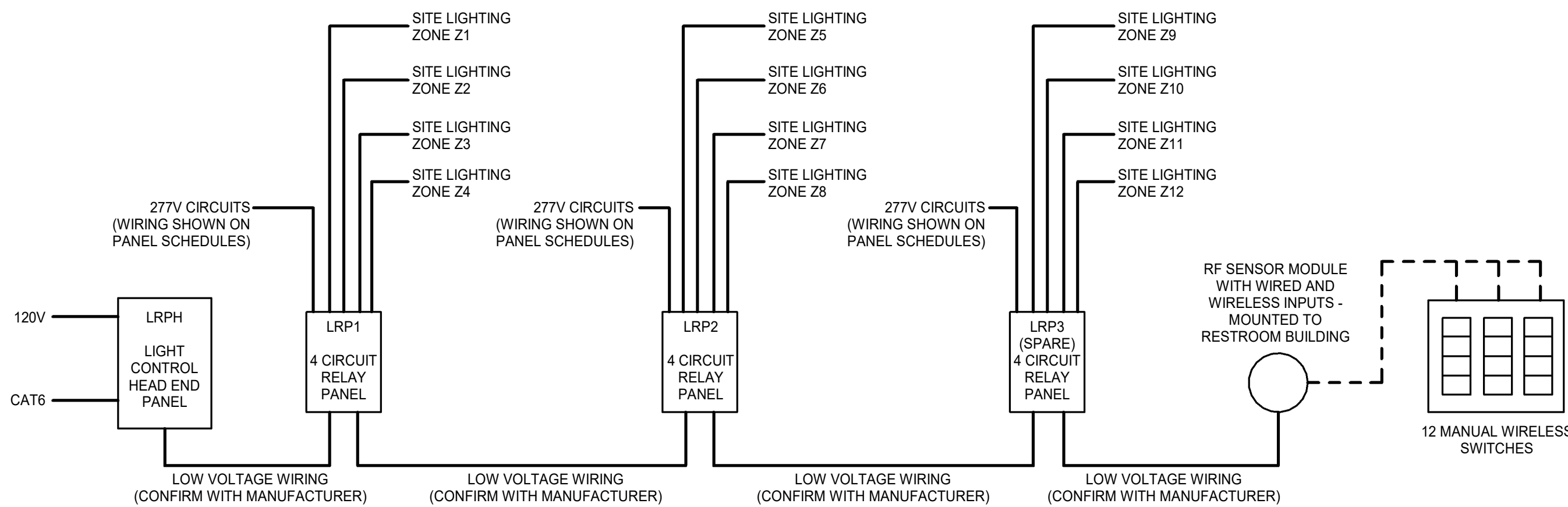
E501

LIGHTING FIXTURE SCHEDULE									
TYPE MARK	DESCRIPTION	MOUNTING	LUMENS	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION	COMMENTS	IMAGE
A	LINEAR NARROW APERTURE PENDANT	PENDANT	500 LM/FT	120/277	9 VA/FOOT	0-10V	FINELITE HP4 CORONET L33 PMG ES4	COLOR AS SELECTED BY ARCHITECT	
A2	SURFACE MOUNTED LINEAR LED	SURFACE	500 LM/FT	120/277	9 VA/FOOT	0-10V	FINELITE HP4 CORONET L33 PMG ES4		
B	6" RECESSED DOWNLIGHT	RECESSED	2000	120/277	23 VA	0-10 V	HE WILLIAMS RDR ELITE HH6 RAYON RB06-FN	CLEAR DIFFUSE. PROVIDE WET LOCATION RATED FIXTURE	
C	4" LONG CORNER MOUNTED LED	SURFACE, CORNER MOUNT	8000	120/277	80 VA	0-10V	ADVANTAGE LIGHTING LCF-4-40-8L-SH16-TG-J1 LEVITON CRC-3519	PROVIDE IP65 RATED FIXTURE WITH STAINLESS STEEL HOUSING AND TWO TEMPERED GLASS LENSES	
D	LED LINEAR STRIP	PENDANT	5000	120/277	40 VA	0-10V	JADEMAR JSTRE ELITE OC4-LED LITHONIA CLX	COLOR AS SELECTED BY ARCHITECT	
E	WALL MOUNT EMERGENCY LIGHTING UNIT	WALL	1100	120/277	5 VA	N/A	MAXILUME ELM-LED-803 CARPENTER CEM MULE SO-40 COMPASS CU2		
F	WALL MOUNTED STAIR LIGHT	SURFACE, WALL	5000	120/277	40 VA	0-10V	JADEMAR JSTRE ELITE OC4-LED LITHONIA CLX	PROVIDE INTEGRAL OCCUPANCY SENSOR	
FL	EXTERIOR POLE MOUNT WIDE FLOOD LIGHT	POLE	8000	120/277	60 VA	ON/OFF	NLS NV-F2 JADEMAR JFL-PS RAYON T348LED	PROVIDE WIDE DISTRIBUTION. MOUNT TO POLE WITH SL1 FIXTURES	
G	EXTERIOR ARCHITECTURAL WALL SCONCE	SURFACE, WALL	3000	120/277	23 VA	PHOTOCELL	JADEMAR JWP NLS NV-W LITHONIA WST	COLOR AS SELECTED BY ARCHITECT.	
H	ROUGH SERVICE VAPOR PROOF LED	SURFACE, WALL	4000	120/277	33 VA	0-10V	JADEMAR JSD-VP ELITE OWS-LED LITHONIA VAP		
SL1	HIGH OUTPUT SOLAR ASSEMBLY SITE LIGHT POLE	POLE	11,135	SOLAR	N/A	INTEGRAL PHOTOCELL	PREFERRED BRAND ALTERNATE: SONARAY SR-3080-D	25' ALUMINUM POLE. 4000K COLOR FIXTURE SHALL BE UL LISTED AND LABELED. CONFIGURE FOR 4 HOURS @ 100%. SUBMIT CALCULATIONS AND PROVISIONS FOR MOUNTING FLOODLIGHTS, RECEPTACLES, CAMERAS, NETWORK SWITCHES, SOLAR PANELS, OR LIGHTING CONTROL DEVICES TO POLES.	
SL2	ARCHITECTURAL OUTDOOR AREA LIGHT	POLE	11,336	277	104 VA	ON/OFF	NLS NV-1 RAYON T348LED LITHONIA DSX1	25' ALUMINUM POLE. 4000K COLOR FIXTURE SHALL BE UL LISTED AND LABELED. SUBMIT CALCULATIONS AND PROVISIONS FOR MOUNTING FLOODLIGHTS, RECEPTACLES, CAMERAS, NETWORK SWITCHES, OR LIGHTING CONTROL DEVICES TO POLES.	

FIXTURE SCHEDULE NOTES:

- THIS FIXTURE SCHEDULE IDENTIFIES A FIXTURE THAT MEETS THE SPECIFIED PERFORMANCE REQUIREMENTS AND A LEVEL OF QUALITY REQUIRED FOR THE PROJECT. **MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS IN SCHEDULE ARE NOT A BRAND NAME SPECIFICATION.** EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR THIS PROJECT.
- PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTEGRAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS MUST BE RF SUPPRESSED FOR MINIMUM INJECTION OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR MUST BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
- UNLESS OTHERWISE INDICATED, PROVIDE SINGLE DRIVER PER FIXTURE.
- PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. **CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.**
- PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
- ALL FIXTURES TO HAVE A COLOR TEMPERATURE OF 4000K UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, ALL FIXTURES SHALL INCLUDE INTEGRAL DRIVER.
- ALL FIXTURES SHALL BE UL OR THIRD PARTY LISTED AS COMPLETE ASSEMBLY.
- FOR LIGHT FIXTURES HAVING LINEAR VISUAL FEATURES (IE: CENTER BASKET, LOUVERS, ETC), COORDINATE AND ALIGN COMPONENTS IN A SIMILAR DIRECTION CONSISTENTLY ACROSS THE BUILDING SPACES.

SO DETAIL: IN0011 LED



PROVIDE A LIGHTING CONTROL RELAY SYSTEM, LUTRON ATHENA OR APPROVED EQUAL.

PROVIDE ALL WIRING AS REQUIRED BY MANUFACTURER. SEE RESTROOM BUILDING FLOOR PLAN FOR EQUIPMENT LOCATIONS. SEE SITE PLAN FOR LIGHTING FIXTURE LOCATIONS AND CONTROL ZONES. SEE PANEL SCHEDULES FOR CIRCUIT WIRING AND CONDUIT SIZES.

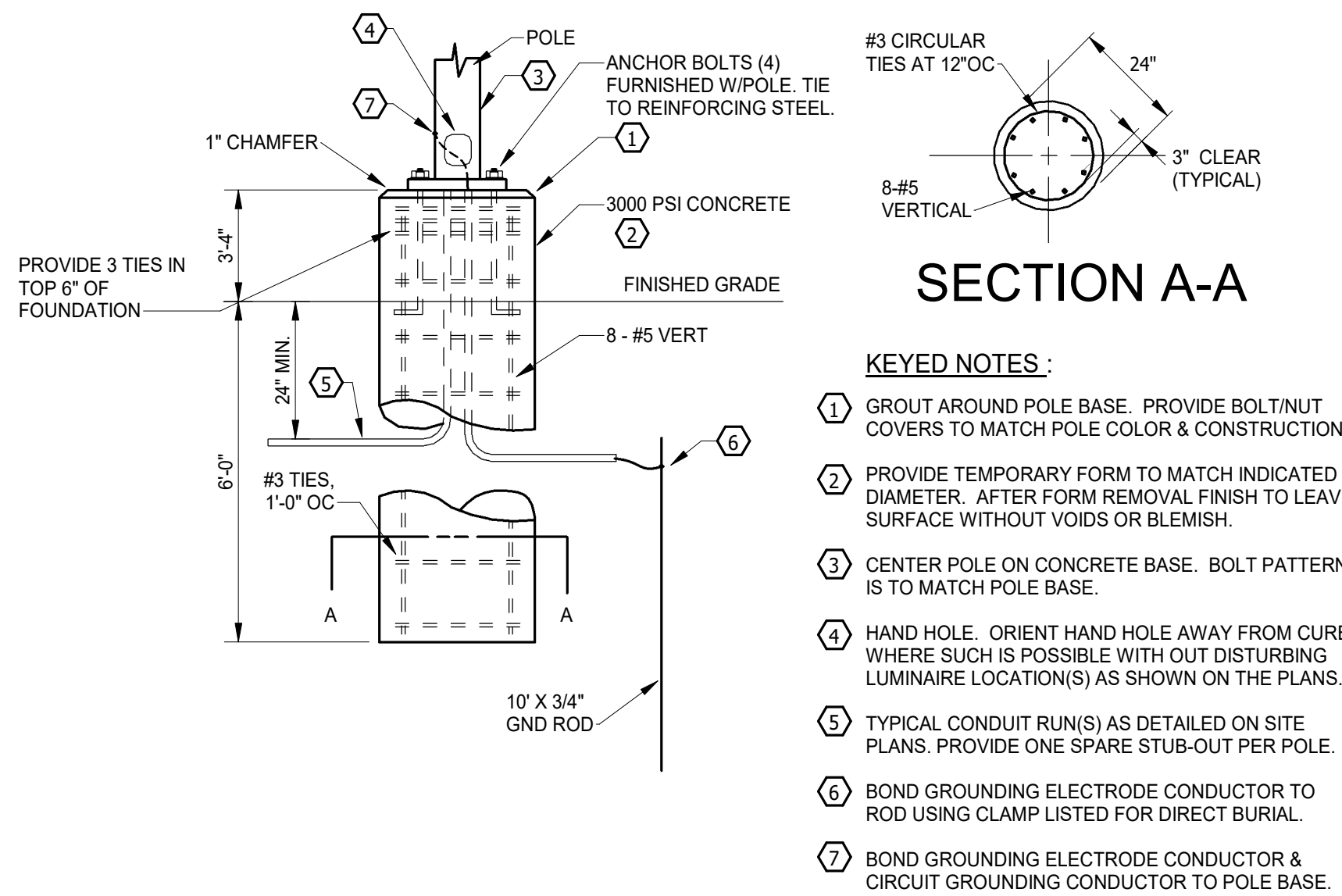
SYSTEM SHALL BE CAPABLE OF CONTROLLING UP TO 12 LIGHTING CIRCUITS. HEAD END PANEL SHALL BE PROGRAMMABLE FOR TIME OF DAY SETTINGS, OWNER SELECTED SCENE CONTROLS, AND AUTOMATIC SHUTOFF.

SYSTEM SHALL HAVE WIRELESS SWITCHES FOR MANUAL CONTROL OF EACH ZONE. SWITCHES WILL BE LOCATED IN RESTROOM BUILDING ELECTRICAL ROOM, TRAINING TOWER ELECTRICAL ROOM, AND LIGHT POLE ON SITE.

SYSTEM SHALL HAVE PHONE APP CAPABILITY FOR OWNER TO MANUALLY CONTROL THE LIGHTING REMOTELY.

1 LIGHTING CONTROL RELAY PANEL

E501 SCALE: NTS

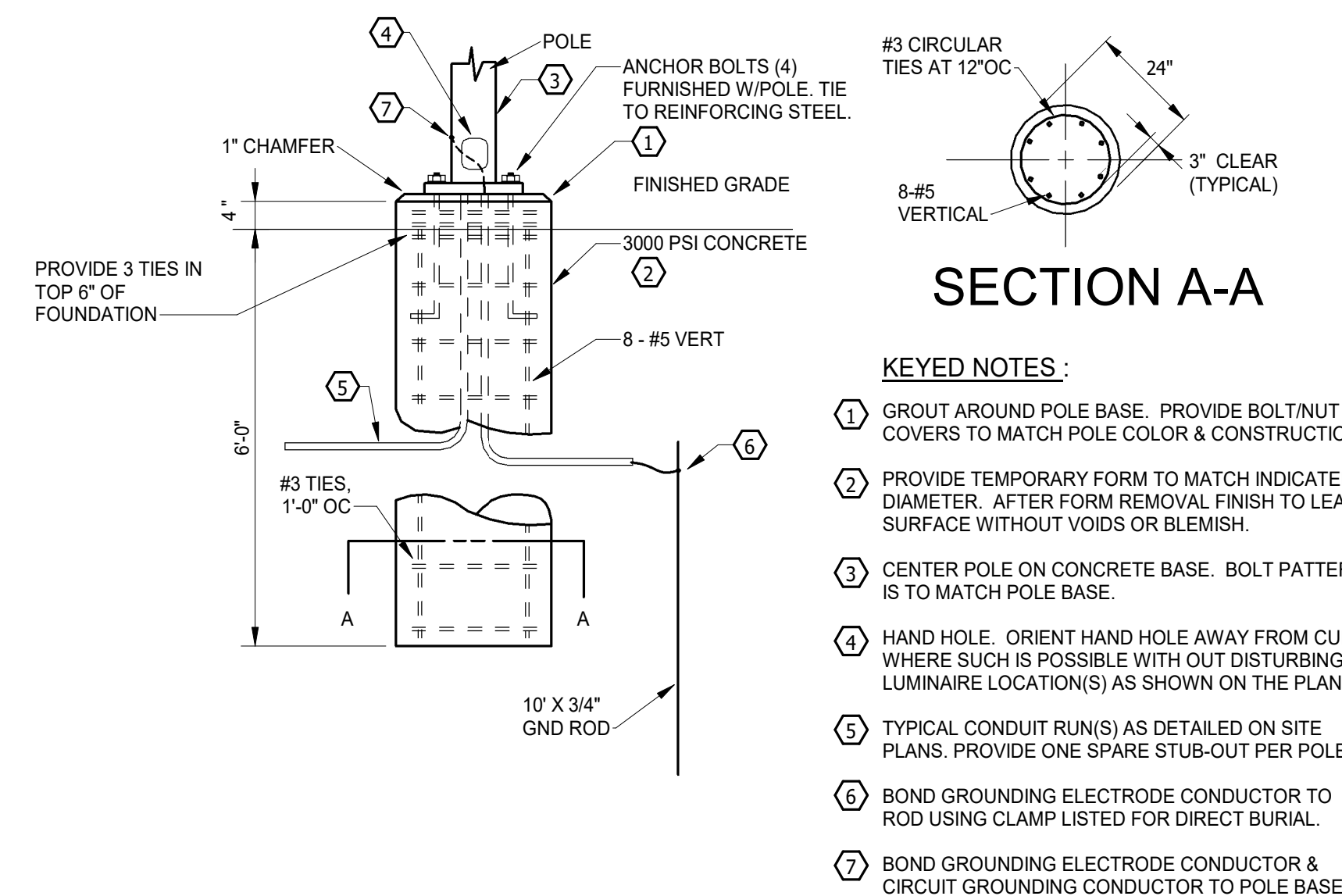


KEYED NOTES:

- GROUT AROUND POLE BASE. PROVIDE BOLT/NUT COVERS TO MATCH POLE COLOR & CONSTRUCTION.
- PROVIDE TEMPORARY FORM TO MATCH INDICATED DIAMETER. AFTER FORM REMOVAL FINISH TO LEAVE SURFACE WITHOUT VOIDS OR BLEMISH.
- CENTER POLE ON CONCRETE BASE. BOLT PATTERN IS TO MATCH POLE BASE.
- HAND HOLE. ORIENT HAND HOLE AWAY FROM CURB WHERE SUCH IS POSSIBLE WITH OUT DISTURBING LUMINAIRE LOCATION(S) AS SHOWN ON THE PLANS.
- TYPICAL CONDUIT RUN(S) AS DETAILED ON SITE PLANS. PROVIDE ONE SPARE STUB-OUT PER POLE.
- BOND GROUNDING ELECTRODE CONDUCTOR TO ROD USING CLAMP LISTED FOR DIRECT BURIAL.
- BOND GROUNDING ELECTRODE CONDUCTOR & CIRCUIT GROUNDING CONDUCTOR TO POLE BASE.

2 LIGHT POLE BASE DETAIL (ON PAVEMENT)

E501 SCALE: NTS

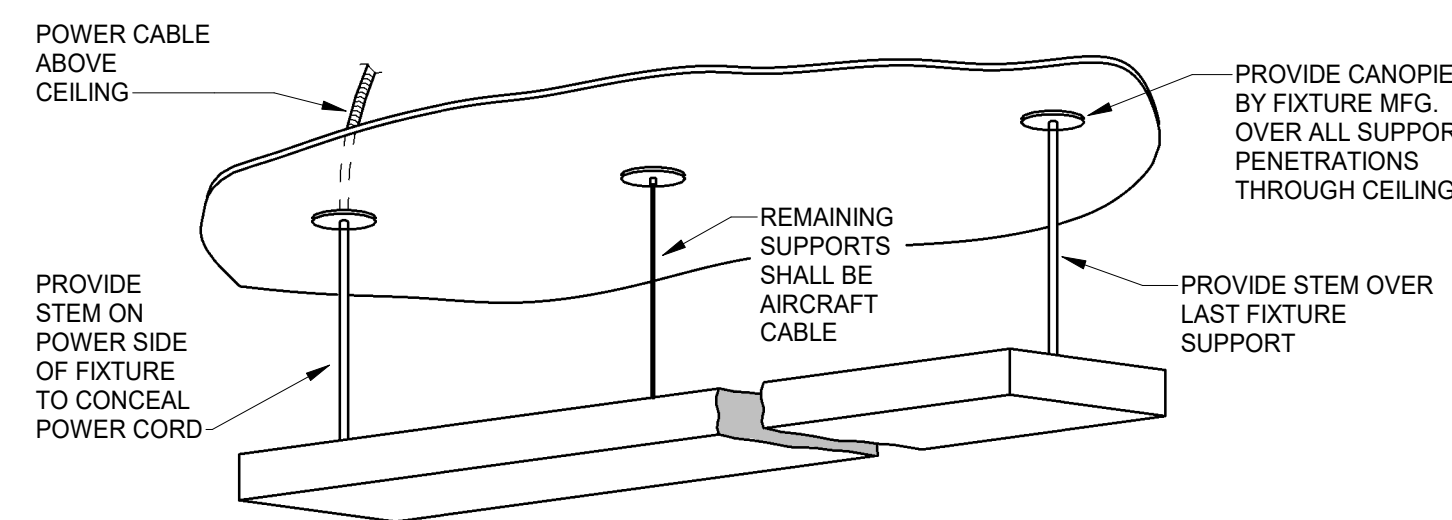


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- TYPICAL CONDUIT RUN(S) AS DETAILED ON SITE PLANS. PROVIDE ONE SPARE STUB-OUT PER POLE.
- BOND GROUNDING ELECTRODE CONDUCTOR TO ROD USING CLAMP LISTED FOR DIRECT BURIAL.
- BOND GROUNDING ELECTRODE CONDUCTOR & CIRCUIT GROUNDING CONDUCTOR TO POLE BASE.

3 LIGHT POLE BASE DETAIL (ON RAISED LANDSCAPE AREA)

E501 SCALE: NTS



GENERAL NOTES:

- FIXTURE STYLE AND NUMBER OF REQUIRED SUPPORTS WILL VARY BY FIXTURE TYPE.
- REFER TO MANUFACTURER'S SUPPLIED MOUNTING INSTRUCTIONS FOR EXACT REQUIREMENTS.

SO DETAIL: GE0022

4 TYPICAL LINEAR FIXTURE INSTALLATION

E501 SCALE: NTS

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WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
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NO.	REVISION	DATE

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22-086
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

TELECOMMUNICATION
SYSTEMS

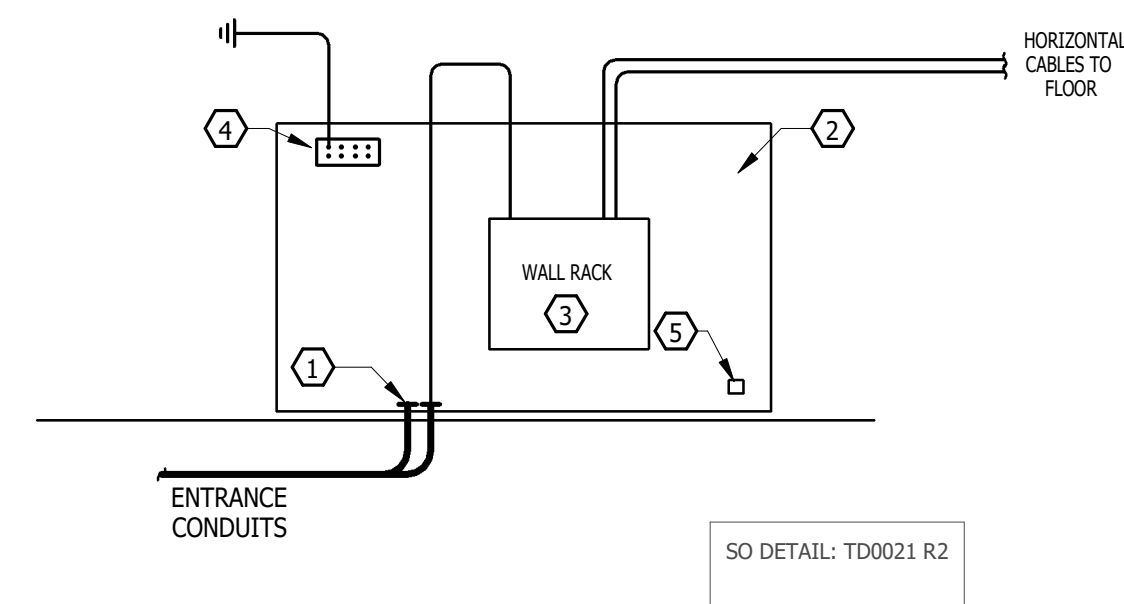
E511

GENERAL NOTES:

- ACTIVE ELECTRONICS AND PATCH CORDS ARE PROVIDED AND INSTALLED BY OWNER.
- FIRE SEAL ALL FLOOR PENETRATIONS.

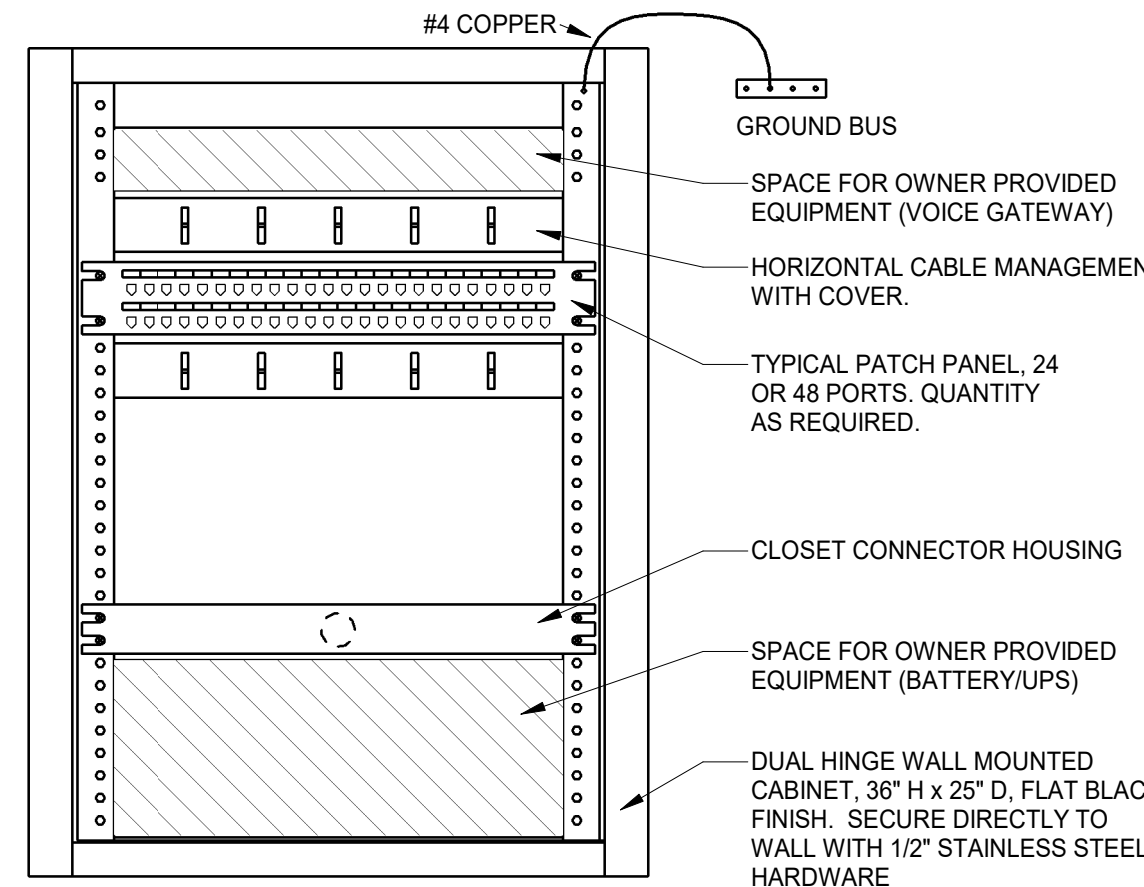
KEYED NOTES:

- TELECOM SERVICE ENTRANCE CONDUITS, STUB CONDUITS UP 4" AFF AND BUSH. PROVIDE CAP DURING CONSTRUCTION. SEAL ENDS OF ALL CONDUITS AFTER INSTALLATION OF CABLES.
- PROVIDE 3/4" THICK FIRE RETARDANT PLYWOOD BACKBOARD FROM FLOOR TO 8'-0" AFF ON WALL. PAINT PLYWOOD WHITE, LEAVING RATING LABELS VISIBLE FOR INSPECTIONS.
- WALL MOUNTED TELECOMMUNICATIONS EQUIPMENT RACK. FIBER HOUSING AND CABLE MANAGEMENT BY ELECTRICAL CONTRACTOR. ELECTRONIC COMPONENTS BY OWNER.
- WALL MOUNTED GROUND BUS PER PROJECT DETAIL WITH #3 GROUND TO EFFECTIVELY GROUNDED STRUCTURAL STEEL.
- PROVIDE QUADRUPLX RECEPTACLES AT 24" AFF. REFER TO FLOOR PLANS FOR CIRCUITRY.



SO DETAIL: TD0021 R2

1 TELECOMMUNICATIONS RISER
SCALE: NTS



GENERAL NOTES:

- INDICATED ARRANGEMENT IS TYPICAL FOR NEW WALL MOUNTED RACK.
- ALL CONNECTIONS BY CONTRACTOR TO 110 BLOCKS AT BACK OF PATCH PANELS. PATCH CORDS AND ACTIVE COMPONENTS PROVIDED AND INSTALLED BY THE OWNER.

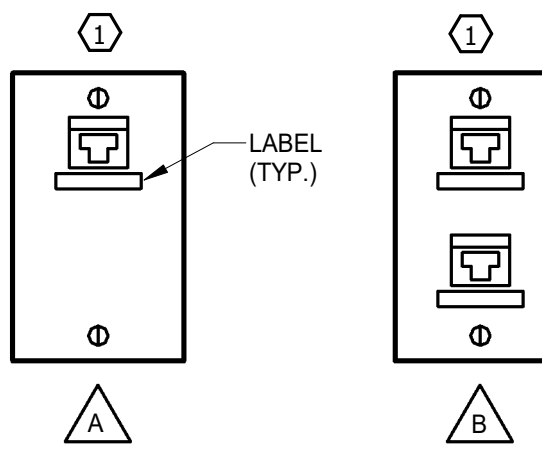
5 WALL MOUNTED DISTIBUTION RACK ELEVATION
SCALE: NTS

- KEYED NOTES:
- ROUTE SPECIFIED CABLE(S) TO DISTRIBUTION EQUIPMENT AND TERMINATE.
 - PROVIDE SPECIFIED CABLES TO LOCATION OF WIRELESS ACCESS POINT INDICATED ON PLANS. TERMINATE EACH CABLE AT ACCESS POINT END WITH RJ45 FITTING AND LEAVE 20" OF SERVICE LOOP-IN CABLE SUPPORTED ABOVE CEILING LEVEL.

GENERAL NOTES:

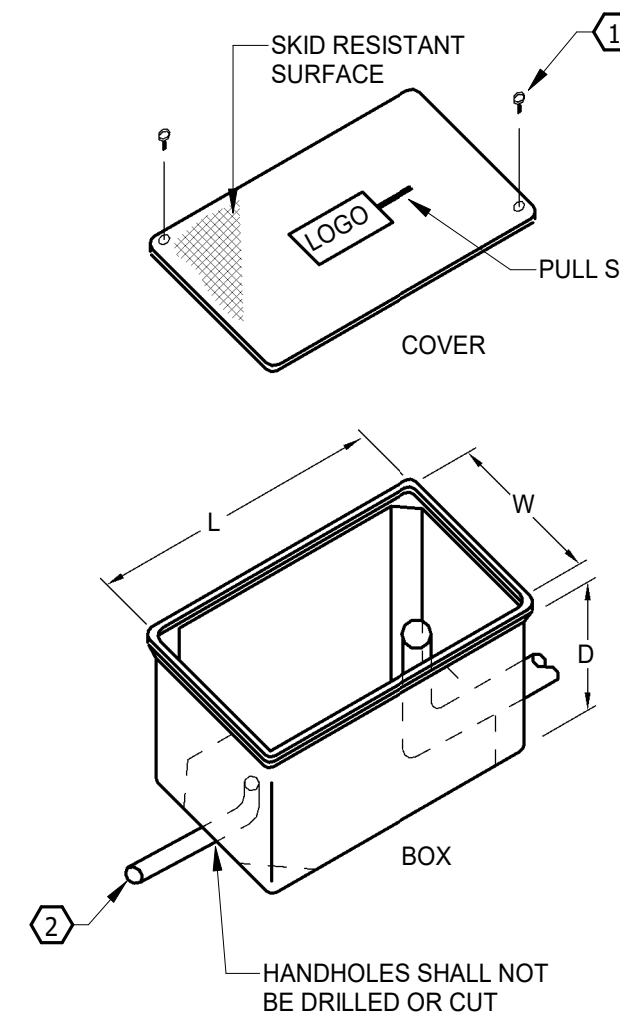
- ALL CAT. 6 CABLES TO BE TERMINATED ON DEDICATED CAT. 6A MODULAR PATCH PANEL.

TELECOMMUNICATIONS OUTLET SCHEDULE			
SYMBOL	PORTS	FUNCTION	CABLE
	1	DATA	(1) CAT. 6
	2	DATA/DATA	(2) CAT. 6
	2	DATA/DATA	(2) CAT. 6A



TELECOMMUNICATIONS OUTLET SCHEDULE			
SYMBOL	PORTS	FUNCTION	CABLE
	1	DATA	(1) CAT. 6
	2	DATA/DATA	(2) CAT. 6
	2	DATA/DATA	(2) CAT. 6A

2 TYPICAL TELECOM OUTLET SCHEDULE
SCALE: NTS



GENERAL NOTES:

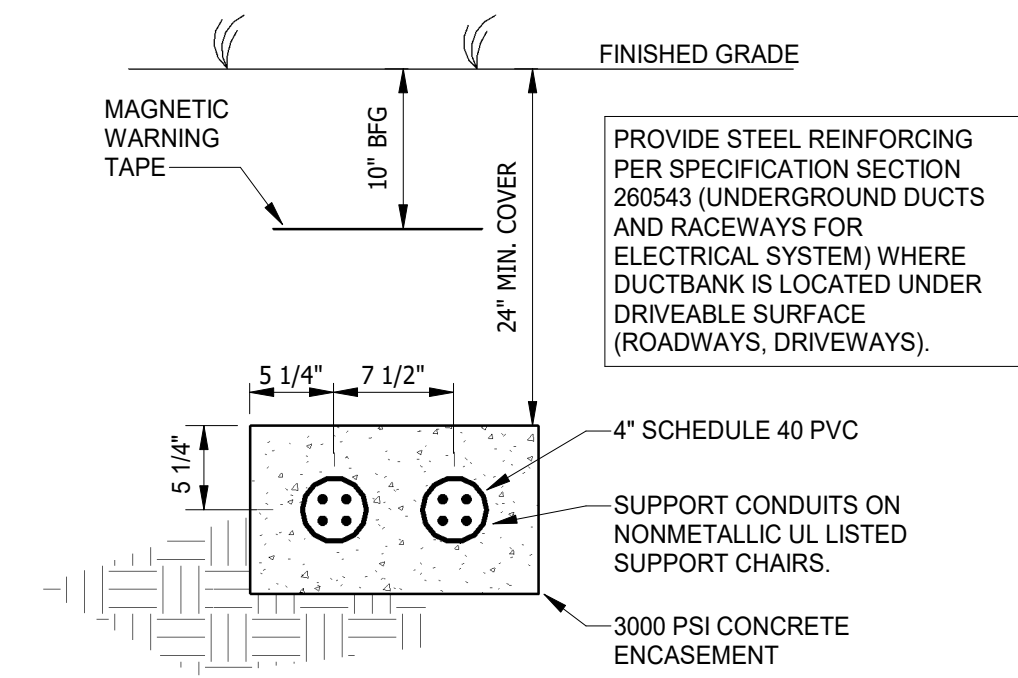
- HEAVY WEAVE FIBERGLASS; BOX HAS OPEN BASE. PROVIDE GRAVEL FILL 12" DEEP BELOW BOX.
- BOX DIMENSION IS 24" LONG x 24" WIDE x 11-11/16" DEEP.
- PROVIDE BOX COVER LOGO, AS APPLICABLE.
- BOX COVERS SHALL BE A HEAVY DUTY DESIGN, CAPABLE OF WITHSTANDING A LOAD OF 15,000 LBS. OVER A 10" SQUARE AREA.
- SEE UNDERGROUND ENCLOSURE INSTALLATION DETAIL.

KEYED NOTES:

- PROVIDE TAMPER RESISTANT STAINLESS STEEL COVER HOLD-DOWN BOLTS.
- TYPICAL CONDUIT ENTRY. CONDUIT SHALL ENTER BOX FROM THE BOTTOM AND EXTEND UP 6" INTO BOX.

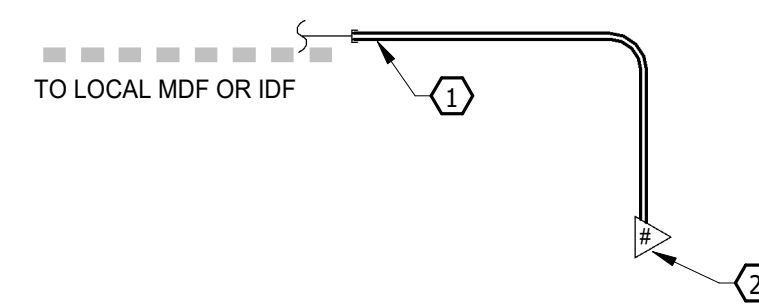
6 TYPICAL UNDERGROUND ENCLOSURE
SCALE: NTS

SO DETAIL: OC0012



SO DETAIL: OC0001 R1

3 TELECOM DUCT BANK SECTION
SCALE: NTS

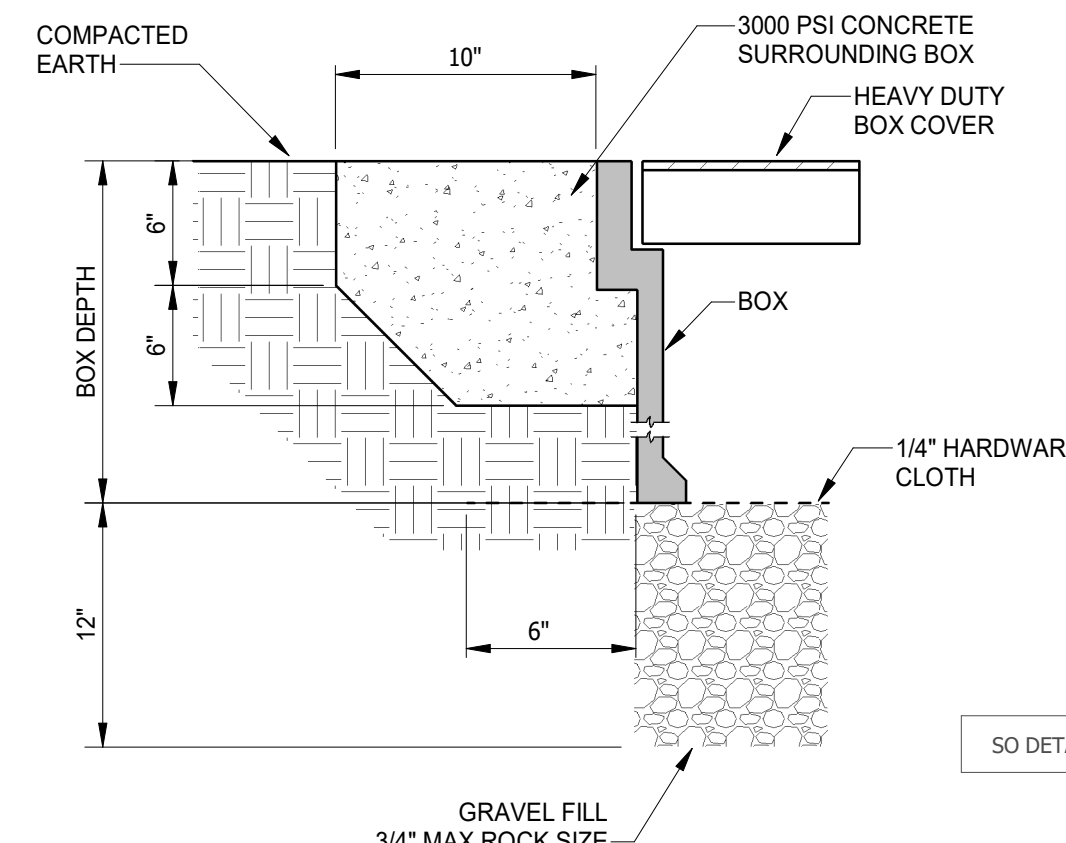


KEYED NOTES:

- 1" CONDUIT TO ELECTRICAL ROOM ABOVE WALL MOUNTED DISTRIBUTION RACK. BUSH ENDS OF PIPE.
- REFER TO TELECOMMUNICATIONS OUTLET SCHEDULE.

SW DETAIL: TD0003 R1

4 TYPICAL TELECOM OUTLET
SCALE: NTS



SO DETAIL: OC0011

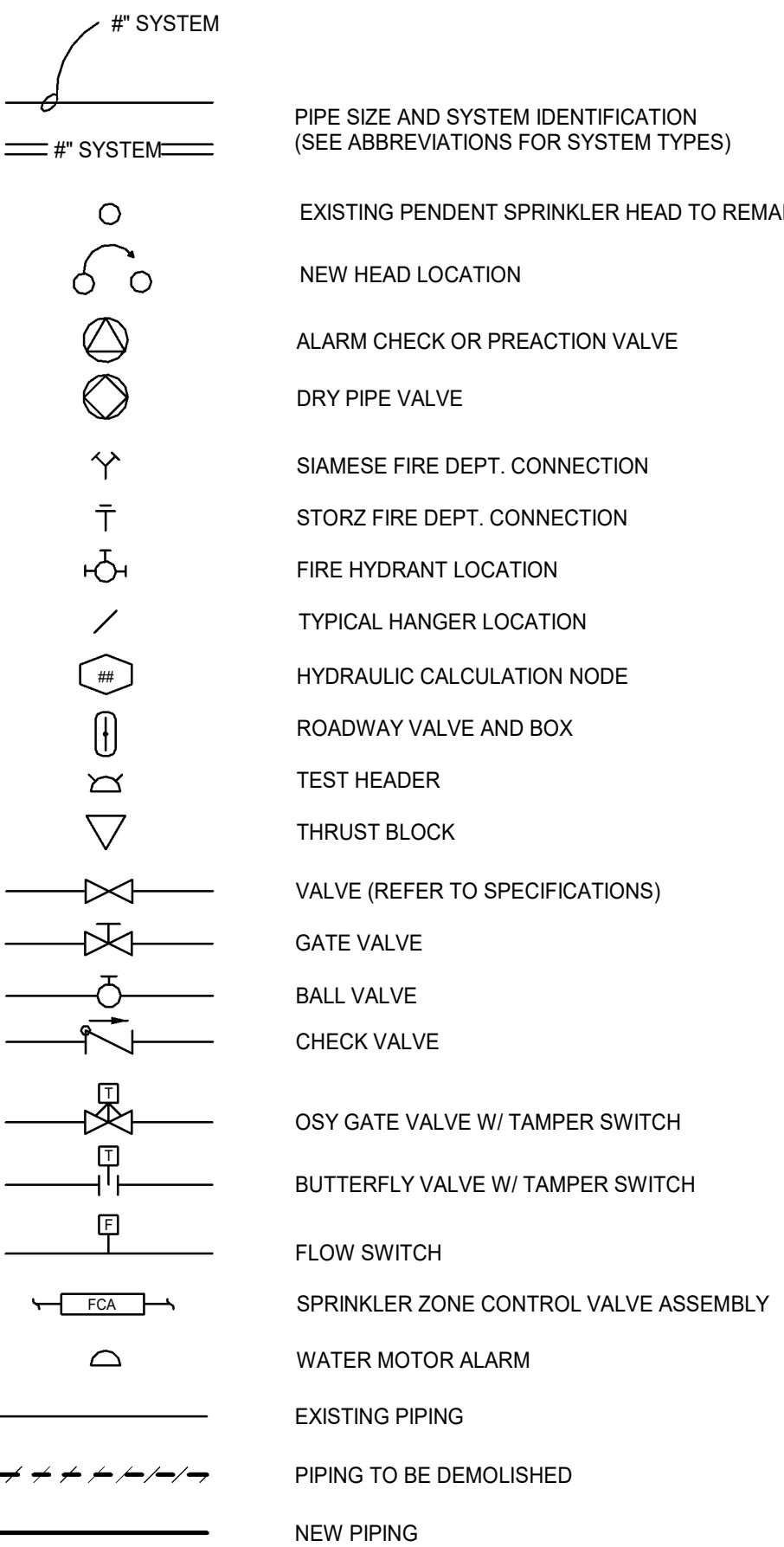
7 UNDERGROUND ENCLOSURE INSTALLATION
SCALE: NTS



FIRE PROTECTION ABBREVIATIONS

POUNDS, NUMBER
ACV ALARM CHECK VALVE
AFC ABOVE FINISHED CEILING
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHJ AUTHORITY HAVING JURISDICTION
ALT ALTERNATE
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH ARCHITECTURAL; ARCHITECT
AUTO AUTOMATIC
BAS BUILDING AUTOMATION SYSTEM
BOP BOTTOM OF PIPE
CAP CAPACITY
CLG CEILING
COL COLUMN
CONC CONCRETE
CTR CENTER
CUFT CUBIC FOOT; CUBIC FEET
CUYD CUBIC YARD
CV CHECK VALVE
DCDA DOUBLE CHECK DETECTOR ASSEMBLY
DI DUCTILE IRON
DIA DIAMETER
DIV DIVISION
DN DOWN
DPV DRY PIPE VALVE
DWG DRAWING
EA EACH
ELEC ELECTRICAL
ELEV ELEVATION
EQUIP EQUIPMENT
EXIST EXISTING
FCV FLOOR CONTROL VALVE
FDC FIRE DEPARTMENT CONNECTION
FDV FIRE DEPARTMENT VALVE
FFE FINISHED FLOOR ELEVATION
FH FIRE HYDRANT
FHC FIRE HOSE CABINET
FHC FIRE HOSE VALVE CABINET
FL FLOOR
FLA FULL LOAD AMPS
FLEX FLEXIBLE
FM FACTORY MUTUAL
FP FIRE PROTECTION OR FIRE PUMP
FPC FIRE PUMP CONTROLLER
FS FLOW SWITCH
FT FOOT, FEET
FTS FOOTING
GAL GALLONS
GC GENERAL CONTRACTOR
GPM GALLONS PER MINUTE
HORIZ HORIZONTAL
HP HORSE POWER
HT HEIGHT
ID INSIDE DIAMETER
IN INCH
JP JOCKEY PUMP
JPC JOCKEY PUMP CONTROLLER
MAX MAXIMUM
MCA MINIMUM CIRCUIT AMPS
MFG MANUFACTURING
MFR MANUFACTURER
MIN MINIMUM
MOCP MAXIMUM OVER CURRENT PROTECTION
MTD MOUNTED
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
NIC NOT IN CONTRACT
NTS NOT TO SCALE
OC ON CENTER
OD OUTSIDE DIAMETER
OPNG OPENING
OSY OUTSIDE SCREW AND YOKE
PIV POST INDICATOR VALVE
PSI POUNDS PER SQUARE INCH
PSIG POUNDS PER SQUARE INCH GAUGE
QTY QUANTITY
RCV RISER CHECK VALVE
REINF REINFORCING
REV REVISION
RM ROOM
RPDA REDUCED PRESSURE DETECTOR ASSEMBLY
RPM REVOLUTIONS PER MINUTE
SCH SCHEDULE
SECT SECTION
SF SQUARE FEET
SP STANDPIPE
SPCV SUCTION PRESSURE CONTROL VALVE
SPEC SPECIFICATION
SPRK SPRINKLER
SYM SYMBOL OR SYMMETRICAL
TOP TOP OF PIPE
TOS TOP OF STEEL
TS TAMPER SWITCH
TYP TYPICAL
UF UNDER FLOOR
UL UNDERWRITERS LABORATORIES
UNO UNLESS NOTED OTHERWISE
UTIL UTILITY
VERT VERTICAL
W WITH
W/O WITHOUT
WMA WATER MOTOR ALARM
Ø ROUND; DIAMETER; PHASE

FIRE PROTECTION PIPING SYMBOLS



SPRINKLER DESIGN DATA

Project Name:	WTCC EWS - FIRE & RESCUE TRAINING CENTER	System:	
Project Street Address:	WTCC, 5345 ROLESVILLE RD, WENDELL, NC 27591	Sys. Sq. Ft.:	
Suite:	NA	Floors:	TRAINING TOWER 5 BURN BUILDING 6
Designed By:	SALAS O'BRIEN	Phone:	919-832-8118
Occupancy:	NA	Hazard:	NA
Total Bldg. Hgt.:			

DESIGN SUMMARY

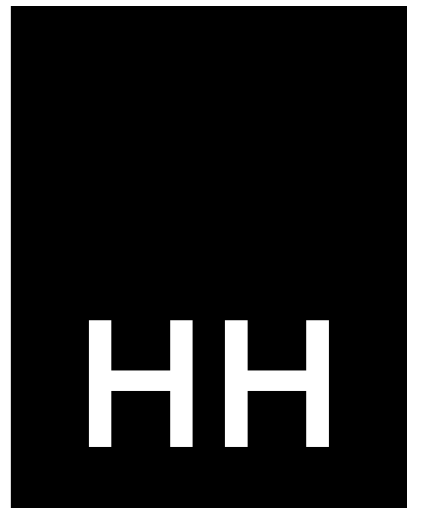
	Zone #	Zone #	Zone #	Zone #	Zone #
Design Method	-	-	-	-	-
Design Area #	-	-	-	-	-
Location	-	-	-	-	-
Type of System	-	-	-	-	-
Hazard Class	-	-	-	-	-
Criteria From	-	-	-	-	-
Design Area	-	-	-	-	-
Protection Area	-	-	-	-	-
Sprinkler Spacing	-	-	-	-	-
Density	-	-	-	-	-
K-factor	-	-	-	-	-
Hose Allowance	-	-	-	-	-
G.P.M. Req'd	-	-	-	-	-
Pos. Req'd	-	-	-	-	-

FIRE PROTECTION GENERAL NOTES

- COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF ANY PIPING, DUCTWORK OR EQUIPMENT. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- ALL PIPING LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS REQUIRED TO COMPLETE WORK. COORDINATE THE PIPING LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION, INCLUDING CONDUITS AND CABLE TRAYS. PROVIDE ALL PIPING OFFSETS REQUIRED FOR THE COMPLETE INSTALLATION OF THE SYSTEM WHETHER OR NOT THE OFFSETS ARE INDICATED ON THE PLANS. INSTALL PIPING HIGH ENOUGH TO AVOID LIGHTS, CONDUIT AND MISCELLANEOUS PIPING. DO NOT BLOCK ACCESS TO DEVICES.
- INSTALL ALL EQUIPMENT WITH THE MANUFACTURER'S RECOMMENDATION AND CODE REQUIRED CLEARANCES. INSURE ALL ITEMS FURNISHED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PURCHASE AND INSTALLATION.
- COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXPOSED ITEMS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND DETAILS.
- THE ENTIRE FIRE PROTECTION SYSTEM SHALL BE INSTALLED IN A MANNER THAT IS COMPLIANT WITH ALL APPLICABLE CITY, COUNTY, AND NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS, LOCAL BUILDING INSPECTOR REQUIREMENTS, ALL APPLICABLE NFPA STANDARDS, AS WELL AS THE STANDARDS OF THE UNDERWRITER WHERE REQUIRED. THE HAZARD CLASSIFICATION SHALL BE PER PLANS AND SPECIFICATIONS.
- VERIFY LATEST ARCHITECTURAL ROOM, WALL, AND CEILING LAYOUTS PRIOR TO DESIGN OF SYSTEM.
- IDENTIFYING SIGNAGE, TAGS, AND LABELS CONFORMING TO THE FIRE PROTECTION INDUSTRY STANDARDS SHALL BE SECURELY AFFIXED TO THE SYSTEM.
- CONTACT THE LOCAL FIRE DEPARTMENT AND VERIFY HOSE THREAD SIZE TO BE USED PRIOR TO START OF CONSTRUCTION.
- SPRINKLERS INSTALLED IN AREAS WITHOUT CEILINGS, OR CEILING TILES, SHALL BE OF THE UPRIGHT TYPE. INSTALL A DRAIN AT ALL RISER LOCATIONS AS WELL AS ALL LOW POINTS IN THE SYSTEM. AN INSPECTOR'S TEST DRAIN SHALL BE INSTALLED ON THE SYSTEM. SPRINKLER PIPING SHALL SLOPE DOWN TO DRAIN LOCATIONS.
- PROVIDE SIGNAGE FOR RISER ROOM, FDC, AND PIV IN ADDITION TO SIGNAGE AS REQUIRED BY NFPA 13. SEE SECTION 6.10 FOR SUMMARY OF SIGNAGE REQUIRED. ALL SIGNAGE SHALL BE SUBMITTED FOR REVIEW.
- SUBMIT DESIGN AND INSTALLATION DRAWINGS PRIOR TO THE START OF CONSTRUCTION, TO THE OWNER'S UNDERWRITER WHERE APPLICABLE, THE LOCAL FIRE MARSHAL, AND ANY OTHER AUTHORITIES HAVING JURISDICTION FOR REVIEW AND APPROVAL. DESIGN, AND INSTALLATION DRAWINGS SHALL BE STAMPED OR SEALED BY A NICET III DESIGNER OR A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA.
- SPRINKLER SYSTEMS INSTALLED IN THE TRAINING TOWER AND BURN BUILDING ARE FOR FIRE FIGHTING TRAINING PURPOSES ONLY.

FIRE PROTECTION DRAWING LIST

NO.	TITLE
FP001	STANDARDS, SYMBOLS & ABBREVIATIONS
FP112	PLANS - TRAINING TOWER
FP113	PLANS - TRAINING TOWER
FP114	PLANS - TRAINING TOWER
FP115	PLANS - BURN BUILDING
FP116	PLANS - BURN BUILDING
FP117	PLANS - BURN BUILDING
FP118	PLANS - BURN BUILDING
FP200	DETAILS



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STANDARDS, SYMBOLS & ABBREVIATIONS

FP001



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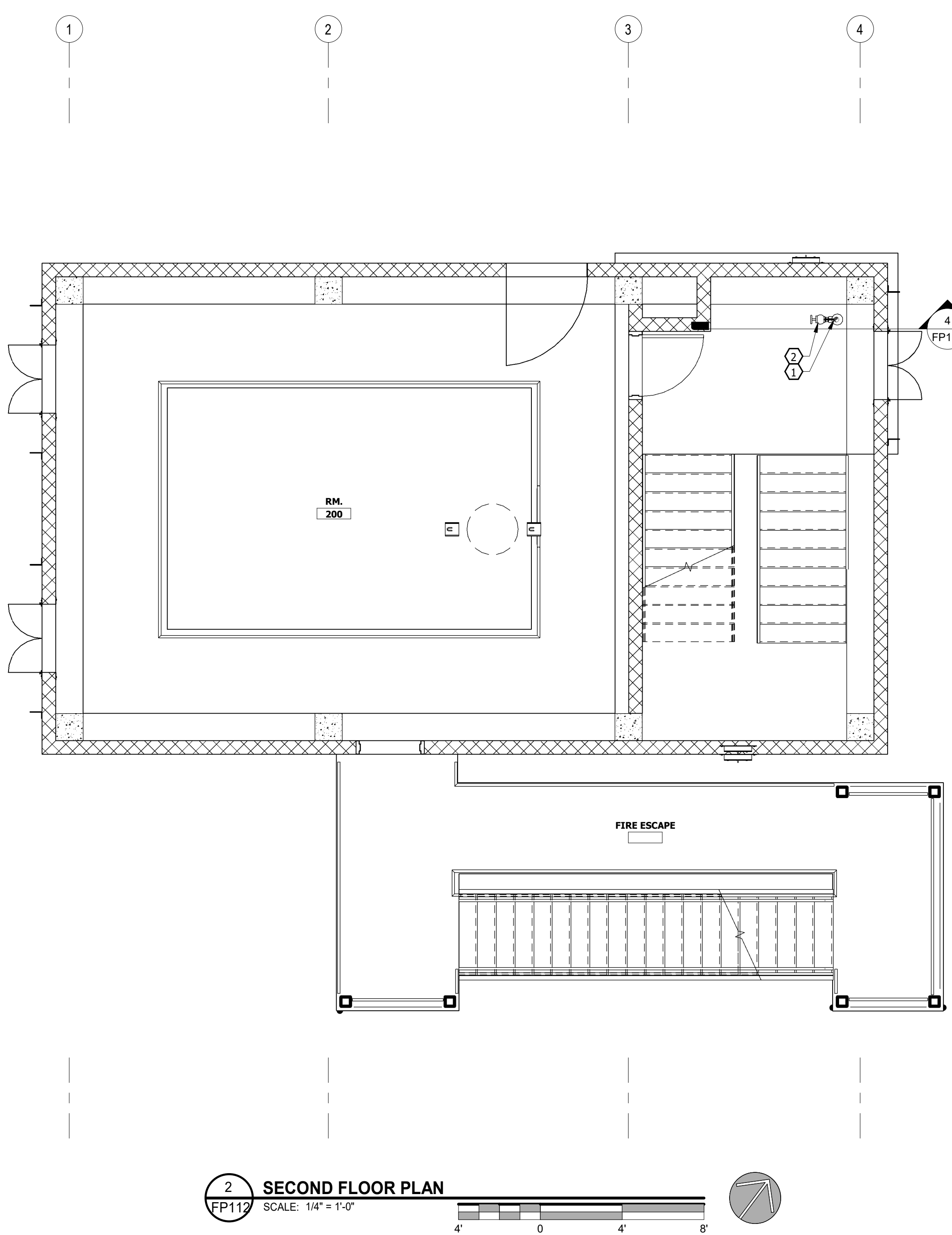
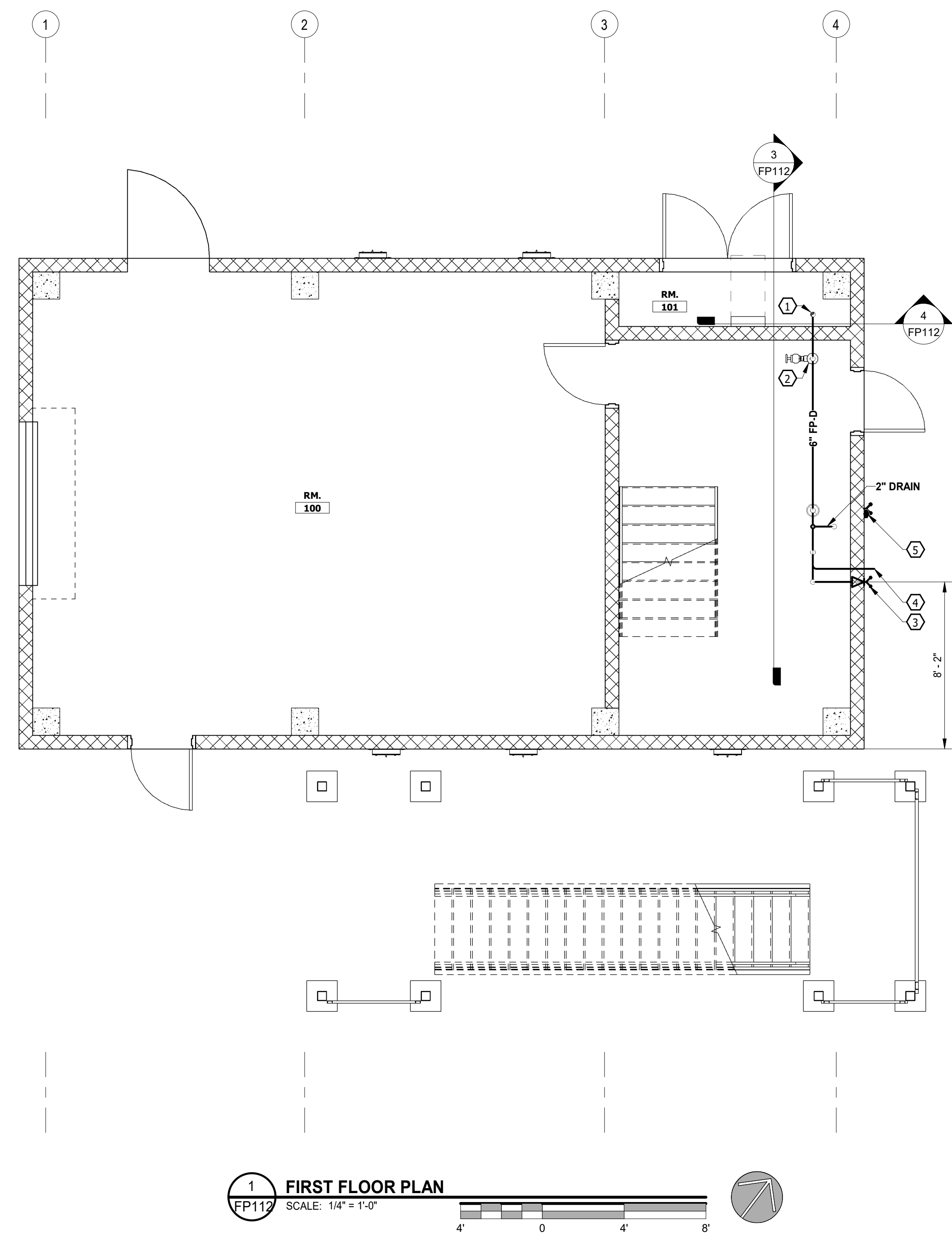
FP112

GENERAL NOTES TO FP112

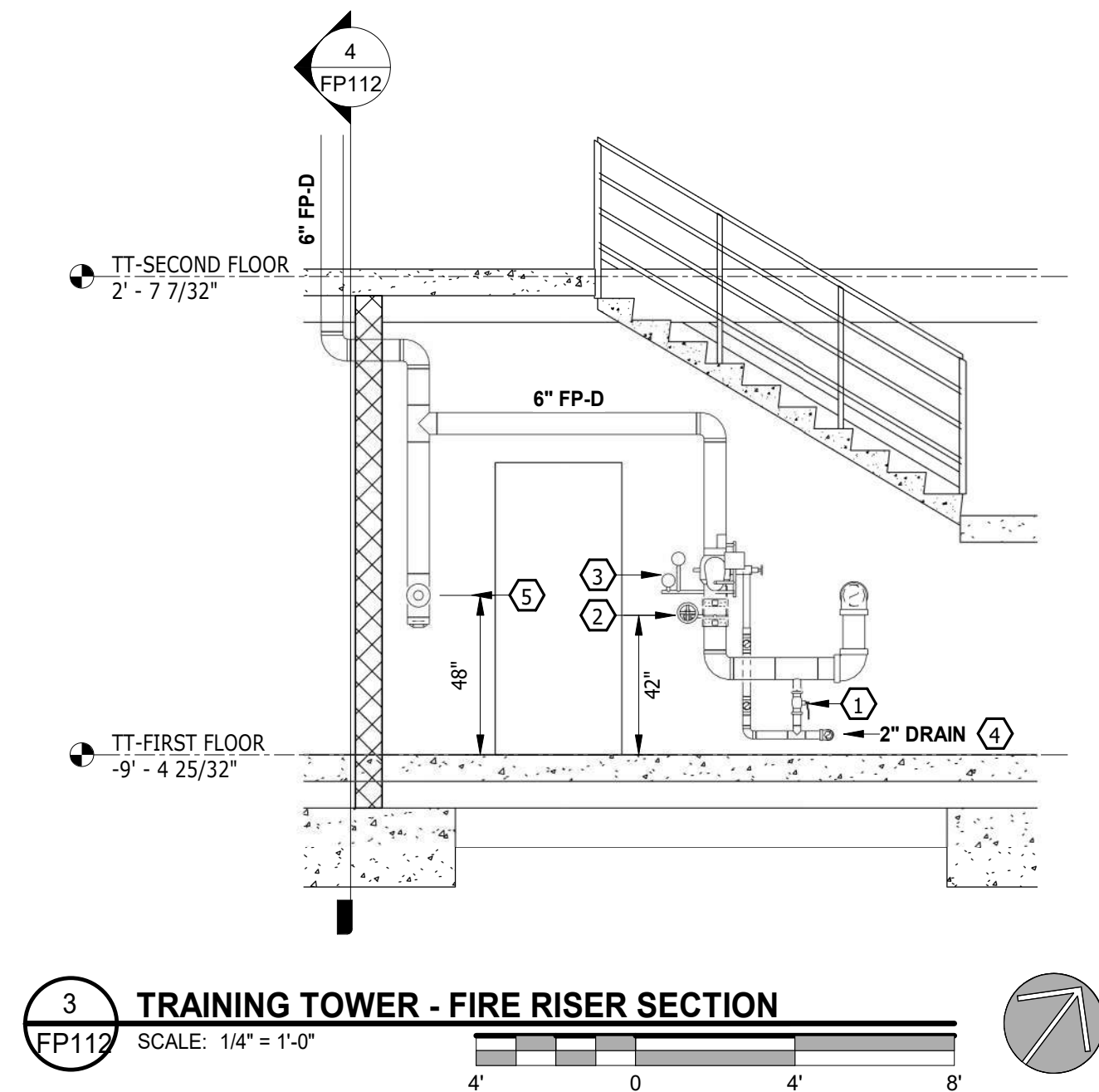
- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 4. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDC PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.
- 2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.

KEY NOTES TO 1,2,&4/FP112

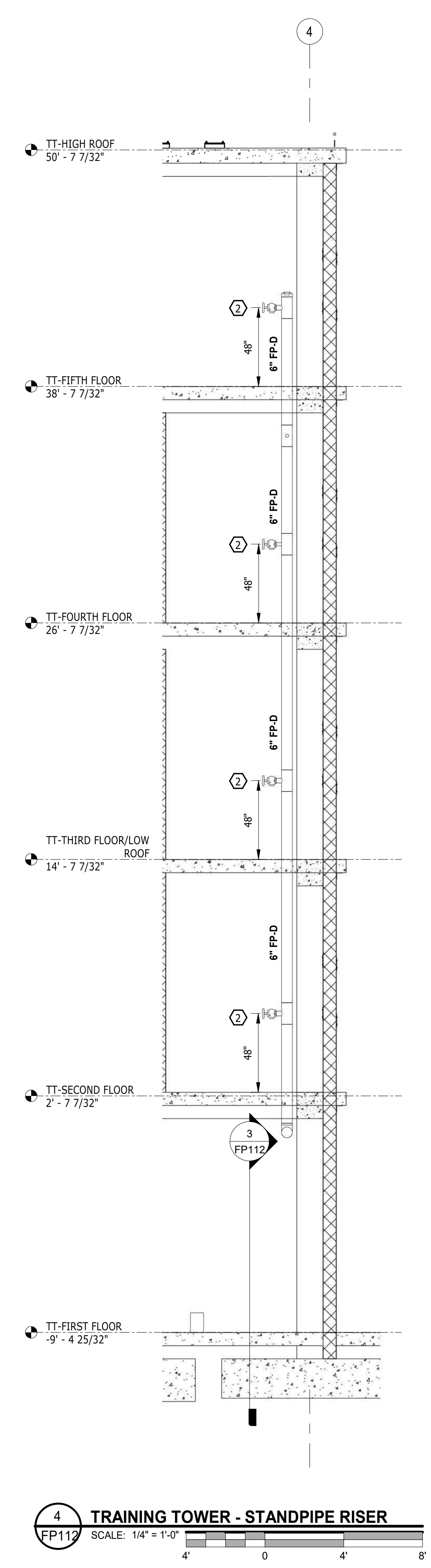
- 1 6" DRY TRAINING STANDPIPE.
- 2 2-1/2" HOSE VALVE 48" AFF.
- 3 SIAMSE FIRE DEPARTMENT CONNECTION.
- 4 2" MAIN DRAIN TO EXTERIOR.
- 5 WATER MOTOR ALARM.



- KEY NOTES TO 3/FP112
- 1 BALL VALVE FOR LOW POINT DRAIN.
 - 2 CONTROL VALVE.
 - 3 6" ALARM CHECK VALVE.
 - 4 2" MAIN DRAIN TO EXTERIOR.
 - 5 2-1/2" HOSE VALVE 48" AFF.



ALL FIRE PROTECTION SYSTEMS FOR THE TRAINING TOWER ARE PROVIDED FOR TRAINING PURPOSES ONLY.



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FP113

- #
- GENERAL NOTES TO FP113
- KEY NOTES TO FP113
- 1

SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 4. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDC PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.
- 2

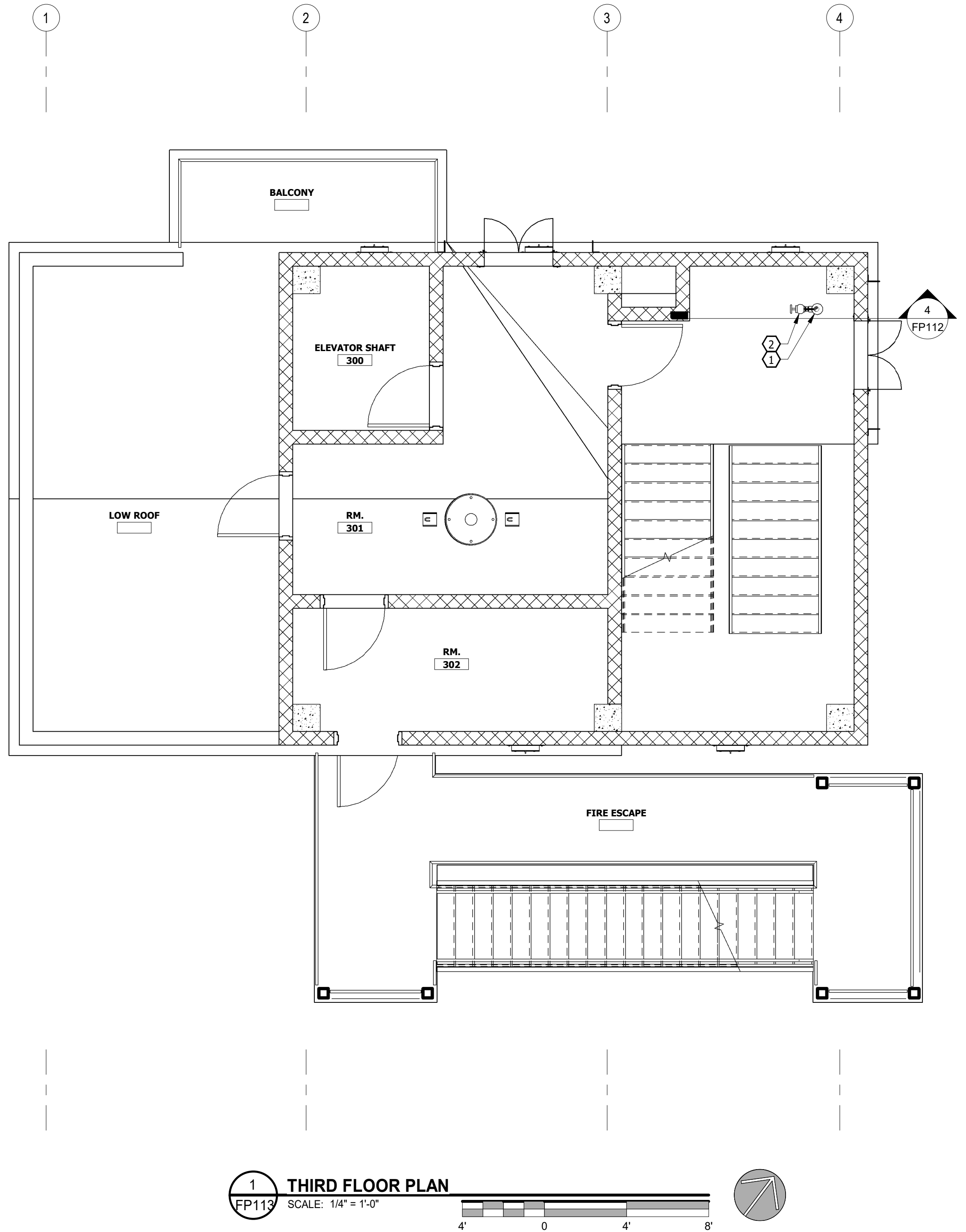
PIPING AND FITTINGS TO BE GALVANIZED STEEL.
- 1

6" DRY TRAINING STANDPIPE.
- 2

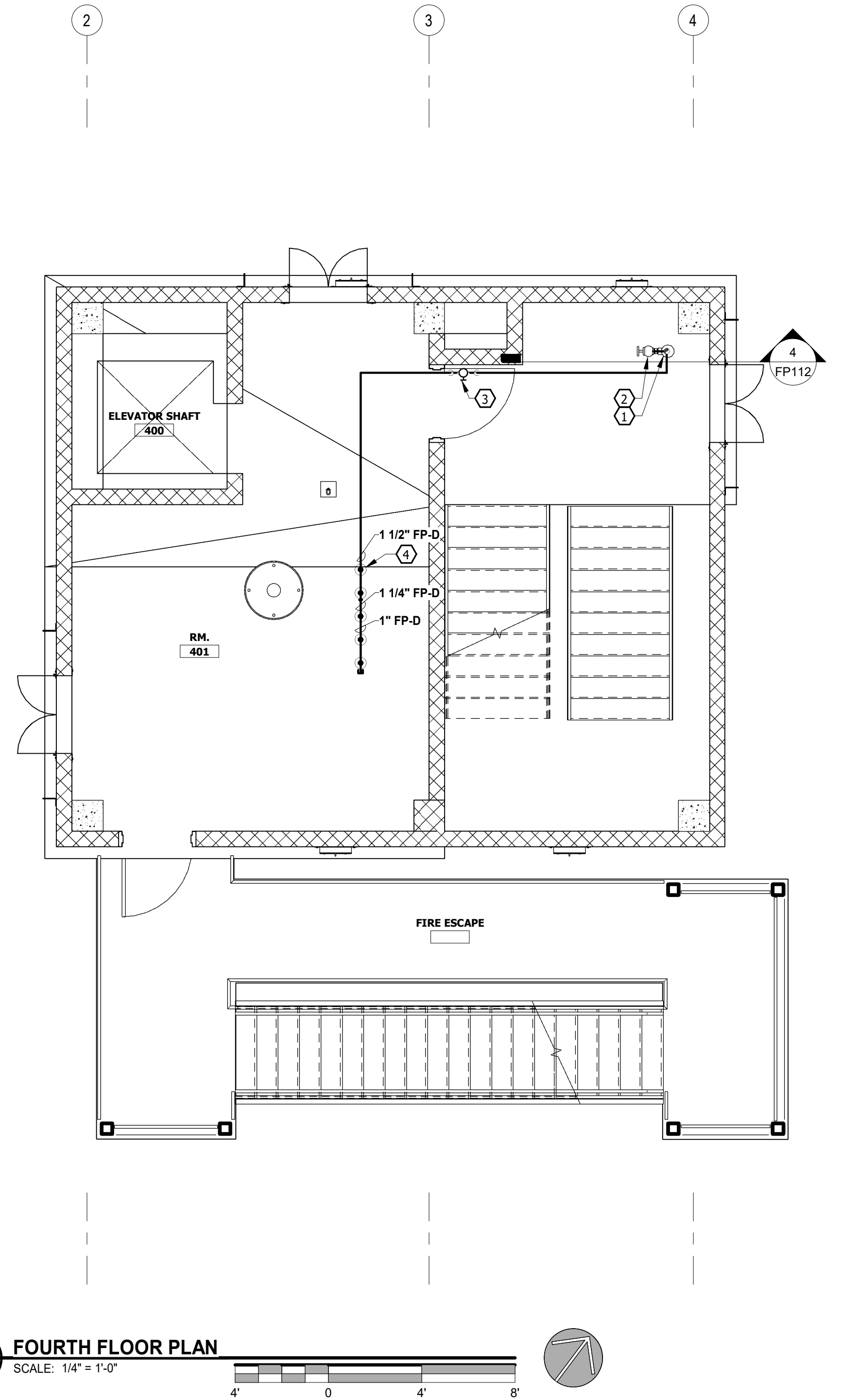
2-1/2" HOSE VALVE 48" AFF.
- 3

BALL VALVE FOR CONTROL OF SPRINKLERS. VALVE TO BE IN ACCESSIBLE LOCATION AT 66" AFF.
- 4

PENDENT SPRINKLER HEAD. TYPICAL OF 5. REMOVE ELEMENT.



1
FP113
THIRD FLOOR PLAN
SCALE: 1/4" = 1'-0"



2
FP113
FOURTH FLOOR PLAN
SCALE: 1/4" = 1'-0"

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FP114

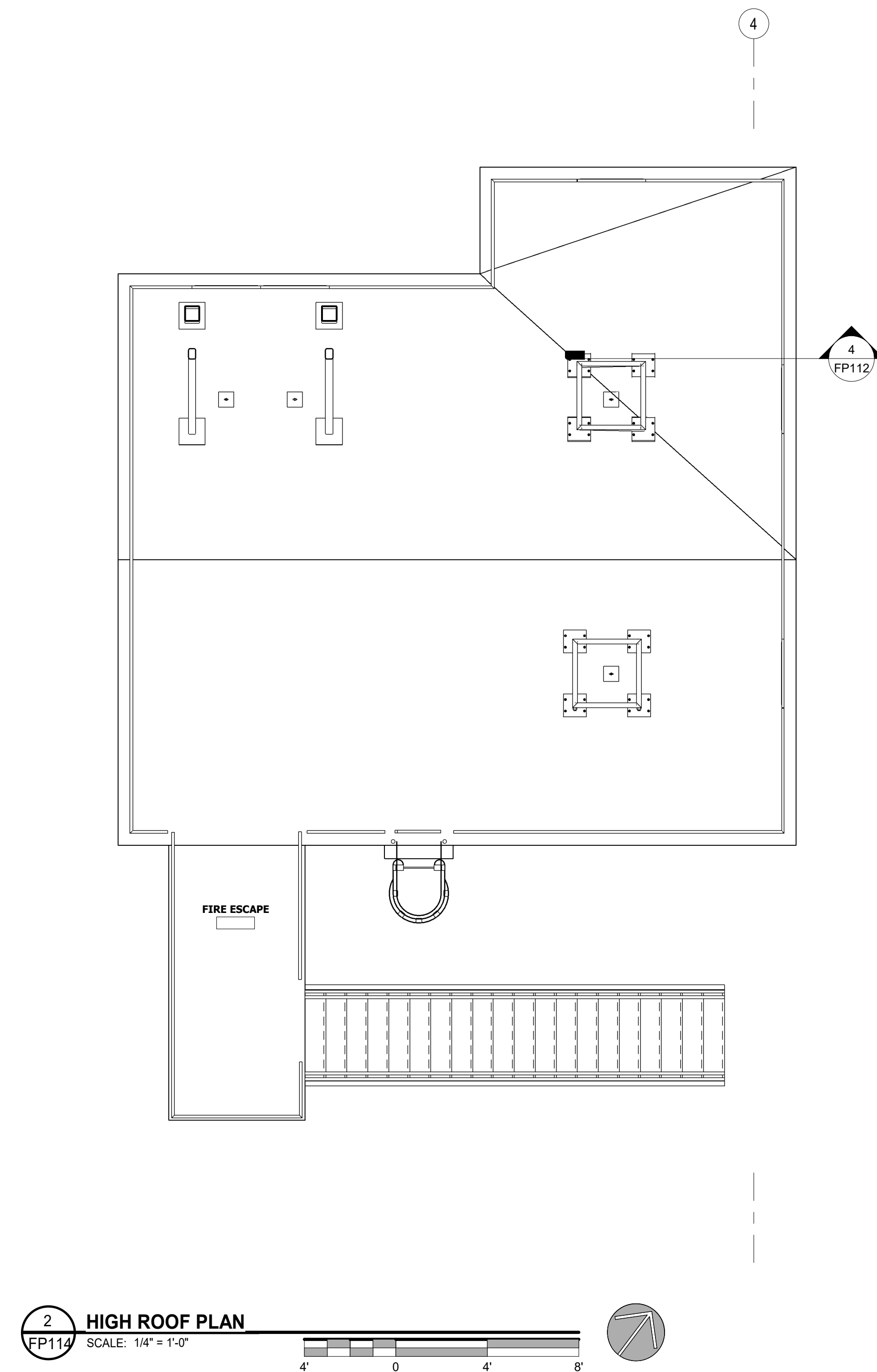
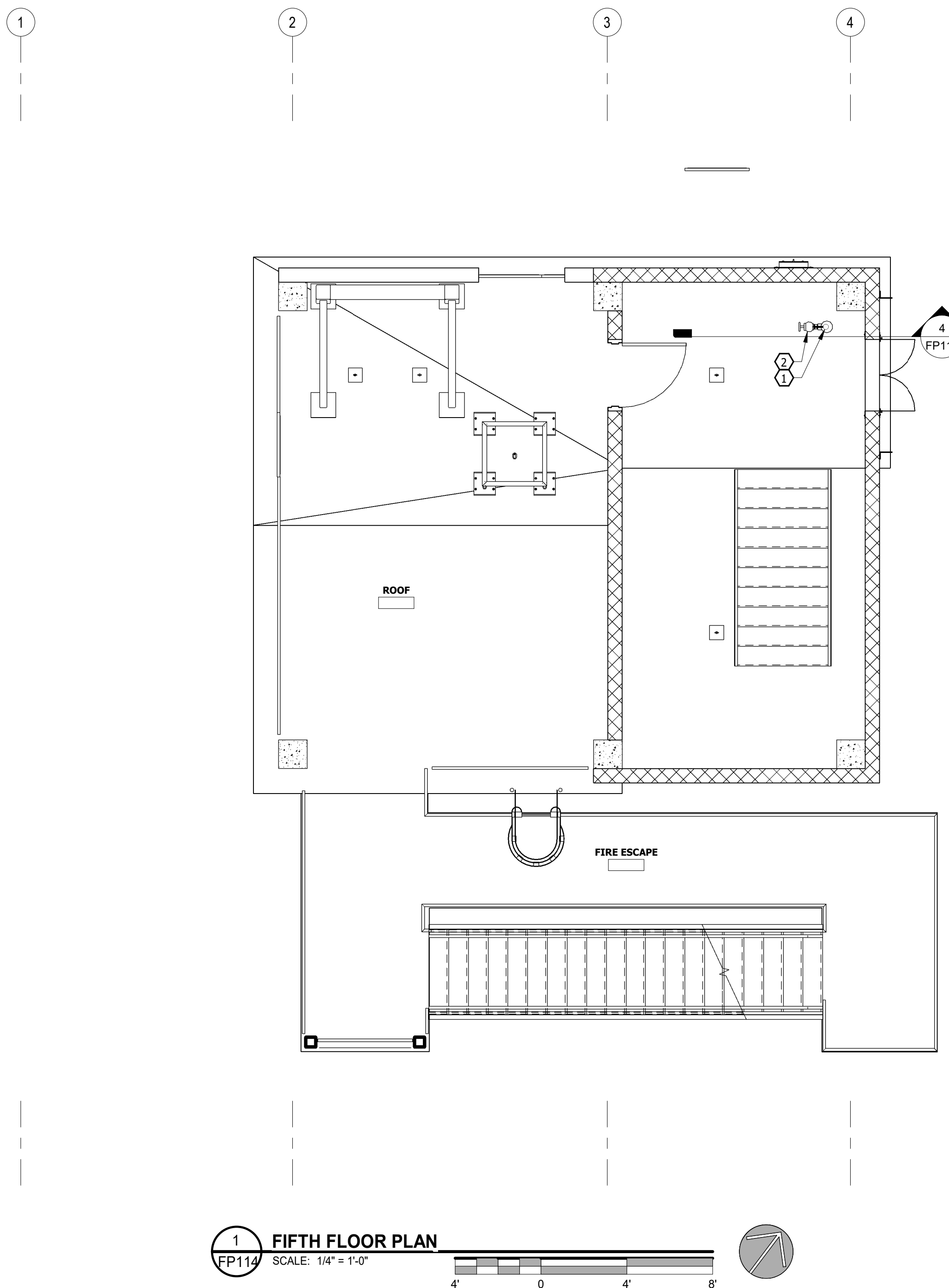
GENERAL NOTES TO FP114

- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 4. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDC PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.
- 2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.



KEY NOTES TO FP114

- 1 6" DRY TRAINING STANDPIPE.
- 2 2-1/2" HOSE VALVE 48" AFF.




ALL FIRE PROTECTION SYSTEMS FOR THE TRAINING TOWER
ARE PROVIDED FOR TRAINING PURPOSES ONLY.

GENERAL NOTES TO FP115

- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 3. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDC PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.

2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.

 KEY NOTES TO FP115

1 6" DRY TRAINING STANDPIPE.

2 2-1/2" HOSE VALVE 48" AFF.

3 SIAMSE FIRE DEPARTMENT CONNECTION.

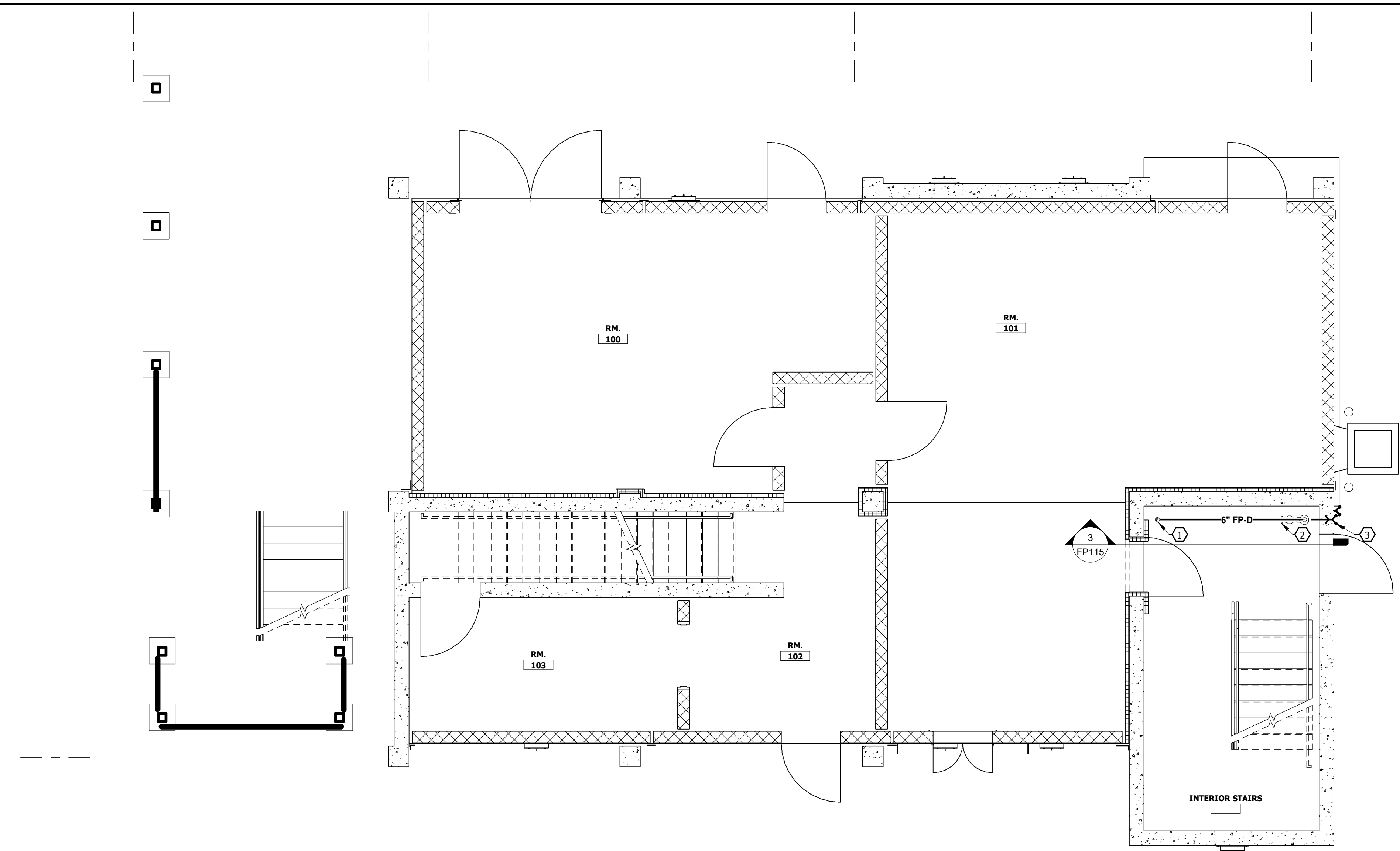
4 BALL VALVE FOR LOW POINT DRAIN.

5 2" MAIN DRAIN TO EXTERIOR.

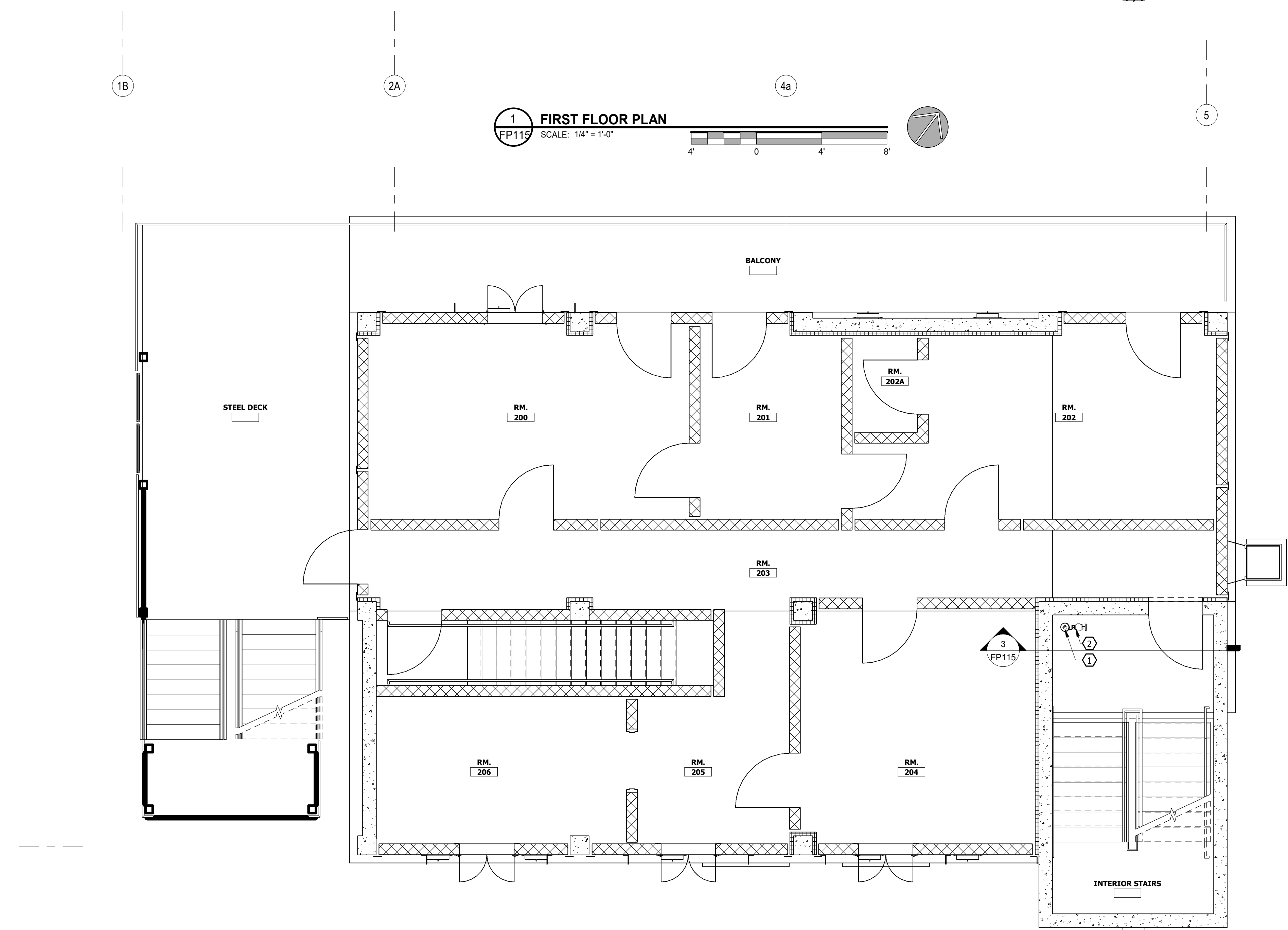
6 BRANCH PIPING TO TRAINING ROOM SPRINKLER HEADS.

KEY NOTES TO FP115

- 1 6" DRY TRAINING STANDPIPE.
- 2 2-1/2" HOSE VALVE 48" AFF.
- 3 SIAMESE FIRE DEPARTMENT CONNECTION.
- 4 BALL VALVE FOR LOW POINT DRAIN.
- 5 2" MAIN DRAIN TO EXTERIOR.
- 6 BRANCH PIPING TO TRAINING ROOM SPRINKLER HEADS.



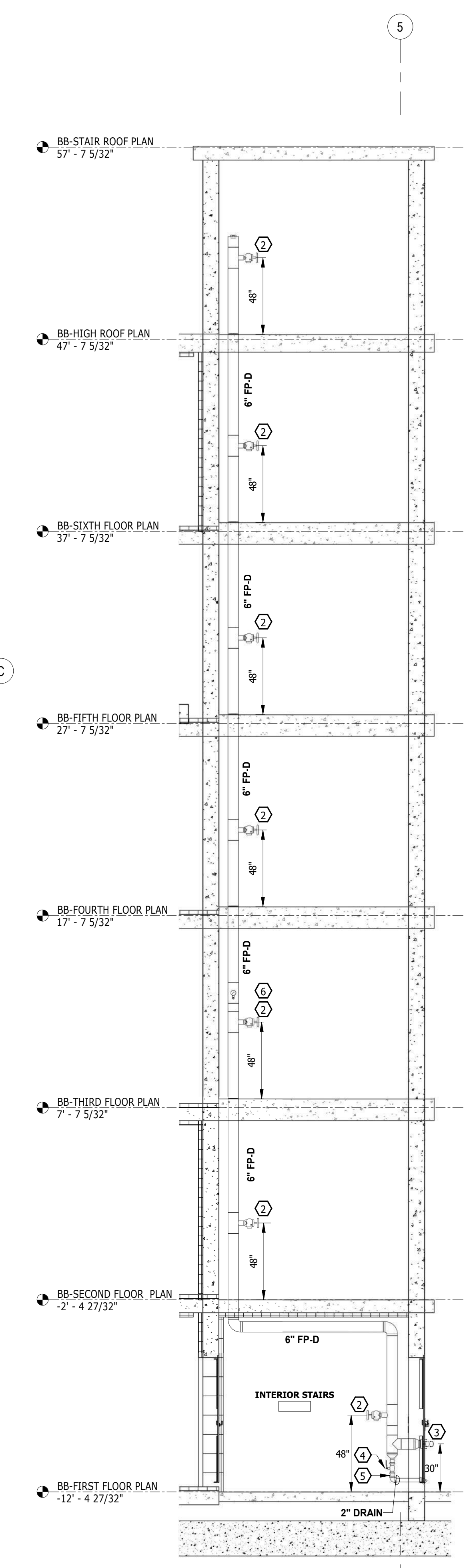
1 FIRST FLOOR PLAN
FP115 SCALE: 1/4" = 1'-0"



2
FP115

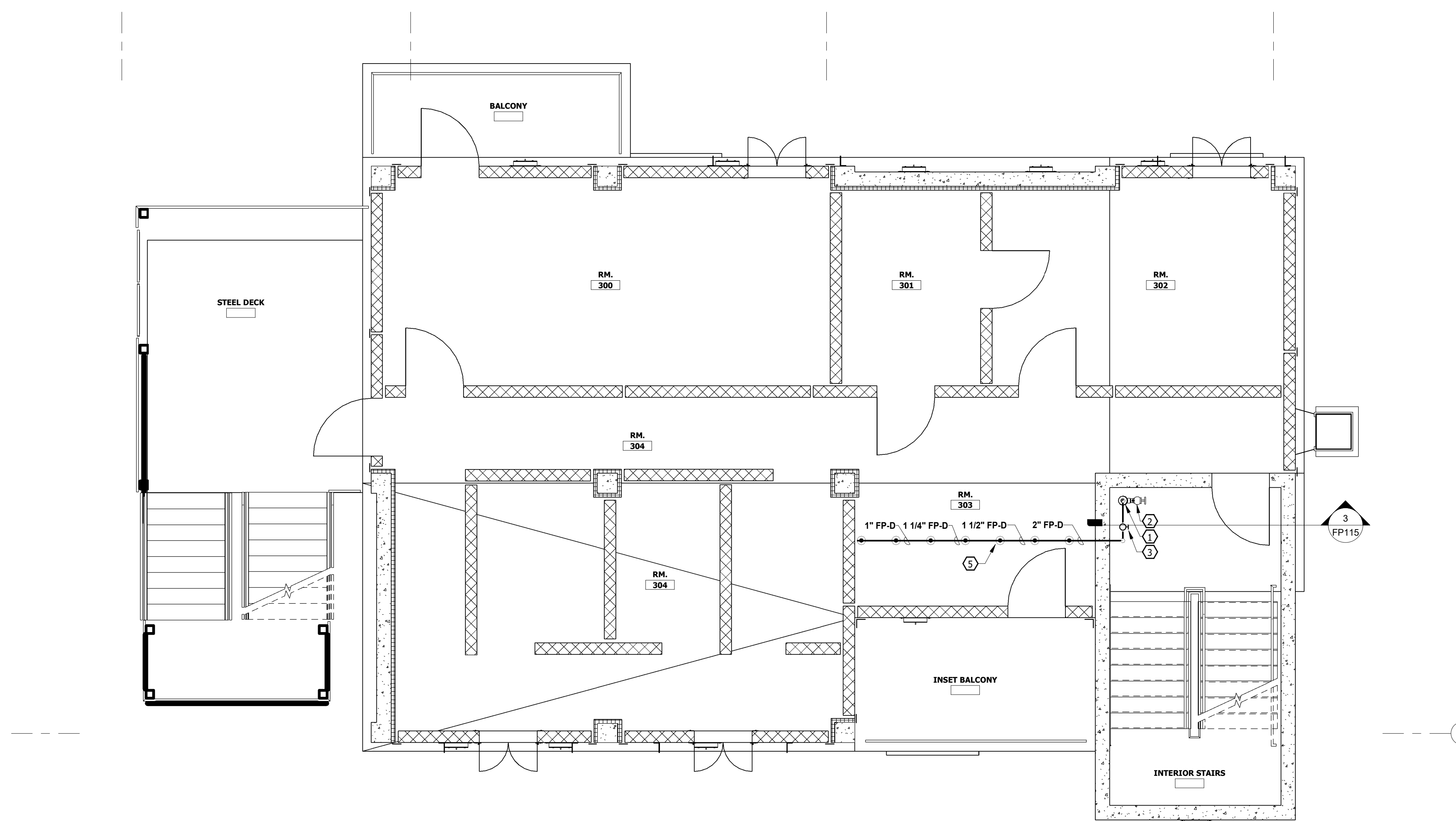
SECOND FLOOR PLAN

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

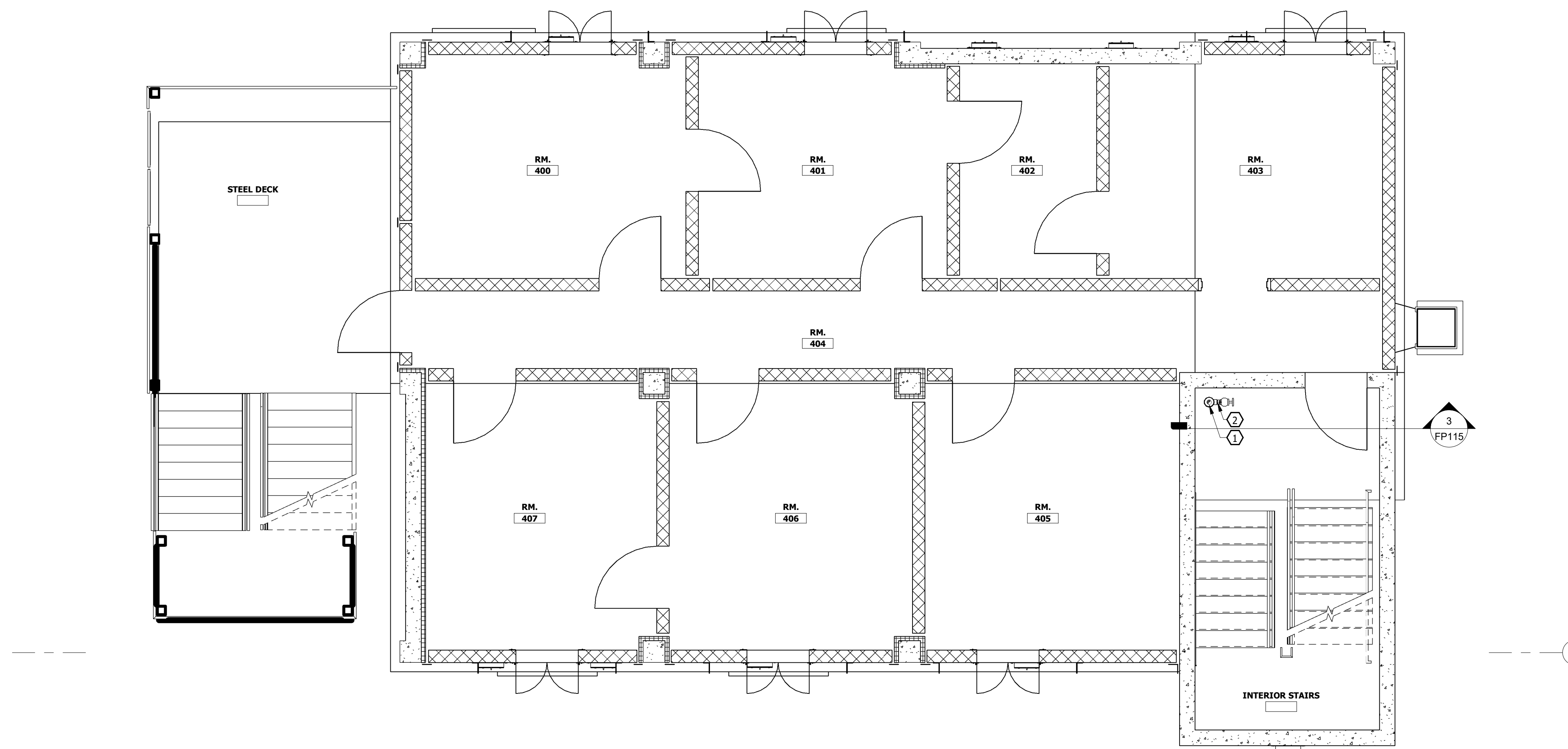


BURN BUILDING - STANDPIPE RISER

**ALL FIRE PROTECTION SYSTEMS FOR THE BURN BUILDING
ARE PROVIDED FOR TRAINING PURPOSES ONLY.**



1 THIRD FLOOR PLAN
FP116 SCALE: 1/4" = 1'-0"



2 FOURTH FLOOR PLAN
FP116 SCALE: 1/4" = 1'-0"

GENERAL NOTES TO FP116

- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 3. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDG PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.
- 2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.

KEY NOTES TO FP116

- 1 6" DRY TRAINING STANDPIPE.
- 2 2-1/2" HOSE VALVE 48" AFF.
- 3 BALL VALVE FOR CONTROL OF SPRINKLERS. VALVE TO BE IN ACCESSIBLE LOCATION AT 66" AFF.
- 5 PENDENT SPRINKLER HEAD. TYPICAL OF 7. REMOVE ELEMENT.

ALL FIRE PROTECTION SYSTEMS FOR THE BURN BUILDING
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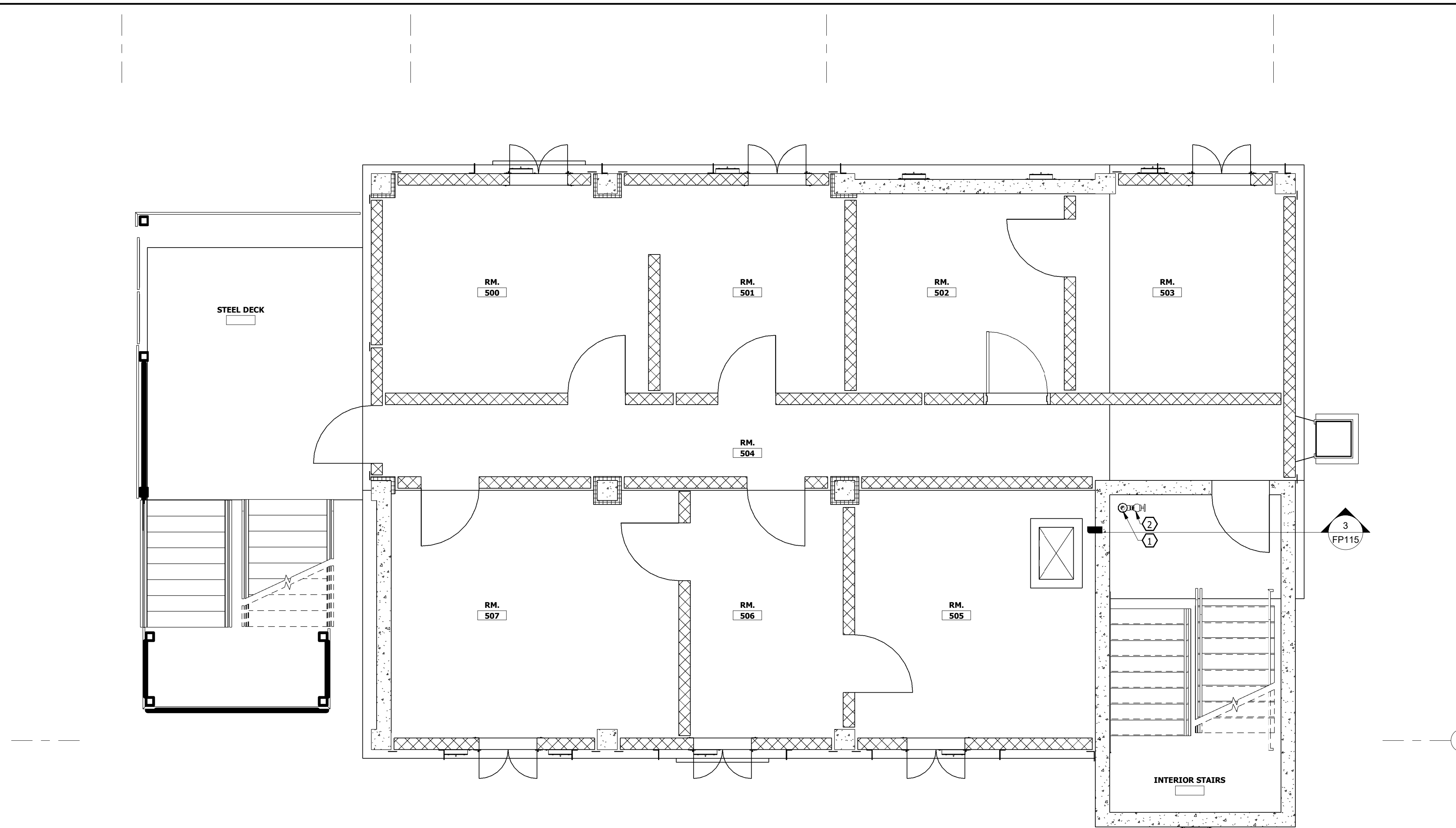
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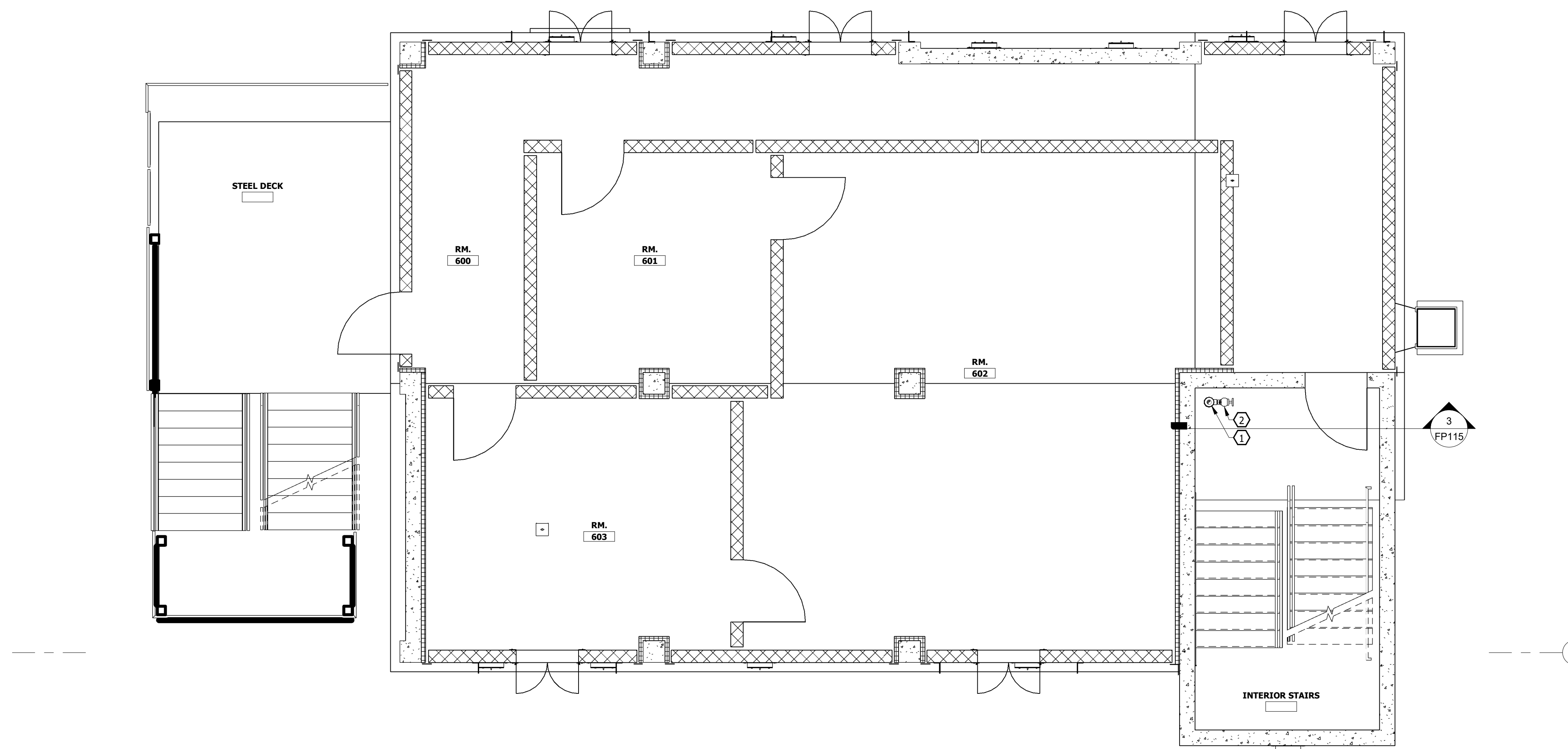
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FP116



1 FIFTH FLOOR PLAN
FP117 SCALE: 1/4" = 1'-0"



2 SIXTH FLOOR PLAN
FP117 SCALE: 1/4" = 1'-0"

GENERAL NOTES TO FP117

- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6" STANDPIPE WITH 2-1/2" HOSE VALVES AT EACH LEVEL. A BRANCH LINE WHICH FEEDS OPEN ELEMENT SPRINKLERS IS PROVIDED ON LEVEL 3. THE SYSTEM IS CHARGED BY FIRE TRUCK AT FDC PROVIDED ON WALL. SPRINKLERS SHALL BE CONTROLLED BY BALL VALVE LOCATED AT AN ACCESSIBLE HEIGHT NEXT TO STANDPIPE. SYSTEM TO BE INSTALLED SO THAT IT IS FULLY CAPABLE OF BEING DRAINED AFTER USE. BRANCH LINES SHALL BE PITCHED TO DRAIN AND DRAINS SHALL BE PROVIDED AT LOW POINTS.
- 2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.

KEY NOTES TO FP117

- 1 6" DRY TRAINING STANDPIPE.
- 2 2-1/2" HOSE VALVE 48" AFF.

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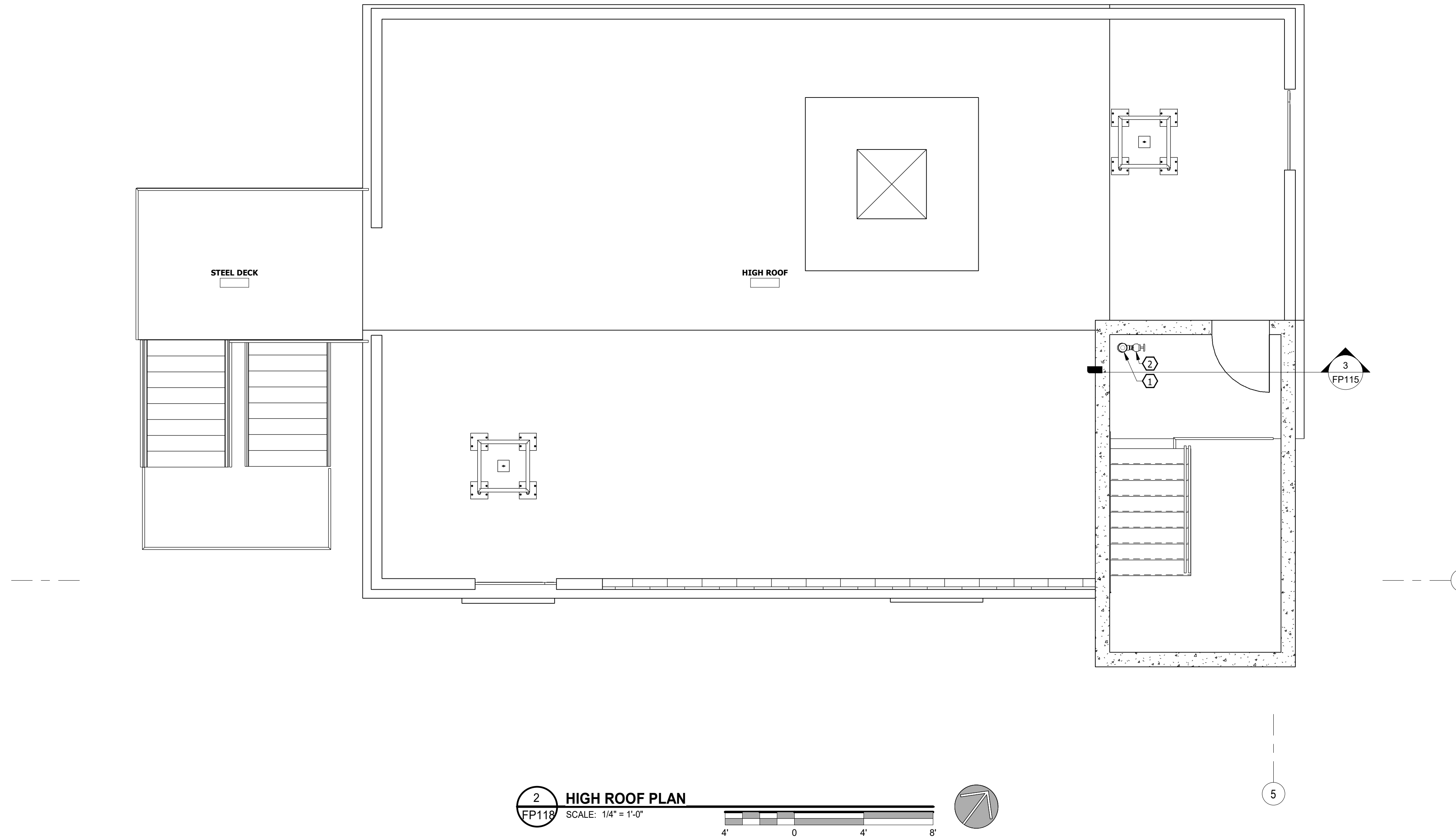
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FP117

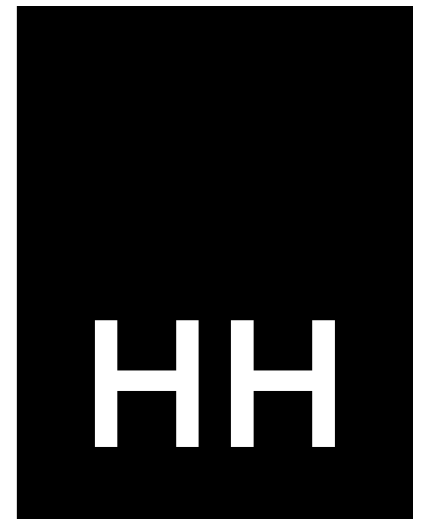


- # GENERAL NOTES TO FP118
- 1 SYSTEM DESCRIPTION: THE SYSTEM IS COMPROMISED OF A 6\"/>
 - 2 PIPING AND FITTINGS TO BE GALVANIZED STEEL.

- KEY NOTES TO FP118
- 1 6\"/>
 - 2 2-1/2\"/>

2 HIGH ROOF PLAN
SCALE: 1/4\"/>

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Kevin R. Allen
ENGINEER
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CONSTRUCTION
SHEET
PLANS - BURN
BUILDING

FP118

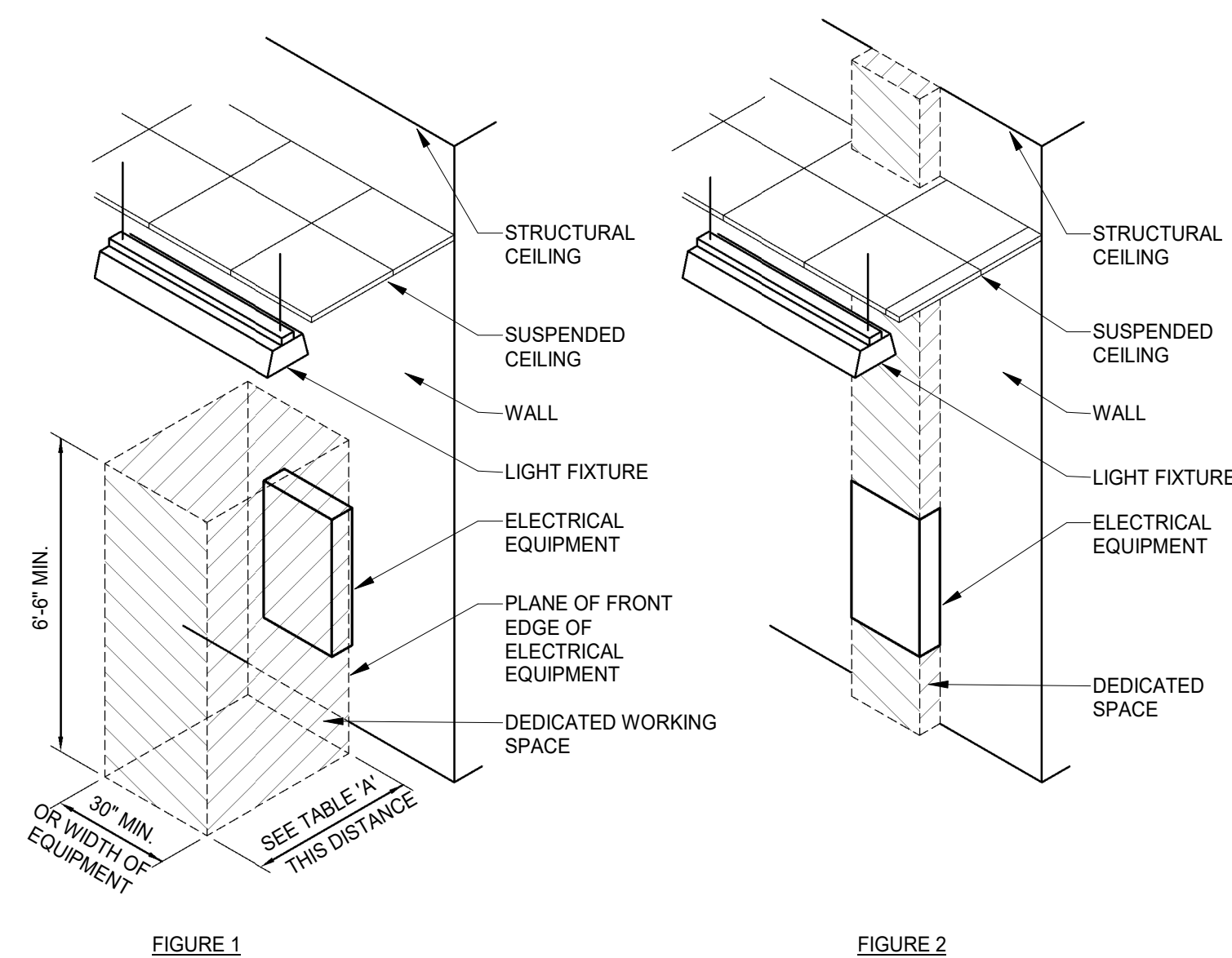


TABLE A - WORKING CLEARANCES				
VOLTAGE TO GROUND NOMINAL	CONDITION	1	2	3
0-150		3	3	3
151-600		3	3 1/2	4

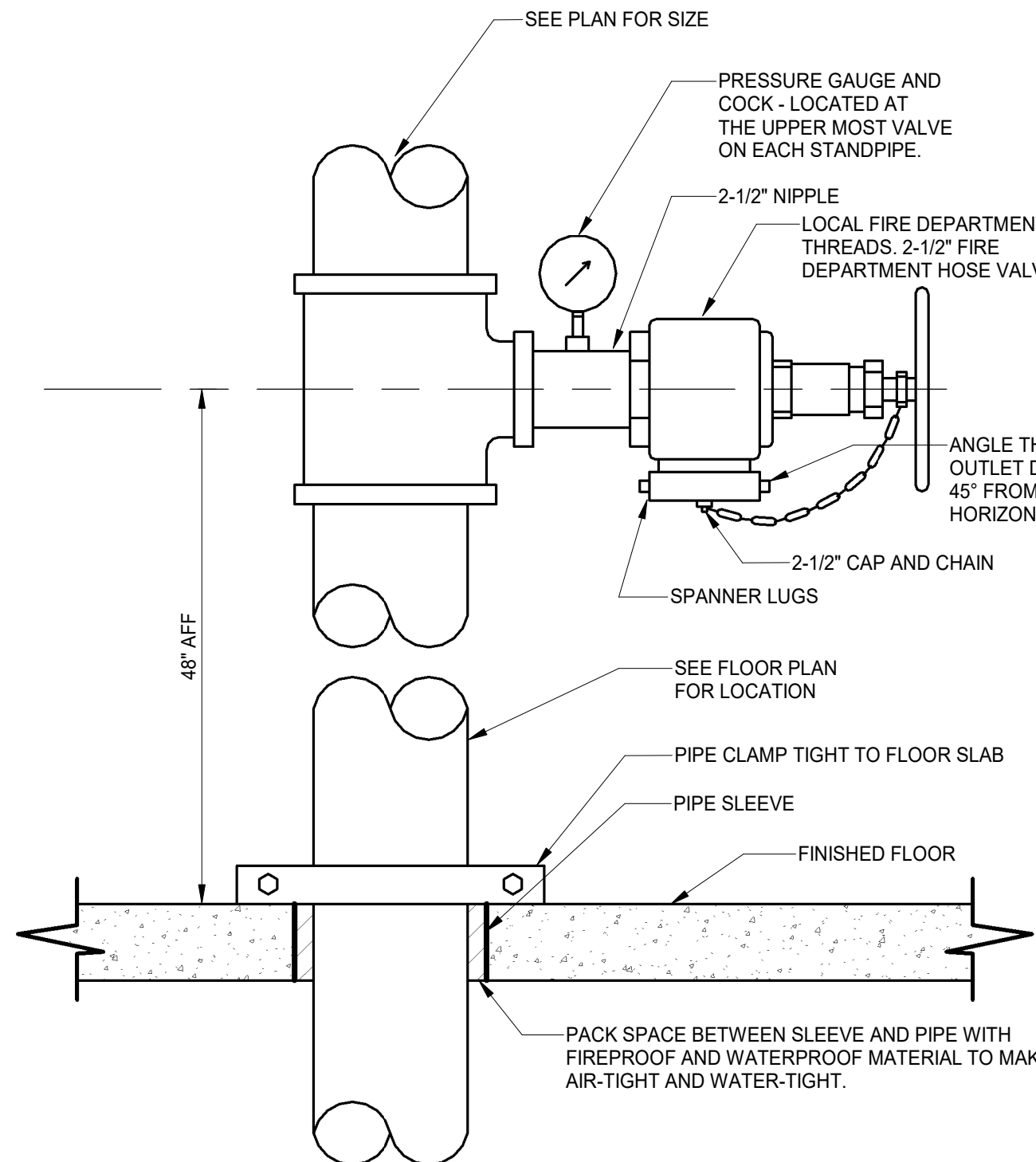
- WHERE THE CONDITIONS ARE AS FOLLOWS:
- EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
 - EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1), WITH THE OPERATOR BETWEEN.

- NOTES:
- THESE FIGURES ILLUSTRATE THE WORKING CLEARANCE AND DEDICATED SPACE AROUND ELECTRICAL EQUIPMENT AS REQUIRED BY NEC SECTION 110-26.
 - DEDICATED SPACE RUNS TO A HEIGHT OF 6'-0" ABOVE EQUIPMENT. DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING OR UP TO STRUCTURAL CEILING. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THIS SPACE. (FIGURE 2)

SO DETAIL: MR03

7 CLEARANCES FOR ELECTRICAL EQUIPMENT

FP200 SCALE: NTS



SO DETAIL: FP17

4 FIRE DEPARTMENT HOSE VALVE DETAIL

FP200 SCALE: NTS

HANGER INSTALLATION REQUIREMENTS												
MAXIMUM DISTANCE BETWEEN HANGERS												
NOMINAL PIPE SIZE	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"			
BLAZEMASTER CPVC	5' 0"	6' 0"	6' 6"	7' 0"	8' 0"	9' 0"	10' 0"	N/A	N/A			
THREADABLE LIGHTWALL	7'	10' 0"	10' 0"	12' 0"	12' 0"	12' 0"	12' 0"	N/A	N/A			
STEEL PIPE (10/ 40)	7'	12' 0"	12' 0"	15' 0"	15' 0"	15' 0"	15' 0"	15' 0"	15' 0"			

- 100 PSI STATIC PRESSURE ON SYSTEM REQUIRES UP-LIFT RESTRAINT WITHIN 12 INCHES HORIZONTALLY OF HEAD FOR ARM-OVERS AND END OF BRANCH LINE.
- THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE SHALL NOT EXCEED 36' FOR 1" PIPE, 48' FOR 1 1/4" PIPE AND 60' FOR 1 1/2" PIPE OR LARGER.
- THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARM/OVER TO A SPRINKLER, SPRINKLER DROP, OR SPRIG-UP SHALL NOT EXCEED 24'.

SPAN OF TRAPEZE (Schedule 10)	NOMINAL PIPE SIZE SUPPORTED							
	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"
1 FT. 6 IN.	1"	1"	1"	1"	1"	1"	1-1/4"	1-1/4"
2 FT. 0 IN.	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"
2 FT. 6 IN.	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	2"	
3 FT. 0 IN.	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"	
4 FT. 0 IN.	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2-1/2"	
5 FT. 0 IN.	2"	2"	2"	2"	2"	2-1/2"	2-1/2"	
6 FT. 0 IN.	2"	2"	2"	2"	2-1/2"	2-1/2"	3"	
7 FT. 0 IN.	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	3"	
8 FT. 0 IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	
9 FT. 0 IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	4"	
10 FT. 0 IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	4"	

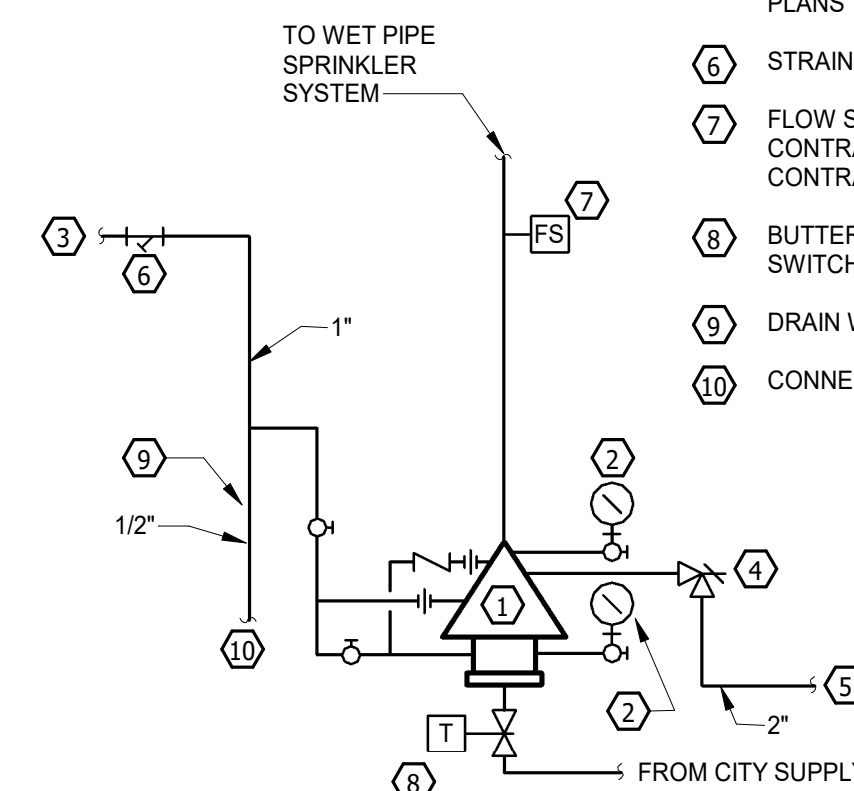
SO DETAIL: FP19

5 SPRINKLER HEAD INSTALLATION

FP200 SCALE: NTS

KEYED NOTES:

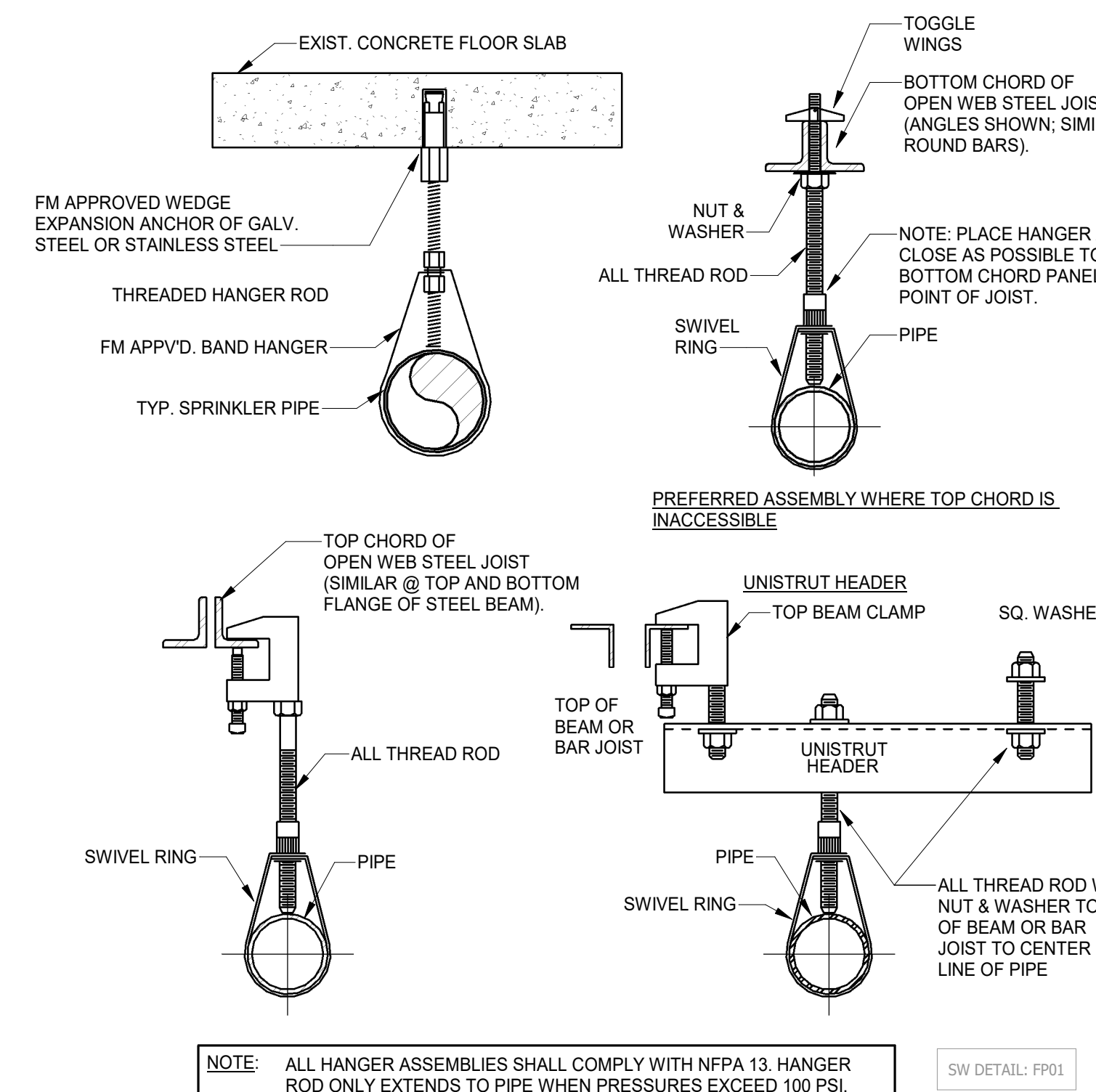
- ALARM CHECK VALVE
- PRESSURE GAUGE AND VALVE
- TO WATER MOTOR ALARM
- MAIN DRAIN VALVE
- EXTEND DRAIN TO EXTERIOR. SEE PLANS
- STRAINER
- FLOW SWITCH BY FIRE PROTECTION CONTRACTOR, WIRED BY FA CONTRACTOR
- BUTTERFLY VALVE WITH TAMPER SWITCH
- DRAIN WITH ORIFICE RESTRICTION
- CONNECT TO MAIN DRAIN



SO DETAIL: FP13

6 ALARM CHECK VALVE SCHEMATIC

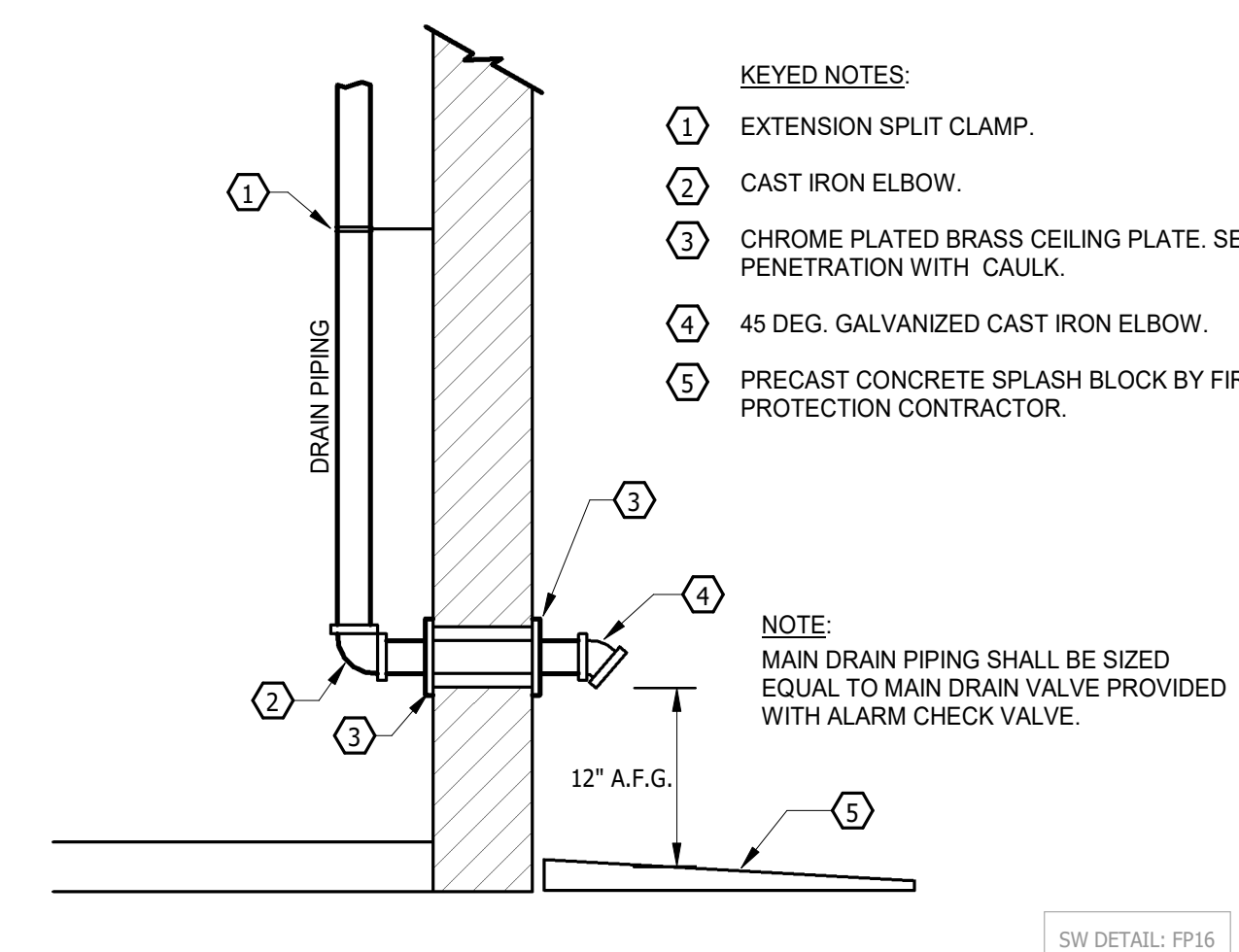
FP200 SCALE: NTS



SW DETAIL: FP01

1 TYPICAL FIRE PROTECTION HANGER

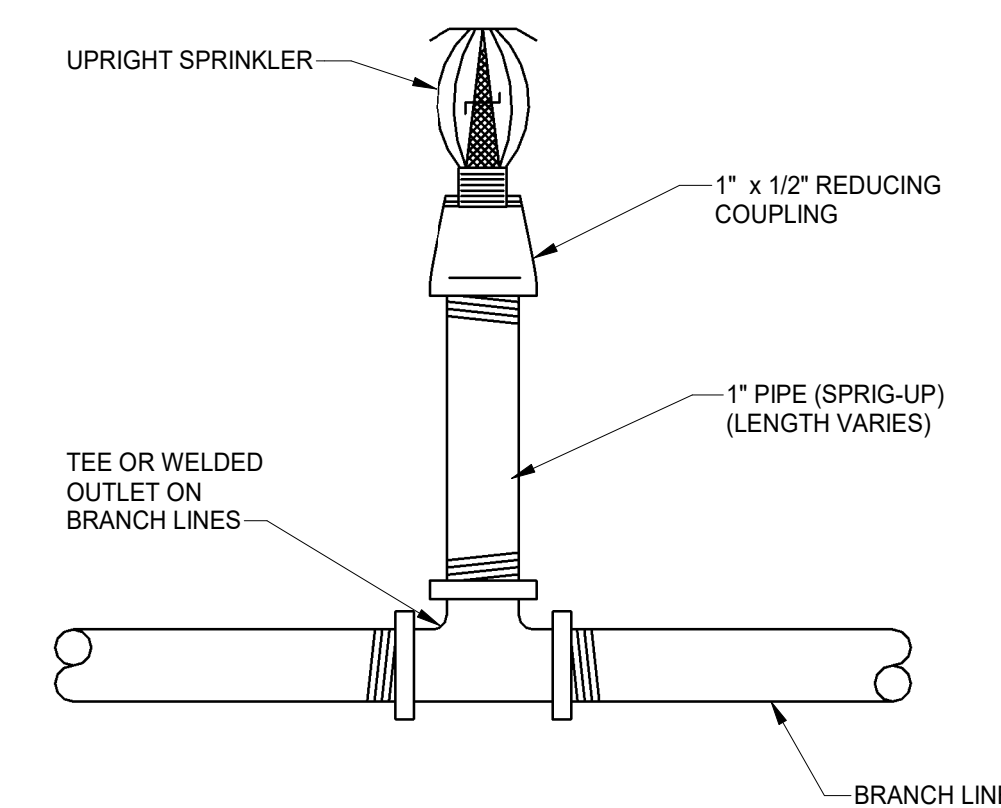
FP200 SCALE: NTS



SW DETAIL: FP16

2 TYPICAL MAIN DRAIN DETAIL

FP200 SCALE: NTS



SW DETAIL: FP05

3 TYPICAL SPRIG-UP DETAIL

FP200 SCALE: NTS



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NCCCS NO. 2303



03/14/2025

NO.	REVISION	DATE

JOB NUMBER
22-086
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
DETAILS

FP200

CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CRITERIA UNLESS OTHERWISE NOTED ON THE DRAWINGS. DO NOT USE THESE DRAWINGS WITHOUT THE ACCOMPANYING SPECIFICATIONS AND RELATED CIVIL AND MIEP DRAWINGS. FOR ALL ITEMS, SEE THE SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS. THE MOST STRINGENT REQUIREMENTS GOVERN CONDITIONS COVERED BY BOTH THE DRAWINGS AND THE PROJECT SPECIFICATIONS.

A. STRUCTURE CLASSIFICATION

- THE DRAFTING PIT IS CLASSIFIED AS MISCELLANEOUS USE GROUP (USE GROUP U).

B. CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS GOVERN THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF STRUCTURAL WORK PERFORMED ON THIS PROJECT:

- 2018 NORTH CAROLINA STATE BUILDING CODE (BASED ON INTERNATIONAL BUILDING CODE (IBC-2015), INTERNATIONAL CODE COUNCIL (ICC)).
- MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-10), AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE).
- SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - AISC 360-10, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, EXCEPT AS MODIFIED BY IBC.
- STRUCTURAL WELDING CODE - STEEL (AWS D1.4-2011), AMERICAN WELDING SOCIETY (AWS), EXCEPT AS MODIFIED BY IBC.
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318-14), AMERICAN CONCRETE INSTITUTE (ACI), EXCEPT AS MODIFIED BY IBC.
- SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301-16), AMERICAN CONCRETE INSTITUTE (ACI).
- MANUAL OF STANDARD PRACTICE (CRSI), CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES, THE MASONRY SOCIETY (TMS) TMS 402-13/TMS 602-13, AND BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE (ACI) ACI 530-13, EXCEPT AS MODIFIED BY IBC.
- STANDARD ON FACILITIES FOR FIRE TRAINING AND ASSOCIATED PROPS (NFPA 1402-2019), NATIONAL FIRE PROTECTION ASSOCIATION.

C. DESIGN LIVE LOADS

- DRAFTING PIT TOP SLAB = 100 PSF

D. DESIGN SNOW LOADS

- GROUND SNOW LOAD (Pg) = 15 PSF
- FLAT ROOF SNOW LOAD (Pf) = 12.6 PSF
- SNOW EXPOSURE FACTOR (Ce) = 1.0
- THERMAL FACTOR (Ct) = 1.2
- SNOW LOAD IMPORTANCE FACTOR (Is) = 1.0

E. SOILS INFORMATION

- THE FOLLOWING INFORMATION IS BASED ON THE GEOTECHNICAL REPORT ("SOILS REPORT") PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC. DATED JANUARY 11, 2024.
- ACCORDING TO BORING B-10 IN THE SOILS REPORT, SOFT/LOOSE NEAR SURFACE SOILS (APPROXIMATELY 8 FEET DEEP) OVERLAY PARTIALLY WEATHERED ROCK AND ROCK (8 TO 16.5 FEET). PARTIALLY WEATHERED ROCK WAS ENCOUNTERED IN NEARBY BORINGS AS SHALLOW AS 3 FEET.
- ALLOWABLE SOIL BEARING VALUE FOR THE DRAFTING PIT IS 2,500 PSF FOR FOUNDATIONS PLACED ON APPROVED NATURAL SOILS OR STRUCTURAL FILL.
- ACCORDING TO THE SOILS REPORT, GROUND WATER WAS NOT OBSERVED WITHIN THE BORING AT THE DRAFTING PIT (B-10). SEE SOILS REPORT FOR DRAINAGE CONSIDERATIONS.
- THE DRAFTING PIT WALLS HAVE BEEN DESIGNED USING THE FOLLOWING ASSUMED VALUES. THESE VALUES SHALL BE CONFIRMED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTING THE DRAFTING PIT.
WALL BACKFILL FRICTION ANGLE: ϕ = 30 DEGREES
AT-REST PRESSURE COEFFICIENT: K_0 = 0.5
PASSIVE PRESSURE COEFFICIENT: K_p = 3.0
FOUNDATION SOIL FRICTION ANGLE: ϕ = 28 DEGREES
MOIST UNIT WEIGHT OF SOIL: 120 PCF
- SEE SPECIFICATIONS FOR EARTHWORK REQUIREMENTS, INCLUDING REPLACEMENT OF UNSUITABLE SOILS, BACKFILLING AGAINST WALLS, MEASURES TO PREVENT INFILTRATION OF RUNOFF AND PRECIPITATION INTO UNDERLYING SOILS, AND DEWATERING REQUIREMENTS IF GROUNDWATER IS ENCOUNTERED.

F. BACKFILL COMPACTION

- EXCAVATE, PROOFROLL, BACKFILL, AND COMPACT FOUNDATION AND SLAB-ON-GRADE SUBGRADES PER THE EARTHWORK SPECIFICATION SECTIONS 312000.
- ALL PROOFROLLING AND ENGINEERED OR IMPORTED FILL MATERIALS AND PLACEMENT SHALL BE OBSERVED AND APPROVED BY THE TESTING AGENCY GEOTECHNICAL ENGINEER.
- PROVIDE FILL MATERIALS THAT ARE FREE OF DEBRIS, ORGANIC, AND DELETERIOUS MATERIALS AND THAT MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- PLACE ENGINEERED FILL MATERIAL IN MAXIMUM LEVEL LOOSE LIFTS OF 6 INCHES AND COMPACT TO 95% OF THE MODIFIED PROCTOR TEST MAXIMUM DRY DENSITY (ASTM D-698).

G. CAST-IN-PLACE CONCRETE CONSTRUCTION

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318, ACI 301, AND THE ACI DETAILING MANUAL.
- PROVIDE CONCRETE WITH PROPERTIES THAT CONFORM TO THE CRITERIA SPECIFIED IN TABLE 1 ON SHEET DP002.
- PROVIDE NORMAL WEIGHT CONCRETE.
- TESTING AGENCY SHALL TAKE CONCRETE TEST CYLINDERS IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, CHAPTER 26 AND THE CONTRACT SPECIFICATIONS.
- SEE THE CONTRACT SPECIFICATIONS FOR ADDITIONAL CONCRETE TESTING REQUIREMENTS (AIR CONTENT, SLUMP, ETC.).
- TESTING AGENCY SHALL PERFORM REBAR INSPECTIONS OF ALL REINFORCING STEEL BEFORE ALL CONCRETE POURS.

H. CONCRETE REINFORCEMENT

- PROVIDE HIGH STRENGTH, NEW BILLET DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 FOR STEEL REINFORCEMENT IN CONCRETE.
- PROVIDE STEEL REINFORCEMENT DETAILS IN ACCORDANCE WITH ACI 318 AND CRSI STANDARDS.
- PROVIDE CONCRETE PROTECTION FOR STEEL REINFORCEMENT OF CAST-IN-PLACE CONCRETE AS SPECIFIED IN TABLE 2 ON SHEET DP002. PLACE THE OUTERMOST LAYERS OF REINFORCING, AS CLOSE TO THE CONCRETE SURFACES AS POSSIBLE WITHOUT VIOLATING THE REQUIREMENTS SHOWN IN THE TABLE.

I. STEEL SHAPES AND PLATES

- PROVIDE STEEL WITH PROPERTIES LISTED IN TABLE 3 ON DP002.
- SEE SPECIFICATIONS FOR REQUIREMENTS OF STAINLESS STEEL ANGLES AND PLATES.
- PROVIDE WELDED SHOP CONNECTIONS UNLESS OTHERWISE NOTED.
- PERFORM ALL WELDING WITH WELDERS QUALIFIED IN ACCORDANCE WITH AWS PROCEDURES FOR WELDER QUALIFICATION.
- PROVIDE GALVANIZED STEEL MEMBERS, UNLESS OTHERWISE NOTED ON THE DRAWINGS AS "PAINTED" OR "STAINLESS STEEL".
- AT GALVANIZING VENT HOLES IN PIPES AND TUBES, AND OTHER NOTED ITEMS, LOCATE VENT HOLES AT BOTTOM OF PIPE OR TUBE. PLUG ALL VENT HOLES AFTER GALVANIZING IN ONE OF THE FOLLOWING WAYS: HAMMER IN A ZINC GALVANIZING VENT HOLE PLUG, GRIND IT SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT. A SECOND OPTION IS TO PLUG WELD THE GALVANIZING VENT HOLES, GRIND THE WELDS SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT PER THE SPECIFICATIONS.
- WHERE INDICATED IN THE DRAWINGS, PROVIDE STAINLESS STEEL OF TYPE INDICATED IN SPECIFICATIONS.
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR GALVANIZED AND STAINLESS STEEL.
- SEE THE CONTRACT SPECIFICATIONS FOR STEEL TESTING AND INSPECTIONS REQUIRED.

J. FIXED ACCESS LADDER

- PROVIDE HEAVY-DUTY, FIXED, WALL-MOUNTED, VERTICAL, GALV. STEEL ACCESS LADDER. NOMINAL HEIGHT OF LADDER IS 9'-0".
- PROVIDE CONTINUOUS CHANNEL OR RECTANGULAR TUBING SIDE RAILS, SPACED 18 INCHES APART. PROVIDE ROUND BAR LADDER RUNGS, WITH CORRUGATED SURFACES, SPACED AT 12 INCHES O.C. EACH LADDER RUNG SHALL BE CAPABLE OF CARRYING 1,000 POUNDS LOAD AND SHALL BE ATTACHED AT CENTERLINE OF SIDE RAILS BY WELDING.
- PROVIDE ACCESS LADDER, CERTIFIED TO MEET OSHA/ANSI A14.3 STANDARDS.
- SUBMIT SHOP DRAWINGS SHOWING ALL COMPONENTS, SIZES, LENGTHS, AND ATTACHMENTS TO THE STRUCTURE FOR APPROVAL BY THE ENGINEER.

K. POLYMER-MODIFIED CEMENT WATERPROOFING

- AT INTERIOR CONCRETE SURFACES OF DRAFTING PIT. PROVIDE MANUFACTURER'S PROPRIETARY BLEND OF DRY CEMENTITIOUS AND OTHER INGREDIENTS FOR MIXING WITH POTABLE WATER OR POLYMER ADMIXTURE TO PRODUCE A WATERPROOF COATING THAT IS SUITABLE FOR VERTICAL AND HORIZONTAL APPLICATIONS BELOW GRADE. IS BREATHABLE, RESISTS HYDROSTATIC PRESSURE, AND MEETS OR EXCEEDS THE BELOW CRITERIA:
WATER PERMEABILITY: 0 (MAX. @ 30 FEET) CE CRD-C 48
COMPRESSIVE STRENGTH: 4,000 PSI (MIN. @ 28 DAYS) ASTM C 109
FLEXURAL STRENGTH: 710 PSI (MIN. @ 28 DAYS) ASTM C 348
BOND STRENGTH: 220 PSI (MIN. @ 28 DAYS) ASTM C 321
NSF 61 APPROVED FOR POTABLE WATER
COLOR: GRAY
VOC CONTENT: NOT EXCEEDING 400 g/L 40 CFR 59, SUBPART D
- AVAILABLE PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PRODUCTS THAT MAY BE INCORPORATED IN THE WORK INCLUDE: SIKA THOROSEAL-581, BY SIKA CORPORATION, HEY'DI K-11, EUCLID CHEMICAL COMPANY, OR AN APPROVED EQUIVALENT.
- PREP SURFACE AND APPLY WATERPROOFING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PROVIDE A SMOOTH TROWEL FINISH FOR FINAL COAT.

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NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
DRAFTING PIT - GENERAL NOTES

DP001

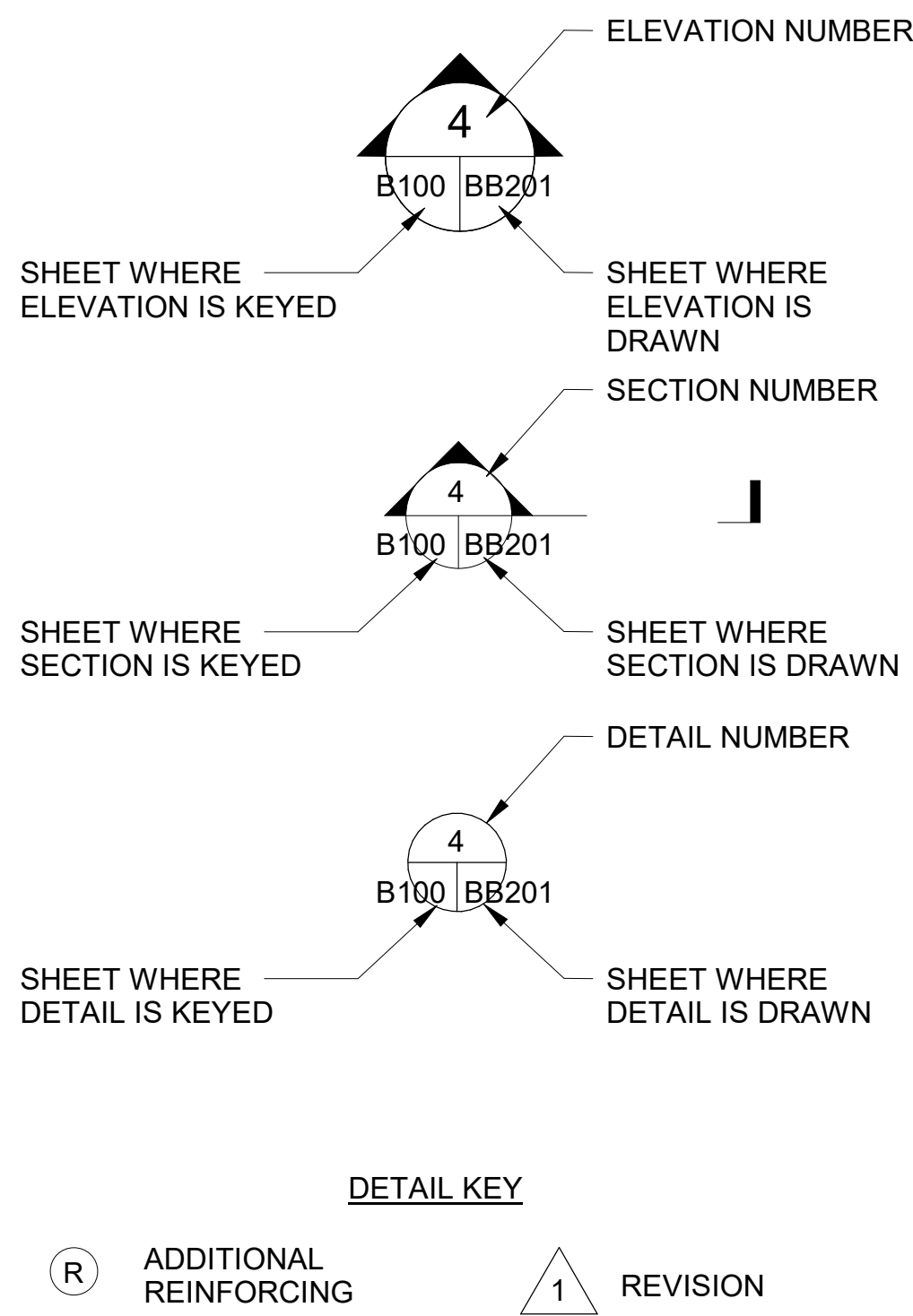
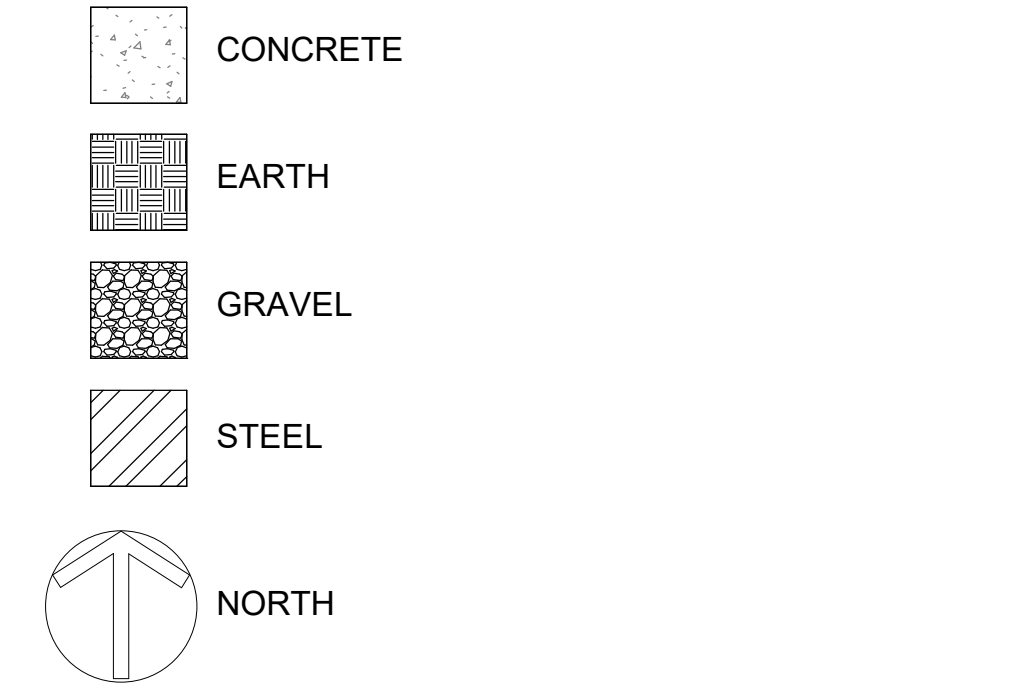
TABLE 1 - CONCRETE PROPERTIES			
STRUCTURE TYPE	f _c (MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS) (psi)	MAXIMUM WATER/CEMENT RATIO	AIR RANGE (%)
SLABS & WALLS	5,000	0.40	6% ± 1 1/2% (ENTRAINED)

TABLE 2 - CONCRETE PROTECTION FOR STEEL REINFORCEMENT	
STRUCTURE TYPE	MINIMUM CLEAR COVER (UNLESS OTHERWISE NOTED ON DRAWINGS)
SLABS	2" TO BOTTOM BARS, 2" SIDE COVER FOR ALL BARS 2" TO TOP BARS.
WALLS	FOR SINGLE LAYER, CENTER BARS IN WALLS. FOR DOUBLE LAYER, 2" TO OUTERMOST BARS.
EARTH FORMED CONCRETE	3"

TABLE 3 - STRUCTURAL STEEL PROPERTIES			
SHAPE	ASTM DESIGNATION	GRADE	MIN. YIELD STRENGTH (F _y)
PLATES & ANGLES	A-36	---	36 KSI
WIDE FLANGES	A-992	---	50 KSI
CHANNELS	A-572	---	50 KSI
HSS RECT.	A-500	C	50 KSI
HSS ROUND	A-53*	B	35 KSI

* A-500, GRADE C, 46 KSI IS AN ACCEPTABLE ALTERNATE FOR A-53 AS LONG AS PIPE SIZES MEET REQUIREMENTS SHOWN ON DRAWINGS.

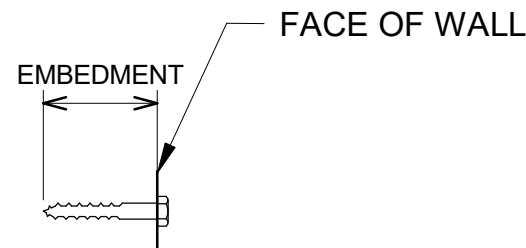
LEGEND



ABBREVIATIONS

& L @ # ø (E)	AND ANGLE AT NUMBER DIAMETER EXISTING	D.E. DBL. DEMO. DIA. DIM. DN. D.P. DTL. DWG.	DISCONTINUOUS END DOUBLE DEMOLISH, DEMOLITION DIAMETER DIMENSION DOWN DRILLED PIER DETAIL DRAWING(S)	H.A.S. HDR. HORIZ. HI.	HEADED ANCHOR STUD HEADER HORIZONTAL HIGH	O.C. O.D. O.F. OPNG. OPP.	ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPENING OPPOSITE	T.O.F. T.O.P. T.O.S. T.O.W. TRANS. TYP.	TOP OF FOOTING TOP OF PARAPET TOP OF STEEL TOP OF WALL TRANSVERSE TYPICAL
A.F.F. A.F.G. ALT. APPROX. ARCH.	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE ALTERNATE APPROXIMATE ARCHITECTURAL	EA. E.E. E.F. E.F.P. E.J. EL. ELEC. ELEV. ENGR. EQ. EQUIP. EQUIV. E.W. EXIST. EXP.	EACH EACH END EACH FACE EQUIVALENT FLUID PRESSURE EXPANSION JOINT ELEVATION ELECTRICAL ELEVATOR ENGINEER EQUAL EQUIPMENT EQUIV. EACH WAY EXISTING EXPANSION	J.T.	JOINT	P.C. PL. PREFAB. P.S.F. P.S.I. P.T. PVC. PVMT.	PRE-CAST PLATE PREFABRICATED POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH POST-TENSIONED POLYVINYL CHLORIDE PAVEMENT	U.O.N.	UNLESS OTHERWISE NOTED
B BM BLDG. BM. BOT. BRG. BSMT. BTWN.	BOTTOM BAR(S) BOTTOMMOST BAR(S) BUILDING BEAM(S) BOTTOM BEARING BASEMENT BETWEEN	F.F. FDN. FLR. F.O. FT. FTG. FUT.	FINISH FLOOR FOUNDATION(S) FLOOR FACE OF FOOT OR FEET FOOTING(S) FUTURE	K.S.F. K.S.I.	KIPS PER SQUARE FOOT KIPS PER SQUARE INCH	RAD. R.E. REINF. REV.	RADIUS RIGHT END REINFORCING / REINFORCEMENT REVISION	VERT.	VERTICAL
CS C. C.C. C.E. C.I.P. C.J. CL CLG. CLR. CMU C.O. COMP. COL. CONC. CONSTR. CONT. CTR. C.Y.	COLUMN STRIP COURSE(S) CENTER TO CENTER CONTINUOUS END CAST IN PLACE CONTROL JOINT CENTERLINE CEILING CLEAR CONCRETE MASONRY UNIT CLEAR OPENING COMPOSITE COLUMN CONCRETE CONSTRUCTION CONTINUOUS CENTER CUBIC YARD	G.B. GA. GALV. GEN.	GRADE BEAM GAUGE GALVANIZED GENERAL	M.S. M.O. MAS. MAX. MECH. MTL. MFR. MIN. MISC.	MIDDLE STRIP MASONRY OPENING MASONRY MAXIMUM MECHANICAL METAL MANUFACTURER MINIMUM MISCELLANEOUS	SCHED. SECT. S.F. SIM. S.O.G. SPECFS. S.S. STD. STL. STRUC. SYM.	SCHEDULE SECTION SQUARE FEET SIMILAR SLAB-ON-GRADE SPECIFICATION(S) STAINLESS STEEL STANDARD STEEL STRUCTURAL SYMMETRICAL	T TM T.&B. T.&G. T.L. T.O. T.O.C.	TOP BAR(S) TOPMOST BAR(S) TOP AND BOTTOM TONGUE AND GROOVE THERMAL LINING TOP OF TOP OF CONCRETE
		N. N.I.C. NO. OR # NOM. N.T.S.	NORTH NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE						

CONCRETE ANCHOR SCREW SCHEDULE			
ANCHOR DIAMETER	EMBEDMENT DEPTH	MIN. ALLOWABLE LOADS IN 4,000 PSI CONCRETE	
		TENSIO N (lbs)	SHEAR (lbs)
1/4"	1 3/4"	255	540

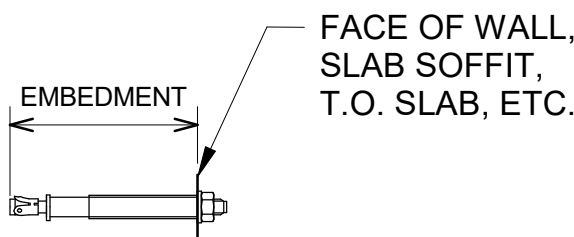


CONCRETE SCREW ANCHOR

NOTES:

- UNLESS SHOWN AS STAINLESS STEEL, PROVIDE CONCRETE ANCHOR SCREWS THAT ARE MANUFACTURED FROM AISI 1022 STEEL WITH AN EXTENDED CORROSION RESISTANT COATING THAT IS COMPATIBLE WITH GALVANIZED STEEL.
- PROVIDE CONCRETE ANCHOR SCREWS MANUFACTURED BY ITW RAMSET/REDHEAD, OR AN APPROVED EQUIVALENT BY HILTI FASTENING SYSTEMS OR POWERS FASTENERS, INC. (FORMERLY RAWL).

EXPANSION ANCHOR SCHEDULE					
ANCHOR DIAMETER	NOMINAL EMBEDMENT DEPTH	MIN. DESIGN STRENGTHS IN 4,000 PSI CRACKED CONCRETE BEFORE REDUCTIONS			
		TENSION (lbs) NON-SEISMIC LOADING	TENSION (lbs) SEISMIC LOADING	SHEAR (lbs) CONCRETE	SHEAR (lbs) STEEL STRENGTH ONLY, NON-SEISMIC LOADING
3/8"	3"	2,765	2,075	5,950	3,175
1/2"	3 3/4"	4,095	3,070	8,820	5,425
5/8"	4 1/2"	5,590	4,190	12,040	8,030
3/4"	5 1/2"	7,230	5,420	19,250	10,765



EXPANSION ANCHOR

NOTES:

- PROVIDE STUD TYPE EXPANSION ANCHORS TESTED AND RATED FOR USE IN CRACKED CONCRETE AND LISTED IN ICC-ES EVALUATION REPORTS.
- PROVIDE HILTI KWIK BOLT T22, MANUFACTURED BY HILTI FASTENING SYSTEMS, SIMPSON STRONG-BOLT 2, MANUFACTURED BY SIMPSON STRONG-TIE, OR POWER-STUD® SD4, MANUFACTURED BY DEWALT.
- PROVIDE ZINC-PLATED ANCHORS, U.O.N.
- FOR ALLOWABLE LOADS, MULTIPLY LISTED VALUES BY A FACTOR OF 0.65.

TYPICAL REINFORCING LAP SPlice SCHEDULE											
BAR SIZE	NORMAL WEIGHT CONCRETE								MASONRY		
	FOUNDATION		BEAM		SLAB		WALL		COL.	WALL	
	BOT.	TOP	BOT.	TOP	INT.	EXT.	VERT.	HORIZ.	VERT	(1) BAR PER CELL	
										VERT.	HORIZ.
#3	1'-10"	2'-4"	1'-7"	2'-1"	1'-7"	1'-7"	1'-7"	1'-7"	1'-3"	1'-7"	1'-7"
#4	2'-5"	3'-2"	2'-1"	2'-8"	2'-1"	2'-1"	2'-1"	2'-1"	1'-7"	2'-1"	2'-1"
#5	3'-0"	3-11"	2'-7"	3'-5"	2'-7"	2'-7"	2'-7"	2'-7"	2'-0"	2'-7"	2'-7"
#6	3'-7"	4'-8"	3'-1"	4'-1"	3'-1"	3'-1"	3'-1"	3'-1"	2'-5"	4'-9"	4'-9"
#7	5'-3"	6'-9"	4'-6"	5'-11"	---	---	4'-6"	4'-6"	3'-6"	6'-7"	6'-7"
#8	6'-0"	7'-9"	5'-2"	6'-9"	---	---	5'-2"	5'-2"	4'-0"	---	---
#9	6'-9"	8'-9"	5'-10"	7'-7"	---	---	5'-9"	5'-9"	4'-6"	---	---
#10	7'-7"	9'-10"	6'-9"	8'-6"	---	---	---	---	---	---	---
#11	---	---	7'-3"	9'-5"	---	---	---	---	---	---	---

NOTES:

- VALUES SHOWN ARE MIN. LAP SPlice LENGTHS IN NORMAL WEIGHT CONC. OR GROUT FILLED MAS.
- TOP BARS ARE DEFINED AS BARS WITH MORE THAN 12" OF FRESH CONC. BELOW.
- FOR MIN. BAR DEVELOPMENT LENGTH, DIVIDE VALUES SHOWN IN LAP SPlice SCHED. BY 1.3.
- WHEN LAPPING TWO DIFFERENT SIZE BARS, USE THE LAP SPlice DIMENSION OF THE SMALLER BAR OR THE DEVELOPMENT LENGTH OF THE LARGER BAR, WHICHEVER IS LARGER.
- FOR BEAMS AND COLUMNS, VALUES SHOWN APPLY WHERE ALL PROVISIONS OF EITHER ONE OF THE FOLLOWING TWO CASES APPLY:

CASE 1

- MIN. CLR. SPACING OF BARS BEING DEVELOPED OR SPliced NOT LESS THAN ONE BAR DIAMETER, AND
- CLR. COVER NOT LESS THAN ONE BAR DIAMETER, AND
- STIRRUPS OR TIES ARE PROVIDED THROUGHOUT REQUIRED LENGTH OF LAP SPlice OR DEVELOPMENT LENGTH.

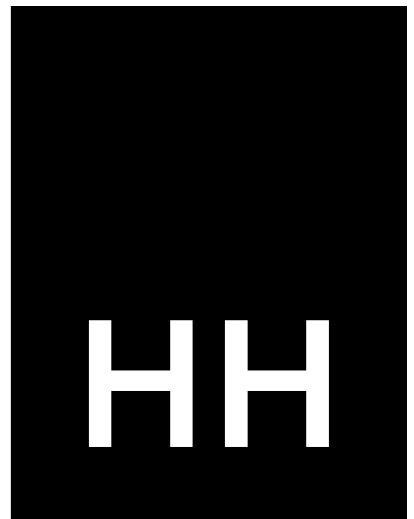
OR

CASE 2

- MIN. CLR. SPACING OF BARS BEING DEVELOPED OR SPliced NOT LESS THAN TWO BAR DIAMETERS.
- CLR. COVER NOT LESS THAN ONE BAR DIAMETER.
- STIRRUPS OR TIES ARE NOT PROVIDED THROUGHOUT REQUIRED LENGTH OF LAP SPlice OR DEVELOPMENT LENGTH.

WHERE ANY OF THESE PROVISIONS WITHIN THE APPLICABLE CASE ARE NOT MET, MULTIPLY VALUES SHOWN IN LAP SPlice SCHEDULE BY 1.5.

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5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303

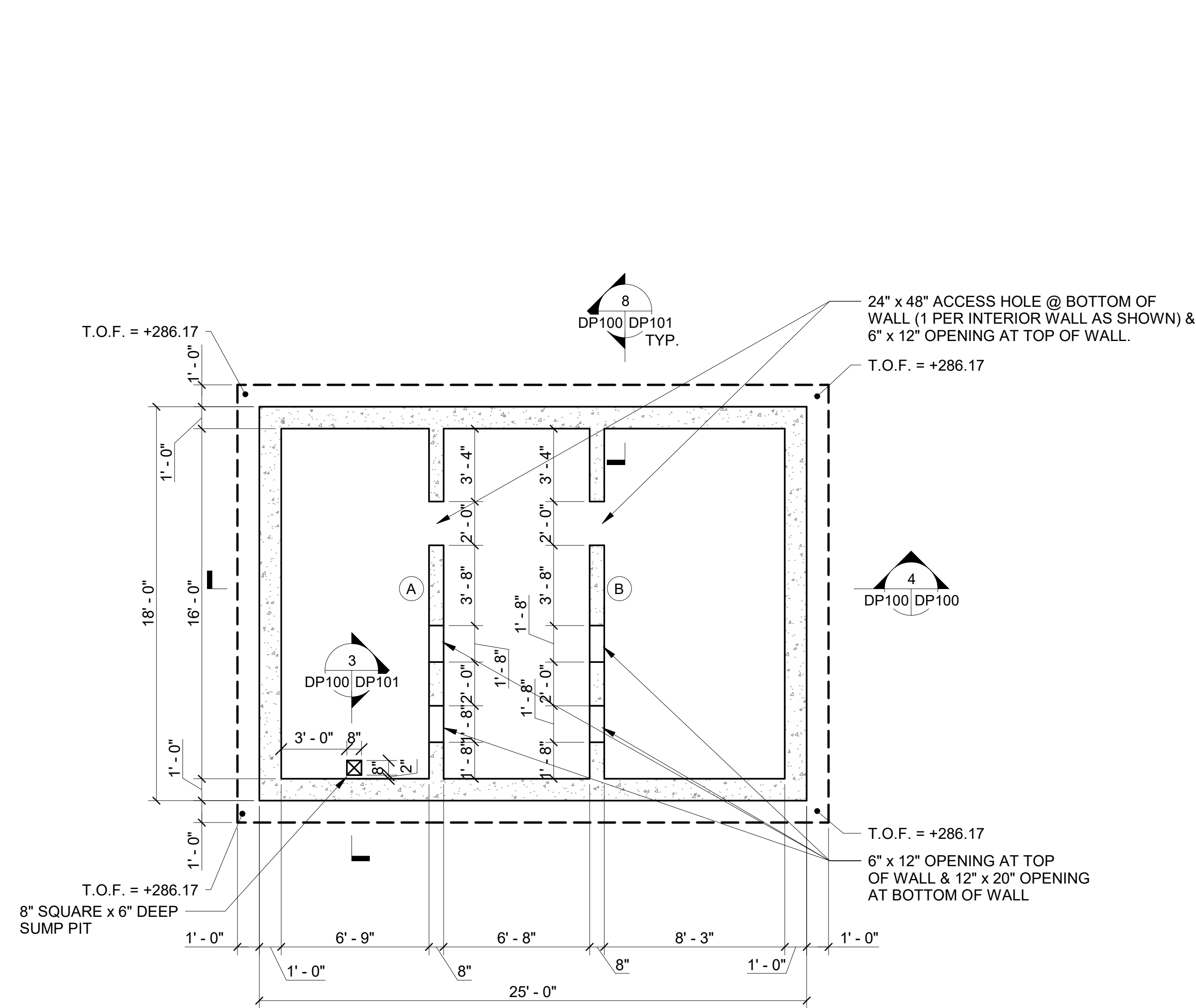


NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
DRAFTING PIT - TABLES, LEGEND & ABBREVIATIONS

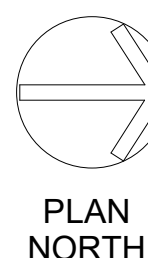
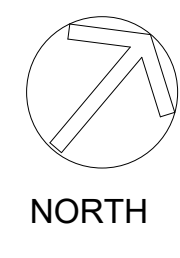
DP002

NO.	REVISION	DATE



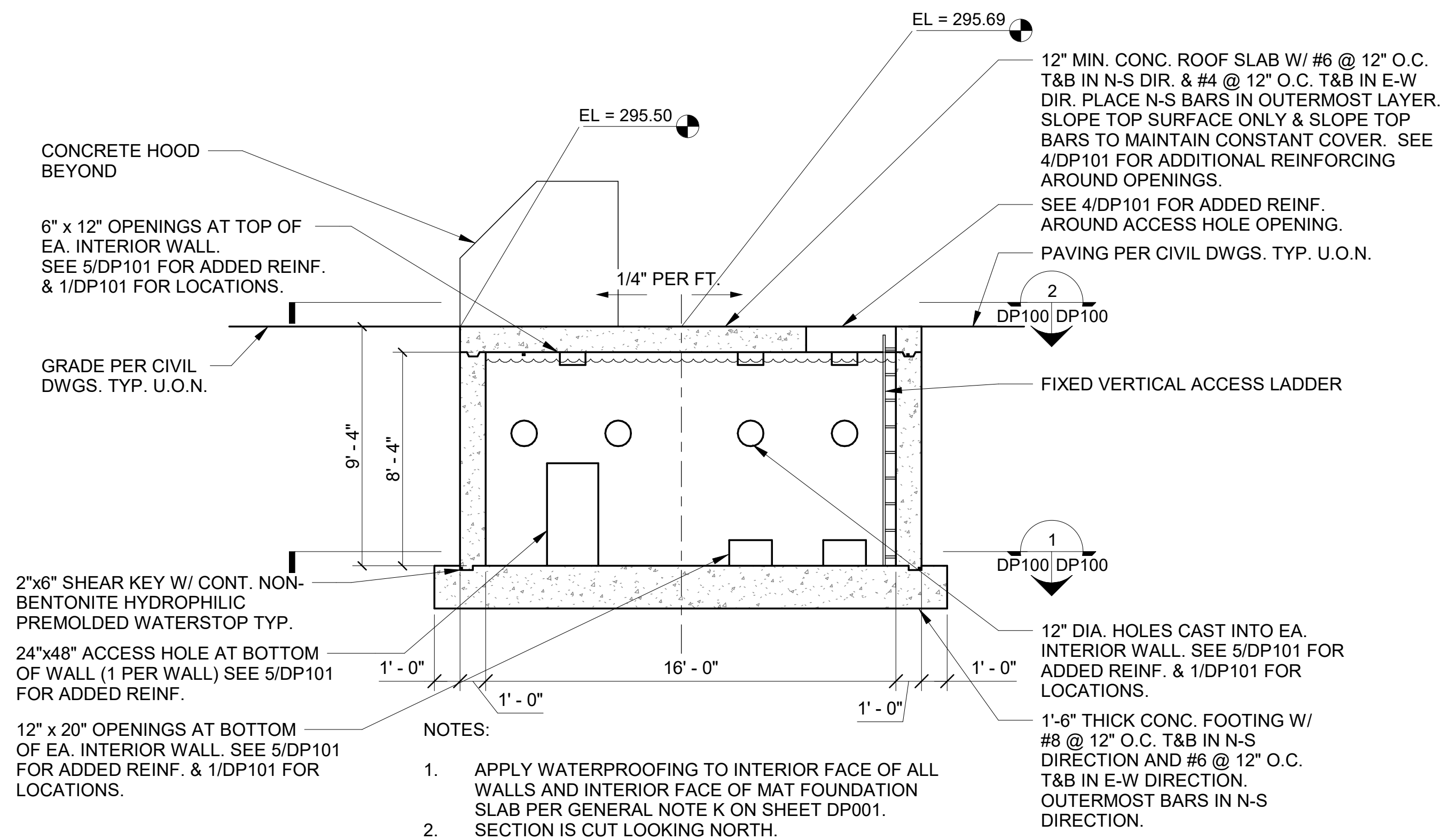
NOTES:

- SEE 1/DP101 FOR ELEVATIONS OF WALLS MARKED THUS ON PLAN (X).



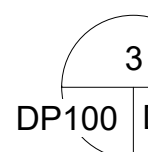
DRAFTING PIT - FOUNDATION PLAN

DP100 DP100 SCALE 1/4" = 1'-0"



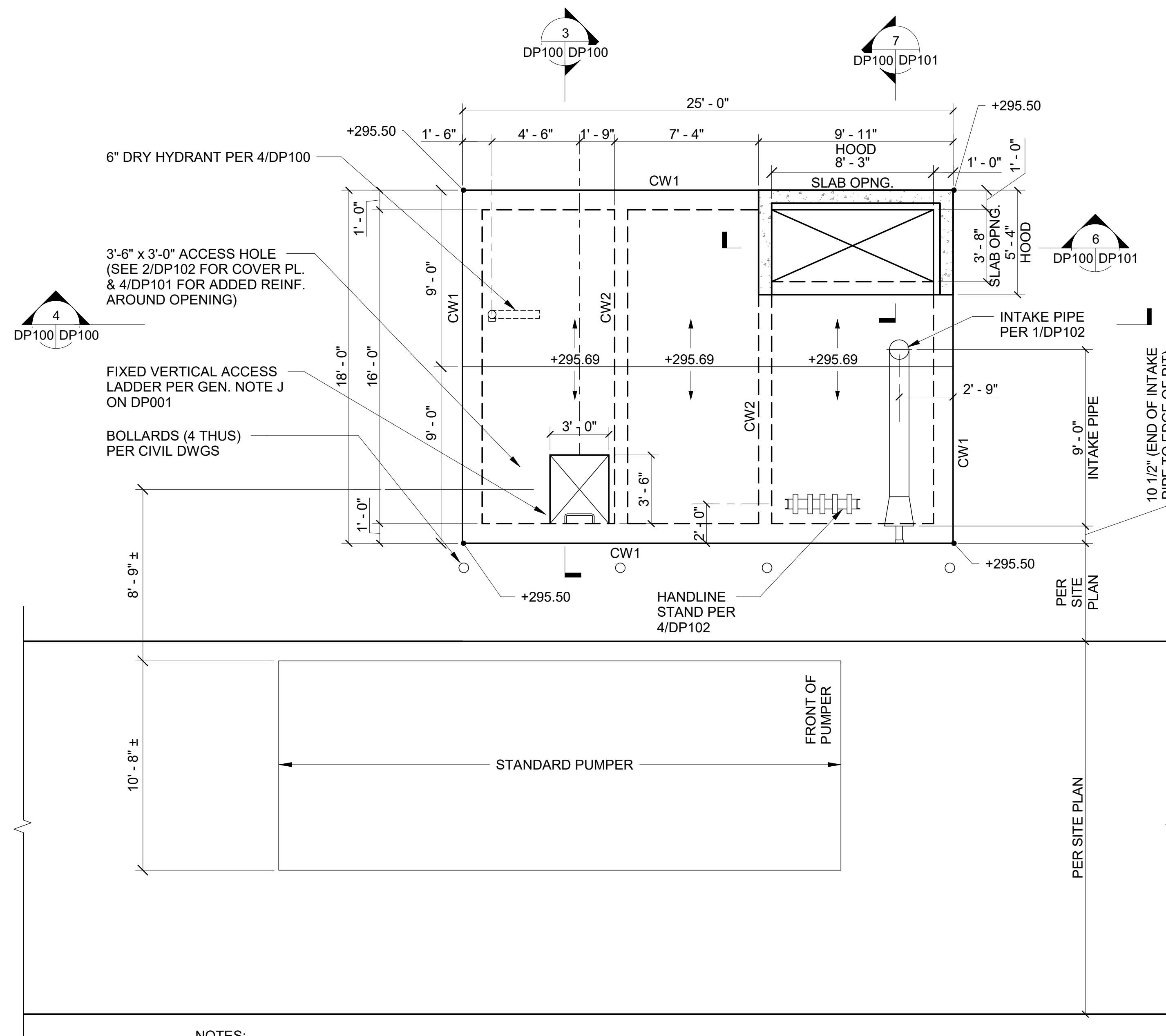
NOTES:

- APPLY WATERPROOFING TO INTERIOR FACE OF ALL WALLS AND INTERIOR FACE OF MAT FOUNDATION SLAB PER GENERAL NOTE K ON SHEET DP001.
- SECTION IS CUT LOOKING NORTH.



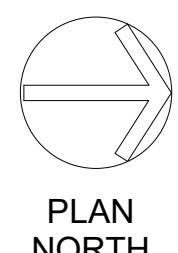
DRAFTING PIT - SECTION

DP100 DP100 SCALE 1/4" = 1'-0"



NOTES:

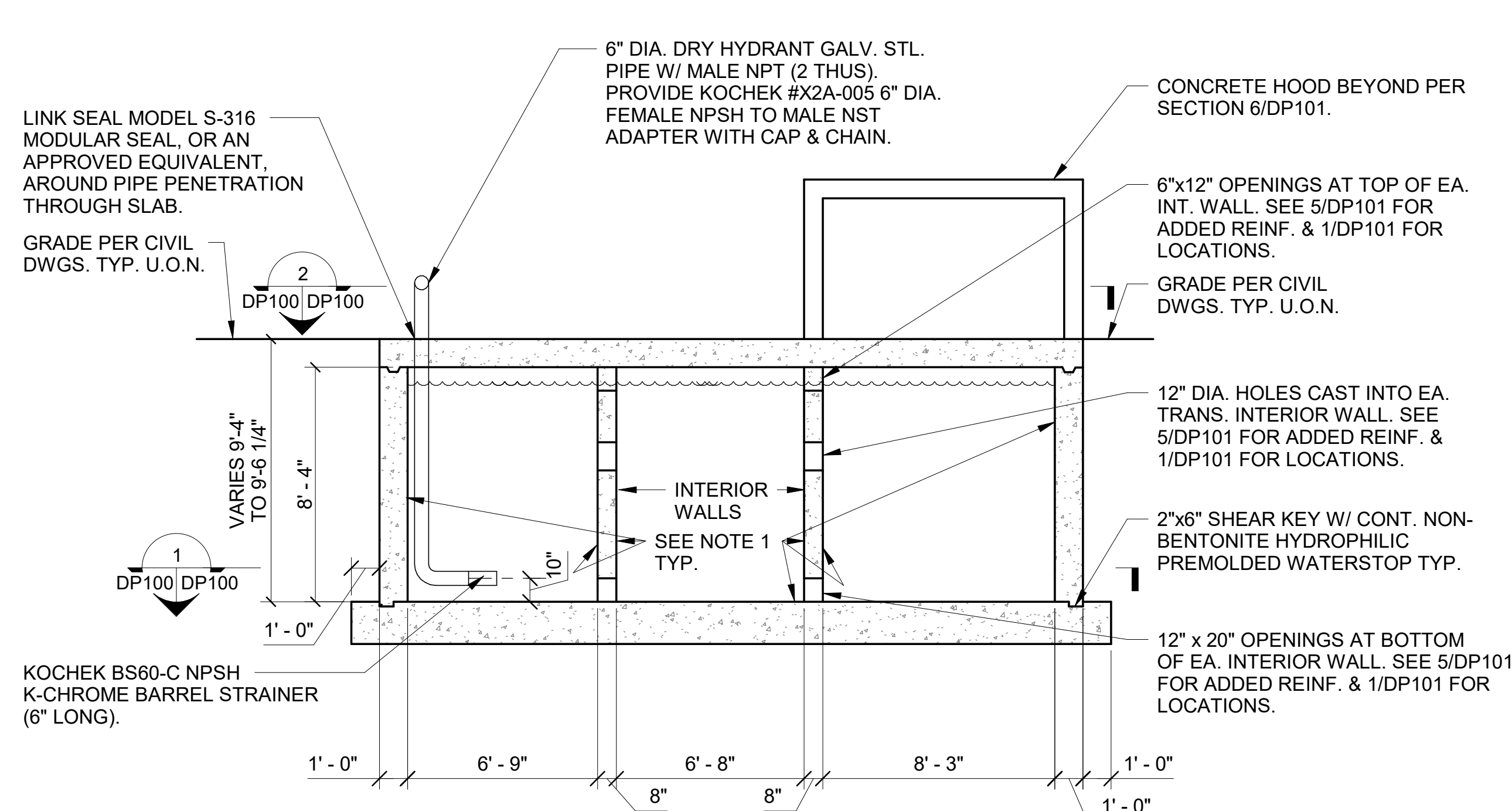
- DISPOSE OF ANY EXCESS, EXCAVATED SOILS THAT ARE NOT USED AS STRUCTURAL FILL ON SITE U.O.N. IN SITE DRAWINGS AND SPECIFICATIONS.
- T.O. PIT ELEVATION = +295.50' AT EAST & WEST EDGES OF PIT COORD. W/CIVIL DWGS.



DRAFTING PIT - PLAN

DP100 DP100 SCALE 1/4" = 1'-0"

TANK VOLUME
~ 2,770 CU. FT.
~ 20,750 GALLONS



NOTES:

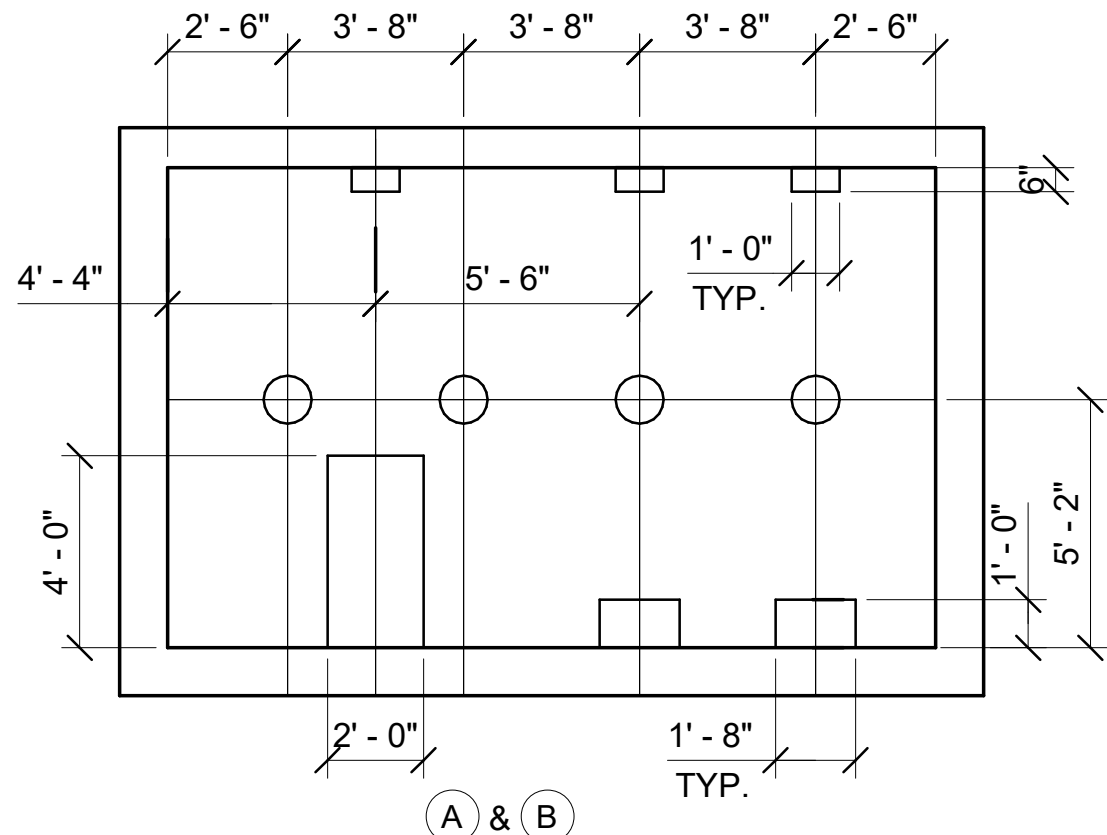
- APPLY WATERPROOFING TO INTERIOR FACE OF ALL WALLS AND INTERIOR FACE OF MAT FOUNDATION SLAB PER GENERAL NOTE K ON SHEET BB001.
- SECTION IS CUT LOOKING WEST.



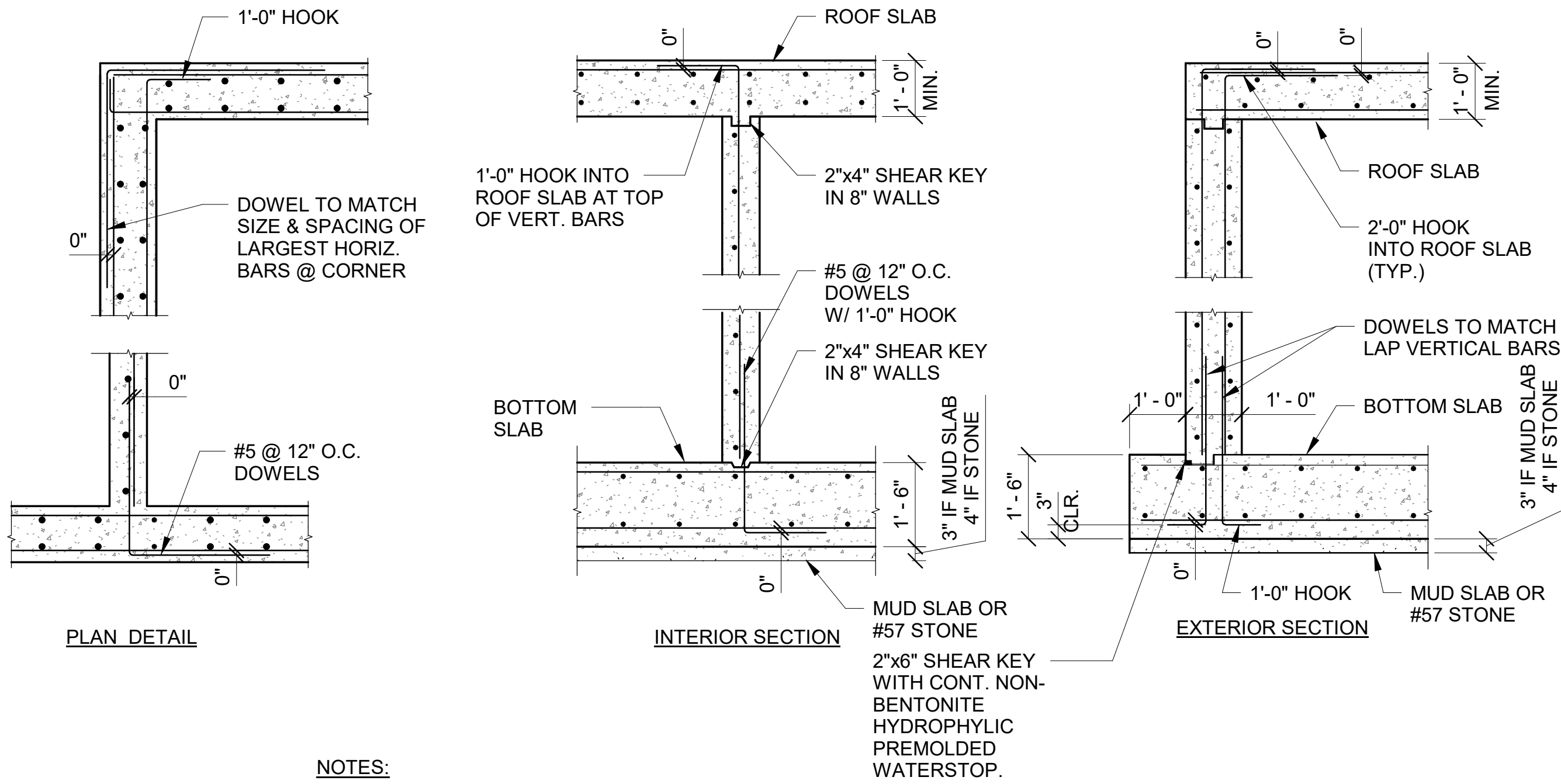
DRAFTING PIT - SECTION

DP100 DP100 SCALE 1/4" = 1'-0"

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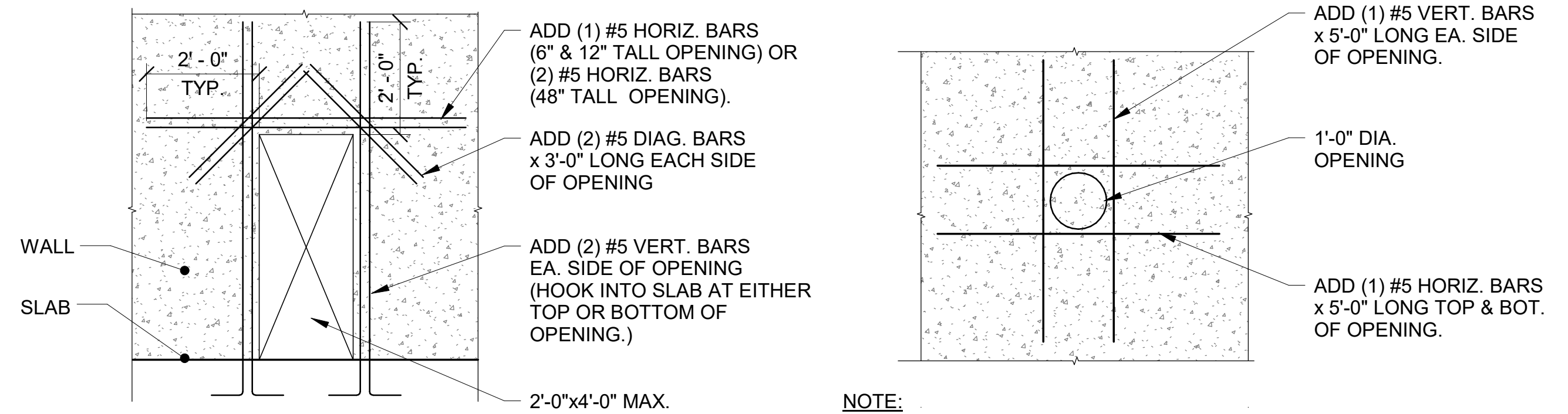


1 WALL ELEVATIONS
DP100 DP101 SCALE 1/4" = 1'-0"



- NOTES:
- SEE PLANS AND SECTIONS ON DP100 AND DP101 FOR WALL, SLAB, AND FOOTING REINFORCEMENT.
 - PROVIDE LAP LENGTHS PER LAP SPLICE SCHEDULE ON DP002.

2 WALL DOWEL REINF. DETAILS
DP100 DP101 SCALE 1/2" = 1'-0"

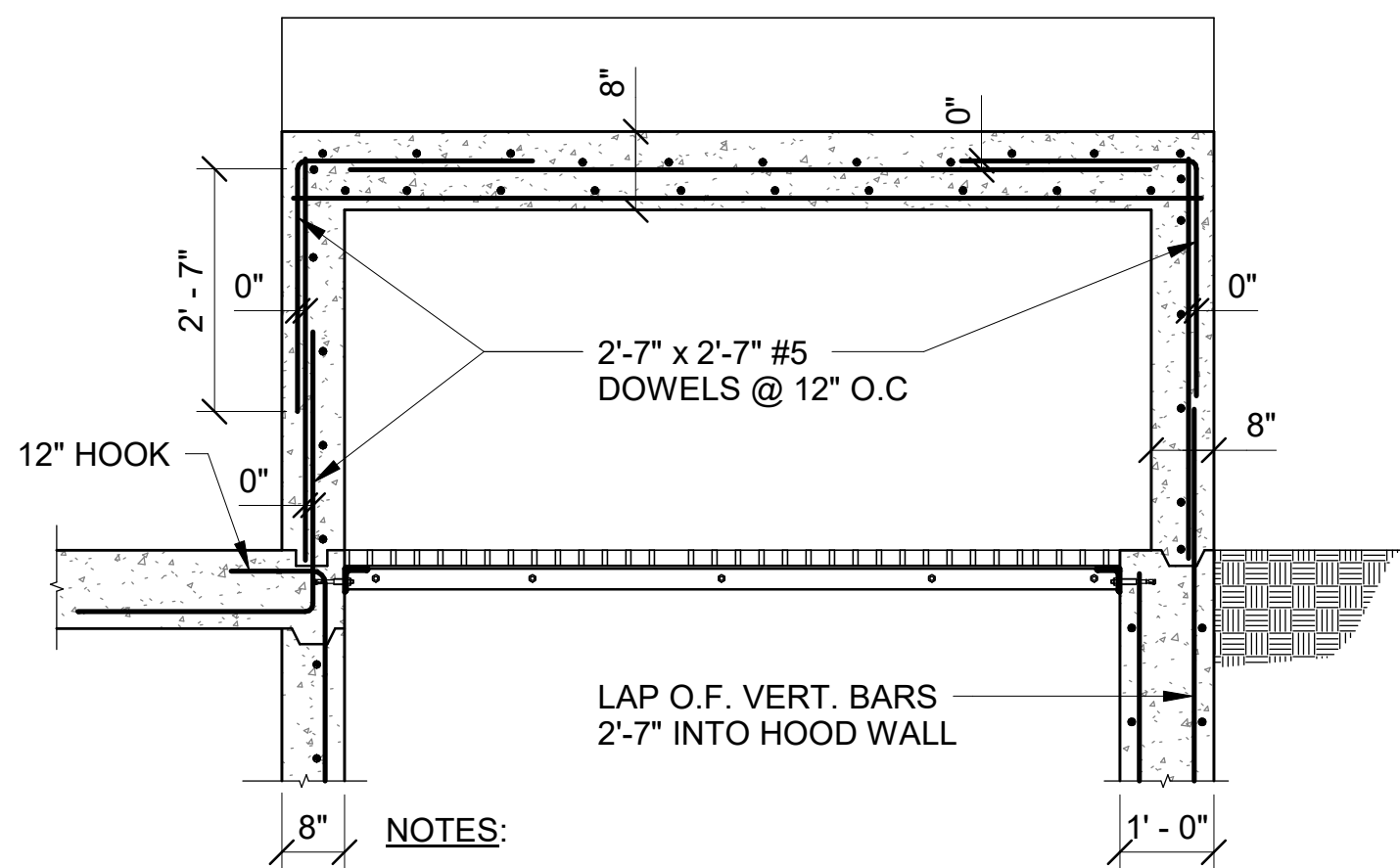


- NOTES:
- ONLY ADDED REINF. IS SHOWN FOR CLARITY. SEE WALL SCHEDULE FOR WALL REINF.
 - FOR OPENINGS AT TOPS OF WALLS, TURN DETAIL 180°.

RECTANGULAR OPENINGS @ WALLS

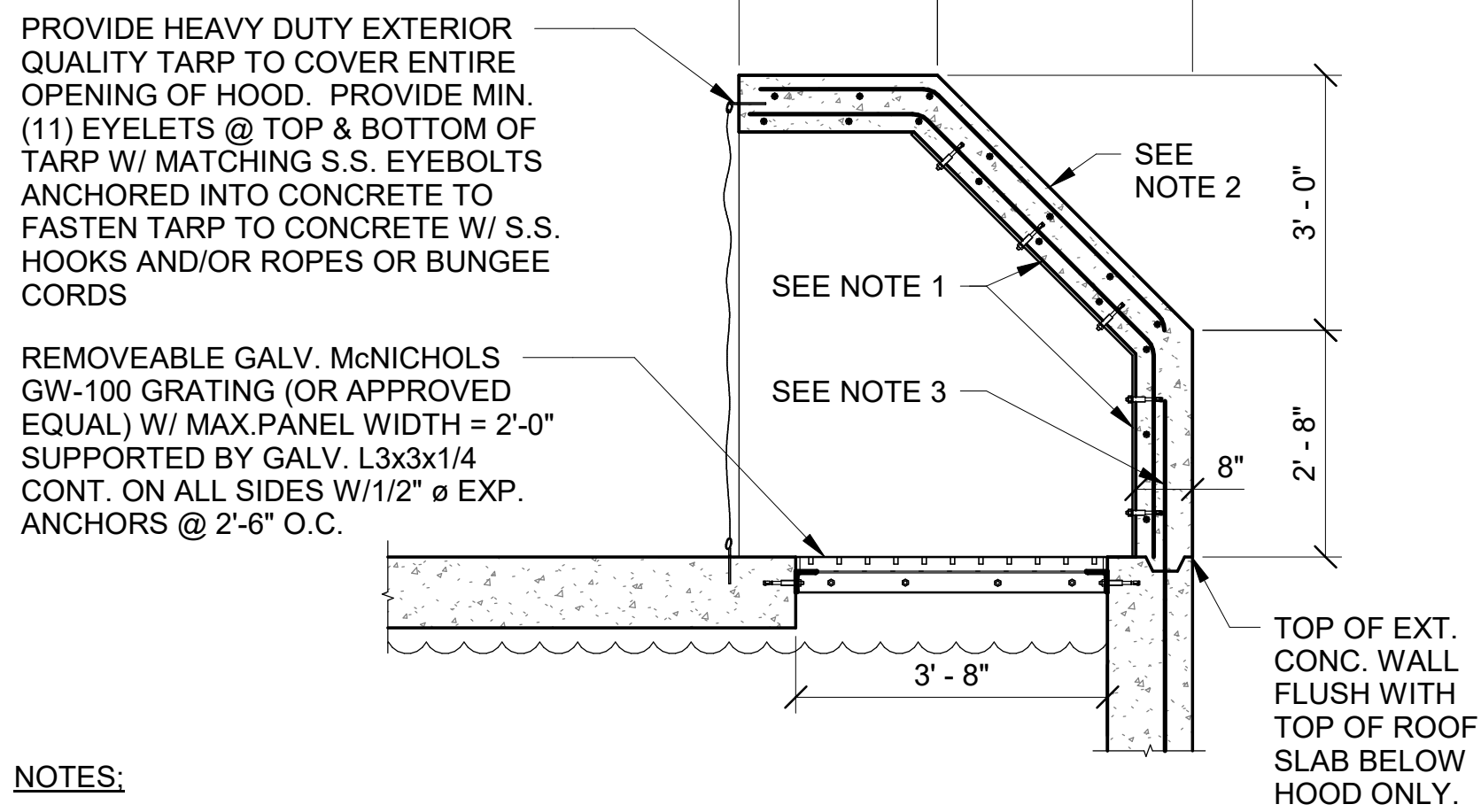
ROUND OPENINGS @ WALLS

5 ADDED REINF. @ WALL OPENING DETAILS
DP100 DP101 SCALE 1/2" = 1'-0"



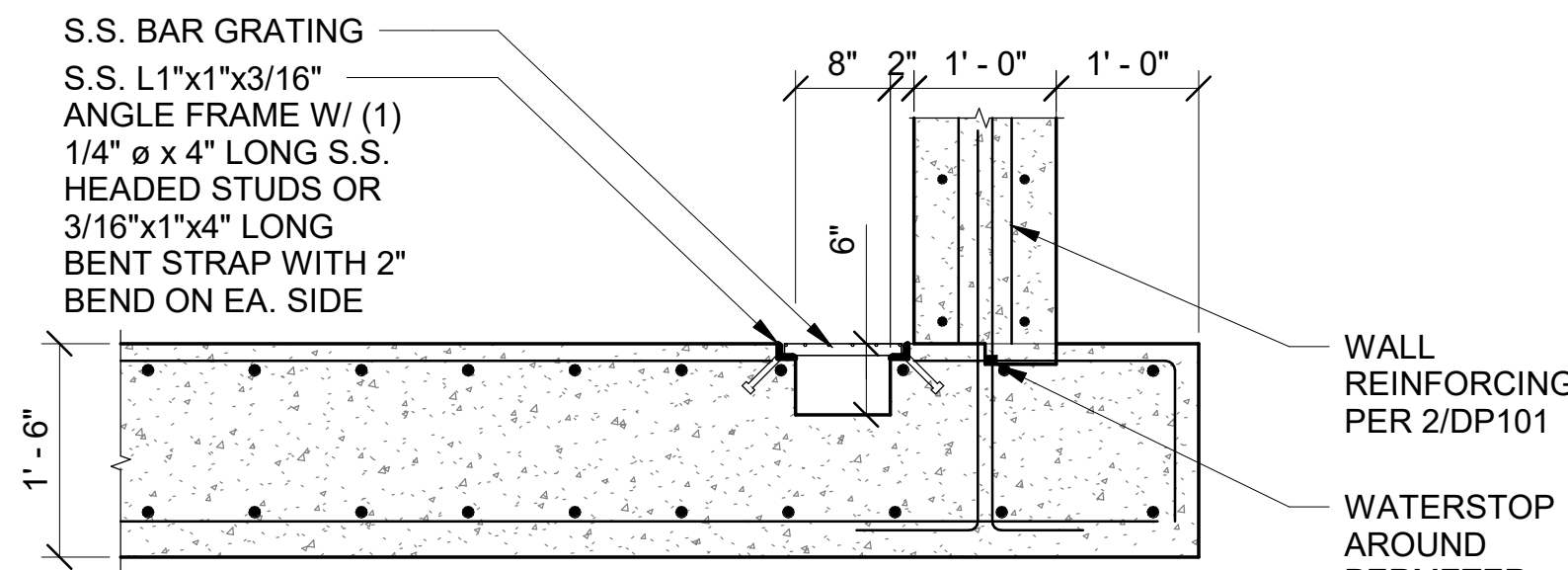
- NOTES:
- SEE 3/DP100 FOR SLAB REINFORCING.
 - SEE 7/DP101 FOR ADDITIONAL INFORMATION.

6 SECTION
DP100 DP101 SCALE 1/2" = 1'-0"



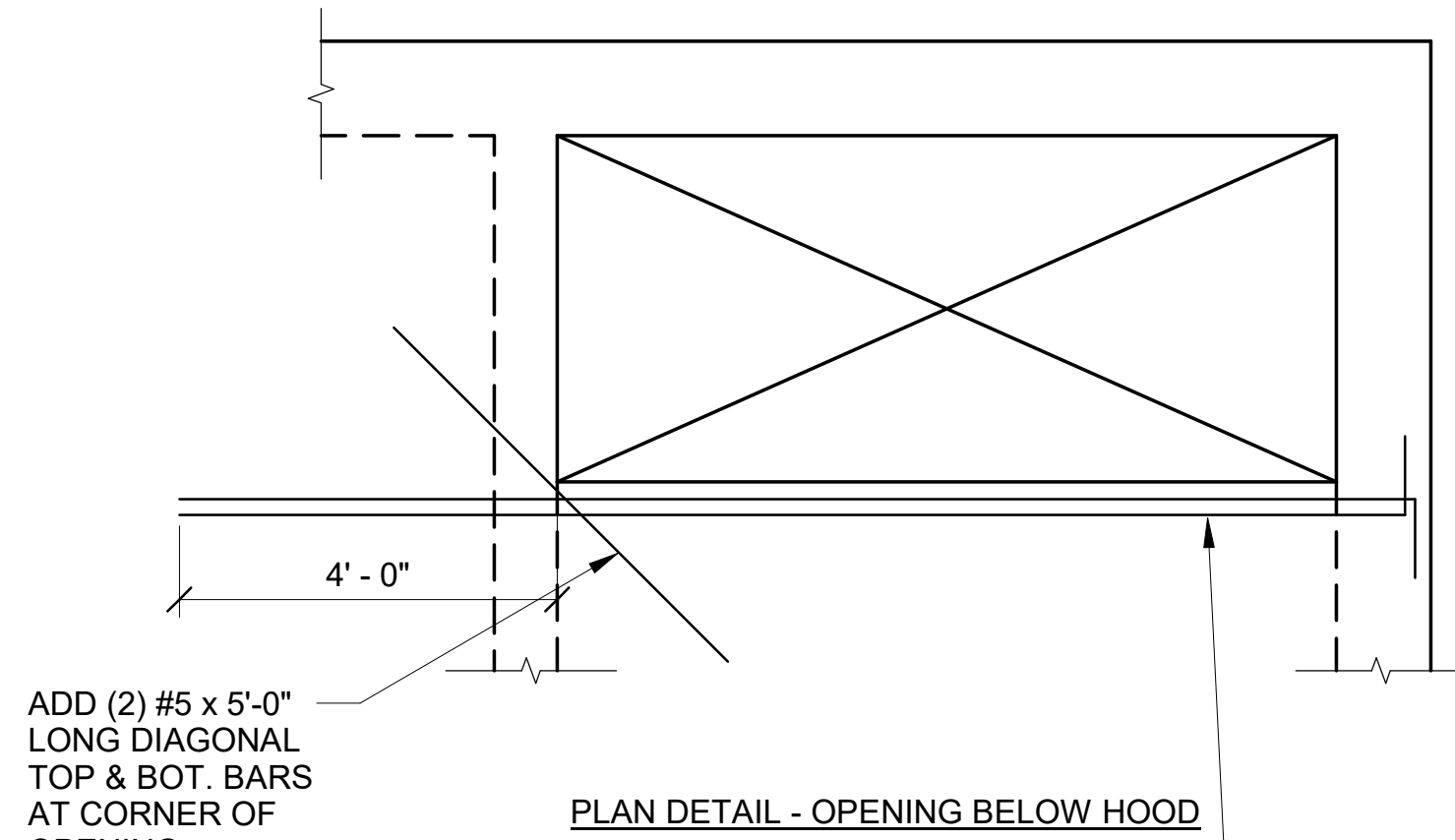
- NOTES:
- 3/16" GALV. PL. FASTENED TO CONC. HOOD W/ 1/2" ø EXP. ANCHORS @ 2'-6" O.C. EACH WAY.
 - 8" CONC. HOOD SLAB W/ #5 @ 12" O.C. E.W. BOT. (BOTTOM MOST BARS SPAN N-S.) AND #3 @ 12" O.C. E.W. TOP
 - LAP VERT. BARS OF EXT. WALL INTO HOOD WALL 2'-7".

7 SECTION
DP100 DP101 SCALE 1/2" = 1'-0"

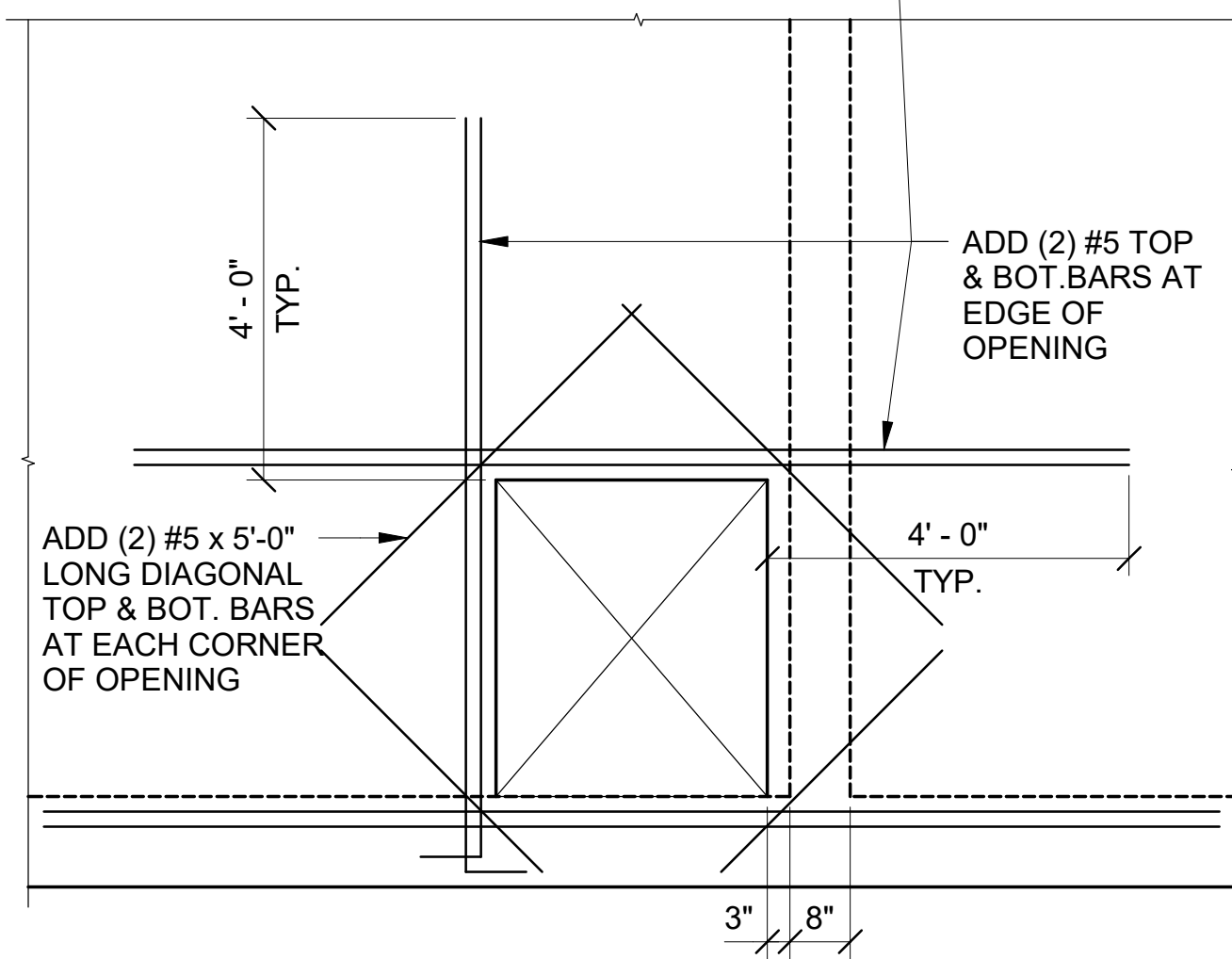


- NOTES:
- LOCATE SUMP PIT AT LOCATION SHOWN IN 1/DP100.
 - CENTER SUMP PIT BETWEEN TOP BARS IN FOUNDATION SLAB, SO THAT NO BARS ARE INTERRUPTED & ALL BARS HAVE MIN. 1 1/2" CLEAR COVER TO EDGES OF SUMP PIT.

3 SUMP PIT SECTION DETAILS
DP100 DP101 SCALE 3/4" = 1'-0"



ADD (2) #5 x 5'-0" LONG DIAGONAL TOP & BOT. BARS AT CORNER OF OPENING

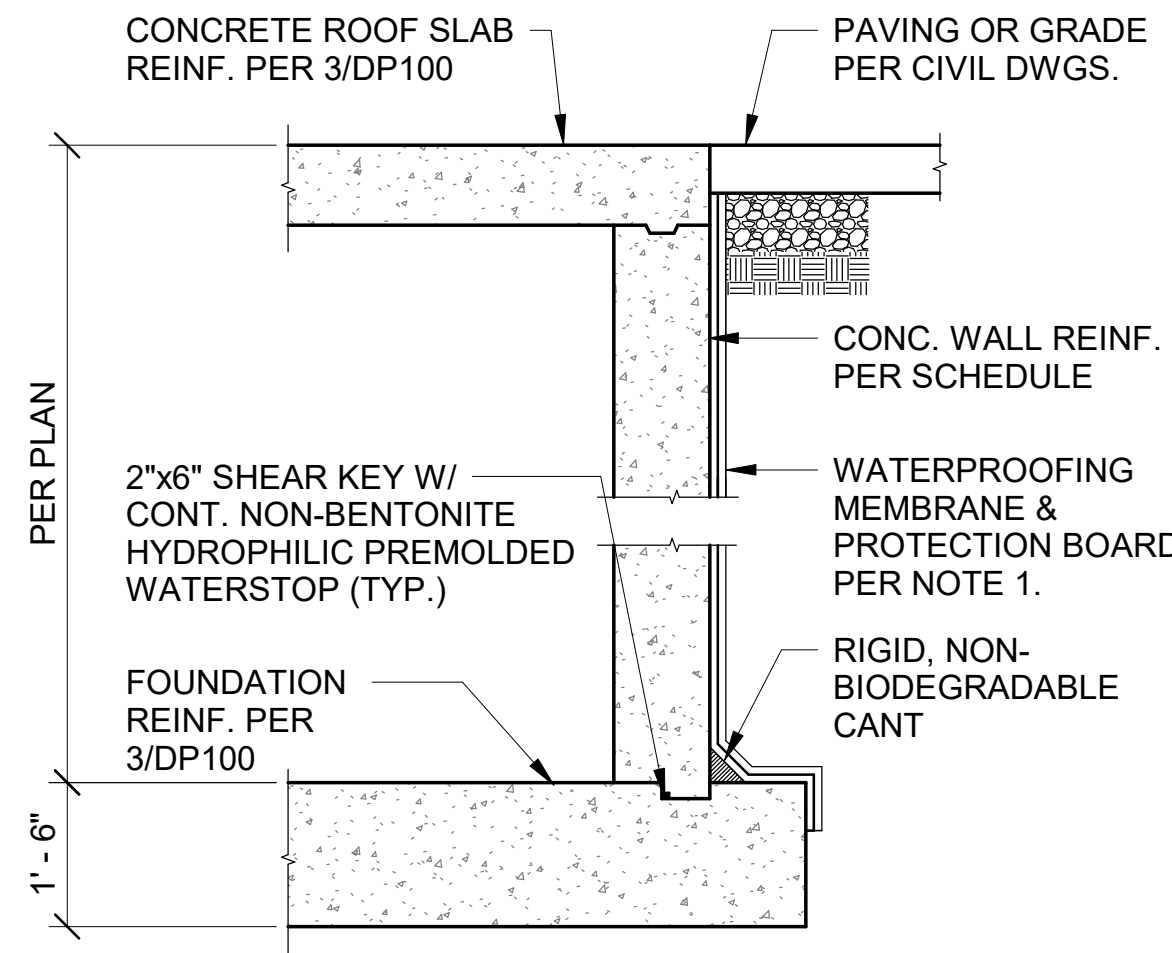


ADD (2) #5 TOP & BOT. BARS AT EDGE OF OPENING

ADD (2) #5 x 5'-0" LONG DIAGONAL TOP & BOT. BARS AT EACH CORNER OF OPENING

PLAN DETAIL - ACCESS OPENING

4 ADDED REINF. TO ROOF SLAB OPNG. DETAILS
DP100 DP101 SCALE 1/2" = 1'-0"

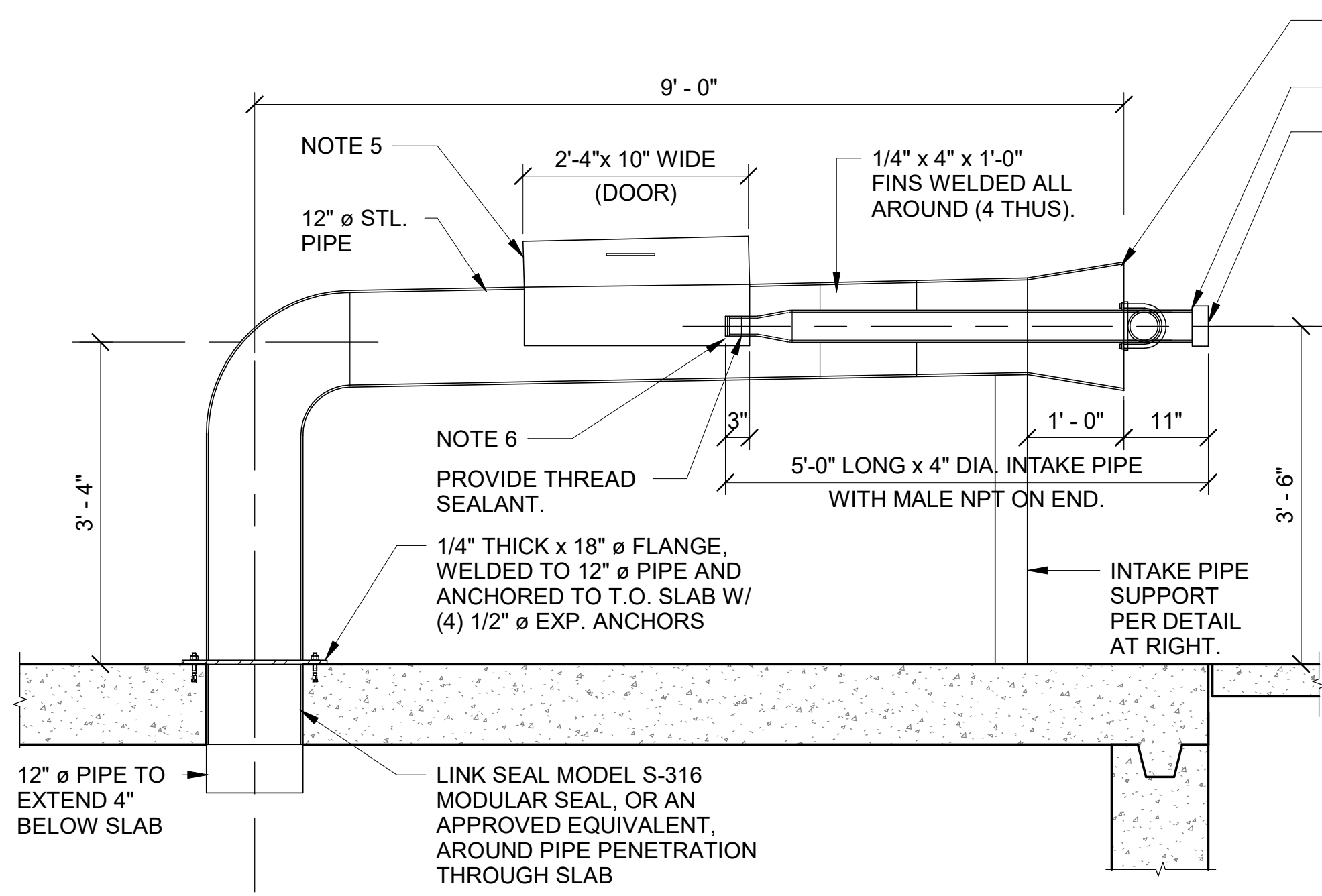


- NOTES:
- PROVIDE BITUTHENE 3000 WATERPROOFING SYSTEM, BY GCP APPLIED TECHNOLOGIES, OR AN EQUIVALENT APPROVED BY THE ENGINEER.

TYPICAL FOUNDATION SECTION AT DRAFTING PIT WALL

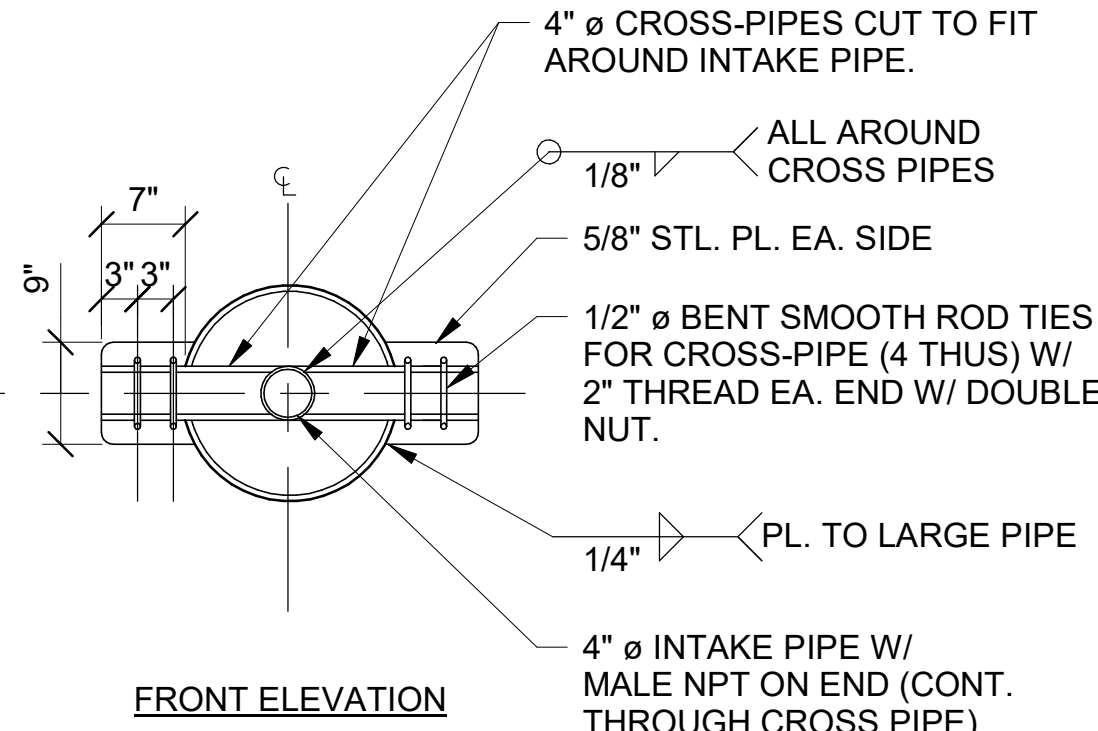
8
DP100 DP101 SCALE 1/2" = 1'-0"

NO.	REVISION	DATE

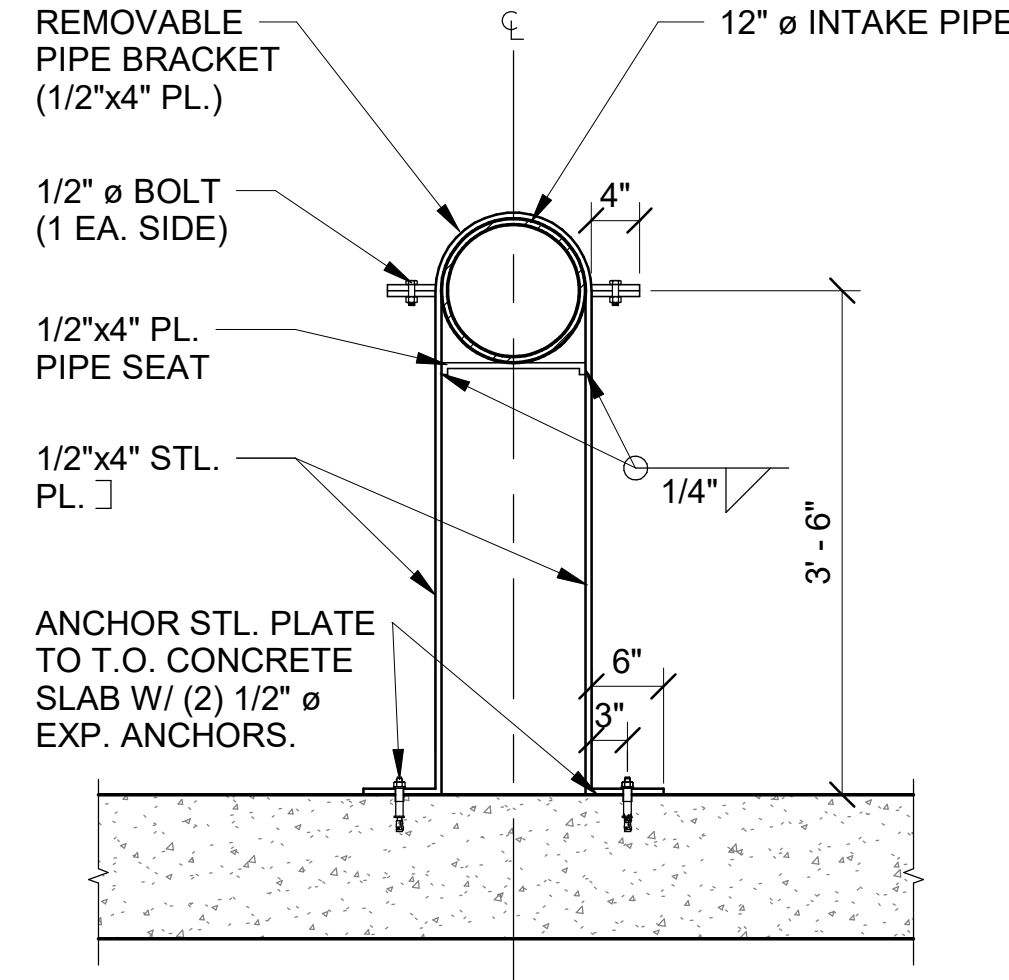


NOTES:

1. ALL STEEL SHALL BE GALVANIZED, U.O.N.
2. ALL CONNECTIONS SHALL BE WELDED.
3. ALL PIPES SHALL BE SCH. 40, U.O.N.
4. ALL ADAPTER PARTS SHALL BE KOECHEK CO., INC., HARRINGTON, INC., FYRELANE USA, OR AN APPROVED EQUIVALENT.
5. DOOR CUT OUT OF TUBE. RE-ATTACH W/ (2) ZINC-COATED HINGES. PROVIDE GALV. HANDLE PER DETAIL AT RIGHT. LOCATE HINGES SO THAT DOOR SWINGS TOWARD THE SOUTH.
6. REDUCE PIPE TO 2 1/2" FOR FLOW TESTING DEVICE W/ MALE NPT ON END. PROVIDE 2 1/2" FEMALE NPSH TO 2 1/2" MALE NST (NH) ADAPTER.



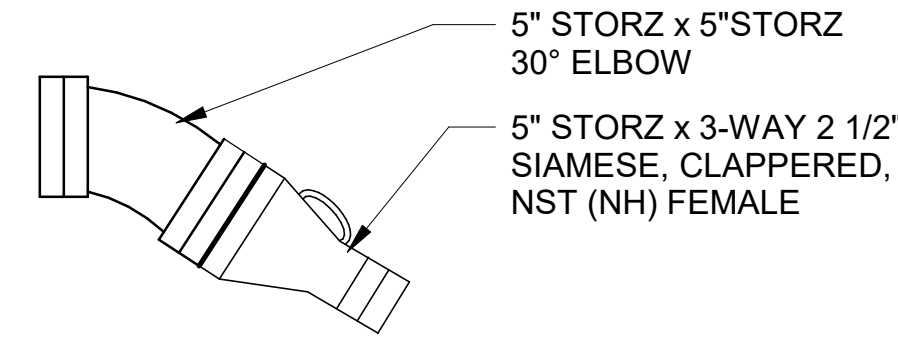
FRONT ELEVATION



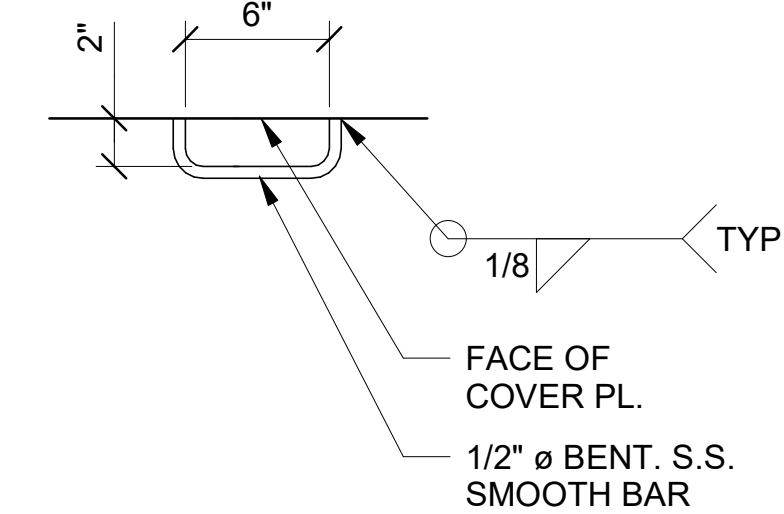
NOTES:

1. GALVANIZE ALL ITEMS, U.O.N.

INTAKE PIPE SUPPORT DETAIL

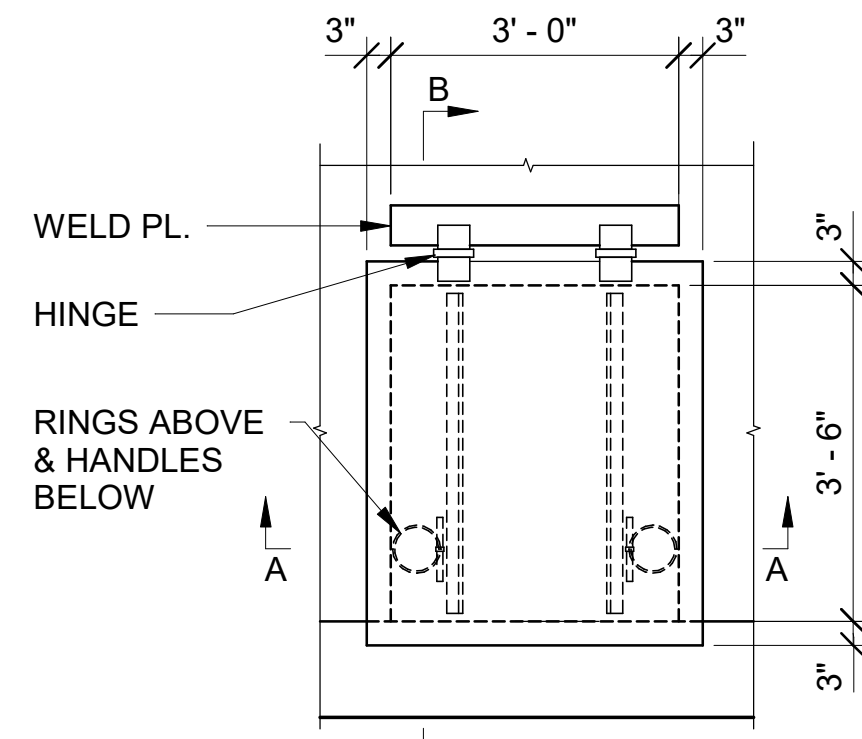


INTAKE PIPE LINE ATTACHMENT
SCALE 1 1/2" = 1'-0"



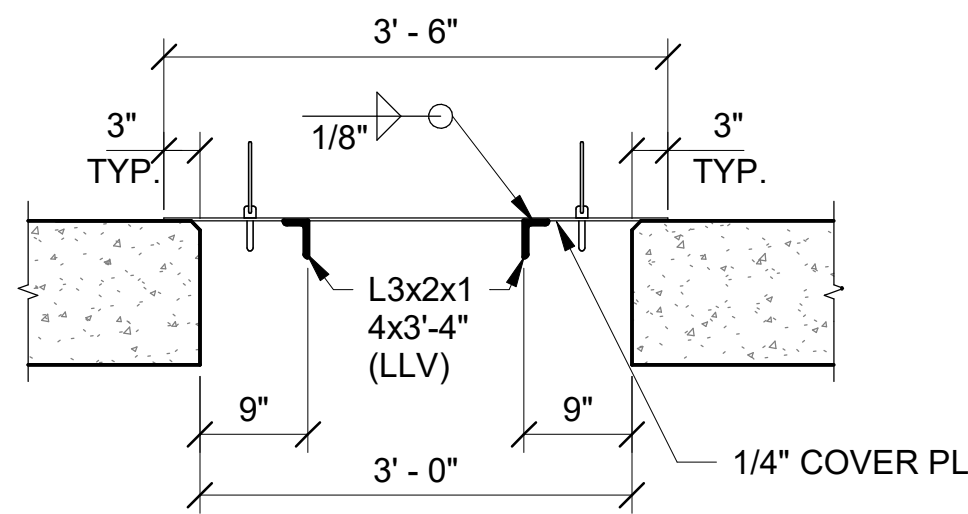
COVER PULL DETAIL

DP102 DP102 SCALE 1 1/2" = 1'-0"



PLAN DETAIL
SCALE 1/2" = 1'-0"

NORTH



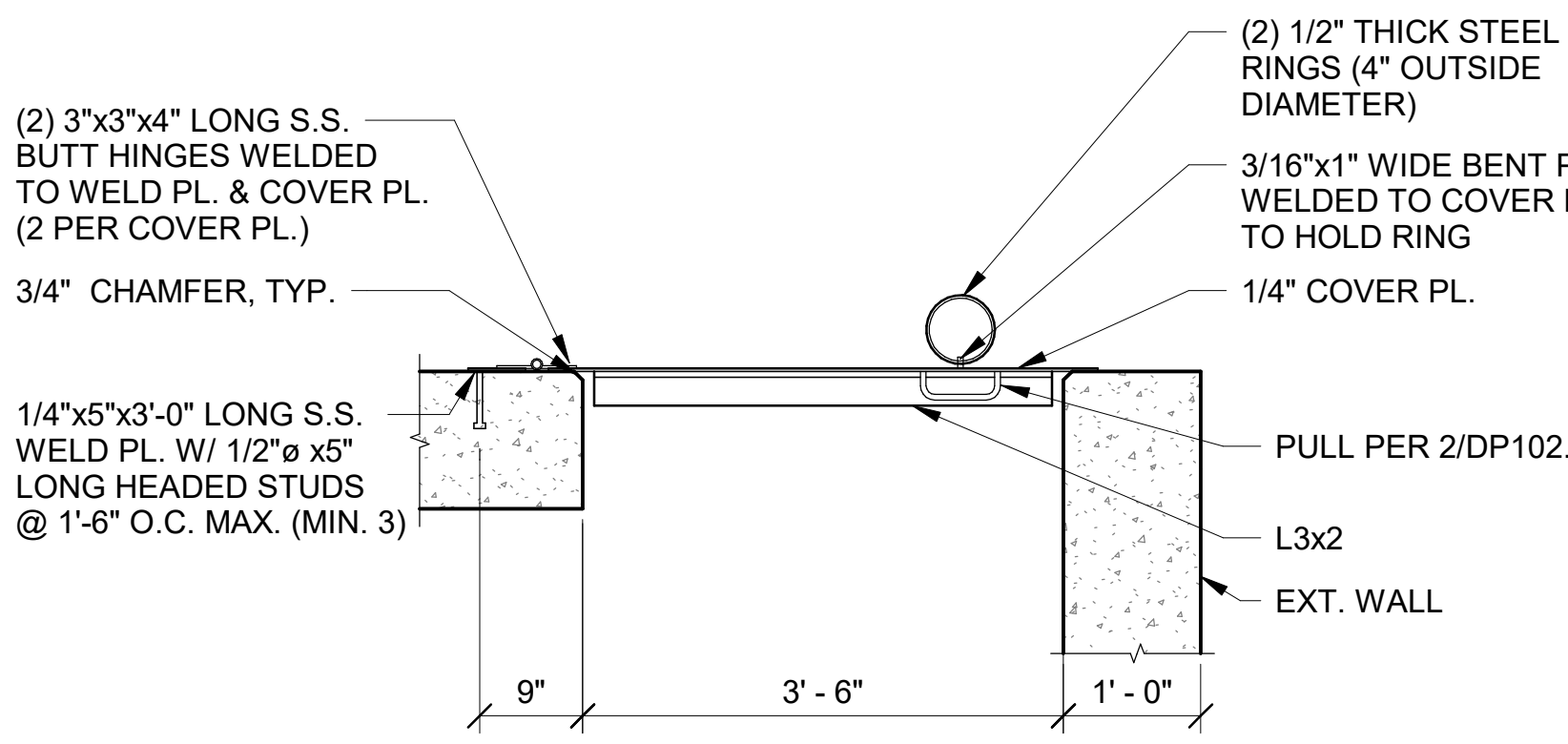
SECTION A-A
SCALE 3/4" = 1'-0"

NOTES:

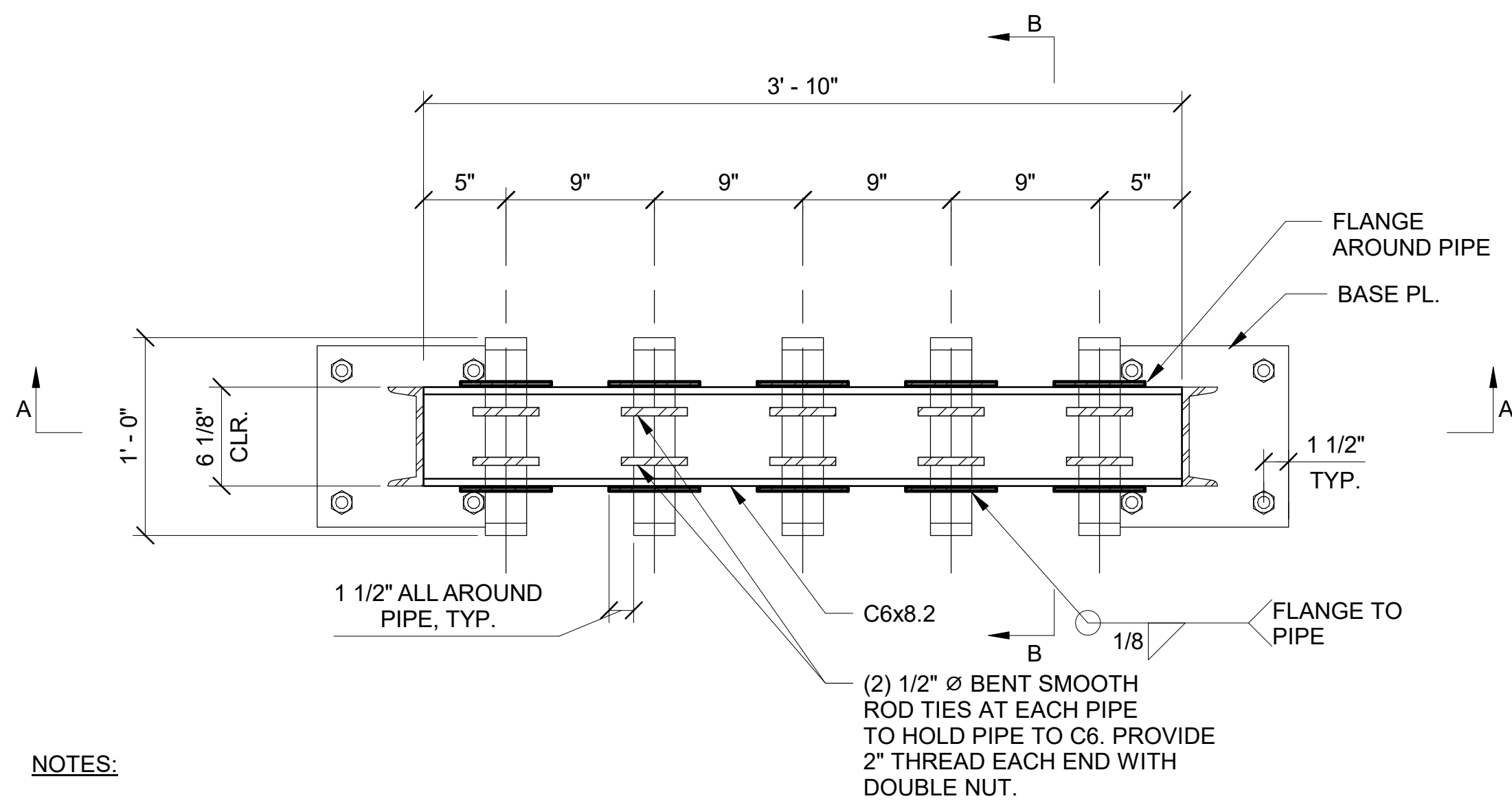
1. ALL STEEL TO BE STAINLESS STEEL, U.O.N.

ACCESS HOLE COVER DETAILS

DP100 DP102 SCALE 3/4" = 1'-0"



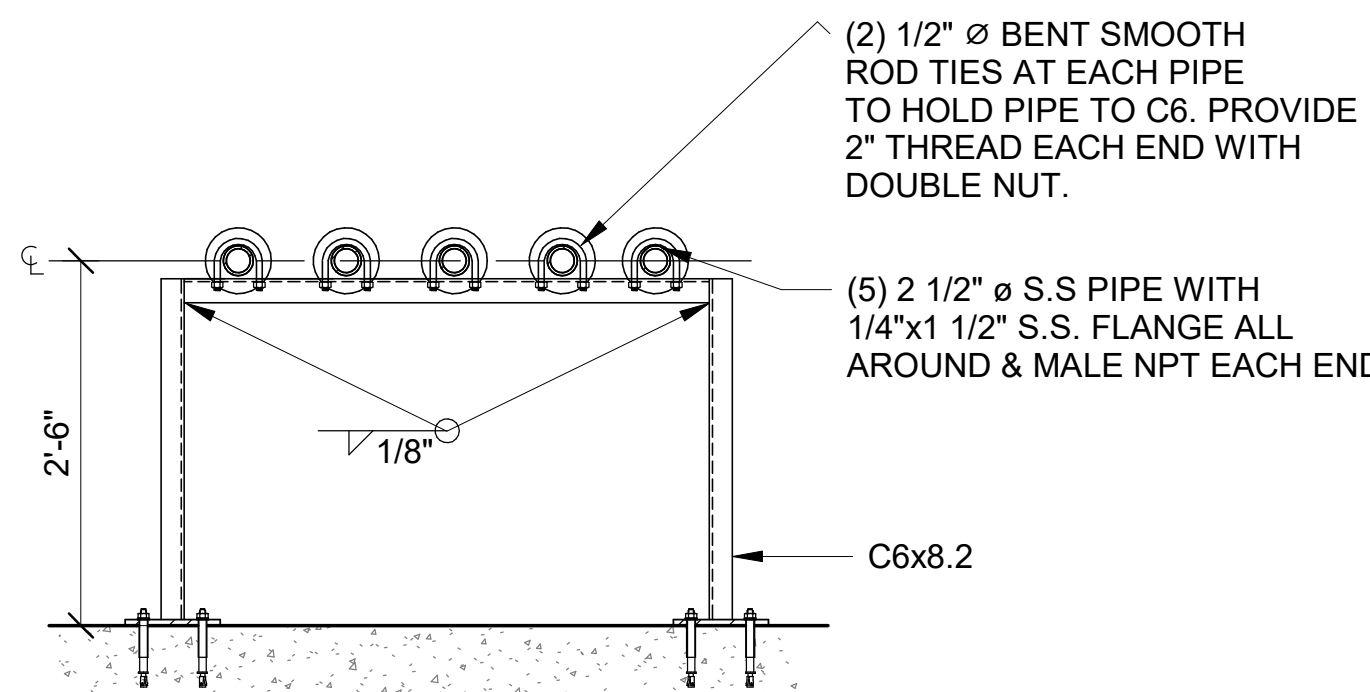
SECTION B-B
SCALE 3/4" = 1'-0"



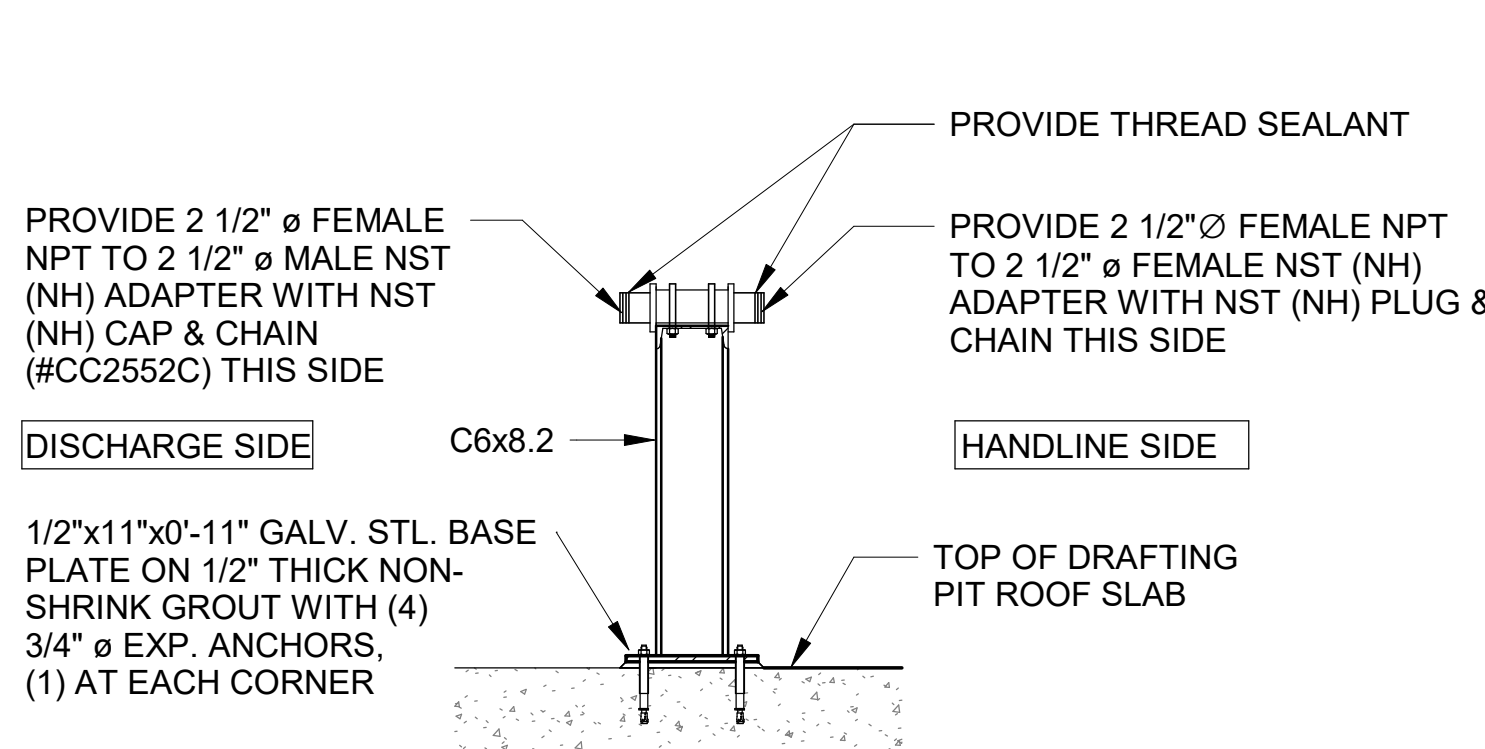
NOTES:

1. ALL STEEL SHALL BE GALVANIZED, UNLESS LABELED AS STAINLESS STEEL.

PLAN DETAIL
SCALE 1 1/2" = 1'-0"



SECTION A-A



SECTION B-B

HANDLINE STAND DETAILS

DP100 DP102 SCALE 3/4" = 1'-0"



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Corporate P.E. #C-2542

RECEIVED
03/25/2025
SAMET

WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
DRAFTING PIT - DETAILS

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CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CRITERIA UNLESS OTHERWISE NOTED ON THE DRAWINGS. DO NOT USE THESE DRAWINGS WITHOUT THE ACCOMPANYING SPECIFICATIONS AND RELATED CIVIL AND M/E/P DRAWINGS. FOR ALL ITEMS, SEE THE SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS. THE MOST STRINGENT REQUIREMENTS GOVERN CONDITIONS COVERED BY BOTH THE DRAWINGS AND THE PROJECT SPECIFICATIONS OR BY CONFLICTING ITEMS.

A. STRUCTURE CLASSIFICATION

- THE BURN BUILDING WILL BE A TRAINING PROP USED BY THE OWNER TO TRAIN ABLE-BODIED FIREFIGHTERS UNDER LIVE FIRE AND OTHER TRAINING SCENARIOS.
- THE BURN BUILDING WILL NOT BE AN OCCUPIED STRUCTURE, EXCEPT DURING TRAINING EXERCISES.
- THE BURN BUILDING IS CLASSIFIED AS MISCELLANEOUS USE GROUP (USE GROUP U).

B. LIVE FIRE TRAINING DESIGN CRITERIA

THE BURN BUILDING HAS BEEN DESIGNED FOR THE FOLLOWING CRITERIA. THE OWNER/USER SHALL IMPLEMENT ADDITIONAL RESTRICTIONS TO ENSURE PERSONNEL SAFETY.

- MAXIMUM SUSTAINED TEMPERATURE DURING LIVE FIRE TRAINING IN BURN ROOMS = 1,000 DEGREES F AT CEILING.
- MAXIMUM TEMPERATURE SPIKE DURING LIVE FIRE TRAINING IN BURN ROOMS = 1,200 DEGREES F AT CEILING.
- ONLY "CLEAN "CLASS A" FUEL MATERIALS SHALL BE USED FOR LIVE FIRE TRAINING IN THE BURN BUILDING.
- LIVE FIRE TRAINING SHALL OCCUR IN BURN ROOMS ONLY. NO FIRES ARE ALLOWED ON THE INTERIOR OR EXTERIOR STAIRS AND LANDINGS, ON THE ROOFS, OR IN OTHER AREAS DESIGNATED AS "NO BURN" IN THE DRAWINGS.
- LIVE FIRE TRAINING SHALL BE IN ACCORDANCE WITH NFPA 1403.
- TRAINING THAT INCLUDES EXPLOSIVES, FIREARMS, OR TEAR GAS SHALL NOT BE PERMITTED WITHIN OR NEAR THE BURN BUILDING.
- ONCE ALL CONCRETE AND MASONRY WORK HAVE BEEN COMPLETED, THE BURN BUILDING SHALL STAND FOR A 2 MONTH MINIMUM CURING PERIOD BEFORE CONDUCTING THE FIRST LIVE FIRE TRAINING EVOLUTION. INSTALLATION OF OTHER TRADES MAY OCCUR DURING THE 2 MONTH CONCRETE AND MASONRY CURING PERIOD.
- THE STRUCTURAL ELEMENTS HAVE BEEN PROTECTED FROM HEAT AND THERMAL SHOCK WITH THERMAL LININGS WHERE SHOWN ON DRAWINGS, NON-BEARING MASONRY WALLS, OTHER NON-STRUCTURAL ITEMS, AND STRUCTURAL ELEMENTS AT SOME LOCATIONS ARE NOT PROTECTED WITH THERMAL LININGS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ITEMS NOT PROTECTED WITH THERMAL LININGS, BUT EXPOSED TO TEMPERATURES GREATER THAN 150 DEGREES F, ARE EXPECTED TO GRADUALLY DETERIORATE WITH EVERY EVOLUTION. MAINTENANCE WILL BE REQUIRED ON ALL COMPONENTS AND SHOULD BE INCLUDED IN ANNUAL BUDGETS.
- FIRES SHOULD BE PLACED AWAY FROM DOORS, SHUTTERS, AND ROOF OPENINGS TO REDUCE DETERIORATION OF THOSE ITEMS.
- FIRES SHOULD BE PLACED ON BURN RACKS, AS SHOWN IN DETAIL 3/BB610. THE INTENT IS TO MINIMIZE THE HEAT AT THE FLOOR LEVEL AND TO MINIMIZE THE AMOUNT OF FIRE AND COALS THAT SIT DIRECTLY ON THE FLOOR.
- THE TEMPERATURES AND HEAT ENERGY WITHIN THE BURN BUILDING DURING LIVE FIRE TRAINING EVOLUTIONS ARE EXPECTED TO BE HIGHER THAN THOSE FROM OTHER BUILDING FIRES. THE OWNER/USER SHALL ESTABLISH AND ENFORCE STANDARD OPERATING PROCEDURES THAT ADDRESS FUEL LOADS AND HEAT ENERGY, MAINTAIN A SAFE TRAINING ENVIRONMENT FOR PERSONNEL, MINIMIZE HEAT EXPOSURE AT STRUCTURAL ELEMENTS THAT ARE NOT PROTECTED WITH THERMAL LININGS, AND PROMOTE DURABILITY OF THE BURN BUILDING AND ITS COMPONENTS.
- IT IS ASSUMED THAT OWNER WILL TEST ROPE TIE-OFF POINTS PER OSHA REQUIREMENTS AND WILL VISUALLY CONFIRM THAT NUTS AND BOLTS ARE TIGHT AT ALL ROPE TIE-OFF ASSEMBLIES ON EACH TRAINING DAY THAT USES THOSE TIE-OFF POINTS.

C. CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS GOVERN THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF STRUCTURAL WORK PERFORMED ON THIS PROJECT:

- 2018 NORTH CAROLINA STATE BUILDING CODE (BASED ON INTERNATIONAL BUILDING CODE (IBC-2015), INTERNATIONAL CODE COUNCIL (ICC).
- MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-10), AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
- SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - AISC 360-10, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, EXCEPT AS MODIFIED BY NCSBC.
- STRUCTURAL WELDING CODE - STEEL (AWS D1.4-2011), AMERICAN WELDING SOCIETY (AWS), EXCEPT AS MODIFIED BY NCSBC.
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318-14), AMERICAN CONCRETE INSTITUTE (ACI), EXCEPT AS MODIFIED BY NCSBC.
- SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301-16), AMERICAN CONCRETE INSTITUTE (ACI).
- MANUAL OF STANDARD PRACTICE (CRSI) CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES, THE MASONRY SOCIETY (TMS) TMS 402-13/TMS 602-13, AND BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE (ACI) ACI 530-13, EXCEPT AS MODIFIED BY NCSBC.
- STANDARD ON FACILITIES FOR FIRE TRAINING AND ASSOCIATED PROPS (NFPA 1402-2019), NATIONAL FIRE PROTECTION ASSOCIATION.

D. DESIGN GRAVITY LOADS

LIVE LOADS:

- FLOORS: 50 PSF
- STAIRS: 100 PSF
- ROOFS: 50 PSF
- SLAB EDGES AND EAVES: NON-CONCURRENT POINT LOADS OF 750 POUNDS.
- NO LIVE LOAD REDUCTIONS TAKEN.

DEAD LOADS:

- CMU PARTITIONS: 80 PSF
- FIRE BRICK ON TOPS OF FLOORS: 25 PSF
- THERMAL LININGS ON CEILINGS, WALLS, AND COLUMNS: 30 PSF

E. DESIGN SNOW LOADS

- GROUND SNOW LOAD (Pg) = 15 PSF
- FLAT ROOF SNOW LOAD (Pf) = 15 PSF
- SNOW DRIFT LOAD (Ps) = 34.2 PSF
- SNOW EXPOSURE FACTOR (Ce) = 1.0
- THERMAL FACTOR (Ci) = 1.2
- SNOW LOAD IMPORTANCE FACTOR (Is) = 1.0

F. DESIGN WIND LOADS

- RISK CATEGORY II
- BASIC WIND SPEED = 115 MPH
- WIND LOAD IMPORTANCE FACTOR (Iw) = 1.0
- INTERNAL PRESSURE COEFFICIENT = +0.55 / -0.55
- WIND EXPOSURE CATEGORY = C
- WIND DESIGN PRESSURE (P) FOR THE MAIN WIND RESISTING SYSTEM = 41.4 PSF (WINDWARD & LEEWARDED COMBINED) AT HIGHEST POINT.
- WIND DESIGN PRESSURE (P) FOR BUILDING COMPONENTS AND CLADDING = +49.5 PSF/-71.5 PSF ON CMU INFILL WALLS (50 SF).

G. SEISMIC DESIGN DATA

- RISK CATEGORY II
- SEISMIC IMPORTANCE FACTOR (Ie) = 1.0
- SITE CLASS = D
- SPECTRAL RESPONSE ACCELERATIONS: Ss 0.147, S1 = 0.074
- SPECTRAL RESPONSE COEFFICIENTS: Sds 0.157, S1 = 0.118
- SEISMIC DESIGN CATEGORY = B
- BASIC SEISMIC FORCE-RESISTING SYSTEM: BEARING WALL SYSTEM - ORDINARY REINFORCED CONCRETE SHEAR WALLS (A.2)
- RESPONSE MODIFICATION COEFFICIENT (R) = 4.0
- DEFLECTION AMPLIFICATION FACTOR (Cd) = 4.0
- OVERSTRENGTH FACTOR (Qs) = 2.5
- DESIGN BASE SHEAR (V) =0.0392 x W

H. DATUM AND BUILDING ELEVATIONS

- THE DATUM FOR THE BURN BUILDING IS THE TOP OF THE FIRST FLOOR CONCRETE SLAB AT THE EXTERIOR FACE OF THE EXTERIOR WALLS AT THE LOWEST POINT AND IS DESIGNATED ON THE DRAWINGS AS 0.00 FEET.
- THE DATUM ELEVATION IS 294.00 FEET.
- ALL TOP OF SLAB ELEVATIONS ARE SHOWN IN THE PLANS AS +XX.XX OR -XX.XX IN FEET RELATIVE TO THE DATUM.

I. SOILS INFORMATION

- THE FOLLOWING INFORMATION IS BASED ON THE GEOTECHNICAL REPORT ("SOILS REPORT") PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC. DATED JANUARY 11, 2024.
- ACCORDING TO THE SOILS REPORT, SOFT/LOOSE NEAR SURFACE SOILS (APPROXIMATELY 3 FEET DEEP) OVERLAY CLAYS, SILTS, AND SANDS (VARYING FROM 3 FEET TO 25 FEET) AND PARTIALLY WEATHERED ROCK AND ROCK (IN ONE BORING AT 8 FEET).
- ALLOWABLE SOIL BEARING VALUE FOR THE BURN BUILDING IS 2,500 PSF
- ACCORDING TO THE SOILS REPORT, GROUND WATER WAS NOT OBSERVED WITHIN THE BORINGS AT THE BURN BUILDING (B-8 & B-9). SEE SOILS REPORT FOR DRAINAGE CONSIDERATIONS.
- SEE SPECIFICATIONS FOR EARTHWORK REQUIREMENTS, INCLUDING REPLACEMENT OF UNSUITABLE SOILS, MEASURES TO PREVENT INFILTRATION OF RUNOFF AND PRECIPITATION INTO UNDERLYING SOILS AND DEWATERING REQUIREMENTS IF GROUNDWATER IS ENCOUNTERED.

J. FOOTINGS

- EXTEND TOPS OF ALL FOOTINGS TO A MINIMUM OF 1'-6" BELOW EXTERIOR FINISHED GRADE, U.O.N.
- FOOTINGS SHALL BE SUPPORTED ON UNDISTURBED, NATURAL, ACCEPTABLE SOILS OR ON COMPACTED ENGINEERED FILL PLACED OVER THE NATURAL, ACCEPTABLE SOILS.
- ACCORDING TO THE SOILS REPORT, AS MUCH AS 3'-0" OF COMPACTED ENGINEERED FILL OR ABC STONE COULD BE REQUIRED BELOW FOUNDATIONS TO REPLACE SOFT/LOOSE NEAR SURFACE SOILS.
- EXTEND ANY OVER-EXCAVATION AND ENGINEERED FILL AREA LATERALLY BEYOND THE FOUNDATION FOOTPRINT TO A DISTANCE EQUAL TO THE DEPTH OF THE ENGINEERED FILL BENEATH THE FOOTING.
- FOOTING SUBGRADES AND ENGINEERED FILL SHALL BE APPROVED BY THE TESTING AGENCY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE FOOTINGS AND ENGINEERED FILL.

K. BACKFILL COMPACTION

- EXCAVATE, PROOFROLL, BACKFILL, AND COMPACT FOUNDATION AND SLAB-ON-GRADE SUBGRADES PER THE EARTHWORK SPECIFICATION SECTIONS 312000.
- ALL PROOFROLLING AND ENGINEERED OR IMPORTED FILL MATERIALS AND PLACEMENT SHALL BE OBSERVED AND APPROVED BY THE TESTING AGENCY GEOTECHNICAL ENGINEER.
- PROVIDE FILL MATERIALS THAT ARE FREE OF DEBRIS, ORGANIC, AND DELETERIOUS MATERIALS AND THAT MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- PLACE ENGINEERED FILL MATERIAL IN MAXIMUM LEVEL LOOSE LIFTS OF 8 INCHES AND COMPACT TO 95% OF THE STANDARD PROCTOR TEST MAXIMUM DRY DENSITY (ASTM D-698).

L. CAST-IN-PLACE CONCRETE CONSTRUCTION

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318, ACI 301, AND THE ACI DETAILING MANUAL.
- PROVIDE CONCRETE WITH PROPERTIES THAT CONFORM TO THE CRITERIA SPECIFIED IN TABLE 1 ON SHEET BB002.
- PROVIDE NORMAL WEIGHT CONCRETE
- TESTING AGENCY SHALL TAKE CONCRETE TEST CYLINDERS IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, CHAPTER 26 AND THE CONTRACT SPECIFICATIONS.
- SEE THE CONTRACT SPECIFICATIONS FOR ADDITIONAL CONCRETE TESTING REQUIREMENTS (AIR CONTENT, SLUMP, ETC.).
- TESTING AGENCY SHALL PERFORM REBAR INSPECTIONS OF ALL REINFORCING STEEL BEFORE ALL CONCRETE POURS.
- WHEN PLACING CONCRETE ON SLOPING FORMS AT CONCRETE STAIRS, PLACE CONCRETE AT LOWEST ELEVATION OF FORMS FIRST AND WORK UP TOWARD THE HIGHEST ELEVATION.
- APPLY (1) COAT OF BASF MASTERPROTECT H1000, BY BASF, OR APPROVED EQUAL BY EUCLID CHEMICAL COMPANY OR SIKA USA, TO TOP SURFACE OF INTERIOR ELEVATED FLOOR SLABS AFTER SLABS HAVE CURED FOR A MINIMUM OF 28 DAYS. PREPARE SURFACE AND APPLY COATING IN ACCORDANCE WITH REQUIREMENTS OF THE MANUFACTURER.
- PROVIDE CONTINUOUS DRIP ALONG EDGES OF ELEVATED CONCRETE SLABS AS SHOWN IN THE DRAWINGS.
- CHAMFER ALL EXPOSED CORNERS OF COLUMNS AND WALLS WITH 3/4" CHAMFER UNLESS OTHERWISE NOTED.
- AT LOCATIONS SHOWN ON THE DRAWINGS, CAST DOVETAIL ANCHOR SLOTS INTO CONCRETE. SEE GENERAL NOTE 0.15 FOR ADDITIONAL INFORMATION.
- FOR CAST-IN-PLACE CAPS ON MASONRY PARAPETS AND CUBICLE WALLS, PROVIDE EITHER:
 - 5,000 PSI, AIR-ENTRAINED, READY-MIX CONCRETE FROM THE CONCRETE SPECIFICATION, FOR WHICH PUMPING WOULD BE ALLOWED AS WELL AS OTHER MEANS & METHODS, AS LONG AS THE CONCRETE AND FINISH MEET THE REQUIREMENTS OF THE SPECIFICATIONS, OR
 - AIR-ENTRAINED QUICKRETE (QUICKRETE Q-MAX PRO), MIXED IN A MIXER ON SITE (NOT IN A WHEELBARROW), WITH THE FIBERS THAT PROJECT FROM THE SURFACE RUBBED OFF AFTER THE FINAL CURE AND WITH FINISH THAT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.

M. CONCRETE REINFORCEMENT

- PROVIDE HIGH STRENGTH, NEW BILLET DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 FOR STEEL REINFORCEMENT IN CONCRETE.
- PROVIDE STEEL REINFORCEMENT DETAILS IN ACCORDANCE WITH ACI 318 AND CRSI STANDARDS.
- PROVIDE CONCRETE PROTECTION FOR STEEL REINFORCEMENT OF CAST-IN-PLACE CONCRETE AS SPECIFIED IN TABLE 2 ON SHEET BB002. IF OF REINFORCING AS CLOSE TO THE CONCRETE SURFACES AS POSSIBLE WITHOUT VIOLATING THE REQUIREMENTS SHOWN IN THE TABLE.
- COORDINATE REINFORCING PLACEMENT WITH ALL POST-INSTALLED ANCHORS AT GUARDRAILS, DOORS, SHUTTERS, SCUPPERS, ROPE TIE-OFF ANCHORS, ETC.

N. SLABS-ON-GRADE

- FOR ALL SLABS-ON-GRADE, PROVIDE A 6" MIN. THICK POURED CONCRETE SLAB-ON-GRADE, REINFORCED WITH WWR6x6-W2.9xW2.9 LOCATED IN THE UPPER THIRD PORTION OF SLAB THICKNESS.
- FOLLOW WRI STANDARDS FOR WELDED WIRE REINFORCEMENT PLACING, LAP, ETC.
- PROVIDE A MINIMUM OF 4" OF AGGREGATE BASE COURSE (ABC STONE) AS A BASE BELOW THE SLABS-ON-GRADE.
- PROVIDE A 15 MIL VAPOR BARRIER BELOW THE SLABS-ON-GRADE PER THE SPECIFICATIONS.
- PROVIDE A CONTINUOUS MANUFACTURED CRACK CONTROL JOINT (PREMOLDED PLASTIC STRIP) OR EARLY ENTRY SAW-CUT CONTROL JOINT IN THE TOP OF SLAB AT LOCATIONS SHOWN ON THE FOUNDATION PLANS. SEE SPECS. FOR REQUIREMENTS OF SAW-CUTTING.

O. MASONRY

- PROVIDE 2-CELL NORMAL WEIGHT CONCRETE BLOCK CONFORMING TO ASTM C-90.
- PROVIDE UNIT MASONRY THAT DEVELOPS INSTALLED COMPRESSIVE STRENGTHS (fm) AT 28 DAYS, BASED ON NET AREA, OF 2,000 PSI.
- PROVIDE MORTAR THAT CONFORMS TO ASTM C-270, TYPE S.
- ADD INTEGRAL WATER REPELLENT ADMIXTURE TO BLOCK AND MORTAR IN ALL MASONRY WALLS IN ACCORDANCE WITH THE SPECIFICATIONS.
- UNLESS OTHERWISE NOTED, PROVIDE HORIZONTAL JOINT REINFORCING AT 16" ON CENTER VERTICALLY IN ALL MASONRY WALLS.
- UNLESS OTHERWISE NOTED ON DRAWINGS, PROVIDE (1) #5 VERTICAL BAR AT ENDS OF WALLS, AT WALL CORNERS AND INTERSECTIONS, AT JAMBS OF OPENINGS, AND AT 24" O.C. MAXIMUM IN ALL MASONRY WALLS. SEE DRAWINGS FOR ADDITIONAL REINFORCING DETAILS, INCLUDING AT JOINTS.
- PROVIDE VERTICAL REINFORCING BARS FOR FULL HEIGHT OF WALL. DO NOT DOWEL BARS INTO CONCRETE SLABS AT TOPS OR BOTTOMS OF WALLS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- SEE DRAWINGS FOR ADDITIONAL DETAILS RELATING TO VERTICAL REINFORCING BARS, INCLUDING BARS AT DOOR, WINDOW, AND SCUPPER OPENINGS, AT OPEN VERTICAL JOINTS IN WALLS, AND AT OTHER LOCATIONS.
- KEEP CELLS TO RECEIVE BARS CLEAN OF MORTAR DROPPINGS.
- SECURE VERTICAL BARS WITH WIRE TIES AND SPACERS AT TOP AND BOTTOM TO ASSURE THAT BARS REMAIN IN POSITION DURING GROUTING.
- FILL ALL CELLS FULL HEIGHT WITH 3,000 PSI MASONRY GROUT PER ASTM C-476 AND THE SPECS.
- CLOSE CLEANOUTS AFTER GROUT FLOWS FULLY TO BOTTOM OF WALL. VIBRATE GROUT DURING PLACEMENT TO ELIMINATE AIR POCKETS.
- PROVIDE LOOSE-LAID FIRE BRICK ON FLOORS, WHERE INDICATED, THAT CONFORMS TO ASTM C-27, CLASSIFICATION: MEDIUM-DUTY.
- SEE THE CONTRACT SPECIFICATIONS FOR MASONRY TESTING AND INSPECTIONS REQUIRED, INCLUDING REINFORCING AND GROUTING INSPECTIONS.
- AT LOCATIONS INDICATED ON DRAWINGS, ANCHOR MASONRY TO CONCRETE WITH DOVETAIL ANCHORS AT 16" ON CENTER, UNLESS OTHERWISE NOTED, AND MORTAR MASONRY TIGHT TO FACES OF CONCRETE. PROVIDE S.S. 4" LONG NO. 103-C DOVETAIL TRIANGLE ANCHOR, EACH WITH 12 GA. DOVETAIL ANCHOR AND 3/16" DIA. WIRE TRIANGLE TIE, AND S.S. 22 GA. NO. 100 STANDARD DOVETAIL SLOTS BY HECKMAN BUILDING PRODUCTS, INC., OR AN EQUIVALENT BY HOHMANN & BARNARD OR DUR-O-WAL, APPROVED BY THE ENGINEER. SPACE ANCHORS AT 16" O.C. VERTICALLY AND, IF APPLICABLE, 24" O.C. HORIZONTALLY U.O.N. DO NOT ANCHOR MASONRY TO CONCRETE WHERE OPEN JOINTS ARE SHOWN NOR WHERE THERMAL LININGS SEPARATE CONCRETE FROM MASONRY.
- ALL MASONRY WALLS SHALL BE STANDARD GRAY COLOR WITH 8"(THICK) x 16"(LONG) x 8"(TALL) NOMINAL BLOCKS. ALL BLOCKS SHALL BE STANDARD SMOOTH FACE BLOCK.
- PROVIDE (2) COATS OF WATER REPELLENT SEALER, AS INDICATED IN SPECIFICATION SECTION 04 20 00, TO THE EXTERIOR FACE OF CMU WALLS WHERE INDICATED IN PLAN.
- SEE GENERAL NOTE L.12 FOR PARAPET & CUBICLE WALL CAPS.

P. ANCHORS

- INSTALL ADHESIVE ANCHORS, EXPANSION ANCHORS, SLEEVE ANCHORS, AND CONCRETE ANCHOR SCREWS PER THE TYPICAL ANCHOR SCHEDULES ON SHEET BB002.
- PROVIDE ANCHORS WITH MINIMUM EMBEDMENT AND ALLOWABLE CAPACITIES SHOWN IN THE SCHEDULES, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- IF MINIMUM REQUIREMENTS FOR ANCHORS CAN NOT BE ACHIEVED DUE TO FIELD CONDITIONS, NOTIFY THE ENGINEER.
- INSTALL ALL ANCHORS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
- DRILL HOLES FOR ANCHORS TO BE INSTALLED IN MASONRY WITH A ROTARY DRILL ONLY. NOT A ROTARY-HAMMER DRILL. DO NOT DAMAGE FACES OF WALLS, CEILINGS, SLABS, OR OTHER SUBSTRATES WHILE DRILLING.
- SUBMIT PROPOSED ANCHORS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.
- DO NOT DAMAGE REINFORCING STEEL WHILE INSTALLING ANCHORS. COORDINATE REINFORCING PLACEMENT WITH ALL POST-INSTALLED ANCHORS AT GUARDRAILS, DOORS, SHUTTERS, SCUPPERS, ROPE TIE-OFF ANCHORS, ETC.
- ANCHORS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR RESPONSIBLE FOR THE SCOPE OF WORK BEING ANCHORED.

Q. STEEL SHAPES AND PLATES

- PROVIDE STEEL WITH PROPERTIES LISTED IN TABLE 3 ON SHEET BB002.
- SEE SPECIFICATIONS FOR REQUIREMENTS OF STAINLESS STEEL ANGLES AND PLATES.
- PROVIDE WELDED SHOP CONNECTIONS UNLESS OTHERWISE NOTED.
- MAKE FIELD CONNECTIONS WITH ASTM A-325N HIGH STRENGTH BOLTS TIGHTENED TO A SNUG TIGHT CONDITION, UNLESS OTHERWISE NOTED.
- PERFORM ALL WELDING WITH WELDERS QUALIFIED IN ACCORDANCE WITH AWS PROCEDURES FOR WELDER QUALIFICATION.
- PROVIDE GALVANIZING OR STEEL MEMBERS, UNLESS OTHERWISE NOTED ON THE DRAWINGS AS "PAINTED" OR "STAINLESS STEEL".
- AT GALVANIZING VENT HOLES IN PIPES AND TUBES IN RAILINGS, EXTERIOR STAIRS, ROPE FRAMES AND OTHER NOTED ITEMS, LOCATE VENT HOLES AT BOTTOM OF PIPE OR TUBE. PLUG ALL VENT HOLES AFTER GALVANIZING IN ONE OF THE FOLLOWING WAYS: HAMMER IN A ZINC GALVANIZING VENT HOLE PLUG, GRIND IT SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT. A SECOND OPTION IS TO PLUG WELD THE GALVANIZING VENT HOLES, GRIND THE WELDS SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT PER THE SPECIFICATIONS.
- WHERE INDICATED IN THE DRAWINGS AS "PAINTED", PROVIDE STEEL WITH ONE SHOP COAT OF RUST-INHIBITING PRIMER AND TWO FIELD COATS AS INDICATED IN THE SPECIFICATIONS.
- WHERE INDICATED IN THE DRAWINGS AS "STAINLESS STEEL", PROVIDE STAINLESS STEEL OF TYPE INDICATED IN THE SPECIFICATIONS.
- SEE THE CONTRACT SPECIFICATIONS FOR STEEL TESTING AND INSPECTIONS REQUIRED.

R. STEEL GRATING AND TREADS

- PROVIDE 2" DEEP, 13 GAUGE, GALVANIZED 'PERF-O GRIP' STEEL GRATING BY COOPER B-LINE, OR AN EQUIVALENT BY NUCOR GRATING OR METALEX, APPROVED BY THE ENGINEER. MAXIMUM PLANK WIDTH IS 12 INCHES. INSTALL GRATING IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO CREATE A TWO-SPAN CONDITION BY WELDING (SCREWS AND CLIPS NOT ALLOWED). PROVIDE GRATING PLANK LENGTHS THAT ARE AS LONG AS POSSIBLE TO MINIMIZE CUT PLANKS AND JOINTS WHERE CUT ENDS OF PLANKS ABUT ONE ANOTHER.
- PROVIDE 2" DEEP, 13 GAUGE, GALVANIZED 'PERF-O GRIP' STAIR TREADS BY COOPER B-LINE, OR AN EQUIVALENT BY NUCOR GRATING OR METALEX, APPROVED BY THE ENGINEER. INSTALL TREADS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS USING STANDARD ZINC COATED BOLTS.
- PROVIDE A GALVANIZED 2" TALL VERTICAL END PLATE TO CLOSE OFF THE ENDS OF ALL GRATING PLANKS TO ELIMINATE JAGGED EDGES AND TO STRENGTHEN THE ENDS OF THE PLANKS. THIS INCLUDES ENDS OF PLANKS THAT ABUT ENDS OF ADJACENT PLANKS AND THAT ABUT FACE OF THE BUILDING.
- TOUCH UP ALL ABRASIONS AND WELDS WITH GALVANIZING REPAIR PAINT PER THE SPECIFICATIONS.

S. THERMAL LINING SYSTEM

- THE BASIS OF DESIGN FOR THE THERMAL LINING SYSTEM IS HTL SYSTEM 203, MANUFACTURED BY HIGH TEMPERATURE LININGS, INC. OF WHITESTONE, VIRGINIA AT (800) 411-6313. SEE SPECIFICATION SECTION 070001 FOR SYSTEM COMPONENT REQUIREMENTS, PERFORMANCE REQUIREMENTS, QUALIFICATION PROCEDURE, AND SUBMITTAL REQUIREMENTS.
- INSTALL THERMAL LININGS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED BY A MANUFACTURER-APPROVED INSTALLER.
- THE THERMAL LINING INSTALLER REQUIRES THE FOLLOWING SEQUENCE OF CONSTRUCTION TO COORDINATE INSTALLATION OF THERMAL LININGS AND MASONRY WALLS:
 - CONSTRUCT THE CONCRETE FRAME AND STRUCTURE.
 - CONSTRUCT EXTERIOR MASONRY WALLS.
 - INSTALL THERMAL LININGS ON CEILINGS AND CONSTRUCT INTERIOR MASONRY WALS IN THE SEQUENCES REQUIRED TO ACHIEVE THE TOP-OF-WALL BRACING DETAILS SHOWN ON THE DRAWINGS.
 - INSTALL BRACING ANGLES & BRACING ASSEMBLIES AT TOPS OF INTERIOR AND EXTERIOR WALLS.
- PER THE REQUIREMENTS OF THE LINING MANUFACTURER, THE OWNER/USER WILL PERFORM A "PRE-BURN" AT LEAST ONE DAY BEFORE TRAINING BEGINS TO PROPERLY DRY OUT AND CURE THE THERMAL LININGS. THE THERMAL LINING MANUFACTURER'S RECOMMENDATIONS ARE AS FOLLOWS:
 - BURN 2 WOOD PALLETES AND A BAIL OF STRAW IN EACH ROOM THAT CONTAINS THERMAL LINING TILES.
 - ALLOW THE FIRE TO BURN UNTIL NEARLY EXHAUSTED.
 - AT THIS POINT, ADD 2 MORE PALLETES AND BURN AGAIN UNTIL NEARLY EXHAUSTED.
 - REPEAT FOR A TOTAL OF 4 TIMES (8 PALLETES).
 - LET THE FIRE BURN OUT COMPLETELY WITHOUT THE USE OF WATER TO EXTINGUISH THE FIRE.
 - DO NOT BURN ALL 8 PALLETES AT THE SAME TIME.
- SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ABOUT THERMAL LININGS. SEE DRAWINGS FOR DETAILS AND HOW LINING INSTALLATION MUST BE COORDINATED WITH CONCRETE, MASONRY, AND METALS INSTALLATION.

T. TESTING AND INSPECTIONS OF ROPE TIE-OFF POINTS

- OWNER'S TESTING AGENCY SHALL TEST EACH ROPE ANCHOR ASSEMBLY AND ROPE FRAME ASSEMBLY WITH A 5,000-POUND PULL TEST, AS FOLLOWS:
 - SURFACE-MOUNTED ROPE ANCHOR ASSEMBLY: PULL TEST ON HOIST RING PERPENDICULAR TO THE SLAB OR WALL SURFACE ON WHICH ASSEMBLY IS ATTACHED.
 - ROPE FRAME ASSEMBLY: PULL TEST AT TOP OF FRAME AT EACH CORNER OF FRAME PERPENDICULAR TO SLAB SURFACE, TESTING ONE CORNER AT A TIME.

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WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303



NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

BURN BUILDING - GENERAL NOTES

BB001

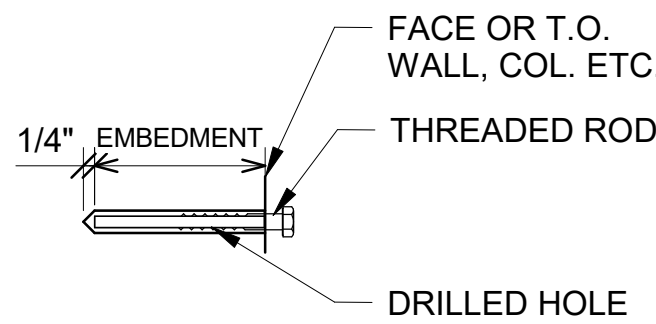
TABLE 1 - CONCRETE PROPERTIES			
STRUCTURE TYPE	f _c (MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS) (psi)	MAXIMUM WATER/CEMENT RATIO	AIR RANGE (%)
ROOF & FLOOR SLABS, SLAB-ON-GRADE, COLUMNS, WALLS, PEDESTALS, & FOUNDATIONS	5,000	0.40	6% ± 1 1/2% (ENTRAINED)

TABLE 2 - CONCRETE PROTECTION FOR STEEL REINFORCEMENT	
STRUCTURE TYPE	MINIMUM CLEAR COVER (UNLESS OTHERWISE NOTED ON DRAWINGS)
ELEVATED SLABS & STAIRS	1 1/2" TO BOTTOM BARS 2" SIDE COVER FOR ALL BARS 2" TO TOP BARS
WALLS	FOR SINGLE LAYER, CENTER BARS IN WALLS. FOR DOUBLE LAYER, 2" TO OUTERMOST BARS.
COLUMNS & PEDESTALS	2" TO VERTICAL BARS 1 5/8" TO TIES
FOOTINGS AND OTHER EARTH FORMED CONCRETE	3"

TABLE 3 - STRUCTURAL STEEL PROPERTIES			
SHAPE	ASTM DESIGNATION	GRADE	MIN. YIELD STRENGTH (Fy)
PLATES & ANGLES	A-36	---	36 KSI
WIDE FLANGES	A-992	---	50 KSI
CHANNELS	A-572	---	50 KSI
HSS RECT.	A-500	C	50 KSI
HSS ROUND	A-53*	B	35 KSI

* A-500, GRADE C, 46 KSI IS AN ACCEPTABLE ALTERNATE FOR A-53 AS LONG AS PIPE SIZES MEET REQUIREMENTS SHOWN ON DRAWINGS.

ADHESIVE ANCHOR SCHEDULE/EPOXY			
ANCHOR DIAMETER	EMBEDMENT DEPTH	MIN. ALLOWABLE LOADS IN GROUT-FILLED CMU	
		TENSION (lbs)	SHEAR (lbs)
3/8" (HY270)	3 3/8"	1,240	850
1/2" (HY270)	4 1/2"	2,035	1,495
5/8" (HY270)	5 5/8"	2,840	2,615
ANCHOR DIAMETER	EMBEDMENT DEPTH	FACTORED LOADS IN 4,000 PSI CRACKED CONCRETE	
		TENSION (lbs)	SHEAR (lbs)
3/8" (HY200)	3 3/8"	4,335	2,630
1/2" (HY200)	4 1/2"	6,670	4,815
5/8" (HY200)	5 5/8"	9,325	7,670
3/4" (HY200)	6 3/4"	12,255	11,330

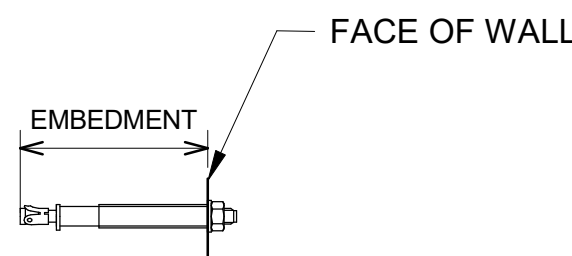


ADHESIVE ANCHOR

NOTES:

- WHERE INSTALLED IN HOLLOW, GROUTED OR SOLID CMU, PROVIDE HILTI HIT HY270 WITH HAS RODS, MANUFACTURED BY HILTI FASTENING SYSTEMS, OR AN APPROVED EQUIVALENT BY ITW RAMSET/REDHEAD OR POWERS FASTENERS, INC. (FORMERLY RAWL).
- WHERE INSTALLED IN CONCRETE, PROVIDE HILTI HIT HY200 WITH HIT-Z RODS, MANUFACTURED BY HILTI FABRICATING SYSTEMS, OR AN APPROVED EQUIVALENT BY ITW RAMSET/REDHEAD OR POWERS FASTENERS, INC. (FORMERLY RAWL).
- PROVIDE STAINLESS STEEL ADHESIVE ANCHORS UNLESS OTHERWISE NOTED.
- IF DRAWINGS CALL FOR EPOXYING REBAR INTO CONCRETE, USE ADHESIVE ANCHOR SCHEDULE/EPOXY TABLE.

SLEEVE ANCHOR SCHEDULE			
ANCHOR DIAMETER	EMBEDMENT DEPTH	MIN. ALLOWABLE LOADS IN HOLLOW CMU	
		TENSION (lbs)	SHEAR (lbs)
3/8"	1 1/2"	470	890



SLEEVE ANCHOR

NOTES:

- PROVIDE HILTI HLC-HX SS 304 SLEEVE ANCHORS MANUFACTURED BY HILTI FASTENING SYSTEMS, OR AN APPROVED EQUIVALENT BY ITW RAMSET/REDHEAD OR POWERS FASTENERS, INC. (FORMERLY RAWL).
- PROVIDE 304 STAINLESS STEEL ANCHORS, U.O.N.

LEGEND

CONCRETE

EARTH

GRAVEL

GROUT

FIRE BRICK

WOOD FRAMING

NORTH

PLYWOOD

RIGID INSULATION OR THERMAL LINING SYSTEM

THERMAL LINING IN PLAN OR SECTION

STEEL

CMU IN SECTION

GROUTED CMU IN SECTION

MASONRY IN ELEVATION

ELEVATION NUMBER

SECTION NUMBER

DETAIL NUMBER

DETAIL KEY

ROOM NUMBER

DOOR TYPE

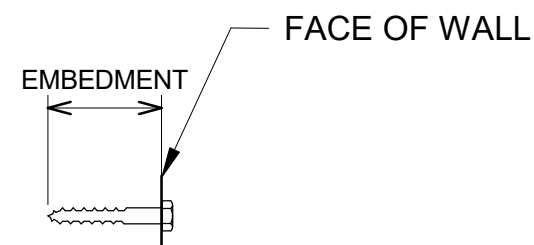
ADDITIONAL REINFORCING

REVISION

EXPANSION ANCHOR

CONCRETE SCREW ANCHOR

CONCRETE ANCHOR SCREW SCHEDULE			
ANCHOR DIAMETER	EMBEDMENT DEPTH	MIN. ALLOWABLE LOADS IN 4,000 PSI CONCRETE	
		TENSION (lbs)	SHEAR (lbs)
1/4"	1 3/4"	255	540



CONCRETE SCREW ANCHOR

NOTES:

- UNLESS SHOWN AS STAINLESS STEEL, PROVIDE CONCRETE ANCHOR SCREWS THAT ARE MANUFACTURED FROM AISI 1022 STEEL WITH AN EXTENDED CORROSION RESISTANT COATING THAT IS COMPATIBLE WITH GALVANIZED STEEL.
- PROVIDE CONCRETE ANCHOR SCREWS MANUFACTURED BY ITW RAMSET/REDHEAD, OR AN APPROVED EQUIVALENT BY HILTI FASTENING SYSTEMS OR POWERS FASTENERS, INC. (FORMERLY RAWL).

ABBREVIATIONS

& L @ # e (E) A.F.F. A.F.G. ALT. APPROX. ARCH. B BLDG. BM. BOT. BRG. BSMT. CS C.C. C.E. C.I.P. C.J. CL. CLG. CLR. CMU C.O. COMP. COL. CONC. CONSTR. CONT. CTR. C.Y.

AND ANGLE AT NUMBER DIAMETER EXISTING ABOVE FINISHED FLOOR ABOVE FINISHED GRADE ALTERATE APPROXIMATE ARCHITECTURAL BOTTOM BAR(S) BOTTOMMOST BAR(S) BUILDING BEAM(S) BOTTOM BEARING BASEMENT COLUMN STRIP COURSE(S) CENTER TO CENTER CONTINUOUS END CAST IN PLACE CONTROL JOINT CENTERLINE CEILING CLEAR CONCRETE MASONRY UNIT CLEAR OPENING COMPOSITE COLUMN CONCRETE CONSTRUCTION CONTINUOUS CENTER CUBIC YARD

DISCONTINUOUS END DOUBLE DEMOLISH, DEMOLITION DIAMETER DIMENSION DOWN DRILLED PIER DETAIL DRAWING(S) EACH EACH END EACH FACE EQUIVALENT FLUID PRESSURE EXPANSION JOINT ELEVATION ELECTRICAL ELEVATOR ENGINEER EQUAL EQUIPMENT EQUIVALENT EACH WAY EXISTING EXPANSION FINISH FLOOR FOUNDATION(S) FLOOR FACE OF FOOT OR FEET FOOTING(S) FUTURE GRADE BEAM GAUGE GALVANIZED GENERAL

HEADED ANCHOR STUD HEADER HORIZONTAL HIGH INSIDE DIAMETER INSIDE FACE INCH INTERMEDIATE JOINT KIPS PER SQUARE FOOT KIPS PER SQUARE INCH LEFT END LONG LEG HORIZONTAL LONG LEG VERTICAL LONG SIDE HORIZONTAL LONG SIDE VERTICAL LONGITUDINAL LIGHTWEIGHT LOW MIDDLE STRIP MASONRY OPENING MASONRY MAXIMUM MECHANICAL METAL MANUFACTURER MINIMUM MISCELLANEOUS NORTH NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE

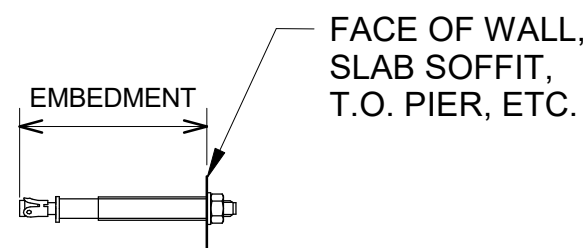
ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPENING OPPOSITE PRE-CAST PLATE PREFABRICATED POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH POST-TENSIONED POLYVINYL CHLORIDE PAVEMENT RADIUS RIGHT END REINFORCING / REINFORCEMENT REVISION SCHEDULE SECTION SQUARE FEET SIMILAR SLAB-ON-GRADE SPECIFICATION(S) STAINLESS STEEL STANDARD STEEL STRUCTURAL SYMMETRICAL TOP BAR(S) TOPMOST BAR(S) TOP AND BOTTOM TONGUE AND GROOVE THERMAL LINING TOP OF TOP OF CONCRETE

T.O.F. TOP OF FOOTING T.O.P. TOP OF PARAPET T.O.S. TOP OF STEEL T.O.W. TOP OF WALL TRANS. TRANSVERSE TYP. TYPICAL U.O.N. UNLESS OTHERWISE NOTED VERT. VERTICAL W/ WITH W/O WITHOUT W.P. WORK POINT WT. WEIGHT W.W.R. WELDED WIRE REINFORCEMENT

EXPANSION ANCHOR SCHEDULE FOR THERMAL LINING SYSTEM ONLY			
ANCHOR DIAMETER	EMBEDMENT DEPTH	MIN. ALLOWABLE LOADS IN 4,000 PSI CONCRETE	
		TENSION (lbs)	SHEAR (lbs)
3/8"	2 1/2"	1,575	1,590

NOTES:

- PROVIDE STUD TYPE EXPANSION ANCHORS WITH A SINGLE THREE PIECE SECTION WEDGE THAT MEET THE DESCRIPTION IN FEDERAL SPECIFICATION A-A-1923A, TYPE 4.
- PROVIDE HILTI KWIK BOLT 3, MANUFACTURED BY HILTI FASTENING SYSTEMS, OR AN APPROVED EQUIVALENT BY ITW RAMSET/REDHEAD OR POWERS FASTENERS, INC. (FORMERLY RAWL).
- PROVIDE 316 STAINLESS STEEL ANCHORS, U.O.N.



EXPANSION ANCHOR

EXPANSION ANCHOR SCHEDULE					
ANCHOR DIAMETER	NOMINAL EMBEDMENT DEPTH	MIN. DESIGN STRENGTHS IN 4,000 PSI CRACKED CONCRETE BEFORE REDUCTIONS			
		TENSION (lbs) NON-SEISMIC LOADING	TENSION (lbs) SEISMIC LOADING	SHEAR (lbs) CONCRETE	SHEAR (lbs) STEEL STRENGTH ONLY, NON-SEISMIC LOADING
3/8"	3"	2,765	2,075	5,950	3,175
1/2"	3 3/4"	4,095	3,070	8,820	5,425
5/8"	4 1/2"	5,590	4,190	12,040	8,030
3/4"	5 1/2"	7,230	5,420	19,250	10,765

NOTES:

- THIS TABLE APPLIES TO ALL EXPANSION ANCHORS, EXCEPT FOR THOSE USED IN THE THERMAL LINING SYSTEM.
- PROVIDE STUD TYPE EXPANSION ANCHORS TESTED AND RATED FOR USE IN CRACKED CONCRETE AND LISTED IN ICC-ES EVALUATION REPORTS.
- PROVIDE HILTI KWIK BOLT T22, MANUFACTURED BY HILTI FASTENING SYSTEMS, SIMPSON STRONG-BOLT 2, MANUFACTURED BY SIMPSON STRONG-TIE, OR POWER-STUD+ SD4, MANUFACTURED BY DEWALT.
- PROVIDE 304 STAINLESS STEEL ANCHORS, U.O.N. AS ZINC-COATED. IN GENERAL, S.S. ANCHORS SHALL BE USED WITH S.S. ITEMS AND ZINC-COATED ANCHORS SHALL BE USED WITH GALV. ITEMS, U.O.N.
- FOR ALLOWABLE LOADS, MULTIPLY LISTED VALUES BY A FACTOR OF 0.65.

TYPICAL REINFORCING LAP SPlice SCHEDULE										
BAR SIZE	NORMAL WEIGHT CONCRETE								MASONRY	
	FOUNDATION		BEAM		SLAB		WALL		COL.	WALL
	BOT.	TOP	BOT.	TOP	INT.	EXT.	VERT.	HORIZ.	VERT	(1) BAR PER CELL VERT. HORIZ.
#3	1'-10"	2'-4"	1'-7"	2'-1"	1'-7"	1'-7"	1'-7"	1'-7"	1'-3"	1'-7"
#4	2'-5"	3'-2"	2'-1"	2'-8"	2'-1"	2'-1"	2'-1"	2'-1"	1'-7"	2'-1"
#5	3'-0"	3-11"	2'-7"	3'-5"	2'-7"	2'-7"	2'-7"	2'-7"	2'-0"	2'-7"
#6	3'-7"	4'-8"	3'-1"	4'-1"	3'-1"	3'-1"	3'-1"	3'-1"	2'-5"	4'-9"
#7	5'-3"	6'-9"	4'-6"	5'-11"	---	---	4'-6"	4'-6"	3'-6"	6'-7"
#8	6'-0"	7'-9"	5'-2"	6'-9"	---	---	5'-2"	5'-2"	4'-0"	---
#9	6'-9"	8'-9"	5'-10"	7'-7"	---	---	5'-9"	5'-9"	4'-6"	---
#10	7'-7"	9'-10"	6'-9"	8'-6"	---	---	---	---	---	---
#11	---	---	7'-3"	9'-5"	---	---	---	---	---	---

NOTES:

- VALUES SHOWN ARE MIN. LAP SPlice LENGTHS IN NORMAL WEIGHT CONC. OR GROUT FILLED MAS.
- TOP BARS ARE DEFINED AS BARS WITH MORE THAN 12" OF FRESH CONC. BELOW.
- FOR MIN. BAR DEVELOPMENT LENGTH, DIVIDE VALUES SHOWN IN LAP SPlice SCHED. BY 1.3.
- WHEN LAPPING TWO DIFFERENT SIZE BARS, USE THE LAP SPlice DIMENSION OF THE SMALLER BAR OR THE DEVELOPMENT LENGTH OF THE LARGER BAR, WHICHEVER IS LARGER.
- FOR BEAMS AND COLUMNS, VALUES SHOWN APPLY WHERE ALL PROVISIONS OF EITHER ONE OF THE FOLLOWING TWO CASES APPLY:

CASE 1

- MIN. CLR. SPACING OF BARS BEING DEVELOPED OR SPliced NOT LESS THAN ONE BAR DIAMETER, AND
- CLR. COVER NOT LESS THAN ONE BAR DIAMETER, AND
- STIRRUPS OR TIES ARE PROVIDED THROUGHOUT REQUIRED LENGTH OF LAP SPlice OR DEVELOPMENT LENGTH.

OR

CASE 2

- MIN. CLR. SPACING OF BARS BEING DEVELOPED OR SPliced NOT LESS THAN TWO BAR DIAMETERS.
- CLR. COVER NOT LESS THAN ONE BAR DIAMETER.
- STIRRUPS OR TIES ARE NOT PROVIDED THROUGHOUT REQUIRED LENGTH OF LAP SPlice OR DEVELOPMENT LENGTH.

WHERE ANY OF THESE PROVISIONS WITHIN THE APPLICABLE CASE ARE NOT MET, MULTIPLY VALUES SHOWN IN LAP SPlice SCHEDULE BY 1.5.



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WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



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1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

BURN BUILDING - TABLES, LEGEND & ABBREVIATIONS

BB002

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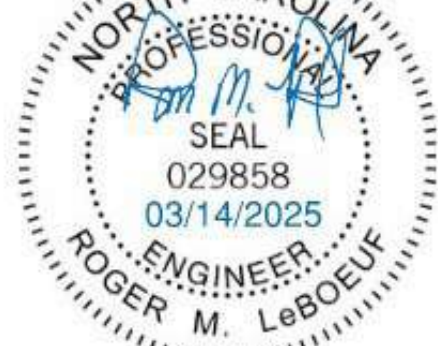
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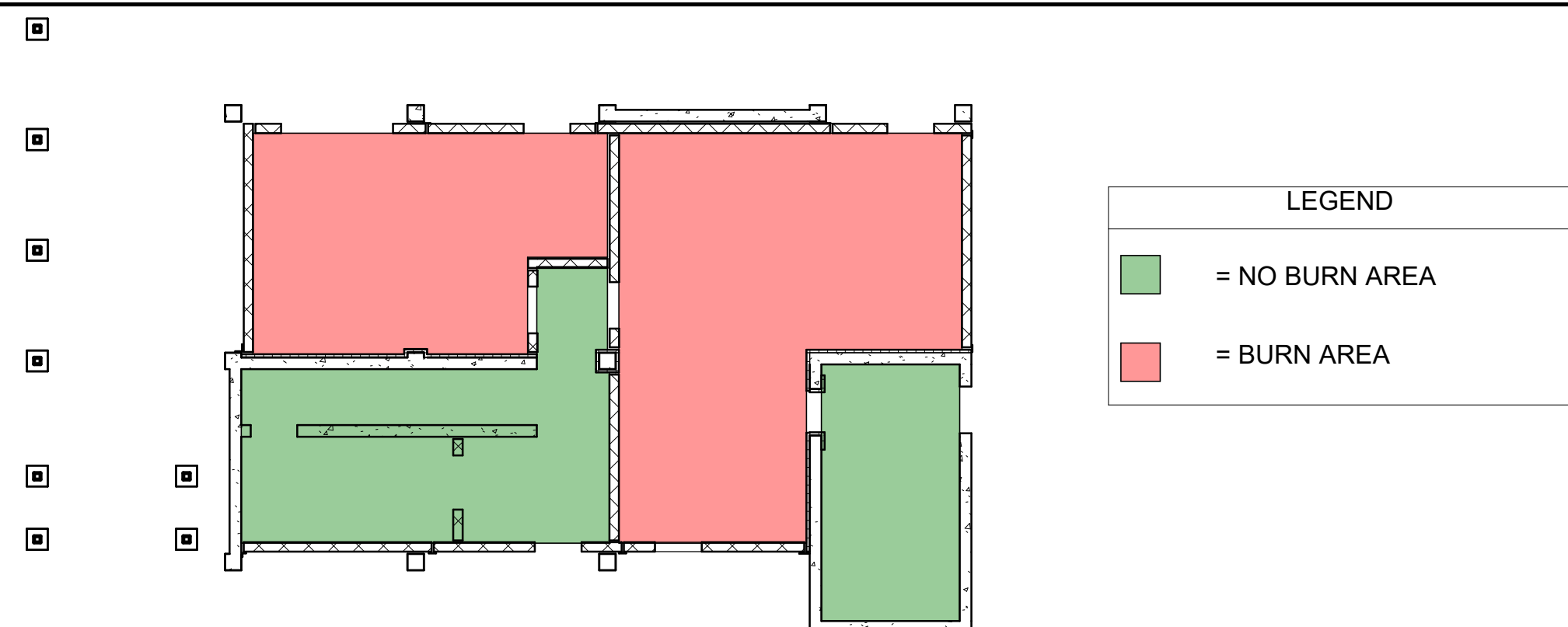


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BURN BUILDING - FIRST FLOOR PLAN

BB201



- NOTE:
- SEE 1/BB201 FOR MORE INFORMATION.
 - "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

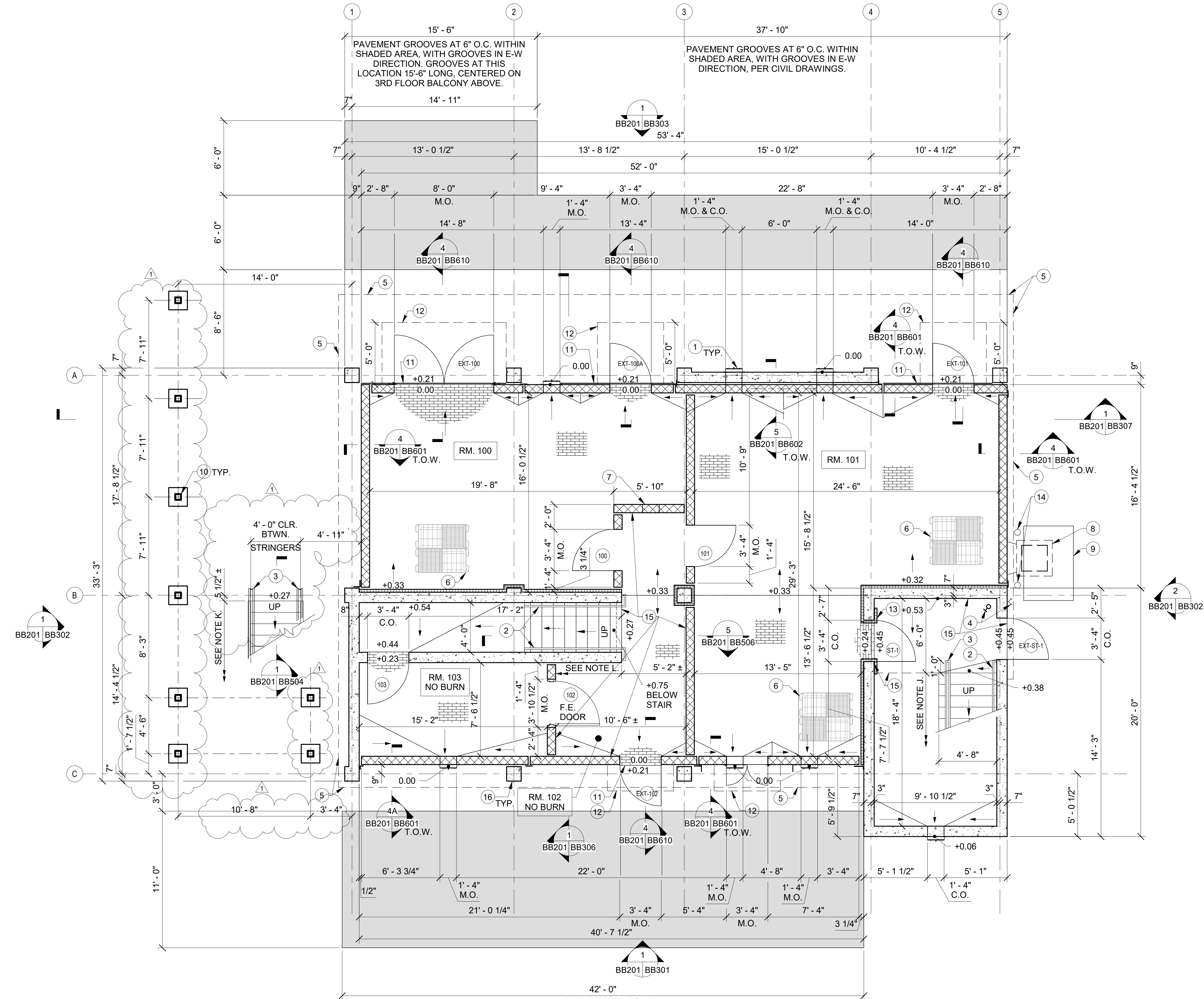
FIRST FLOOR KEY PLAN

BB201 BB201 SCALE 3/32" = 1'-0"

ROOM NOS.	CEILING FINISH	FLOOR FINISH	WALL FINISH	NOTES
100, 101	THERMAL LINING SYSTEM	FIRE BRICK	CMU & THERMAL LINING SYSTEM	SEE NOTES 1 & 2.
102	THERMAL LINING SYSTEM	FIRE BRICK	CMU & CONC.	SEE NOTE 1.
103	CONCRETE	FIRE BRICK	CMU & CONC.	SEE NOTE 1.
200, 205	THERMAL LINING SYSTEM	FIRE BRICK	CMU	SEE NOTES 1 & 3.
201, 202, 202A, 203, 204	THERMAL LINING SYSTEM	FIRE BRICK	CMU & THERMAL LINING SYSTEM	SEE NOTES 1, 2, & 3.
206	CONCRETE	FIRE BRICK	CMU & CONC.	SEE NOTE 1 & 3.
2ND FLOOR BALCONY	CONCRETE & THERMAL LINING ROLLOVER TILES	CONCRETE	CMU & CONC.	SEE NOTES 1 & 2.
300	THERMAL LINING SYSTEM	FIRE BRICK	CMU	SEE NOTES 1 & 3.
301, 302, 304	THERMAL LINING SYSTEM	FIRE BRICK	CMU & THERMAL LINING SYSTEM	SEE NOTES 1, 2, & 3.
303	THERMAL LINING SYSTEM	FIRE BRICK	CMU, CONC., & THERMAL LINING SYSTEM	SEE NOTES 1, 2, & 3.
INSET BALCONY	CONCRETE	CONCRETE	CMU & CONC.	SEE NOTE 1.
3RD FLOOR BALCONY	---	CONCRETE	CMU	SEE NOTE 1.
400, 406	THERMAL LINING SYSTEM	FIRE BRICK	CMU	SEE NOTES 1 & 3.
401, 407	THERMAL LINING SYSTEM	FIRE BRICK	CMU & THERMAL LINING SYSTEM	SEE NOTES 1, 2, & 3.
402, 403, 405	CONCRETE	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
404	THERMAL LINING SYSTEM	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
500, 501	THERMAL LINING SYSTEM	FIRE BRICK	CMU	SEE NOTES 1 & 3.
502, 503, 505, 507	CONCRETE	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
504	THERMAL LINING SYSTEM	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
506	CONCRETE	FIRE BRICK	CMU	SEE NOTES 1 & 3.
600	THERMAL LINING SYSTEM	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
601	THERMAL LINING SYSTEM	FIRE BRICK	CMU	SEE NOTES 1 & 3.
602, 603	THERMAL LINING SYSTEM	FIRE BRICK	CMU & THERMAL LINING SYSTEM	SEE NOTES 1, 2, & 3.
604	CONCRETE	FIRE BRICK	CMU & CONC.	SEE NOTES 1 & 3.
INTERIOR STAIRS	CONCRETE & THERMAL LINING SYSTEM	CONCRETE	CONCRETE, EXCEPT CMU ABOVE 2ND FLOOR AT STRAIGHT RUN INTERIOR STAIR	SEE NOTES 1 & 4.

- FINISH SCHEDULE NOTES:
- ALL EXPOSED CONCRETE AND CMU SURFACES ARE UNPAINTED.
 - SEE PLANS FOR LOCATIONS AND EXTENTS OF THERMAL LINING SYSTEM ON CEILINGS AND WALLS.
 - SEE SPECIFICATIONS FOR CONCRETE COATING/SEALER ON TOP OF CONCRETE SLAB (BELOW LOOSE Laid FIRE BRICK AT SECOND THRU SIXTH FLOORS ONLY, NOT AT FIRST FLOOR).
 - PROVIDE THERMAL LINING SYSTEM AT CEILING AREA ABOVE MAIN LANDING IN STAIRWELL AT FIRST FLOOR ONLY AND AT ENTIRE CEILING OF STRAIGHT RUN STAIR.

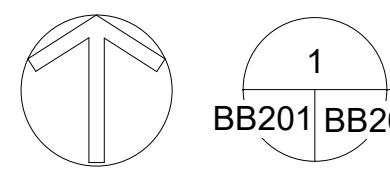
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NOTES:

- DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM. DATUM IS AT ELEVATION 294.00'. FLOOR ELEVATIONS ARE NOTED AS +X.XX OR -X.XX IN FEET ABOVE OR BELOW DATUM.
- SEE SITE DRAWINGS FOR TOP OF EXTERIOR FINISHED GRADE AND OTHER SITE ELEVATIONS.
- ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS. CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DETAILS.
- AT 20 LOCATIONS IN 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.

- 8T @ 11" = 7'-4", 9R @ 6 11/16" = 5'-0"± FROM GROUND TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 8T @ 11" = 7'-4", 9R @ 6 7/8" = 5'-1 3/4"± FROM GROUND TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 17T @ 11" = 15'-7", 17R @ 6 11/16" = 10'-2 5/8"±. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- LIVE FIRE TRAINING IS ALLOWED ONLY IN ROOMS 100 AND 101. NO BURNING IS ALLOWED IN ROOMS 102, 103, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.

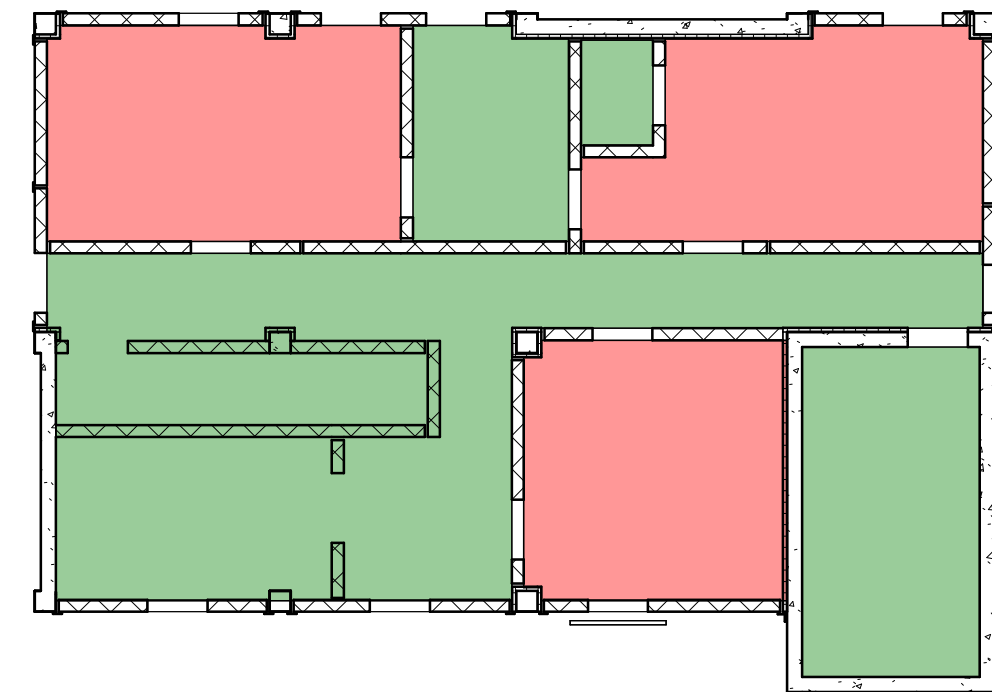
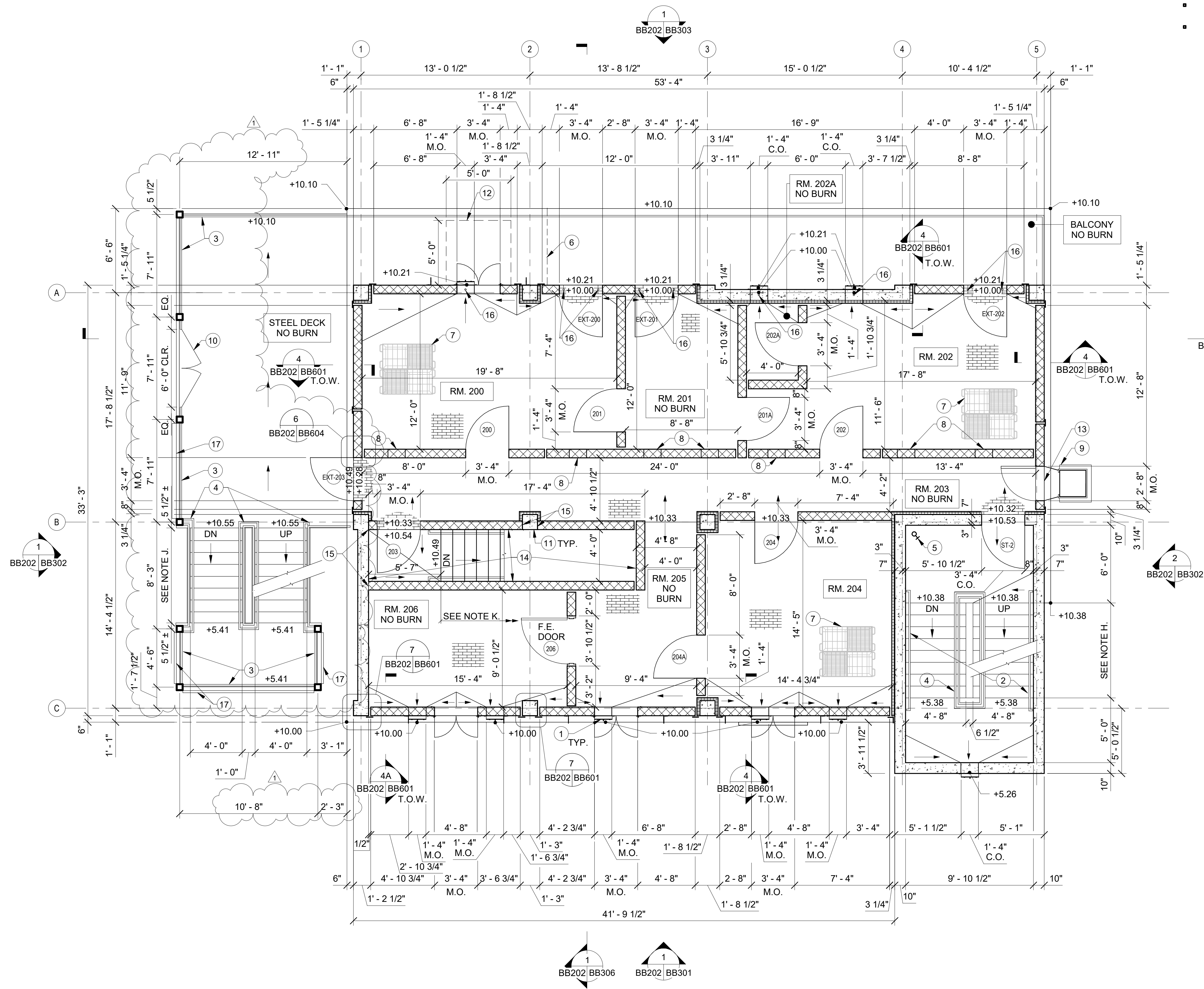


FIRST FLOOR PLAN

BB201 BB201 SCALE 1/4" = 1'-0"

KEYED NOTES:

- SCUPPERS PER SHEET BB603 (7 THUS).
- HANDRAIL PER DETAIL 1/BB607.
- FIXED GUARDRAIL W/ HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- F.D.C. & DRY STANDPIPE PER P DRAWINGS.
- EDGE OF SECOND FLOOR SLAB ABOVE.
- PROVIDE (3) TOTAL BURN RACKS IN BURN ROOMS PER DETAIL 3/BB610.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- DEBRIS CHUTE ABOVE. ANGLE DEBRIS CHUTE AWAY FROM DOOR EXT-ST-1.
- DUMPSTER BY OWNER (N.I.C.).
- STEEL TUBE COLUMN ON CONCRETE PIER PER FOUNDATION PLAN (8 THUS). TOPS OF ALL PIERS SHALL BE AT THE SAME ELEVATION, 3" MIN A.F.G.
- PROVIDE HORIZ. SLOT IN TOP OF EXTERIOR PAVING AT DOORWAY PER DETAIL 4/BB610.
- THERMAL LINING ROLLOVER TILES AT UNDERSIDE OF SLAB ABOVE FOR EXTENTS SHOWN ON PLAN.
- THERMAL LINING ROLLOVER TILES AT DOOR JAMBS, & HEAD, INCLUDING WALL FACE ABOVE DOOR.
- BOLLARD PER CIVIL DWGS.
- THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).



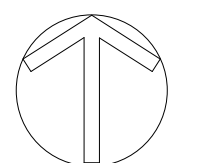
NOTE:

- SEE 1/BB202 FOR MORE INFORMATION.
- "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

2 SECOND FLOOR KEY PLAN
BB202 BB202 SCALE 3/32" = 1'-0"

NOTES:

- DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS. CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. xxx DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- AT 37 LOCATIONS IN 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM SECOND FLOOR DOWN TO INTERMEDIATE LANDING BELOW. 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM SECOND FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 8T @ 11" = 7'-4", 9R @ 6 7/8" ± = 5'-1 3/4" ± FROM SECOND FLOOR LANDING DOWN TO INTERMEDIATE LANDING BELOW. 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM SECOND FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 17T @ 11" = 15'-7", 17R @ 9 3/16" ±, 17R @ 6 11/16" ± = 10'-2 5/8" ± PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- LIVE FIRE TRAINING IS ALLOWED ONLY IN ROOMS 200, 202 AND 204. NO BURNING IS ALLOWED IN ROOMS 201, 202A, 203, 205, 206, ON THE BALCONY, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.



1 SECOND FLOOR PLAN
BB202 BB202 SCALE 1/4" = 1'-0"

KEYED NOTES:

- SCUPPERS PER SHEET BB603 (9 THUS).
- HANDRAIL PER DETAIL 1/BB607.
- FIXED GUARDRAIL PER DETAIL 2/BB607.
- FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- DRY STANDPIPE PER P DRAWINGS.
- EDGE OF THIRD FLOOR SLAB ABOVE.
- PROVIDE (3) TOTAL BURN RACKS IN BURN ROOMS PER DETAIL 3/BB610.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- DEBRIS CHUTE PER SHEET BB609.
- DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 2/BB608.
- CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).
- THERMAL LINING ROLLOVER TILES AT UNDERSIDE OF SLAB ABOVE FOR EXTENTS SHOWN ON PLAN.
- SINGLE-SWING WINDOW SHUTTER PER DETAIL 8/BB606.
- THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- CONNECT END OF CMU WALL TO CONC. COLUMN W/ DOVETAIL ANCHORS PER GEN. NOTE O.15 AND MORTAR TIGHT.

KEYED NOTES:

- PROVIDE WEEP PIPES BELOW FIRE BRICK AT NOTED DOOR AND SCUPPER OPENINGS PER DETAIL 8/BB603. PROVIDE (2) WEEP PIPES AT DOORWAYS WITH CENTER AT 6 3/4" INSIDE EACH DOOR JAMB AND PROVIDE (1) WEEP PIPE AT CENTER OF EACH SCUPPER OPENING. ALL WEEPS SHALL BE LOCATED AT EDGE OF SLAB STEP.
- CROSS BRACING PER DETAIL 1/BB505.

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1	Addendum #1	04/14/25

JOB NUMBER
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SHEET
BURN BUILDING - SECOND FLOOR PLAN

BB202

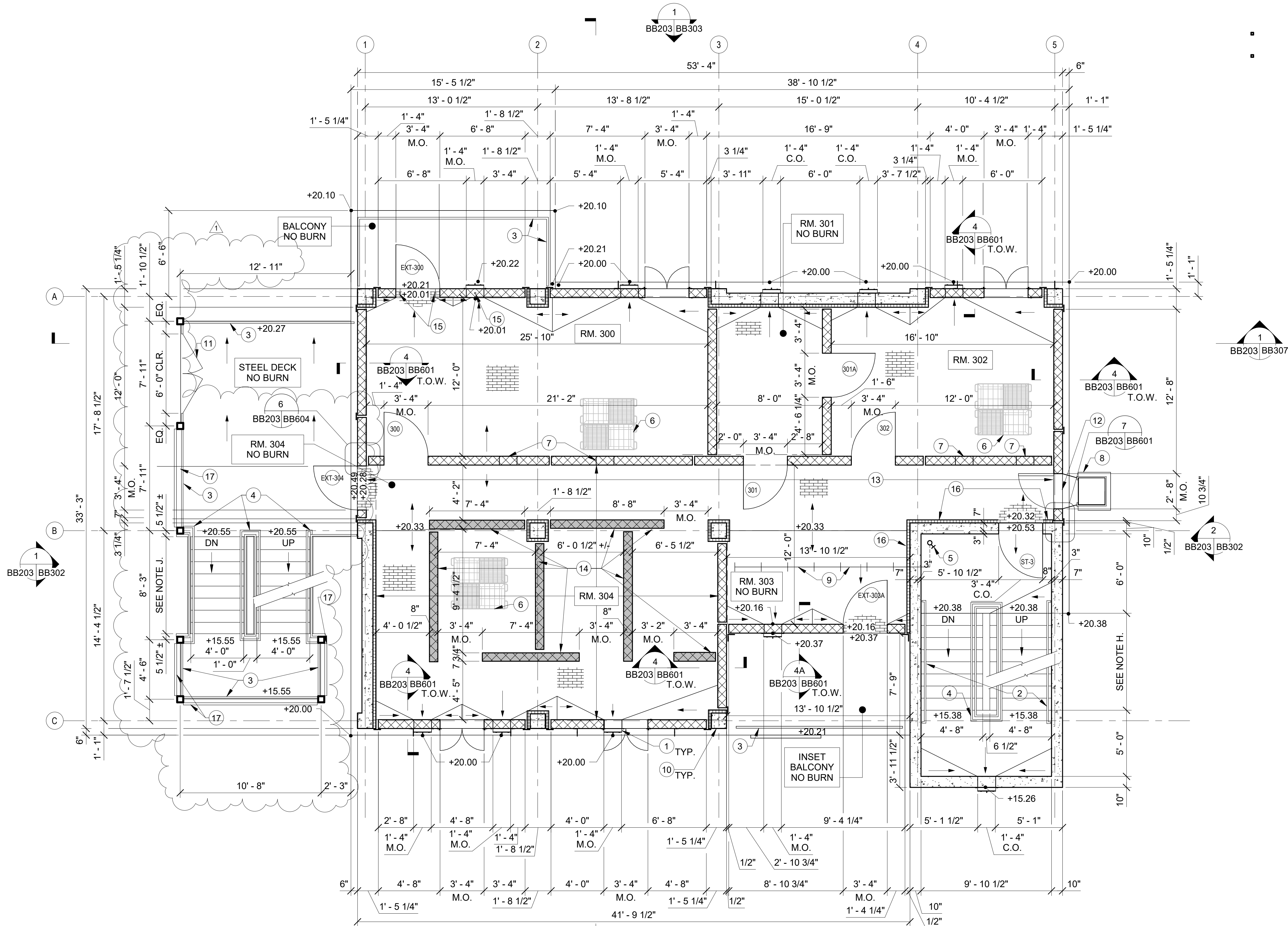
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1
BB203 BB203 SCALE 1/4" = 1'-0"

THIRD FLOOR PLAN

NOTES:

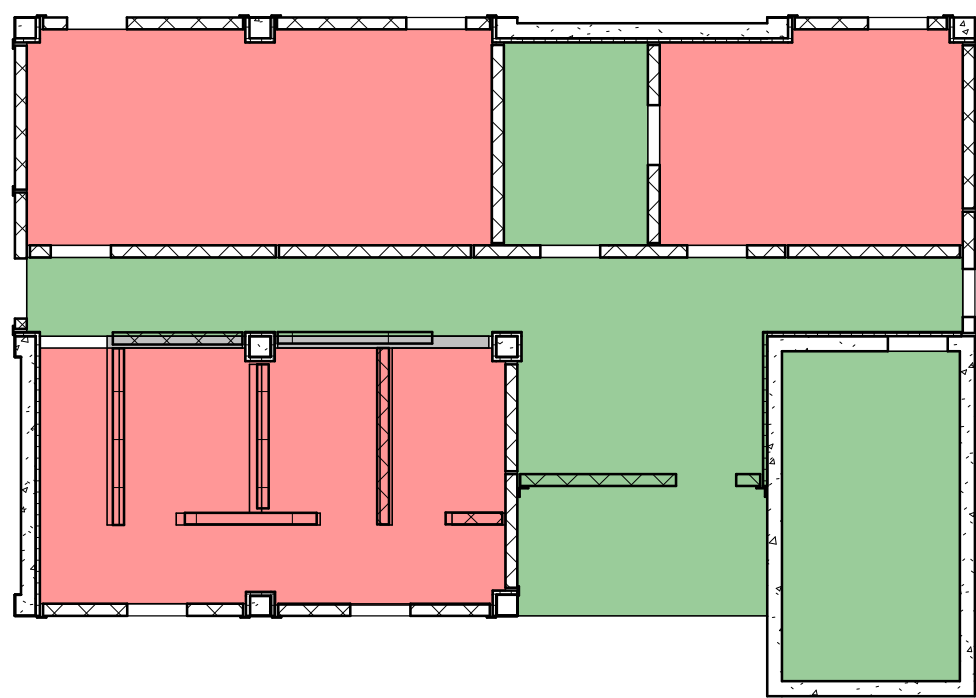
- A. DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH
- B. TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- C. ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- D. AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS. CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- E. SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- F. AT 37 LOCATIONS IN 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- G. SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.

- H. 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM THIRD FLOOR DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM THIRD FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- J. 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM THIRD FLOOR LANDING DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM THIRD FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- K. PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- L. LIVE FIRE TRAINING IS ALLOWED ONLY IN ROOMS 300, 302, AND 304. NO BURNING IS ALLOWED IN ROOMS 301, 303, ON THE BALCONY, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- M. SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.

KEYED NOTES:

- 1 SCUPPERS PER SHEET BB603 (10 THUS).
- 2 HANDRAIL PER DETAIL 1/BB607.
- 3 FIXED GUARDRAIL PER DETAIL 2/BB607.
- 4 FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- 5 DRY STANDPIPE PER P DRAWINGS.
- 6 PROVIDE (3) TOTAL BURN RACKS IN BURN ROOMS PER DETAIL 3/BB610.
- 7 PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- 8 DEBRIS CHUTE PER SHEET BB609.
- 9 SPRINKLER LAB PER P DRAWINGS.
- 10 CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).
- 11 DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 2/BB608.
- 12 SINGLE-SWING WINDOW SHUTTER PER DETAIL 8/BB606.
- 13 THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- 14 CUBICLE WALLS PER DETAIL 6/BB601.
- 15 PROVIDE WEEP PIPES BELOW FIRE BRICK AT NOTED DOOR AND SCUPPER OPENINGS PER DETAIL 8/BB603. PROVIDE (2) WEEP PIPES AT DOORWAYS WITH CENTER AT 6 3/4" INSIDE EACH DOOR JAMB AND PROVIDE (1) WEEP PIPE AT CENTER OF EACH SCUPPER OPENING. ALL WEEPS SHALL BE LOCATED AT EDGE OF SLAB STEP.
- 16 PROVIDE THERMAL LINING AT TOP 2'-0" OF WALL AT NOTED LOCATIONS.
- 17 CROSS BRACING PER DETAIL 1/BB505.

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LEGEND
= NO BURN AREA
= BURN AREA

NOTE:

1. SEE 1/BB203 FOR MORE INFORMATION.
2. "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

2
BB203 BB203 SCALE 3/32" = 1'-0"

THIRD FLOOR KEY PLAN

WTCC EWS - FIRE & RESCUE TRAINING CENTER

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BURN BUILDING - THIRD FLOOR PLAN

BB203



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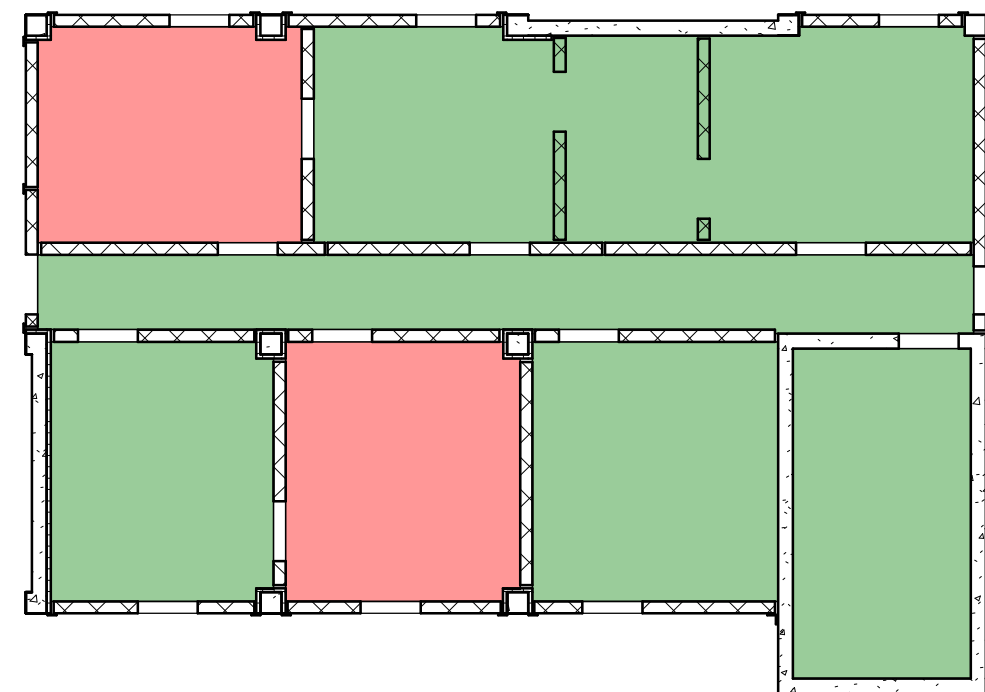


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ISSUE FOR CONSTRUCTION
SHEET
BURN BUILDING - FOURTH FLOOR PLAN

BB204

LEGEND	
	= NO BURN AREA
	= BURN AREA

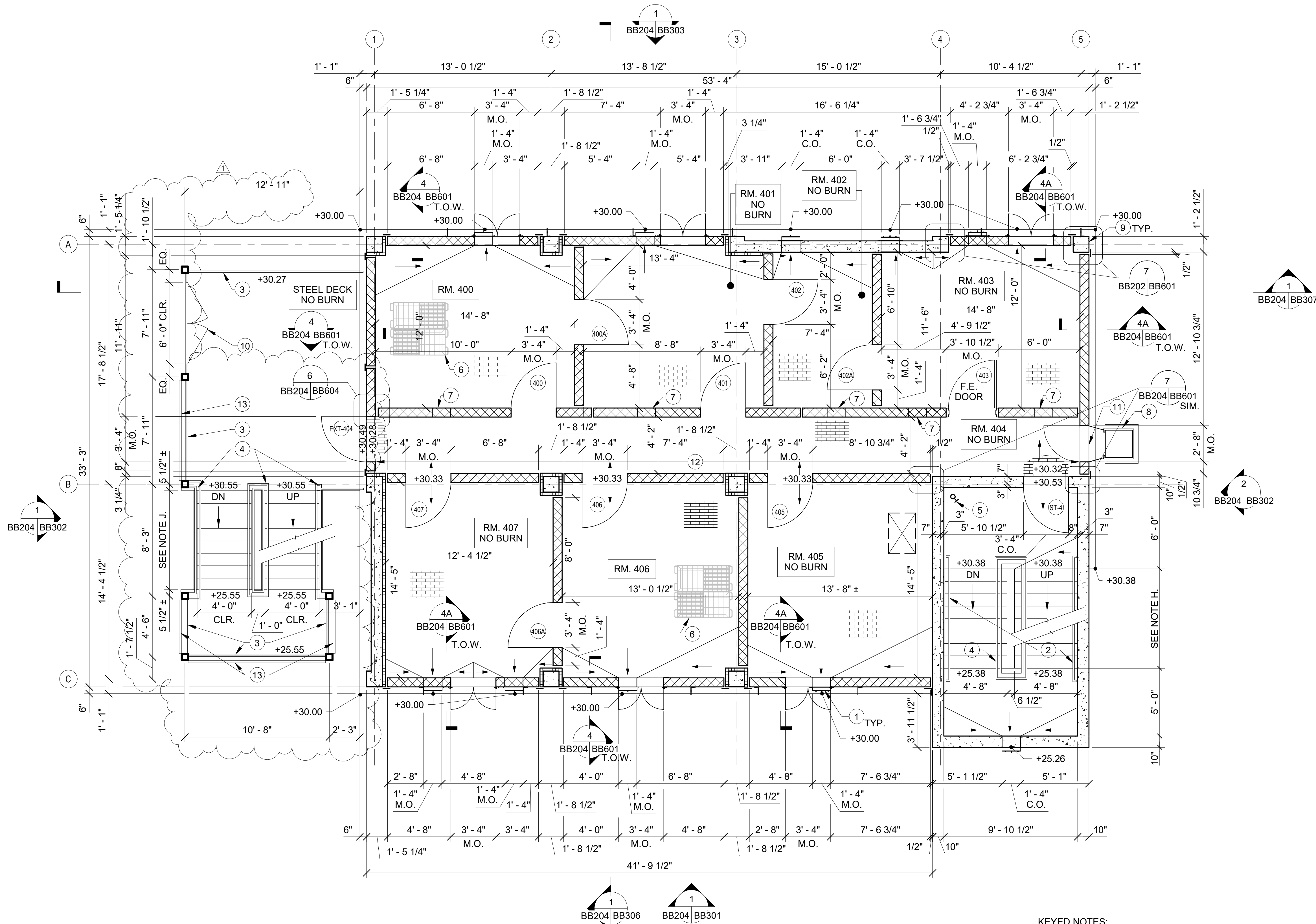


NOTE:

- SEE 1/BB204 FOR MORE INFORMATION.
- "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

FOURTH FLOOR KEY PLAN

BB204 BB204 SCALE 3/32" = 1'-0"



NOTES:

- DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS. CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- AT 37 LOCATIONS IN INTERIOR 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.

- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FOURTH FLOOR DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FOURTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FOURTH FLOOR LANDING DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FOURTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- LIVE FIRE TRAINING IS ALLOWED ONLY IN ROOMS 400 AND 406. NO BURNING IS ALLOWED IN ROOMS 401, 402, 403, 404, 405, 407, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.

KEYED NOTES:

- SCUPPERS PER SHEET BB603 (10 THUS).
- HANDRAIL PER DETAIL 1/BB607.
- FIXED GUARDRAIL PER DETAIL 2/BB607.
- FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- DRY STANDPIPE PER P DRAWINGS.
- PROVIDE (2) TOTAL BURN RACKS IN BURN ROOMS PER DETAIL 3/BB610.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- DEBRIS CHUTE PER SHEET BB609.
- CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).
- DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 2/BB608.
- SINGLE-SWING WINDOW SHUTTER PER DETAIL 8/BB606.
- THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- CROSS BRACING PER DETAIL 1/BB505.

FOURTH FLOOR PLAN
BB204 BB204 SCALE 1/4" = 1'-0"

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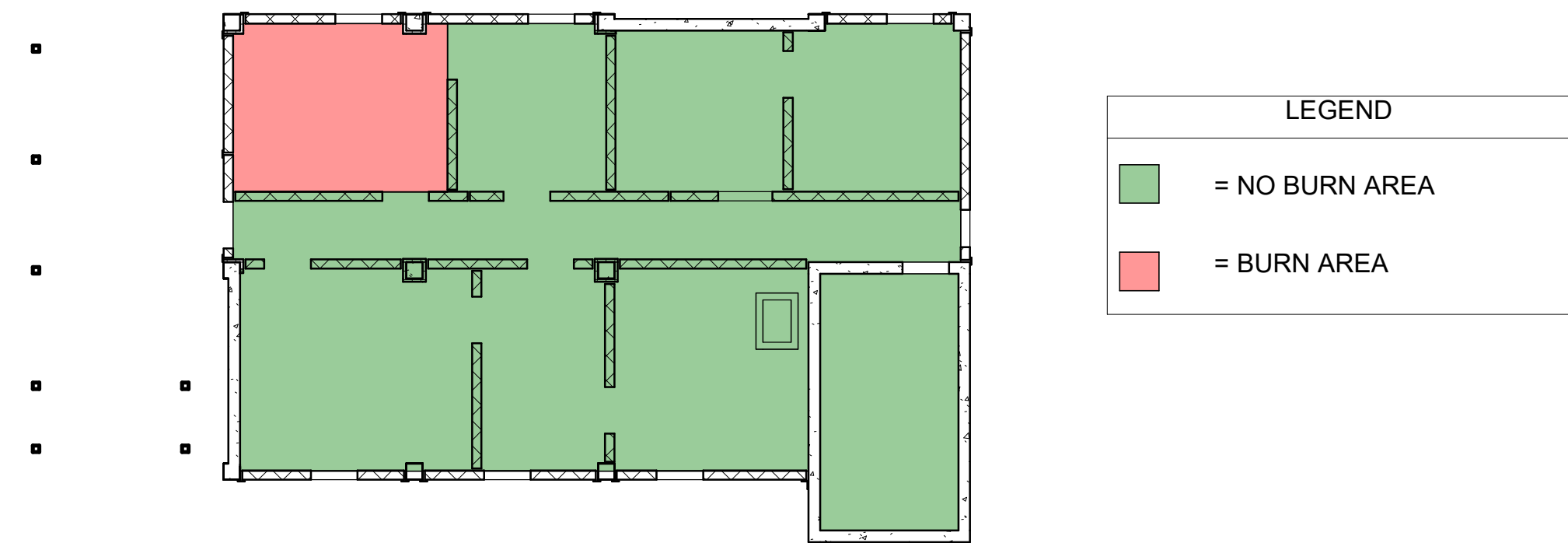
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NCCCS NO. 2303



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BURN BUILDING - FIFTH FLOOR PLAN

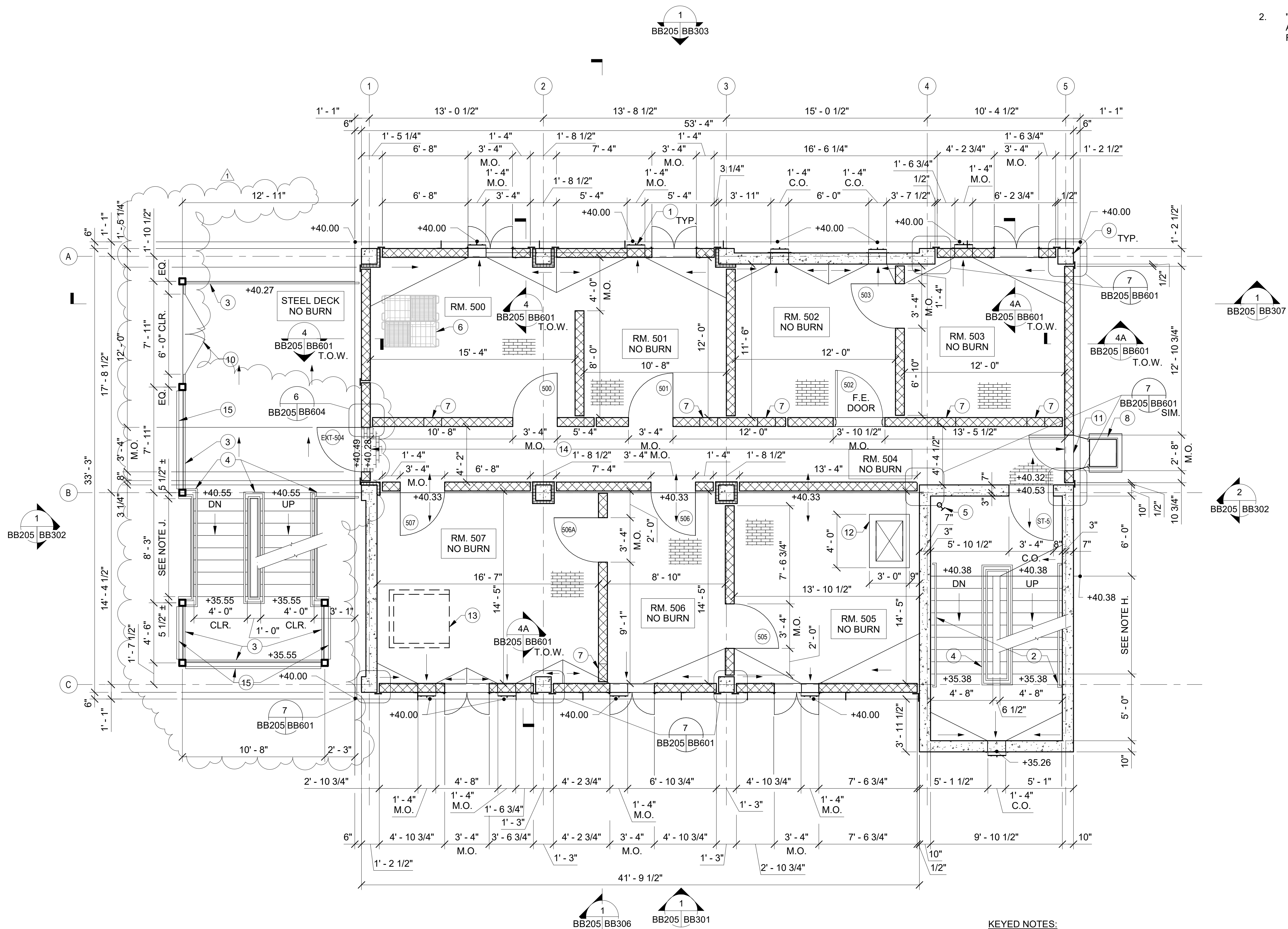
BB205



NOTE:

- SEE 1/BB205 FOR MORE INFORMATION.
- "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

2 FIFTH FLOOR KEY PLAN
BB205 BB205 SCALE 3/32" = 1'-0"



NOTES:

- DIRECTION OF DOWNSLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS. AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS. CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- AT 36 LOCATIONS IN INTERIOR 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FIFTH FLOOR DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FIFTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FIFTH FLOOR LANDING DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM FIFTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- LIVE FIRE TRAINING IS ONLY ALLOWED IN ROOM 500. NO BURNING IS ALLOWED IN ROOMS 501, 502, 503, 504, 505, 506, 507, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.

1 FIFTH FLOOR PLAN
BB205 BB205 SCALE 1/4" = 1'-0"

KEYED NOTES:

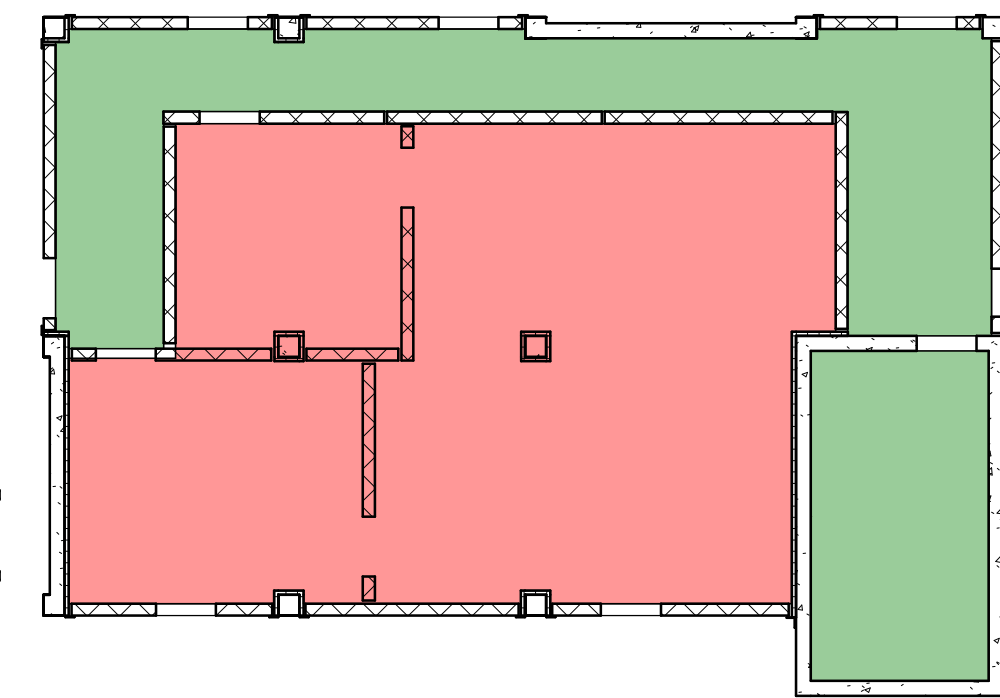
- SCUPPERS PER SHEET BB603 (10 THUS).
- HANDRAIL PER DETAIL 1/BB607.
- FIXED GUARDRAIL PER DETAIL 2/BB607.
- FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- DRY STANDPIPE PER P DRAWINGS.
- PROVIDE (1) TOTAL BURN RACK IN BURN ROOM PER DETAIL 3/BB610.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- DEBRIS CHUTE PER SHEET BB609.
- CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).
- DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 2/BB608.
- SINGLE-SWING WINDOW SHUTTER PER DETAIL 8/BB606.
- ATTIC ACCESS HATCH PER DETAIL 7/BB501.
- SHEET ROCK PULLDOWN PROP PER DETAIL 5/BB610.
- THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- CROSS BRACING PER DETAIL 1/BB505.

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BURN BUILDING - SIXTH FLOOR PLAN

BB206

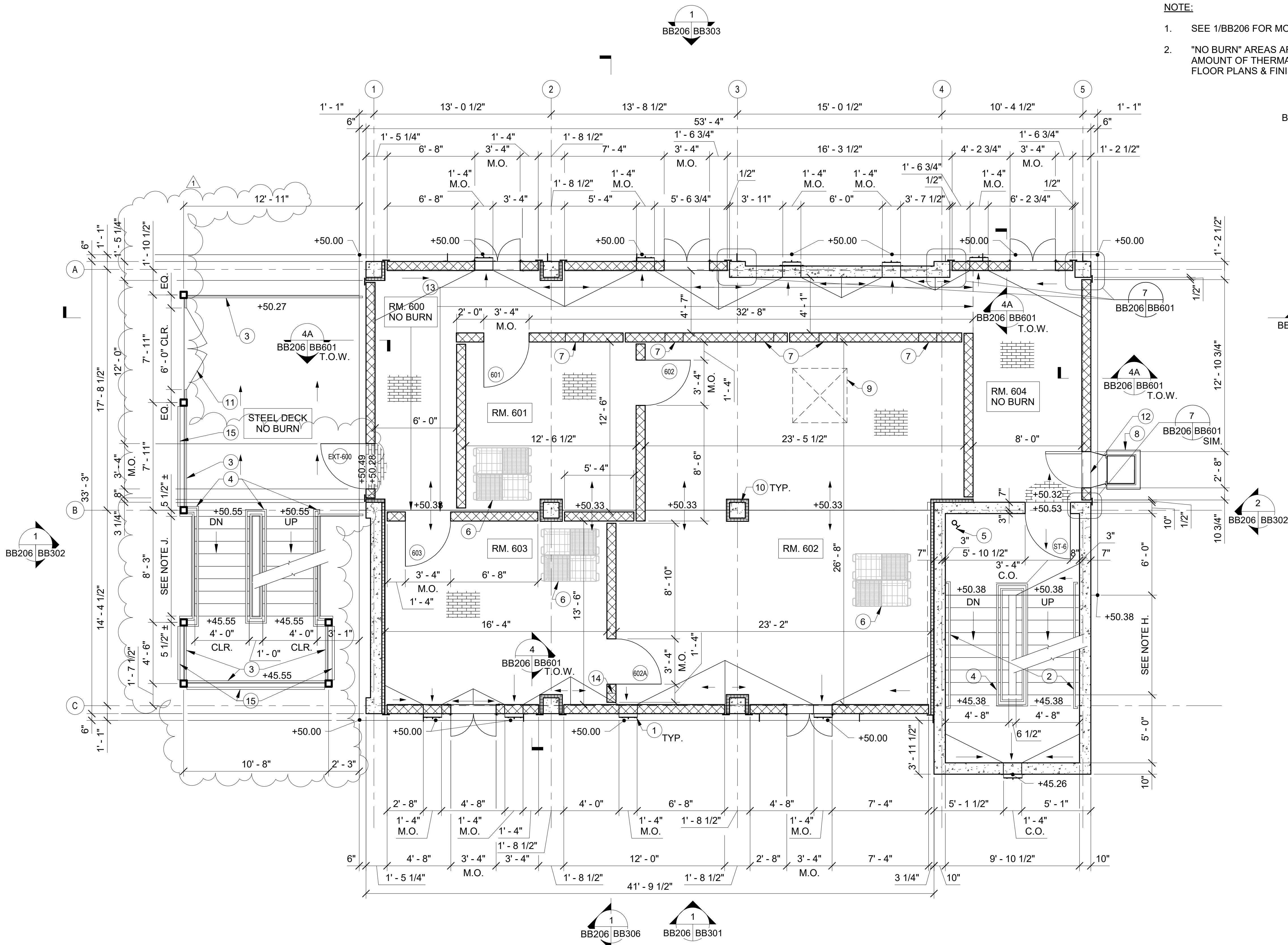


LEGEND
= NO BURN AREA
= BURN AREA

NOTE:

- SEE 1/BB206 FOR MORE INFORMATION.
- "NO BURN" AREAS ARE AREAS IN WHICH LIVE FIRES SHALL NOT BE BURNED BUT MIGHT HAVE SOME AMOUNT OF THERMAL PROTECTION DUE TO ANTICIPATED HEAT FROM ADJACENT BURN ROOMS. SEE FLOOR PLANS & FINISH SCHEDULE FOR EXTENTS OF THERMAL LININGS IN NO BURN AREAS.

SIXTH FLOOR KEY PLAN
BB206 BB206 SCALE 3/32" = 1'-0"



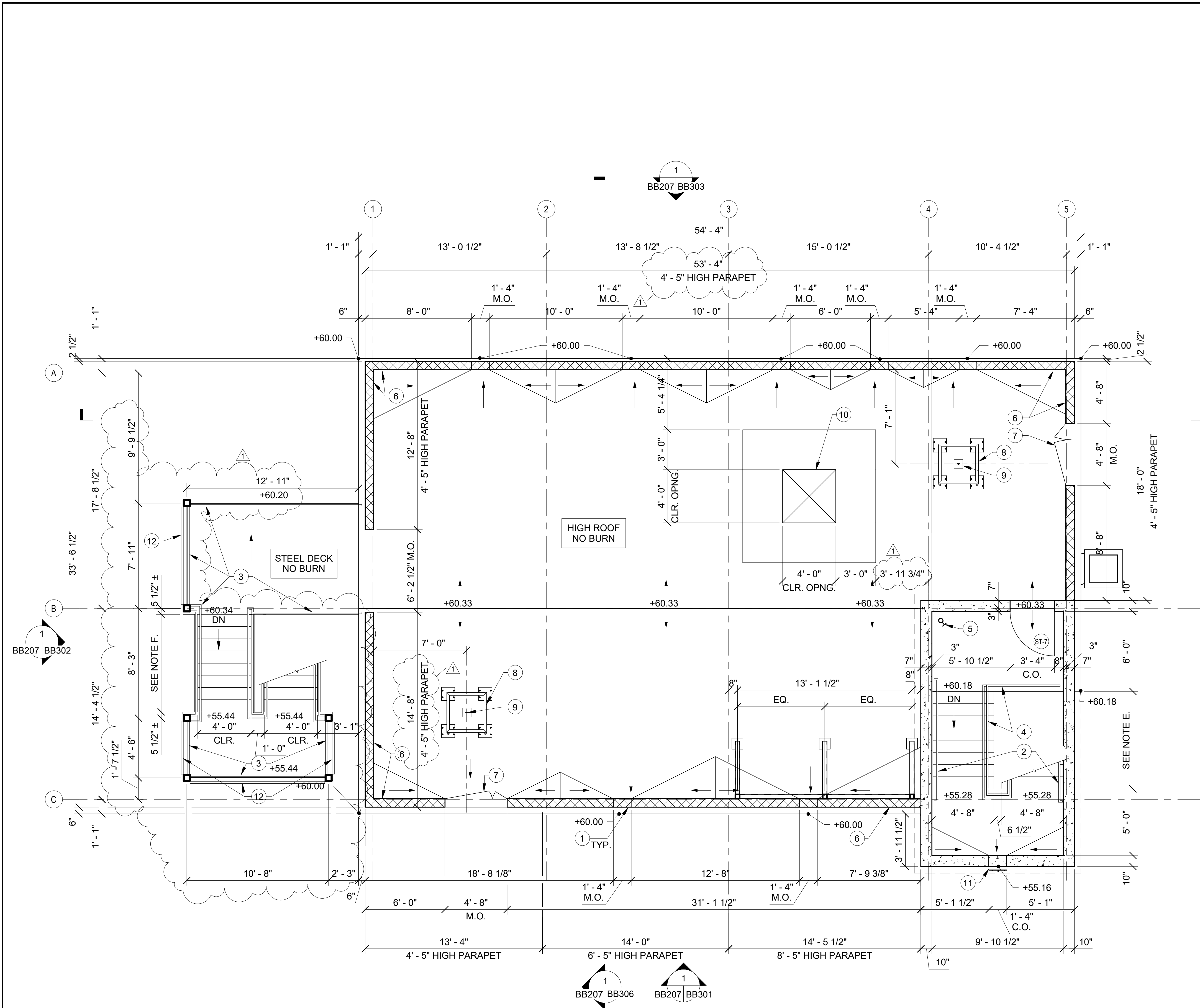
NOTES:

- DIRECTION OF DOWNSLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- AT DOORWAYS WITHOUT DOORS, PROVIDE FULL-HEIGHT OPENING WITH NO LINTEL AND PROVIDE BULLNOSED CORNERS AT BOTH JAMBS. ALSO PROVIDE BULLNOSED CORNERS AT JAMBS OF ALL DOOR AND WINDOW OPENINGS. AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT CORNERS OF INTERIOR WALLS, CHAMFER CORNERS AT ENDS OF CONCRETE WALLS, AND BOTH WALL FACES AROUND PERIMETER OF ALL DOOR & WINDOW OPENINGS IN CONC. WALLS, EXCEPT WHERE THERE ARE THERMAL LININGS AT THAT WALL FACE.
- SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- AT 29 LOCATIONS IN INTERIOR 8" NON-BEARING CMU WALLS, PROVIDE 1/2" OPEN VERTICAL WALL JOINT AT NEAREST HEAD JOINT LOCATIONS PER DETAIL 2/BB601 U.O.N.
- SEE GENERAL NOTES ON SHEET BB001 AND DETAILS ON SHEET BB602 FOR THERMAL LINING SYSTEM DETAILS.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM SIXTH FLOOR DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 9/16" ± = 4'-10 13/16" ± FROM SIXTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- 8T @ 11" = 7'-4", 9R @ 6 11/16" ± = 5'-0" FROM SIXTH FLOOR LANDING DOWN TO INTERMEDIATE LANDING BELOW, 8T @ 11" = 7'-4", 9R @ 6 9/16" ± = 4'-10 13/16" ± FROM SIXTH FLOOR LANDING UP TO INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- LIVE FIRE TRAINING IS ONLY ALLOWED IN ROOMS 601, 602, AND 603. NO BURNING IS ALLOWED IN ROOM 600, ON THE INTERIOR STAIRS, OR ON THE EXTERIOR STAIRS.
- SEE 1/BB601 AND 2, 2A, 2B/BB602 FOR TOP OF WALL CONDITIONS AT INTERIOR WALLS.



KEYED NOTES:

- SCUPPERS PER SHEET BB603 (10 THUS).
- HANDRAIL PER DETAIL 1/BB607.
- FIXED GUARDRAIL PER DETAIL 2/BB607.
- FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- DRY STANDPIPE PER P DRAWINGS.
- PROVIDE (3) TOTAL BURN RACKS IN BURN ROOMS PER DETAIL 3/BB610.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE PER DETAIL 6/BB603.
- DEBRIS CHUTE PER SHEET BB609.
- VENTILATION OPENING ABOVE.
- CONCRETE COLUMN PER DETAIL 1/BB501 (11 THUS).
- DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 2/BB608.
- SINGLE-SWING WINDOW SHUTTER PER DETAIL 8/BB606.
- THERMAL LINING AT CEILING FOR EXTENTS SHOWN ON PLAN.
- PROVIDE 8"x8" OPENING AT BASE OF INTERIOR WALL FOR DRAINAGE SIM. TO DETAIL 6/BB603 BUT WITHOUT LINTEL PLATE
- CROSS BRACING PER DETAIL 1/BB505.

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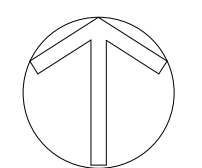


NOTES:

- A. DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE AND TOP OF EXTERIOR STEEL DECK IS INDICATED WITH .
- B. TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB AND TOP OF EXTERIOR STEEL GRATING ARE INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- C. ALL MASONRY WALLS SHALL BE 8" THICK (NOMINAL). ALL CONCRETE WALLS SHALL BE 10" THICK (ACTUAL).
- D. SEE SHEET BB604 & BB605 FOR DOOR DETAILS & SHEET BB606 FOR WINDOW DETAILS. XXX DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET BB605 FOR DOORS.
- E. 8T @ 11" = 7'-4", 9R @ 6 17/32" ± = 4'-10 3/4" ± FROM HIGH ROOF DOWN TO INTERMEDIATE LANDING BELOW. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- F. 8T @ 11" = 7'-4", 9R @ 6 9/16" ± = 4'-10 3/4" ± FROM HIGH ROOF LANDING DOWN TO INTERMEDIATE LANDING BELOW. PROVIDE EQUAL RISER HEIGHTS WITHIN EACH FLIGHT.
- G. PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS:  MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND FOOT, EXCEPT 1/8" PER FOOT AT STAIRWELL.
- H. NO BURNING IS ALLOWED ON THE HIGH ROOF.

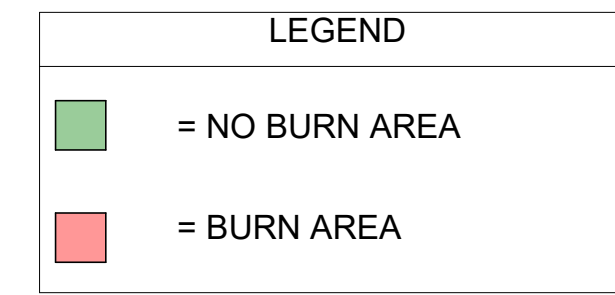
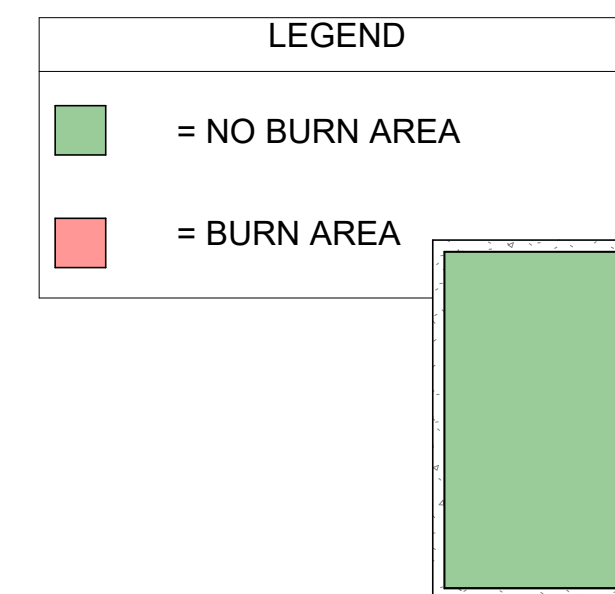
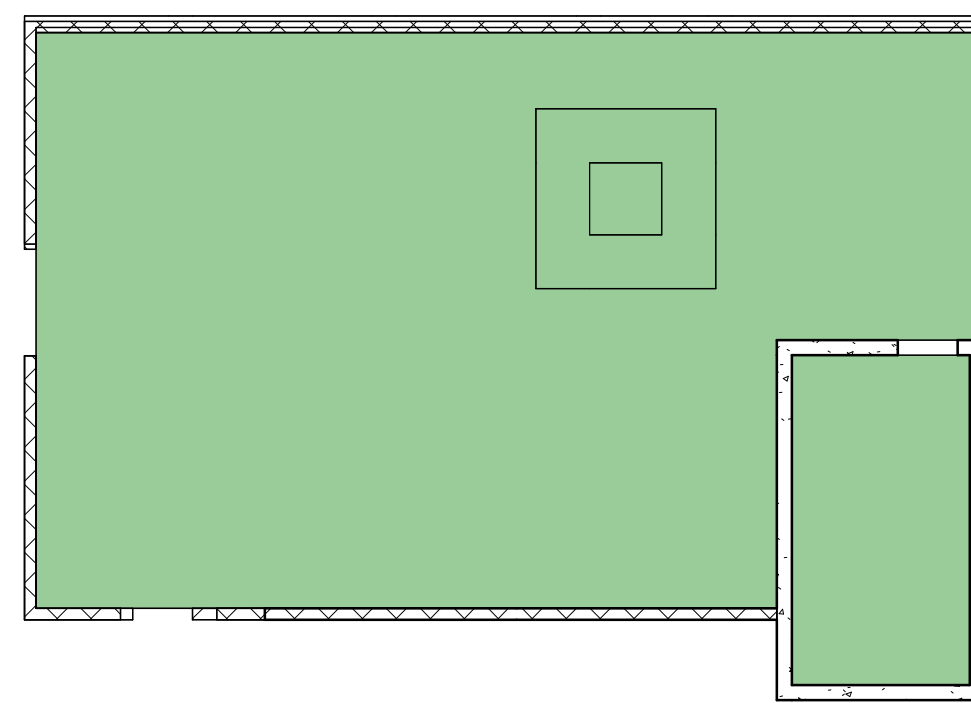
KEYED NOTES:

- 1 PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF PARAPET FOR DRAINAGE PER DETAIL 6/BB603 (7 THUS).
- 2 HANDRAIL PER DETAIL 1/BB607.
- 3 FIXED GUARDRAIL PER DETAIL 2/BB607.
- 4 FIXED GUARDRAIL W/HANDRAIL PER DETAILS 1/BB504 AND 4/BB607.
- 5 DRY STANDPIPE PER P DRAWINGS.
- 6 CMU PARAPET PER 3/BB601 (4'-5" AND 6'-5" HIGH PARAPETS) OR 3/BB602 (8' - 5" HIGH PARAPET ONLY).
- 7 DOUBLE-SWINGING GUARDRAIL GATE PER DETAIL 1/BB608.
- 8 ROPE FRAME PER DETAIL 1/BB610 (2 THUS).
- 9 ROPE ANCHOR PER DETAIL 2/BB610 (2 THUS).
- 10 VENTILATION OPENING WITH 3' - 0" CURB PER DETAIL 6/BB610.
- 11 SCUPPER PER SHEET BB603 (1 THUS).
- 12 CROSS BRACING PER DETAIL 1/BB505.



1
BB207 | BB207 SCALE 1/4" = 1'-0"

HIGH ROOF PLAN



NOTE:

1. SEE 1/BB207 FOR MORE INFORMATION.

NOTE:

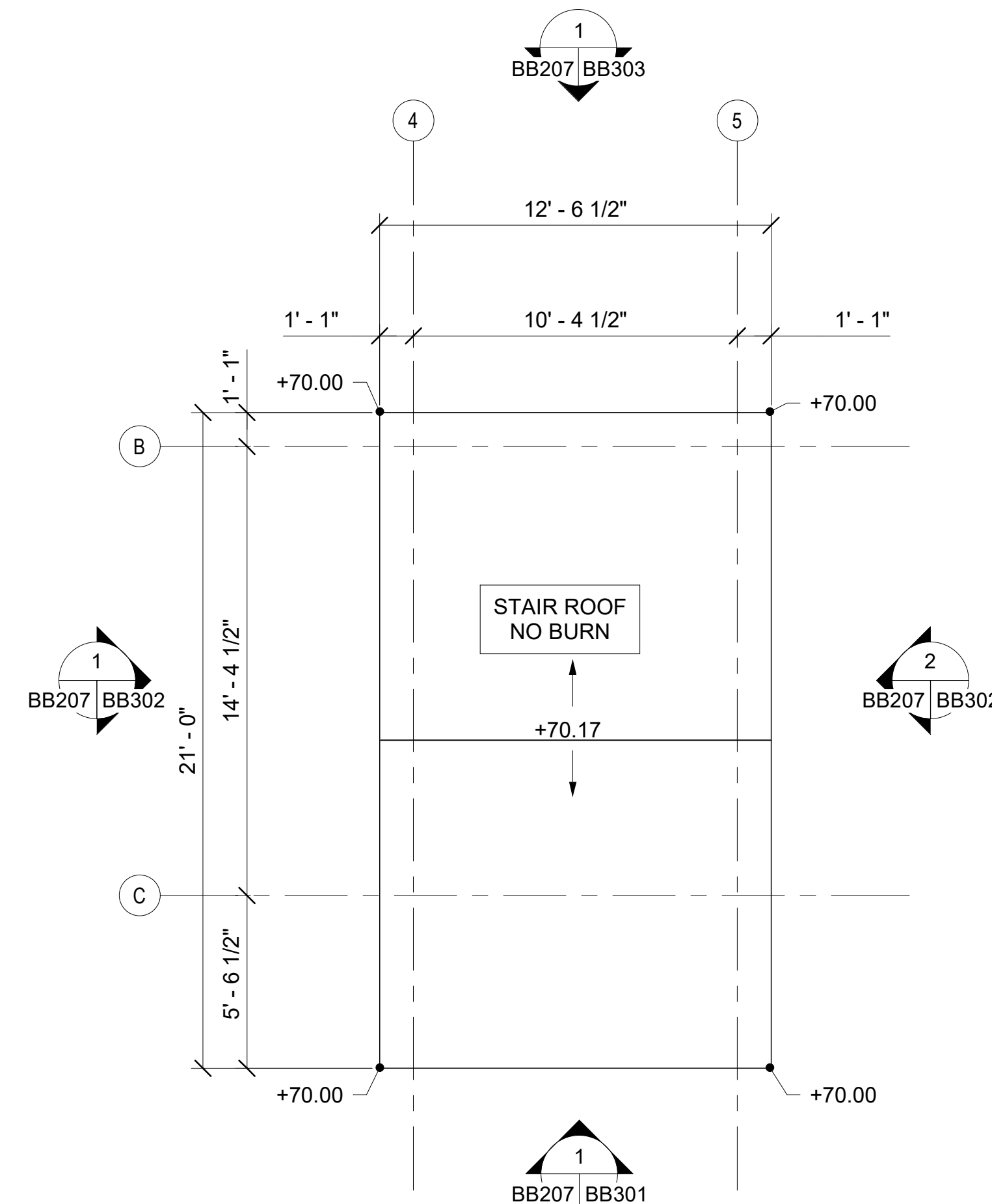
1. SEE 2/BB207 FOR MORE INFORMATION.

3
BB207 | BB207 SCALE 3/32" = 1'-0"


HIGH ROOF KEY PLAN

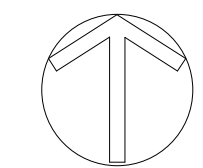
4
BB207 | BB207 SCALE 3/32" = 1'-0"

STAIR ROOF KEY PLAN



NOTES:

- A. DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH .
- B. TOP OF FINISHED CONCRETE ELEVATION FOR THE BURN BUILDING SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM. SEE SHEET BB201 FOR DATUM.
- C. NO BURNING ALLOWED ON THE STAIR ROOF.



2
BB205 | BB207 SCALE 1/4" = 1'-0"

STAIR ROOF PLAN

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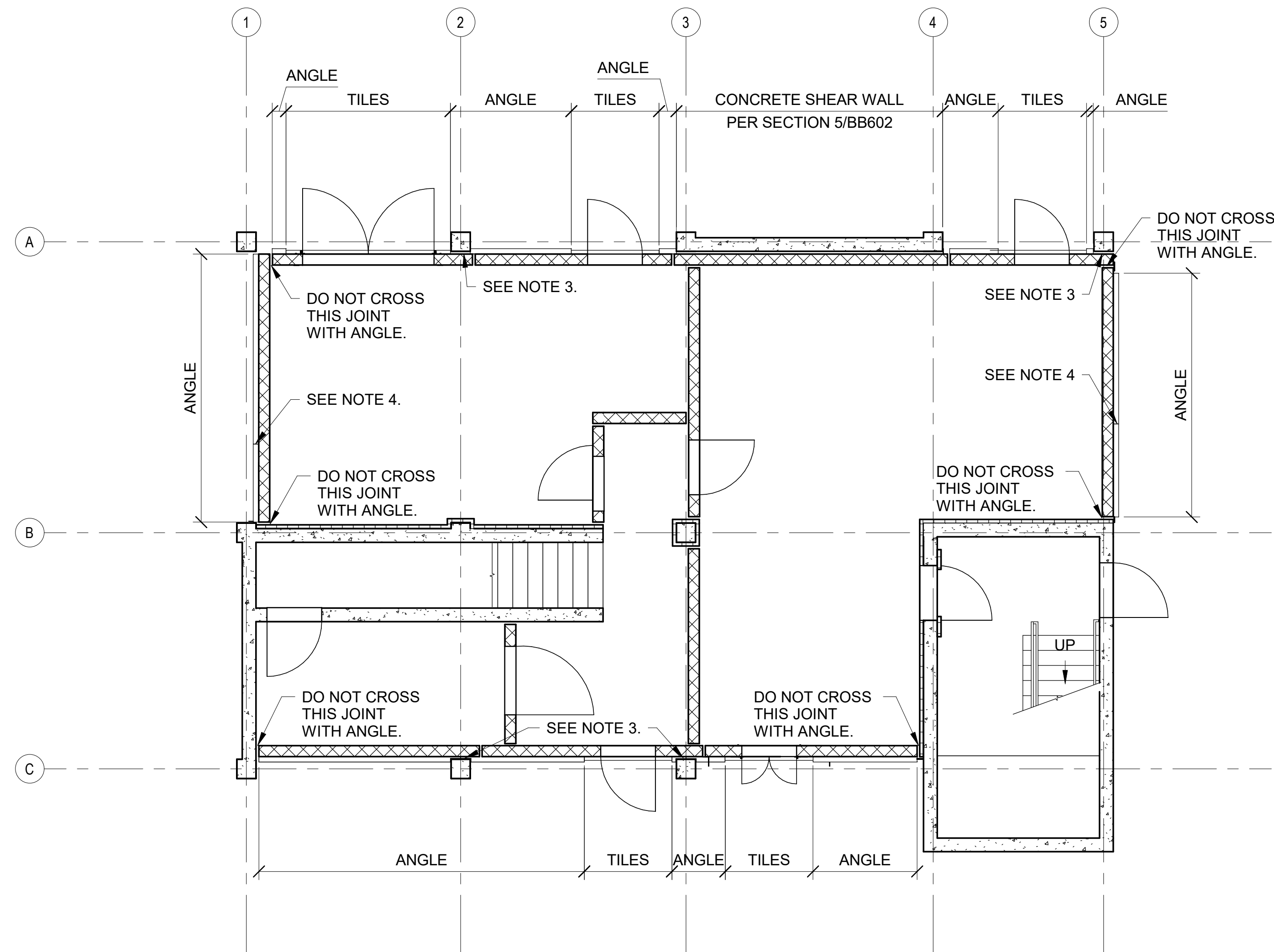


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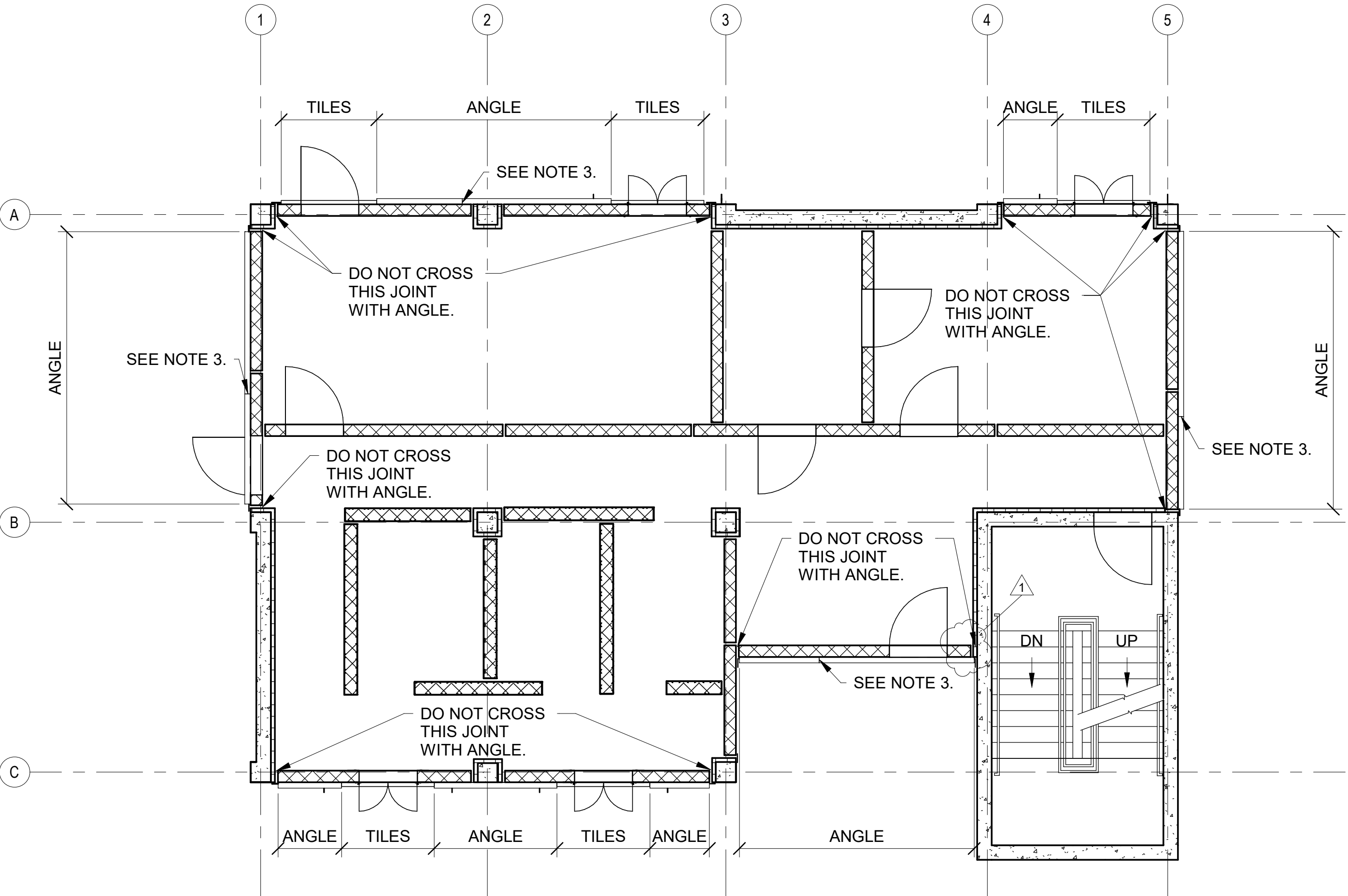
BURN BUILDING - EXTERIOR WALL BRACING PLANS

BB208



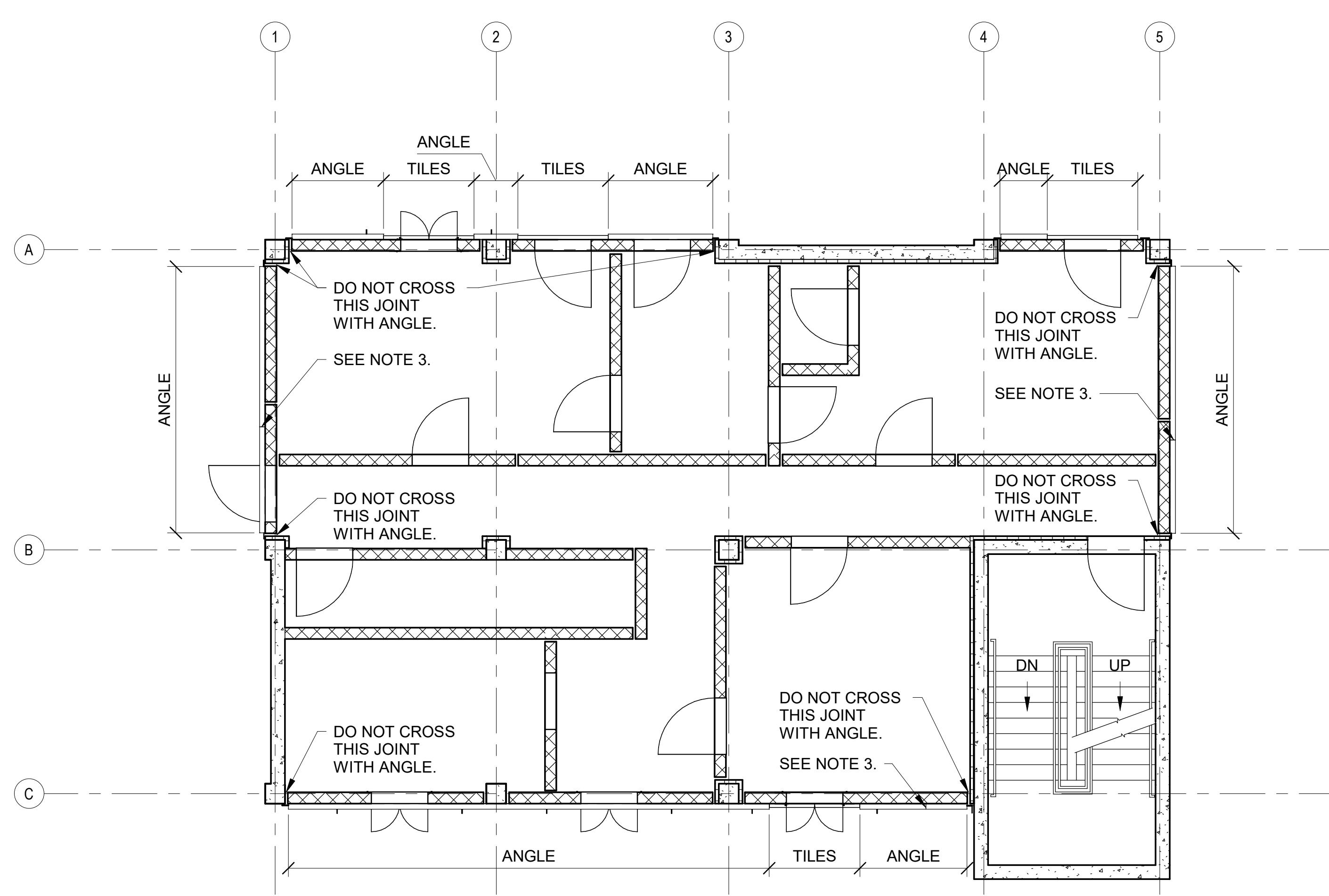
- NOTES:
- THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
 - PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
 - AT FOUR EXTERIOR COLUMNS (A2, A5, C2, AND C3), BRACING ANGLE IS CONTINUOUS BETWEEN COLUMN AND WALL PER DETAIL 4/BB601.
 - PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.

FIRST FLOOR EXTERIOR WALL BRACING PLAN
BB208 BB208 SCALE 3/16" = 1'-0"



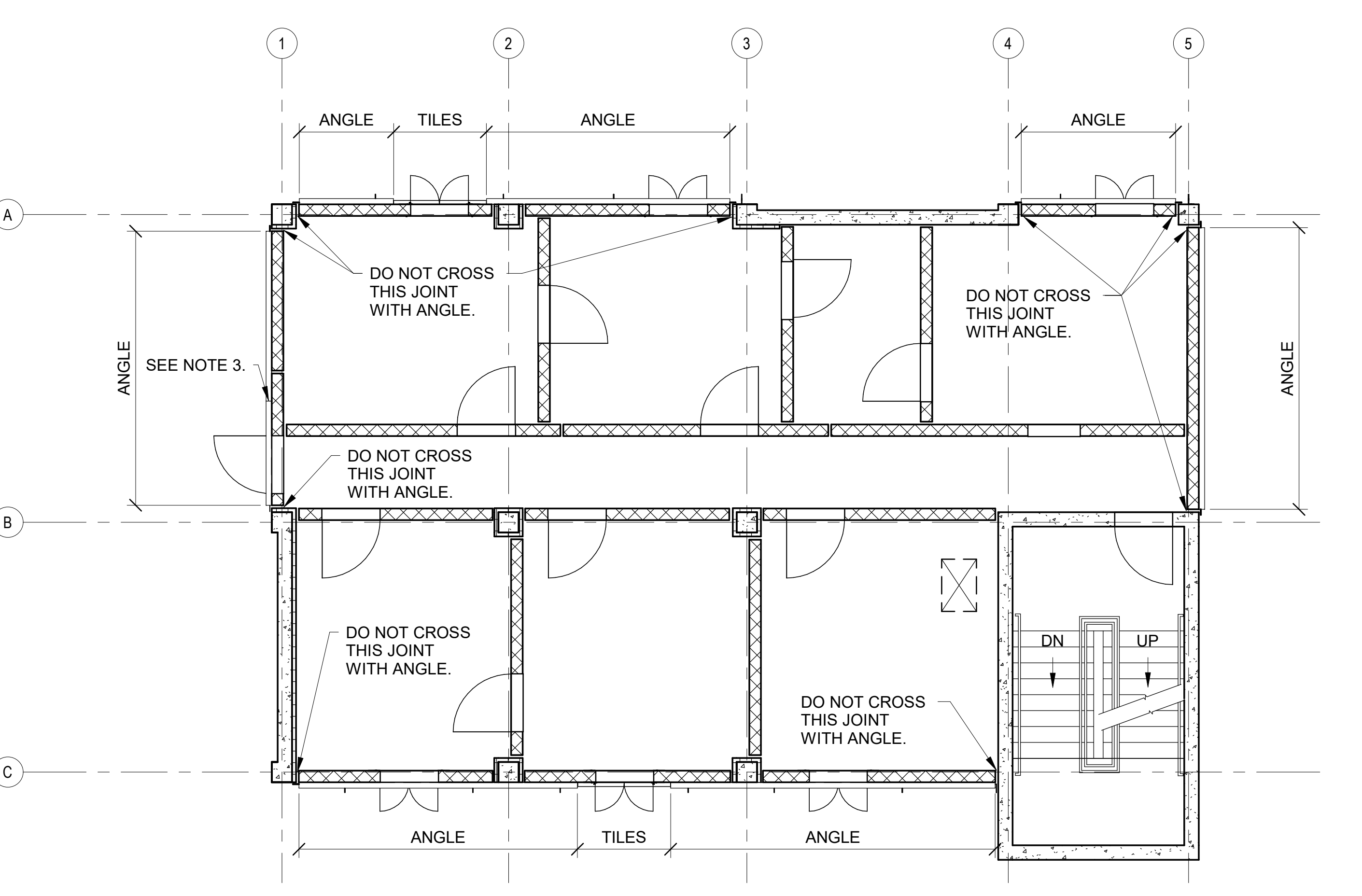
- NOTES:
- THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
 - PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
 - PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.

THIRD FLOOR EXTERIOR WALL BRACING PLAN
BB208 BB208 SCALE 3/16" = 1'-0"



- NOTES:
- THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
 - PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
 - PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.

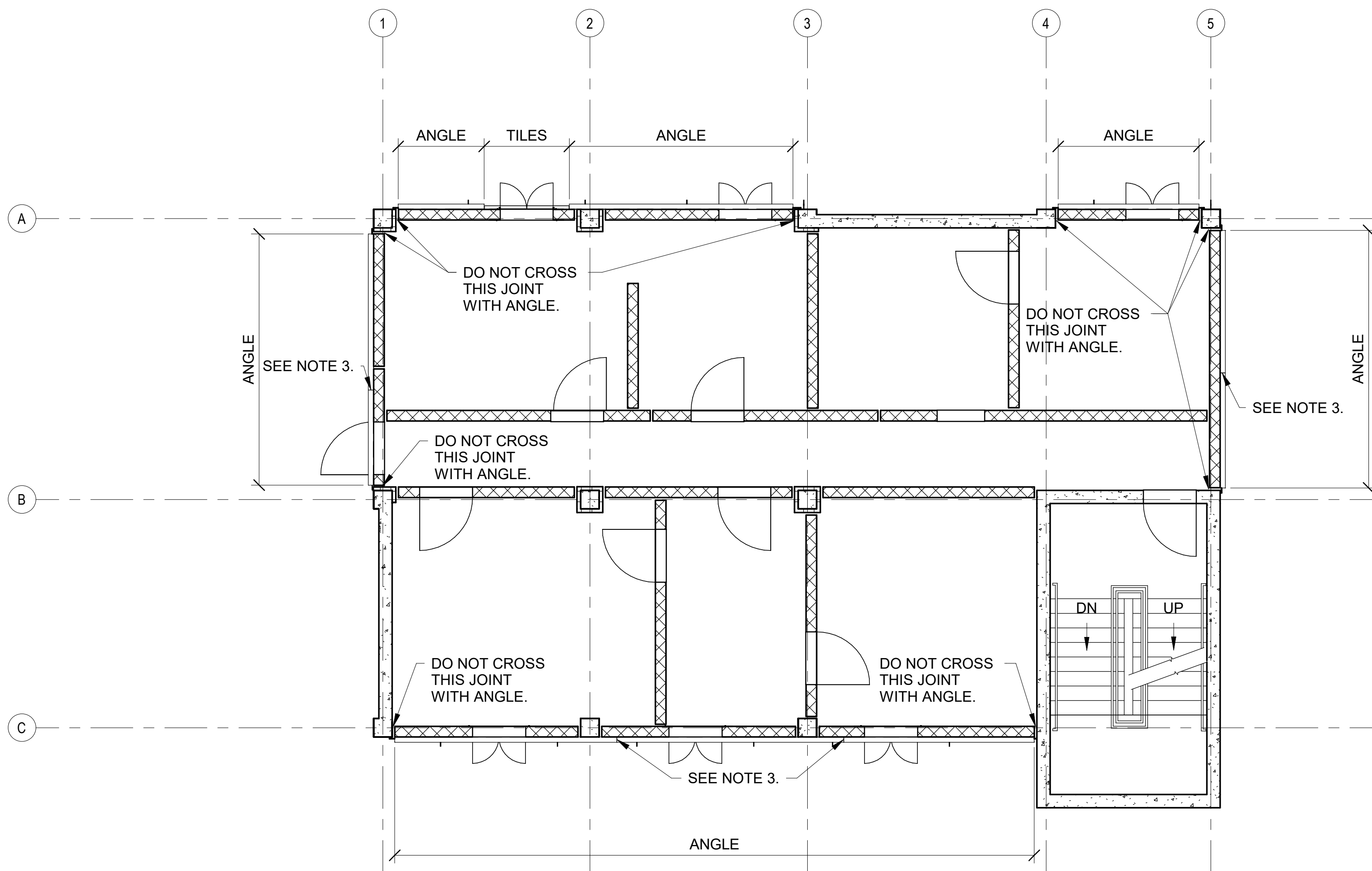
SECOND FLOOR EXTERIOR WALL BRACING PLAN
BB208 BB208 SCALE 3/16" = 1'-0"



- NOTES:
- THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
 - PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
 - PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.

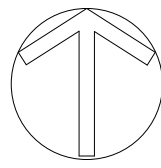
FOURTH FLOOR EXTERIOR WALL BRACING PLAN
BB208 BB208 SCALE 3/16" = 1'-0"

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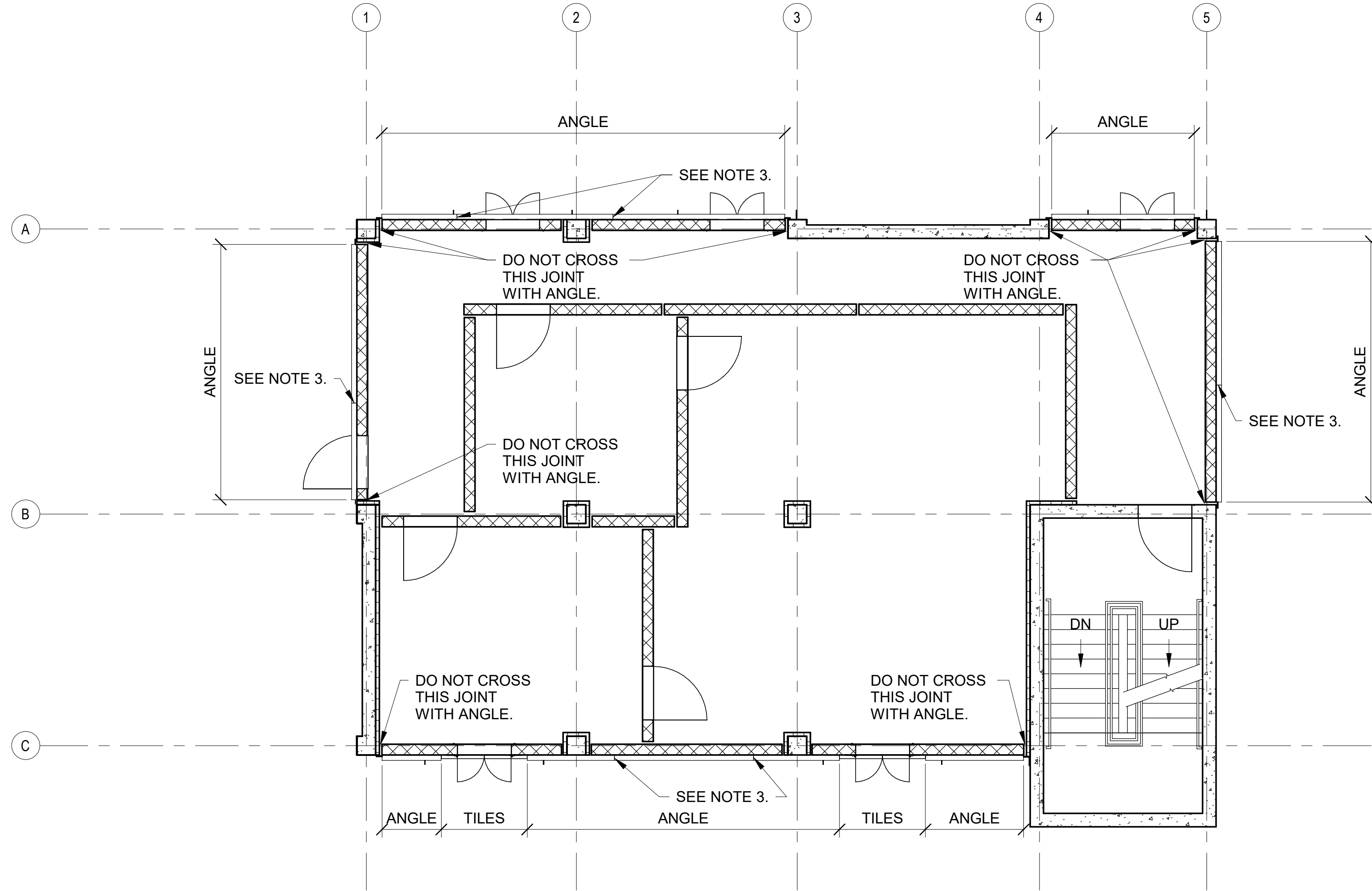
NOTES:

1. THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
2. PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
3. PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.



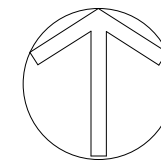
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BB209 BB209 SCALE 3/16" = 1'-0"

FIFTH FLOOR EXTERIOR WALL BRACING
PLAN



NOTES:

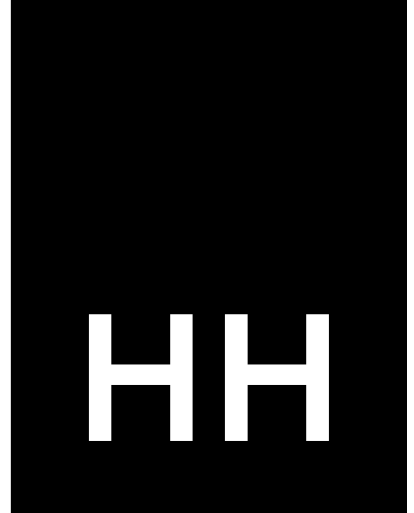
1. THIS PLAN SHOWS ONLY THE MEANS OF BRACING EXTERIOR FACES OF EXTERIOR MASONRY WALLS. SEE PLANS AND SECTIONS FOR ALL OTHER INFORMATION, INCLUDING SPECIFIC REQUIREMENTS FOR BRACING SHOWN ON THIS PLAN.
2. PROVIDE 1" GAP BETWEEN END OF TILE AND END OF ANGLE AT ALL ROLLOVER TILE LOCATIONS ABOVE EXTERIOR DOORS AND WINDOWS.
3. PROVIDE 1" GAP IN ANGLE AT NOTED LOCATIONS.



2
BB209 BB209 SCALE 3/16" = 1'-0"

SIXTH FLOOR EXTERIOR WALL BRACING
PLAN

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BURN BUILDING - EXTERIOR WALL BRACING PLANS

BB209

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BURN BUILDING - SOUTH ELEVATION

NOTE: MASONRY LINES SHOWN ON ELEVATIONS ARE DIAGRAMMATIC. THEY DO NOT REFLECT ACTUAL COURSING.



1 SOUTH ELEVATION
BB201 - BB301 SCALE 1/4" = 1'-0"
BB207

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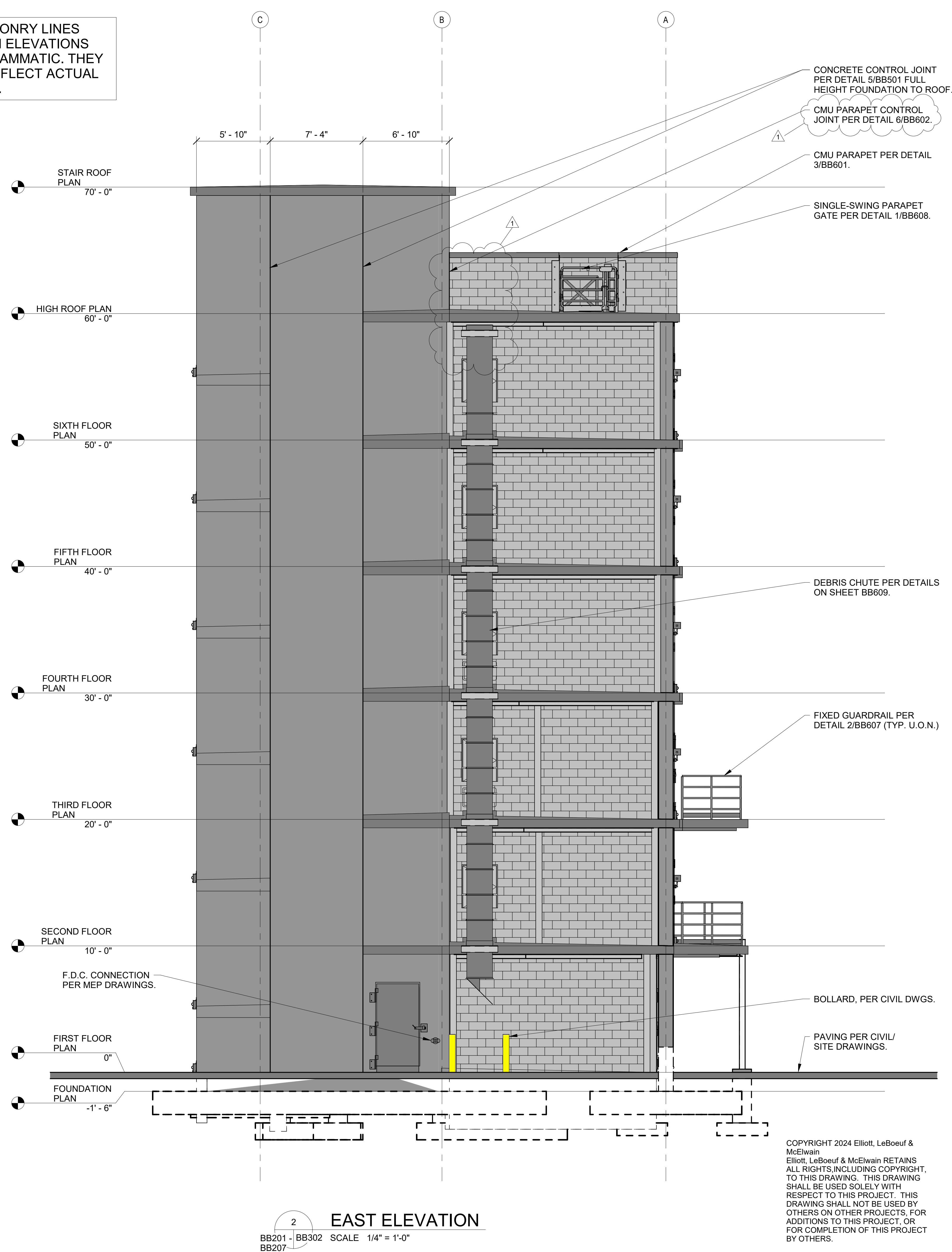
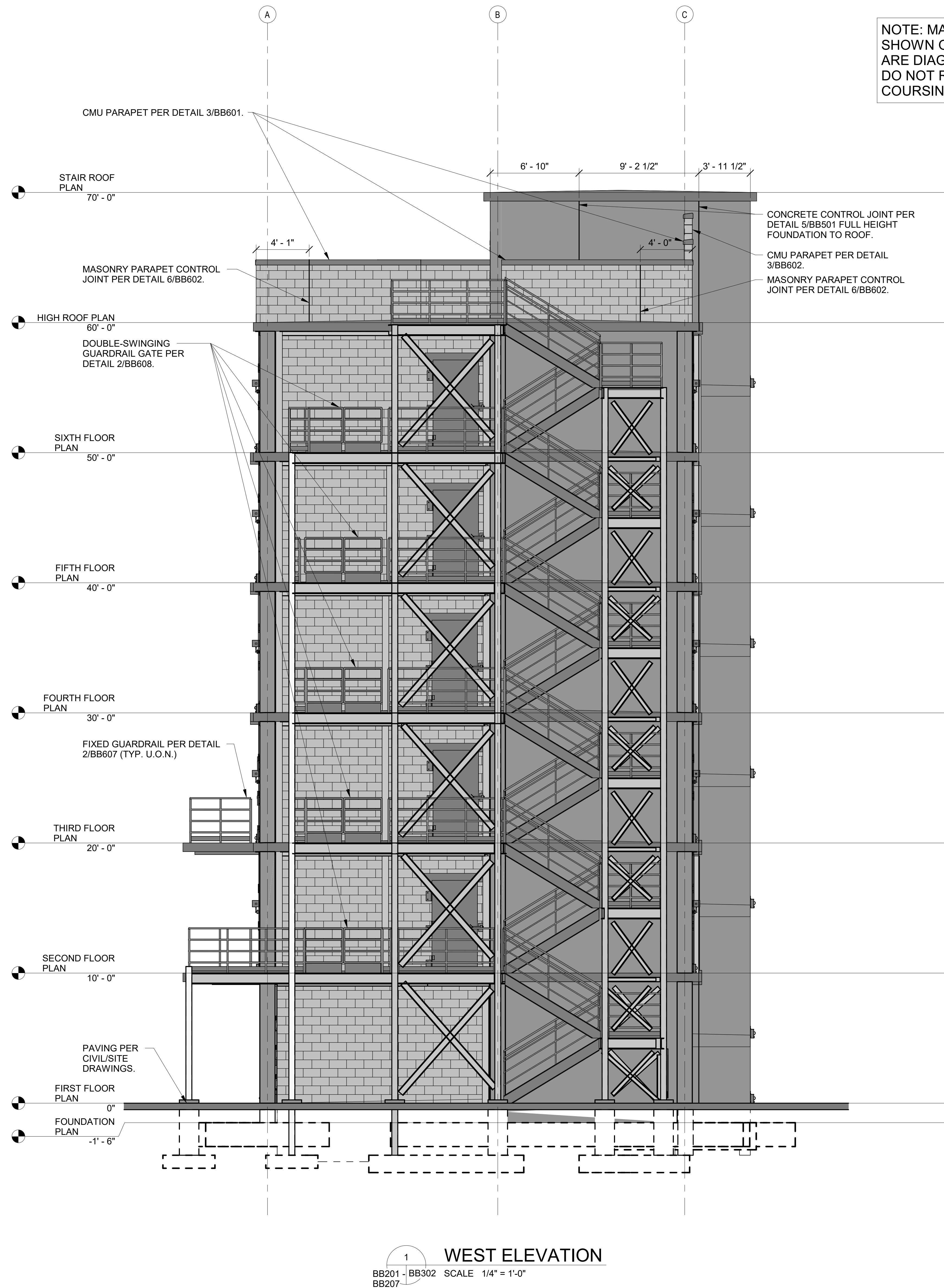
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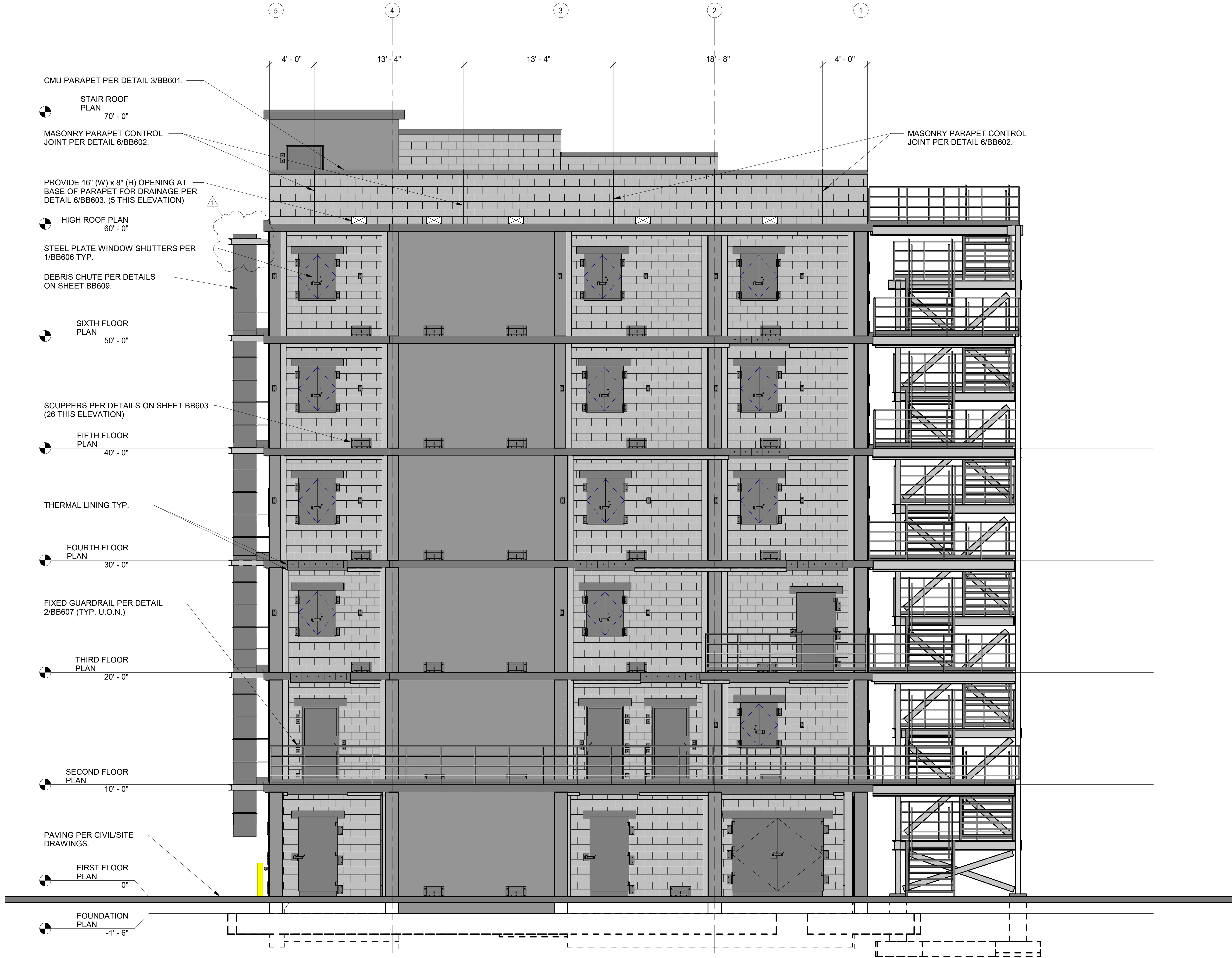
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BURN BUILDING - WEST & EAST ELEVATIONS

NOTE: MASONRY LINES
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NOTE: MASONRY LINES SHOWN ON ELEVATIONS ARE DIAGRAMMATIC. THEY DO NOT REFLECT ACTUAL COURSING.



1 NORTH ELEVATION
BB201 - BB303 SCALE 1/4" = 1'-0"
BB207

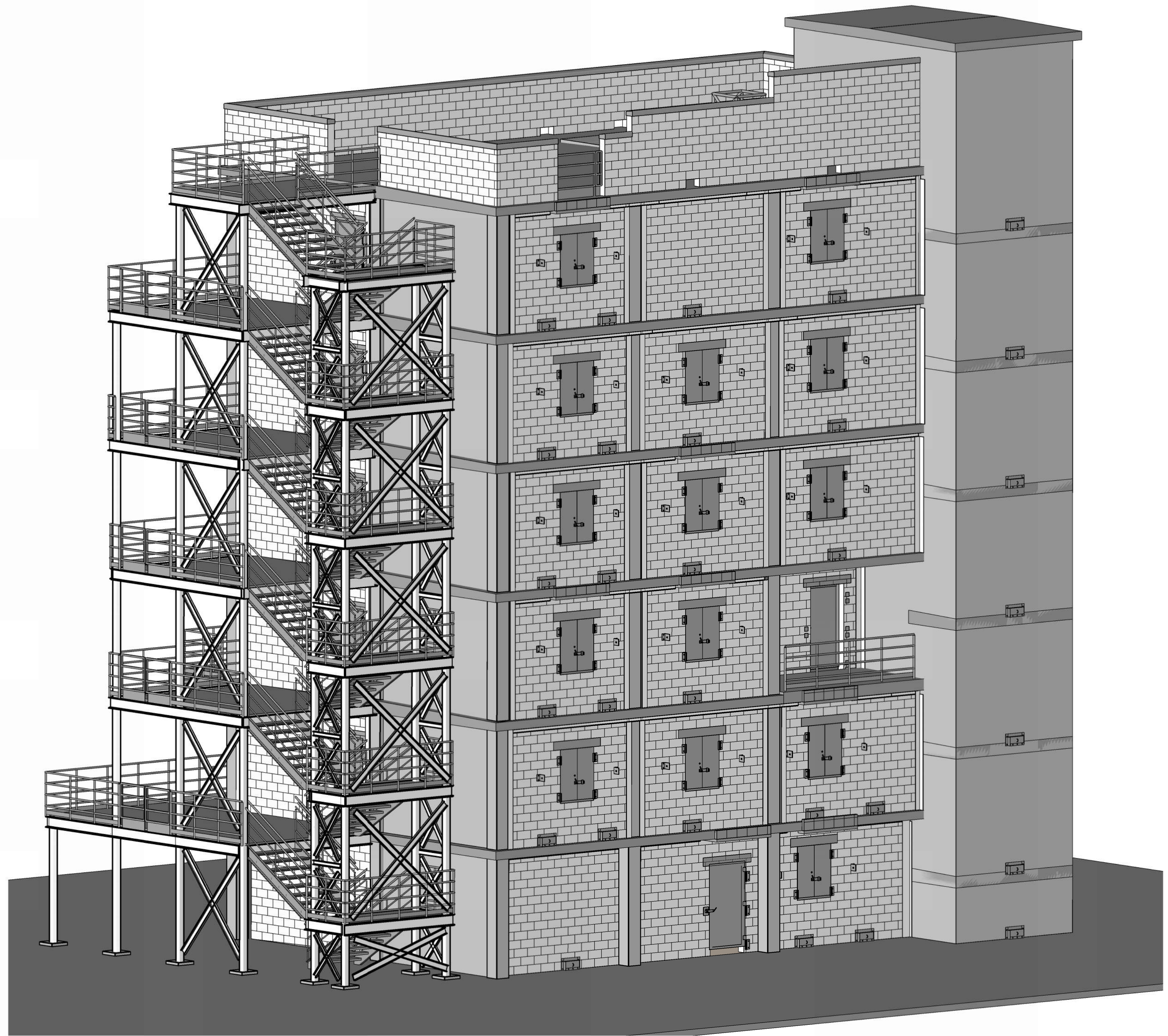
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1 NORTHWEST PERSPECTIVE
BB304 BB304 SCALE

NOTE: PERSPECTIVE
DRAWINGS SHALL NOT BE
USED FOR SCALE OR
DIMENSIONAL TAKEOFFS. SEE
ELEVATIONS FOR MATERIAL
CALLOUTS.



2 SOUTHWEST PERSPECTIVE
BB304 BB304 SCALE

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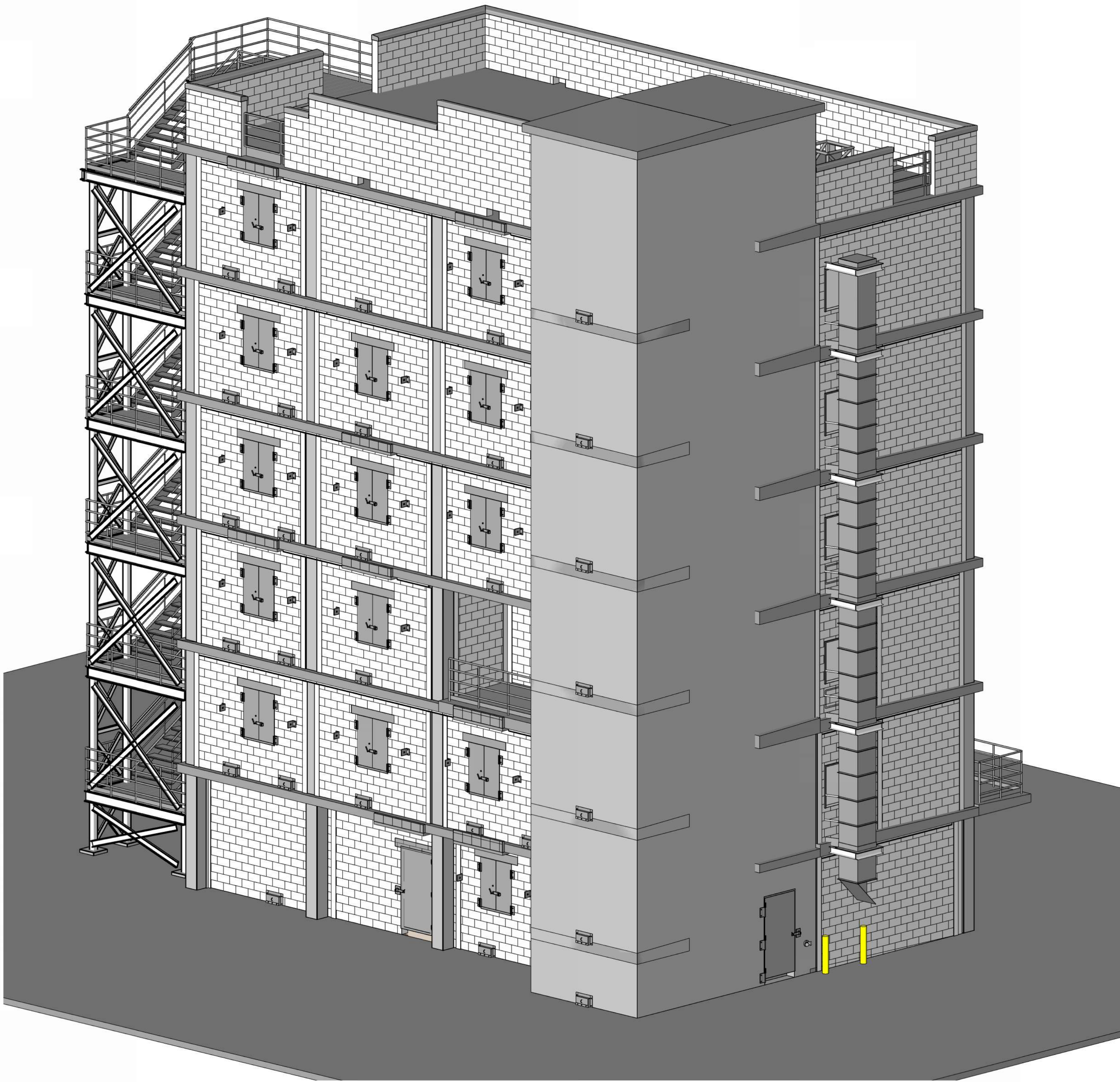
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BURN BUILDING - NE & SE PERSPECTIVES

BB305

NOTE: PERSPECTIVE DRAWINGS SHALL NOT BE USED FOR SCALE OR DIMENSIONAL TAKEOFFS. SEE ELEVATIONS FOR MATERIAL CALLOUTS.



1 NORTHEAST PERSPECTIVE
BB305/BB305 SCALE



2 SOUTHEAST PERSPECTIVE
BB305/BB305 SCALE

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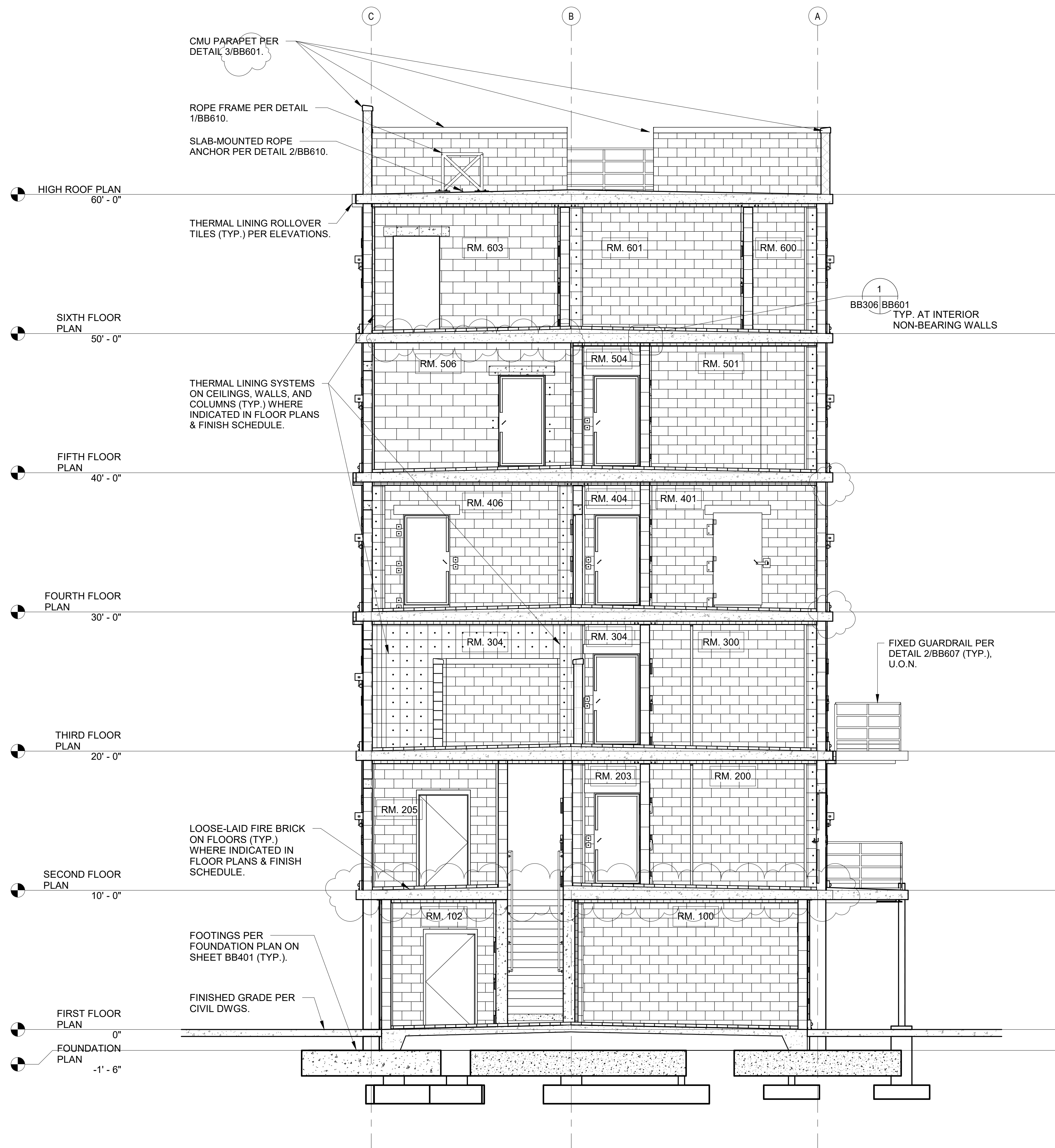
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BURN BUILDING - BUILDING SECTIONS

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1 BUILDING SECTION 1
BB201- BB306 SCALE 1/4" = 1'-0"
BB207

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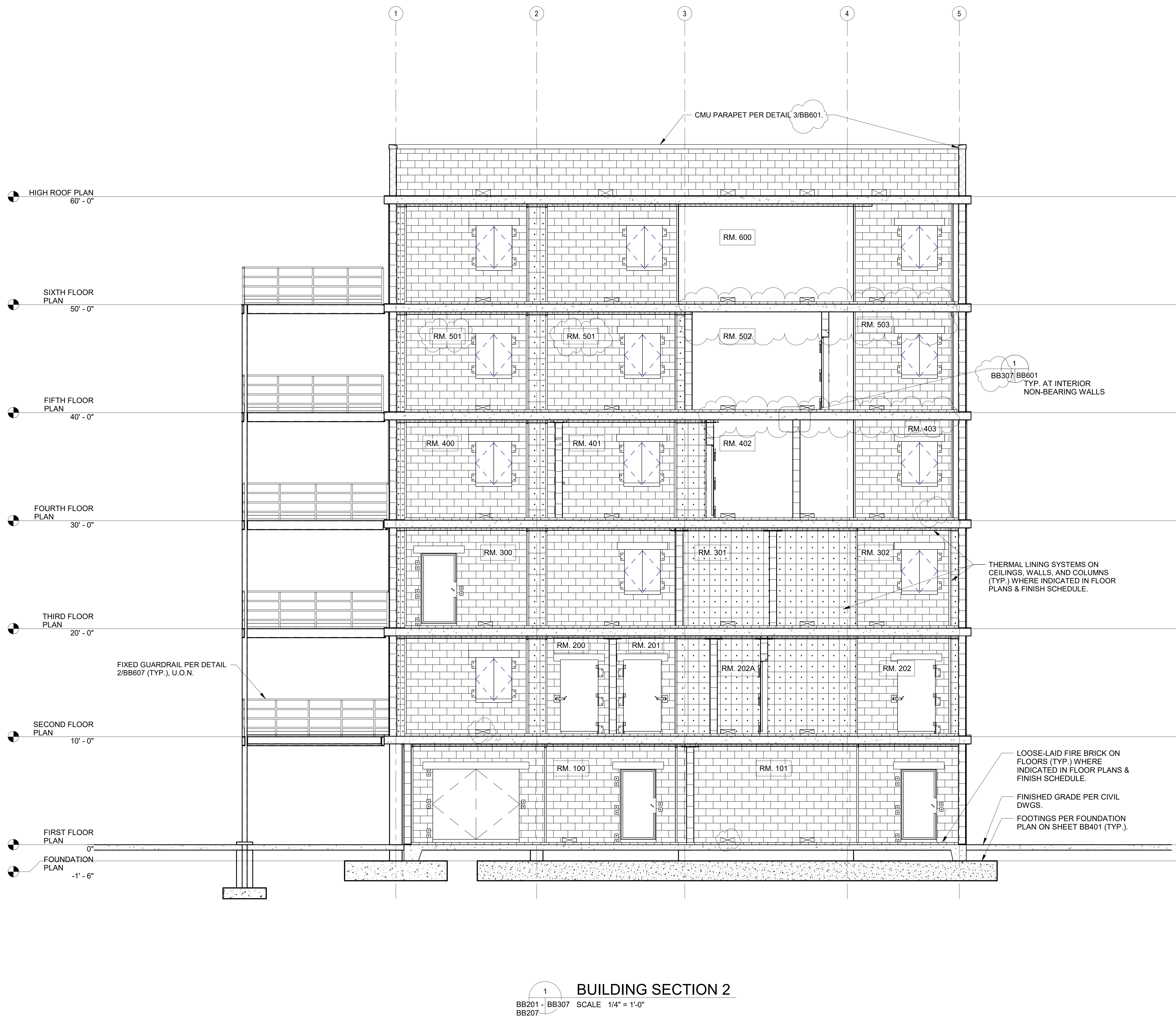
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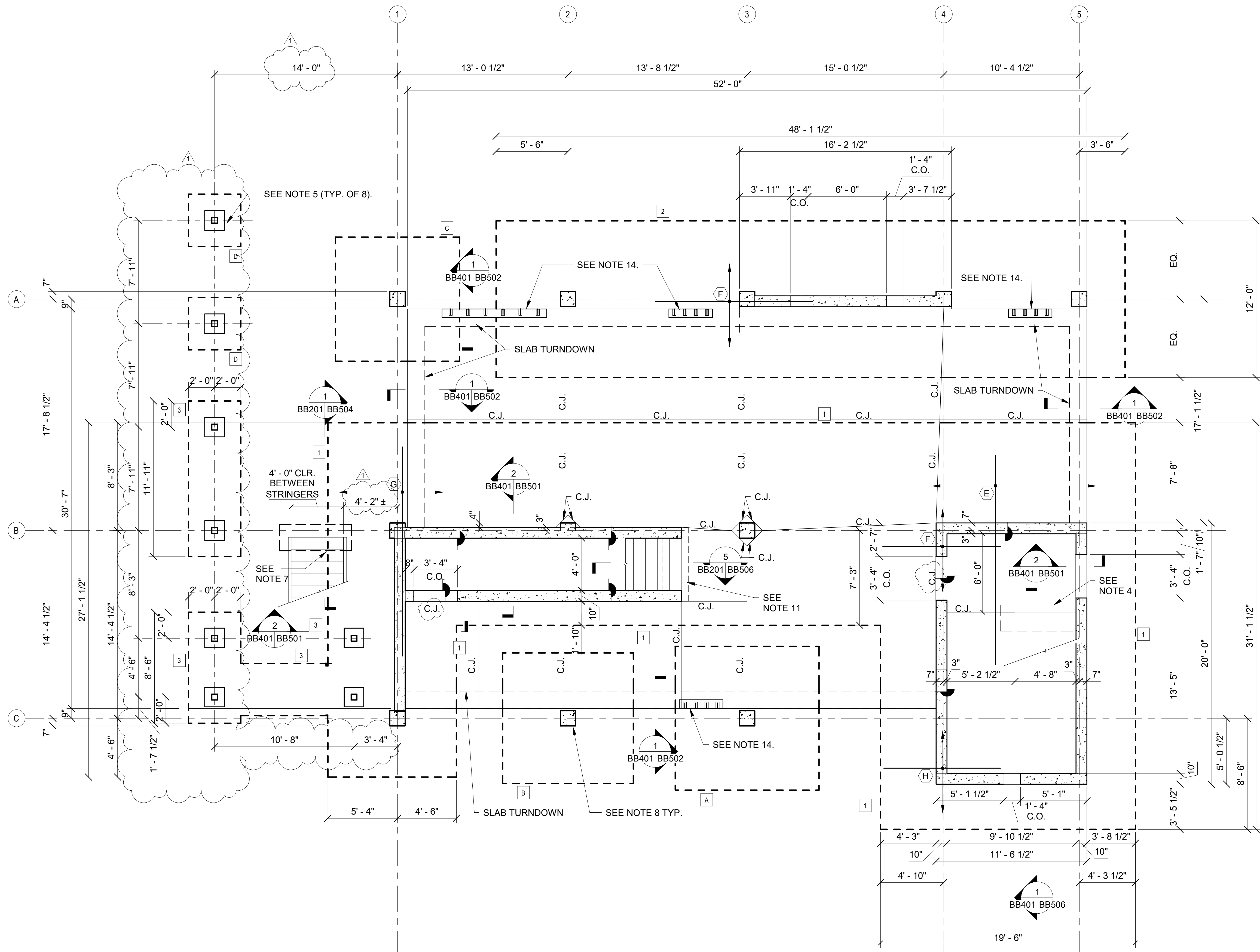


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SHEET BURN BUILDING - FOUNDATION PLAN

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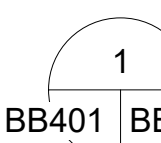
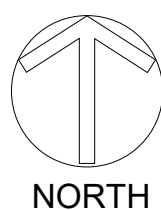
COLUMN FOOTING SCHEDULE				
MARK	WIDTH	LENGTH	THICKNESS	BOTTOM REINF.
A	11' - 0"	11' - 0"	2' - 1"	(11) #7 E.W.
B	10' - 0"	10' - 0"	1' - 10"	(10) #7 E.W.
C	9' - 6"	9' - 6"	1' - 10"	(9) #7 E.W.
D	4' - 0"	4' - 0"	1' - 0"	(5) #5 E.W.

WALL FOOTING SCHEDULE							
MARK	WIDTH	LENGTH	THICKNESS	BOTTOM REINF.		TOP REINF.	
				CONT. (B)	SHORT DIR. (BM)	CONT. (T)	SHORT DIR. (TM)
1	11' - 0"	11' - 0"	1' - 10"	#9@10" O.C. E.W.	-----	#9@10" O.C. E.W.	-----
2	12' - 0"	48' - 1 1/2"	1' - 10"	#8@12" O.C. E.W.	-----	#7@12" O.C. E.W.	-----
3	4' - 0"	CONT.	1' - 4"	(5) #6	#6@12" O.C.	(5) #6	#6@18" O.C.

* MAT FOUNDATION IN UPSIDE-DOWN U SHAPE IN PLAN TO DIMENSIONS SHOWN. ALL FOOTING AREAS SHOWN AS 1 SHALL BE ONE LARGE MAT FOUNDATION.

NOTES:

- LOCATE TOPS OF FOOTINGS AT -1'-6" BELOW DATUM AND EXTERIOR FINISHED GRADE, U.O.N. SEE FIRST FLOOR PLAN BB201 FOR DATUM.
- SEE FOOTING SCHEDULE FOR FOOTINGS NOTED THUS [X]. WHERE WALL OR PEDESTAL FOOTINGS INTERSECT COLUMN OR MAT FOOTINGS, EXTEND WALL/PEDESTAL FOOTING BARS 4'-0" MIN. INTO COLUMN FOOTING.
- SEE FIRST FLOOR PLAN 1/BB201 FOR ALL SLAB ELEVATIONS AND SLOPES. SEE SECTION N OF THE GENERAL NOTES ON SHEET BB001 FOR SLAB THICKNESS AND REINFORCING.
- PROVIDE A 2'-0" WIDE x 5'-6" LONG THICKENED SLAB AT BASE OF STAIR PER SECTION 1/BB505.
- HSS 5 1/2x5 1/2x1/4 COLUMN ON 1'-6" SQ. CONCRETE PIER PER 2/BB504.
- CJ = CONTROL JOINT PER SPECIFICATIONS & GENERAL NOTES.
- PROVIDE A 2'-0" WIDE x 6'-0" LONG THICKENED SLAB AT BASE OF STAIR PER SECTION 1/BB504.
- 14" SQ. CONCRETE COLUMN PER 1/BB501.
- A 2 1/2" STEP IN TOP OF CONCRETE IS DESIGNATED WITH [H].
- SEE PLAN FOR ADDITIONAL REINFORCING:
[E] = (16) #9 x 16' - 0" ADDITIONAL BOTTOM BARS AT 10" O.C.
[F] = (6) #8 x 12' - 0" ADDITIONAL BOTTOM BARS AT 12" O.C.
[G] = (7) #9 x 16' - 0" ADDITIONAL BOTTOM BARS AT 10" O.C.
[H] = (6) #9 x 9' - 0" ADDITIONAL BOTTOM BARS AT 10" O.C.
- PROVIDE 2'-0" WIDE x 4'-0" LONG THICKENED SLAB AT BASE OF STAIR PER SECTION 5/BB506.
- SLAB-ON-GRADE SHALL BE CONTINUOUS THROUGH DOORWAY AND SCUPPER OPENINGS IN CONCRETE WALLS. SEE DETAIL 5/BB502 FOR ADDITIONAL SLAB REINFORCING AT DOOR & SCUPPER OPENINGS.
- ELEVATIONS TO DOOR HEADS VARY WITH FLOOR SLOPES AND SPOT ELEVATIONS. FORM CONCRETE WALL OPENINGS PER DETAILS RELATIVE TO FLOOR SPOT ELEVATION AT EACH LOCATION.
- CAST DOORWAY WELD PLATES INTO SLAB PER FIRST FLOOR PLAN AND DETAIL 4/BB610.



FOUNDATION PLAN

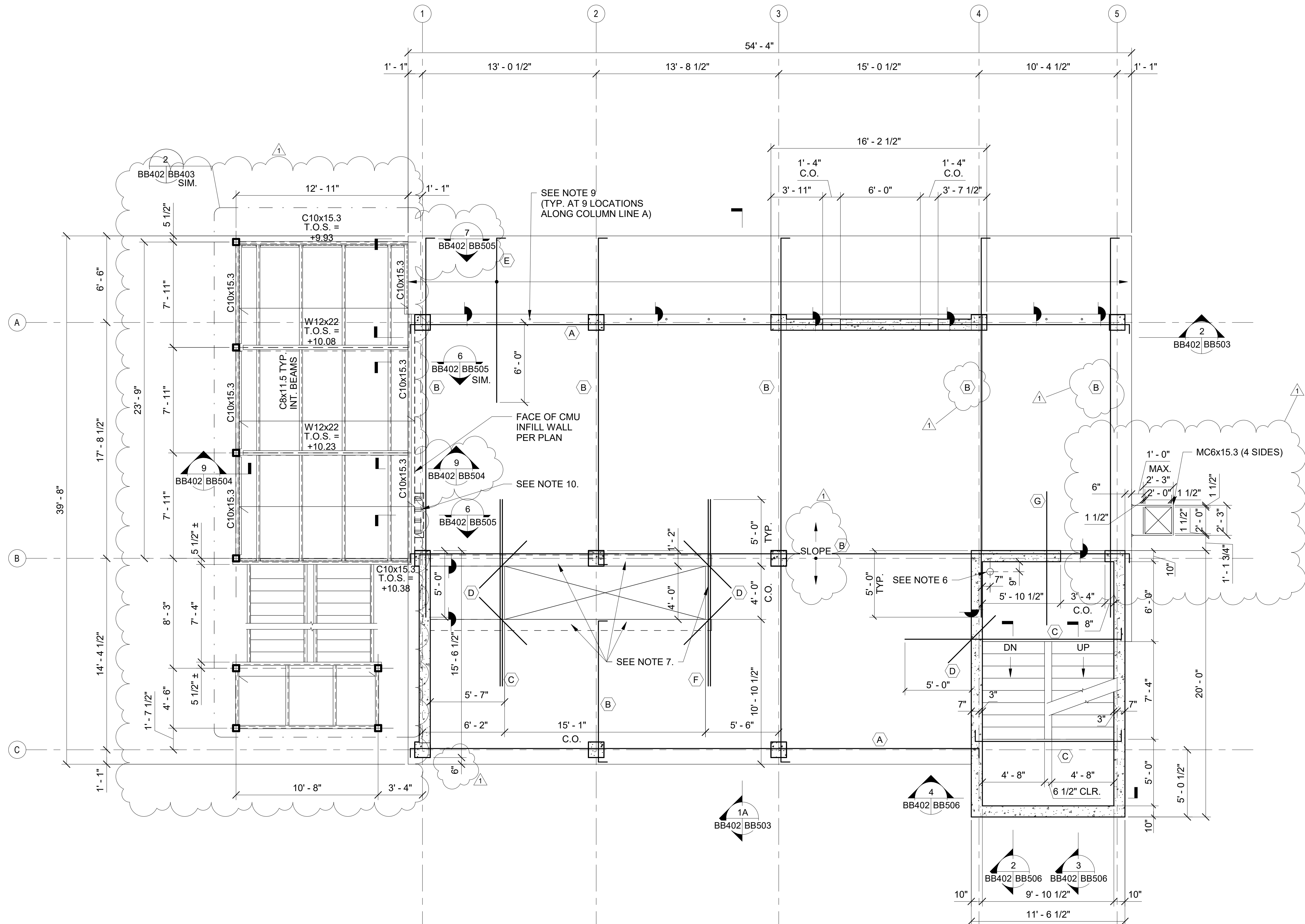
BB401 BB401 SCALE 1/4" = 1'-0"



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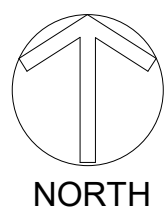
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BURN BUILDING - SECOND FLOOR FRAMING PLAN

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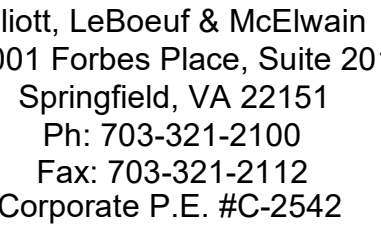
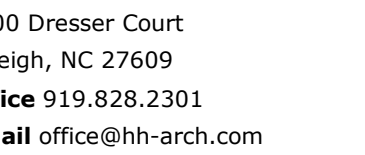
NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE SECOND FLOOR PLAN 1/BB202 FOR CONCRETE SLAB ELEVATIONS AND SLOPES. BOTTOM OF MAIN SLAB AT +9.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION \rightarrow IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (3) #5 AT 3" O.C. ADDITIONAL TOP AND BOTTOM BARS, CENTERED BETWEEN EACH MAIN TOP AND BOTTOM BAR, FOR A DISTANCE OF 3'-0" SLAB EDGE, SO THAT TOP AND BOTTOM BAR SPACING IS AT 3" O.C. IN COLUMN STRIP. SEE DETAIL 8/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (B) = (4) #5 ADDITIONAL TOP BARS AND BOTTOM BARS AT 12" O.C. CENTERED BETWEEN MAIN TOP BARS AND MAIN BOTTOM BARS AND CENTERED ON COLUMN LINE. AT LEAST (2) TOP AND BOTTOM BARS SHALL BE WITHIN 3" OF COLUMN GRID, ONE ON EACH SIDE OF COLUMN GRID. SEE DETAIL 9/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (C) = (4) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (D) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (E) = #5 @ 12" O.C. ADDITIONAL TOP BARS CENTERED BETWEEN MAIN TOP BARS. (E) BARS DO NOT HAVE TO BE ADDED WHERE A OR B BARS HAVE ALREADY BEEN ADDED.
 - (F) = (2) EACH, #5 ADDITIONAL TOP & BOTTOM BARS AT EDGE OF OPENING.
 - (G) = (3) #5 x 10' - 0" LONG ADDITIONAL TOP BARS AT 12" O.C. CENTERED ON GRIDLINE B.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. SCHED. 40 PVC PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB.
- PROVIDE WALL DOWELS PER DETAIL 1/BB601 ONLY FOR CMU WALLS ABOVE SECOND FLOOR SLAB AROUND INTERIOR STRAIGHT RUN STAIRS.
- A 2 1/2" STEP IN TOP OF CONCRETE IS DESIGNATED WITH ∇ .
- PROVIDE WEEPS THROUGH SLAB PER KEYED NOTE 16 ON 1/BB202.
- CAST DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAIL 6/BB505.



1
BB402 BB402 SCALE 1/4" = 1'-0"

SECOND FLOOR FRAMING PLAN



NCCCS NO. 2303



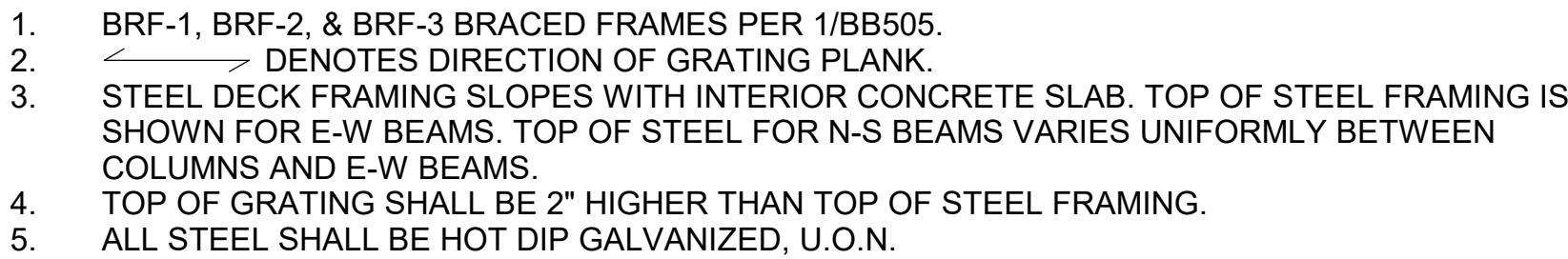
REVISION	DATE
Addendum #1	04/14/25

JOB NUMBER
2056
 DATE ISSUED
3/14/25
 PROJECT STATUS
ISSUE FOR
CONSTRUCTION
 SHEET
BURN BUILDING -
THIRD FLOOR
FRAMING PLAN



BB403



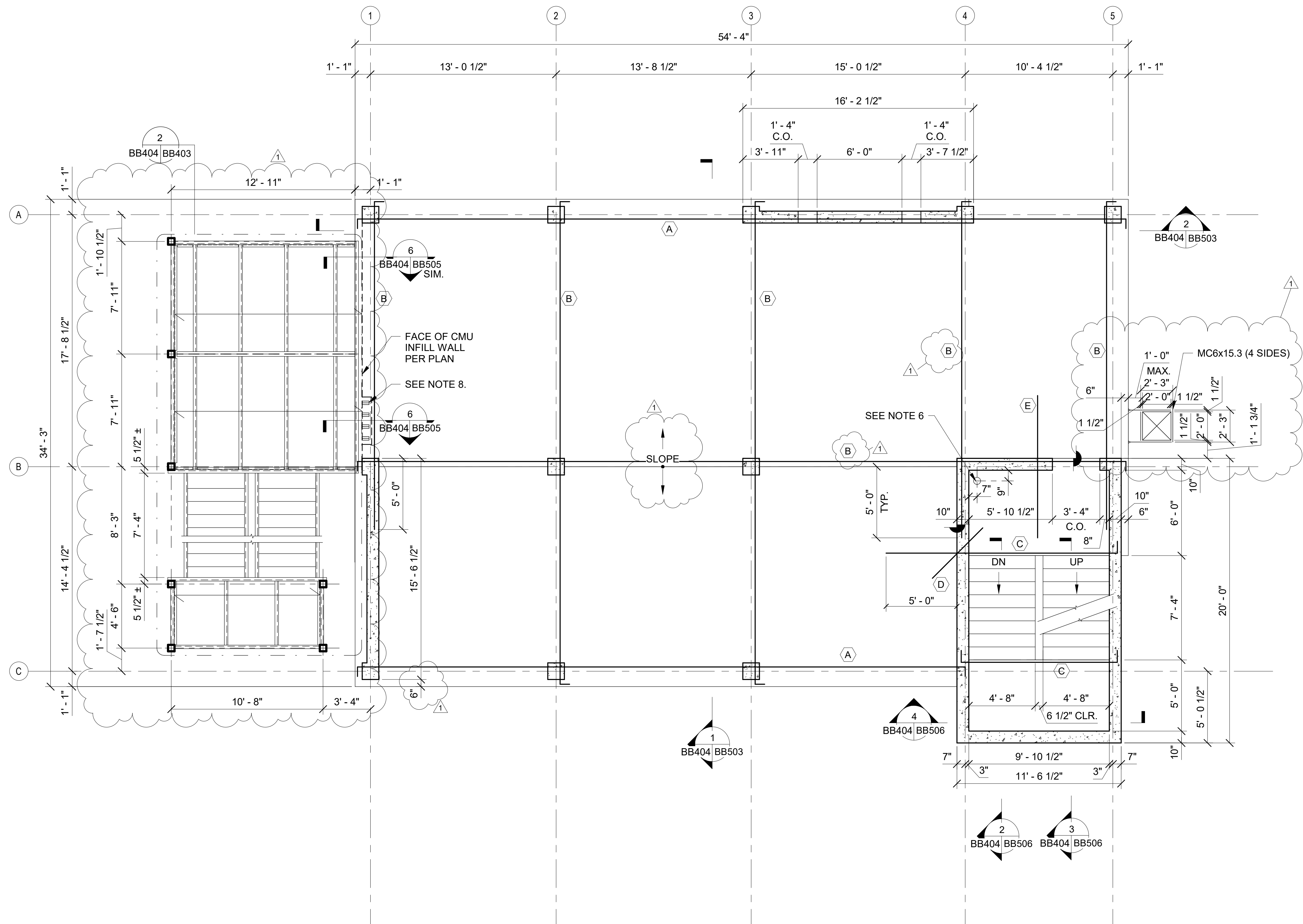
9. CAST DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAIL 6/BB505.



BB403- BB403 SCALE 1/2" = 1'-0"
BB406

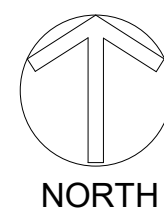


THIRD FLOOR FRAMING PLAN
 BB403 BB403 SCALE 1/4" = 1'-0"

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NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE FOURTH FLOOR/LOW ROOF PLAN 1/BB204 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +29.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION \blacktriangleleft IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (3) #5 AT 3" O.C. ADDITIONAL TOP AND BOTTOM BARS, CENTERED BETWEEN EACH MAIN TOP AND BOTTOM BAR, FOR A DISTANCE OF 3'-0" SLAB EDGE, SO THAT TOP AND BOTTOM BAR SPACING IS AT 3" O.C. IN COLUMN STRIP. SEE DETAIL 8/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (B) = (4) #5 ADDITIONAL TOP BARS AND BOTTOM BARS AT 12" O.C. CENTERED BETWEEN MAIN TOP BARS AND MAIN BOTTOM BARS AND CENTERED ON COLUMN LINE. AT LEAST (2) TOP AND BOTTOM BARS SHALL BE WITHIN 3' OF COLUMN GRID, ONE ON EACH SIDE OF COLUMN GRID. SEE DETAIL 9/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (C) = (4) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (D) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (E) = (3) #5 x 10' - 0" LONG ADDITIONAL TOP BARS AT 12" O.C. CENTERED ON GRIDLINE B.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. SCHED. 40 PVC PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB.
- A 2 1/2" STEP IN TOP OF CONCRETE IS DESIGNATED WITH \blacktriangledown .
- CAST DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAIL 6/BB505.



1
BB404 BB404 SCALE 1/4" = 1'-0"

FOURTH FLOOR FRAMING PLAN

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Corporate P.E. #C-2542

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WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303

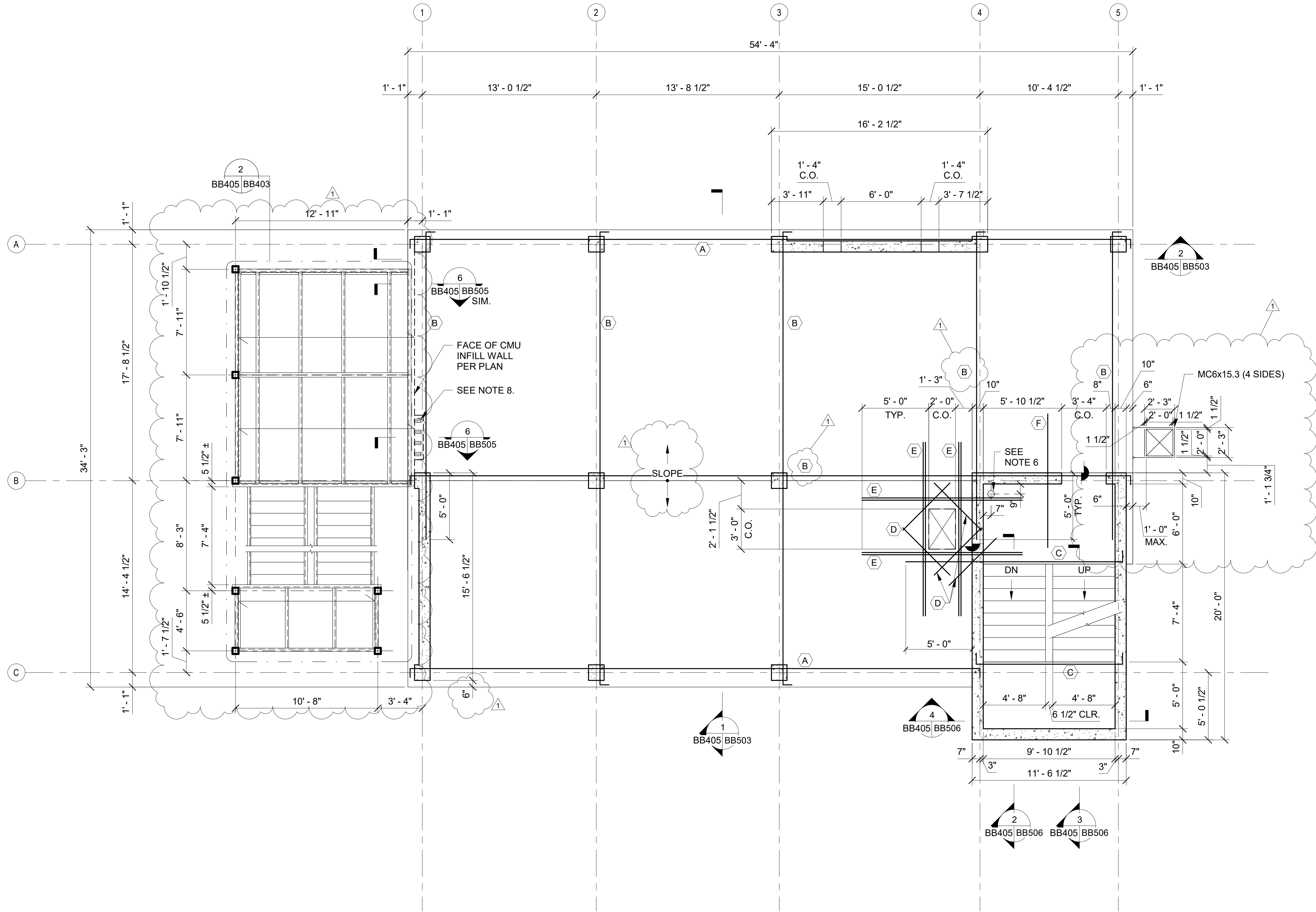


NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

**BURN BUILDING -
FOURTH FLOOR
FRAMING PLAN**

BB404



NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE FIFTH FLOOR PLAN 1/BB205 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +39.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (3) #5 AT 3" O.C. ADDITIONAL TOP AND BOTTOM BARS, CENTERED BETWEEN EACH MAIN TOP AND BOTTOM BAR, FOR A DISTANCE OF 3'-0" SLAB EDGE, SO THAT TOP AND BOTTOM BAR SPACING IS AT 3" O.C. IN COLUMN STRIP. SEE DETAIL 8/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (B) = (4) #5 ADDITIONAL TOP BARS AND BOTTOM BARS AT 12" O.C. CENTERED BETWEEN MAIN TOP BARS AND MAIN BOTTOM BARS AND CENTERED ON COLUMN LINE. AT LEAST (2) TOP AND BOTTOM BARS SHALL BE WITHIN 3" OF COLUMN GRID, ONE ON EACH SIDE OF COLUMN GRID. SEE DETAIL 9/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (C) = (4) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (D) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (E) = (2) EACH, #5 ADDITIONAL TOP & BOTTOM BARS AT EDGE OF OPENING.
 - (F) = (3) #5 x 10' - 0" LONG ADDITIONAL TOP BARS AT 12" O.C. CENTERED ON GRIDLINE B.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. SCHED. 40 PVC PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB.
- A 2 1/2" STEP IN TOP OF CONCRETE IS DESIGNATED WITH .
- CAST DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAIL 6/BB505.



1
BB405 BB405

FIFTH FLOOR FRAMING PLAN

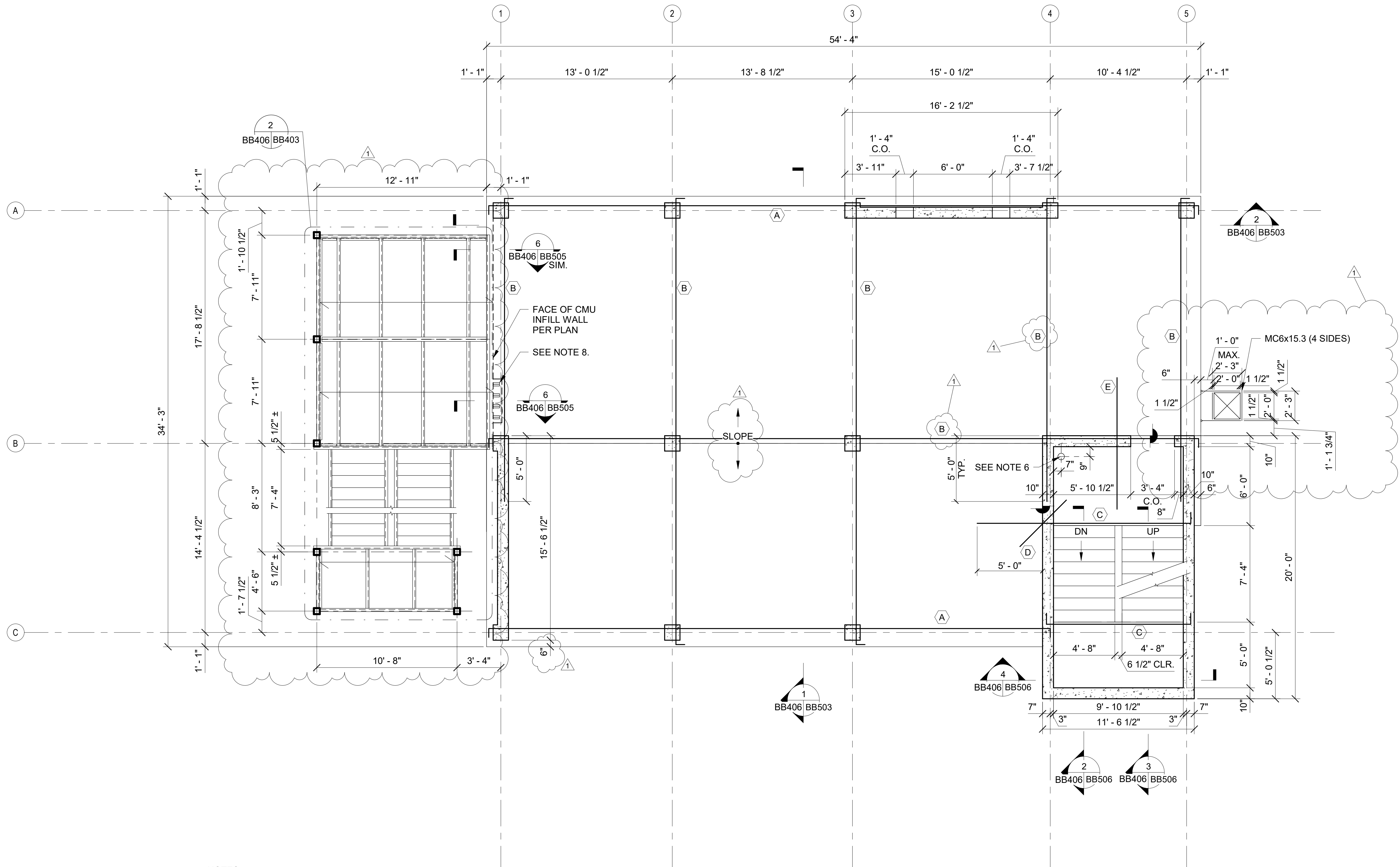
SCALE 1/4" = 1'-0"



NO.	REVISION	DATE
1	Addendum #1	04/14/25

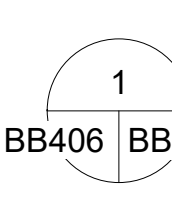
JOB NUMBER 22056
DATE ISSUED 03/14/25
PROJECT STATUS ISSUE FOR CONSTRUCTION
SHEET BURN BUILDING - SIXTH FLOOR FRAMING PLAN

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NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE SIXTH FLOOR PLAN 1/BB206 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +49.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (3) #5 AT 3" O.C. ADDITIONAL TOP AND BOTTOM BARS, CENTERED BETWEEN EACH MAIN TOP AND BOTTOM BAR, FOR A DISTANCE OF 3'-0" SLAB EDGE, SO THAT TOP AND BOTTOM BAR SPACING IS AT 3" O.C. IN COLUMN STRIP. SEE DETAIL 8/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (B) = (4) #5 ADDITIONAL TOP BARS AND BOTTOM BARS AT 12" O.C. CENTERED BETWEEN MAIN TOP BARS AND MAIN BOTTOM BARS AND CENTERED ON COLUMN LINE. AT LEAST (2) TOP AND BOTTOM BARS SHALL BE WITHIN 3" OF COLUMN GRID, ONE ON EACH SIDE OF COLUMN GRID. SEE DETAIL 9/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (C) = (4) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (D) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (E) = (3) #5 x 10' - 0" LONG ADDITIONAL TOP BARS AT 12" O.C. CENTERED ON GRIDLINE B.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. SCHED. 40 PVC PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB.
- A 2 1/2" STEP IN TOP OF CONCRETE IS DESIGNATED WITH .
- CAST DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAIL 6/BB505.



SIXTH FLOOR FRAMING PLAN

BB406 BB406 SCALE 1/4" = 1'-0"

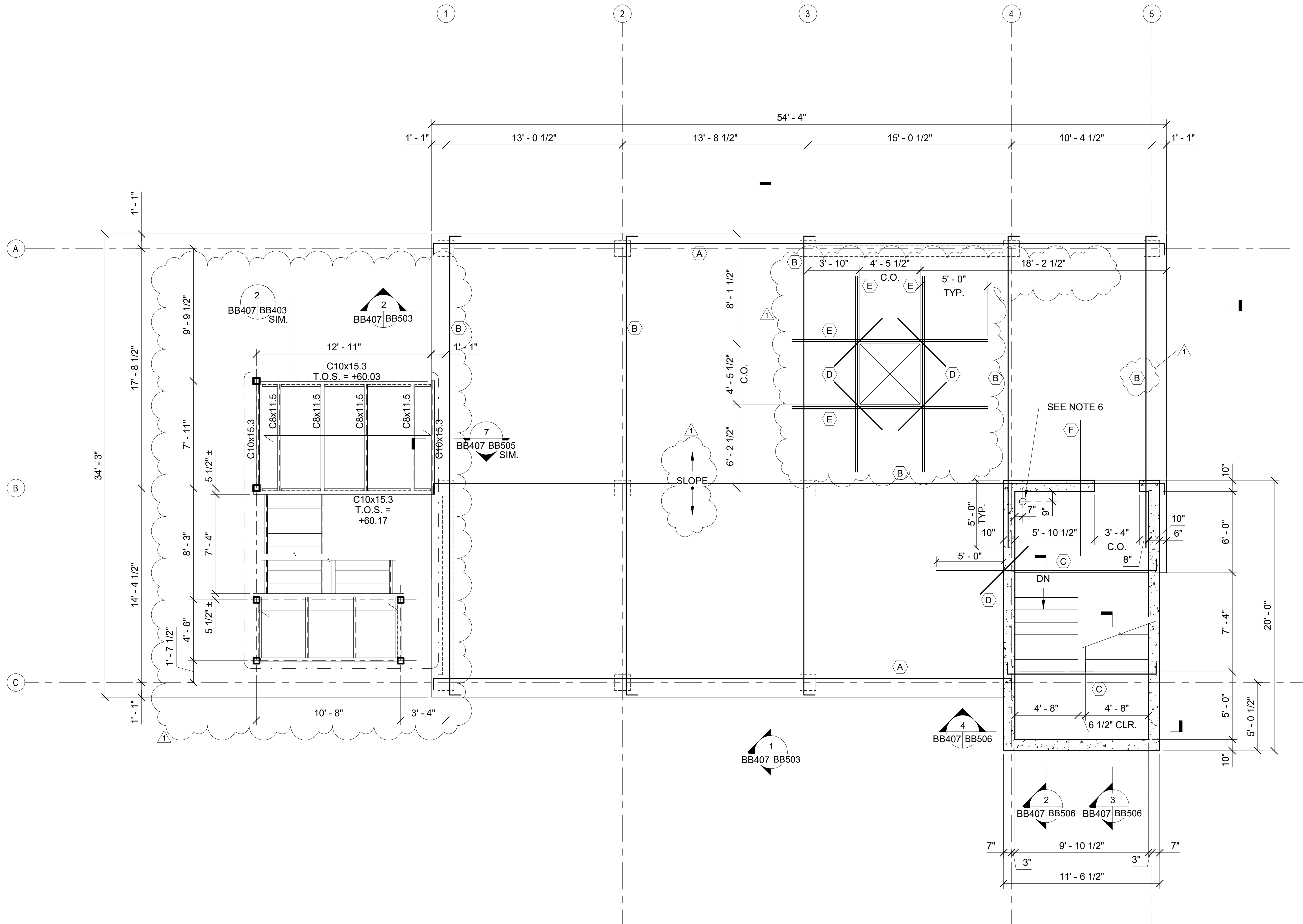
NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

**BURN BUILDING -
HIGH ROOF &
STAIR ROOF
FRAMING PLANS**

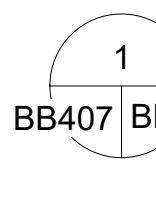
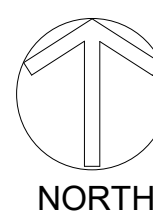
BB407

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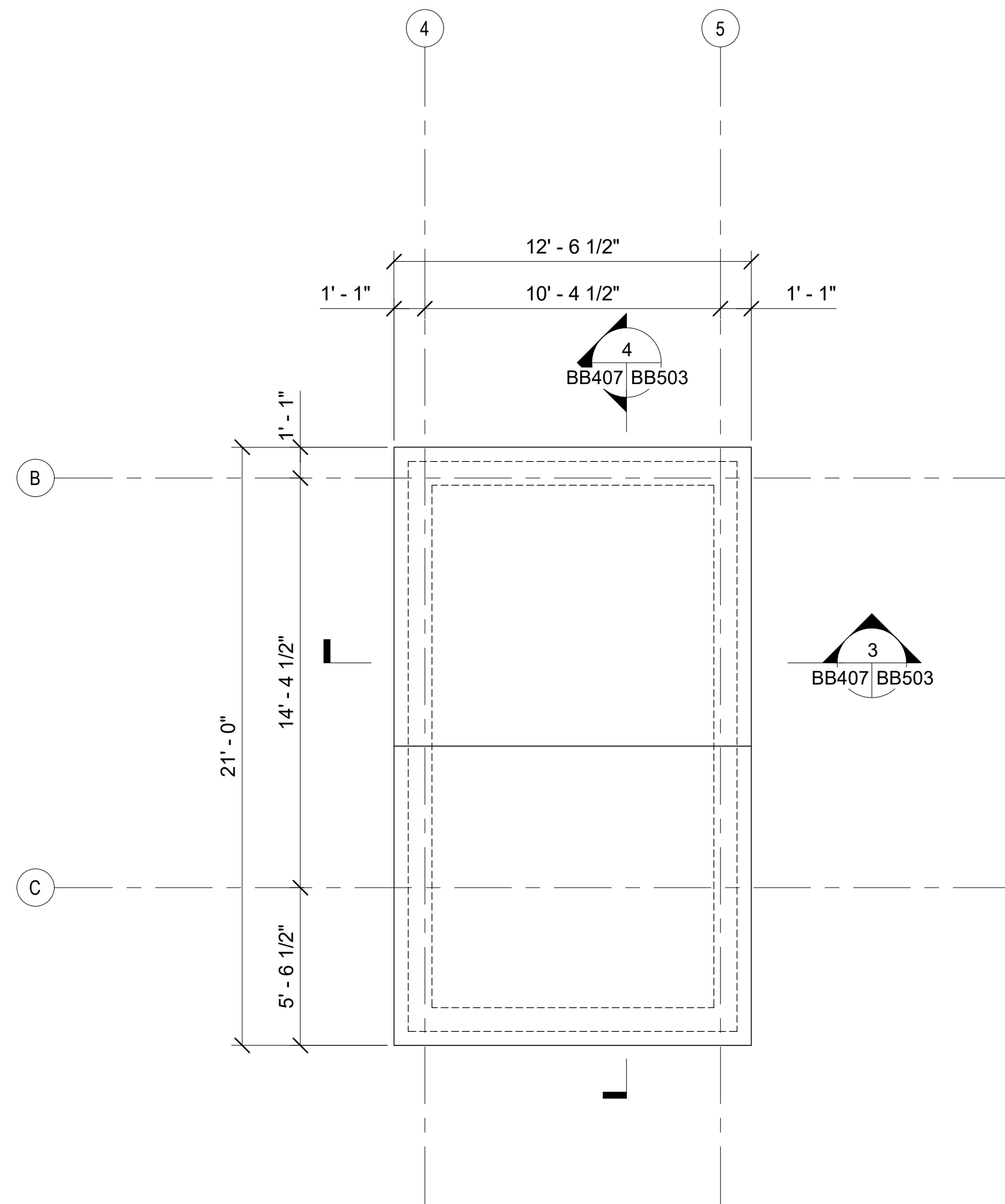
NOTES:

- SLAB THICKNESS OVER STAIRS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE HIGH ROOF PLAN 1/BB207 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +59.33'. U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (3) #5 AT 3" O.C. ADDITIONAL TOP AND BOTTOM BARS, CENTERED BETWEEN EACH MAIN TOP AND BOTTOM BAR, FOR A DISTANCE OF 3'-0" SLAB EDGE, SO THAT TOP AND BOTTOM BAR SPACING IS AT 3" O.C. IN COLUMN STRIP. SEE DETAIL 8/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (B) = (4) #5 ADDITIONAL TOP BARS AND BOTTOM BARS AT 12" O.C. CENTERED BETWEEN MAIN TOP BARS AND MAIN BOTTOM BARS AND CENTERED ON COLUMN LINE. AT LEAST (2) TOP AND BOTTOM BARS SHALL BE WITHIN 3" OF COLUMN GRID, ONE ON EACH SIDE OF COLUMN GRID. SEE DETAIL 9/BB502 FOR SPACING WITHIN COLUMN STRIP.
 - (C) = (4) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (D) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (E) = (2) EACH, #5 ADDITIONAL TOP & BOTTOM BARS AT EDGE OF OPENING.
 - (F) = (3) #5 x 10' - 0" LONG ADDITIONAL TOP BARS AT 12" O.C. CENTERED ON GRIDLINE B.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. SCHED. 40 PVC PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB.



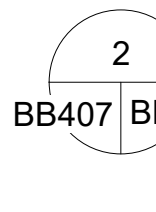
HIGH ROOF FRAMING PLAN

BB407 BB407 SCALE 1/4" = 1'-0"



NOTES:

- SLAB THICKNESS OVER STAIRS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE STAIR ROOF PLAN 2/BB207 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +69.33'. U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.



STAIR ROOF FRAMING PLAN

BB407 BB407 SCALE 1/4" = 1'-0"



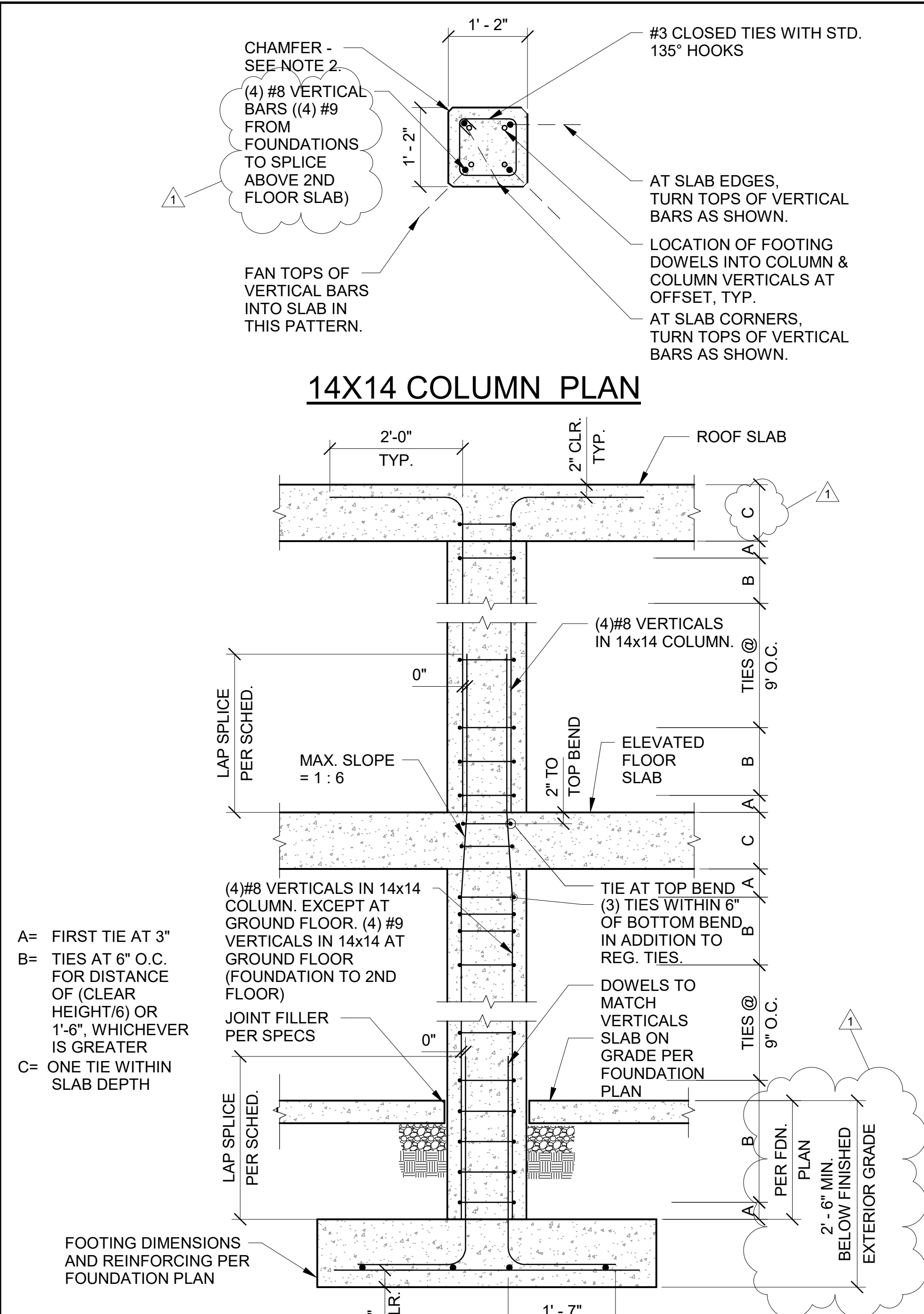
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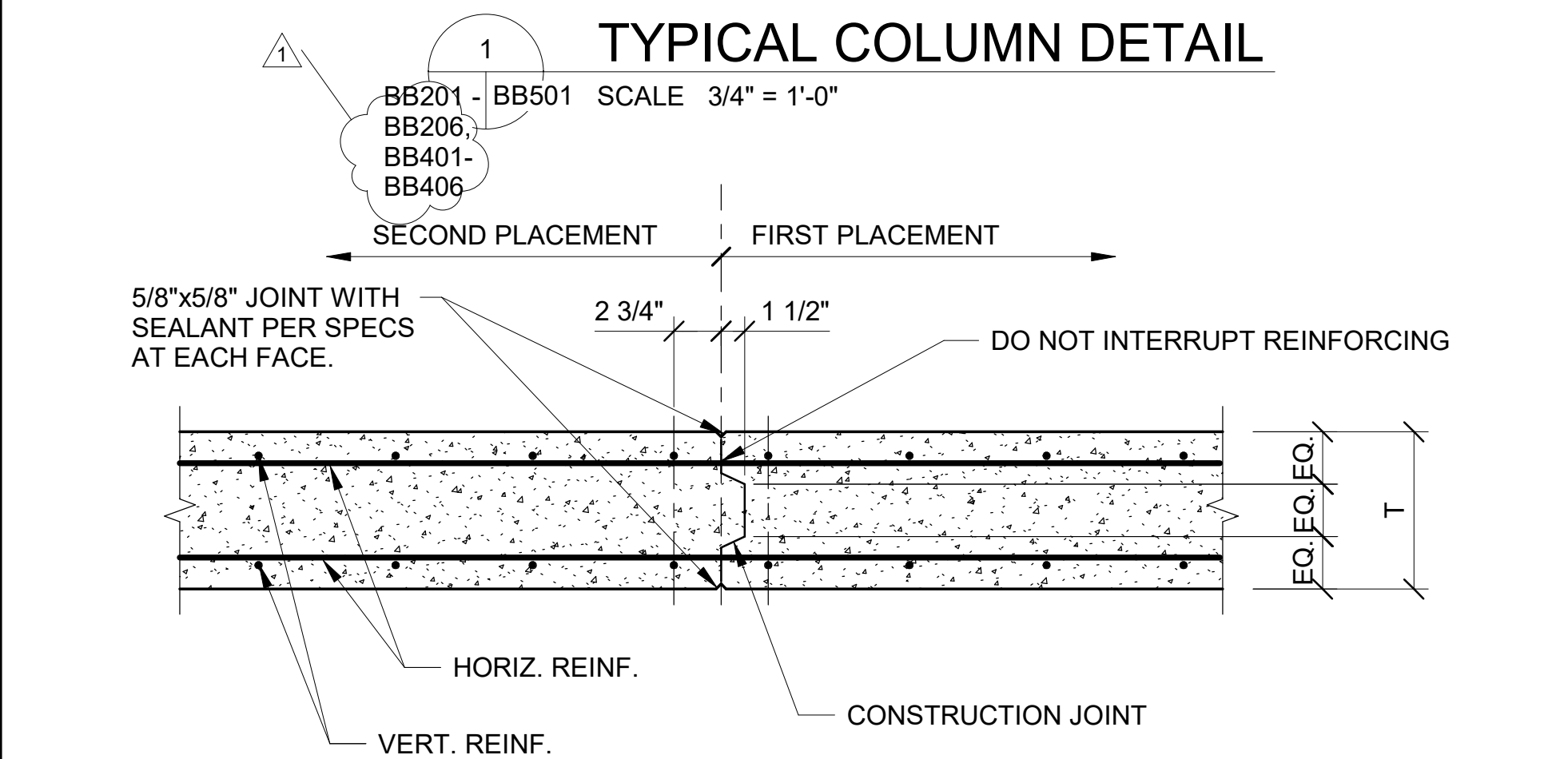
NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

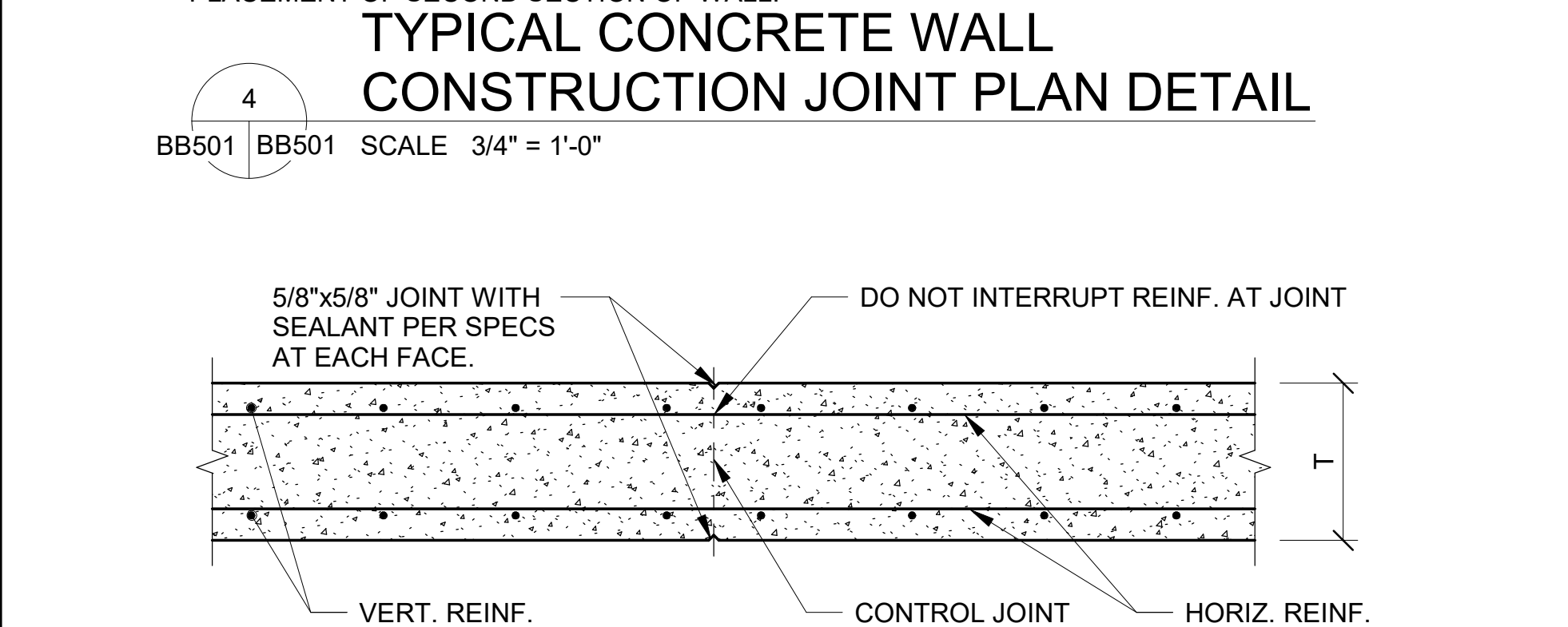
BURN BUILDING - TYPICAL CONCRETE DETAILS



- NOTES:**
- THIS DETAIL APPLIES TO ALL COLUMNS. NO TOLERANCES ARE ALLOWED IN DIMENSIONS FOR COLUMNS THAT WILL BE COVERED BY THERMAL LININGS. DIMENSIONS OF THERMAL LININGS ARE EXACT AND VARIATIONS IN COLUMN SIZES MAY RESULT IN ADDITIONAL COST DUE TO THE NEED FOR ADDITIONAL THERMAL LININGS AND CUSTOM CUTTING.
 - NO CHAMFER AT COLUMNS WITH THERMAL LINING.



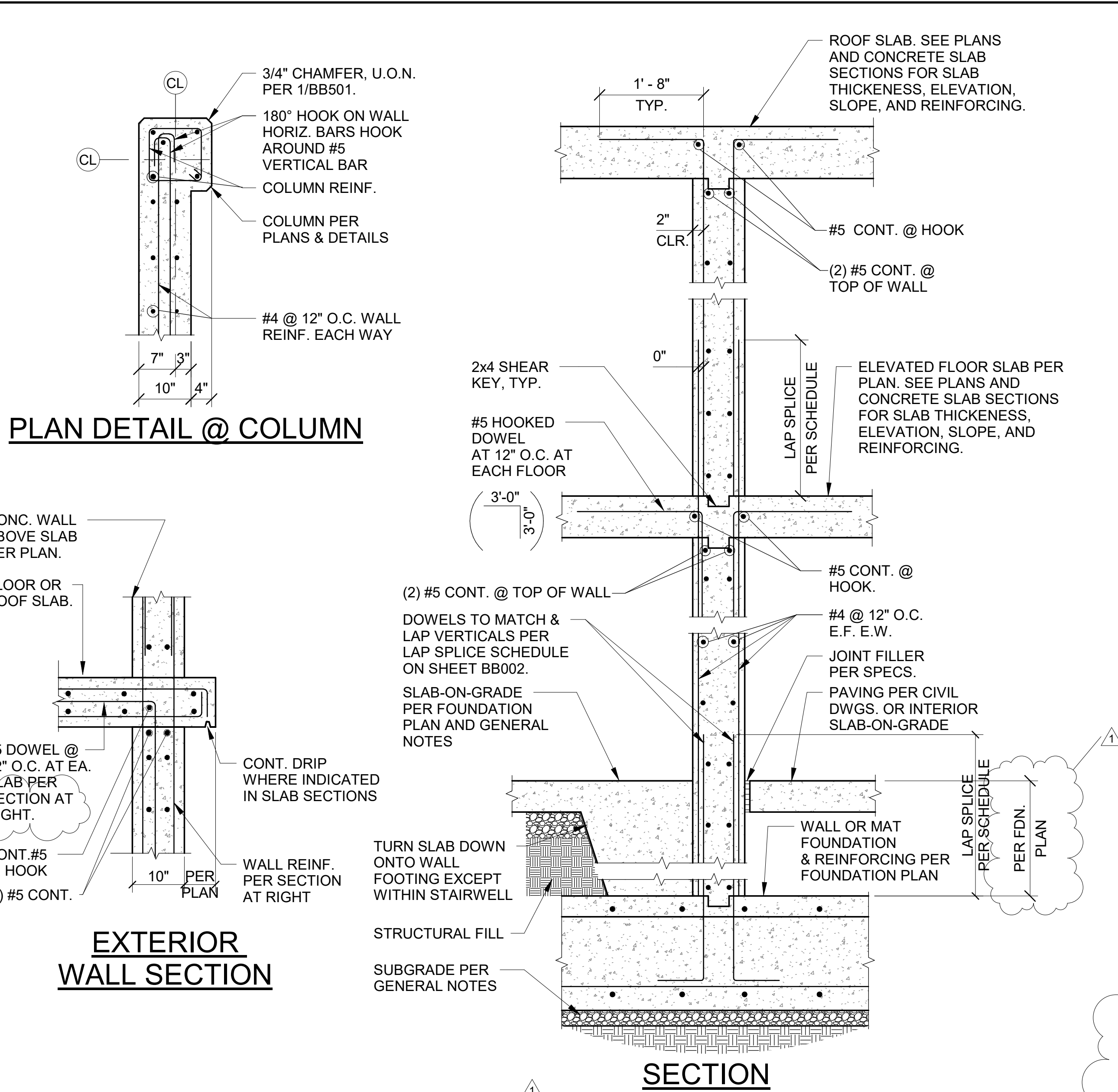
- NOTES:**
- CONSTRUCTION JOINTS ARE NOT ANTICIPATED. IF A CONSTRUCTION JOINT IS REQUIRED, NOTIFY ENGINEER OF LOCATION FOR APPROVAL PRIOR TO INSTALLATION.
 - AT CONSTRUCTION JOINTS, PREPARE JOINT FACE OF FIRST SECTION OF WALL PRIOR TO PLACEMENT OF SECOND SECTION OF WALL.



- NOTES:**
- LOCATE CONTROL JOINTS PER BUILDING ELEVATIONS, OR IF NOT SHOWN, ON ELEVATIONS, PROVIDE CONTROL JOINT AT 30'-0" O.C. MAX. SPACING AND LOCATE FIRST JOINT NO FARTHER THAN 15'-0" O.C. FROM CORNER.

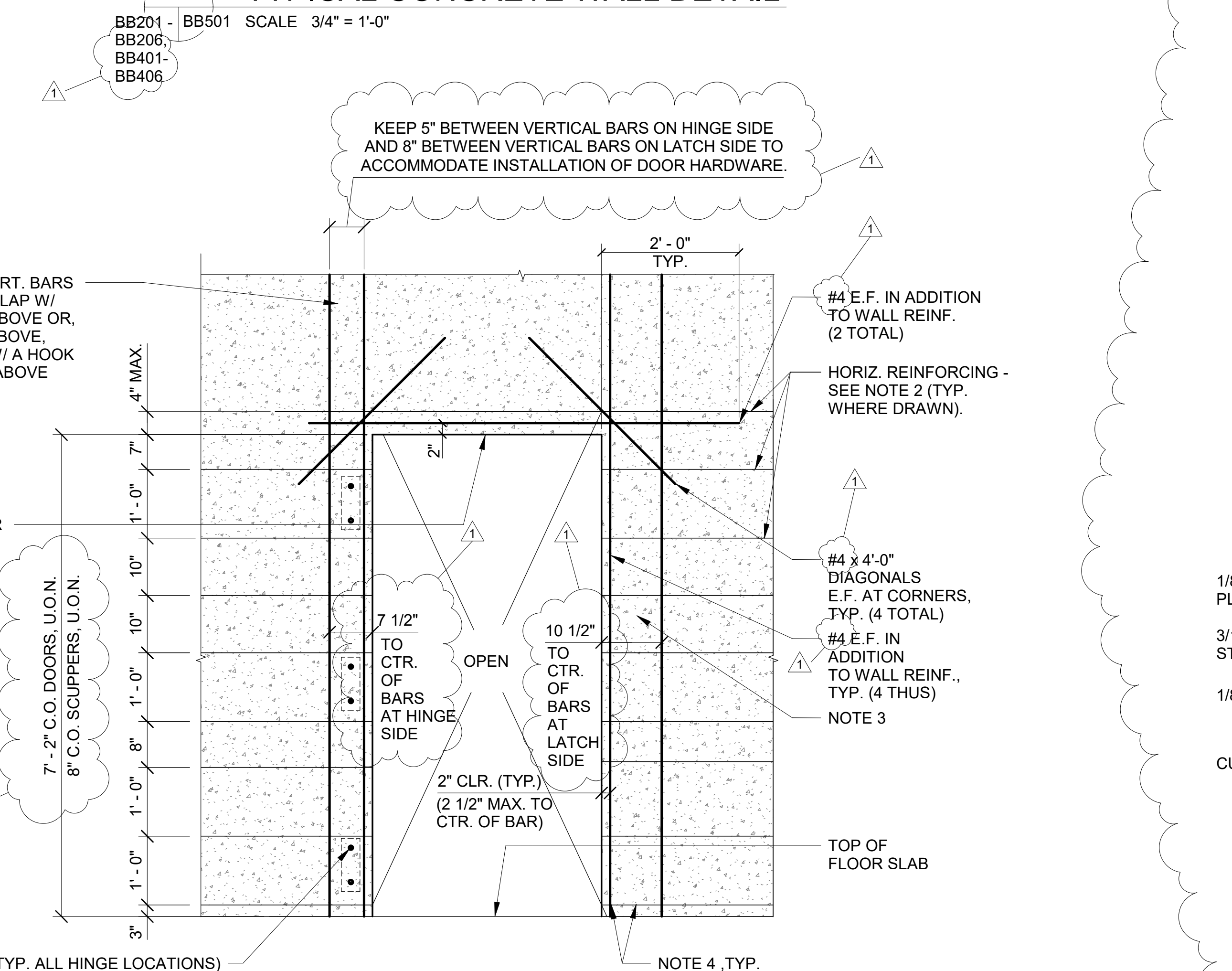


BB501 BB501 SCALE 3/4" = 1'-0"

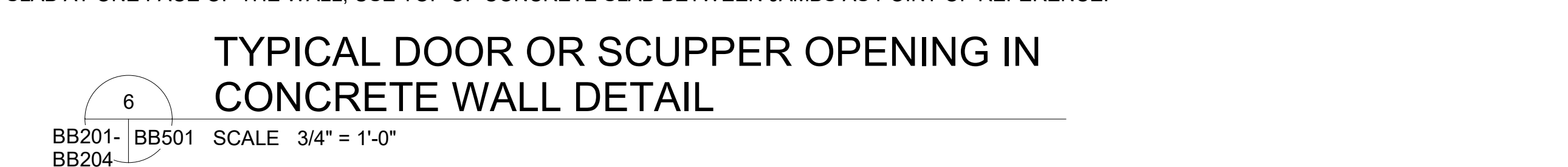


- NOTES:**
- SEE PLANS FOR THERMAL LINING LOCATIONS AND 1/BB602 FOR LINING DETAILS.

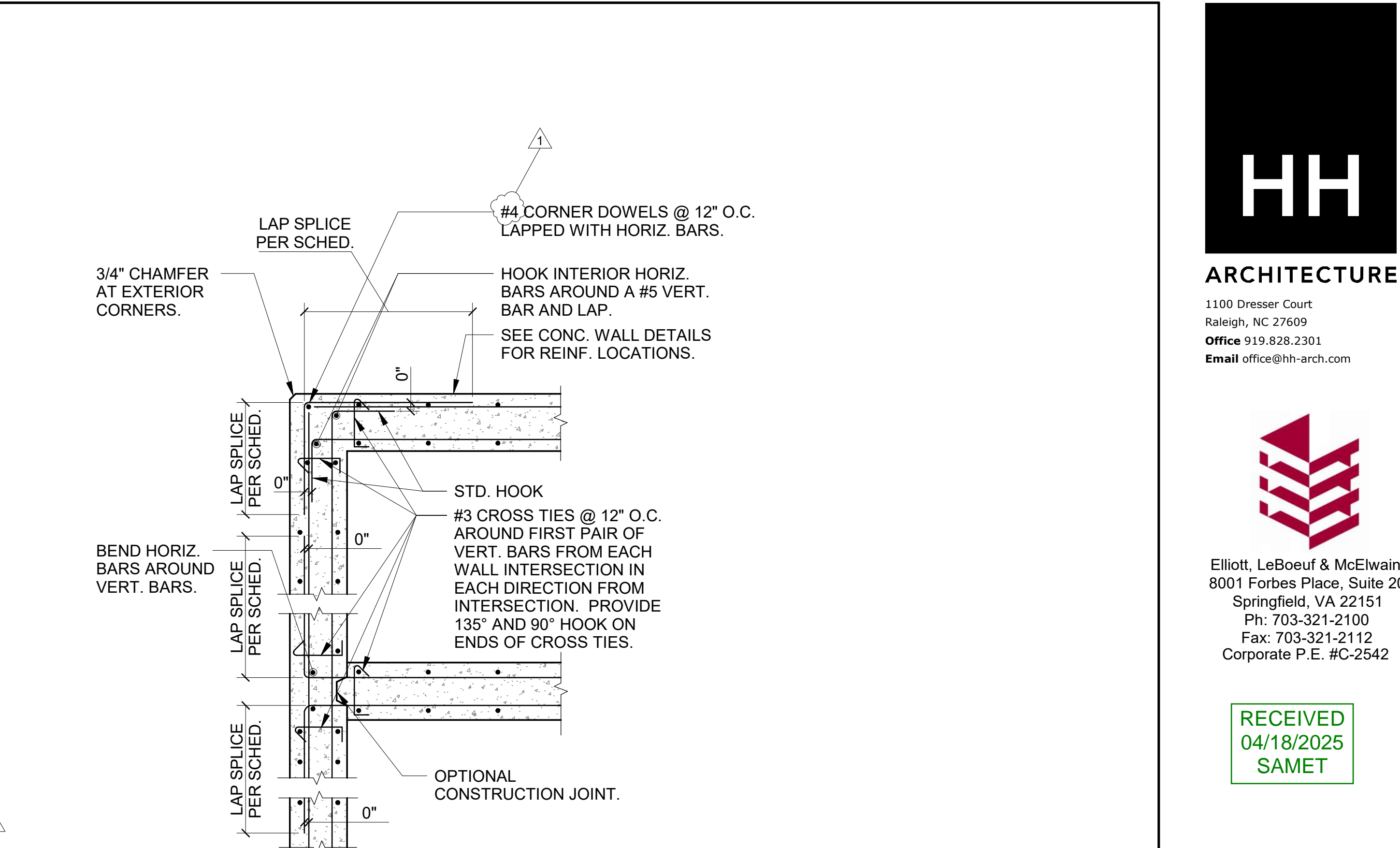
TYPICAL CONCRETE WALL DETAIL



- NOTES:**
- THIS DETAIL APPLIES TO ALL OPENINGS IN CONCRETE WALLS THAT EXTEND DOWN TO FLOOR LEVEL.
 - ADDED BARS SHOWN AS HEAVY LINES. TYPICAL WALL REINFORCING NOT SHOWN EXCEPT FOR HORIZ. BARS INTERRUPTED BY OPENINGS FOR STEEL PLATE DOORS SHOWN AS LIGHT LINES. TO CLARIFY PLACEMENT, TO AVOID CONFLICT WITH DOOR HINGE BOLT INSTALLATION.
 - ADD 1/2 OF INTERRUPTED VERTICAL WALL REINFORCING AT EACH SIDE OF OPENING.
 - PROVIDE FOUNDATION DOWELS TO MATCH & LAP ADDITIONAL REINFORCING.
 - DO NOT PROVIDE CHAMFER AT EDGES LINED WITH THERMAL LINING SYSTEM OR WHERE THERMAL LINING TERMINATES AT EDGE OF DOOR OPENING.
 - PLACE THRU-BOLTS FOR DOOR HINGES IN WALL FORMS BEFORE CASTING CONCRETE. DO NOT DRILL BOLT HOLES AFTER CASTING CONCRETE.
 - USE TOP OF CONCRETE FLOOR AT CENTER OF DOORWAY/SCUPPER AS POINT OF REFERENCE FOR OPENING HEIGHT. IF THERE IS A CONCRETE STEP IN FLOOR SLAB AT ONE FACE OF THE WALL, USE TOP OF CONCRETE SLAB BETWEEN JAMBS AS POINT OF REFERENCE.



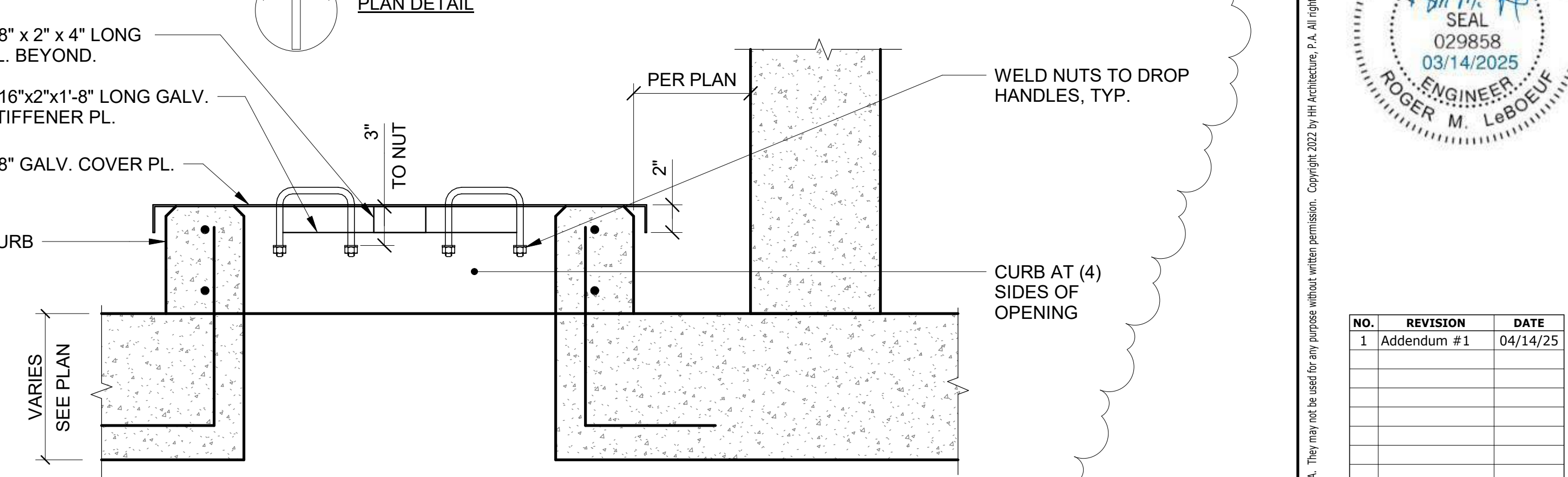
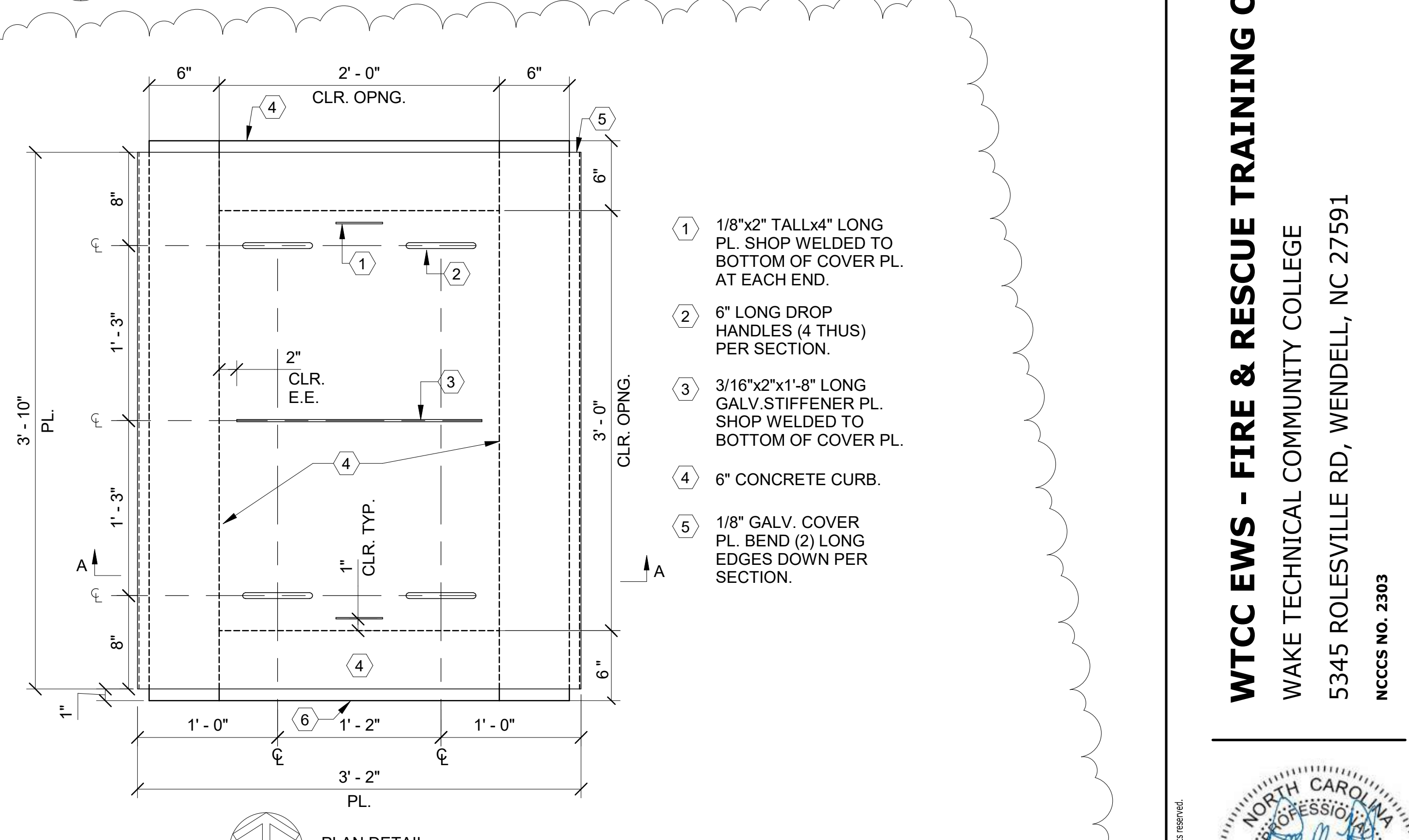
BB201- BB501 SCALE 3/4" = 1'-0"
BB204



- NOTES:**
- LAP REINFORCING IN ACCORDANCE WITH TYPICAL REINFORCING LAP SPlice SCHEDULE ON SHEET BB002.

TYPICAL CONCRETE WALL REINFORCEMENT PLAN DETAIL

BB501 BB501 SCALE 3/4" = 1'-0"

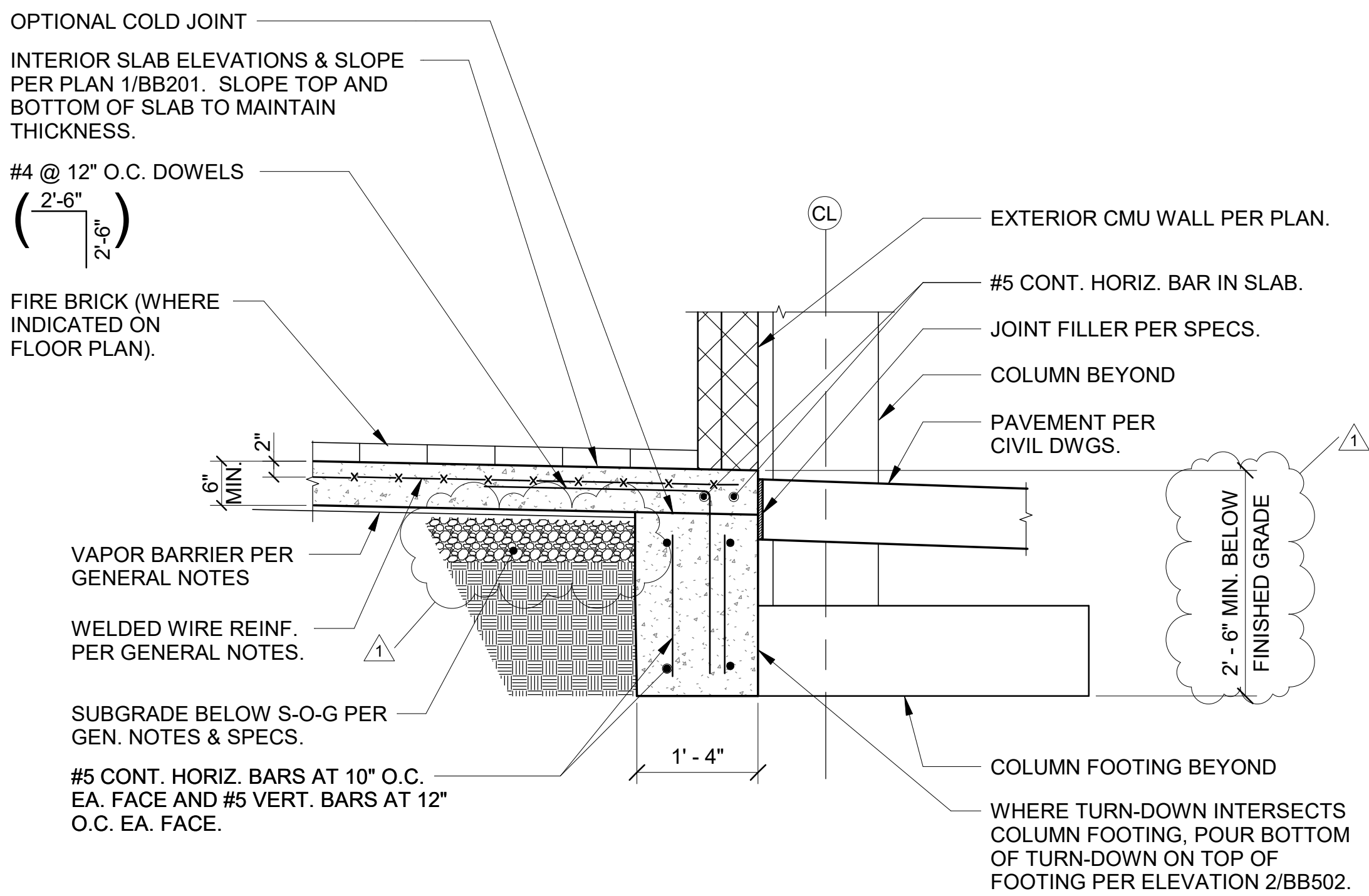


- NOTES:**
- ALL METAL PIECES IN THIS DETAIL SHALL BE GALVANIZED, U.O.N.
 - SEE FRAMING PLAN & SLAB SECTIONS FOR SLAB REINFORCING.

ATTIC ACCESS OPENING

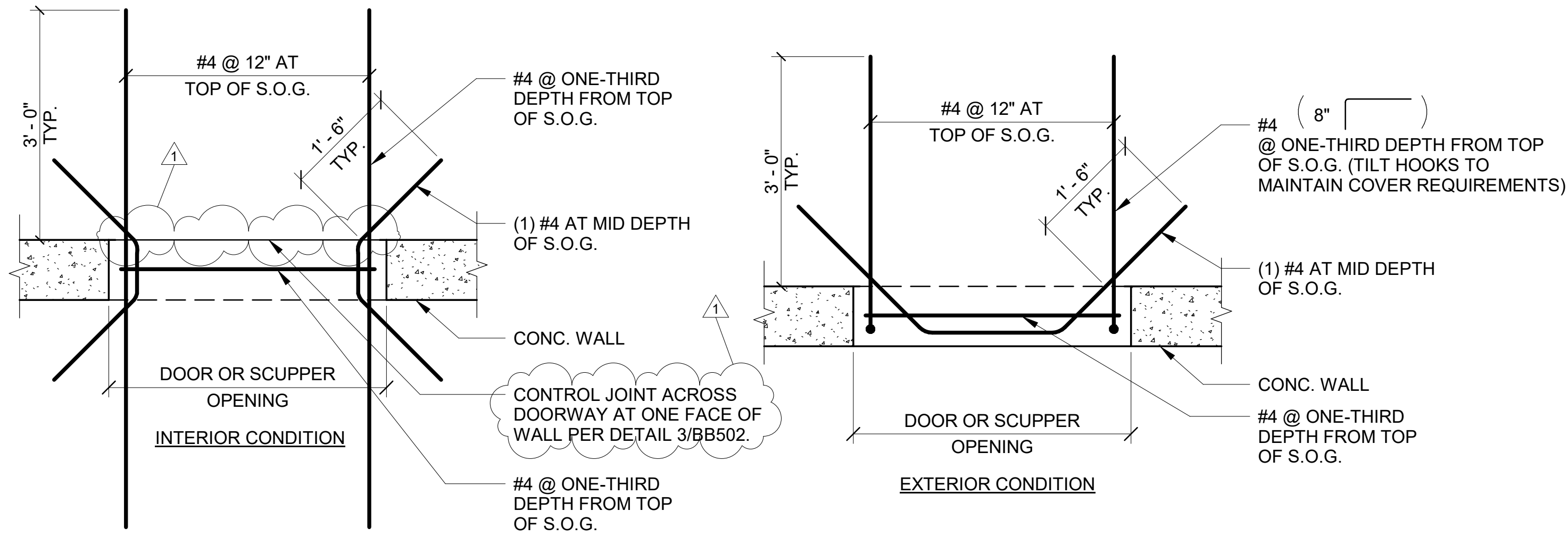
BB205 BB501 SCALE 1 1/2" = 1'-0"

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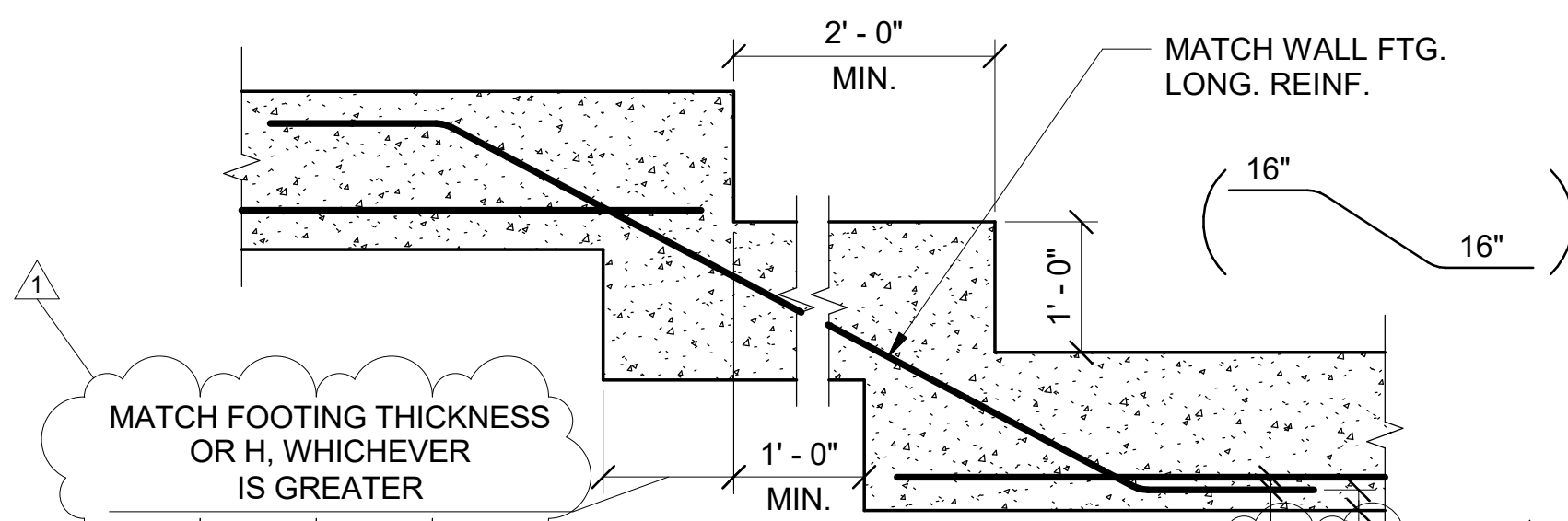
TYPICAL SLAB TURNDOWN SECTION AT BUILDING EXTERIOR1

BB401 BB502 SCALE 3/4" = 1'-0"



TYPICAL PLAN-REINF. IN S.O.G. AT WALL OPENING DETAIL

BB401 BB502 SCALE 3/4" = 1'-0"

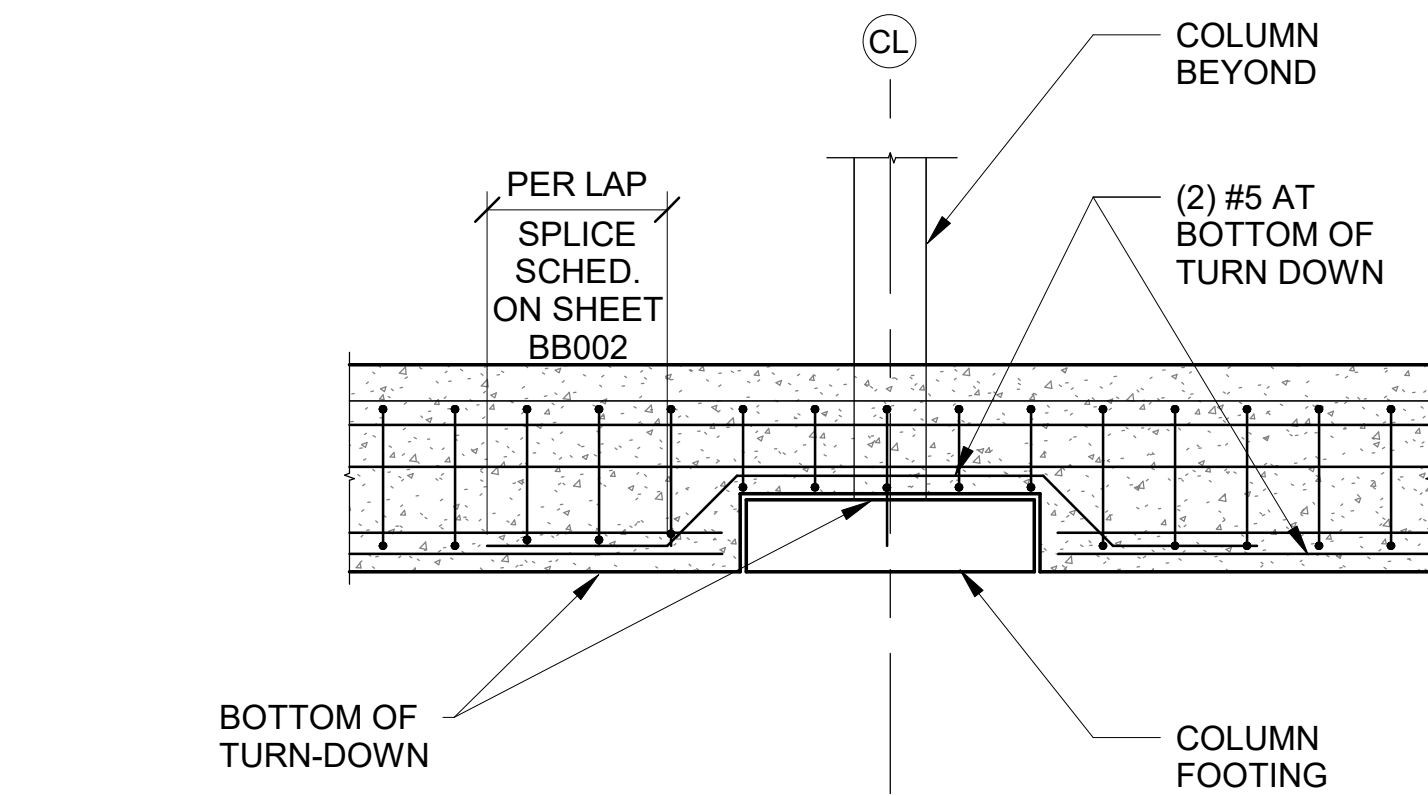


NOTES:

1. DETAIL SHOWS BOTTOM LONGITUDINAL BARS ONLY. WHERE TOP LONGITUDINAL BARS ARE REQUIRED, PROVIDE DIAGONAL BARS AT TOP (THRU STEP).
2. CONTINUE TRANSVERSE BARS (NOT SHOWN) THRU STEP.

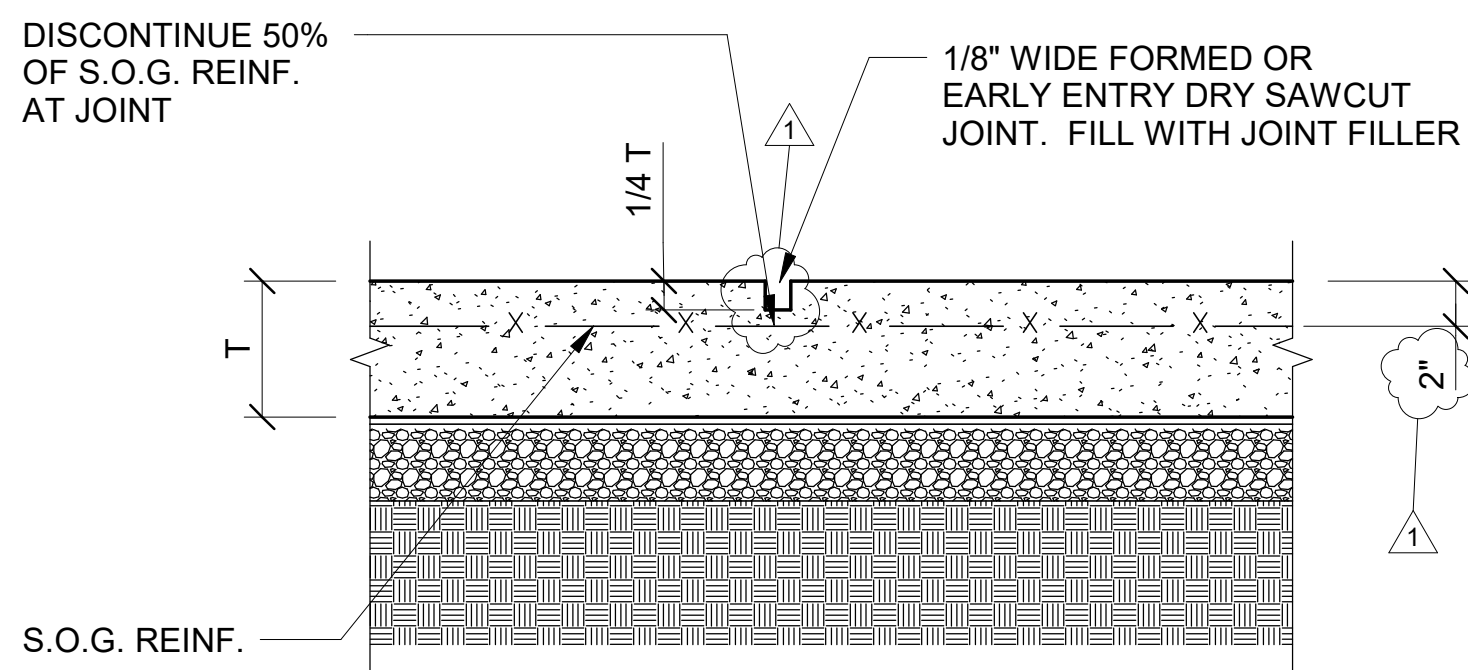
TYPICAL CONCRETE WALL FOOTING STEP DETAIL

BB502 BB502 SCALE 3/4" = 1'-0"



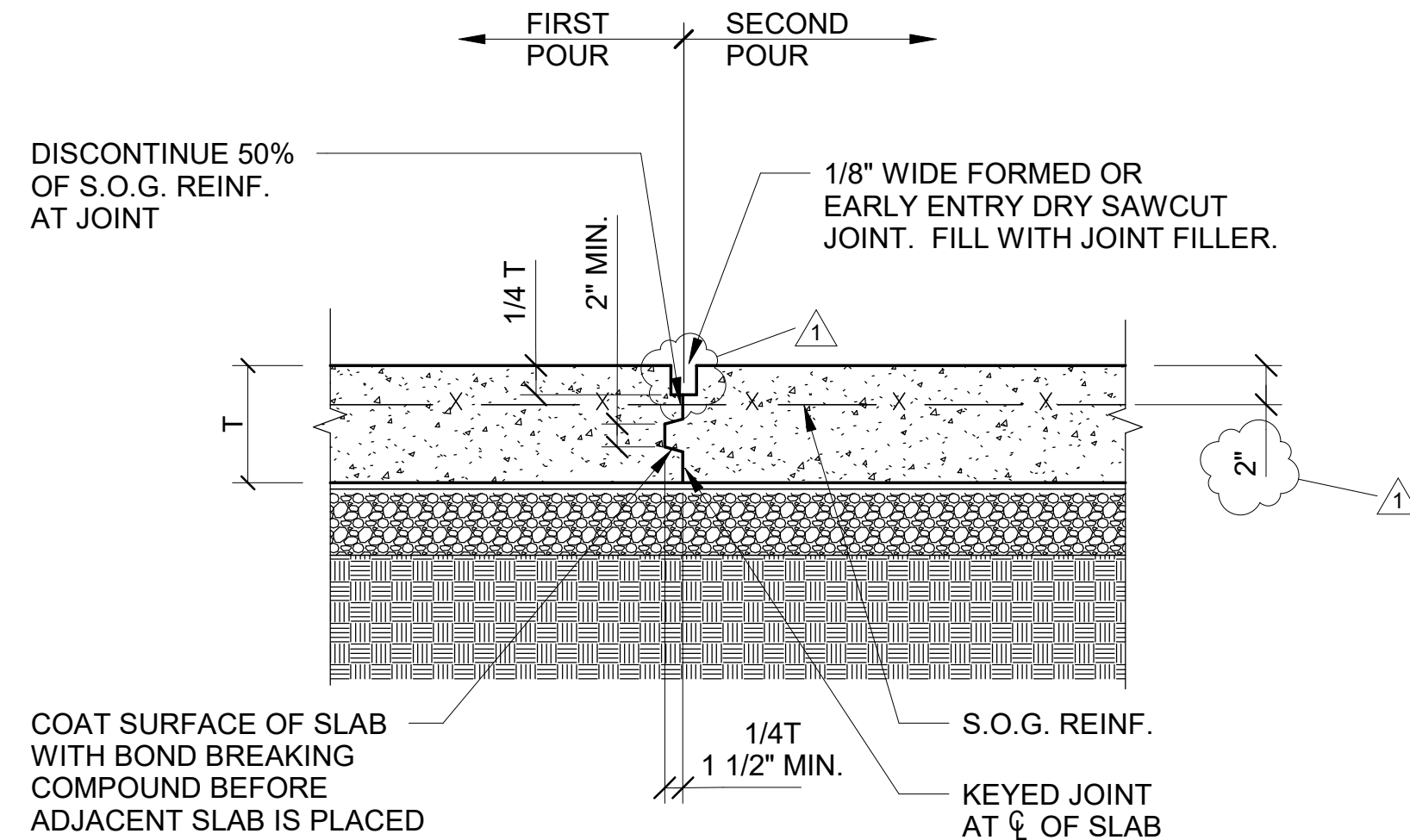
TYPICAL ELEVATION TURN-DOWN SLAB STEP

BB401 BB502 SCALE 3/8" = 1'-0"



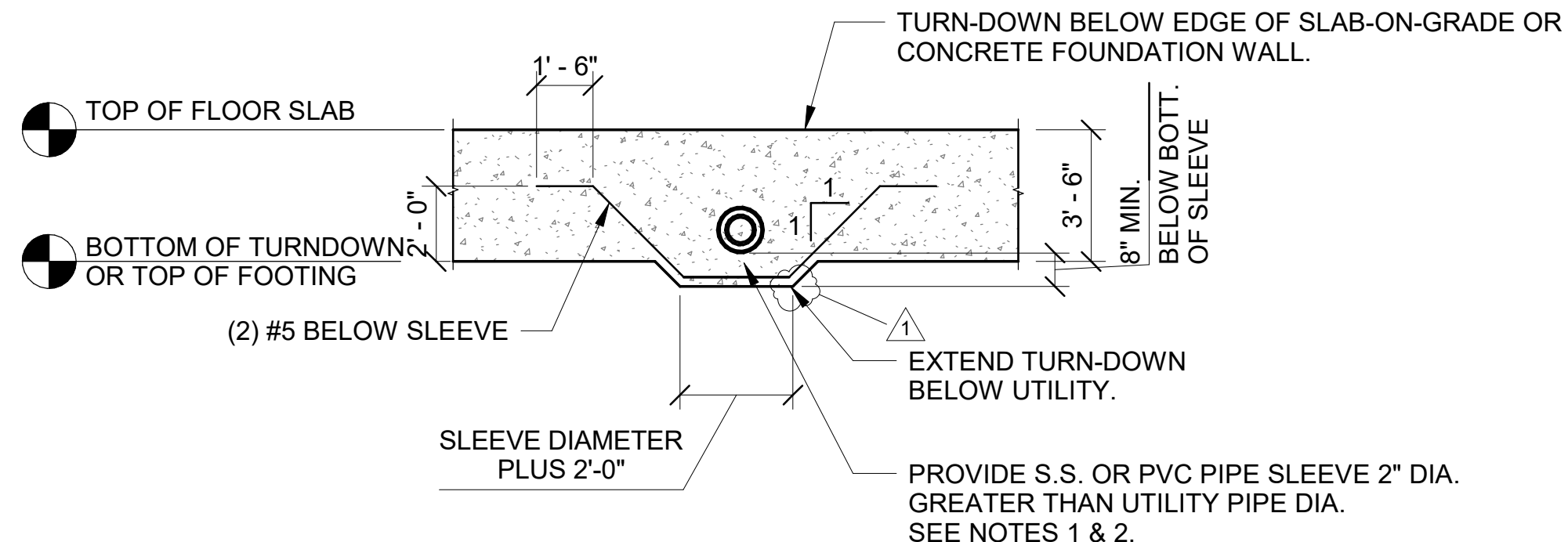
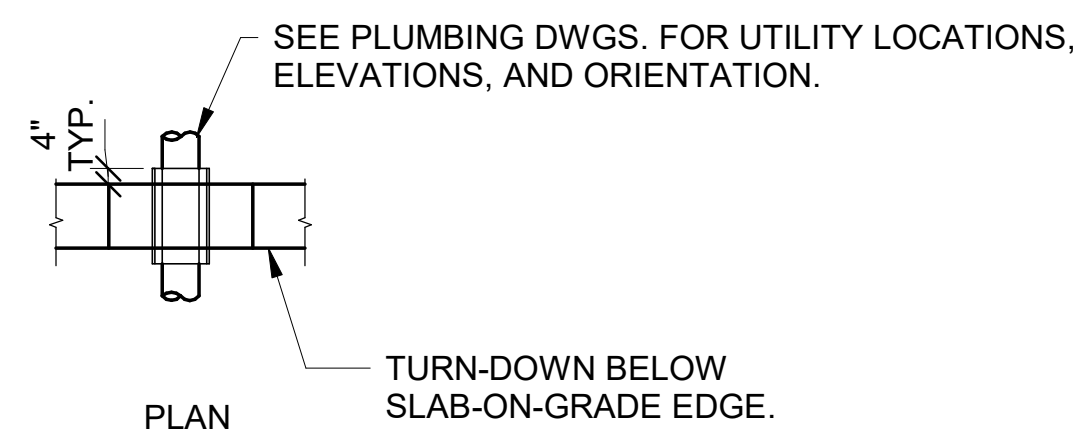
TYPICAL S.O.G. CONTROL JOINT DETAIL

BB502 BB502 SCALE 3/4" = 1'-0"



TYPICAL S.O.G. CONSTRUCTION JOINT DETAIL

BB502 BB502 SCALE 3/4" = 1'-0"



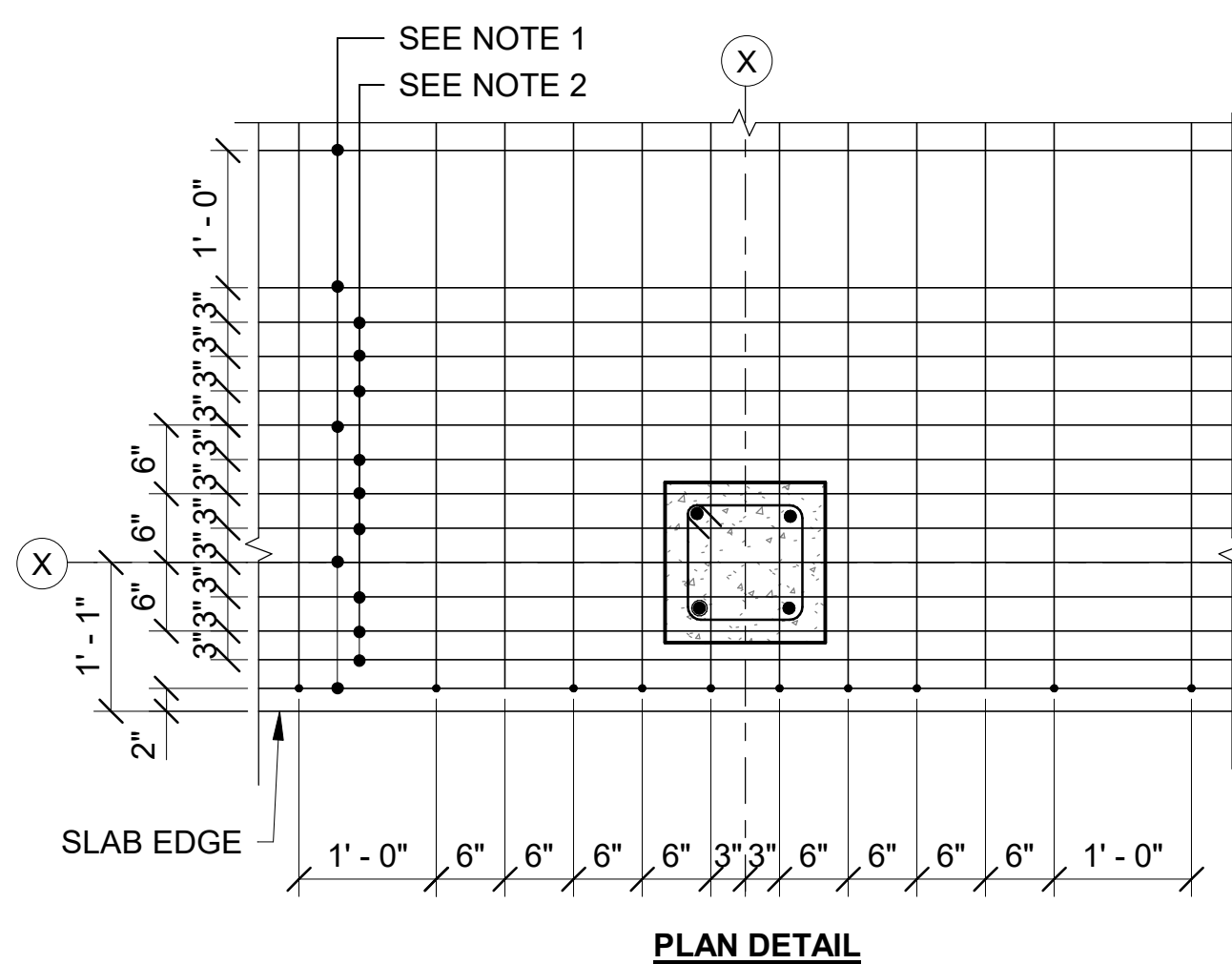
ELEVATION AT SHALLOW UTILITY (LESS THAN 4'-0" BELOW SLAB)

NOTES:

1. FILL SPACE BETWEEN PIPE AND PIPE SLEEVE WITH EXPANDED POLYSTYRENE INSULATION.
2. SLEEVE FOUNDATION ABOVE BOTTOM OF TURNDOWN OR TOP OF WALL FOOTING.
3. IF UTILITY IS BELOW BOTTOM OF TURNDOWN, NOTIFY ENGINEER FOR DIRECTION.
4. IF UTILITY PASSES THROUGH A CONC. WALL, SLEEVE WALL SIM. TO THIS DETAIL. IF UTILITY IS WITHIN OR BELOW WALL FOOTING, STEP FOOTING DOWN BELOW UTILITY PER DETAIL 7/BB502 OR LOWER ENTIRE LENGTH OF FOOTING TO PASS BELOW UTILITY AND SLEEVE WALL. NOTIFY ENGINEER IF THIS CONDITION EXISTS.

TURNDOWN FOOTING AT UTILITY CROSSING DETAIL

BB401 BB502 SCALE 1/4" = 1'-0"



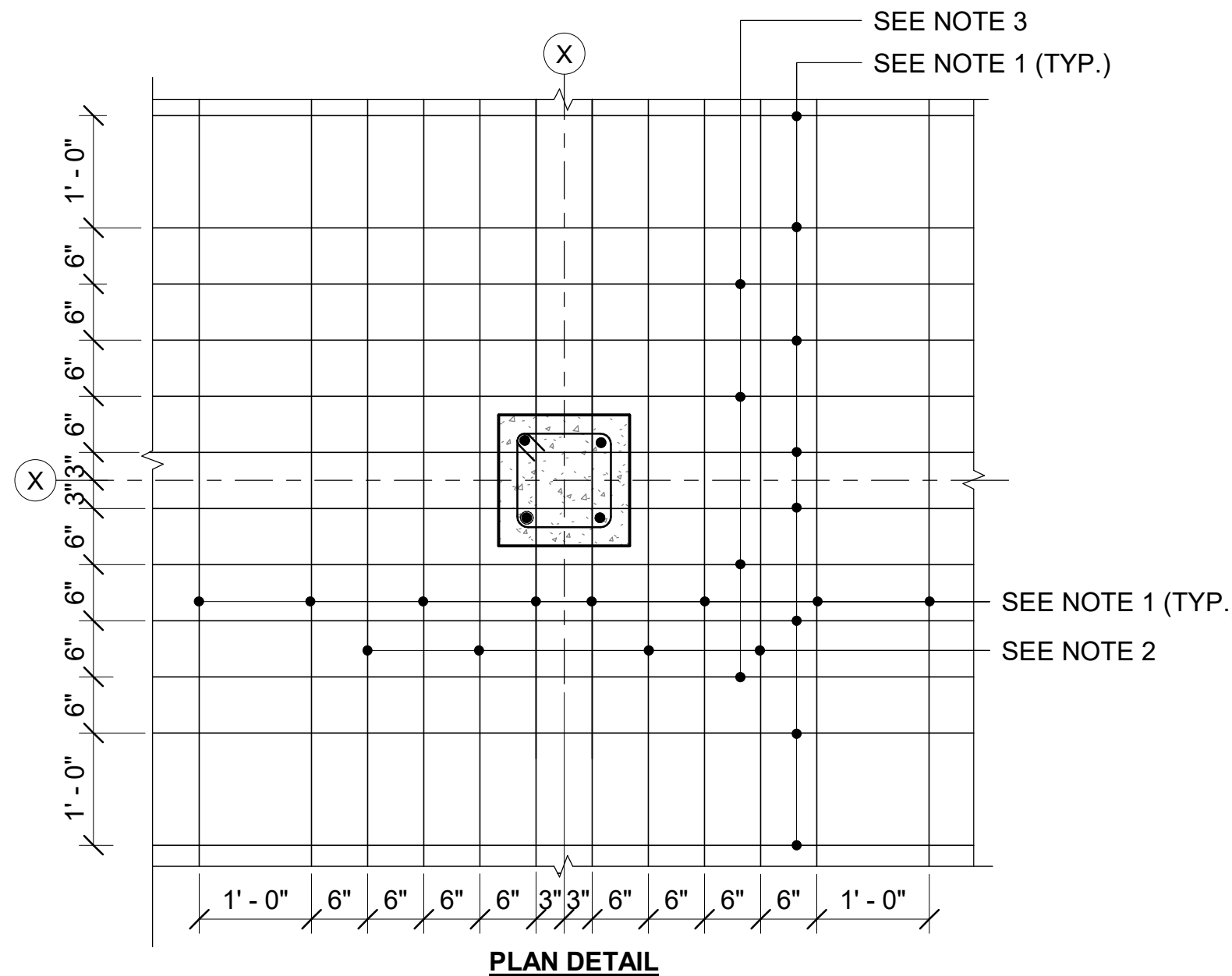
PLAN DETAIL

NOTES:

1. (5) #5 TYPICAL T&B REINFORCING PER FRAMING PLAN.
2. (9) #5 ADDITIONAL T&B BARS IN THE E-W DIRECTION PER FRAMING PLAN.
3. SEE DETAIL 9/BB502 FOR ADDITIONAL REINFORCING IN N-S DIRECTION.

PLAN DETAIL - TYPICAL SLAB REINFORCING THROUGH EXTERIOR COLUMN

BB502 BB502 SCALE 3/4" = 1'-0"



PLAN DETAIL

NOTES:

1. (8) #5 TYPICAL T&B REINFORCING BOTH WAYS PER FRAMING PLAN.
2. (4) #5 ADDITIONAL TOP AND BOTTOM BARS IN THE N-S DIRECTION PER FRAMING PLAN.
3. (4) #5 ADDITIONAL TOP AND BOTTOM BARS IN THE E-W DIRECTION PER FRAMING PLAN.

PLAN DETAIL - TYPICAL SLAB REINFORCING THROUGH INTERIOR COLUMN

BB502 BB502 SCALE 3/4" = 1'-0"

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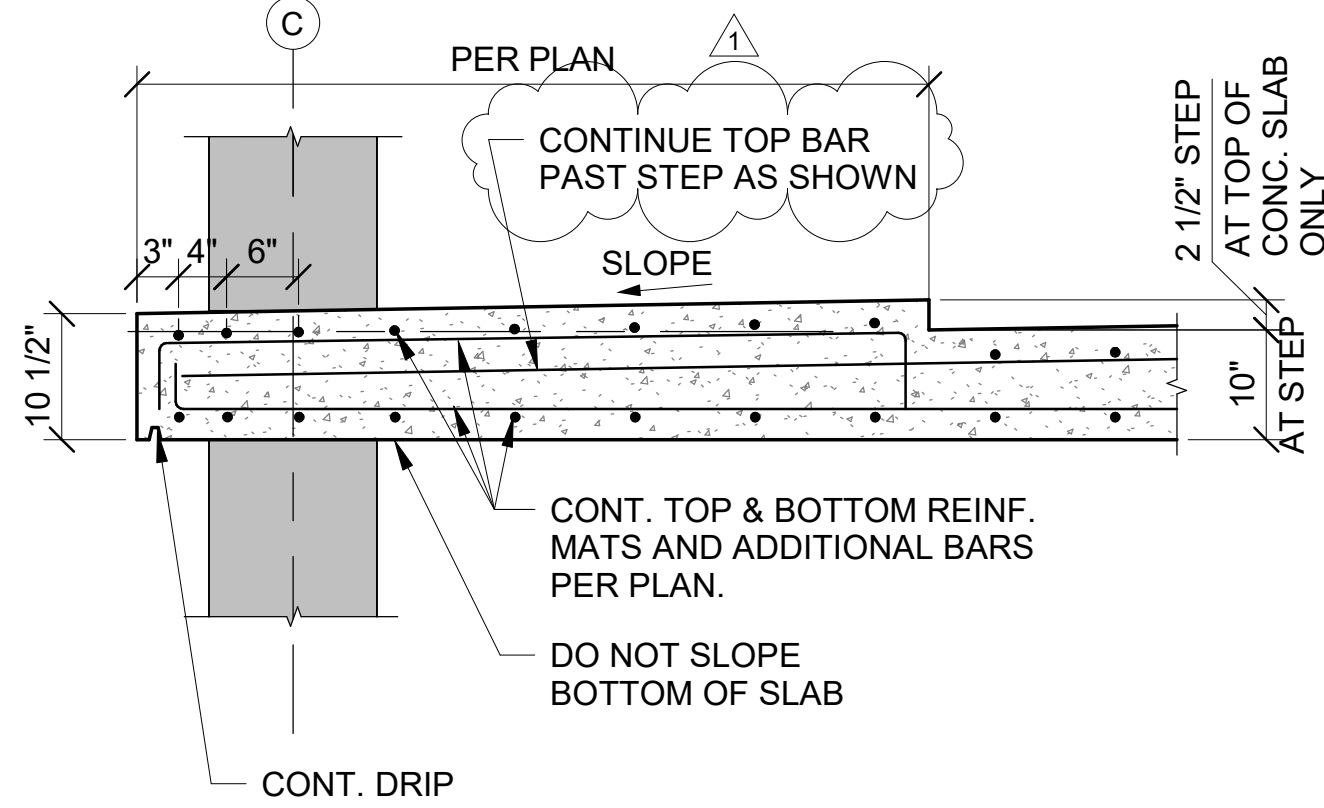
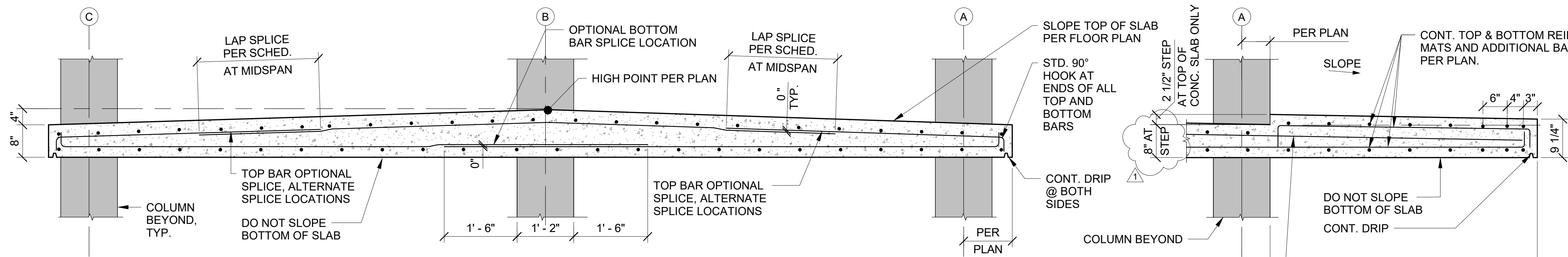
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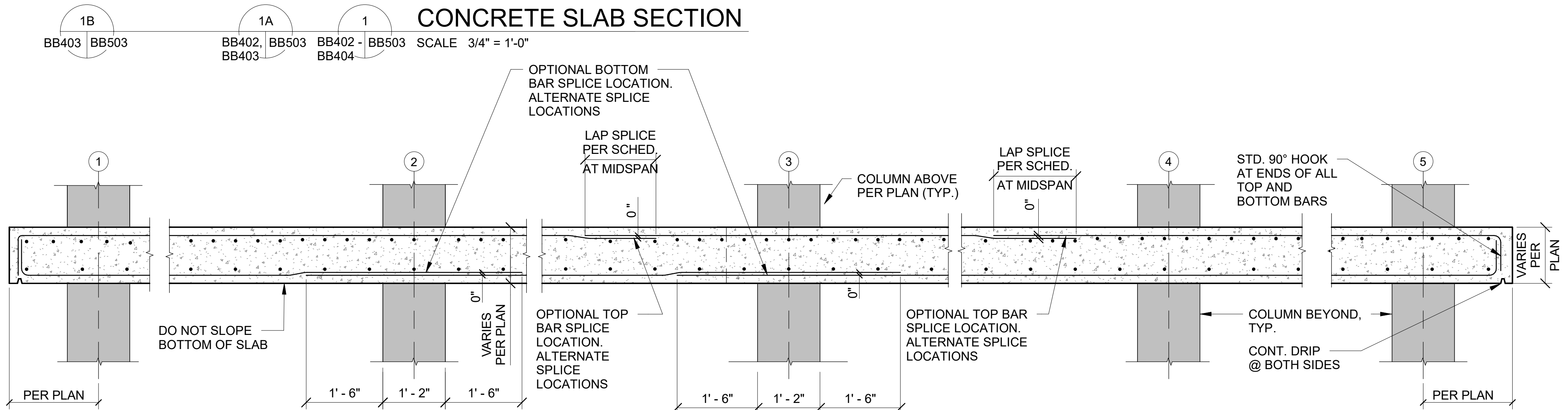
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1	Addendum #1	04/14/25

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BURN BUILDING - FOUNDATION DETAILS

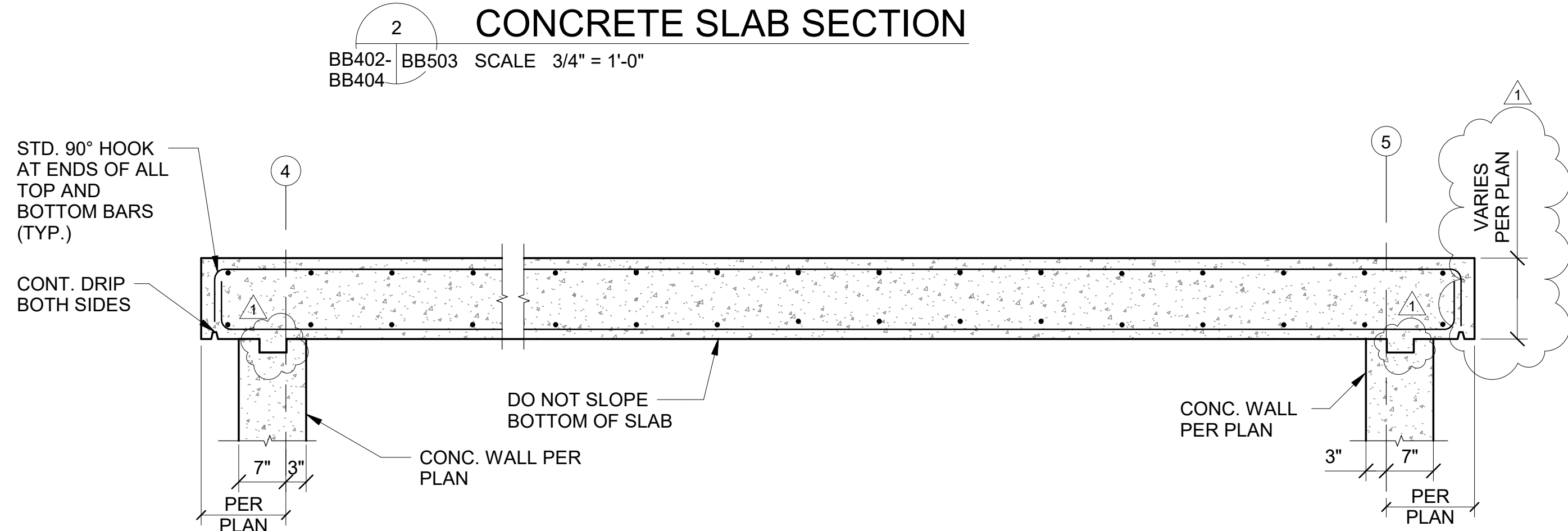
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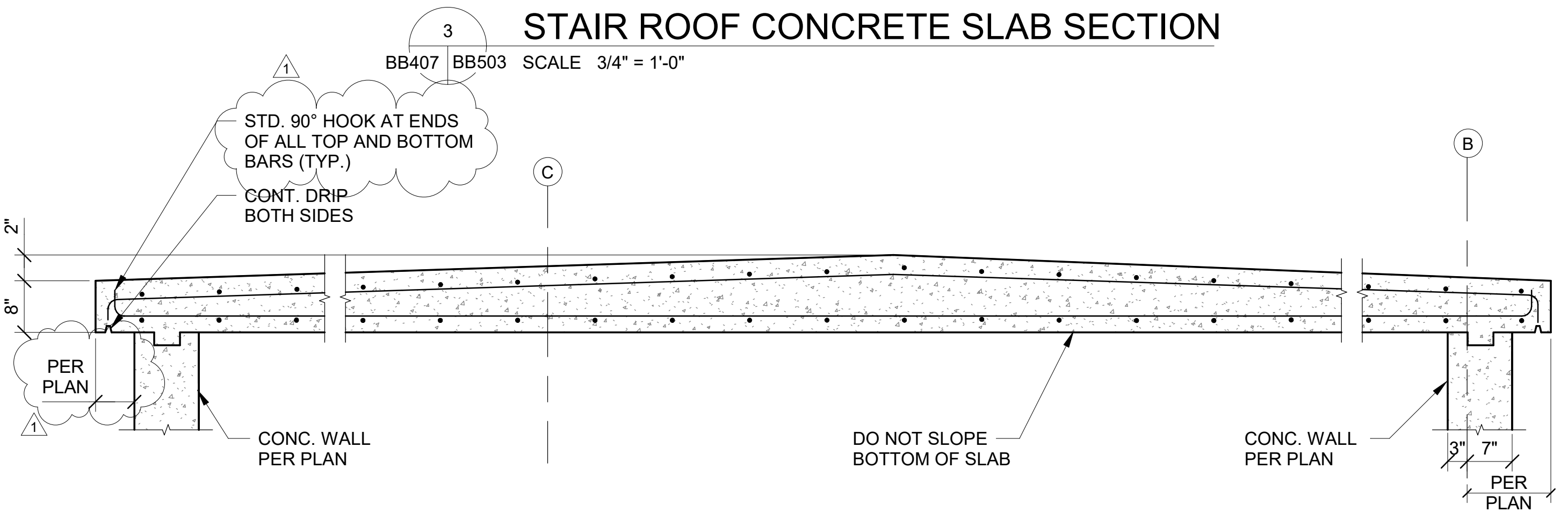
- NOTES:
1. SLOPE TOP BARS IN THIS \longleftrightarrow DIRECTION WITH TOP OF SLAB SO THAT PROPER COVER IS MAINTAINED OVER THE ENTIRE LENGTH OF THE BAR.
 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 1/BB501 FOR TYPICAL CONCRETE COLUMN REINFORCING.
 4. SEE SECTION 2/BB501 FOR TYPICAL CONCRETE WALL REINFORCING.



- NOTES:
1. IN SLAB, SLOPE TOP BARS IN ORTHOGONAL DIRECTION PARALLEL WITH TOP OF SLAB SO THAT PROPER COVER IS MAINTAINED OVER THE ENTIRE LENGTH OF THE BAR.
 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 1/BB501 FOR TYPICAL CONCRETE COLUMN REINFORCING.
 4. SEE SECTION 2/BB501 FOR TYPICAL CONCRETE WALL REINFORCING.



- NOTES:
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 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 2/BB501 FOR TYPICAL CONCRETE WALL REINFORCING.



- NOTES:
1. SLOPE TOP BARS IN THIS \longleftrightarrow DIRECTION WITH TOP OF SLAB SO THAT PROPER COVER IS MAINTAINED OVER THE ENTIRE LENGTH OF THE BAR.
 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 2/BB501 FOR TYPICAL CONCRETE WALL REINFORCING.



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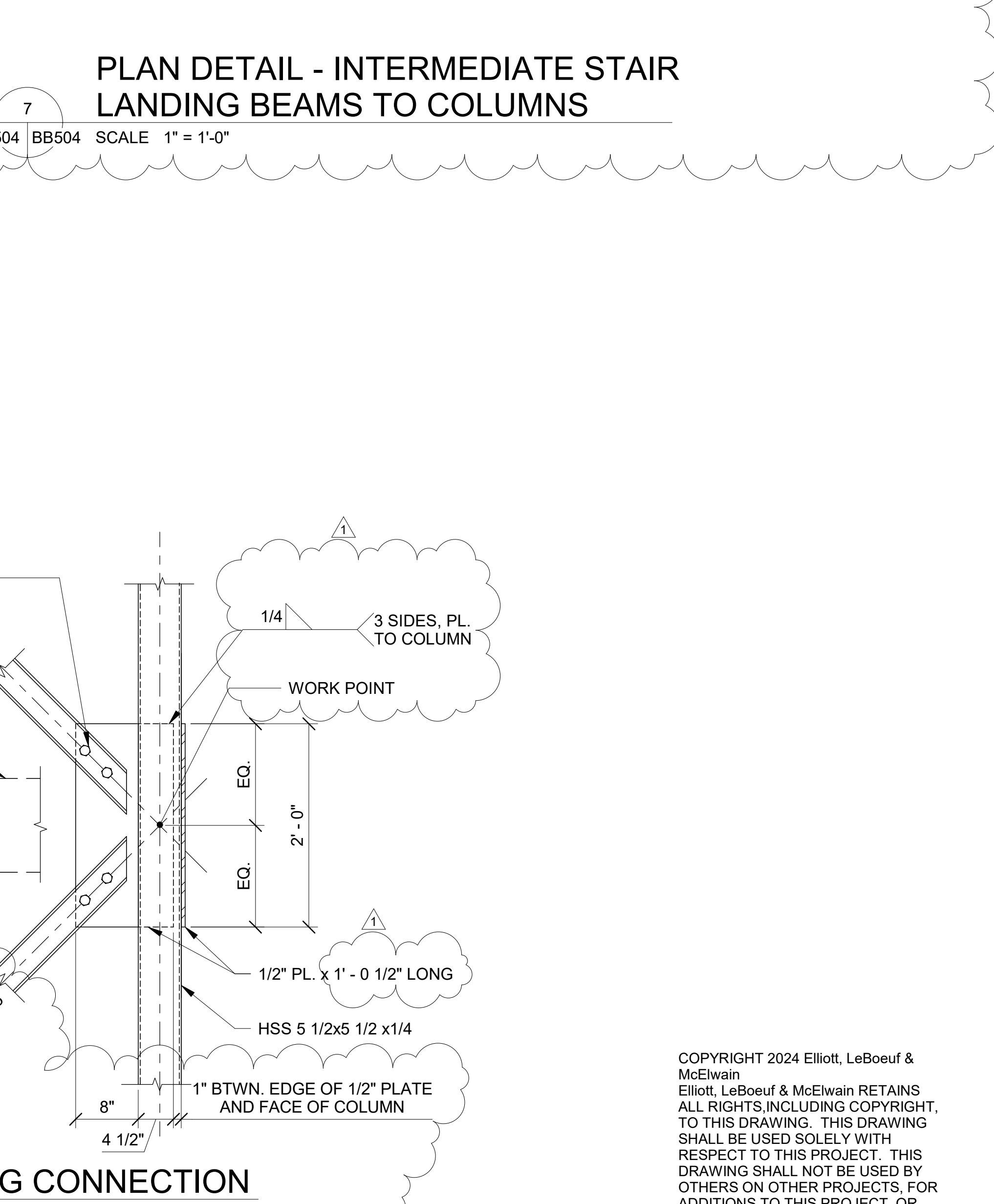
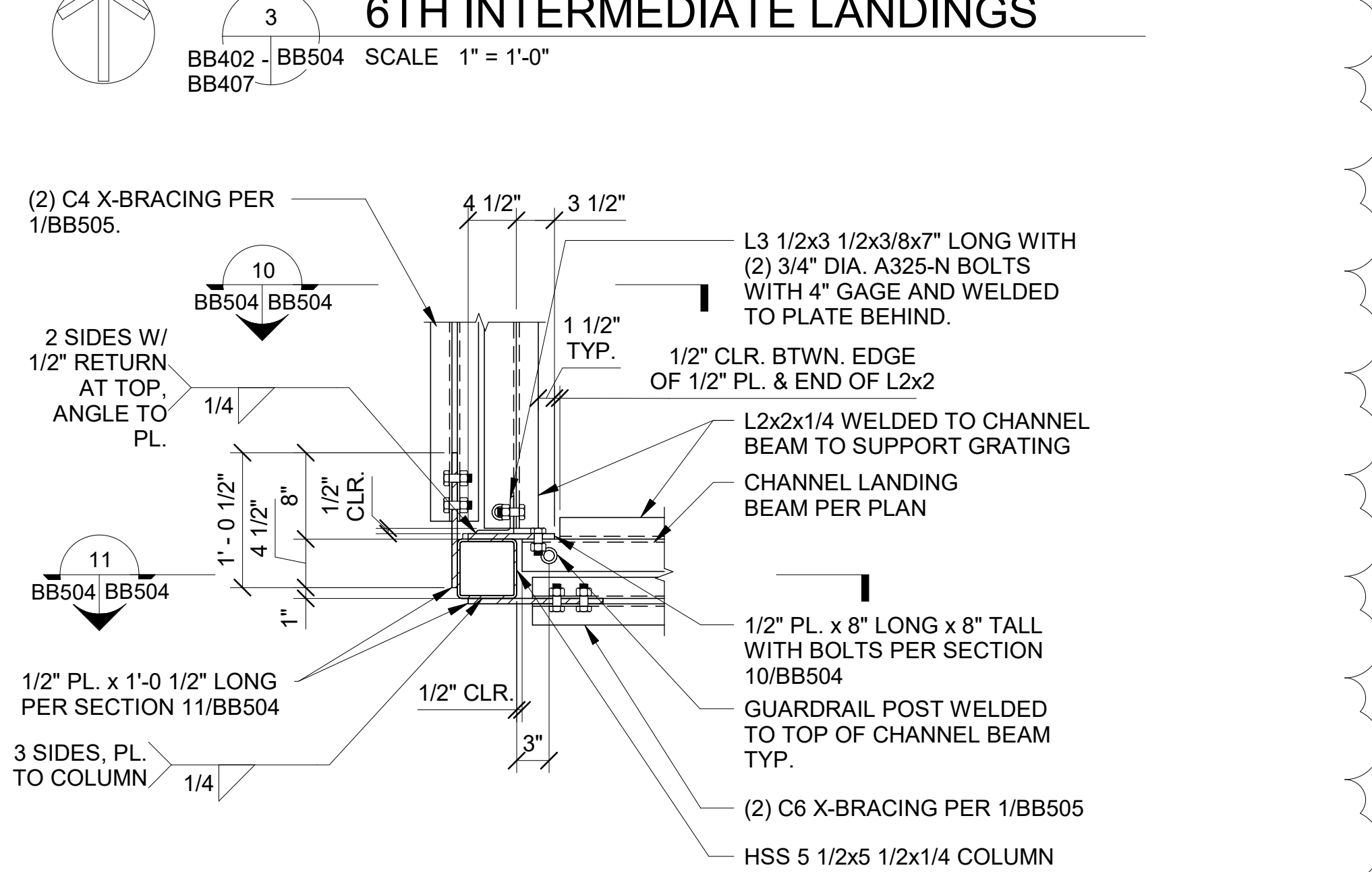
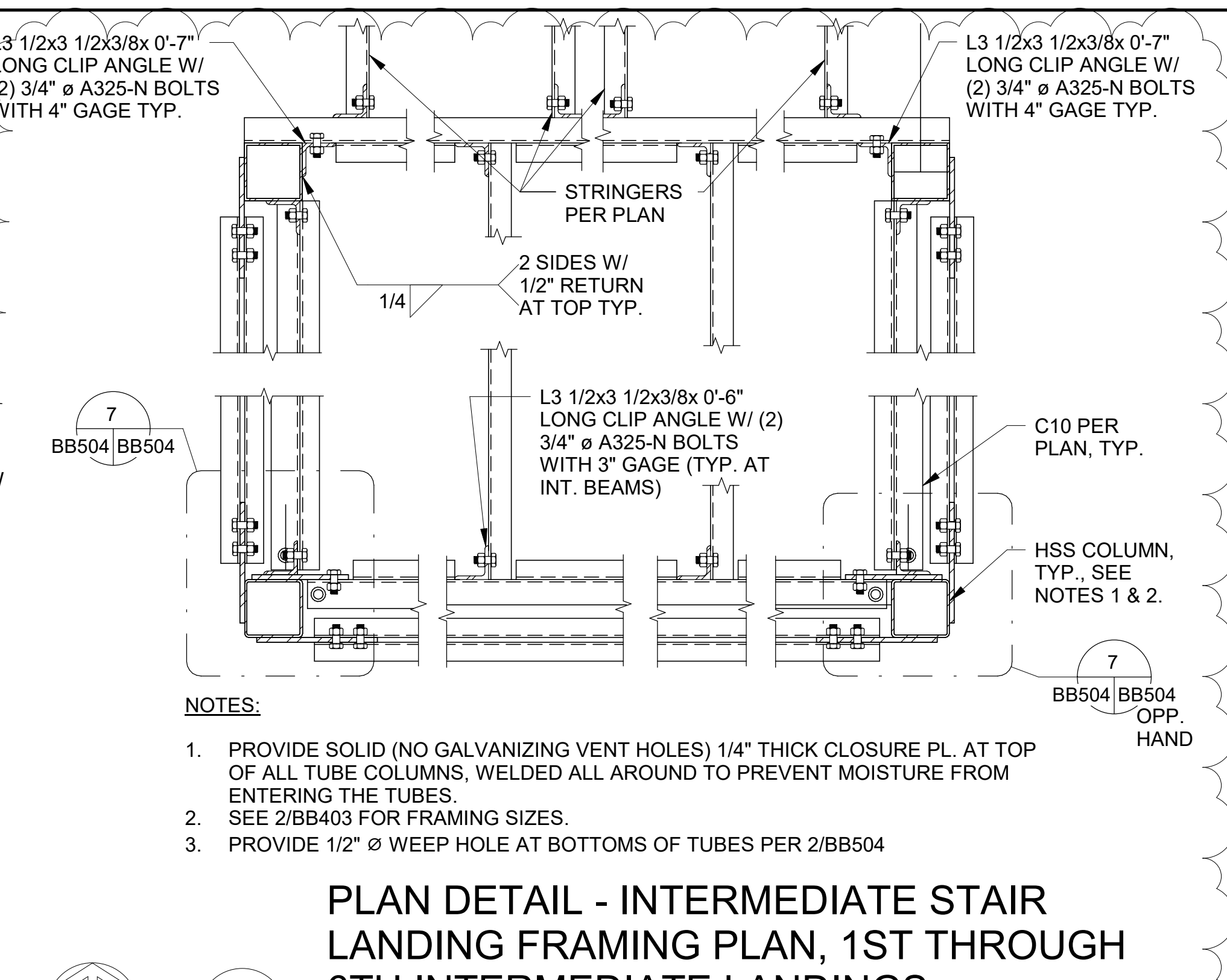
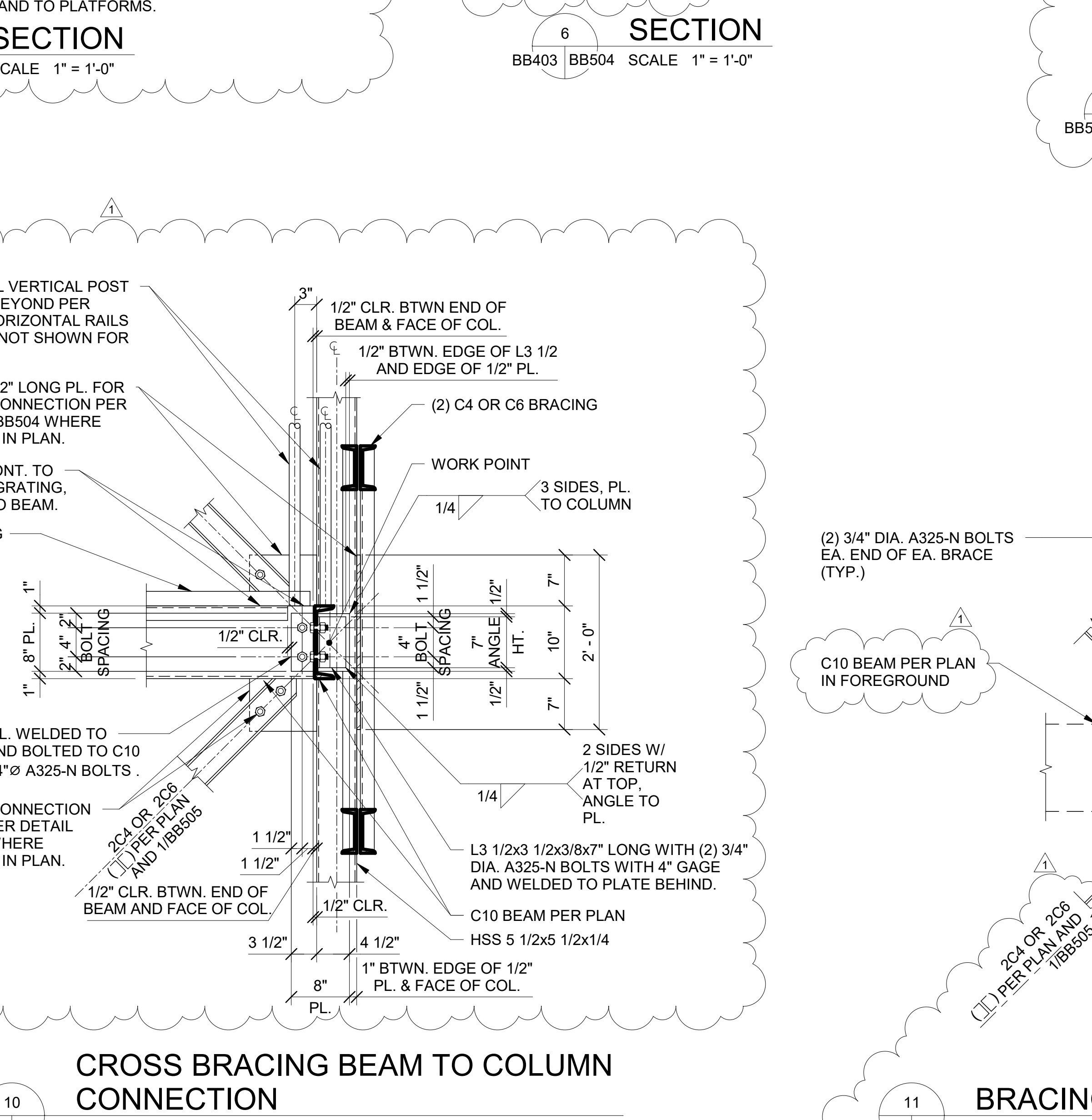
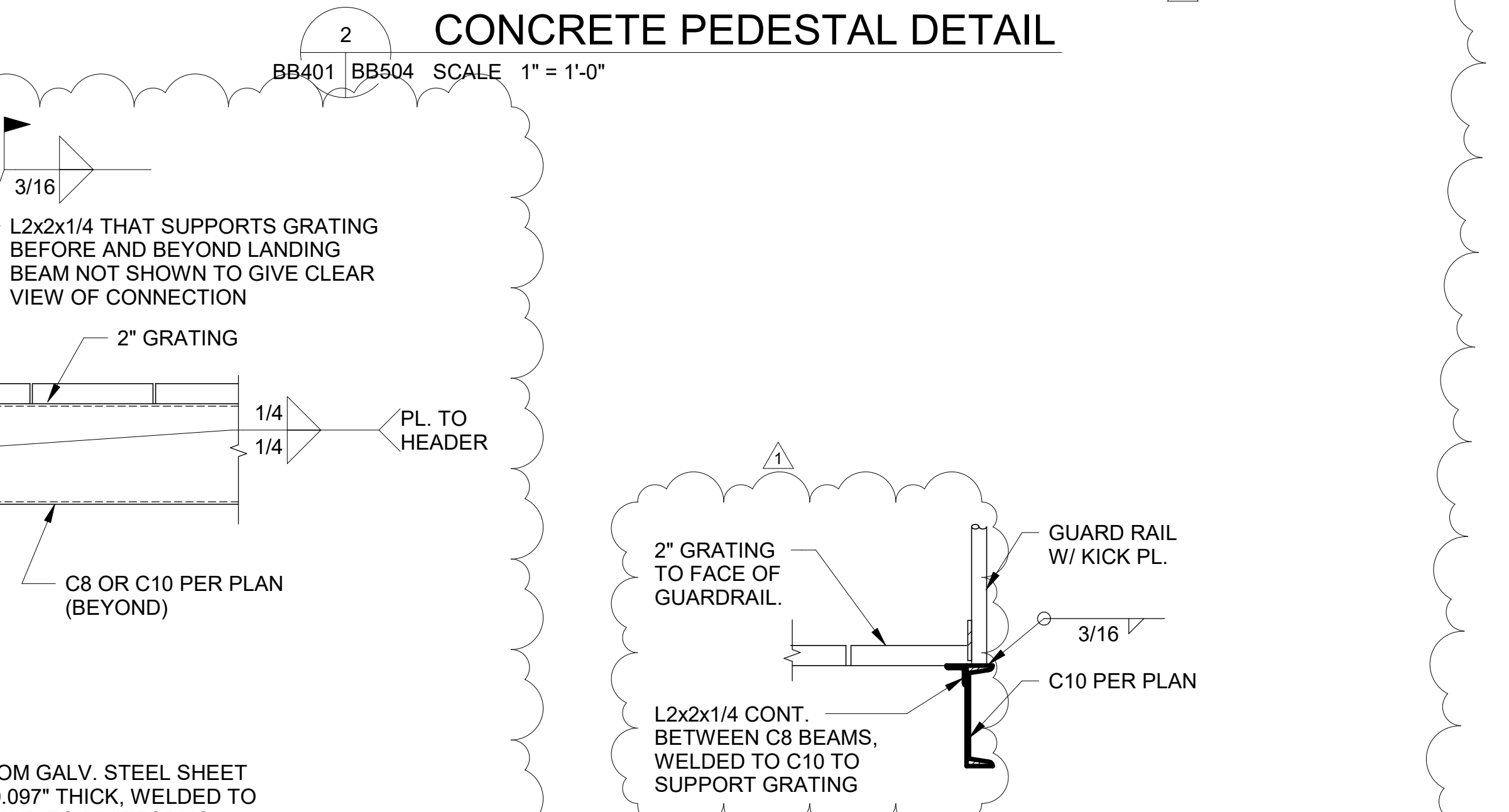
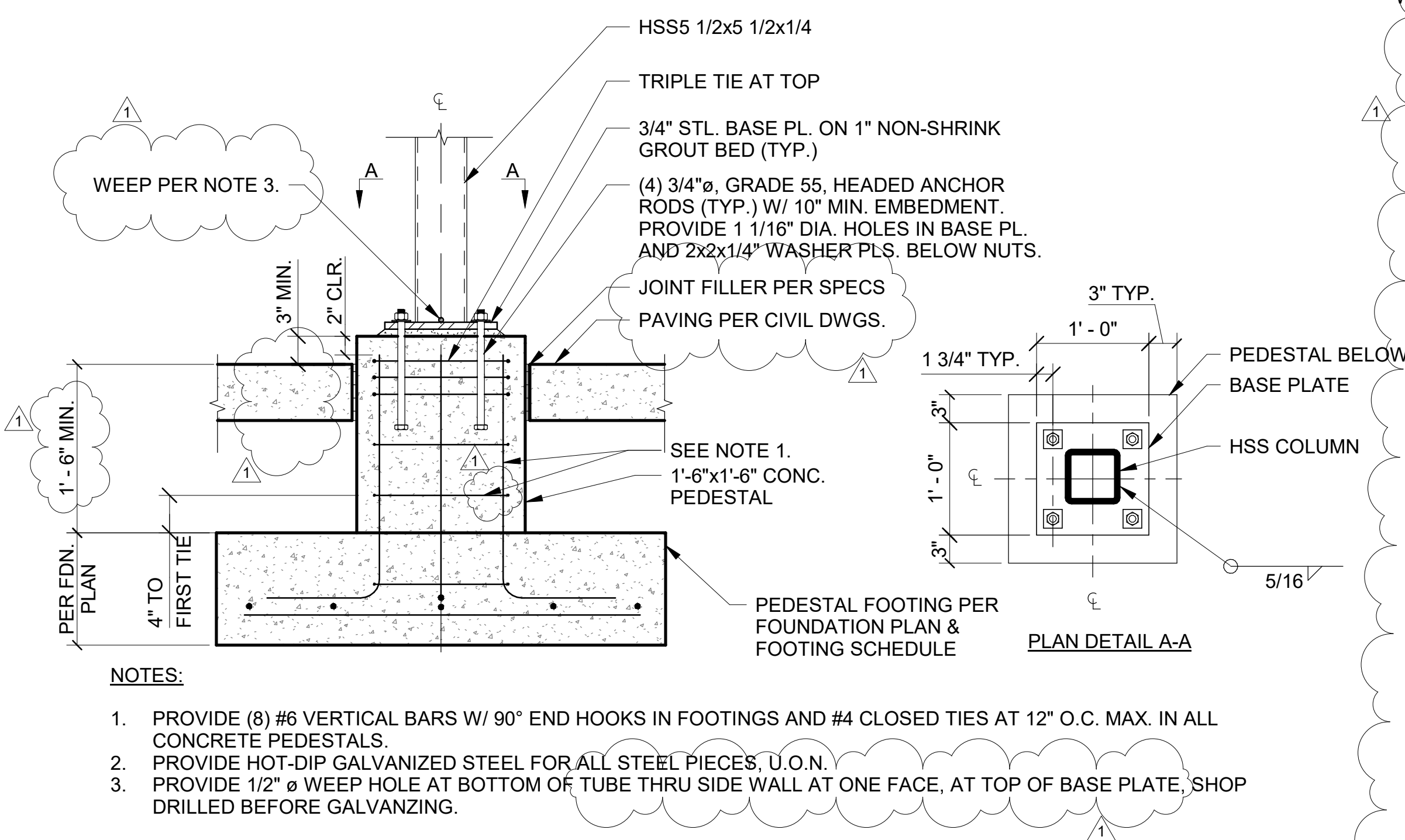
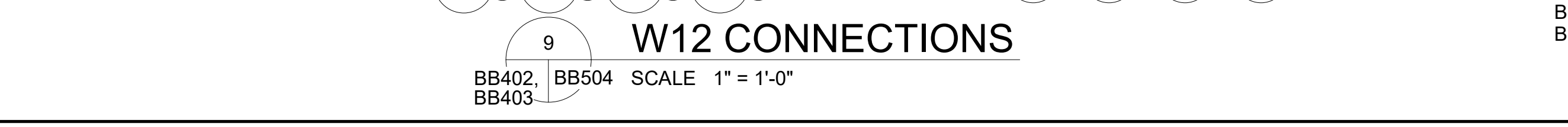
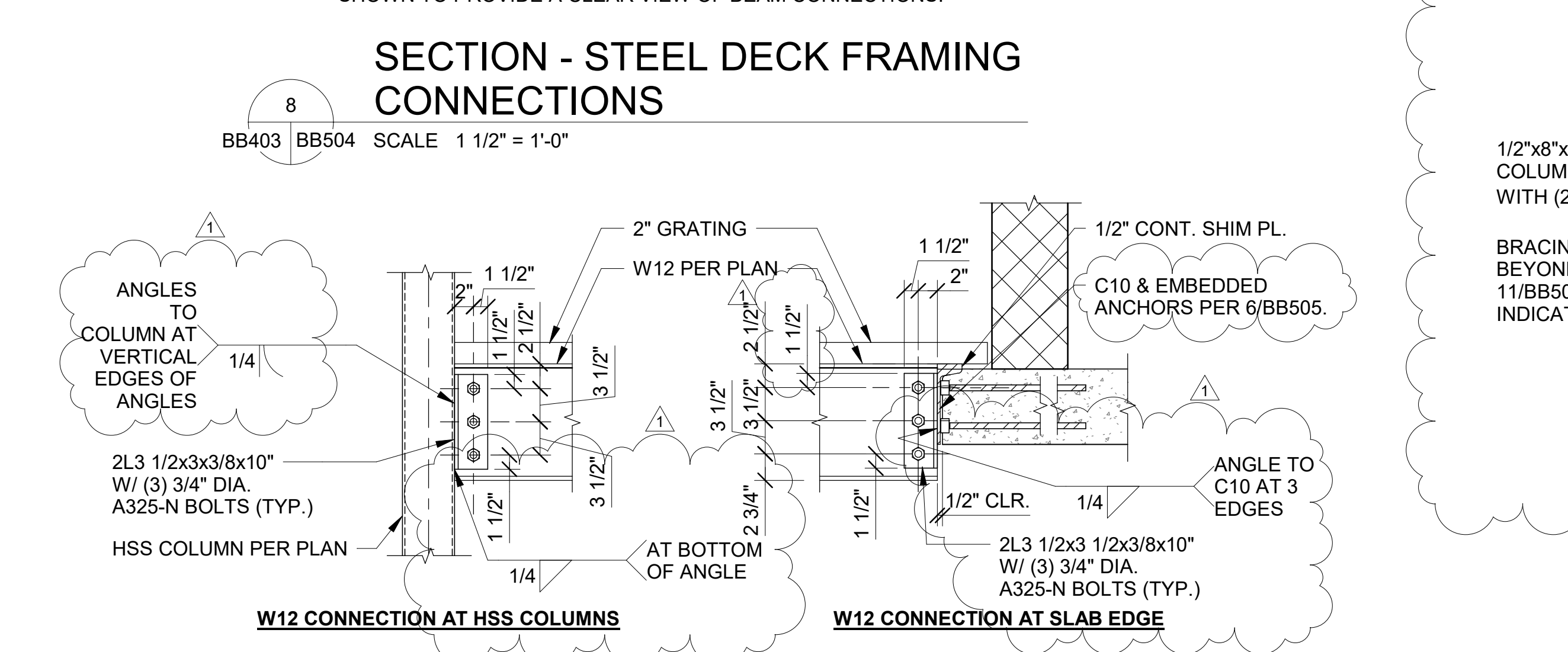
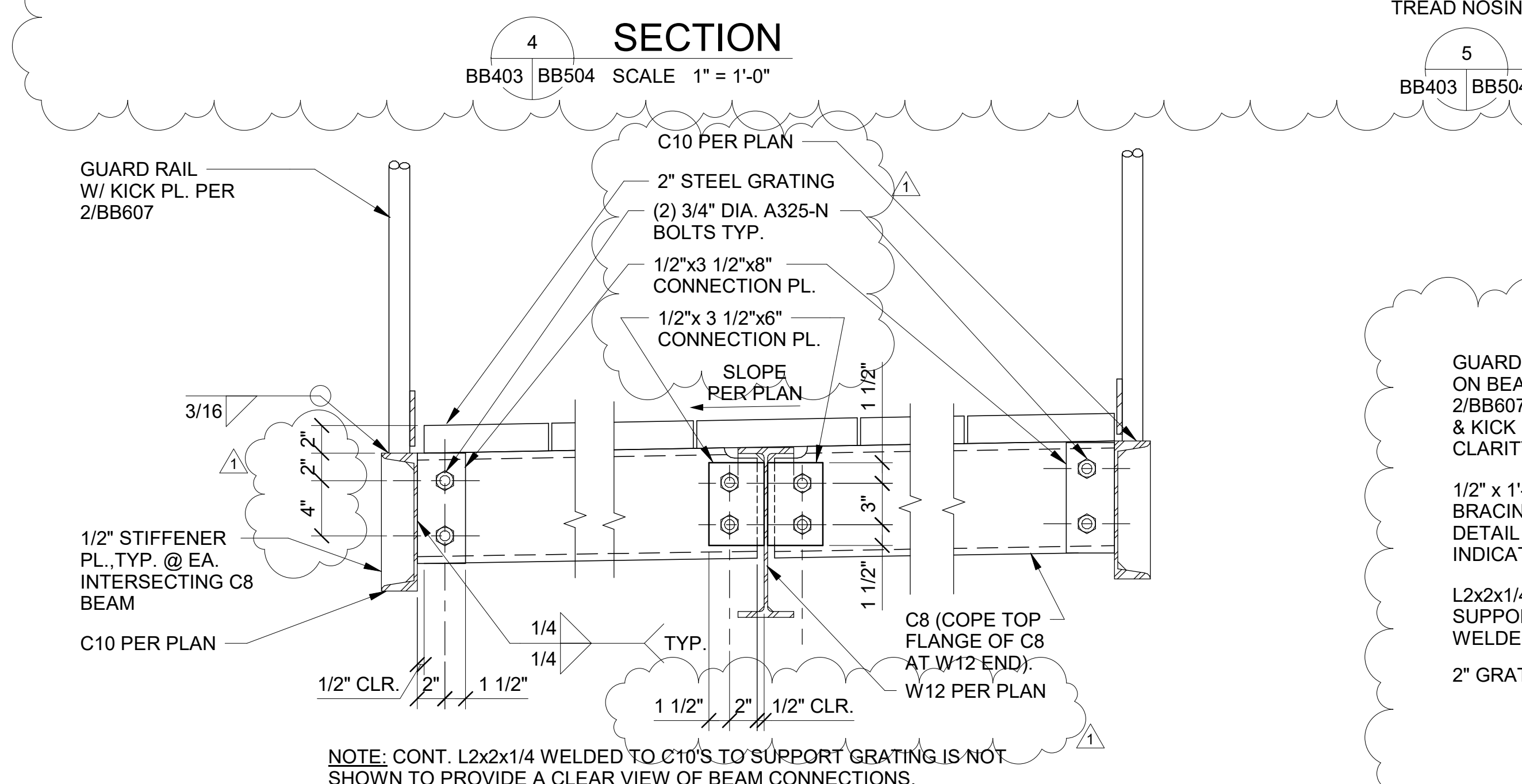
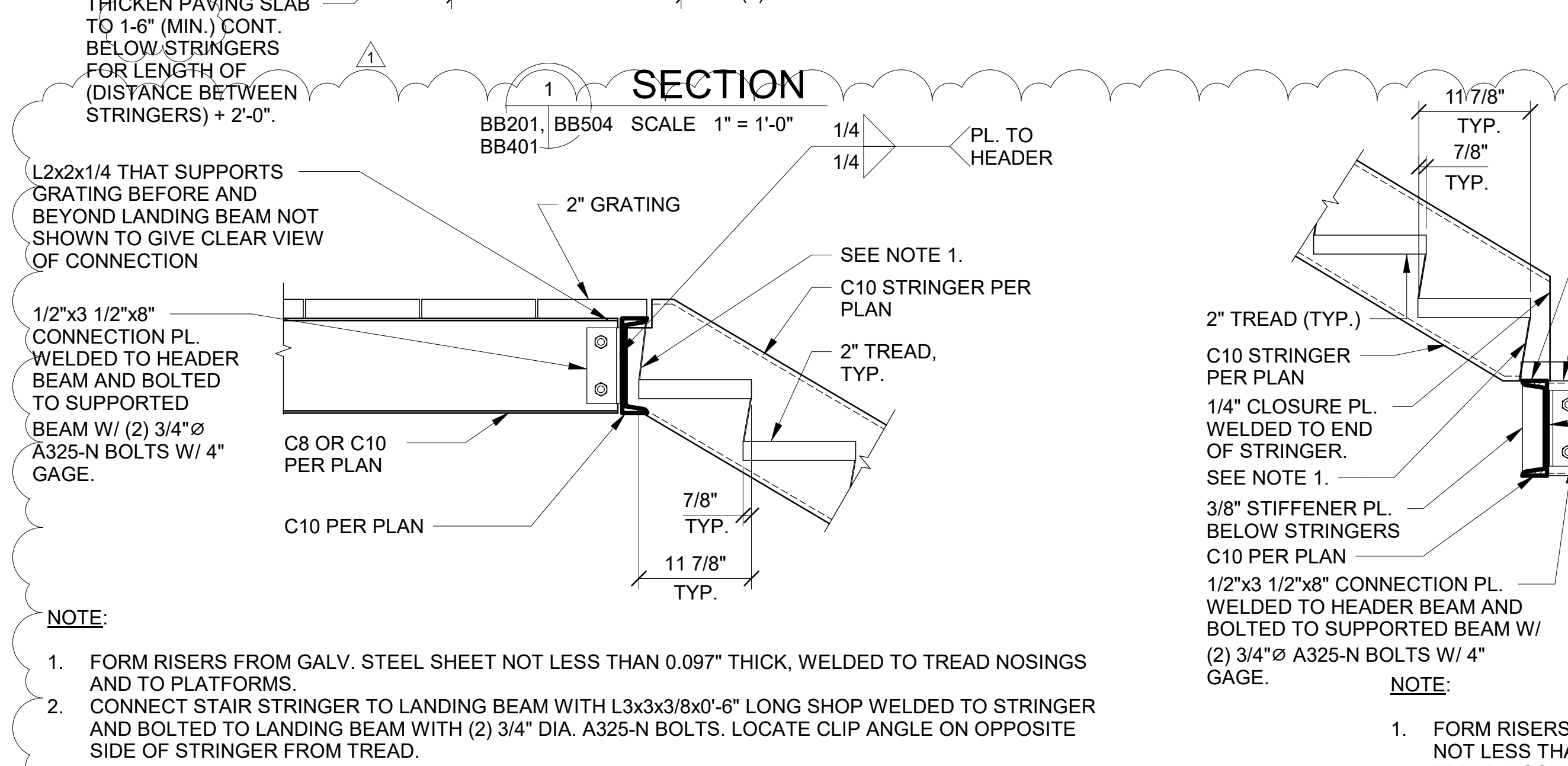
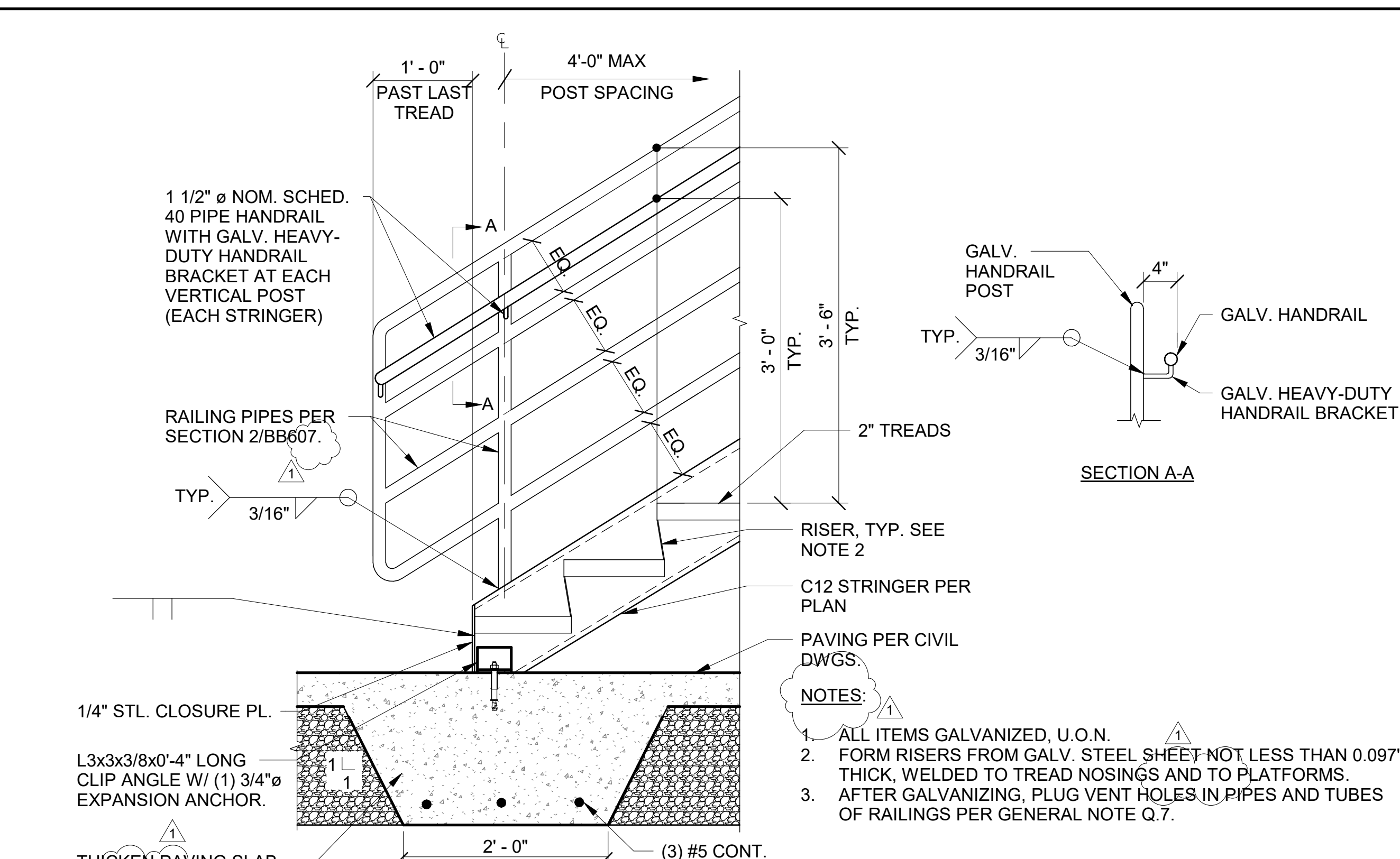
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BURN BUILDING - CONCRETE SLAB SECTIONS

BB503

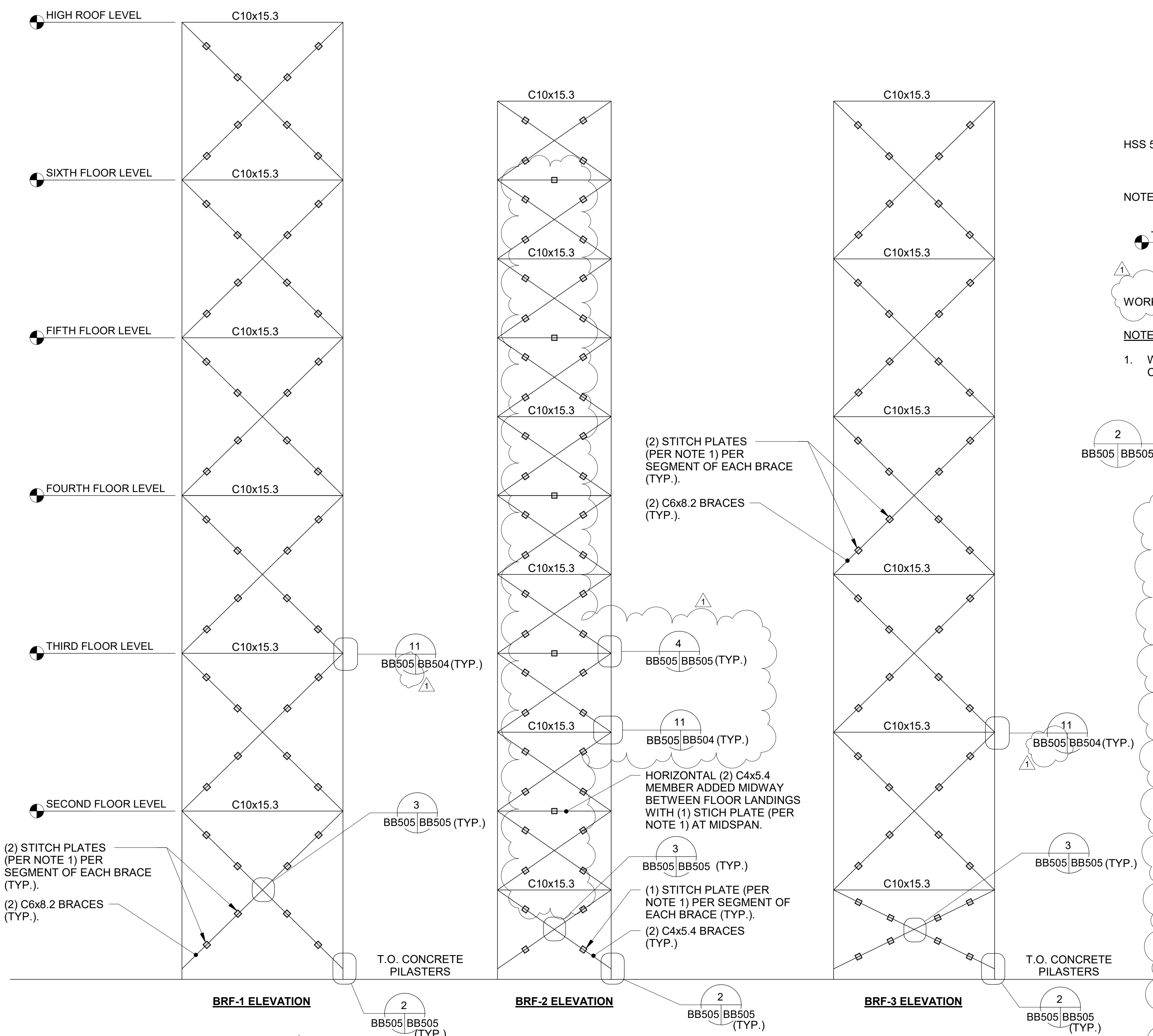




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1	Addendum #1	04/14/25

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03/14/25
PROJECT STATUS
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BURN BUILDING - EXTERIOR STEEL STAIR DETAILS

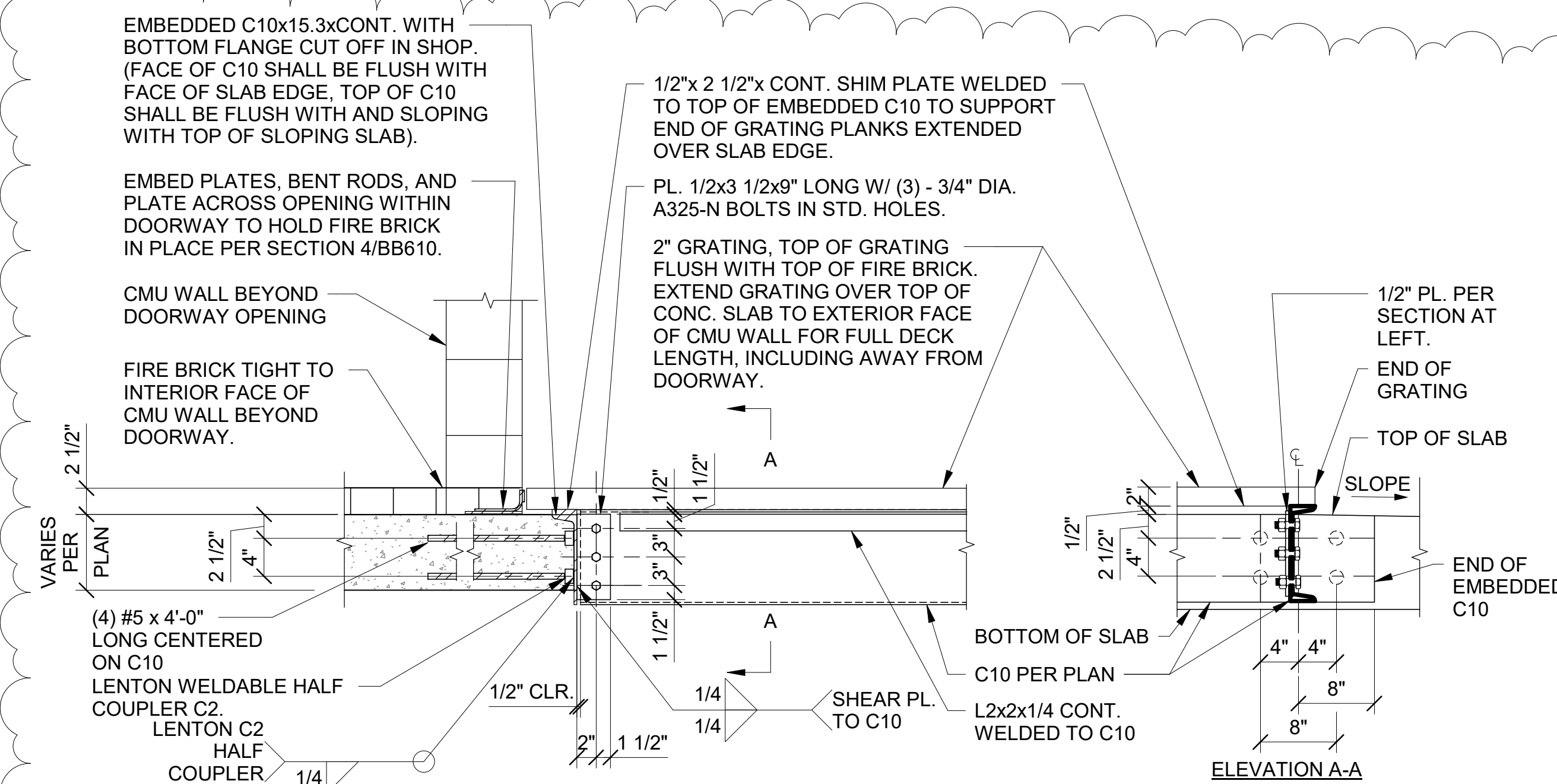
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- NOTES:
1. STITCH PLATE (SPACER PLATE) SHALL BE 1/2" x 4" x 4" SQUARE GALV. PLATE WITH (1) 3/4" DIA. A325-N BOLT FULLY TENSIONED.
 2. ALL STEEL SHALL BE HOT DIP GALVANIZED.

EXTERIOR STEEL STAIR BRACED FRAMES

BB401- BB505 SCALE 1/2" = 1'-0"



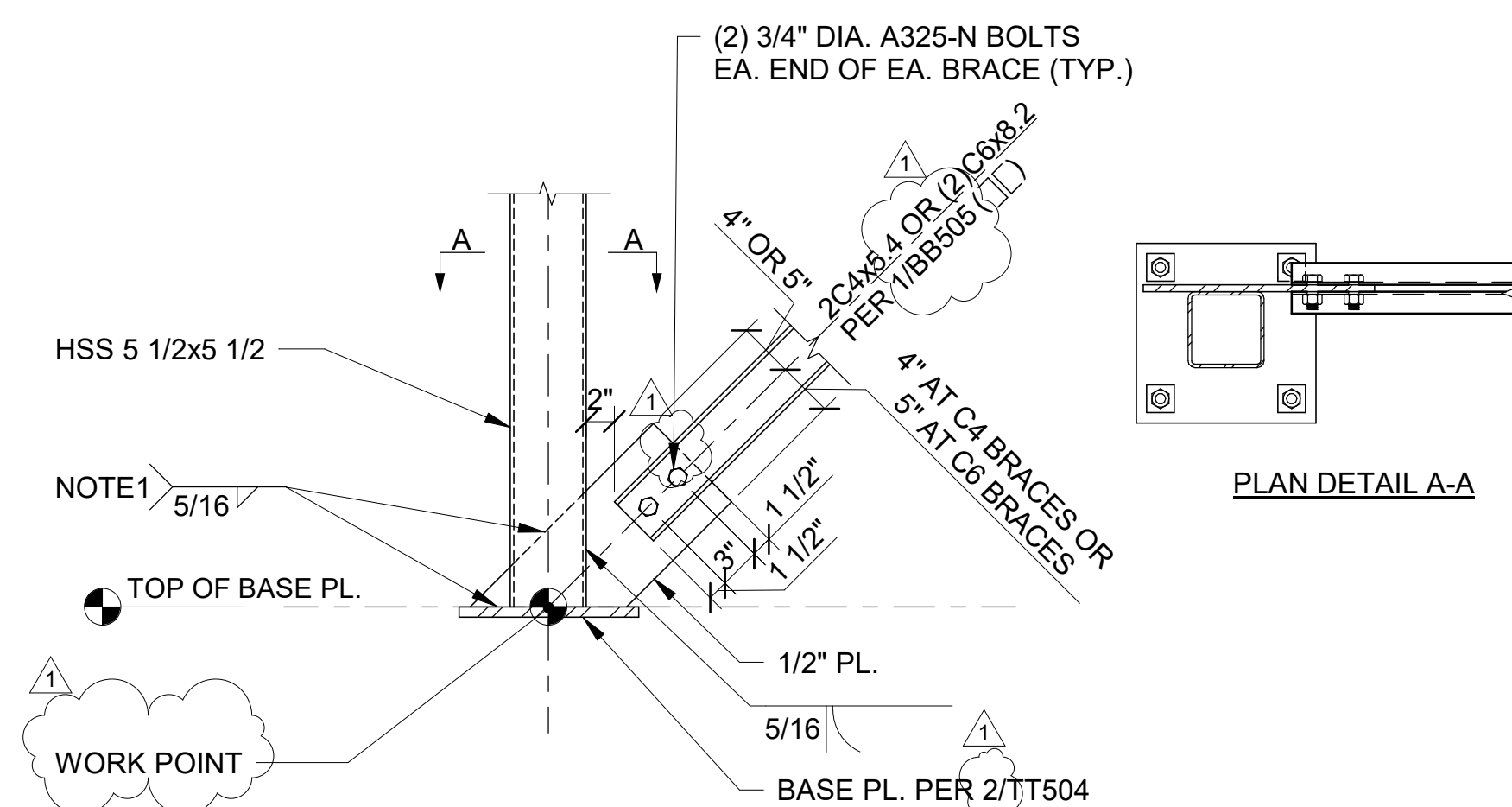
- NOTES:
1. SEE SECTION 9/BB504 FOR W12 CONNECTION TO SLAB.
 2. 135" STANDARD HOOK AROUND THE VERTICAL WALL REINFORCING (TYP.)
 3. CONT. C12 PER PLAN SLOPING AT SAME SLOPE AS INTERIOR CONC. SLAB. TOP OF C12 SHALL BE 1/2" ABOVE TOP OF ADJACENT CONCRETE SLAB AT ALL LOCATIONS EXCEPT 3RD FLOOR BREEZEWAY AND ROOF, WHERE TOP OF C12 SHALL BE 2" LOWER THAN TOP OF ADJACENT CONCRETE SLAB.
 4. SEE SECTION 9/BB504 FOR W12 CONNECTION TO CONCRETE WALL.

EXTERIOR PLATFORM CONNECTION TO SLAB EDGE AT 2ND THROUGH 6TH FLOORS

BB402- BB505 SCALE 1" = 1'-0"

TYPICAL BRACE CONNECTION AT COLUMN BASE PL.

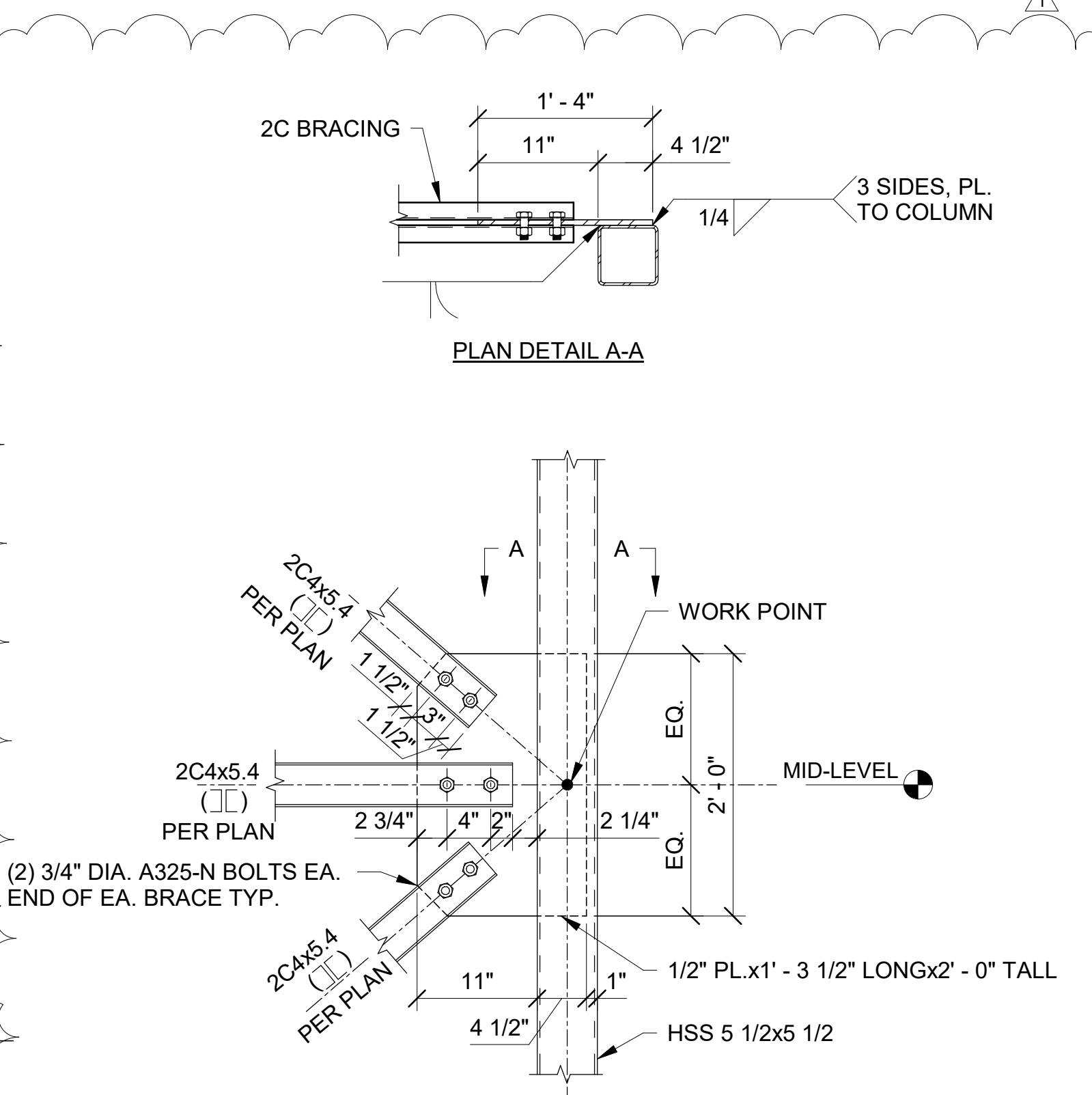
BB505 BB505 SCALE 1" = 1'-0"



- NOTES:
1. WELD GALV. 1/2" PL. TO FACE OF HSS 5 1/2x5 1/2 COLUMN AND COLUMN BASE PL.

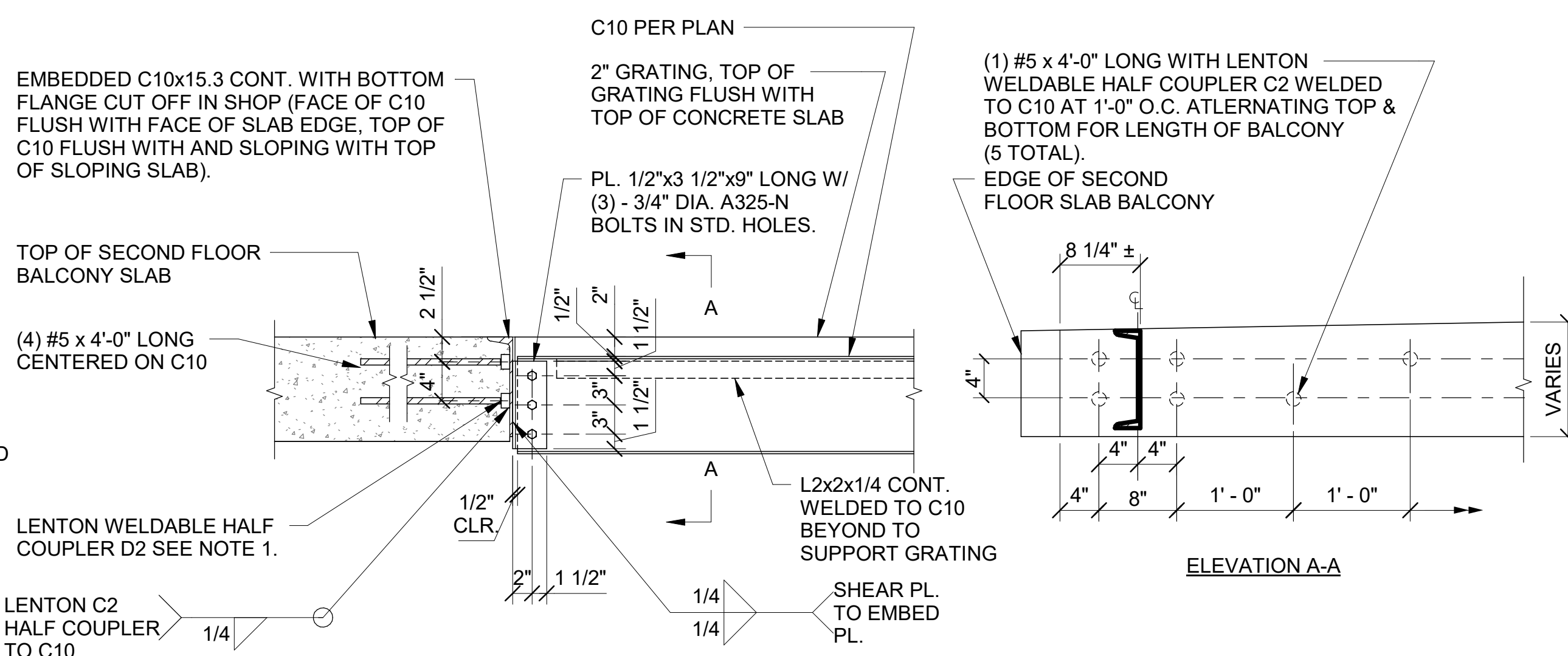
TYPICAL BRACE CONNECTION AT COLUMN BASE PL.

BB505 BB505 SCALE 1" = 1'-0"



TYPICAL BRF-2 CONNECTION AT MID-STORY LEVEL OF FRAME

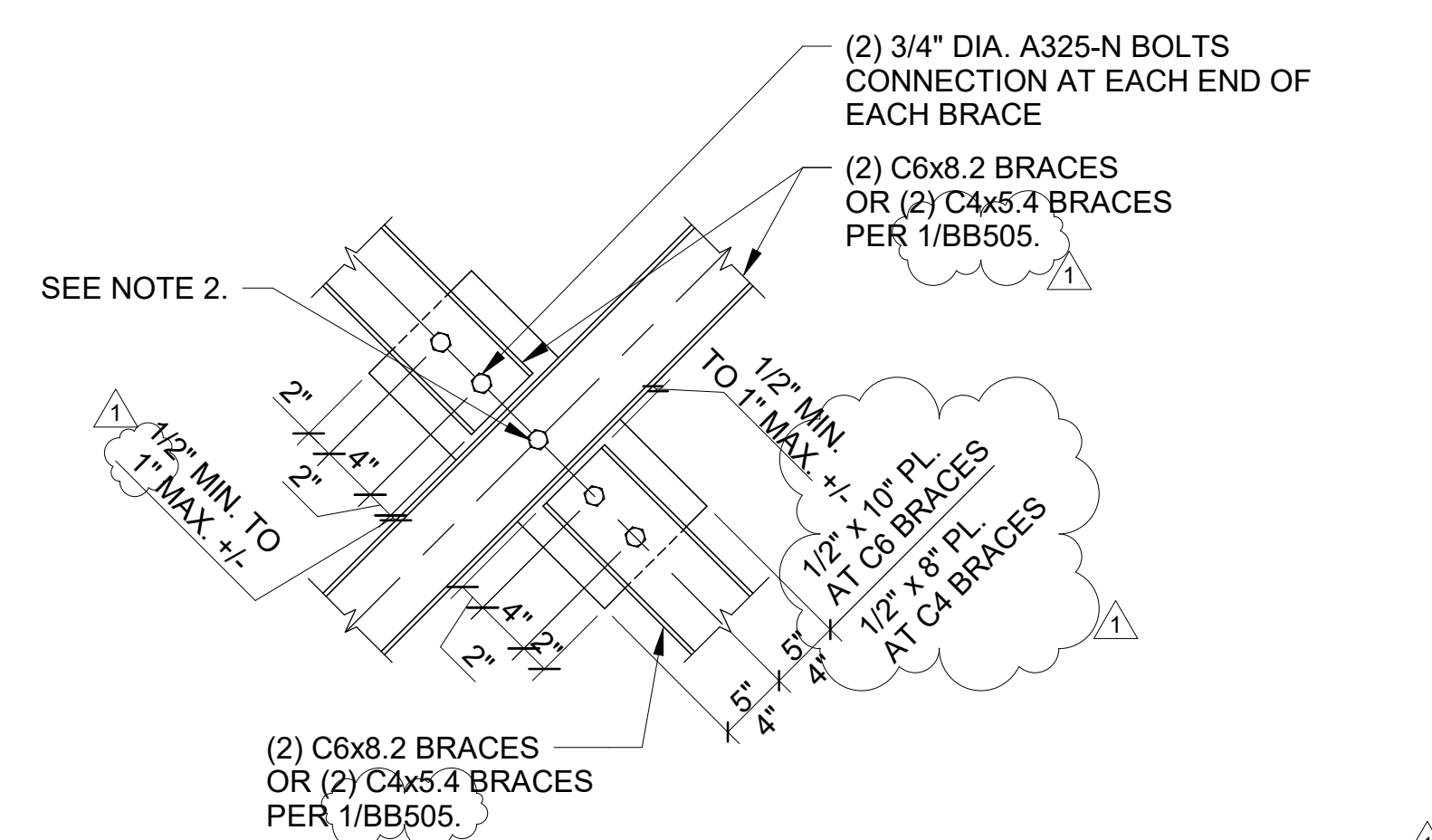
BB505 BB505 SCALE 1" = 1'-0"



- NOTES:
1. 135" STANDARD HOOK AROUND THE VERTICAL WALL REINFORCING (TYP.)
 2. CONT. C12 PER PLAN SLOPING AT SAME SLOPE AS INTERIOR CONC. SLAB. TOP OF C12 SHALL BE 1/2" ABOVE TOP OF ADJACENT CONCRETE SLAB AT ALL LOCATIONS EXCEPT 3RD FLOOR BREEZEWAY AND ROOF, WHERE TOP OF C12 SHALL BE 2" LOWER THAN TOP OF ADJACENT CONCRETE SLAB.
 3. SEE SECTION 9/BB504 FOR W12 CONNECTION TO CONCRETE WALL.

EXTERIOR STAIR TO CONC. SLAB AT 2ND FLOOR BALCONY AND AT ROOF

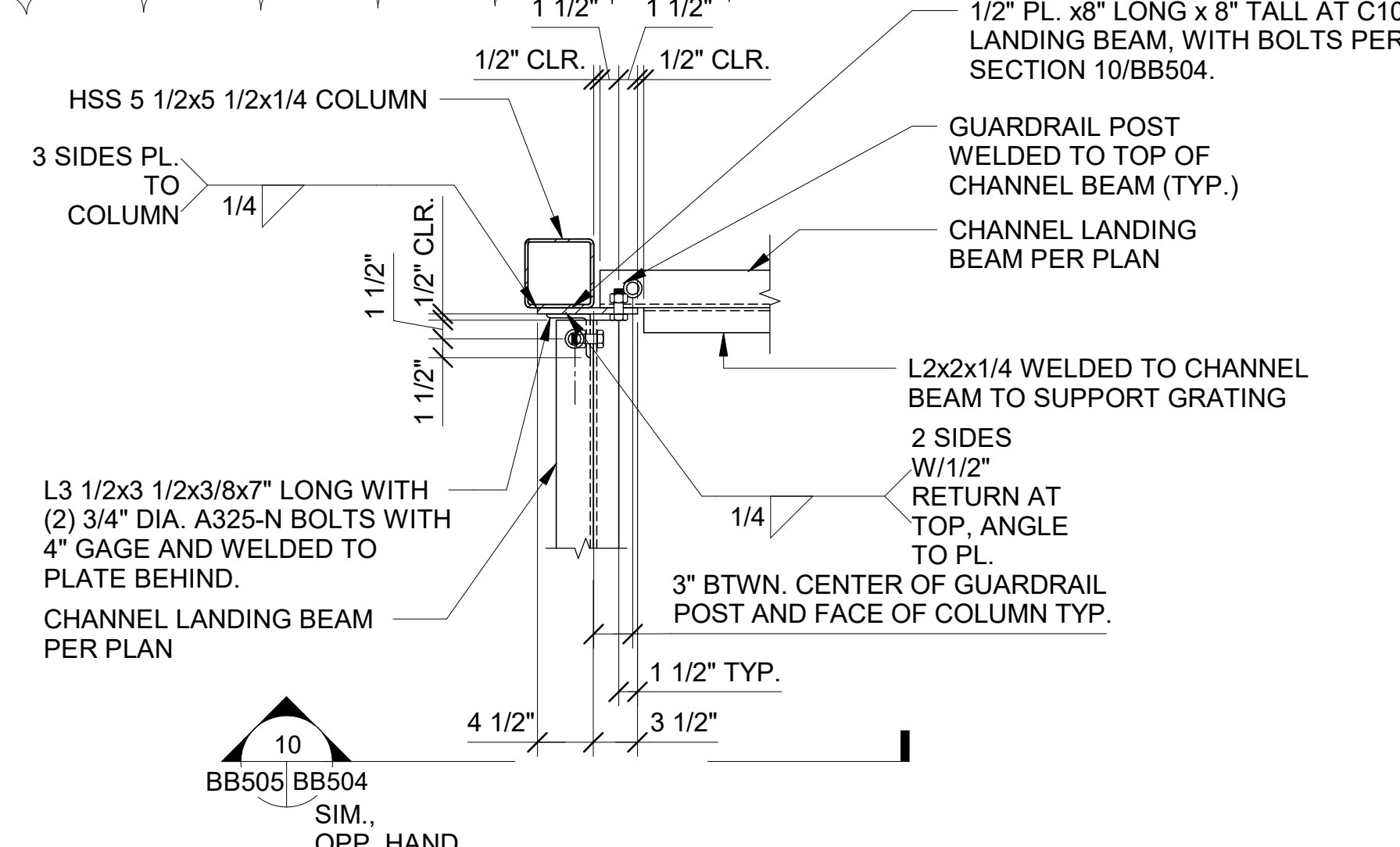
BB402 BB505 SCALE 1" = 1'-0"



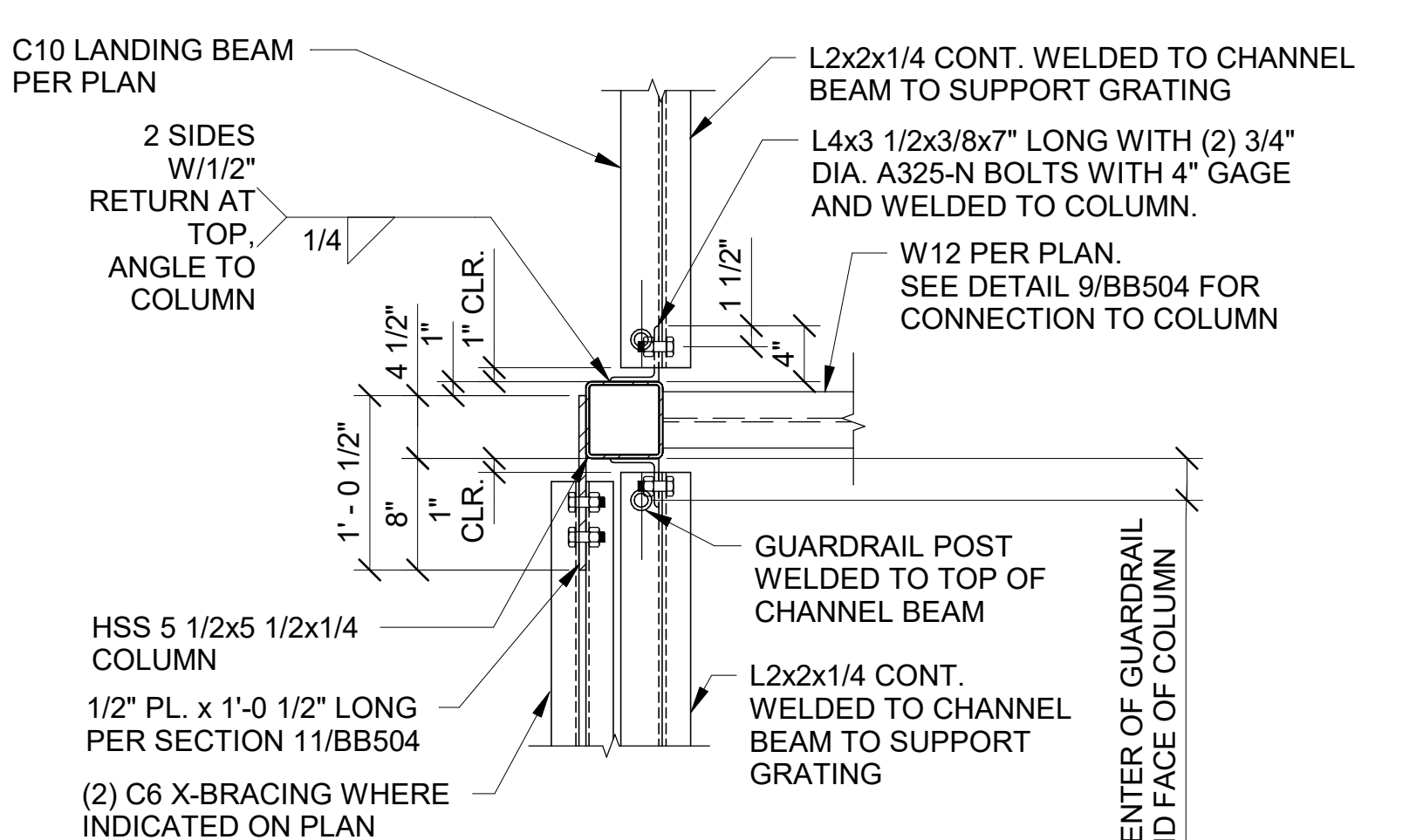
- NOTES:
1. THIS DETAIL APPLIES AT EACH BRACE INTERSECTION AT BRF-1, BRF-2, AND BRF-3.
 2. (1) 3/4" DIA. A325-N BOLT CONNECTION AT CENTER OF INTERSECTION, FULLY TENSIONED.

TYPICAL VERTICAL BRACING INTERSECTION DETAIL

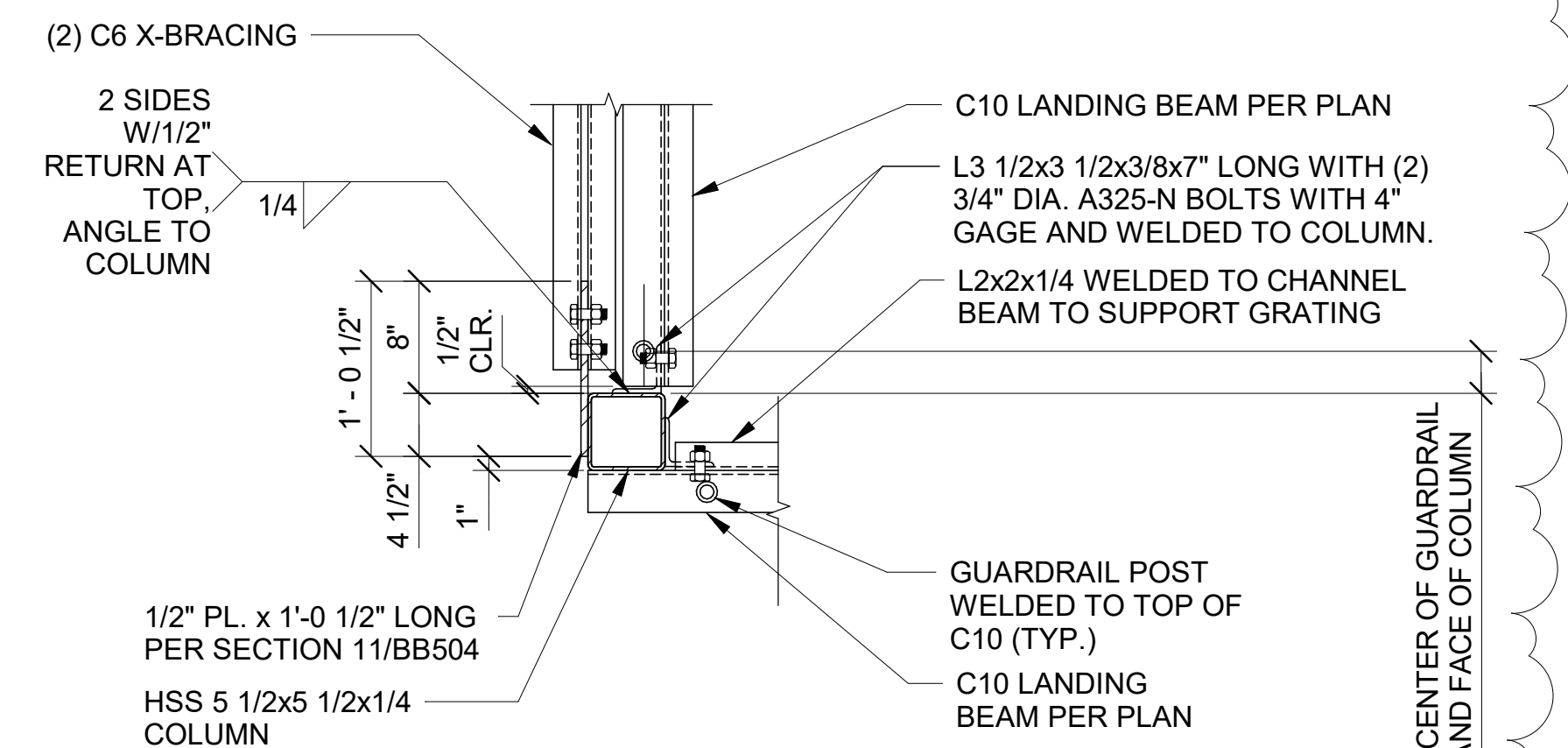
BB505 BB505 SCALE 1" = 1'-0"



NORTHWEST COLUMN AT STEEL DECK PLATFORM



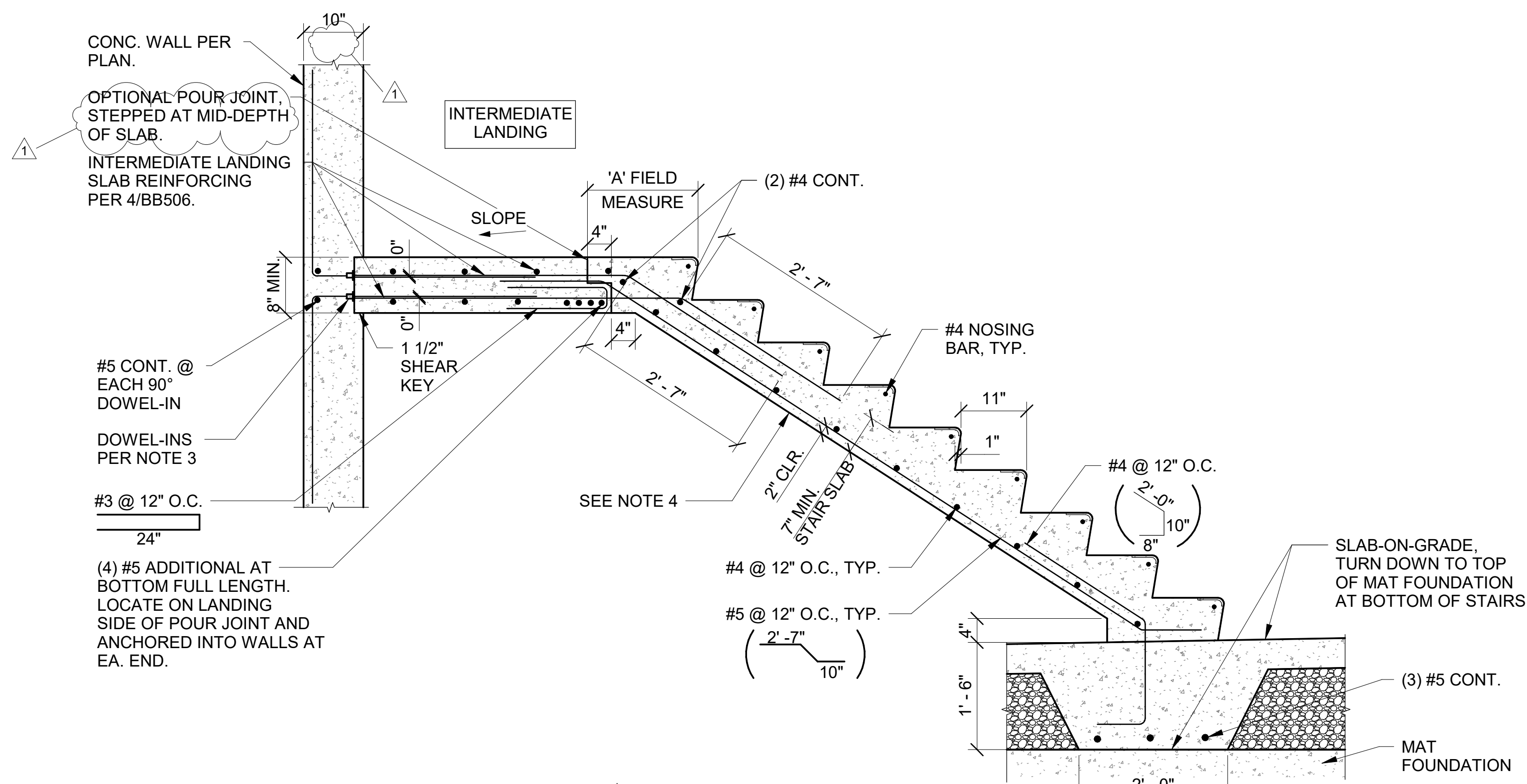
CENTER COLUMN AT STEEL DECK PLATFORM



SOUTHWEST COLUMN AT STEEL DECK PLATFORM

PLAN DETAIL - STEEL DECK PLATFORM LANDING BEAMS TO COLUMNS

BB403 BB505 SCALE 1" = 1'-0"

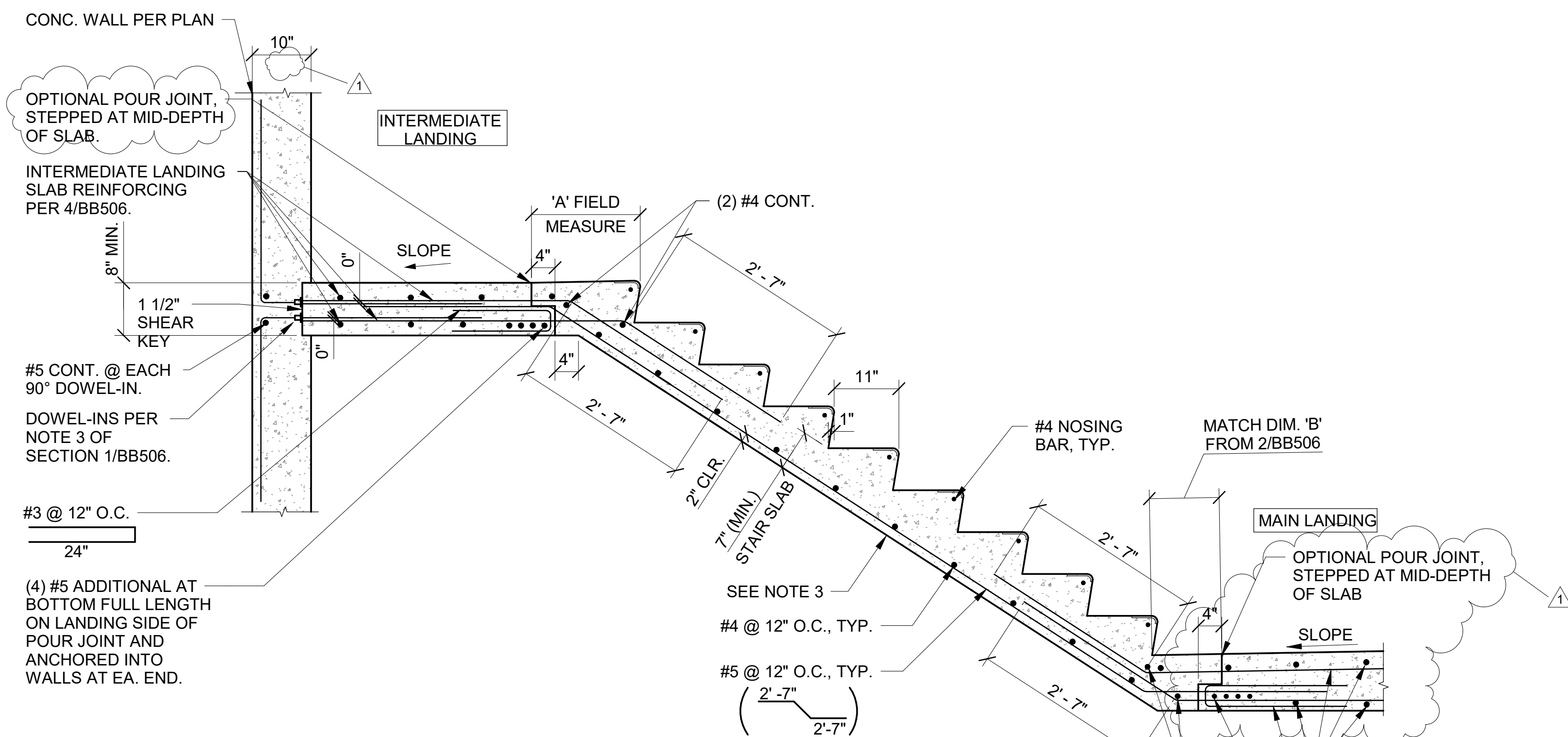


NOTES:

1. PROVIDE GALVANIZED, SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS). PROVIDE 1/4" MIN. THICK, GRADE 2, ROUNDED-EDGE STAIR NOSING, 1 1/2" DEEP x 3" WIDE x 3'-11" LONG, TIGHT TO CONCRETE WALL TO AVOID GUARDRAIL BASE PLATE AT OPPOSITE END OF TREAD. PROVIDE SLIPNOT STAIR NOSING WITH J-HOOKS, AS MANUFACTURED BY SLIPNOT METAL SAFETY FLOORING AT (800) 754-7668 OR WWW.SLIPNOT.COM, OR AN EQUIVALENT APPROVED BY THE ENGINEER. INSTALL STAIR NOSINGS IN ACCORDANCE WITH REQUIREMENTS OF THE MANUFACTURER.
2. WALL REINFORCING HAS BEEN OMITTED FOR CLARITY.
3. CONNECT INTERMEDIATE LANDING SLAB TO CONCRETE WALLS USING DOWEL-IN SYSTEM BY DAYTON SUPERIOR, OR AN APPROVED EQUIVALENT BY ERICO OR BARSPLICE PRODUCTS, INC. FOR EACH REINFORCING BAR THAT PASSES FROM THE LANDING SLAB INTO WALL. PROVIDE A #5 D102A 90° HOOKED DOWEL BAR SPLICER CAST INTO WALL, WITH DIMENSIONS A=5" & B=2'-7", PLUS A #5 D-101 2' - 10" LONG DOWEL-IN DOWEL SCREWED INTO THE SPLICER AND LAPPING THE SLAB REINFORCING WITH A 2' - 7" MIN. LAP LENGTH.
4. WHERE CONCRETE STAIR SIDES INTERSECT CONCRETE WALLS, CONNECT STAIR SLABS TO CONCRETE WALLS USING DOWEL-IN SYSTEM DESCRIBED IN NOTE 3.

1 CONCRETE STAIR SECTION

BB201, BB506 SCALE 3/4" = 1'-0"
BB401

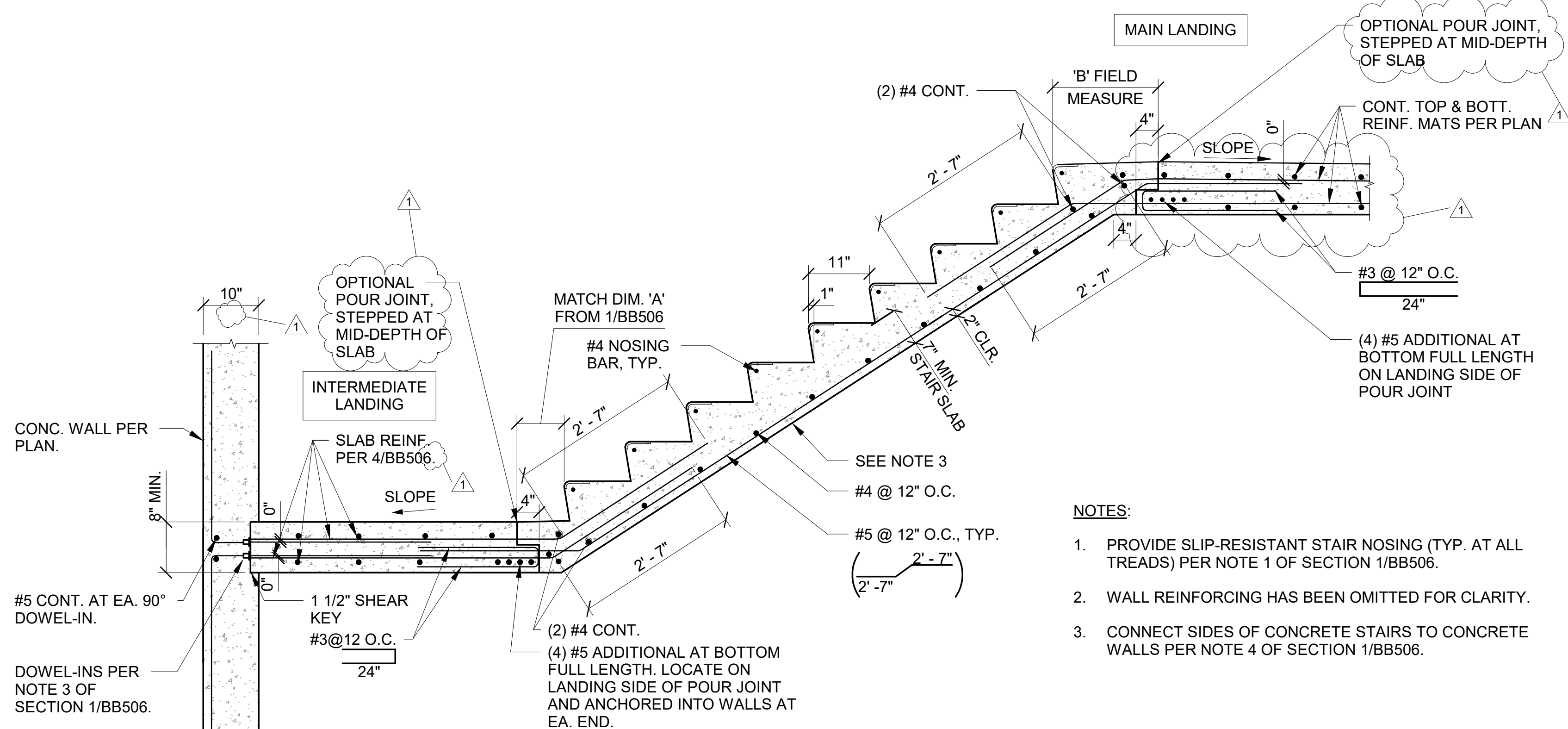


NOTES:

1. PROVIDE GALVANIZED, SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS) PER NOTE 1 OF SECTION 1/BB506.
2. WALL REINFORCING HAS BEEN OMITTED FOR CLARITY.
3. CONNECT SIDES OF CONCRETE STAIRS TO CONCRETE WALLS PER NOTE 4 OF SECTION 1/BB506.

3 CONCRETE STAIR SECTION

BB402 - BB506 SCALE 3/4" = 1'-0"
BB407

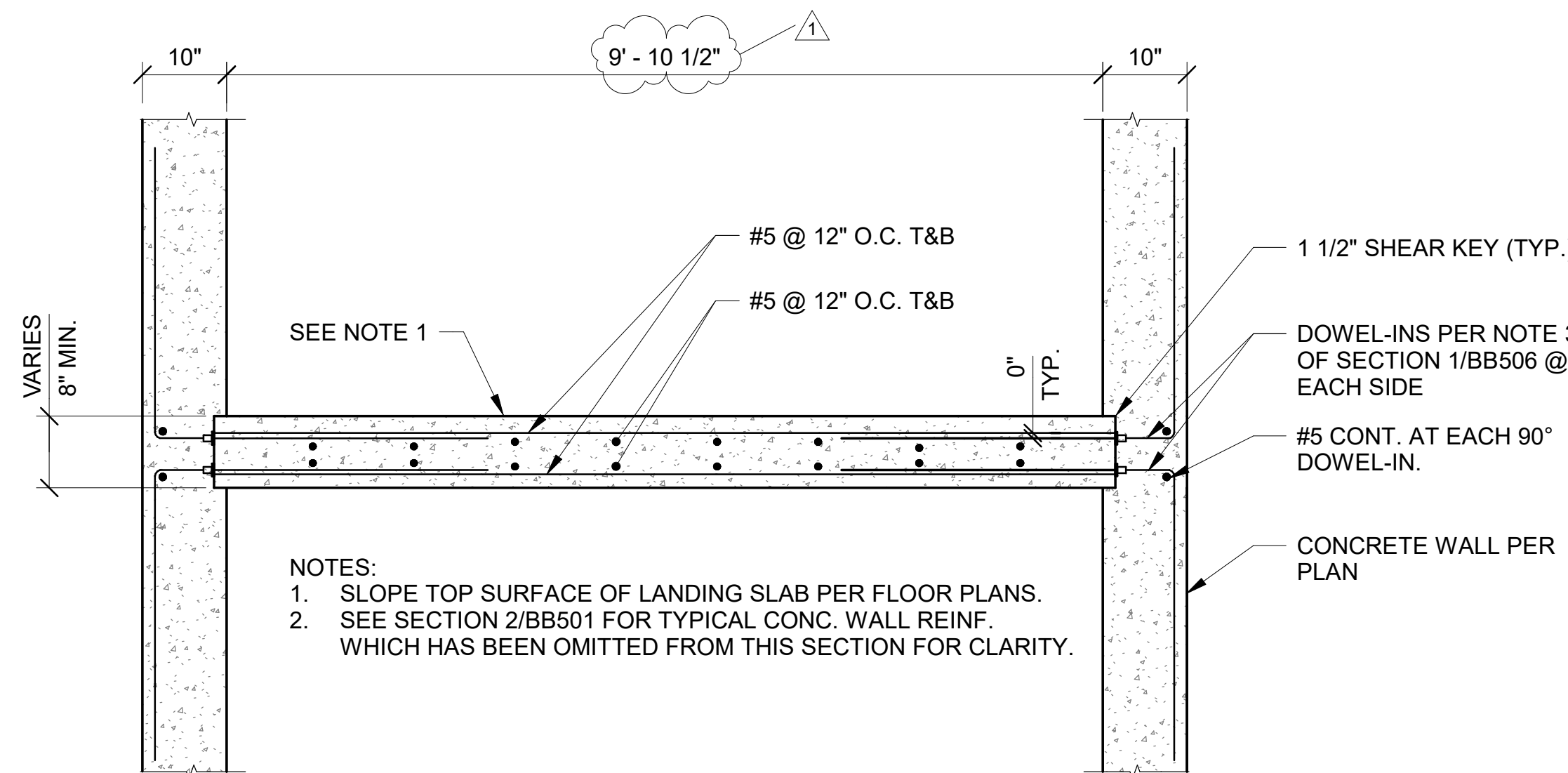


NOTES:

1. PROVIDE SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS) PER NOTE 1 OF SECTION 1/BB506.
2. WALL REINFORCING HAS BEEN OMITTED FOR CLARITY.
3. CONNECT SIDES OF CONCRETE STAIRS TO CONCRETE WALLS PER NOTE 4 OF SECTION 1/BB506.

2 CONCRETE STAIR SECTION

BB402 - BB506 SCALE 3/4" = 1'-0"
BB407

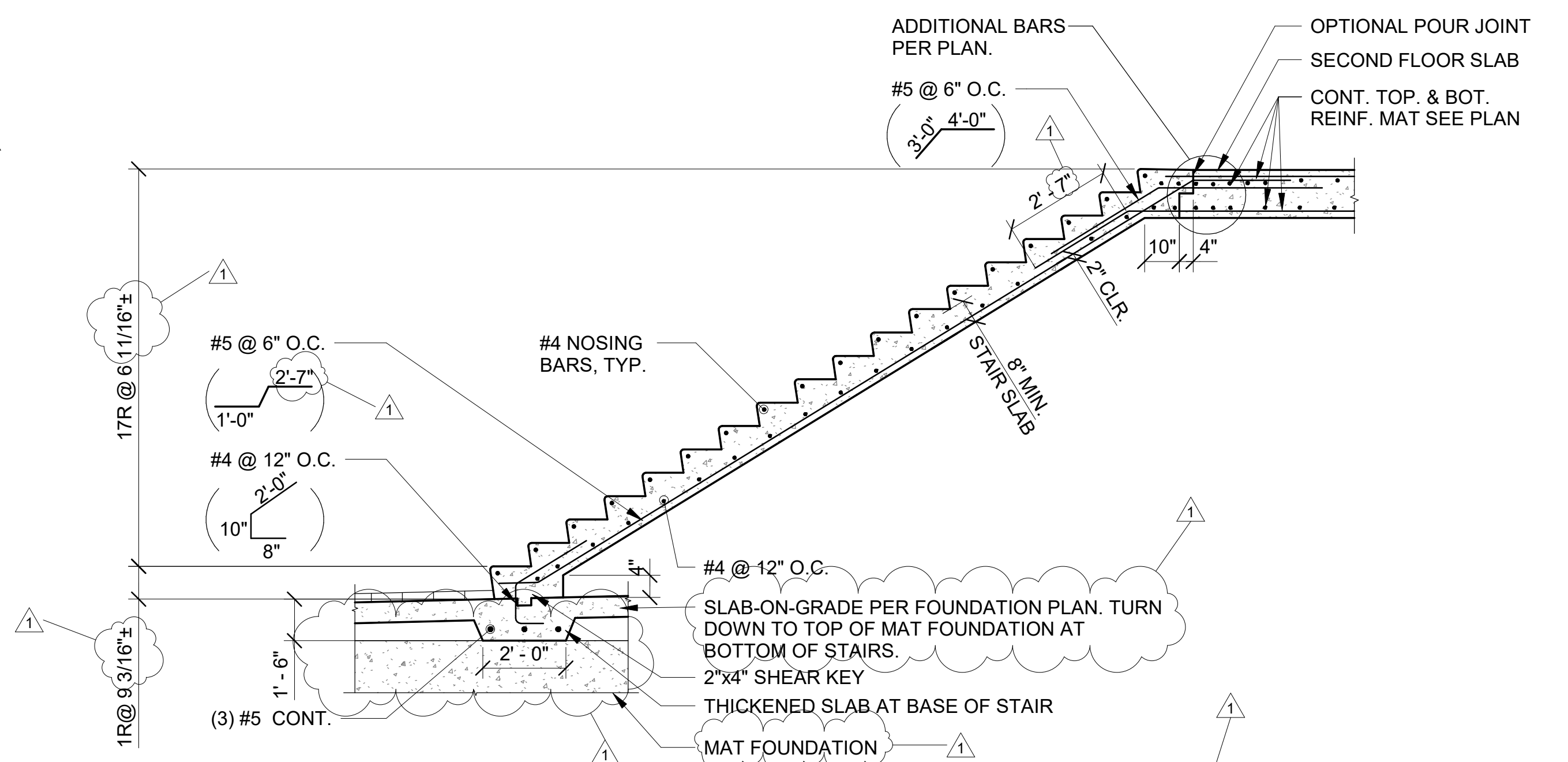


NOTES:

1. SLOPE TOP SURFACE OF LANDING SLAB PER FLOOR PLANS.
2. SEE SECTION 2/BB501 FOR TYPICAL CONC. WALL REINF. WHICH HAS BEEN OMITTED FROM THIS SECTION FOR CLARITY.

4 INTERMEDIATE STAIR LANDING SECTION

BB402 - BB506 SCALE 3/4" = 1'-0"
BB407



NOTES:

1. PROVIDE GALVANIZED, SLIP-RESISTANT STAIR NOSING CAST IN SLAB (TYP. AT ALL TREADS). PROVIDE 1/4" MIN. THICK, GRADE 2, ROUNDED-EDGE STAIR NOSINGS, 1 1/2" DEEP x 4" WIDE x 3'-8" LONG. PROVIDE SLIPNOT STAIR NOSINGS WITH J-HOOKS, AS MANUFACTURED BY SLIPNOT METAL SAFETY FLOORING AT (800) 754-7668 OR WWW.SLIPNOT.COM, OR AN EQUIVALENT APPROVED BY THE ENGINEER. INSTALL STAIR NOSINGS IN ACCORDANCE WITH REQUIREMENTS OF THE MANUFACTURER.
2. WHERE CONCRETE STAIR SIDES INTERSECT CONCRETE WALLS, CONNECT STAIR SLABS TO CONCRETE WALLS USING DOWEL-IN SYSTEM DESCRIBED IN NOTE 3 OF 1/BB506.

STRAIGHT RUN STAIR

5 CONCRETE STAIR SECTION

BB201, BB506 SCALE 3/8" = 1'-0"
BB401

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BURN BUILDING - CONCRETE STAIR SECTIONS

BB506

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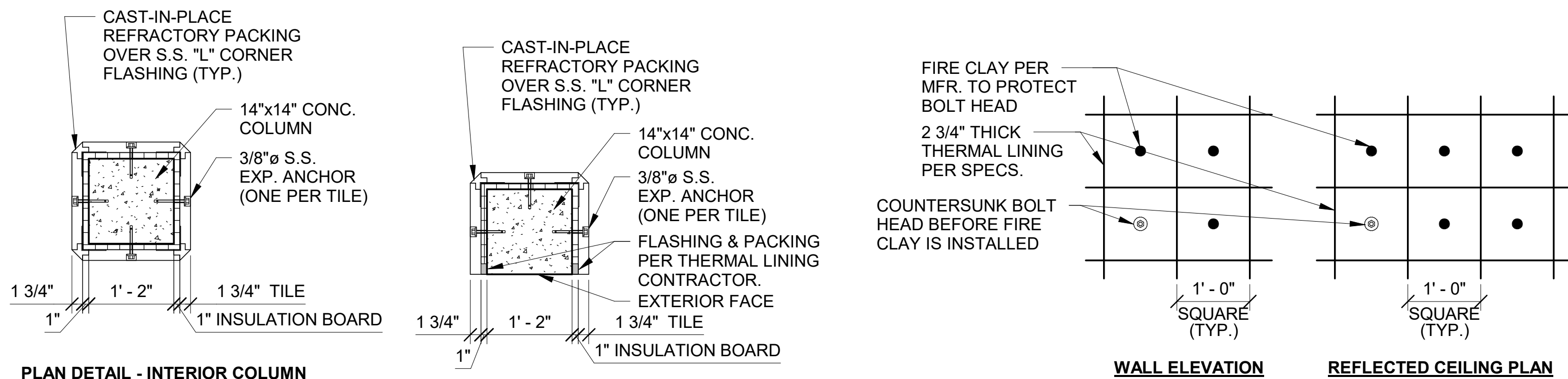
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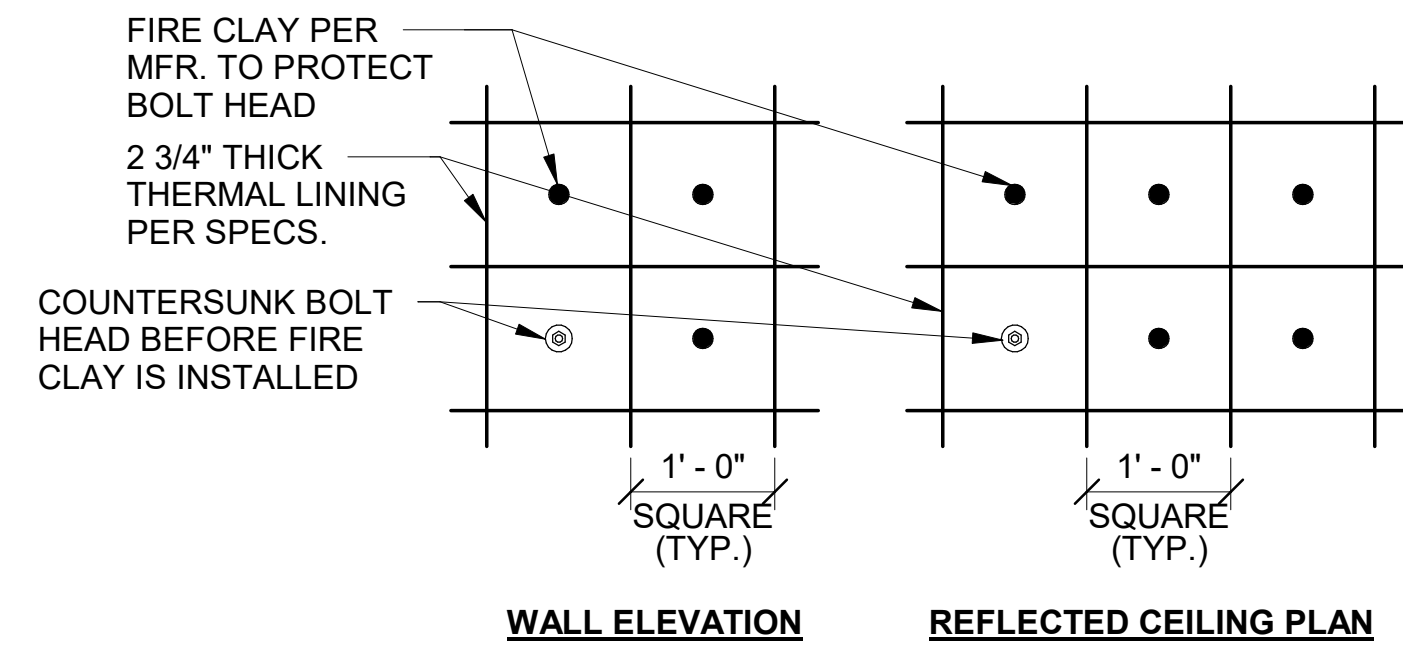


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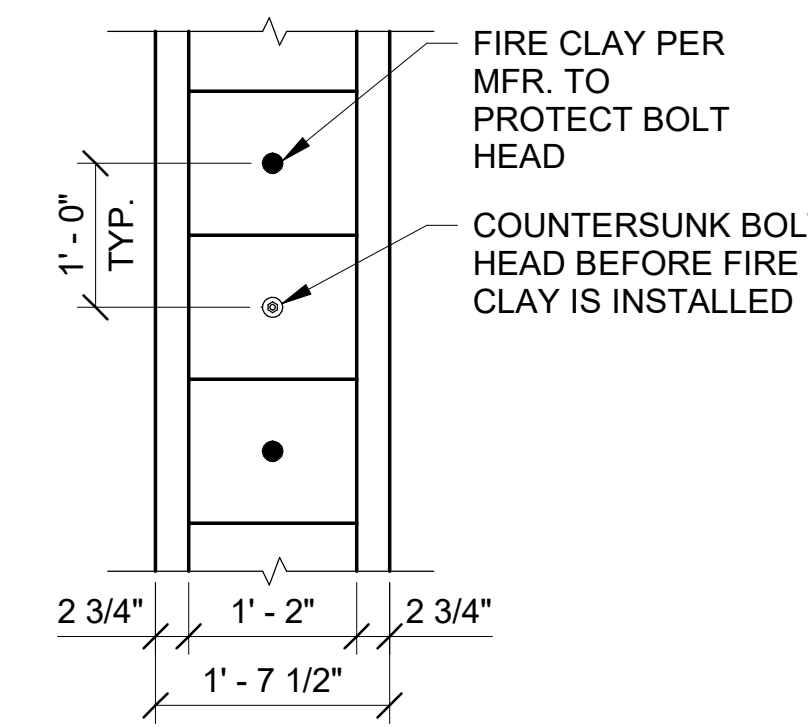
PLAN DETAIL - INTERIOR COLUMN

PLAN DETAIL - UPPER
LEVEL EXTERIOR COLUMN

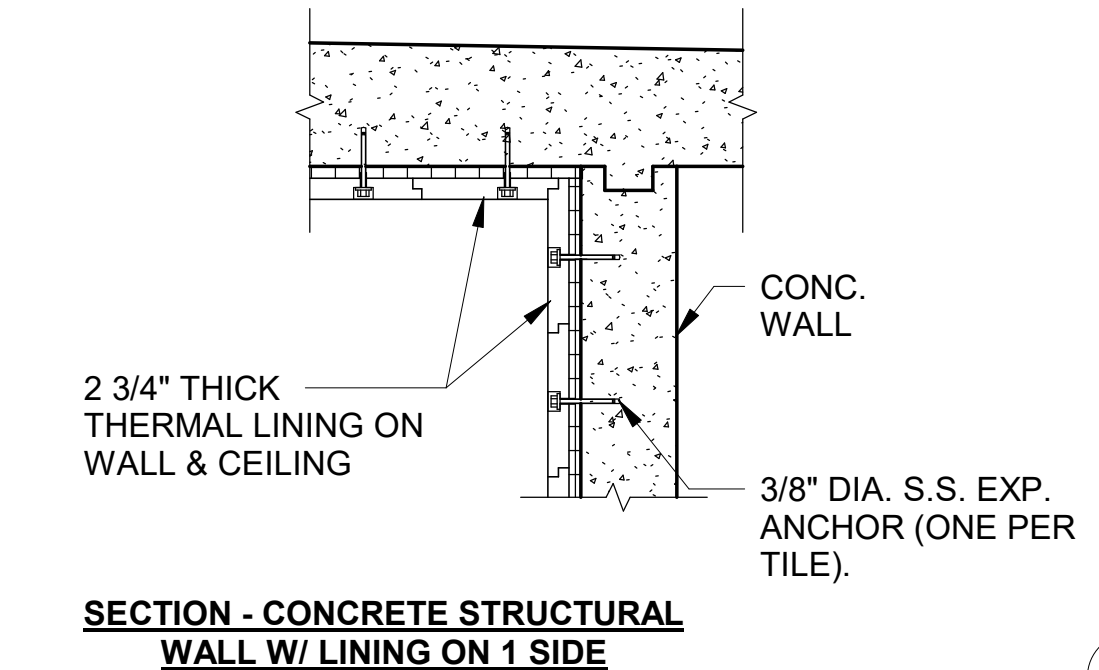


WALL ELEVATION

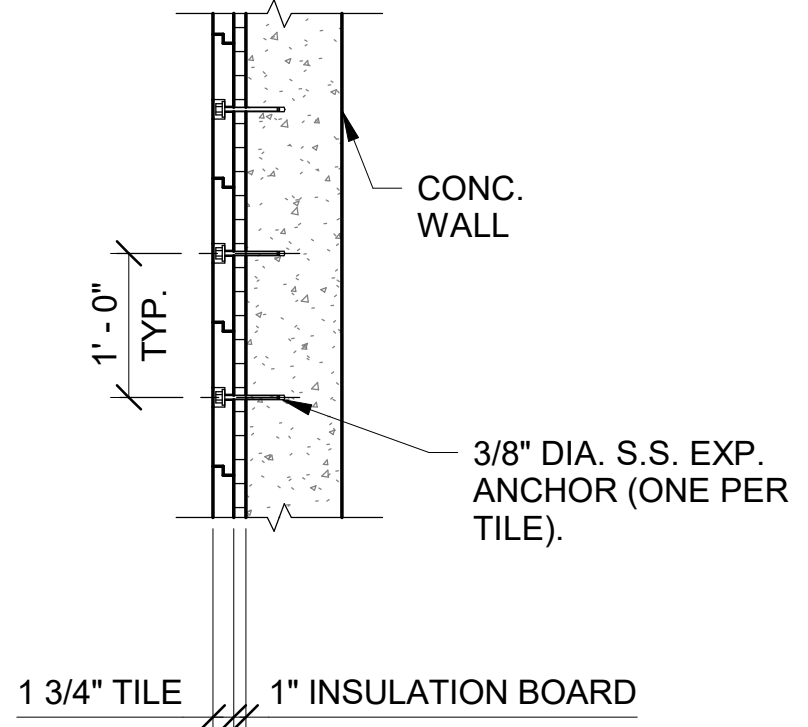
REFLECTED CEILING PLAN



ELEVATION



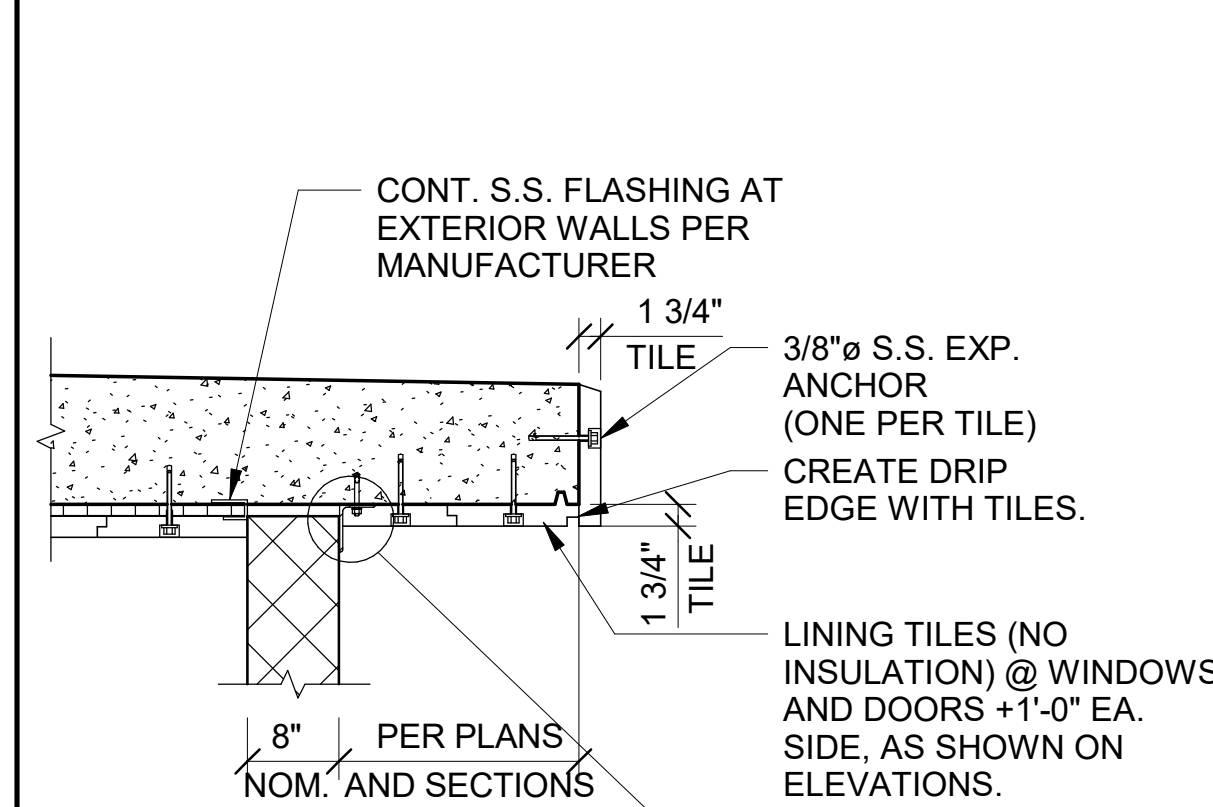
SECTION - CONCRETE STRUCTURAL
WALL W/ LINING ON 1 SIDE



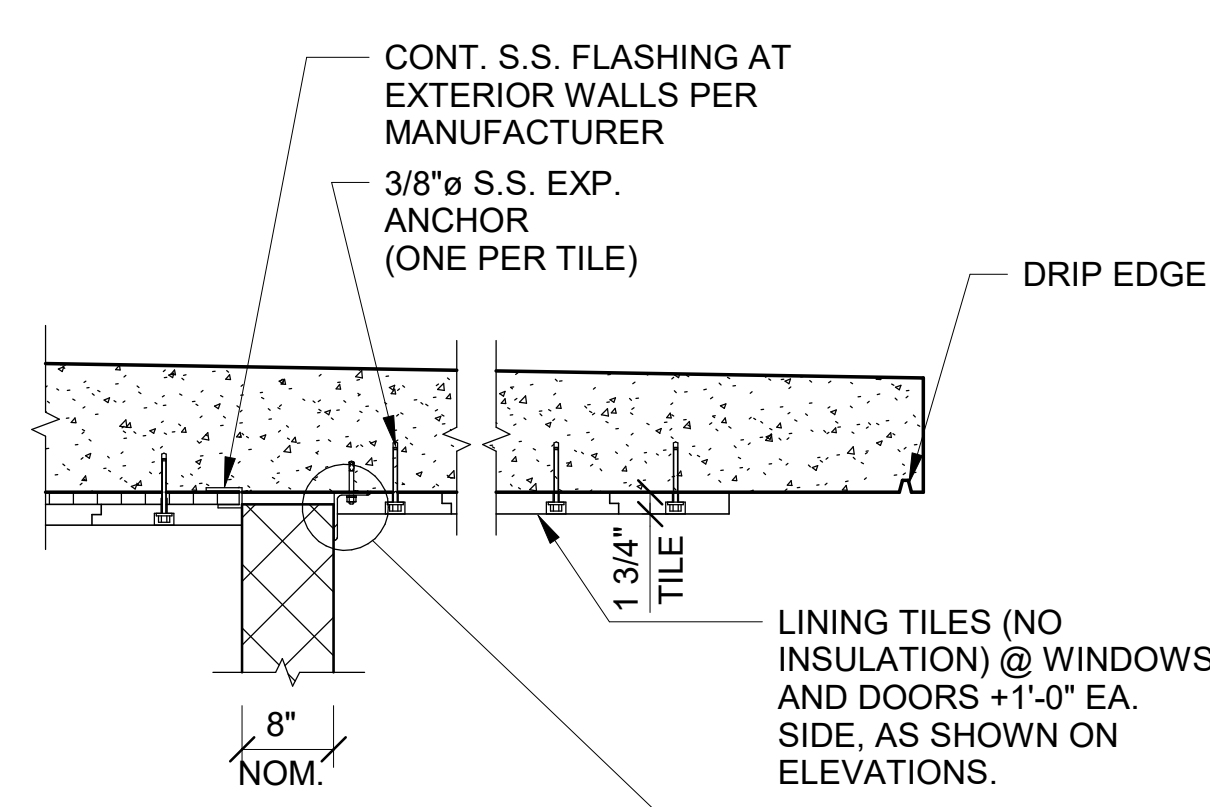
TYPICAL WALL SECTION

THERMAL LINING WALL & CEILING INSTALLATION

THERMAL LINING
14"x14" COLUMN INSTALLATION



ROLLOVER TILES ABOVE DOORS &
WINDOWS AT NON-STRUCTURAL WALLS

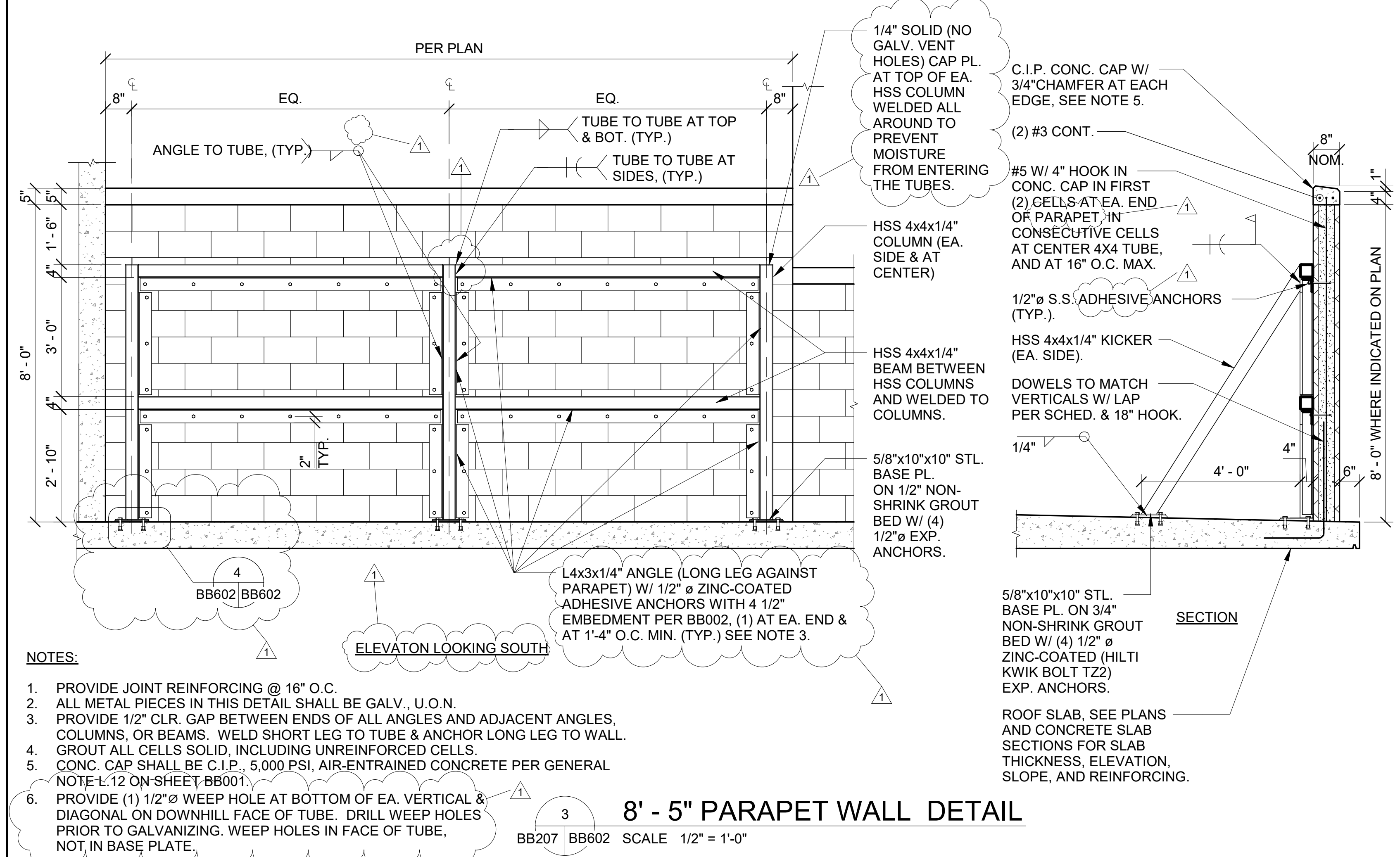


THERMAL LINING BALCONY
CEILING

THERMAL LINING EXTERIOR
ROLLOVER INSTALLATION

TYPICAL THERMAL LINING DETAILS

BB201 - BB602 SCALE 3/4" = 1'-0"

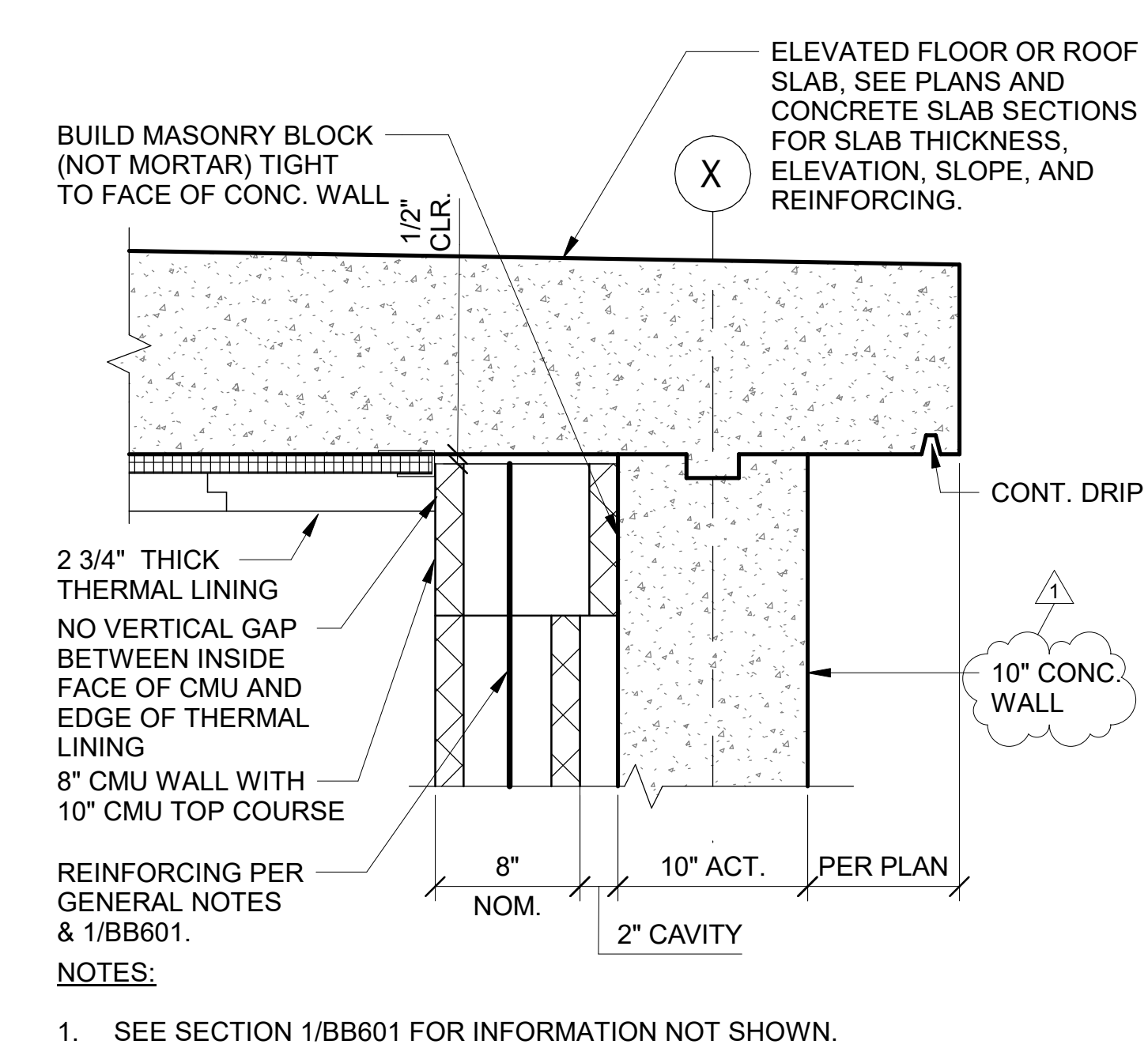


NOTES:

1. PROVIDE JOINT REINFORCING @ 16" O.C.
2. ALL METAL PIECES IN THIS DETAIL SHALL BE GALV., U.O.N.
3. PROVIDE 1/2" CLR. GAP BETWEEN ENDS OF ALL ANGLES AND ADJACENT ANGLES, COLUMNS, OR BEAMS. WELD SHORT LEG TO TUBE & ANCHOR LONG LEG TO WALL.
4. GROUT ALL CELLS SOLID, INCLUDING UNREINFORCED CELLS.
5. CONC. CAP SHALL BE C.I.P., 5,000 PSI, AIR-ENTRAINED CONCRETE PER GENERAL NOTE L-12 ON SHEET BB601.
6. PROVIDE (1) 1/2" Ø WEEP HOLE AT BOTTOM OF EA. VERTICAL & DIAGONAL ON DOWNHILL FACE OF TUBE. DRILL WEEP HOLES PRIOR TO GALVANIZING. WEEP HOLES IN FACE OF TUBE, NOT IN BASE PLATE.

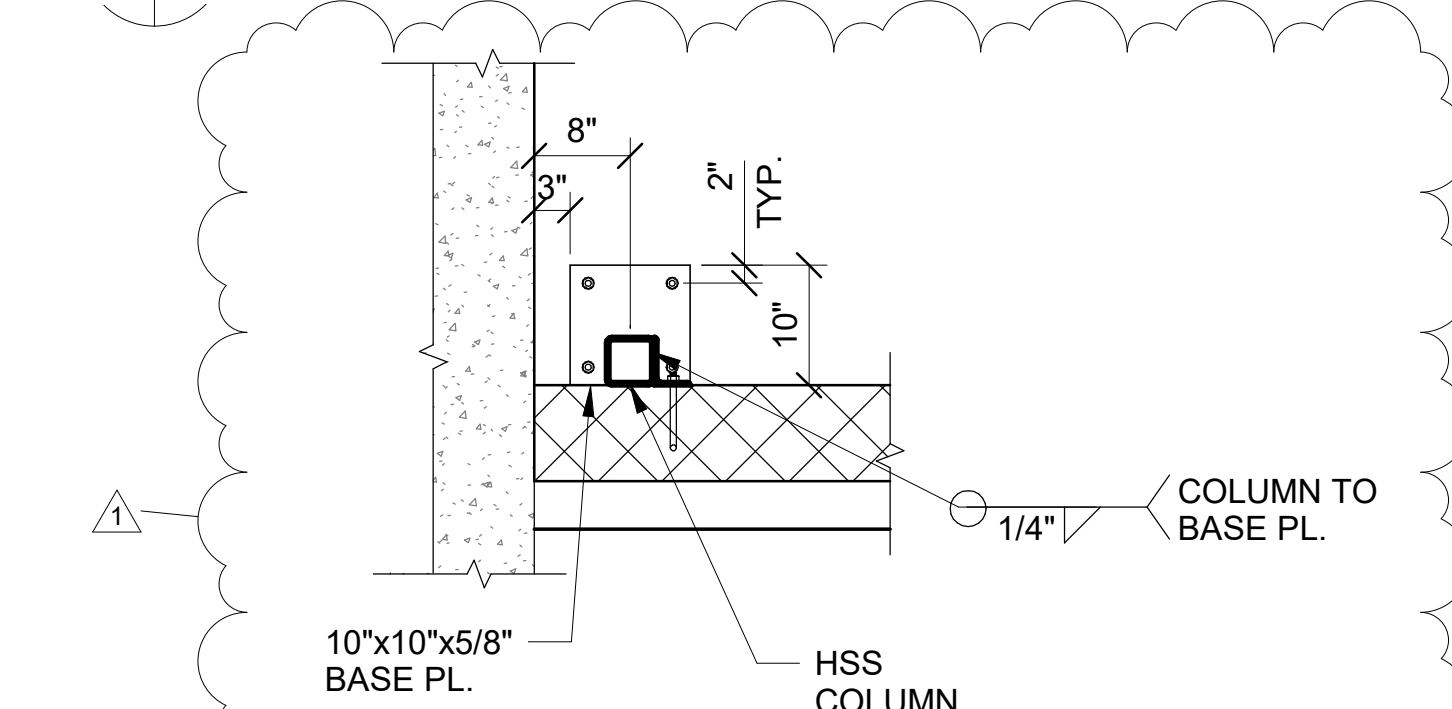
8' - 5" PARAPET WALL DETAIL

BB207 BB602 SCALE 1/2" = 1'-0"



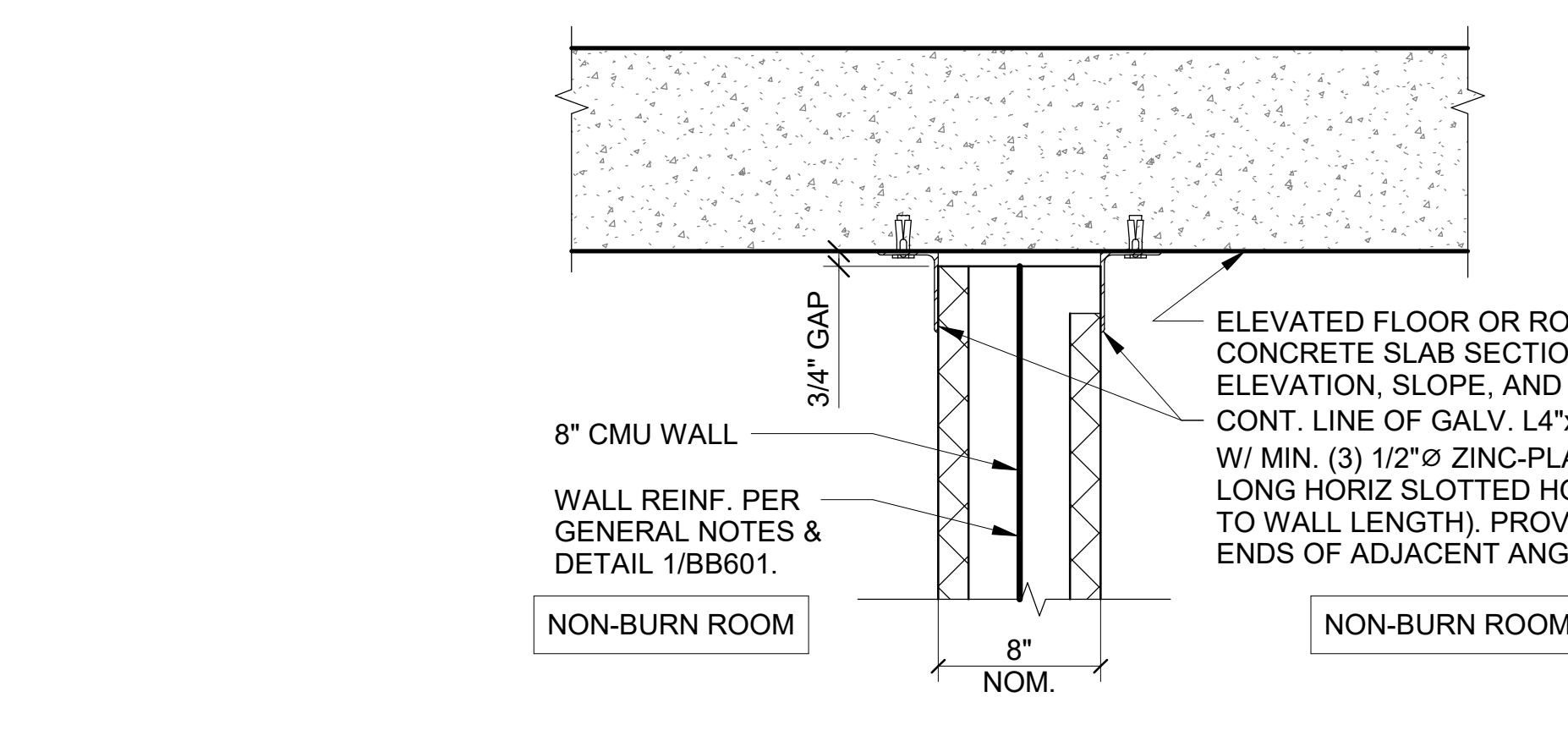
TYPICAL SECTION - TOP OF CMU PARTITION
AT CONCRETE SHEAR WALL

BB201 BB602 SCALE 1 1/2" = 1'-0"

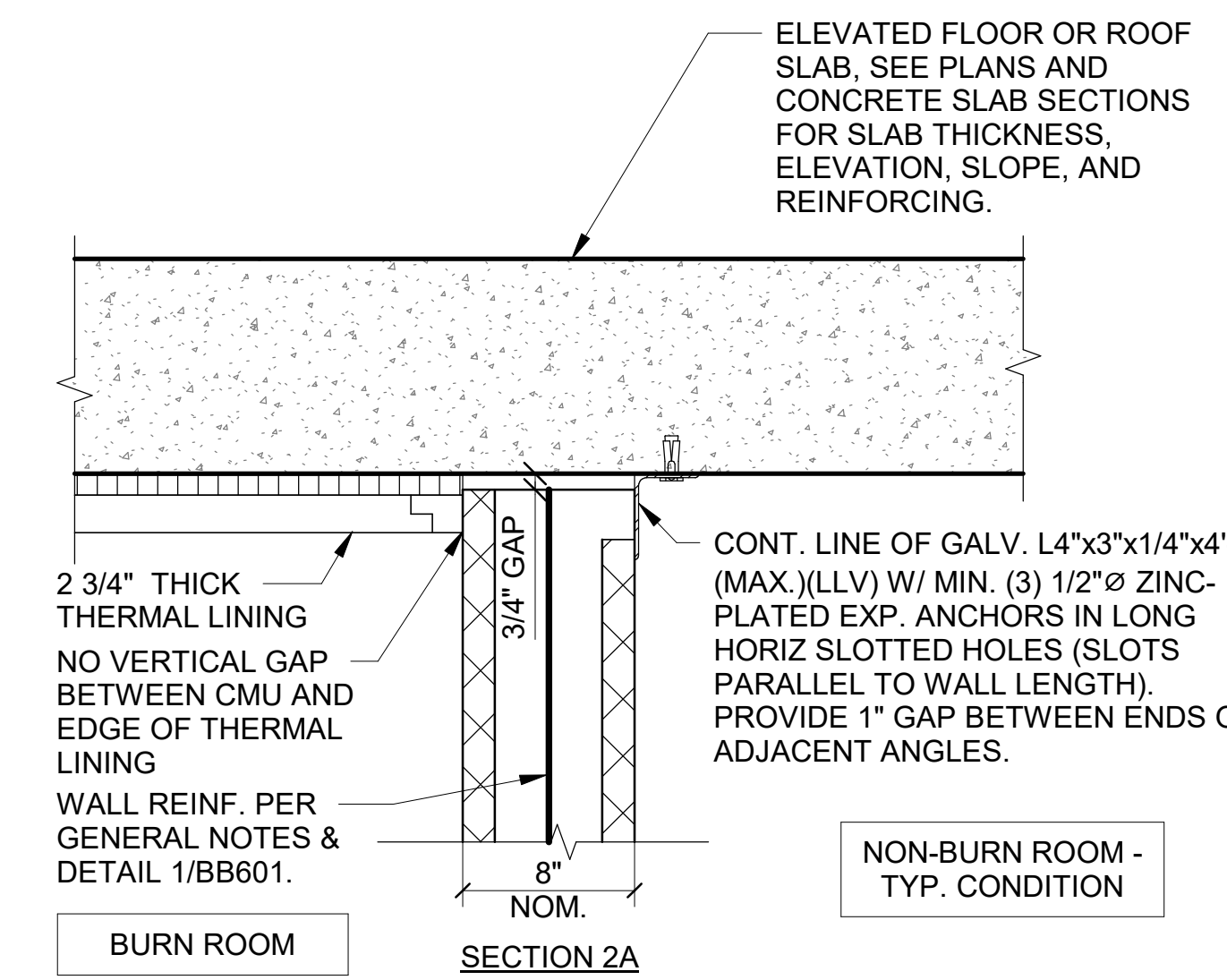


8' - 5" PARAPET WALL PLAN DETAIL

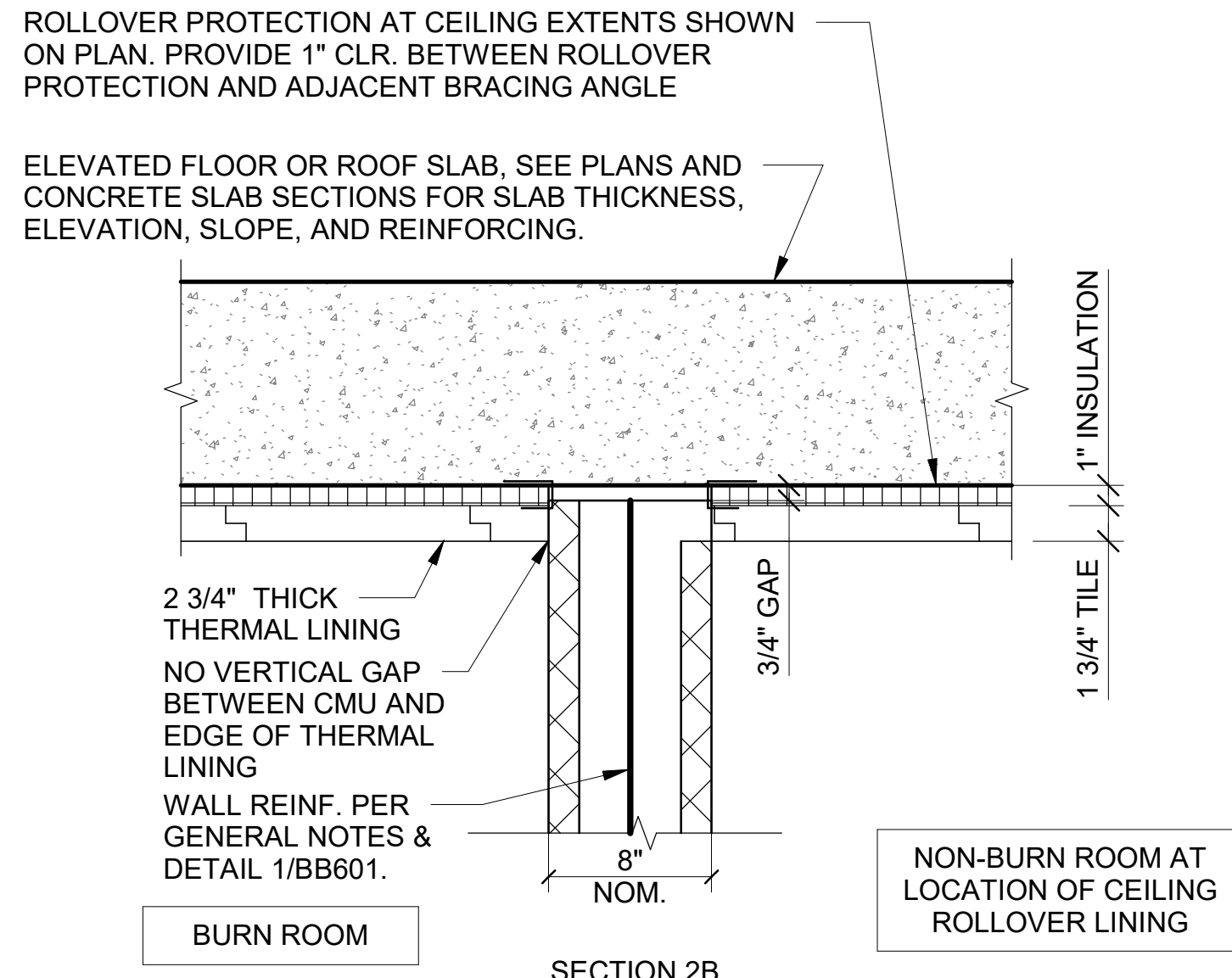
BB602 BB602 SCALE 3/4" = 1'-0"



SECTION 2



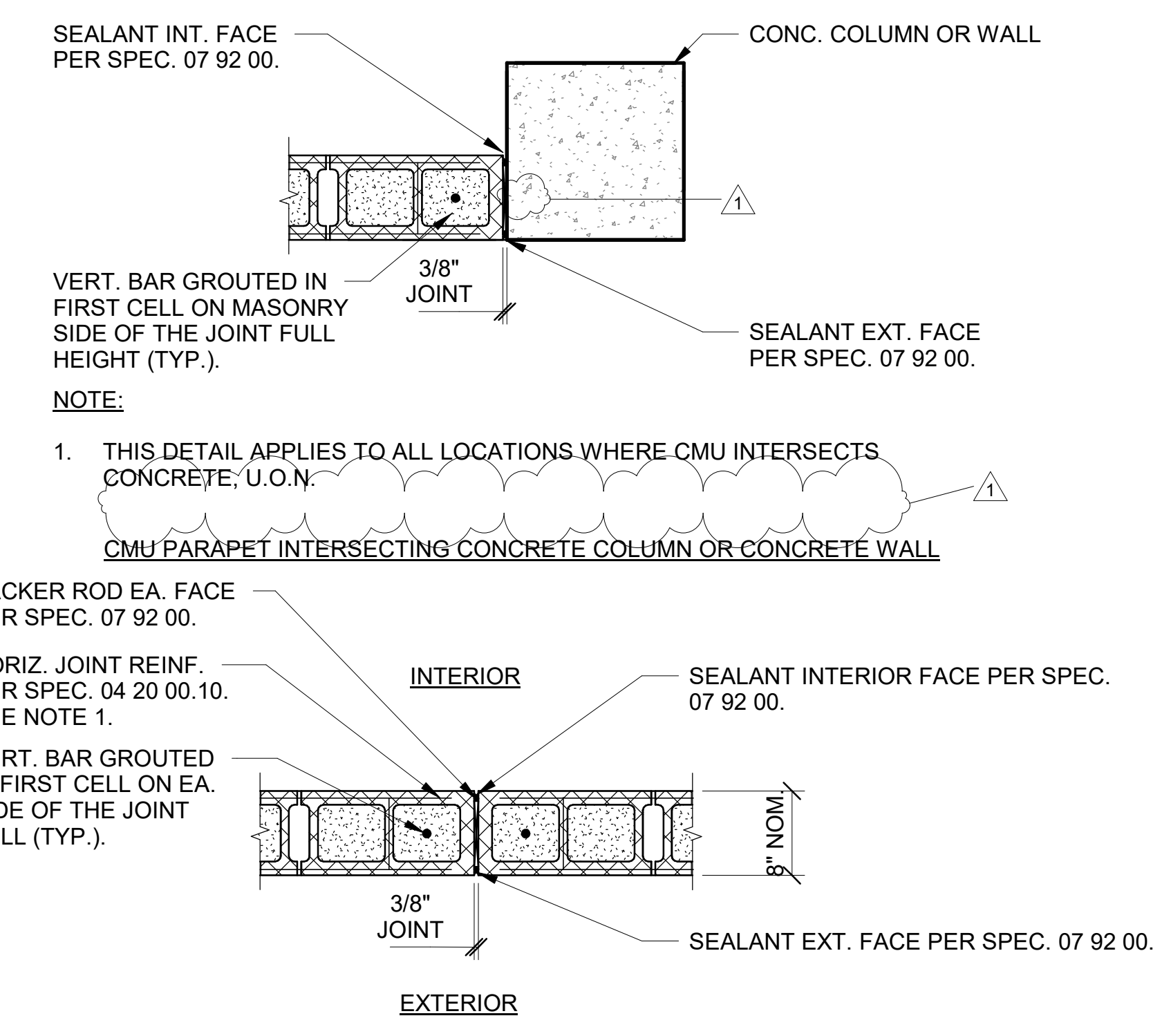
SECTION 2A



SECTION 2B

TYPICAL SECTION - TOP OF NON-BEARING
MASONRY WALL, INTERIOR CONDITIONS

BB201 - BB602 BB201 - BB602 BB201 - BB602 SCALE 1 1/2" = 1'-0"



NOTE:

1. THIS DETAIL APPLIES TO ALL LOCATIONS WHERE CMU INTERSECTS CONCRETE; U.O.N.

STRAIGHT PARAPET PLAN DETAIL

NOTES FOR ALL CONDITIONS:

1. STOP HORIZONTAL JOINT REINF. 2" FROM JOINT AT EA. SIDE OF JOINT.
2. PLACE CONTROL JOINTS SO THEY ALTERNATE BETWEEN BEING IN A HEAD JOINT AND AT THE CENTER OF THE 16" LONG BLOCK FROM ONE COURSE TO THE NEXT. IGNORE THE DIAGRAMMATIC COUSING LINES ON THE ELEVATIONS BUT DO LOCATE THE JOINTS AT THE LOCATIONS SHOWN ON THOSE SHEETS. NOTIFY ENGINEER IF THERE IS ANY CONFLICT BETWEEN JOINT LOCATION AND REQUIREMENT FOR LOCATING JOINTS IN HEAD JOINTS.

MASONRY PARAPET CONTROL JOINT PLAN
DETAILS

BB301 - BB602 SCALE 1" = 1'-0"

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DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
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**BURN BUILDING -
THERMAL LINING
AND CMU PARAPET
DETAILS**

BB602

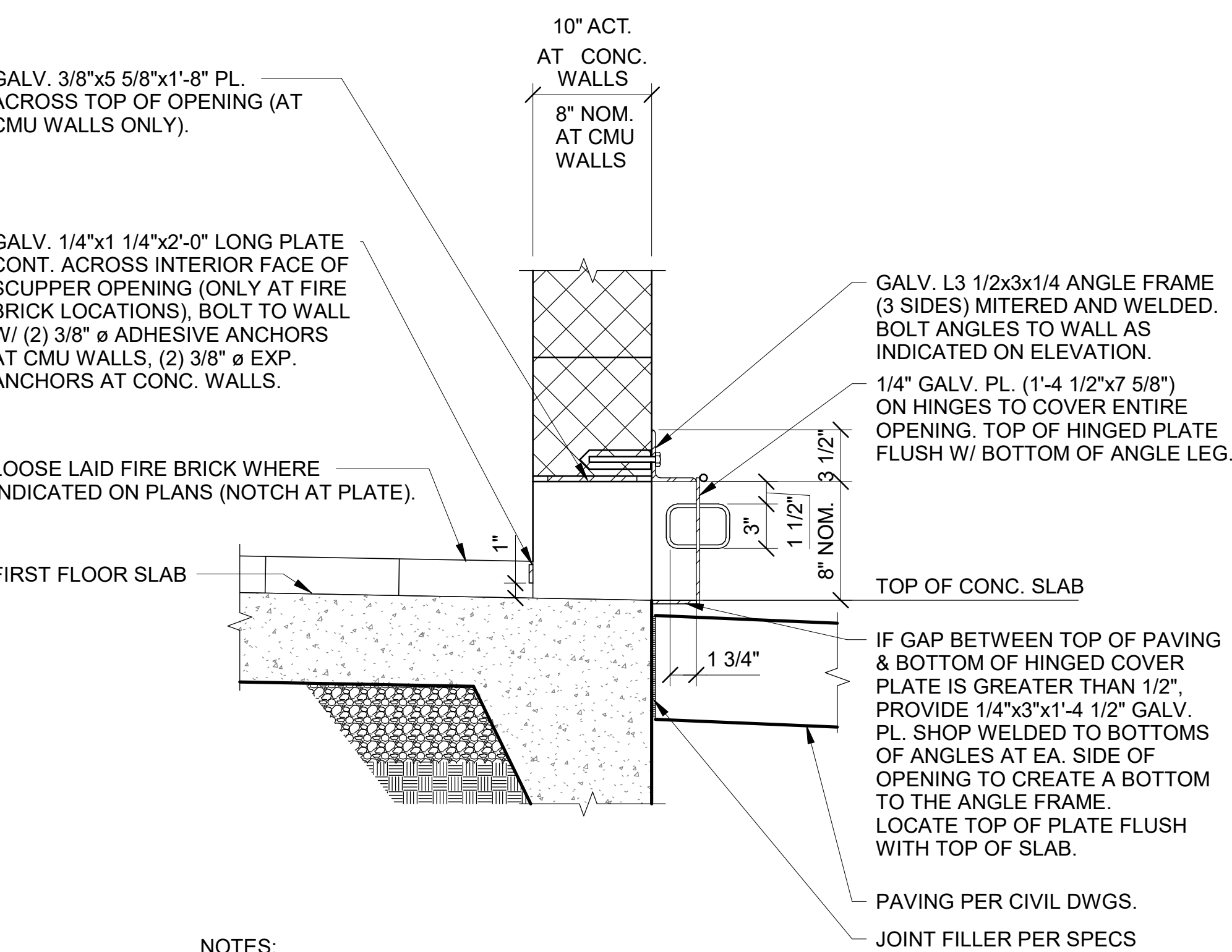


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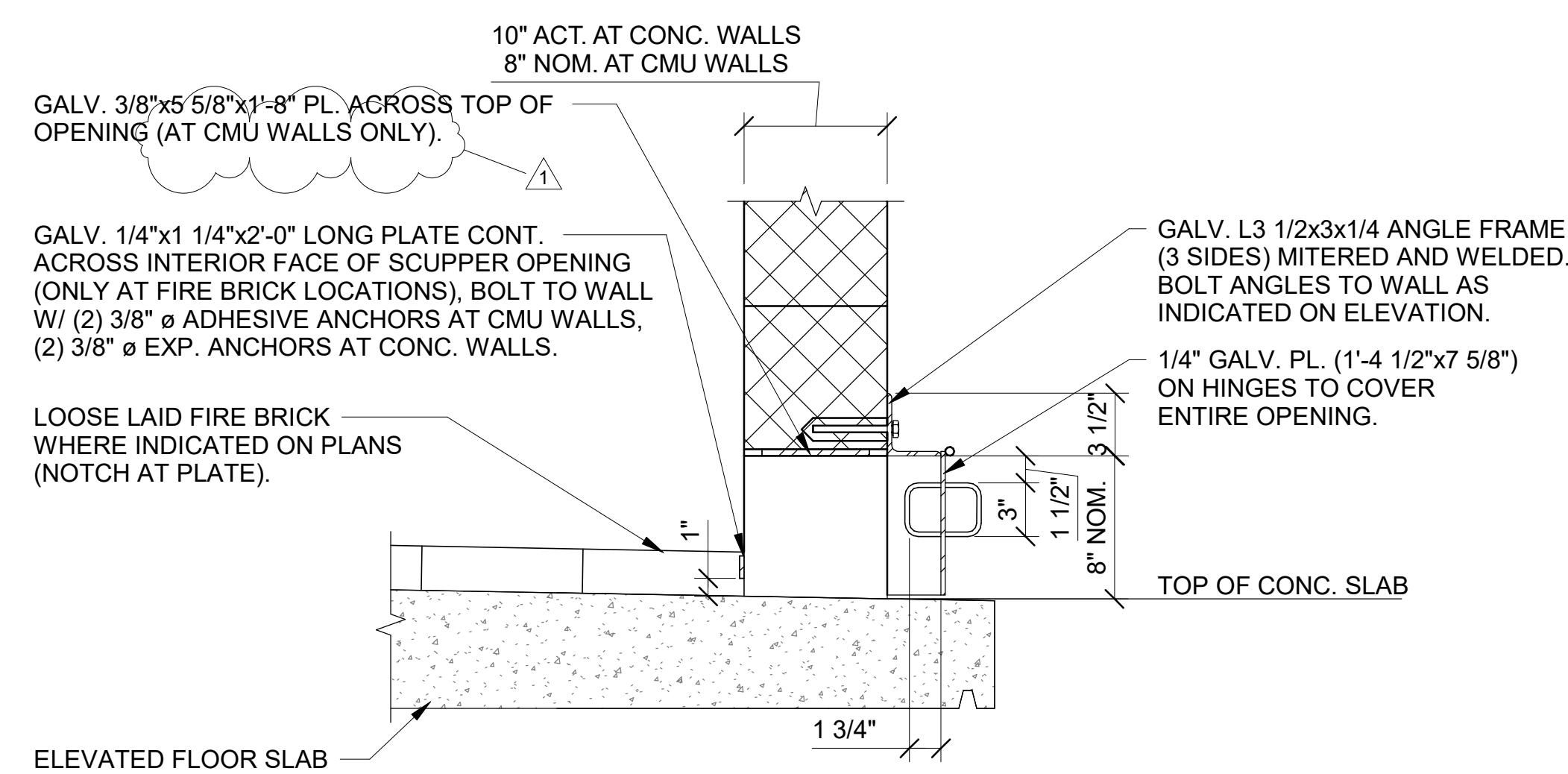


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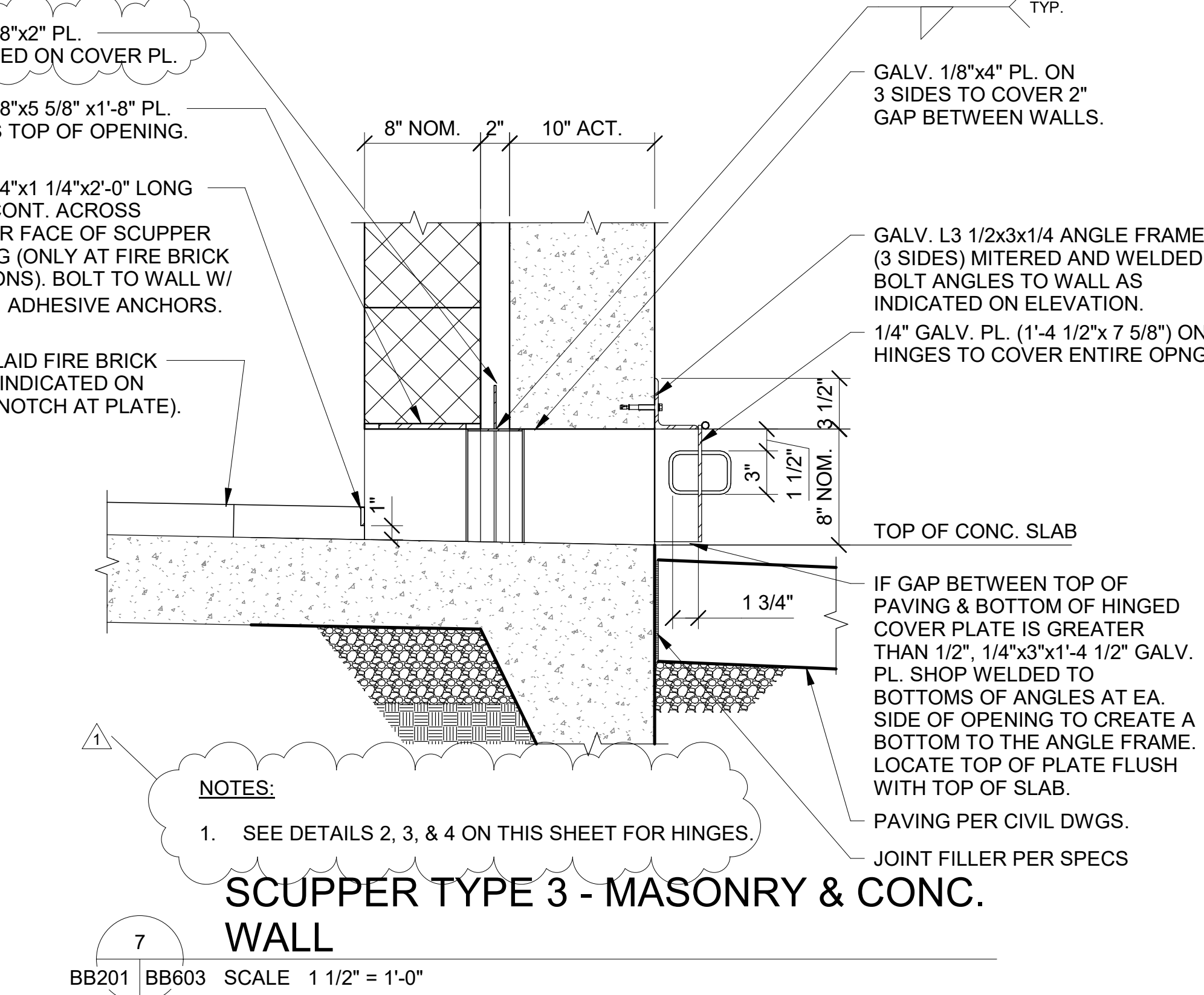
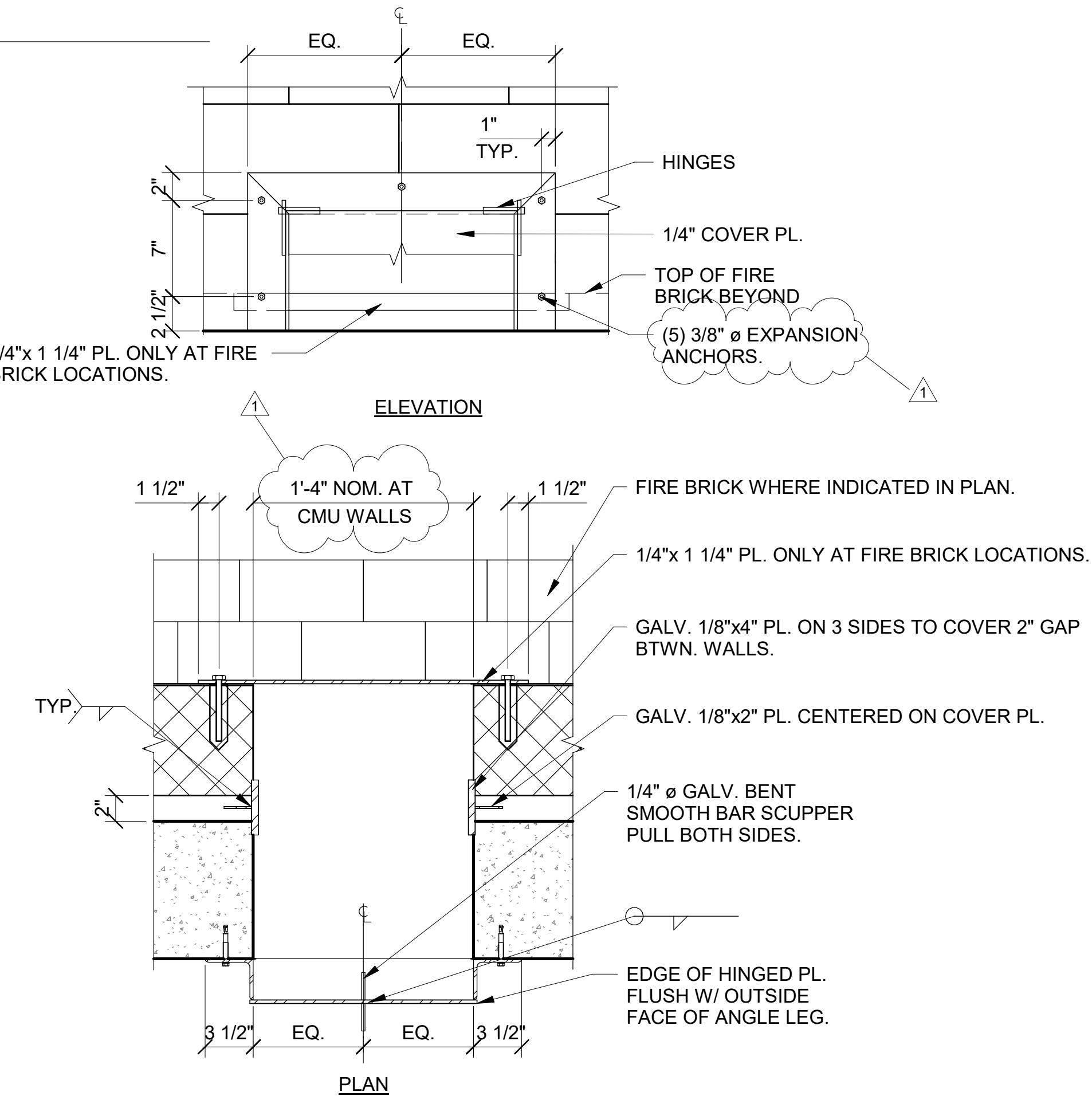
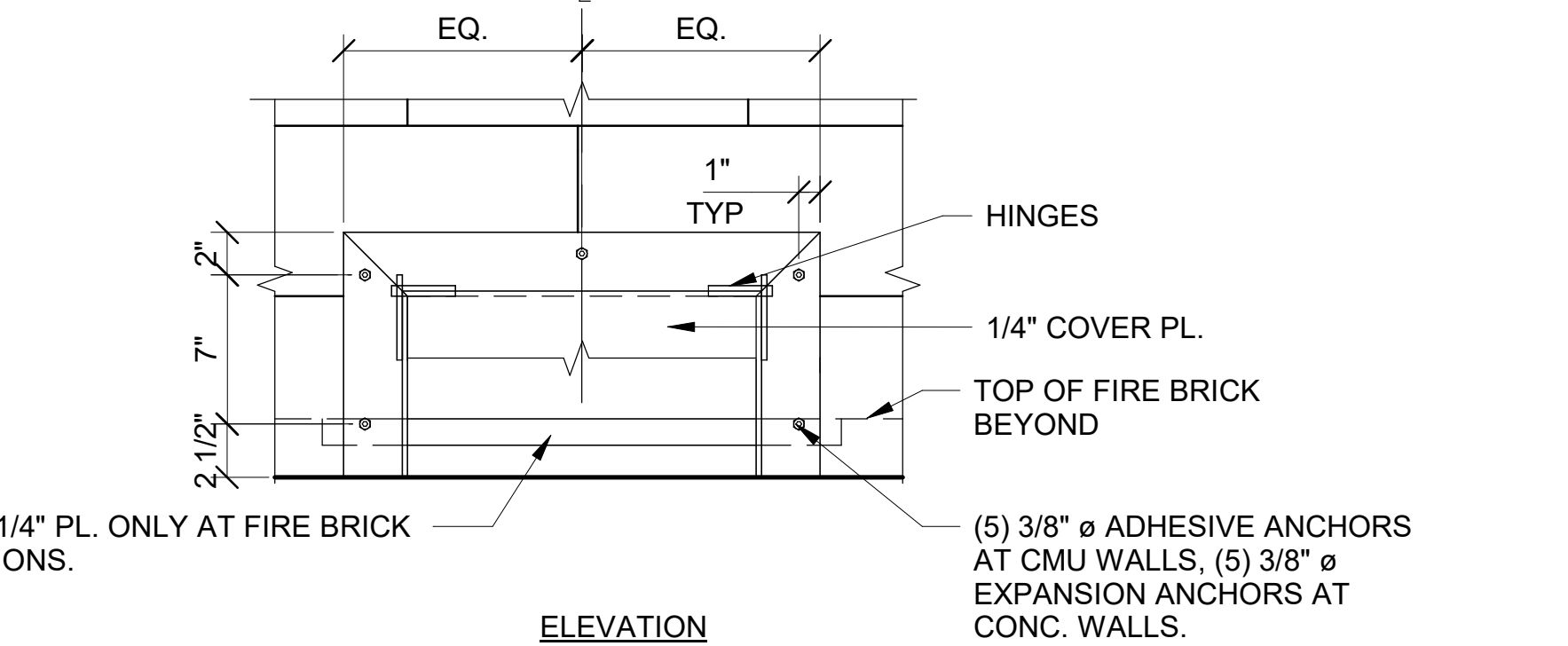
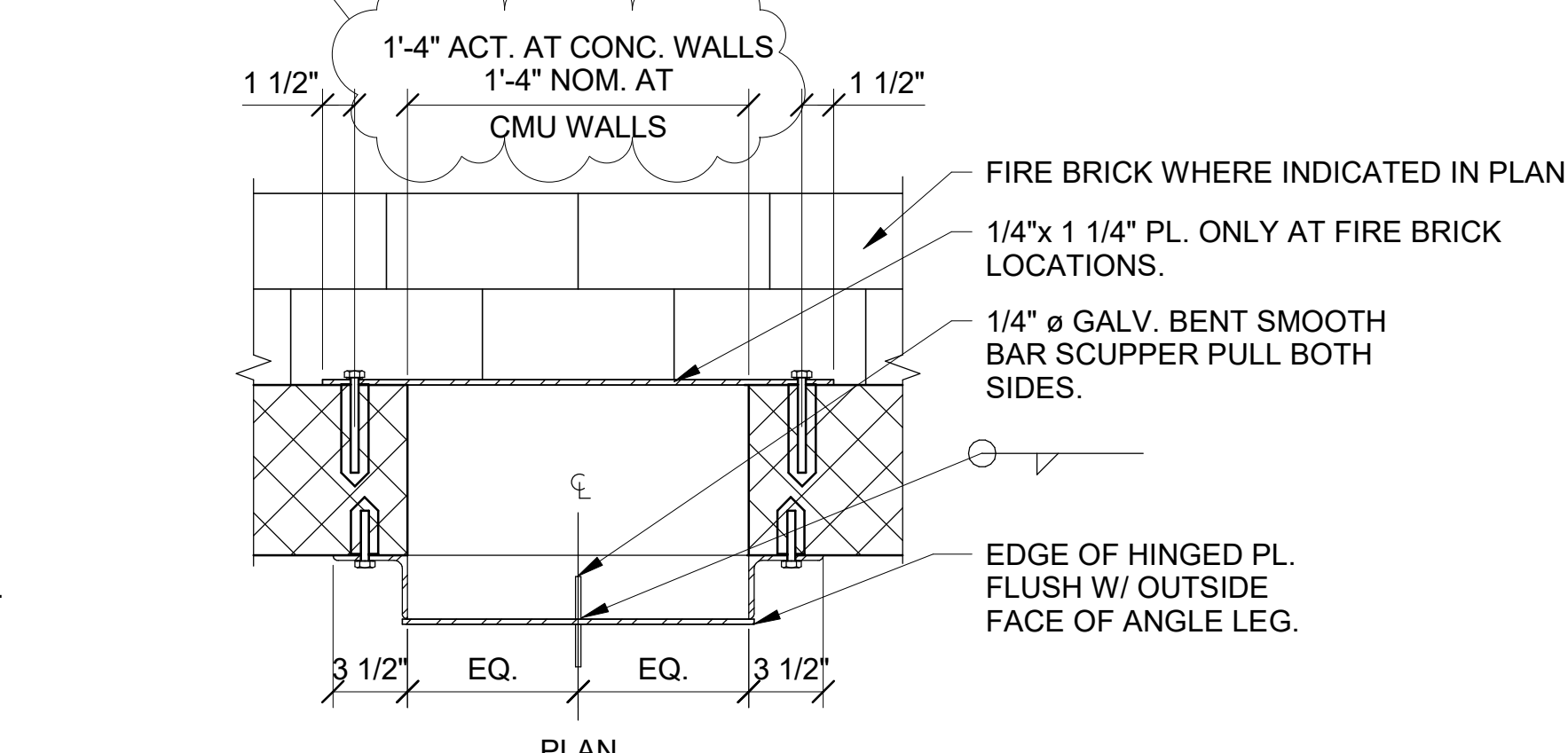
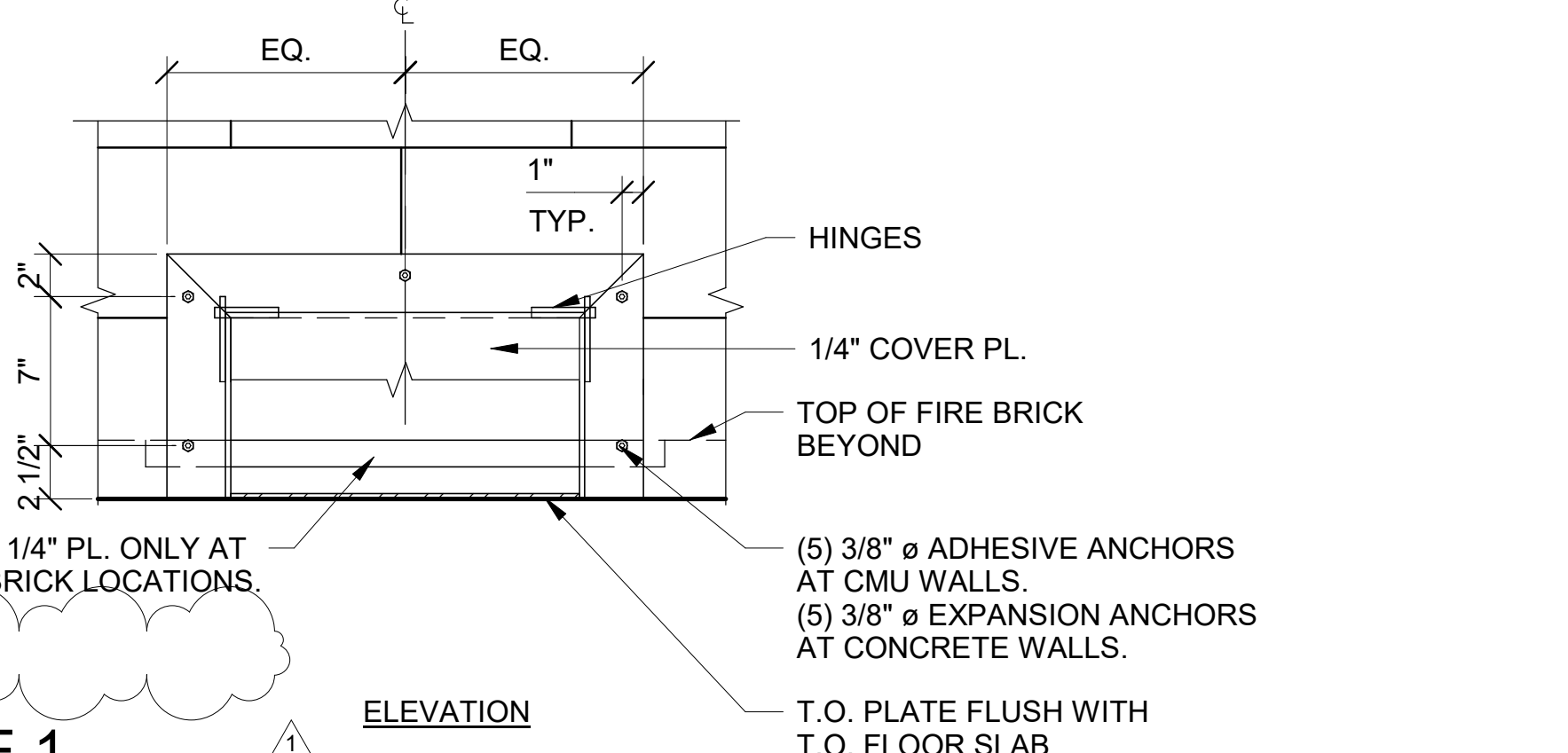
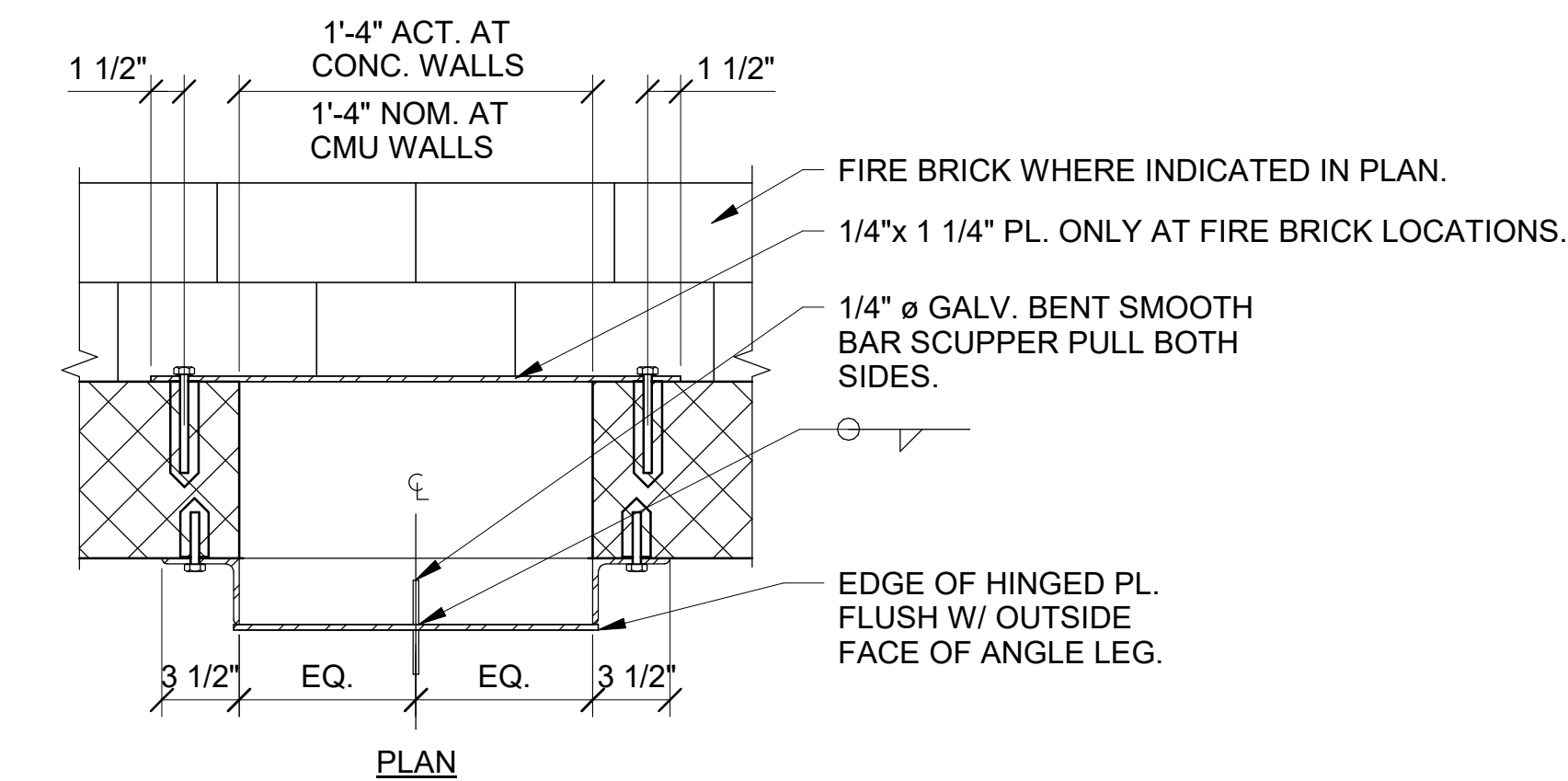
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DATE ISSUED
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PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
BURN BUILDING - TYPICAL SCUPPER DETAILS



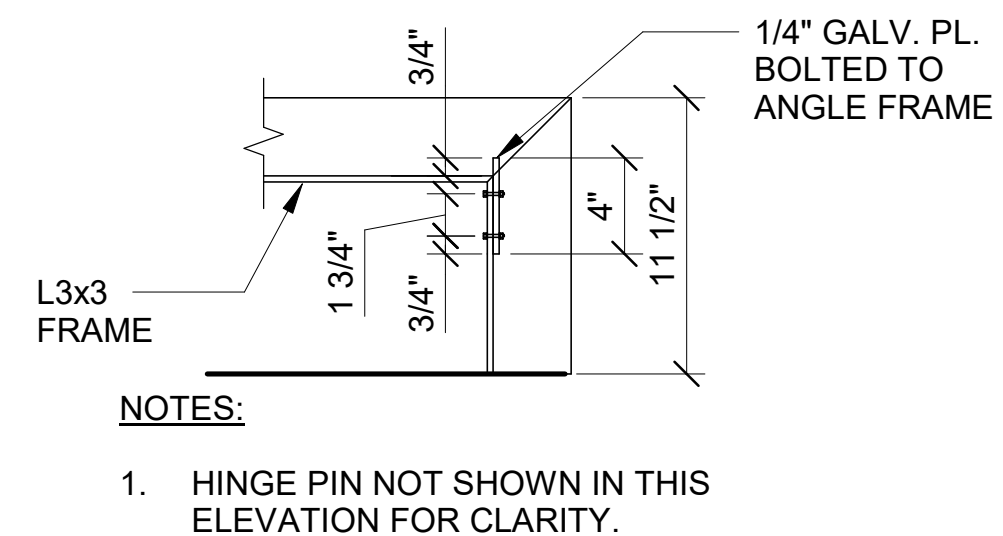
1
SCUPPER DETAILS - TYPE 1
BB201 BB603 SCALE 1 1/2" = 1'-0"



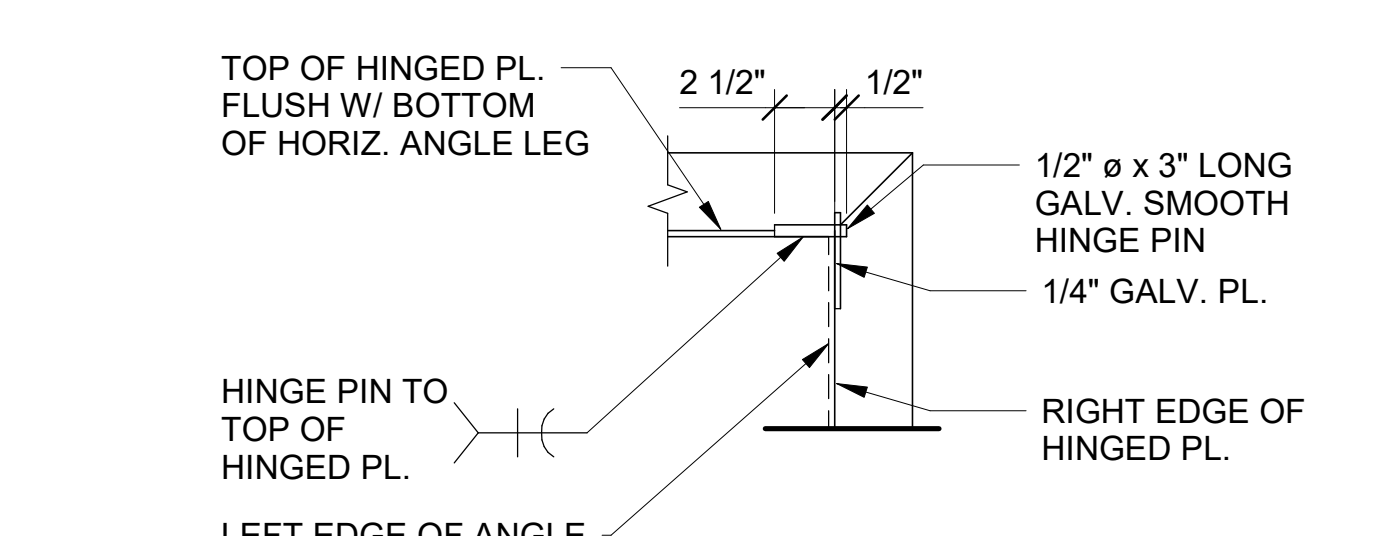
4
SCUPPER DETAILS - TYPE 2 (ELEVATED FLOORS)
BB202 - BB603 SCALE 1 1/2" = 1'-0"



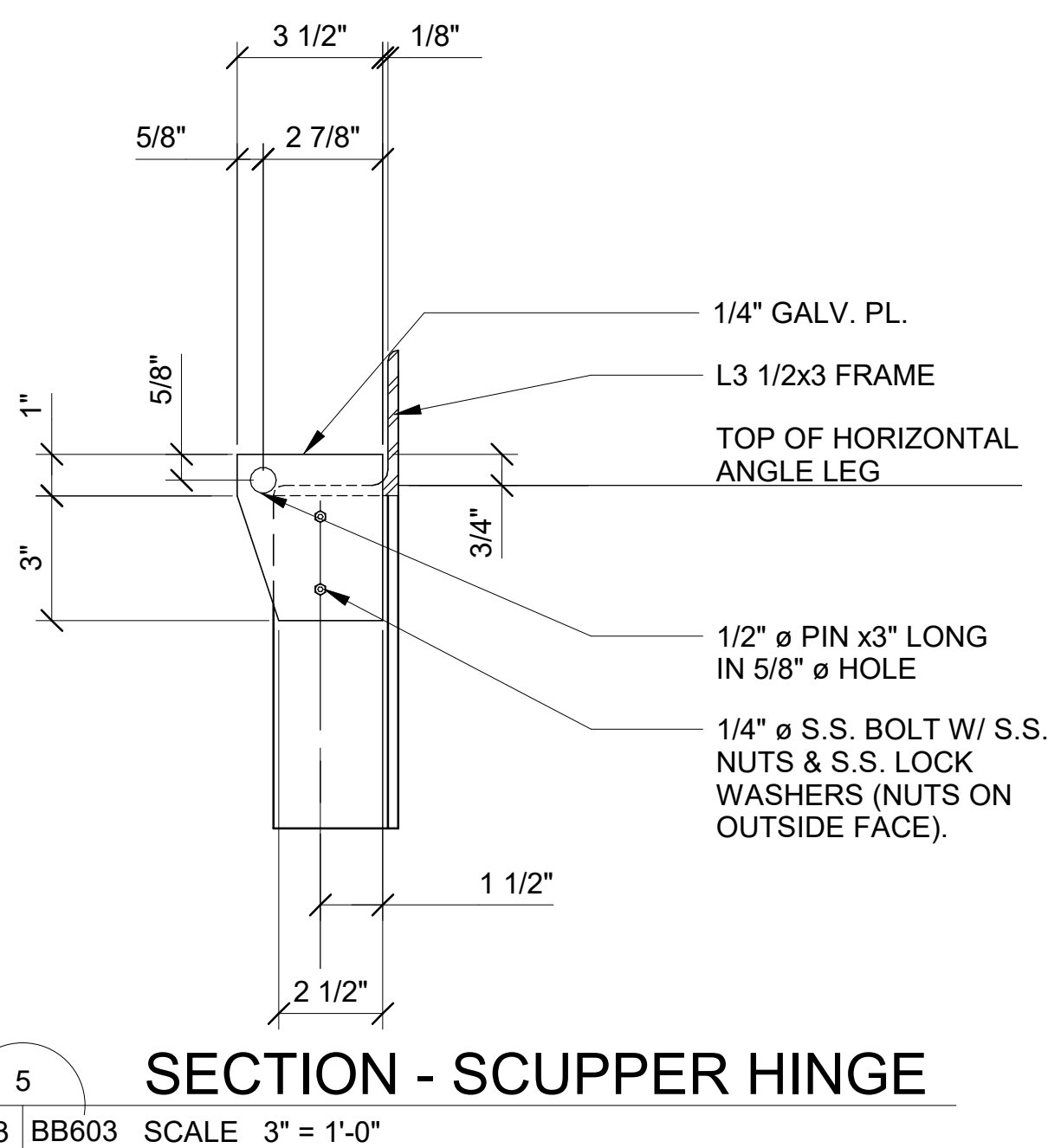
7
SCUPPER TYPE 3 - MASONRY & CONC. WALL
BB201 BB603 SCALE 1 1/2" = 1'-0"



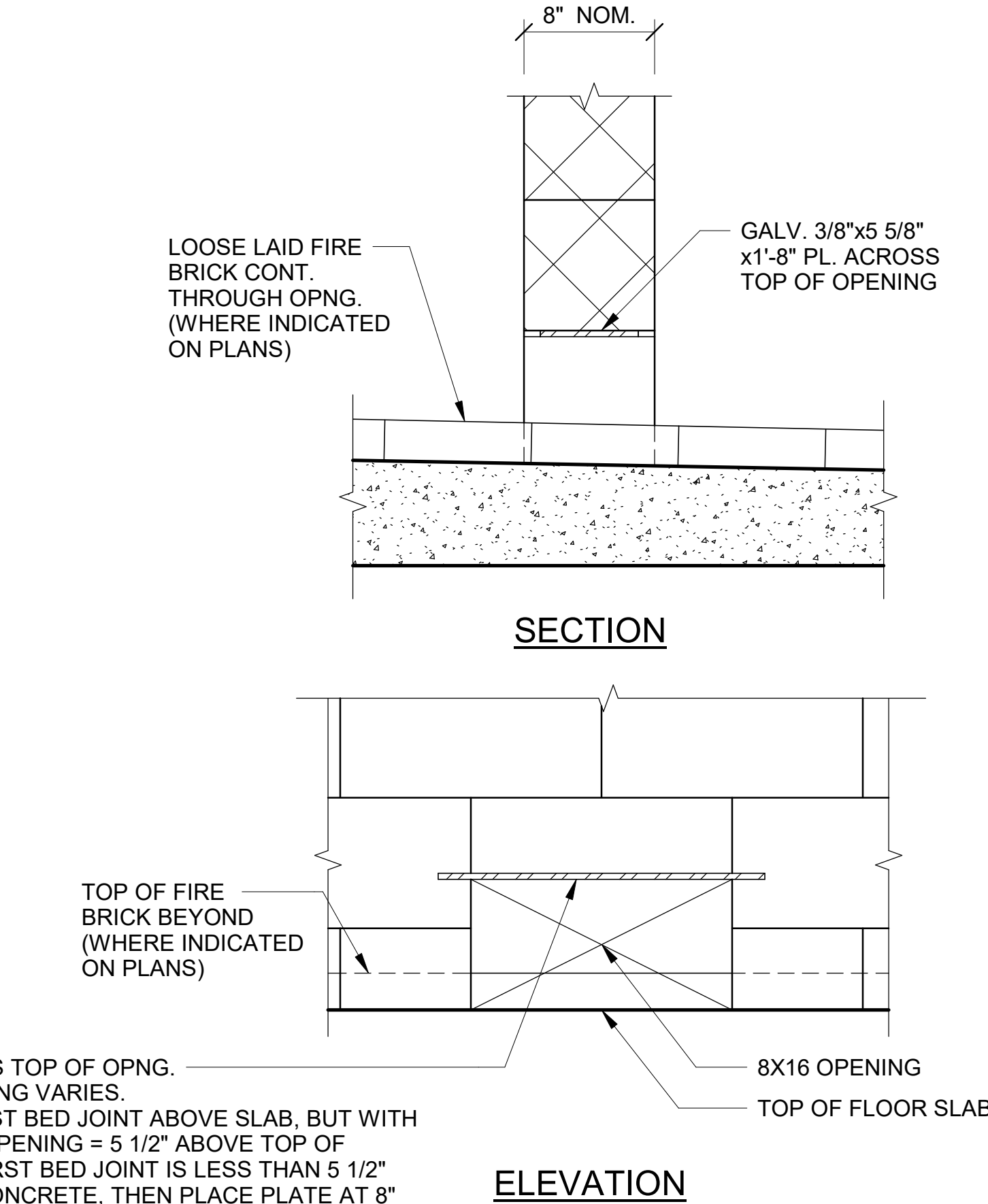
2
ELEVATION - SCUPPER HINGE PLATE
BB603 BB603 SCALE 1 1/2" = 1'-0"



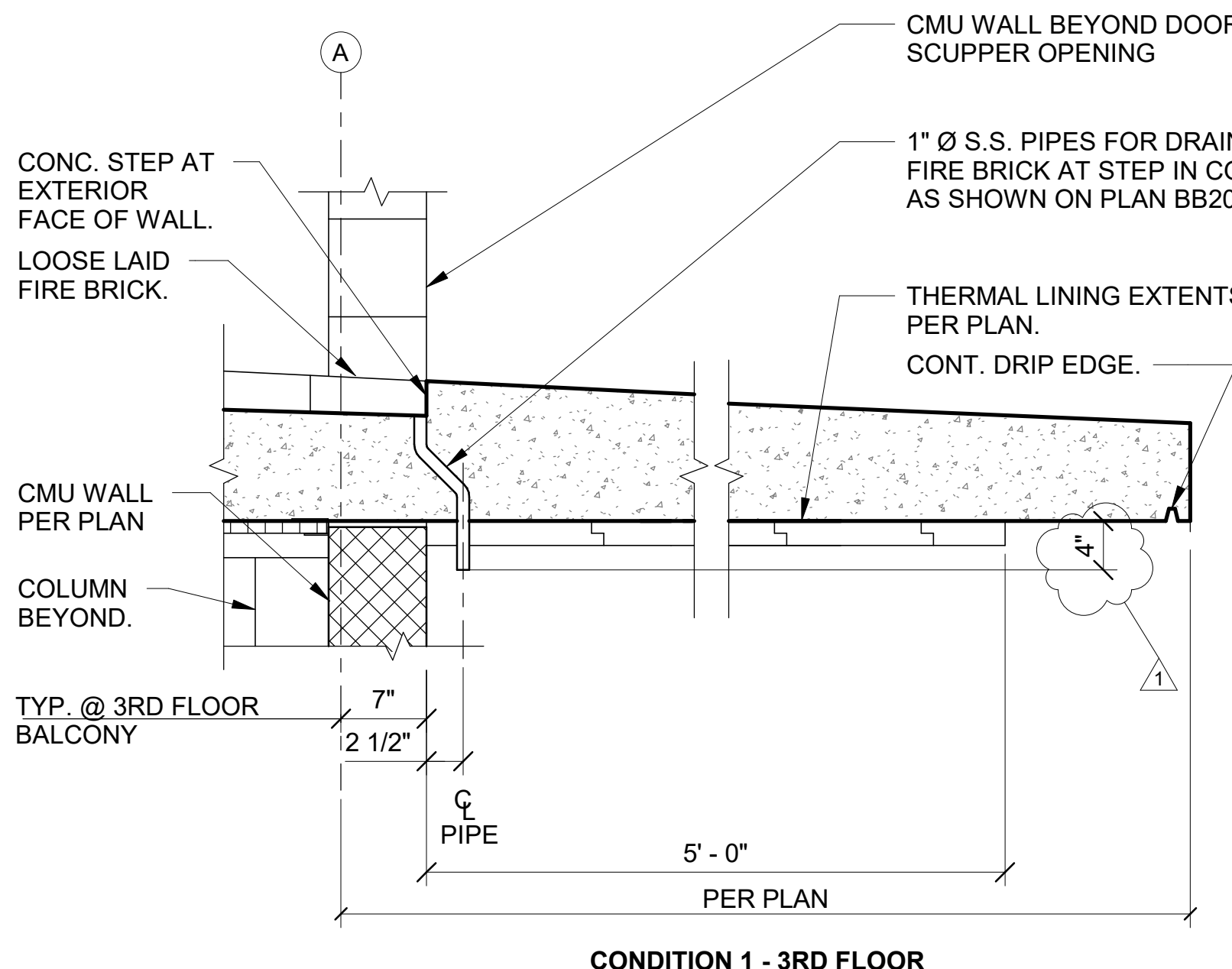
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ELEVATION - SCUPPER HINGE PIN
BB603 BB603 SCALE 1 1/2" = 1'-0"



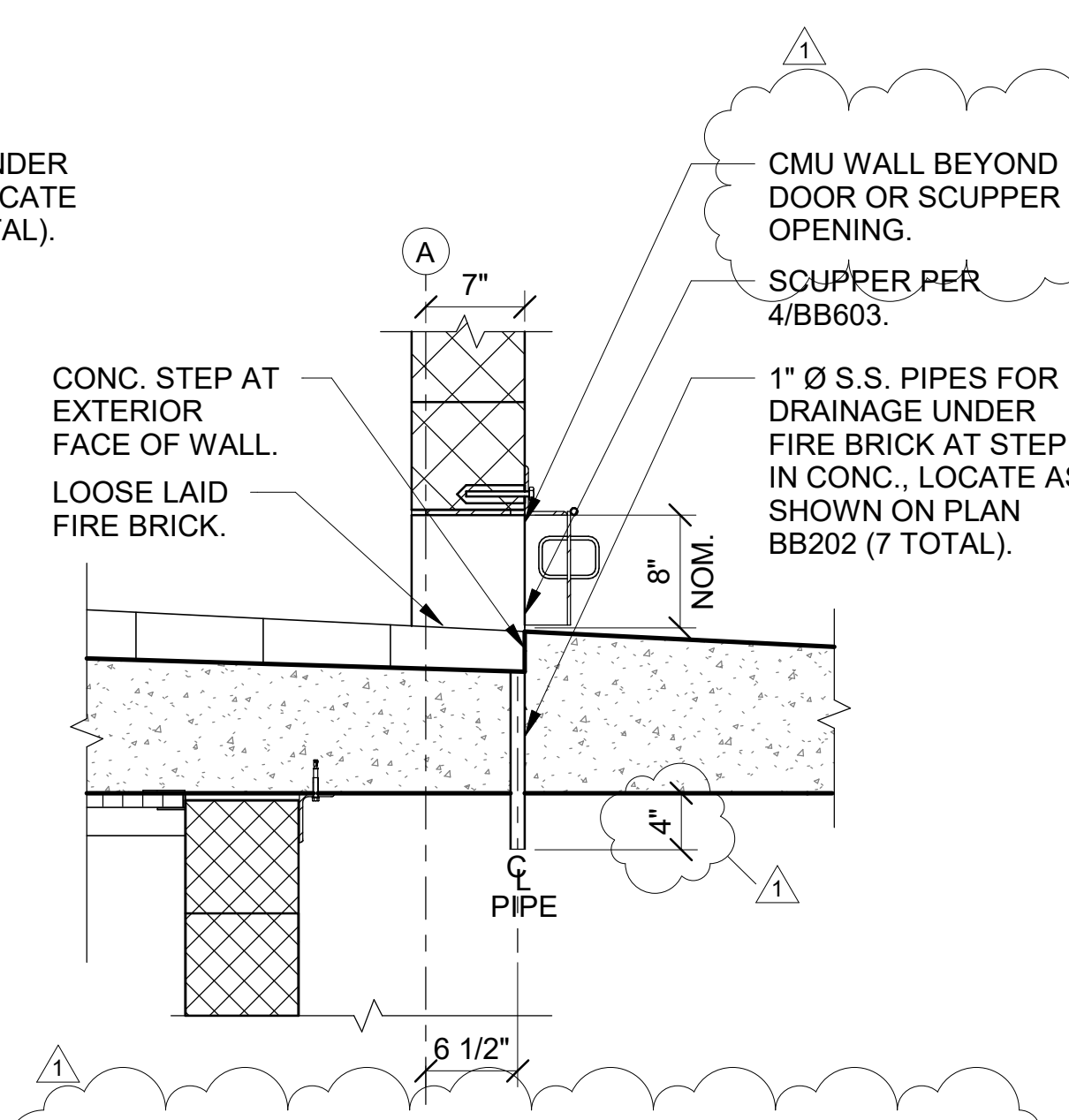
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SECTION - SCUPPER HINGE
BB603 BB603 SCALE 3" = 1'-0"



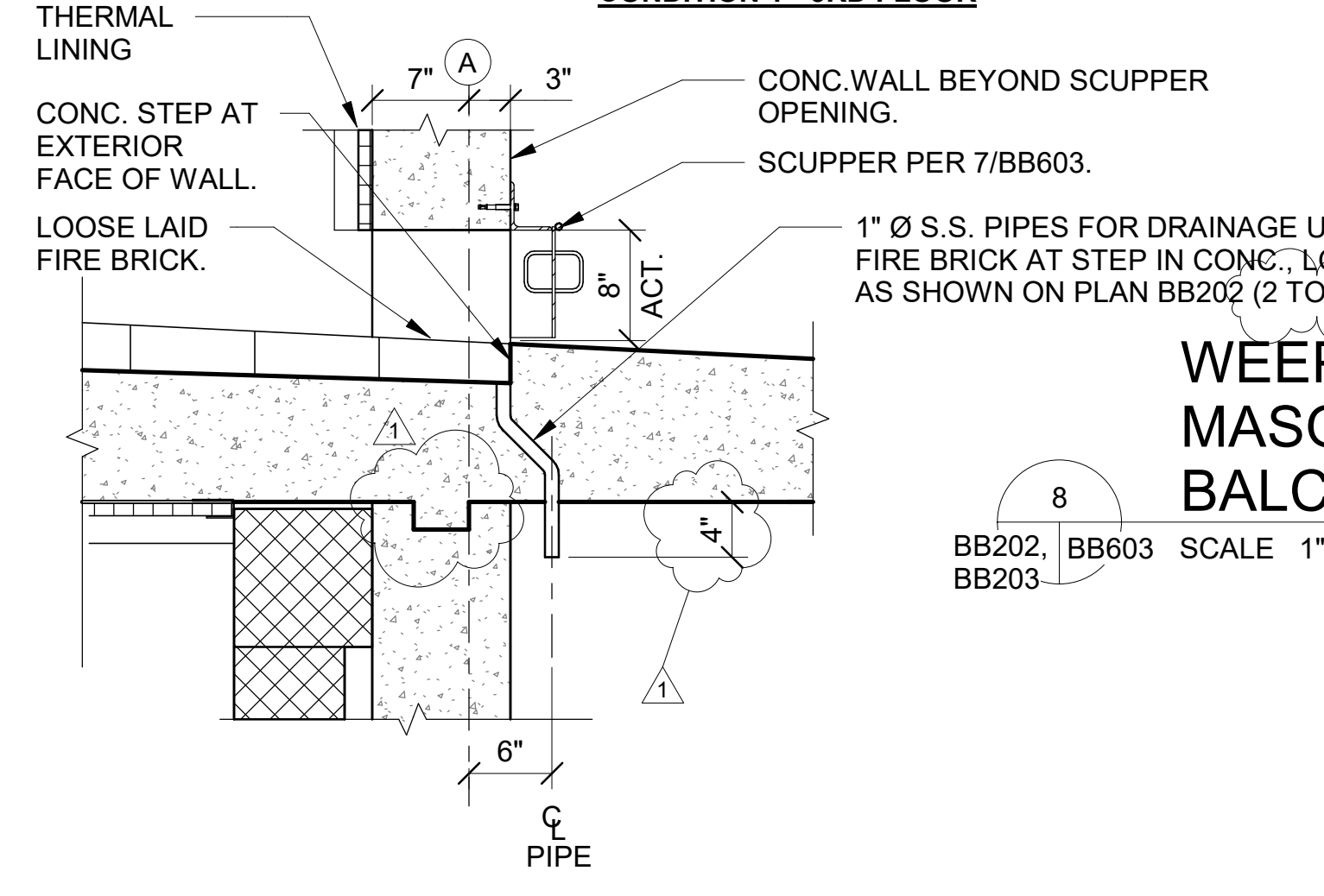
6
OPENING AT BASE OF INTERIOR & PARAPET WALLS
BB201 - BB603 SCALE 1 1/2" = 1'-0"



CONDITION 1 - 3RD FLOOR



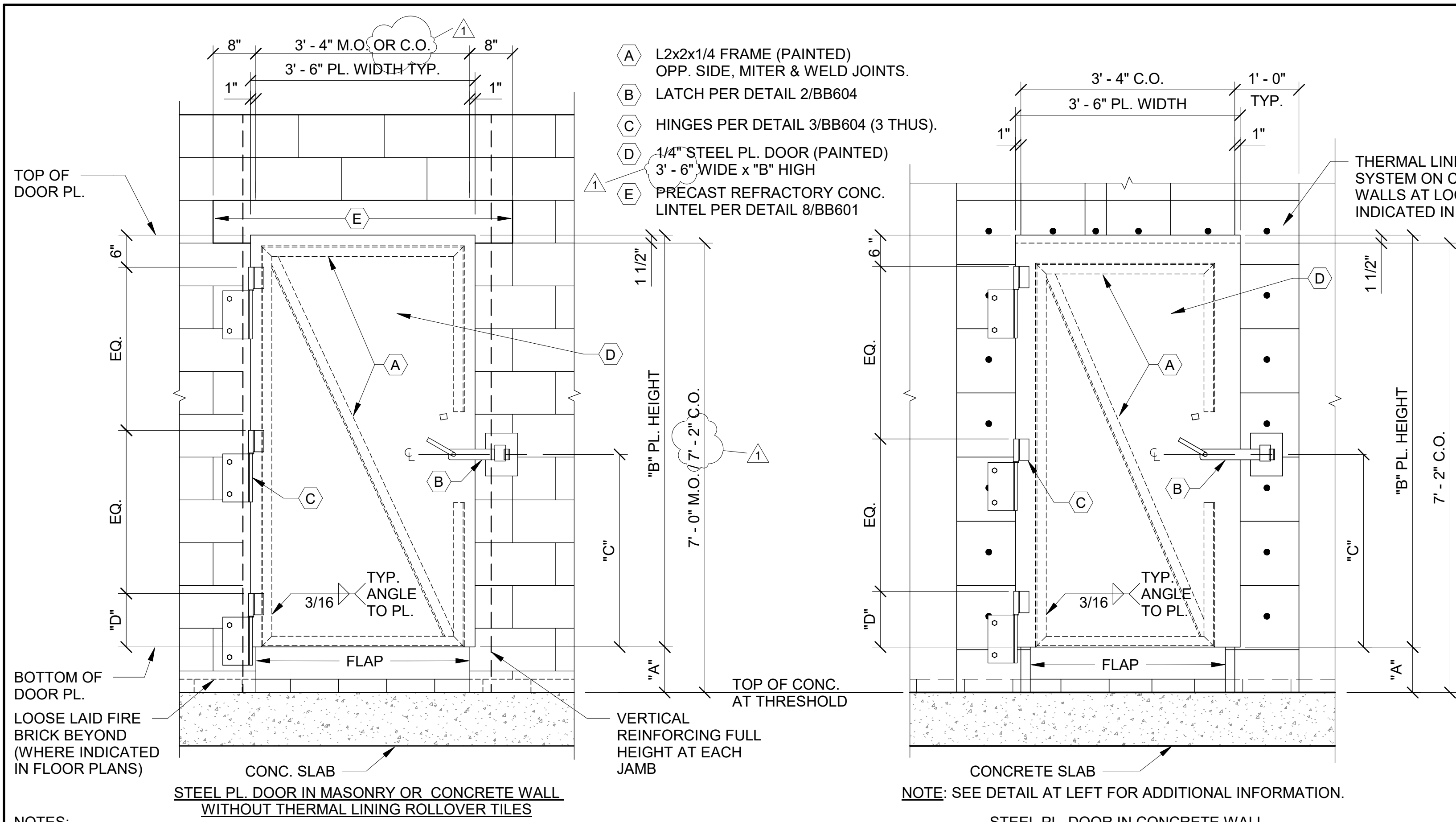
CONDITION 2 - 2ND FLOOR AT CMU WALL



CONDITION 3 - 2ND FLOOR AT CONC. WALL

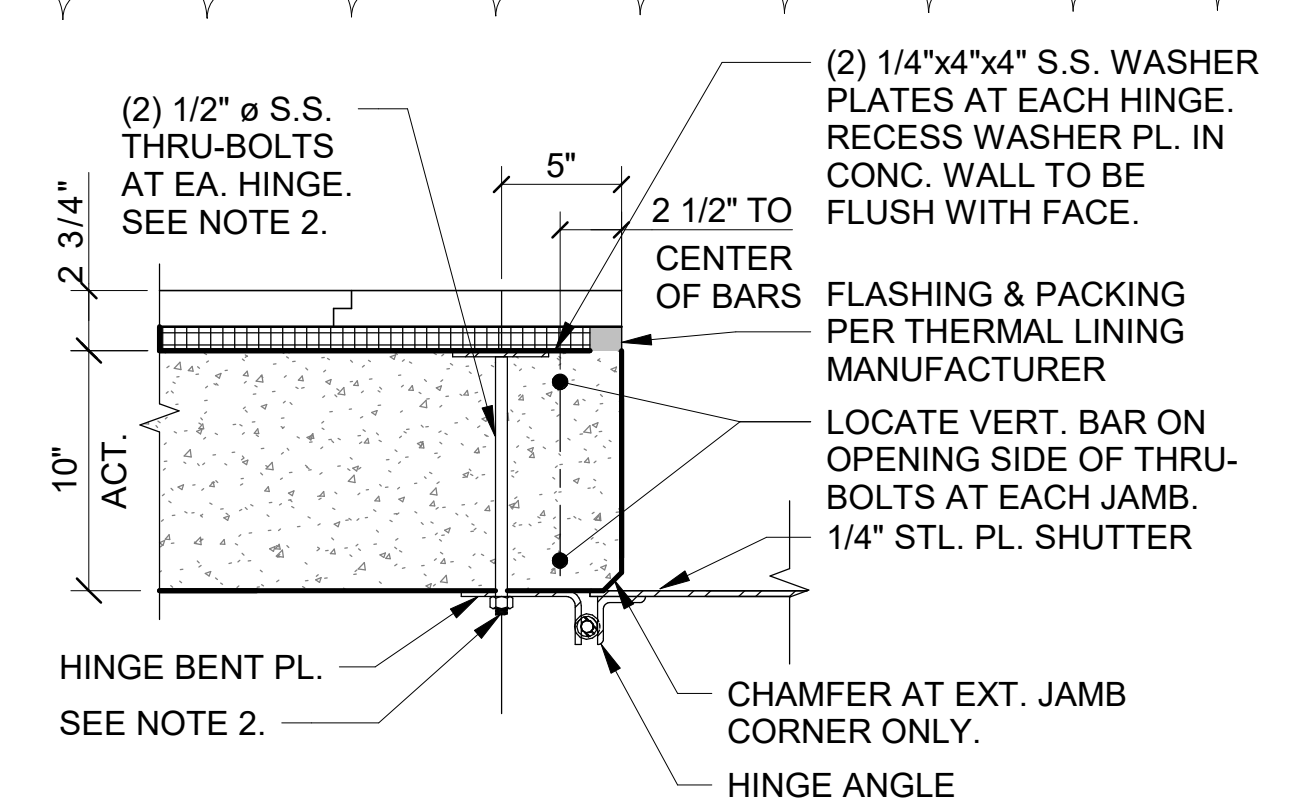
8
WEEP DETAIL AND SCUPPER TYPE 4 - MASONRY OR CONCRETE WALL AT BALCONY
BB202, BB603 SCALE 1" = 1'-0"

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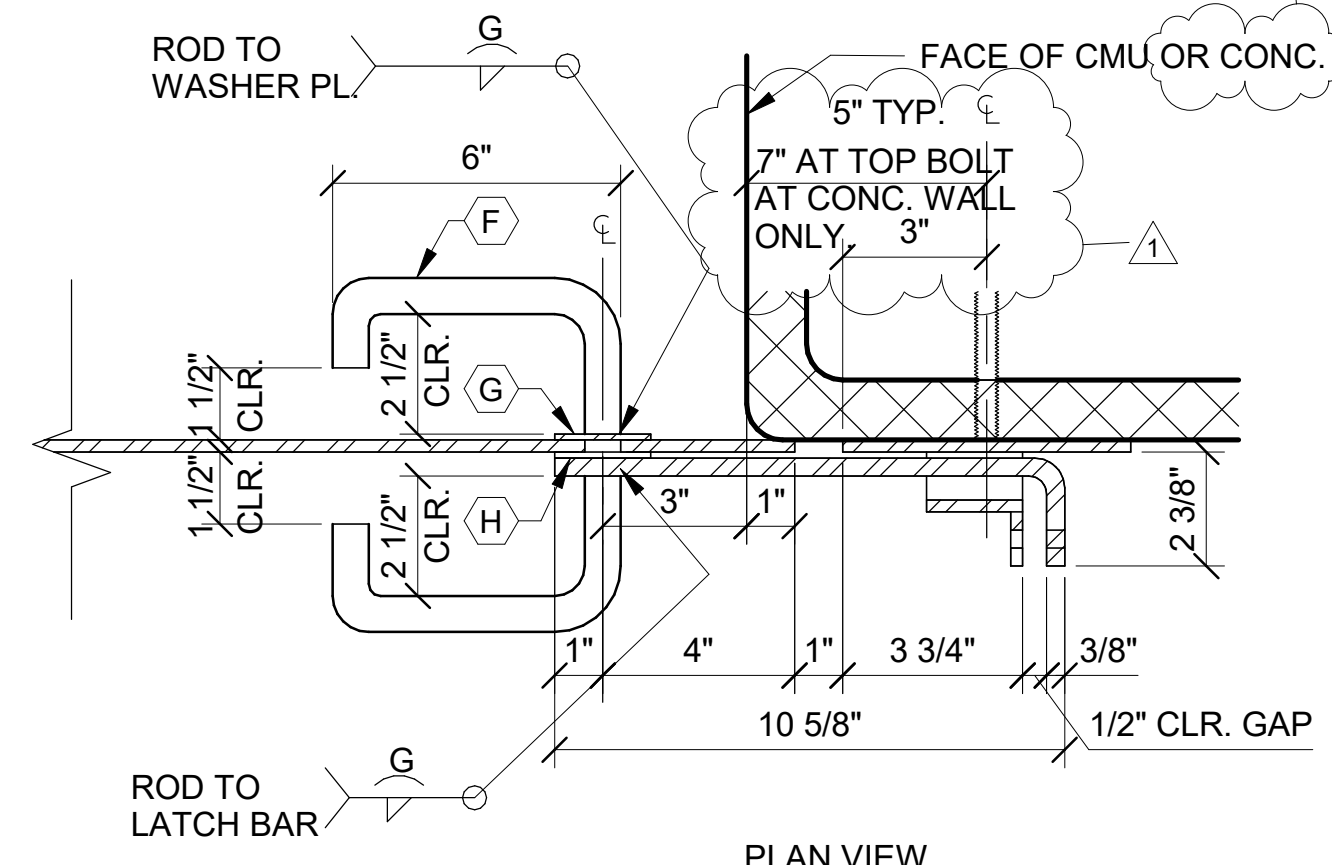
ELEVATION - STANDARD STEEL PLATE DOOR

BB604 BB604 SCALE 3/4" = 1'-0"



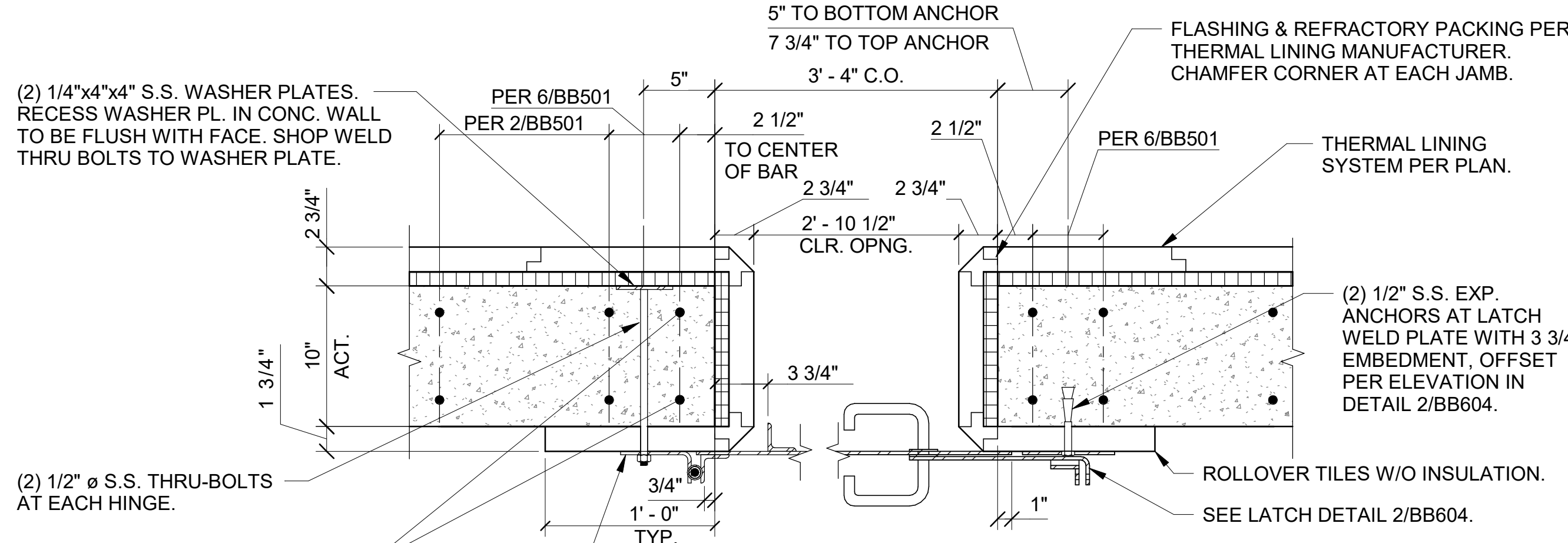
TYPICAL STEEL PL. DOOR & SHUTTER HINGE DETAILS

BB604- BB604 SCALE 3" = 1'-0"



STANDARD STEEL PLATE DOOR LATCH DETAILS

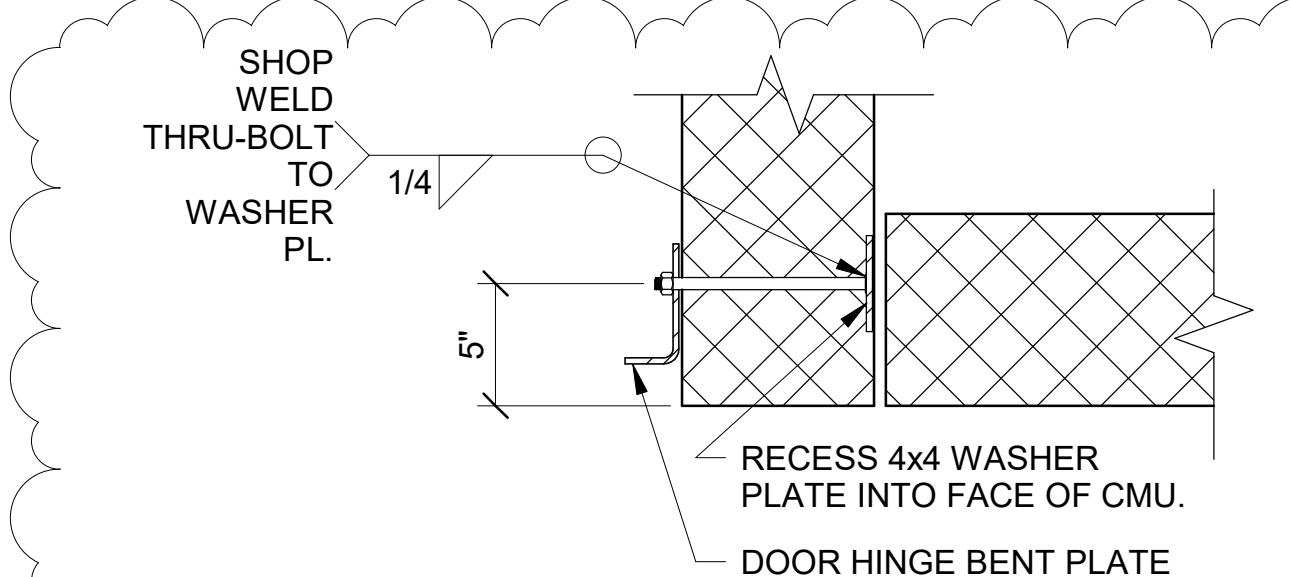
BB604 BB604 SCALE 3" = 1'-0"



STANDARD STEEL PLATE DOOR JAMB PLAN DETAILS

BB202-BB206 BB604 SCALE 1 1/2" = 1'-0"

DO NOT PAINT STAINLESS STEEL ITEMS.



STEEL PLATE DOOR SILL DETAIL

BB604, BB604 SCALE 1 1/2" = 1'-0"



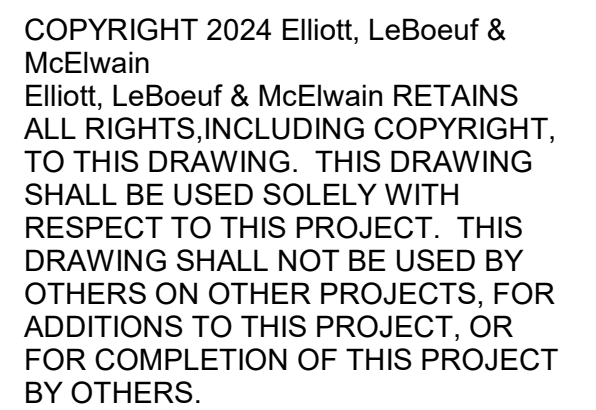
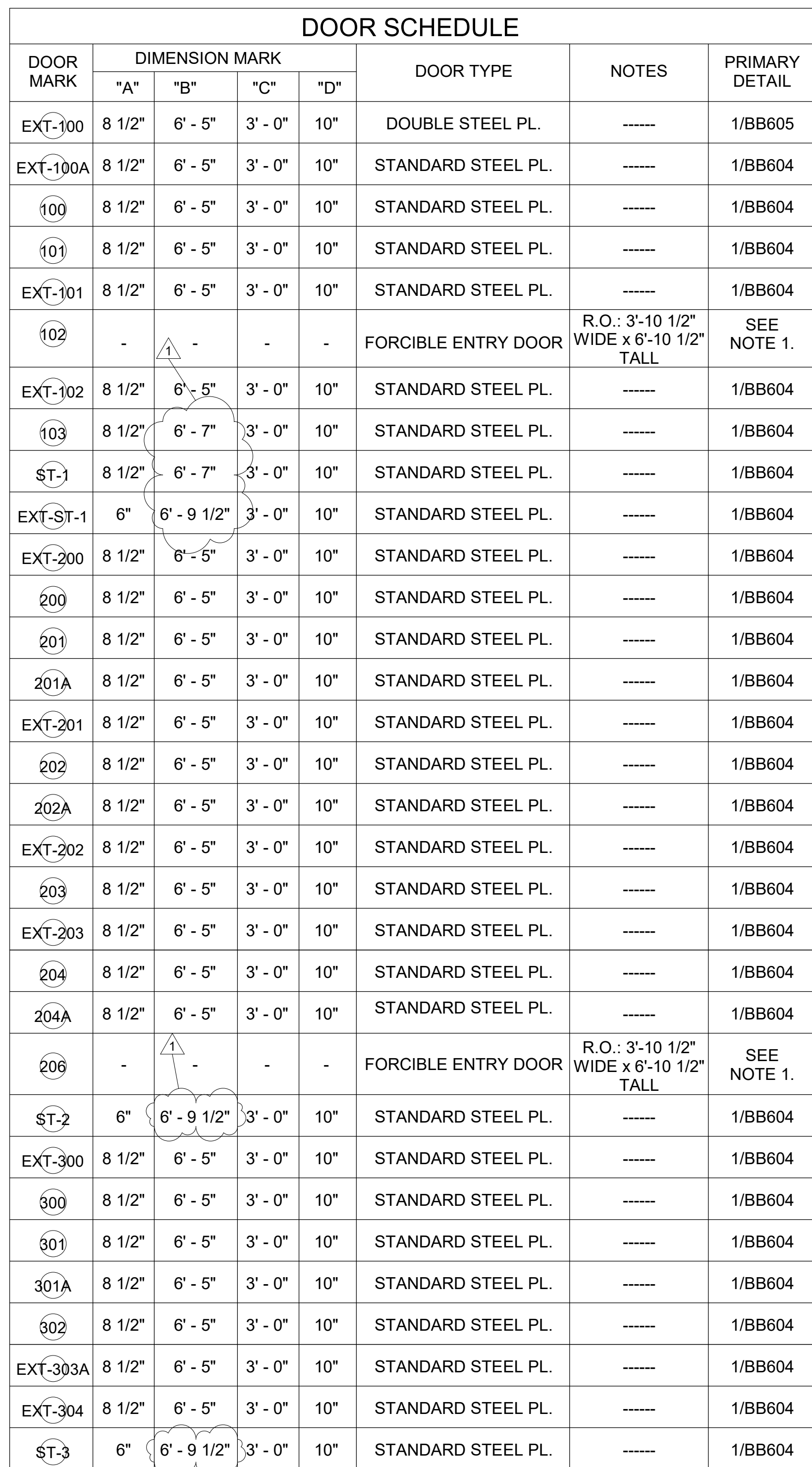
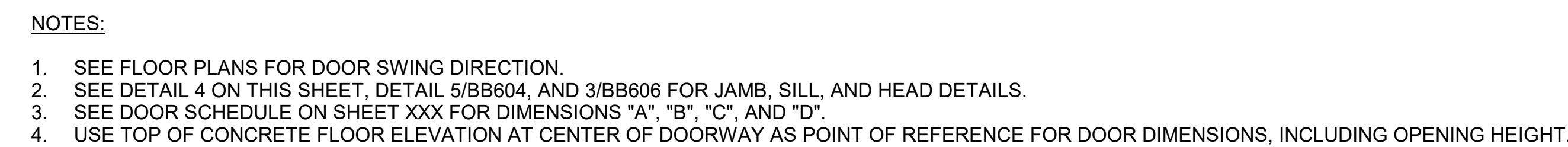
DOOR HINGE DETAIL

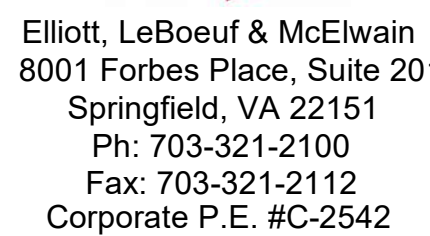
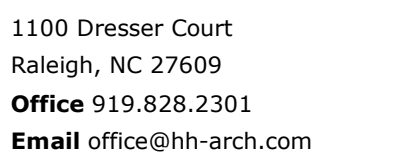
BB202- BB604 SCALE 1 1/2" = 1'-0"

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BURN BUILDING - TYPICAL STEEL PLATE DOOR DETAILS





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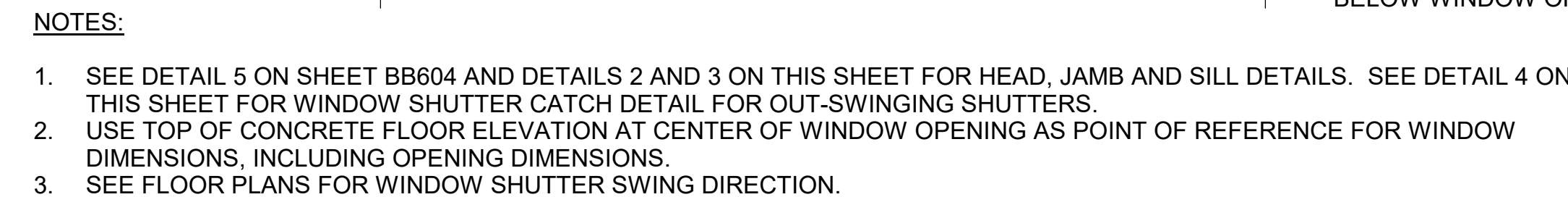
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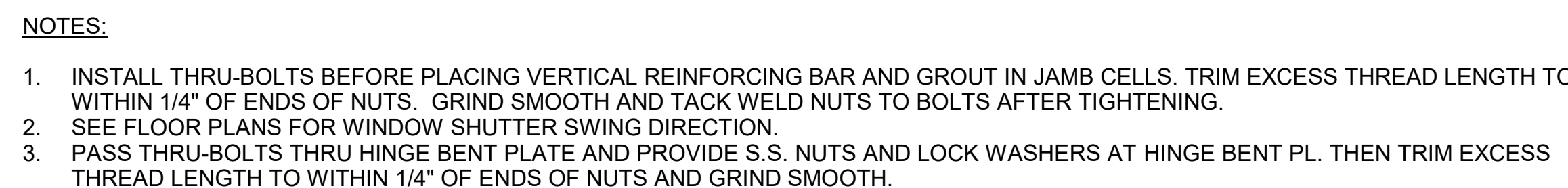
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BURN BUILDING - TYPICAL STEEL PLATE SHUTTER DETAILS

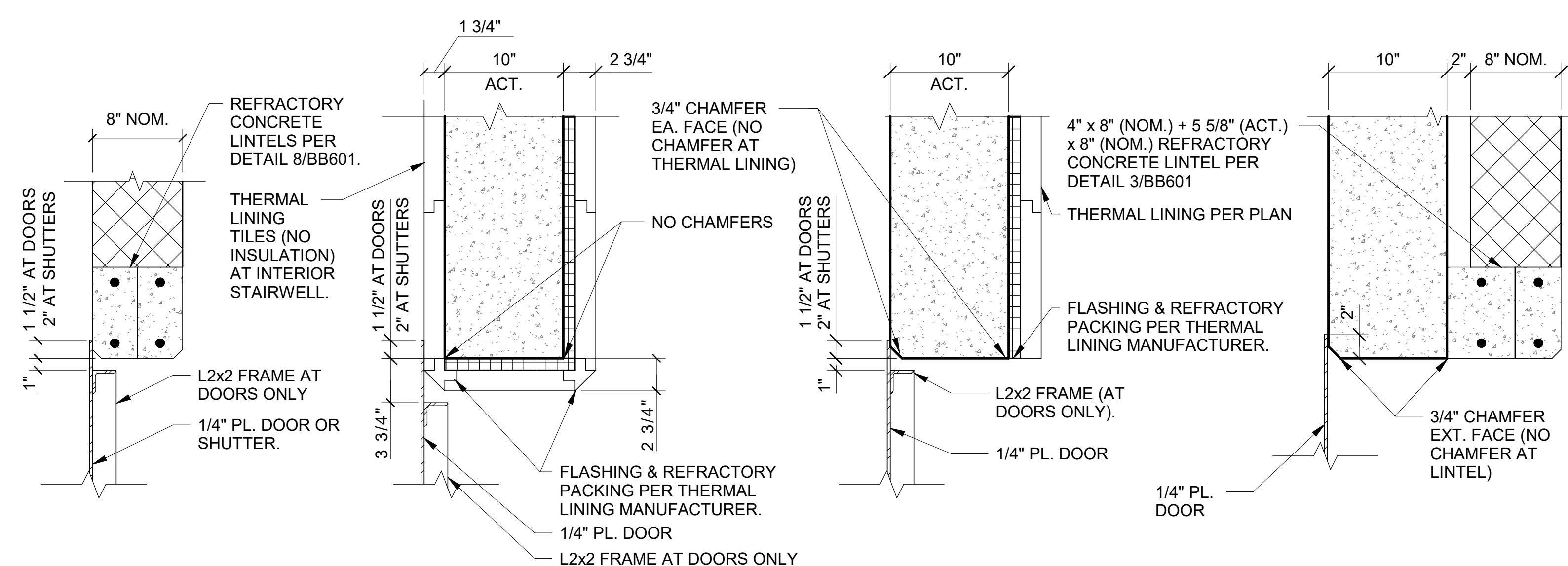
BB606



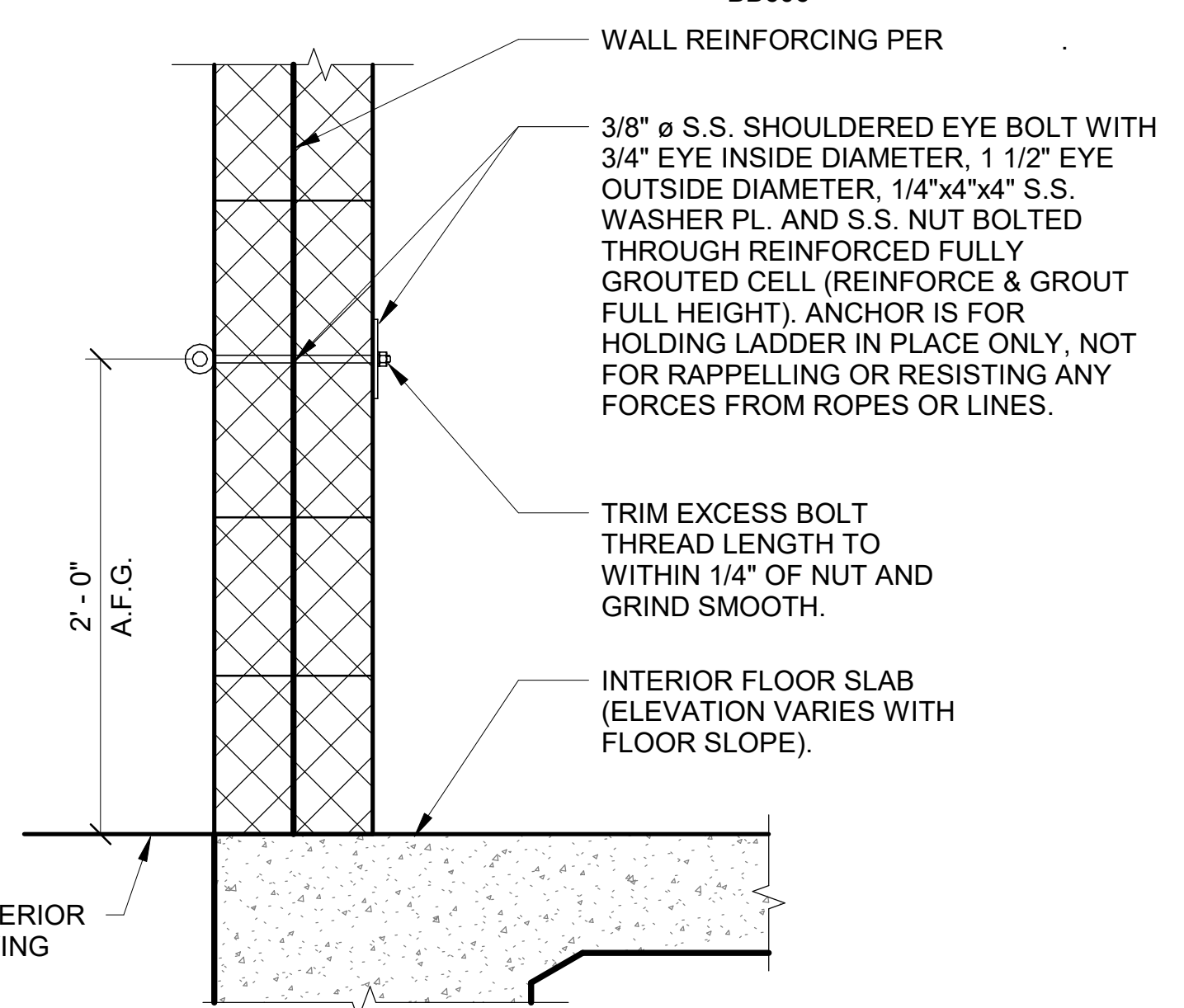
1 FOR SHU
BB606 BB606 SCALE 3/4" = 1'-0"



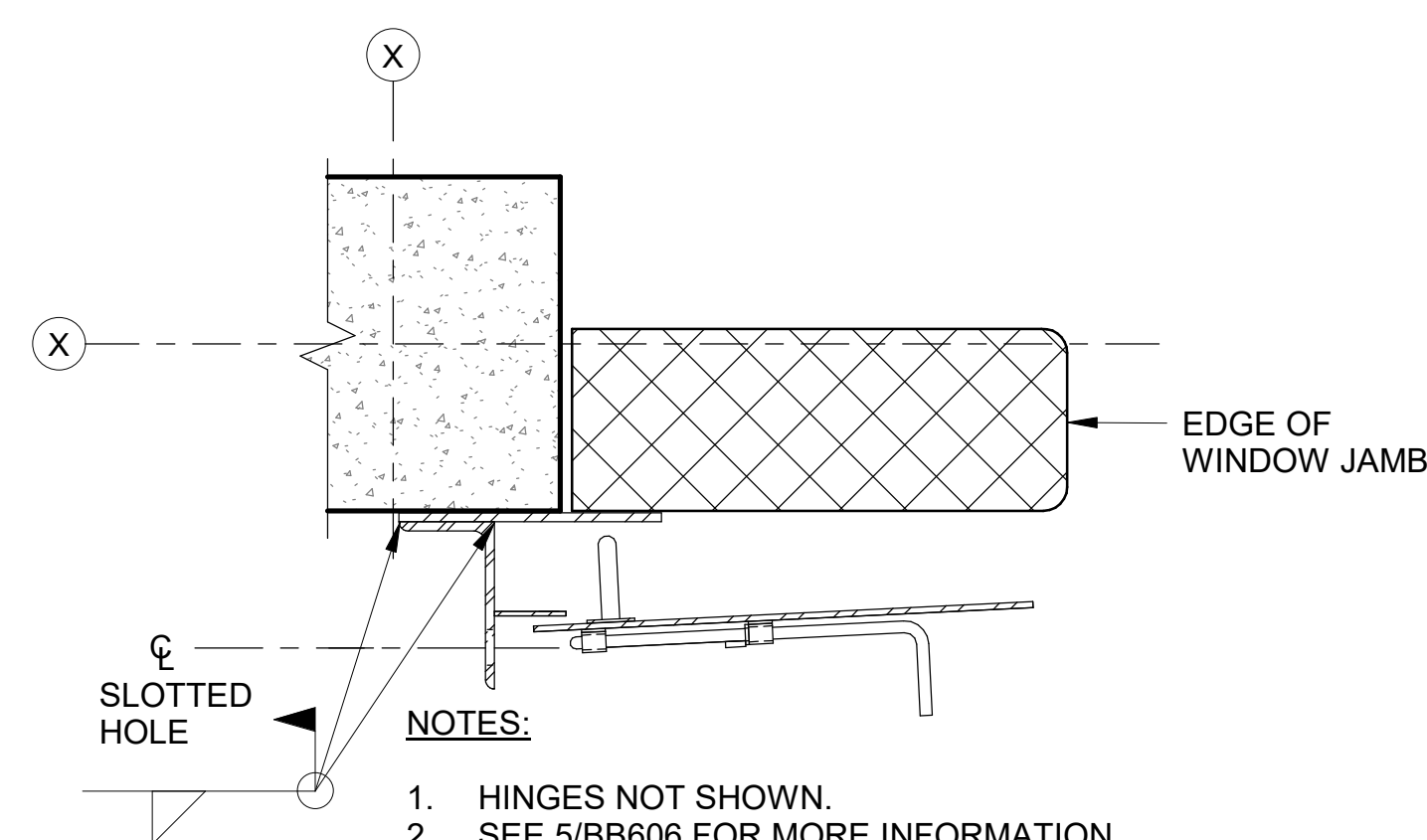
BB606 BB606 SCALE 1 1/2" = 1'-0"



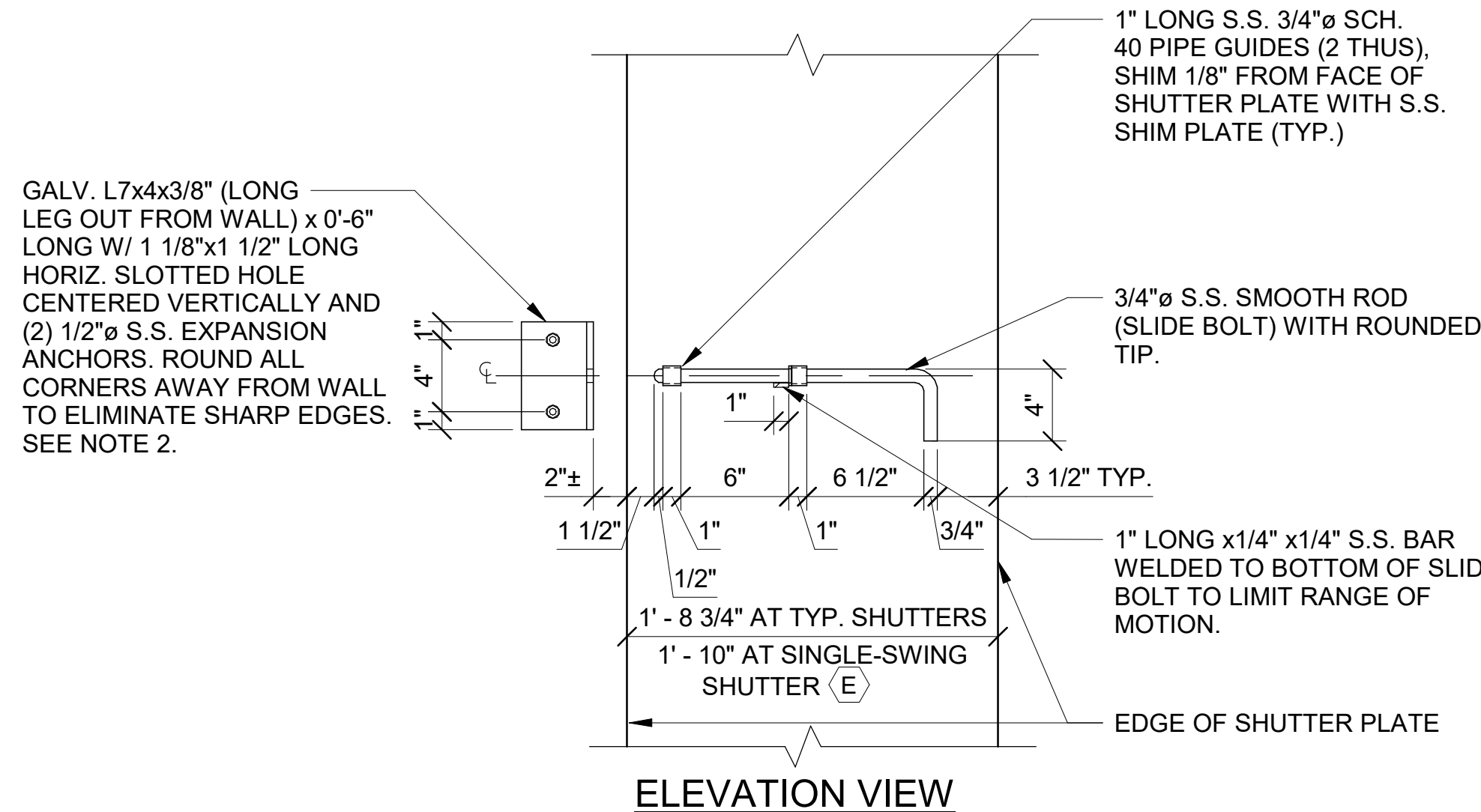
BB604 - BB606 SCALE 1 1/2" = 1'-0"



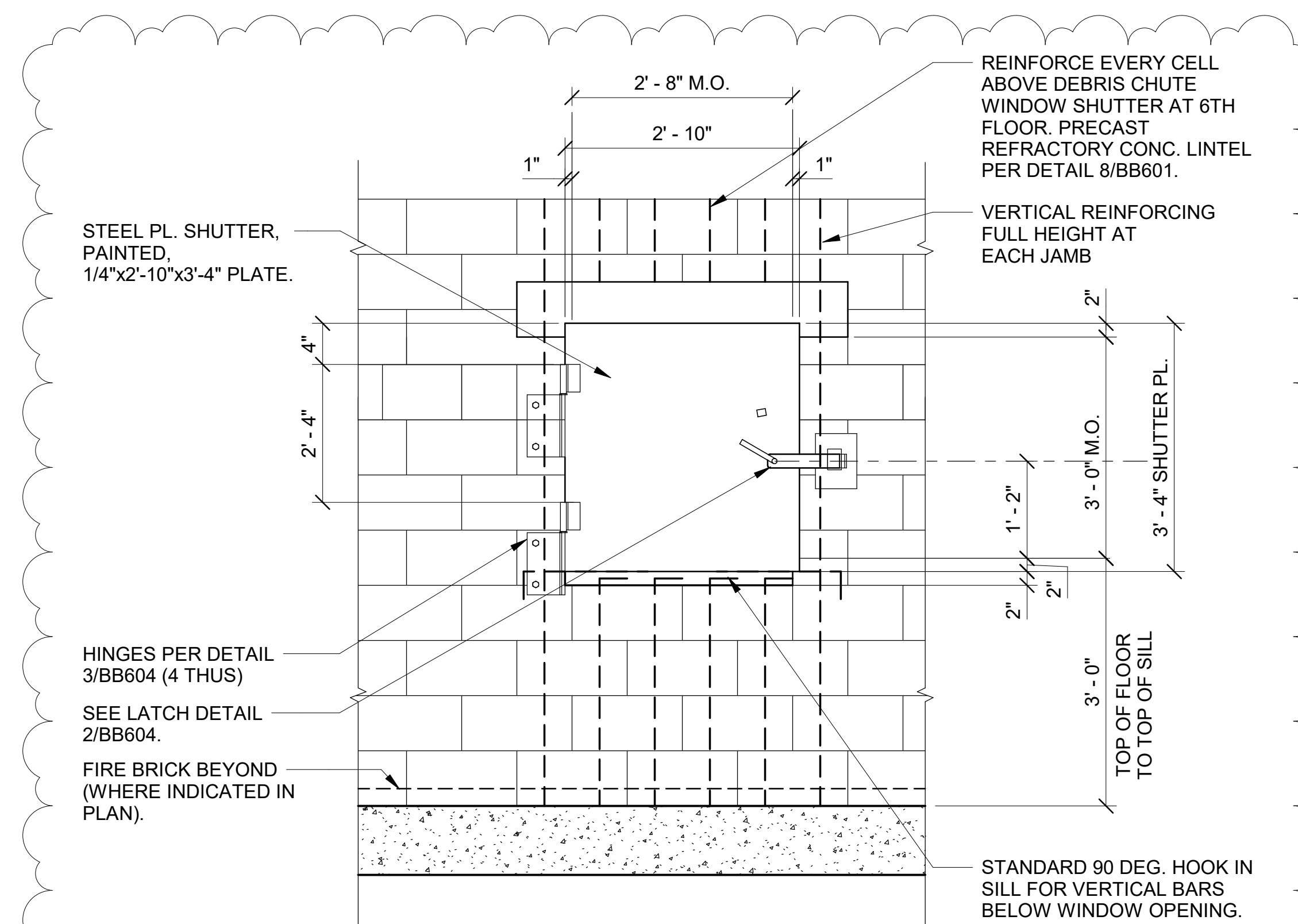
BB301 BB606 SCALE 1 1/2" = 1'-0"



WINDOW SHUTTER CATCH ASSEMBLY
DETAIL - ANGLE ON JOINT COVER PL.



BB606 BB606 SCALE 1 1/2" = 1'-0"



BB202- BB606 SCALE 3/4" = 1'-0"
BB206,
BB609

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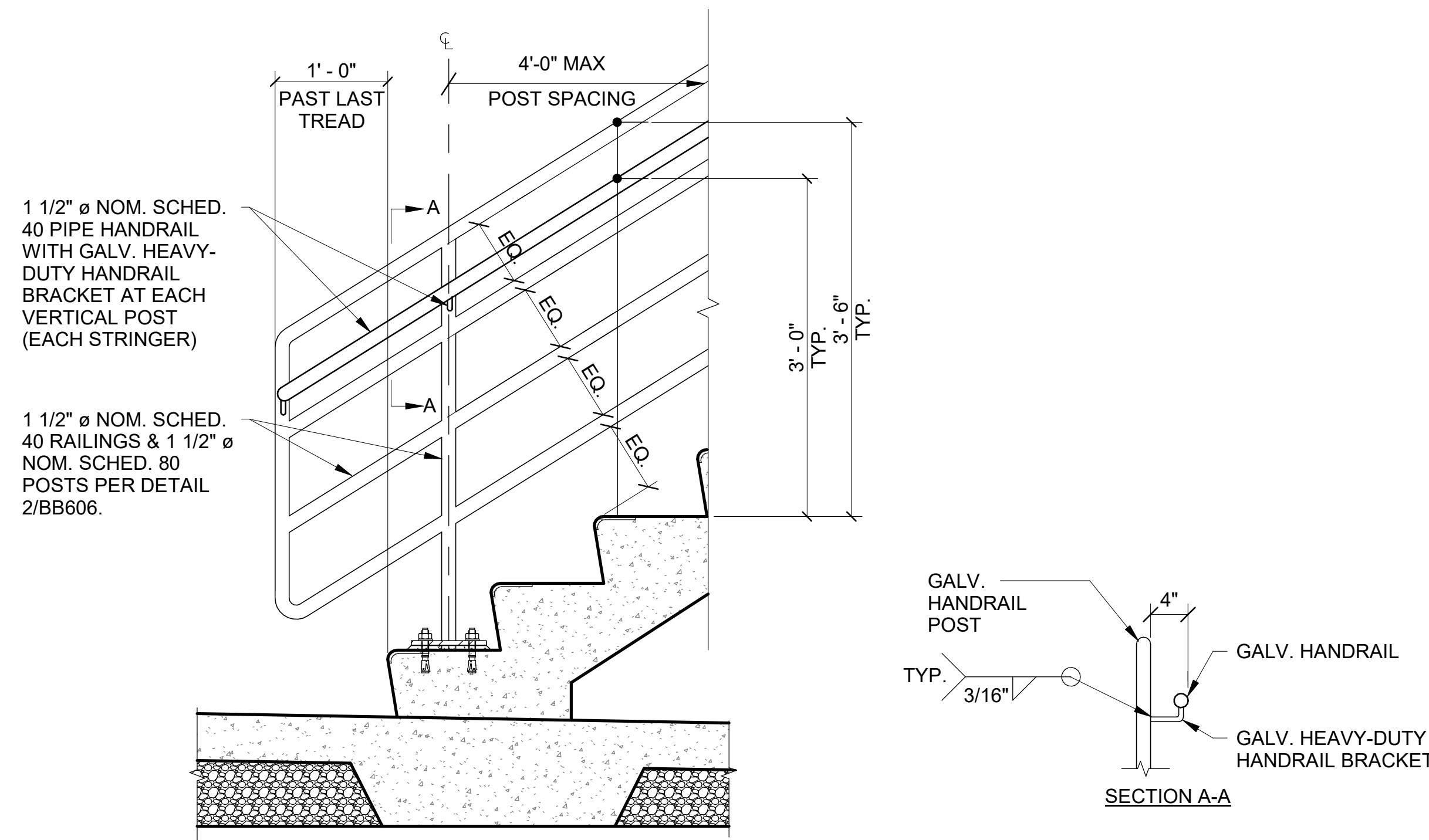
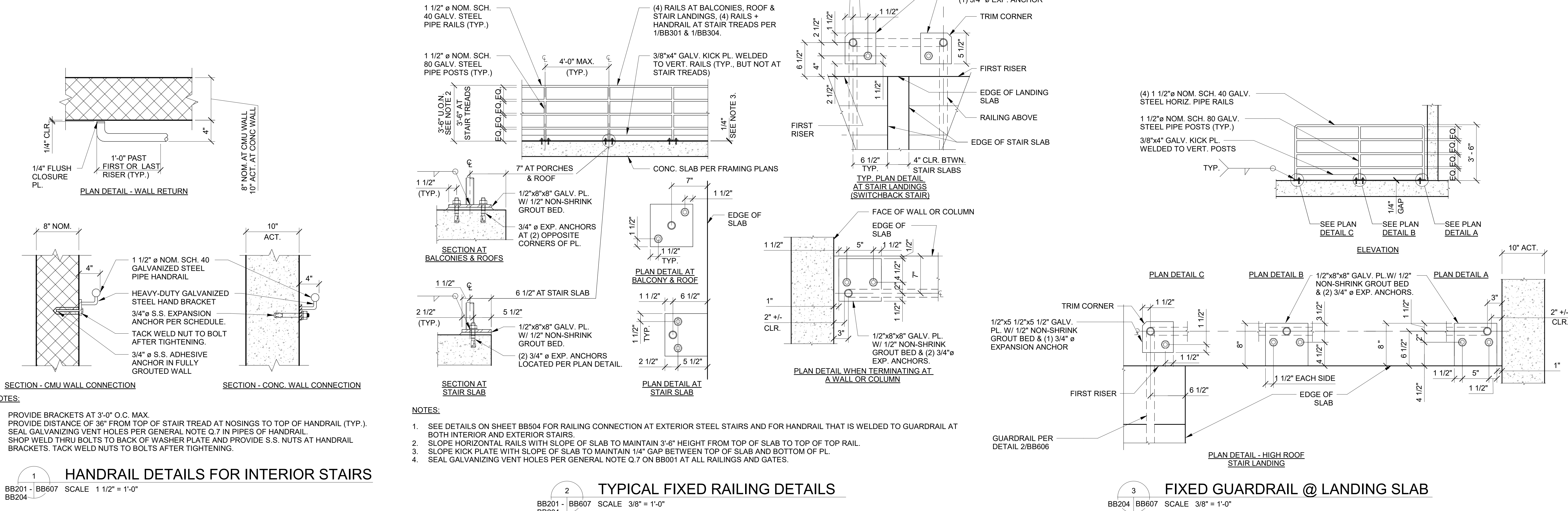
JOB NUMBER
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DATE ISSUED
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**BURN BUILDING -
 RAILING DETAILS**

BB607

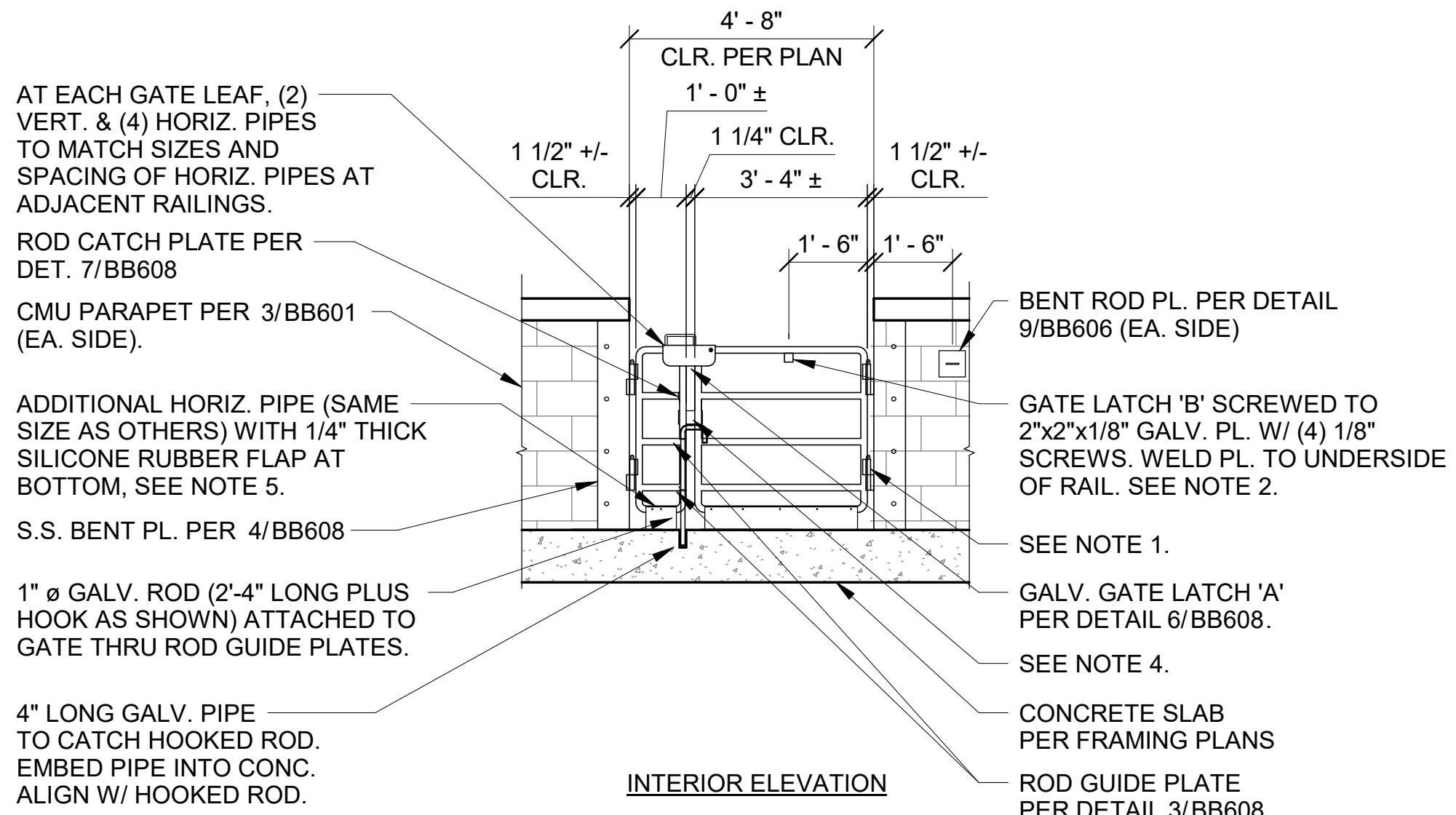


GUARDRAIL + HANDRAIL AT CONCRETE STAIR SECTION

BB606 BB607 SCALE 1" = 1'-0"

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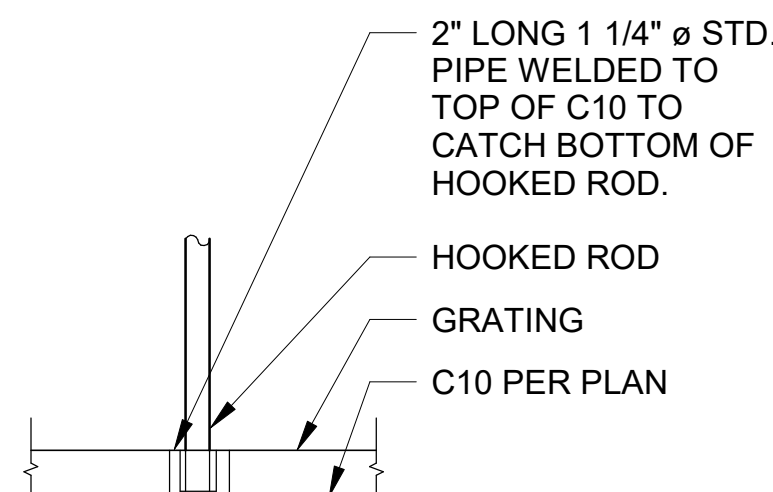


SINGLE-SWINGING GATE GUARDRAIL AT CMU PARAPET DETAILS

BB207 BB608 SCALE 3/8" = 1'-0"

NOTES:

1. PROVIDE (4) HINGES PER DETAIL 4/BB608.
2. PROVIDE A GATE LATCH, STRAIGHT ARM FROM HARDWARESOURCE.COM, SKU# 504670 OR AN APPROVED EQUIVALENT.
3. SEE PLANS FOR SWING DIRECTIONS OF GATES.
4. 3/16"x4" HIGH GALV. PL. WELDED TO FAR SIDE OF GATE THAT HAS VERTICAL SLIDING LATCH ROD TO PREVENT OTHER GATE FROM SWINGING IN OPPOSITE DIRECTION.
5. AT EACH GATE LEAF, ATTACH RUBBER FLAP TO BOTTOM HORIZONTAL PIPE WITH (4) 1/4" DIA. ZINC-PLATED THRU-BOLTS WITH NUTS & WASHERS AT 1'-0" O.C. MAX.



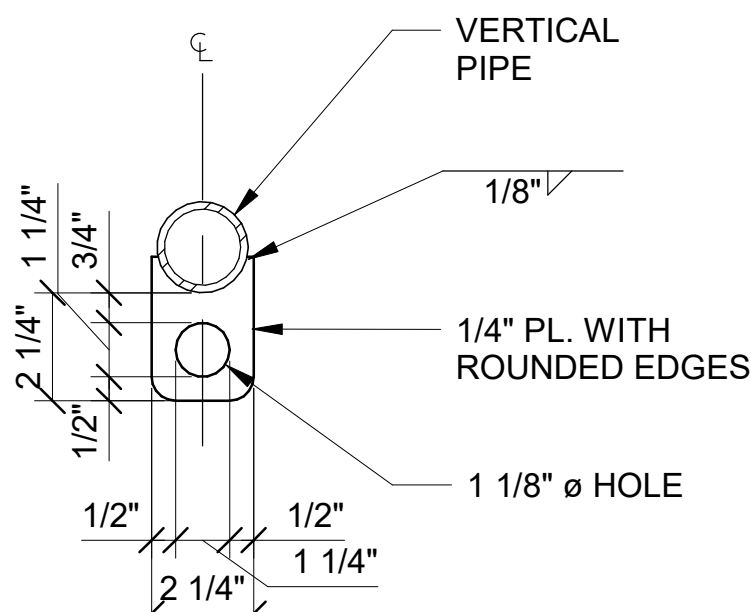
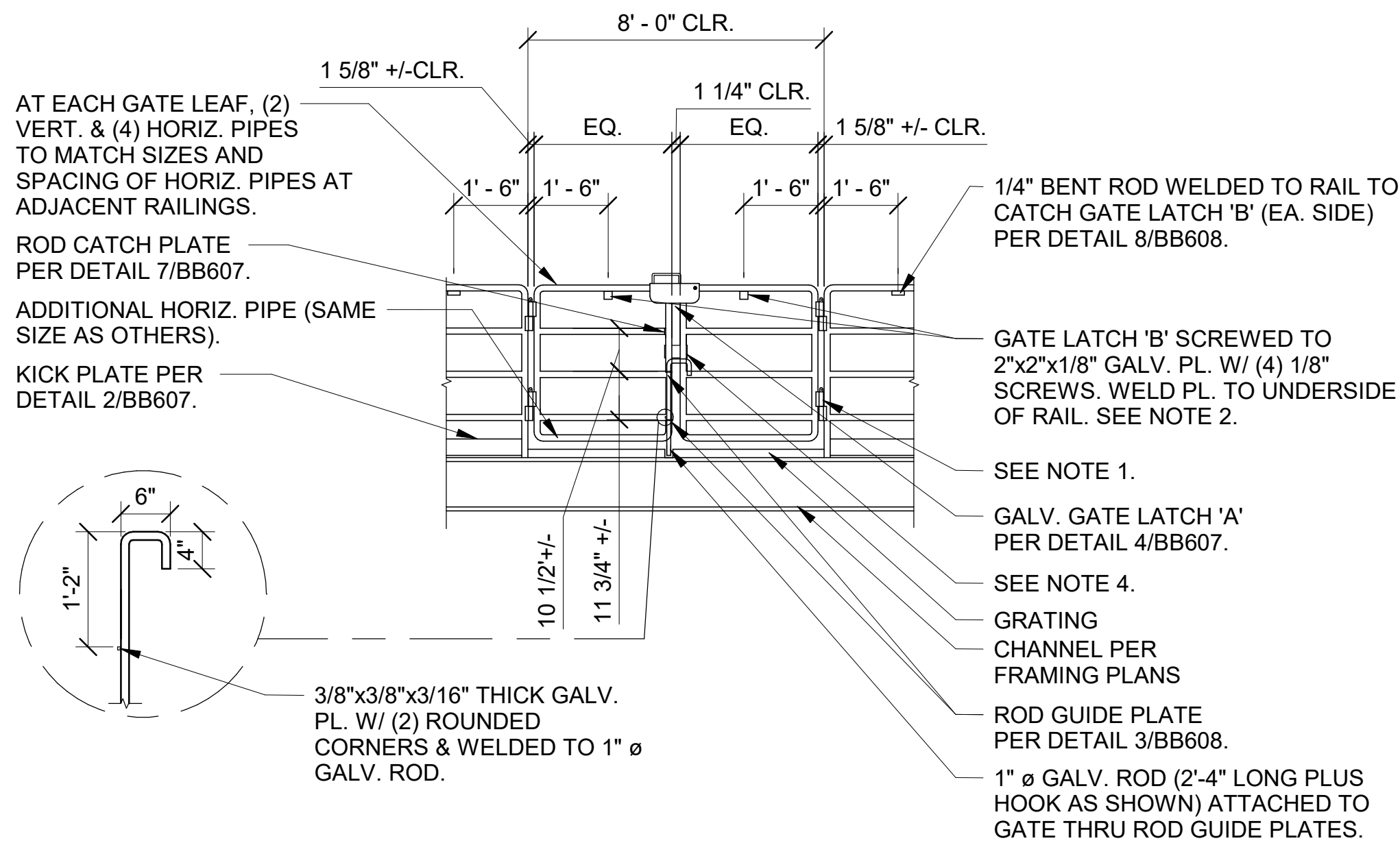
DETAIL AT HOOKED ROD BASE

NOTES:

1. PROVIDE (4) HINGES PER DETAIL 5/BB608.
2. PROVIDE A GATE LATCH, STRAIGHT ARM FROM HARDWARESOURCE.COM, SKU# 504670 OR AN APPROVED EQUIVALENT.
3. SEE PLANS FOR SWING DIRECTIONS OF GATES.
4. 3/16"x4" HIGH GALV. PL. WELDED TO FAR SIDE OF GATE THAT HAS VERTICAL SLIDING LATCH ROD TO PREVENT GATE FROM SWINGING IN OPPOSITE DIRECTION.

DOUBLE-SWINGING GATE GUARDRAIL DETAILS

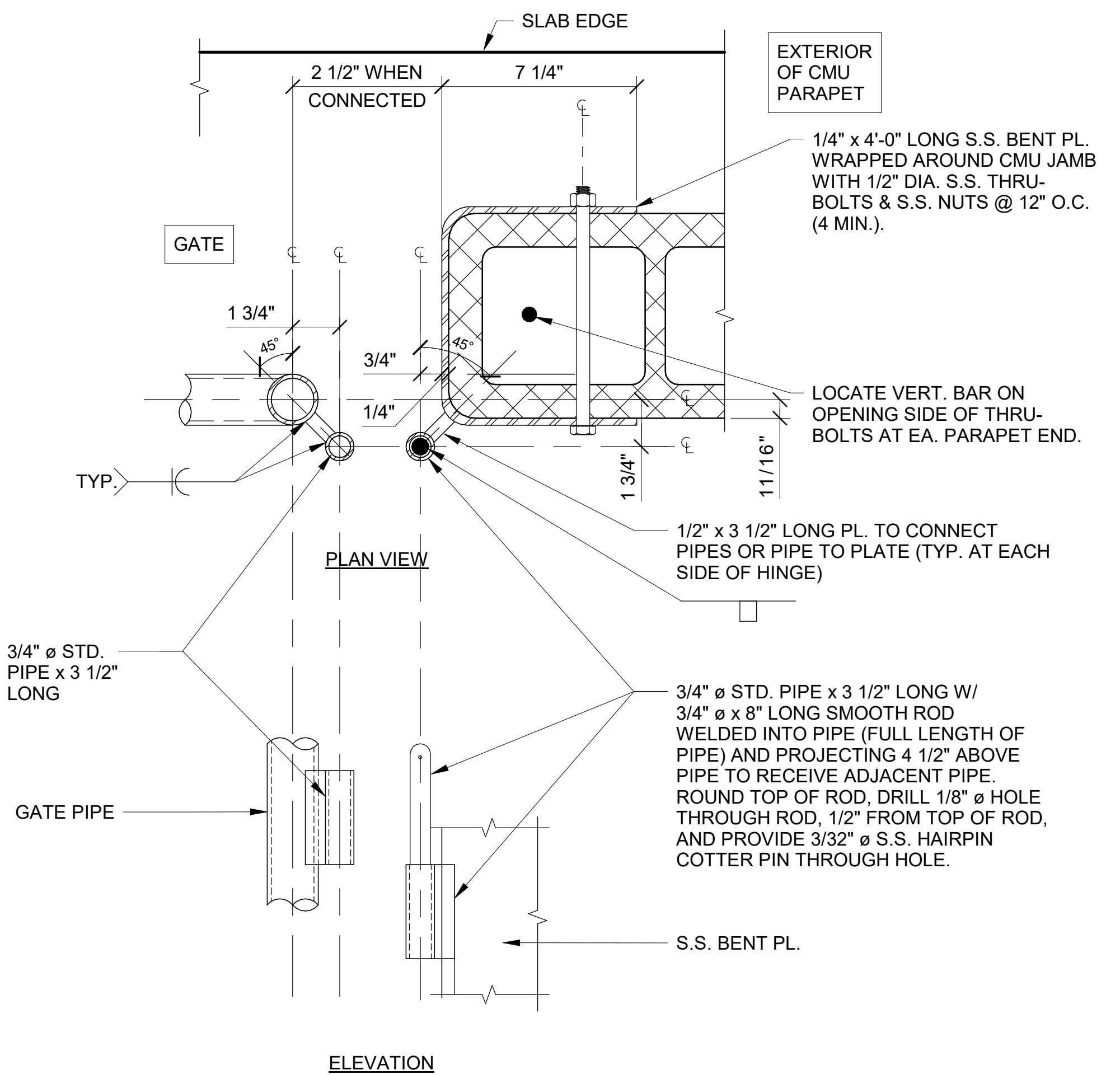
BB202 BB608 SCALE 3/8" = 1'-0"



PLAN DETAIL

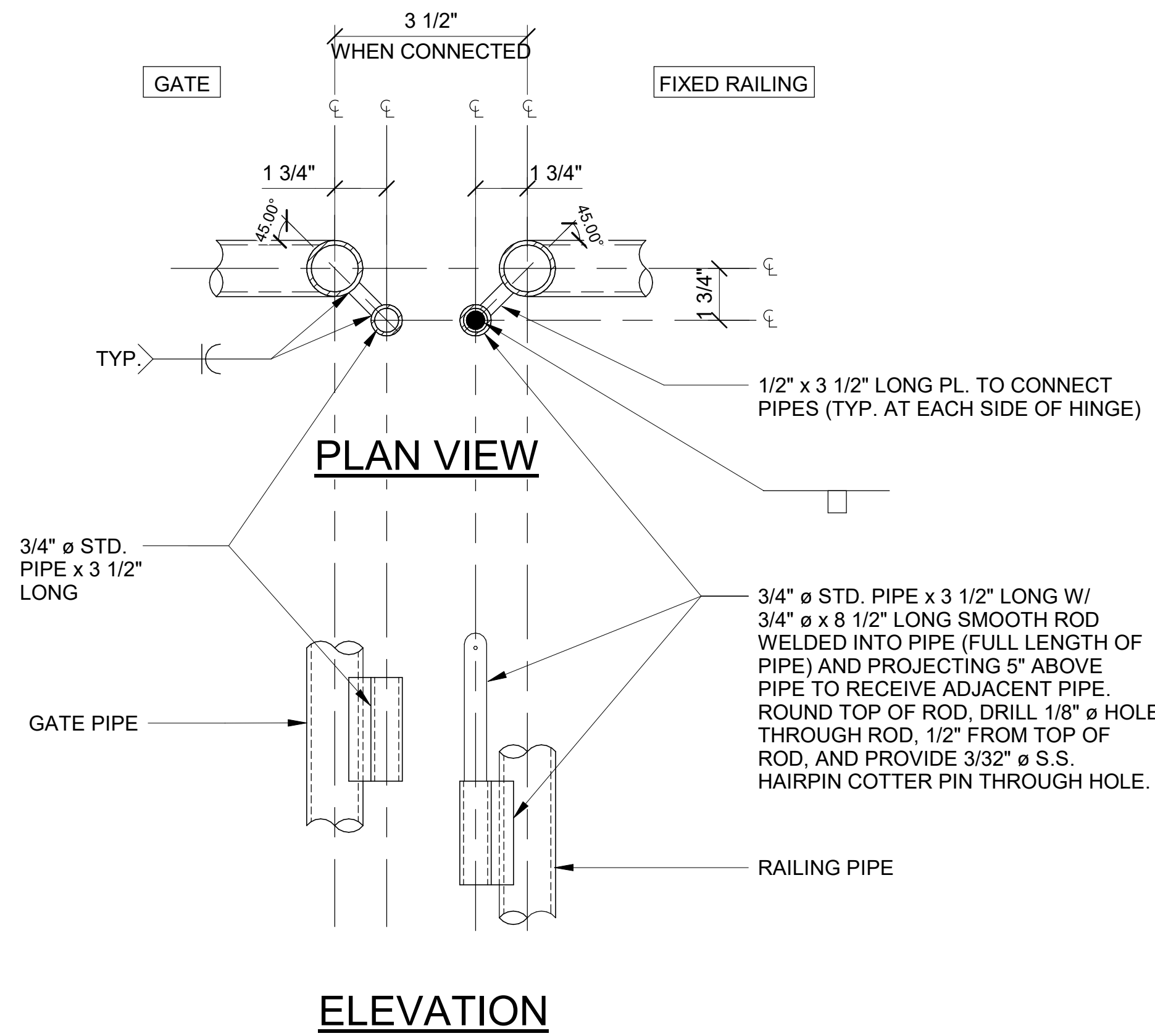
PLAN DETAIL - ROD GUIDE PLATE

BB608 BB608 SCALE 3" = 1'-0"



GUARDRAIL GATE HINGE AT PARAPET DETAIL

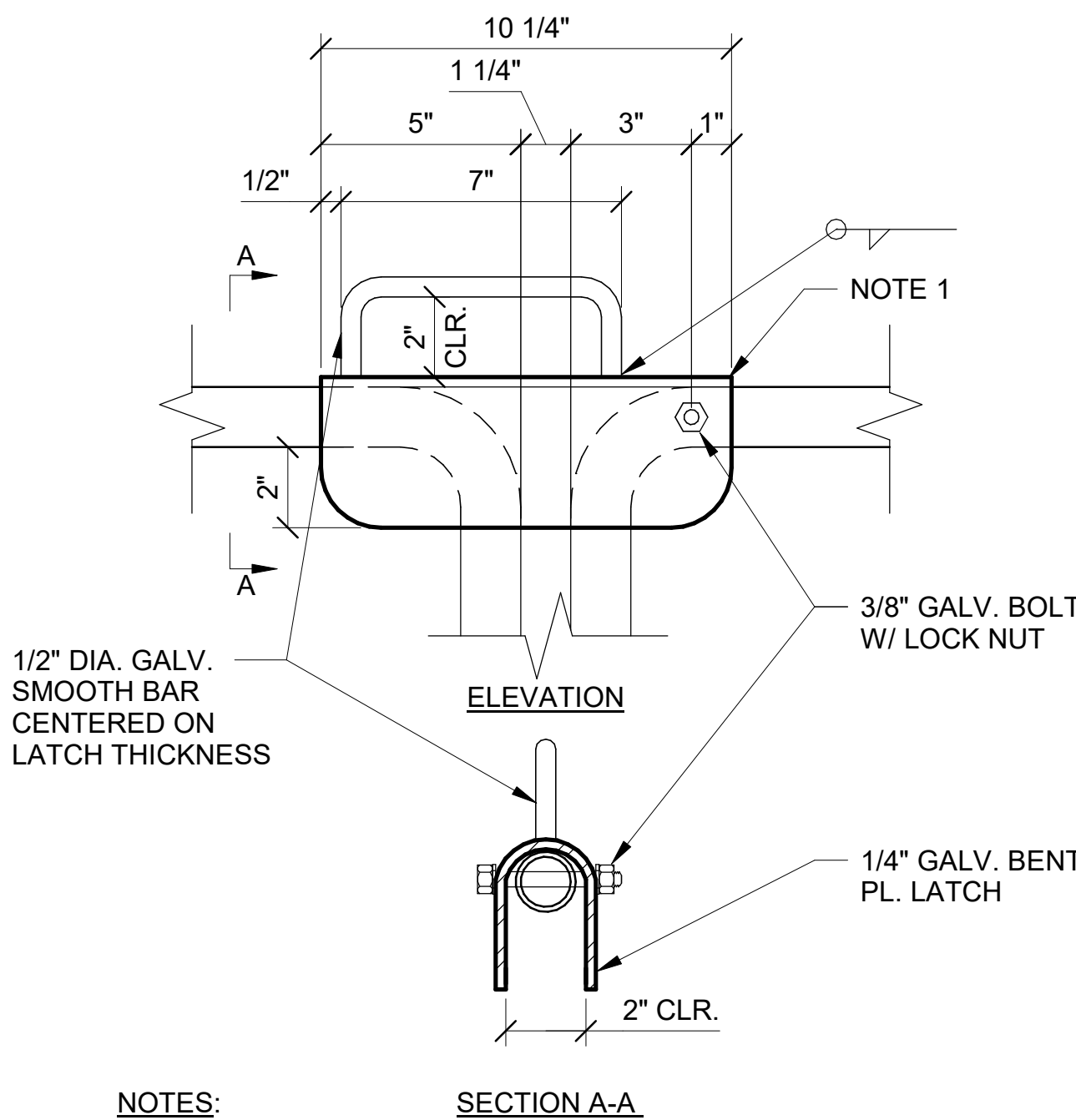
BB608 BB608 SCALE 3" = 1'-0"



ELEVATION

GUARDRAIL HINGE DETAIL

BB608 BB608 SCALE 3" = 1'-0"



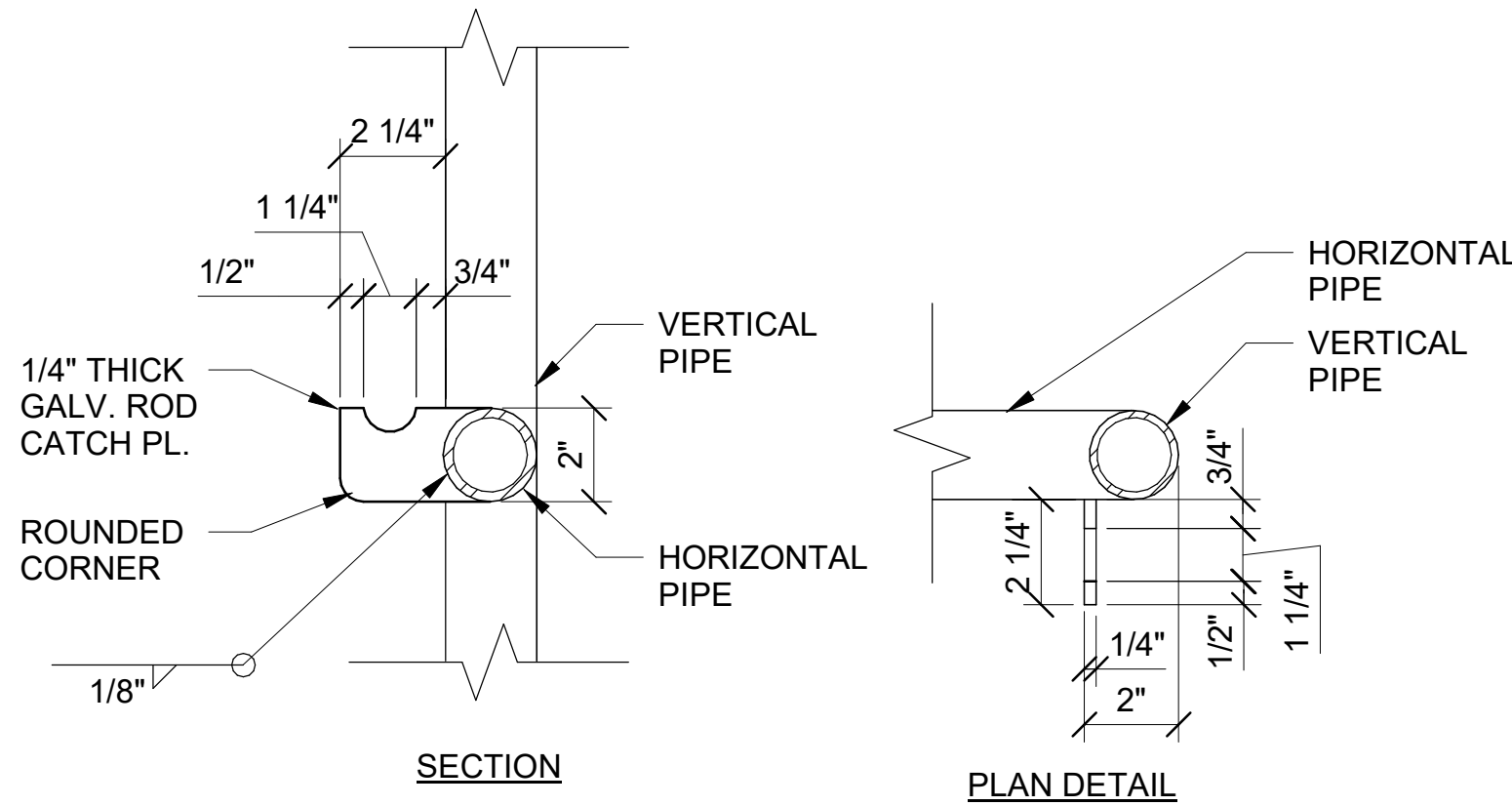
SECTION A-A

NOTES:

1. PROVIDE CURVED NOTCH IN TOP OF BENT PL. LATCH AT THIS END TO ALLOW PLATE TO PIVOT (KEEP NOTCH AS SMALL AS POSSIBLE).

DETAIL - GATE LATCH 'A'

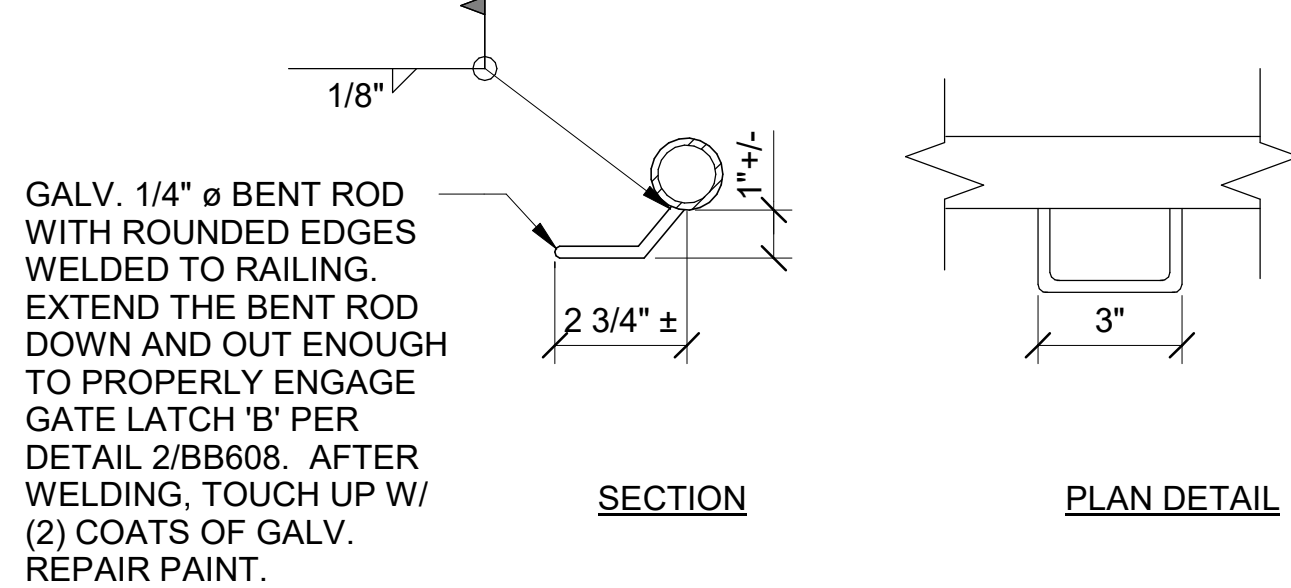
BB608 BB608 SCALE 3" = 1'-0"



SECTION

ROD CATCH PLATE DETAILS

BB608 BB608 SCALE 3" = 1'-0"

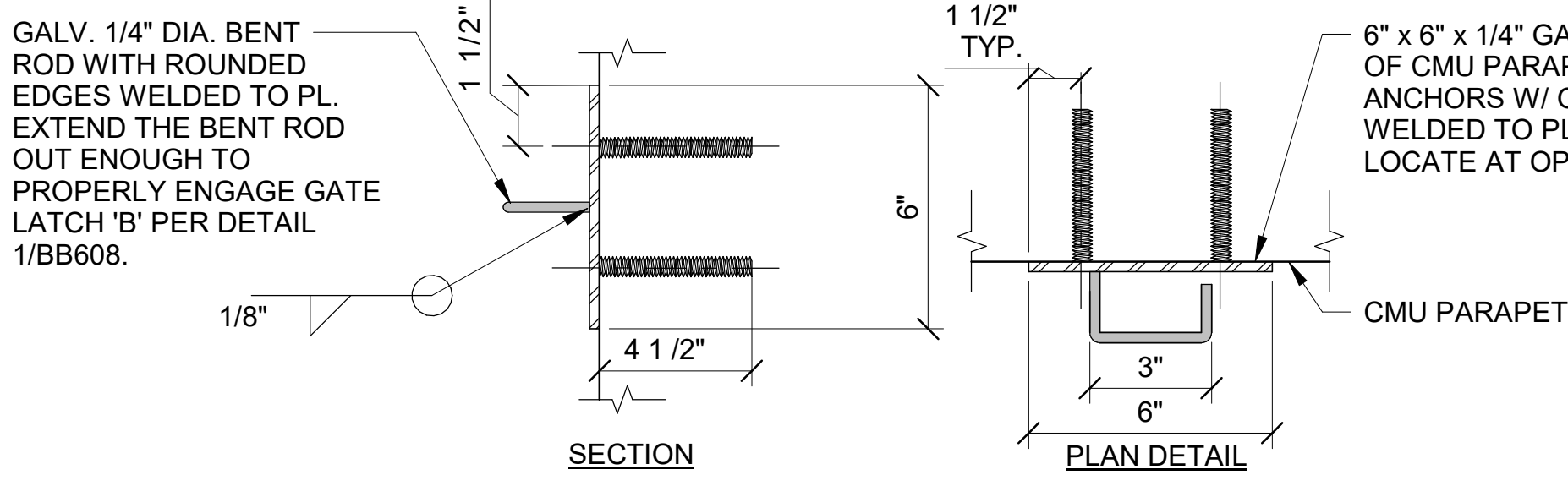


SECTION

PLAN DETAIL

BENT ROD DETAILS

BB608 BB608 SCALE 3" = 1'-0"



SECTION

PLAN DETAIL

BENT ROD AT PARAPET DETAILS

BB608 BB608 SCALE 3" = 1'-0"

NOTE: SHOP WELD ALL COMPONENTS AND THEN HOT DIP GALVANIZE ENTIRE ASSEMBLY.

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HH

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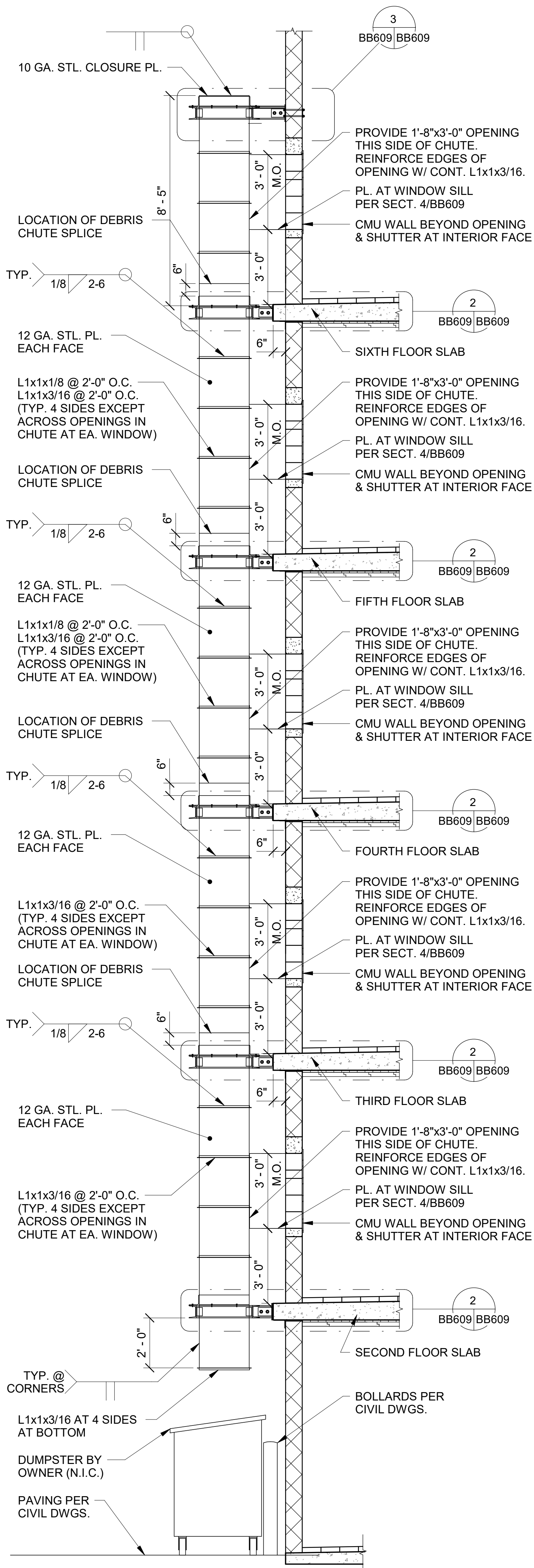
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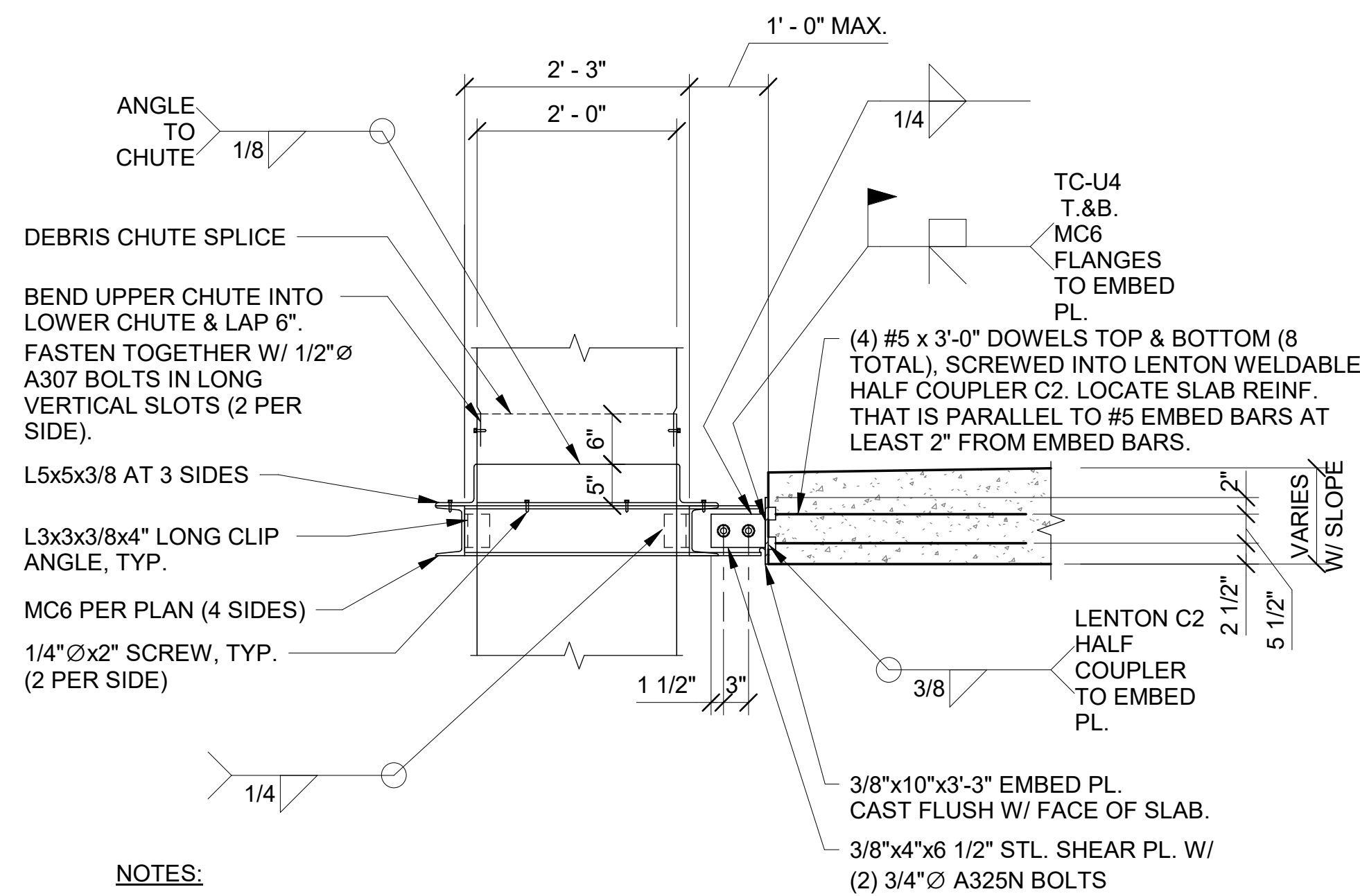
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BURN BUILDING - GUARDRAIL GATE AT PARAPET

BB608



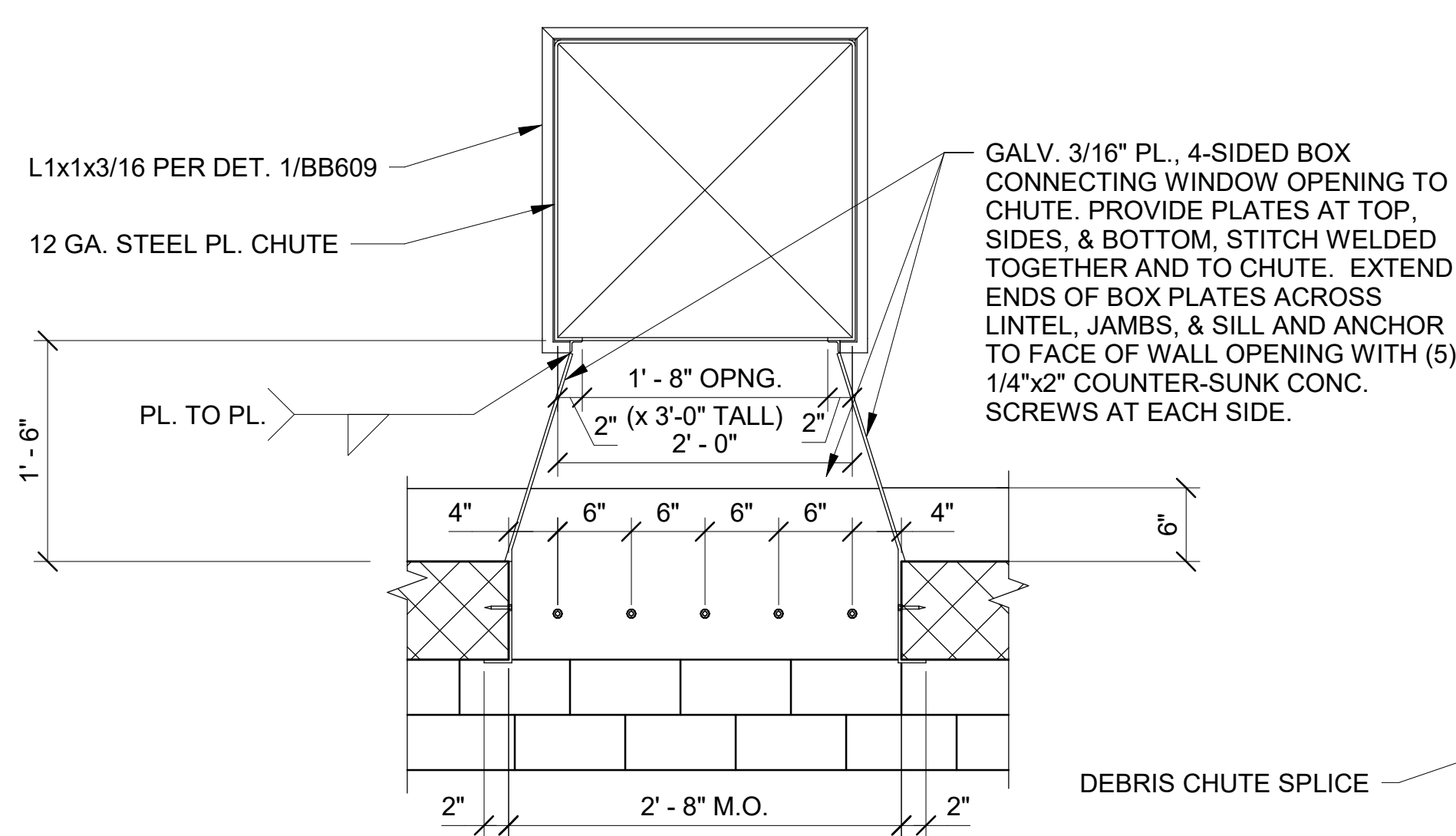
- NOTES:
- ALL PIECES SHALL BE GALV. U.O.N.

1 DEBRIS CHUTE SECTION
BB202 - BB609 SCALE 3/8" = 1'-0"
BB206

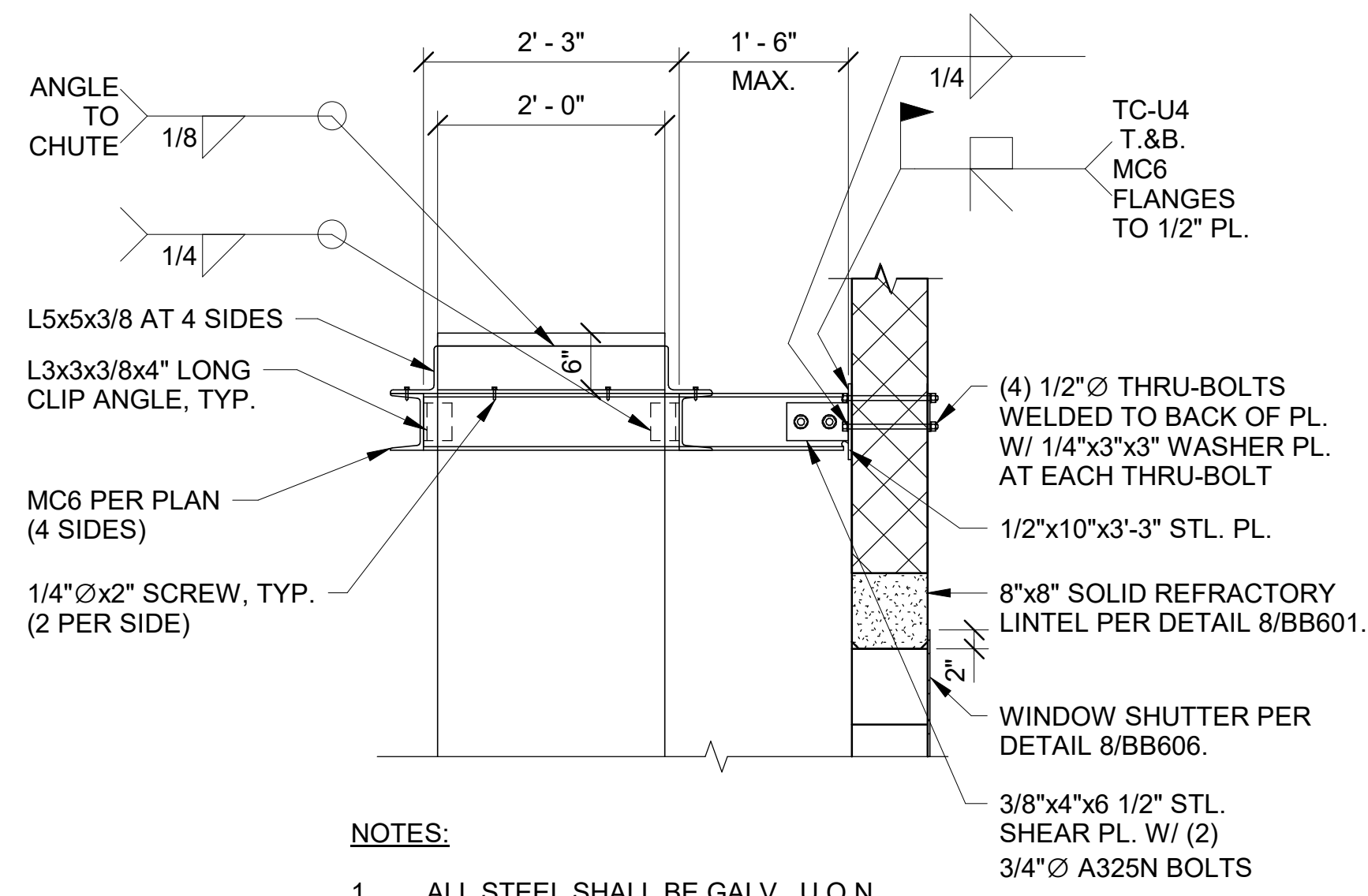


- NOTES:
- ALL STEEL SHALL BE GALV., U.O.N.
 - PROVIDE LENTON WELDABLE HALF COUPLER C2 OR APPROVED EQUAL.
 - DIP EMBED PL., LENTON WELDABLE HALF COUPLER, AND ATTACHED #5 BARS AS AN ASSEMBLY.
 - WRAP SLAB REINFORCING IN HEAVY-DUTY ELECTRICAL TAPE AT ALL LOCATIONS WHERE THEY GET WITHIN 1/2" OF GALV #5 EMBED BAR.

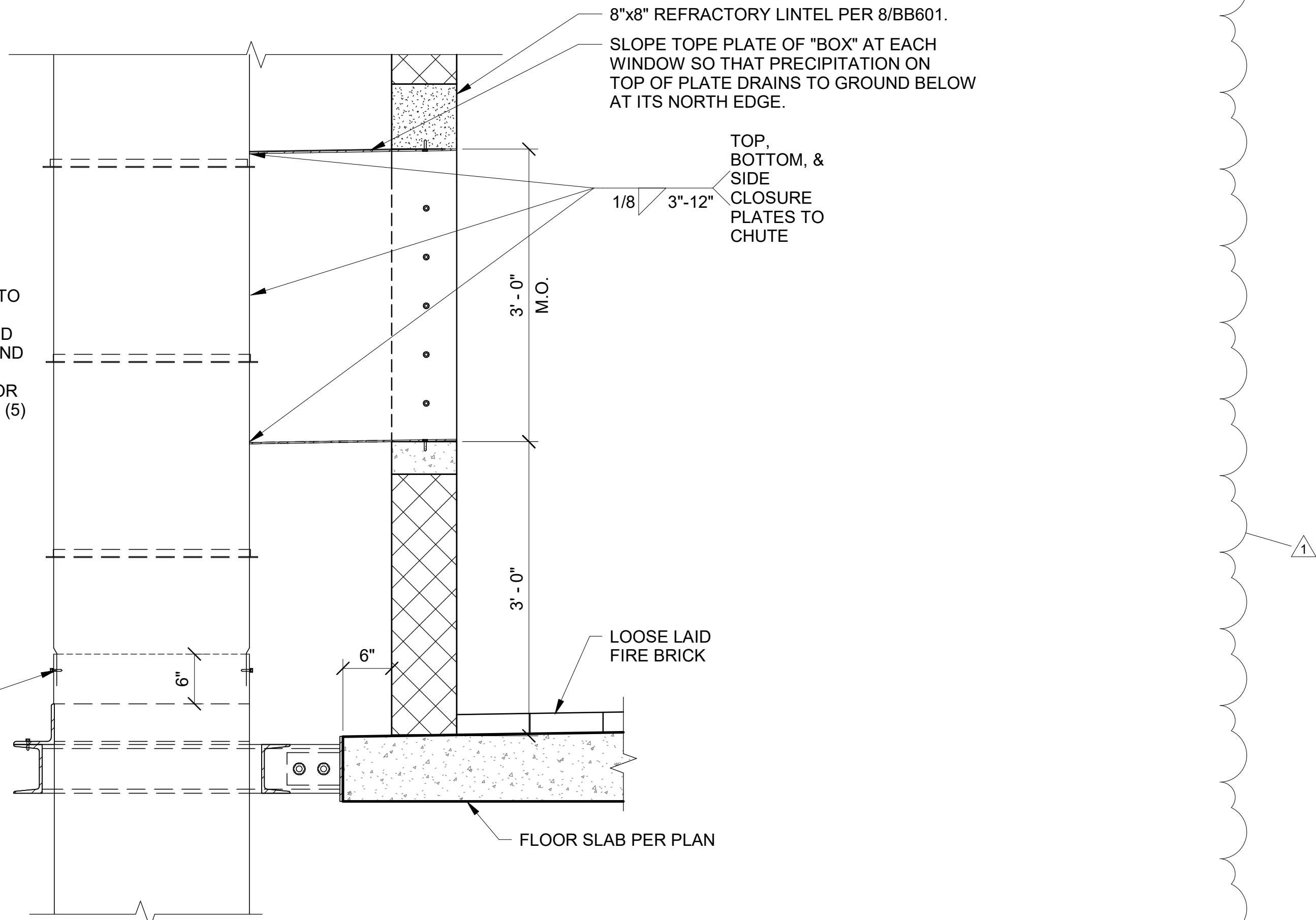
2 DEBRIS CHUTE SUPPORT DETAIL - 2ND THRU 5TH FLOORS
BB202 - BB609 SCALE 3/4" = 1'-0"
BB206
BB609



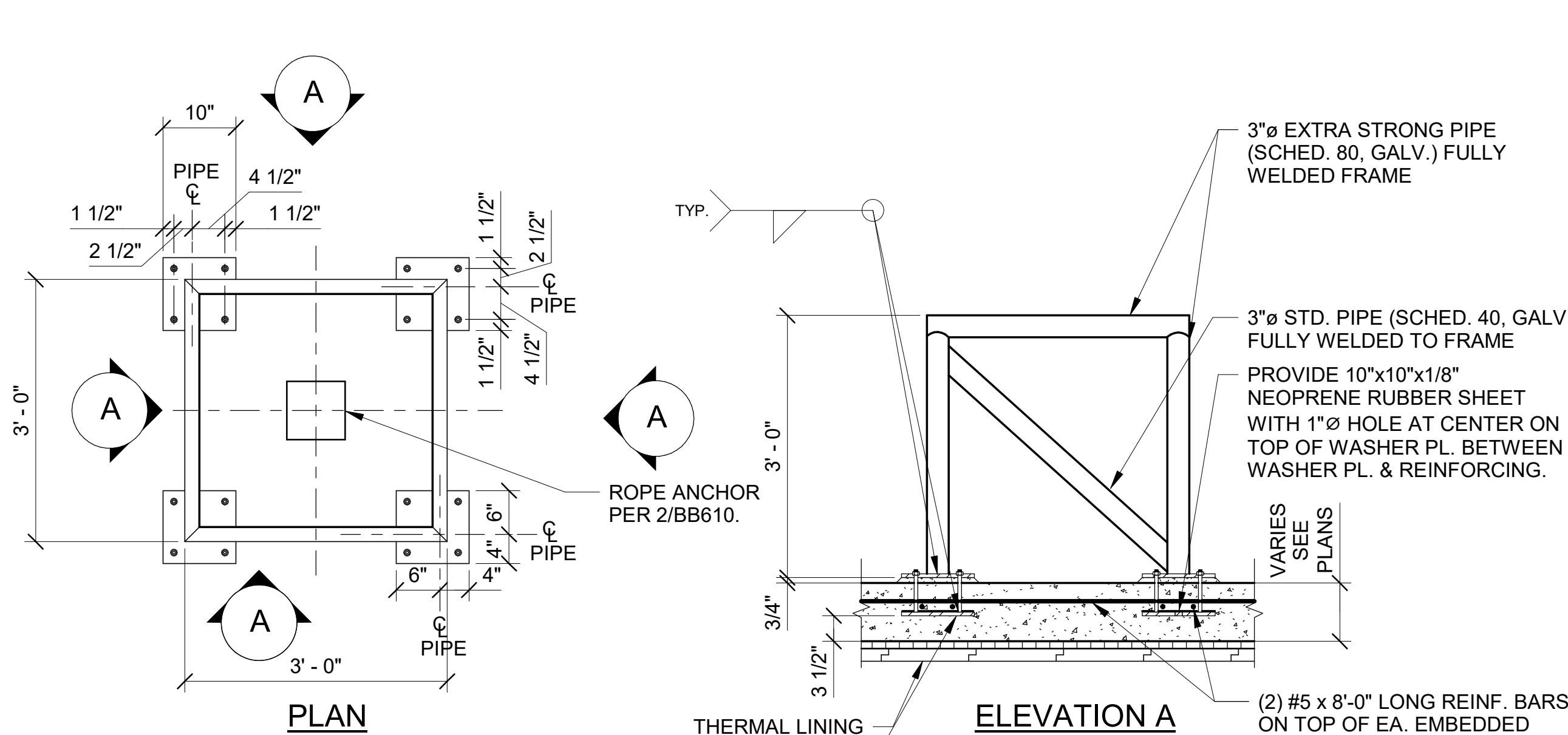
4 DEBRIS CHUTE WINDOW "BOX"
BB202 - BB609 SCALE 1" = 1'-0"
BB206
BB609



3 TOP OF DEBRIS CHUTE DETAIL
BB202 - BB609 SCALE 3/4" = 1'-0"
BB206
BB609



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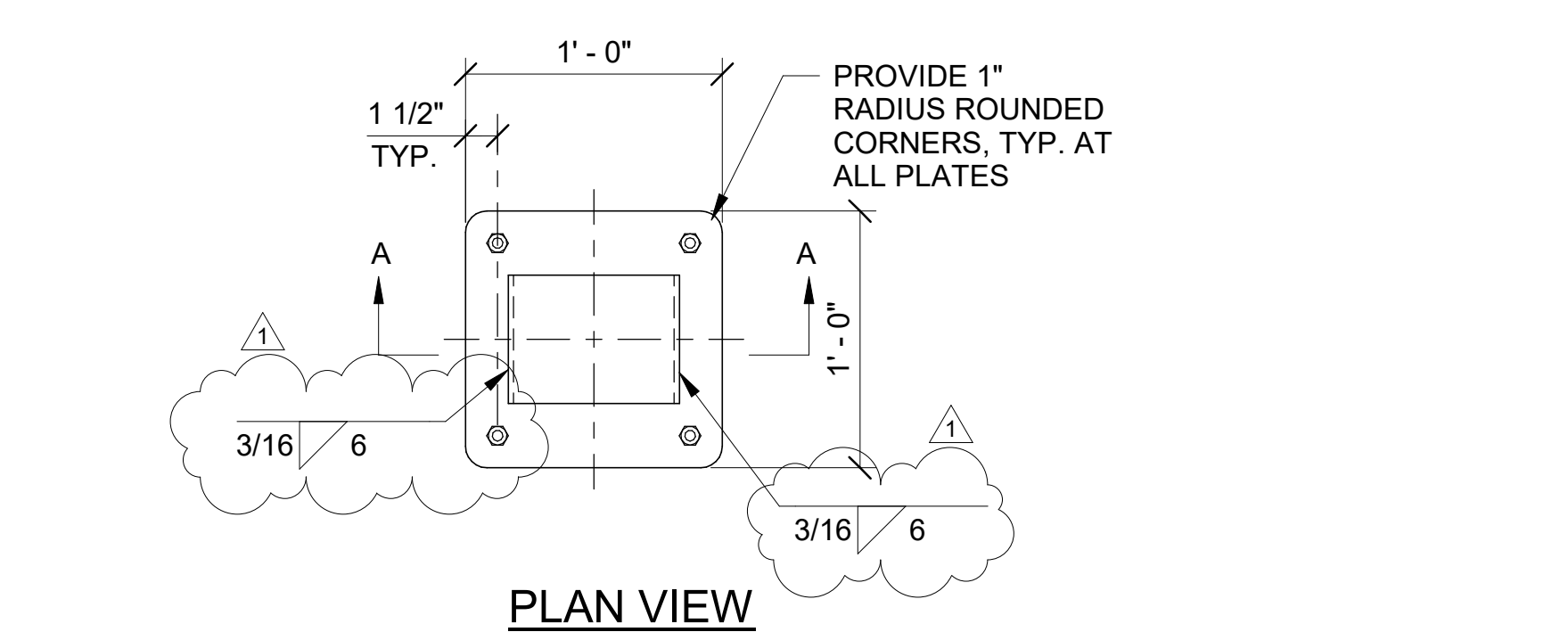
1/2"x10"x10" GALV. BASE PL. ON 3/4" NON-SHRINK GROUT BED W/ (4) 1/2" S.S. THREADED ROD THRU-BOLTS SHOP WELDED TO S.S. WASHER PL. WITH S.S. NUTS AND SMOOTH WASHERS AT TOP. PROVIDE NEOPRENE WASHER BTWN. EACH S.S. WASHER & TOP OF GALV. BASE PLATE. CAST 1/2"x10"x10" S.S. WASHER PLATE IN SLAB AT DEPTH SHOWN WITH SUFFICIENT ROD LENGTH FOR INSTALLATION TOLERANCE. AFTER INSTALLING AND TIGHTENING NUTS, TRIM EXCESS BOLT LENGTHS TO WITHIN 1/2" OF NUTS AND GRIND SMOOTH. WRAP THREADED RODS IN HEAVY DUTY ELECTRICAL TAPE AT ALL LOCATIONS WHERE A REINFORCING BAR GETS WITHIN 1/2" OF THE ROD. PROVIDE 1" HOLE AT CENTER OF EMBEDDED PLATE TO HELP WITH AIR BUBBLE MOVEMENT & CONSOLIDATION DURING CONCRETE PLACEMENT.

NOTES:

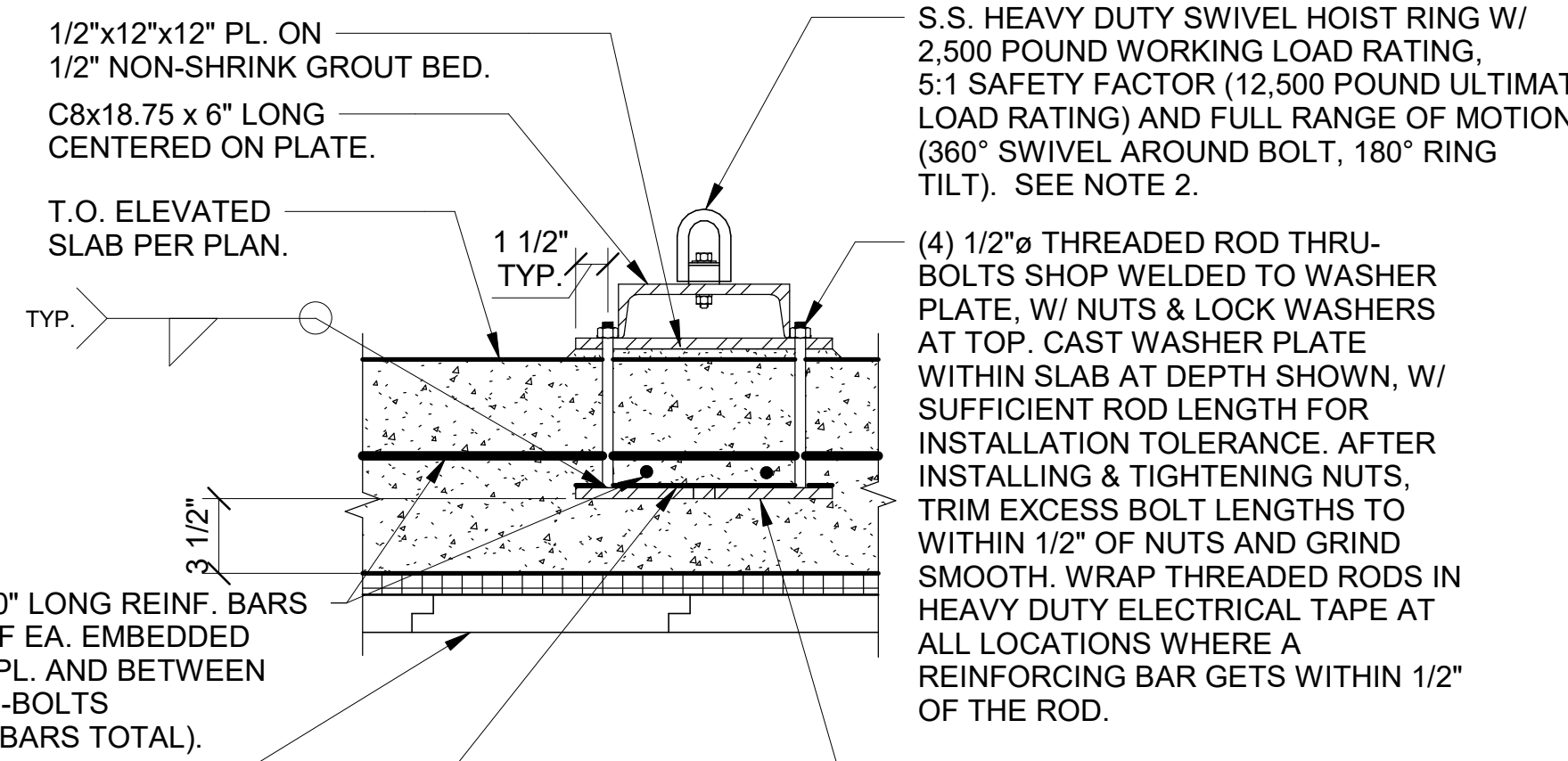
- ALL PIECES SHALL BE GALVANIZED, U.O.N. STAINLESS STEEL ITEMS SHALL BE 316.
- FRAME CONSISTS OF (4) HORIZONTALS, (4) VERTICALS AND (4) DIAGONALS TOTAL.
- DO NOT USE POST-INSTALLED ANCHORS.
- AFTER PLACING THE BASE PLATES OVER THE TOPS OF THE THREADED RODS, FILL ALL HOLES IN EACH GALV. BASE PLATE WITH EPOXY BEFORE INSTALLING WASHERS AND NUTS ON THREADED RODS AT TOP OF BASE PLATES.
- SEAL GALVANIZING VENT HOLES PER GENERAL NOTE Q.7 ON SHEET BB001.

1 SLAB-MOUNTED ROPE FRAME DETAIL

BB207, BB610 SCALE 3/4" = 1'-0"
BB306



PLAN VIEW



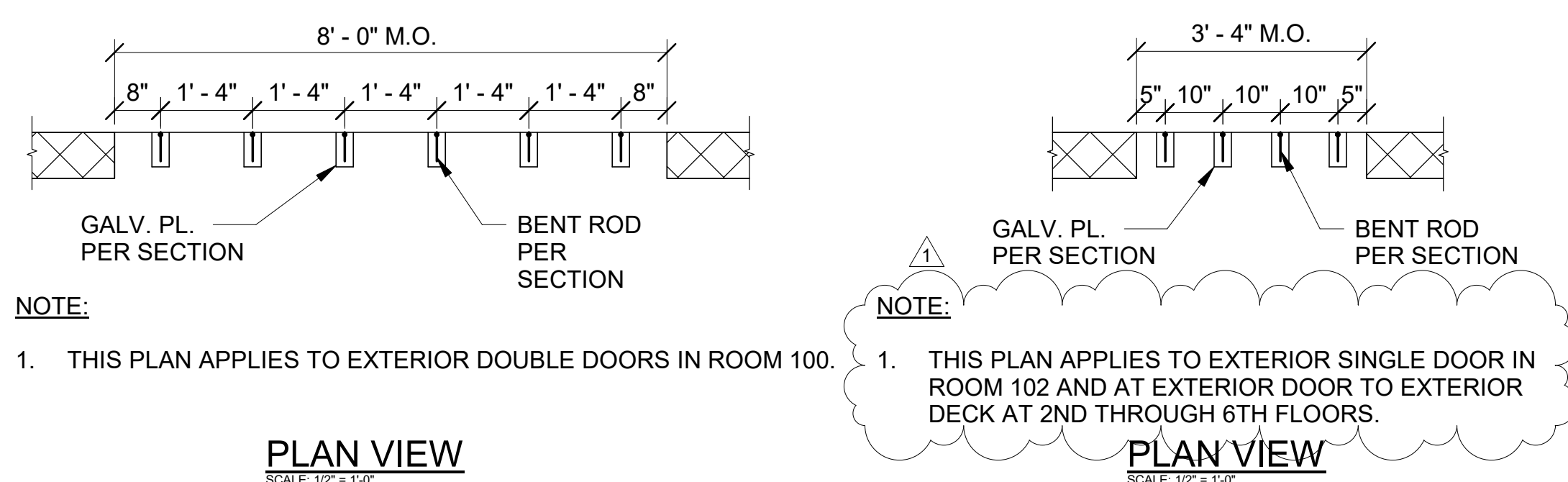
SECTION A-A

NOTES:

- ALL PIECES SHALL BE 316 STAINLESS STEEL, U.O.N.
- PROVIDE PART #29009 BY AMERICAN DRILL BUSHING CO., OR AN EQUIVALENT APPROVED BY THE ENGINEER.
- SLAB REINFORCING NOT SHOWN FOR CLARITY.
- DO NOT USE POST-INSTALLED ANCHORS.
- GRIND ALL CHANNEL AND PLATE EDGES AND CORNERS SMOOTH.

2 SLAB-MOUNTED ROPE ANCHOR DETAIL

BB207, BB610 SCALE 1 1/2" = 1'-0"
BB306

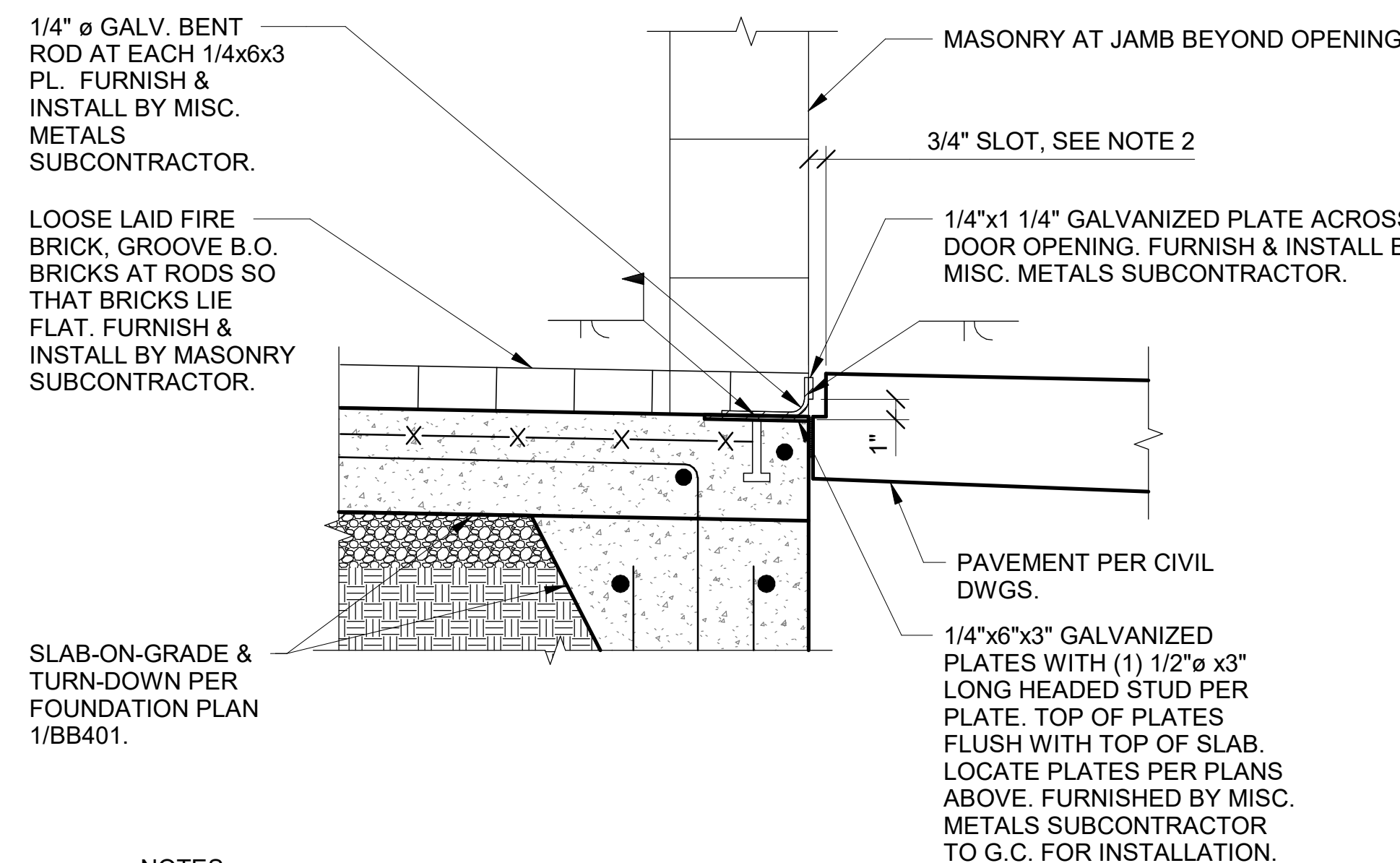


NOTE:

- THIS PLAN APPLIES TO EXTERIOR DOUBLE DOORS IN ROOM 100.

PLAN VIEW

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

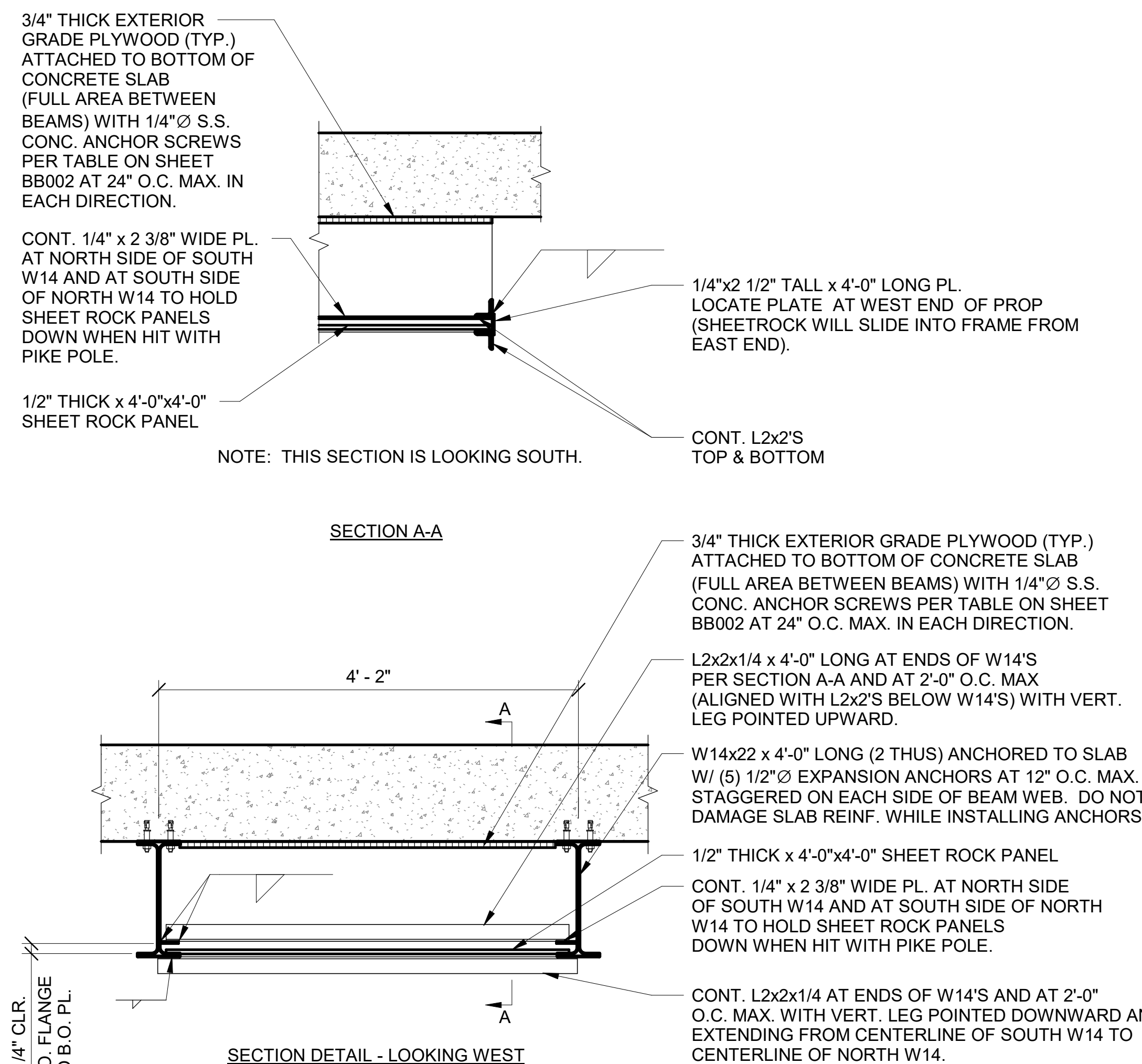


NOTES:

- SLOT AT TOP OF PAVEMENT ALONG FACE OF BUILDING AT DOOR ONLY. BOTTOM OF SLOT SHALL BE HORIZONTAL SO THAT SLOT DEPTH VARIES WITH PAVEMENT SLOPE ALONG WALL, FROM 2 1/2" AT DOOR TO 0" WHERE BOTTOM OF SLOT INTERSECTS TOP OF PAVEMENT.

4 EXTERIOR DOOR THRESHOLD DETAILS

BB201, BB610 SCALE 1 1/2" = 1'-0"



SECTION A-A

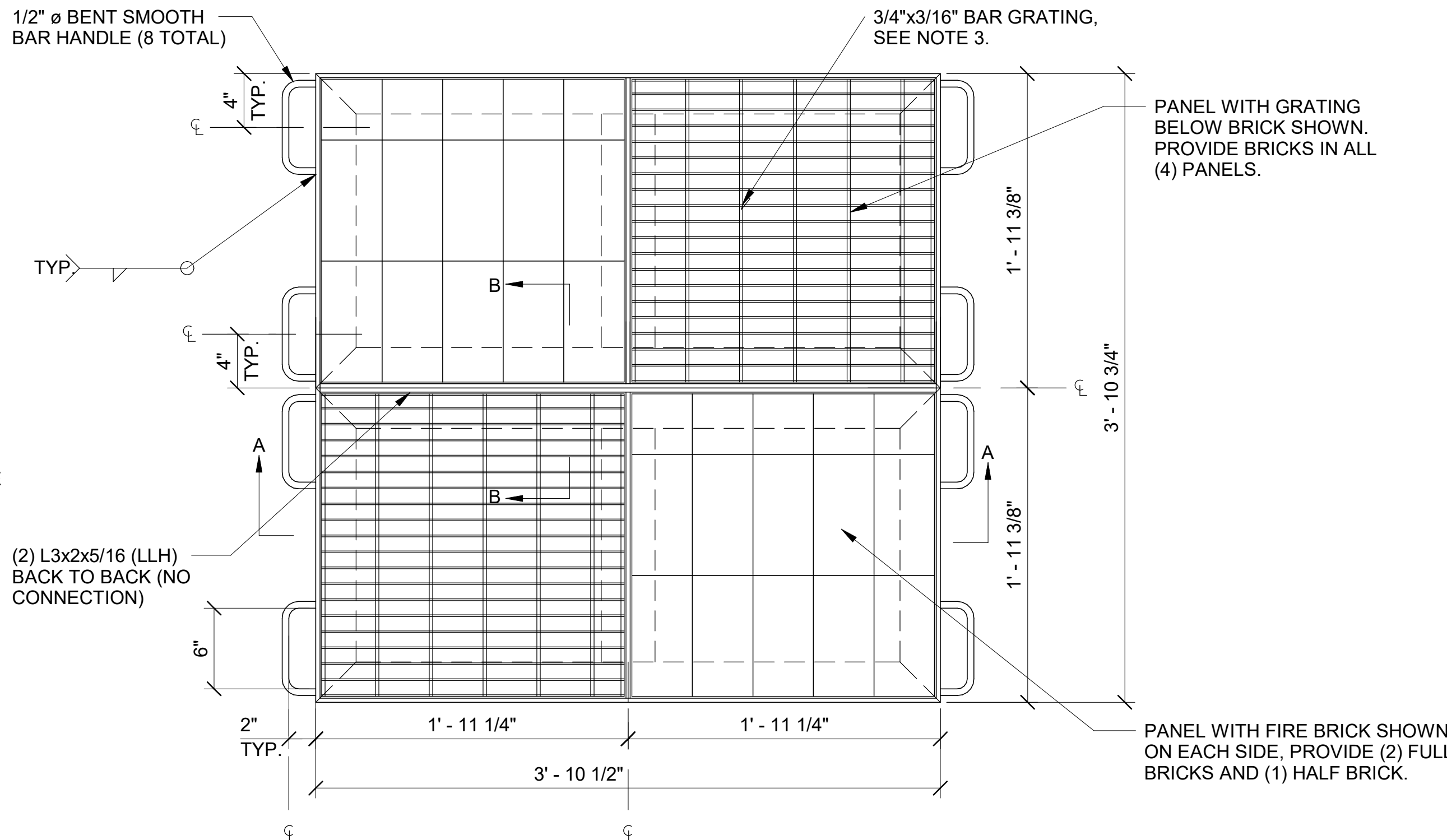
NOTE: THIS SECTION IS LOOKING SOUTH.

NOTES:

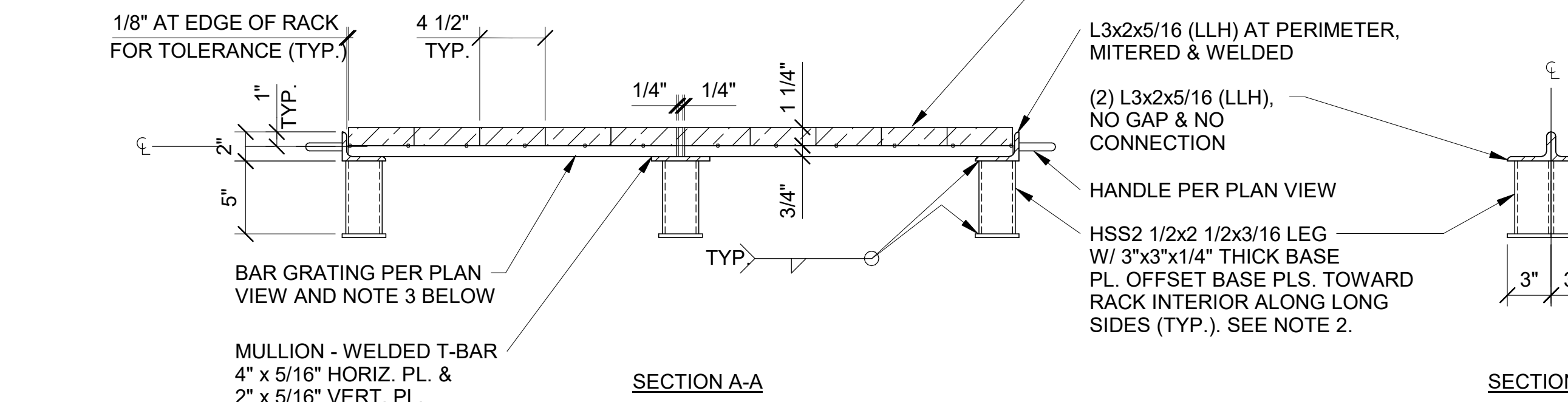
- ENTIRE ASSEMBLY (W14'S, L2x2'S AND 1/4" PLATES) SHALL BE SHOP WELDED AND HOT-DIP GALVANIZED AS A COMPLETE ASSEMBLY, WITHOUT WARPING.

SHEETROCK PULLDOWN PROP SECTION DETAILS

BB205, BB610 SCALE 1" = 1'-0"



PLAN VIEW



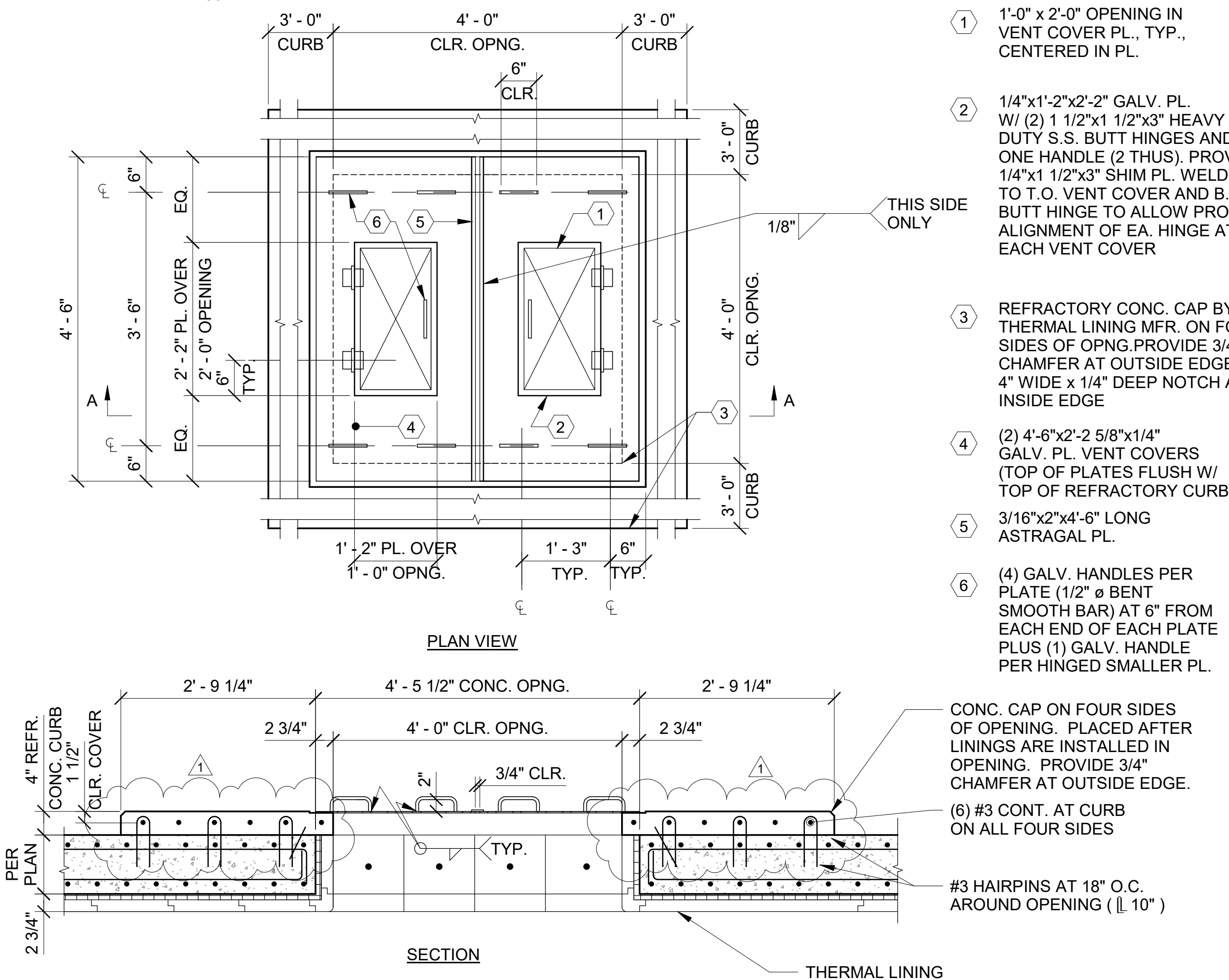
SECTION A-A

NOTES:

- PROVIDE GALV. STEEL FOR ALL BURN RACK PIECES AND COMPONENTS.
- PROVIDE VERTICAL LEG AT EACH CORNER AND AT CENTER OF EACH LONG SIDE (12 TOTAL LOCATIONS).
- PROVIDE A 1/2" HOLE IN ONE SIDE OF EACH TUBE LEG, JUST ABOVE THE BASE PL.
- PROVIDE ITEM NO. GW-75A (SMOOTH, GALV. FINISH), BY McNICHOLS CO. OR APPROVED EQUAL (1'-10 1/4" x 1'-10 1/4"). SUPPORTED LOOSE ON PERIMETER ANGLES AND MULLIONS (NO CONNECTION) TYP. AT ALL FOUR PANELS.
- PLACE FIRE BRICK SPLITS (ASTM C-27, CLASSIFICATION: MEDIUM-DUTY) LOOSE LAID OVER BAR GRATING, TYP. AT ALL FOUR PANELS. TYPICAL BRICK SIZE IS 9" x 4 1/2" x 1 1/4".
- PROVIDE (X) TOTAL BURN RACKS.

3 BURN RACK PLAN & SECTION DETAILS

BB201 - BB610 SCALE 1 1/2" = 1'-0"
BB206



PLAN VIEW

SECTION

6 VENTILATION OPENING DETAILS

BB207, BB610 SCALE 3/4" = 1'-0"

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NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056
DATE ISSUED
03/14/25
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET
BURN BUILDING - MISCELLANEOUS DETAILS

CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CRITERIA UNLESS OTHERWISE NOTED ON THE DRAWINGS. DO NOT USE THESE DRAWINGS WITHOUT THE ACCOMPANYING SPECIFICATIONS AND RELATED CIVIL DRAWINGS. FOR ALL ITEMS, SEE THE SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS. THE MOST STRINGENT REQUIREMENTS GOVERN CONDITIONS COVERED BY BOTH THE DRAWINGS AND THE PROJECT SPECIFICATIONS OR BY CONFLICTING ITEMS.

A. STRUCTURE CLASSIFICATION

- THE TRAINING TOWER WILL BE A TRAINING PROP USED BY THE OWNER TO TRAIN ABLE-BODIED FIREFIGHTERS IN A VARIETY OF TRAINING SCENARIOS.
- THE TRAINING TOWER WILL NOT BE AN OCCUPIED STRUCTURE, EXCEPT DURING TRAINING EXERCISES.
- THE TRAINING TOWER IS CLASSIFIED AS MISCELLANEOUS USE GROUP (USE GROUP U).

B. TRAINING TOWER DESIGN CRITERIA

- LIVE FIRE TRAINING IS NOT ALLOWED ANYWHERE WITHIN, ON, OR NEAR THE TRAINING TOWER.
- ALL COLD TRAINING SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS.
- TRAINING THAT INCLUDES TEAR GAS, EXPLOSIVES, FLASH BANGS OR FIREARMS SHALL NOT BE PERMITTED WITHIN OR NEAR THE TRAINING TOWER.
- IT IS ASSUMED THAT OWNER WILL TEST ROPE TIE-OFF POINTS PER OSHA REQUIREMENTS AND WILL VISUALLY CONFIRM THAT NUTS AND BOLTS ARE TIGHT AT ALL ROPE TIE-OFF ASSEMBLIES ON EACH TRAINING DAY THAT USES THOSE TIE-OFF POINTS.

C. CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS GOVERN THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF STRUCTURAL WORK PERFORMED ON THIS PROJECT:

- 2018 NORTH CAROLINA STATE BUILDING CODE (BASED ON INTERNATIONAL BUILDING CODE (IBC-2015), INTERNATIONAL CODE COUNCIL (ICC).
- MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-10), AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE).
- SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - AISC 360-10, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, EXCEPT AS MODIFIED BY NCSBC.
- STRUCTURAL WELDING CODE - STEEL (AWS D1.4-2011), AMERICAN WELDING SOCIETY (AWS), EXCEPT AS MODIFIED BY NCSBC.
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318-14), AMERICAN CONCRETE INSTITUTE (ACI), EXCEPT AS MODIFIED BY NCSBC.
- SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301-16), AMERICAN CONCRETE INSTITUTE (ACI).
- MANUAL OF STANDARD PRACTICE (CRSI), CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES, THE MASONRY SOCIETY (TMS) TMS 402-13/TMS 602-13, AND BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE (ACI) ACI 530-13, EXCEPT AS MODIFIED BY NCSBC.
- STANDARD ON FACILITIES FOR FIRE TRAINING AND ASSOCIATED PROPS (NFPA 1402-2019), NATIONAL FIRE PROTECTION ASSOCIATION.

D. DESIGN GRAVITY LOADS

LIVE LOADS:

- FLOORS: 50 PSF
- STAIRS: 100 PSF
- ROOFS: 50 PSF

SUPERIMPOSED DEAD LOADS:

- CMU PARTITIONS: 80 PSF

E. DESIGN SNOW LOADS

- GROUND SNOW LOAD (Pg) = 15 PSF
- FLAT ROOF SNOW LOAD (Pf) = 15 PSF
- SNOW DRIFT LOAD (Ps) = 30.2 PSF
- SNOW EXPOSURE FACTOR (Ce) = 1.0
- THERMAL FACTOR (Ct) = 1.2
- SNOW LOAD IMPORTANCE FACTOR (Is) = 1.0

F. DESIGN WIND LOADS

- RISK CATEGORY II.
- BASIC WIND SPEED = 115 MPH
- WIND LOAD IMPORTANCE FACTOR (Iw) = 1.0
- INTERNAL PRESSURE COEFFICIENT = +0.55 / -0.55
- WIND EXPOSURE CATEGORY = C
- WIND DESIGN PRESSURE (P) FOR THE MAIN WIND RESISTING SYSTEM = 40.0 PSF (WINDWARD & LEeward COMBINED) AT HIGHEST POINT.
- WIND DESIGN PRESSURE (P) FOR BUILDING COMPONENTS AND CLADDING = +48 PSF/-59 PSF ON CMU INFILL WALLS (≤10 SF).

G. SEISMIC DESIGN DATA

- RISK CATEGORY II.
- SEISMIC IMPORTANCE FACTOR (Ie) = 1.0
- SITE CLASS = D
- SPECTRAL RESPONSE ACCELERATIONS: Ss 0.147, S1 = 0.074
- SPECTRAL RESPONSE COEFFICIENTS: Sds 0.157, S1 = 0.118
- SEISMIC DESIGN CATEGORY = B
- BASIC SEISMIC FORCE-RESISTING SYSTEM: ORDINARY REINFORCED CONCRETE MOMENT FRAMES (C.7)
- RESPONSE MODIFICATION COEFFICIENT (R) = 3.0
- DEFLECTION AMPLIFICATION FACTOR (Cd) = 2.5
- OVERSTRENGTH FACTOR (Ω) = 3.0
- DESIGN BASE SHEAR (V) = 0.0523 x W

H. DATUM AND BUILDING ELEVATIONS

- THE DATUM IS THE TOP OF THE FIRST FLOOR CONCRETE SLAB AT THE EXTERIOR FACE OF THE EXTERIOR WALLS AT THE LOWEST POINT, AND IS DESIGNATED ON THE DRAWINGS AS 0.00 FEET.
- THE DATUM ELEVATION OF THE TRAINING TOWER IS 296.00 FEET.
- ALL TOP OF SLAB ELEVATIONS ARE SHOWN IN THE PLANS AS +XX.XX OR -XX.XX INFEET RELATIVE TO THE DATUM.

I. SOILS INFORMATION

- THE FOLLOWING INFORMATION IS BASED ON THE GEOTECHNICAL REPORT ("SOILS REPORT") PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC. LETTER DATED JANUARY 11, 2024.
- ACCORDING TO THE SOILS REPORT, SOFT/LOOSE NEAR SURFACE SOILS (APPROXIMATELY 3 FEET DEEP) OVERLAY DENSE SILTY SAND AND PARTIALLY WEATHERED ROCK (AT 5 FEET TO 8 FEET, WHERE AUGER REFUSAL OCCURRED).
- ALLOWABLE SOIL BEARING VALUE FOR THE TRAINING TOWER IS 2,500 PSF.
- ACCORDING TO THE SOILS REPORT, GROUND WATER WAS NOT OBSERVED WITHIN THE BORINGS AT THE TRAINING TOWER (B-6 & B-7). SEE SOILS REPORT FOR DRAINAGE CONSIDERATIONS.
- SEE SPECIFICATIONS FOR EARTHWORK REQUIREMENTS, INCLUDING REPLACEMENT OF UNSUITABLE SOILS, MEASURES TO PREVENT INFILTRATION OF RUNOFF AND PRECIPITATION INTO UNDERLYING SOILS AND DEWATERING REQUIREMENTS IF GROUNDWATER IS ENCOUNTERED.

J. FOOTINGS

- EXTEND TOPS OF ALL FOOTINGS TO A MINIMUM OF 1'-6" BELOW EXTERIOR FINISHED GRADE, U.O.N.
- FOOTINGS SHALL BE SUPPORTED ON UNDISTURBED, NATURAL, ACCEPTABLE SOILS OR ON COMPACTED ENGINEERED FILL PLACED OVER THE NATURAL, ACCEPTABLE SOILS.
- ACCORDING TO THE SOILS REPORT, AS MUCH AS 3'-0" OF COMPACTED ENGINEERED FILL OR ABC STONE COULD BE REQUIRED BELOW FOUNDATIONS TO REPLACE SOFT/LOOSE NEAR SURFACE SOILS.
- EXTEND ANY OVER-EXCAVATION AND ENGINEERED FILL AREA Laterally BEYOND THE FOUNDATION FOOTPRINT TO A DISTANCE EQUAL TO THE DEPTH OF THE ENGINEERED FILL BENEATH THE FOOTING.
- FOOTING SUBGRADES AND ENGINEERED FILL SHALL BE APPROVED BY THE TESTING AGENCY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE FOOTINGS AND ENGINEERED FILL.

K. BACKFILL COMPACTION

- EXCAVATE, PROOFROLL, BACKFILL, AND COMPACT FOUNDATION AND SLAB-ON-GRADE SUBGRADES PER THE EARTHWORK SPECIFICATION SECTIONS 312000.
- ALL PROOFROLLING AND ENGINEERED OR IMPORTED FILL MATERIALS AND PLACEMENT SHALL BE OBSERVED AND APPROVED BY THE TESTING AGENCY GEOTECHNICAL ENGINEER.
- PROVIDE FILL MATERIALS THAT ARE FREE OF DEBRIS, ORGANIC, AND DELETERIOUS MATERIALS AND THAT MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- PLACE ENGINEERED FILL MATERIAL IN MAXIMUM LEVEL LOOSE LIFTS OF 8 INCHES AND COMPACT TO 95% OF THE STANDARD PROCTOR TEST MAXIMUM DRY DENSITY (ASTM D-698).

L. CAST-IN-PLACE CONCRETE CONSTRUCTION

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318, ACI 301, AND THE ACI DETAILING MANUAL.
- PROVIDE CONCRETE WITH PROPERTIES THAT CONFORM TO THE CRITERIA SPECIFIED IN TABLE 1 ON SHEET TT002.
- PROVIDE NORMAL WEIGHT CONCRETE.
- TESTING AGENCY SHALL TAKE CONCRETE TEST CYLINDERS IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, CHAPTER 26 AND THE CONTRACT SPECIFICATIONS.
- SEE THE CONTRACT SPECIFICATIONS FOR ADDITIONAL CONCRETE TESTING REQUIREMENTS (AIR CONTENT, SLUMP, ETC.).
- TESTING AGENCY SHALL PERFORM REBAR INSPECTIONS OF ALL REINFORCING STEEL BEFORE ALL CONCRETE POURS.
- WHEN PLACING CONCRETE ON SLOPING FORMS AT CONCRETE STAIRS, PLACE CONCRETE AT LOWEST ELEVATION OF FORMS FIRST AND WORK UP TOWARD THE HIGHEST ELEVATION.
- PROVIDE CONTINUOUS DRIP ALONG EDGES OF ELEVATED CONCRETE SLABS AS SHOWN IN THE DRAWINGS.
- CHAMFER ALL EXPOSED CORNERS OF COLUMNS AND WALLS WITH 3/4" CHAMFER UNLESS OTHERWISE NOTED.
- AT LOCATIONS SHOWN ON THE DRAWINGS, CAST DOVETAIL ANCHOR SLOTS INTO CONCRETE. SEE GENERAL NOTE 0.14 FOR ADDITIONAL INFORMATION.
- FOR CAST-IN-PLACE CAPS ON MASONRY PARAPETS, PROVIDE EITHER:
 - 5,000 PSI, AIR-ENTRAINED, READY-MIX CONCRETE FROM THE CONCRETE SPECIFICATION, FOR WHICH PUMPING WOULD BE ALLOWED AS WELL AS OTHER MEANS & METHODS, AS LONG AS THE CONCRETE AND FINISH MEET THE REQUIREMENTS OF THE SPECIFICATIONS, OR
 - AIR-ENTRAINED QUICKRETE (QUIKRETE Q-MAX PRO), MIXED IN A MIXER ON SITE (NOT IN A WHEELBARROW), WITH THE FIBERS THAT PROJECT FROM THE SURFACE RUBBED OFF AFTER THE FINAL CURE AND WITH FINISH THAT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.

M. CONCRETE REINFORCEMENT

- PROVIDE HIGH STRENGTH, NEW BILLET DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 FOR STEEL REINFORCEMENT IN CONCRETE.
- PROVIDE STEEL REINFORCEMENT DETAILS IN ACCORDANCE WITH ACI 318 AND CRSI STANDARDS.
- PROVIDE CONCRETE PROTECTION FOR STEEL REINFORCEMENT OF CAST-IN-PLACE CONCRETE AS SPECIFIED IN TABLE 2 ON SHEET TT002. PLACE THE OUTERMOST LAYERS OF REINFORCING AS CLOSE TO THE CONCRETE SURFACES AS POSSIBLE WITHOUT VIOLATING THE REQUIREMENTS SHOWN IN THE TABLE.
- COORDINATE REINFORCING PLACEMENT WITH ALL POST-INSTALLED ANCHORS AT GUARDRAILS, DOORS, SHUTTERS, SCUPPERS, ROPE TIE-OFF ANCHORS, ETC.

N. SLABS-ON-GRADE

- FOR ALL SLABS-ON-GRADE, PROVIDE A 6" MIN. THICK POURED CONCRETE SLAB-ON-GRADE, REINFORCED WITH WWRx6-W2.9xW2.9 LOCATED IN THE UPPER THIRD PORTION OF SLAB THICKNESS.
- FOLLOW WRI STANDARDS FOR WELDED WIRE REINFORCEMENT PLACING, LAP, ETC.
- PROVIDE A MINIMUM OF 4" OF AGGREGATE BASE COURSE (ABC STONE) AS A BASE BELOW THE SLABS-ON-GRADE.
- PROVIDE A 15 MIL VAPOR BARRIER BELOW THE SLABS-ON-GRADE PER THE SPECIFICATIONS.
- PROVIDE A CONTINUOUS MANUFACTURED CRACK CONTROL JOINT (PREMOLDED PLASTIC STRIP) OR EARLY ENTRY SAW-CUT CONTROL JOINT IN THE TOP OF SLAB AT LOCATIONS SHOWN ON THE FOUNDATION PLANS. SEE SPECS. FOR REQUIREMENTS OF SAW-CUTTING.

O. MASONRY

- PROVIDE 2-CELL NORMAL WEIGHT CONCRETE BLOCK CONFORMING TO ASTM C-90.
- PROVIDE UNIT MASONRY THAT DEVELOPS INSTALLED COMPRESSIVE STRENGTHS (fm) AT 28 DAYS, BASED ON NET AREA, OF 2,000 PSI.
- PROVIDE MORTAR THAT CONFORMS TO ASTM C-270, TYPE S.
- ADD INTEGRAL WATER REPELLENT ADMIXTURE TO BLOCK AND MORTAR IN ALL MASONRY WALLS IN ACCORDANCE WITH THE SPECIFICATIONS.
- UNLESS OTHERWISE NOTED, PROVIDE HORIZONTAL JOINT REINFORCING AT 16" ON CENTER VERTICALLY IN ALL MASONRY WALLS.
- UNLESS OTHERWISE NOTED ON DRAWINGS, PROVIDE (1) #5 VERTICAL BAR AT ENDS OF WALLS, AT WALL CORNERS AND INTERSECTIONS, AT JAMBS OF OPENINGS, AND AT 24" O.C. MAXIMUM IN ALL MASONRY WALLS. SEE DRAWINGS FOR ADDITIONAL REINFORCING DETAILS, INCLUDING AT JOINTS.
- PROVIDE VERTICAL REINFORCING BARS FOR FULL HEIGHT OF WALL. DO NOT PROVIDE DOWELS INTO CONCRETE SLABS EXCEPT WHERE SHOWN ON DRAWINGS.
- SEE DRAWINGS FOR ADDITIONAL DETAILS RELATING TO VERTICAL REINFORCING BARS, INCLUDING BARS AT DOOR, WINDOW, AND SCUPPER OPENINGS, AT CONTROL JOINTS IN WALLS, AND AT OTHER LOCATIONS.
- KEEP CELLS TO RECEIVE BARS CLEAN OF MORTAR DROPPINGS.
- SECURE VERTICAL BARS WITH WIRE TIES AND SPACERS AT TOP AND BOTTOM TO ASSURE THAT BARS REMAIN IN POSITION DURING GROUTING.
- FILL ALL CELLS FULL HEIGHT WITH 3,000 PSI MASONRY GROUT PER ASTM C-476 AND THE SPECS.
- CLOSE CLEANOUTS AFTER GROUT FLOWS FULLY TO BOTTOM OF WALL. VIBRATE GROUT DURING PLACEMENT TO ELIMINATE AIR POCKETS.
- SEE THE CONTRACT SPECIFICATIONS FOR MASONRY TESTING AND INSPECTIONS REQUIRED, INCLUDING REINFORCING AND GROUTING INSPECTIONS.
- AT LOCATIONS INDICATED ON DRAWINGS, ANCHOR MASONRY TO CONCRETE WITH DOVETAIL ANCHORS AT 16" ON CENTER, UNLESS OTHERWISE NOTED, AND MORTAR MASONRY TIGHT TO FACE OF CONCRETE. PROVIDE S.S. 4" LONG NO.103-C DOVETAIL TRIANGLE ANCHORS, EACH WITH 12 GA. DOVETAIL ANCHOR AND 3/16" DIA. WIRE TRIANGLE TIE, AND S.S. 22 GA. NO. 100 STANDARD DOVETAIL SLOTS BY HECKMAN BUILDING PRODUCTS, INC., OR AN EQUIVALENT BY HOHMANN & BARNARD OR DUR-O-WAL, APPROVED BY THE ENGINEER. SPACE ANCHORS AT 16" O.C. VERTICALLY AND, IF APPLICABLE, 24" O.C. HORIZONTALLY U.O.N.
- ALL MASONRY WALLS SHALL BE STANDARD GRAY COLOR WITH 8"(THICK) x 16"(LONG) x 8"(TALL) NOMINAL BLOCKS. ALL BLOCKS SHALL BE STANDARD SMOOTH FACE BLOCK.
- PROVIDE (2) COATS OF WATER REPELLENT SEALER, AS INDICATED IN SPECIFICATION SECTION 04 20 00, TO THE EXTERIOR FACES OF EXTERIOR CMU WALLS.
- SEE GEN. NOTE L.11 FOR PARAPET CAPS.

P. ANCHORS

- INSTALL ADHESIVE ANCHORS, EXPANSION ANCHORS, SLEEVE ANCHORS, AND CONCRETE ANCHOR SCREWS PER THE TYPICAL ANCHOR SCHEDULES ON SHEET TT002.
- PROVIDE ANCHORS WITH MINIMUM EMBEDMENT AND ALLOWABLE CAPACITIES SHOWN IN THE SCHEDULES, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- IF MINIMUM REQUIREMENTS FOR ANCHORS CAN NOT BE ACHIEVED DUE TO FIELD CONDITIONS, NOTIFY THE ENGINEER.
- INSTALL ALL ANCHORS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
- DRILL HOLES FOR ANCHORS TO BE INSTALLED IN MASONRY WITH A ROTARY DRILL ONLY. NOT A ROTARY-HAMMER DRILL. DO NOT DAMAGE FACES OF WALLS, CEILINGS, SLABS, OR OTHER SUBSTRATES WHILE DRILLING.
- SUBMIT PROPOSED ANCHORS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.
- DO NOT DAMAGE REINFORCING STEEL WHILE INSTALLING ANCHORS. COORDINATE REINFORCING PLACEMENT WITH ALL POST-INSTALLED ANCHORS AT GUARDRAILS, DOORS, SHUTTERS, SCUPPERS, ROPE TIE-OFF ANCHORS, ETC.
- ANCHORS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR RESPONSIBLE FOR THE SCOPE OF WORK BEING ANCHORED.

Q. STEEL SHAPES AND PLATES

- PROVIDE STEEL WITH PROPERTIES LISTED IN TABLE 3 ON SHEET BB002.
- SEE SPECIFICATIONS FOR REQUIREMENTS OF STAINLESS STEEL ANGLES AND PLATES.
- PROVIDE WELDED SHOP CONNECTIONS UNLESS OTHERWISE NOTED.
- MAKE FIELD CONNECTIONS WITH ASTM A-325H HIGH STRENGTH BOLTS TIGHTENED TO A SNUG TIGHT CONDITION, UNLESS OTHERWISE NOTED.
- PERFORM ALL WELDING WITH WELDERS QUALIFIED IN ACCORDANCE WITH AWS PROCEDURES FOR WELDER QUALIFICATION.
- PROVIDE GALVANIZED STEEL MEMBERS, UNLESS OTHERWISE NOTED ON THE DRAWINGS AS "PAINTED" OR "STAINLESS STEEL".
- AT GALVANIZING VENT HOLES IN PIPES AND TUBES IN RAILINGS, EXTERIOR STAIRS, ROPE FRAMES AND OTHER NOTED ITEMS, LOCATE VENT HOLES AT BOTTOM OF PIPE OR TUBE. PLUG ALL VENT HOLES AFTER GALVANIZING IN ONE OF THE FOLLOWING WAYS: HAMMER IN A ZINC GALVANIZING VENT HOLE PLUG, GRIND IT SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT. A SECOND OPTION IS TO PLUG WELD THE GALVANIZING VENT HOLES, GRIND THE WELDS SMOOTH, AND TOUCH UP WITH GALVANIZING REPAIR PAINT PER THE SPECIFICATIONS.
- WHERE INDICATED IN THE DRAWINGS AS "PAINTED", PROVIDE STEEL WITH ONE SHOP COAT OF RUST-INHIBITING PRIMER AND TWO FIELD COATS AS INDICATED IN THE SPECIFICATIONS.
- WHERE INDICATED IN THE DRAWINGS, PROVIDE STAINLESS STEEL OF TYPE INDICATED IN THE SPECIFICATIONS.
- SEE THE CONTRACT SPECIFICATIONS FOR STEEL TESTING AND INSPECTIONS REQUIRED.

R. STEEL GRATING AND TREADS

- AT EXTERIOR STAIRS AND LANDINGS, PROVIDE 2" DEEP, 13 GAUGE, GALVANIZED 'PERF-O GRIP' STEEL GRATING BY COOPER B-LINE, OR AN EQUIVALENT BY NUCOR GRATING OR METALEX, APPROVED BY THE ENGINEER. MAXIMUM PLANK WIDTH IS 12 INCHES. INSTALL GRATING IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO CREATE A TWO-SPAN CONDITION BY WELDING (SCREWS AND CLIPS NOT ALLOWED). PROVIDE GRATING PLANK LENGTHS THAT ARE AS LONG AS POSSIBLE TO MINIMIZE CUT PLANKS AND JOINTS WHERE CUT ENDS OF PLANKS ABUT ONE ANOTHER.
- AT EXTERIOR STAIRS, PROVIDE 2" DEEP, 13 GAUGE, GALVANIZED PERF-O GRIP STAIR TREADS BY COOPER B-LINE, OR AN EQUIVALENT BY NUCOR GRATING OR METALEX, APPROVED BY THE ENGINEER. INSTALL TREADS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS USING STANDARD ZINC COATED BOLTS.
- AT 2ND FLOOR MEZZANINE, PROVIDE HOT DIP GALVANIZED 2" WELDED BAR GRATING W/ SMOOTH SURFACE, GW-200, 19-W-4, 2"x3/16" RECTANGULAR BARS AT 1 3/16" O.C. 77% OPEN AREA.
- PROVIDE A GALVANIZED 2" TALL VERTICAL END PLATE TO CLOSE OFF THE ENDS OF ALL GRATING PLANKS TO ELIMINATE JAGGED EDGES AND TO STRENGTHEN THE ENDS OF THE PLANKS. THIS INCLUDES ENDS OF PLANKS THAT ABUT ENDS OF ADJACENT PLANKS AND THAT ABUT FACE OF THE BUILDING.
- TOUCH UP ALL ABRASIONS AND WELDS WITH GALVANIZING REPAIR PAINT PER THE SPECIFICATIONS.

S. FIXED ACCESS LADDER

- PROVIDE A HEAVY-DUTY, FIXED, WALL-MOUNTED, GALVANIZED STEEL CAGED VERTICAL ACCESS LADDER. NOMINAL HEIGHT OF LADDER IS 15'-6"± FROM FIFTH FLOOR FIRE ESCAPE TO TOP OF THE SIDE RAILS EXTENDING 3'-6" ABOVE THE ROOF FOR FALL PROTECTION.
- PROVIDE CONTINUOUS CHANNEL OR RECTANGULAR TUBING SIDE RAILS, SPACED 20 INCHES APART AND SIZED TO SUPPORT LOADS WITHIN CODE REQUIRED LIMITS FOR DEFLECTION. PROVIDE ROUND BAR LADDER RUNGS, WITH CORRUGATED SURFACES, EVENLY SPACED AT 12" O.C. MAX. EACH LADDER RUNG SHALL BE CAPABLE OF CARRYING 1,000 POUNDS LOAD AND SHALL BE ATTACHED AT CENTERLINE OF SIDE RAILS BY WELDING. TOP OF TOP RUNG SHALL BE FLUSH WITH TOP OF ROOF SLAB (FIELD MEASURE BEFORE FABRICATING LADDER).
- FOR CAGED LADDER, CLEARANCE BETWEEN TOP OF FIRE ESCAPE GRATING AND BOTTOM OF CAGE SHALL BE 7'-4". PROVIDE CAGE THAT IS 2'-6" FROM CENTERLINE OF LADDER RUNG, WITH FLARED BOTTOM.
- PROVIDE ACCESS LADDER CERTIFIED TO MEET OSHA/ANSI A14.3 STANDARDS.
- SUBMIT SHOP DRAWINGS SHOWING ALL COMPONENTS, SIZES, LENGTHS, AND ATTACHMENTS TO THE STRUCTURE FOR APPROVAL BY THE ENGINEER.

T. TESTING AND INSPECTIONS OF ROPE TIE-OFF POINTS

- TEST EACH ROPE ANCHOR ASSEMBLY AND ROPE FRAME ASSEMBLY WITH A 5,000-POUND PULL TEST, AS FOLLOWS:
 - SURFACE-MOUNTED ROPE ANCHOR ASSEMBLY: PULL TEST ON HOIST RING PERPENDICULAR TO THE SLAB OR WALL SURFACE ON WHICH ASSEMBLY IS ATTACHED.
 - ROPE FRAME ASSEMBLY: PULL TEST AT TOP OF FRAME AT EACH CORNER OF FRAME PERPENDICULAR TO SLAB SURFACE, TESTING ONE CORNER AT A TIME.
 - EMBEDDED (THROUGH-SLAB) ROPE ANCHOR ASSEMBLY: PULL TEST ON ROUND BAR PERPENDICULAR TO THE SLAB SURFACE.
- INSPECT GANTRY ASSEMBLY AS FOLLOWS:
 - VISUALLY INSPECT ALL BOLTED CONNECTIONS, INCLUDING BOLTS INTO/THROUGH SLAB.
 - VISUALLY INSPECT ALL WELDS.
 - VISUALLY INSPECT ALL HOIST RING CONNECTIONS TO STEEL FRAMING.

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WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303



NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

TRAINING TOWER
- GENERAL NOTES

TT001

NAME OF PROJECT: **WTCC EWS - FIRE & RESCUE TRAINING CENTER**
 ADDRESS: **5345 ROLESVILLE RD, WENDELL, NC 27591** ZIP CODE: **27603**
 OWNER/AUTHORIZED AGENT: **WAKE TECHNICAL COMMUNITY COLLEGE** PHONE: **919.866.6139** EMAIL: **jfwicker@waketech.edu**
 OWNED BY: ☐ CITY/COUNTY ☐ PRIVATE ☒ STATE
 CODE ENFORCEMENT JURISDICTION: ☐ CITY ☒ COUNTY **WAKE** ☒ STATE

CONTACT: KRISTEN M. HESS, AIA					
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
ARCHITECTURAL	HH ARCHITECTURE	KRISTEN M. HESS, AIA	9290	919.828.2301	khess@hh-arch.com
CIVIL	STEWART	ROY LORENZEN	15834	919.866.4813	rlorenzen@stewartinc.com
ELECTRICAL	-	-	-	-	-
FIRE ALARM	-	-	-	-	-
PLUMBING	-	-	-	-	-
MECHANICAL	-	-	-	-	-
SPRINKLER/SYSTEMS	-	-	-	-	-
STRUCTURAL	ELAE	ROGER LEBDOEUF	029858	703.321.2100	rroger@elaengineers.com
RETAINING WALLS & HIGH	-	-	-	-	-
PRE-CAST	-	-	-	-	-
TRUSS	-	-	-	-	-
LANDSCAPE	-	-	-	-	-
HAZMAT	-	-	-	-	-

BASIC BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ II-A ☐ III-A ☐ IV-A ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B ☐ V-B

SPRINKLERS: ☒ NO ☐ PARTIAL ☐ YES ☐ CLASS ☐ NFPA 13 ☐ NFPA 13C ☐ NFPA 13D ☐ WET ☐ DRY

STANDPIPES: ☒ NO ☐ YES

FIRE DISTRICT: ☐ YES ☐ NO

FLOOD HAZARD AREA: ☐ NO ☐ YES

SPECIAL INSPECTIONS REQUIRED: ☐ NO ☒ YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES AND REQUIREMENTS.)

PRIMARY OCCUPANCY CLASSIFICATION(S):		ALLOWABLE AREA	
ASSEMBLY	<input type="checkbox"/> A-1 <input type="checkbox"/> A-2 <input type="checkbox"/> A-3 <input type="checkbox"/> A-4 <input type="checkbox"/> A-5		
BUSINESS	<input type="checkbox"/>		
EDUCATIONAL	<input type="checkbox"/>		
FACTORY	<input type="checkbox"/> F-1 MODERATE <input type="checkbox"/> F-2 LOW		
HAZARDOUS	<input type="checkbox"/> H-1 MODERATE <input type="checkbox"/> H-2 DEFLAGRANT	<input type="checkbox"/> H-3 COMBUST	<input type="checkbox"/> H-4 HEALTH <input type="checkbox"/> H-5 HIGH
INSTITUTIONAL	<input type="checkbox"/> I-1 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2		
	<input type="checkbox"/> I-2 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2		
	<input type="checkbox"/> I-3 CONDITION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
	<input type="checkbox"/> I-4		
MERCANTILE	<input type="checkbox"/>		
RESIDENTIAL	<input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4		
STORAGE	<input type="checkbox"/> S-1 MODERATE <input type="checkbox"/> S-2 LOW	<input type="checkbox"/> HIGH-PILED	
	<input type="checkbox"/> PARKING GARAGE <input type="checkbox"/> OPEN	<input type="checkbox"/> ENCLOSED	<input type="checkbox"/> REPAIR GARAGE
UTILITY AND MISCELLANEOUS	<input checked="" type="checkbox"/>		
ACCESSORY OCCUPANCY CLASSIFICATION(S):		-	
INCIDENTAL USES (Table 509):		-	
SPECIAL USES (Chapter 4 - List Code Sections):		-	
SPECIAL PROVISIONS (Chapter 5 - List Code Sections):		-	
MIXED OCCUPANCY:	<input type="checkbox"/> NO <input type="checkbox"/> YES	SEPARATION:	- HR. EXCEPTION: -

[illegible]

¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
			PROVIDED (w/ REDUCTION)	*				
STRUCTURAL FRAME, INCLUDING COLUMNS, GRIDDERS, TRUSSES	-	-	-	-	-	-	-	-
BEARING WALLS	-	-	-	-	-	-	-	-
EXTERIOR								
NORTH	-	-	-	-	-	-	-	-
EAST	-	-	-	-	-	-	-	-
WEST	-	-	-	-	-	-	-	-
SOUTH	-	-	-	-	-	-	-	-
INTERIOR	-	-	-	-	-	-	-	-
NONBEARING WALLS AND PARTITIONS								
EXTERIOR WALLS								
NORTH								
EAST								
WEST								
SOUTH								
INTERIOR WALLS & PARTITIONS								
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS								
FLOOR CEILING ASSEMBLY								
COLUMNS SUPPORTING FLOORS								
ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS								
ROOF CEILING ASSEMBLY								
COLUMNS SUPPORTING ROOF								
SHAFT ENCLOSURES - EXIT								
SHAFT ENCLOSURES - OTHER								
CORRIDOR SEPARATION								
OCCUPANCY/FIRE BARRIER SEPARATION								
PARTY/FIRE WALL SEPARATION								
SMOKE BARRIER SEPARATION								
SMOKE PARTITION								
TENANT / DWELLING UNIT / SLEEPING UNIT SEPARATION								
INCIDENTAL USE SEPARATION								

LIFE SAFETY SYSTEM REQUIREMENTS	
EMERGENCY LIGHTING:	<input type="checkbox"/> NO <input type="checkbox"/> YES
EXIT SIGNS:	<input type="checkbox"/> NO <input type="checkbox"/> YES
FIRE ALARM:	<input type="checkbox"/> NO <input type="checkbox"/> YES
SMOKE DETECTION SYSTEM:	<input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PARTIAL <input type="text" value="_____"/>
CARBON MONOXIDE DETECTION:	<input type="checkbox"/> NO <input type="checkbox"/> YES

☐ FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
☐ ASSUMED AND REAL PROPERTY LINE LOCATIONS (IF NOT A PLANNED UNIT DEVELOPMENT) (CHAPTER 11)
☐ EXTERIOR WALL OPENING AREA WITH RESPECT TO ASSUMED PROPERTY LINES (705.8)
☐ OCCUPANCY USE FOR EACH AREA AS IT RELATES TO SEISMIC LOAD CALCULATION (TABLE 1004.1.2)
☐ OCCUPANT LOADS FOR EACH AREA
☐ EXIT ACCESS TRAVEL DISTANCES (103.1)
☐ COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
☐ DEAD END LENGTHS (1020.4)
☐ CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
☐ MAX. CALCULATED OCC. LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.3)
☐ ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR
☐ A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION
☐ LOCATION OF DOORS WITH PANIC HARDWARE (1010.1.10)
☐ LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7)
☐ LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.9.9)
☐ LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
☐ LOCATION OF EMERGENCY ESCAPE WINDOWS (1030)
☐ THE SQUARE FOOTAGE OF EACH FIRE AREA (202)
☐ THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION 1-2 (407.5)
☐ NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN OCCUPY UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE PARKING (SECTION 1106)						
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 13' ACCESSIBLE AISLE	VAN SPACES WITH 13' ACCESSIBLE AISLE	8' ACCESSIBLE	
TOTAL						

(TABLE 2-302.1)											
USE		WATERCLOSERS			URINALS	LAVATORIES			SHOWERS /TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXIST'G	-	-	-		-	-	-	-	-	-
	NEW	-	-	-		-	-	-	-	-	-
	REQ'D	-	-	-		-	-	-	-	-	-

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, OPL, DMHS, TCC, ETC., DESCRIBE BELOW)

EXEMPT BUILDING: ☐ NO ☐ YES (PROVIDE CODE OR STATUTORY REFERENCE): _____

CLIMATE ZONE: ☐ 3A ☐ 4A ☐ 5A

METHOD OF COMPLIANCE: ENERGY CODE ☐ PERFORMANCE ☐ PRESCRIPTIVE
ASHRAE 90.1 ☐ PERFORMANCE ☐ PRESCRIPTIVE
(IF "OTHER" SPECIFY SOURCE HERE) _____

FLOORS SLAB ON GRADE	
DESCRIPTION OF ASSEMBLY:	-
U-VALUE OF TOTAL ASSEMBLY:	-
R-VALUE OF INSULATION:	-
HORIZONTAL/VERTICAL REQUIREMENT:	-
SLAB HEATED:	-

DESIGN LOADS:

IMPORTANCE FACTORS:	SNOW	(I _s)	1.0	
	SEISMIC	(I _e)	1.0	
LIVE LOADS:	ROOF	50	psf	
	MEZZANINE	-	psf	
	FLOOR	50	psf	
GROUND SNOW LOAD:		15	psf	
WIND LOAD:	ULTIMATE WIND SPEED	115	mph (ASCE-7)	
	EXPOSURE CATEGORY	C		

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

RISK CATEGORY (Table 1604.5) ☐ I ☒ II ☐ III ☐ IV

SPECTRAL RESPONSE ACCELERATION S_s 0.147 %g S_1 0.074 %g

SITE CLASSIFICATION (ASCE 7) ☐ A ☐ B ☐ C ☒ D

DATA SOURCE: ☒ Field Test ☐ Presumptive ☐ Historical Data

BASIC STRUCTURAL SYSTEM ☐ Bearing Wall ☐ Dual w/ Special Moment Frame
☐ Building Frame ☐ Dual w/ Intermediate R/C
☒ Moment Frame ☐ Inverted Pendulum or Special Steel

ANALYSIS PROCEDURE: ☐ Simplified ☒ Equivalent Lateral Force ☐ Dynamic

ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? ☒ YES ☐ NO

LATERAL DESIGN CONTROL: ☒ EARTHQUAKE ☐ WIND

SOIL BEARING CAPACITIES

FIELD TEST (provide copy of test report) _____ psf

PRESUMPTIVE BEARING CAPACITY _____ psf

PILE SIZE, TYPE, AND CAPACITY _____

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT	
THERMAL ZONE:	
WINTER DRY BULB:	_____
SUMMER DRY BULB:	_____
INTERIOR DESIGN CONDITIONS:	
WINTER DRY BULB:	_____
SUMMER DRY BULB:	_____
RELATIVE HUMIDITY	_____
BUILDING HEATING LOAD:	

BUILDING COOLING LOAD:	

MECHANICAL SPACING CONDITIONING SYSTEM	
UNITARY	
DESCRIPTION OF UNIT:	_____
HEATING EFFICIENCY:	_____
COOLING EFFICIENCY:	_____
SIZE CATEGORY OF UNIT:	_____
BOILER	
SIZE CATEGORY. IF OVERSIZED, STATE REASON:	_____
CHILLER	
SIZE CATEGORY. IF OVERSIZED, STATE REASON:	_____
LIST EQUIPMENT EFFICIENCIES:	

ELECTRICAL SYSTEMS AND EQUIPMENT:

METHOD OF COMPLIANCE: ENERGY CODE ASHRAE 90.1-2010 ☐ COMPLIANCE ☐ PRESCRIPTIVE
ASHRAE 90.1-2010 ☐ PERFORMANCE ☐ PRESCRIPTIVE

LIGHTING SPECIFICATIONS (each fixture):

LAMP TYPE REQUIRED IN FIXTURE _____

NUMBER OF LAMPS IN FIXTURE _____

BALLAST TYPE USED IN THE FIXTURE _____

NUMBER OF BALLASTS IN FIXTURE _____

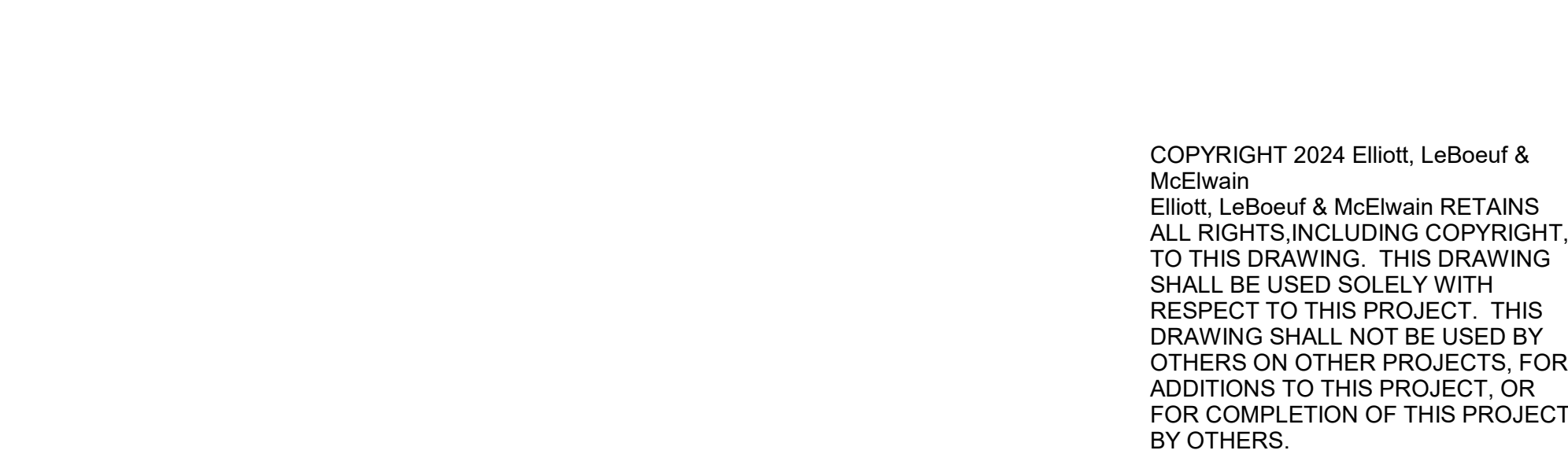
TOTAL WATTAGE PER FIXTURE _____

TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED (WHOLE BUILDING OR SPACE BY SPACE) _____

TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED _____

(WHEN USING THE 2018 WLEC; NOT REQUIRED FOR ASHRAE 90.1)

- ☐ C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
- ☐ C406.3 REDUCED LIGHTING POWER DENSITY
- ☐ C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
- ☐ C406.5 ON-SITE RENEWABLE ENERGY
- ☐ C406.6 DEDICATED OUTDOOR AIR SYSTEM
- ☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING



TT003



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WTCC EWS - FIRE & RESCUE TRAINING CENTER

WAKE TECHNICAL COMMUNITY COLLEGE

5345 ROLESVILLE RD, WENDELL, NC 27591

NCCCS NO. 2303

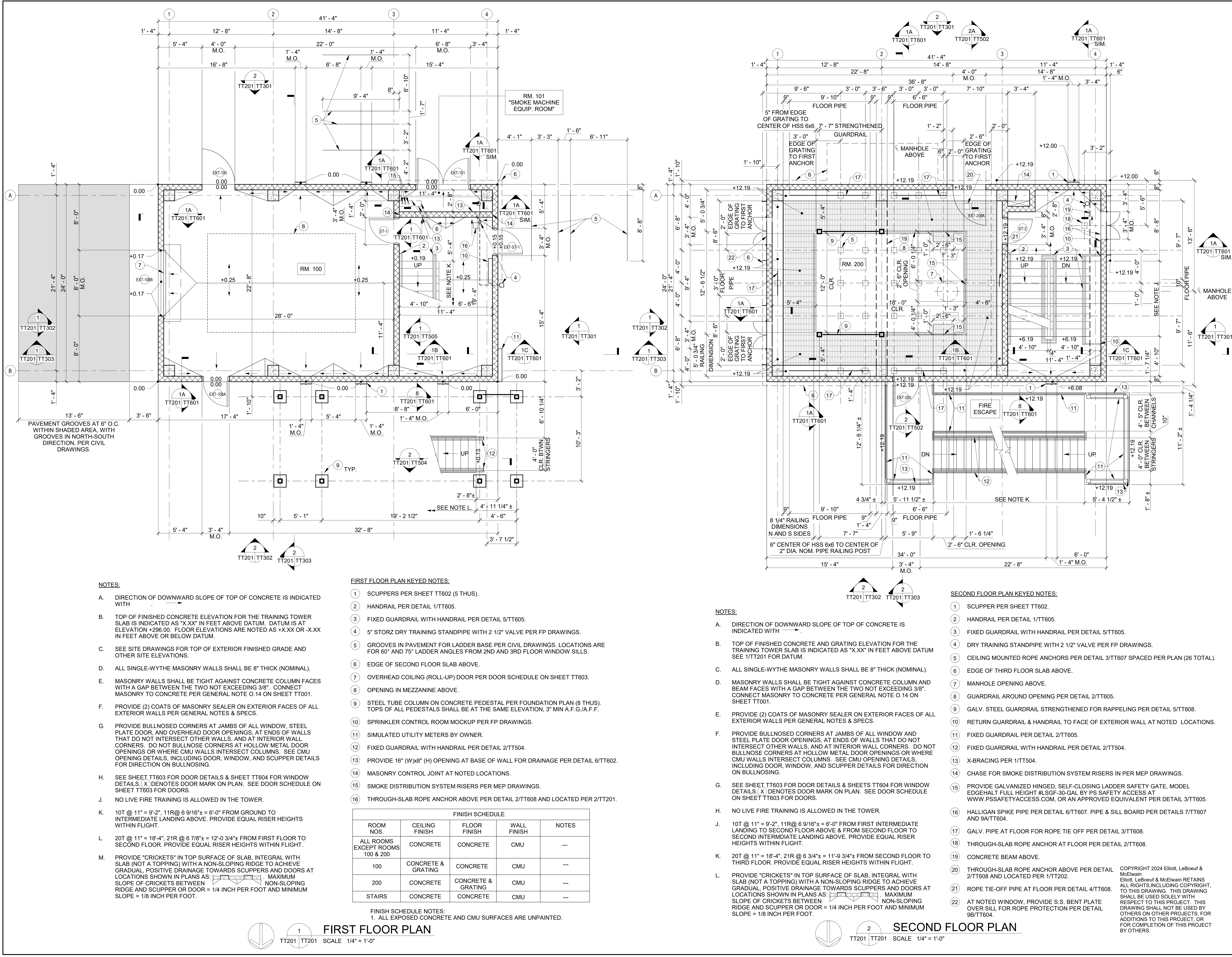


NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

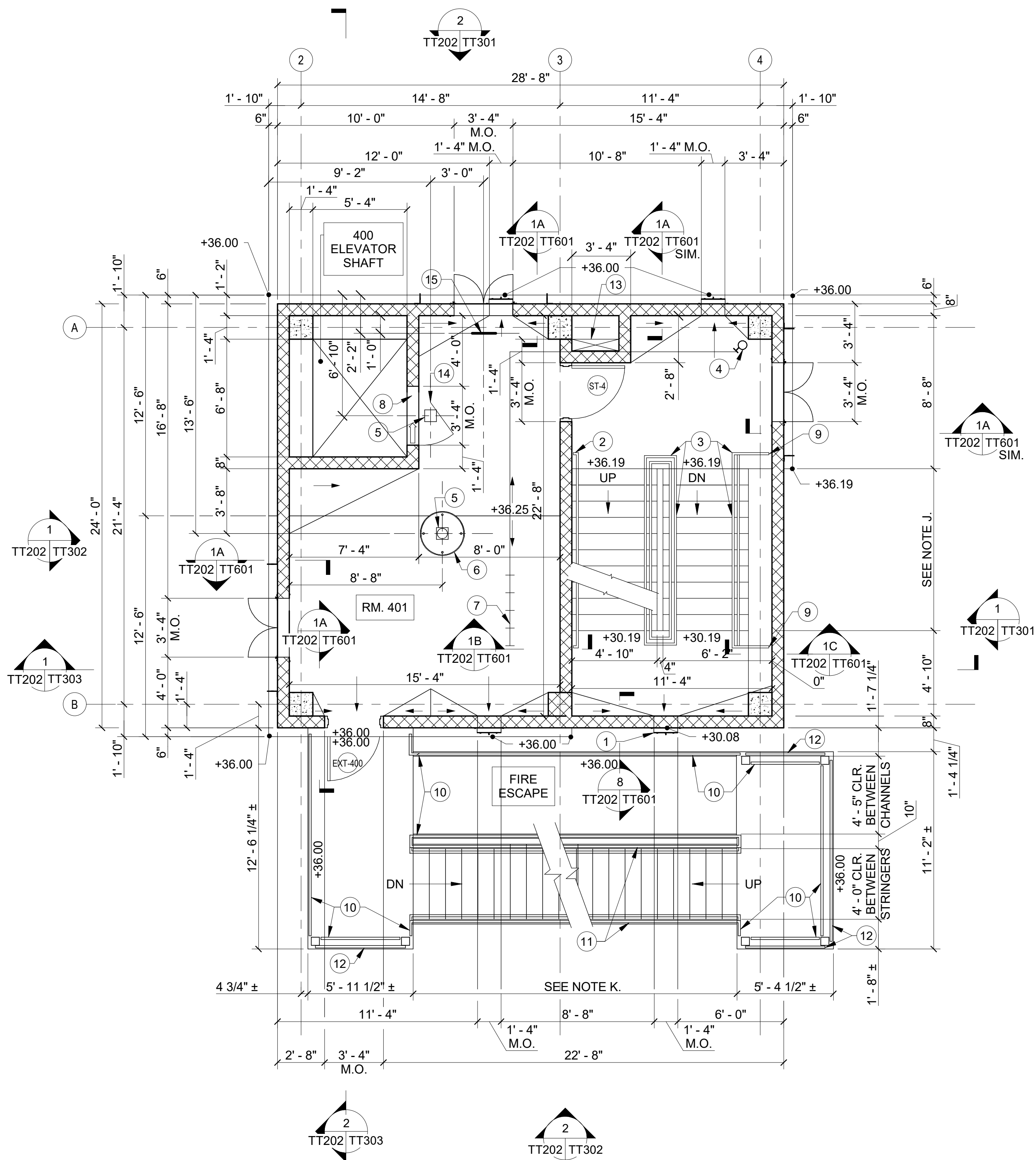
**TRAINING TOWER
- FIRST & SECOND
FLOOR PLANS**

TT201



NO.	REVISION	DATE

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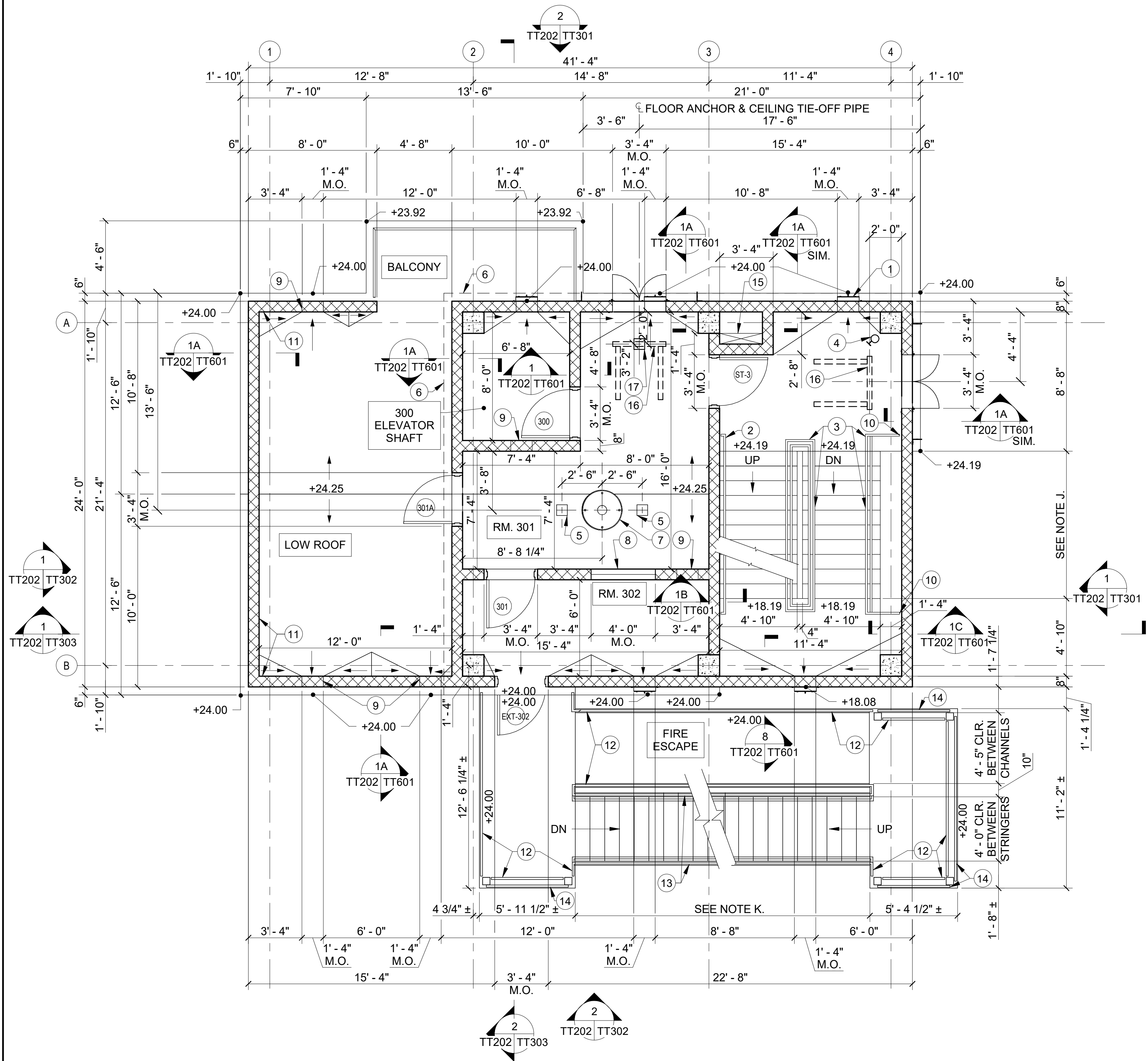
FOURTH FLOOR PLAN KEYED NOTES:

- SCUPPERS PER TT602 (4 THUS).
- HANDRAIL PER DETAIL 1/TT605.
- FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 5/TT605.
- DRY TRAINING STANDPIPE WITH 2 1/2" VALVE PER FP DRAWINGS.
- CEILING MOUNTED ROPE ANCHORS PER DETAIL 3/TT607.
- MANHOLE PER DETAIL 4/TT607.
- SPRINKLER LAB PER P DRAWINGS.
- ELEVATOR DOOR PER DETAIL 5/TT608.
- RETURN GUARDRAIL & HANDRAIL TO FACE OF EXTERIOR WALL AT NOTED LOCATIONS.
- FIXED GUARDRAIL PER DETAIL 2/TT605.
- FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 2/TT504.
- X-BRACING PER 1/TT504.
- CHASE FOR SMOKE DISTRIBUTION SYSTEM RISERS PER MEP DRAWINGS.
- GALV. SWINGING FALL PROTECTION GATE PER DETAIL 6/TT606.
- ROPE TIE-OFF PIPE AT FLOOR BELOW WINDOW PER DETAIL 4/TT608.

NOTES:

- DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE TRAINING TOWER SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM SEE 1/TT201 FOR DATUM.
- ALL SINGLE-WYTHE MASONRY WALLS SHALL BE 8" THICK (NOMINAL).
- MASONRY WALLS SHALL BE TIGHT AGAINST CONCRETE COLUMN AND BEAM FACES WITH A GAP BETWEEN THE TWO NOT EXCEEDING 3/8". CONNECT MASONRY TO CONCRETE PER GENERAL NOTE O.14 ON SHEET TT001.
- PROVIDE (2) COATS OF MASONRY SEALER ON EXTERIOR FACES OF ALL EXTERIOR WALLS PER GENERAL NOTES & SPECS.
- PROVIDE BULLNOSED AT JAMBS OF ALL WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT INTERIOR WALL CORNERS. DO NOT BULLNOSE CORNERS AT HOLLOW METAL DOOR OPENINGS OR WHERE CMU WALLS INTERSECT COLUMNS. SEE CMU OPENING DETAILS, INCLUDING DOOR, WINDOW, AND SCUPPER DETAILS FOR DIRECTION ON BULLNOSING.
- SEE SHEET TT603 FOR DOOR DETAILS & SHEETS TT604 FOR WINDOW DETAILS. (X) DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET TT603 FOR DOORS.
- NO LIVE FIRE TRAINING IS ALLOWED IN THE TOWER.
- 10T @ 11" = 9'-2", 11R @ 6 9/16" ± = 6'-0" FROM THIRD INTERMEDIATE LANDING TO FOURTH FLOOR ABOVE & FROM FOURTH FLOOR TO FOURTH INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- 20T @ 11" = 18'-4", 21R @ 6 7/8" ± = 12'-0" FROM FOURTH FLOOR TO FIFTH FLOOR. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: . MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT AND MINIMUM SLOPE = 1/8 INCH PER FOOT.

2
TT202 TT202 SCALE 1/4" = 1'-0"



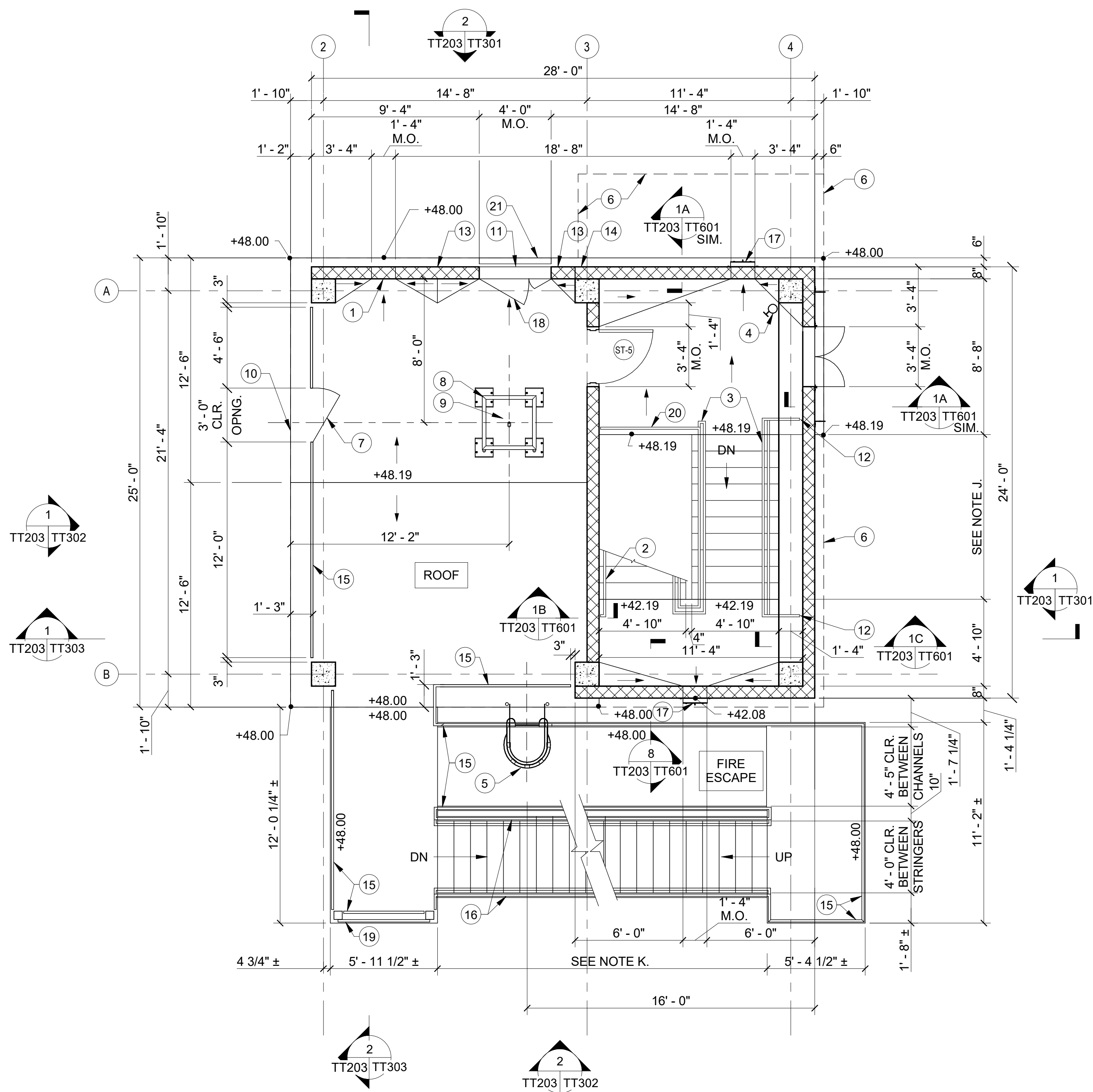
THIRD FLOOR PLAN KEYED NOTES:

- SCUPPERS PER SHEET TT602 (5 THUS).
- HANDRAIL PER DETAIL 1/TT605.
- FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 5/TT605.
- DRY TRAINING STANDPIPE WITH 2 1/2" VALVE PER FP DRAWINGS.
- CEILING MOUNTED ROPE ANCHORS PER DETAIL 3/TT607.
- EDGE OF FOURTH FLOOR SLAB ABOVE.
- MANHOLE PER DETAIL 4/TT607.
- BREACH WALL PROP PER DETAIL 7/TT601.
- PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF PARAPET FOR DRAINAGE PER DETAIL 6/TT602.
- RETURN GUARDRAIL & HANDRAIL TO FACE OF EXTERIOR WALL AT NOTED LOCATIONS.
- PARAPET PER DETAIL 3/TT601.
- FIXED GUARDRAIL PER DETAIL 2/TT605.
- FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 2/TT504.
- X-BRACING PER 1/TT504.
- CHASE FOR SMOKE DISTRIBUTION SYSTEM RISERS PER MEP DRAWINGS.
- ABOVE-WINDOW ROPE TIE-OFF PIPE FRAME ABOVE PER DETAIL 1/TT608. HEIGHT ABOVE FLOOR TO BOTTOM OF HORIZONTAL PIPE 8'-0" ± IN ROOM 301 AND 6'-8" ± IN STAIRWELL.
- THROUGH-SLAB ROPE ANCHOR AT FLOOR PER DETAIL 2/TT608.

1
TT202 TT202 SCALE 1/4" = 1'-0"

NOTES:

- DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH
- TOP OF FINISHED CONCRETE ELEVATION FOR THE TRAINING TOWER SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM SEE 1/TT201 FOR DATUM.
- ALL SINGLE-WYTHE MASONRY WALLS SHALL BE 8" THICK (NOMINAL).
- MASONRY WALLS SHALL BE TIGHT AGAINST CONCRETE COLUMN AND BEAM FACES WITH A GAP BETWEEN THE TWO NOT EXCEEDING 3/8". CONNECT MASONRY TO CONCRETE PER GENERAL NOTE O.14 ON SHEET TT001.
- PROVIDE (2) COATS OF MASONRY SEALER ON EXTERIOR FACES OF ALL EXTERIOR WALLS PER GENERAL NOTES & SPECS.
- PROVIDE BULLNOSED AT JAMBS OF ALL WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT INTERIOR WALL CORNERS. DO NOT BULLNOSE CORNERS AT HOLLOW METAL DOOR OPENINGS OR WHERE CMU WALLS INTERSECT COLUMNS. SEE CMU OPENING DETAILS, INCLUDING DOOR, WINDOW, AND SCUPPER DETAILS FOR DIRECTION ON BULLNOSING.
- SEE SHEET TT603 FOR DOOR DETAILS & SHEETS TT604 FOR WINDOW DETAILS. (X) DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET TT603 FOR DOORS.
- NO LIVE FIRE TRAINING IS ALLOWED IN THE TOWER.
- 10T @ 11" = 9'-2", 11R @ 6 9/16" ± = 6'-0" FROM SECOND INTERMEDIATE LANDING TO THIRD FLOOR ABOVE & FROM THIRD FLOOR TO THIRD INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- 20T @ 11" = 18'-4", 21R @ 6 7/8" ± = 12'-0" FROM THIRD FLOOR TO FOURTH FLOOR. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: . MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT AND MINIMUM SLOPE = 1/8 INCH PER FOOT.

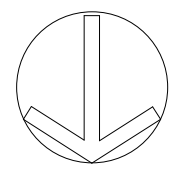


NOTES:

- A. DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH
- B. TOP OF FINISHED CONCRETE ELEVATION FOR THE TRAINING TOWER SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM SEE 1/TT201 FOR DATUM.
- C. ALL SINGLE-WYTHE MASONRY WALLS SHALL BE 8" THICK (NOMINAL).
- D. MASONRY WALLS SHALL BE TIGHT AGAINST CONCRETE COLUMN AND BEAM FACES WITH A GAP BETWEEN THE TWO NOT EXCEEDING 3/8". CONNECT MASONRY TO CONCRETE PER GENERAL NOTE 0.14 ON SHEET TT001.
- E. PROVIDE (2) COATS OF MASONRY SEALER ON EXTERIOR FACES OF ALL EXTERIOR WALLS PER GENERAL NOTES & SPECS.
- F. PROVIDE BULLNOSED AT JAMBS OF ALL WINDOW OPENINGS, AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS, AND AT INTERIOR WALL CORNERS. DO NOT BULLNOSE CORNERS AT HOLLOW METAL DOOR OPENINGS OR WHERE CMU WALLS INTERSECT COLUMNS. SEE CMU OPENING DETAILS, INCLUDING DOOR, WINDOW, AND SCUPPER DETAILS FOR DIRECTION ON BULLNOSING.
- G. SEE SHEET TT603 FOR DOOR DETAILS & SHEETS TT604 FOR WINDOW DETAILS. (X) DENOTES DOOR MARK ON PLAN. SEE DOOR SCHEDULE ON SHEET TT603 FOR DOORS.
- H. NO LIVE FIRE TRAINING IS ALLOWED IN THE TOWER.
- J. 10T @ 11" = 9'-2", 11R @ 6 9/16"± = 6'-0" FROM FOURTH INTERMEDIATE LANDING TO FIFTH FLOOR ABOVE & FROM FIFTH FLOOR TO FIFTH INTERMEDIATE LANDING ABOVE. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- K. 20T @ 11" = 18'-4", 21R @ 6 7/8"± = 12'-0" FROM FIFTH FLOOR TO HIGH ROOF. PROVIDE EQUAL RISER HEIGHTS WITHIN FLIGHT.
- L. PROVIDE "CRICKETS" IN TOP SURFACE OF SLAB, INTEGRAL WITH SLAB (NOT A TOPPING) WITH A NON-SLOPING RIDGE TO ACHIEVE GRADUAL, POSITIVE DRAINAGE TOWARDS SCUPPERS AND DOORS AT LOCATIONS SHOWN IN PLANS AS: . MAXIMUM SLOPE OF CRICKETS BETWEEN NON-SLOPING RIDGE AND SCUPPER OR DOOR = 1/4 INCH PER FOOT AND MINIMUM SLOPE = 1/8 INCH PER FOOT.

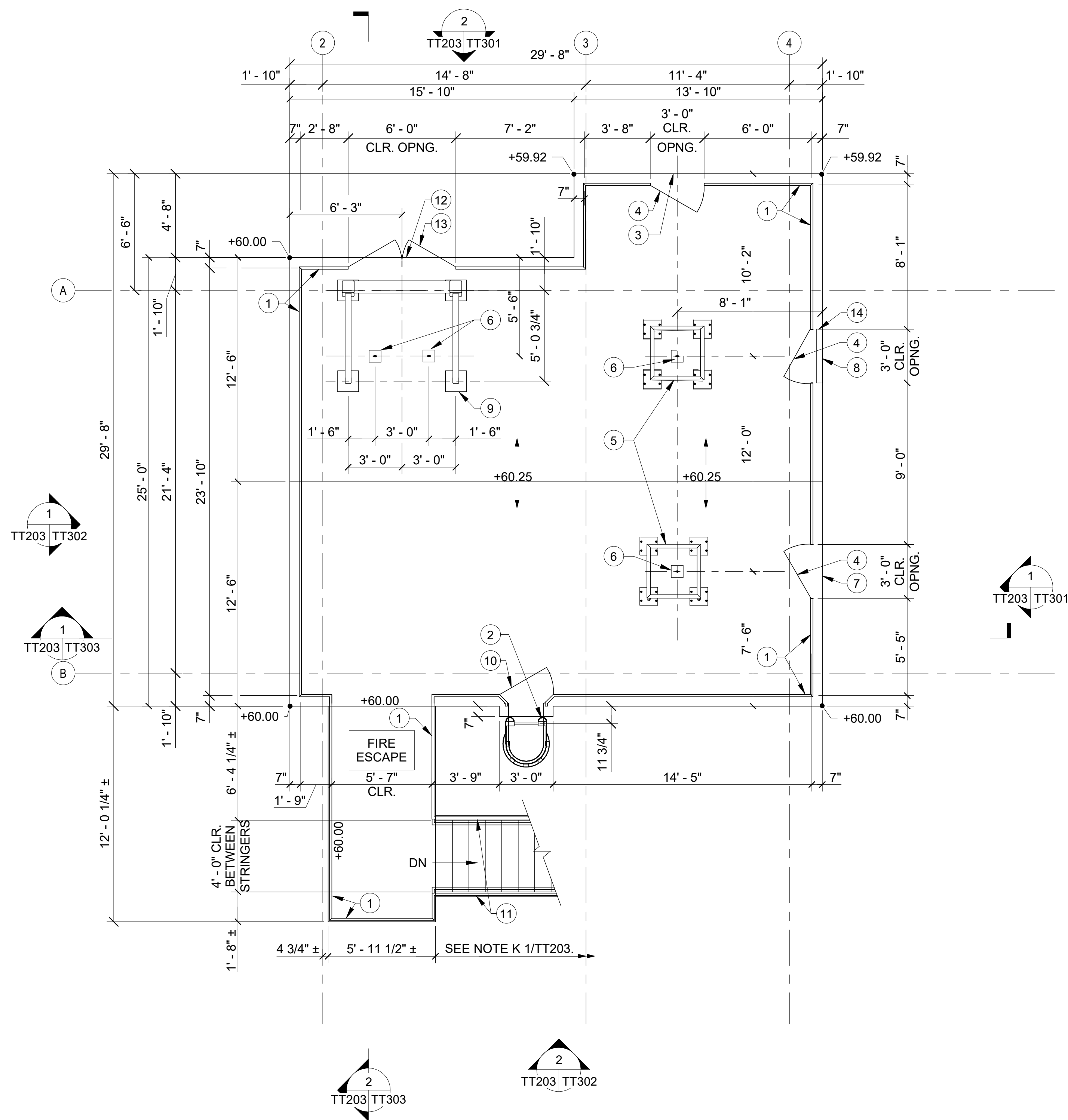
FIFTH FLOOR PLAN KEYED NOTES:

- 1 PROVIDE 16" (W) x 8" (H) OPENING AT BASE OF PARAPET FOR DRAINAGE PER DETAIL 6/TT602.
- 2 HANDRAIL PER DETAIL 1/TT605.
- 3 FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 5/TT605.
- 4 DRY TRAINING STANDPIPE WITH 2 1/2" VALVE PER FP DRAWINGS.
- 5 FIXED VERTICAL ACCESS LADDER PER GENERAL NOTE S ON TT001 UP FROM FIFTH FLOOR FIRE ESCAPE TO HIGH ROOF. SUPPORT BOTTOM OF LADDER ON STEEL BEAM OF FIRE ESCAPE
- 6 EDGE OF HIGH ROOF SLAB ABOVE.
- 7 SINGLE-SWINGING GATE PER DETAIL 3/TT605.
- 8 ROPE FRAME PER DETAIL 5/TT607.
- 9 ROPE ANCHOR PER DETAIL 3/TT607.
- 10 RAPPEL OVER BLANK WALL TO LOW ROOF.
- 11 RAPPEL DOWN A LINE OF WINDOWS.
- 12 RETURN GUARDRAIL & HANDRAIL TO FACE OF EXTERIOR WALL AT NOTED LOCATIONS.
- 13 PARAPET PER DETAIL 3/TT601.
- 14 FULL HEIGHT CMU WALL PER WALL SECTIONS.
- 15 FIXED GUARDRAIL PER DETAIL 2/TT605.
- 16 FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 2/TT504.
- 17 SCUPPER PER SHEET TT602.
- 18 SINGLE-SWINGING GATE PER DETAIL 4/TT606.
- 19 X-BRACING PER 1/TT504.
- 20 FIXED GUARDRAIL PER DETAIL 11/TT605.
- 21 ROPE PROTECTION BENT PLATE AT SLAB EDGE PER DETAIL 3/TT403.



1
TT203 TT203 SCALE 1/4" = 1'-0"

FIFTH FLOOR/MAIN ROOF PLAN

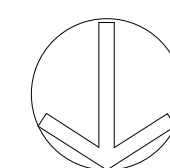


NOTES:

- A. DIRECTION OF DOWNWARD SLOPE OF TOP OF CONCRETE IS INDICATED WITH
- B. TOP OF FINISHED CONCRETE ELEVATION FOR THE TRAINING TOWER SLAB IS INDICATED AS "X.XX" IN FEET ABOVE DATUM SEE 1/TT201 FOR DATUM.

HIGH ROOF PLAN KEYED NOTES:

- 1 FIXED GUARDRAIL PER DETAIL 2/TT605.
- 2 FIXED VERTICAL ACCESS LADDER PER GENERAL NOTES UP FROM FIFTH FLOOR FIRE ESCAPE. TURN ROOF GUARDRAIL OUT TO EDGE OF SLAB BY CANTILEVERING ALL HORIZONTAL RAILS FROM VERTICAL POSTS LOCATED ON EITHER SIDE OF THE SAFTEY GATE. CONNECT ENDS OF CANTILEVERED HORIZONTAL RAILS WITH A VERTICAL PIPE TO CREATE A FINISHED END TO THE CANTILEVER. CONNECT TOP OF EACH LADDER SIDE RAIL TO TOP RAIL OF GUARDRAIL. SEE GENERAL NOTE S ON TT001.
- 3 CANTILEVERED ROOF SLAB FOR FREE RAPPELL
- 4 SINGLE-SWINGING GATE PER DETAIL 4/TT605.
- 5 ROPE FRAME PER DETAIL 5/TT607.
- 6 ROPE ANCHOR PER DETAIL 3/TT607.
- 7 RAPPEL OVER BLANK WALL.
- 8 RAPPEL DOWN A LINE OF WINDOWS.
- 9 ROPE GENTRY FRAME PER DETAIL 1/TT607.
- 10 PROVIDE GALVANIZED, HINGED, SELF-CLOSING LADDER SAFETY GATE, MODEL EDGEHALT FULL HEIGHT # LSGF-36-GAL. BY PS SAFETY ACCESS AT WWW.PSSAFETYACCESS.COM, OR AN APPROVED EQUIVALENT PER DETAIL 3/TT605.
- 11 FIXED GUARDRAIL WITH HANDRAIL PER DETAIL 2/TT504.
- 12 RAPPEL DOWN OVER HANGING BALCONY AND HIGH ANGLE RESCUE OPENING.
- 13 DOUBLE SWINGING GATE PER DETAIL 1/TT606.
- 14 ROPE PROTECTION BENT PLATE AT SLAB EDGE PER DETAIL 3/TT403.



2
TT203 TT203 SCALE 1/4" = 1'-0"

HIGH ROOF PLAN

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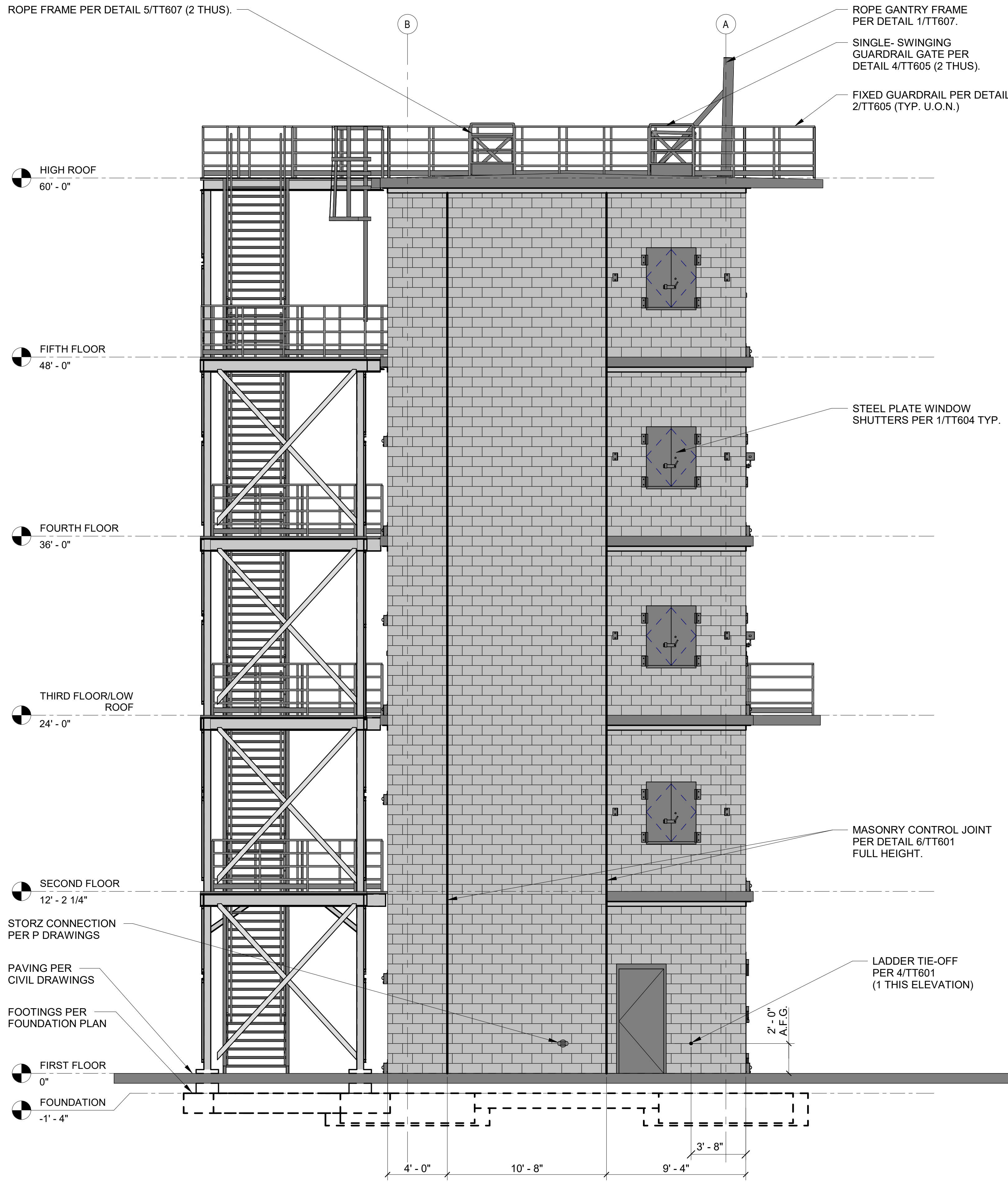
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**TRAINING TOWER
- FIFTH FLOOR &
HIGH ROOF PLANS**

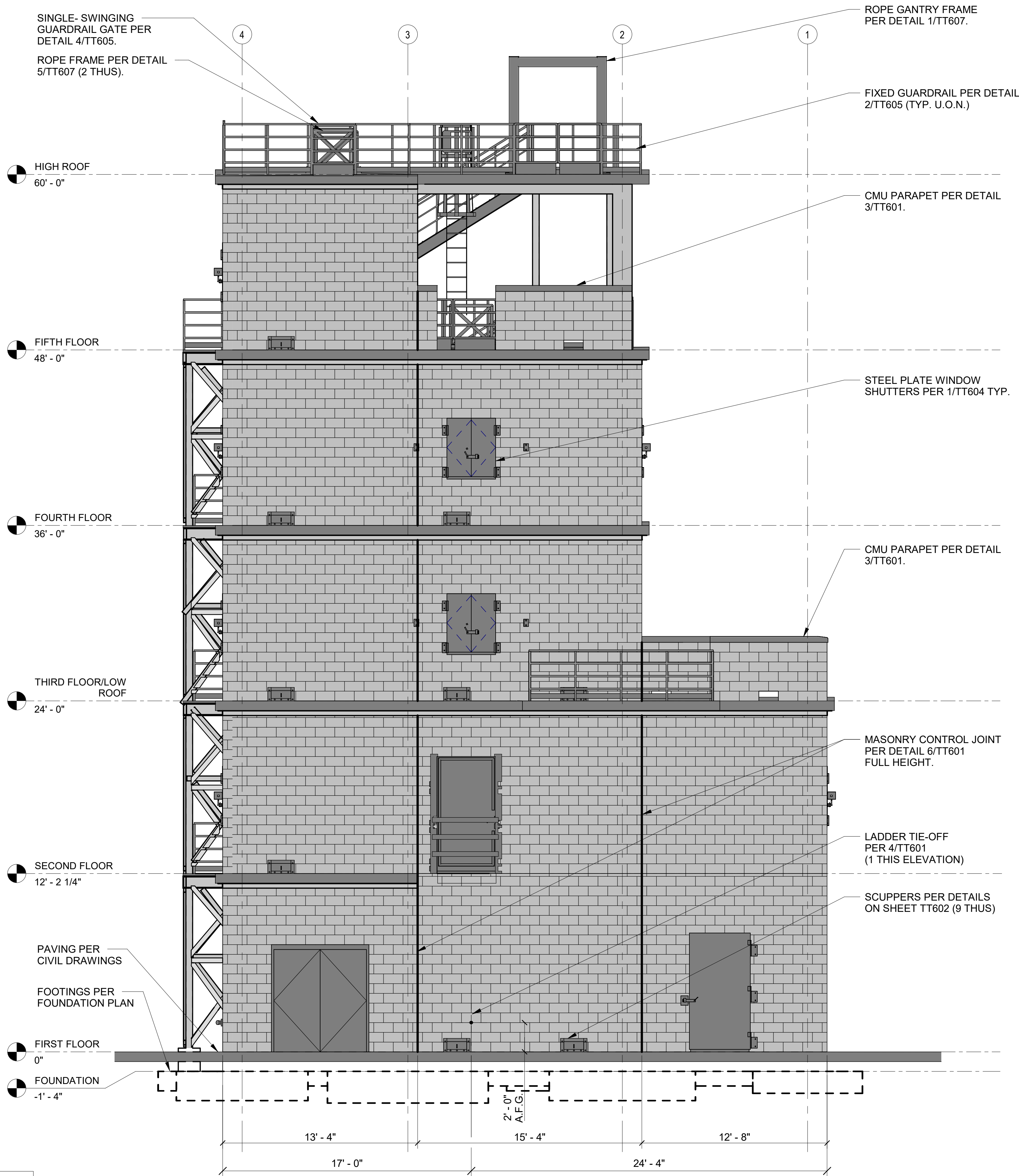
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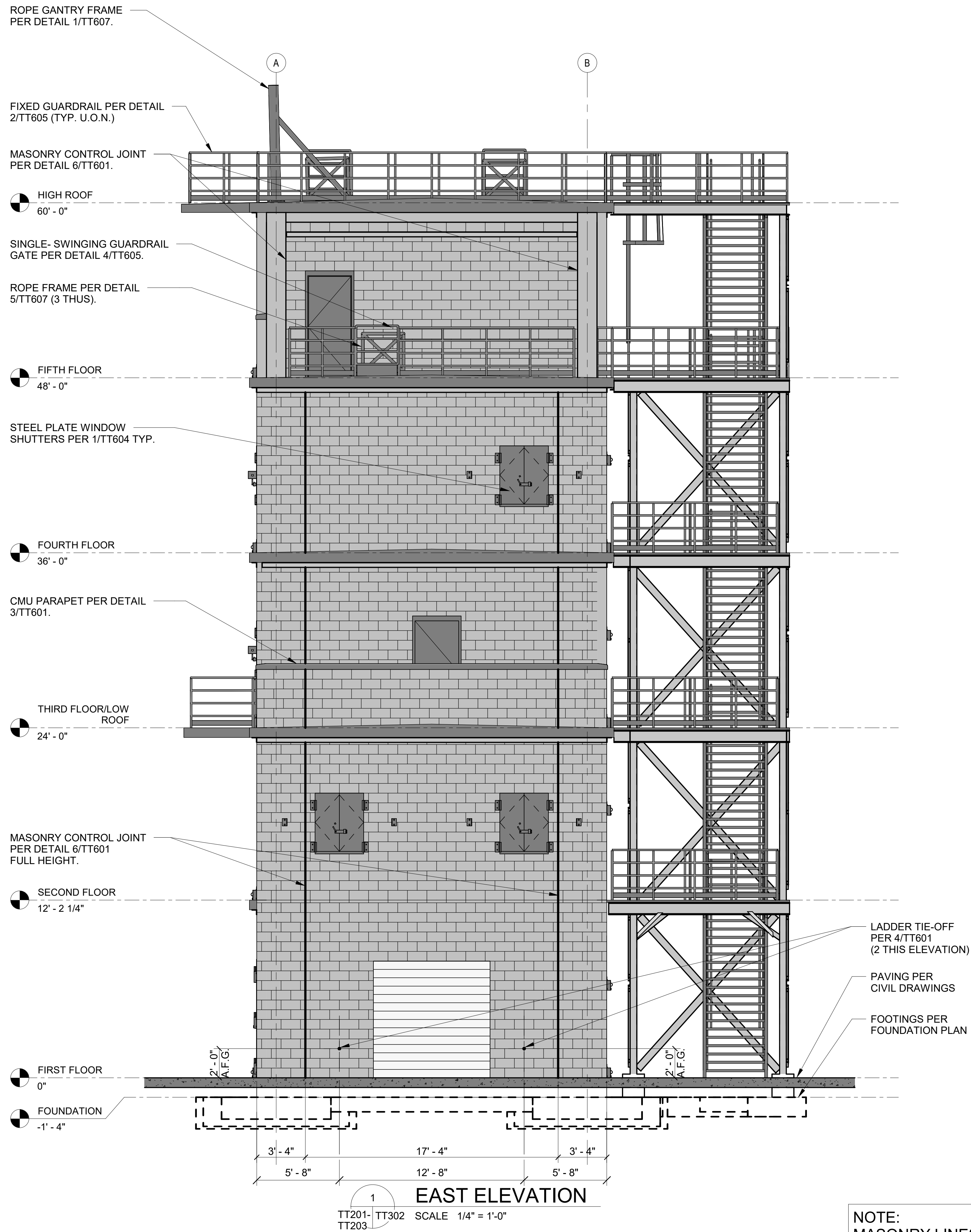
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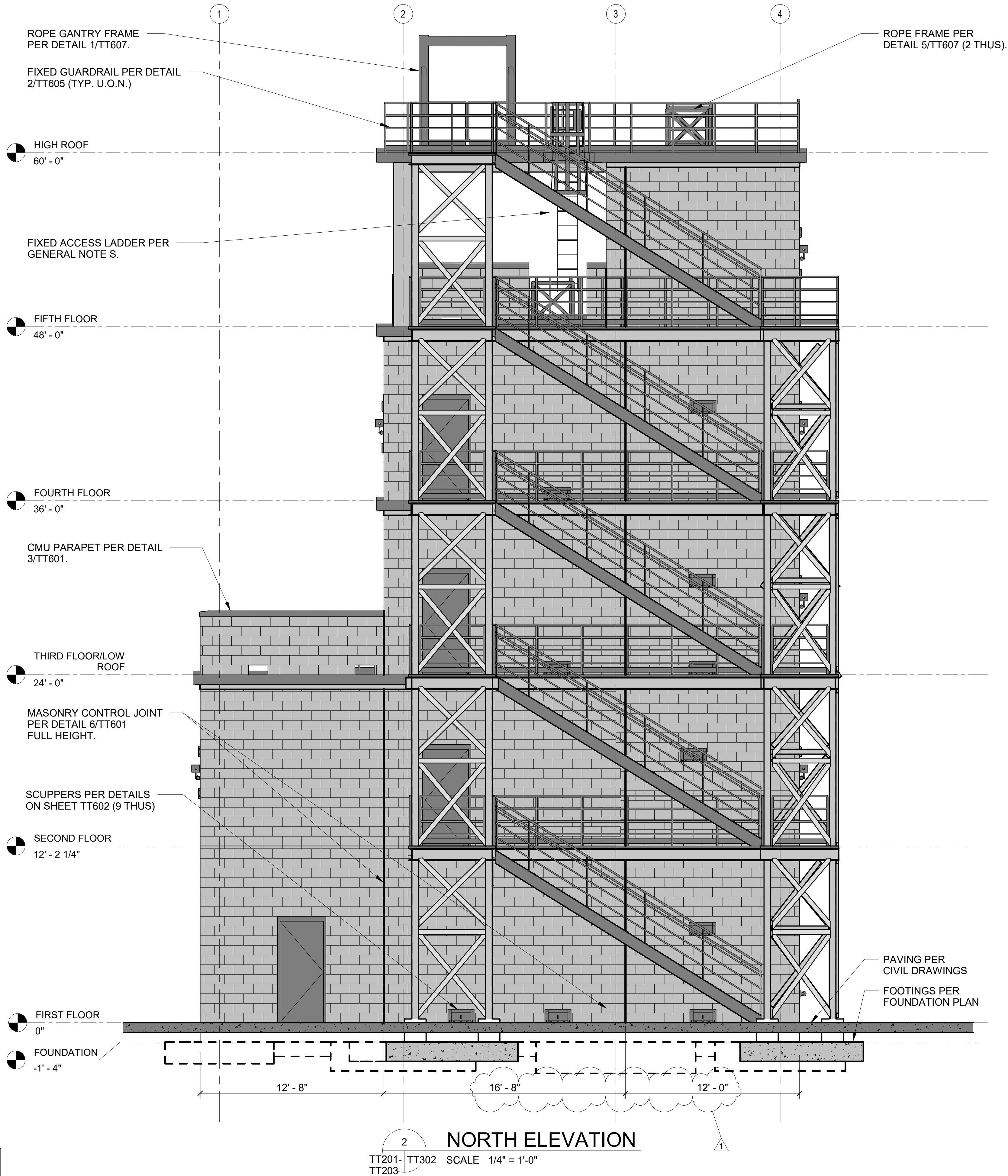
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1	Addendum #1	04/14/25

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TRAINING TOWER
- EAST & NORTH
ELEVATIONS

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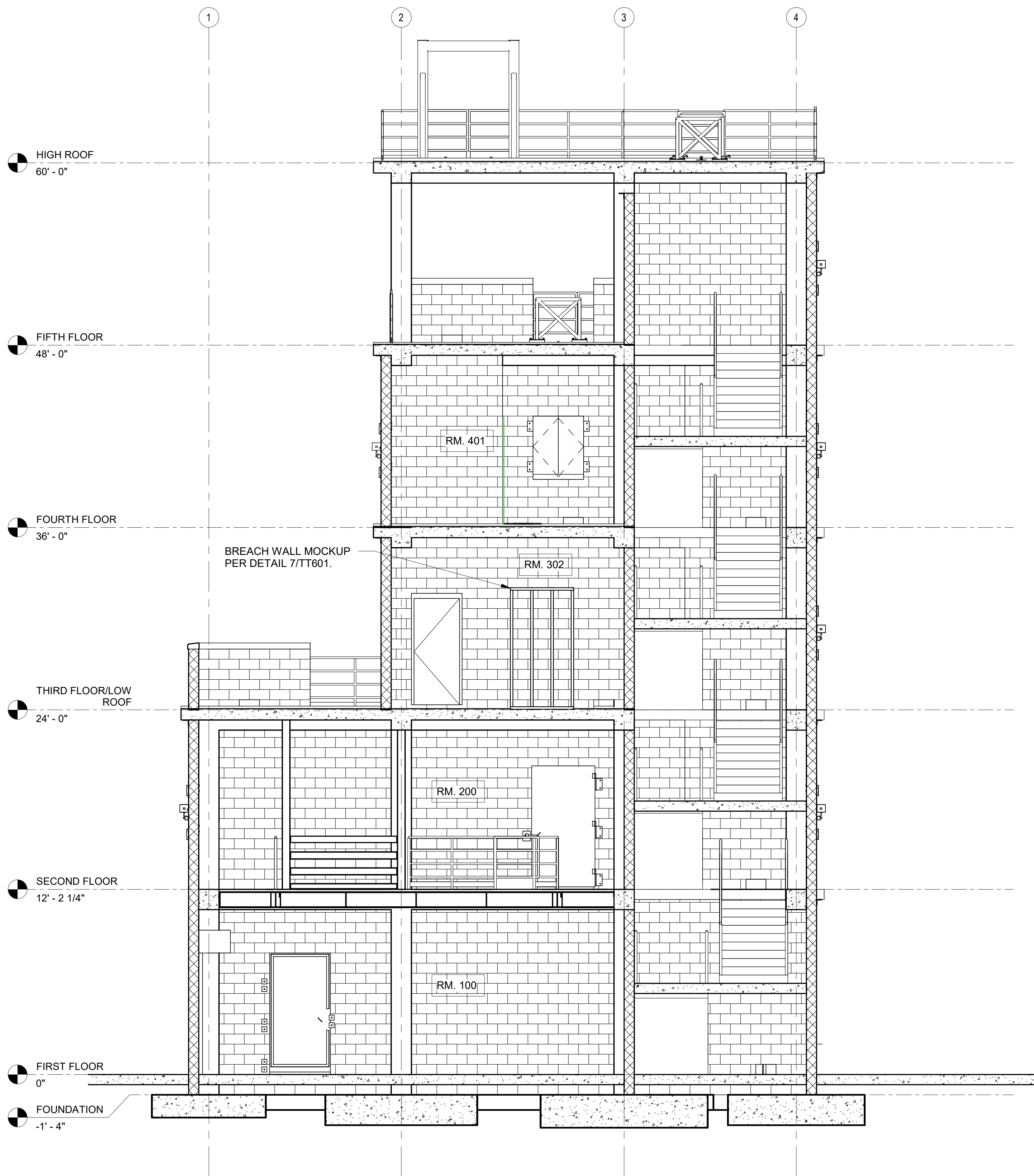
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TRAINING TOWER - BUILDING SECTIONS

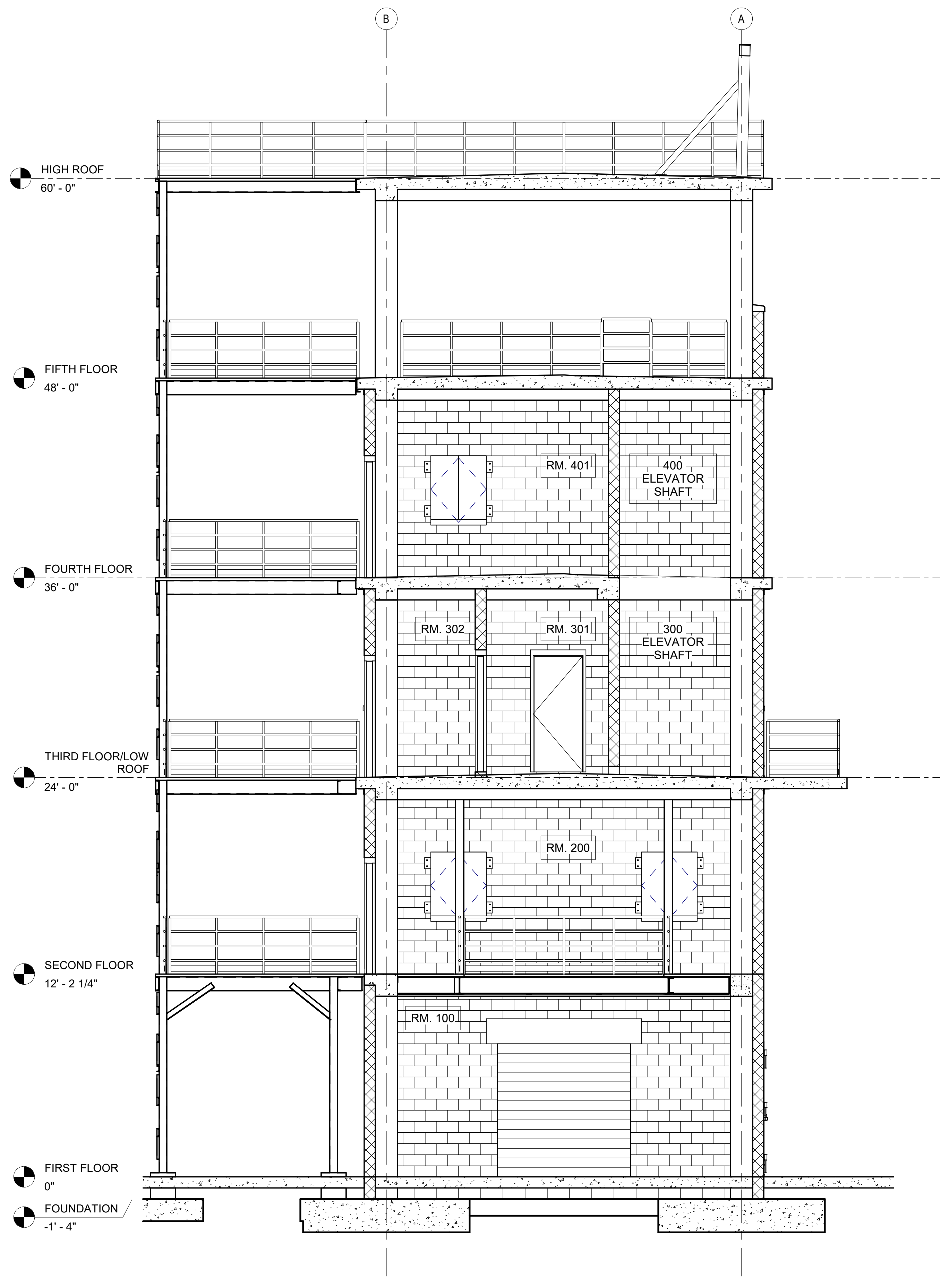
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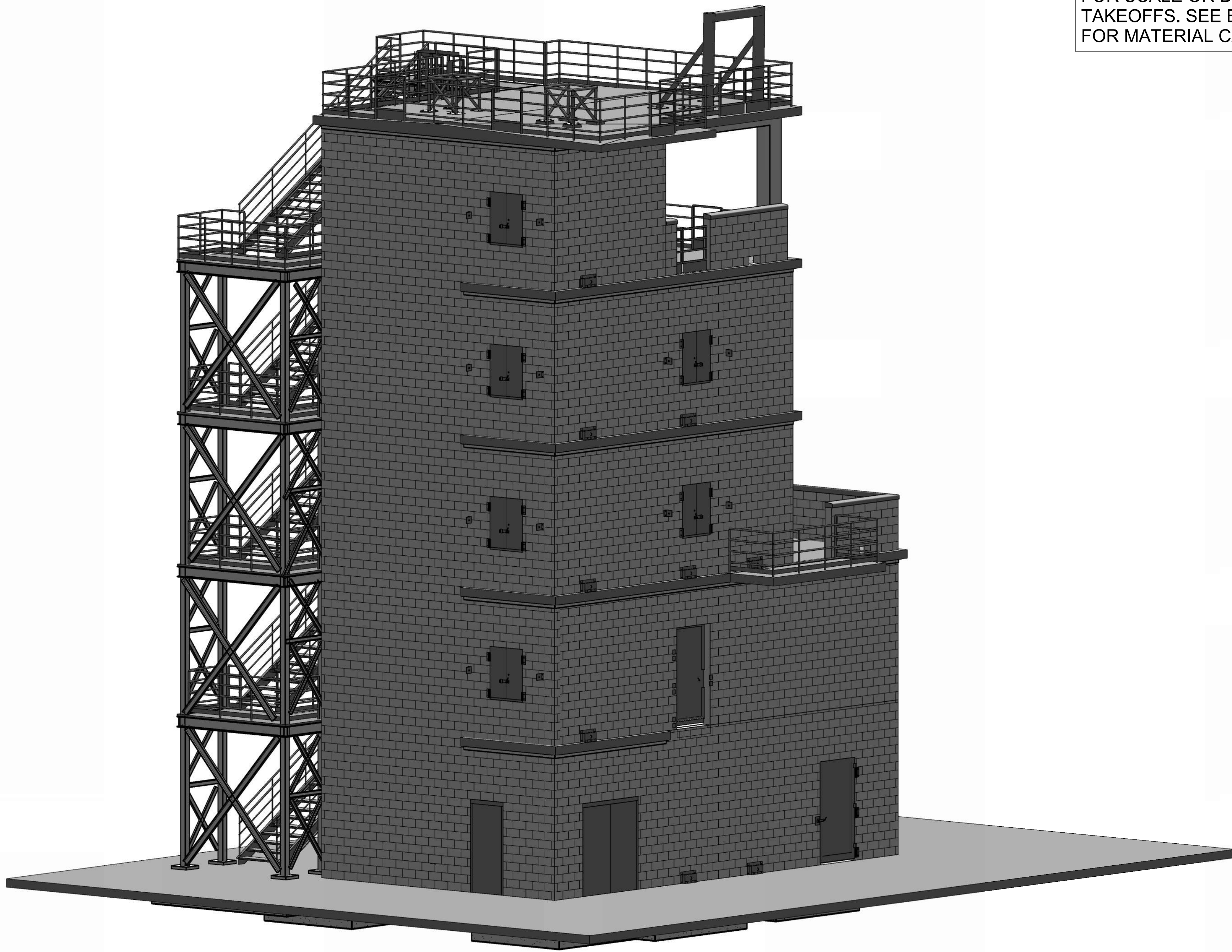
TT303



1 BUILDING SECTION 1
TT201- TT303 SCALE 1/4" = 1'-0"
TT203

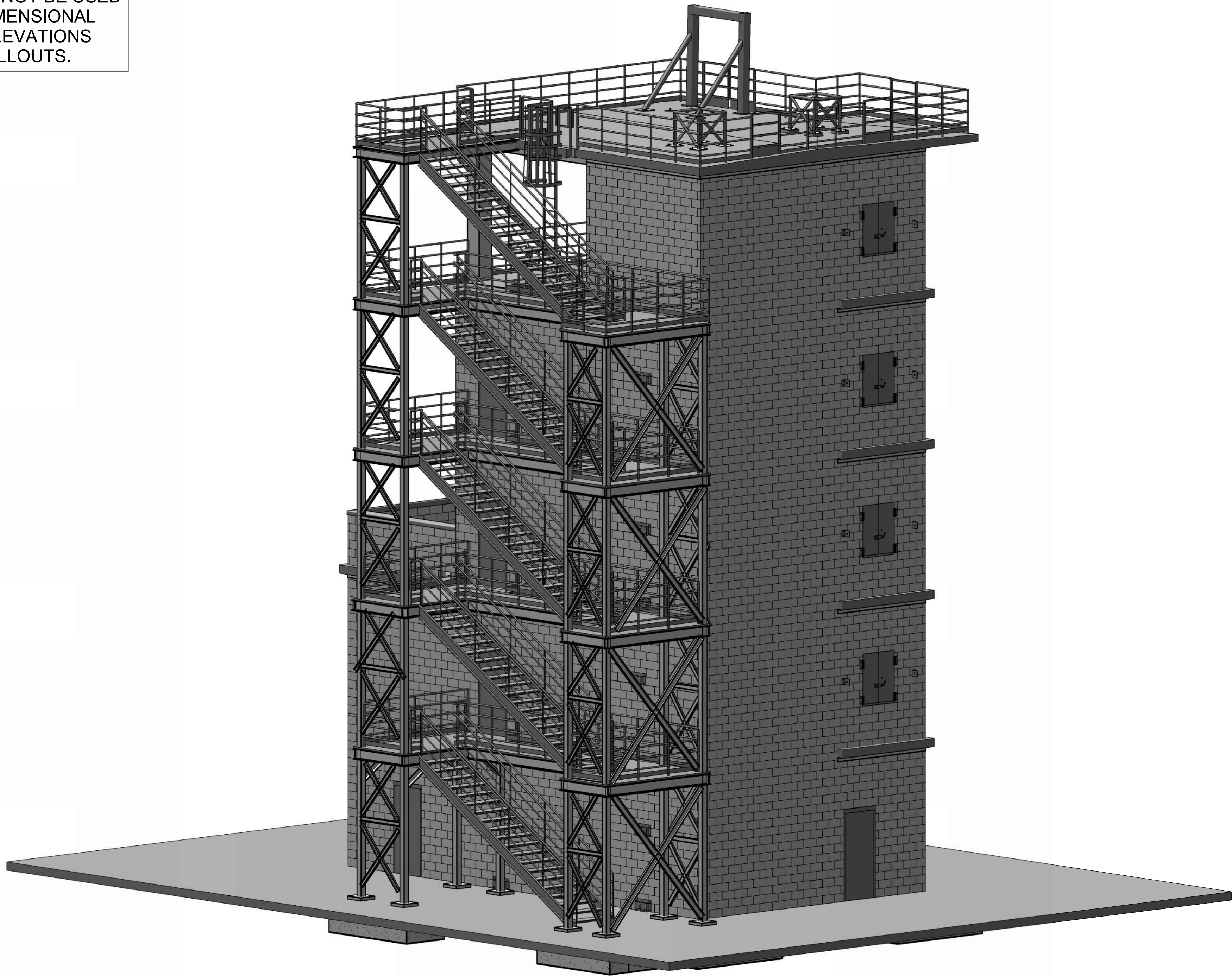


2 BUILDING SECTION 2
TT201- TT303 SCALE 1/4" = 1'-0"
TT203



1 SOUTHWEST PERSPECTIVE
TT304 TT304 SCALE

NOTE: PERSPECTIVE
DRAWINGS SHALL NOT BE USED
FOR SCALE OR DIMENSIONAL
TAKEOFFS. SEE ELEVATIONS
FOR MATERIAL CALLOUTS.



2 NORTHWEST PERSPECTIVE
TT304 TT304 SCALE

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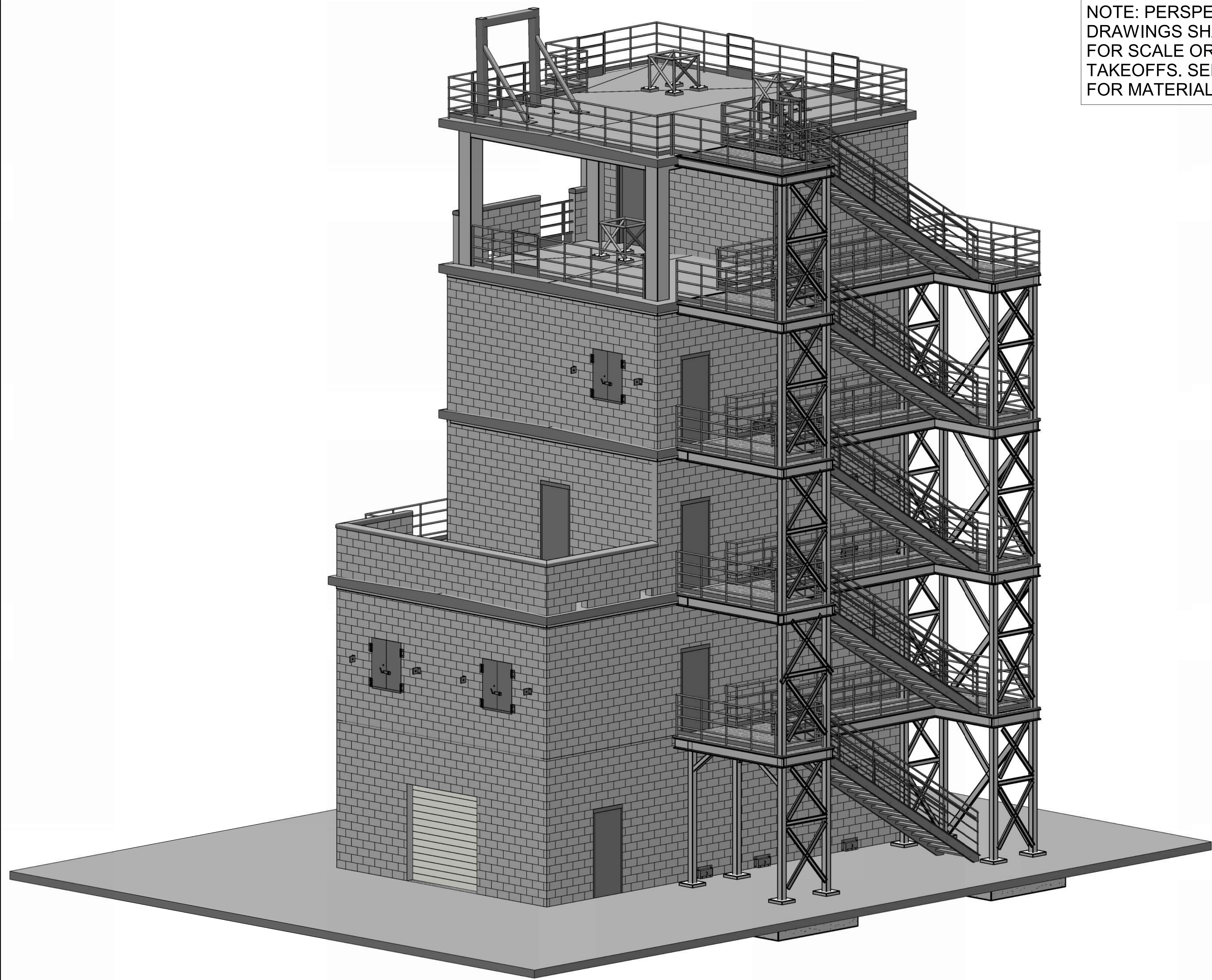
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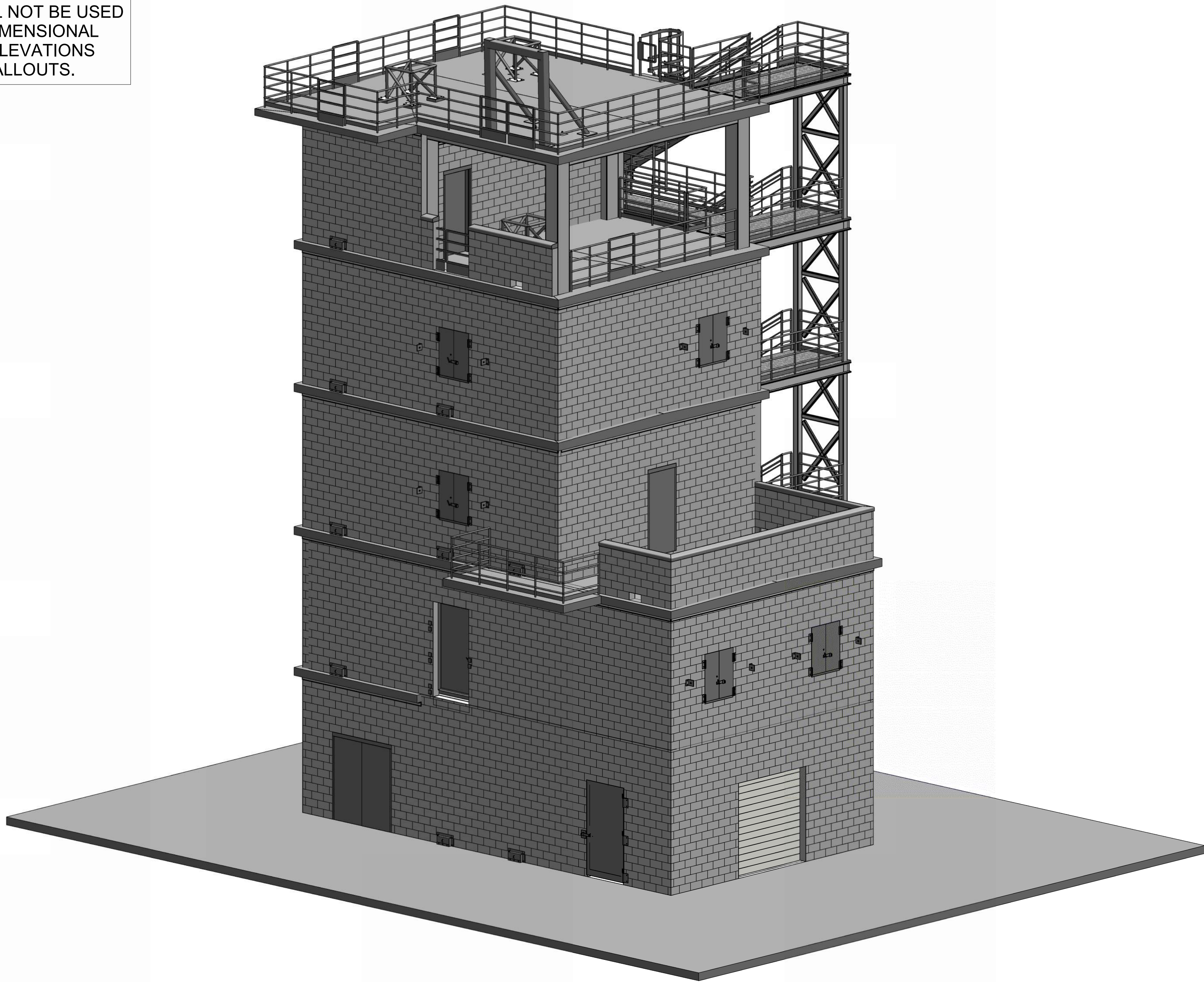
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TRAINING TOWER - PERSPECTIVES



1
TT305 TT305 SCALE
NORTHEAST PERSPECTIVE

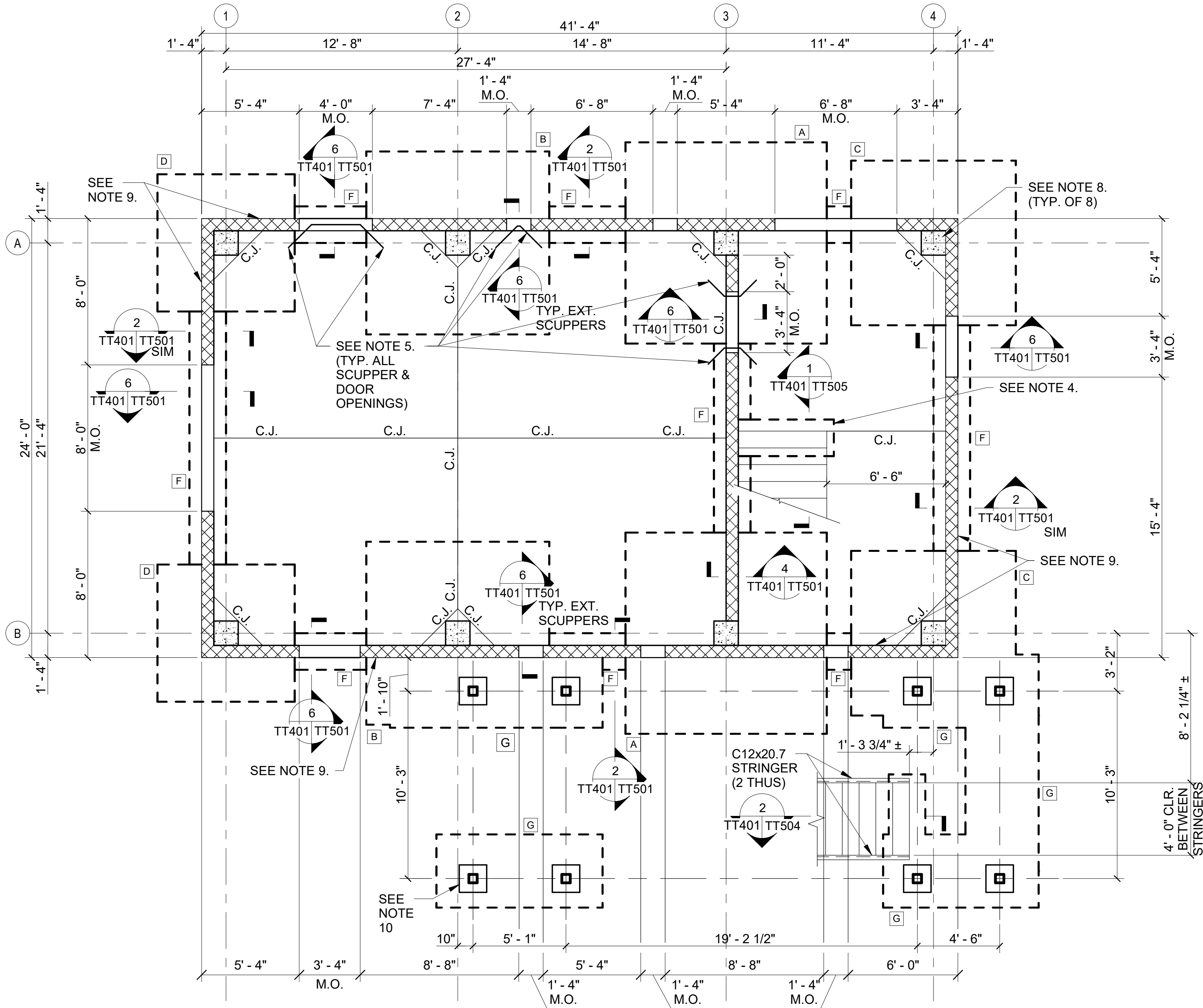
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2
TT305 TT305 SCALE
SOUTHEAST PERSPECTIVE

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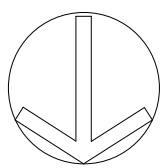


NOTES:

- LOCATE TOPS OF FOOTINGS AT 1'-4" BELOW DATUM, U.O.N.. SEE FIRST FLOOR PLAN TT201 FOR DATUM.
- SEE FOOTING SCHEDULE FOR FOOTINGS NOTED THUS [X]. WHERE WALL FOOTINGS INTERSECT COLUMN FOOTINGS, EXTEND CONTINUOUS WALL FOOTING BARS 4'-0" MIN. INTO COLUMN FOOTING.
- SEE FIRST FLOOR PLAN 1/TT100 FOR ALL SLAB ELEVATIONS AND SLOPES. SEE SECTION N OF THE GENERAL NOTES ON SHEET TT001 FOR SLAB THICKNESS AND REINFORCING.
- PROVIDE A 2'-0" WIDE x 5'-6" LONG THICKENED SLAB AT BASE OF STAIR PER SECTION 1/TT505.
- AT ALL DOOR & SCUPPER OPENINGS, PROVIDE ADDED REINFORCING IN S.O.G. PER DETAIL 7/TT501.
- CJ = CONTROL JOINT PER SPECIFICATIONS.
- PROVIDE A 2'-0" WIDE x 6'-0" LONG THICKENED SLAB AT BASE OF STAIR PER SECTION 2/TT504.
- 16" SQ. CONCRETE COLUMN PER 1/TT501.
- SUPPORT NON-STRUCTURAL CMU WALLS ON WALL FOOTINGS AND COLUMN FOOTINGS WHERE SHOWN ON PLAN. SUPPORT ALL OTHER NON-STRUCTURAL CMU WALLS ON SLAB-ON-GRADE.
- HSS 5 1/2x5 1/2x1/4 COLUMN ON 18" SQ. CONCRETE PEDESTAL PER 3/TT504 AT 8 EXTERIOR STAIR COLUMNS.

COLUMN FOOTING SCHEDULE					
MARK	WIDTH	LENGTH	THICKNESS	BOTTOM REINF.	TOP REINF.
A	11' - 0"	11' - 0"	2' - 2"	(11) #7 E.W.	(11) #7 E.W.
B	10' - 0"	10' - 0"	2' - 0"	(10) #7 E.W.	(10) #7 E.W.
C	9' - 0"	9' - 0"	2' - 0"	(10) #6 E.W.	(10) #6 E.W.
D	7' - 6"	7' - 6"	1' - 6"	(7) #6 E.W.	(7) #6 E.W.

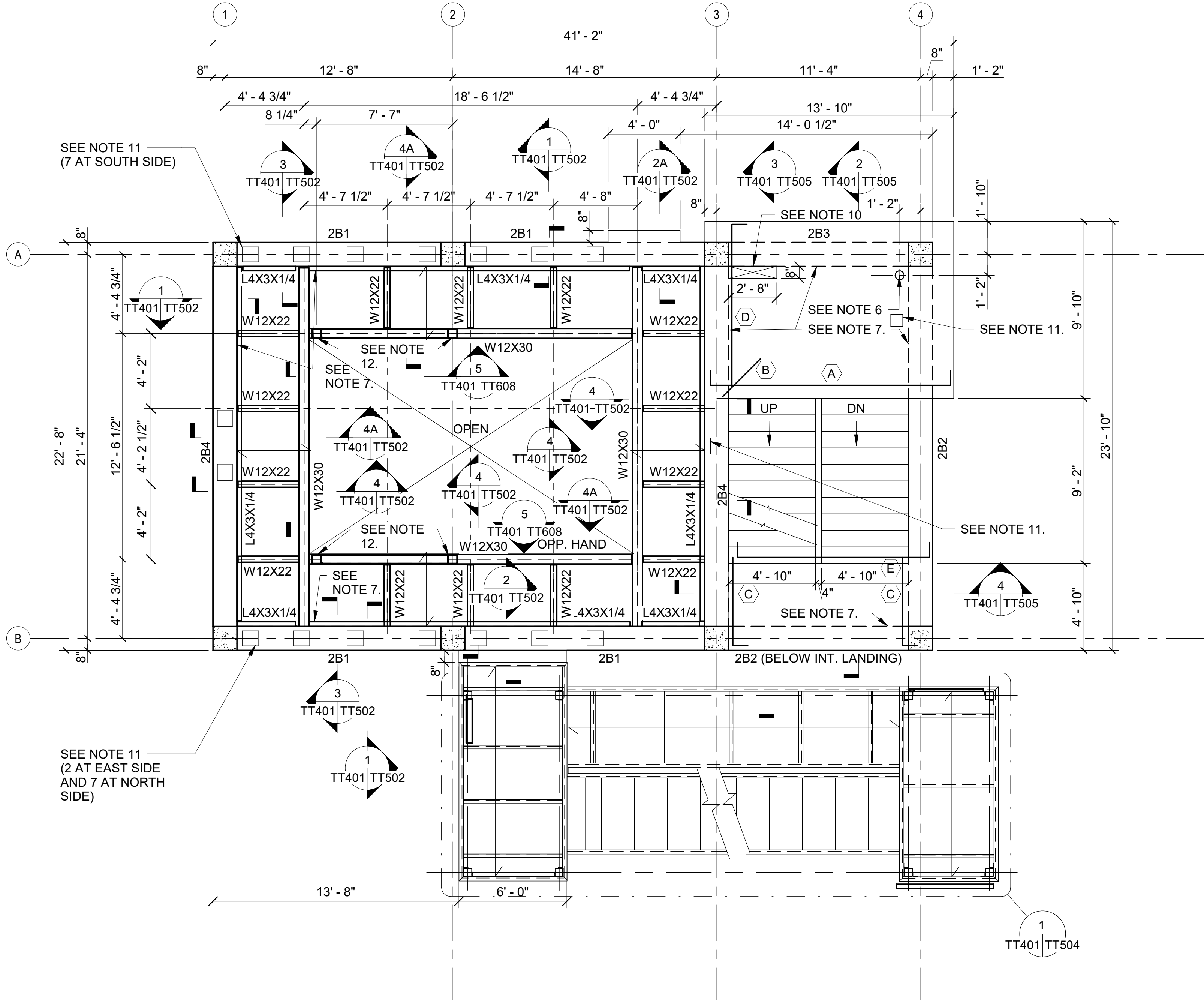
WALL FOOTING SCHEDULE							
MARK	WIDTH	LENGTH	THICKNESS	BOTTOM REINF.		TOP REINF.	
				CONT. (B)	SHORT DIR. (BM)	CONT. (T)	SHORT DIR. (TOP)
F	2' - 0"	CONT.	1' - 0"	(3) #6	#6 @ 18" O.C.	(3) #6	---
G	4' - 0"	CONT.	1' - 4"	(5) #6	#6 @ 12" O.C.	(5) #6	#6 @ 18" O.C.



1
TT401 TT401

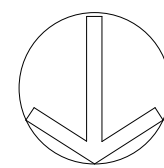
FOUNDATION PLAN

SCALE 1/4" = 1'-0"



NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE SECOND FLOOR PLAN 2/TT201 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB SHALL BE AT +11.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN N-S DIRECTION \longleftrightarrow IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (6) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (B) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (C) = (4) #5 ADDITIONAL TOP BARS @ 6" O.C. & (2) #5 BOTTOM BARS AT EDGE OF SLAB.
 - (D) = (2) #5 ADDITIONAL TOP BARS @ 12" O.C. AT EDGE OF SLAB.
 - (E) = (3) ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. PVC SCH. 40 PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB. NOTIFY ENGINEER IF SLEEVE MUST BE LARGER TO ACCOMMODATE STANDPIPE.
- CONCRETE BEAMS PER SCHEDULE ON SHEET TT503.
- ALL STEEL SHALL BE GALVANIZED U.O.N.
- \longleftrightarrow DENOTES DIRECTION OF GRATING PLANK SPAN.
- AT NOTED LOCATION, PROVIDE SLAB OPENING (DIMENSIONS PER PLAN) FOR SMOKE DISTRIBUTION SYSTEM RISERS.
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/ BEAM PER FLOOR PLAN 2/TT201 AND REFERENCED DETAILS (FLOOR ITEM AT TOP OF SLAB).
- HSS 6x6 VERTICALS OF GUARDRAIL STRENGTHENED FOR RAPPELLING PER DETAIL 5/TT608.



2
TT401 TT401

SECOND FLOOR FRAMING PLAN

SCALE 1/4" = 1'-0"

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**TRAINING TOWER
- FOUNDATION &
SECOND FLOOR
FRAMING PLANS**

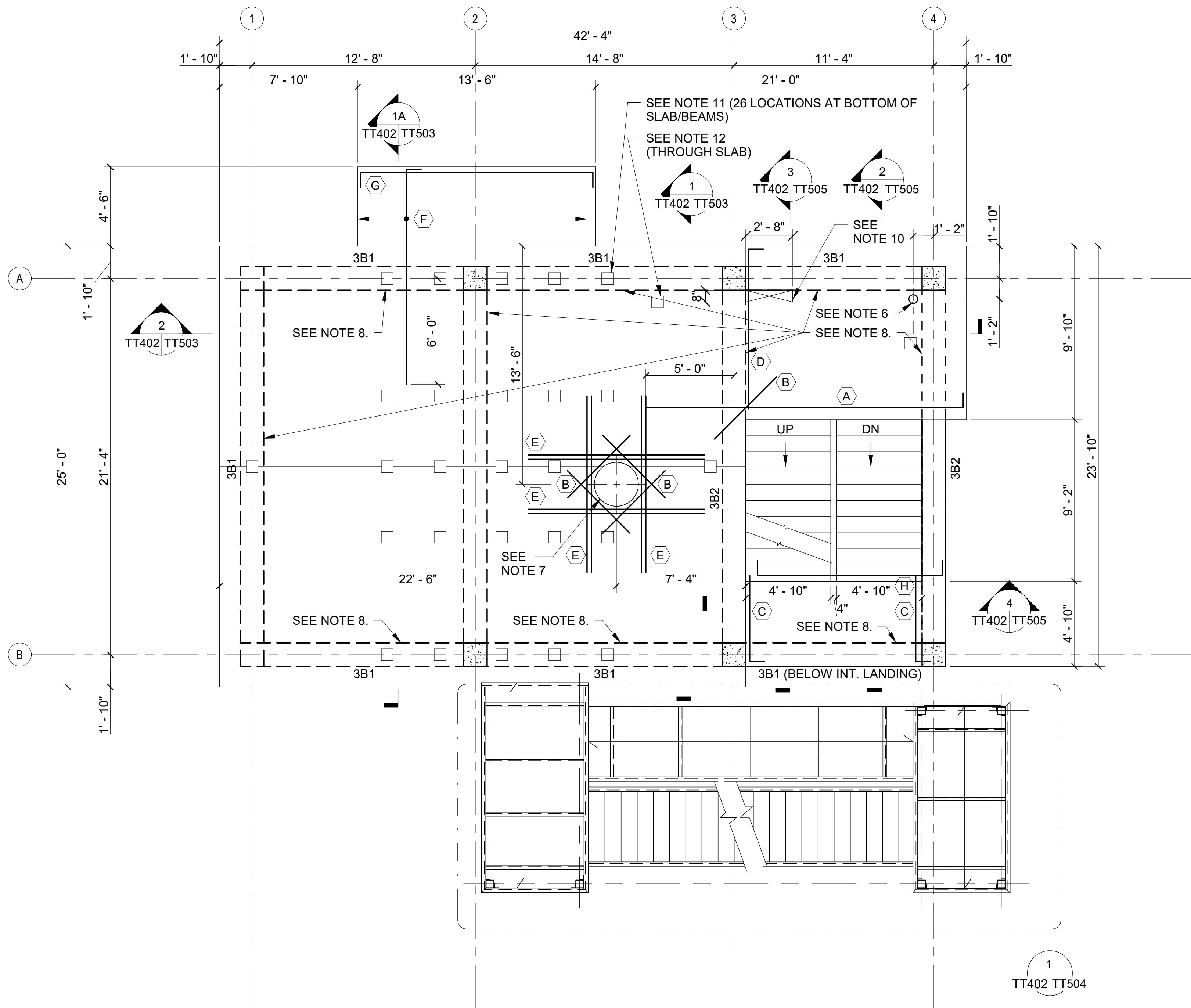
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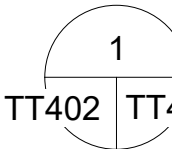
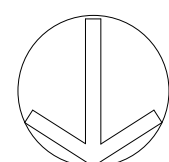
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- THIRD & FOURTH
FLOOR FRAMING
PLANS**

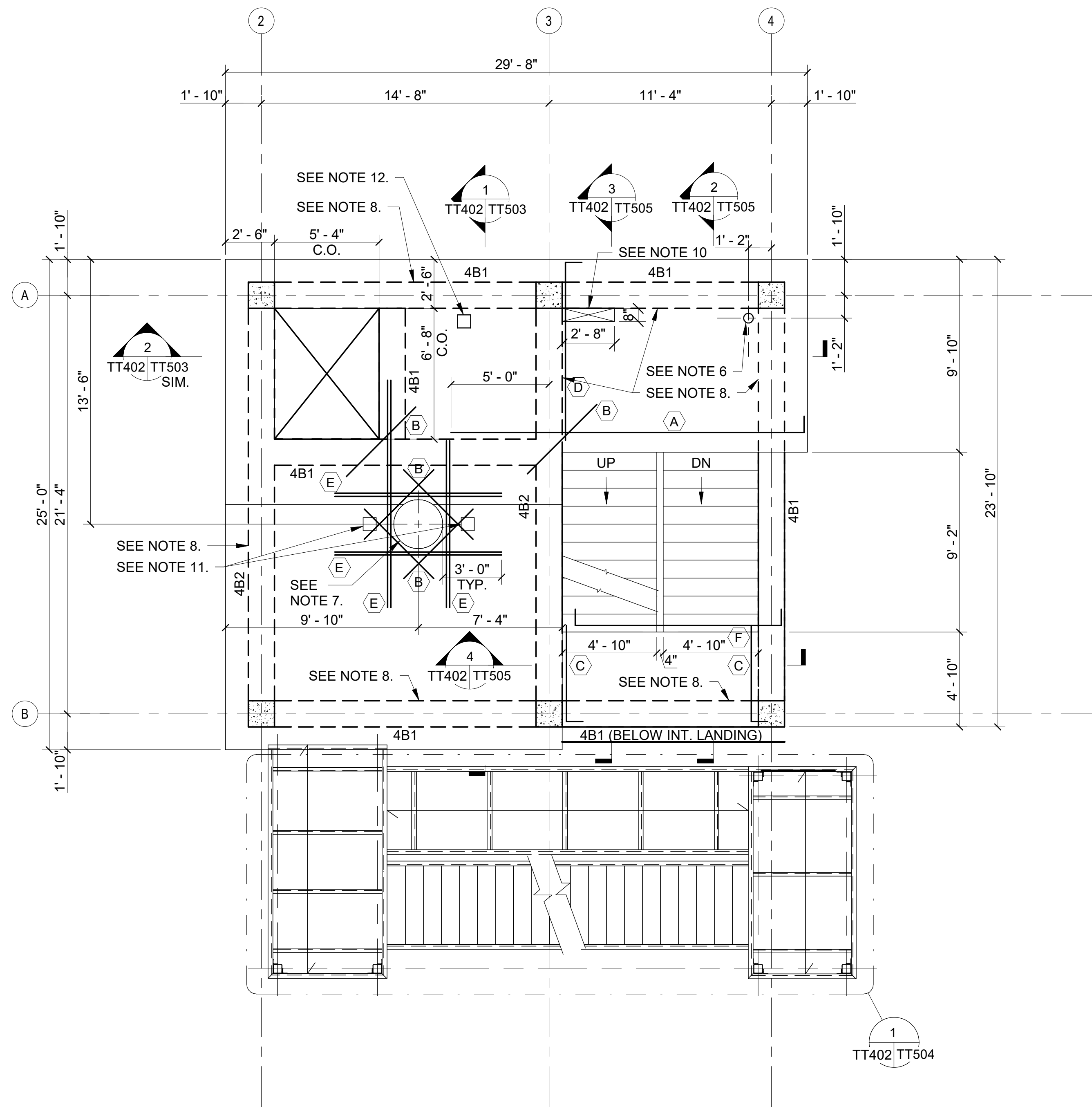
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**NOTES:**

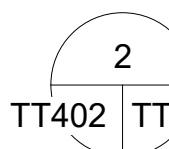
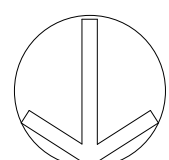
- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE THIRD FLOOR PLAN 1/TT202 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +23.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION → IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (6) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (B) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING OR MANHOLE.
 - (C) = (4) #5 ADDITIONAL TOP BARS @ 6" O.C. & (2) #5 BOTTOM BARS AT EDGE OF SLAB.
 - (D) = (2) #5 ADDITIONAL TOP BARS @ 12" O.C. AT EDGE OF SLAB.
 - (E) = (2) EACH, #5 ADDITIONAL TOP & BOTTOM BARS AT EDGE OF OPENING.
 - (F) = #5 @ 12" O.C. ADDITIONAL TOP BARS CENTERED BETWEEN MAIN TOP BARS.
 - (G) = (2) #5 TOP & BOTTOM BARS WITHIN 6" OF BALCONY SLAB EDGE.
 - (H) = (3) ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. PVC SCH. 40 PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB. NOTIFY ENGINEER IF SLEEVE MUST BE LARGER TO ACCOMMODATE STANDPIPE.
- 2' - 6" DIA. MANHOLE OPENING PER 4/TT607, CAST INTO SLAB.
- CONCRETE BEAMS PER SCHEDULE ON SHEET TT503.
- DENOTES DIRECTION OF GRATING PLANK SPAN.
- AT NOTED LOCATION, PROVIDE SLAB OPENING (DIMENSIONS PER PLAN) FOR SMOKE DISTRIBUTION SYSTEM RISERS.
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER FLOOR PLAN 2/TT201 AND REFERENCED DETAILS (CEILING ITEM BELOW).
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER FLOOR PLAN 1/TT202 AND REFERENCED DETAILS (FLOOR ITEM AT TOP OF SLAB/BEAM).

**THIRD FLOOR/LOW ROOF FRAMING PLAN**

SCALE 1/4" = 1'-0"

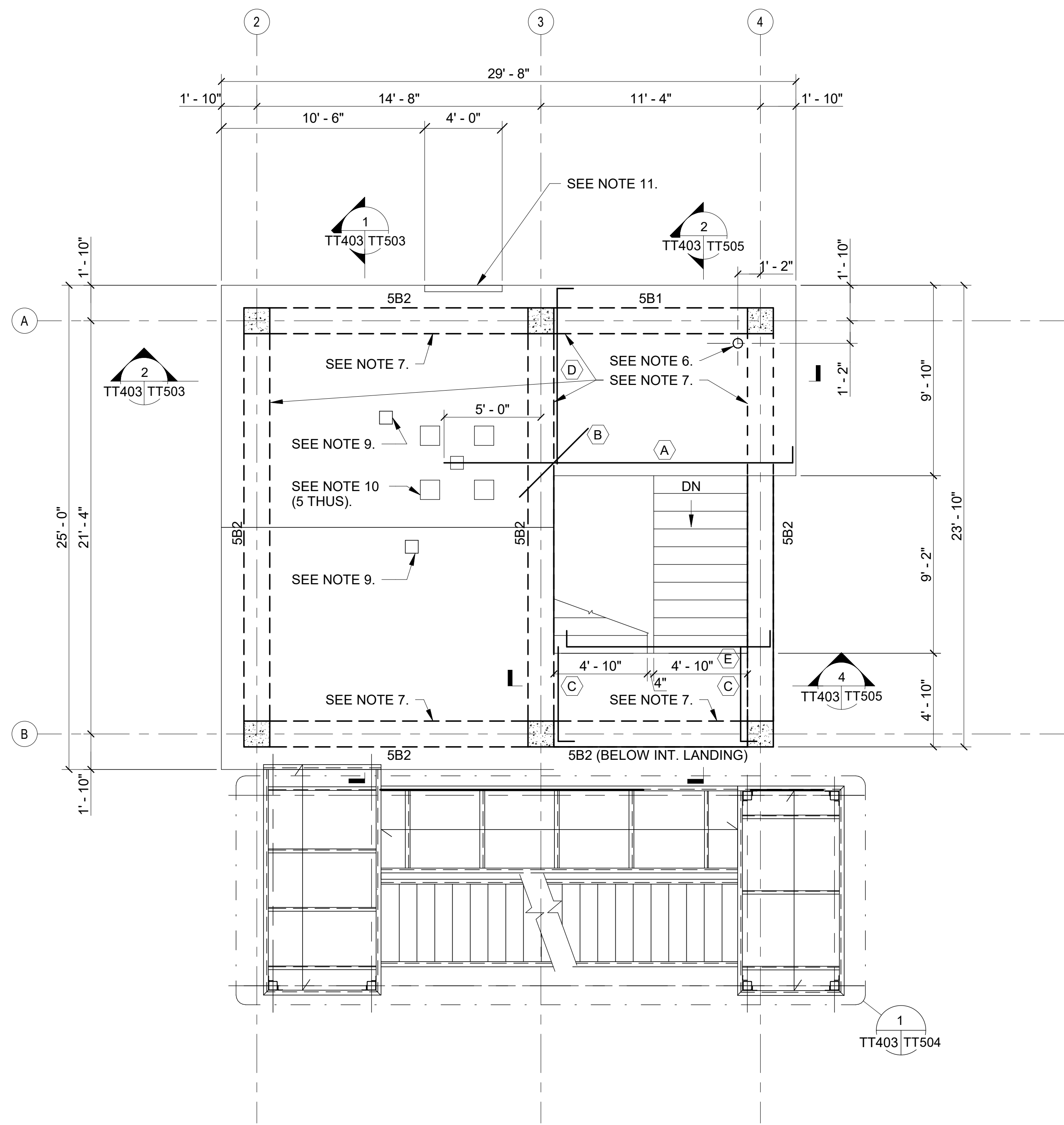
**NOTES:**

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE FOURTH FLOOR PLAN 2/TT202 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +35.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION → IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (6) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (B) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING OR MANHOLE.
 - (C) = (4) #5 ADDITIONAL TOP BARS @ 6" O.C. & (2) #5 BOTTOM BARS AT EDGE OF SLAB.
 - (D) = (2) #5 ADDITIONAL TOP BARS @ 12" O.C. AT EDGE OF SLAB.
 - (E) = (2) EACH, #5 ADDITIONAL TOP & BOTTOM BARS AT EDGE OF OPENING.
 - (F) = (3) ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. PVC SCH. 40 PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB. NOTIFY ENGINEER IF SLEEVE MUST BE LARGER TO ACCOMMODATE STANDPIPE.
- 2' - 6" DIA. MANHOLE OPENING PER 4/TT607, CAST INTO SLAB.
- CONCRETE BEAMS PER SCHEDULE ON SHEET TT503.
- DENOTES DIRECTION OF GRATING PLANK SPAN.
- AT NOTED LOCATION, PROVIDE SLAB OPENING (DIMENSIONS PER PLAN) FOR SMOKE DISTRIBUTION SYSTEM RISERS.
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER FLOOR PLAN 1/TT202 AND REFERENCED DETAILS (CEILING ITEM BELOW).
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER FLOOR PLAN 2/TT202 AND REFERENCED DETAILS (FLOOR ITEM AT TOP OF SLAB/BEAM).

**FOURTH FLOOR FRAMING PLAN**

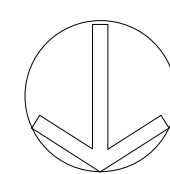
SCALE 1/4" = 1'-0"

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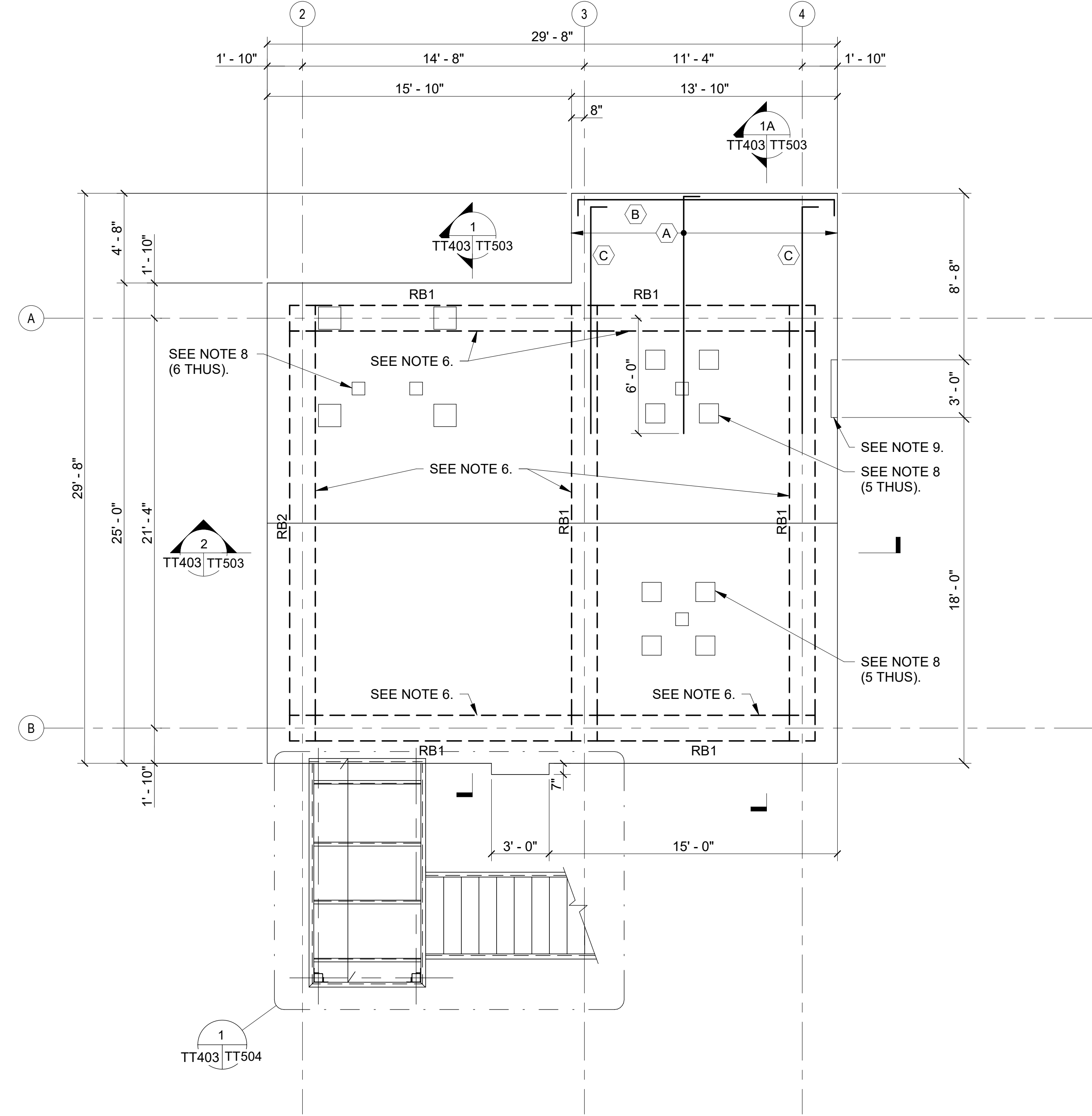
NOTES:

- SLAB THICKNESS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE FIFTH FLOOR PLAN 1/TT203 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +47.33', U.O.N.,
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION \longleftrightarrow IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = (6) #5 ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
 - (B) = (2) EACH, #5 x 5'-0" LONG DIAGONAL TOP & BOTTOM BARS AT CORNER OF OPENING.
 - (C) = (4) #5 ADDITIONAL TOP BARS @ 6" O.C. & (2) #5 BOTTOM BARS AT EDGE OF SLAB.
 - (D) = (2) #5 ADDITIONAL TOP BARS @ 12" O.C. AT EDGE OF SLAB.
 - (E) = (3) ADDITIONAL BOTTOM BARS AT EDGE OF STAIR LANDING.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- PROVIDE PERMANENT 8" DIA. PVC SCH. 40 PIPE SLEEVE THROUGH SLAB FOR STANDPIPE CAST INTO SLAB. DO NOT CORE DRILL SLAB. NOTIFY ENGINEER IF SLEEVE MUST BE LARGER TO ACCOMMODATE STANDPIPE.
- CONCRETE BEAMS PER SCHEDULE ON SHEET TT503.
- \longleftrightarrow DENOTES DIRECTION OF GRATING PLANK SPAN.
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER FLOOR PLAN 2/TT202 AND REFERENCED DETAILS (CEILING ITEM BELOW).
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB/BEAM PER ROOF PLAN 1/TT203 AND REFERENCED DETAILS (ROOF ITEM AT TOP OF SLAB).
- AT NOTED LOCATION, CAST SLAB EDGE ROPE PROTECTION INTO SLAB PER DETAIL 3/TT403.



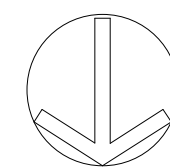
1
TT403 TT403 SCALE 1/4" = 1'-0"

FIFTH FLOOR/MAIN ROOF FRAMING PLAN



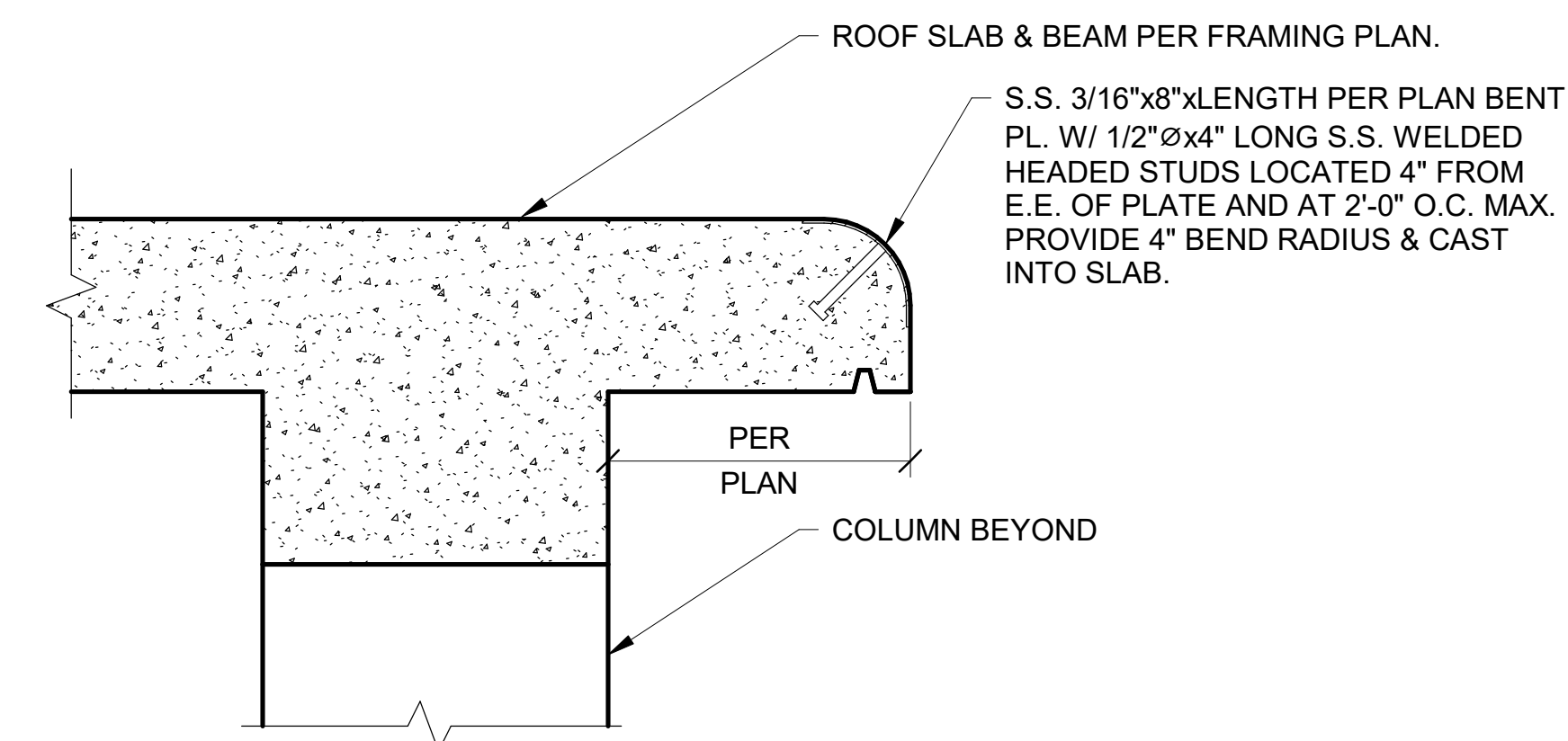
NOTES:

- SLAB THICKNESS OVER STAIRS SHALL BE 8" MINIMUM. SLOPE TOP SURFACE ONLY. SEE HIGH ROOF PLAN 2/TT203 FOR CONCRETE SLAB ELEVATIONS, AND SLOPES. BOTTOM OF MAIN SLAB AT +59.33', U.O.N.
- SLAB REINFORCING SHALL BE #5 AT 12" O.C. CONTINUOUS BOTH WAYS TOP AND BOTTOM.
- OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION \longleftrightarrow IN PLAN. SLOPE TOP BARS IN N-S DIRECTION WITH TOP OF SLAB TO MAINTAIN PROPER COVER OVER ENTIRE BAR LENGTH.
- SEE PLAN FOR ADDITIONAL REINFORCING:
 - (A) = #5 @ 12" O.C. ADDITIONAL TOP BARS CENTERED BETWEEN MAIN TOP BARS.
 - (B) = (2) #5 TOP & BOTTOM BARS WITHIN 6" OF BALCONY SLAB EDGE.
 - (C) = EXTEND RB1 TOP BARS TOP BARS TO EDGE OF CANTILEVERED SLAB.
- PROVIDE STANDARD 90° END HOOKS ON ALL TOP AND BOTTOM BARS UNLESS OTHERWISE SHOWN. HOOKS DO NOT HAVE TO BE VERTICAL. HOOKS CAN BE ROTATED TO MAINTAIN PROPER COVER AT ENDS OF BARS.
- CONCRETE BEAMS PER SCHEDULE ON SHEET TT503.
- \longleftrightarrow DENOTES DIRECTION OF GRATING PLANK SPAN.
- CAST EMBEDDED ROPE ANCHOR ITEM INTO SLAB PER ROOF PLAN 2/TT203 AND REFERENCED DETAILS (ROOF ITEM AT TOP OF SLAB).
- AT NOTED LOCATION, CAST SLAB EDGE ROPE PROTECTION INTO SLAB PER DETAIL 3/TT403.

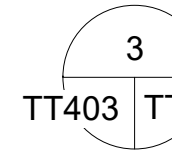


2
TT403 TT403 SCALE 1/4" = 1'-0"

HIGH ROOF FRAMING PLAN



NOTE: SLAB REINFORCING NOT SHOWN FOR CLARITY.



3
TT403 TT403 SCALE 1 1/2" = 1'-0"

SLAB EDGE ROPE PROTECTION DETAIL

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Fax: 703-321-2112
Corporate P.E. #C-2542

RECEIVED
04/18/2025
SAMET

WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303

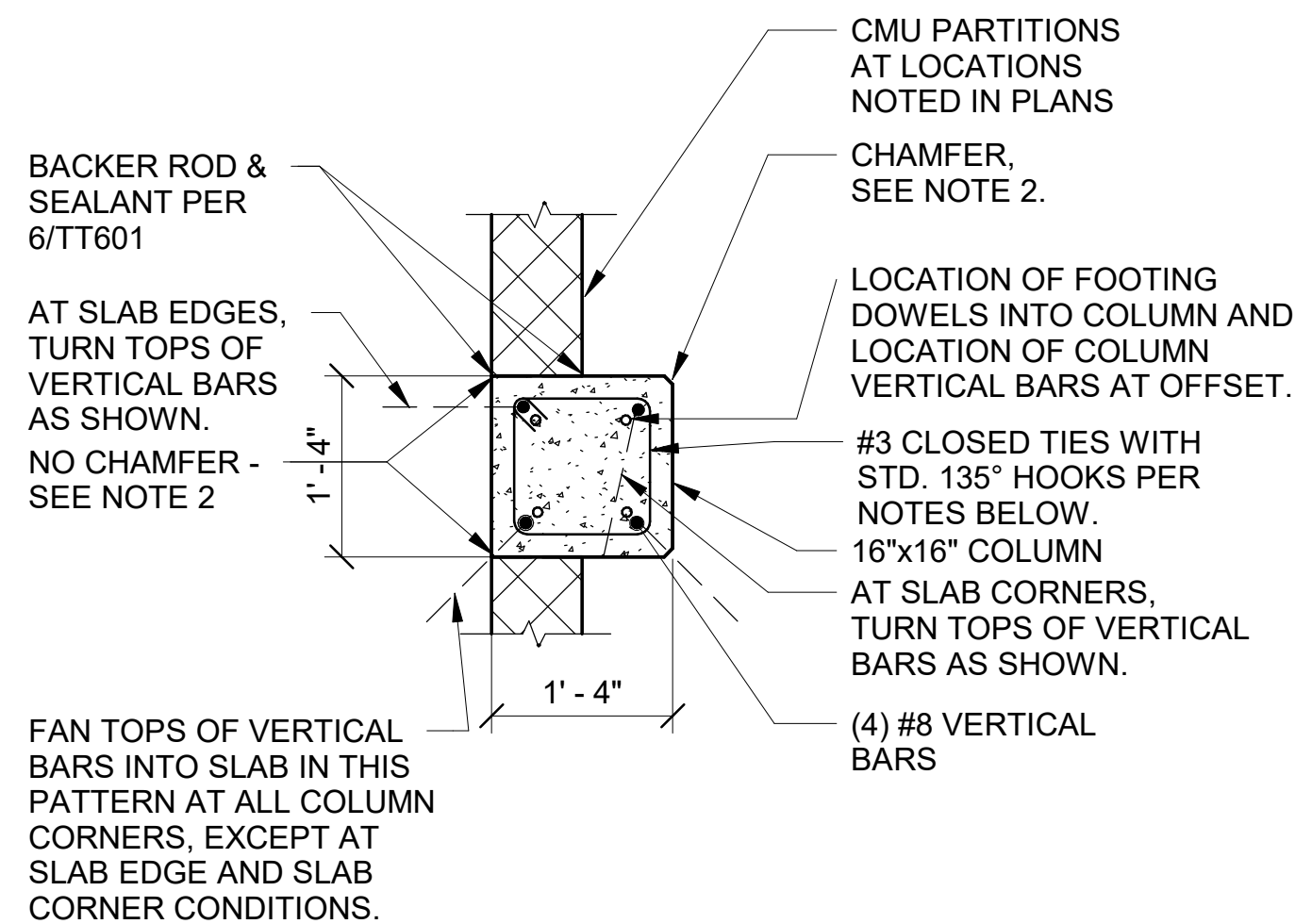


NO.	REVISION	DATE
1	Addendum #1	04/14/25

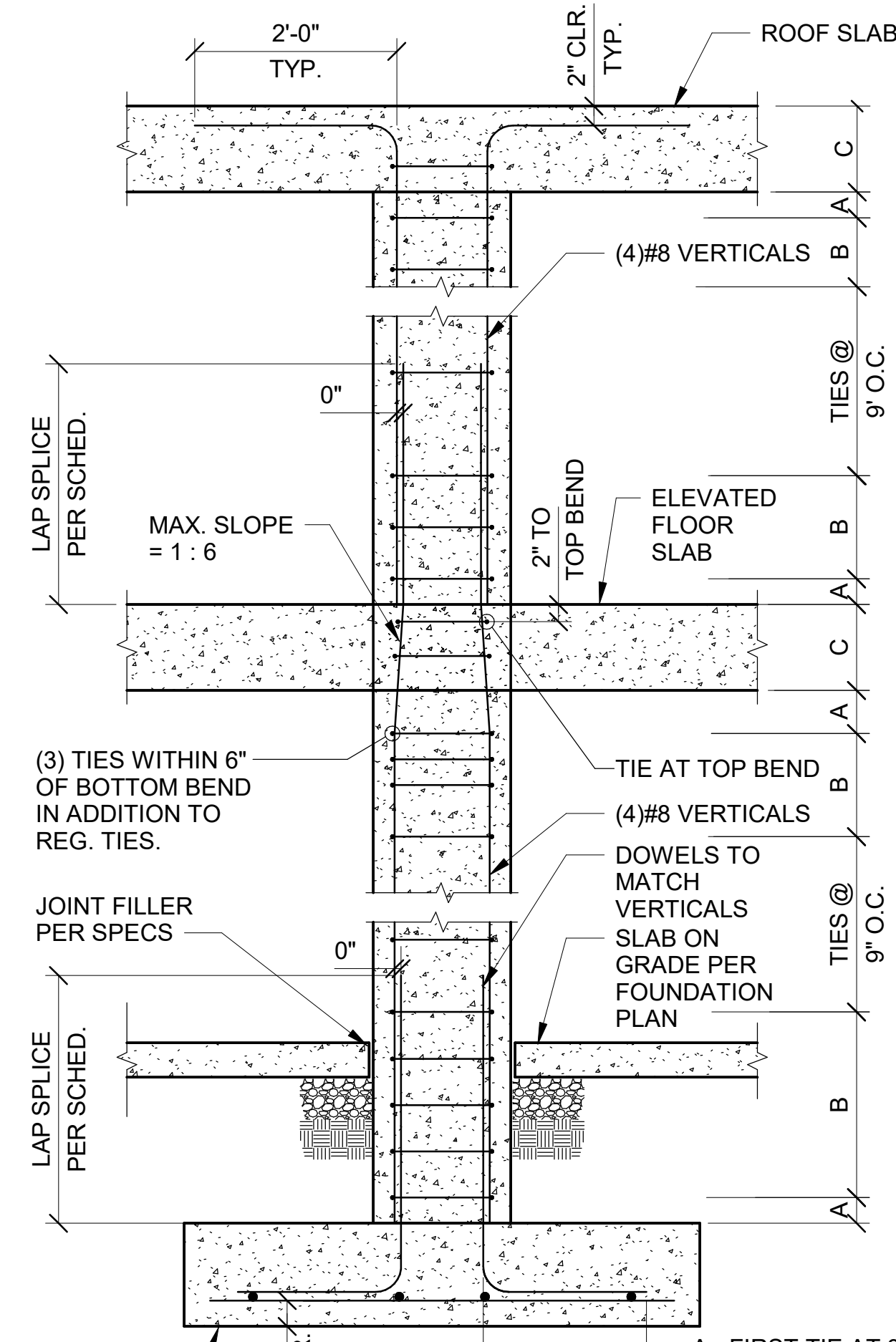
JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

TRAINING TOWER
- FIFTH FLOOR &
HIGH ROOF
FRAMING PLANS

TT403



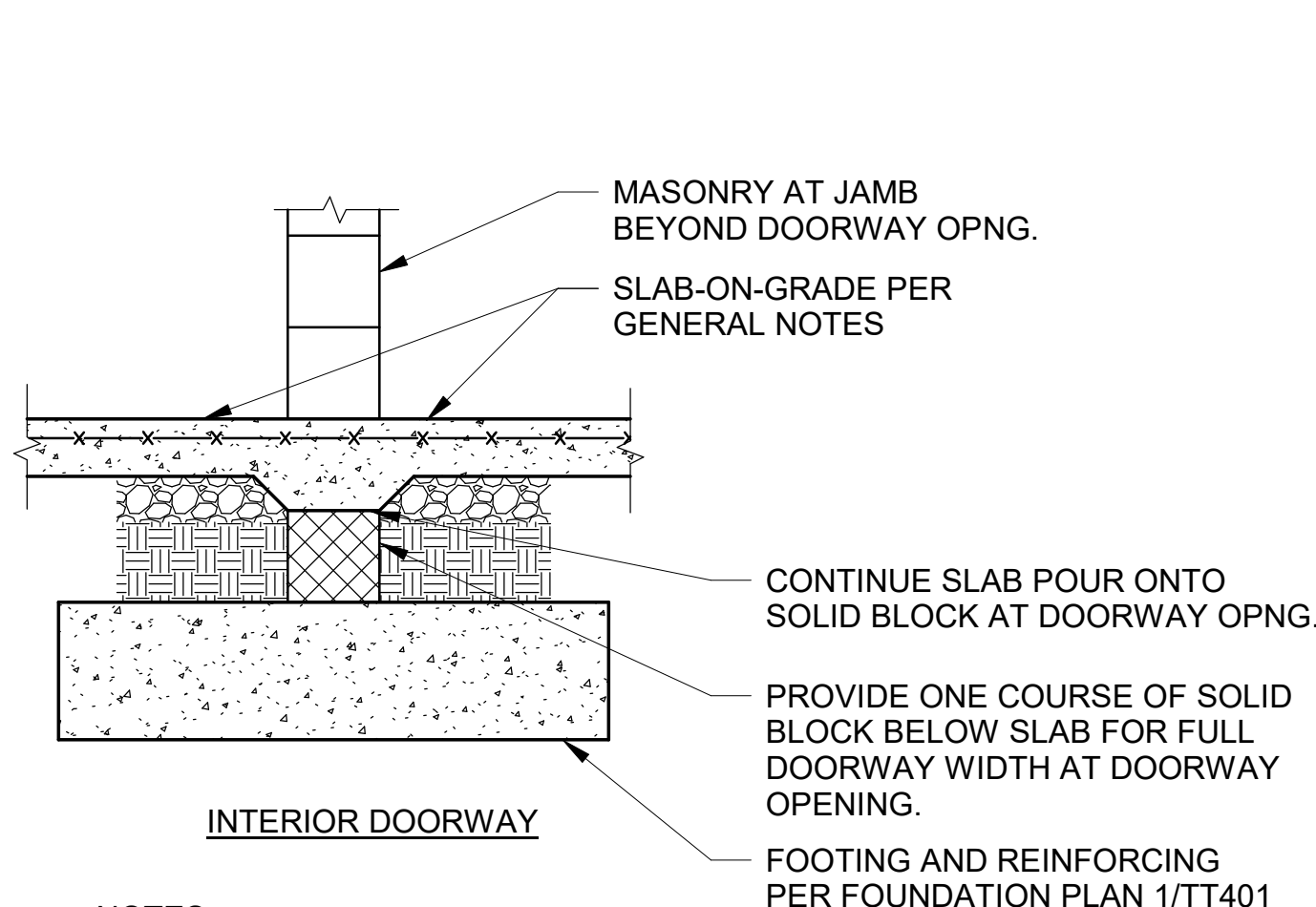
16X16 COLUMN PLAN DETAIL



FOOTING DIMENSIONS AND REINFORCING PER FOUNDATION PLAN

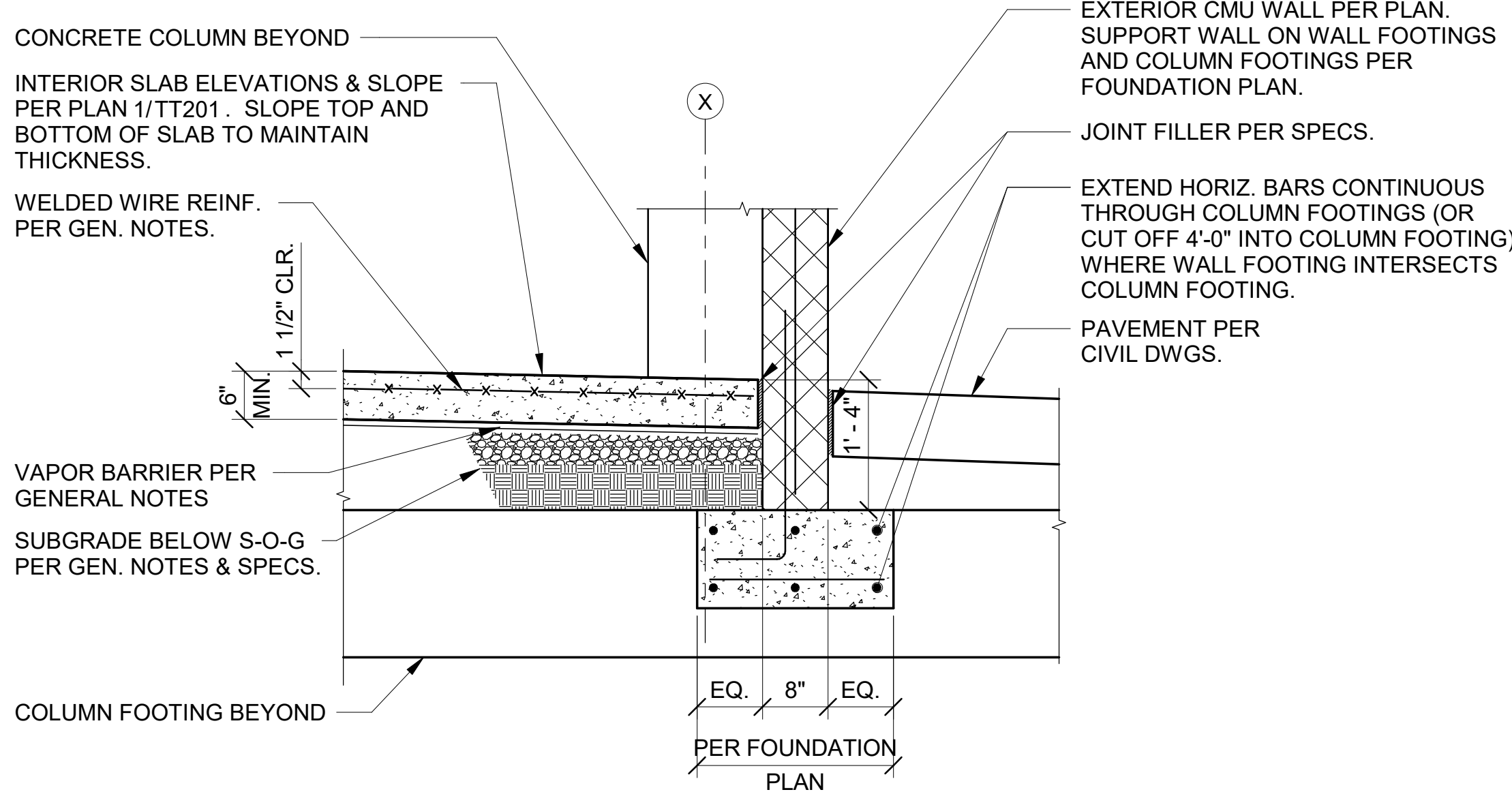
- NOTES:
- THIS DETAIL APPLIES TO ALL COLUMNS. ALL COLUMNS SHALL BE 16"x16".
 - AT COLUMN CORNERS WITH NO INTERSECTING CMU PARTITIONS, PROVIDE 3/4" CHAMFER. AT COLUMN CORNERS WITH INTERSECTING CMU PARTITIONS, PROVIDE NO CHAMFER.

1 TYPICAL COLUMN DETAIL

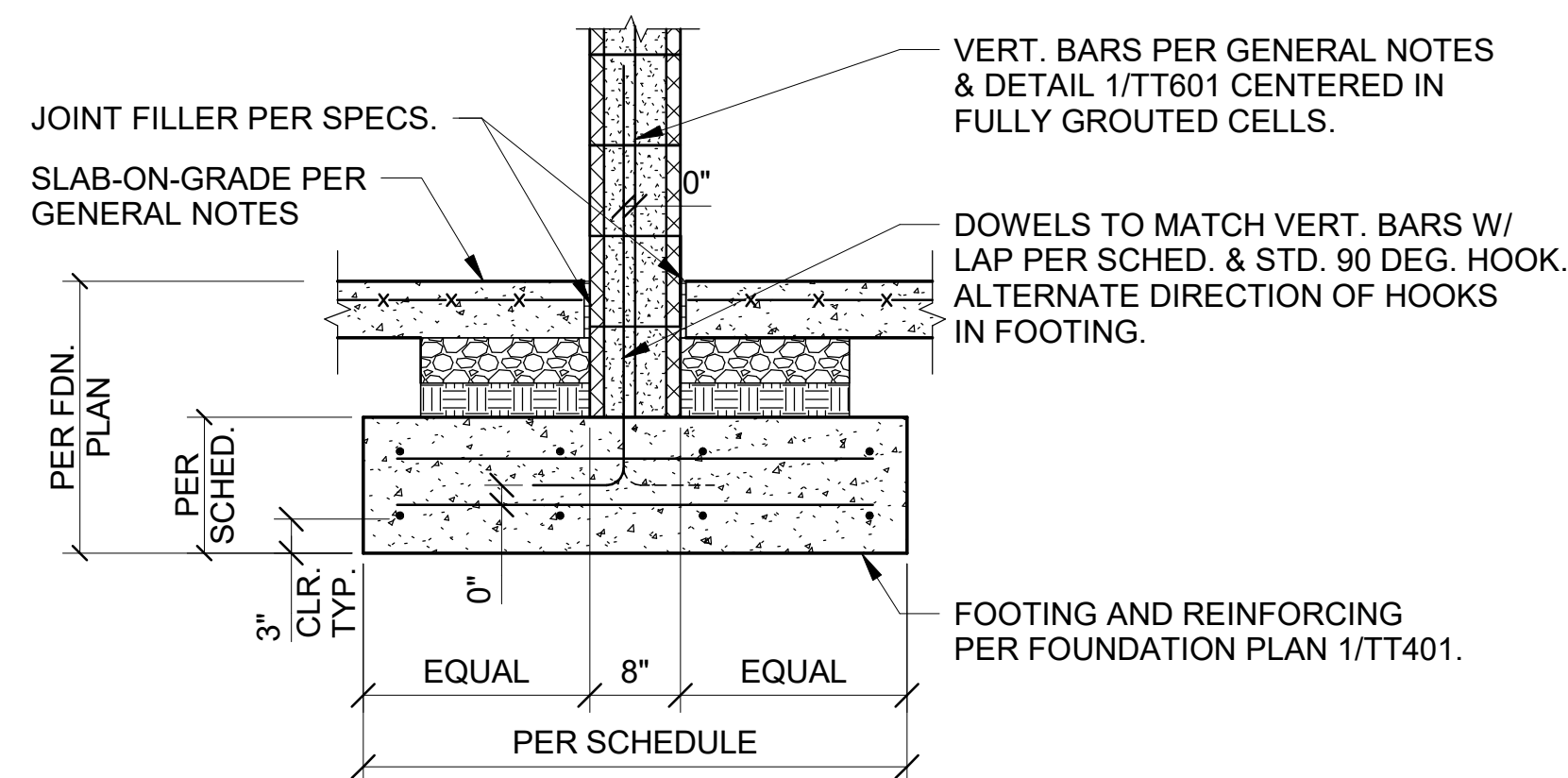


- NOTES:
- FOUNDATION AND WALL REINFORCING NOT SHOWN FOR CLARITY.

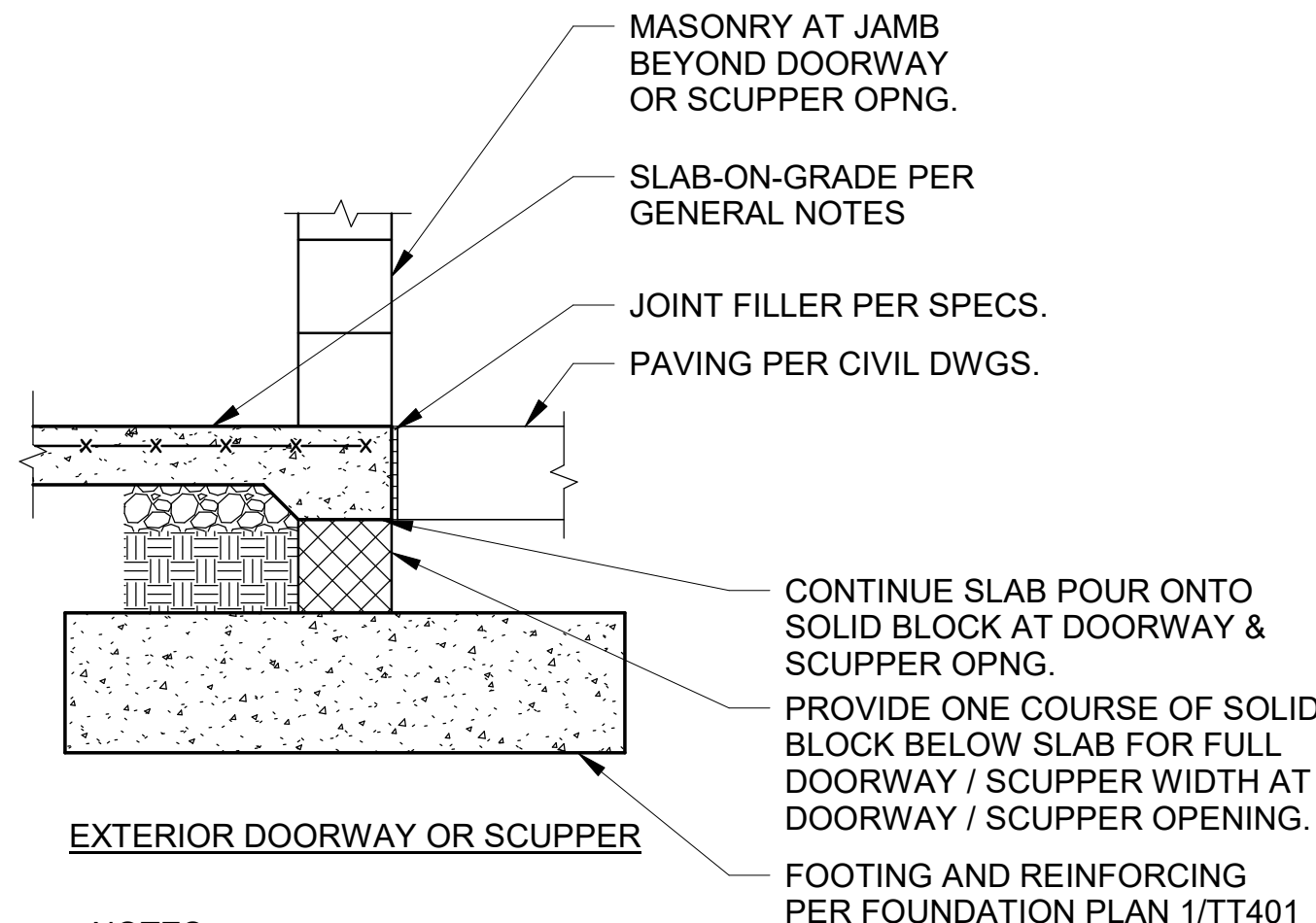
6 SECTION - DOOR & SCUPPER THRESHOLDS AT SLAB-ON-GRADE



2 TYPICAL EXTERIOR WALL FOOTING

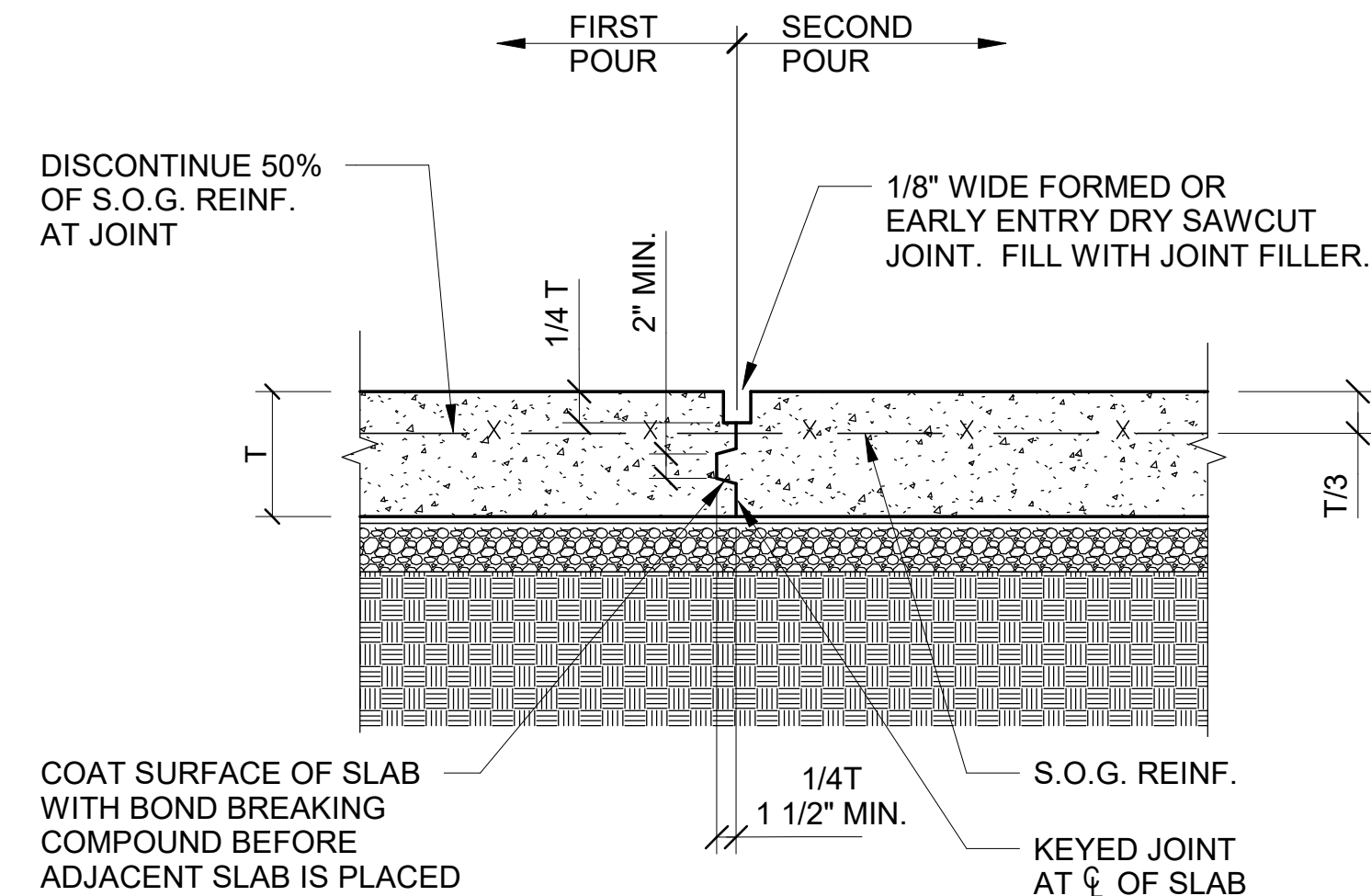


4 TYPICAL INTERIOR WALL FOOTING SECTION

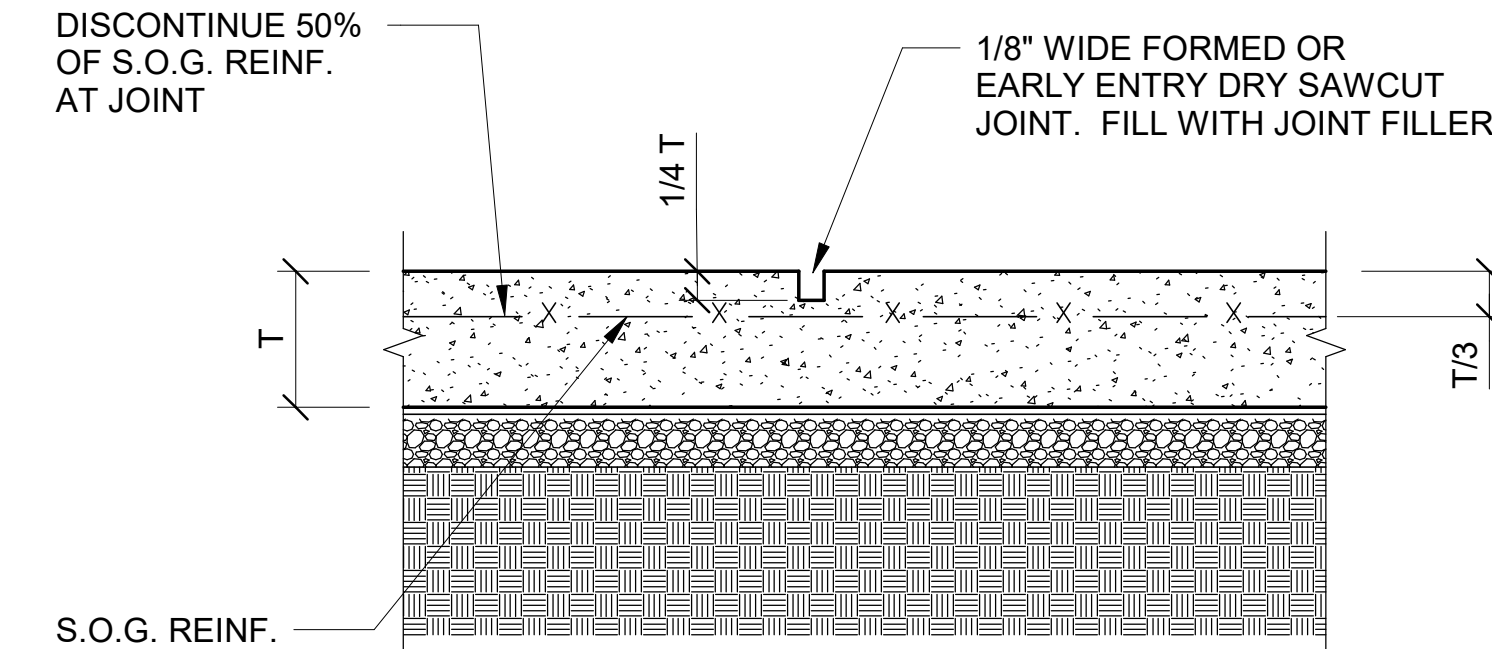


- NOTES:
- FOUNDATION AND WALL REINFORCING NOT SHOWN FOR CLARITY.

7 TYPICAL PLAN-REINF. IN S.O.G AT WALL OPENING DETAIL



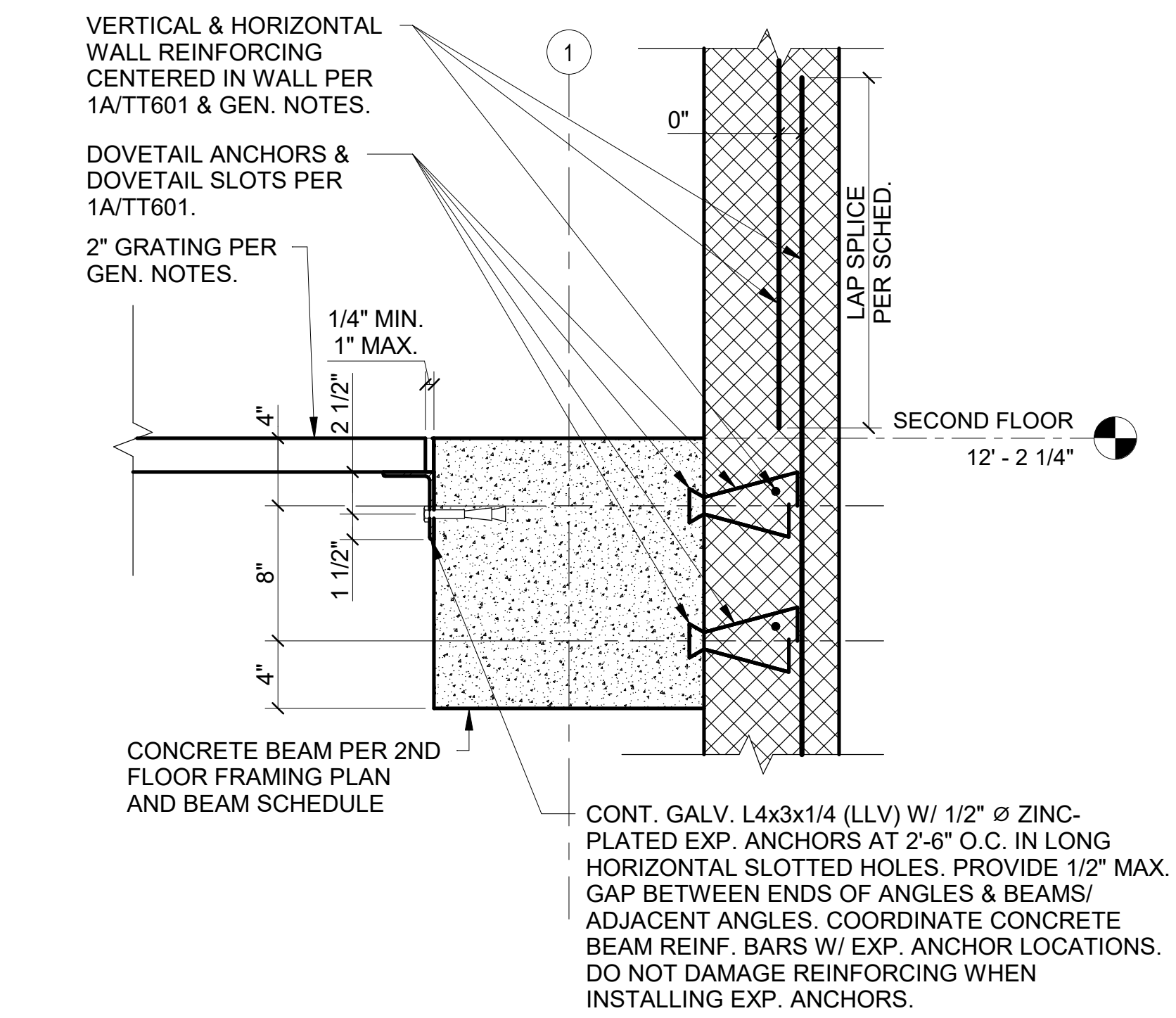
3 TYPICAL S.O.G. CONSTRUCTION JOINT DETAIL



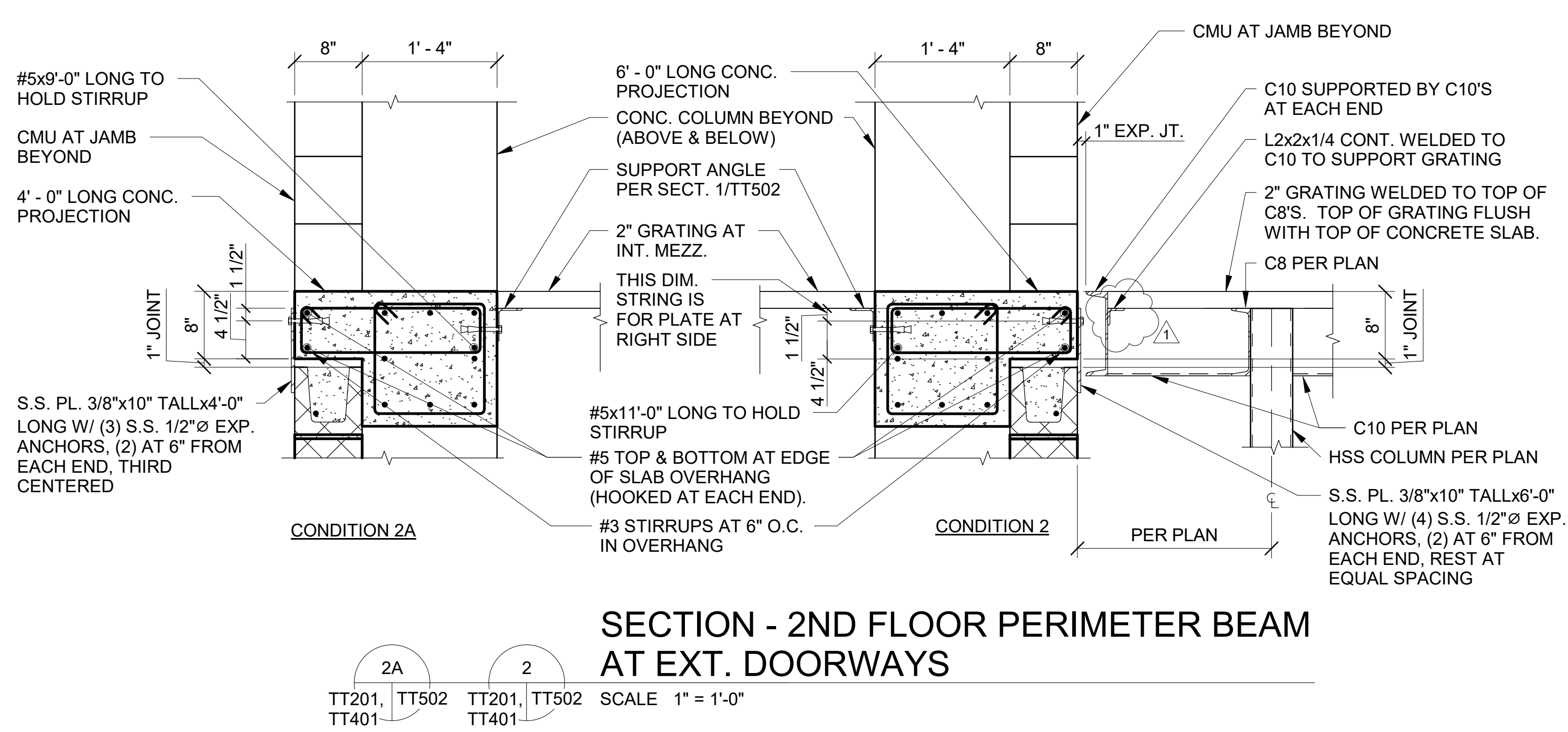
5 TYPICAL S.O.G. CONTROL JOINT DETAIL

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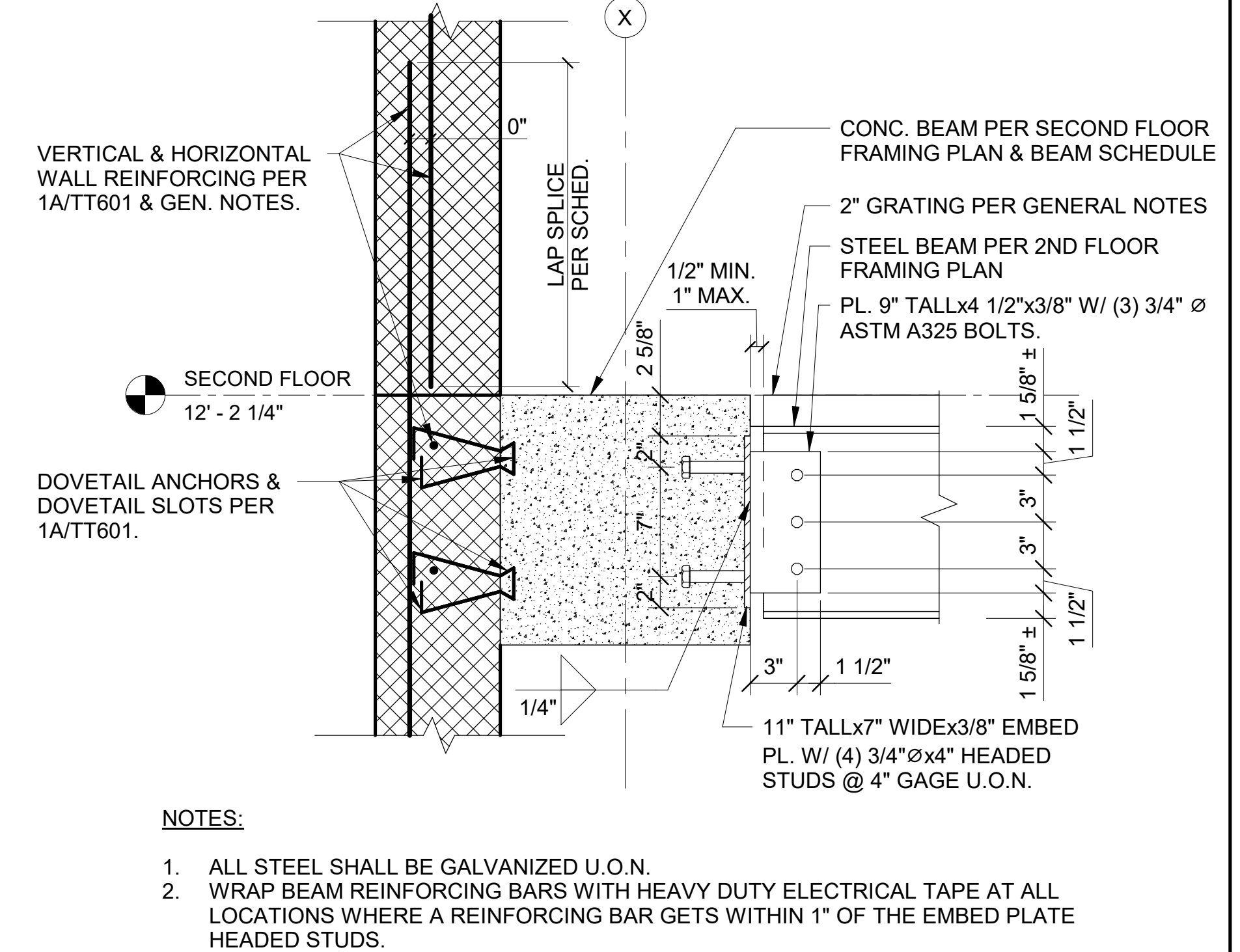
NO.	REVISION	DATE



SECTION - 2ND FLOOR PERIMETER BEAM
TT401 TT502 SCALE 1 1/2" = 1'-0"

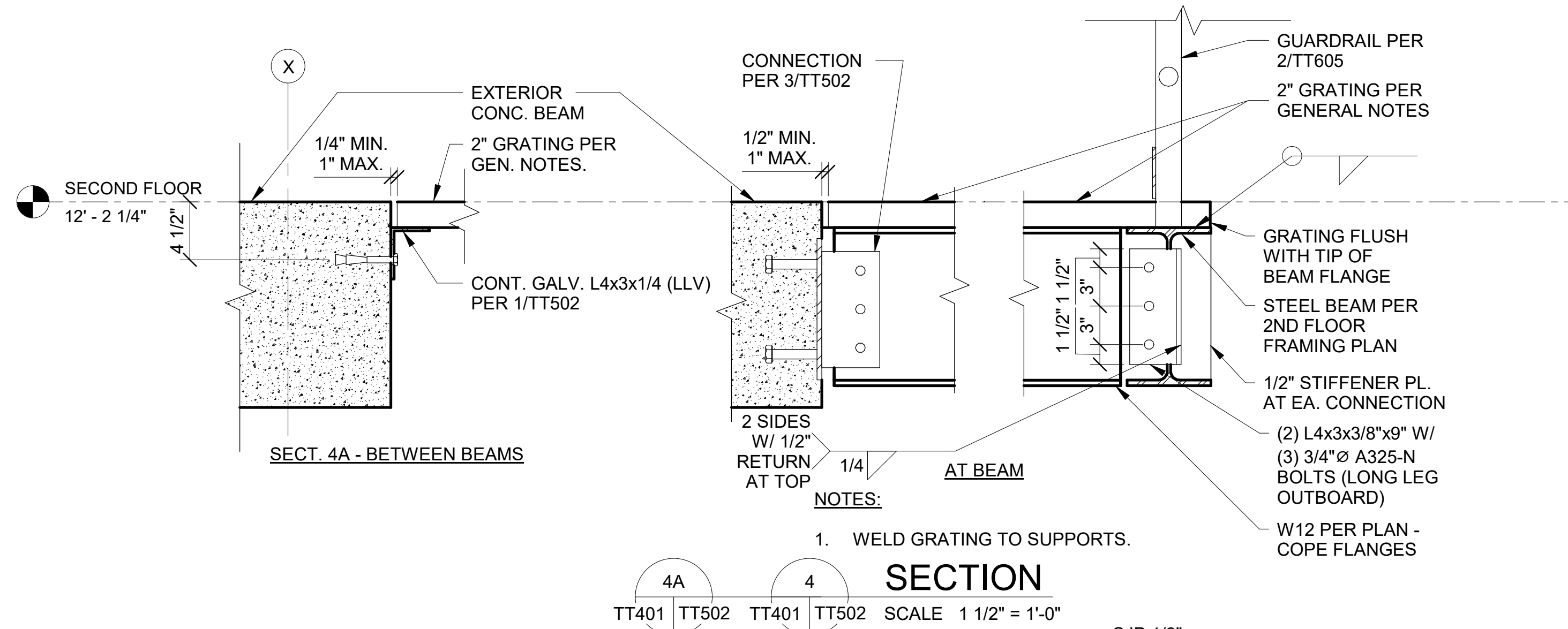


SECTION - 2ND FLOOR PERIMETER BEAM
AT EXT. DOORWAYS

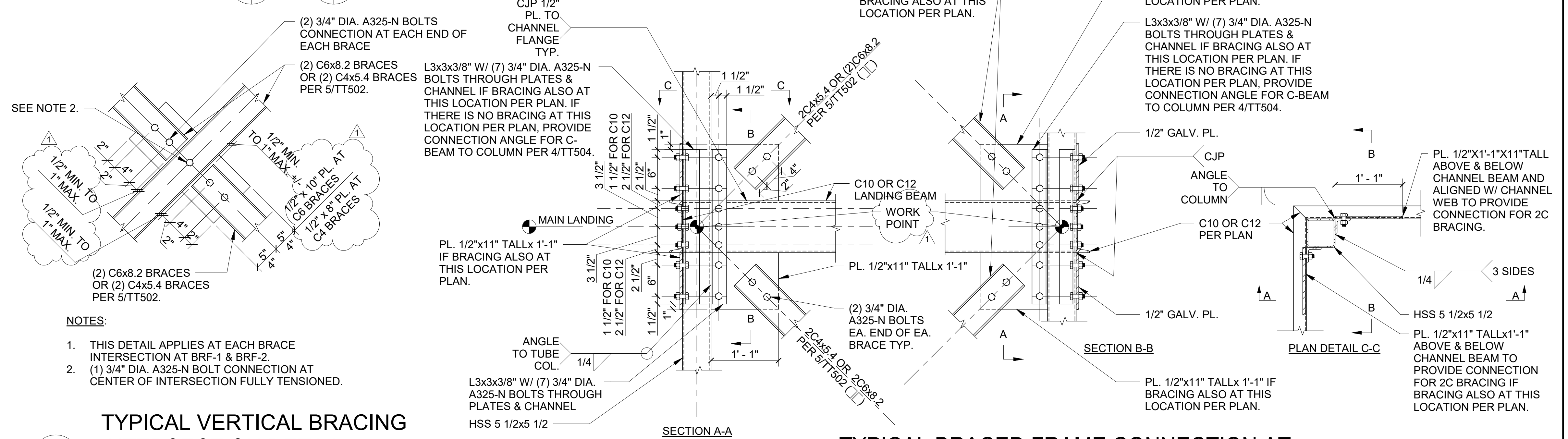


- NOTES:
- ALL STEEL SHALL BE GALVANIZED U.O.N.
 - WRAP BEAM REINFORCING BARS WITH HEAVY DUTY ELECTRICAL TAPE AT ALL LOCATIONS WHERE A REINFORCING BAR GETS WITHIN 1" OF THE EMBED PLATE HEADED STUDS.

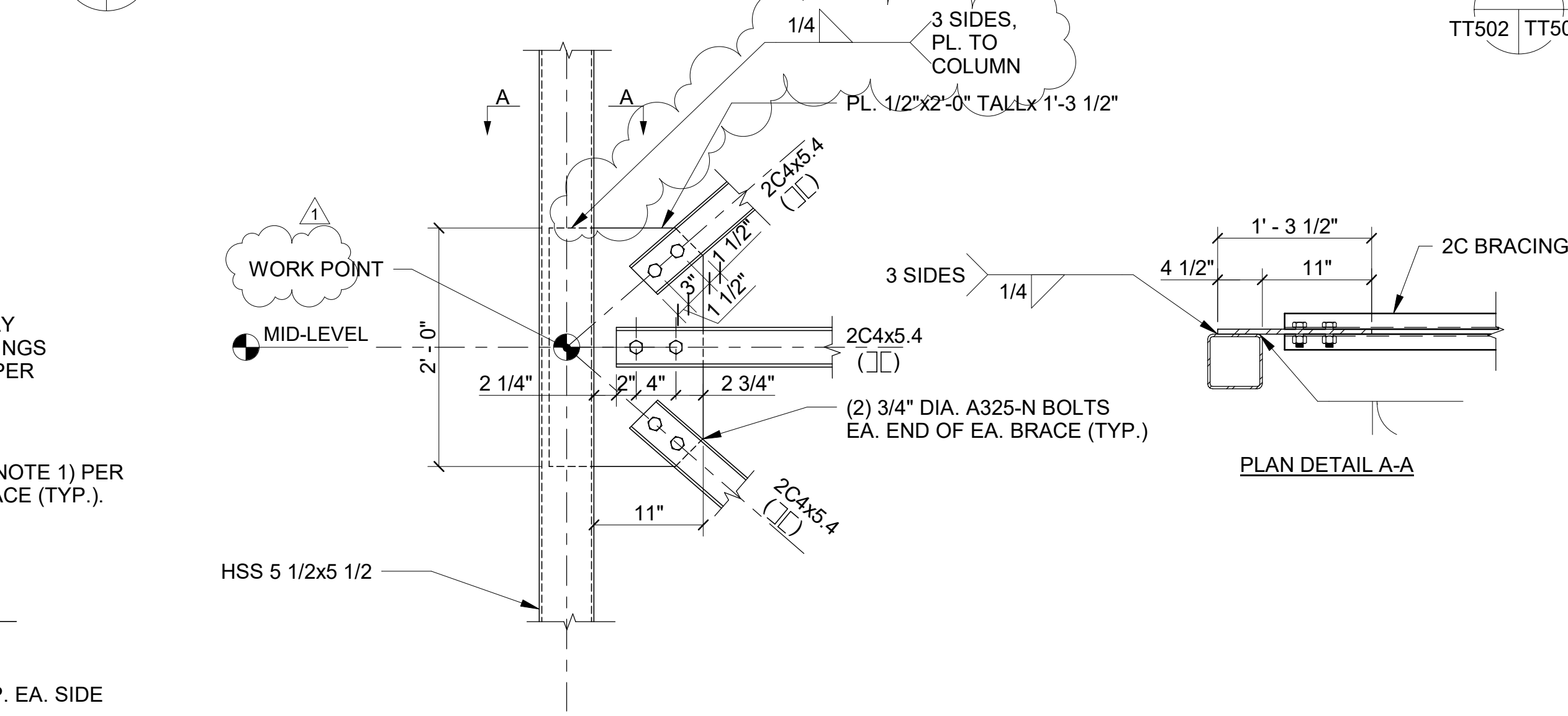
SECTION - 2ND FLOOR STEEL BEAM TO
CONCRETE BEAM CONNECTION
TT401 TT502 SCALE 1 1/2" = 1'-0"



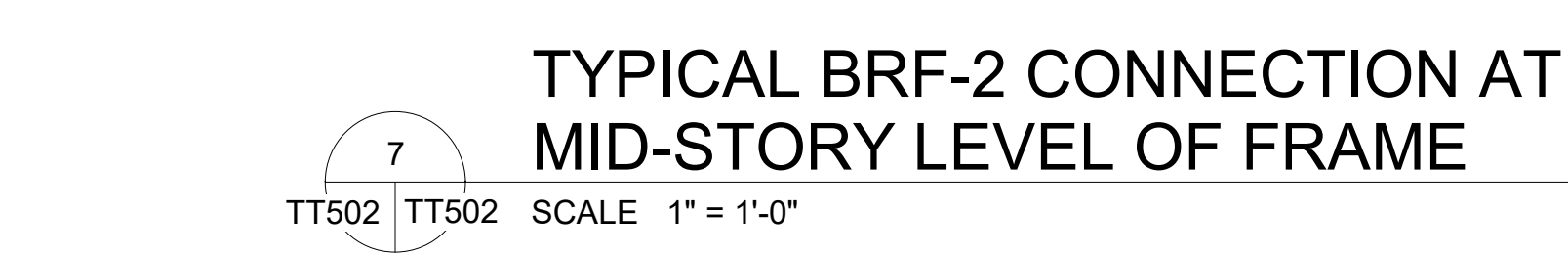
SECTION
TT401 TT502 TT401 TT502 SCALE 1 1/2" = 1'-0"



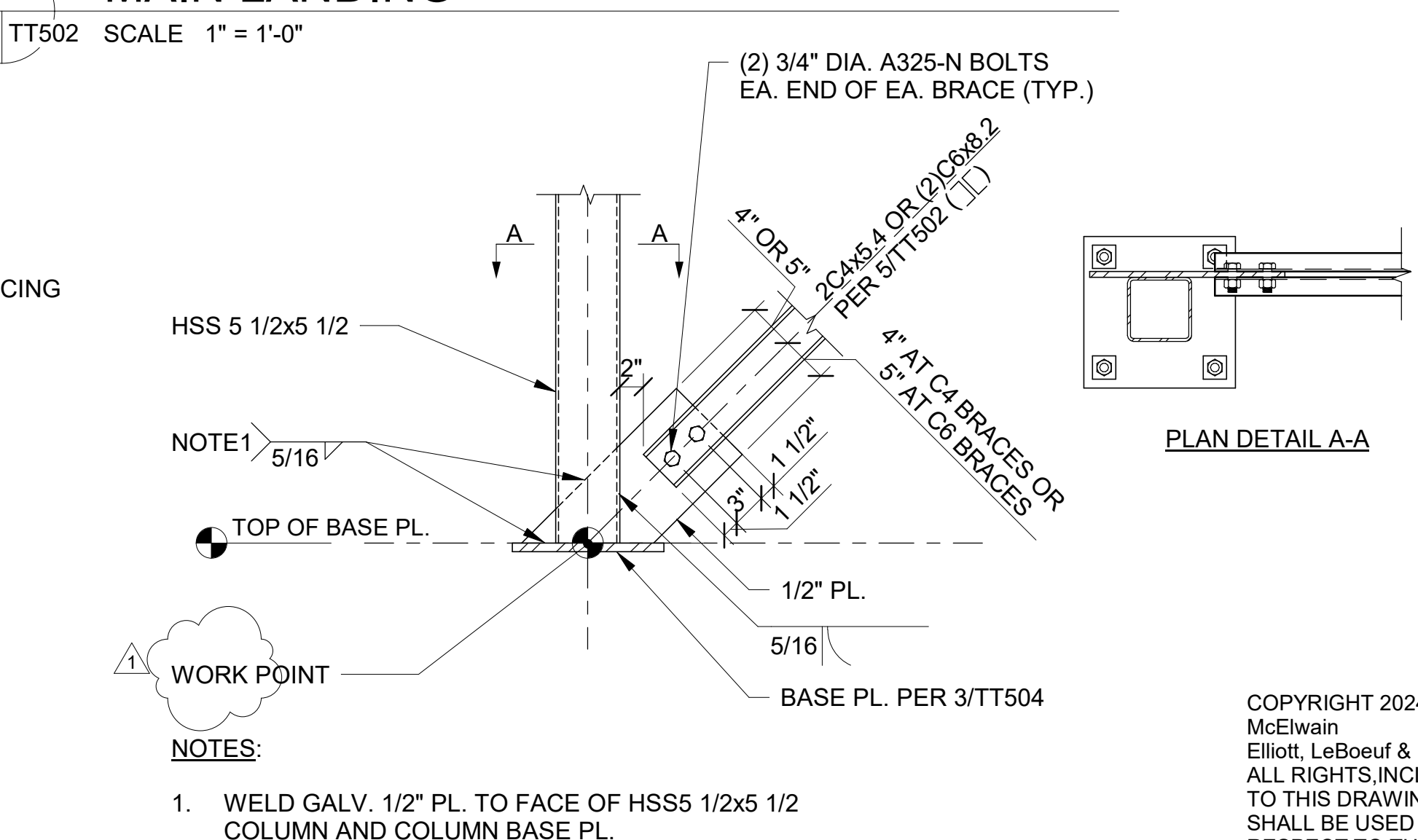
TYPICAL VERTICAL BRACING
INTERSECTION DETAIL
TT502 TT502 SCALE 1" = 1'-0"



TYPICAL BRACED FRAME CONNECTION AT
MAIN LANDING
TT502 TT502 SCALE 1" = 1'-0"

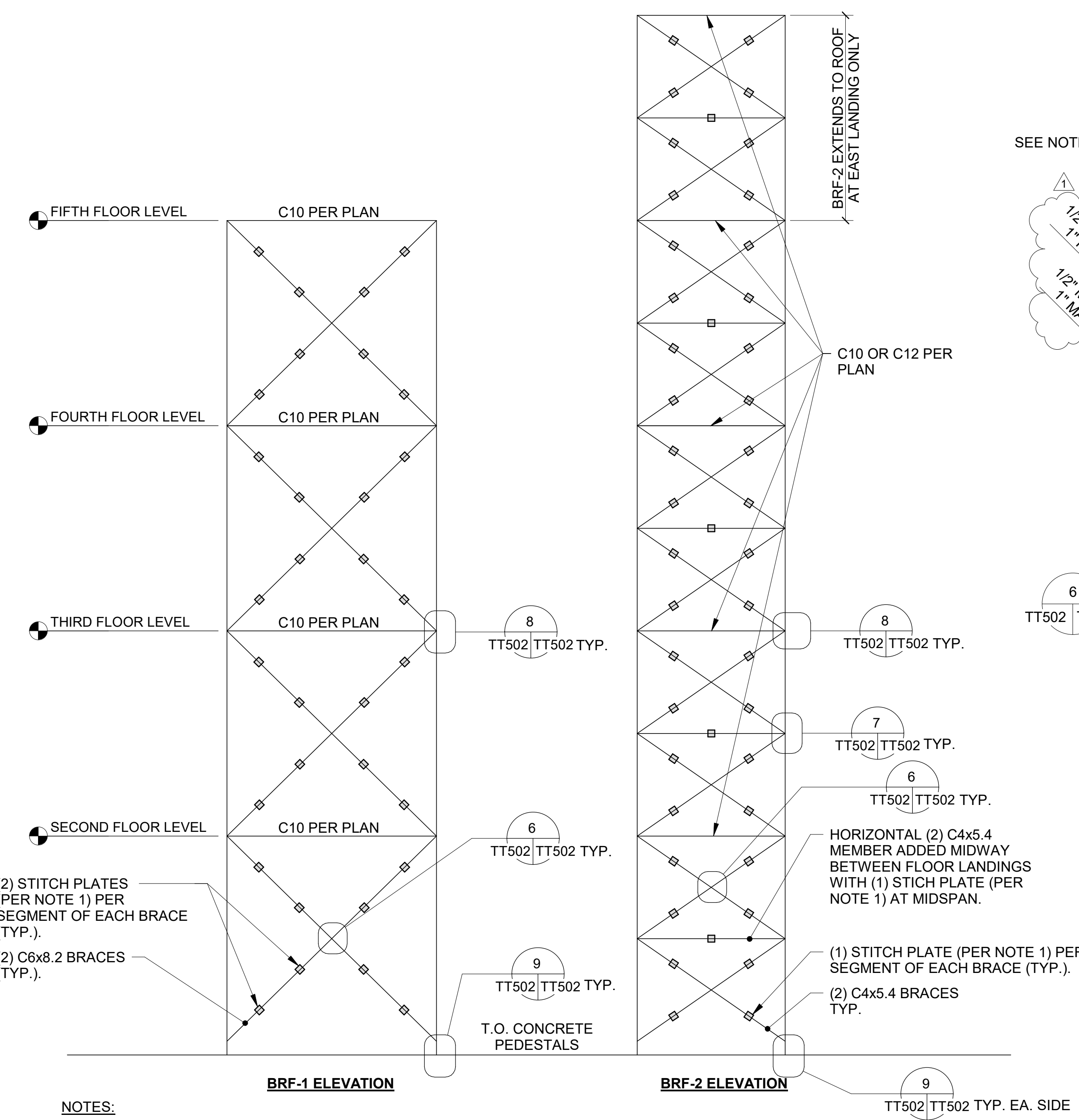


TYPICAL BRF-2 CONNECTION AT
MID-STORY LEVEL OF FRAME
TT502 TT502 SCALE 1" = 1'-0"



- NOTES:
- WELD GALV. 1/2" PL. TO FACE OF HSS 5 1/2x5 1/2 COLUMN AND COLUMN BASE PL.

TYPICAL BRACED FRAME CONNECTION AT
COLUMN BASE PL.
TT502 TT502 SCALE 1" = 1'-0"



- NOTES:
- STITCH PLATE (SPACER PLATE) SHALL BE 1/2" x 4"x4" SQUARE GALV. PLATE WITH (1) 3/4" DIA. A325-N BOLT FULLY TENSIONED.
 - ALL STEEL SHALL BE HOT DIP GALVANIZED U.O.N.

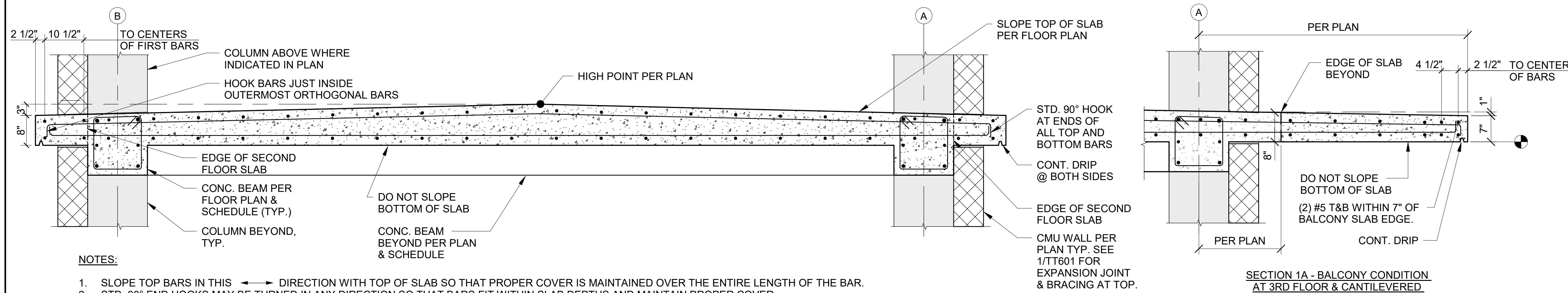
EXTERIOR STEEL STAIR BRACED FRAMES
TT502 TT502 SCALE 1/2" = 1'-0"



NO.	REVISION	DATE
1	Addendum #1	04/14/25

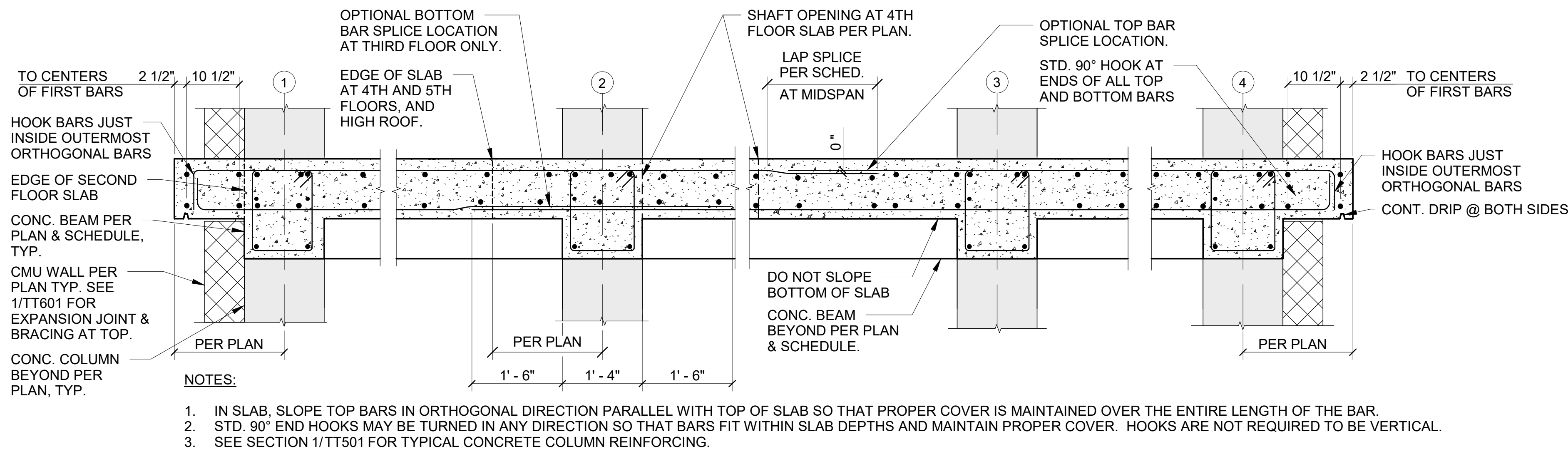
JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

TRAINING TOWER - STRUCTURAL STEEL FRAMING DETAILS



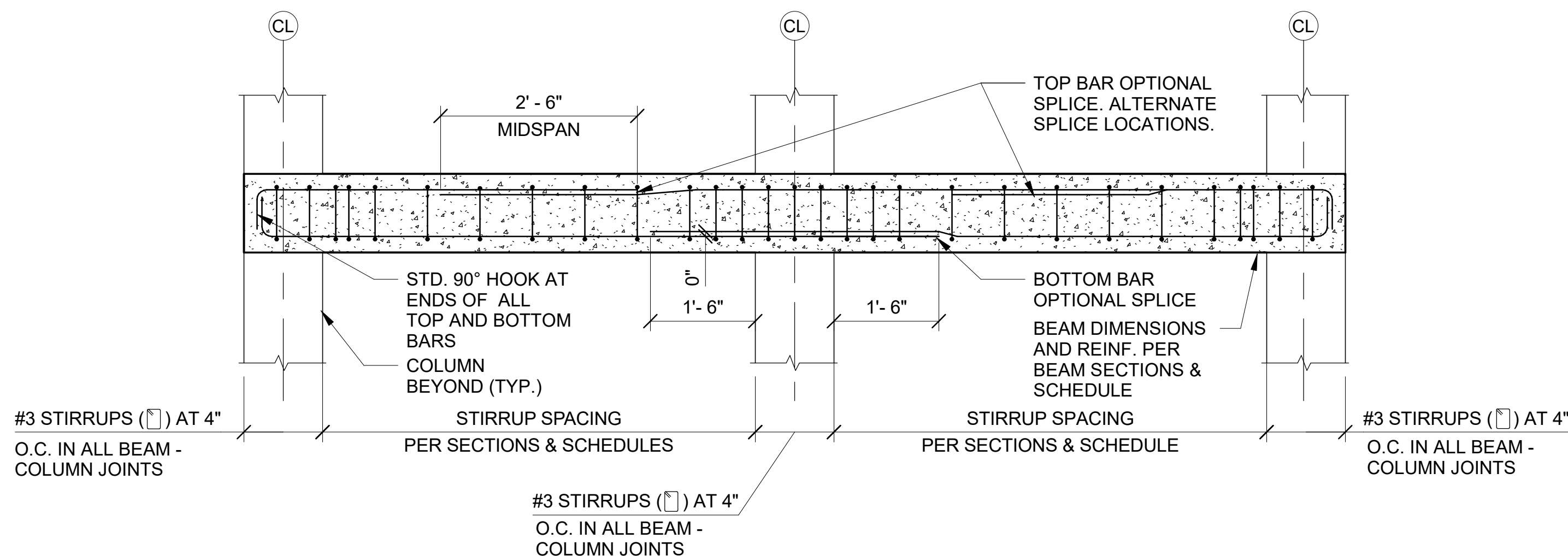
- NOTES:
1. SLOPE TOP BARS IN THIS \leftarrow DIRECTION WITH TOP OF SLAB SO THAT PROPER COVER IS MAINTAINED OVER THE ENTIRE LENGTH OF THE BAR.
 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 1/TT501 FOR TYPICAL CONCRETE COLUMN REINFORCING.

1A
TT402- TT503
TT403
CONCRETE SLAB SECTION
SCALE 3/4" = 1'-0"

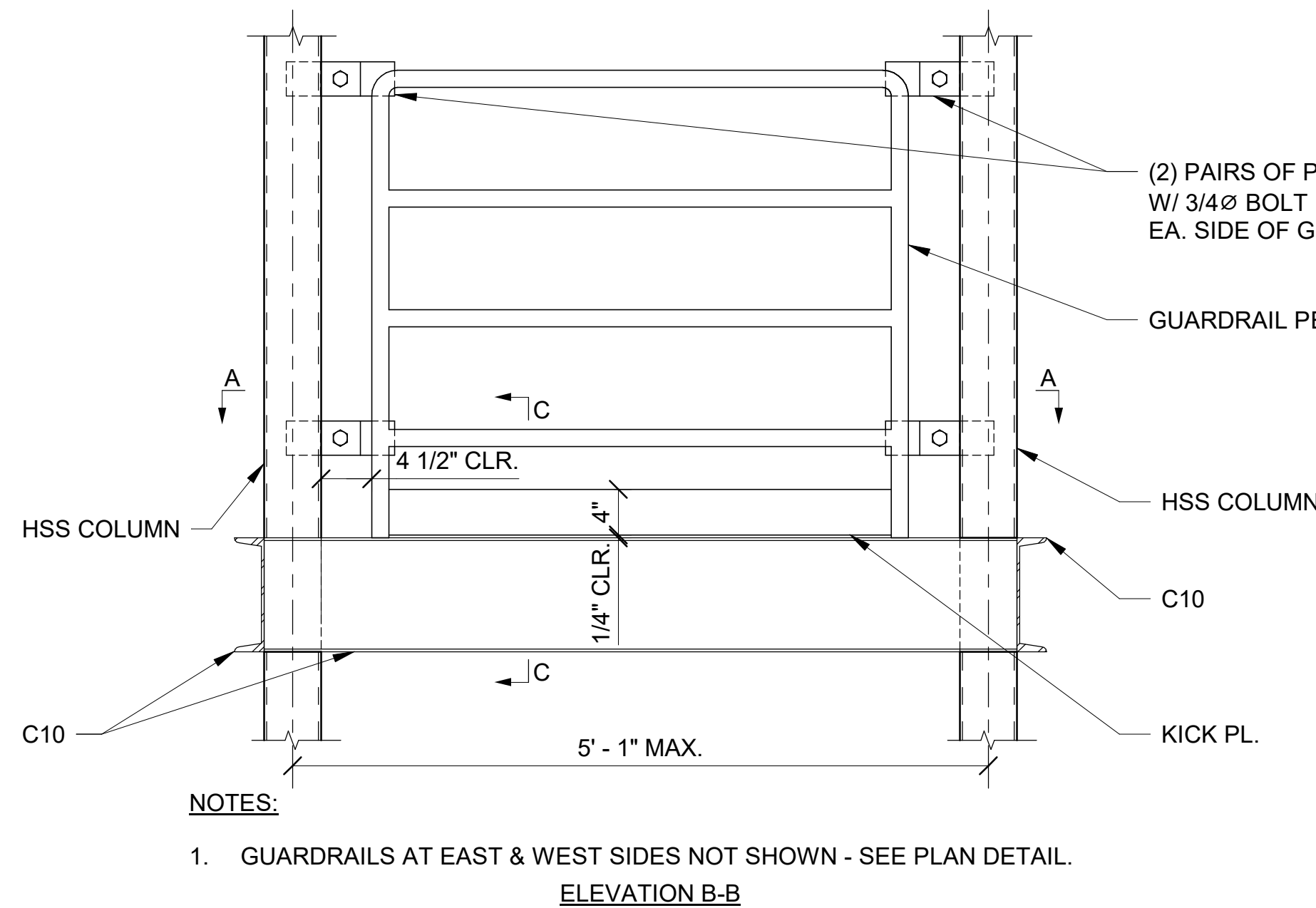
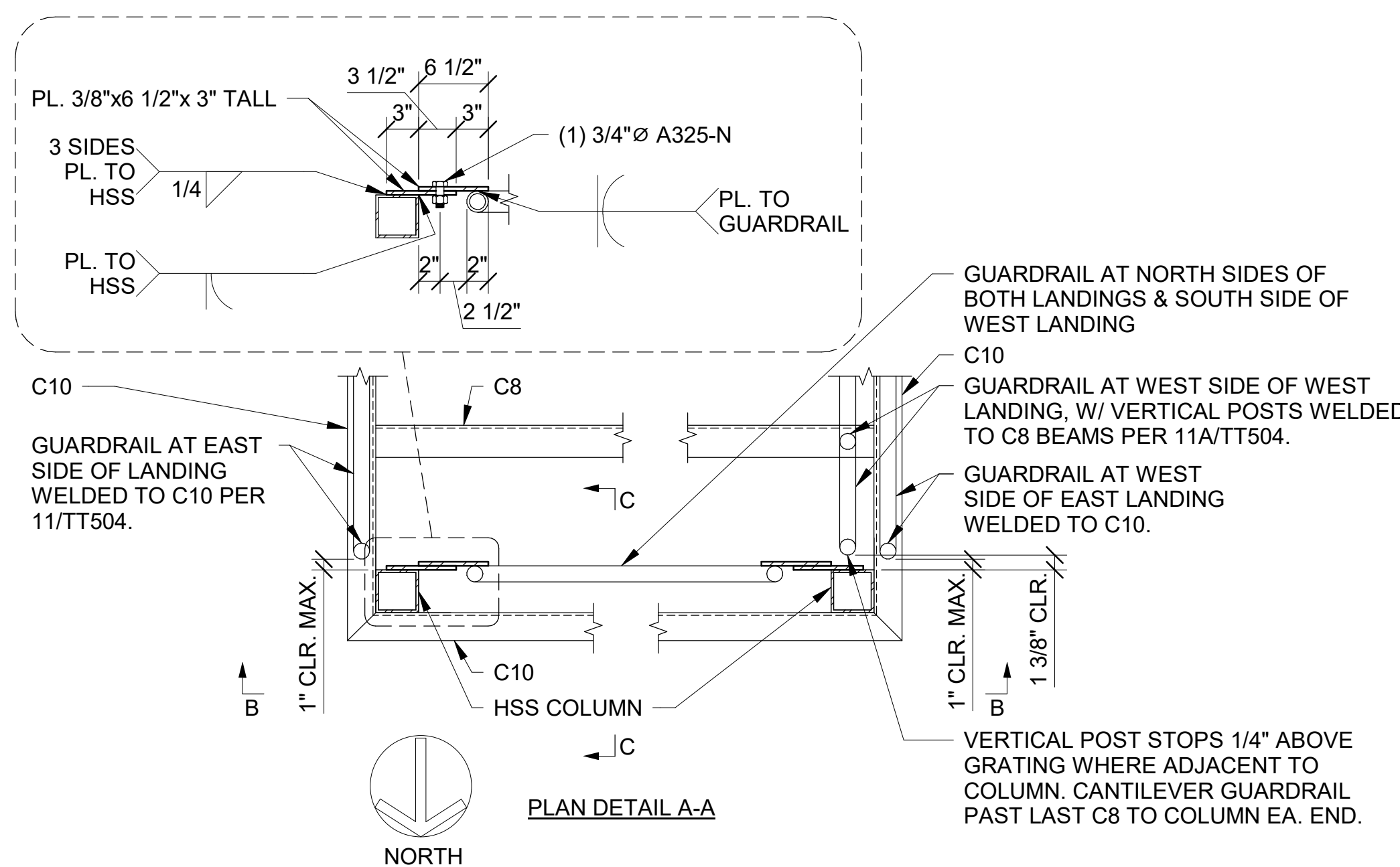


- NOTES:
1. IN SLAB, SLOPE TOP BARS IN ORTHOGONAL DIRECTION PARALLEL WITH TOP OF SLAB SO THAT PROPER COVER IS MAINTAINED OVER THE ENTIRE LENGTH OF THE BAR.
 2. STD. 90° END HOOKS MAY BE TURNED IN ANY DIRECTION SO THAT BARS FIT WITHIN SLAB DEPTHS AND MAINTAIN PROPER COVER. HOOKS ARE NOT REQUIRED TO BE VERTICAL.
 3. SEE SECTION 1/TT501 FOR TYPICAL CONCRETE COLUMN REINFORCING.

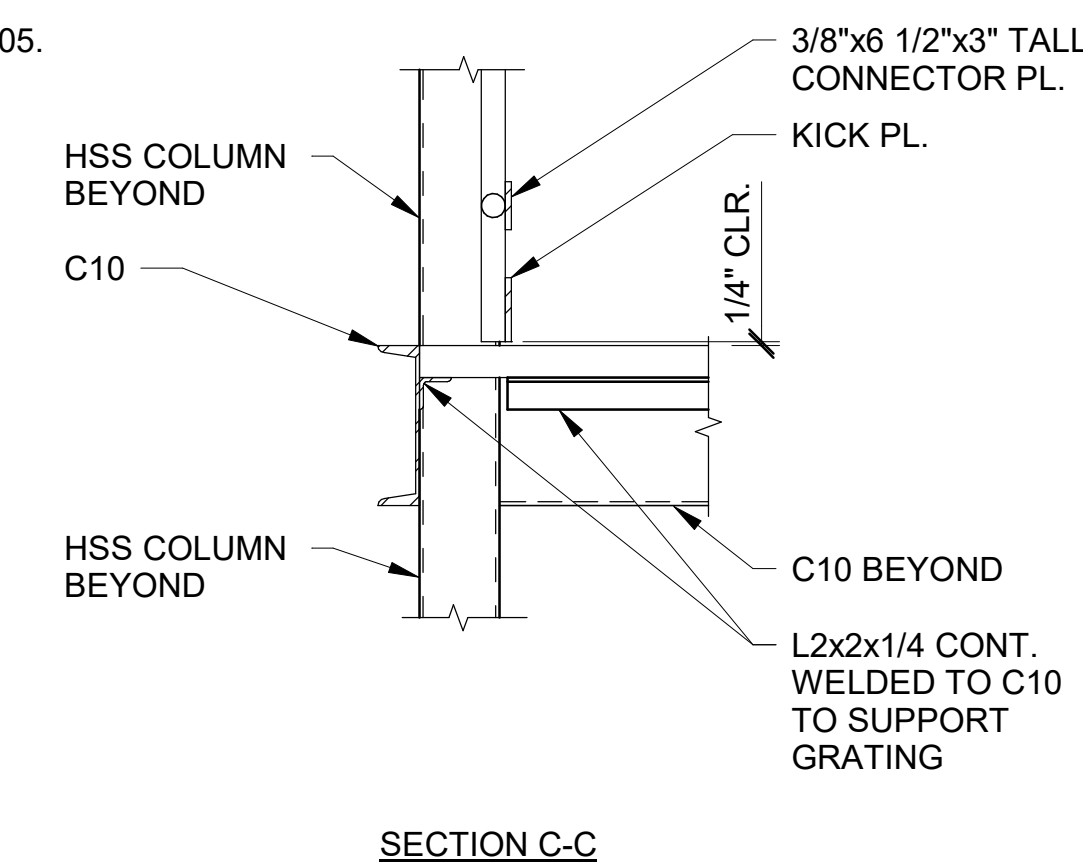
2
TT401- TT503
TT403
CONCRETE SLAB SECTION
SCALE 3/4" = 1'-0"



3
TT401- TT503
TT403
BEAM BENDING & CUTOFF DETAIL
SCALE 3/4" = 1'-0"














4
TT503 TT503
ELEVATION - BEAM 2B3
SCALE 3/4" = 1'-0"

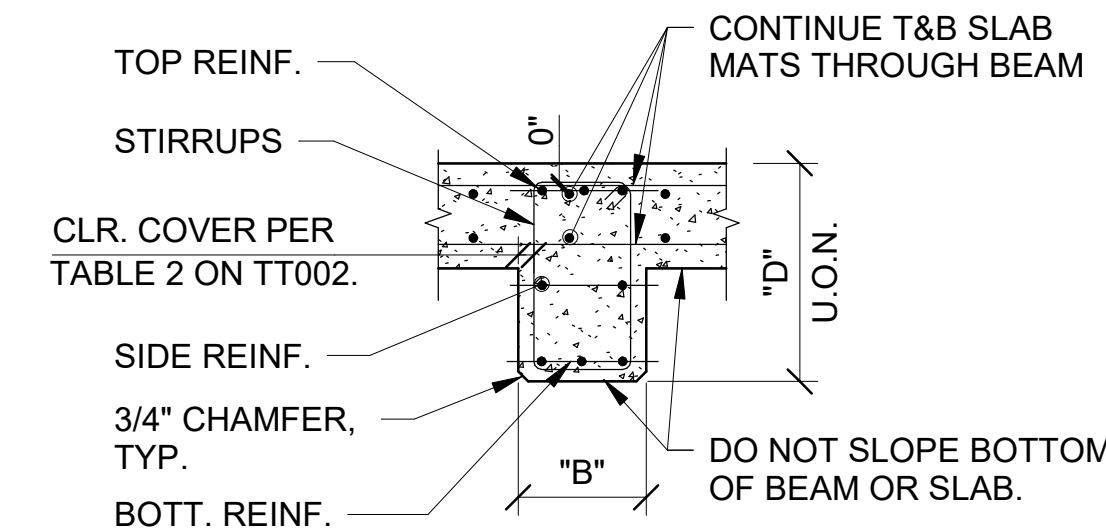


SECTION C-C

5
TT504 TT503
DETAIL - GUARDRAIL WHERE THERE IS X-BRACING IN SHORT COLUMN BAYS
SCALE 1" = 1'-0"

CONCRETE BEAM SCHEDULE											
MARK	SIZE		REINFORCEMENT				STIRRUPS				REMARKS
	WIDTH (B)	DEPTH (D)	BOTTOM	TOP		SIDE E.F.	SIZE	TYPE	SPACING (in.) EACH END U.O.N.		
				CONT.	ADDED						
2B1	1' - 4"	1' - 6 1/4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
2B2	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
2B3	1' - 4"	VARIES FROM 1' - 4" TO 1' - 6 1/4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.	SEE NOTE 2.	
2B4	1' - 4"	1' - 6 1/4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
3B1	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
3B2	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
4B1	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
4B2	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
5B1	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
RB1	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		
RB2	1' - 4"	1' - 4"	(3) #8	(3) #8	---	(2) #6	#3		1@2", R@3" O.C.		

- NOTE:
1. AT BEAM/COLUMN JOINTS, KEEP BEAM LONGITUDINAL BARS INSIDE COLUMNS VERTICALS.
 2. TOP OF BEAM SLOPES PER 2/TT201 FROM COL. LINE 3 (1' - 6 1/4" DEEP) TO SCUPPER (1' - 4" DEEP), & REMAINS FLAT (1' - 4" DEEP) TO COLUMN LINE 4.



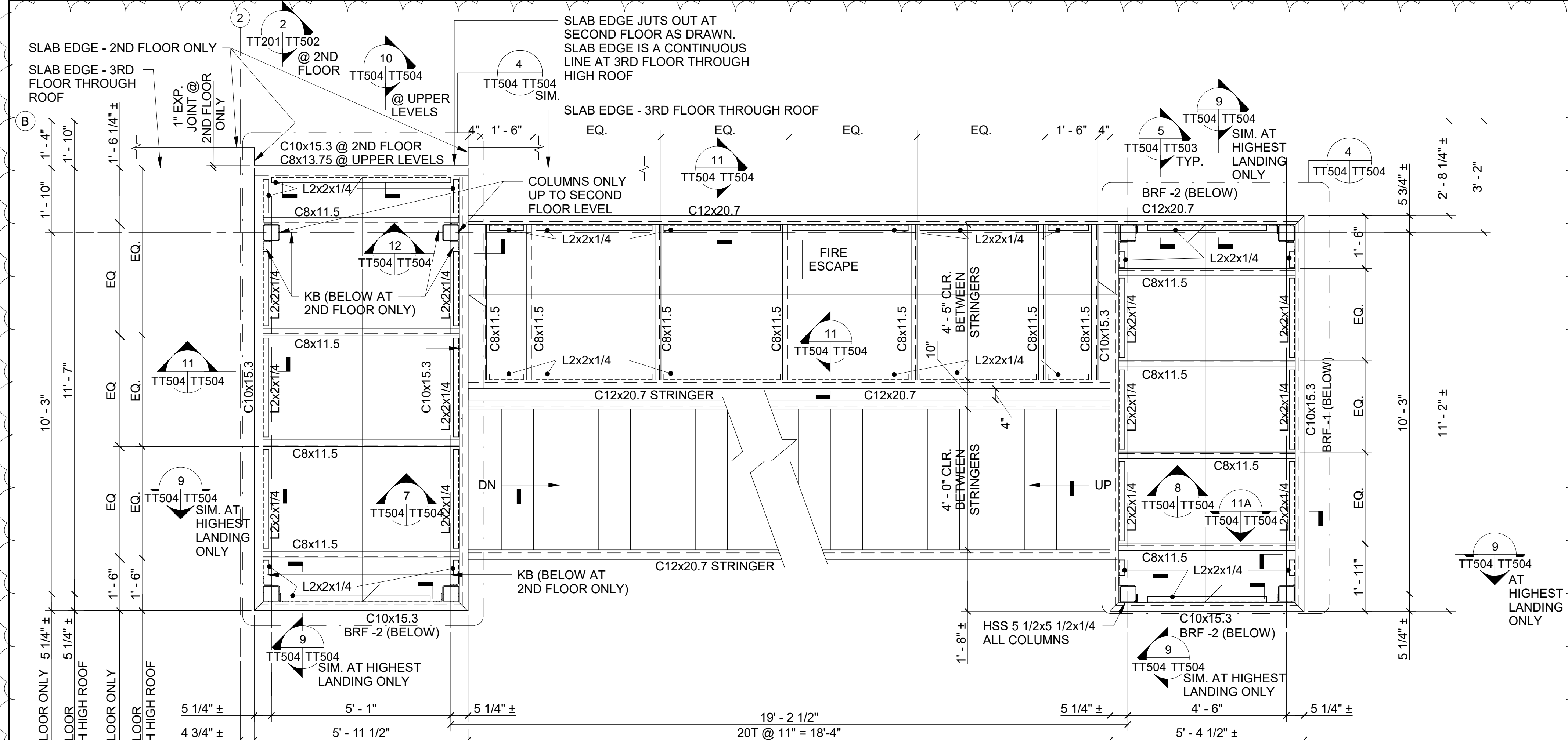
SECTION



NO.	REVISION	DATE
1	Addendum #1	04/14/25

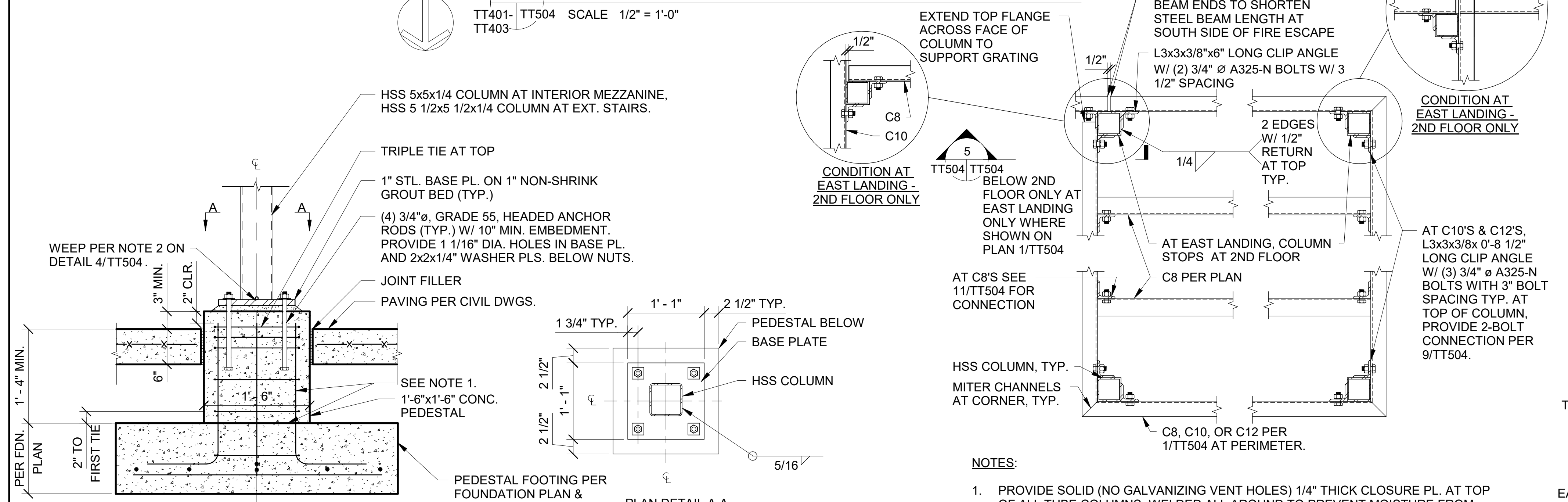
JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

**TRAINING TOWER
- EXTERIOR STEEL
STAIR DETAILS**



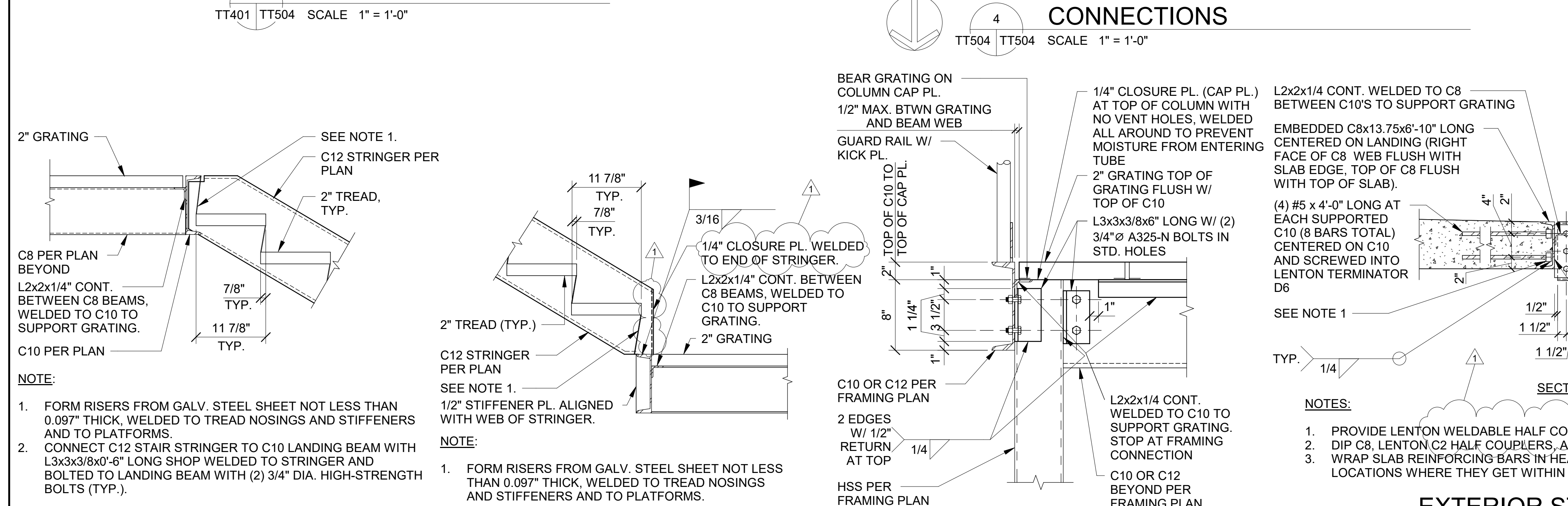
- NOTES:**
- SEE SHEET TT502 FOR BRACED FRAMES (BRF-1 & BRF-2). ALL STEEL SHALL BE HOT DIP GALVANIZED U.O.N.

EXTERIOR STEEL STAIRS FRAMING PLAN



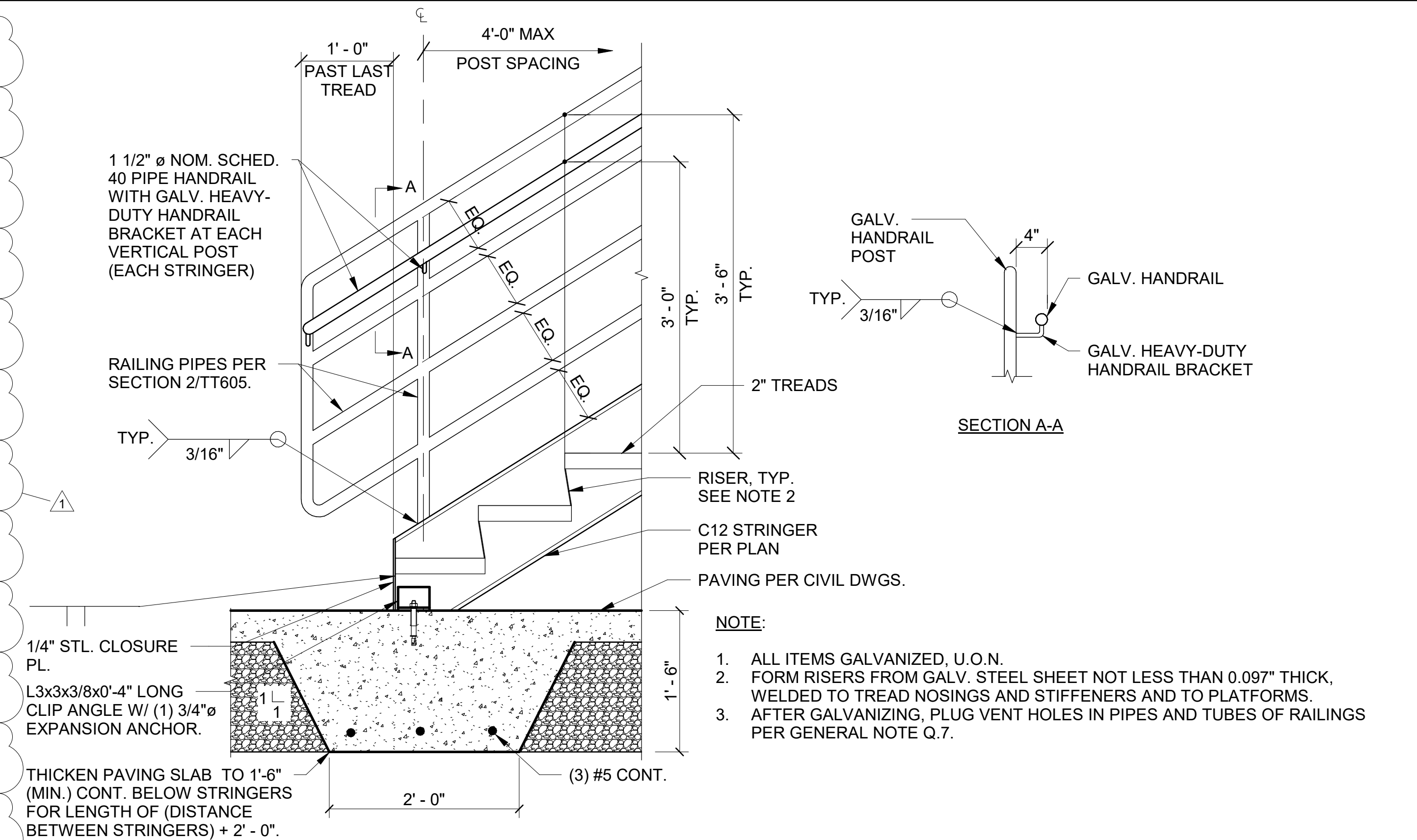
- NOTES:**
- PROVIDE (8) #6 VERTICAL BARS W/ 90° END HOOKS IN FOOTINGS AND #4 CLOSED TIES AT 12" O.C. MAX. IN ALL CONCRETE PEDESTALS.
 - PROVIDE HOT-DIP GALVANIZED STEEL FOR ALL STEEL PIECES, U.O.N.

CONCRETE PEDESTAL DETAIL

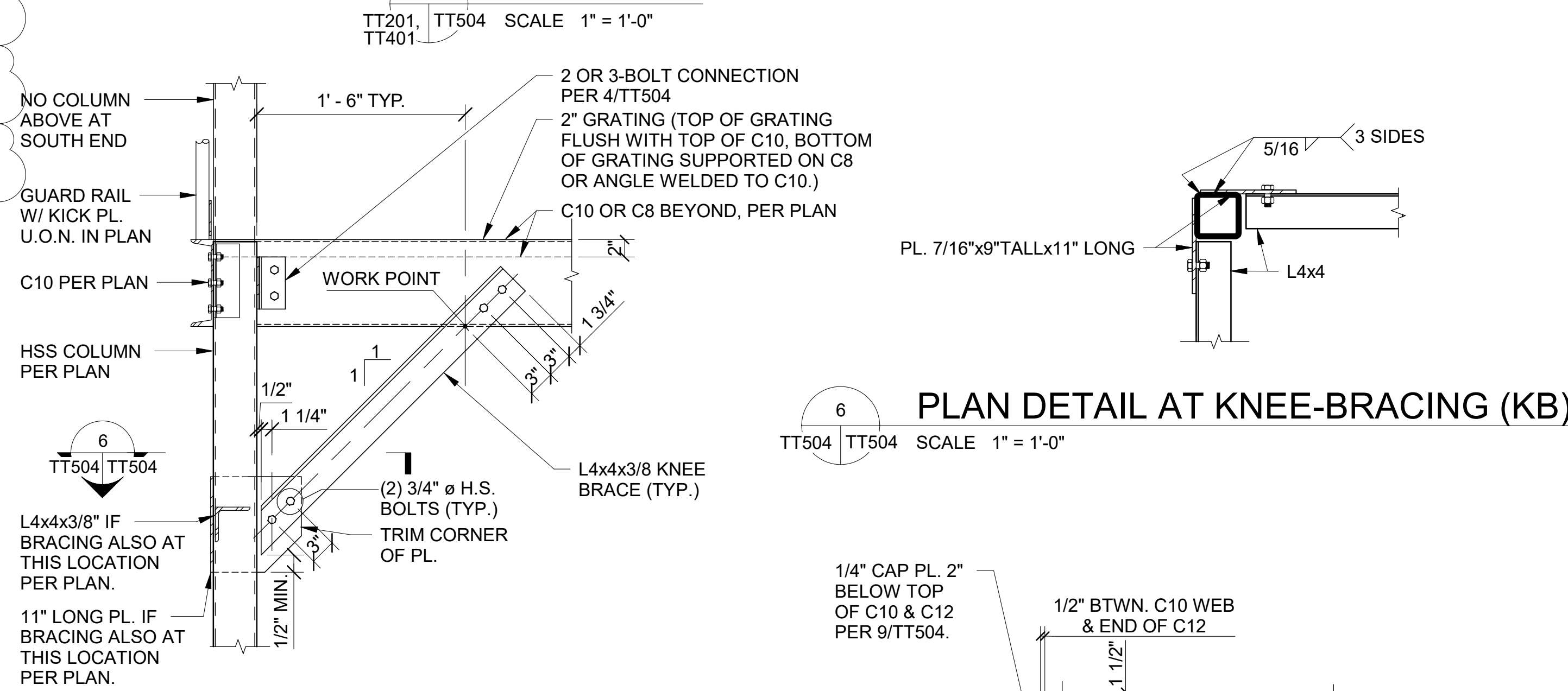


- NOTES:**
- PROVIDE SOLID (NO GALVANIZING VENT HOLES) 1/4" THICK CLOSURE PL. AT TOP OF ALL TUBE COLUMNS. WELDED ALL AROUND TO PREVENT MOISTURE FROM ENTERING THE TUBES.
 - PROVIDE 1/2" Ø WEEP HOLE AT BOTTOM OF TUBES THROUGH SIDE WALL AT ONE FACE, AT TOP OF BASE PLATES, SHOP DRILLED BEFORE GALVANIZING.
 - FOR ALL LOCATIONS WITH CROSS BRACING, SEE 5/TT502 FOR BEAM-TO-COLUMN CONNECTIONS.
 - SEE 9/TT504 FOR TOPS OF COLUMNS.

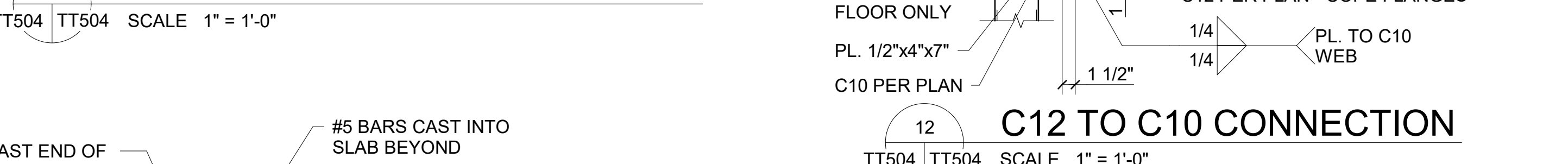
PLAN DETAIL - LANDING FRAMING CONNECTIONS



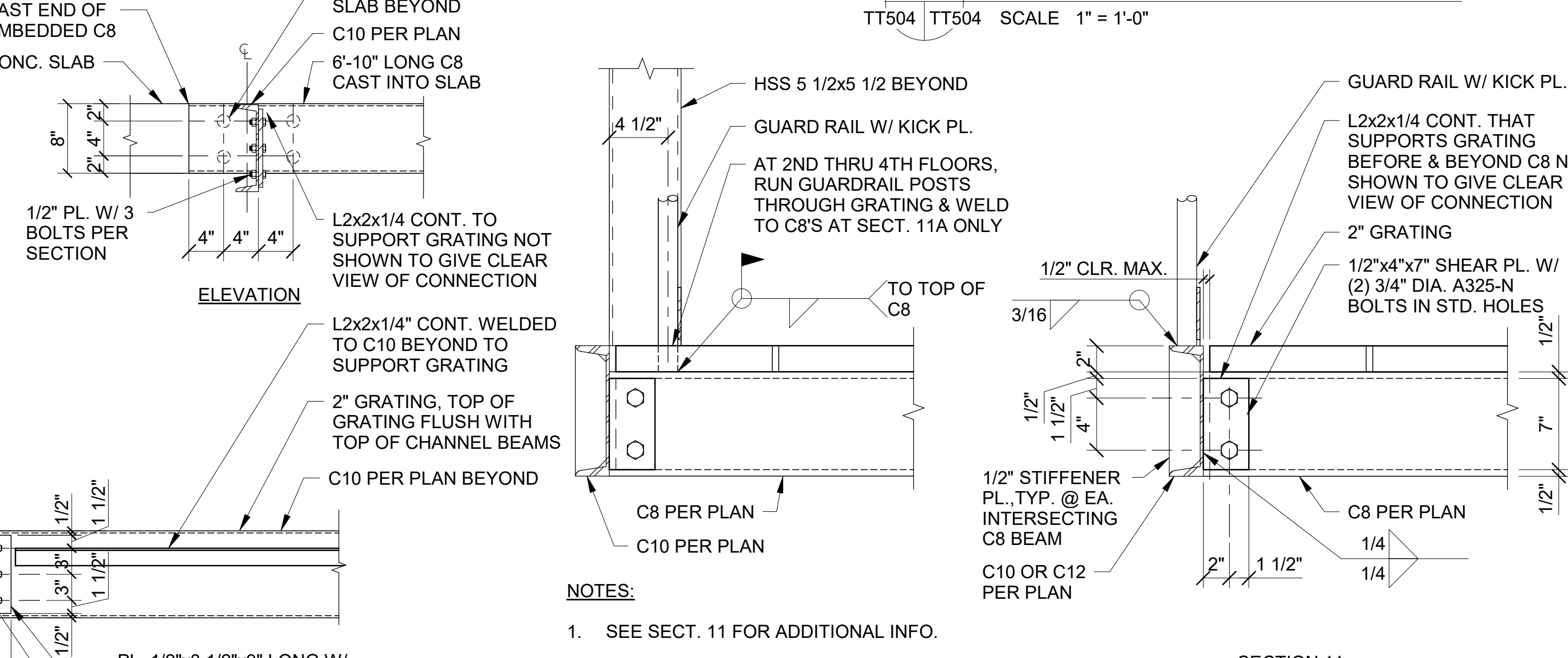
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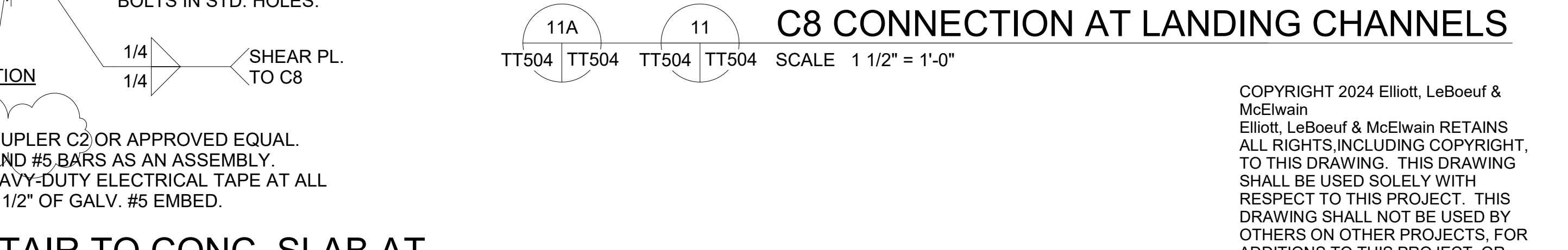
TYPICAL KNEE-BRACING DETAIL



C12 TO C10 CONNECTION



C8 CONNECTION AT LANDING CHANNELS



EXTERIOR STAIR TO CONC. SLAB AT ELEVATED SLABS ABOVE 2ND FLOOR

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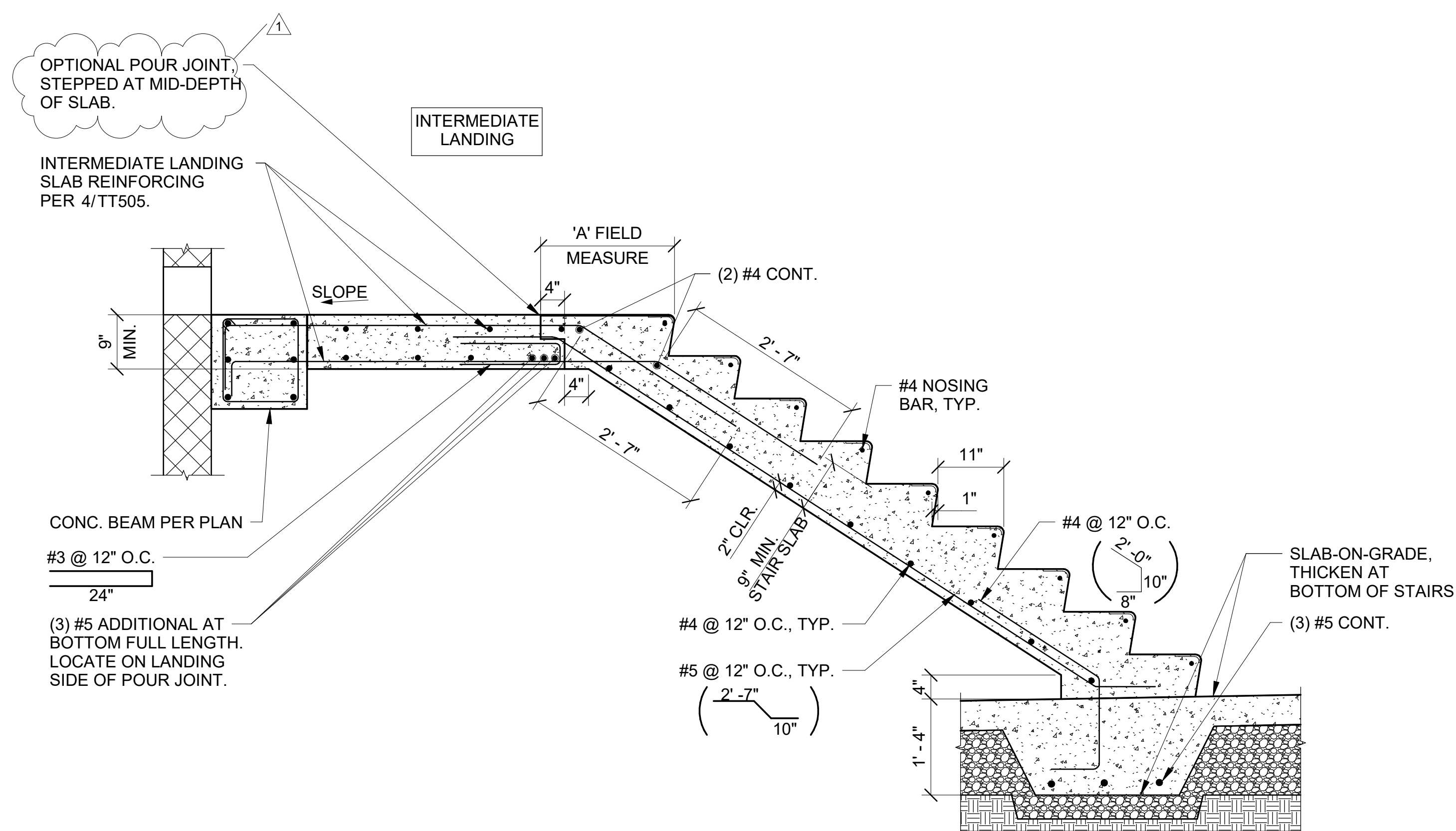
DATE ISSUED
03/14/2025

PROJECT STATUS
**ISSUE FOR
CONSTRUCTION**

SHEET

TRAINING TOWER - CONCRETE STAIR SECTIONS

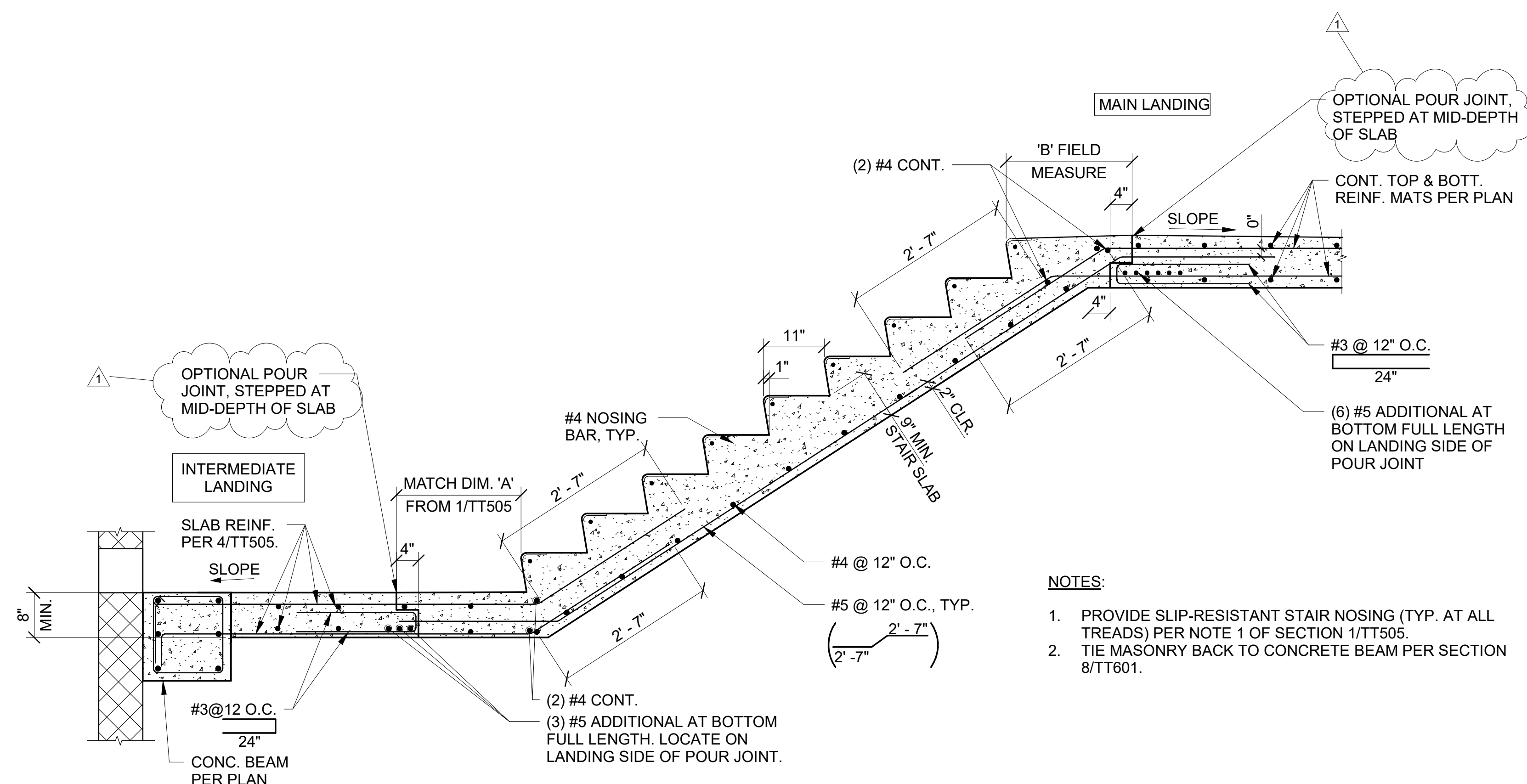
TT505



NOTES:

1. PROVIDE GALVANIZED, SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS). PROVIDE 1/4" MIN. THICK, GRADE 2, ROUNDED-EDGE STAIR NOSING, 1 1/2" DEEP x 3" WIDE x 3'-4" LONG, TIGHT TO CONCRETE WALL TO AVOID GRADUATED BASE PLATE AT OPPOSITE END OF TREAD. PROVIDE SLPINOT STAIR NOSING WITH J-HOOKS, AS MANUFACTURED BY SLPINOT METAL SAFETY FLOORING AT (800) 754-7668 OR WWW.SLPINOT.COM, OR AN EQUIVALENT APPROVED BY THE ENGINEER. INSTALL STAIR NOSINGS IN ACCORDANCE WITH REQUIREMENTS OF THE MANUFACTURER.
2. TIE MASONRY BACK TO CONCRETE BEAM PER SECTION 8/TT601.

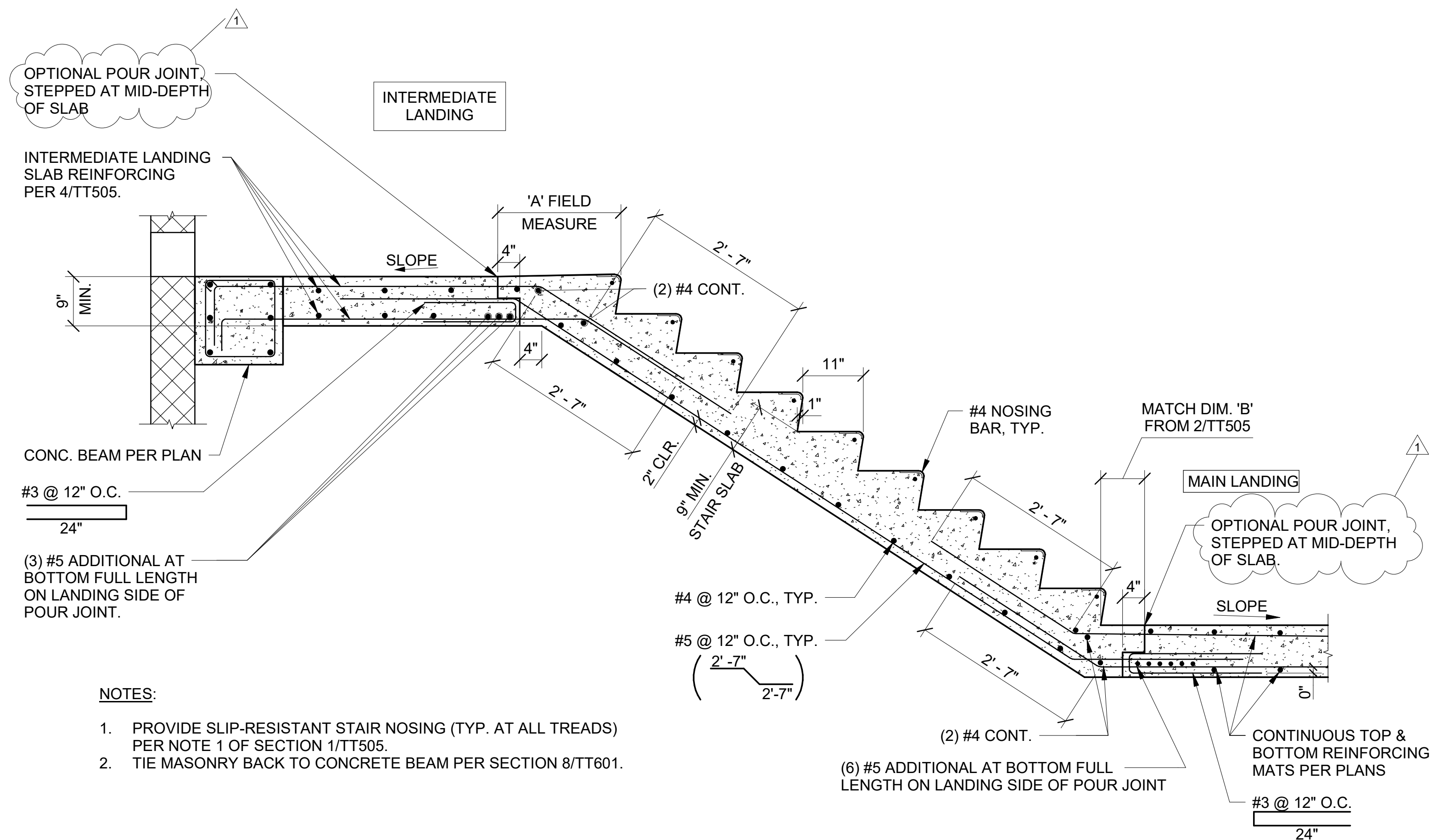
1 CONCRETE STAIR SECTION
TT201, TT505 SCALE 3/4" = 1'-0"
TT401



NOTES:

1. PROVIDE SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS) PER NOTE 1 OF SECTION 1/TT505.
2. TIE MASONRY BACK TO CONCRETE BEAM PER SECTION 8/TT601.

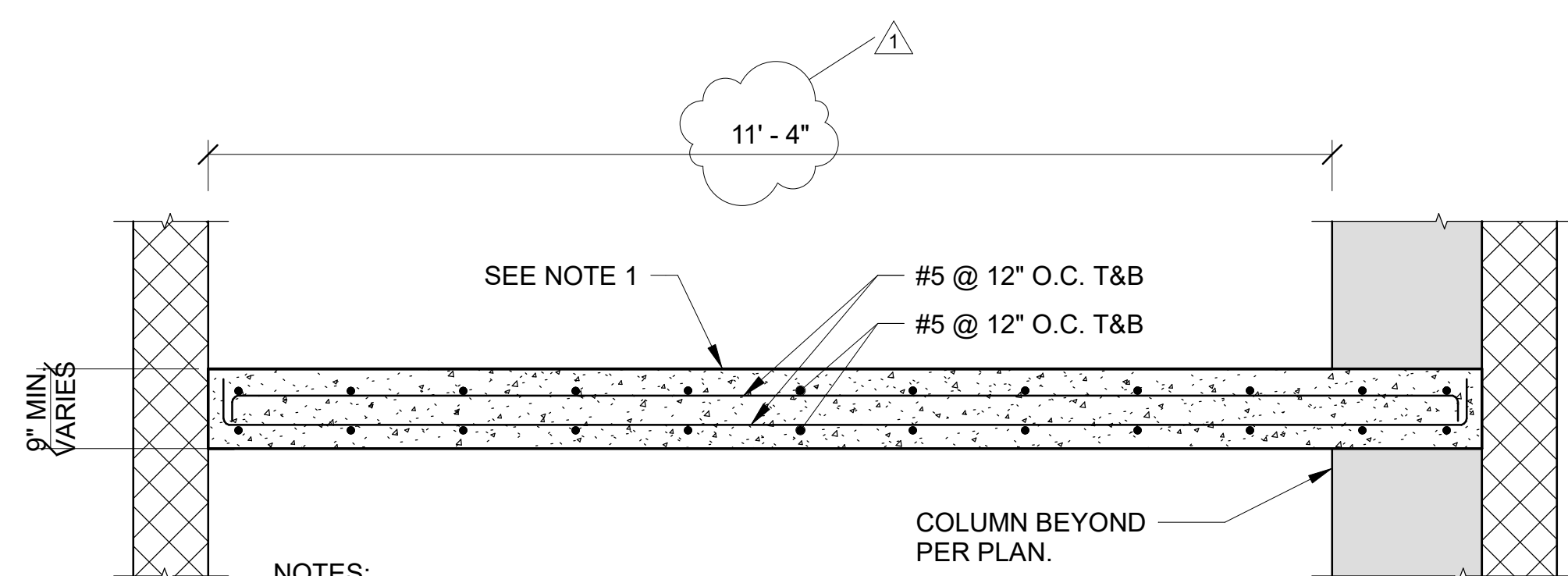
2 CONCRETE STAIR SECTION
TT401- TT505 SCALE 3/4" = 1'-0"
TT403



NOTES:

1. PROVIDE SLIP-RESISTANT STAIR NOSING (TYP. AT ALL TREADS) PER NOTE 1 OF SECTION 1/TT505.
2. TIE MASONRY BACK TO CONCRETE BEAM PER SECTION 8/TT601.

3 CONCRETE STAIR SECTION
TT401- TT505 SCALE 3/4" = 1'-0"
TT403



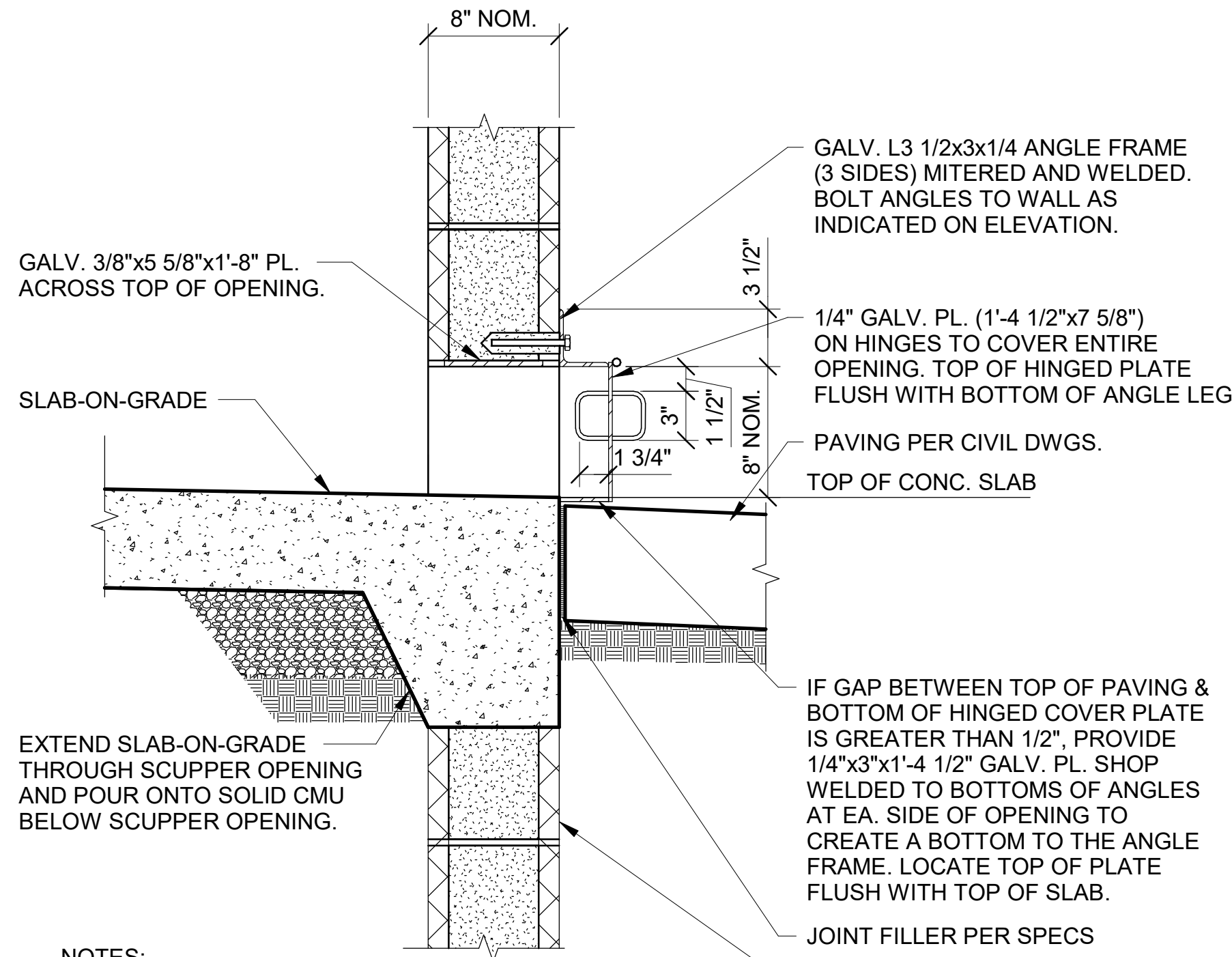
NOTES:

1. SLOPE TOP SURFACE OF LANDING SLAB PER FLOOR PLANS.
2. TIE MASONRY BACK TO CONCRETE SLABS PER SECTIONS 1B & 1C/TT601.

4 INTERMEDIATE STAIR LANDING SECTION
TT401- TT505 SCALE 3/4" = 1'-0"

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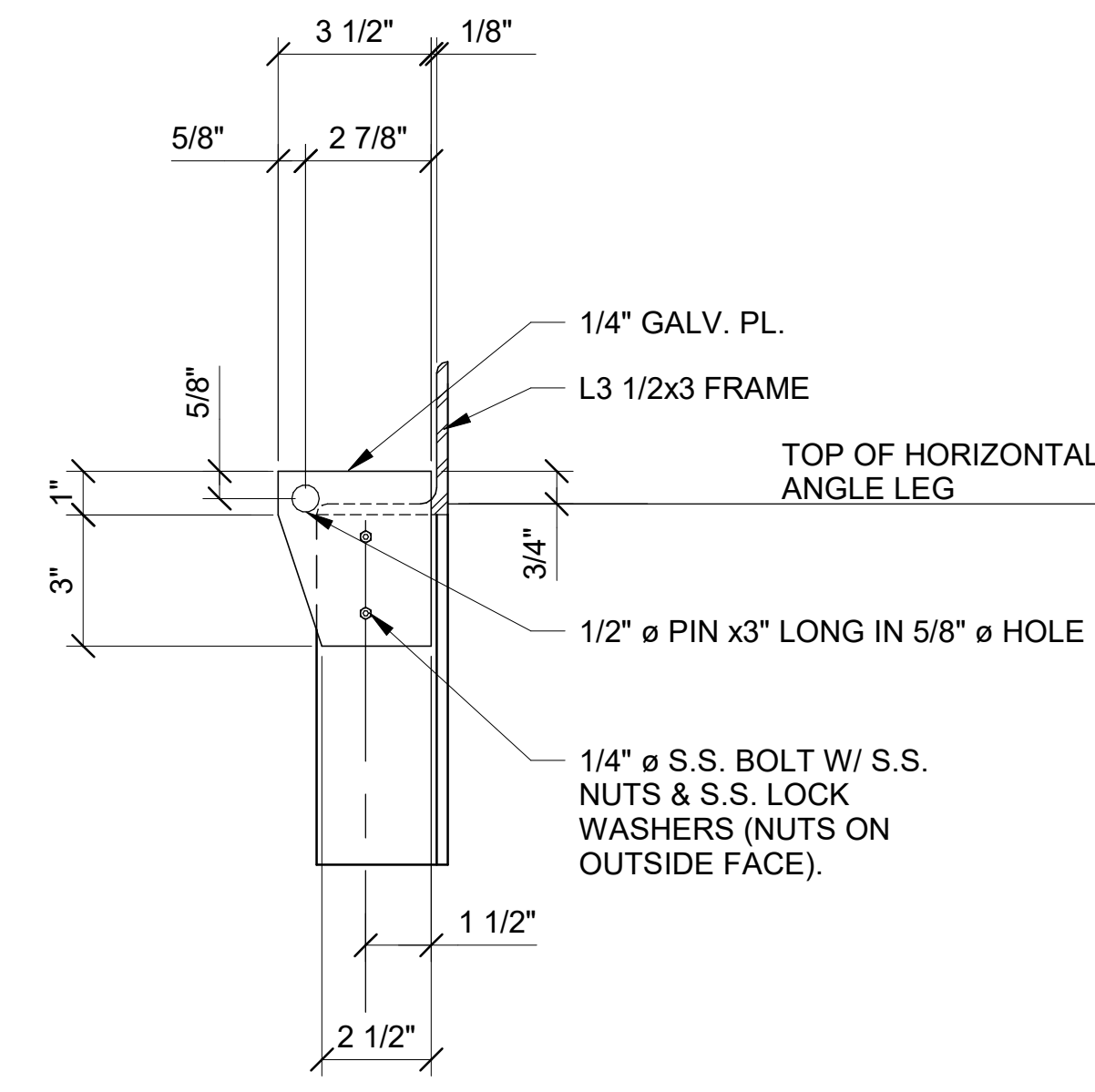
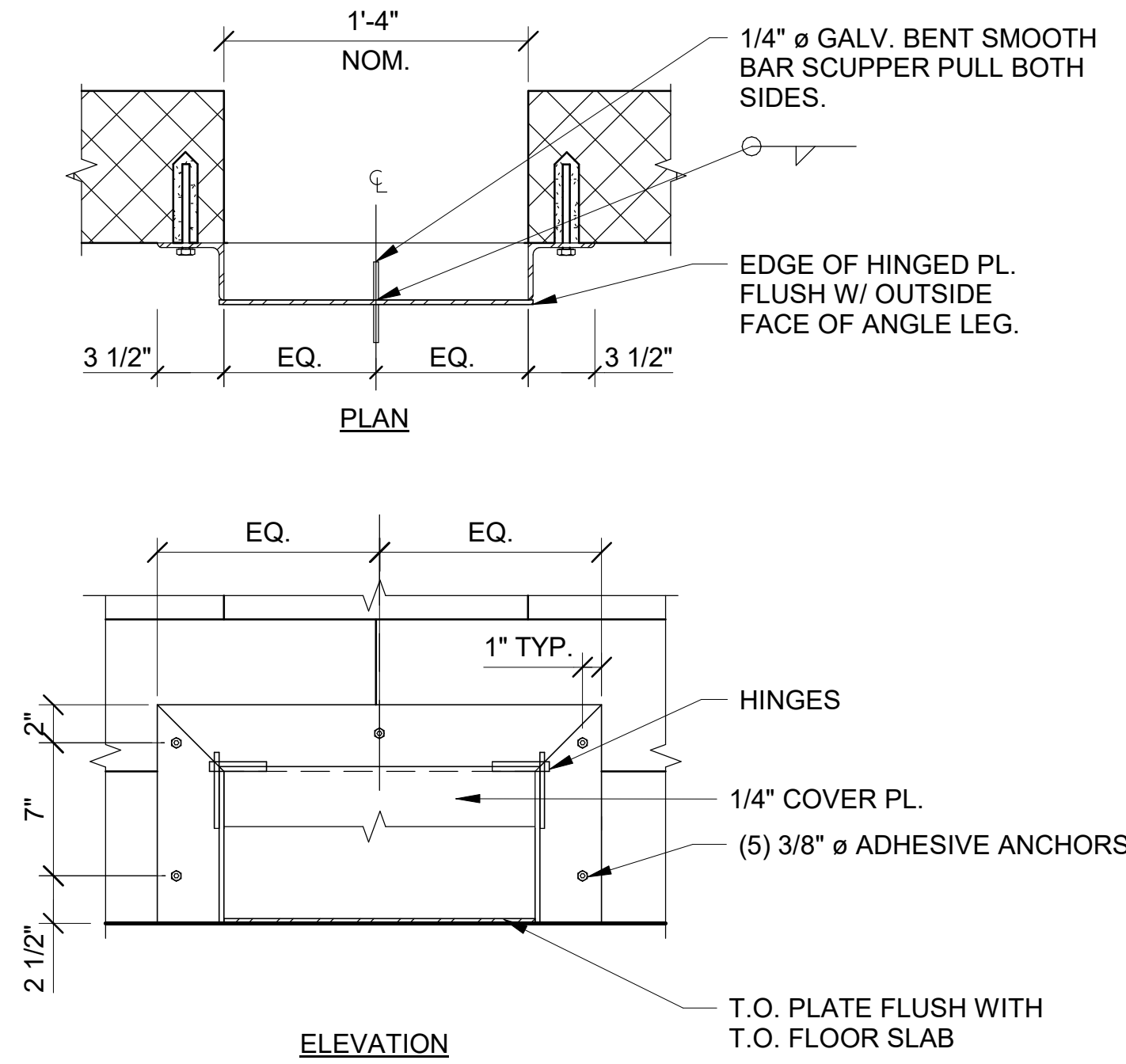
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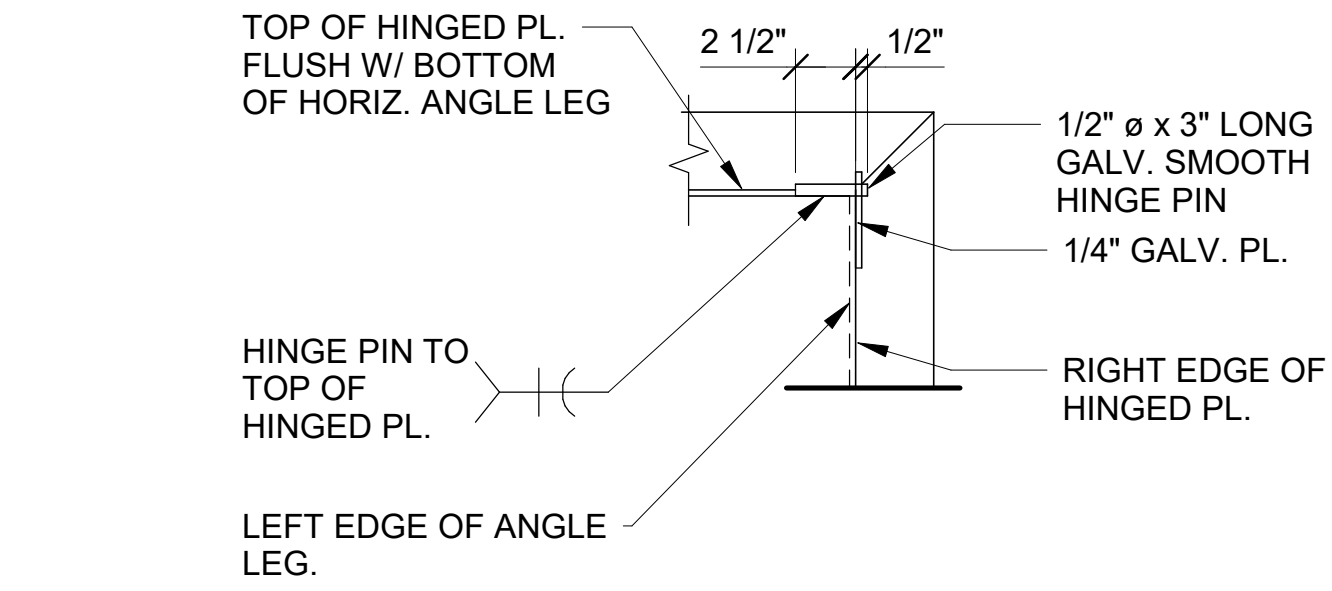
NOTES:

1. SEE DETAILS 2, 3 & 4 FOR HINGES DETAILING.

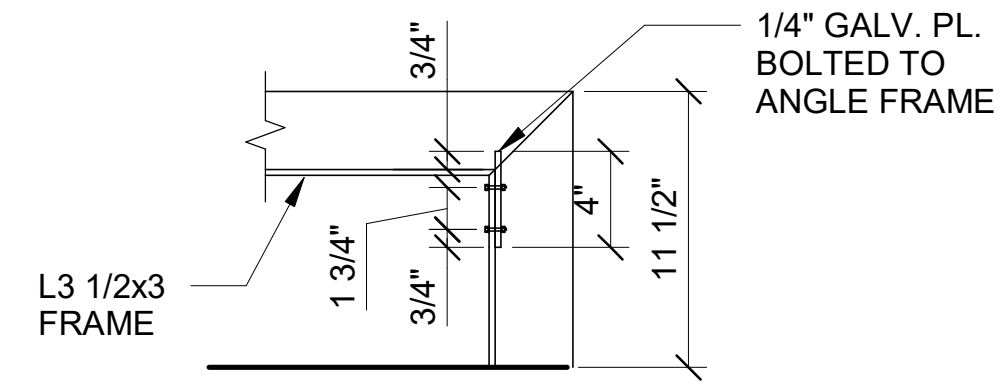
1 SCUPPER DETAILS - TYPE 1
TT201- TT602 SCALE 1 1/2" = 1'-0"
TT203



2 SECTION - SCUPPER HINGE
TT602 TT602 SCALE 3" = 1'-0"



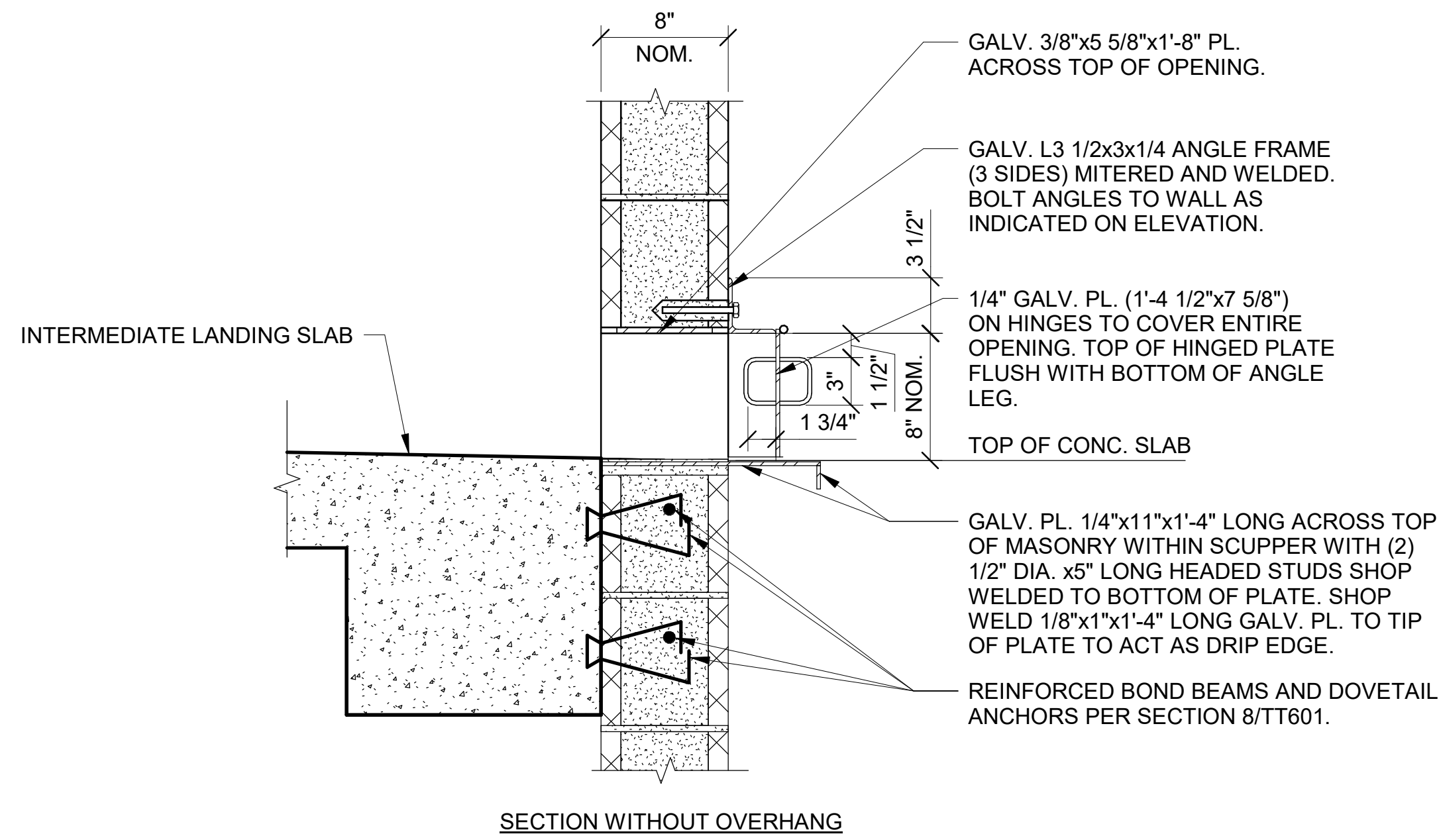
3 ELEVATION - SCUPPER HINGE PIN
TT602 TT602 SCALE 1 1/2" = 1'-0"



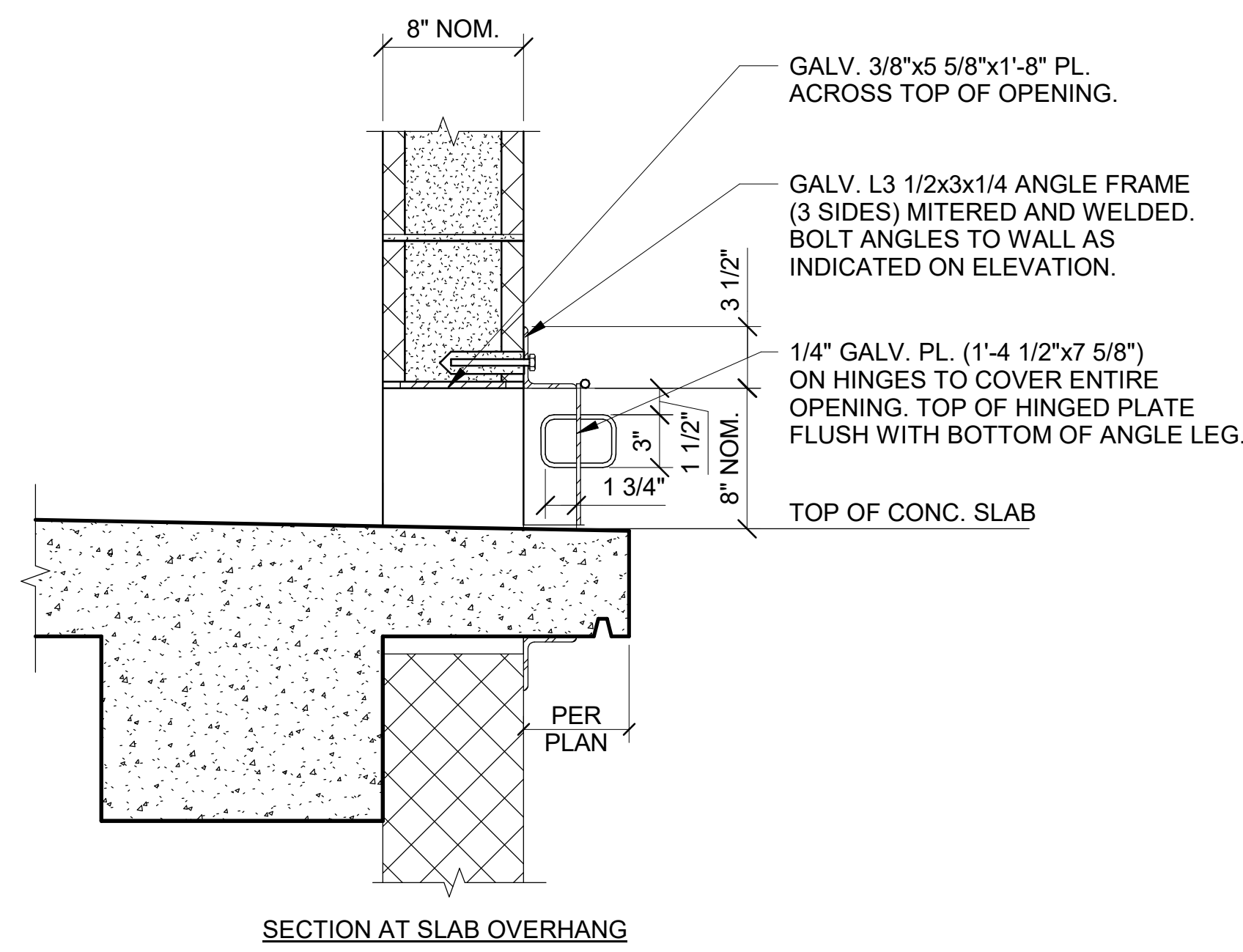
NOTES:

1. HINGE PIN NOT SHOWN IN THIS ELEVATION FOR CLARITY.

4 ELEVATION - SCUPPER HINGE PLATE
TT602 TT602 SCALE 1 1/2" = 1'-0"



SECTION WITHOUT OVERHANG

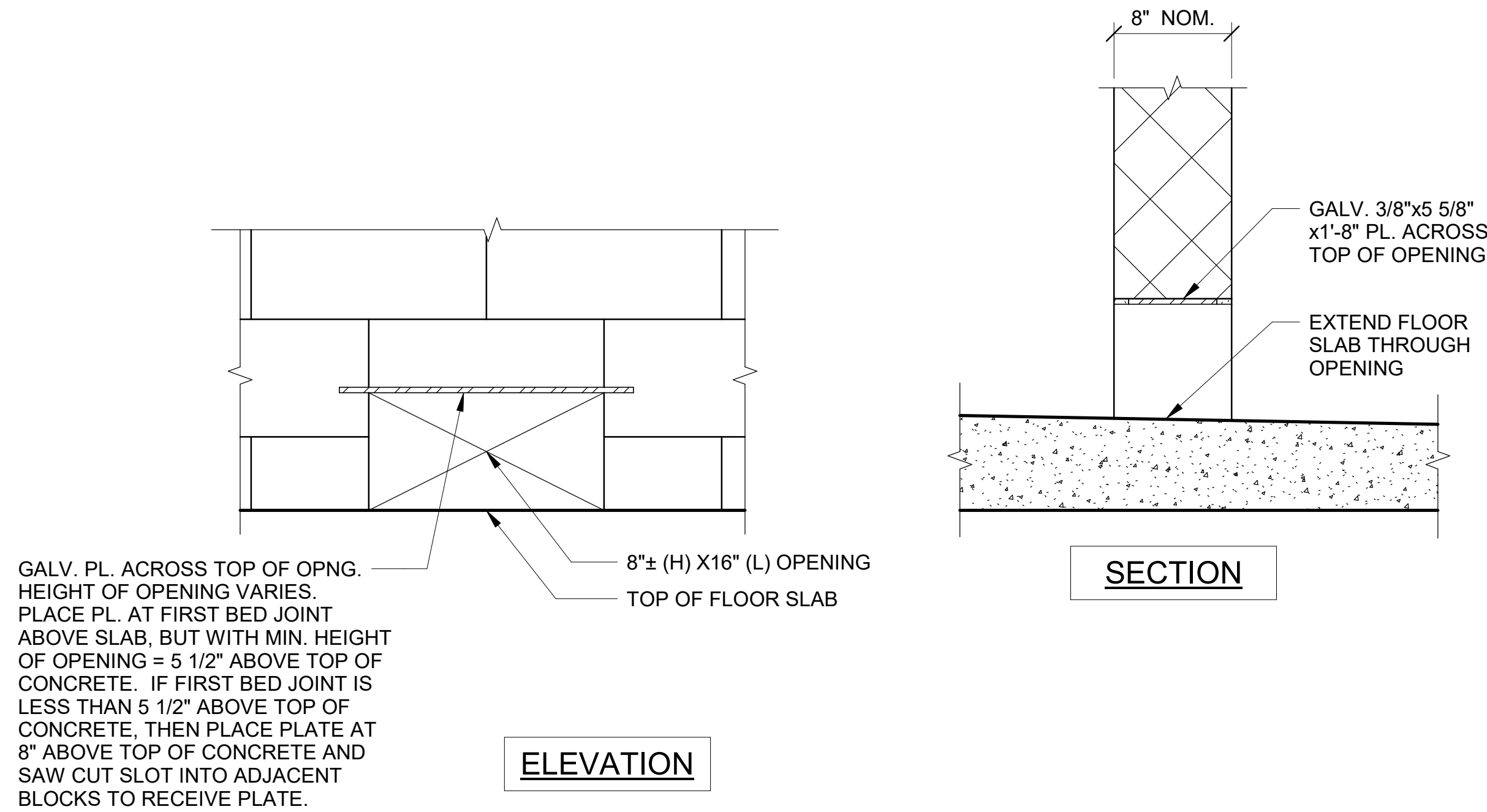


SECTION AT SLAB OVERHANG

NOTES:

1. SEE DETAILS 2, 3 & 4 FOR HINGES DETAILING.

5 SCUPPER TYPE 2 ELEVATED FLOOR
TT201- TT602 SCALE 1 1/2" = 1'-0"
TT203



ELEVATION

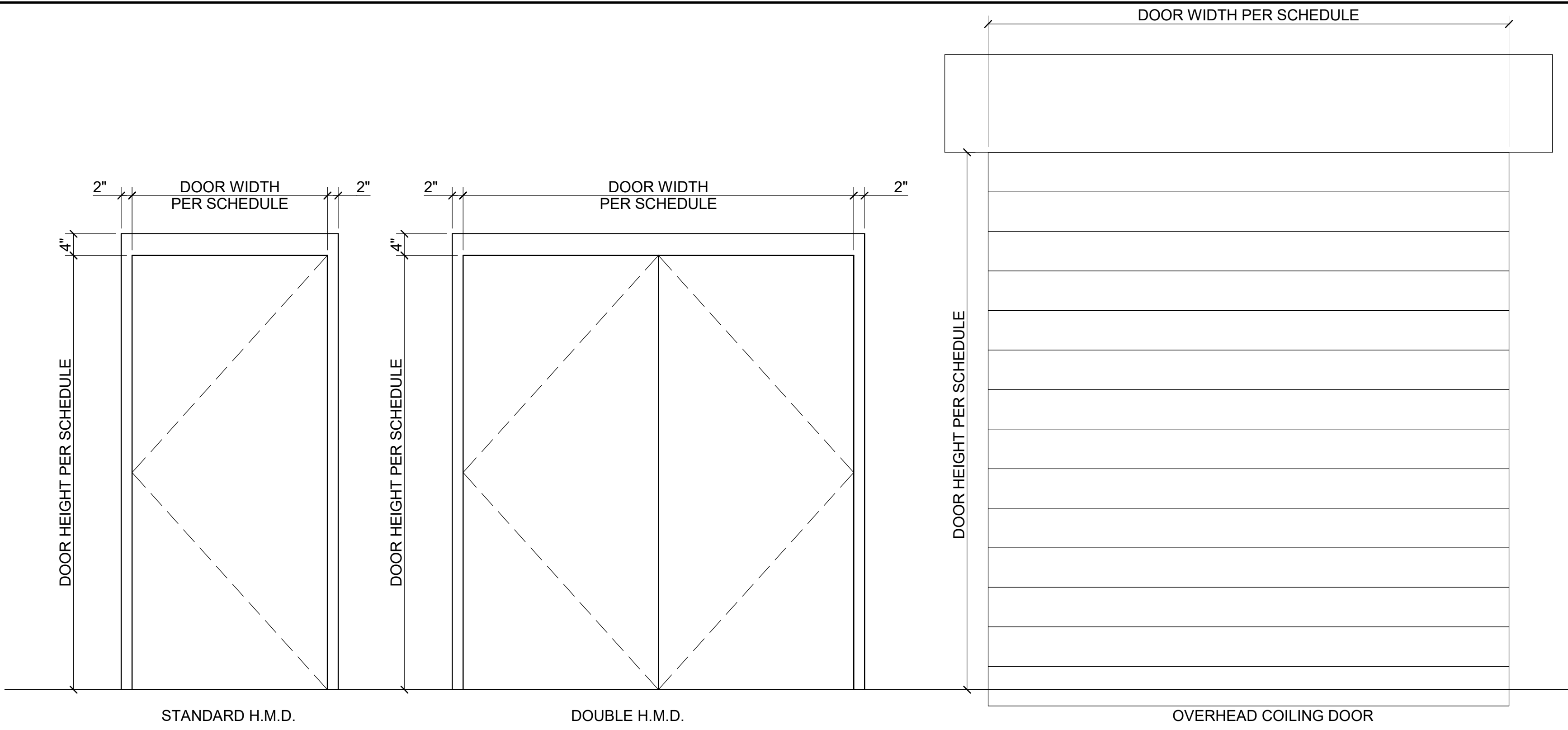
SECTION

OPENING AT BASE OF INTERIOR & PARAPET WALLS

6
TT201- TT602 SCALE 1 1/2" = 1'-0"
TT203

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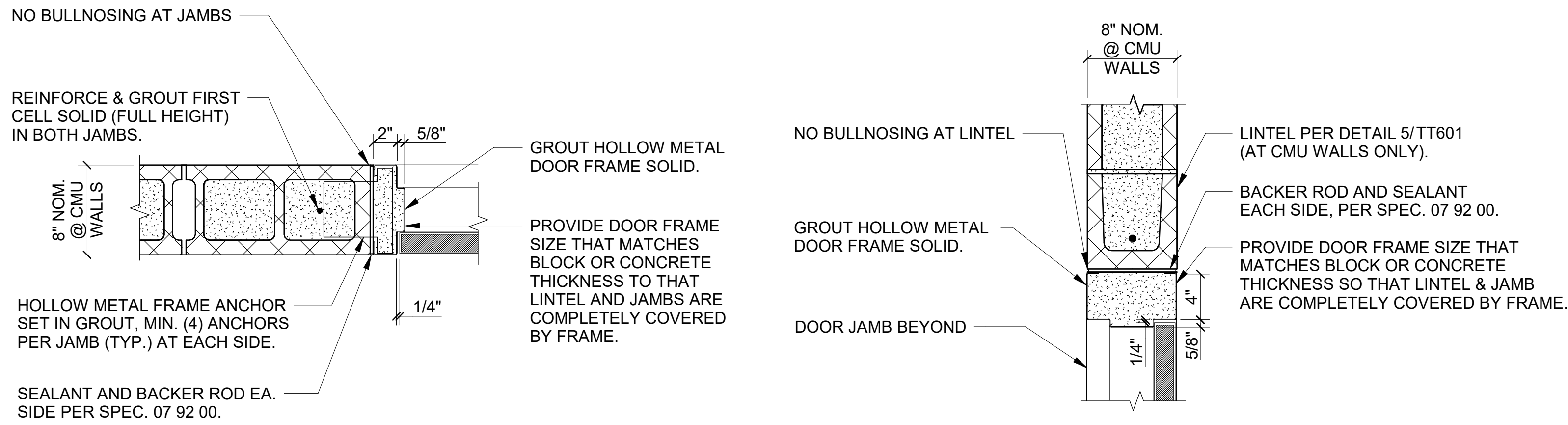


HOLLOW METAL DOOR SCHEDULE																		
DOOR NO.		INT/EXT	R.O. WIDTH	R.O. HEIGHT	DOOR		DOOR TYPE	DOOR FINISH	FRAME		DETAILS			HDW	THRESHOLD	SWEEP	REMARKS	
					DOOR WIDTH	DOOR HEIGHT			SS TYPE MARK	FRAME TYPE	FRAME FINISH	HEAD	JAMB					SILL
300		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
301		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
301A		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	Y	
EXT-100A		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	
EXT-100B		EXT	8' - 0"	8' - 0"	8' - 0"	8' - 0"	ODC		PNT		PNT					N	N	SEE NOTE 8.
EXT-101		EXT	6' - 8"	7' - 4"	6' - 4"	7' - 0"	DHMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	003	N	Y	
EXT-200		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	
EXT-302		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	
EXT-400		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	
EXT-ST-1		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	
ST-1		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
ST-2		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
ST-3		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
ST-4		INT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	002	N	N	
ST-5		EXT	3' - 4"	7' - 4"	3' - 0"	7' - 0"	HMD	G-90	PNT	G-90	PNT	3/TT603	2/TT603	4/TT603	001	N	Y	

- DOOR SCHEDULE NOTES:**
- REFERENCE SPEC. SECTION 08 11 13 FOR HOLLOW METAL DOORS AND FRAMES, INCLUDING MATERIALS AND FINISHES.
 - REFERENCE SPEC. SECTION 08 71 00 FOR DOOR HARDWARE INFORMATION.
 - PAINT ALL INTERIOR AND EXTERIOR HOLLOW METAL DOORS AND FRAMES PER DIVISION 09 SPECIFICATION SECTION "PAINTING".
 - ALL HOLLOW METAL DOOR FRAMES SHALL BE GROUT FILLED.
 - DOOR HEIGHT SHALL BE MEASURED FROM LOW SIDE ("TALL JAMB").
 - TRIM THE DOOR FRAME AT THE HIGH SIDE ("SHORT JAMB") SO IT WILL FIT IN OPENING SIZE. IF THE WALL IS PERPENDICULAR TO THE DIRECTION OF THE FLOOR SLOPE, BOTH JAMBS SHOULD BE THE SAME HEIGHT, AND THE DOOR FRAME SHOULD NOT REQUIRE TRIMMING TO FIT IN THE OPENING.
 - GRIND THE BOTTOM OF THE DOOR FRAME SMOOTH AT ANY CUT LOCATIONS.
 - PROVIDE 4" GAP AT BOTTOM OF DOORS PER DETAIL 5/TT603. NO GAP AT DOOR HEAD.
 - BASIS OF DESIGN FOR OVERHEAD COILING DOOR SHALL BE A MANUALLY-OPERATED GALVANIZED ROLLING SERVICE DOOR, SERIES 610, BY OVERHEAD DOOR CORPORATION. MOUNT DOOR TO EXTERIOR FACE OF CMU WALL. SIZE OF ROUGH OPENING IS APPROXIMATELY 8'-0" WIDE x 8'-0" HIGH. PROVIDE ALL COMPONENTS TO MAKE DOOR LOCKABLE WHEN IN CLOSED POSITION. SUBMIT SHOP DRAWINGS AND PRODUCT LITERATURE SHOWING COMPONENTS, SIZES AND ATTACHMENTS TO THE STRUCTURE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
 - SEE DETAIL 5/TT603 FOR ELEVATOR DOOR DETAILS.

HOLLOW METAL DOOR ELEVATIONS

TT201- TT603 SCALE 3/4" = 1'-0"
TT203



HOLLOW METAL DOOR JAMB DETAIL

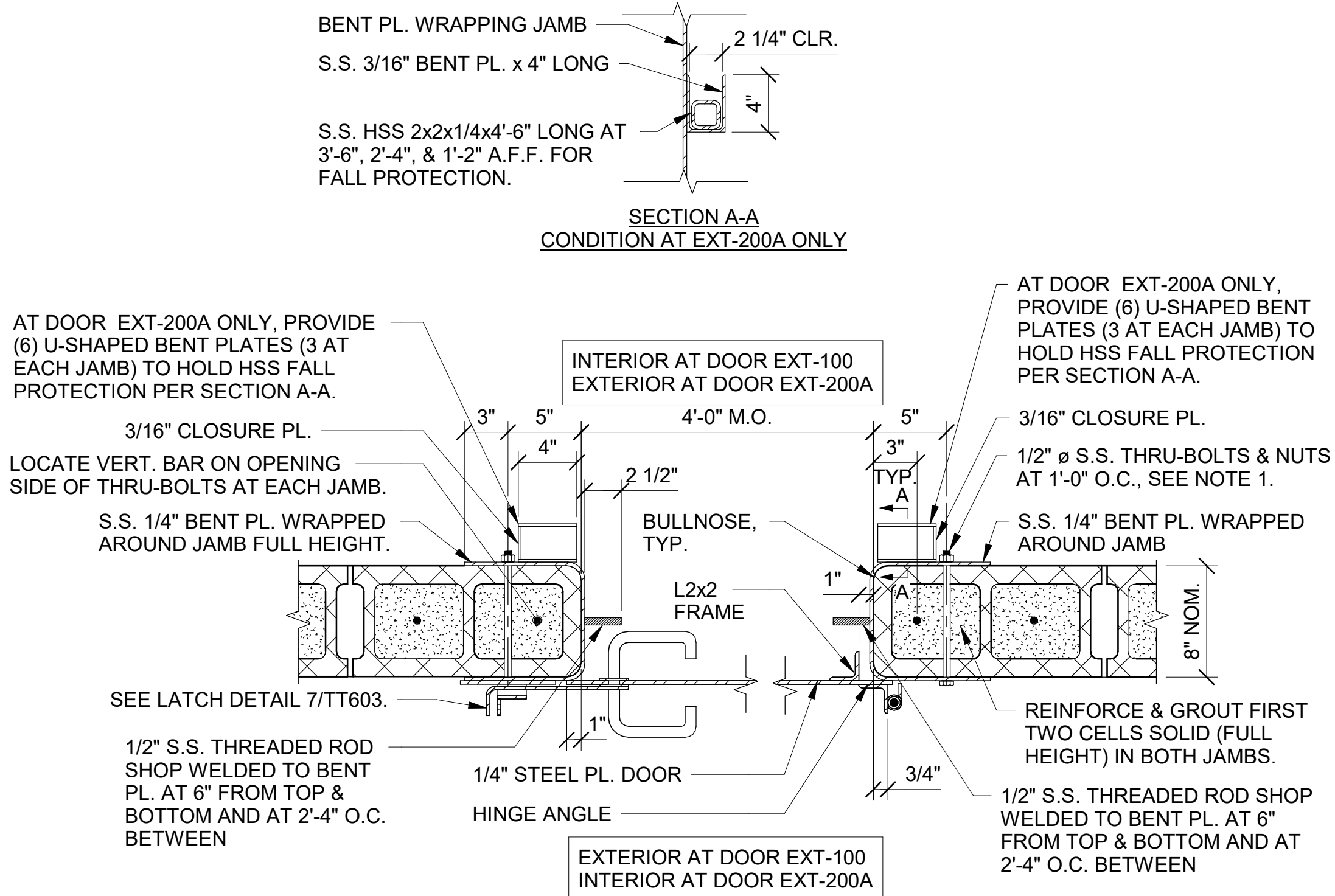
TT603 TT603 SCALE 1 1/2" = 1'-0"

HOLLOW METAL DOOR HEAD DETAIL

TT603 TT603 SCALE 1 1/2" = 1'-0"

H.M.D. THRESHOLD DETAIL

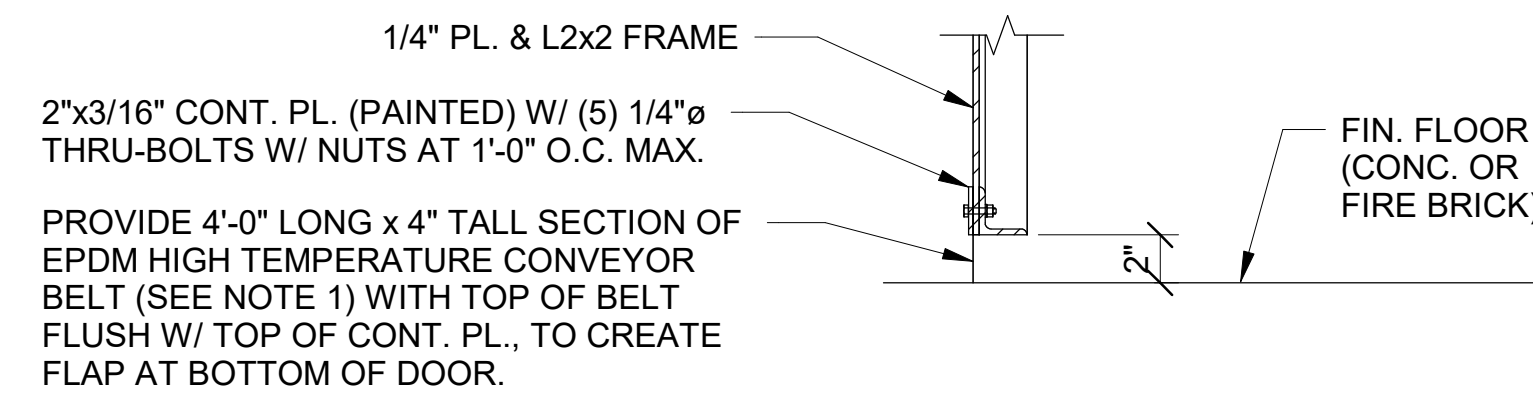
TT603 TT603 SCALE 1 1/2" = 1'-0"



- NOTES:**
- INSTALL BEFORE PLACING VERTICAL REINFORCING BAR AND GROUT IN JAMB CELLS. TRIM EXCESS THREAD LENGTH TO WITHIN 1/4" OF END OF NUTS AND GRIND END OF BOLT SMOOTH.

STANDARD STEEL PLATE DOOR JAMB DETAIL

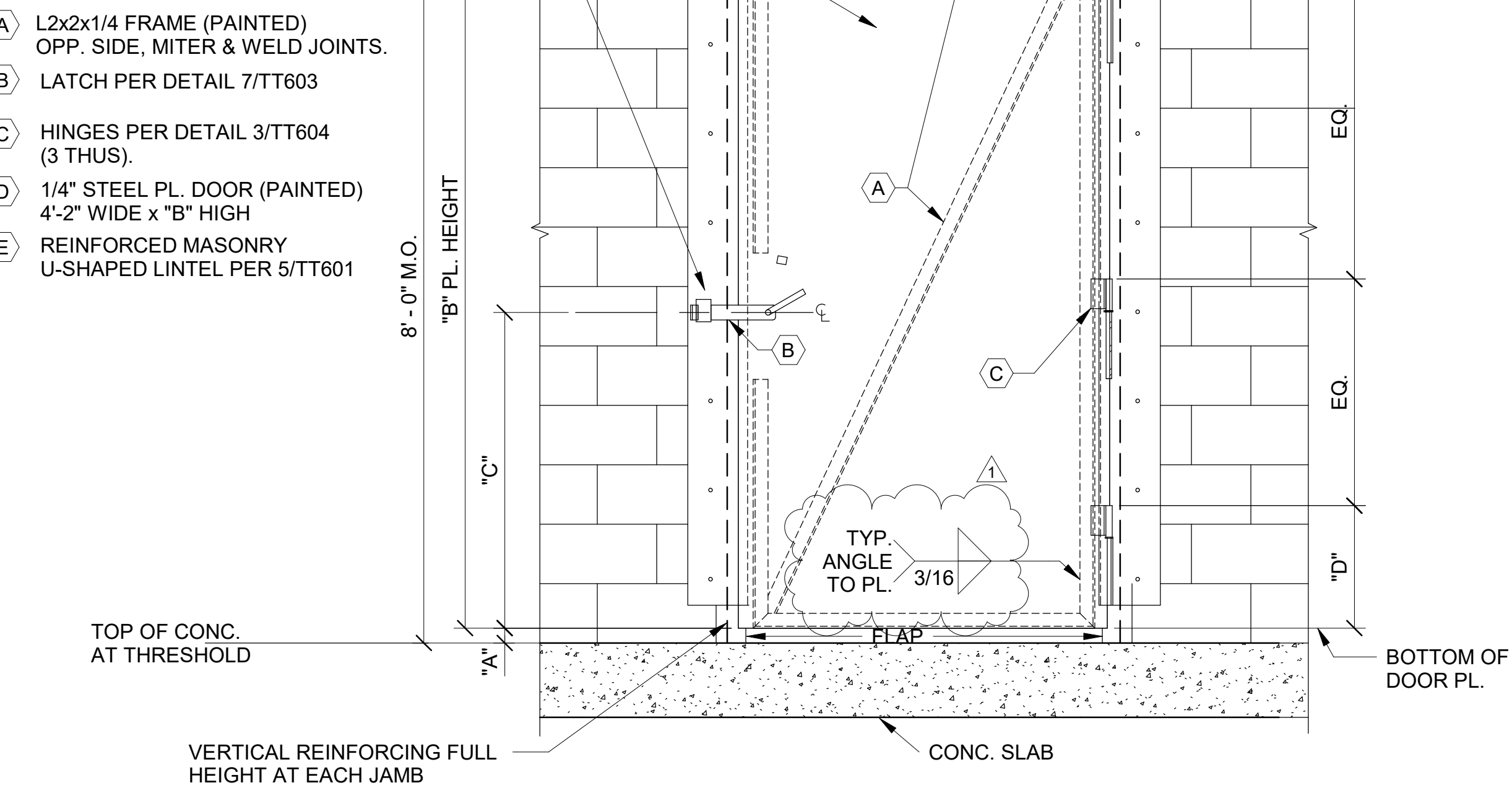
TT603 TT603 SCALE 1 1/2" = 1'-0"



- NOTE:**
- PROVIDE EPDM HIGH TEMPERATURE CONVEYOR BELT, 3/8" GAUGE WITH POLYNYLON FABRIC TYPE AND A WORKING TEMPERATURE OF 0°-600°, WITH A PEAK TEMPERATURE OF 750° (2/220 3/16x1/16 EPDM HIGH TEMP BELT BY CONVEYORBELT.COM OR AN APPROVED EQUIVALENT). INSTALL SO TOP COVER OF BELT FACES INSIDE FACE OF DOOR.

STEEL PLATE DOOR SILL DETAIL

TT603 TT603 SCALE 1 1/2" = 1'-0"

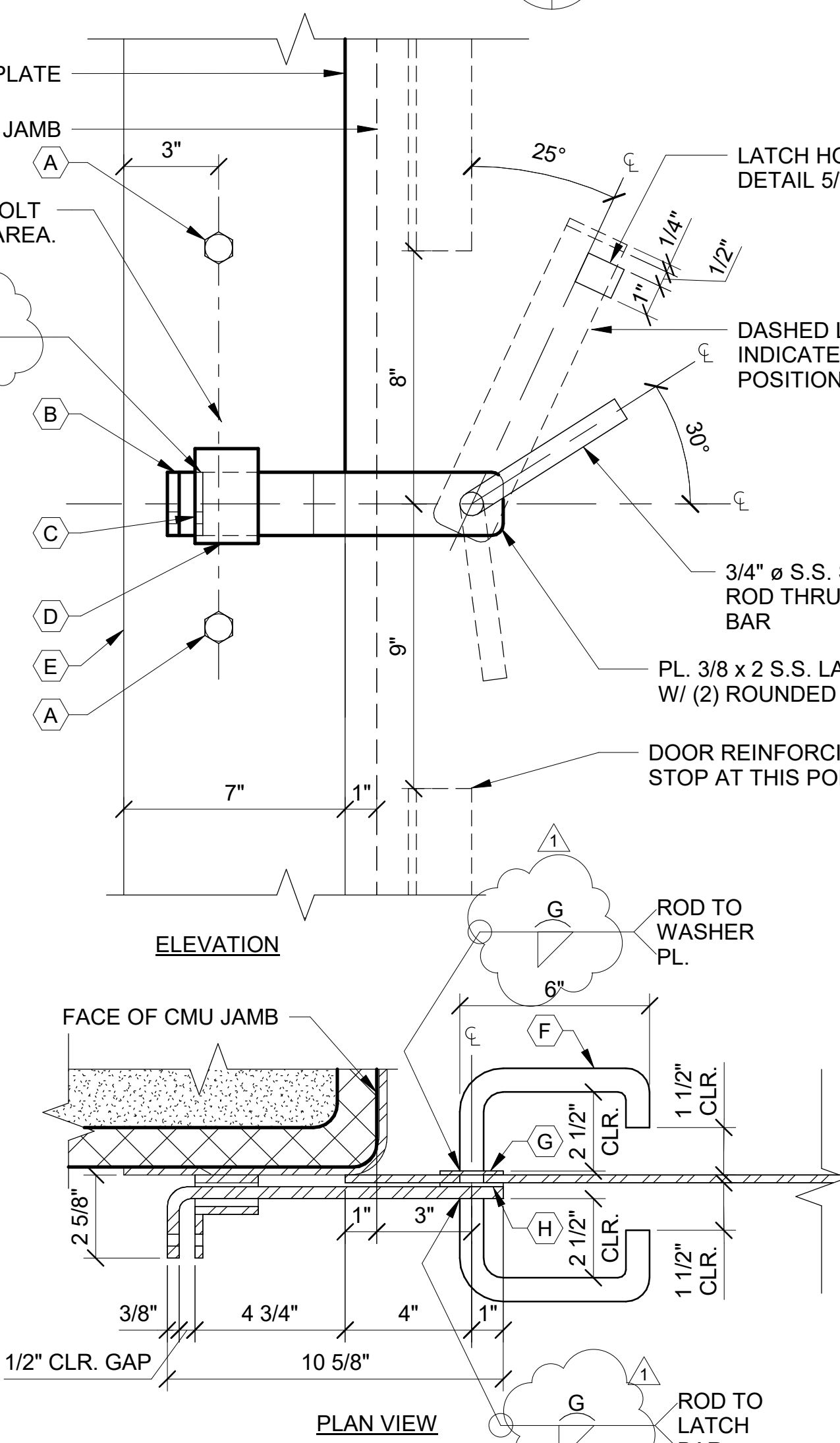


- NOTES:**
- SEE FLOOR PLANS FOR DOOR SWING DIRECTION.
 - SEE DETAILS 5 & 8 ON THIS SHEET AND DETAIL 6/TT604 FOR JAMB, SILL & HEAD DETAILS.
 - SEE DOOR DETAIL SCHEDULE ON THIS SHEET FOR DIMENSIONS "A", "B", "C" AND "D".
 - USE TOP OF CONCRETE FLOOR ELEVATION AT CENTER OF DOORWAY AS POINT OF REFERENCE FOR DOOR DIMENSIONS.

DOOR DETAIL SCHEDULE						
DOOR MARK	DIMENSION MARK				DOOR TYPE	PRIMARY DETAIL
	"A"	"B"	"C"	"D"		
EXT-100	2"	7'- 11 1/2"	3' - 0"	1' - 0"	STANDARD STEEL PL.	6/TT603
EXT-200A	2"	7'- 11 1/2"	3' - 0"	1' - 0"	STANDARD STEEL PL.	6/TT603

ELEVATION - STANDARD STEEL PLATE DOOR

TT201 TT603 SCALE 3/4" = 1'-0"



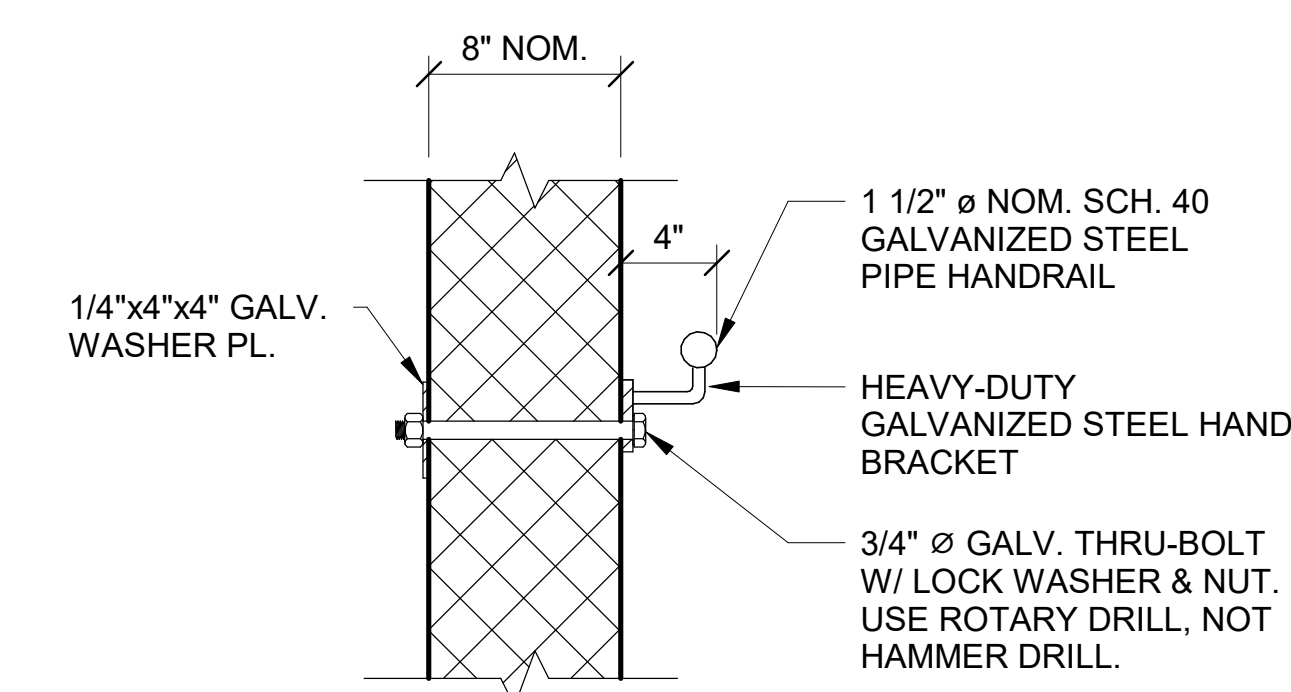
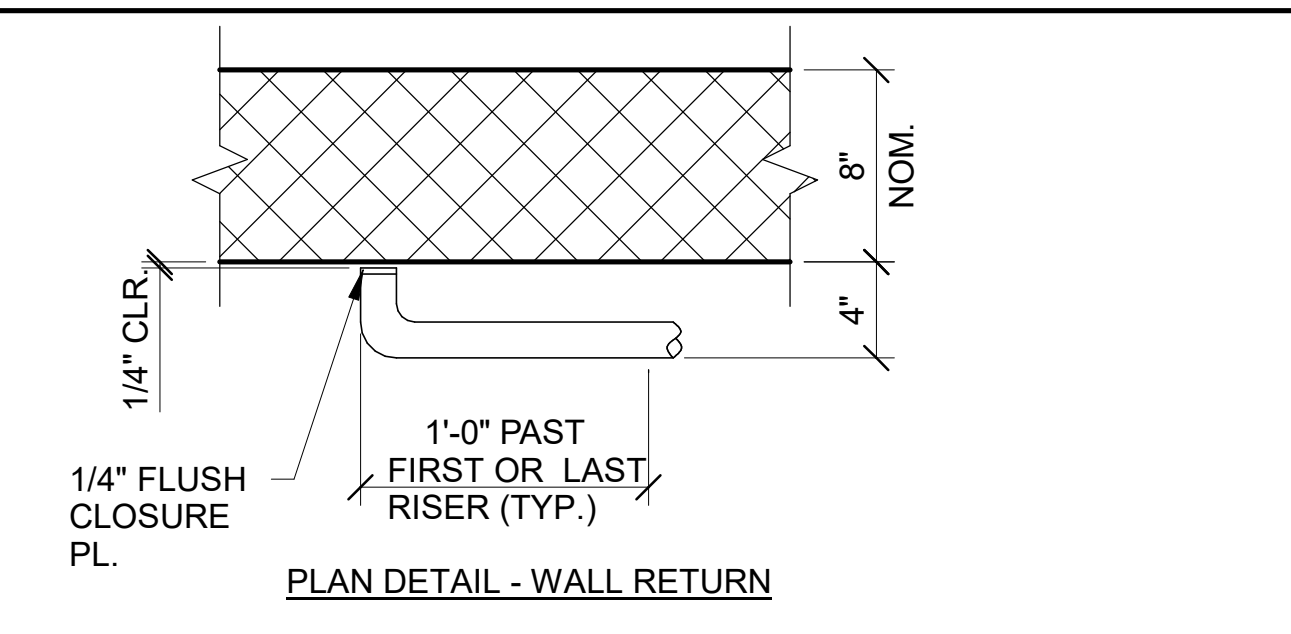
STANDARD STEEL PLATE DOOR LATCH DETAILS

TT603 TT603 SCALE 3" = 1'-0"

- SEQUENCE NOTES:**
- PASS ROD THROUGH 7/8"Ø HOLE IN LATCH BAR.
 - PASS ROD THROUGH 7/8"Ø HOLE IN DOOR PLATE WITH WASHER BETWEEN LATCH BAR AND DOOR PLATE.
 - WELD ROD TO LATCH BAR.
 - HOLD ASSEMBLY FIRMLY IN PLACE AND WELD ROD TO WASHER AT INTERIOR FACE OF DOOR. FINISHED ASSEMBLY SHALL NOT WOBBLE AND SHALL ROTATE EASILY WITHOUT SIGNIFICANT EFFORT.

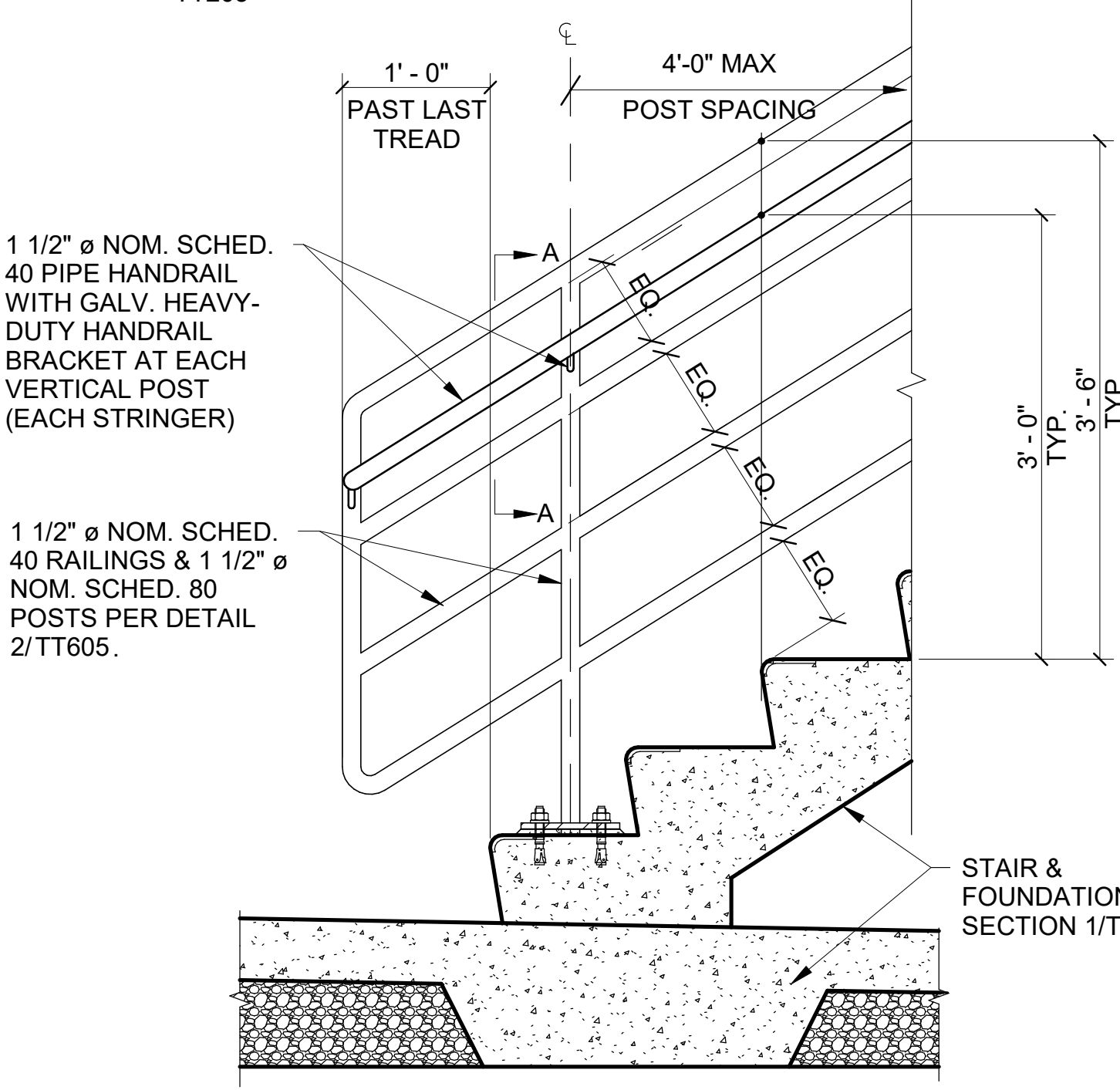
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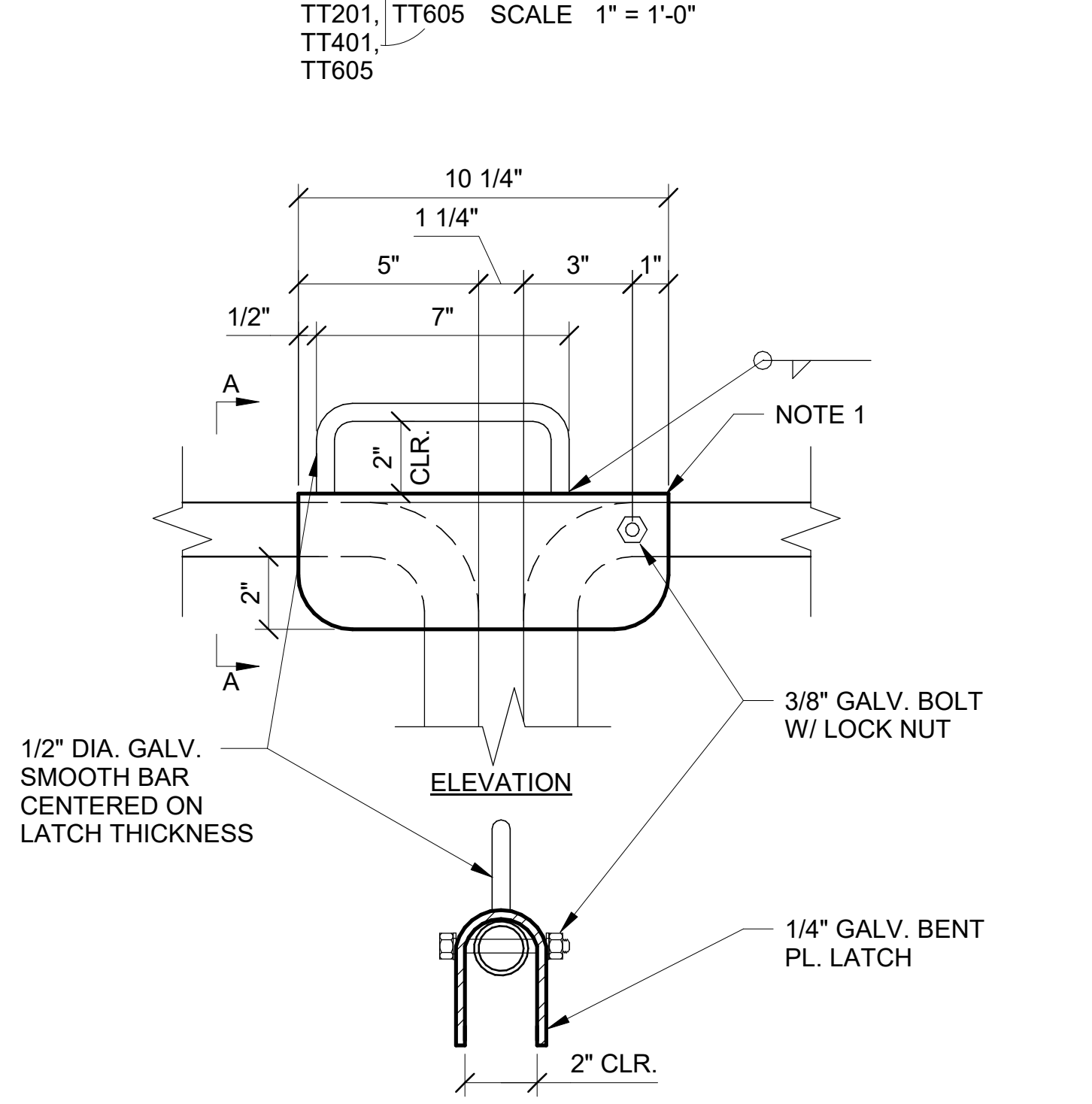


- NOTES:
1. PROVIDE BRACKETS AT 3'-0" O.C. MAX.
 2. PROVIDE DISTANCE OF 3/8" FROM TOP OF STAIR TREAD AT NOSINGS TO TOP OF HANDRAIL (TYP.).
 3. SEAL GALVANIZING VENT HOLES PER GENERAL NOTE Q.7 IN PIPES OF HANDRAIL.

HANDRAIL DETAILS FOR INTERIOR STAIRS

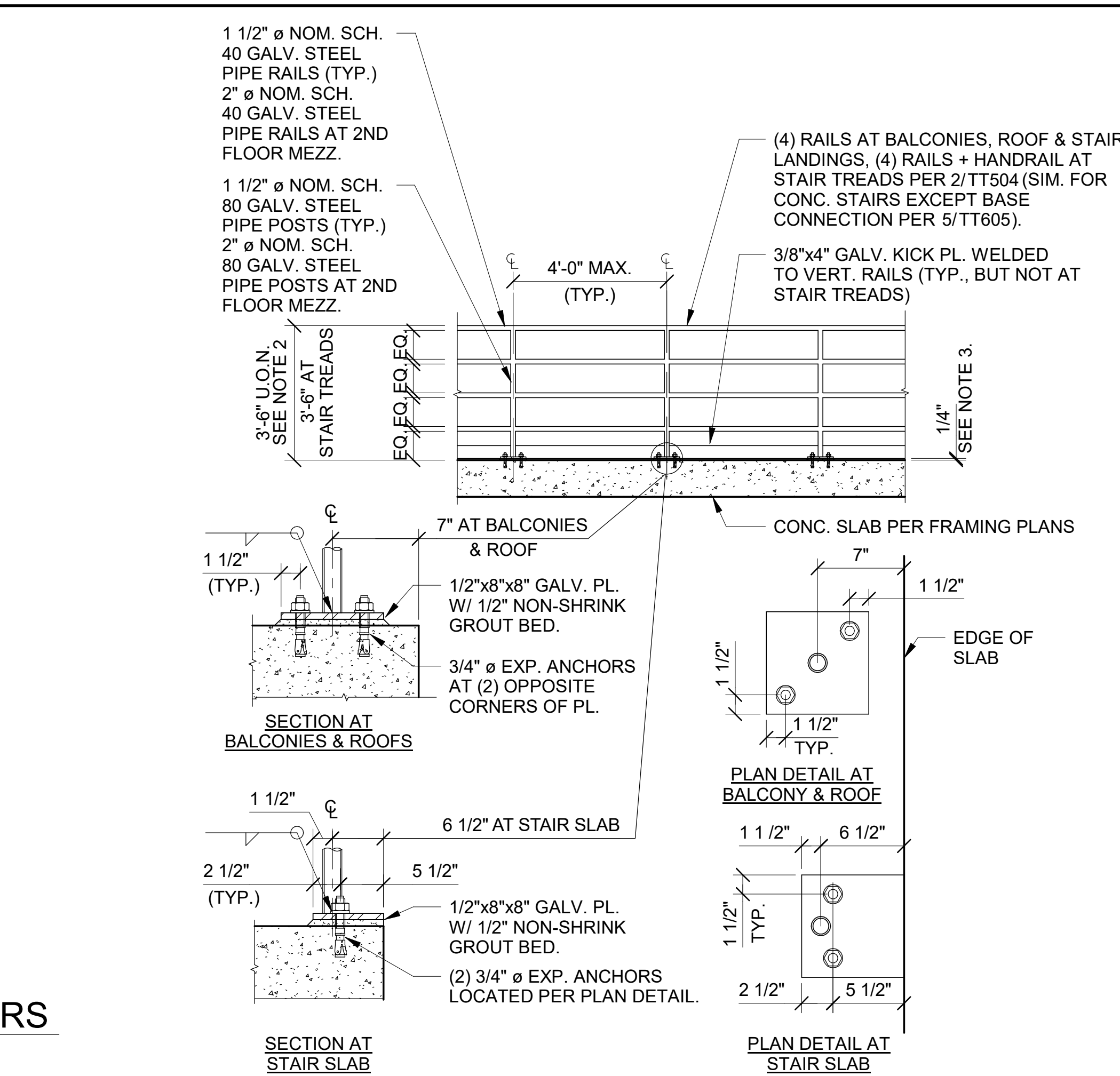


GUARDRAIL + HANDRAIL AT CONCRETE STAIR SECTION



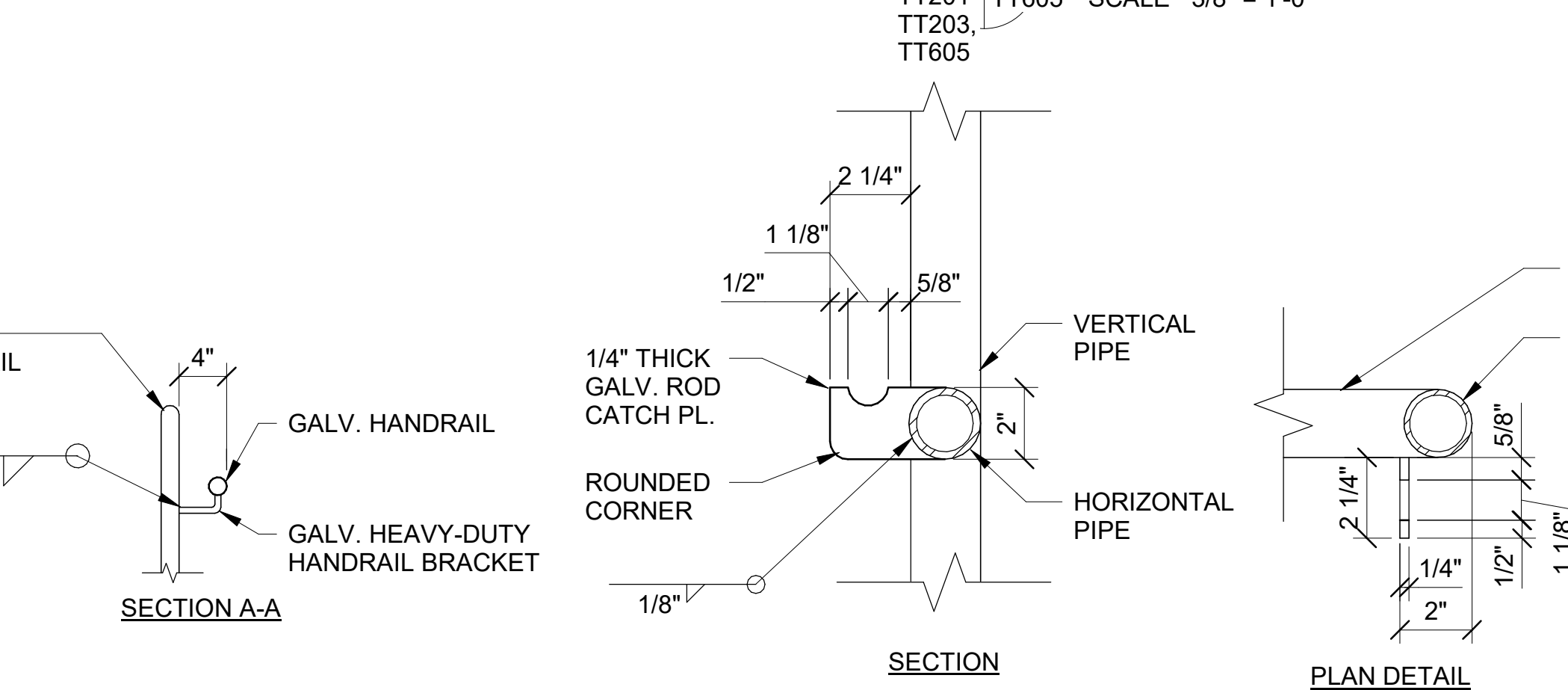
- NOTES:
1. PROVIDE CURVED NOTCH IN TOP OF BENT PL. LATCH AT THIS END TO ALLOW PLATE TO PIVOT (KEEP NOTCH AS SMALL AS POSSIBLE).

DETAIL - GATE LATCH 'A'

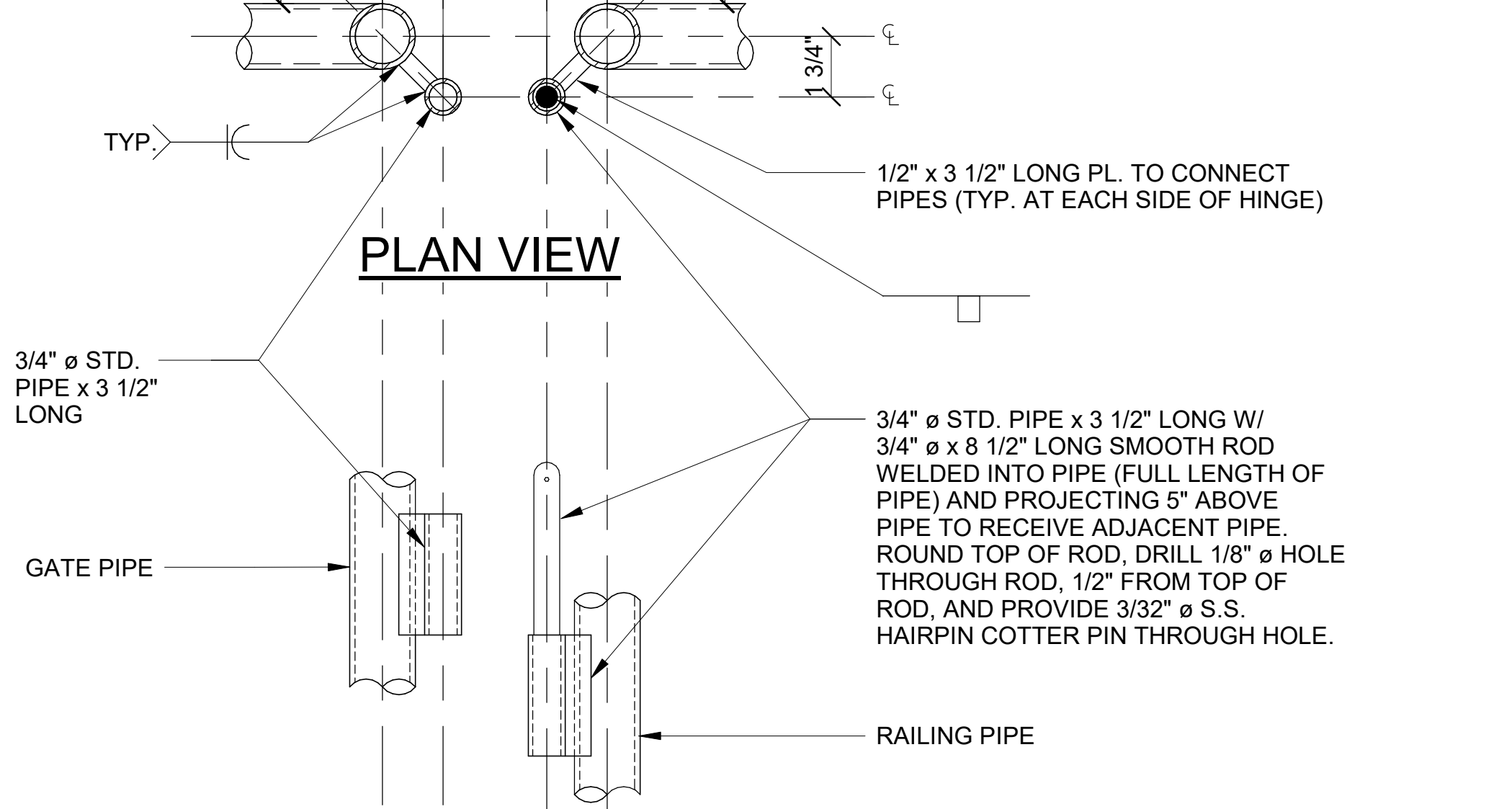
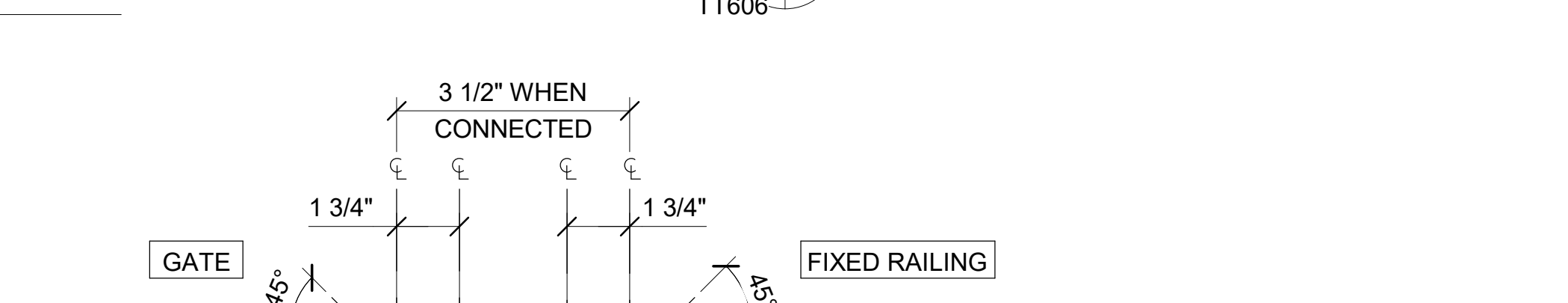


- NOTES:
1. SEE DETAILS ON SHEETS TT503 & TT504 FOR RAILING CONNECTION AT EXTERIOR STEEL STAIRS. TT502 FOR RAILING CONNECTION AT MEZZANINE. AND TT504 FOR HANDRAIL THAT IS WELDED TO GUARDRAIL AT EXTERIOR STAIRS.
 2. SLOPE HORIZONTAL RAILS WITH SLOPE OF SLAB TO MAINTAIN 3'-6" HEIGHT FROM TOP OF SLAB TO TOP OF TOP RAIL.
 3. SLOPE KICK PLATE WITH SLOPE OF SLAB TO MAINTAIN 1/4" GAP BETWEEN TOP OF SLAB AND BOTTOM OF PL.
 4. SEAL GALVANIZING VENT HOLES PER GENERAL NOTE Q.7 ON TT001 AT ALL RAILINGS AND GATES.
 5. SEE DETAIL 5/TT605 FOR GUARDRAIL AND HANDRAIL AT INTERIOR CONCRETE STAIRS.

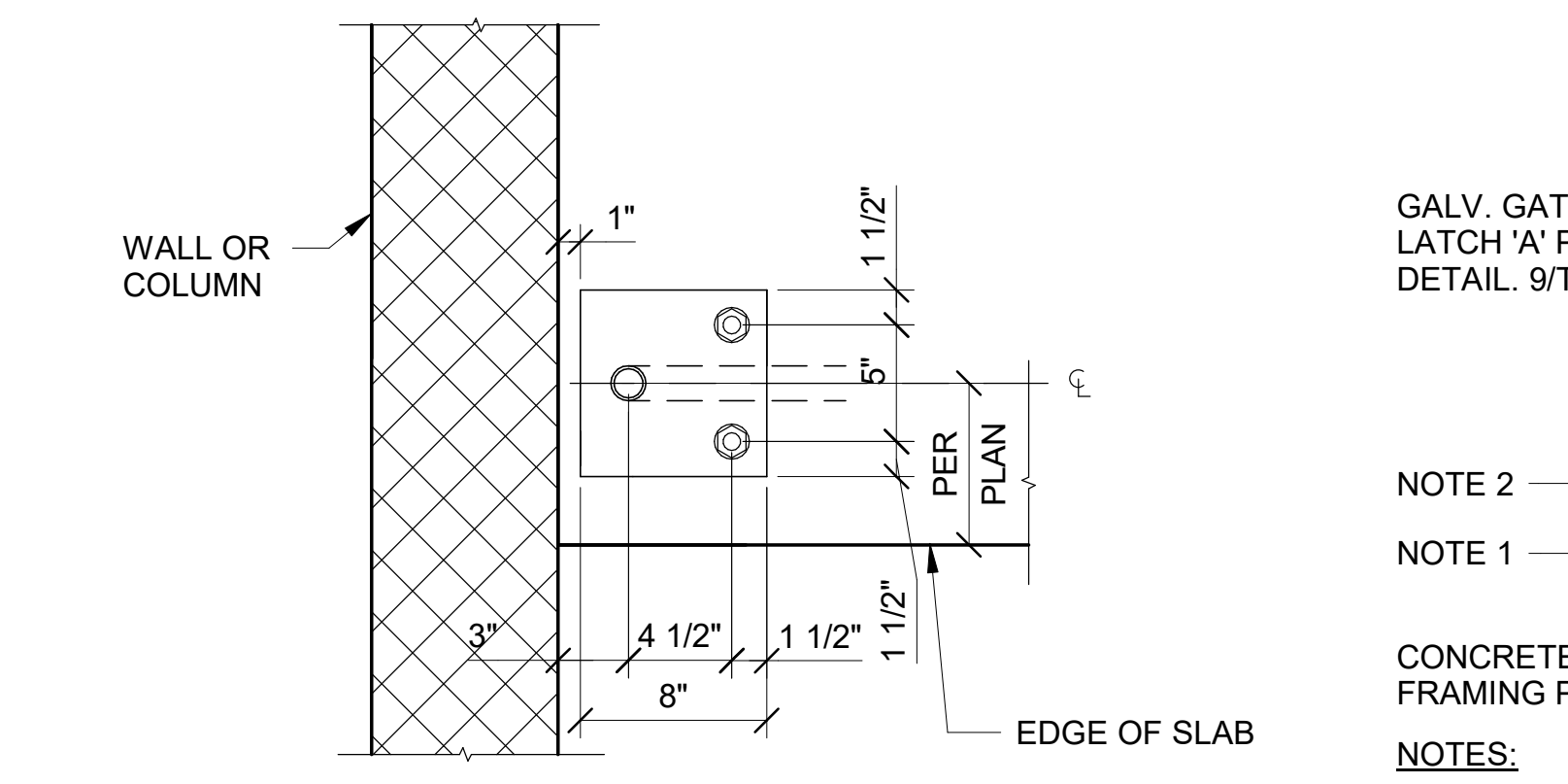
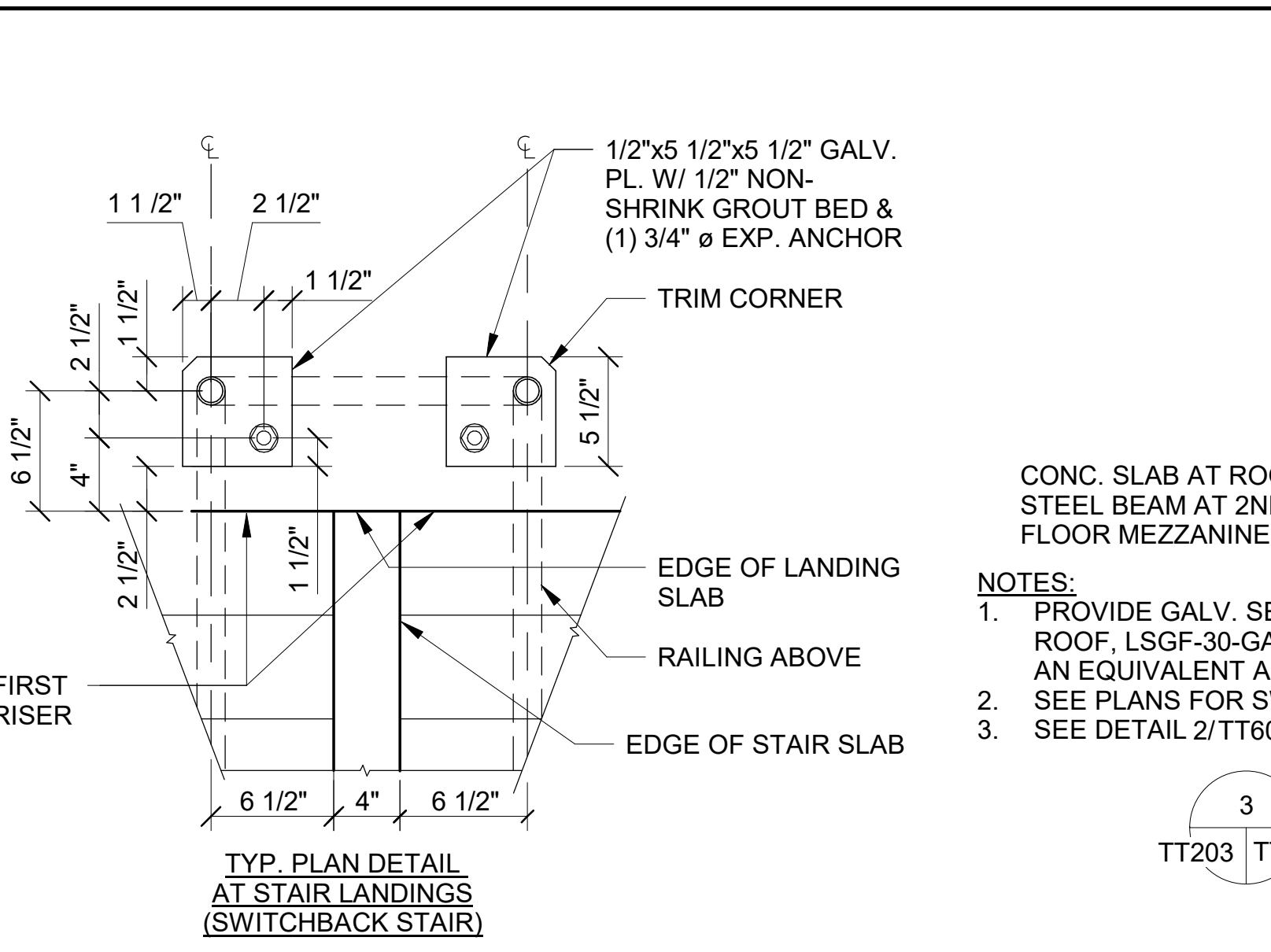
TYPICAL FIXED RAILING DETAILS



ROD CATCH PLATE DETAILS



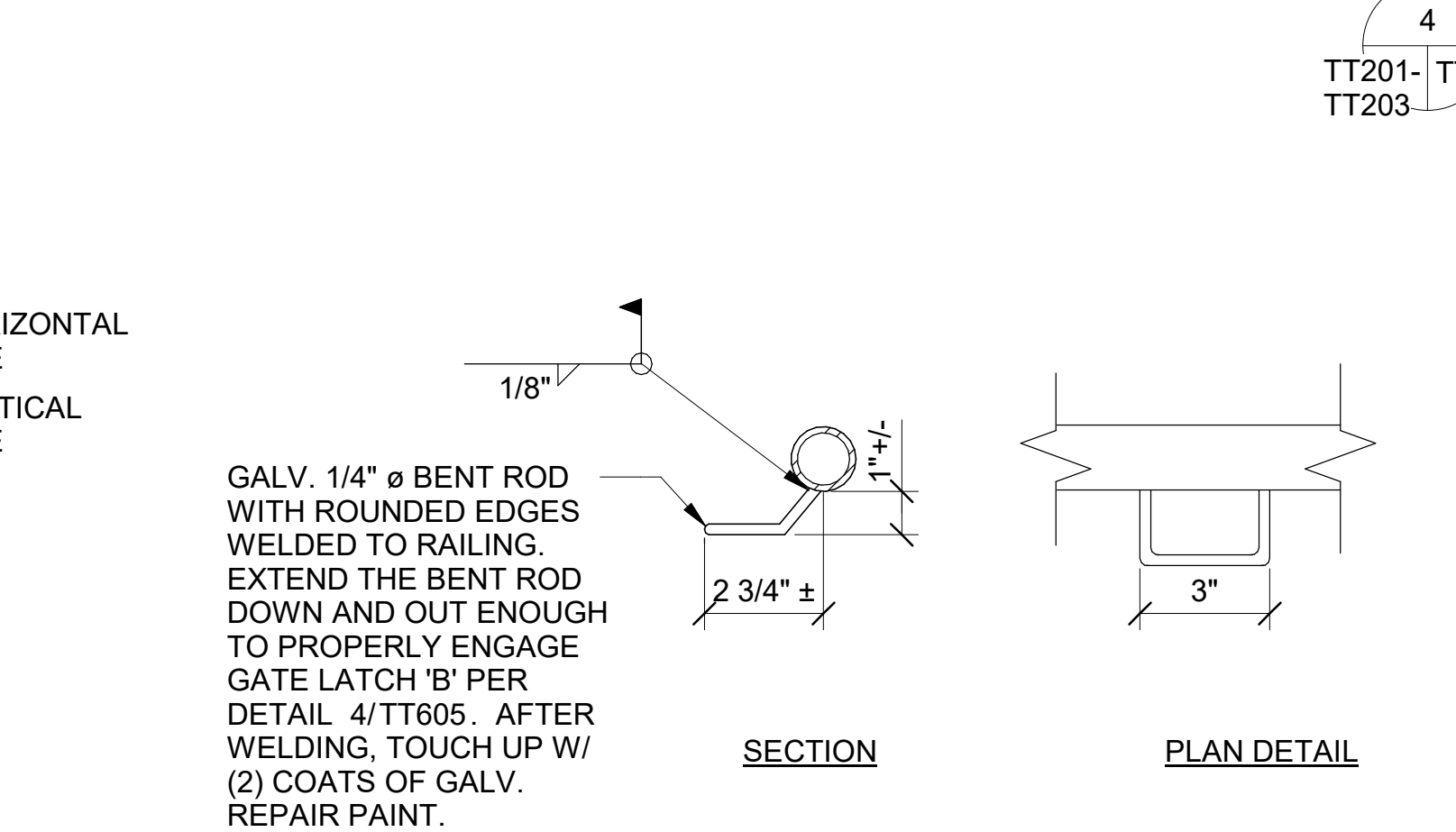
GUARDRAIL HINGE DETAIL



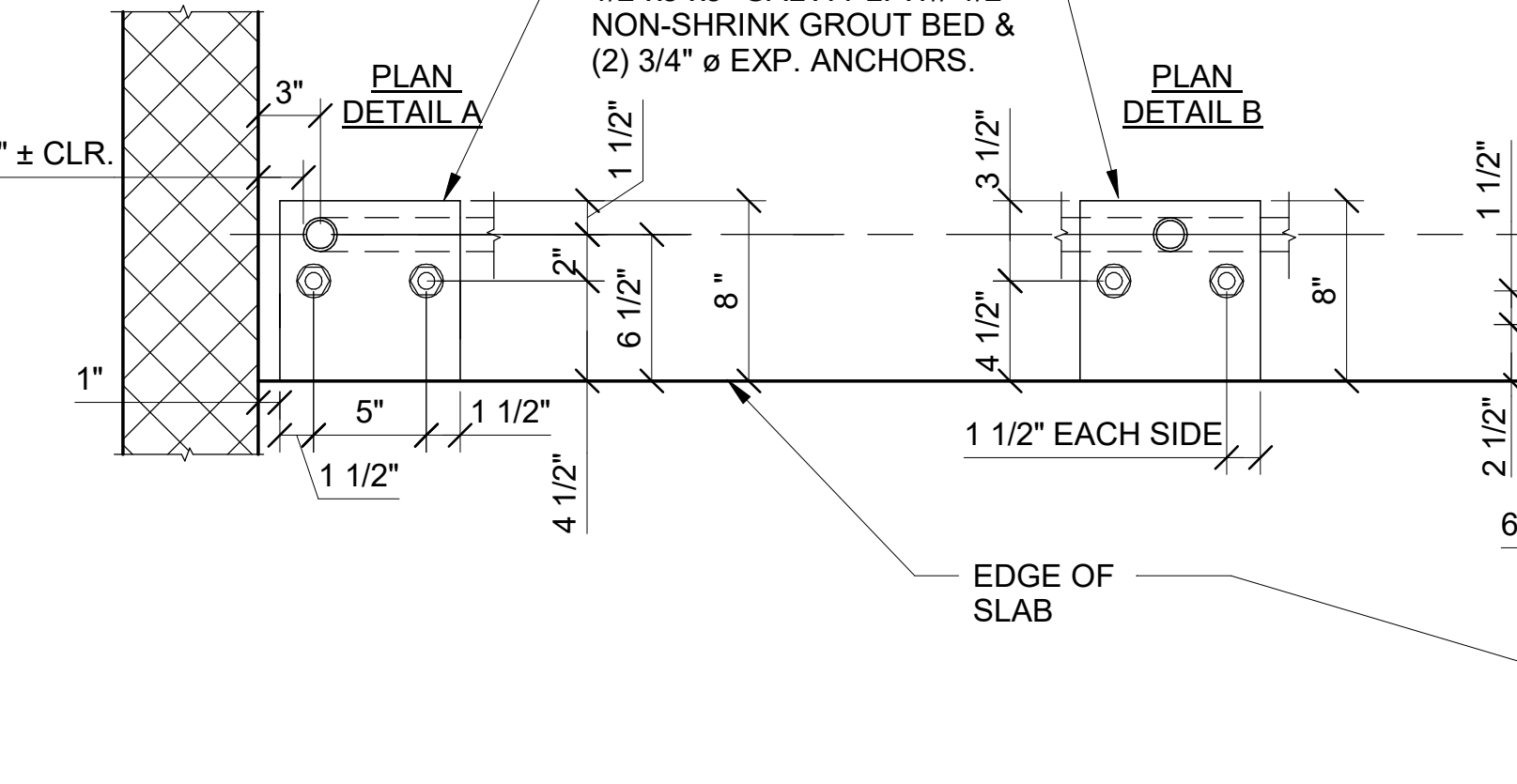
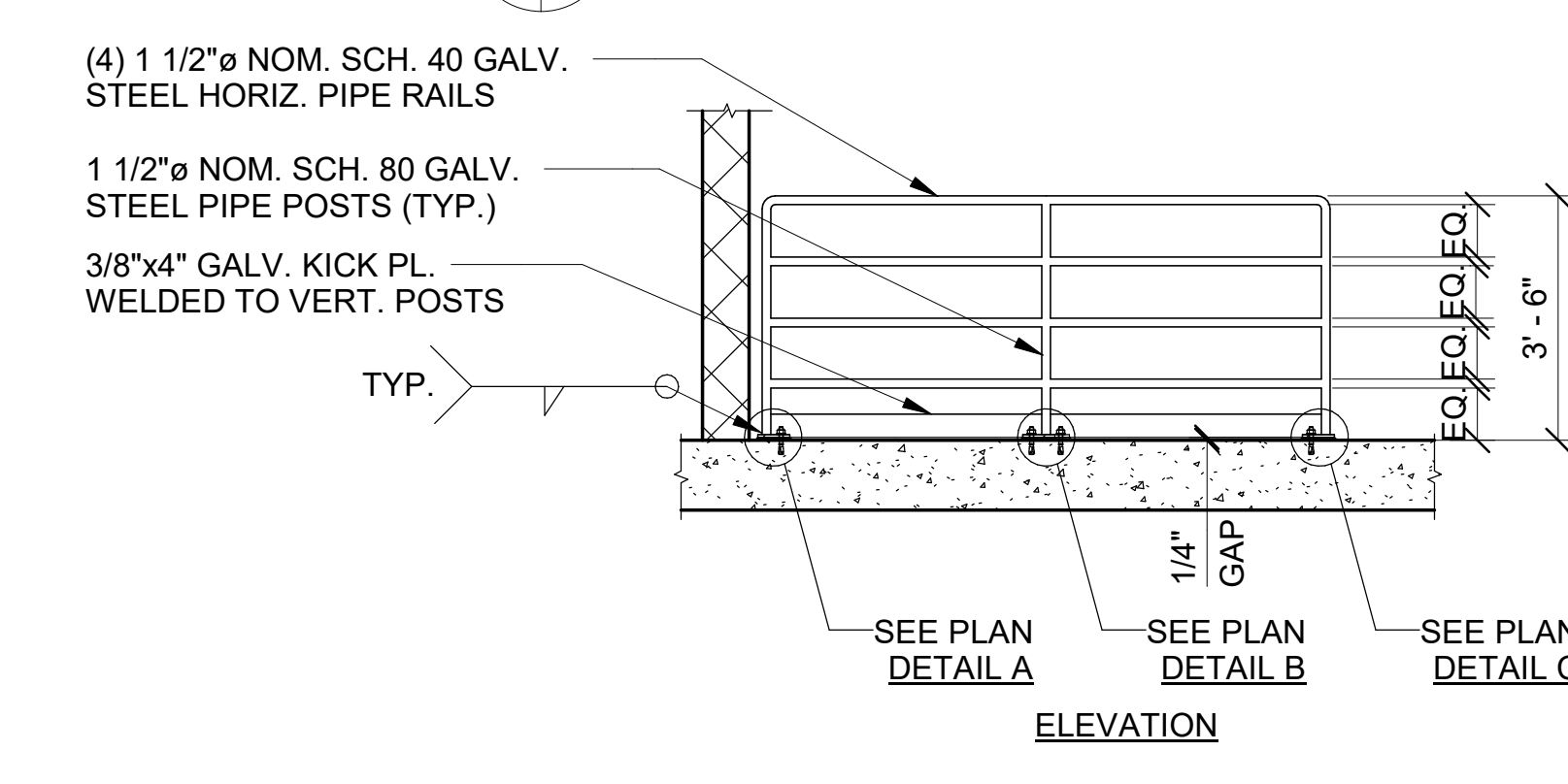
SELF-CLOSING GUARDRAIL GATE DETAIL

- NOTES:
1. PROVIDE GALV. SELF-CLOSING LADDER SAFETY GATE, MODEL EDGEHALT FULL HEIGHT # LSGF-36-GAL AT ROOF, LSGF-30-GAL AT 2ND FLOOR MEZZANINE. BY PS SAFETY ACCESS AT WWW.PSSAFETYACCESS.COM,OR AN EQUIVALENT APPROVED BY THE ENGINEER.
 2. SEE PLANS FOR SWING DIRECTION OF GATE.
 3. SEE DETAIL 2/TT605 FOR ADDITIONAL INFORMATION NOT SHOWN.

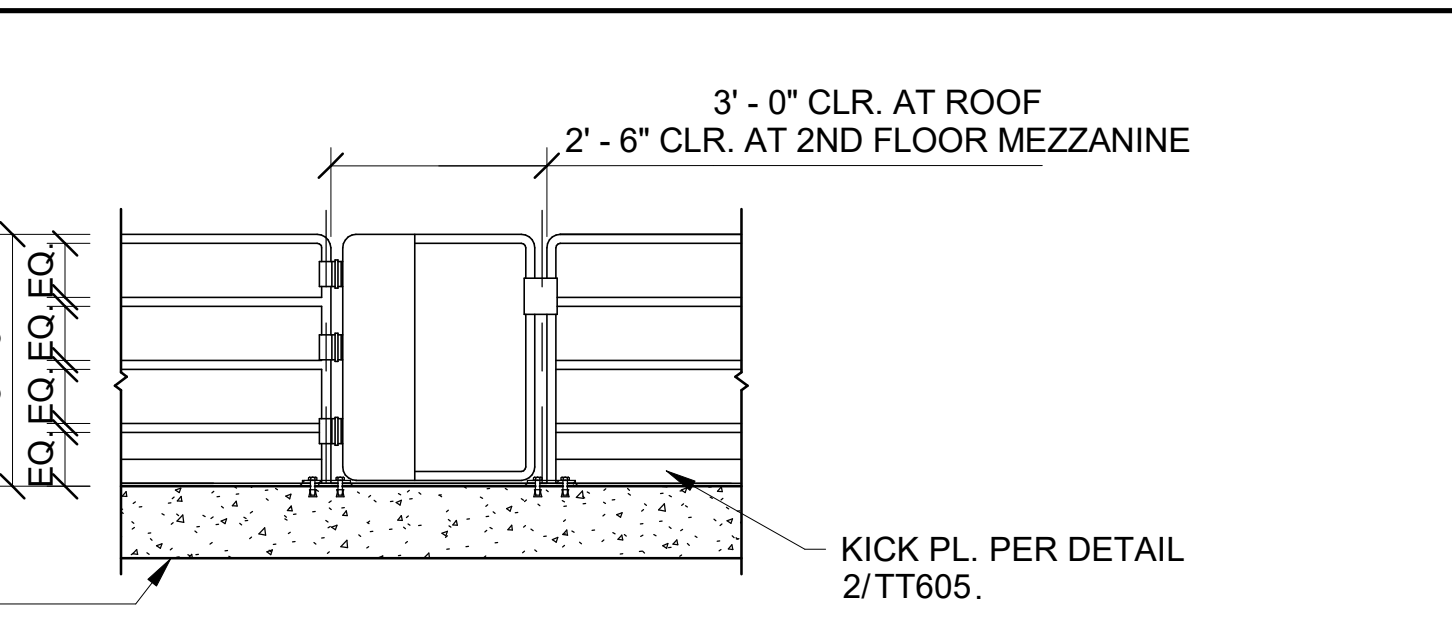
SINGLE-SWINGING GATE GUARDRAIL DETAIL



BENT ROD DETAILS

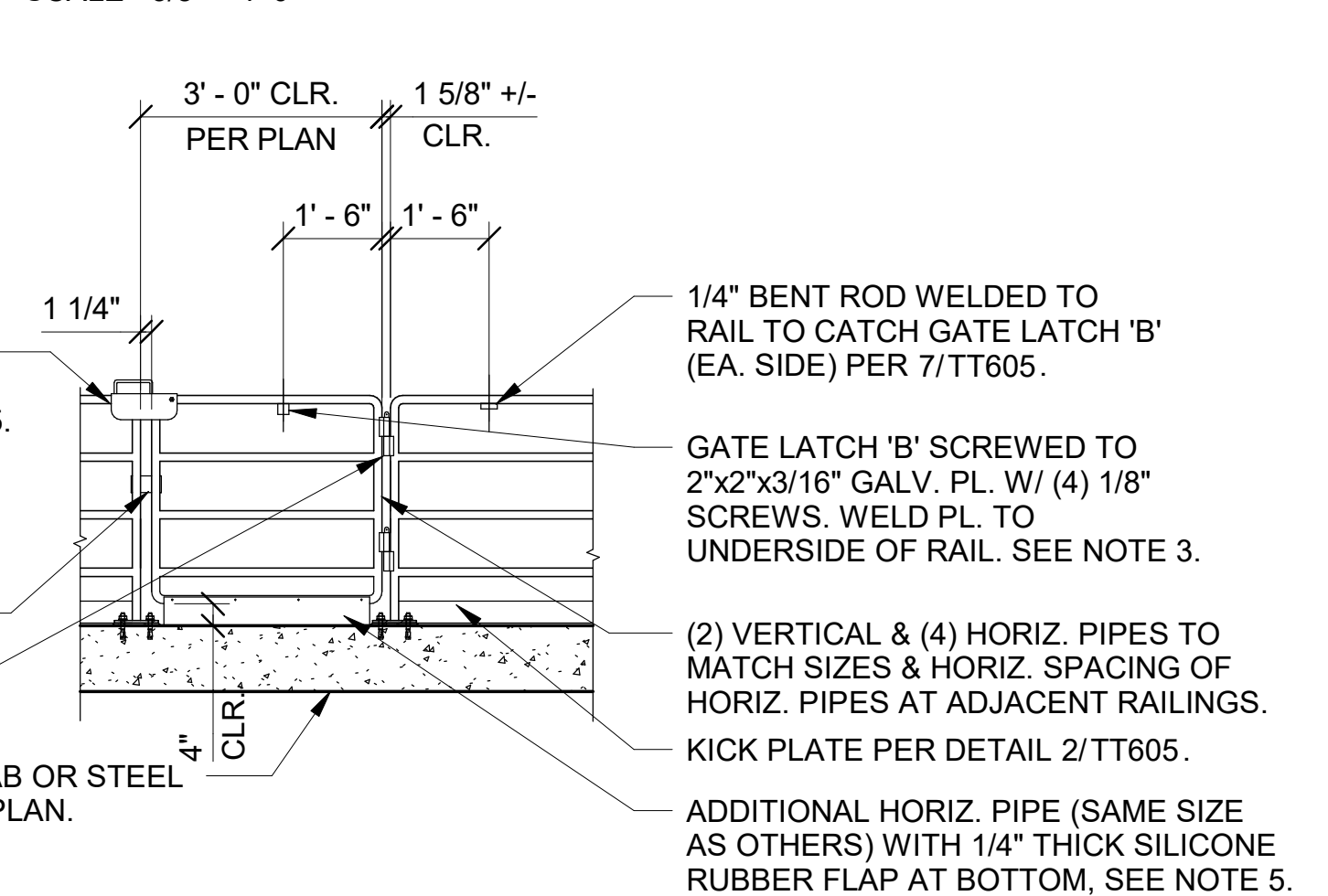


PLAN DETAIL - FIXED GUARDRAIL @ 5TH FLOOR LANDING SLAB



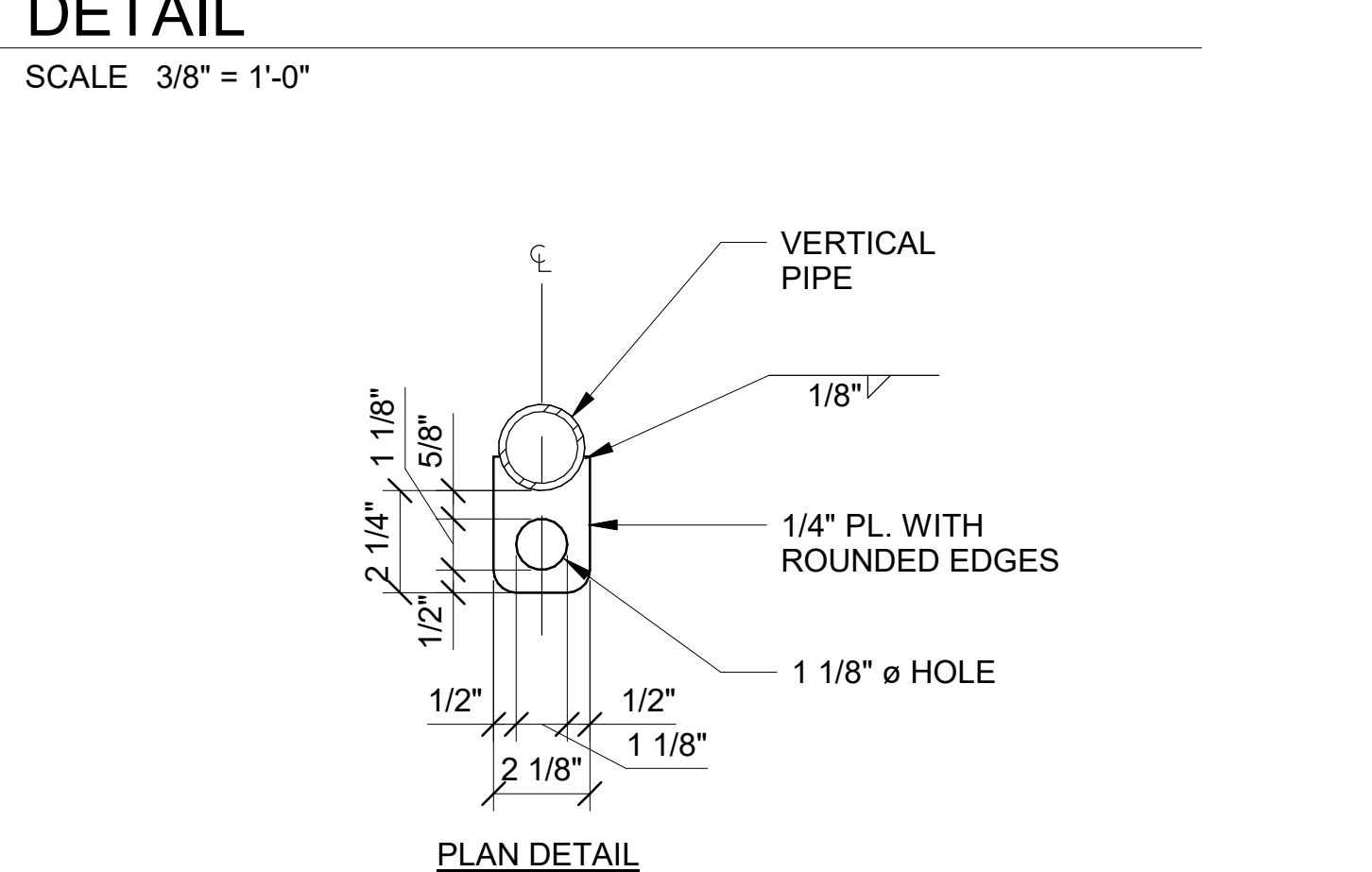
- NOTES:
1. PROVIDE GALV. SELF-CLOSING LADDER SAFETY GATE, MODEL EDGEHALT FULL HEIGHT # LSGF-36-GAL AT ROOF, LSGF-30-GAL AT 2ND FLOOR MEZZANINE. BY PS SAFETY ACCESS AT WWW.PSSAFETYACCESS.COM,OR AN EQUIVALENT APPROVED BY THE ENGINEER.
 2. SEE PLANS FOR SWING DIRECTION OF GATE.
 3. SEE DETAIL 2/TT605 FOR ADDITIONAL INFORMATION NOT SHOWN.

SELF-CLOSING GUARDRAIL GATE DETAIL

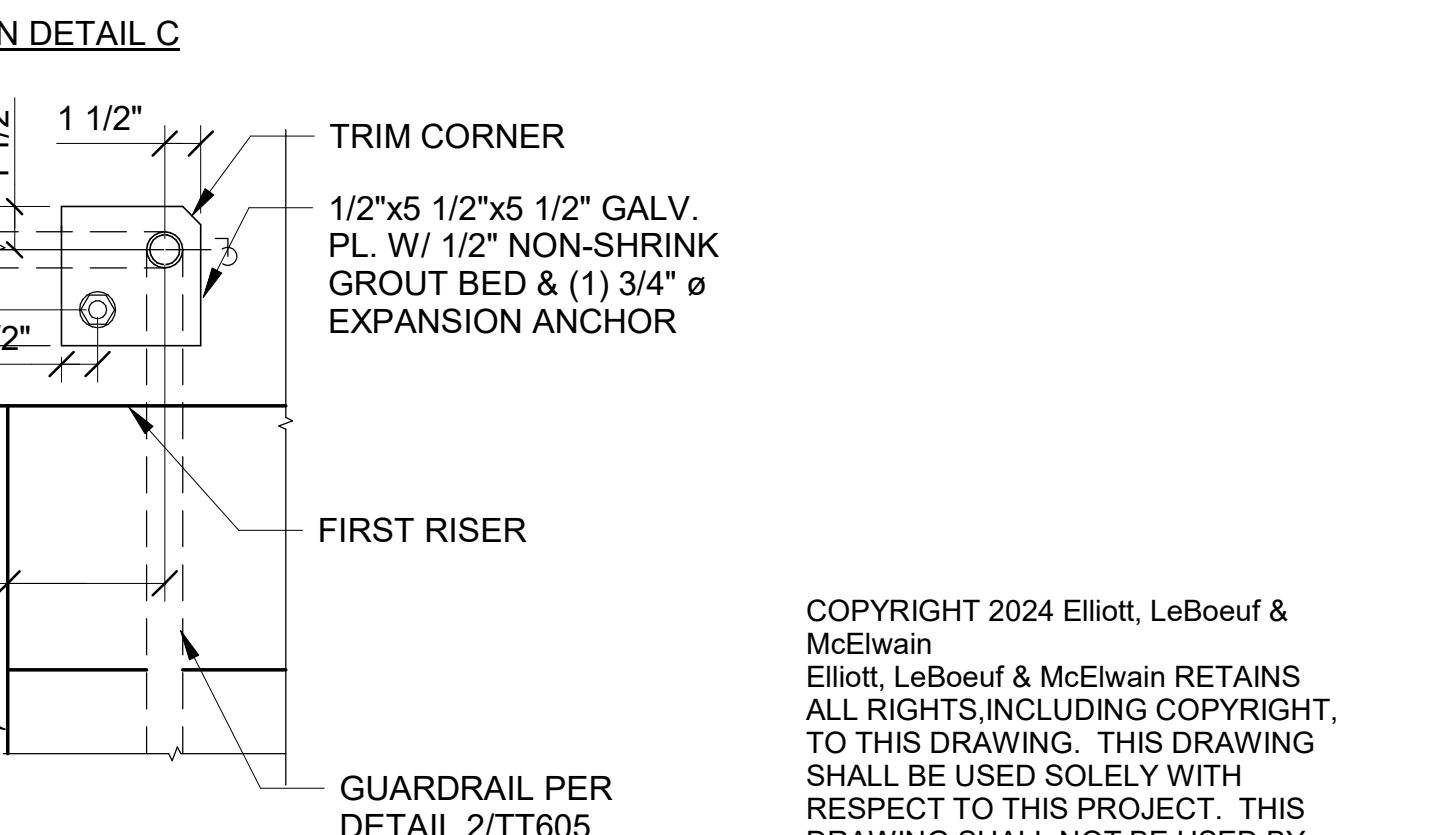


- NOTES:
1. PROVIDE (2) HINGES PER DETAIL 10/TT605.
 2. 3/16"x4" HIGH GALV. PL. WELDED TO FAR SIDE OF FIXED RAIL TO PREVENT GATE FROM SWINGING IN OPPOSITE DIRECTION.
 3. PROVIDE A GATE LATCH, STRAIGHT ARM FROM HARDWARESOURCE.COM, SKU# 504670, OR AN APPROVED EQUIVALENT.
 4. SEE PLANS FOR SWING DIRECTION OF GATE.
 5. ATTACH RUBBER FLAP TO BOTTOM HORIZONTAL PIPE WITH (4) 1/4" DIA. ZINC-PLATED THRU-BOLTS WITH NUTS AND WASHERS AT 1'-0" O.C. MAX.

SINGLE-SWINGING GATE GUARDRAIL DETAIL



PLAN DETAIL - ROD GUIDE PLATE

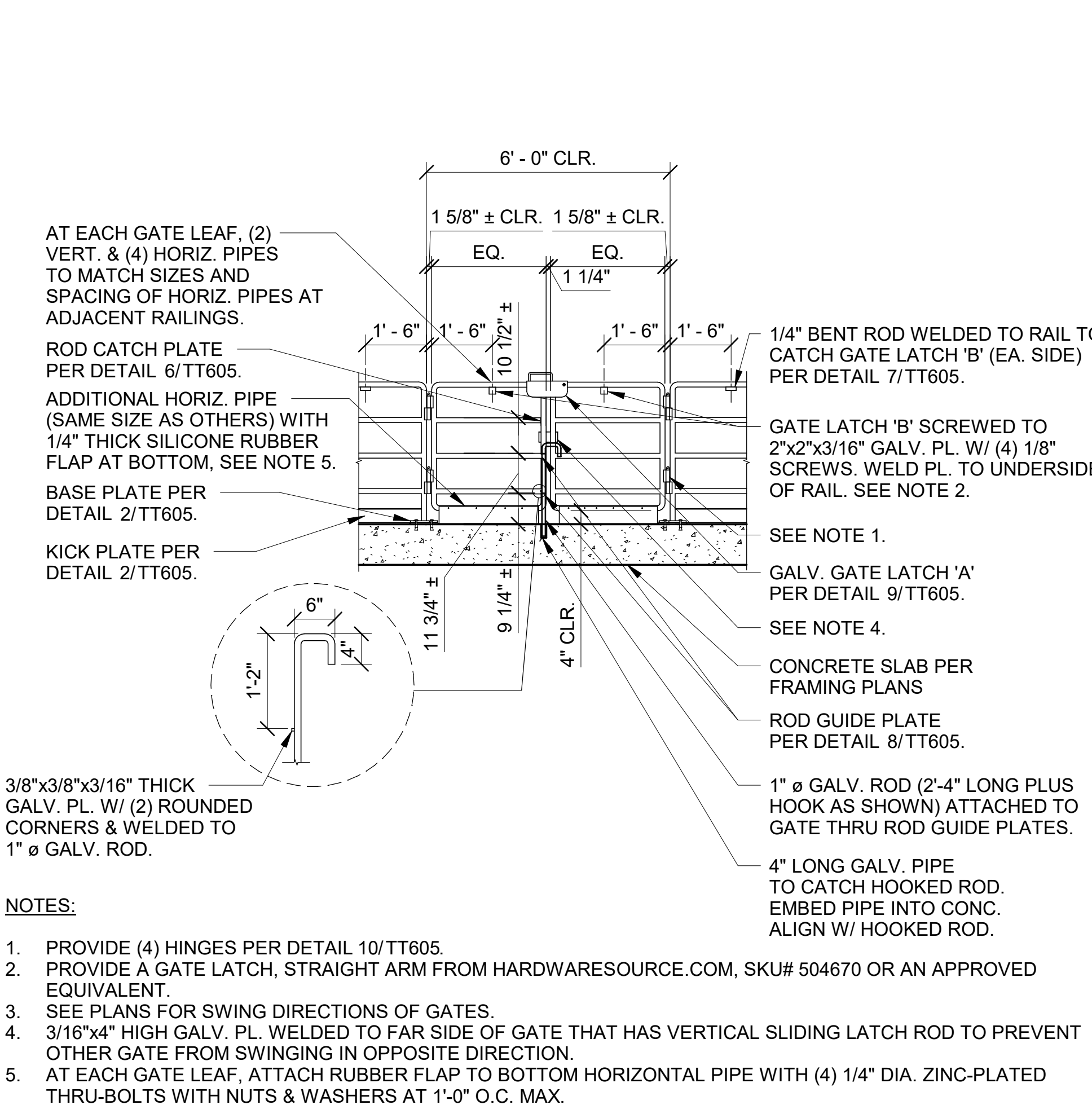


PLAN DETAIL - FIXED GUARDRAIL @ 5TH FLOOR LANDING SLAB

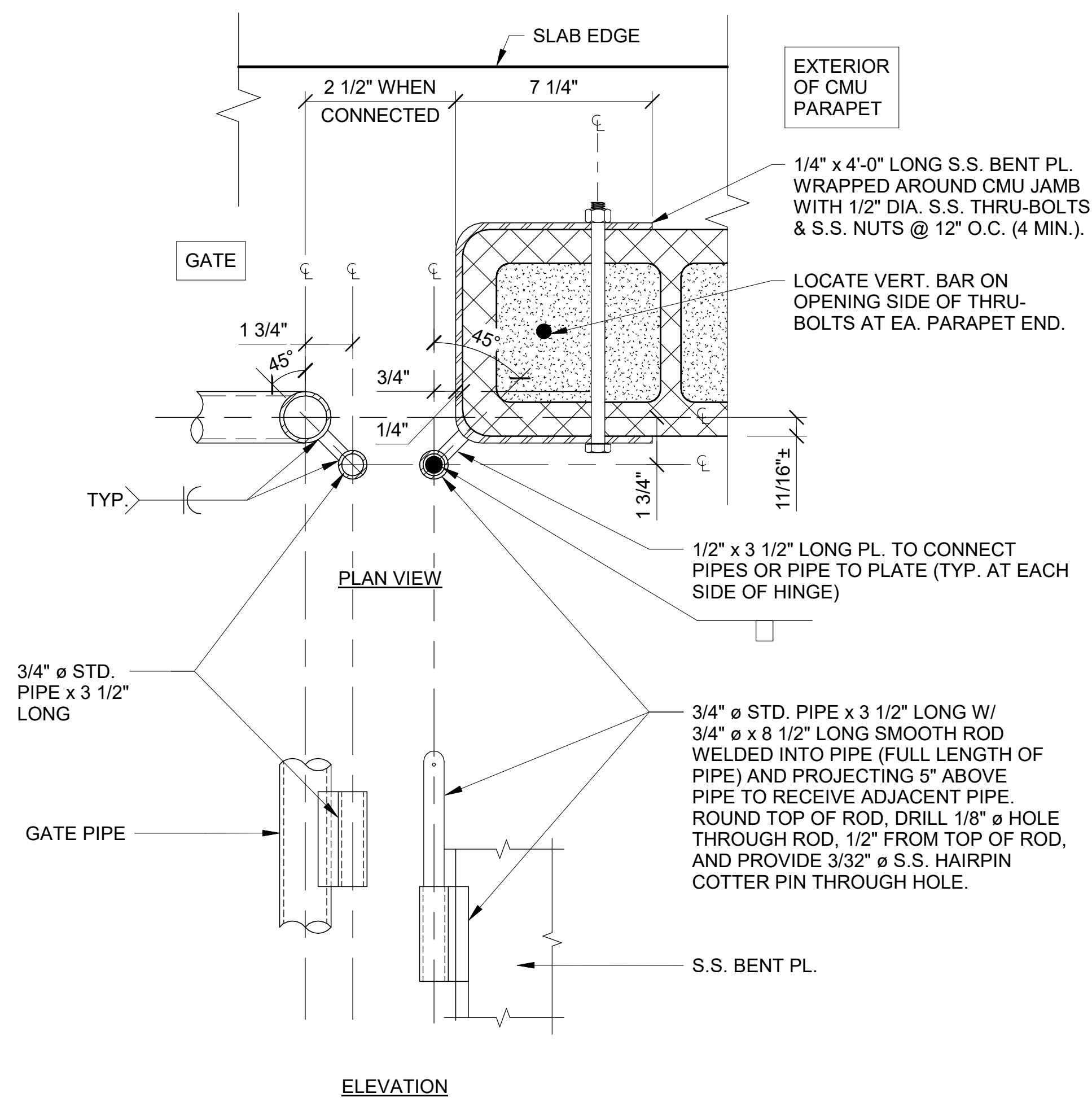
NO.	REVISION	DATE

JOB NUMBER
22056
DATE ISSUED
03/14/2025
PROJECT STATUS
ISSUE FOR CONSTRUCTION
SHEET

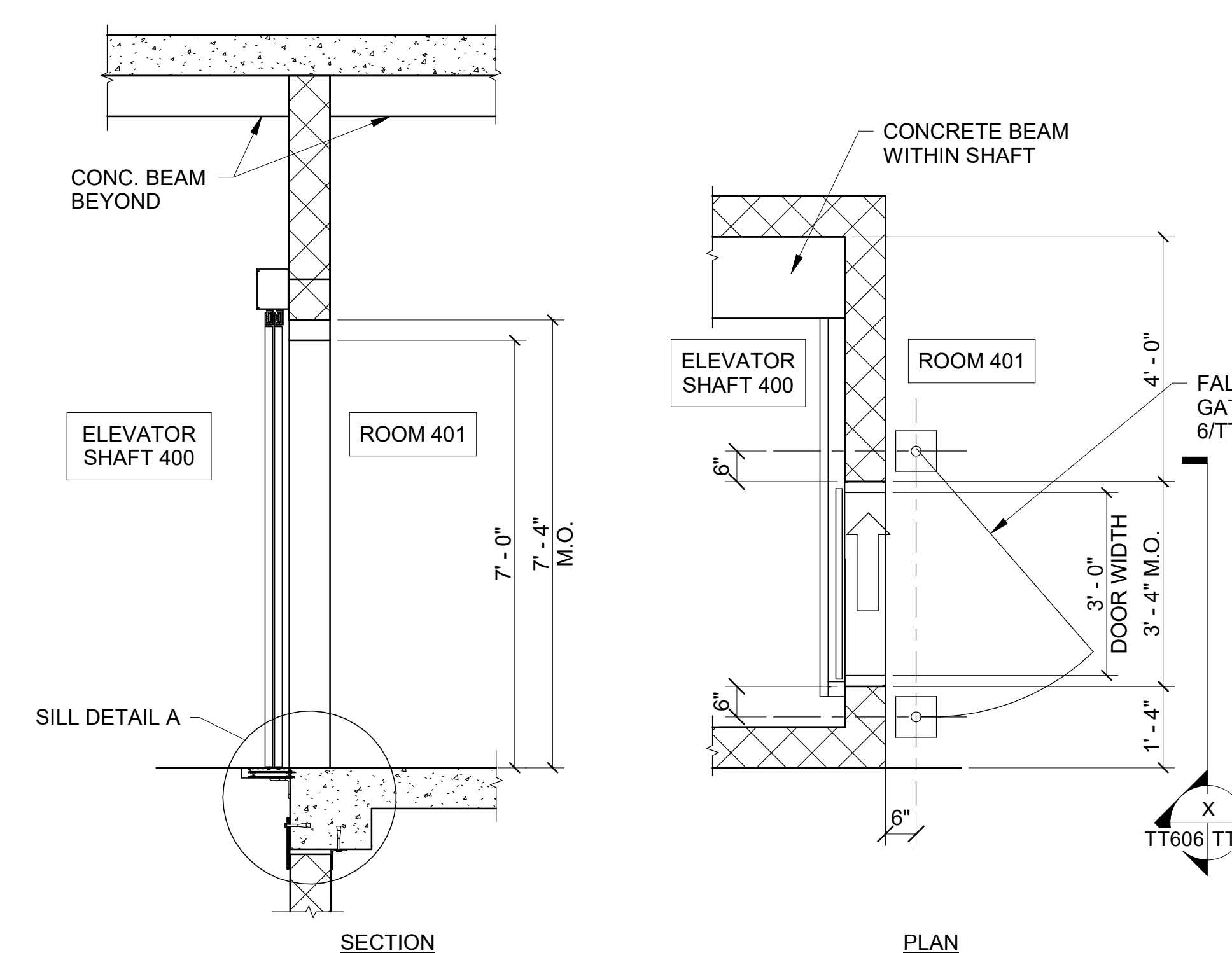
TRAINING TOWER - TYPICAL RAILING DETAILS



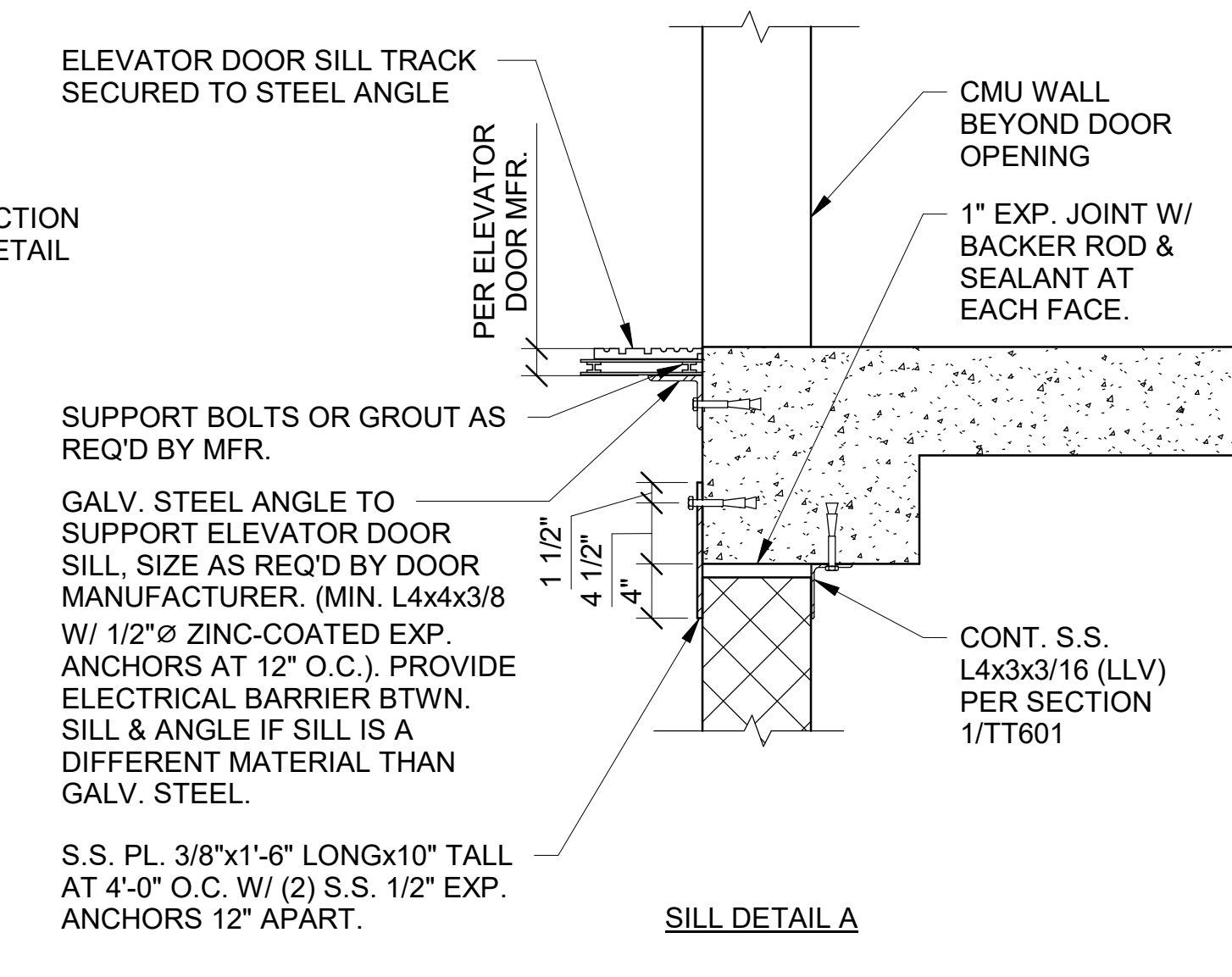
DOUBLE-SWINGING GATE GUARDRAIL DETAILS
TT203 TT606 SCALE 3/8" = 1'-0"



GUARDRAIL GATE HINGE AT PARAPET DETAIL
TT606 TT606 SCALE 3" = 1'-0"

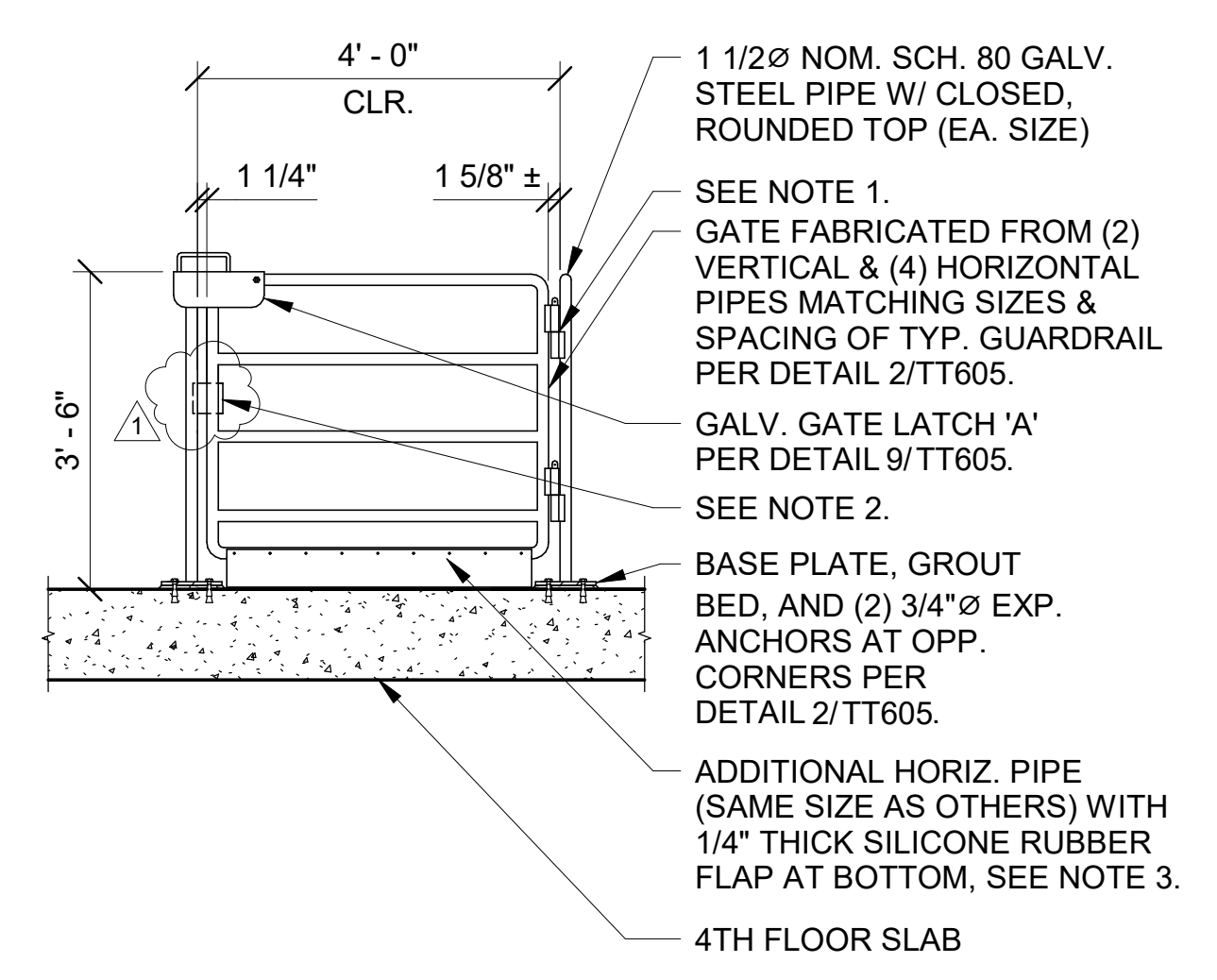


ELEVATOR DOOR DETAILS
TT603 TT606 SCALE 1/2" = 1'-0"



- NOTES:
- PROVIDE (2) HINGES PER DETAIL 10/TT605.
 - AT NOTED LOCATION, PROVIDE 3/16"x4" TALL GALV. PLATE WELDED TO FAR SIDE OF FIXED VERTICAL PIPE TO PREVENT GATE FROM SWINGING INTO THE SHAFT.
 - ATTACH RUBBER FLAP TO BOTTOM HORIZONTAL PIPE WITH (4) 1/4" DIA. ZINC-PLATED THRU-BOLTS WITH NUTS AND WASHERS AT 1'-0" O.C. MAX.
 - THIS ELEVATION LOOKS EAST

ELEVATION - FALL PROTECTION GATE AT ELEVATOR SHAFT
TT202, TT606 TT606 SCALE 1/2" = 1'-0"



- NOTES:
- PROVIDE (4) HINGES PER DETAIL 2/TT606.
 - PROVIDE A GATE LATCH, STRAIGHT ARM FROM HARDWARESOURCE.COM, SKU# 504670 OR AN APPROVED EQUIVALENT.
 - 3/16"x4" HIGH GALV. PL. WELDED TO FAR SIDE OF GATE THAT HAS VERTICAL SLIDING LATCH ROD TO PREVENT OTHER GATE FROM SWINGING IN OPPOSITE DIRECTION.
 - AT EACH GATE LEAF, ATTACH RUBBER FLAP TO BOTTOM HORIZONTAL PIPE WITH (MIN. 3 AT LEFT & MIN. 2 AT RIGHT) 1/4" DIA. ZINC-PLATED THRU-BOLTS WITH NUTS & WASHERS AT 1'-0" O.C. MAX.

SINGLE-SWINGING GATE GUARDRAIL AT CMU PARAPET DETAILS
BB203 TT606 SCALE 3/8" = 1'-0"

HH

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WTCC EWS - FIRE & RESCUE TRAINING CENTER
WAKE TECHNICAL COMMUNITY COLLEGE
5345 ROLESVILLE RD, WENDELL, NC 27591
NCCCS NO. 2303

NORTH CAROLINA
PROFESSIONAL SEAL
029858
03/14/2025
ENGINEER
ROGER M. LeBOEUF

NO.	REVISION	DATE
1	Addendum #1	04/14/25

JOB NUMBER
22056

DATE ISSUED
03/14/2025

PROJECT STATUS
ISSUE FOR CONSTRUCTION

SHEET
TRAINING TOWER - GUARDRAIL GATE AT PARAPET

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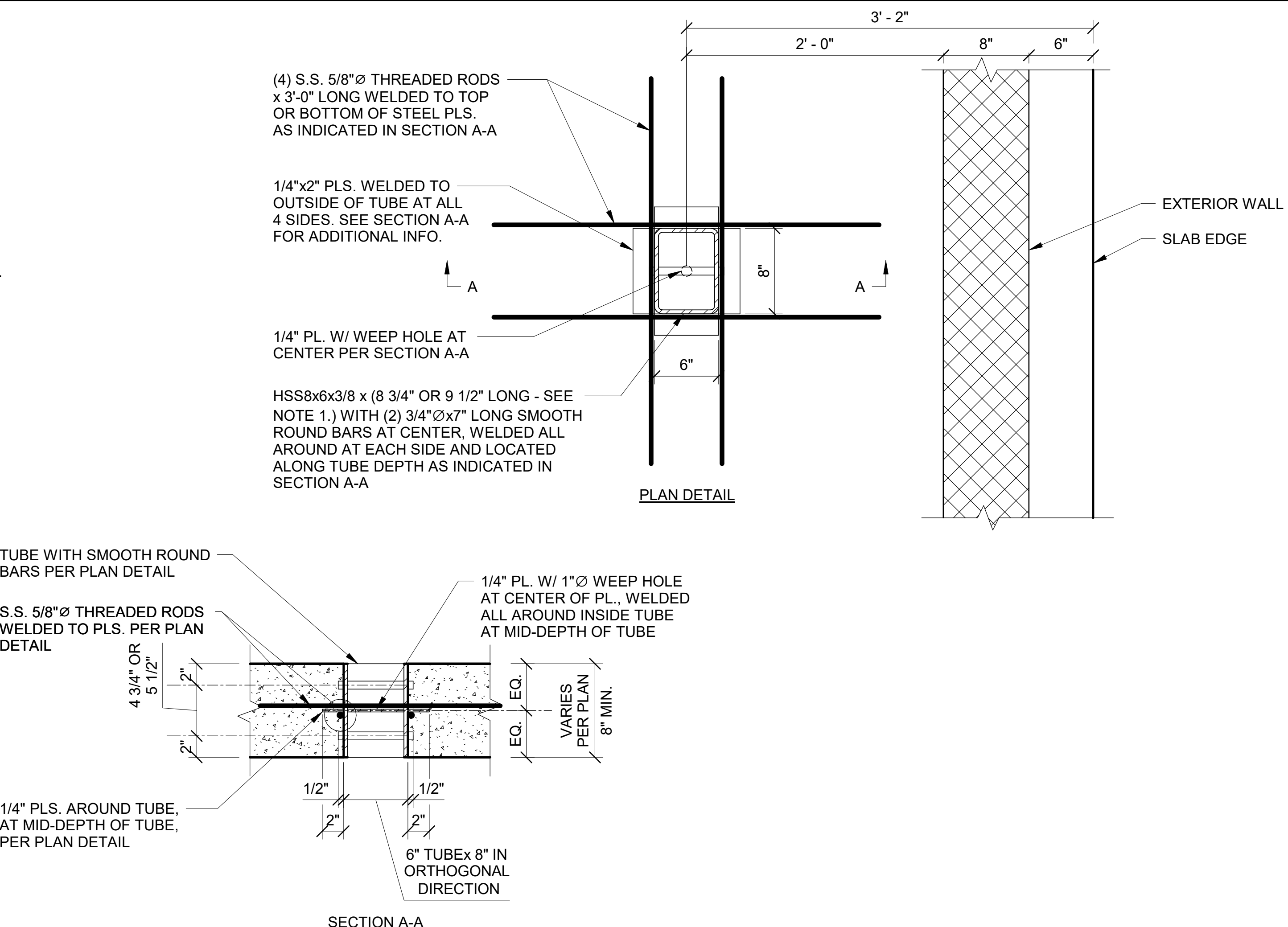
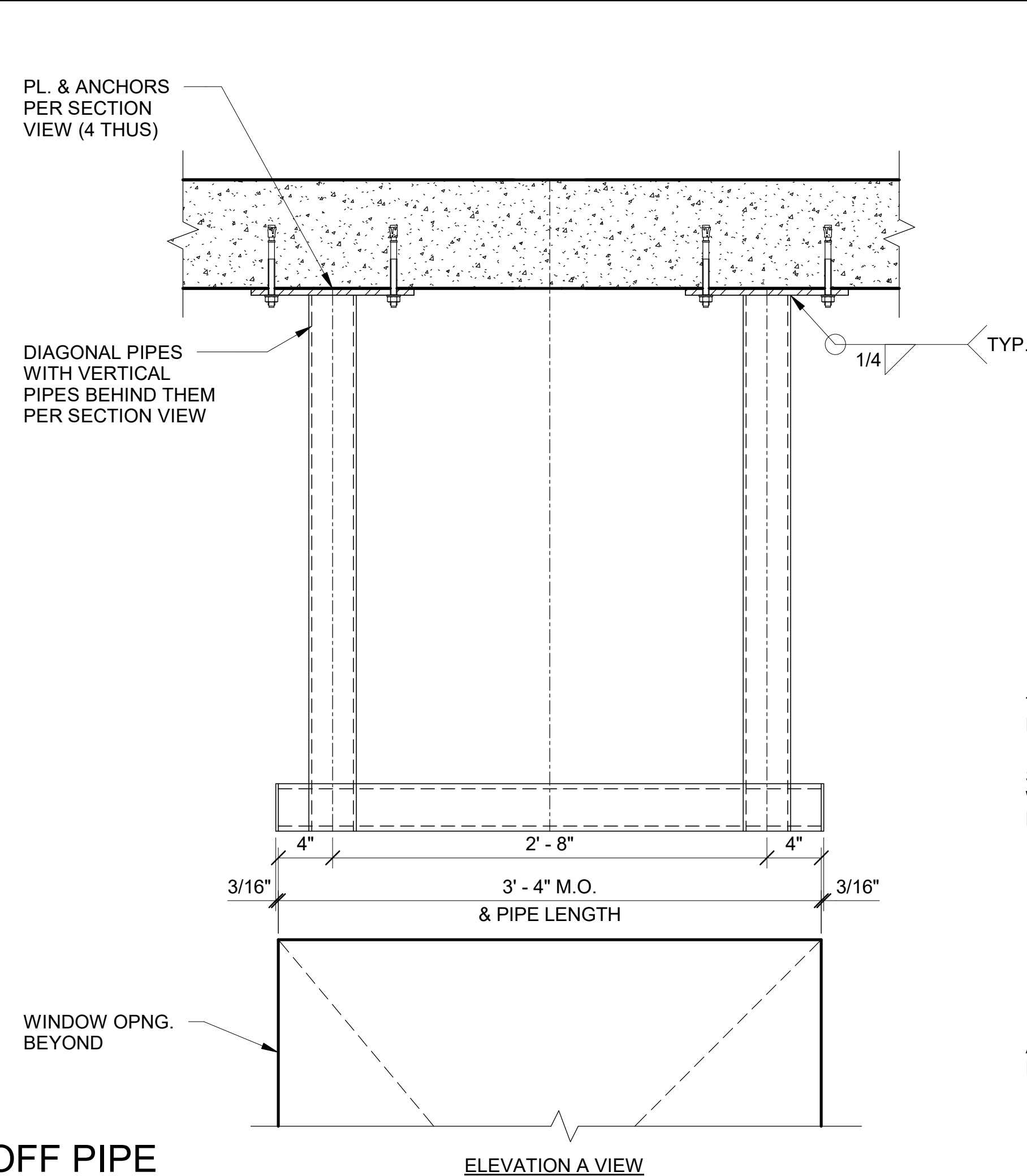
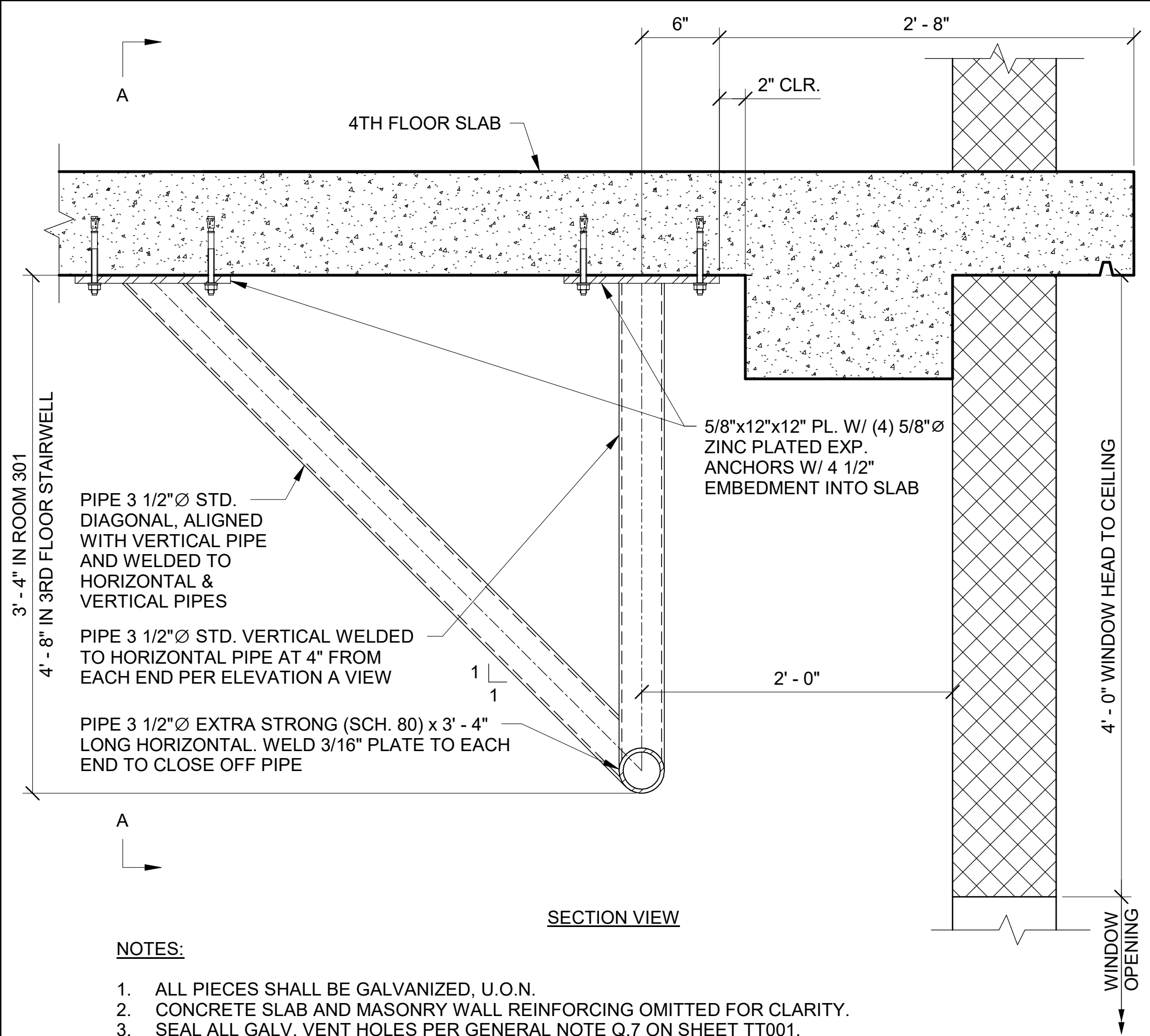
TT606



NO.	REVISION	DATE
1	Addendum #1	04/14/25

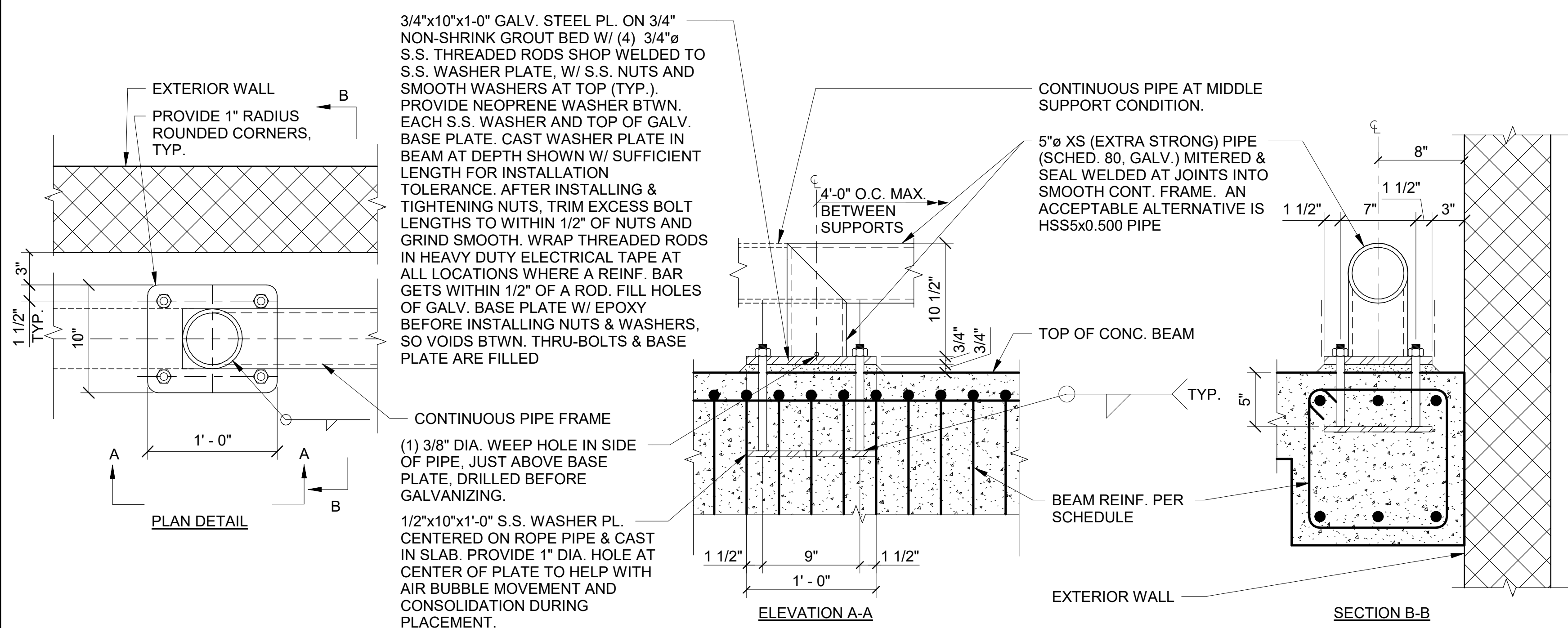
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**TRAINING TOWER -
MISCELLANEOUS
DETAILS**



ABOVE-WINDOW ROPE TIE-OFF PIPE FRAME DETAILS

TT202 TT608 SCALE 1 1/2" = 1'-0"

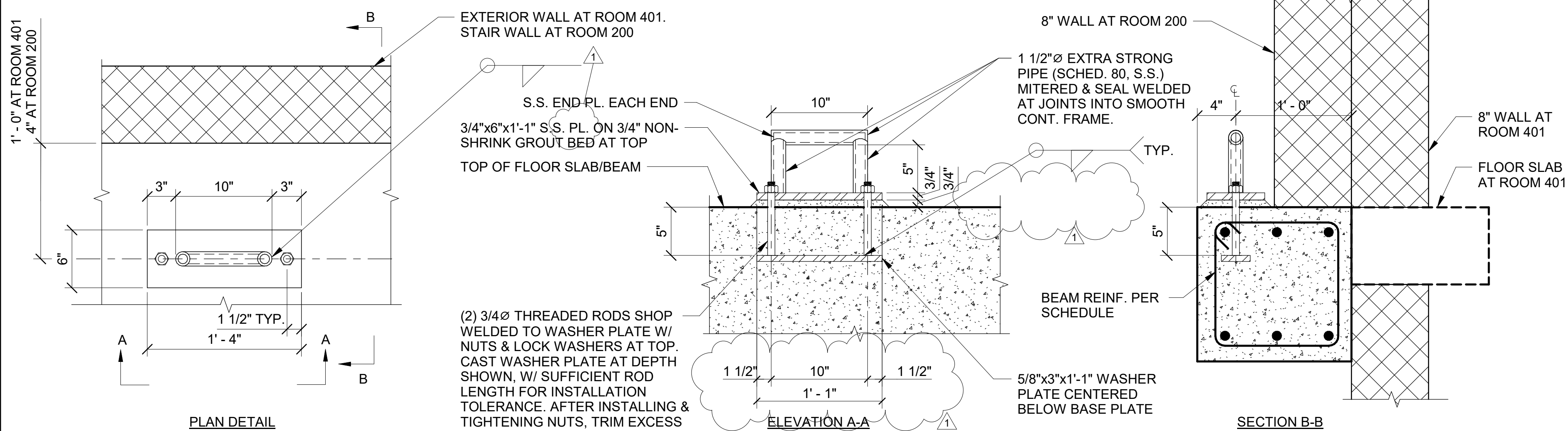


NOTES:

- ALL PIECES SHALL BE GALVANIZED U.O.N. S.S. PIECES SHALL BE 316 STAINLESS STEEL.

FLOOR ROPE TIE-OFF PIPE DETAIL

TT201 TT608 SCALE 1 1/2" = 1'-0"



NOTES:

- ALL PIECES SHALL BE 316 STAINLESS STEEL U.O.N.
- THIS ANCHOR HAS BEEN DESIGNED FOR UPWARD LOAD ONLY.

FLOOR ROPE TIE-OFF PIPE DETAILS

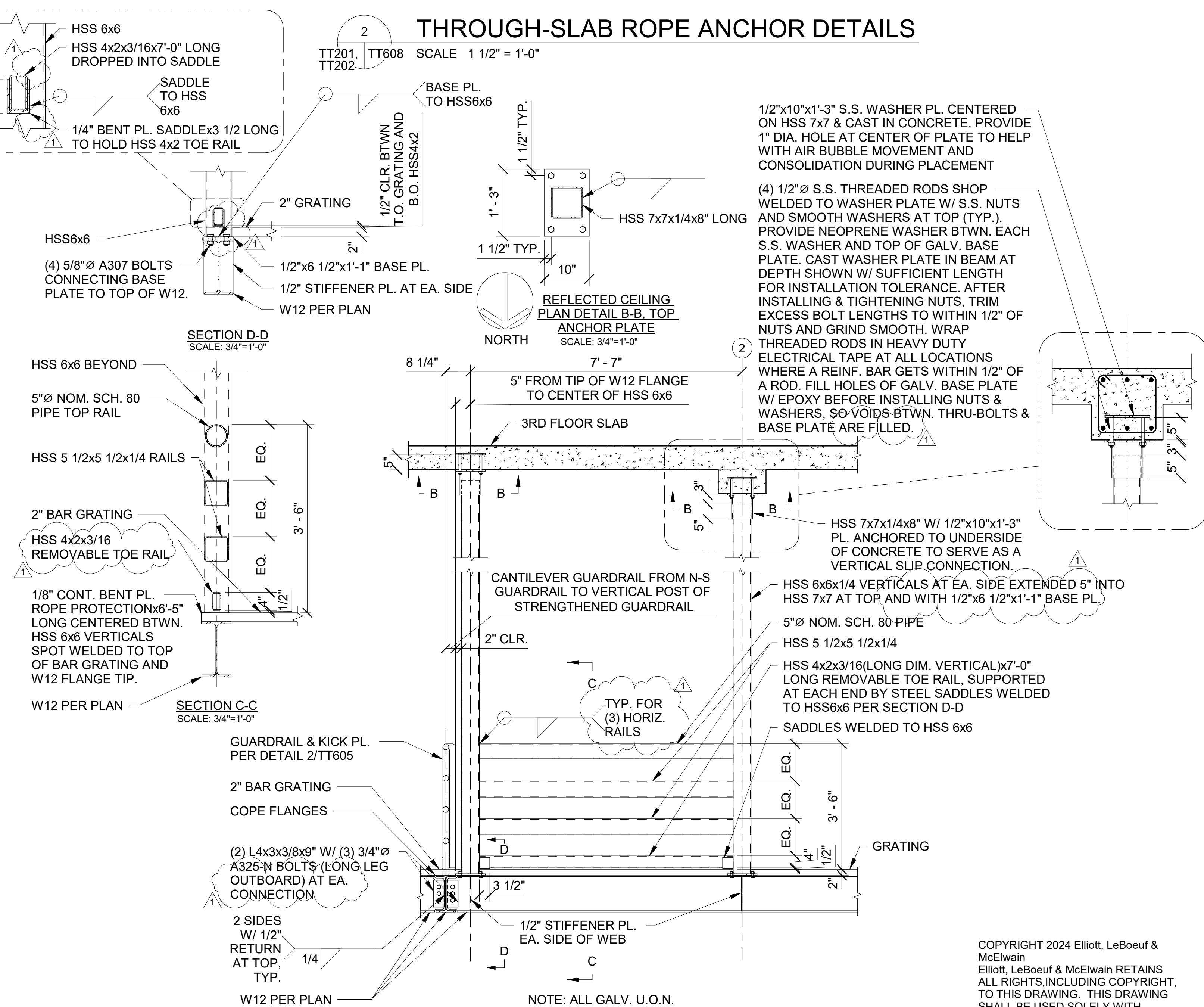
TT201, TT608 SCALE 1 1/2" = 1'-0"

NOTES:

- THIS DETAIL APPLIES AT ALL LOCATIONS INDICATED BY KEYED NOTES IN FLOOR PLANS AND AS INDICATED IN FRAMING PLANS. AT FLOOR OF 2ND FLOOR STAIR LANDING, PROVIDE 9 1/2" LONG THROUGH-SLAB TUBE ASSEMBLY. AT FLOOR OF ROOM 301, PROVIDE 8 3/4" LONG THROUGH-SLAB TUBE ASSEMBLY.
- CAST ASSEMBLIES INTO SLAB SO THAT TOPS OF TUBES ARE FLUSH WITH TOP OF SLAB. SHIM BELOW ASSEMBLIES, AS NECESSARY, AT BOTTOM OF SLAB TO ENSURE THAT TOPS OF TUBES ARE FLUSH WITH TOPS OF SLAB.
- ASSEMBLIES MUST BE INSTALLED SO THAT SMOOTH BARS AT CENTER OF TUBE ARE PERPENDICULAR TO WALL THAT ANCHOR IS CLOSEST TO. SEE FLOOR AND FRAMING PLANS FOR LOCATIONS. SEE PLAN DETAIL ABOVE AND DETAIL 1/TT408 FOR ORIENTATION.
- ALL PIECES SHALL BE S.S. U.O.N.
- GRIND INSIDE LIPS OF TUBES SMOOTH ALL AROUND.
- SLAB REINFORCING NOT SHOWN FOR CLARITY.

THROUGH-SLAB ROPE ANCHOR DETAILS

TT201, TT608 SCALE 1 1/2" = 1'-0"



NOTE: ALL GALV. U.O.N.

ELEVATION A-A. STEEL GUARDRAIL STRENGTHENED FOR RAPPELLING

GUARDRAIL STRENGTHENED FOR RAPPELLING DETAILS

TT201 TT608 SCALE 1/2" = 1'-0"

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