

4. **Question:** Are there any other allowances for the project other than the flooring material allowances called out in specification section 012100?

Answer: NO there are not any additional allowances required at this time. Please make sure to review the allowances as this addresses what is to be included within the cost of each allowance value.

5. **Question:** The structural pages when printed do not fit within the sheet size. Is this correct?

Answer: NO. Updated sheets are attached.

6. **Question:** The 2nd plan sheet of the civil set does not have a sheet number. Is this to be C001?

Answer: Yes. Updated plan page will be re-issued after the bidding process.

7. **Question:** Is there any soil remediation requirements for this site? Geotech was not provided.

Answer: Yes. Include in the base bid all costs associated with soil remediation below the building pad and all footings. Include remediation to a minimum depth of 3' below finish floor and 2' below bearing of the foundation/grade beams and to a 5' horizontal distance beyond the footprint of the new structure. 1" minus rock material is to be used as the engineered fill for these remediation considerations. See alternate pricing requests included herein for additional remediation considerations.

8. **Question:** Interior elevations call for Acrovyn wall panels, however there is no specification. Can you please provide one? Additionally, can an alternate manufacturer be used ILO Acrovyn.

Answer: See enclosed specifications. Yes, an alternate manufacturer can be used, however needs to meet or exceed the specification.

9. **Question:** RTU screens are shown and called out on the plans but no specification has been provided. Can you please provide one?

Answer: See enclosed specification. Cityscapes or approved equal can be used for this product.

10. **Question:** Alternates are referenced on the plans but nothing is outlining the requested alternates for the project. Can you please provide a list of alternates for the entire project.

Answer: See below and enclosed alternates specification section.

Bidding Alternates:

1. Alternate #1: Paint the split face block at the dumpster enclosure. See attached specification for product.
2. Alternate #2: Replace the bottom 2'-8" brick veneer with Arriscraft Renaissance. Color to be selected from the manufacturers full range of color options. Cast stone band to remain as specified.

3. Alternate #3: ILO using 1" minus rock for ALL soil remediation use screenings for the building pad only. Foundation remediation remains 1" minus.
4. Alternate #4: There is a grading and site utility package that is being bid as part of this project but will be performed under a separate contract. Any earthwork or utility companies are invited to provide an add alternate to provide this work. See enclosed plan pages listed as "Alternate 4".
5. Alternate #5: Provide a cost for a design build irrigation system that addresses all landscaped areas. This alternate is to also include tapping the water service later, installing irrigation meter pit, installing backflow preventer and backflow cage.
6. Alternate #6: Provide a cost to include integral tinting of the exterior glazing that is not spandrel glass for the following color options:
 - a. Bronze
 - b. Gray
 - c. Midnight gray

11. Question: The landscaping work related to the project extends outside of the properly limits of Lot 2. Is this correct?

Answer: No. Landscaping is only to be provided within the property limits of Lot 2. All other landscaping is to be included as part of Alternate 4.

12. Question: There is no specification for the wheel stops. Are these to be precast wheel stops.

Answer: Yes

13. Question: The site plans do not call for a retaining wall on the south side of the drive leading to the neighboring lot, however the landscape plans would indicate a wall being there. Which is correct?

Answer: There is not a retaining wall required on the South side of the property. Site plans are correct.

14. Question: Sheet C500 keyed note 9 calls for a site proof fence. Need to know height and type of fence required as the details on C900 for the retaining wall are not sight proof.

Answer: The length of fence that is running from the building to the retaining wall is to be 6' tall sight proof vinyl fencing. Product to be used can be Bufftech with smooth woodgrain or equal.

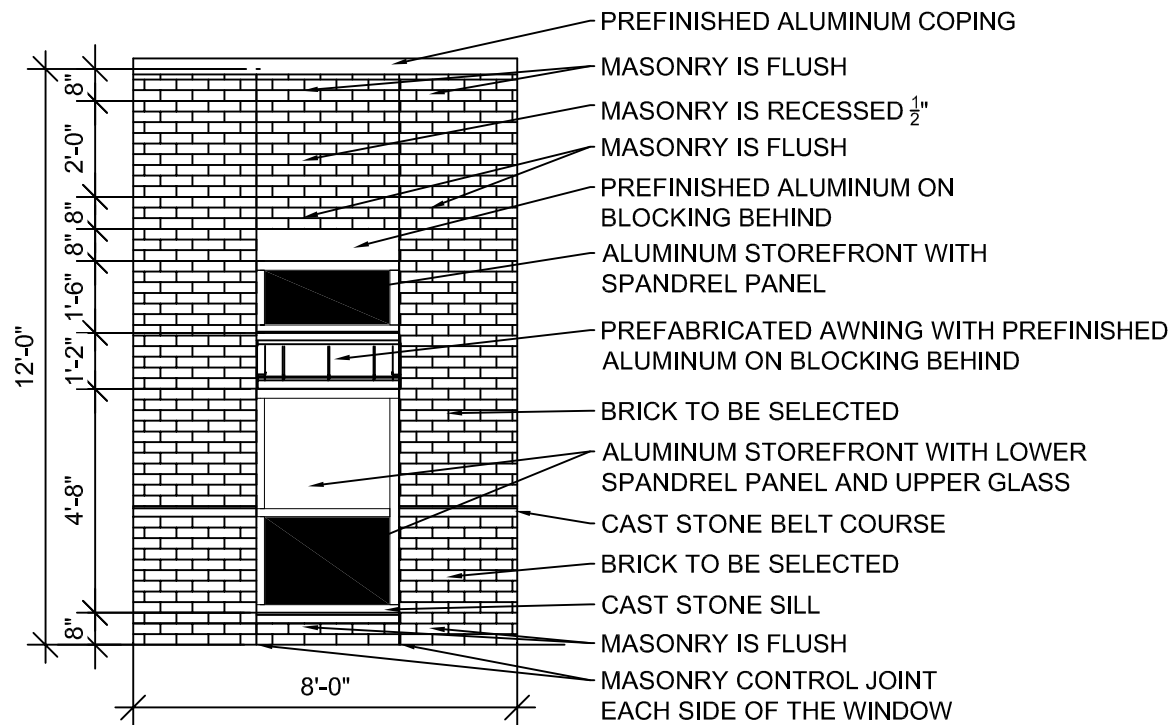
15. Question: There are conflicting details for the site light pole bases. Detail 2/E500 shows top of base to be 6" above finish grade whereas detail 1/PH101 shows top of base to be 30" above finish grade. We are assuming PH101 is the correct detail but please confirm.

Answer: Yes, sheet PH101 is correct.

CHANGES TO PROJECT MANUAL

1. Table of Contents. Revised to add new sections below.
2. 012100 – Allowances. The allowances for carpet tile (No. 3 and No. 4) are to be allowances of \$/sq yd. See attached revised spec section.
3. 012300 – Alternates section added.
4. 099113 – Exterior Painting. Specifications for painting of exterior masonry have been added.
5. 102600 – Wall And Door Protection section added.
6. 108213 - Roof Top Equipment Screens section added.

End of Addendum



MASONRY MOCKUP DETAIL

Missouri Center for Oral Surgery & Implants at Wentzville

Wentzville, St. Charles County, Missouri



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GREGORY L. UNEMAN, PE
M.O. LICENSE # 200901013
03/28/2025

Missouri Center for Oral Surgery & Implants at Wentzville
1046 Wentzville Parkway
Wentzville, MO 63385

GENERAL NOTES

ELEVATION DATUM

SEE ARCHITECTURAL DRAWINGS OR SITE PLAN FOR FINISH FLOOR ELEVATIONS

DESIGN SPECIFICATIONS

2021 INTERNATIONAL BUILDING CODE

EARTHWORK

EARTHWORK OPERATIONS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL TESTING AGENCY TO ASSURE COMPLIANCE WITH THE RECOMMENDATIONS OF THE SOILS REPORT GEOTECHNICAL REPORT BY JACOBI GEOTECHNICAL ENGINEERING INC. DATED APRIL 23, 2019.

CONCRETE

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 308 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

- CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH:

FOUNDATIONS	-	3,000 PSI
CAST-IN-PLACE WALLS	-	3,500 PSI
FLOOR SLAB	-	4,000 PSI
EXTERIOR SLABS, WALLS AND CURBS	-	4,000 PSI
- ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL.
- CHLORIDE-BASED ADMIXTURES ARE PROHIBITED IN ALL REINFORCED CONCRETE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60.
- ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION.
- CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C-143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIXED. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS.
- CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 0% (+/-) +/- 5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWEL FINISHED FLOORS TO EXCEED 5%.
- SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED AND ARE ACCEPTABLE TO THE ENGINEER.
- READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.
- CONCRETE WORK EXECUTION
 - CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS.
 - POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

CAST AGAINST AND EXPOSED TO EARTH.....	3 INCHES
EXPOSED TO EARTH OR WEATHER.....	2 INCHES
NOT EXPOSED TO WEATHER OR	
IN CONTACT WITH EARTH.....	1 1/2 INCHES
 - PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM 1/4" OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE.
 - STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE SLABS.
 - CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE, NON-RESIDUAL, CURING COMPOUND COMPLYING WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING.

STRUCTURAL STEEL

- FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND CURRENT OSHA STANDARDS.
- WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL TUBES SHALL CONFORM TO ASTM A500 GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.
- BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM A325-N, SIZE AS PER PLAN.
- ANCHOR BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM F1554 GRADE 36.
- SPlicing OF STRUCTURAL STEEL IS PROHIBITED EXCEPT AS DETAILED.
- ALL STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL RECEIVE ONE COAT OF "IRONCLAD RETARDOR RUST INHIBITIVE PAINT 1637" (BENJAMIN MOORE) OR APPROVED EQUAL UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS. ALL STEEL SURFACES EMBEDDED IN CONCRETE SHALL NOT BE PAINTED. PREPARATION OF STEEL SURFACES SHALL MEET THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL (SSPC-SP1) AND THE REMOVAL OF GREASE AND OIL BY SOLVENT CLEANING (SSPC-SP1) AND THE REMOVAL OF MILL SCALE, RUST, WELD FLUX AND SLAG BY HAND TOOL CLEANING (SSPC-SP2). PRIMER SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE BUT NOT LESS THAN ONE GALLON PER 400 SQ.FT. THEREBY DEPOSITING A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. ANY SCARRED AREAS SHALL BE TOUCHED UP WITH THE SAME PAINT AFTER ERECTION.
- ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE AWS STRUCTURAL WELDING CODE. WELDING ELECTRODES SHALL BE E70XX.

POST-INSTALLED ANCHORS

- ALL POST-INSTALLED ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE-CITED EDITION OF ACI 318, APPENDIX "D" AND SHALL BE ACCEPTABLE FOR BOTH CRACKED AND UNCRACKED CONCRETE.
- EXPANSION ANCHORS HAVE BEEN DESIGNED AS HILTI KWIK BOLT TZ ANCHORS, UNLESS NOTED OTHERWISE.
- ADHESIVE ANCHORS HAVE BEEN DESIGNED TO USE HILTI HIT HY 200 ADHESIVE IN CONCRETE OR SOILD MASONRY, UNLESS NOTED OTHERWISE.
- EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO).
- EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD-BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE BUT NOT YET EXPANDED.
- ADHESIVE ANCHORS SHALL BE ACCEPTABLE FOR LONG-TERM LOADING, WHEN BASE MATERIAL TEMPERATURES ARE BELOW 40 DEG F. ONLY NON-EPoxy-BASED ADHESIVES SHALL BE USED.
- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLANE ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS.
- STAINLESS STEEL ANCHORS ARE REQUIRED AT ALL PERMANENTLY EXPOSED WEATHER CONDITIONS.

COLD-FORMED METAL FRAMING

- ALL PRODUCTS TO BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION.
- ALL GALVANIZED STUDS AND JOISTS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF THE AISC STANDARDS. Fy= 33 KSI UNLESS NOTED OTHERWISE.
- ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AND SHALL CONFORM TO ASTM C955.
- FASTENING OF COMPONENTS SHALL BE WITH CORROSION RESISTANT SELF-DRILLING SCREWS, OR WELDS COMPLYING WITH AWS STANDARDS. ALL WELDS OF GALVANIZED STEEL SHALL BE TOUCHED UP WITH ZINC-RICH PAINT. WELDERS SHALL BE QUALIFIED PER AWS D1.3.
- SLIP TRACK IS EXPECTED AT ROOF TO WALL CONNECTIONS @ INTERIOR WHEN WALLS ARE GROUND SUPPORTED.

TIMBER

TIMBER WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ANSI/APA NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, WITH THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:

- FOR COMMON MEMBER SIZES, THE SPECIES AND GRADES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

A.	2X4	SF	No.1/No.2
B.	2X6	SF	No.1/No.2
C.	2X8	DF-L	No.2
D.	2X10	DF-L	S.S.
E.	2X12	DF-L	S.S.

- EQUIVALENT (OR BETTER) GRADES & SPECIES MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.
- SIZES SHOWN FOR LUMBER ARE NOMINAL SIZES.
 - TIMBER EXPOSED TO WEATHER OR GROUND, OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESURE-IMPREGNATED BY AN APPROVED PROCESS AND PRESERVATIVE.
 - SPlicing OF JOISTS, STUDS, OR HEADERS IS PROHIBITED EXCEPT AS SHOWN.
 - BOLTS SHALL CONFORM TO ASTM A307. HOLES SHALL BE DRILLED PER SECTION 11.1.2 OF THE 2005 ANSI/APA NDS FOR WOOD CONSTRUCTION.
 - LAG SCREWS AND WOOD SCREWS SHALL BE INSTALLED PER SECTIONS 11.1.3 AND 11.1.4, RESPECTIVELY, OF THE 2005 ANSI/APA NDS FOR WOOD CONSTRUCTION.
 - COMMON NAILS SHALL BE USED, UNLESS NOTED OTHERWISE. IN ADDITION, NAILS SHALL BE GALVANIZED. IF EXPOSED TO WEATHER OR MOISTURE, TOR-NAILS SHALL BE DRIVEN PER SECTION 11.1.5.4 OF THE 2005 ANSI/APA NDS FOR WOOD CONSTRUCTION.
 - FASTENING SHALL BE PER THE IRC MINIMUM FASTENING SCHEDULE, TABLE 2304.9.1, UNLESS NOTED OTHERWISE.
 - CONNECTIONS/CONNECTORS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

BRICK LINTELS

- ALL STEEL LINTELS TO BE A36 STEEL, A992 GRADE 50, OR A500 GRADE B. ALL LINTELS TO BE HOT DIPPED GALVANIZED.

PREFABRICATED WOOD TRUSSES

- FLOOR & ROOF TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE (TPI) DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, AND THE ANSI/APA NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
- PROVIDE TEMPORARY AND PERMANENT BRACING ON ALL TRUSSES, AS REQUIRED TO PROVIDE MEMBER AND TRUSS STABILITY.
- FLOOR & ROOF TRUSSES SHALL BE DESIGNED AND CONSTRUCTED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/360 AND TO SAFELY SUPPORT THE FOLLOWING LOADS:
 - DEAD, LIVE, SNOW, WIND, EARTHQUAKE; SEE PROJECT DESIGN DATA ON COVER SHEET.
 - MECHANICAL PIPE LOAD: TRUSSES SHALL BE DESIGNED FOR A CONCENTRATED LOAD OF 250 LBS HUNG ANYWHERE ALONG THE BOTTOM CHORD.
 - OVER-FRAMING LOAD: TRUSSES SHALL ALSO BE DESIGNED TO SUPPORT ADDITIONAL OVERBUILD FRAMING, SUCH AS THAT WHICH FORMS VALLEYS AND HIPS ON ROOFS.
 - DRIFTED SNOW LOAD: TRUSSES SHALL BE DESIGNED TO SUPPORT DRIFTED SNOW LOADS IN ACCORDANCE WITH THE APPROPRIATE BUILDING CODE.
 - IN-PLANE LATERAL LOADS: TRUSSES SHALL BE DESIGNED TO SUPPORT ANY LATERAL LOADS CARRIED AXIALLY IN THE PLANE OF THE TRUSS, AS SHOWN ON THE PLANS.
- CABLED END TRUSSES SHALL HAVE VERTICAL MEMBERS SPACED AT 16' O.C. MAXIMUM.
- SUBMITTALS SHALL INCLUDE THE FOLLOWING:
 - SHOP DRAWINGS PREPARED UNDER THE SUPERVISION OF, AND SIGNED AND SEALED BY, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT. THESE DRAWINGS SHALL INDICATE SPECIES, GRADE, AND SIZES OF LUMBER TO BE USED; PITCH, SPAN, CAMBER, CONFIGURATION, AND SPACING FOR EACH TYPE OF TRUSS REQUIRED; TYPE, SIZE, MATERIAL, FINISH, AND LOCATION OF METAL CONNECTOR PLATES; AND BEARING DETAILS. SHOW TRUSS LAYOUT AND ALL REQUIRED TEMPORARY AND PERMANENT BRACING AFFECTING THE STRUCTURAL CAPACITY OF THE TRUSSES.

PROVIDE COMPLETE ENGINEERING DESIGN CALCULATIONS THAT INCLUDE DESIGN VALUES, DESIGN ANALYSIS INDICATING LOADING, ASSUMED ALLOWABLE STRESSES, STRESS DIAGRAMS, AND CALCULATIONS, AND ANY OTHER INFORMATION NEEDED FOR REVIEW. THE CALCULATIONS SHALL HAVE BEEN SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER WHO IS REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT AND WHO IS RESPONSIBLE FOR PREPARATION OF THE CALCULATIONS.

SLOTTED CHANNEL FRAMING

- MANUFACTURERS
 - ALL COLD-FORMED CHANNEL AND FITTINGS SHALL BE A MANUFACTURED BY:
 - UNISTRUT CORPORATION
 - HILTI SUPPORT AND INSTALLATION SYSTEMS
- MATERIALS
 - CHANNEL: ALL COLD-FORMED CHANNEL MEMBERS SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A1011 SS OR 33 OR A653 OR 33. CHANNEL SHALL BE 1-5/8" FRAMING SYSTEM 12 GAGE. MINIMUM YIELD STRENGTH SHALL BE 33 KSI.
 - FITTINGS: ALL COLD-FORMED FITTINGS SHALL BE FABRICATED FROM STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A575, A576, A36, OR A653. MINIMUM FITTING THICKNESS SHALL BE 3/4" WITH PHYSICAL REQUIREMENTS PER A1011. MINIMUM YIELD STRENGTH SHALL BE 33 KSI.
 - CHANNEL NUTS: ALL CHANNEL NUTS SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM SPECIFICATION A1011 SS OR 33.
 - BOLTS AND FASTENERS: ALL BOLTS AND FASTENERS USED IN CONNECTIONS SHALL BE MINIMUM SAE GRADE 5, E5 FINISH.
 - HOT ROLLED STRUCTURAL STEEL: ASTM A36 MINIMUM.
- FINISHES
 - ALL COLD-FORMED CHANNEL AND/OR FITTING MEMBERS SHALL BE FINISHED IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS:
 - PERMA-GREEN II (GR): RUST INHIBITIVE ACRYLIC ENAMEL PAINT FINISH APPLIED BY ELECTRO-DEPOSITION, AFTER CLEANING AND PHOSPHATING, AND THOROUGHLY BAKED. COLOR PER FEDERAL STANDARD 595A COLOR NUMBER 14109 (DARK LIME V-). FINISH PAINT SHALL WITHSTAND MINIMUM 420 HOURS SALT SPRAY (CORROD) AND 600 HOURS SALT SPRAY (UNSCORDED), WHEN TESTED IN ACCORDANCE WITH ASTM B117. OR APPROVED EQUAL PAINT FINISH.
 - ELECTRO-GALVANIZED (EG): ELECTROLYTICALLY ZINC COATED PER ASTM B633 TYPE III SC 1
 - PRE-GALVANIZED (PG): ZINC COATED BY HOT-DIPPED PROCESS PRIOR TO ROLL FORMING. THE ZINC WEIGHT SHALL BE 090 CONFORMING TO ASTM A653.

SPECIAL INSPECTIONS

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

- CONCRETE GROUT DESIGN MIX (PERIODIC)
- PLACING OF CONCRETE AND REINFORCING STEEL (CONTINUOUS OF CONCRETE SAMPLING / PERIODIC OF REINFORCING)
- BOLTS & ANCHORS EMBEDDED IN CONCRETE (PERIODIC)
- STRUCTURAL STEEL FABRICATIONS (UNLESS AISC APPROVED) (PERIODIC)
- STRUCTURAL STEEL BOLTING & WELDING (PERIODIC)
- POST INSTALLED ANCHORS IN CONCRETE (CONTINUOUS)
- IN-SITU SOILS, EXCAVATIONS, FILLING & COMPACTION (PERIODIC)
- WOOD FRAMING:
 - SHEAR WALLS; WALL SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
 - DIAPHRAGMS (FLOOR AND ROOF SHEATHING); SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
 - FRAMING MEMBERS AND DETAILS (PERIODIC)
 - MATERIAL GRADE (PERIODIC)
 - CONNECTIONS; HANGERS, HOLD DOWNS, BUILT-UP COLUMNS, BUILT-UP BEAMS (PERIODIC)
 - PRE-ENGINEERED TRUSSES; FRAMING, CONNECTIONS, BRIDGING (PERIODIC)
- COLD-FORMED FRAMING:
 - STRAP BRACING. (PERIODIC)
 - DIAPHRAGMS (FLOOR); SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
 - FRAMING MEMBERS AND DETAILS (PERIODIC)
 - MATERIAL GRADE (PERIODIC)
 - CONNECTIONS; HANGERS, HOLD DOWNS, BUILT-UP COLUMNS, BUILT-UP BEAMS (PERIODIC)
 - PRE-ENGINEERED TRUSSES; FRAMING, CONNECTIONS, BRIDGING (PERIODIC)

THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

DESIGN DATA	
2021 INTERNATIONAL BUILDING CODE / ASCE 7-16	
INTERNAL OCCUPANCY CATEGORY	II
ROOF LOAD DATA	
LIVE LOAD	20
ASPHALT SHINGLES - FELT	3.0
5/8" OSB ROOF SHEATHING	2.5
PRE-ENGINEERED WOOD TRUSSES @ 2'-0" O.C.	3.0
INSULATION (BLOWN)	10
MECHANICAL ALLOWANCE	4.0
5/8" GYP. CEILING	15
SOLAR	5.0
TOTAL TO TRUSSES	40 lbs/sqft
RAIN LOADING	
15 MINUTE RAIN INTENSITY	6.9 in/hr
60 MINUTE RAIN INTENSITY	3.23 in/hr
ROOF SNOW LOAD DATA: (*UNBALANCED & DRIFTING SNOW TO BE DETERMINED IN ADDITION TO UNIFORM LOAD, WHERE APPLICABLE)	
P_e	20 lbs/sqft
C_e	10
I_e	10
C_d	10
P_r	1400 lbs/sqft
WIND DESIGN DATA	
V_{30}	15 MPH @ SECOND GUST
RISK CATEGORY	II
EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT =	+/- 0.18
DIRECTIONAL PROCEDURE (MWFRS - ASCE 7, CH 27; C&C - ASCE 7, CH 30, PART 4)	
MAXIMUM COMPONENTS & CLADDING WIND	+/- 33.76 lbs/sqft
EARTHQUAKE DESIGN DATA	
RISK CATEGORY	II
I_e	10
S_e	0.288
S_w	0.129
SITE CLASS	C
S_{ps}	0.25
S_{ps}	0.129
SEISMIC DESIGN CATEGORY	C
BASIC SEISMIC FORCE-RESISTING SYSTEM =	
LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE / LIGHT-FRAME (COLD-FORMED STEEL) WALL SYSTEMS USING FLAT STRAP BRACING	
R	6.5 / 4
D_e	3.0 / 2
C_e	4.0 / 3.5
DESIGN BASE SHEAR	$V = 0.038 W / 0.063W$
EQUIVALENT LATERAL FORCE PROCEDURE	
NET ALLOWABLE SOIL BEARING	2,000 lbs/sqft**
(*PER GEOTECHNICAL REPORT BY JACOBI GEOTECHNICAL ENGINEERING INC. DATED APRIL 23, 2019)	

INDEX OF SHEETS	
COVER / GENERAL STRUCTURAL DATA	S100
FOUNDATION PLAN	S200
FOUNDATION DETAILS	S210
ROOF FRAMING PLAN	S300
ROOF FRAMING DETAILS	S310 - S312

Revisions:

No.	Date	Description
	03-28-25	REVIEW

Sheet Info:

GENERAL
STRUCTURAL DATA

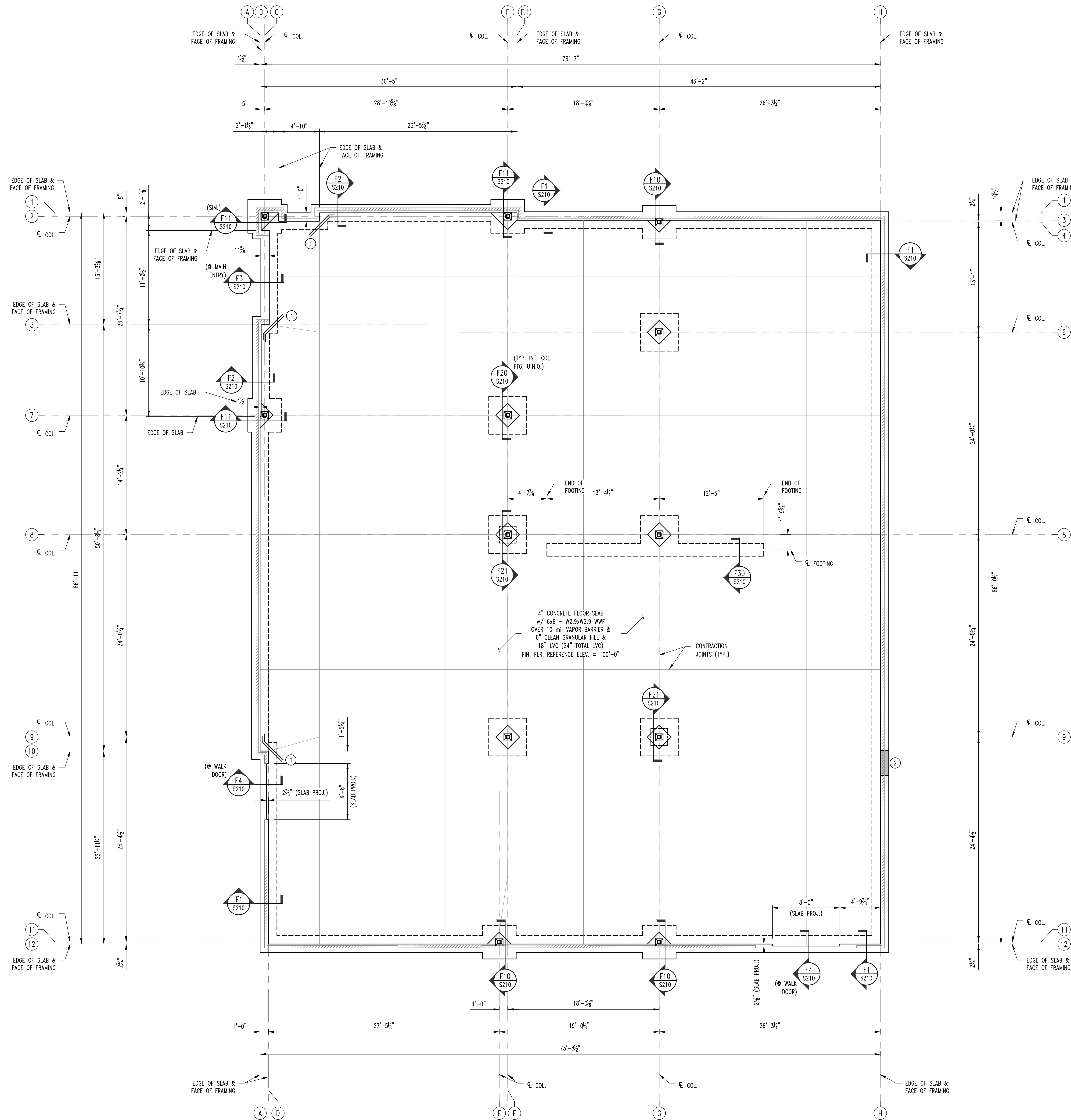
Drawn By: RCA
Checked By: GLL
Commission: _____
Date: 2025-03-28

S100

NOTE:
 ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING;
 EDGE OF SLAB OR TRUSS/RATIER, OR CENTERLINE
 OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.

FOUNDATION NOTES

- ① REINFRANT CORNER BARS, REFER TO TYPICAL CRACK CONTROL REINFORCING DETAIL S210.
- ② NOTCH FOOTING FOR ELECTRICAL CONDUIT, REFER TO MEP FOR SIZE AND LOCATION.



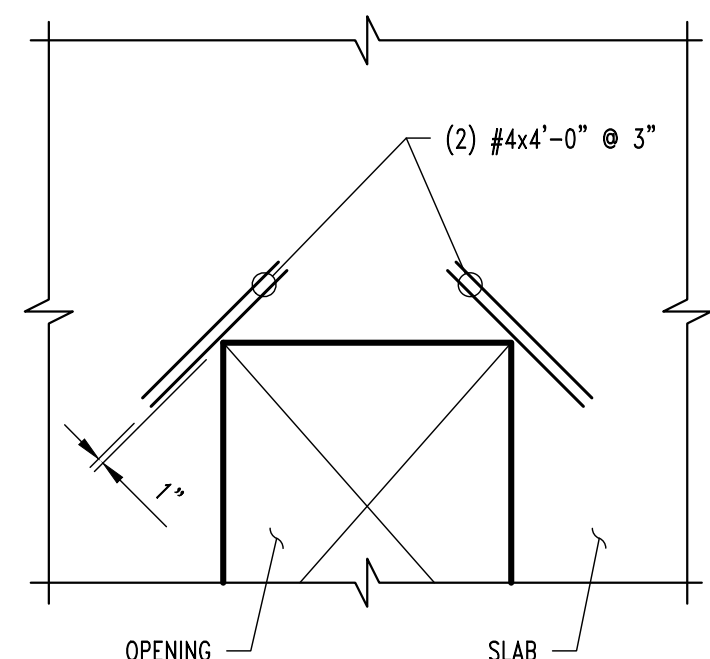
FOUNDATION PLAN
 SCALE: 3/16" = 1'-0"
 PLAN NORTH

Revisions:

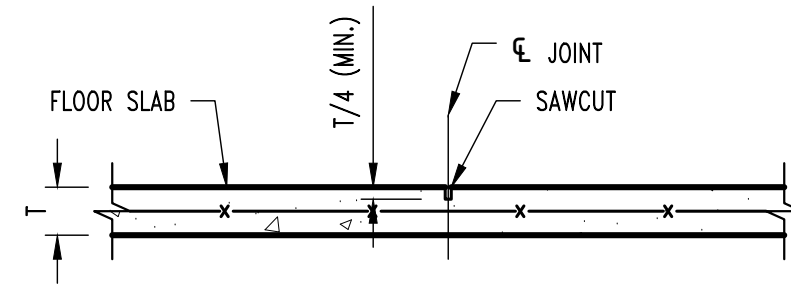
No.	Date	Description
03-28-25	REVIT	

Sheet Info:

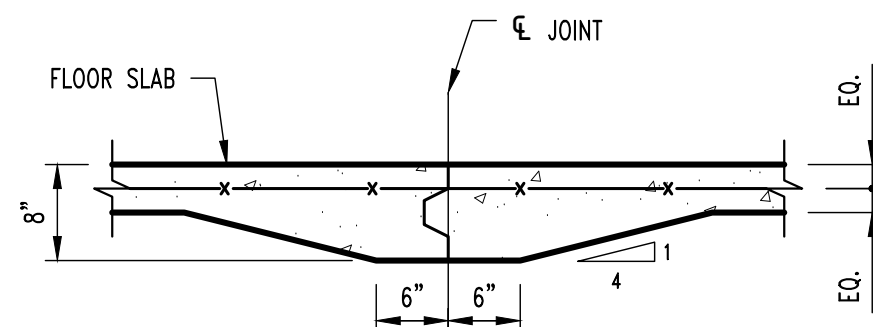
Drawn By:	RCA
Checked By:	GLL
Commission:	
Date:	2025-03-28



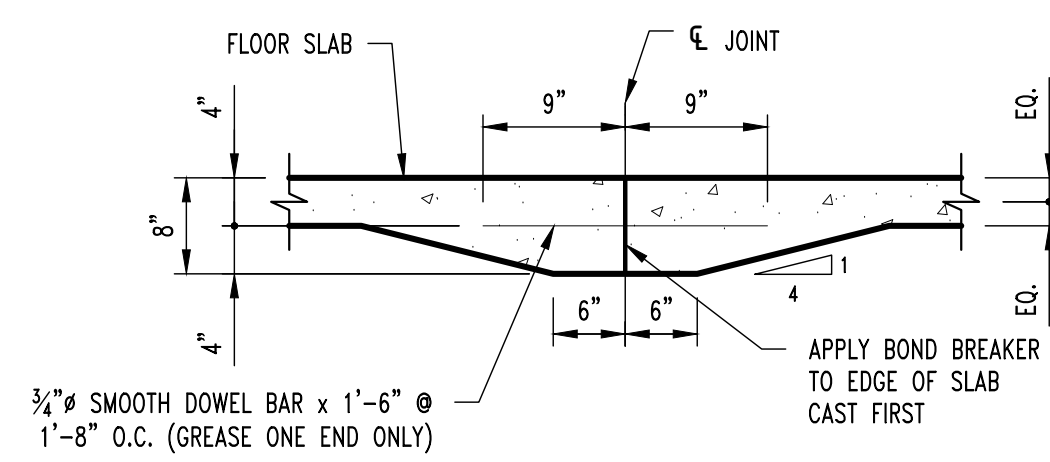
CRACK CONTROL REINFORCING



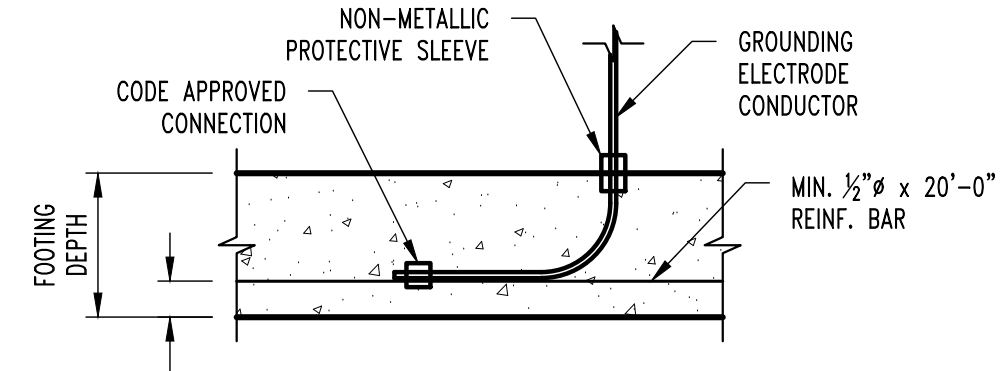
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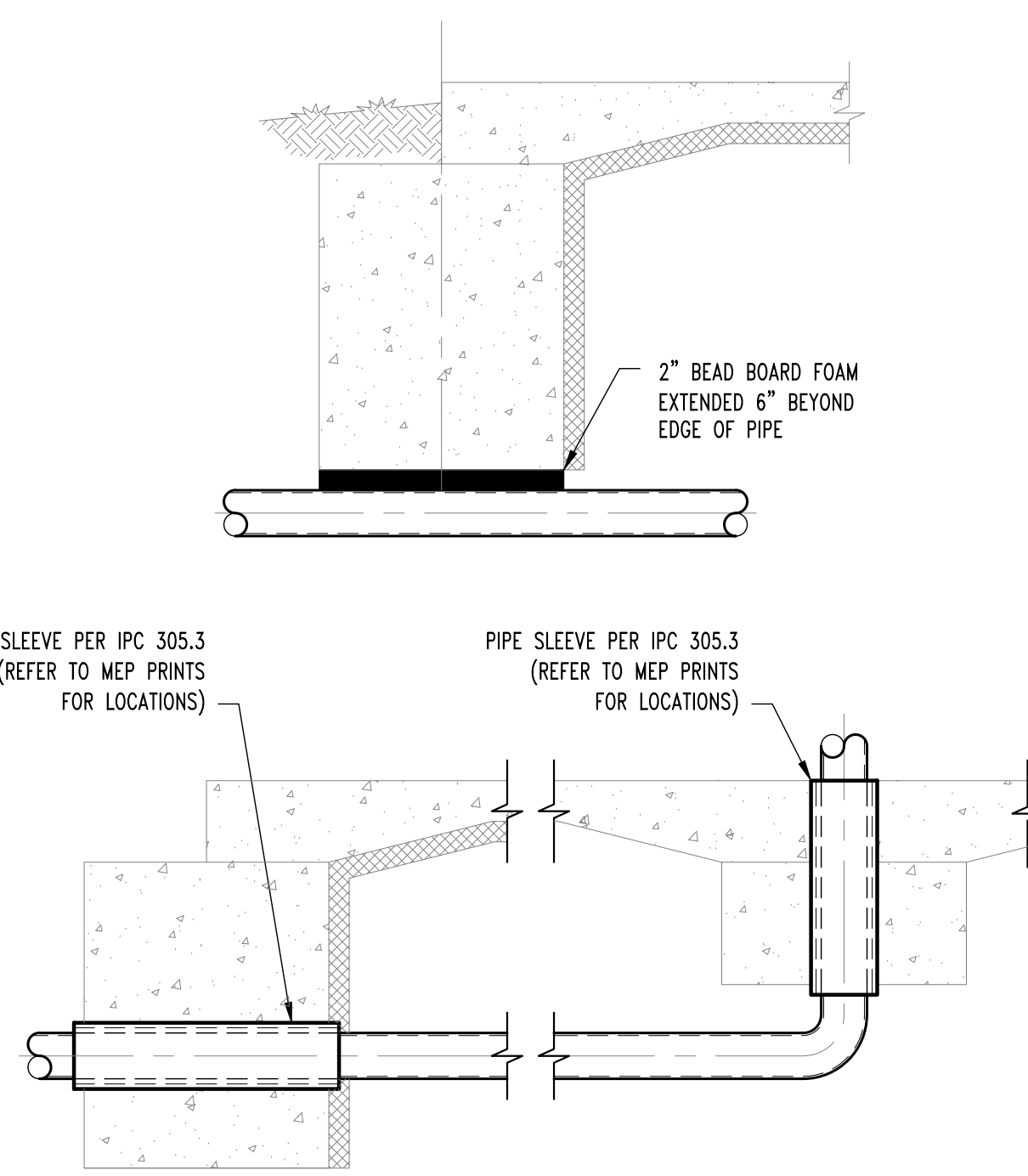
CONSTRUCTION JOINT



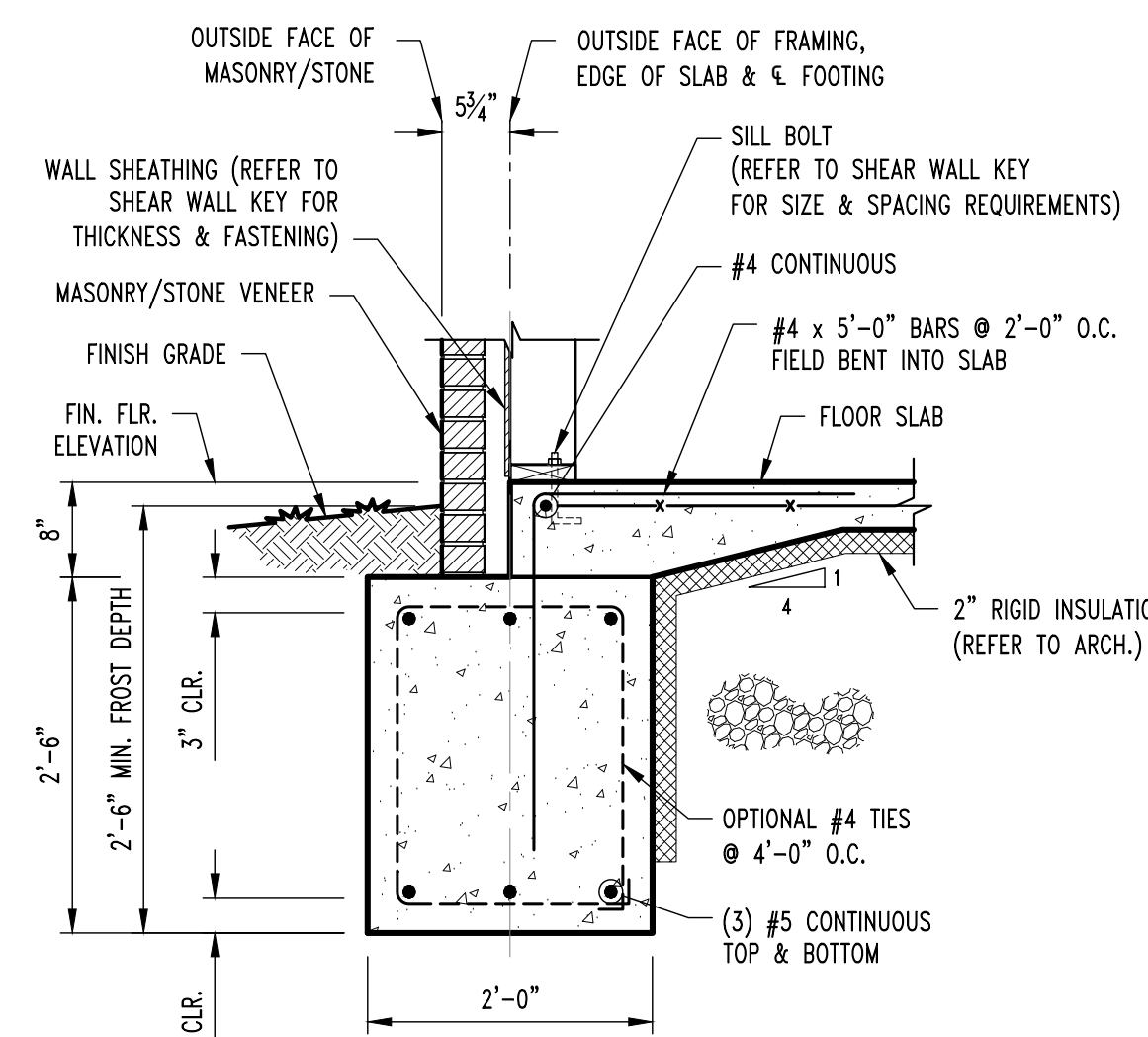
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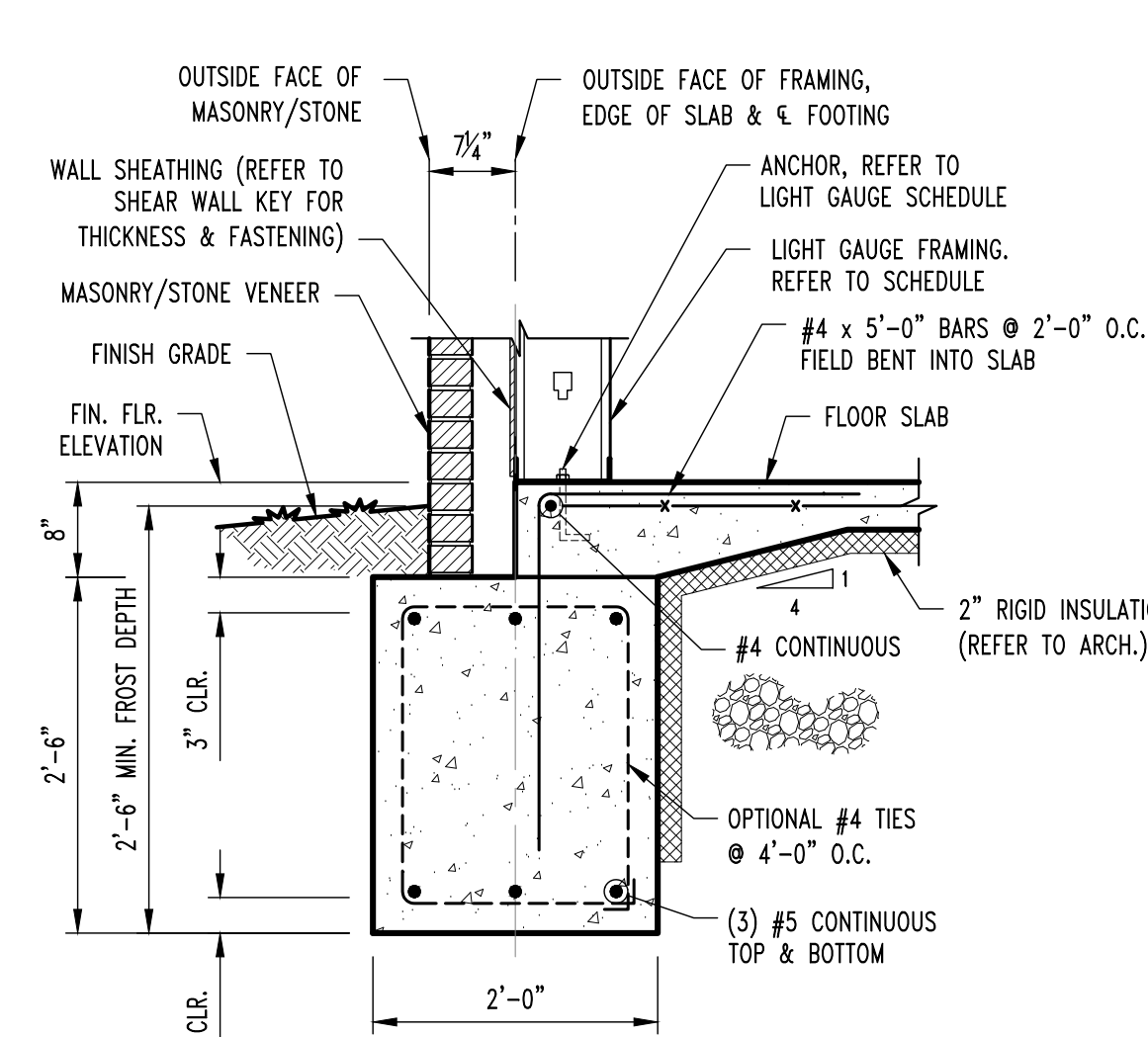
TYP. ELECTRICAL GROUNDING DETAIL @ FOOTING



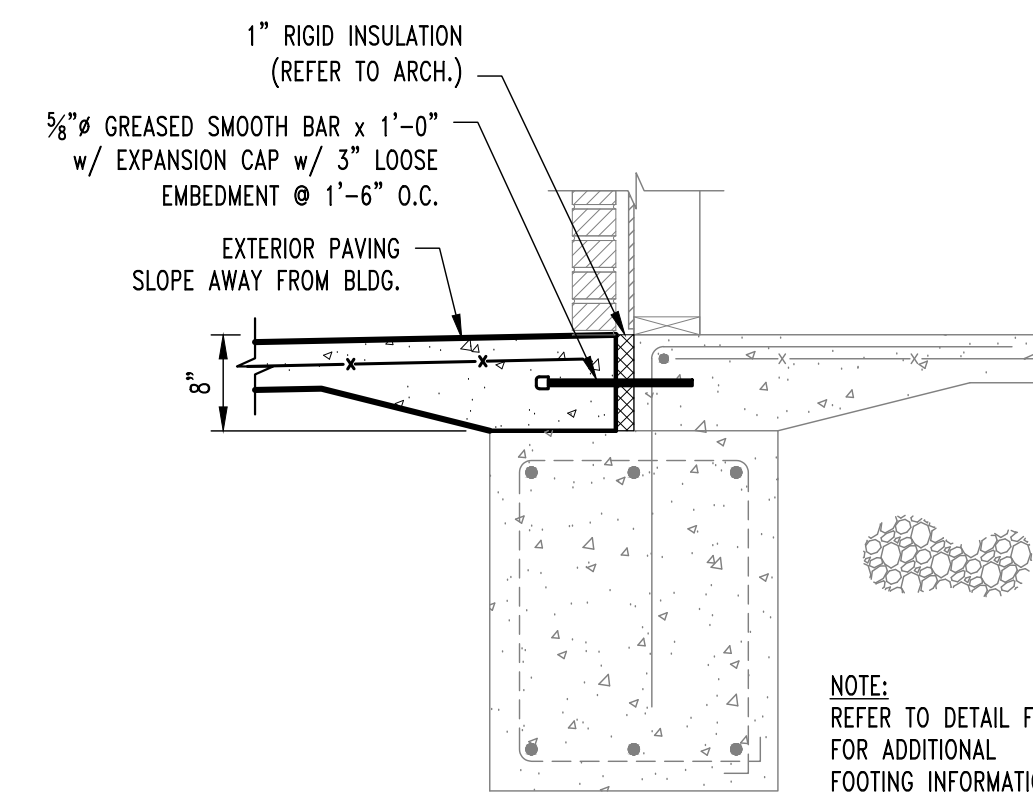
TYP. PLUMBING COORDINATION DETAILS



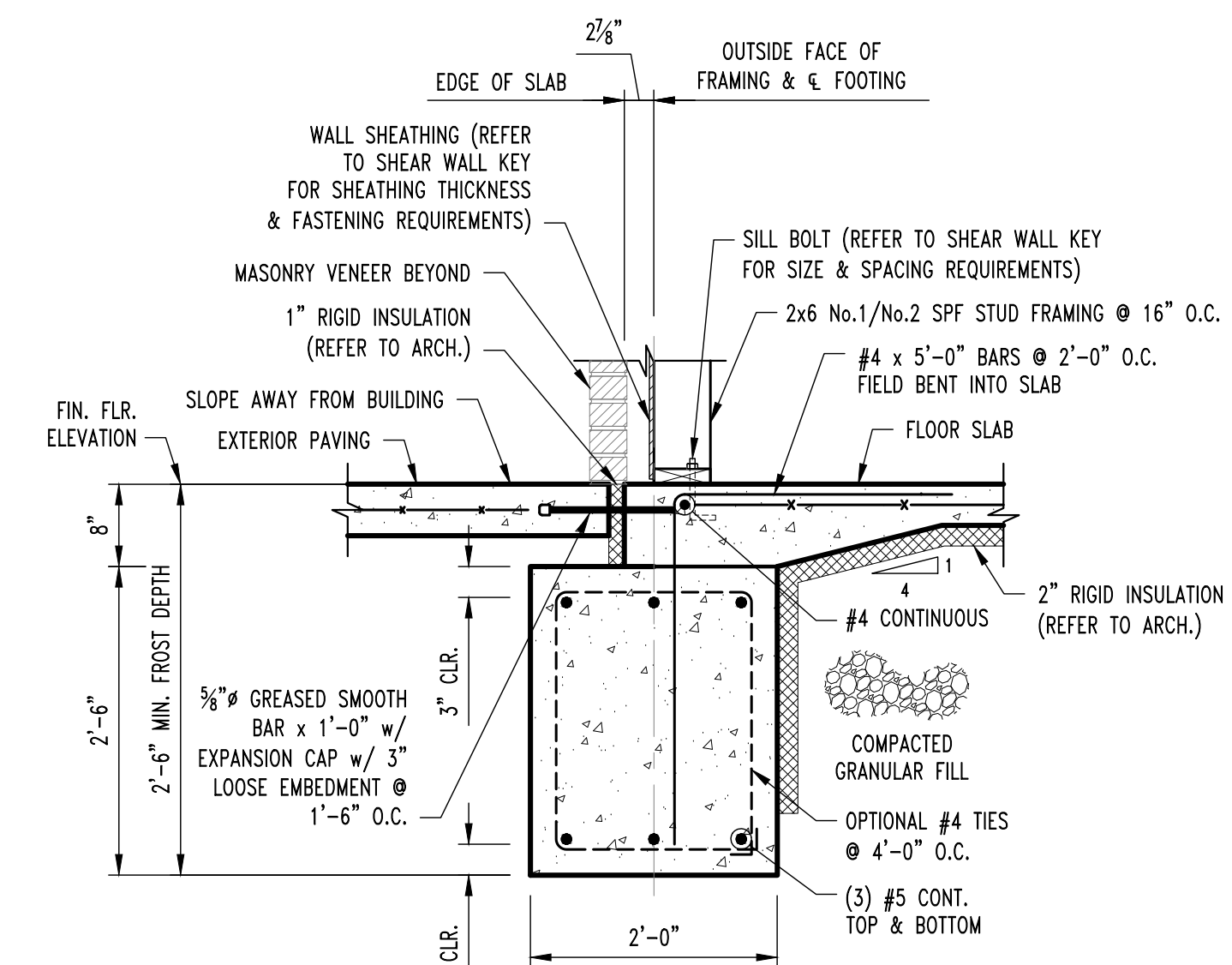
F1 CONT. FOOTING SECTION
SCALE: 3/4" = 1'-0"



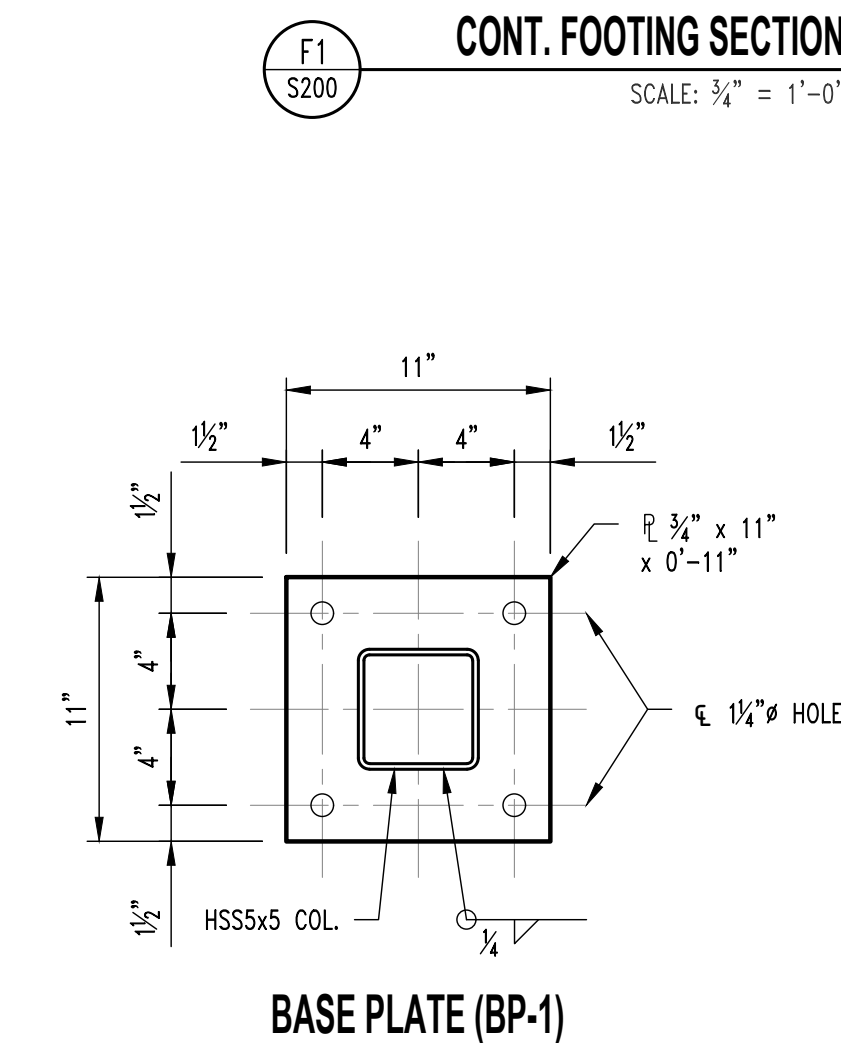
F2 CONT. FOOTING SECTION
SCALE: 3/4" = 1'-0"



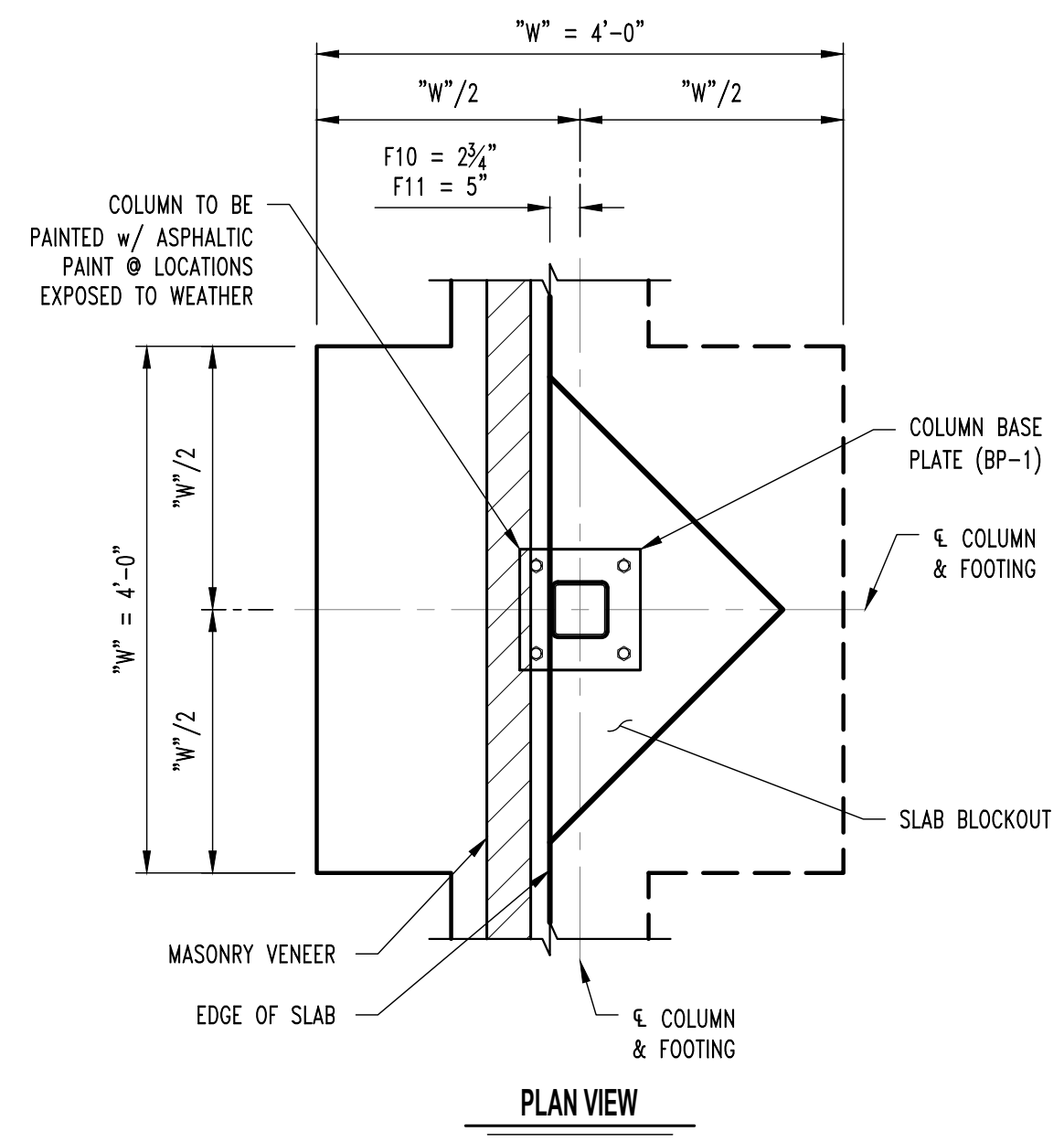
F3 CONT. FOOTING SECTION @ MAIN ENTRY
SCALE: 3/4" = 1'-0"



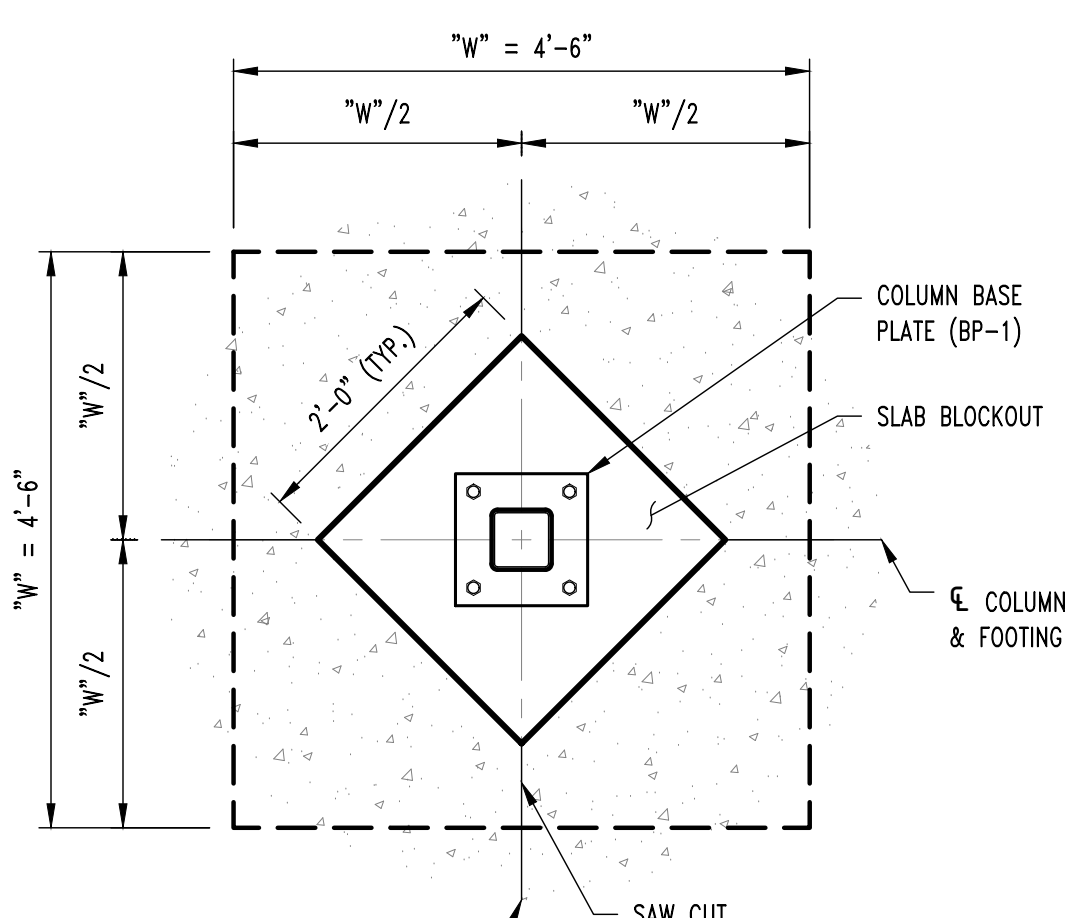
F4 CONT. FOOTING SECTION @ WALK DOOR
SCALE: 3/4" = 1'-0"



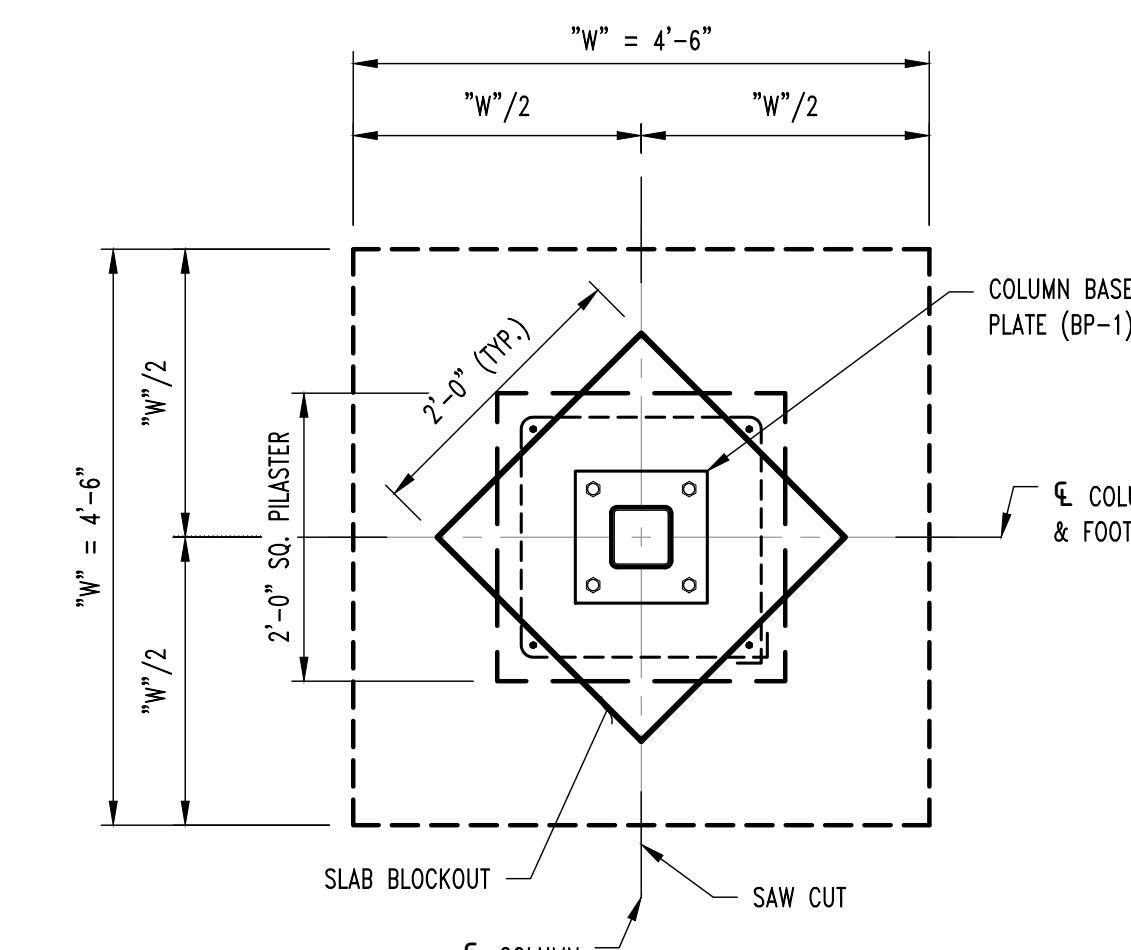
BASE PLATE (BP-1)



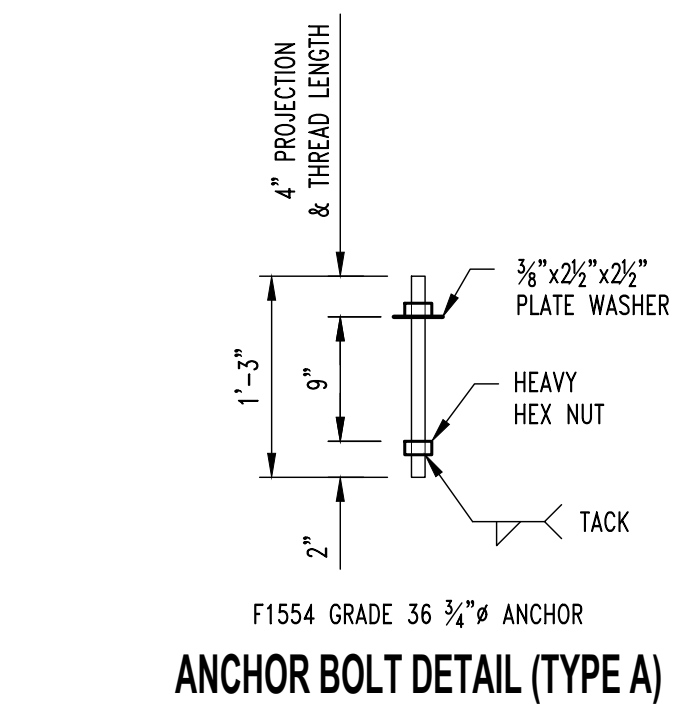
PLAN VIEW



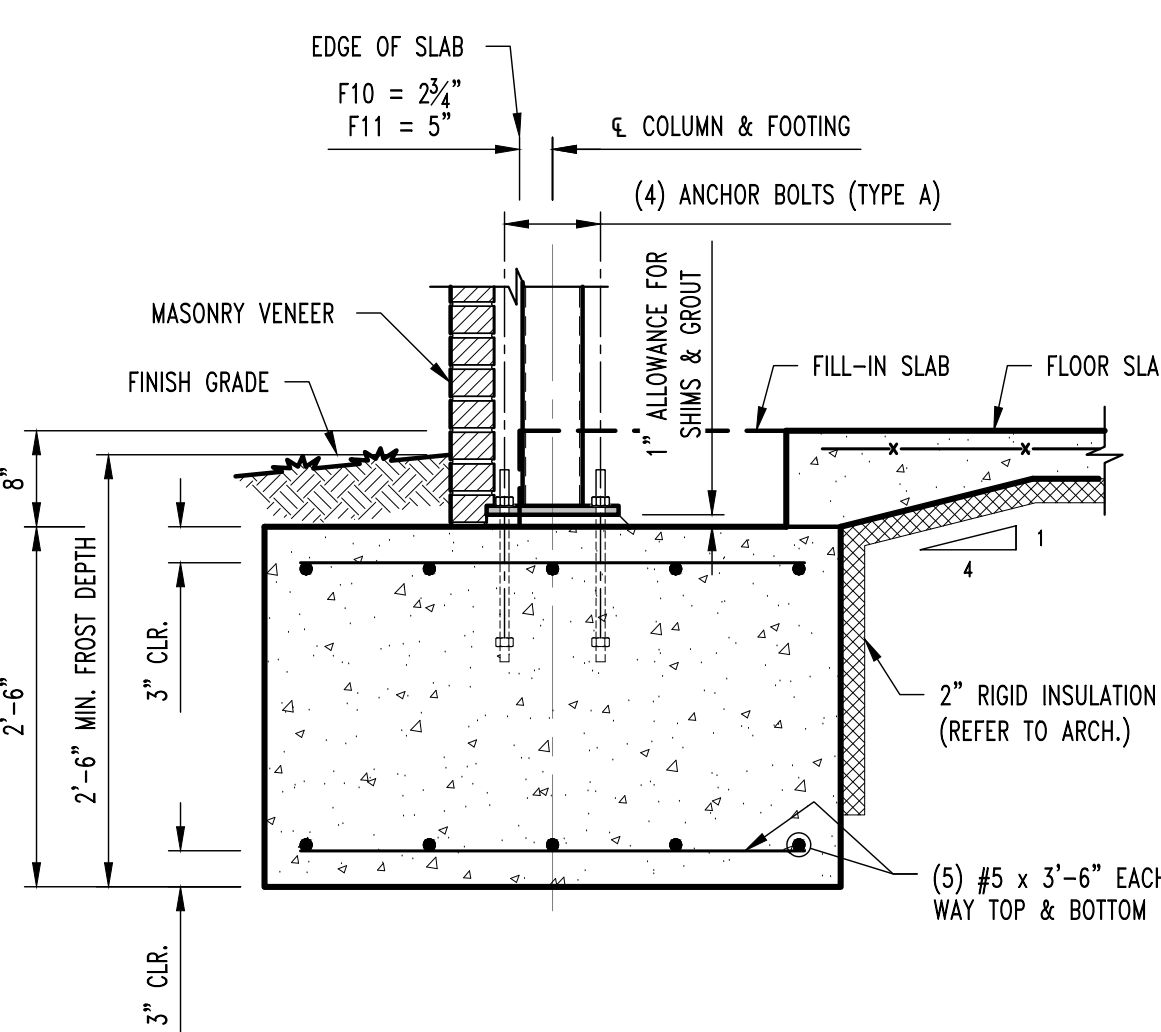
PLAN VIEW



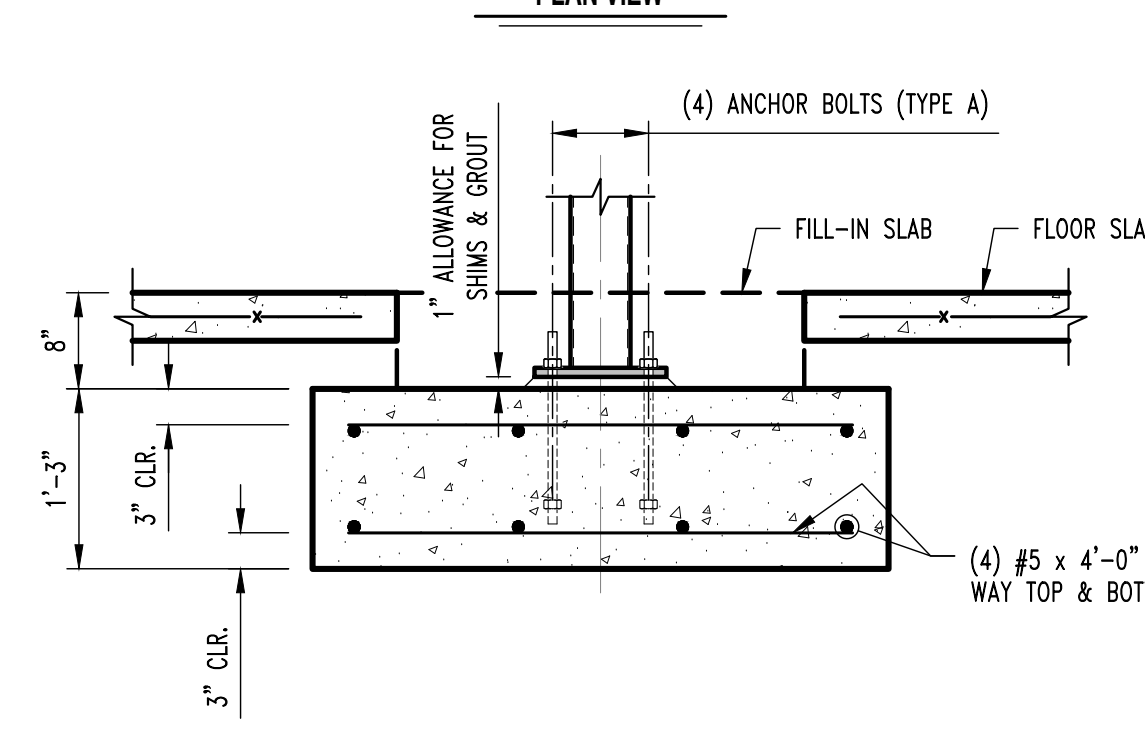
PLAN VIEW



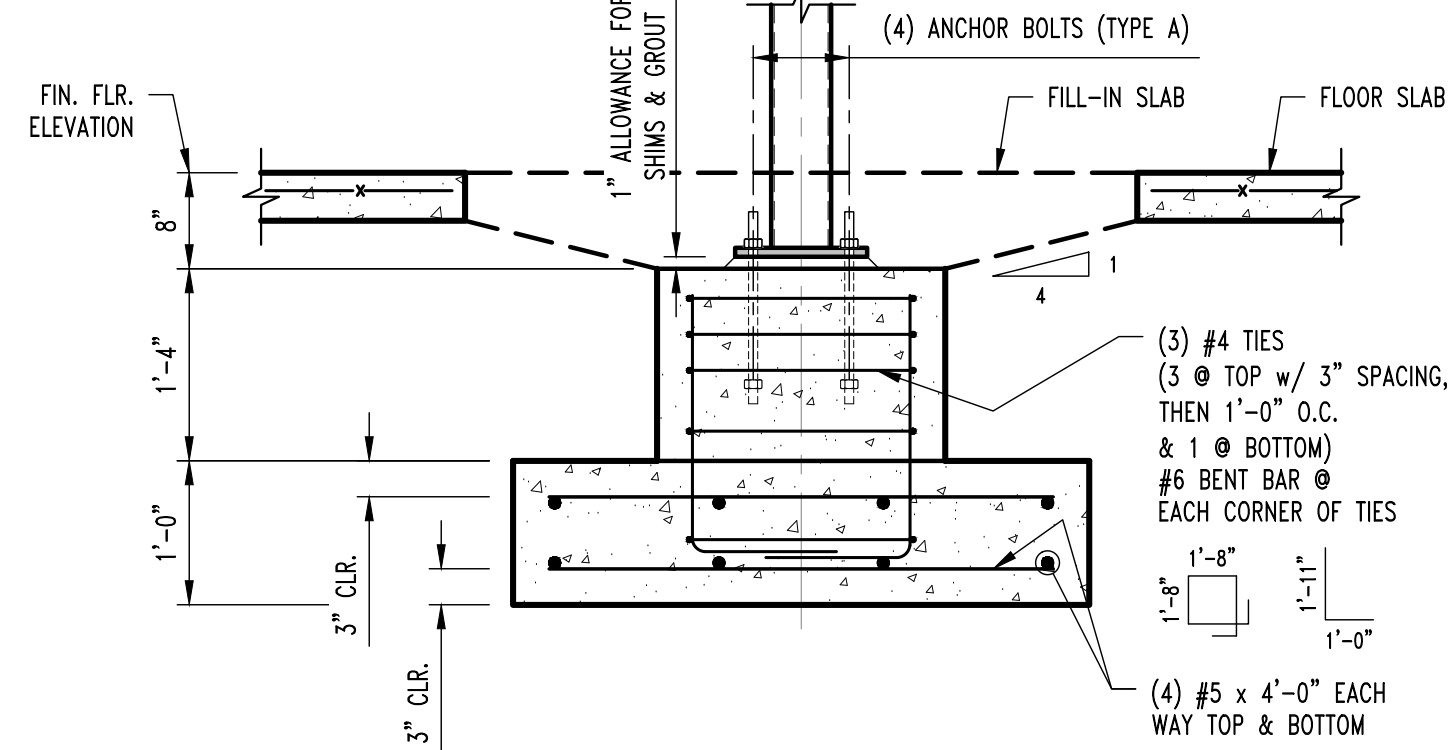
ANCHOR BOLT DETAIL (TYPE A)



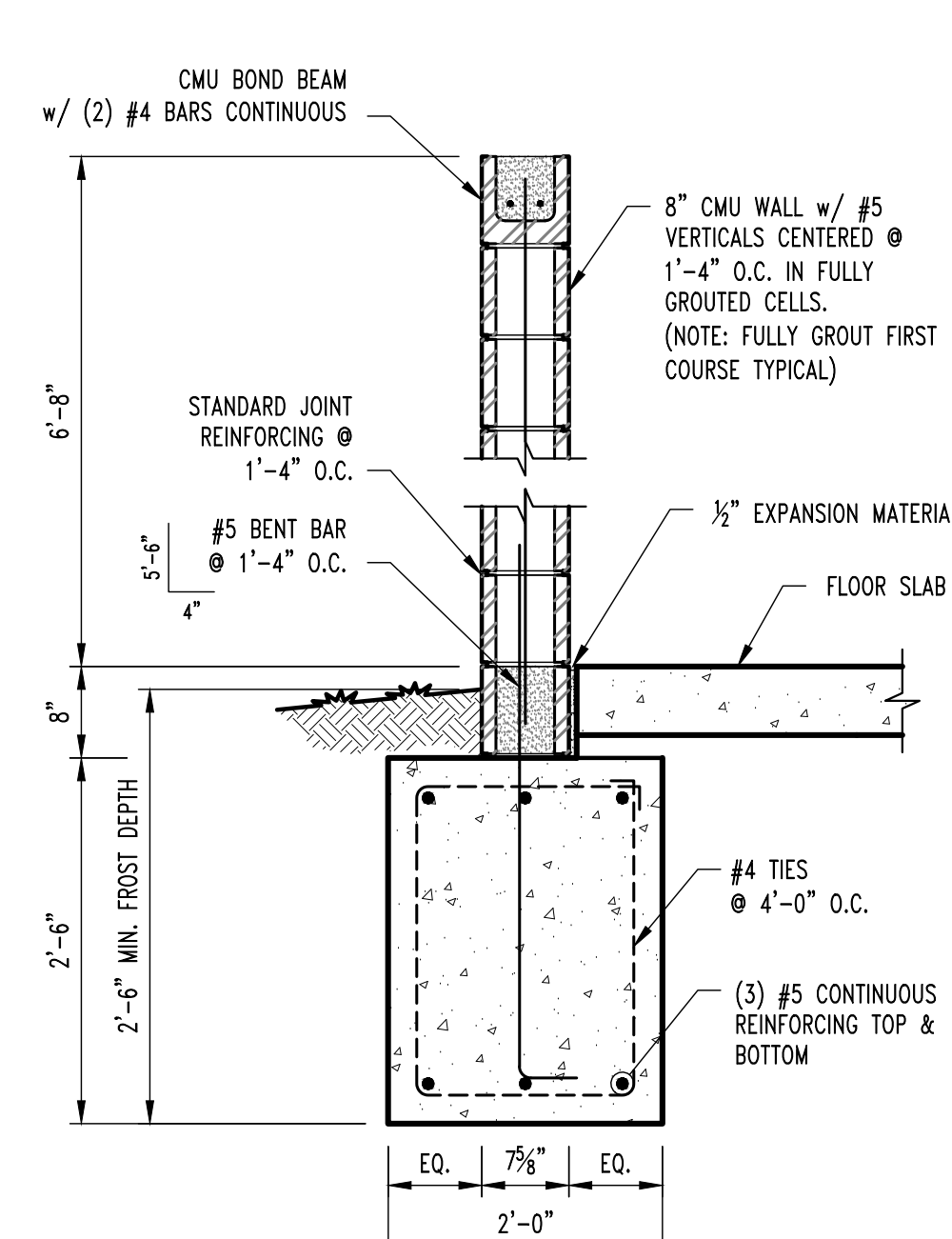
F10 COLUMN FOOTING SECTION
SCALE: 3/4" = 1'-0"



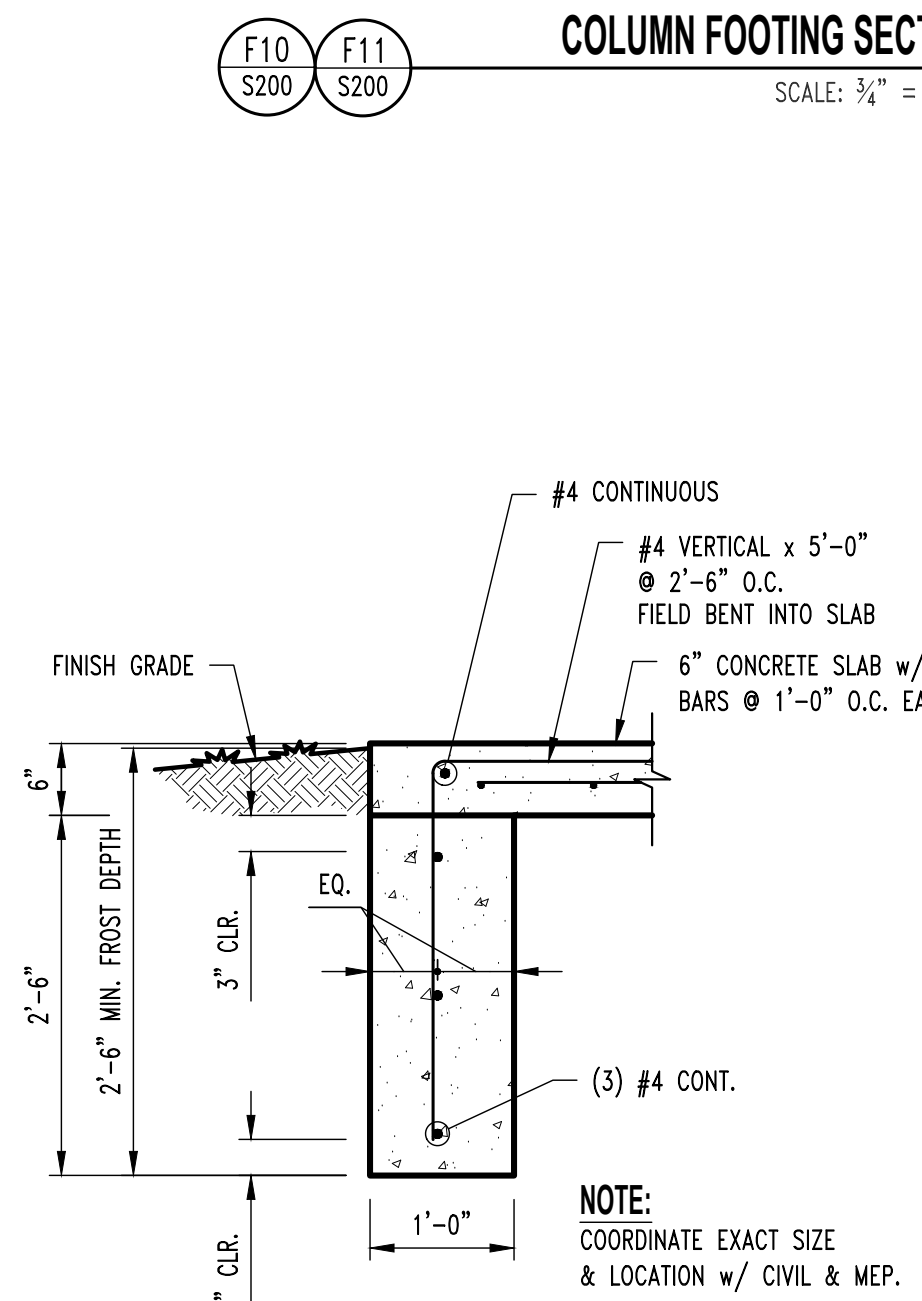
F20 COLUMN FOOTING SECTION
SCALE: 3/4" = 1'-0"



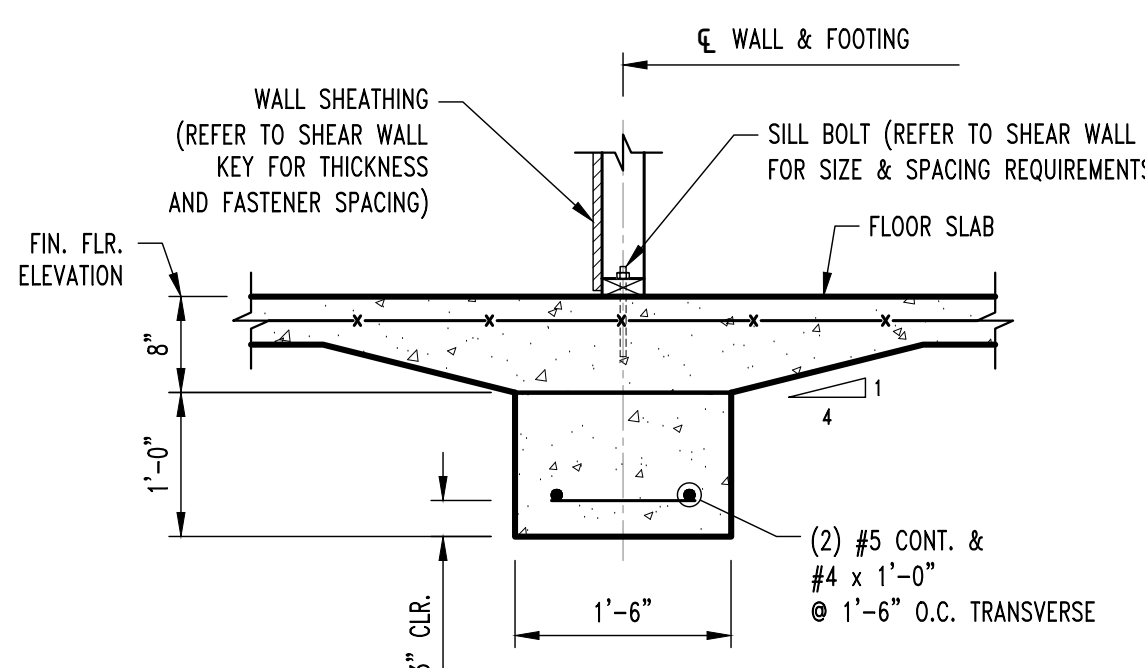
F21 COLUMN FOOTING SECTION
SCALE: 3/4" = 1'-0"



TYP. DUMPSTER WALL SECTION



TYP. GENERATOR FOUNDATION SECTION



F30 CONT. INTERIOR FOOTING SECTION
SCALE: 3/4" = 1'-0"

Revisions:

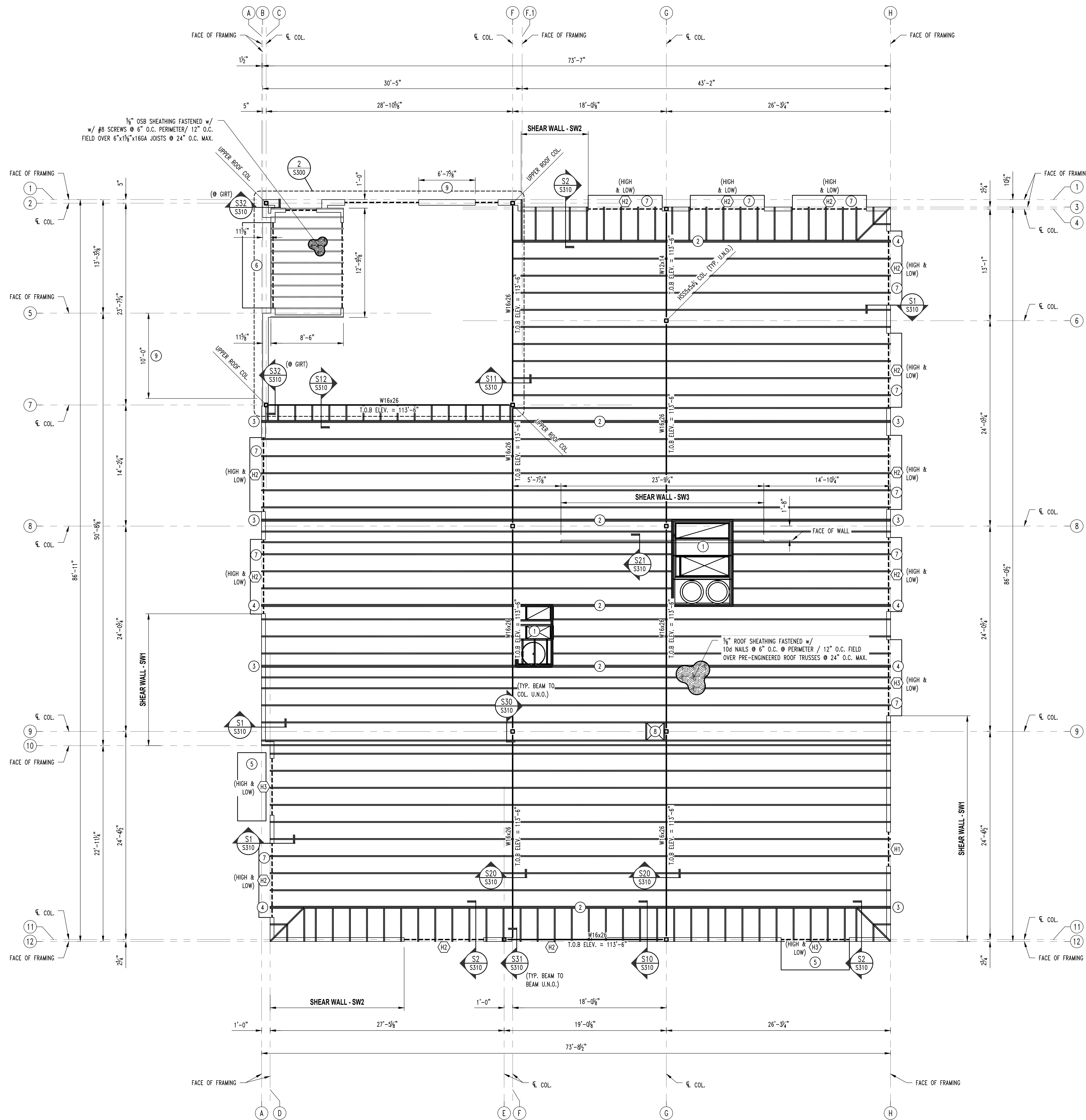
No.	Date	Description
03-28-25		REVIT

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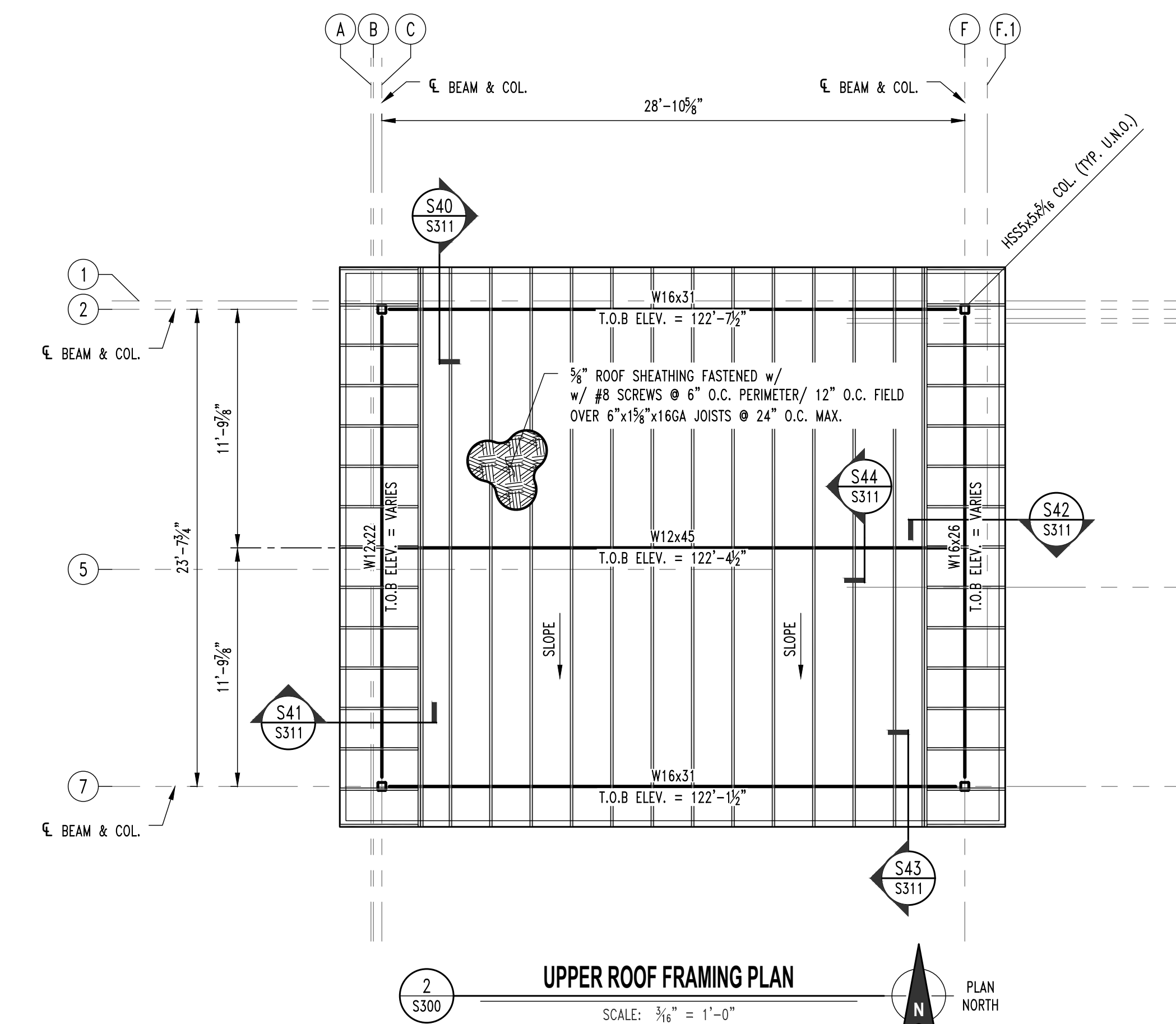
FOUNDATION DETAILS

Drawn By:	RCA
Checked By:	GLL
Commission:	
Date:	2025-03-28

NOTE:
ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING;
EDGE OF SLAB OR TRUSS/RATIER; OR CENTERLINE
OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.



ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"



UPPER ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"

HEADER SCHEDULE			
LABEL	HEADER	CRIPPLE/JACK	JAMMING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x4 SPF #2	3 Ply 2x6 SPF #2
"H2"	3 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	4 Ply 2x6 SPF #2
"H3"	3 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	3 Ply 1.75x5.5 Microlam 2.0E

LINTEL SCHEDULE	
LENGTH OF SPAN	MEMBER SIZE (GALVANIZED)
4'-6" & LESS	L4x4x1/4 WITH 6" BEARING EACH END
9'-0" & LESS	L6x4x7/16 (LLV) WITH 6" BEARING EACH END
12'-0" & LESS	L8x4x1/2 (LLV) WITH 12" BEARING EACH END & WITH 1/2" Ø A307 BOLT @ EACH END INTO JAMB

- Shear Wall Key**
- SW1 SHEAR WALL**
 - 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
 - 1/2" DIAMETER F1554 GRADE 36 STANDARD 1" BOLTS W/ 7" EMBEDMENT @ 1'-6" O.C.
 - REQUIRES SIMPSON HDU8-SD52.5 HOLDDOWN FASTENED TO 3-PLY STUDS W/ 7/8" DIAMETER A307 THREADED ROD W/ 36" TOTAL (8" INTO FOOTING) SIMPSON "AT-XP" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL
 - SW2 SHEAR WALL**
 - 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 2" O.C. @ PERIMETER / 12" O.C. FIELD (NOTE: THIS SHEET FASTENING PATTERN REQUIRES 3X OR DOUBLE 2X FRAMING MEMBERS WHERE SHEETS MEET)
 - 1/2" DIAMETER F1554 GRADE 36 STANDARD 1" BOLTS W/ 7" EMBEDMENT @ 1'-0" O.C.
 - REQUIRES SIMPSON HDU14-SD52.5 HOLDDOWN FASTENED TO 5-PLY STUDS W/ 1" DIAMETER A307 THREADED ROD W/ HEAVY HEX NUT AND 17" TOTAL (9" INTO FOOTING) SIMPSON "AT-XP" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL
 - SW3 SHEAR WALL**
 - 3/4" OSB SHEATHING FASTENED WITH 10D NAILS @ 2" O.C. @ PERIMETER / 12" O.C. FIELD (NOTE: THIS SHEET FASTENING PATTERN REQUIRES 3X OR DOUBLE 2X FRAMING MEMBERS WHERE SHEETS MEET)
 - 1/2" DIAMETER F1554 GRADE 36 STANDARD 1" BOLTS W/ 7" EMBEDMENT @ 1'-0" O.C.
 - REQUIRES SIMPSON HD8 HOLDDOWN FASTENED TO 3-PLY STUDS W/ (3) 7/8" Ø BOLTS TO THE STUD & W/ 7/8" DIAMETER A307 THREADED ROD W/ HEAVY HEX NUT AND 17" TOTAL (9" INTO FOOTING) SIMPSON "AT-XP" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL
- TYPICAL WALL UNLESS NOTED**
- 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
 - 1/2" DIAMETER F1554 GRADE 36 STANDARD 1" BOLTS W/ 7" EMBEDMENT @ 3'-0" O.C.
 - NO HOLDDOWNS REQUIRED

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Wentzville, MO 63385

Revisions:

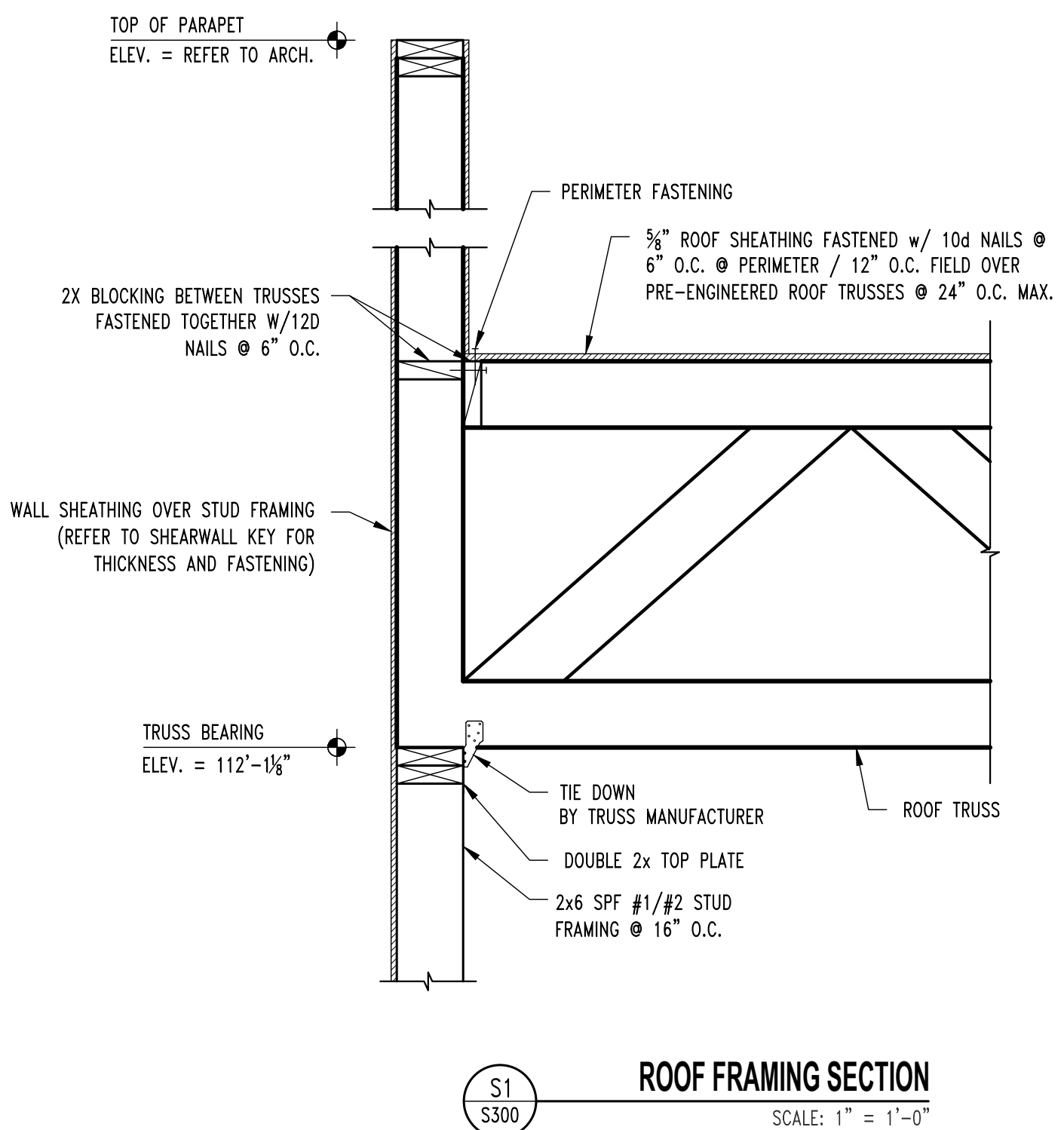
No.	Date	Description
03-25-25		PERMIT

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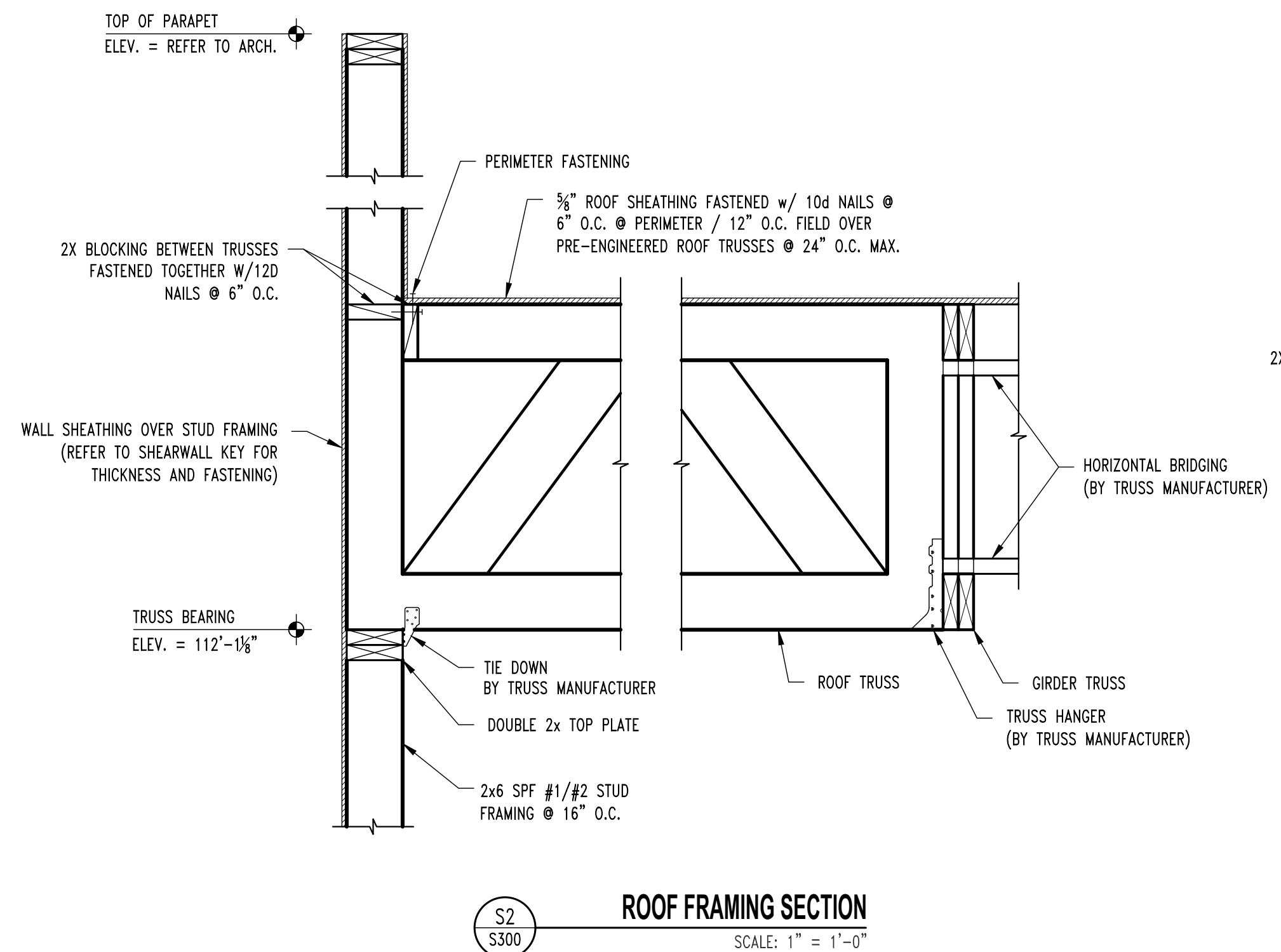
ROOF FRAMING PLAN

Drawn By: RCA
Checked By: GLL
Commission: _____
Date: 2025-03-28

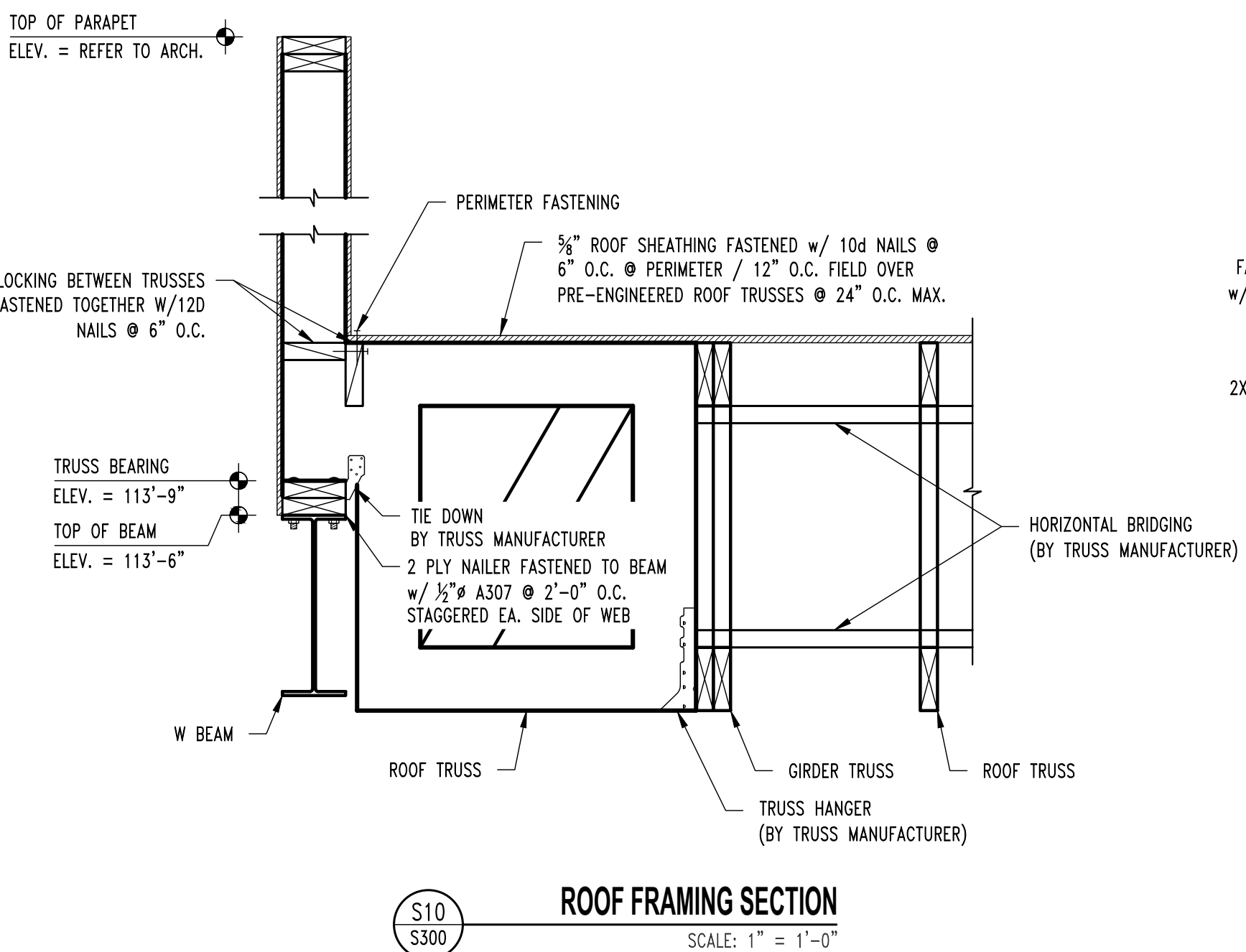
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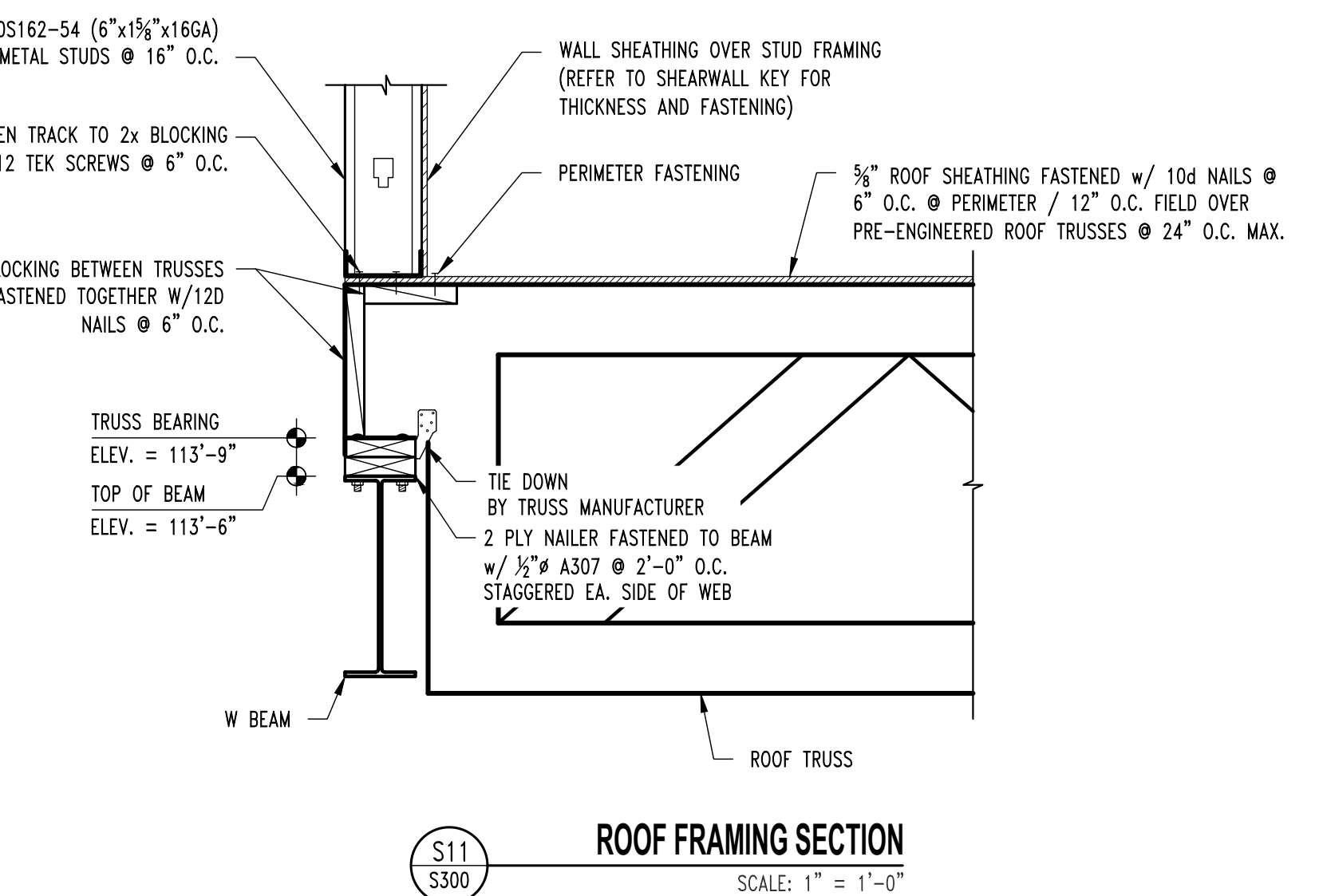
S1
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



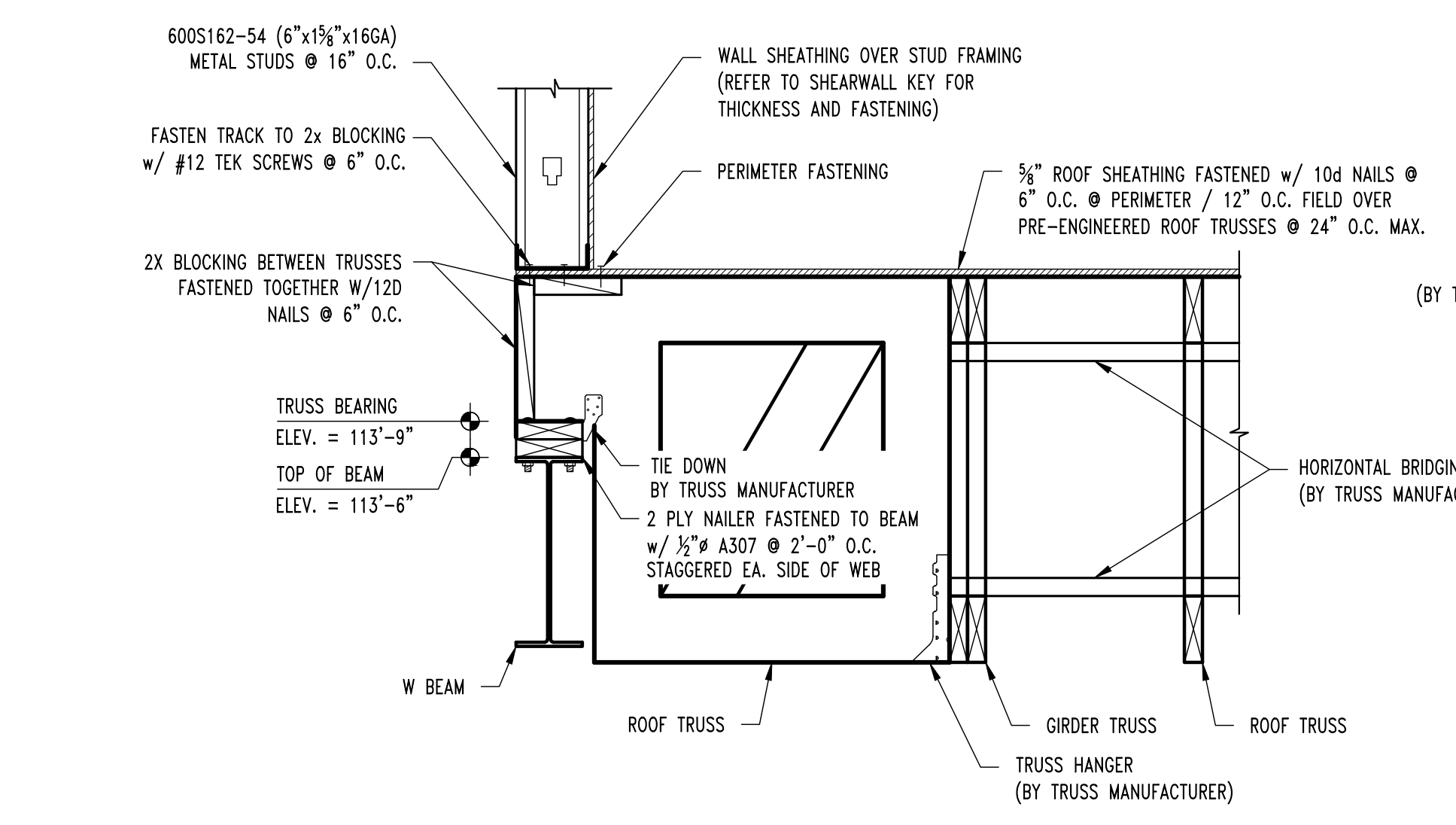
S2
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



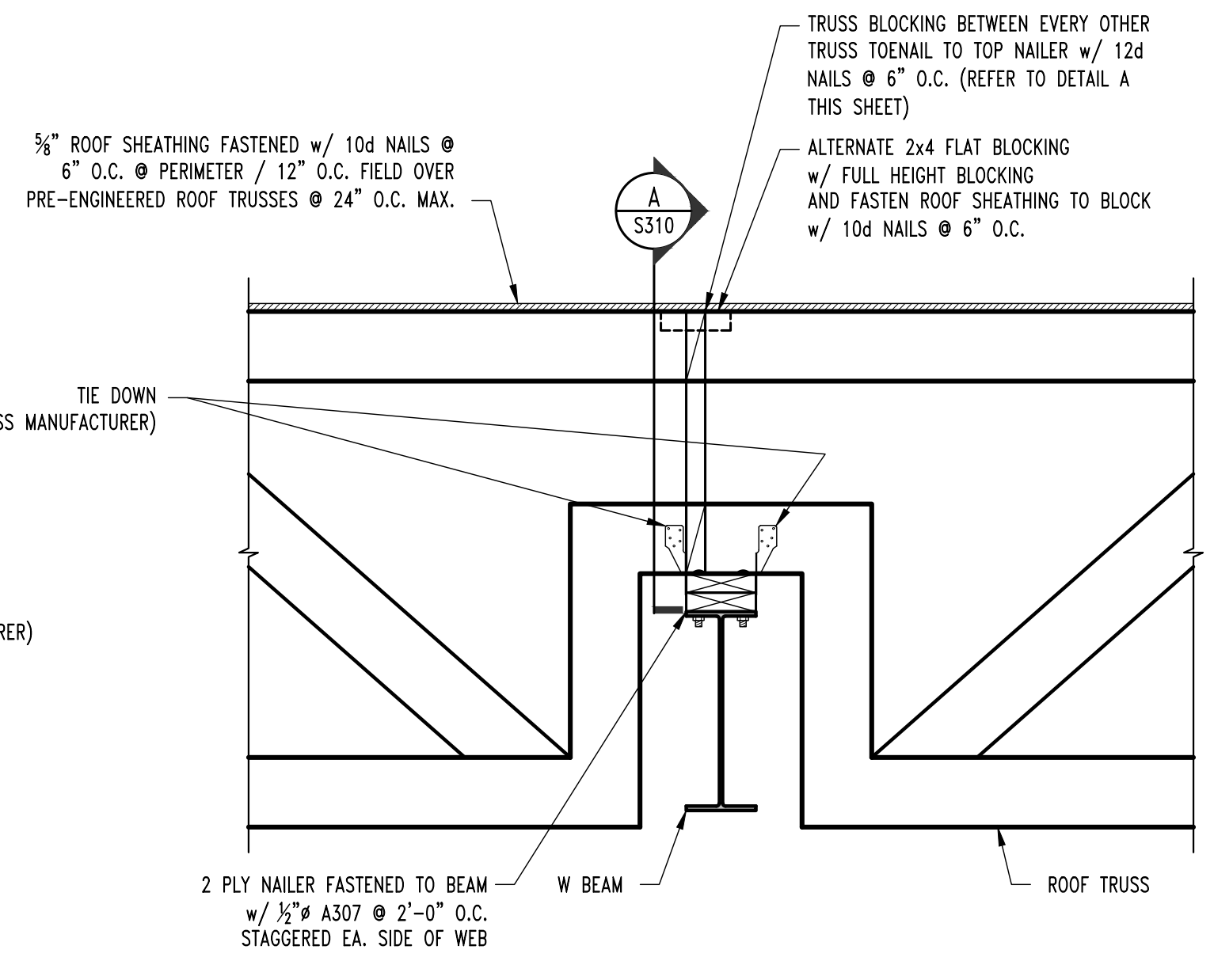
S10
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



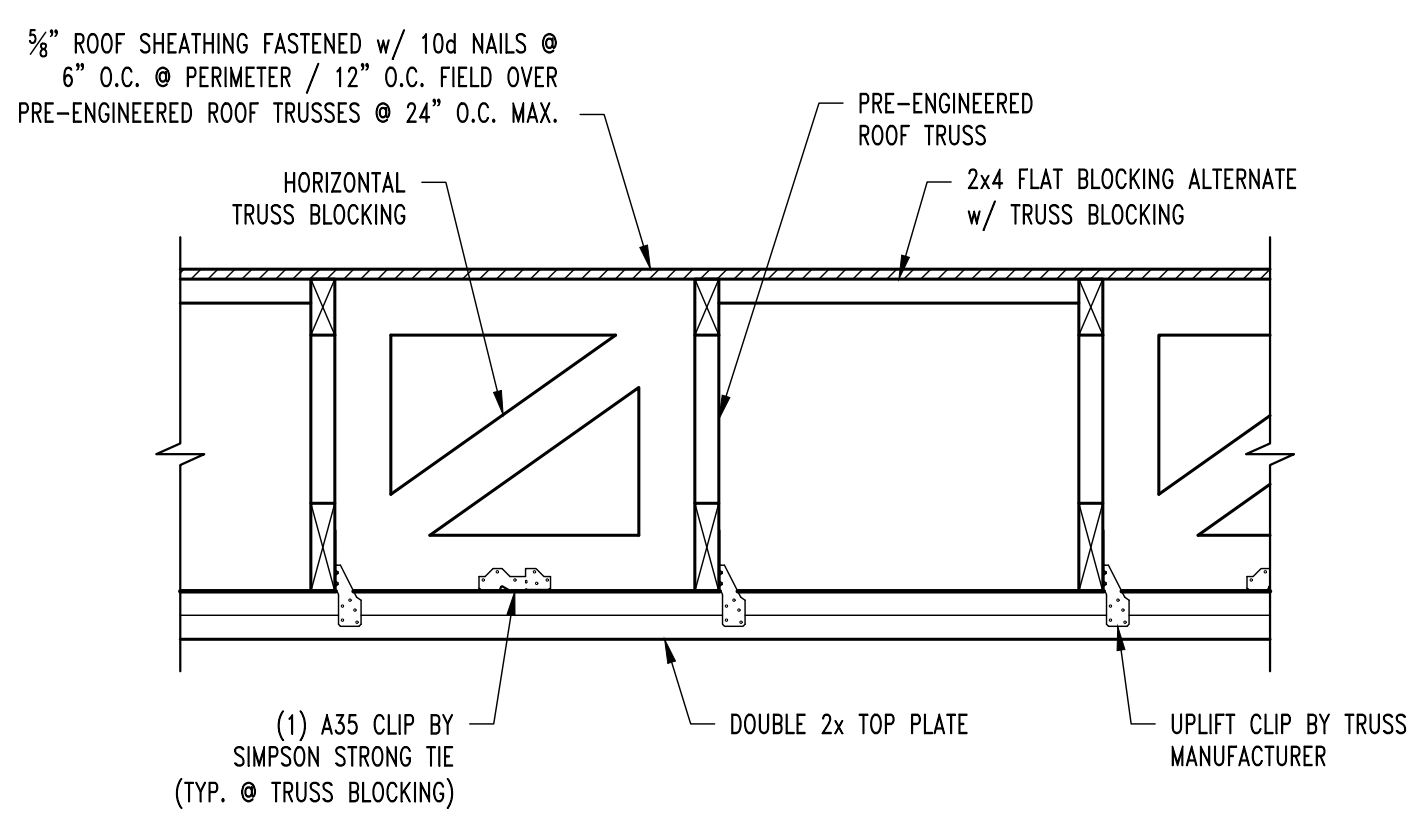
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ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



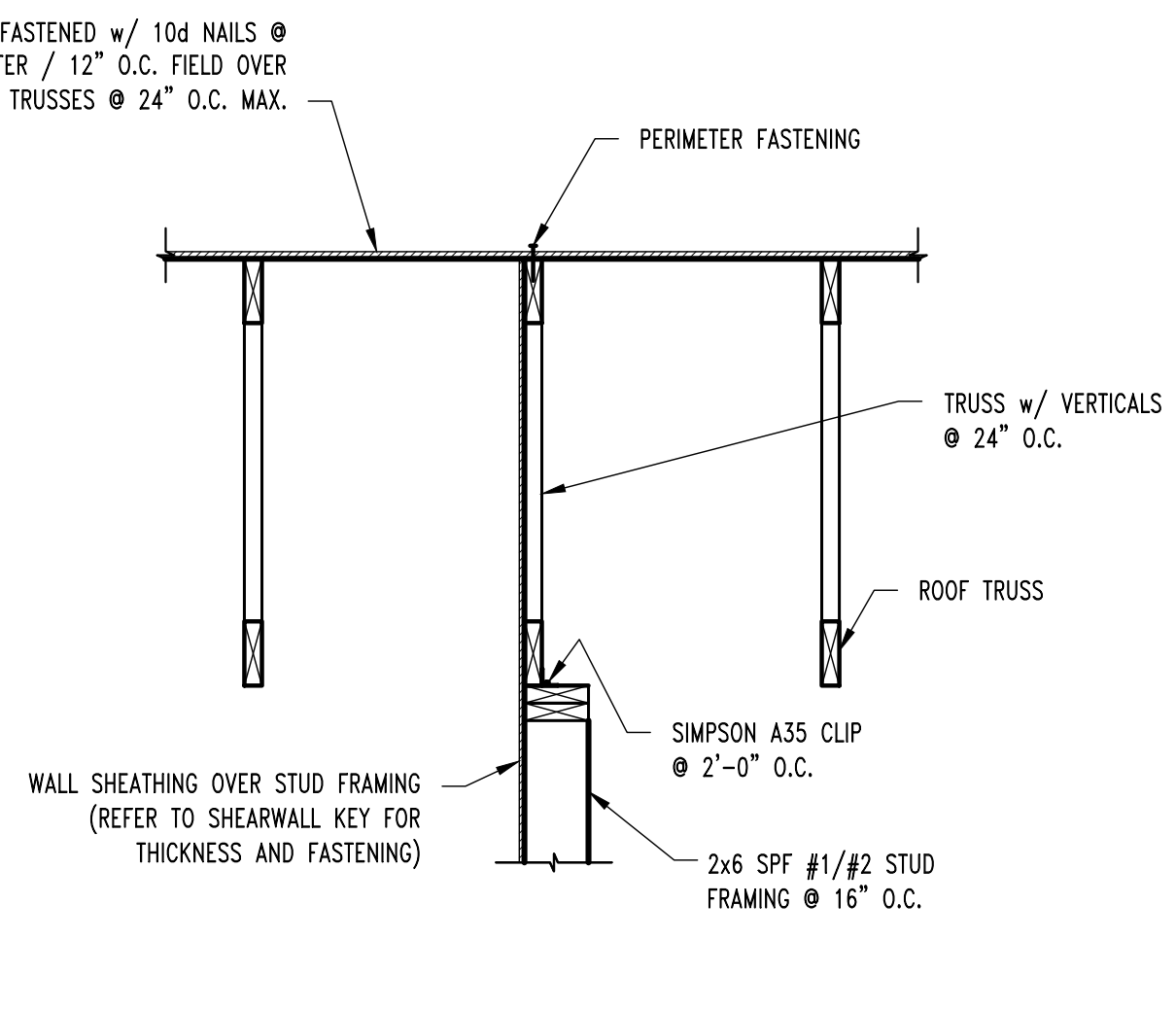
S12
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



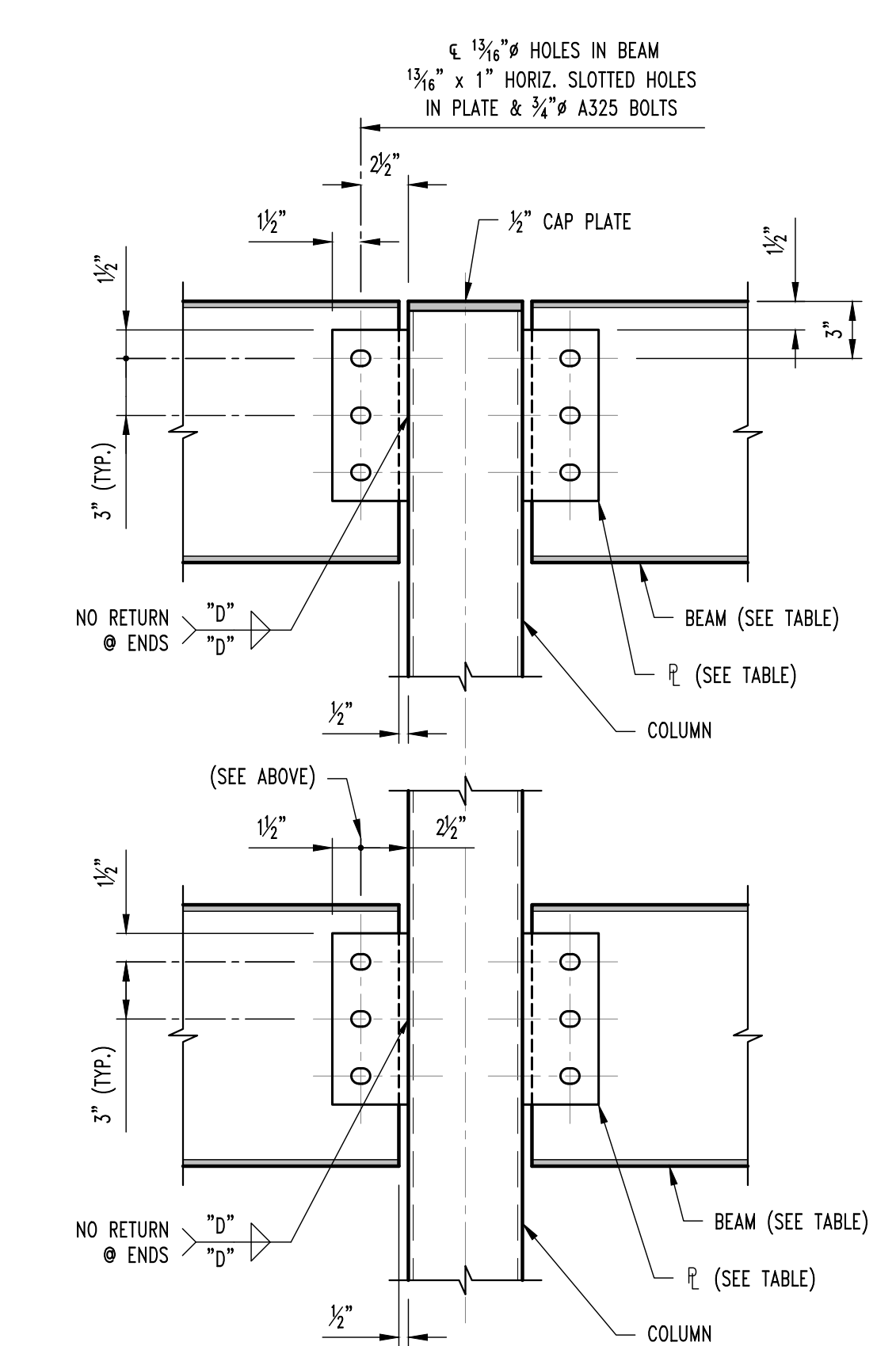
S20
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"



A
ROOF FRAMING SECTION
SCALE: 1" = 1'-0"

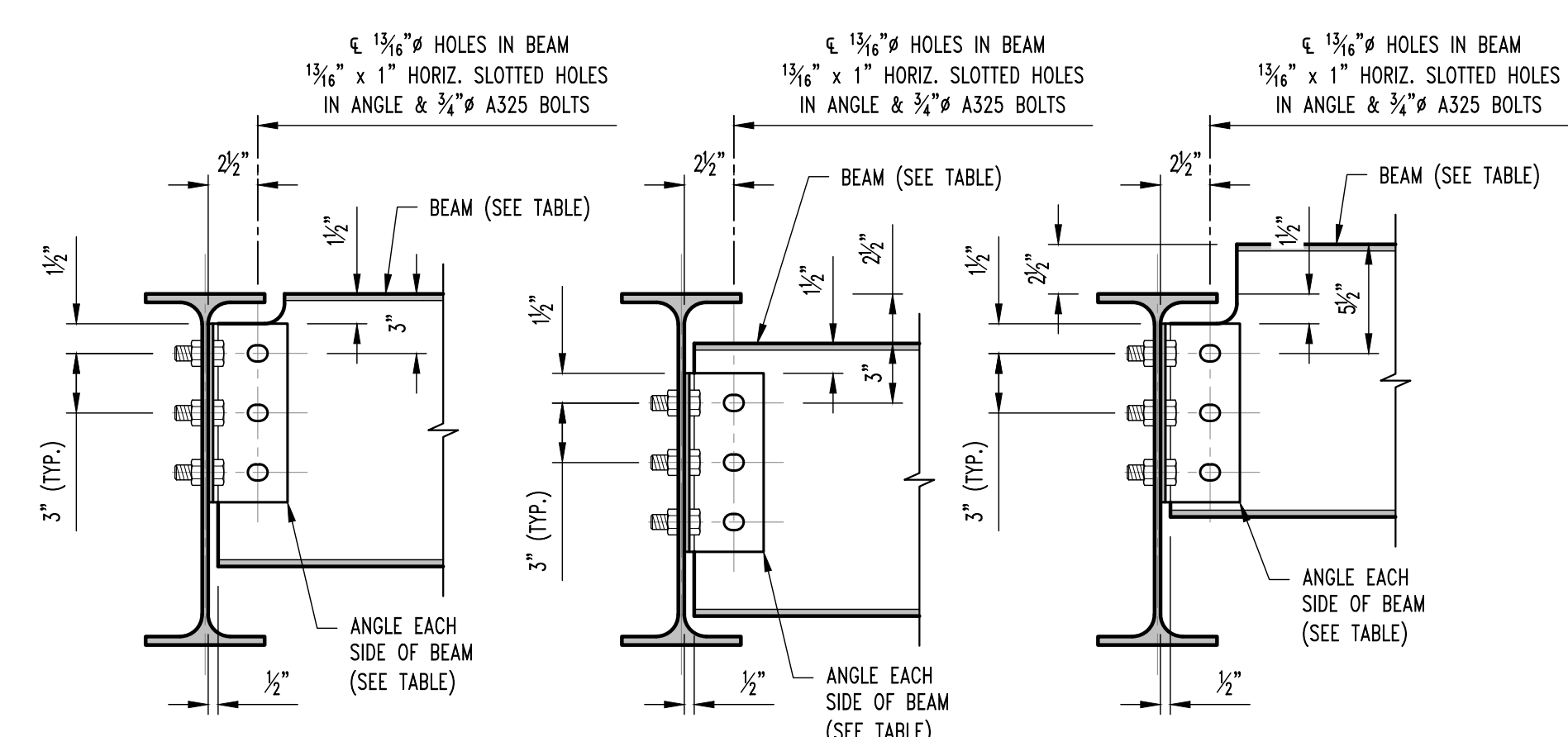


S21
SHEAR WALL SECTION
SCALE: 3/4" = 1'-0"



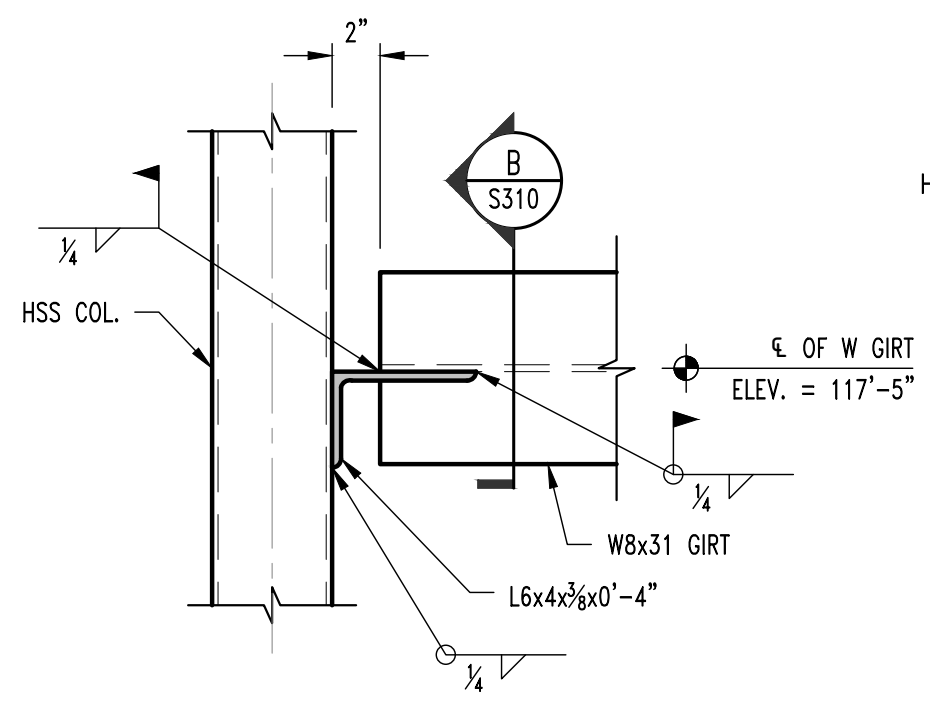
S30
TYP. BEAM TO COLUMN SECTION
SCALE: 1/2" = 1'-0"

BEAM SIZE	No. OF BOLTS 'N'	PLATE SIZE	WELD SIZE 'D'
W12	3	3/8x4x0'-9"	3/4"
W16	4	3/8x4x1'-0"	3/4"

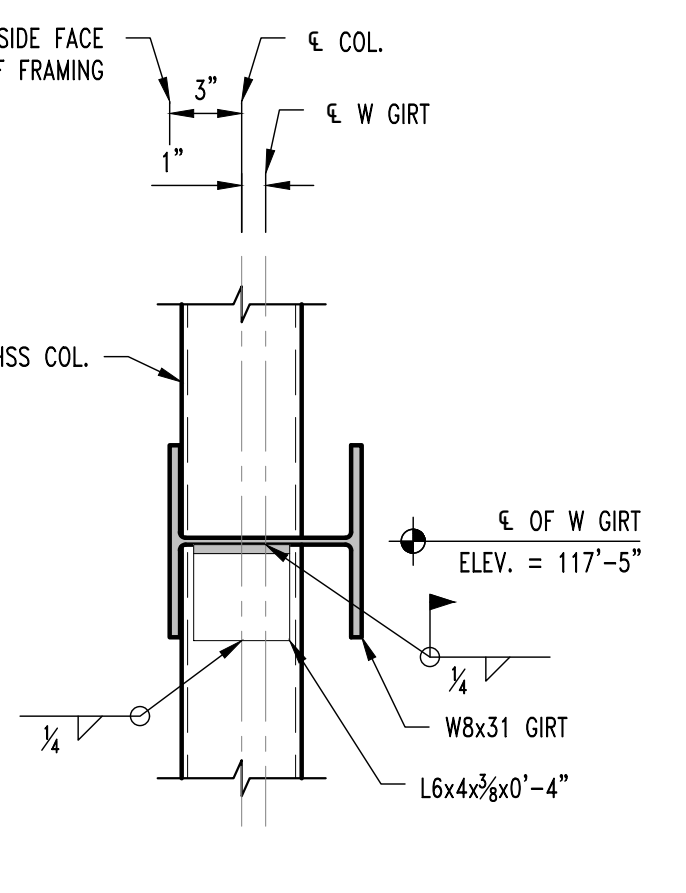


S31
TYP. BEAM TO BEAM CONNECTION
SCALE: 1/2" = 1'-0"

BEAM SIZE	No. OF BOLTS 'N'	ANGLE SIZE
W12	3	L4x4x2x0'-9"
W16	4	L4x4x2x1'-0"



S32
TYP. GIRT TO COLUMN SECTION
SCALE: 1/2" = 1'-0"



S310
SECTION "B"

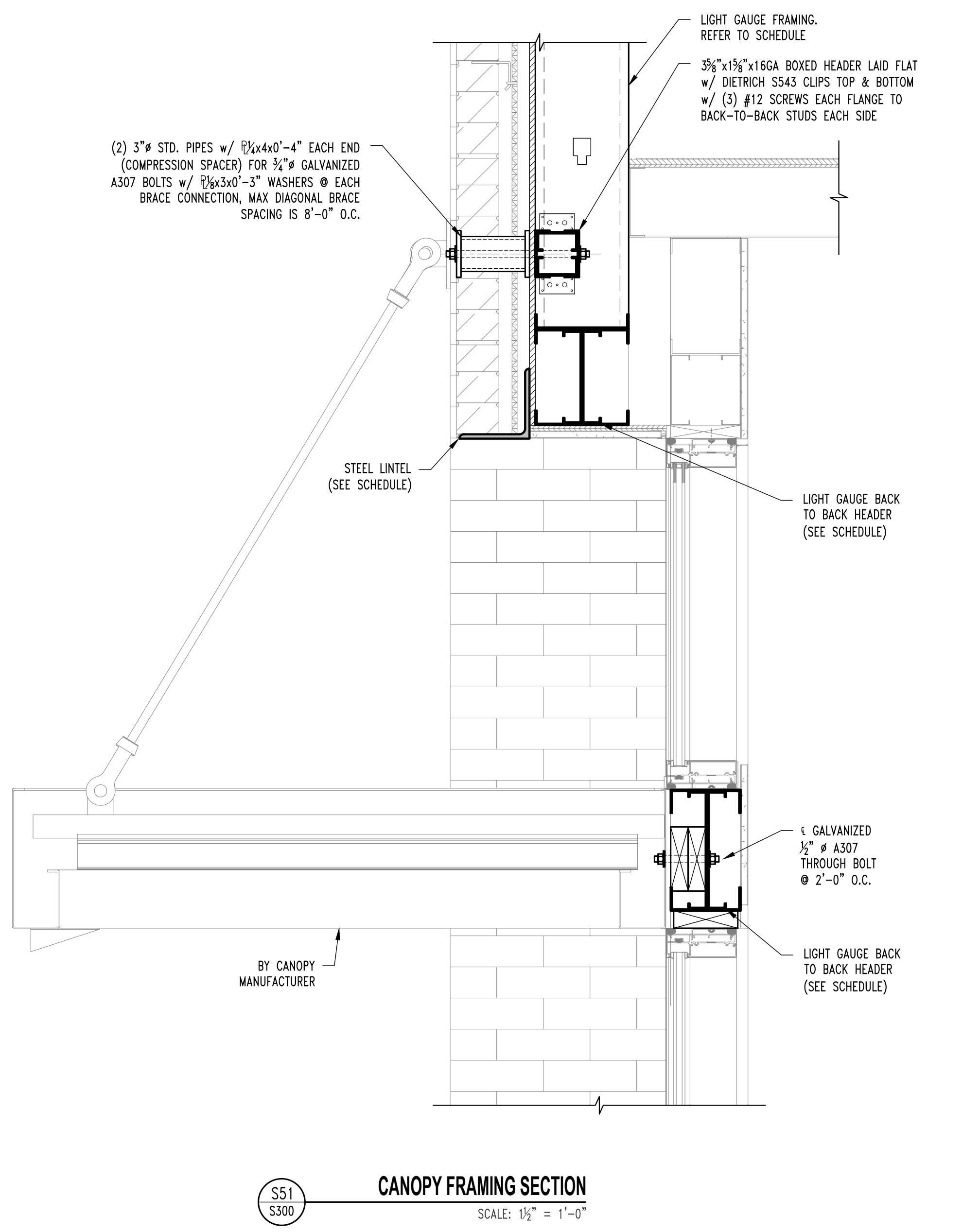
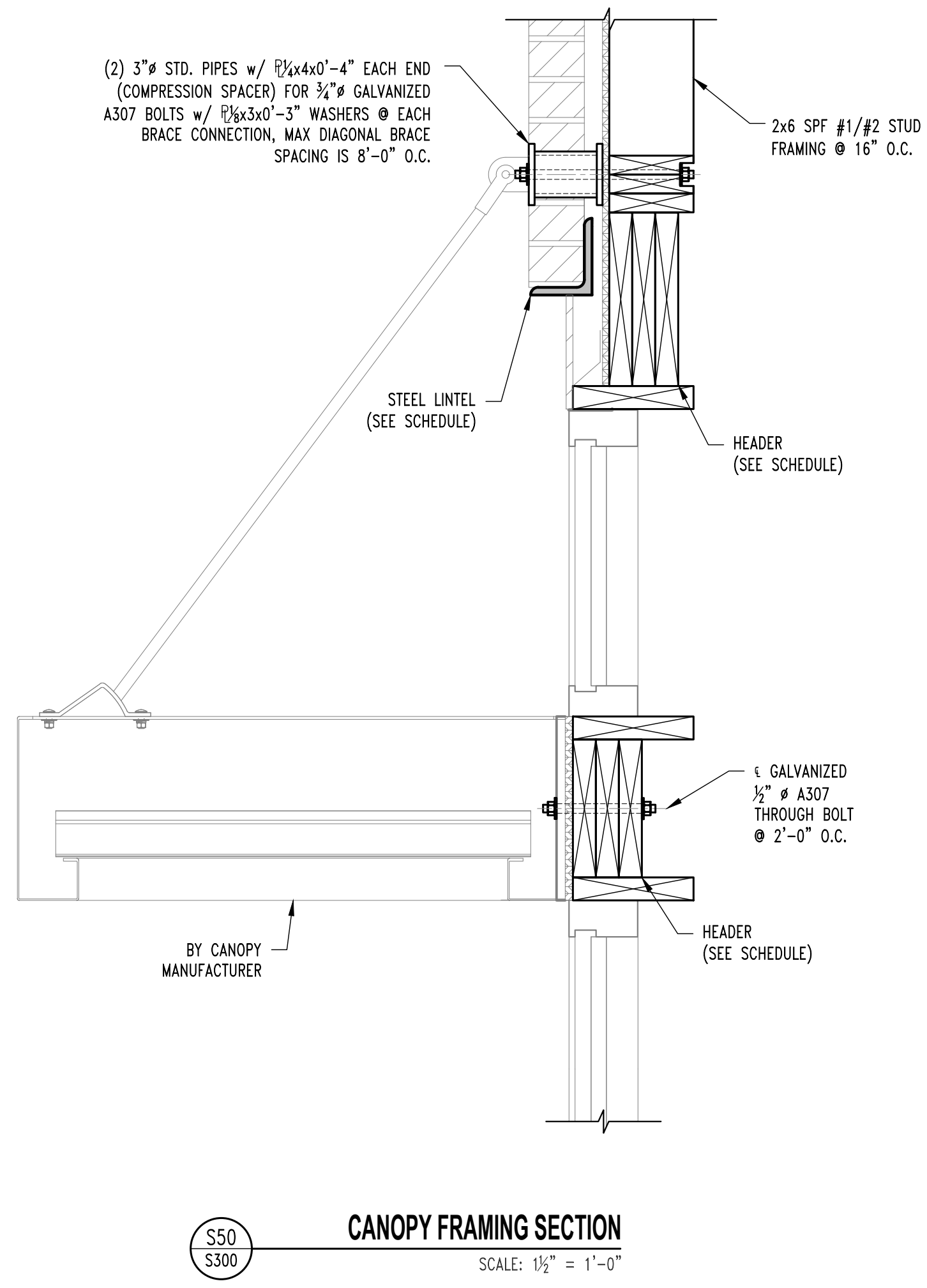
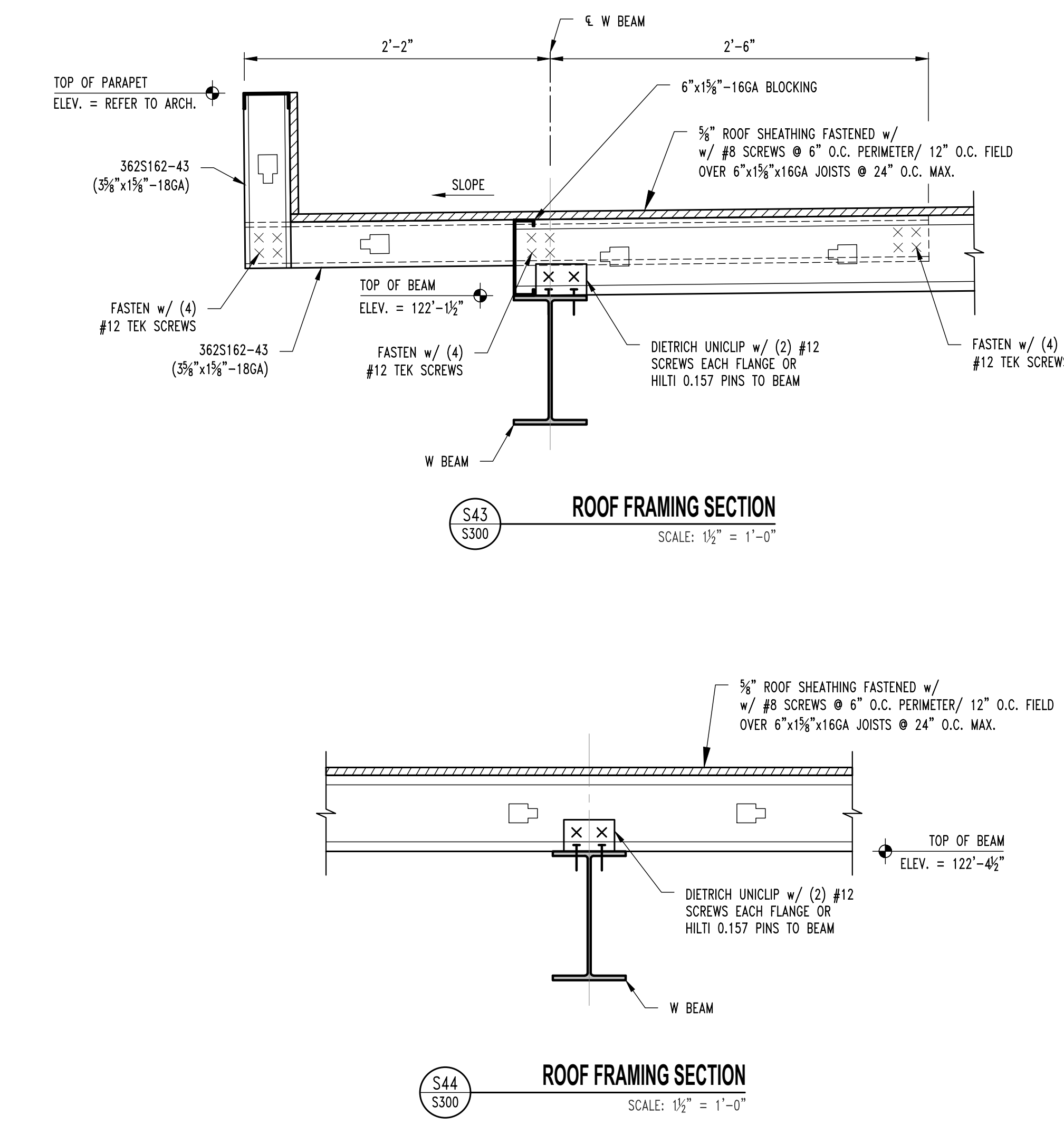
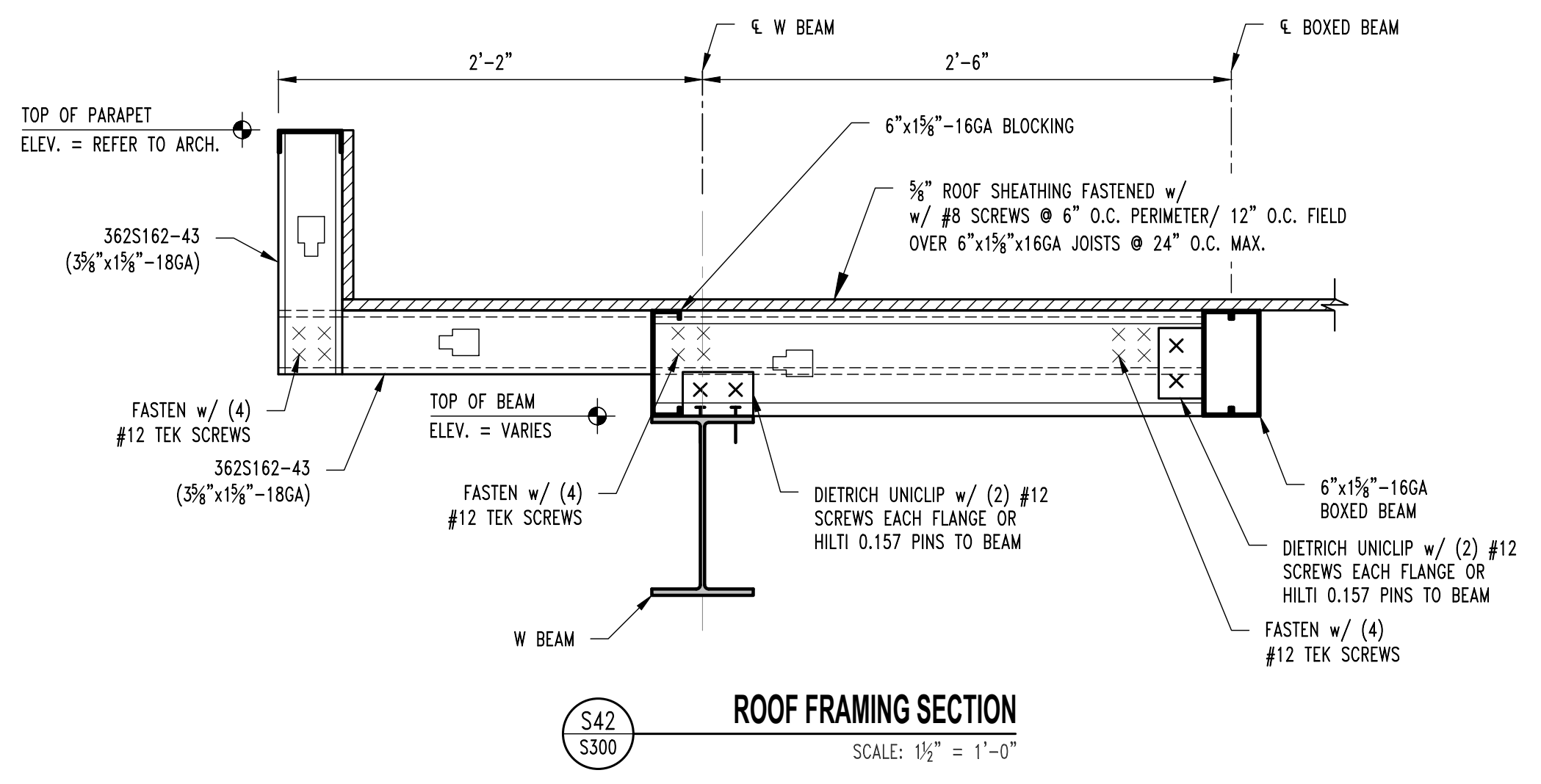
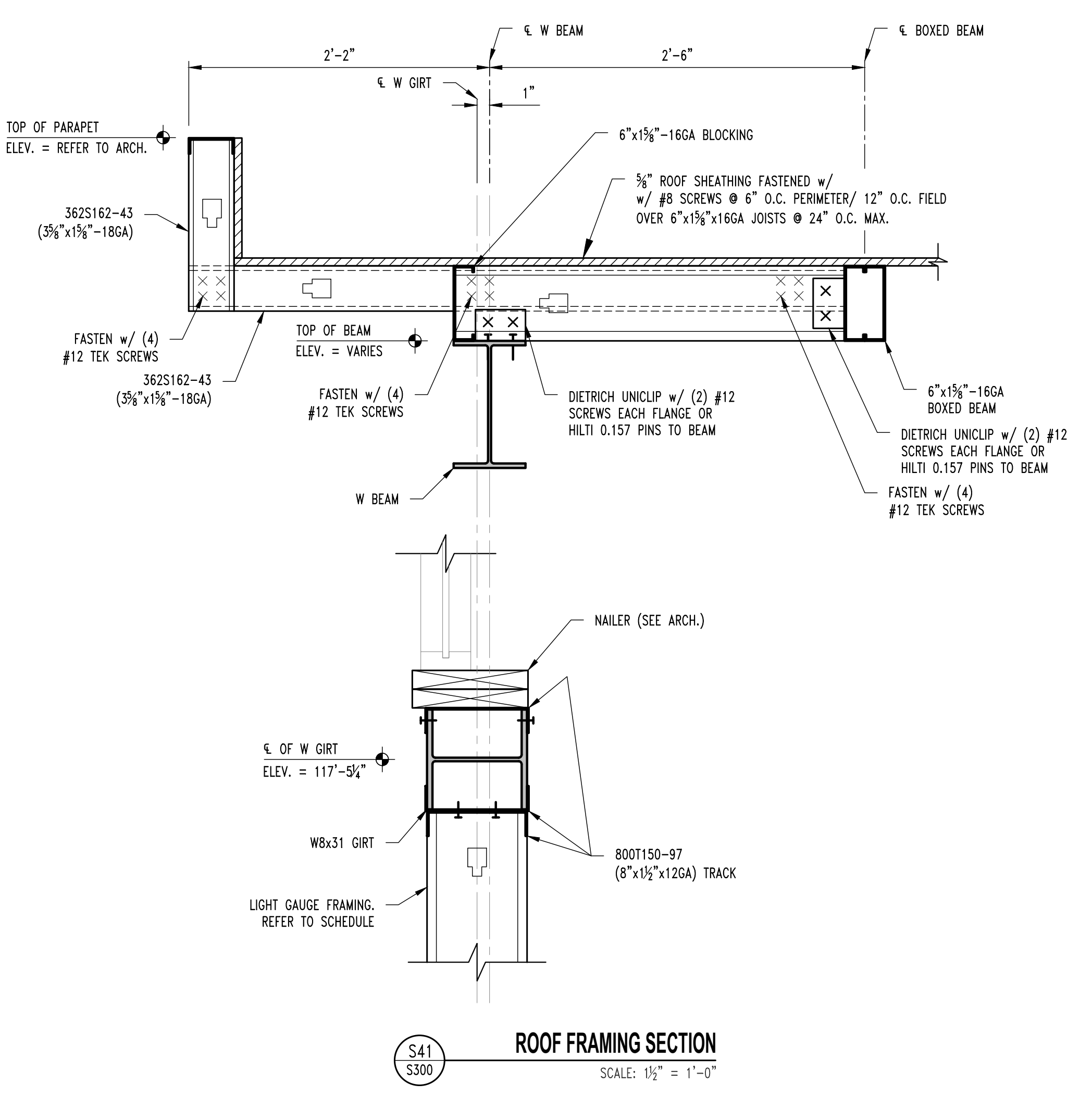
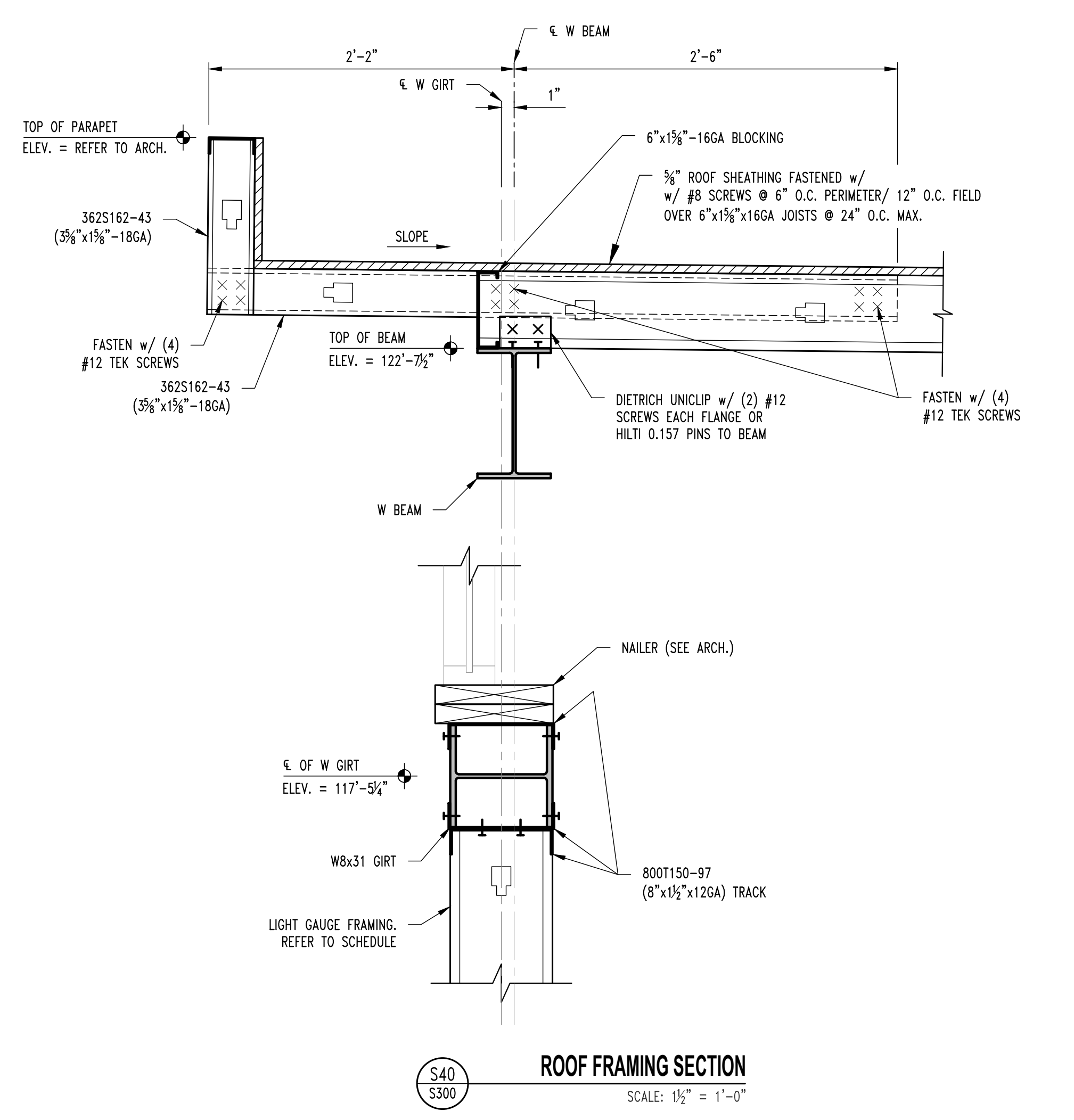
Revisions:

No.	Date	Description
03-25-25		REVIT

Sheet Info:

ROOF FRAMING DETAILS

Drawn By: RCA
Checked By: GLL
Commission: _____
Date: 2025-03-28



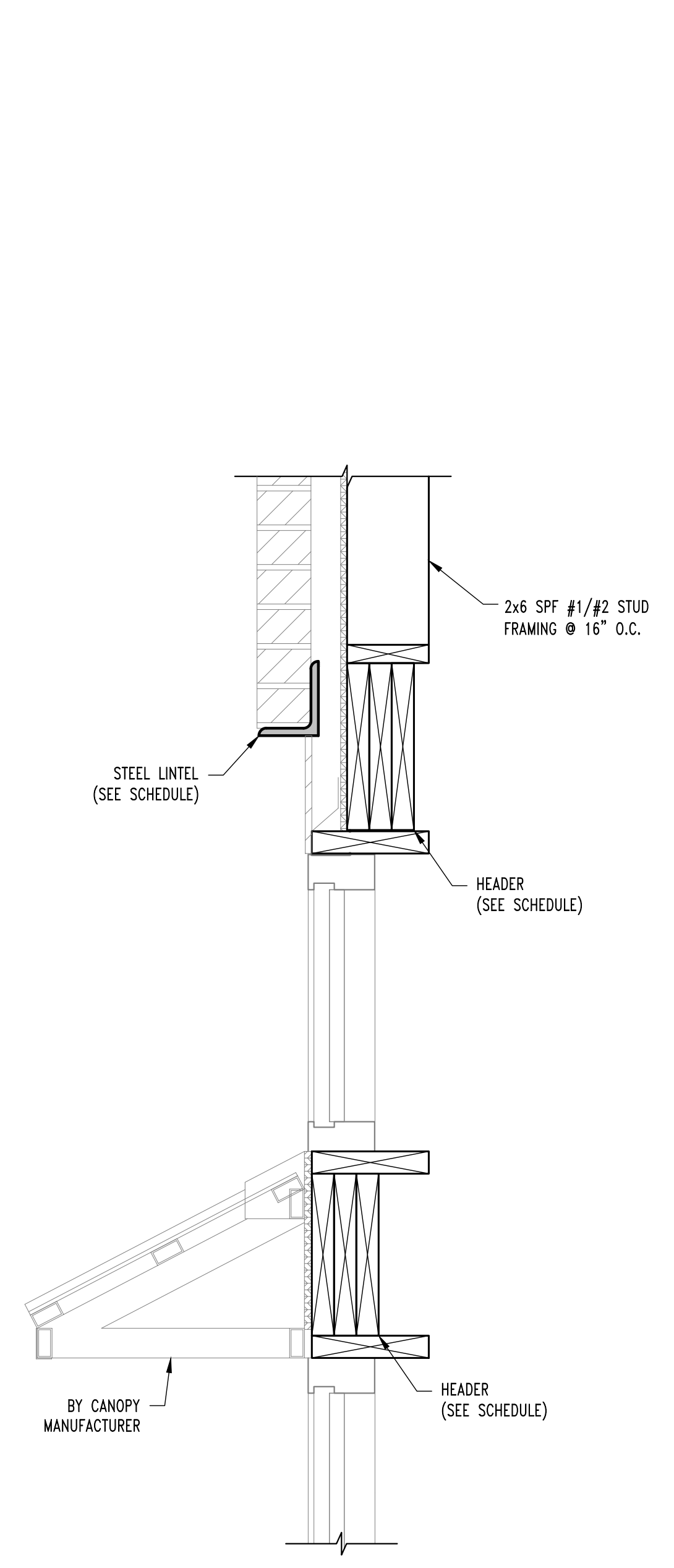
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No.	Date	Description
03-25-25	REVIT	

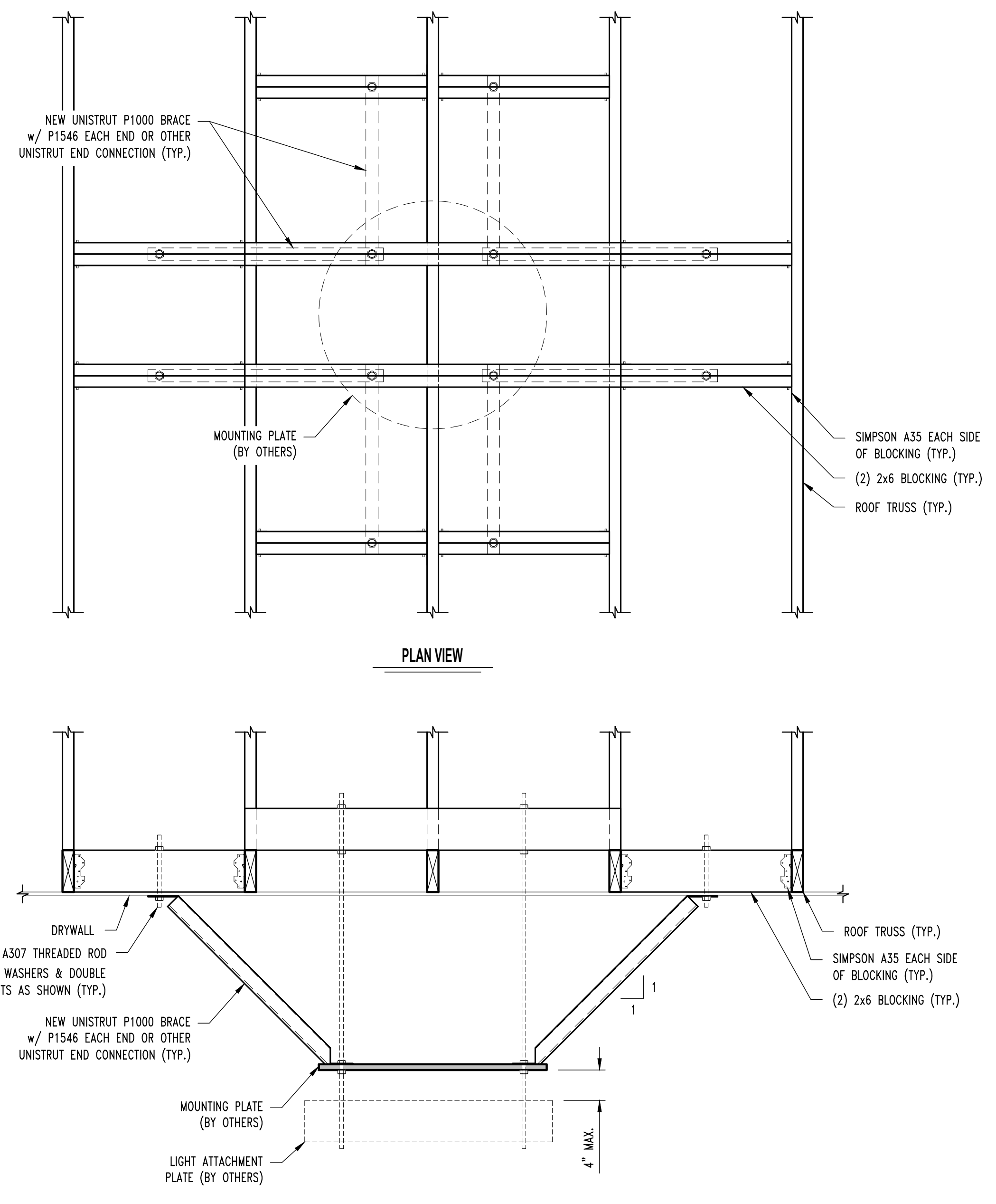
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ROOF FRAMING DETAILS

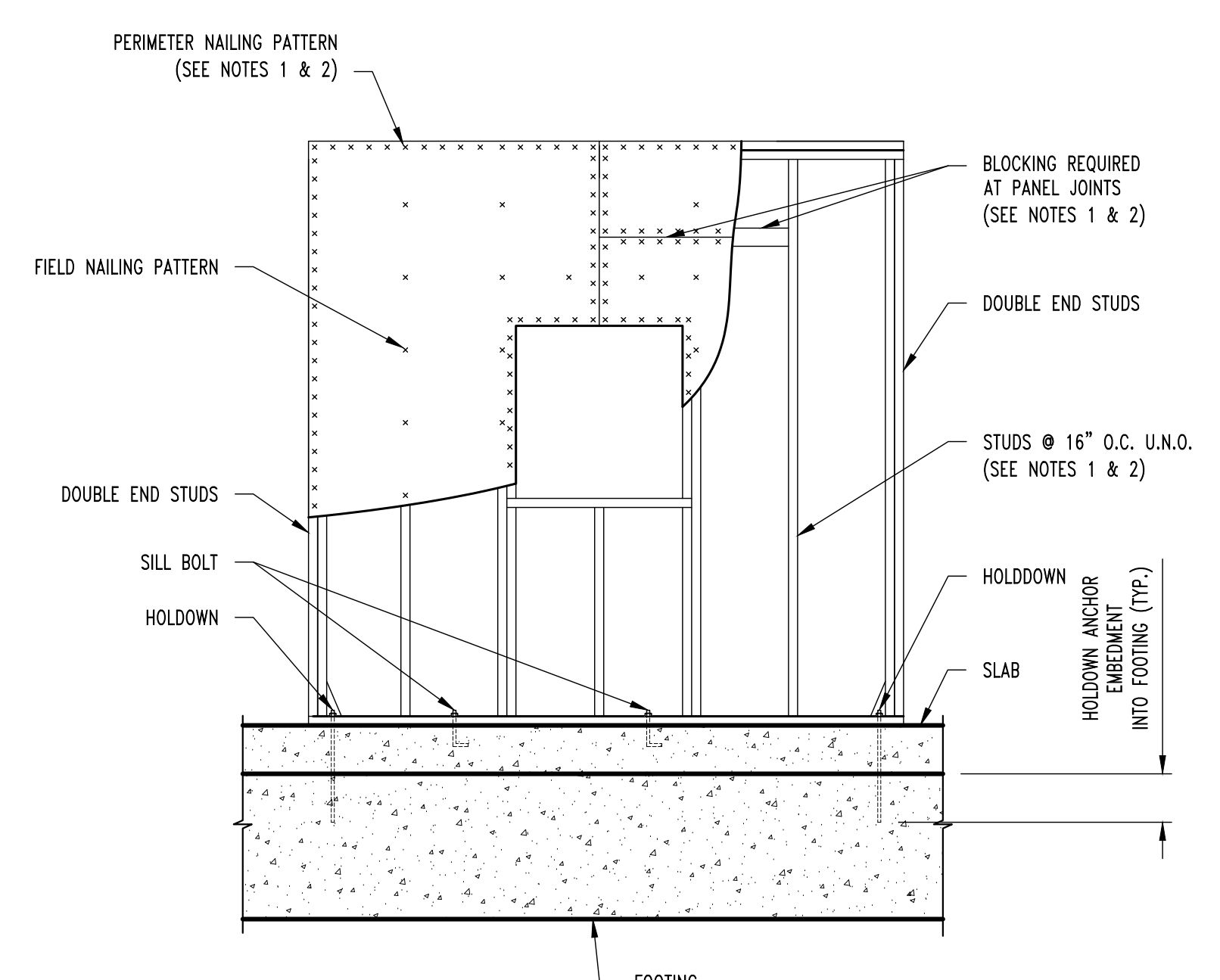
Drawn By: RCA
 Checked By: GLL
 Commission:
 Date: 2025-03-28



CANOPY FRAMING SECTION
SCALE: 1/2" = 1'-0"

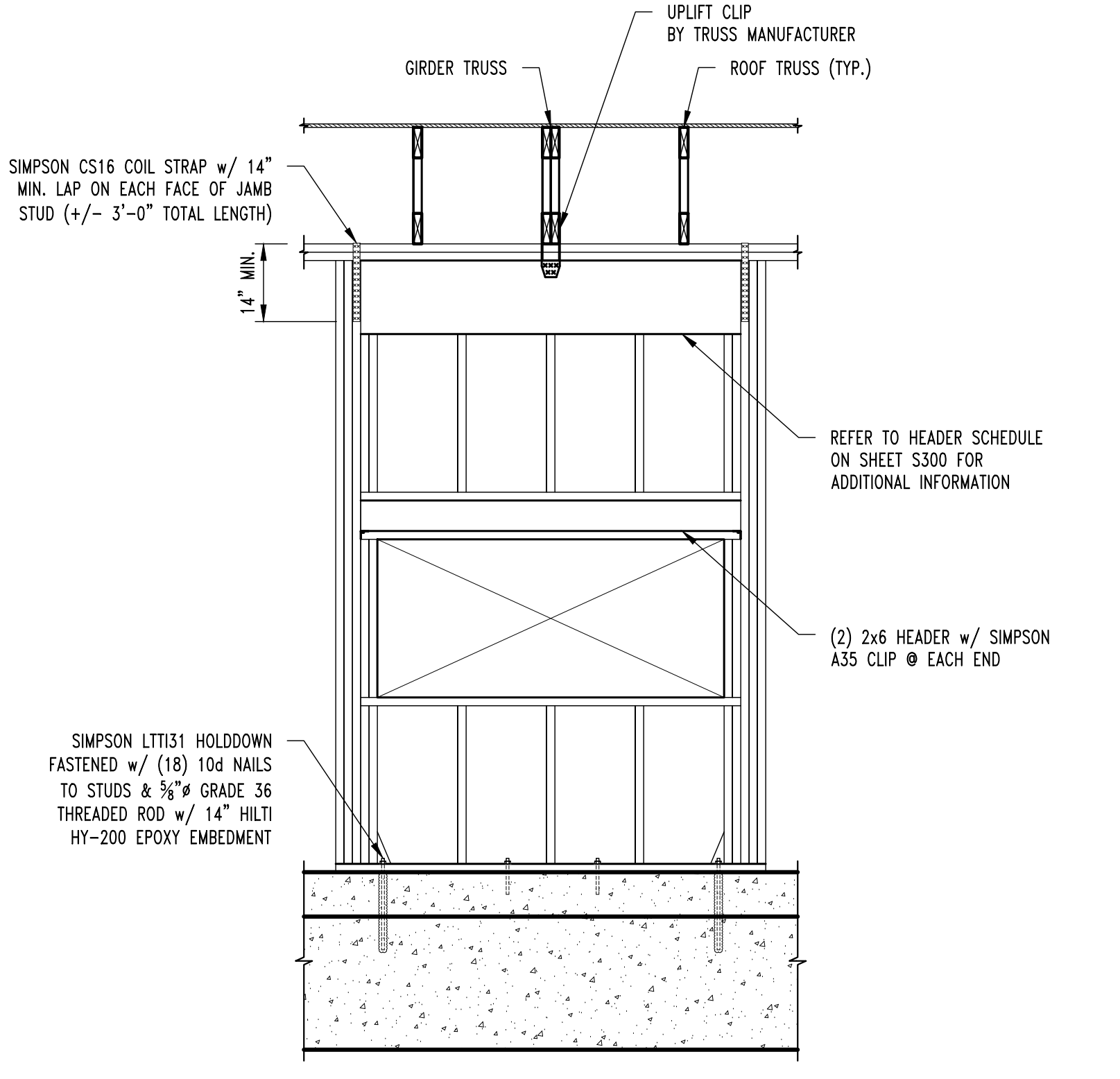


TYP. SURGICAL LIGHT MOUNTING DETAIL
NOTE: VERIFY SURGICAL LIGHT LOCATIONS w/ ARCH.

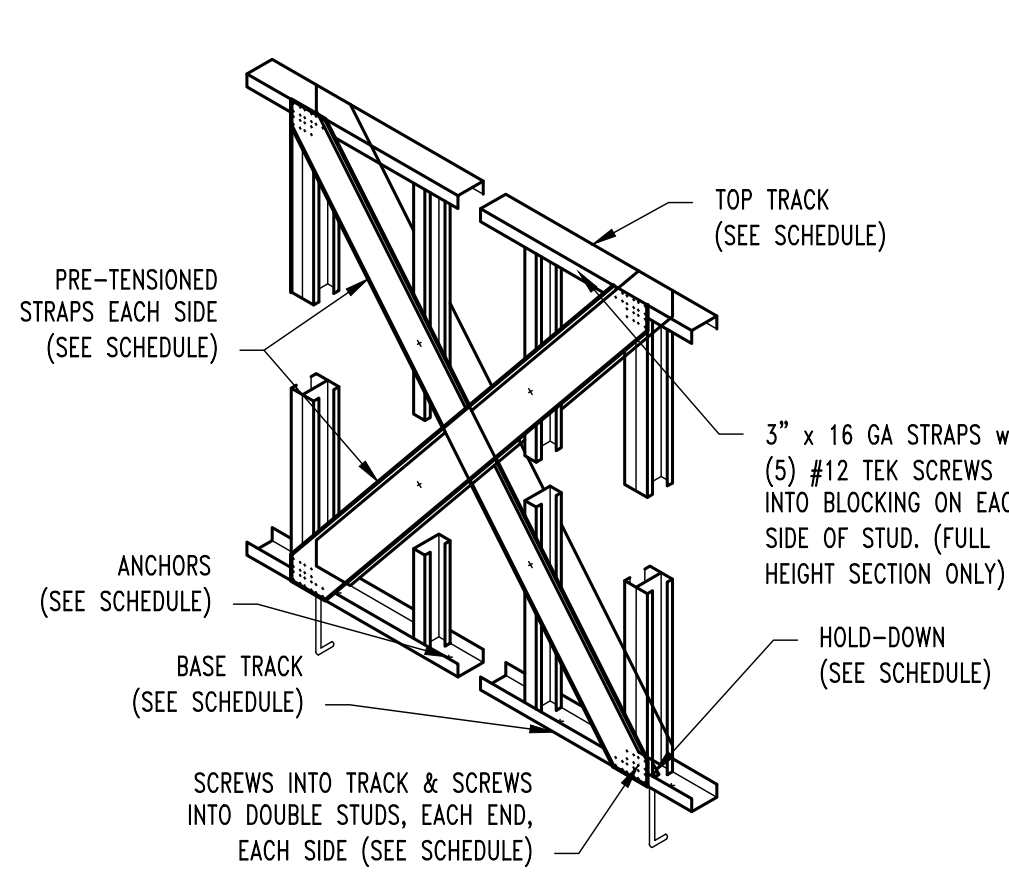


NOTES:
1. WHERE TWO SHEETS MEET, BOTH SHEETS SHOULD BE NAILED TO THE SAME FRAMING MEMBER.
2. WHEN SHEATHING NAILS ARE SPACED AT 2" O.C. FOR 8d NAILS OR 3" O.C. FOR 16d NAILS, 3x OR DOUBLE 2x FRAMING MEMBERS ARE REQUIRED WHERE SHEETS MEET. FACE NAIL DOUBLE 2x MEMBERS TOGETHER w/ 16d NAILS @ 24" O.C. STAGGERED EACH FACE OF STUD.
3. SEE WALL SECTIONS FOR ADDITIONAL INFORMATION.

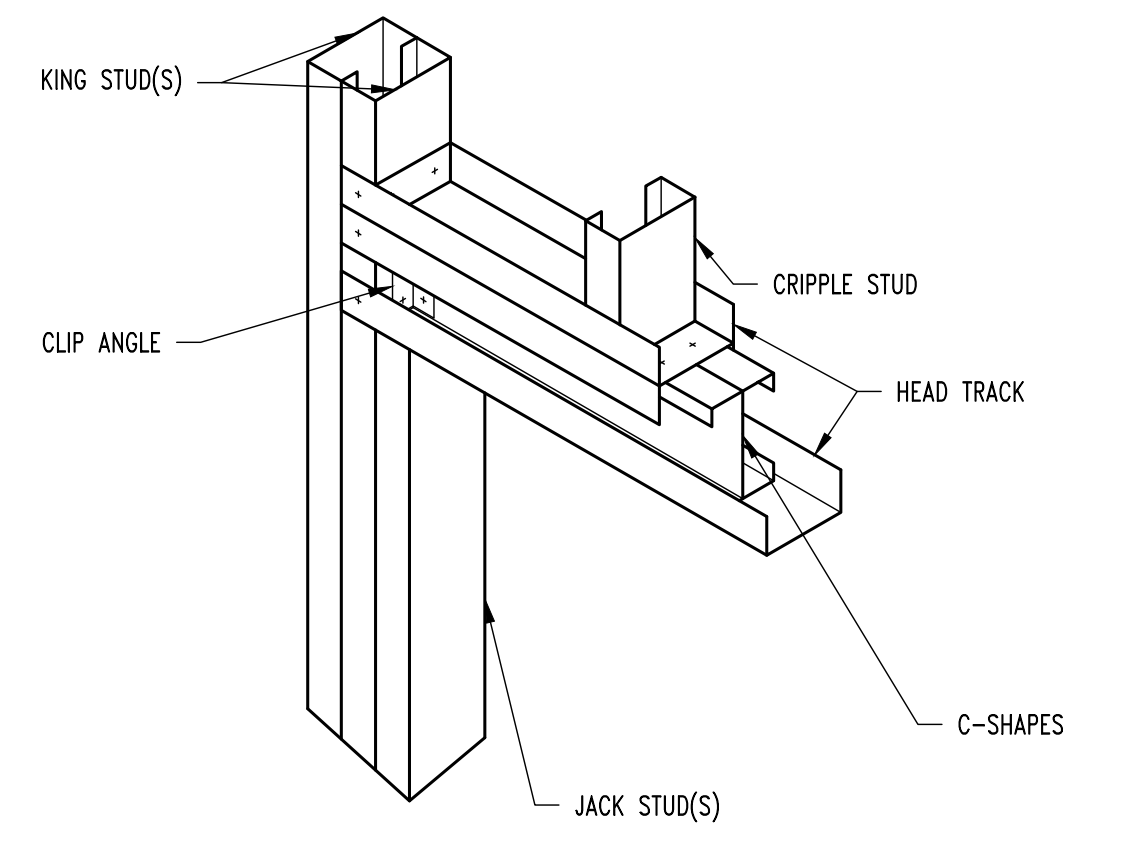
TYP. SHEAR WALL DETAIL



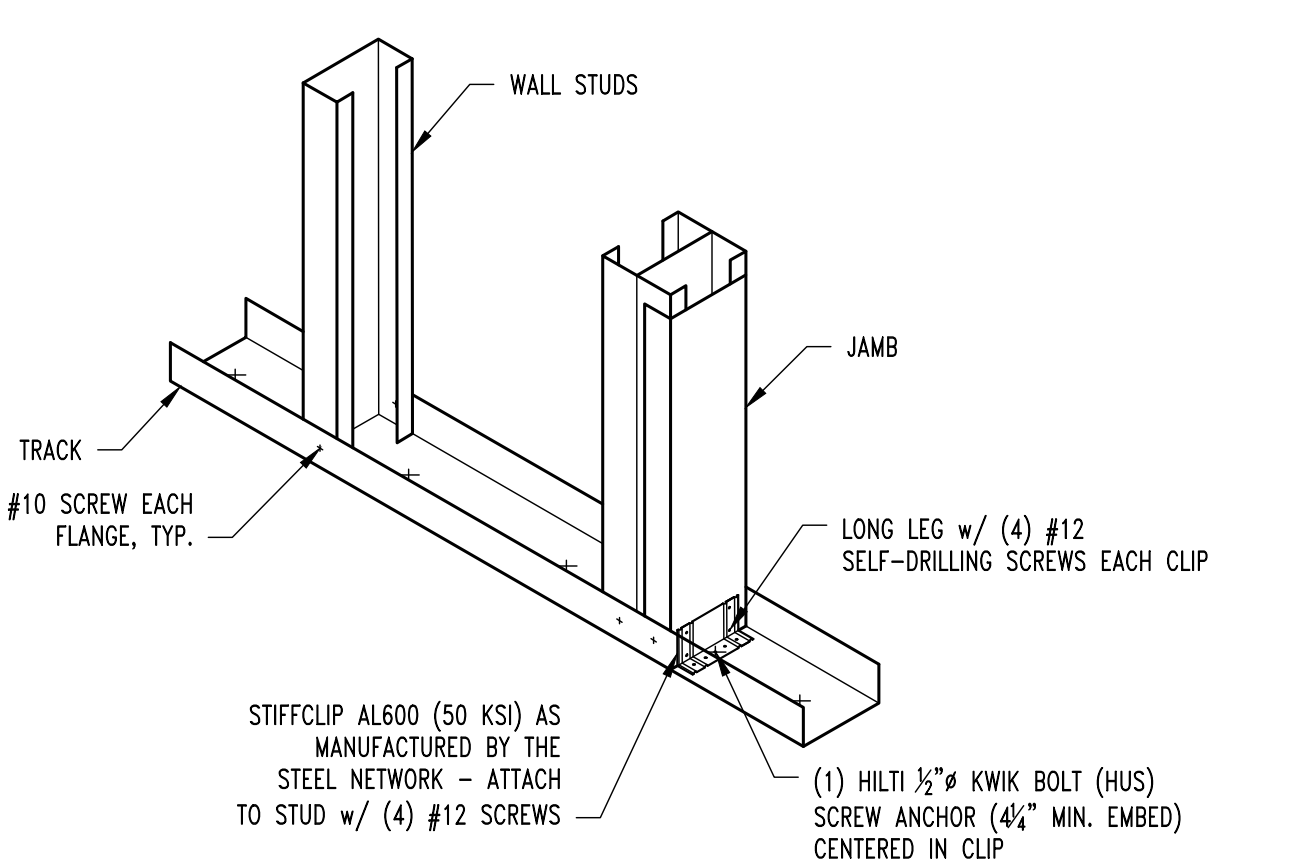
TYP. GIRDER TO HEADER DETAIL



FULL HEIGHT BRACING DETAIL

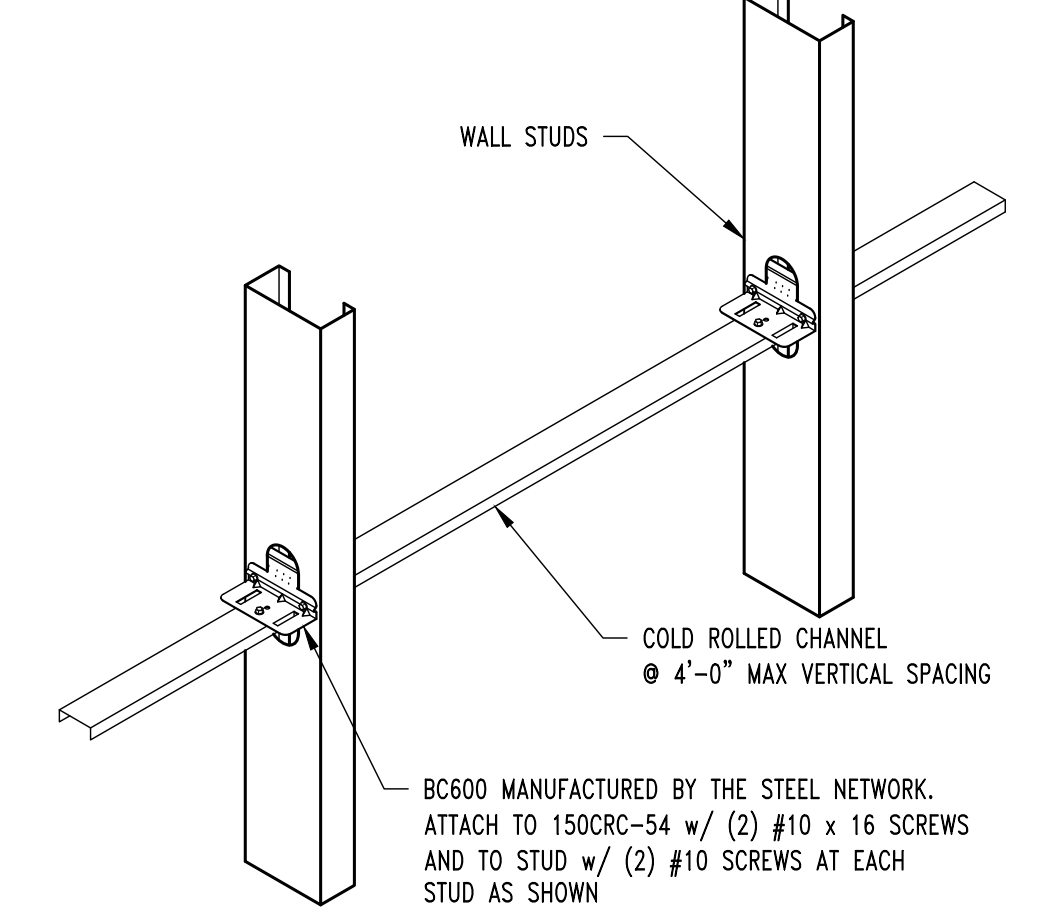


BACK-TO-BACK HEADER DETAIL

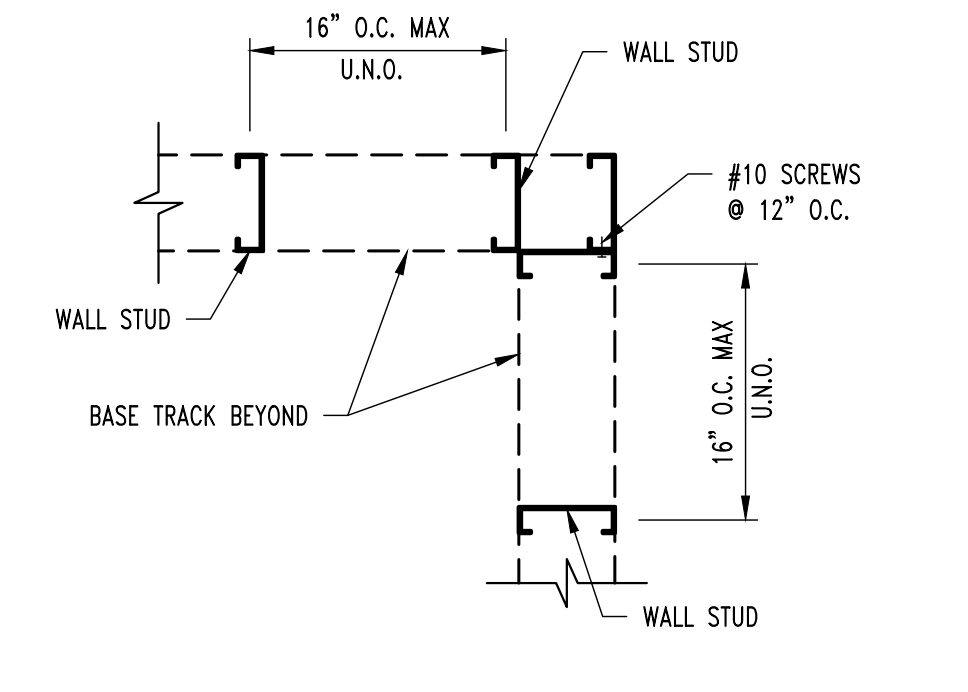


JAMB-TO-FLOOR ATTACHMENT DETAIL

NOTE:
FOR OPENINGS AT BASE, PROVIDE ADDITIONAL CLOSURE TRACK 1'-0" LONG FOR CLIP ATTACHMENT AT FACE OF JAMB OPPOSITE OPENING



WALL BRIDGING DETAIL



TYP. STUD WALL CORNER FRAMING SECTION

STRAP	STRAP SCREWS (EACH END EACH STRAP)	BACK-TO-BACK STUDS	TOP AND BOTTOM TRACK AT BRACE	BASE CONNECTION	END CONNECTION
4 INCH X 16 GA EACH FACE OF WALL	(8) #12 TEK SCREWS IN TRACK (8) #12 TEK SCREWS IN DOUBLE STUD	800S162-97	800T150-97	1/2" Ø X 4" TITEN HD SCREW ANCHORS @ 2'-0" O.C.	SIMPSON SHDU9 HOLD-DOWN W/ (18) #14 TEK SCREWS TO STUD & 7/8" Ø A307 THREADED ROD W/ 18" EPOXY EMBEDMENT INTO FOOTING (24" TOTAL)

HEADER LENGTH	HEADER	SILL/UNDER HEADER SILL	CRIPPLE/LACK	JAMBIKING	JAMBIKING ATTACHMENT TO STRUCTURE	JAMB TO SLAB CONNECTION
4'-0" & LESS	600S162-43 BACK-TO-BACK HEADER (6'x1 5/8x18GA)	SINGLE 800T160-43 (6'x1 1/2x18GA)	SINGLE 800S162-43 (6'x1 5/8x18GA)	BACK TO BACK 800S162-43 (6'x1 5/8x18GA)	DIETRICH E975 W 4-#12 SCREWS EACH LEG	DIETRICH D685 W 3-#12 SCREWS & 1/2" DIAMETER EXPANSION ANCHOR W 3" EMBEDMENT
8'-0" & LESS	600S162-43 BACK-TO-BACK HEADER (6'x1 5/8x18GA)	SINGLE 800T160-54 (6'x1 1/2x16GA)	SINGLE 800S162-97 (6'x1 5/8x12GA)	BACK TO BACK 800S162-54 (6'x1 5/8x12GA)	DIETRICH E975 W 4-#12 SCREWS EACH LEG	DIETRICH D685 W 3-#12 SCREWS & 1/2" DIAMETER EXPANSION ANCHOR W 3" EMBEDMENT
12'-0" & LESS	600S162-43 BACK-TO-BACK HEADER (6'x1 5/8x18GA)	SINGLE 800T160-54 (6'x1 1/2x16GA)	SINGLE 800S162-97 (6'x1 5/8x12GA)	BACK TO BACK 800S162-97 (6'x1 5/8x12GA)	DIETRICH E975 W 4-#12 SCREWS EACH LEG	DIETRICH D685 W 3-#12 SCREWS & 1/2" DIAMETER EXPANSION ANCHOR W 3" EMBEDMENT

NOTE: TYPICAL STUDS 800S162-43 (6'x1 5/8x18GA) @ 16" O.C. WITH BRIDGING @ 80" O.C. WITH DEFLECTION TRACK 800T150-97 (6'x1 1/2x12GA) FASTENED WITH #12 TEK SCREWS TO BEAM AT 16" O.C. EACH FACE. SILL TRACK FASTENED TO SLAB WITH 1/4" DIAMETER x 1 1/2" CONCRETE SCREWS AT 16" O.C.

Revisions:

No.	Date	Description
03-28-25		REVIT

Sheet Info:

ROOF FRAMING DETAILS

Drawn By: RCA
Checked By: GLL
Commission: 2025-03-28
Date: 2025-03-28

Division	Section Title	Pages
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PROCUREMENT AND CONTRACTING DOCUMENTS GROUP

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
 NOT APPLICABLE

SPECIFICATIONS GROUP

General Requirements Subgroup

DIVISION 01 - GENERAL REQUIREMENTS

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01 23 00....	Alternates.....	2
01 25 00	Substitution Procedures.....	4
01 25 00.01	Substitution Request Form.....	2
01 33 00	Submittal Procedures	10
01 40 00	Quality Requirements.....	8
01 42 00	References.....	14
01 50 00	Temporary Facilities And Controls	4
01 60 00	Product Requirements	6
01 73 00	Execution	6
01 74 19	Construction Waste Management And Disposal	2
01 77 00	Closeout Procedures.....	6
01 78 23	Operation And Maintenance Data.....	8
01 78 39	Project Record Documents.....	4
01 79 00	Demonstration And Training.....	4

Facility Construction Subgroup

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SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 1. Unit-cost allowances.
 2. Quantity allowances.
 3. Contingency allowances.

1.3 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1.8 UNIT-COST ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.9 QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include **taxes**, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by

Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.10 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.11 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
 - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.

2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Porcelain Tile (PT-1) - Include an allowance of \$5.00 per s.f. for porcelain floor tile in locations noted on drawings. Allowance to include materials, taxes, freight and applicable subcontractors' markups for overhead and profit. All labor and other materials required for this install is to be included within subcontractors' base scope of work and pricing. All adhesives used for this product require a warrantable system up to 99% RH.
- B. Allowance No. 2: Resilient Flooring (LVT-1) – Include an allowance of \$5.00 per s.f. for resilient flooring (LVT) in locations noted on drawings. Allowance to include LVT materials, taxes, freight and applicable subcontractors' markups for overhead and profit. All labor and other materials required for this install is to be included in subcontractors base scope of work and pricing. All adhesives used for this product require a warrantable system of to 99% RH.
- C. Allowance No. 3: Carpet Tile (WM 1 - Vestibule Walk Off Mat) – Include an allowance of \$60.00 per s.yd. for carpet tile in locations noted on drawings. Allowance to include carpet tile materials, taxes, freight and applicable subcontractors' markups for overhead and profit. All labor and other materials required for this install is to be included in subcontractors base scope of work and pricing. All adhesives used for this product require a warrantable system of to 99% RH.
- D. Allowance No. 4: Carpet Tile (CPT 1 - Office/Reception/etc.) - Include an allowance of \$30.00 per s.yd. for carpet tile in locations noted on drawings. Allowance to include carpet tile materials, taxes, freight and applicable subcontractors' markups for overhead and profit. All labor and other materials required for this install is to be included in subcontractors base scope of work and pricing. All adhesives used for this product require a warrantable system of to 99% RH.

END OF SECTION 012100

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

1.4 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

- B. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Paint the split face block at the dumpster enclosure.
1. Add/Deduct (circle one): \$_____.
- B. Alternate No. 2: Replace the bottom 2'-8" brick veneer with Arriscraft Renaissance. Color to be selected from the manufacturers full range of color options. Cast stone band to remain as specified.
1. Add/Deduct (circle one): \$_____.
- C. Alternate No. 3: ILO using 1" minus rock for ALL soil remediation use screenings for the building pad only. Foundation remediation remains 1" minus.
1. Add/Deduct (circle one): \$_____.
- D. Alternate No. 4: There is a grading and site utility package that is being bid as part of this project but will be performed under a separate contract. Any earthwork or utility companies are invited to provide an add alternate to provide this work. See enclosed plan pages listed as "Alternate 4".
1. Add/Deduct (circle one): \$_____.
- E. Alternate No. 5: Provide a cost for a design build irrigation system that addresses all landscaped areas. This alternate is to also include tapping the water service later, installing irrigation meter pit, installing backflow preventer and backflow cage
1. Add/Deduct (circle one): \$_____.
- F. Alternate No. 6: Provide a cost to include integral tinting of the exterior glazing that is not spandrel glass for the following color options:
1. Bronze. Add/Deduct (circle one): \$_____.
 2. Gray. Add/Deduct (circle one): \$_____.
 3. Midnight Gray. Add/Deduct (circle one): \$_____.

END OF SECTION 012300

SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
 - 1. Steel.
 - 2. Masonry.

1.2 DEFINITIONS

- A. Gloss Level 1 (Flat): Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 3 (Eggshell): 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 4 (Satin): 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 5 (Semi-Gloss): 35 to 70 units at 60 degrees, according to ASTM D 523.
- E. Gloss Level 6 (Gloss): 70 to 85 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 7 (High Gloss): More than 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples: For each type of paint system and each color and gloss of topcoat.

1.4 MAINTENANCE MATERIAL SUBMITTALS

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product listed in Part 3 articles for the paint category indicated.

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. Colors: **As selected by Architect from manufacturer's full range .**

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
- B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

A. Steel Substrates:

1. Water-Based Light Industrial Coating System:

- a. Prime Coat: Sherwin Williams “All Surface Enamel Primer” or approved equal.
- b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
- c. Topcoat: (Gloss Level 3). Sherwin Williams “Oil Based Industrial Enamel” or approved equal.

B. Masonry Substrates:

1. Acrylic Coating System:

- a. Prime Coat: Sherwin Williams “LOXON Concrete & Masonry Primer/Sealer” or approved equal.
- b. Intermediate and Top Coat (Gloss Level 3): Sherwin Williams “LOXON Self-Cleaning Acrylic Coating” or approved equal

END OF SECTION 099113

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SECTION 102600 - WALL AND DOOR PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Impact-resistant wall coverings.

1.2 ACTION SUBMITTALS

- A. Product Data: Include construction details, material descriptions, impact strength, dimensions of individual components and profiles, and finishes for each impact-resistant wall protection unit.
- B. Shop Drawings: For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.
 - 1. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below. Wall and Corner Guards: 12 inches long. Include examples of joinery, corners, end caps, top caps, and field splices.
 - 2. Impact-Resistant Wall Covering: 6 by 6 inches square.

1.3 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each impact-resistant plastic material, from manufacturer.
- B. Material Test Reports: For each impact-resistant plastic material.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each impact-resistant wall protection unit to include in maintenance manuals.
 - 1. Include recommended methods and frequency of maintenance for maintaining optimum condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to plastic finishes and performance.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Wall-Guard Covers: Full-size plastic covers of maximum length equal to 2 percent of each type, color, and texture of units installed, but no fewer than two, 8-foot- long units.
 - 2. Corner-Guard Covers: Full-size plastic covers of maximum length equal to 2 percent of each type, color, and texture of units installed, but no fewer than two, 4-foot- long units.
- B. Include mounting and accessory components. Replacement materials shall be from same production run as installed units.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain impact-resistant wall protection units from single source from single manufacturer.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of impact-resistant wall protection units and are based on the specific system indicated. Refer to Section 014000 "Quality Requirements."
- D. Revise subparagraph below to suit Project.

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
 - E. Surface-Burning Characteristics: Provide impact-resistant, plastic wall protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another qualified testing agency.
 - F. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Store impact-resistant wall protection units in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
 1. Maintain room temperature within storage area at not less than 70 deg F during the period plastic materials are stored.
 2. Keep plastic sheet material out of direct sunlight.
 3. Store plastic wall protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F.
 - a. Store corner-guard covers in a vertical position.
 - b. Store wall-guard covers in a horizontal position.
- 1.8 PROJECT CONDITIONS
- A. Environmental Limitations: Do not deliver or install impact-resistant wall protection units until building is enclosed and weatherproof, wet work is complete and dry, and HVAC system is operating and maintaining temperature at 70 deg F for not less than 72 hours before beginning installation and for the remainder of the construction period.
- 1.9 WARRANTY
- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall protection units that fail in materials or workmanship within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - b. Deterioration of plastic and other materials beyond normal use.
 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Engineered PVC FREE: Rigid sheet should be high-impact Acrovyn 4000 (or approved equal that meets or exceeds the specifications) with up to 50% post-consumer recycled content in standard suede texture. Chemical and stain resistance should per ASTM D543 standards as established by manufacturer.
 1. Impact Resistance: Minimum 25.4 ft-lbf/in. of notch when tested according to ASTM D 256, Test Method A.
 2. Self-extinguishing when tested according to ASTM D 635.
 3. Flame-Spread Index: 25 or less.
 4. Smoke-Developed Index: 450 or less.
- B. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.

2.2 IMPACT-RESISTANT WALL COVERINGS

- A. Impact-Resistant Sheet Wall Covering: Fabricated from plastic sheet wall-covering material.
 - 1. As indicated on drawings.
 - 2. Size: As indicated.
 - 3. Sheet Thickness: 0.040 inch.
 - 4. Color and Texture: As indicated by manufacturer's designations from manufacturer's full range of colors.
 - 5. Height: As indicated.
 - 6. Trim and Joint Moldings: Extruded rigid plastic that matches sheet wall covering color.
 - 7. Mounting: Adhesive.

2.3 FABRICATION

- A. Fabricate impact-resistant wall protection units to comply with requirements indicated for design, dimensions, and member sizes, including thicknesses of components.
- B. Preform curved semirigid, impact-resistant sheet wall covering in factory for radius and sheet thickness as follows:
 - 1. Sheet Thickness of 0.040 Inch: 24-inch radius.
 - 2. Sheet Thickness of 0.060 Inch: 36-inch radius.
- C. Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.
- D. Fabricate components with tight seams and joints with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Examine walls to which impact-resistant wall protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
 - 1. For impact-resistant wall protection units attached with adhesive or foam tape, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

3.3 INSTALLATION

- A. General: Install impact-resistant wall protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
 - 1. Install impact-resistant wall protection units in locations and at mounting heights indicated on Drawings.
 - 2. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.

- a. Provide anchoring devices to withstand imposed loads.
 - b. Where splices occur in horizontal runs of more than 20 feet, splice aluminum retainers and plastic covers at different locations along the run, but no closer than 12 inches.
 - c. Adjust end and top caps as required to ensure tight seams.
- B. Impact-Resistant Wall Covering: Install top and edge moldings, corners, and divider bars as required for a complete installation.

3.4 CLEANING

- A. Immediately after completion of installation, clean plastic covers and accessories using a standard, ammonia-based, household cleaning agent.
- B. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 102600

SECTION 108213

ROOF TOP EQUIPMENT SCREENS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Pre-formed Panels: For enclosing roof top mechanical equipment.
 - 1. Powder coated metal.
 - 2. Painted metal.
- B. Aluminum Support Framing: For direct attachment of screening panels to mechanical equipment; no base or curb required unless shown otherwise on drawings.
- C. Sliding panels to permit easy access to mechanical equipment for servicing.
- D. Not Included in This Specification:
 - 1. Touch-up painting required for scratches and screw heads.
 - 2. Field painting of prime painted screens.

1.2 RELATED SECTIONS

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM B 221 - Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire Profiles, and Tubes.
- B. The Aluminum Association, Inc. (AA):
 - 1. AA ADM-1516166 - Aluminum Design Manual.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data:
 - 1. Manufacturer's data sheets on each product to be used.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Typical installation methods.
 - 5. Sufficient data and detail to indicate compliance with these specifications.
- C. Verification Samples: Two representative units of each panel type.
 - 1. Color Selection: Submit paint chart with full range of colors available for Architect's selection. Custom color samples available upon purchase.
- D. Shop Drawings: Indicate layout heights, component connection details, and details of interface with adjacent construction.
 - 1. Roof top mechanical equipment to be enclosed.
- E. Certification: Manufacturer's Certificate of Compliance certifying that panels supplied meet or exceed requirements specified.
 - 1. Professional Engineer stamped drawings.
- F. Closeout Submittals: Warranty documents, issued and executed by manufacturer, countersigned by Contractor.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of one year documented experience.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
 - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
 - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
 - 3. Retain mock-up during construction as a standard for comparison with completed work.
 - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6 PRE-INSTALLATION CONFERENCE

- A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
 - 1. Notify Architect four (4) calendar days in advance of scheduled meeting date.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.
- B. Storage and Handling: Protect materials and finishes during handling and installation to prevent damage.
- C. Protect from damage due to weather, excessive temperature, and construction operations.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
- B. Field Measurements: Take measurements of supporting paving, footings, or piers. Indicate measurements on shop drawings fully documenting any field condition that may interfere with the screen system installation.

1.9 COORDINATION

- A. Installer for work under this Section shall be responsible for coordination of panel and framing sizes and required options with the Contractor's requirements.
 - 1. Request information on sizes and options required from the Contractor.
- B. Submit shop drawings to the Contractor and obtain written approval of shop drawing from the Contractor prior to fabrication.

1.10 WARRANTY

- A. If any part of the rooftop equipment screen fails because of a manufacturing defect within 1 to 5 years from the date of substantial completion, the manufacturer will furnish without charge the required replacement parts. Any local transportation, related service labor or diagnostic call charges are not included.
- B. This warranty does not cover failure of your rooftop equipment screen if the Owner damages it, or if the failure is caused by improper installation. In no event shall the Warrantor be liable for incidental or consequential damages.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: CityScapes International Inc., which is located at: 4200 Lyman Ct., Hilliard, OH 43026; Toll Free: 877-SCREENS; Phone: 614-850-2549; Email: Contact@cityscapesinc.com; Web: <https://cityscapesinc.com/>
- B. Substitutions: Approved equal. Submit documentation for review.

2.2 PERFORMANCE AND DESIGN REQUIREMENTS

- A. Regulatory Requirements: Comply with requirements of building authorities having jurisdiction in Project location.
- B. Design Criteria:
 - 1. Unit Attached Rooftop Equipment Screens:
 - a. The manufacturer is responsible for the structural design of all materials, assembly, and attachments to resist snow, wind, suction, and uplift loading at any point without damage or permanent set.
 - b. Framing shall be designed in accordance with the Aluminum Design Manual to resist the following loading:
 - 1) ASCE 7-18 - Minimum Design Loads for Buildings and Other Structures; American Society of Civil Engineers.
 - c. Default Clear Space Between Equipment and Screen: 36 inch (914 mm) nominal.
 - d. Standard Truss Sizes: 36 and 48 inch (1219 mm).
 - e. Screen Heights: 35, 52, and 70 inches (889, 1321, 1778 mm) and may be stacked as needed. Use height that extends from just below the top of the lowest parapet to just above the top of the tallest RTU.
 - f. Corners may have one panel mounted at 45 degrees.
 - g. Screens may partially surround units.
 - h. Trusses: Should be spaced no further than 96 inches (2438 mm) along cabinet perimeter.
 - 2. Design Requirements to be Supplied to Manufacturer:
 - a. Obstructions above unit base rail elevation and within 72 inches (1829 mm) of unit must be identified.
 - b. Access panels, access doors, vent hoods, power disconnects, etc. must be accounted for in design; clearly noted on unit cut sheets or roof plans provided to Manufacturer.
 - c. Equipment Obstruction Details Provided to Cityscapes: Such as door swings, horizontal ducting, or piping may be made to run between top and bottom rails. Contact Manufacturer for custom solutions.
 - 3. Limitations:
 - a. Screens may be designed 22 to 60 inches (559 to 1524 mm) clear, as decided necessary by Manufacturer.

- 1) Requests for special clearances should be noted.
- b. Screen Heights:
 - 1) Cannot exceed 8 inches (203 mm) more than cabinet height.
 - 2) Units may have varying screen heights if needed to clear obstructions such as parapet walls.
- c. Top Trim: May be added to cover as much of the unit above attachment points.
- d. Screen Supports: To be attached below any drip edges.
- e. Spans Between Supports Larger than 100 inches (2540 mm): May require a post mount support.
- f. Removable Screen Sections:
 - 1) May be used for large maintenance clearances under special conditions:
 - 2) Removable Sections:
 - a) Fit between two trusses.
 - b) Are not adjacent to one another; two trusses either side of section.
 - c) Are not placed on the ends of partially sided systems.
- g. Units May be Nested Together If:
 - 1) Cabinets are no further than 96 inches (2438 mm) apart.
 - 2) Units have similar cabinet and curb heights.
 - 3) Units are not on isolation/vibration curbs.
- h. If nested look is desired but not possible from one of the reasons above, independent screens can be sized to fit together with small gaps.

2.3 MATERIALS

- A. Powder Coated or Painted Metal Panels: Fabricated from rigid aluminum panels in multiple thicknesses.
 - 1. Minimum Thickness: 0.050 inches (1.27 mm).
- B. Framing: Aluminum Plate, Shapes and Bar: ASTM B 221, alloy 6061-T5 or 6063-T5.
- C. Threaded Fasteners: Screws, bolts, nut, and washers to be Stainless steel.
 - 1. Corner Assembly Fasteners: No. 12-14 x 1-1/4 inches (32 mm) stainless steel self-drilling screws.
 - a. Length: As required to develop full holding capacity of screw when fastened to Mechanical Equipment.
 - 2. Provide lock washer or other locking device at all bolted connections.

2.4 FABRICATION

- A. Provide factory-formed panel systems with continuous interlocking panel connections and indicated or necessary components: Form all components true to shape, accurate in size, square and free from distortion or defects. Cut panels to precise lengths indicated on approved shop drawings.
- B. Fabricate all panels to slide horizontally to allow access to unit access panels behind.
- C. Panel Style, Design, and Trim:
 - 1. Panel Design: Metal Series. Vented Louver.
 - 2. Decorative Top Trim Profile: Band.
- D. Trim and Closures: Material: Aluminum. Thickness: 0.050 to 0.25 inches (1.27 to 6.35 mm),
 - 1. Finish: Manufacturers standard coating system, unless shown otherwise on drawings.
- E. Framing: Fabricate and assemble components in largest practical sizes, for delivery to Project site.
 - 1. Corner Assemblies: Construct to required shape with joints tightly fitted.

2. Components Required Framing Anchorage: Fabricate anchors and related components of material and finish as required, or as specifically noted.

2.5 FINISHES

- A. Aluminum Framing: Mill finish.
- B. Panel Coating: Manufacturer's standard powder coating system, factory applied.
 1. Color: Selected from full range of manufacturer's standard colors.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Installer's Examination: Examine conditions under which construction activities of this section are to be performed.
 1. Submit written notification to Architect and Screen manufacturer if such conditions are unacceptable.
 2. Beginning erection constitutes installer's acceptance of conditions.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install units in accordance with the manufacturer's instructions and approved shop drawings. Keep perimeter lines straight, plumb, and level. Provide brackets, anchors, and accessories necessary for a complete installation.
- B. Fasten structural supports to HVAC units without damaging the operation of the unit.
 1. Provide corner and mid-span assemblies as required by approved shop drawings so that the panels are supported uniformly.
 2. Fastening bottom rail using bolts to permit ease of access to HVAC units.
- C. Insert panels into structural supports, except where fixed attachment points are indicated. Butt panels to adjacent panels for uniform fit. Fasten fixed panels in accordance with the shop drawings.
- D. Metal Separation: Where aluminum materials would contact dissimilar materials, insert rubber grommets at attachment points, thus eliminating where dissimilar metals would otherwise be in contact.
- E. Do not cut or abrade finishes which cannot be restored. Return items with such finishes to shop for required alterations.

3.4 ERECTION TOLERANCES

- A. Maximum misalignment from true position: 1/4 inch (6 mm).

3.5 CLEANING AND PROTECTION

- A. Remove all protective masking from material immediately after installation.
- B. Protection:

1. Ensure that the finishes and structure of installed systems are not damaged by subsequent construction activities.
 2. If minor damage to finishes occurs, repair damage in accordance with manufacturer's recommendations; provide replacement components if repaired finishes are unacceptable to Architect.
- C. Prior to Substantial Completion: Remove dust or other foreign matter from component surfaces; clean finishes in accordance with manufacturer's instructions.
1. Clean units in accordance with the manufacturer's instructions.

END OF SECTION

GRADING AND SANITARY SEWER EXTENSION PLANS FOR 1046 & 1066 WENTZVILLE PARKWAY

A TRACT OF LAND BEING LOTS 2 AND 3 OF 1053 MEYER ROAD SUBDIVISION PLAT AND ALSO PART OF THE NORTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 47 NORTH, RANGE 1 EAST AS RECORDED IN PB 45 PG 68 OF THE RECORDERS OFFICE FOR ST. CHARLES COUNTY, MISSOURI.



LEGEND

EXISTING		PROPOSED
	UTILITY POLE	
	GUY WIRE	
	LIGHT STANDARD	
	ELECTRIC BOX	
	ELECTRIC METER	
	ELECTRIC MANHOLE	
	OVERHEAD ELECTRIC LINE	
	UNDERGROUND ELECTRIC LINE	
	TELEPHONE BOX	
	TELEPHONE MANHOLE	
	UNDERGROUND TELEPHONE LINE	
	FIRE HYDRANT	
	WATER METER	
	WATER VALVE	
	WATER MANHOLE	
	GAS LINE	
	GAS METER	
	GAS VALVE	
	GAS DRIP	
	STREET SIGN	
	BOLLARD OR POST	
	MAILBOX	
	SANITARY SEWER	
	STORM SEWER	
	STORM DRAIN GRATE INLET	
	STORM DRAIN AREA INLET	
	STORM DRAIN MANHOLE	
	SANITARY SEWER MANHOLE	
	FLARED END SECTION	
	FENCE: CHAIN LINK OR WIRE	
	FENCE: WOOD CONSTRUCTION	
	GUARDRAIL	
	MINOR CONTOUR INTERVAL	
	MAJOR CONTOUR INTERVAL	
	SPOT ELEVATION	
	BUSH OR SHRUB	
	TREE W/APPROXIMATE DIAMETER SIZE	
	FOUND SURVEY MONUMENT AS NOTED	
	SET SURVEY MONUMENT AS NOTED	
	CLEAN-OUT/DOWN-SPOUT	
	SWALE	
	UTILITY EASEMENT	
	PROPERTY LINE	
	RIGHT OF WAY	

ABBREVIATIONS

ADS - ADVANCED DRAINAGE SYSTEMS, INC.	N.T.S. - NOT TO SCALE
ATG - ADJUST TO GRADE	O.C. - ON CENTER
B.M. - BENCHMARK	PAVT. - PAVEMENT
C.I. - CURB INLET	P.C. - PORTLAND CEMENT
C.O. - CLEAN OUT	PCC - PRECAST CONCRETE
CMP - CORRUGATED METAL PIPE	P.S.I. - POUNDS/SQUARE INCH
CONC. - CONCRETE	PROP. - PROPOSED
C.Y. - CUBIC YARDS	P.U.M.I. - PRIVATE UNDER MSD INSPECTION
D.C.I. - DOUBLE CURB INLET	R.C. - REINFORCED CONCRETE
DIP - DUCTILE IRON PIPE	R.R. - RAIL ROAD
DIA. - DIAMETER	R.C.P. - REINFORCED CONCRETE PIPE
DS - DOWNSPOUT	S.F. - SQUARE FOOT
ELEV. - ELEVATION	S.Y. - SQUARE YARD
EX - EXISTING	SAN. - SANITARY
FD - FLOOR DRAIN	SCH. - SCHEDULE
FF - FINISH FLOOR	SWPPP - STORM WATER POLLUTION
FL - FLOW LINE	TBA - TO BE ABANDONED
G.I. - GRATE INLET	TBR - TO BE REMOVED
GAL. - GALLON	TYP. - TYPICAL
H.G. - HYDRAULIC GRADE	U/P - USE IN PLACE
HYD. - HYDRANT	VCP - VITRIFIED CLAY PIPE
MAX - MAXIMUM	YD. - YARD DRAIN
MH - MANHOLE	WV - WATER VALVE
MIN - MINIMUM	



Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO.



LOCATION MAP
1" = 500'

CITY OF WENTZVILLE GENERAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS, CURRENT EDITION.
- NO CONSTRUCTION ACTIVITY SHALL COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED FROM THE CITY OF WENTZVILLE ENGINEERING DIVISION AND A PRE-CONSTRUCTION MEETING HAS BEEN COORDINATED WITH ENGINEERING DIVISION PERSONNEL.
- A COPY OF THE CITY OF WENTZVILLE STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS, MOST CURRENT EDITION, AND A COPY OF THE APPROVED IMPROVEMENT PLANS SHALL BE ON SITE AT ALL TIMES WHILE CONSTRUCTION ACTIVITY IS OCCURRING.
- CARE SHALL BE TAKEN BY THE CONTRACTOR NOT TO CAUSE ANY SOIL, MUD, EARTH, SAND, GRAVEL, ROCK, STONE, CONCRETE, OR OTHER MATERIALS OR LIQUIDS TO BE FLUNG OR DEPOSITED, DROPPED UPON OR TO ROLL, FLOW, STAND, OR WASH UPON OR OVER ANY PUBLIC STREET, STREET IMPROVEMENT, ROAD, SEWER, STORM DRAIN, WATERCOURSE OR RIGHT-OF-WAY OR ANY OTHER PUBLIC PROPERTY IN VIOLATION OF CITY ORDINANCE NUMBER 884.
- ALL TRAFFIC CONTROL AND BARRICADING WITHIN CITY OF WENTZVILLE RIGHT-OF-WAY SHALL CONFORM TO PARY VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). STREET CLOSURES WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY OF WENTZVILLE ENGINEERING DIVISION. ALL LANE CLOSURES SHALL BE COORDINATE WITH THE ENGINEERING DIVISION 24 HOURS IN ADVANCE.
- MODIFICATIONS TO THE APPROVED PLANS REQUIRE REVIEW AND APPROVAL BY THE CITY OF WENTZVILLE ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL WILL REQUIRE REMOVAL AT THE OWNER'S / CONTRACTOR'S EXPENSE.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK BY CONTACTING MISSOURI ONE-CALL SYSTEM, INC. OR OTHER NECESSARY ENTITIES. HOWEVER, CONTACTING MISSOURI ONE-CALL SYSTEM DOES NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY OF CHECKING WITH THE RECORDER OF DEEDS FOR OWNER / OPERATORS OF ALL UNDERGROUND UTILITIES IN THE AREA.



MODOT IS NOT A PART OF DIG-RITE. CALL MODOT @ 314-340-4100 BEFORE DIGGING.

CITY OF WENTZVILLE GRADING NOTES:

- CONSTRUCTION ACCESS TO SITE SHALL CONSIST OF A MINIMUM 25' X 50' TEMPORARY GRAVEL WASH DOWN AREA, LOCATED ADJACENT TO PAVEMENT. ALL TRUCKS SHALL BE WASHED DOWN PRIOR TO LEAVING SITE.
- ALL SOFT SOILS SHOULD BE REMOVED, DOWN TO FIRM MATERIAL. PRIOR TO THE PLACEMENT OF FILL MATERIAL. THE SOFT SOILS MAY BE UTILIZED AS FILL, PROVIDED THAT THE MATERIAL IS SPREAD OUT TO DRY SUFFICIENTLY AND CAN BE COMPACTED TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
- NO SLOPE SHALL BE STEEPER THAN 3 (HORIZONTAL):1(VERTICAL). ALL SLOPES SHALL BE SODDED OR SEEDED AND MULCHED.
- CITY SHALL BE PROVIDED WITH A COPY OF GRADING COMPACTION TESTS RESULTS. IN AREAS OF PROPOSED PAVEMENT, A MINIMUM COMPACTION TO AT LEAST 90% OF MAXIMUM DRY DENSITY, AS DETERMINED BY THE MODIFIED PROCTOR TEST, OR 95% OF MAXIMUM DRY DENSITY, AS DETERMINED BY THE STANDARD PROCTOR TEST WILL BE REQUIRED, OR AS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL SOILS REPORT.
- ANY TRASH, DEBRIS, PAVEMENT OR FOUNDATION MATERIALS FROM ANY EXISTING OR PREVIOUS ON-SITE BUILDING, STRUCTURE, OR IMPROVEMENT MUST BE REMOVED FOR PROPER DISPOSAL OFF SITE, OR AS RECOMMENDED BY THE OWNERS LICENSED PROFESSIONAL ENGINEER.
- ANY WELLS OR SPRINGS WHICH MAY EXIST ON THE PROPERTY SHOULD BE LOCATED. WELLS SHALL BE CAPPED AND SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, AND IN A MANNER ACCEPTABLE TO THE CITY OF WENTZVILLE. SPRINGS SHALL BE HANDLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE OWNERS LICENSED PROFESSIONAL ENGINEER.
- ANY CONTAMINATED SOILS ENCOUNTERED DURING GRADING OPERATIONS SHALL BE HANDLED IN ACCORDANCE WITH THE OWNERS LICENSED PROFESSIONAL ENVIRONMENTAL ENGINEERING REPRESENTATIVE.

SHEET INDEX	
Sheet Number	Sheet Title
C000	COVER SHEET
C100	GRADING PLAN
C200	SWPPP
C201	SWPPP DETAILS
C300	UTILITY PLAN
C400	SEWER PROFILES

PROPERTY INFORMATION

EXISTING OWNER:	BH3 HOLDINGS LLC
DEVELOPER:	BH3 HOLDINGS LLC
SITE ADDRESS:	1046 & 1066 WENTZVILLE PARKWAY WENTZVILLE, MISSOURI 63385
EXISTING ZONING:	C-2 GENERAL COMMERCIAL WP WENTZVILLE PARKWAY OVERLAY DISTRICT
PROPOSED ZONING:	C-2 GENERAL COMMERCIAL WP WENTZVILLE PARKWAY OVERLAY DISTRICT
SUBJECT SITE AREA:	LOT 2 LOT 3 TOTAL
PROPOSED BUILDING AREA:	8,400 SF ±
FUTURE BUILDING AREA:	10,000 SF ±
WENTZVILLE PARKWAY OVERLAY DISTRICT SETBACK:	FRONT = 30' SIDE = 10' (30' ON STREET SIDE OF CORNER LOT) REAR = 30'
WATER DISTRICT:	CITY OF WENTZVILLE
FIRE PROTECTION:	WENTZVILLE FIRE PROTECTION DISTRICT
SEWER DISTRICT:	CITY OF WENTZVILLE
ELECTRIC SERVICE:	AMEREN MISSOURI ELECTRIC
NATURAL GAS SERVICE:	SPIRE ENERGY
SCHOOL DISTRICT:	WENTZVILLE SCHOOL DISTRICT
COMMUNICATIONS:	SPECTRUM COMMUNICATIONS
BUILDING HEIGHT:	22'
FEMA MAP NUMBER:	FEMA FIRM 29183C0205G EFFECTIVE JANUARY 20, 2016 PROPERTY IS WITHIN ZONE X, AREA OF MINIMAL FLOOD HAZARD
GENERAL NOTES:	<ul style="list-style-type: none"> ALL EXTERIOR SIGNAGE WILL CONFORM WITH THE CITY'S SIGNAGE REGULATIONS AND REQUIRE SEPARATE SIGN PERMIT APPLICATION REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY EXTERIOR MECHANICAL EQUIPMENT, WHETHER ROOF OR GROUND-MOUNTED, SHALL BE SCREENED TO THE HEIGHT OF THE EQUIPMENT IN ACCORDANCE WITH THE CITY'S CODE. ALL EXTERIOR LIGHTING WILL COMPLY WITH THE CITY'S ADOPTED LIGHTING REGULATIONS. A GRADING PERMIT IS REQUIRED. A CONSTRUCTION PERMIT WITH THE ENGINEERING DEPARTMENT IS REQUIRED. RETAINING WALL REQUIRES A BUILDING PERMIT. RETAINING WALLS 4 FEET OR TALLER REQUIRE CALCULATIONS BY A LICENSED ENGINEER. RETAINING WALLS AND APPURTENANCES SUCH AS FOOTINGS, GEOGRID AND FENCING WILL NEED TO BE LOCATED OUTSIDE OF EASEMENTS ALONG PROPERTY LINES. PIPE DISCHARGES TO BE LOCATED OUTSIDE OF THE INFLUENCE OF ANY PROPOSED RETAINING WALLS

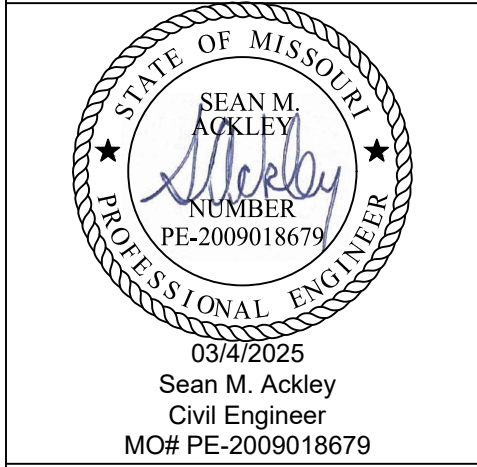
GRADING AND SANITARY SEWER EXTENSION PLANS FOR:

1046 & 1066 WENTZVILLE PARKWAY
1046 & 1066 WENTZVILLE PARKWAY
WENTZVILLE, MO. 63385

Project No: 24-0330

No	Description	Date
1	CITY SUBMITTAL	01/10/2025
2	CITY COMMENTS	01/30/2025
3	CITY COMMENTS	02/25/2025
4	CITY COMMENTS	03/11/2025

THE CONTRACTOR AND THE OWNER ON FILE THE SOLE RESPONSIBILITY OF THE PROJECT AND SHALL BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER.

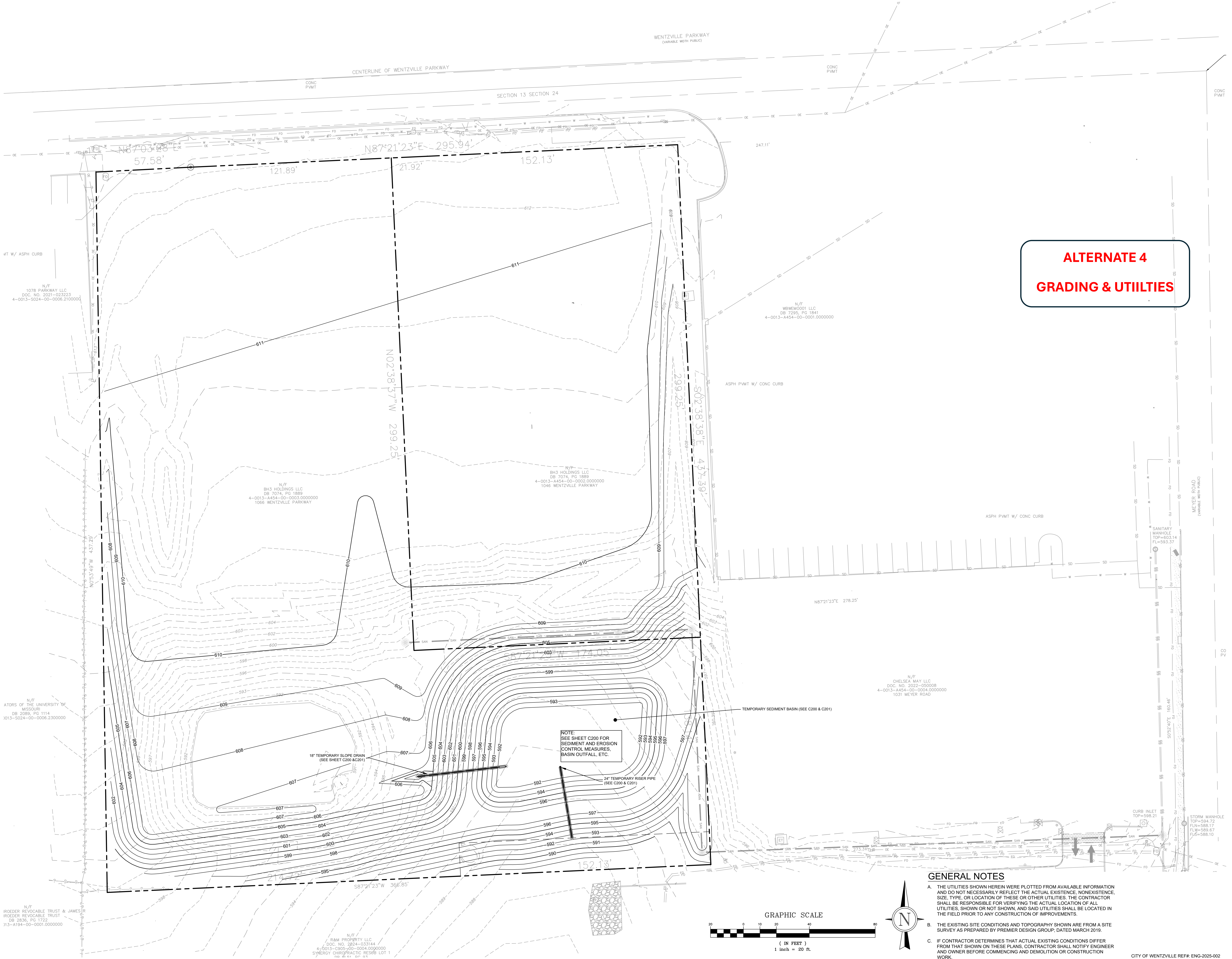


ALTERNATE 4
GRADING & UTILITIES

DATE:	03/14/2025
SCALE:	AS NOTED

COVER SHEET

C000

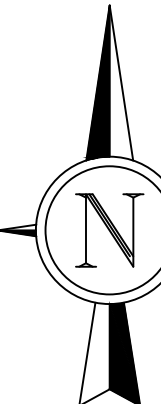
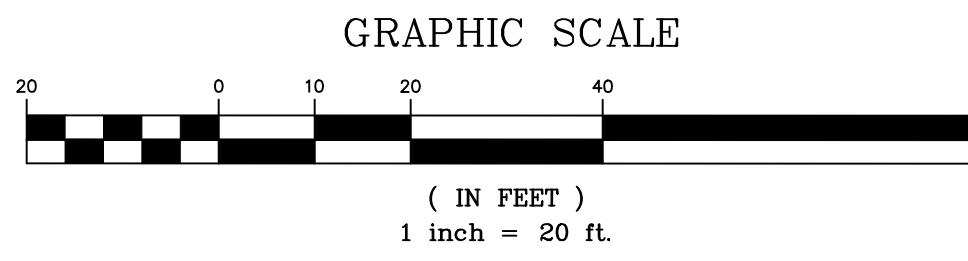


**ALTERNATE 4
GRADING & UTILITIES**

NOTE:
SEE SHEET C200 FOR
SEDIMENT AND EROSION
CONTROL MEASURES,
BASIN OUTFALL, ETC.

GENERAL NOTES

- A. THE UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, OR LOCATION OF THESE OR OTHER UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY CONSTRUCTION OF IMPROVEMENTS.
- B. THE EXISTING SITE CONDITIONS AND TOPOGRAPHY SHOWN ARE FROM A SITE SURVEY AS PREPARED BY PREMIER DESIGN GROUP, DATED MARCH 2019.
- C. IF CONTRACTOR DETERMINES THAT ACTUAL EXISTING CONDITIONS DIFFER FROM THAT SHOWN ON THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER BEFORE COMMENCING AND DEMOLITION OR CONSTRUCTION WORK.



PREPARED FOR:
BHS HOLDINGS, LLC
300 WEST PEARCE BLVD.
WENTZVILLE, MO 63385

GRADING AND SANITARY SEWER EXTENSION PLANS FOR:
1046 & 1066 WENTZVILLE PARKWAY
1046 & 1066 WENTZVILLE PARKWAY
WENTZVILLE, MO, 63385

Project No: 24-0330

No	Description	Date
1	CITY SUBMITTAL	01/10/2025
2	CITY COMMENTS	01/30/2025
3	CITY COMMENTS	02/25/2025
4	CITY COMMENTS	03/11/2025

THIS DRAWING AND THE CONTAINED THEREIN ARE THE SOLE PROPERTY OF ENGENUITY AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF ENGENUITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY CONSTRUCTION OF IMPROVEMENTS.

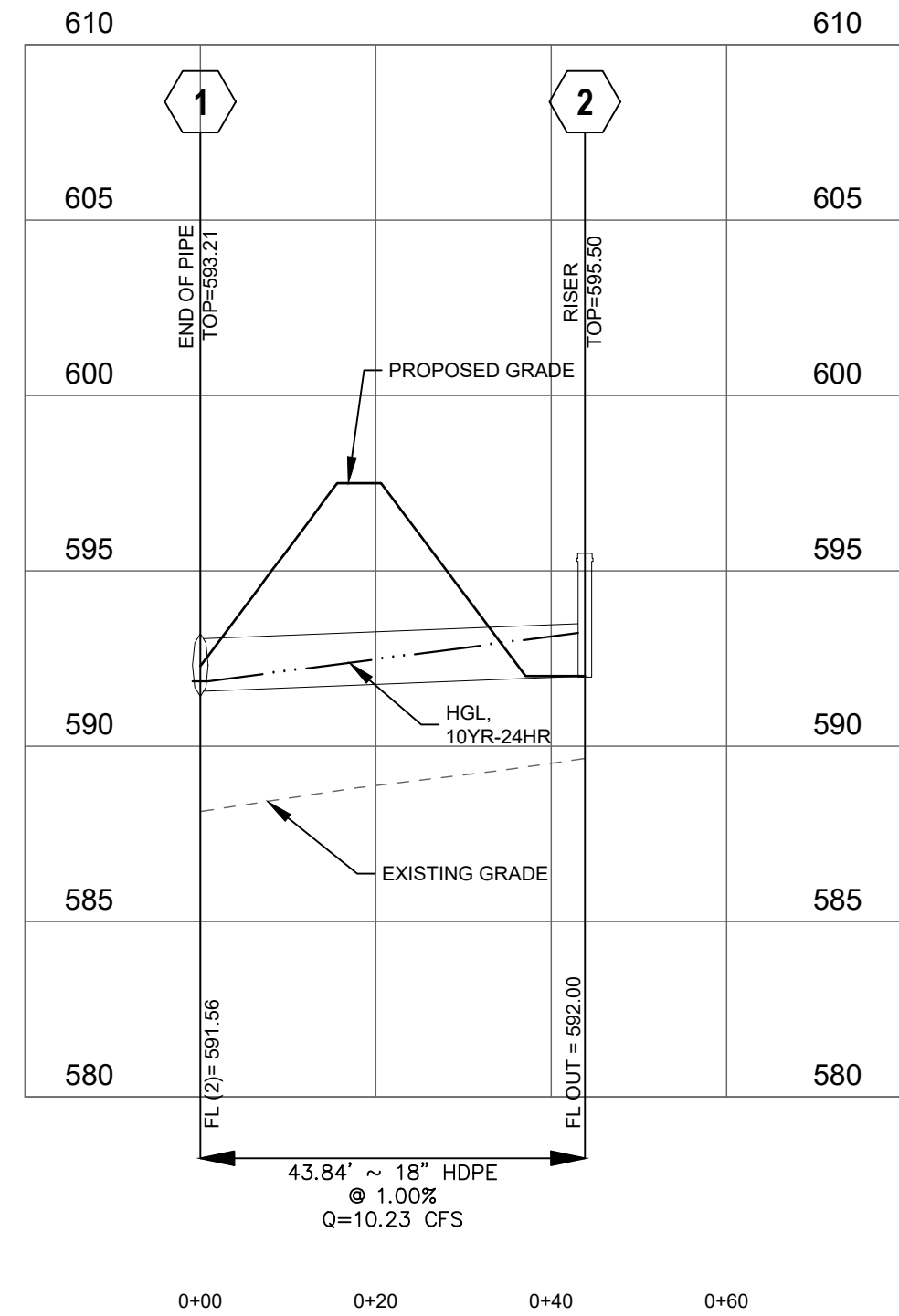
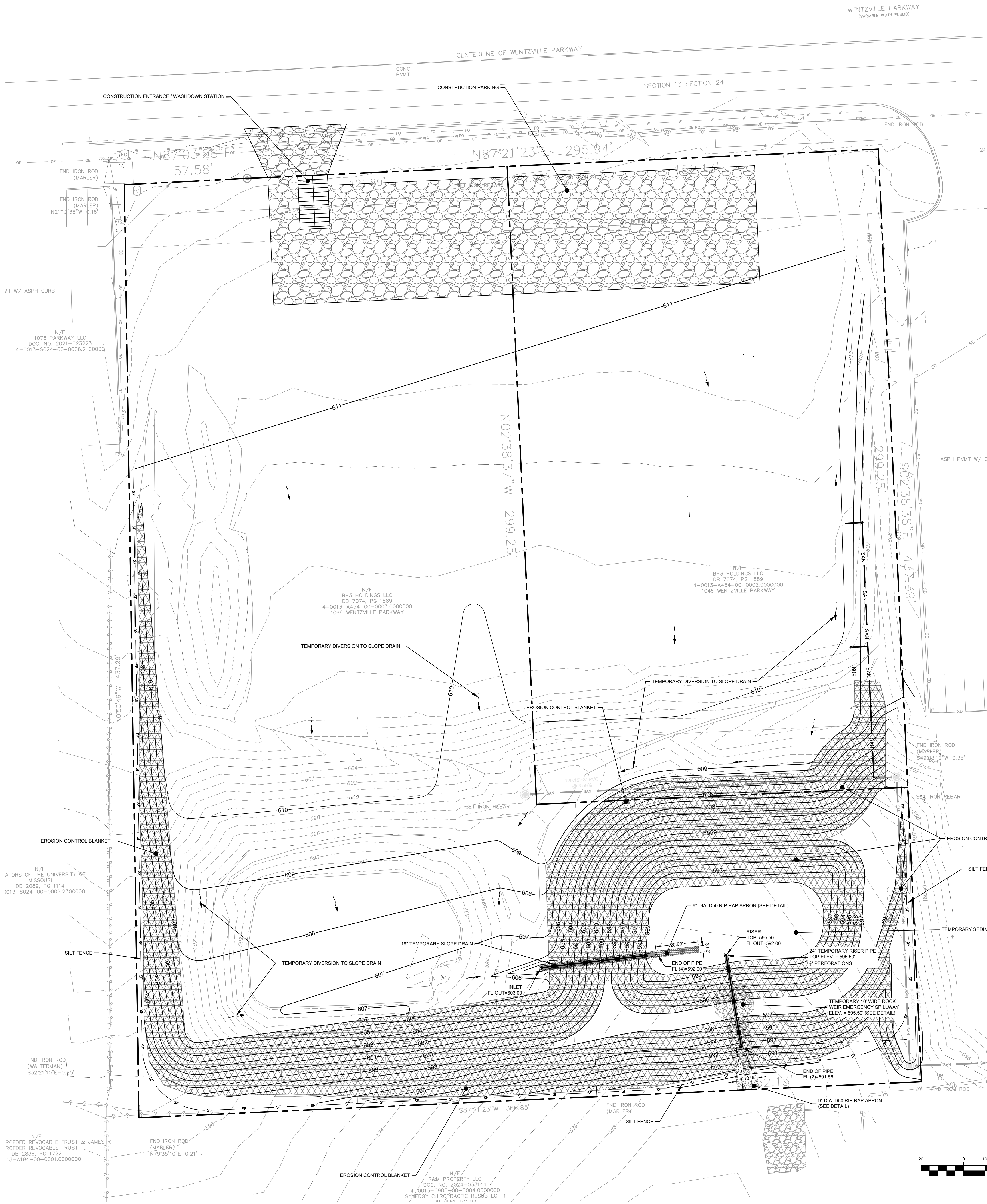


03/12/2025
Sean M. Ackley
Civil Engineer
M# PE-2009018679

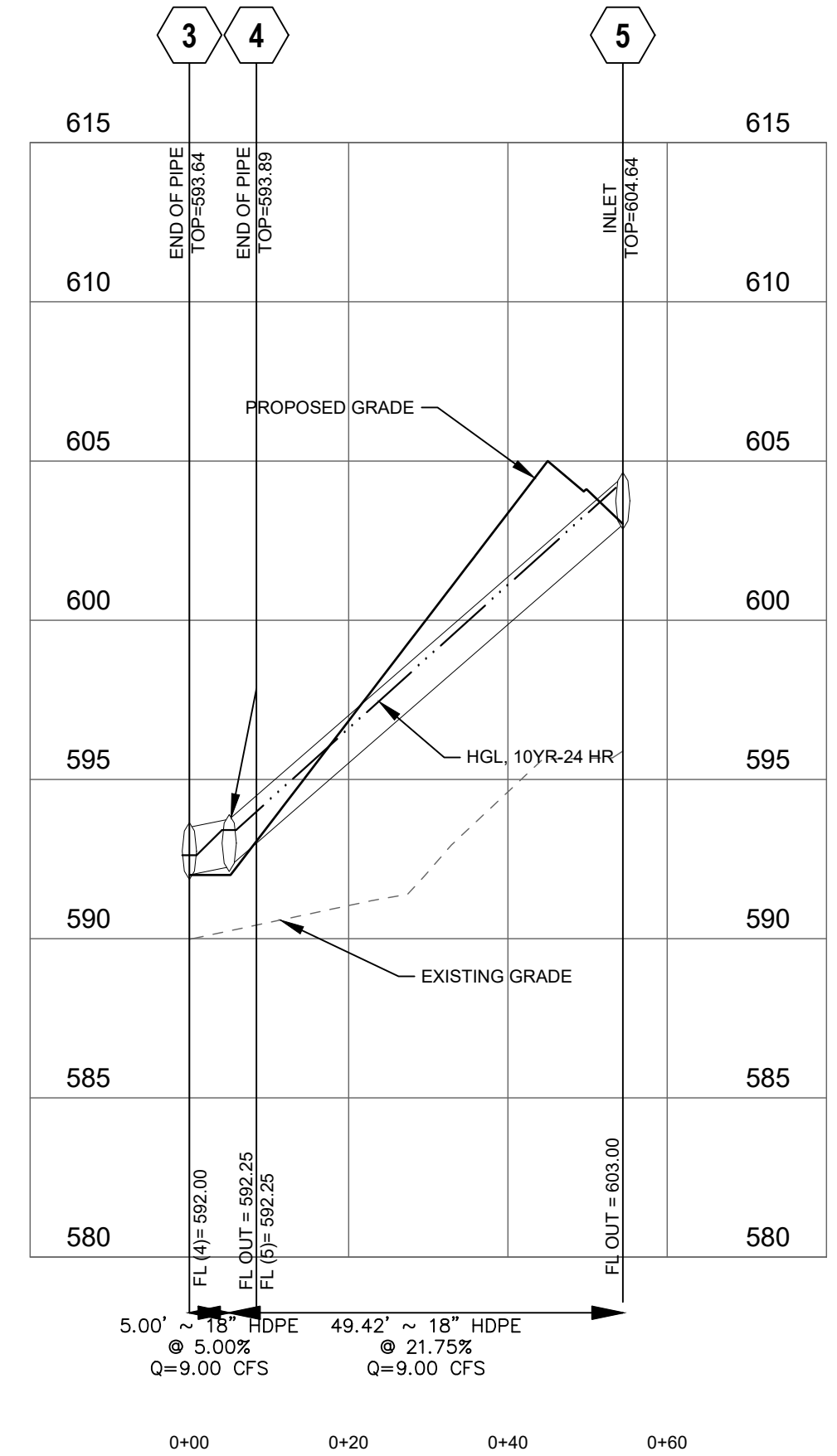
DATE:	03/12/2025
SCALE:	AS NOTED

GRADING PLAN

C100



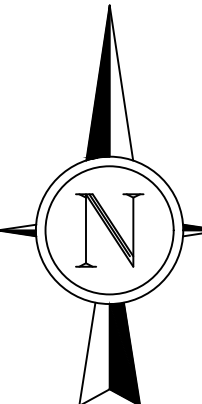
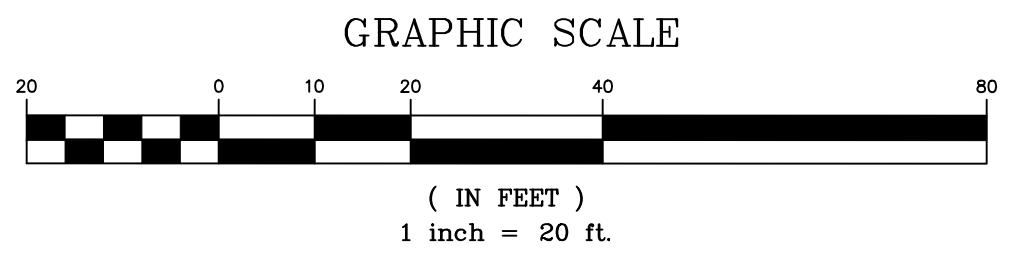
TEMPORARY RISER PIPE
SCALE: 1"=20' HORZ.
1"=5' VERT.



TEMPORARY SLOPE DRAIN
SCALE: 1"=20' HORZ.
1"=5' VERT.

Slope Drain																			
Line No.	LineID	LineSize	FlowRate	Capacity Full	Invert Dn	Invert Up	LineLength	LineSlope	VelAve	Grnd/Rim Elev Dn	Grnd/Rim Elev Up	HGL Dn	HGL Up	Rim-Hw	Critical Depth	EGLDn	EGLUp	EnergyLoss	n-valuePipe
		(in)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(%)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	4-3	18.00	9.00	25.44	592.00	592.25	5.00	5.00	9.64	593.64	593.89	592.62	593.4	0.48	1.16	593.200	594.00	0	0.012
2	5-4	18.00	9.00	53.06	592.25	603.00	49.42	21.75	6.14	593.89	604.64	593.41	604.16	0.48	1.16	594.000	604.75	0	0.012
3	2-1	18.00	10.23	16.50	591.00	592.00	47.51	2.10	8.21	592.64	593.64	591.85	593.23	0.41	1.23	592.530	593.91	0	0.012

ALTERNATE 4
GRADING & UTILITIES



GENERAL NOTES

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No	Description	Date
1	CITY SUBMITTAL	01/10/2025
2	CITY COMMENTS	01/30/2025
3	CITY COMMENTS	02/25/2025
4	CITY COMMENTS	03/11/2025

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03/4/2025
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

DATE:	03/4/2025
SCALE:	AS NOTED

SWPPP
C200

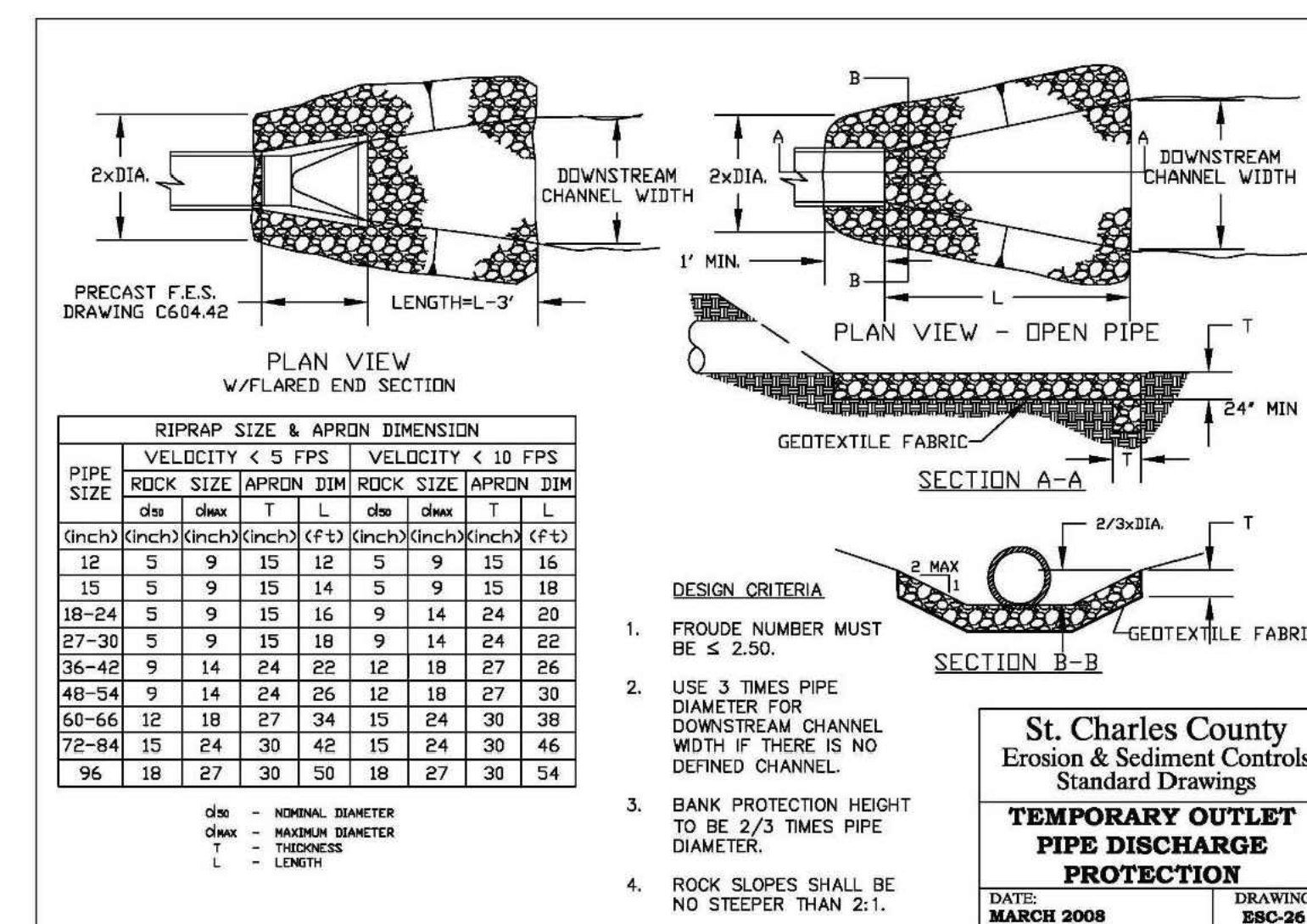
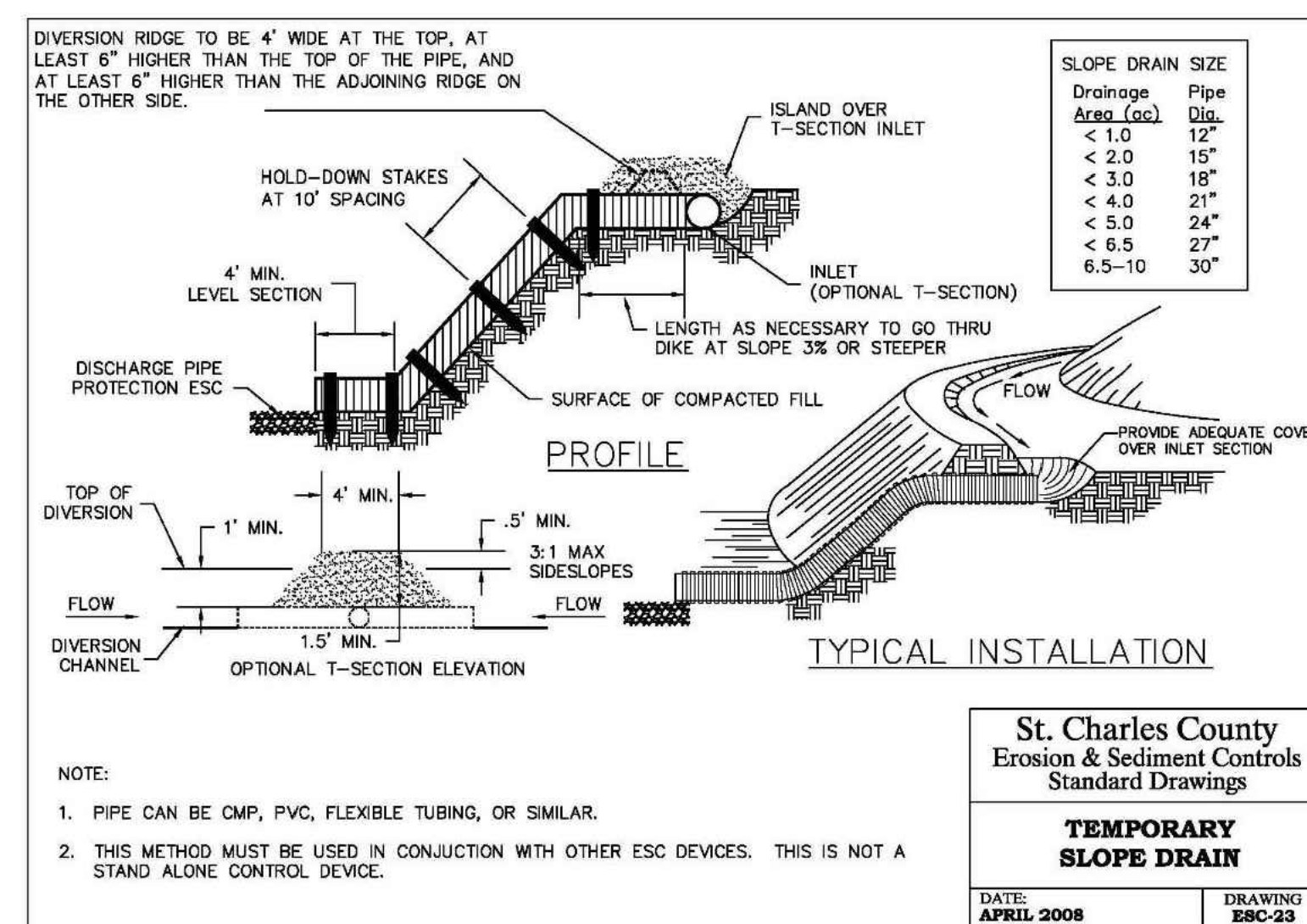
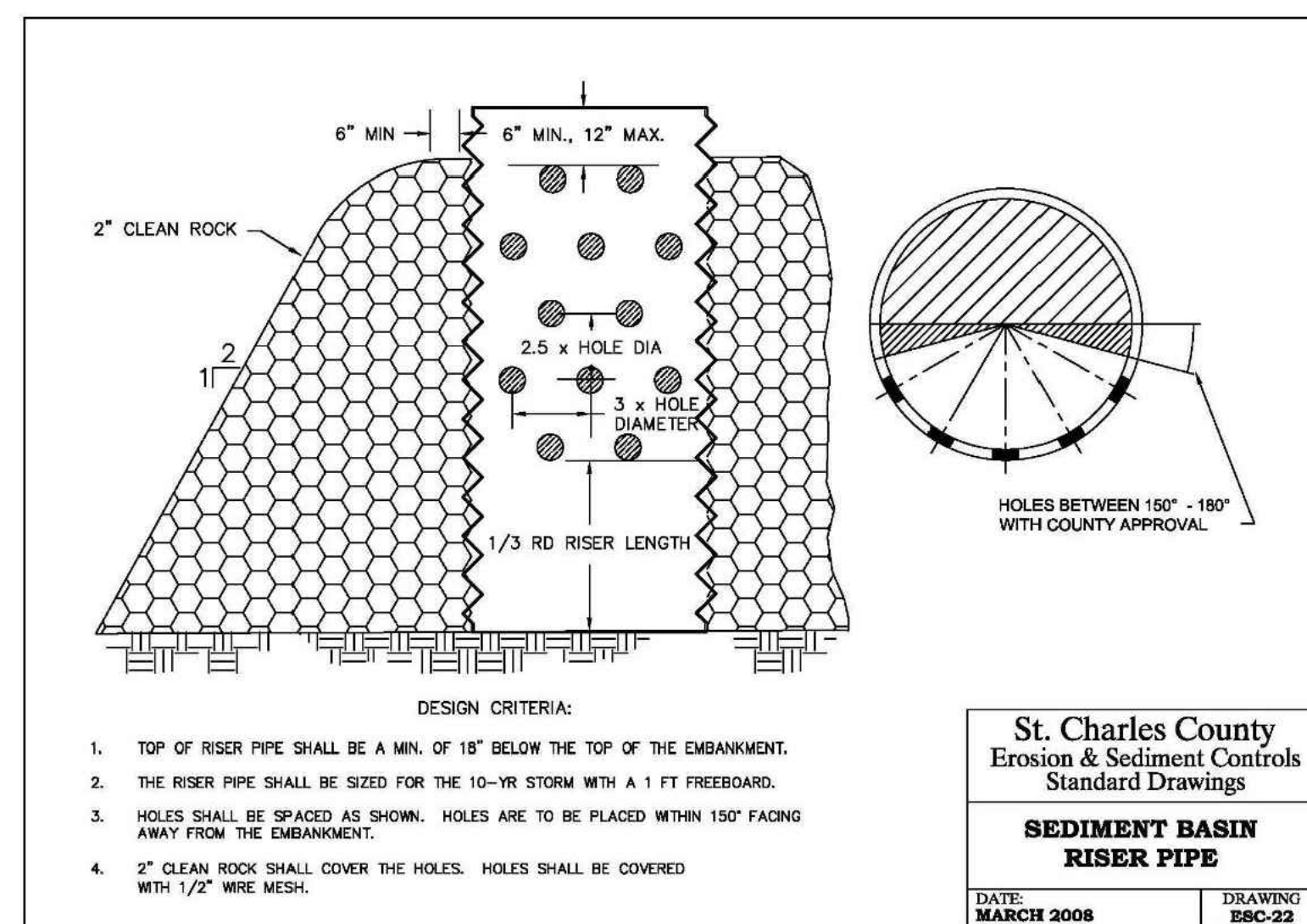
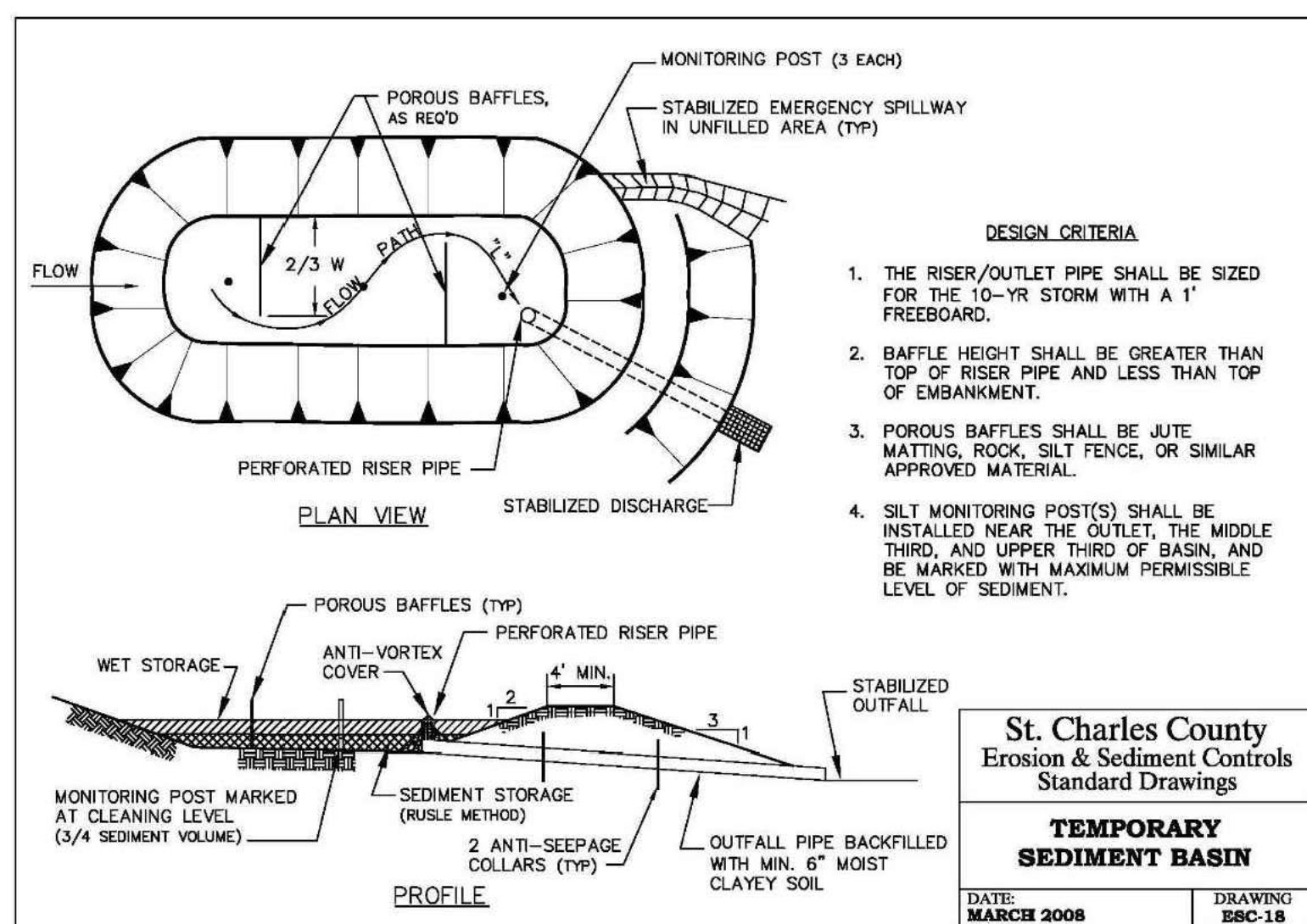
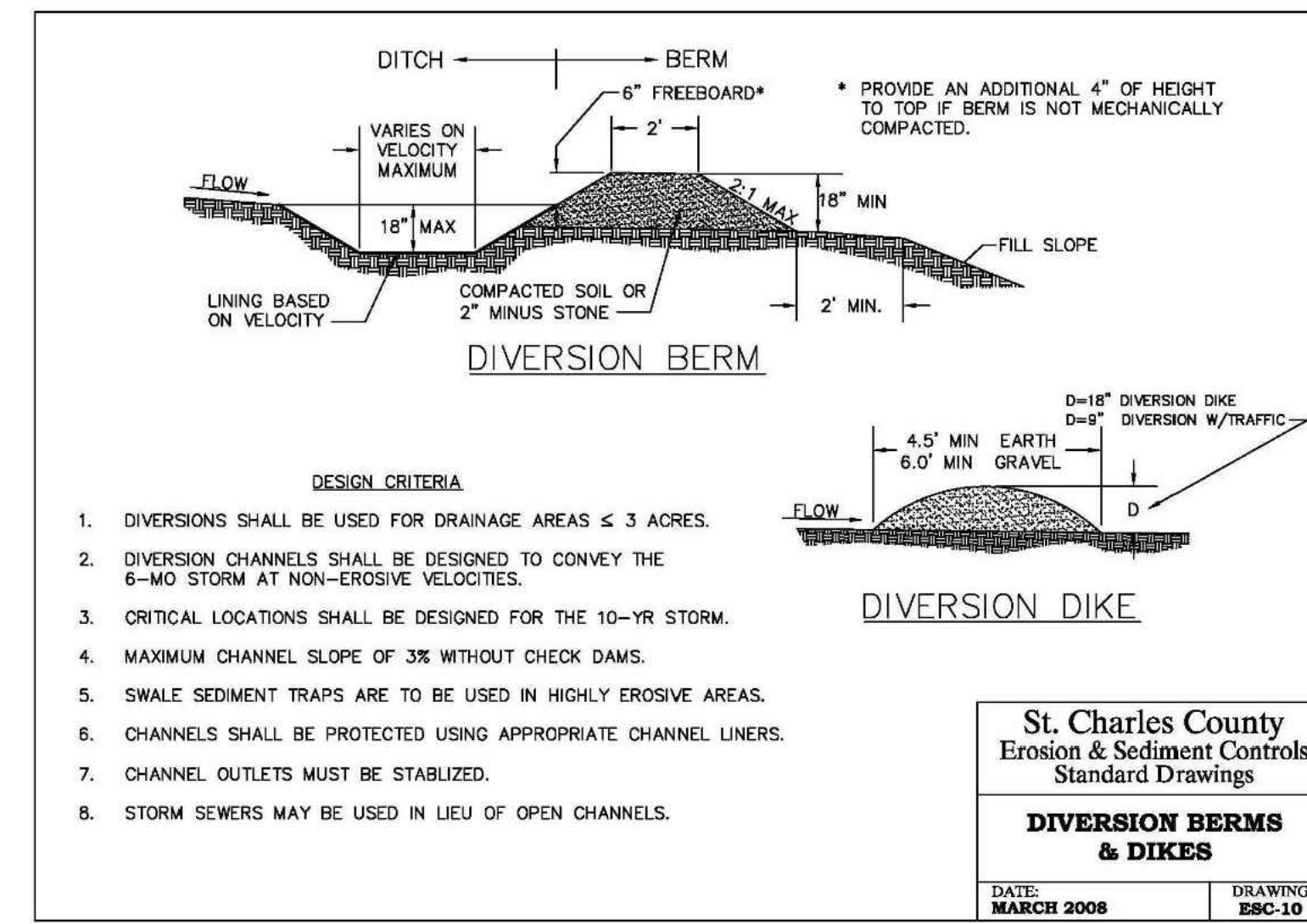
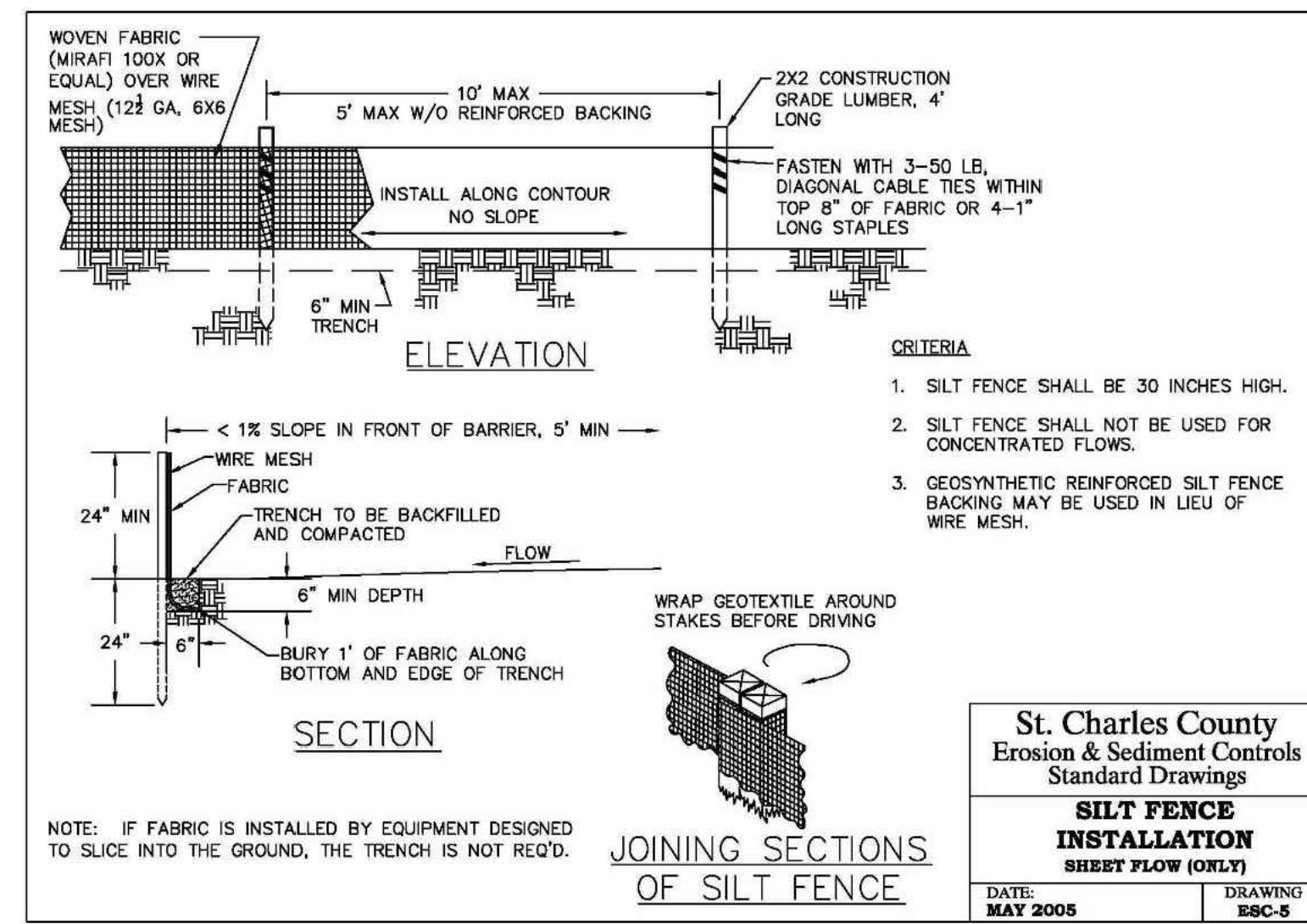
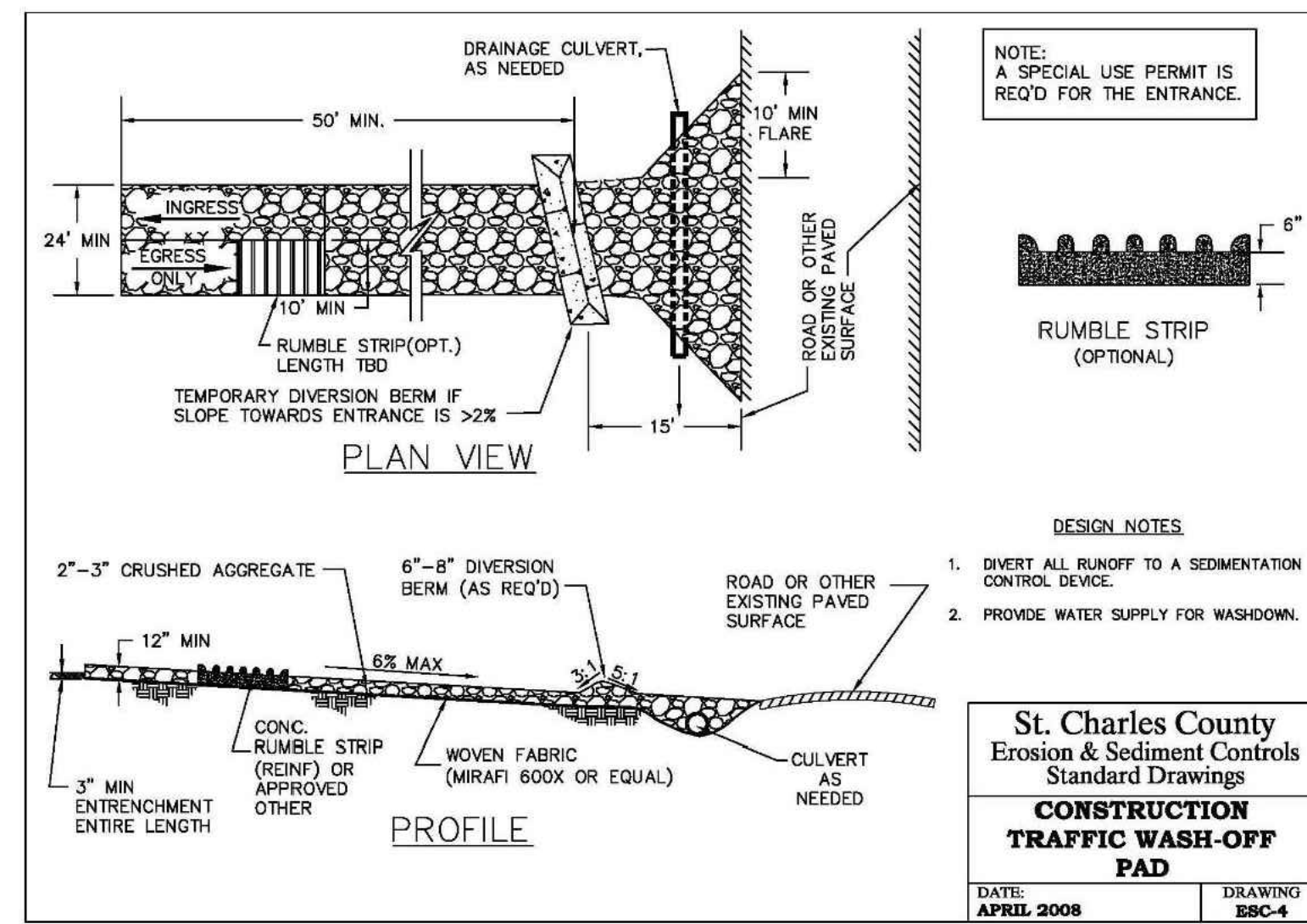
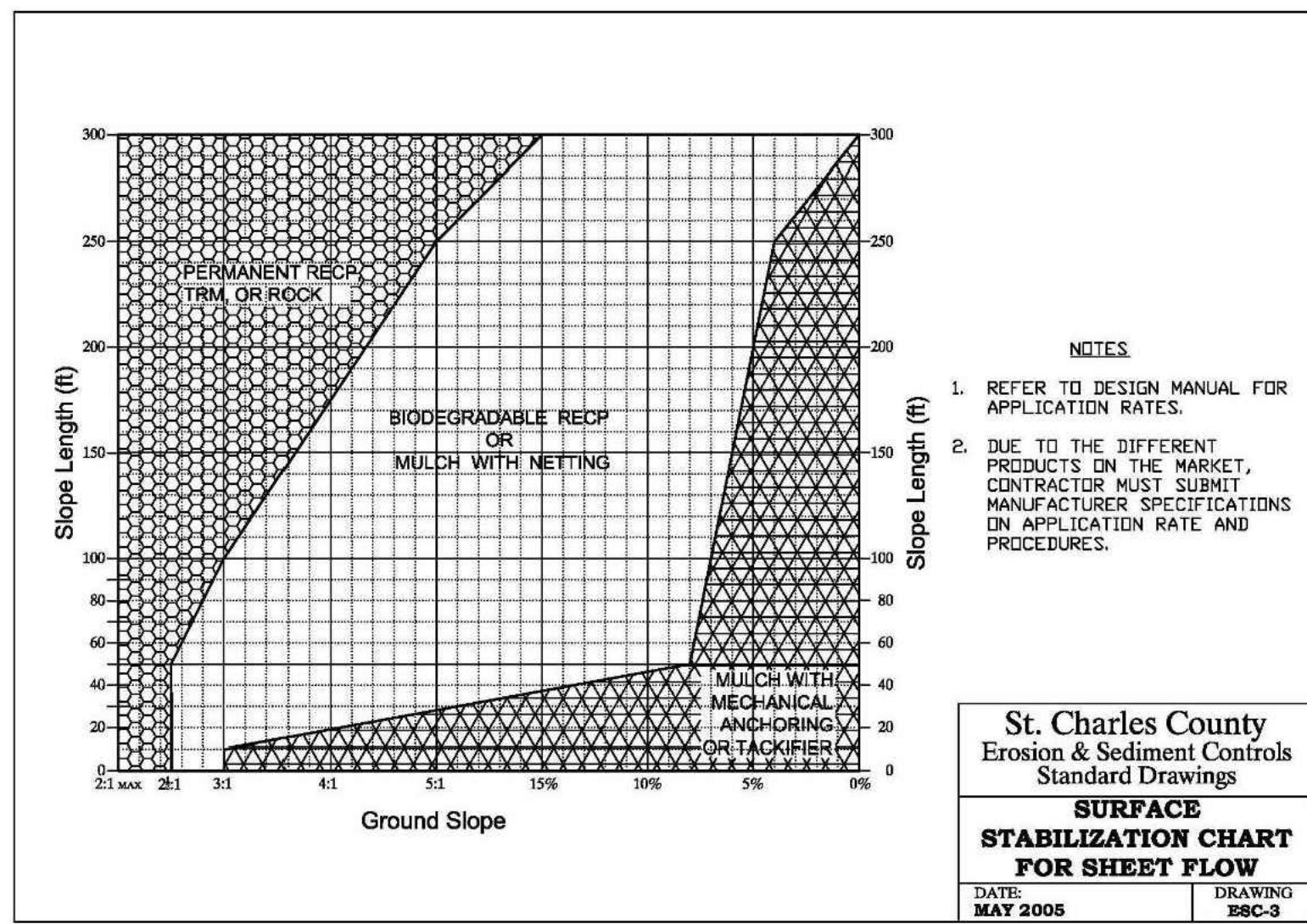


Table 60-7 Temporary Fall Seeding

Plant Species	Rate ¹ (lb/acre)	Seeding Times
Side-Oats	65	8/16 - 9/30
Winter Rye	50	8/01 - 10/15
Winter Wheat	60	8/01 - 10/15
Orchard Grass	120	8/01 - 10/15
Perennial Ryegrass	80	8/01 - 10/15
Tall Fescue	80	8/01 - 10/15
K-31 Fescue	120	9/01 - 11/15
Ladino Clover	2 ²	8/15 - 9/15
Crimson Clover	6 ²	8/15 - 9/15
Orchard Grass and Oats or Rye	15 ²	8/15 - 9/15
	40 ²	

Table 60-6 Soil Stabilization Scheduling

Soil Disturbance Activity or Condition	Required Stabilization Time
Soil disturbance has ceased in areas greater than 2,000 square feet.	14 days
After construction of dikes, swales, diversions, and other concentrated flow areas	5 days
When slopes are steeper than 3 horizontal to 1 vertical	7 days
When slopes are greater than 3% and longer than 150 feet.	14 days
Perimeter controls around soil stockpiles.	End of workday
Stabilization or covering of inactive stockpiles.	30 days
When land disturbance is completed, permanent soil stabilization must be installed.	30 days

Table 60-6 Soil Amendment Rates

Soil Amendment Material	Application Rate (Lb per Acre)
Fertilizer Nitrogen (N)	50 ¹
Phosphate (P ₂ O ₅)	90 ¹
Potash (K ₂ O)	90 ¹
Lime	1,000 ²

Table 60-9 Mulching Materials

Material	Rate	Requirements	Installation/Uses
Straw	1.5-2.5 tons/acre (3-4 tons, if roller punched)	Dry, unchopped, unweathered, free of weed seeds & rot.	Spread by machine 1.5-2.5 inches deep; must be tacked or tied down.
Compost Blanket	1" thick	Double the application rate for embankments.	Follow manufacturer's application method.
Wood fiber, wood cellulose, paper	1-2 tons/acre	Double the application rate in critical areas.	Use with power mulcher or hydroseeder; may be used to tack straw on steep slopes. Cannot be used in hot dry weather.

ROLLMAX[®] ROLLED EROSION CONTROL

Specification Sheet
EroNet[™] DS150[®] Erosion Control Blanket

DESCRIPTION
 The ultra short-term double net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional length of up to 3 months. (NOTE: functional length may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a polypropylene netting having an approximate 0.50 x 0.50 (1/2" x 1/2") mesh with photodegradable acceleration to provide breakdown of the netting within approximately 60 days, depending upon geographical location and elevation. The blanket shall be woven together on 1.50 inch (3/8") centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2.5 inches (5-12.5 cm) from the edge) as an overlap guide for adjacent mats.

Material Content

Main	100% Straw Fiber	0.5 Fibers/yd (0.27 fibers/m)
Netting	Tag and bottom mesh, lightweight photodegradable with photo accelerators	1.8 to 1000 sq ft (0.73 g/m ²)
Thread	Dependable	

Standard Roll Sizes

Width	6.67 (2.03 m)	8.0 (2.4 m)	16.0 (4.87 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	112 ft (34.14 m)
Weight ± 10%	40 lbs (18.14 kg)	50 lbs (22.68 kg)	100 lbs (45.34 kg)
Area	80 sq ft (7.41 m ²)	101 sq ft (9.37 m ²)	202 sq ft (18.72 m ²)

Design Permissible Shear Stress

Unvegetated Shear Stress	1.75 psf (84 Pa)
Unvegetated Velocity	6.00 fps (1.83 m/s)

Slope Design Data: C Factors

Slope Length (L)	C1	C2	C3
0-20 ft (0 m)	0.004	0.100	N/A
20-50 ft	0.003	0.110	N/A
≥ 50 ft (15.2 m)	0.02	0.100	N/A

Roughness Coefficients - Unveg.

Flow Depth	Manning's n
0.50 ft (0.15 m)	0.035
0.50 - 2.0 ft	0.035-0.021
≥ 2.0 ft (0.60 m)	0.02

¹ If using aerial seeding or other broadcast method to apply seed without rolling or tuck-packing, increase seeding rates by 50 percent.
² Pure live seed (PLS)

¹ Increase the rate by 25% for slopes steeper than 5:1.
² Rate is in effective neutralizing material (ENM) units.

¹ If using aerial seeding or other broadcast method to apply seed without rolling or tuck-packing, increase seeding rates by 50 percent.
² Pure live seed (PLS)

Project No: 24-0330

No	Description	Date
1	CITY SUBMITTAL	01/10/2025
2	CITY COMMENTS	01/30/2025
3	CITY COMMENTS	02/25/2025
4	CITY COMMENTS	03/11/2025

THE ENGINEER AND THE CONTRACTOR SHALL BE THE SOLE PROPRIETORS OF THIS PROJECT AND SHALL BE RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF THE PROJECT. THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF THE PROJECT.

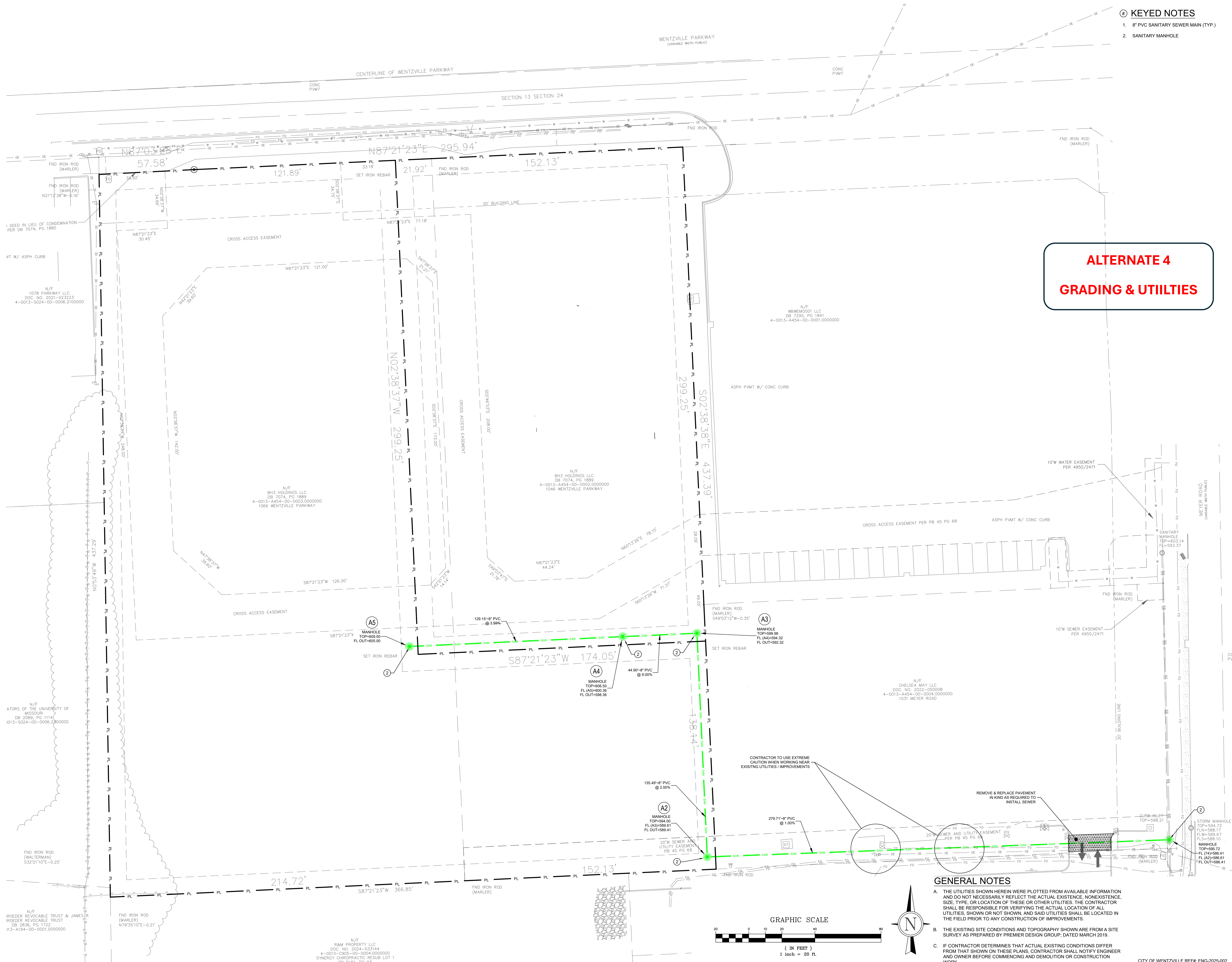
03/14/2025
 Sean M. Ackley
 Civil Engineer
 MO# PE-2009018679

THE PROFESSIONAL ENGINEER HAS AFFIXED HIS SEAL AND SIGNED THIS DRAWING TO THE BEST OF HIS KNOWLEDGE AND BELIEF IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERING ACT AND ALL APPLICABLE RULES AND REGULATIONS OF THE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS OF THE STATE OF MISSOURI.

ALTERNATE 4
GRADING & UTILITIES

DATE: 03/14/2025
 SCALE: AS NOTED

SWPPP DETAILS

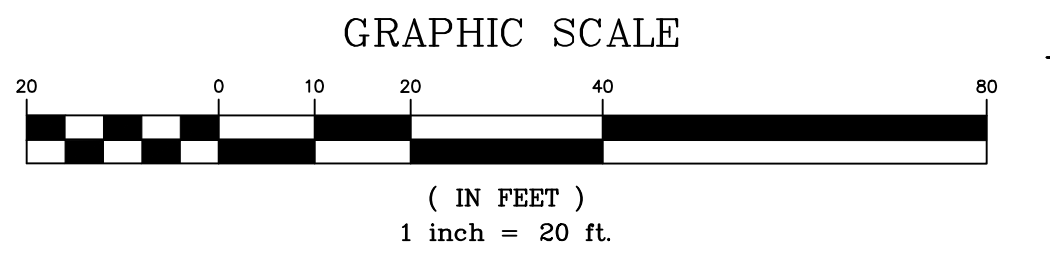


**ALTERNATE 4
GRADING & UTILITIES**

- KEYED NOTES**
1. 8" PVC SANITARY SEWER MAIN (TYP.)
 2. SANITARY MANHOLE

GENERAL NOTES

- A. THE UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, OR LOCATION OF THESE OR OTHER UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY CONSTRUCTION OF IMPROVEMENTS.
- B. THE EXISTING SITE CONDITIONS AND TOPOGRAPHY SHOWN ARE FROM A SITE SURVEY AS PREPARED BY PREMIER DESIGN GROUP, DATED MARCH 2019.
- C. IF CONTRACTOR DETERMINES THAT ACTUAL EXISTING CONDITIONS DIFFER FROM THAT SHOWN ON THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER BEFORE COMMENCING AND DEMOLITION OR CONSTRUCTION WORK.



ENGENUITY
BUILDING VALUE
BY DESIGN

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CHESTERFIELD, MO 63005
WWW.ENGENUITY.COM
MEMBER COMPANY OF AIA AND ASPE

PREPARED FOR:
BHS HOLDINGS, LLC
300 WEST PEARCE BLVD.
WENTZVILLE, MO 63385

GRADING AND SANITARY SEWER EXTENSION PLANS FOR:
1046 & 1066 WENTZVILLE PARKWAY
1046 & 1066 WENTZVILLE PARKWAY
WENTZVILLE, MO, 63385

Project No: 24-0330

No	Description	Date
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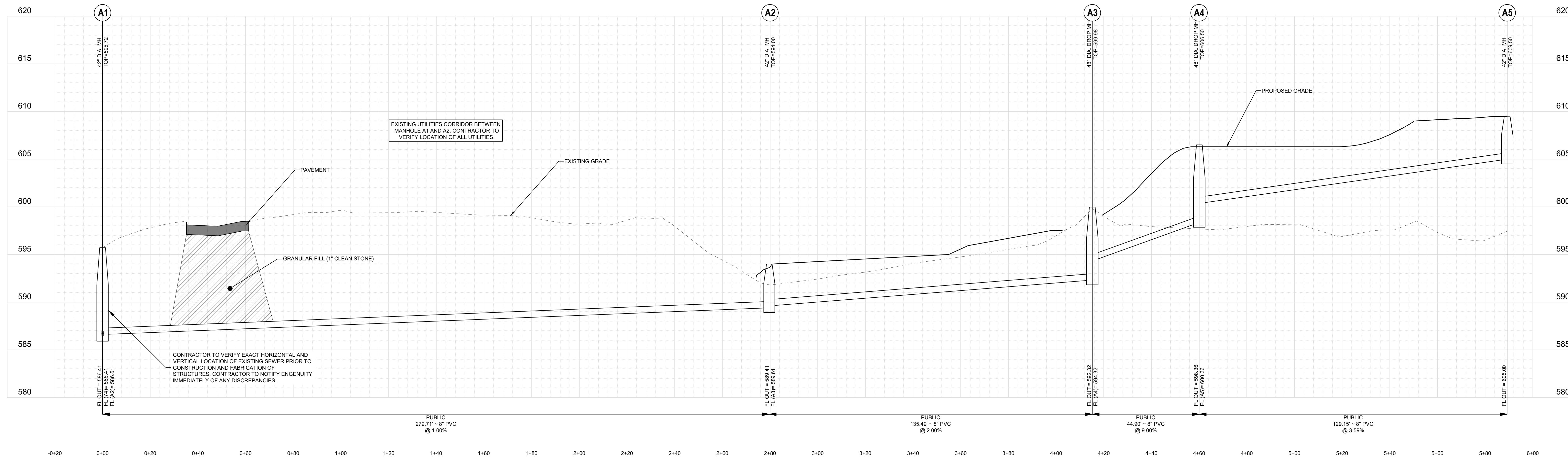
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STATE OF MISSOURI
SEAN M. ACKLEY
PROFESSIONAL ENGINEER
NUMBER
PE-2009018678
03/14/2025
Sean M. Ackley
Civil Engineer
MO# PE-2009018678

DATE: 03/14/2025
SCALE: AS NOTED

UTILITY PLAN

C300



SAN A
 SCALE: 1"=20' HORIZ.
 1"=5' VERT.

ALTERNATE 4
GRADING & UTILITIES



PREPARED FOR:
 BHS HOLDINGS, LLC
 300 WEST PEARCE BLVD.
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03/4/2025
 Sean M. Ackley
 Civil Engineer
 MO# PE-2009918679

DATE: 03/4/2025
 SCALE: AS NOTED

SEWER PROFILES

C400