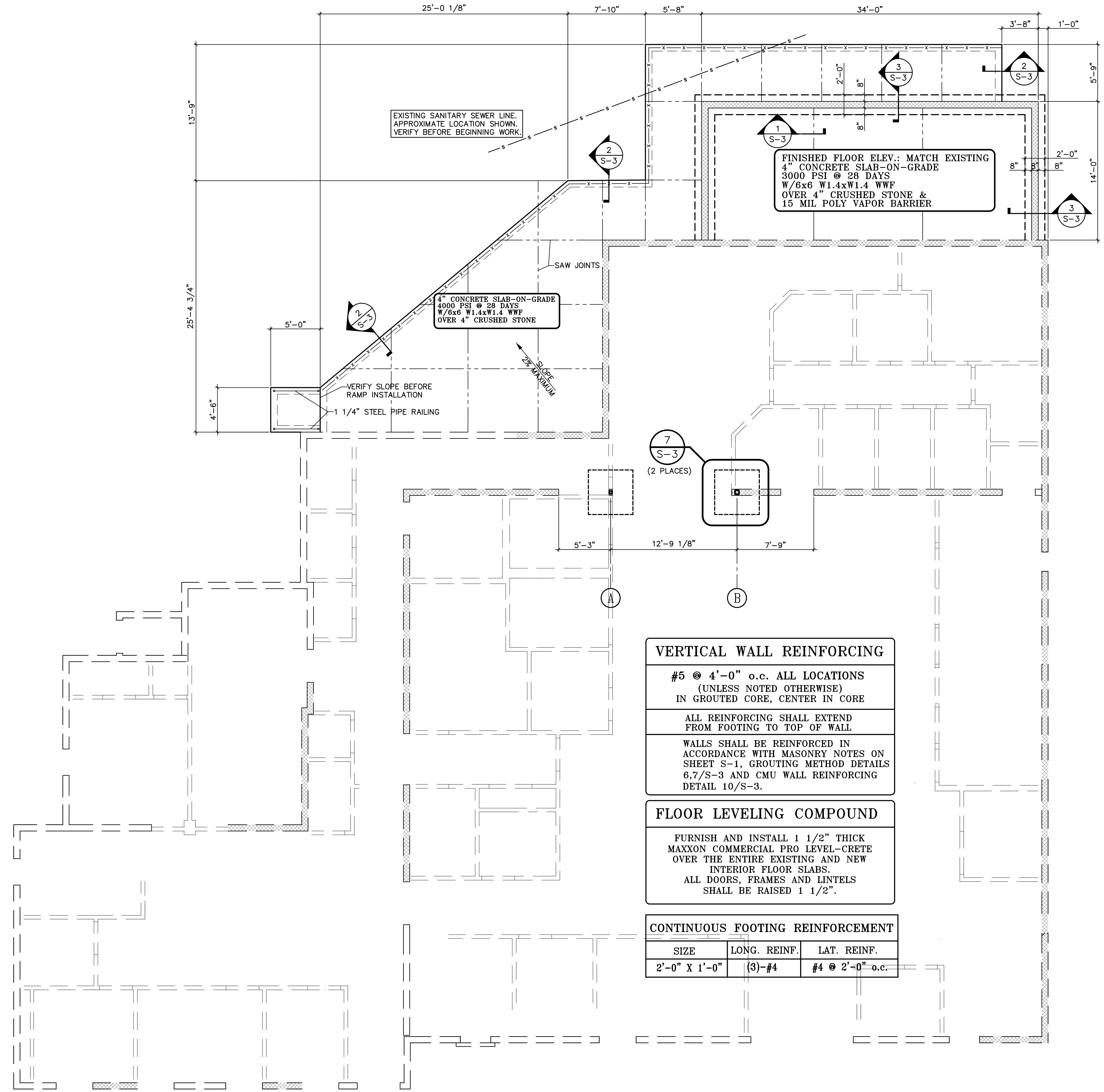

VERTICAL WALL REINFORCING

#5 @ 4'-0" o.c. ALL LOCATIONS
(UNLESS NOTED OTHERWISE)
IN GROUTED CORE, CENTER IN CORE

ALL REINFORCING SHALL EXTEND FROM FOOTING TO TOP OF WALL

WALLS SHALL BE REINFORCED IN ACCORDANCE WITH MASONRY NOTES ON SHEET S-1, GROUTING METHOD DETAILS 6,7/S-3 AND CMU WALL REINFORCING DETAIL 10/S-3.

FLOOR LEVELING COMPOUND

FURNISH AND INSTALL 1 1/2" THICK MAXXON COMMERCIAL PRO LEVEL-CRETE OVER THE ENTIRE EXISTING AND NEW INTERIOR FLOOR SLABS.
ALL DOORS, FRAMES AND LINTELS SHALL BE RAISED 1 1/2".

CONTINUOUS FOOTING REINFORCEMENT

SIZE	LONG. REINF.	LAT. REINF.
2'-0" X 1'-0"	(3)-#4	#4 @ 2'-0" o.c.

SEE SHEET S-4 FOR 2 CANOPIES

LAYOUT:

1. Before beginning work, Contractor shall verify all existing building horizontal and vertical dimensions. Verified dimensions shall be marked on drawings and submitted to designer for review.

GRADING NOTES:

1. Topsoil, asphalt paving and other unsuitable materials shall be stripped from the site a distance of 5 feet outside cuts, fills and building limits.
2. Proofroll areas to receive fill, as well as final subgrade areas. Use dump truck weighing at least 20 tons. Any area that rut or pump shall be undercut to firm bearing soils and backfilled with well-compacted soil.
3. Fill materials shall consist of compacted crushed stone. Place fill stone in 8" loose lifts and compacted to 98 percent of the standard proctor maximum dry density.
4. The referenced geotechnical report provides guidance regarding foundation excavation and placement. New foundations shall be undercut to residual soils at a width 18" wider than the footing. Flowable fill concrete (1,000 psi @ 28 days) shall be used to fill the void to the bottom of foundation.

CONCRETE NOTES:

1. All foundation and slab-on-grade concrete shall be 3000 PSI @ 28 days (W/C<49). Exterior concrete shall be 4000 PSI @ 28 days (W/C<46). All exterior concrete shall be air entrained (6 percent). Fly ash shall be limited to 25 percent of cementitious materials. Slump: 4-6". Concrete mix shall not exceed 90 degrees at time of placement.
2. Reinforcing steel shall be A615, grade 60.
   Concrete cover: Foundations - 3"
   Slabs - 1"
3. All work shall be performed in accordance with ACI 301 and 117.
4. Tool all exposed corners.
5. Floor surfaces shall receive steel trowel finish. Exterior flat surfaces shall receive light broom finish. At a minimum, flatwork concrete shall be sprayed/rolled with a membrane forming curing compound. Coordinate application with floor covering contractor. Exposed wall surfaces shall receive smooth form finish.
6. Reinforcement at foundation steps and corners shall be continuous with 24" bar laps.
7. Concrete shall be tested in accordance with ACI 318:
   a. At least once a day for each strength used that day.
   Seven (7) cylinders shall be taken for each test. Cylinders shall be tested at 7 and 28 days. Results shall be reported to Designer. Acceptance shall be in accordance with ACI 318.
8. Vapor barrier shall be 15 mils thick, tensile strength >45 lb/inch, puncture resistance = 2200 grams, with taped edges.

MASONRY NOTES:

1. One core of concrete masonry units at exterior building corners shall be filled with grout from the foundation to the bond beam. Core shall have 1 - #5 rebar full depth.
2. Cores below lintel and beam bearing points shall be grouted from foundation to top of wall. Each core shall have 1 - #5 rebar full depth.
3. Roof levels and top of all masonry walls shall have reinforced, grouted bond beam with 2 - #4 continuous. Reinforcement shall be continuous (lapped 20") at corners and intersections.
4. Fully grout all foundation block cores located below slab-on-grade elevation.
5. Block cores at all wall intersections shall be filled with grout and 1 - #4 rebar from foundation to bond beam. One block core in each wall at intersection shall be filled.
6. Install horizontal reinforcing at 16" centers full height of wall.
7. All masonry grout shall be portland cement grout with 3/8" aggregate, 2,000 psi minimum compressive strength, 8"-11" slump.
8. Install vertical control joints at 25' - 0" centers max. Joints shall extend from foundation to top of wall.
9. Masonry net area compressive strength (f'm) = 1500 psi.
10. All block mortar shall be Type M or S.
11. Intersecting walls shall be bonded in an overlapping masonry bonding pattern or by steel connectors (1/4x1 1/2x24 W/2" bent-up ends) at 4'-0" centers. Horizontal joint reinforcing shall be continuous through the intersection.

DESIGN LOADS:

2018 Virginia Construction Code & ASCE 7-16
Roof Live Load: 30 psf
Roof structure is designed for non-ballasted roofing system.
Risk category: II
Ultimate Design Wind Speed: 106 mph
Nominal Design Wind Speed: 82 mph
Exposure Category: C
Internal pressure coefficients: +/-0.18
Components and cladding: In accordance with ASCE 7-16 Chapter 30.
Snow Load (ground): 15 psf — Importance factor: 1.0
(flat roof): 10.5 psf — Snow exposure factor: 1.0
Thermal factor: 1.0
100 Year, Rainfall: 2.6 inches/hour
Handrailings: 200 lb. horiz. or vert. load or: 50 plf horiz. or vert.
Soil Bearing Pressure: 2000 psf
As recommended in geotechnical report prepared by:
Lighthouse Engineering Consultants, LLC
Pounding Mill, Virginia
Dated August 4, 2023
File No. 2023-029

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5-17-2024
PROFESSIONAL ENGINEER

No.	Date	Revision
	03.19.24	95% REVIEW SET
	05.17.24	BID/PERMIT PLAN SET

MOUNT RODGERS PLACE
180 Bristol East Road - Bristol, Virginia 24201

FOUNDATION PLAN

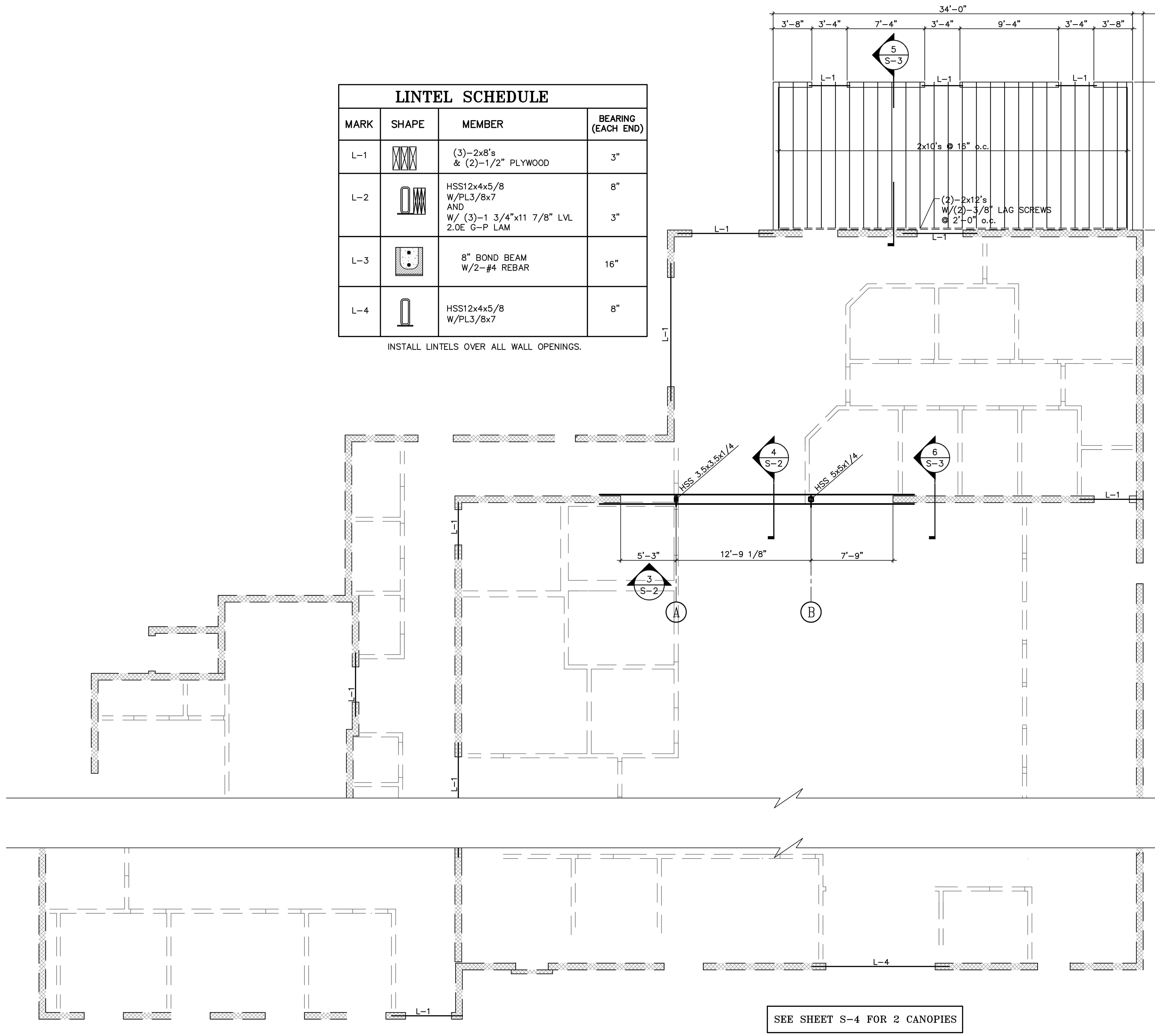
Date: 04.02.24
Scale: AS INDICATED
Designed By:
Drawn By:
Checked By:
Project Number:
Sheet: S-1

PLOT DATE 5/18/2024
\\JASON\JRS\230880\S1

LINTEL SCHEDULE

MARK	SHAPE	MEMBER	BEARING (EACH END)
L-1		(3)-2x8's & (2)-1/2" PLYWOOD	3"
L-2		HSS12x4x5/8 W/PL3/8x7 AND W/ (3)-1 3/4"x11 7/8" LVL 2.0E G-P LAM	8" / 3"
L-3		8" BOND BEAM W/2-#4 REBAR	16"
L-4		HSS12x4x5/8 W/PL3/8x7	8"

INSTALL LINTELS OVER ALL WALL OPENINGS.



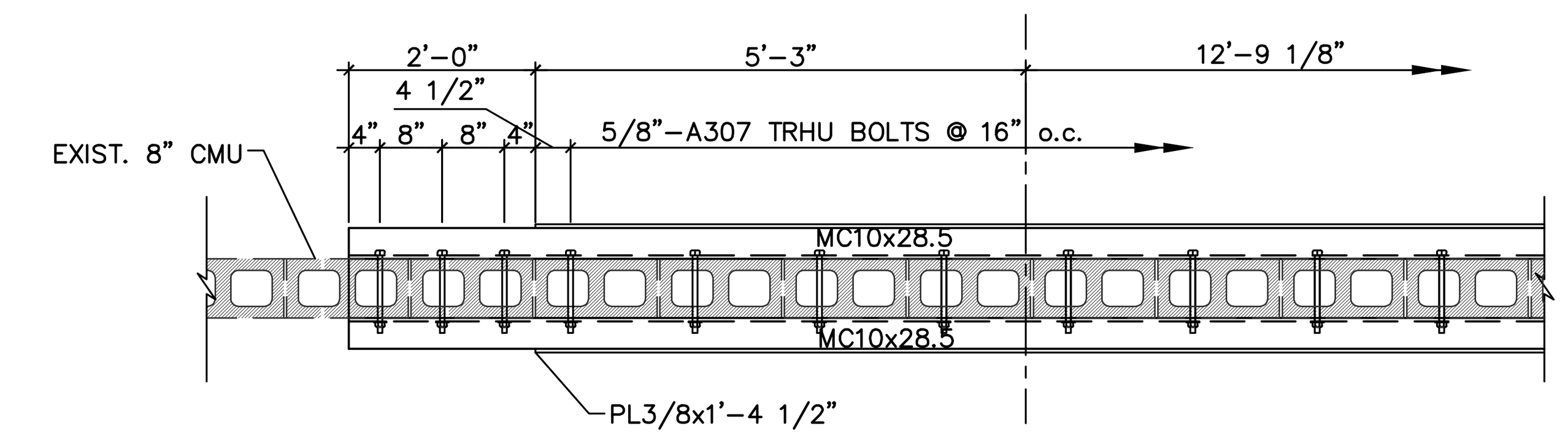
1 S-2 ROOF FRAMING PLAN
3/16" = 1'-0"

STEEL NOTES:

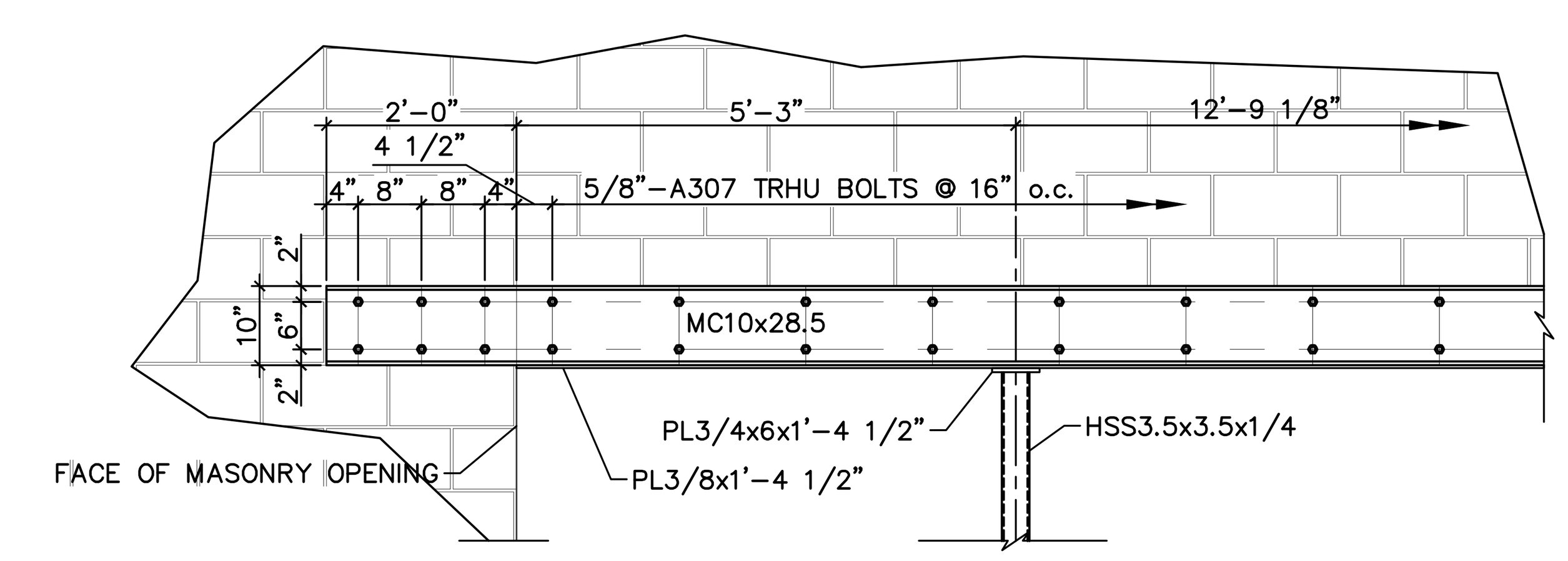
1. All structural steel W, C and MC shapes shall be A-992 (Fy = 50 Ksi). Plates and angles shall be A-572 Grade 50. Hollow structural shapes shall be A-500, Grade C.
2. All work shall be in accordance with AISC Code of Standard Practice for Steel Buildings and Bridges.
3. Shop prime steel with one coat alkyd primer.
4. All structural steel bolted connections shall be 3/4", ASTM F3125 Gr. A325 - N type. Bolted connections shall be inspected in accordance with RCSC-2020 (Specification for Structural Joints Using High Strength Bolts).
5. All structural welded joints shall conform to the provisions of AWS D1.1, Structural Welding Code by American Welding Society. Proof of welder certification shall be available at the job site during times of inspection.
6. Connections shall be selected, by an experienced steel detailer, to support one-half the total uniform load capacity shown in Maximum Total Uniform Load tables, AISC Manual, Sixteenth Edition, Part 3, (ASD method).
7. All anchor rods shall be ASTM F1554, Grade 36, headed bolts with nuts and washers. Provide double nuts for leveling during erection.
8. All exposed structural and miscellaneous steel shall be considered Architecturally Exposed Structural Steel.

WOOD FRAMED CONSTRUCTION:

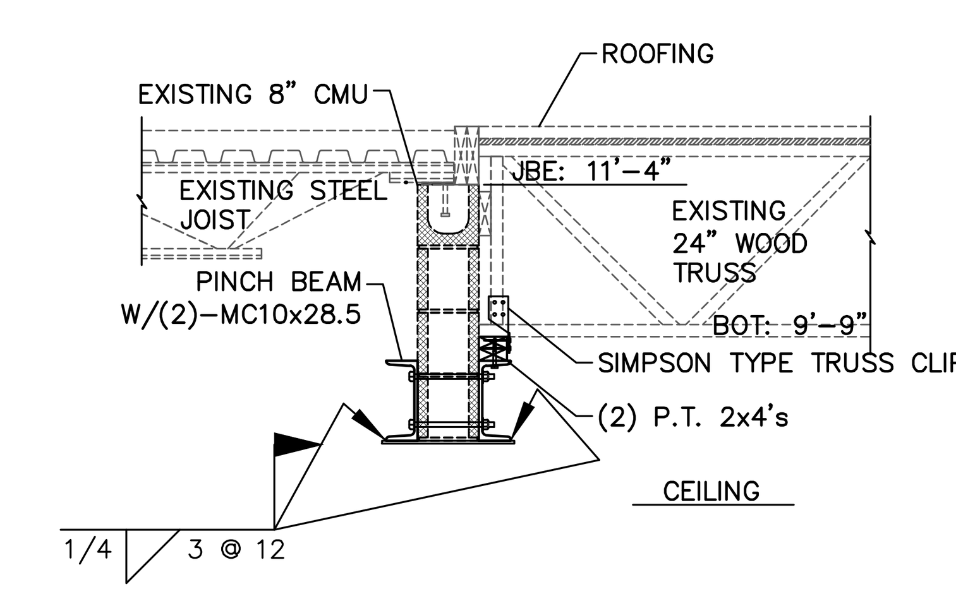
1. Sill plates shall be anchored with 1/2" bolts at 4' - 0" centers with 7" embedment, or equivalent.
2. Sill plates in contact with steel, masonry or concrete shall be #2 SYP pressure treated. All 1/2" bolts anchoring these treated sill plates shall be hot-dipped galvanized.
3. Interior non-load-bearing wall sill plates shall be anchored to floor with power driven pins at 24" centers.
4. At beam bearing points, install a number of 2x studs equal to the number of members in the built-up beam. Provide a minimum of 3-2x studs at bearing points of LVL beams. Built-up columns shall be nailed together with 16d nails at 20" centers, full height of the column.
5. Double plates shall lap a minimum of 4'-0". Laps shall be located over studs.
6. Bored holes in 2x4 studs shall not exceed 1 3/8" for load-bearing walls and 2 1/8" for non-load-bearing walls. Bored holes in 2x6 studs shall not exceed 2 1/8" for load-bearing walls and 3 1/4" for non-load-bearing walls. Bored holes shall be centered in the stud.
7. All 2x lumber (shall conform to dressed sizes in Standard PS20) shown on drawings shall be #2 SPF or #2 SYP or better with moisture content less than 19 percent.
8. Roof sheathing shall be 19/32" or 5/8" APA Rated sheathing 40/20, Exposure 1, minimum 2 span staggered pattern, 4'x8' sheets with 8d common nails at 6" centers around perimeter and 12" centers at intermediate framing members. Use plyclips at mid-span.



2 S-2 PINCH BEAM PLAN
PERMANENT 1/2" = 1'-0"



3 S-2 PINCH BEAM ELEVATION
PERMANENT 1/2" = 1'-0"



4 S-2 SECTION AT WALL OPENING
PERMANENT 1/2" = 1'-0"

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180 Bristol East Road - Bristol, Virginia 24201

ROOF FRAMING PLAN

Date: 04.02.24
Scale: AS INDICATED
Designed By:
Drawn By:
Checked By:
Project Number:
Sheet: S-2

PLOT DATE 5/16/2024
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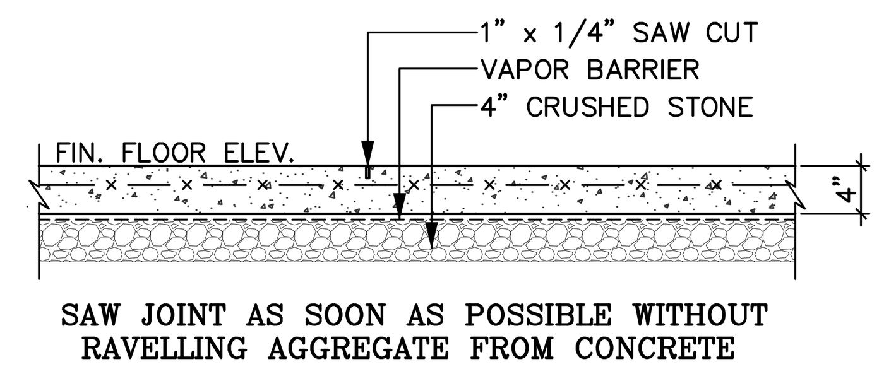
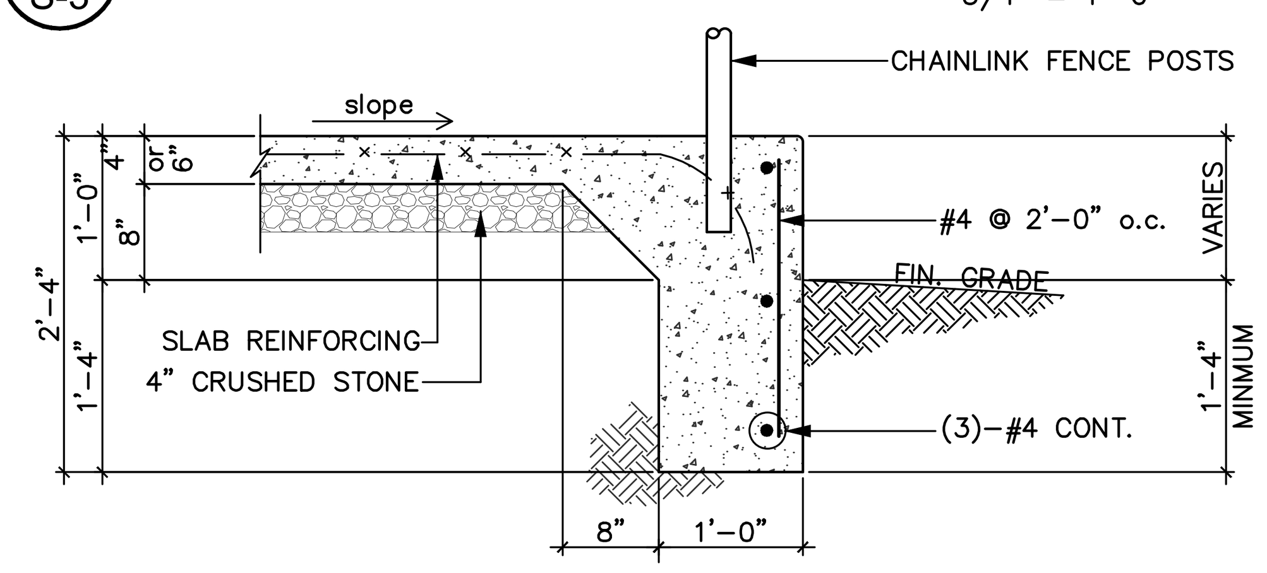
FIELD VERIFY ALL DIMENSIONS



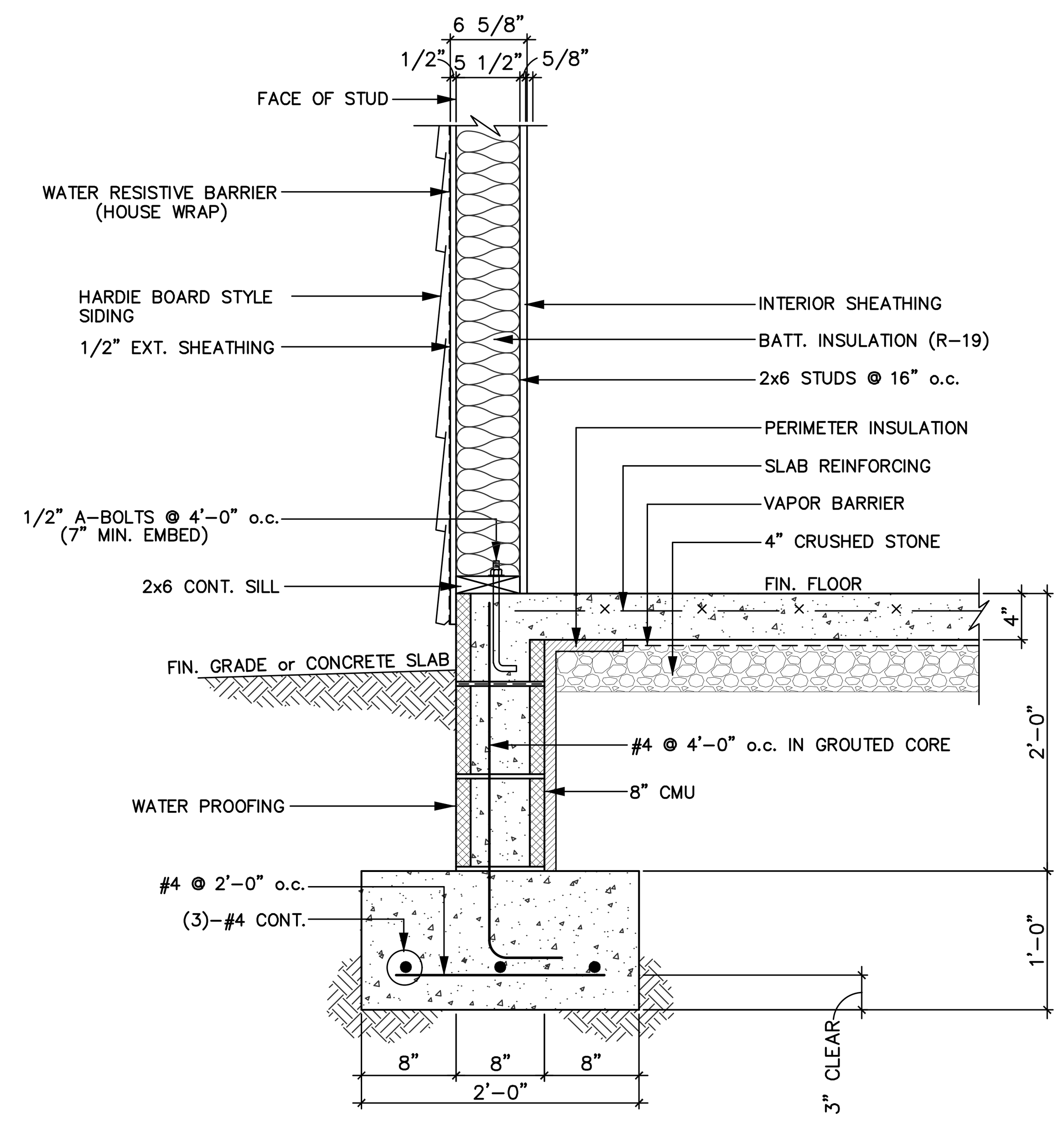
1 S-3 SAW JOINT DETAIL

3/4" = 1'-0"



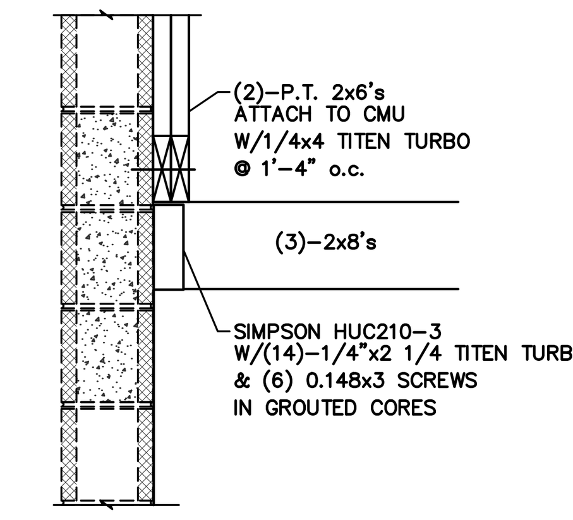
2 S-3 TURN-DOWN SLAB SECTION

3/4" = 1'-0"



3 S-3 FOUNDATION WALL SECTION

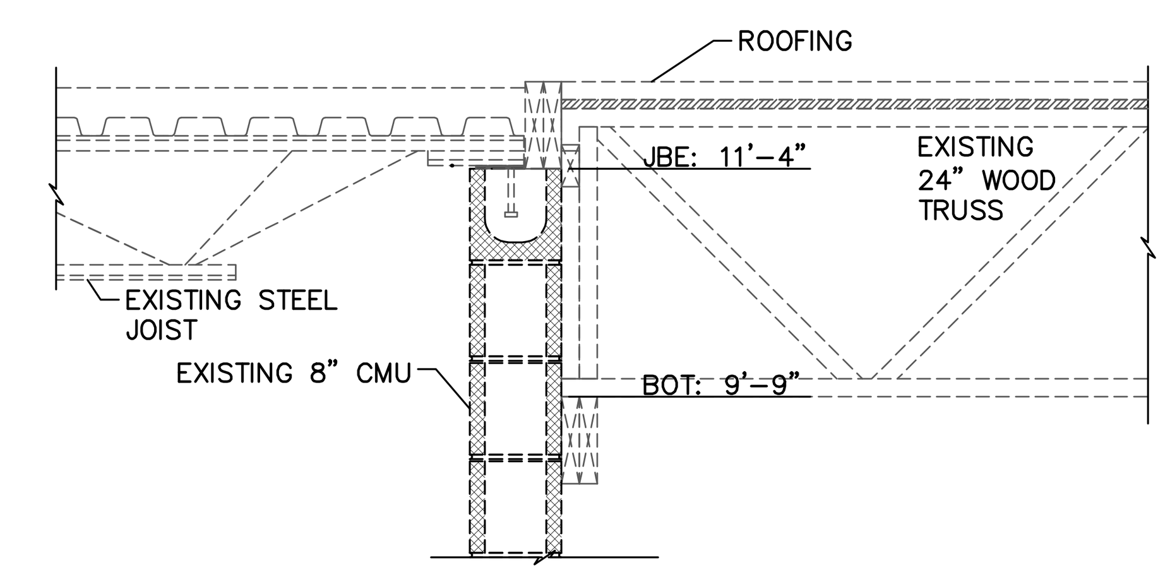
1" = 1'-0"



4 S-3 BEAM SUPPORT DETAIL

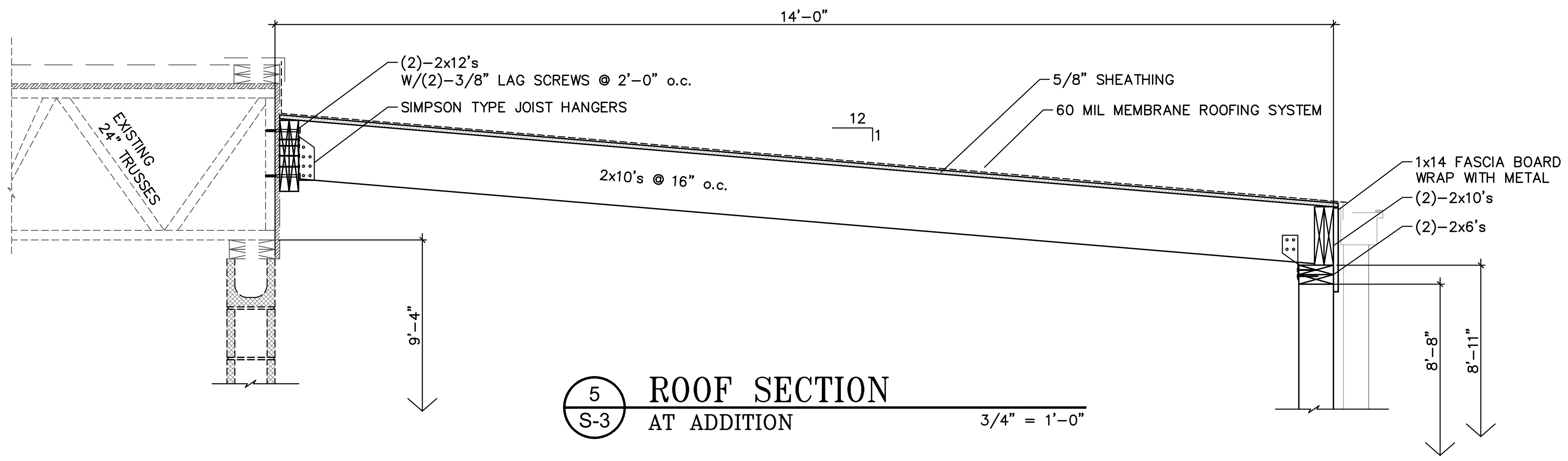
TO EXISTING CMU WALL

3/4" = 1'-0"



6 S-3 DETAIL AT EXISTING WALL

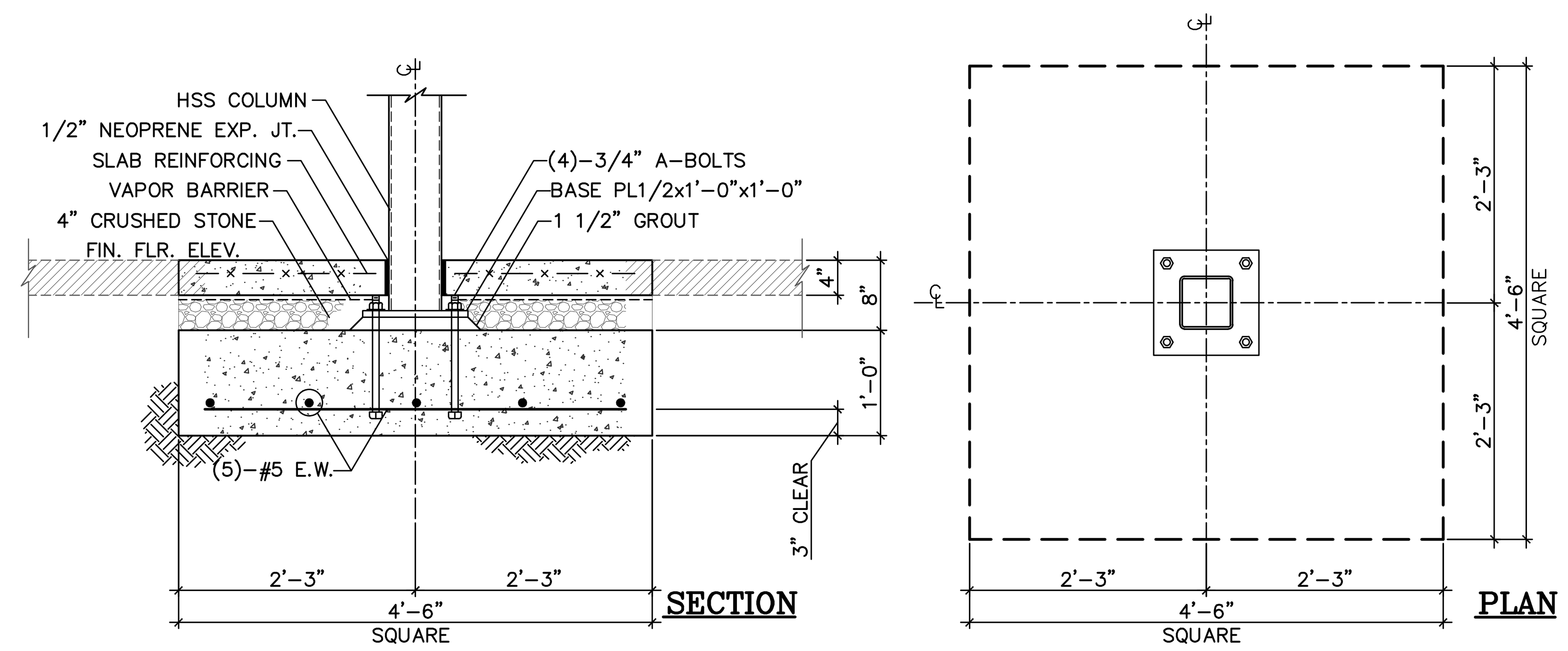
3/4" = 1'-0"



5 S-3 ROOF SECTION

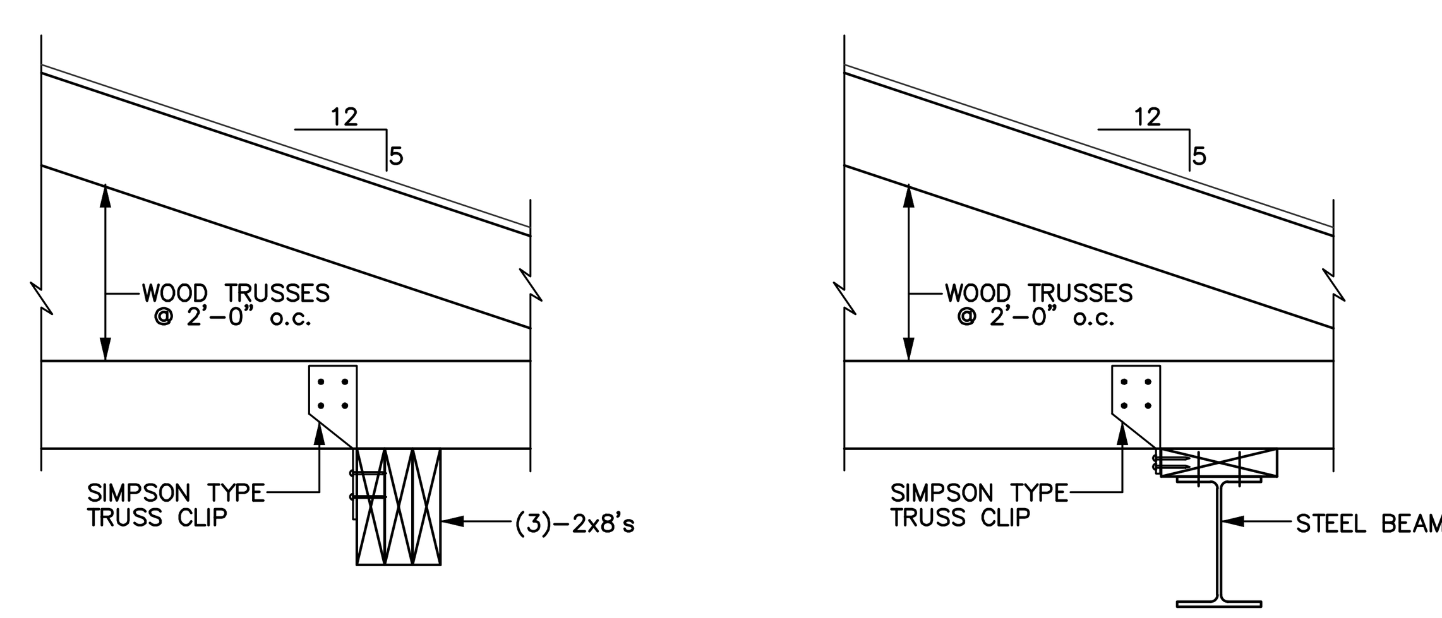
AT ADDITION

3/4" = 1'-0"



7 S-3 PINCH BEAM COLUMN DETAIL

3/4" = 1'-0"



8 S-3 TRUSS BEARING DETAIL

1" = 1'-0"

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Project Number	
Sheet	S-3

PLOT DATE 5/18/2024
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Statement of Special Inspections

Design Professional in Responsible Charge:

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This Statement of Special Inspections encompass the structural discipline.

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: Monthly

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- [x] Soils and Foundations
- [x] Cast-in-Place Concrete
- [ ] Precast Concrete
- [ ] Masonry
- [x] Structural Steel
- [ ] Cold-Formed Steel Framing
- [ ] Spray Fire Resistant Material
- [ ] Wood Construction
- [ ] Exterior Insulation and Finish System
- [ ] Mechanical & Electrical Systems
- [ ] Architectural Systems
- [ ] Special Cases

Special Inspection Firms will be selected before the beginning of Construction.

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category: C
Quality Assurance Plan Required: No

Description of seismic force resisting system and designated seismic systems:
Reinforced Masonry Shear Walls

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust): 106 MPH
Wind Exposure Category: B
Quality Assurance Plan Required: No

Description of wind force resisting system and designated wind resisting components:
Reinforced Masonry Shear Walls

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the Agency Number on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-CCI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1&2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector
AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI Structural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV
NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill
2. Controlled Structural Fill	PE/GE	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement.

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification		
3. Reinforcement Installation	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
6. Anchor Rods		Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.

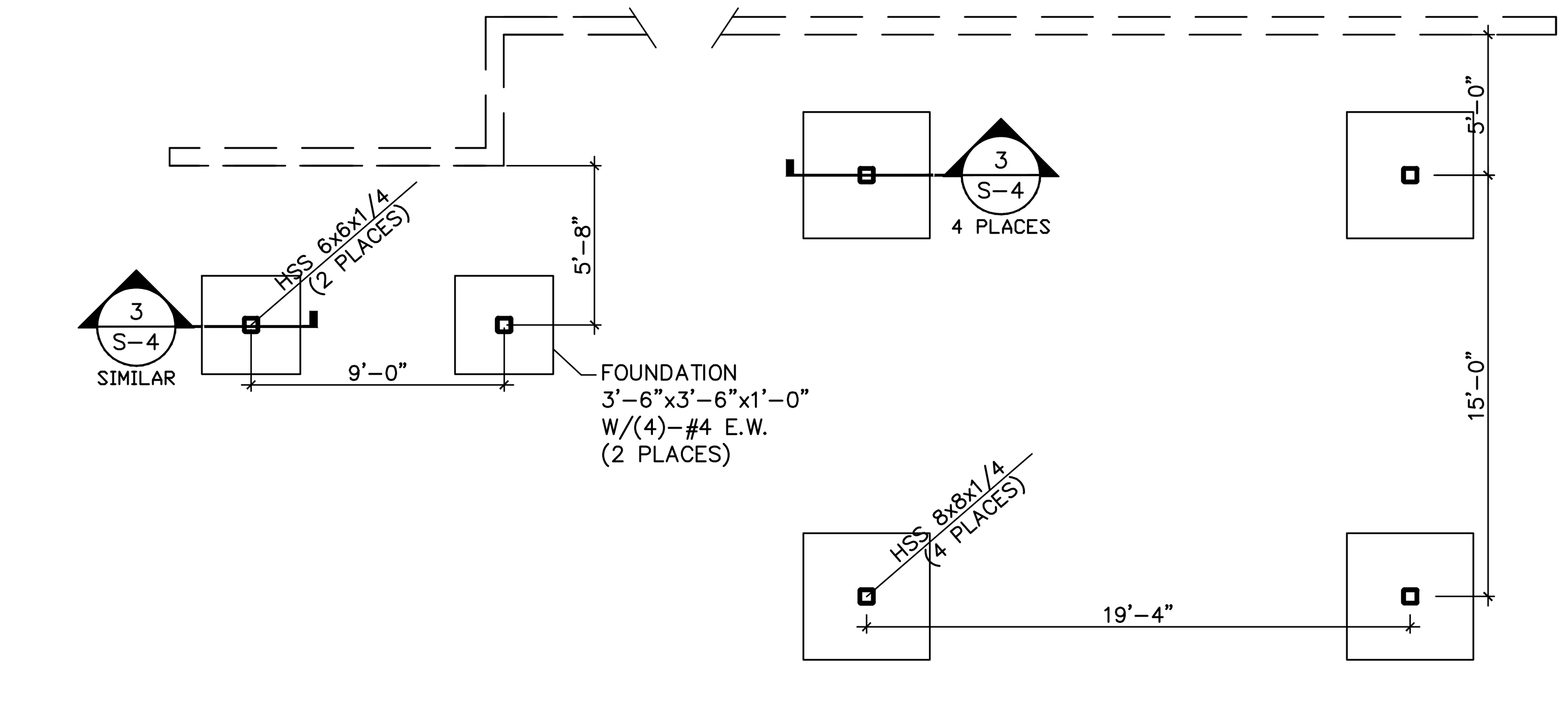
Masonry

Required Inspection Level: 2

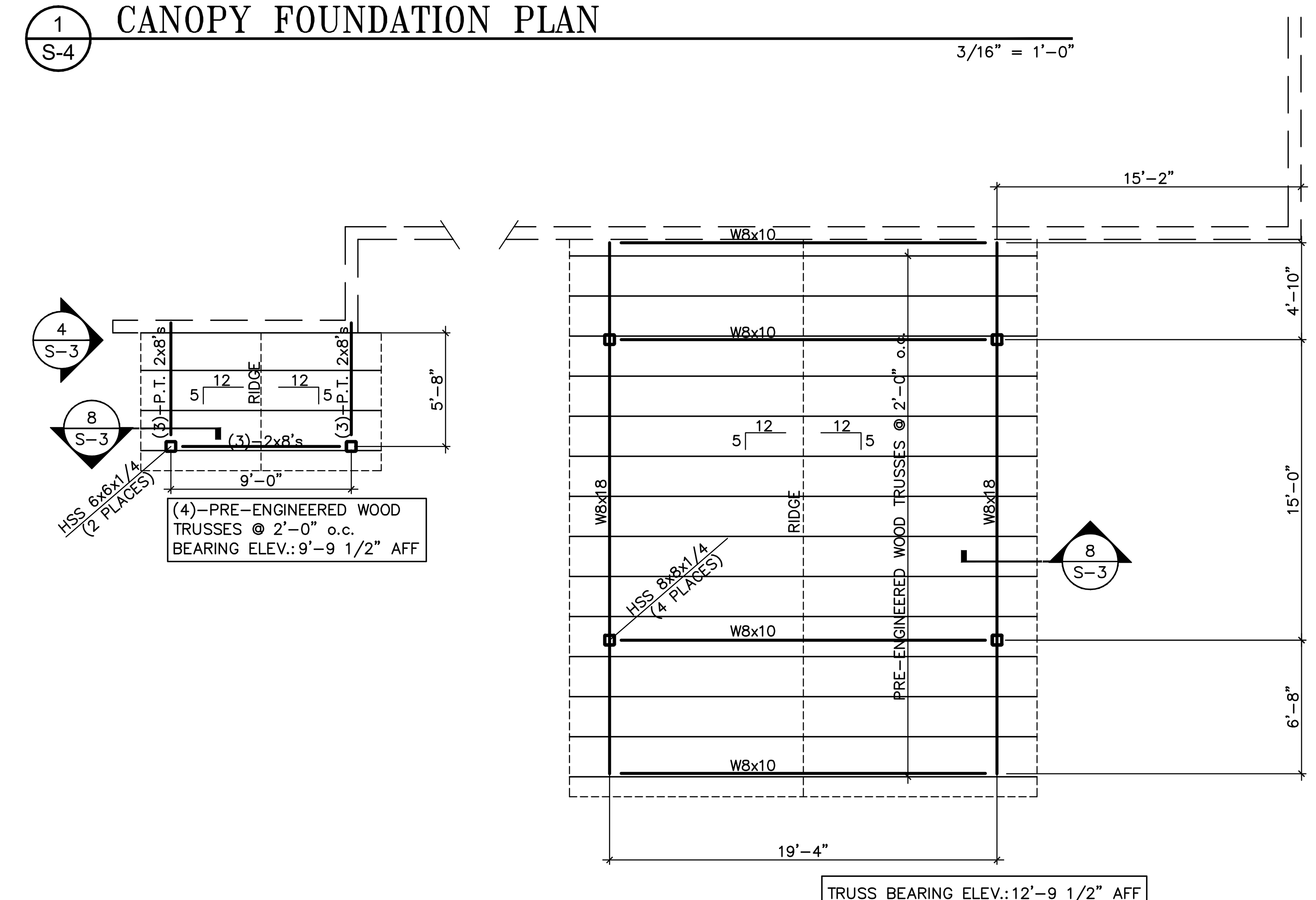
Item	Agency # (Qualif.)	Scope
1. Material Certification		
2. Mixing of Mortar and Grout	ICC-SMSI	Inspect proportioning, mixing and retempering of mortar and grout.
3. Installation of Masonry	ICC-SMSI	Inspect size, layout, bonding and placement of masonry units.
4. Mortar Joints	ICC-SMSI	Inspect construction of mortar joints including tooling and filling of head joints.
5. Reinforcement Installation	ICC-SMSI AWS-CWI	Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.
7. Grouting Operations	ICC-SMSI	Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.

Structural Steel

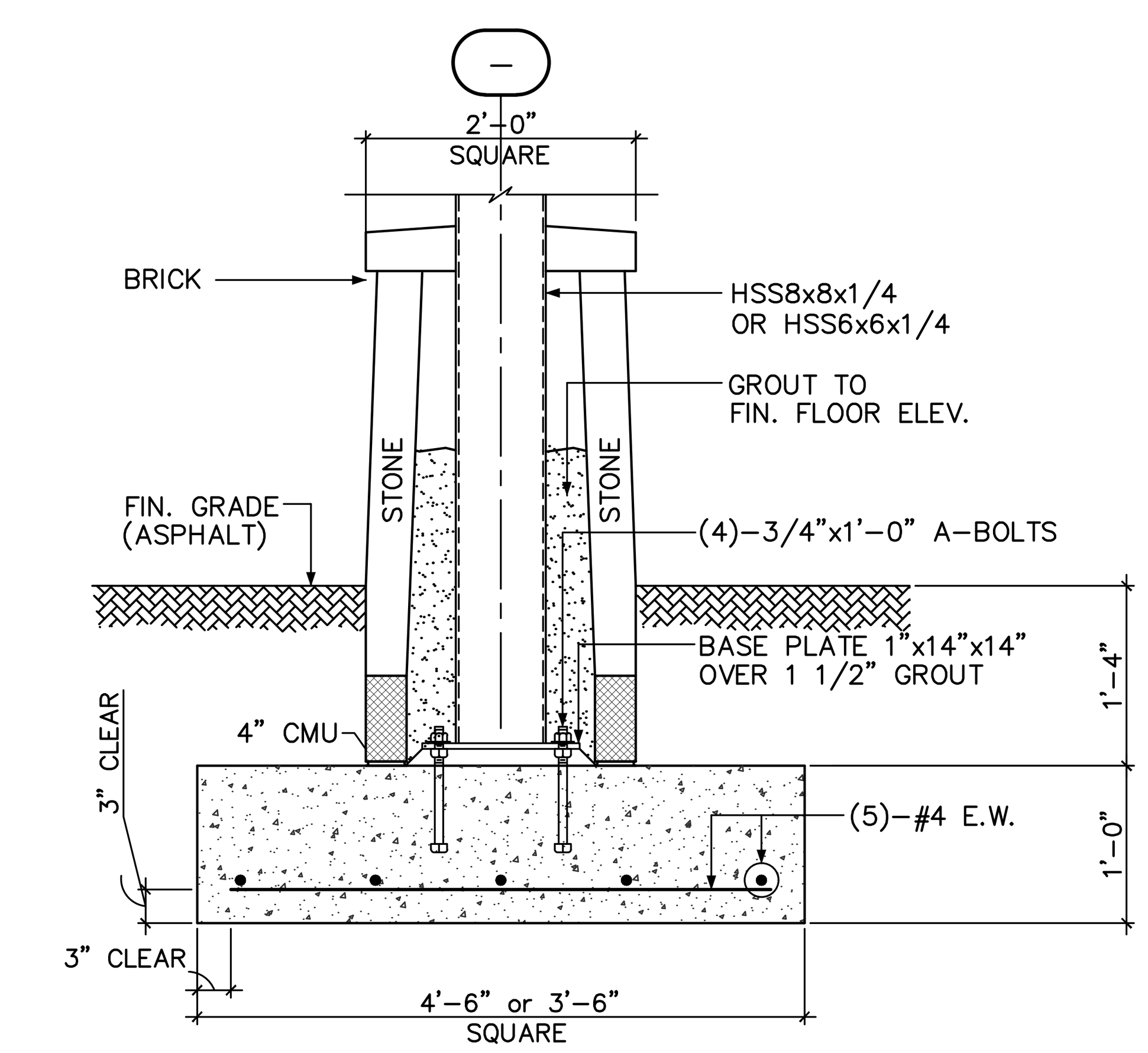
Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures [x] Fabricator Exempt	AWS/AISC-SSI ICC-SWSI	Review shop fabrication and quality control procedures.
2. Material Certification	AWS/AISC-SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
4. Bolting	AWS/AISC-SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify proper tightening sequence.
7. Structural Details	PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.



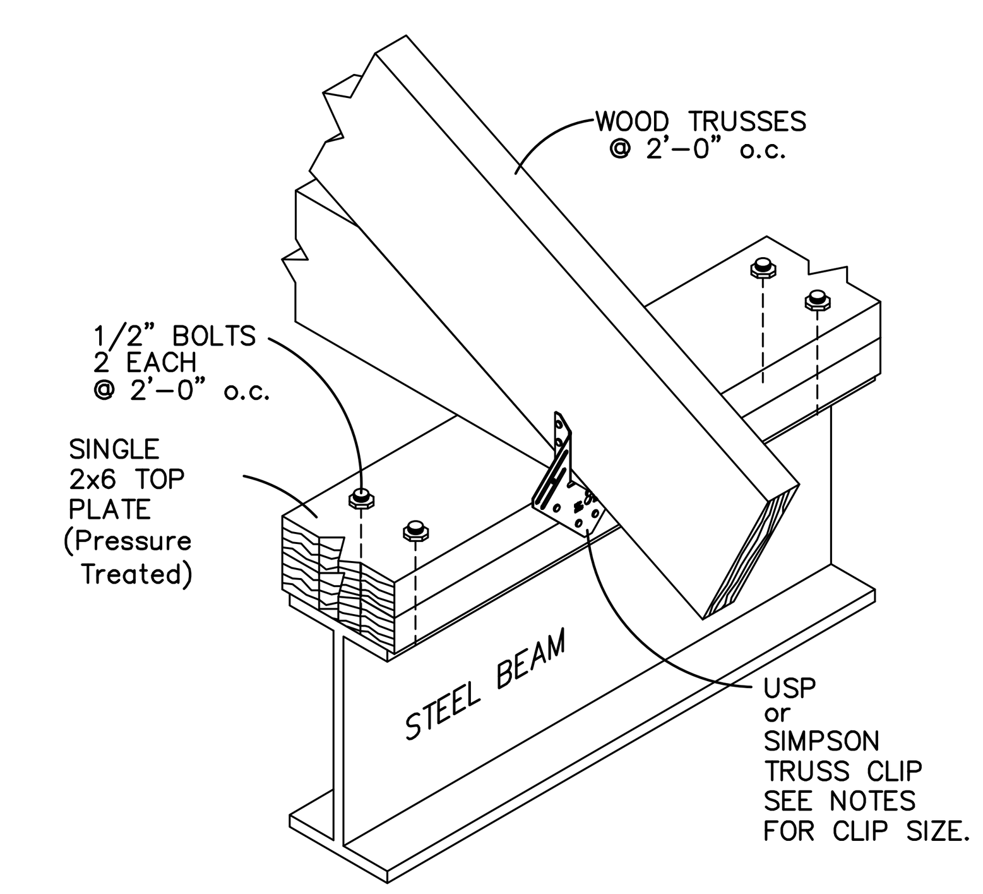
1 S-4 CANOPY FOUNDATION PLAN 3/16" = 1'-0"



2 S-4 CANOPY ROOF FRAMING PLAN 3/16" = 1'-0"



3 S-4 COLUMN FOUNDATION SECTION AT CANOPY 3/4" = 1'-0"



4 S-4 TRUSS CONNECTION DETAIL TO STEEL BEAM N.T.S.

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