

1.0 CODES AND STANDARDS:

1.1 "2009 North Carolina State Building Code" and "International Building Code", 2006

1.2 "Minimum Design Loads for Buildings and other Structures" SEI/ASCE 7-05.

1.3 "Building Code Requirements for Structural Concrete (ACI 318-05)" American Concrete Institute 2005.

1.4 "Manual of Standard Practice", Concrete Reinforcing Steel Institute, latest edition.

1.5 "Specification for Structural Steel Buildings (AISC 360-05)" American Institute of Steel Construction, 2005 - 13th Edition

1.6 "Structural Welding Code - Steel (AWS D1.1)" and "Structural Welding Code - Reinforcing Steel (AWS D1.4)", American Welding Society.

1.7 "Specification for the Design of Cold-Formed Steel Structural Members", American Iron and Steel Institute (AISI), latest edition.

1.8 "Building Code Requirements for Masonry Structures", ACI 530-05, ASCE 5-05, TMS 402-05

1.9 Design Manual For Floor Decks and Roof Decks", Steel Deck Institute, latest edition.

1.10 "National Design Specification for Wood Construction," AF&PA NDS-2005.

2.0 DESIGN LOADS:  
Project Located in: City of Richlands, County of Onslow, State of North Carolina.

2.1 Gravity Loads:

Roof Dead Load = 15 psf  
Roof Live Load (Min.) = 20 psf, reduced per N.C. Building Code section 1607.11  
Floor Live Load  
All Public Rooms = 50 psf  
Stage = 150 psf

2.2 Drifting Snow Loads per N.C. Building Code.

Pg	10 psf
I	1.0
Ce	0.9

2.3 Building Category = II

2.4 Wind Loads per N.C. State Building Codes, 2009 edition & ASCE-7-05 a 3-second gust wind speed of 120 mph.

Main Wind Force Resisting System:  
V 120 mph  
I 1.0  
Exposure Category "C"

Building is enclosed & Internal Pressure coefficient (GCp) = +0.18 & -0.18  
Topographic Factor Kzt = 1.0  
Wind Directionality Factor, Kd = 0.85

Calculated Wind Base Shear (For MWFRS)  
Vx = 56.2k Vy = 27.7k

Components and Cladding:  
V 120 mph  
I 1.0  
Exposure Category "C"

COMPONENTS & CLADDING DESIGN PRESSURES:

Walls:	Area ≤ 10 ft²	Area ≥ 500 ft²
Zone 4	36.8 psf & -39.9 psf	27.5 psf & -30.5 psf
Zone 5	36.8 psf & -49.3 psf	27.5 psf & -30.5 psf
Roof:	Area ≤ 10 ft²	Area ≥ 100 ft²
Zone 1	21.2 psf & -33.6 psf	15.0 psf & -30.5 psf
Zone 2	21.2 psf & -58.6 psf	15.0 psf & -43.1 psf
Zone 3	21.2 psf & -86.6 psf	15.0 psf & -68.0 psf

Notes:

1. Areas noted are effective wind areas as per NCSBC 1609.2.
2. Zone locations for walls are per ASCE 7-05, figure 6-11A.
3. Zone locations for roofs are per ASCE 7-05, figures 6-11B, 6-11C, and 6-11D.
4. Design pressures for effective wind areas between those noted in schedule may be interpolated.

2.5 Seismic Loads per 2009 North Carolina State Building Code, IBC 2006 & ASCE-7-05

Seismic Use Group = 1  
Site class = Assumed "D"  
Spectral Response Coefficients:  
SDS = 0.26g  
SDI = 0.137g

Seismic Design Category = C  
Seismic Importance Factor = 1.0  
Basic Seismic - Force - Resisting System  
Building Frame System - STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE

RX=RY=3, OX=OY=3, CDX=CDY=3  
Design Base Shear Vx = 22.9k Vy = 22.9k  
Building Height Limit = NIL  
Analysis Procedure = 9.5.5 ASCE 7-05  
Equivalent Lateral Force Procedure

2.6 Handrail designed per North Carolina State Building Code, Section 1607.7.1

Handrail:  
Uniform load = 50 pf, any direction - per 1607.7.1  
Concentrated load = 200 lbs, any direction - per 1607.7.1.1  
Intermediate Rail: (all those expect handrail)  
Uniform load of 50 lbs. over a maximum area of 1 sq. ft - per 1607.1.2  
A stress increase of 1/3 is allowed per 1607.1.3

2.7 Lateral Design Control : "Wind"

2.7 Flood Loads:  
Per ASCE-7-05, section 5.3.3

3.0 FOUNDATIONS:

3.1 Foundation design is based on a presumptive soil bearing capacity of 1500psf per North Carolina State Building Code, Section 1804.2.

3.2 Top of footing (T/FTG) elevations are shown on the drawings or are to be determined by the Contractor in the field in accordance with the guidelines set forth in the drawings.

3.3 Bottom of exterior footings, grade beams and walls shall bear at a minimum depth of 1'-6" below final grade for frost protection.

3.4 Testing and Inspection:

- a. All areas to have slabs on grade shall be proof rolled in accordance with and under observation to the Geotechnical Engineer and approved prior to preparation for concrete placement.
- b. All foundation bearing strata shall be inspected and approved by the Geotechnical Engineer prior to any concrete placement.
- c. Geotechnical Engineer shall be the sole judge as to suitability of all foundation and/or slab bearing strata.
- d. Footing bearing elevations shall be adjusted in the field as required to meet the design bearing pressures by additional excavation or compaction and/or backfilling or by other means acceptable to the Geotechnical Engineer.

3.5 Undercutting to remove existing fill beneath footings and slab shall be performed at the direction of the Geotechnical Engineer.

3.6 Footings shall bear on strata capable of sustaining a minimum bearing pressure of 3000 psf.

3.7 Engineered Fill: All fill material shall be selected in accordance with the Geotechnical Report Material shall be a clean, low plastic soil with a plasticity index less than 30 (less than 15 is preferred), liquid limit less than 50, and unit weight of 120 pcf (+ 5 pcf)

3.8 Compaction: All fill shall be placed in loose lifts not exceeding 8 inches in thickness and compacted to a minimum of 95 percent Standard Proctor (ASTM D-698) except that the top 12 inches shall be compacted to a minimum of 98 percent Standard Proctor. Moisture shall be controlled to within 3 percent above or below optimum content.

3.9 Contractor shall review all construction considerations as outlined in the Geotechnical report and bid accordingly.

4.0 CONCRETE:

4.1 Concrete Strength:  
Foundations, & Slab on Grade shall have a 28-day compressive strength f'c=3000 psi, maximum water/cement ratio = 0.45.

4.2 Concrete Mix Designs:

- a. Submittals: Submit written reports of each proposed concrete mix not less than 15 days prior to the start of work.
- b. Mix designs, including water, cement ratios and slumps, shall be prepared in accordance with ACI 301-05, Section 4. Cement shall conform to ASTM C 150 Type 1 or at contractor's option, ASTM C 595 Type IP where fly ash is permitted. Normal weight aggregate shall conform to ASTM C 33 and light weight aggregate shall conform to ASTM C 330. No admixtures containing calcium chloride shall be permitted in any concrete.
- c. Aggregate size shall be #67 stone for supported slabs or other formed concrete elements; #57 stone for slabs on grade and footings or other concrete elements formed from and poured against earth; #76 stone for masonry grout.
- d. Water reducing admixture shall be used in all concrete.
- e. Air entraining admixture in accordance with ACI 301 shall be used in all concrete exposed freezing and thawing during construction or service conditions.
- f. Concrete subjected to freezing/thawing shall have a maximum water/cement ratio of 0.45 and shall contain the amount of air entraining agent specified in ACI 301-05 Section 4.
- g. All shear wall and columns shall have a superplasticiser admixture.

4.3 Curing:

- a. Liquid membrane curing compound with a minimum 30% solids content shall be applied within two (2) hours after completion of finishing to all concrete flatwork and walls, U.N.O., other than footings and grade beams. Self dissipating type at floors to rec. finishes.

4.4 Use a non-corrosive, non-chloride accelerating admixture in concrete exposed to temperatures below 40 degrees. Uniformly heat the water and aggregates to a temperature of not less than 50 degrees. Place cure concrete in accordance with ACI 306.

4.5 When hot weather conditions exist, place and cure concrete in accordance with ACI 305. Cool ingredients before mixing to maintain concrete temp. at time of placement below 90 degrees.

4.6 Reinforcing in all abutting concrete, including footings shall be continuous through or around all corners or intersections. Dowels or splices shall be equal in size and spacing to the reinforcing in the abutting members.

4.7 Refer to architectural drawings for door and window openings, drips, reglets, washes, masonry anchors, brick ledge elevations, slab depressions and miscellaneous embedded plates, bolts, anchors, angles, etc.

4.8 Refer to plumbing, mechanical and electrical drawings for underfloor, perimeter and other drains and for sleeves, outlet boxes, conduit, anchors, etc. The various trades are responsible for their items.

4.9 Base plates, anchor bolts, support angles and other steel exposed to earth or granular fill shall be covered with a minimum of 3" of concrete.

4.10 Fill slabs, not shown on the structural drawings, shall be reinforced with a minimum of 6 x 6 x W1.4 x W1.4 WWM unless noted otherwise on other drawings.

4.11 Finishing tolerance shall be within Class B in accordance with ACI 301 and consideration shall be given to sequencing of concrete placement to facilitate control of finish elevations.

4.12 Non-shrink grout shall be pre-mixed, non-corrosive, non-metallic, non-staining containing silica sands, Portland cement, shrinkage compensating and water reducing agents. Product shall only require the addition of water. Minimum compressive strength shall be 2500 psi after one day and 7000 psi after 28 days. Grout shall be free of gas producing or air releasing and oxidizing agents and contain no corrosive iron, aluminum or gypsum.

4.13 Provide concrete grout - not mortar - for reinforced masonry lintel and bond beams where indicated on drawing or as scheduled.

4.14 Tolerance for anchor bolts and other embedded items shall be per the AISC Code of Standard Practice Section 7.5.

4.15 Unless otherwise shown in the architectural drawings, provide "N" chamfers at all column, wall, slab or beam edges that are exposed to view in the finished structure.

5.0 REINFORCING STEEL:

5.1 Reinforcing shall be domestic new billet steel conforming to ASTM A615, Grade 60 or 60S including stirrups and ties, except that reinforcing which is required to be welded shall conform to ASTM A706.

5.2 Field bending of concrete reinforcing steel is not permitted.

5.3 Welded wire mat and fabric shall conform to ASTM A184 and A185 respectively.

5.4 All bars marked "Continuous" shall be lapped a minimum of 40 bar diameters at all splices. Unless noted otherwise, all wall/footing dowels shall be lapped 40 bar diameters or 24" whichever is greatest.

5.5 Welded wire mat/fabric shall be lapped 1'-0" at all splices.

6.0 GENERAL FRAMING NOTES:

6.1

- a. All exterior and interior load bearing walls shall be one of the following or approved equals:  
2x? SYP #2  
2x? SPF #1
- b. See plans and load bearing wall schedule for locations, spacing, and load bearing studs species.
- c. All interior non-load bearing wall, shall be SPF #1 or #2, or approved equal.
- d. All pressure treated deck joists and decking shall be SYP #2 or better.
- e. All pressure treated Paralam shall be Truss Joist MacMillan, Wolmanized Paralam PSL, or approved equal.
- f. All Glulams shall be Rostbro 24F-V4 or better.
- g. All LVL's shall be Louisiana Pacific, GangLam 2.0E W2950 or better.

6.2 All roof and floor trusses shall be Builders First Source or approved equal. Truss supplier shall construct trusses to provide full bearing on all walls and girders. The truss supplier shall also submit drawings for review prior to fabrication. The shop drawings shall show the following:

- Layout plan
- Bearing locations
- Truss elevations
- Mechanical openings
- Structural calculations
- North Carolina professional engineer seal to certify design
- Hurricane clips and tie downs

6.3 Floor deck/diaphragm

- Floor deck shall be 3/4" exterior grade tongue and groove OSB
- Place long direction perpendicular to framing
- Stagger end joints
- Provide blocking at all unsupported edges
- Glue and nail panels down with 10d common

Provide the following nail pattern:

- perimeter of diaphragm (within 5' of exterior wall or shear wall) # 3" O.C. • panel edge.
- 6" O.C. • interior of panel.
- All other panels
- 6" O.C. • panel edge
- 12" O.C. • interior of panel.

6.4 See plan for location of Shear Walls and sheets S5.1 for framing requirements.

6.5 [X] number in box notes the required number of bundled studs in that location. Bundled studs shall rest on framing member below or provide solid blocking from sub-floor to plate or girder below. Good framing practices shall be used in all cases.

6.6 All strap and tie connections shall have z-max (g185) triple zinc coating (or hot-dipped galvanized). All nails shall be hot-dipped galvanized.

6.7 Do not bend coil straps.

6.8 Unless noted otherwise, connect all building components per table 2304.9.1 - fastening schedule, per 2009 NC State Building Code.

7.0 STRUCTURAL MASONRY:

7.1 All structural masonry shall conform to ACI 530 standards as appropriate to the material.

7.2 Concrete Masonry Units (CMU):

- a. Units shall be lightweight cellular units conforming to ASTM C 90, Grade N-2. Concrete masonry net area unit strength shall be no less than 1900 psi in accordance with ASTM C 140, with a unit weight not exceeding 95 pcf.
- b. Design compressive strength of CMU (fm) = 1500 psi.

7.3 Mortar shall conform to ASTM C 270. Mortar shall be type "S" and shall conform to the ASTM C270 proportion requirements.

7.4 Neither type "N" mortar nor masonry cement shall be used as part of the lateral force resisting system.

7.5 Grouting:

- a. Grout shall conform to ASTM C476 as specified by proportion. Masonry grout shall conform to the ASTM proportion requirements for coarse grout with a slump of 8 to 11 inches.
- b. All bond beams shall be filled with grout and reinforced as indicated on the drawings (details or schedules). Mortar fill is not permitted.
- c. All masonry wall cells or cavities indicated as reinforced shall be grouted for the full height of the wall, unless specifically noted otherwise on the drawings. Unreinforced walls indicated as grouted shall be grouted full height, unless specifically noted otherwise. Mortar fill is not permitted.
- d. All masonry cells or cavities below grade shall be grouted solid unless specifically noted otherwise on the drawings. Mortar fill is not permitted.
- e. Vertical grouting shall be low lift or high lift as follows:  
(1) Low lift grouting shall be used for all cavity walls and may be used for all walls at the option of the Contractor. Lifts shall not exceed 4'-0" in height.  
(2) High lift grouting is permissible only for filling of cellular masonry units and shall not exceed one story in height. Clean out holes shall be provided at the base of each grouted cell.
- f. Grouting shall be stopped 1-1/2" below the top of a course to form a key at the joint.
- g. Grouting of masonry beams or lintels shall be done in one continuous operation.

7.6 Reinforcing:

- a. Foundation dowels may slope a maximum of 1:6 to align with wall cavities or vertical CMU cores. Greater slopes will require replacement of the foundation dowels.
- b. Spliced reinforcing shall be lapped a length calculated per IBC 2107.5 OR 15" OR as shown on drawings, whichever is greatest. All splices shall be wired together.
- c. Vertical reinforcing bars shall have a minimum clearance of 3/4" from masonry and shall be held in position top and bottom and at intervals not exceeding 4'-0". Accessories for such support shall be used. Provide "AA Wire Products Company" (or approved equal) Rebar Positioner AA225 or AA239 for vertical bars and AA238 for horizontal bars or approved equal products from other suppliers.
- d. Horizontal joint reinforcing shall be lapped no less than 6" all splices, including corners and tees where no control joint is used.
- e. All horizontal joint reinforcing shall stop at control joints.
- f. Horizontal reinforcing in bond beams shall be continuous through control joints.

7.7 Masonry contractor shall provide for and coordinate with other trades for placement of all items to be embedded or built into the masonry.

8.0 STRUCTURAL STEEL:

8.1 All structural steel shall be of the grades indicated below, unless noted otherwise on plans or details.  
Rolled shapes ASTM A992 Or. 50  
Steel pipe ASTM A53, Type E or S, Grade B, Fy-35ksi  
Structural tubing ASTM A500, Grade B, Fy-46ksi  
Plates and bars ASTM A36 U.N.O.  
Miscellaneous ASTM A36 U.N.O.

8.2 All structural steel shall be detailed, fabricated and erected in accordance with the AISC Code of Standard Practice. The fabricator is responsible for the design of connections not shown on the structural drawings. For the purpose of the connection design, the fabricator shall retain a professional engineer registered in the state where the project is located. The engineer shall seal and sign each shop drawing containing connection design. A note shall accompany the drawings stating that the seal is for "connection Design Only".

8.3 Connection Design:

- a. Generally, connections shown on the drawings are schematic and are intended to show the relationship of the members.
- b. Connections shall be designed for one-half (1/2) the allowable uniform load on the member, as defined in Part 3, "Allowable Loads on Beams" tables in the AISC "Manual of Steel Construction", 13th Edition, Allowable Stress Design or for the reactions as shown on the drawings or a minimum of 10 kips, whichever is greatest.

8.4 Bolted connections:

- a. Bearing-type connections with A325N or A490N bolts shall be used for all other bolted connections. Oversized and long-slotted holes are NOT permitted U.N.O. In single tab plate connections ONLY bearing-type fasteners are permitted, fasteners shall not be torqued and short slotted holes are REQUIRED.
- b. Anchor rods, where indicated, shall conform to ASTM F1554 Grade 36.
- c. Protruding bolt heads, shafts or nuts shall not extend nor prohibit the application of architectural finishes or placement of steel deck at its correct location and elevation.
- d. Connection designer is responsible for verifying the axial capacity after a section is reduced for bolt holes. Member size may be increased or plates added to maintain required capacity.
- e. All beam to exterior girder connections shall be double clip angles.

8.5 Welded connections:

- a. All welding shall be in accordance with the "Structural Welding Code - Steel" (AWS D1.1) of the American Welding Society, Latest Edition.
- b. Electrodes for welding shall comply with the requirements of Table 4.1.1 of the AWS code.
- c. All Moment Connections and Braced Frames Provide Filler Metal that has a minimum CVN Toughness of 20 ft-lbs at minus 20 degrees F, As determined by AWS classification or Manufacturer Certification.

8.6 Minimum plate thickness shall be 3/8" U.N.O.; minimum bolt diameter shall be 3/4" U.N.O.; minimum shop weld shall be 3/16" and minimum field weld shall be 1/4" U.N.O.

8.7 All re-entrant corners (such as copes and blocks) shall be cut and shaped notch free with a radius of at least 1/4".

9.0 LIGHT GAUGE STEEL FRAMING (DIETRICH):

9.1 All members shall be designed in accordance with the American Iron and Steel Institute (AISI) "Specifications for the Design of Cold-formed Steel Structural Members", Latest Edition.

9.2 All framing members shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi for joists and studs and 33 ksi for runners.

9.3 All members shown are standard designations of "Dietrich Industries, Inc."

9.4 Design of members indicated in structural drawings is based on minimum properties of products produced by "Dietrich Industries." No substitution of materials is acceptable for use without prior approval of the structural engineer. Substitutions shall meet or exceed all properties produced by "Dietrich Industries, Inc."

9.5 All shop drawing submittals shall show layout, spacing, sizes, thicknesses and types of cold-formed metal framing, fabrication, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details and attachment to adjoining work.

9.6 Preparation of shop drawings, design calculations and other structural data shall be by a qualified engineer. The Structural Engineer shall be legally qualified to practice in the jurisdiction where the project is located and shall be experienced in providing engineering services of the kind indicated.

9.7 All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit tight against abutting members. All load bearing stud/walls shall be factory assembled into panels with studs bearing squarely and fully in top and bottom tracks.

9.8 Fastening components shall be by self-drilling screws or by welding as defined below UNO on the drawings.

9.9 Screwed connections:

- a. Screws shall be type S-12 or type S-4 for all framing members per manufacturer's recommendations.
- b. A minimum of three (3) exposed threads shall penetrate through at joined materials.
- c. Corrosion-resistant cadmium-plated screws shall be used for screws attaching metal lath, masonry ties, and other exterior materials.

9.10 Welded connections:

- a. Gas metal arc welding (GMAW) shall be used for 20 ga. Or lighter members. AWSE-705-3, E-705-E, E-705-6 wire electrodes .030"-.035" diameter shall be used with carbon dioxide, argon-oxygen or argon-carbon dioxide shielding. Welding equipment 60-100 amperes at 25 volts using 220-volt 3-phase electric service.
- b. Shielded metal arc welding (SMAW) shall be used for 18 ga' and heavier members. AWS E-6012, E-6013, or E-7014 electrodes of 3/32" or 1/8" diameter shall be used. Welding equipment heat setting shall be varied dependent on material thickness.
- c. All welds shall be touched up with zinc rich paint, or paint similar to that used by the framing member manufacturer.

9.11 Alignment of studs (plumb ness) and walls (straightness) shall be within 1/960 of their respective heights and lengths.

9.12 Studs shall be plumbed, aligned, and securely attached to top and bottom runners. Splices in studs are not permitted.

9.13 Where manufacturer's recommendations for erection, attachment, assembly, bracing, alignment, or other installation, or assembly requirements are more stringent than indicated in these drawings, the manufacturer's recommendations shall apply.

10.0 STEEL DECK:

10.1 Steel roof deck shall be galvanized, Type B, 1 1/2" deep, 22 gauge, U.N.O.  
Steel roof deck shall be galvanized, Type N, 3" deep, 22 gauge, U.N.O.

10.2 For steel roof deck spans, mechanically fasten side laps at mid-span using "Buildex", self-tapping TEKS No. 10 or larger machine screws or as noted on plan.  
Provide additional sidelap fasteners where noted on plan.  
Fasten roof deck to supporting members as noted on plan.

10.3 Do not hang pipes or ducts from steel roof deck. Fasten roof deck to supporting members as noted on plan.

10.4 COMPOSITE FLOOR DECK:

- a. Deck shall be 2" - 20 gauge, galvanized, composite floor deck. Vulcraft 2VL120 or approved equal.
- b. Deck shall be galvanized per ASTM A924-94 (G60)
- c. Fasten composite floor deck to supporting members by not less than 3/8" welds or elongated welds of equal perimeter, spaced not more than 12" o.c. with a minimum 2 welds per unit at each support.

11.0 CONSTRUCTION AND SAFETY:

11.1 Woods Engineering P.A.'s responsibility is limited to the details and information shown on these drawings. It is the responsibility of the Contractor to provide adequate safety measures required by local codes as well as OSHA Standards for the Construction Industry. This should include, but not be limited to the following:  
Shoring to protect new as well as existing structures.  
Necessary Scaffolding.  
Material Handling Equipment.  
Trench Boxing.

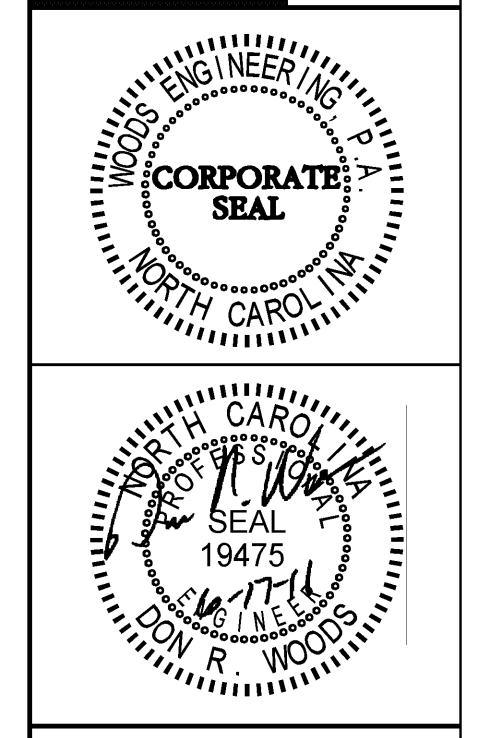
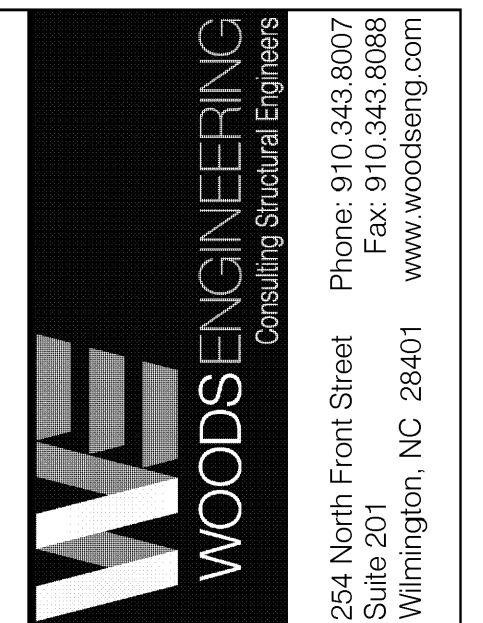
12.0 SHOP DRAWING SUBMITTAL:

12.1 See Project Manual

12.2 Contractor shall submit (3) prints of each shop drawing for review. Shop drawings shall be reviewed by the Contractor prior to submission to the Engineer. The Contractor shall allow 10 working days for shop drawing approval.

13.0 SPECIAL INSPECTIONS:

13.1 Refer to Sheet S1.3 for all Special inspections requirements.



Release Dates

6/17/11	0. Issued for Construction

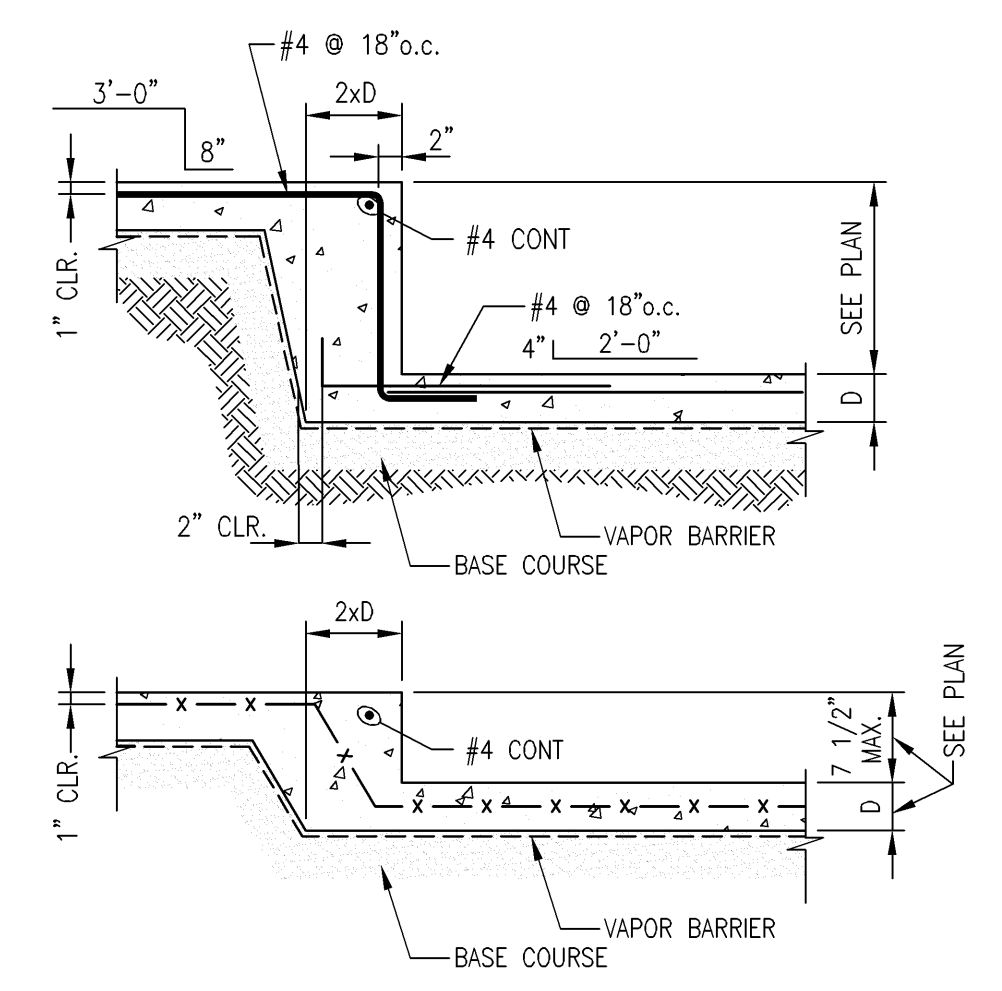
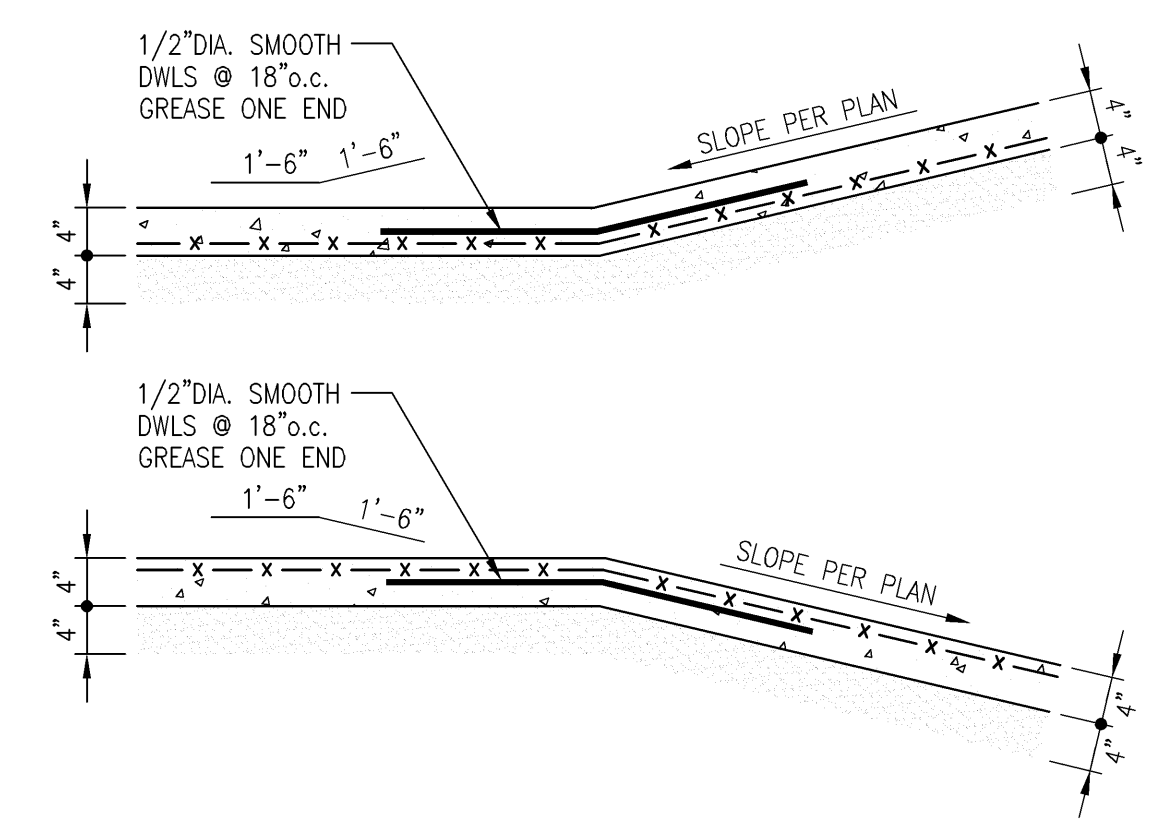
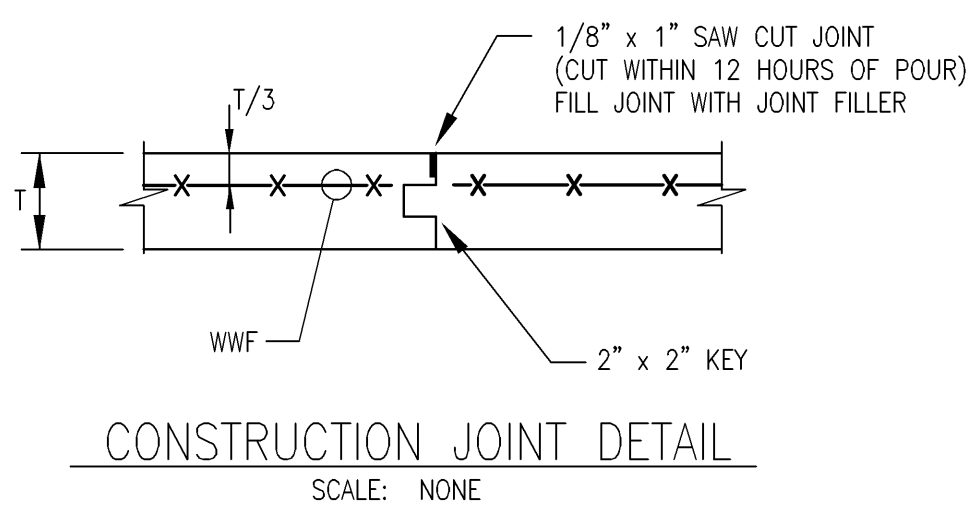
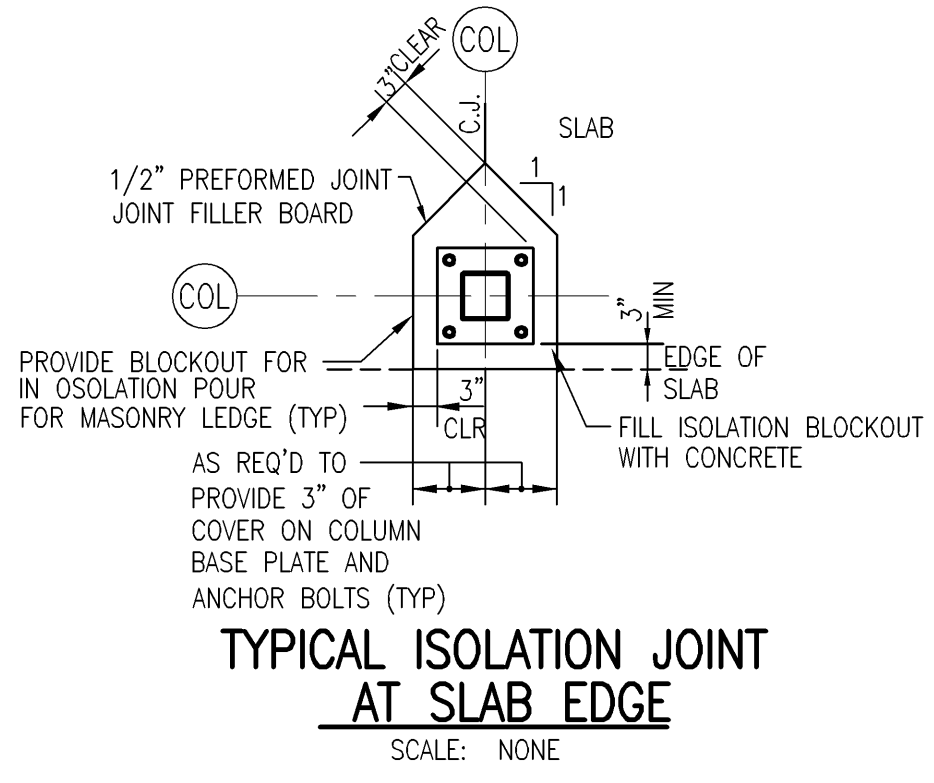
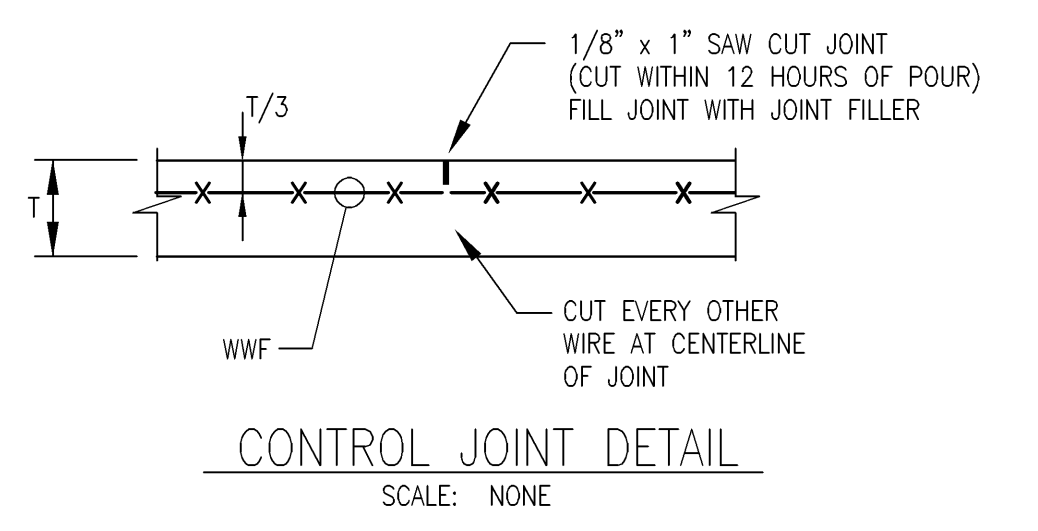
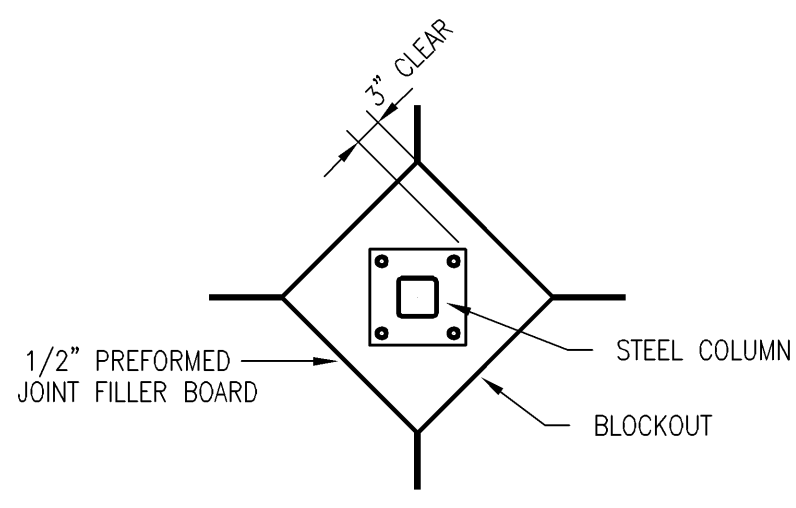
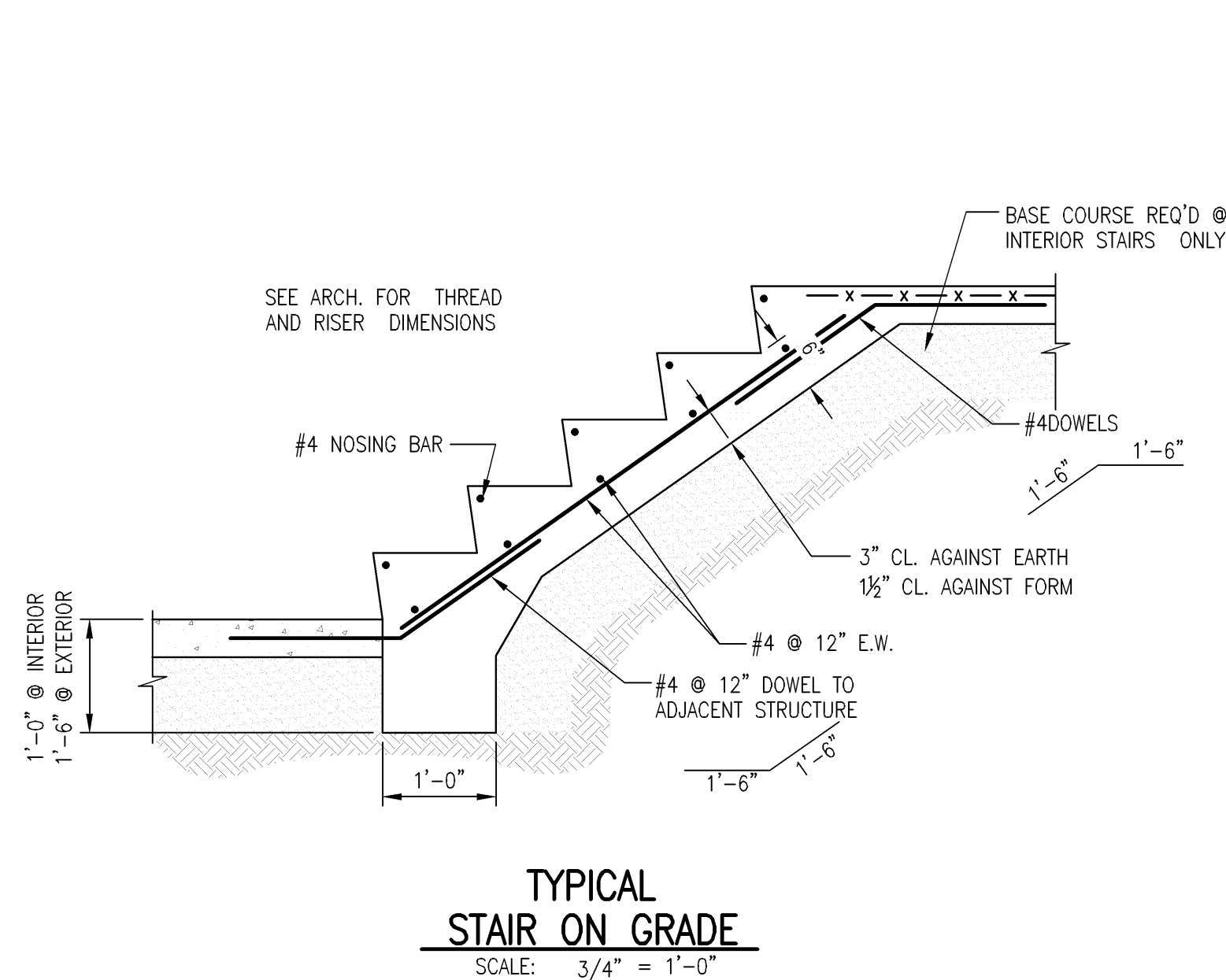
General Notes

First Baptist Church  
Richlands  
100 Rand Street  
Richlands, N.C.

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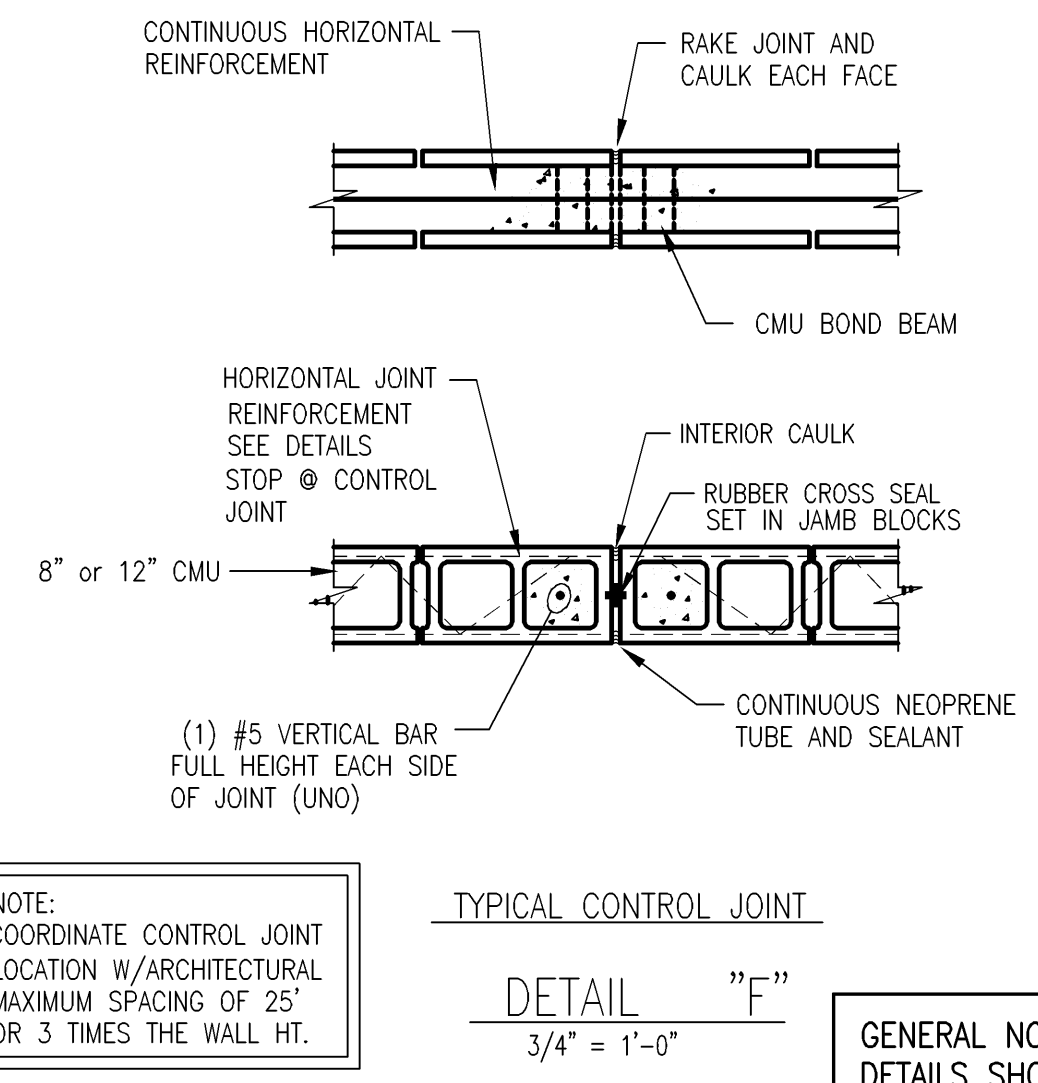
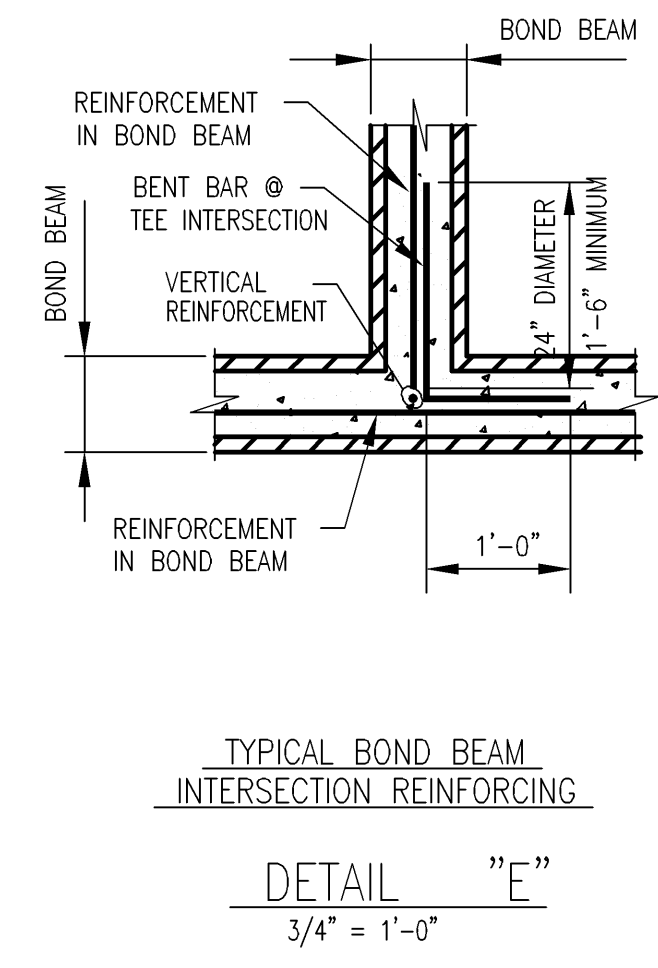
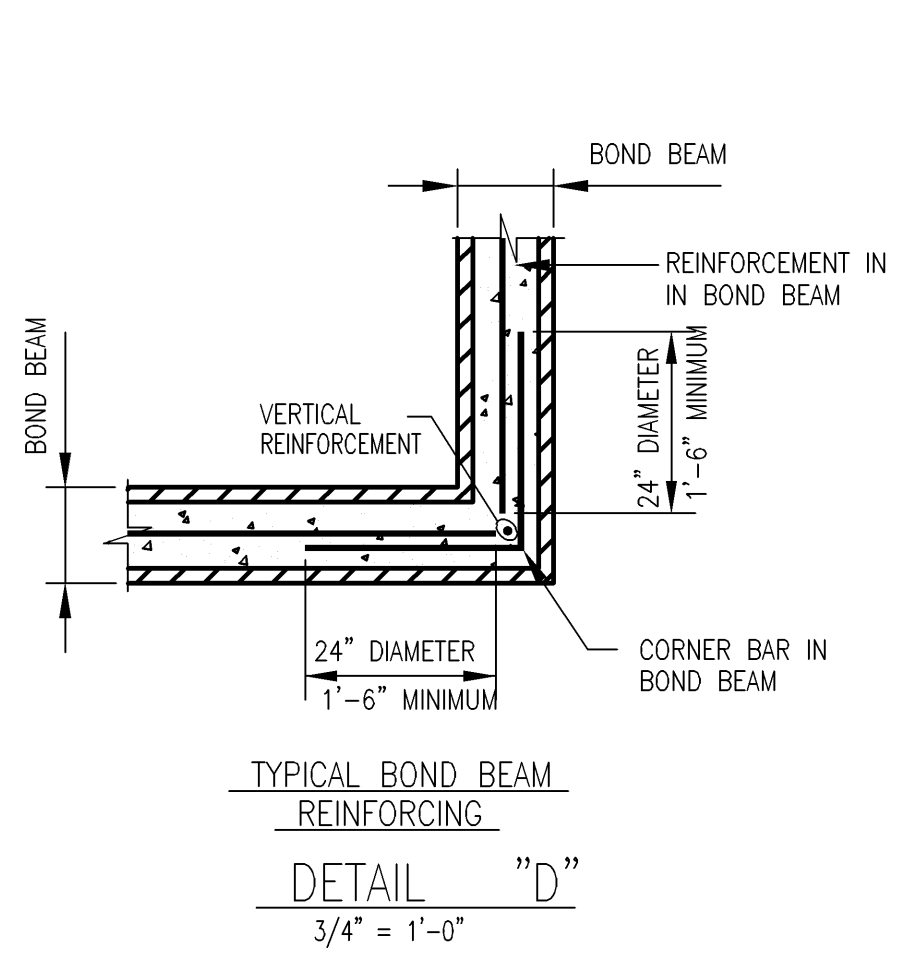
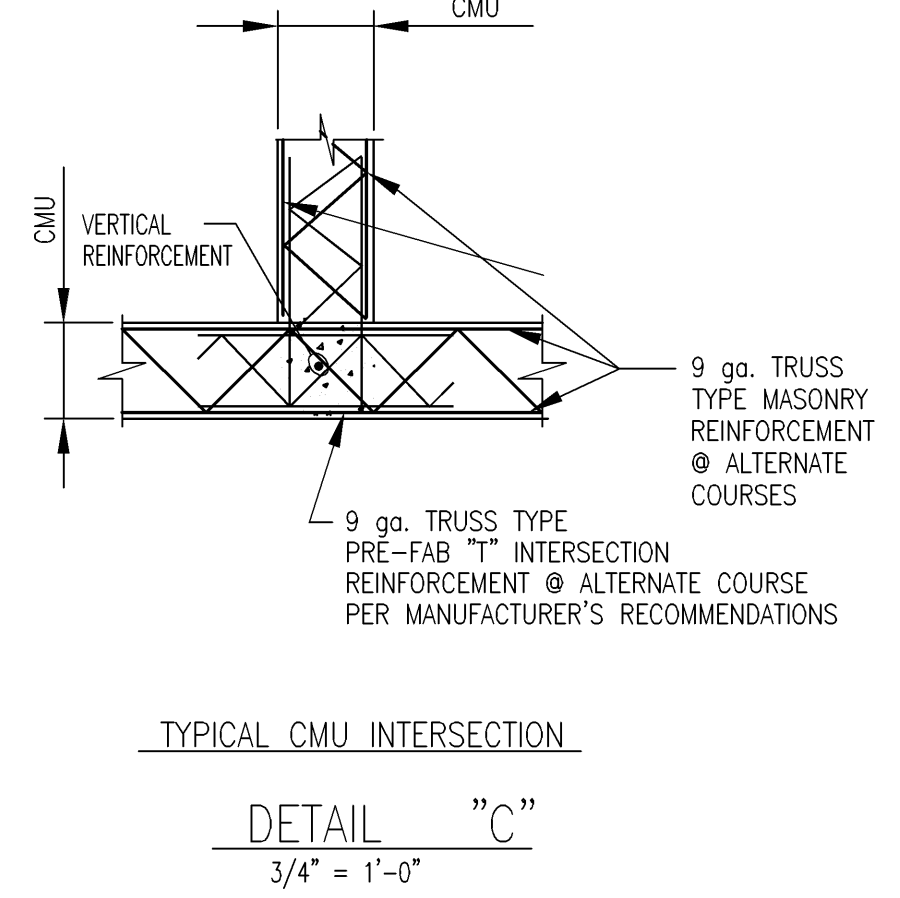
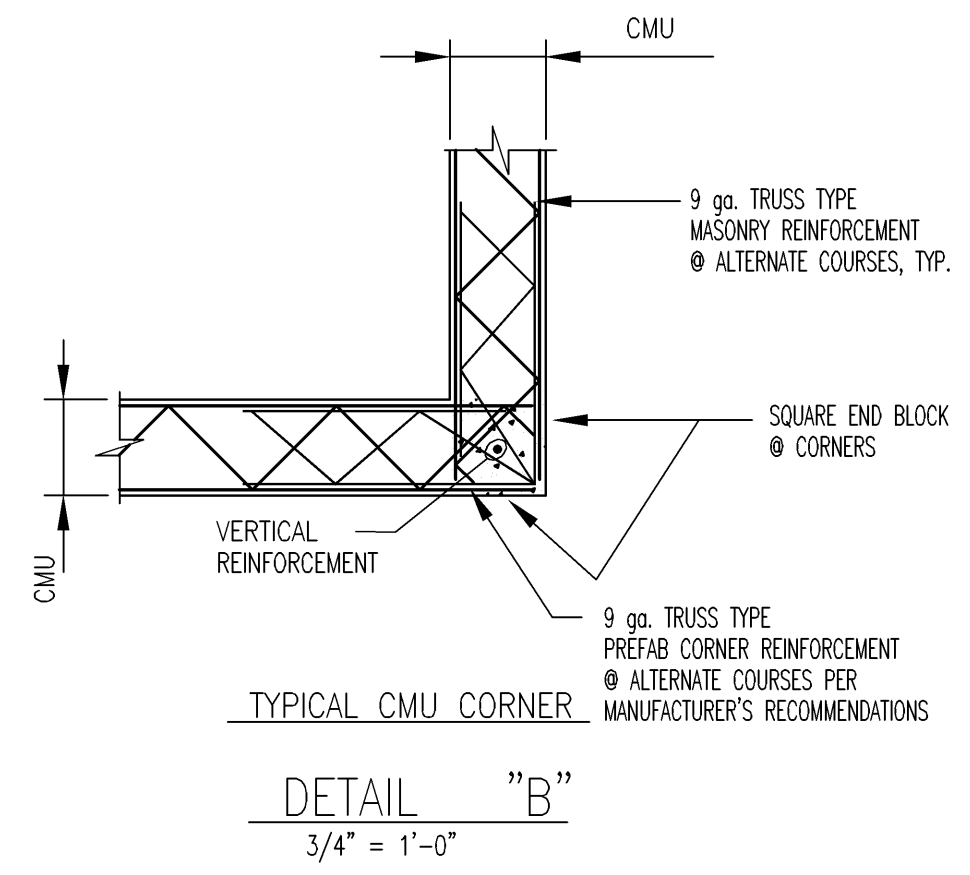
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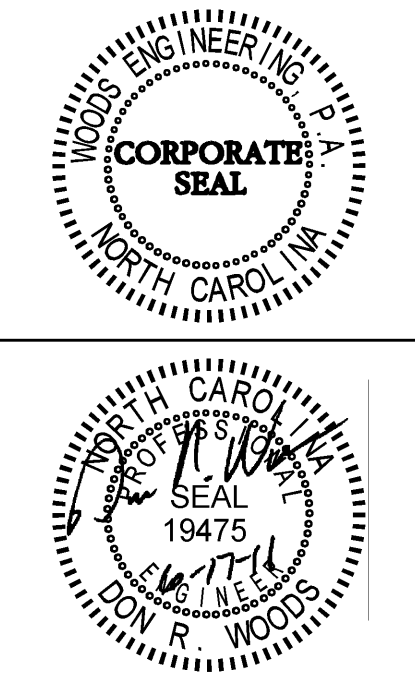
NON-LOAD BEARING CMU LINTEL SCHEDULE					
CLEAR OPENING	DEPTH	REINFORCING			MIN. BRG.
		6" CMU	8" CMU	12" CMU	
0'-8" TO 3'-4"	8"	1#4	1#4	2#5	8"
3'-4" TO 4'-8"	8"	1#4	1#4	2#5	8"
4'-8" TO 6'-0"	8"	1#4	1#5	2#5	8"
6'-0" TO 8'-0"	8"	1#4	2#5	2#5	8"
8'-0" TO 10'-0"	16"	1#4	2#5	2#5	12"
10'-0" TO 12'-0"	16"	-	-	2#5	12"

- NOTES:
1. BEAR REINFORCING 4" (MIN) EACH END.
  2. FILL BLOCK CORES WITH GROUT TO A DEPTH OF 48"(MIN) BELOW LINTEL BEARING.
  3. SEE BEAM SCHEDULE FOR LINTELS FOR CLEAR SPANS OVER 12' AND LINTELS SUPPORTING FLOOR OR ROOF LOADS.
  4. THESE LINTELS ARE NOT DESIGNED FOR MASONRY WALLS THAT CARRY FLOOR OR ROOF LOAD. - SEE PLAN FOR LOAD BEARING MASONRY LINTELS



NOTE:  
COORDINATE CONTROL JOINT LOCATION W/ARCHITECTURAL MAXIMUM SPACING OF 25' OR 3 TIMES THE WALL HT.

GENERAL NOTE:  
DETAILS SHOWN ON THIS SHEET ARE GENERIC IN NATURE AND MAY NOT PORTRAY EXACT CONDITIONS. THESE DETAILS ARE INTENDED TO PROVIDE GENERAL GUIDELINES FOR TYPICAL CONSTRUCTION CONDITIONS.



Release Dates

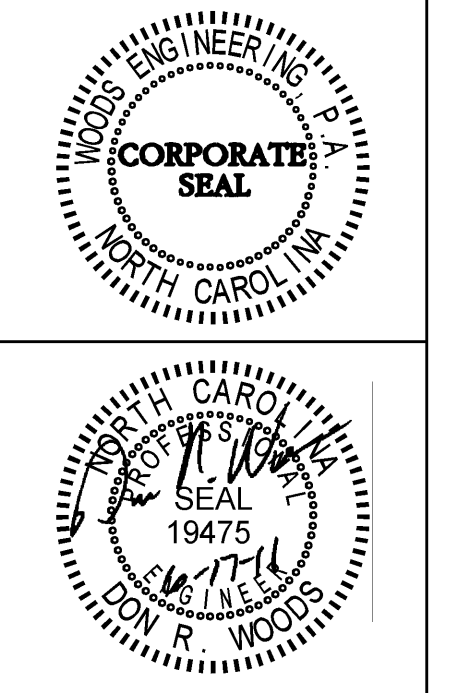
Date	Issued for
6/17/11	Construction

Typical Details

**First Baptist Church  
Richlands**  
100 Rand Street  
Richlands, N.C.

File name:  
1578-S1.02.dwg

**S1.02**



**Release Dates**

6/17/11	0. Issued for Construction

# Ground Floor Slab & Foundation Plan

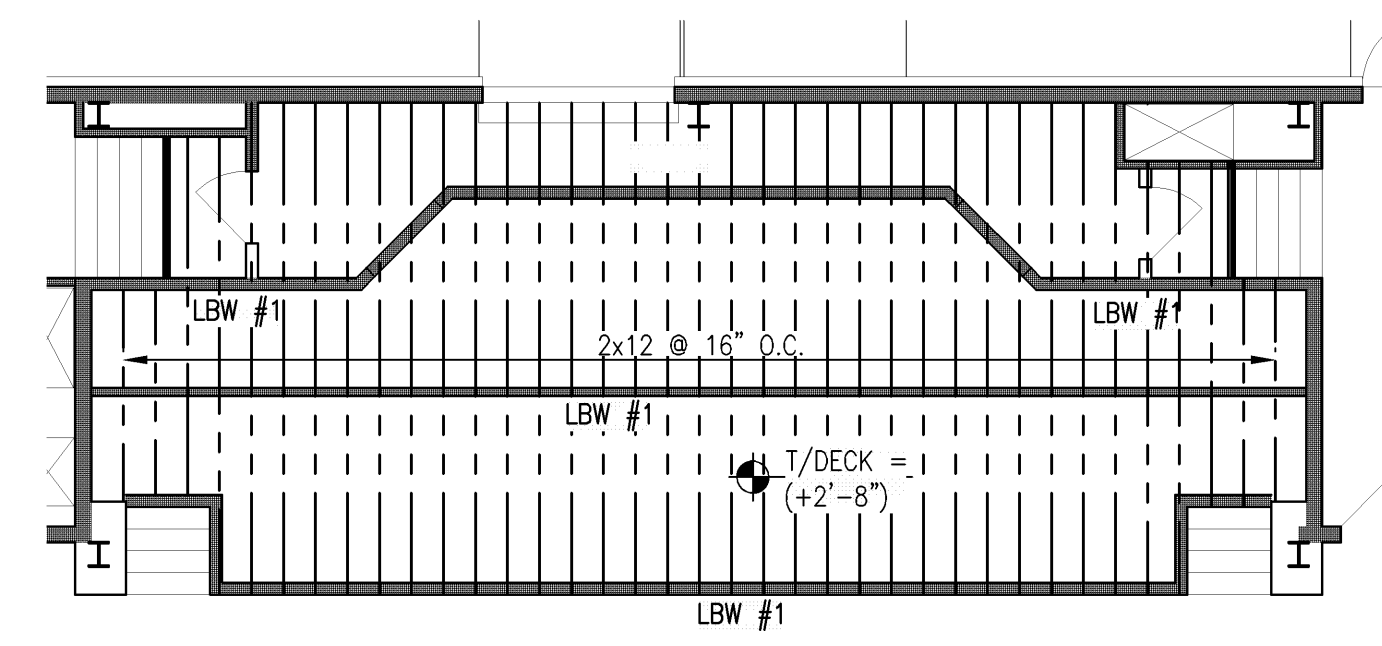
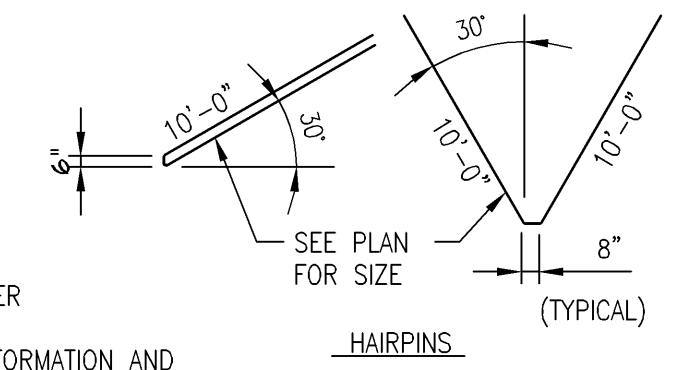
**First Baptist Church**  
**Richlands**  
100 Rand Street  
Richlands, N.C.

File name:  
1578-S2.01.dwg

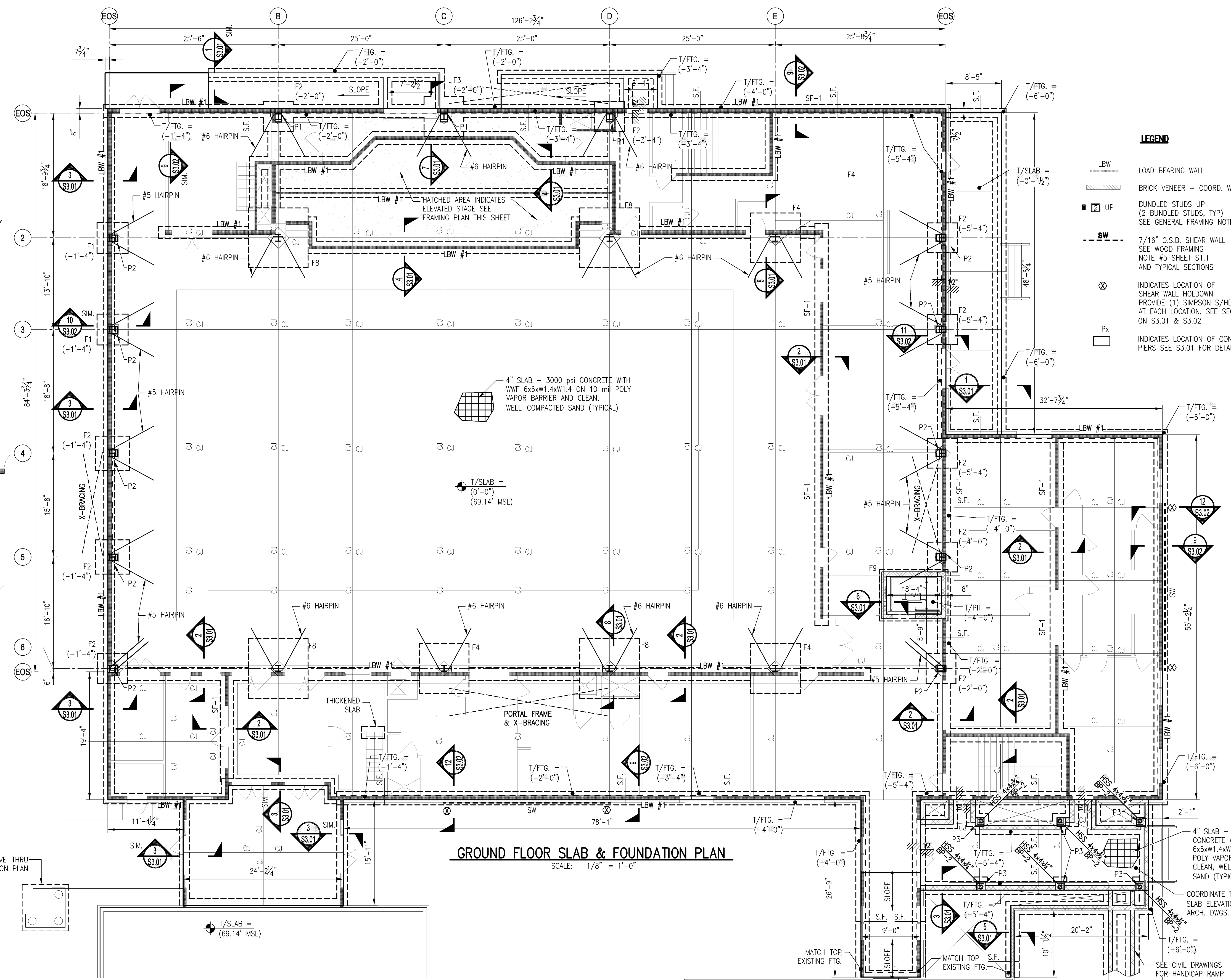
# S2.01

### GENERAL NOTES

- SEE SHEET S1.1 FOR ADDITIONAL GENERAL NOTES, FOUNDATION NOTES, CONCRETE NOTES, AND REINFORCING STEEL NOTES. ALSO, SEE SHEET S1.1 FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
- DATUM SLAB ELEVATION = +69.14 MSL = 0'-0". OTHER ELEVATIONS NOTED ARE REFERENCED AS (+/- X'-X") FROM DATUM ELEVATION
- SLAB-ON-GRADE SHALL BE 4" THICK 3000 psi CONCRETE WITH WWF 6x6xW2.1xW2.1 ON 10 mil VAPOR BARRIER, ON 6" CLEAN WELL COMPACTED SAND (SEE GEOTECHNICAL REPORT).
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DISCIPLINE DRAWINGS FOR OPENINGS AND DEPRESSIONS NOT SHOWN ON THESE DRAWINGS.
- E.O.S. = EDGE OF SLAB
- U.N.O. = UNLESS NOTED OTHERWISE
- S.F. = STEP FOOTING
- O.F.S. = OUTSIDE FACE STUD
- PEBS = PRE-ENGINEERED BUILDING SUPPLIER
- SEE S4.01 AND S3.02 FOR SHEAR WALL INFORMATION AND REQUIREMENTS
- HAIRPINS WHERE NOTED ON PLAN, LOCATE AROUND ANCHOR BOLTS & PLACE IN CENTER OF SLAB. SEE SECTIONS ON S3.01



**ELEVATED STAGE FRAMING PLAN**  
SCALE: 1/8" = 1'-0"



**GROUND FLOOR SLAB & FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

**LEGEND**

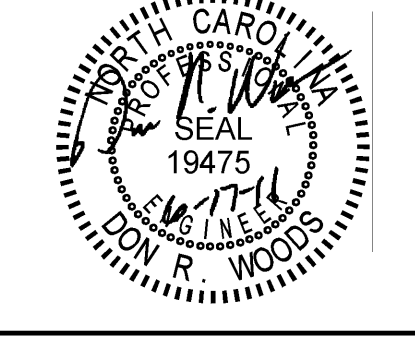
LBW	LOAD BEARING WALL
BRICK VENEER	COORD. W/ ARCH. DWGS.
UP	BUNDLED STUDS UP (2 BUNDLED STUDS, TYP) SEE GENERAL FRAMING NOTE #7
SW	7/16" O.S.B. SHEAR WALL SEE WOOD FRAMING NOTE #5 SHEET S1.1 AND TYPICAL SECTIONS
⊗	INDICATES LOCATION OF SHEAR WALL HOLDDOWN PROVIDE (1) SIMPSON S/HDU4 AT EACH LOCATION, SEE SECTIONS ON S3.01 & S3.02
Px	INDICATES LOCATION OF CONCRETE/MASONRY PIERS SEE S3.01 FOR DETAILS

**SPREAD FOOTING SCHEDULE**

MARK	SIZE length x width x thickness	REINFORCEMENT (BOTTOM BARS EACH WAY UNC)	REMARKS
F1	4'-0" x 4'-0" x 1'-0"	(4) #5 TOP & BOTT. E.W.	
F2	4'-6" x 4'-6" x 1'-6"	(4) #5 TOP & BOTT. E.W.	
F3	6'-0" x 6'-0" x 2'-0"	(6) #5 BOTT. E.W. & (6) #4 TOP E.W.	MONOLITHIC OR SPREAD - SEE PLAN
F4	7'-6" x 7'-6" x 2'-0"	(7) #5 BOTT. E.W. & (7) #4 TOP E.W.	MONOLITHIC W/ SLAB
F5	6'-0" x 6'-0" x 1'-6"	(6) #5 TOP & BOTT. E.W.	SEE S2.04
F6	7'-0" x 7'-0" x 1'-6"	(7) #5 TOP & BOTT. E.W.	SEE S2.04
F7	3'-0" x 3'-0" x 1'-0"	(3) #4 E.W.	MONOLITHIC W/ SLAB
F8	9'-0" x 9'-0" x 2'-0"	(9) #5 BOTT. E.W. & (9) #4 TOP E.W.	MONOLITHIC W/ SLAB, SEE 8/S3.01
F9	7'-9" x 10'-4" x 1'-0"	#5 @ 12"o.c. E.W., TOP & BOTT.	SEE 6/S3.01

**LOAD BEARING WALL (LBW) SCHEDULE**

MARK	STUD WALL REQUIREMENT
LBW #1	6" CSI 18ga @ 24"o.c.



**Release Dates**

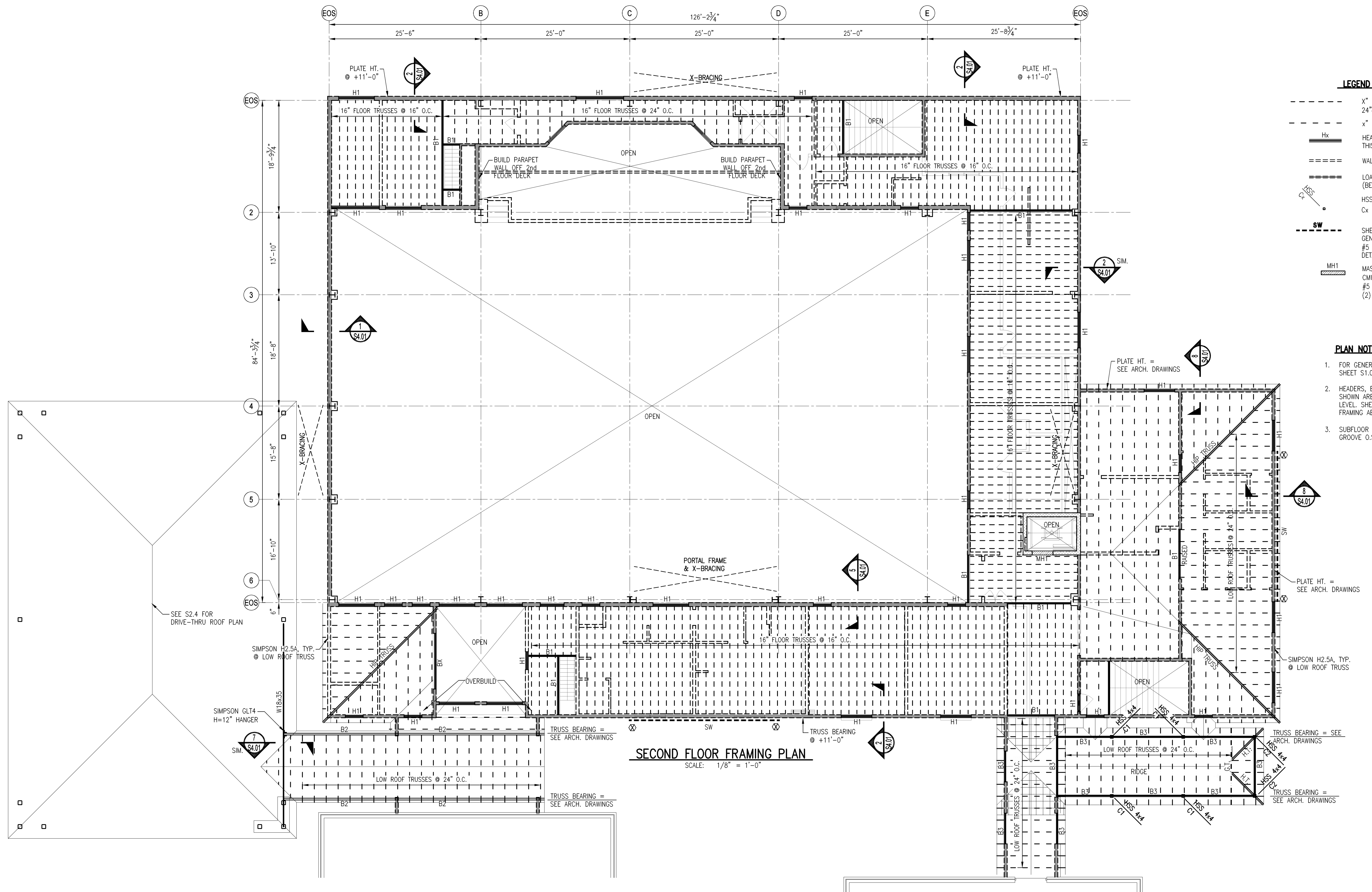
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**Second Floor Framing Plan**

**First Baptist Church  
Richlands  
100 Rand Street  
Richlands, N.C.**

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1578-S2.02.dwg

**S2.02**



**SECOND FLOOR FRAMING PLAN**  
SCALE: 1/8" = 1'-0"

**LEGEND**

- - - - - X" FLOOR TRUSSES @ 24" o.c.
- - - - - X" ROOF TRUSSES @ 24" o.c.
- Hx HEADER, SEE SCHEDULE THIS SHEET
- ==== WALLS (BELOW)
- ==== LOAD BEARING WALLS (BELOW)
- HSS COLUMN DOWN (TYP.)  
Cx - CONNECTION SEE S4.02
- SW SHEAR WALL, SEE GENERAL FRAMING NOTE #5 SHEET S1.1 AND DETAILS ON S4.02
- MH1 MASONRY HEADER - 8" CMU BOND BEAM W/ (2) #5 GROUT BOND BEAM & (2) COURSE ABOVE

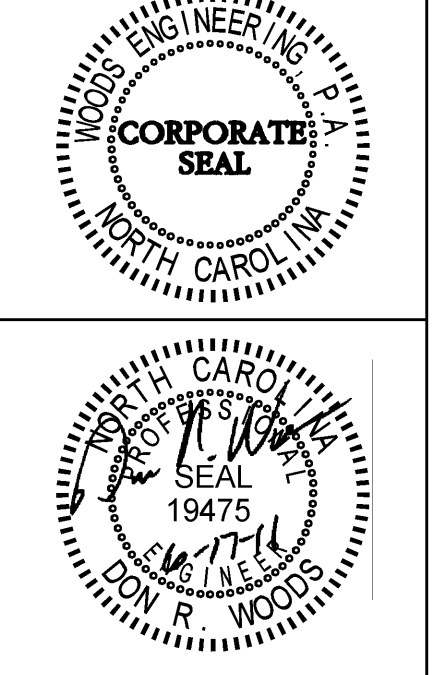
**PLAN NOTES:**

1. FOR GENERAL FRAMING INFORMATION, SEE SHEET S1.01
2. HEADERS, BEAMS, AND LOAD BEARING WALLS SHOWN ARE FOR FRAMING BELOW THIS LEVEL. SHEAR WALL CALLOUTS ARE FOR FRAMING ABOVE THIS LEVEL.
3. SUBFLOOR SHALL BE 3/4" TONGUE AND GROOVE O.S.B. SPAN AS NOTED ON PLAN.

BEAM SCHEDULE	
MARK	BEAM REQUIREMENT
B1	(2) 1 1/2" x 16" LVLs
B2	3/8" x 12" PT GLULAM
B3	(3) 2 x 10s PT

LOAD BEARING WALL (LBW) SCHEDULE	
MARK	STUD WALL REQUIREMENT
LBW #1	#1 CSJ 18ga @ 24" o.c.

HEADER SCHEDULE	
MARK	HEADER REQUIREMENTS
H1	BOX HEADER W/(2) 6" CSJ 18ga. & (2) 6" TSB 18ga TRACKS



**Release Dates**

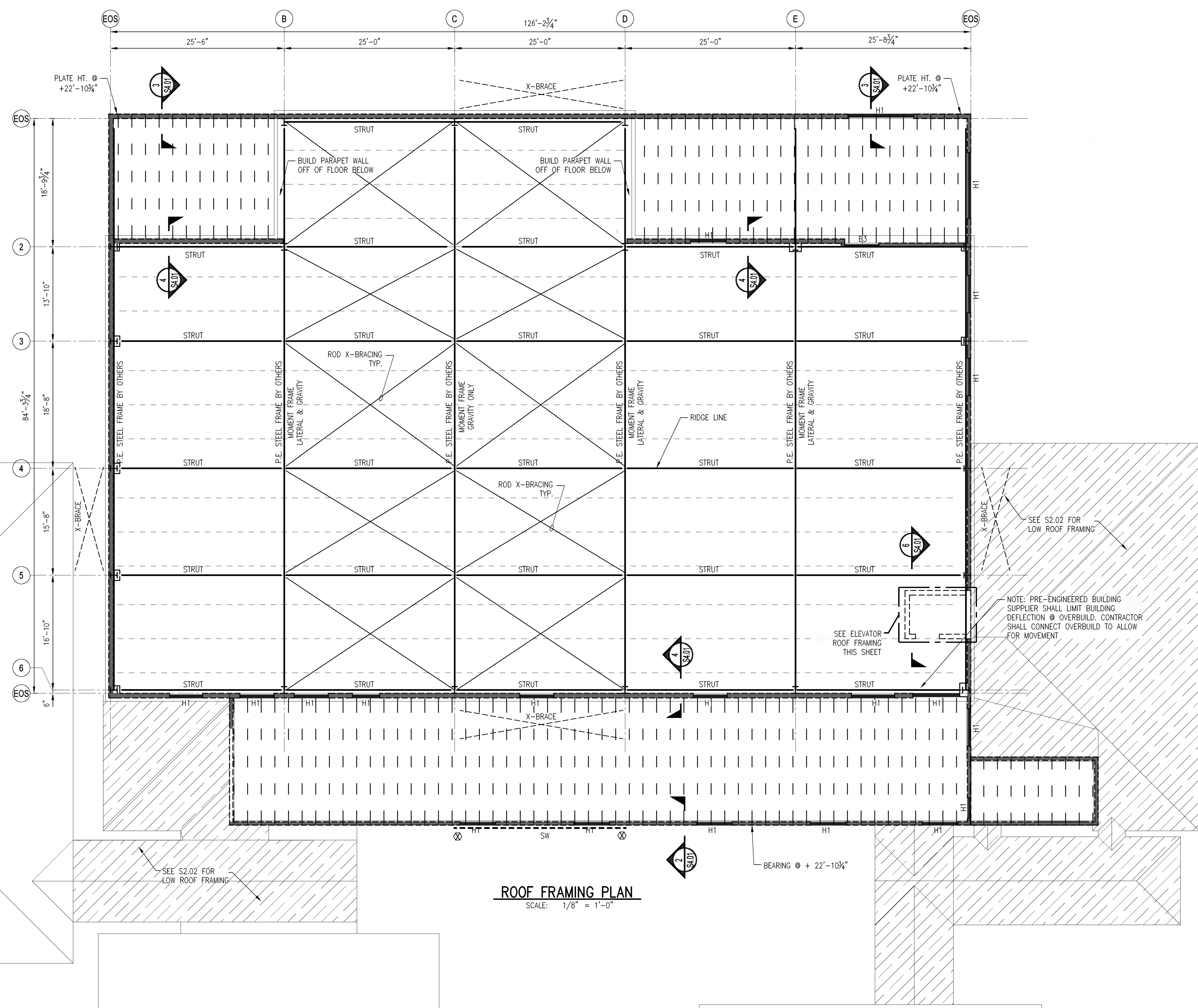
DATE	ISSUED FOR
6/17/11	0. Issued for Construction

**Roof Framing Plan**

**First Baptist Church  
Richlands**  
100 Rand Street  
Richlands, N.C.

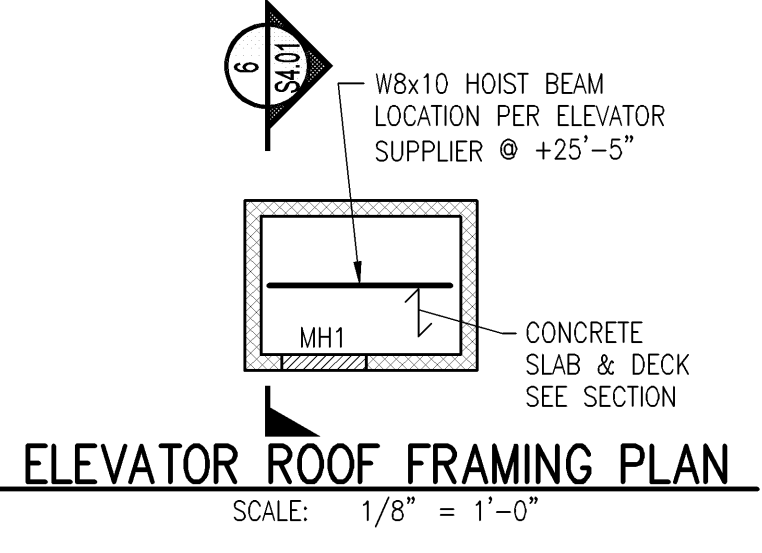
File name:  
1578-S2.03.dwg

**S2.03**



- LEGEND:**
- ROOF PURLINS @ ± 5'-0" O.C.
  - PRE-ENGINEERED WOOD ROOF TRUSSES @ 24" o.c.
  - [ ] INDICATES FLAT ROOF
  - [ / ] INDICATES LOW ROOF SEE S2.02
  - [ ] 2x WALLS (BELOW)
  - [ ] LOAD BEARING WALLS (BELOW)
  - Hx HEADER, SEE SCHEDULE THIS SHEET
  - MH1 MASONRY HEADER - 8" CMU BOND BEAM W/ (2) #5 GROUT BOND BEAM & (2) COURSE ABOVE

- GENERAL FRAMING NOTES:**
- ALL ELEVATIONS NOTED ON PLAN ARE REFERENCED TO DATUM ELEVATION, SEE SHEET S2.1
  - ALL ROOF TRUSSES SHALL BE BY SHOFFNER OR APPROVED EQUAL. TRUSS SUPPLIER SHALL CONSTRUCT TRUSSES TO PROVIDE FULL BEARING ON ALL WALLS AND GIRDERS. THE TRUSS SUPPLIER SHALL ALSO SUBMIT SEALED DRAWINGS FOR REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL SHOW THE FOLLOWING:
    - LAYOUT PLAN
    - BEARING LOCATIONS
    - TRUSS ELEVATIONS
    - MECHANICAL OPENINGS
    - STRUCTURAL CALCULATIONS
    - NC PROFESSIONAL ENGINEER SEALED DRAWINGS TO CERTIFY DESIGN
  - AT OVERBUILD AREAS, LAY 2x12 FLAT OVER PLYWOOD DECK AND NAIL TO EACH TRUSS BELOW W/(3) 16d. NAIL OVERBUILD RAFTERS W/ SIMPSON A23 CLIPS TO 2x12
  - ALL STRAP AND TIE CONNECTIONS SHALL HAVE Z-MAX (G185) TRIPLE ZINC COATING (OR HOT-DIPPED GALVANIZED). ALL NAILS SHALL BE HOT-DIPPED GALVANIZED.
  - DO NOT BEND COIL STRAPS.
  - UNLESS NOTED OTHERWISE, CONNECT ALL BUILDING COMPONENTS PER TABLE 2306.1 - FASTENING SCHEDULE, PER SBCC1, STD 10-96.
  - ROOF SHEATHING:
    - 5/8" C-C EXTERIOR GRADE PANELS OR APPROVED EQUAL SHALL BE USED.
    - PLACE WITH LONG DIMENSION PERPENDICULAR TO FRAMING AND END JOINTS.
    - STAGGER END JOINTS.
    - FASTEN WITH 8d HOT DIPPED GALVANIZED BOX NAILS @ 6" o.c. ALL SUPPORTED EDGES, U.N.O.
    - PROVIDE BLOCKING AT SHEATHING ABUTMENTS IN FIRST 2 FRAMING SPACES AT EACH GABLE END.



**BEAM SCHEDULE**

MARK	BEAM REQUIREMENT
B1	(2) 1 3/4" x 16" LVLs
B2	3/2" x 12" PT GLULAM
B3	(3) 2 x 10s PT

**LOAD BEARING WALL (LBW) SCHEDULE**

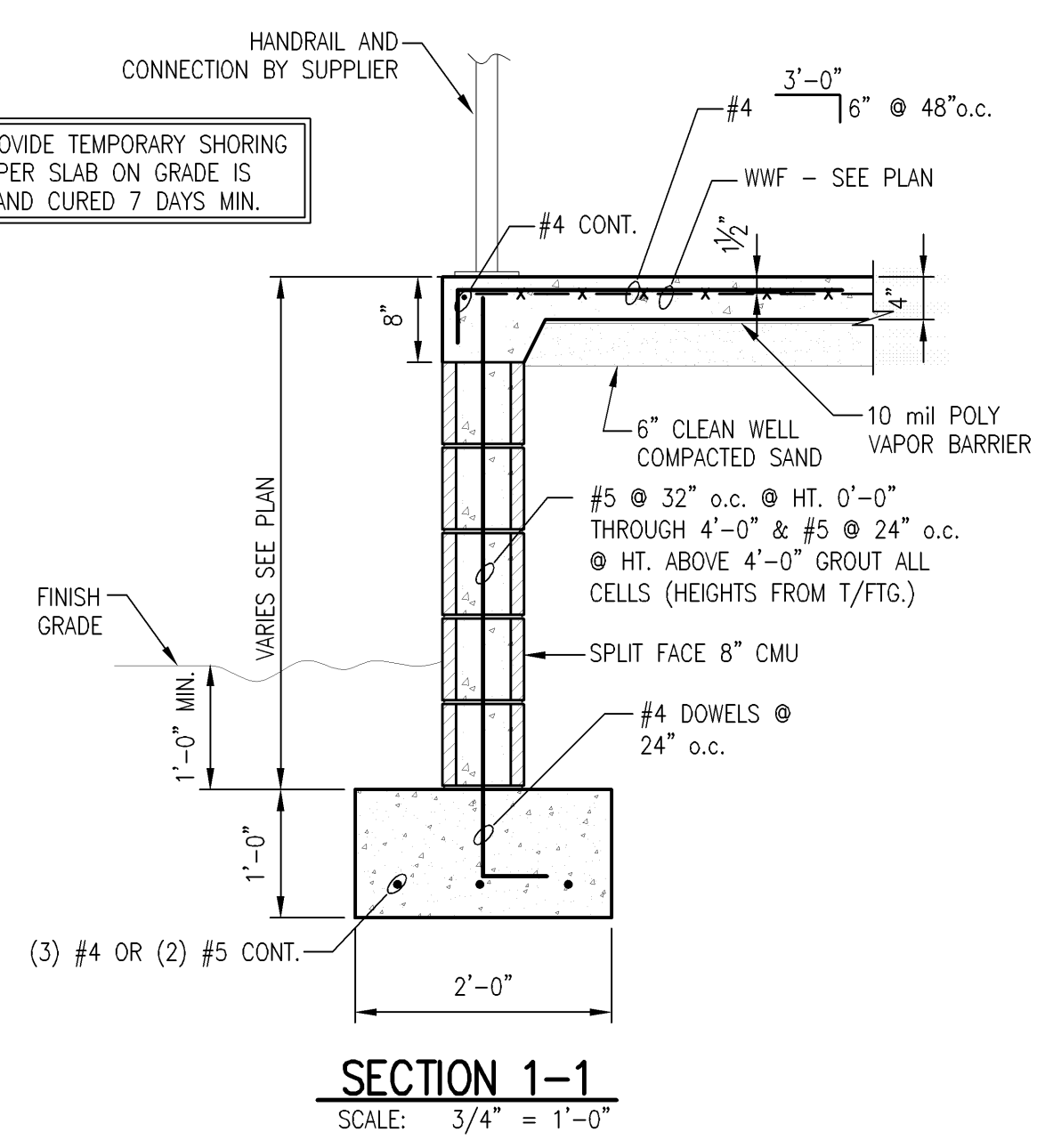
MARK	STUD WALL REQUIREMENT
LBW #1	6" CSJ 18ga @ 24" o.c.

**HEADER SCHEDULE**

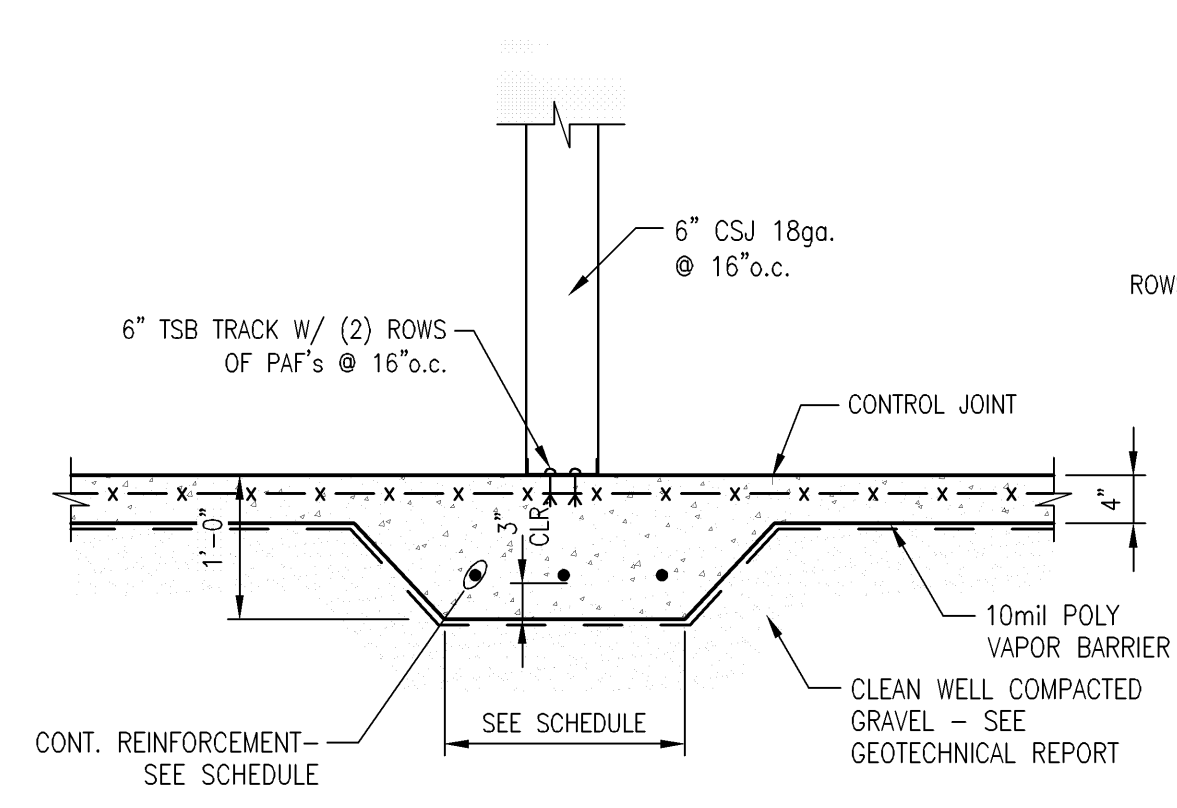
MARK	HEADER REQUIREMENTS
H1	BOX HEADER W/(2) 6" CSJ 18ga. & (2) 6" TSB 18ga TRACKS



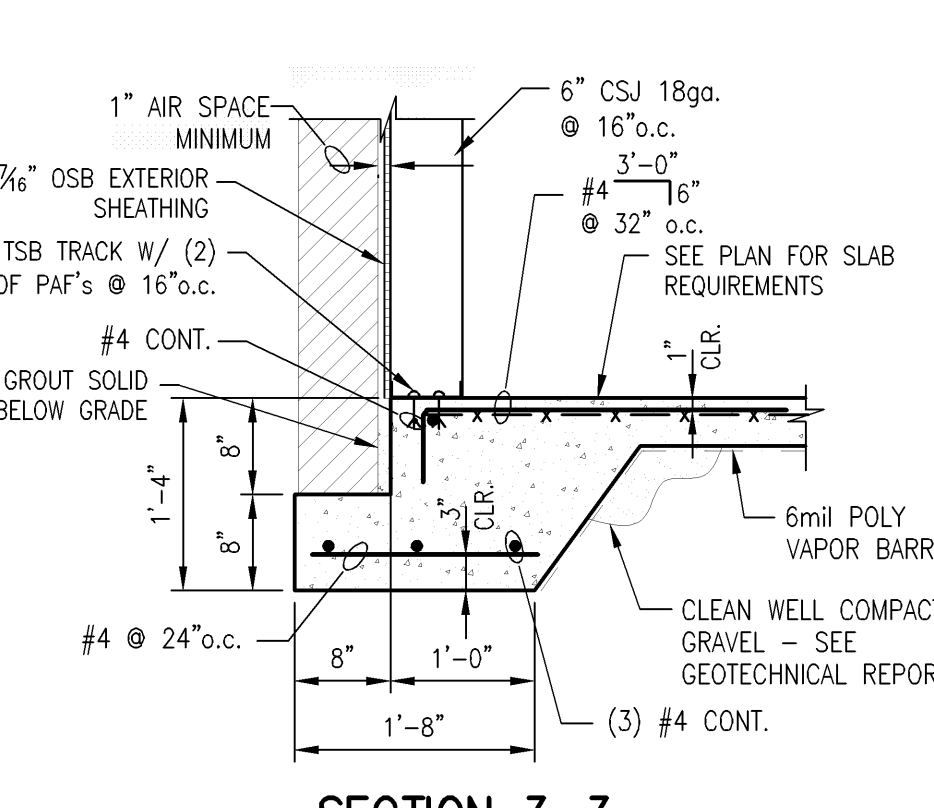
NOTE: PROVIDE TEMPORARY SHORING UNTIL UPPER SLAB ON GRADE IS POURED AND CURED 7 DAYS MIN.



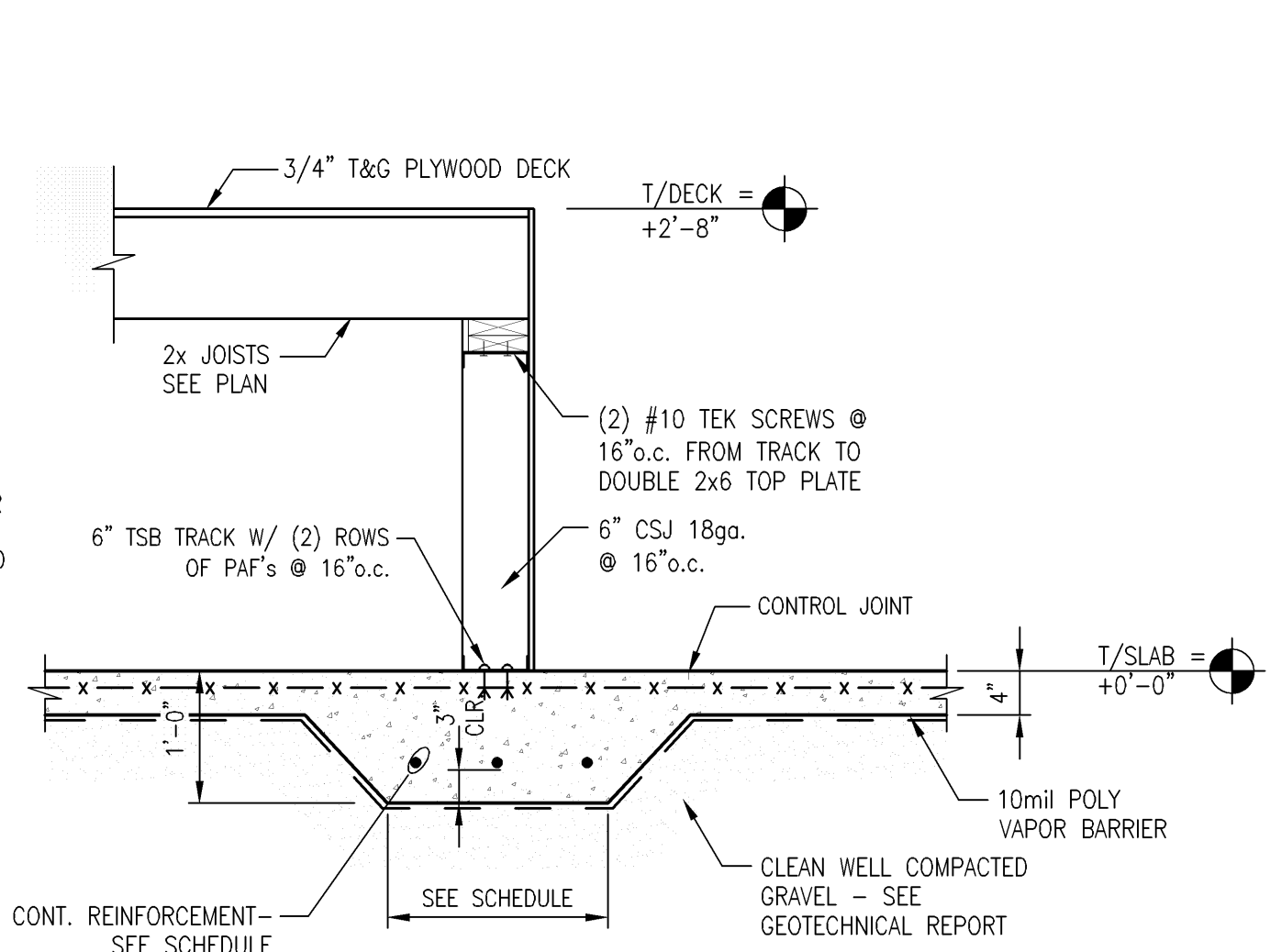
**SECTION 1-1**  
SCALE: 3/4" = 1'-0"



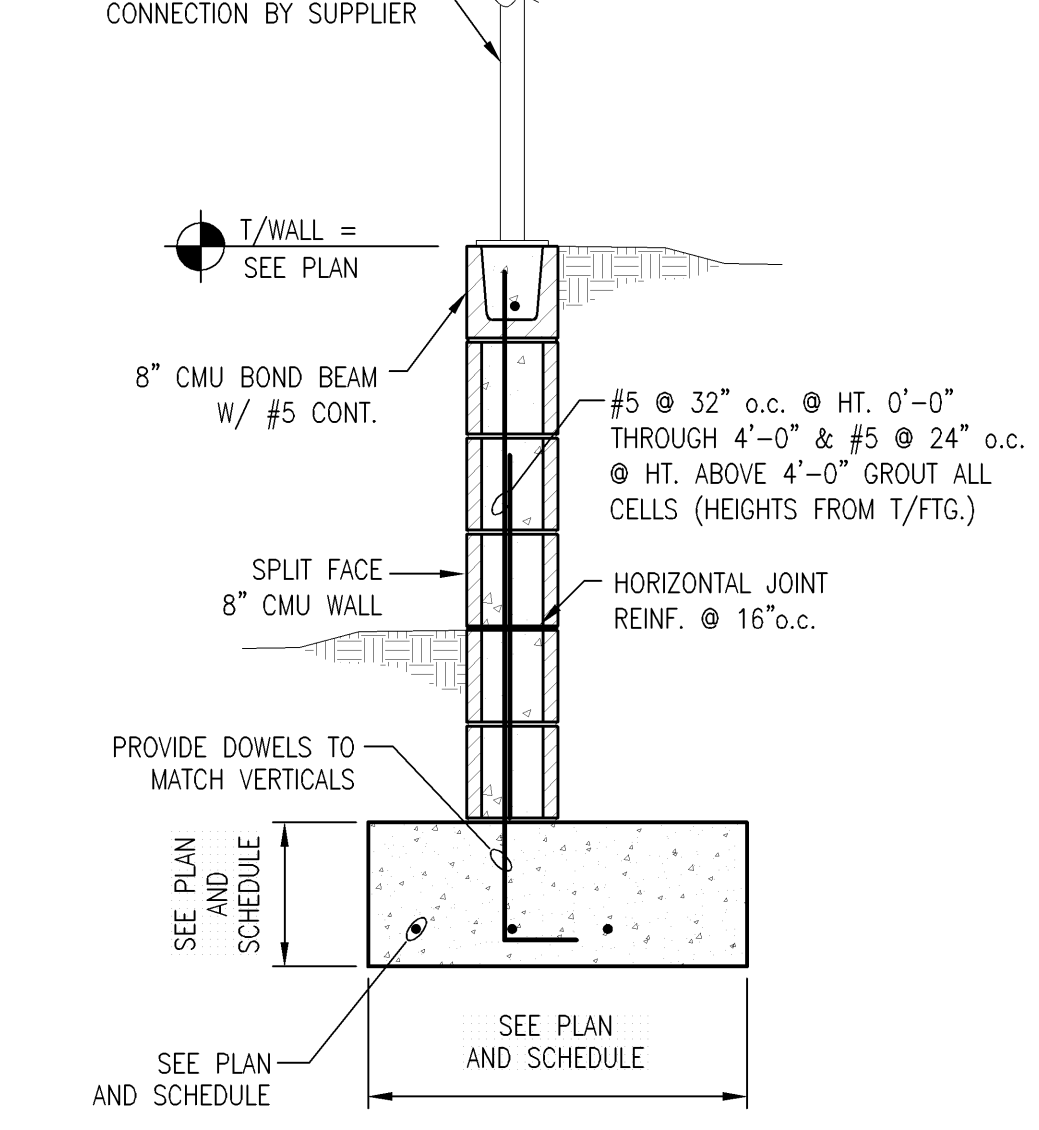
**SECTION 2-2**  
SCALE: 3/4" = 1'-0"



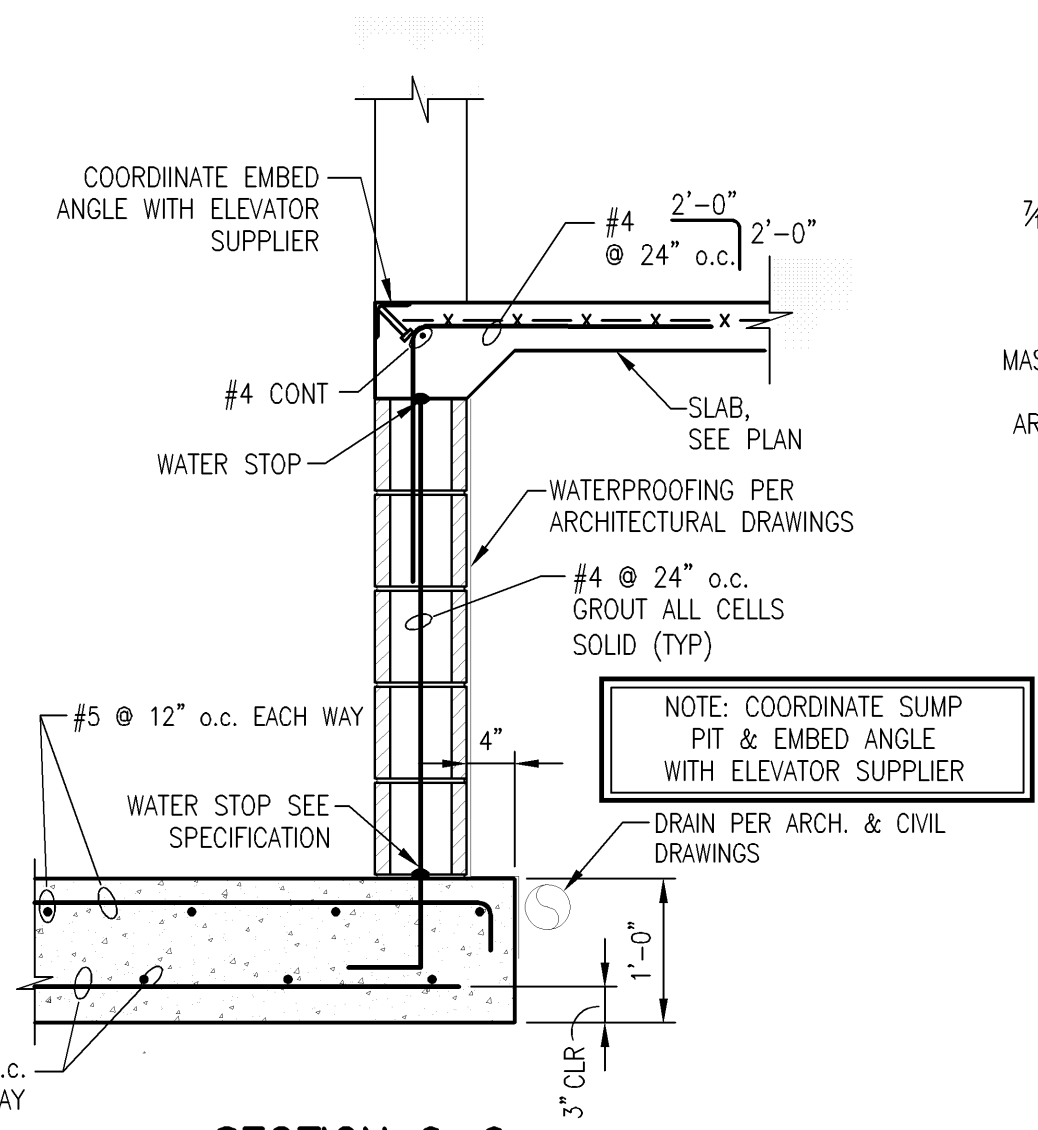
**SECTION 3-3**  
SCALE: 3/4" = 1'-0"



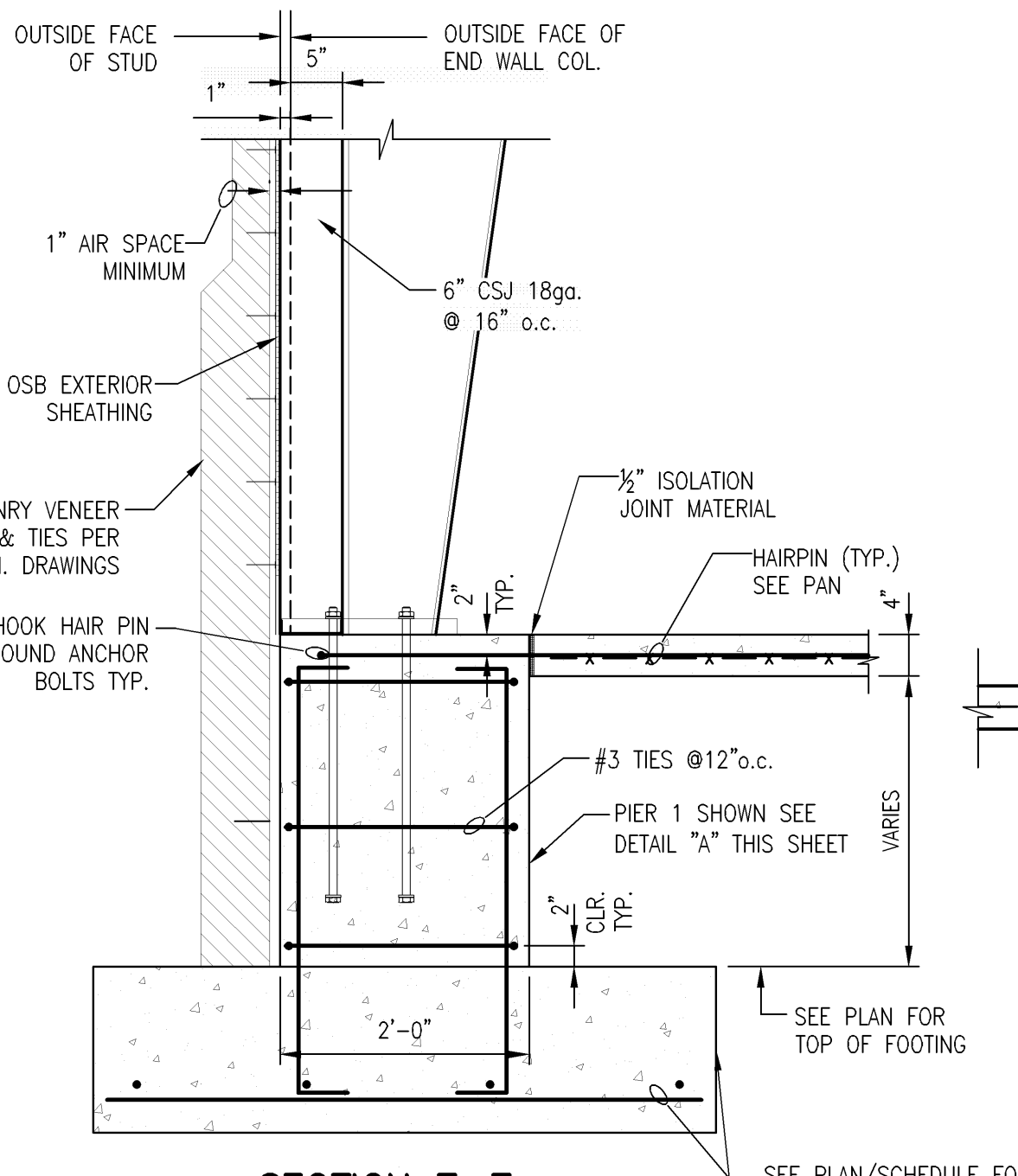
**SECTION 4-4**  
SCALE: 3/4" = 1'-0"



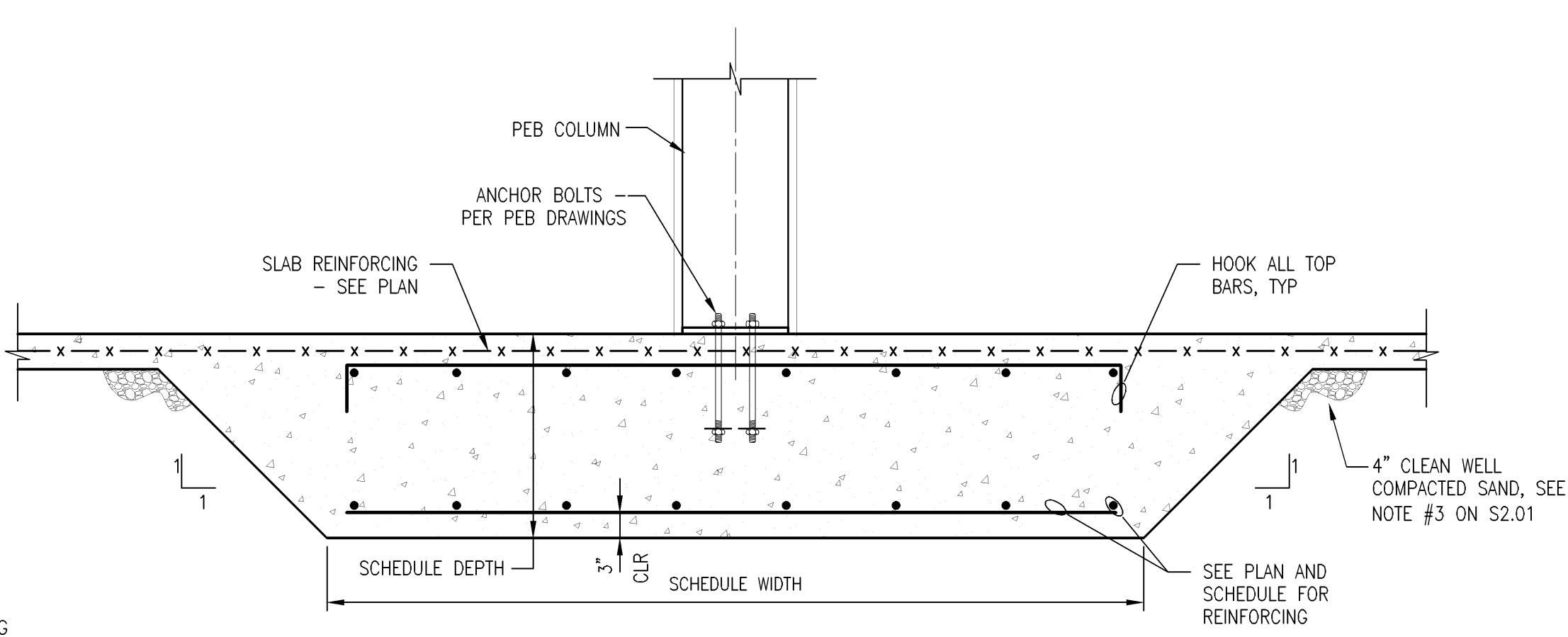
**SECTION 5-5**  
SCALE: 3/4" = 1'-0"



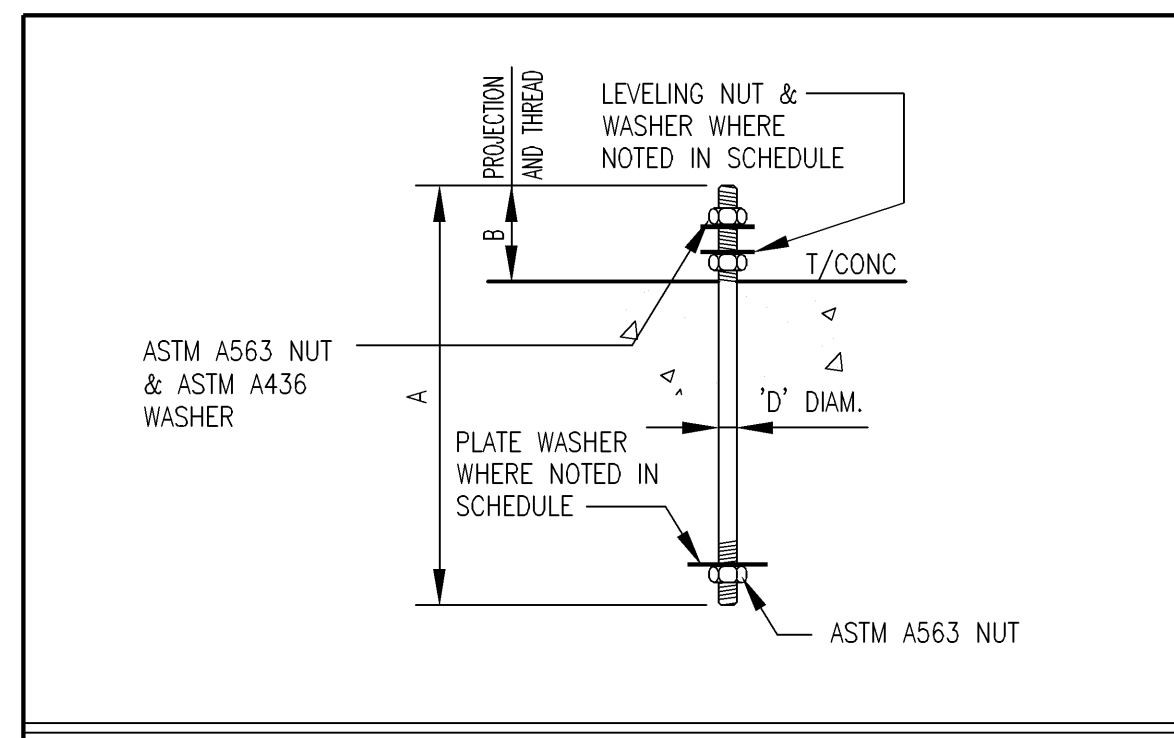
**SECTION 6-6**  
SCALE: 3/4" = 1'-0"



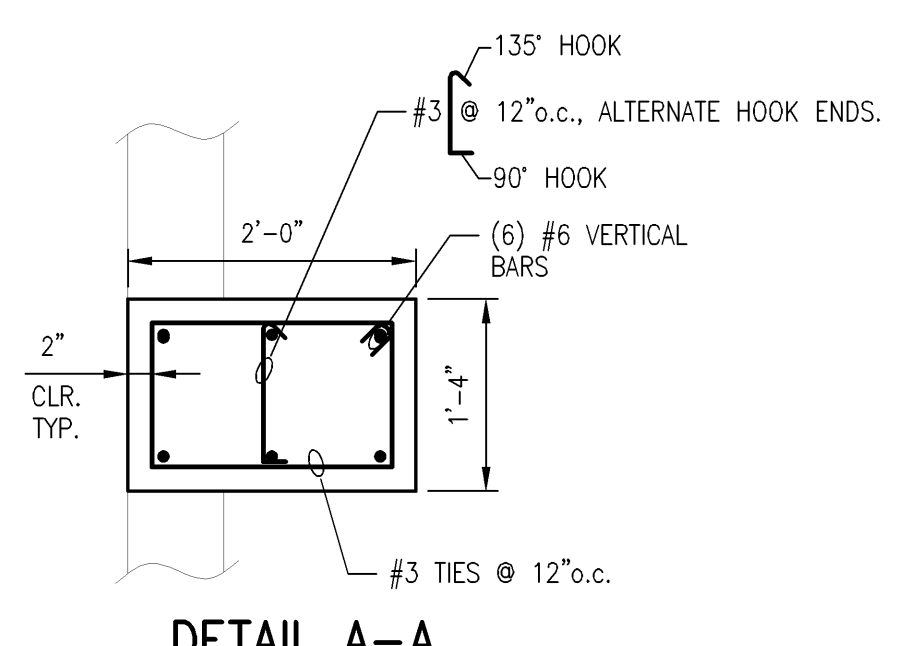
**SECTION 7-7**  
SCALE: 3/4" = 1'-0"



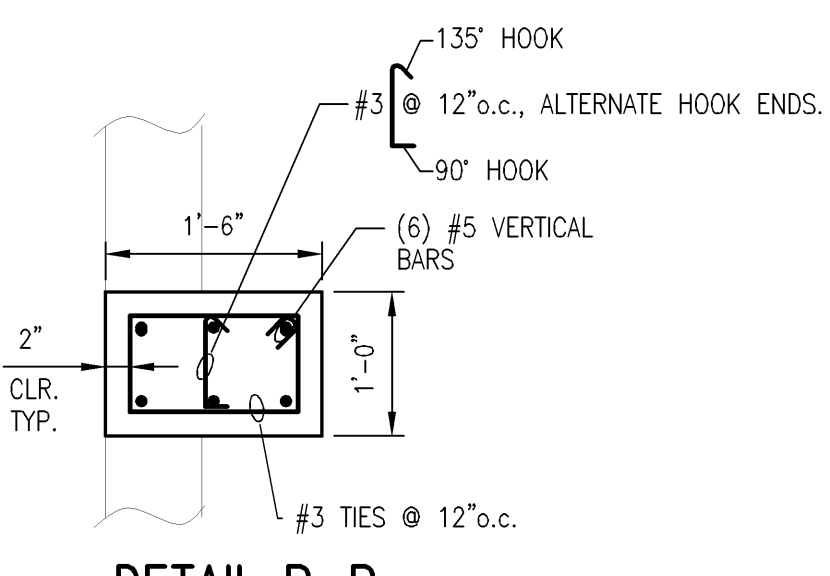
**SECTION 8-8**  
SCALE: 3/4" = 1'-0"



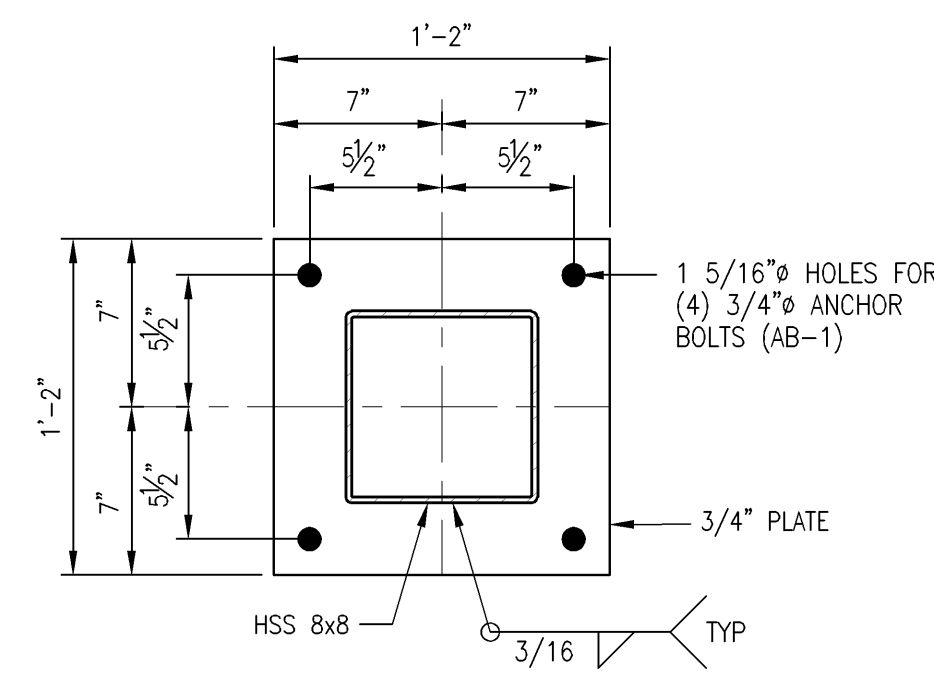
ANCHOR BOLT SCHEDULE								
MARK	BOLT DIAM. D	HOLE DIAMETER	A	B	WASHER O.D. x t	LEVELING NUT	PLATE WASHER	REMARKS
AB-1	3/4"	1 5/16"	1'-2"	5"	2"x1/4"	YES	NO	
AB-2	7/8"	1 9/16"	2'-2"	6"	2 1/2"x5/16"	YES	NO	



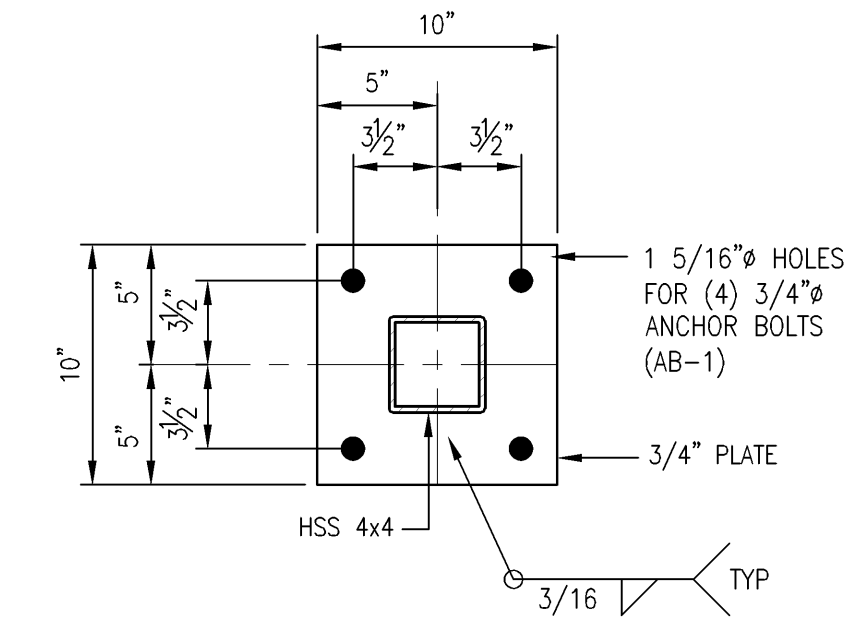
**DETAIL A-A**  
SCALE: 3/4" = 1'-0"  
TYP. PIER 1 (P1) U.N.O.



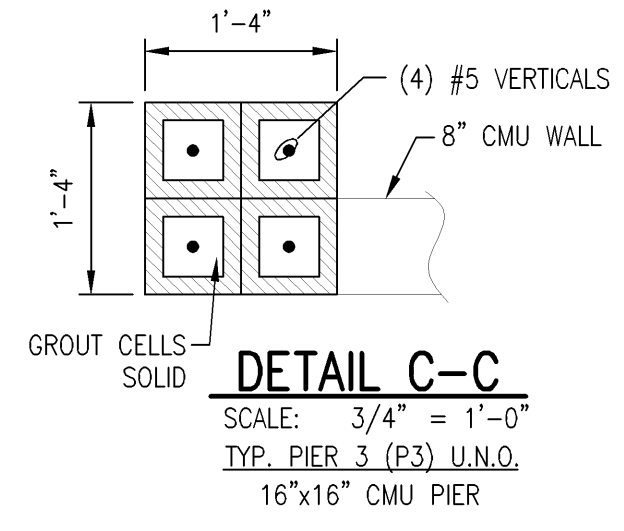
**DETAIL B-B**  
SCALE: 3/4" = 1'-0"  
TYP. PIER 2 (P2) U.N.O.



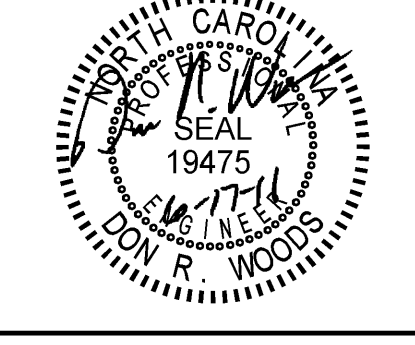
**DETAIL 'BP-1'**  
SCALE: 1 1/2" = 1'-0"  
(HSS 8x8 BASEPLATE) TYPICAL, UNO



**DETAIL 'BP-2'**  
SCALE: 1 1/2" = 1'-0"  
(HSS 4x4 BASEPLATE) TYPICAL, UNO



**DETAIL C-C**  
SCALE: 3/4" = 1'-0"  
TYP. PIER 3 (P3) U.N.O.  
16"x16" CMU PIER



Release Dates

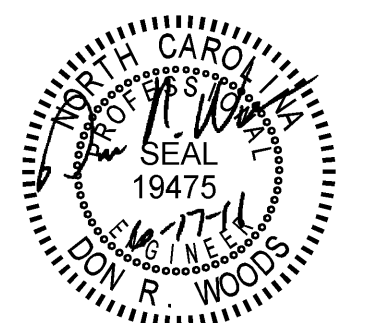
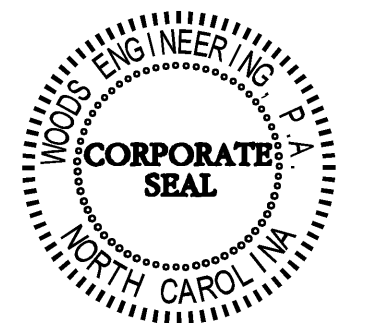
Date	Description
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Foundation Sections & Details

First Baptist Church  
Richlands  
100 Rand Street  
Richlands, N.C.

File name:  
1578-S3.01.dwg

S3.01



**Release Dates**

Date	Description
6/17/11	0. Issued for Construction

**Framing Sections & Details**

**First Baptist Church  
 Richlands  
 100 Rand Street  
 Richlands, N.C.**

File name:  
 1578-S4.01.dwg

**S4.01**

