

## ADDENDUM

<b>ADDENDUM #</b>
<b>01</b>

<b>ISSUED BY</b>	Brittany Bauer (Wilkus Architects)		
<b>PROJECT</b>	Mellette Community Center		
<b>ISSUED ON</b>	10/12/18	<b>REGARDING CONSTRUCTION DOCUMENTS DATED</b>	08/13/18
<b>ISSUED TO</b>			

<b>NOTICE</b>
<p>The following list of items represents revisions and/or corrections to the Construction Documents bearing the date listed above. These items shall become a part of the Construction Documents and shall be included in the General Contractor's final bid to the Owner.</p>

<b>ITEM</b>	<b>REVISION</b>		<b>REQUESTED BY</b>	Lucas Hoover (Helms & Associates) Typical
1	<b>CORRECTION</b>	X		
<b>DESCRIPTION:</b> Structural plans not previously included in bid set now included, seven sheets in total.				

<b>ITEM</b>	<b>REVISION</b>		<b>REQUESTED BY</b>	
2	<b>CORRECTION</b>	X		
<b>DESCRIPTION:</b> See attached bid advertisement for updated date for final bid submittals.				

# FORM 1 – ADVERTISEMENT FOR BIDS

CITY OF MELLETTE

Owner

PO BOX 105, MELLETTE, SD 57461

Address

Separate sealed BIDS for the construction of (briefly describe nature, scope, and major elements of the work) GROUND UP CONSTRUCTION OF A COMMUNITY CENTER.

will be received by 10/23/2018 at the MELLETTE FIRE HALL MEETING ROOM until 6:30PM (Standard Time-Daylight Savings Time), 2018, and then at said office publicly opened and read aloud.

Bidders on this work will be required to comply with the President's Executive Order Nos. 11246 (Equal Employment) as amended, 11518 (Small Business Concerns), and 11625 (MBE) as amended. The requirements for bidders and contractors under these orders are explained in the specifications.

Bidders on this work will be required to comply with Title 40 CFR 33.240 and Executive Order 12138 (WBE). The requirements for bidders and contractors under this regulation that concerns utilization of Disadvantaged/Minority Business Enterprises (DBE/MBE) and Women's Business Enterprises (WBE) are explained in the specifications.

The successful bidder— including any contractors and their subcontractors on the project, must be registered in SAM (System for Award Management).

The CONTRACT DOCUMENTS may be examined at the following locations:  
217 1<sup>ST</sup> AVE MELLETTE, SD 57461

Copies of the CONTRACT DOCUMENTS may be obtained at the office of BRIAN BAUER located at 217 1<sup>ST</sup> AVE MELLETTE, SD 57461 upon payment of \$50 for each set.

Any BIDDER, upon returning the CONTRACT DOCUMENTS promptly and in good condition, will be refunded his payment, and any non-bidder upon so returning the CONTRACT DOCUMENTS will be refunded \$ 50.

Owner retains the right to reject any and all bids.

\_\_\_\_\_  
DATE

**APPLICABLE CODE: 2018 I.B.C. - DESIGN LOADS:**

- 1. 42.5 psf Roof snow load plus snow drifting.
Pg = 50 psf, Ce = 1.0, Ct = 1.1, I = 1.1
2. 20 psf Roof dead Load
3. 120 mph Basic wind speed (2012 I.B.C.) exposure C.
4. See Roof Framing Plan for additional loading requirements.

**ALTERNATE DESIGNS:**

Alternate structural systems & details will be considered only if submitted with calculations certified by a Professional Engineer registered in the state of the project. The calculations must show the equivalency of the alternate. Acceptance of the alternate by the structural engineer of record must be in writing.

**FIELD MODIFICATION:**

Written authorization from the Structural Engineer of Record is required for all field modifications to the structural system including, but not limited to, beam and column connections, joist and joist girder connections, joist bridging, cutting or drilling through any structural element, cutting or the relocation of prestress or mild steel reinforcement, embed plates and bolts, tilt-up and precast wall connections, etc.

**DEVIATION FROM THE CONTRACT DOCUMENTS:**

Any deviation from the structural system or materials as specified on the construction documents must be submitted in writing and specifically identified and marked as such. Approval by the Structural Engineer of Record must be in writing and specific to each submittal. Any submittal not meeting these requirements shall be considered as rejected regardless of any appearance of approval by shop drawing review stamp or by any other means of communication.

**WINTER CONSTRUCTION REQUIREMENTS:**

- 1. At exterior basement walls, drop footings as required to XX" minimum cover from the bottom of footing to the adjacent exterior grade elevation -OR- bottom of the slab-on grade elevation, whichever ever is lower. Where applicable, maintain an even masonry coursing dimension. Maintain wall reinforcement as shown on drawings.
2. At all interior continuous wall footings drop footings as required to XX" minimum cover from the bottom of the footing to the bottom of the lowest adjacent slab-on-grade elevation. Where applicable, maintain an even masonry coursing dimension. Maintain wall reinforcement as shown on drawings.
3. At interior column footings increase the thickness of the footing as required to XX" minimum cover from the bottom of the adjacent slab-on-grade elevation, maintain the top of footing elevation show on the plans.

**SHOP DRAWING SUBMITTALS:**

- 1. Submit shop drawings for all construction materials used for this project. The submittal shall include structural calculations for all items designed by the material supplier. The shop drawings and calculations shall be certified by a Professional Engineer licensed in the state where the project is located for all elements, members and connections furnished and designed by the material supplier.
2. Allow for ten (10) work days for the review and return of the submitted documents
3. Revisions or comments made on the shop drawing submittals do not relieve the Contractor from compliance with requirements of the contract documents. The review is only for general conformance with the information given in the contract documents. The Contractor is responsible for the following:
A. Confirming and correlating all quantities and dimensions including verification of field dimensions.
B. Selecting the fabrication process and the construction means, methods, techniques, sequences and procedures.
C. Coordination of the work with that of all other trades.
D. Performing the work in a safe and satisfactory manner.

**TEMPORARY SHORING AND BRACING:**

It shall be the Contractor's total responsibility to design and provide adequate temporary shoring and lateral bracing for all structural elements including walls, columns, beams, lintels, etc. for wind, soil and construction lateral and gravity loads. The bracing must remain in place until permanent structural supports; roof and floor lateral support diaphragms are installed and reached their allowable service stresses.

**SITE WORK NOTES:**

- 1. Foundations, retaining and basement walls, foundation drainage, slabs on grade and other items related to the soils are designed based on the information listed below. Prior to construction a qualified soils engineer familiar with the site and project must verify the soils are capable of withstanding the indicated bearing pressures.
2. Foundations, retaining and basement walls, foundation drainage, slabs on grade and other items related to the soils are designed and shall be constructed in accordance with the recommendations of Northern Technologies, LLC, Report No. 18.SFS04785, Dated March 16, 2018.
3. Design net soil bearing capacity is as follows:
A. Spread Footings: 2,000 psf
B. Strip Footings: 2,000 psf
4. Minimum depth from exterior grade to bottom of building perimeter footings shall be 48". All open air foundations have a minimum of 60" frost protection.

**CAD DRAWING FILES:**

- 1. Electronic CAD drawing files provided by Structural Design Associates, Inc. are for use solely with respect to this project. The Contractor may request copies of the structural cad drawing files for the preparation of shop drawings. However, CAD drawing files shall not be used on other projects, for additions to this project, or for completion of this project by others. Any intentional or unintentional revisions, additions, or deletions to these structural CAD drawing files shall be made at full risk of the person(s) making such revisions, additions, or deletions, and such person(s) shall hold harmless and indemnify Architect/Engineer of any and all responsibilities and liabilities.
2. The CAD drawing files are not to be construed as updated as-built construction documents. The drawing files reflect only bidding documentation of original construction drawings. Addenda or written changes occurring during the bidding and/or construction process will not be incorporated into the structural CAD drawing files.
3. The cost for structural CAD drawing files, provided in AutoCAD release 2010 format (other formats will be available only by special arrangement with SDA), will be Seventy Five (75) dollars per drawing sheet, payable directly to SDA. CAD drawing files may be obtained on a C.O.D. basis at the office of SDA.
4. The procedure for acquiring cad files shall be as follows:
A. Contractor shall make a request to SDA in writing, including a list of the files desired.
B. SDA will send the Contractor an invoice and "document release and indemnity agreement."
C. The Contractor shall sign the agreement and send a check for the amount to Structural Design Associates, Inc.
D. Upon receipt of these items, SDA will send the cad files to the Contractor. Files can be sent on diskette or e-mail as agreed between Contractor and SDA.

**CAST IN PLACE CONCRETE NOTES:**

- 1. DESIGN CODE: ACI 318 latest edition.
2. MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS:
A. F'c = 4,000 psi. Location: Interior slabs on grade w/ 3/4" maximum aggregate size, 2" to 4" slump and 2% to 3% air entrainment.
B. F'c = 3,000 psi. Location: Footings
C. F'c = 4,500 psi. Location: Exterior & interior concrete exposed to freezing temperatures or deicing chemicals with 5% to 7% air entrainment, W/C maximum = 0.45.
D. F'c = 4,000 psi. Location: Piers, Walls and all other concrete with 3/4" maximum aggregate.
3. REINFORCING STEEL:
A. Deformed bars - ASTM A615 grade 60 ksi.
B. Welded Wire Fabric - ASTM A185.
4. Submit shop drawings for reinforcing steel.
5. Submit concrete mix designs.
6. Place all items per approved shop drawings and approved concrete mix designs.
7. Provide concrete cover per ACI 318.
8. Provide 6x6-W2.9xW2.9 W.W.F. in all concrete slabs on metal form deck, U.N.O.

**GENERAL FOUNDATION & CAST IN PLACE CONCRETE NOTES:**

- 1. DESIGN CODES: ACI 318 & "ACI Detailing Manual" latest code adopted edition.
2. All footings are centered under walls, pilasters and columns above, U.N.O.
3. All footings elevations shown are to top of footing.
4. Provide maximum step of 1 vertical to 2 horizontal at masonry wall footing steps. Provide maximum step of 1 vertical to 1 horizontal at concrete wall footing steps.
5. Provide all accessories, chairs, spacer bars & supports necessary to secure reinforcing steel per "ACI Detailing Manual". No other methods or materials will be acceptable.
6. Provide plastic chairs and bar supports in all areas of exposed concrete.
7. Provide concrete protection for all reinforcement as per ACI 318, section 7.7 requirements for cast in place concrete:
A. Concrete cast against & permanently exposed to earth: 3"
B. Concrete exposed to earth or weather: #5 bars & smaller: 1 1/2" #6 bars & larger: 2"
C. Concrete not exposed to weather or in contact w/ ground: Slabs, walls, & joists (#3 to #11 bars) : 3/4" Beams, girders & columns, primary reinforcement, ties, stirrups or spirals: 1 1/2"
8. Furnish #4 & #5 cont. wall footing reinforcing in stock lengths. Field or shop bend #4 bars and shop bend #5 bars at footing steps and around corners. Lap continuous footing reinforcing per note below.
9. Provide cont. wall footing thickness and reinforcement as follows:

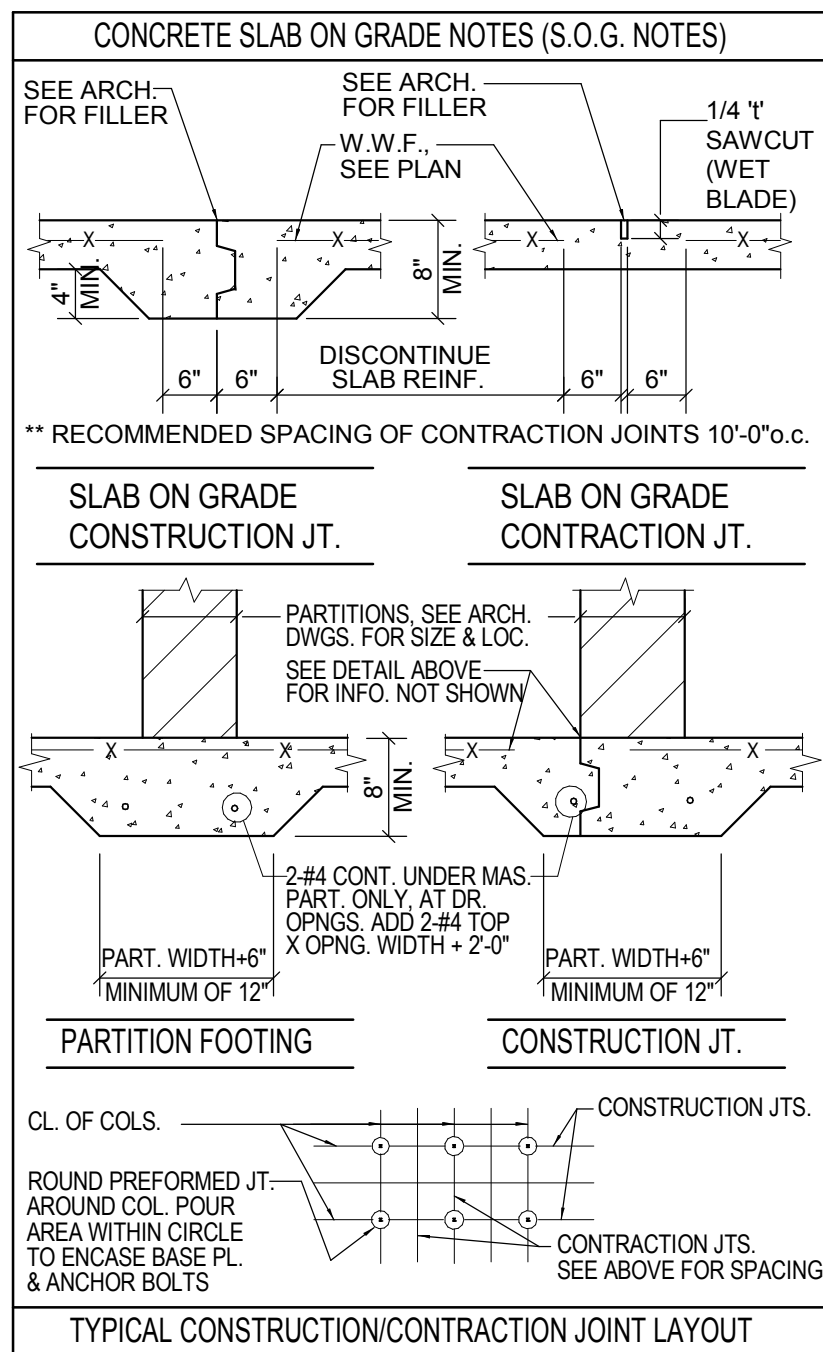
Table with 4 columns: Footing Width, Thickness, Longitudinal Reinf., Transv. Reinf. Rows include specifications for footings up to 1'-4" wide.

Note: All longitudinal reinforcement shall be continuous and placed above transverse reinforcing.

- 10. Shore all foundation walls before backfilling and compacting.
11. Provide 6x6-W1.4xW1.4 W.W.F. in all interior and exterior slabs on grade, U.N.O.
12. Cross reference Architectural, Mechanical and Structural drawings to ensure correct locations & placement of all anchor bolts, inserts, etc.
13. Cast dowels in footing for concrete walls and columns above. Dowels to be same quantity, size & spacing as the vertical wall and column reinforcing. Dowels are to project from footings to provide the lap splices indicated below, U.N.O. Provide 90 degree standard hook in column and free standing wall footing dowels. Wall footing dowels are straight, U.N.O.
14. All horizontal reinforcing bars at outside face of walls shall be bent at wall corners or at intersecting walls and shall lap to intersecting reinforcing as indicated below. Separate bent bar dowels of the same size & spacing as the horizontal wall reinforcing and lapped as indicated below may be used instead.
15. Lap splices at all reinforcing in all cast in place concrete shall be as follows, U.N.O.: #3 bar = 22", #4 bar = 29", #5 bar = 36", #6 bar = 43", #7 bar = 63", #8 bar = 72", #9 bar = 81", #10 bar = 91" and #11 bar = 101"
16. Provide min. concrete wall reinforcing as follows, U.N.O.:
A. 6" & 8" concrete walls: #4@16"o.c. vert. & #4@10"o.c. horiz. (center in wall)
B. 10" concrete walls: #4@16"o.c. vert. & #4@16"o.c. horiz. (at each face.)
C. 12" & 14" concrete walls: #4@12"o.c. vert. & #4@12"o.c. horiz. (at each face.)
D. 16" & 18" concrete walls: #4@12"o.c. vert. & #5@14"o.c. horiz. (at each face.)
17. Provide continuous 2x4 keyway in top of footings under concrete walls and in top of walls supporting concrete slabs.
18. U.N.O. on drawings, provide additional reinforcing all around concrete wall and slab openings equal to the interrupted reinforcing in each direction and each face (min. one (1) bar all around for ea. layer of reinf.). Extend bars beyond edge of opening equal to lap length indicated above. Add one (1) #4 x 4'-0" diag. bar centered on each corner (one (1) per ea. layer of reinf.).
19. Coordinate all underground mech. piping, ductwork locations and elevations w/ the Mech. Contractor or Mech. Engineer. Adjust footing elevations and provide sleeves per detail at underground mech. work at footings. Where piping or ductwork run parallel with the footing, set bottom of footing elevation no higher than pipe or ductwork invert elevation plus half the horizontal distance between edge of footing and edge of piping or ductwork. Contractor shall notify the Arch. or Engineer of his / her proposed deviations for approval prior to commencing work.

**CONCRETE SLAB ON GRADE NOTES:**

- 1. See "TYPICAL CONSTRUCTION/CONTRACTION JOINT LAYOUT", this sheet.
2. Strip placement of the conc. slab on grade shall be implemented.
3. Strip width shall be a maximum of 40'-0".
4. Strip construction joints shall be as shown above and located at column center lines.
5. Smooth bars used in the construction joint shall be sawed and not sheared to length
6. Contraction joints shall be perpendicular to the construction joints and located at centerline of columns as a minimum.
7. Contraction joints shall be at maximum intervals between column centerlines or as shown in the "Typical Construction/Contraction Joint Layout Table", this sheet, in areas where columns do not occur.
8. Contraction joints shall be saw cut into strip pours as soon as concrete can accept it without raveling. (Preferably 4 to 12 hours after placement, absolutely before 24 hours.)
9. Construction and contraction joints shall be cleaned & sealed for curing purposes as soon as possible.
10. A circular isolation joint shall be used at column locations. A fiber material & sealer shall be used at this joint. Size of isolation joint to be large enough to ensure encasement of base plates and anchor bolts.
11. See Architectural drawings for all floor finishes, slopes, floor drains, recesses, depressions, etc. not shown on foundation plan.
12. Provide isolation or expansion joint material where slab on grade abuts walls, columns and concrete pads per architectural drawings and project specifications. If isolation or expansion joint material is not required by the Project Architect, then as a minimum provide a bond breaker material.



**STEEL DECK NOTES:**

- 1. DESIGN STANDARD: Steel Deck Institute (SDI); "Design Manual for Composite
2. At exterior structural concrete stoop slabs Contractor option to provide temporary form deck or steel form deck, Vulcraft conform deck or equal. Provide the following deck for clear spans shown on plan:
a. 1 1/2"x20 ga., clear span up to 5'-4"
b. 1 1/2"x18 ga., clear span 5'-5" to 6'-7"
c. 2"x20 ga., clear span 6'-8" to 6'-11"
d. 2"x18 ga., clear span 7'-0" to 8'-7"
Attach steel deck to bond beam or concrete foundation wall with 3/16" dia. x 1" minimum embedment Hilti type Kwik-con II screws @ 12"o.c. at bearing end and at 36"o.c. at lab sides. Bear deck 3" onto wall and place screws 1" in from end of deck. Provide #10 side lap screws @ 36"o.c..

**POST INSTALLED ANCHOR NOTES:**

- 1. Post-installed anchors refers to expansion, sleeve and adhesive anchors & dowels.
2. Post-installed anchors and adhesives are the products of Hilti, Inc. U.N.O. on the drawings. Anchor substitutions that are equivalent in strength and performance to the specified anchor type will be considered. Acceptance of the substitutions by the Structural Engineer of Record must be in writing.
3. Install anchors in strict compliance with manufacturers' instructions.
4. Clean holes with wire brush and compressed air where required by manufacturers' installation instructions. Failure to clean out the holes will result in drastic reduction in bolt load carrying capacity and may cause connection failure.
5. Observe cure/set time for all adhesive anchors in accordance with manufacturers' installation requirements.
6. Strictly follow all spacing, edge distance and embedment requirements. Increased embedment depth may cause a reduction in strength when anchors are installed near edges.

**SPECIAL INSPECTION AND TESTING SCHEDULE**  
(To be used in accordance with the "Guidelines for Special Inspection and Testing")

PROJECT NAME: Mellette Community Center PROJECT NO.: 18069
LOCATION: Mellette, South Dakota PERMIT NO.:

Table with 5 columns: Int'l. Bldg. Code, Section, Article, Description (2), Type of Firm (3), Frequency, Assigned Firm (4). Rows include Concrete Reinforcement, Concrete Placement, Post Installed Anchors, Wood Fabrications, Shearwall Sheathing & Nailing, Shearwall Anchorage, Sillplate Anchorage, and TESTING SCHEDULE.

**Notes:**

- Fill out schedule and include in project specification information available at that time to be filled out when applying for a building permit.
(1) Permit No. to be provided by Building Official.
(2) Use descriptions per I.B.C. Section 1705.
(3) Special Inspector, Testing Agent, or Fabricator.
(4) Firm contracted to perform services.
(5) See 1. Frequency below for details.

Table for ACKNOWLEDGMENTS: Each appropriate representative must sign below. Columns: Owner, Contractor, Architect, SER, SI, TA, F, Firm, Date.

The individual names of all prospective special inspectors and the work they intend to observe must be identified above on this form.

Legend: SER = Structural Engineer of Record SI = Special Inspector
TA = Testing Agent F = Fabricator

Accepted for the Building Department by \_\_\_\_\_ Date: \_\_\_\_\_

**1. FREQUENCY**

Passing test will be paid for by the Owner. Failing tests will be paid for by the Contractor involved, Unless Noted Otherwise.

**A. CATEGORIES**

- F1. During construction, the following test shall be conducted by an approved testing laboratory. The Contractor shall arrange and coordinate all tests. Test shall be made by a Level 1 Technician as certified by A.C.I. Perform lab cured 7 day and 28 day cylinder tests for all concrete. Test at least one specimen for each day's pouring or for each 75 cubic yards of concrete or fraction thereof poured each day. A specimen shall consist of three (3) cylinders. Cylinders shall test at least as high in strength as the 28 day values specified. Take sampling of concrete for cylinders as it is poured into the forms. The method of making cylinders, storage and testing shall be in accordance with ASTM Specification C31, latest edition. Test cylinders must remain undisturbed for 20 hours after casting and be in lab within 24 hours. Make standard slump tests in accordance with ASTM specification C128, latest edition. Submit reports on tests in duplicate to the Contractor and single copies to the Structural Engineer. If project specification requirements are more stringent, follow specifications.
F2. Provide testing as required to ensure corrections to site as required by soil report and to ensure a minimum bearing pressure as indicated in "Design Loads." If project specification requirements are more stringent, follow specifications.
F3. The inspector shall see all reinforcing steel, pre-stressing tendon, and anchor bolts prior to concrete placement to inspect for conformance with the approved plans.
F4. Concrete Placement: Periodic Inspection - Inspector to review placement of 1/3 of the total amount of cast-in-place concrete for footings. No requirements for interior concrete slabs on grade.
F5. Periodic inspection for mechanical anchors and continuous inspection for adhesive anchors. All post installed anchors in masonry and concrete shall be inspected for strict adherence with the manufacturer's instructions and recommendations. Failure to follow the manufacturer's instructions will lead to drastic reduction in load carrying capacity and may cause connection failure.

**2. QUALIFICATIONS**

- A. QUALIFICATIONS OF TESTING AGENT:
1. Must be acceptable to Owner, S.E.R. and Building Official.
2. Meet basic requirements of ASTM E-329 for concrete and steel testing.
3. Testing Agent must be authorized to operate in the State of SOUTH DAKOTA.
4. Testing equipment shall be calibrated at reasonable intervals by device of accuracy traceable to either of the following:
a. National Bureau of Standards.
b. Accepted Values of National Physical Constants.
B. QUALIFICATIONS OF SPECIAL INSPECTORS
1. The Special Inspector shall meet at least one of the following:
a. Employee of S.E.R. having design experience with the project, performing the inspections under the direct supervision of the S.E.R.
b. I.C.C. Certified Inspector, able to demonstrate previous experience with similar types of construction. Inspections shall be performed under the direct supervision of a Registered Civil/Structural Engineer regularly engaged in inspections of structural systems of this type, registered in the State of SOUTH DAKOTA and acceptable to the Owner, S.E.R. and the Building Official. The Registered Engineer shall personally conduct a minimum of 25% of the special inspections on a regular basis.
C. QUALIFICATIONS OF THE FABRICATOR:
1. The Fabricator must be acceptable the Owner, S.E.R. and the Building Official.
2. The Fabricator shall meet the qualification requirements listed in the corresponding specification section.
3. The Fabricator shall be or shall be able to become, an approved fabricator according to the I.B.C. Section 1704.2
3. SPECIAL INSPECTION REPORT DISTRIBUTION AND FREQUENCY
A. Special inspection reports are to be sent to the Owner, Architect, Structural Engineer of Record, Contractor and the Building Official.
B. The special inspection reports shall be sent to the listed parties within one week of the actual inspection.

STRUCTURAL SHEET INDEX table with columns: SHEET NUMBER, SHEET NAME. Rows include S001 GENERAL NOTES, S002 GENERAL WOOD NOTES, S101 FOUNDATION PLAN, S201 FLOOR FRAMING PLAN, S301 ROOF FRAMING PLAN, S401 SECTIONS, S402 SECTIONS.

**CONSULTANT:**



Structural Design Associates, Inc.

10900 Noble Avenue North
Champlin, Minnesota 55316
(763) 560-5300 Fax: (763) 560-5400
www.sdaeng.com
email: sda@sdaeng.com

**CLIENT:**

South Dakota



CITY OF MELLETE
MAYOR BRIAN BAUER
brian.bauer@northwestern.com
311 1st Ave
Mellette, SD 57461

**PROJECT INFORMATION:**

MELLETE COMMUNITY CENTER
9 West Main Street
Mellette, SD 57461

**SEAL:**



Gregory J. Duerr
Date: 08/10/2018 License No. 5651

PROJECT NO.: 18069
DRAWN BY: K LW
CHECKED BY: GJD

ISSUE: DATE:
BID SET 8/10/2018

REVISION: DATE:

**PROJECT LOCATION:**

**SHEET NUMBER / TITLE:**

S001

**GENERAL NOTES:**

**STRUCTURAL WOOD NOTES (I.B.C. CODE):**

- Structural wood shall be designed and installed in accordance with chapter 23 of the governing edition of the International Building Code.
- Structural plywood roof decking shall be 5/8" 32/16 CD APA Exposure 1. Each panel shall be identified w/ the grade trademark of the American Plywood Association & shall meet the requirements of product standard (PS-1). Application & nailing of plywood shall be in accordance w/ recommendations of the American Plywood Assoc. unless requirements noted on these contract documents are stricter.
- Plywood wall sheathing shall be 1/2" 24/0 APA Exposure 1. Sheathing shall occur on all exterior walls & at other wall locations as shown on documents. Each panel shall be identified w/ the grade trademark of the American Plywood Association & shall meet the requirements of product standard (PS-1). Application & nailing of panel shall be in accordance w/ recommendations of the American Plywood Association unless requirements noted on these contract documents are stricter.
- Plywood floor sheathing shall be 3/4"-48/24 CD APA Exposure 1. Sheathing shall occur on all floors as shown on documents. Each panel shall be identified w/ the grade trademark of the American Plywood Association & shall meet the requirements of product standard (PS-1). Application & nailing of panel shall be in accordance w/ recommendations of the American Plywood Association unless requirements noted on these contract documents are stricter.
- Floor & Roof panels shall be oriented with the face grain perpendicular to the supports.
- Wall panels may be oriented with the face grain parallel or perpendicular to stud supports. Panel edges shall be backed with 2" or wider framing for shear walls.
- See notes & details for shearwall and diaphragm nailing requirements. All nails for shear walls & diaphragm shall be common nails.
- U.N.O. on the drawings, all exterior walls, interior load bearing walls, corridor walls, and stair enclosure walls shall be considered as shear walls. See notes and details for sheathing and fastening requirements.
- Contractor option to use an approved structural oriented strand board in lieu of plywood for roof and wall sheathing. Each panel shall be identified w/ the grade trademark of the American Plywood Association & shall be exterior grade conforming to product standard (PS-2) U.N.O.
- Protection against decay and termites shall be provided per IBC section 2304.11. Connections and fasteners, including anchor bolts, nuts & washers, for preservative-treated and fire-retardant treated wood shall be as specified in IBC section 2304.9.5.
- Connectors to be manufactured by Simpson Strong Tie Company or equal. Designations on documents are Simpson Strong Tie designations.
- All sawn structural lumber shall be Hem-Fir no. 2 grade or better. All stud bearing walls are to be 2x6 interior and 2x8 exterior, U.N.O. on plans.
- All sawn structural lumber used for posts or columns shall be Hem-Fir no. 1 grade or better. See plans for sizes.
- Wood construction, U.N.O., shall conform to the "Conventional Light-Frame Construction", section 2308 of the I.B.C. All nailing shall conform to table 2304.10.1 "Fastening Schedule" of the I.B.C. unless other requirements noted on the drawings are stricter. Joints in load bearing top PL's shall be offset at least 48". Holes and notches in sawn lumber shall be limited as specified in the I.B.C.
- Foundation PL's shall be bolted as indicated on the contract documents. There shall be a min. of three (3) bolts per piece w/ one (1) bolt located within 8" of each end of piece.
- Manufactured structural lumber (Micro-lam, Parallam, etc.) shall provide the design values equal to or exceeding the following:  
2,800 psi in bending Fb Micro-lam / 2,900 p.s.i. in bending Fb Parallam  
265 psi in horizontal shear Fv  
750 psi in compression perpendicular to grain Fc-⊥  
2,700 psi in compression parallel to grain Fc  
1,850 psi in tension parallel to grain Ft  
2.0x10<sup>7</sup> psi in modulus of elasticity E

**MINIMUM FASTENING REQUIREMENTS (U.N.O. ON PLANS & DETAILS):**

- Provide 2x blocking at ridge of trusses. Blocking shall be double beveled to accommodate sheathing nailing. Provide 1" clips between roof trusses at sheathing edges.
- Provide 2x cont. across ends of trusses @ overhangs. Splice edge PL. w/ 2"x20 ga. x 24" metal strap w/ (6)-8d common nails ea. side of splice.
- Block all shear wall panel edges w/ min. 2x lumber.
- Min. floor sheathing nailing shall be as follows:  
A. Panel edges @ floor boundaries - i.e.: blocking, blocking at truss ends, and end trusses w/ 10d commons @ 6"o.c.  
B. All panel supported edges to trusses, blocking (if present) & end supports w/ 10d commons @ 6"o.c.  
C. Panel intermediate supports to framing w/ 10d commons @ 6"o.c.
- Min. roof sheathing nailing shall be as follows for gabled roof truss:  
A. Panel edges @ roof boundaries - i.e.: ridge blocking, blocking at truss ends, and end trusses w/ 10d commons @ 4"o.c.  
B. All panel supported edges to trusses, blocking (if present) & end supports w/ 10d commons @ 4"o.c.  
C. Panel intermediate supports to framing w/ 10d commons @ 4"o.c.
- Min. wall sheathing nailing & requirements shall be as follows (U.N.O.):  
A. Panel edges to studs, blocking, top plates and bottom plates w/ 8d commons @ 6"o.c.  
B. Panel intermediate supports to framing w/ 8d commons @ 12"o.c.

**WOOD TRUSS NOTES:**

- Each floor and roof truss shall be fastened to the top PL. With a minimum of (4)-8d commons toe nailed through truss & into top PL. Provide additional anchors as shown on details.
- Provide uplift ties at each roof truss to wall connection as required by the stricter of that required by analysis or IBC Table 2308.10.1
- All prefabricated wood trusses shall be furnished in accordance w/ designs prepared by a registered professional Engineer using the design loads & span conditions indicated on the contract documents. No deviation of truss shape, member size, bearing point locations or superimposed loads from the contract documents shall be permitted without approval of the project Architect and/or Engineer. Shop drawings including an overall erection plan indicated each type of truss, truss bearing point locations, required lateral bracing, each truss member size & stress & connection details shall be submitted for prior approval of the Architect and/or Engineer.
- Handling of trusses & erection bracing is the responsibility of the Contractor. Contractor shall provide temporary diagonal lateral & cross bracing until roof sheathing, ceilings & permanent bracing can be applied & shear walls completed. The Contractor shall also provide temporary diagonal bracing in the plane of web members. This bracing shall be installed at locations of required lateral web bracing, starting at end wall w/ subsequent diagonal bracing no more than 20'-0" apart or twice the horizontal run of the diagonal bracing. The temporary lateral bracing for top and bottom chords shall be located at or near the ends of the diagonal bracing. If no required lateral web bracing is specified, the temporary diagonal bracing is to be placed at no greater than 16'-0" intervals along the truss length. This bracing may later become part of the permanent bracing.
- The Contractor shall provide permanent cross bracing in the plane of web members. One set shall be applied to a vertical web member or one nearest to vertical @ mid-span of truss & other sets placed @ no greater than 16'-0" intervals along the truss length. The sets of cross bracing shall start at all end walls w/ subsequent sets no more than 20'-0" apart.
- All bracing members shall be 2x4's, 8'-0" long or more, applied flat wise & nailed @ each intersection w/ (2)-16d commons.
- All cross & diagonal bracing shall be applied @ approximately 45 degree angles.
- The truss manufacturer shall provide the Contractor with the publication "Building Component Safety Information- Guides to good practice for handling, installing, restraining and bracing of metal plate connected wood trusses." By Structural Building Components Association (SBCA) and Truss Plate Institute (TPI).
- All trusses are to be designed as simple span conditions, using bearing walls as shown on plans.
- Truss diagrams shown on plans are for configuration intent only. Truss rfr. to provide web orientation per their design.
- Truss layout on plan is suggested layout; alternate layout would be permissible upon prior approval of the Architect & Engineer.
- Contractor to place roof sheathing on trusses prior to hand-framing ridges & false roofs as shown in designated areas. Nail sheathing to lower trusses & hand framed areas as required by in Sheathing Nailing Notes.
- Contractor to place roof sheathing on standard trusses before placing piggyback or valley jack trusses. Valley jack trusses shall bear directly on the roof sheathing. Anchor valley jack trusses per manufacturer's recommendations. Nail sheathing to standard and valley jack trusses as required by Sheathing nailing notes.
- Run interior partitions to bottom chord of trusses. Provide 1/2" gap between top plate and truss. Anchor plate to truss w/ Simpson roof truss clips or equal.
- Provide uplift ties at roof to wall connection as required by the stricter of that required by analysis or IBC Table 2308.10.1
- Girders shall be designed with sufficient plies and bearing length to not exceed the bearing capacity of the supporting wall framing.

CUTTING AND DRILLING SCHEDULE - DIMENSIONAL LUMBER			
DESCRIPTION	MEMBER LOCATION/TYPE	CODE REQUIREMENT	REMARKS
CUTTING AND NOTCHING	EXTERIOR WALL OR BEARING PARTITION	NOT TO EXCEED 25% OF MEMBER WIDTH	7/8" MAX. FOR 2x4 1 3/8" MAX. FOR 2x6
	NONBEARING PARTITION	NOT TO EXCEED 40% OF MEMBER WIDTH	1 3/8" MAX. FOR 2x4 2 1/8" MAX. FOR 2x6
BORED HOLES	BEARING PARTITION	NOT TO EXCEED 40% OF MEMBER WIDTH	1 3/8" MAX. FOR 2x4 2 1/8" MAX. FOR 2x6
		NOT TO EXCEED 60% OF MEMBER WIDTH IF STUDS ARE DOUBLED, PROVIDED NOT MORE THAN (2) SUCH SUCCESSIVE DOUBLE STUDS ARE BORED	2" MAX. FOR (2) 2x4 3 1/4" MAX. FOR (2) 2x6
	NONBEARING PARTITION	NOT TO EXCEED 60% OF MEMBER WIDTH	2" MAX. FOR 2x4 3 1/4" MAX. FOR 2x6
	ROOF OR FLOOR JOISTS	NOT ALLOWED WITHIN 2" OF TOP OR BOTTOM OF JOIST, AND DIAMETER NOT TO EXCEED 1/3 DEPTH OF JOIST	2 3/8" MAX. FOR 2x8 3" MAX. FOR 2x10 3 3/4" MAX. FOR 2x12

**NOTES:**

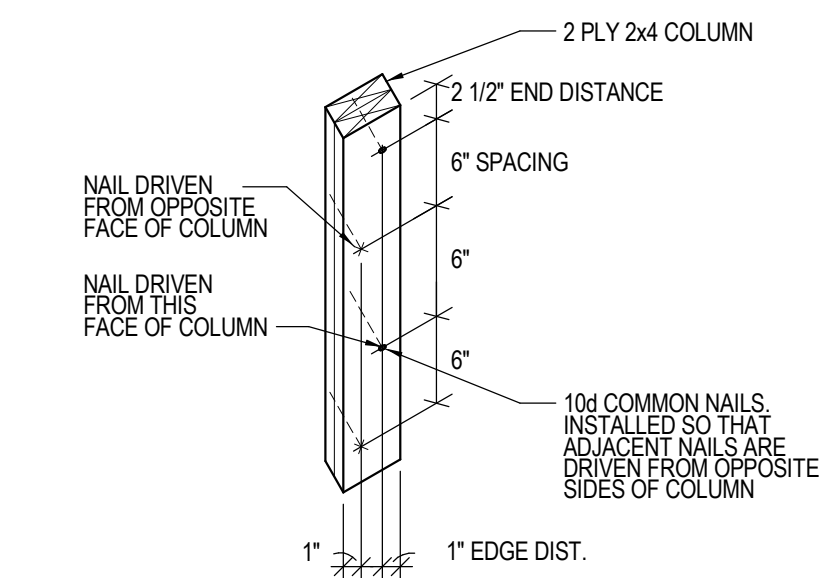
- THE EDGE OF A BORED HOLE IN A STUD SHALL NOT BE NEARER THAN 5/8" FROM ANY EDGE.
- WHERE PLATES ARE CUT, A METAL TIE NOT LESS THAN 16 GA. AND 1 1/2" WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN (6) 16d NAILS.
- MODIFICATION OF FABRICATED FLOOR OR ROOF TRUSSES IS NOT ALLOWED.
- DRILLING THROUGH LAMINATED VENEER LUMBER IS NOT ALLOWED WITHOUT APPROVAL FROM THE ENGINEER.
- REFER TO MANUFACTURER'S LITERATURE FOR HOLES DRILLED IN JOIST.

**FRAMING SCHEDULE**

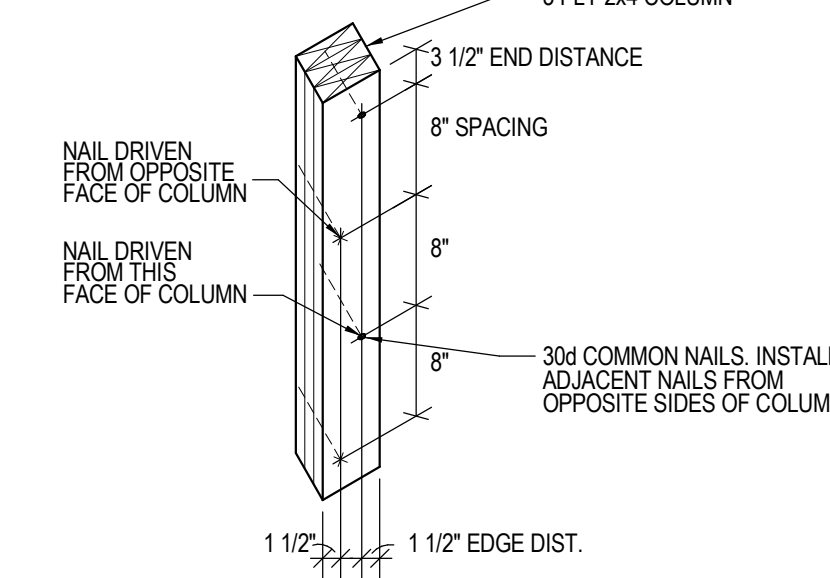
USE	MEMBER LOCATION/TYPE	SPECIES	GRADE	REMARKS
STUDS, TRIMMERS BEARING WALLS	1ST FLOOR INTERIOR	HF, DFL, SPF, SP	NO. 2 & BETTER	2x6 AT 16" O.C.
	1ST FLOOR EXTERIOR	HF, DFL, SPF, SP	NO. 2 & BETTER	2x8 AT 16" O.C.
STUDS, TRIMMERS NON-BEARING WALLS	1ST FLOOR	HF, DFL, SPF, SP	NO. 2 AND BETTER	2x4 OR 2x6 AT 16" O.C. SEE ARCHITECTURAL PLANS
HEADERS, LINTELS, JOIST	1ST FLOOR	HF, DFL, SPF, SP	NO. 2 AND BETTER (Fb =875 PSI MIN)	AS NOTED ON PLAN
PLATES	1ST FLOOR	SP	NO. 2 AND BETTER (Fc perp = 565 PSI)	TO MATCH STUD WIDTH, BOTTOM PLATE TREATED ON 1ST FLOOR
MISC. BLOCKING, FIRE-STOPPING, FURRING	ALL FLOORS	HF, DFL, SPF, SP	STANDARD OR BETTER	AS REQUIRED BY DETAIL

**NOTES:**

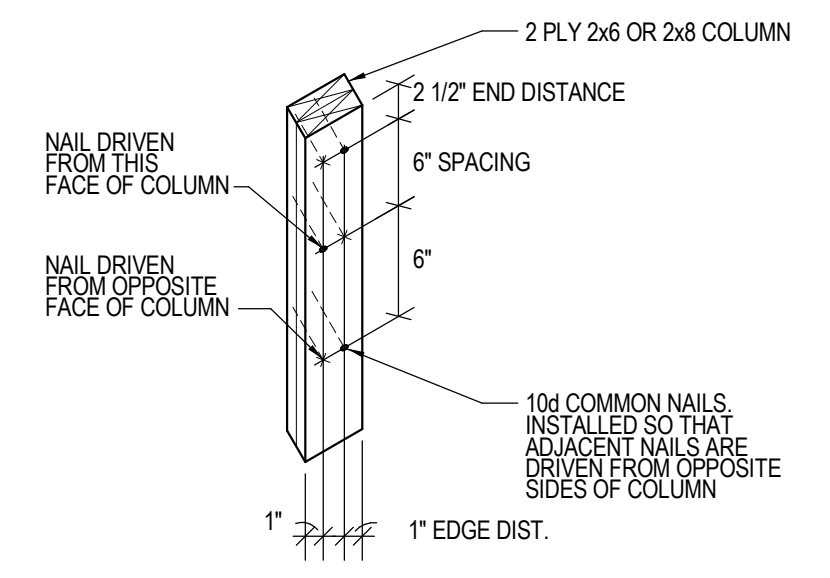
- ALL NAILING SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE FASTENING SCHEDULE INDICATED ON IBC TABLE 2304.10.1



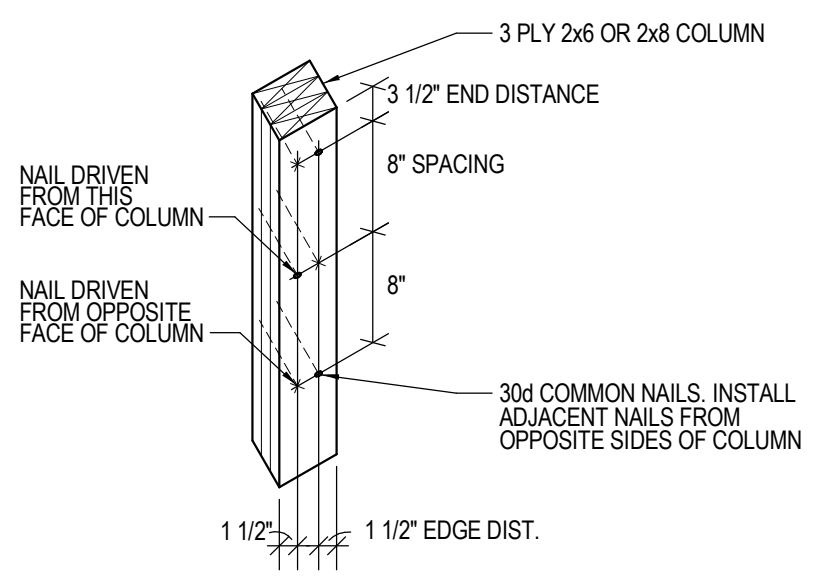
1 2x4 - 2 PLY BUILT UP COLUMN  
S002 NO SCALE



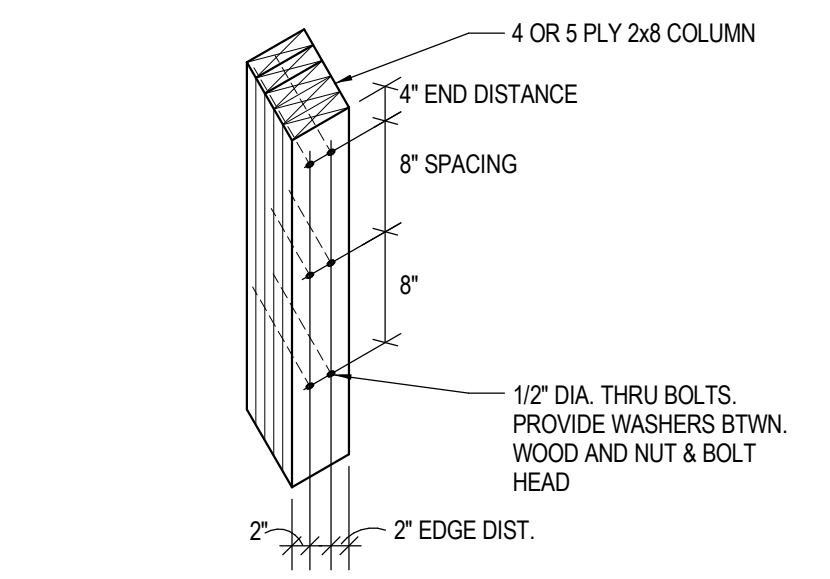
2 2x4 - 3 PLY BUILT UP COLUMN  
S002 NO SCALE



3 2x6 or 2x8 - 2 PLY BUILT UP COLUMN  
S002 NO SCALE



4 2x6 or 2x8 - 3 PLY BUILT UP COLUMN  
S002 NO SCALE



5 2x8 - 4 & 5 PLY BUILT UP COLUMN  
S002 NO SCALE

CONSULTANT:



Structural Design Associates, Inc.

10900 Noble Avenue North  
Champlin, Minnesota 55316  
(763) 560-5300 Fax: (763) 560-5400  
www.sdaeng.com  
email: sda@sdaeng.com

CLIENT:



CITY OF MELLETE  
MAYOR BRIAN BAUER  
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brian.bauer@northwestern.com  
311 1st Ave  
Mellette, SD 57461

PROJECT INFORMATION:

MELLETE COMMUNITY CENTER  
9 West Main Street  
Mellette, SD 57461

SEAL:



Gregory J. Duerr  
Date: 08/10/2018 License No. 5651

PROJECT NO.: 18069  
DRAWN BY: KLV  
CHECKED BY: GJD

ISSUE: DATE:  
BID SET 8/10/2018

REVISION: DATE:

PROJECT LOCATION:

SHEET NUMBER / TITLE:

S002

GENERAL WOOD NOTES



**CITY OF MELLETE**  
 MAYOR BRIAN BAUER  
 311 1st Ave  
 Mellette, SD 57461

PROJECT INFORMATION:

**MELLETE COMMUNITY CENTER**  
 9 West Main Street  
 Mellette, SD 57461



Gregory J. Duerr  
 Date: 08/10/2018 License No. 5651

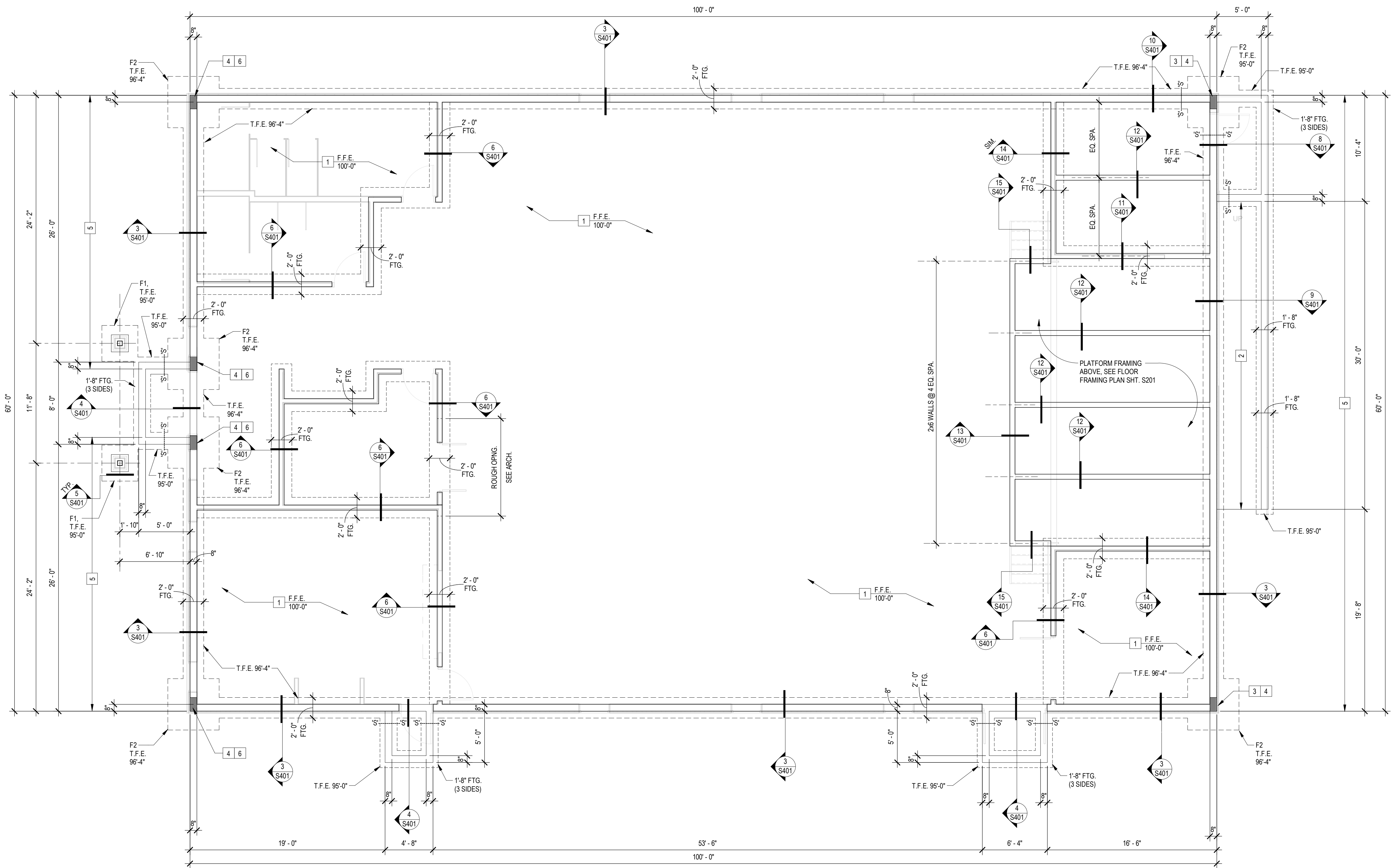
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 CHECKED BY: MNG

ISSUE: DATE:  
 BID SET 8/10/2018

REVISION: DATE:

PROJECT LOCATION:

SHEET NUMBER / TITLE:  
**S101**  
 FOUNDATION PLAN



**1 FOUNDATION PLAN**  
 3/16" = 1'-0"

**NOTES: FOUNDATION PLAN**

- SEE SHEET S401 FOR TYPICAL FOUNDATION SECTIONS.
- VERIFY ALL DIMENSIONS W/ ARCHITECTURAL DRAWINGS.
- SEE SECTIONS 1/S401 AND 2/S401 FOR DROPPED FOOTING AT ALL UNDERGROUND MECHANICAL LINES ENTERING THE BUILDING.

- FOUNDATION PLAN NOTES:**
- 4" MINIMUM CONCRETE SLAB ON GRADE W/ 6x6-W1.4xW1.4 W.W.F. SEE SLAB ON GRADE NOTES, SHT. S001. F.F.E. VARIES, SEE PLAN.
  - 5" MINIMUM CONCRETE EXTERIOR RAMP SLAB ON GRADE. REINF. W/ 6x6-W2.9xW2.9 W.W.F. SEE SLAB ON GRADE NOTES, SHT. S001.
  - PROVIDE SIMPSON HDU11-SDS2.5 HOLDOWN W/ 1" DIA. ANCHOR BOLT W/ MIN. 24" EMBED. + 3" HOOK. PROVIDE (4) 2x8 WALL STUDS AT HOLDOWN. SEE DTL. 5/S002 FOR ADDL. POST INFORMATION.
  - 8"x16" CONC. PIER W/ (4) #5 VERTS. W/ STD. HOOK TOP & BOTTOM AND #3 TIES @ 8" o.c. AT HOLDOWN LOCATIONS. CONT. HORIZ. WALL STEEL THRU PIER. SEE DTL. 14/S402.
  - SHEAR WALL. PROVIDE 1/2" PLYWOOD SHEATHING (OSB SHEATHING NOT ALLOWED AT THIS LOCATION). BLOCK ALL EDGES, NAIL TO STUDS, PLATES, ETC., & AT ALL PANEL EDGES W/ 8d COMMONS @ 4" o.c.
  - PROVIDE SIMPSON HDU11-SDS2.5 HOLDOWN W/ 1" DIA. ANCHOR BOLT W/ MIN. 24" EMBED. + 3" HOOK. PROVIDE (5) 2x8 WALL STUDS AT HOLDOWN. SEE DTL. 5/S002 FOR ADDL. POST INFORMATION.

**FOOTING SCHEDULE**

TYPE	SIZE	DEPTH	BOTTOM REINFORCING
F1	3'-6" x 3'-6"	12"	(4)#5 BAR EA. WAY
F2	5'-0" x 5'-0"	12"	(5)#5 BAR EA. WAY



CITY OF MELLETTE  
 MAYOR BRIAN BAUER  
 311 1st Ave  
 Mellette, SD 57461

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 CENTER**  
 9 West Main Street  
 Mellette, SD 57461

SEAL:



Gregory J. Duerr  
 Date: 08/10/2018 License No. 5651

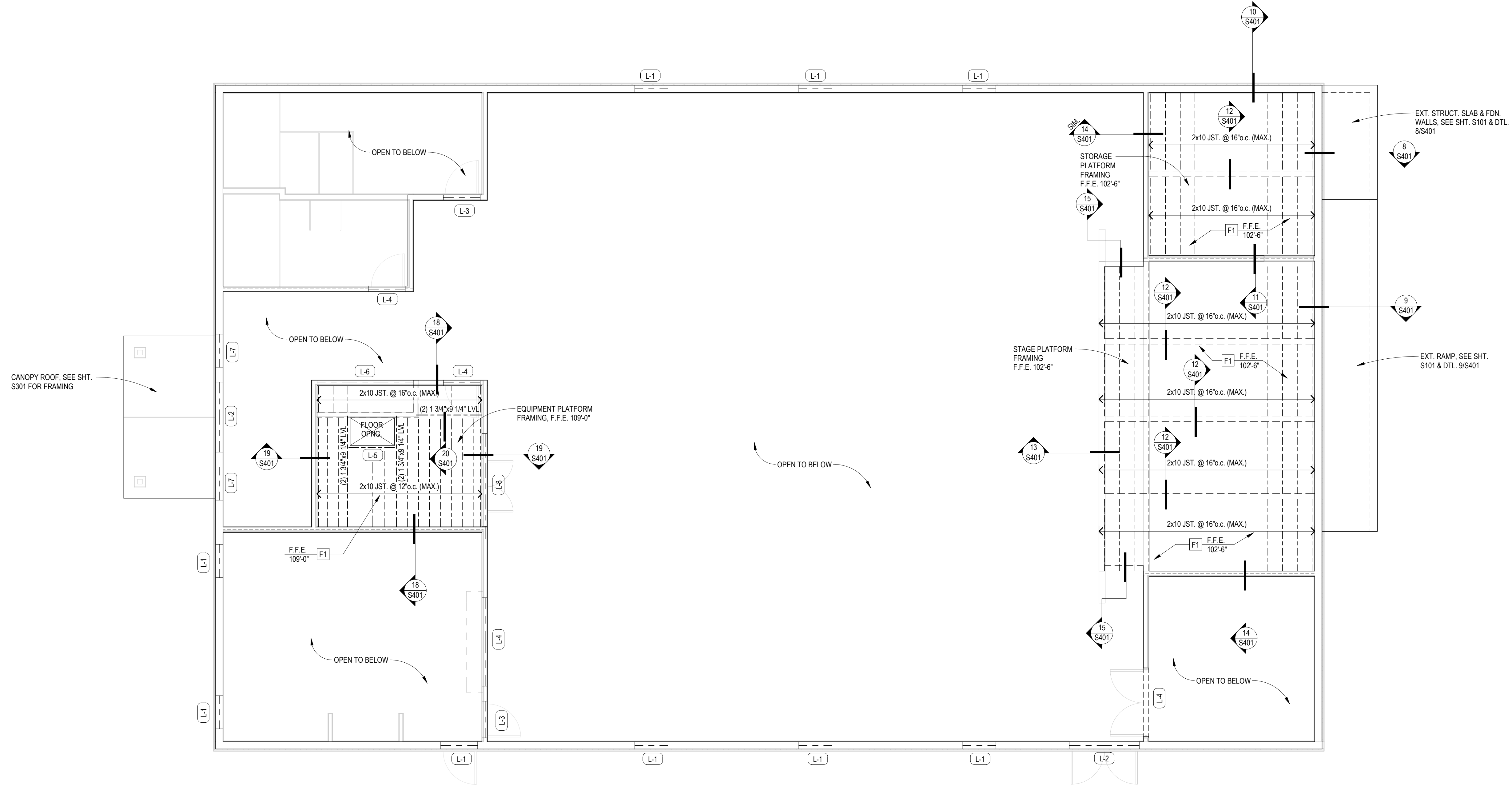
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 DRAWN BY: KLV  
 CHECKED BY: MNG

ISSUE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BID SET \_\_\_\_\_ 8/10/2018

REVISION: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT LOCATION:

SHEET NUMBER / TITLE  
**S201**  
 FLOOR FRAMING PLAN



**1 FLOOR FRAMING PLAN**  
 3/16" = 1'-0"

**NOTES: FLOOR FRAMING PLAN**

----- INDICATES INTERIOR BEARING WALL. SEE DETAILS.

A. WOOD FLOOR JOIST LAYOUT SHOWN IS FOR GENERAL INTENT ONLY. CONTRACTOR MAY ADJUST SPACING AND/OR CONFIGURATION AS REQD. TO GET THE MOST ECONOMICAL FLOOR FRAMING (MAX. SPACING = AS NOTED ON PLAN).  
 FLOOR DESIGN LOADS:  
 DEAD LOAD = 12 P.S.F.  
 EQUIPMENT MEZZANINE & STORAGE FLOOR LIVE LOAD = 125 P.S.F.  
 STAGE FLOOR LIVE LOAD = 100 P.S.F.

B. VERIFY ALL DIMENSIONS W/ ARCHITECTURAL DRAWINGS.

C. INTERIOR BRG. WALLS STUDS TO BE 2x6 STUDS @ 16"o.c. (U.N.O.)

D. EXTERIOR BRG. WALLS STUDS TO BE 2x8 STUDS @ 16"o.c. (U.N.O.)

E. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN FOR SIMILAR CONDITIONS AND MATERIALS. REFER TO THE GENERAL STRUCTURAL WOOD NOTES, SEE SHEET S002, FOR CONVENTIONAL LIGHT-FRAME CONSTRUCTION. SEE ARCH. DETAILS FOR ADDITIONAL INFORMATION.

F. PROVIDE (3) 2xWALL BEARING STUDS IN WALL FRAMING BELOW BEAM BEARING LOCATIONS (TYP., U.N.O.)

**FLOOR FRAMING PLAN NOTES:**

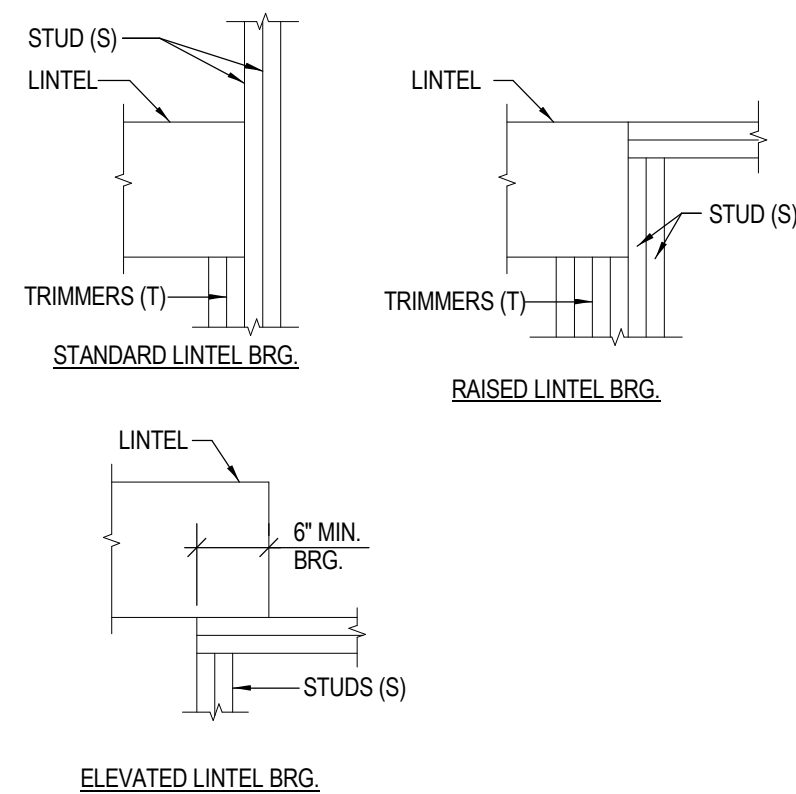
[F1] 3/4" T&G PLYWOOD FLOOR SHEATHING (SEE ARCH. FOR FINISH FLOOR) SEE SHT. S002 FOR NAILING INFORMATION. F.F.E.=SEE PLAN

**LINTEL SCHEDULE \*\***

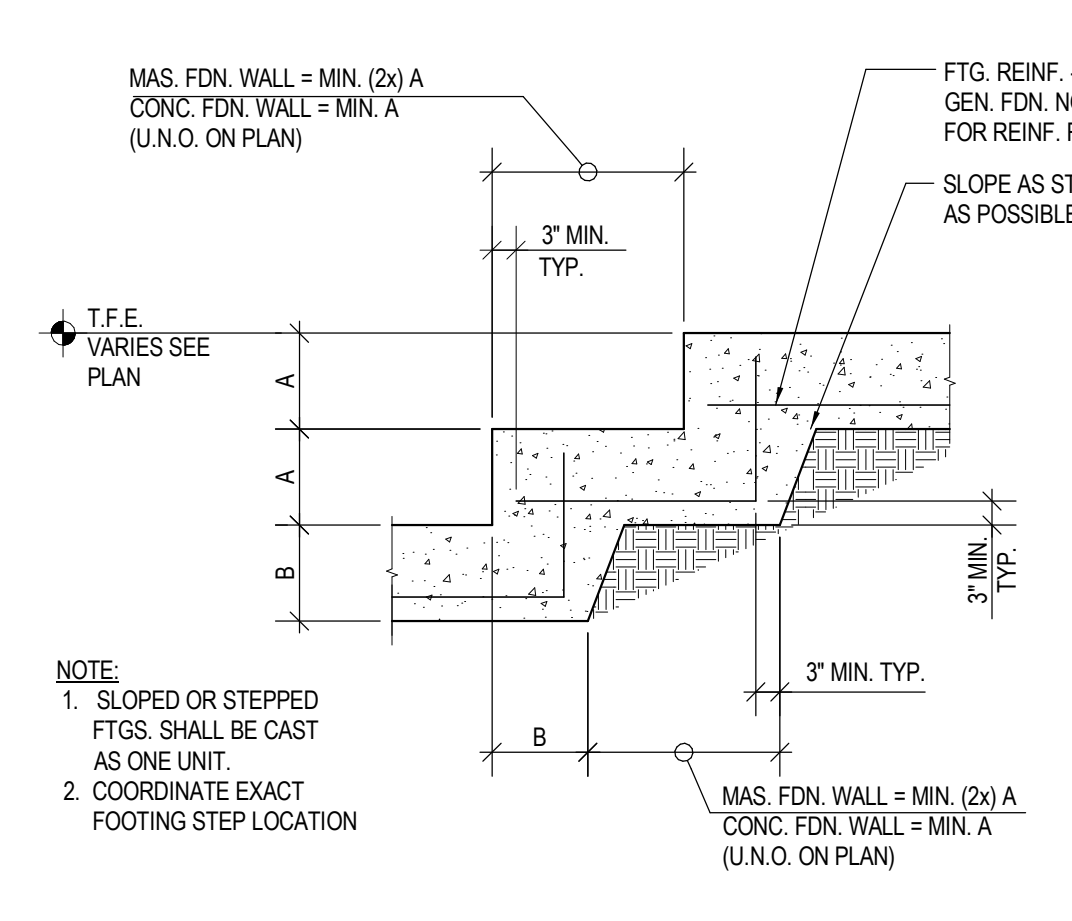
MARK	SIZE	JAMB: (U.N.O. ON PLAN)	S=STUD T=TRIMMER
L-1	(2) 2 x 10		2T, 2S
L-2	(3) 1 3/4" x 9 1/2" LVL		2T, 2S
L-3	(2) 2 x 10		1T, 1S
L-4	(2) 2 x 10		2T, 1S
L-5	(2) 2 x 10		SEE NOTE #2
L-6	(3) 2 x 10		2S, SEE NOTE #3
L-7	(3) 1 3/4" x 9 1/4" LVL		2T, 2S
L-8	(3) 2 x 10		2T, 1S

**WOOD LINTEL NOTES:**

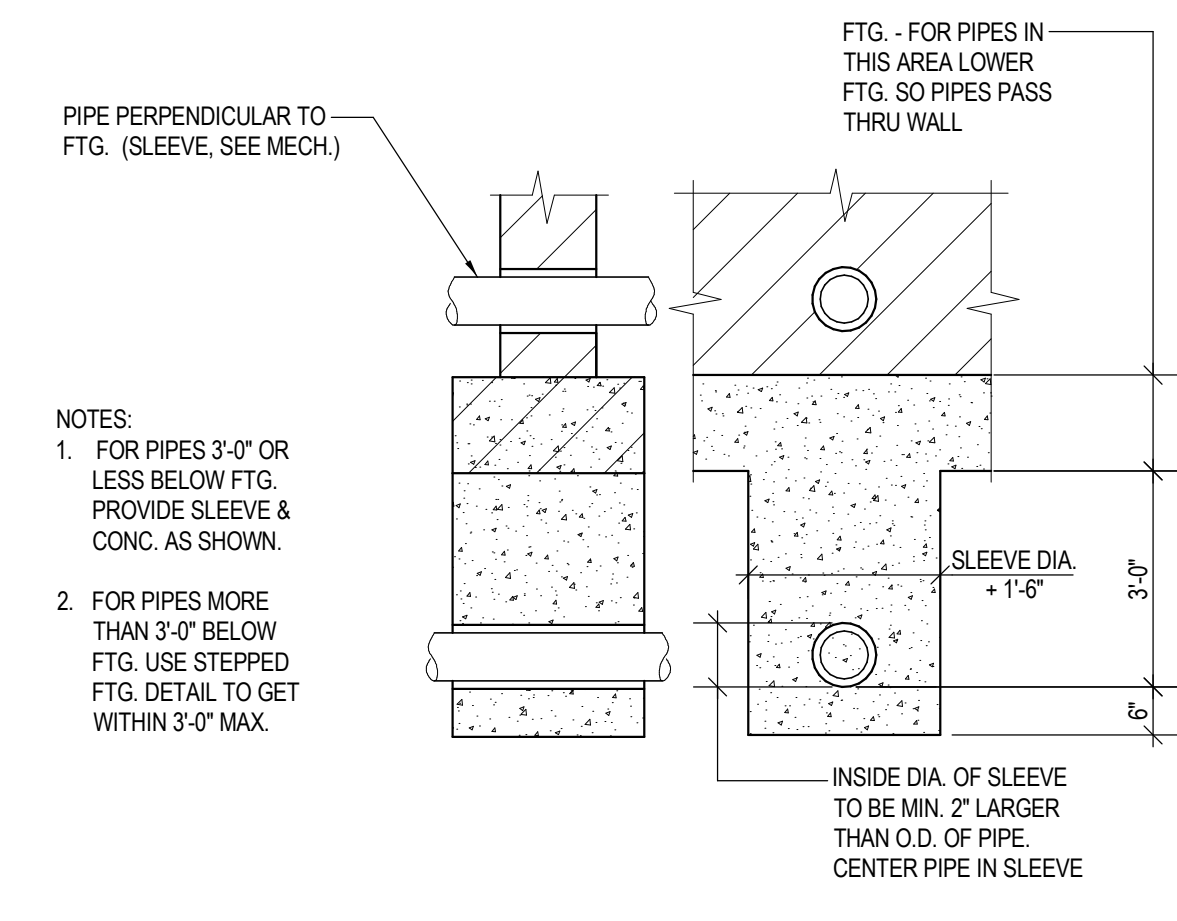
- SEE DETAILS 16/401 AND 17/5401 FOR TYPICAL HEADER AND JAMB DETAILS.
- USE SIMPSON LUS210 HANGERS EACH END.
- ELEVATED LINTEL, PROVIDE SIMPSON LUS28 HANGERS JST. TO HEADER.



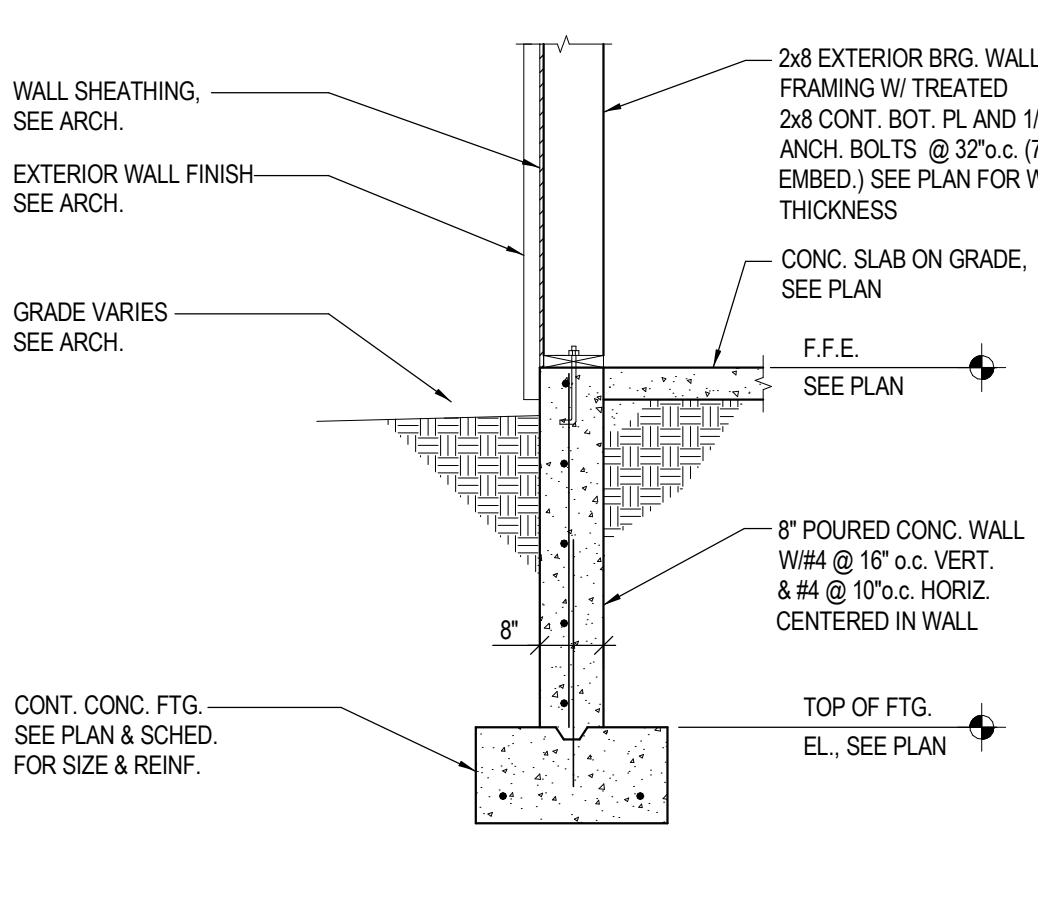




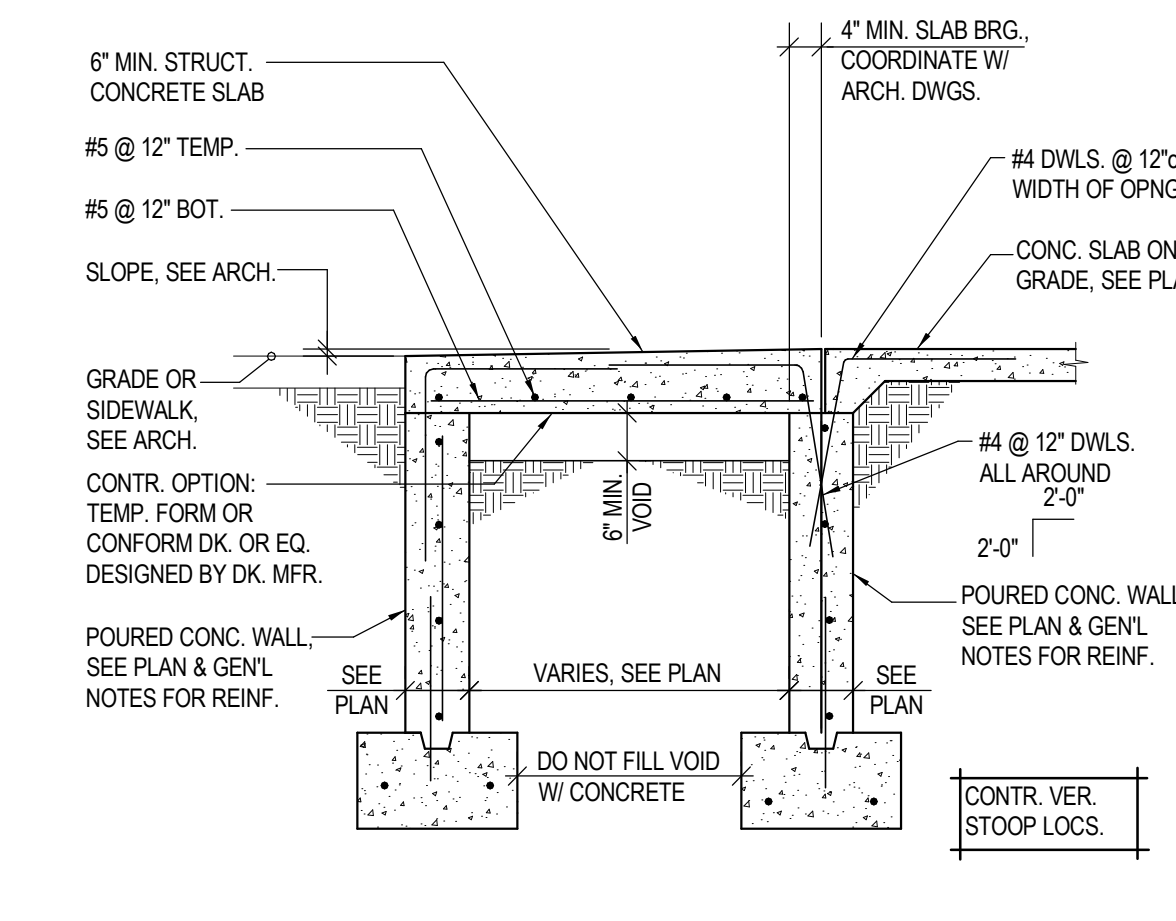
1 FOOTING STEP DETAIL  
S401 NO SCALE



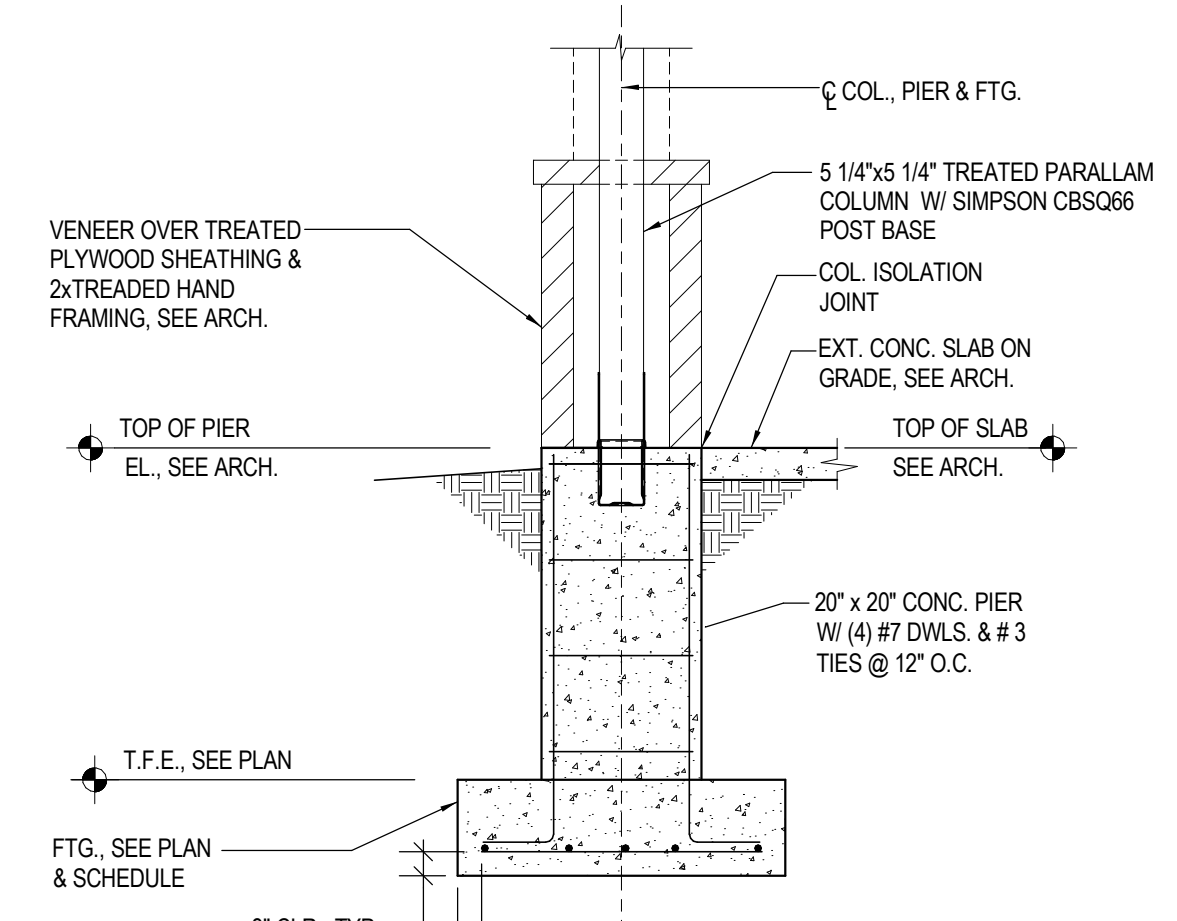
2 WALL FTG. @ UNDERGROUND LINES  
S401 NO SCALE



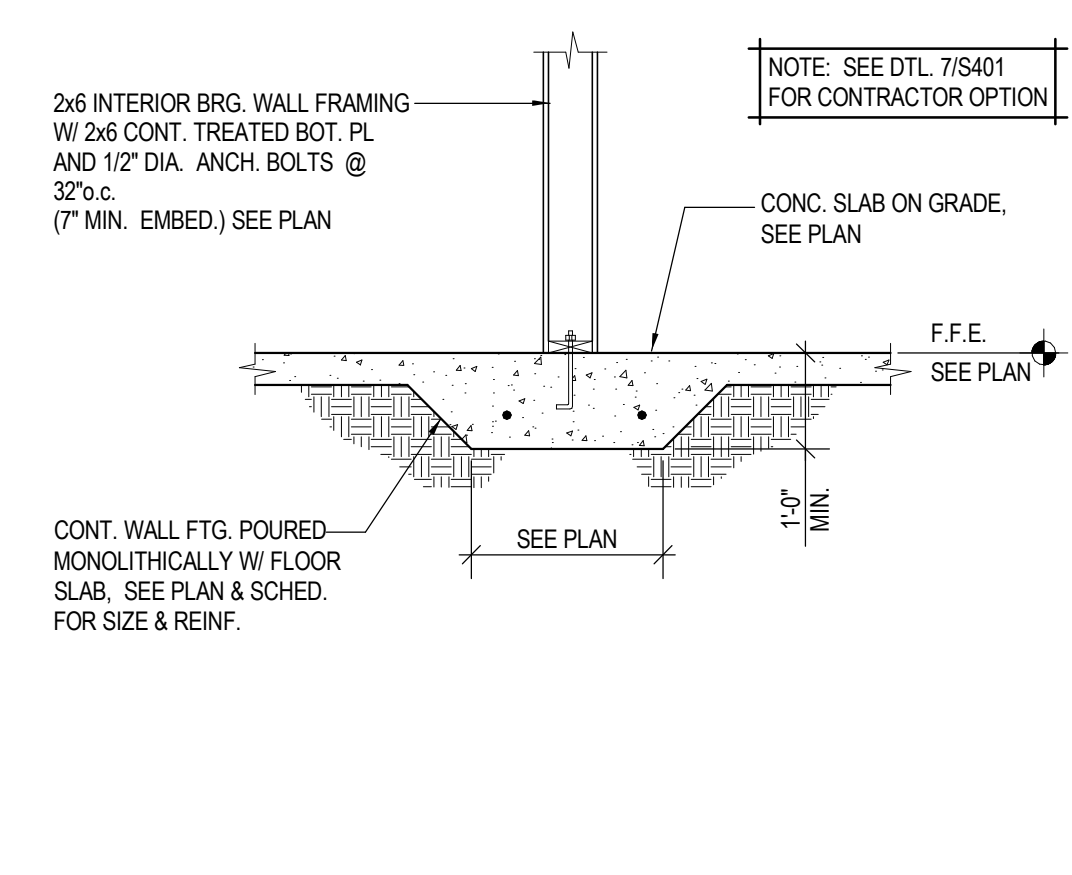
3 EXTERIOR FDN. WALL  
S401 NO SCALE



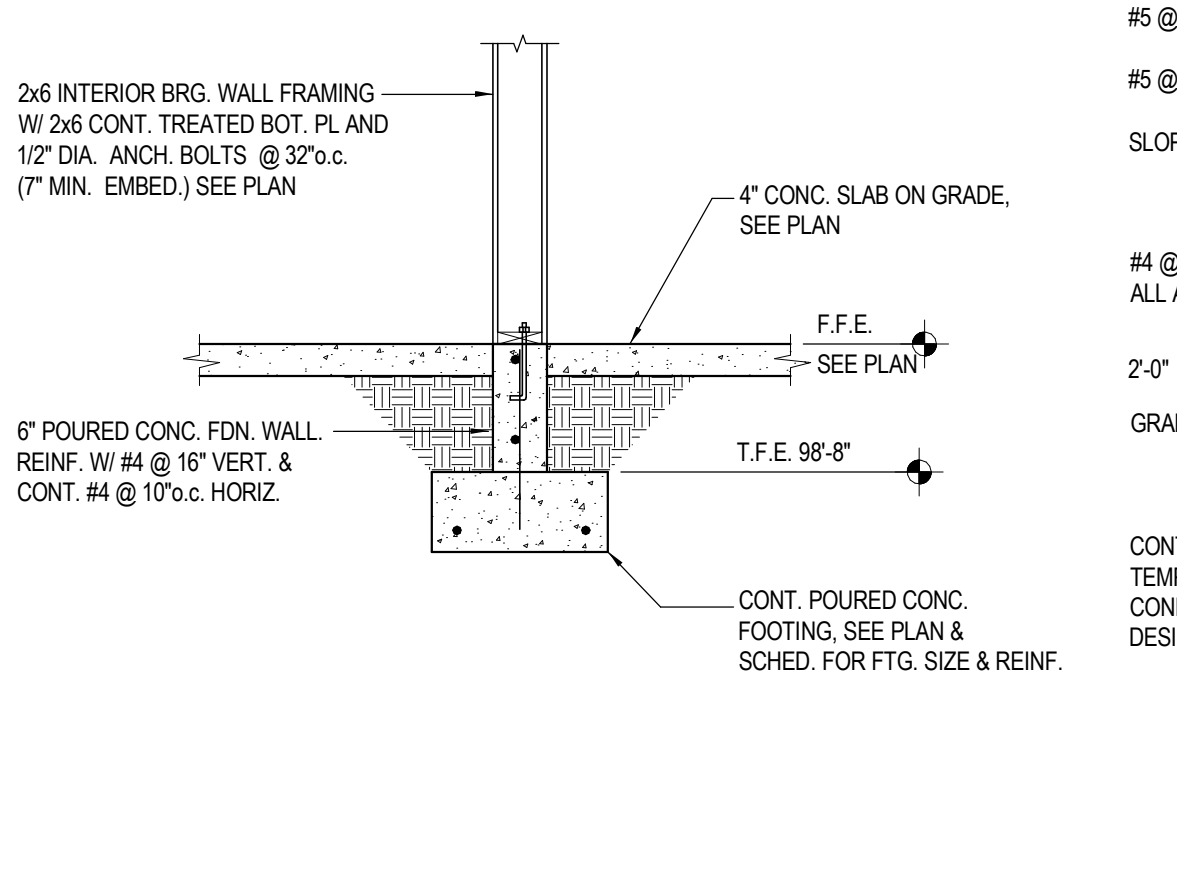
4 EXTERIOR STOOP DETAIL  
S401 NO SCALE



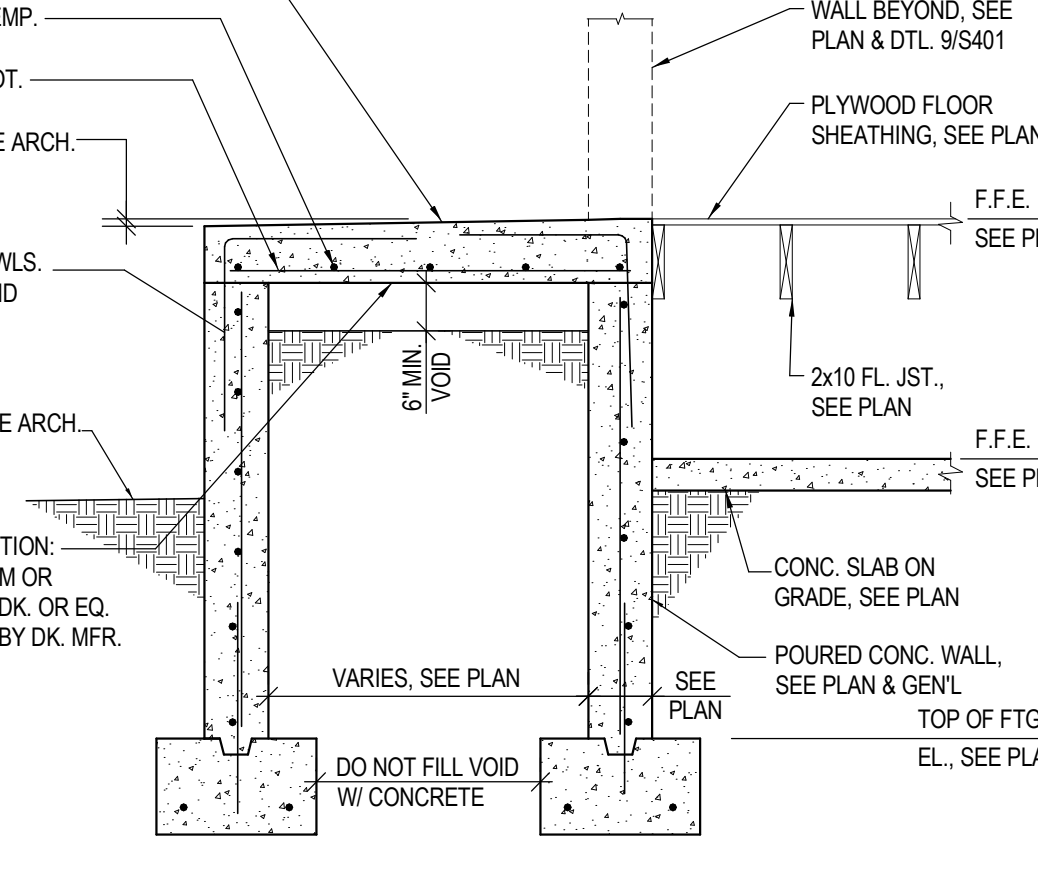
5 EXTERIOR COL. DETAIL  
S401 NO SCALE



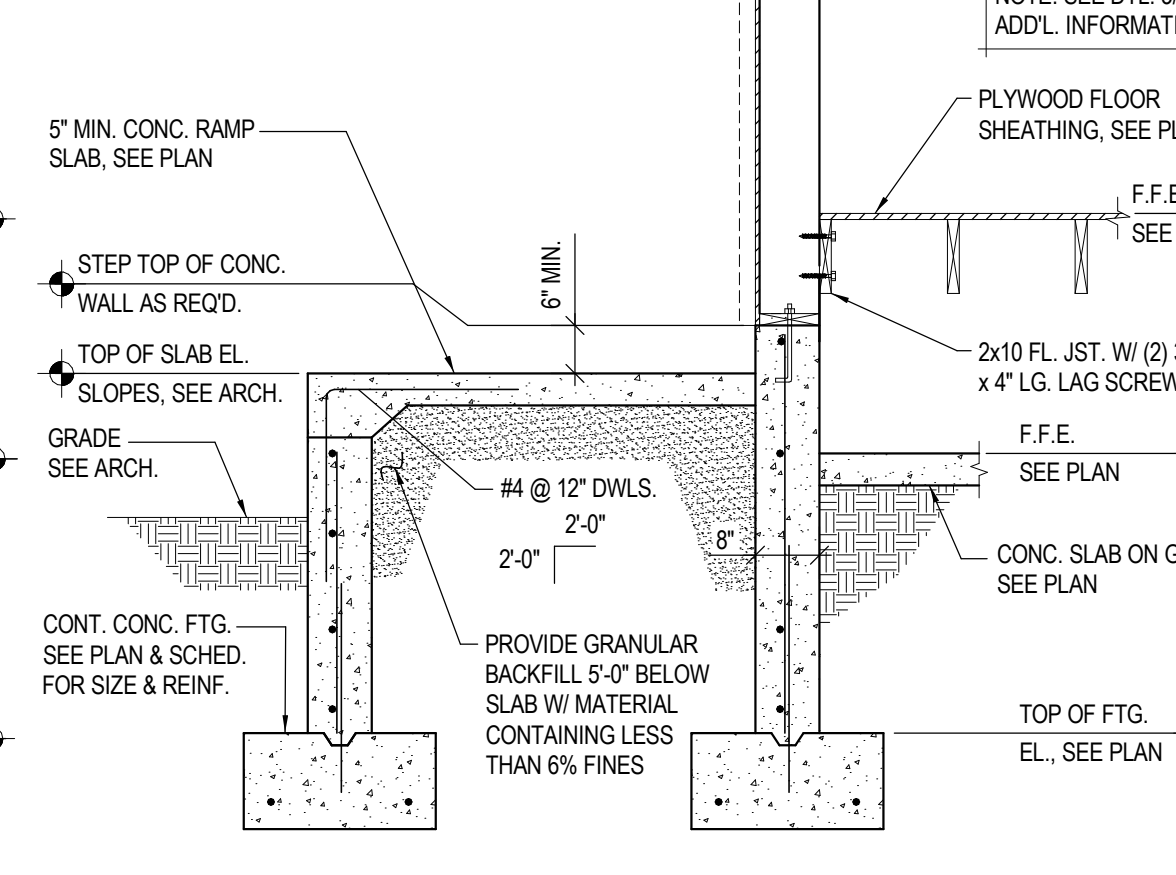
6 INTERIOR BRG. WALL FDN. DETAIL  
S401 NO SCALE



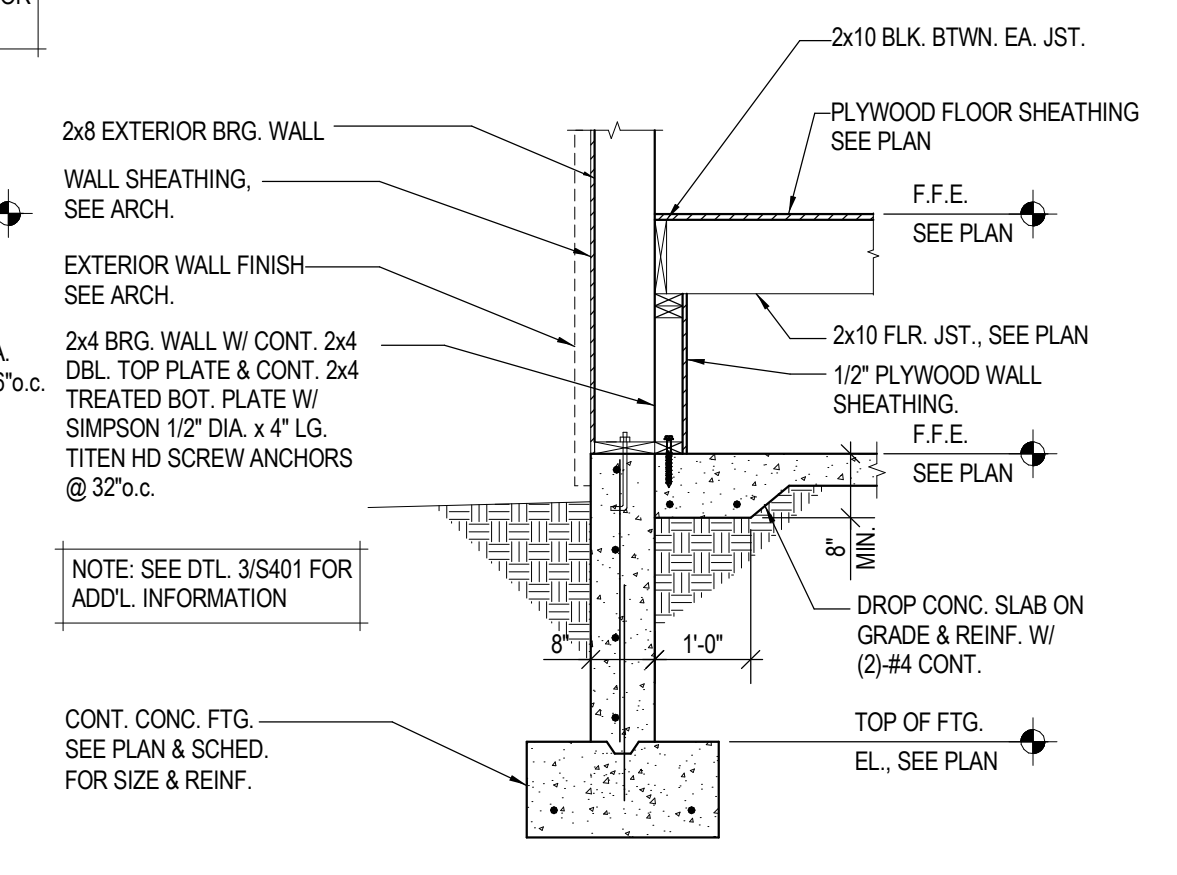
7 INT. BRG. WALL CONTR. OPTION  
S401 NO SCALE



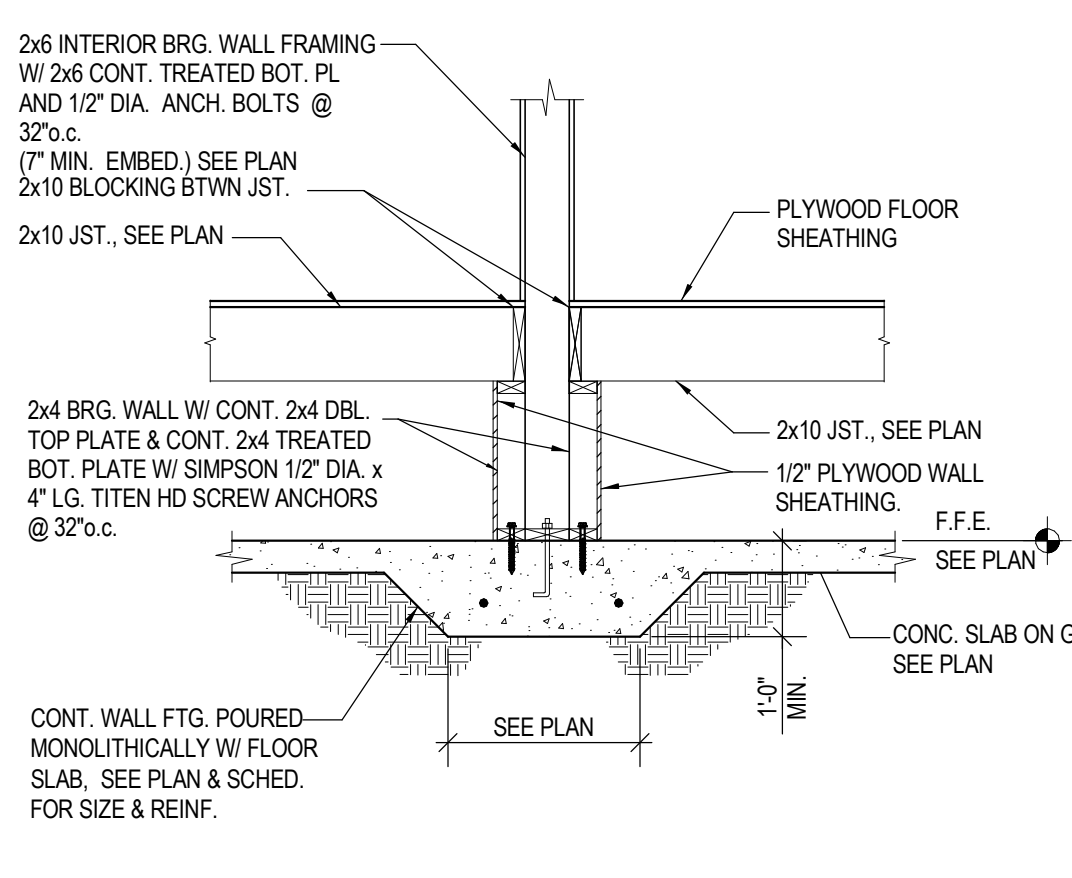
8 EXTERIOR STOOP DETAIL  
S401 NO SCALE



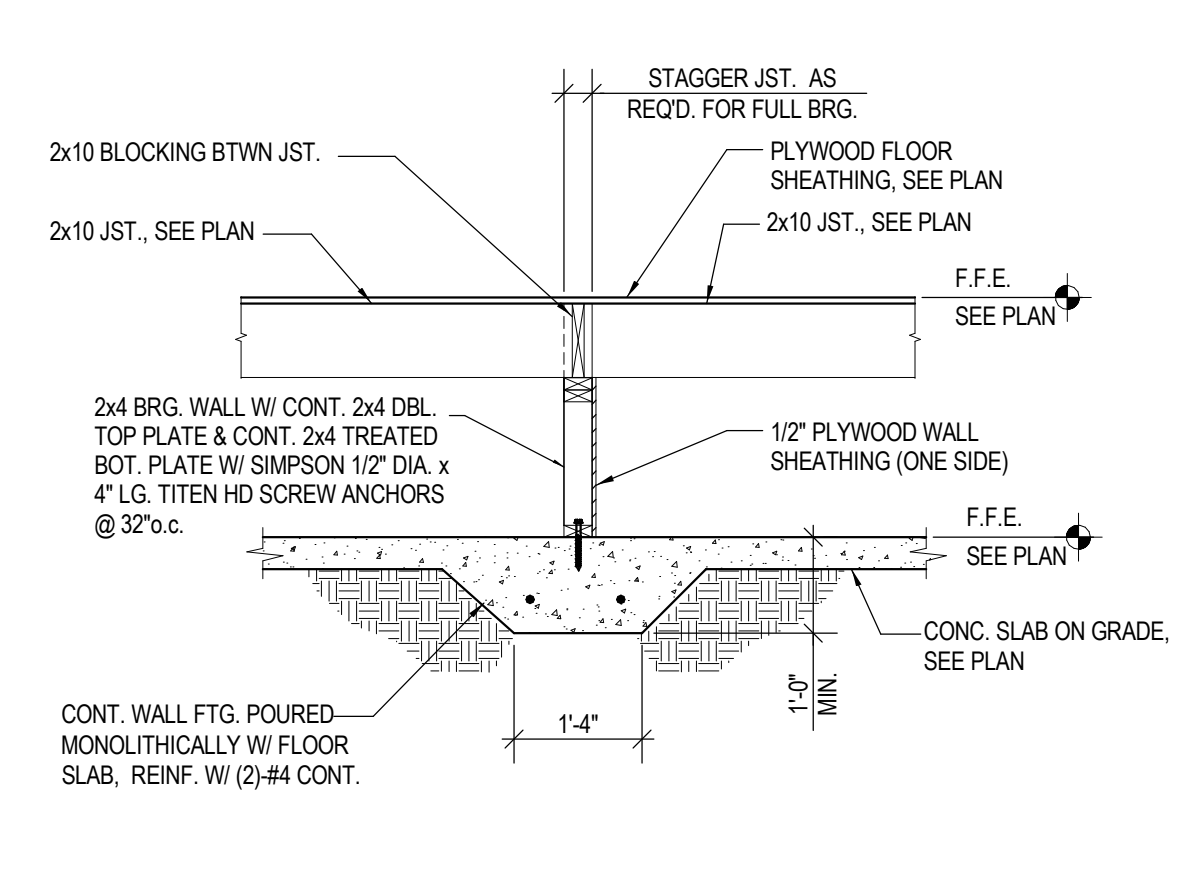
9 EXTERIOR RAMP DETAIL  
S401 NO SCALE



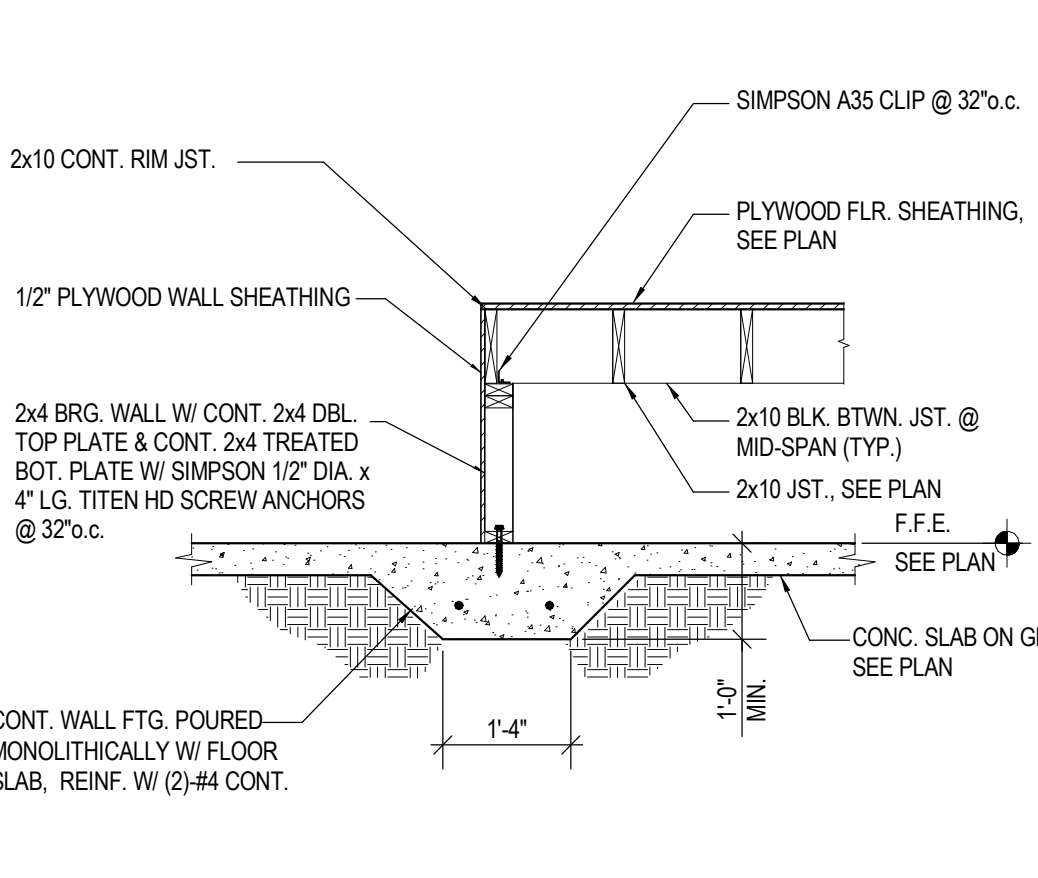
10 PLATFORM FRAMING DETAIL  
S401 NO SCALE



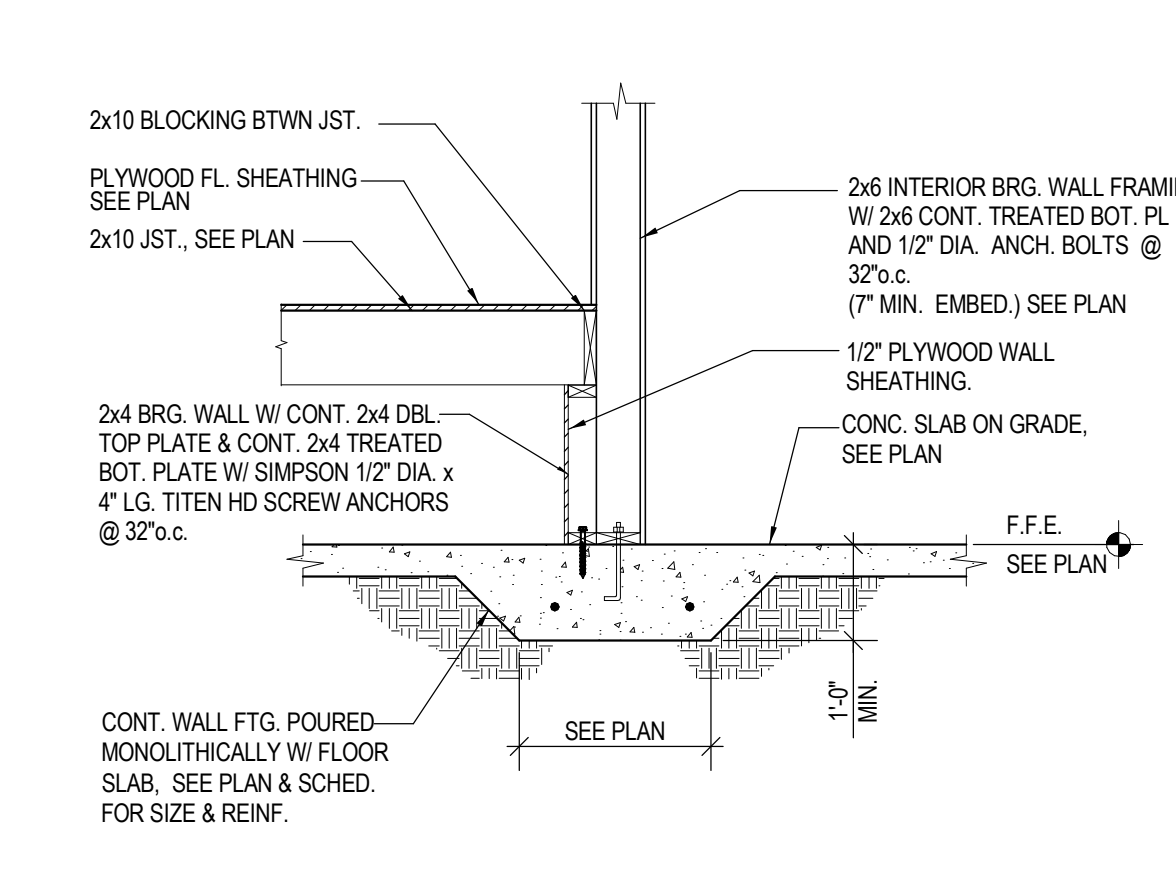
11 PLATFORM FRAMING DETAIL  
S401 NO SCALE



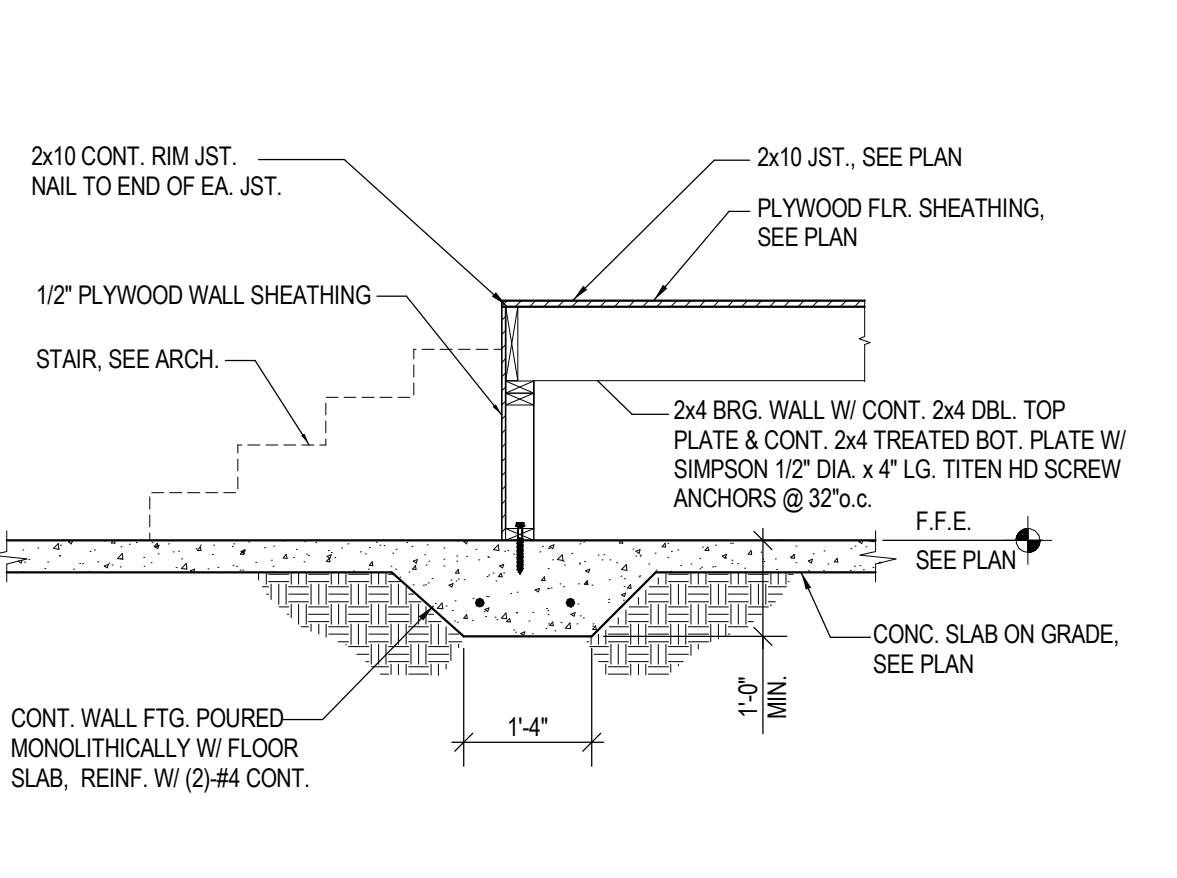
12 PLATFORM FRAMING DETAIL  
S401 NO SCALE



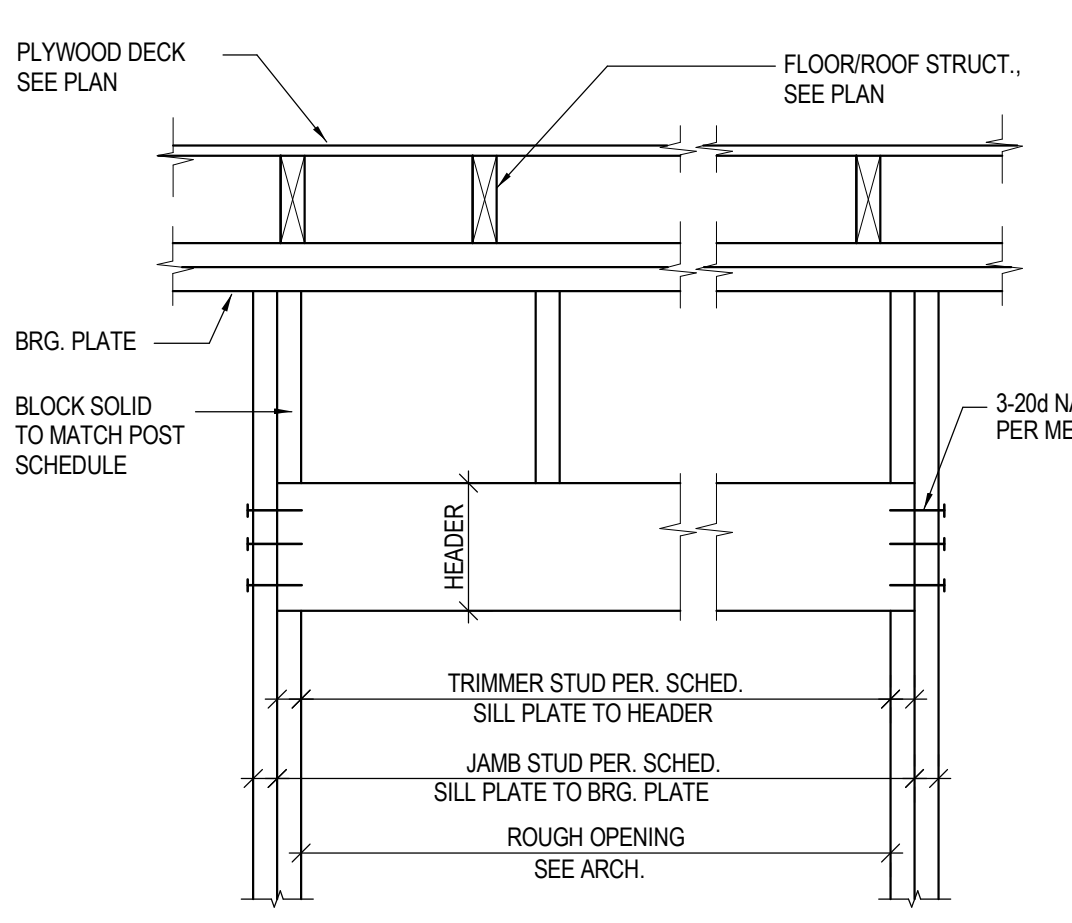
13 PLATFORM FRAMING DETAIL  
S401 NO SCALE



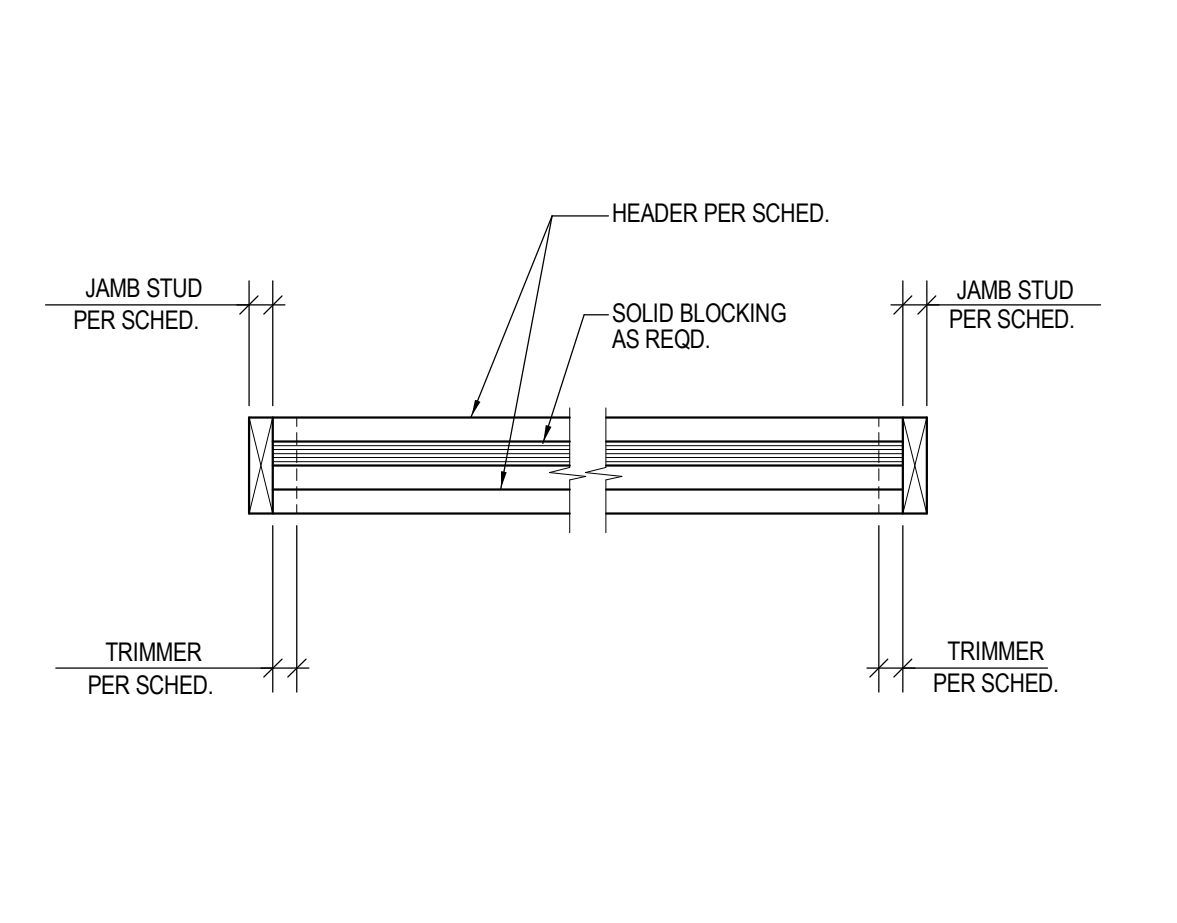
14 PLATFORM FRAMING DETAIL  
S401 NO SCALE



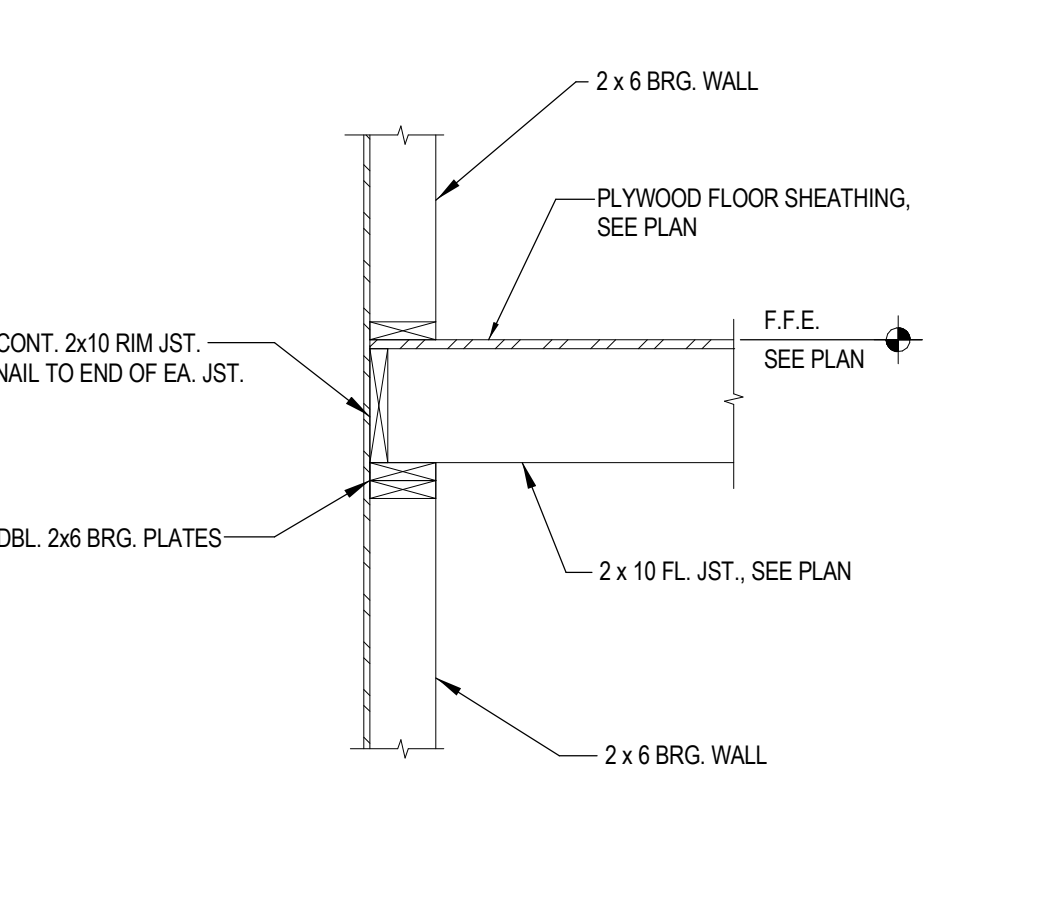
15 PLATFORM FRAMING DETAIL  
S401 NO SCALE



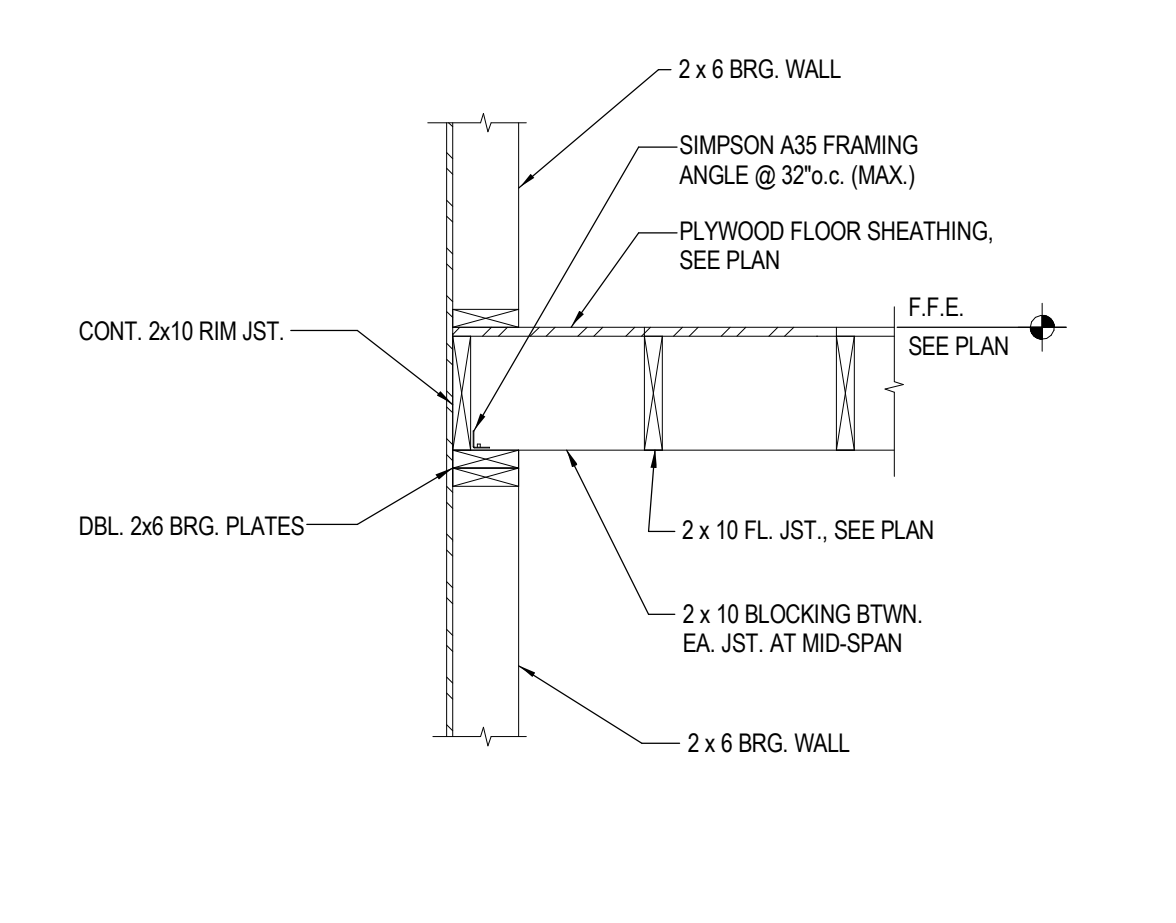
16 TYPICAL HEADER ELEVATION  
S401 NO SCALE



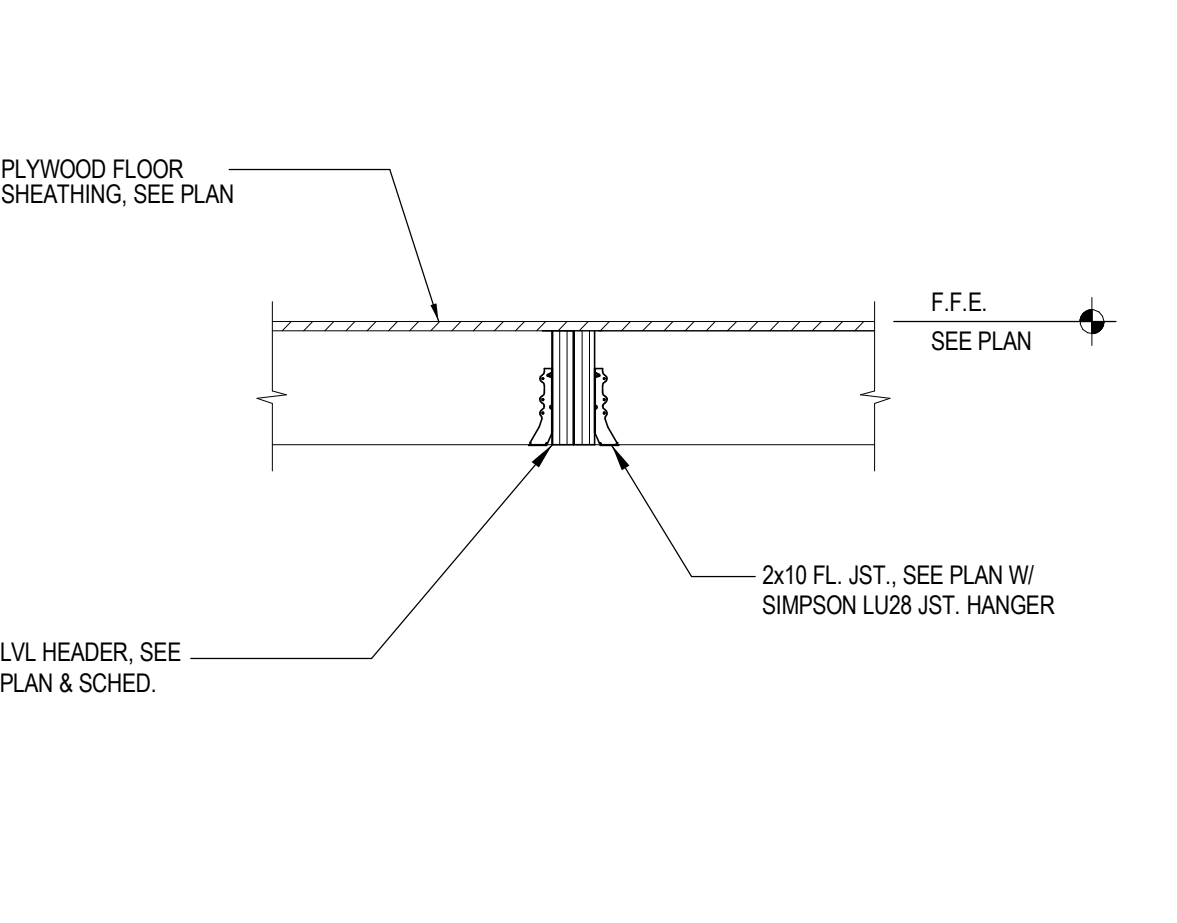
17 TYPICAL HEADER PLAN VIEW  
S401 NO SCALE



18 PLATFORM FRAMING DETAIL  
S401 NO SCALE



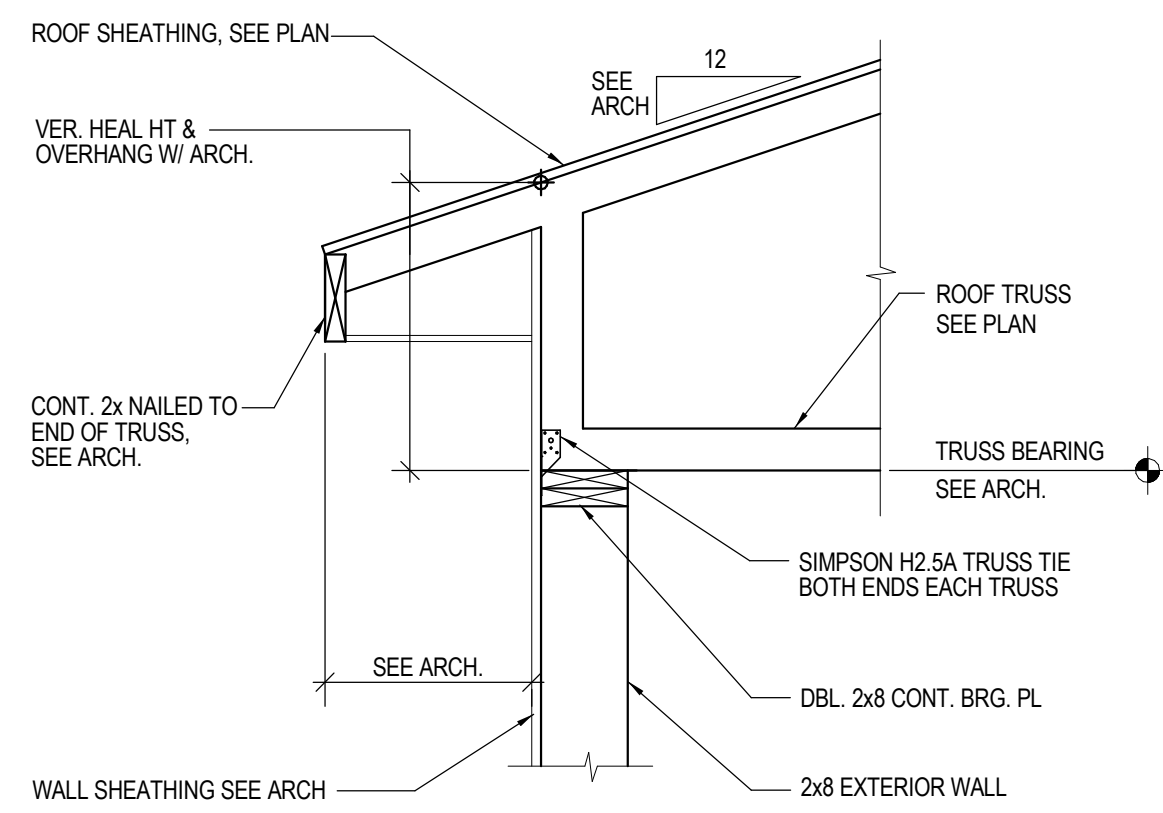
19 PLATFORM FRAMING DETAIL  
S401 NO SCALE



20 PLATFORM FRAMING DETAIL  
S401 NO SCALE

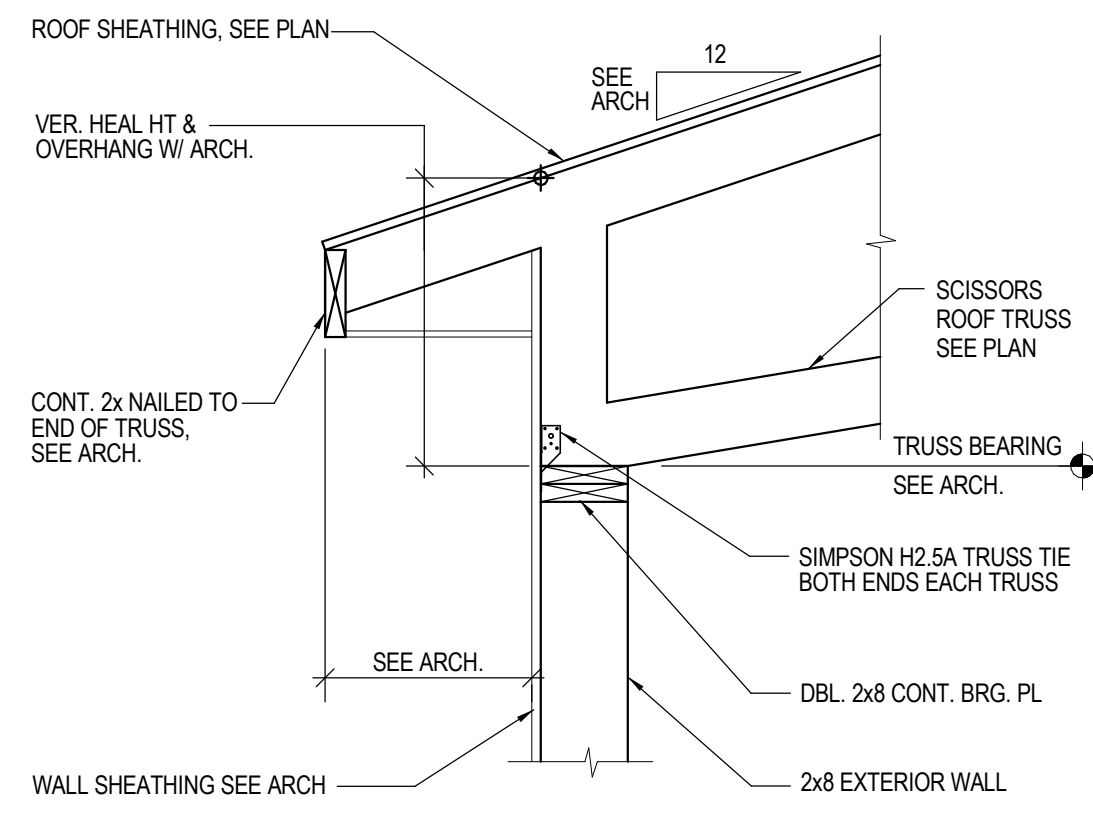






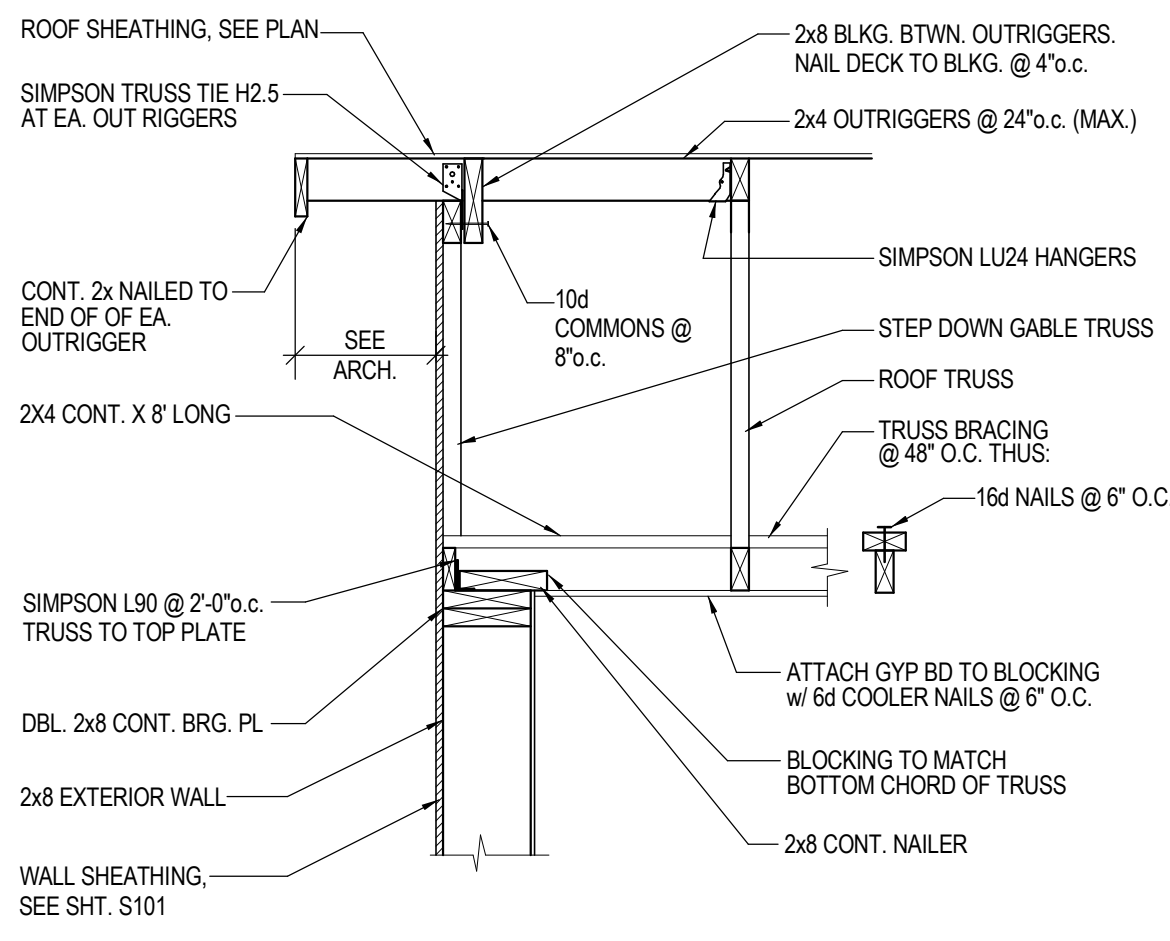
1 ROOF FRAMING DETAIL

S402 NO SCALE



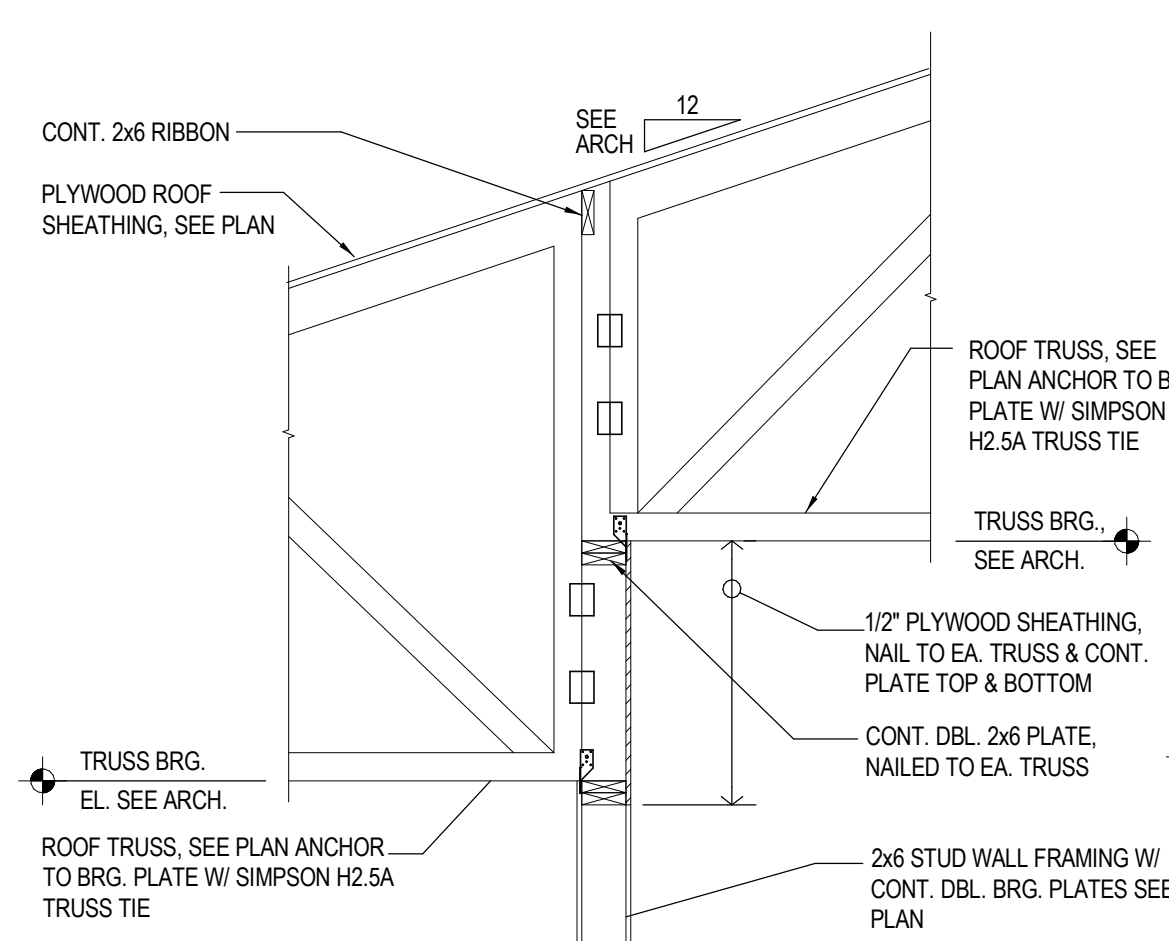
2 ROOF FRAMING DETAIL

S402 NO SCALE



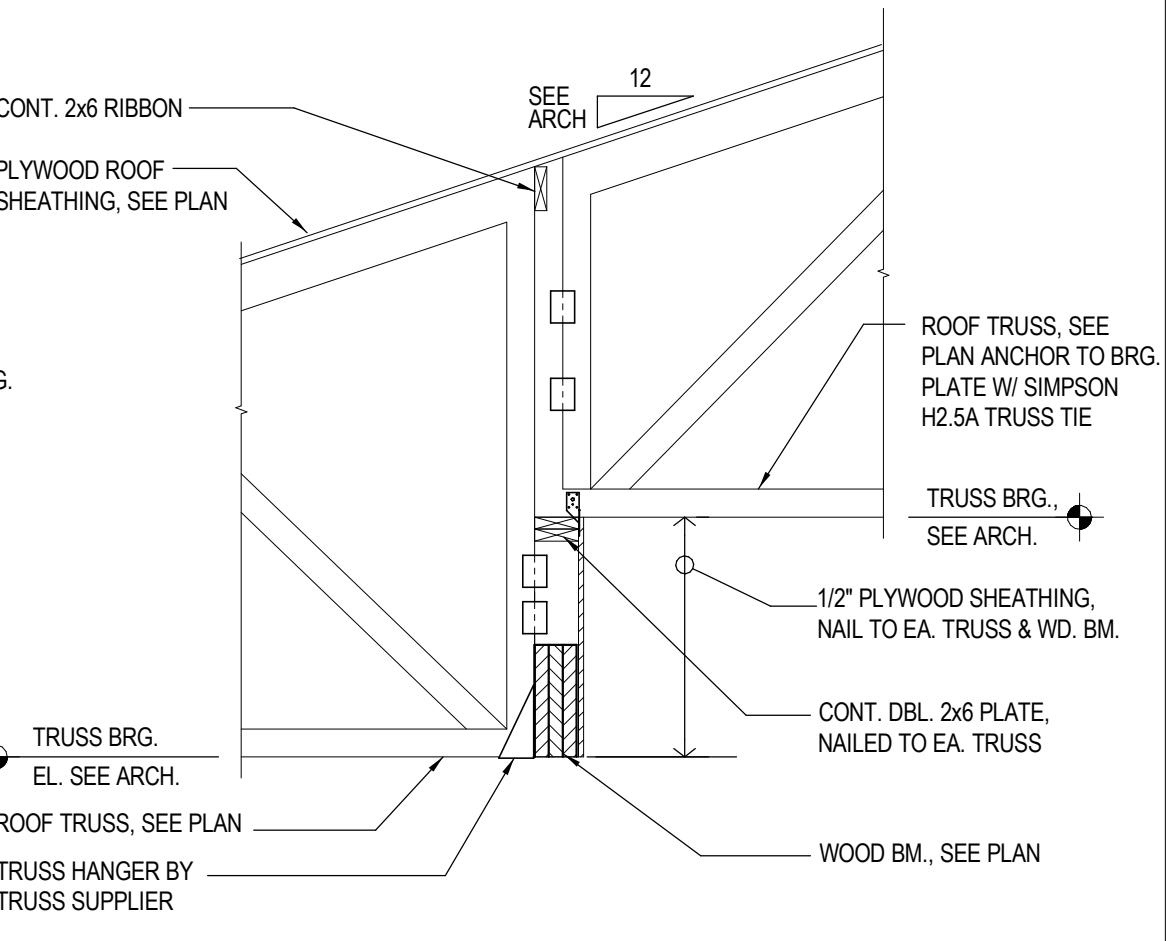
3 ROOF FRAMING DETAIL

S402 NO SCALE



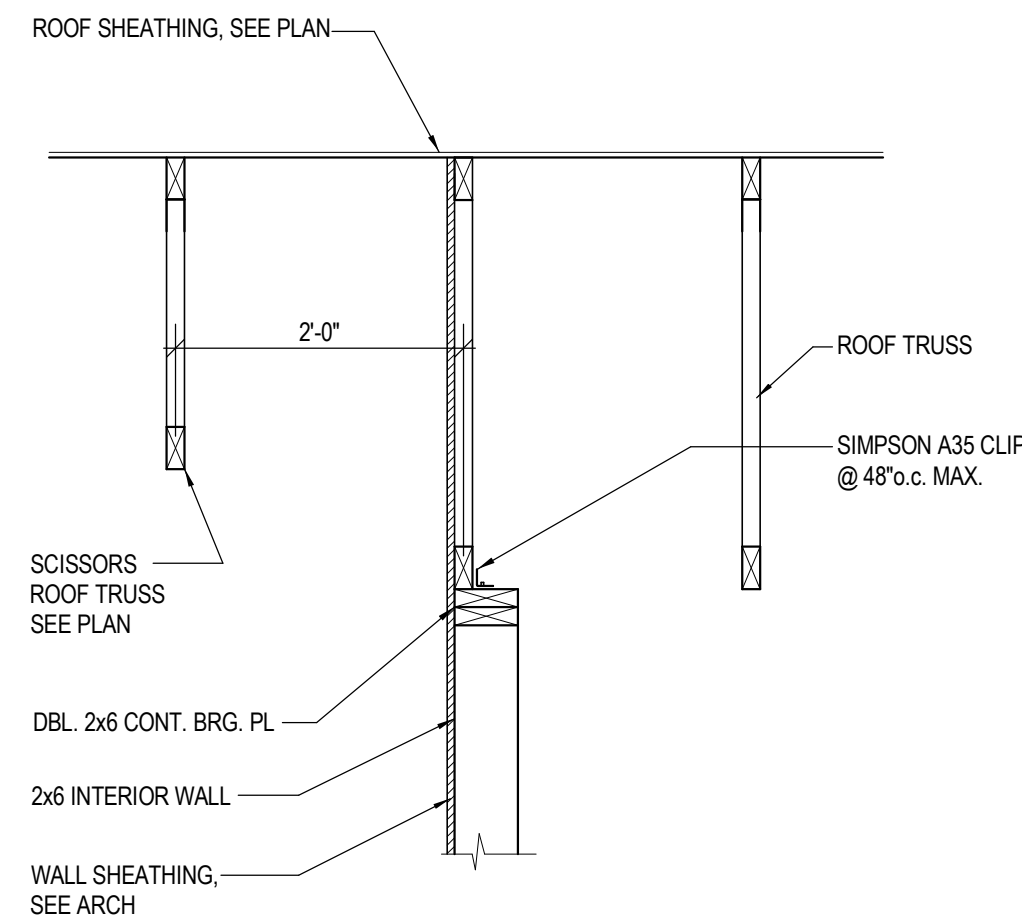
4 ROOF FRAMING DETAIL

S402 NO SCALE



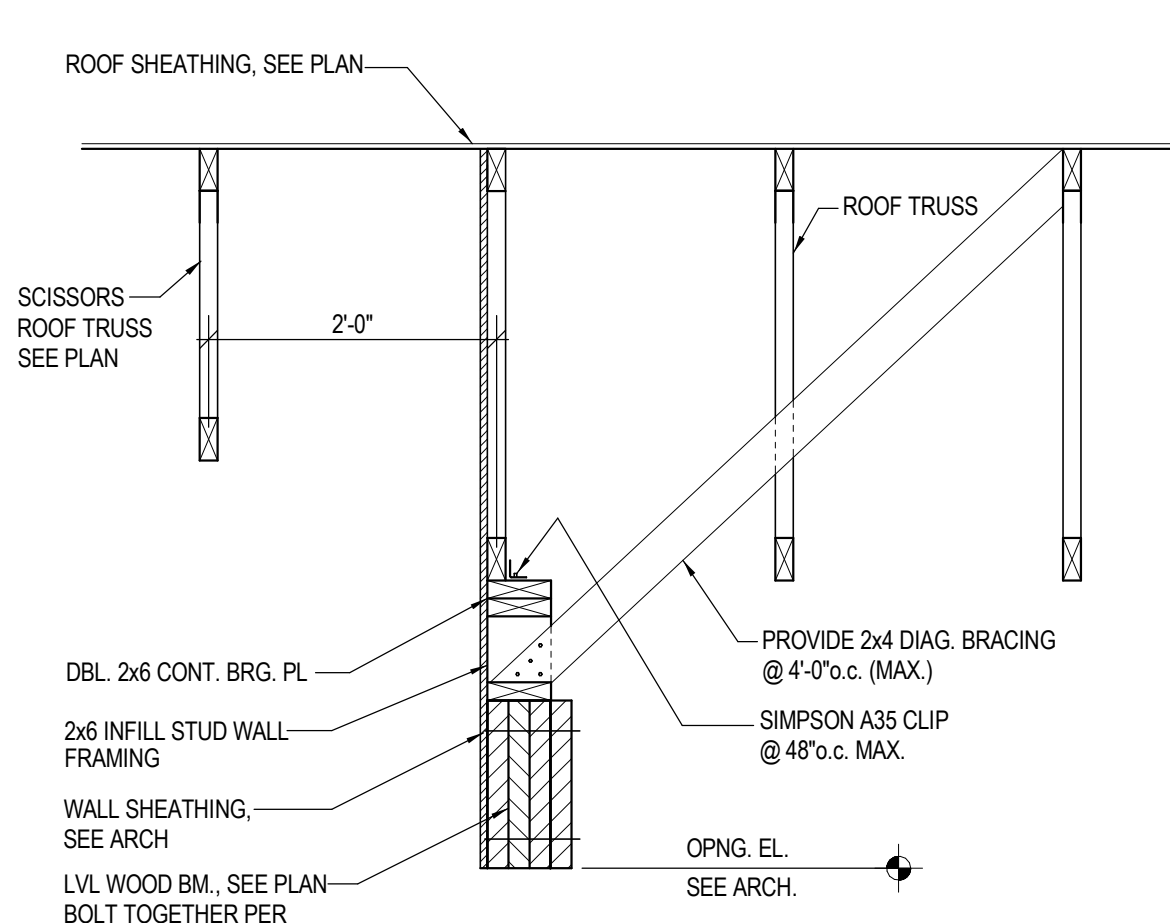
5 ROOF FRAMING DETAIL

S402 NO SCALE



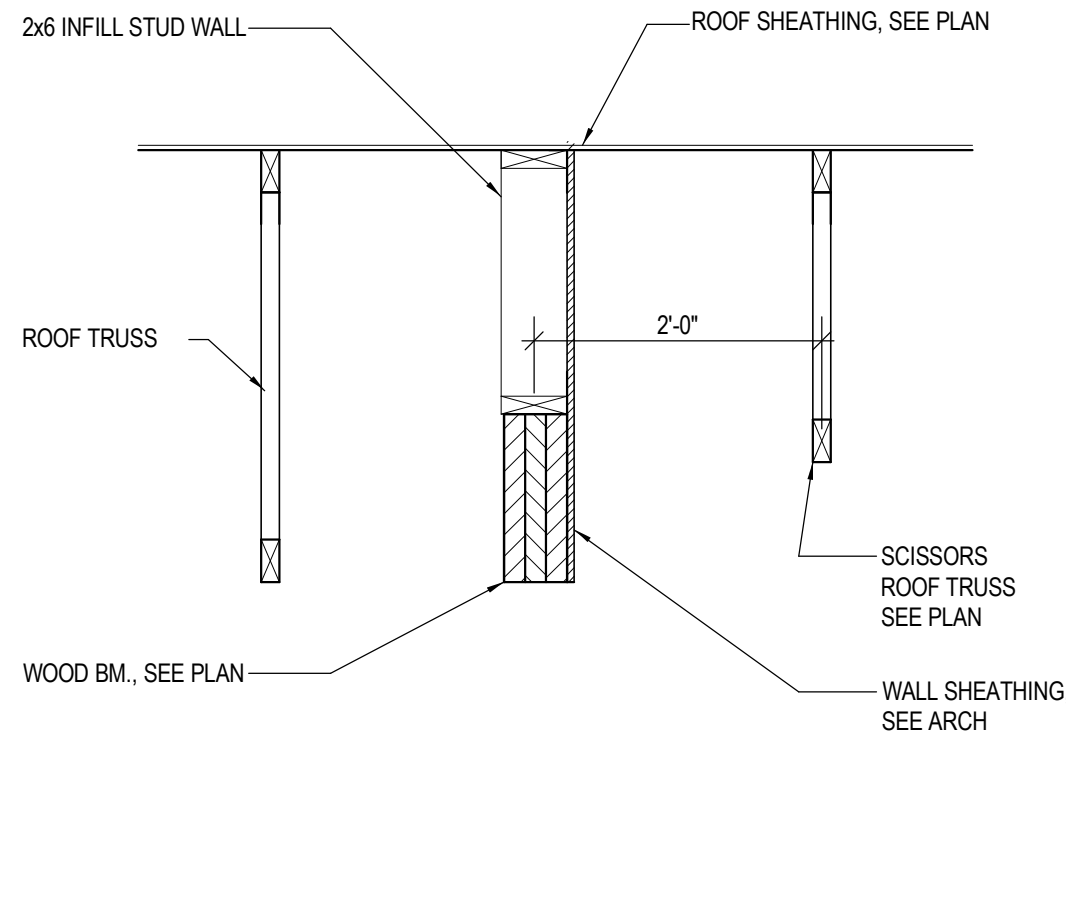
6 ROOF FRAMING DETAIL

S402 NO SCALE



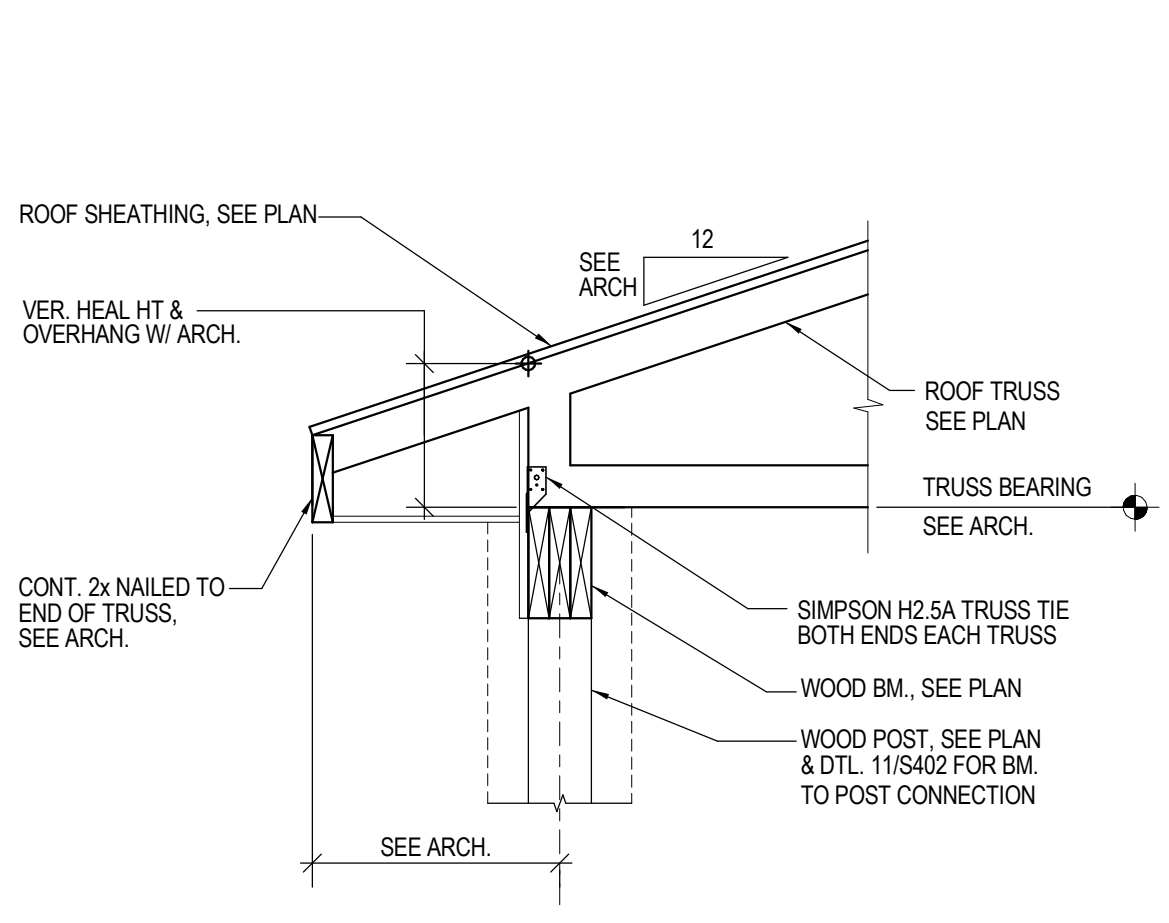
7 ROOF FRAMING DETAIL

S402 NO SCALE



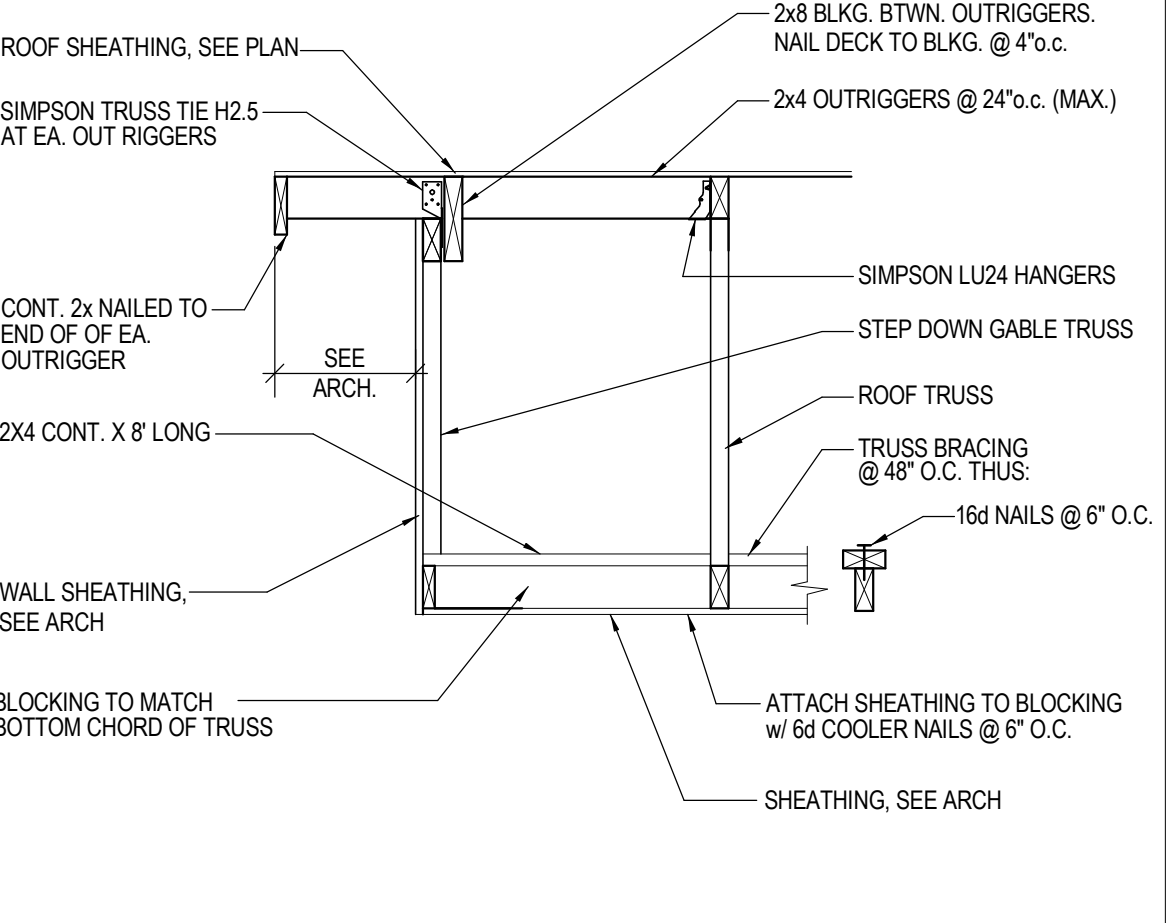
8 ROOF FRAMING DETAIL

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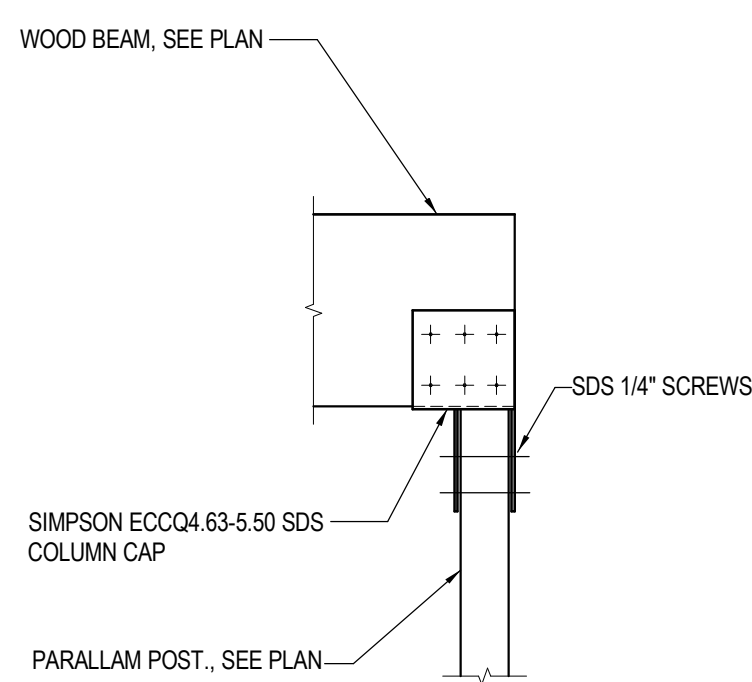
9 ROOF FRAMING DETAIL

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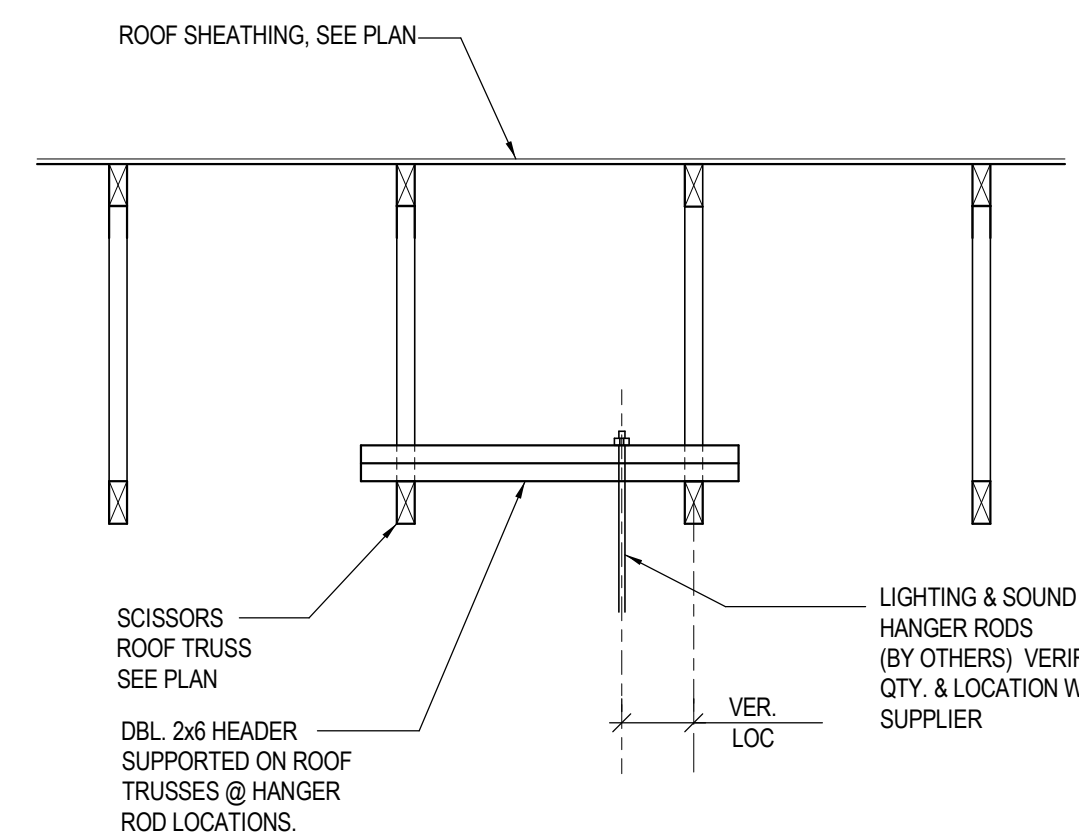
10 ROOF FRAMING DETAIL

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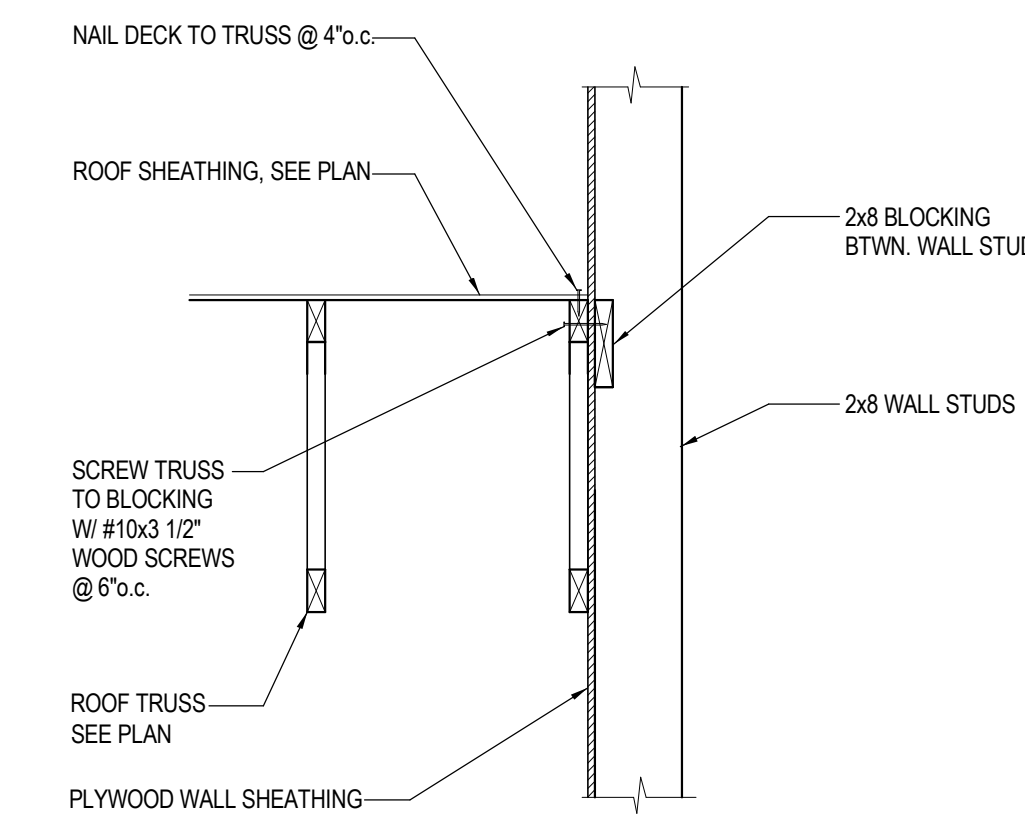
11 BEAM TO POST CONNECTION

S402 NO SCALE



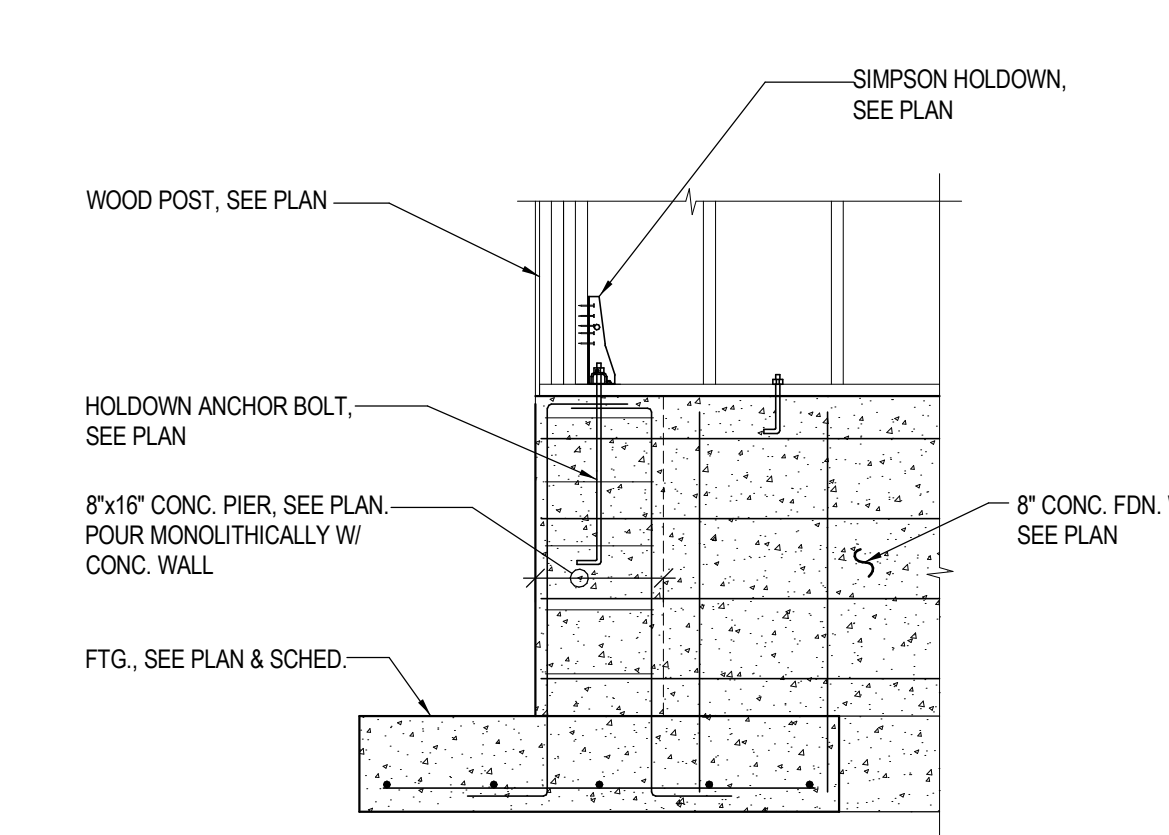
12 LIGHTING & SOUND SUPPORT DETAIL

S402 NO SCALE



13 ROOF FRAMING DETAIL

S402 NO SCALE



14 SHEARWALL HOLDOWN DETAIL

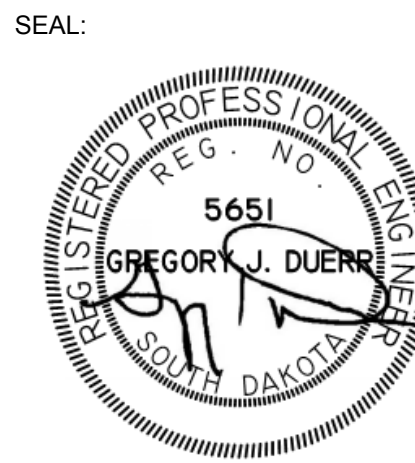
S402 NO SCALE



CITY of MELLETTE  
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PROJECT INFORMATION

MELLETT  
COMMUNITY  
CENTER  
9 West Main Street  
Mellette, SD 57461



Gregory J. Duerr  
Date: 08/10/2018 License No. 5651

PROJECT NO.: 18069  
DRAWN BY: KLV  
CHECKED BY: MNG

ISSUE: DATE:  
BID SET 8/10/2018

REVISION: DATE:

PROJECT LOCATION

SHEET NUMBER / TITLE

S402

SECTIONS