

GENERAL STRUCTURAL NOTES

- A1. All work shall conform to the requirements of the International Building Code (2003 IBC) and other codes having jurisdiction.
A2. The structural design of the building is based on the full interaction of all its connected parts, including all reinforced concrete.
A3. The information shown on the structural drawings is intended for this project only and shall not be used for any other purpose.
A4. Contractor(s) shall provide experienced jobsite supervision to ensure that components are installed in accordance with the structural drawings and standards of quality workmanship.
A5. The structural documents for this project (including notes, details, drawings, and specifications) are interdependent.
A6. Principal openings through structural components are shown on these drawings.
A7. Alternate connection details may be used if such details are submitted to PSE for review and written acceptance is granted.
A8. Work not indicated on a part of the drawings but reasonably implied to be similar to that shown at corresponding places, shall be included.
A9. The contractor shall be completely responsible for the safety of adjacent structures, property, and the public.
A10. All contractors are required to examine the drawings and specifications carefully, visit the site and fully inform themselves as to all existing conditions and limitations, prior to submitting their bid.
A11. Except where noted on the structural drawings, see architectural drawings for dimensions and locations of new materials.
A12. Where conflicts exist between codes, specifications, or drawings, the more stringent requirements shall govern.
A13. Fire code provisions are not contained on structural drawings.
A14. Substitutions for specified manufactured materials shall not be made without written approval from PSE.
A15. Stored materials shall be stacked on pallets in a manner that prevents distortion or damage, above the ground, covered and kept in a dry condition.
A16. PSE has performed the structural design of the structural components only for this project, as designated by the structural drawings.

REINFORCING FOR CONCRETE

- E1. All concrete reinforcing bars shall conform to ASTM A615, Grade 60 except where noted.
E2. All welded wire fabric (w.w.f.) shall conform to ASTM A-185. W.W.F. shall be provided in flat sheets.
E3. Provide all necessary accessories to hold reinforcing securely in position.
E4. All laps in W.W.F. shall be 1 1/2 mesh spaces or 1'-0", whichever is larger, and shall be wired together.
E5. Reinforcing bars may not be welded except where designated by the structural engineer.
E6. Concrete protection for reinforcement shall be provided as follows (UON):
a. Surfaces cast against and permanently exposed to earth ... 3 inches (dear)
b. Formed surfaces exposed to earth or weather
c. Formed surfaces not exposed to earth or weather
E7. All hooks shown on drawings shall be standard hooks unless noted otherwise.
E8. Where continuous bars are called for, they shall run continuously around corners and lapped at necessary splices, or hooked at discontinuous ends.
E9. Minimum lap splice for #4 and #5 bars shall be 2'-0" (UON).

STRUCTURAL STEEL NOTES

- G1. All structural steel work shall conform to the recommendations and requirements contained in the "Manual of Steel Construction, Allowable Stress Design" (AISC Ninth Edition, including Supplement #1, 2001), and "Structural Welding Code - Steel" (AWS D1.1, latest edition).
G2. Structural steel rolled shapes, plates, and bars shall conform to the following ASTM designations:
G3. Nonshrink grout shall be 5000 psi (min.) compressive strength.
G4. All shop and field welds shall be made by certified welders, and shall conform to the American Welding Society Code, AWS D1.1, latest edition.
G5. Electrodes for all field and shop welding shall conform to AWS E70-XX.
G6. Holes in steel shall be shop drilled.
G7. Structural steel shall be primed with fabricator's primer.
G8. Ends of columns shall be "finished to bear" per AISC recommendations.

FOUNDATIONS

- B1. Contractor shall field verify adequacy of existing soils and retain the services of a licensed geotechnical engineer if evidence of poor soils is observed.
B2. All footing excavations are to be finished by hand.
B3. If existing soils are inadequate, then structural fill below slabs, adjacent to foundation walls and fill below footings shall conform to MDOT 703.06 Type B.
B4. Structural fill shall be compacted in 12" (max) lifts.
B5. Crushed stone shall consist of clean angular fragments of quarried rock with uniform quality and conform to MDOT 703.22 Type C.
B6. Unless otherwise noted, all foundation units shall be centered under supported members.
B7. Where foundation elements are to have fill on both sides, each side shall be filled and compacted simultaneously.
B8. Contractor shall provide continuous drainage by mechanical methods to control surface and underground water as required during construction.
B9. Remove existing foundations to at least 3 feet below bottom of proposed slabs and foundations.
B10. All holes in foundation walls shall have plastic sleeves.
B11. Shoring, bracing, or sheeting used to provide lateral support of excavations shall remain in place until all permanent structural systems at and below ground level are complete.
B12. Pipes shall not pass under or through footings.
B13. Contractor shall take necessary precautions to avoid disturbing existing soil beneath footings.
B14. When excavating for new footings, contractor shall take the necessary precautions to avoid disturbing existing utilities which may exist below grade.
B15. Footings shall not bear on bedrock if bedrock slope exceeds 41° (Horiz. : Vert.) unless footing is pinned to bedrock surface with #4 rebar @ 24" o.c.
B16. No foundations shall be placed in water or on frozen ground.

CONCRETE

- F1. All concrete work shall conform to the latest edition of the ACI Building Code (ACI 318), Specifications for Structural Concrete for Buildings (ACI 301) and to the 2003 IBC.
F2. For locations listed below, concrete shall have 3/4" aggregate, 4" to 5" slump (max), Type I or II ASTM C-150 Portland Cement and designated compressive strength (fc) in 28 days as follows:

Table with 5 columns: Location, fc (psi), Air Entrainment, Polypropylene Fibers, Max. Water:Cement Ratio. Rows include Footings, Retaining Walls, Interior Slabs on Grade, and Miscellaneous Concrete.

Water quantity shall not exceed specified maximum water/cement ratio. Quantity of water added at ready mix plant shall be indicated on the delivery slip for each truck.

- F3. A "foundation wall" shall be considered a "retaining wall" if final grade elevation on one side of wall is more than 15 inches above the final grade on the opposite side of wall.
F4. All footings shall be placed monolithically.
F5. Pipes or conduits placed in slabs on grade shall not be placed closer than 3 diameters on center and shall have an outside diameter less than 1/3 of the slab thickness.
F6. All keys shall be 2" x 4" (nominal) unless otherwise shown on the drawings.
F7. All exposed edges of concrete members shall be chamfered 3/4" unless shown otherwise on drawings.
F8. See architectural drawings for door and window openings, drips, washes, reglet, concrete finishes, masonry anchors, and for miscellaneous embedded plates, bolts, anchors, angles, etc.
F9. Calcium chloride, aluminum or copper components shall not be placed in concrete.
F10. Embedments in concrete, including anchor bolts for columns, shall be firmly secured by tie wire (or other means) to prevent movement during concrete placement.
F11. All concrete materials, reinforcement and forms shall be free from frost or debris.
F12. Concrete shall be maintained above 50 degrees F.
F13. Consolidate all concrete with a vibrator or other means recommended by ACI 301.
F14. See architectural drawings for locations of floor drains.
F15. Control joints in slabs on grade are mandatory.
F16. Coordinate concrete finish on floor slabs with owner's requirements and specifications.
F17. Concrete slabs, including those on steel deck, shall be placed so that slab thickness equals or exceeds thickness specified on drawings.
F18. Length of time to cure concrete slabs and materials applied to slab surfaces shall be compatible with floor finishes.
F19. Slabs on grade shall contain ASTM C1116, Type III, 1/2" - 1 1/2" long polypropylene fibers at a rate of 1.5 pounds (min.) per cubic yard unless steel reinforcement is specified.
F20. Surfaces of concrete construction joints, including exposed reinforcement, shall be cleaned and laitance removed.
F21. Depth of concrete specified at slabs on grade and elevated slabs is a minimum.
F22. Isolation joints in concrete slab shall be 3/8" thick pre-formed, closed, cell foam joint material and top 1/2" of joint shall contain sealant with tooled joint surface.
F23. Mid Range Plasticizer may be added for pumping provided it is under the direct oversight of the ready mix concrete supplier.

ROUGH CARPENTRY

- C1. Lumber shall bear the grade and trademark of the association under whose rules it is produced and a mark of mill identification.
a. Pressure Treated (PT) Lumber shall be Southern Yellow Pine (SYP), Number 1 grade.
b. Except as noted above, Lumber (including lumber used for studs, beams, lintels, wall plates, jamps, king studs, and columns and posts shall be No. 2 grade Spruce (or better), Pine, Fir (SFP).
C2. Lumber and wood in exterior applications, at sills, at porches and in contact with concrete and masonry shall be pressure treated using preservative with a minimum net retention of 0.40 pcf, or equivalent pressure treating system.
C3. All fasteners (including nails, lag screws, and bolts) for pressure treated lumber shall be hot-dip galvanized.
C4. Cut ends of pressure treated lumber and timber posts and sills shall be dipped in a preservative treatment for a minimum of fifteen minutes.
C5. Fabricate horizontal and inclined members, units of less than 1:1 slope, with natural convex bow (crown) up to provide camber.
C6. As a minimum, carpentry work shall comply with AFPA's "National Design Specification for Wood Construction," 2001 Edition.
C7. All plywood and sheathing shall conform to APA "Plywood Specification Grade Guide" and Product Standard PS-1.
C8. Sheathing end joints for floors and roof shall be staggered.
C9. Sheathing for floors shall be 3/4" thick Tongue & Groove APA rated plywood with 48/24 span rating or "Advantec" (by Huber Corp.).
C10. Plywood for roofs shall be 5/8" thick, APA rated sheathing with 40/20 span rating.
C11. Wall sheathing shall be 7/16" thick, APA rated plywood or OSB sheathing suitable for exterior use.
C12. Reference to "Simpson" on Drawings indicates metal connectors manufactured by Simpson Strong-Tie.
C13. Reference to "Paralam" and "LVL" on Drawings indicates materials manufactured by Trus Joist MacMillan.
C14. floor and roof framing around chase openings for mechanical ducts shall consist of the following (unless noted otherwise):
a. Double floor length joists each side of openings with joist depth same as adjacent floor framing.
b. Members connected with Simpson double joist hangers.
C15. Holes through framing members shall be drilled through middle third of lumber and shall not exceed 1" diameter.
C16. Double top plate at exterior and load-bearing walls shall be lapped a minimum of 4'-0" and be fastened together with not less than (2) rows of 16d nails spaced at 6" on center (total of 18 nails).
C17. Spike together all framing members which are built up using two rows of 16d nails at 12" O.C. staggered.
C18. Provide double top plate in all exterior walls and all interior bearing walls with lapped connection at wall intersections.
C19. All nails shall be "common" unless noted otherwise.
C20. Provide Simpson connection post caps and post bases at posts and columns.
C21. The threaded portion of all lag screws shall be placed in predrilled holes which are one-half the nominal diameter of the lag screw.
C22. Wood framing shall be a minimum of 2" clear from masonry chimneys and 6" clear from flue openings unless a "zero tolerance" system has been approved by the local building official.
C23. Where any interior walls are parallel with floor joists below for more than half the joist span, add one additional floor joist directly below interior wall centerline.
C24. To avoid popping nails and minor cracking in drywall finishes, drywall shall not be placed until framing has dried to a moisture content less than 14 percent.
C25. Adjust setting of nail guns such that top of nail head does not penetrate below surface of APA rated sheathing.
C26. Where columns are shown, contractor shall install additional studs (equal to the same width as the column) directly below the columns on each floor and between floors such that continuous support for the column extends to the foundation.
C27. Where joists (or rafters) are framed to the sides of beams, the gap between the ends of joists (or rafters) and the beam to which they are connected shall not exceed 1/16 inch.
C28. Wall plates shall be face-nailed to each stud (and each individual 2x at built-up columns) with (2) 16d nails, typical (UON).
C29. All holes in joist and rafter hangers shall have one 10d nail unless larger nails are specified by Simpson or on drawings.
C30. All floors shall have solid bridging between joists spaced at not more than 8'-0" on center.
C31. Handrail assemblies, guardrail systems, and anchorage at supports shall be designed to resist a load of 50 lb/ft in any direction at the top rail or a single 200 lb. load in any direction at the top rail.

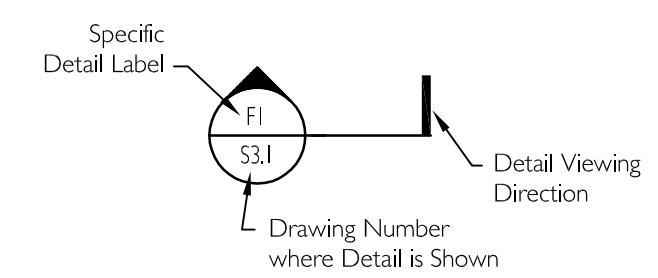
DESIGN LOADS

- D1. Floor Live Loads
a. Typical Floor Private Areas = 40 psf.
b. Typical Floor Public Areas = 100 psf.
D2. Snow Load
a. Ps = 35 psf (see Details for drift loads).
b. Ce = 1.0.
c. Is = 1.0.
d. Ct = 1.0.
D3. Wind Load
a. Basic Wind Speed = 100 mph.
b. Iw = 1.0.
c. Exposure = "B".
D4. Seismic
a. IE = 1.0.
b. Soil Site Class = "D."
c. Spectral Response Accelerations:
Ss = .35.
S1 = .10.
d. Seismic Force Resisting Systems:
Light frame shear wall w/ wood sheathing
e. R (NVS) = 6.5.
R (EW) = 6.5.
f. Design Procedure = "Equivalent Lateral Force."

LIST OF ABBREVIATIONS

Table listing abbreviations and their full names, including & (And), @ (At), ADDL (Additional), ALT (Alternate), ALUM (Aluminum), AB (Anchor Bolt), ARCH (Architectural), BOT (Bottom), BO (Bottom of), BOF (Bottom of Footing), BM (Beam), BRG (Bearing), BPL (Bearing Plate), BS (Both Sides), BTWN (Between), CIP (Cast in Place Concrete), CL (Center Line), CLR (Clear), COL (Column), CONC (Concrete), CJ (Control Joint), CMU (Concrete Masonry Unit), COORD (Coordinate), CONT (Continuous), DET (Detail), DIA (Diameter), DIM (Dimension), DWGS (Drawings), EA (Each), EXPANSION (Expansion), EF (Each Face), EL (Elevation), EMBT (Embedment), EQ (Equally Spaced), EW (Each Way), EXG (Existing), FDN (Foundation), FF (Far Face), FG (Final Grade), FIN FLR (Finish Floor), FFE (Finish Floor Elevation), FT (Foot), FTG (Footing), GA (Gauge), GALV (Galvanized), GC (General Contractor), HDG (Hot Dip Galvanized), HQR (Horizontal), HP (Typical), ID (Inside Diameter), IF (Inside Face), JT (Joint), KIP (Kilopound), LB (Pound), LG (Long), LOCNS (Locations), LP (Low Point), LVL (LVL), MAS (Masonry), MAX (Maximum), MDOT (Maine Dept. of Transportation), MECH (Mechanical), MFR (Manufacturer), MIN (Minimum), MISC (Miscellaneous), N&W (Nut & Washer), NF (Near Face), NIC (Not in Contract), NTS (Not to Scale), OC (On Center), OD (Outside Diameter), OF (Outside Face), OPH (Opposite Hand), OPNG (Opening), OSB (Oriented Strand Board (APA-rated)), PAF (Powder Activated Fastener), PCF (Pounds per Cubic Foot), PJF (Preformed Joint Filler), PLAM (Parallam), PLY (Plywood), PROJ (Projection), PSF (Pounds per Square Foot), PSI (Pounds per Square Inch), REINF (Reinforcement), REQD (Required), SCHED (Schedule), SECT (Section), SF (Square Foot), SIM (Similar), SP (Spaces), STD (Standard), T&B (Top and Bottom), TJ (Tie Joist), TO (Top of), TOC (Top of Concrete), TOF (Top of Footing), TOG (Top of Grout), TOP (Top of Pier), TOW (Top of Wall), TYP (Typical), UON (Unless Otherwise Noted), VERT (Vertical), VF (Verify in Field), W (With), W/O (Without), WP (Working Point), WWF (Welded Wire Fabric).

KEY TO SECTION SYMBOL



PRELIMINARY NOT FOR CONSTRUCTION UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

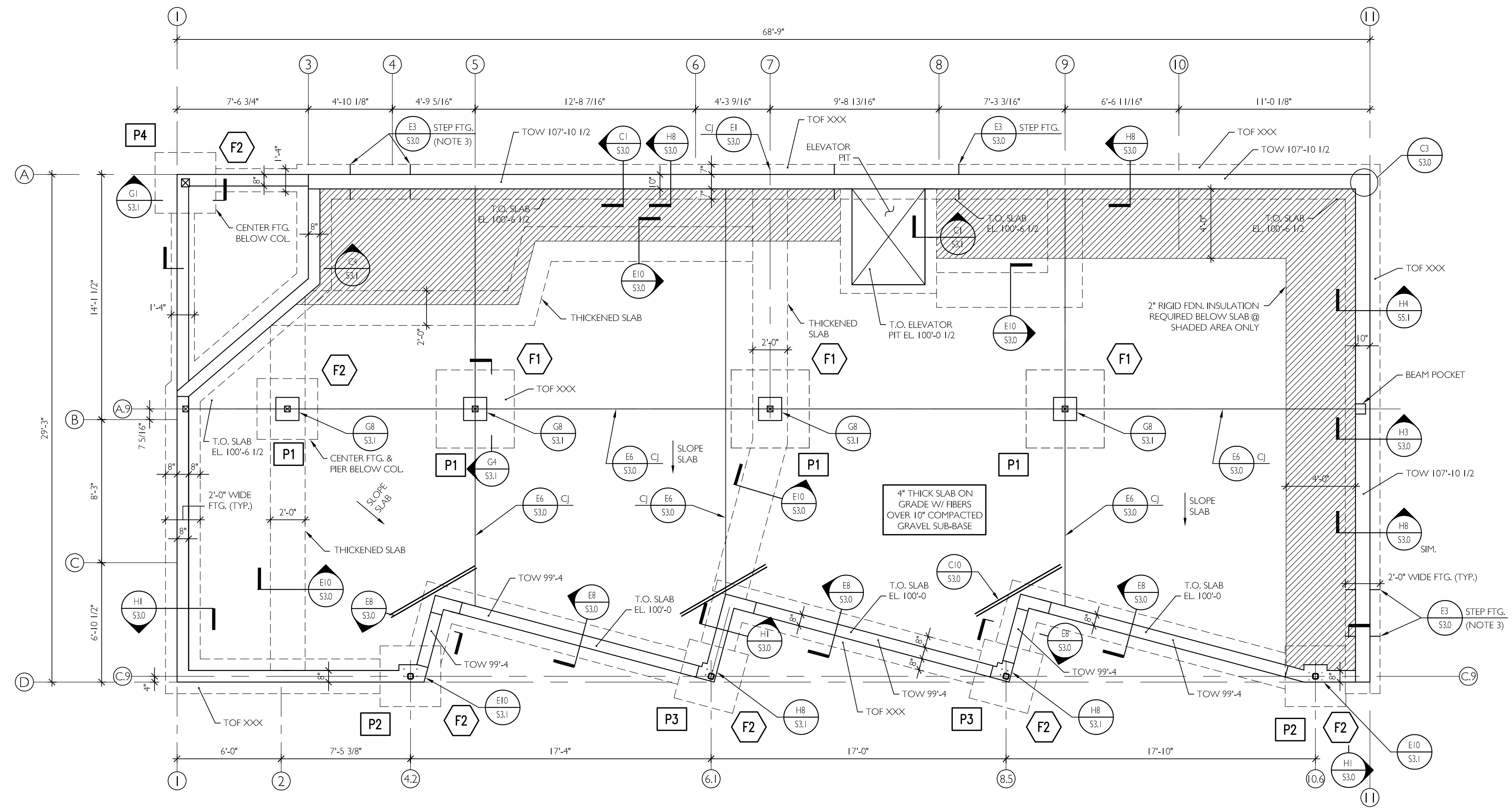
ISSUED FOR PERMIT ONLY 8/18/10. Price Structural Engineers, Inc. 75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633. NEW 3-UNIT BLDG. LEDMAN & MYERS 62 CUMBERLAND AVENUE PORTLAND, ME 04101. KAPLAN THOMPSON ARCHITECTS 124 FORE STREET PORTLAND, ME 04101. SCALE AS NOTED. ENGINEER: DAP. DATE: 8/8/10. PROJECT NO.: 129-10. GENERAL STRUCTURAL NOTES S1.0



FOOTING SCHEDULE				
TYPE	LENGTH	WIDTH	THICKNESS	REINFORCEMENT
F1	4'-6"	4'-6"	1'-0"	(6) #5 EACH WAY
F2	3'-6"	3'-6"	1'-0"	(5) #4 EACH WAY

- NOTES:**
- See Drawing S1.0 for additional notes and requirements. See Drawings S3.0 and S3.1 for required typical details.
  - See E6 / S3.0 for control joint requirements in basement (contractor to lay out C) locations not shown).
  - Each vertical step in footing shall be 2'-0" or less (see detail). Additional steps in footings may be required to accommodate 4'-0" frost protection and variations in final grades (see site plan).
  - Coordinate foundation dimensions and concrete elevations with architectural drawings except where specified otherwise on structural drawings.
  - Foundation shall not be backfilled until first floor framing and floor sheathing have been fully installed.
  - F1** indicates footing type. See B7 / S2.0 for footing schedule.
  - P1** indicates pier type. See schedule below for pier details.

MARK	DETAIL
P1	G8 / S3.1
P2	E10 / S3.1
P3	H8 / S3.1
P4	G1 / S3.1



**H1** FOUNDATION PLAN 1/4" = 1'-0"

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

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DAVID PRICE  
No. 6401  
LICENSED PROFESSIONAL ENGINEER

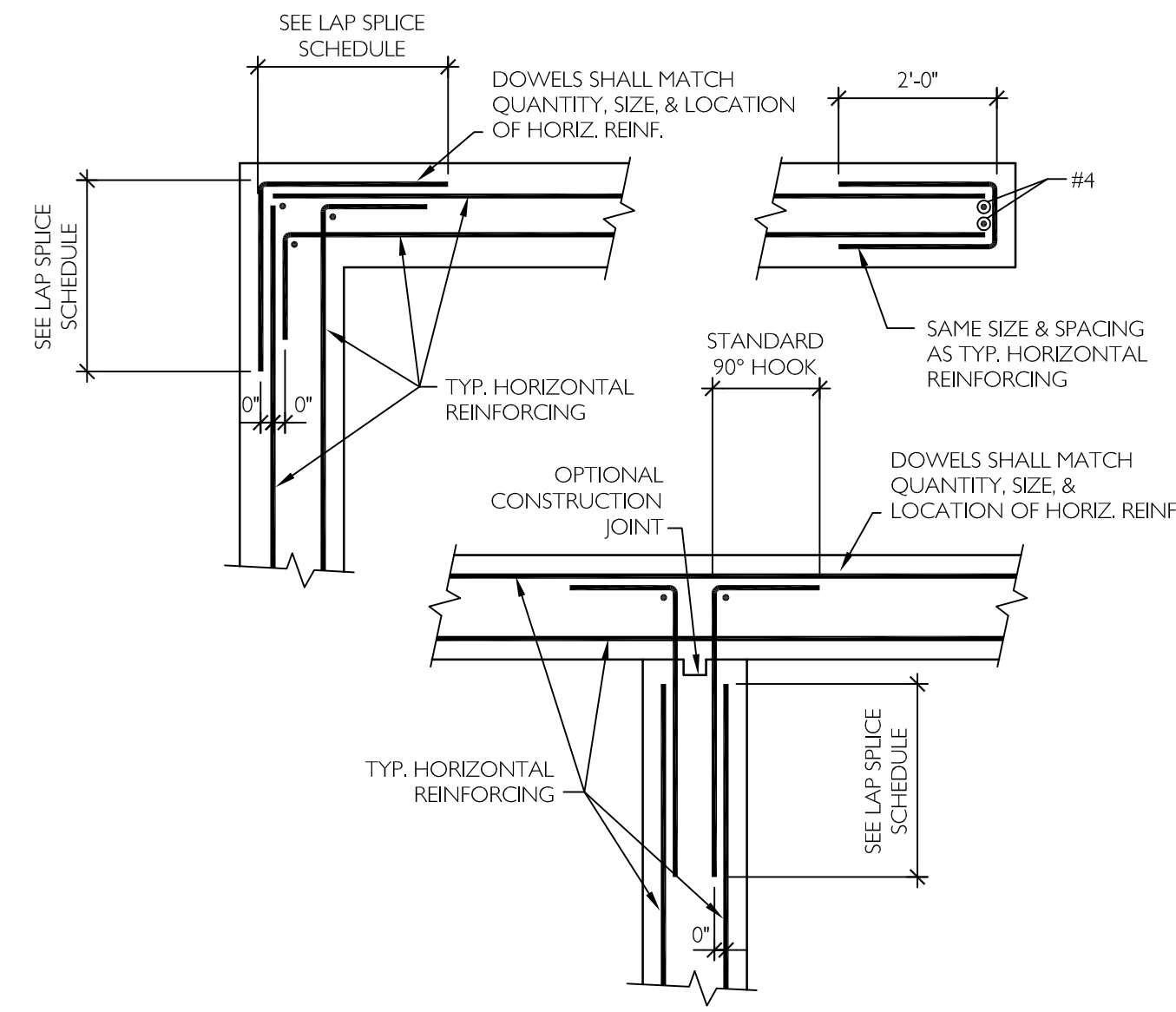
**Price**  
**Structural**  
**Engineers, Inc.**

75 farms edge road  
north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

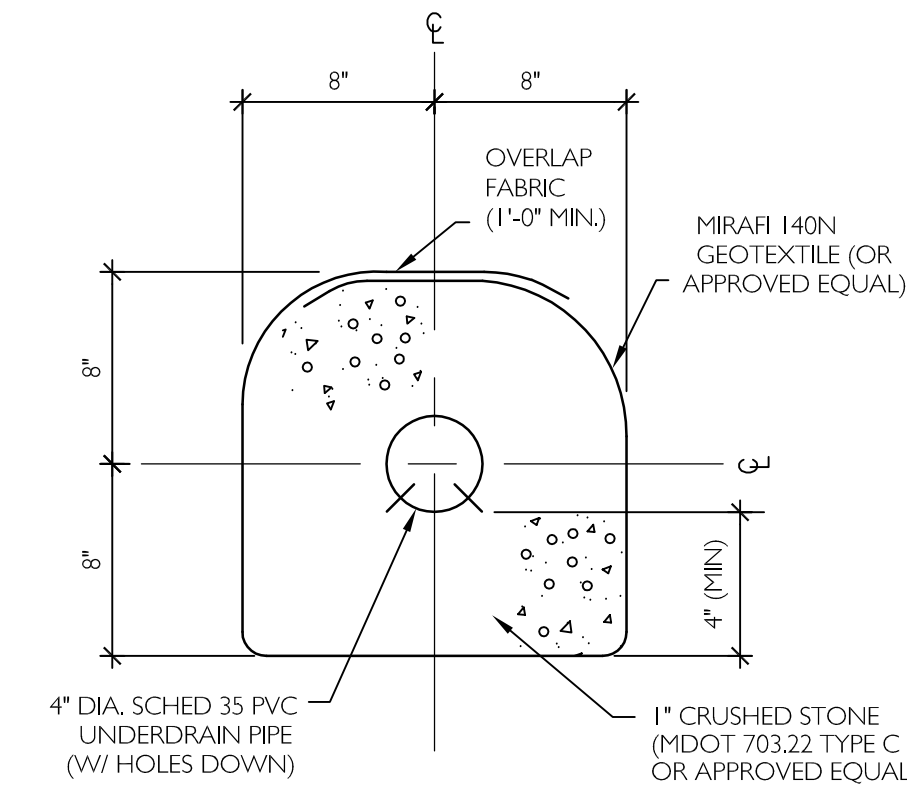
<p>NEW 3-UNIT BLDG. LEDMAN &amp; MYERS</p> <p>62 CUMBERLAND AVENUE PORTLAND, ME 04101</p>	<p>KAPLAN THOMPSON ARCHITECTS</p> <p>124 FORE STREET PORTLAND, ME 04101</p>
<p>SCALE AS NOTED</p> <p>ENGINEER: <b>DAP</b></p> <p>DATE: <b>8/8/10</b></p> <p>PROJECT NO.: <b>129-10</b></p>	<p>FOUNDATION PLAN</p> <p><b>S2.0</b></p>

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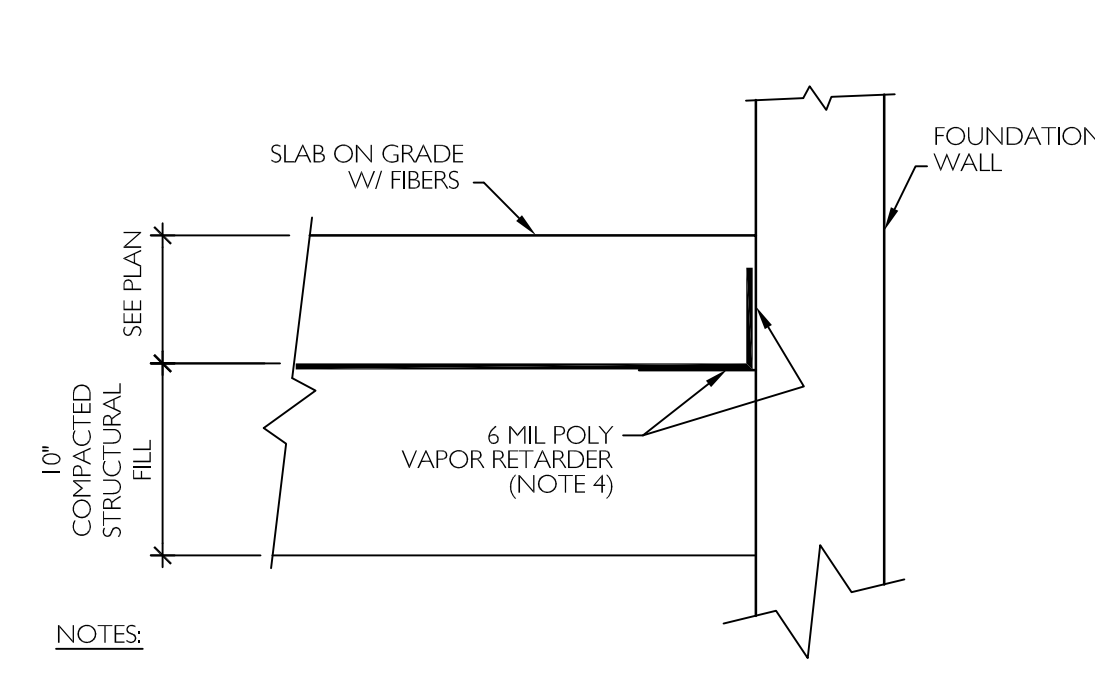


**C3**  
TYPICAL DETAILS AT WALL CORNERS AND INTERSECTIONS  
S3.0 NTS



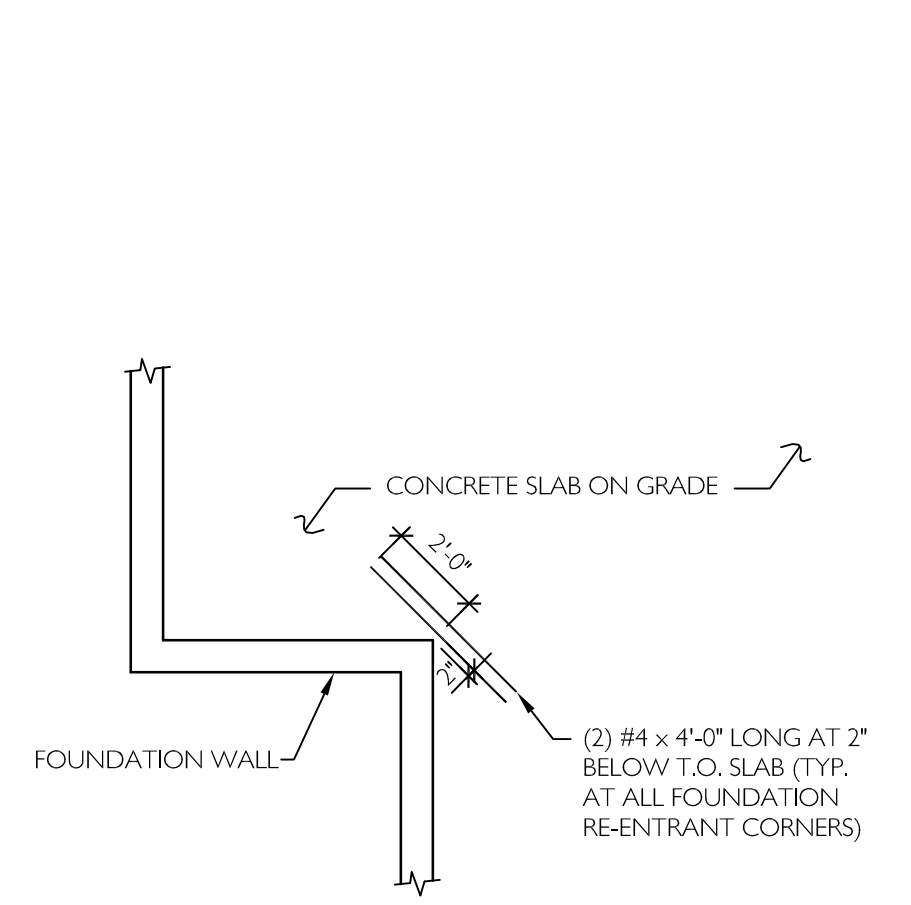
4" DIA. SCHED 35 PVC UNDERDRAIN PIPE (W/ HOLES DOWN)  
1" CRUSHED STONE (MDOT 703.22 TYPE C OR APPROVED EQUAL)  
MIRAFI 140N GEOTEXTILE (OR APPROVED EQUAL)  
OVERLAP FABRIC (1'-0" MIN.)

**C6**  
TYPICAL UNDERDRAIN (UD) DETAIL  
S3.0 NTS

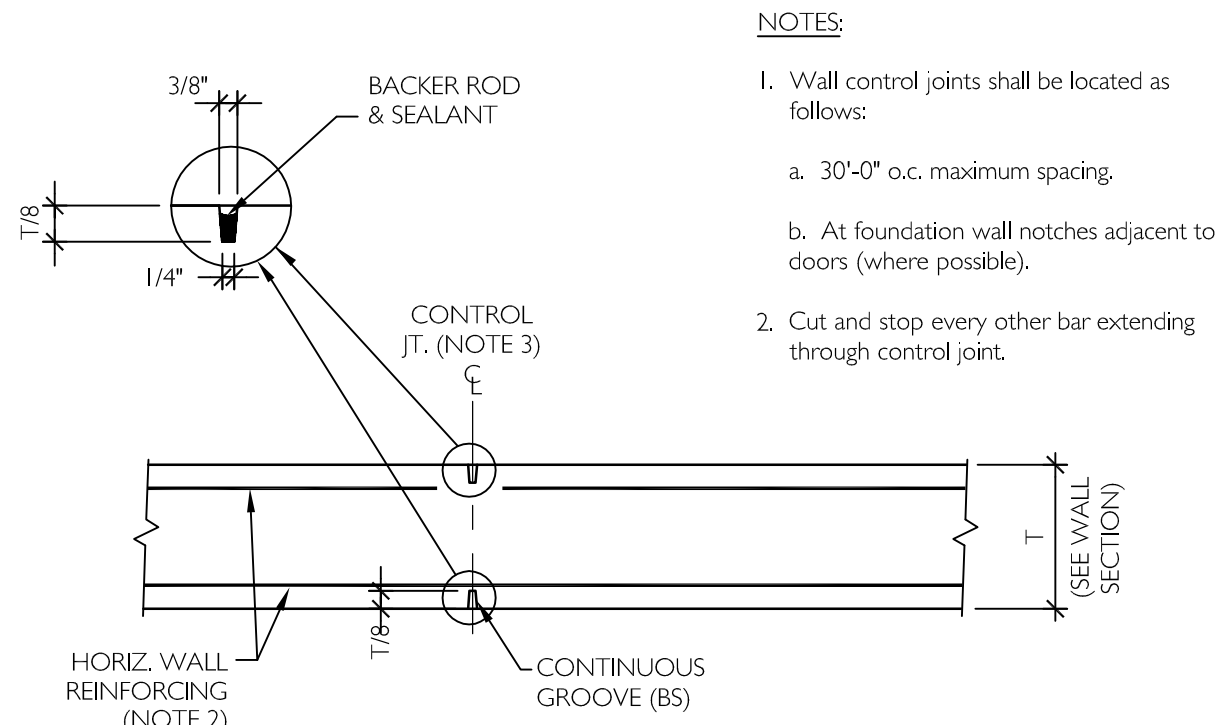


10' COMPACTED STRUCTURAL FILL  
6 MIL POLY VAPOR RETARDER (NOTE 4)  
SLAB ON GRADE W/ FIBERS  
FOUNDATION WALL

**C8**  
TYPICAL SLAB ON GRADE (SOG) DETAIL  
S3.0 NTS

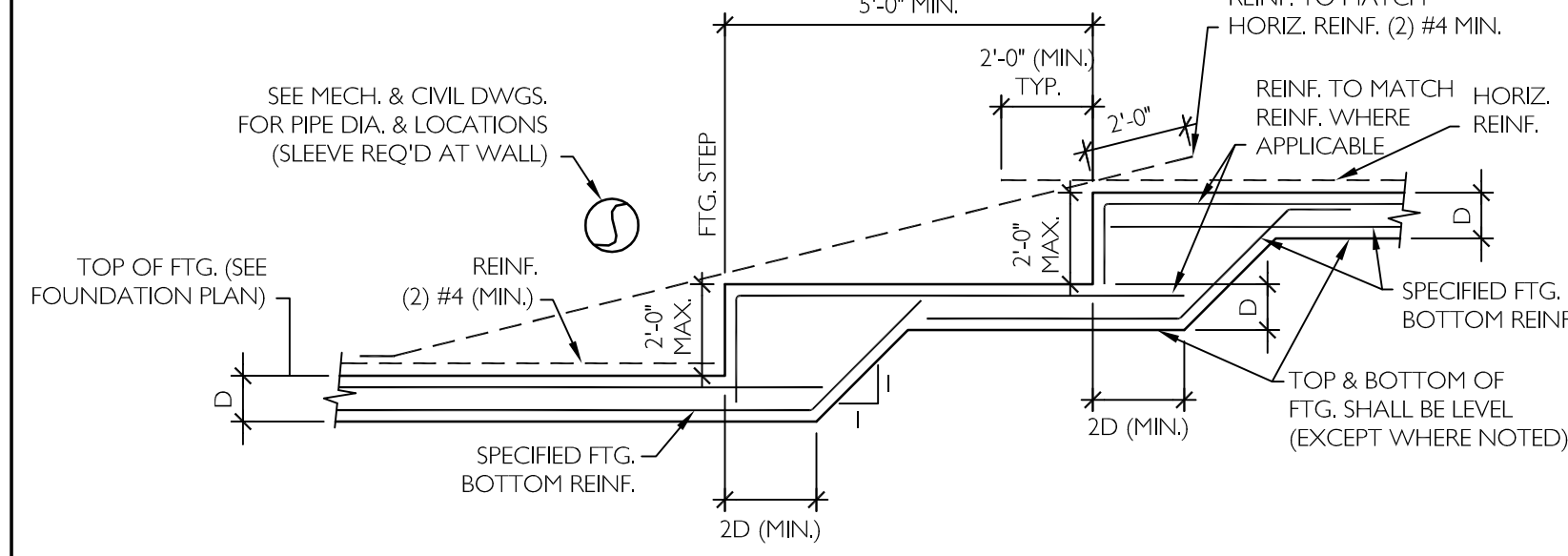


**C10**  
TYPICAL CONCRETE SLAB REINFORCEMENT AT FOUNDATION WALL RE-ENTRANT CORNERS  
S3.0 NTS



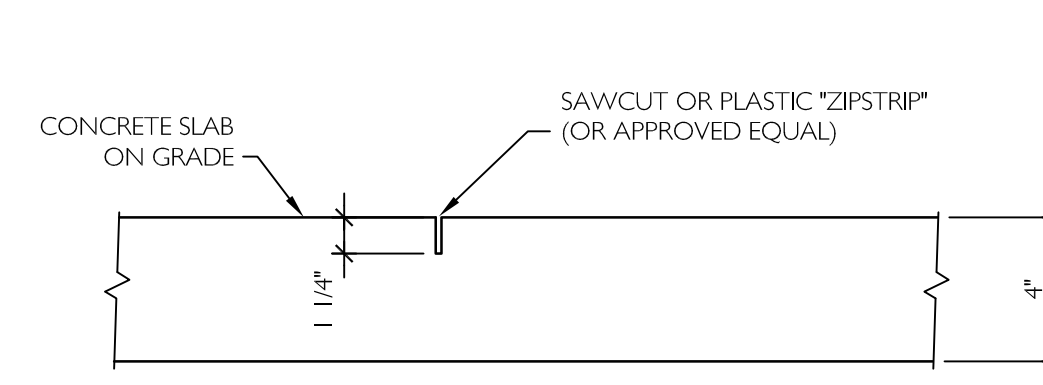
**NOTES:**  
1. Wall control joints shall be located as follows:  
a. 30'-0" o.c. maximum spacing  
b. At foundation wall notches adjacent to doors (where possible).  
2. Cut and stop every other bar extending through control joint.

**E1**  
TYPICAL FOUNDATION WALL CONTROL JOINT (CJ)  
S3.0 NTS



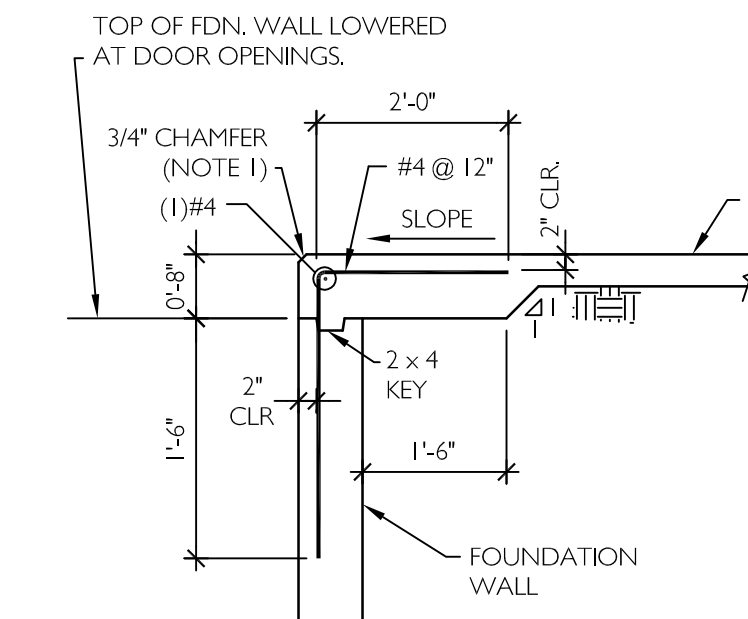
**NOTE:**  
Step the footing where necessary to accommodate footing frost depth requirements.

**E3**  
TYPICAL ELEVATION OF STEPPED WALL FOOTING DETAIL  
S3.0 NTS



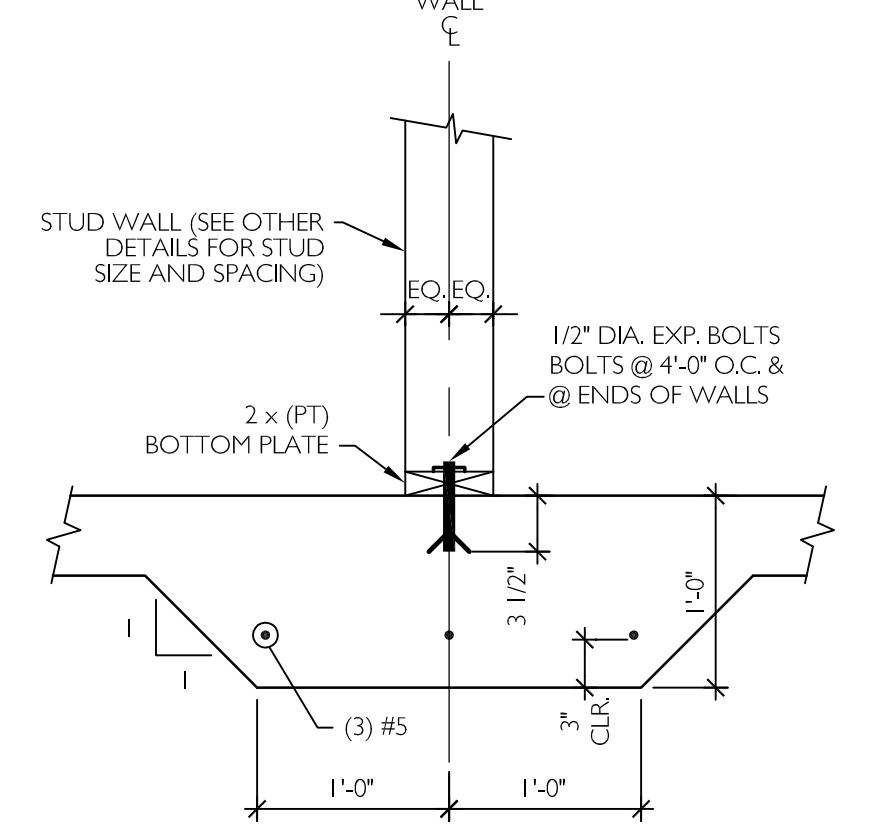
**NOTES:**  
1. Control joints shall be straight ( $\pm 1/4"$  tolerance).  
2. Spacing between control joints shall not exceed 15'-0" o.c. (UON).  
3. Sawcut control joints shall be cut within 12 hours after concrete placement but shall not dislodge aggregate during cutting.

**E6**  
TYPICAL CONCRETE SLAB CONTROL JOINT  
S3.0 NTS

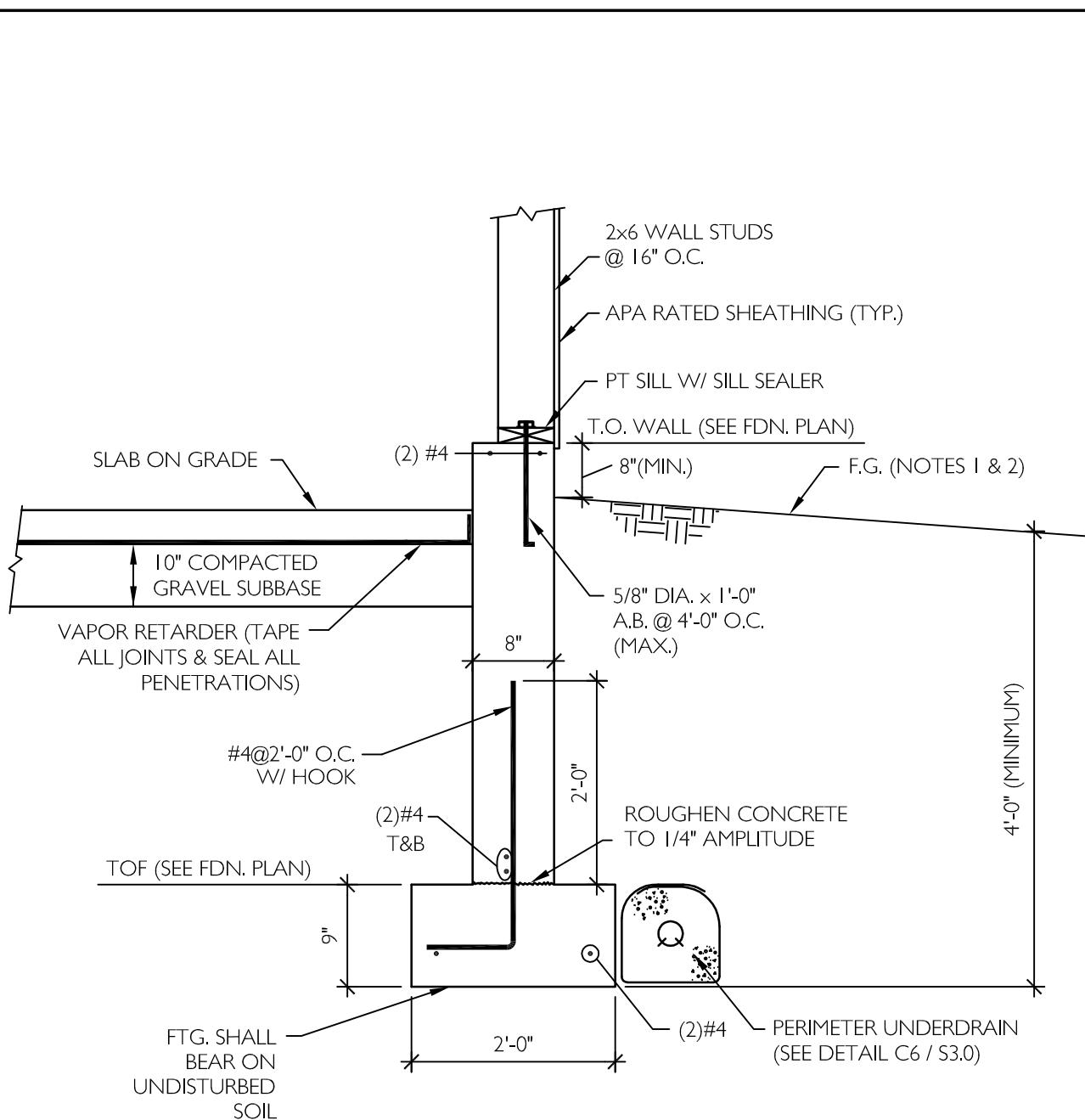


**NOTES:**  
1. Omit chamfer if required by door threshold and at section labeled "S1M".  
2. Detail typical at doors (UON).

**E9**  
SECTION  
S3.0 NTS

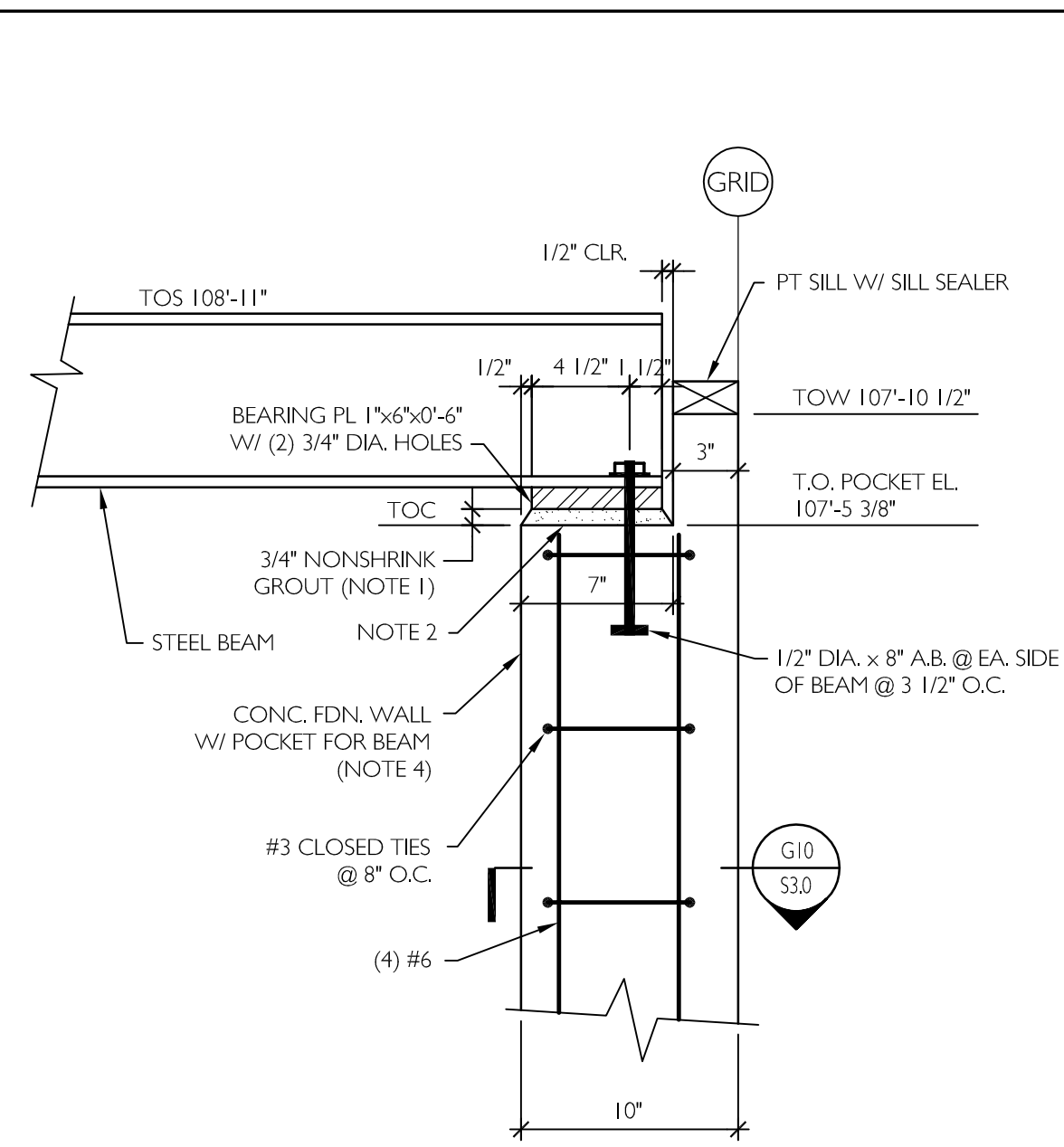


**E10**  
SECTION  
S3.0 NTS



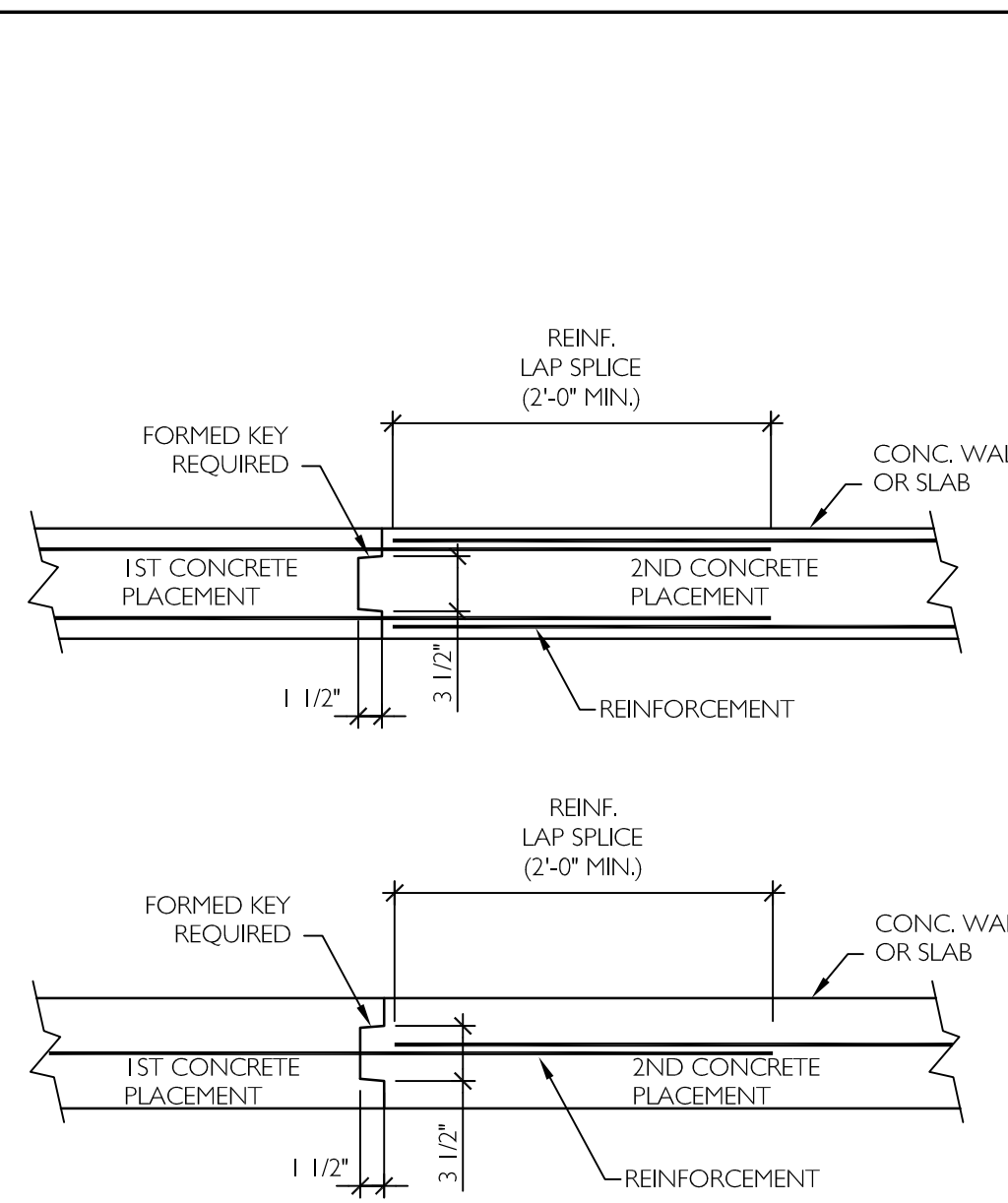
**NOTES:**  
1. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of 1/2" vertical to 12" horizontal for a minimum distance of 8'-0". This condition shall exist after settlement of backfill has occurred.  
2. If top of final grade is more than 1'-6" below top of slab, contact Price Structural Engineers immediately for revised foundation wall design.

**H1**  
SECTION  
S3.0 NTS



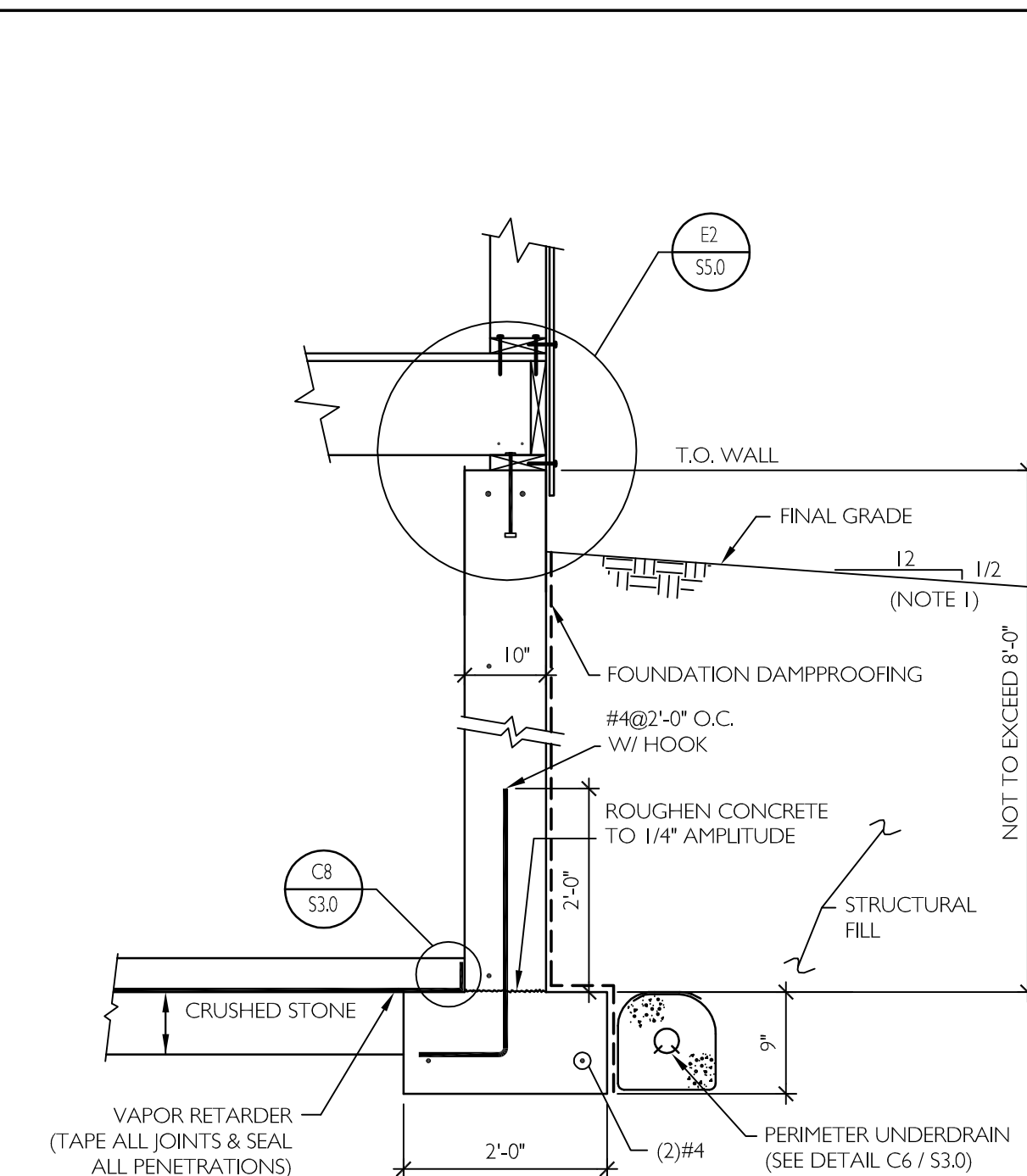
**NOTES:**  
1. Nonshrink grout shall be 5000 psi "NS Grout" by Eucld Company or approved equal.  
2. Provide holes in formwork bondouts to eliminate air pockets in wet concrete.  
3. Pocket shall be 7" x 7".  
4. See other details for wall reinforcement.

**H9**  
SECTION  
S3.0 NTS



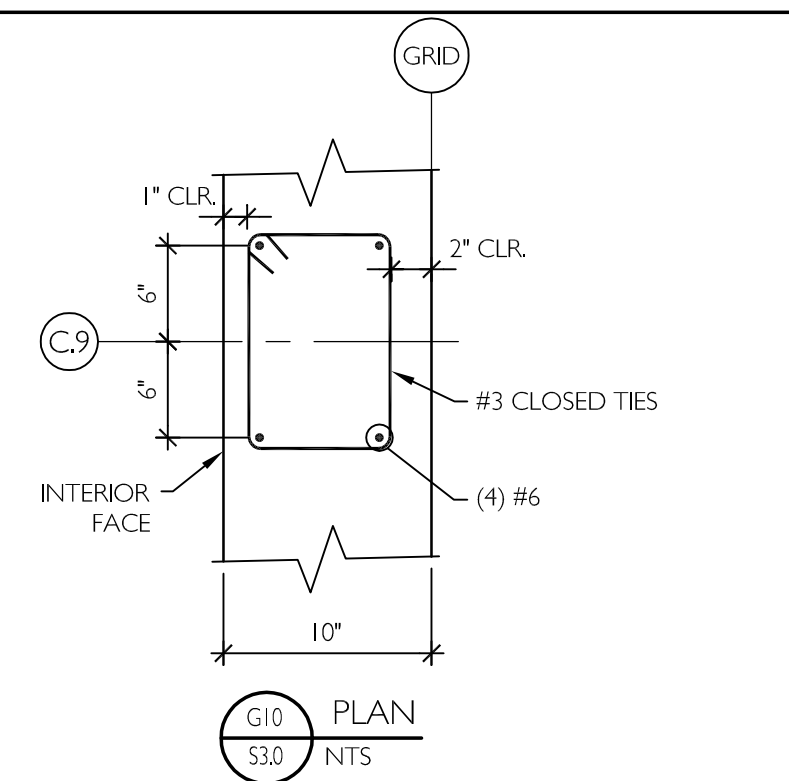
**NOTES:**  
1. It is mandatory that exposed reinforcement from first placement be thoroughly cleaned prior to second placement.  
2. Face of hardened concrete shall be moistened (without ponding) immediately prior to second concrete placement.  
3. Locate wall construction joints at wall control joint locations - see Detail E1 / S3.0. At basement and retaining walls, provide sealant at both sides of wall in accordance with Detail C12 / 4.

**H6**  
TYPICAL CONSTRUCTION JOINT IN WALL OR SLAB  
S3.0 NTS

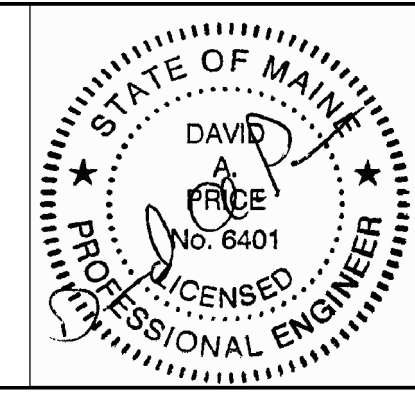


**NOTES:**  
1. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of 1/2" vertical to 12" horizontal for a minimum distance of 8'-0". This condition shall exist after settlement of backfill has occurred.

**H8**  
SECTION  
S3.0 NTS



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**Price Structural Engineers, Inc.**

75 farms edge road  
north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

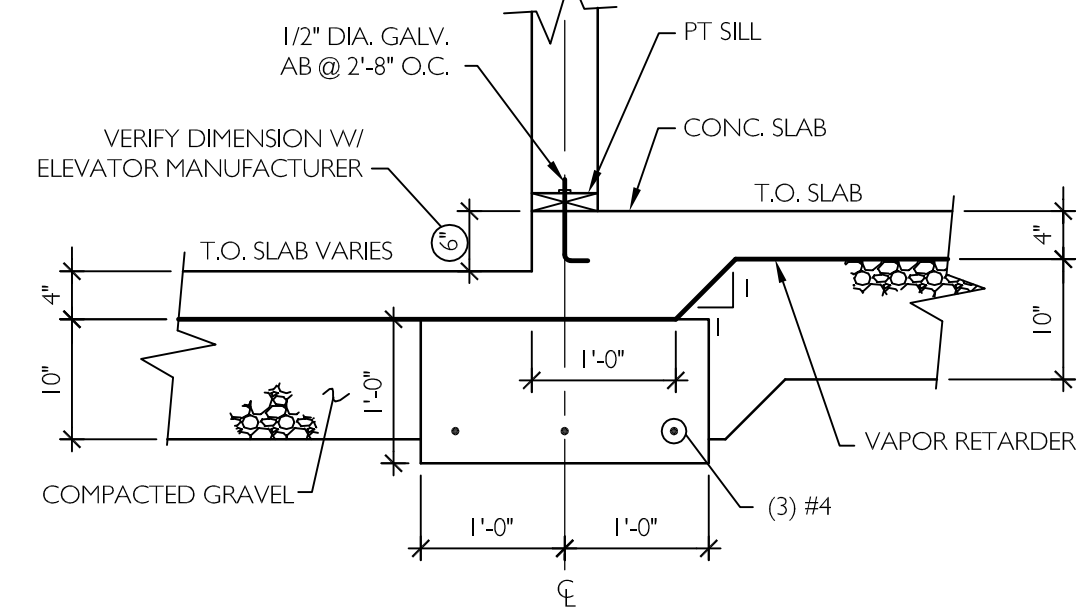
**NEW 3-UNIT BLDG.  
LEDMAN & MYERS**  
62 CUMBERLAND AVENUE  
PORTLAND, ME 04101

**KAPLAN THOMPSON ARCHITECTS**  
124 FORE STREET  
PORTLAND, ME 04101

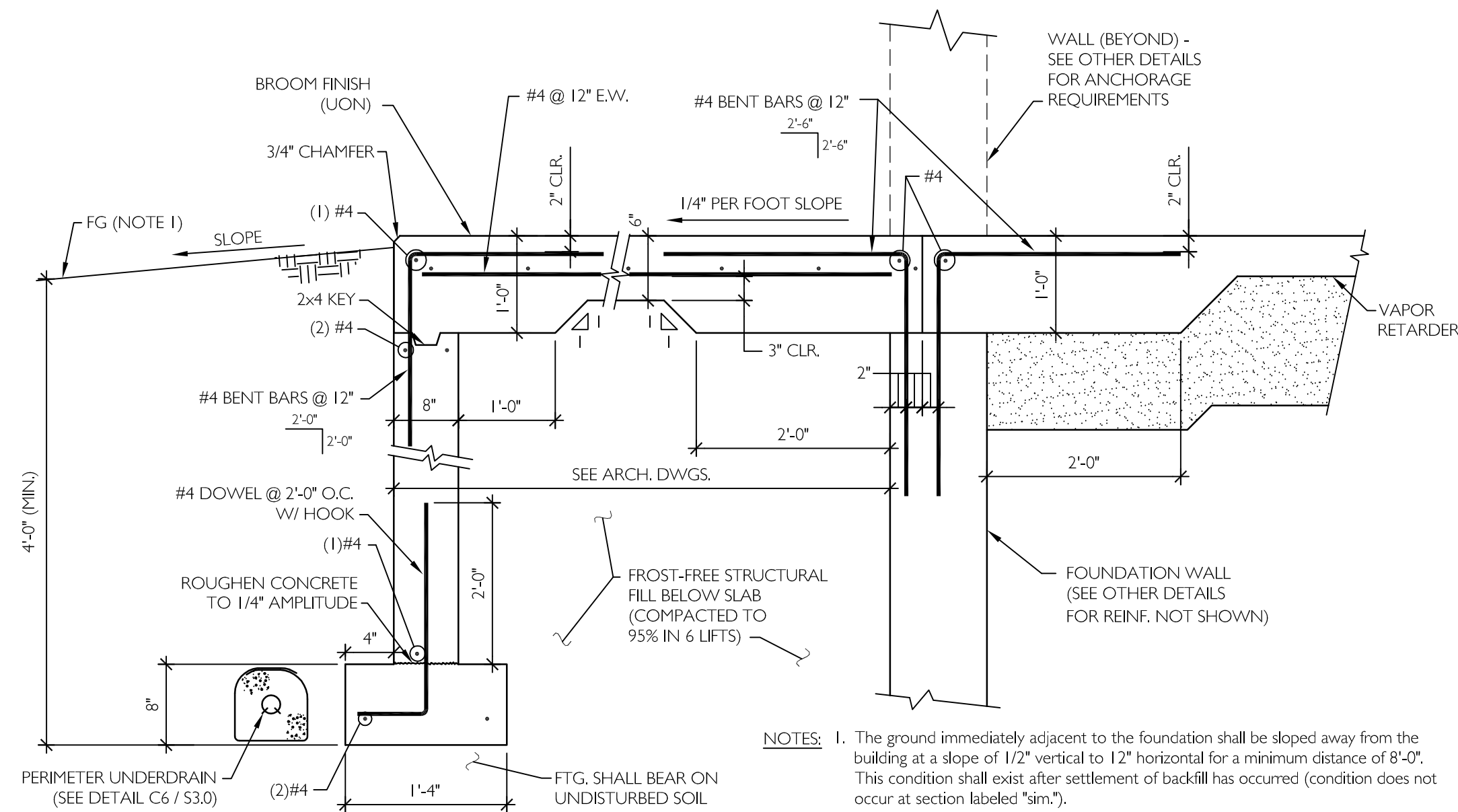
SCALE **AS NOTED**  
ENGINEER: **DAP**  
DATE: **8/8/10**  
PROJECT NO.: **129-10**

**FOUNDATION DETAILS**  
**S3.0**





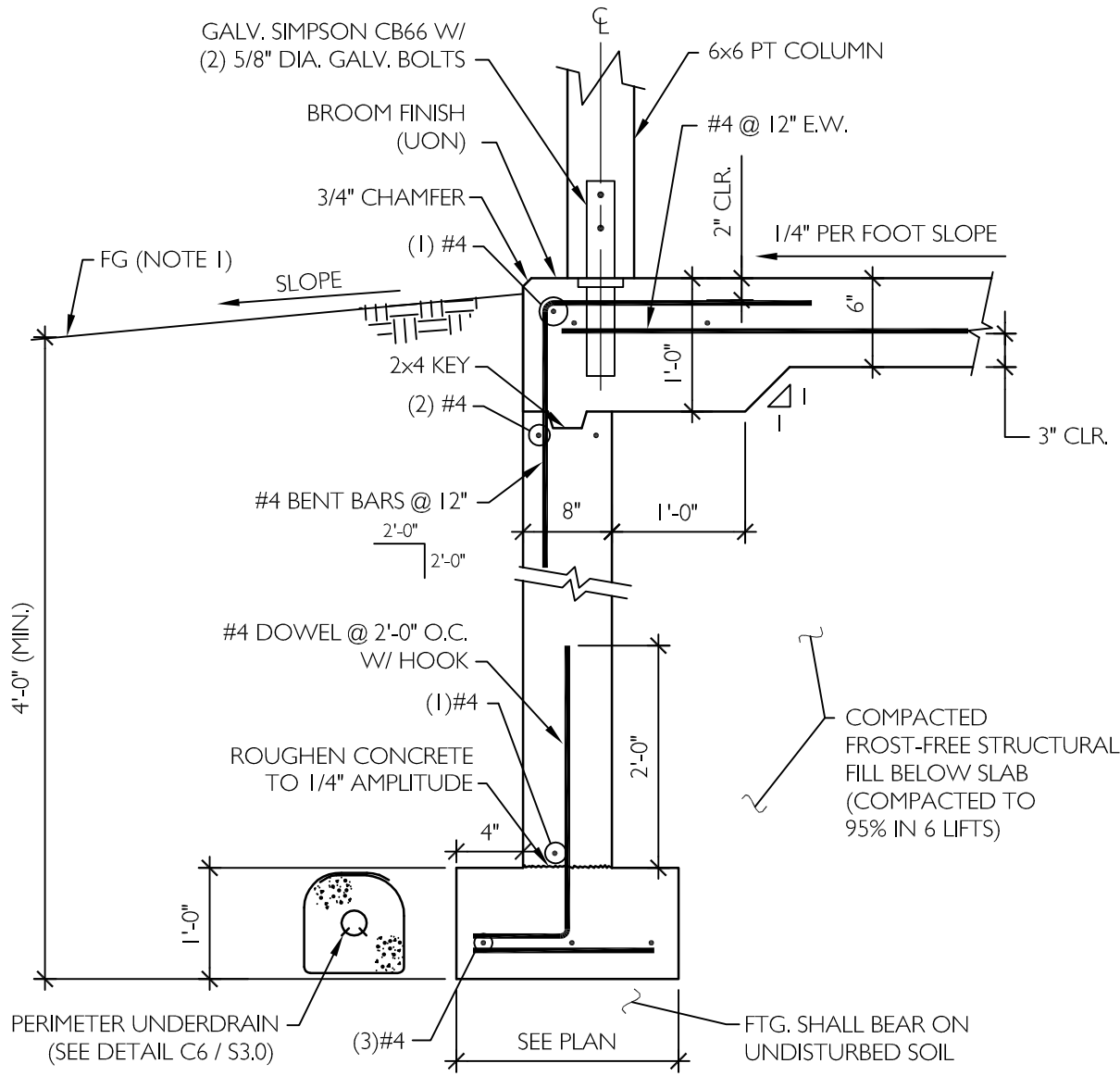
C1 SECTION  
S3.1 NTS



C4 SECTION  
S3.1 NTS

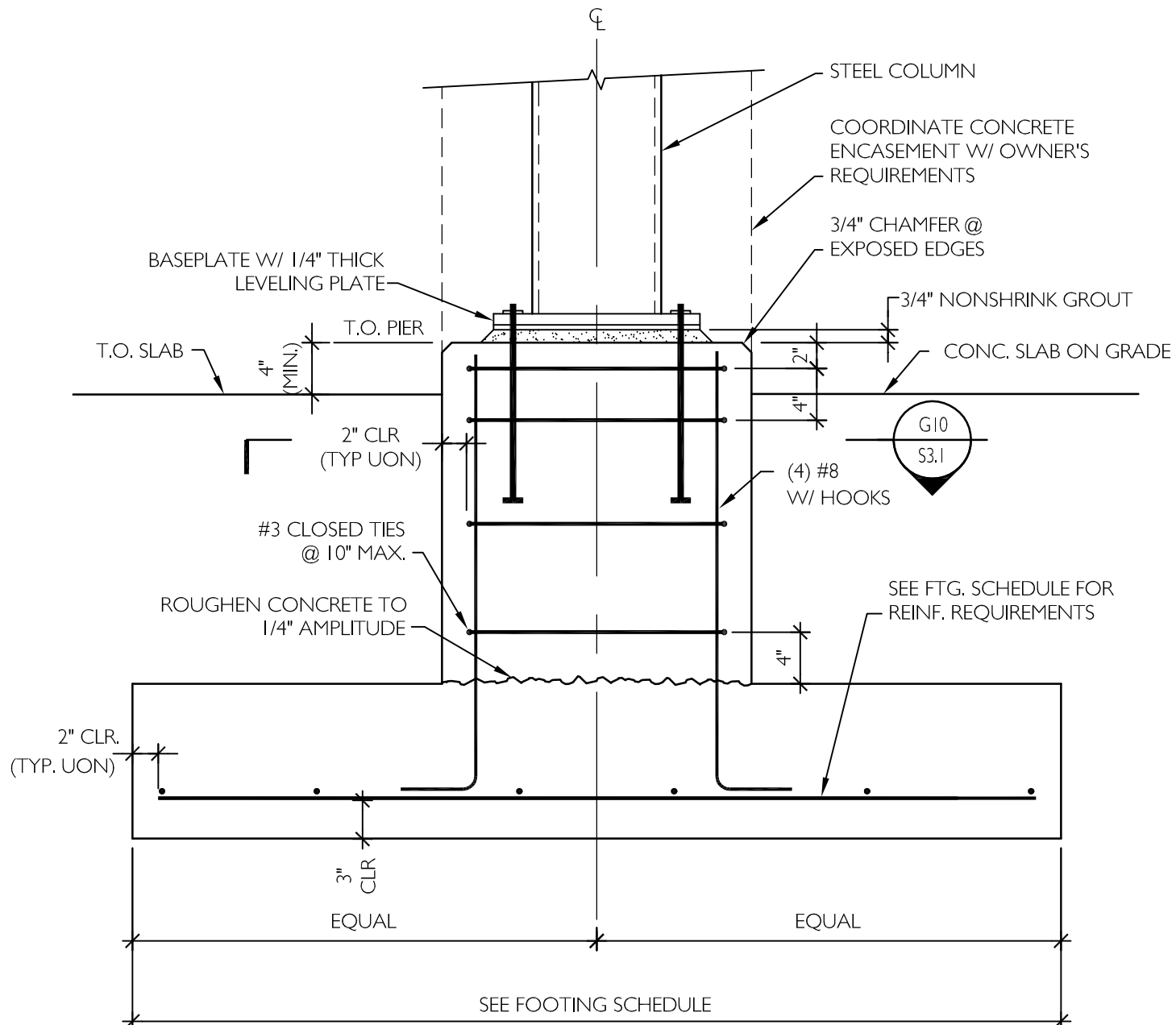
**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

UNDER NO CIRCUMSTANCES  
SHALL THIS DRAWING BE USED  
FOR BIDS, DEVELOPMENT OF  
SHOP DRAWINGS, OR  
FABRICATION OF NEW MATERIALS.

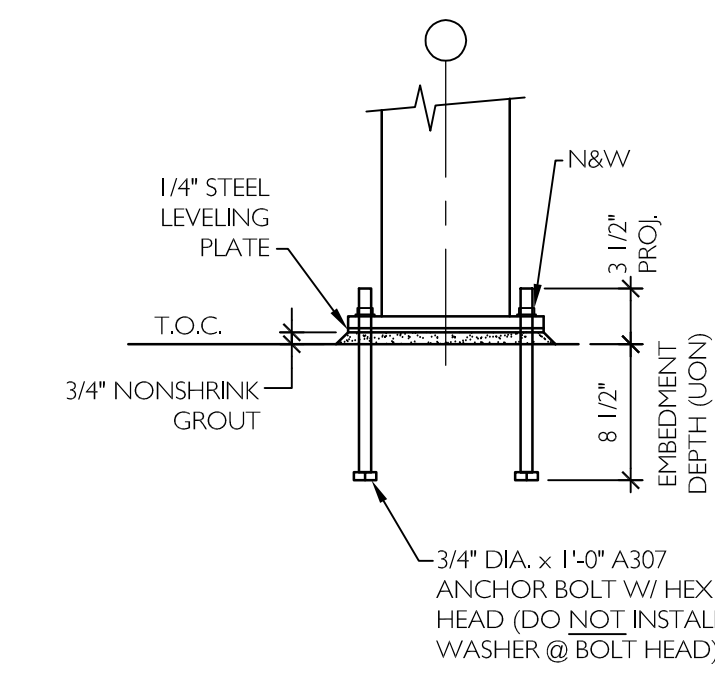


NOTES: 1. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of 1/2" vertical to 12" horizontal for a minimum distance of 8'-0". This condition shall exist after settlement of backfill has occurred (condition does not occur at section labeled "sim").

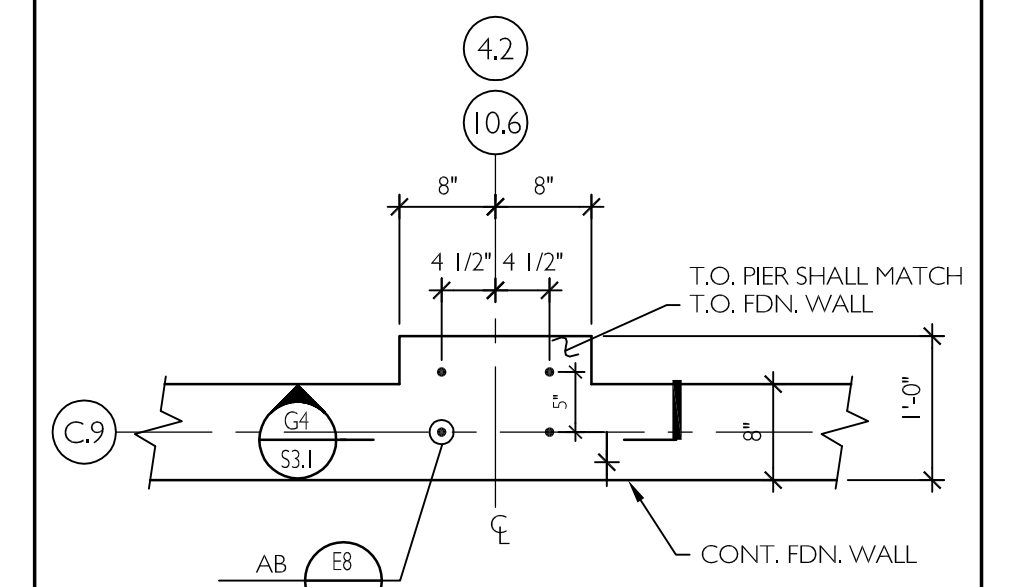
G1 SECTION  
S3.1 NTS



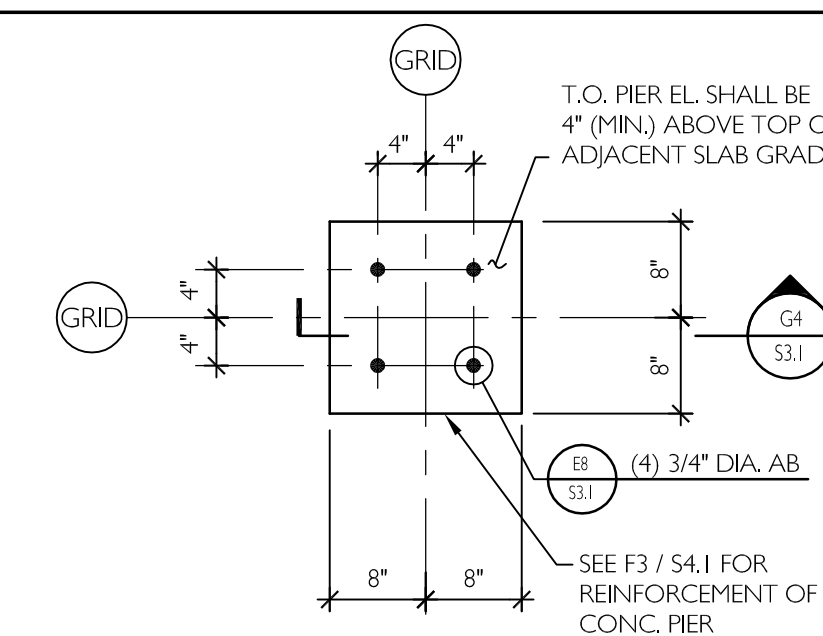
G4 SECTION  
S3.1 1" = 1'-0"



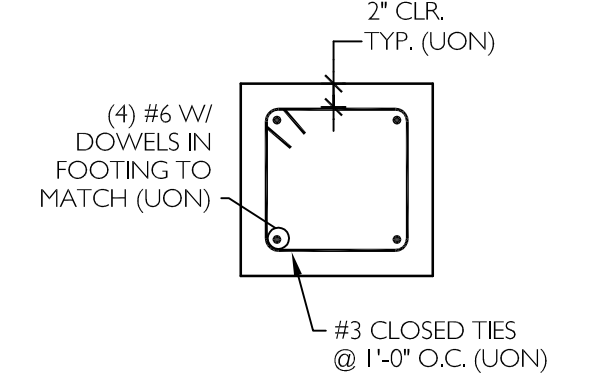
TYPE I ANCHOR BOLT  
S3.1 1" = 1'-0"



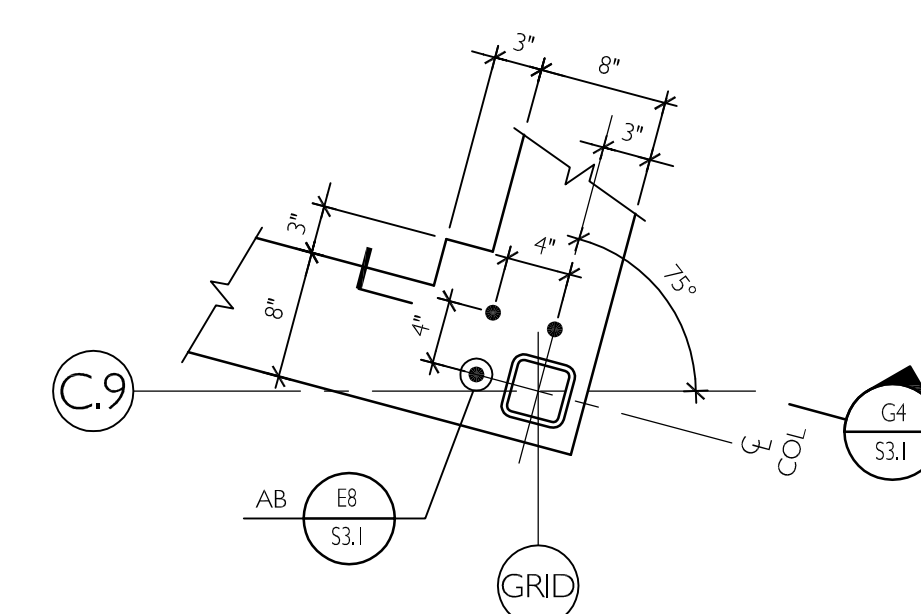
TYPE P2 PIER PLAN  
S3.1 NTS



TYPE P1 PIER PLAN  
S3.1 NTS

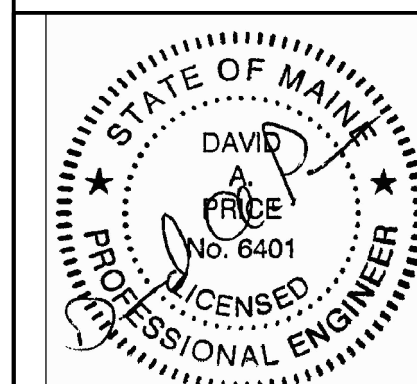


PIER PLAN  
S3.1 NTS



TYPE P3 PIER  
S3.1 1" = 1'-0"

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**Price**  
**Structural**  
**Engineers, Inc.**

75 farms edge road  
north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

NEW 3-UNIT BLDG.  
LEDMAN & MYERS  
62 CUMBERLAND AVENUE  
PORTLAND, ME 04101

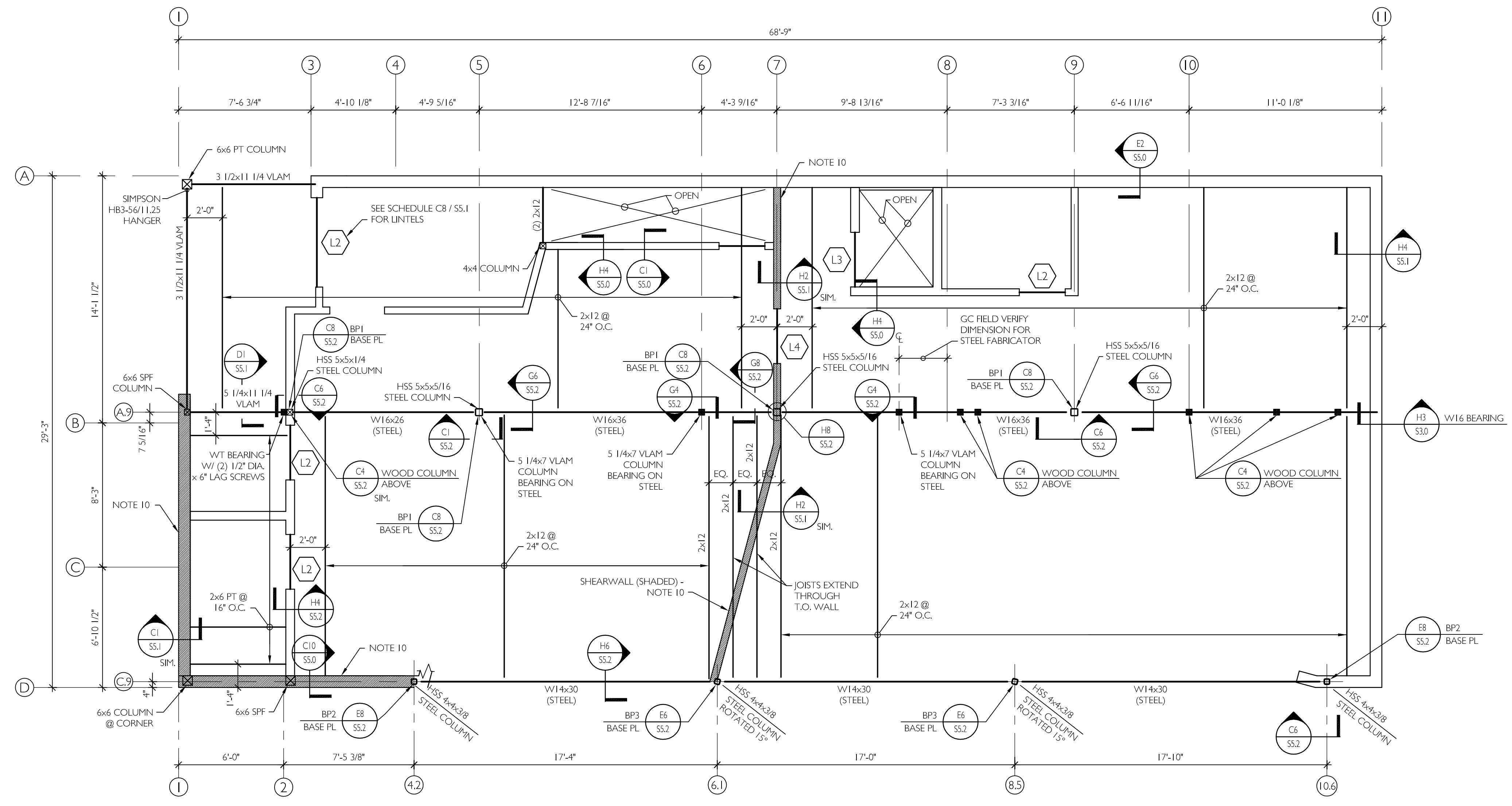
**KAPLAN THOMPSON**  
**ARCHITECTS**  
124 FORE STREET  
PORTLAND, ME 04101

SCALE AS NOTED  
ENGINEER: DAP  
DATE: 8/8/10  
PROJECT NO.: 129-10

FOUNDATION DETAILS

**S3.1**





H1 540 FIRST FLOOR FRAMING PLAN 1/4" = 1'-0"  
WALLS SHOWN EXTEND BETWEEN BASEMENT & 1ST FLOOR

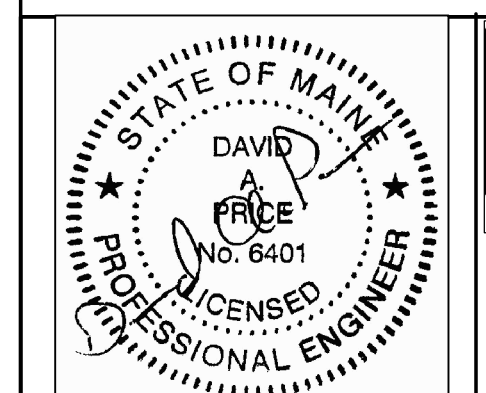
- NOTES:**
1. See Drawing S1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
  2. Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate.
  3. Spacing of floor framing materials shall not exceed 24" on center. Add additional joists and other components as necessary to accommodate this requirement.
  4. PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have Z-MAX finish (typ.)
  5. See Detail C6 / S5.2 for typical steel beam to steel column connections.
  6. See Arch. Dwg. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 50 pounds per lineal foot applied in any direction at the top of rail (typical at guard rails).
  7. Beams shall be flush framed with floor joists, typical (UON).
  8. The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
  9. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
  10. Shearwalls (shown shaded) shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
  11. Top of Steel ("TOS") shall be El. 108'-11" unless noted otherwise by a "\*" or "\*" from this elevation (G.C. shall verify this elevation prior to steel fabrication).
  12. Add additional framing as necessary to support garage door components in accordance with building code and manufacturer's requirements.

- KEY**
- Post bearing on beam or lintel
  - ⊠ Column between basement floor & 1st floor
  - ⬡ Lintel (see C8 / S5.1 for typical lintel framing)

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

ISSUED FOR PERMIT ONLY 8/18/10



**Price Structural Engineers, Inc.**

75 farms edge road  
north yarmouth, maine 04097  
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fax 207 846 1633

**NEW 3-UNIT BLDG.**  
LEDMAN & MYERS

62 CUMBERLAND AVENUE  
PORTLAND, ME 04101

**KAPLAN THOMPSON ARCHITECTS**

124 FORE STREET  
PORTLAND, ME 04101

SCALE **AS NOTED**

ENGINEER: **DAP**

DATE: **8/8/10**

PROJECT NO.: **129-10**

**FIRST FLOOR FRAMING PLAN**

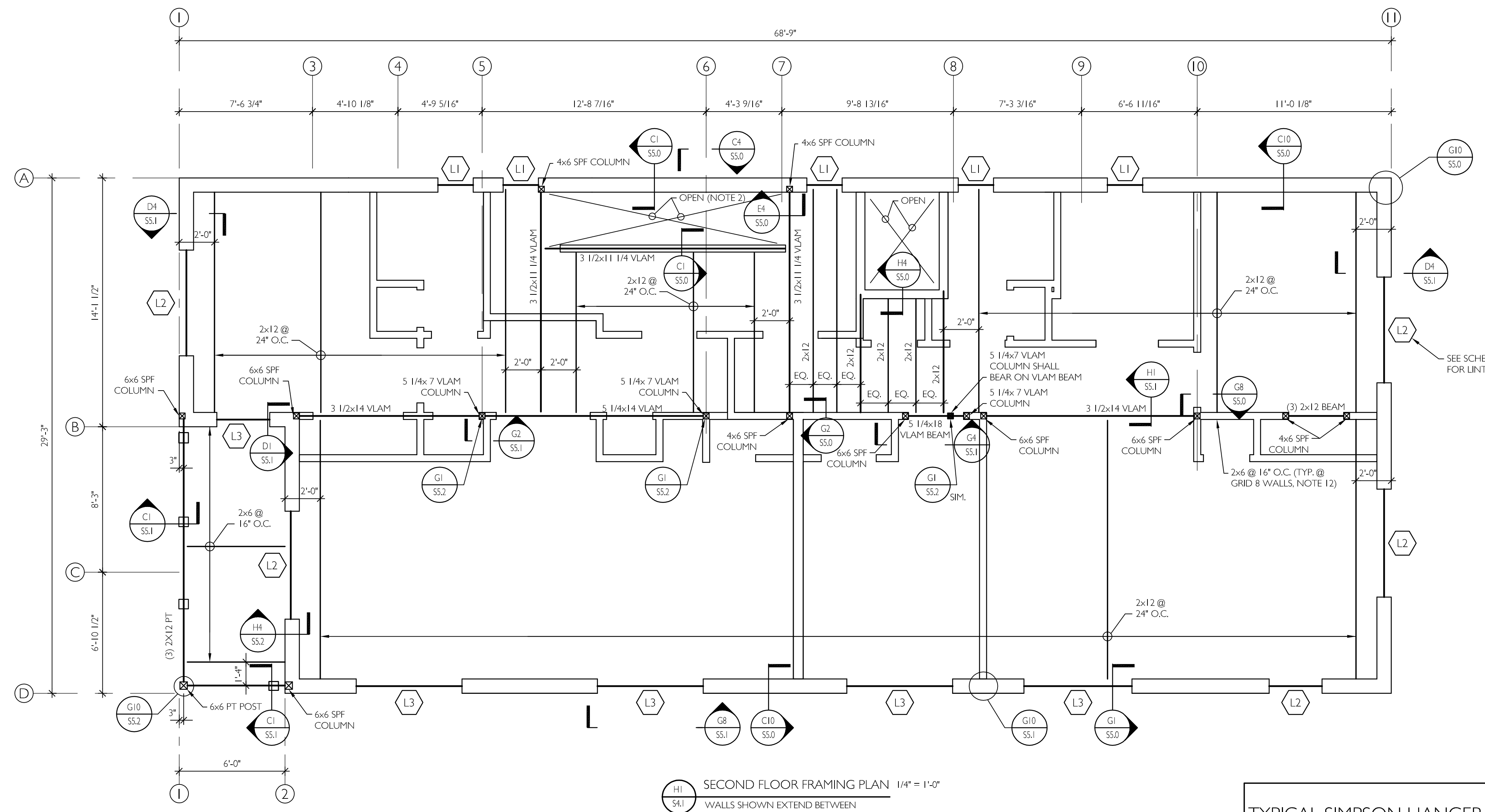
**S4.0**

**NOTES:**

- See Drawing S1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
- Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate.
- Spacing of floor framing materials shall not exceed 24" on center. Add additional joists and other components as necessary to accommodate this requirement.
- PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX finish (typ).
- Align column centerlines with columns above, typical. Add post within floor cavity between columns, typical (see H6 / S5.0).
- See Arch. Dvgs. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 20 pounds per lineal foot applied in any direction at the top of rail (typical at all guard rails).
- Beams shall be flush framed with floor joists, typical (UON).
- The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
- Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
- Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
- Interior walls parallel to floor joist span shall be supported by either double joists centered below wall or solid lumber blocking spanning between joists (spacing blocking @ 2'-8" o.c.), typical (UON).
- Interior wall segments located 6' northeast of grid B shall be framed with 2x6 studs @ 16" o.c.

**KEY**

- Post bearing on beam or lintel
- ⊠ Column between 1st floor and 2nd floor
- ⬡ Lintel (see G8 / S5.1 for typical lintel framing)



**SECOND FLOOR FRAMING PLAN** 1/4" = 1'-0"  
WALLS SHOWN EXTEND BETWEEN 1ST FLOOR AND 2ND FLOOR

**TYPICAL SIMPSON HANGER SCHEDULE (UON)**

MEMBER	SIMPSON HANGER	FASTENERS
(1) 2x6	LUS26-Z (FACE MOUNT)	10d NAILS
(1) 2x12	LUS-210 (FACE MOUNT)	10d NAILS
(2) 2x12	HU212-2 (FACE MOUNT)	16d NAILS
(3) 2x12	HU212-3 (FACE MOUNT)	16d NAILS
3 1/2 x 11 1/4 VLAM	HB3.56/11.25 (TOP FLANGE)	16d NAILS

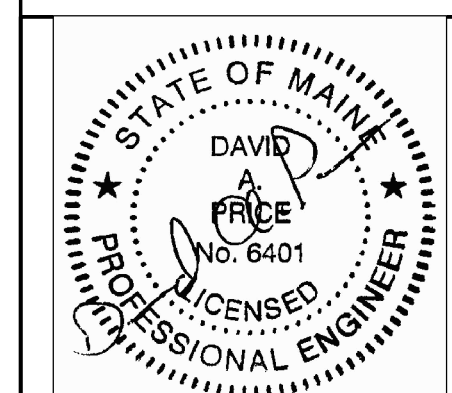
NOTE: All holes in Simpson Hangers shall have fasteners. Contact PSE if additional guidance is needed.

**SIMPSON HANGER SCHEDULE**

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

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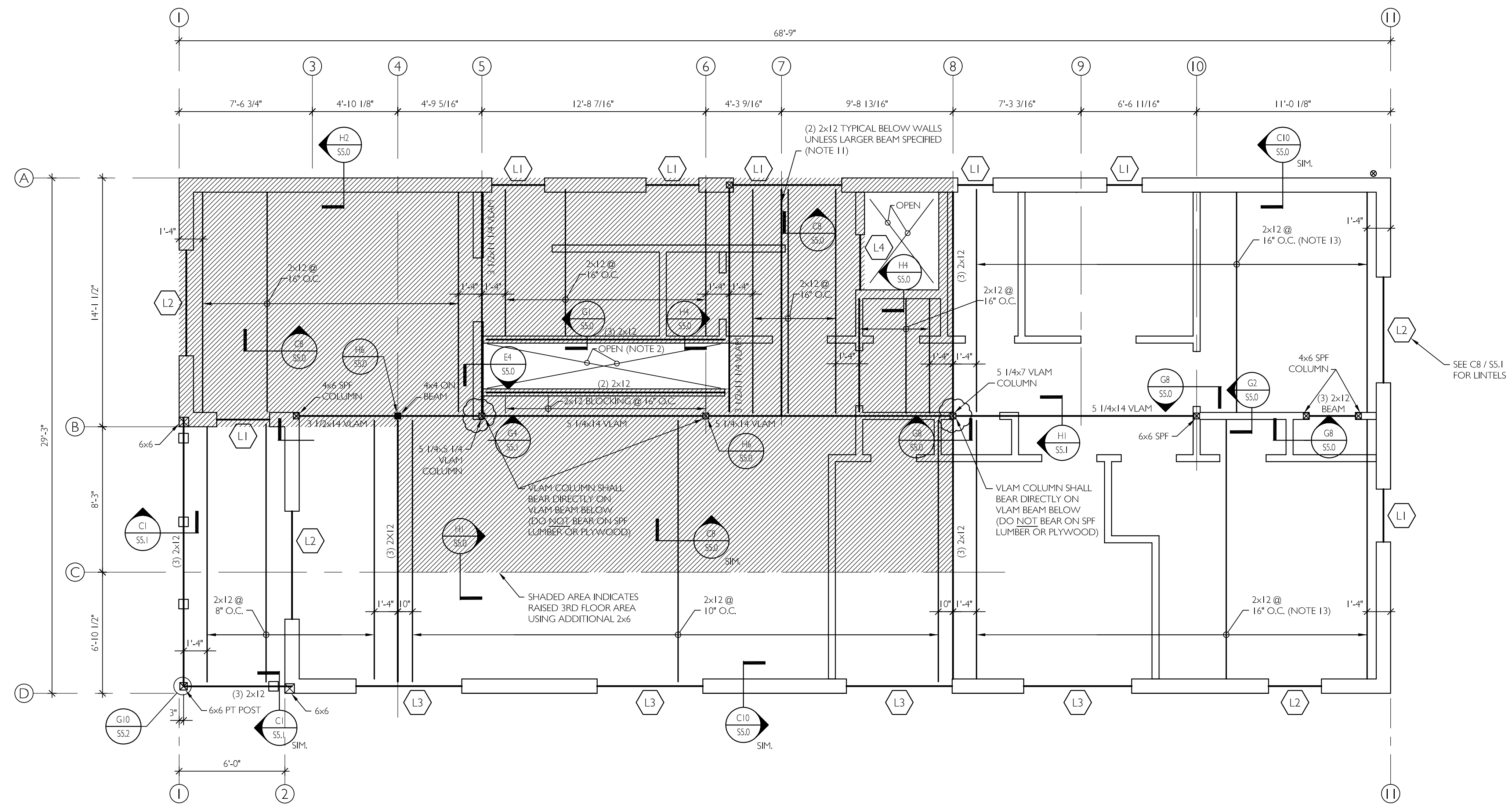
75 farms edge road  
north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

**NEW 3-UNIT BLDG.**  
LEDMAN & MYERS  
62 CUMBERLAND AVENUE  
PORTLAND, ME 04101

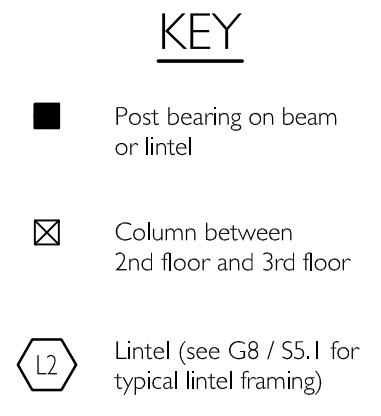
**KAPLAN THOMPSON ARCHITECTS**  
124 FORE STREET  
PORTLAND, ME 04101

SCALE **AS NOTED**  
ENGINEER: **DAP**  
DATE: **8/8/10**  
PROJECT NO.: **129-10**

**SECOND FLOOR FRAMING PLAN**  
**S4.1**



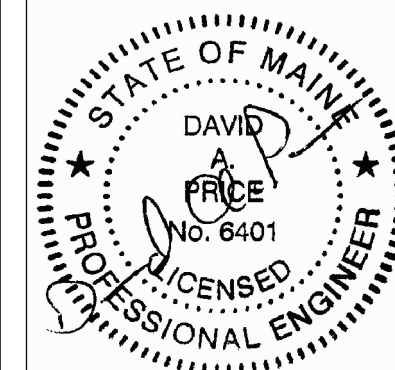
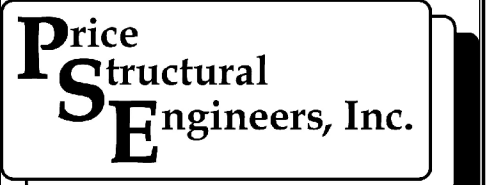
- NOTES**
- See Drawing S1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
  - Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate.
  - Spacing of floor framing materials shall not exceed 16" on center (UON). Add additional joists and other components as necessary to accommodate this requirement.
  - PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX finish (typ).
  - Align column centerlines with columns above, typical. Add post within floor cavity between columns, typical (see H6 / S5.0).
  - See Arch. Dwgs. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 20 pounds per lineal foot applied in any direction at the top of rail (typical at all guard rails).
  - Beams shall be flush framed with floor joists, typical (UON).
  - The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
  - Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ).
  - Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
  - Interior walls parallel to floor joist span shall be supported by either double joists centered below wall or solid lumber blocking spanning between joists (spacing blocking @ 2'-8" o.c.), typical (UON).
  - Interior wall segments located 6" northeast of grid B shall be framed with 2x6 studs @ 16" o.c.
  - Roof mounted equipment, including solar panels, shall be supported by a minimum of (2) 2x12 rafters face nailed together. Notify PSE if equipment load exceeds 300 lbs. at any rafter connection.



**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

H1  
S4.2  
THIRD FLOOR & LOW ROOF FRAMING PLAN 1/4" = 1'-0"  
WALLS SHOWN EXTEND BETWEEN 2ND FLOOR & 3RD FLOOR

ISSUED FOR PERMIT ONLY		8/18/10
		
NEW 3-UNIT BLDG. LEDMAN & MYERS 62 CUMBERLAND AVENUE PORTLAND, ME 04101		KAPLAN THOMPSON ARCHITECTS 124 FORE STREET PORTLAND, ME 04101
SCALE	AS NOTED	<b>THIRD FLOOR &amp; LOW ROOF FRAMING PLAN</b>  <b>S4.2</b>
ENGINEER:	DAP	
DATE:	8/8/10	
PROJECT NO.:	129-10	





**NOTES**

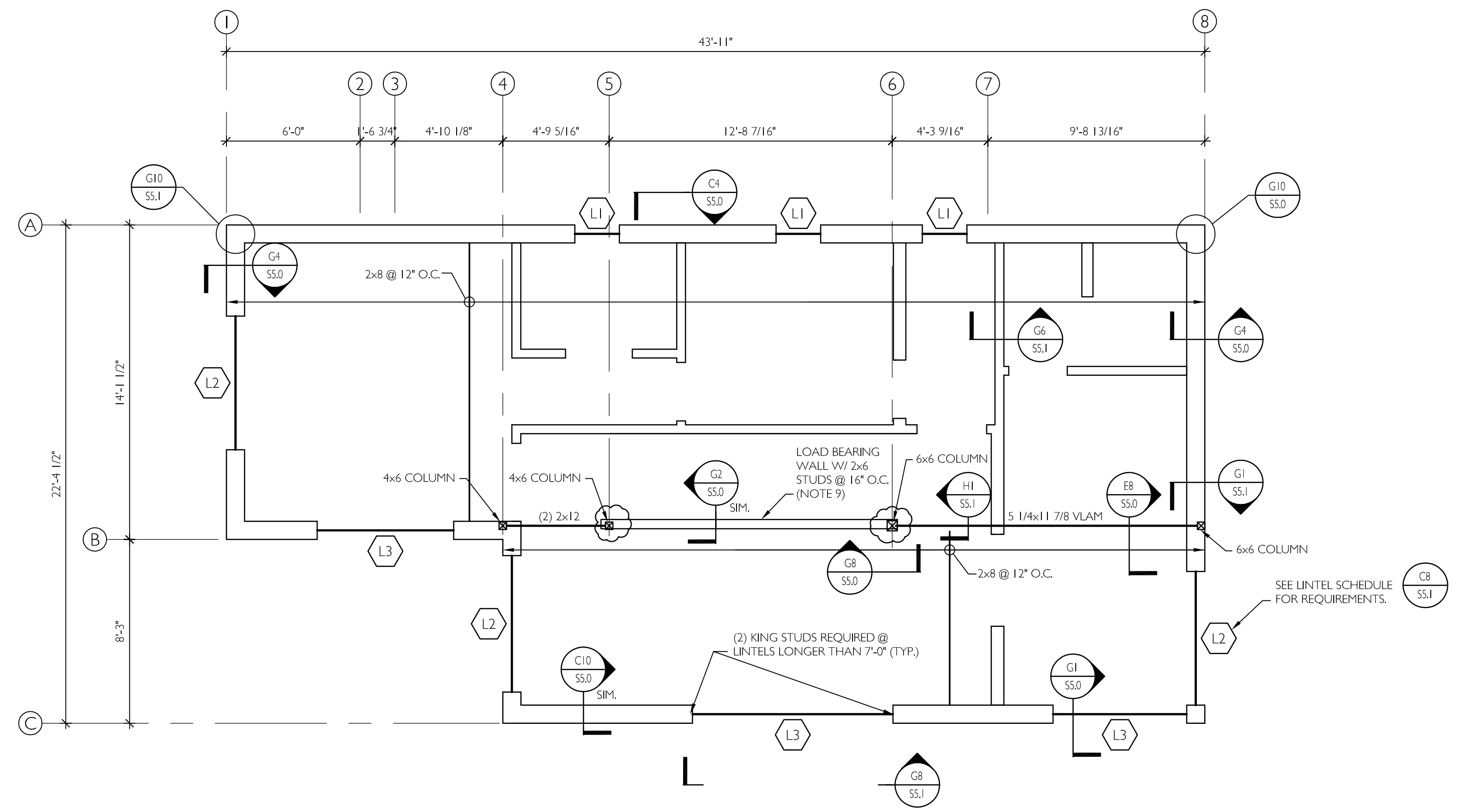
1. See Drawing S1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
2. Finalize exact locations of roof openings with architectural drawings. Sizes and locations of roof openings shown on structural drawings should be considered approximate.
3. Spacing of rafter framing materials shall not exceed 12" on center. Add additional blocking and other components as necessary to accommodate this requirement.
4. PT shall be pressure treated #1 SYP (typical unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX finish (typ.)
5. Beams shall be flush framed with rafters, typical (UON).
6. Unless noted otherwise, lintels at exterior walls shall be (3) 2x8's nailed. The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
7. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
8. Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
9. Interior wall segments located 6" northeast of grid B shall be framed with 2x6 studs @ 16" o.c.
10. Roof mounted equipment, including solar panels, shall be supported by a minimum of (2) 2x8 rafters face nailed together. Notify PSE if equipment load exceeds 300 lbs. at any rafter connection.

**KEY**

- ☒ Column between 3rd floor and roof
- ⬡ Lintel (see G8 / S5.1 for typical lintel framing)

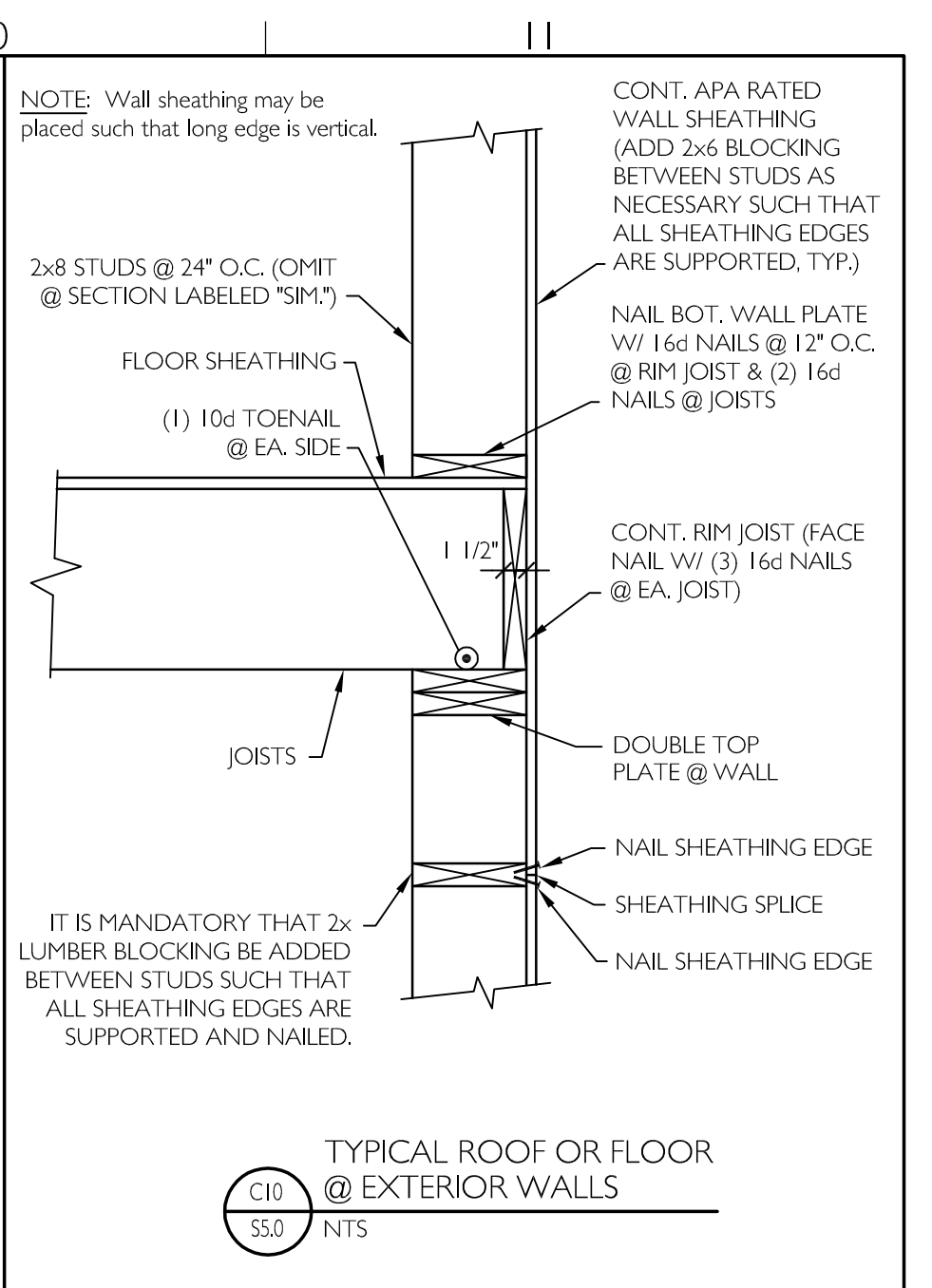
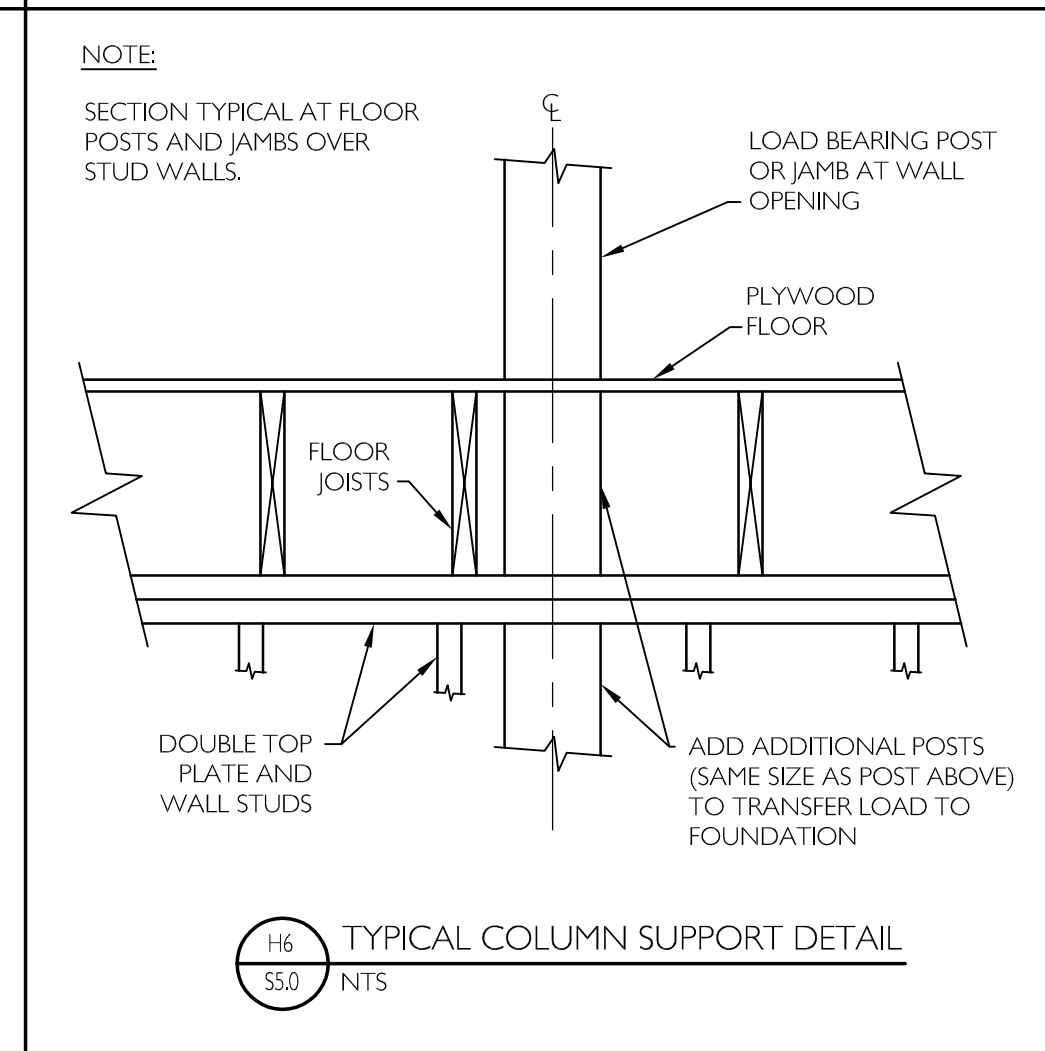
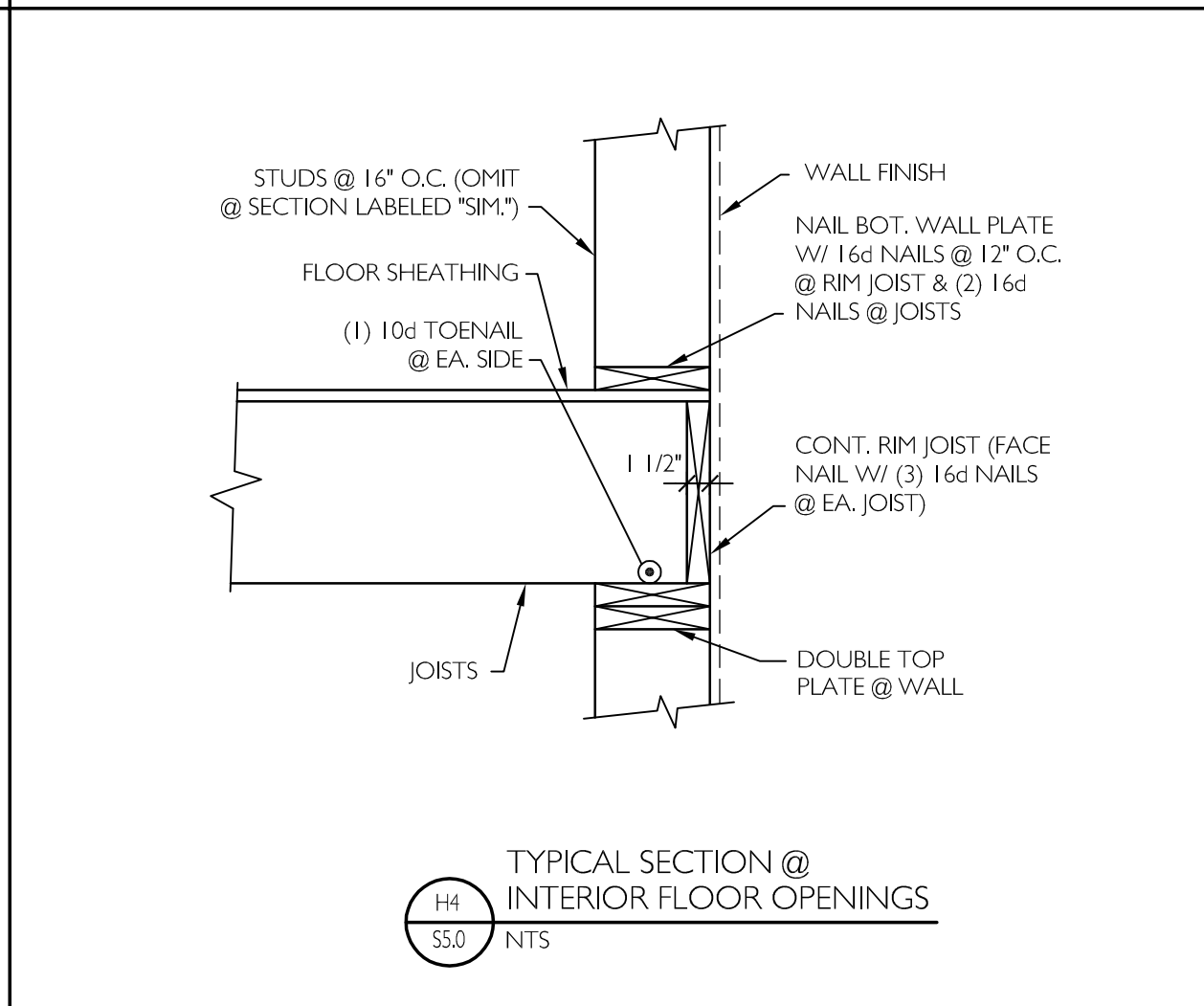
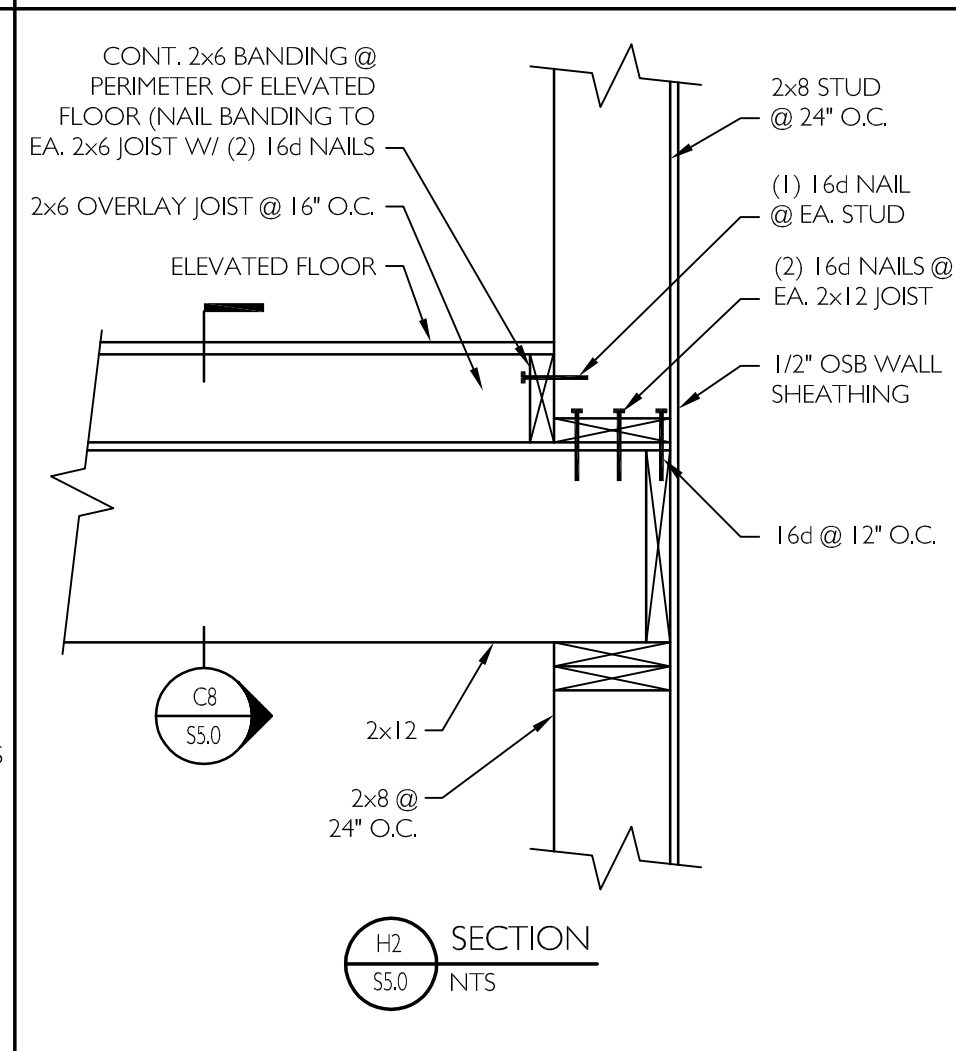
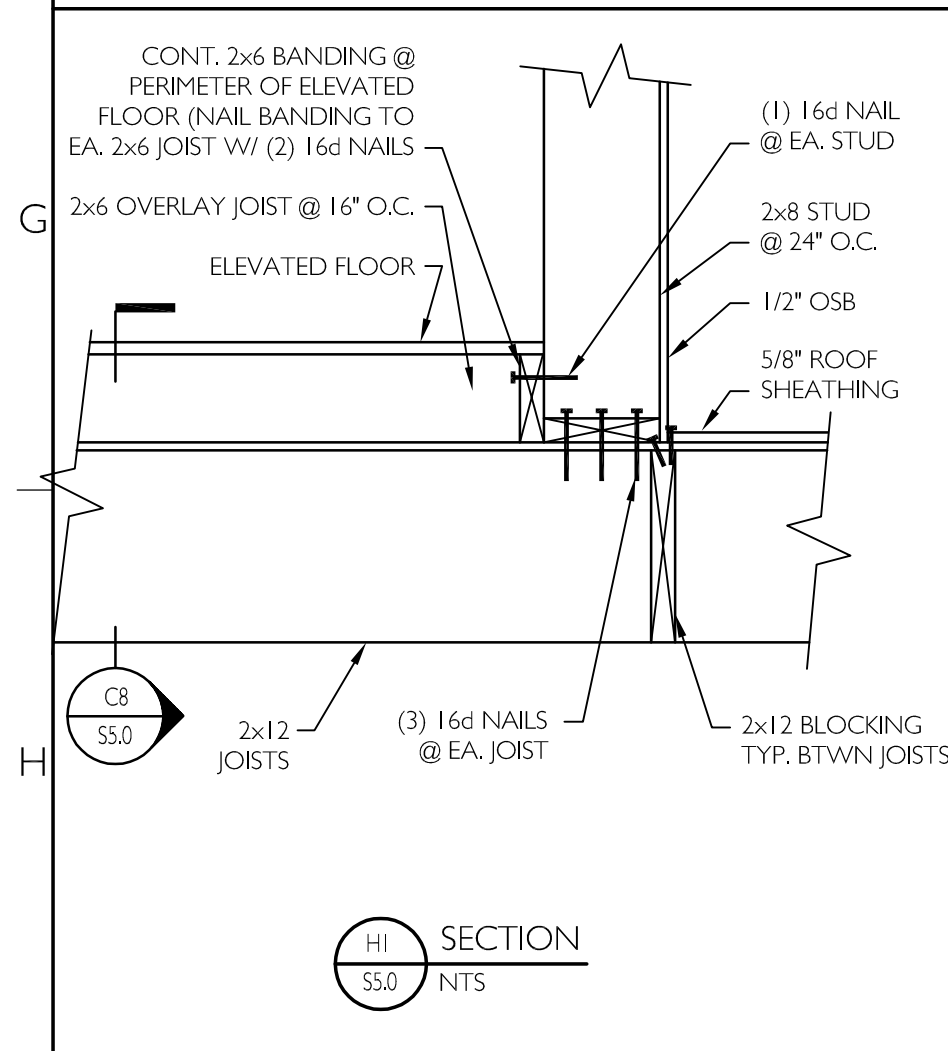
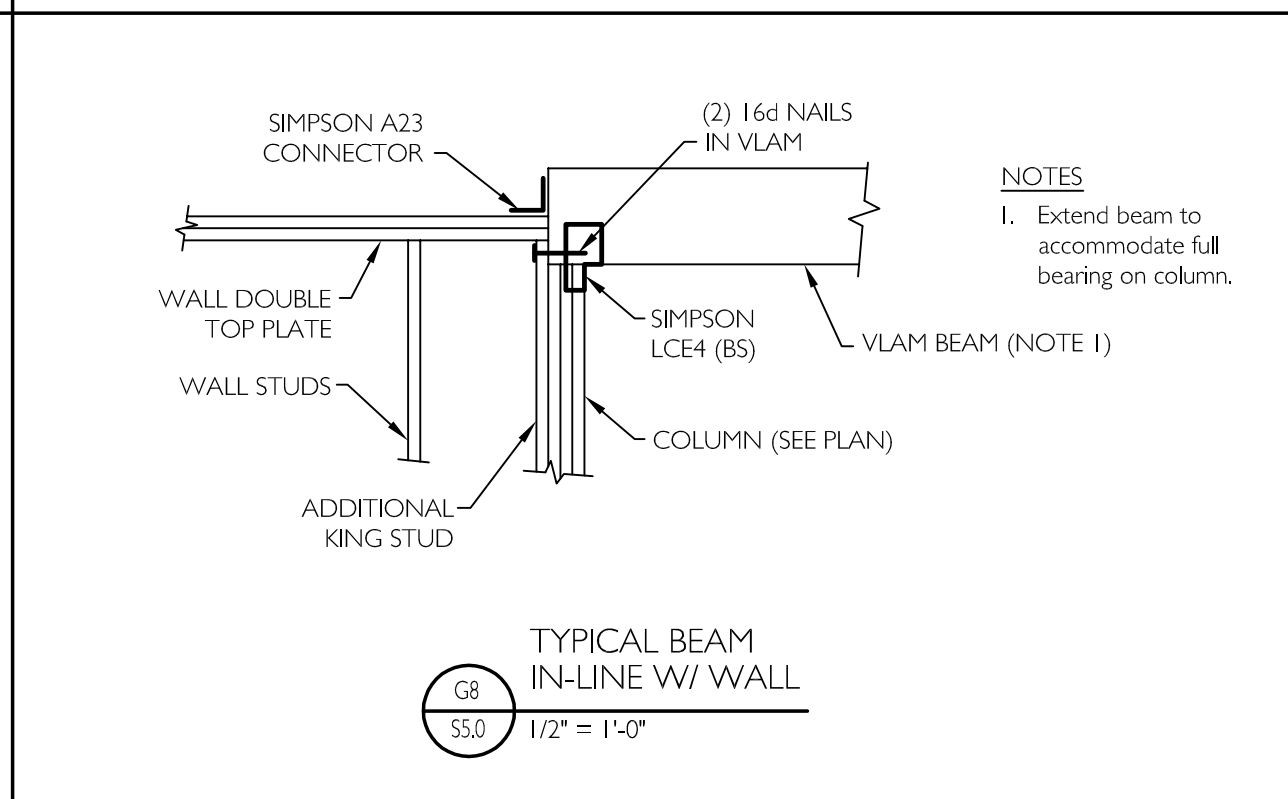
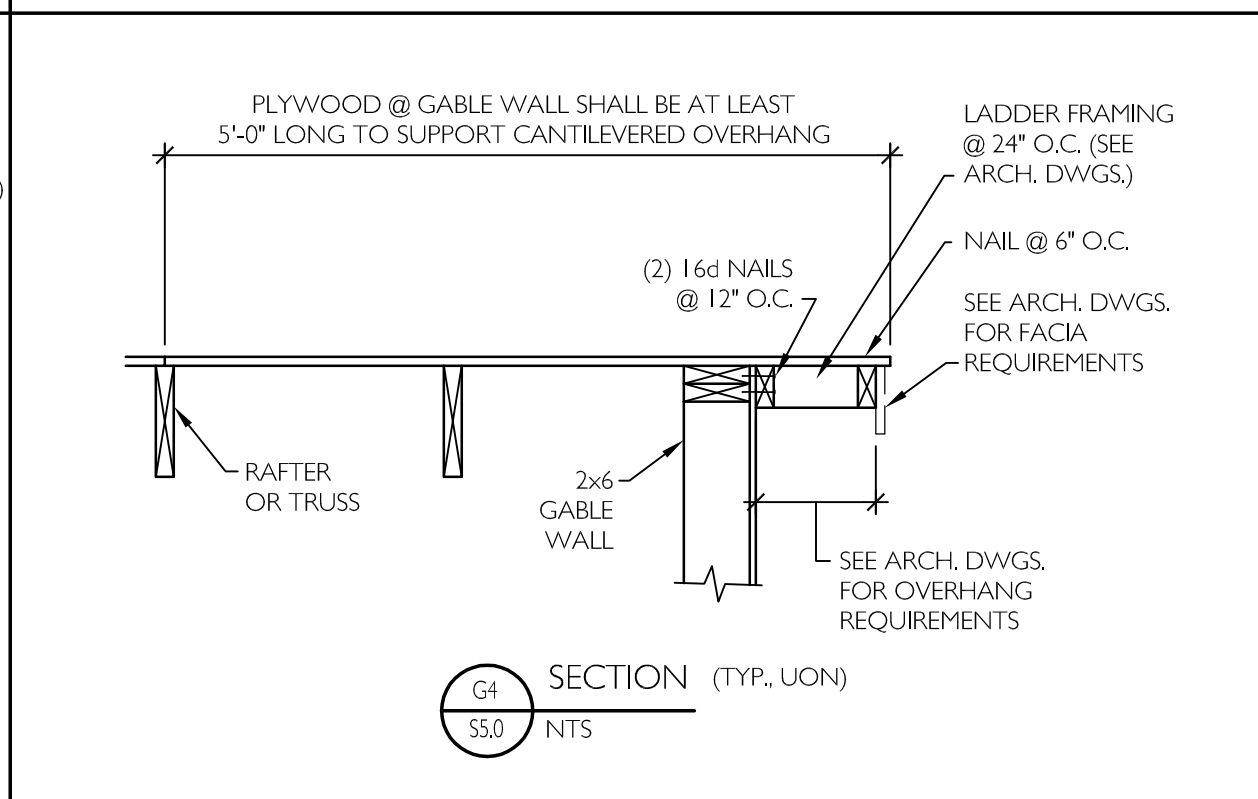
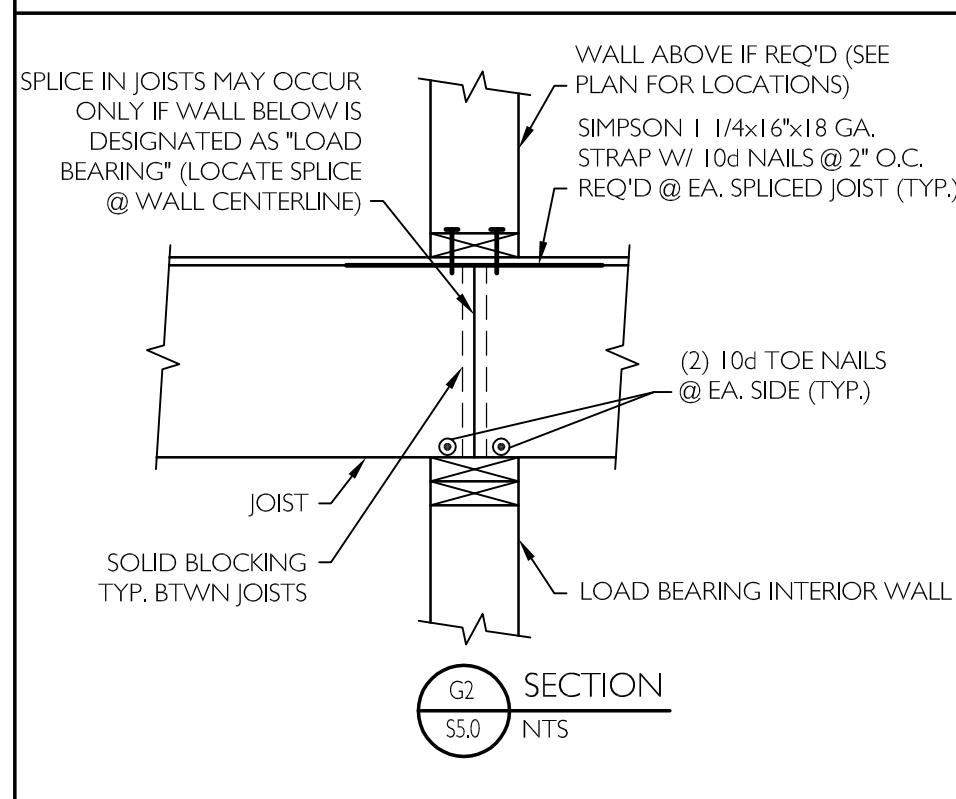
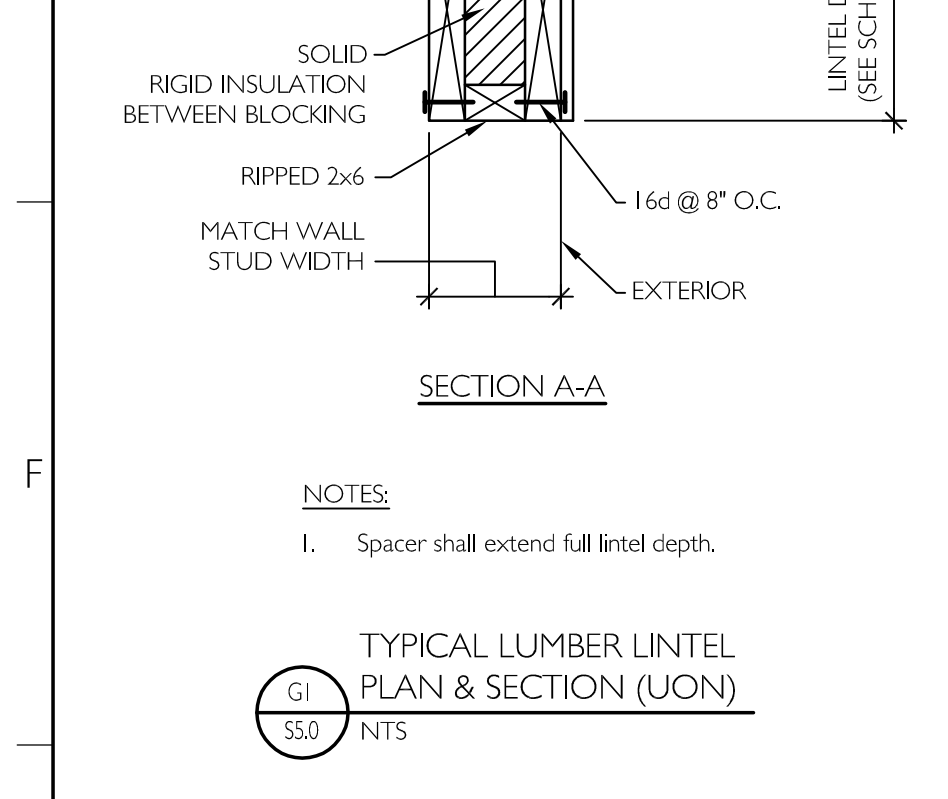
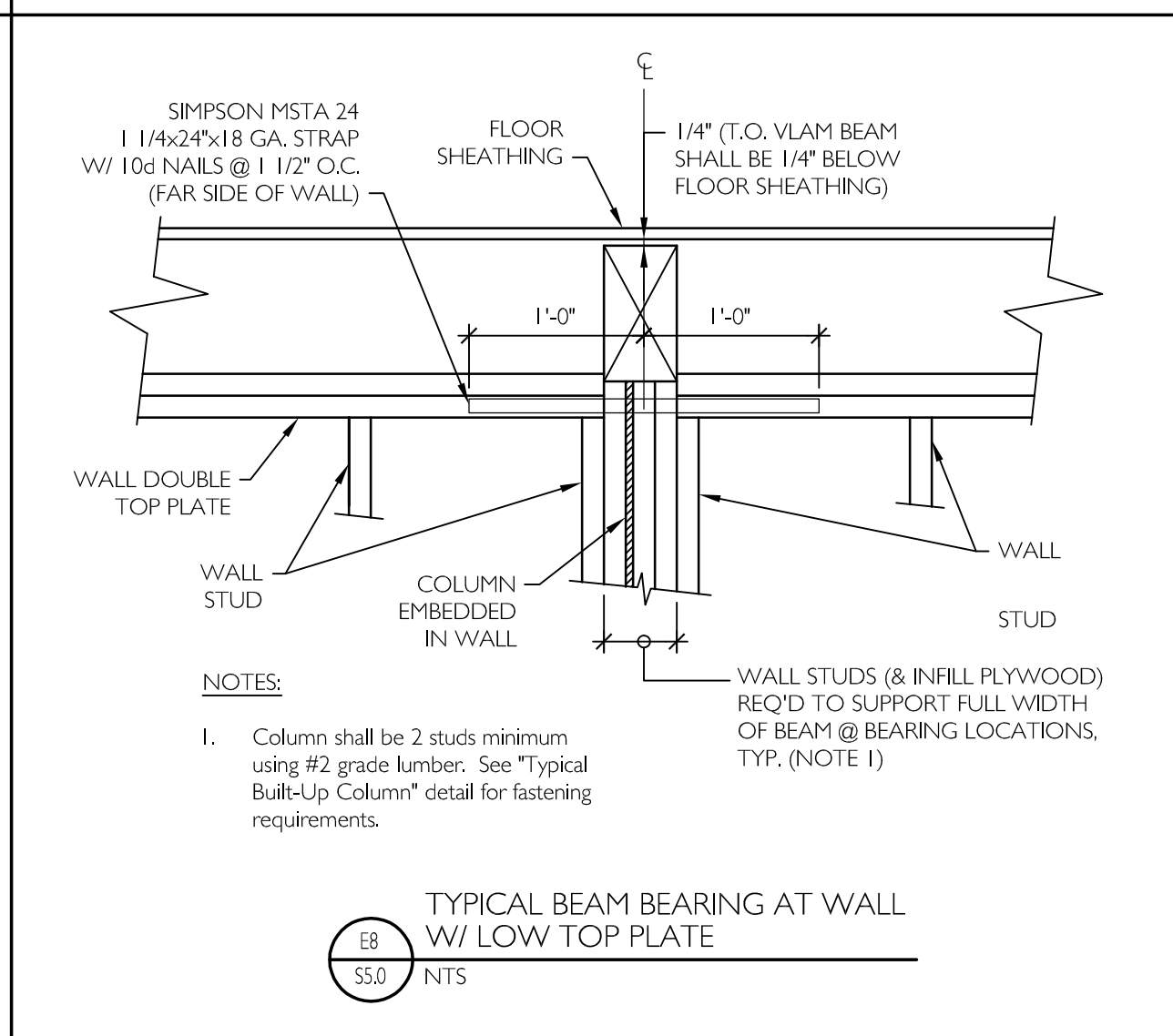
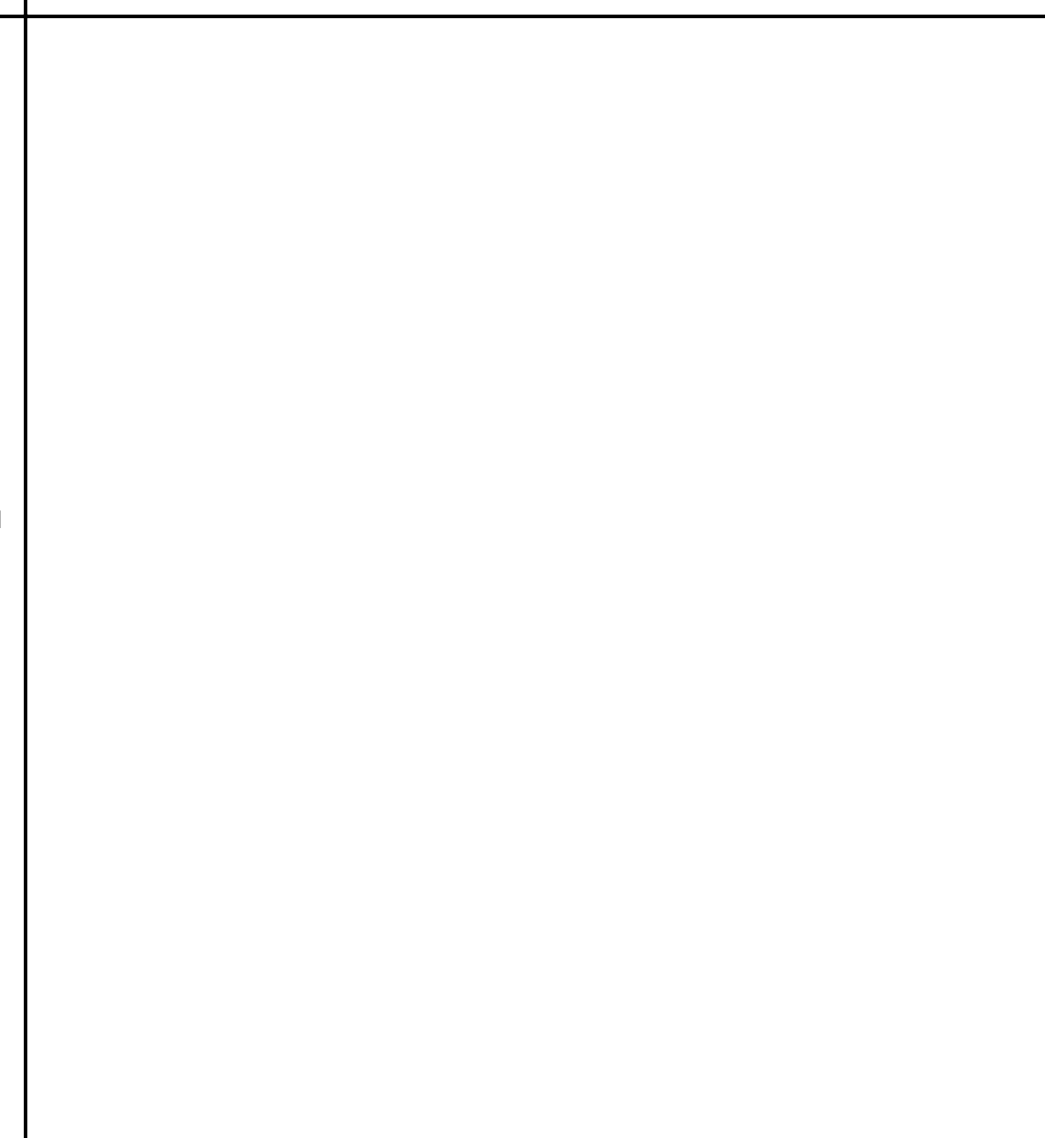
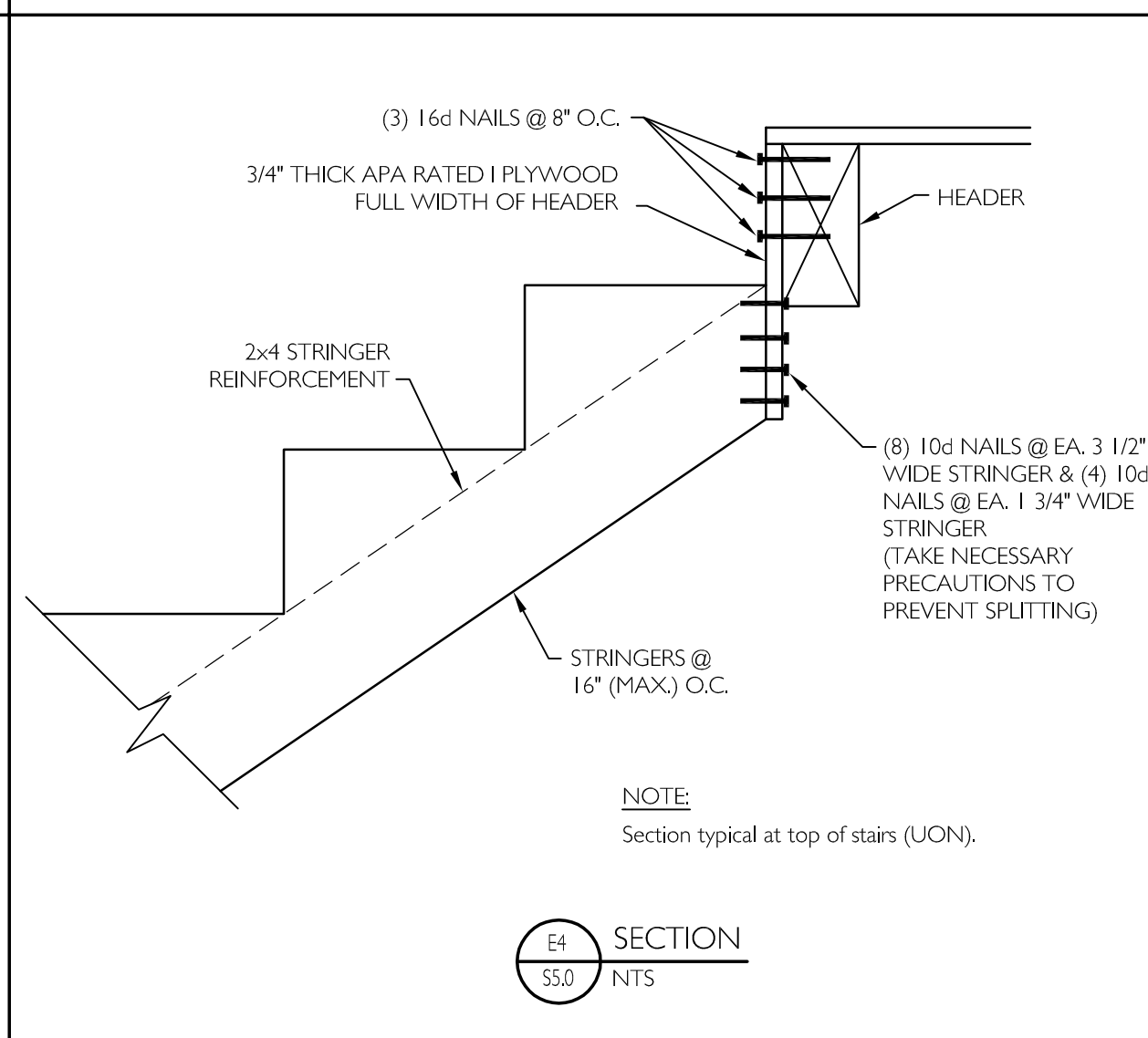
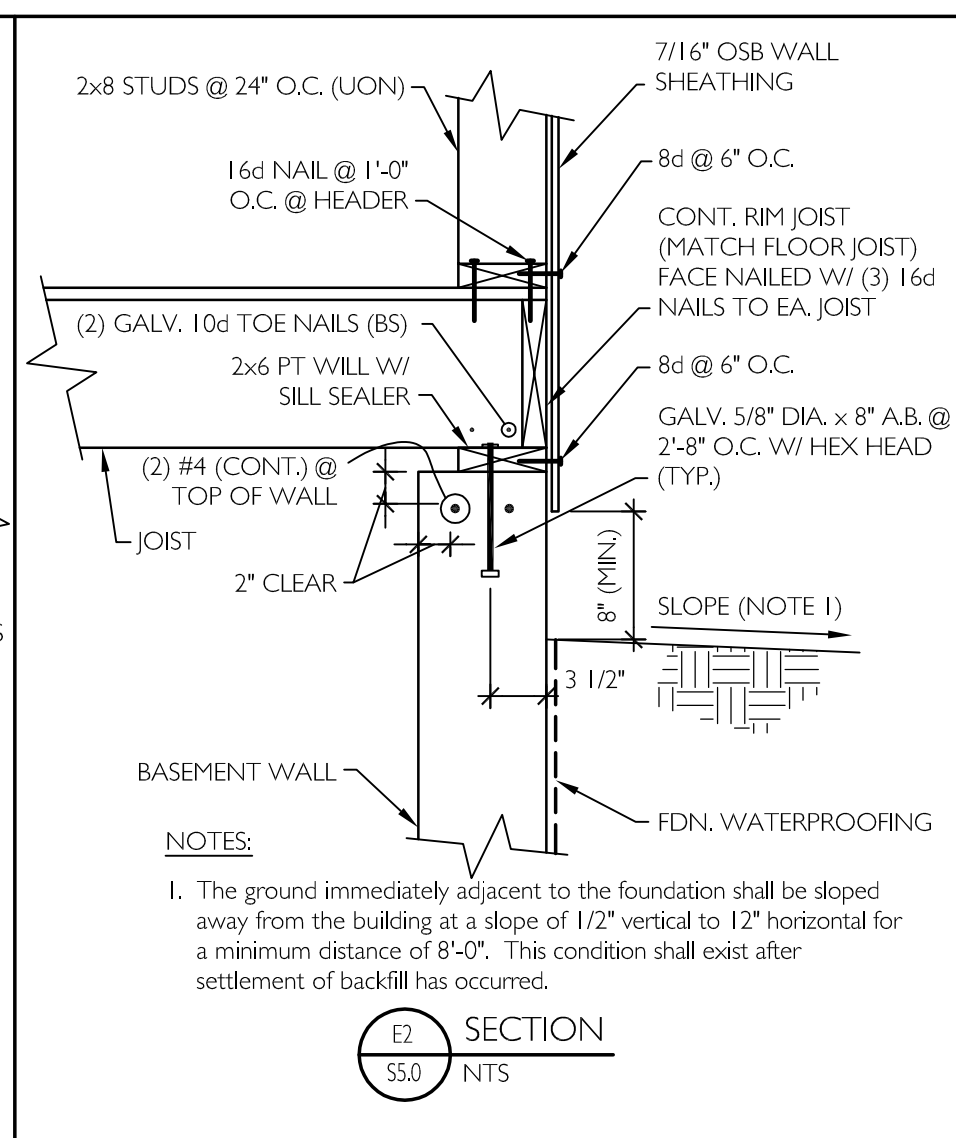
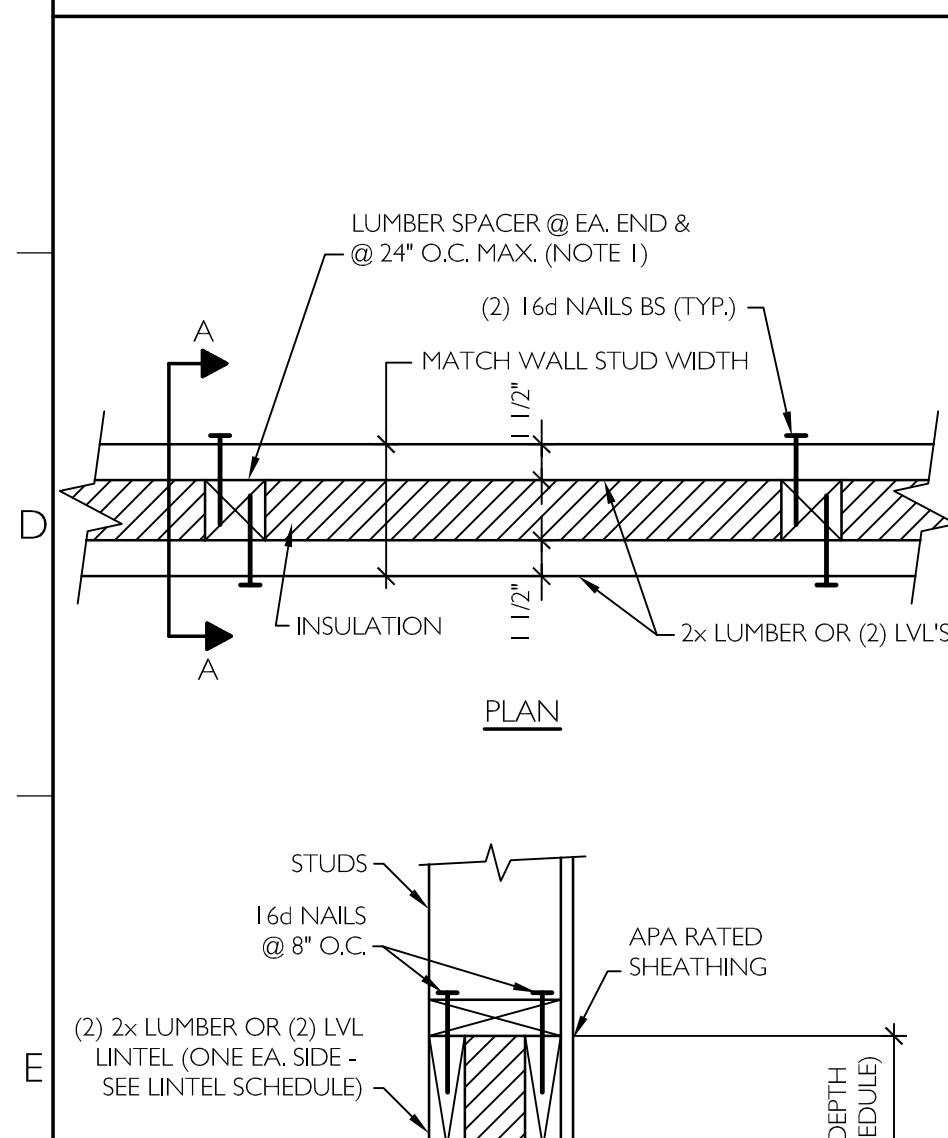
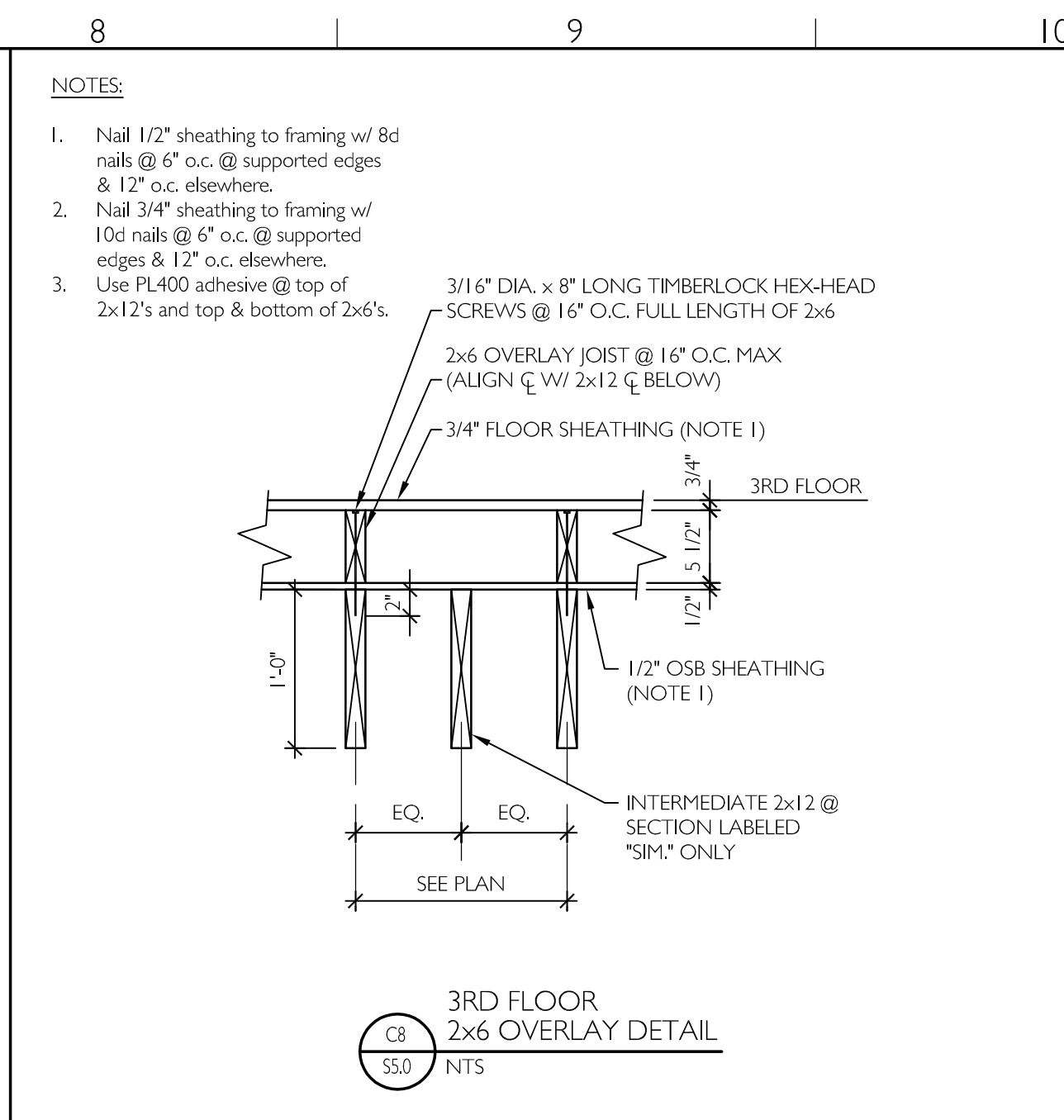
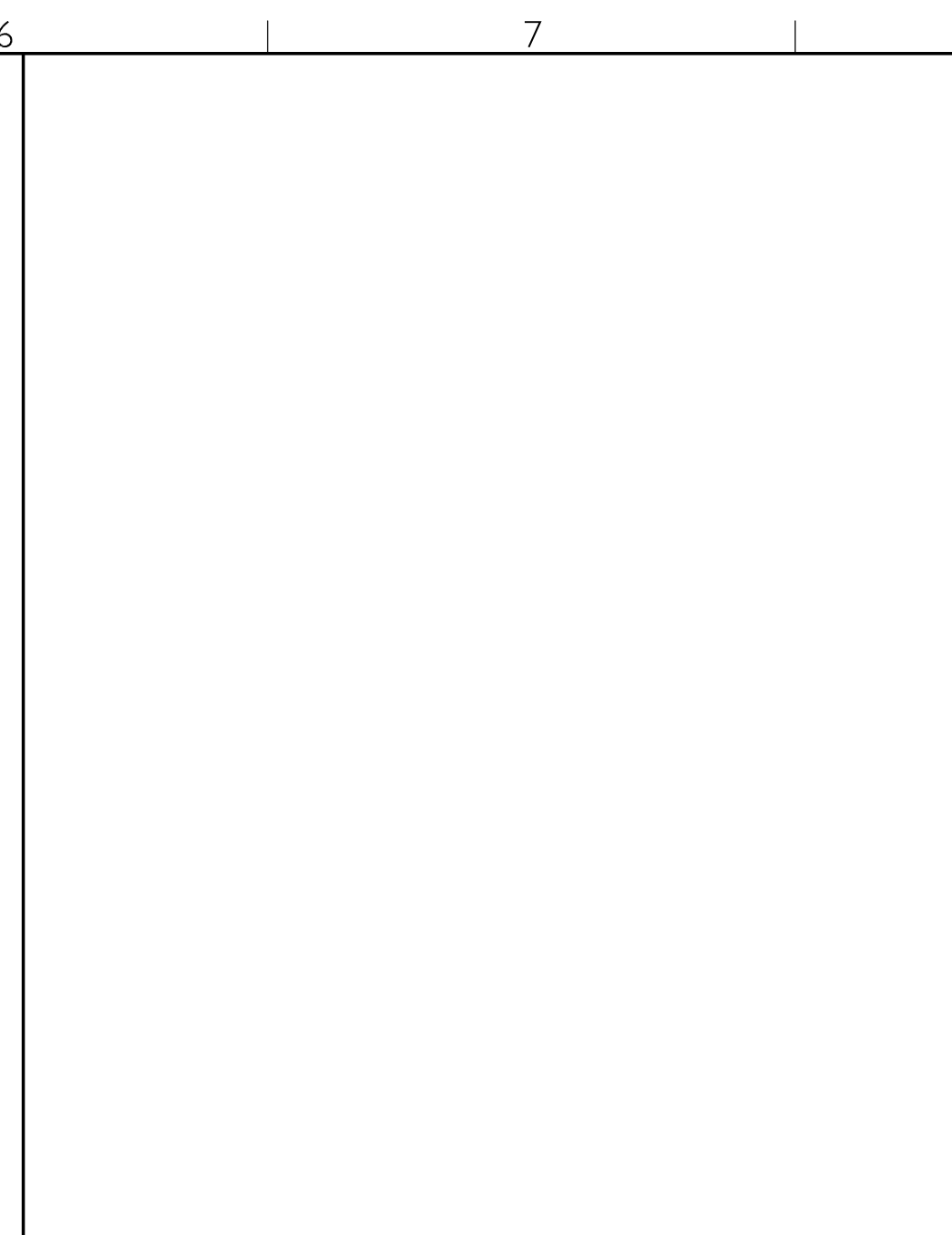
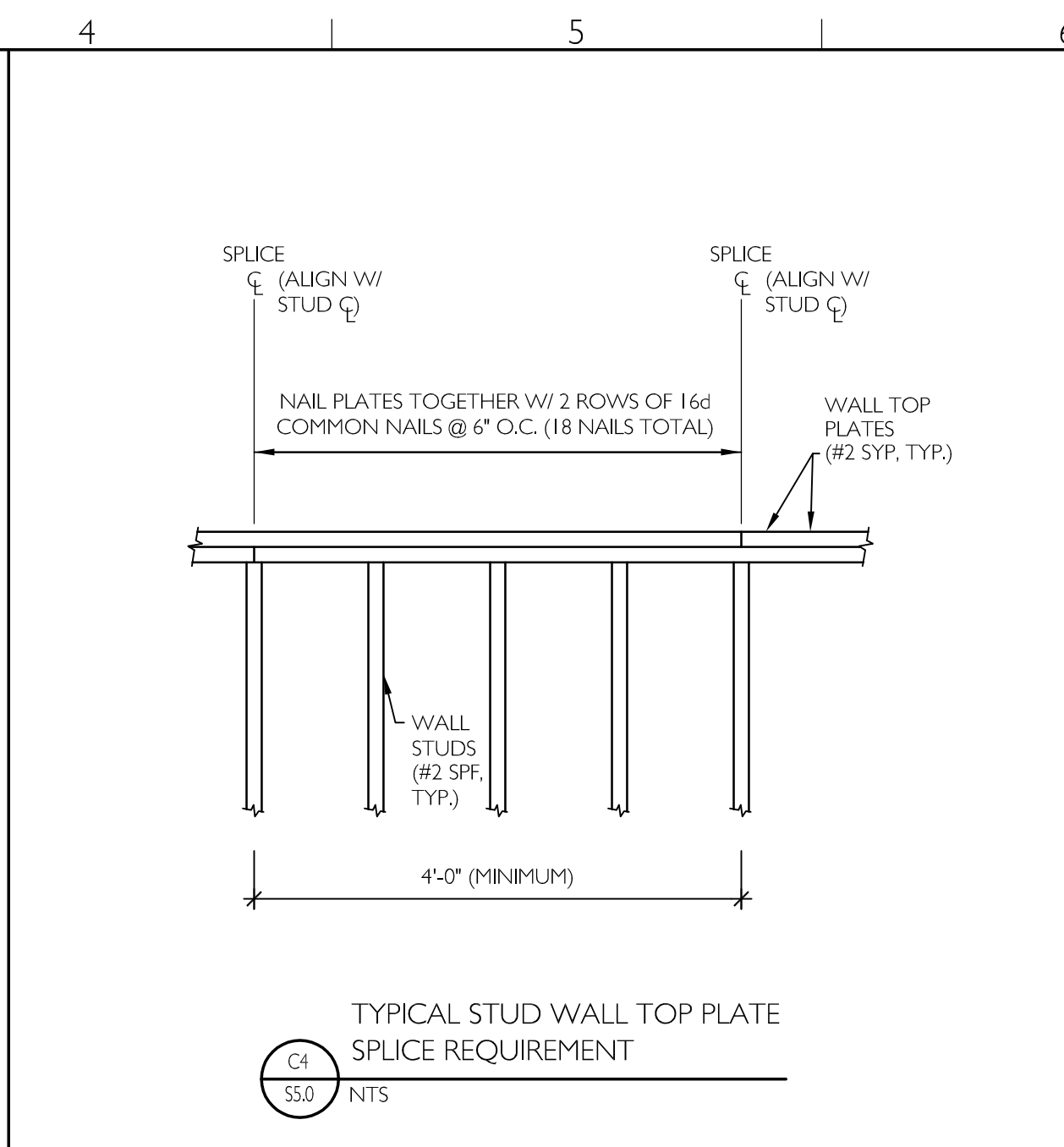
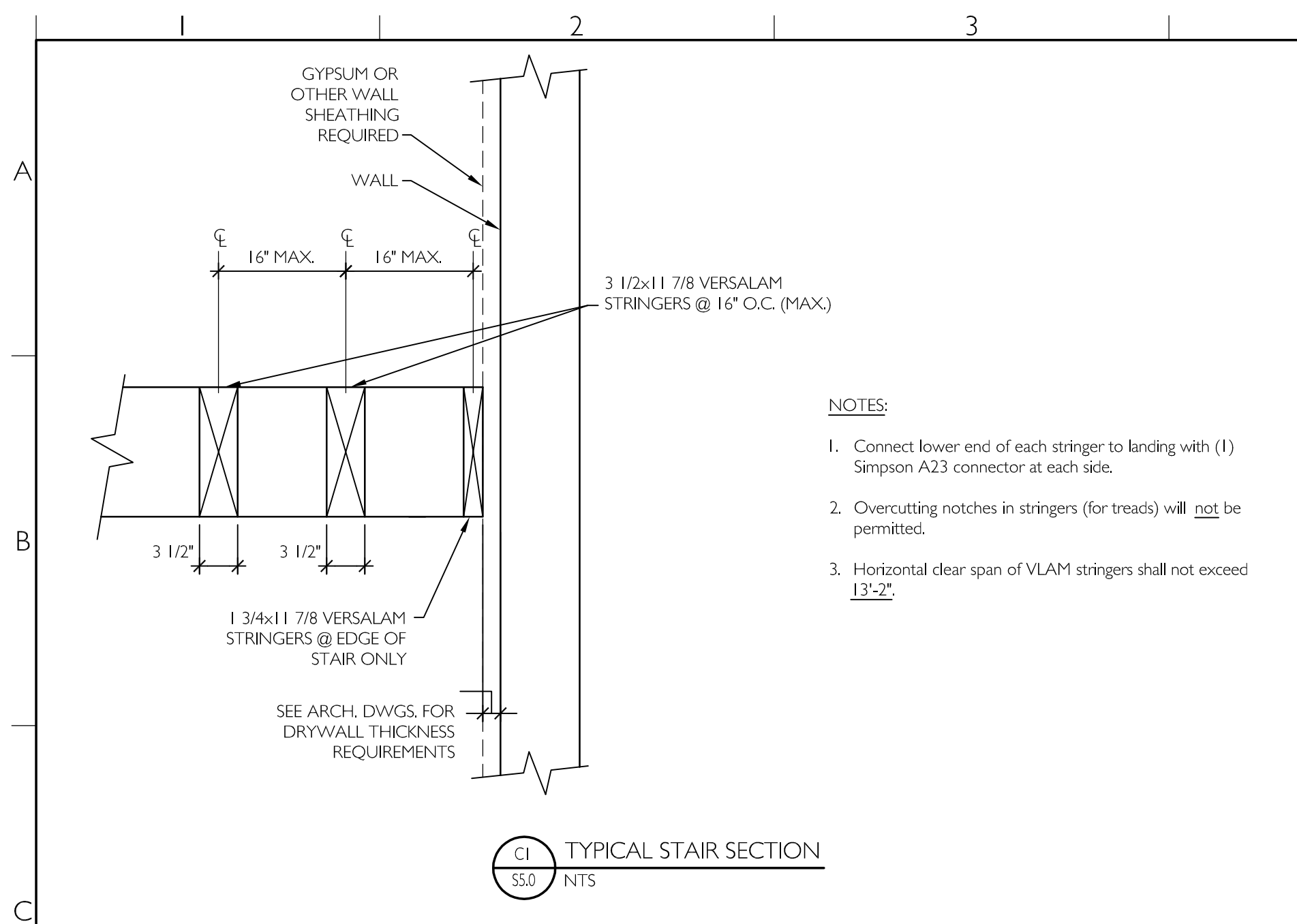
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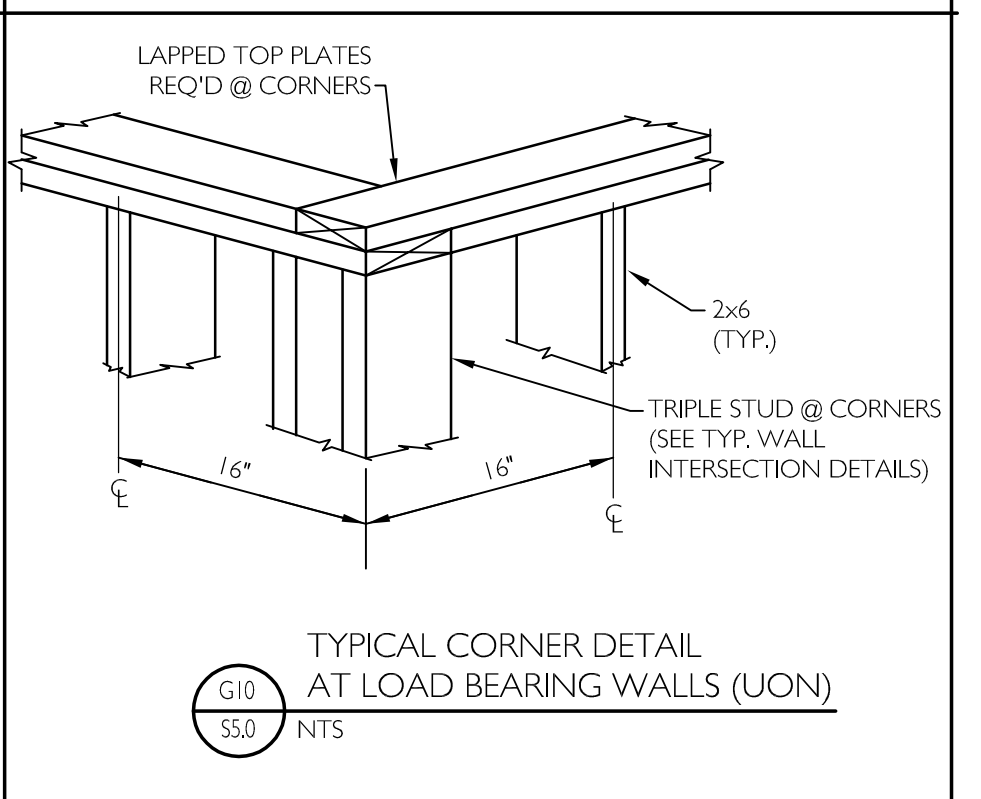
**H1**  
**S4.2**  
 HIGH ROOF FRAMING PLAN 1/4" = 1'-0"  
 WALLS SHOWN EXTEND BETWEEN  
 3RD FLOOR AND HIGH ROOF

ISSUED FOR PERMIT ONLY		8/18/10
	<b>Price</b> <b>Structural</b> <b>Engineers, Inc.</b>	
75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633		
NEW 3-UNIT BLDG. LEDMAN & MYERS  62 CUMBERLAND AVENUE PORTLAND, ME 04101	<b>KAPLAN THOMPSON</b> <b>ARCHITECTS</b>  124 FORE STREET PORTLAND, ME 04101	
SCALE	AS NOTED	<b>HIGH ROOF</b> <b>FRAMING PLAN</b> <span style="font-size: 2em;"><b>S4.3</b></span>
ENGINEER:	DAP	
DATE:	8/8/10	
PROJECT NO.:	129-10	



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DAVID A. PRICE  
No. 6401  
LICENSED  
PROFESSIONAL ENGINEER

**Price**  
**Structural**  
**Engineers, Inc.**

75 farms edge road  
north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

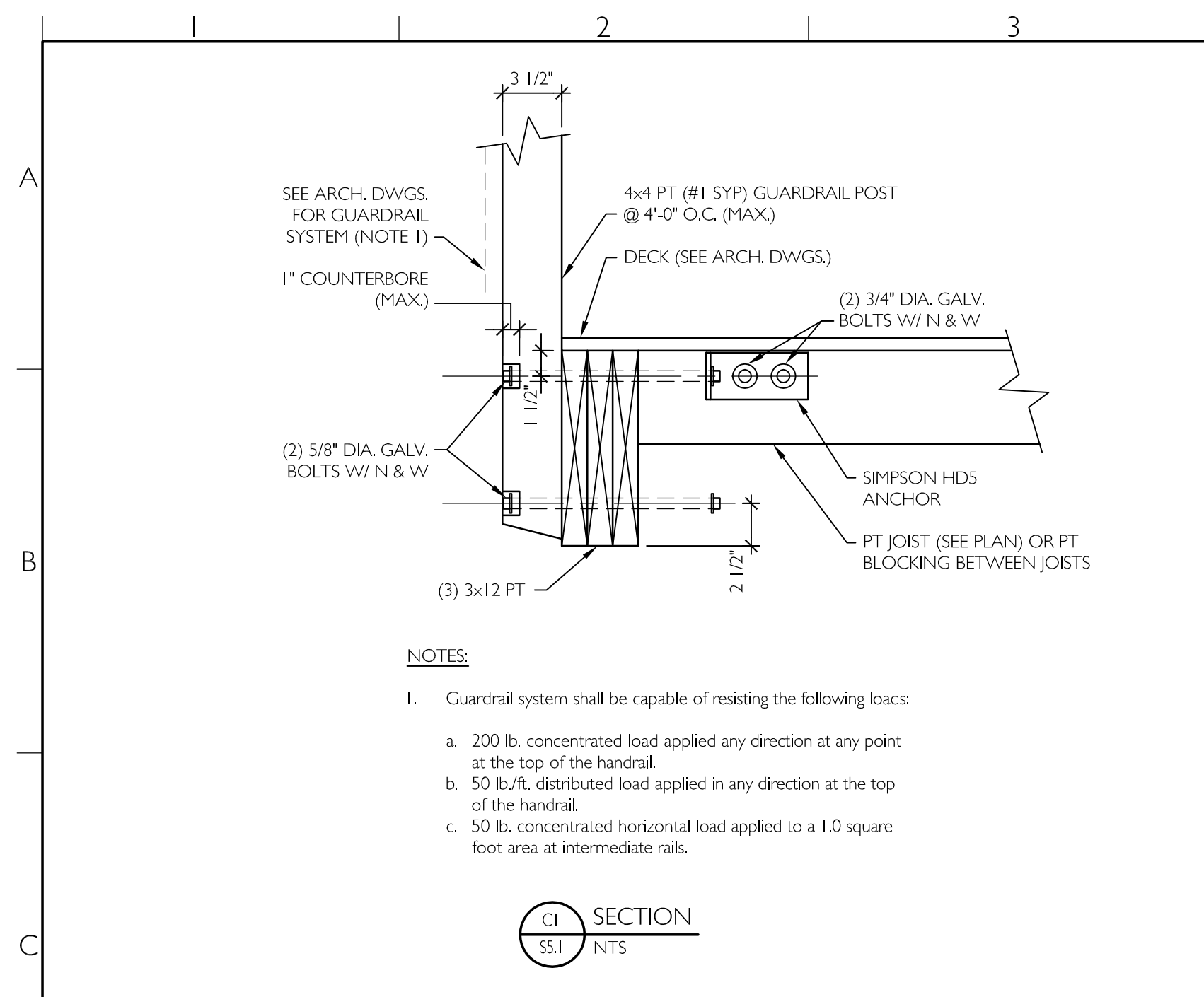
**NEW 3-UNIT BLDG.**  
LEDMAN & MYERS

62 CUMBERLAND AVENUE  
PORTLAND, ME 04101

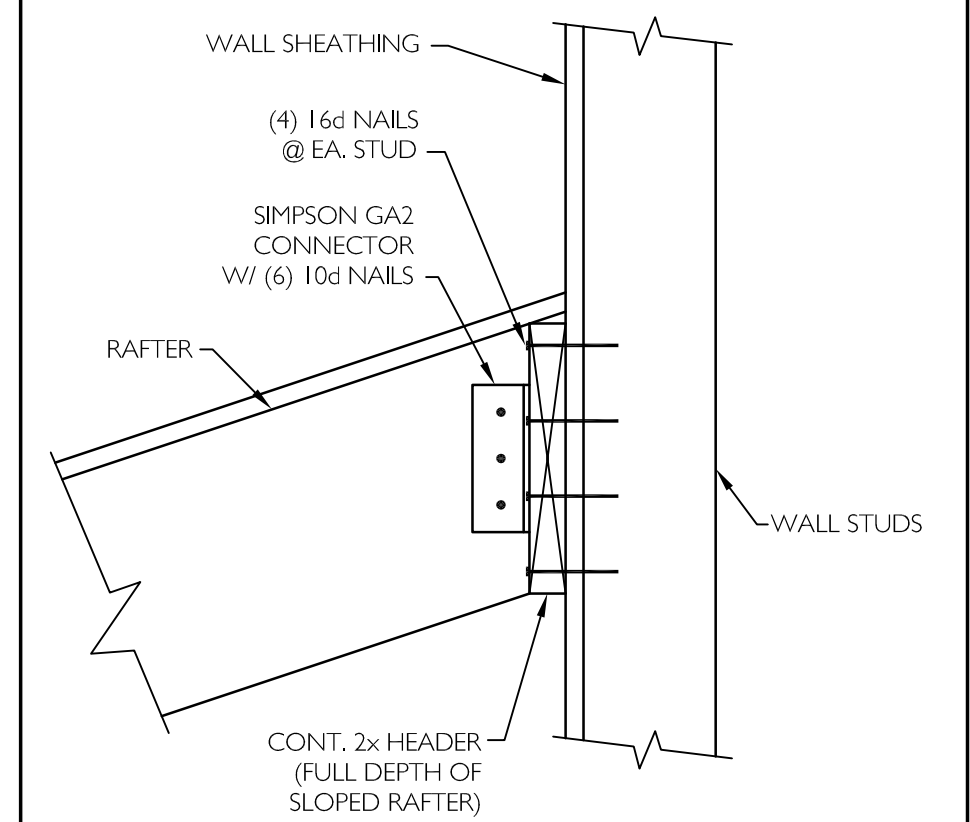
**KAPLAN THOMPSON**  
**ARCHITECTS**

124 FORE STREET  
PORTLAND, ME 04101

SCALE	AS NOTED	<b>FRAMING DETAILS &amp; SECTIONS</b> <b>S5.0</b>
ENGINEER:	DAP	
DATE:	8/8/10	
PROJECT NO.:	129-10	

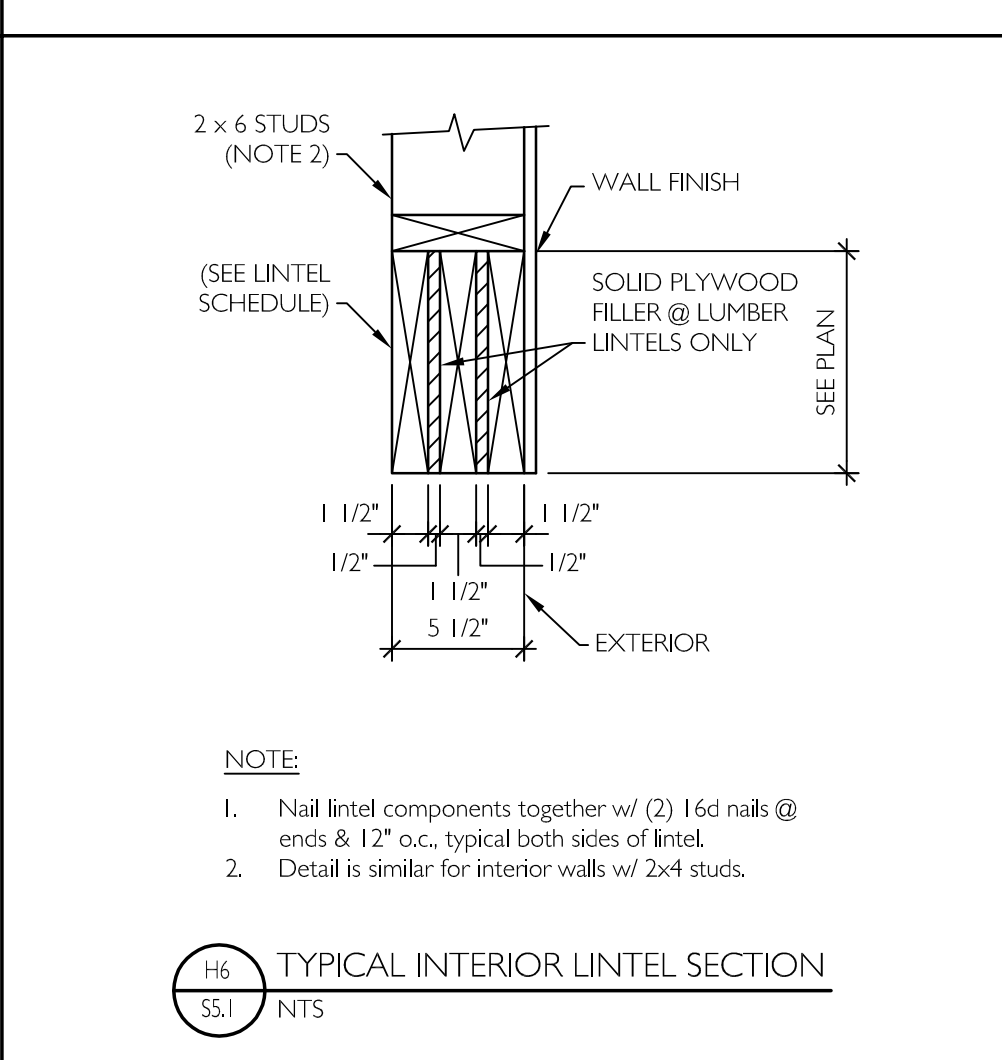
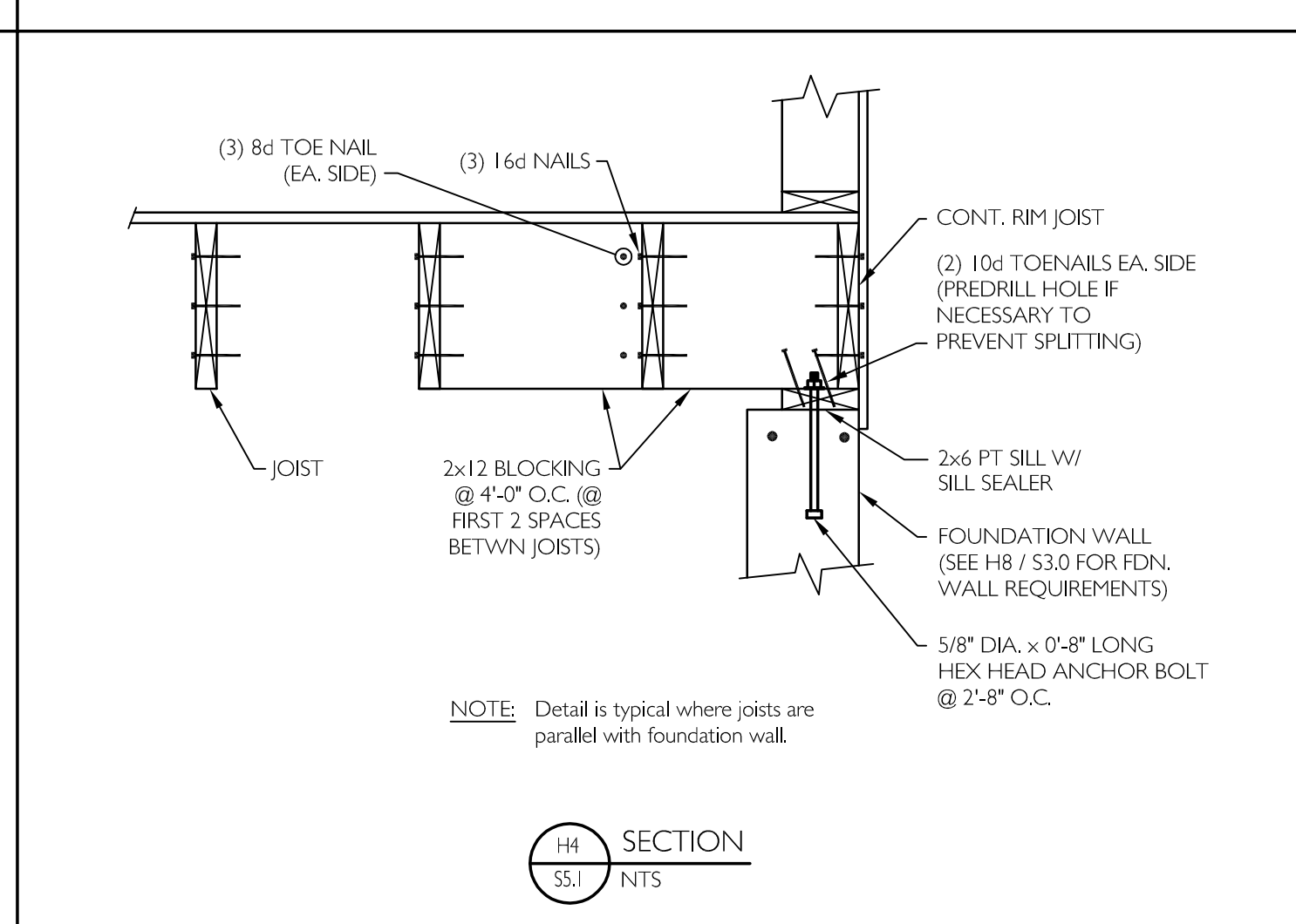
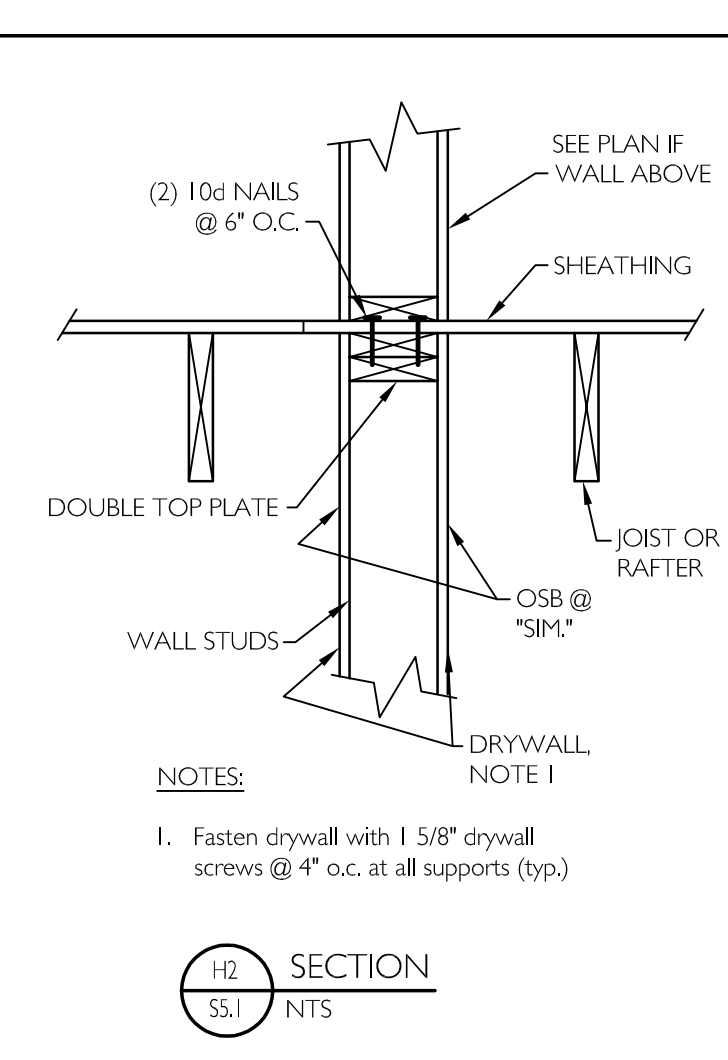
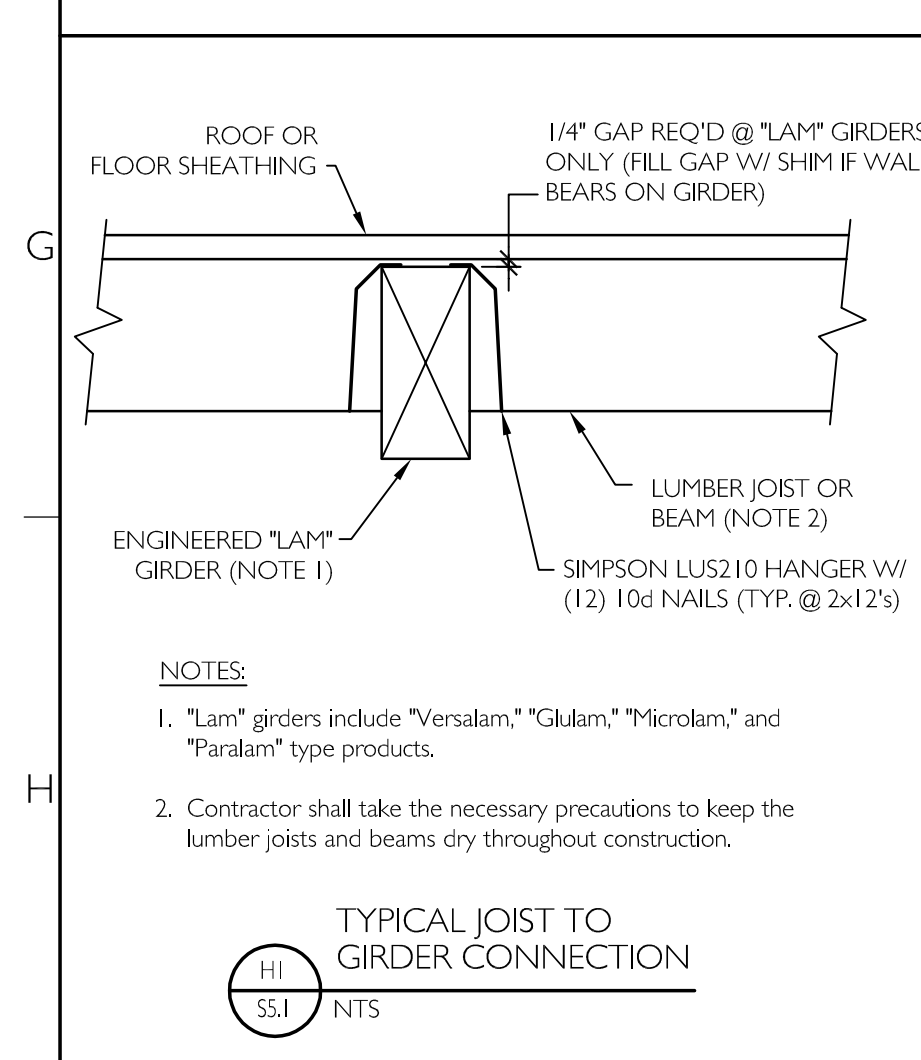
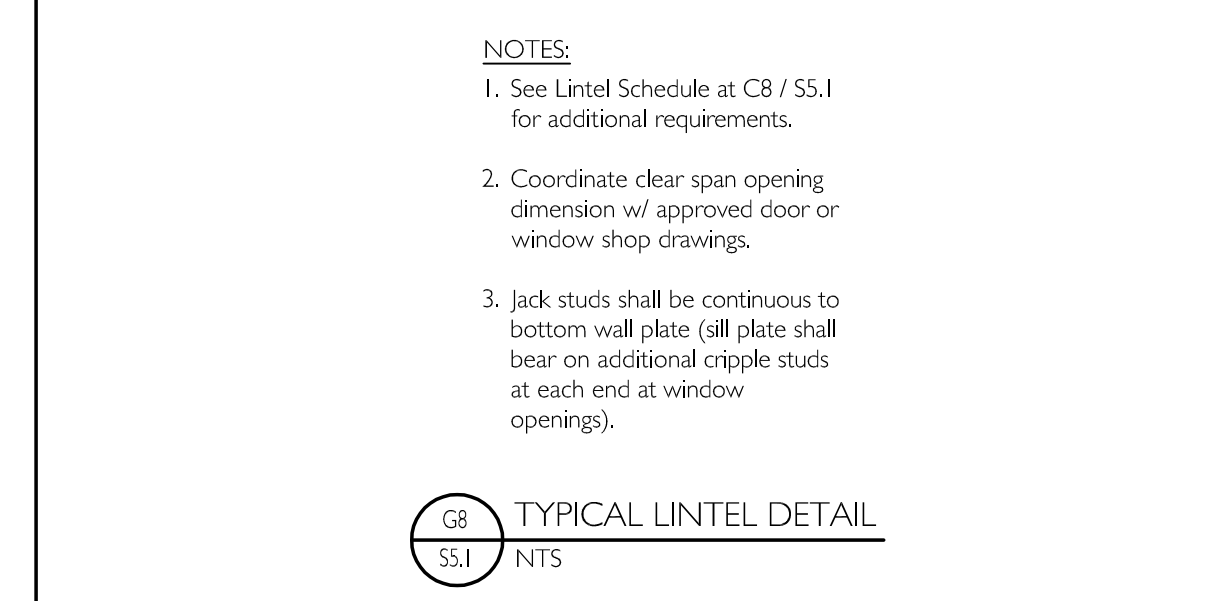
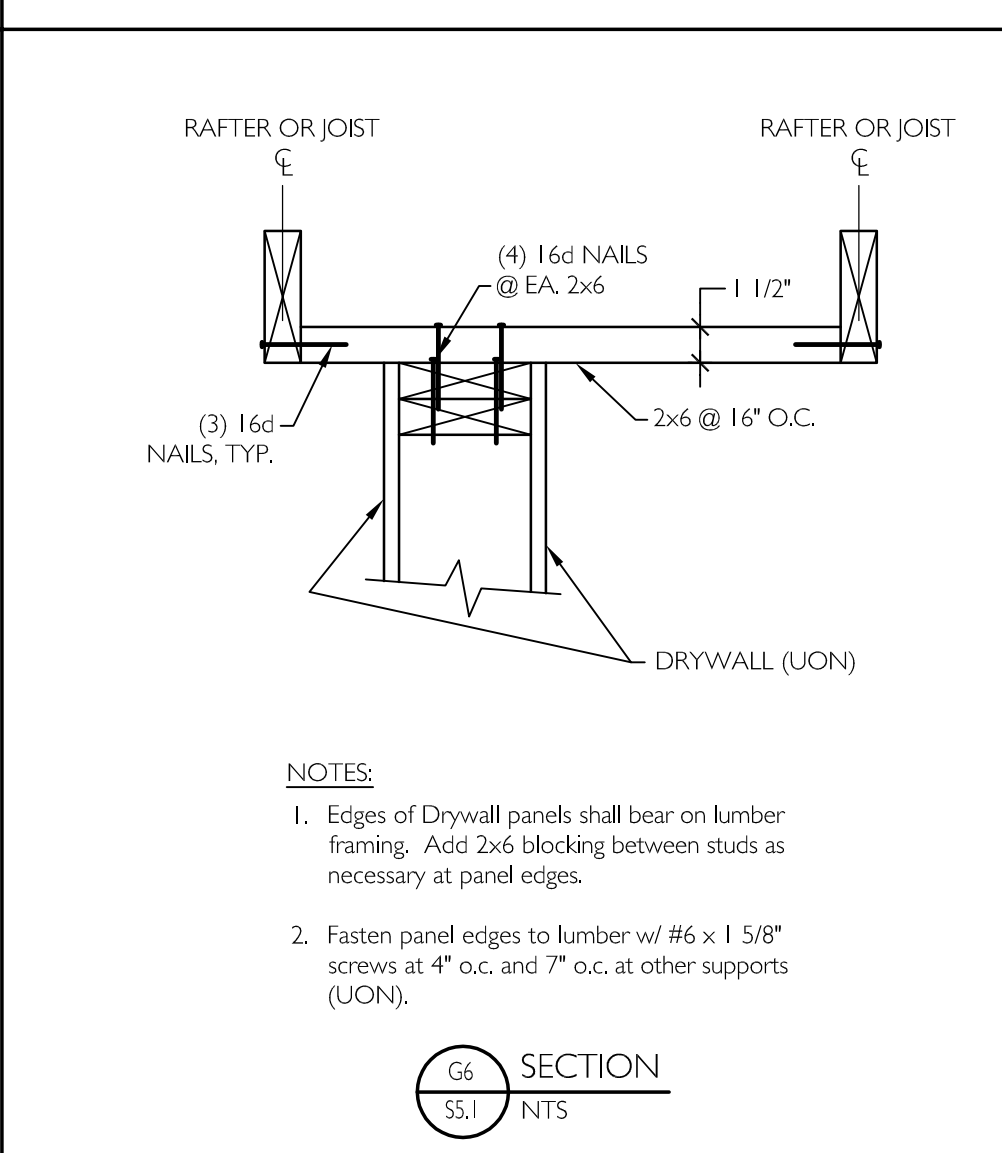
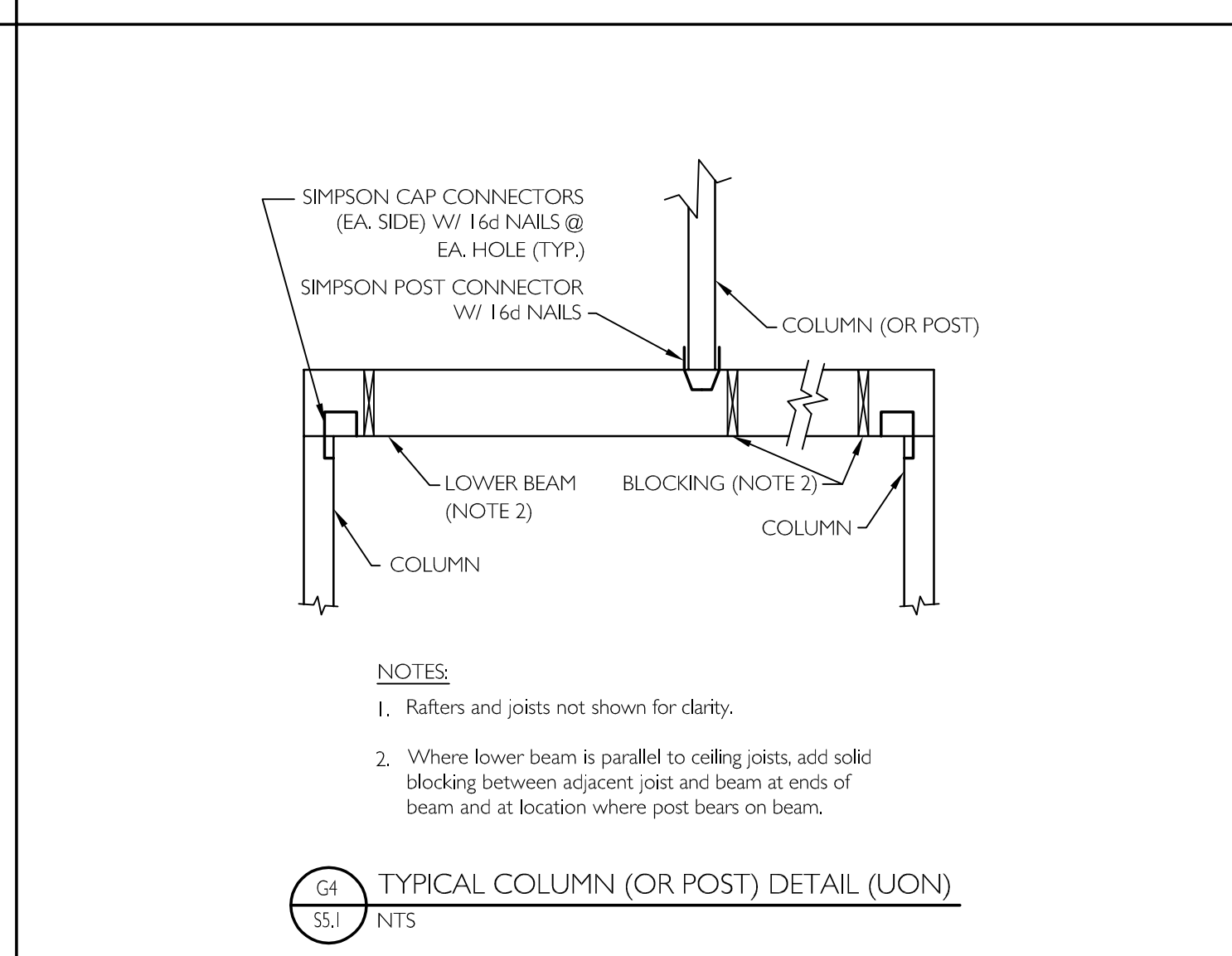
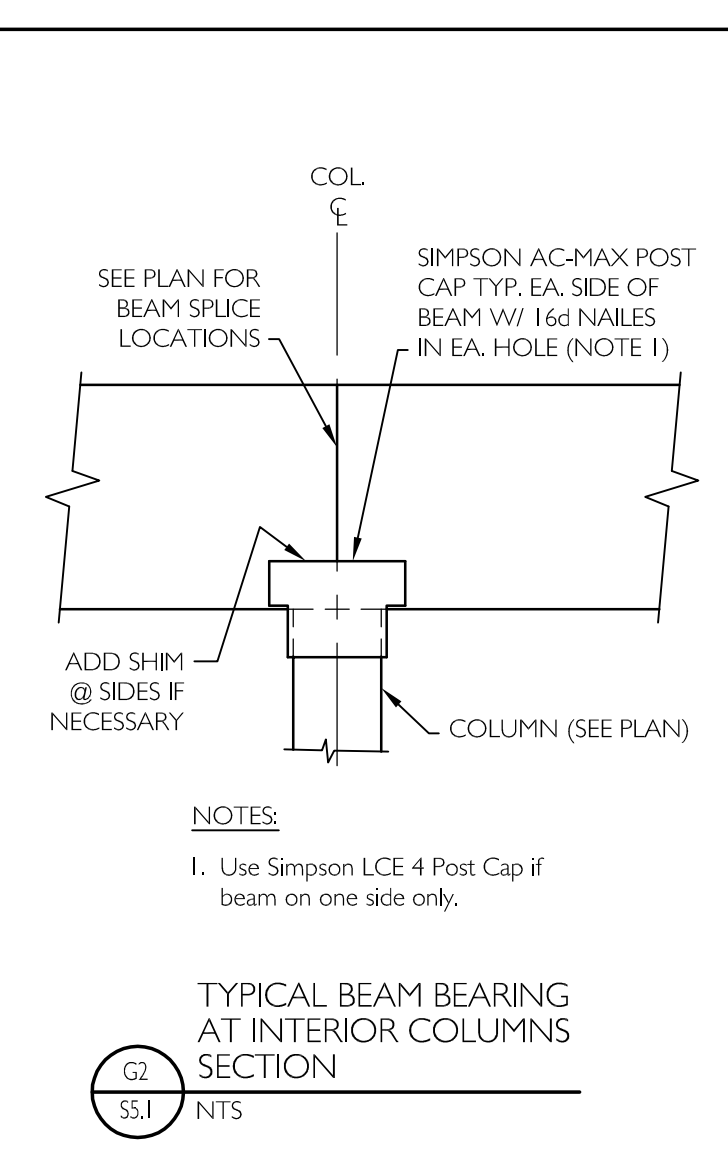
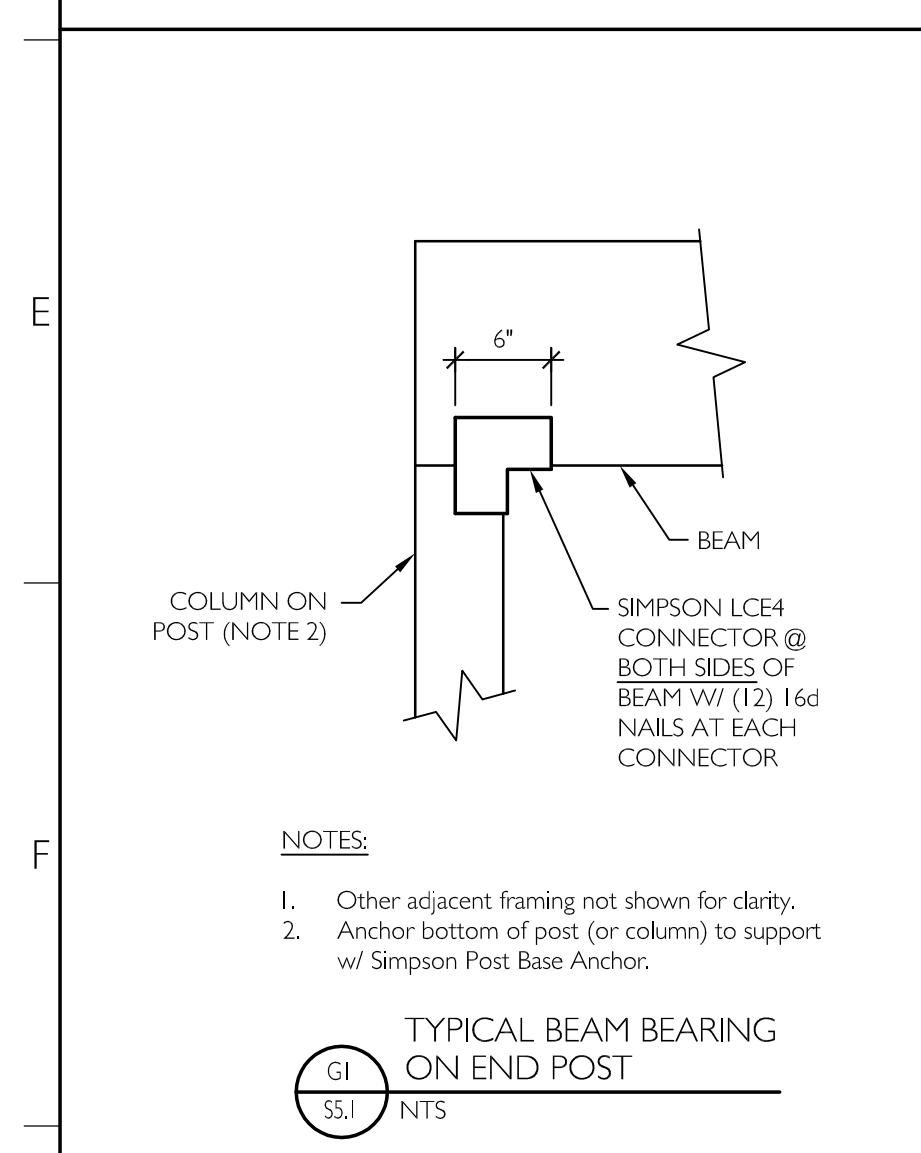
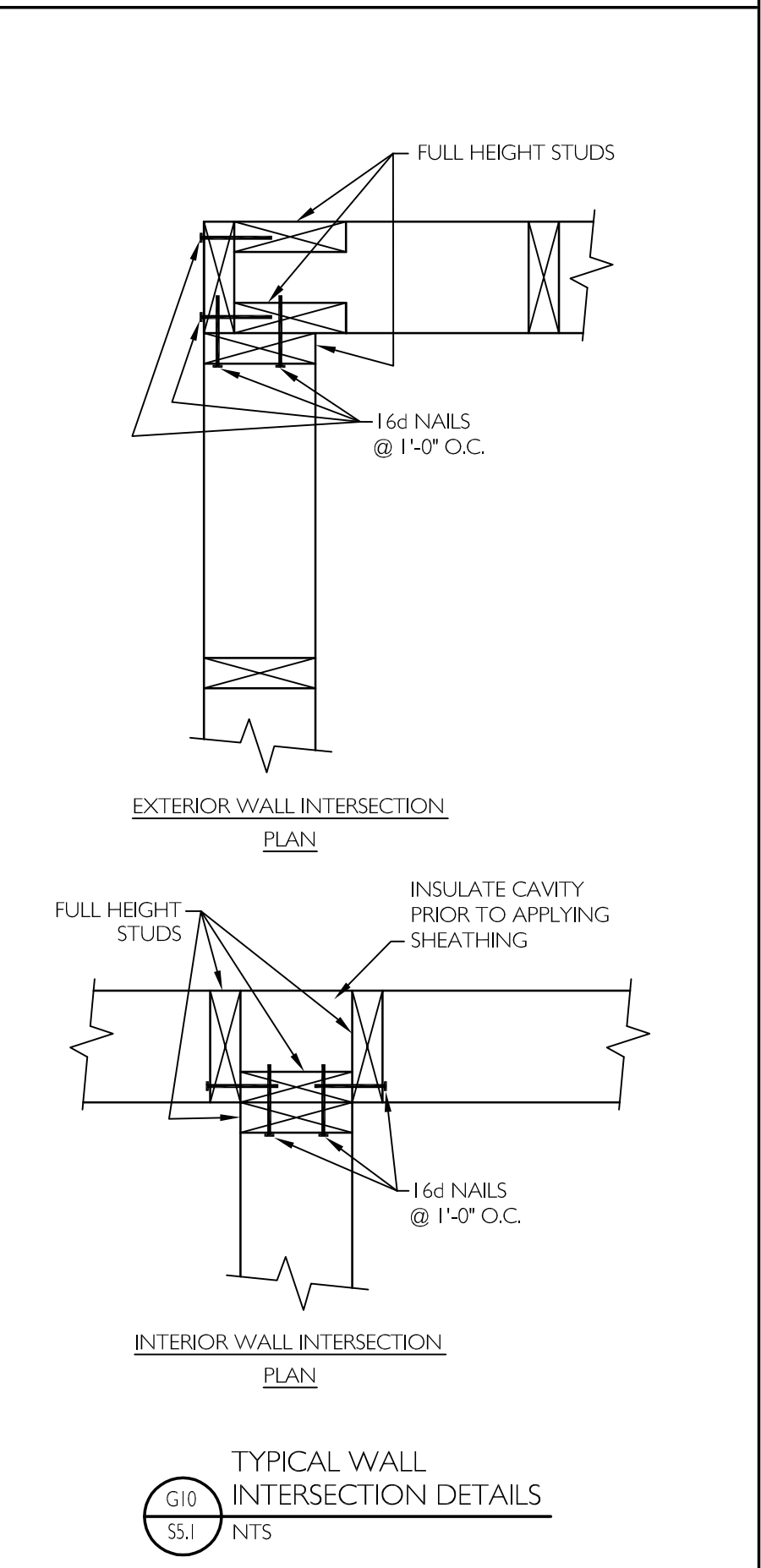
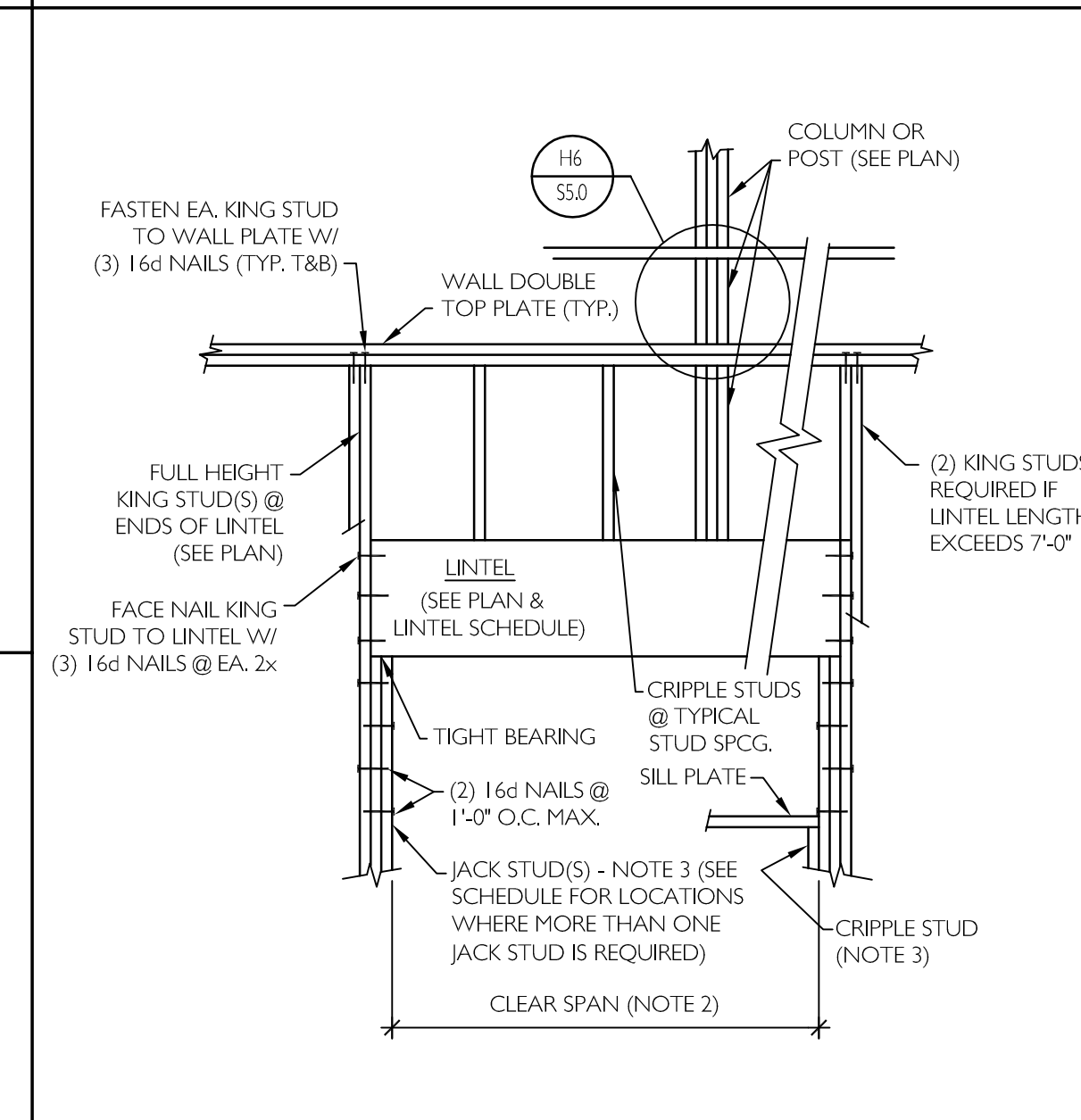
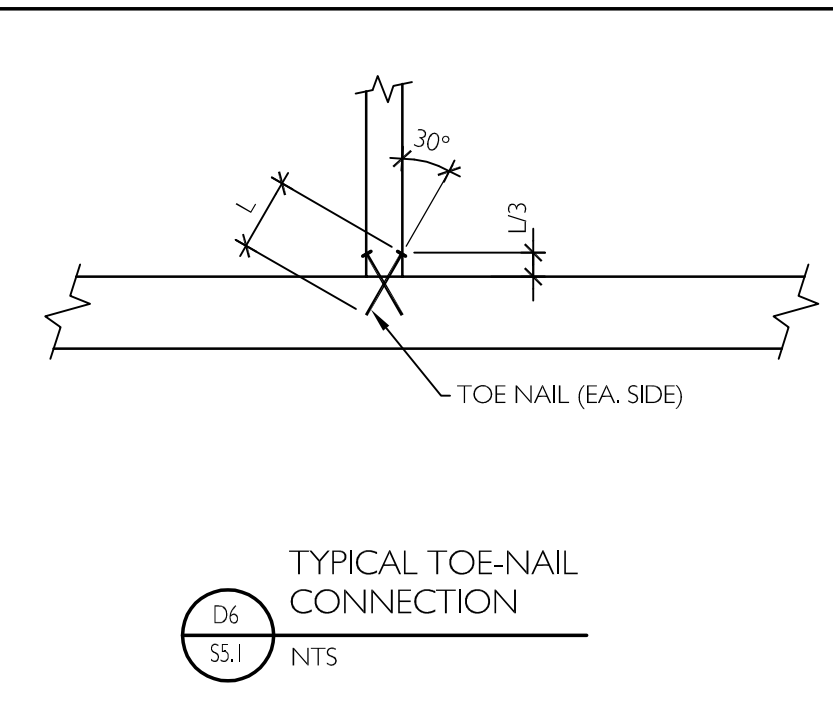
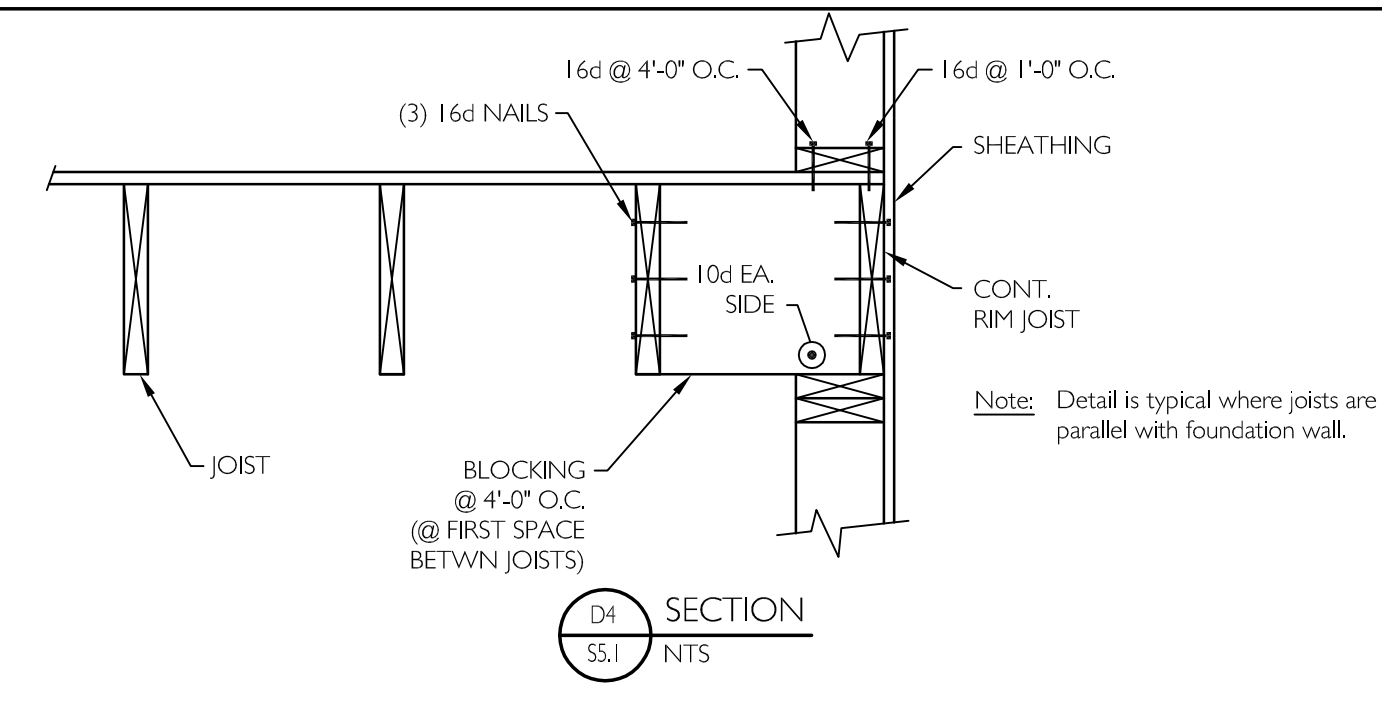
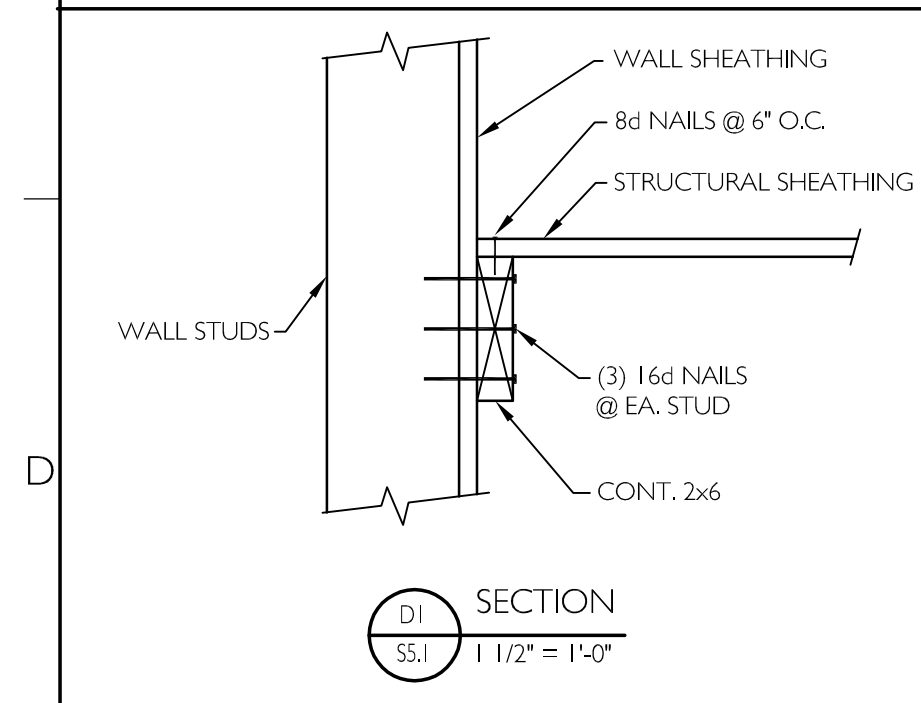


WOOD LINTEL SCHEDULE (SEE NOTES)				
MARK NUMBER	LINTEL SIZE	LINTEL MATERIAL	QUANTITY OF JACK STUDS AT EACH END	SECTION REFERENCE
L1	(2) 2 x 8	#2 SPF	1	G1 / S5.0
L2	(2) 2 x 10	#2 SPF	1	G1 / S5.0
L3	(2) 2 x 12	#2 SPF	1	G1 / S5.0
L4	(3) 2 x 6	#2 SPF	1	H6 / S5.1



**NOTES:**  
1. See G8 / S5.1 for typical framing at lintel.  
2. Except where otherwise noted by the above schedule, interior lintels shall be (3) 2x8's @ 2x6 stud walls and (2) 2x8's @ 2x4 stud walls.

**C8 SECTION**  
S5.1 LINTEL SCHEDULE



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No. 6401  
LICENSED PROFESSIONAL ENGINEER

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north yarmouth, maine 04097  
telephone 207 846 0099  
fax 207 846 1633

**NEW 3-UNIT BLDG.**  
LEDMAN & MYERS

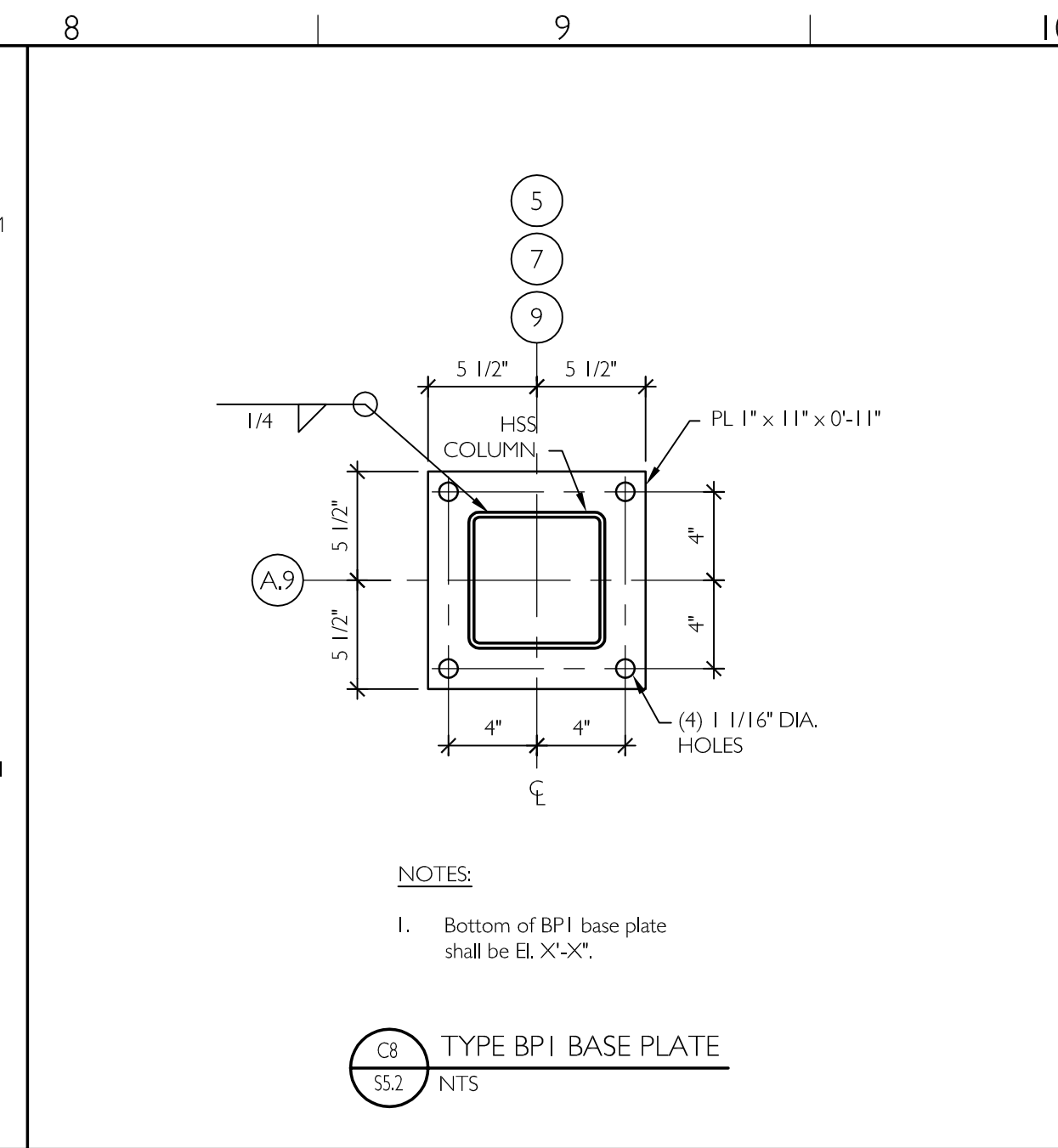
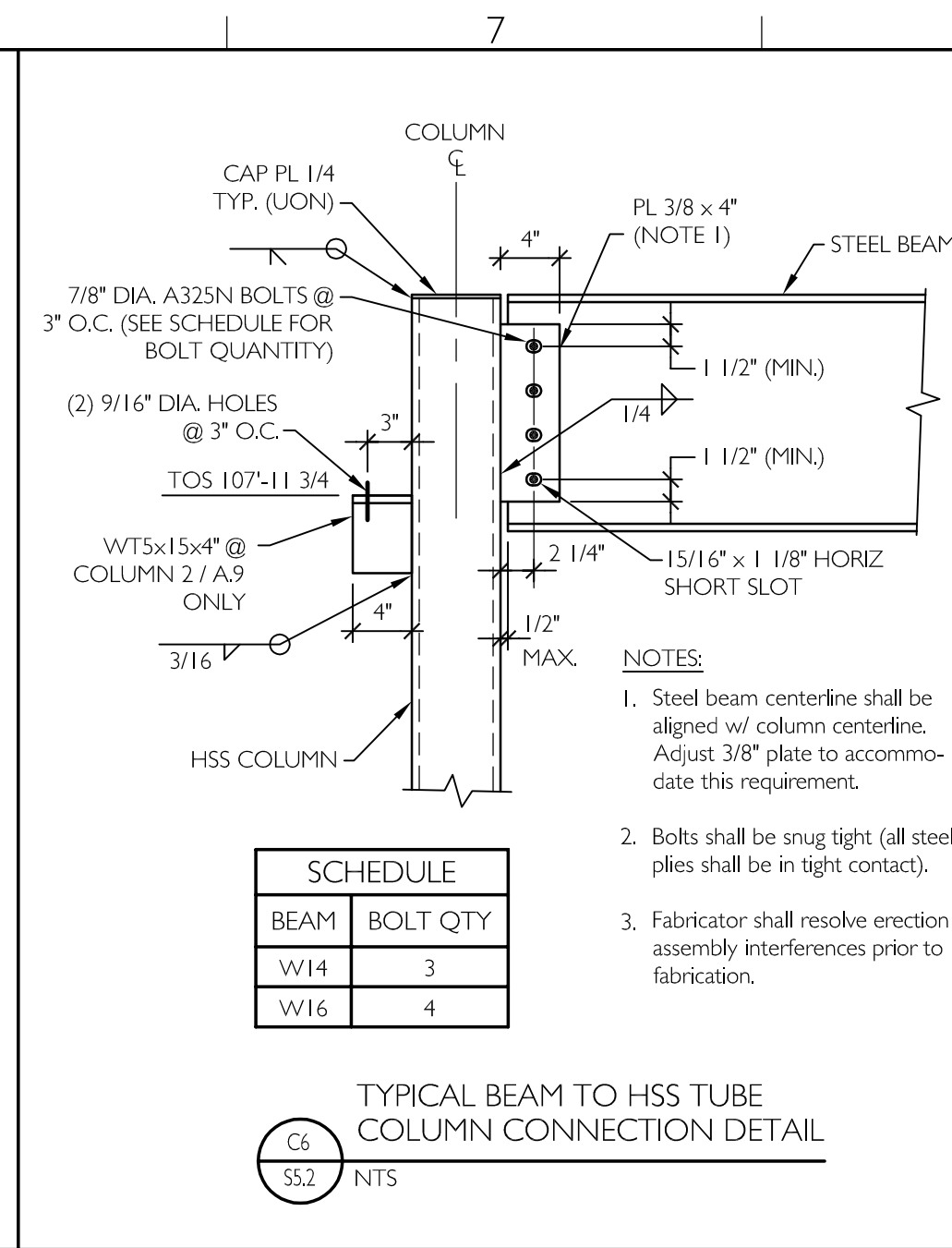
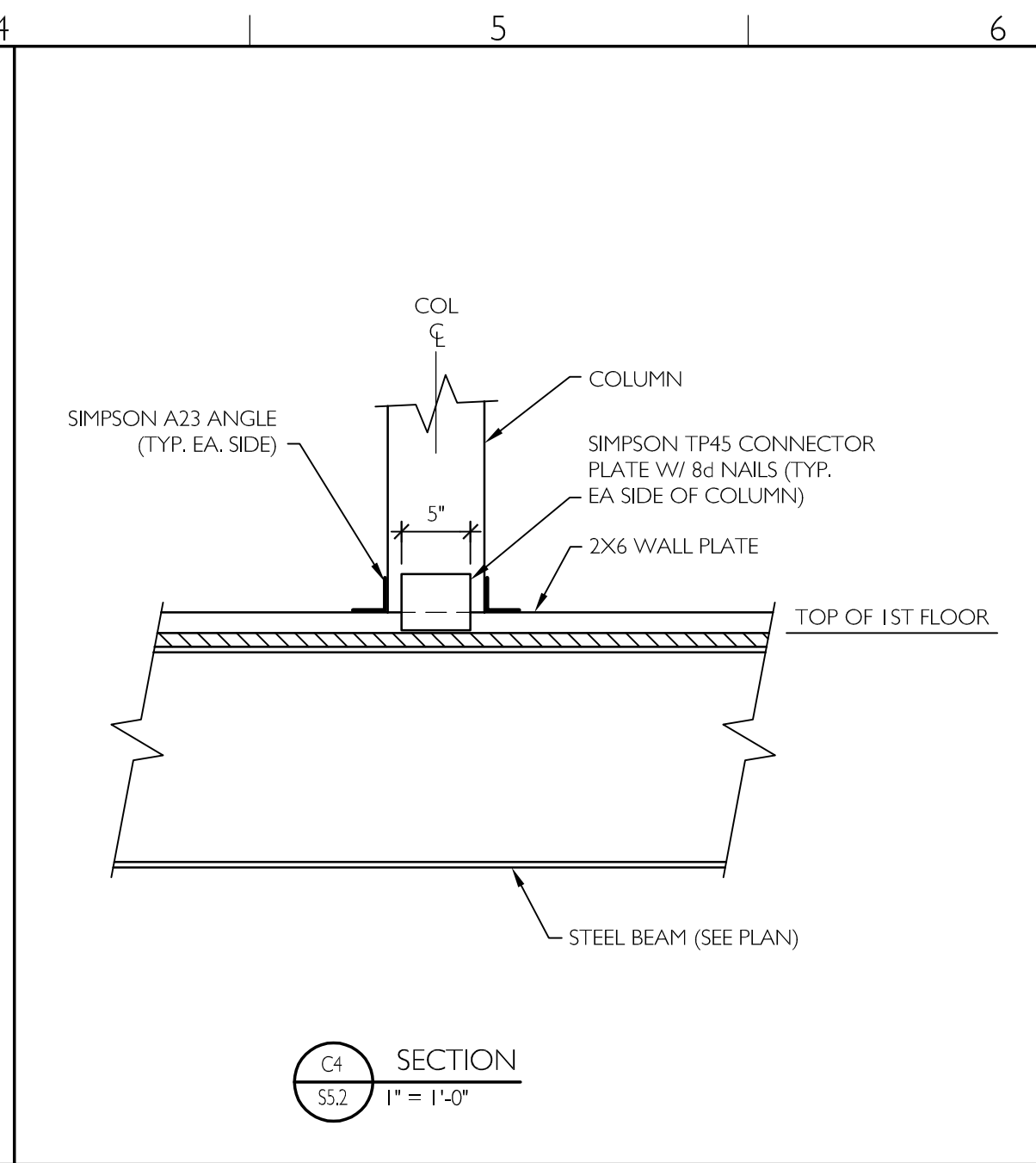
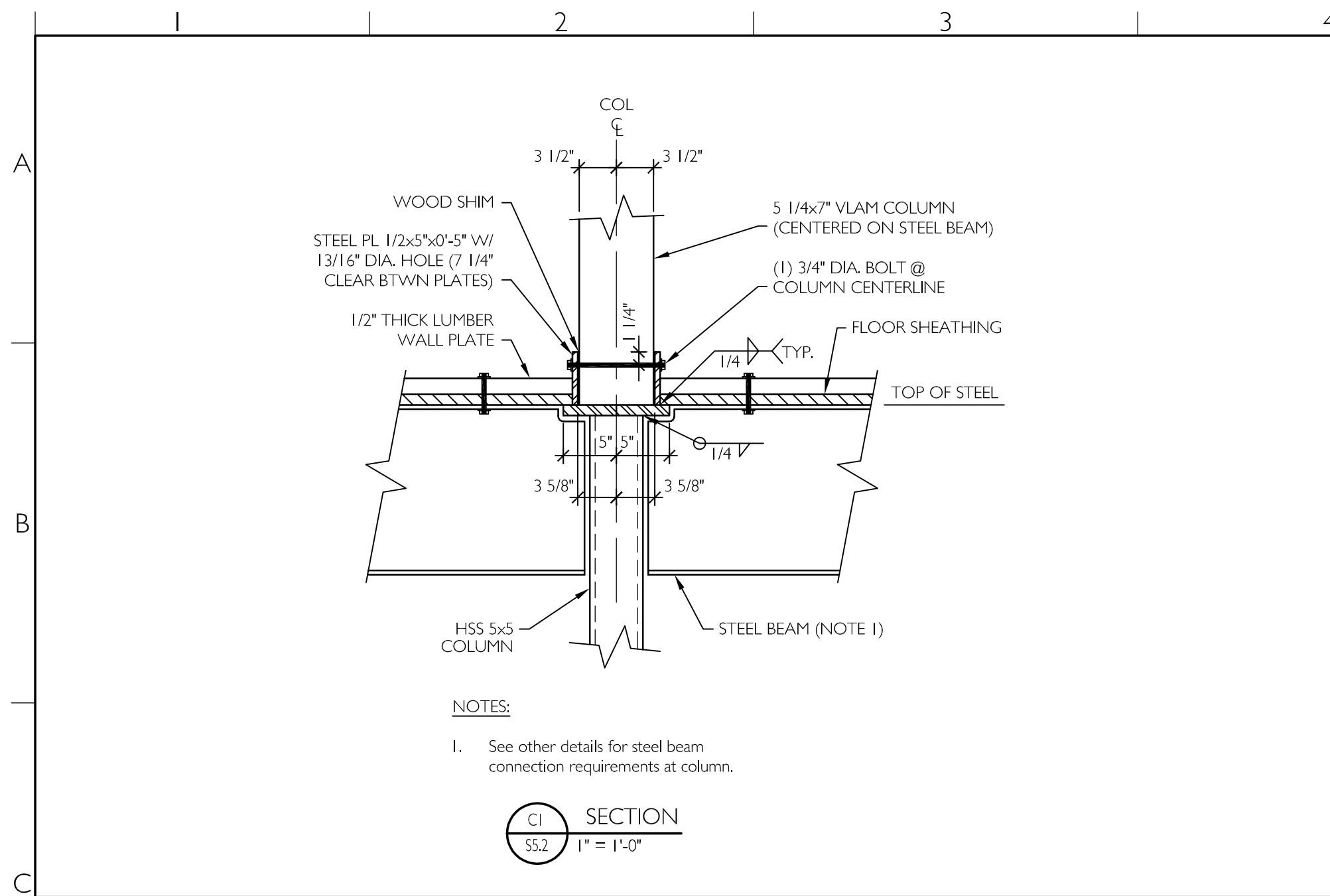
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124 FORE STREET  
PORTLAND, ME 04101

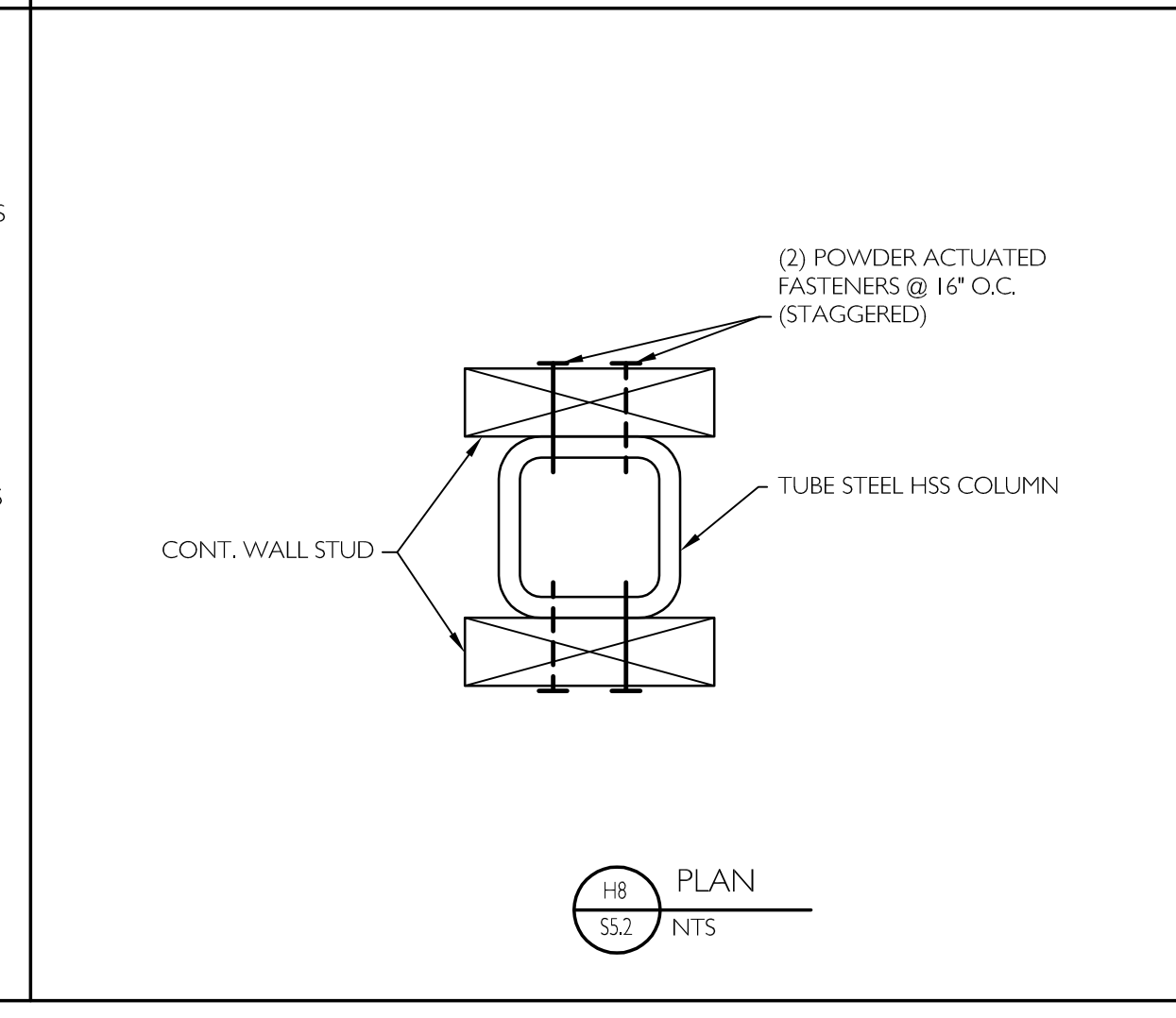
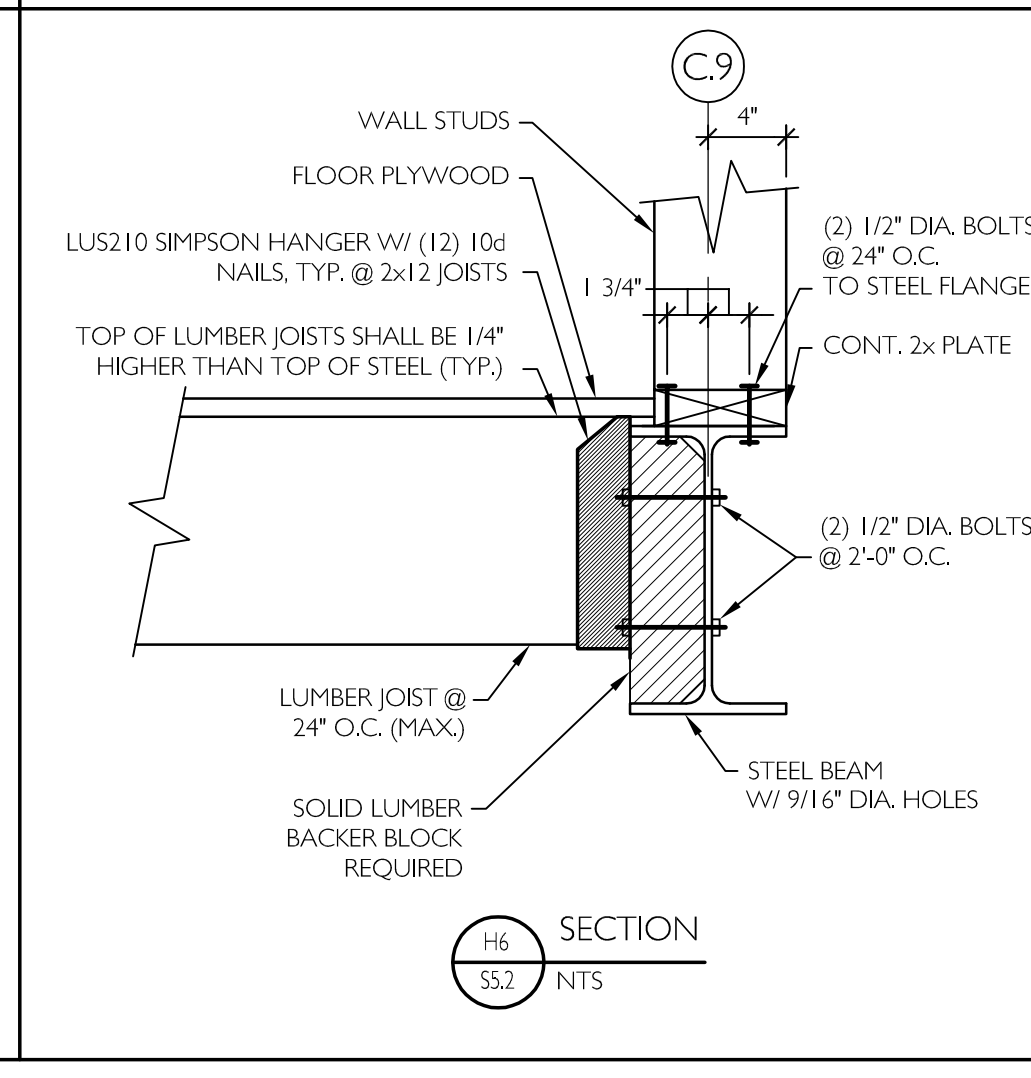
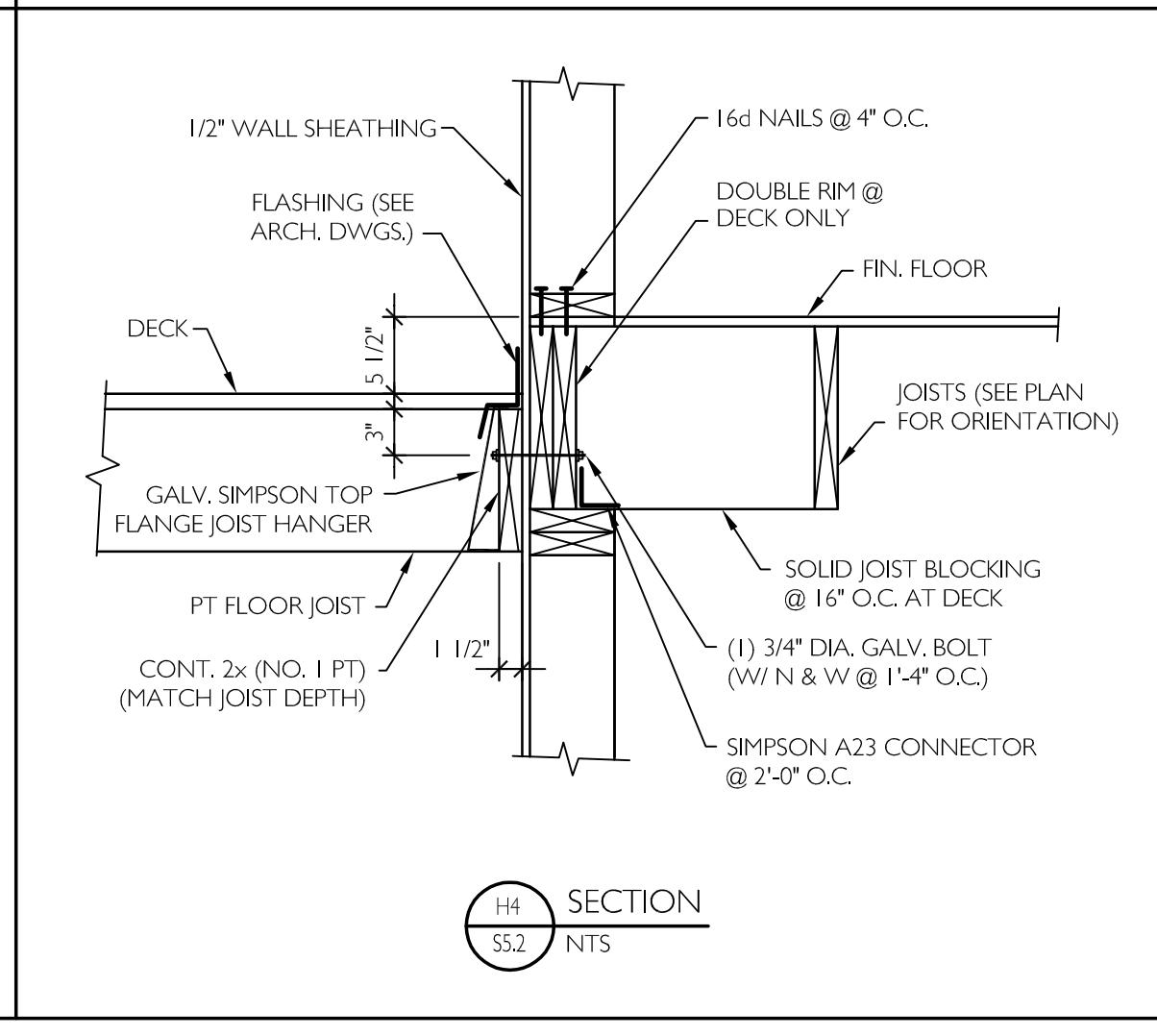
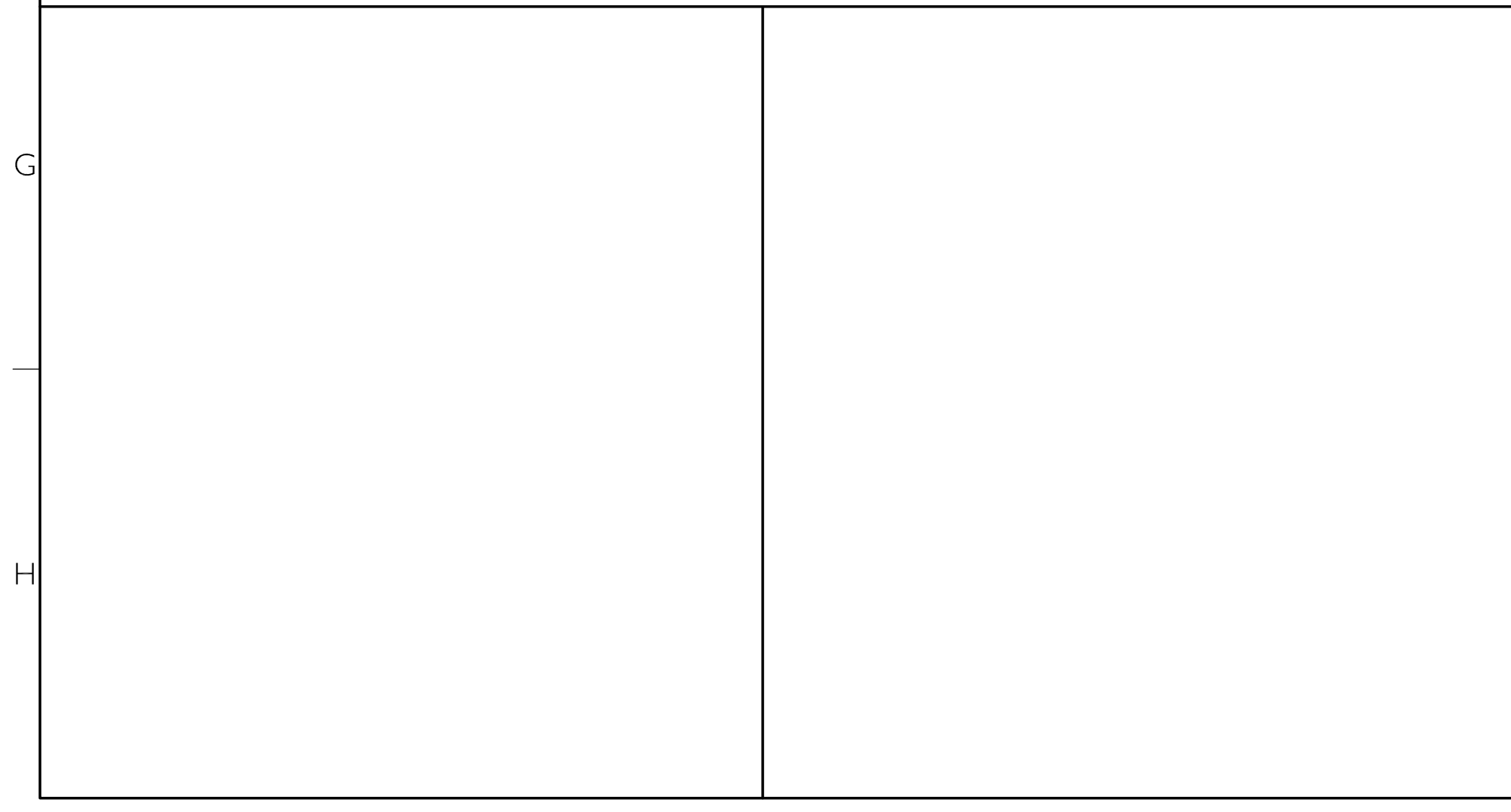
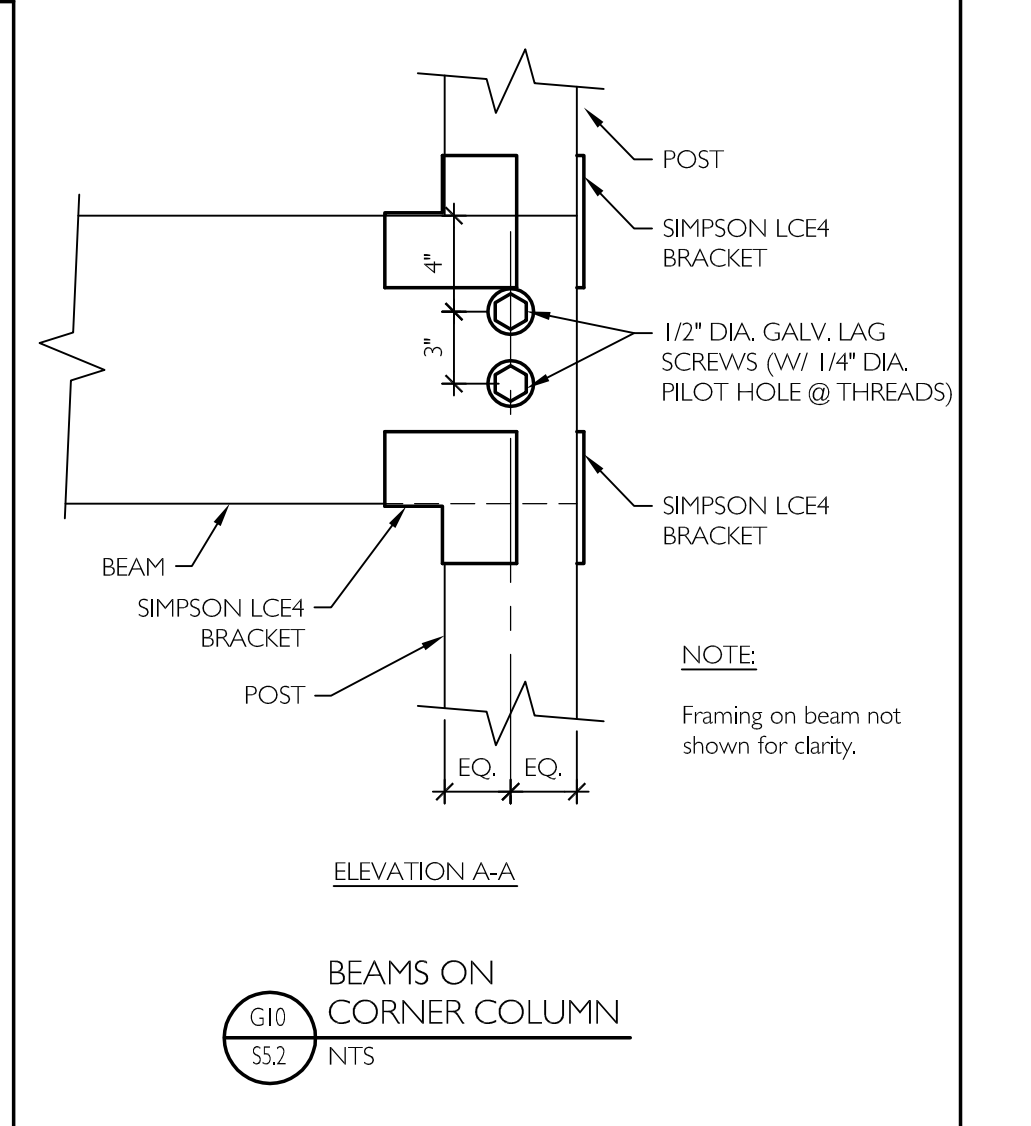
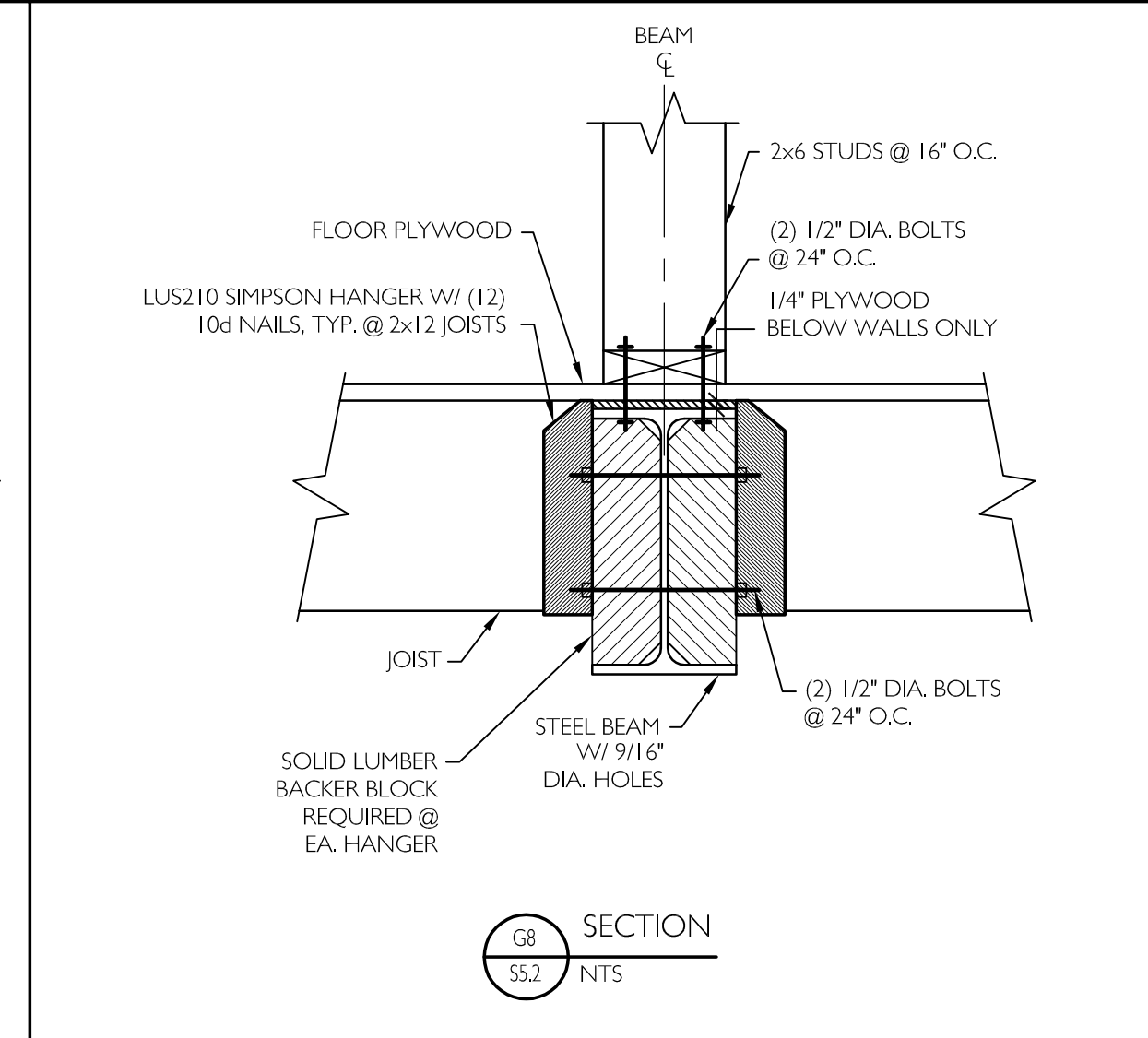
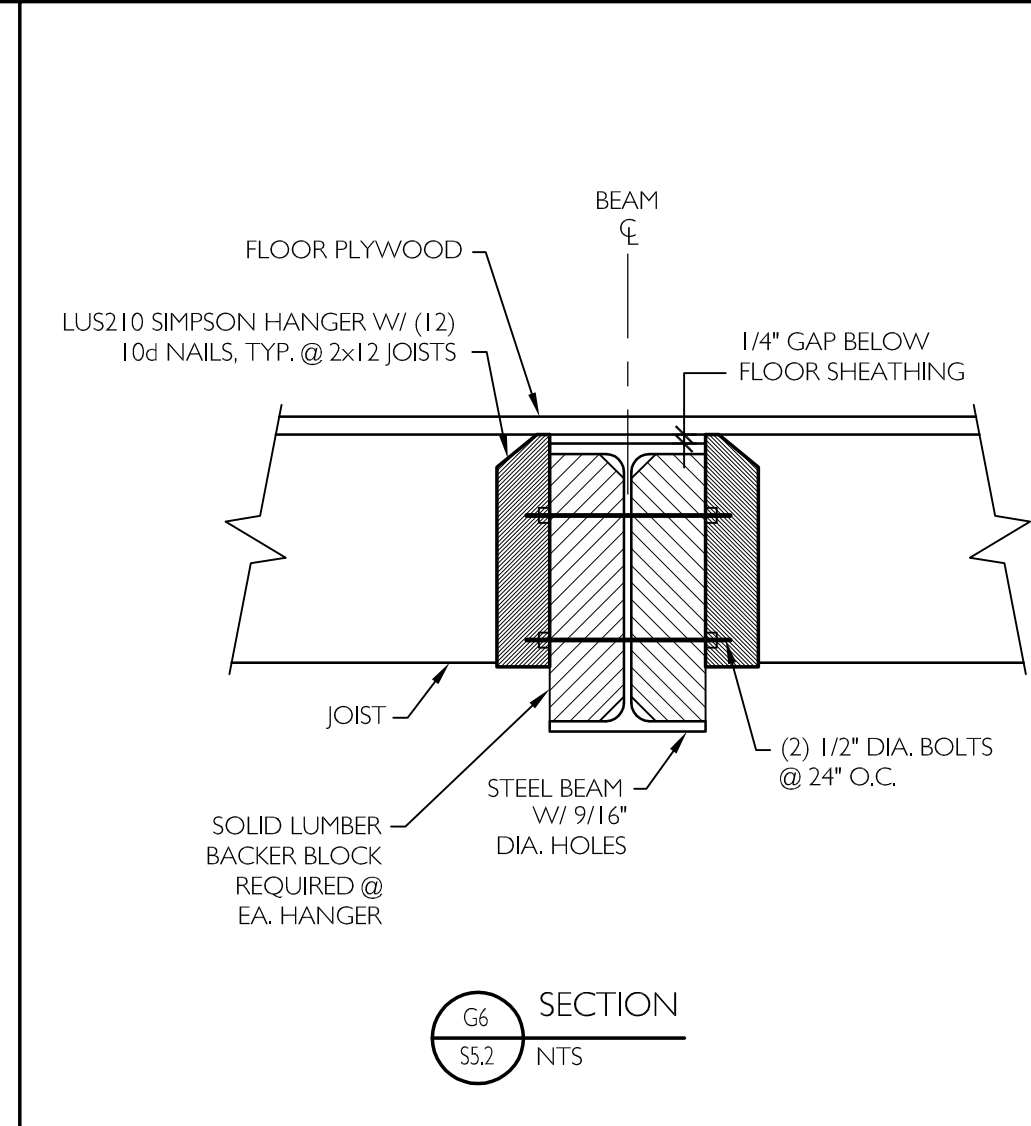
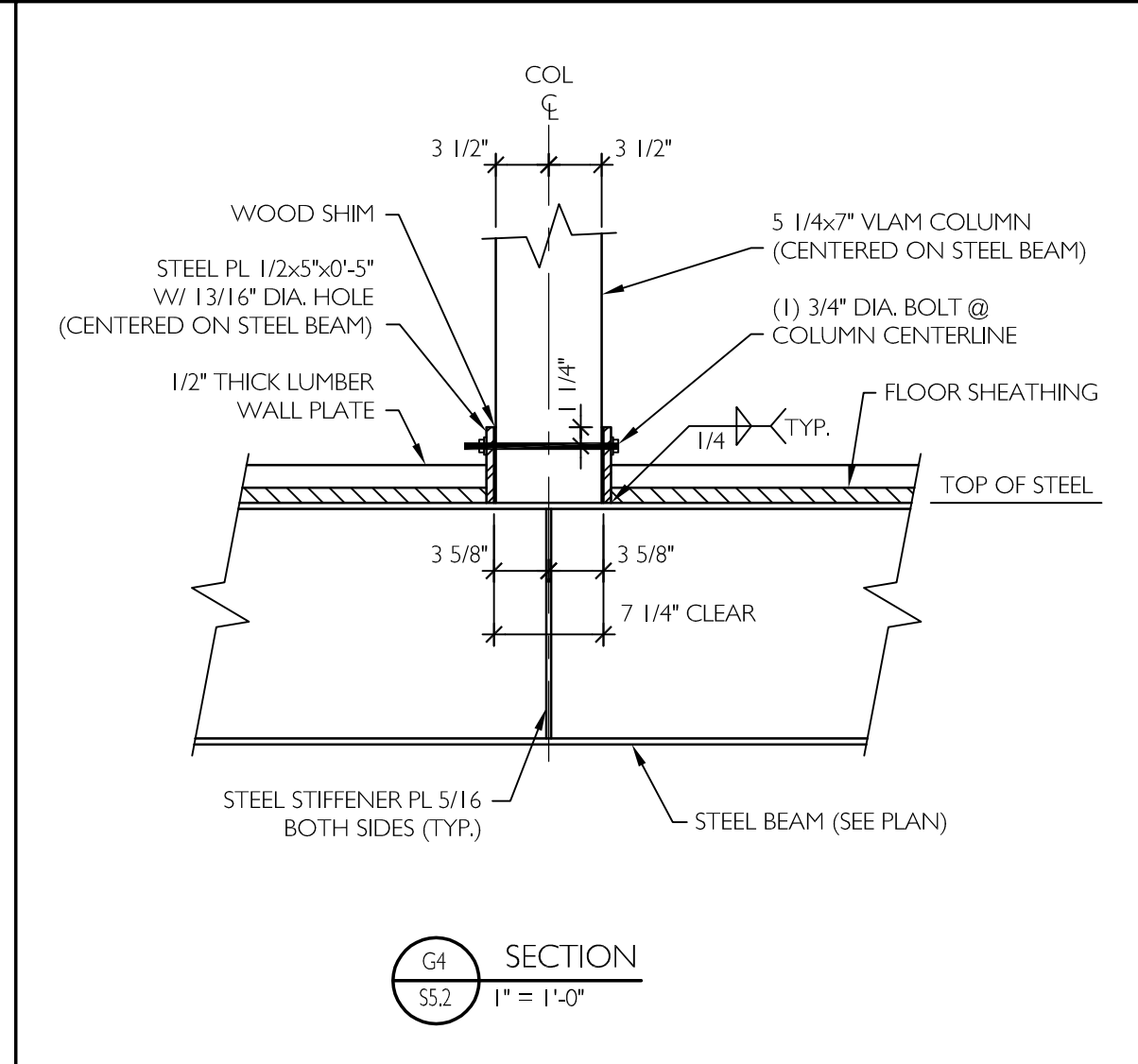
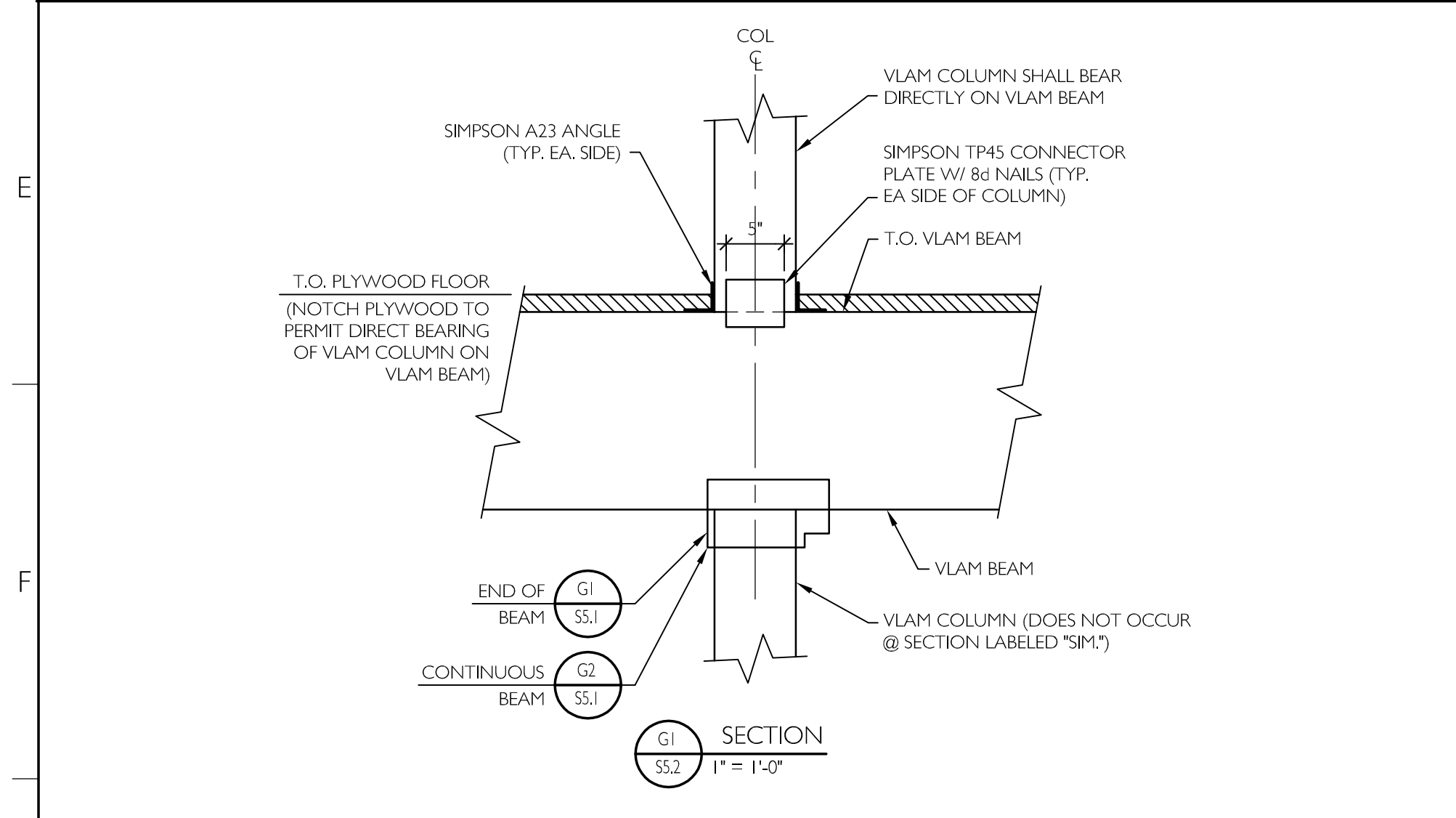
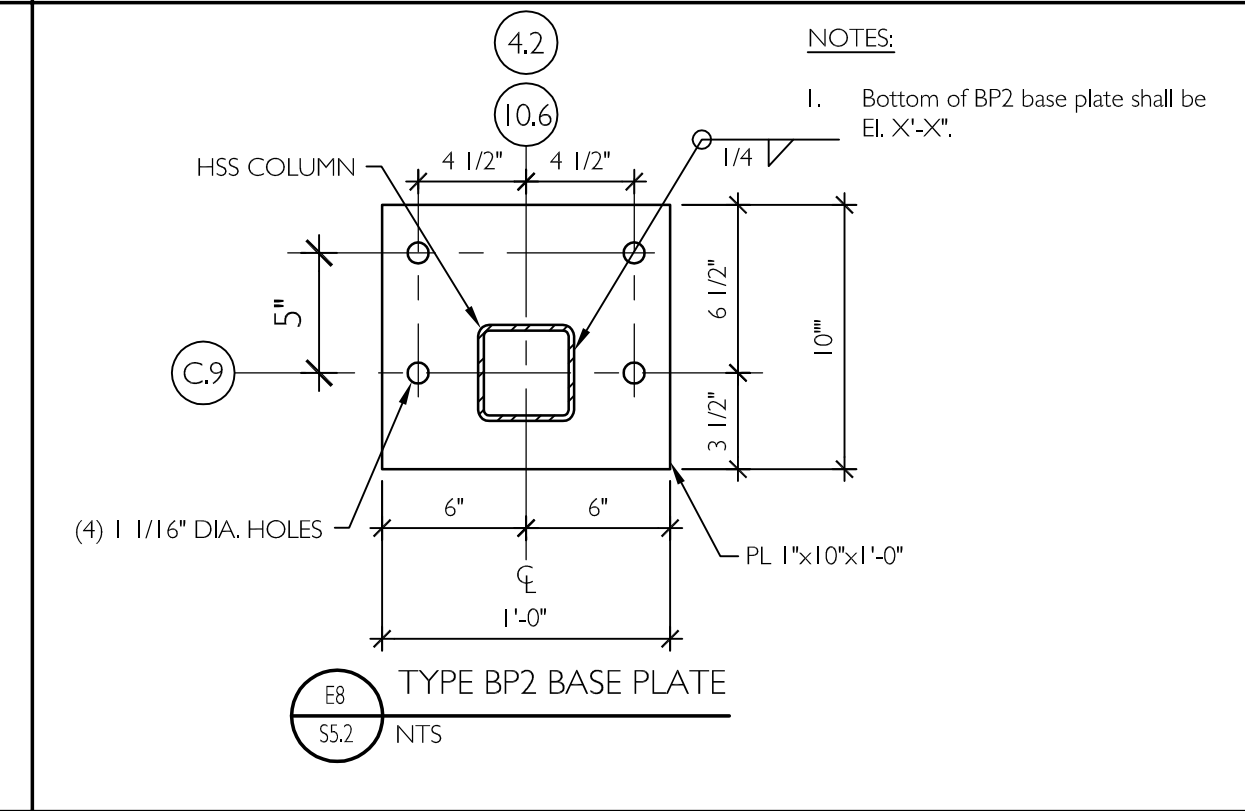
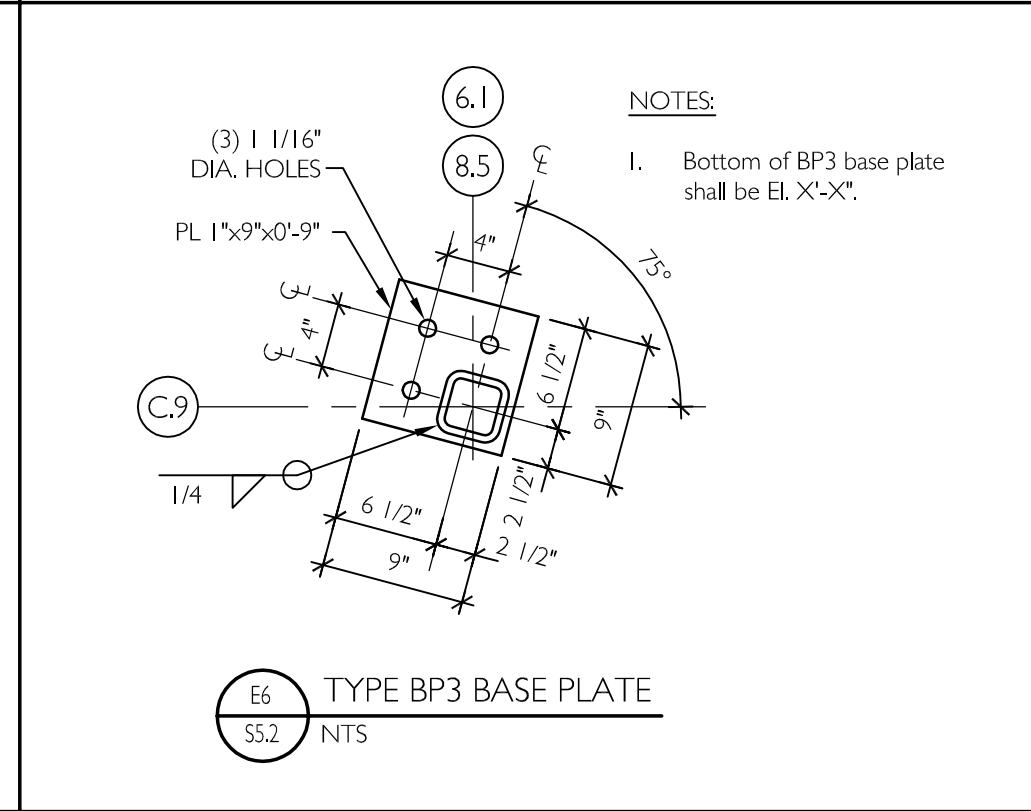
SCALE	AS NOTED	<b>FRAMING SECTIONS &amp; DETAILS</b> <b>S5.1</b>
ENGINEER:	DA P	
DATE:	8/8/10	
PROJECT NO.:	129-10	





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SCALE	AS NOTED	<b>FRAMING SECTIONS &amp; DETAILS</b> <b>S5.2</b>
ENGINEER:	DA P	
DATE:	8/8/10	
PROJECT NO.:	129-10	