DWGS. DRAWINGS SIMILAR SPA. EXISTING SPACING FACH FACE SPECIFICATIONS E.W. EACH WAY SQUARE EACH STANDARD ELEVATION TOP OF FOOTING T.O.F. EDGE OF CONCRETE TOP OF FOOTING TOP AND BOTTOM T&B FQUAL EQUIV. EQUIVALENT TOP OF EXP. EXPANSION TÝP. TYPICAL F.F.E. FINISHED FLOOR EL. UNLESS NOTED U.N. UNLESS NOTED OTHERWISE FOOTING U.N.O. FOOTING STEP VERT. VERTICAL GAUGE WIDE FLANGE GENERAL CONTRACTOR WORK POINT W.P. HORZ. HORIZONTAL WELDED WIRE FABRIC W.W.F. HEIGHT WITH H.S.N.S. HIGH STRENGTH NON SHRINK INSIDE FACE JOIST

A. These GENERAL NOTES present and/or summarize key project information for the plans reader's convenience. See also individual PLAN NOTES and project specifications for further

details and requirements. B. All references to reference standards herein are to most recent issue in effect as of the date of these documents unless noted otherwise in project specifications or on the

C. Elevations. All elevations are referenced to Ground Floor Slab = 0'-0". All elevations shown on plans are referenced to this datum unless noted. D. Submit Shop Drawings, Project Data and Samples as specified in Project Specifications Section 01300.

1. Identify prominently on drawings each and all esubmittals by number. Identify any changes which have been made other than those requested by the A/E. Submittals failing to conform to the above will be

returned for resubmittal. II. DESIGN CRITERIA A. Building Code. Arkansas Fire Prevention Code, 2012 vol II

> Buildings (IBC 2012 w/local amendments) B. Superimposed Design Loads: See plan notes for live and dead loads. Wind: a. Design speed $(3-\sec gust) = 120$ MPH (ultimate)

b. Exposure = C c. Fully enclosed Ground Snow: 10 psf, Importance factor = 1.1 1.25 Seismic Importance Factor, I Seismic Risk Group 1.545 Mapped Spectral response acceleration, Ss

Mapped Spectral response acceleration, S1 0.54 Site Class 1.03 Spectral response coefficient, Sds 0.54 Spectral response coefficietn, Sd1 Seismic design category Basic Seismic Resisting System Intermediate Moment Resisting Frames of Steel Design Base Shear, xxx kips Seismic Response Coefficient, Cs 0.286

4.5

ELFP

C. Foundations. See Geotechnical/Subsurface Investigation Report by Anderson Engineering Consultants, Inc. dated 4/3/2018. Spread Footings: Allowable bearing pressure 2000 psf individual column footings) or 2000 psf (continuous wall footings). Compacted subgrade density shall be at least 95% of the maximum density determined by ASTM D1557 (Modified Proctor).

Response Modification Factor, R

Analysis Procedure Used....

3. Shallow footings exposed to weather shall bear on subgrade below the frost depth. Adjust footing elevations as needed to maintain required earth cover above the footing. 4. The contractor shall take all necessary measures to protect the subgrade below the footings and slab on grade

from damage due to freeze/frost, erosion, scour and loss of bearing during construction. Contractor shall not allow water to pool in excavations before or after concrete is placed. If bottoms of excavations become softened due to water from rain or other sources before footing is cast, the softened material shall be excavated and replaced with concrete or compacted fill.

III. TESTING AND INSPECTION

A. Foundations and Earthwork. Geotechnical engineer of record/testing laboratory to be engaged by Contractor with A/E approval. See Specification Section 01400.

B. Materials and Procedures. Testing Laboratory to be engaged by Contractor with A/F approval. See specs. C. See spec. Section 01400 for scope of services, limits of

authority, etc. D. Seismic Inspections and Testing: Refer to IBC, Chapter 17. Special inspections are required for this project, and shall be conducted by a certified Sepcial Inspector.

IV. EARTHWORK Review Geotechnical/Subsurface Investigation Report for complete earthwork requirements. Where the following summarized requirements conflict with the geotech report, those in the report shall be complied with.

A. Site Preparation. After stripping (and excavating to the proposed subgrade level, as required), the subgrade should be proof—rolled with a moderately heavy loaded pneumatic—tired vehicle such as a 20 to 25 ton dump truck or scraper. Soils which are observed to rut or deflect excessively under the moving load should be undercut and replaced with properly compacted fill. All proof—rolling and undercutting activities should be witnessed by the Geotechnical engineer and should be performed during a

period of dry weather. 2. Within building area, compact top 6" of cut area subgrade to minimum density 95% of the maximum density by ASTM D698.

B. Structural Fills. Select fill material compacted in 8" loose lifts. Subgrade under building foundations: minimum density 95% of the maximum density by ASTM D1557 Subarade under slabs-on-grade: minimum density 95% of the maximum density by ASTM D1557.

Granular subbase under slab—on—grade: 8" thick clean coarse gravel (ASTM C33, Fineness modulus greater than 6) or crushed stone (#57) compacted to at least 70% of the maximum relative density by ASTM D4253 and D4254. Provide vapor barrier. See sepcs.

Groundwater Control. See geotechnical report. Utility trench excavations must be cut to competent bearing soils suitable for support of fill placement and then backfilled with properly compacted fill that is constructed as outlined in the geotechnical report.

CAST-IN-PLACE REINFORCED CONCRETE: See spec. Section 03300. A. Design Code. ACI 318 — Strength Design. Reference Standard: ACI 301. Contractor to maintain copy at job site. B. Mix Design shall be documented in accord with Section 03300 of the project specs and ACI 301 , Chapter 3 "Proportioning" Mix designs which are submitted without the required documentation will be rejected. Field slumps recorded at job site shall not exceed the slump established for the mix

C. Type Concrete. (28 day compressive strengths) Footings, slab-on-grade, grade beams: 3,000 psi N.W. Walls (Site, foundation, basement): 4,000 psi N.W. Piers, columns: 4,000 psi, N.W. All other structural concrete shown on these plans:

4,000 psi N.W. u.n. All concrete exposed to the elements shall: a. be air—entrained 5% (+ 1%), and have crushed limestone aggregates

Coarse aggregate shall meet AASHTO Gradation #67. All concrete in walls with only one plane of rebar shall have fiber reinforcement added to the concrete at the rate of 1.5 lbs/cyd. D. Formwork. See specs.

Keys Indicated are to be 2 x 4 nominal continuous, u.n. Camber: Provide camber to compensate for displacement of forms (see also specs) and to provide as—cast member camber as noted on plans. 4. Rustication strips, chamfers, drips, misc. embeds, etc. See plans and/or architectural drawings.

E. Reinforcement. Reinforcing Bars. Deformed, Grade 60, ASTM A615. Provide matching weldable rebar conforming to ASTM A706 where rebar welds are speciafied on contract documents. a. Fabrication: ACI 315 "Details and Detailing of Concrete Reinforcement or CRSI "Reinforcing Bar

Detailing" (Manual of Standard Practice). Welded Smooth Wire Fabric: ASTM A185 Welding: ACI 301, Section 5.3, AWS D1.4 Corner Bars. Provide corner bars same size and spacing as horizontal reinforcement at intersections of all walls, beams, footings, slabs and turndowns. Tension Lap splice all corner bars, u.n.

a. Continuous reinforcement bars shall be lapped 48 times the bar diameters, but not less than 1'-6" at all splices, u.n., including corner bars. Welded Wire Fabric shall be lapped 8".

6. Minimum cover for protection typical, u.n. Unformed surface in contact with ground: 3" Formed surface in contact with ground or exposed to the elements: 2" Structural slabs and walls: 3/4" In all cases not less than the diameter of the

7. Hooks indicated are ACI/CRSI standard 90 deg. or 180 deg. hooks. Bar lengths shown are out—to—out and do not include hook length. Embed hooks 12 bar diameter (8" min.). 8. Provide support for miscellaneous top bars as follows: #5 carrying bars with chairs at 4'-0" o.c. max., OR #4 carring bars with chairs at 3'-0" o.c. max.

9. Accessories: Provide protected bar supports Class 1, Maximum protection (CRSI Manual of Standard Practice). 10. Provide #3 spacer bars @ 48" o/c ea. way max. between mats of reinforcement in walls, with two or more mats

11. Provide #4x2'-0" diagonal trim bar at each re-entrant

corner of slab, and at each corner of each slab blockout, centered in the slab. Required in slab on grade and elevated slabs. F. Slab & Wall Openings: Coordinate with mechanical, plumbing and electrical trades. Field requirements not shown on structural plans must be approved by the structural engineer. Additional reinforcement required for such openings shall be provided by the contractor at no additional cost to the Owner. Plumbing slots are to be filled with concrete to same

Embedded Pipes or Conduit: a. In slab on grade: Maximum diameter — 1/4 x slab or wall thickness, spaced minimum of 6 diameters on center, centered in the slab/wall. b. In elevated slabs: Maximum diameter — 1/4 x slab thickness, spaced minimum of 1'-6" on center, centered in the slab/wall. c. Cross over of conduits (one over another) shall not be

thickness as slab or wall after piping has been installed.

permitted. d. Embedded pipes or conduits shall not be permitted in wall stems, beams or columns, unless noted otherwise on plans. H. Grout, epoxy mortar: High strength non shrink grout: CRD C-621, 8000 psi. Epoxy Mortar: Euclid EUCO #452 epoxy system with sand.

I. Concrete Finishes: See specs. also. 1. Formed surfaces: a. Painted or exposed to view: rubbed, u.n. on Covered or as noted on plans; as—cast 2. Flatwork surfaces:

Exposed to view: troweled Tiled or carpeted: troweled Stairs or ramps: non-slip

Sidewalks, driveways: broomed or belted J. Slabs on Grade. Control joints shall be made by saw cut 3/16" wide x T/4" deep or PVC joint strip (T=slab depth). Control joints shall be cut as soon as the concrete has set and before shrinkage has occurred on the surface. See plans for joint details K. Thickened Slab on grade. Thickened slab shown on plans

shall be cast monolithically with the rest of the slab on grade.? L. Concrete over steel deck: Floor members are designed to be unshored unless otherwise noted. The weight of the wet concrete will result in deflections of at least Span/360 and as noted in the deck specifications. Overruns of concrete quantities are to be anticipated and included in the contractor's bid. Contractor shall coordinate embedded items shown at the floor surface. Concrete floors utilizing unshored construction shall be screeded level. M. Shop Drawings: Submit rebar shop drawings. See specs.

VI. STRUCTURAL STEEL: See specs A. Design, Fabrication, and Erection. AISC-360, Spec.for Structural Steel Buildings. B. Grade Steel.

1. Wide Flange sections: ASTM A992, Gr. 50. . Structural tube: ASTM A500, Gr. B, 46 ksi. . Structural Pipe: ASTM A53, Gr. B 4. Misc. structural steel: ASTM A36.

D. Tolerances. AISC Code of Standard Practice.

C. Connections. AISC Manual standard connections unless noted. Non composite beam connections that are not detailed on structural drawings shall be designed by steel supplier for 1.25 times the AISC maximum uniform service load capacity of the connected member (applies to both LRFD or ASD design) All connections shall be bolted type, using 3/4" dia. A325N bolts and double angle framed connection, u.n.o. 1. High—strength bolts: ASTM A 325 bearing type.

Standard AISC "Usual Gage" dimensions shall be used fo locating holes for bolts, expansion anchors, etc. in all angles, beam flanges, etc. unless noted. All bolt holes shall be standard holes, u.n. Bolts shall be pretensioned per AISC Spec. Snug tight bolts shall not be permitted. 2. Welds: AWS D1.1 and AWS D1.8, Series E70XX. Provide 3/16" fillet welds, all around, u.n. Return welds around corners

3. Headed Studs: Nelson type H4L or S3L, ASTM A108 (Min. fy=50 ksi). All studs shall be stud welded per stud manufacturer's recommendations. 4. Rebar welded to steel shall be ASTM A706, grade 60, weldable type. Use E80 electrode. Weld size shall be capable of developing 1.2 times the tensile strength of the rebar. Comply with AWS D1.4.

1. All structural steel exposed to view in the finished building shall be considered AESS whether or not designated as such on plans. Such steel shall meet the tolerances for AESS, all welds shall be watertight and ground smooth. E. Camber. Provide positive camber as noted on plans. Where no camber is noted, residual mill camber is to be upwards. F. Floor and Roof Openings Verify size and location of required

openings with mechanical, plumbing, or other trades as necessary to assure correct framing and submit on shop drawings. Provide sub-support as required for deck closures typical, including at columns. Coordinate with deck G. Shop Drawings. Submit shop drawings. See specs. Submit calculations for connections, bracing, framing,

stairs, etc. required to be designed by the fabrication for A/E review. H. Composite and non composite floor members are designed to be unshored unless otherwise noted. I. Paint. Shop primed. Primer to be compatible with fireproofing

material. All steel and steel accessories (incluing bolts, nuts and washers) exposed to elements shall be G60 galvanized J. Joist erection stability. Do not cut holes in beam's tension flanges at a distance of 1/4 beam span (min. three feet) on each side of the point of maximum moment (i.e., at mid span at simple span beams, and at columns for cantilever or continuous beams). Provide additional miscellaneous steel plates, etc. as needed to provided holes for bolted connection of joist and bridging during erection.

K. Double angle struts shall be connected to each other. The connector plate shall be 3/8" thick, u.n., at a maximum spacing of 0.3 times the length of the strut, u.n. The plates shall be welded to angles with 3/16" fillet weld all around, u.n. L. Roof top units: Provide shims and/or additional framing as

required to provide a level surface to support the RTUs. The contractor shall consider the deflection of the support framing under the Unit's weight. Shims may also be required to even out surface irrregularities due to bolt heads, cover plates, angles, etc. M. Provide L3x3x3/16 continuous at roof perimeter and interior edges, unless noted otherwise.

N. Provide 3/16" bent plate with vertical leg equal to the slab depth and horizontal leg length as required for proper anchorage to the element which supports the bent plate continuous around the perimeter and at interior edges of the composite and non-composite slabs, unless noted otherwise. O. Do not cut holes in tube or pipe bracing, columns or beams, unless

noted on structural drawings. Holes in tube or pipe steel shall not be premitted. Contractor shall coordinate and note on shop drawings conduit, pipes, etc. prior to submitting shop drawings for A/E review. P. Provide plate washers under anchor bolt nuts. Washers thickness shall be at least 1/3rd of the bolt diameter. The washer diameter shall be 1" greater than the hole in the base plate covered by the washer.

Q. Provide weep holes in HSS members that are subject to weather or are R. All cuts (cope, re-entrant corner, etc.) in the steel members shall have at least 1/2" radius, u.n. Torch cut edges must be ground smooth.

VII. OPEN-WEB STEEL JOISTS: Design, Fabrication, and Use. SJI Specs. Design roof joists to resist 20 psf net uplift; 30 psf net uplift in 12 feet wide strip along the perimeter of the roof, including

at eaves, overhang and corners. C. Connection. Joists to be welded or bolted to supports as required by SJI. Extend bottom chord of joist to wall lines and connect after all dead loads are in place. D. Paint. One coat SSPC 15-68T. Paint to be compatible with

fireproofing. Concentrated Loads. Attachment in such manner or at such location that local bending is not introduced into the chords except as noted

Provide standard SJI bridging, for erection stability as well as for uplift. Anchor bridging to beams, columns or walls, as recommended by SJI. Bridging and/or diagonal bracing to be collinear where exposed to view.

Submit Shop Drawings. See specs. H. Joist erection stability: Provide extended seats as needed to make bolted connection of joists as required for erection stability. Coordinate with structural steel supplier.

I. Roof joists and girders exposed to work floor shall be designed to support concentrated loads from bottom panel point as required by the building code. J. Where joists support concrete filled decks, the joists shall

be cambered to be level under the weight of wet concrete. K. Dead load and live load deflections shall limited to Span/240 for Dead+live load, and Span/360 for roof live load and Span/480 for floor live loads. L. Joists and girder sizes shown on plans are for estimating purposes only. Except the depths of joists and girders, the chord sizes may need to be modified by the joist designer as needed to support

all the gravity loads and special loads noted M. Loads from pipes are not included in the joist designations shown on the structural drawings. Joist designer shall design joists to support pipe loads in addition to the gravity loads noted above. Coordinate hanger locations and loads with the contractor

N. Field verify all as—built support conditions for position, levelness, slope, etc. prior to fabrication. Adjust fabrication lengths, thickness, etc. to fit existing as-built support structure.

A. Design, Fabrication & Erection. Steel Deck Institute (SDI) Design Manual. Conform to Recommendations for Steel Deck Diaphragm, SDI 81. B. Material. ASTM A653 grade 33 steel, painted. Provide G60 galvanizing where the deck is subject to moisture condensation i.e. outside the heated envelope of the building)

C. Installation. Where possible, extend over 3 or more supports. Deck Attachments shall be in accordance with SDI specs unless noted and shall be adequately shown on deck shop drawings for field installation. Anchor to resist 30 psf net uplift (and 45 psf at Eave, Overhangs and Corners) minimum. Side laps to be fastened with sheet metal screws. See Deck anchorage

D. Accessories. Ridge & valley plates, cant strips and closure plates attached directly to steel deck shall be included in

deck supplier's bid. E. Shop Drawings. Submit shop drawings.

VIII. STEEL ROOF DECKING: See specs

IX. STEEL NON COMPOSITE FLOOR DECK (See Specs.) A. Design: SDI, Specifications and Commentary. B. Material: AISI, Specification for the Design of Cold Formed Steel Structural members, Section 1.2 Material. Minimum yield point, Fy=80 ksi. Minimum thickness and depth — see plan.

ASTM A653 grade 80, Galvanized 1. Protective Coating: ASTM A924, G60 Galvanized. C. Installation: SDI Specifications, Section 4 (see specs). Deck attachments shall be in accordance with SDI specs unless noted and shall be adequately shown on deck shop drawings for field installation. Attach to framing with 5/8" dia. puddle welds with weld washers at 12" o/c max. at all end and intermediate supports. Attach sidelaps with #10 screws at 12" O/C. Attach deck to framing at perimeter at 6" o/c. Provide a minimum 1-1/2" sidelap.

D. Concrete: Refer to General Notes above. Chloride salts or admixtures containing chloride salts shall not be used.

E. Deck Supplier to provide all closures, etc. necessary to retain concrete. Coordinate Sub-support with steel

G. Pour joints: Concrete pour joints shall occur in the middle third region of the slab between beams, and girders. Joints shall not be allowed over or near any beams or girders, except as noted above.

H. Shop Drawings: Submit Shop Drawings.

X. PRE-ENGINEERED PRE-FABRICATED LIGHT GAGE STEEL TRUSSES, See Spec. Design. AISI "Specifications for the Design of Cold—Formed Steel Structural Members". Top chord thickness shall not be less than 18 gauge. Design Loads, unless noted otherwise on plans:

Roof Live Load = 20 psfDL Top chord = 10 psfDL Bottom chord = 10 psf b. Deflections. Roof truss (Live load)=L/360 Total DL+LL = L/240 (for roof and floor)

c. Roof truss uplift: 20 psf net; 30 psf net at eaves, overhangs and corners, u.n.o. on plans. d. Truss overhang/cantilever shall be designed to support minimum 300 lbs concentrated live load at the cantilver

e. Scissor trusses shall be designed assuming one of the supports to be a roller, such that lateral displacement is allowed. ??

f. Where parallel chord trusses are used for roof framing, the trusses shall be designed to support ponding related stress. Refer to ASCE Standard 16-95 (Appendix A.3). See plans for additional loads from snow, rtu, etc. 2. All truss to truss and truss to supporting structure anchorage and connections shall be designed by the truss supplier. 3. Shop Drawings. Submit shop drawings and calculations,

signed and sealed by a Registered Engineer, showing al anchorage and connection details, hardware, truss design, layout, truss members, bridging, bracing and installation 4. Truss layout shown on structural drawings shall not be revised in a way that changes the load path to the foundations.

All costs of additional work, if necessary due to the revised truss layout, shall be borne by the Truss supplier. 5. Trusses shall be configured such that truss bearing occurs at a panel point. Trusses bearing on bottom chord away from a panel point shall be rejected.

Provide camber at mid span equal to 80% of dead load for parallel chord trusses, u.n.o. Field verify all as—built support conditions for position, levelness, slope, etc. prior to fabrication. Adjust fabrication lengths, thickness, etc. to fit existing

as-built support structure. XI. TEMPORARY BRACING OF STRUCTURE A. Contractor shall provide temporary bracing as required until

all lateral force resisting elements are in place (such as roof and floor diaphragms, bracing, shearwalls, etc.) B. Contractor shall provide all erection stability bracing, bridging, blocking, etc. as required during construction C. Contractor shall be solely responsible for the construction means and methods required to safely achieve the conditions depicted in the contract documents. Where construction sequence are noted on the documents, they should be treated as recommendations and are not mandatory. However, any variation

in the recommended sequence should be submitted to A/E prior D. All excavations shall be shored. Unshored excvations shall meet the geotechnical engineer's recommendations.

XII. EXISTING CONSTRUCTION/UTILITIES A. Contractor shall field verify existing conditions noted on these plans (dimensions, elevations, construction details, etc.) and to coordinate same in all affected shop drawings

B. Report any existing condtions not as indicated or not shown on the contract documents to A/E prior to fabrication and/or construction. C. Refer to reports/surveys by others for subsurface and above

ground existing condtions as necessary. D. Contractor shall locate (with non destructive means only) reinforcement in the existing concrete or masonry prior to drilling. Do not cut or damage reinforcement. Obtain written A/E approval prior to cutting rebar. E. New roof top units over an existing roof system may cause

significant deflection which may lead to ponding of rainwater on the roof. The contractor shall verify that there is a positive drainage away from the units to a drainage system after the units are installed. Contractor shall modify existing roofing system as needed to maintain slope to a drain. F. Protect existing utilities, roofing, equipment and structure

from damage during construction. G. Contractor shall field verify soundness of existing structural members (joists, beams, columns, etc.) and their connections prior to construction. Any member or connection if found to be defective, damaged or distressed shall be tagged and brought to the Engineer's notice prior to fabrication or erection. H. All existing rebar and structural steel surface shall be cleaned

to meet SSPC SP-6 standard prior to attachment to new construction. I. All existing concrete surface shall be cleaned to meet SSPC SP-13 standard prior to applying bonding agent and placement of adjacent XIII. EPOXY OR MECHANICAL ANCHORS IN MASONRY AND CONCRETE

1. Hilti HIT-RE 500-SD Epoxy Adhesive for use in concrete.

2. Hilti HIT HY 70 Epoxy Adhesive for use in grout filled CMU. . Mechanical anchor: Hilti Kwik Bolt TZ or approved equal. All anchors shall be hot dipped galvanzed. D. In concrete masonry, the anchors shall not be located in a head joint or within 2" of a head or T joint. Follow manufacturer's recommendations for installation

E. Anchors in CMU walls must be centered in grouted cells

A. Epoxy Anchoring

and must have at least 12 inches of CMU wall all around the anchor fully grouted F. Contractor's testing laboratory or approved inspector shall perfrom full inspections during the installation of anchors as outlined by the manufacturer in its ICC—ES Evaulation Reports. G. Concrete and masonry substrates receiving epoxy anchors shall be

dry. All holes shall be also be dry prior to injecting epoxy into the hole. H. All fasteners in contact with preservative treaded lumber or exposed to moisture shall be hot dipped galvanized. I. Contractor shall locate (with non destructive means only) reinforcement in the existing concrete or masonry prior to drilling. Do not cut or damage reinforcement. Obtain written A/E approval prior to cutting rebar.

XIV. SUPPLEMENTARY NOTES

A. For connections, see details. If not shown or noted, minimum connections to be included in cost shall be two 3/4" dia. bolts or 3/16" fillet weld 4" long using 3/8" connection material and

detailed to minimize bending in connection. Proceed after approved or clarified on the shop drawing submittals B. Unless otherwise noted, details and sections on structural drawings are typical as indicated by cuts, references or titles. All details shown shall be imported into the porject at all appropriate locations, whether specifically indicated or not. Typical details may or may not be referenced on the documents, but shall aply at all locations, unless noted otherwise. Where no detail cuts are shown construction shall confom to similar work shown elsewhere on the project documents. For bidding pruposes, where any shown member, rebar or structural element is not sized on the documents, the largest similar member, rebar or structural element used in

the project shall be utilized. C. For clarity, all openings may not be shown on drawings. See also architectural, mechanical, electrical and plumbing plans. All openings and penetrations shall be located and verified by all trades from drawings made by them. Contractor shall not proceed with any work shown on dawings if in conflict until receiving clarification form the architect. For framing at openings, see typical structural details. D. All construction meeting or crossing expansion or shrinkage

control joints in framed floors, roof or slab on grade must have provisions to accommodate the movement or must be delayed until the joint has stopped growing or is closed. E. All joints above grade supported slab level between existing and new buildings shall be considered seismic separation joints. The joint cover shall be capable of accommodating the maximum total movement equal to the sum each buildings movment toward and away from each other simultaneousely.

XV. SPECIAL INSPECTIONS

A. Special structural inspection & verification by certified Sepcial Inspector satisfactory to the building official is required in

conformance with IBC code sections 1703, 1704, 1705 and 1707. B. The special inspector shall send copies of all structural inspection reports directly to the contractor, A/E and the building official. Any construction which fails to meet the contract documents shall immediately be brought to the A/E's attention. Special inspection requirements apply also to all

vendor designed components. C. Material testing does not constitue special inspection. Such testing shall be done by an independent testing lab.

D. See IBC Chapter 17 for details of Special Inspection and verification requirements. E. The following construction shall be subject to Special Inspection and verification: Soils (Section 1705.6)

Concrete (Section 1705.3) Steel (including cold formed steel)(Section 1705.2, 1705.11) Masonry (Section 1705.4) Wood (Section 1705.5, 1705.11)

F. The contractor shall notify the Special Inspector at least 24 hours prior to the work that is ready for inspection. Contractor shall also provide to the Inspector the necessary documents (approved submittals, etc.) and safe access to the work to be

XVI. WOOD DECK: A. PLYWOOD DECK:

> 1. Design Standard: National Design Specification, NFoPA and Supplements. 2. Plywood

a. Roof deck: 19/32" APA Rated sheathing 32/16 span rating, Exterior grade, U.N. Connections: See plan.

4. Provide plyclips at all edges of plywood at no more than 4'-0" o.c.

XVII. LIGHT GAGE STEEL WALL FRAMING

A. Light gage metal stud vendor to design all exterior and interior (load bearing and non load bearing) studs, tracks, slip tracks, headers, jambs and sills, including their connections to each other and to the supporting structure. Deflections shall meet the requiremetns of the latest edition fo the buildig code. Exterior stud walls shall be designed for wind pressure from a 120 mph wind using ASCE-7. Studs backing brick veneer shall be desigend for maximum deflection of L/600.

B. Stud vendor to submit detailed shop drawings indicating stud size and spacing, track sizes, gage, web stiffeners, blocking, bridging, etc. Drawings shall indicate number and type of fasteners to be used in construction. Shop drawings shall be signed and sealed by the design engineer registered in the State the project is located in.

XVIII. LIGHT GAGE ZEE PURLINS A. Light gage steel zee purlin vendor to design all roof purlins and their connections to the supporting structure, including laps,

bridging, bracing, etc. B. Maximum total deflections shall not exceed span/240 for total load and span/360 for live load. See plan notes for roof loads. C. Purlin designer/vendor to submit detailed shop drawings indicating

size, spacing, gage, connection details, all loads including concentrated loads, deflection requirements, etc. D. All purlin connections and locations shall be coordinated with structural steel fabricator prior to shop drawings submittal.

E. General contractor to provide purlin designer with locations and operating weights of all mecahnical equipment, and architectural components to be supported by the purlins over 75 lbs in weight. F. Shop drawings shall be signed and sealed by the design engineer registered in the State the project is located in.

		FOOTI	NG S	SCHE	DULE	
MARK	SIZE	DEPTH	TOTAL REINFORCEMENT FOR EACH FOOTING			
			NO.	SIZE	LENGTH	REMARKS
F30	2'-6"x2'-6"	1'-0"	6	4	2'-0"	1/2 EA. WAY BOTT.
F42	3'-6"x3'-6"	1'-0"	10	4	3'-0"	1/2 EA. WAY BOTT.
F48	4'-0"x4'-0"	1'-0"	8	5	3'-6"	1/2 EA. WAY BOTT.
F54	4'-6"x4'-6"	1'-0"	8	5	4'-0"	1/2 EA. WAY BOTT.
F60	5'-0"x5'-0"	1'-0"	10	5	4'-6"	1/2 EA. WAY BOTT.
F72	6'-0"x6'-0"	1'-0"	12	5	5'-6"	1/2 EA. WAY BOTT.
F72A	6'-0"x6'-0"	2'-0"	12	5	5'-6"	1/2 EA. WAY BOTT.
1720	0 0 00 0		12	5	5'-6"	1/2 EA. WAY TOP
F102A	8'-6"x8'-6"	2'-0"	16	6	8'-0"	1/2 EA. WAY BOTT.
			16	5	8'-0"	1/2 EA. WAY TOP
F114A	9'-6"x9'-6"	2'-0"	14	7	9'-0"	1/2 EA. WAY BOTT.
			18	5	9'-0"	1/2 EA. WAY TOP
F120A	10'-0"x10'-0"	2'-0"	16	7	9'-6"	1/2 EA. WAY BOTT.
			20	5	9'-6"	1/2 EA. WAY TOP
F126A	10'-6"x10'-6"	2'-0"	18	7	10'-0"	1/2 EA. WAY BOTT.
			22	5	10'-0"	1/2 EA. WAY TOP
F132A	11'-0"x11'-0"	2'-0"	20	7	10'-6"	1/2 EA. WAY BOTT.
			22	5	10'-6"	1/2 EA. WAY TOP 1/2 EA. WAY BOTT.
F138A	11'-6"×11'-6"	2'-0"	24	7	11'-0"	,
			24	5	11'-0"	1/2 EA. WAY TOP
W18	1'-6" CONT.	1'-0"	2	#5	CONT.	ВОТТОМ
			_	#4	1'-0"	@48" BOTTOM TRANS
W24	2'-0" CONT.	1'-0"	3	#5	CONT. 1'-6"	BOTTOM TRANS
	2 3 30111.		5	#4 #5	CONT.	@24" BOTTOM TRANS
W48	4'-0" CONT.	1'-0"	_	#5 #5	3'-6"	@10" BOTTOM TRANS
				,,,		3.3 23113W 11VW
		1				

1. F36, ETC. DENOTE ISOLATED COLUMN FOOTING; W24, ETC. DENOTE CONTINUOUS WALL FOOTING. 2. ADDITIONAL ANCHORAGE REBAR IS REQUIRED IN FOOTINGS. SEE 5/S1.1.

05-21-18 DRAWN BY

REVISION: DATE:

TOM ROBISON & ASSOCIATES. INC

STRUCTURAL ENGINEERS

1715 KIRBY PARKWAY - SUITE 201

901/754-4411

MEMPHIS, TENNESSEE 38120

sarfraz_k@bellsouth.net

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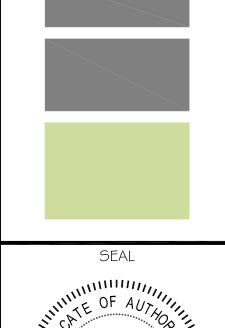
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CENTRAL BAPTIST CHURCH ADMINISTRATION WING ADDITION

A

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V



TOM ROBISON

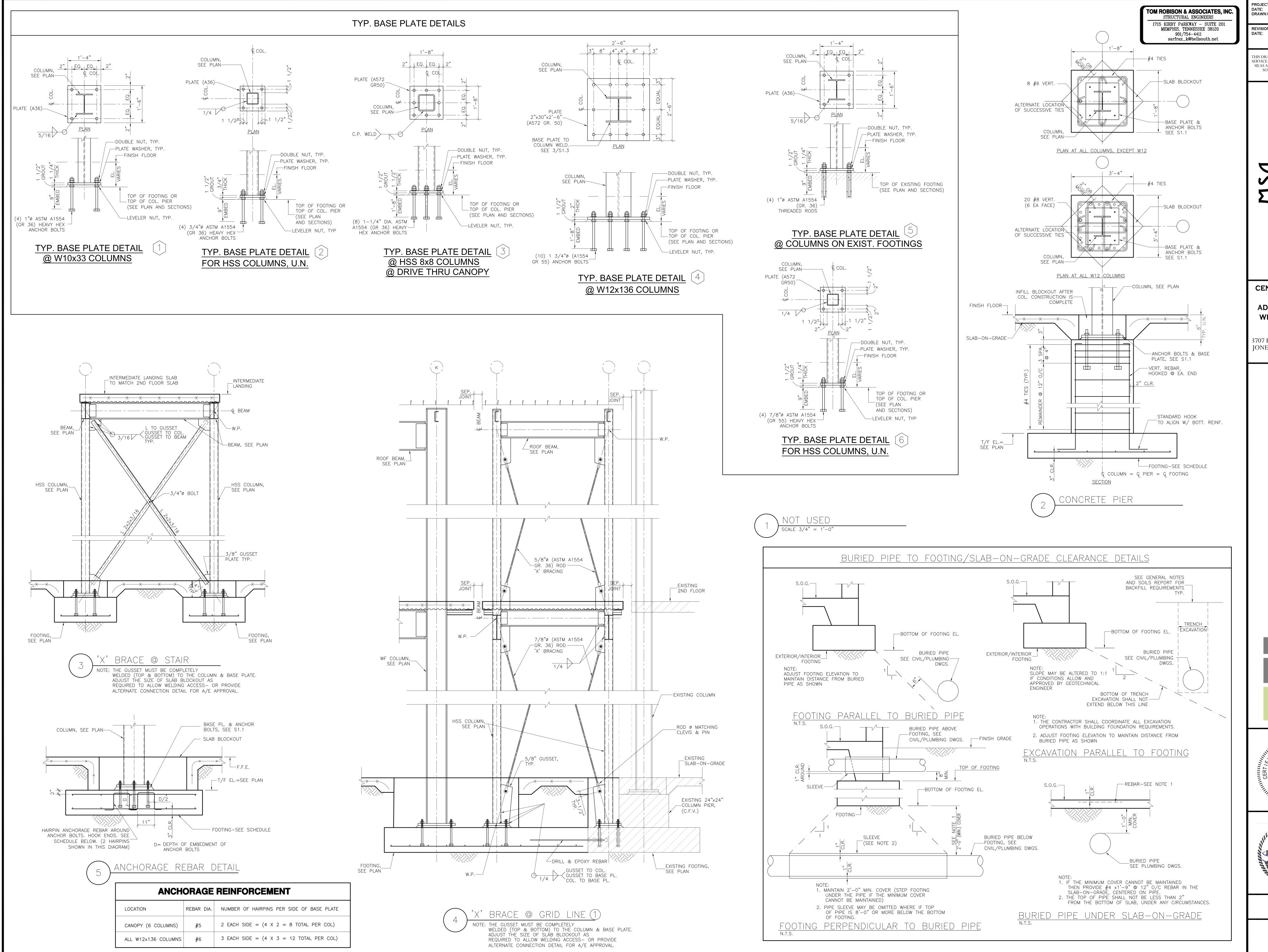
& ASSOC. INC.

No. 1190



GENERAL NOTES SCHEDULES \$ TYPICAL DETAILS

S1.0



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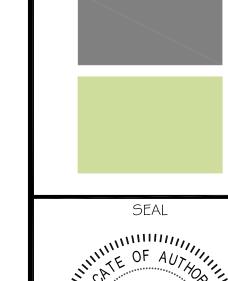
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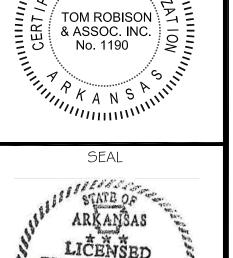
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CENTRAL BAPTIST CHURCH **ADMINISTRATION** WING ADDITION

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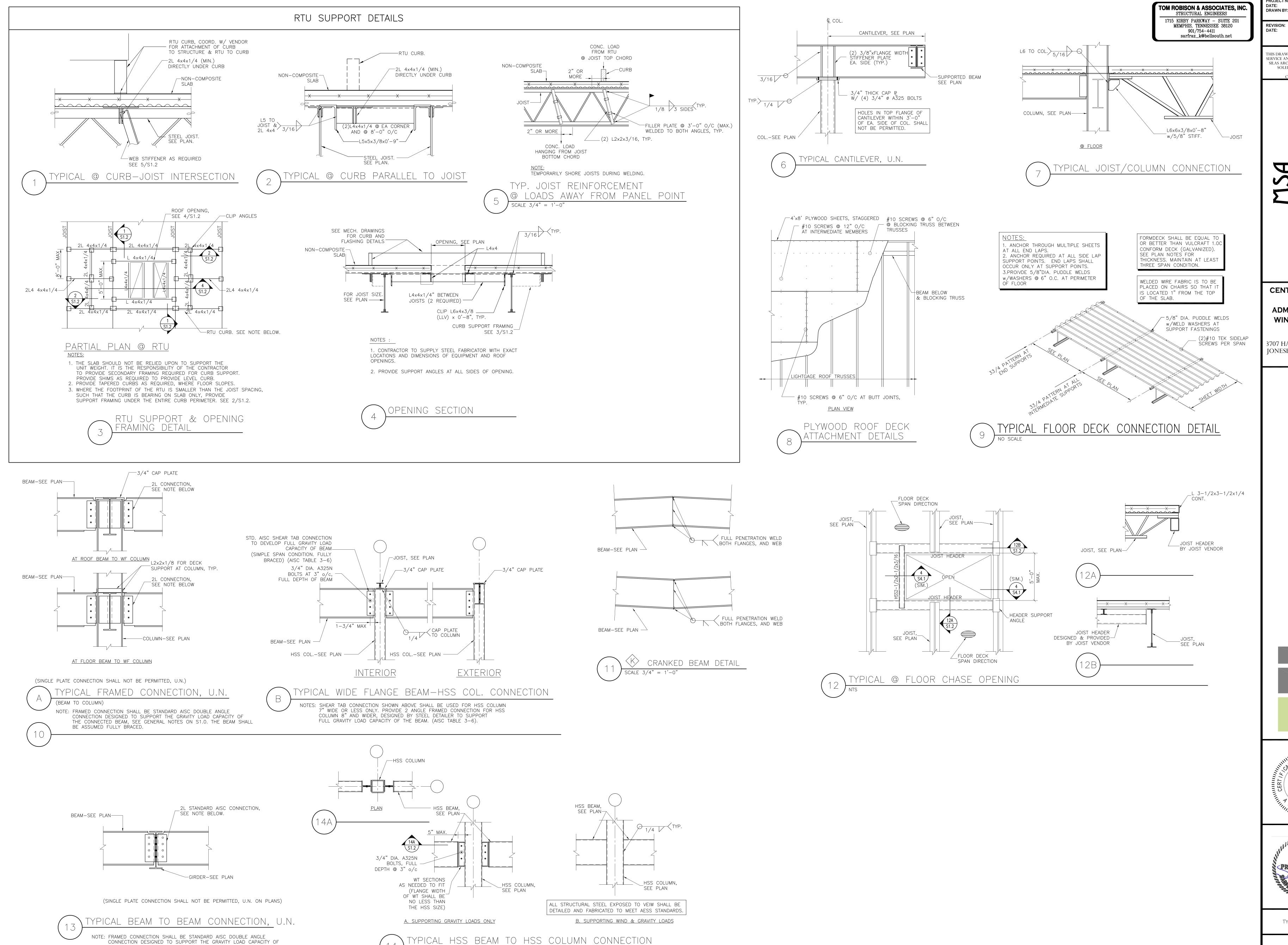




LIČENŠED PROPESSIONAL ENGINEER No. 14555

TYPICAL DETAILS

S1.1



THE CONNECTED BEAM, SEE GENERAL NOTES ON S1.0. THE BEAM SHALL

BE ASSUMED FULLY BRACED.

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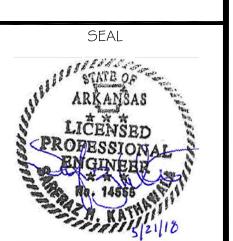
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TYPICAL DETAILS

S1.2

A

CENTRAL BAPTIST CHURCH **ADMINISTRATION** WING ADDITION

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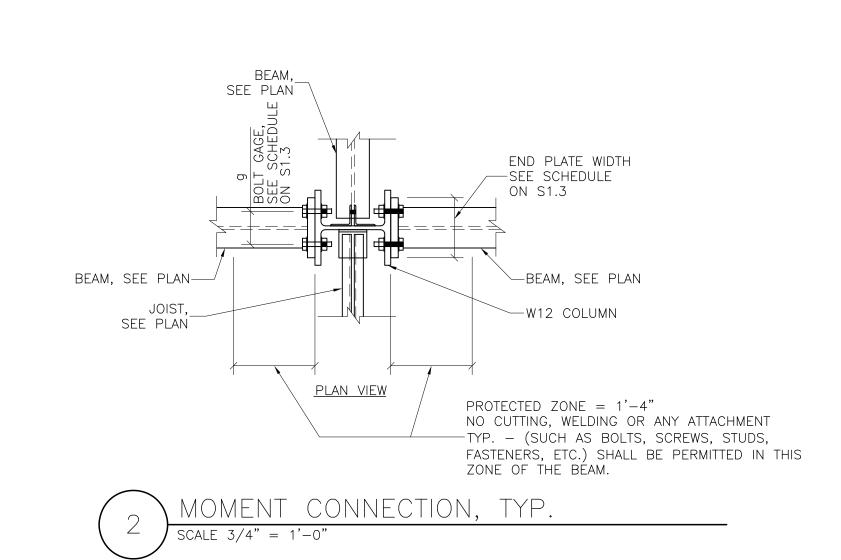


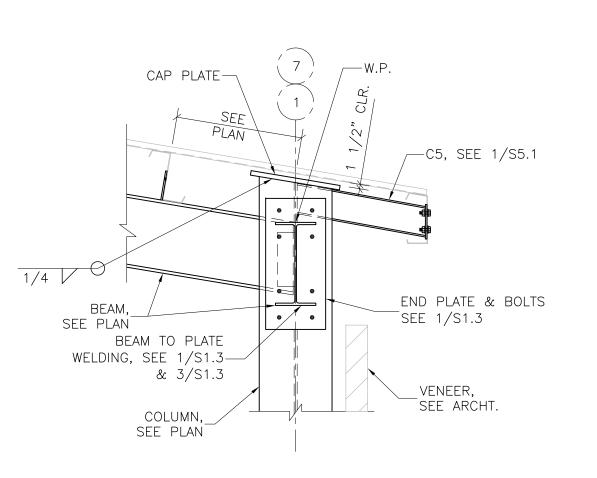
S1.3

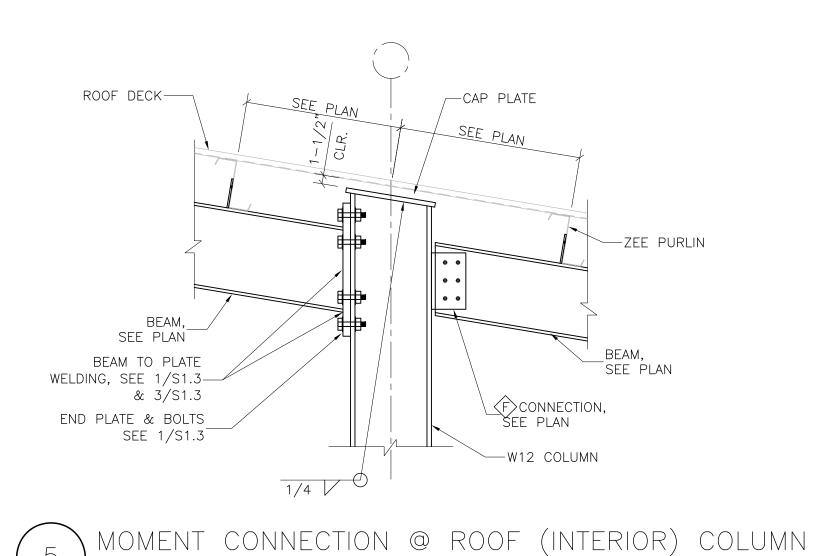
TYPICAL DETAILS

P, SEE SCHEDULE ON S1.3 SEE PLAN WEB TO END PLATE 5/16 JOIST SEAT, P, SEE SCHEDULE ON S1.3 7/S1.2 TOP & BOTT. FLANGES >TO END PLATE _END PLATE, SEE SCHEDULE ON S1.3 BOLT SIZE, SEE SCHEDULE_ SEE 3/S1.3 FOR END PLATE TO BEAM WELD REQUIREMENTS.

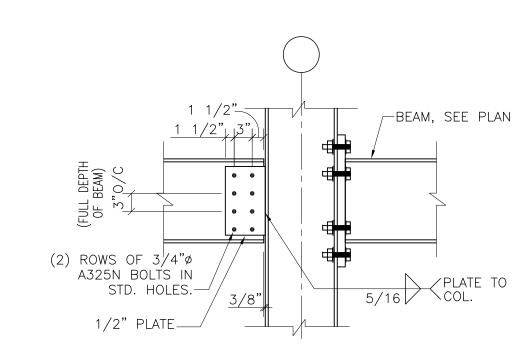
MOMENT CONNECTION DETAIL @ FLOOR











ALL HOLES TO BE AISC STANDARD. IF OVER SIZE HOLES ARE USED, THEN PROVIDE SLIP CRITICAL BOLTS AND SURFACE PREP.

DRAG BEAM TO BEAM

BEAM SIZE	BOLT Ø	END PLATE (WIDTH x THICKNESS)	BOLT GAGE (g)	BOLT PITCH (p)
W14x30	1" DIA	7 1/2"x1"	5 1/2"	1 1/2"
W14x34	1" DIA	7 1/2"x1"	5 1/2"	1 1/2"
W14x38	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"
W16x36	1" DIA	8"x1"	5 1/2"	1 1/2"
W16x40	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"
W16x45	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"
W16x50	1 1/4" DIA	8"x1 1/4"	5 1/2"	2"

1. ALL BOLTS @ MOMENT CONN. TO BE A490X PRE-TENSIONED. PROVIDE DIRECT TENSION INDICATOR UNDER EACH UNIT. FULL FINGER SHIMS MAY BE USED IF NEEDED. FAYING SURFACES SHALL BE PREPARED AS CLASS A SLIP CRITICAL.

3. SEE 3/S1.3 FOR BEAM TO END PLATE WELDING

END PLATE— BACKGOUGE PLATE TO BEAM WELDING REQUIREMENTS

- PREPARE THE FLANGES OF THE BEAM WITH A 45 DEGREE, FULL DEPTH BEVEL.
- FIT UP THE END PLATE AND BEAM WITH A MINIMUM ROOT OPENING.
- PREHEAT THE SPECIMENS AS REQUIRED BY AWS SPECS. • PREPARE THE SURFACES FOR WELDING AS REQUIRED BY AWS SPECS.
- PLACE THE WEB WELDS (1).
- PLACE THE 5/16" BACKING FILLET WELDS ON THE BEAM WEB SIDE OF THE BEAM FLANGES (2). WELDS PLACED IN ERROR SHALL BE REPAIRED AS REQUIRED BY AISC-358.

SEE PLAN

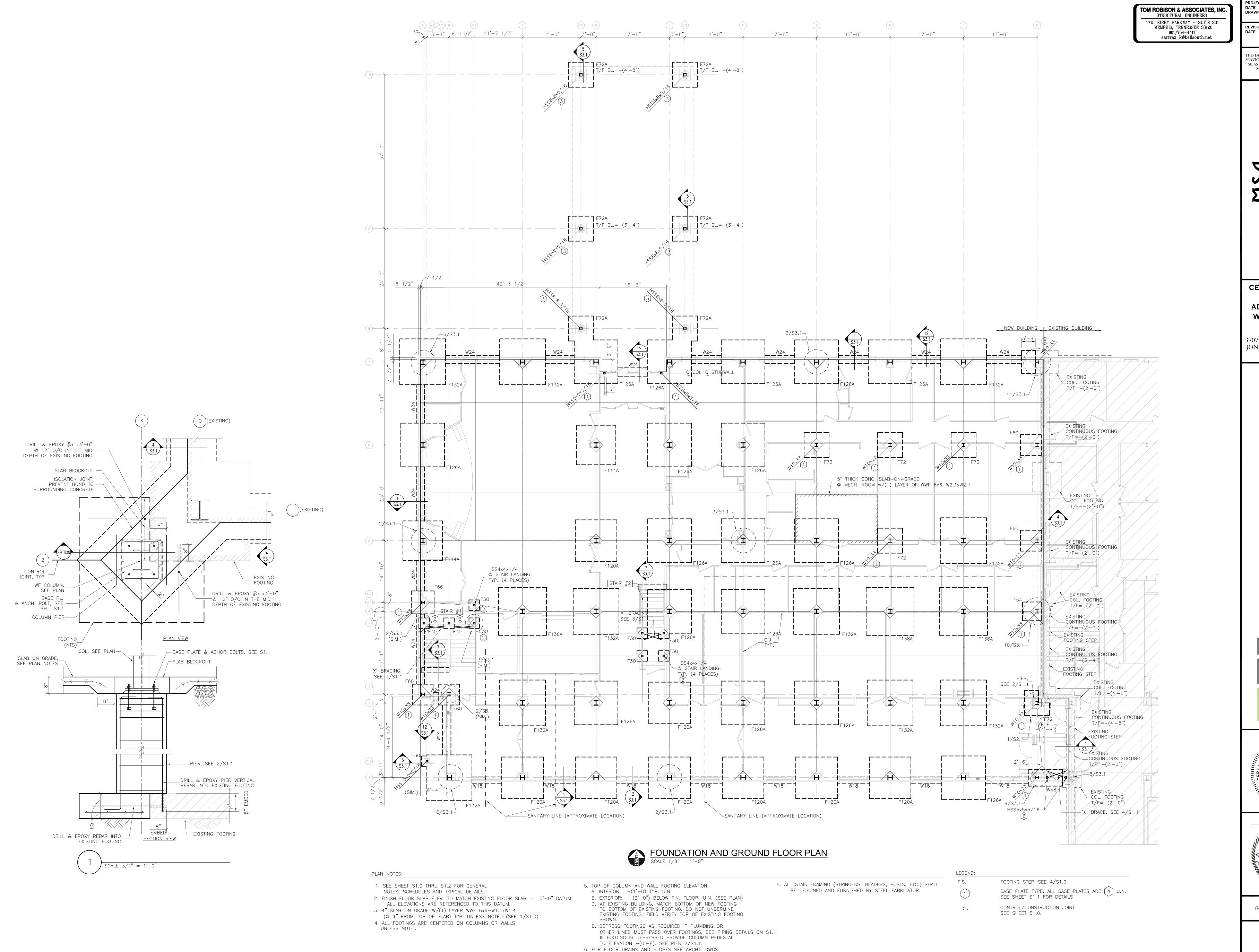
- BACKGOUGE THE ROOT OF THE BEVEL TO REMOVE ANY CONTAMINENTS FROM THE 5/16" BACKER FILLET WELDS (3).
- PLACE THE FLANGE GROOVE WELDS (AWS TC-U4b-GF).
- BACKER BARS OR ACCESS HOLES SHALL NOT BE USED.
- REMOVE WELD TABS.
- PLATE TO FLANGE WELDS SHALL BE DEMAND CRITICAL. SEE AWS D1.8 FOR REQUIREMENTS.
- PROVIDE INSPECTIONS AND TESTING AS REQUIRED BY AISC 341.

BEAM SIZE	BOLT Ø	END PLATE (WIDTH x THICKNESS)	BOLT GAGE (g)	BOLT PITCH (p)			
W14x30	1" DIA	7 1/2"x1"	5 1/2"	1 1/2"			
W14x34	1" DIA	7 1/2"x1"	5 1/2"	1 1/2"			
W14x38	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"			
W16x36	1" DIA	8"x1"	5 1/2"	1 1/2"			
W16x40	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"			
W16x45	1 1/8" DIA	8"x1 1/8"	5 1/2"	1 7/8"			
W16x50	1 1/4" DIA	8"x1 1/4"	5 1/2"	2"			

NOTES:

2. END PLATE MATERIAL = ASTM A572 (GR. 50 KSI)

4. MAX. BOLT HOLES = db + 1/16"



7. ALL COLUMNS SHALL BE W12x136, EXTENDED TO ROOF, UNLESS NOTED.

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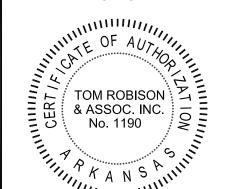
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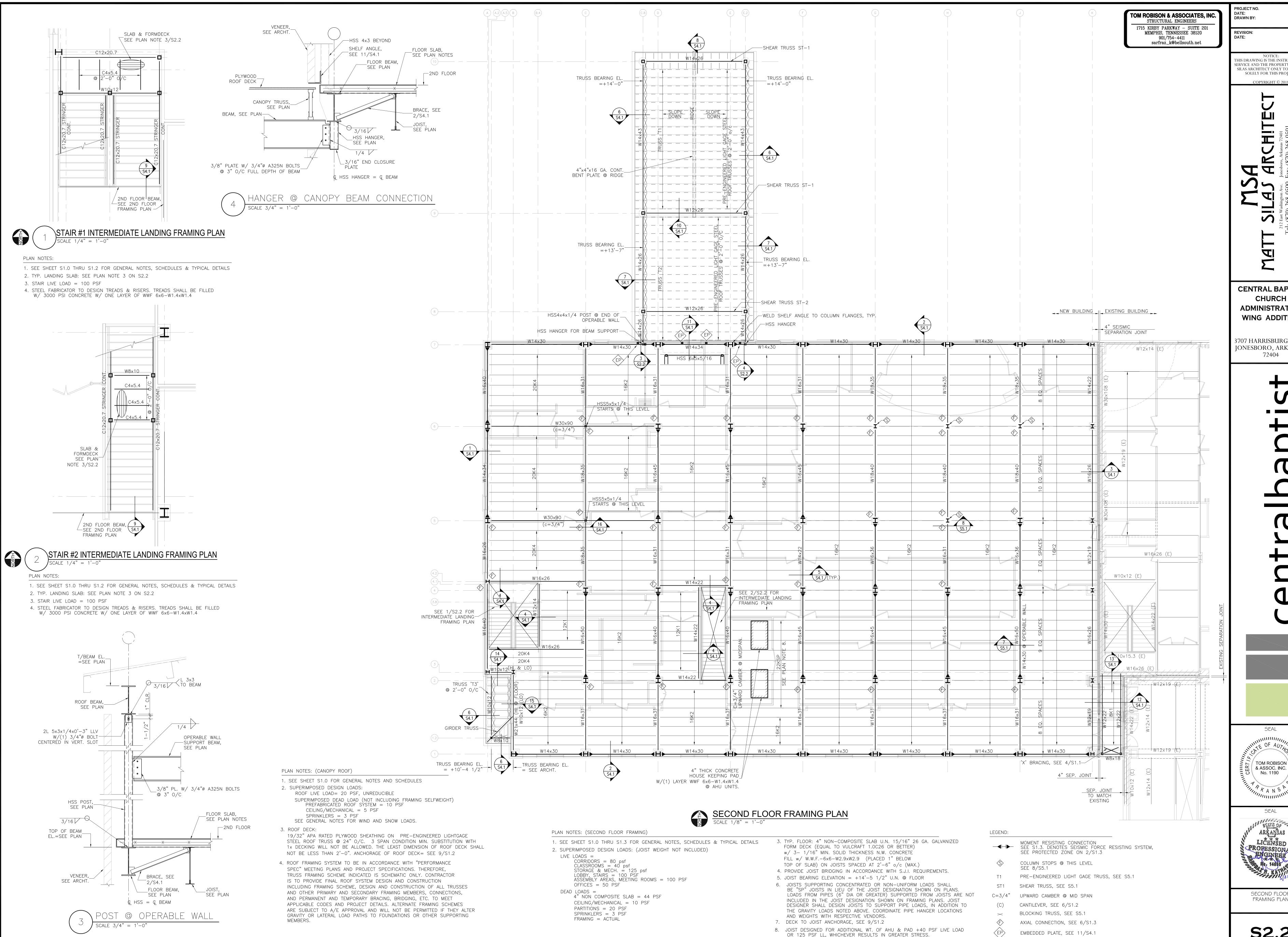
JONESBORO, ARKANSAS



SEAL PROPESSIONA

FOUNDATION AND GROUND FLOOR PLAN

S2. 1



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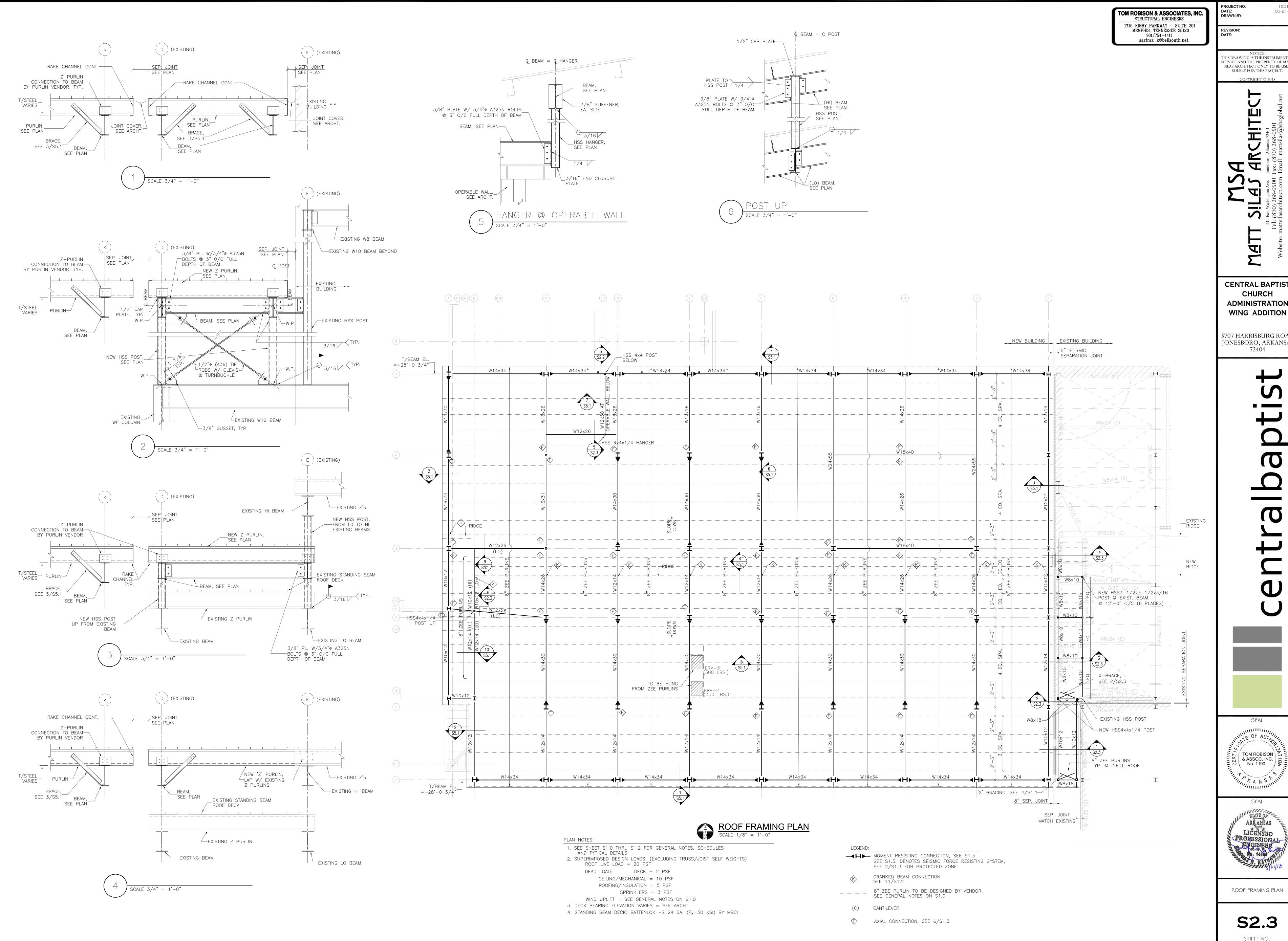
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SEAL

LIČENŠED PROPESSIONAL BUGINERR

> SECOND FLOOR FRAMING PLAN

S2.2



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CENTRAL BAPTIST CHURCH **ADMINISTRATION**

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SEAL

PROPESSIONA

ROOF FRAMING PLAN

S2.3

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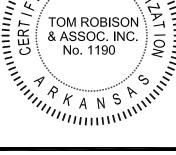
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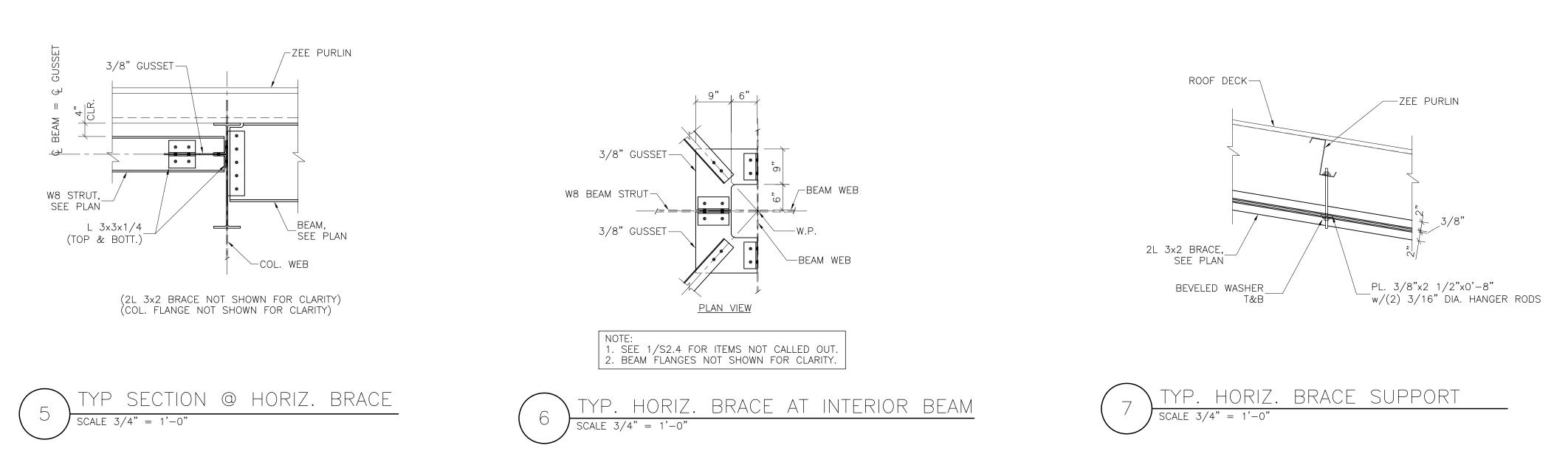
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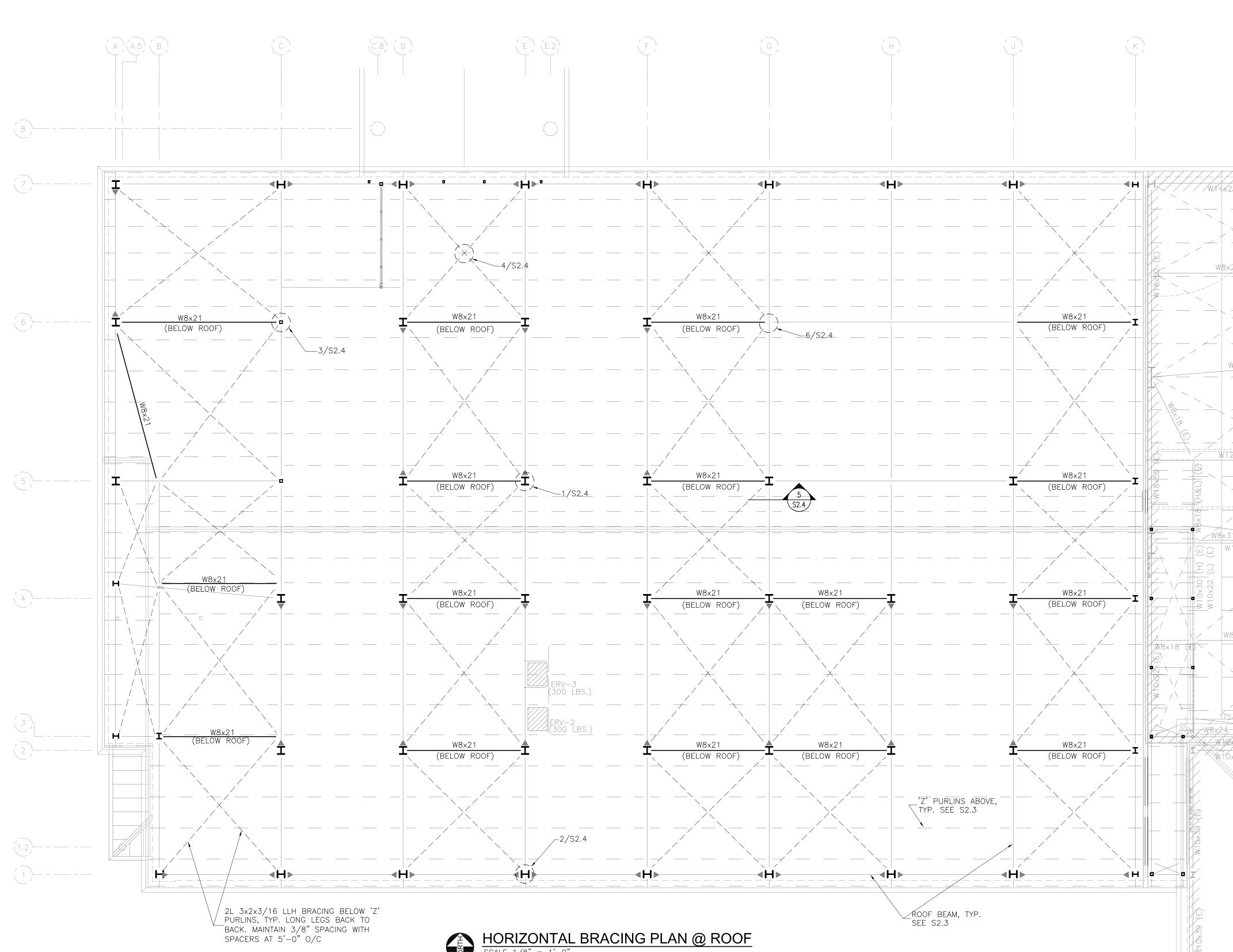


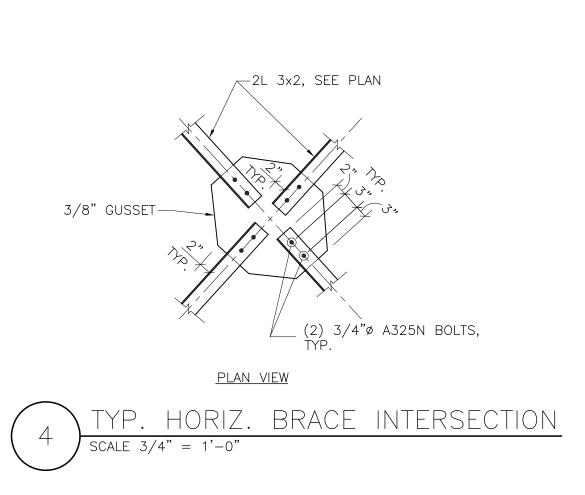


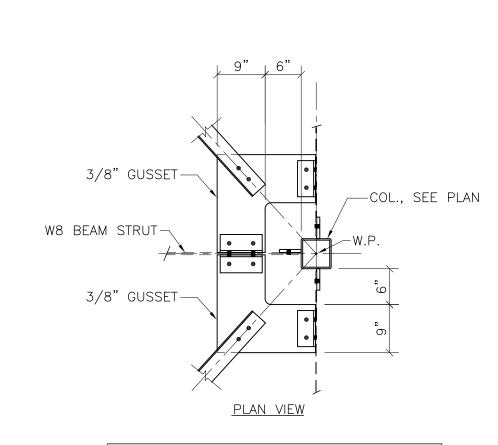
HORIZONTAL BRACING PLAN @ ROOF

> **S2.4** SHEET NO.



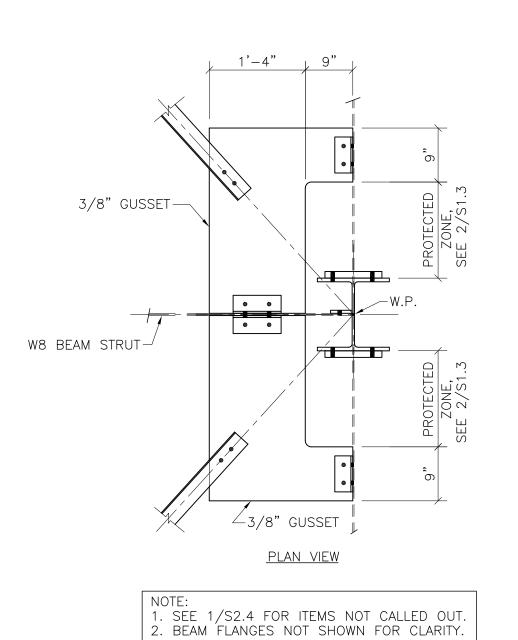




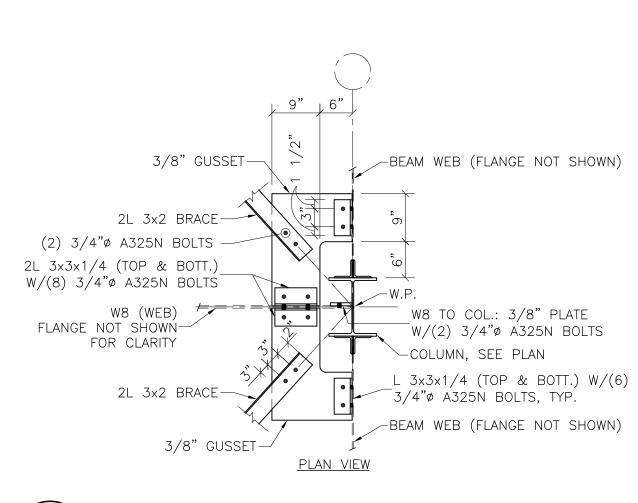


2. BEAM FLANGES NOT SHOWN FOR CLARITY. HORIZ. BRACE AT HSS COL

1. SEE 1/S2.4 FOR ITEMS NOT CALLED OUT.



HORIZ. BRACE AT W12 COL.

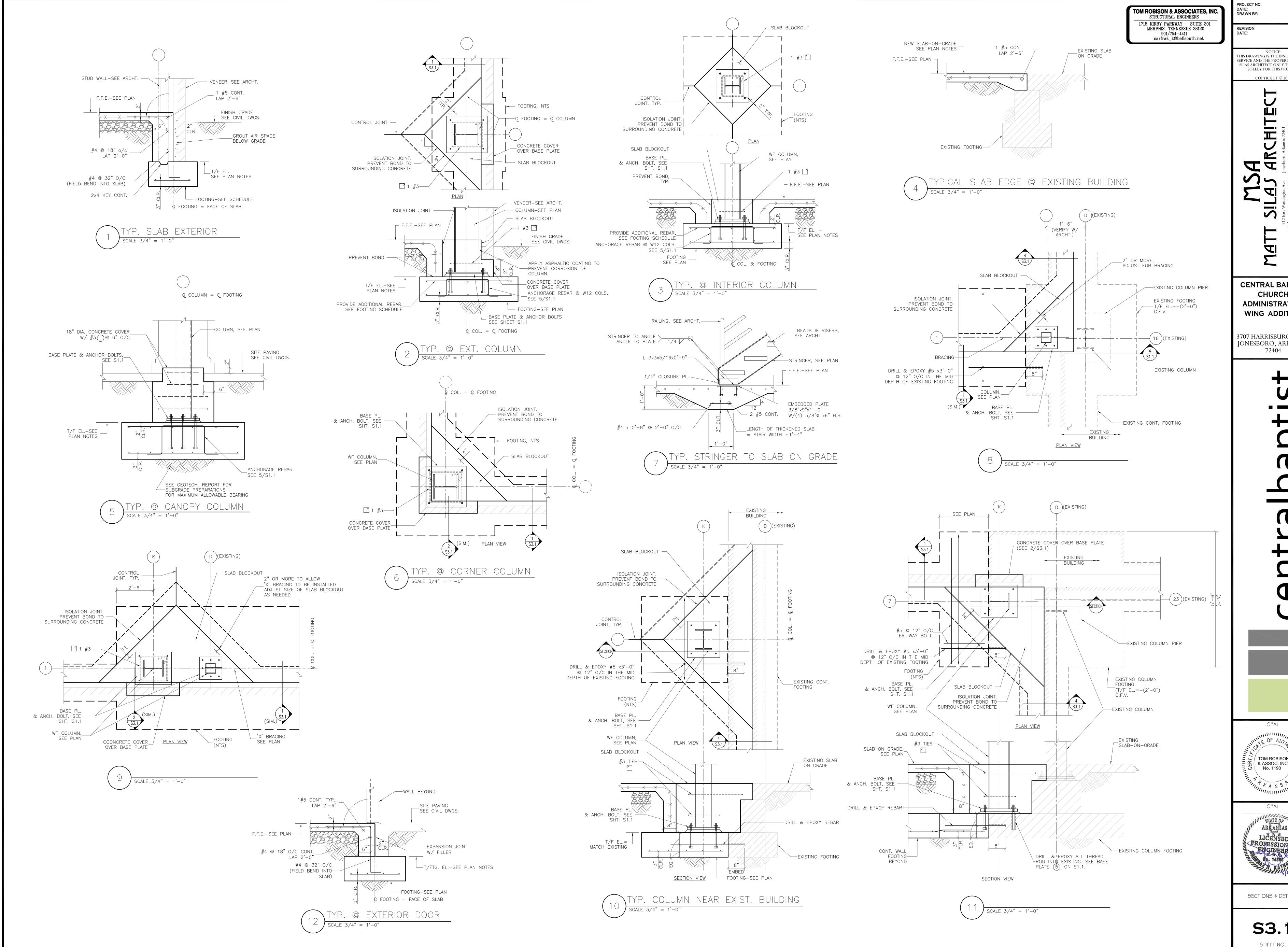


YP. HORIZ. BRACE AT ALL COLS., EXCEPT W12

SCALE 1/8" = 1'-0"PLAN NÓTES:

1. SEE SHEET S1.0 THRU S1.3 FOR GENERAL NOTES, SCHEDULES AND TYPICAL DETAILS.

2. TOP OF W8x21 STRUT @ 4" BELOW 'Z' PURLIN. 3. 2L 3x2 BRACING IS CENTERED ON W8 STRUT. SLOPE BRACING WITH ROOF SLOPE, EXCEPT FLAT WHERE CROSSING RIDGE. 4. SUPPORT 2L3x2 BRACE @ EACH PURLIN, SEE 7/S2.4. 5. PROVIDE BENT PLATE OR BENT ANGLE IN LIEU OF CONNECTION ANGLES SHOWN IN SECTIONS, IF NEEDED FOR FIT.



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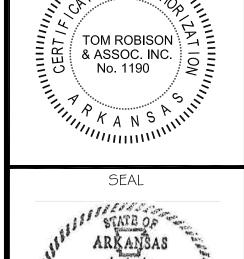
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CENTRAL BAPTIST CHURCH **ADMINISTRATION** WING ADDITION

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JONESBORO, ARKANSAS

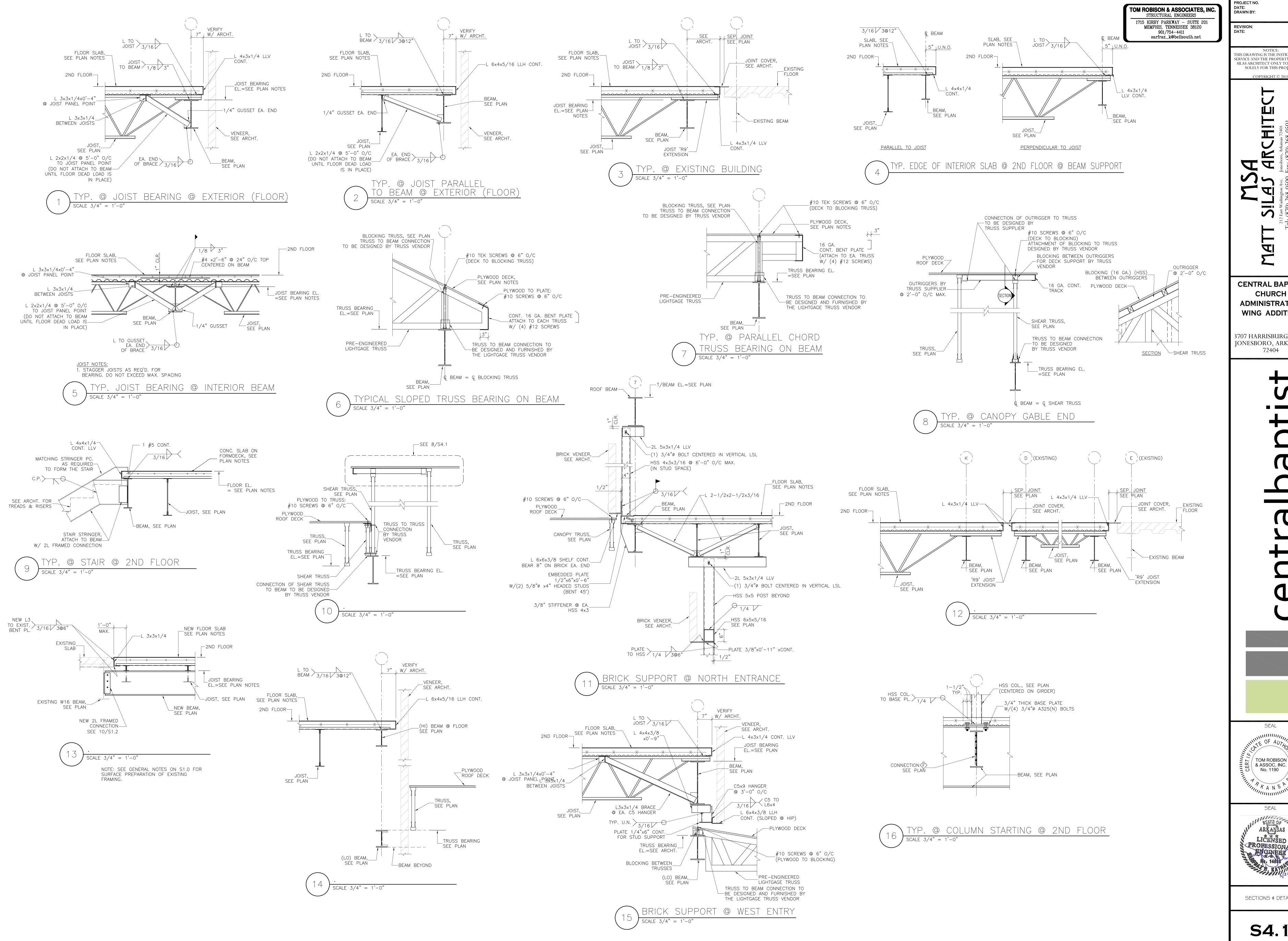
SEAL





SECTIONS & DETAILS

S3.1



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SEAL TOM ROBISON



SECTIONS & DETAILS

S4.1

_ROOF DECK,

SEE ARCHT.

STRAP BRIDGING,

BY PURLIN VENDOR

L 4x4x5/16

_1/4" GUSSET,

SEE PLAN

RAISED PURLIN SUPPORT, BY PURLIN VENDOR

 $\sqrt{}$ L 2-1/2×2-1/2×1/4

✓PLATE 1/4"x3"x0'-6"

L 3x3x1/4x0'-6"

BRIDGING SIZE AND SPACING TO BE DESIGNED BY

YPICAL @ COLUMN STOP @ 2ND FLOOR

-ZEE's SEE PLAN

BEAM CONNECTION

SEE 10/S1.2

YPICAL @ RIDGE

SCALE 3/4" = 1'-0"

ZEE PURLIN VENDOR.

_W/(2) 1/2"ø BOLTS

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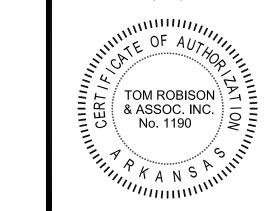
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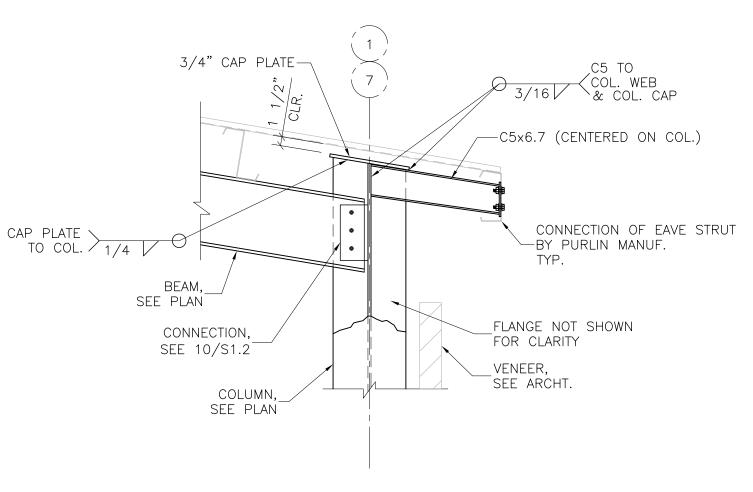
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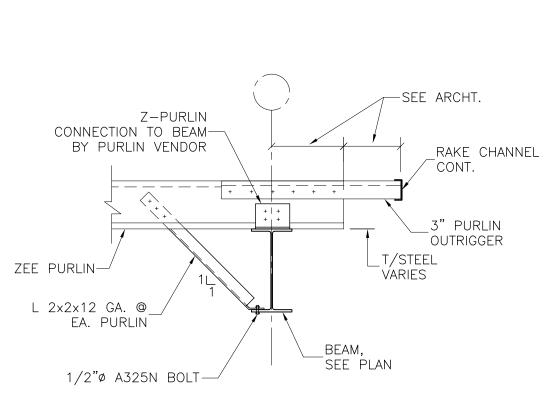


SECTIONS & DETAILS

S5. 1



TYP. @ EXTERIOR COLUMN ROOF (PARALLEL TO ZEE's) SCALE 3/4" = 1'-0"

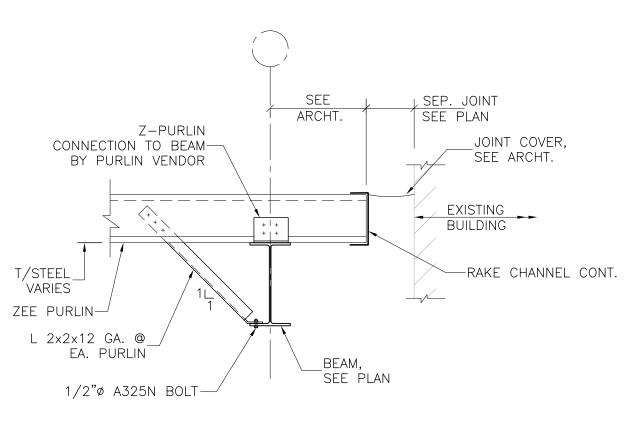


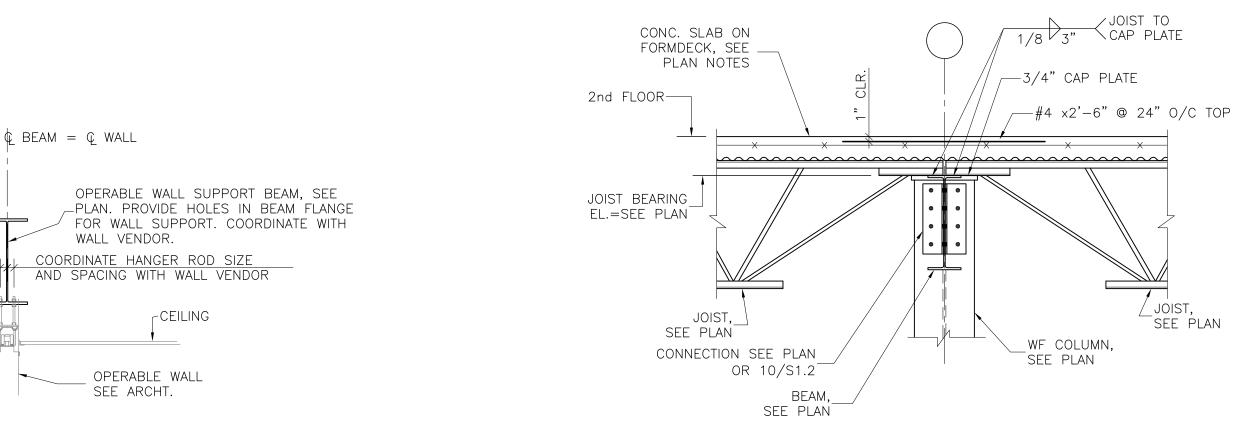
Z-PURLIN

-BY PURLIN MANUF.

STANDING SEAM ROOF DECK,

SEE PLAN NOTES.





[∠]11/S1.2

(LO) BEAM,_ SEE PLAN

(HI) BEAM,_ SEE PLAN

L 2×2×1/4 ⊚ EA. ROW—

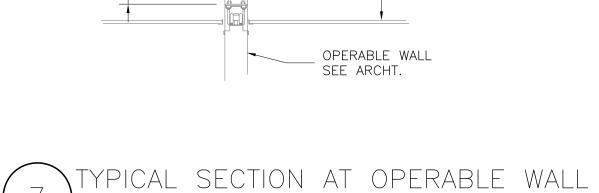
OF BRIDGING

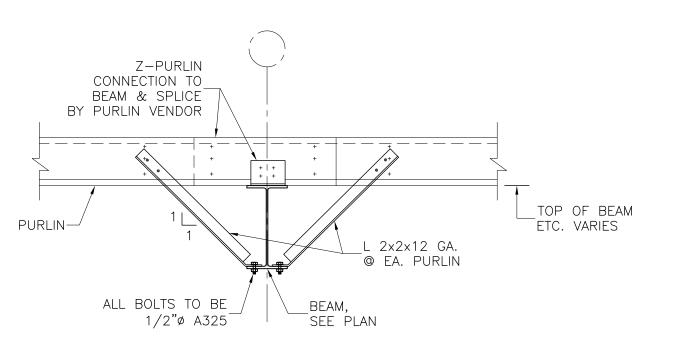
3/16

BRIDGING TO PURLIN

BY PURLIN VENDOR

-ANCHORAGE TO BE DESIGNED





TYPICAL @ INTERIOR UPPORT OF ZEE PURLINS



BEAM,_ SEE PLAN

PURLIN CONNECTION SHALL BE

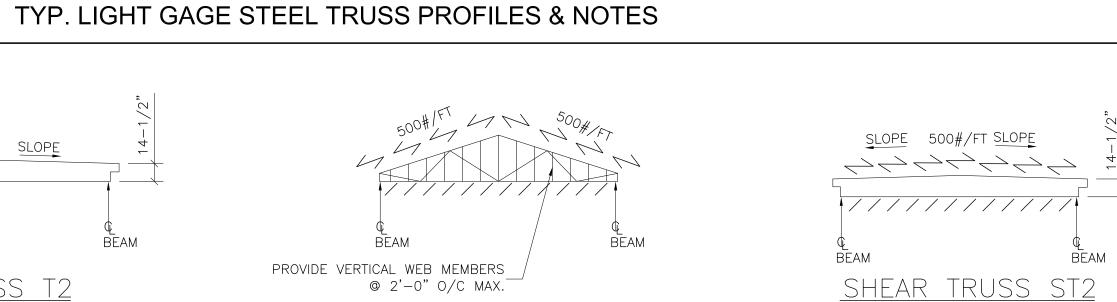
STEEL FABRICATOR PER LAYOUT

DESIGNED & PROVIDED BY PURLIN

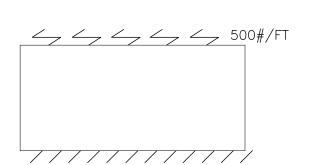
MANUF. (TYP.) (PURLIN CONNECTIONS

SHALL BE SHOP WELDED TO BEAM BY

PROVIDED BY PURLIN SUPPLIER. (TYP.)

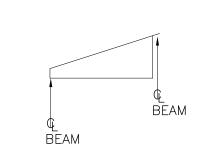


SHEAR TRUSS ST1 (GABLE END TRUSS)



TRUSS T1

BLOCKING TRUSS



TRUSS T3

- NOTES:
- 1. TRUSS AND WALL ELEVATIONS ARE SCHEMATIC ONLY AND ARE INTENDED TO REPRESENT TOP AND BOTTOM CHORD PROFILES AND TYPICAL SUPPORT LOCATIONS ONLY.
- 2. TRUSS WEB CONFIGURATION AT CONTRACTOR'S OPTION SUBJECT TO ARCHITECT'S/ENGINEER'S APPROVAL. COORDINATE DUCT RUNS THROUGH TRUSS WEB WITH MECH. CONTRACTOR.
- 3. SEE PLANS AND DETAILS FOR CHORD PROJECTIONS AND RELATED FRAMING
- 4. ESTABLISH ACTUAL DIMENSIONS FROM ROOF PLAN AND DETAILS. VERIFY ALL DIMENSIONS, ELEVATIONS AND ROOF SLOPES WITH ARCHITECTURAL PLANS, SECTIONS AND DETAILS.
- 5. SEE FRAMING PLANS & PLAN NOTES FOR DESIGN LOADS.
- 6. SEE GENERAL NOTES ON SHEET S1.0.

SLOPE

TRUSS T2

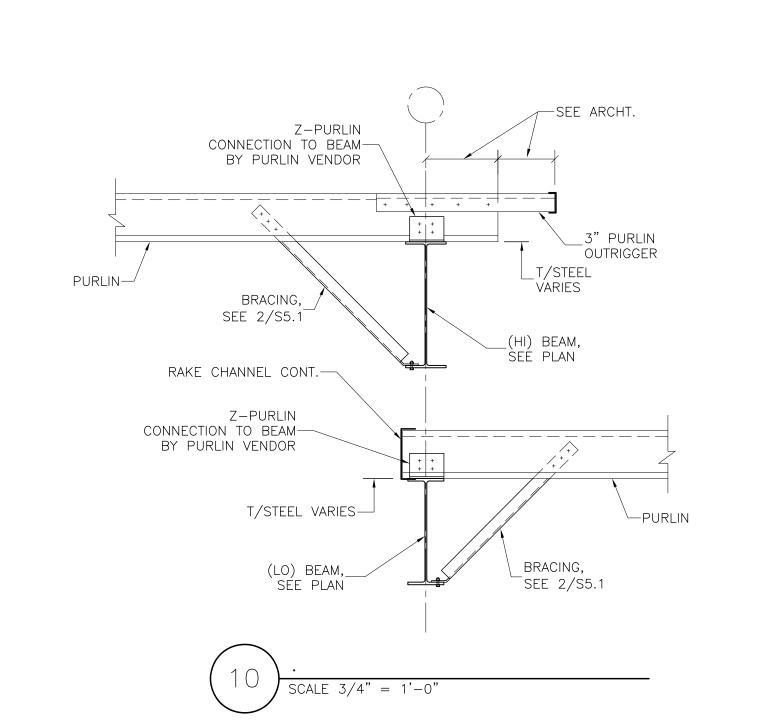
- 7. LATERAL LOADS ARE SHOWN TO INDICATE UNBALANCED & REVERSIBLE LOADING DUE TO WIND AND/OR SEISMIC FORCES. DESIGN EACH TOP CHORD, ETC. FOR WORST CASE LOAD COMBINATIONS.
- 8. SUBMIT SHOP DRAWINGS, CALCULATIONS, ETC. SEE SPECS 9. ALL TRUSS TO TRUSS AND TRUSS TO SUPPORT CONNECTIONS SHALL BE
- DESIGNED, DETAILED AND FURNISHED BY THE TRUSS SUPPLIER AND SUBMITTED ON THE SHOP DRAWINGS FOR A/E APPROVAL, REGARDLESS OF CONNECTION DETAILS OR SIZES SHOWN ON STRUCTURAL DRAWINGS.

- 10. DESIGN TRUSSES SUPPORTING RTU FOR SPECIFIC RTU AND VVR BOX LOAD AND LOCATION, IN ADDITION TO DEAD+LIVE LOAD. COORDINATE WITH M/P/E CONTRACTORS.
- 11. DESIGN TRUSS FOR BRICK LOAD. SEE PLANS AND SECTIONS. DEFLECTION OF TRUSS UNDER BRICK LOAD SHALL BE LESS THAN OR EQUAL TO L/600.
- 12. DESIGN TRUSS BOTTOM CHORD AND ITS CONNECTIONS TO PREVENT LATERAL TORSIONAL BUCKLING OF STEEL BEAM TOP FLANGE SUPPORTING THE TRUSS.
- SPECS AND GENERAL NOTES. 14. TOP CHORD OF ALL TRUSSES AND BOTTOM CHORD OF BLOCKING & SPECIAL

SHEAR TRUSS SHALL BE AT LEAST 18 GA. THICK.

13. PROVIDE PERMANENT BRACING/BRIDGING TO RESIST WIND UPLIFT NOTED IN

- 15. TRUSSES SHALL BE DESIGNED TO SUPPORT SNOW LOADS FROM DRIFTING AND SLIDING SNOW. THE TRUSS DESIGNER SHALL DETERMINE UNBALANCED SNOW LOADS
- BASED ON APPLICABLE BUILDING CODES. 16. TRUSS LAYOUT THAT CHANGES LOAD PATH TO THE SUPPORTING STRUCTURE SHALL NOT BE PERMITTED. ADDITIONAL COSTS FOR DESIGN AND CONSTRUCTION DUE TO LOAD PATH MODIFICATION SHALL BE BORNE BY THE TRUSS SUPPLIER.
- 17. TRUSS AND TRUSS ASSEMBLY STABILITY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. PROVIDE AND ANCHOR TEMPORARY AND



SCALE 3/4" = 1'-0"