# GENERAL STRUCTURAL NOTES

#### GENERAL

- UNLESS NOTED OTHERWISE, ALL WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE IBC 2015. B. NOTES AND DETAILS ON THE PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, TYPICAL
- CONTRACTOR SHALL COMPARE ALL DISCREPANCIES ON DRAWINGS AT THE SITE. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE STRUCTURAL DRAWINGS SHALL BE RESOLVED BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN THE CASE OF CONFLICT, FOLLOW THE MOST STRINGENT REQUIREMENT AS DIRECTED BY THE DESIGNER WITHOUT ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE & VERIFY ALL DIMENSIONS & ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS WITH SITE
- CONDITIONS. THE ARCHITECT SHOULD BE INFORMED OF ANY DISCREPANCIES. DETAILS, SECTIONS, & NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL & SHALL APPLY TO SIMILAR SITUATIONS WHERE APPROPRIATE UNLESS NOTED OR SHOWN OTHERWISE. PLEASE NOTE THAT DETAILS ARE NOT DRAWN TO SCALE.
- SHORING AND BRACING REQUIREMENTS: WALLS ABOVE GRADE SHALL BE BRACED UNTIL THE STRUCTURAL SYSTEM IS COMPLETE. WALLS ARE NOT SELF-SUPPORTING
- FLOOR AND ROOF STRUCTURES: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE METHOD & SEQUENCE OF ALL STRUCTURAL ERECTION. THEY SHALL PROVIDE TEMPORARY SHORING & BRACING AS THEIR METHOD OF ERECTION REQUIRES TO PROVIDE ADEQUATE VERTICAL & LATERAL SUPPORT. SHORING & BRACING SHALL REMAIN IN PLACE AS THE CHOSEN METHOD REQUIRES UNTIL ALL PERMANENT MEMBERS ARE IN PLACE & ALL FINAL CONNECTIONS ARE COMPLETED, INCLUDING ALL ROOF AND FLOOR ATTACHMENTS. THE BUILDING SHALL NOT BE CONSIDERED STABLE UNTIL ALL
- ALL ITEMS TO BE INTEGRATED INTO STRUCTURAL SYSTEM. OPENINGS OR PENETRATIONS THROUGH OR ATTACHMENTS TO THE STRUCTURAL SYSTEM THAT ARE NOT INDICATED ON THESE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR & SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER. THE ORDER OF CONSTRUCTION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. IT IS THE CONTRACTOR'S OBLIGATION TO PROVIDE ITEMS NECESSARY FOR THE CHOSEN
- OBSERVATION VISITS TO THE SITE BY ARCHITECT'S/ENGINEER'S REPRESENTATIVES SHALL NOT BE
- CONSTRUED AS INSPECTIONS NOR APPROVALS OF CONSTRUCTION. ALL CONSTRUCTION AND INSPECTIONS SHALL BE IN ACCORDANCE WITH THE IBC 2015. THE CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS & SHALL NOT PROCEED WITH THE WORK
- INVOLVED UNTIL THE INSPECTIONS HAVE BEEN COMPLETED & THE WORK APPROVED THE CONTRACTOR MUST SUBMIT A WRITTEN REQUEST & OBTAIN THE ARCHITECT'S, AND/OR STRUCTURAL ENGINEER'S PRIOR WRITTEN APPROVAL FOR ALL CHANGES, MODIFICATIONS, OMISSIONS,
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTIONS IN AND AROUND THE JOB SITE AND/OR ADJACENT PROPERTIES. ALL SUPPORT OF CONSTRUCTION LOADS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL SHORING AND BRACING REQUIRED FOR THE PROTECTION OF LIFE & PROPERTY DURING THE CONSTRUCTION PROCESS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL PROCEDURES OF SOIL EXCAVATION, BACKFILL, & SUPPORT OF ADJACENT PROPERTY DURING EARTHWORK SHALL BE THE RESPONSIBILITY OF THE
- ALL DIMENSIONS INDICATED ON PLANS SHALL BE TO FACE OF STUDS, FACE OF CONCRETE BLOCK, FACE OF ROUGH CONCRETE, CENTERLINE OF COLUMNS, TOP OF SHEATHING, & TOP OF SLAB, UNLESS NOTED OTHERWISE. REFER TO ARCH. DRAWINGS FOR ALL DIMENSIONS NOT INDICATED ON STRUCTURAL

#### DESIGN CRITERIA

4. GREEN ROOF...

3. SEISMIC SNOW LOAD...

- A. GOVERNING BUILDING CODE: 2015 IBC
- B. GRAVITY DEAD LOADING: REFER TO FRAMING PLANS
- 2. TYPICAL FLOOR..... .....25 PSF (INCLUDING 1-1/2" LIGHTWEIGHT CONC.)
- 3. TYPICAL DECK.....
- 4. GREEN ROOF.....
- (4" N.W. CONCRETE AND 6" TOPSOIL) GRAVITY LIVE LOADING: REFER TO FRAMING PLANS
- 1. MAX ROOF SNOW......
- 2. FLOOR LIVE.... .....252 (192 PSF TYP. ROOF SNOW + 60 PSF LIVE/DRIFT)
- SEISMIC FORCES: ORDINARY STEEL MOMENT FRAME W/WOOD SHEAR WALLS RESISTING SYSTEM 1. SEISMIC DESIGN CATEGORY.....'D' 2. SOIL CLASS....
- ..82.6% g ...27.4% g ...0.560
- ...0.183 8. RESPONSE MODIFICATION...... .....R=3.5 (CONTROLS
- 9. BASE SHEAR.. .... V = 0.157WWIND FORCES
- 1. VELOCITY.... ....115 MPH 3 SECOND GUST 2. EXPOSURE.
- FOUNDATION
- 1. SOIL BEARING PRESSURE: 4600 PSF
- 2. FROST DEPTH: 42 IN.
- 3. REFER TO IGES GEOTECHNICAL REPORT No. 01496-004 FOR ALL OTHER SOILS & SUB-GRADE PREP.

#### SHOP DRAWINGS

- A. ALL ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE CERTIFICATION STAMP AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER WHO IS LICENSED IN THE STATE OF UTAH.
- B. SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING ITEMS: STRUCTURAL STEEL

....20 PSF

#### SPECIAL INSPECTIONS

- A. SEE SHEET SO.1 FOR LISTED POSSIBLE RESIDENTIAL SPECIAL INSPECTION ITEMS. SEE NOTE C BELOW FOR REQUIREMENTS FOR THIS PROJECT.
- B. CONTRACTOR SHALL READ AND UNDERSTAND THEIR DUTIES IN THE SPECIFICATION AND UNDER THE BUILDING CODE FOR SPECIAL INSPECTIONS AND COORDINATE AS NECESSARY THE OWNERS
- C. FOR THIS PROJECT, ONLY THE FOLLOWING SPECIAL INSPECTIONS WILL BE REQUIRED: (1) STEEL
- FABRICATOR'S CERTIFICATE OF SPECIAL INSPECTION, (2) SOILS ONLY IF MORE THAN 12" OF COMPACTED STRUCTURAL FILL IS ADDED, (3) PERIODIC SPECIAL INSPECTION OF POST-INSTALLED ANCHOR BOLTS IN CONCRETE, (4) STRUCTURAL STEEL FIELD-WELDING, INCLUDING, BUT NOT LIMITED TO: B-DECK WELDING, AND ANY FILLET WELDS IF EXCEEDING  $\frac{5}{16}$ " IN SIZE.

#### CONCRETE

- A. ALL CONCRETE MATERIALS SHALL COMPLY WITH THE STANDARDS SPECIFIED IN THE LATEST EDITION OF THE ACI 318 BUILDING CODE. EACH MIX DESIGN SHALL BE REVIEWED BY AN APPROVED INDEPENDENT LABORATORY & SHALL BE SUBMITTED TO THE ENGINEER AT LEAST 2 WEEKS PRIOR TO THE PLACEMENT OF CONCRETE.
- B. GENERAL CONCRETE REQUIREMENTS: 1. COMPRESSIVE STRENGTHS OF CONCRETE (28 DAY) AS FOLLOWS:
  - ..3000 PSI EXPOSURE CAT. FO
  - .... 4000 PSI EXPOSURE CAT. FO b. SLABS ON GRADE INTERIOR..... c. SLABS ON GRADE EXTERIOR......4000 PSI EXPOSURE CAT. F2, MAX w/c = 0.45, 6% AIR d. WALLS BELOW GRADE... . 4000 PSI EXPOSURE CAT. F1, MAX w/c = 0.55, 5% AIR

.. 4000 PSI EXPOSURE CAT. FO

- .. 4000 PSI EXPOSURE CAT. FO e. WALLS INTERIOR.. f. WALLS EXTERIOR.. .. 4000 PSI EXPOSURE CAT. F1, MAX w/c = 0.55, 5% AIR g. COLUMNS INTERIOR... .. 4000 PSI EXPOSURE CAT. FO .. 4000 PSI EXPOSURE CAT. F1, MAX w/c = 0.55, 5% AIR h. COLUMNS EXTERIOR.
- .. 4000 PSI EXPOSURE CAT. F1, MAX w/c = 0.55, 5% AIR 2. CONCRETE DENSITY: NORMAL WEIGHT CONCRETE SHALL HAVE A UNIT WEIGHT OF 145 TO 155 PCF. LIGHTWEIGHT CONCRETE SHALL HAVE A UNIT WEIGHT NOT TO EXCEED 110 PCF.
- FORM WORK SHALL COMPLY WITH ACI STANDARDS PUBLICATION 347 AND THE PROJECT SPECIFICATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, CARE,
- PLACEMENT. AND REMOVAL OF THE FORM WORK AND SHORES. D. ANY CONCRETE THAT FAILS TO MEET SPECIFICATIONS SHALL BE REMOVED & REPLACED AT THE
- EXPENSE OF THE CONTRACTOR. E. CONCRETE COVER REQUIREMENTS:

i. BEAMS INTERIOR...

- 1. UNFORMED SURFACES IN CONTACT WITH EARTH...... 2. FORMED SURFACES IN CONTACT WITH EARTH...
- 3. CONCRETE NOT EXPOSED TO OUTSIDE WEATHER......
- 4. SLABS AND WALLS NOT EXPOSED TO WEATHER...... 5. CLEAR DISTANCE BETWEEN BARS...
- 1. ALL THE HORIZONTAL & VERTICAL CONSTRUCTION JOINTS SHALL HAVE A CONTINUOUS 2"X4" KEY WAY ALONG THE JOINT. UNLESS NOTED OTHERWISE. SEE DETAILS. JOINTS IN WALLS REQUIRE.
- 2. PROVIDE REINFORCING DOWELS TO MATCH THE MEMBER REINFORCING AT THE JOINT, UNLESS NOTED OTHERWISE
- 3. SLABS-ON-GRADE SHALL HAVE CONSTRUCTION OR CONTROL JOINTS PLACED IN LENGTHS NOT TO EXCEED 36 TIMES THE SLAB THICKNESS IN ANY DIRECTION. CONSTRUCTION JOINTS WILL NOT EXCEED A DISTANCE OF 75'-O" O.C. IN ANY DIRECTION
- a. CONTROL JOINTS SHALL BE COMPLETED WITHIN 12 HOURS OF CONCRETE PLACEMENT. CONTROL JOINTS MAY BE INSTALLED BY SAW-CUTTING DEPTH OF 1/4 THE THICKNESS OF THE SLAB. b. TOOLED JOINTS = 1/4 THE THICKNESS OF THE SLAB.
- 4. CONTROL JOINTS IN VISUALLY EXPOSED WALLS, U.N.O.: (JOINTS SHALL LINE UP WITH MASONRY & ARCHITECTURAL JOINTS, SEE PLANS.) a. VERTICAL CONTROL JOINTS AT 10'-0" O.C.
- b. REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL & CONSTRUCTION JOINTS, UNLESS
- c. CONTROL JOINTS IN CONCRETE WALLS SHALL LINE UP WITH MASONRY CONTROL JOINTS. REINFORCEMENT& DETAILING: ALL REINFORCING INCLUDING WWF SHALL BE DETAILED, BOLSTERED, & SUPPORTED TO COMPLY WITH ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES" & CRSI RECOMMENDATIONS. REINFORCING BARS SHALL NOT BE WELDED
- 1. A706 BARS MAY BE SUBSTITUTED WITH A615 BARS IF MILL CERTIFICATIONS ARE SUBMITTED SHOWING ACTUAL YIELD STRENGTH DOES NOT EXCEED SPECIFIED STRENGTH BY MORE THAN 18 KSI
- 2. ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60, Fy = 60 KSI MIN, U.N.O..
- 3. BARS SHALL BE TIED SECURE PRIOR TO PLACEMENT OF CONCRETE TO MAINTAIN PROPER
- PLACEMENT AFTER CONCRETE IS IN PLACE.
- 4. LAP BARS PER THE SCHEDULE PROVIDED BELOW

UNLESS SPECIFICALLY SHOWN ON DRAWINGS.

- 5. SPLICE BARS ONLY WHERE SHOWN ON THE PLANS. 6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. LAP FABRIC 8 INCHES MINIMUM.
- 7. ALL EMBEDMENT & DOWELS SHALL BE SECURELY TIED TO FORM WORK OR TO ADJACENT REINFORCING PRIOR TO THE PLACEMENT OF CONCRETE.
- 8. USE CHAIRS OR OTHER SUPPORT DEVICES RECOMMENDED BY CRSI TO SUPPORT & TIE
- REINFORCEMENT BARS & WWF PRIOR TO TO PLACING CONCRETE.
- 9. PROVIDE CORNER BARS AT INTERSECTING WALL CORNERS USING THE SAME BAR SIZE & SPACING AS THE HORIZONTAL WALL REINFORCING. CORNER BAR LAP LENGTHS SHALL CONFORM TO REINFORCING BAR LAP SPLICE LENGTHS.
- 10.ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS OR THE STRUCTURE BELOW. DOWELS SHALL BE THE SAME SIZE & AT THE SAME SPACING AS THE VERTICAL WALL REINFORCING SCHEDULED FOR THE WALL ABOVE DOWELS SHALL EXTEND INTO FOOTINGS WITH A 90° STANDARD ACI HOOK & TO WITHIN 4" OF THE BOTTOM OF THE FOOTING.
- 11. HORIZONTAL WALL REINFORCING SHALL TERMINATE AT THE ENDS OF WALLS, CORNERS, & OPENINGS INTO THE FAR ENDS OF THE JAMB COLUMN WITH A 90 DEGREE HOOK + A 6-BAR DIAMETER EXTENSION, UNLESS SHOWN OTHERWISE. SPLICES IN HORIZONTAL REINFORCEMENT SHALL BE STAGGERED. SPLICES IN TWO CURTAINS, SHALL NOT OCCUR IN THE SAME LOCATIONS.
- 12.UNLESS NOTED OTHERWISE, PLACE (2) #4 BARS AROUND ALL OPENINGS 8" OR LARGER IN ANY DIRECTION, & EXTEND REINFORCING BARS A MINIMUM OF 24" BEYOND THE CORNER OF THE OPENINGS. WHERE 24" IS NOT AVAILABLE, EXTEND BARS AS FAR BEYOND THE OPENING AS POSSIBLE, & TERMINATE THEM WITH A 90 DEGREE STANDARD ACI HOOK. PROVIDE 2 - #4 X 4'-0" DIAGONAL AT THE CORNERS OF EACH OPENING.
- 13.CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS, & INSERTS PRIOR TO CONCRETE PLACEMENT.
- WALL REINFORCING SHALL FOLLOW SCHEDULE PROVIDED. PLACE STEEL IN THE CENTER OF THE WALL (EXCEPT IN WALLS THICKER THAN 10" & WHERE SHOWN OTHERWISE). WALLS THICKER THAN 10" SHALL HAVE TWO CURTAINS OF REINFORCING (PLACED NEAR EACH FACE OF THE WALL), UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DRAWINGS. SPACING SHALL NOT EXCEED THREE TIMES THE WALL THICKNESS OR 18".

#### REBAR LAP SCHEDULE TENSION BARS "Ld" Fc = 3000 psiFc = 4000 psiTOP REG. BAR SIZE CLASS CLASS CLASS CLASS A | B | A | B | A | B | A | B 17" | 22" | 22" | 28" | 15" | 19" | 19" | 24" 22" 29" 29" 38" 19" 25" 26" 33" 28" | 36" | 37" | 48" | 24" | 31" | 32" | 42" 33" | 43" | 45" | 58" | 29" | 37" | 39" | 50" 48" | 63" | 63" | 82" | 42" | 55" | 55" | 71" 55" | 72" | 72" | 93" | 48" | 63" | 63" | 81" #9 62" | 81" | 81" | 105" | 54" | 71" | 71" | 92" 70" | 91" | 91" | 118" | 61" | 79" | 79" | 103" 78" | 101" | 101" | 131" | 68" | 88" | 88" | 114"

### 1. THE SCHEDULE SHOWN APPLIES TO REGULAR WEIGHT CONCRETE WITH 60ksi GRADE REINFORCING

- TOP BARS ARE HORIZONTAL BARS WITH 12" (OR MORE), OF FRESH CAST BELOW THE BARS. 3. CLASS "A" SPLICES SHALL BE USED WHEN 50% (OR LESS) OF BARS SPLICED WITHIN LAP.
- 4. CLASS "B" SPLICES SHALL BE USED FOR ALL ELSE, TYPICALLY WITH SHEARWALLS, COLUMNS, FOR EPOXY COATED BARS, INCREASE LAP LENGTHS AS FOLLOWS: TOP BARS - Ld x 1.7, REGULAR
- FOR BUNDLED BARS, INCREASE LAP LENGTHS AS FOLLOWS: BUNDLED BARS THREE OR LESS Ld x 1.2, BUNDLED BARS FOUR OR MORE - Ld x 1.33. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT
- LAP SPLICES ARE NOT ALLOWED FOR TIES AND STIRRUPS.

#### **EPOXY ANCHORS**

- A. ACCEPTABLE MANUFACTURERS (EPOXY TYPE) 1. HILTL.....HIT-HY 200
- 2. SIMPSON...... SET-XP
- B. ANCHOR INSTALLATION: 1. DRILL HOLE TO THE EMBEDMENT DEPTH NOTED ON PLANS. DRILL BIT DIAMETER TO BE DETERMINED
- PER ANCHOR DIAMETER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS 2. INSTALL ANCHORS PER MANUFACTURER'S REQUIREMENTS. THESE REQUIREMENTS INCLUDE, BUT ARE NOT LIMITED TO, HOLE PREPARATION, EPOXY PROPORTIONS AND QUANTITIES, INSTALLATION
- TEMPERATURE, AND CURE TIMES. 3. CLEAR OUT ALL DUST AND FRAGMENTS FROM THE HOLE PRIOR TO INJECTION OF EPOXY USING A BRUSH AND COMPRESSED AIR. COMPRESSED AIR TO BE INJECTED INTO THE HOLE USING A WAND TO BLOW THE DUST FROM THE BACK OF THE HOLE FORWARD THROUGH THE OPENING. ENSURE ALL
- DUST HAS BEEN REMOVED PRIOR TO INJECTING EPOXY. 4. INJECT EPOXY INTO HOLE. AMOUNT OF EPOXY TO BE DETERMINED BY MANUFACTURER'S
- REQUIREMENTS FOR ANCHOR DIAMETER AND EMBEDMENT DEPTH. 5. INSERT ANCHOR AND TWIST 1/2 ROTATION UNLESS NOTED OTHERWISE IN INSTALLATION
- 6. REMOVE EXCESS EPOXY FROM SURFACE.
- 7. ALLOW EPOXY TO CURE PER MANUFACTURER'S SPECIFICATIONS.

#### STRUCTURAL STEEL

- A. STRUCTURAL STEEL MINIMUM YIELD STRENGTH:
- 1. TUBE STEEL: A500 GRADE B STEEL (Fy = 46 KSI) 2. WIDE FLANGE SECTIONS: A992 STEEL (Fv = 50 KSI) 3. CHANNELS AND ANGLES: A36 STEEL (Fy = 36 KSI)
- 4. PLATES: A36 STEEL (Fy = 36 KSI)
- 5. BOLTS: FOR STEEL, USE A325; FOR WOOD, USE A307 GR. A 6. ANCHOR BOLTS: A307 OR A36
- B. ALL STRUCTURAL STEEL AND STRUCTURAL STEEL WORK SHALL COMPLY WITH "SPECIFICATIONS FOR THE DESIGN, FABRICATIONS, AND ERECTIONS OF STRUCTURAL STEEL FOR BUILDINGS OF THE A.I.S.C. CODE OF STANDARD PRACTICE".
- C. ALL WELDS AND WELDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE "THE AMERICAN WELDING SOCIETY.
- D. ALL WELDS SHALL BE 3/16" FILLET CONTINUOUS ALL AROUND UNLESS NOTED OTHERWISE. E. PRIOR TO FABRICATION & PLACEMENT, SHOP DRAWINGS FOR ALL STEEL ITEMS SHALL BE SUBMITTED
- ACCORDING TO THE SHOP DRAWINGS SECTION OF THESE NOTES.
- F. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES AND BY WELDERS CERTIFIED BY AWS STANDARDS WITHIN THE LAST 12 MONTHS

#### WOOD FRAMING NOTES

- FRAMING LUMBER: DOUGLAS FIR-LARCH (SURFACED DRY NOT TO EXCEED MAXIMUM 19% MOISTURE). CONFORMING TO NDS & APPLICABLE STANDARDS IN THE FOLLOWING GRADES, U.N.O.:
  - DIMENSIONED LUMBER-BEAMS: JOISTS-#2 OR BETTER
  - (Fb = 900 PSI, Fc = 1350 PSI, Fv = 180 PSI, E=1600 KSI)• ROUGH SAWN BEAMS (LARGER THAN 5"x5"): DOUGLAS FIR-LARCH #1
  - (Fb = 1550 PSI, Fc = 1100 PSI, Fv = 170 PSI, E=1700 KSI)
  - POSTS, TIMBERS (8X8 & LARGER): DOUGLAS FIR-LARCH #1 (Fb = 1400 PSI, Fc = 1200 PSI, Fv = 170 PSI, E = 1700 KSI)
- STUDS: DOUGLAS FIR-LARCH STUD GRADE
- (Fb = 700 PSI, Fc = 850 PSI, Fv = 180 PSI, E = 1400 KSI)
- BUILT-UP COLUMNS: DOUGLAS FIR-LARCH #2 OR BETTER (Fb = 900 PSI, Fc=1350 PSI, Fv=180 PSI, E=1600 KSI)
- BUILT-UP COLUMNS: DOUGLAS FIR-LARCH #2 OR BETTER
- (Fb = 1350 PSI, Fc = 1350 PSI, Fv = 180 PSI, E = 1900 KSI) B. ALL SIMPLE-SPAN GLUE LAMINATED TIMBER MEMBERS SHALL BE GRADE 24F-V4 DF/DF (Fb = 2400 PSI, Fv = 265 PSI, E=1800 KSI). FOR CANTILEVERED OR CONTINUOUS GLULAM BEAMS U.N.O.., USE
- 24F-V8 (Fb = 2400 PSI, Fv = 265 PSI, E = 1800 PSI). FOR GLULAM COLUMNS, USE 24F-V8 C. PROVIDE SOLID BLOCKING AT LEAST 1-1/2" THICK AT ENDS & AT EACH SUPPORT OR JOIST. PROVIDE APPROVED BRIDGING AT A MAXIMUM 8'-O" O.C. BETWEEN SUPPORTS OR AS REQUIRED BY THE JOIST
- D. NAILING SHALL CONFORM TO STANDARD NAILING SCHEDULE OF THE NDS, U.N.O. ON PLANS OR
- SCHEDULES. ALL NAILS SHALL BE COMMON NAILS.
- E. BUILT-UP BEAMS OF 2x MEMBERS SHALL BE NAILED TOGETHER WITH (2) 16D NAILS AT 12" O.C.
- STAGGERED. USE (2) 16D COMMON NAILS AT ALL SUPPORTS. SEE DETAIL K/S4.01. F. ALL HEADERS SHALL BEAR ON MINIMUM OF ONE TRIMMER & ONE KING STUD AT EACH END, U.N.O.. G. ALL WOOD POST BUILT-UP COLUMNS SHALL BE CONTINUOUS TO FOUNDATION OR BEAM. SOLID BLOCK
- ALL POSTS OR COLUMNS AT FLOOR LINES. H. PROVIDE DOUBLE JOIST BENEATH ALL WALLS RUNNING PARALLEL AND HAVING A LENGTH GREATER
- THAN HALF JOIST SPAN. ALL METAL HANGERS SHALL BE "SIMPSON" OR EQUAL. USE SIMPSON HANGERS FOR ALL FLUSH
- CONNECTIONS. USE STRONGEST HANGER COMPATIBLE WITH MEMBER SIZE & NAIL PER MANUFACTURER. SPECIFICATIONS TO OBTAIN MAXIMUM LOAD-CARRYING CAPACITY. J. SILL PLATES SHALL BE FOUNDATION GRADE REDWOOD OR PRESSURE TREATED DOUGLAS FIR-LARCH (FC = 625 PSI) WHEN IN CONTACT WITH CONCRETE.
- K. DOUBLE TOP PLATES TO BE LAPPED 4'-O" AT SPLICE AND CONNECT WITH 16D COMMON NAILS @ 3" O.C. BOLTS: HOLES IN WOOD 1/16" OVERSIZE MAX. USE MI WASHERS AGAINST WOOD EXCEPT SILL PLATES. RETIGHTEN ALL BOLTS BEFORE CLOSING IN. PRE-DRILL HOLES FOR LAG AND TURN BOLTS INTO HOLES,
- DO NOT DRIVE IN. M. LAMINATED VENEER LUMBER: ALL LAMINATED VENEER LUMBER SHALL CONFORM TO THE SPECIFICATIONS OF TRUSS-JOIST WEYERHAEUSER FOR MICROLAM LAMINATED VENEER LUMBER, OR ENGINEER-APPROVED EQUAL. DESIGN VALUES SHALL MEET OR EXCEED THOSE PUBLISHED VALUES IN THE TRUSS-JOIST WEYERHAEUSER PRODUCT GUIDE, LATEST EDITION. LAMINATED VENEER PRODUCTS
- SHEATHING 1. ROOF SHEATHING: 5/8" OSB TYP. 40/20 SPAN RATING (U.N.O.)

TO CONFORM TO THE ICC ES ESR-1387 REPORT.

- a. EDGE BLOCKING OF UNSUPPORTED EDGES OF PLYWOOD SHEATHING ONLY REQUIRED WHERE NOTED ON PLANS. PLYCLIPS OR APPROVED EQUAL CONNECTOR SHALL BE INSTALLED AT MIDSPAN BETWEEN EACH SUPPORT WHEN RAFTER SPACING EXCEEDS 16" AND EDGE BLOCKING
- b. TYPICAL NAILING SHALL BE 10d @ 6" O.C. AT SUPPORTED EDGES AND OVER SHEAR WALLS AND 10d @ 12" O.C. ALL INTERMEDIATE SUPPORTS (U.N.O.).
- 2. FLOOR SHEATHING: 3/4" T&G TYP. (U.N.O.) a. EDGE BLOCKING OF UNSUPPORTED EDGES OF PLYWOOD SHEATHING ONLY REQUIRED WHERE NOTED ON PLANS IN WHICH CASE T&G PLYWOOD SHALL BE USED.
- b. TYPICAL NAILING SHALL BE 10d @ 6" O.C. AT SUPPORTED EDGES, AND OVER SHEAR WALLS AND 10d @ 12" O.C. ALL INTERMEDIATE SUPPORTS (U.N.O.) USE RING SHANK NAILS. c. ALL FLOOR SHEATHING SHALL BE GLUED TO JOISTS. THE FIELD-GLUED FLOOR SYSTEM SHALL BE INSTALLED ACCORDING TO THE RECOMMENDATION OF THE AMERICAN PLYWOOD ASSOCIATION. GLUE SHALL BE APPLIED TO THE JOISTS AND TO THE GROOVE IN THE EDGE OF

THE T&G PANELS. GLUE SHALL MEET THE REQUIREMENTS IN THE AMERICAN PLYWOOD

ASSOCIATION ADHESIVE SPEC. AFG-D1 AND SHALL BE APPLIED AS DIRECTED BY THE GLUE

- MANUFACTURER. GLUE MAT BE APPLIED MANUALLY OR WITH PNEUMATIC OR ELECTRIC EQUIPMENT.
- 3. WALL SHEATHING: 7/16" OSB TYP. (U.N.O.) a. TYPICAL NAILING SHALL BE 8D @ 6" O.C. ALL EDGES, AND 10D @ 12" O.C. ALL INTERMEDIATE
- SUPPORTS (U.N.O.) WHERE PLYWOOD SHEATHING IS USED ON SHEAR WALLS, SEE SCHEDULES. b. EDGE BLOCKING WILL BE REQUIRED AT ALL UNSUPPORTED EDGES OF PLYWOOD SHEETS. 4. CONTRACTOR TO TAKE CARE TO PROTECT ALL OSB SHEATHING FROM WATER DAMAGE. ANY OSB EXPOSED TO SIGNIFICANT MOISTURE, SHALL BE ASSESSED BY BUILDING INSPECTOR OR REPLACED.
- O. ALL FASTENER WHICH ARE INSTALLED IN PRESERVATIVE TREATED WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.10.5.

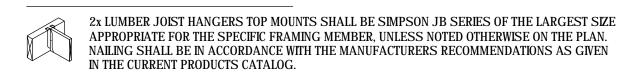
- SPREAD FOOTINGS SHALL BEAR ENTIRELY UPON SUITABLE NATURAL SOILS OR GRANULAR STRUCTURAL FILL EXTENDING TO SUITABLE NATURAL SOILS, AS DETERMINED BY THE GEOTECHNICAL ENGINEER OF RECORD. SEE DESIGN CRITERIA FOR SOIL BEARING INFORMATION.
- BOTTOM OF FOOTING SHALL BE 42 INCHES BELOW LOWEST ADJACENT FINAL GRADE. SEE FOUNDATION PLAN FOR TOP OF FOOTING ELEVATIONS. NOTE THAT ALL TOP OF FOOTING ELEVATIONS ARE ESTIMATES BASED ON ARCHITECTURAL AND CIVIL DRAWINGS. CONTRACTOR SHALL FIELD VERIFY ALL TOP OF FOOTING ELEVATIONS WITH EXPECTED FINISH GRADE TO ENSURE ADEQUATE FROST PROTECTION
- ALL WATER SHALL BE REMOVED FROM EXCAVATION PRIOR TO PLACING CONCRETE. DO NOT PLACE CONCRETE UNDER WATER OR ON FROZEN GROUND. CONTRACTOR IS RESPONSIBLE FOR PROTECTING FOOTINGS AND SURROUNDING SOILS AGAINST FROST DURING CONSTRUCTION
- D. ALL FILL AND BACKFILL SHALL BE COMPACTED ACCORDING TO THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL REPORT. E. ANY UNUSUAL SOIL CONDITIONS (WATER, SOFT LAYERS, ROCK OUTCROPPINGS, EXISTING STRUCTURES,
- ETC.) ENCOUNTERED DURING EXCAVATION FOR FOOTINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT, STRUCTURAL ENGINEER, AND GEOTECHNICAL ENGINEER PRIOR TO

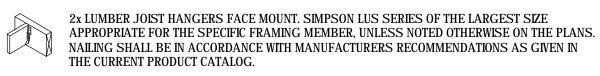
#### ABBREVIATIONS

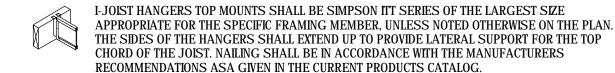
BM	BEAM	NTS	NOT TO SCALE
CJ	CONTROL JOINT	OC	ON CENTER
CL	CENTER LINE	PL	PLATE
CMU	CONCRETE MASONRY UNIT	R/W	REINFORCED WITH
COL	COLUMN	SAD	SEE ARCH DWG
C/W	COMPLETE WITH	SW	SHEAR WALL
EF	EACH FACE	TOS	TOP OF SLAB
EW	EACH WAY	TOW	TOP OF WALL
GA	GAUGE	W/	WITH
GSN	GENERAL STRUCTURAL NOTES	WWF	WIRE MESH
NIC	NOT IN CONTRACT	U.N.O.	UNLESS NOTES OTHERWISE

	STRUCTURAL SHEET INDEX			
SHEET NUMBER SHEET TITLE				
S-000	GENERAL STRUCTURAL NOTES			
S-001	SPECIAL INSPECTIONS SCHEDULE			
S-101	FOOTING & FOUNDATION PLAN			
S-201	2ND FLOOR FRAMING PLAN			
S-211	3RD FLOOR FRAMING & ROOF FRAMING PLAN			
S-221	ROOF FRAMING PLAN			
S-300	FOOTING & FOUNDATION DETAILS			
S-301	FOOTING & FOUNDATION DETAILS			
S-400	FRAMING DETAILS			
S-401	FRAMING DETAILS			
S-500	FRAMING DETAILS			

#### JOIST HANGERS SHALL BE







I-JOIST HANGERS FACE MOUNT SHALL BE SIMPSON IUS SERIES OF THE LARGEST SIZE APPROPRIATE FOR THE SPECIFIC FRAMING MEMBER, UNLESS NOTED OTHERWISE ON THE PLAN. THE SIDES OF THE HANGERS SHALL EXTEND UP TO PROVIDE LATERAL SUPPORT FOR THE TOP CHORD OF THE JOIST. NAILING SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS ASA GIVEN IN THE CURRENT PRODUCTS CATALOG.

#### NAIL SCHEDULE FOR WOOD

AS A MINIMUM AND IF NOT SPECIFICALLY DETAILED OR NOTED ELSEWHERE AND OTHERWISE, THE VARIOUS WOOD COMPONENTS OF THE STRUCTURE SHALL BE FASTENED TOGETHER AS FOLLOWS:

ITEM GRAPHIC DESCRIPTION & FASTENING

> BLOCKING TO JOIST: (3) 8D COMMON OR 16D SINKER OR SHORT, TOE-NAIL OR (2) 16D SINKER OR SHORT FACE NAIL.

JOIST TO MUD SILL OR UPPER TOP PLATE: (3) 8D COMMON OR 16D SINKER OR

SOLID (BOTTOM) PLATE TO JOIST OR BLOCKING: 16D SINKER OR SHORT FACE NAIL

LOWER TOP PLATE TO STUD: (2) 16D COMMON FACE NAIL

STUD TO SOLE BOTTOM PLATE: (2) 16D SINKER OR SHORT FACE NAIL OR (4) 8D COMMON OR 16D SINKER OR SHORT TOE-NAIL. AT 3x SILL PLATES, USE (2) 20d BOX FACE MAIL IN LIEU OF (2) 16D SINKER OR SHORT.

DOUBLE STUDS, OR BUILT-UP STUDS TYPICAL STITCHING: 16D SINKER OR SHORT

TOP PLATES AT INTERSECTION, FACE NAIL: (4) 16D COMMON FACE NAIL.

TOP PLATES TYPICAL STITCHING: 16D SINKER OR SHORT FACE NAILS AT 16" O.C.

UPPER TOP PLATES AT LAPS: (8) 16D SINKER OR SHORT FACE NAIL EA. SIDE OF RIM JOIST TO UPPER TOP PLATE OR MUD SILLS: 8D COMMON OR 16D SINKER OR

SHORT TOE-NAILS AT 6" O.C. CEILING JOIST TO PLATE, TOE-NAIL: (3) 8D COMMON OR 16D SINKER OR SHORT

CEILING JOIST, TO PARALLEL RAFTERS: (3) 16D COMMON FACE NAILS.

BUILT UP CORNER STUD: 16D COMMON FACE NAILS AT 24" O.C.

CEILING JOIST, LAP OVER WALLS AND PARTITIONS: (3) 16D COMMON FACE NAILS.

RAFTER TO PLATE, TOE NAIL: (3) 8D COMMON OR 16D SINKER OR SHORT TOE NAIL.

THREE PIECE BUILT UP GIRDER AND BEAM: STEEL DETAIL.

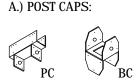
## HARDWARE SCHEDULE

**FASTENERS** 

AS A MINIMUM AND IF NOT SPECIFICALLY DETAILED OR NOTED ELSEWHERE AND OTHERWISE, THE VARIOUS HARDWARE COMPONENTS OF THE STRUCTURE SHALL BE FASTENED TOGETHER AS FOLLOWS. IF FASTENING IS NOT SPECIFIED THEN THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED.

CONNECTOR

B.) HANGERS:



SIMPSON PC, EPIC, AND BC SERIES FULLY NAIL WITH 16D SINKER OR 16D SHORT

SIMPSON U, HU, HUB, AND HHUB SERIES: FULLY NAIL WITH 16D SINKER OR 16D

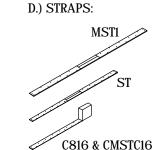
ADDITIONAL NAIL TRIANGULAR HOLES WHEN 'MAX' IS NOTED ON PLAN. SIMPSON

GLB, HGLB, GLT, AND HGLT SERIES: FULLY NAIL WITH SIMPSON N54A NAILS.

SHORT OR 10D COMMON NAILS IN ALL ROUND AND SLANT NAIL HOLES.



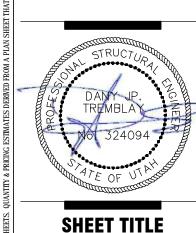
SIMPSON L & L8 SERIES. FULLY NAIL WITH 10D COMMON. SIMPSON A35 AND LTP4 SERIES. FULLY NAIL WITH 16D SINKER OR 16D SHORT OR 8D COMMON NAILS OR 8D JOIST HANGER NAILS.



SIMPSON MST1 AND LST SERIES. FULL NAIL WITH 10D JOIST HANGER NAILS SIMPSON ST AND MST SERIES. FULLY NAIL WITH 16D SINKER OR 16D SHORT NAILS. SIMPSON C8 AND TS SERIES. FULLY NAIL WITH 16D SINKER OR 16D SHORT OR 10D COMMON NAILS.

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**ISSUE DATE** 

**SEPTEMBER 15, 2017** 

GENERAL

STRUCTURAI

NOTES

SHEET REVISION DATE  $\setminus$  NOV. 27, 2017

SHEET NUMBER

# SPECIAL INSPECTIONS SCHEDULE

#### SPECIAL INSPECTIONS: GENERAL

- A. CONTRACTOR SHALL READ AND UNDERSTAND THEIR DUTIES IN THE SPECIFICATION AND UNDER THE BUILDING CODE FOR SPECIAL INSPECTIONS AND COORDINATE AS NECESSARY THE OWNER'S
- B. THE SPECIAL INSPECTORS SHALL BE PROVIDED AND SHALL ONLY USE APPROVED SHOP DRAWINGS.
- C. SPECIAL INSPECTION REPORTS ARE TO BE SUBMITTED IMMEDIATELY TO THE SER, ARCHITECT, AND CONTRACTOR DAILY WHEN INSPECTIONS ARE PERFORMED.
- D. THE GENERAL CONTRACTOR SHALL PROVIDE TIMELY NOTICE TO THE SPECIAL INSPECTOR AND SUFFICIENT TIME FOR THE INSPECTOR TO PERFORM THEIR INSPECTION.
- E. SEE GENERAL STRUCTURAL NOTES SPECIAL INSPECTIONS SECTION, NOTE "C" FOR ALL PROJECT-SPECIFIC SPECIAL INSPECTIONS. ADJACENT CHART FOR THOSE ITEMS ONLY SHALL BE USED FOR THE PROJECT.

### SPECIAL INSPECTIONS STATEMENT

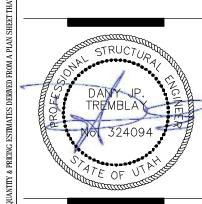
- A. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS, UNLESS WAIVED BY THE BUILDING OFFICIAL
- B. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL.
- C. DUTIES OF THE SPECIAL INSPECTOR:
  - 1. THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED ABOVE FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AND THE 2015 IBC.
  - a. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE EOR, CONTRACTOR, OWNER, AND BUILDING OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY AS REQUIRED BY THE BUILDING OFFICIAL. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE EOR AND THE BUILDING OFFICIAL.
  - b. ONCE CORRECTIONS HAVE BEEN MADE BY THE CONTRACTOR, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AS WELL AS THE APPLICABLE WORKMANSHIP PROVISIONS OF THE 2015 IBC.
  - 2. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
- a. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. IN ACCORDANCE WITH IBC 1704.4, THE STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED WITHIN THIS "STATEMENT OF SPECIAL
- b. THE CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION
- c. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.
- 3. PLEASE SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS, AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS

AREAS REQUIRING SPECIAL INSPECTION:	FREQUI	ENCY PERIODIC	COMMENTS:
FABRICATORS (IBC 1704.2.5)	CONTINUOUS	PERIODIC	
Tributerifolds (Be 170 1.2.0)	•		IF FABRICATOR IS APPROVED, ON-SITE INSPECTION IS NOT REQUIRED BUT A CERTIFICATE MUST BE PROVIDED TO THE
CON C (TO C TO C O)			B.O. (IBC 1704.2.5.1)
SOILS (IBC 1705.6) VERIFY ADEQUATE MATERIALS BELOW FOOTINGS			PRIOR TO PLACEMENT OF CONCRETE.
EXCAVATION EXTEND TO PROPER DEPTH AND MATERIALS		<b>*</b>	PRIOR TO PLACEMENT OF CONCRETE.  PRIOR TO PLACEMENT OF COMPACT FILL OR CONCRETE.
CLASSIFICATION AND TESTING OF FILL MATERIALS		<b>*</b>	CHECK CLASSIFICATION AND GRADATIONS AT EACH LIFT, BUT LESS THAN ONCE FOR EACH 10,000 FT <sup>2</sup> OF SURFACE AREA.
VERIFY PROPER FILL MATERIALS, LIFT THICKNESS AND IN-PLACE DENSITIES  VERIFY PROPERLY PREPARED SITE AND SUB-GRADE	E ◆	•	PRIOR TO PLACEMENT OF CONCRETE.
CONCRETE CONSTRUCTION (IBC 1705.3)			TAXON TO TEMPERATURE OF CONCORDER
REINFORCING STEEL PLACEMENT		•	VERIFY SIZE, CLEARANCES, SPLICES, AND PROPER TIES.
EMBEDDED BOLTS OR PLATES		<b>*</b>	-
VERIFY REQUIRED DESIGN MIX		•	VERIFY MIX DESIGN MEETS STRENGTH AND EXPOSURE REQUIREMENTS LISTED ON APPROVED PLANS.
CONCRETE PLACEMENT / SAMPLING	<b>•</b>		INCLUDES SAMPLING FOR AIR, SLUMP, STRENGTH, AND TEMPERATURE TECHNIQUES.
INSPECT FORMWORK		<b>•</b>	VERIFY SHAPE, LOCATION, AND MEMBER DIMENSIONS.
POST-INSTALLED ANCHORS	•		IN ACCORDANCE WITH APPROVED ICC-ES REPORT. PERIODIC INSPECTIONS ALLOWED IF STATED IN ES REPORT.
STRUCTURAL STEEL CONSTRUCTION (IBC 1705.2, 170	05.12, 1705.13)		
- PRIOR TO WELDING (TABLE N5.4-1, AISC 360-10)			
VERIFY WELDING PROCEDURES  MATERIAL IDENTIFICATION	•	•	- VERIFY TYPE AND GRADE OF MATERIAL.
WELDER IDENTIFICATION		<b>*</b>	VERIFY THERE IS A SYSTEM IN PLACE TO IDENTIFY THE WELDI WHO HAS WELDED A JOINT OR MEMBER.
FIT-UP GROOVE WELDS		<b>♦</b>	VERIFY JOINT PREPARATION, DIMENSIONS, CLEANLINESS, TACKING, AND BACKING.
ACCESS HOLES		•	VERIFY CONFIGURATION AND FINISH.
FIT-UP FILLET WELDS		<b>*</b>	VERIFY ALIGNMENT, GAPS AT ROOTS, CLEANLINESS OF STEEL SURFACES, TACK WELD QUALITY, AND LOCATION.
- DURING WELDING (TABLE N5.4-2, AISC 360-10)			WEDIEV THAT WEIDEDG ADE ADDODDIATELY QUALIFIED
USE OF QUALIFIED WELDERS  CONTROL AND HANDLING OF WELDING CONSUMABLES  CRACKED TACK WELDS		* *	VERIFY THAT WELDERS ARE APPROPRIATELY QUALIFIED.  VERIFY PACKAGING AND EXPOSURE CONTROL.  VERIFY WELDING IS NOT OVER A CRACKED TACK WELD.
ENVIRONMENTAL CONDITIONS		<b>*</b>	VERIFY WIND SPEED IS WITHIN LIMITS AS WELL AS PRECIPITATION AND TEMPERATURE.
WPS FOLLOWED		•	VERIFY ITEMS SUCH AS WELDING EQUIPMENT SETTINGS, TRANSPEED, WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RAPREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED, APROPER POSITION.
WELDING TECHNIQUES		<b>♦</b>	VERIFY INTERPASS AND FINAL AND FINAL CLEANING, EACH PASS IS WITHIN PROFILE LIMITATIONS AND PROPER POSITION.
- AFTER WELDING (TABLE N5.4-3, AISC 360-10) WELDS CLEANED SIZE, LENGTH, AND LOCATION OF WELDS	•	<b>*</b>	VERIFY THAT WELDS HAVE BEEN PROPERLY CLEANED.
WELDS MEET VISUAL ACCEPTANCE CRITERIA	<b>*</b>		-
ARC STRIKES	<b>•</b>		-
K-AREA BACKING AND WELDING TABS REMOVED	<b>*</b>		-
REPAIR ACTIVITIES	<b>*</b>		-
DOCUMENT ACCEPTANCE / REJECTION OF WELD - NONDESTRUCTIVE TESTING (N5.5, AISC 360-10)	•		-
CJP WELDS (RISK CAT. II)		•	ULTRASONIC TESTING SHALL BE PERFORMED ON 10% OF CJP GROOVE WELDS IN BUTT, T- AND CORNER JOINTS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN MATERIALS 5/ THICK OR GREATER. TESTING RATE MUST BE INCREASED IF >! OF WELDS HAVE UNACCEPTED DEFECTS.
ACCESS HOLE (FLANGES >2")	•		
WELDED JOINTS SUBJECT TO FATIGUE	•		-
- OTHER STEEL INSPECTIONS (N5.7, AISC 360-10) STRUCTURAL STEEL DETAILS			ALL FABRICATED STEEL AND THEIR CONNECTIONS SHALL BE INSPECTED TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN
SIRUUIURAL SIEEL DEIAILS		▼	THE APPROVED PLANS.
ANCHOR ROD / EMBEDS SUPPORTING STRUCTURAL STEEL		•	SHALL BE ON THE PREMISES DURING THE PLACEMENT OF ANCHOR RODS / EMBEDMENTS. VERIFY DIAMETER, GRADE, TY AND LENGTH OF ELEMENTS AND THE EXTENT OR DEPTH OF EMBEDMENT PRIOR TO PLACEMENT OF CONCRETE.
REDUCED BEAM SECTIONS (RBS)		<b>*</b>	VERIFY CONTOUR AND FINISH AS WELL AS DIMENSIONAL TOLERANCES (SEE TABLE J8-1 OF AISC 341).
PROTECTED ZONES		•	VERIFY THAT NO HOLES OR UNAPPROVED ATTACHMENTS ARE MADE WITHIN THE PROTECTED ZONE (SEE TABLE J8-1 OF AISO 341).
WOOD CONSTRUCTION			
WOOD SHEARWALLS		<b>*</b>	SHEARWALL NAIL SPACING FOR TYPE 'B', 'C', AND DOUBLE SHEATHED WALLS



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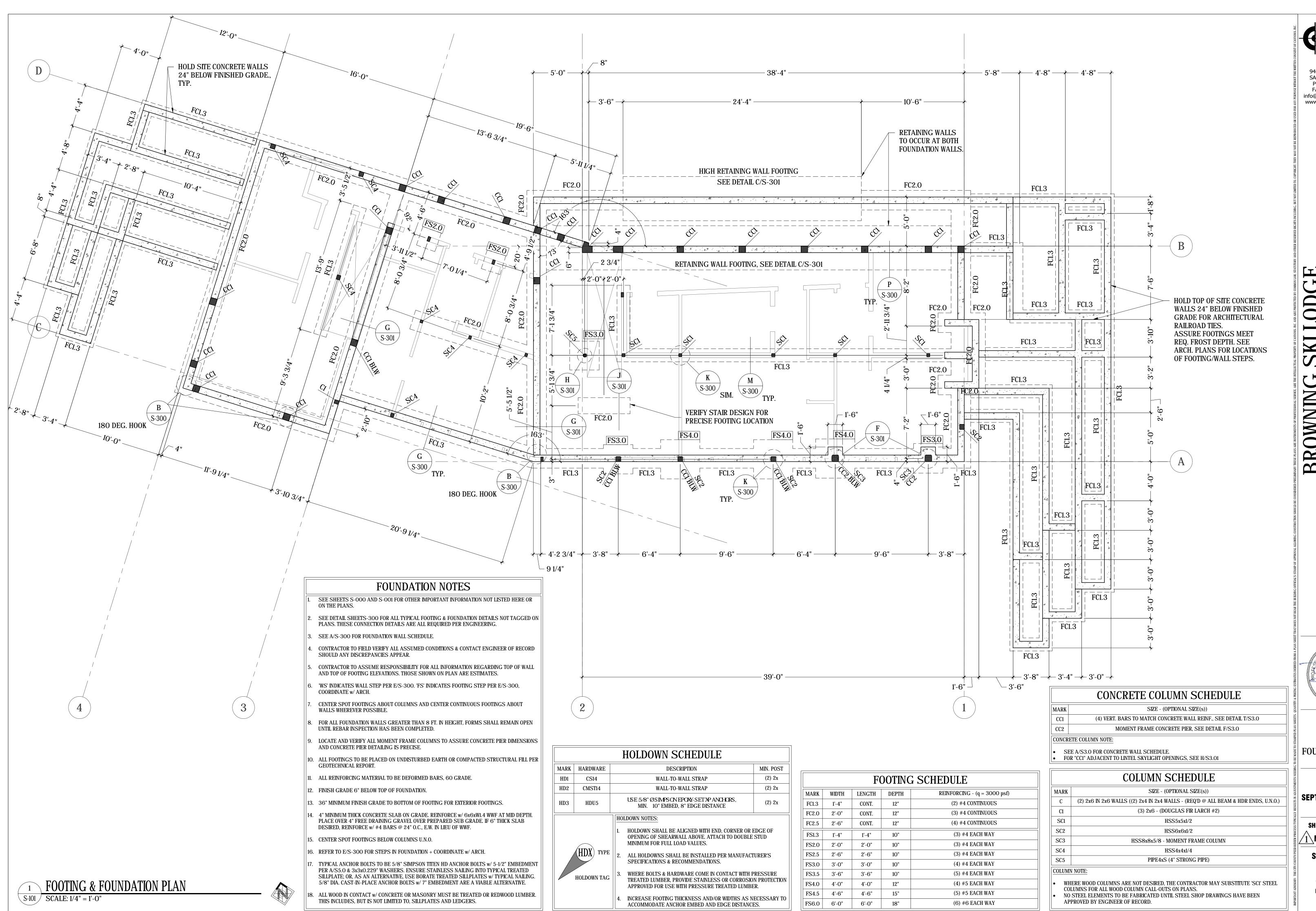


SHEET TITLE SPECIAL **INSPECTIONS** SCHEDULE

**ISSUE DATE** 

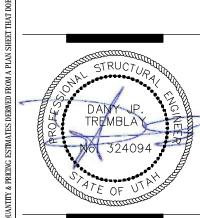
**SEPTEMBER 15, 2017** 

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DRIVE EDEN, WEBER



SHEET TITLE

FOOTING &

FOUNDATION PLAN

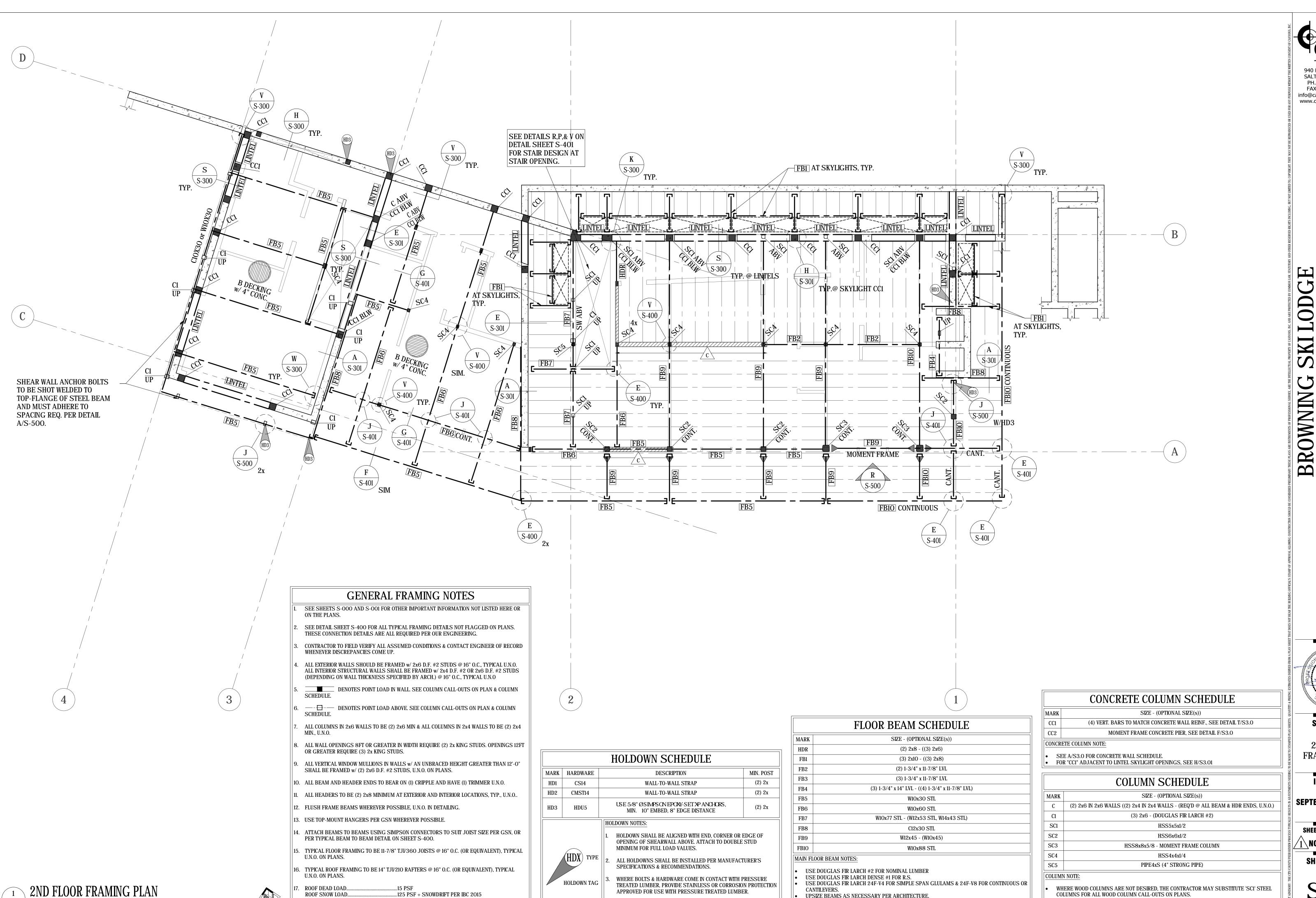
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S-101



INCREASE FOOTING THICKNESS AND/OR WIDTHS AS NECESSARY TO

ACCOMMODATE ANCHOR EMBED AND EDGE DISTANCES.

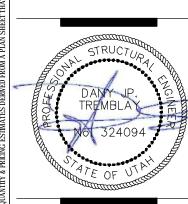
NO TJIS OR LVLS SHALL BE EXPOSED IN AN EXTERIOR APPLICATION.

Canyons, Inc.

Canyons of Canyons and Canyons of Canyon

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BROWNING SKI LODGE 7977 HEARTWOOD DRIVE EDEN, UTAH WEBER COUNTY



SHEET TITLE

2ND FLOOR

FRAMING PLAN

ISSUE DATE

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**SEPTEMBER 15, 2017** 

SHEET REVISION DATE 1 NOV. 27, 2017

NOV. 27, 2017
SHEET NUMBER

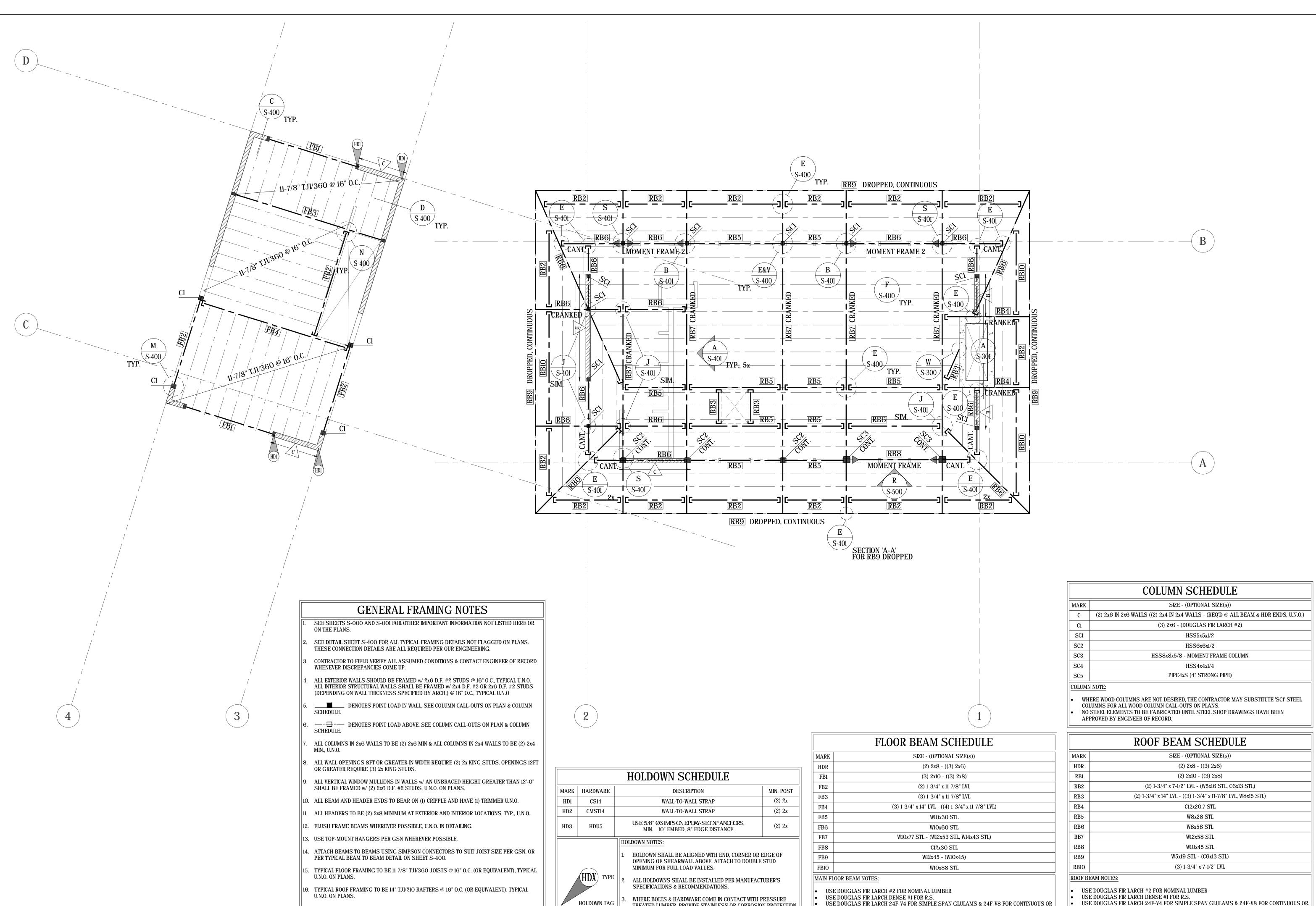
S-201

NO STEEL ELEMENTS TO BE FABRICATED UNTIL STEEL SHOP DRAWINGS HAVE BEEN

APPROVED BY ENGINEER OF RECORD.

NO STEEL ELEMENTS TO BE FABRICATED UNTIL STEEL SHOP DRAWINGS HAVE BEEN

APPROVED BY ENGINEER OF RECORD.



TREATED LUMBER, PROVIDE STAINLESS OR CORROSION PROTECTION

INCREASE FOOTING THICKNESS AND/OR WIDTHS AS NECESSARY TO

APPROVED FOR USE WITH PRESSURE TREATED LUMBER.

ACCOMMODATE ANCHOR EMBED AND EDGE DISTANCES.

3RD FLOOR FRAMING & ROOF FRAMING PLAN

17. ROOF DEAD LOAD..

ROOF SNOW LOAD....

18. NO TJIS OR LVLS SHALL BE EXPOSED IN AN EXTERIOR APPLICATION.

....125 PSF + SNOWDRIFT PER IBC 2015

USE DOUGLAS FIR LARCH 24F-V4 FOR SIMPLE SPAN GLULAMS & 24F-V8 FOR CONTINUOUS OR

NO STEEL ELEMENTS TO BE FABRICATED UNTIL STEEL SHOP DRAWINGS HAVE BEEN

UPSIZE BEAMS AS NECESSARY PER ARCHITECTURE.

APPROVED BY ENGINEER OF RECORD.

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EDEN, WEBER ( BROWNING 7977 HEAR

SHEET TITLE 3RD FLOOR FRAMING (PART B) & ROOF FRAMING PLAN (PART A)

**ISSUE DATE** 

**SEPTEMBER 15, 2017** 

SHEET REVISION DATE /1\NOV. 27, 2017

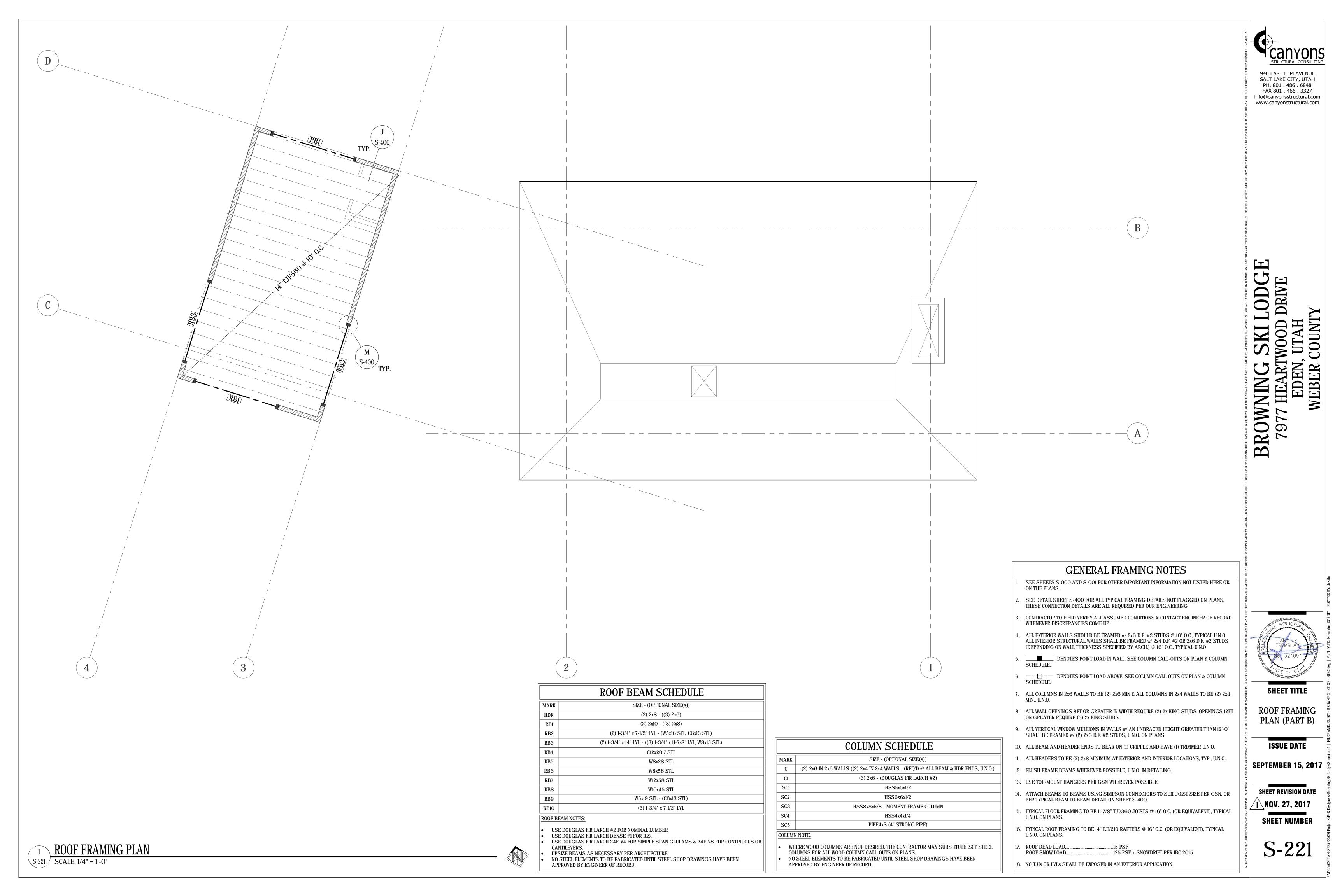
**SHEET NUMBER** 

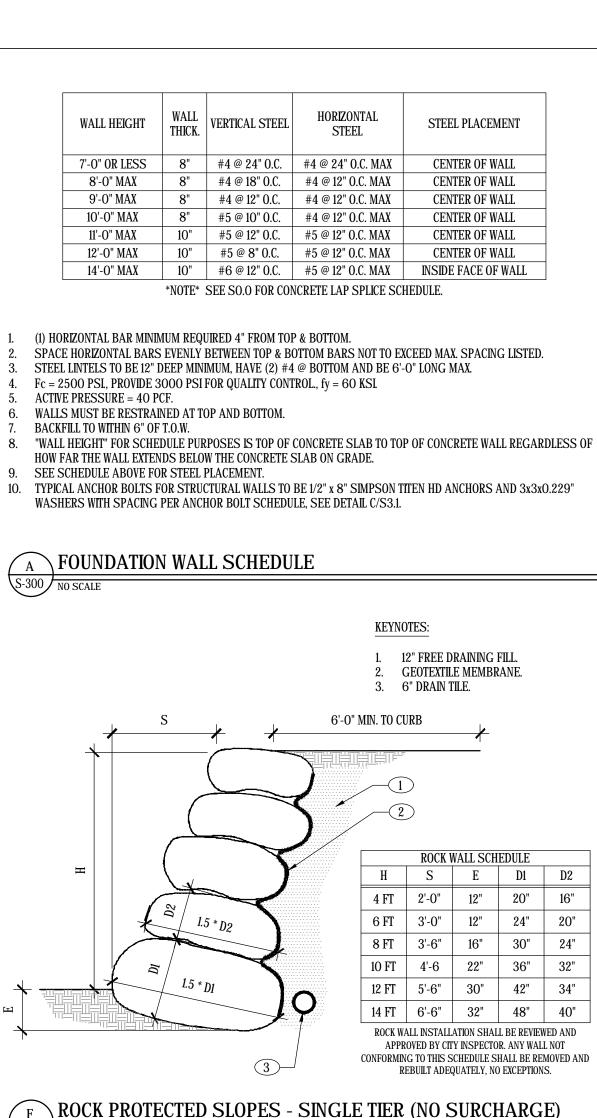
• USE DOUGLAS FIR LARCH 24F-V4 FOR SIMPLE SPAN GLULAMS & 24F-V8 FOR CONTINUOUS OR

• NO STEEL ELEMENTS TO BE FABRICATED UNTIL STEEL SHOP DRAWINGS HAVE BEEN

UPSIZE BEAMS AS NECESSARY PER ARCHITECTURE.

APPROVED BY ENGINEER OF RECORD.





KEYNOTES

KEYNOTES:

1. FOUNDATION WALL BLW LINTEL PER

3. EXTEND BARS 12" PAST OPENING

4. WIDTH OF LINTEL TO MATCH WALL

w/ (1) TIE WITHIN 3" OF END OF

HORIZONTAL BARS AT EACH END.

HORIZONTAL BARS TOP AND BOTTOM.

(WRAP AROUND CORNER IF REQUIRED).

WIDTH, #3 TIES CONTINUOUS AT 5" O.C.,

PLAN AND SCHEDULE.

2. CONCRETE LINTEL w/ (2) #7

SIZE.

COLUMN PER PLAN w/ SIMPSON EPB

FOOTING, SEE SCHEDULE FOR MORE

FREE DRAINING GRAVEL, SEE NOTES.

SIMPSON CONNECTOR, USE 1/4" x 4" x

10" KNIFE w/ (2) 5/8" THRU-BOLT &

DIMENSIONS w/ (4) 5/8" x 6" HSA.

3/4" THICK BASE TO MATCH COLUMN

CONCRETE SLAB PER NOTES.

IF COLUMN IS TOO LARGE FOR

BASE CONNECTOR TO SUIT COLUMN

S-300 NO SCALE

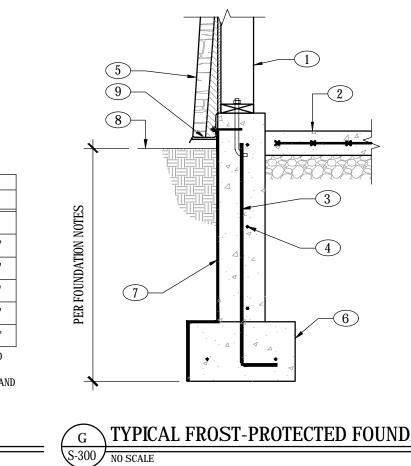
SEE SCHED

L INTERIOR WOOD COLUMN AT FOUNDATION

2

S CONCRETE LINTEL

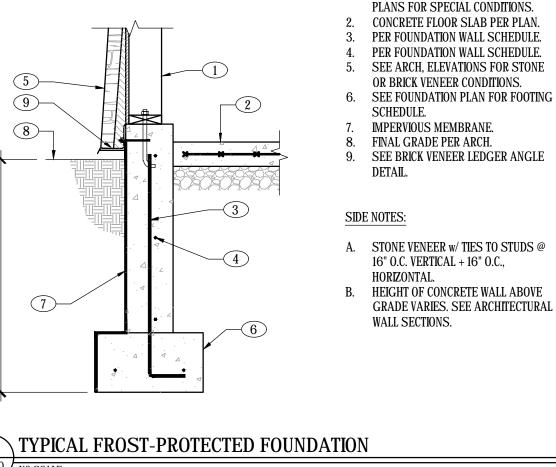
S-300 NO SCALE



180 DEGREE HOOK

45 DEGREE BEND

 $\bigcirc$  BAR BENDS, HOOKS, AND OFFSETS



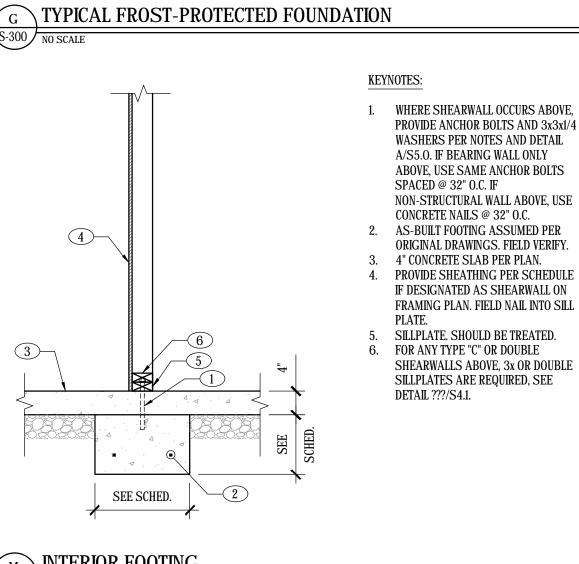
D = 6d FOR #3 - #8

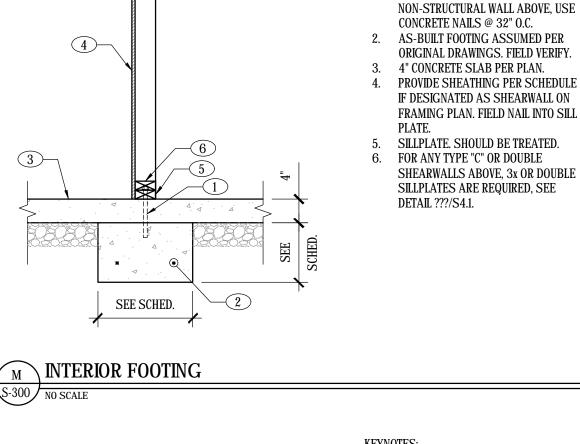
D = 10d FOR #9 - #11

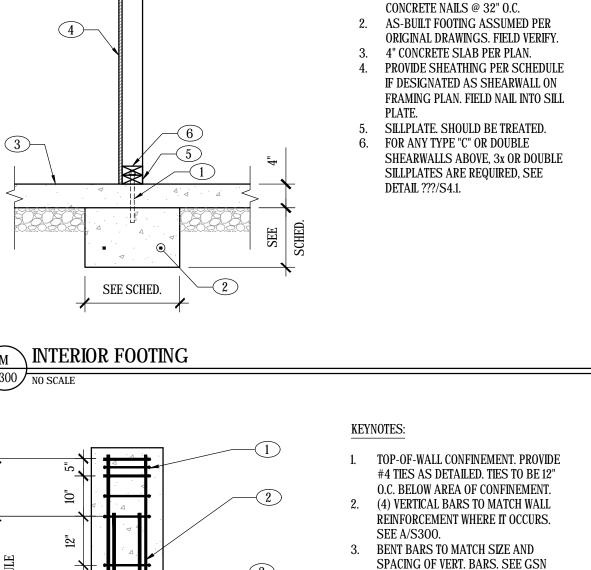
D = 10d FOR #14 - #18

KEYNOTES:

1. 2x6 STUDS AT 16" O.C., SEE FRAMING



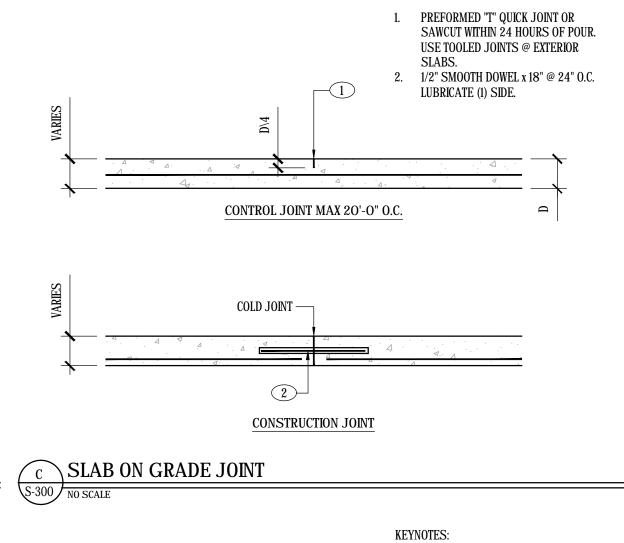




FOR LAP SPLICE REQ.

ASSURE STEEL COLUMN ABOVE IS

CENTERED ABOUT CONFINEMENT TIES.



KEYNOTES:

CONCRETE FLOOR SLAB PER PLAN.

6. SEE FOUNDATION PLAN FOR FOOTING

 $\bigcirc$ 

PER A/S3.0.

SCHEDULE.

5. #4 BENT DOWEL @ 24" O.C.,

ALTERNATE SIDE.

7. IMPERVIOUS MEMBRANE.

FLOOR FRAMING PER PLAN.

BOND BEAM AT FLOOR ((2) #5

TOP-MOUNT JOIST HANGER.

6. BLOCKING (2) JOIST SPACES DEEP

SCHEDULE ON FOOTING PLAN.

9. FINISH GRADE PER ARCH.

10. WALL PER PLANS AND NOTES.

FLASHING FOR VENEER.

O.C. EACH WAY.

BRACING FLOOR MUST BE IN PLACE BEFORE BACK FILLING WALL.

REFER TO DETAILS J/S3.0 FOR ALT. JOIST ON TOP OF WALL OPTION.

C. REFER TO DETAIL P/S3.0 FOR ALT. JOISTS HUNG ON FOUNDATION

WALL w/ NO LEDGER OPTION.

EMBEDMENT.

PER NOTES.

REQUIRED.

A/S3.0.

HORIZONTAL BARS, CONTINUOUS)

3x OR (2) 2x TREATED LEDGER W/ (2) 5/8"

CONCRETE SLAB-ON-GRADE AND GRAVEL

FOOTING SIZE AND REINFORCING PER

11. GALVANIZED OR PAINTED \(\alpha\)4x6x5/16" LLV

w/ 1/2" TITEN BOLTS @ 24" O.C. AND

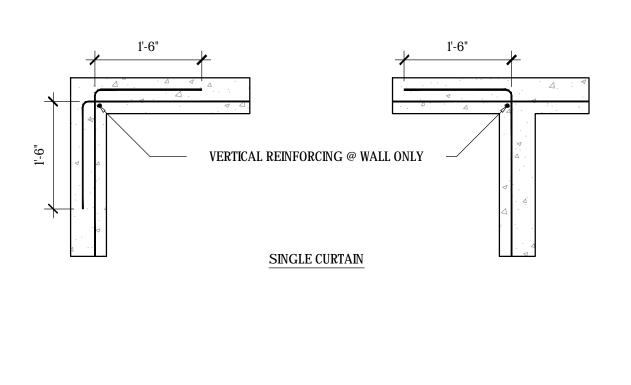
12. ATTACH VENEER w/ TIES TO STUDS @ 16"

13. 1-1/2" GYPCRETE FOR RADIANT HEAT, PER

FOUNDATION WALL PER PLAN AND DETAIL

4. PER A/S3.0.

#4 BENT 18" x 30" DOWEL @ 24" O.C.



NOTE:

FLOOR MUST

BE IN PLACE

BACK FILLING

FOUNDATION

FINISHED GRADE PER ARCH.

FOOTING PLAN.

DETAIL A/S5.0.

FOR THICKNESS AND REINFORCING.

JOIST PARALLEL TO WALL

SEE PLAN FOR FOUNDATION WALL HEIGHT AND SCHEDULE

FOOTING SIZE AND REINFORCING PER SCHEDULE ON

SEE DETAIL W/S3.0 FOR TYPICAL SHEAR TRANSFER.

SIMPSON A35 AT SPACING PER SHEARWALL SCHEDULE

SEE ARCH FOR STONE OR BRICK VENEER. ATTACH STONE VENEER w/ TIES TO STUDS @ 16" O.C. VERTICAL + 16" O.C.

IF VENEER OCCURS, USE GALVANIZED OR PAINTED \(\alpha\)4x6x1/4

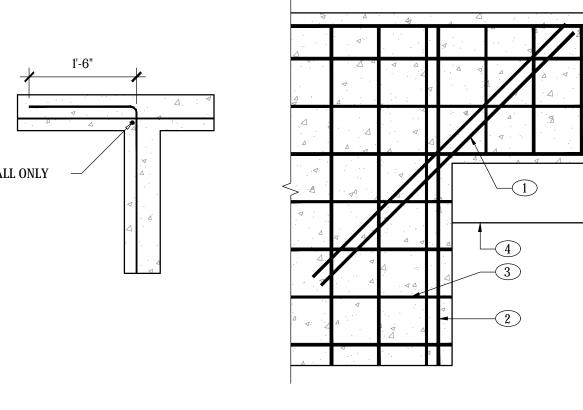
LLV w/ SIMPSON TITEN HD @ 24" O.C. AND FLASHING.

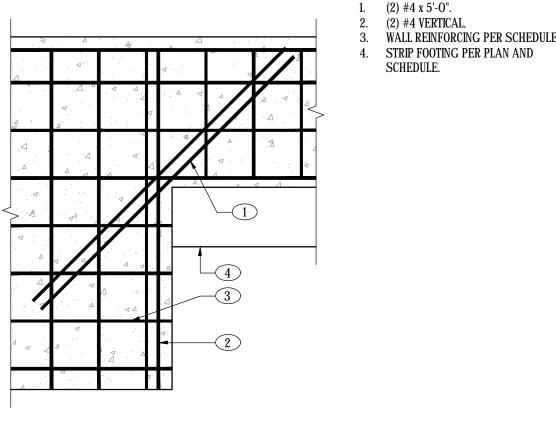
BLOCKING @ 24" O.C. (2) JOIST BAYS DEEP.

BEFORE

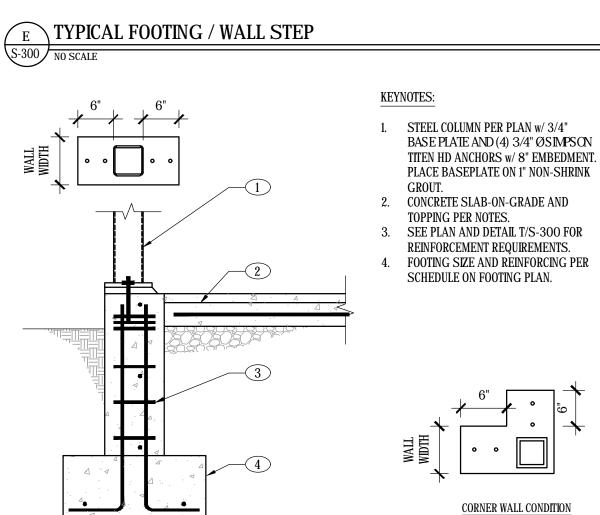
D INTERSECTIONS OF WALLS AND FOOTINGS

JOIST PERPENDICULAR TO WALL

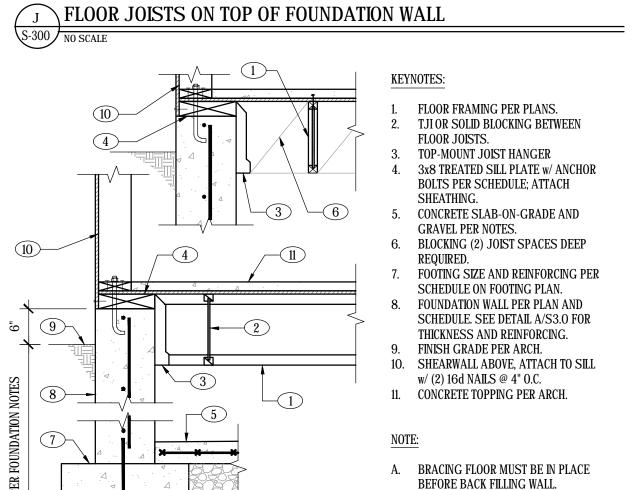


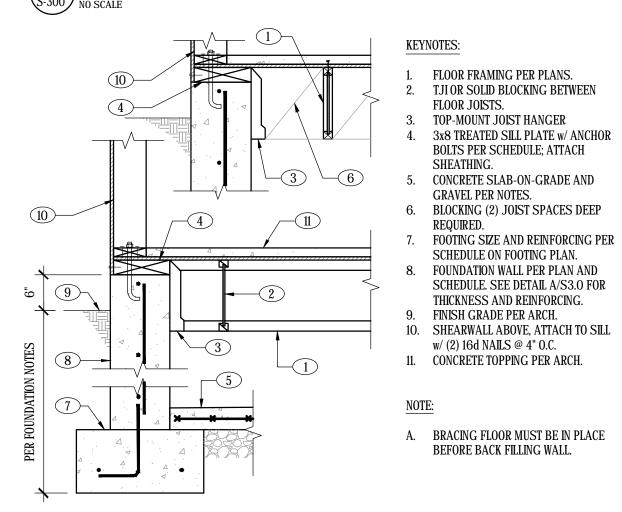


KEYNOTES:

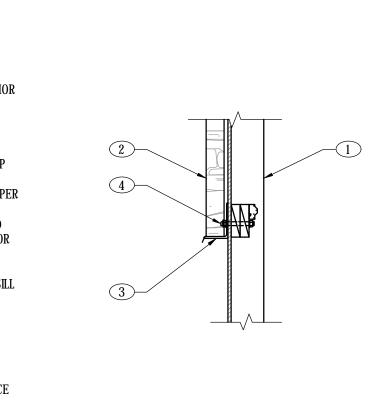


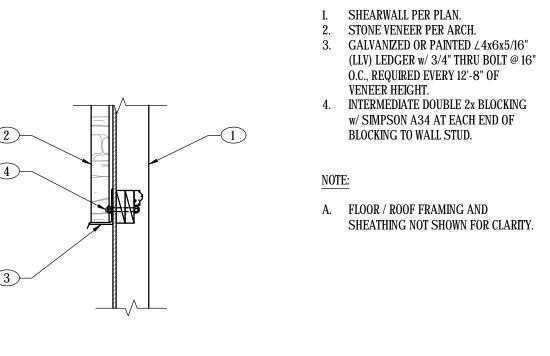
K STEEL COLUMN AT PERIMETER FOUNDATION WALL

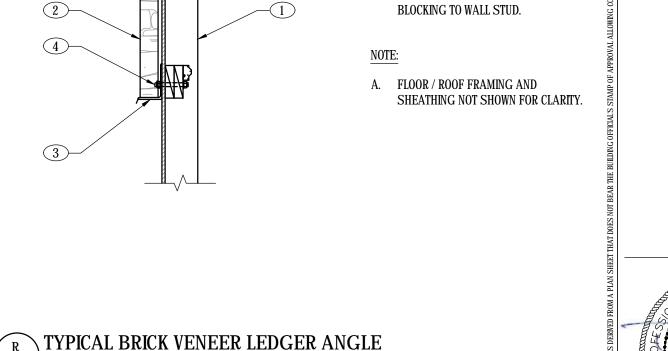




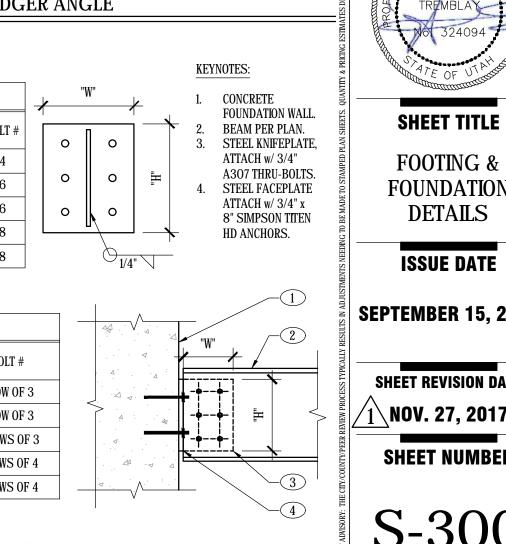
P JOISTS / RAFTERS AT HANGER HUNG OFF SILL PLATE

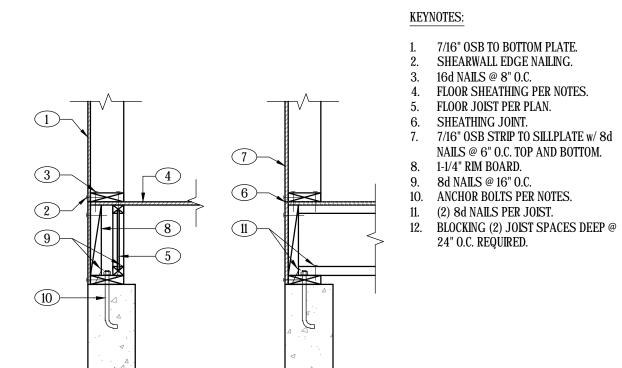




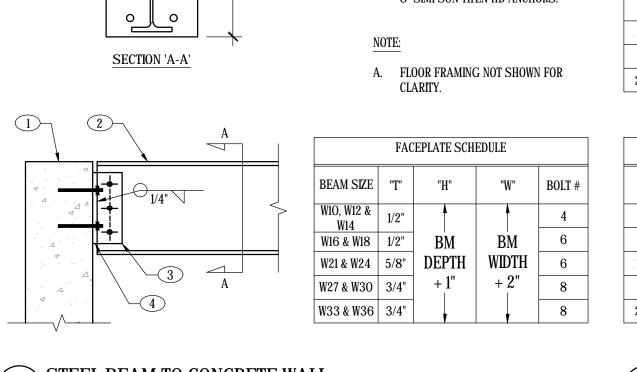


KEYNOTES:

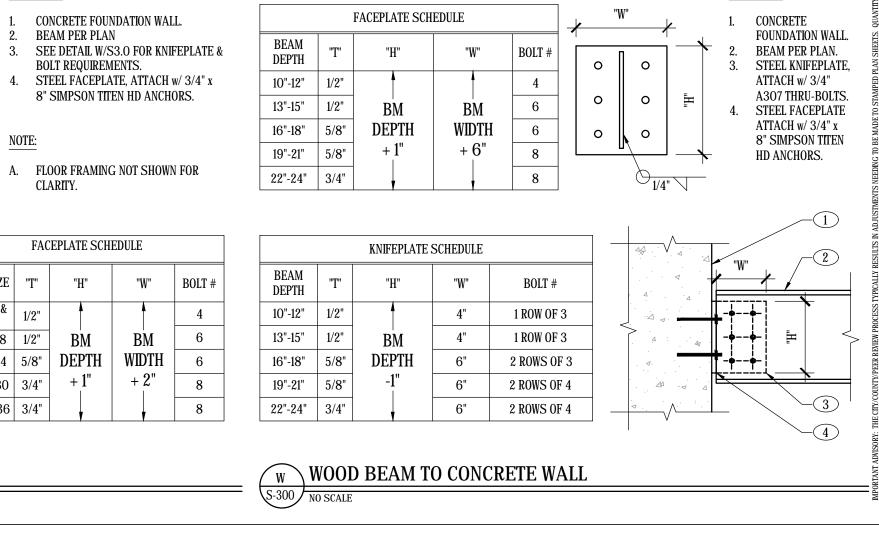


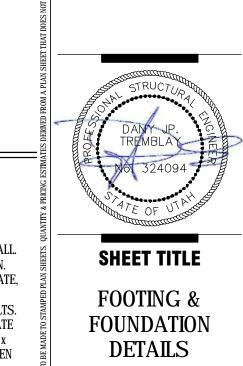


N FLOOR JOISTS LEDGERED TO FOUNDATION WALL



KEYNOTES:





940 EAST ELM AVENUE SALT LAKE CITY, UTAH PH. 801 . 486 . 6848

FAX 801 . 466 . 3327

info@canyonsstructural.com

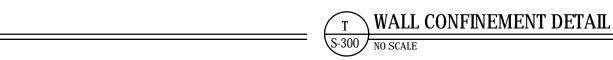
www.canyonstructural.com

RIV

ROWNING 7977 HEAR

 $\Delta$ 

**SEPTEMBER 15, 2017** SHEET REVISION DATE **NOV. 27, 2017 SHEET NUMBER** S-300





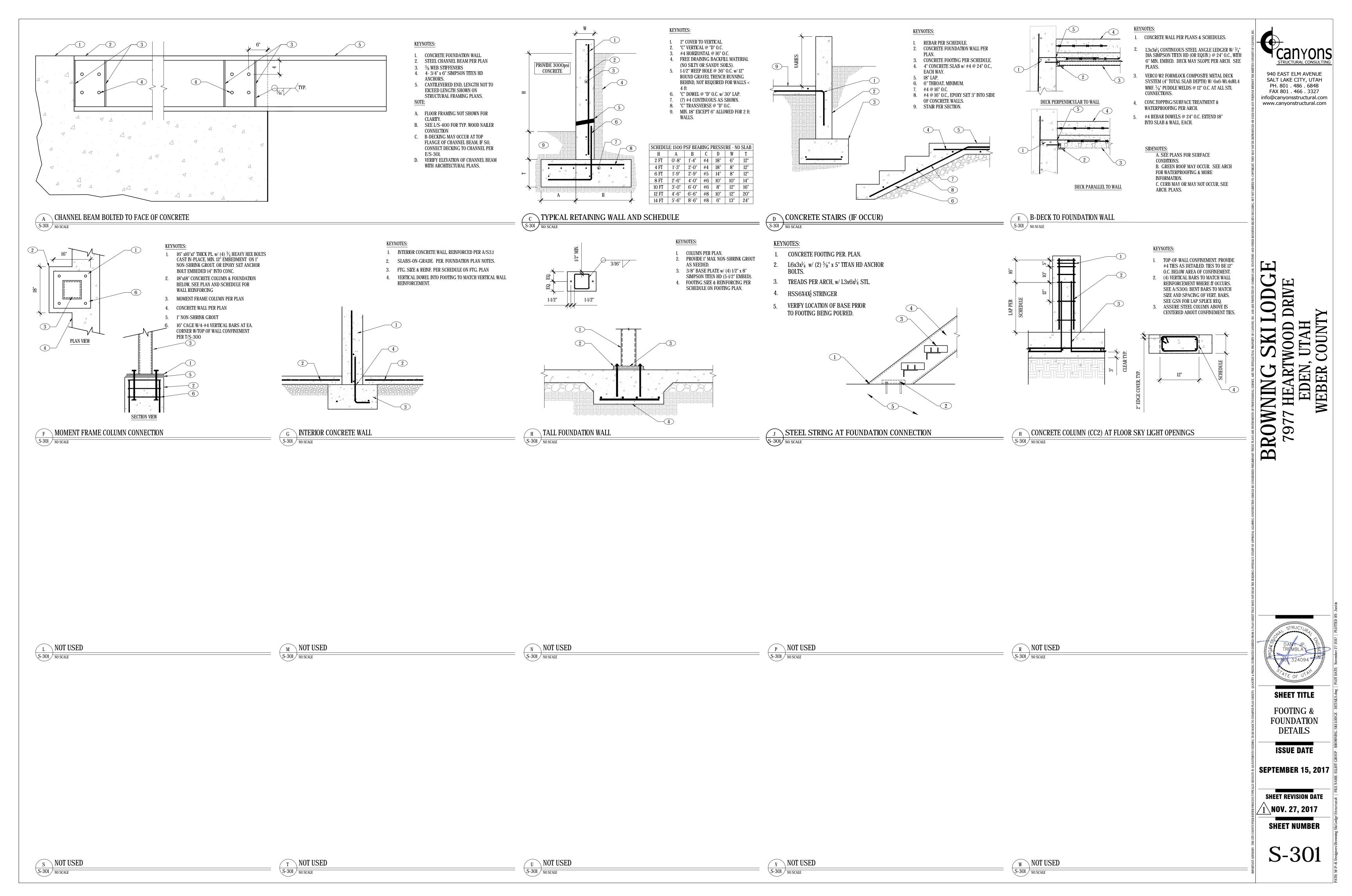
 $\mathcal{L}_{H} \setminus \mathsf{OPENING} @ \mathsf{FOUNDATION}$ 

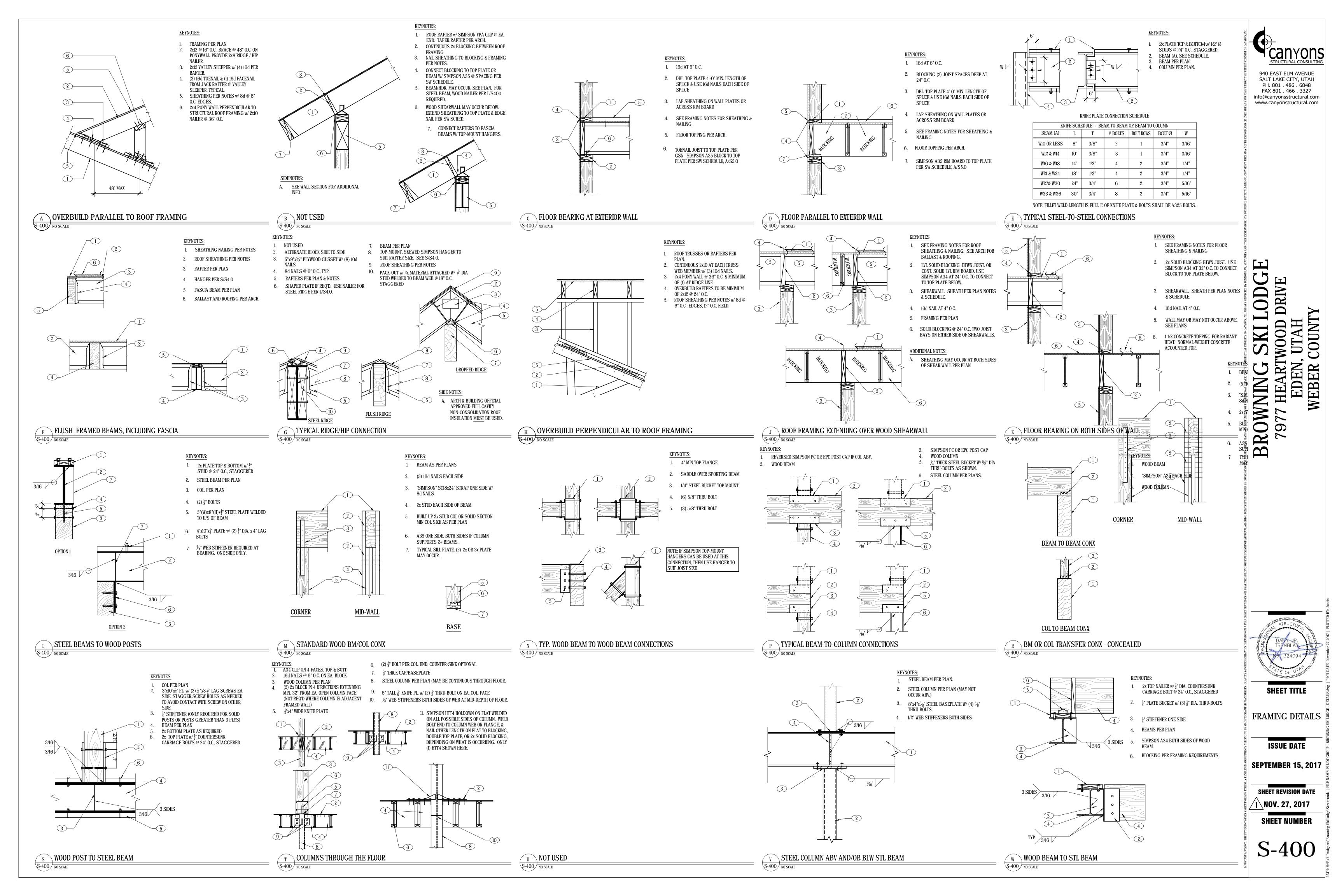
S-300 NO SCALE

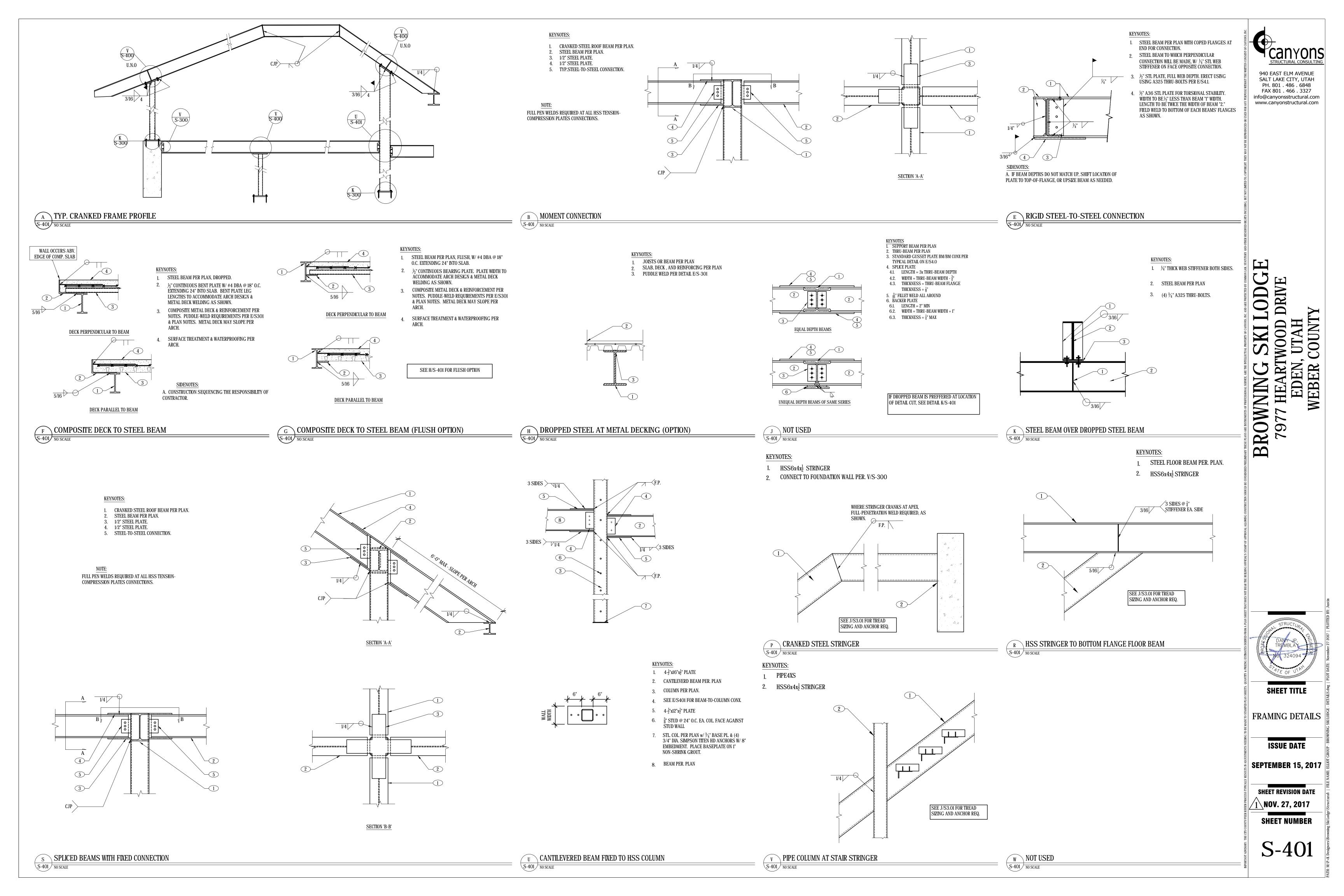
9)—

V STEEL BEAM TO CONCRETE WALL

0 0







WALL TYPE	C-D OR C-C PLYWOOD /OSB, U.N.O.	PANEL EDGE NAIL SPACING	16ga. STAPLE ALTERNATE 1" STUD PENETRATION EDGE SPACING	SIMPSON CLIP ANGLE SPACING (RIM TO PLATE ABV & BLW)	(2) 2x STITCH NAILING	STUDS@ PANEL EDGES	ANCHOR BOLT SPACING
SW-A	7/16" OSB	5FACING 6"	EDGE SPACING  4"	A35@24"O.C.	NOT REQ'D	2x	32"
SW-B	7/16" OSB	4"	2-1/2"	A35@16"O.C.	16d @ 4" 0/C.	3x OR (2) 2x	24"
SW-C	7/16 OSB	3"	NOT ALLOWED	A35@16"O.C.	16d @ 4" 0/C.	3x OR (2) 2x	16''
SW-D	7/16 OSB	2"	NOT ALLOWED	A35@12"O.C.	16d @ 3" 0/C.	3x OR (2) 2x	12"
	IEAR WALL S	CHEDULE AN	ID SHEAR WALL ANCHO	R BOLT SCHEDUL	Е		
S-500 NOS	CALE	1	<u>A</u>				
\	В		Ů B				с ,

SILL PLATE PER SHEAR WALL SCHEDULE.
 PLATE WASHER 3x3x0.229 (1" ANGLED SLOTTED HOLE PERMITTED)
 SIMPSON TITEN HD <sup>5</sup>/<sub>8</sub>" x 8 ½" ANCHOR BOLT (5 ½" MIN EMBED). STAGGER BOLTS @ DBL. SIDED SHEAR WALLS.
 MAX EDGE OF PLATE WASHER TO EDGE OF SILL PLATE WHERE SHEATHING OCCURS
 STAGGER ANCHOR BOLTS TO ACCOMMODATE ½" EDGE DISTANCE

6. PLATE WASHER 3x4-1/2x0.229 (ANGLED 1" SLOTTED HOLE PERMITTED)

1. NAILS TO BE 84 COMMON. FIELD NAILING TO BE 12" O/C TYPICAL  2. FOR WALL ABOVE TO WALL BELOW CONNECTIONS, A35'S MAY BE OMITTED IF SHEATHING DOES NOT LAP WITHIN 2" OF WALL PLATES.  3. A35'S ARE REQD FOR ALL CONNECTIONS AT SPACING CALLED FOR ABY. UNLESS SHEATHING IS SPLICED OVER RM.  4. DESIGNATION W. ARROWS ON BOTH SIDES DENOTES SHEATHING REQD ON BOTH SIDES OF WALL.  5. STAGGER NAILS @ ALL PANEL EDGES FOR ALL EDGE NAIL SPACING LESS THAN 6" o/c.			D. COPYRGHT, THEY MAY NOT BE REPRODUCED OR USED FOR ANY PURPOSE V	ED TO, COPYRIGHT, THEY MAY NOT BE REPRODUCED OR USED FOR ANY PURPOSE W
SHEAR WALL SCHEDULE AND SHEAR WALL ANCHOR BOLT SCHEDULE  S-500 NO SCALE	AGE SECTIONS  B NOT USED  S-500 NO SCALE		D NOT USED S-500 NO SCALE	D RIGHTS INCLUDING, BUT NOT LIMITE
A B C C C C C C C C C C C C C C C C C C	I. STEEL BEAM PER PLAN. 2. E/S-400. 3. STEEL ROOF BEAM PER PLAN. 4. STEEL MOMENT FRAME COLUMN PER PLAN. 5. STEEL BEAM PER PLAN. 6. STEEL DECK BEAM PER PLAN. 7. 1/2" STEEL PLATE. 8. STEEL PLATE. 9. 1/2" STEEL PLATE. 10. STEEL MOMENT FRAME BEAM PER PLAN. 11. STEEL BEAM PER PLAN. 12. STEEL BEAM PER PLAN. 12. STEEL BEAM PER PLAN. 13. SEE DETAIL F-S/301 FOR MOMENT FRAME COLUMN-TO-CONC. CONNECTION.	SPACING EN.  SPACING EN.  SPACING EN.  PLYWOOD TO RUN CONTINUOUS PAST	ENDOWN MONTHS  1. STEEL BEAM PER PLAN  2. 3/8" STIFFENER PLATE CENTERED BELOW HD  3. PRE-ASSEMBLED SIMPSON WELDABLE CAGE (or sim. in fabrication(I/4 saddle plate))  4. PRE-ASSEMBLED SIMPSON ANCHOR BOLT PER MANUFACTURER'S SPECIFICATIONS, OR EQUIVILENT  5. SIMPSON HDU8 OR HD7B HOLDOWN.  6. 3-2X6 MIN. BUILT UP COLUMN  ALTERNATE CONNECTION: NELSON STUD OF EQUIVALENT DIAMETER WELDED TO BEAM FLANGE. STIFFENERS STILL REQUIRED PER DETAIL.	LECTUAL PROPERTY OF CANVONS, INC. AND ARE PROTECTED BY COMMON LAW, STATUTORY AND OTHER RESERVED
NOTE: FULL PEN WELDS REQUIRED AT ALL HSS TENSION- COMPRESSION PLATES CONNECTIONS.  4	TYP 1/4 CJP  SECTION 'A-A'	H INTERSECTING SHEARWALL S-500 NO SCALE	3 SIDES TYP. 3/16  J HOLDOWN AT STEEL BEAM S-5000 NO SCALE	D BE CONSIDERED PRELIMINARY THESE PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE INTEL  RECONSIDERED PRELIMINARY THESE PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE INTEL  RECONSIDERED PRELIMINARY THESE PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE INTEL  RECONSIDERED PRELIMINARY THESE PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE INTEL  RECONSIDERED PRELIMINARY THESE PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE INTEL  RECONSIDERED PROFESSIONAL SE
CJP	2 		SHEET THAT DOES NOT BEAR THE BILLDING OFFERALS. STAMP OF APPROVAL ALLAWING CONSTRICTION SHOLL	I SHEET THAT DOES NOT BEAR THE BUILDING OFFICIAL'S STAMP OF APPROVAL ALLOWING CUNSTRUCLION SINOUL
	SECTION 'B-B'	NOT USED S-500 NO SCALE	P NOT USED S-500 NO SCALE	CING ESTIMATES DERIVED FROM A FLAI
			MENTS NEEDING: TO BE MADE TO STAMPED PLAN SHEETS, QUANTITY & PR.	MENTS NEEDING TO BE MADE TO STAMPED PLAN SHEETS. QUANTITY & PRI.
	TYP 1/4		CESS TYPICALLY RESULTS IN ADJUST	SEP.  HS
	SECTION 'C-C'		THE CITY COUNTY PERR REVIEW PRO	H S LATE CITY/COUNTY/PEER REMIEW PROCESSY TY:
R S-500 MOMENT FRAME ELEVATION ALONG GRID LINE A NO SCALE		U NOT USED S-500 NO SCALE	MP08TANT ADVISORY	IMPORTANT ADVISORY

940 EAST ELM AVENUE SALT LAKE CITY, UTAH PH. 801 . 486 . 6848 FAX 801 . 466 . 3327 info@canyonsstructural.com www.canyonstructural.com

BROWNING SKI LODGE 7977 HEARTWOOD DRIVE EDEN, UTAH WEBER COUNTY

SHEET TITLE

FRAMING DETAILS

ISSUE DATE

**SEPTEMBER 15, 2017** 

SHEET REVISION DATE <u>1</u> NOV. 27, 2017 SHEET NUMBER

S-500