

GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED OTHERWISE

BUILDING CODE:

2018 EDITION OF THE INTERNATIONAL BUILDING CODE WITH CITY OF PHOENIX AMENDMENTS.

LOADS:

ROOF LIVE LOAD = 20 PSF (REDUCIBLE).
 TOTAL ROOF DEAD LOAD = 15 PSF.
 TOTAL FLOOR DEAD LOAD = 50 PSF.
 TOTAL LIVE LOAD = 40 PSF.
 BALCONY DEAD LOAD = 50 PSF.
 BALCONY LIVE LOAD = 100 PSF.
 STAIR DEAD LOAD = 30 PSF.
 STAIR LIVE LOAD = 100 PSF.

WIND:

115 MPH BASIC WIND SPEED, EXPOSURE C.
 W = 1.0
 INTERNAL PRESSURE COEFFICIENT (GCp) = +0.18.

SEISMIC:

OCCUPANCY CATEGORY = II
 W = 1.0
 DESIGN CATEGORY = B
 SITE CLASS D
 Ss = 0.162, S1 = 0.0616, R = 2.
 Ss = 0.165, S1 = 0.069
 BASIC SEISMIC-FORCE-RESISTING SYSTEM (PANELS RATED FOR SHEAR RESISTANCE).
 ANALYSIS PROCEDURE USED (EQUIVALENT LATERAL FORCE ANALYSIS).
 Cs = 0.0975 (WORKING STRESS).

FOUNDATIONS:

SOIL REPORT BY ACS SERVICES LLC, JOB NO. 180125, DATED MARCH 25, 2018. SPREAD FOOTINGS SHALL BEAR ON 24" MINIMUM CONTROLLED COMPACTED FILL IN ACCORDANCE WITH THE ABOVE REPORT. BOTTOM OF FOOTING TO BE 18" MINIMUM BELOW FINISHED GRADE. (THESE FOOTING DEPTHS ARE MINIMUMS AND THE CONTRACTOR SHALL COORDINATE WITH SOILS REPORT AND OTHERS TRADES TO ENSURE THESE MINIMUMS ARE SUFFICIENT FOR THE WORK.) COMPACTED FILL SHALL EXTEND 36" BEYOND EACH EDGE OF FOOTING. FINISHED GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN 3 FEET FOR PERIMETER FOOTINGS. DESIGN SOIL BEARING VALUE = 2000 PSF. FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY SOILS ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

CONCRETE:

MINIMUM 28 DAY STRENGTH 3,000 PSI EXCEPT AS FOLLOWS: (TYPE II, U.N.O.)
 SLABS ON GRADE ----- 2,500 PSI
 FOUNDATIONS ----- 2,500 PSI

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC. MAXIMUM SLUMP 4 1/2" FOR CONCRETE WITHOUT PLASTICIZER. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL. CAST CLOSURE POUR AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT, ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY CONTROL JOINTS (KEYED OR SAW CUT), SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 225 SQUARE FEET. KEYED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS FOR APPROVAL PRIOR TO CONSTRUCTION.

NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.

FLY ASH - IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS, SHALL BE LIMITED TO 20% OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED.

CONTRACTOR SHALL REVIEW ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR SPECIAL SLAB TREATMENTS AND VAPOR BARRIERS REQUIRED FOR FINISH FLOORING.

CONCRETE SLAB ON GRADE SHALL BE 4" THICKNESS WITH 6# W2.1 x W2.1 W.W.F. UNLESS NOTED OTHERWISE. INSTALL OVER 4" MINIMUM A.B.C. FILL. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION.

REINFORCING:

ASTM A615 (Fy = 60 KSI) DEFORMED BARS FOR ALL BARS. ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706 WELDED WIRE FABRIC PER ASTM A185. WIRE PER ASTM A62. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER. LATEST ACI CODE AND DETAILING MANUAL APPLY. CLEAR CONCRETE COVERAGES AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ----- 3"
 EXPOSED TO EARTH OR WEATHER ----- 2"
 #6 OR LARGER ----- 2"
 #5 AND SMALLER ----- 1 1/2"
 ALL OTHER PER LATEST EDITION OF ACI 318.

LAP SPLICES IN CONCRETE:

LAP SPLICES, UNLESS NOTED OTHERWISE, SHALL BE CLASS "B" TENSION LAP SPLICES PER LATEST EDITION OF ACI 318. LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES. STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH. LAPS IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET, IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES. ALL WELDED WIRE FABRIC SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES.

ALL SPLICE LOCATIONS SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90-DEGREE HOOKS UNLESS NOTED OTHERWISE. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL WITH EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF THE ACI 318. (UNLESS NOTED OTHERWISE ON PLANS OR DETAILS).

DRYPACK:

DRYPACK SHALL BE 5,000 PSI NON-SHRINK GROUT, FIVE STAR OR EQUIVALENT. INSTALL DRYPACK UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL DRYPACK UNDER BASEPLATES AFTER COLUMN HAS BEEN PLUMBED BUT PRIOR TO FLOOR OR ROOF INSTALLATION.

WOOD:

ALL WOOD STRUCTURAL MEMBERS AND ANY STRUCTURAL MEMBERS WITH WOOD COMPONENTS MUST CONSIST OF FIRE-RETARDANT WOOD WHERE 5/8" WOOD MEMBER OCCURS AT OR INTERSECTS ANY PORTION OF THE 2 HR. EXTERIOR WALL CONSTRUCTION AS SPECIFIED BY THE BC FOR TYPE III CONSTRUCTION. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION. THE METHOD(S) USED TO TREAT THESE WOOD MEMBERS TO BE FIRE-RETARDANT ARE TO CAUSE A REDUCTION IN THE DESIGN STRENGTH(S) OF THESE MEMBERS BY NO MORE THAN 10% THEIR ORIGINAL VALUE (I.E. THEY MUST HAVE AT LEAST 90% OF THEIR ORIGINAL DESIGN STRENGTH AFTER FIRE RETARDANT). THE METHOD OF FIRE RETARDANT IS ALSO TO CONFORM TO THE STANDARDS OF ASTM E84 OR UL723 AS REQUIRED. CONTRACTOR IS TO VERIFY IF ANY OF THESE TREATMENTS HAVE POTENTIAL CORROSION ISSUES AND IF SO, ANY METAL IN CONTACT WITH THESE MEMBERS IS TO BE CORROSION RESISTANT.

SAWN LUMBER:

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLB). MAXIMUM MOISTURE CONTENT AT TIME OF INSTALL AND IN SERVICE NOT TO EXCEED 19%. ALL MEMBER SIZES SHOWN IN STRUCTURAL DRAWINGS ARE NOMINAL SIZES U.N.O. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES (USE OTHER GRADES WHERE NOTED ON PLANS):

SPECIES & GRADE	ALL DESIGN VALUES LISTED IN POUNDS PER SQ. INCH (PSI)					
	Ft	Ft	Fv	Fc perp	Fc	E
2x, 3x, & 4x	DF-L #2	900	575	180	625	1,350 / 1,600,000
POST AND TIMBERS (6x6 and larger)	DF-L #1	1,200	825	170	625	1,000 / 1,600,000
BEAMS AND STRINGERS (1.6-8x10/6x12)	DF-L #1	1,350	675	170	625	925 / 1,600,000

ENGINEERED WOOD PRODUCTS. (GLULAM):

ALL ENGINEERED LUMBER SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLC STANDARDS. BEAM TO BEAR GRADE STAMP AND ATIC STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS. PRODUCTS SHALL BE MANUFACTURED, HANDLED, AND INSTALLED PER LATEST CODE APPROVAL REPORTS. ALL WOOD PRODUCTS EXPOSED TO WEATHER SHALL BE TREATED PER THE PROJECT SPECIFICATIONS.

GLUED-LAMINATED BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
 Fb = 2,400 PSI, Fv = 215 PSI, Fc (PERPENDICULAR) = 650 PSI, Fc (PARALLEL) = 1,450 PSI, F1 = 1150 PSI, E = 1,700,000 PSI. BEAMS CONTINUOUS OVER SUPPORTS OR SUPPORTING SHEAR WALL SHALL HAVE THE SPECIFIED MINIMUM Fb = 2,400 PSI, TOP AND BOTTOM MAXIMUM MOISTURE CONTENT AT TIME OF INSTALL AND IN SERVICE NOT TO EXCEED 16%.

DOWEL TYPE FASTENERS:

USE COMMON NAILS WHERE DRAWINGS SHOW PENNYWEIGHT NAIL SIZES UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWING. BOX, SINKER, OR OTHER NAILS TYPES DO NOT ACHIEVE THE REQUIRED CONNECTION STRENGTH. POWER DRIVEN NAILS MAY BE USED. THEY MUST BE EQUIVALENT IN LENGTH AND SHANK DIAMETER TO THE PENNYWEIGHT NAILS THEY ARE REPLACING. ALL POWER DRIVEN FASTENERS SHALL BE MANUFACTURED AND INSTALLED PER ESR-1539. ALL NAILING SHALL BE PER IRC TABLE 2304.9.1 UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWINGS. ATTACH ALL MECHANICAL FRAMING ANCHORS AND HANGERS WITH COMMON NAILS OR OTHER APPROVED FASTENERS PER THE MANUFACTURER'S SPECIFICATIONS TO ACHIEVE 100% OF THE MAXIMUM LISTED CAPACITY OF THE HANGER UNLESS NOTED OTHERWISE. COMMON NAILS SHALL BE OF THE FOLLOWING MINIMUM DIMENSIONS:

PENNYWEIGHT	SHANK DIAMETER	LENGTH	HEAD DIAMETER	MIN EMBEDMENT
6d	0.131"	2"	0.268"	1 1/4"
8d	0.131"	2 1/2"	0.281"	1 3/8"
10d	0.148"	3"	0.312"	1 1/2"
16d	0.162"	3 1/2"	0.344"	1 5/8"
20d	0.192"	4"	0.406"	2"

HOLES FOR BOLTS SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT SHANK DIAMETER. A METAL PLATE, STRAP, OR WASHER NOT LESS THAN A STANDARD CUT WASHER SHALL BE BETWEEN THE WOOD AND THE BOLT HEAD AND THE WOOD AND THE NUT. PREDRILL LEAD HOLES AS REQUIRED TO PREVENT SPLITTING. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENT USE STANDARD WOOD SCREWS (PER ANSI B18.8.1) UNLESS NOTED OTHERWISE.

PLYWOOD:

ALL PLYWOOD SHALL BE C-D INTERIOR SHEATHING, STRUCTURAL 2 OR BETTER WITH EXTERIOR GLUE AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PARALLEL TO SUPPORTS. (ON ROOFS WHERE PLYWOOD IS LAYED UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD). MAXIMUM MOISTURE CONTENT AT TIME OF INSTALLATION TO BE LESS THAN 10%. STAGGER JOINTS. ALL NAILING, COMMON NAILS. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE WOOD SCREWS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE:

USE	THICKNESS	SPAN/INDEX RATIO	EDGE ATTACHMENT	INTERMEDIATE ATTACHMENT
ROOF	1/2"	32/16	10d @ 6" O.C.	10d @ 12" O.C.
FLOOR	3/4" T&G	48/24	SCREWS @ 6" O.C.	SCREWS AT 10" O.C.
SHEAR WALL	3/8"	24/0	8d @ 6" O.C.	8d @ 12" O.C.

(U.N.O. - SEE PLANS AND SCHEDULE)

WOOD SCREWS AT FLOOR SHEATHING SHALL BE #8 X 2 1/2" LONG FOR SHEATHING LESS THAN 1" THICK. SCREWS AT FLOOR SHEATHING SHALL BE #8 X 3" LONG FOR SHEATHING LESS THAN 1 1/4" THICK. ALL FLOOR SHEATHING SHALL BE GLUED TO JOISTS WITH AN APA AFG-C QUALIFIED GLUE.

ALTERNATE:

AMERICAN PLYWOOD ASSOCIATION (APA) PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. WHERE ROOF IS TO BE GUARANTEED, IT MAY NOT BE USED WITHOUT PRIOR APPROVAL FROM BUILT-UP ROOF SYSTEM MANUFACTURER. RATED SHEATHING SHALL COMPLY WITH I.C.C. REPORT NO. NER-108, EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

WOOD DECK:

NOMINAL 1 X 6 DECKING, TONGUE AND GROOVE TYPE. MINIMUM Fb - 1,200 PSI, MINIMUM E = 1,800,000 PSI. INSTALL WITH TONGUES UP SLOPE ON PITCHED ROOFS, AND OUTWARD IN THE DIRECTION OF LAYING ON FLAT ROOFS. NAIL EACH PLANK WITH 2 1/4" NAILS AT EACH SUPPORT. DECK SHALL BE INSTALLED AS SIMPLE SPAN WITH ALL PLANKS BEARING ON TWO SUPPORTS. FOR REFERENCE AND/OR ADDITIONAL INFORMATION, SEE SECTION TITLED "SHEATHING, FLOORING, AND DECKING," ON PAGE 4-105 OF THE SECOND EDITION OF THE AITC TIMBER CONSTRUCTION MANUAL.

GENERAL:

DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THRU THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS. PROVIDE 2" SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. DOUBLE UP STUDS AT JAMBS AND AS REQUIRED UNDER BEAMS BEARING WALLS. EVERY OTHER STUD OR WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2 X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO TABLE 23-4H-1 OF THE UNIFORM BUILDING CODE. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT I.C.C. APPROVAL.

DO NOT SUSPEND ANY SPRINKLERS, PIPING, CEILING OR ANY OTHER ITEMS FROM 2X JOISTS IN PANELIZED ROOF SYSTEM.

ANCHORAGES:

- SILL PLATES RESTING ON CONCRETE OR MASONRY SHALL BE TREATED PER FOUNDATION GRADE (REDWOOD). ANCHOR BOLTS AT SILL PLATES SHALL BE 5/8" DIA. 7" EMBED AT 7' O.C. U.N.O. ON PLAN, DETAIL OR SCHEDULE. HOLLOW BOLTS SHALL NOT BE CONSIDERED AS ANCHOR BOLTS.
- INTERIOR SILL PLATES IF AWAY FROM EDGE OF CONCRETE OR STEP) MAY BE ANCHORED WITH EXPANSION BOLTS IN lieu OF ANCHOR BOLTS. EXPANSION BOLTS SHALL BE THE SAME DIAMETER AND SPACING AS ANCHOR BOLTS AND SHALL BE EMBEDDED 4" MINIMUM. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND I.C.C. REPORT. CONTRACTOR MUST LOCATE TENDONS PRIOR TO DRILLING TO AVOID DAMAGING TENDONS.
- ALL METAL IN CONTACT WITH TREATED WOOD SHALL BE CORROSION RESISTANT. CONTRACTOR SHALL COORDINATE WITH SUPPLIER TO PROVIDE ADEQUATE CORROSION RESISTANT METALS (NAILS, WASHERS, BOLTS, ETC.) BASED UPON THE CHEMICALS USED IN TREATED WOOD.

ELECTRICAL CONDUIT IN CONCRETE SLABS:

ELECTRICAL CONDUIT SHALL BE RIGID STEEL CONDUIT OR FLEXIBLE PLASTIC CONDUIT. ALUMINUM CONDUIT IS PROHIBITED. CONDUIT WITH A MAXIMUM OUTSIDE DIAMETER OF 1/6 TIMES THE SLAB THICKNESS MAY BE EMBEDDED IN ONE LAYER AT THE MID-DEPTH OF SLABS. MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 3 TIMES CONDUIT DIAMETER. CONDUIT SHALL BE FIRMLY CHAIRED AND TIED TO PREVENT DISPLACEMENT DURING POURING. PLACE #3 AT 12 INCHES ADDITIONAL REINFORCING ABOVE AND BELOW, PERPENDICULAR TO THE CONDUIT. THE ADDED REINFORCING SHALL EXTEND 1'-4" PAST THE CONDUIT ON BOTH SIDES. FOR CONDUIT PLACED IN SLABS ON METAL DECKING, CONDUIT SHALL RUN IN THE METAL DECK FLUTES PER THE TYPICAL CONDUIT IN SLAB ON METAL DECK DETAIL.

EXPANSION AND SCREW ANCHORS:

USE STUD TYPE EXPANSION ANCHOR WITH A SINGLE PIECE WEDGE ONLY WHERE NOTED ON PLANS. IF USE IS REQUESTED FOR OTHER THAN WHERE NOTED CONTACT STRUCTURAL ENGINEER THROUGH ARCHITECT FOR APPROVAL.

CONTRACTOR SHALL SUBMIT MANUFACTURER'S SIZE AND STRENGTH DATA TO ENGINEER THROUGH ARCHITECT PRIOR TO CONSTRUCTION. INSTALL ALL BOLTS AS OUTLINED IN MANUFACTURER'S SPECIFICATIONS, UTILIZING PROPER SIZE AND TYPE OF DRILL, CLEANING HOLE, DRIVING AND TIGHTENING BOLT.

IN CONCRETE:

ANCHORS USED MUST HAVE ICC APPROVAL AND INCLUDE H.L.T.I. KWIK BOLT TZ (ESR-1917), AND SIMPSON STRONG BOLT (ESR-1771), AND SIMPSON TITEN HD (ESR-2713), H.L.T.I. KWIK HUS-ER (ESR-3027), OR APPROVED EQUAL.

EPOXY ANCHORS IN CONCRETE:

INJECTABLE ADHESIVE SHALL BE USED FOR INSTALLATION OF REINFORCING STEEL DOWELS OR THREADED ANCHOR RODS AND INSERTS INTO NEW OR EXISTING CONCRETE OR SOLID GROUTED CONCRETE MASONRY UNITS ONLY WHERE SPECIFIED ON PLANS. IF USE IS REQUESTED FOR OTHER THAN WHERE NOTED CONTACT STRUCTURAL ENGINEER THROUGH ARCHITECT FOR APPROVAL. ADHESIVE SHALL BE FURNISHED IN SIDE BY SIDE PACKS WHICH KEEP COMPONENT A AND COMPONENT B SEPARATE. USE ONLY INJECTION TOOLS AND STATIC MIXING NOZZLES RECOMMENDED BY MANUFACTURER. MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.

IN CONCRETE:

ANCHORS USED MUST HAVE I.C.C. APPROVAL. IN CRACKED CONCRETE AND INCLUDE SIMPSON SET-AP (ESR-2598), H.L.T.I. HIT RESO-BOLT (ESR-2322) OR APPROVED EQUIVALENT. THE USE OF ANY EPOXY ANCHOR MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION.

STRUCTURAL FILL:

ALL FILL PLACED TO SUPPORT SLABS ON GRADE, BEHIND PERMANENT WALLS, AND AROUND ALL DRAINS SHALL CONSIST OF WELL GRADED, GRANULAR MATERIAL PER THE SPECIFICATIONS. SOILS FOR STRUCTURAL FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. STRUCTURAL FILL SHALL BE PLACED ON SOUND NATIVE MATERIAL. PROOF-ROLL CUT AREAS WHICH PROVIDE SUPPORT FOR PERMANENT STRUCTURES, AREAS WHICH ARE EXCESSIVELY YIELDING, AS DETERMINED BY THE CONTINUOUS OBSERVATION OF THE GEOTECHNICAL ENGINEER, SHALL BE OVEREXCAVATED AND REPLACED WITH STRUCTURAL FILL. STRUCTURAL FILL SHALL BE PLACED PER THE SPECIFICATION. USE LEAN CONCRETE FILL BELOW ALL PIPES EXISTING OUT OF BASEMENT WALL. FULL HEIGHT OF WALL. CONCRETE SHALL CONTAIN 2 SACKS OF CEMENT PER YARD.

NOTES ON CRACKING OF CONCRETE STRUCTURES:

CRACKING IS INHERENT TO THE MATERIAL PROPERTIES OF CONCRETE CONSTRUCTION (INCLUDING POST-TENSIONED CONCRETE STRUCTURES). WHILE EVERY EFFORT HAS BEEN MADE TO MINIMIZE THE EFFECTS OF UNSIGHTLY CRACKING, THE PRESENCE OF CRACKS ARE NORMAL AND UNAVOIDABLE. THE DESIGN OF THE CONCRETE STRUCTURAL ITEMS HAVE BEEN ANALYZED USING A "CRACKING SECTION." THE PRESENCE OF THE CRACKING SHOULD NOT BE CONSIDERED DETRIMENTAL TO THE STRUCTURE. CRACKS LARGER THAN 10 MILS SHALL BE FILLED AND SEALED WITH AN APPROVED CRACK FILLER TO PREVENT FUTURE DETERIORATION. ALLOWANCE SHALL BE MADE IN THE CONSTRUCTION BUDGET FOR SEALING OF SUCH CRACKS. IN SOME CASE, CRACKS DO NOT APPEAR UNTIL WELL AFTER CONSTRUCTION HAS BEEN COMPLETED. IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE STRUCTURE PROPERLY OVER THE LIFE OF THE STRUCTURE. CONCRETE CRACKS, SHOULD THEY OCCUR, SHALL BE FILLED AND SEALED TO PREVENT PREMATURE DETERIORATION OF THE STRUCTURE.

SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON HIS REVIEW.

VERIFY ALL DIMENSIONS WITH ARCHITECT AND ALL FINISHED GRADE WITH CIVIL DRAWINGS.

ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE CLOUDED BY MANUFACTURER OR FABRICATOR. USE OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT ARE NOT TO BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS.

THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

DEFERRED SUBMITTALS: (PER 2018 IBC 107.3.4.1)

FOR THE PURPOSES OF THIS SECTION, DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW. THE CONTRACTOR SHALL FORWARD THE REVIEWED DOCUMENTS TO BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

DEFERRED SUBMITTAL ITEMS:
 - PREFABRICATED WOOD TRUSSES

GENERAL:

ENTIRE CONTRACT DOCUMENTS SHALL BE USED TO BUILD BUILDING. SOME CRITICAL ITEMS REQUIRED BY OTHER DISCIPLINES MAY NOT BE SHOWN ON STRUCTURAL DRAWING (i.e. WALL, FLOOR AND ROOF OPENING, ARCHITECTURAL, MECHANICAL AND PLUMBING LOADS, SUPPORT PLATES ETC.)

ITEMS SHOWN BY OTHER DISCIPLINES WITH REFERENCE TO STRUCTURAL DRAWINGS BUT NOT SHOWN ON THESE STRUCTURAL DOCUMENT SHALL BE CONSIDERED DESIGN BUILT ITEMS. CONTRACTOR SHALL SUBMIT DESIGN BY OTHERS FOR REVIEW.

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF HE CHOOSES AN OPTION, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

ALL DIMENSIONS SHOWN (INCLUDING ELEVATIONS) ON STRUCTURAL DRAWINGS ARE TO ASSIST CONTRACTOR IN VERIFICATION. SCALING DIMENSIONS FROM DRAWINGS IS NOT PERMITTED. LOCATION OF ALL ITEMS SHALL BE DETERMINED BY DIMENSIONS OR NOTES ONLY. DO NOT USE GRAPHIC APPEARANCE TO ASSUME SPECIFIC LOCATIONS.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL AND FINISHED GRADE WITH CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.

ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN THE STATE OF ARIZONA.

SUPPLIER OF ENGINEERED STRUCTURAL COMPONENTS (I.e. STEEL JOISTS, STAIRS, PRECAST ITEMS) SHALL BE RESPONSIBLE FOR COMPLETE DESIGN AND SHALL USE ENTIRE CONTRACT DOCUMENTS TO INCLUDE ALL LOADS AND DETAIL REQUIREMENTS FROM ALL DISCIPLINES. SUPPLIER SHALL PROVIDE ADDITIONAL MATERIAL REQUIRED TO MEET ALL THEIR REQUIREMENTS FOR INSTALLATION (i.e. WIDER BEARING PLATES, SHIMS, ERECTION BOLTS ETC.).

STRUCTURAL STEEL SUPPLIER SHALL FURNISH BOLTS FOR OSHA CONNECTIONS (SEE DRAWINGS FOR DETAILS).

BUILDING TOLERANCES:

STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117. STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.

SEQUENCING CONSTRUCTION AND LATERAL STABILITY:

THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-SELF-SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON OR LOCAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS, AND WALLS), IF, DUE TO SEQUENCING OF CONSTRUCTION, THESE STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A LICENSED STRUCTURAL ENGINEER WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING/BRACING IS REQUIRED, AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING/BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.

MISCELLANEOUS:

REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, ELEVATOR, OR OTHER SPECIALTY ENGINEERING DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING BUT NOT LIMITED TO: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, SIMPS, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITECTURAL TREATMENT, ETC. CONTRACTOR SHALL VERIFY DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION. WHERE SECTIONS ARE INDICATED ON THE PLAN BY A NUMBER AND A DRAWING NUMBER THUS, 1/5S.01, THE INDICATED SECTION (1) IS SHOWN ON STRUCTURAL DRAWING 5S.01.

ALL WINDOW SYSTEMS SHALL BE DESIGNED TO ACCOMMODATE VERTICAL DEFLECTION OF THE STRUCTURE OF 1/2" MINIMUM LIVE LOAD DEFLECTION, UNLESS GREATER VALUE IS NOTED ON PLANS OR DETAILS.

FLOOR FLATNESS/LEVELNESS SHALL MEET ARCHITECTURAL SPECIFICATIONS (1/4" IN 10 FOOT MINIMUM LEVELNESS UNLESS TIGHTER REQUIREMENT IN SPECIFICATIONS) IN HEIGHT FOR ALL STRUCTURAL SYSTEMS. CONTRACTOR SHALL INCLUDE COST FOR LEVELING ALL FLOORS. FOR ESTIMATING PURPOSES ONLY, ASSUME 1/2" THICK LEVELING AGENT OVER 1% OF FLOOR AREA.

OWNER

TPSA LLC

PROPERTY

Illini House
 23 E Illini St.
 Phoenix, AZ 85040



GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED OTHERWISE

SPECIAL INSPECTION:

REFER TO "SPECIAL INSPECTIONS" SCHEDULE THIS SHEET FOR ADDITIONAL INFORMATION.

Note to Contractor Regarding Pricing/Bidding of City Submittal Drawings:

THESE DRAWINGS HAVE BEEN PREPARED FOR CITY SUBMITTAL AND ARE NOT TO BE CONSIDERED 100% CONSTRUCTION DOCUMENTS UNTIL CITY PLAN REVIEW HAS BEEN COMPLETED AND FINAL BUILDING PERMIT HAS BEEN ISSUED. IF THESE DOCUMENTS ARE TO BE USED FOR PRICING, BID, OR STEEL MILL ORDER, THE CONTRACTOR SHALL PROVIDE IN THE PROJECT BUDGET AN ALLOWANCE FOR POTENTIAL CHANGES BETWEEN THE CITY SUBMITTAL DRAWINGS AND THE FINAL APPROVED SUBMITTAL AND CONSTRUCTION DOCUMENTS. ADDITIONALLY, MISCELLANEOUS ITEMS MAY NOT BE SHOWN ON THESE DRAWINGS. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, ELEVATOR AND EQUIPMENT SUPPORTS, BLOCKOUTS, ETC. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND OTHER SPECIALTY DRAWINGS FOR ADDITIONAL INFORMATION. THE CONSTRUCTION BUDGET SHALL INCLUDE THESE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR CHANGE ORDER COSTS INCURRED (INCLUDING DISCARDED MATERIAL COSTS) DUE TO BIDDING OR STEEL MILL ORDER FROM THESE DRAWINGS. CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION IF THE SCOPE AND QUANTITY OF ALLOWANCE TO BE CARRIED IS NOT CLEAR.

SPECIAL INSPECTION:					STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL:					
PER IBC CHAPTER 17, SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING ITEMS:					VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	REFERENCED STANDARD (NOTE 1)	IBC REFERENCE
CONCRETE:										
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	-	X	ACI 318: 3.5, 7.1-7.7	1910.4	1. Material verification of cold-formed steel deck: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certified test reports.		-	X	APPLICABLE ASTM MATERIAL STANDARDS	
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b.	-	-	AWS D1.4 ACI 318: 3.5.2	---	2. Inspection of welding: a. Cold formed steel deck: 1) Floor and roof deck welds. b. Reinforcing steel: 1) Verification of weldability of reinforcing steel other than ASTM A 706. 2) Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement. 3) Shear reinforcement. 4) Other reinforcing steel.		-	X	AWS D1.3	
3. Inspect anchors to be installed in concrete prior to and during placement of concrete where allowable loads have been increased or where strength design is used.	-	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1			X	-	AWS D1.4 ACI 318: 3.5.2	
4. Inspection of anchors post-installed in hardened concrete members.	-	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1			X	-		
5. Verifying use of required design mix.	-	X	ACI 318: CH. 4, 5.2-5.4	1904.2, 1910.2, 1910.3			-	X		
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	-	ASTM C 172 ACI 318: 5.6, 5.8	1910.10			-	X		
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8			-	X		
8. Inspection for maintenance of specified curing temperature and techniques.	-	X	ACI 318: 5.11-5.13	1910.9			X	-		
9. Inspect formwork for shape, location and dimensions of the concrete member being formed.	-	X	ACI 318: 6.1.1	---			-	X		
NOTES: 1. WHERE APPLICABLE, SEE ALSO SECTION 1707.1, SPECIAL INSPECTION FOR SEISMIC RESISTANCE. 2. TABLES TAKEN DIRECTLY FROM IBC FOR REFERENCE.										
MASONRY LEVEL 1 INSPECTION TASK:										
1. As masonry construction begins, the following shall be verified to ensure compliance: a. Proportions of site-prepared mortar. b. Construction of mortar joints. c. Location of reinforcement, connectors.	-	X		ART. 2.6A ART. 3.3B ART. 3.4, 3.6A						
2. The inspection program shall verify: a. Size and location of structural elements. b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. c. Specified size, grade and type of reinforcement. d. Welding of reinforcing bars. e. Protection of masonry during cold weather.	-	X	SEC. 1.2.2(a), 2.1.4.3.1(b)	ART. 3.3G						
3. Prior to grouting, the following shall be verified to ensure compliance: a. Grout space is clean. b. Placement of reinforcement and connectors. c. Proportions of site-prepared grout and d. Construction of mortar joints.	-	X	SEC. 1.13	ART. 2.4.3.4						
4. Grout placement shall be verified to ensure compliance with code and construction document provisions. a. Grouting of prestressing bonded tendons.	X	-	SEC. 2.10.7.2, 3.3.3.4(b)	ART. 1.8C, ART. 1.8D	SEC. 2104.3, 2104.4					
5. Preparation of any required grout specimens. Mortar specimens and/or prisms shall be observed.	X	-	SEC. 2105.2.2, 2105.3	ART. 1.4						
6. Compliance with required inspection provisions of the construction documents and the approved submittal shall be verified.	-	X		ART. 1.5						
NOTES: 1. THE SPECIFIC STANDARDS ARE THOSE LISTED IN CHAPTER 35 2. TABLES TAKEN DIRECTLY FROM IBC FOR REFERENCE.										
STEEL:										
1. Material verification of high-strength bolts, nuts and washers: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certificate of compliance required.	-	X	APPLICABLE ASTM MATERIAL SPECS AISC 360, SEC. A3.3							
2. Inspection of high-strength bolting: a. Bearing-type connections. AISC 360, Section M2.5 1704.3.3	-	X								
3. Material verification of structural steel: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certified mill test reports.	-	-	AISC 360, SEC. M2.5 ASTM A 6 OR ASTM A 588							
4. Material verification of weld filler materials: a. Identification markings to conform to AWS specification in the approved construction documents. b. Manufacturer's certificate of compliance required.	-	-	AISC 360, SEC. A3.5							
5. Inspection of welding: a. Structural steel: 1) Complete and partial penetration groove welds. 2) Multipass fillet welds. 3) Single-pass fillet welds > 5/16" 4) Single-pass fillet welds = 5/16" 5) Floor and roof deck welds. b. Reinforcing steel: 1) Verification of weld ability of reinforcing steel other than ASTM A 706. 2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of Special reinforced concrete shear walls and shear reinforcement. 3) Shear reinforcement. 4) Other reinforcing steel.	-	-	AWS D1.1 AWS D1.1 AWS D1.1 AWS D1.1 AWS D1.3 AWS D1.4 ACI 318: 3.5.2							
6. Inspection of steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection.	-	X								
NOTES: 1. WHERE APPLICABLE SEE ALSO SECTION 1701.1, SPECIAL INSPECTION FOR SEISMIC RESISTANCE. 2. TABLES TAKEN DIRECTLY FROM IBC FOR REFERENCE.										
DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:										
A) THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.										
B) THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ENGINEER.										
C) UPON COMPLETION OF THE ASSIGNED WORK THE ENGINEER OR ARCHITECT SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.										

INTERPRETATION OF DRAWINGS

ABBREVIATIONS			
A.B.C.	AGGREGATE BASE COURSE	GLB (GLULAM)	GLUED-LAMINATED BEAM
A/C	AIR CONDITIONER	I.F.W.	INSIDE FACE OF WALL
A.F.F.	ABOVE FINISHED FLOOR	HORIZ	HORIZONTAL
ALT.	ALTERNATE	K(KIP)	1000 POUNDS
A.B.	ANCHOR BOLT	L.L.	LIVE LOAD
@	AT (MEASUREMENT)	LBS (#)	POUNDS
BM	BEAM	LLH	LONG LEG HORIZONTAL
B.F.F.	BELOW FINISHED FLOOR	LLV	LONG LEG VERTICAL
B.O.B.	BOTTOM OF BEAM	MFR(S)	MANUFACTURER(S)
B.O.D.	BOTTOM OF DECK	MAS C.J.	MASONRY CONTROL JOINT
B.O.F.	BOTTOM OF FOOTING	MECH'L	MECHANICAL
BRG	BEARING	N/A	NOT APPLICABLE
C.I.P.	CAST IN PLACE	N.T.S.	NOT TO SCALE
C.L.	CENTERLINE	O.C.	ON CENTER
C.L.B.	CENTERLINE OF BEAM	O.F.W.	OUTSIDE FACE OF WALL
C.L.C.	CENTERLINE OF COLUMN	OPP	OPPOSITE
C.L.F.	CENTERLINE OF FOOTING	P.C.	PRECAST CONCRETE
C.L.W.	CENTERLINE OF WALL	PLF	POUNDS PER LINEAR FOOT
CLR	CLEAR	PREFAB	PREFABRICATED
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONC C.J.	CONCRETE CONTROL JOINT	PSI	POUNDS PER SQUARE INCH
CONC S.J.	CONCRETE SAWCUT JOINT	REINF	REINFORCING
C.M.U.	CONCRETE MASONRY UNIT	SLH	SHORT LEG HORIZONTAL
CONN	CONNECTION	SLV	SHORT LEG VERTICAL
CONT	CONTINUOUS	SIM	SIMILAR
D.L.	DEAD LOAD	SQ.	SQUARE
Ø OR DIA.	DIAMETER	STD	STANDARD
DN	DOWN	T.L.	TOTAL LOAD
DWG(S)	DRAWING(S)	T.O.B.	TOP OF BEAM
E.O.S.	EDGE OF SLAB	T.O.D.	TOP OF DECK
EQ	EQUAL	T.O.F.	TOP OF FOOTING
EQUIP	EQUIPMENT	T.O.L.	TOP OF LEDGER
EXP. BOLT	EXPANSION BOLT	T.O.M.	TOP OF MASONRY
EXP. JT (E.J.)	EXPANSION JOINT	T.O.P.	TOP OF PLATE
E.W.	EACH WAY	T.O.S.	TOP OF STEEL
F.F.	FINISHED FLOOR	T.O.W.	TOP OF WALL
F.O.M.	FACE OF MEMBER	TYP	TYPICAL
F.O.S.	FACE OF STEEL	U.N.O.	UNLESS NOTED OTHERWISE
F.O.W.	FACE OF WALL	VERT	VERTICAL
GA	GAGE	W.W.F.	WELDED WIRE FABRIC
GALV	GALVANIZED	W	WITH
G.S.N.	GENERAL STRUCTURAL NOTES	W/O	WITHOUT

OWNER
TPSA LLC

PROPERTY
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23 E Illini St.
Phoenix, AZ 85040

RSArchitecture
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Project number 19-012
Date 12/02/19
Drawn by SL
Checked by CB
Scale AS NOTED

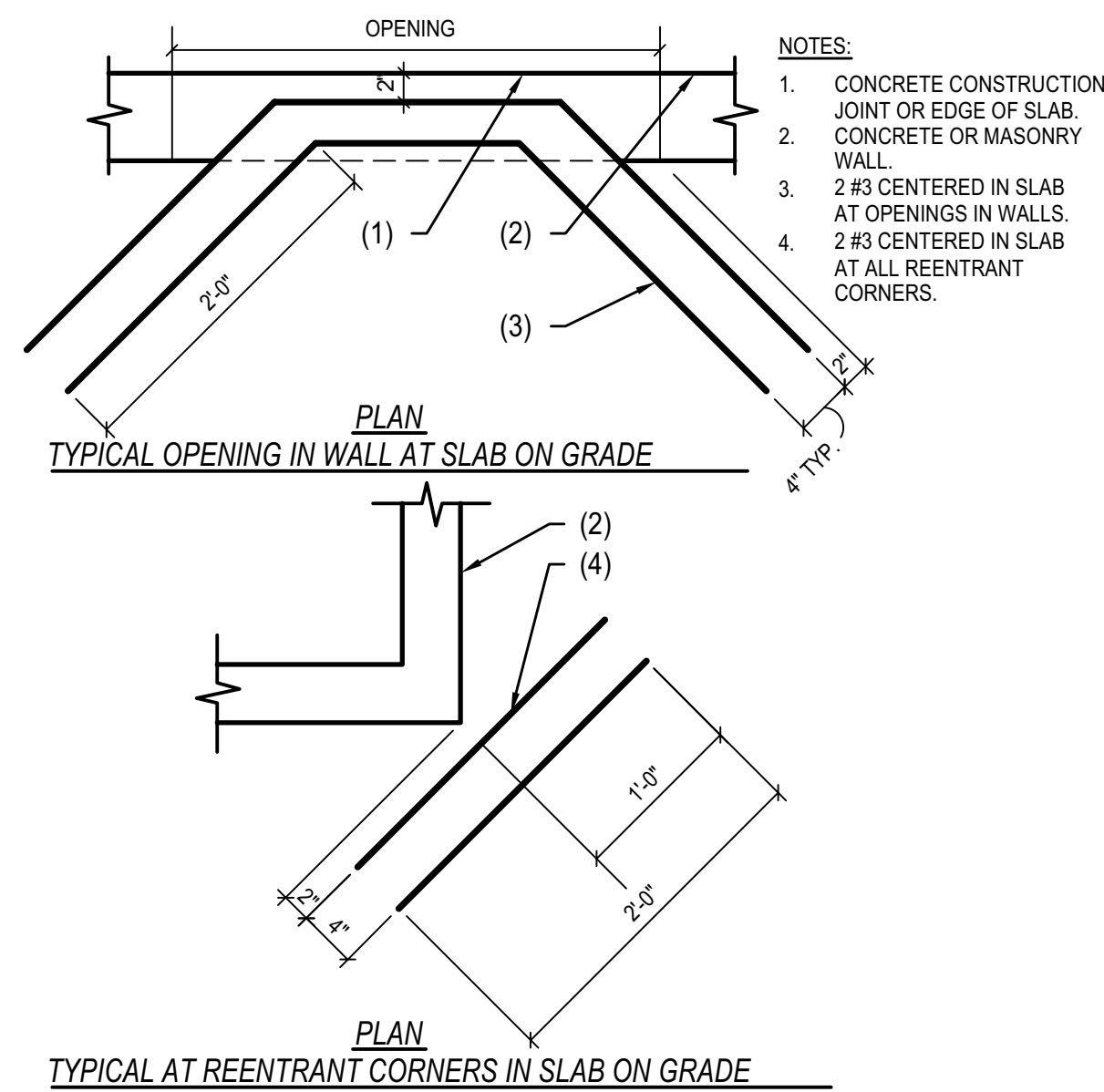
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TECH STRUCTURAL, LLC
Structural Engineering Consultants

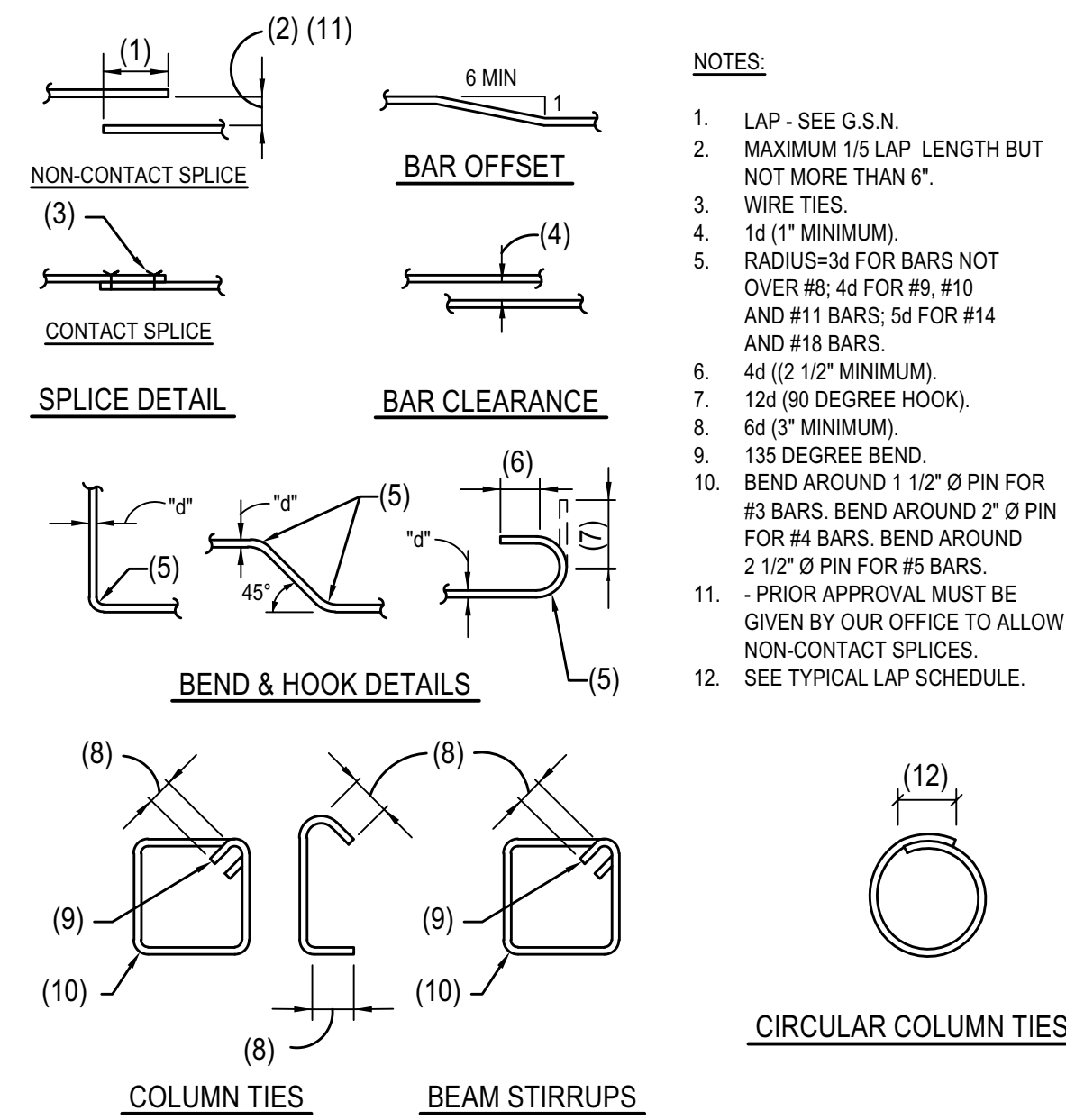
18521 E. Queen Creek Rd. STE 105-170
Queen Creek, AZ 85142
Phone: (602) 920-5756
Email: info@techstructural.com

S002

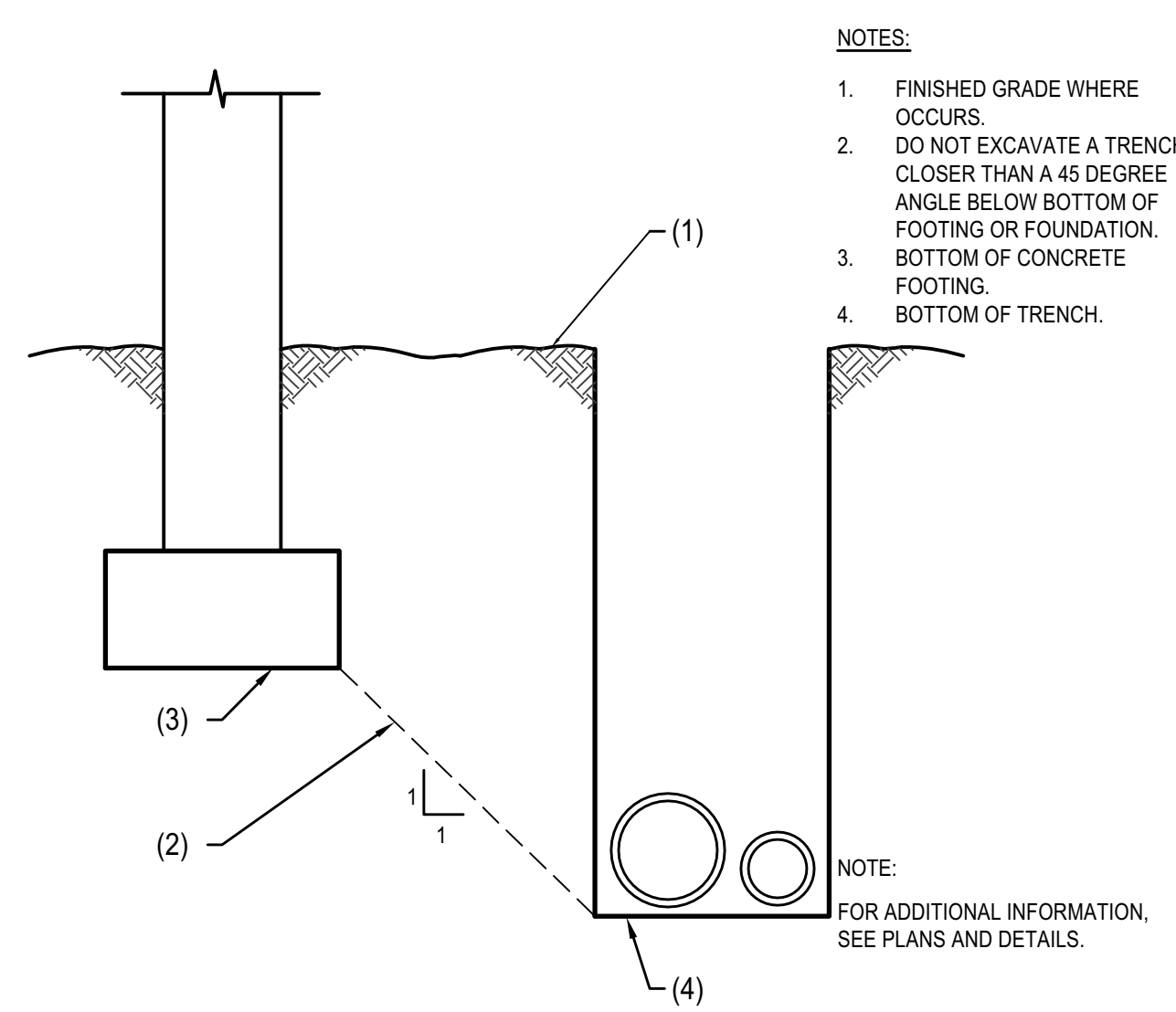
GENERAL STRUCTURAL NOTES



09 TYPICAL REENTRANT CORNER REINFORCING IN SLAB ON GRADE NO SCALE



06 TYPICAL CONCRETE REINFORCING BAR DETAILS NO SCALE



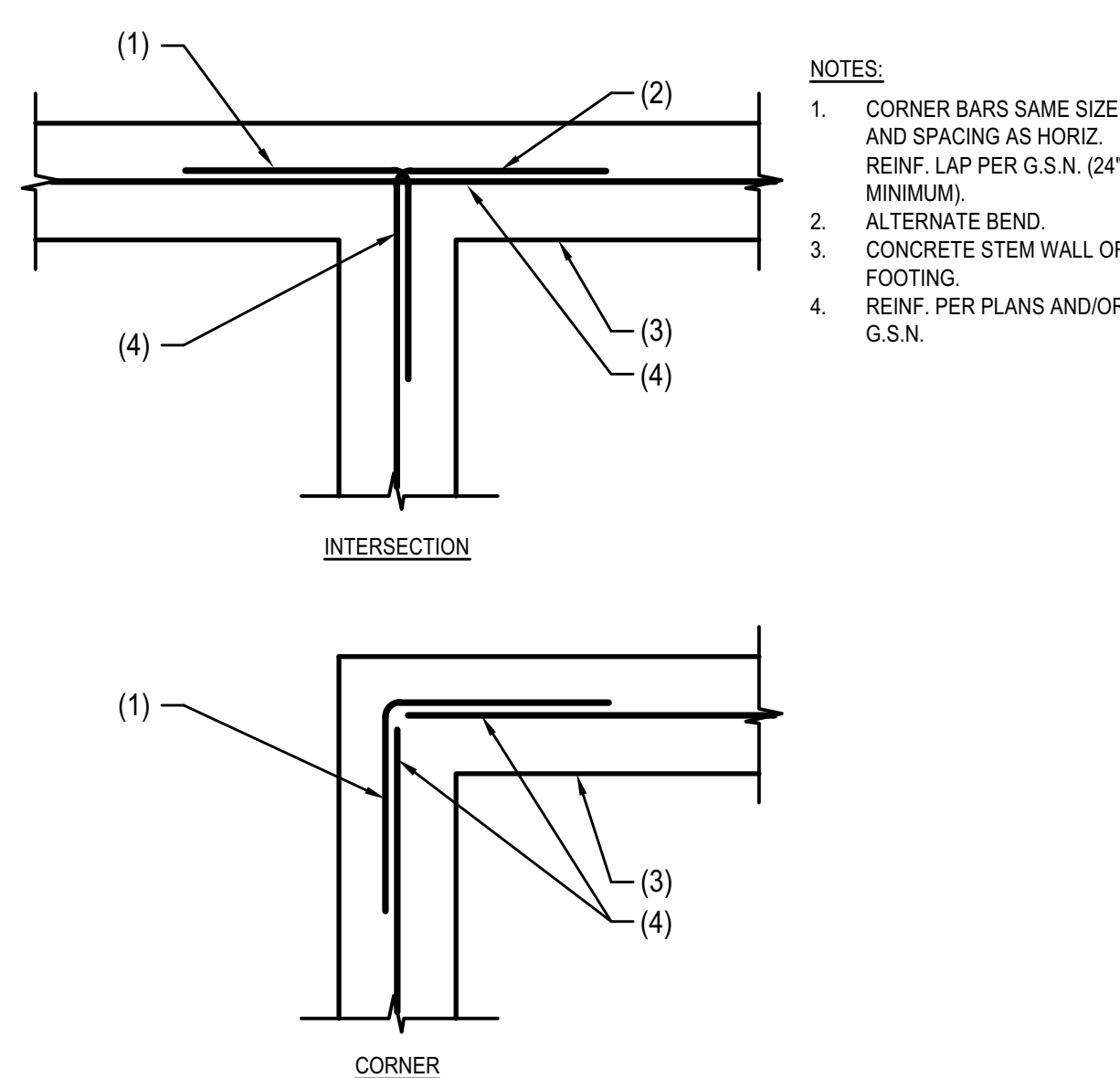
03 TRENCH PARALLEL TO FOUNDATION NO SCALE

CONC. PSI	CLASS B TENSION SPLICE LENGTHS						COMP. BARS	
	f _c = 2,500 PSI/ f _c = 3,000 PSI		f _c = 4,000 PSI		f _c = 5,000 PSI AND HIGHER		f _c = ALL	
BAR LOCATION	REGULAR CLASS	TOP CLASS	REGULAR CLASS	TOP CLASS	REGULAR CLASS	TOP CLASS	STD LAP	ENCLOSED W/ SPIRAL TIES
#3	24"	31"	19"	24"	17"	22"	12"	12"
#4	32"	41"	25"	33"	23"	29"	15"	12"
#5	39"	51"	31"	41"	28"	36"	19"	14"
#6	47"	61"	37"	49"	34"	43"	23"	17"
#7	69"	89"	54"	71"	49"	63"	26"	20"
#8	78"	102"	62"	81"	56"	72"	30"	23"
#9	88"	115"	70"	91"	63"	81"	34"	25"
#10	100"	129"	79"	102"	70"	92"	38"	29"
#11	110"	143"	87"	113"	78"	102"	42"	32"

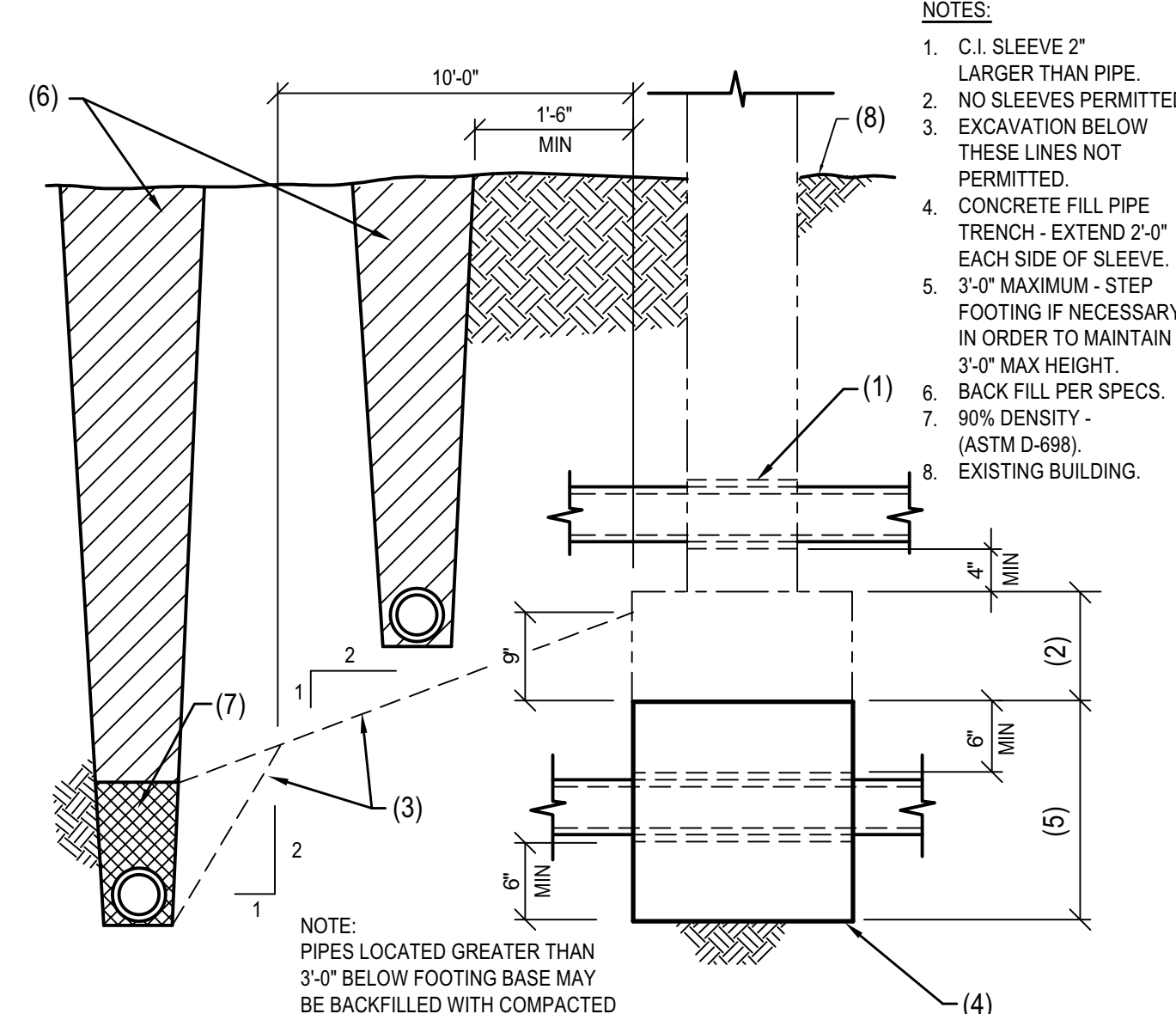
NOTES:

- TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
- UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS, SLABS AND WALLS SHALL BE CLASS "B" TENSION SPLICES. CONCRETE COLUMNS SHALL USE COMPRESSION LAP SPLICES.
- CONTACT STRUCTURAL ENGINEER IF CENTER TO CENTER SPACING OF REINFORCING IS LESS THAN OR EQUAL TO 3 BAR DIAMETERS <3db OR 2db CLEAR SPACING BETWEEN BARS.
- WHERE CLEAR COVER <db, MULTIPLY TENSION LAP SPLICE BY 1.5.
- ALL SPLICES MUST BE FULL CONTACT.

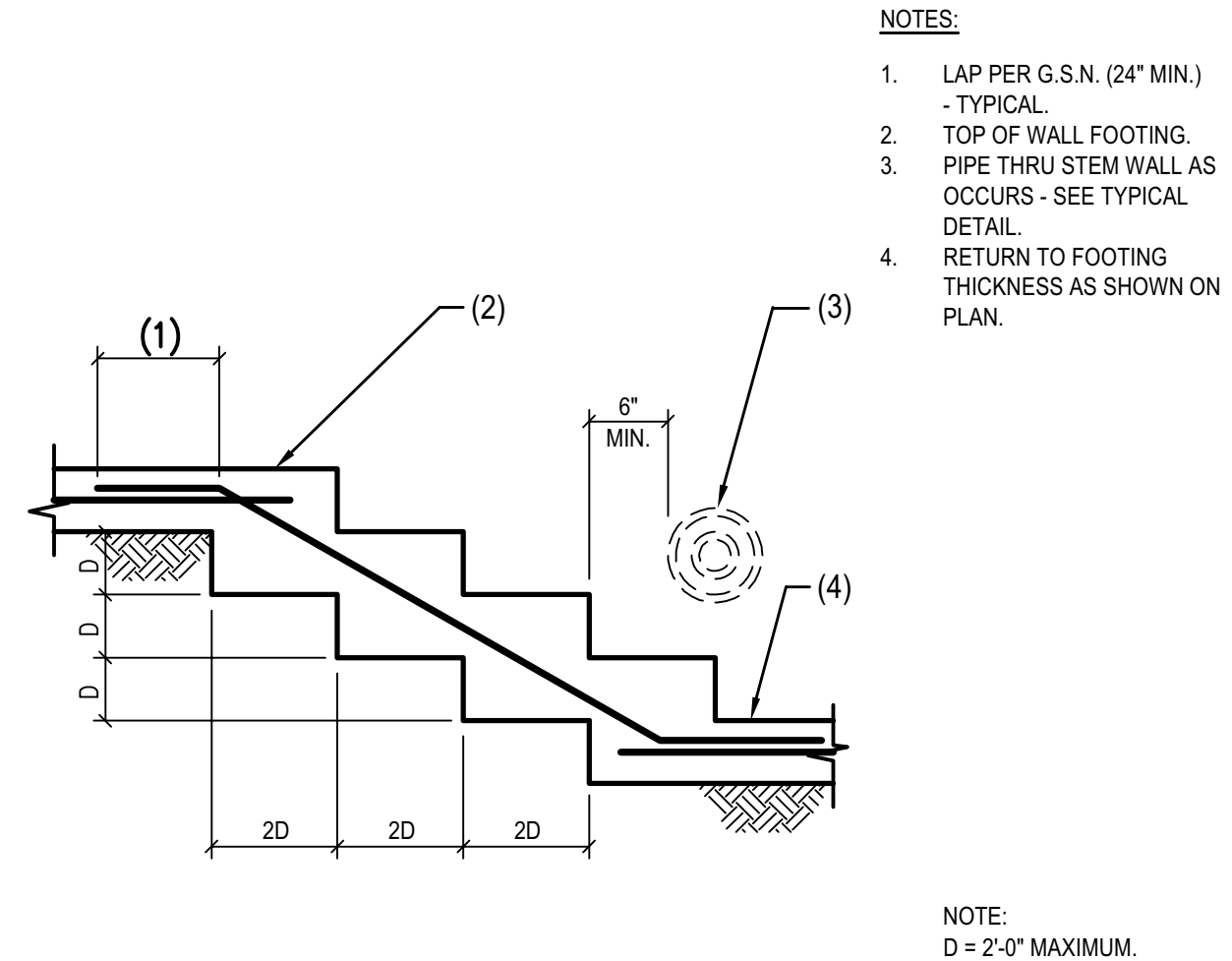
01 LAP SCHEDULE FOR REINFORCING STEEL NO SCALE



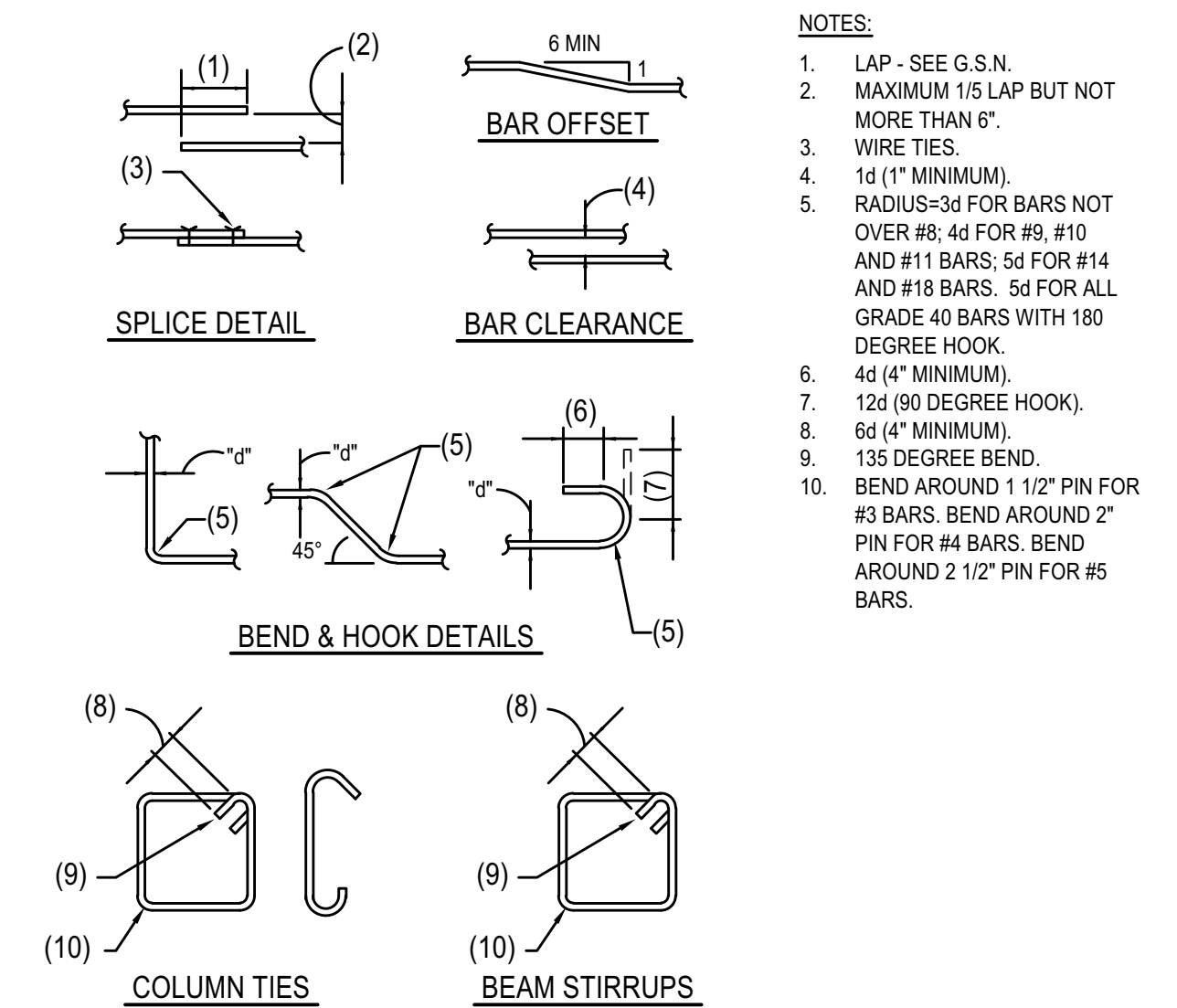
10 PLAN VIEW - CORNER REINFORCING IN CONCRETE FOOTING AND/OR STEM WALL NO SCALE



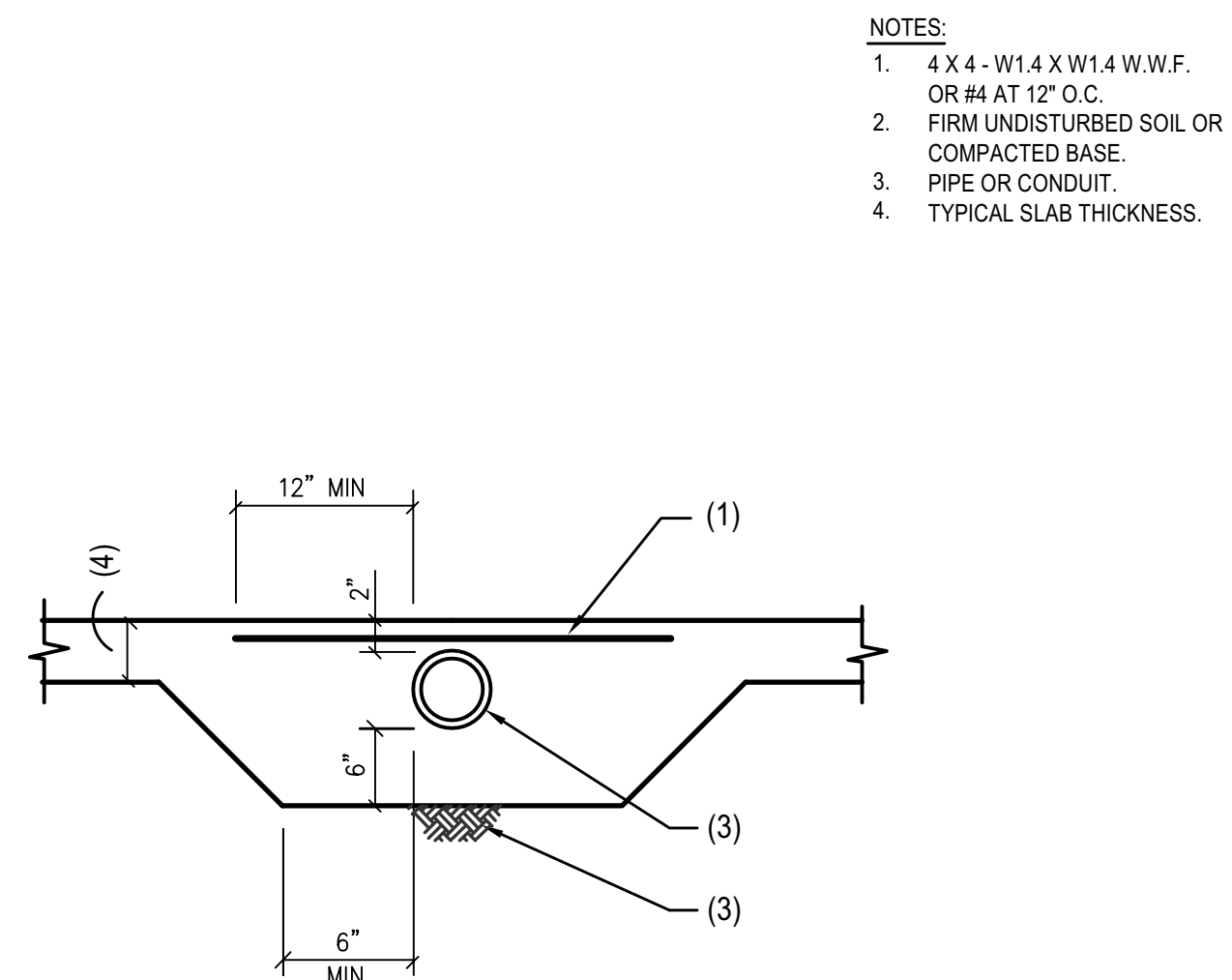
07 TYPICAL PIPE THROUGH FOOTING AND TRENCH NO SCALE



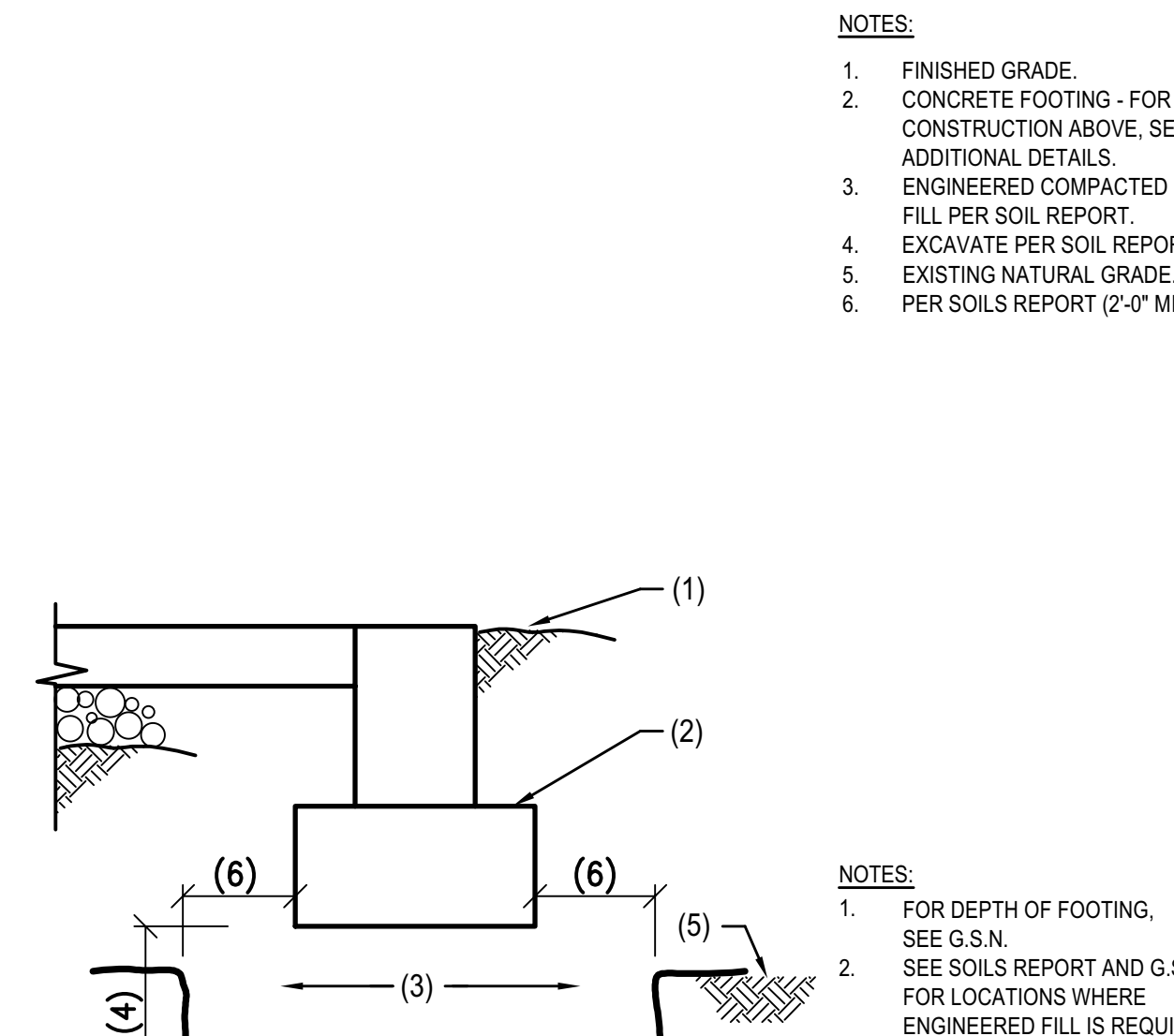
04 TYPICAL STEP IN CONCRETE FOOTING NO SCALE



02 TYPICAL CONCRETE REINFORCING BAR DETAILS NO SCALE



08 SLEEVE FOR PIPE AT SLAB NO SCALE



05 TYPICAL SPREAD FOOTING ON ENGINEERED COMPACTED FILL NO SCALE

OWNER
TPSA LLC

PROPERTY
Illini House
23 E Illini St.
Phoenix, AZ 85040

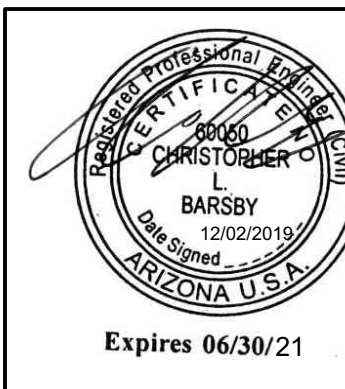
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Project number	19-012
Date	12/02/19
Drawn by	SL
Checked by	CB
Scale	AS NOTED

Expires 06/30/21

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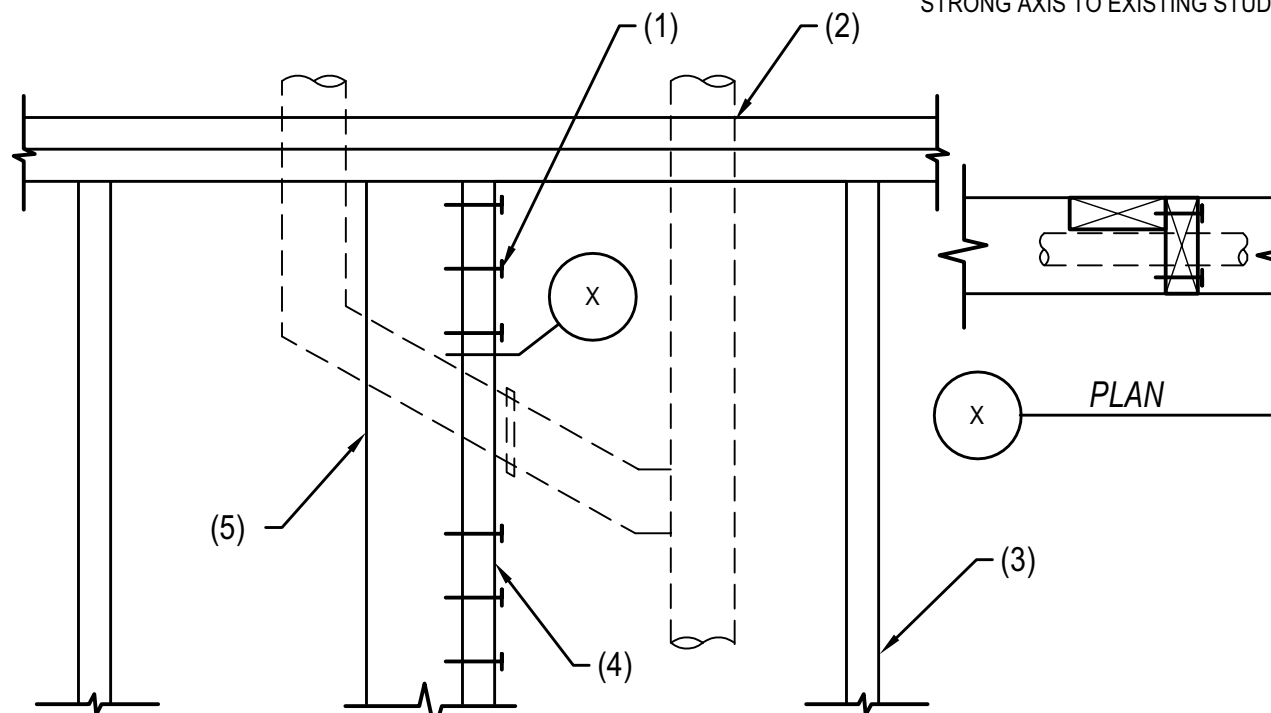


S003

TYPICAL DETAILS

NOTES:

- 16d NAILS AT 12" O.C.
- PLUMBING PIPE AT TOP PLATE PER TYPICAL DETAIL.
- 2x6 STUDS, (TYP.)
- 2x6 STUDS W/ NOTCH/HOLE.
- 2x6 STUD TURNED 90° - STRONG AXIS TO EXISTING STUD.



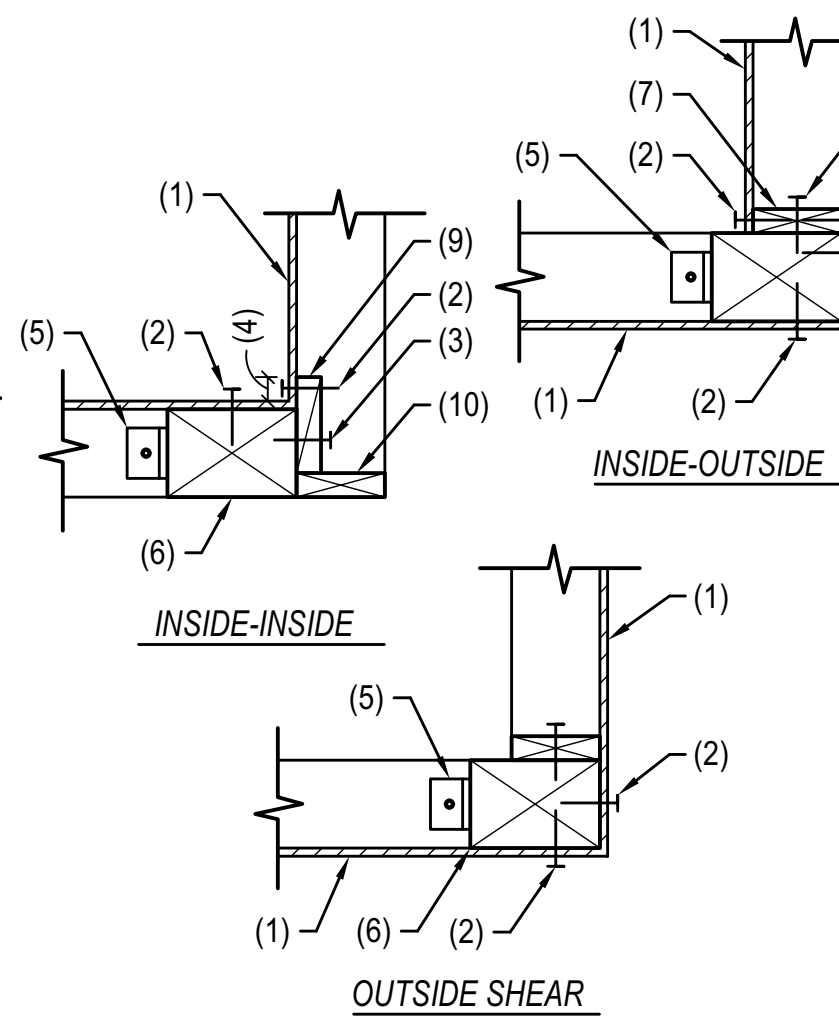
NOTE:
JOIST/RIMBOARD/BLOCKING NOT SHOWN FOR CLARITY.

20 ELEVATION - PIPE AT WOOD STUD WALL NO SCALE

NOTES:

- SHEARWALL SHEATHING.
- EDGE NAILING.
- 16d AT 4" O.C. AT SHEARWALLS TYPE "G1", "G2", "G3", "P1", "P2", "P3" AT "P4" AND "P5" TYPE SHEARWALLS USE 16d AT 3" O.C.
- 1 1/2" MIN. (2 1/2" MIN. AT TYPE "P4" AND "P5" SHEARWALL).
- KEEP THE LARGER OF THE HOLD-DOWNS FROM THE TWO SHEARWALLS PER PLAN.
- HOLD-DOWN POST.
- 2x OR 3x STUD AS REQUIRED FOR EDGE NAILING.
- SIMPSON LTP4 AT 9" O.C. AT "P5" TYPE SHEARWALLS AND AT 12" O.C. AT "P4" TYPE SHEARWALLS.
- 2x STUD (3x AT "P4" AND "P5" TYPE SHEARWALL).
- 2x END STUD.

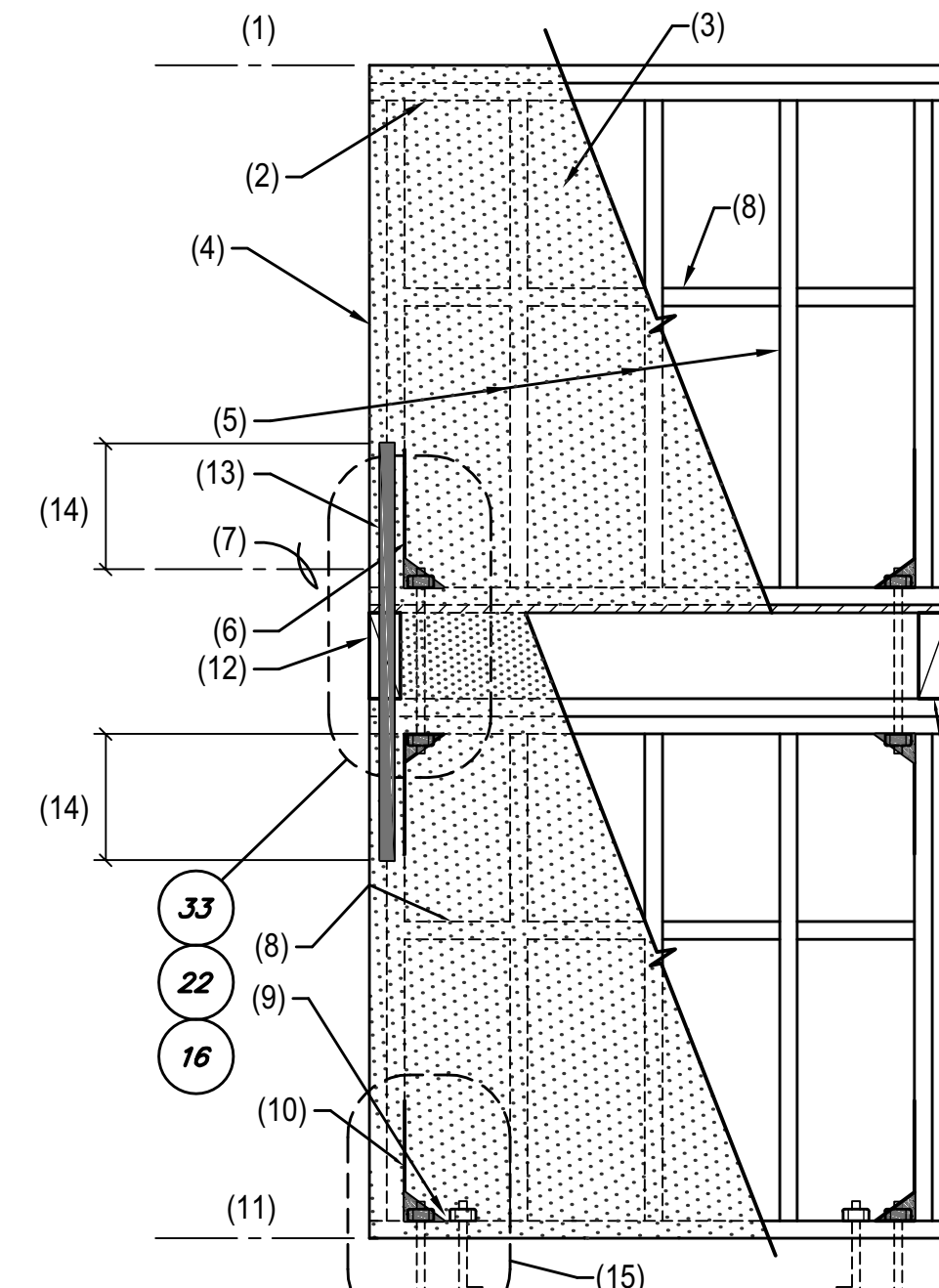
NOTE:
THIS DETAIL APPLIES ONLY AT SINGLE SIDED SHEARWALLS



17 PLAN VIEW - SHEARWALLS SHORING AT CORNER NO SCALE

NOTES:

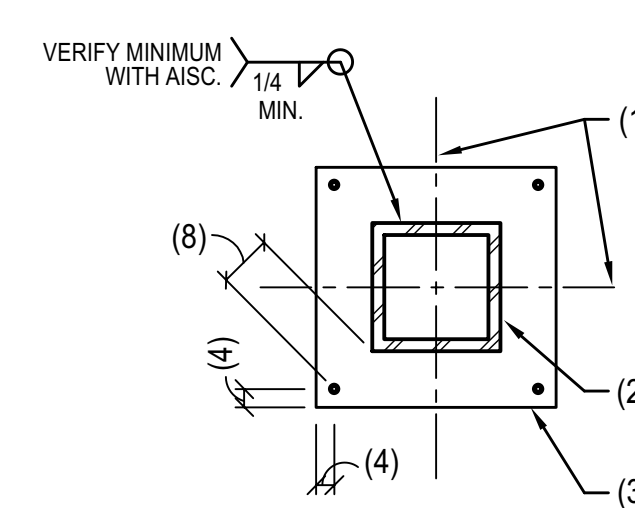
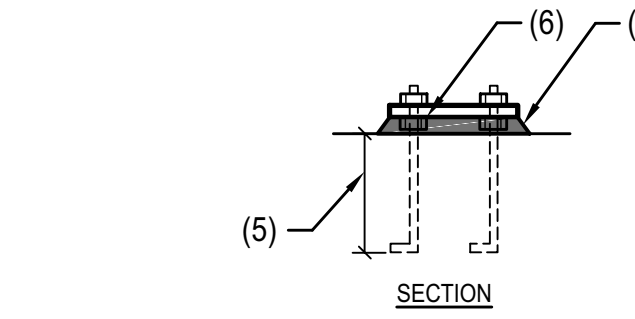
- ROOF PLATE LINE.
- 2 - 2X PLATE.
- SHEARWALL SHEATHING SEE PLAN FOR TYPE AND LOCATION.
- WOOD POST PER SHEAR WALL SCHEDULE OR PLANS (MIN 2-2x WHERE NOT NOTED).
- MIN. 2X STUDS AT 16" O.C.
- SIMPSON HOLD-DOWN PER PLANS AND DETAILS.
- 2nd OR 3rd FLOOR PLATE LINE.
- 2X SOLID BLOCKING AT SHEATHING JOINTS U.O.
- SILL PLATE PER SHEARWALL SCHEDULE ANCHOR BOLT SIZE AND SPACING.
- HOLD-DOWN SEE PLAN FOR SIZE AND LOCATION.
- 1st LEVEL FLOOR LINE.
- SOLID BLOCKING U.O.
- SIMPSON STRAP PER SHEARWALL SCHEDULE IN LIEU OF HOLD-DOWN, AS OCCURS. USE MIN. CS20 WHEN NOT OTHERWISE NOTED.
- STRAP END LENGTHS PER MANUFACTURER'S REQUIREMENTS. SEE APPLICABLE DETAILS (FOUNDATION OR TYPICALS AS OCCURS).



14 TYPICAL TWO STORY SHEAR PANEL (3 STORY SIMILAR) NO SCALE

NOTES:

- CENTERLINE OF COLUMN AND STEEL BASE PLATE.
- STEEL COLUMN.
- STEEL BASE PLATE.
- DIMENSION PER AISC TABLE J3.5 (1 1/4" MIN), TYPICAL U.N.O.
- EMBEDMENT PER SCHEDULE.
- DOUBLE NUTS.
- 1 1/2" DRYPACK.
- 2" MINIMUM.



NOTE:
FOR ADDITIONAL INFORMATION, SEE COLUMN SCHEDULE.

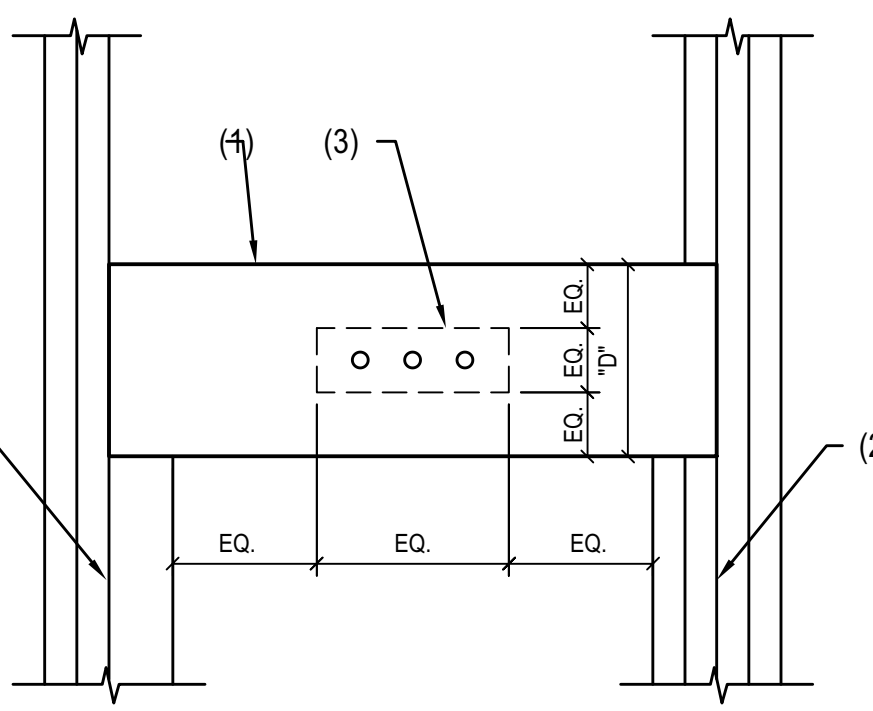
12 PLAN VIEW - STEEL COLUMN AT STEEL BASE PLATE NO SCALE

NOTES:

- WOOD BEAM.
- VERTICAL AND LATERAL SUPPORT MEMBERS PER NOTES, PLAND AND DETAILS.
- ALLOWABLE ZONE FOR DRILLED HOLES - MAXIMUM "D"/12" WITHOUT SPECIAL PERMISSION FROM THE STRUCTURAL ENGINEER. DRILLED HOES UP TO "D"/4" MAX ALLOWED WHEN SPECIAL PERMISSION IS OBTAINED FROM THE STRUCTURAL ENGINEER PRIOR TO DRILLING HOLES TO BE DRILLED AND NOT SQUARE CUT.

NOTES:

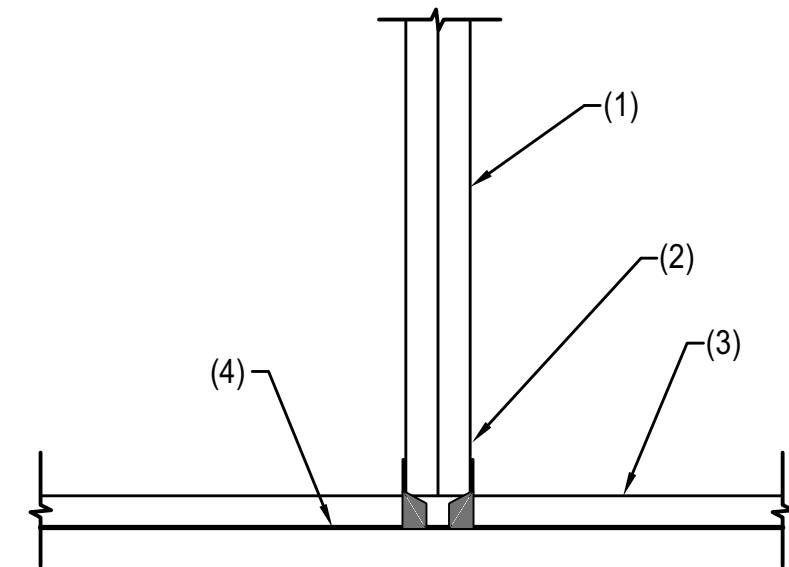
- OBTAIN PERMISSION FROM THE STRUCTURAL ENGINEER AND MANUFACTURER PRIOR TO DRILLING OR NOTCHING ENGINEERED LUMBER PRODUCTS. ALL HOLES SHALL BE LOCATED COMPLETELY WITHIN THE ALLOWABLE ZONE AND SPACED A MINIMUM OF "D" INCHES ON CENTER.
- HOLES ARE NOT ALLOWED IN BEAMS SUPPORTING LOADS FROM POSTS OR OTHER BEAMS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.



21 DRILLED HOLES IN WOOD BEAM NO SCALE

NOTES:

- 2-2x POST.
- SIMPSON H2.5 AT EACH SIDE OF POST.
- PRESSURE TREATED BASE PLATE.
- TOP OF STEM WALL OR SLAB.

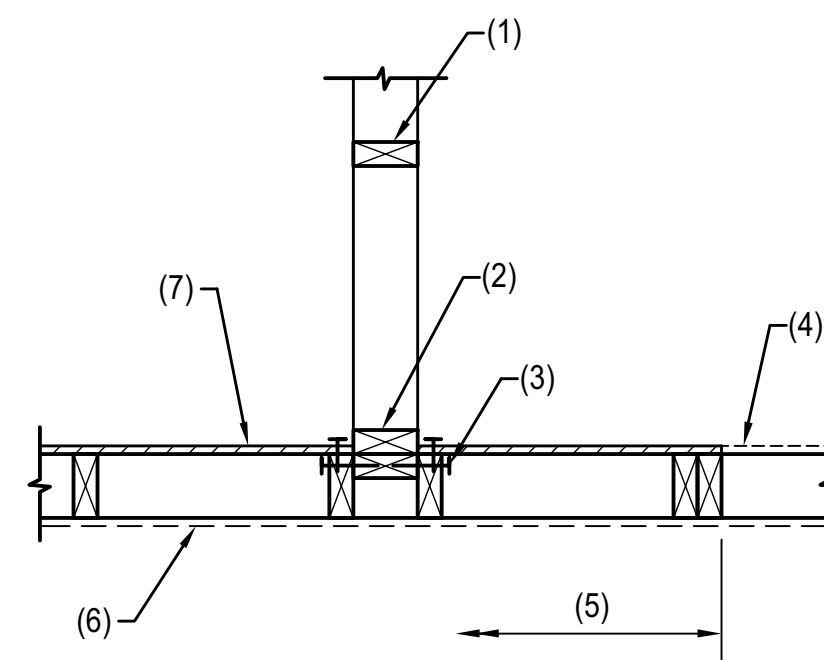


18 TYPICAL 2-2x POST TO SILL PLATE NO SCALE

NOTES:

- 2 X 4 INTERSECTING WALL.
- 2 - 2 X 4 STUDS.
- 16d AT 6" O.C. TO CONT. STUD.
- PROVIDE PLYWOOD STRIPS OF SAME THICKNESS FOR FLUSH WALL FINISH TO STOPPING POINT.
- END OF SHEARWALL PANEL.
- WALL FINISH.
- SHEARWALL SHEATHING SEE PLAN FOR TYPE LOCATION AND NAILING SCHEDULE.

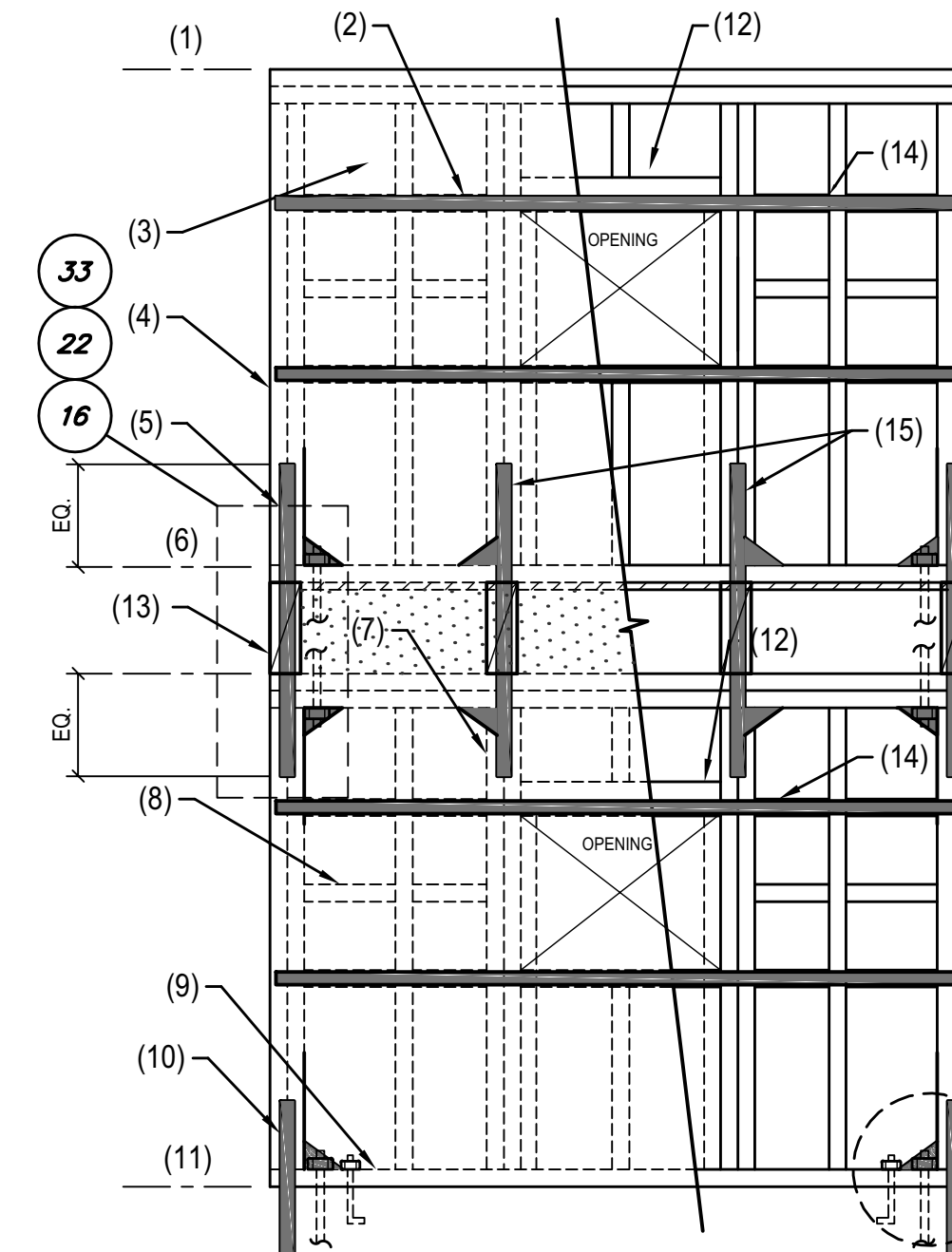
NOTE:
PLYWOOD MAY BE PLACED ON THE EXTERIOR FACE OR INTERIOR FACE OF SHEARWALL.



15 PLAN VIEW - SHEARWALL AT PARTITION NO SCALE

NOTES:

- ROOF PLATE LINE.
- SIMPSON CMSTC16 STRAP TYPICAL U.N.O.
- SHEARWALL SHEATHING SEE PLAN FOR TYPE AND LOC.
- WOOD POST PER SHEAR WALL SCHEDULE OR PLAN. (MIN. 2-2x WHERE NOT NOTED).
- SIMPSON STRAP (SEE HOLD-DOWN SCHEDULE AND SHEAR WALL PLANS FOR EXACT SIZE AND LOCATION OF STRAP) - USE CS20 WHEN NOT NOTED OTHERWISE.
- 2nd OR 3rd FLOOR PLATE LINE.
- 2-2x MIN. AT OPENING TYP. U.N.O.
- 2x SOLID BLOCKING AT PANEL EDGES. U.N.O.
- BASE PLATE SEE SHEARWALL SCHEDULE FOR ANCHOR BOLT SIZE AND SPACING.
- HOLD-DOWN SEE PLAN FOR SIZE AND LOCATION.
- 1st FLOOR LINE.
- WOOD HEADER - FOR SIZE, SEE PLANS OR TYPICAL HEADER SCHEDULE AS OCCURS.
- SOLID BLOCKING U.N.O.
- MIN. DOUBLE 2x BLOCKING AT STRAP TYP.
- STRAP OR HOLD-DOWN TO MATCH HOLD-DOWN PER NOTE 5.
- SEE APPLICABLE DETAILS (FOUNDATION OR TYPICALS AS OCCURS).



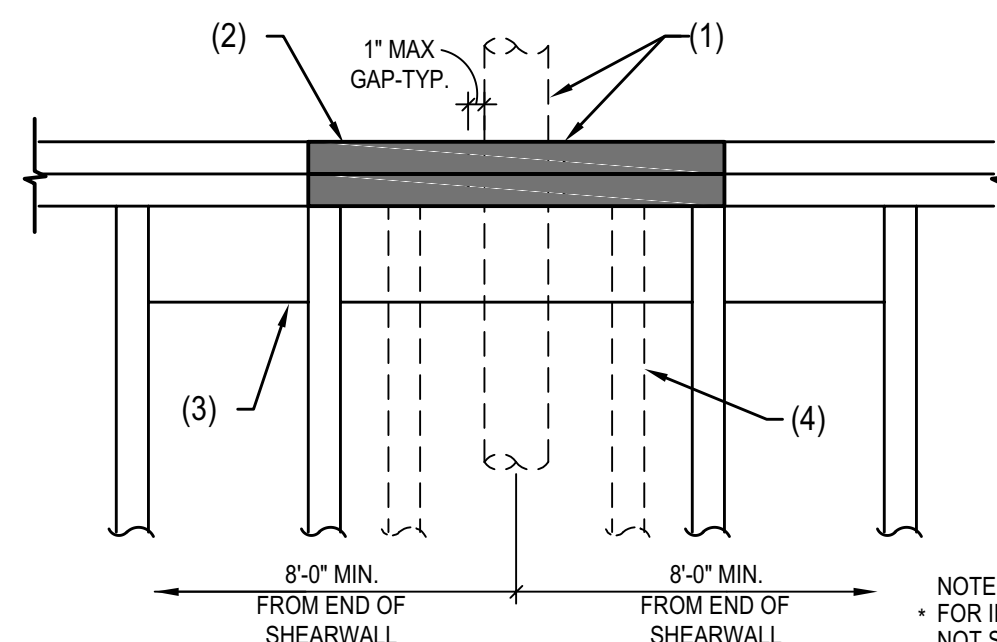
13 TWO STORY SHEAR PANEL WITH WINDOW OPENING (3 STORY SIMILAR) NO SCALE

NOTES:

- FOR NUMBER AND SIZE OF FASTENER SEE HOLD-DOWN SCHEDULE.
- WOOD POST PER PLANS.
- SIMPSON HOLD-DOWN PER PLANS.
- WOOD STUD WALL.
- SILL PLATE AND ATTACHMENT PER PLANS.
- THREADED ROD PER HOLD-DOWN SCHEDULE.
- SOLID WOOD BLOCK TO MATCH POST.
- ADD'L STUDS AS OCCURS.
- 16d AT 8" O.C. STAGGERED.
- WOOD JOIST OR TRUSS AS OCCURS. DO NOT LOCATE UNDER HOLD-DOWN.
- TYPICAL BLOCKING/SHEAR PANEL.

NOTES:

- OVERBORED (NOTCHED OR GAP) PLATED PIPE.
- (2) SIMPSON CTS218 EACH SIDE.
- 2x BLOCKING ADD AT PIPE AND EACH STUD BAY EACH SIDE (3 BAYS MIN).
- WHERE WALL IS A BEARING WALL, ADD STUD SUPPORT WITHIN 6" OF NOTCHED TOP PLATES.

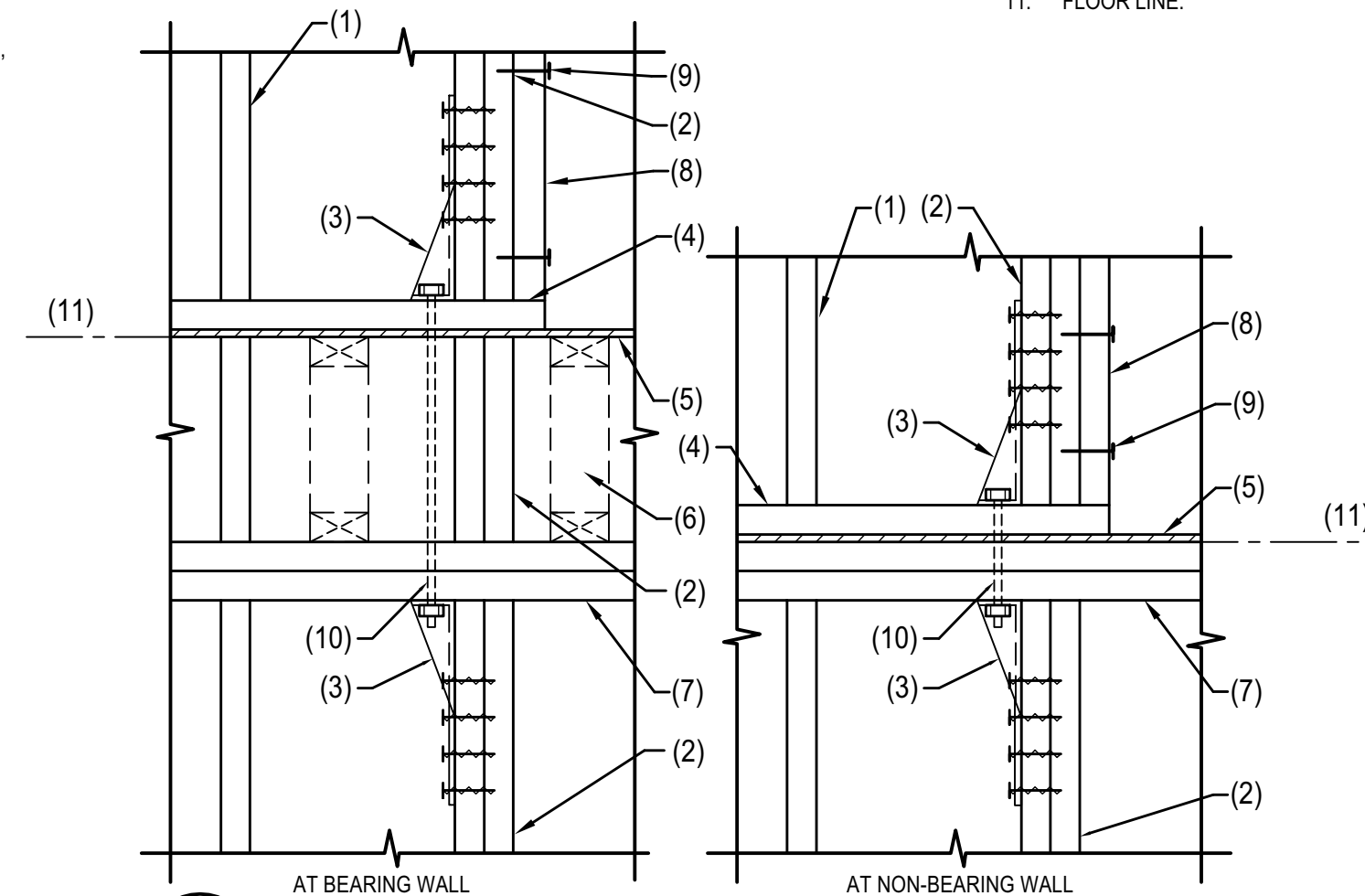


NOTE:
FOR INFORMATION AND NOTES NOT SHOWN SEE PLANS.
ATTACH SHEATHING MATERIAL TO TOP PLATES AND BLOCKING PER SHEARWALL NOTES AND DRAWINGS.

19 PIPE IN SHEARWALL NO SCALE

NOTES:

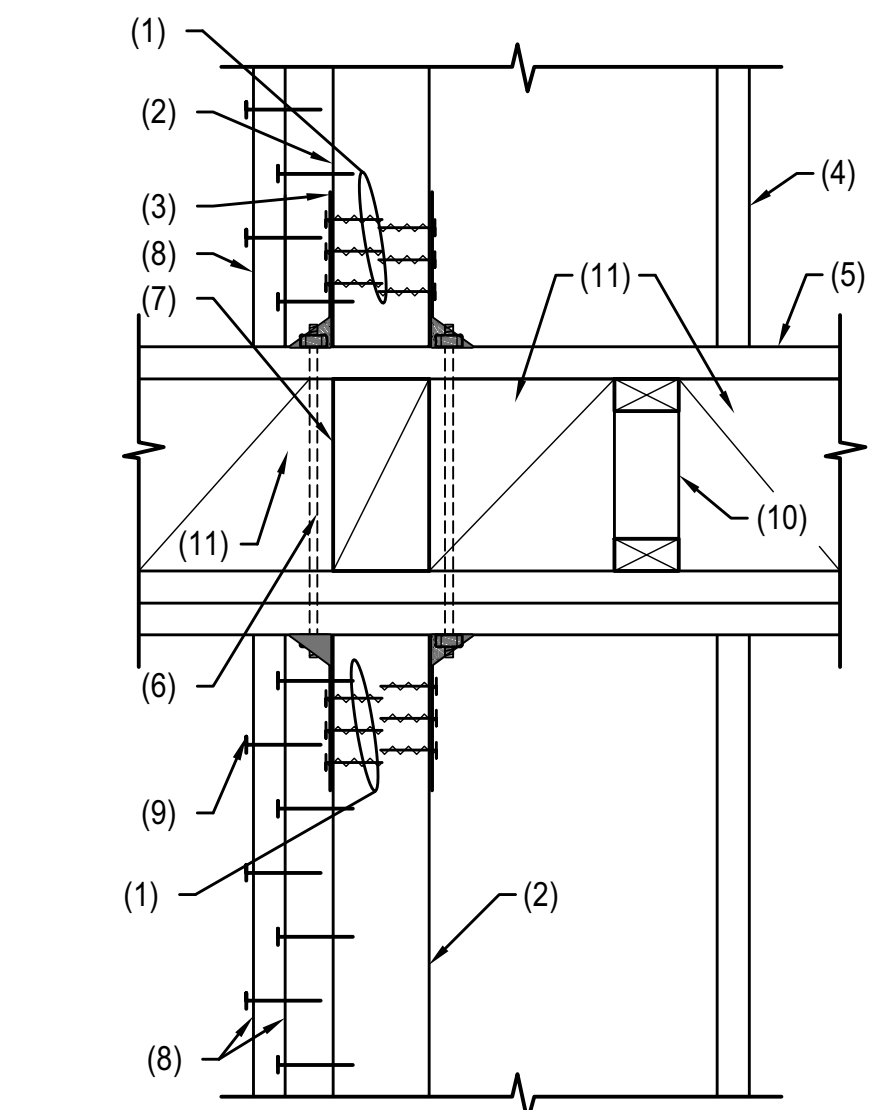
- WOOD STUD WALL.
- WOOD POST OR DOUBLE STUD PER HOLD-DOWN SCHEDULE.
- HOLD-DOWN PER PLANS.
- 2x CONTINUOUS PLATE.
- PLYWOOD FLOOR SHEATHING.
- WOOD JOIST OR WOOD TRUSS AT 8" O.C. STAGGERED. DO NOT LOCATE DIRECTLY UNDER HOLD-DOWN.
- DOUBLE 2x TOP PLATE.
- ADDITIONAL STUDS AS OCCURS.
- 0.131x3 1/4" GUN NAILS AT 6" O.C.
- BOLTS OR THREADED ROD (SIZE PER HOLD-DOWN).
- FLOOR LINE.



16 HOLD-DOWN AT HOLD-DOWN NO SCALE

NOTES:

- WOOD BEAM.
- VERTICAL AND LATERAL SUPPORT MEMBERS PER NOTES, PLAND AND DETAILS.
- ALLOWABLE ZONE FOR DRILLED HOLES - MAXIMUM "D"/12" WITHOUT SPECIAL PERMISSION FROM THE STRUCTURAL ENGINEER. DRILLED HOES UP TO "D"/4" MAX ALLOWED WHEN SPECIAL PERMISSION IS OBTAINED FROM THE STRUCTURAL ENGINEER PRIOR TO DRILLING HOLES TO BE DRILLED AND NOT SQUARE CUT.



22 DOUBLE HOLD-DOWN AT WOOD POST NO SCALE

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Drawn by	SL
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Scale	AS NOTED

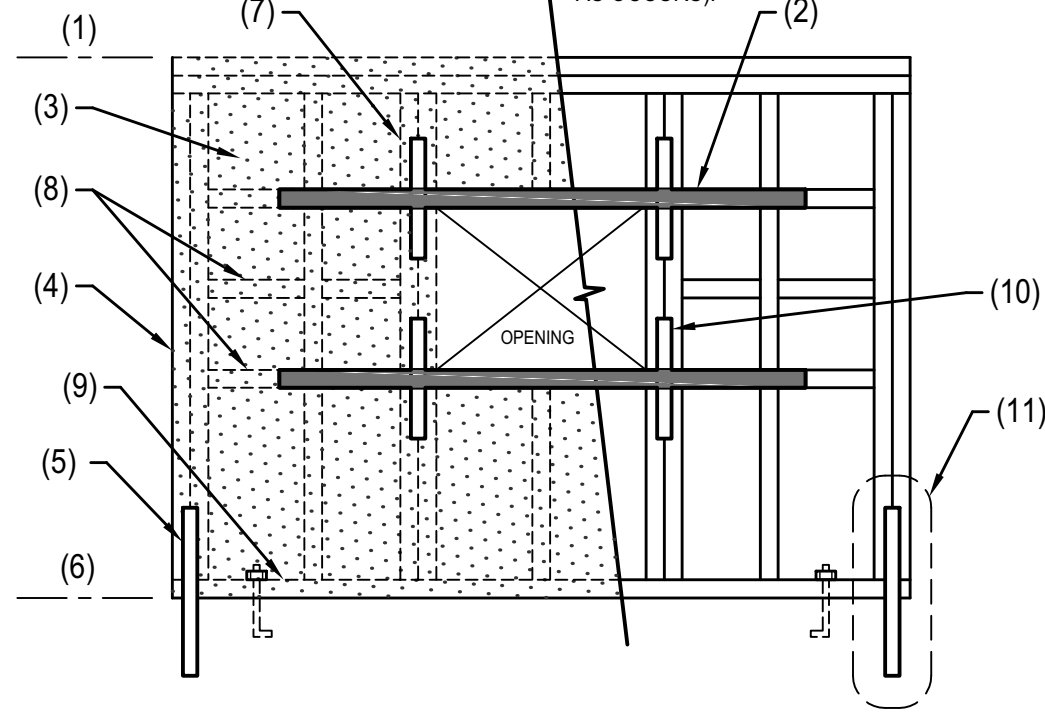


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TYPICAL DETAILS

NOTES:

1. ROOF PLATE LINE.
2. SIMPSON CMSTC16 STRAP W/ 45° END LENGTH (HORIZONTAL).
3. SHEARWALL SHEATHING SEE PLAN FOR TYPE AND LOC.
4. 2- 2X STUDS AT END SHEARWALL PANEL.
5. HOLDOWN SEE PLAN FOR SIZE AND LOCATION.
6. 1st FLOOR LINE.
7. 2- 2X MIN. AT OPENING TYPICAL.
8. 2- 2X SOLID BLOCKING.
9. BASE PLATE SEE SHEARWALL SCHEDULE ANCHOR BOLT SIZE AND SPACING.
10. SIMPSON MST136 STRAP (VERTICAL) CENTERED AT HORIZONTAL STRAP.
11. SEE APPLICABLE DETAILS (FOUNDATION OR TYPICALS AS OCCURS).

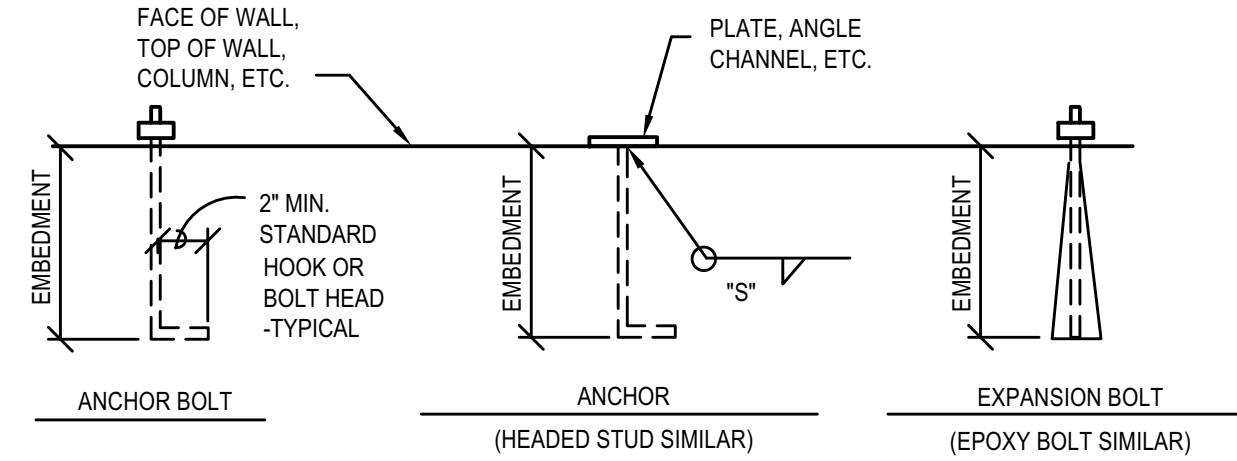


31 SHEAR PANEL WITH WINDOW OPENING WHERE NOTED ON SHEAR WALL PLANS NO SCALE

BOLT DIAMETER	VERT BOLT EMBEDMENT LENGTH	HORIZ BOLT EMBEDMENT LENGTH	HEADED STUD FILLET WELD SIZE, "S"
1/2"	7"	4"	1/4"
5/8"	7"	4"	5/16"
3/4"	7"	5"	5/16"
7/8"	8"	6"	5/16"
1"	9"	7"	3/8"
1 1/8"	10"	8"	----
1 1/4"	11"	9"	----

NOTES:

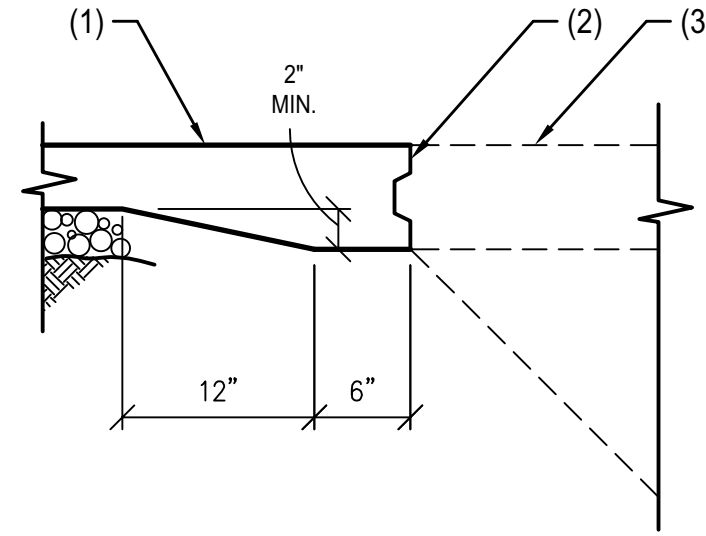
- PROVIDE ANCHORS, ANCHOR BOLTS AND EXPANSION BOLTS PER THIS SCHEDULE UNLESS NOTED ON PLANS OR DETAILS.
- EXPANSION OR ADHESIVE BOLTS USED IN MASONRY SHALL HAVE I.C.B.O. APPROVAL IN MASONRY.
- AT "ANCHORS" USE 3/16" FILLET WELD("S").
- THICKNESS OF DRYPACK DOES NOT APPLY TOWARDS EMBEDMENT.



28 TYPICAL ANCHOR, ANCHOR BOLT, AND EXPANSION BOLT SCHEDULE NO SCALE

NOTES:

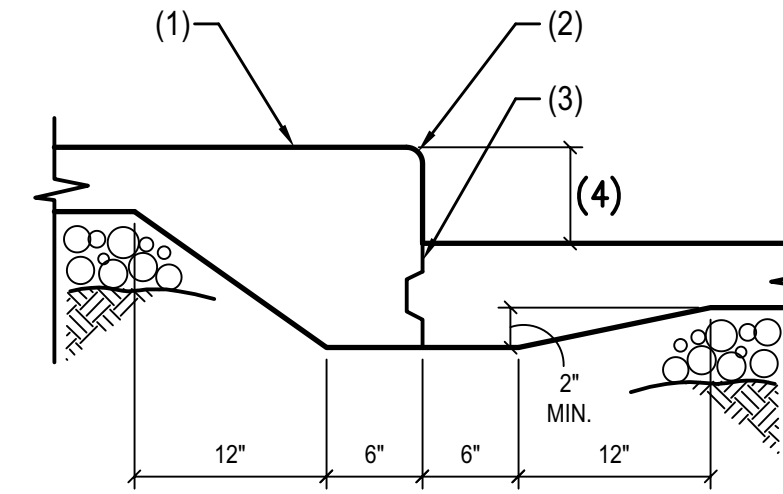
1. CONCRETE SLAB ON GRADE.
2. CONTINUOUS KEY - SEE TYPICAL KEY IN CONCRETE DETAIL.
3. LINE OF CONCRETE CLOSURE POUR OR SLAB AS OCCURS.



25 TYPICAL THICKENED SLAB AT CONCRETE CLOSURE POUR NO SCALE

NOTES:

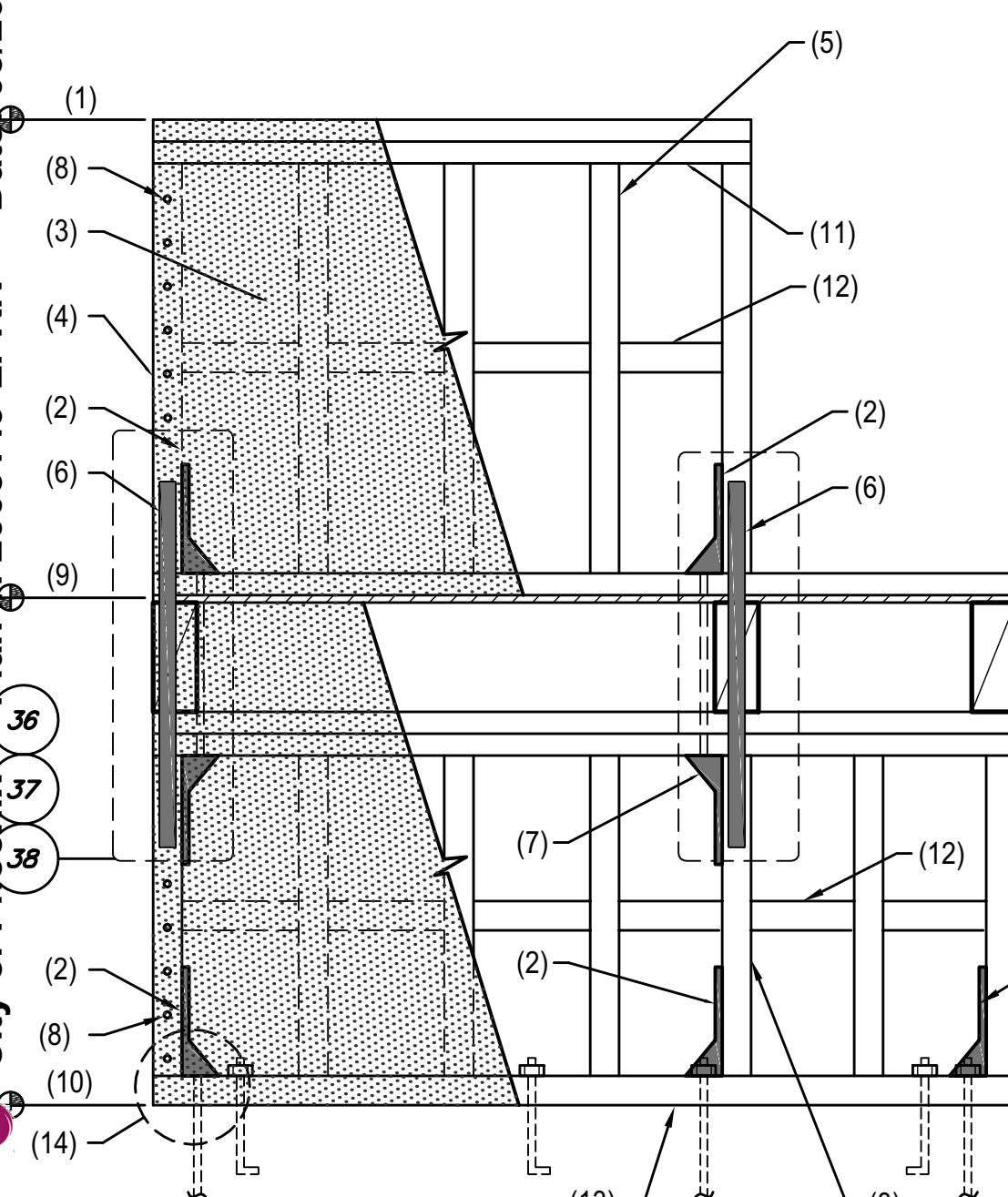
1. CONCRETE SLAB ON GRADE.
2. TOOLED EDGE.
3. CONT. KEY - SEE TYPICAL KEY IN CONCRETE DETAIL.
4. 8" MAX. - VERIFY W/ ARCHT. DRAWINGS.



23 CONCRETE SLAB AT ELEVATION CHANGE NO SCALE

NOTES:

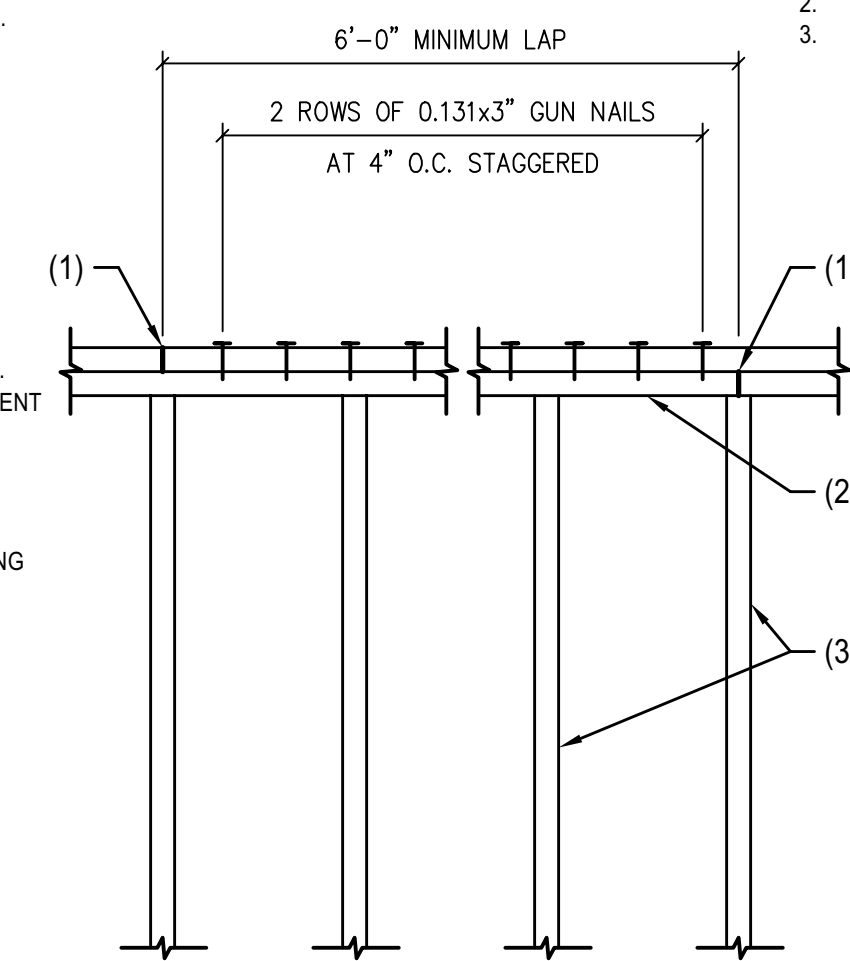
1. ROOF PLATE LINE.
2. SIMPSON HOLDOWN PER PLANS.
3. SHEAR WALL SHEATHING. SEE PLANS FOR TYPE AND LOCATION.
4. WOOD POST PER SHEAR WALL SCHEDULE (MIN. 2-2x WHERE NOT NOTED).
5. WOOD STUDS.
6. SIMPSON STRAP PER SHEAR WALL SCHEDULE AS OCCURS. USE MIN. CS20 WHERE NOT NOTED OTHERWISE.
7. SIMPSON "HD" HOLDOWN TO MATCH LEVEL ABOVE. (NOT REQUIRED AT STRAP HOLDOWN).
8. PROVIDE PANEL EDGE ATTACHMENT AT HOLDOWN POST.
9. 2ND OR 3RD LEVEL FLOOR LINE.
10. 1ST LEVEL FLOOR LINE.
11. 2-2x PLATE.
12. 2x SOLID BLOCKING AT SHEATHING JOINTS U.N.O.
13. SILL PLATE PER SHEAR WALL NOTES AND SCHEDULE.
14. SEE APPLICABLE DETAILS (FOUNDATION OR TYPICALS AS OCCURS).



32 TYPICAL TWO STORY OFFSET SHEAR WALL (3 STORY SIMILAR) NO SCALE

NOTES:

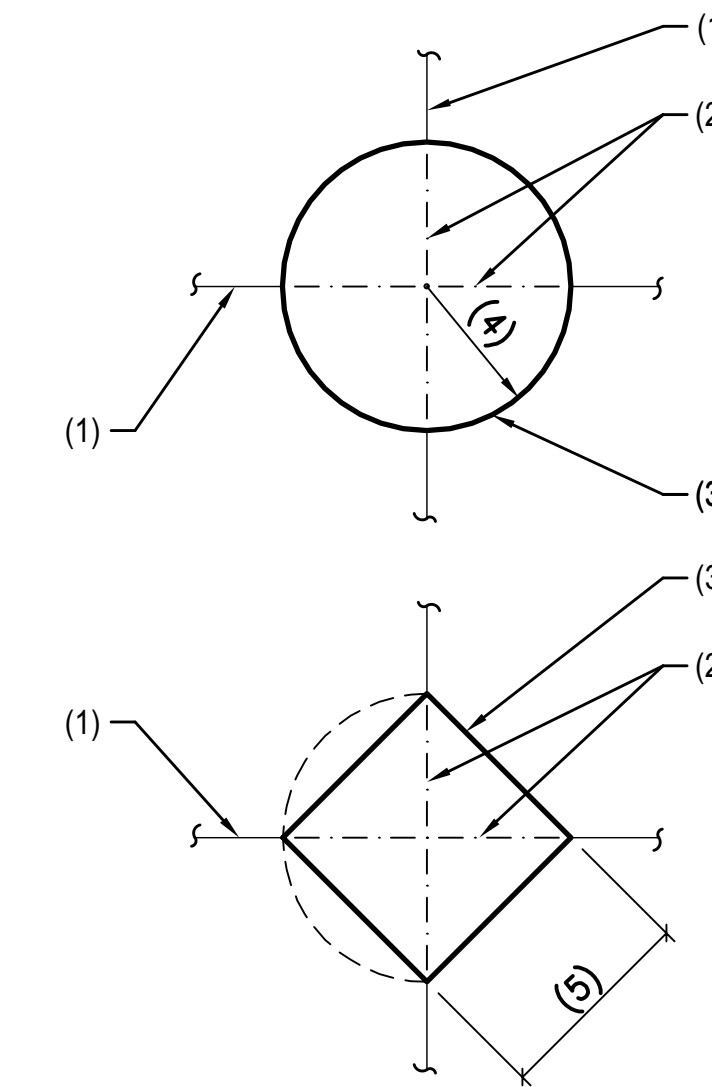
1. TOP PLATE SPLICE OVER STUD ONLY.
2. DOUBLE TOP PLATE.
3. WOOD STUDS.



29 TYPICAL SPLICE OF TOP PLATES NO SCALE

NOTES:

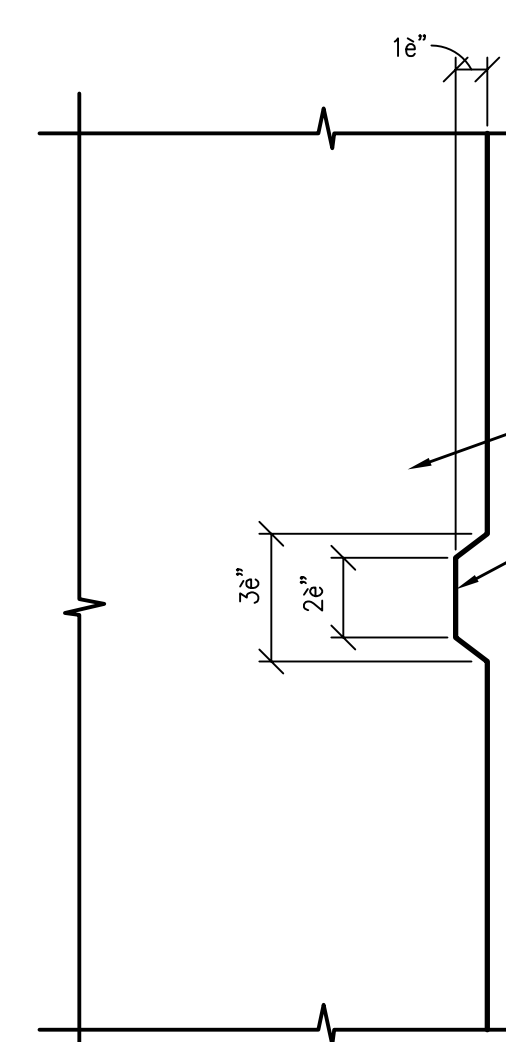
1. "CONC. C.J." WHERE SHOWN ON PLAN.
2. CENTERLINE OF COLUMN.
3. KEYED JOINT - SEE TYPICAL THICKENED SLAB AT CONCRETE CLOSURE POUR DETAIL.
4. RADIUS 1'-4" MIN. / 3'-0" MAX.
5. 2'-0" MIN. / 4'-0" MAX.



26 TYPICAL COLUMN CLOSURE POUR AT CONCRETE SLAB ON GRADE NO SCALE

NOTES:

1. CONCRETE.
2. KEYED JOINT - REMOVE FORM MATERIAL PRIOR TO PLACING ADJACENT CONCRETE.



24 TYPICAL KEY IN CONCRETE NO SCALE

NOTE:

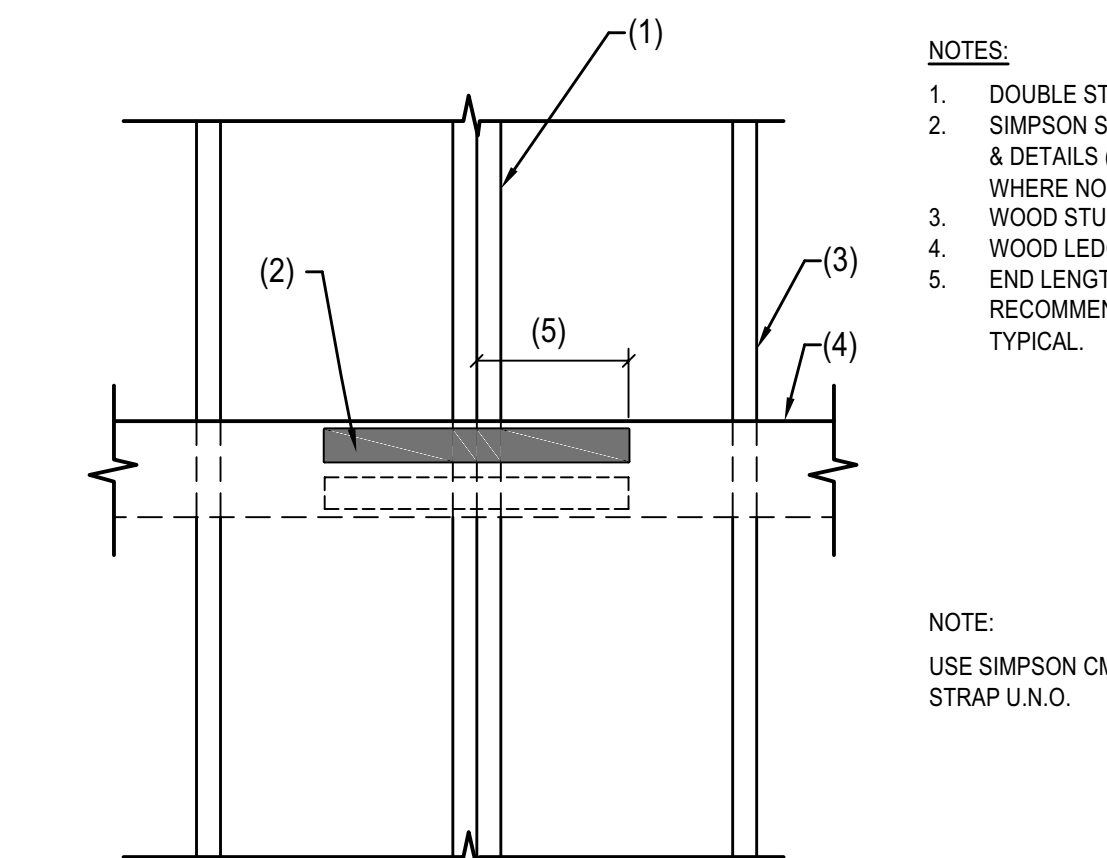
FOR CLARITY, COLUMNS OMITTED. FOR CONFIGURATION OF SPECIFIC CLOSURE POURS, SEE PLAN.

NOTE:

ALL DIMENSIONS ARE ± 1/2".

NOTES:

1. DOUBLE STUD AT SPLICE.
2. SIMPSON STRAP PER PLANS & DETAILS (DOUBLE STRAP WHERE NOTED ON PLANS).
3. WOOD STUD WALL.
4. WOOD LEDGER.
5. END LENGTH PER MANUFACTURER'S RECOMMENDATION FOR 100% CAPACITY - TYPICAL.



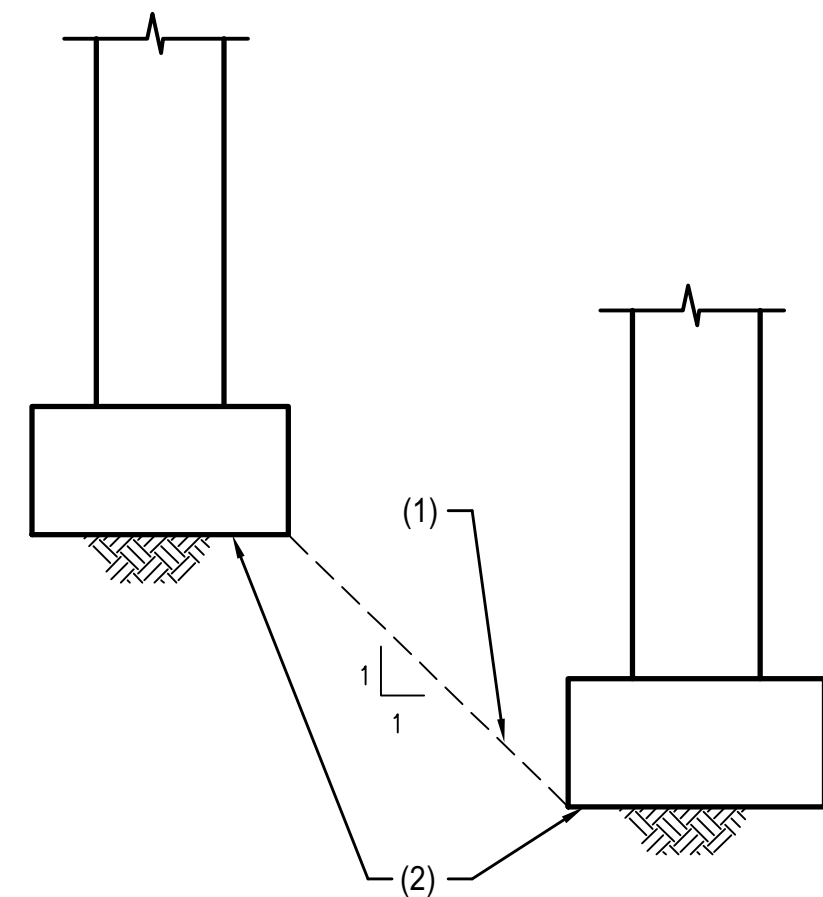
33 TYPICAL LEDGER SPLICE NO SCALE

CONNECTION	NAILING
JOIST TO ALL SILL OR GIRDER, TIE NAIL	3 - 8d
BRIDGING TO JOIST, TOE NAIL EACH END	2 - 8d
PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" O.C.
TOP PLATE TO STUD, END NAIL	2 - 16d
STUD TO PLATE	4 - 8d, TOE NAIL OR 2 - 16d, END NAIL
DOUBLED STUDS, FACE NAIL	16d AT 24" O.C.
DOUBLED TOP PLATES, FACE NAIL	16d AT 16" O.C.
TOP PLATE, LAPS AND INTERSECTIONS, FACE NAIL	2 - 16d
CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOE NAIL	3 - 8d
CONTINUOUS HEADER TO STUDS, TOE NAIL	4 - 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3 - 16d
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3 - 16d
RAFTER TO PLATE, TOE NAIL	3 - 8d
BUILT-UP CORNER STUDS	16d AT 24" O.C.

30 TYPICAL NAILING SCHEDULE - U.N.O. INTERNATIONAL BUILDING CODE NO SCALE

NOTES:

1. MAXIMUM SLOPE BETWEEN BOTTOM OF FOOTINGS SHALL BE 45 DEGREES. STEP FOOTINGS AS REQUIRED - SEE TYPICAL DETAIL.
2. BOTTOM OF CONCRETE FOOTING.



27 MAXIMUM SLOPE BETWEEN ADJACENT FOOTING NO SCALE

NOTE:

FOR ADDITIONAL INFORMATION, SEE PLANS AND DETAILS.

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Checked by CB
Scale AS NOTED



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TYPICAL DETAILS

TYPICAL HEADER SCHEDULE

NOTES:

- FIRST FLOOR LINE-RAISED FLOOR LINE AS OCCURS.
- 2x TREATED SILL PLATE W/ 5/8" ANCHORS AT 72" O.C. U.N.O.
- MIN. 1-2x TRIM STUD. SEE SCHEDULE FOR ADD'L STUD REQUIREMENTS. ATTACH EACH STUD W/ 0.131x13" GUN NAILS AT 8" O.C.
- MIN. 1-2x FULL HEIGHT KING STUD. SEE SCHEDULE FOR ADD'L STUD REQUIREMENTS ATTACH EACH STUD W/ 0.131x3" GUN NAILS AT 8" O.C.
- WOOD HEADER.
- SIMPSON A35 CLIP TO KING POST AT EACH END OF HEADER ON TOP SIDE. TOP AND BOTTOM AT ALL OPENINGS 8'-0" AND GREATER. TOP AND BOTTOM AT SILL AS OCCURS.
- (4) 0.131"x3 1/4" FACE NAILS THRU 1st KING STUD INTO HEADER.
- SOLID BLOCKING TO MATCH # OF TRIM STUDS ATTACH TO KING STUDS W/ 0.131x3 1/4" GUN NAILS AT 8" O.C.
- SIMPSON CMST16 STRAP WRAPPED AROUND KING STUDS AT EXTERIOR OPENINGS. 3x6" WIDE.
- DOUBLE 2x TOP PLATE.
- SIMPSON A23 CLIP EACH SIDE OF KING POST - OMIT A23 CLIPS AT HD TYPE HOLDOWN AS OCCURS.
- CRIPPLE STUDS AT 16" O.C. MULTI-STUD CRIPPLE POST AT POST ABOVE AS OCCURS.
- SIMPSON HOLDOWN AS OCCURS.
- WINDOW SILL PER SCHEDULE (AS OCCURS).
- WOOD POST AS OCCURS. POST MAY REPLACE QUANTITY OF KING STUDS OF EQUAL SIZE.
- (2) 0.131"x3 1/4" FACE NAILS THROUGH 1st KING STUD INTO EACH WINDOW SILL PLATE, TYP.

MAXIMUM OPENING WIDTH (FT) KING STUDS - ALL LEVELS		MAXIMUM OPENING WIDTH (FT) TRIM STUDS SUPPORTING ROOF FRAMING		MAXIMUM OPENING WIDTH (FT) TRIM STUDS SUPPORTING ROOF AND ONE FLOOR		MAXIMUM OPENING WIDTH (FT) TRIM STUDS SUPPORTING ROOF AND THREE FLOORS		
	2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
1	3'-0"	6'-0"	1	5'-0"	8'-0"	1	2'-6"	5'-0"
2	7'-0"	13'-0"	2	10'-0"	15'-0"	2	3'-0"	5'-0"
3	12'-0"	23'-0"	3	15'-0"	---	3	4'-0"	8'-0"
4	17'-0"	---				4	6'-0"	10'-0"
5	21'-0"	---				5	7'-6"	12'-0"

NOTES:

- INSTALL (1) ADDITIONAL TRIM STUD EACH END OF HEADER AT EACH FLOOR WHERE HEADERS SUPPORT CONCENTRATED LOAD FROM INTERSECTING BEAM OR GIRDER.

WIDTH	# SILL PLATES AT WINDOW		MIN. HEADER SIZE U.N.O.		MIN SIZE AT NON BEARING WALLS (200 PLF MAX)
	2x4	2x6	2x6	2x4	ALL
0'-3'-0"	1	1	6x6	4x8	2 - 2x6
3'-1"-6'-0"	2	1	6x8	4x12	2 - 2x6
6'-1"-8'-0"	2	2	6x10	4x14	2 - 2x8
8'-1"-10'-0"	3	2	6x12	3 1/2x12 GLB	2 - 2x10

NOTES:

- SEE-PLANS FOR HEADER SIZES
- SEE-PLANS FOR FRAMING ABOVE TOP PLATES.
- JAMB SCHEDULE APPLIES U.N.O. ON FRAMING PLANS.

35 TYPICAL HEADER SCHEDULE

NO SCALE

NOTES:

- WOOD STUD WALL.
- WOOD POST OR MULTI STUD PER PLANS.
- SIMPSON CMSTC16 STRAP WITH 24" LAP ONTO EACH WOOD POST (OR MULTI STUD).
- CONTINUOUS PLATE.
- PLYWOOD FLOOR SHEATHING.
- WOOD JOIST OR WOOD TRUSS - DO NOT LOCATE DIRECTLY UNDER STRAP.
- MIN. DOUBLE 2x TOP PLATE.
- ADDITIONAL STUDS AS OCCURS.
- 16d AT 8" O.C. STAGGERED.
- FLOOR LINE.
- TYPICAL BLOCKING.

33 POST TO POST CONNECTION (SHEARWALL SIMILAR)

NO SCALE

34 SHEARWALL AT TRANSITION OF 2-2x4 TO 2x6 WALL

NO SCALE

NOTES:

- 2x AT END OF 2x4 WALL.
- 2x AT END OF 2x6 WALL.
- ADD'L STUDS AS REQ'D. FOR SHEARWALL NAILING.
- DOUBLE TOP PLATE.
- SHEAR WALL SHEATHING (BOTH SIDES AS OCCURS).
- 16d NAILS SEE TABLE FOR SPACING.
- (2) SIMPSON LSTA12 STRAP CENTERED AT WALL JOINT.
- EDGE NAILING.
- LINE OF STRAP ABOVE.

SW TYPE	16d NAIL SPACING	A35 SPACING (OPTION TO 16d)
P1	6"	30"
P2	6"	20"
P3	5"	16"
P4	4"	12"
P5	3"	10"
P6	3"	9"

34 SHEARWALL AT TRANSITION OF 2-2x4 TO 2x6 WALL

NO SCALE

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TYPICAL DETAILS

SHEARWALL SCHEDULES

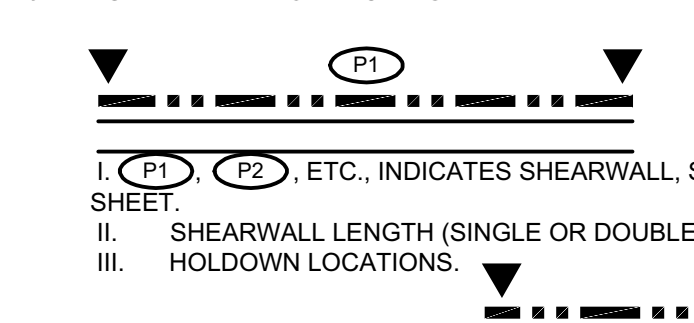
SHEAR WALL TYPE			
WALL NO.	MATERIAL	NAILING	ALLOWABLE SHEAR (WIND)
P1	3/8" CDX PLYWOOD (ALL EDGES BLOCKED)	8d COMMON NAILS AT 6" O.C. EDGE 12" O.C. FIELD	365#/FT.

* USE 3x MEMBERS AT ADJOINING PANEL EDGES

PLATE ATTACHMENT (1) (2) (3) (4)				
WALL NO.	BOTTOM PLATE TO CONCRETE	BOTTOM PLATE TO WOOD FRAMING	RIM JOISTS OR BLKG. TO TOP PLATE CONN.	ALTERNATE CONNECTION
P1	5/8"Ø ANCHOR BOLTS AT 32" O.C.	12d GUN NAILS AT 4" O.C.	SIMPSON LTP4 AT 24" O.C.	---
<p>1. GUN NAILS SHALL BE 12d (0.131) x 3 1/4" LONG MINIMUM.</p> <p>2. ALTERNATE CONNECTORS SHALL BE SIMPSON LTP4 WITH (12) 8d x 1 1/2" LONG NAILS, AND MAY BE USED IN LIEU OF 12d NAILS.</p> <p>3. WHEN SHEATHING REQUIRED ON BOTH SIDES OF WALL, DECREASE ATTACHMENT SPACING BY 1/2".</p> <p>4. PROVIDE MINIMUM 1/4"x3"x3" PLATE WASHERS AT ALL SHEARWALL ANCHOR BOLTS. USE 3/8"x5"x5" PLATE WASHERS AT 2x6 SHEARWALLS WITH PLYWOOD SHEATHING BOTH FACES AND 3/8"x3 1/2"x3 1/2" PLATE WASHERS AT 2x4 SHEARWALLS WITH PLYWOOD SHEATHING BOTH SIDES.</p> <p>* AT EXTERIOR WALLS, LOCATE PLYWOOD JOINT IN THE MIDDLE OF DOUBLE SILL PLATE AND EDGE NAILING TO OCCUR ABOVE AND BELOW THE JOINT AS WELL AS IN THE TOP AND BOTTOM PLATES. BOTTOM PLATE TO RIM JOIST MAY BE 12d GUN NAILS AT 10" O.C. PLATE TO PLATE ATTACHMENT SHALL BE 12d GUN NAILS PER BOTTOM PLATE TO WOOD FRAMING ABOVE. IN THIS CASE LTP4 CLIPS ARE NOT REQUIRED.</p>				


HOLDOWN SCHEDULE						
MARK	SIMPSON HOLDOWN	BOLT TO FOUNDATION	POST SIZE	POST CONNECTION	REMARKS	PLATE WASHER SIZE
①	STHD14	---	2- 2x MIN.	30- 16d SINKERS	---	---
②	CMSTC16	---	2- 2x MIN.	64- 16d SINKERS	---	---
<p>8d NAILS SHALL BE 0.131"Øx2 1/2" LONG 10d NAILS SHALL BE 0.148"Øx3" LONG</p> <p style="text-align: right;">16d NAILS SHALL BE 0.162"Øx3 1/2" LONG 16d SINKERS SHALL BE 0.148"Øx3 1/4" LONG</p> <p>(1) ALLOW BUILDING TO SHRINK PRIOR TO INSTALLING BOTH ENDS OF THE STRAPS TO MINIMIZE POTENTIAL FOR STRAP BUCKLING.</p>						

SHEAR WALL NOTES	
1.	ORIENTED STRAND BOARD (OSB) PANEL GRADE 2-M-W MAY BE USED IN LIEU OF PLYWOOD. USE SAME THICKNESS AND NAILING AS NOTED FOR PLYWOOD PANELS AND SHALL HAVE CURRENT I.B.C.O. APPROVAL.
2.	WHERE FIREWALL REQUIREMENTS AT GYPSUM WALL BOARD SHEAR WALLS EXCEED THIS SCHEDULE, USE THE MORE STRINGENT APPLICATION.
3.	SHEAR WALL OR SHEAR PANEL SHALL BE 2x4 OR 2x6 (MIN) AT 16" O.C. MAXIMUM.
4.	WHERE SHEAR WALL SHEATHING IS NOTED ON BOTH SIDES OF COMMON STUD WALL, ALL WALL PLATE ANCHORS AND FASTENER SPACING SHALL BE 1/2" SPACING NOTED ON SCHEDULE.
5.	DRYWALL SHEAR WALLS SHALL BE PLACED ON INSIDE FACE OF EXTERIOR STUDS EXCEPT WHERE CALLED FOR ON BOTH SIDES OF EITHER FACE OF INTERIOR STUDS.
6.	SHEAR WALL SHEATHING SHALL BE CONTINUOUS TO BASE PLATE AT TUB LOCATIONS AND TO TOP PLATES AT FURRED DOWN CEILINGS.
7.	FRAMING AT ADJOINING PANEL EDGES SHALL BE 3 INCHES NOMINAL OR WIDER (OR (2) 2x W/ 16d AT 4" O.C.), AND NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 2 INCHES ON CENTER.
8.	PLYWOOD SHEAR PANELS MAY BE APPLIED ON THE EXTERIOR OR INTERIOR FACE OF EXTERIOR STUDS OR EITHER FACE OF INTERIOR STUDS AS REQUIRED FOR CONSTRUCTION EASE. COORDINATE WITH OTHER TRADES AS REQUIRED.
9.	FRAMING AT ADJOINING PANEL EDGES SHALL BE 3 INCHES NOMINAL OR WIDER (OR (2) 2x W/ 16d AT 4" O.C.), AND NAILS SHALL BE STAGGERED WHERE BOTH THE FOLLOWING CONDITIONS ARE MET: (1) 10d NAILS HAVING PENETRATION INTO FRAMING OF MORE THAN 1 1/2" INCHES AND (2) NAILS ARE SPACED 3 INCHES ON CENTER OR LESS.
10.	GYPSUM WALLBOARD NAILING APPLIES TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING IF REQUIRED.
11.	PLYWOOD NAILING APPLIES TO ALL EDGES AND BOUNDARIES. INTERMEDIATE NAILING SHALL BE AT 12" O.C.
12.	WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3 INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
13.	ANY SHEARWALL MAYBE REPLACED WITH A SHEARWALL HAVING A HIGHER ALLOWABLE SHEAR.
14.	AT PLYWOOD SHEAR WALLS, PROVIDE THE SAME THICKNESS PLYWOOD STRIPS FOR THE ENTIRE LENGTH OF WALL, ABOVE AND BELOW OPENINGS, FOR FLUSH FINISH.
15.	MINIMUM 3"x3"x1/4" WASHERS ARE REQUIRED AT ANCHOR BOLTS FOR SHEARWALLS.
GYPSUM BOARD SHEARWALL NOTES:	
16.	END JOINTS OF ADJACENT COURSES OF GYPSUM BOARD SHALL NOT OCCUR OVER THE SAME STUD.
17.	WHERE REQUIRED IN TABLE ABOVE, WOOD BLOCKING HAVING THE SAME CROSS-SECTIONAL DIMENSIONS AS THE STUDS SHALL BE PROVIDED AT JOINTS THAT ARE PERPENDICULAR TO THE STUDS.
18.	STUDS, TOP AND BOTTOM PLATES AND BLOCKING SHALL BE FASTENED IN ACCORDANCE WITH TABLE 2304.9.1 OF THE 2006 IBC.
19.	FASTENERS SHALL BE SPACED NO LESS THAN 3/8 INCH FROM EDGES AND ENDS OF GYPSUM BOARDS OR SIDES OF STUDS, BLOCKING AND TOP AND BOTTOM PLATES.
20.	FOUR-FOOT-WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PARALLEL OR PERPENDICULAR TO STUDS. TWO-FOOT-WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PERPENDICULAR TO STUDS.

GENERAL SHEARWALL NOTES:	
1.	VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2.	SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
3.	FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
4.	FOR CLARITY, ALL FLOOR OPENINGS MAY NOT BE SHOWN ON FLOOR FRAMING PLAN. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
5.	FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
6.	SHEARWALL NOMENCLATURE:
 <p style="text-align: center;">I. (P1) (P2), ETC., INDICATES SHEARWALL. SEE SCHEDULE THIS SHEET. II. SHEARWALL LENGTH (SINGLE OR DOUBLE SIDED, AS OCCURS). III. HOLDOWN LOCATIONS.</p>	
7.	REFER TO TYPICAL SHEARWALL DETAILS 32/S1.05, 39, 40, 41/S1.06 FOR SHEARWALL CONFIGURATION AND FOR SHEARWALLS WITH AND WITHOUT OPENINGS, RESPECTIVELY U.N.O.
8.	POST FOR HOLDOWNS THAT OCCUR AT CORNERS OF TWO INTERSECTING SHEARWALLS SHALL BE CONNECTED SO AS TO RESIST THE UPLIFT OF BOTH SHEARWALL PER DETAIL 17/S1.04.
9.	WHERE WALLS ARE OFFSET (I.E., ONE WALL IS SHORTER THAN WALL BELOW), CARRY HOLDOWN TO FOUNDATION. SEE DETAIL 32/S1.05 FOR MORE INFORMATION.

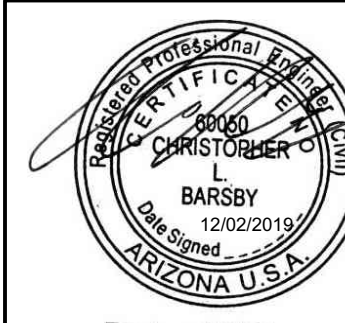
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TPSA LLC

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Phoenix, AZ 85040

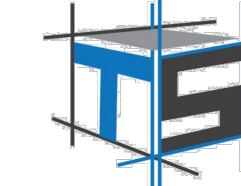


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S007

SHEARWALL SCHEDULES

GENERAL PLAN NOTES:

- FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. DO NOT USE "CONC. C.J." AS DIMENSION LINE OR TO LOCATE BUILDING ELEMENTS.
- SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
- DEPTH OF FOOTING DIMENSIONS INDICATED IN THE G.S.N. ARE MINIMUMS. FOUNDATION CONTRACTOR SHALL COORDINATE WITH SOILS REPORT AND OTHER TRADES TO INSURE THAT THESE MINIMUMS ARE SUFFICIENT FOR THE WORK. SEE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS. G.C. SHALL FIELD VERIFY AS-BUILT T.O.F. ELEVATIONS AND COORDINATE WITH STEEL SUPPLIER, RESOLVE ANY DISCREPANCIES PRIOR TO STEEL FABRICATION AND DELIVERY.
- CONC. C.J. - AS SHOWN ON PLAN INDICATES LOCATION OF EITHER KEYED OR SAWCUT CONTROL JOINT IN SLAB ON GRADE AT CONTRACTOR'S OPTION. SEE G.S.N. AND TYPICAL DETAIL.

PLAN KEYNOTES:

- 4" THICK CONCRETE SLAB ON GRADE WITH 6X6 W2.9XW2.9 W.W.F. CENTERED IN SLAB - SEE SOILS REPORT FOR SUBGRADE SOILD TREATMENTS AND PREPARATIONS.
- 6x6 WOOD POST.
- 2x6 WOOD STUD WALL AT 16" O.C. - SHEATHING AND ATTACHMENT PER G.S.N.
- DOUBLE WYTHE 2x4 WOOD STUD WALL AT 16" O.C. - SHEATHING AND ATTACHMENT PER G.S.N. (REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED AIR GAP).
- HSS4X4X1/4 STEEL COLUMN WITH 1" X 10" X 10" STEEL BASE PLATE WITH (4) 3/4"Ø ANCHOR BOLTS.
- 6x6 WOOD POST - CENTER UNDER GIRDER TRUSS BEARING. BRACE AT FLOOR PER DETAIL. 36/S006 - CONFIRM LOCATION WITH TRUSS MANUFACTURER.
- 4x8 (DF#1) WOOD POST - CENTER UNDER BEAM ABOVE.
- 4x6 (DF#1) WOOD POST - CENTER UNDER BEAM ABOVE.

CONTINUOUS FOOTING (WF) SCHEDULE

MARK	DIMENSIONS		FOOTING REINFORCING		REMARKS
	HEIGHT	WIDTH	LONGITUDINAL	TRANSVERSE	
WF1	12"	1'-4"	(2) #5	---	---

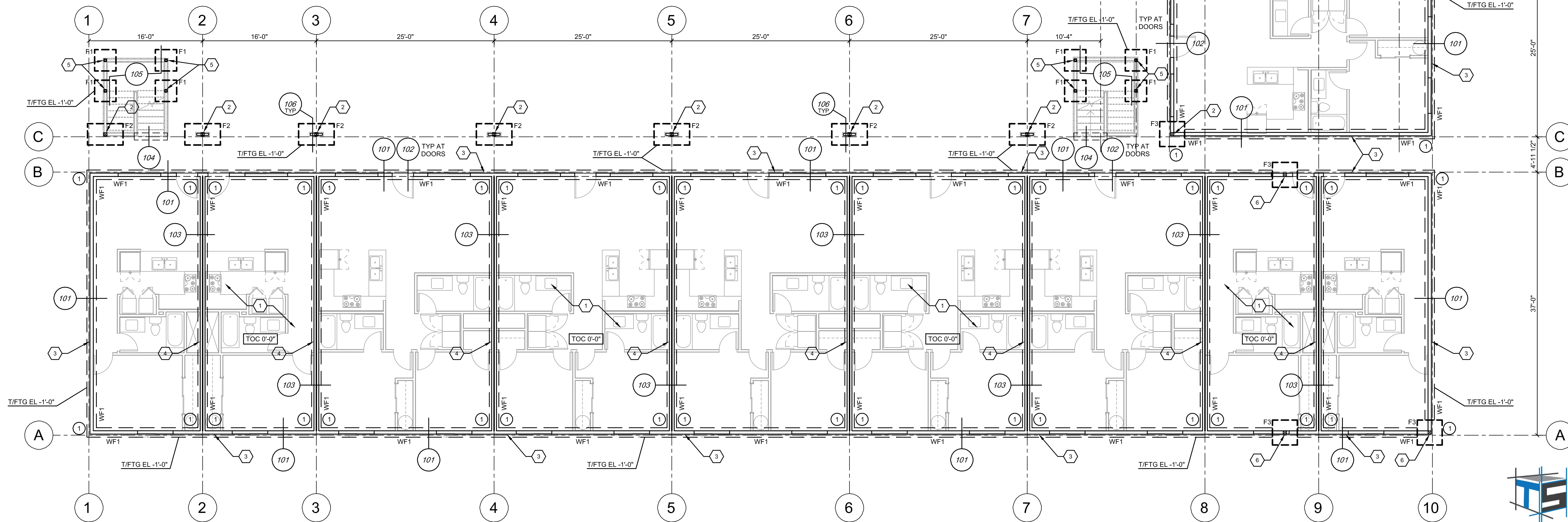
NOTE: FOR DEPTH OF FOOTING, SEE G.S.N.

ISOLATED FOOTING (F) SCHEDULE

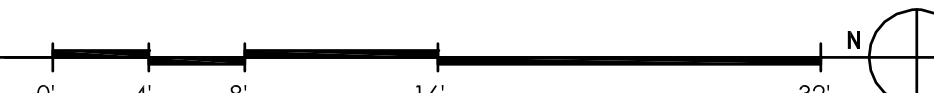
MARK	DIMENSIONS			FOOTING REINFORCING	REMARKS
	HEIGHT	WIDTH	LENGTH		
F1	12"	3'-0"	3'-0"	(3) #5 EACH WAY BOTTOM	---
F2	12"	3'-0"	5'-0"	#5 BARS AT 10" O.C. EACH WAY BOTTOM	---
F3	12"	3'-6"	5'-6"	(4) #5 EACH WAY BOTTOM	---
F4	12"	4'-0"	4'-0"	(4) #5 EACH WAY BOTTOM	---

NOTE: FOR DEPTH OF FOOTING, SEE G.S.N.

NOTE:
ALL EXTERIOR 2x6 WALLS AND INTERIOR 2x4 PARTY WALLS ARE CONSIDERED SHEARWALLS. SHEATHING AND ATTACHMENT PER P1 ON SHEARWALL SCHEDULE SHEET S008 - TYPICAL U.N.O.



1 Foundation Plan
1/8" = 1'-0"



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FOUNDATION PLAN

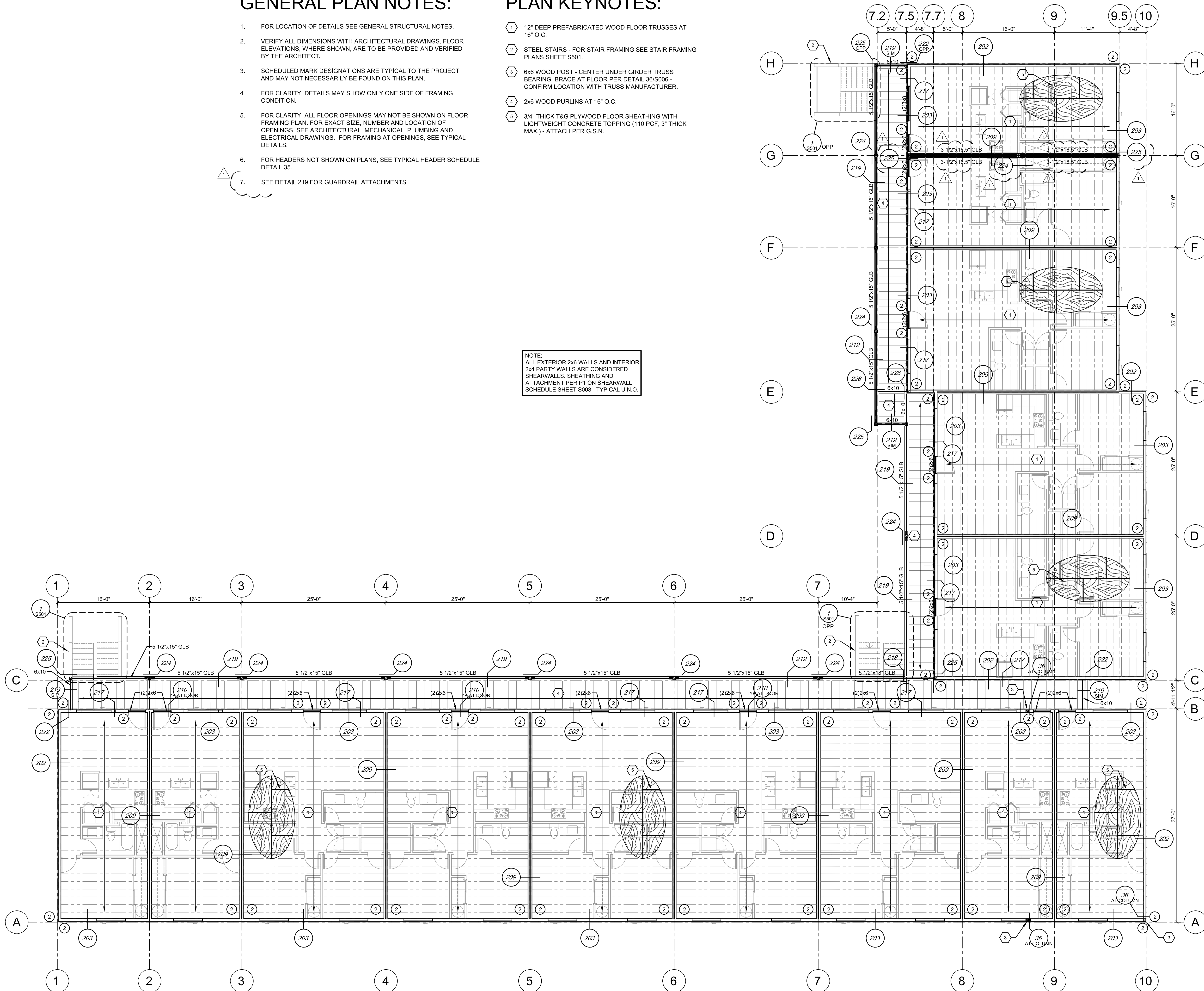
GENERAL PLAN NOTES:

- FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FLOOR ELEVATIONS, WHERE SHOWN, ARE TO BE PROVIDED AND VERIFIED BY THE ARCHITECT.
- SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
- FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
- FOR CLARITY, ALL FLOOR OPENINGS MAY NOT BE SHOWN ON FLOOR FRAMING PLAN. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
- FOR HEADERS NOT SHOWN ON PLANS, SEE TYPICAL HEADER SCHEDULE DETAIL 35.
- SEE DETAIL 219 FOR GUARDRAIL ATTACHMENTS.

PLAN KEYNOTES:

- 12" DEEP PREFABRICATED WOOD FLOOR TRUSSES AT 16" O.C.
- STEEL STAIRS - FOR STAIR FRAMING SEE STAIR FRAMING PLANS SHEET S501.
- 6x6 WOOD POST - CENTER UNDER GIRDER TRUSS BEARING. BRACE AT FLOOR PER DETAIL 36/S006 - CONFIRM LOCATION WITH TRUSS MANUFACTURER.
- 2x6 WOOD PURLINS AT 16" O.C.
- 3/4" THICK T&G PLYWOOD FLOOR SHEATHING WITH LIGHTWEIGHT CONCRETE TOPPING (110 PCF, 3" THICK MAX.) - ATTACH PER G.S.N.

NOTE:
ALL EXTERIOR 2x6 WALLS AND INTERIOR 2x4 PARTY WALLS ARE CONSIDERED SHEARWALLS. SHEATHING AND ATTACHMENT PER P1 ON SHEARWALL SCHEDULE SHEET S008 - TYPICAL U.N.O.



1 2nd Floor Framing Plan
1/8" = 1'-0"

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2ND FLOOR FRAMING PLAN

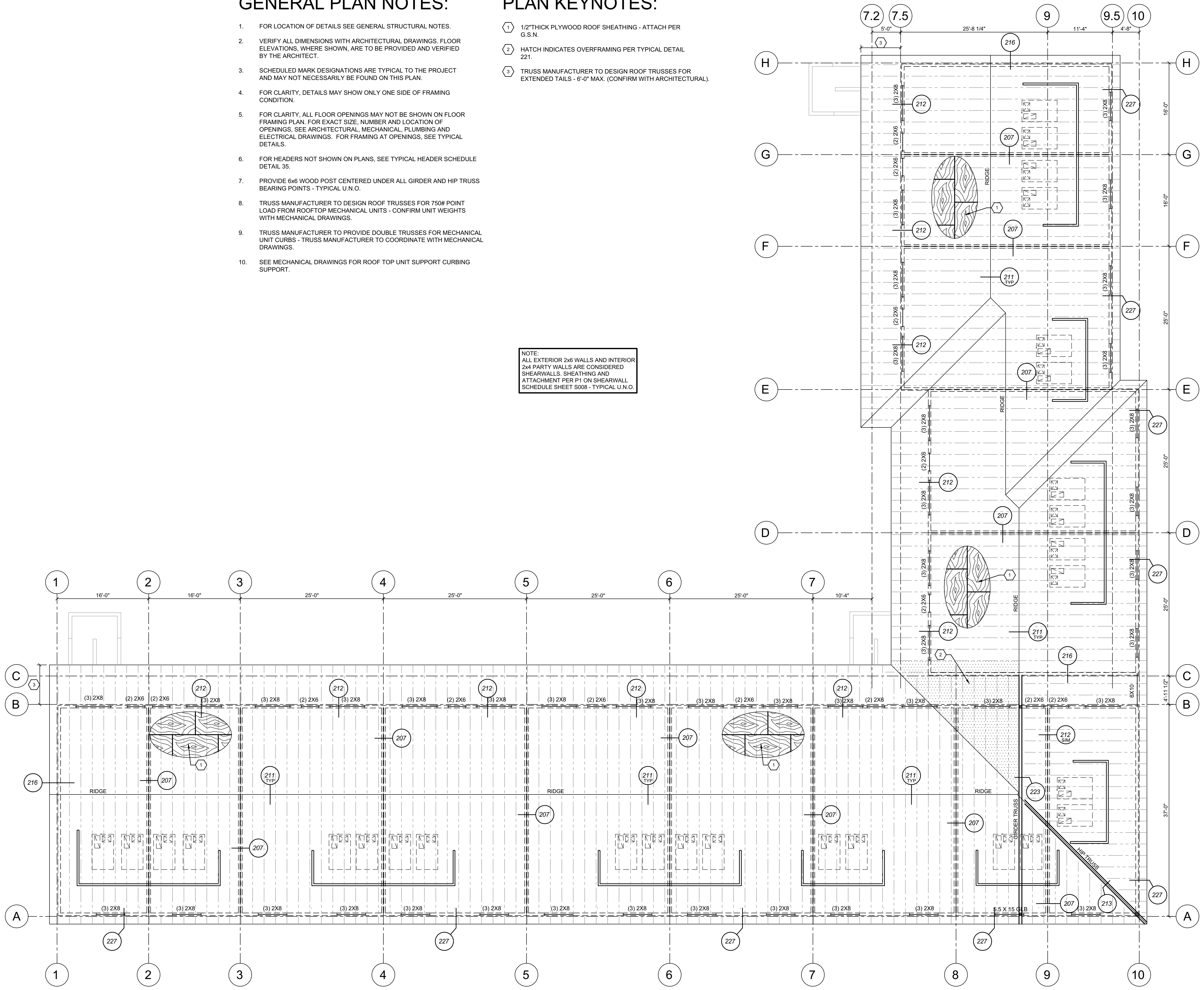
GENERAL PLAN NOTES:

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- FOR HEADERS NOT SHOWN ON PLANS, SEE TYPICAL HEADER SCHEDULE DETAIL 35.
- PROVIDE 6x6 WOOD POST CENTERED UNDER ALL GIRDER AND HIP TRUSS BEARING POINTS - TYPICAL U.N.O.
- TRUSS MANUFACTURER TO DESIGN ROOF TRUSSES FOR 750# POINT LOAD FROM ROOFTOP MECHANICAL UNITS - CONFIRM UNIT WEIGHTS WITH MECHANICAL DRAWINGS.
- TRUSS MANUFACTURER TO PROVIDE DOUBLE TRUSSES FOR MECHANICAL UNIT CURBS - TRUSS MANUFACTURER TO COORDINATE WITH MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ROOF TOP UNIT SUPPORT CURBING SUPPORT.

PLAN KEYNOTES:

- 1/2" THICK PLYWOOD ROOF SHEATHING - ATTACH PER G.S.N.
- HATCH INDICATES OVERFRAMING PER TYPICAL DETAIL 221.
- TRUSS MANUFACTURER TO DESIGN ROOF TRUSSES FOR EXTENDED TAILS - 6'-0" MAX. (CONFIRM WITH ARCHITECTURAL).

NOTE:
ALL EXTERIOR 2x6 WALLS AND INTERIOR 2x4 PARTY WALLS ARE CONSIDERED SHEARWALLS. SHEATHING AND ATTACHMENT PER P1 ON SHEARWALL SCHEDULE SHEET S008 - TYPICAL U.N.O.



1 Roof Framing Plan
1/8" = 1'-0"

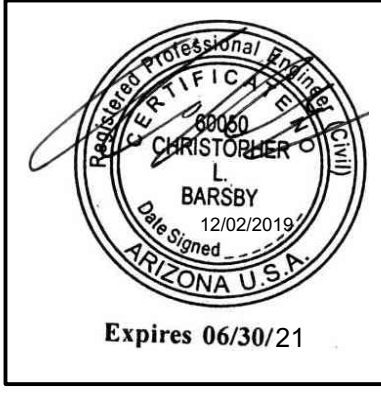
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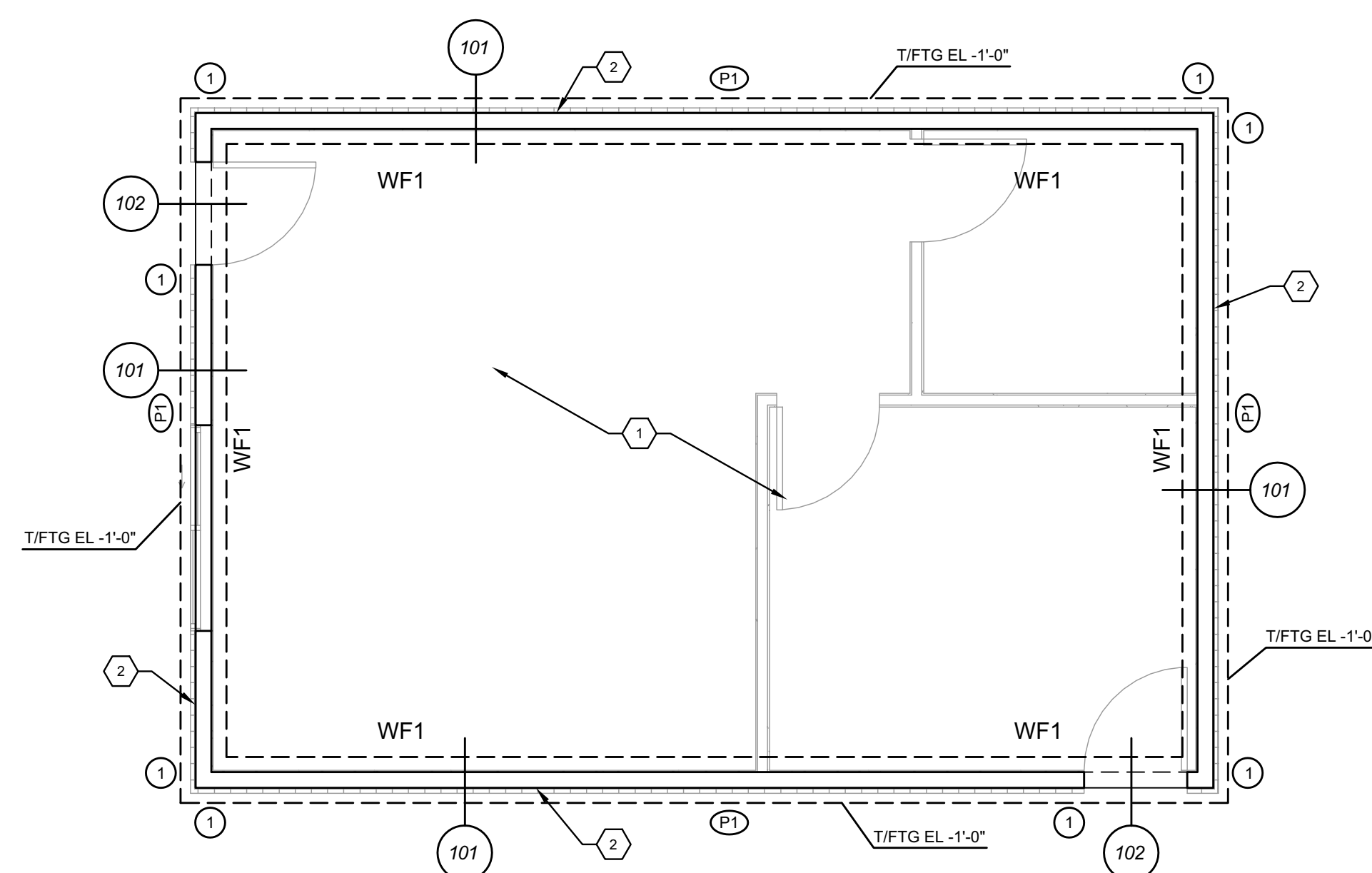
ROOF FRAMING PLAN

GENERAL PLAN NOTES:

- FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FLOOR ELEVATIONS, WHERE SHOWN, ARE TO BE PROVIDED AND VERIFIED BY THE ARCHITECT.
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- FOR HEADERS NOT SHOWN ON PLANS, SEE TYPICAL HEADER SCHEDULE DETAIL 35.
- PROVIDE 6x6 WOOD POST CENTERED UNDER ALL GIRDER AND HIP TRUSS BEARING POINTS - TYPICAL U.N.O.
- TRUSS MANUFACTURER TO DESIGN ROOF TRUSSES FOR 750# POINT LOAD FROM ROOFTOP MECHANICAL UNITS - CONFIRM UNIT WEIGHTS WITH MECHANICAL DRAWINGS.
- TRUSS MANUFACTURER TO PROVIDE DOUBLE TRUSSES FOR MECHANICAL UNIT CURBS - TRUSS MANUFACTURER TO COORDINATE WITH MECHANICAL DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR ROOF TOP UNIT SUPPORT CURBING SUPPORT.

PLAN KEYNOTES:

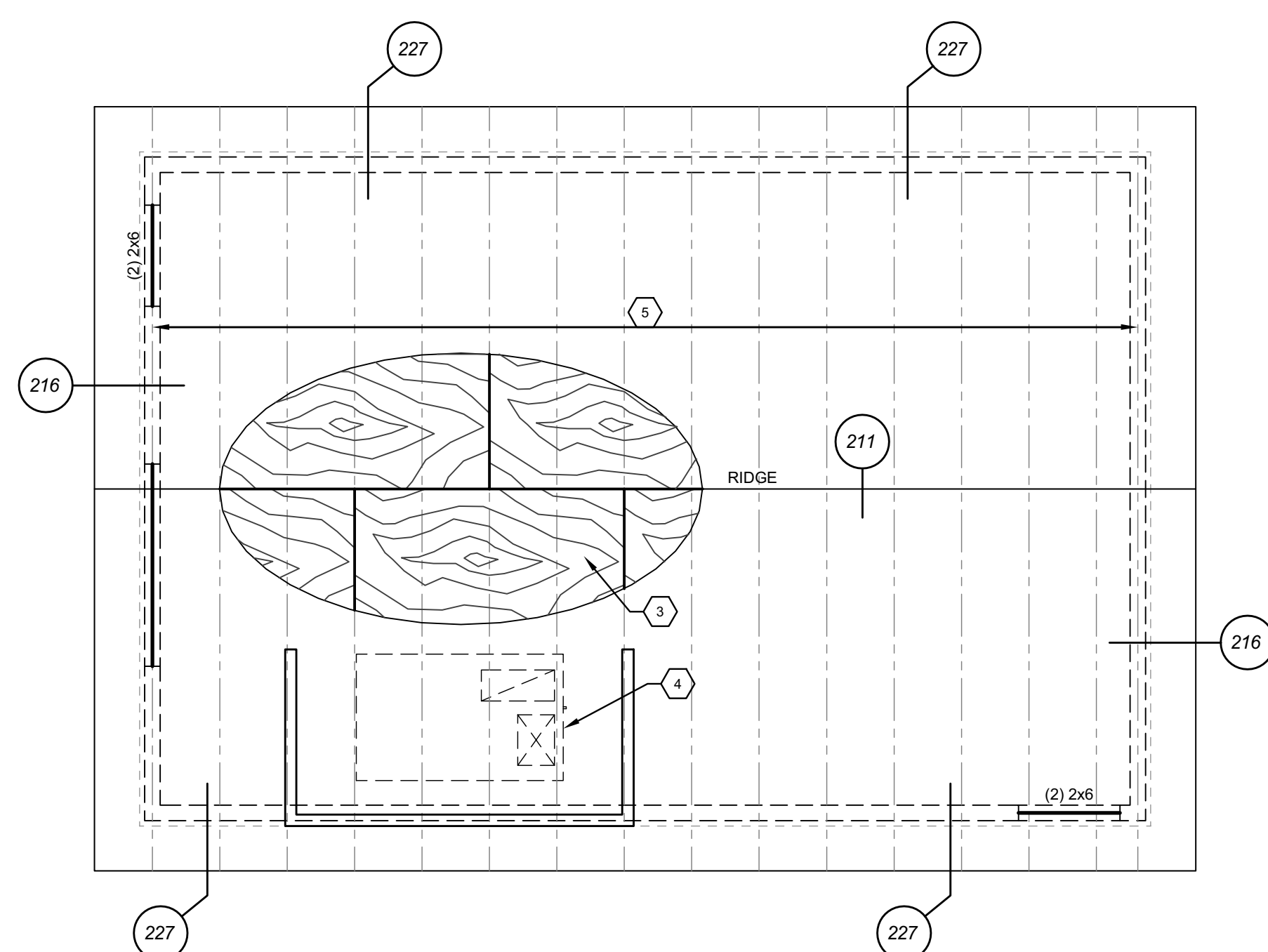
- ① 4" THICK CONCRETE SLAB ON GRADE WITH 6X6 W2.9XW2.9 W.W.F. CENTERED IN SLAB - SEE SOILS REPORT FOR SUBGRADE SOILD TREATMENTS AND PREPARATIONS.
- ② 2x6 WOOD STUD WALL AT 16" O.C. - SHEATHING AND ATTACHMENT PER G.S.N.
- ③ 1/2" THICK PLYWOOD ROOF SHEATHING - ATTACH PER G.S.N.
- ④ LINE OF FUTURE MECHANICAL UNIT.
- ⑤ PREFABRICATED WOOD ROOF TRUSSES AT 24" O.C.



① Leasing Office Foundation Plan
1/4" = 1'-0"

CONTINUOUS FOOTING (WF) SCHEDULE

MARK	DIMENSIONS		FOOTING REINFORCING		REMARKS
	HEIGHT	WIDTH	LONGITUDINAL	TRANSVERSE	
WF1	12"	1'-4"	(2) #5	---	---



② Leasing Office Roof Framing Plan
1/4" = 1'-0"

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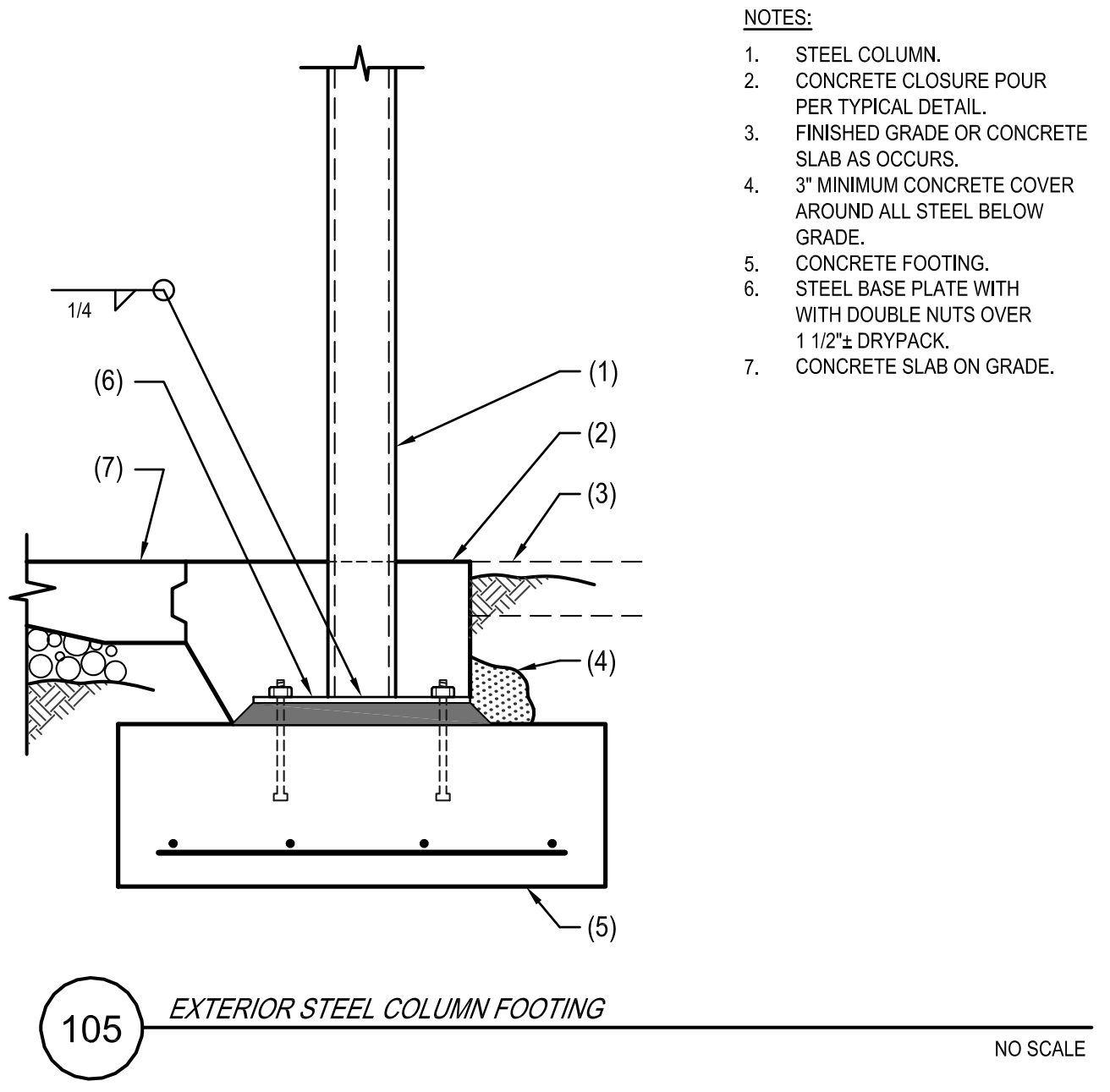
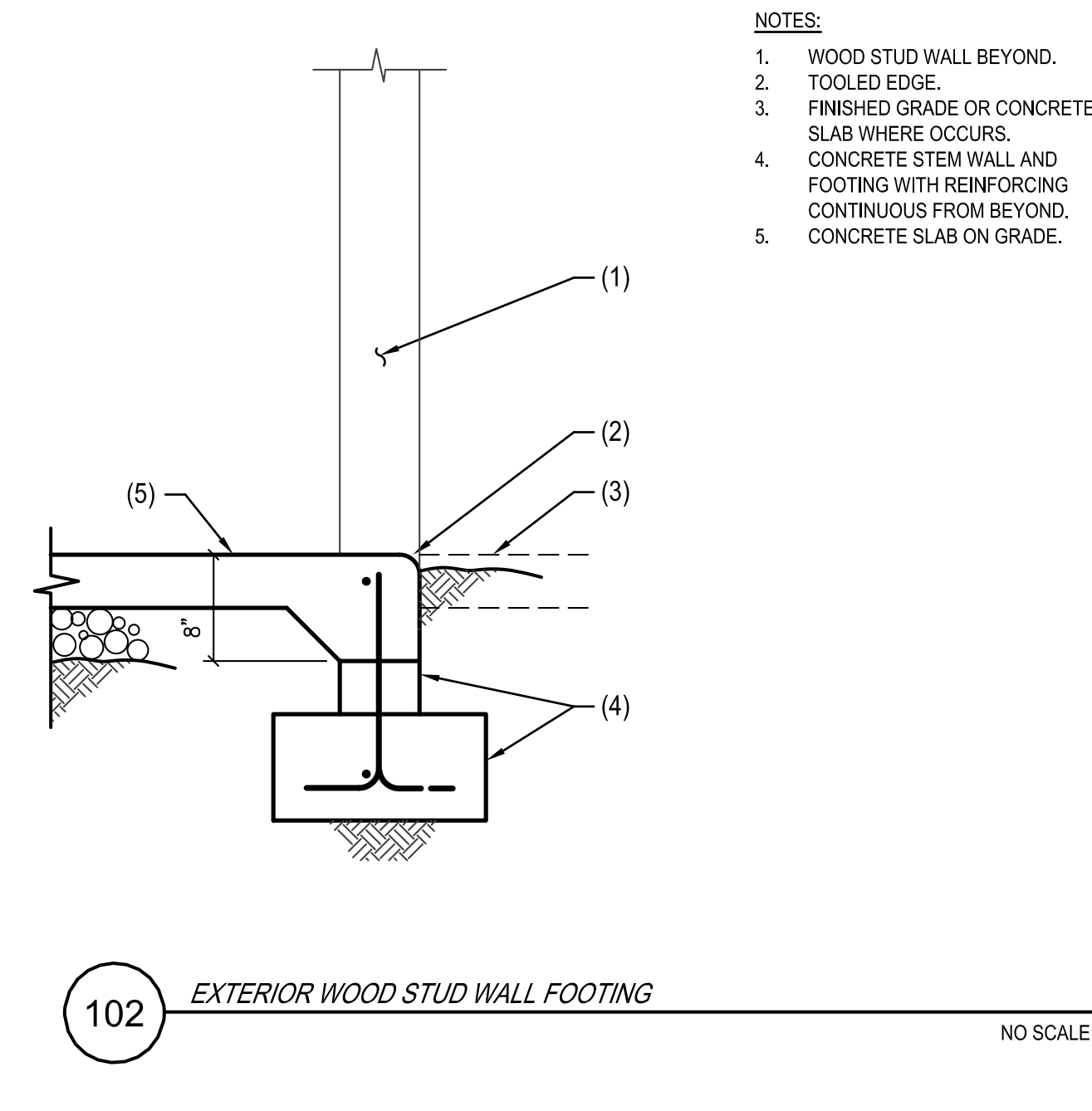
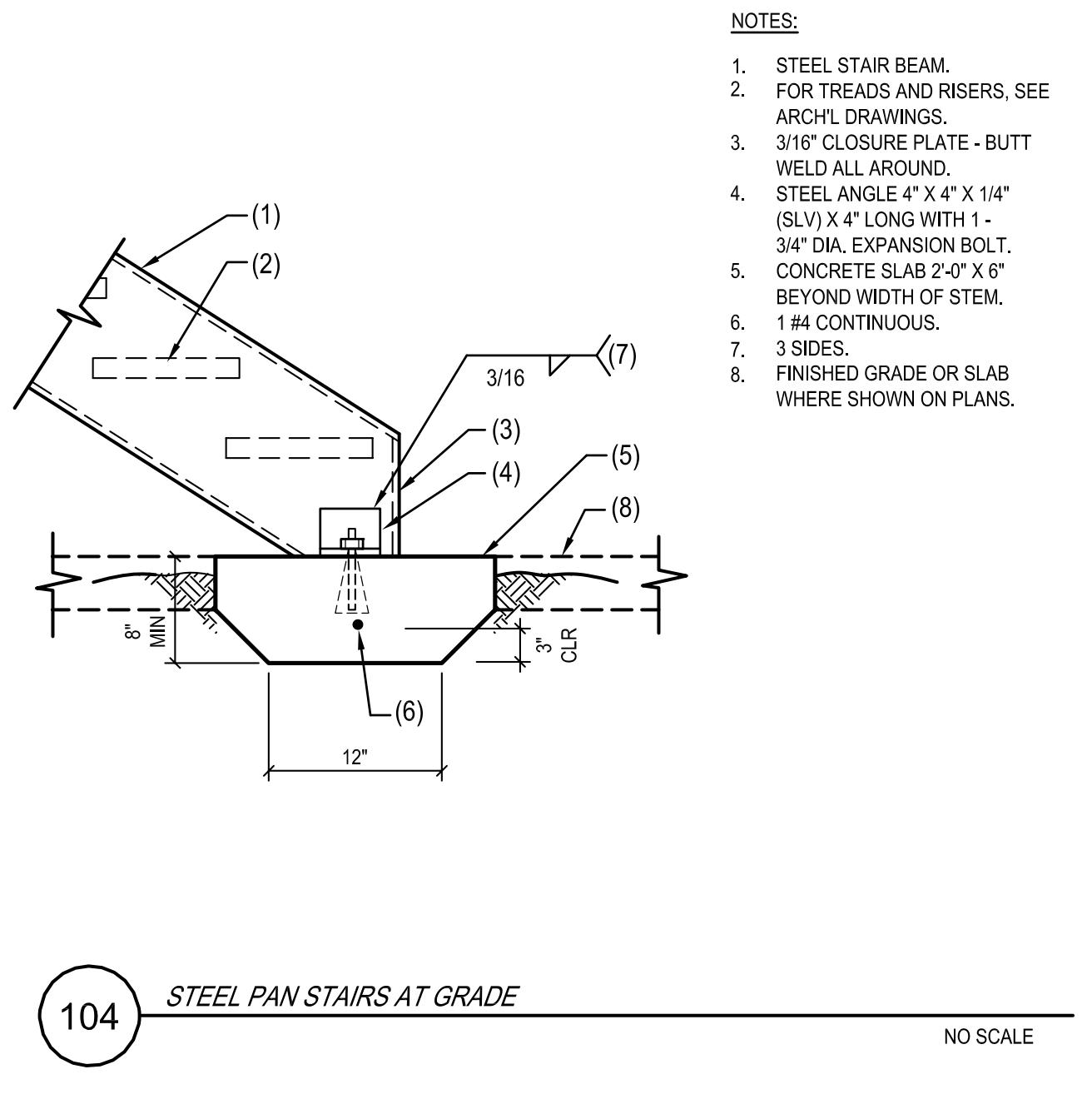
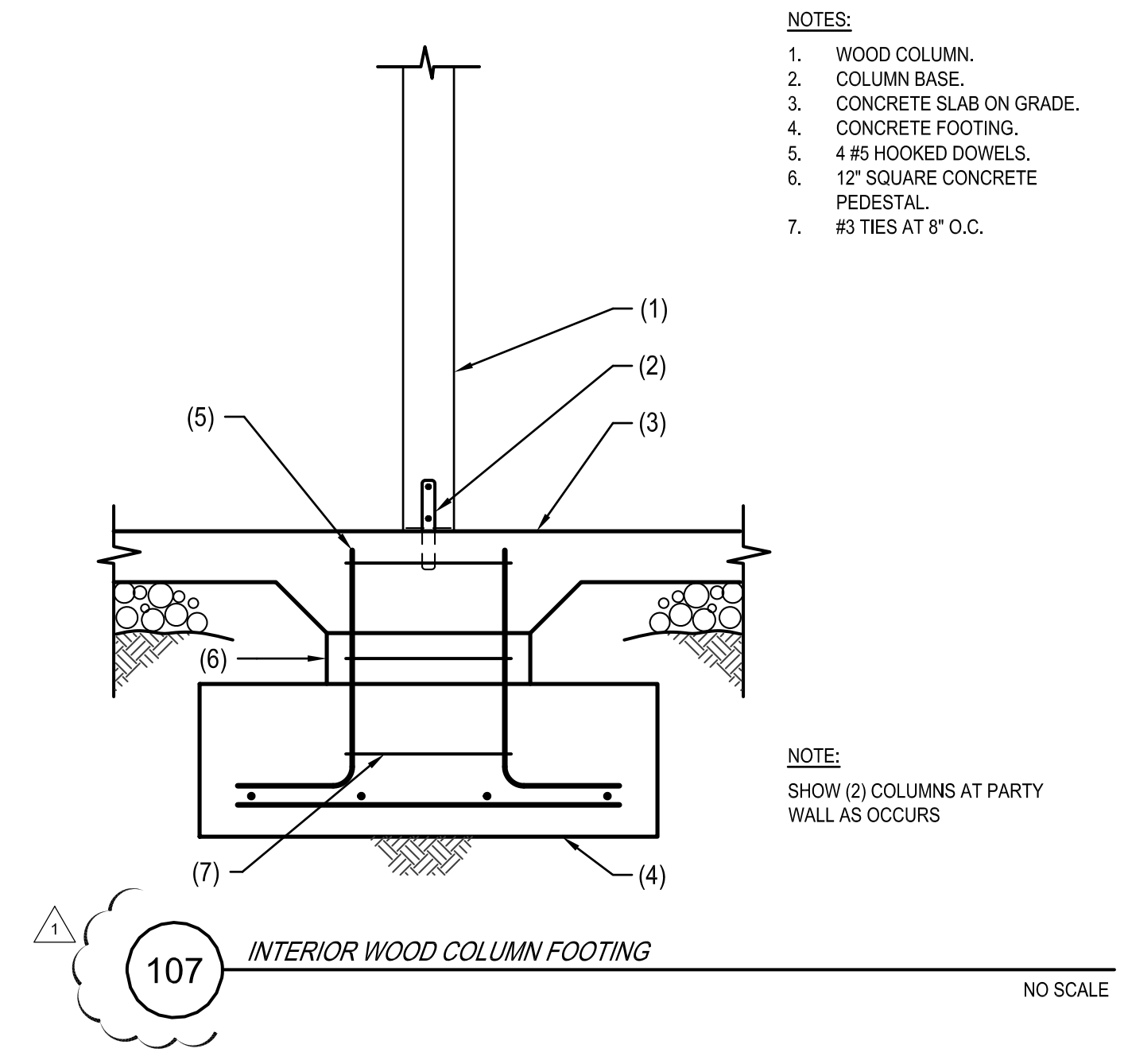
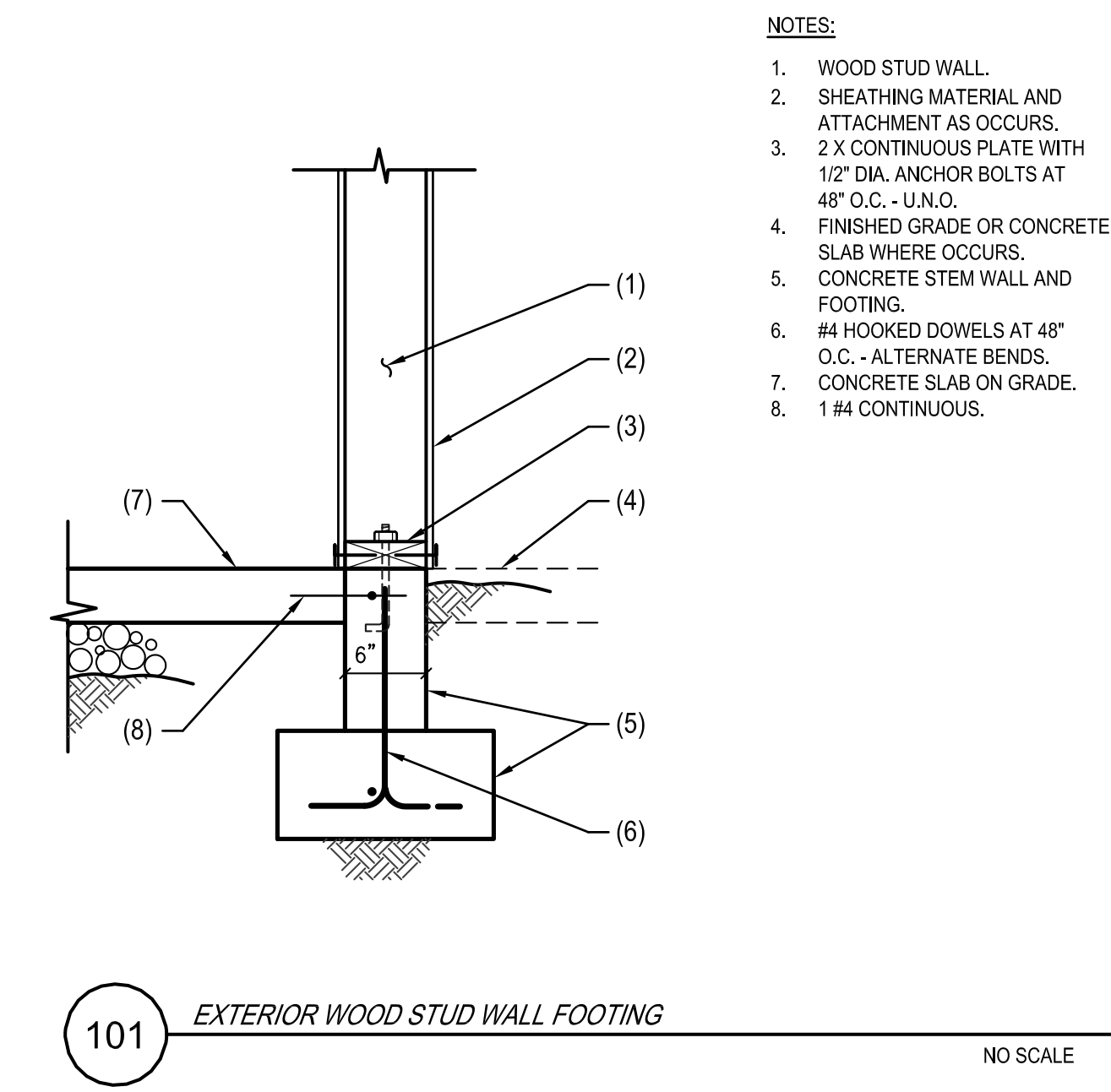
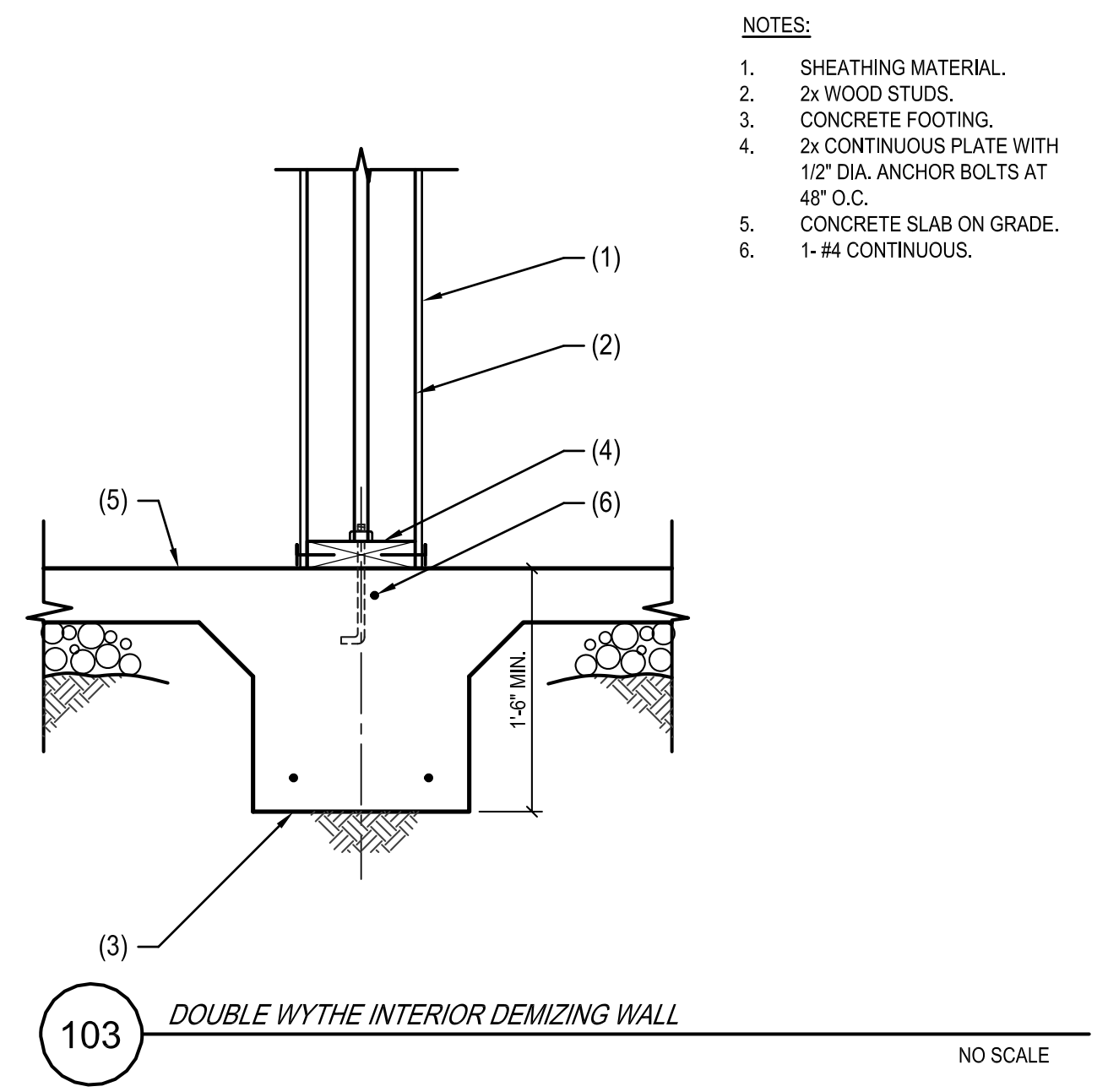
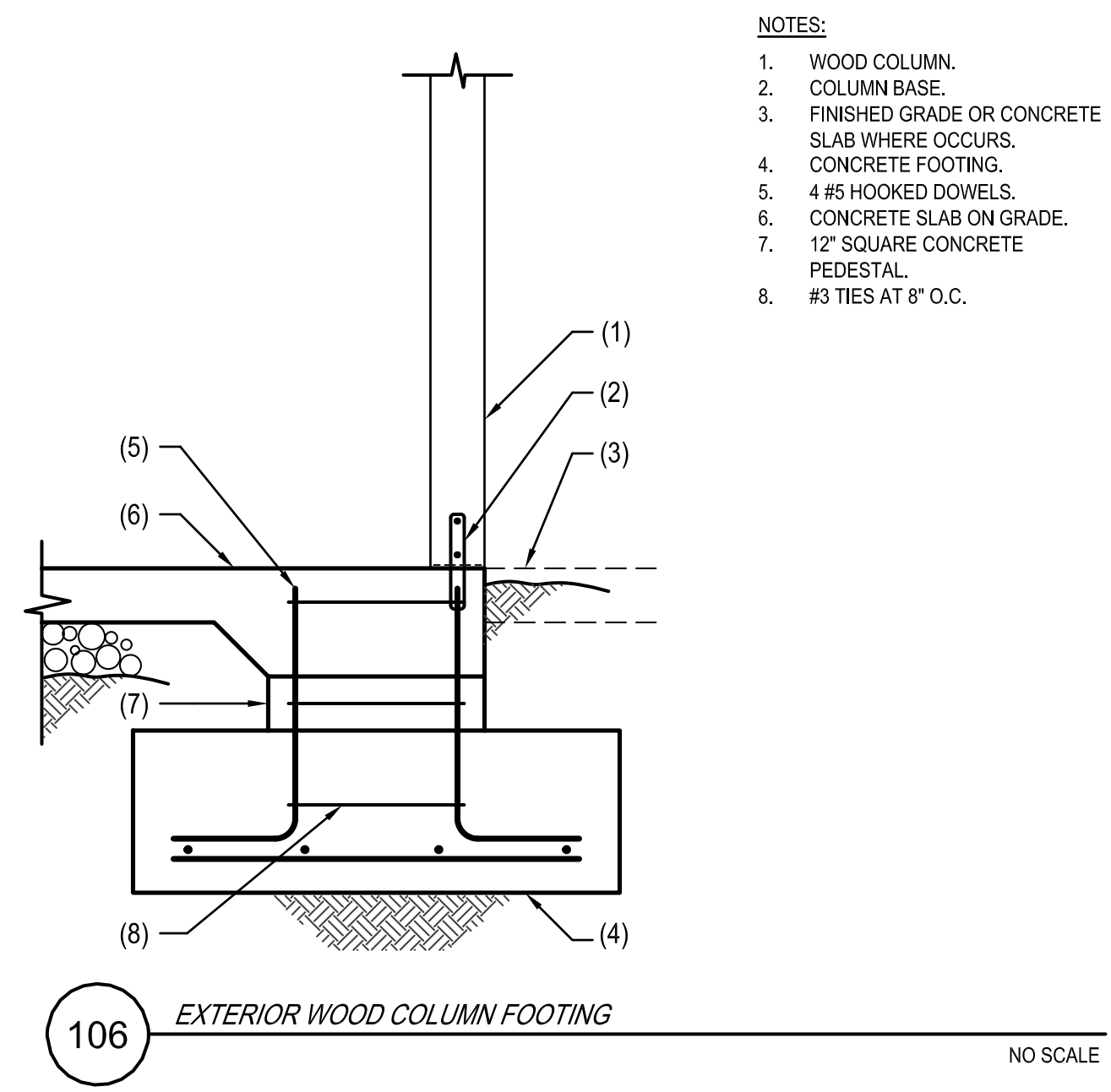
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LEASING FND & FRMG PLANS



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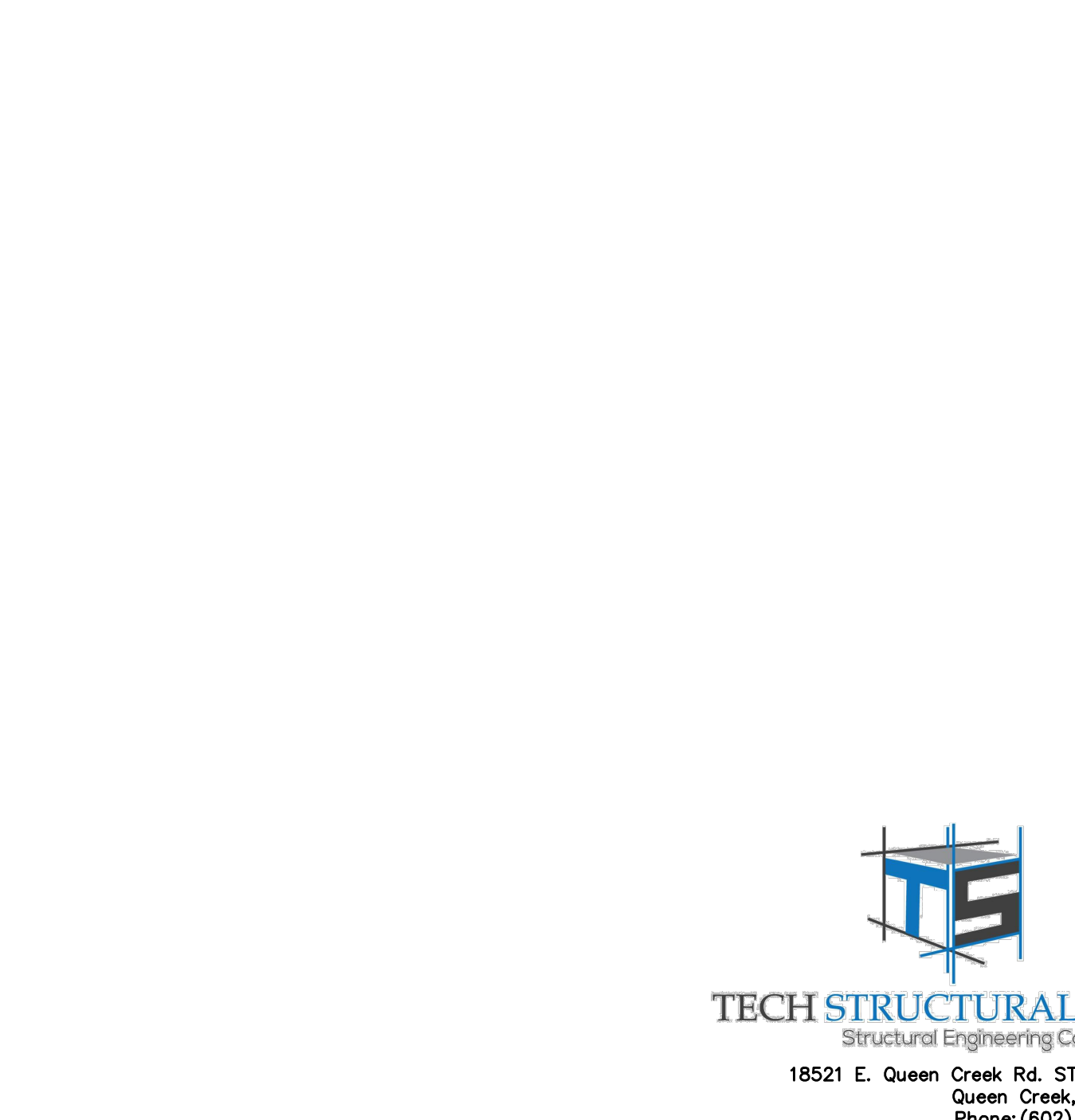
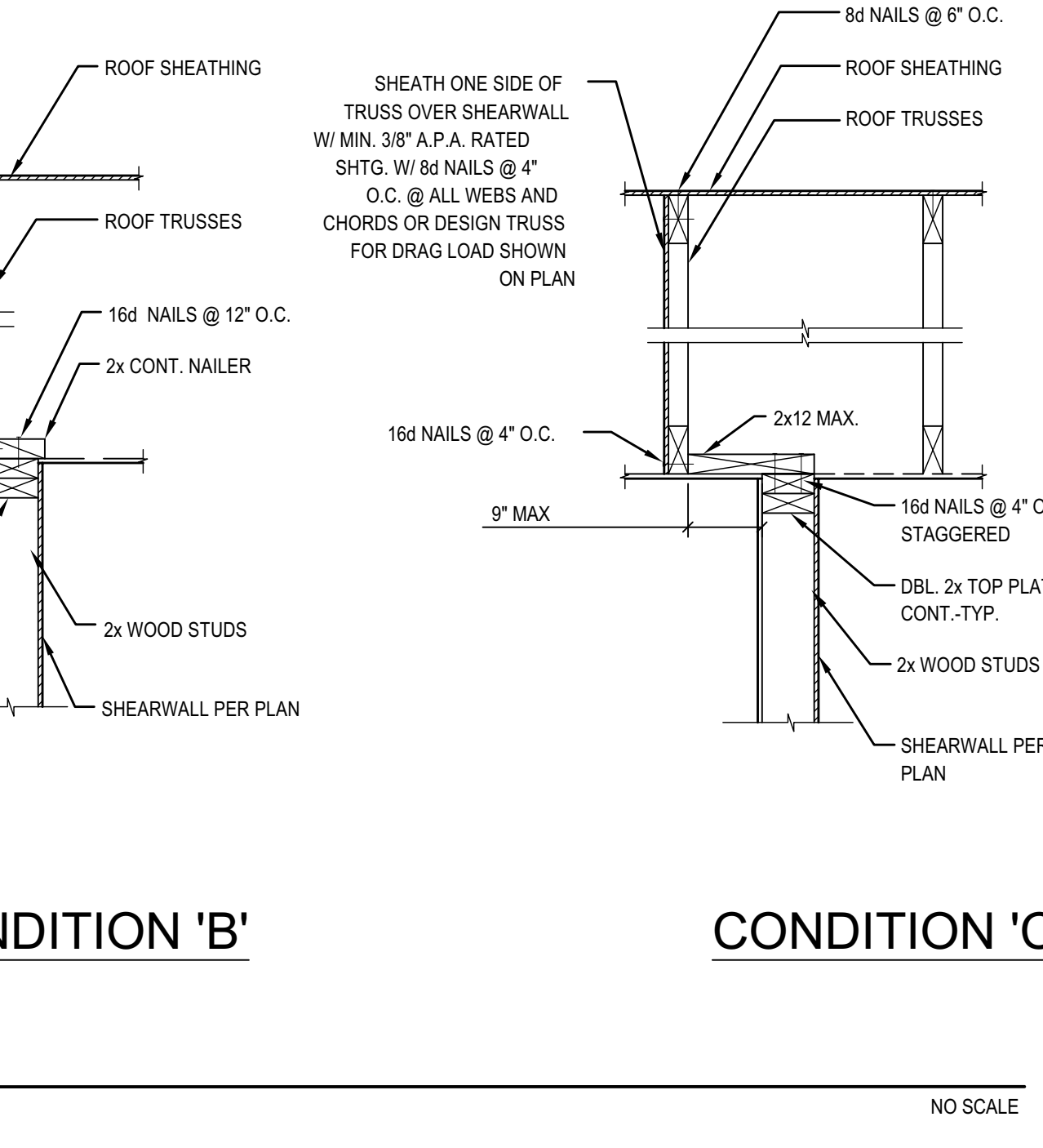
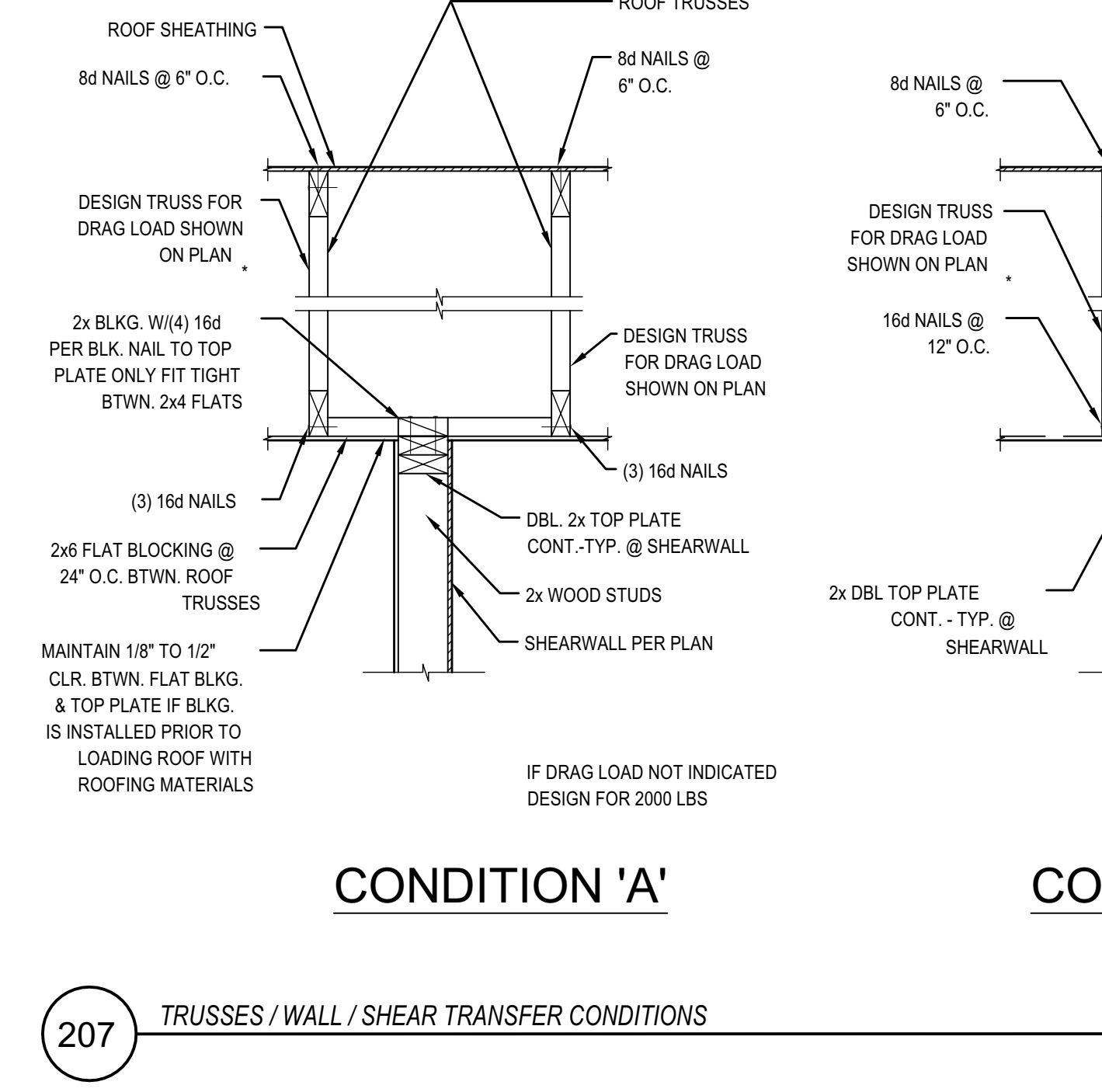
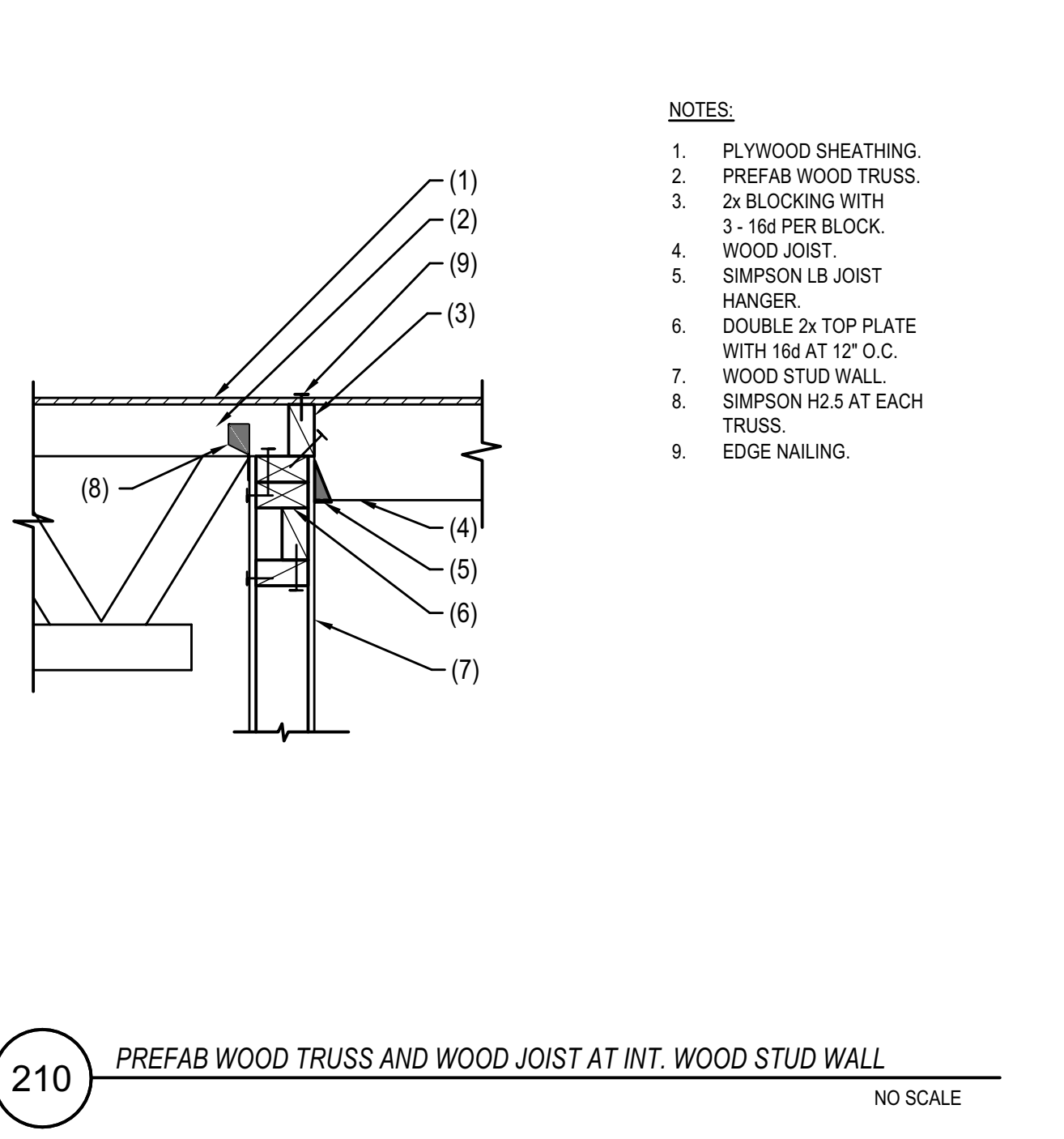
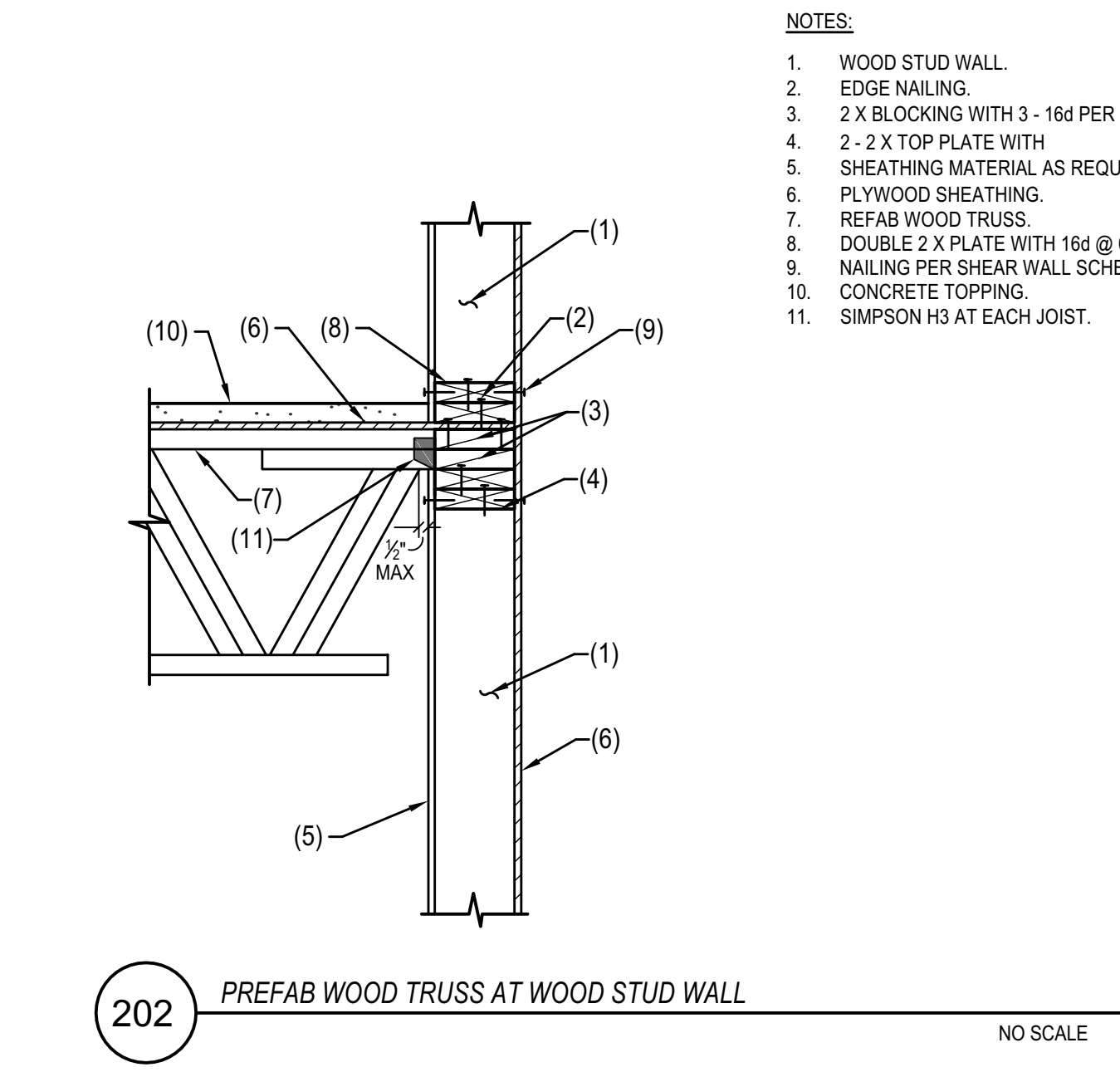
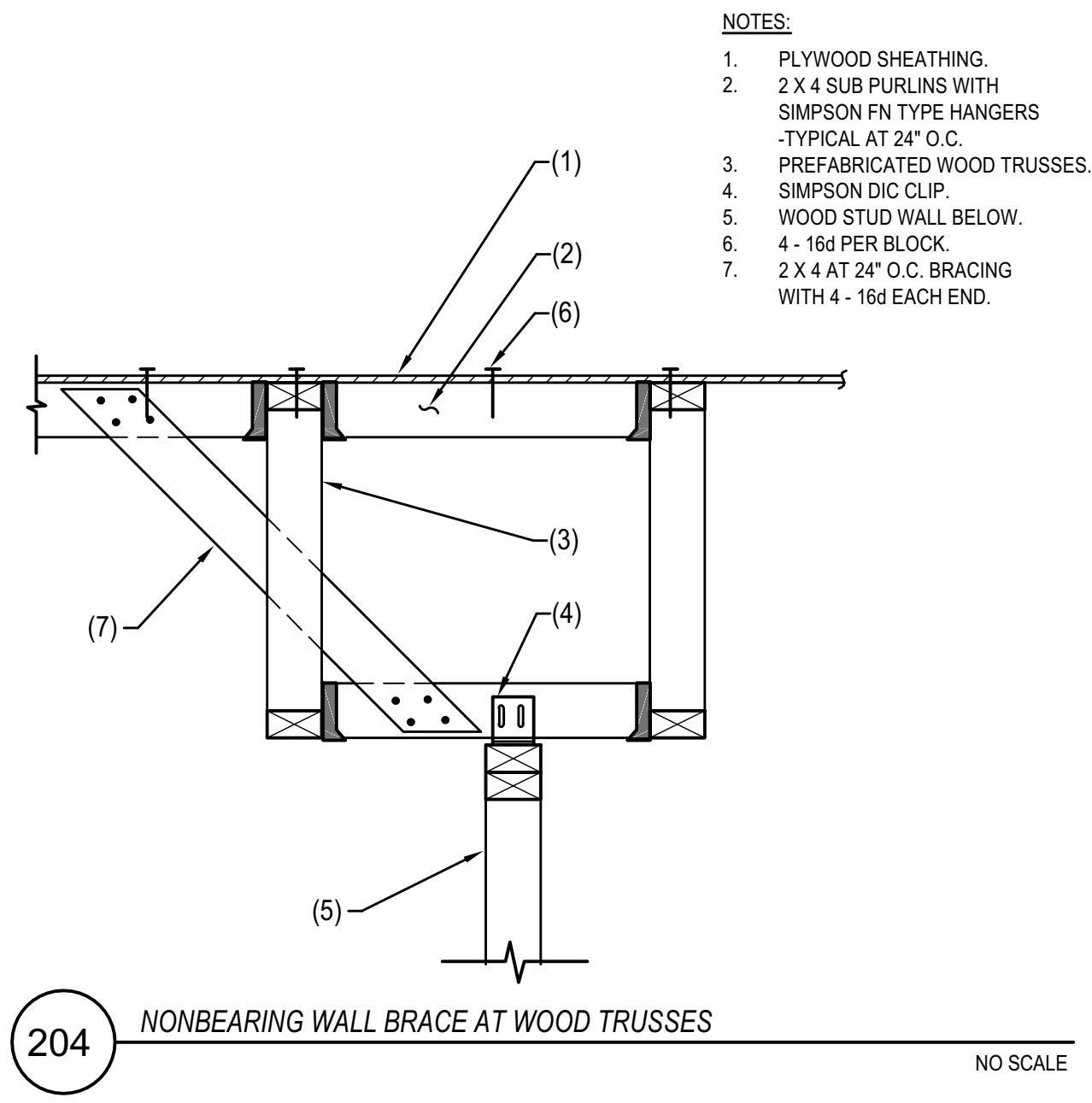
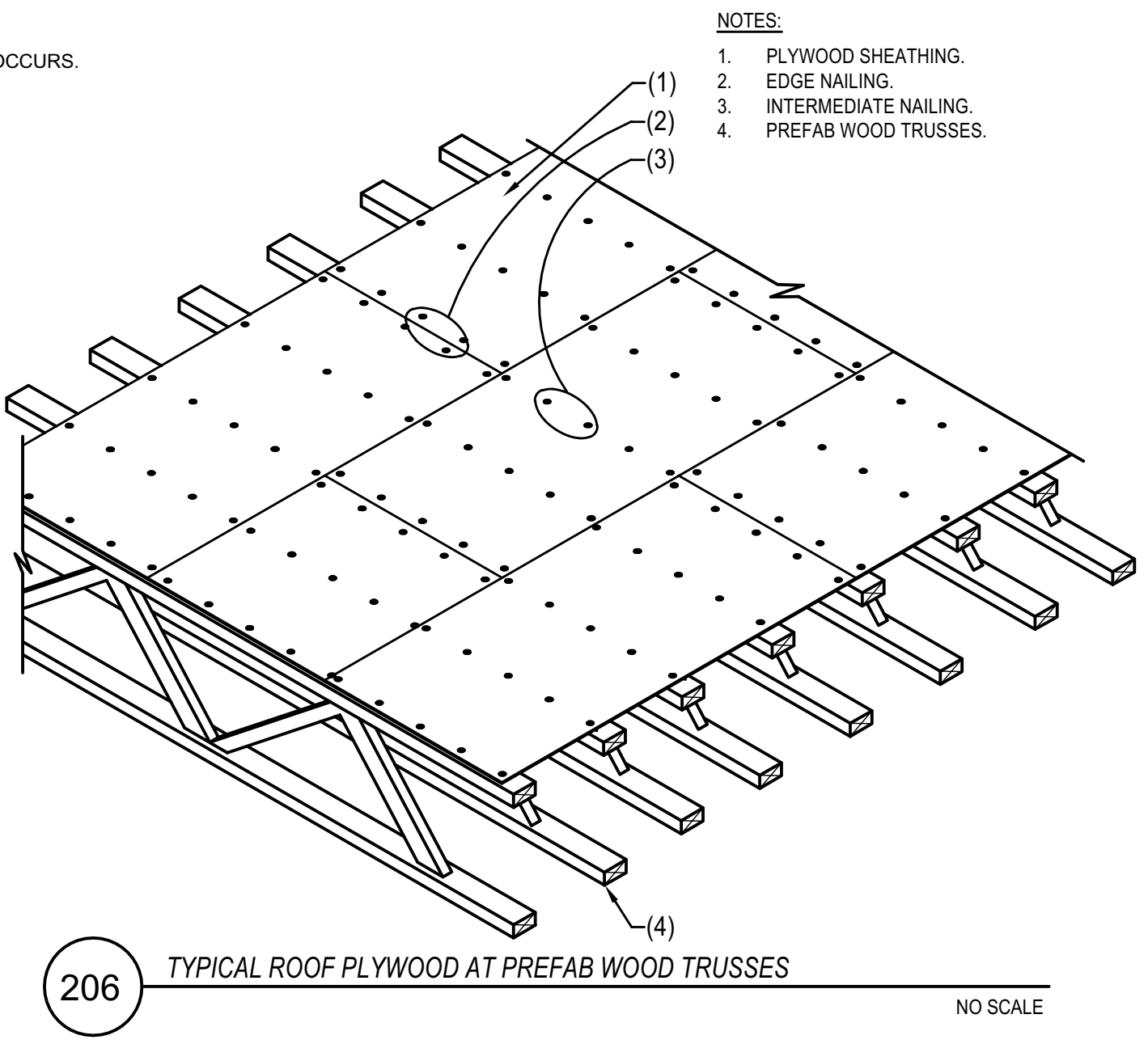
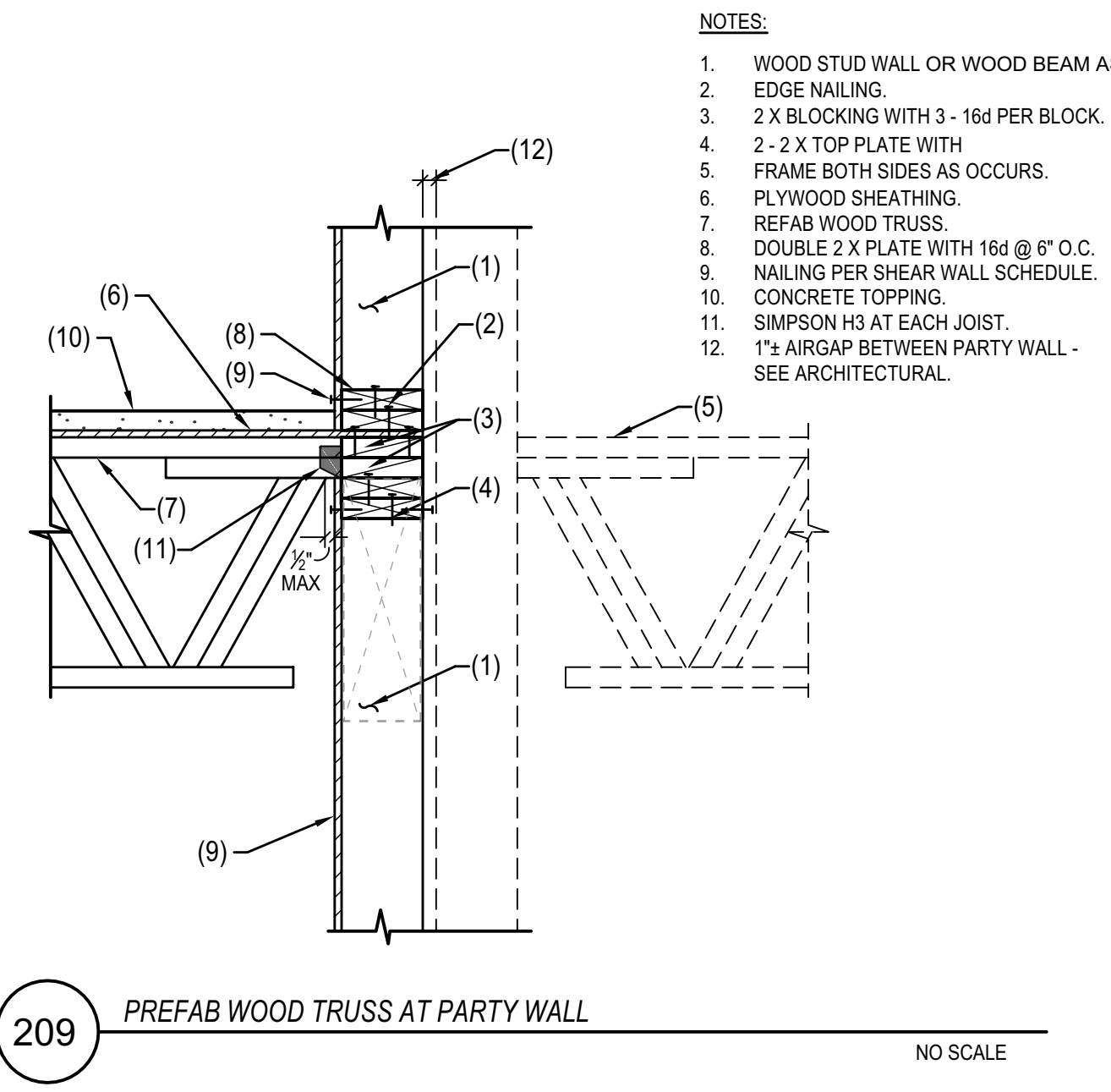
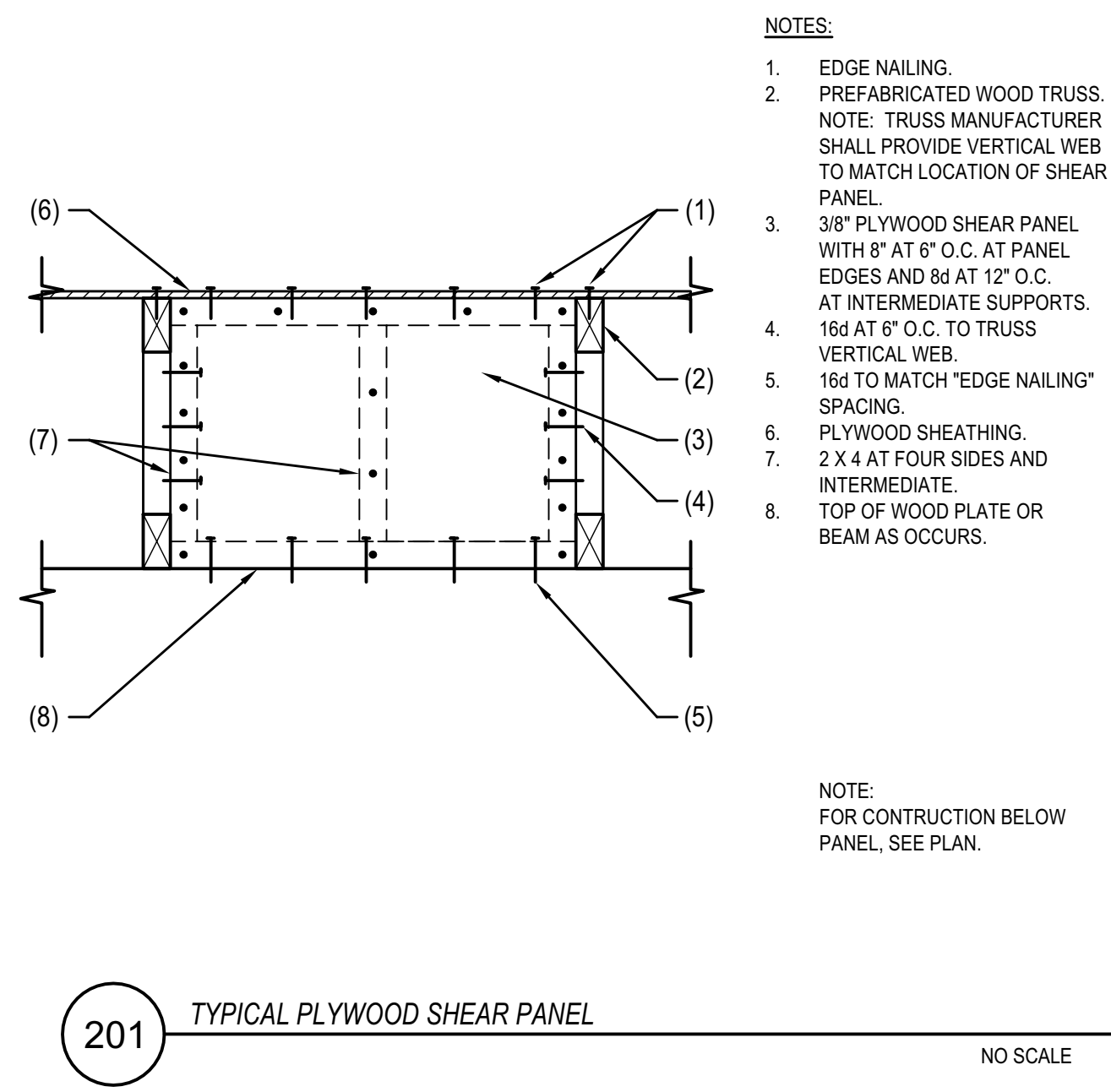
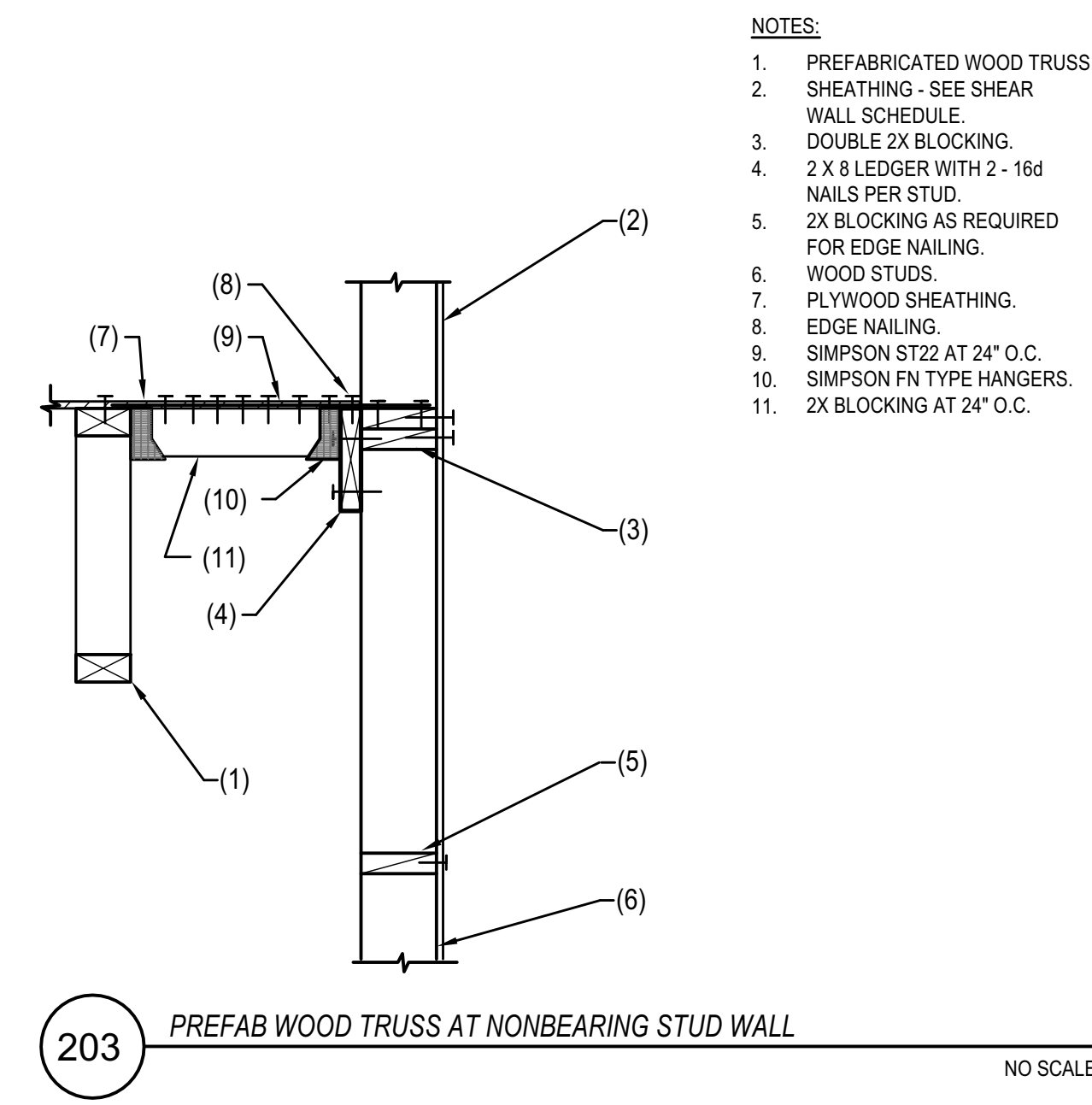
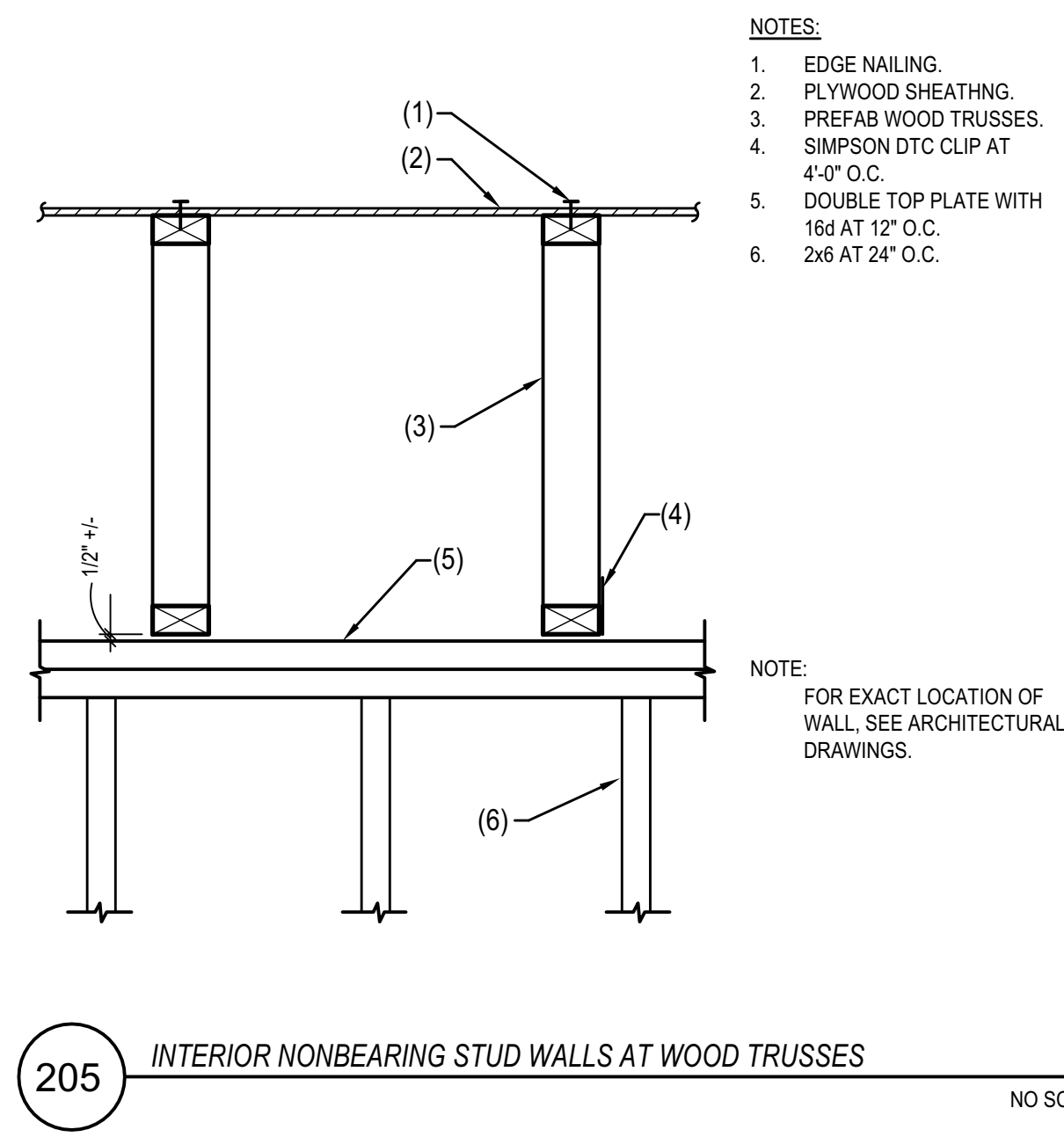
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FOUNDATION DETAILS



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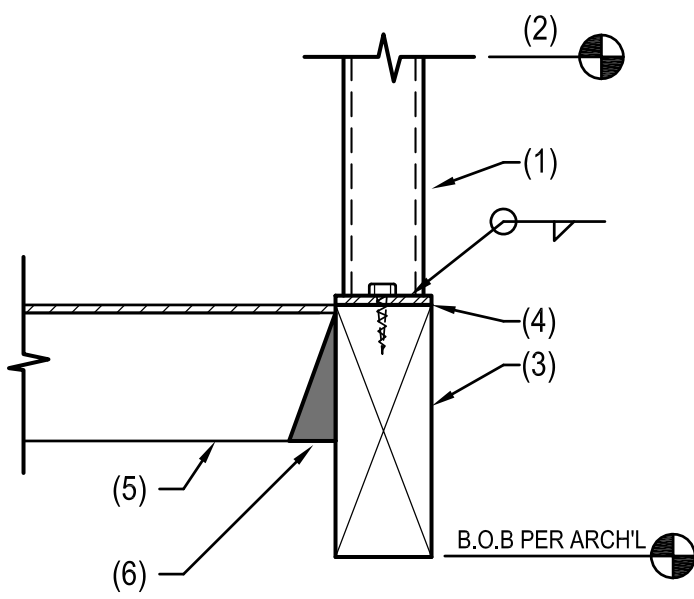
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S401

FRAMING DETAILS

NOTES:

- 2" SCH.40 VERTICAL PIPE GUARDRAIL AT 48" O.C.
- TOP OF GUARDRAIL 3'-6" ABOVE BEAM.
- WOOD BEAM.
- 3/8"x5"x6" STEEL BASE PLATE W/ (2)-3/4"x5" LONG LAG SCREWS AT 4" O.C.
- WOOD PURLIN PER PLAN.
- SIMPSON LUS FACE MOUNT HANGER.

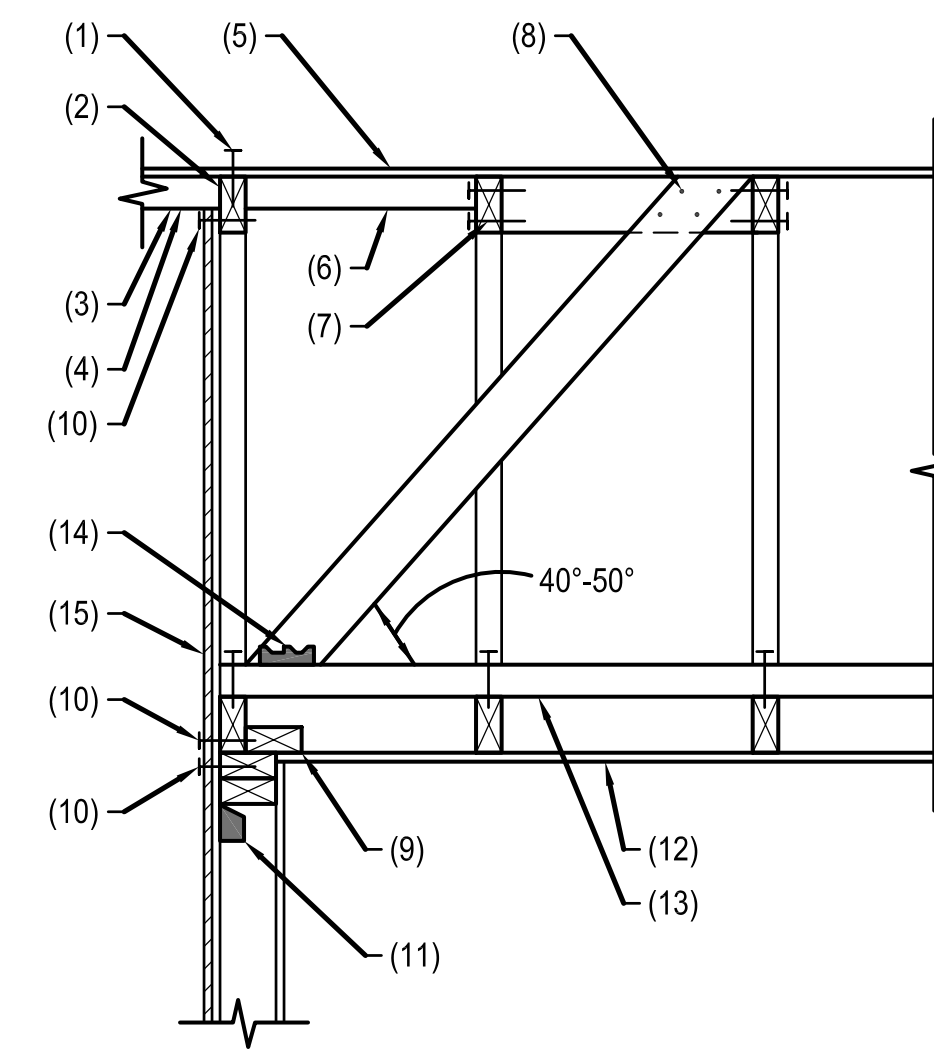


219 GUARDRAIL AT WOOD BEAM

NO SCALE

NOTES:

- 8d NAILS SAME SPACING AS SHEAR WALL BELOW OR 6" O.C. WHICHEVER IS CLOSER (6" O.C. AT GYP. BD. SHEAR WALL).
- NOTCHED TOP CHORD TO BE DESIGNED BY TRUSS MFG. FOR LOOKOUTS WHERE REQUIRED.
- ROOF OVERHANG. SEE ROOF FRAMING.
- 2x4 FLAT LOOKOUT AT 48" O.C. (MAX. 24" OVERHANG).
- ROOF SHEATHING. SEE ROOF FRAMING.
- 2x BLKG BETWEEN TOP CHORD OF TRUSSES AT BRACE LOCATIONS.
- 2(16d) NAILS AT EACH END OF 2x BLKG.
- (4)16d NAILS.
- CONT. 2x NAILER.
- EDGE NAILING.
- SIMP. H2.5A OR RSP4 AT 48" O.C. (TOP AND BOTTOM CHORD OF EVERY 3RD STUD).
- INTERIOR FINISH.
- 2x4 x 6'-0" TIE AT 6'-0" O.C. W/ 2-16d AT EACH TRUSS BTM. CHORD.
- SIMP. A35 AT 2x4 BRACE TO FLAT 2x4.
- EXTERIOR WALL SHEATHING TO EXTEND TO TOP CHORD OF ROOF TRUSS.

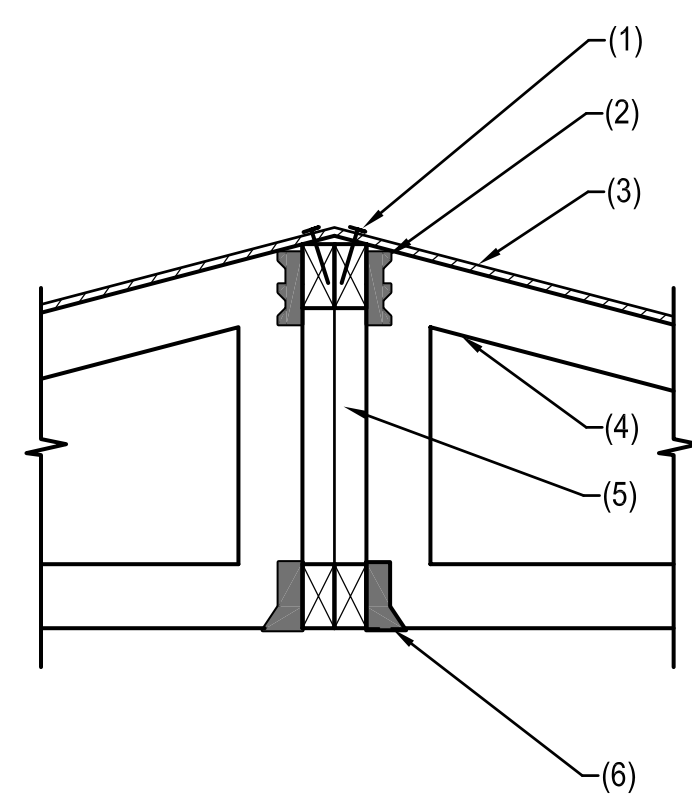


216 END WALL TRUSS BRACE

NO SCALE

NOTES:

- EDGE NAILING.
- SIMPSON A35.
- PLYWOOD SHEATHING.
- PREFAB WOOD TRUSS.
- PREFAB WOOD HIP TRUSS.
- SIMPSON TRUSS HANGER.

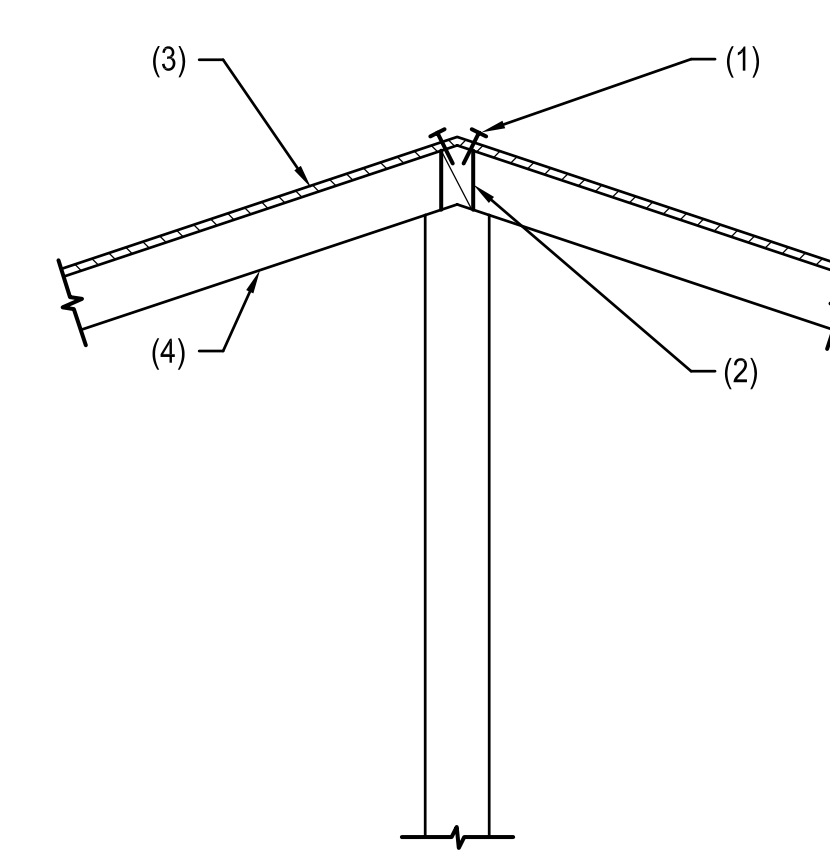


213 WOOD TRUSS TO WOOD TRUSS CONNECTION

NO SCALE

NOTES:

- EDGE NAILING.
- 3x BLOCKING WITH 3-16d PER BLOCK.
- PLYWOOD SHEATHING.
- PREFAB WOOD TRUSS.

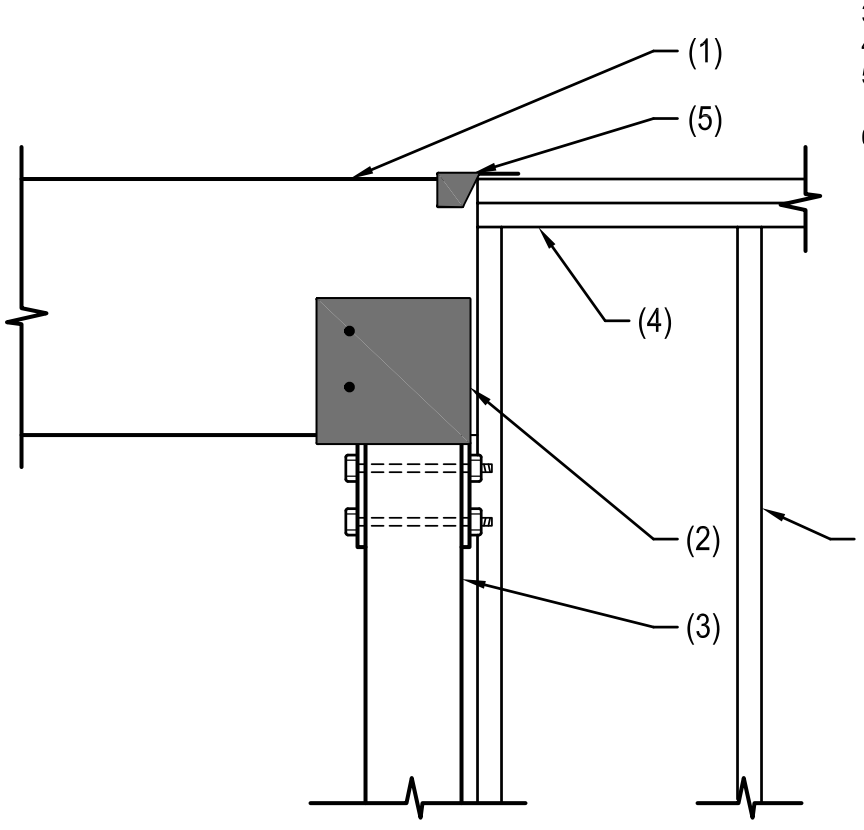


211 PLYWOOD SHEATHING AT ROOF LINE

NO SCALE

NOTES:

- WOOD BEAM.
- SIMPSON CC TYPE COLUMN CAP WITH 2 - 3/4" DIA. THRU-BOLTS.
- WOOD COLUMN.
- DOUBLE 2X TOP PLATE.
- SIMPSON H2.5 EACH SIDE OF BEAM.
- WOOD STUDS.

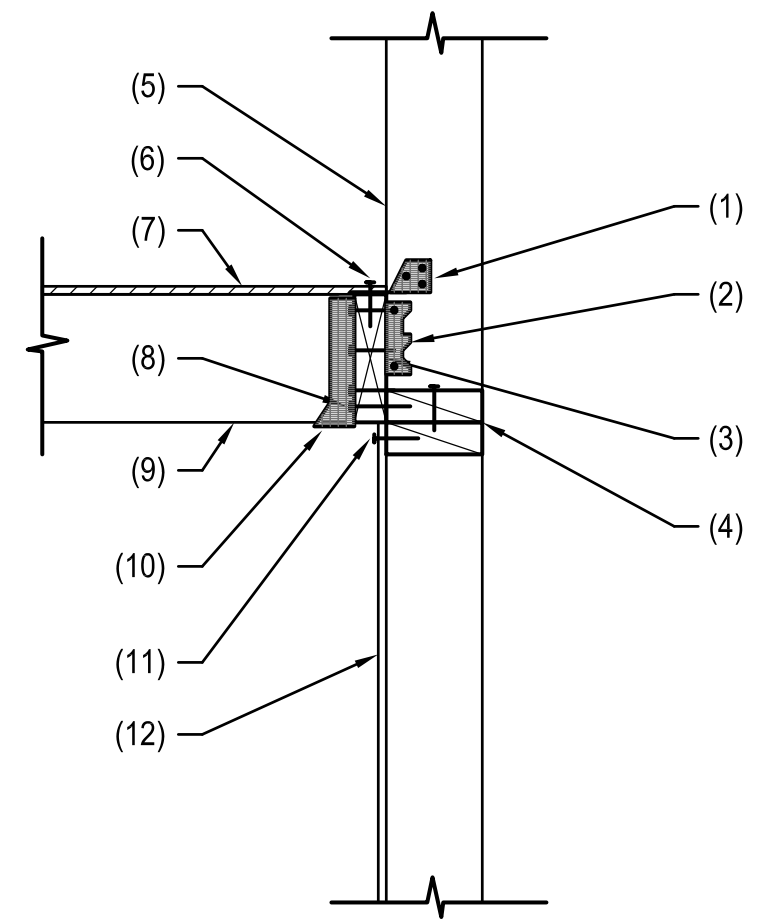


220 WOOD BEAM AT WOOD COLUMN

651-48 NO SCALE

NOTES:

- SIMPSON H3 AT EACH STUD.
- SIMPSON A35 AT EACH STUD.
- 2 X LEDGER WITH 3 - 16d NAILS PER STUD.
- DOUBLE 2 X SOLID BLOCKING WITH 3 - 16d PER BLOCK.
- WOOD STUD WALL.
- EDGE NAILING.
- PLYWOOD SHEATHING.
- 16d AT 8" O.C.
- WOOD JOIST.
- SIMPSON LU TYPE JOIST HANGER.
- NAILING PER SHEAR WALL SCHEDULE.
- SHEATHING MATERIAL AS OCCURS.

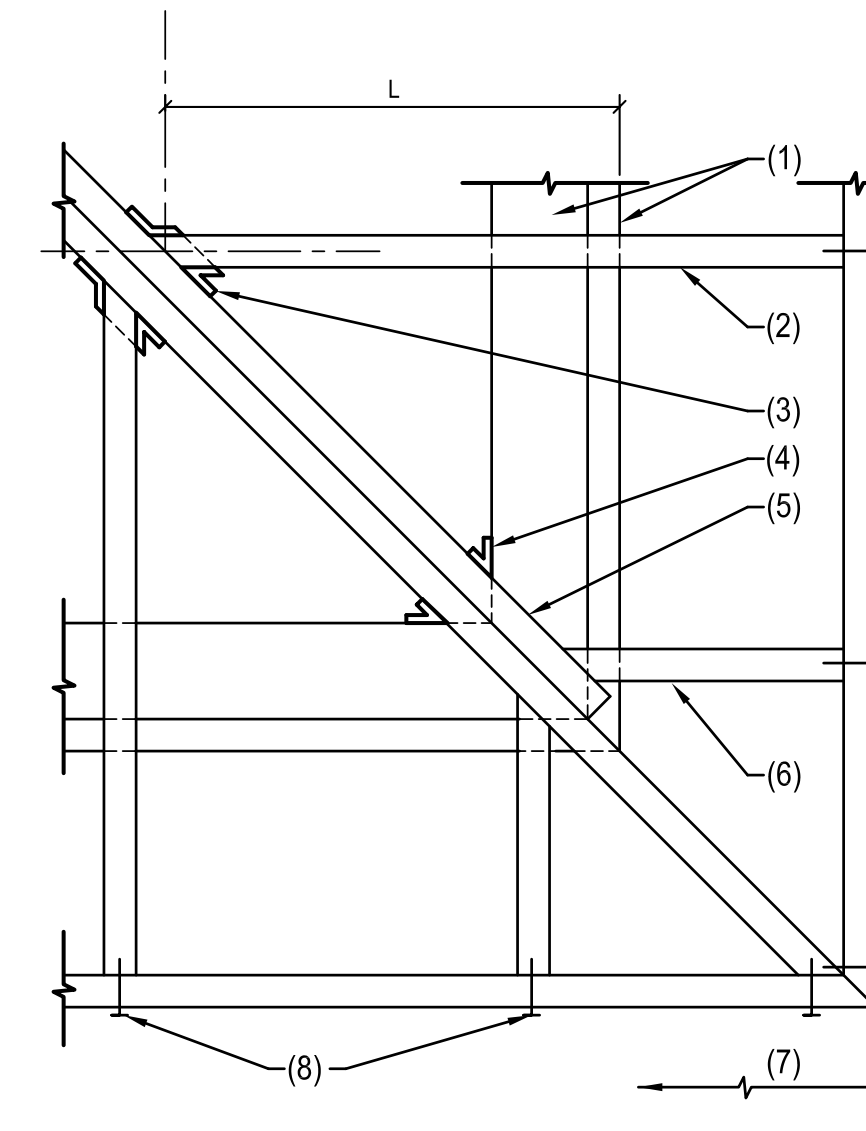


217 WOOD JOIST AT EXTERIOR WOOD STUD WALL

NO SCALE

NOTES:

- WOOD BLOCKING AND PLATE BELOW.
- JACK RAFTER. SEAT CUT RAFTER. INSTALL SIMPSON SUR/SUL26 HANGER IN LIEU OF 3 - 16d NAILS WHEN "L" EXCEEDS 6'-0".
- SIMPSON SUR/SUL26 AS REQUIRED.
- SIMPSON H2.5 EACH SIDE.
- DOUBLE 2 X HIP MEMBER. EXTEND ONE LEG TO FASCIA. RIP LEG TO TYPICAL RAFTER DIMENSION.
- TYPICAL JACK RAFTER - NAIL TO HIP WITH 3 - 16d.
- CONTINUOUS FASCIA (DO NOT SPLICE WITHIN 8'-0" FROM CORNER - EACH WAY).
- 3 - 16d - TYPICAL AT EACH JOIST.

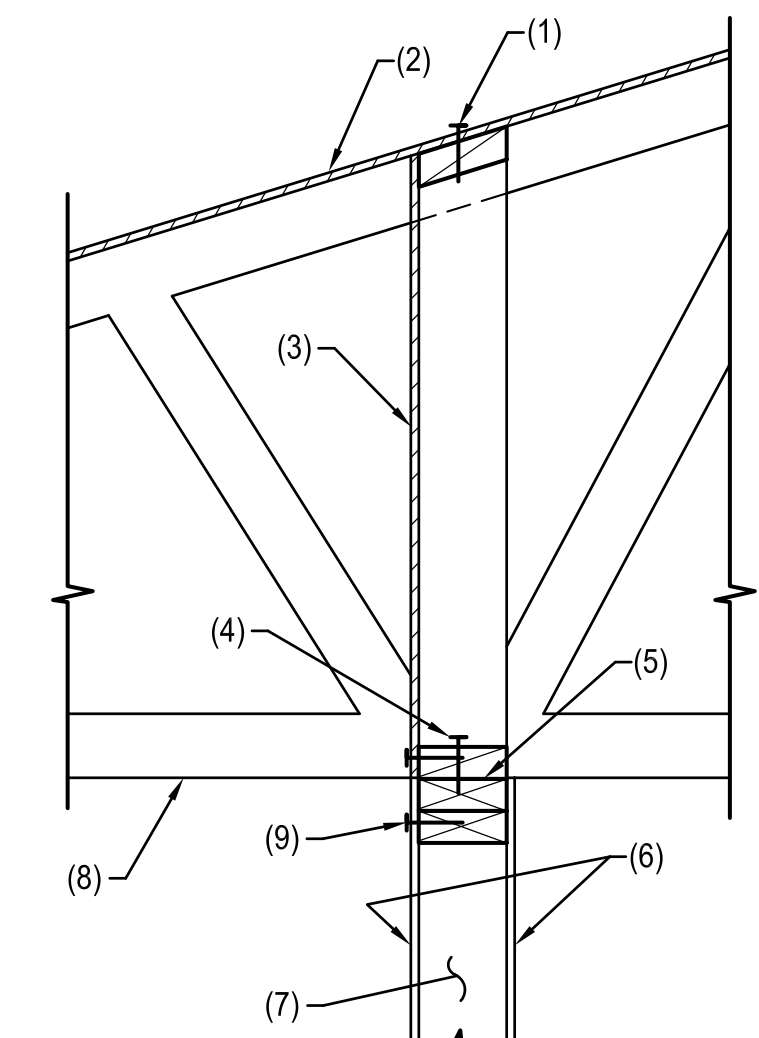


214 PLAN - WOOD JOIST AT HIP JOIST

NO SCALE

NOTES:

- EDGE NAILING.
- PLYWOOD SHEATHING.
- 3/8" PLYWOOD SHEAR PANEL.
- 16d AT 8" O.C.
- DOUBLE 2X CONT. PLATE W/ 16d AT 12" O.C.
- SHEATHING MATERIAL AS OCCURS.
- WOOD STUDS.
- PREFAB WOOD TRUSS.
- NAILING PER SHEAR WALL SCHEDULE.

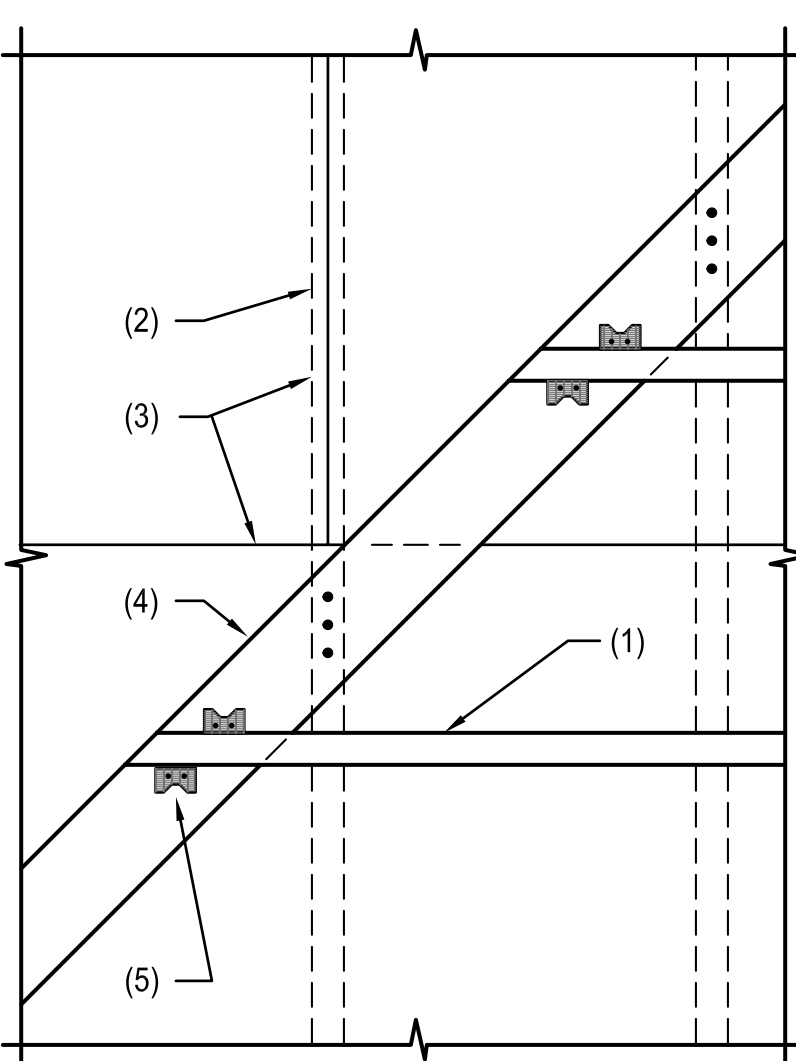


212 PREFAB WOOD TRUSS PURLIN

NO SCALE

NOTES:

- 2X OR VALLEY SET FRAMING.
- PREFAB WOOD TRUSS BELOW.
- LINE OF PLYWOOD SHEATHING JOINTS.
- 2 X 8 LAYED FLAT OVER PLYWOOD SHEATHING WITH 3 - 16d TYPICAL AT EACH TRUSS.
- SIMPSON A34 EACH SIDE - TYPICAL.

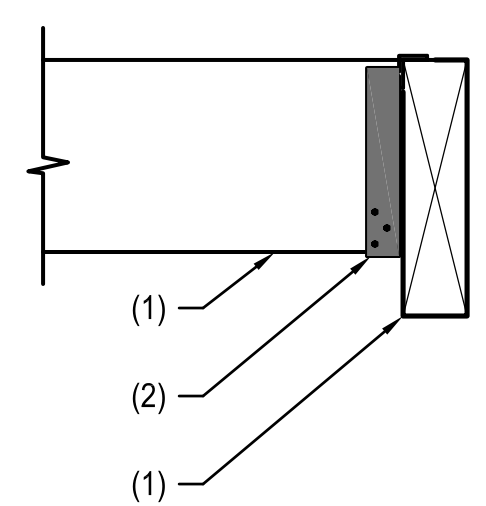


221 PLAN - TYPICAL VALLEY FRAMING AT PREFAB. WOOD TRUSSES

NO SCALE

NOTES:

- WOOD BEAM.
- SIMPSON HGLT BEAM HANGER.

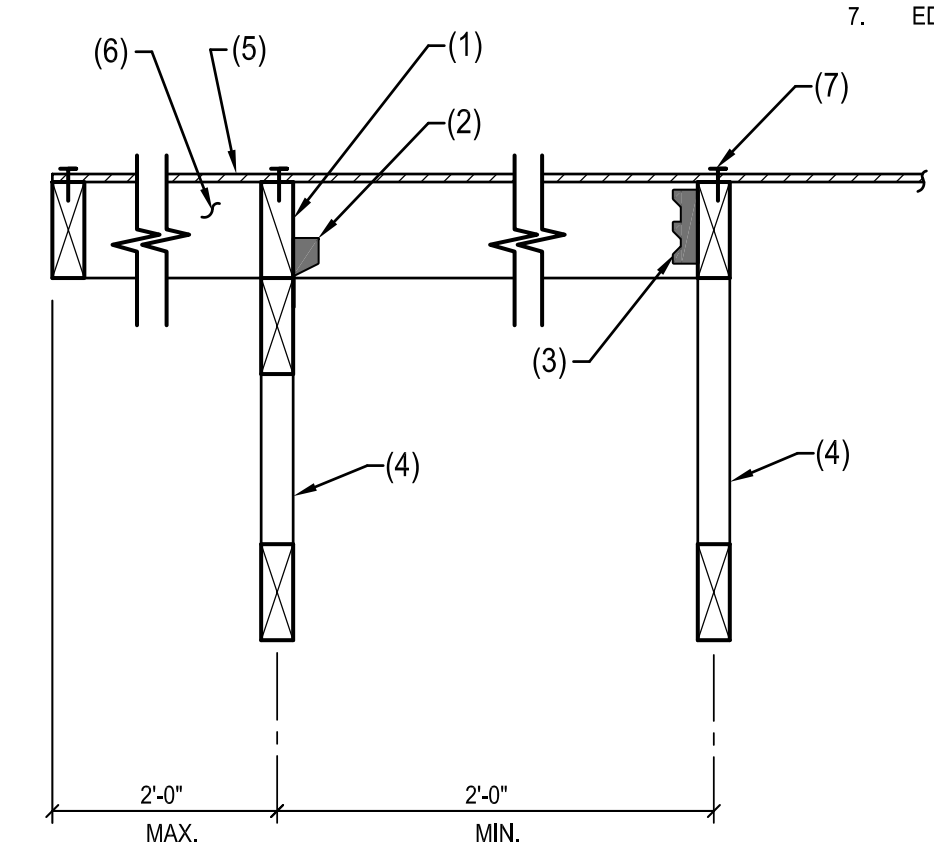


218 WOOD BEAM AT WOOD BEAM

NO SCALE

NOTES:

- 2 X BLOCKING WITH 3 - 16d.
- SIMPSON H2.5 AT EACH OUTRIGGER.
- SIMPSON A35 AT EACH OUTRIGGER.
- PREFABRICATED WOOD TRUSSES.
- PLYWOOD SHEATHING.
- 2 X 4 OUTRIGGER AT 24" O.C.
- EDGE NAILING.



215 WOOD OUTRIGGER AT WOOD TRUSSES

NO SCALE

CITY COMMENTS 4/6/2020

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Project number	19-012
Date	12/02/19
Drawn by	SL
Checked by	CB
Scale	AS NOTED

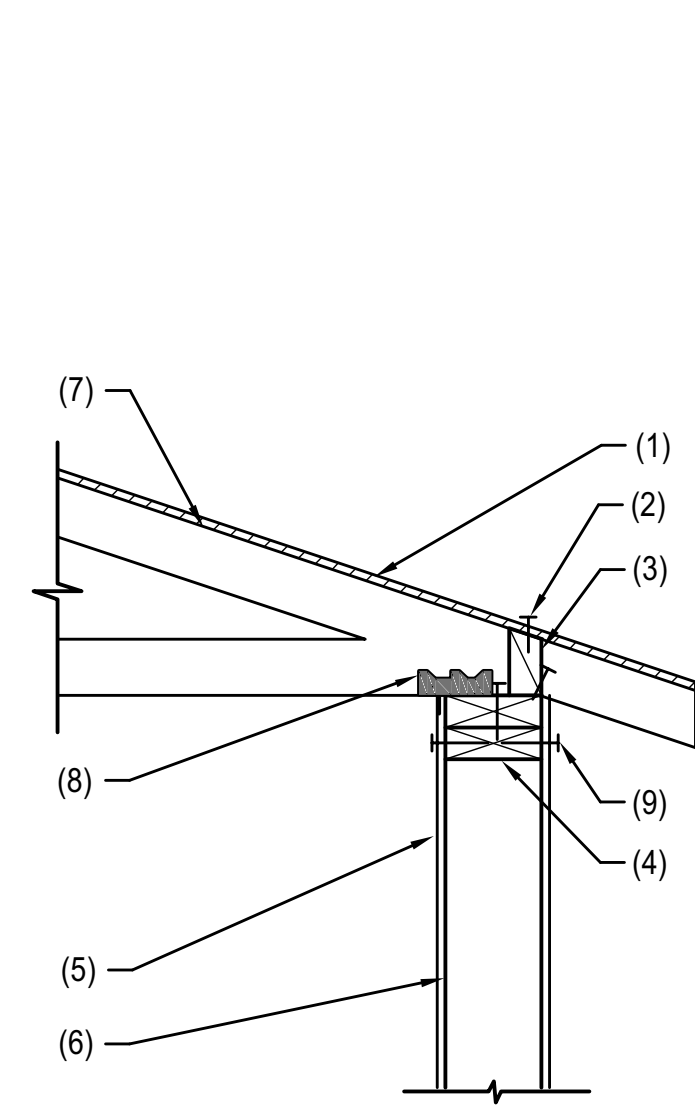
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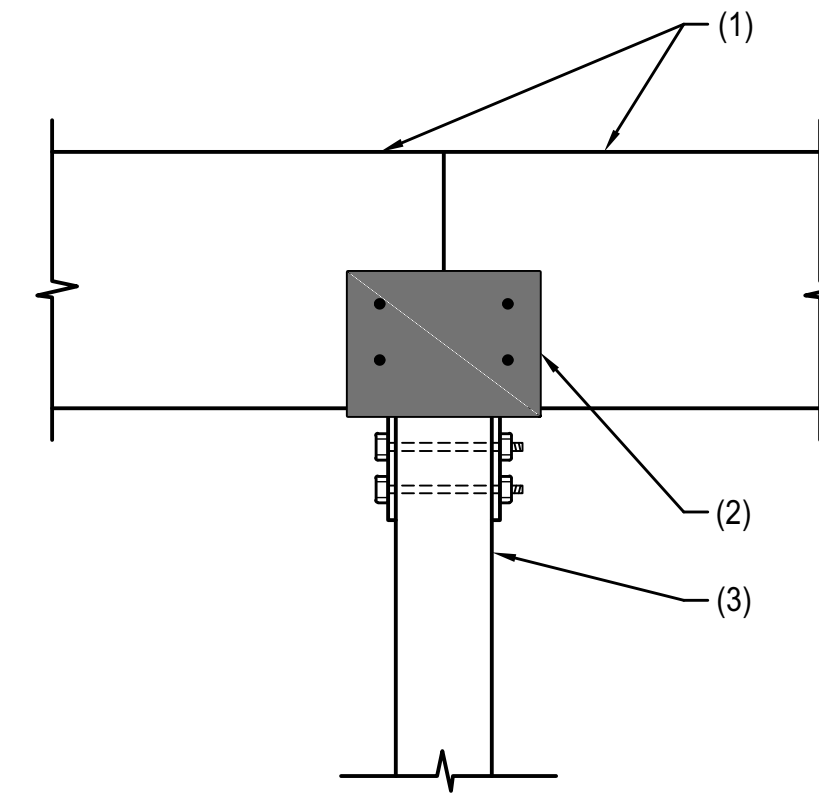
S402

FRAMING DETAILS



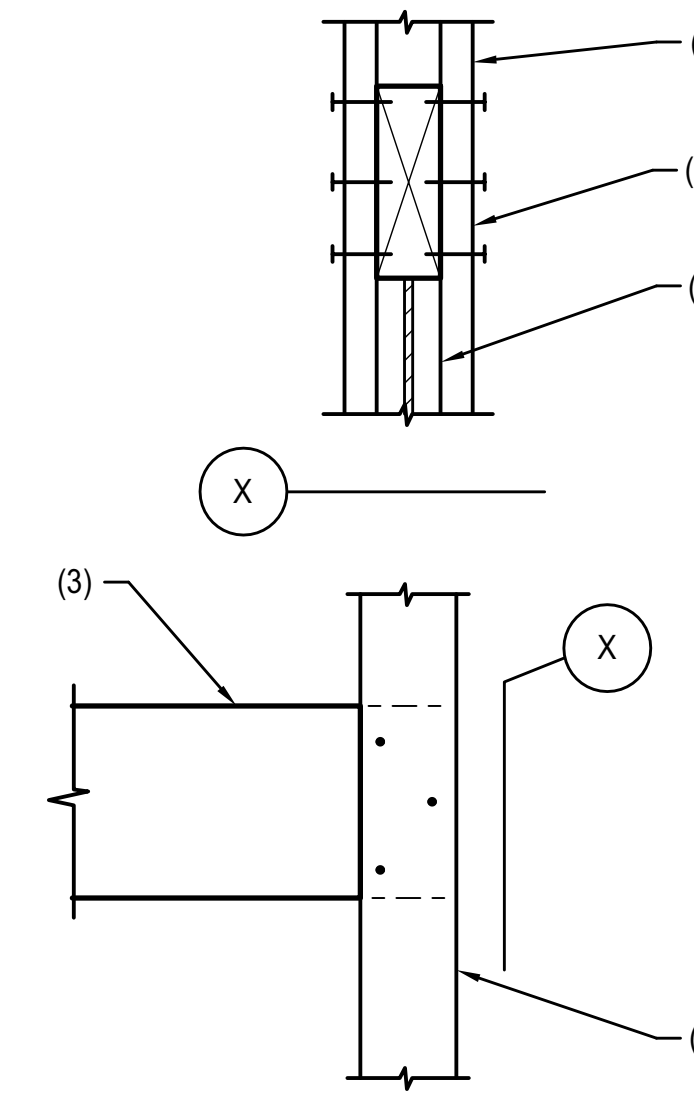
227 WOOD TRUSS AT WOOD STUD WALL NO SCALE

- NOTES:
1. PLYWOOD SHEATHING.
 2. EDGE NAILING.
 3. 2 X SOLID BLOCKING WITH 3 - 16d PER BLOCK.
 4. DOUBLE 2X TOP PLATE WITH 16d AT 12" O.C.
 5. SHEATHING MATERIAL AS OCCURS.
 6. WOOD STUD WALL LOCATE ONE STUD DIRECTLY UNDER EACH TRUSS.
 7. WOOD TRUSS.
 8. SIMPSON A35 EACH TRUSS WITH 3 WAY BEND.
 9. NAILING PER SHEAR WALL SCHEDULE.



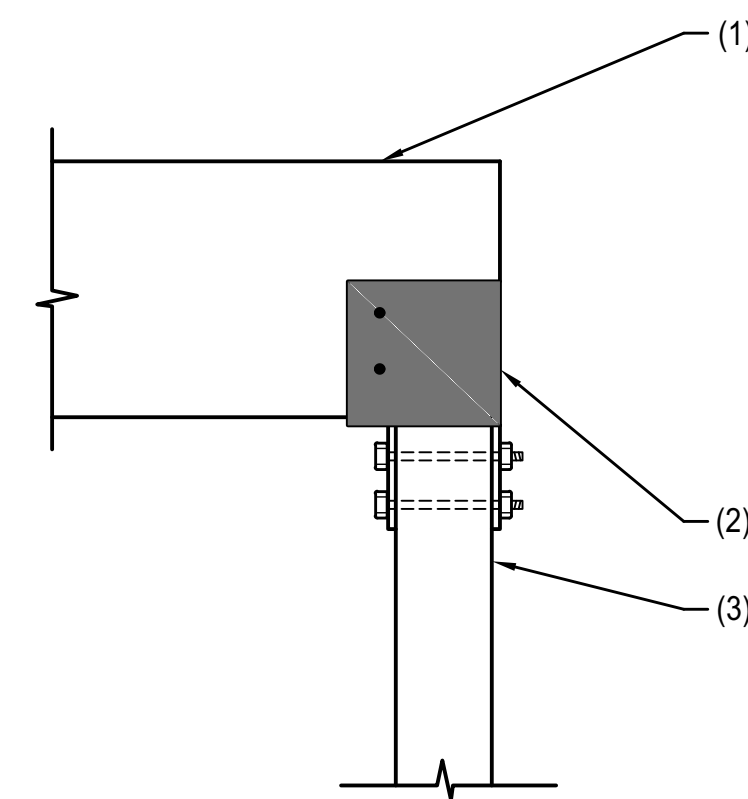
224 WOOD BEAM AT WOOD COLUMN NO SCALE

- NOTES:
1. WOOD BEAM.
 2. SIMPSON CC TYPE COLUMN CAP WITH 6 - 3/4" DIA. THRU-BOLTS.
 3. WOOD COLUMN.



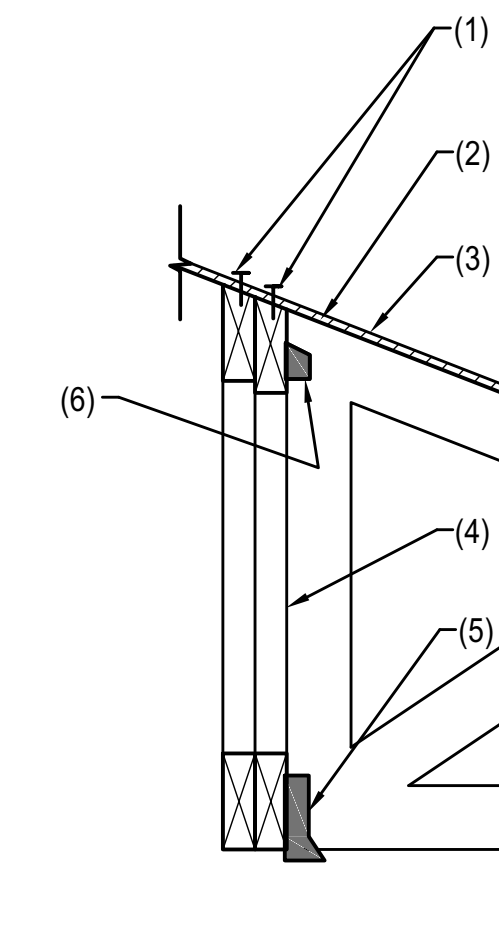
222 TYPICAL BEAM BEARING AT STUD WALL NO SCALE

- NOTES:
1. FRAMING ABOVE NOT SHOWN FOR CLARITY.
 2. RUN STUD ALONG SIDE OF BEAM AND NAIL WITH 3 - 16d MINIMUM.
 3. WOOD BEAM.
 4. MULTIPLE STUD BENEATH BEAM BEARING WITH PLYWOOD FILLER AS REQUIRED - NAIL TOGETHER WITH 16d AT 12" O.C.
 5. WOOD STUD.



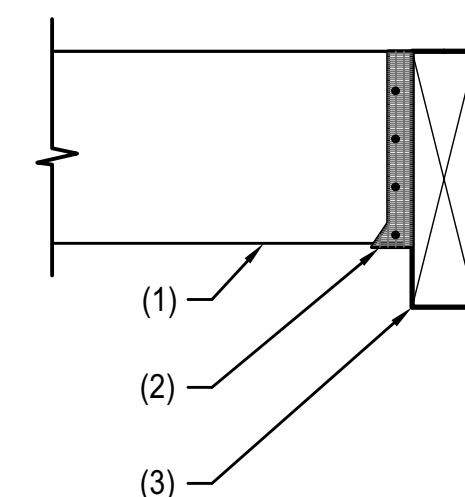
225 WOOD BEAM AT WOOD COLUMN NO SCALE

- NOTES:
1. WOOD BEAM.
 2. SIMPSON CC TYPE COLUMN CAP WITH 2 - 3/4" DIA. THRU-BOLTS.
 3. WOOD COLUMN.



223 PREFABRICATED WOOD TRUSS AT GIRDER TRUSS NO SCALE

- NOTES:
1. EDGE NAILING.
 2. JACK TRUSS.
 3. PLYWOOD SHEATHING.
 4. GIRDER TRUSS.
 5. SIMPSON LU TYPE HANGER.
 6. SIMPSON H3 AT EACH TRUSS.



226 WOOD JOIST AT WOOD BEAM NO SCALE

- NOTES:
1. WOOD JOIST.
 2. SIMPSON HU TYPE HANGER.
 3. WOOD BEAM.

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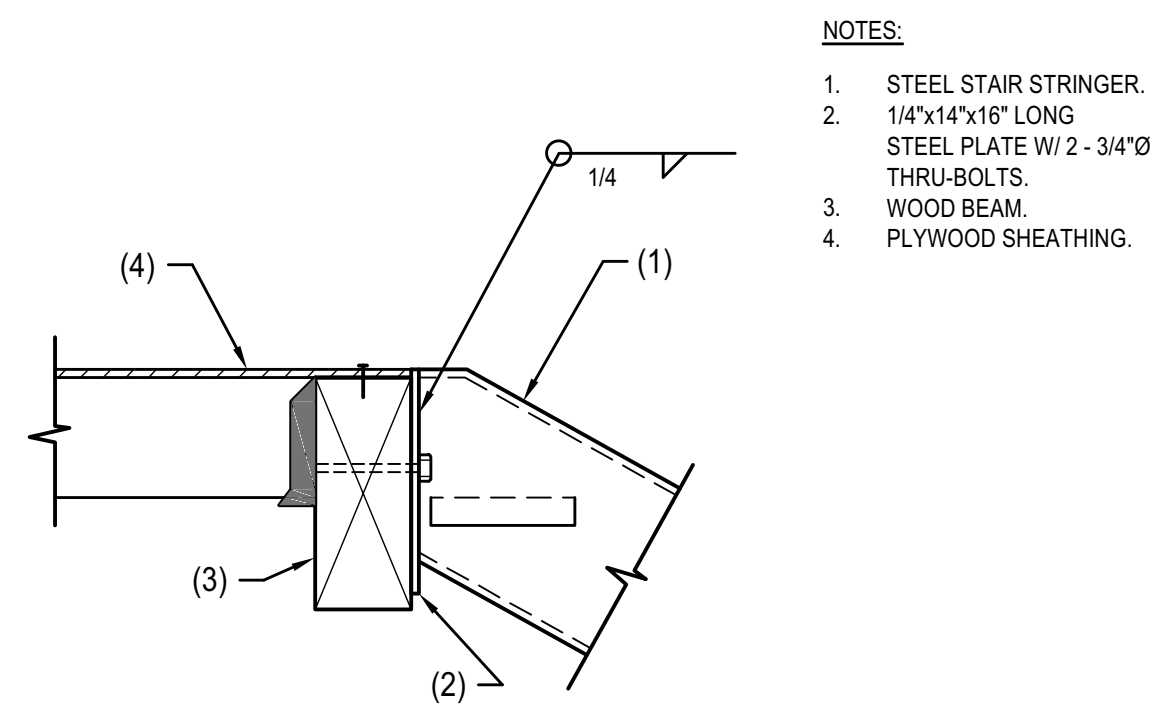
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S403

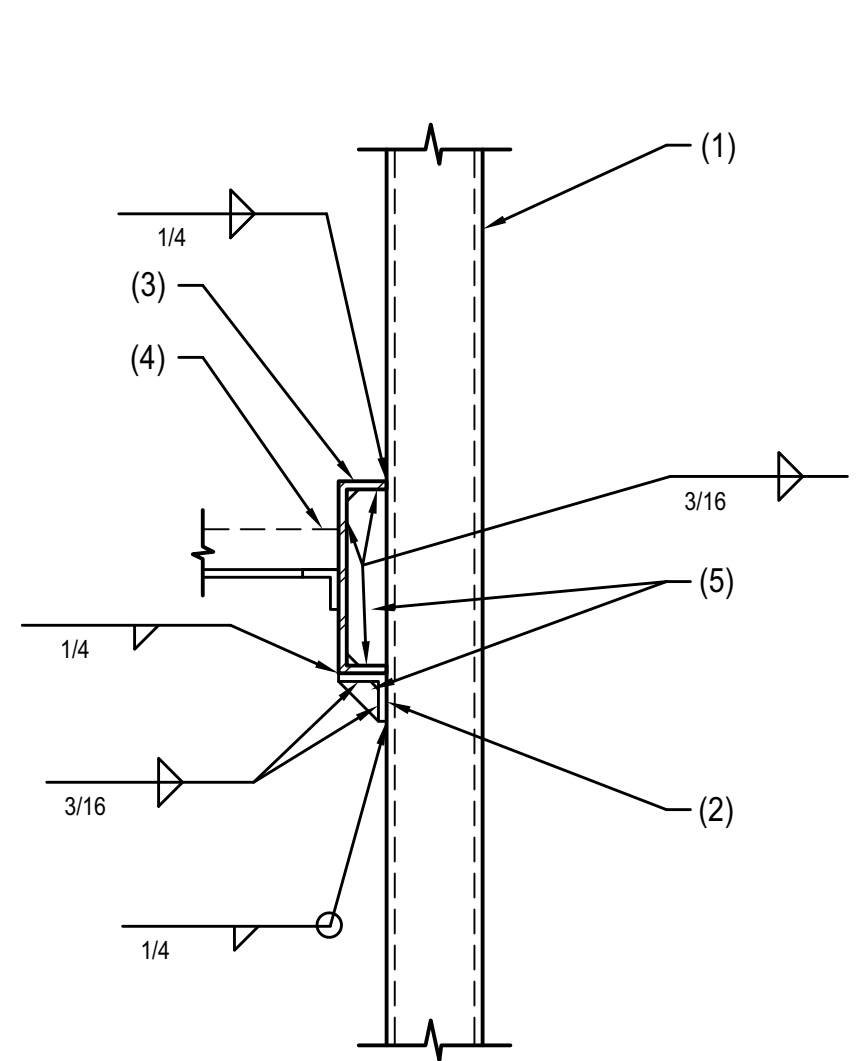
FRAMING DETAILS



- NOTES:
1. STEEL STAIR STRINGER.
 2. 1/4"x14"x16" LONG STEEL PLATE W/ 2 - 3/4"Ø THRU-BOLTS.
 3. WOOD BEAM.
 4. PLYWOOD SHEATHING.

NOTE:
VERIFY WITH ARCHITECTURAL ALL BEAM ELEVATIONS.

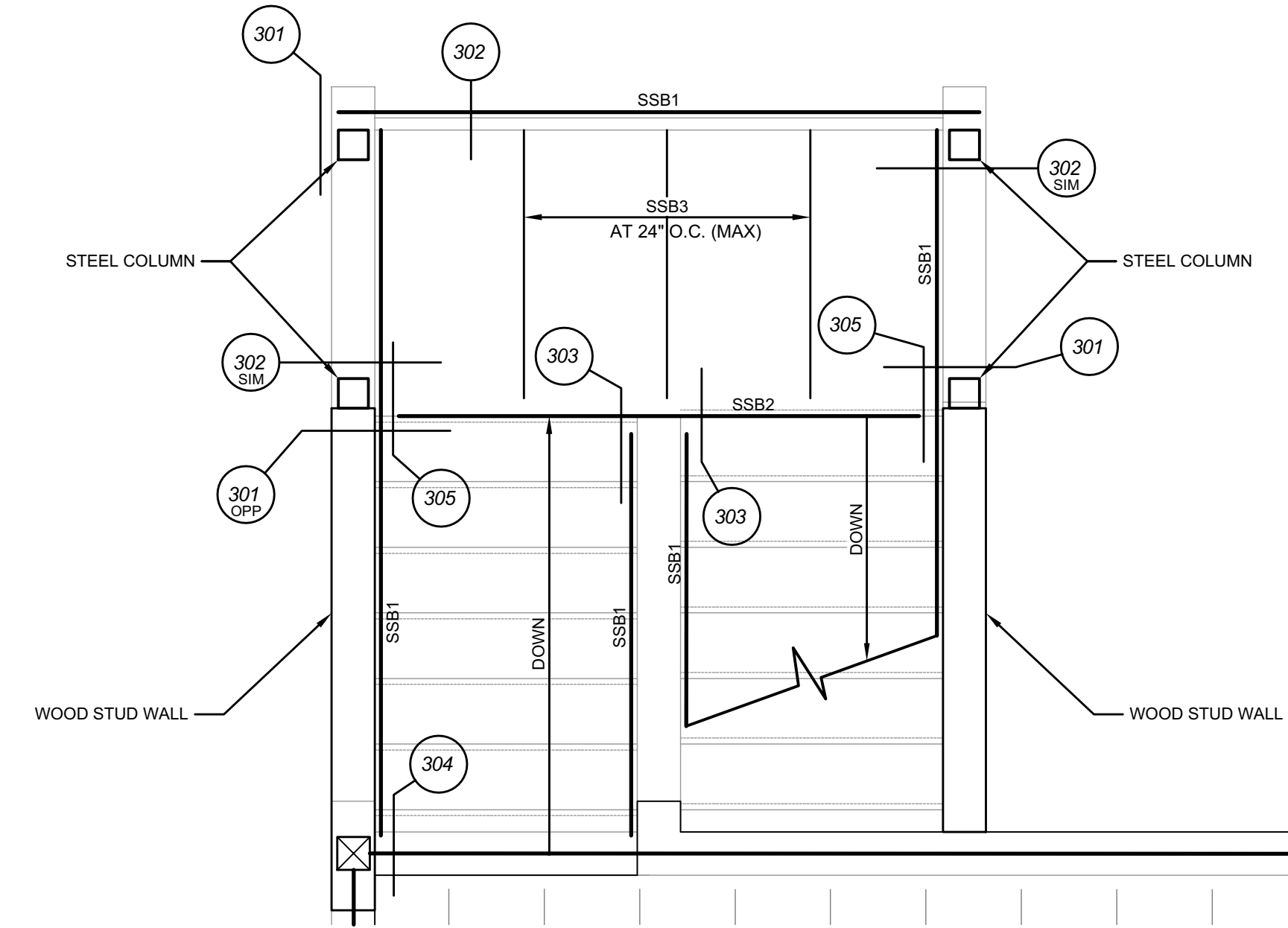
304 STEEL STAIR STRINGER AT WOOD BEAM NO SCALE



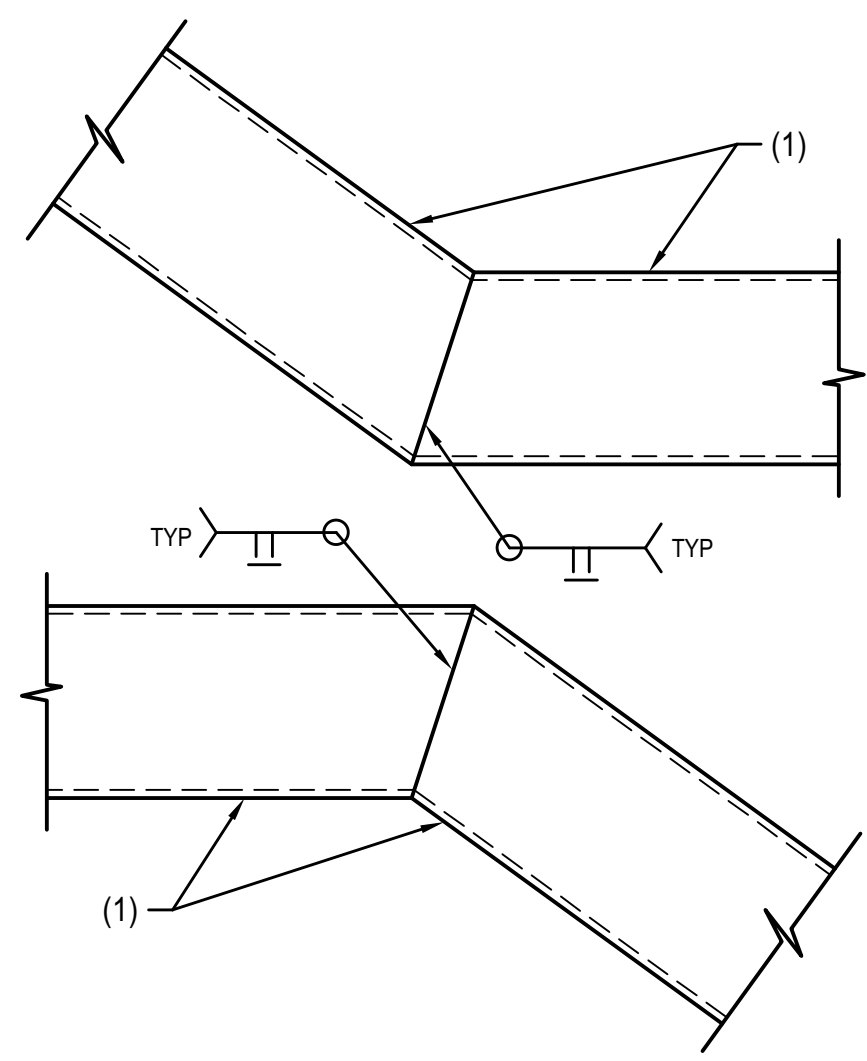
- NOTES:
1. STEEL COLUMN.
 2. STEEL BEAM.
 3. STEEL ANGLE 3" X 3" X 1/4" X 6" LONG.
 4. STAIR LANDING.
 5. 1/4" STEEL STIFFENER.

NOTE:
VERIFY WITH ARCHITECTURAL ALL BEAM ELEVATIONS.

301 STAIR BEAM AT STEEL COLUMN NO SCALE



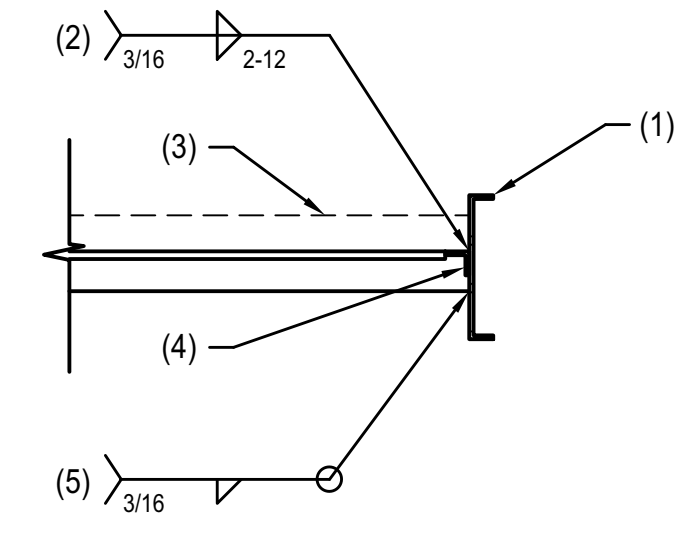
1 Steel Stair Framing Plan
1/2" = 1'-0"



- NOTES:
1. STEEL STAIR BEAM.

NOTE:
FOR CLARITY, STAIR TREADS, RISERS AND LANDING NOT SHOWN.

305 TYPICAL SPLICE AT STEEL BEAM NO SCALE



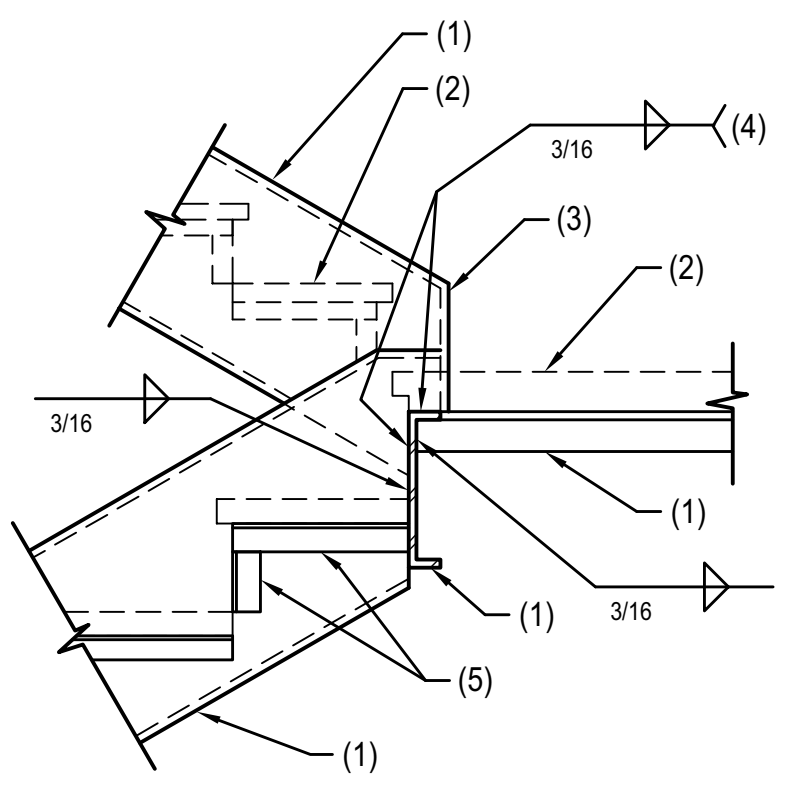
- NOTES:
1. STEEL STAIR BEAM.
 2. WELD ANGLE TO BEAM.
 3. FOR LANDING, SEE ARCHL DRAWINGS.
 4. STEEL ANGLE 1 1/4" X 1 1/4" X 3/16" TYPICAL BETWEEN BEAMS.
 5. WELD BEAM TO BEAM.

NOTE:
VERIFY WITH ARCHITECTURAL ALL BEAM ELEVATIONS.

302 STAIR LANDING AT STEEL BEAM NO SCALE

- PERFORMANCE SPECIFICATIONS FOR STAIRS:
1. STAIRS SHALL BE DESIGNED FOR SELF WEIGHT PLUS A LIVE LOAD EQUAL TO 100 PSF. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER FOR REVIEW PRIOR TO MFR.
 2. LANDING PANS SHALL BE 12 GAGE MINIMUM. TREAD PANS SHALL BE 14 GAGE MINIMUM. CONCRETE FILL SHALL BE REINFORCED WITH 6 X 6 - W1.4 X W1.4 W.W.F.
 3. FOR ACTUAL LANDING AND STAIR PAN CONFIGURATIONS, SEE ARCHITECTURAL DRAWINGS.

STEEL STAIR BEAM (SSB) SCHEDULE	
MARK	BEAM SIZE
SSB1	MC12 X 10.6
SSB2	C8 X 18.75
SSB3	ANGLE 3 1/2" X 3 1/2" X 1/4"



- NOTES:
1. STEEL STAIR BEAM.
 2. FOR TREADS, RISERS AND LANDING, SEE ARCHL.
 3. 3/16" CLOSURE PLATES BETWEEN BEAMS AND AT EXPOSED ENDS.
 4. AT UP BEAM.
 5. ANGLE 1 1/4" X 1 1/4" X 3/16" - TYP.

NOTE:
VERIFY WITH ARCHITECTURAL ALL BEAM ELEVATIONS.

303 STEEL BEAM CONNECTION AT LANDING NO SCALE

306 TYPICAL STEEL STAIR BEAM SCHEDULE AND NOTES NO SCALE

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S501

STAIR FRAMING PLAN