


DIVISION 1 – GENERAL DATA	E N G E L H A R D R E T R E A T			DRAWING INDEX	MARK	DATE	REVISION	
<div>1.1 GENERAL NOTES</div> <div>A. The intent of these drawings and specifications is to include all labor, materials and services necessary for the completion of all work shown, prescribed or reasonably implied, but not limited to that explicitly indicated in the contract documents.</div> <div>B. All work will conform to the latest adopted edition of the International Residential Code (IRC). Additional government codes will also apply to these documents: Uniform Fire Code, National Electrical Code and all ANSI, ASTM, and other standards.</div> <div>C. The approval of shop drawings will not relieve the contractor from responsibility for deviations from the drawings or specifications unless he or she has (in writing) brought to attention such deviations, at the time of submission, nor will it relieve the contractor of responsibility for errors of any sort in the shop drawings.</div> <div>D. Dimensions shown in the documents take precedence over all others. Under no circumstances will dimensions be scaled directly from drawings. Large scale drawings take precedence over smaller scale drawings. The contractor will notify the owner of any discrepancies or conflicts.</div> <div>E. The general contractor and all subcontractors will verify all dimensions and conditions on the job site prior to beginning of construction and report and discrepancies to the architect.</div> <div>F. The contractor will have on site, the approved construction drawings and building permit.</div> <div>G. The general contractor/subcontractors will furnish adequate shoring, bracing, barricades and protective measures etc., required to safely protect the entire construction site and periphery, and will be fully responsible for all of the above.</div> <div>H. All symbols and abbreviations used on the drawings are considered to be construction standards. If the contractor has questions regarding abbreviations or their exact meaning, the contractor will notify the Owner's representative for clarifications.</div> <div>I. Details marked "typical" will apply in all cases unless specifically indicated otherwise.</div> <div>J. No substitutions to the documents will be allowed without prior written approval by the owner.</div> <div>K. The contractor will provide protection for all pedestrians, site visitors, employees, consultants and all others who are at anytime put at risk due to this construction.</div> <div>L. Contractor shall assume responsibility for securing all chattel and real property on the job site.</div> <div>M. The contractor shall assume responsibility for fire, theft, destruction, or vandalism on job site during construction.</div> <div>N. All walls, floors, doors, door frames, windows, shafts, casework, etc. will be constructed plumb, straight and true, and aligned and rigidly connected.</div> <div>O. Contractor will verify with equipment manufacturers required pad sized and base, as well as verify locations for all mechanical and electrical equipment and power, water and drain installations prior to proceeding with work.</div> <div>P. The contractor shall verify all field measurements as necessary to insure proper fit of doors, windows, cabinets, counters, appliances, fixtures, and equipment.</div> <div>Q. The contractor will provide to the owner an operations manual for all equipment installed including all instructions, warranties and documents pertaining to the aforementioned equipment.</div> <div>R. Contact between dissimilar metals will be protected to prevent any deterioration due to galvanic action or corrosion.</div> <div>S. Roofing, skylights, fireplaces, etc. will bear U.L. or I.C.B.O. listings. All manufactured materials used must be installed bearing the appropriate labels identifying this fact.</div> <div>T. The owner shall in no way be responsible for the means and methods of work performed, the safety in or about the site, performance of the work, or the timeliness in which the work is performed.</div> <div>U. The contractor shall not allow unauthorized personnel on the job site.</div> <div>V. All omissions and conflicts between the various elements of the drawings and /or specifications shall be brought to the attention of the owner or owner's representative immediately before proceeding with any so involved. No changes are to be made unless the owner is notified in writing.</div> <div>W. The contractor shall be responsible for the enforcement of Federal and State of Utah Occupational Safety and Health Administration requirements and regulations.</div> <div>DIVISION 15 – MECHANICAL</div> <div>15.1 PLUMBING</div> <div>A. Back flow protection required on all hose bibs and lawn sprinkler system per section P2902.2–IRC. Provide frost–proof type hose bibs per IRC P2903.10.</div> <div>B. All plumbing work shall conform to the latest adopted edition of the IRC and any other adopted governing plumbing code.</div> <div>C. The plumbing contractor shall field verify the exact locations of gas service points and comply with all requirements of gas company.</div> <div>D. The plumbing contractor shall field verify the exact location and size of points of connection water meter location and pressure of water service before installing system.</div> <div>E. All water lines shall be tested at 120 p.s.i.</div> <div>F. Provide permanent vacuum breakers at all hose bibbs.</div> <div>G. Provide ultra low flush toilets and maximum 2.2 GPM flow on faucets.</div> <div>H. Provide mixing valves at showers per section P2708.3–IRC.</div> <div>I. Showerheads to have maximum 2.5 GPM flow.</div> <div>J. Provide anti–scald device. 2708.3, 2713.3, ASSE1070.</div> <div>K. Backwater valves shall be installed so that the working parts are accessible for service and repair per IRC P3008.5.</div> <div>15.2 H.V.A.C.</div> <div>A. H.V.A.C. systems shall be in compliance with the latest adopted edition of the IMC and any other governing mechanical code.</div> <div>B. Toilet room exhaust fans shall provide a minimum of five (5) air changes per hour.</div> <div>C. All vents through roof shall be located on rear side of ridge. Refer to site plan for best location of vents so as not to be seen from project entries and projected drives or major common areas.</div> <div>D. Where a partition containing plumbing, heating, electrical, or other systems run parallel to the floor joists, provide double joists, spaced and bridged to permit the passage of such systems. Where systems are partially or wholly within the partition and require cutting of the sole or top plate, provide a metal tie 1/8" thick by 1–1/2" wide, fastened to the plate across and to each side of the opening with not less than 4–16d nails.</div> <div>E. All vents through exterior wall to have maximum 1/4" mesh galvanized hardware cloth covering.</div> <div>F. Before the work will be accepted as complete operation of all equipment shall be as quiet as possible. All equipment should perform to accepted noise levels as in product specifications.</div> <div>G. Foundations for equipment subject to severe or noise inducing vibration must be insulated from supporting construction to effectively prevent noise or vibration transmission.</div> <div>H. HVAC system shall be selected by Owner. Drawings and above specifications are intended to be used as a guide only to these documents. Deviations are to be approved by Owner.</div> <div>I. HVAC equipment, and their specifications shall be verified with these drawings. Any incompatibility for size allowances or performance shall be brought to the attention of the Owner.</div> <div>J. Underfloor installation of Heating and Air Conditioning appliances must comply with section M1305.1.4–IRC. Attic installation must comply w/ section 1305.1.3–IRC.</div> <div>K. All wiring, except for main, range feed and dryer feed, to be copper.</div> <div>L. Mechanical ducts to be wrapped with R4.2 insulation.</div> <div>DIVISION 16 – ELECTRICAL</div> <div>16.1 GENERAL</div> <div>A. All electrical work shall conform to the latest adopted edition of the National Electrical Code and any other governing electrical codes.</div> <div>B. Main metering and distribution gear shall comply with power company, N.E.C., and U.L. requirements prior to installation.</div> <div>C. The electrical contractor shall verify the exact location of all A.C. and mechanical equipment, furnish and install all conductors and conduit to all equipment and controls, make necessary connections for a complete working system. Verify size and electrical requirements prior to installation per sections M1305.1.4.3–IRC, &amp; E3803.4–IRC.</div> <div>D. All system and equipment grounds to be installed in strict accordance with all code requirements</div> <div>E. The electrical contractor shall verify the exact locations of service points and comply with all requirements of Power Company. Verify serving voltage required and notify all trades of serving voltage.</div> <div>F. SEE ELECTRICAL SPECIFICATIONS.</div> <div>G. Telephone system to be installed per local telephone company requirements. Verify exact location of service points with Telephone Company.</div>				<div>GENERAL</div> <div>G1.1PROJECT INFORMATION</div> <div>G1.2GENERAL NOTES</div> <div>G1.3GENERAL NOTES</div> <div>SITE</div> <div>C1.1FCOZ APPROVAL</div> <div>AS1ARCHITECTURAL SITE PLAN</div> <div>ARCHITECTURAL</div> <div>A1.1MAIN FLOOR LEVEL</div> <div>A1.2GARAGE FLOOR LEVEL</div> <div>A2.1EXTERIOR ELEVATIONS</div> <div>A2.2EXTERIOR ELEVATIONS</div> <div>A3.1BUILDING SECTIONS</div> <div>A3.2BUILDING SECTIONS</div> <div>A3.3TYPICAL DETAILS</div> <div>ELECTRICAL</div> <div>E1.1MAIN FLOOR ELECTRICAL PLAN</div> <div>E1.2LOWER ELECTRICAL PLAN</div> <div>STRUCTURAL</div> <div>S1STRUCTURAL NOTES</div> <div>S2FOOTING &amp; FOUNDATION PLAN</div> <div>S3MAIN FLOOR FRAMING PLAN</div> <div>S4UPPER FLOOR FRAMING PLAN</div> <div>S4.1ROOF FRAMING PLAN</div> <div>S5STRUCTURAL DETAILS</div> <div>S6STRUCTURAL DETAILS</div> <div>S7STRUCTURAL DETAILS</div>	<div>SCOPE OF WORK:</div> <div>– GARAGE ADDITION</div> <div>– LIVING SPACE ABOVE.</div> <div>– CONNECT WITH BREEZEWAY</div>			
CONSULTANTS	PROJECT DESIGN ANALYSIS			SYMBOL LEGEND				
<div>STRUCTURAL ENGINEER</div> <div>ANDRES ALDAVE</div>	<div>STRUCTURAL DESIGN CRITERIA</div> <div>ELEVATION7,804 ± FEET</div> <div>SOIL BEARING PRESSURE1500 psf (ASSUMED)</div> <div>WIND LOAD115 C</div> <div>SEISMIC ZONED</div> <div>ROOF LIVE LOAD157 psf</div> <div>ROOF DEAD LOAD18 psf</div> <div>FLOOR LIVE LOAD40 psf</div> <div>FLOOR DEAD LOAD15 psf</div> <div>WELDINGAWS D1.1</div> <div>PREFABRICATED WOOD TRUSSES – ENGINEERED BY MANUFACTURER</div>	<div>APPLICABLE CODES</div> <div>INTERNATIONAL RESIDENTIAL CODE (IRC) – 2015</div> <div>INTERNATIONAL BUILDING CODE (IBC) – 2015</div> <div>INTERNATIONAL MECHANICAL CODE – 2015</div> <div>INTERNATIONAL PLUMBING CODE – 2015</div> <div>NATIONAL ELECTRIC CODE – 2017</div> <div>INTERNATIONAL FIRE CODE – 2015</div>	<div>CODE DESIGN CRITERIA</div> <div>TYPE OF CONSTRUCTIONⅡ</div> <div>OCCUPANCYR–3</div> <div>STORIES2 1/2</div> <div>ALLOWABLE HEIGHT32'–0"</div> <div>ACTUAL HEIGHT31'–6"</div> <div>ALLOWABLE AREA</div> <div>MAIN LEVEL ADDITION930 SQ. FT.</div> <div>LOWER LEVEL ADDITION770 SQ. FT.</div> <div>TOTAL ADDITION1,700 SQ. FT.</div>	<div><div><div></div></div>GRAVEL</div> <div><div><div></div></div>E.I.F.S.</div> <div><div><div></div></div>RIGID INSULATION</div> <div><div><div></div></div>BATT/BLOWN INSULATION</div> <div><div><div></div></div>PLYWOOD/OSB IN ELEVATION</div> <div><div><div></div></div>PLYWOOD/OSB IN SECTION</div> <div><div><div></div></div>GYPSUM BOARD IN SECTION</div> <div><div><div></div></div>CONTINUOUS WOOD FRAMING</div> <div><div><div></div></div>WOOD BLOCKING</div> <div><div><div></div></div>MASONRY VENEER</div> <div><div><div></div></div>2x6 STUD WALL</div> <div><div><div></div></div>2x4 STUD WALL</div> <div><div><div></div></div>CONCRETE</div> <div><div><div></div></div>HIDDEN LINE</div> <div><div><div></div></div>KEYED NOTE</div> <div><div><div></div></div>DOOR MARK – SEE SCHEDULE</div> <div><div><div></div></div>WINDOW MARK – SEE SCHEDULE</div>				
	<div>MATERIAL PROPERTIES</div> <div>STEEL BEAMS AND PLATESASTM A36 OR EQUAL</div> <div>DIMENSIONAL LUMBERDOUGLAS FIR #2 OR BETTER</div> <div>TIMBER LOGSFb=900 psi, E=1,600,000 psi OR BETTER</div> <div>GLUED LAMINATED LUMBER (GLB)DOUGLAS FIR–LARCH, GRADE 24F–V4 OR 24F–V8</div> <div>LAMINATED VENEER LUMBER (LVL)Fb= 2600 psi, E=1,900,000 psi</div> <div>VERSA–LAM LUMBER (VL)Fb= 2800 psi, E=2,000,000 psi</div> <div>TJI JOISTSTRUSS JOIST MacMILLAN OR EQUAL</div> <div>CONCRETE FLAT WORK2500 psi, 5 1/2 BAGS, 4" MAX. SLUMP</div> <div>REINFORCING STEELASTM A615, GRADE 60</div> <div>STEEL CONNECTION BOLTSASTM A325</div> <div>ADHESIVE ANCHORSHILTI, RAMSET/REDHEAD, RAWL OR SIMPSON SYSTEM</div>	<div>SPRINKLEDYES</div> <div>EXTERIOR WALLS1 HOUR</div> <div>EAVES AND FASCIA1 HOUR</div> <div>FLOOR/CEILING ASSEMBLY1 HOUR ☉ GARAGE</div> <div>ROOFCLASS A</div> <div>EXTERIOR OPENINGS20 MIN.</div> <div>FIRE SEPARATION BETWEEN HOUSE AND GARAGE1/2" GYPSUM BOARD EACH SIDE</div> <div>DEFERRED SUBMITTALS</div>						
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BUILDING PLANNING

1. ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED. (IRC R303.1)
2. BATHROOMS, WATER CLOSET COMPARTMENTS, AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA IN WINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPENABLE. (IF NO WINDOWS, A MECHANICAL VENTILATION SYSTEM SHALL BE REQUIRED. THE MINIMUM VENTILATION RATES SHALL BE 50 CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION. (IRC R303.3)
3. EVERY DWELLING UNIT SHALL BE PROVIDED WITH A HEATING FACILITY CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68 DEGREES F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS. (IRC R303.8)
4. EVERY DWELLING UNIT SHALL HAVE AT LEAST ONE HABITABLE ROOM THAT SHALL HAVE NOT LESS THAN 120 SQUARE FEET OF GROSS FLOOR AREA. (IRC R304.1)
5. OTHER HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET, EVERY KITCHEN SHALL HAVE NOT LESS THAN 50 SQUARE FEET OF GROSS FLOOR AREA. (IRC R304.2)
6. HABITABLE ROOMS SHALL NOT BE LESS THAN 7 FEET IN ANY HORIZONTAL DIMENSION. EXCEPTION: KITCHENS SHALL HAVE A CLEAR PASSAGEWAY OF NOT LESS THAN 3 FEET BETWEEN COUNTER FRONTS AND APPLIANCES OR COUNTER FRONTS AND WALLS. (IRC R304.3)
7. PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN 5 FEET OR A FURRED CEILING MEASURING LESS THAN 7 FEET FROM THE FINISHED FLOOR TO THE FINISHED CEILING SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM. (IRC R304.4)
8. HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENT SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET, NOT MORE THAN 50 PERCENT OF THE REQUIRED FLOOR AREA OF A ROOM IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN 7 FEET IN HEIGHT WITH NO PORTION OF REQUIRED FLOOR AREA LESS THAN 5 FEET IN HEIGHT. (IRC R305.1) FOR ROOMS WITH SLOPED CEILINGS, 50% MIN. OF REQ'D AREA SHALL HAVE AT LEAST 7' CEILINGS AND NO PORTION OF REQ'D AREA SHALL BE LESS THAN 5'.
9. EVERY DWELLING UNIT SHALL BE PROVIDED WITH A WATER CLOSET, LAVATORY, AND A BATHTUB. (IRC R306.1)
10. EACH DWELLING UNIT SHALL BE PROVIDED WITH A KITCHEN AREA AND EVERY KITCHEN SHALL BE PROVIDED WITH A SINK. (IRC R306.2)
11. THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSES OF GLAZING AND PROPERLY IDENTIFIED: (5) GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPools, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PART OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE. (6) GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH ARC OF THE DOOR IN A CLOSED POSITION AND IN WHICH THE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS: (7.1) EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET. (7.2) BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR, (7.3) TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR, (7.4) ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE GLAZING. (9) GLAZING IN WALLS AND FENCES ENCLOSING INDOOR AND OUTDOOR SWIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF POOL OR SPA SIDE IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE AND WITHIN 60 INCHES HORIZONTALLY OF THE WATER'S EDGE. (10) GLAZING IN WALLS ENCLOSING STAIRWAY LANDINGS OR WITHIN 60 INCHES OF THE TOP AND BOTTOM OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE. (IRC R308.4)
12. OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS BETWEEN GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8 INCHES IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 3/8 INCHES THICK, OR 20 MINUTE FIRE-RATED DOORS WITH SELF-CLOSING HINGES. (IRC R302.5)
13. THE GARAGE SHALL BE SEPERATED FROM THE RESIDENCE AND ITS ATTIC AREA BY INSTALLATION OF MATERIALS APPROVED FOR ONE-HOUR FIRE-RESISTIVE CONSTRUCTION (1/2" GYP. BD.) APPLIED TO THE GARAGE SIDE. WHERE THE SEPERATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPERATION SHALL ALSO BE PROTECTED BY INSTALLATION OF MATERIALS APPROVED FOR ONE-HOUR FIRE-RESISTIVE CONSTRUCTION. FASTENERS 6" O.C. MAX. R302.6, TABLE R702.3.5 (1 LAYER 5/8" TYPE "X" OR 2 LAYERS 1/2" GYP. BD.). (IRC R302.6) SURROUND ELEC. PANEL WHEN INSTALLED IN GARAGE WALL.
14. BASEMENTS WITH HABITABLE SPACE AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPENABLE EMERGENCY ESCAPE AND RESCUE WINDOW OR EXTERIOR DOOR OPENING FOR EMERGENCY ESCAPE AND RESCUE. WHERE OPENINGS ARE PROVIDED AS MEANS OF ESCAPE AND RESCUE THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. (IRC R310.1)
15. BASEMENT EMERGENCY ESCAPE AND RESCUE OPENING SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5 SQUARE FEET. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES. THE MINIMUM NET CLEAR OPENING WIDTH SHAL BE 20 INCHES. (IRC R310.1.1)
16. WINDOW WELLS REQUIRED FOR EMERGENCY ESCAPE AND RESCUE SHALL HAVE HORIZONTAL DIMENSIONS THAT ALLOW THE DOOR OR WINDOW OF THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED. THE HORIZONTAL DIMENSIONS OF THE WINDOW WELL SHALL PROVIDE A MINIMUM NET CLEAR AREA OF 9 SQUARE FEET WITH A MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36 INCHES. WINDOW WELLS WITH A VERTICAL DEPTH OF GREATER THAN 44 INCHES BELOW THE ADJACENT GROUND LEVEL SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION. (IRC R310.2) PROVIDE 6" OF 1" AGGREGATE GRAVEL AND MAINTAIN 6" TO BOTTOM OF WINDOW.
17. THE REQUIRED EXIT DOOR SHALL BE A SIDE-HINGED DOOR NOT LESS THAN 3 FEET IN WIDTH AND 6 FEET, 8 INCHES IN HEIGHT. (IRC R311.3)
18. THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. IF THE DOOR AT THE TOP OF AN INTERIOR STAIRWAY DOES NOT SWING OVER THE STAIRS, A LANDING AT THE TOP OF THE STAIRWAY IS NOT REQUIRED. (IRC R3115.4)
19. THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF EACH EXTERIOR DOOR. (EXCEPTION: AT THE EXTERIOR SIDE OF SLIDING DOORS.) THE FLOOR OR LANDING AT A DOOR SHALL NOT BE MORE THAN 1.5" LOWER THAN THE TOP OF THE THRESHOLD. (EXCEPTION: THE LANDING AT AN EXTERIOR DOORWAY SHALL NOT BE MORE THAN 7 3/4" BELOW THE TOP OF THE THRESHOLD, PROVIDED THAT THE DOOR, OTHER THAN AN EXTERIOR STORM OR SCREEN DOOR, DOES NOT SWING OVER THE LANDING.) (IRC R311.4.3)
20. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE STAIRWAY OR DOOR SERVED, EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL. (IRC R311.4.3)
21. RAMPS SHALL HAVE A MINIMUM SLOPE OF ONE UNIT VERTICAL IN TWELVE UNITS HORIZONTAL. (IRC R311.6) ONE IN EIGHT IF TECHNICALLY UNFEASIBLE.
22. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF ALL RAMPS EXCEEDING A SLOPE OF ONE UNIT VERTICAL IN 12 UNITS HORIZONTAL. (IRC R311.6.3)

23. A MINIMUM 3'x3' LANDING SHALL BE PROVIDED: AT THE TOP OF RAMPS, WHERE DOORS OPEN ON TO RAMPS, WHERE RAMPS CHANGE DIRECTION. (IRC R311.6.2)
24. STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. (IRC R311.15.1)
25. THE MAXIMUM RISER HEIGHT SHALL BE 7 3/4" AND THE MINIMUM TREAD DEPTH SHALL BE 10". THE RISER HEIGHT SHALL BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE WALKING SURFACE OF TREADS AND LANDINGS OF A STAIRWAY SHALL BE SLOPED NO STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". (IRC R311.5.3)
26. THE RADIUS OF CURVATURE AT THE LEADING EDGE OF THE TREAD SHALL BE NOT GREATER THAN 9/16". A NOSING NOT LESS THAN 3/4" BUT NOT MORE THAN 1 1/4" SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS. THE GREATEST NOSING PROJECTION SHALL NOT EXCEED THE SMALLEST NOSING PROJECTION BY MORE THAN 3/8" BETWEEN TWO STORIES, INCLUDING THE NOSING AT THE LEVEL OF FLOORS AND LANDINGS. BEVELING OF NOSING SHALL NOT EXCEED 1/2". RISERS SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE LEADING EDGE OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES FROM THE VERTICAL. PORTLAND CEMENT RISERS ARE PERMITTED, PROVIDED THAT THE OPENING BETWEEN TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE. EXCEPTIONS: (1) A NOSING IS NOT REQUIRED WHERE THE TREAD DEPTH IS A MINIMUM OF 11". (2) THE OPENING BETWEEN ADJACENT TREADS IS NOT LIMITED ON STAIRS WITH A TOTAL RISE OF 30" OR LESS. (IRC R311.3.3)
27. THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8", MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM. (IRC R311.5.2)
28. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE, AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM WALL BOARD. (IRC R311.5)
29. HANDRAILS HAVING MINIMUM AND MAXIMUM HEIGHTS OF 34" AND 38", RESPECTIVELY, MEASURED VERTICALLY FROM THE NOSING OF THE TREADS, SHALL BE PROVIDED ON AT LEAST ONE SIDE OF STAIRWAYS. ALL REQUIRED HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS WITH TWO OR MORE RISERS FROM A POINT DIRECTLY ABOVE THE TOP RISER OF A FLIGHT TO A NEW POINT DIRECTLY ABOVE THE TOP RISER OF A FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1.5" BETWEEN THE WALL AND THE HANDRAIL. (IRC R311.5.6) NOTE: R312.1.3 EXC. 1 - THE TRIANGULAR OPENINGS AT THE OPEN SIDE OF THE STAIR, FORMED BY THE RISER, TREAD AND BOTTOM OF RAIL OF A GUARD, SHALL NOT ALLOW PASSAGE OF A SPHERE 6" IN DIAMETER.
30. THE HANDGRIP PORTION OF HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION OF 1 1/4" MINIMUM TO 2 5/8" MAXIMUM. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8". EXCEPTION: NON-CIRCULAR HANDRAILS SHALL BE PERMITTED TO HAVE A MAXIMUM CROSS SECTIONAL DIMENSION OF 3.25" MEASURED 2" DOWN FROM THE TOP OF THE CROWN. SUCH HANDRAIL IS REQUIRED TO HAVE AN INDENTION ON BOTH SIDES BETWEEN 0.625" AND 1.5" DOWN FROM THE TOP OR CROWN OF THE CROSS SECTION. THE INDENTATION SHALL BE A MINIMUM OF 0.25" DEEP ON EACH SIDE AN SHALL BE AT LEAST 0.5" HIGH. EDGES WITHIN THE HANDGRIP SHALL HAVE A MINIMUM RADIUS OF 0.0625". THE HANDRAIL SURFACE SHALL BE SMOOTH WITH NO CUSPS SO AS TO AVOID CATCHING CLOTHING OR SKIN. (IRC R311.5.6.3)
31. PORCHES, BALCONIES, OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 36" IN HEIGHT. REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREAS, BALCONIES AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER. (IRC R312.1)
32. SINGLE AND MULTIPLE STATION SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS PER SEC. 1210: IN EACH SLEEPING ROOM, OUTSIDE OF EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND CELLARS. WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN A DEWLLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. ALL DETECTORS SHALL BE HARDWIRED AND HAVE BATTERY BACKUP. PRIMARY WIRING SHALL BE FROM THE BUILDING ELECTRICAL SYSTEM. (IRC R313) PROVIDE CARBON MONOXIDE DETECTORS AT EACH LEVEL OF STRUCTURE, PER UTAH STATE AMENDMENT R313.2. COMBINATION SMOKE/CO DETECTOR UNITS.
33. IN ALL FRAMED WALLS, FLOORS, AND ROOF/CEILINGS COMPRISING ELEMENTS OF THE BUILDING THERMAL ENVELOPE, A VAPOR RETARDER SHALL BE INSTALLED ON THE WARM-IN-WINTER SIDE OF THE INSULATION. (IRC R318.1)
34. ALL HINGED SHOWER DOORS SHALL SWING OUTWARD, IRC M2708.1. GLASS USED IN SHOWER DOORS OR TUB ENCLOSURES SHALL BE NOT LESS THAN 3/16" WHEN FULL TEMPERED AND 1/4" WHEN LAMINATED.

FOUNDATIONS

1. BASEMENT WALLS, FOUNDATIONS AND OTHER CONCRETE NOT EXPOSED TO THE WEATHER=2,500 PSI. BASEMENT SLABS AND INTERIOR SLABS ON GRADE, EXCEPT GARAGE FLOOR SLABS = 2,500 PSI. BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS AND OTHER VERTICAL CONCRETE WORK EXPOSED TO THE WEATHER = 3,000M PSI. PORCHES, CARPORT SLABS, AND STEPS EXPOSED TO THE WEATHER, AND GARAGE FLOOR SLABS = 3,000 PSI. UNLESS NOTED OTHERWISE. (IRC R402.2)
2. ALL EXTERIOR FOOTINGS AND FOUNDATION SYSTEMS SHALL EXTEND BELOW THE FROST LINE AT 30" BELOW GRADE UNLESS NOTED OTHERWISE. ALL INTERIOR FOOTING SUPPORTING BEARING OR BRACING WALLS AND CAST MONOLITHICALLY WITH A SLAB ON A GRADE SHALL EXTEND TO A DEPTH OF NOT LESS THAN 12" BELOW THE TOP OF SLAB. (IRC R403.1.4)
3. ANCHOR BOLTS SHALL BE SPACED A MAXIMUM OF 32" ON CENTER. ANCHOR BOLTS SHALL ALSO BE LOCATED WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION WITH A MINIMUM OF TWO BOLTS PER PLATE SECTION LOCATED NOT LESS THAN 4" FROM EACH END AT INTERIOR BEARING WALLS, INTERIOR BRACED WALL LINES AND AT ALL EXTERIOR WALLS. ANCHOR BOLTS SHALL BE AT LEAST 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. WHEN ANCHOR BOLT SPACING DOES NOT EXCEED 32" APART, A PROPERLY SIZED ROUND WASHER MAY BE USED. (IRC R403.1.6)
4. IN ADDITION TO THE REQUIREMENTS OF SECTION R403.1.6, THE FOLLOWING REQUIREMENTS SHALL APPLY TO LIGHT-WOOD FRAME STRUCTURES IN SEISMIC DESIGN CATEGORIES D1 AND D2. ANCHOR BOLTS SHALL BE LOCATED WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION AT INTERIOR BEARING WALLS, INTERIOR BRACED WALL LINES AND AT ALL EXTERIOR WALLS. PLATE WASHERS A MINIMUM OF 3" x 3" x 0.229" THICK SHALL BE USED ON EACH BOLT. EXCEPTIONS: (A) WHEN ANCHOR BOLTS SPACING DOES NOT EXCEED 32" APART, ANCHOR BOLTS MAY BE PLACED WITH A MINIMUM OF TWO BOLTS PER PLATE SECTION LOCATED NOT LESS THAN 4" FROM EACH END OF EACH PLATE SECTION AT INTERIOR BEARING WALLS, INTERIOR BRACED WALL LINES AND AT ALL EXTERIOR WALLS. (B) WHEN ANCHOR BOLT SPACING DOES NOT EXCEED 32" APART, A PROPERLY SIZED ROUND WASHER MAY BE USED. THE MAXIMUM ANCHOR BOLT SPACING SHALL BE 4' FOR TWO-STORY STRUCTURES. (IRC R403.1.6.1)

5. MAXIMUM HEIGHT WITHOUT ENGINEERING = 9', TOP EDGE SUPPORT REQUIRED FOR WALLS OVER 6' TALL (TOP EDGE SUPPORT=FLOOR OR ROOF DIAPHRAGM); MINIMUM THICKNESS=6" FROM WALLS 0' TO LESS THAN 6' TALL AND 8" THICK FOR 6' TO 9' TALL; VERTICAL REBAR (TO BE PLACED IN THE CENTER OF THE WALL, AND EXTENDING FROM THE FOOTING TO WITHIN 3" FROM THE TOP OF THE WALL, DOWELS OF #4 BARS TO MATCH VERTICAL STEEL PLACEMENT SHALL BE PROVIDED IN THE FOOTING, EXTENDING 24" INTO THE FOUNDATION WALL FOR WALLS 2' TO LESS THAN 4' TALL, #4 REBAR AT 32" ON CENTER IN WALL 4' TO LESS THAN 6' TALL, #4 REBAR AT 24" ON CENTER IN WALLS 6' TO LESS THAN 9' TALL, AND #4 REBAR AT 16" ON CENTER IN WALL 9' TALL; HORIZONTAL REBAR (ONE BAR SHALL BE LOCATED IN THE TOP 4", ONE BAR IN THE BOTTOM 4" AND THE OTHER BARS EQUALLY SPACED BETWEEN CORNER REINFORCING SHALL BE PROVIDED SO AS TO LAP 24") = (2) #4 REBAR IN WALLS TO LESS THAN 4' TALL, (4) #4 REBAR IN WALLS FROM 8' TO LESS THAN 9' TALL, AND (7) #4 REBAR IN WALL 9' TALL; STEEL AT OPENINGS (BARS SHALL BE PLACED WITHIN 2" OF THE OPENINGS AND EXTEND 24" BEYOND THE EDGE OF THE OPENING, VERTICAL BARS MAY TERMINATE 3" FROM THE TOP OF THE CONCRETE)=(2) #4 REBAR ABOVE, (1) #4 REBAR AT EACH SIDE, AND (1) #4 REBAR BELOW; MAXIMUM LITEL LENGTH=2" IN WALLS 2' TALL TO LESS THAN 4' TALL, 3' IN WALLS FROM 4' TO LESS THAN 6' TALL, 6' IN WALLS FROM 6' TALL TO 9' TALL; MINIMUM LITEL DEPTH=2" FOR EACH FOOT OF OPENING WIDTH WITH A MINIMUM OF 6". (IRC R404.1.2)
6. FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE HABITABLE OR USABLE SPACES LOCATED BELOW GRADE SHALL BE DAMPPROOFED FROM THE TOP OF THE FOOTING TO THE FINISHED GRADE. MASONRY WALLS SHALL HAVE NOT LESS THAN 3/8" PORTLAND CEMENT PARGING APPLIED TO THE EXTERIOR OR THE WALL. THE PARGING SHALL BE DAMPPROOFED WITH A BITUMINOUS COATING, 3 POUNDS PER SQUARE YARD OF ACRYLIC MODIFIED CEMENT, 1/8" COAT OF SURFACE-BONDING MORTAR, OR ANY MATERIAL PERMITTED FOR WATERPROOFING. CONCRETE WALLS SHALL BE DAMPPROOFED BY APPLYING ANY ONE OF THE ABOVE LISTED DAMPPROOFING MATERIALS OR ANY OF THE WATERPROOFING MATERIALS TO THE EXTERIOR OF THE WALL. (IRC R406.1)

7. THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3' OF EACH CORNER OF SAID BUILDING. THE LEAST DIMENSION OF THE VENT OPENING SHALL NOT EXCEED 1/4". THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE UNDER-FLOOR AREA WHERE THE GROUND SURFACE IS TREATED WITH AN APPROVED VAPOR RETARDER MATERIAL AND THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. (IRC R408.1)
8. AN ACCESS OPENING 18" x 24" MIN. SHALL BE PROVIDED TO THE UNDER-FLOOR SPACE. (IRC R408.4) PROVIDE ACCESS LARGE ENOUGH TO INSTALL AND MAINTENANCE EQUIPMENT IN UNDER-FLOOR SPACES.

FLOORS

1. JOISTS UNDER PARALLEL BEARING PARTITIONS SHALL BE DOUBLED OR A BEAM ADEQUATE SIZE TO SUPPORT THE LOAD SHALL BE PROVIDED. (IRC R502.4)
2. THE ENDS OF EACH JOIST, BEAM OR GIRDER SHALL HAVE NOT LESS THAN 1.5" OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3" ON MASONRY OR CONCRETE EXCEPT WHERE SUPPORTED ON A 1" BY 4" RIBBON STRIP AND NAILING TO THE ADJACENT STUD OR BY THE USE OF APPROVED JOIST HANGERS. (IRC R502.6)
3. JOISTS SHALL BE SUPPORTED Laterally AT THE ENDS BY FULL-DEPTH SOLID BLOCKING NOT LESS THAN 2" NOMINAL IN THICKNESS; OR BY ATTACHMENT TO A HEADER, BAND, OR RIM JOIST, OR TO AN ADJOINING STUD; OR SHALL BE OTHERWISE PROVIDED WITH LATERAL SUPPORT TO PREVENT ROTATION. LATERAL RESTRAINT SHALL ALSO BE PROVIDED AT EACH INTERMEDIATE SUPPORT. (IRC R502.7)
4. NOTCHES IN SOLID LUMBER JOISTS, RAFTERS, AND BEAMS SHALL NOT EXCEED 1/8" OF THE DEPTH OF THE MEMBER. SHALL NOT BE LARGER THAN 1/3 OF THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. NOTCHES AT THE ENDS OF THE MEMBER SHALL NOT EXCEED 1/4 THE DEPTH OF THE MEMBER. THE TENSION SIDE OF MEMBERS 4" OR GREATER IN NOMINAL THICKNESS SHALL NOT BE NOTCHED EXCEPT AT THE ENDS OF THE MEMBERS. THE DIAMETER OF HOLES BORED OR CUT INTO MEMBERS SHALL NOT EXCEED 1/3 THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE CLOSER THAN 2" TO THE TOP OR BOTTOM OF THE MEMBER, OR TO ANY OTHER HOLE LOCATED IN THE MEMBER. WHERE THE MEMBER IS ALSO NOTCHED, THE HOLE SHALL NOT BE CLOSER THAN 2" TO THE NOTCH. (IRC R502.8)
5. OPENINGS IN FLOOR FRAMING SHALL BE FRAMED WITH A HEADER AND TRIMMER JOISTS. WHEN THE HEADER JOIST SPAN DOES NOT EXCED 4', THE HEADER JOIST MAY BE A SINGLE MEMBER THE SAME SIZE AS THE FLOOR JOIST. SINGLE TRIMMER JOISTS MAY BE USED TO CARRY A SINGLE HEADER JOIST THAT IS LOCATED WITHIN 3" OF THE TRIMMER JOIST BEARING. WHEN THE HEADER JOIST SPAND EXCEEDS 4', THE TRIMMER JOISTS AND THE HEADER JOISTS SHALL BE DOUBLED AND OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR JOISTS FRAMING INTO THE HEADER. APPROVED HANGERS SHALL BE USED FOR THE HEADER JOIST CONNECTION WHEN THE HEADER JOIST SPAN EXCEEDS 6' TALL JOISTS OVER 12' LONG SHALL BE SUPPORTED AT THE HEADER BY FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN 2" BY 2". (IRC R502.10)
6. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT THE APPROVAL OF A REGISTERED DESIGN PROFESSIONAL. (IRC R502.11.3)
7. WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET. DRAFTSTOPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. DRAFTSTOPING MATERIALS SHALL NOT BE LESS THAN 1/2" GYPSUM BOARD, 3/8" TYPE 2-M-W PARTICLEBOARD OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED. DRAFTSTOPING SHALL BE INSTALLED PARALLEL TO THE FLOOR FRAMING MEMBERS. (IRC R502.12)

1. IN BEARING WALLS, 2x4 STUDS THAT ARE NOT MORE THAN 10' IN LENGTH SHALL NOT BE SPACED MORE THAN 24" ON CENTER IF SUPPORTING A ROOF AND CEILING ONLY AND 16" ON CENTER IF SUPPORTING ONE FLOOR AND A ROOF CEILING; 2x6 STUDS THAT ARE NOT MORE THAN 10' IN LENGTH SHALL NOT BE SPACED MORE THAN 24" ON CENTER IF SUPPORTING A ROOF AND CEILING ONLY, 24" ON CENTER IF SUPPORTING ONE FLOOR AND A ROOF AND CEILING, AND 16" ON CENTER IF SUPPORTING TWO FLOORS AND A ROOF AND CEILING. (IRC R602.3.1)
2. WOOD STUD WALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIONS WITH BEARING PARTITIONS. END JOINTS IN TOP PLATES SHALL BE OFFSET AT LEAST 24". (IRC R602.3.2)
3. WHERE JOISTS, TRUSSES OR RAFTERS ARE SPACED MORE THAN 16" ON CENTER AND THE BEARING STUDS BELOW ARE SPACED 24" ON CENTER, SUCH MEMBERS SHALL BEAR WITHIN 5" OF THE STUDS BENEATH. EXCEPTIONS INCLUDE: TOP PLATES THAT ARE 2x6, OR THREE TOP PLATES ARE INSTALLED. (IRC R602.3.3)

4. STUDS SHALL HAVE FULL BEARING ON A NOMINAL 2x OR LARGER PLATE OR SILL HAVING A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE STUDS. (IRC R602.3.4)
5. INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED WITH 2x3 STUDS SPACED 24" ON CENTER OR, WHEN NOT PART OF A BRACED WALL LINE, 2x4 FLAT STUDS SPACED AT 16" ON CENTER. INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT LEAST A SINGLE TOP PLATE. (IRC R602.5)
6. ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF ITS WIDTH. STUDS IN NON-BEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40% OF A SINGLE STUD WIDTH. ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO GREATER THAN 40% OF THE STUD WIDTH, THE EDGE OF THE HOLE IS NO CLOSER THAN 5/8" TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. EXCEPTIONS: A STUD MAY BE BORED TO A DIAMETER NOT EXCEEDING 60% OF ITS WIDTH, PROVIDED THAT SUCH STUDS LOCATED IN EXTERIOR WALLS OR BEARING PARTITIONS ARE DOUBLED AND THAT NOT MORE THAN TWO SUCCESSIVE STUDS ARE BORED, OR APPROVED STUD SHOES MAY BE USED. (IRC R602.6)
7. WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR, BRACED OR LOAD-BEARING WALL, NECISSITATING A CUTTING OF THE TOP PLATE BY MORE THAN 50% OF ITS WIDTH, A GALVANIZED METAL TIE NOT LESS THAN 0.054" THICK (16 GAGE) AND 1.5" WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN SIX 16d NAILS. EXCEPTION: WHEN THE ENTIRE SIDE OF THE WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATING. (IRC R602.6.1)
8. FIRE-BLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN THE FOLLOWING LOCATIONS: IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVEL AND AT 10' INTERVALS BOTH VERTICAL AND HORIZONTAL. BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED NON-RIGID MATERIALS SHALL BE ALLOWED AS FIRE-BLOCKING IN WALLS CONSTRUCTED USING PARALLEL ROWS OF STUDS OR STAGGERED STUDS. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS, IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN, AT OPENINGS AROUND VENTS, PIPES, AND DUCTS AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION; FIRE-BLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION. FIRE-BLOCKING SHALL CONSIST OF 2" NOMINAL LUMBER, OR TWO THICKNESS OF 1" NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR ONE THICKNESS OF 23/32" WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/32" WOOD STRUCTURAL PANELS OR ONE THICKNESS OF 3/4" PARTICLEBOARD WITH JOINTS BACKED BY 3/4" PARTICLEBOARD, 1/2" GYPSUM BOARD, OR 1/4" CEMENT-BASED MILL-BOARD. BATTS OR BLANKETS OF MINERAL WOOL OR GLASS FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE SHALL BE PERMITTED AS AN ACCEPTABLE FIRE BLOCK (IRC R602.8)
- WALL COVERING**
1. SCREWS FOR ATTACHING GYPSUM BOARD TO WOOD FRAMING SHALL BE TYPE "W" OR TYPE "S" PER ASTM C 1002 AND SHALL PENETRATE THE WOOD NOT LESS THAN 5/8". SCREWS FOR ATTACHING GYPSUM BOARD TO LIGHT-GAGE STEEL FRAMING WALL PENETRATE THE STEEL NOT LESS THAN 3/8". (IRC R702.3.6)
2. SCREWS FOR ATTACHING GYPSUM BOARD TO WOOD FRAMING WALL PENETRATE THE WOOD NOT LESS THAN 5/8". SCREWS FOR ATTACHING GYPSUM BOARD TO LIGHT-GAGE STEEL FRAMING WALL PENETRATE THE STEEL NOT LESS THAN 3/8". (IRC R702.3.6)
3. ASPHALT -SATURATED FELT FREE FROM HOLES AND BREAKS, WEIGHTING NOT LESS THAN 14 POUNDS PER 100 SQUARE FEET OR OTHER APPROVED WEATHER-RESISTANT MATERIAL SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS. SUCH FELT OR MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH THE LOWER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES. WHERE JOINTS OCCUR, FELT SHALL BE LAPPED NOT LESS 6 INCHES. EXCEPTIONS: IN DETACHED ACCESSORY BUILDING, UNDER PANEL SIDING WITH SHIPLAP JOINTS OR BATTENS, OR UNDER PAPER-BACKED STUCCO LATH.
4. ALL STONE AND MASONRY VENEER SHALL BE LIMITED TO THE FIRST STORY ABOVE GRADE AND SHALL N OT EXCEED 5 INCHES IN THICKNESS. EXCEPTIONS: (4) FOR DETACHED ONE AND TWO FAMILY DWELLINGS WITH MAXIMUM ACTUAL THICKNESS OF 3 INCHES OF EXTERIOR MASONRY VENEER WITH BACKING OF WOOD FRAME LOCATED IN SEISMIC DESIGN CATEGORY D2, THE MASONRY VENEER SHALL NOT EXCEED 20 FEET IN HEIGHT ABOVE A NON-COMBUSTIBLE FOUNDATION. WITH AN ADDITIONAL 8 FEET PERMITTED FOR GABLE ENDS OR 30 FEET IN HEIGHT WITH AN ADDITIONAL 8 FEET PERMITTED FOR GABLE ENDS WHERE THE LOWER 10 FEET HAS A BACKING OF CONCRETE ON MASONRY WALL, PROVIDED THE FOLLOWING CRITERIA ARE MET:
- (A) BRACED WALL PANELS SHALL BE CONSTRUCTED WITH A MINIMUM OF 7/16 INCH THICK SHEATHING FASTENED WITH 8d COMMON NAILS AT 4 INCHES ON CENTER ON PANEL EDGES AND AT 12 INCHES ON CENTER ON INTERMEDIATE SUPPORTS.
- (B) THE BRACING OF THE TOP STORY SHALL BE LOCATED AT EACH END AND AT LEAST EVERY 25 FEET ON CENTER BUT NOT LESS THAN 55% OF THE BRACED WALL LINE. THE BRACING OF THE FIRST STORY.
- (C) HOLD DOWN CONNECTORS SHALL BE PROVIDED AT THE ENDS OF BRACED WALLS FOR THE SECOND FLOOR TO THE FIRST FLOOR OF EACH WALL SEGMENT OF THE BRACED WALL FOR THE FIRST FLOOR TO FOUNDATION ASSEMBLY WITH AN ALLOWABLE DESIGN OF 3900 LBS. IN ALL CASES, THE BOLD DOWN CONNECTOR FORCE SHALL BE TRANSFERRED TO THE FOUNDATION. (D) CRIPPLE WALLS SHALL NOT BE PERMITTED
5. MASONRY VENEER SHALL NOT SUPPORT ANY VERTICAL LOAD OTHER THAN THE DEAD LOAD OF THE VENEER ABOVE. VENEER ABOVE OPENINGS SHALL HAVE A LENGTH OF BEARING OF NOT LESS THAN 4 INCHES. VENEER TIES SHALL SUPPORT NO MORE 2 SQUARE FEET OF WALL AREA. ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSIONS. METAL TIES AROUND THE PERIMETER OF OPENINGS SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING. VENEER TIES SHALL BE MECHANICALLY ATTACHED TO HORIZONTAL JOINT REINFORCEMENT WIRE A MINIMUM OF NO. 9 GAGE. THE HORIZONTAL JOINT REINFORCEMENT SHALL BE CONTINUOUS IN THE VENEER BED JOINT, WITH LAP SPLICES PERMITTED BETWEEN THE VENEER TIE SPACING. THE VENEER SHALL BE SEPARATED FROM THE SHEATHING BY AN AIR SPACE OF A MINIMUM OF 1 INCH BUT NOT MORE THE 4.5 INCHES. THE WEATHER-RESISTANT MEMBRANE OF ASPHALT-SATURATED FELT IS NOT REQUIRED OVER WATER-REPELLENT SHEATHING MATERIALS.
6. R702.4.2 CERAMIC TILE R307.2 FIBER-CEMENT, FIBER-MAT REINFORCED CEMENTITIOUS BACKER UNITS, GLASS MAT GYPSUM BACKERS OR FIBER-REINFORCED GYPSUM BACKERS IN COMPLIANCE WITH ASTM C 1288, C 1178 OR C 1278, RESPECTIVELY, AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS ANS WALL PANELS IN SHOWER AREAS.

R312.1.3 EXC. 1 - THE TRIANGULAR OPENINGS AT THE OPEN SIDE OF THE STAIR, FORMED BY THE RISER, TREAD AND BOTTOM OF RAIL OF A GUARD, SHALL NOT ALLOW PASSAGE OF A SPHERE 6" IN DIAMETER.

MARK	DATE	REVISION
<div><div><div>SPN</div><div>Planning &amp; Design</div></div><div>2091 E. MURRAY HOLLADAY RD. HOLLADAY, UTAH 84117 design@spnhomes.com spnhomes.com OFFICE: 801-466-1250</div></div>		
PROJECT FOR		
BRUCE AND LISA ENGELHARD		
PROJECT NAME		
RESIDENCE ADDITION		
PROJECT ADDRESS		
11401 EAST MULE HOLLOW LN. SLC, UTAH 84121		
SHEET TITLE		
GENERAL NOTES		
PROJ. NO. 19038	PROJ. DATE 01-15-19	
SCALE NONE	PLOT DATE 08-28-19	
SHEET NO.		
G1.3		



ENGELHARD #23033

VEGETATION TABLE

- (T) → EXISTING ASPEN TREE (To be removed)  
(The only significant trees in L.O.D.)  
- REVEGETATION LIST -  
(L) → WESTERN LARCH  
(B) → BIG TOOTH MAPLE  
(Q) → GAMBLE OAK

EROSION CONTROL PLAN:

STRAW BALE & SILT FENCE  
PLACED ON DOWNHILL SIDE  
OF LIMITS OF DISTURBANCE (L.O.D.)  
⊙ MARKED AS

TOTAL OF ALL DISTURBANCE (L.O.D.)

A) EXISTING HOME - 1125'  
B) NEW CONSTRUCTION - 2400'  
TOTAL GROSS → 3525'  
NET { NEW CONSTRUCTION - 2200'  
PROPANE TANK RELOCATION - 200'  
2400'

UNIFIED FIRE AUTHORITY  
PLAN REVIEW  
THIS PROJECT MUST MEET ALL  
LOCAL BUILDING AND FIRE CODE  
REQUIREMENTS

\* CODE MODIFICATION APPROVED

BUILDINGS TO HAVE  
AUTOMATIC FIRE  
SPRINKLER SYSTEM

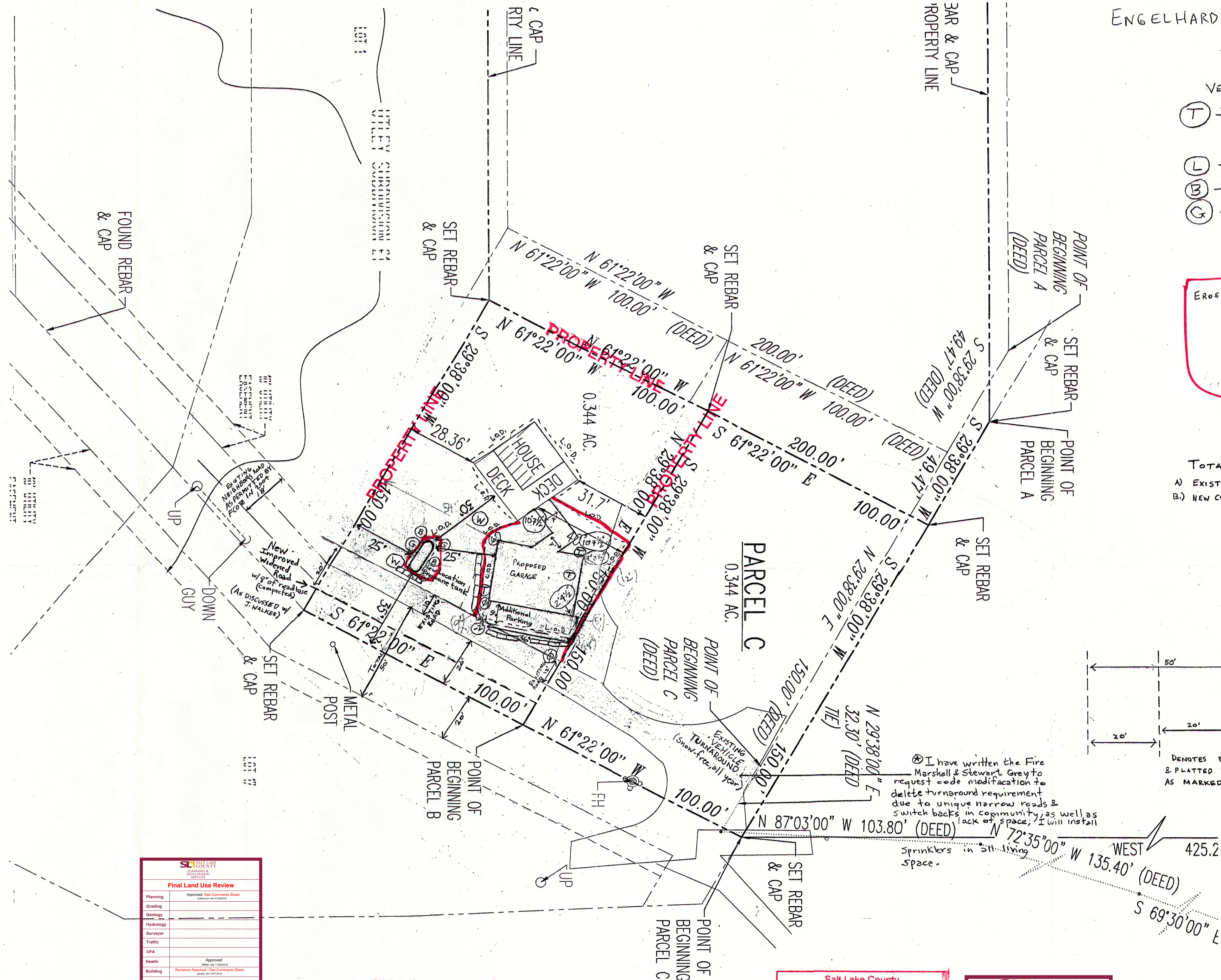
NFPA 13D REQUIREMENTS  
FIRE SPRINKLER  
SYSTEM REQUIRED

IN LIEU OF ACCESS/TURN AROUND

20' 50' 20' 20'  
EXISTING ROAD  
DENOTES EXISTING  
& PLATTED RIGHT-OF-WAY  
AS MARKED ON SITE PLAN

7-11-07

1"=20'



Final Land Use Review	
Planning	Approved: See Comments Sheet
Grading	
Geology	
Hydrology	
Surveyor	
Traffic	
UFA	
Health	Approved
Building	Revisions Required: See Comments Sheet
Operations	
Addressing	

Salt Lake County  
Planning and Development Services  
Limits of Disturbance

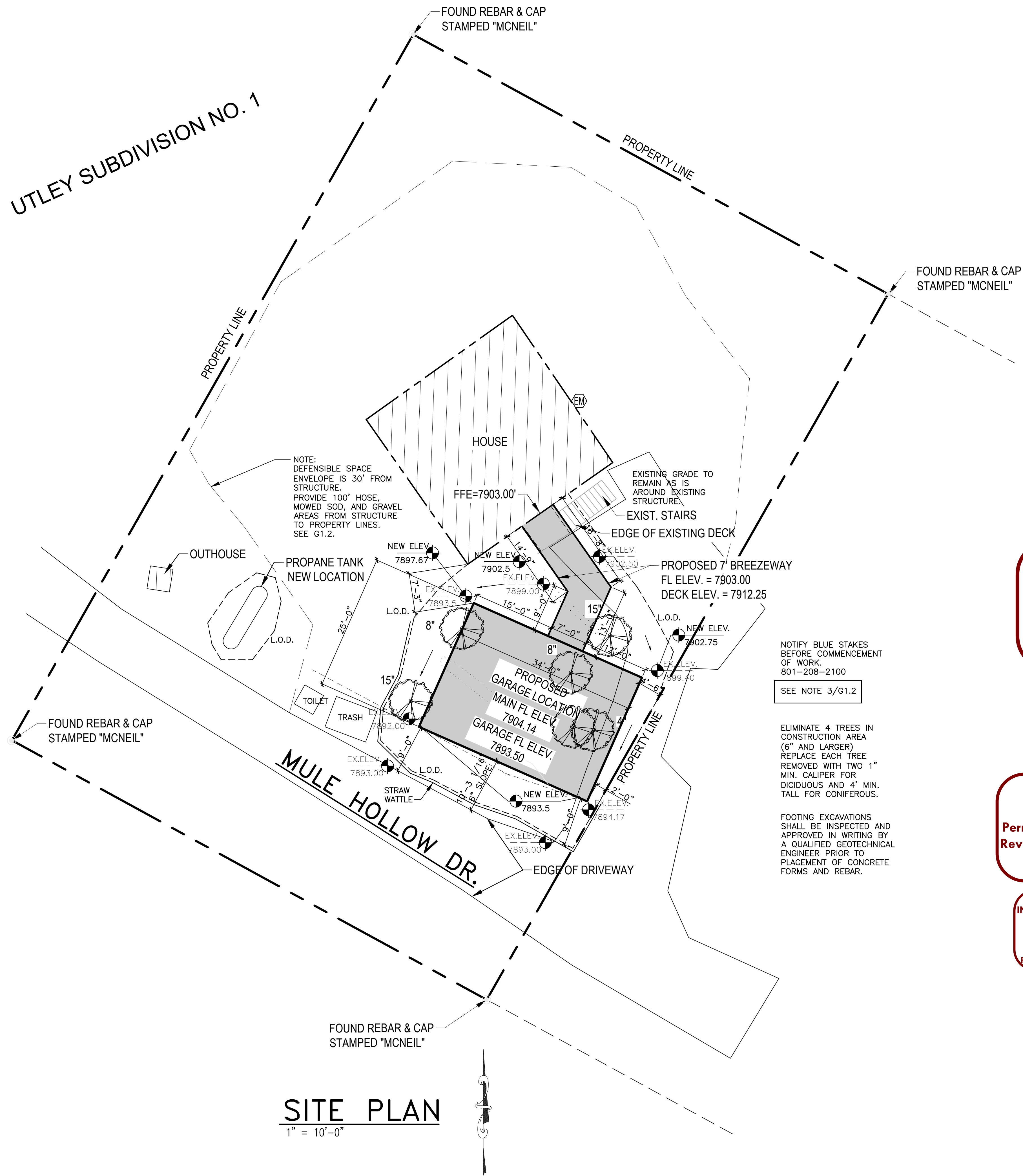
Approved: YES Date: 12/01/2008  
Signature: David J. [Signature]

Salt Lake County  
Planning and Development Services  
Land Use Approval  
Use: F002 PU - GARAGE ADDITION  
File # 23033  
By: David J. [Signature]  
Date: 12/01/2008 Zone: FR-1

SALT LAKE COUNTY  
PLANNING & DEVELOPMENT SERVICES  
LAND USE APPROVAL  
Approved By: jnakamura  
01/29/2019  
site

SALT LAKE COUNTY DEVELOPMENT SERVICES  
APPROVED FOR BUILDING PERMIT  
Baptist  
GRADING REVIEW  
DATE: 2/3/2017  
PERMIT NO.  
#p # 23033





**SITE PLAN**  
1" = 10'-0"

**Concrete Washout REQUIRED**  
at site. All other construction  
liquids and debris to be  
disposed of per the Utah State  
Clean Water Act.

**NATURAL VEGETATION  
SHALL NOT BE REMOVED  
WITHOUT APPROVAL  
FROM SALT LAKE COUNTY  
TOWNSHIP SERVICES**

**SALT LAKE COUNTY**  
**Permit # 190517 \_ Date 05/03/2019**  
**Reviewed by Greg Baptist**  
**GRADING REVIEW APPROVED**

**FOOTING EXCAVATIONS SHALL BE  
INSPECTED AND APPROVED IN WRITING  
BY A QUALIFIED GEOTECHNICAL  
ENGINEER PRIOR TO CONCRETE  
PLACEMENT**  
**Reviewed by Greg Baptist Date 05/03/2019**

MARK	DATE	REVISION

**SPN**  
Planning & Design

2091 E. MURRAY HOLLADAY RD.  
HOLLADAY, UTAH 84117  
design@spnhomes.com spnhomes.com  
OFFICE: 801-466-1250

PROJECT FOR  
**BRUCE  
AND LISA  
ENGELHARD**

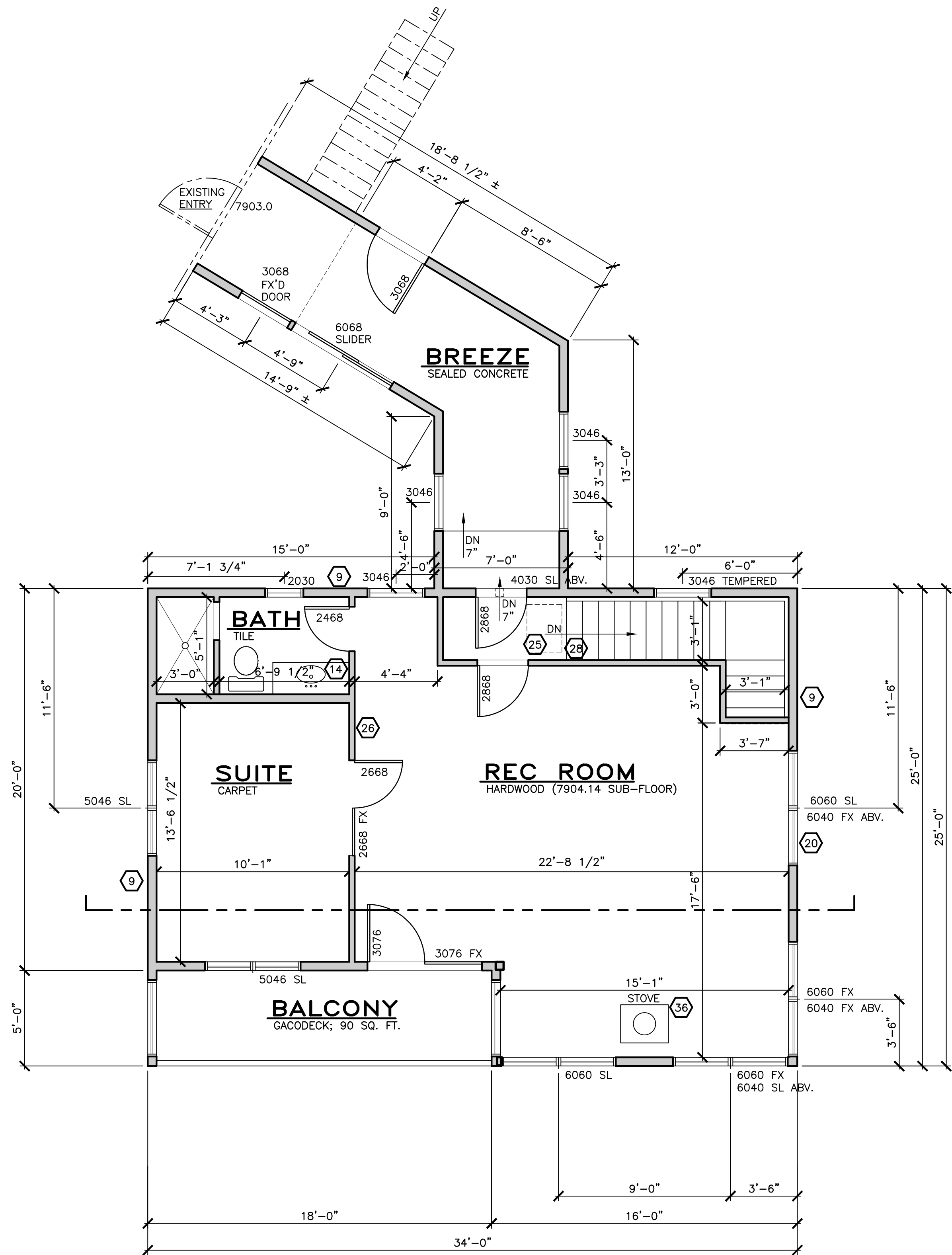
PROJECT NAME  
RESIDENCE  
ADDITION

PROJECT ADDRESS  
11401 EAST  
MULE HOLLOW LN.  
SLC, UTAH 84121

SHEET TITLE	
SITE PLAN	
PROJ. NO. 1903	PROJ. DATE 01-15-19
SCALE 1" = 10'-0"	PLOT DATE 04-20-19

SHEET NO.  
**AS1**





MAIN FLOOR PLAN  
930 SQ. FT.

KEYED NOTES

1

ROOF RAFTERS OR PRE-FAB. TRUSSES – SEE FRAMING PLAN FOR SIZE AND LOCATION ANCHOR WITH SIMPSON VPA OR H2.5 AT EACH JOIST/TRUSS. INSTALL PER MANUF. SPECS.

2

RUBBER MEMBRANE ROOF – APPLY PER MANUF. SPECS.

3

4' x 8' x EXT. OSB ROOF SHEATHING

4

ICE & WATER SHIELD 4'-0" MIN. FROM EAVES AND AT VALLEYS. (24" MIN. INSIDE THE EXTERIOR WALL LINE)

5

SOLID BLOCKING NOTCHED EACH SIDE FOR VENT WITH CONNECTION PER BLOCKING DETAIL TO DOUBLE TOP PLATE.

6

R-49 INSUL. PACK FULL – NON-VENTED SYSTEM.

7

ALUMINUM FASCIA, PROVIDE METAL DRIP EDGE. 2x12 FASCIA BOARD (MATCH EXISTING)

8

ALUMINUM SOFFIT AND TRIM.

9

2x6 STUDS AT 16" O.C. WITH 1/2" GYP. BD. AT INTERIOR AND 7/16" OSB AT EXTERIOR. INSTALL R-20 INSULATION, MIN.

10

11

VERTICAL CEDAR SIDING PER OWNER. TREAT BOTH SIDES BEFORE INSTALLATION.

12

13

TYVEK HOMEWRAP WEATHER BARRIER ON OSB.

14

CABINET DESIGN AND MATERIAL PER OWNER

15

ALUMIN. GUTTER & DOWNSPOUT.

16

2x4 FDN GRADE REDWOOD OR PRESSURE TREATED SILL W/ FIBERGLASS SEALER – TYP.

17

ANCHOR BOLT – WITH 7" EMBED. 12" MAX FROM ENDS OF PLATE (2) BOLTS PER PLATE MIN. USE 3" x 3" x .229" SQ. WASHERS.

18

CONCRETE FOOTING – SEE STRUCTURAL SHEETS FOR SIZE AND REINFORCING

19

ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED GROUND OR ON STRUCTURAL FILL, AND BELOW FROST LINE

20

DOUBLE GLAZED, LOW-E WINDOWS. U=.32 MAX. OR EQUAL. BLACK COLOR.

21

22

23

4" CONC. SLAB ON 4" GRAVEL BASE.

24

COLUMN PER STRUCTURAL.

25

ATTIC ACCESS W/ 30" MIN. HEADROOM AND LIGHT WITHIN SPACE. SEE 9/G1.2 FOR ATTIC FURN. OPTION.

26

INTERIOR WALLS: 2x AT 16" O.C. W/ 1/2" GYPSUM BOARD EACH SIDE.

27

28

34"-36" WOOD HANDRAIL W/ BALUSTER AT 4" O.C. OR METAL BRACES AT 4'-0" O.C.

29

36" WOOD GUARDRAIL W/ BALUSTER AT 4" O.C.

30

STAIR – (4) 2 x 12 MIN. STRINGERS W/ 1/2" GYPSUM BOARD AT BOTTOM

31

3/4" T&G PLY ON FLOOR JOISTS W/ R-38 MIN. INSULATION THROUGHOUT FLOOR.

32

OPTION – ELECTRICAL PANEL FOR CENTRAL VAC, AND FUTURE SECURITY SYSTEM, AND INTERCOM SYSTEM – CONSULT OWNER.

33

PROVIDE GAS STUB TO DECK/PATIO, CONSULT OWNER.

34

FIREBLOCK AT 10'-0" O.C. MAX. PER IRC SEC. R602.8. SEE NOTE 8/G1.2

35

36

REGENCY ALTERRA CS1200 OR EQUAL STOVE PER OWNER. (MFC 303.3 EXP. #1) SEE 26/G1.2. METAL FLUE PER SPECS.

37

38

PROVIDE (2) LAYERS GYP. BOARD AT GARAGE CEILING AND UNDER STAIR. SEE NOTE 13/G1.2

39

STANDING SEAM METAL ROOF OVER 30# FELT, INSTALL PER MANUF. SPECS. CONSULT OWNER.

LEGEND

NEW 2x6 STUD WALL

NEW 2x4 STUD WALL

HIDDEN LINE

EXISTING WALL TO REMAIN

EXISTING ITEM TO REMAIN

EXISTING – TO BE REMOVED

37

KEYED NOTE

1

DOOR MARK

N

WINDOW MARK

PROJECT FOR

BRUCE AND LISA ENGELHARD

PROJECT NAME

RESIDENCE ADDITION

PROJECT ADDRESS

11401 EAST MULE HOLLOW LN. SLC, UTAH 84121

SHEET TITLE

MAIN FLOOR PLAN

PROJ. NO.  
1903B

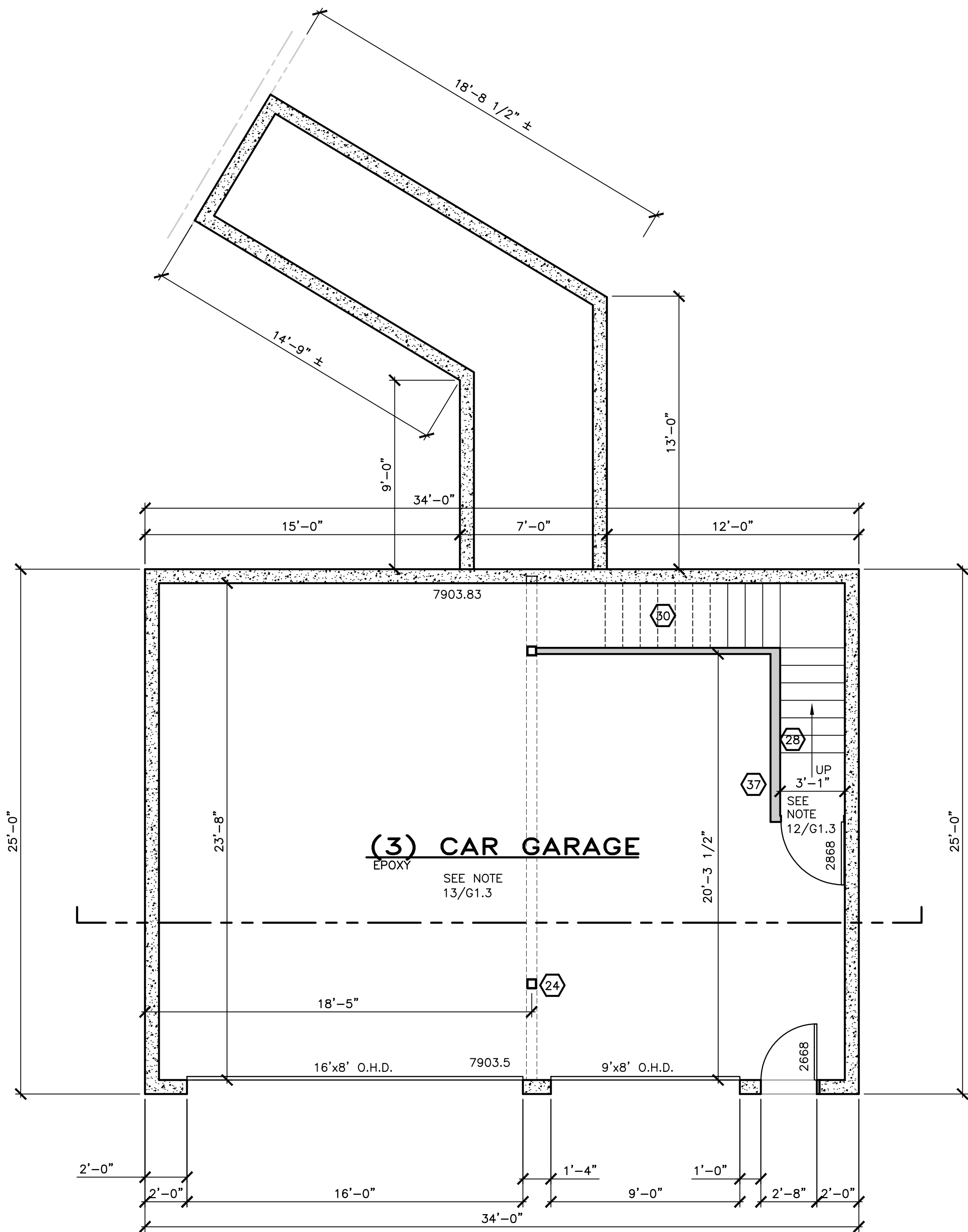
PROJ. DATE  
01-15-19

SCALE  
1/4" = 1'-0"

PLOT DATE  
08-28-19

SHEET NO.  
A1.1

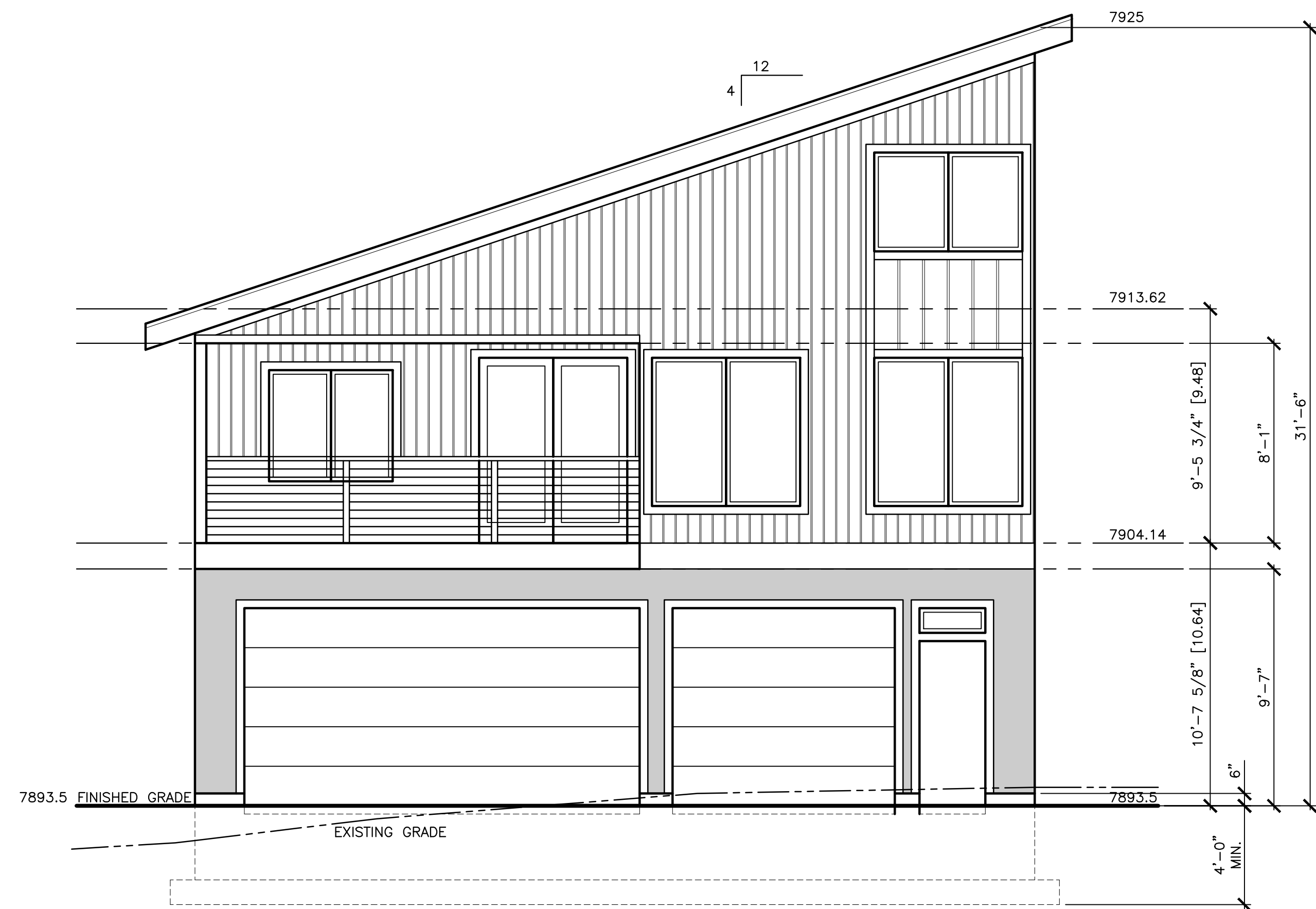
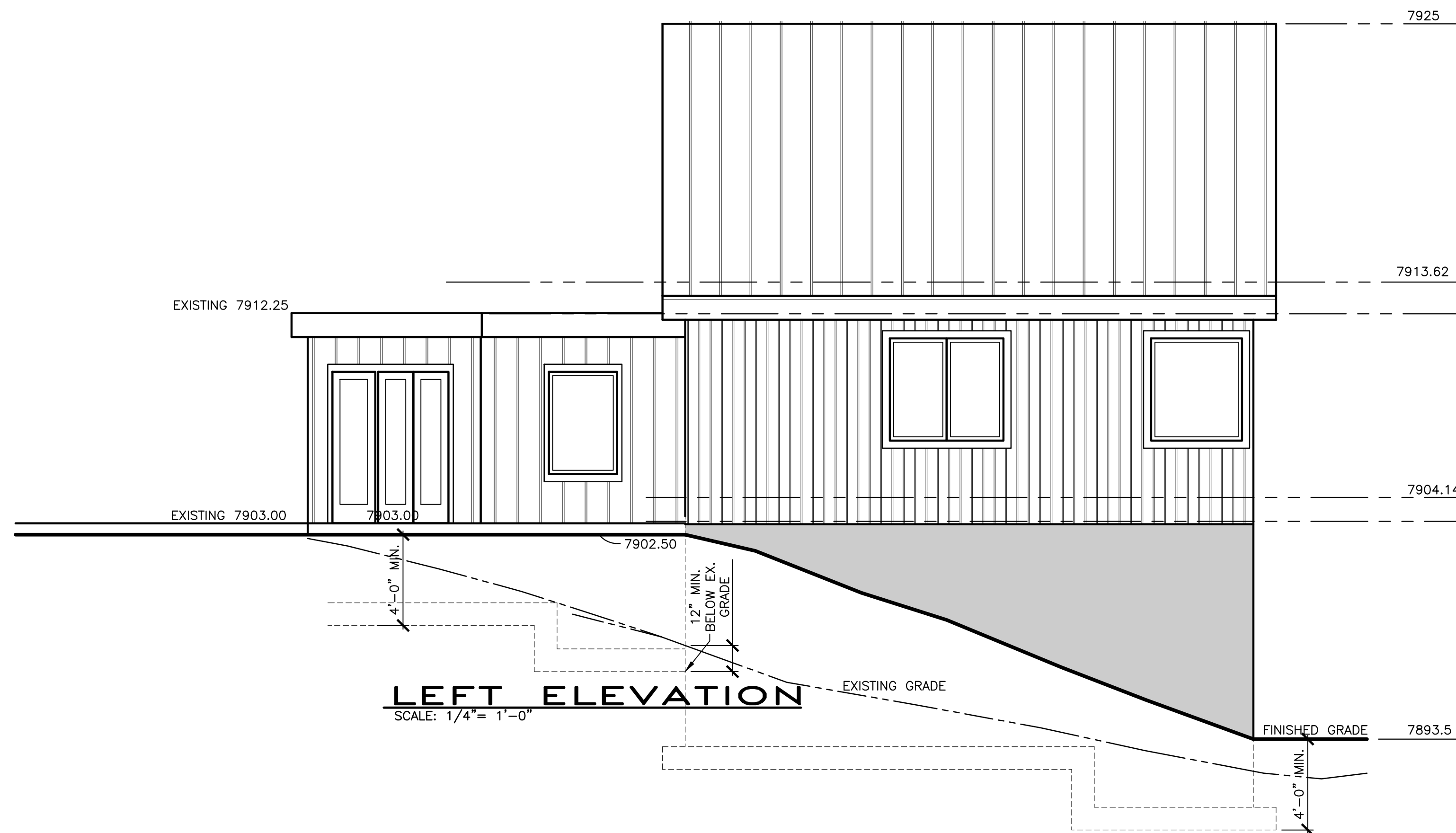




**GARAGE FLOOR PLAN**  
775 SQ. FT.

KEYED NOTES				MARK	DATE	REVISION
1	ROOF RAFTERS OR PRE-FAB. TRUSSES – SEE FRAMING PLAN FOR SIZE AND LOCATION ANCHOR WITH SIMPSON VPA OR H2.5 AT EACH JOIST/TRUSS. INSTALL PER MANUF. SPECS.					
2	RUBBER MEMBRANE ROOF – APPLY PER MANUF. SPECS.					
3	4' x 8' x EXT. OSB ROOF SHEATHING					
4	ICE & WATER SHIELD 4'-0" MIN. FROM EAVES AND AT VALLEYS. (24" MIN. INSIDE THE EXTERIOR WALL LINE)					
5	SOLID BLOCKING NOTCHED EACH SIDE FOR VENT WITH CONNECTION PER BLOCKING DETAIL TO DOUBLE TOP PLATE.					
6	R-49 INSUL. PACK FULL – NON-VENTED SYSTEM.					
7	ALUMINUM FASCIA, PROVIDE METAL DRIP EDGE. 2x12 FASCIA BOARD (MATCH EXISTING)					
8	ALUMINUM SOFFIT AND TRIM.					
9	2x6 STUDS AT 16" O.C. WITH 1/2" GYP. BD. AT INTERIOR AND 7/16" OSB AT EXTERIOR. INSTALL R-20 INSULATION, MIN.					
10						
11	VERTICAL CEDAR SIDING PER OWNER. TREAT BOTH SIDES BEFORE INSTALLATION.					
12						
13	TYVEK HOMEWRAP WEATHER BARRIER ON OSB.					
14	CABINET DESIGN AND MATERIAL PER OWNER					
15	ALUMIN. GUTTER & DOWNSPOUT.					
16	2x4 FDN GRADE REDWOOD OR PRESSURE TREATED SILL W/ FIBERGLASS SEALER – TYP.					
17	ANCHOR BOLT – WITH 7" EMBED. 12" MAX. FROM ENDS OF PLATE (2) BOLTS PER PLATE MIN. USE 3" x 3" x .229" SQ. WASHERS.					
18	CONCRETE FOOTING – SEE STRUCTURAL SHEETS FOR SIZE AND REINFORCING					
19	ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED GROUND OR ON STRUCTURAL FILL, AND BELOW FROST LINE					
20	DOUBLE GLAZED, LOW-E WINDOWS. U=.32 MAX. OR EQUAL. BLACK COLOR.					
21						
22						
23	4" CONC. SLAB ON 4" GRAVEL BASE.					
24	COLUMN PER STRUCTURAL.					
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31	3/4" T&G PLY ON FLOOR JOISTS W/ R-38 MIN. INSULATION THROUGHOUT FLOOR.					
32	OPTION – ELECTRICAL PANEL FOR CENTRAL VAC. AND FUTURE SECURITY SYSTEM, AND INTERCOM SYSTEM – CONSULT OWNER.					
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35						
36	REGENCY ALTERRA CS1200 OR EQUAL STOVE PER OWNER. (IMC 303.3 EXP. #1) SEE 26/G1.2. METAL FLUE PER SPECS.					
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38	PROVIDE (2) LAYERS GYP. BOARD AT GARAGE CEILING AND UNDER STAIR. SEE NOTE 13/G1.2					
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LEGEND						
<div><div></div> NEW 2x6 STUD WALL</div> <div><div></div> NEW 2x4 STUD WALL</div> <div><div></div> HIDDEN LINE</div> <div><div></div> EXISTING WALL TO REMAIN</div> <div><div></div> EXISTING ITEM TO REMAIN</div> <div><div></div> EXISTING – TO BE REMOVED</div>				<div><div>37</div> KEYED NOTE</div> <div><div>1</div> DOOR MARK</div> <div><div>N</div> WINDOW MARK</div>		
				PROJ. NO. 19038	PROJ. DATE 01-15-19	
				SCALE 1/4" = 1'-0"	PLOT DATE 08-28-19	
				SHEET NO.		
				A1.2		













RAILING SYSTEM:  
TOP RAIL 2"x4" CEDAR  
NATURAL CEDAR RED  
POSTS: 2"x2" ALUMINUM  
POWDER COATED BLACK  
(ON 3' CENTERS)  
STRANDS OF PLASTIC  
COATED WIRE-BLACK  
(ON 4" CENTER)  
DOUBLE LAG BOLTED  
INTO RIM

## KEYED NOTES

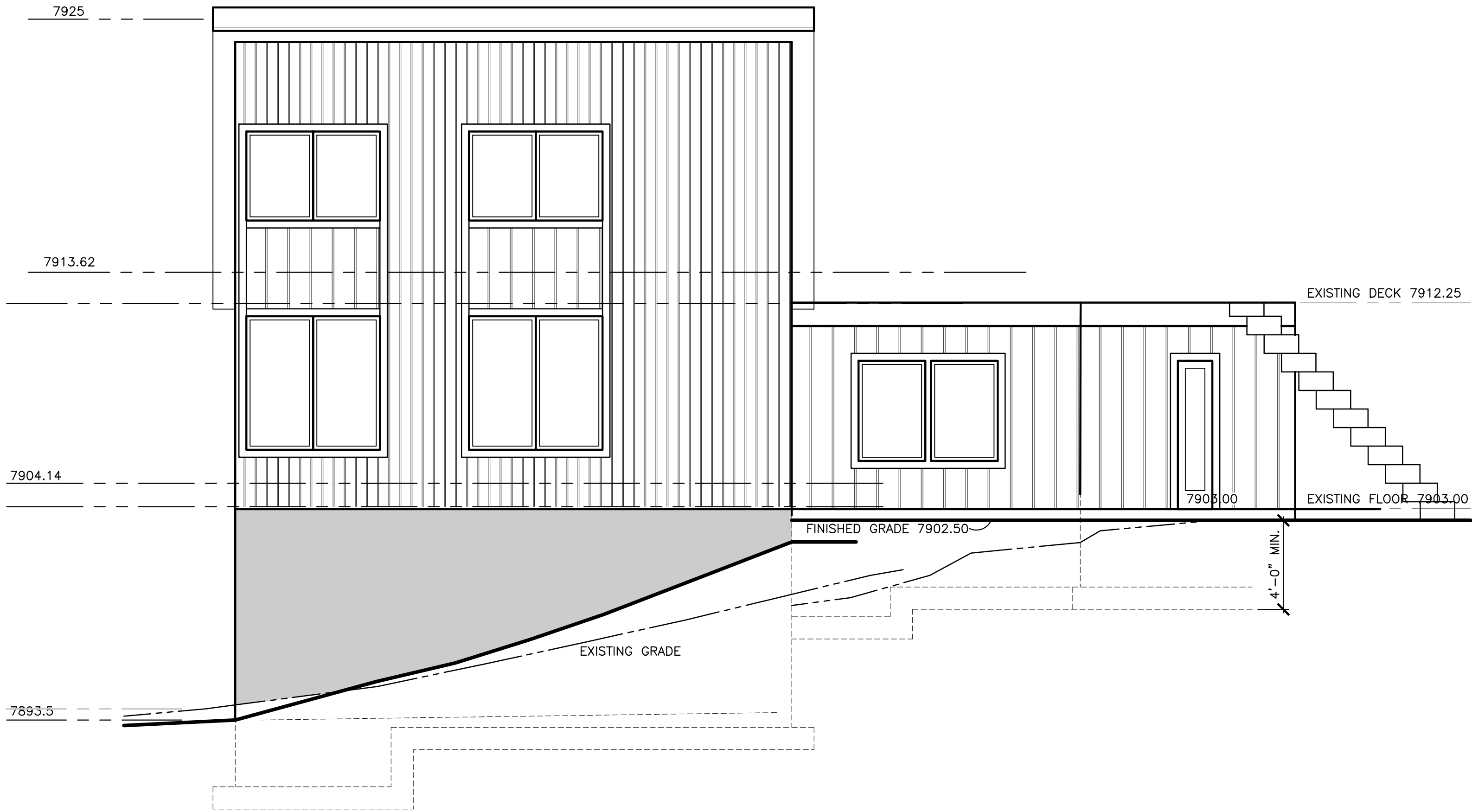
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- 10
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- 12
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- 37
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## LEGEND

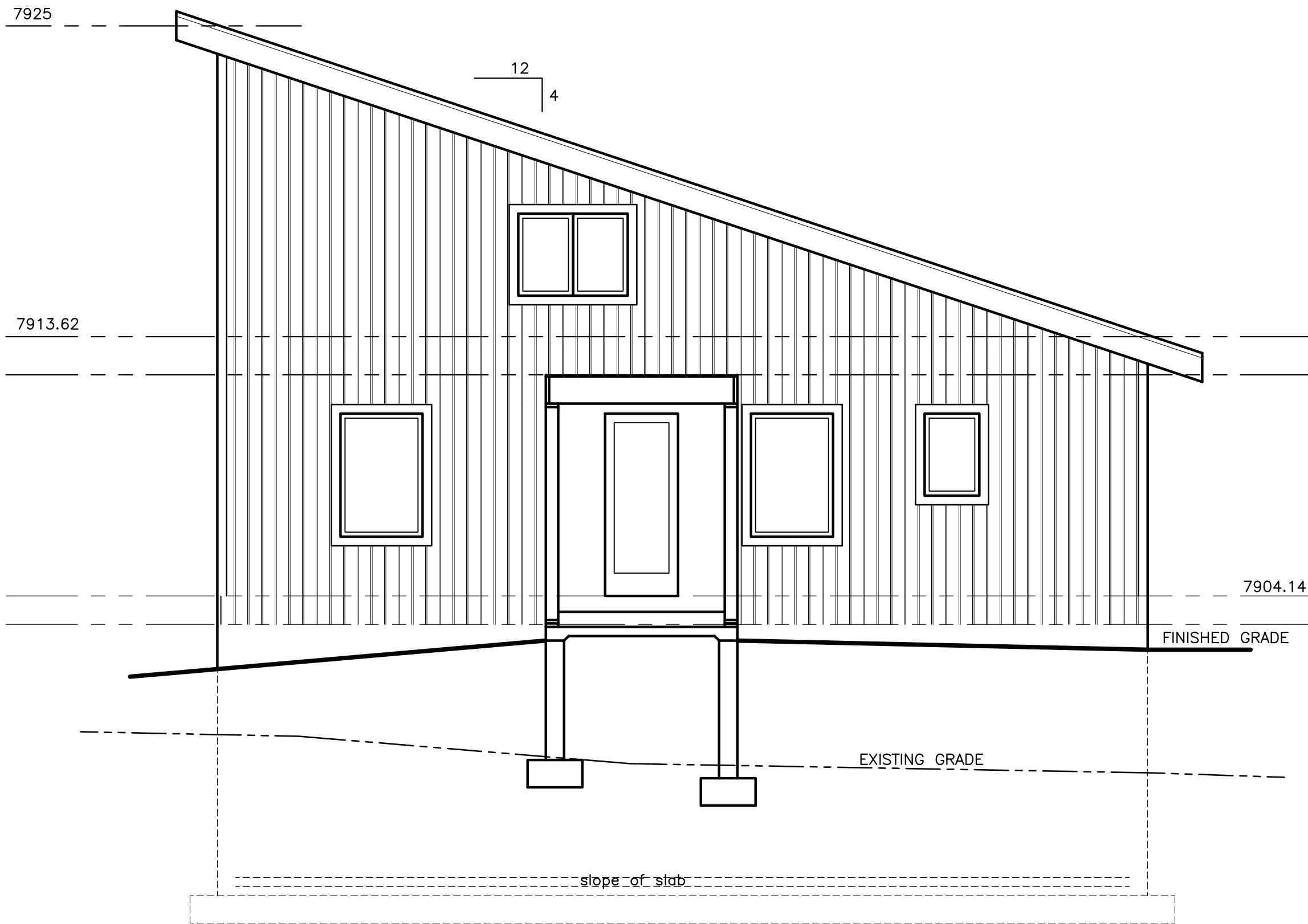
- |                                                                                       |                          |                                                                                       |             |
|---------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|-------------|
|  | NEW 2x6 STUD WALL        |  | KEYED NOTE  |
|  | NEW 2x4 STUD WALL        |  | DOOR MARK   |
|  | HIDDEN LINE              |  | WINDOW MARK |
|  | EXISTING WALL TO REMAIN  |                                                                                       |             |
|  | EXISTING ITEM TO REMAIN  |                                                                                       |             |
|  | EXISTING - TO BE REMOVED |                                                                                       |             |

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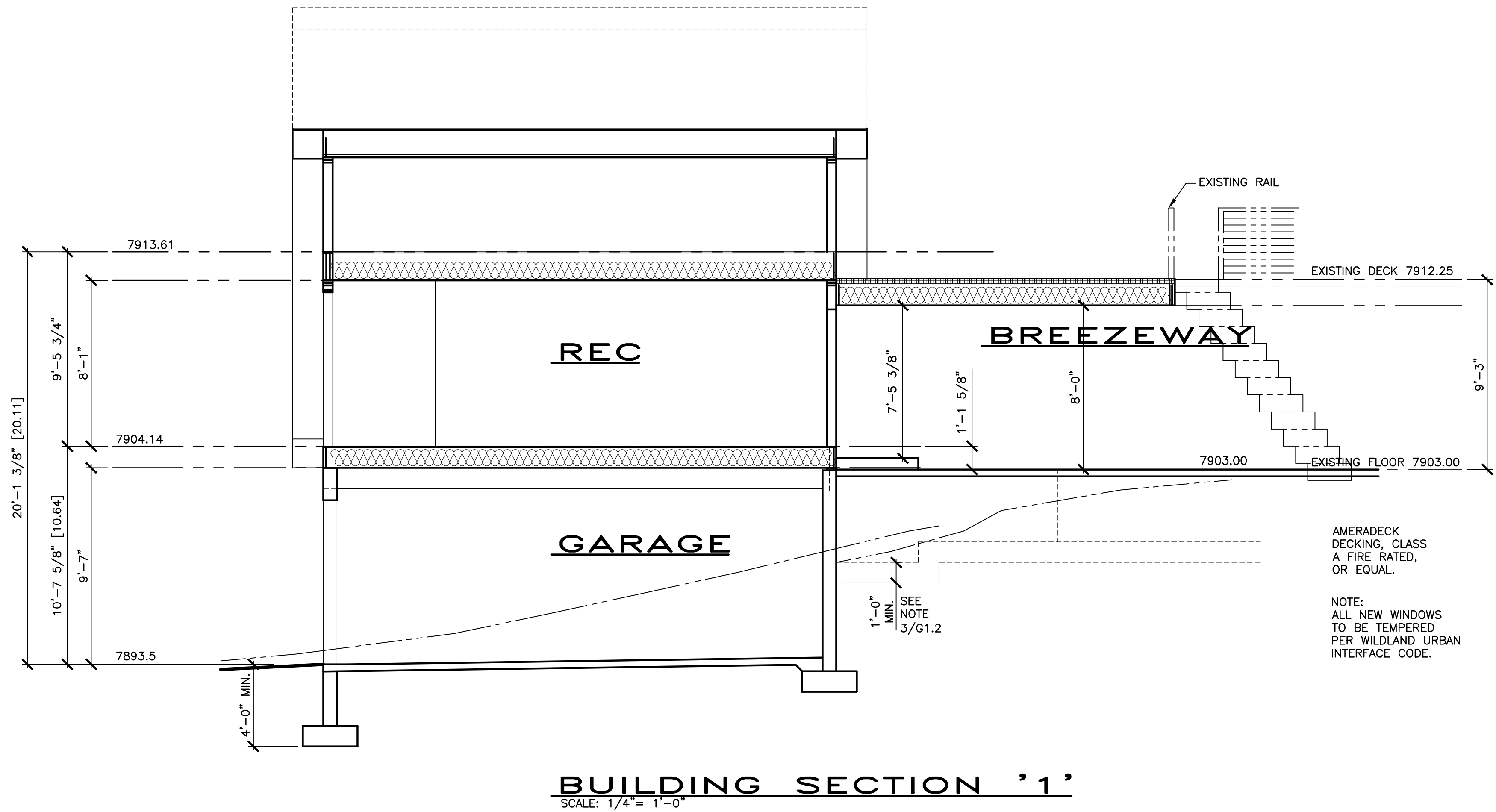
RIGHT ELEVATION  
SCALE: 1/4" = 1'-0"



REAR ELEVATION  
SCALE: 1/4" = 1'-0"

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LEGEND		PROJ. NO.	PROJ. DATE	
NEW 2x6 STUD WALL		1903B	01-15-19	
NEW 2x4 STUD WALL		SCALE	PLOT DATE	
HIDDEN LINE		1/4" = 1'-0"	08-28-19	
EXISTING WALL TO REMAIN		SHEET NO.		
EXISTING ITEM TO REMAIN		A2.2		
EXISTING – TO BE REMOVED				





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NEW 2x6 STUD WALL

NEW 2x4 STUD WALL

HIDDEN LINE

EXISTING WALL TO REMAIN

EXISTING ITEM TO REMAIN

EXISTING – TO BE REMOVED

37

KEYED NOTE

1

DOOR MARK

19

WINDOW MARK

MARK

DATE

REVISION

<

SPN

Planning & Design

2091 E. MURRAY HOLLADAY RD.  
HOLLADAY, UTAH 84117  
design@sphomes.com sphomes.com  
OFFICE: 801-466-1250

PROJECT FOR

**BRUCE  
AND LISA  
ENGELHARD**

PROJECT NAME

**RESIDENCE  
ADDITION**

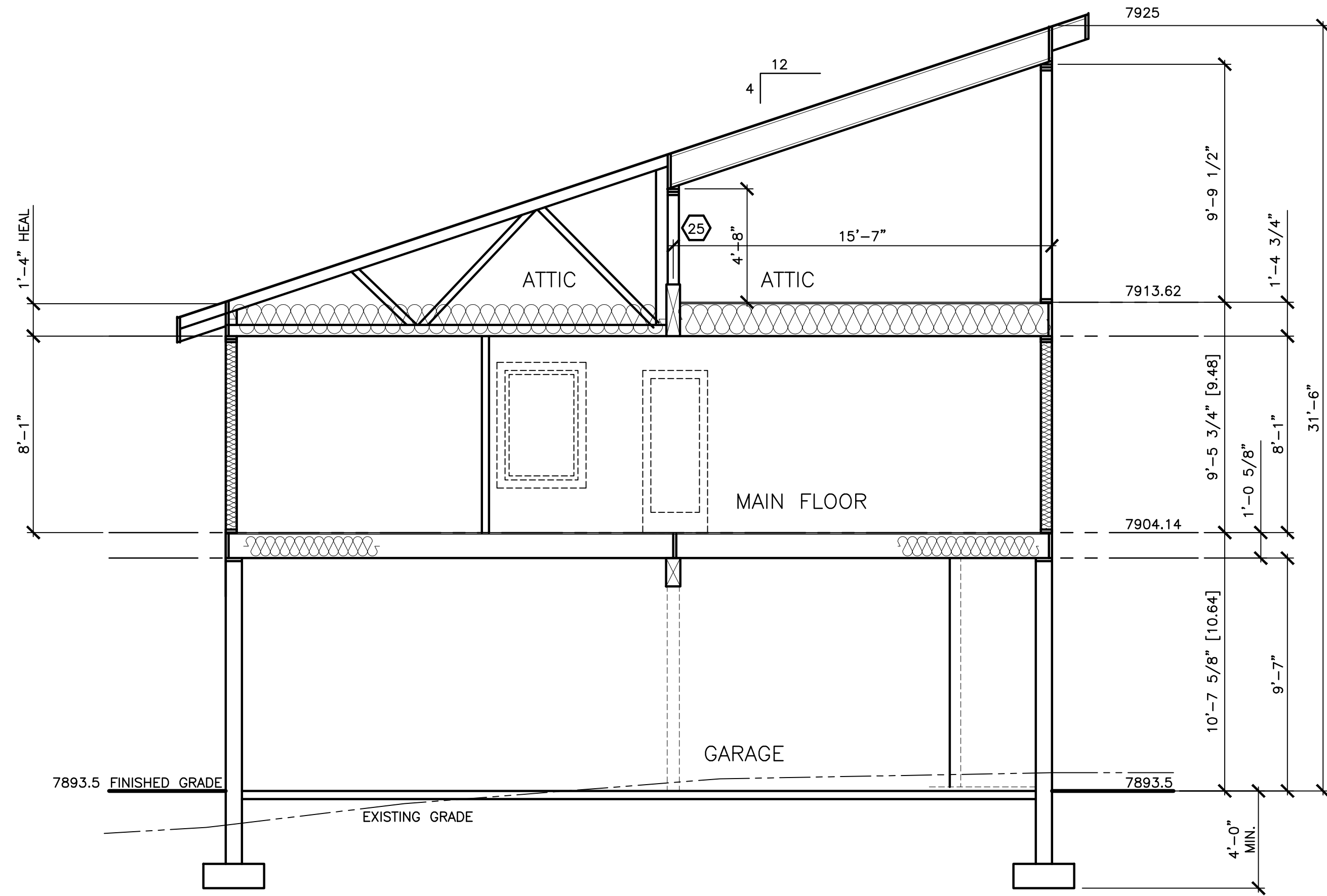
PROJECT ADDRESS

**11401 EAST  
MULE HOLLOW LN.  
SLC, UTAH 84121**

SHEET TITLE

**BUILDING  
SECTION**





BUILDING SECTION '2'  
SCALE: 1/4"= 1'-0"

KEYED NOTES

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ICE & WATER SHIELD 4'-0" MIN. FROM EAVES AND AT VALLEYS. (24" MIN. INSIDE THE EXTERIOR WALL LINE)

5

SOLID BLOCKING NOTCHED EACH SIDE FOR VENT WITH CONNECTION PER BLOCKING DETAIL TO DOUBLE TOP PLATE.

6

R-49 INSUL. PACK FULL – NON-VENTED SYSTEM.

7

ALUMINUM FASCIA, PROVIDE METAL DRIP EDGE. 2x12 FASCIA BOARD (MATCH EXISTING)

8

ALUMINUM SOFFIT AND TRIM.

9

2x6 STUDS AT 16" O.C. WITH 1/2" GYP. BD. AT INTERIOR AND 7/16" OSB AT EXTERIOR. INSTALL R-20 INSULATION, MIN.

10

11

VERTICAL CEDAR SIDING PER OWNER. TREAT BOTH SIDES BEFORE INSTALLATION.

12

13

TYVEK HOMEWRAP WEATHER BARRIER ON OSB.

14

CABINET DESIGN AND MATERIAL PER OWNER

15

ALUMIN. GUTTER & DOWNSPOUT.

16

2x4 FDN GRADE REDWOOD OR PRESSURE TREATED SILL W/ FIBERGLASS SEALER – TYP.

17

ANCHOR BOLT – WITH 7" EMBED. 12" MAX FROM ENDS OF PLATE (2) BOLTS PER PLATE MIN. USE 3" x 3" x .229" SQ. WASHERS.

18

CONCRETE FOOTING – SEE STRUCTURAL SHEETS FOR SIZE AND REINFORCING

19

ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED GROUND OR ON STRUCTURAL FILL, AND BELOW FROST LINE

20

DOUBLE GLAZED, LOW-E WINDOWS. U=.32 MAX. OR EQUAL. BLACK COLOR.

21

22

23

4" CONC. SLAB ON 4" GRAVEL BASE.

24

COLUMN PER STRUCTURAL.

25

ATTIC ACCESS W/ 30" MIN. HEADROOM AND LIGHT WITHIN SPACE. SEE 9/G1.2 FOR ATTIC FURN. OPTION.

26

INTERIOR WALLS: 2x AT 16" O.C. W/ 1/2" GYPSUM BOARD EACH SIDE.

27

28

34"-36" WOOD HANDRAIL W/ BALUSTER AT 4" O.C. OR METAL BRACES AT 4'-0" O.C.

29

36" WOOD GUARDRAIL W/ BALUSTER AT 4" O.C.

30

STAIR – (4) 2 x 12 MIN. STRINGERS W/ 1/2" GYPSUM BOARD AT BOTTOM

31

3/4" T&G PLY ON FLOOR JOISTS W/ R-38 MIN. INSULATION THROUGHOUT FLOOR.

32

OPTION – ELECTRICAL PANEL FOR CENTRAL VAC, AND FUTURE SECURITY SYSTEM, AND INTERCOM SYSTEM – CONSULT OWNER.

33

PROVIDE GAS STUB TO DECK/PATIO, CONSULT OWNER.

34

FIREBLOCK AT 10'-0" O.C. MAX. PER IRC SEC. R602.8. SEE NOTE 8/G1.2

35

36

REGENCY ALTERRA CS1200 OR EQUAL STOVE PER OWNER. (IMC 303.3 EXP. #1) SEE 26/G1.2. METAL FLUE PER SPECS.

37

38

PROVIDE (2) LAYERS GYP. BOARD AT GARAGE CEILING AND UNDER STAIR. SEE NOTE 13/G1.2

39

STANDING SEAM METAL ROOF OVER 30# FELT, INSTALL PER MANUF. SPECS. CONSULT OWNER.

LEGEND

NEW 2x6 STUD WALL

NEW 2x4 STUD WALL

HIDDEN LINE

EXISTING WALL TO REMAIN

EXISTING ITEM TO REMAIN

EXISTING – TO BE REMOVED

37

KEYED NOTE

1

DOOR MARK

N

WINDOW MARK

MARK

DATE

REVISION

SPN

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PROJECT FOR

BRUCE  
AND LISA  
ENGELHARD

PROJECT NAME

RESIDENCE  
ADDITION

PROJECT ADDRESS

11401 EAST  
MULE HOLLOW LN.  
SLC, UTAH 84121

SHEET TITLE

BUILDING  
SECTION

PROJ. NO.  
19038

SCALE  
1/4" = 1'-0"

PROJ. DATE  
01-15-19

PLOT DATE  
08-28-19

SHEET NO.

A3.2



STAIR

## FLASHING DETAIL

1/2" WFRBD. ROOF SHTNG. WITH  
4 - 8d NAILS INTO VENTED BLOCK

2x4 SOLID BLOCKING WITH 2" TOP  
CORNERS CUT OFF

2 - 16d TOENAILED INTO TOP PLATE

ROOF TRUSSES

VENTED BLOCKING DET.

COMPOSITION SHINGLES ON 30# FELT ON 1/2" OSB

4'-0" ICE AND WATER SHIELD FROM EAVES AND VALLEYS

ALUMINUM DRIP EDGE OVER ICE SHIELD

METAL EAVE AND FASCIA WITH PERFORATED SOFFIT AND TRIM

2x SUB-FASCIA

2x BLOCKING NOTCHED FOR VENTING

SIMPSON H2.5 AT EACH TRUSS

R-48 WITH BAFFLES AT EAVE FOR VENTING

24" MIN.

R-20 INSULATION MIN.

2x6 STUDS AT 16" O.C. WITH 1/2" OSB EXTERIOR AND 1/2" GYP. BOARD INTERIOR

UNVENTED ROOF:

1. UNVENTED ATTIC SPACE IS COMPLETELY CONTAINED WITHIN THE BUILDING THERMAL ENVELOPE.
2. NO CLASS 1 VAPOR RETARDERS ARE INSTALLED ON THE CEILING SIDE OF THE ASSEMBLY.
3. ANY AIR-IMPERMEABLE INSULATION SHALL BE A VAPOR RETARDER, OR SHALL HAVE A VAPOR RETARDER COATING OR COVERING IN DIRECT CONTACT WITH THE UNDERSIDE OF THE INSULATION.
4. AIR-IMPERMEABLE INSULATION SHALL BE APPLIED IN DIRECT CONTACT WITH THE UNDERSIDE OF THE STRUCTURAL ROOF SHEATHING. AIR-PERMEABLE INSULATION DIRECTLY UNDER THE AIR-IMPERMEABLE INSUL. FILL CAVITY.

UNVENTED ATTIC -  
SEE NOTE 20/G1.2

ICE & WATER SHIELD

24" MIN.

OVERHANG

SEE SHEARWALL SCHEDULE FOR NAILING.

BLOCKING AS PER ENGINEER'S PLAN

FASCIA PLUMB OR SQUARE PER ELEVATIONS.

BEAM

TYPICAL INSULATION PER NOTE # 3 & 4.

8" CONC. FDN. SEE STRUCTURAL FOR REINF.

EQUAL CONCRETE STEPS  
(6" MAX RISERS 12" MIN TREADS)

#4 REBAR 12" O.C.  
BOTH WAYS

4" MIN.

## OUTSIDE — CONCRETE

NEW FOUNDATION

EPOXY #4 x 36" HORIZ.  
MATCH NEW SPACING  
5" EMBEDMENT, TYPICAL

EXISTING FOUNDATION

1/2" GYP. BOARD

4" SLAB FLOOR

2x REDWOOD OR TREATED WOOD PLATE. SEE PLAN FOR BOLT SPACING.

FINISH GRADE OR SLAB

8" x 26" (MIN.) x CONT.

RIGID R-10 INSULATION

2'-6" MIN.

UNDISTURBED SOIL OR COMPACTED FILL

KEYED NOTES		MARK	DATE	REVISION
(1)	ROOF RAFTERS OR PRE-FAB. TRUSSES – SEE FRAMING PLAN FOR SIZE AND LOCATION ANCHOR WITH SIMPSON VPA OR H2.5 AT EACH JOIST/TRUSS. INSTALL PER MANUF. SPECS.			
(2)	RUBBER MEMBRANE ROOF – APPLY PER MANUF. SPECS.			
(3)	4' x 8' x EXT. OSB ROOF SHEATHING			
(4)	ICE & WATER SHIELD 4'-0" MIN. FROM EAVES AND AT VALLEYS. (24" MIN. INSIDE THE EXTERIOR WALL LINE)			
(5)	SOLID BLOCKING NOTCHED EACH SIDE FOR VENT WITH CONNECTION PER BLOCKING DETAIL TO DOUBLE TOP PLATE.			
(6)	R-49 INSUL. PACK FULL – NON-VENTED SYSTEM.			
(7)	ALUMINUM FASCIA, PROVIDE METAL DRIP EDGE. 2x12 FASCIA BOARD (MATCH EXISTING)			
(8)	ALUMINUM SOFFIT AND TRIM.			
(9)	2x6 STUDS AT 16" O.C. WITH 1/2" GYP. BD. AT INTERIOR AND 7/16" OSB AT EXTERIOR. INSTALL R-20 INSULATION, MIN.			
(10)				
(11)	VERTICAL CEDAR SIDING PER OWNER. TREAT BOTH SIDES BEFORE INSTALLATION.			
(12)				
(13)	TYVEK HOMEWRAP WEATHER BARRIER ON OSB.			
(14)	CABINET DESIGN AND MATERIAL PER OWNER			
(15)	ALUMIN. GUTTER & DOWNSPOUT.			
(16)	2x4 FDN GRADE REDWOOD OR PRESSURE TREATED SILL W/ FIBERGLASS SEALER – TYP.			
(17)	ANCHOR BOLT – WITH 7" EMBED. 12" MAX FROM ENDS OF PLATE (2) BOLTS PER PLATE MIN. USE 3" x 3" x .229" SQ. WASHERS.			
(18)	CONCRETE FOOTING – SEE STRUCTURAL SHEETS FOR SIZE AND REINFORCEING			
(19)	ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED GROUND OR ON STRUCTURAL FILL, AND BELOW FROST LINE			
(20)	DOUBLE GLAZED, LOW-E WINDOWS. U=.32 MAX. OR EQUAL. BLACK COLOR.			
(21)				
(22)				
(23)	4" CONC. SLAB ON 4" GRAVEL BASE.			
(24)	COLUMN PER STRUCTURAL.			
(25)	ATTIC ACCESS W/ 30" MIN. HEADROOM AND LIGHT WITHIN SPACE. SEE 9/G1.2 FOR ATTIC FURN. OPTION.			
(26)	INTERIOR WALLS: 2x AT 16" O.C. W/ 1/2" GYPSUM BOARD EACH SIDE.			
(27)				
(28)	34"-36" WOOD HANDRAIL W/ BALUSTER AT 4" O.C. OR METAL BRACES AT 4'-0" O.C.			
(29)	36" WOOD GUARDRAIL W/ BALUSTER AT 4" O.C.			
(30)	STAIR – (4) 2 x 12 MIN. STRINGERS W/ 1/2" GYPSUM BOARD AT BOTTOM			
(31)	3/4" T&G PLY ON FLOOR JOISTS W/ R-38 MIN. INSULATION THROUGHOUT FLOOR.			
(32)	OPTION – ELECTRICAL PANEL FOR CENTRAL VAC, AND FUTURE SECURITY SYSTEM, AND INTERCOM SYSTEM – CONSULT OWNER.			
(33)	PROVIDE GAS STUB TO DECK/PATIO, CONSULT OWNER.			
(34)	FIREBLOCK AT 10'-0" O.C. MAX. PER IRC SEC. R602.8. SEE NOTE 8/G1.2			
(35)				
(36)	REGENCY ALTERRA CS1200 OR EQUAL STOVE PER OWNER. (IMC 303.3 EXP. #1) SEE 26/G1.2. METAL FLUE PER SPECS.			
(37)				
(38)	PROVIDE (2) LAYERS GYP. BOARD AT GARAGE CEILING AND UNDER STAIR. SEE NOTE 13/G1.2			
(39)	STANDING SEAM METAL ROOF OVER 30# FELT, INSTALL PER MANUF. SPECS. CONSULT OWNER.			
<b>LEGEND</b>				
[Solid Line]	NEW 2x6 STUD WALL	(37)	KEYED NOTE	
[Dashed Line]	NEW 2x4 STUD WALL	(1)	DOOR MARK	
[Thin Solid Line]	HIDDEN LINE	N	WINDOW MARK	
[Dash-dot-dot Line]	EXISTING WALL TO REMAIN			
[Long Dash-dot Line]	EXISTING ITEM TO REMAIN			
[Short Dash-dot Line]	EXISTING - TO BE REMOVED			
		PROJ. NO. 1903B	PROJ. DATE 01-15-19	
		SCALE AS NOTED	PLOT DATE 08-28-19	
		SHEET NO.		
		A3.3		



MARK	DATE	REVISION

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SHEET TITLE

MAIN FLOOR  
ELECTRICAL PLAN

PROJ. NO.  
19038

PROJ. DATE  
01-15-19

SCALE  
1/4" = 1'-0"

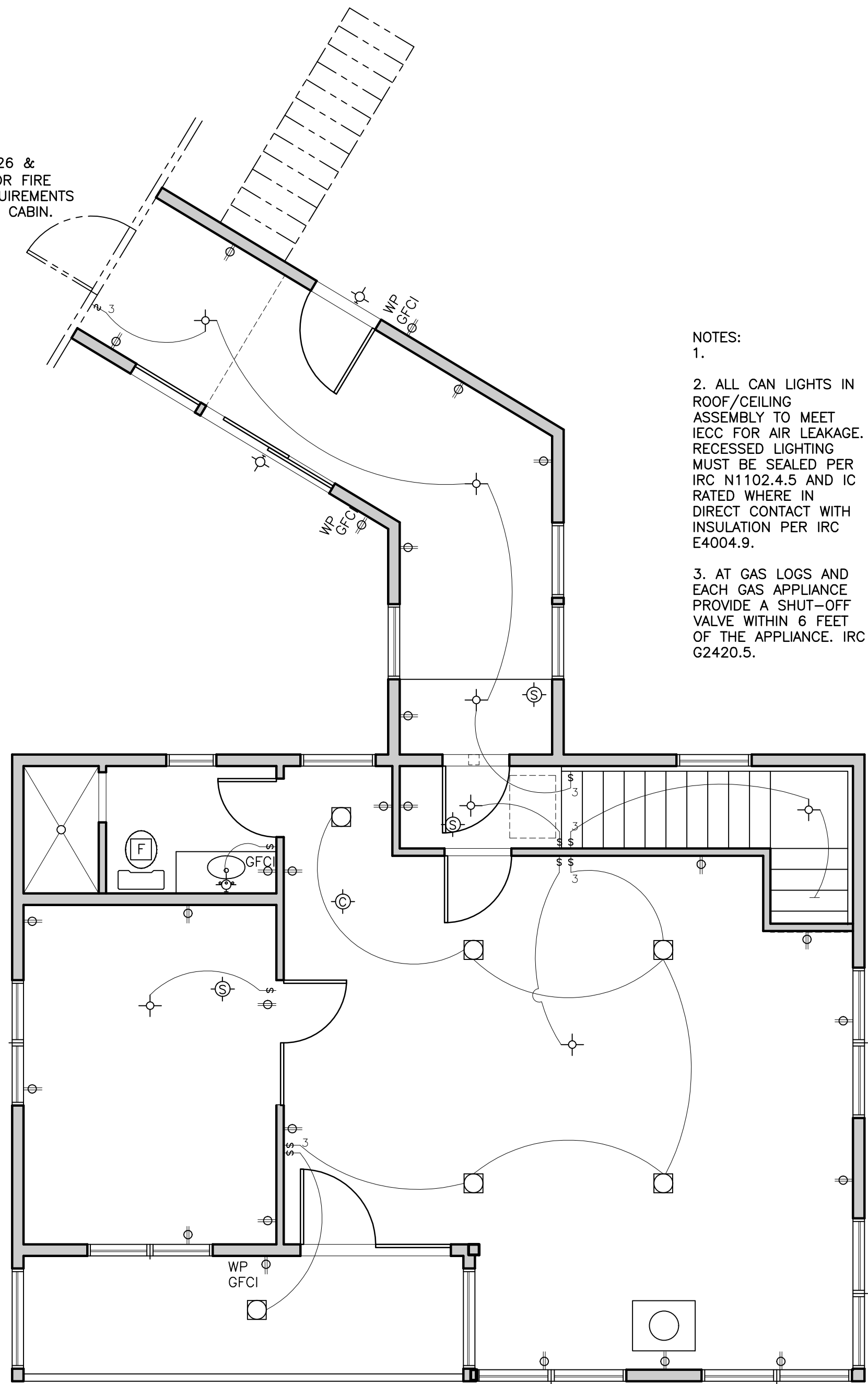
PLOT DATE  
08-28-19

SHEET NO.

E1.1

TYP. @ EXISTING  
ELECTRICAL -  
VERIFY EXISTING  
PER NOTES  
20,21,25-27/G1.2

SEE NOTE 26 &  
27/G1.2 FOR FIRE  
ALARM REQUIREMENTS  
FOR ENTIRE CABIN.



- NOTES:
- 1.
  2. ALL CAN LIGHTS IN ROOF/CEILING ASSEMBLY TO MEET IECC FOR AIR LEAKAGE. RECESSED LIGHTING MUST BE SEALED PER IRC N1102.4.5 AND IC RATED WHERE IN DIRECT CONTACT WITH INSULATION PER IRC E4004.9.
  3. AT GAS LOGS AND EACH GAS APPLIANCE PROVIDE A SHUT-OFF VALVE WITHIN 6 FEET OF THE APPLIANCE. IRC G2420.5.

CORNICE CROWN  
LIGHTING, AND/OR  
SOFFIT LIGHTING  
CONSULT OWNER.

ELECTRICAL

- E1. ELECTRICAL GROUND WIRE SHALL BE CONTINUOUS FROM THE POINT OF SERVICE ATTACHED TO THE STREET SIDE OF THE SHUTOFF AND PRESSURE REGULATOR. (WATER PIPE AFTER THE PRESSURE REGULATOR AND SHUT OFF NOT TO BE USED AS A GROUNDING CONDUCTOR.)
- E2. LIGHTS IN CLOSETS TO MEET IRC 3903.11. 50% MIN. OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS. IRC N1104.1
- E3. TEMPORARY WIRING SHALL CONFORM TO IRC E3301.2.
- E4. ALL BATHROOMS MUST BE ON THEIR OWN DEDICATED CIRCUIT.
- E5. ALL WORK TO BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR CONSISTENT WITH THE BEST PRACTICES OF THE TRADE 7 IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE & NATIONAL ELECTRIC CODE.
- E6. OWNER TO APPROVE HEAT TAPE & CHRISTMAS LIGHT OUTLET LOCATIONS. CHRISTMAS LIGHTING - OUTLETS IN EAVES TO BE SWITCHED PER OWNER.
- E7. PROVIDE CATEGORY 5 WIRING TO ALL ROOMS.
- E8. ELECTRICAL CONTRACTOR TO PERFORM A "WALK-THROUGH" WITH OWNER AND/OR ARCHITECT PRIOR TO INSTALLATION.
- E9. PROVIDE ADEQUATE CONDUITS FROM SPRINKLER TIMERS TO EXTERIOR LOCATION APPROVED BY OWNER.
- E10. PROVIDE POWER STUB FOR EXTERIOR LANDSCAPE LIGHTING.
- E11. PROVIDE 4 PHONE LINE CAPABILITY.
- E12. PROVIDE OWNER WITH INTERCOM OPTIONS TO SELECT FROM.
- E13. ADVISE AND COORDINATE OWNER INSTALLED AUDIO-VIDEO, COMPUTER, ETC. WIRING.
- E14. SECURITY SYSTEM IS BY "ALLOWANCE" AND SHALL BE APPROVED BY THE OWNER.
- E15. PROVIDE MIN. 300 AMP SERVICE WITH MIN. 42 CIRCUIT PANEL(S).
- E16. ELECTRICIAN TO ADVISE ON PROPER FLOOR. BALLAST IN COOLER STORAGE AREAS.
- E17. ELECTRICIAN TO ADVISE ABOUT PROVISIONS FOR FUTURE AUXILIARY GENERATOR.
- E18. ELECTRICAL PANELS SHALL COMPLY WITH N.E.C. 110-16. PROVIDE MINIMUM CLEARANCE OF 30"x36" IN WIDTH BY 6'-6" IN HEIGHT FOR PANEL AREA. IRC R3405.2.
- E19. PROVIDE A CONCRETE ENCASED ELECTRODE, AVAILABLE FOR USE AS A GROUNDING ELECTRODE FOR THE HOUSE, PER NEC 250.52(A)(3). IRC E3608.1.2.
- E20. ELECTRICAL CONVENIENCE OUTLETS SHALL BE SO SPACED THAT NO POINT ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN SIX FEET FROM AN OUTLET. SWITCH BOTTOM HALF OF ELECTRICAL OUTLETS ONLY, UNLESS OTHERWISE NOTED. IN ALL ROOMS DESIGNATED ELECTRICAL OUTLETS IN BATHROOMS, GARAGES, COUNTER TOPS OF KITCHENS, JETTED TUBS, AND OUTSIDE OF BUILDING SHALL BE PROTECTED WITH APPROVED GFCI. E3802.
- E21. PROVIDE COMBINATION ARCH-FAULT INTERRUPTER ON ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLT, SINGLE PHASE, 15 AND 20 AMP RECEPTACLES, LIGHTS, SWITCHES, AND SMOKE DETECTORS IN ALL BEDROOMS, KITCHEN, AND LAUNDRY. (NEC ARTICLE 210-12) IRC E3902.16.
- E22. ALL ELECTRICAL SWITCHES, RECEPTACLES, ETC., IN A GARAGE SHALL BE GFCI AND A MINIMUM OF 18" OFF OF A FLOOR.
- E23. KEEP GAS AND ELECTRICAL METERS IN AN AREA THAT IS PROTECTED FROM SNOW AND ICE.
- E24. ALL CAN LIGHTS IN ROOF/CEILING ASSEMBLY TO MEET IECC FOR AIR LEAKAGE. IC RATED PER E4004.9. LIGHT FIXTURES OVER TUBS AND IN SHOWER ENCLOSURES SHALL BE MARKED FOR WET LOCATIONS PER IRC E4003.11.
- E25. PROVIDE TAMPER PROOF 110 V ELECTRICAL RECEPTACLES FOR ALL 15A & 20A RECEPTACLES LOCATED IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUNROOM, BEDROOM, REC ROOM, OR SIMILAR ROOM OR AREA. IRC E4002.14. AND E3901.1.
- E26. PROVIDE SMOKE DETECTOR ALARM CONFORMING TO SEC. 1210. ALL LEVELS, ALL BEDROOMS, ACCESS TO ALL BEDROOMS AND IN ROOMS WITH SLOPED CEILINGS NEXT TO HALLS SERVING BEDROOMS, ALL DETECTORS SHALL BE HARDWIRED AND HAVE BATTERY BACKUP. PRIMARY WIRING SHALL BE FROM THE BUILDING ELECTRICAL SYSTEM.
- E27. PROVIDE COMBINATION SMOKE AND CARBON MONOXIDE DETECTORS AT EACH LEVEL OF STRUCTURE, INTERCONNECTED. PER UTAH STATE AMENDMENT R313.2.
- E28. A PERMANENT CERTIFICATE SHALL BE POSTED ON OR IN THE ELECTRICAL DISTRIBUTION PANEL LISTING THE PREDOMINANT R-VALUES OF INSULATION IN OR ON ROOF/CEILING, WALLS, FOUNDATION, (SLAB, BASEMENT WALL, CRAWLSPACE WALL AND/OR FLOOR) AND DUCTS OUTSIDE THE CONDITIONED SPACES: U-FACTORS OF WINDOWS, AND THE SOLAR HEAT GAIN COEFFICIENT OF THE WINDOWS. THE TYPE AND EFFICIENCY OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT SHALL ALSO BE LISTED. IRC N1101.9.
- E29. DISHWASHERS HARDWIRED GFCI REQUIRE DISCONNECT PER TABLE E4101.5.

ELECTRICAL LEGEND

	SMOKE DETECTOR
	COMBINATION CARBON MONOXIDE/SMOKE DETCTR.
	FAN W/ VENT TO EXTERIOR
	PHONE HOOK UP
	CABLE HOOK UP
	HOSE BIBB W/ BACKFLOW PREVENTION
	FLOOR DRAIN
	PULL CHAIN
	RECESSED CAN LIGHT
	WALL INCANDESCENT
	CEILING INCANDESCENT
	OUTLET
	FLOOR OUTLET
	SWITCH

MAIN LEVEL ELECTRICAL PLAN



MARK	DATE	REVISION

SPN  
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SHEET TITLE

LOWER FLOOR  
ELECTRICAL PLAN

PROJ. NO.  
19038

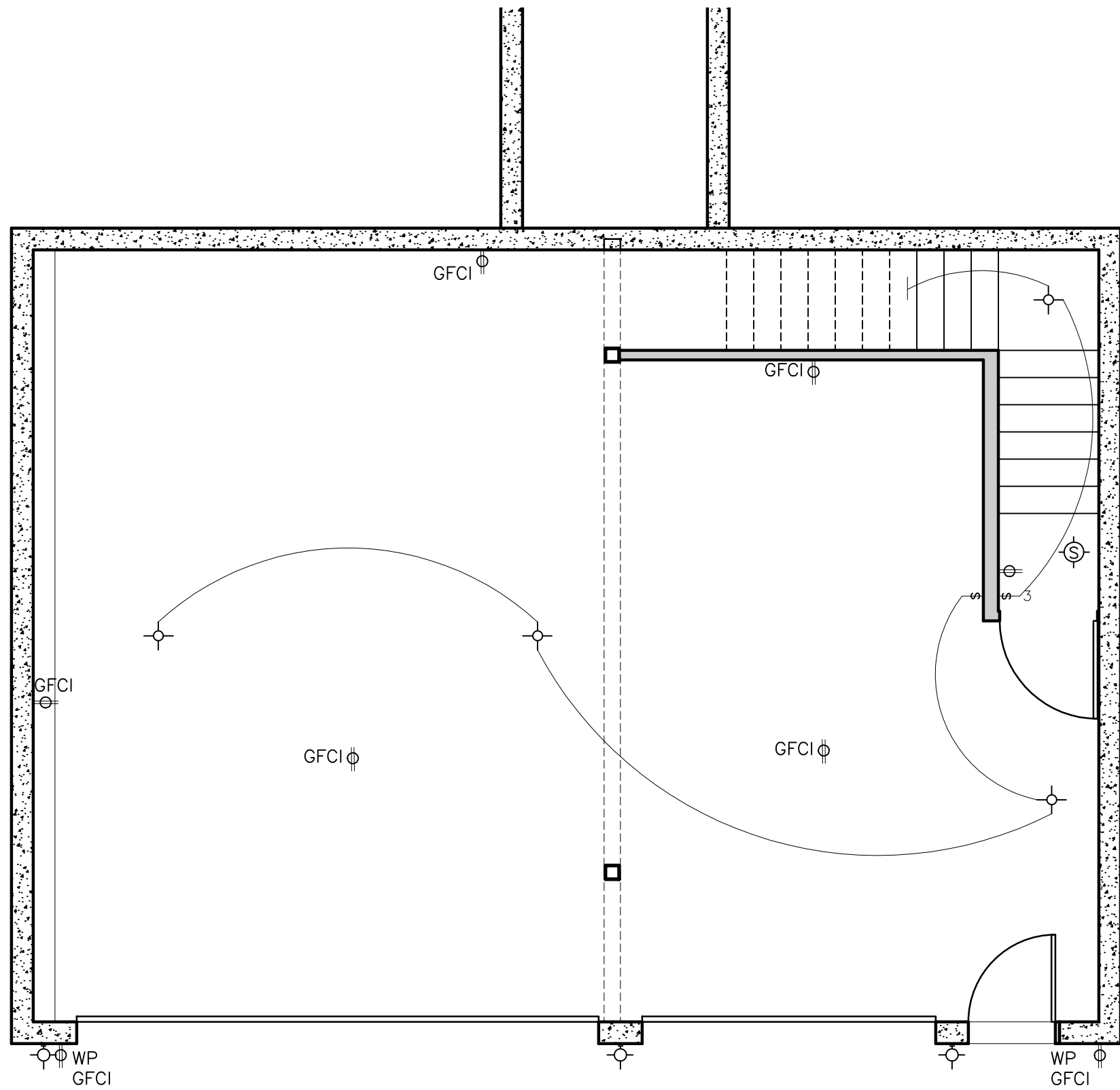
PROJ. DATE  
01-15-19

SCALE  
1/4" = 1'-0"

PLOT DATE  
08-28-19

SHEET NO.

E1.2



LOWER LEVEL ELECTRICAL PLAN

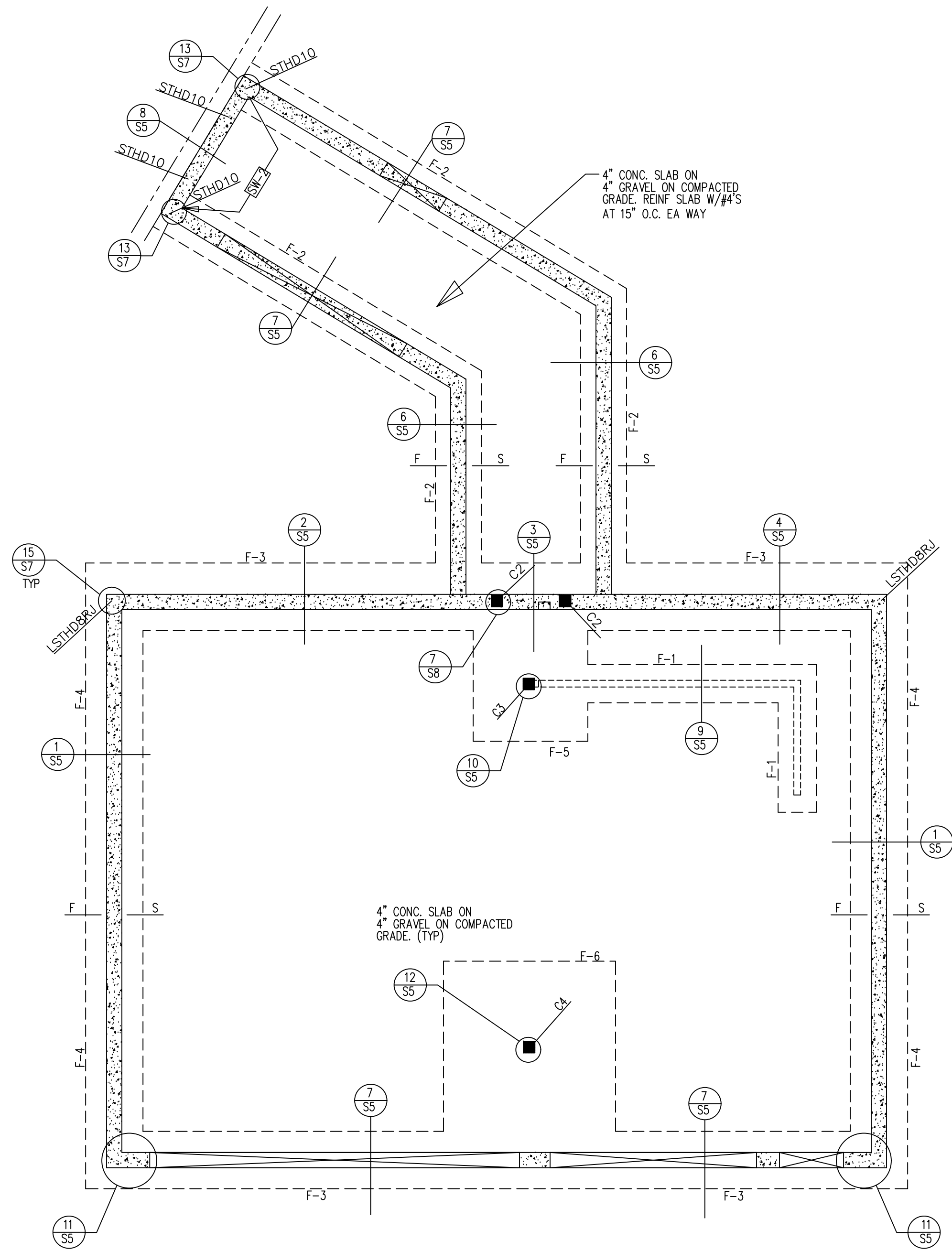
ELECTRICAL LEGEND

	SMOKE DETECTOR
	COMBINATION CARBON MONOXIDE/SMOKE DETCTR.
	FAN W/ VENT TO EXTERIOR
	PHONE HOOK UP
	CABLE HOOK UP
	HOSE BIBB W/ BACKFLOW PREVENTION
	FLOOR DRAIN
	PULL CHAIN
	RECESSED CAN LIGHT
	WALL INCANDESCENT
	CEILING INCANDESCENT
	OUTLET
	FLOOR OUTLET
	SWITCH









FOOTING & FOUNDATION PLAN

f <sub>c</sub> = 3000 PSI f <sub>y</sub> = 60,000 PSI		FOOTING SCHEDULE						DESIGN SOIL BEARING PRESSURE 1,500 PSF				NOTES
MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCEMENT				LENGTHWISE REINFORCEMENT				
				NO.	SIZE	LENGTH	SPACING	NO.	SIZE	LENGTH	SPACING	
F-1	1'-8"	CONT	12"	-	-	-	-	2	#4	CONT	14"	
F-2	2'-0"	CONT	12"	-	-	-	-	2	#5	CONT	18"	
F-3	2'-6"	CONT	12"	-	-	-	-	3	#5	CONT	12"	
F-4	3'-0"	CONT	12"	-	#5	2'-6"	14"	3	#5	CONT	15"	
F-5	5'-0"	5'-0"	12"	6	#5	4'-6"	11"	6	#5	4'-6"	11"	
F-6	7'-6"	7'-6"	12"	8	#5	7'-0"	12"	8	#5	7'-0"	12"	

FOUNDATION NOTES:

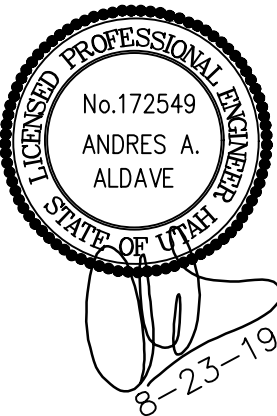
- PLACE 3 x 3 x 1/4" PLATE WASHERS AT ALL ANCHOR BOLTS AT ALL SHEAR WALLS
- SEE S-1 FOR STRUCTURAL NOTES
- SW-# INDICATES SHEAR WALL TYPE. ALL EXTERIOR WALLS ARE SHEAR WALL TYPE "SW-1" UNLESS NOTED OTHERWISE ON THE PLANS. SEE SHEAR WALL SCHEDULE ON SHEET S-1
- PROVIDE CONTROL JOINTS IN CONCRETE SLAB ON GRADE EVERY 15 FT. (MAX) IN EACH DIRECTION. THE TOTAL AREA CONTAINED WITHIN THESE JOINTS SHALL NOT BE GREATER THAN 225 FT. UNLESS NOTED OTHERWISE ON THE PLAN.
- COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- F - S: INDICATES FOOTING STEP. SEE DETAIL 4/S1

COLUMN SCHEDULE

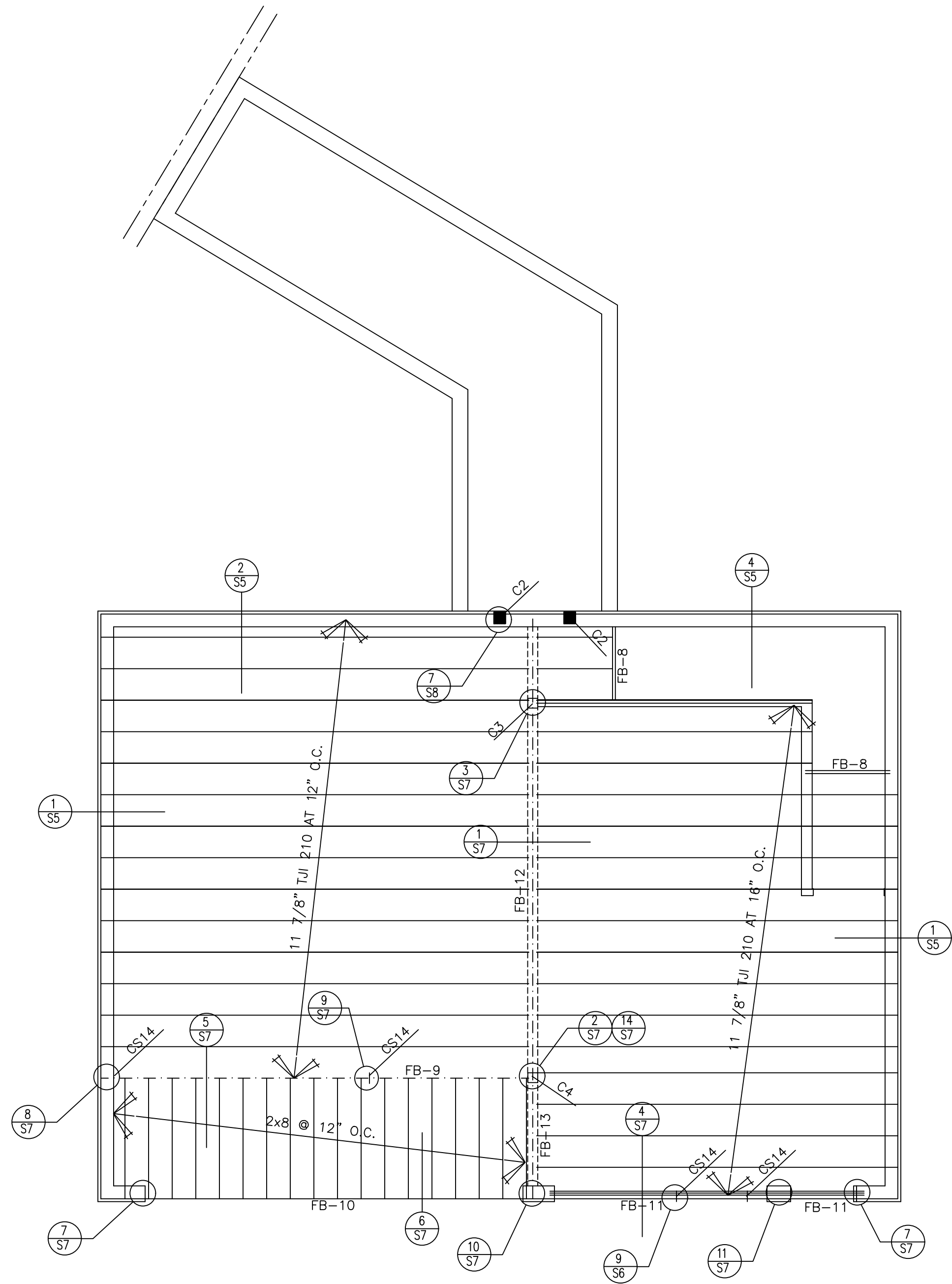
- C1: 3-2x6  
C2: TS 4x4x1/4  
C3: TS 5x5x1/4  
C4: TS 6x6x5/16

NOTES:

- STUDS PACKS SHALL MATCH WALL STUDS IN DEPTH, SPECIES & GRADE.
- WHERE COLUMNS ARE NOT CALLED OUT ON PLANS, USE A MINIMUM OF (2)STUDS OF THE SAME SIZE OF THE WALL WHERE THE HEADER/BEAM OCCURS







MAIN FLOOR FRAMING PLAN

FLOOR FRAMING NOTES:

1. PLACE 2x6 STUDS (MIN.) UNDER ALL BEAMS BEARING POINTS UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE SHEET S-1 FOR FLOOR SHEATHING NOTES AND SHEAR WALL NOTES.
3. SW-# INDICATES SHEAR WALL TYPE. ALL EXTERIOR WALLS ARE SHEAR WALL TYPE "SW-1" UNLESS NOTED OTHERWISE. SEE SHEAR WALL SCHEDULE ON SHEET S-1.

FLOOR BEAM SCHEDULE

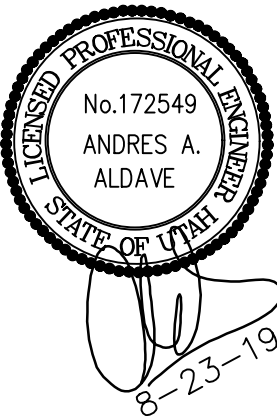
- FB-1: 3-2x8  
FB-2: (3) 1-3/4 x 7-1/4 ML  
FB-3: (3) 1-3/4 x 9-1/2 ML  
FB-4: 3-2x8  
FB-5: (2) 1-3/4 x 16 LSL 1.55E  
FB-6: (2) 1-3/4 x 16 LSL 1.55E  
FB-7: (2) 1-3/4 x 16 LSL 1.55E  
FB-7A: W 10x26  
FB-8: (1) 1-3/4 x 11-7/8 LSL 1.55E  
FB-9: 5-1/8 x 16-1/2 GLB  
FB-10: 5-1/8 x 15 GLB  
FB-11: 5-1/8 x 12 GLB  
FB-12: W 14x22  
FB-13: (2) 1-3/4 x 11-7/8 ML

COLUMN SCHEDULE

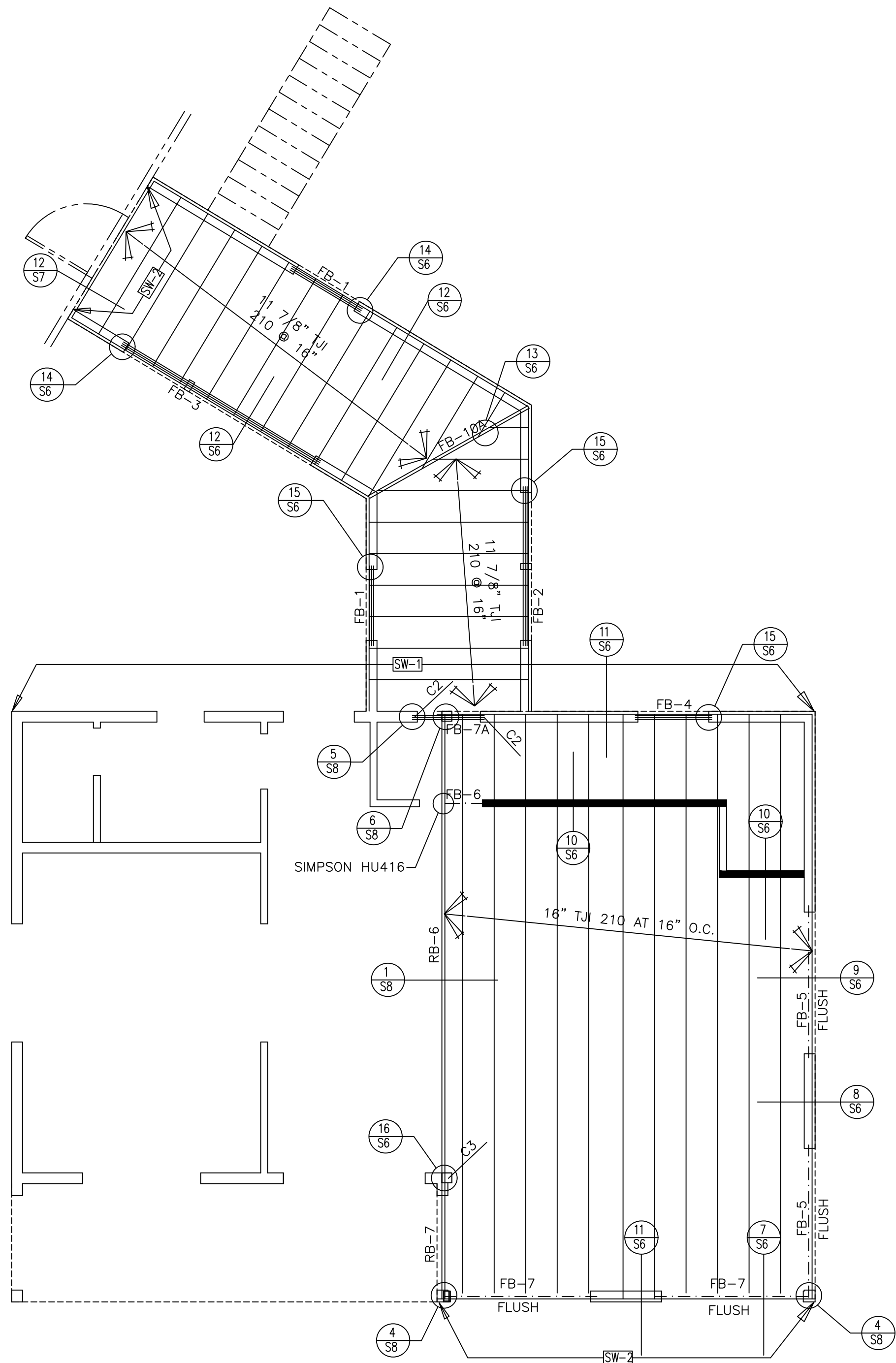
- C1: 3-2x6  
C2: TS 4x4x1/4  
C3: TS 5x5x1/4  
C4: TS 6x6x5/16

NOTES:

1. STUDS PACKS SHALL MATCH WALL STUDS IN DEPTH, SPECIES & GRADE.
2. WHERE COLUMNS ARE NOT CALLED OUT ON PLANS, USE A MINIMUM OF (2)STUDS OF THE SAME SIZE OF THE WALL WHERE THE HEADER/BAM OCCURS







FLUSH HDR = BOTTOM OF HEADER TO BE FLUSH WITH BOTTOM OF FLOOR JOISTS.

## UPPER FLOOR FRAMING PLAN

### FLOOR FRAMING NOTES:

1. PLACE 2x 6 STUDS (MIN.) UNDER ALL BEAMS BEARING POINTS UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE SHEET S-1 FOR FLOOR SHEATHING NOTES AND SHEAR WALL NOTES.
3. SW-# INDICATES SHEAR WALL TYPE. ALL EXTERIOR WALLS ARE SHEAR WALL TYPE "SW-1" UNLESS NOTED OTHERWISE. SEE SHEAR WALL SCHEDULE ON SHEET S-1.

### FLOOR BEAM SCHEDULE

FB-1: 3-2x6  
FB-2: (3) 1-3/4 x 7-1/4 ML  
FB-3: (3) 1-3/4 x 9-1/2 ML  
FB-4: 3-2x6  
FB-5: (2) 1-3/4 x 16 LSL 1.55E  
FB-6: (2) 1-3/4 x 16 LSL 1.55E  
FB-7: (2) 1-3/4 x 16 LSL 1.55E  
FB-7A: W 10x26

### ROOF BEAM SCHEDULE

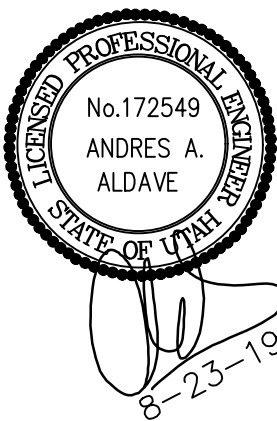
RB-1: 3-2x6  
RB-2: (3) 1-3/4 x 9-1/2 LSL 1.55E  
RB-3: (3) 1-3/4 x 7-1/4 ML  
RB-4: (3) 1-3/4 x 9-1/2 LSL 1.55E  
RB-5: 3-2x10  
RB-6: 6-3/4 x 30 GLB  
RB-7: (3) 1-3/4 x 16 ML

### COLUMN SCHEDULE

C1: 3-2x6  
C2: TS 4x4x1/4  
C3: TS 5x5x1/4  
C4: TS 6x6x5/16

### NOTES:

1. STUDS PACKS SHALL MATCH WALL STUDS IN DEPTH, SPECIES & GRADE.
2. WHERE COLUMNS ARE NOT CALLED OUT ON PLANS, USE A MINIMUM OF (2)STUDS OF THE SAME SIZE OF THE WALL WHERE THE HEADER/BAM OCCURS



## UPPER FLOOR FRAMING PLAN

### REVISIONS:

DATE:  
AUG 23, 2019

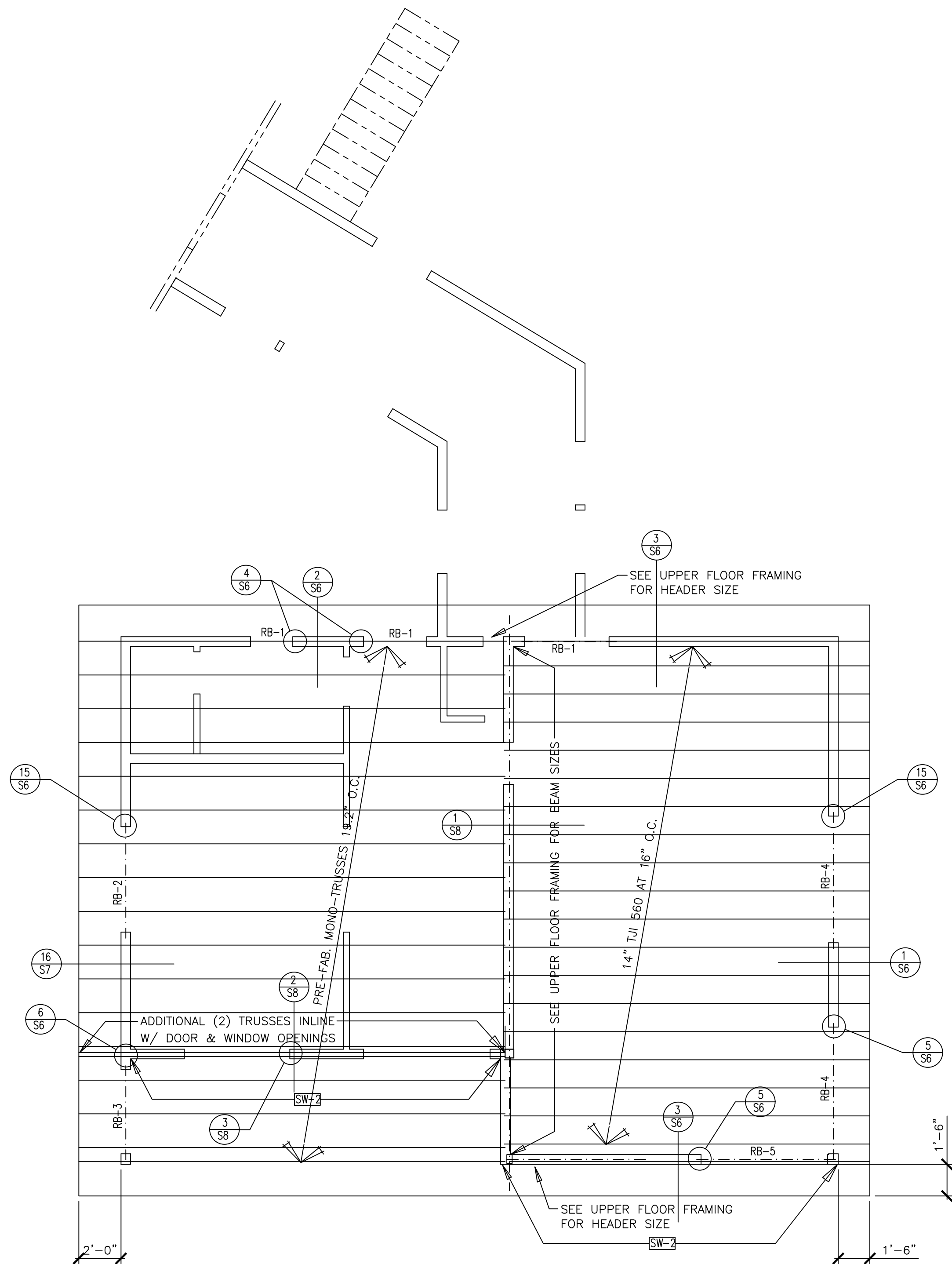
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ENGELHARD RESIDENCE  
11401 EAST MULE HOLLOW LN.  
SLC, UTAH

ALDAVE & ASSOCIATES, LLC

1486 E. BARTON CREEK LN. BOUNTIFUL, UTAH 84010 Ph: (801): 294-3250 Fax: (801) 931-2276





ROOF FRAMING PLAN

ROOF FRAMING NOTES:

1. PLACE 2x 6 STUDS (MIN.) UNDER ALL BEAMS & GIRDER TRUSSES BEARING POINTS UNLESS NOTED OTHERWISE ON THE PLANS.
2. SEE SHEET S-1 FOR ROOF SHEATHING NOTES AND SHEAR WALL NOTES.
3. SW-# INDICATES SHEAR WALL TYPE. ALL EXTERIOR WALLS ARE SHEAR WALL TYPE "SW-1" UNLESS NOTED OTHERWISE. SEE SHEAR WALL SCHEDULE ON SHEET S-1.

ROOF BEAM SCHEDULE

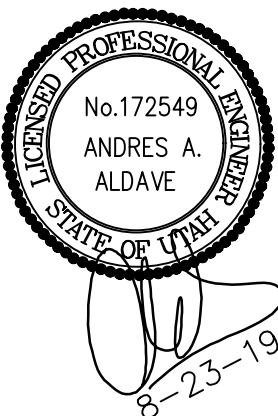
- RB-1: 3-2x6  
RB-2: (3) 1-3/4 x 9-1/2 LSL 1.55E  
RB-3: (3) 1-3/4 x 7-1/4 ML  
RB-4: (3) 1-3/4 x 9-1/2 LSL 1.55E  
RB-5: 3-2x10  
RB-6: 6-3/4 x 30 GLB  
RB-7: (3) 1-3/4 x 16 ML

COLUMN SCHEDULE

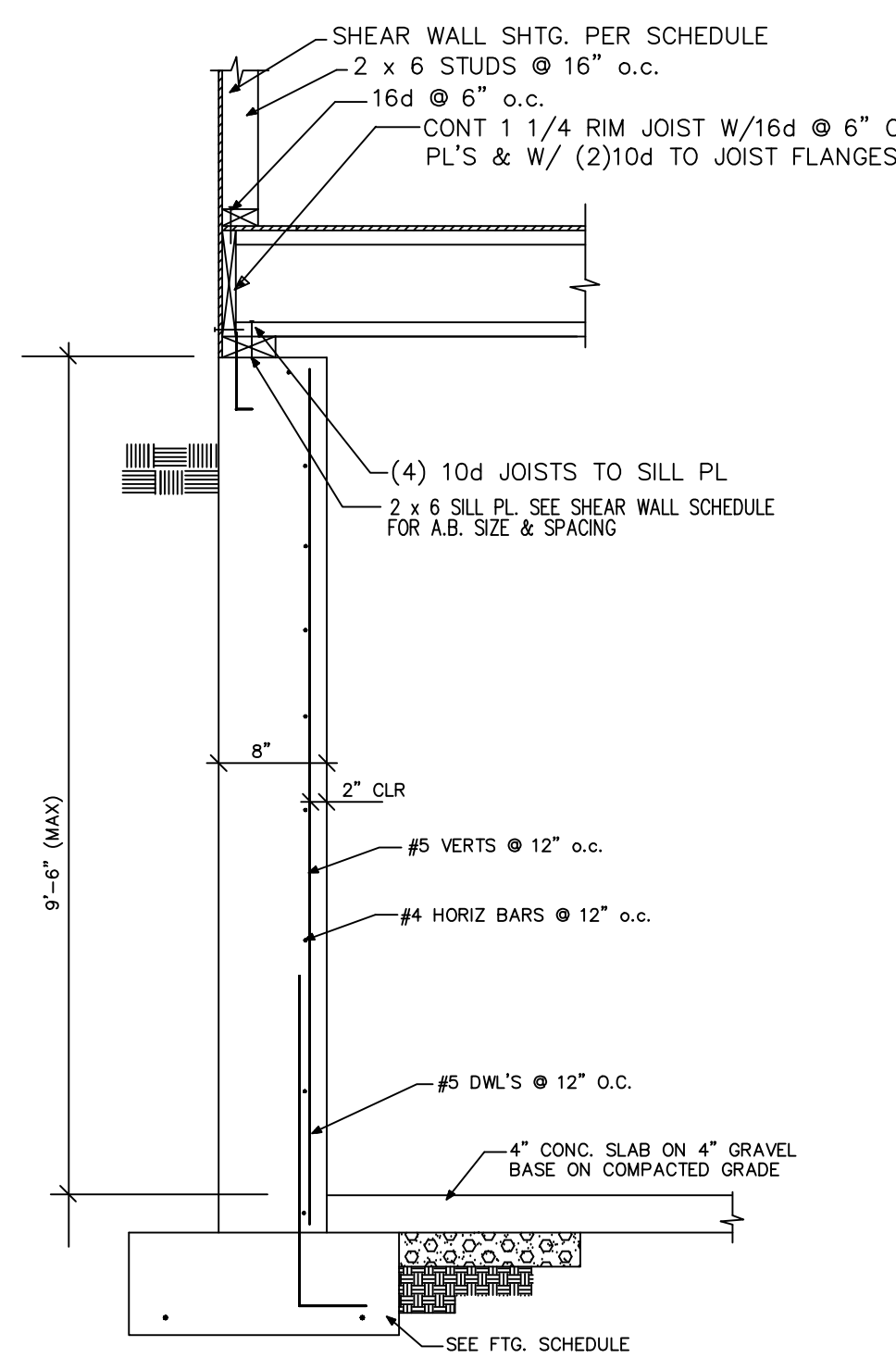
- C1: 3-2x6  
C2: TS 4x4x1/4  
C3: TS 5x5x1/4  
C4: TS 6x6x5/16

NOTES:

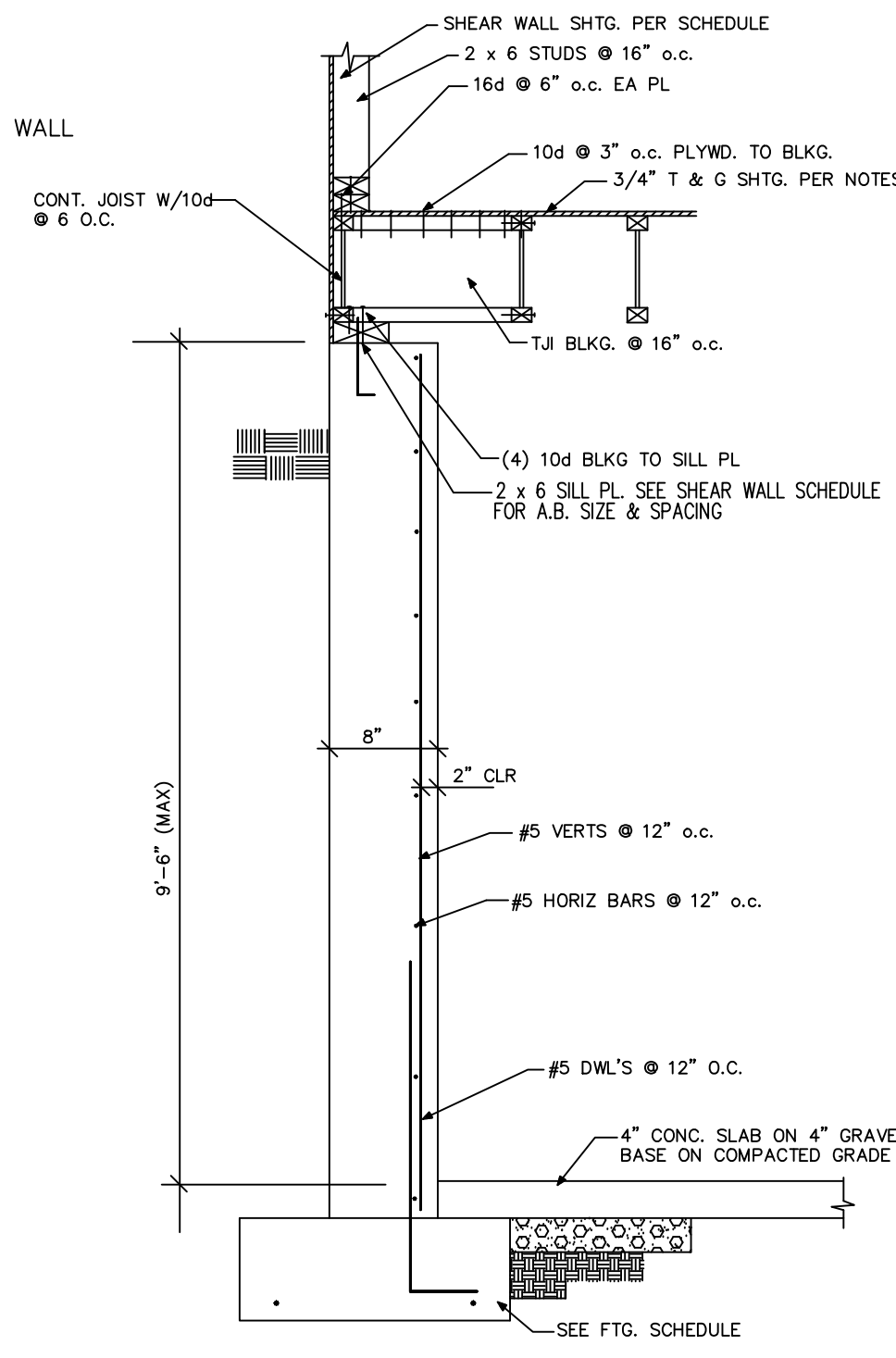
1. STUDS PACKS SHALL MATCH WALL STUDS IN DEPTH, SPECIES & GRADE.
2. WHERE COLUMNS ARE NOT CALLED OUT ON PLANS, USE A MINIMUM OF (2)STUDS OF THE SAME SIZE OF THE WALL WHERE THE HEADER/BEAM OCCURS



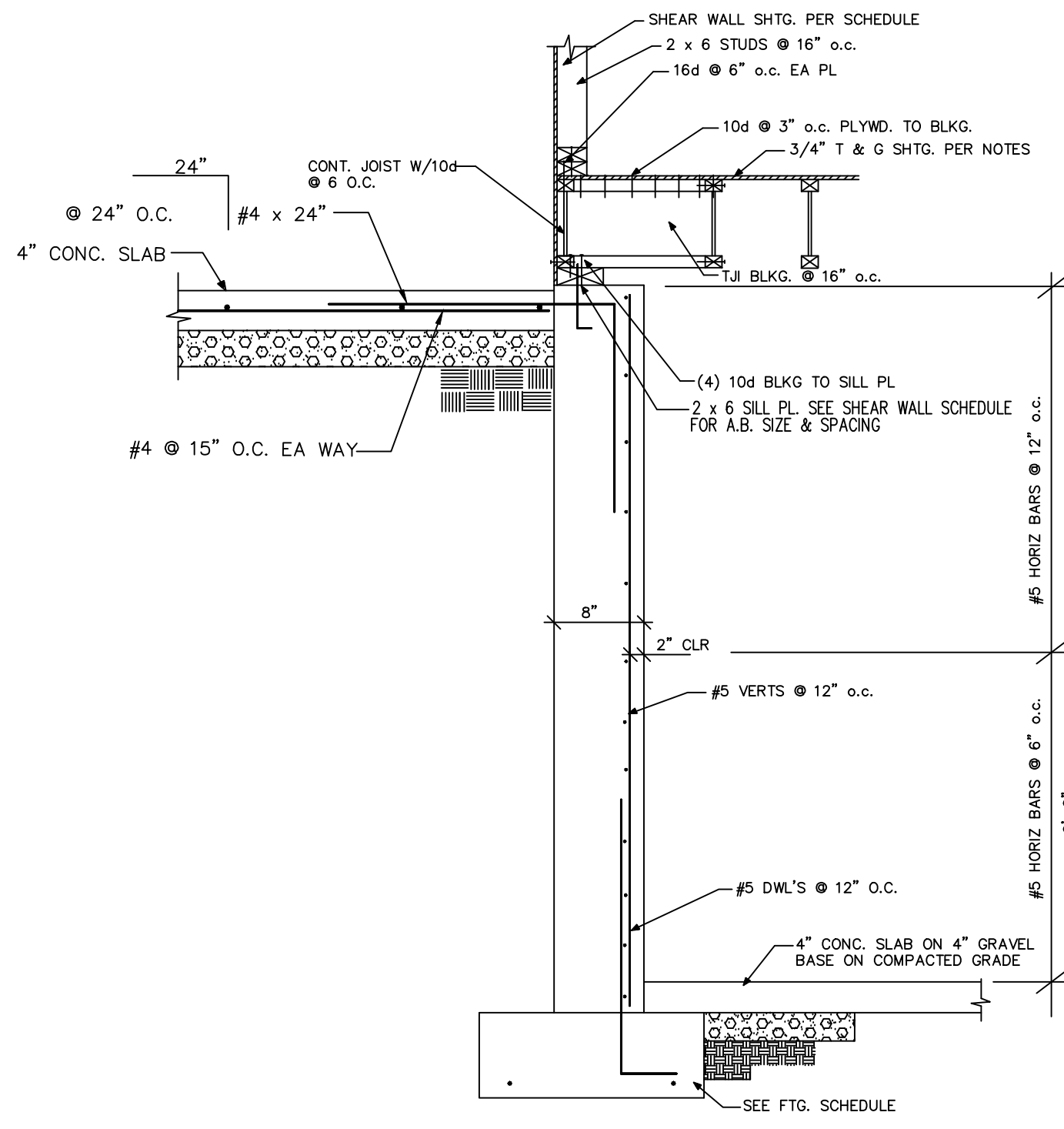




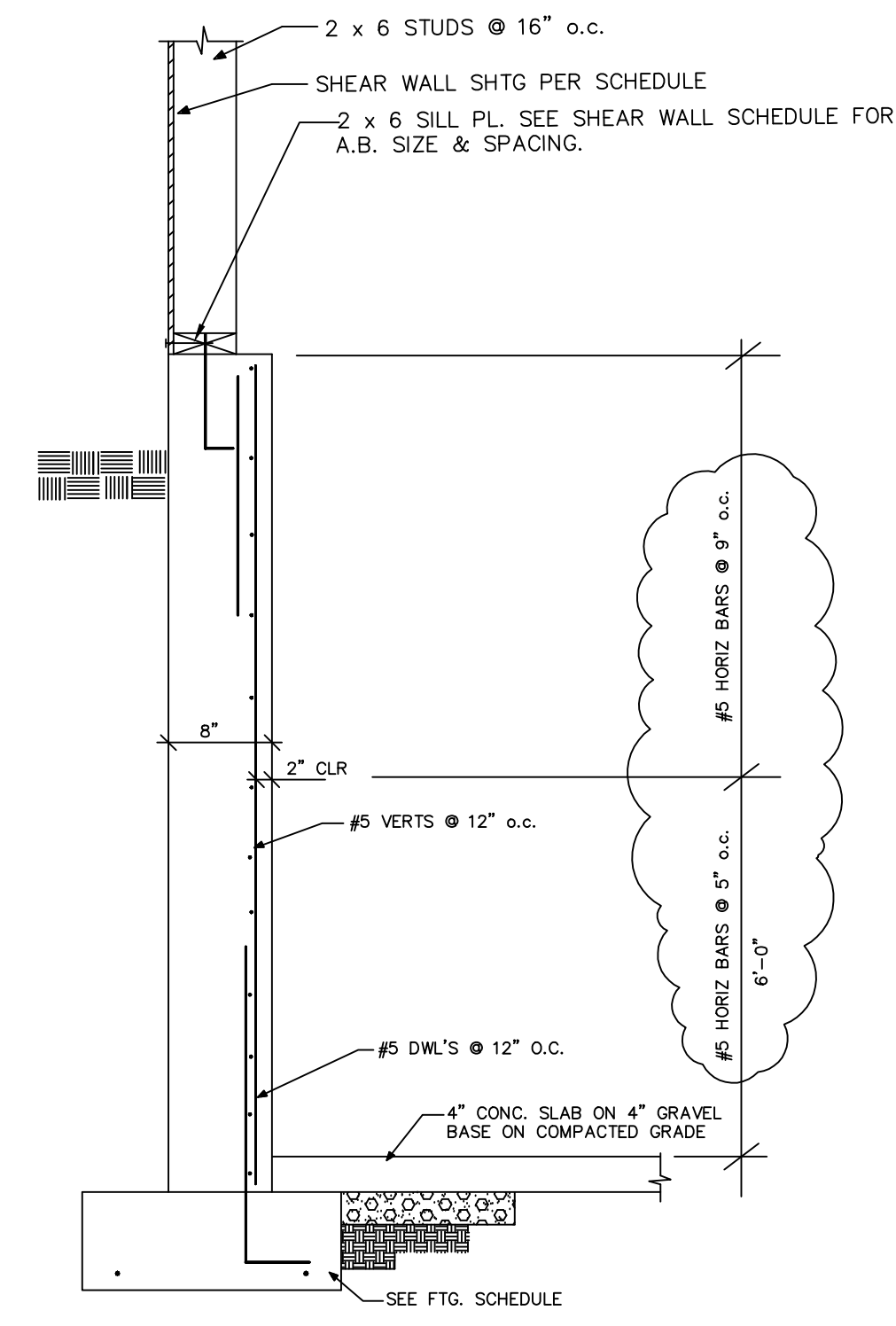
1 WALL SECTION



2 WALL SECTION

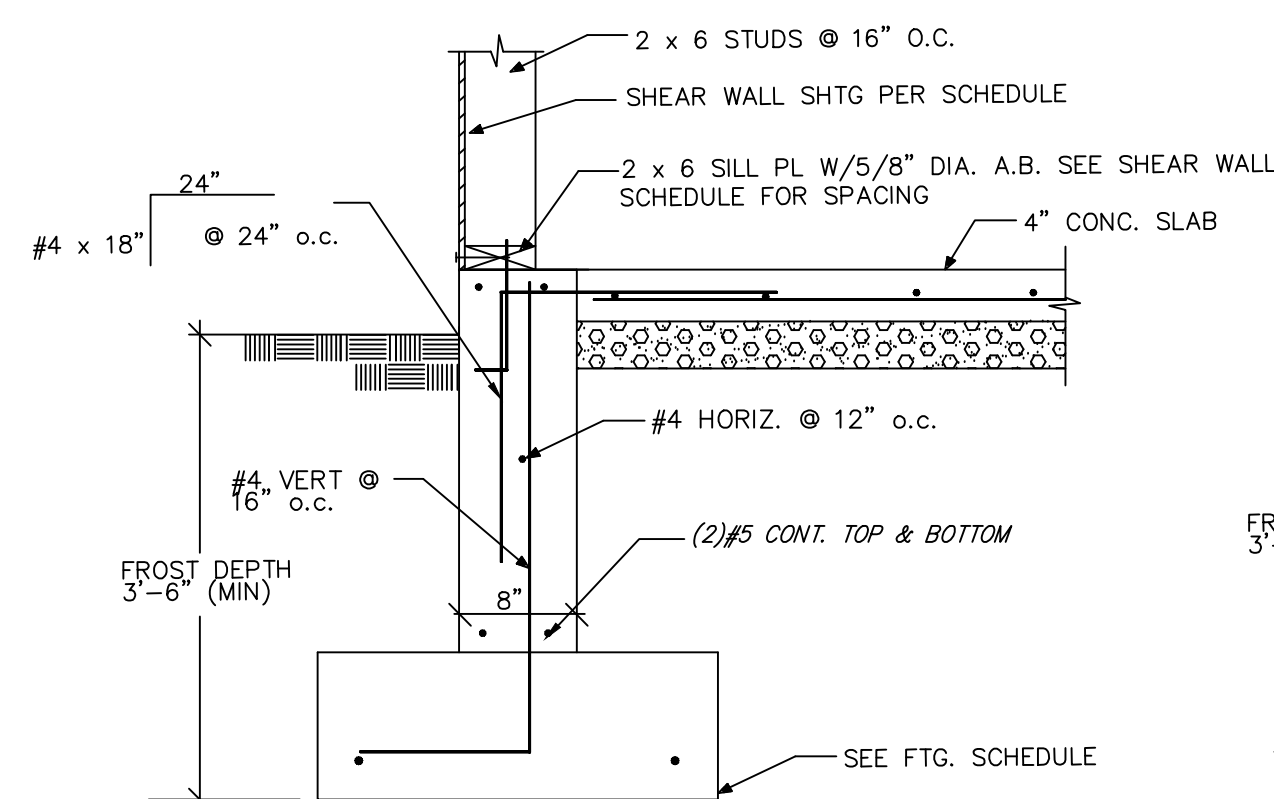


3 WALL SECTION

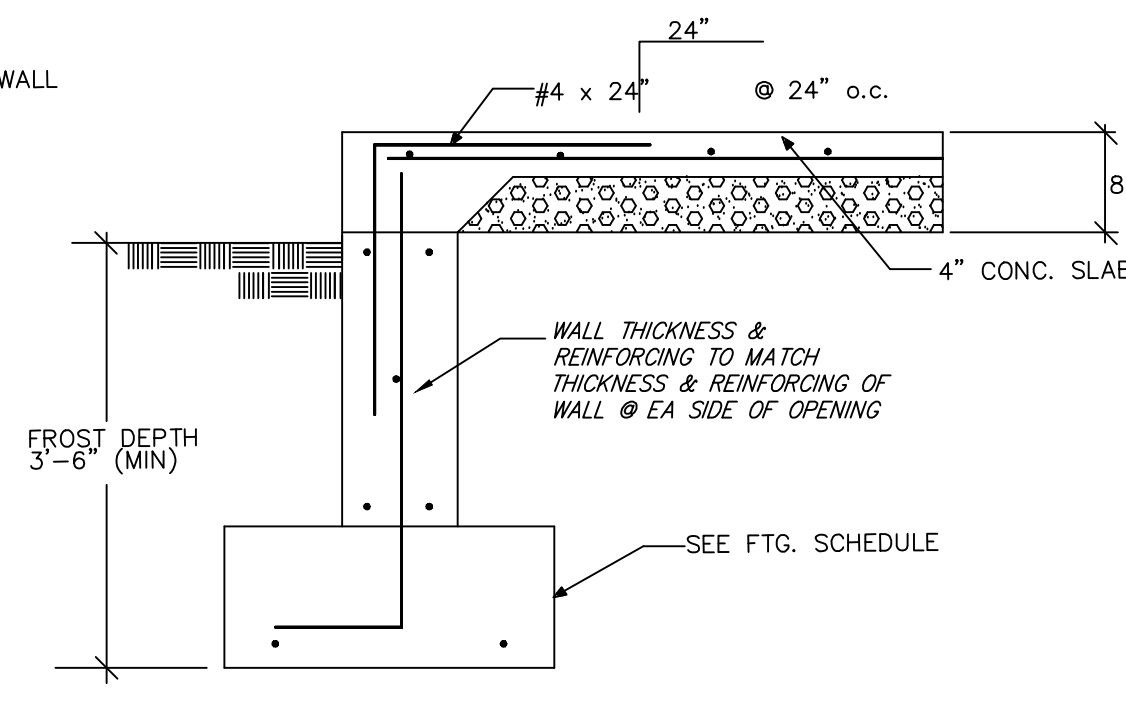


4 WALL SECTION

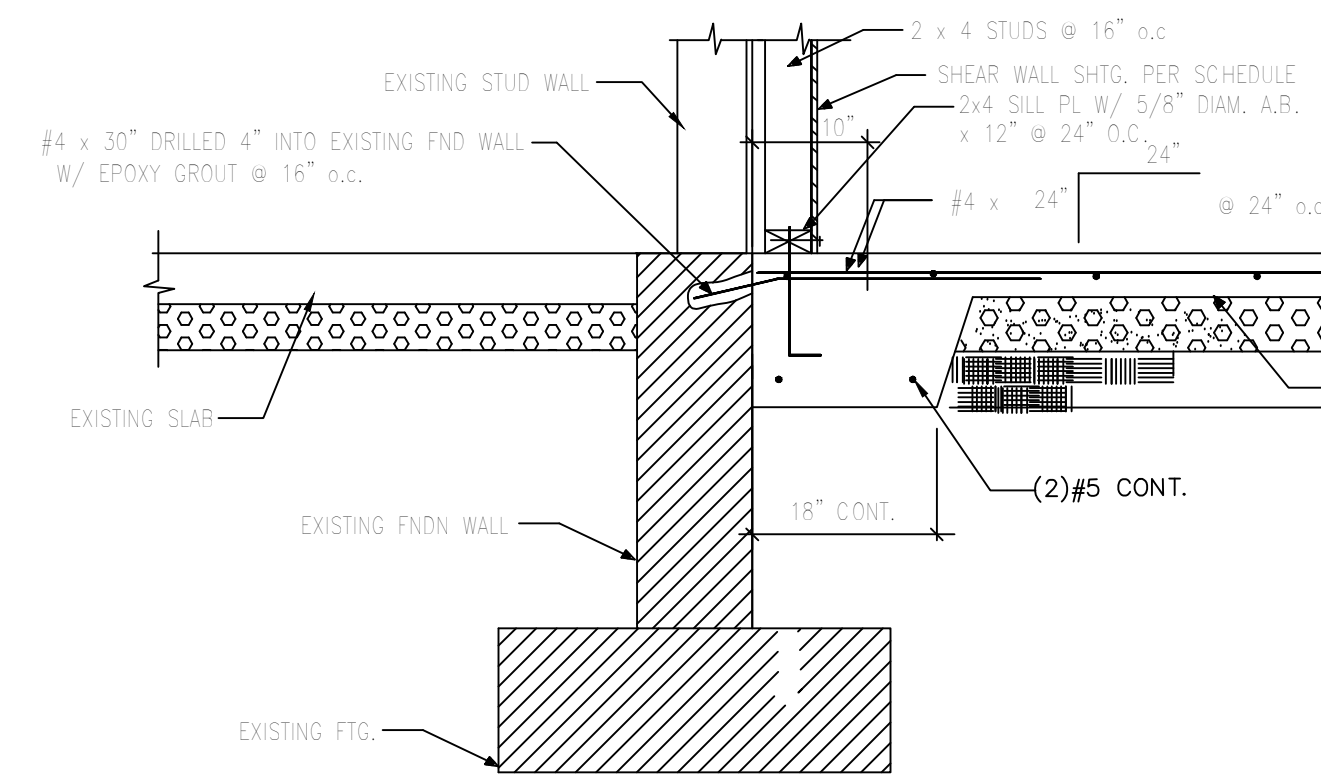
5 NOT USED



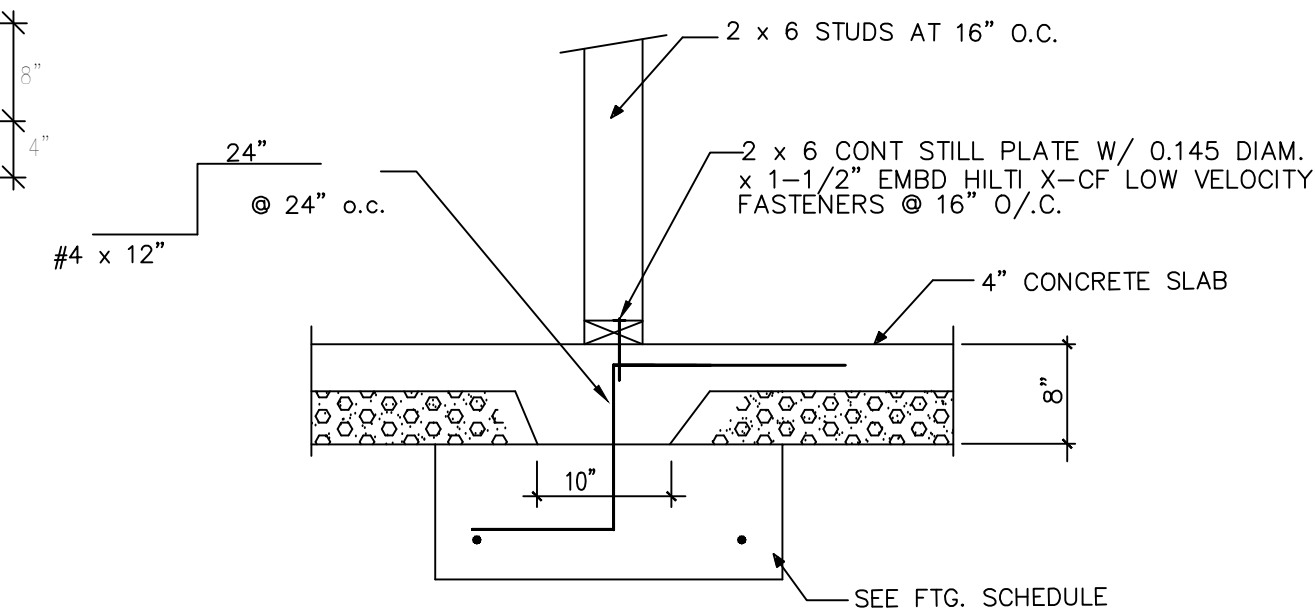
6 WALL SECTION



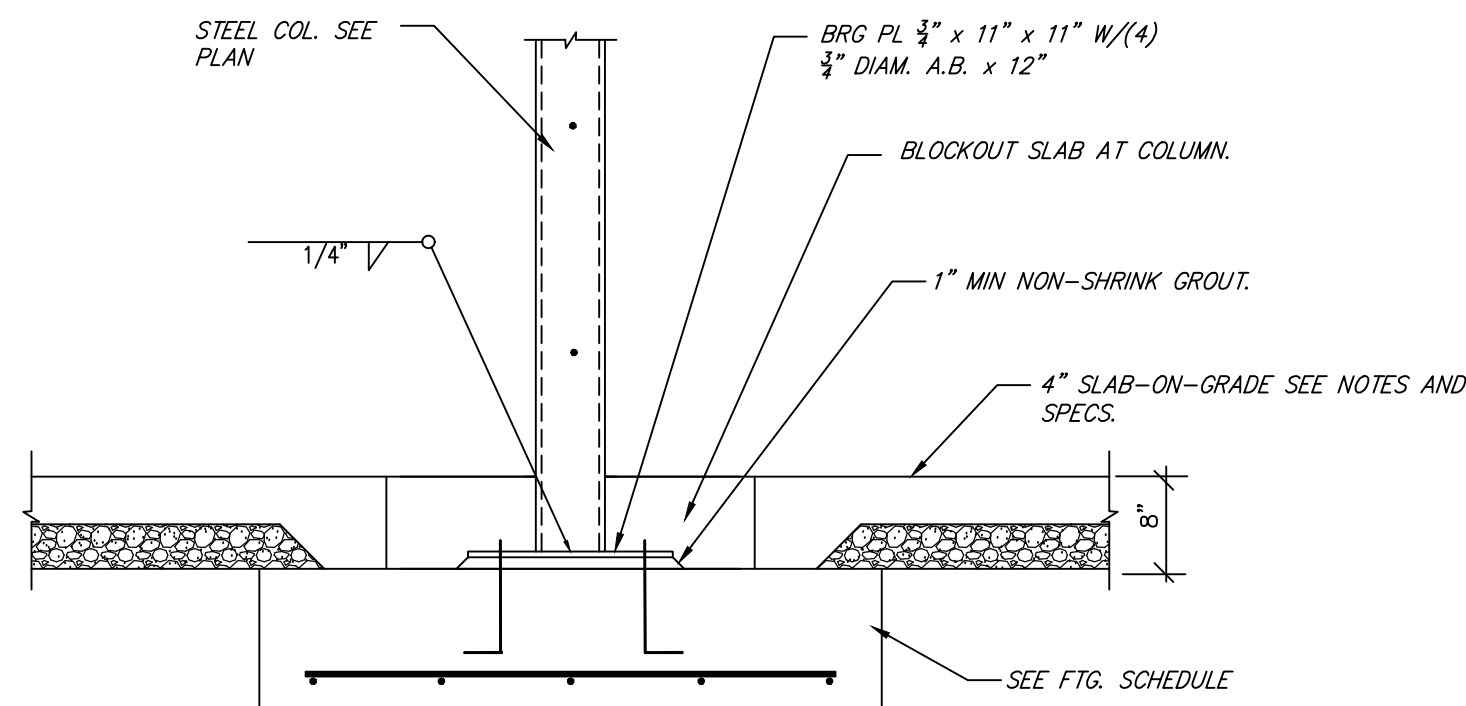
7 WALL SECTION @ DOOR OPENINGS



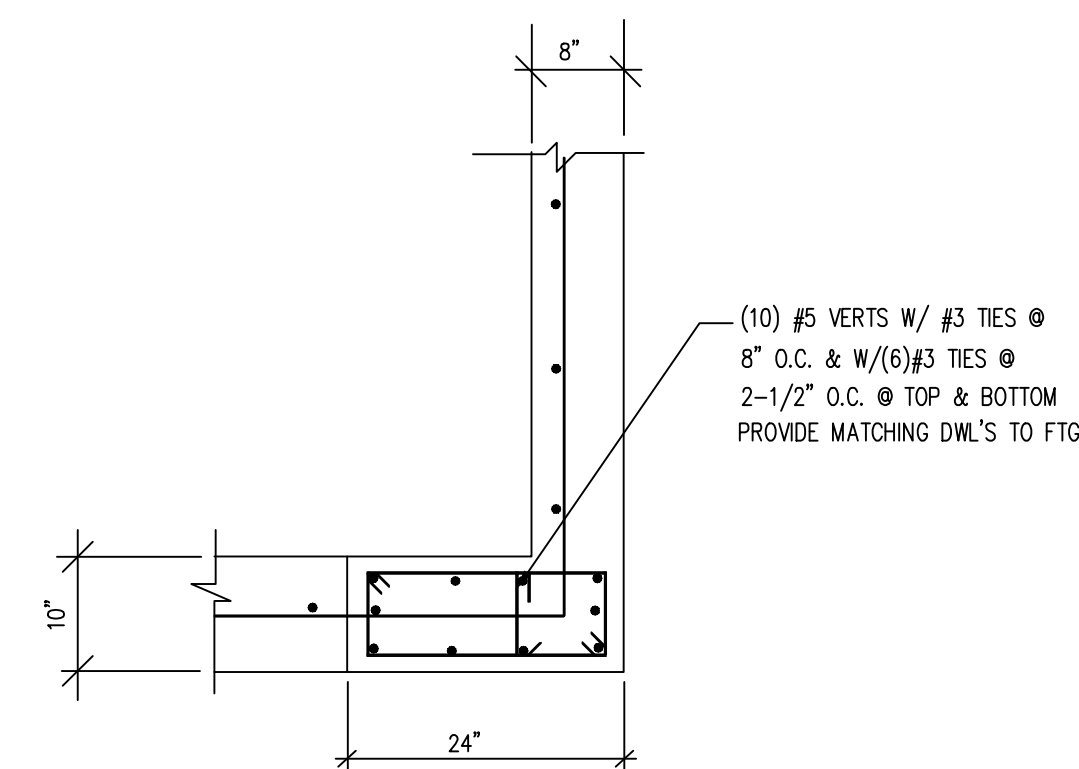
8 WALL SECTION



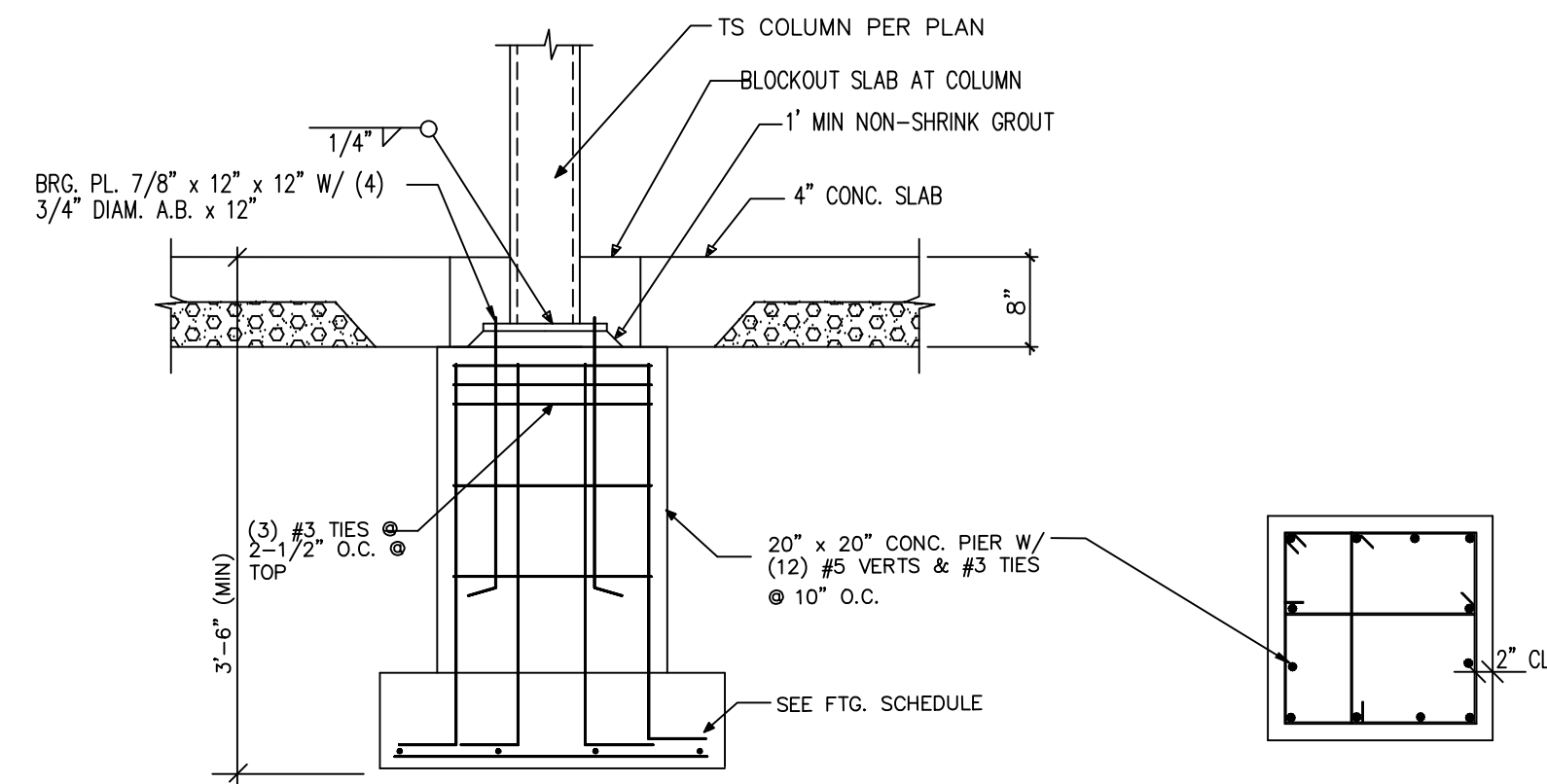
9 INTERIOR BEARING WALL



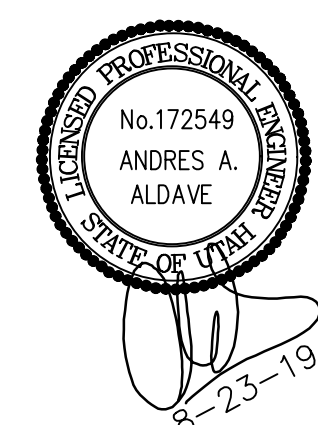
10 COLUMN DETAIL



11 CONCRETE COLUMN PLAN



12 COLUMN CONNECTION



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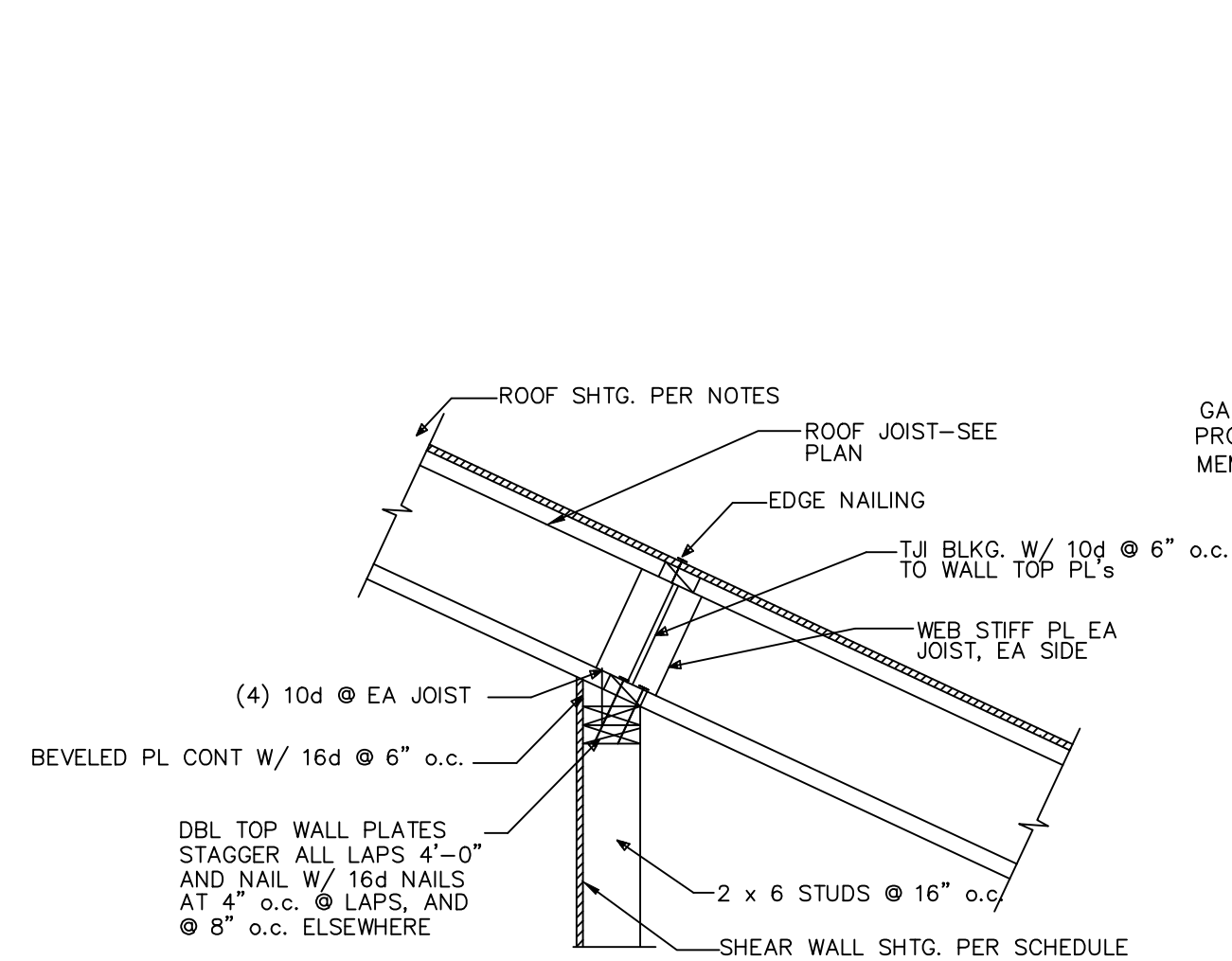
ENGELHARD RESIDENCE  
11401 EAST MULE HOLLOW LN.  
SLC, UTAH

STRUCTURAL DETAILS

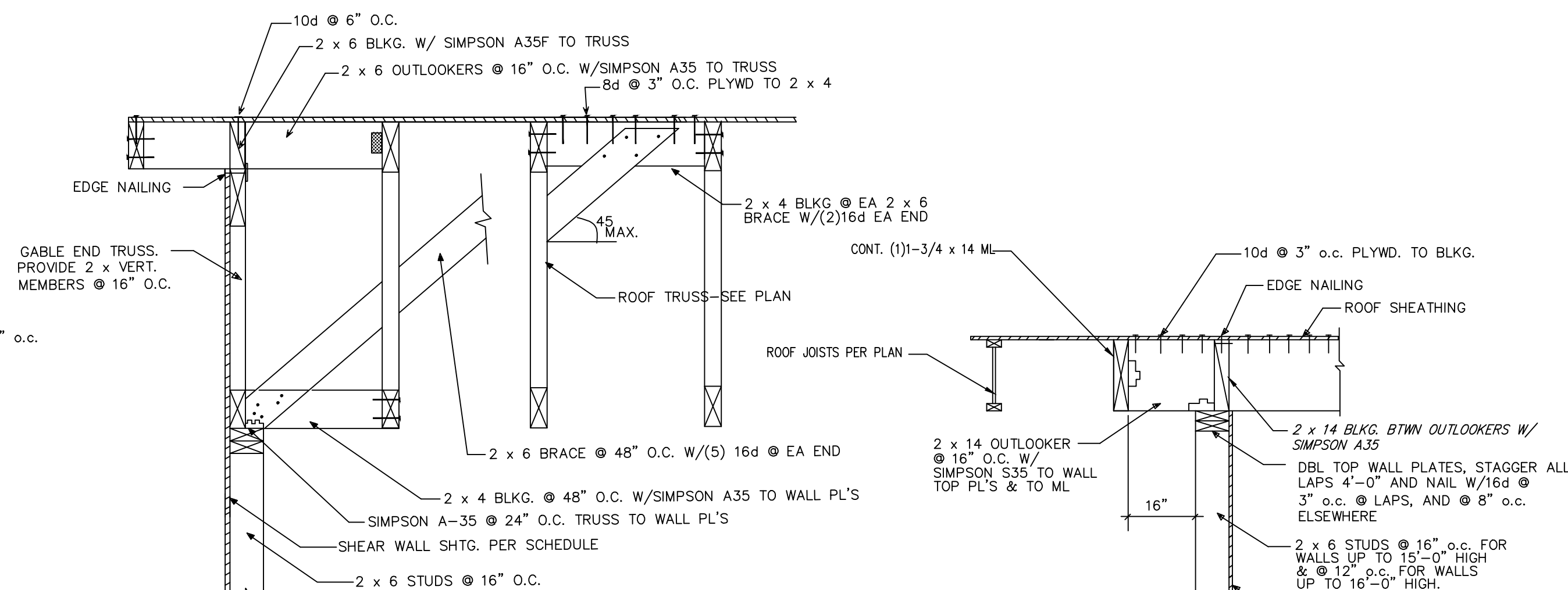
DATE: AUG 23, 2019  
REVISION:

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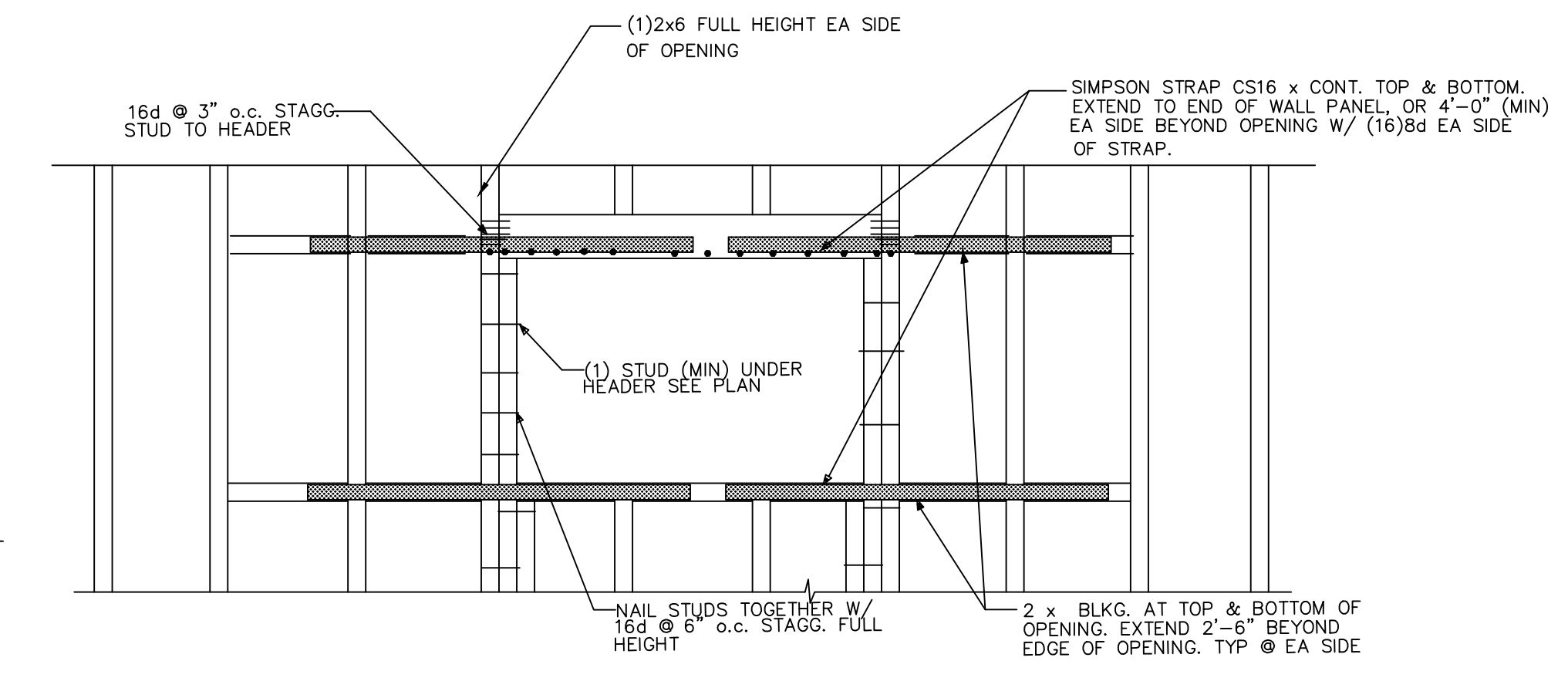


1 ROOF JOIST CONNECTION

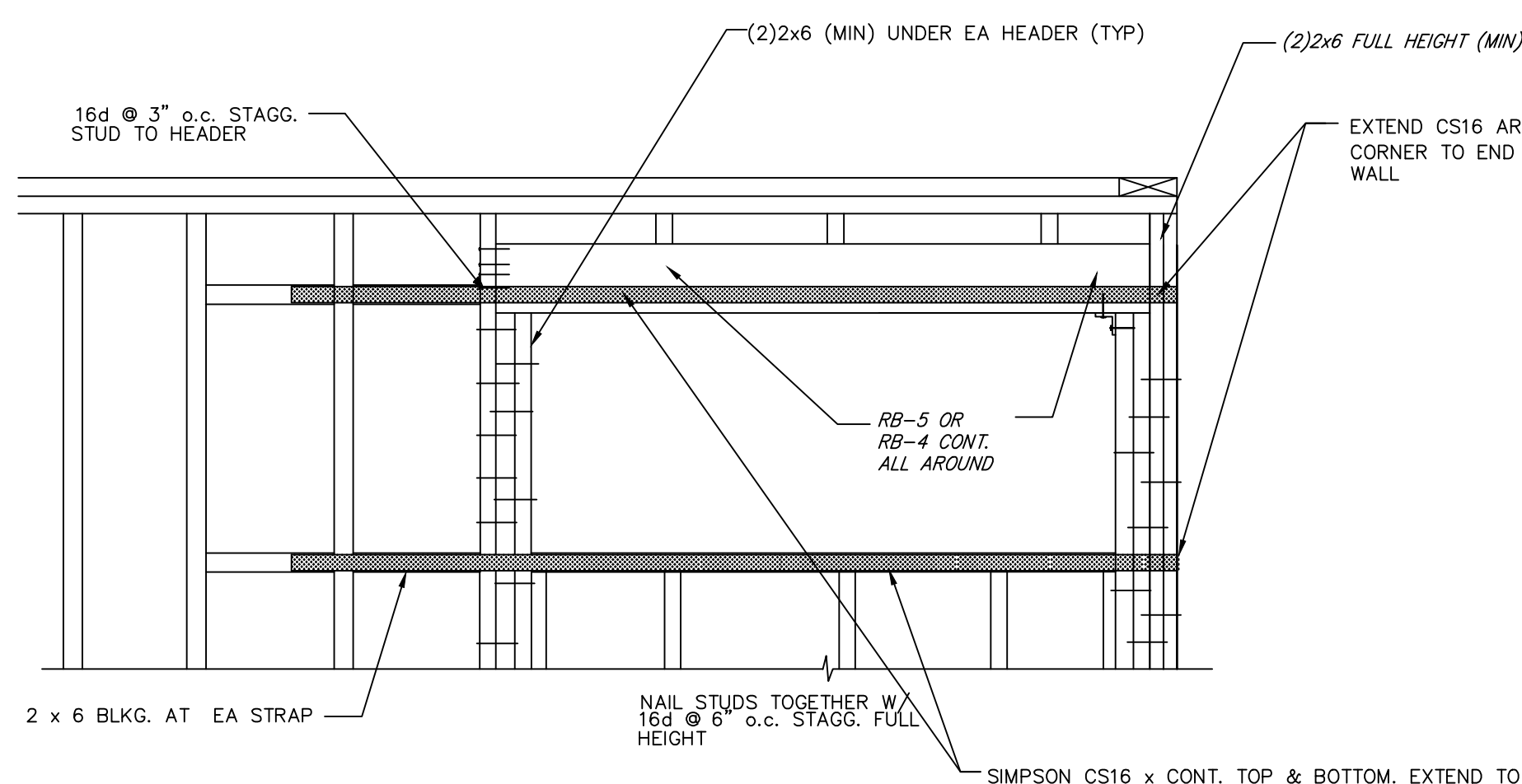


2 ROOF SECTION

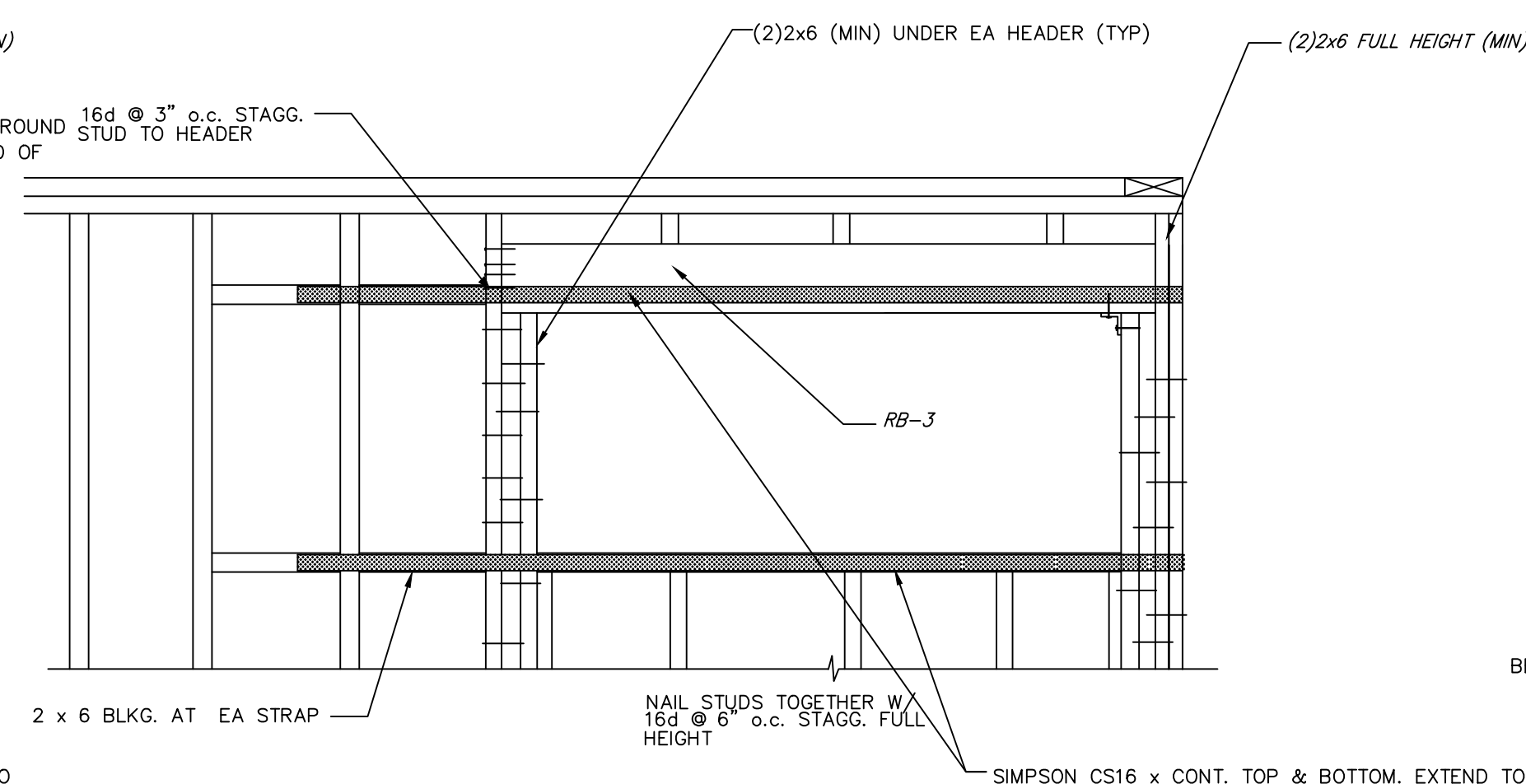
3 JOIST CONNECTION DETAIL



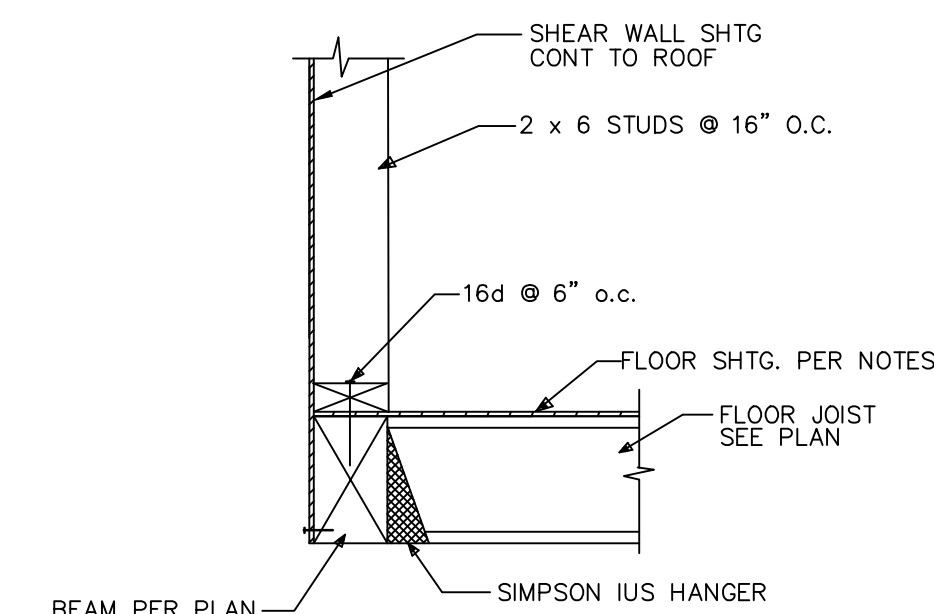
4 HEADER CONNECTION



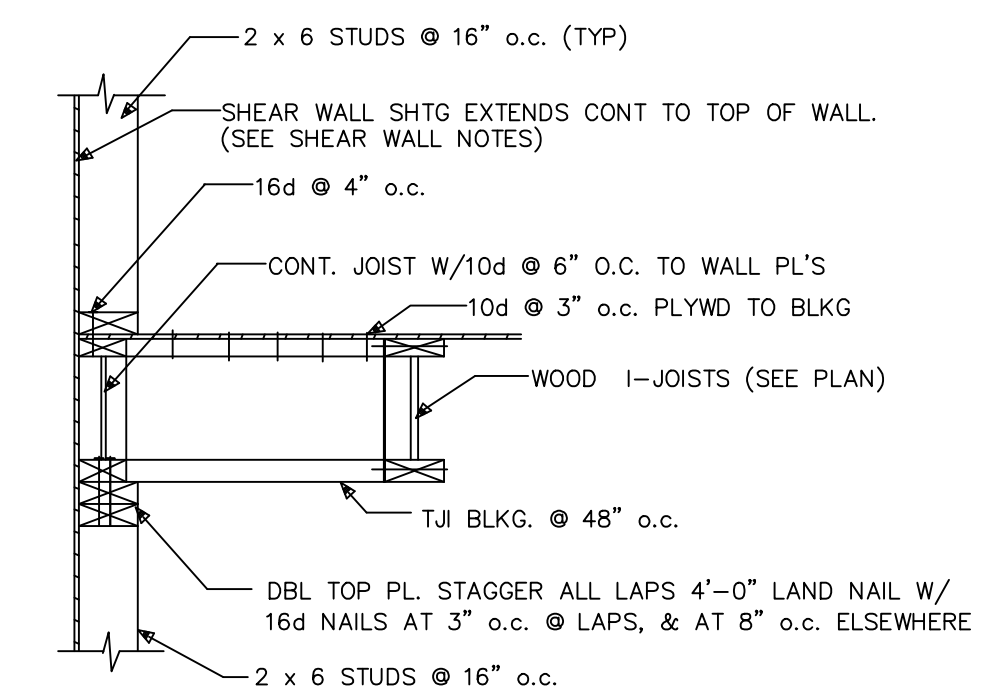
5 HEADER CONNECTION DETAIL



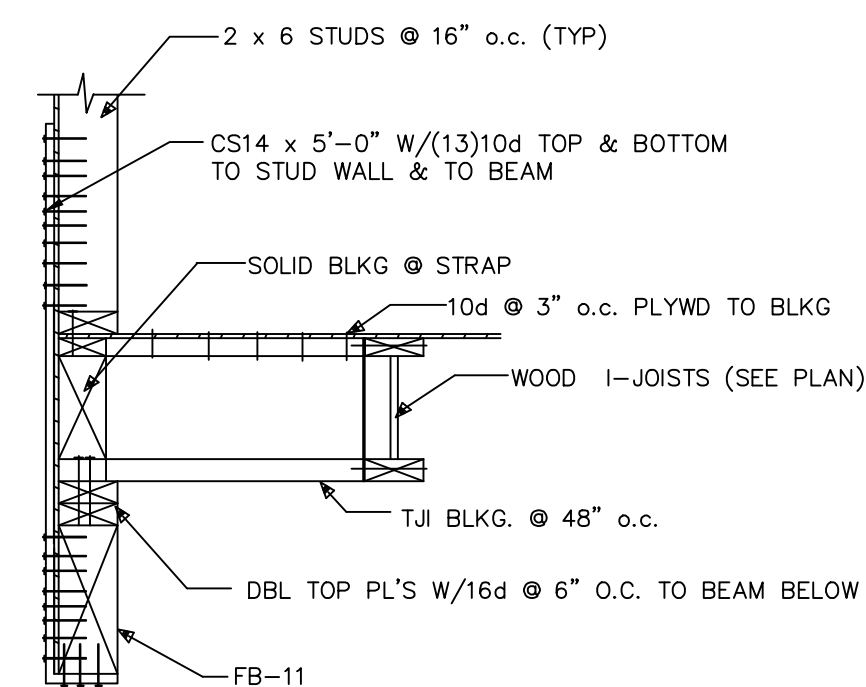
6 HEADER CONNECTION DETAIL



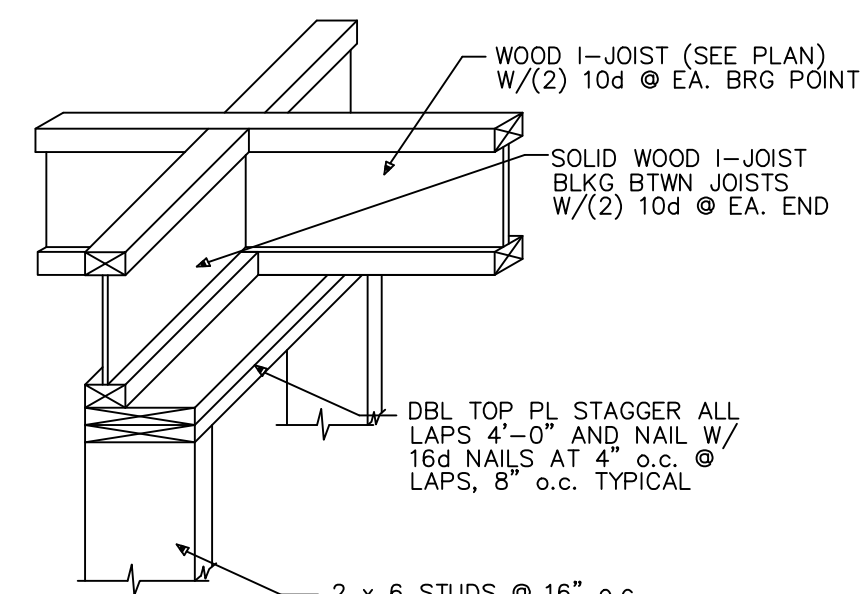
7 FLOOR SECTION



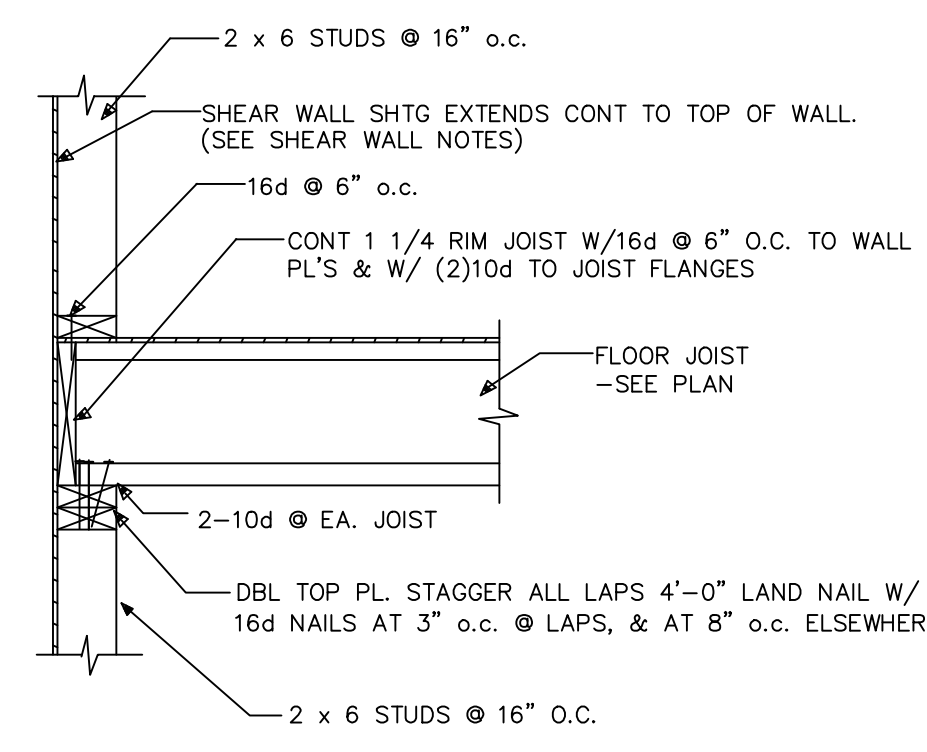
8 FLOOR JOIST CONNECTION



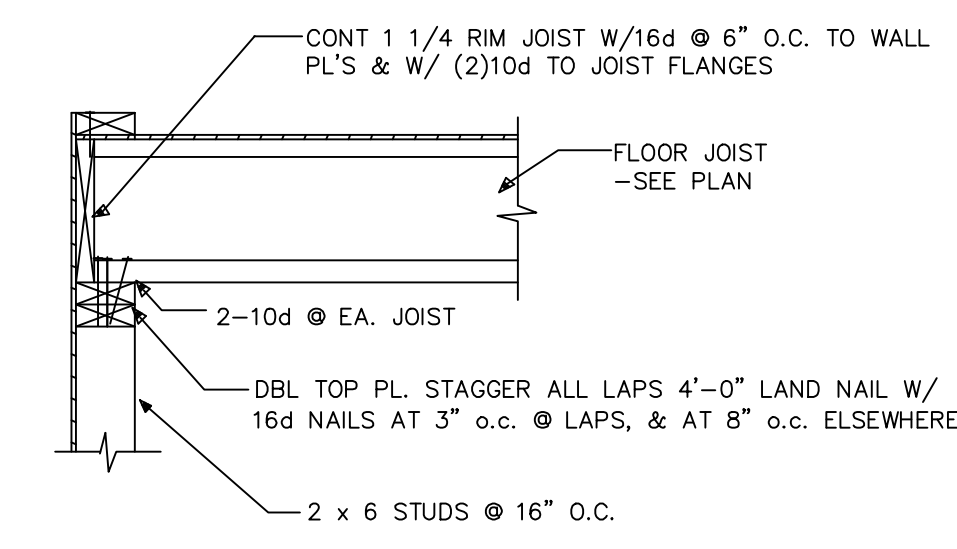
9 CS14 STRAP CONNECTION



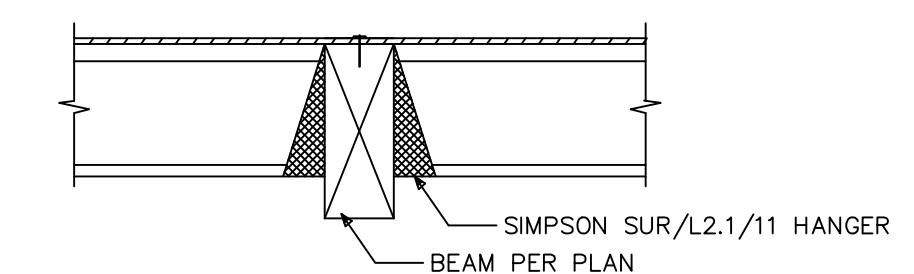
10 WOOD I-JOIST FRAMING



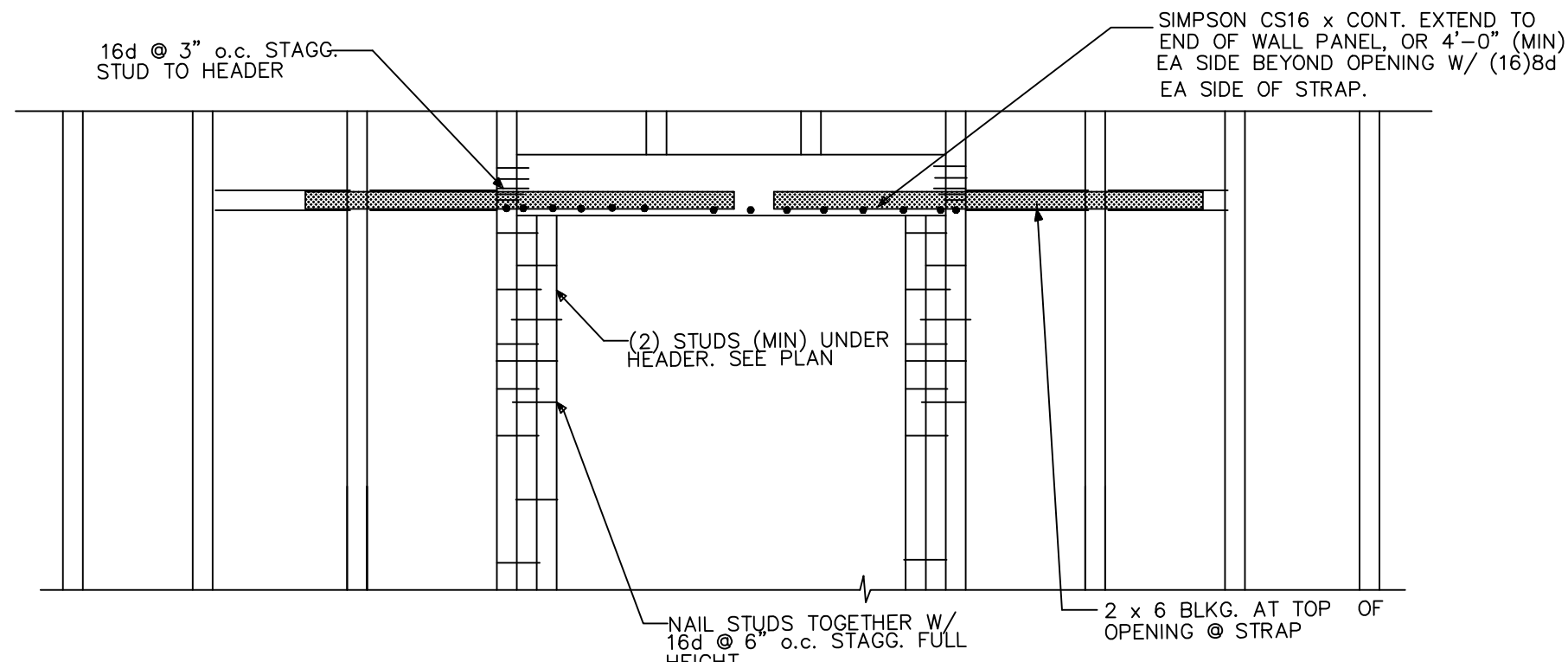
11 FLOOR JOIST CONNECTION



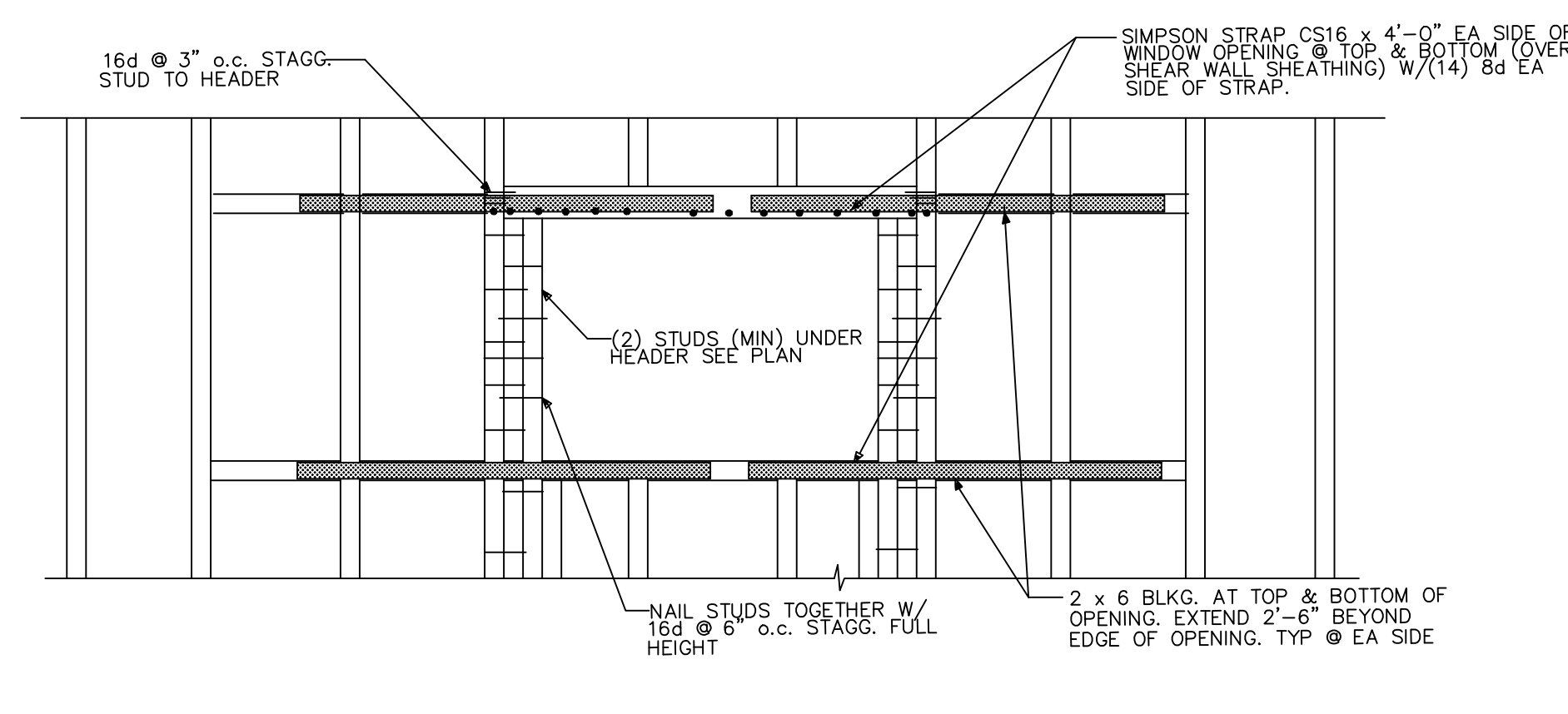
12 FLOOR JOIST CONNECTION



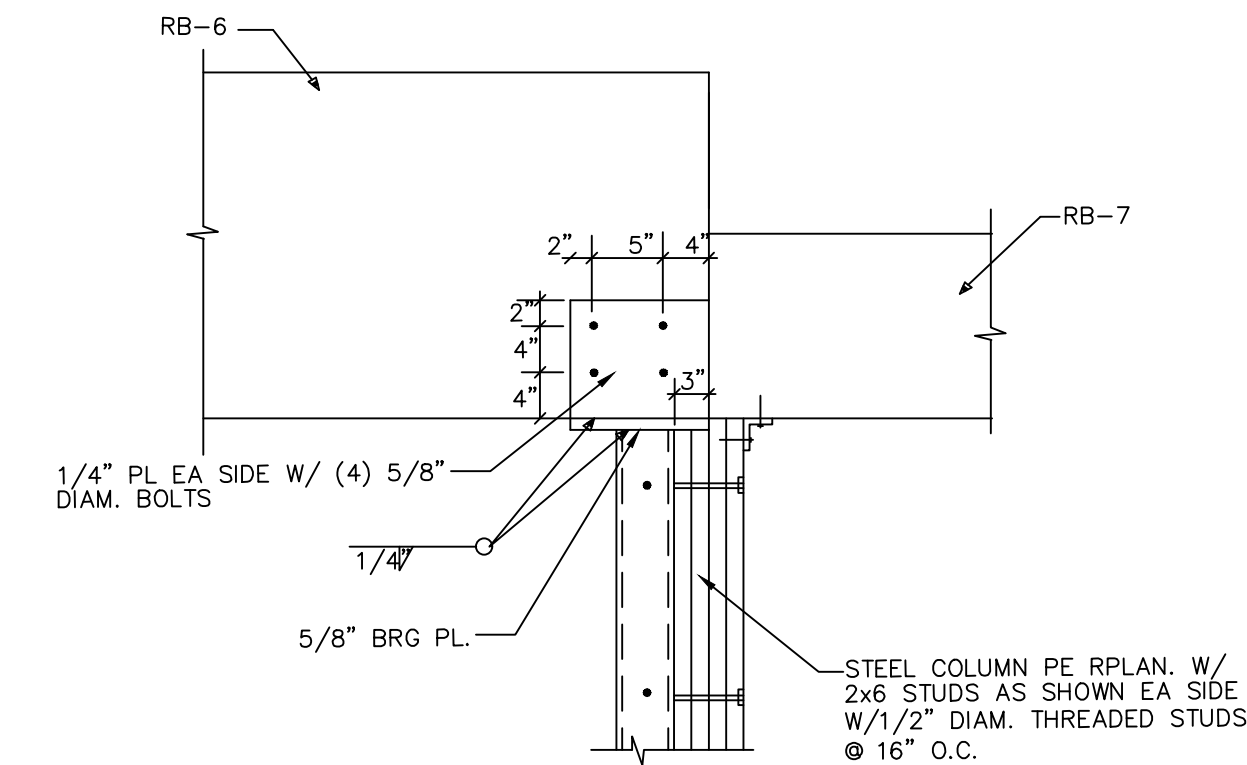
13 JOIST CONNECTION



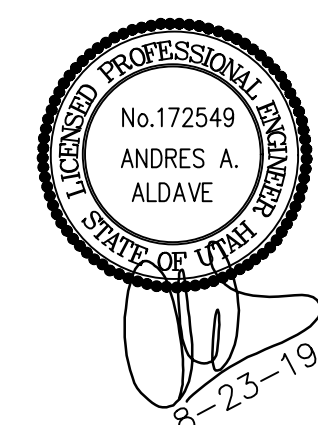
14 HEADER CONNECTION DETAIL



15 HEADER CONNECTION DETAIL



16 BEAM CONNECTION DETAIL



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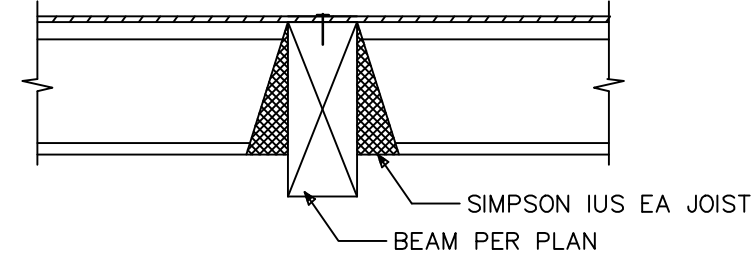
ENGELHARD RESIDENCE  
11401 EAST MULE HOLLOW LN.  
SLC, UTAH

STRUCTURAL DETAILS

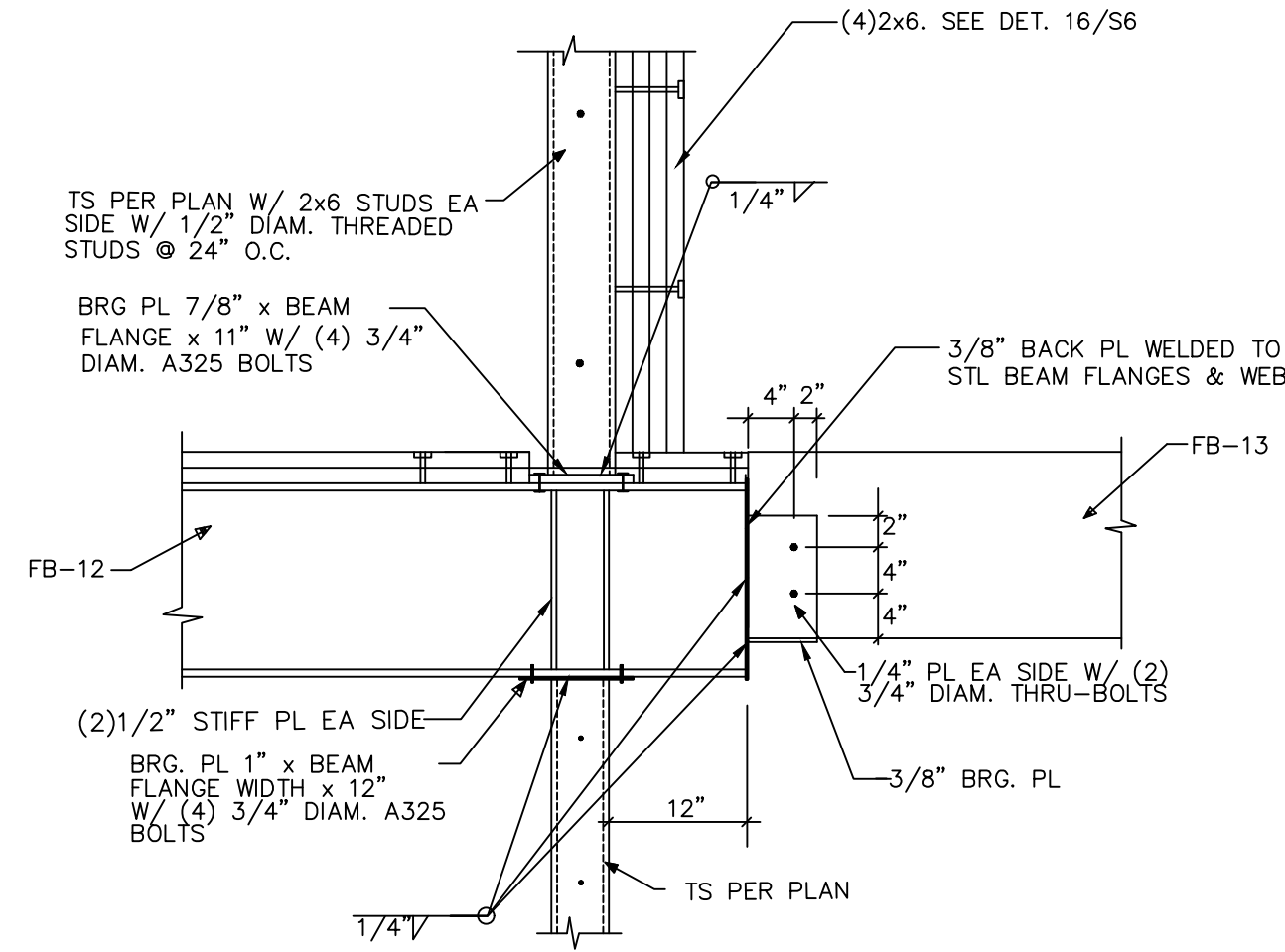
DATE:  
AUG 23, 2019

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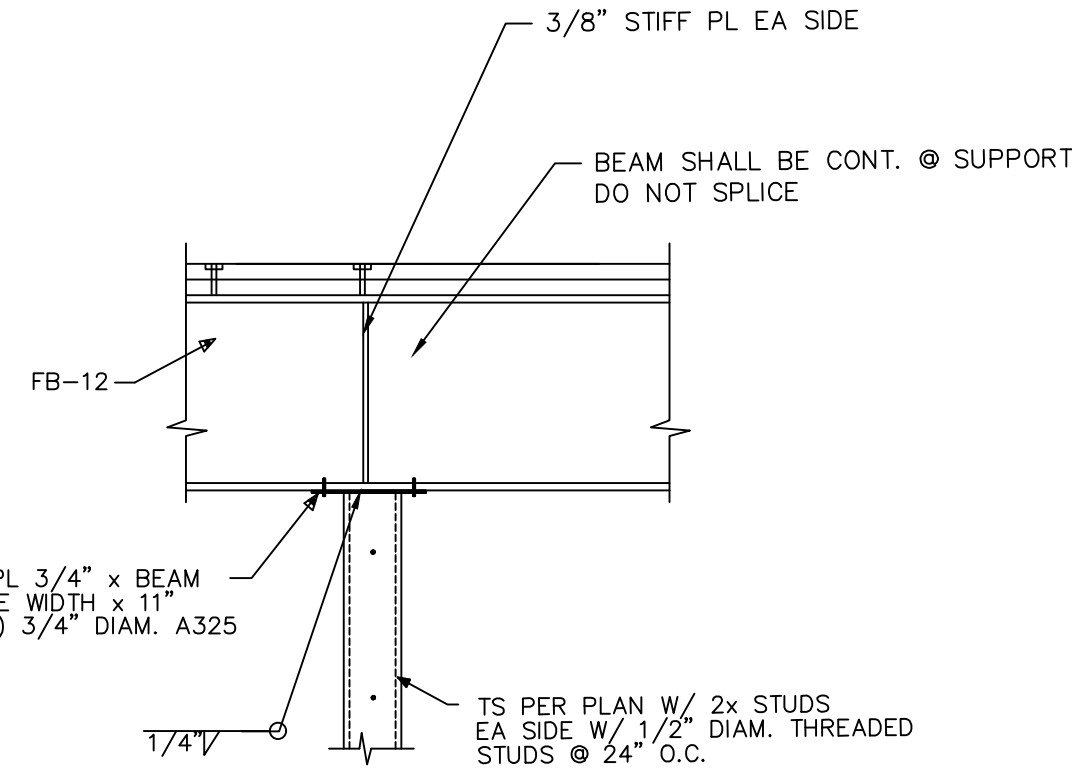




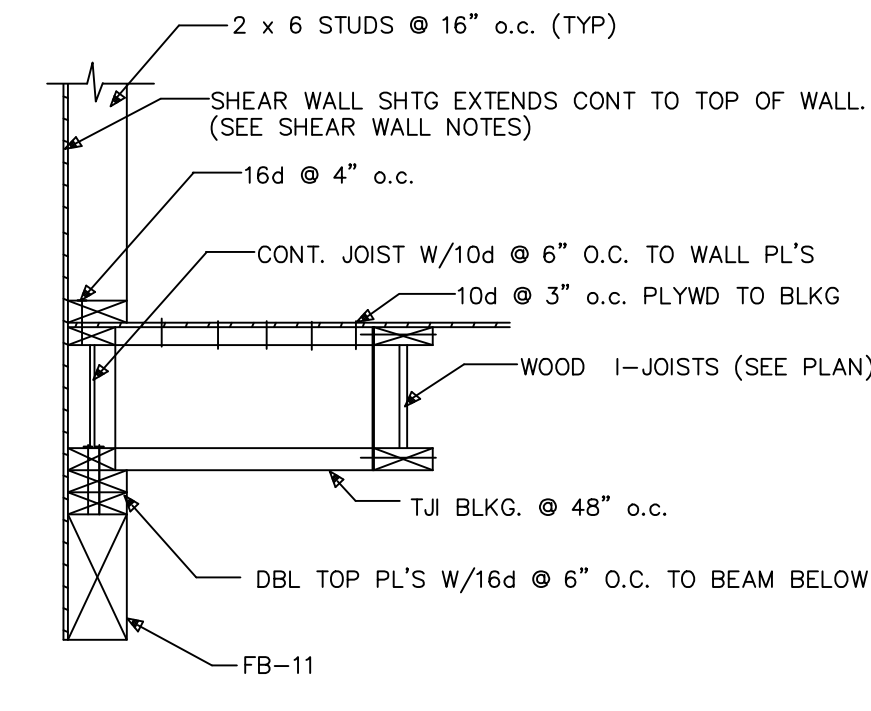
1 JOIST CONNECTION



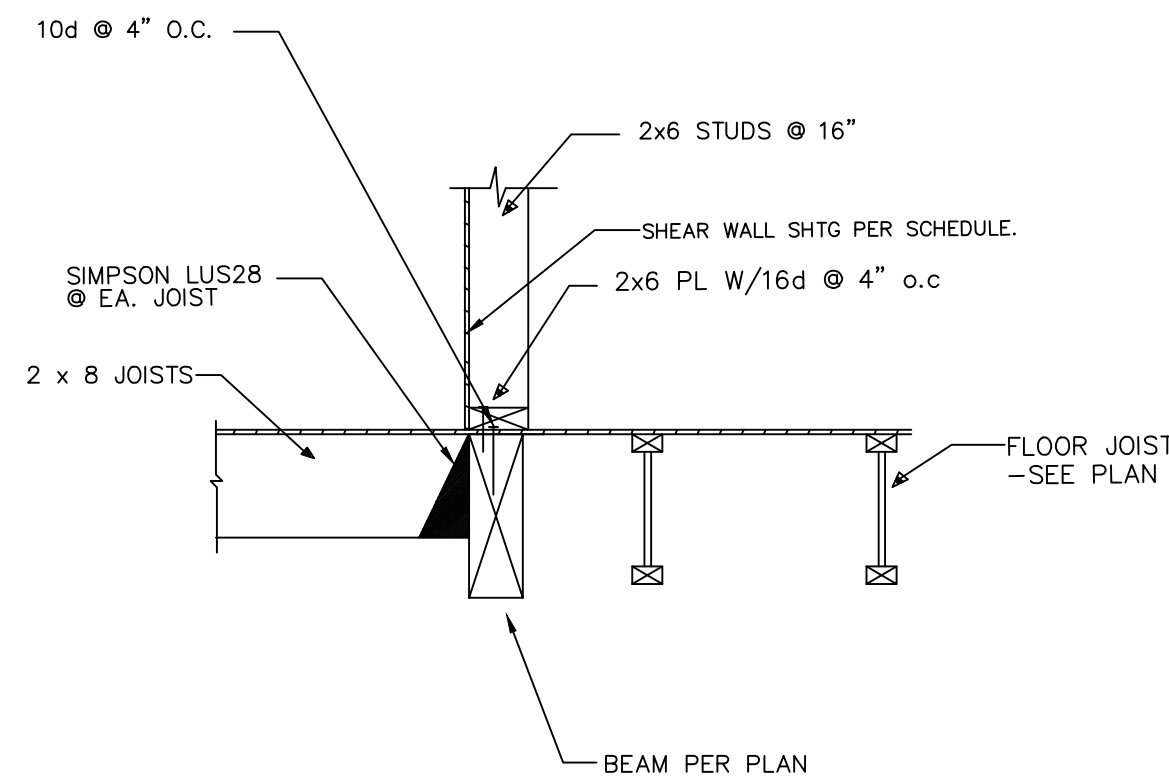
2 BEAM CONNECTION



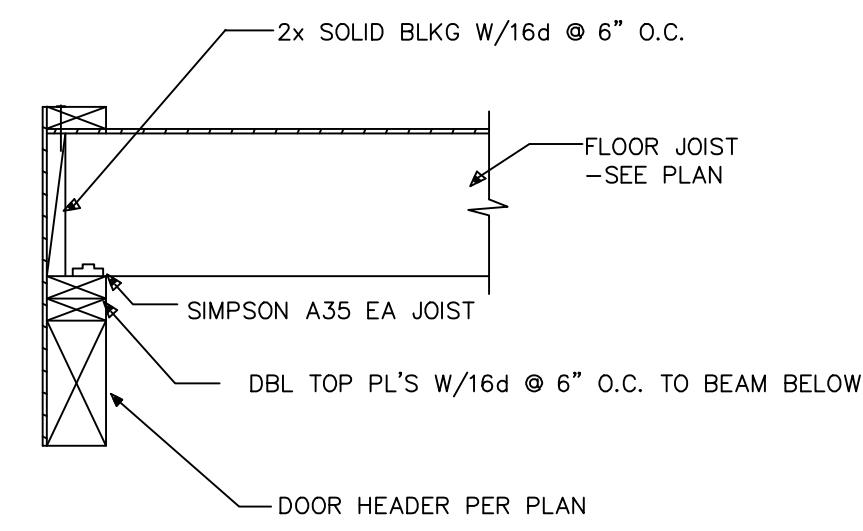
3 BEAM CONNECTION



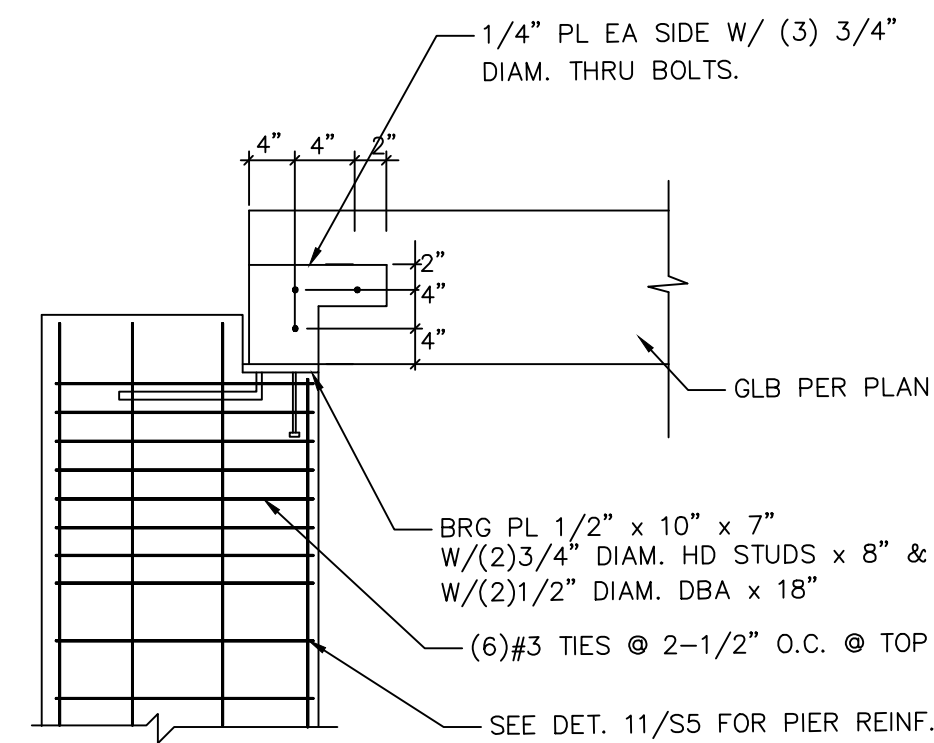
4 FLOOR JOIST CONNECTION



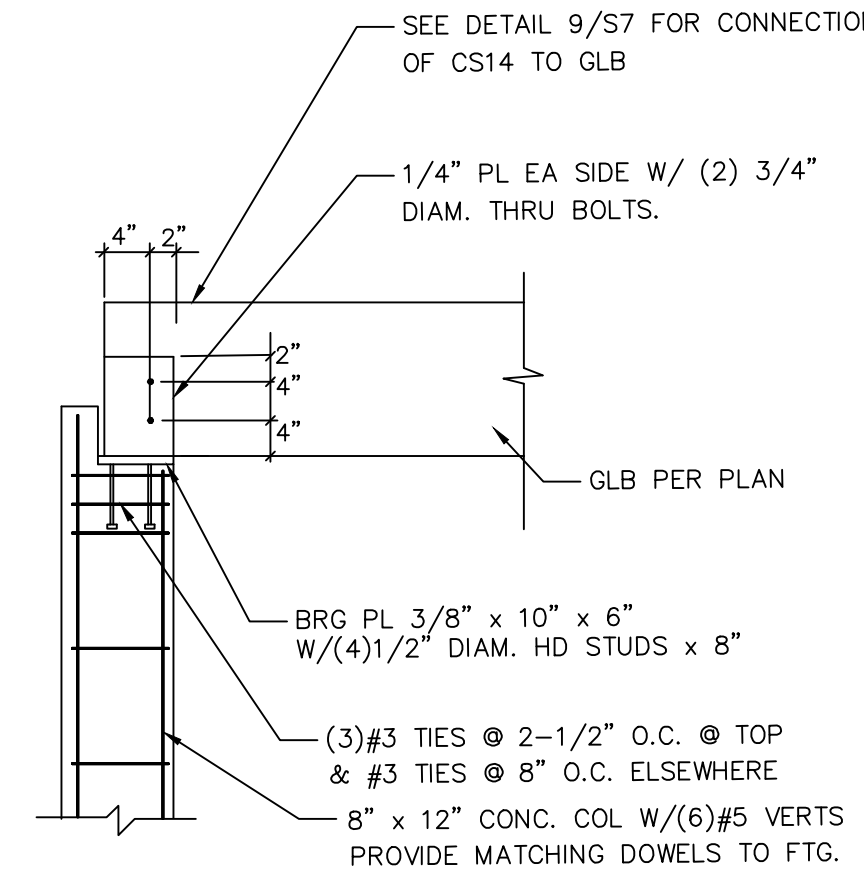
5 JOIST CONNECTION AT BALCONY



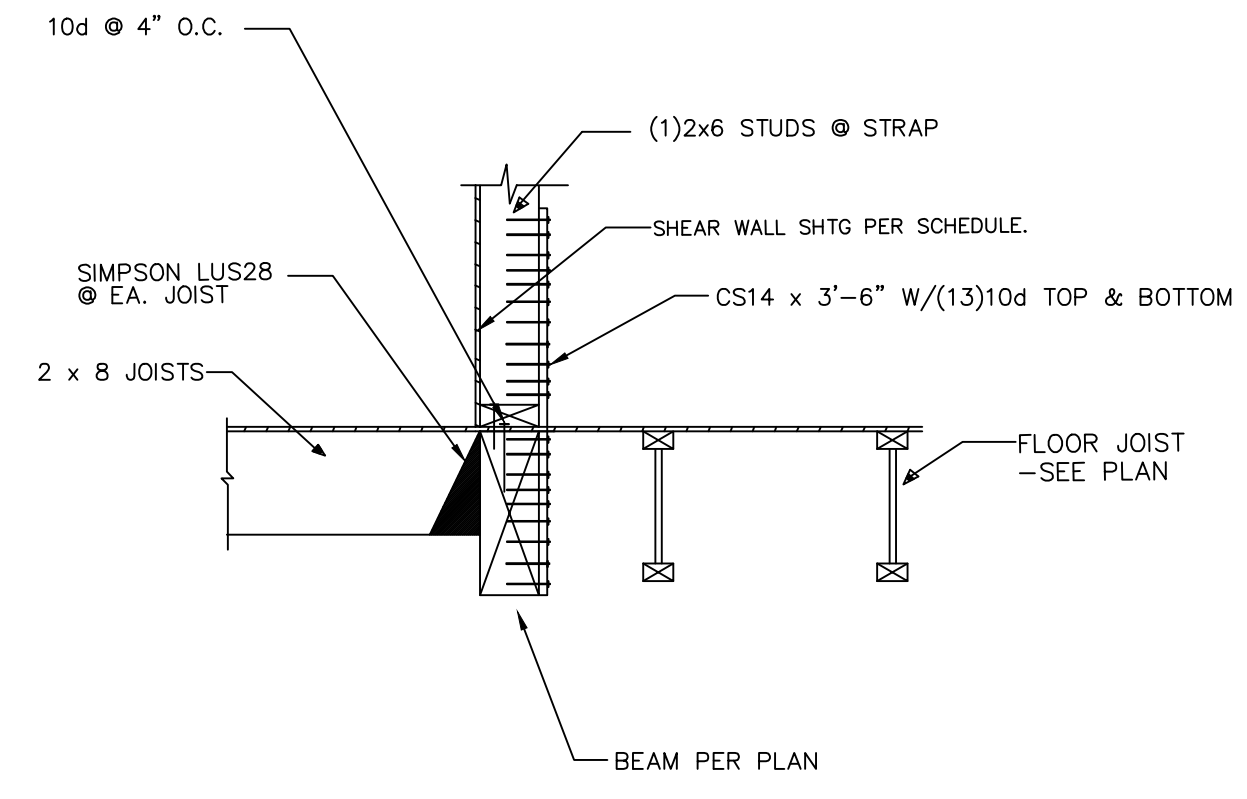
6 BALCONY SECTION



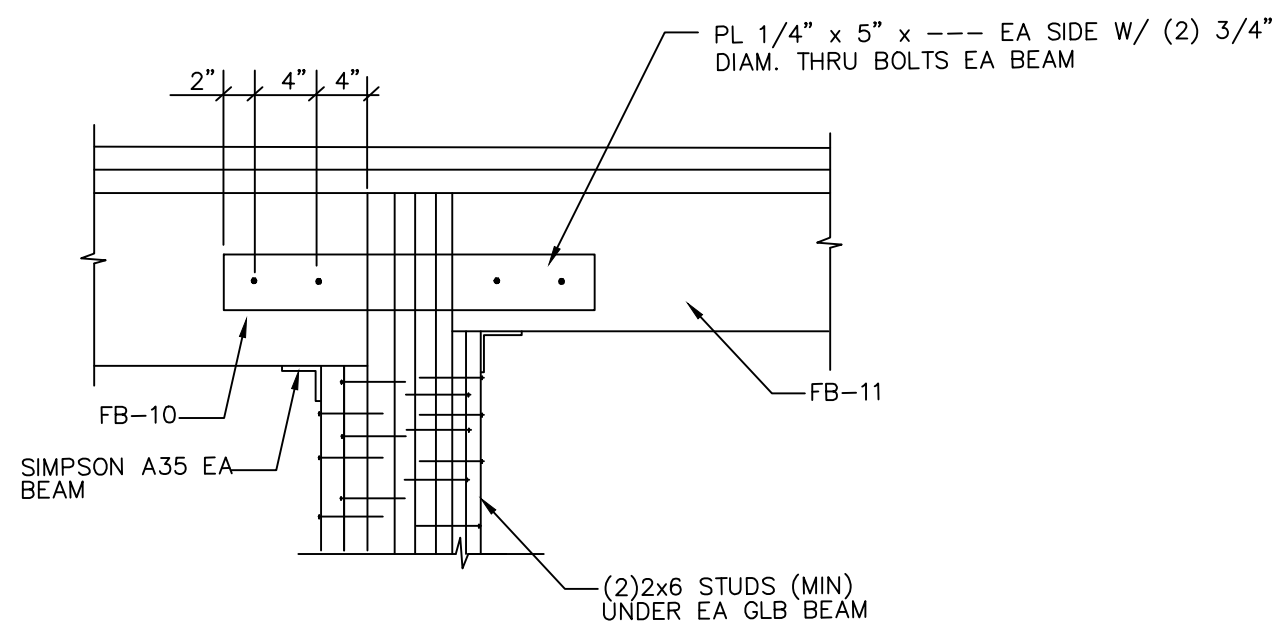
7 BEAM CONNECTION



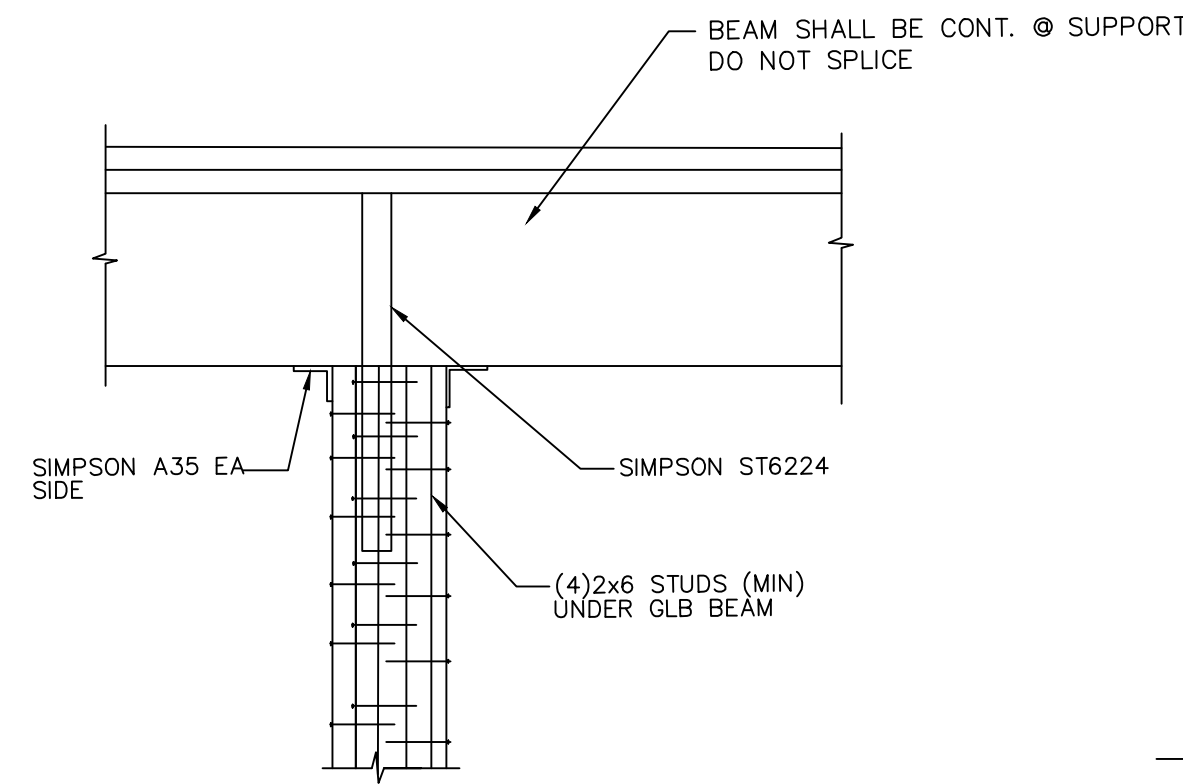
8 BEAM CONNECTION



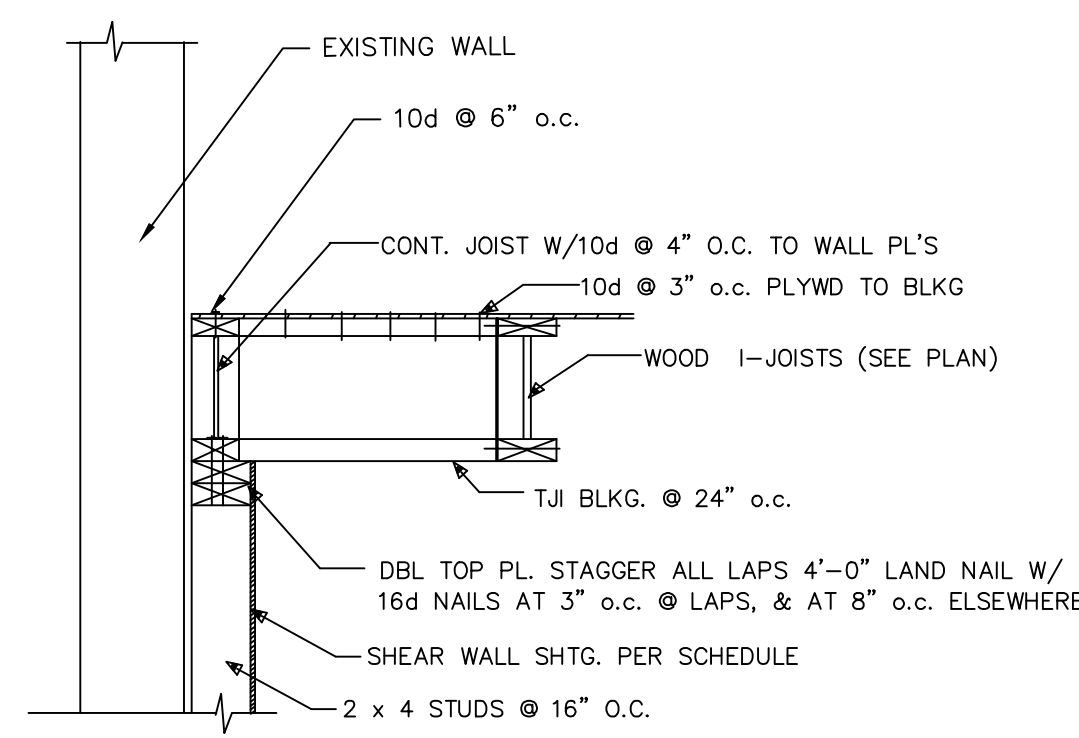
9 CS14 STRAP CONNECTION



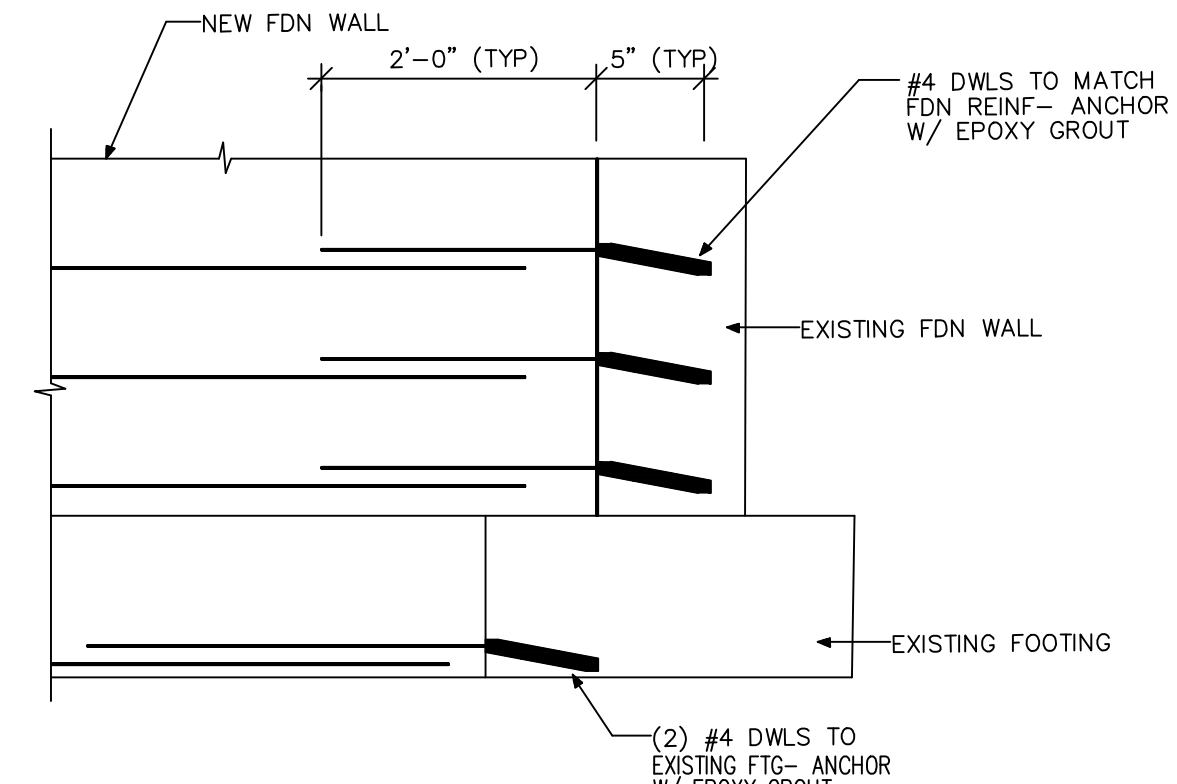
10 BEAM CONNECTION



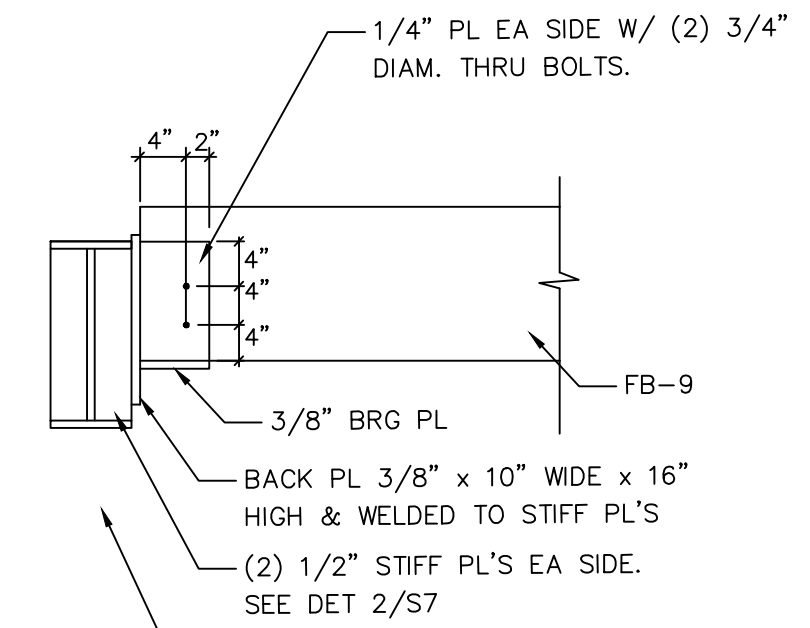
11 BEAM CONNECTION



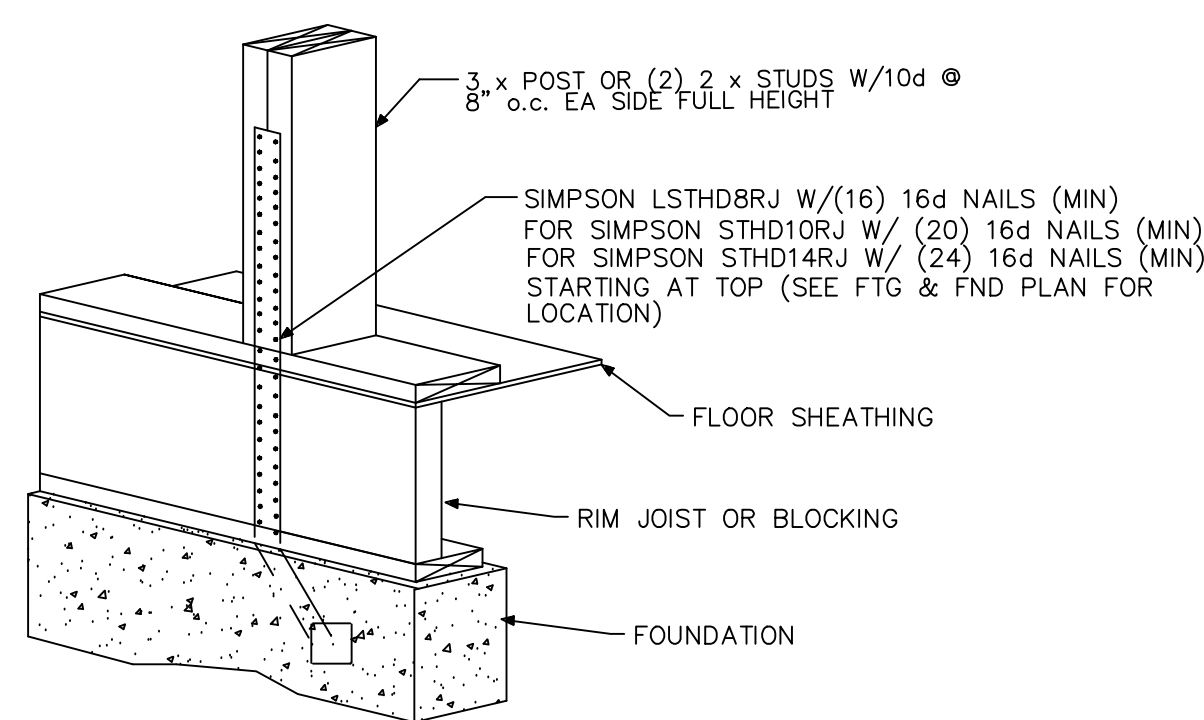
12 SHEAR WALL CONNECTION



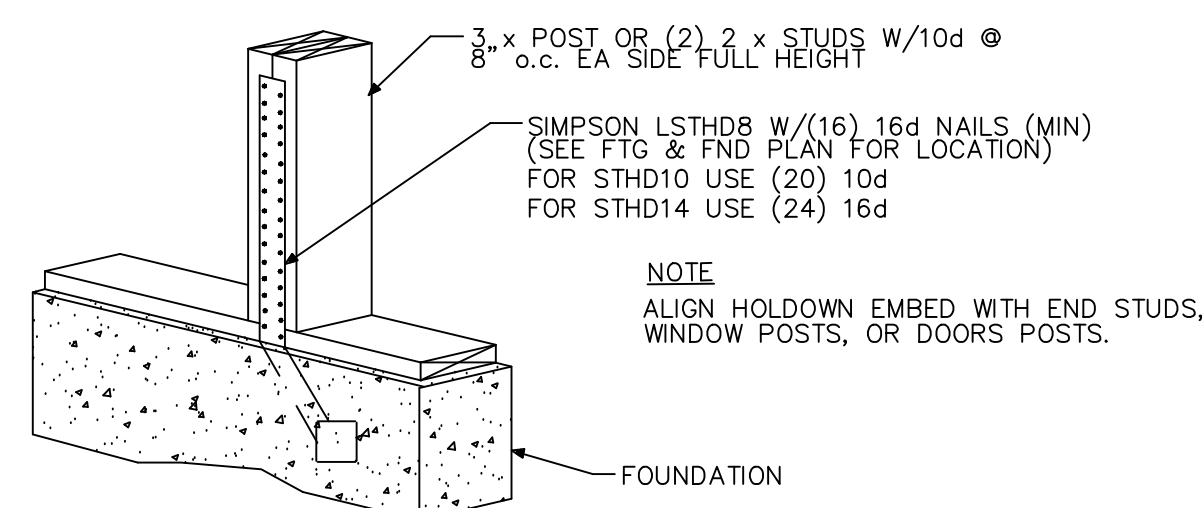
13 NEW WALL TO EXISTING WALL CONNECTION



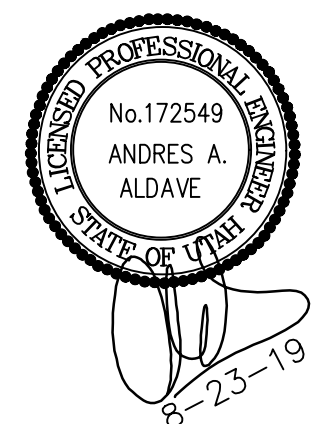
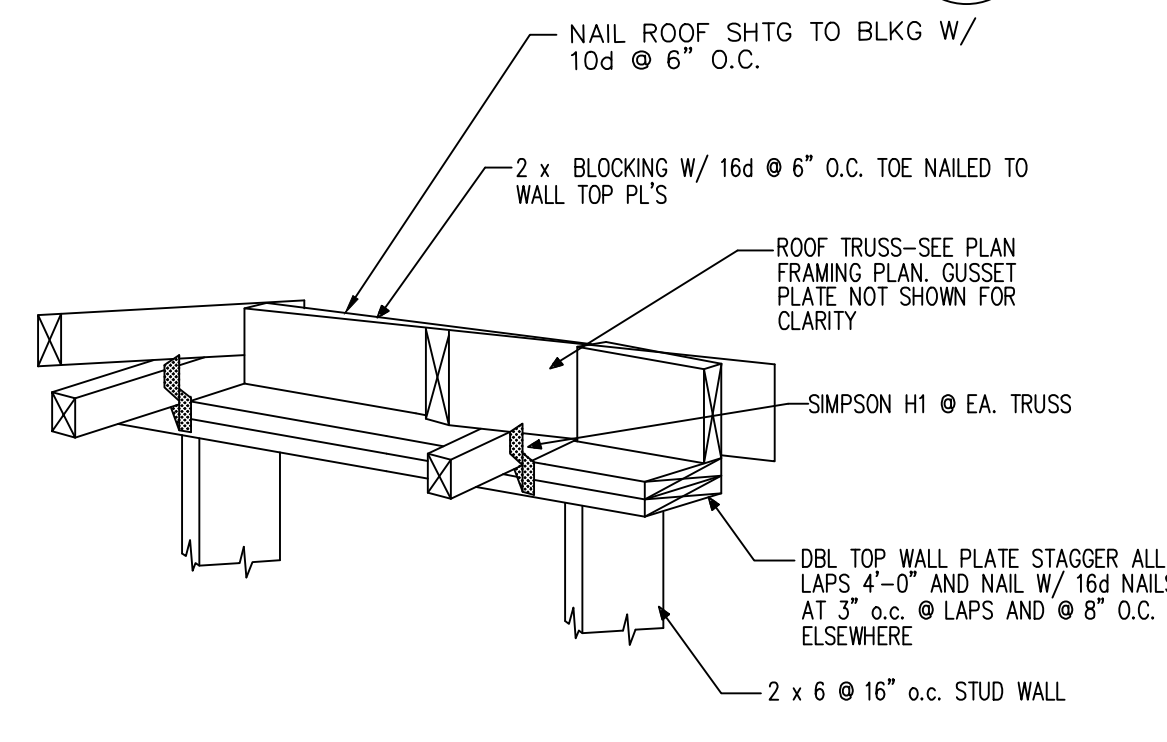
14 BEAM CONNECTION



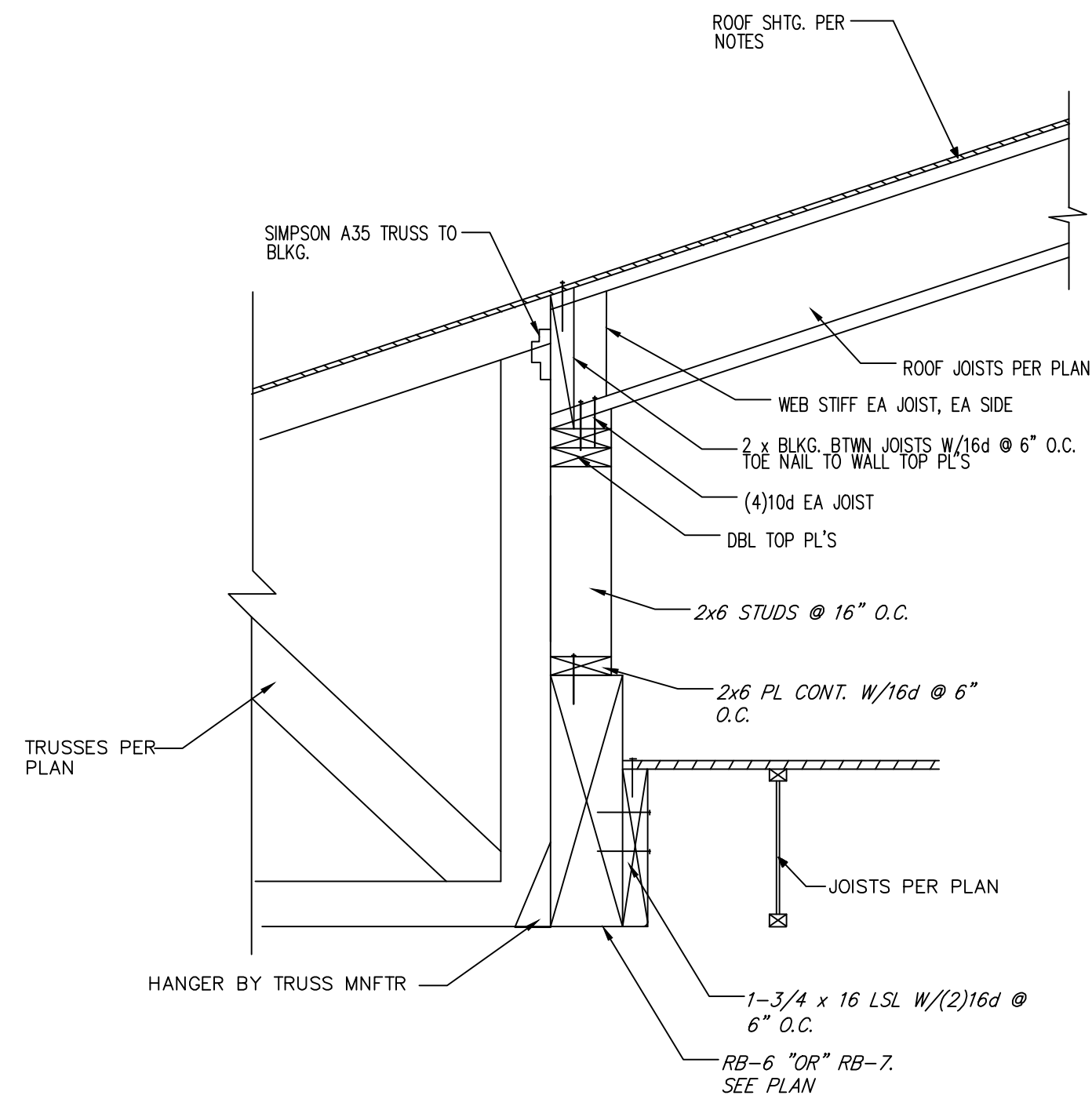
15 HOLDOWN CONNECTION



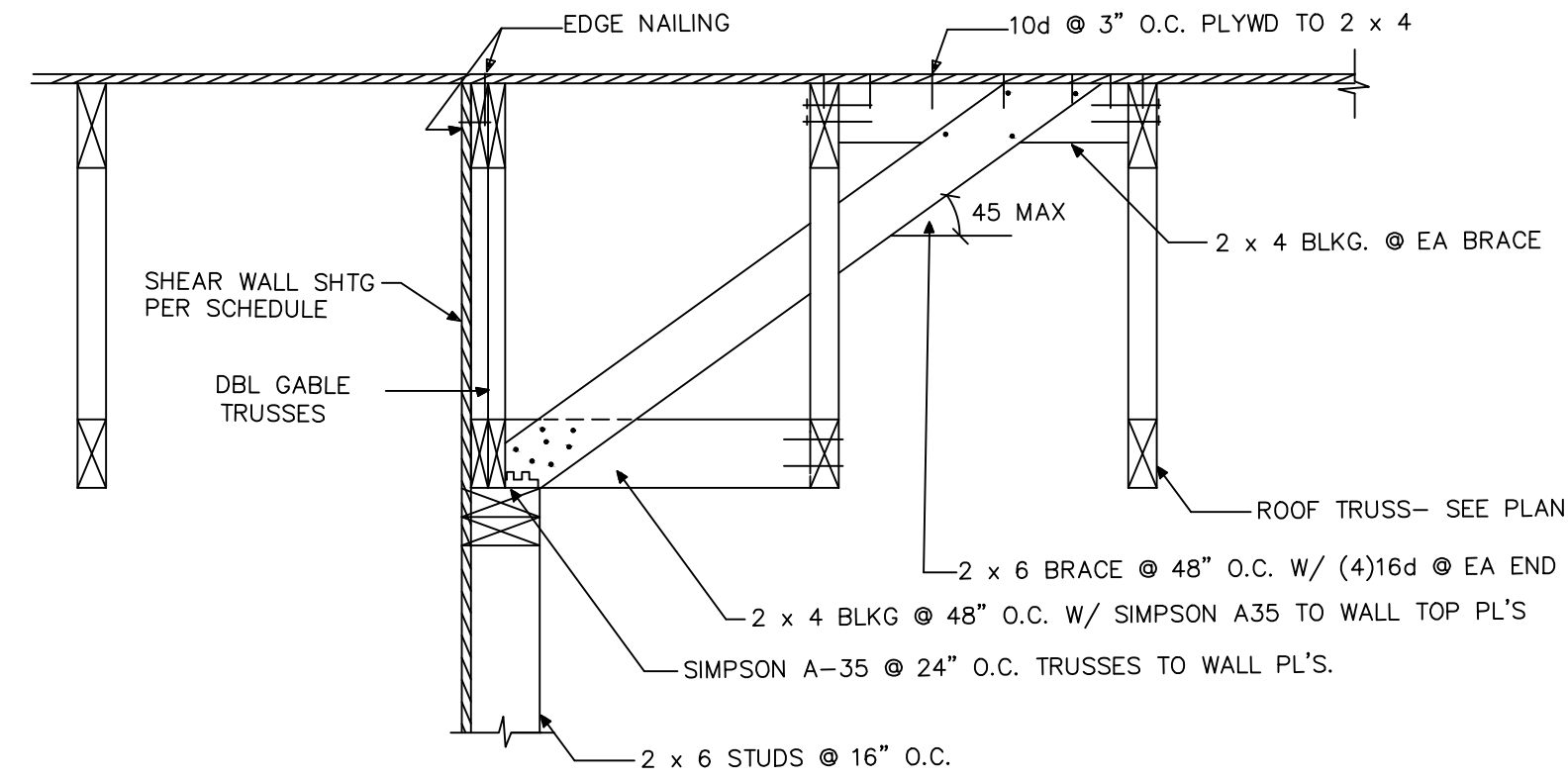
16 TRUSS BLOCKING DETAIL



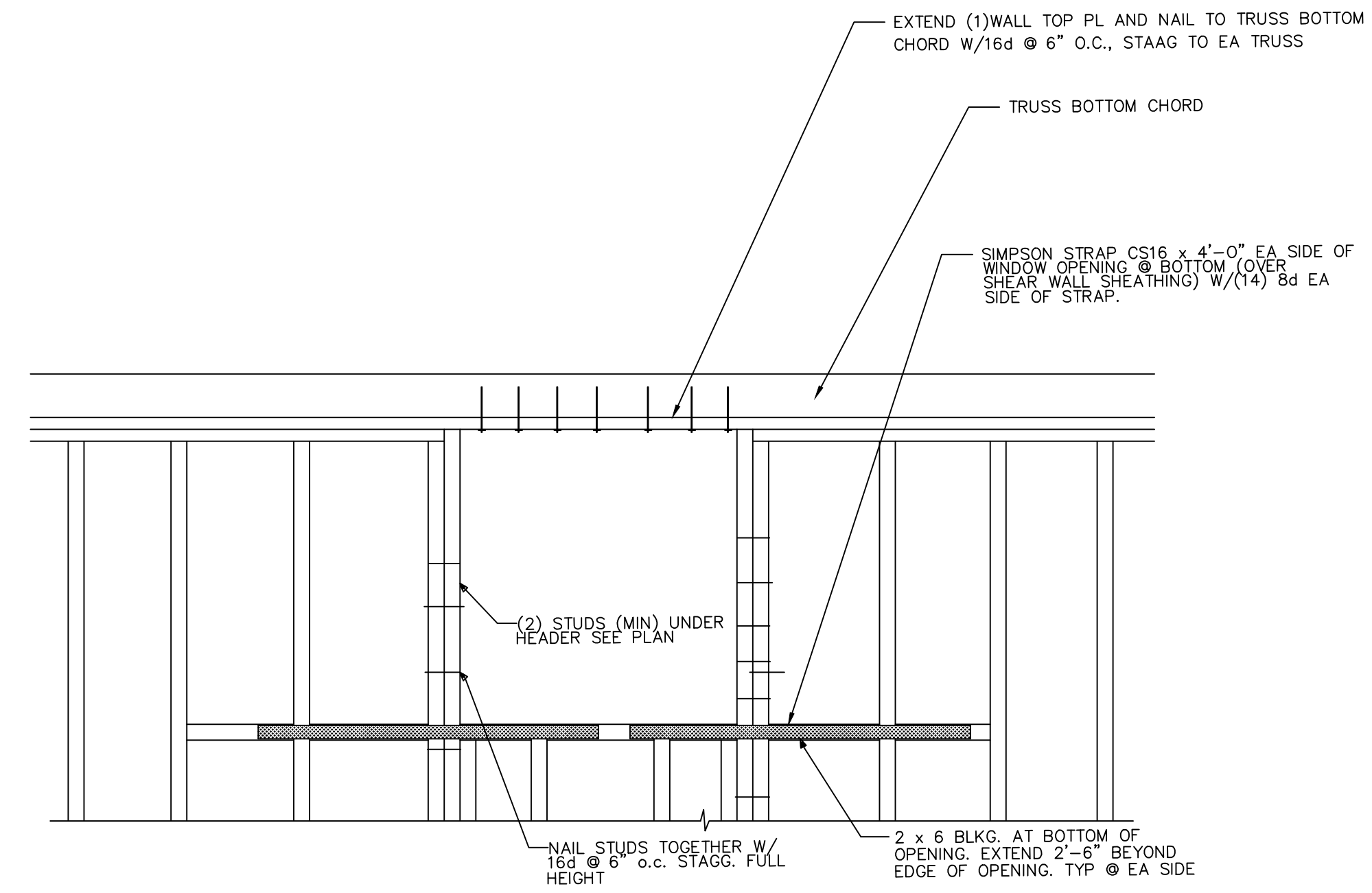




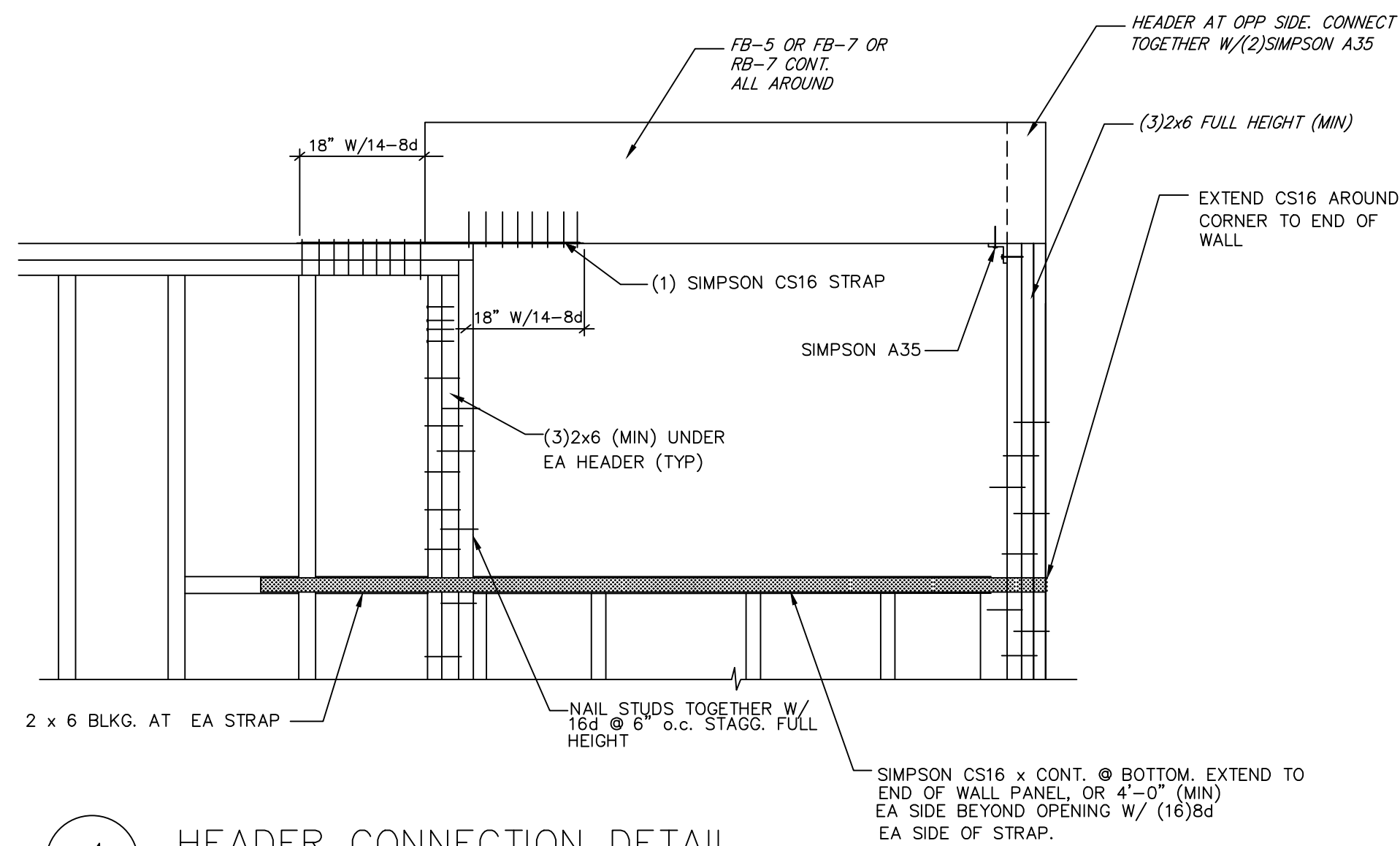
1 FLOOR/LOW ROOF SECTION



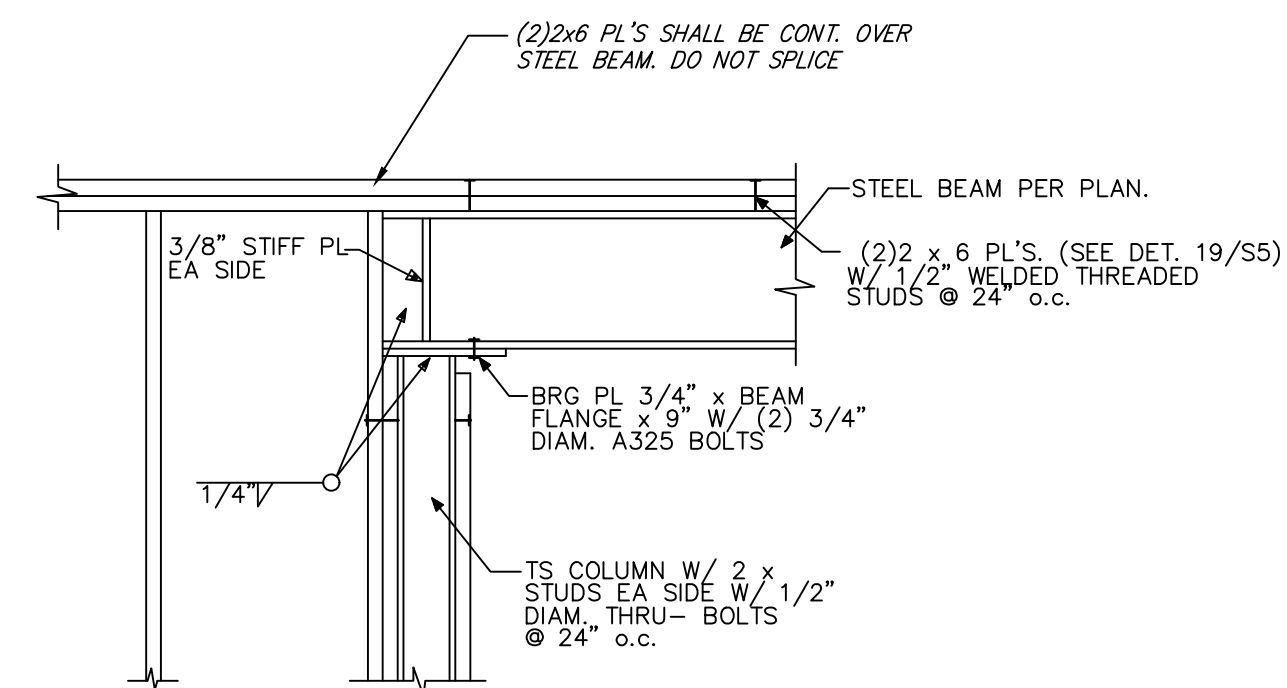
2 GABLE WALL DETAIL



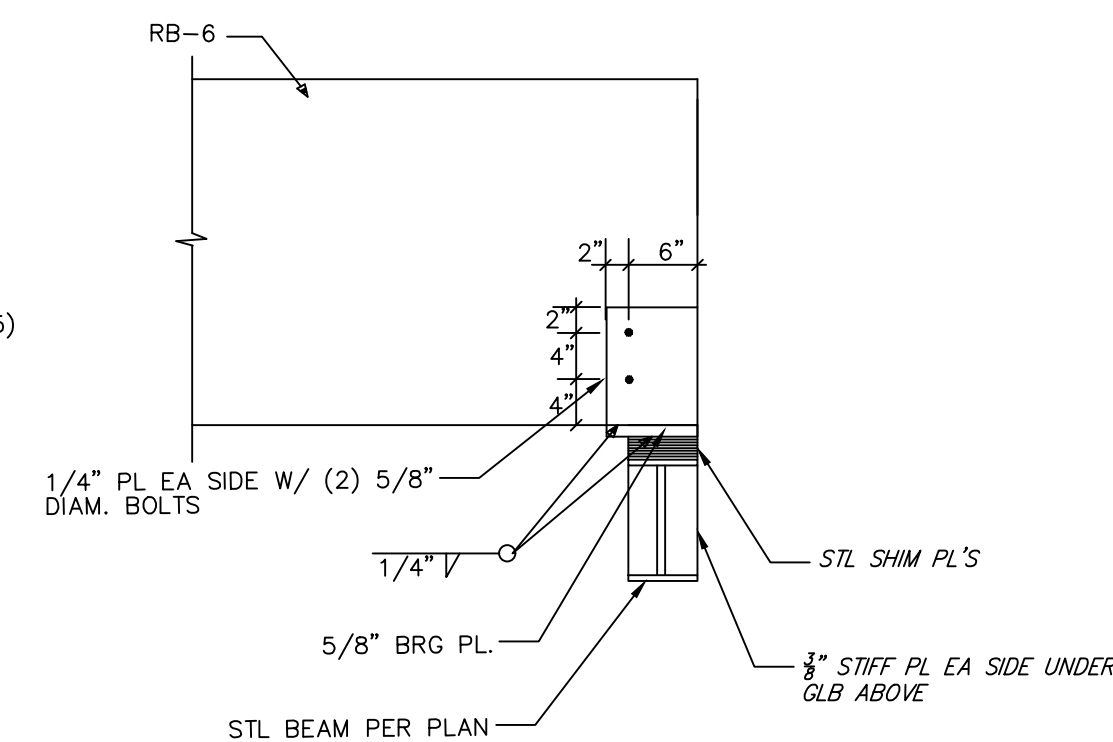
3 HEADER CONNECTION DETAIL



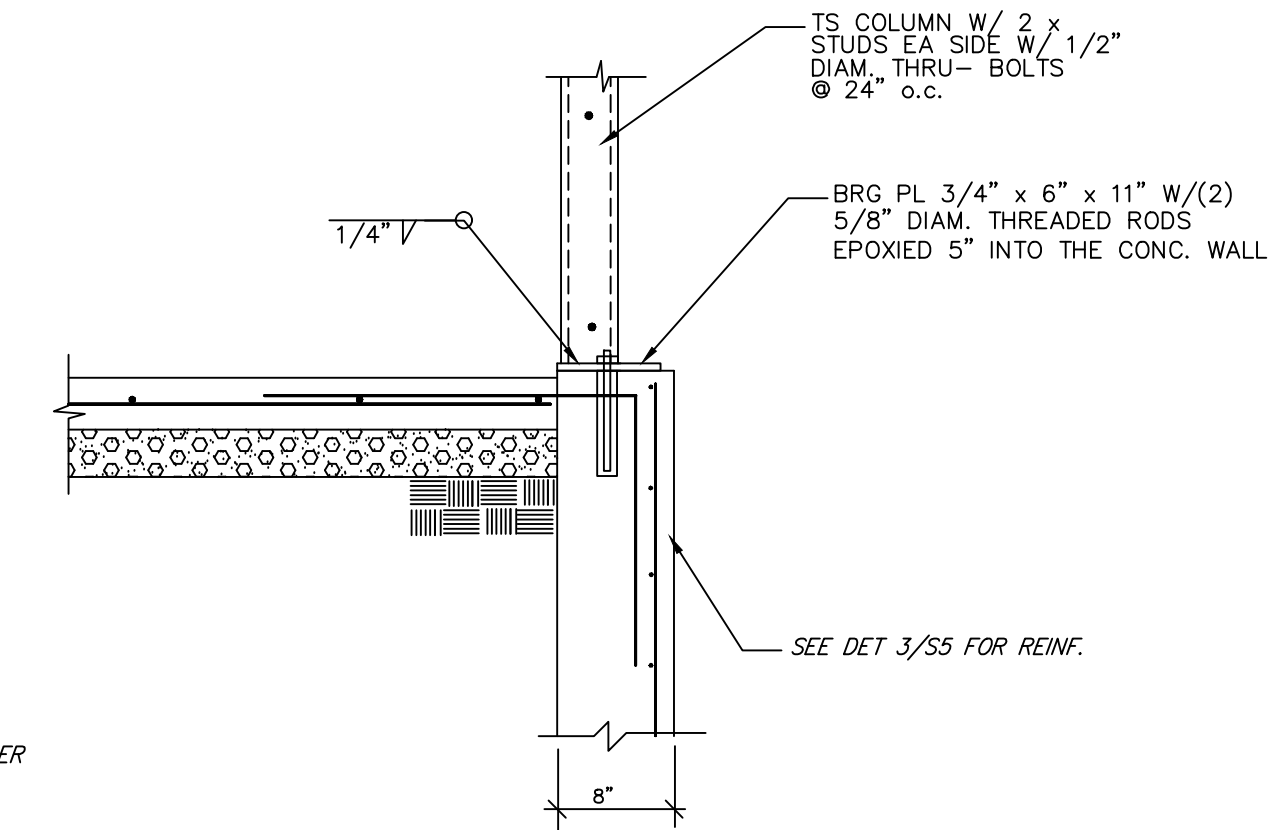
4 HEADER CONNECTION DETAIL



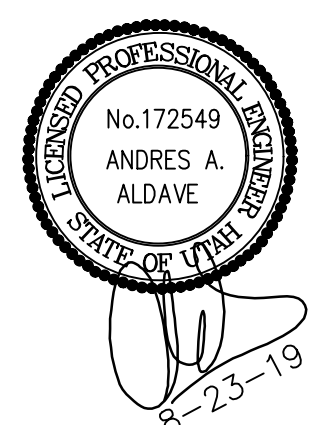
5 BEAM CONNECTION



6 BEAM CONNECTION DETAIL



7 COLUMN CONNECTION DETAIL



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STRUCTURAL DETAILS

REVISION:

DATE:  
AUG 23, 2019

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