

SOUTH OGDEN 7, 8 WARD REROOF SOUTH OGDEN, UTAH



PROJECT TEAM: OWNER:

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS A UTAH CORPORATION SOLE 50 EAST NORTH TEMPLE STREET SALT LAKE CITY, UTAH 84150

ARCHITECT:

BOTT PANTONE ARCHITECTS 620 24TH STREET OGDEN, UTAH 84401 801.394.3033

STRUCTURAL:

ARW ENGINEERS 1594 WEST PARK CIRCLE OGDEN, UTAH 84404 801.782.6008

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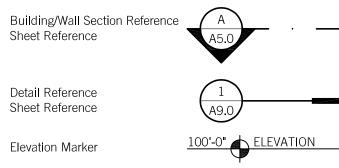
S201 DETAILS

S202 DETAILS

VICINITY MAP:



STANDARD SYMBOL LEGEND:



Elevation Reference Sheet Reference

Room Number Door Designation

Window Designation

108-0 Reflected Ceiling Elevation ROOM TITLE Room Title Room Number

Partition Type Keyed Note

STANDARD SYMBOL LEGEND:

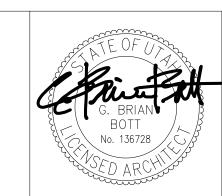
Finish Lumber

	Asphalt	1/ // //	Glass (in elevation)
	Batt Insulation		Gravel / Rock Fill
	Ceramic Tile (in elevation)		Gypsum Board
4 4 4 A	Concrete		Particle Board
	Concrete & Plaster (in elevation		Sand, Plaster, Stucco & Sand Setting Beds
	Concrete Masonry Units		Plywood
	Brick		Rigid Insulation
	Compacted Backfill		Steel
	Earth		Wood Framing (cont. membe
	Finish Lumber		Wood Framing (interrupted

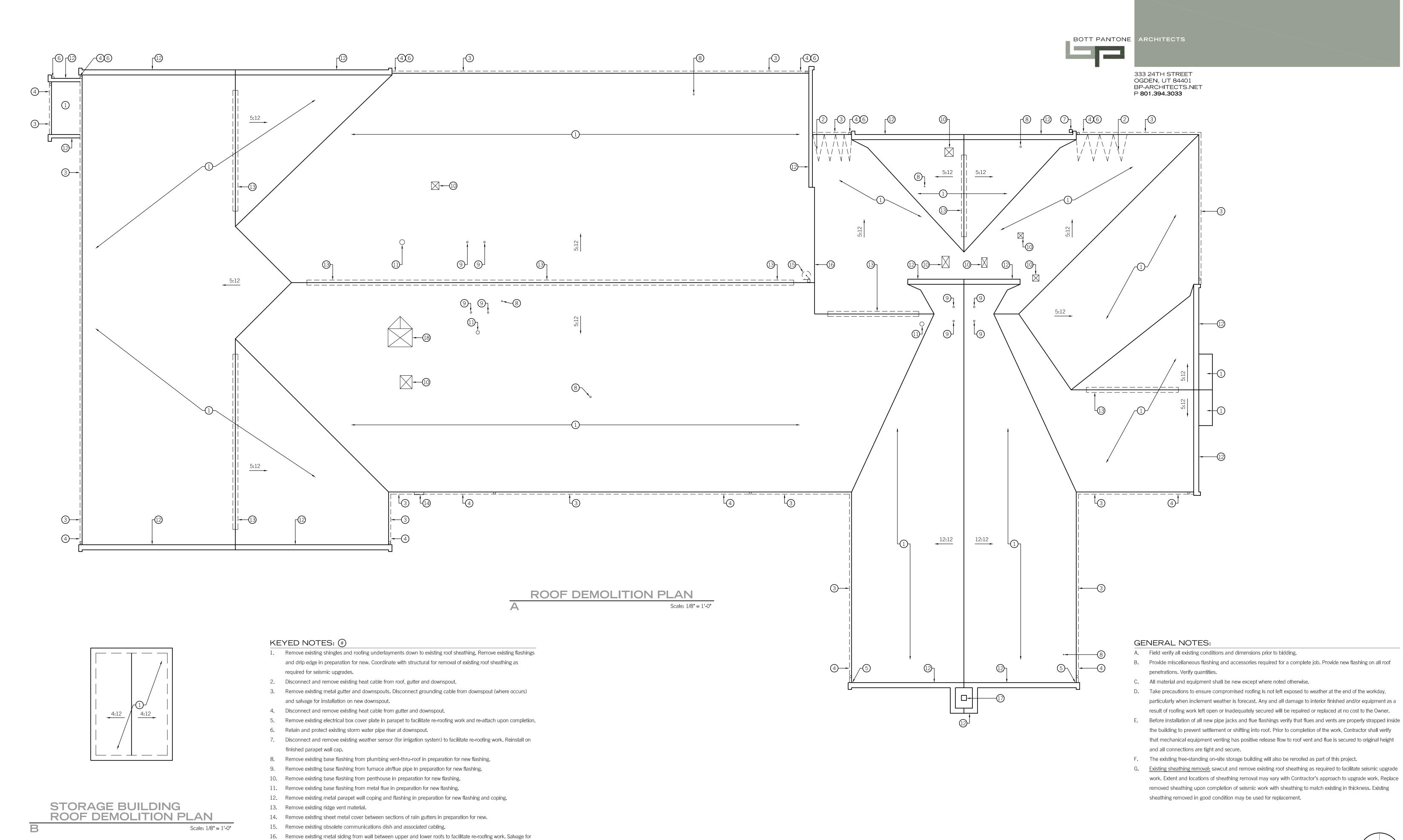
ABBREVIATIONS:

	At	eb	Expansion Bolt	max	Maximum
	Diameter	eifs	Exterior Insul Fin System		Mechanical
	Pound or Number	exp jt	Expansion Joint	mtl	Metal
	Anchor Bolt	elec	Electrical	mfr	Manufacturer
t	Acoustical Tile	elev	Elevation	min	Minimum
j	Adjustable	eq	Equal	nic	Not In Contract
	Above Finish Floor	equip	Equipment	nts	Not To Scale
ım	Aluminum	ewc	Elec Water Cooler	O.C.	On Center
	Board	exist	Existing	pl	Plate
lg	Building	ext	Exterior	P	Property Line
1	Beam	fd	Floor Drain	plas lam	Plastic Laminate
t	Bottom	fdn	Foundation	plywd	Plywood
y S	Bearing	fecb	Fire Extinguisher Cab	rb	Resilient Base
r	Built Up Roofing	fin fl	Finish(ed) Floor	re:	Reference
b	Cabinet	ft	Foot or Feet	reinf	Reinforce(d) (ing)
	Control Joint	ftg	Footing	rfg	Roofing
	Center Line	fur	Furring	rm	Room
{	Ceiling	ga	Gauge	SC	Solid Core
iu	Concrete Masonry Units	galv	Galvanized	sch	Schedule
	Column	gc	General Contractor	sec	Section
nc	Concrete	gl	Glass	sim	Similar
nst	Construction	gyp bd	Gypsum Board	spec	Specification
nst jt	Construction Joint	hc	Hollow Case	sq	Square
nt	Continuous	hdwd	Hardwood	stl	Steel
ntr	Contract(or)	hdwr	Hardware	temp gl	Tempered Glass
rr	Corridor	hdrl	Handrail	typ	Typical
	Ceramic Tile	hm	Hollow Metal	vct	Vinyl Composition Ti
t	Detail	id	Inside Diameter	w/	With
n	Dimension	incl	Include(d) (ing)	wd	Wood
	Down	insul	Insulation	wdw	Window
	Door	int	Interior	w/o	Without
	Each	jt	Joint	wsct	Wainscot

COVER SHEET / GENERAL INFORMATION



04.27.22 Project Number: 2112
Property Number: 512-7173



NO. DATE

DESCRIPTION

reinstallation over new flashing. Remove existing metal fascia from upper roof.

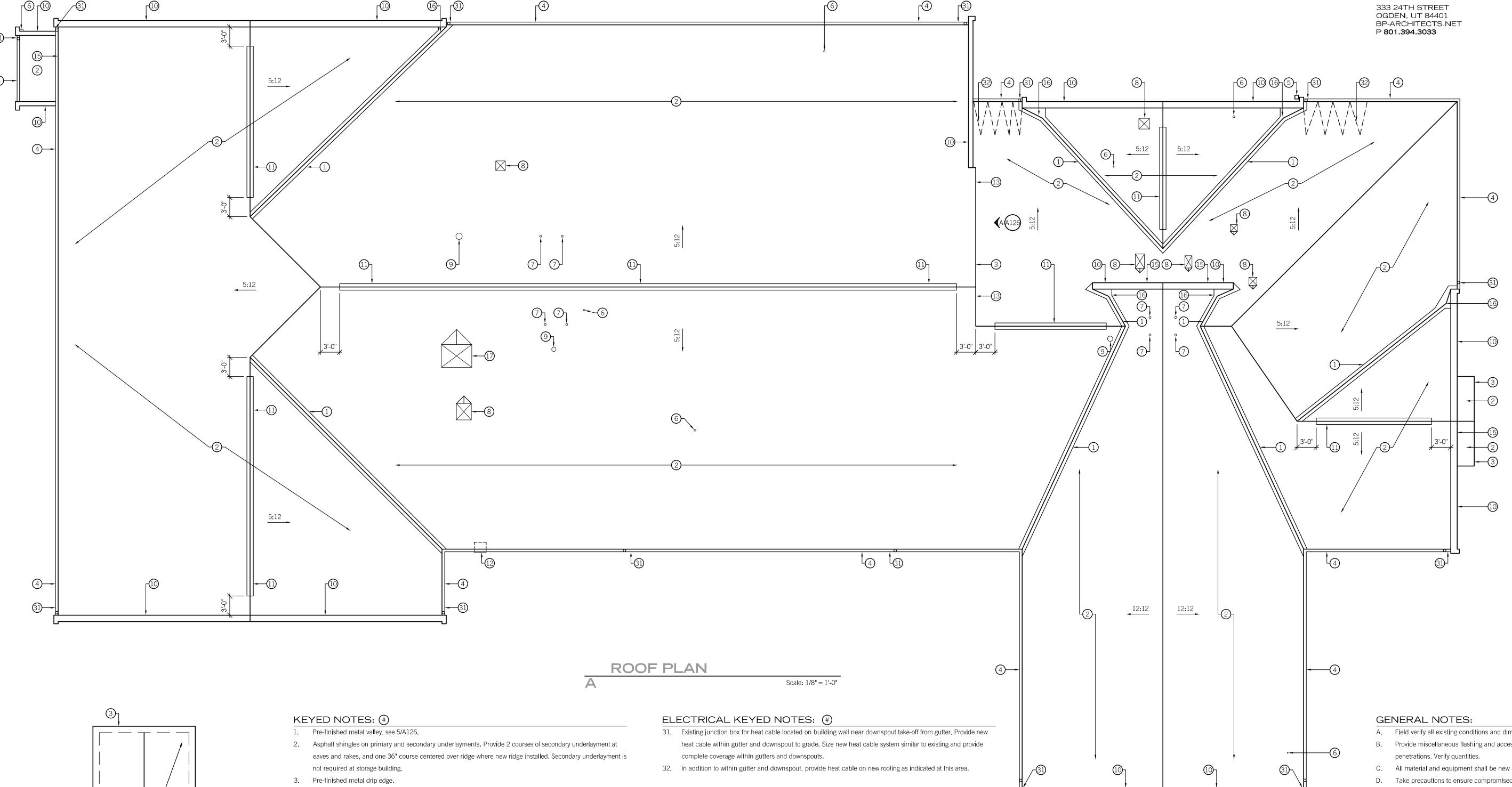
17. Retain and protect existing metal spire.

18. Remove existing metal siding from base at penthouse.

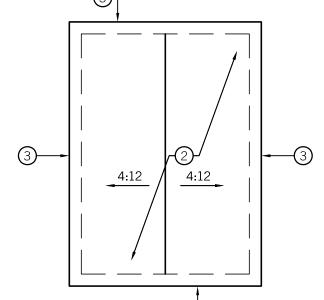
ROOF DEMOLITION PLANS

1/8" = 1'-0" 04.27.22 Project Number: **2112** Property Number: **512-7173**





NO. DATE



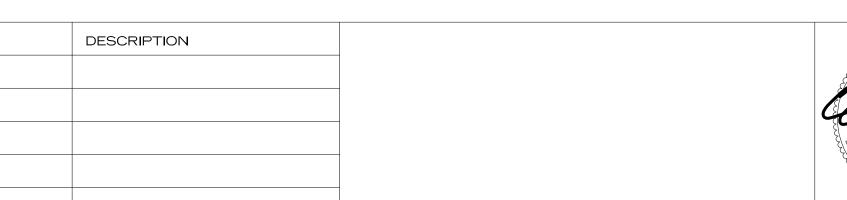
STORAGE BUILDING ROOF PLAN

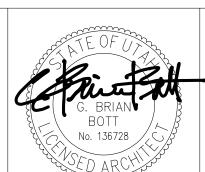
- Pre-finished metal rain gutter and downspout(s) as indicated, see 7/A125.
- Reinstall existing irrigation system weather sensor on parapet upon completion of roofing work.
- Provide base flashing at existing plumbing vent, see 5/A125.
- 7. Provide base flashing at existing furnace air/flue pipe, see 5/A125 (sim.). 8. Provide base flashing at existing penthouse, see 8/A125.
- 9. Provide base flashing at existing metal flue, see 3/A125 (sim.).
- 10. Pre-finished metal parapet wall coping and flashing, see 2 & 3/A126.
- 11. Drill 2" Ø holes at 16" o.c. on each side of ridge. If existing holes meet this requirement and are close enough to the ridge to function with the new ridge vent, new holes are not required. Provide pre-finished metal ridge vent over secondary underlayment. Cut out underlayments at vent holes. See 1, 2, 3 & 4/A125.
- 12. Pre-finished sheet metal cap over existing sheet metal enclosure on wall below. Extend cap under shingles 8"
- and secure to top of new rain gutters at each end. Bend edge down over rain gutter with hemmed drip edge. 13. Provide pre-finished metal siding at wall between upper and lower roofs over new flashings and air barrier, see A/A126.
- 14. Retain and protect existing metal spire.

Scale: 1/8" = 1'-0"

- 15. Provide flashing and surface-mount reglet against wall, see 9/A125.
- 16. Provide pre-finished, formed, sheet metal diverter with soldered joints. Diverter to extend up to top of parapet and under roofing 12" minimum.
- 17. Provide pre-finished metal siding at base of existing penthouse, all four sides, over new base flashing and air barrier.

- A. Field verify all existing conditions and dimensions prior to bidding.
- B. Provide miscellaneous flashing and accessories required for a complete job. Provide new flashing on all roof
- C. All material and equipment shall be new except where noted otherwise.
- D. Take precautions to ensure compromised roofing is not left exposed to weather at the end of the workday, particularly when inclement weather is forecast. Any and all damage to interior finished and/or equipment as a result of roofing work left open or inadequately secured will be repaired or replaced at no cost to the Owner.
- E. Before installation of all new pipe jacks and flue flashings verify that flues and vents are properly strapped inside the building to prevent settlement or shifting into roof. Prior to completion of the work, Contractor shall verify that mechanical equipment venting has positive release flow to roof vent and flue is secured to original height and all connections are tight and secure.
- F. The existing free-standing on-site storage building will also be re-roofed as part of this project.
- G. <u>Existing sheathing removal:</u> sawcut and remove existing roof sheathing as required to facilitate seismic upgrade work. Extent and locations of sheathing removal may vary with Contractor's approach to upgrade work. Replace removed sheathing upon completion of seismic work with sheathing to match existing in thickness. Existing sheathing removed in good condition may be used for replacement.
- H. Paint exposed vent pipes, furnace air pipes, and flues to match shingle color.
- I. See structural for other work to be completed prior to new roofing.







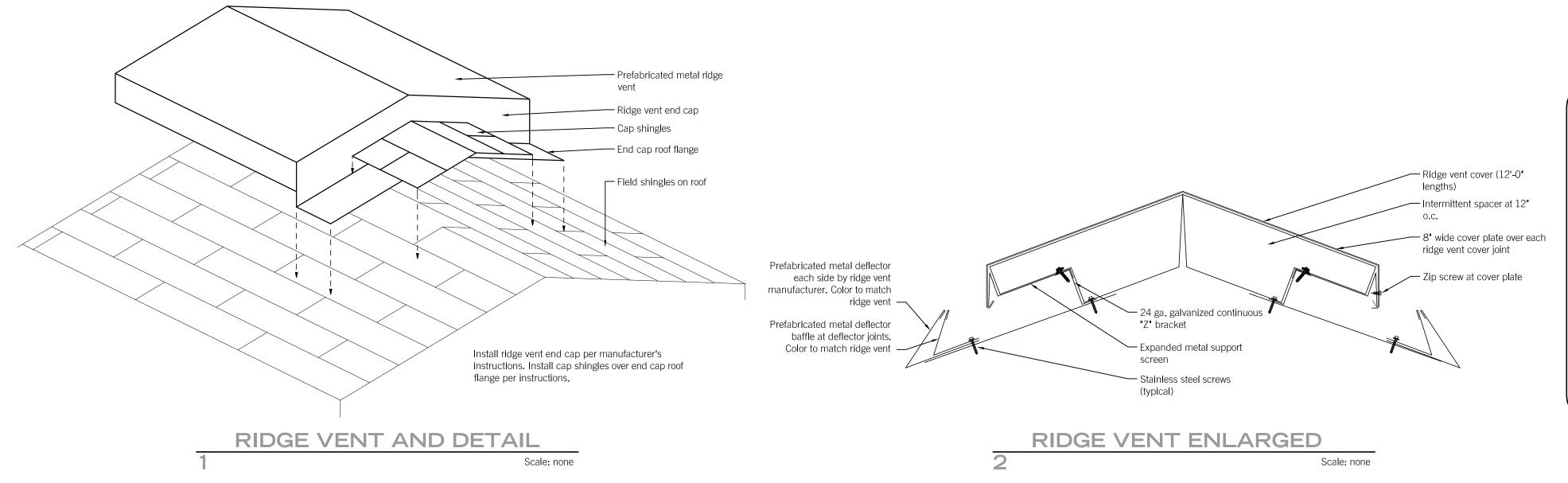
1/8" = 1'-0" 04.27.22 Project Number: 2112 Property Number: 512-7173



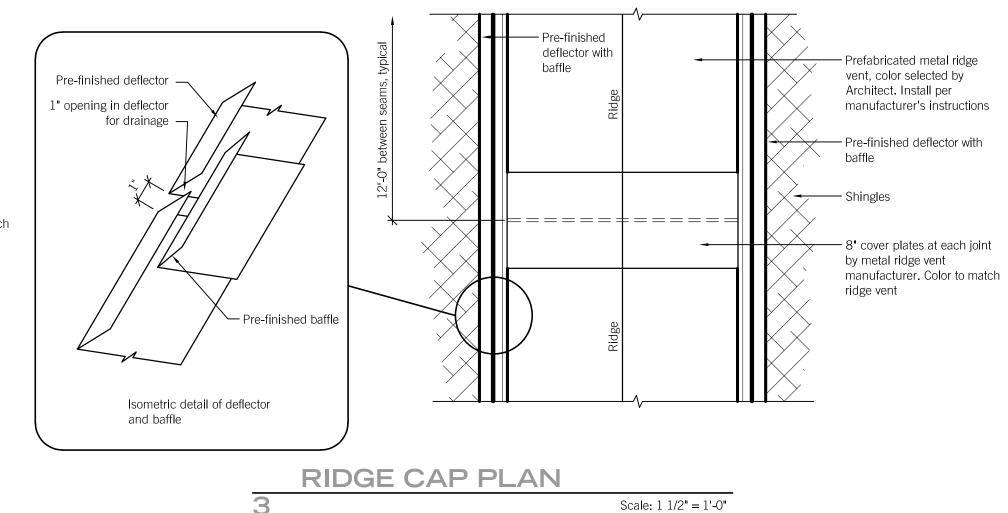


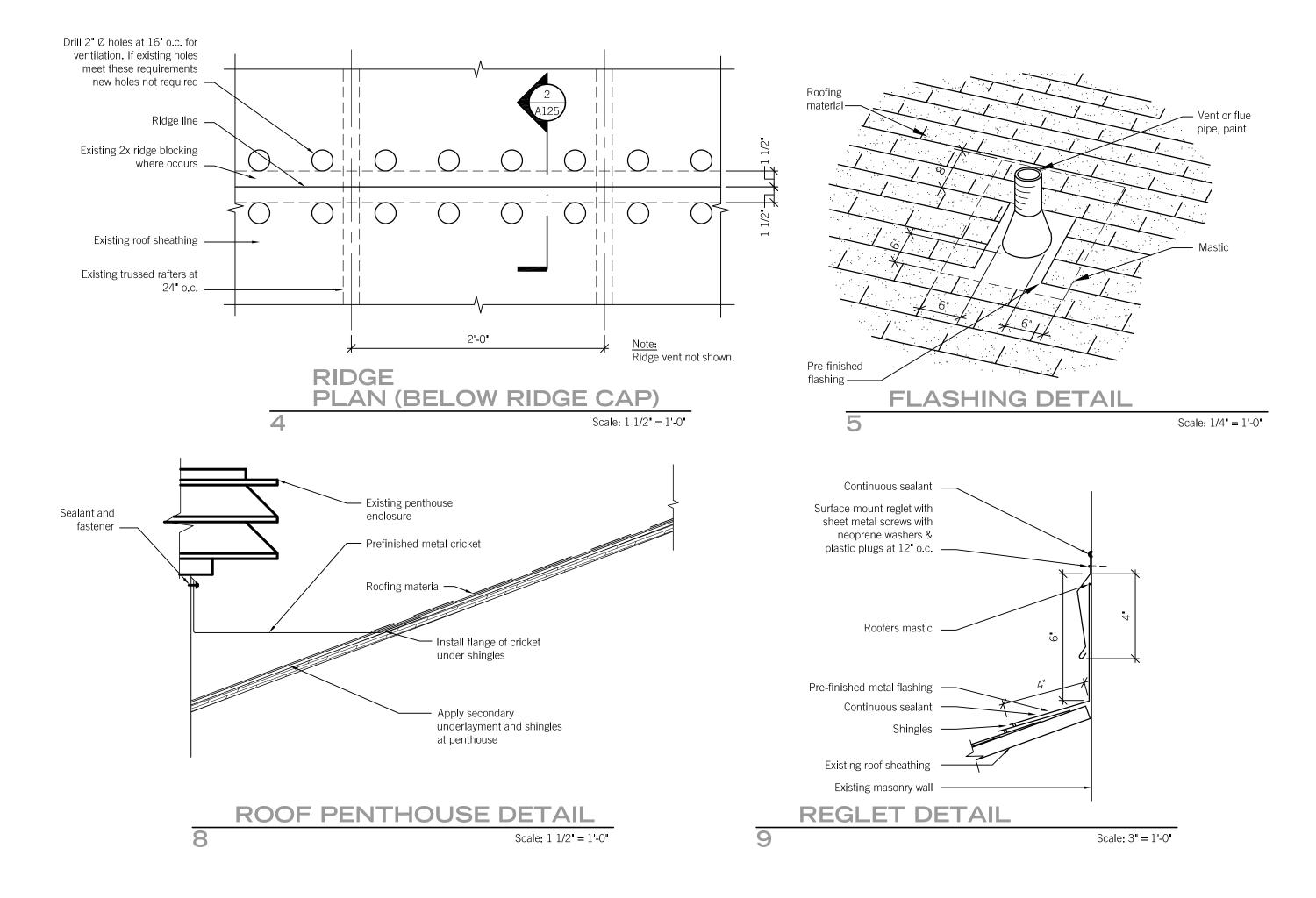
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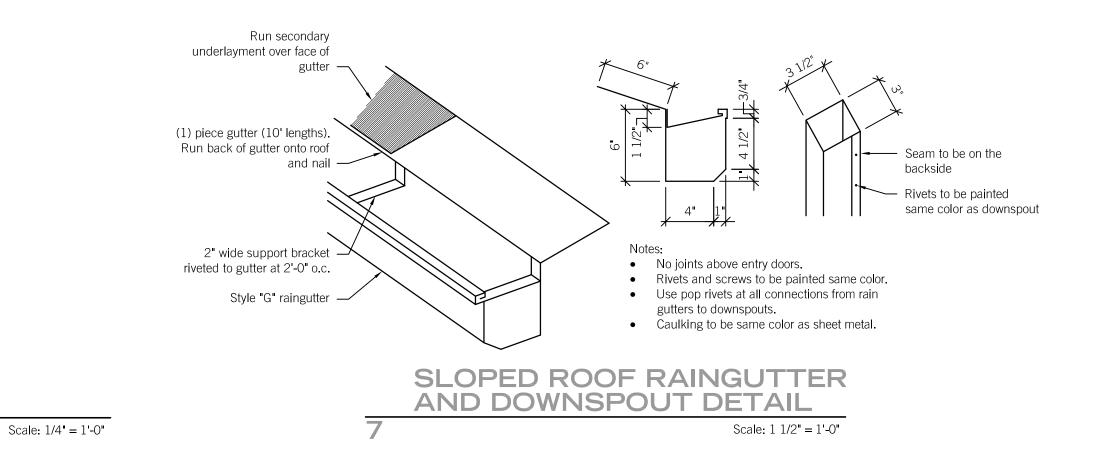
₽ 801.394.3033



NOT USED







ROOFING DETAILS

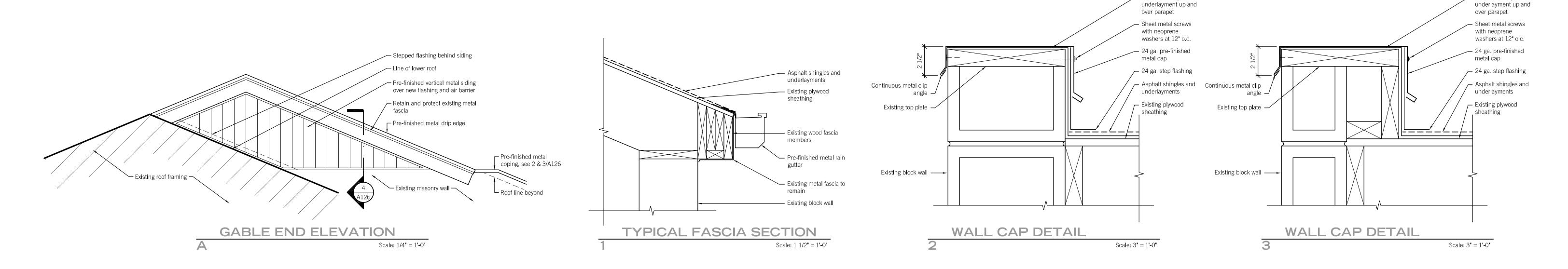


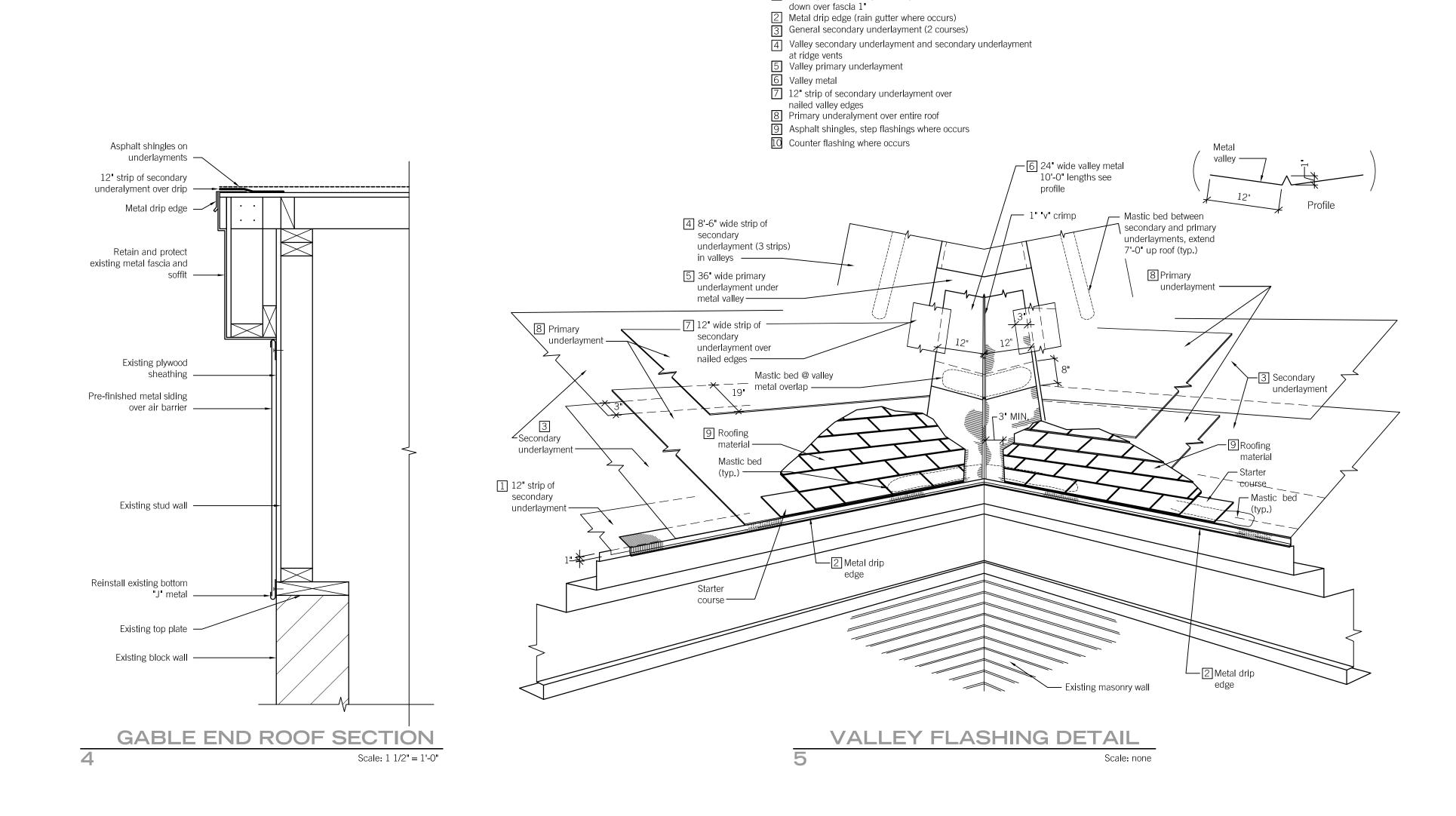


Run secondary



Run secondary





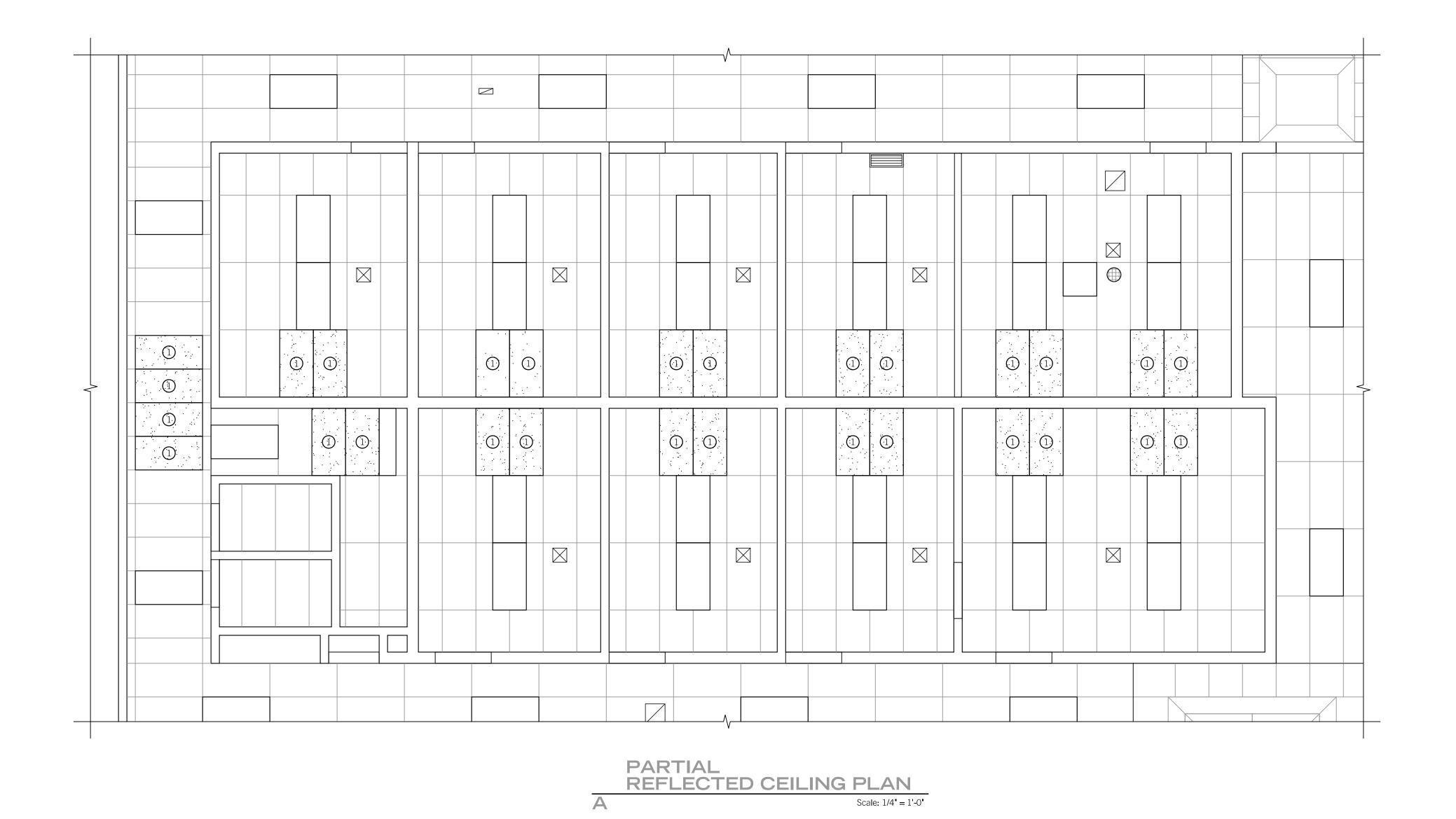
SEQUENCE OF ROOFING MATERIALS

12" strip of secondary underlayment at eave,



BOTT PANTONE ARCHITECTS

333 24TH STREET OGDEN, UT 84401 BP-ARCHITECTS.NET P **801.394.3033**



NO. DATE

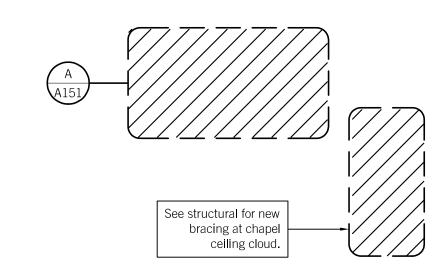
DESCRIPTION

GENERAL NOTES: A. Field verify existing conditions.

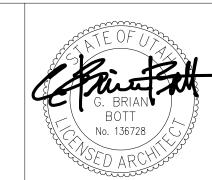
KEYED NOTES: #

1. Remove existing lay-in plastic panel and provide acoustical panel to match existing. Cut to size where required.

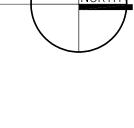
KEY PLAN



REFLECTED CEILING PLAN



04.27.22 Project Number: 2112 Property Number: 512-7173







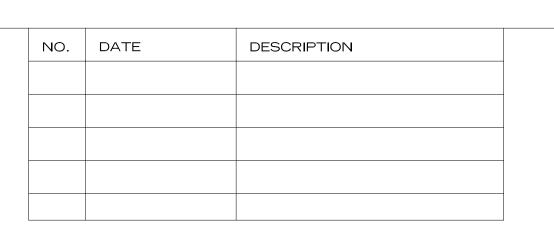
GENERAL NOTES:

- A. Field verify existing conditions.
- B. Provide miscellaneous demolition required for new construction, whether specifically called out or not. See engineering sheets for additional notes on demolition.
- C. See roof plan sheet A121 for roof penetrations and flashing requirements.
- D. Paint roof penetrations to match roofing color.
- E. See roof plan sheet A121 for heat cable requirements.

KEYED NOTES:

- 1. Asphalt shingles on primary and secondary underlayments. Provide 2 courses of secondary underlayment at eaves and rakes, and one 36" course centered over ridge where new ridge vent to be installed.
- 2. Pre-finished metal drip edge.
- 3. Pre-finished metal rain gutter and downspout as shown, see 7/A125.
- 4. Connect new downspout to existing storm drain pipe riser at grade or angle downspout to discharge into
- existing storm drain pipe as required by location. Also, reattach existing grounding cable where occurs. 5. Seal between downspout and masonry at downspout penetration.
- 6. Pre-finished metal parapet wall coping and flashing, see 2 & 3/A126.
- 7. Pre-finished metal ridge vent, see 1, 2, 3 & 4/A125.
- 8. Pre-finished metal siding over new flashing and air barrier, see A/A126.
- 9. Pre-finished flashing and surface-mount reglet, see 9/A125.
- 10. Pre-finished sheet metal cap over existing sheet metal enclosure on wall below. Extend cap under shingles 8"
 - and secure to top of new rain gutters at each end. Bend edge down over rain gutter with hemmed drip edge.
- 11. Retain and protect existing sheet metal cover at wall. 12. Reinstall existing weather sensor on parapet upon completion of roofing work.
- NORTH ELEVATION Scale: 1/8" = 1'-0" 2 1 **WEST ELEVATION** Scale: 1/8" = 1'-0"

6-





1/8" = 1'-0" 04.27.22 Project Number: 2112
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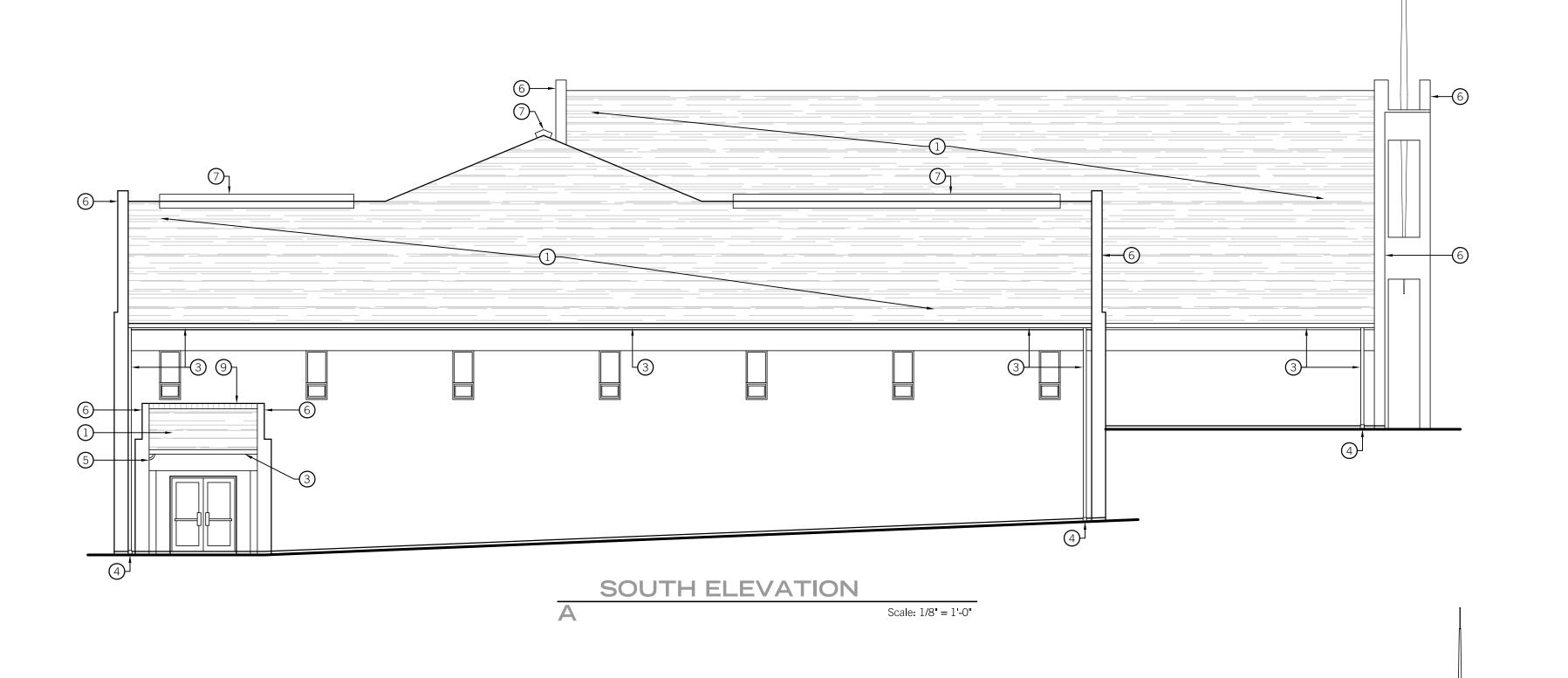
GENERAL NOTES:

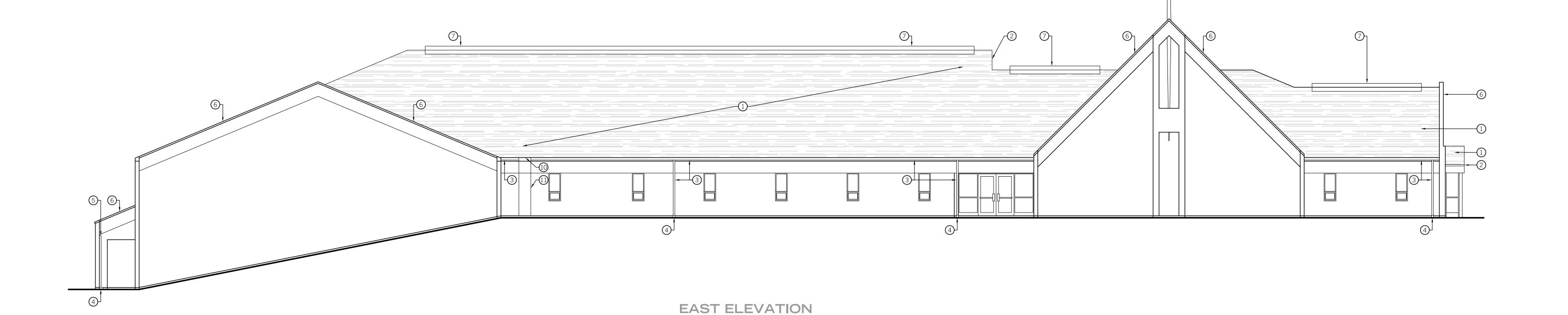
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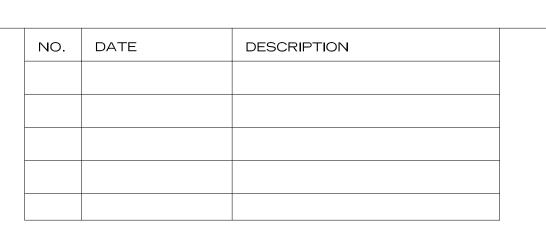
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Scale: 1/8" = 1'-0"



1/8" = 1'-0" 04.27.22 Project Number: **2112** Property Number: **512-7173**



620 24TH STREET OGDEN, UT 84401 **BP-ARCHITECTS.NET** P 801.394.3033 F 801.394.9064

STRUCTURAL NOTES:

A. GENERAL

- 1. THE STRUCTURAL NOTES ARE INTENDED TO COMPLEMENT THE PROJECT SPECIFICATIONS WHICH ARE PART OF THE CONSTRUCTION DOCUMENTS. SPECIFIC NOTES AND DETAILS ON THE DRAWINGS SHALL GOVERN OVER THE STRUCTURAL NOTES AND TYPICAL DETAILS.
- 2. THESE DRAWINGS (AND, WHERE APPLICABLE, ACCOMPANYING WRITTEN SPECIFICATIONS) ARE THE ONLY CONTRACT DOCUMENTS PROVIDED BY ARW ENGINEERS FOR THE PROJECT REPRESENTED HEREIN. NOTHING IN ANY DIGITAL MODEL OR DIGITAL FILE RELATED TO THIS PROJECT SHALL BE TAKEN TO SUPERSEDE ANY INFORMATION SHOWN IN THESE DRAWINGS (INCLUDING, BUT NOT LIMITED
- 3. THE ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. THE STRUCTURAL DRAWINGS ARE SUPPLEMENTARY TO AND MUST BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND OTHER CONSULTANTS DRAWINGS. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE OF CONFLICT, FOLLOW THE MOST STRINGENT REQUIREMENT AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
- 4. SEE SPECIFICATIONS FOR REQUIRED SUBMITTALS. SUBMITTALS SHALL BE MADE IN A TIMELY MANNER AS INDICATED IN SPECIFICATIONS. REVIEW OF SUBMITTALS BY ARW ENGINEERS IS FOR GENERAL COMPLIANCE ONLY AND IS NOT INTENDED AS APPROVAL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SIZES, DIMENSIONS, AND ELEVATIONS ON SUBMITTALS AS RELATED TO DESIGN DOCUMENTS. PREPARATION OF SHOP DRAWINGS FOR STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION (I.E. DIMENSIONS, ETC.) FOUND IN THE ARCHITECTURAL, STRUCTURAL, AND OTHER CONSULTANTS DRAWINGS.
- 5. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE. IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN ON CONTRACT DOCUMENTS, CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO FABRICATION OR CONSTRUCTION OF ANY AFFECTED ELEMENTS.
- 6. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL LOCATIONS AND SIZES OF MECHANICAL EQUIPMENT OR OTHER EQUIPMENT BEFORE FABRICATING AND ERECTING STRUCTURAL ELEMENTS. SIZES AND LOCATIONS THAT DIFFER FROM THOSE SHOWN ON THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT.
- 7. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ARCHITECT FOR ARCHITECT AND/OR ENGINEER APPROVAL BEFORE PROCEEDING WITH ANY CHANGES, MODIFICATIONS, OR
- 8. OBSERVATION VISITS TO THE SITE BY ARW ENGINEERS FIELD REPRESENTATIVES SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
- 9. DURING AND AFTER CONSTRUCTION, BUILDER AND/OR OWNER SHALL KEEP LOADS ON STRUCTURE WITHIN THE LIMITS OF DESIGN LOADS AS NOTED IN THESE DOCUMENTS.
- 10. TYPICAL OR SIMILAR DETAILS AND SECTIONS SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT SHOWN. TYPICAL OR SIMILAR DETAILS REFER TO THE CONDITION ADDRESSED AND ARE NOT NECESSARILY DETAILS LABELED "TYPICAL" OR "SIMILAR" IN THE PLANS AND DOCUMENTS. 11. DRAWINGS AND DETAILS HAVE BEEN PREPARED WITH THE INTENT TO VISUALLY REPRESENT
- INFORMATION PROVIDED IN SCALED FORM; HOWEVER CONTRACTOR/SUPPLIERS SHOULD NOT SCALE PLANS OR DETAILS FOR DIMENSIONAL INFORMATION. 12. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY SHORING AND BRACING FOR ALL
- STRUCTURAL ELEMENTS UNTIL THE ENTIRE STRUCTURAL SYSTEM IS COMPLETED. DESIGN OF ALL SHORING AND BRACING IS BY OTHERS AT NO ADDITIONAL COST TO THE OWNER 13. ENGINEER SHALL NOT BE RESPONSIBLE FOR ACTIVITIES UNDER CONTROL OF THE CONTRACTOR SUCH AS CONSTRUCTION SITE SAFETY, MEANS, METHODS AND SEQUENCING OF CONSTRUCTION. ENGINEER
- SHALL NOT BE RESPONSIBLE FOR FABRICATION, ERECTION AND CONSTRUCTION REQUIREMENTS AS PRESCRIBED BY OSHA OR OTHER REGULATORY AGENCIES REGARDLESS OF INDICATIONS IN THESE 14. NOTICE OF COPYRIGHT: THESE STRUCTURAL DRAWINGS ARE HEREBY COPYRIGHTED BY ARW
- ENGINEERS, ALL RIGHTS RESERVED. THESE DOCUMENTS DEFINE A STRUCTURE AND ARE INSTRUMENTS OF SERVICE, FOR ONE USE ONLY. REPRODUCTION AND DISTRIBUTION OF THESE DRAWINGS IS ONLY ALLOWED AS REQUIRED FOR REGULATORY AGENCIES AND FOR CONVEYANCE OF INFORMATION TO PARTIES INVOLVED IN THE CONSTRUCTION OF THIS PROJECT. THESE DOCUMENTS SHALL NOT BE REPRODUCED OR COPIED, IN PART OR WHOLE BY ANY PARTY FOR USE IN PREPARATION OF SHOP DRAWINGS OR OTHER SUBMITTALS.
- 15. WHERE THE WORD "SHALL" OCCURS IN THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS, IT IS CONSIDERED A MANDATORY OBLIGATION AND SYNONYMOUS WITH THE PHRASE "HAS DUTY TO".

B. STATEMENT OF SPECIAL INSPECTIONS AND SPECIAL INSPECTIONS

- 1. THE DESIGNATED SEISMIC/WIND SYSTEMS AND SEISMIC/WIND-FORCE-RESISTING SYSTEMS THAT ARE SUBJECT TO SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC SECTION 1705.11 AND 1705.12 ARE IDENTIFIED ON THESE DOCUMENTS WITH A CIRCLE "L". ALL OTHER ITEMS REQUIRING SPECIAL INSPECTION ARE IDENTIFIED IN THE SPECIAL INSPECTION SCHEDULE ON SHEET X.XX.
- 2. SPECIAL INSPECTIONS AND TESTING ARE TO BE PROVIDED AS REQUIRED BY IBC SECTIONS 1704 THROUGH 1705 AND OTHER APPLICABLE SECTIONS OF THE IBC. THE TYPE AND FREQUENCY OF TESTING AND SPECIAL INSPECTIONS SHALL BE AS NOTED IN THE SPECIAL INSPECTION SCHEDULE, JOB SPECIFICATIONS, AND ACCORDANCE WITH IBC SECTION 110 AND CHAPTER 17. CONTRACTOR SHALL COORDINATE AND COOPERATE WITH REQUIRED INSPECTIONS.
- 3. ALL TESTING AND SPECIAL INSPECTION SHALL BE PROVIDED BY A QUALIFIED INDEPENDENT SPECIAL INSPECTION AGENCY IN ACCORDANCE WITH IBC 1704 AND AS OUTLINED IN THE JOB SPECIFICATIONS. REPORTS OF FINDINGS OR DISCREPANCIES SHALL BE NOTED AND FORWARDED TO THE CONTRACTOR, ARCHITECT, ENGINEERS, AND BUILDING OFFICIAL IN A TIMELY MANNER.
- 4. STRUCTURAL OBSERVATION VISITS SHALL BE PERFORMED BY A REPRESENTATIVE FROM ARW ENGINEERS IN ACCORDANCE WITH THE CONTRACT AS NEEDED TO OBSERVE THE CONSTRUCTION OF CRITICAL BUILDING ELEMENTS (I.E. FOOTINGS, BRACED FRAMES, MOMENT FRAMES, DRAG STRUTS AND THEIR CONNECTIONS, COLLECTORS, AND ROOF AND FLOOR DIAPHRAGMS). STRUCTURAL OBSERVATION REPORTS FOR EACH VISIT SHALL BE SENT DIRECTLY TO THE ARCHITECT FOR DISTRIBUTION TO THE CONTRACTOR AND BUILDING OFFICIAL. STRUCTURAL OBSERVATION VISITS SHALL NEITHER BE CONSTRUED AS SPECIAL INSPECTION NOR APPROVAL OF COMPLETED
- 5. IN ACCORDANCE WITH IBC 1704.4, THE CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER. THE STATEMENT SHALL BE SUBMITTED PRIOR TO THE CONSTRUCTION OF ANY SEISMIC/WIND-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC/WIND SYSTEM, OR COMPONENT IDENTIFIED IN THESE DOCUMENTS WITH A

C. BASIS OF DESIGN

- 1. GOVERNING BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC) 2018 & ASCE 41-17 RISK CATEGORY: III
- ROOF LOADS a. FLAT-ROOF SNOW LOAD, Pf: 34 PSF
- 1. GROUND SNOW LOAD, Pa: 43 PSF
- SNOW EXPOSURE FACTOR, Ce: 1.0
- 3. SNOW LOAD IMPORTANCE FACTOR, I_s: 1.10 4. THERMAL FACTOR, Ct: 1.0
- 5. SLOPE FACTOR, C_S: 1.0
- 6. SNOW DRIFT: SHOWN ON PLANS WHERE APPLICABLE. b. LIVE LOAD = 20 PSF
- c. DEAD LOAD = 25 PSF WIND DESIGN
- a. BASIC WIND SPEED (3 SECOND GUST): 109 MPH
- b. WIND EXPOSURE : C c. INTERNAL PRESSURE COEFFICIENT, GCPI: 0.18
- COMPONENT AND CLADDING DESIGN WIND PRESSURE SHALL BE AS REQUIRED PER ASCE 7-16.
- 4. SEISMIC DESIGN: a. SEISMIC IMPORTANCE FACTOR, I_E: 1.0
- b. SITE CLASS : D
- c. MAPPED SPECTRAL RESPONSE ACCELERATIONS : $S_S = 1.359$, $S_1 = 0.494$ d. SEISMIC DESIGN CATEGORY: D
- e. BASIC SEISMIC-FORCE-RESISTING SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALL f. ANALYSIS PROCEDURE : PSEUDO LATERAL FORCE (STATIC)

D. ADHESIVE/MECHANICAL ANCHORS

- WITHOUT WRITTEN APPROVAL OF THE ENGINEER, CONTRACTOR SHALL NOT SUBSTITUTE POST-INSTALLED ANCHORS WHERE CAST-IN-PLACE ANCHORS ARE SPECIFIED IN THE DRAWINGS.
- 2. WHERE STRUCTURAL DETAILS SPECIFY SPECIFIC BRANDS AND/OR TYPES OF ADHESIVES OR ANCHORS, SUBSTITUTIONS OF OTHER BRANDS AND/OR TYPES IS NOT ALLOWED, WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
- 3. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTION REQUESTS SHALL INCLUDE AN ICC ESR OR IAPMO REPORT AND SUPPORTING CALCULATIONS INDICATING COMPLIANCE WITH DESIGN
- 4. ALL ADHESIVE/MECHANICAL ANCHORS SHALL BE INSTALLED, INCLUDING HOLE DRILLING AND PREPARATION, IN ACCORDANCE WITH AN APPROVED INDEPENDENT EVALUATION REPORT (ICC-ES, IAPMO, OR APPROVED EQUAL), AS INDICATED BELOW, AND IN ACCORDANCE WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
- 5. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION. ADHESIVE ANCHORS SHALL NOT BE FULLY LOADED UNTIL CONCRETE HAS REACHED DESIGN STRENGTH. 6. UNLESS APPROVED BY THE ENGINEER OF RECORD, CONCRETE AND DRILLED ANCHOR HOLES SHALL
- BE DRY AND FREE OF WATER FOR 24 HOURS PRIOR TO ADHESIVE INSTALLATION. CONTACT THE ENGINEER OF RECORD FOR GUIDANCE IF THE CONTRACTOR CHOOSES TO INSTALL IN WET OR DAMP
- 7. CONCRETE TEMPERATURE AT THE TIME OF INSTALLATION SHALL BE MONITORED BY THE CONTRACTOR. CONTRACTOR SHALL COMPLY WITH ALL MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) RELATIVE TO SUBSTRATE TEMPERATURE.
- 8. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT IN ACCORDANCE WITH ACI 318-11 D.9.2.2. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. CONTINUOUS SPECIAL INSPECTION SHALL BE PROVIDED FOR THESE ANCHORS.
- 9. UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO CONCRETE SHALL BE: a. HILTI HIT-RE 500V3 (ESR-3814), OR HILTI HIT-HY 200-A (ESR-3187).
- SIMPSON SET-3G (ESR-4057), OR AT-XP (ER-0263).
- DEWALT PURE 110+ (ESR-3298), OR AC200+ GOLD (ESR-4027-COLD WEATHER). 10. UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO MASONRY SHALL BE:
- a. HILTI HIT-HY 270 (ESR-4143). b. SIMPSON SET-XP (ER-0265), OR AT-XP (ER-0281).
- c. DEWALT AC100+ GOLD (ESR-3200). 11. UNLESS NOTED OTHER WISE, ALL MÉCHANICAL ANCHORS INTO CONCRETE SHALL BE:
- a. HILTI KWIK BOLT-TZ2 (ESR-4266). b. SIMPSON STRONG-BOLT 2 (ESR-3037).
- 12. UNLESS NOTED OTHERWISE, ALL MECHANICAL ANCHORS INTO MASONRY SHALL BE:
 - a. HILTI KWIK BOLT-TZ2 (ESR-4561). b. SIMPSON STRONG BOLT 2 WEDGE ANCHOR (ER-0240).
- c. DEWALT SCREWBOLT+ (ESR-4042).
- 13. UNLESS NOTED OTHERWISE, ALL SCREW ANCHORS INTO CONCRETE SHALL BE: a. SIMPSON TITEN HD (ESR-2713).
- b. DEWALT SCREWBOLT+ (ESR-3889). c. HILTI KWIK HUS-EZ (ESR-3027).
- 14. UNLESS NOTED OTHERWISE, ALL SCREW ANCHORS INTO MASONRY SHALL BE:
- a. SIMPSON TITEN HD (ESR-1056).
- b. DEWALT SCREWBOLT+ (ESR-1678). c. HILTI KWIK HUS EZ (ESR-3056).
- 15. ALL MASONRY CELLS WITHIN 8" OF THE ANCHOR SHALL BE SOLID GROUTED. 16. THE TESTING LABORATORY WILL PERFORM VISUAL INSPECTION OF ANCHORS AND DOWELS AS SPECIFIED IN THE SPECIAL INSPECTION SCHEDULE AND THE APPROVED INDEPENDENT EVALUATION REPORT. TENSION TESTING CAN BE REQUIRED AT THE DIRECTION OF THE STRUCTURAL ENGINEER OF
- RECORD OR THE SPECIAL INSPECTOR. 17. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON THAT HOLE AND SHIFT THE ANCHOR LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM SPACE OF (2) ANCHOR HOLE DIAMETERS OR 1 INCH, WHICH EVER IS LARGER, OF SOUND CONCRETE/MASONRY BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. AT CONTRACTORS OPTION, LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING/CORING. IF THE ANCHOR OR DOWEL CANNOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW
- 18. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

- 1. WOOD GRADES (UNLESS NOTED OTHERWISE)
- a. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR/LARCH CLEARLY MARKED WITH A STAMP BY WWPA
- APPROVED AGENCY AND SHALL BE GRADED AS FOLLOWS: . HORIZONTAL MEMBERS: JOISTS & RAFTERS: NO. 2, BEAMS & STRINGERS: NO. 2.
- 2. VERTICAL MEMBERS: POST & TRIMMERS: NO. 1, STUDS: NO. 2. b. ALL FRAMING IN CONTACT WITH FOOTINGS, FOUNDATIONS OR SLABS ON GRADE SHALL BE
- GRADES TO TYPICAL FRAMING MEMBERS. c. UNLESS NOTED OTHERWISE, ALL ENGINEERED LUMBER SHALL BE FURNISHED BY TRUS-JOIST CORPORATION OR APPROVED EQUAL AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PRESSURE TREATED OR TIMBERSTRAND LSL TREATED LUMBER WITH EQUIVALENT STRESS

- MODULUS OF ELASTICITY FLEXURAL STRESS RATING LVL: 2,000,000 PSI 2.600 PSI
- PSL: 2,000,000 PSI LSL: 1,500,000 PSI 2,250 PSI
- d. ALL WOOD "I" JOISTS AND BRIDGING SHALL BE FURNISHED BY TRUS-JOIST CORPORATION OR APPROVED EQUAL.
- 2. SHEATHING SHALL BE APA RATED SHEATHING, EXPOSURE I, EXTERIOR GLUE AND PANEL INDEX RATING AS NOTED BELOW UNLESS NOTED OTHERWISE:
 - LOCATION THICKNESS PANEL INDEX WALLS:
- **FLOORS** 3. INDIVIDUAL PIECES OF SHEATHING AT ROOF, FLOOR, AND SHEAR WALLS SHALL NOT BE SMALLER THAN
- 24" IN EITHER DIRECTION AND SHALL SPAN A MINIMUM OF TWO FRAMING SPACES, UNO. 4. ALL 23/32" FLOOR SHEATHING SHALL BE TONGUE AND GROOVE UNLESS NOTED OTHERWISE.
- 5. CONNECTIONS, FASTENERS, AND ADHESIVE
- a. ALL BOLTS THRU WOOD SHALL BE ASTM A307 AND SHALL HAVE HARDENED WASHERS UNDER ASTM A563 HEAVY HEX NUT AND BOLT HEADS.
- b. UNLESS NOTED OTHERWISE, 10d COMMON (0.148) NAILS SHALL BE USED TO FASTEN ALL PLYWOOD FLOOR AND ROOF SHEATHING TO SUPPORTING TRUSSES, JOISTS, LEDGERS OR BLOCKING AS
- 1. BOUNDARY NAILING "BN": 4"O.C. AT ALL BEARING WALLS, SHEAR WALLS, BLOCKING, AND OTHERWISE INDICATED IN THE STRUCTURAL DRAWINGS.
- 2. PANEL EDGE NAILING "EN": 6"O.C. AT ALL OTHER PLYWOOD PANEL EDGES. 3. PANEL FIELD NAILING "FN": 12"O.C. AT INTERIOR SUPPORTS IN FIELD OF PANEL c. NAILS SHALL BE GALVANIZED OR STAINLESS STEEL AT EXPOSED LOCATIONS OR IN TREATED WOOD (SEE NOTE BELOW FOR FASTENERS CONNECTED TO OR IN CONTACT WITH TREATED WOOD). THE
- HEAD OF ALL NAILS SHALL BE DRIVEN FLUSH WITH THE SURFACE OF THE SHEATHING. d. UNLESS NOTED OTHERWISE, ALL NAILS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: COMMON SHANK HEAD LENGTH MIN. PENETRATION

• • • • • • • • • • • • • • • • • • • •	•			
NAIL SIZE	DIAMETER	DIAMETER		INTO SUPPO
6d	0.113"	0.266"	2"	1.25"
8d	0.131"	0.281"	2-1/2"	1.375"
10d	0.148"	0.312"	3"	1.50"
12d	0.148"	0.312"	3-1/4"	1.50"
164	0.162"	0.244"	2 1/2"	1.62"

- e. ALL FRAMING ANCHORS, POST CAPS, HOLD DOWNS, COLUMN BASES ETC. TO BE PROVIDED BY SIMPSON OR APPROVED EQUAL AND SHALL BE ATTACHED IN ACCORDANCE WITH
- MANUFACTURER'S PUBLISHED DATA, UNLESS NOTED OTHERWISE. f. EXCEPT WHERE NOTED OTHERWISE, THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL NOT BE LESS THAN THAT SET FORTH IN IBC TABLE 2304.10.1. CONNECTIONS FOR MULTIPLE PIECES OF ENGINEERED LUMBER PIECES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- 6. ALL METAL-PLATE-CONNECTED WOOD TRUSSED RAFTERS SHALL BE FABRICATED IN COMPLIANCE WITH THE RESEARCH COMMITTEE RECOMMENDATIONS OF THE ICC FOR THE CONNECTOR PLATES USED. SUBMIT DESIGN CALCULATIONS WITH ENGINEERS SEAL FOR REVIEW WITH SHOP DRAWINGS PROVIDE CALCULATIONS AND DETAILS FOR ALL TRUSS TO TRUSS CONNECTIONS INCLUDING CONNECTION HARDWARE. ALL NECESSARY TRUSS BRIDGING AND CONNECTION DESIGN OF TRUSS BRIDGING SHALL BE PROVIDED BY THE TRUSS DESIGNER AND SHALL BE INCLUDED IN THE DESIGN
- CALCULATIONS FOR REVIEW. 7. INSTALLATION OF ALL METAL-PLATE-CONNECTED WOOD TRUSSES SHALL COMPLY WITH THE
- FOLLOWING STANDARDS: a. ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSSES". b. TPI HIB "COMMENTARY AND RECOMMENDATIONS FOR HANDLING INSTALLING & BRACING METAL-
- PLATE-CONNECTED WOOD TRUSSES". . TPI DSB "RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL-PLATE-
- CONNECTED WOOD TRUSSES". 8. PROVIDE SOLID 2" (NOMINAL) FULL DEPTH BLOCKING AT ENDS AND SUPPORT LOCATIONS FOR ALL JOISTS AND RAFTERS. BLOCKING SHALL BE ATTACHED TO SUPPORT FRAMING WITH A MINIMUM OF (1) SIMPSON A35 FRAMING ANCHOR BETWEEN JOISTS UNLESS NOTED OTHERWISE.

F. EXISTING BUILDING NOTES

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- 1. ARW ENGINEERS EXPRESSLY DISCLAIMS RESPONSIBILITY FOR ANY PORTION OF THE EXISTING BUILDING NOT SPECIFICALLY ADDRESSED IN THESE DRAWINGS.
- 2. DRAWINGS AND DETAILS HAVE BEEN PREPARED TO REFLECT THE EXISTING CONDITIONS AND CONFIGURATIONS OF STRUCTURAL ELEMENTS. HOWEVER, THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS AND ALERTING THE ENGINEER OF ANY
- DISCREPANCIES FOUND PRIOR TO FABRICATING OR INSTALLING STRUCTURAL ELEMENTS. 3. THE CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT THE BUILDING AND ELEMENTS WITHIN THE BUILDING REMAIN STABLE UNTIL CONSTRUCTION IS COMPLETE. AT NO ADDITIONAL COST TO THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHORING OR OTHER TEMPORARY SUPPORT OF STRUCTURAL MEMBERS UNTIL THE FINAL CONFIGURATION HAS BEEN COMPLETED.

ENGINEERS

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S202	DETAILS			

STRUCTURAL NOTES

04.28.22

Matthew C.

4/28/22

ARW Project Number: 21706.A Project Number: 2112 Property Number: 512-7173



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- GENERAL SPECIAL INSPECTION NOTES:

 THE ITEMS MARKED WITH A "O" IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR, AND BUILDING OFFICIAL. ANY ITEMS WHICH FAIL TO COMPLY WITH THE APPROVED CONSTRUCTION DOCUMENTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL, ARCHITECT, AND ENGINEER PRIOR TO COMPLETION OF THAT PHASE OF WORK. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.
- ANY CONSTRUCTION OR MATERIAL THAT HAS FAILED INSPECTION SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT. CONTINUOUS SPECIAL INSPECTION MEANS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTION WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK. (IBC SECTION 202)

	TABLE OF EQUIVALENT FASTENERS					
	STAPLES, NAILS AND T-NAILS (VALID FOR LATERAL LOADS ONLY)					
COMMON NAIL EQUIVALENT SPACE STAPLES			ENT SPACING OF	G OF APPROVED FASTENERS NAILS & T-NAILS		
╙			Γ	<u> </u>		
	GAUGE	16	15	14	.113	.131
PE PE	NETRATION	1"	1"	1"	1 1/4"	1 1/2"
	4"	3 1/2"	4"	5"	4"	5"
AT:	6"	5"	6"	7"	6"	7 1/2"
ll .	8"	6 1/2"	8"	9 1/2"	8"	10"
p9	10"	8 1/2"	10"	12"	10"	12"
	12"	10"	12"	14 1/2"	12"	14 1/2"
	4"	2 1/2"	3 1/2"	4"	3 1/2"	4"
AT:	6"	4"	5"	6"	5"	6"
II	8"	5 1/2"	6 1/2"	8"	6 1/2"	8"
8d	10"	6 1/2"	8"	10"	8"	10"
	12"	8"	10"	12"	9 1/2"	12"
	4"	2"	2 1/2"	3"	2 1/2"	3 1/2"
AT:	6"	3 1/2"	4"	5"	4"	5"
II	8"	4 1/2"	5 1/2"	6 1/2"	5 1/2"	7"
10d	10"	5 1/2"	7"	8"	6 1/2"	8 1/2"
	12"	6 1/2"	8"	9 1/2"	8"	10"

PENETRATION IS THE DEPTH OF EMBEDMENT OF THE STAPLE OR NAIL INTO THE MAIN MEMBER REQUIRED TO ATTAIN ITS FULL CAPACITY (SHEAR VALUE) FOR LATERAL LOADING.

LEGEND OF SYMBOL	LS AND ABBREVIATIONS
AB = ANCHOR BOLT	FOOTING MARK
ABV = ABOVE ARCH = ARCHITECT	TOP OF FOOTING ELEVATION
BLW = BELOW BN = BOUNDARY NAILING	SECTION MARK
BS = BOUNDARY SCREW BRB = BUCKLING RESTRAINED BRACE	SHEET NUMBER
BRBF = BUCKLING RESTRAINED BRACE FRAME CJP = COMPLETE JOINT PENETRATION CL = CENTERLINE	TOP OF FOUNDATION WALL OR COLUMN PIER ELEVATION
CMU = CONCRETE MASONRY UNIT	SHEAR WALL - SEE SCHEDULE
COL = COLUMN CONC = CONCRETE	MIN. LENGTH OF SHEAR WALL
CP = CONCRETE PIER DC = DEMAND CRITICAL	S———S —— FOOTING STEP
$DIA / \emptyset = DIAMETER$ $DBA = DEFORMED BAR ANCHOR$	MASONRY WALL
DBE = DECK BEARING ELEVATION	WASONKT WALL
ELEV = ELEVATION EN = EDGE NAILING EOD = EDGE OF DECK FDN = FOUNDATION	DEPRESS FDN./WALL AND POUR FLOOR SLAB OVER AT MASONRY FOUNDATION WALL
FTG = FOOTING FFE = FINISHED FLOOR ELEVATION GB = CONCRETE GRADE BEAM	DEPRESS FDN./WALL AND POUR FLOOR SLAB OVER AT CONCRETE
HSA = HEADED STUD ANCHOR JBE = JOIST BEARING ELEVATION	FOUNDATION WALL
KB = KICKER BRACE MAX = MAXIMUM	MASONRY BEAM
MB = MASONRY BEAM MC = MASONRY COLUMN	CONCRETE BEAM
MECH = MECHANICAL MEZZ = MEZZANINE MIN = MINIMUM	HD - SIMPSON HOLDOWN SIZE POST - SIZE OF END POST CONNECTED TO HOLDOWN
MJ = MASONRY JAMB MW = MASONRY WALL NS, FS = NEAR SIDE, FAR SIDE	CONNECTED TO HOLDOWN "A" - PLAN CONFIGURATION AT HOLDOWN AT FOUNDATION
OAE = OR APPROVED EQUAL OPP = OPPOSITE	ELEVATION
PAF = POWDER ACTUATED FASTENER PL = PLATE REINF = REINFORCING	ITEMS, DETAILS, & SYSTEMS WHICH ARE PART OF THE LATERAL FORCE
REQ'D = REQUIRED SIM = SIMILAR	RESISTING SYSTEM.
SSH = STEEL STUD HEADER	
SSJ = STEEL STUD JAMB SSS = STEEL STUD SILL	
SSW = STEEL STUD WALL	
TOB = TOP OF BEAM ELEVATION TOC = TOP OF CONCRETE SLAB	
TOF = TOP OF CONCRETE SLAB	
TOG = TOP OF GIRDER ELEVATION	
TOM = TOP OF MASONRY	
TOS = TOP OF STEEL ELEVATION TYP = TYPICAL	
UNO = UNLESS NOTED OTHERWISE	

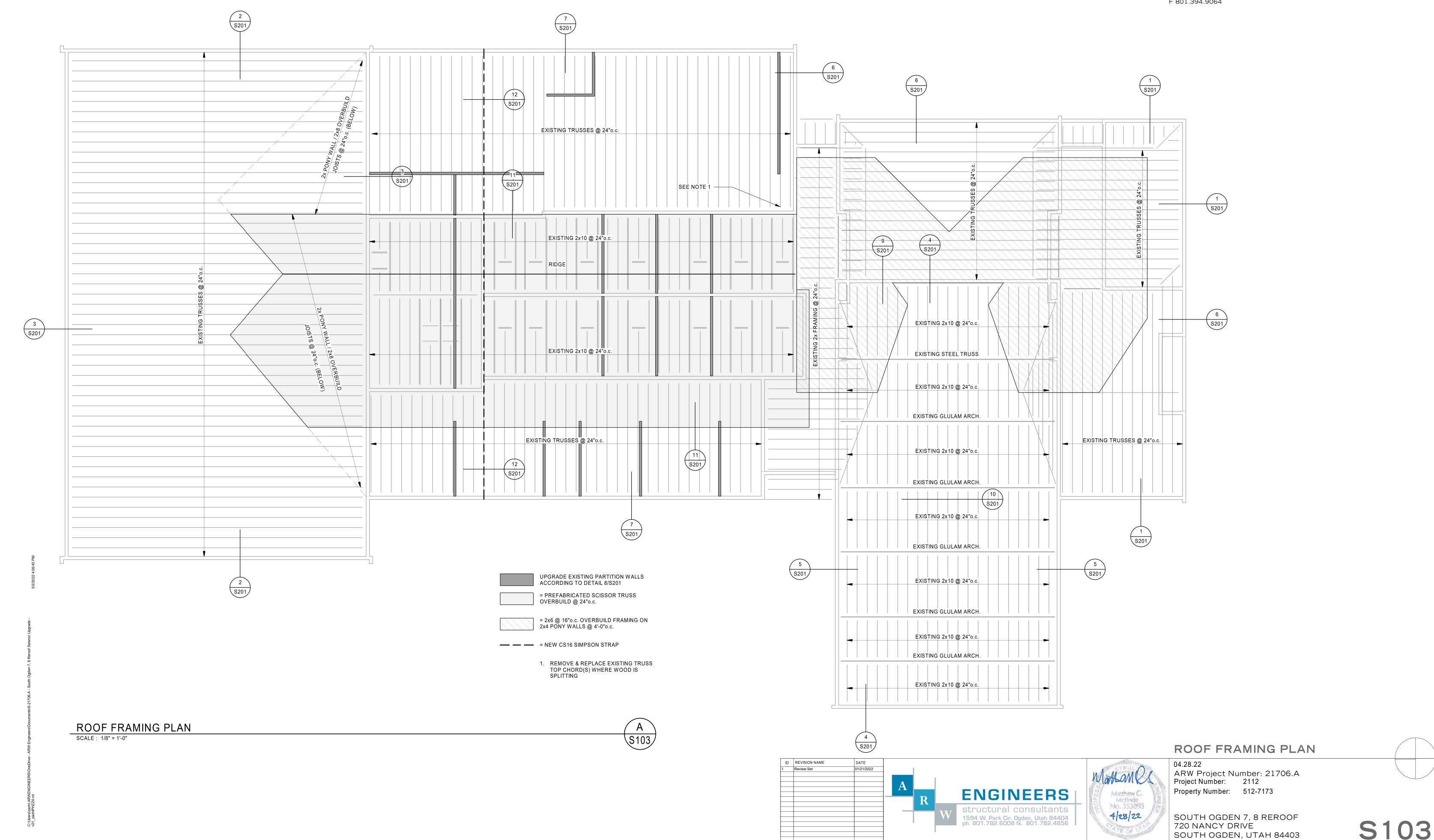
SCHEDULES

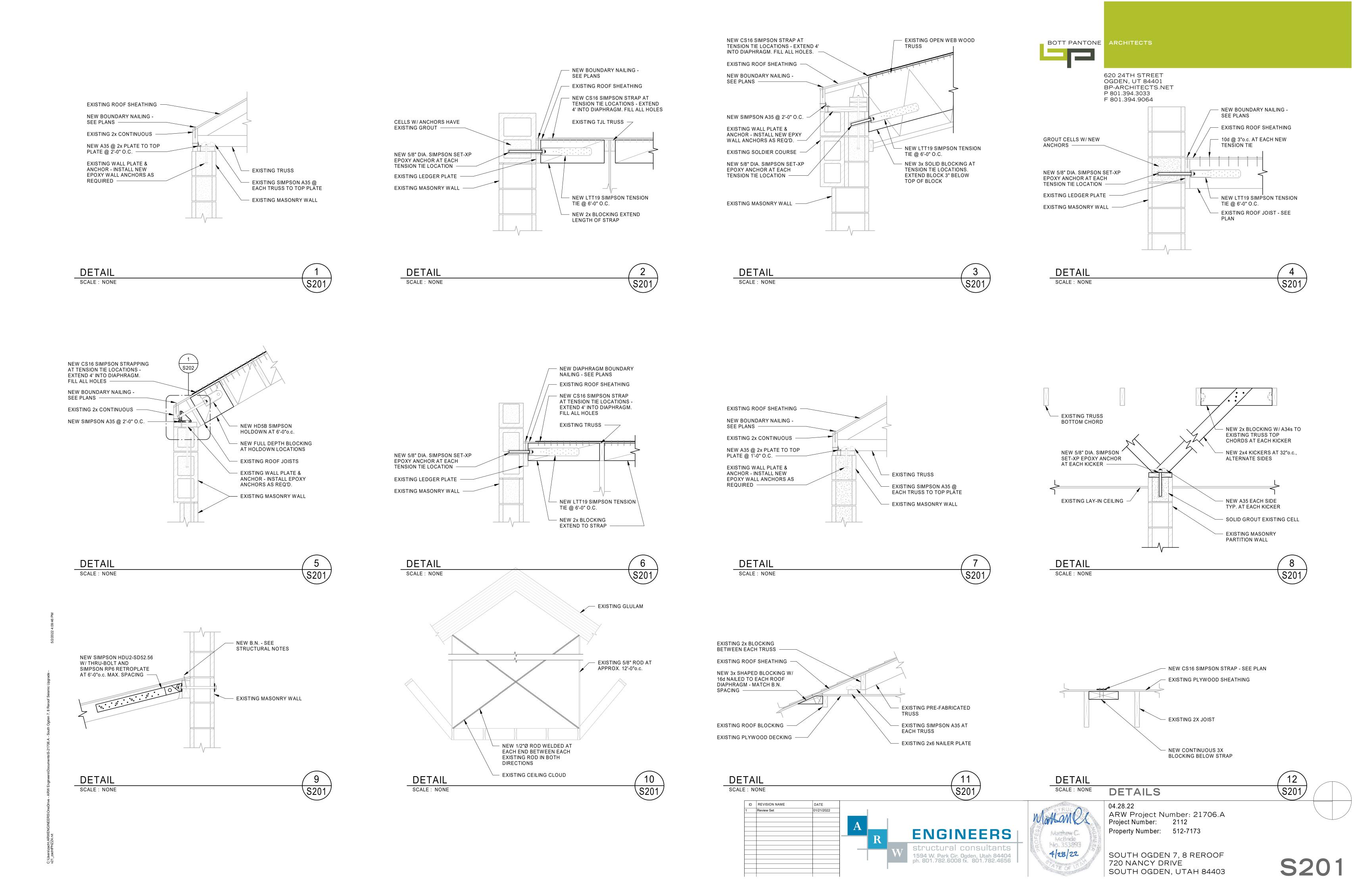
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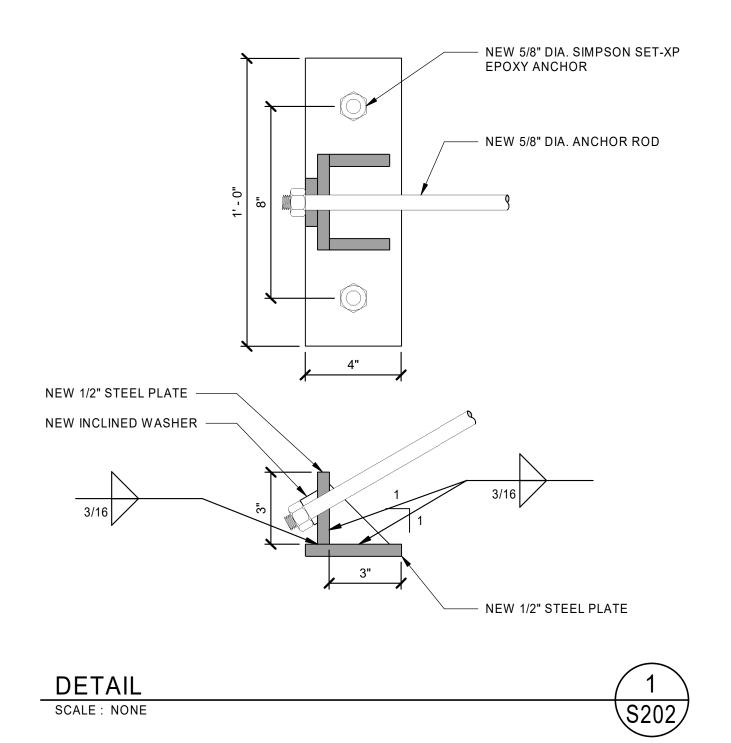




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DETAILS

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