ELK RIDGE SALT SHED

645 WEST GOOSENEST DRIVE
ELK RIDGE CITY, UTAH, 84651

ARCHITECT

DAVID PROCTER ARCHITECT PLLC
5929 COUNTRY HILLS DR
SALT LAKE CITY, UTAH 84118
(801) 966-8280

STRUCTURAL

ACUTE ENGINEERING
744 SOUTH 400 EAST
OREM, UTAH 84097
(801) 229 9020

MECHANICAL

DESIGN BUILD

ELECTRICAL

DESIGN BUILD

OWNER

AQUA ENGINEERING
533 W 2600 S SUITE 275
BOUNTIFUL, UTAH 84010
(801) 299-1327

PROJECT DATA

APPLICABLE CODE: 2018 IBC
BUILDING OCCUPANCY: S-2 (304.1)
CONSTRUCTION TYPE: V-B (601)
AREA LIMITATIONS: 13,500 SF AREA (506.2)
BUILDING AREA: 7,000SF
HEIGHT LIMITATIONS: S-2 ; 2 STORIES (504.4) 40 FEET (504.3)
BUILDING HEIGHT: 27 FEET

FIRE SPRINKLER: NO
SEISMIC ZONE: D 1
WIND LOAD: 105MPH EXPOSURE C
OCCUPANCY SEPARATION: NA
AREA SEPARATION: NA
FIRE RESISTANCE RATINGS: (601)
Primary Structural Frame: 0; Bearing Walls EXT & INT: 0
Non bearing walls:0; Floor Construction:0; Roof:0
PROJECT OCCUPANCY LOAD: NON OCCUPIED

BUILDING KEY MAP

DRAWING SYMBOLS

- ELEVATION
- WINDOW NUMBER (W1)
- BUILDING SECTION (SECTION NO. B2 / SHEET NO. A5.0)
- WALL SECTION (SECTION NO. B2 / SHEET NO. A5.0)
- BREAK LINE
- KEY NOTE
- DETAIL REF. (DETAIL NO. C3 / SHEET NO. A-4.9)
- WALL ELEVATION (ELEV NO. B4, B5, B6, B3 / SHEET NO. T300)
- PARTITION TYPE (E1)
- ROOM/SPACE NUMBER (NAME / NUMBER)
- DOOR NUMBER (100A)

MATERIAL SYMBOLS

- METAL SECTION (ANS132)
- ALUMINUM SECTION (ANS134)
- WOOD FRAME CONTINUOUS
- WOOD FRAME DISCONTINUE.
- PLYWOOD SECTION (CORK)
- STONE SECTION (ZIGZAG)
- GYPSUM BOARD (ASTM546)
- WOOD PARTICLE BD. (DOTS)
- WOOD FINISH
- WOOD ELEVATION
- RIGID INSULATION (ANS137 (45))
- BATT INSULATION
- CARPET SECTION (LINE)
- ACOUSTICAL TILE (DASH)

ABBREVIATIONS

A.	AMPS.
ACC.	ACCORDING
ACOUS.	ACOUSTICAL
A.C.F.	ABOVE CONC. FL.
A.F.F.	ABOVE FIN. FL.
ALUM.	ALUMINUM
@	AT
BLDG.	BUILDING
BOT.	BOTTOM
BRG	BEARING
CAB.	CABINET
CLG.	CEILING
CLR.	CLEAR
℄	CENTER LINE
CMU	CONC. MASONRY UNIT
COL.	COLUMN
CONC	CONCRETE
CONT.	CONTINUOUS
DBL.	DOUBLE
DTL.	DETAIL
DIA.	DIAMETER
DIM	DIMENSION
DWG.	DRAWING
ELEC.	ELECTRICAL
EL./ELEV.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
FD.	FLOOR DRAIN
FDN.	FOUNDATION
FIN.	FINISH
FL.	FLOOR
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
GD.	GRADE
GEN.	GENERAL
GYP. BD.	GYPSUM BOARD
H.C.	HANDICAPPED
HDW.	HARDWARE
HGT./HT.	HEIGHT
H.M.	HOLLOW METAL
HVAC	HEAT/VENT/AIR COND.
INS.	INSULATION
LAV.	LAVATORY
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
OC.	ON CENTER
OPG.	OPENING
OPP.	OPPOSITE
PL.	PLATE
PLY.WD.	PLYWOOD
PREFAB.	PREFABRICATED
P.V.C.	POLY VINYL CHLORIDE
RAD.	RADIUS
RD.	ROOF DRAIN
REF.	REFERENCE
REINF.	REINFORCE
REQ.	REQUIRED
RM.	ROOM
SCHED.	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
STD.	STANDARD
STL.	STEEL
STO.	STORAGE
STR.	STRUCTURAL
TELE.	TELEPHONE
T.O.	TOP OF
TYP.	TYPICAL
VCT	VINYL COMPOSITE TILE
W/	WITH
WD.	WOOD
W.W.M.	WELDED WIRE MESH

DRAWING INDEX

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	ARCHITECTURAL
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A301	EXTERIOR ELEVATIONS
A401	BUILDING SECTIONS
A402	WALL SECTIONS
A601	DETAILS
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SN1	STRUCTURAL NOTES
S0.0	FOOTING AND FIUNDATION PLAN
S1.1	MAIN FLOOR SHEAR WALL PLAN
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	ELECTRICAL
	CIVIL
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CD-1	CIVIL DETAILS
CD-2	CIVIL DETAILS

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Elk Ridge, Utah 84651

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00.00.00

SHEET NO.
A001

GENERAL NOTES

FINISH NOTES: GENERAL

1. REVIEW GENERAL NOTES BEFORE COMMENCING WORK.

2. REVIEW FINISH PLAN BEFORE COMMENCING WORK.

3. CONTRACTOR SHALL PROPERLY PREPARE SURFACES PER FINISH MANUFACTURER'S SPECIFICATIONS PRIOR TO APPLICATION OF FINISH.

4. ENSURE SURFACES TO RECEIVE FINISHES ARE CLEAN, TRUE AND FREE OF IRREGULARITIES – DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. STARTING WORK SHALL INDICATE APPLICATOR'S ACCEPTANCE OF SUBSTRATE.

5. REPAIR AND PREPARE EXISTING SURFACES AS REQUIRED FOR APPLICATION OF FINISHES.

6. BUILDERS HARDWARE SHALL MATCH EXISTING PUBLIC WORKS BUILDING HARDWARE.

7. CONTRACTOR SHALL SUBMIT SAMPLES FOR ARCHITECT'S REVIEW OF FINISH MATERIALS. CONSULT ARCHITECT'S SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS. PLACE FULL ORDERS ONLY UPON RECEIPT OF ARCHITECT'S WRITTEN ACCEPTANCE OF SUBMITTED SAMPLES. ALLOW TIME FOR SUBMITTED REVIEW AND RESUBMITTALS AS REQUIRED.

8. THE CONTRACTOR/BIDDER SHALL VISIT AND BECOME FAMILIAR & VERIFY EXISTING CONDITIONS PRIOR SUBMISSION OF BID.

9. CONTRACTOR SHALL PROVIDE AND MAINTAIN PROTECTION FOR PERSONS, ADJACENT AREA, FINISHES, FIXTURES, FURNISHINGS, FURNITURE AND EQUIPMENT DURING DEMOLITION/CONSTRUCTION.

CONSTRUCTION NOTES

1. REVIEW GENERAL NOTES BEFORE COMMENCING WORK.

2. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN. PARTITION LOCATIONS, DIMENSIONS AND TYPES, DOOR AND WINDOW LOCATIONS SHALL BE AS SHOWN ON CONSTRUCTION PLAN. IN CASE OF CONFLICT, NOTIFY ARCHITECT FOR WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION. CONSTRUCTION PLAN BY ARCHITECT SUPERSEDES OTHER PLANS.

3. PARTITIONS ARE DIMENSIONED FROM FINISH FACE TO FINISH FACE, UNLESS OTHERWISE NOTED. DIMENSIONS MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF FINISHES INCLUDING CARPET, CERAMIC TILE, VCT, ETC. CONTRACTOR SHALL NOT ADJUST DIMENSIONS WITHOUT WRITTEN INSTRUCTIONS FROM THE ARCHITECT.

4. DIMENSIONS MARKED "CLEAR" ARE TO BE WITHIN 1/16" ALONG FULL HEIGHT AND FULL WIDTH OF WALLS, DIMENSIONS ARE AS FOLLOWS, UNLESS NOTED OTHERWISE:

A. TO FINISHED FACE OF GYPSUM BOARD
B. TO INSIDE FACE OF JAMB AT DOORS AND OTHER OPENINGS
C. TO TOP OF FINISHED FLOORS
D. TO BOTTOM OF FINISHED CEILINGS

5. WHERE A WALL IS SHOWN IN ALIGNMENT WITH MORE THAN ONE COLUMN OR CORE ELEMENT WHICH ARE NOT ALIGNED, THE CONTRACTOR SHALL LAYOUT PARTITIONS ALONG THE ENTIRE LENGTH ALIGNING WITH THE FURTHEST PROJECTION. UNLESS OTHERWISE NOTED OTHER SURFACES ALONG THE ALIGNMENT SHALL BE FURRED TO THIS LINE AND ARCHITECT NOTIFIED.

6. PARTITIONS AT BUILDING PERIMETER SHALL BE CENTERED ON CENTER LINE OF COLUMN OR WINDOW MULLION, UNLESS OTHERWISE NOTED.

7. BASE BUILDING GRID LINES ARE SHOWN FOR DIMENSIONING, VERIFY EXACT LOCATIONS IN FIELD.

8. CONTRACTOR SHALL LAYOUT PARTITIONS FOR ARCHITECT TO REVIEW FOR DESIGN INTENT. DO NOT PROCEED WITH INSTALLATION OF STUDS WITHOUT THIS REVIEW APPROVAL. CONTRACTOR SHALL COORDINATE AND VERIFY CONDITIONS TO ENSURE PROPER FIT. REVIEW FOR DESIGN INTENT DOES NOT RELEASE CONTRACTOR FROM THE RESPONSIBILITY TO MAINTAIN CRITICAL DIMENSIONS AND CLEARANCES.

9. DIMENSIONS SHOWN AS F.V. SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BY LAYING OUT THE PARTITIONS. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCY IN DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA.

10. DRYWALL FINISHING: COMPLY WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND SPECIFICATIONS, EXCEPTION: COMPLY WITH MORE STRINGENT REQUIREMENTS OF GYPSUM ASSOCIATION GA-216 RECOMMENDED SPECIFICATION FOR THE APPLICATION AND FINISHING OF GYPSUM BOARD.

11. EXPOSED GYPSUM BOARD EDGES SHALL HAVE METAL TRIM. PROVIDE CORNER BEADS ALONG FULL LENGTH OF OUTSIDE CORNERS AND J BEADS ALONG ENDS OF GYPSUM BOARD, UNLESS OTHERWISE SPECIFICALLY NOTED. TAPE, SPACKLE AND SAND JOINTS. PARTITIONS SHALL HAVE A SMOOTH FINISH CONDITION READY FOR PAINT AND FINISH MATERIAL APPLICATION, UNLESS OTHERWISE NOTED.

GENERAL NOTES

GENERAL NOTES

1. WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS WHICH INCLUDE THE OWNER/CONTRACTOR AGREEMENT, THE AIA A201 GENERAL CONDITIONS FOR THE THE PERFORMANCE OF THE CONTRACT, AND ANY ADDITIONAL DRAWINGS, AND ALL ADDENDA AND MODIFICATIONS ISSUED BY THE ARCHITECT. PAYMENT REQUEST SHALL BE SUBMITTED ON AIA PAY REQUEST FORM WITH ATTACHED SCHEDULES OF VALUES.

2. THESE NOTES APPLY TO THE CONTRACT DOCUMENTS.

3. THE CONTRACTOR SHALL REVIEW DOCUMENTS AND VERIFY DIMENSIONS AND FIELD CONDITIONS. ANY CONFLICTS/OMISSIONS OR DISCREPANCIES SHALL BE REPORTED IN WRITING THREE (3) BUSINESS DAYS BEFORE RETURN OF BID. THE GENERAL CONTRACTOR WARRANTS, BY TENDERING HIS BID THAT WORK IS BUILDABLE AS SHOWN.

4. IF DOCUMENTS ARE AT VARIANCE WITH ONE ANOTHER ON A PARTICULAR ITEM OR ITEMS, CONTRACTOR SHALL BASE HIS PROPOSAL ON THE BETTER QUALITY OR MORE EXPENSIVE OF THE CONDITIONS. ITEMS OR EQUIPMENT SPECIFIED UNDER ONE TRADE SHALL BE BINDING AS IF SPECIFIED UNDER ALL APPLICABLE TRADES.

5. DRAWINGS OF BUILDING ARE BASED ON LIMITED FIELD OBSERVATION BY THE ARCHITECT. ACTUAL CONDITIONS MAY DIFFER FROM THOSE SHOWN.

6. THE CONTRACTOR SHALL INCLUDE IN HIS BID AND SHALL ARRANGE FOR HOISTING, CARTING.

7. THE CONTRACTOR SHALL FILE THE NECESSARY PLANS WITH THE BUILDING DEPT. AND COMPLY WITH ALL REGULATIONS REQUIRED TO SECURE THE NECESSARY MAIN BUILDING PERMIT.
THE CONTRACTOR SHALL PICK-UP THE MAIN BUILDING PERMIT. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS, INSPECTIONS, TESTS, & APPROVALS FOR ALL TRADES AND SHALL BEAR THE COSTS ASSOCIATED WITH SAME.

8. THE CONTRACTOR SHALL ARRANGE FOR INSPECTIONS NECESSARY TO OBTAIN A CERTIFICATE OF OCCUPANCY.

9. WORK SHALL CONFORM TO LOCAL BUILDING CODES AND ORDINANCES AND OTHER AGENCIES HAVING JURISDICTION. THE RULES AND REGULATIONS OF OSHA SHALL BE ADHERED TO FOR THIS PROJECT.

10. THE CONTRACTOR SHALL MAINTAIN FOR THE ENTIRE LENGTH OF HIS CONTRACT EXITS, EXIT LIGHTING, FIRE PROTECTIVE DEVICES AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION, AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND GOOD PRACTICE.

12. THE CONTRACTOR SHALL VERIFY THAT DRAWINGS ARE THE LATEST ISSUE PRIOR TO COMMENCING CONSTRUCTION.

13. IN CASE OF CONFLICT BETWEEN ARCHITECT'S AND ENGINEER'S DRAWINGS IN LOCATION OF MATERIALS/EQUIPMENT, THE ARCHITECTURAL DRAWINGS OR MOST STRINGENT SHALL GOVERN.

14. THE CONTRACTOR SHALL NOT PROCEED WITH WORK FOR WHICH HE EXPECTS ADDITIONAL COMPENSATION BEYOND THE CONTRACT AMOUNT WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT. FAILURE TO OBTAIN SUCH AUTHORIZATION SHALL INVALIDATE A CLAIM FOR EXTRA COMPENSATION.

15. THE CONTRACTOR SHALL REVIEW AND COORDINATE THE SCHEDULING OF CONSTRUCTION AND SHALL SUBMIT TO THE ARCHITECT A SCHEDULE OF WORK WITHIN TEN DAYS AFTER AWARD OF CONTRACT FOR CONSTRUCTION. THE SCHEDULE SHALL INTEGRATE "WORK BY OTHERS" AND SHALL BE REISSUED TO THE ARCHITECT UPON MODIFICATION. SCHEDULE SHALL INDICATE THE PHASE DURING WHICH WORK BY OTHERS SHALL BE PERFORMED AND SHALL ALLOW SUFFICIENT TIME FOR THE WORK TO BE DONE EFFICIENTLY ON A NON-OVERTIME STATUS.

16. WORK SHALL BE PERFORMED DURING REGULAR BUSINESS HOURS WHENEVER POSSIBLE.

17. THE CONTRACTOR SHALL APPLY, INSTALL, CONNECT, ERECT, CLEAN, AND/OR CONDITION MANUFACTURED ARTICLES, MATERIALS, AND/OR EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. IN CASE OF CONFLICT BETWEEN MANUFACTURER'S INSTRUCTIONS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL OBTAIN WRITTEN CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING.

18. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SAFETY TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR THE COORDINATION OF WORK AND FOR THE WORK PERFORMED BY HIS SUBCONTRACTORS.

19. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE WORK BY OTHERS FURNISHED-AND/OR
-INSTALLED-OWNER-PROVIDED" ITEMS. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND SHALL DO THE CUTTING, FITTING, AND PATCHING THAT MAY BE REQUIRED TO MAKE THE PARTS OF THE WORK WHICH WILL RECEIVE THE WORK OF OTHERS

GENERAL NOTES

GENERAL NOTES CONT.

20. THE CONTRACTOR SHALL, UPON AWARD OF THE CONTRACT FOR CONSTRUCTION, DETERMINE THE DELIVERY SCHEDULE OF MATERIALS NEEDED FOR THE COMPLETION OF THE WORK. CONTRACTOR SHALL PROCURE, DELIVER, AND STORE MATERIALS AND LABOR IN SUFFICIENT QUANTITY AND ON A TIMELY BASIS SO AS TO NOT IMPEDE THE COMPLETION OF THE WORK. CONTRACTOR SHALL SUBMIT CONFIRMATIONS WITH DELIVERY DATES FOR ORDERS OF MATERIALS AND EQUIPMENT AND FOR LONG LEAD ITEMS. IF THE DELIVERY TIME OF ANY PRODUCT IMPEDES THE CONSTRUCTION SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT WITHIN TEN (10) WORKING DAYS OF THE AWARD OF THE CONTRACT FOR CONSTRUCTION. CONTRACTOR SHALL PROVIDE COMPLETE SCHEDULE OF WORK WITHIN 5 DAYS AFTER NOTICE TO PROCEED.

21. REQUESTS FOR SUBSTITUTIONS OF SPECIFIED ITEMS SHALL BE SUBMITTED IN WRITING WITHIN TEN (10) WORKING DAYS OF THE AWARD OF THE CONTRACT FOR CONSTRUCTION TO THE ARCHITECT AND WILL BE CONSIDERED ONLY IF THEY PROVIDE BETTER SERVICES, HAVE A MORE ADVANTAGEOUS DELIVERY DATE, OR HAS A LOWER PRICE PROVIDING A CREDIT TO THE OWNER AND WILL NOT SACRIFICE QUALITY, APPEARANCE OR FUNCTION. UNDER NO CIRCUMSTANCES WILL THE ARCHITECT BE REQUIRED TO PROVE THAT A PRODUCT PROPOSED FOR SUBSTITUTION IS OR IS NOT OF EQUAL QUALITY TO THE SPECIFIED PRODUCT.

22. THE CONTRACTOR SHALL PROVIDE A FULL-TIME SUPERINTENDENT OR REPRESENTATIVE AT THE JOB SITE WHO SHALL SUPERVISE AND DIRECT THE WORK ACCORDING TO THE SPECIFIED QUALITY STANDARDS.

23. SHOP DRAWINGS/SUBMITTALS ARE REQUIRED FOR BUT NOT LIMITED TO THE FOLLOWING: STRUCTURAL/MISCELLANEOUS STEEL, HARDWARE, PLATE TRUSSES, REINFORCING STEEL
METAL DOORS, AND EQUIPMENT. SHOP DRAWINGS SHOULD INCLUDE, DETAILED FABRICATION AND ERECTION DRAWINGS, SETTING DRAWINGS, AND MATERIAL SCHEDULES. FABRICATION SHALL BEGIN ONLY AFTER ARCHITECT'S REVIEW AND APPROVAL OF SHOP DRAWINGS.

24. THE CONTRACTOR SHALL REVIEW REQUIRED SHOP DRAWINGS/SUBMITTALS PRIOR TO SUBMISSION TO THE ARCHITECT AND SHALL INDICATE ON THE SHOP DRAWING/SUBMITTAL THAT SUCH REVIEW HAS TAKEN PLACE. SHOP DRAWINGS SHALL BE SUBMITTED WITH
(3) PRINTS OF EACH SHEET. EACH SUBMITTAL SHALL CONTAIN THREE (3) COPIES OF PRODUCT DATA OR SAMPLES. REVIEW OF SHOP DRAWINGS/SUBMITTALS BY ARCHITECT IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRELATING AND CONFIRMING DIMENSIONS AND QUANTITIES, CHOOSING THE FABRICATION PROCESSES AND CONSTRUCTION TECHNIQUES, COORDINATING RELATED TRADES, AND PERFORMING THE WORK IN A SAFE AND SATISFACTORY MANNER.
THE ARCHITECT WILL NOT REVIEW SHOP DRAWINGS/SUBMITTALS THAT DO NOT CONTAIN A SIGNED CONTRACTOR REVIEW STATEMENT.

25. SUBSTITUTIONS, REVISIONS, OR CHANGES MUST BE SUBMITTED TO ARCHITECT FOR REVIEW AND APPROVAL (IN CONFORMANCE WITH SPECIFIED PROCEDURES) PRIOR TO PURCHASE, FABRICATION, OR INSTALLATION.

26. IMMEDIATELY PRIOR TO THE OWNER'S OCCUPANCY OF ANY PHASE, THE CONTRACTOR SHALL CLEAN SURFACES OF DUST, DEBRIS, LOOSE CONSTRUCTION MATERIAL AND EQUIPMENT AND SHALL LEAVE FLOORS VACUUMED AND CLEAN. REMAINING CONSTRUCTION MATERIAL AN EQUIPMENT, IF ANY, SHALL BE MOVED AND TEMPORARILY SECURED IN AN AREA DIRECTED BY THE OWNER.

27. THE CONTRACTOR SHALL CLEAN STRUCTURE AND CONSTURCTION SITE IMMEDIATELY PRIOR TO OWNER
OCCUPANCY.

28. SUBMIT MANUFACTURER'S LITERATURE (OPERATIONAL AND MAINTENANCE) TO ARCHITECT UPON COMPLETION AND PRIOR TO CLOSE OUT FOR EACH APPLIANCE OR PIECE OF EQUIPMENT. SUBMIT MANUFACTURER'S WRITTEN WARRANTY FOR EACH.

29. DO NOT SCALE DRAWINGS. CLARIFICATION OF INFORMATION REQUIRED BY THE CONTRACTOR SHALL BE FURNISHED, UPON WRITTEN REQUEST, BY THE ARCHITECT.

30. "TYPICAL" OR "TYP" SHALL MEAN THAT THE CONDITION IS REPRESENTATIVE FOR SIMILAR CONDITIONS THROUGHOUT, UNLESS OTHERWISE NOTED. DETAILS ARE USUALLY KEYED AND NOTED "TYP" WHEN THEY FIRST OCCUR.

31. "SIMILAR" OR "SIM" MEANS COMPARABLE CHARACTERISTICS FOR THE CONDITIONS NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLANS AND ELEVATIONS.

32. DIMENSIONS AND NOTES FOR A GIVEN CONDITION ARE TYPICAL FOR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.

33. PAY REQUEST SHALL BE SUBMITTED ON AIA (TYPE) APPLICATION FOR PAYMENT AND BE ACCOMPANIED WITH THE SCHEDULES OF VALUES

GENERAL NOTES

GENERAL NOTES CONT.

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Notes-Specs

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SHEET NO.
A101

DIVISION 0 -- CONDITIONS OF CONTRACT

Standard From of Agreement Between Owner and Contractor (AIA Document)

General Conditions of the Contract for Construction (AIA Document A201 2007) Supplementary Conditions

SECTION 03300 CAST IN PLACE CONCRETE

A. Concrete Materials, quality, and construction shall comply with current IBC; ACI 318-05 refer to structural documents for additional requirements.
B. Work included in this Section: Cast-in Place Architectural concrete including forms facings, reinforcement, accessories, concrete materials, concrete mix design, placement, and finishes.
C. Quality assurance: ASTM C 94/C94M ACI303.1 specification for Cast-in Place Architectural Concrete.
D. Concrete materials: Cement shall conform to ASTM C150, Type II, Portland Cement; Hardrock aggregates shall conform to ASTM C33; Light weight aggregate shall conform to ASTM C330; Water shall be potable; Air Entrainment shall conform conform to ASTM C260; Flyashshall conform to ASTM C618; Calcium Chloride shall NOT be used.
E. Flat work exposed toweather shall have 6% +-1% Air entrainment. Flat work shall be treated with ASTM approved curing and sealingcompounds. All exposed edges or corners of flat work shall be chamfered 3/4 inches.
F. Concrete slump shall be 4 inches maximum UNO and properly viberatyed during placement.
G. Interior slabs on grade shall be 6" thick UNO with bearing on 6" of free draining gravel, minimum UNO.
H. Reinforcing steel details, bolstering and supports shall comply with CRSI manual of standard practice, ACI 315 (or SP-66) Detailing Manual.
I. Reinforcing steel shall be free of loose, flaky rust, scale, grease, oil, dirt or other materials that might affect or impede bonding.
J. Epoxy-coated Reinforcing ASTM A 775/A 775M with less than 2 percent damaged coating in ea 12-inches.
K. Finish:
   1. Interior floor slab: Steel Trowel Finish after applying float finish until surface is free of trowel marks and has uniform texture and appearance. Finish and measure surface so gap at any point between surface and 10-foot straight edge resting on high spots and placed anywhere on the surface does not exceed 1/8 inch.
   2. Exterior concrete pavement: Broom Finish after applying float finish.
L. Penetrating Sealer: Apply Pentreat 244-100 water repellant penetrating sealer to interior floors and walls per manufactures recommendation. Coordinate curing methods so there is no incompatibility with application of penetrating sealer.

SECTION 05500 METAL FABRICATION

A. Work included in this Section: Miscellaneous Steel Framing and supports, Steel weld plates and angles, Loose steel lintels, Ballards.

B. Ferrous Metals: Steel Plates, Shapes & Bars: ASTM A 36/a 36M
Steel Tubing: ASTM A500, Clod Formed steel tubing.
Steel Pipe: ASTM A 53/A 53M Standard weight UNO
Slotted Channel Framing: Cold formed metal channels comply with MFMA-3
C. Lintels in exterior walls: Galvanized
D. Shelf Angles in exterior walls: Galvanized
E. Metal Ballards: Galvanized
F. Exterior miscellaneous steel trim: Galvanized
G. Steel and Iron Finishes
- Hot-Dip Galvanized comply with ASTM A 123/A 123M or ASTM A 153/A 153M as applicable

SECTION 06100 ROUGH CARPENTRY

A. Work included in this Section: lumber for blocking, nailers, and furring; and plywood-type structural-use panels; as shown on drawings and specified below.
B. Lumber: Per American Softwood Lumber Standard DOC PS 20, surfaced four sides (S4S), maximum 19 percent moisture content (S-Dry or KD-19); any acceptable species listed in inspection agency manuals. Construction grade: Construction, Stud, Standard, or No. 3.
C. Plywood-type wood-based panels: per Performance Standard for Wood-based Structural-Use Panels, DOC PS 2; including all-veneer, mat-formed, or composite panels. Panels used for mounting electrical or telephone equipment: APA C-D Plugged, fire-retardant-treated. Other panels: APA Rated Sheathing type.
D. Provide grounds , furring, nailers, and blocking as required to support finish materials, fixtures, specialty items, and trim, whether or not specifically shown on drawings.
E. Fabricate work straight and true, free from warpage and other defects. Joints, covers, copes, and miters shall be accurately and neatly cut, machined, fitted, and smoothly filed. Carry out welding per American Welding Society approved methods and procedures.
F. Grout: factory-packaged, non-shrink, per ASTM C 1107.

SECTION 07411 METAL ROOF PANELS

A Work included in this Section: Metal roof Panels, as shown on drawings and specified below.
B Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E2140.
C Wind-Uplift Resistance: UL 580 for wind uplift resistance class UL90

D QUALITY ASSURANCE: Installers trained and approved by Manufacture.
E WARRANTY: ASSURANCE: Installers trained and approved by Manufacture.
1. Special Warranty Manufacturer's standard form to repair or replace that fail in materials or workmanship for period of 10years from substantial completion.
2. Special Warranty Panel Finishes, Manufacturer's standard form to repair or replace that fail in materials or workmanship for period of 20years from substantial completion.
F Panel Materials:
1. Zinc-Coated steel sheets ASTM A653/A 653M G90
2. Surface: Smooth, Flat Finish
3. Exposed Coil-Coated Finish: Siliconized Polyester: Epoxy primer 0.2mil, and silicone-modified, ploy-enamel topcoatSurface: Smooth, Flat Finish 0.8 mil
G UNDERLAYMENT MATERIALS
1. Self-Adhering, High-Temp Sheet 30 to 40 mils, stable after testing at 240 degF continuous under all mtl roofing with min 6" shingled overlap
2. Slip Sheet: Manufactures recommendation. apply between Self-Adhering sheet and metal roof
H Fasteners and clips/cleats: stainless steel typical.
I Standing-Seam Roofing with double nailed cleats at 12 o.c.
J Submittals under this Section shall in installation instructions, and shop drawings.

SECTION 07900 JOINT SEALANTS

A Work included in this Section: joint sealants, as shown on drawings and specified below.
B Sealant at joints in typical vertical surfaces: one-part, non-sag, paintable butyl or acrylic latex calking compound. Acceptable butyl products include Pecora BC-158, PTI 757, Sonneborn Multi-Purpose Sealant, Tremco Butyl Sealant. Acceptable latex products include Pecora AC-20, Sonneborn Sonolac, Tremco Acrylic Latex 834.
D Sealant at joints in horizontal surf aces: one or two-part pourable self-levelling polyurethane, per ASTM C 920, Type M or S, Grade P, Class 25, Use T. Acceptable products include Mameco Vulkem 45, 245, or 255; W. R. Meadows Pourthane; Pecora NR-200 and NR-201 Urexpan; PRC Permapol RC-270SL; Sika Sikaflex-2c SL; Sonneborn Sonolastic SL-1; Tremco THC-900.
E Install sealant with hand or power gun, pushed along joint. Sealant shall completely fill joint void. Tool vertically-installed sealants to slightly concave surface. Clean adjacent surfaces after completion.

VINYL CEILING PANELS

A Work included in this Section: Vinyl Ceiling Panels, as shown on drawings and specified below.
B Accetable Manufactures: Extrutech Plastic, INC. Or approved equivilant manufactures.
C Vinyl ceiling Panel system: EPI P2400 1/2" thick x 24"wide, Design: Flat, Glossy, Interlocking T&G. Panel trim as recomended by manufacture for a compleat system.
Color: standard white.
Stainless steel screws as recomended by manufacturer.
D QUALITY ASSURANCE: Installers trained and approved by Manufacture.
E WARRANTY:
1. Limited Warranty Manufacturer's standard form replace panels that fail in materials or workmanship for period of 20years from substantial completion.

SECTION 09900 PAINTING

A Work included in this Section:
-- Field-finishing exposed-to-view surfaces of all newly-installed materials customarily receiving field finish, including miscellaneous steel, wood trim, and gypsum board.
B Acceptable manufacturers: Benjamin Moore, Fuller-O'Brien, ICI, Pratt & Lambert, PPG/Pittsburgh, Sherwin-Williams. Provide one of listed manufacturers' top quality consumer-sale or professional-type products.
C Use primer recommended by manufacturer for particular combination of substrate and finish coat. Where painting over shop-applied primers, verify that finish paint proposed for field application is compatible with shop primers actually used. Paint thickness: per manufacturer's recommendation, or as specified below if not specified by manufacturer.
D Finish various substrates as follows:
1. Metal: primer and two coats alkyd semi-gloss enamel, dry film thickness 2.0-to-2.5 mils per coat; ICI Ultra-Hide Durus, Moore Impervo Enamel, PPG/Pittsburgh Quick-Dry Alkyd Enamel, or equal. Primer may be omitted when steel is shop-primed.
2. Typical interior painted surfaces: primer and two coats acrylic latex, eggshell or satin texture, 1.5-to-2 dry mils per coat;
E Colors: as selected by Architect from stock range of one of listed manufacturers. Where accent colors are selected, provide additional coats over those specified, if required for proper coverage and hiding.
F Verify that substrates are in suitable condition to receive specified work -- clean as required. Apply finish materials with suitable brushes, rollers, and spraying equipment. Rate of application shall not exceed paint manufacturer's recommendations. Comply with recommendations of product manufacturer for temperature restrictions, mil thickness, and drying time between succeeding coats.

10520 FIRE EXTINGUISHERS

A Firefighting devices described in this section consist of portable fire extinguishers located where shown on the Drawings and as required by code. Contractor shall furnish all supplementary items necessary for proper installation using Manufacturer's components.
Design is based on products manufactured by: Larsen's Manufacturing Company,
Extinguishers: Multi Purpose Dry Chemical MP5, Nominal 5 pounds capacity
Rating: 2A-10B:C per U.L.
Approval: FM and State Fire Marshall.

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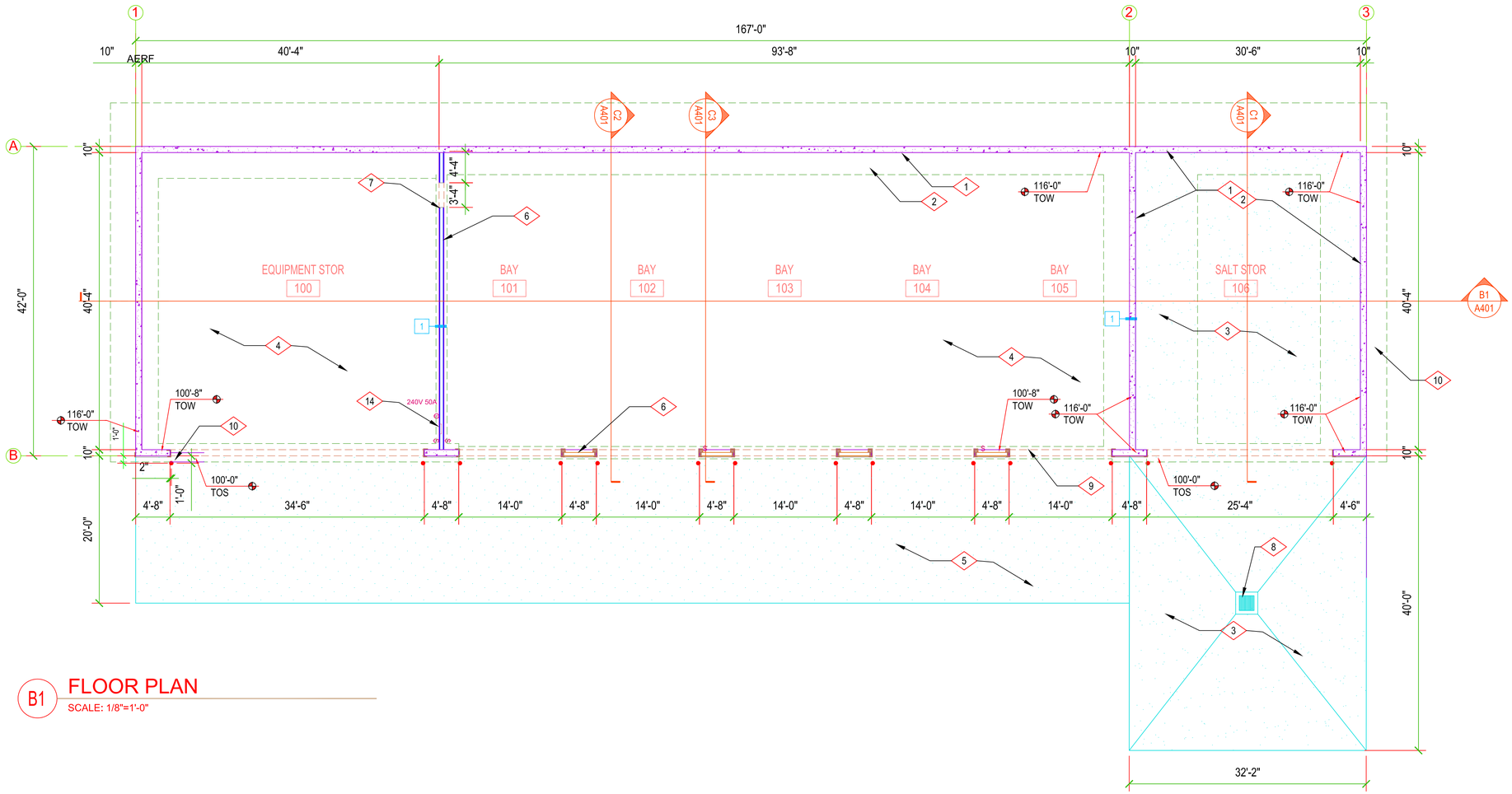
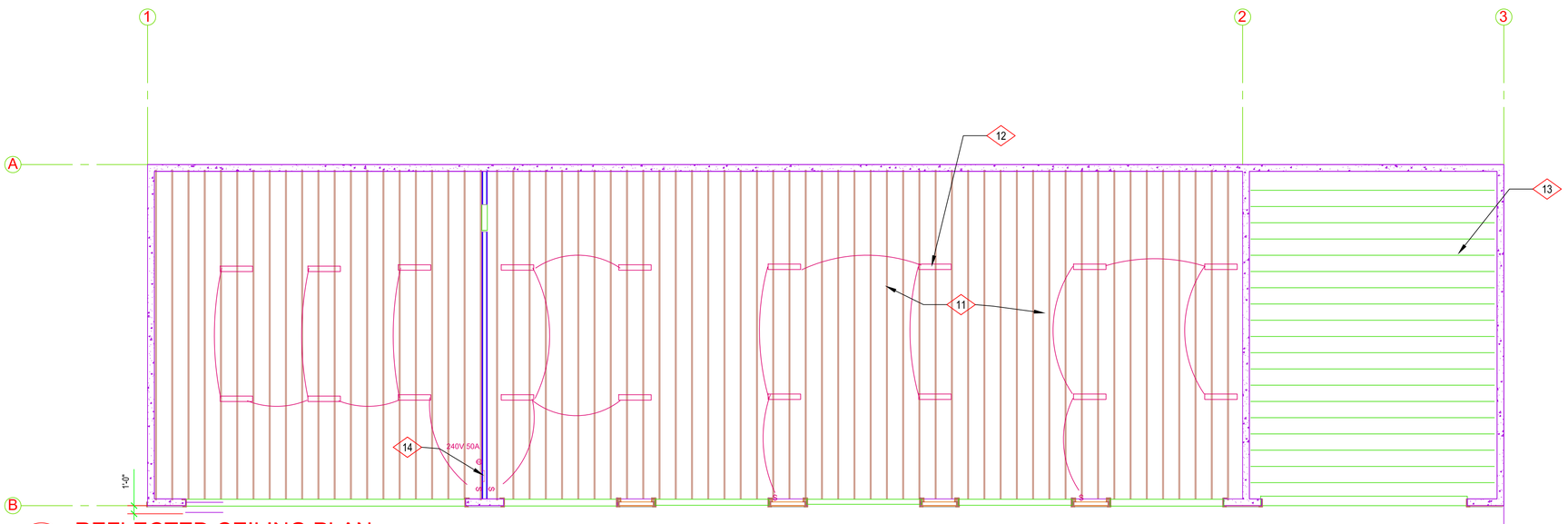
A102



B1 FLOOR PLAN

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



C1 REFLECTED CEILING PLAN

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

GENERAL NOTES

A. AT ALL VISIBLE CONCRETE WALLS, PROVIDE NEW, OR NEWLY REFINISHED/SURFACED FORMS TYPICAL.

KEY NOTES

1. REINFORCED CONCRETE WALLS (EPOXY REBAR IN SALT STORAGE BAY, & NO COLD JOINTS IN WALL) SEALED W/ PENTREAT 244 SEALER TYP
2. REINFORCED CONCRETE FOUNDATION (EPOXY REBAR IN SALT STORAGE BAY AND SEALED W/ PENTREAT 244 SEALER TYP)
3. 8" THICK REINFORCED CONCRETE SLAB WITH EPOXY COATED REBAR W/ PENTREAT 244 SEALER TYP
4. 6" REINFORCED CONCRETE SLAB WITH PENTREAT 244 SEALER TYP,
5. 6" THICK REINFORCED CONCRETE PAVEMENT W/ PENTREAT 244 SEALER TYP
6. 2X6 WOOD STUD PAINTED PARTITION W/ 1 LAYER EA SIDE 7/16 OSB BD
7. ROUGH OPENING FOR FUTURE 3'X7' HML 16GA DOOR AND FRAME
8. CATCH BASIN REFER TO CIVIL DOCUMENTS.
9. ROUGH OPENING FOR FUTURE 14'W X 14'H SECTIONAL OVERHEAD DOOR WITH HD DOOR OPENER.
10. STEEL BALLARD REF TO DETAILS
11. PREFABRICATED WOOD TRUSSES
12. LED LIGHTS
13. VINYL CEILING PANELS
14. 125 AMP SUBPANEL. PULL POWER FROM EXIAITNG ADJECENT BUILDING IN UNDER GROUND CONDUET

LEGEND

NORTH GRAPHIC

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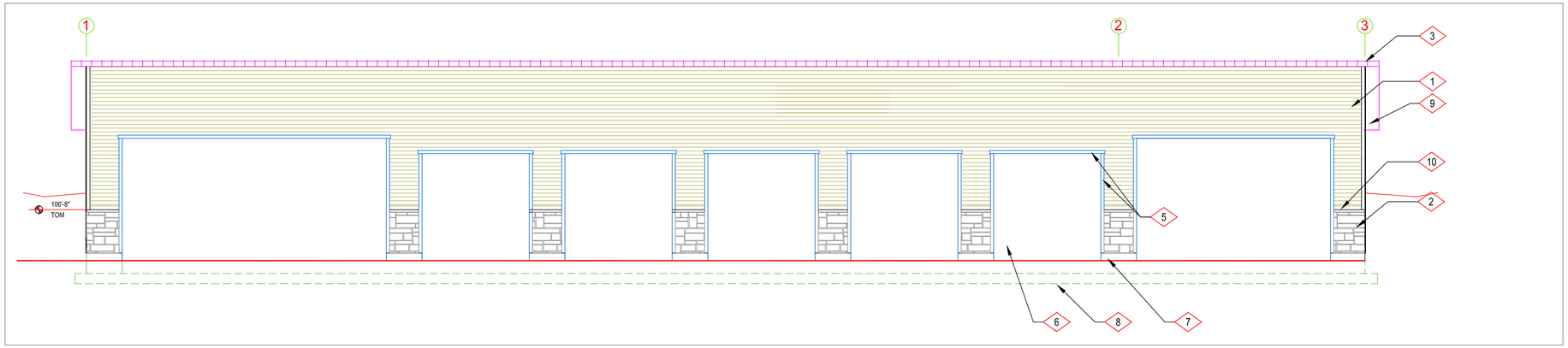
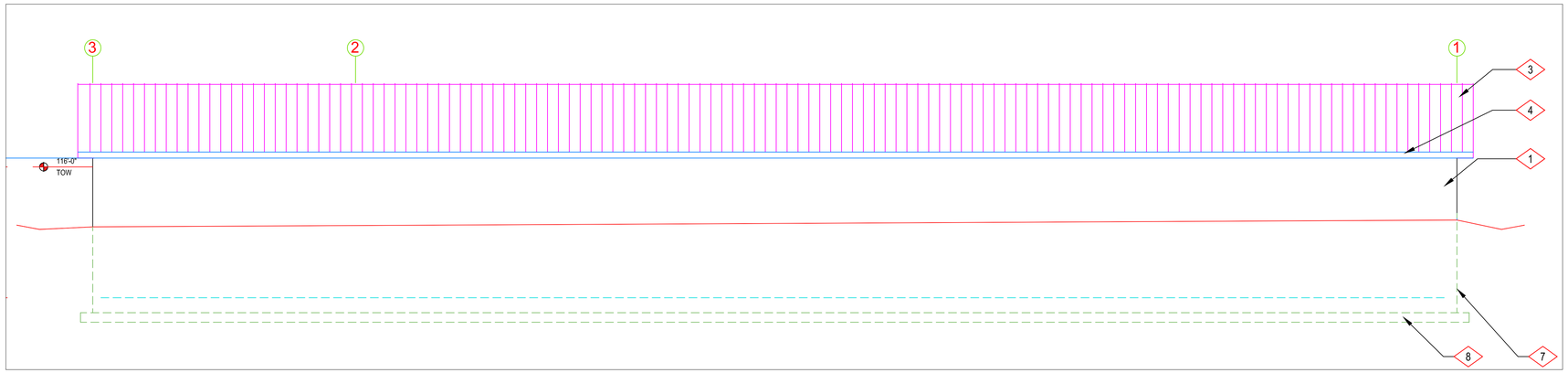
A201



B1 NORTH ELEVATION
SCALE: 1/8"=1'-0"



C1 SOUTH ELEVATION
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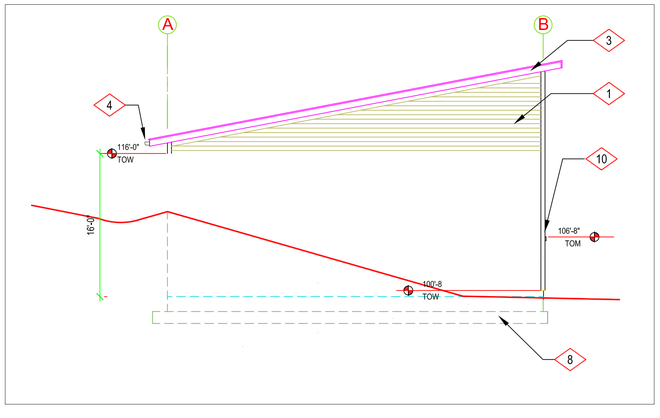
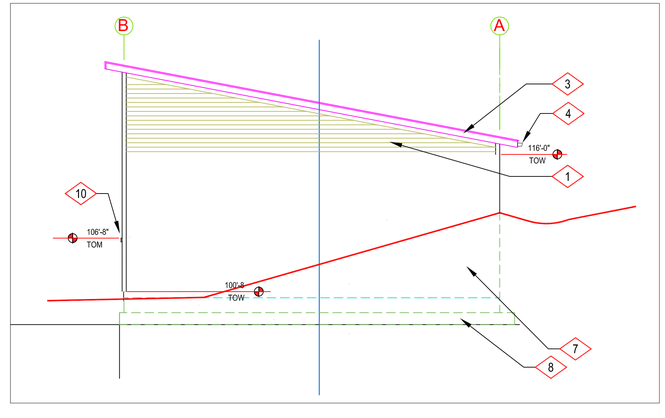


D1 WEST ELEVATION
SCALE: 1/8"=1'-0"



D2 EAST ELEVATION
SCALE: 1/8"=1'-0"

GENERAL NOTES

A. AT ALL VISIBLE CONCRETE WALLS, PROVIDE NEW, OR NEWLY REFINISHED/SURFACED FORMS TYPICAL.

KEY NOTES

1. SIDING TO MATCH PUBLIC WORKS BLD
2. STONE VENEER TO MATCH PUBLIC WORKS BLD
3. STANDING SEAM METAL ROOF
4. GUTTERS AND DOWN SPOUTS TO MATCH PUBLIC WORKS BLD
5. PREFINISHED TRIM AT OPNINGS TO MATCH PUBLIC WORKS BLD. TYP
6. OPENING FOR FURTURE 14'X14' OVERHEAD DOOR
7. REINFORCED CONCRETE FOUNDATION
8. REINFORCED CONCRETE FOOTING
9. METAL SOFFITS TO MATCH PUBLIC WORKS BLD
10. CAST STONE CAP TO MATCH PUBLIC WORKS BLD.

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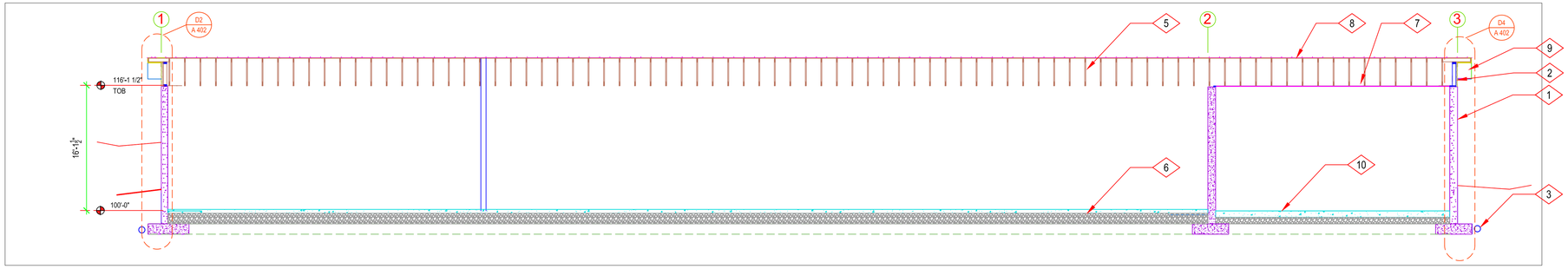
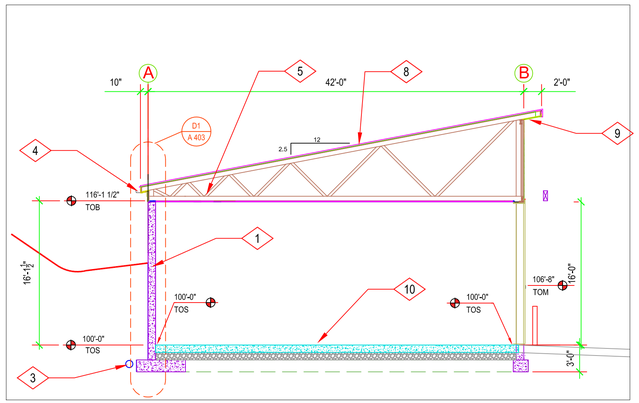


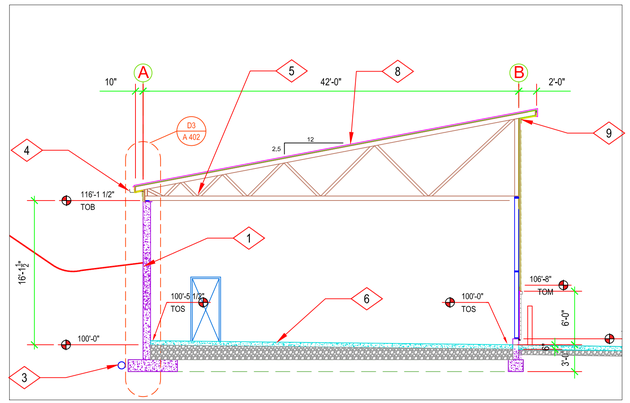
B1 LONGITUDINAL SECTION

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



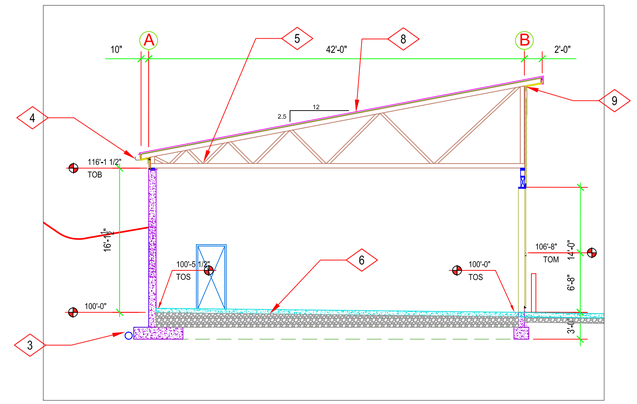
C1 CROSS SECTION

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



C2 CROSS SECTION

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



C3 CROSS SECTION

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

GENERAL NOTES

A. AT ALL VISIBLE CONCRETE WALLS, PROVIDE NEW, OR NEWLY REFINISHED/SURFACED FORMS TYPICAL.

KEY NOTES

1. REINFORCED CONCRETE WALL
2. 2X6 STUD WALL WITH TREATED SILL AND DOUBLE TOP PLATES
3. FRENCH DRAIN SYSTEM REF TO CIVIL DOCUMENTS
4. GUTTER TO MATCH ROOFING FINISH
5. PLATE TRUSSES
6. 6" REINFORCED CONSRETE SLAB WITH SEALER AS NOTED
7. VINYL CEILING PANEL
8. STANDING SEAM ROOF
9. METAL SOFFITS TO MATCH ROOFING FINISH/PUBLIC WORKS BLD
10. 8" THICK REINFORCED CONCRETE SLAB WITH EPOXY REBAR AND SEALER AS NOTED

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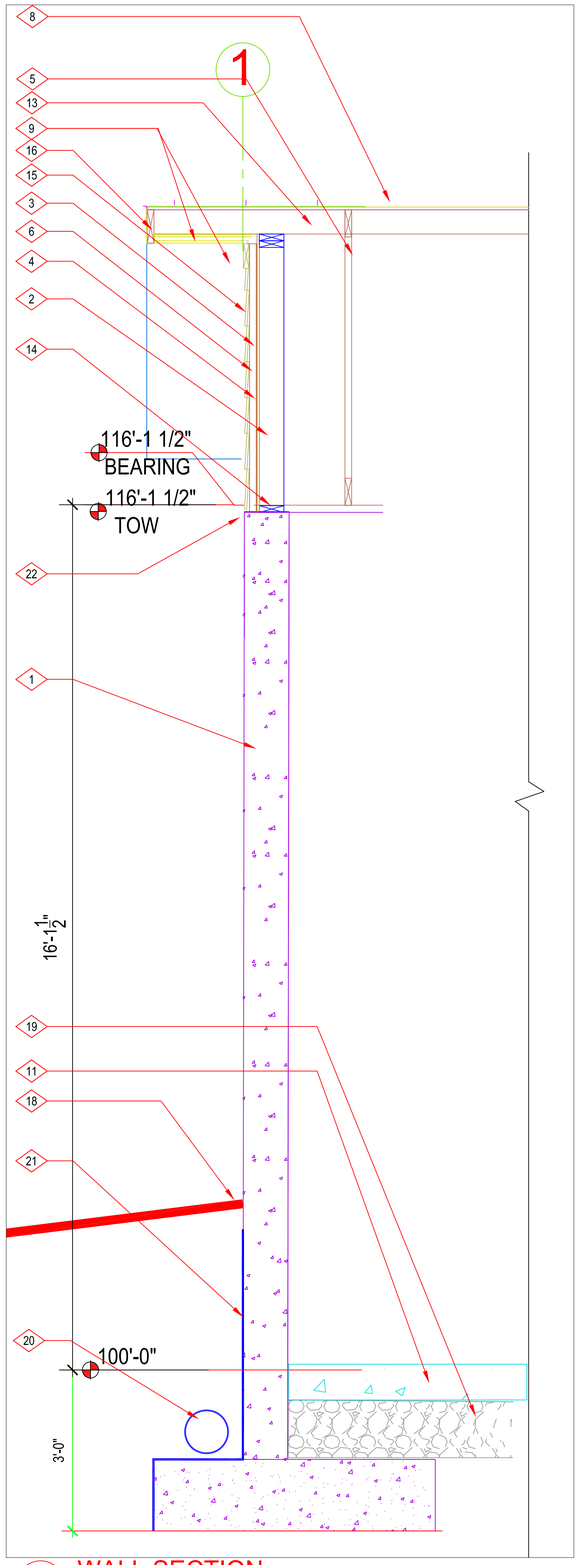
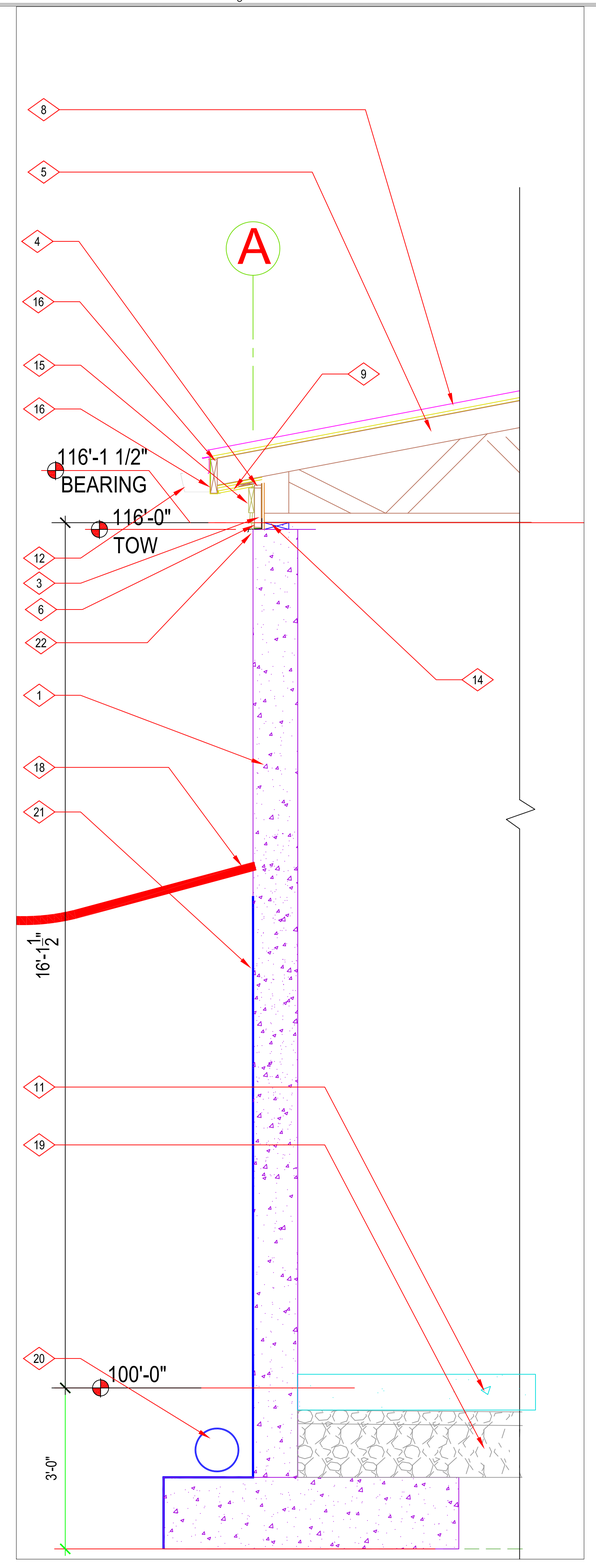
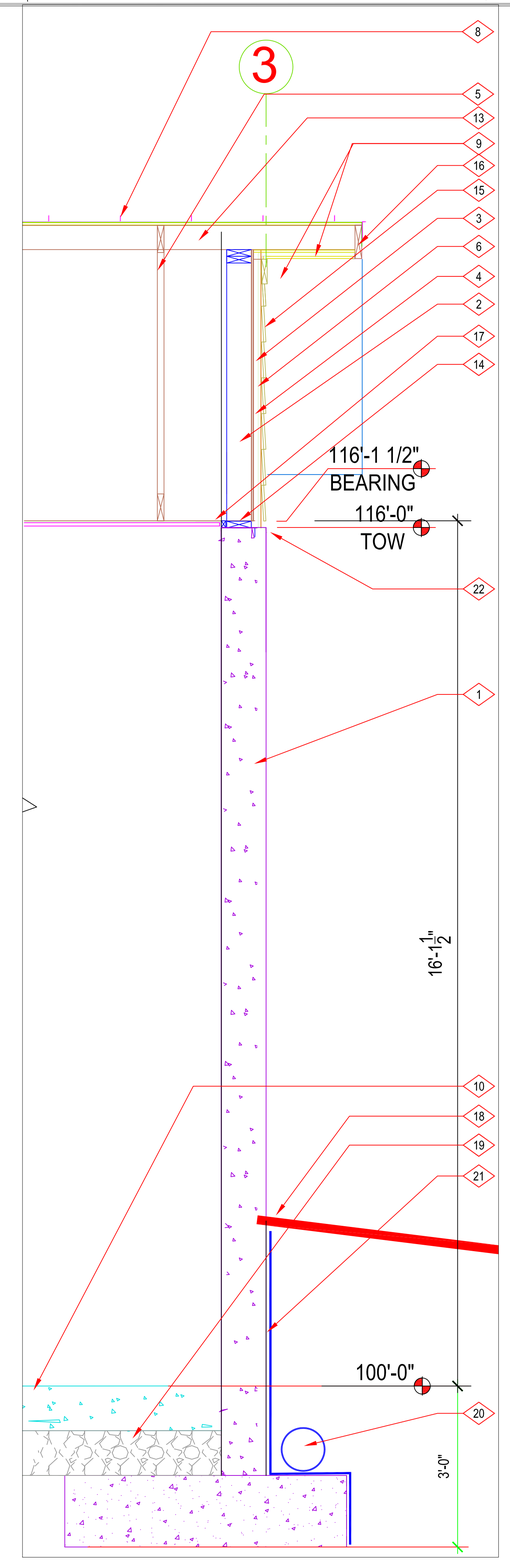


D2 WALL SECTION
SCALE: 3/4"=1'-0"



D3 WALL SECTION
SCALE: 3/4"=1'-0"



D4 WALL SECTION
SCALE: 3/4"=1'-0"

GENERAL NOTES

A. AT ALL VISIBLE CONCRETE WALLS, PROVIDE NEW, OR NEWLY REFINISHED/SURFACED FORMS TYPICAL.

KEY NOTES

1. REINFORCED CONCRETE WALL
2. 2X6 STUD WALL WITH TREATED SILL AND DOUBLE TOP PLATES
3. WOOD SHEATHING
4. BUILDING WRAP
5. PLATE TRUSS
6. 2X TREATED FURRING 16" O.C. TYP PROVIDE CONTINUOUS INSECT SCREENING TOP AND BOTTOM.
7. VINYL CEILING PANEL
8. STANDING SEAM ROOF
9. METAL SOFFITS TO MATCH ROOFING FINISH/PUBLIC WORKS BLD
10. REINFORCED CONCRETE SLAB
11. 6" REINFORCED CONCRETE SLAB WITH SELAER AS NOTED
12. GUTTER TO MATCH ROOFING FINISH
13. 2X OUTRIGGER ROOF FRAMING
14. 2X TREATED WOOD BASE PLATE
15. SIDING TO MATCH EXISTING PUBLIC WORKS BLD.
16. 2X 8 FASCIA ROOF FRAMING TYP
17. VINYL FLASHING SET IN CONTINUOUS SEALANT FOR AIR TIGHT PERIMETER TYP.
18. GRADE VARIES REF TO CIVIL DOCUMENTS.
19. 8" MIN COMPACTED CRUSHED GRAVEL
20. FRENCH DRAIN REF TO CIVIL DOCUMENTS.
21. BASE BID DAMPPROOFING. ADD ALT SHEET WATER PRROFING WITH PROTECTION COURSE
22. METAL FLACHING CONT. TYP.

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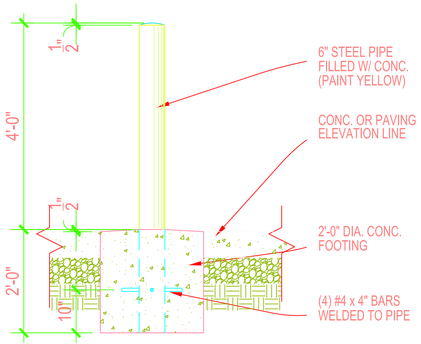
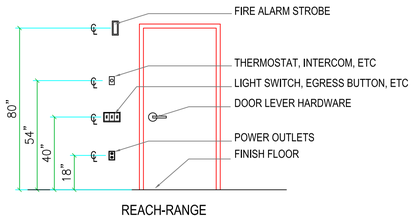
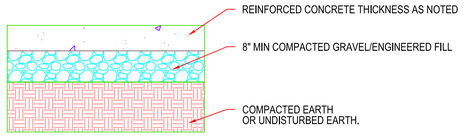


A1 BALLARD DETAIL
NTS



A2 DETAIL
NTS

A3 DETAIL
NTS

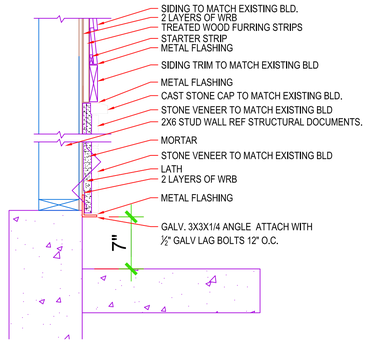


A4 SLAB AND BASE DETAIL
NTS

B1 DETAIL
NTS

B2 DETAIL
NTS

B3 DETAIL
NTS



B4 DETAIL
NTS

C1 DETAIL
NTS

C2 DETAIL
NTS

C3 DETAIL
NTS

C4 DETAIL
NTS

D1 DETAIL
NTS

D2 DETAIL
NTS

D3 DETAIL
NTS

D4 DETAIL
NTS

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GENERAL STRUCTURAL NOTES

DESIGN CRITERIA David Procter Elk Ridge Salt Shed (Elk Ridge) 6140120
1. Building code: Utah Code, Title 15A
   1.1 Model building code: 2018 IBC
   1.2 Use and occupancy classification: S-2 (Storage - low hazard)
   1.3 Risk Category: II (Not occupancy categories I, III, IV)
2. Dead loads
   2.1 Roof = 15 psf (10 psf top chord, 5 psf bottom chord)
   2.2 Floor = 12 psf
   2.3 Walls = 10 psf (interior walls), 12 psf (exterior walls)
3. Live loads
   -- Roofs (ordinary construction) = 20 psf (or 300 lb point load)
   -- Storage warehouses (light) = 125 psf
4. Rain load
   4.1 Median 15-minute duration rainfall intensity = 4.05 in/hr
   4.2 Median 60-minute duration rainfall intensity = 1.69 in/hr
5. Snow load
   5.1 Ground snow load, Pg = 41 psf (elevation 4989 ft)
   5.2 Exposure factor, Ce = 1
   5.3 Thermal factor, Ct = 1
   5.4 Snow importance factor, Is = 1
   5.5 Flat roof snow load, Pf = 29 psf
   5.6 Roof slope factor, Cs = 1
6. Earthquake design data
   6.1 Mapped acceleration parameters
      6.1.1 Latitude, Longitude: 40.02, -111.691
      6.1.2 MCE short period Ss = 1.59 SDS = 1.27
      6.1.3 MCE 1.0 sec. period S1 = 0.6 SD1 = 0.68
   6.2 Seismic design category: D
   6.3 Seismic importance factor, Ie = 1
   6.4 Basic structural system: Bearing wall systems
   6.5 Seismic force-resisting system: Light-frame wood walls (wood sheathing)
      6.5.1 Response modification factor R = 6.5
      6.5.2 System overstrength factor Omega = 3
      6.5.3 Deflection amplification factor Cd = 4
   6.6 Equivalent Lateral Force Procedure
      6.6.1 Seismic response coefficient Cs = 0.2
      6.6.2 Seismic base shear (LRFD) V = 16542 lb
7. Wind design data
   7.1 Exposure category: C
   7.2 Basic design wind speed, V = 105 mph
   7.3 Components and cladding pressure = 23 psf (end), 20 psf (interior)
   7.4 Internal pressure coeff., Gcpi = 0.18
8. Geotechnical design basis:
   - Presumptive values, 2018 IBC Table 1806.2
   8.2 Site class = D-Default
   8.3 Soil notes: None
   8.4 Lateral earth pressure
      8.4.1 Active = 30 psf/ft
      8.4.2 At-rest = 60 psf/ft
   8.5 Allowable foundation parameters
      8.5.1 Allowable soil bearing, Qa = 1500 psf
      8.5.2 Allowable lateral bearing = 150 psf/ft
      8.5.3 Coefficient of friction = 0.25
   8.6 Minimum frost cover = 30 in.

DEFERRED SUBMITTALS
1. The following items are to submitted subsequent to the time of application (deferred submittals):
   -- Prefabricated metal plate wood trusses - roof (truss manufacturer)
2. Deferred submittals shall have the prior approval of the building official (2018 IBC 107.3.4.1).
3. Deferred submittal documents shall be submitted to the registered design professional in responsible charge who shall review and forward them to the building official with a notation indicating that the documents have been reviewed and found to be in general conformance to the design of the building (2018 IBC 107.3.4.1).
4. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official (2018 IBC 107.3.4.1).

GENERAL
1. Construction documents are valid for a single use at the project location and shall not be reused, copied, or reproduced without written approval of the registered design professional in responsible charge.
2. General notes and typical details are provided as a supplement to the construction documents and apply where specific notes and details are not available. Specific notes and structural details shall take precedence over general notes and typical details. Structural requirements shown in the framing plans and in structural details shall take precedence over structural notes indicated in architectural sections.
3. Printed dimensions shall take precedence over scales shown on construction documents. The registered design professional in responsible charge does not warrant the accuracy of scaled dimensions.
4. Approval by the inspector does not imply approval by the registered design professional in responsible charge. Structural specifications that are unclear or ambiguous shall be referred to the registered design professional in responsible charge for interpretation or clarification.
5. The registered design professional in responsible charge assumes no liability for the accuracy, completeness, or code compliance of architectural, electrical, mechanical, drainage, or other non-structural specifications.
6. Omissions in and conflicts between the various elements of the construction documents shall be brought to the immediate attention of the registered design professional in responsible charge and shall be resolved by the same before proceeding with any work involved.
7. Requests for substitutions shall be submitted in writing to the registered design professional in responsible charge and shall include the reasons for the request and any cost differentials. Substitutions are not allowed unless approved in writing by the registered design professional in responsible charge.
8. The contractor shall become familiar with all portions of the construction documents and shall ensure that all subcontractors are familiar with those portions pertaining to their area of work. The contractor shall verify all site conditions, dimensions, elevations, coordinate all doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfer, kerfs, and so forth, and immediately notify the registered design professional in responsible charge regarding actual conditions which are not in agreement with the construction documents.
9. The contractor is responsible for the method, means, and sequence of all structural erection except when specifically noted otherwise in the construction documents. The contractor shall provide temporary shoring and bracing, providing adequate vertical and lateral support during erection. Shoring and bracing shall remain in place until all permanent members are placed and all final connections are completed.
10. The contractor is responsible for standard connections, unless noted otherwise. The contractor shall obtain additional assistance from the registered design professional in responsible charge for non-standard connections.

POST-INSTALLED ANCHORS
1. Epoxy adhesive anchoring systems:
   1.1. Concrete: Hilti HIT-RE 500 V3 (ICC ES ESR-3814) or Simpson SET-XP (ICC ES ESR-2508) or USP/Mitek CIA-GEL 7000-C (IAMPO ER-473)
   1.2. Masonry (grouted): Hilti HIT RE100 (ICC ES ESR-3829) or Simpson SET (ICC ES ESR-1772) or USP/Mitek CIA-GEL 7000 (ICC ES ESR-1702)
   1.3. The calculated strength of anchorage assumes the following conditions for installation: 21 day minimum age of concrete, maximum short term concrete temperature= 150°F, maximum long term concrete temperature= 110°F, dry concrete surface, and normal weight concrete. See adhesive manufacturer notes for minimum temperature requirements. If conditions are otherwise, contact engineer for anchor specifications.
   1.4. Steel reinforcement and rods shall be embedded 10 bar diameters unless noted otherwise in the structural drawings and details. Where 10 bar diameters exceeds the member thickness minus minimum cover, steel reinforcement shall be embedded the member thickness minus minimum cover with a standard hook.
   1.5. Embedded portions of steel reinforcement and rods shall be clean, straight, and free of mill scale, rust and other coatings that impair the bond with the adhesive. Reinforcement must not be bent after installation (ICC ES ESR-3829).
   1.6. Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors.
2. Mechanical expansion anchors:
   2.1. Concrete: Hilti KWIK BOLT TZ (ICC ES ESR-1917)
   2.2. Masonry: Hilti KWIK BOLT 3 (ICC ES ESR-1385)
   2.3. Expansion anchors shall not be used in tensile load applications (e.g. hold-downs, moment frames).
3. Post-installed anchoring systems shall be installed according to the Manufacturer's Printed Installation Instructions (MPII). Hole cleaning method shall be based on drilling method and borehole conditions and shall conform to the manufacturer's instructions.

SOIL AND FOUNDATIONS
1. Geotechnical investigations shall conform to 2018 IBC 1803. Excavation, grading and fill shall conform to 2018 IBC 1804. Footings and foundations shall be constructed in accordance with 2018 IBC 1807 through 1810.
2. Where required, the owner shall submit a geotechnical investigation report to the building official in accordance with 2018 IBC 1803. The contractor shall inform the registered design professional in responsible charge if the soil conditions are not consistent with the investigation report and the foundation design data.
3. Excavations for any purpose shall not remove lateral support from any footing or foundation without first underpinning or protecting the footing or foundation against settlement or lateral translation (2018 IBC 1804.1).
4. Excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles and boulders or with a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted, in a manner that does not damage the foundation or the waterproofing or dampproofing material (2018 IBC 1804.3).
5. The ground immediately adjacent to the foundation shall have a 5-percent slope away from the building for a minimum distance of 10 feet measured perpendicular to the face of the foundation wall. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Impervious surfaces within 10 feet of the building foundation shall have a minimum 2-percent slope (2018 IBC 1804.4).
6. Footings and foundations shall be built on undisturbed soil, compacted fill material or CLSM. Compacted fill material and CLSM shall conform to 2018 IBC 1804 6 and 2018 IBC 1804.7, respectively (2018 IBC 1809.2).
7. The top surface of the footings shall be level. The bottom surface of footings is permitted to have a maximum 10-percent slope. Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground has more than a 10-percent slope (2018 IBC 1809.3).
8. The minimum depth of footings below the undisturbed ground surface shall be 12 inches (2018 IBC 1809.4). Foundation walls, piers and other permanent supports shall be extended below the frost line, except where otherwise protected from frost (2018 IBC 1809.5).
9. The placement of footings on or adjacent to 33-percent slopes and steeper shall conform to 2018 IBC 1808.7.
10. Floors of basements shall be placed over base course not less than 4 inches in thickness and a drain shall be installed around the foundation perimeter that consists of gravel or crushed stone containing not more than 10-percent material that passes through a No. 4 sieve (2018 IBC 1805.4.1, 1805.4.2).
11. Backfill shall not be placed against a foundation wall until the wall has sufficient strength and is anchored to the floor above, or is sufficiently braced to prevent damage by the backfill, except bracing is not required for walls supporting less than 4 feet of unbalanced backfill (R404.1.7).

CONCRETE
1. Concrete materials, quality control, and construction shall comply with 2018 IBC Chapter 19 and ACI 318-14.
2. Compressive strength (minimum specified at 28 days)
   2.1. Footings: 3,000 psi (2018 IBC 1808.8.1) (2,500 psi used in design)
   2.2. Interior floor slabs on grade: 4,000 psi
   2.3. Exterior floor slabs on grade: 4,000 psi
   2.4. Suspended slabs: 4,000 psi
   2.5. Walls: 3,000 psi (2018 IBC 1904.1) for R-2, R-3 occupancies and appurtenances
      4,000 psi for other occupancies
3. Materials
   3.1. Cements (ASTM C 150). Concrete exposed to freezing and thawing or deicing chemicals shall conform to the maximum water-cementitious material ratios and minimum compressive strength requirements of ACI 318-14 table 19.3.1.1 & 19.3.2.1
   3.2. Aggregates (ASTM C 33): nominal maximum size of coarse aggregate shall not be larger than 1/5 the narrowest dimension between forms, nor 1/3 the depth of slabs, nor 3/4 the minimum clear spacing between reinforcing bars or wires, tendons, or ducts (ACI 318-14 26.4.2.1).
   3.3. Water used in mixing concrete shall be potable, clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials, or other substances deleterious to concrete or reinforcement (ACI 318-14 26.4.1.3.1.b).
   3.4. Admixtures shall be subject to prior approval by the registered design professional in responsible charge (ACI 318-14 26.4.1.4.1.b).
   3.5. Concrete exposed to freezing and thawing or deicing chemicals shall be air-entrained with air content indicated in ACI 318-14 Table 19.3.3.1. Tolerance on air content as delivered shall be plus/minus 1.5 percent (ACI 318-14 R26.4.2.1(a)(5)).
4. Steel Reinforcement
   4.1. Deformed bars: fy = 60 ksi (ASTM A615)
   4.2. Welded plain wire: fy = 60 ksi (ASTM A1064)
   4.3. Deformed Bar Anchors (DBA) (ASTM A1064)
   4.4. Headed Stud Anchors (HSA) (ASTM A108)
   4.5. At the time concrete is placed, reinforcement shall be free from ice, mud, oil, or other nonmetallic coatings that decrease bond (ACI 318-14 26.6.1.2).
   4.6. Reinforcement shall be accurately placed and adequately supported before concrete is placed, and shall be secured against displacement (ACI 318-14 26.6.2.2).
   4.7. Details of reinforcement shall conform to ACI 318-14 Chapter 25.
5. Minimum concrete cover (ACI 318-14 Table 20.6.1.3.1)
   5.1. Concrete cast against and exposed to earth: 3 inches
   5.2. Concrete exposed to earth or weather:
      5.2.1. No. 6 through No. 18 bars: 2 inches
      5.2.2. No. 5 bar, W31 wire, and smaller: 1.5 inches
   5.3. Concrete not exposed to earth or weather:
      5.3.1. Slabs, walls, joists No. 11 bar and smaller: 0.75 inches
      5.3.2. Beams, columns primary reinf., ties, stirrups: 1.5 inches
6. Formwork shall conform to ACI 318-14 Sections 26.11 and 26.12 and ACI 347. Forms shall be removed in a manner as not to impair safety and serviceability of the structure. Concrete exposed by form removal shall have sufficient strength not to be damaged by removal operation (ACI 318-14 26.11.2).
7. Conduits, pipes, and sleeves of any material not harmful to concrete and within the limitations of ACI 318-14 20.7 shall be approved by the registered design professional in responsible charge (ACI 318-14 20.7).
8. Construction joints shall be so made and located as not to impair the strength of the structure (ACI 318-14 18.10.9).
9. The thickness of concrete floor slabs on grade shall not be less than 3.5 inches. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches (or an equivalent material) shall be placed between the base course or subgrade and the concrete floor slab, except a vapor retarder is not required in detached utility buildings or other unheated facilities (2018 IBC 1907).

MASONRY
1. Masonry materials, construction, and quality shall conform to 2018 IBC 2103-2105, TMS 402/602-16
   1.1. Compressive strength: f'c = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
2. Concrete masonry units (CMU) (ASTM C 90)
   2.1. Grade N
   2.2. Compressive strength: f'm = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
3. Mortar (ASTM C 270)
   3.1. Type S Portland cement (TMS 402-16 7.4.4.2.2)
   3.2. Compressive strength: f'c = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
4. Grout (ASTM C 476)
   4.1. Type: fine or coarse (2018 IBC 2103.3)
   4.2. Compressive strength (minimum specified at 28 days): f'c = 2,000 psi (ASTM C 1019)
5. Steel reinforcement
   5.1. Deformed bars: fy = 60 ksi (ASTM A 615 Gr. 60)
   5.2. Deformed Bar Anchors (DBA) (ASTM A1064)
   5.3. Headed Stud Anchors (HSA) (ASTM A108)
6. Bed joint thickness shall be 5/8 inch maximum (TMS 602-16 1.4B.2)
7. Grout shall have an 8"-11" slump using a 3/8" maximum aggregate. Grout lifts shall not exceed 5 feet in height unless noted otherwise. Consolidate by mechanical vibration pours that exceed 12 inches in height.
8. The clear distance between parallel bars shall not be less than the nominal diameter of the bars, nor less than 1 inch (TMS 402-16 6.1.3). Joint reinforcement shall have cover not less than 5/8", (TMS 402-16 6.1.4.2)
9. The diameter of bend measured on the inside of reinforcing bars, other than for stirrups and ties, shall not be less than specified in table 6.1.8 (TMS 402-16 6.1.8.2)
10. All masonry below grade shall be solid grouted.
11. Control joint spacing not to exceed 30'-0". See Architectural for locations.

MASONRY AND STONE VENEER
1. Masonry veneer materials, construction, and quality shall conform to 2018 IBC 2103-2105 and TMS 402-16 Chap. 6.
2. Lintels
   2.1. Veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of noncombustible materials. Lintels shall have 1 inch of bearing for each 1 foot of span, but not less than 4 inches of bearing.
3. Anchorage
   3.1. Veneer shall be anchored to the supporting wall framing with hot-dipped galvanized metal ties. (Strand wire or corrugated sheet metal)
   3.2. Engage all anchor ties with a No. 9 gage wire in the center of the veneer and embedded in the mortar joint. (R703.8.4.1)
   3.3. Each tie shall be spaced not more than 16 inches on center horizontally and vertically and shall support not more than 2 square feet of wall area. Additional metal ties shall be provided around all wall openings greater than 16 inches in either dimension. (R703.8.4.1)

WOOD
1. Wood materials, quality, and construction shall conform to 2018 IBC Chapter 23 and Table 2304.10.
2. Structural lumber (2018 IBC 2303.1.1-9, 2018 NDS)
   2.1. Bearing walls: Douglas-Fir Larch (DF) Stud (ASTM D 1990, DOC PS 20)
   2.2. Posts: Douglas-Fir Larch (DF) Stud (ASTM D 1990, DOC PS 20)
   2.3. Beams and headers: Douglas-Fir Larch (DF) No. 2 (ASTM D 1990, DOC PS 20)
   2.4. Heavy timber: Douglas-Fir Larch (DF) No. 1 (ASTM D 1990, DOC PS 20)
   2.5. Sill plates: Preservative-treated wood, redwood (AWPA U1 M4)
   2.6. Naturally durable or preservative-treated wood shall be used where structural lumber is 18 inches or closer to exposed ground; where structural lumber is in contact with exterior masonry or concrete walls below grade; where sleepers, sills, posts, and columns are on a concrete or masonry slab or footing that is in direct contact with earth; and where structural lumber is attached directly to exterior masonry or concrete walls, unless a 0.5 inch air space on top, sides, and end is provided (2018 IBC 2304.12).
3. Structural logs (ASTM D 3957) - ICC - 400 standard for the design and construction of log structures
4. Structural glued-laminated timber (2018 IBC 2303.1.3, 2018 NDS 5.1.1)
   4.1. Single span: 24F-1.8E (24F-V4) (ASTM D 3737, ANSI/AITC A190.1)
   4.2. Multiple span: 24F-1.8E Balanced layup (24F-V8) (ASTM D 3737, ANSI/AITC A190.1)
   4.3. Cantilever span: 24F-1.8E Balanced layup (24F-V8) (ASTM D 3737, ANSI/AITC A190.1)
5. Structural composite lumber and engineered wood (2018 IBC 2303.1.10, 2018 NDS 8.1.1)
   5.1. Laminated strand lumber (LSL)
      5.1.1. Ex = 1.3E (ASTM D 5456)
      5.1.2. Ex = 1.5E (ASTM D 5456)
      5.1.3. Ex = 1.55E (ASTM D 5456)
      5.1.4. 1.125 inch APA Performance-Rated (or equivalent) rim board - (2018 IBC 2303.1.13, ASTM 7672, ANSI/APA PRR410)
   5.2. Laminated veneer lumber (LVL)
      5.2.1. Ex = 2.0E (ASTM D 5456)
   5.3. Parallel strand lumber (PSL)
      5.3.1. Ex = 2.0E (beams) (ASTM D 5456)
      5.3.2. Ex = 1.8E (columns) (ASTM D 5456)
   5.4. Prefabricated wood I-joist (2018 IBC 2303.1.2, 2018 NDS 7.1.1) (ASTM D 5055)
6. Wood structural panels (2018 IBC 2304.8, 2018 NDS 9.1.3)
   6.1. Roof, floor, and wall sheathing: oriented strand board (OSB) (DOC PS 1,2).
   6.2. Sheathing shall be manufactured with exterior glue and not less than 4X8 feet, except at boundaries and at changes in framing (2018 IBC 2305.1, AWC SDPWS-2015).
   6.3. Wall sheathing
      6.3.1. Oriented strand board (OSB) (DOC PS 1,2)
      6.3.2. All panel joints in walls shall occur over studs or blocking using a minimum of 8d common nails spaced a maximum of 6 inches at panel edges and 12 inches at intermediate framing (2018 IBC 2306.3).
   6.4. Roof and floor sheathing shall be placed perpendicular to supporting framing. Stagger sheathing joints.
7. Fasteners
   7.1. Nails (2018 IBC 2303.6, 2018 NDS Table L4) (ASTM F 1667)

Pennyweight	Common	Box	Sinker
7.1.1. 8d =	0.131" X 2.5"	0.113" X 2.5"	0.113" X 2.375"
7.1.2. 10d =	0.148" X 3.0"	0.128" X 3.0"	0.120" X 2.875"
7.1.3. 16d =	0.162" X 3.5"	0.135" X 3.5"	0.148" X 3.250"
7.1.4. 20d =	0.192" X 4.0"	0.148" X 4.0"	0.177" X 3.750"
7.1.5. 30d =	0.207" X 4.5"	0.148" X 4.5"	0.192" X 4.250"

   7.2. Staples (2018 IBC 2303.6)
      7.2.1. 16 gage = 1.5X0.4375 inch crown (ASTM F 1667)
   7.3. Bolts (2018 NDS 12.1.3, Table L1)
      7.3.1. Connector bolts (A307)
      7.3.2. Anchor bolts (A307) with a 3X3X0.229 inch washer (2018 IBC 2308.3.1) and 7" min embedment.
      7.3.3. Bolt holes shall be drilled with a bit 1/32 inch to 1/16 inch larger than the nominal bolt diameter.
   7.4. Lag Screws (2018 NDS 12.1.4, Table L2) (A307)
      7.4.1. Lag screws shall be inserted in a drilled pilot hole that is 60%-75% of the shank diameter by turning with a wrench. Do not drive screws with a hammer. Lag screws shall be provided with an oversized washer .
   7.5. Fasteners in preservative-treated and fire-retardant-treated wood shall be of hot dipped zinc-coated galvanized steel, silicon bronze or copper (2018 IBC 2304.10.5).
   7.6. Sheathing fasteners shall be driven so the head or crown is flush with the sheathing surface (2018 IBC 2304.10.2).
8. Joist hangers and connectors (2018 IBC 2303.5)
   8.1. Hanger hardware and other wood connections shall be designed to carry the capacity of the supporting members.
9. Floor framing (2018 IBC 2308.4.2)
   9.1. Joists shall not have less than 1.5 inches of bearing on wood or metal, or less than 3 inches on masonry (2018 IBC 2308.4.2.2). Pre-fabricated wood I-joists shall have minimum bearing according to the manufacturer's recommendations and specifications.
   9.2. Joists shall be supported laterally at the ends and at each support by full-depth solid blocking, except where nailed to a header or band or rim joist. Solid blocking shall not be less than 2 inches thick (2018 IBC 2308.4.2.3).
   9.3. Where the nominal depth-to-thickness ratio of the framing member exceeds 6:1, there shall be one line of bridging for each 8 feet of span. Bridging shall consist of not less than 1X3 inch lumber, metal bracing, or full-depth solid blocking (2018 IBC 2308.4.6).
   9.4. Notches on the ends of joists shall not exceed one-fourth the joist depth. Holes bored in joists shall not be within 2 inches of the top or bottom of the joist. Notches in the top or bottom of joists shall not exceed one-sixth the depth and shall not be located in the middle third of the span (2018 IBC 2308.4.2.4).
   9.5. The diameter of holes bored or cut into structural floor members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches 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 inches to the notch (R502.8.1).
10. Wall construction (2018 IBC 2308.5)
   10.1. Studs shall be placed with their wide dimension perpendicular to the wall. Not less than three studs shall be installed at each corner of an exterior wall (2018 IBC 2308.5.2).
   10.2. Bearing and exterior wall studs shall be capped with 2-inch thick nominal double top plates, have a width at least equal to the width of the studs, and shall be installed to provide overlapping at corners and intersections with other partitions. End joints in partitions shall be offset at least 48 inches, and shall be nailed with not less than eight 16d common face nails on each side of the joint. (2018 IBC 2308.5.3.2).
   10.3. In nonbearing walls and partitions studs shall be capped with no less than a single top plate installed to provide overlapping at corners and at intersections with other walls and partitions. The plate shall be continuously tied at joints by solid blocking at least 16 inches in length and equal in size to the plate or metal ties with spliced sections fastened on each side of the joint (2018 IBC 2308.5.4).
   10.4. Studs shall have full bearing on a 2-inch thick nominal (or larger) bottom plate or sill having a width at least equal to the width of the stud (2018 IBC 2308.5.3.1).
   10.5. Bearing partitions parallel to joists shall be supported on beams, girders, doubled joists, walls or other bearing partitions. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls or partitions more than the joist depth unless noted otherwise (2018 IBC 2308.4.5).
   10.6. In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width. In nonbearing partitions, cutting or notching of studs to a depth of not greater than 40 percent of the width is permitted (2018 IBC 2308.5.9).
   10.7. A hole with a diameter not greater than 40 percent of the stud width is permitted to be bored in any wood stud. In no case shall the edge of the bored hole be nearer than 0.625 inches to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch (2018 IBC 2308.5.10).
   10.8. Bearing walls without wood sheathing or gypsum wall board on either side shall have blocking between wall studs at mid-height.
   10.9. Studs shall be spaced at 16 inches on center for exterior walls, interior bearing walls, and shear walls, unless noted otherwise on the plans.
11. Posts and columns
   11.1. Columns shall be as wide as the member they support, laterally supported at all floor levels, and extend down through the structure to the foundation. Provide squash blocking at rim joist below all columns, trimmers, and posts.
   11.2. Wood columns and posts shall be framed to provide full end bearing (2018 IBC 2304.10.7).
   11.3. Posts and columns shall be supported by concrete piers or metal pedestals projecting above concrete or masonry floors or decks exposed to weather or water splash, or in basements, and which support permanent structures, unless naturally durable or preservative-treated wood is used. The pedestal shall project at least 6 inches above exposed earth and at least 1 inch above floors.
12. Roof and ceiling framing (2018 IBC 2308.7).
   12.1. Roof rafters and ceiling joists shall be supported laterally to prevent rotation and lateral displacement in accordance with 2018 IBC 2308.7.8.
   12.2. Rafters and joists over three feet long shall be supported using hanger hardware if not supported by bearing.

PREFABRICATED METAL PLATE WOOD TRUSSES
1. Prefabricated metal plate wood trusses shall be designed in accordance with 2018 IBC 2303.4 and shall conform to the structural specifications and design criteria.
2. The truss designer shall provide a truss package that includes the following items:
   2.1. Design drawings of each individual truss (2018 IBC 2303.4.3).
   2.2. Truss placement diagram for the project (2018 IBC 2303.4.2).
   2.3. Truss member permanent bracing specification (2018 IBC 2303.4.1.2).
3. Transfer of loads and anchorage of each truss to the supporting structure shall be approved by the registered design professional in responsible charge (2018 IBC 2303.4.4).
4. Truss members and components shall not be cut, notched, drilled, spliced or otherwise altered in any way without written concurrence and approval of the registered design professional in responsible charge. Alterations resulting in the addition of loads to any member (e.g. HVAC equipment) shall not be permitted without verification that the truss is capable of supporting such additional loading (2018 IBC 2303.4.5).

STEEL
1. Structural steel work shall conform to 2018 IBC 2205, AISC 341-16, AISC 358-16, and AISC 360-16.
2. Structural shapes
   2.1. W: fy = 50 ksi (ASTM A992)
   2.2. M,S,C,MC, and L: fy = 36 ksi (ASTM A36)
   2.3. HP: fy = 50 ksi (ASTM A572 Gr. 50)
   2.4. HSS Rectangular: fy = 46 ksi (ASTM A500 Gr.B)
   2.5. HSS Round: fy = 42 ksi (ASTM A500 Gr.B)
   2.6. Pipe: fy = 35 ksi (ASTM A53 Gr.B)
   2.7. All structural steel shall be properly primed and painted.
3. Plates and bars: fy = 36 ksi (ASTM A36)
4. Structural fasteners
   4.1. High-strength bolts: fu = 120-150 ksi (ASTM F3125)
   4.2. Common bolts: fu = 60 ksi (ASTM A307 Gr. A)
      4.2.1. Nuts (ASTM A563)
      4.2.2. Washers (ASTM F436)
      4.2.3. Steel to steel bolted connections shall be made with high strength-bolts, unless noted otherwise. Bolts shall carry the identifying mark of three radial lines. All other bolted connections shall be made with bolts and nuts conforming to ASTM A307 unless note otherwise. Bolted connections shall be tightened and shall have washers as required by AISC unless noted otherwise. Enlarging holes shall be accomplished by means of reaming. Do not use a torch on any bolt holes.
   4.3. Shear studs: fu = 65 ksi (ASTM A108)
   4.4. Threaded rods: fy = 36 ksi (ASTM A36)
   4.5. Anchor rods: fy = 36 ksi (ASTM F1554 Gr. 36)
5. Steel deck fy = 36 ksi (ASTM A1008)
6. Welding fu = 70 ksi.
   6.1. Welding work shall comply with the American Welding Society (AWS) "Structural Welding Code," excluding items conflicting with AISC requirements.

STRUCTURAL OBSERVATIONS
1. Where required by the Provisions of Section 1704.6.1 or 1704.6.2, the owner shall employ a registered design professional to perform structural observations as defined in 2018 IBC 202. Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of the structural observations. At the conclusion of the work, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies which have not been resolved (2018 IBC 1704.6).

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info@acuteengineering.com

THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS. SEE CURRENT ISSUE OR REVISION DATE.

DIMENSIONS AND ELEVATIONS ARE SUPPLIED BY THE ARCHITECT. THEY MAY BE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

ORIGINAL PROJECT #
6140120
DRAWN BY:
KZG
CHECKED BY:
MCW
SCALE:
DATE:
29 JAN 2020

DAVID PROCTER ELK RIDGE SALT SHED (ELK RIDGE)

GENERAL STRUCTURAL NOTES

ISSUES / REVISIONS
19 FEB 2020 2660220
CLIENT CHANGES
24 JUN 2020 6040620
SLAB & FRAMING CHANGES

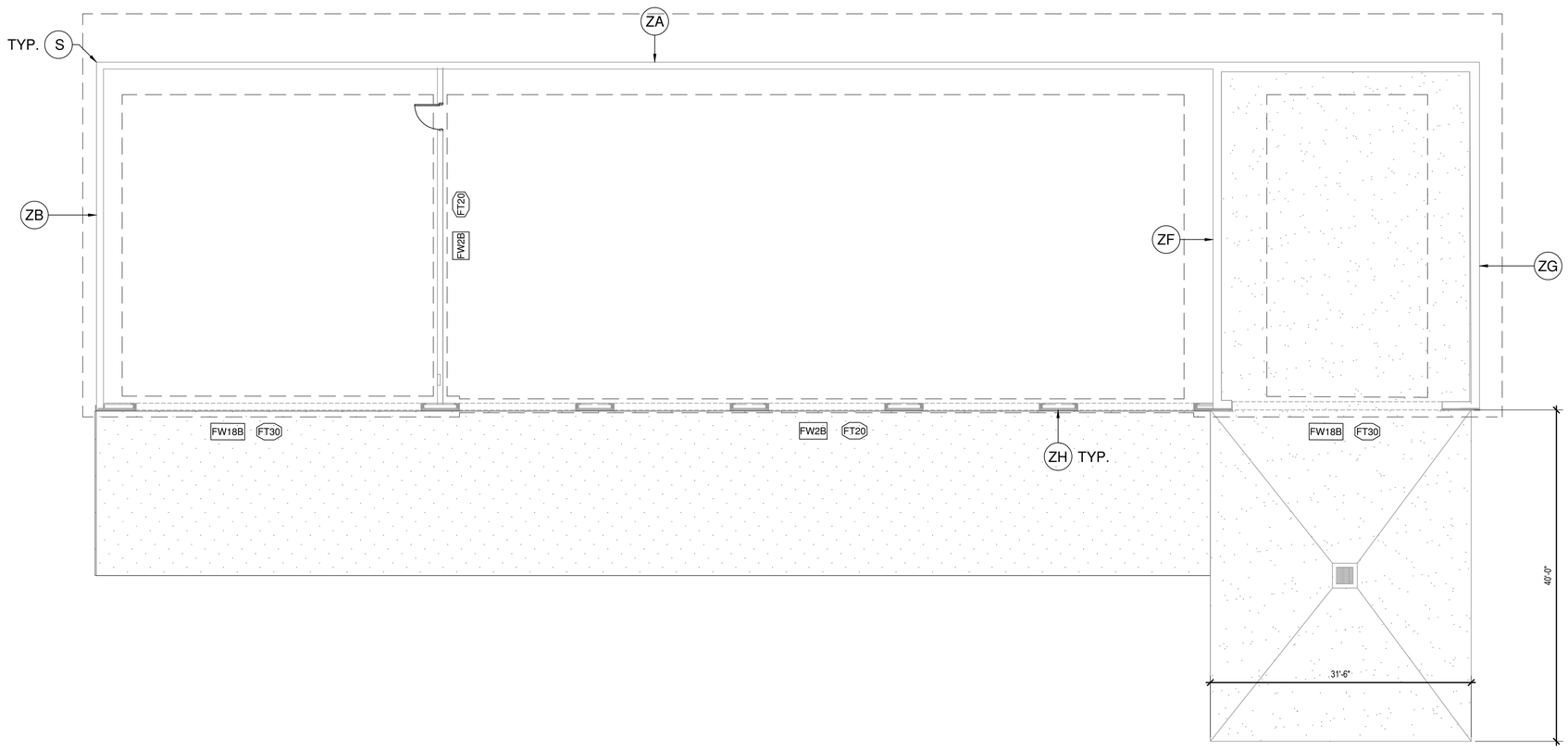
PROFESSIONAL STRUCTURAL ENGINEER
No. 178495
PAUL ROLLINS THORLEY
29 Jun 2020
STATE OF UTAH

SN1

FOOTING SCHEDULE					
				REINFORCEMENT	
MARK	WIDTH	LENGTH	THICKNESS	TRANSVERSE	LENGTHWISE
FT20	20 "	CONT.	10 "	-	(2) #4
FT30	30 "	CONT.	10 "	-	(3) #4
1. CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS AND SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS UNLESS NOTED OTHERWISE.					
2. FOOTINGS AND FOUNDATIONS, EXCAVATIONS, GRADING, AND FILL SHALL COMPLY WITH THE PROVISIONS OF THE GEOTECHNICAL REPORT (SEE GSN)					

FOUNDATION WALL SCHEDULE					
			REINFORCEMENT		
MARK	HEIGHT	WIDTH	VERTICAL	HORIZONTAL	PLACEMENT
FW2B	2.5'	10"	#4 @ 16"	(3) #4	CENTER
FW18B	18'	10"	#5 @ 16"	(14) #5	CENTER
1. DOWEL VERTICAL BARS INTO FOOTING.					
2. PLACE TOP AND BOTTOM BARS WITHIN 4" OF TOP AND BOTTOM OF WALL.					
3. PLACE REINFORCEMENT IN CENTER OF WALL OR NEAR EACH FACE, AS NOTED.					

EPOXY COATED REBAR IN THE SALT STORAGE BAY AS NOTED ON PAGE A201 KEY NOTES 1, 2, AND 3



FOOTING AND FOUNDATION PLAN

1/8" = 1'-0"

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info@acuteengineering.com

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ORIGINAL PROJECT #
6140120
DRAWN BY:
KZG
CHECKED BY:
MCW
SCALE:
1/8" = 1'-0"
DATE:
29 JAN 2020

DAVID PROCTER ELK RIDGE SALT SHED (ELK RIDGE)

FOOTING AND FOUNDATION PLAN

ISSUES / REVISIONS

19 FEB 2020 2660220
CLIENT CHANGES

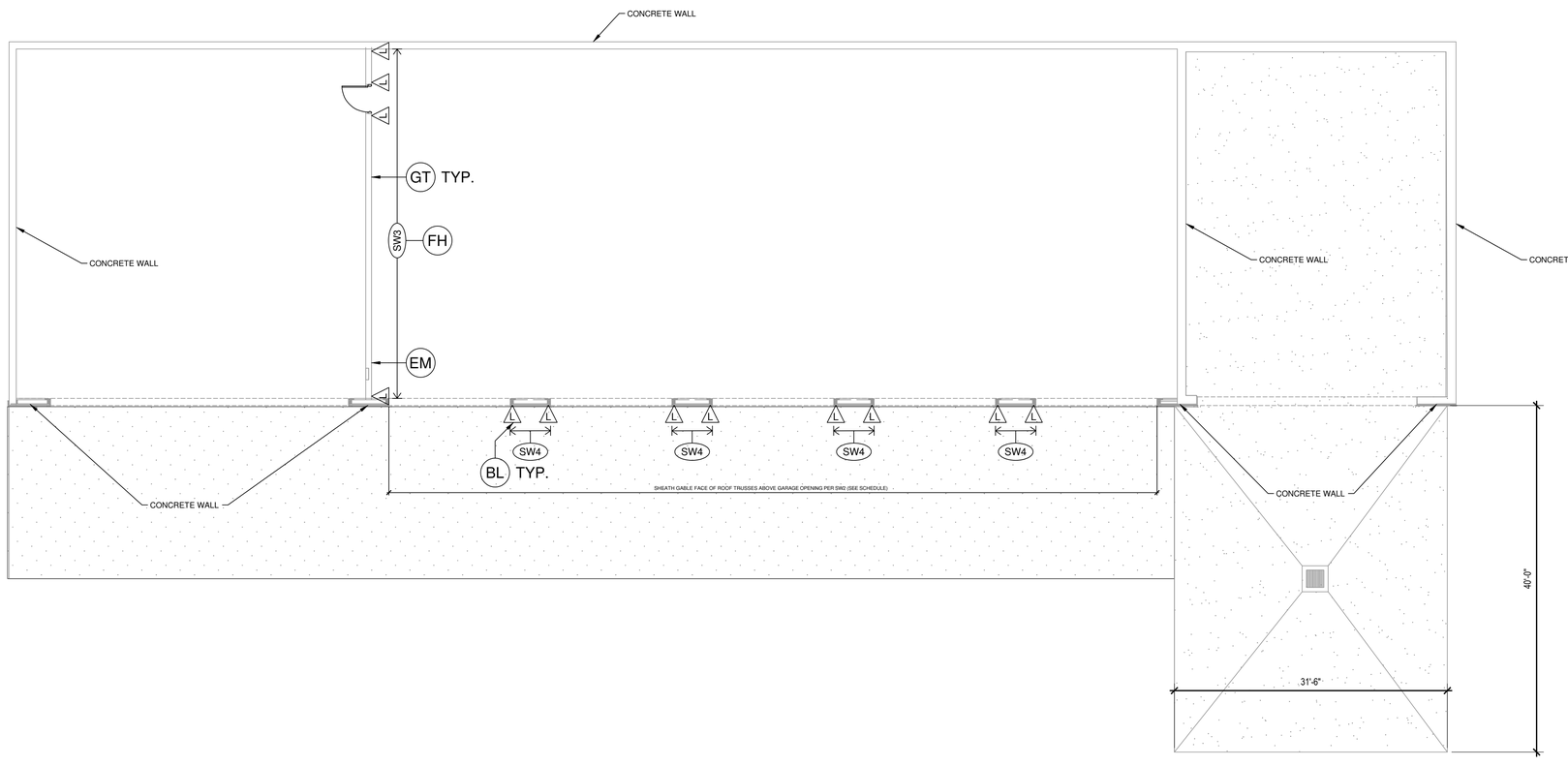
24 JUN 2020 6040620
SLAB & FRAMING CHANGES

PROFESSIONAL STRUCTURAL ENGINEER
No. 176495
PAUL ROLLINS THORLEY
29 Jun 2020
STATE OF UTAH

S0.0

HOLD-DOWN SCHEDULE				
MARK	HOLD-DOWN	MINIMUM FASTENERS	ANCHOR	POST
L	HDU5-SDS2.5	SDS1/4" X 2-1/2" (SDS25212)	SB5/8X24	(2) 2X POST
1. HOLD-DOWNS SHALL BE SIMPSON STRONG-TIE OR EQUIVALENT.				
2. SHEAR WALL EDGE NAILING SHALL BE TO HOLD-DOWN POST.				
3. STHD STRAPS SHALL BE "RJ" TYPE AT RIM JOIST LOCATIONS.				

SHEAR WALL SCHEDULE					
MARK	SHEATHING	EDGE NAILING	ABUTTING PANEL EDGE FRAMING	ANCHORAGE	
				SOLE PLATE	SILL PLATE
SW2	7/16"	8d @ 4"	2X	10d @ 12"	5/8" A.B. @ 32"
SW3	7/16"	8d @ 3"	3X or (2)2X	10d @ 12"	5/8" A.B. @ 32"
SW4	7/16"	8d @ 2"	3X or (2)2X	10d @ 12"	5/8" A.B. @ 32"
1. SHEATHING SHALL CONSIST OF WOOD STRUCTURAL PANELS (SEE GSN).					
2. UNLESS NOTED ON DRAWINGS, EXTERIOR STUDS SHALL BE SPACED AT 16" O.C.					
3. SHEATHING NAILS SHALL BE COMMON OR GALVANIZED BOX NAILS. - FIELD NAIL SPACING SHALL BE 12" FOR STUDS SPACED 16" O.C. OR LESS AND 6" O.C. FOR STUDS SPACED AT 24" O.C.					
4. FOR SW1 ONLY, EDGE NAILS MAY BE SUBSTITUTED WITH 1-1/2" 16 GAGE STAPLES SPACED AT 3" O.C. AND FIELD NAILS MAY BE SUBSTITUTED WITH 16 GAGE STAPLES AT 12" O.C.					
5. ANCHORAGE NAILS SHALL BE COMMON NAILS.					
6. ANCHOR BOLTS SHALL HAVE A 3X3X0.229" WASHER AND 7" MIN EMBEDMENT. THE WASHER SHALL EXTEND TO WITHIN 1/2" FROM THE SHEATHING.					
7. FOR SW3, SW4, SW7, AND SW8, (2) 2" NOMINAL FRAMING STITCH-NAILED TOGETHER WITH (2) 10d NAILS @ 6" MAY BE USED AT ABUTTING PANEL EDGES IN PLACE OF 3" NOMINAL FRAMING.					



MAIN FLOOR SHEAR WALL PLAN

1/8" = 1'-0"

ACUTE ENGINEERING, INC.

744 S 400 E
Orem, UT 84097

Phone 801.229.9020
Fax 801.224.0050

info@acuteengineering.com

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MAIN FLOOR SHEAR WALL PLAN

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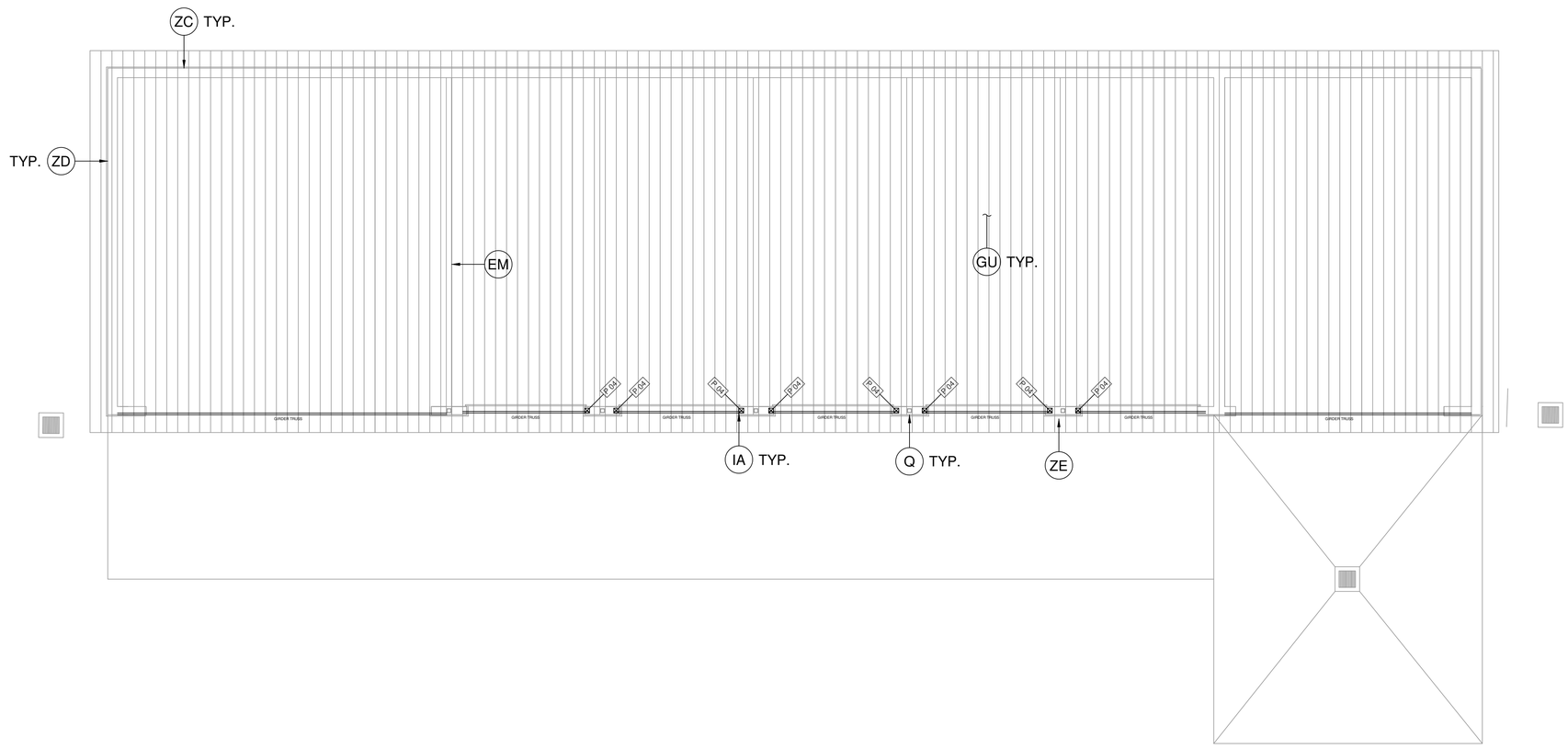
No. 176495
PAUL ROLLINS THORLEY
29 Jun 2020
STATE OF UTAH

S1.1

SHEATHING SCHEDULE	
TYPE	THICKNESS
ROOF	7/16" OSB (24/16 SPAN RATING)
1. SHEATHING PERPENDICULAR TO SUPPORTS.	
2. FLOOR SHEATHING NAILED & GLUED TO SUPPORT	
3. 8d COMMON NAILS 6" O.C. (EDGES) 12" O.C. (FIELD)	
4. NAILING NO CLOSER THAN 3/8" FROM PANEL EDGE	

POST SCHEDULE	
MARK	TYPE
P 04	(4) 2X POST
1. PARALLEL STRAND LUMBER (PSL) 1.8E	
2. STEEL PIPE (PIPE STD) A53	
3. STEEL HOLLOW SECTION (HSS) A500	
4. STEEL COLUMNS REQUIRE BEARING PLATES	
5. CONTINUE POSTS TO FDN / STRUCT MEMBER	



ROOF FRAMING PLAN

1/8" = 1'-0"

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744 S 400 E
Orem, UT 84097

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Fax 801.224.0050

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ROOF FRAMING PLAN

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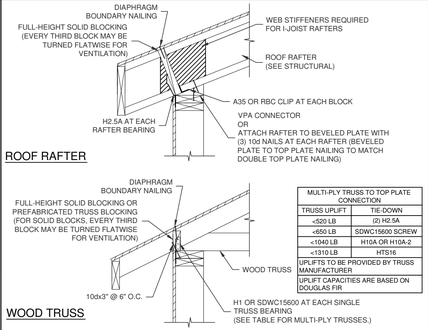
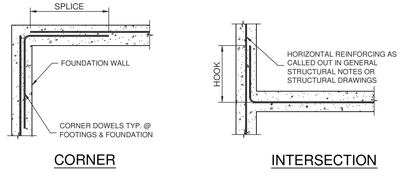
PAUL ROLLINS THORLEY
29 Jun 2020
STATE OF UTAH

S3.0



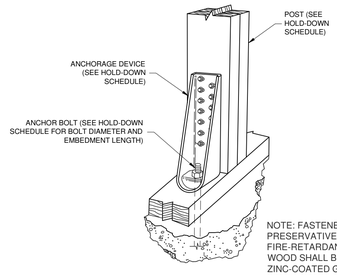
MULTI-PLY TRUSS TO TOP PLATE CONNECTION	
TRUSS UPLIFT	TIE-DOWN
<520 LB	(2) H2.5A
<650 LB	SDWC15600 SCREW
<1040 LB	H10A OR H10A-2
<1310 LB	HTS16
UPLIFTS TO BE PROVIDED BY TRUSS MANUFACTURER	
UPLIFT CAPACITIES ARE BASED ON DOUGLAS FIR	

Q ROOF FRAMING - BLOCKING (150 PLF UNIT SHEAR)
NO SCALE



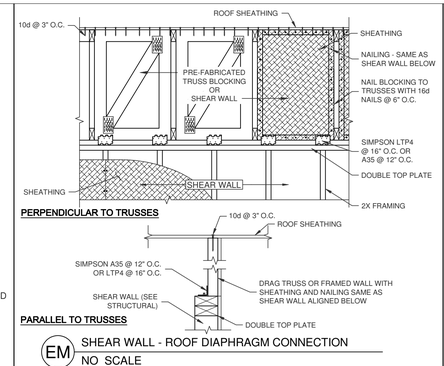
REQUIRED LAP LENGTH			
TYPE	CONCRETE	MASONRY	MIN.
SPLICE	40 BAR DIA.	48 BAR DIA.	24"
HOOK	12 BAR DIA.	20 BAR DIA.	12"

S FOUNDATION WALL - CORNER & INTERSECTION REINFORCING
NO SCALE

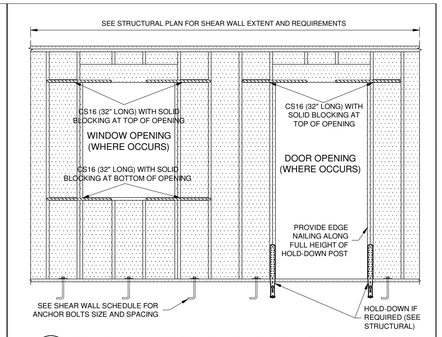


NOTE: FASTENERS IN PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER

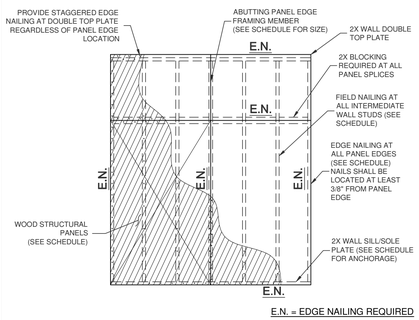
BL HOLD-DOWN
NO SCALE



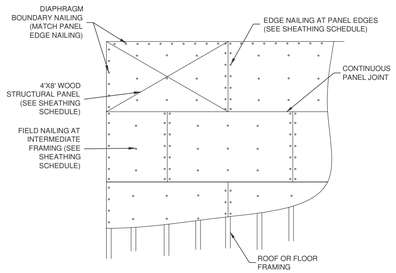
EM SHEAR WALL - ROOF DIAPHRAGM CONNECTION
NO SCALE



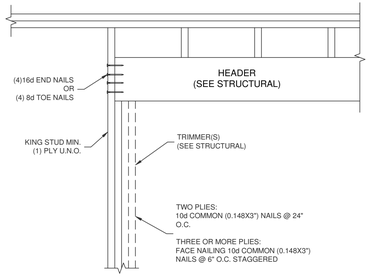
FH SHEAR WALL - FORCE TRANSFER AROUND OPENINGS
NO SCALE



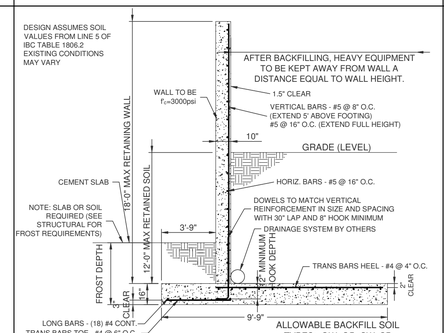
GT SHEAR WALL - ROOF DIAPHRAGM CONNECTION
NO SCALE



GU WOOD STRUCTURAL PANEL DIAPHRAGM - UNBLOCKED
NO SCALE

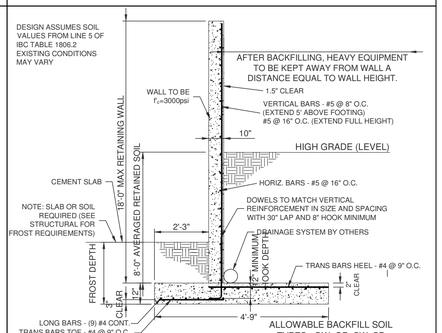


IA WOOD BEAM - WALL HEADER FRAMING
NO SCALE

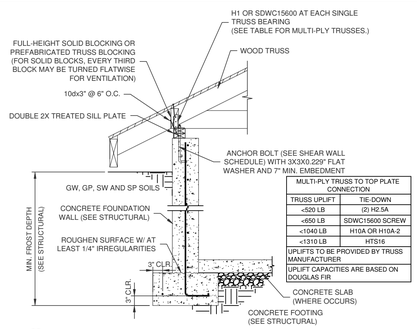


ZA CONCRETE RETAINING WALL - 18' MAX
NO SCALE

EPOXY COATED REBAR IN THE SALT STORAGE BAY AS NOTED ON PAGE A201 KEY NOTES 1, 2, AND 3



ZB CONCRETE RETAINING WALL - 18' MAX
NO SCALE



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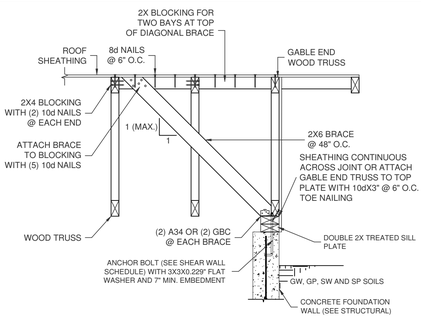
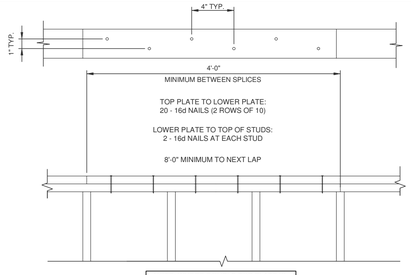
<1310 LB	HTS16
UPLIFTS TO BE PROVIDED BY TRUSS MANUFACTURER	
UPLIFT CAPACITIES ARE BASED ON DOUGLAS FIR	

ZC FOUNDATION WALL - WOOD TRUSS (PERPENDICULAR)
NO SCALE

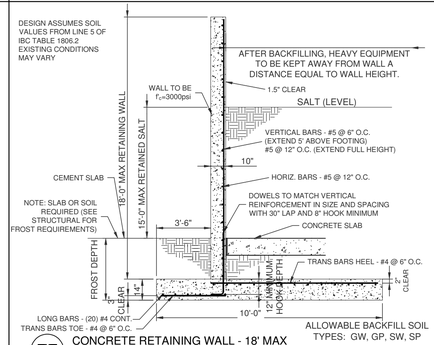


ZD WOOD TRUSS - CONCRETE WALL GABLE END BRACING
NO SCALE



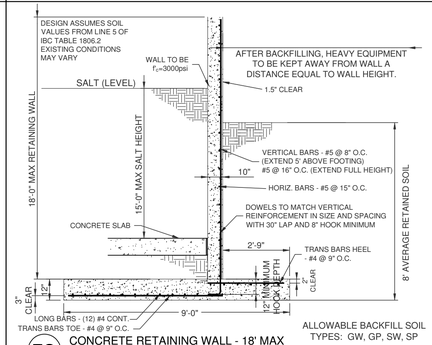
NOTE: WHERE DOUBLE TOP PLATE IS CUT DUE TO INTERSECTING BEAMS, WALLS, ETC. PROVIDE (2) CS16 STRAPS ACROSS CUT WITH 12" END LENGTHS

ZE DIAPHRAGM - TOP PLATE SPLICE
NO SCALE



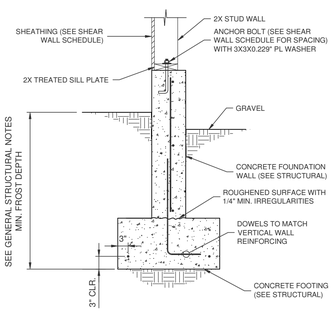
ZF CONCRETE RETAINING WALL - 18' MAX
NO SCALE

EPOXY COATED REBAR IN THE SALT STORAGE BAY AS NOTED ON PAGE A201 KEY NOTES 1, 2, AND 3

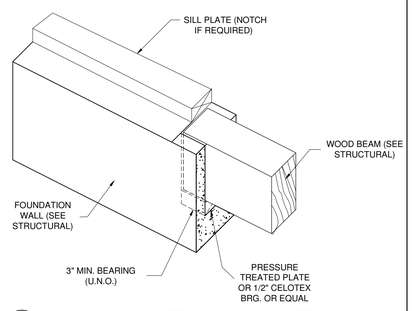


ZG CONCRETE RETAINING WALL - 18' MAX
NO SCALE

EPOXY COATED REBAR IN THE SALT STORAGE BAY AS NOTED ON PAGE A201 KEY NOTES 1, 2, AND 3



ZH FOUNDATION WALL - SLAB ON GRADE
NO SCALE



ZI WOOD BEAM- CONCRETE WALL (BEAM POCKET)
NO SCALE

ACUTE ENGINEERING, INC.
744 S 400 E
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Phone 801.229.9020
Fax 801.224.0050
info@acuteengineering.com

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DAVID PROCTER ELK RIDGE SALT SHED (ELK RIDGE)

STRUCTURAL DETAILS

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CLIENT CHANGES

24 JUN 2020 6040620
SLAB & FRAMING CHANGES

PROFESSIONAL STRUCTURAL ENGINEER
No. 176495
PAUL ROLLINS THORLEY
29 Jun 2020
STATE OF UTAH

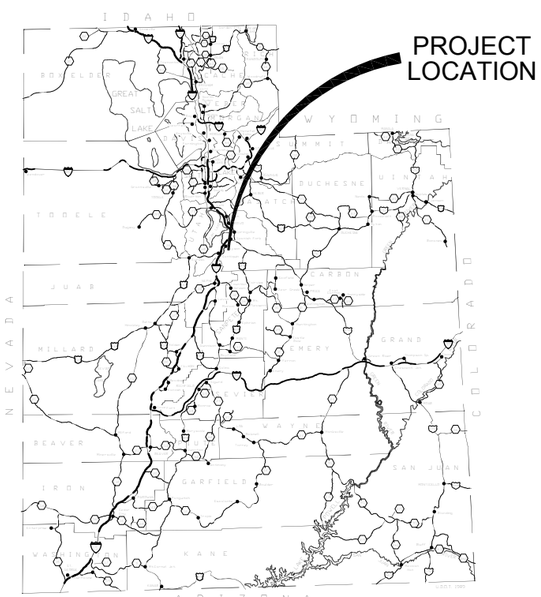
SD1

DRAWINGS
FOR
ELK RIDGE CITY

STORAGE AND SALT BUILDING PROJECT

BID SET

SEPTEMBER 2020



LOCATION MAP

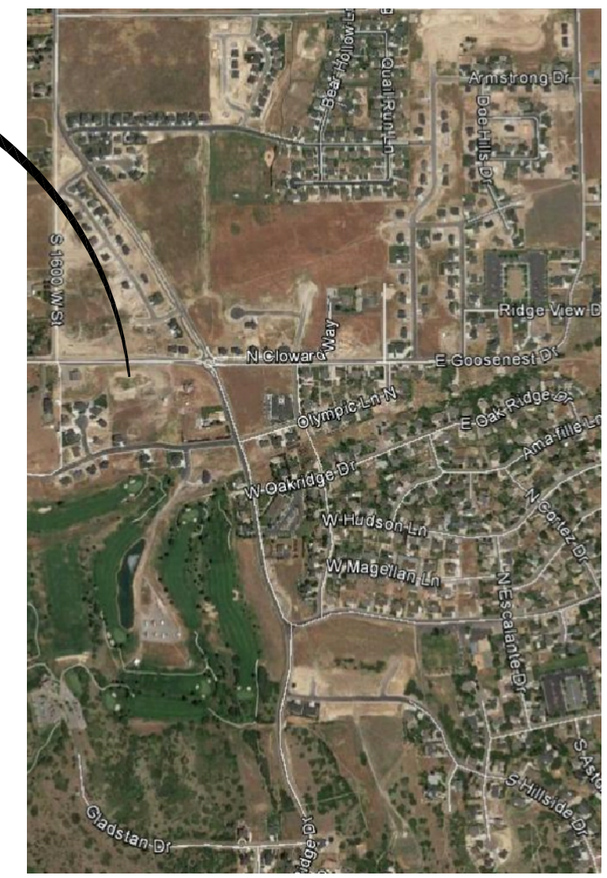
DRAWING INDEX

DWG#	SHT#	
		GENERAL
G-1	–	COVER AND SHEET INDEX
G-2	–	LEGEND, SYMBOLS, & ABBREVIATIONS
G-3	–	GENERAL NOTES
		CIVIL
C-1	–	SITE UTILITY AND GRADING PLAN
		DETAILS
CD-1	–	CIVIL
CD-2	–	CIVIL

ELK RIDGE CITY
80 EAST PARK DRIVE
ELK RIDGE, UT 84651
801-423-2300

AQUA ENGINEERING
533 W 2600 S, SUITE 275, BOUNTIFUL, UT 84010
PHONE (801) 299-1327 FAX (801) 299-0153

REGISTERED PROFESSIONAL ENGINEER
No.5252489
DARIN M. HAWKES
09/16/2020
STATE OF UTAH



VICINITY MAP

KRB 02/20/2020 W:\Elk Ridge\Special City Projects\Public Works Storage Structures\001562.C Salt Storage Facility\Drafting\General\G-1.dwg

LEGEND

PLAN VIEW	EXISTING	PROPOSED
PROPERTY OR R/W LINE		
EASEMENT LINE		
FENCE		
EDGE OF ASPHALT		
EDGE OF CONCRETE		
EDGE OF GRAVEL		
CONTOUR LINE	4250	4250
SPOT ELEVATION	4250.00	550.00 TOA
STORM DRAIN LINE	SD	SD
WATER LINE	W	W
GAS LINE	G	G
TELEPHONE CABLE	T	T
ELECTRIC CABLE	E	E
SANITARY SEWER LINE	SS	SS
FIRE HYDRANT	FH	
WATER VALVE	WV	WV
WATER METER	WM	WM
MANHOLE	S	
CATCH BASIN	CB	
CLEAN OUT BOX	COB	
OVERHEAD POWER LINE	OP	OP
POLE & ANCHOR		
STREET LIGHT		
STRUCTURE		
ASPHALT PAVING		
CONCRETE PAVING		
GRAVEL PAVING		
FLOW DIRECTION		

NOTICE:

EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.

AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY

Call BLUE STAKES BEFORE YOU **Dig**

1-800-662-4111

UNDERGROUND SERVICE (USA)

ABBREVIATIONS

@	AT
ø	DIAMETER
AB	ANCHOR BOLT
ABUT	ABUTMENT
AC	ASBESTOS CEMENT PIPE OR ASPHALT CONCRETE
AL	AIR LINE
ALUM	ALUMINUM
ASPH	ASPHALT
ADT	AVERAGE DAILY TRAFFIC
APPROX	APPROXIMATELY
AZ	AZIMUTH
BAL	BALANCE
BEG	BEGINNING / BEGIN
BDRY	BOUNDARY
BK	BACK
BKFL	BACKFILL
BLD FLG	BLIND FLANGE
BLDG	BUILDING
BLM	BUREAU OF LAND MANAGEMENT
BM	BENCH MARK
BLK	BLOCK
BOD	BLOCK
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
CALC	CALCULATED
CB	CATCH BASIN
CCW	COUNTER CLOCKWISE
C-C	CENTER TO CENTER
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CLR	CLEARANCE
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CMP-A	CORRUGATED METAL PIPE-ARCH
CO	CLEAN OUT
COB	CLEAN OUT BOX
COL	COLUMN
CONC	CONCRETE
CONN	CONNECT
COR	CORNER
CTR	CENTER
CU FT	CUBIC FEET
CU YD	CUBIC YARD
CUL	CULINARY
CULV	CULVERT
CW	CLOCKWISE
D	DEGREE
DET	DETAIL
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
DL	DRAIN LINE
DMH	DRAINAGE MANHOLE
DN	DOWN
DWG	DRAWINGS
E	EAST
EA	EACH
EB	ELECTRICAL BOX
EG	EDGE OF GRAVEL
ELEV	ELEVATION
ELEC	ELECTRIC / ELECTRICAL
EMB	EMBANKMENT
EMH	ELECTRICAL MANHOLE
ENGR	ENGINEER
ENT	ENTRANCE
EO	EDGE OF OIL
EOA	EDGE OF ASPHALT
EQUIP	EQUIPMENT
ES	EDGE OF SHOULDER
EST	ESTIMATE
EW	EACH WAY
EXC	EXCAVATION
EX	EXISTING
FEN COR	FENCE CORNER
FE	FIRE EXTINGUISHER
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIN	FINISH
FLG	FLANGE
FLR	FLOOR
FRP	FIBERGLASS REINFORCED PIPE
FT	FEET
FTG	FOOTING
G	GAS
GA	GAGE OR GAUGE
GALV	GALVANIZED
GEN	GENERAL
GLB	GLUED LAMINATED BEAM
GM	GAS METER
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
HC	HYPOCHLORITE
HDG	HOT DIPPED GALVANIZED
HDWL	HEADWALL
H&T	HUB & TACK
HX	HEAT EXCHANGER
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
HYD	HYDRANT
ID	INSIDE DIAMETER
IJ	ISOLATION JOINT
IN	INCH
INFO	INFORMATION
IRR	IRRIGATION
INV	INVERT
JCT	JUNCTION
L	LENGTH
LB	POUND
LIC	LICENSE
LIN	LINEAR / LINEAL
LP	LIGHT POLE
LS	LAND SURVEYOR
LT	LEFT
LWL	LOW WATER LEVEL
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MKR	MARKER
MH	MANHOLE
MI	MILE
MIN	MINIMUM
MJ	MECHANICAL JOINT
ML	MIXED LIQUOR
MISC	MISCELLANEOUS
MON	MONUMENT
MPH	MILES PER HOUR
N	NORTH
NO OR #	NUMBER
NPW	NON-POTABLE WATER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
O-O	OUTSIDE TO OUTSIDE
OFF REV	OFFICE REVISION
ORIG	ORIGINAL
OSB	ORIENTED STRAND BOARD
PVMT	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PD	POND EFFLUENT
PE	PLANT EFFLUENT
PERF	PERFORATED
PI	POINT OF INTERSECTION
PI	PRIMARY INFLUENT
PL	PROPERTY LINE
POC	POINT ON CURVE
PP	POWER POLE
PRC	POINT OF REVERSE CURVE
PROJ	PROJECT
PROP	PROPERTY
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
POB	POINT OF BEGINNING
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER
QTY	QUANTITY
R	RANGE / RADIUS
RAS	RETURN ACTIVATED SLUDGE
RCP	REINFORCED CONCRETE PIPE
RCCP	REINFORCED CONCRETE CYLINDER PIPE
RD	ROAD
REF	REFERENCE
REINF	REINFORCED
REQ'D	REQUIRED
REV	REVISION
RP	REFERENCE POINT
RR	RAILROAD
RT	RIGHT / ROUTE
R/W	RIGHT OF WAY
S	SOUTH / SLOPE
SAN	SANITARY
SCH	SCHEDULE
SD	STORM SEWER
SEC COR	SECTION CORNER
SHT	SHEET
SJ	SAWED JOINT
SKT	SOCKET
SL	SOLIDS LINE
SOVFL	SURFACE OVERFLOW
SPECS	SPECIFICATIONS
SQ	SQUARE
SQ FT	SQUARE FEET
SQ YD	SQUARE YARD
SS	STAINLESS STEEL
SE	SECONDARY EFFLUENT
ST	STREET
STL	STEEL
STN STL	STAINLESS STEEL
STA	STATION
STD	STANDARD
STRUCT	STRUCTURE
T	TOWNSHIP / TELEPHONE
TAN	TANGENT
TBC	TOP BACK CURB
TEMP	TEMPORARY
TELE	TELEPHONE / TELEGRAM
THD	THREADED
THK	THICK
TKN	TOTAL KIELDAHL NITROGEN
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOG	TOP OF GRAVEL
TOP	TOP OF PIER
TOS	TOP OF SLAB
TOW	TOP OF WALL
TP	TELEPHONE POLE
TSS	TOTAL SUSPENDED SOLIDS
TYP	TYPICAL
UB	UTILITY BOX
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UW	UTILITY WATER
VC	VERTICAL CURVE
VERT	VERTICAL
VIC	VICTAULIC COUPLING
VOL	VOLUME
VPI	VERTICAL POINT OF INTERSECTION
VPC	VERTICAL POINT OF CURVE
VPT	VERTICAL POINT OF TANGENCY
VSS	VOLITILE SUSPENED SOLIDS
W	WEST / WATER
WAS	WASTE ACTIVATED SLUDGE
WM	WATER METER
WO	WEIR OVERFLOW
W/	WITH
W/O	WITHOUT
XING	CROSSING
X-SEC	CROSS SECTION
YH	YARD HYDRANT

SECTION AND DETAIL IDENTIFICATION

SECTION IDENTIFICATION

SECTION LETTER — B — 2 — DRAWING NUMBER ON WHICH SECTION APPEARS

SECTION LETTER — B — 4 — **SECTION** — DRAWING NUMBER FROM WHICH SECTION WAS TAKEN

DETAIL IDENTIFICATION

DETAIL NUMBER — SEE DETAIL — 5 — 3 — DRAWING NUMBER ON WHICH DETAIL APPEARS

DETAIL NUMBER — 5 — 4 — **DETAIL** — DRAWING NUMBER FROM WHICH DETAIL WAS TAKEN

NOTE: IF PLAN AND SECTION (OR DETAIL REFERENCE AND DETAIL) ARE SHOWN ON THE SAME DRAWING, THE DRAWING NUMBER IS REPLACED WITH A LINE.

SECTION AND DETAIL NOTES:

REGISTERED PROFESSIONAL ENGINEER
No. 5252489
DARIN M. HAWKES
09/16/2020
STATE OF UTAH

DRAWING IS TO SCALE IF BAR MEASURES: 1" = FULL SCALE 1/2" = HALF SCALE

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ELK RIDGE CITY

STORAGE AND SALT BUILDING PROJECT

GENERAL

LEGEND, SYMBOLS, AND ABBREVIATIONS

AQUA ENGINEERING
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SHEET

G-2

01/27/2020 W:\Elk Ridge\Special City Projects\Public Works Storage Structures\001562.C Salt Storage Facility\Drafting\General\G-2.dwg

DCH

GENERAL NOTES

1. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
3. ALL WORK SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE (LATEST EDITION) AND OTHER REGULATORY AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK WHERE APPLICABLE.
4. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, TYPICAL DETAILS AND SPECIFICATIONS.
5. THE CONTRACTOR SHALL REFER TO THE TECHNICAL PROVISIONS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE DRAWINGS.
6. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE TEMPORARY ERECTION OF BRACING AND SHORING AS REQUIRED FOR STABILITY OF STRUCTURES AND EXCAVATIONS DURING ALL PHASES OF CONSTRUCTION.
7. PROJECT HORIZONTAL AND VERTICAL DATUM ARE SHOWN ON SHEET C-1.
8. A BUILDING PERMIT SHALL BE OBTAINED FROM THE CITY. THE CONTRACTOR SHALL COMPLY WITH THE BUILDING PERMIT AND COORDINATE THROUGHOUT CONSTRUCTION.
9. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL TEMPORARY WATER, POWER, OR OTHER UTILITIES AS REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT AS DETAILED. WATER FOR COMPACTION, FLUSHING AND HYDROSTATIC TESTING WILL BE SUPPLIED BY THE OWNER AT NO CHARGE TO THE CONTRACTOR. THE CONTRACTOR WILL NEED TO OBTAIN A HYDRANT METER FROM THE CITY TO MONITOR USAGE THROUGHOUT CONSTRUCTION.
10. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL FLAGGING, BARRICADES AND TRAFFIC CONTROL AS MAY BE NECESSARY TO ENSURE SAFETY TO THE GENERAL PUBLIC DURING CONSTRUCTION. A TRAFFIC CONTROL PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE CITY.
11. THE CONTRACTOR SHALL HOLD A VALID UTAH'S CONTRACTOR'S LICENSE PRIOR TO BEGINNING CONSTRUCTION.
12. THE CONTRACTOR SHALL MAINTAIN CLEAN CONSTRUCTION AREAS. ALL DEBRIS, RUBBISH AND TRASH MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
13. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE PURPOSE OF RECORDING ALL ACTUAL MEASUREMENTS AND DETAILS TO BE USED IN THE PREPARATION OF "AS-BUILTS" OR "RECORD" DRAWINGS. FINAL PAYMENT WILL NOT BE RELEASED UNTIL "AS-BUILTS" OR "RECORD" DRAWINGS HAVE BEEN SUBMITTED TO AND ACCEPTED BY THE ENGINEER.

PIPING NOTES

1. ALL STORM DRAIN LINES AND FITTINGS SHALL BE HDPE WITH SMOOTH INTERIOR AND CORRUGATED EXTERIOR CONFORMING TO AASHTO M294.
2. ALL BOLTS FOR DIRECT BURY FITTINGS SHALL BE COATED WITH FM GREASE, AND THE ENTIRE FITTING SHALL BE WRAP WITH 8 mil. POLYETHYLENE PRIOR TO BACKFILLING.
3. ALL OPEN ENDS OF PIPE SHALL BE EFFECTIVELY SEALED AT THE END OF THE DAY'S WORK.

CONCRETE NOTES

1. ALL WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 (LATEST EDITION), ACI 301 (LATEST EDITION), AND THE PROJECT SPECIFICATIONS.
2. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI AND CONTAIN 4% TO 6% ENTRAINED AIR. ALL CONCRETE FOR THRUST RESTRAINT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
3. NO CONCRETE SHALL BE PLACED WITH A SLUMP IN EXCESS OF 4 INCHES.
4. THE CONTRACTOR SHALL SUBMIT A CONCRETE MIX DESIGN FOR APPROVAL AT LEAST 5 WORKING DAYS BEFORE PLACING ANY CONCRETE PRODUCED WITH THAT MIX DESIGN.
5. AGGREGATE FOR CONCRETE SHALL CONFORM TO ALL THE REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. MAXIMUM AGGREGATE SIZE SHALL BE 1 INCH.
6. ANY USE OF HIGH-EARLY CONCRETE SHALL BE CONTINGENT ON ENGINEER'S APPROVAL WHICH SHALL BE BASED ON TIMELY SUBMITTAL OF MIX DESIGN PRIOR TO PLACEMENT.
7. ALL CONCRETE PLACEMENTS SHALL BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE TO ALLOW SCHEDULING OF FIELD TESTING. ALL CONCRETE TESTING SHALL BE PROVIDED BY THE OWNER.
8. EXCEPT AS OTHERWISE NOTED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS.
9. ALL REINFORCING STEEL DOWELS, ANCHOR BOLTS, AND OTHER INSERTS OR EMBEDMENTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
10. CONCRETE SHALL NOT BE ALLOWED TO DROP MORE THAN 6 FEET VERTICALLY DURING PLACEMENT. TREMIE HOSES AND CHUTE EXTENSIONS SHALL BE USED TO ALLOW CONCRETE TO BE PLACED AS CLOSE TO ITS FINAL RESTING POSITION AS POSSIBLE.
11. INTERNAL VIBRATORS SHALL BE USED TO CONSOLIDATE ALL PLACED CONCRETE. VIBRATORS SHALL NOT BE USED TO TRANSPORT CONCRETE.
12. ALL CONCRETE WALLS SHALL BE ALLOWED TO CURE A MINIMUM OF 21 DAYS OR REACH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI BEFORE BACKFILLING.
13. ALL CONCRETE THRUST BLOCKS, COLLARS, AR RESTRAINTS SHALL BE ALLOWED TO CURE A MINIMUM OF 3 DAYS BEFORE BACKFILLING. ALL THRUST RESTRAINTS MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE BACKFILLING. THRUST BLOCKS SHALL BE RATED AT 250 PSI GAUGE.
14. ALL CONCRETE SHALL BE PROPERLY AND ADEQUATELY PROTECTED AND CURED AS FOLLOWS:

    TEMPERATURE – THE TEMPERATURE OF THE CONCRETE SHALL BE MAINTAINED BETWEEN 50 AND 70 DEGREES FAHRENHEIT FOR A MINIMUM OF 7 DAYS. THIS MAY REQUIRE HEATING AND/OR COOLING OF CONCRETE.

    MOISTURE – ALL CONCRETE SURFACES, HORIZONTAL AND VERTICAL SHALL BE KEPT MOIST FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT. CURING COMPOUNDS MAY ONLY BE USED WITH WRITTEN PERMISSION OF THE ENGINEER.
15. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS BUT PROPOSED BY THE CONTRACTOR SHALL BE LOCATED AND DETAILED ON CONTRACTOR DRAWINGS AND SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.

EARTHWORK NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT BLUE STAKES TO HAVE UNDERGROUND UTILITIES MARKED IN THE FIELD PRIOR TO ALL EARTHWORK OPERATIONS.
2. THE SITE SHALL BE CLEARED OF ALL GRASSES, SHRUBS, TREES, AND ROOTS. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR REUSE ON FILL SLOPES, AND DISTURBED NON-TRAFFIC AREAS. SIDE SLOPES SHALL BE LAID BACK AT SLOPES NO STEEPER THAN 3:1.
3. ALL TRENCHES AND EXCAVATIONS SHALL BE CUT, PROTECTED AND SUPPORTED AS PRESCRIBED BY OSHA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ANY EQUIPMENT NECESSARY TO DEWATER EXCAVATIONS.
5. TOPSOIL SHALL BE REPLACED AND GRADED PRIOR TO REVEGETATION. DISTURBED AREAS SHALL BE RESEEDED USING A SEED MIX SPECIFIED BY ON THE EROSION CONTROL PLAN AND DETAILS.

GRADING NOTES

1. IMPROVEMENT ELEVATION LABELS AND ELEVATION CONTOURS REFERENCE FINISH ELEVATIONS. REFER TO ABBREVIATIONS AND SYMBOL LEGEND INCLUDED HEREIN.

EROSION CONTROL NOTES

1. PER UDEQ, STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES GENERAL PERMIT NO UTR 300000, CONSTRUCTION ACTIVITY INCLUDING CLEARING, GRADING, EXCAVATION, AND DEMOLITION THAT DISTURBS ONE OR MORE ACRES OF LAND SHALL REQUIRE INCLUSION IN THE GENERAL PERMIT AND COMPLY WITH THE REQUIREMENTS THEREIN.
2. THE TOTAL PROJECT AREA OF DISTURBANCE IS LESS THAN 1 ACRE; THEREFORE AN UPDES STORM WATER PERMIT IS NOT REQUIRED.
3. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL THROUGHOUT CONSTRUCTION AS REQUIRED.

REGISTERED PROFESSIONAL ENGINEER
No.5252489
DARIN M. HAWKES
09/16/2020
STATE OF UTAH

NO.	DATE	DESIGN	DRAWN	CHECKED
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ELK RIDGE CITY

STORAGE AND SALT BUILDING PROJECT

GENERAL

GENERAL NOTES

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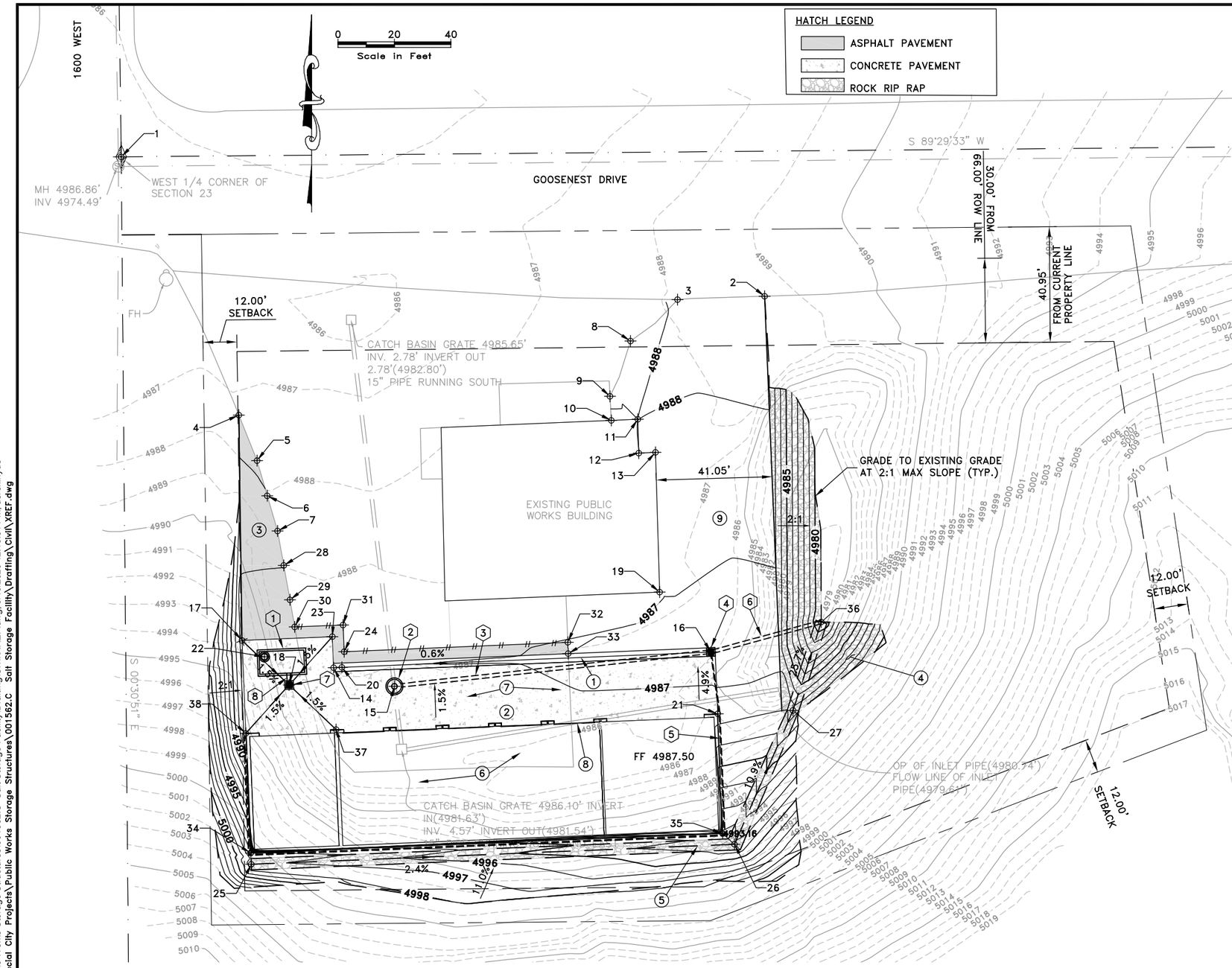
G-3



GRADING ABBREVIATIONS

FG – FINISH GRADE ELEVATION
FL – FINISH FLOW LINE ELEVATION
BP – BOTTOM OF POND ELEVATION
P – PAVEMENT ELEVATION
ME – MATCH EXISTING
FF – FINISHED FLOOR ELEVATION
IE – INVERT ELEVATION
RIM – RIM ELEVATION

SITE KEYNOTES

1– FURNISH, PLACE, AND INSTALL 132 LF OF 3' WIDE VALLEY GUTTER PER DETAIL 111/CD–1.

2– FURNISH, PLACE, AND INSTALL 3,970 SF OF 6" PCC REINFORCED CONCRETE ON 6" UBC PER DETAIL 110/CD–1.

3– FURNISH, PLACE, AND INSTALL 1,342 SF OF 3" ASPHALT ON 6" UBC PER DETAIL 110/CD–1.

4– FURNISH, PLACE, AND INSTALL 2,039 SF ROCK RIP RAP, D_{50}= 3", DEPTH= 6", OVER WEED BARRIER FABRIC.

5– FURNISH, PLACE, AND INSTALL 256 LF OF 4' ROCK RIP RAP LINED CHANNEL PER DETAIL 115/CD–1.

6– REFER TO ARCHITECTURAL PLANS FOR BUILDING INFORMATION.

7– SEALED CONSTRUCTION JOINTS AS REQUIRED TO MAINTAIN LXW RATIO OF 0.8 TO 1.2 PER DETAIL 147/CD–2.

8– SEALED EXPANSION JOINT BETWEEN BUILDING AND CONCRETE SLAB PER DETAIL 147/CD–2.

9– REGRADE EXISTING MATERIAL AS SHOWN. PRESERVE EXISTING ASPHALT MILLINGS TO EXTENT POSSIBLE.

UTILITY KEYNOTES

1– FURNISH AND INSTALL 350 FT^3 MIN CAPACITY PRECAST VAULT WITH 30–INCH FRAME AND COVER. RIM=4987.25, 15" S (IN) IE=4982.38.

2– FURNISH, PLACE, AND INSTALL 4' DIAMETER STORM DRAIN MANHOLE PER DETAIL 103/CD–1. RIM=4987.43, 15" N (IN) IE=4981.79±, 15" E (OUT) IE=4981.69±.

3– FURNISH, PLACE, AND INSTALL 110 LF– 15" DIAMETER HDPE STORM DRAIN LINE, SLOPE=1.66% PER DETAIL 102/CD–1.

4– FURNISH, PLACE, AND INSTALL 3' SQUARE STORM DRAIN CATCH BASIN WITH SNOUT PER DETAIL 104/CD–1. RIM=4986.40, 15" W (IN) IE=4979.85, 4" S (IN) IE=4980.37, 15" NE (OUT) IE=4979.75.

5– 276 LF – 4" FRENCH DRAIN PER DETAIL 116/CD–1.

6– FURNISH, PLACE, AND INSTALL 40 LF– 15" DIAMETER HDPE STORM DRAIN LINE, SLOPE=1.82% PER DETAIL 102/CD–1.

7– FURNISH, PLACE, AND INSTALL 3' SQUARE STORM DRAIN CATCH BASIN WITH SNOUT PER DETAIL 104/CD–1. RIM=4987.19, 15" W (OUT) IE=4982.46.

8– FURNISH, PLACE, AND INSTALL 4 LF– 15" DIAMETER HDPE STORM DRAIN LINE, SLOPE=2.0% PER DETAIL 102/CD–1.

REGISTERED PROFESSIONAL ENGINEER
NO.5252489
DARIN M. HAWKES
09/16/2020
STATE OF UTAH

EARTHWORK (ESTIMATED)

ESTIMATED 743 CY (CUT), 740 CY (FILL), NET = 3 CY (CUT) WHICH CAN BE DISPOSED OF IN CITY GRAVEL PIT ADJACENT TO THE SITE. CONTRACTOR SHALL MAKE OWN DETERMINATIONS OF EARTHWORK QUANTITIES.

DATUM AND SITE BENCHMARKS

VERTICAL DATUM WAS TAKEN FROM THE UTAH COUNTY SURVEY AND LISTED AS NGVD 29. SITE BENCHMARKS ARE LISTED IN HORIZONTAL CONTROL POINT TABLE.

HORIZONTAL CONTROL

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	7488.60	10022.95	4986.88	WEST 1/4 CORNER OF SECTION 23
2	7439.21	10250.92	4988.72	ME FG
3	7437.95	10220.09	4988.09	ME FG
4	7397.05	10064.64	4987.57	MEP
5	7380.93	10071.05	4987.93	MEP
6	7368.45	10074.71	4988.21	MEP
7	7355.97	10078.36	4988.52	MEP
8	7423.34	10203.40	4987.73	ME FG
9	7403.73	10196.14	4987.99	ME FG
10	7395.18	10196.61	4988.01	ME FG

HORIZONTAL CONTROL

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
11	7395.57	10206.00	4988.01	ME FG
12	7383.57	10206.36	4988.01	ME FG
13	7383.86	10212.27	4987.56	ME FG
14	7307.55	10098.18	4987.50	FL
15	7300.94	10119.75	4987.43	RIM
16	7313.09	10231.90	4986.40	FL AND RIM
17	7317.21	10065.75	4987.50	P
18	7301.40	10082.42	4987.19	RIM
19	7334.34	10213.72	4987.05	ME FG
20	7307.67	10101.18	4987.20	FL

HORIZONTAL CONTROL

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
21	7291.19	10234.31	4987.50	P
22	7311.41	10073.67	4987.39	RIM
23	7318.53	10097.73	4987.50	P
24	7313.20	10101.95	4987.25	MEP
25	7237.84	10069.04	4997.30	FL
26	7244.94	10240.23	4993.15	FL
27	7292.38	10261.01	4987.49	FL
28	7343.78	10080.55	4988.05	MEP
29	7331.60	10082.73	4987.99	MEP
30	7321.98	10084.43	4987.78	MEP

HORIZONTAL CONTROL

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
31	7322.68	10101.56	4987.53	MEP
32	7316.54	10181.21	4987.08	MEP
33	7312.50	10181.37	4986.87	P
34	7241.84	10068.88	4997.09	FG
35	7248.77	10236.07	4993.16	FG
36	7323.75	10271.02	4979.02	FL AND IE
37	7285.59	10099.09	4987.50	P
38	7284.26	10067.12	4987.50	P

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DRAWING IS TO SCALE
IF BAR MEASURES:
1" = FULL SCALE
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REVISIONS

ELK RIDGE CITY
STORAGE AND SALT BUILDING PROJECT - PHASE 1
CIVIL
SITE / UTILITY AND GRADING PLAN

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SHEET
C-1

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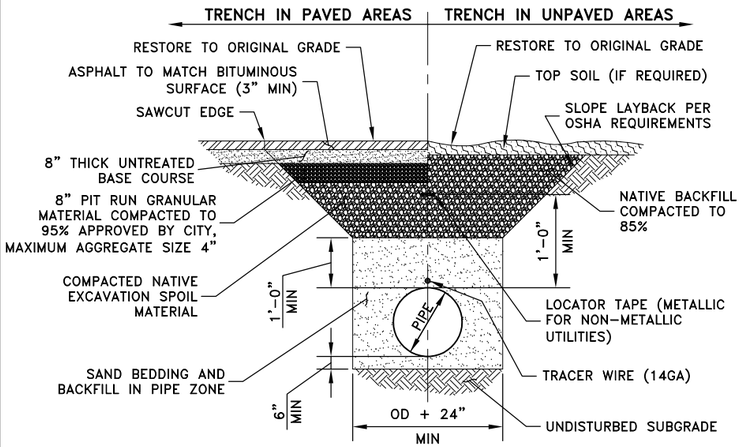

TYPICAL TRENCH

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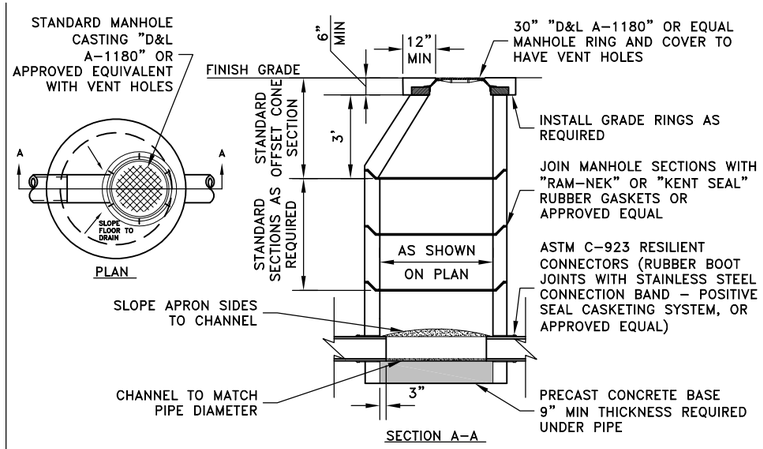

PRECAST MANHOLE

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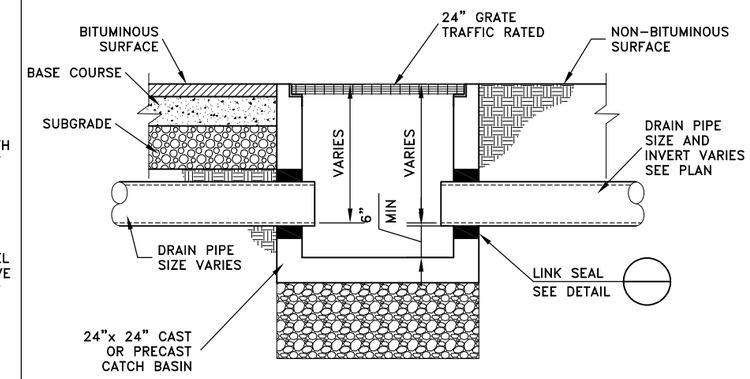

CATCH BASIN

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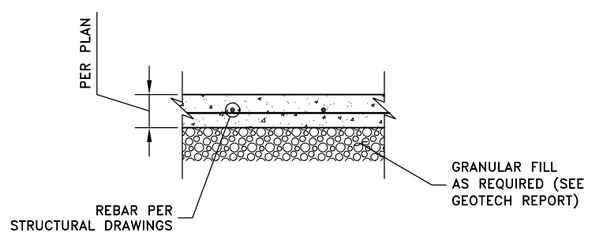

CONCRETE SLAB ON GRADE

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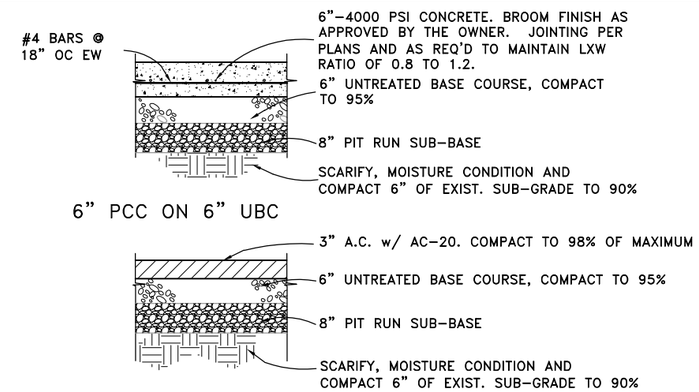

PAVEMENT DETAILS

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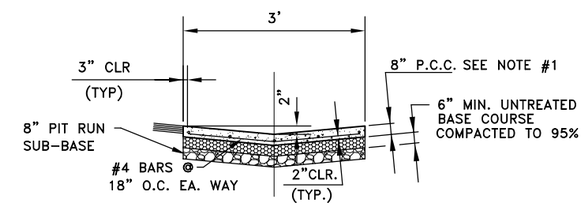


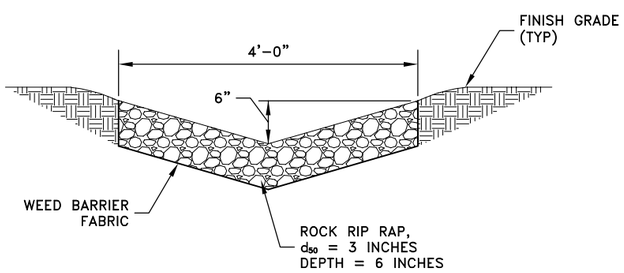
SECTION A-A

NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, AIR ENTRAINMENT 6% ±1%, MAX SLUMP AT 4 INCHES. ALL MATERIALS SHALL CONFORM TO HYRUM CITY STANDARDS.
2. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.

P.C.C. VALLEY GUTTER

SCALE= NTS

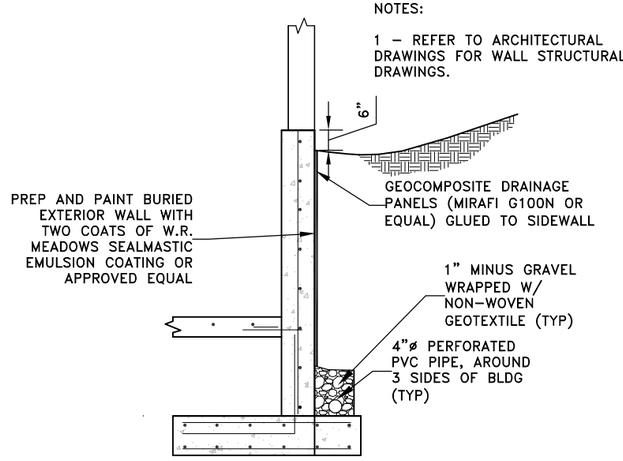


ROCK RIP RAP CHANNEL

SCALE: NTS

NOTES:

1 - REFER TO ARCHITECTURAL DRAWINGS FOR WALL STRUCTURAL DRAWINGS.



FRENCH DRAIN

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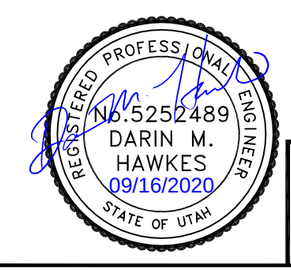

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ELK RIDGE CITY

STORAGE AND SALT BUILDING PROJECT

DETAILS

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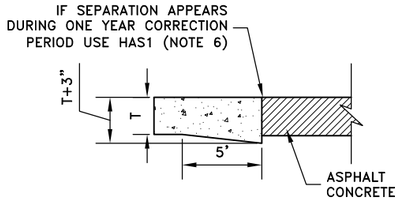

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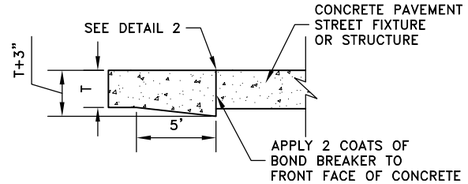

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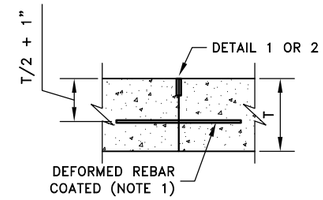

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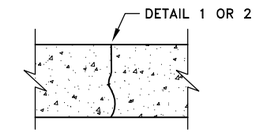

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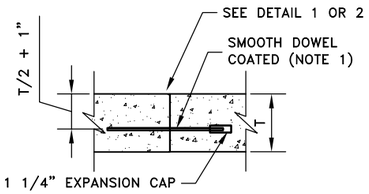

FOR DOWEL SIZE, SEE TABLE OF DIMENSION ON DRAWING 2

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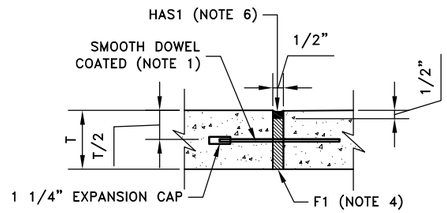

FOR DOWEL SIZE, SEE TABLE OF DIMENSION ON DRAWING 2

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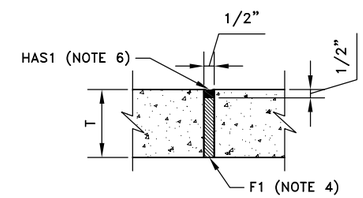

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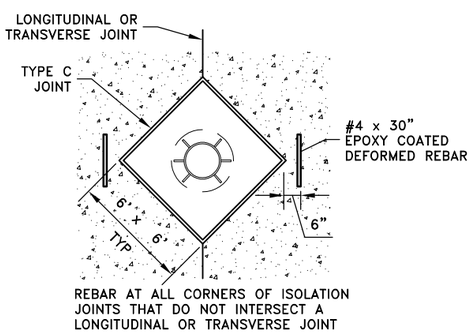
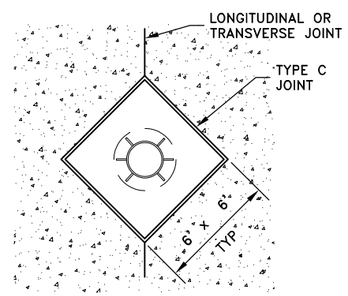


EXAMPLE 1



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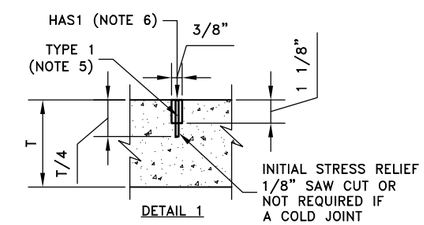
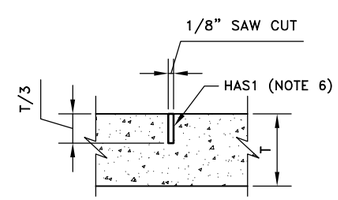


DETAIL 1



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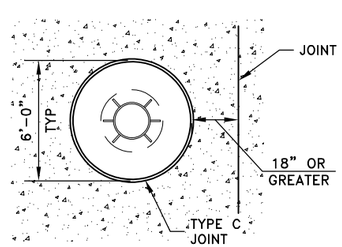
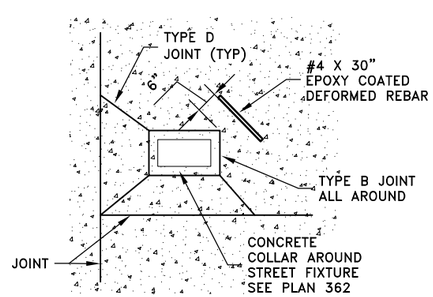


USE ROUND TYPE 'G' JOINT WHEN DISTANCE BETWEEN EXPANSION JOINT AND SLAB JOINT IS LESS THAN 18"

EXAMPLE 3



EXAMPLE 4

TYPICAL STREET FIXTURE ISOLATION JOINTS

DOWEL OR REBAR SIZE CHART			
T	DIAMETER (INCHES)	TOTAL LENGTH (INCHES)	SPACING
5"–8"	5"–8"	14	12" O.C.
9"–12"	1	18	12" O.C.

NOTES:

1– STEEL REINFORCEMENT SHALL BE ASTM A 615, GRADE 60, EPOXY COATED DEFORMED STEEL REBAR OR SMOOTH STEEL DOWELS WITH DIAMETER AND LENGTH AS INDICATED. SPACE REBAR AND DOWELS AT 12 TO 15" ON CENTER. GREASE DOWELS TO PROVIDE MOVEMENT IN EXPANSION JOINTS. KEEP TIE BARS IN THE VERTICAL CENTER OF THE CONCRETE SLAB AND PERPENDICULAR TO THE JOINT DURING CONCRETE PLACEMENT.

2– CONTRACTION JOINTS IN CONCRETE PAVEMENT SHALL BE SAWCUT. CONTRACTION JOINTS IN SIDEWALK, WATERWAYS, OR CURB AND GUTTER MAY BE TOOLED.

3– KEEP AT LEAST 3 WORKING POWER SAWS ON–SITE WHEN CONCRETE IS BEING PLACED. SAW CRACK CONTROL JOINTS (CONTRACTION JOINTS) BEFORE SHRINKAGE CRACKING TAKES PLACE. DO NOT TEAR OR RAVEL CONCRETE DURING SAWING. IN COOL WEATHER, THE JOINT SAWING MAY BE DELAYED ONLY FOR THE TIME REQUIRED TO PREVENT TEARING AND RAVELING THE CONCRETE. CUT JOINT TO DIMENSIONS RECOMMENDED BY SEALANT MANUFACTURER AND APPROVED BY ENGINEER.

4– LAY OUT JOINTS TO AID CONSTRUCTION AND CONTROL RANDOM CRACKING.
   A. LONGITUDINAL JOINT SPACING IS 12FEET FOR CONCRETE PAVEMENT LESS THAN 9 INCHES THICK AND 15 FEET FOR CONCRETE PAVEMENT 9 INCHES THICK AND THICKER.
   B. TRANSVERSE JOINTS SPACING IS 30 X T (SLAB THICKNESS IN FEET) WHERE THE MAXIMUM SLAB LENGTH TO SLAB WIDTH RATIO IS 1 TO 1, AND MAXIMUM SPACING SHALL NOT EXCEED 15'.
   C. EXTEND TRANSVERSE CONTRACTION JOINTS CONTINUOUSLY ACROSS THE FULL WIDTH OF THE CONCRETE. MAKE THE JOINTS COINCIDE WITH CURB AND GUTTER JOINTS.
   D. MAKE ADJUSTMENTS IN JOINT LOCATIONS TO MEET INLET OR MANHOLE LOCATIONS.

5– JOINT FILLER: ASTM D 1751 OR D1752, EXTENDING TO THE BOTTOM OF THE CONCRETE SLAB.

6– BACKER ROD: BACKER ROD SHALL BE OVERSIZED APPROXIMATELY 25% TO FIT TIGHTLY INTO EACH JOINT AND COMPATIBLE WITH SEALANT USED.

7– JOINT SEALANT: REMOVE DIRT, OIL AND CURING COMPOUNDS FROM JOINT RESERVOIR. SEAL JOINTS Z IMMEDIATELY AFTER CLEANING.

CONCRETE PAVEMENT JOINTS

SCALE: NTS

REGISTERED PROFESSIONAL ENGINEER
No.5252489
DARIN M. HAWKES
09/16/2020
STATE OF UTAH

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NO.	DATE	DESIGN	DRAWN	CHECKED
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REVISIONS

ELK RIDGE CITY

STORAGE AND SALT BUILDING PROJECT

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