

STRUCTURAL GENERAL NOTES

GOVERNING CODE: 2018 INTERNATIONAL BUILDING CODE (IBC) AND ALL LOCAL AMENDMENTS.

DESIGN LOADS:

- RISK CATEGORY: II
- SNOW LOADS:
 - A. ROOF LIVE LOAD: 20 PSF
 - B. GROUND SNOW LOAD (P_g): 117 PSF
 - C. FLAT ROOF SNOW LOAD (P_f): 90 PSF
 - D. SNOW EXPOSURE FACTOR (C_e): 0.9
 - E. SNOW LOAD IMPORTANCE FACTOR (I_s): 1.0
 - F. THERMAL FACTOR (C_t): 1.2
 - G. SLOPE FACTOR (C_s): 1.0
- DECK LIVE LOADS:
 - A. EXTERIOR DECK: 100 PSF
- DEAD LOADS:
 - A. DECK: 15 PSF

FOUNDATION DESIGN:

- FOUNDATION DESIGN IS IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN THE ADDITIONAL FOUNDATION RECOMMENDATIONS LETTER JOB NUMBER 21-12412, PREPARED BY NWCC, INC., DATED AUGUST 23, 2022.
- ALL FOUNDATIONS:
- SOIL CONDITIONS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FORMWORK OR CONCRETE. IF DIFFERENT SOIL CONDITIONS EXIST THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO RE-EVALUATE THE FOUNDATION DESIGN AT ADDITIONAL EXPENSE TO THE OWNER.
- FOOTINGS:
 - A. FOOTINGS, SELECTED BY THE OWNER, SHALL BEAR ON NATURAL CLAYS, SANDS, GRAVELS, OR BEDROCK, OR ON STRUCTURAL FILL PROPERLY PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT.
 - B. EXTERIOR FOOTINGS SHALL BEAR BELOW FROST DEPTH, MINIMUM FROST DEPTH SHALL BE 4'-0" BELOW ADJACENT EXTERIOR FINISHED GRADE.
 - C. DESIGN OF MAT FOUNDATION IS BASED ON:
 - a. MAXIMUM ALLOWABLE BEARING PRESSURE: 1,000 PSF
 - b. MODULUS OF SUBGRADE REACTION (K): 90 PSI/INCH

REINFORCED CONCRETE:

- CONCRETE DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" (ACI 301).
- STRUCTURAL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES (NORMAL WEIGHT CONCRETE UNLESS NOTED OTHERWISE):
 - A. CEMENT TYPE: III
 - B. MAXIMUM AGGREGATE SIZE: 3/4"
 - C. MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'_c) AS FOLLOWS:
 - a. FOOTINGS: 3,500 PSI; MAX W/C 0.52; ENTRAINED AIR 1.5% (+/- 1.5%); SLUMP 5" (+/- 1")
- REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
- WHEN COLD WEATHER CONDITIONS EXIST, PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 306.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- DEFORMED REINFORCEMENT SHALL BE DOMESTIC NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60 INCLUDING STIRRUPS AND TIES. REINFORCING WHICHEVER IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706.
- EPOXY COATED REINFORCING BARS SHALL CONFORM TO ASTM A775.
- ZINC COATED (GALVANIZED) REINFORCING BARS SHALL CONFORM TO ASTM A767.
- UNLESS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS, LAP BARS 50 DIAMETERS (50" BAR DIAMETER MINIMUM).
- REINFORCING AT ALL ABUTTING CONCRETE (INCLUDING FOOTINGS) SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS AND INTERSECTIONS, OR USE MATCHING CORNER BARS OF EQUAL SIZE AND SPACING TO REINFORCING IN THE ABUTTING MEMBERS.
- INSTALL (2) #5 BARS (MINIMUM) AROUND ALL SIDES OF ALL OPENINGS IN CONCRETE AND EXTEND 2'-8" PAST EDGES OF OPENINGS, UNLESS OTHERWISE NOTED.
- IN CONTINUOUS MEMBERS, SPLICE TOP BARS AT MID-SPAN BETWEEN SUPPORTS AND SPLICE BOTTOM BARS OVER SUPPORTS.
- FORM INTERMITTENT SHEAR KEYS AT ALL CONSTRUCTION JOINTS AND AS SHOWN ON THE STRUCTURAL DRAWINGS.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS:
 - A. UNFORMED SURFACE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
 - B. FORMED SURFACE EXPOSED TO EARTH OR WEATHER:
 - a. #6 THROUGH #18 BARS: 2"
 - b. #5 BAR, W#1 OR D#1 WIRE, AND SMALLER: 1-1/2"
- INSTALL CHAIRS, BOLTERS, ADDITIONAL REINFORCEMENT, AND ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT AT POSITION SHOWN ON DRAWINGS. SUPPORT OF REINFORCEMENT ON WOOD, BRICK, OR OTHER UNACCEPTABLE MATERIALS SHALL NOT BE PERMITTED.
- KEEP REINFORCEMENT CLEAN AND FREE OF DIRT AND OIL. OIL FORMS PRIOR TO PLACING REINFORCEMENT.
- FIBER ADMIXTURE SHALL BE 100% VIRGIN POLYPROPYLENE, FIBRILLATED FIBERS, TYPE III 4.1.3, PERFORMANCE LEVEL ONE, PER ASTM 1116.
- PROPERLY PLACE, ACCURATELY POSITION AND MAINTAIN SECURELY IN PLACE ALL EMBEDDED ITEMS PRIOR TO AND DURING CONCRETE PLACEMENT.
- ANCHOR BOLTS AND RODS FOR BEAM AND COLUMN-BEARING PLATES SHALL BE PLACED WITH SETTING TEMPLATES.
- UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL COLUMN, WALL, SLAB OR BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

STRUCTURAL WOOD & TIMBER:

- DESIGN IS BASED ON AWC NDS "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH SUPPLEMENT: DESIGN VALUES FOR WOOD CONSTRUCTION" AND AWC SDPWS "SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC".
- ALL LUMBER SHALL BE 19% OR LESS MAXIMUM MOISTURE CONTENT, UNLESS NOTED OTHERWISE.
- ALL WOOD TO BE PRESSURE-TREATED DOUGLAS FIR-LARCH OR SOUTHERN YELLOW PINE.
- FASTENERS FOR USE WITH TREATED WOOD SHALL COMPLY WITH IRC SECTION 10.5.
- WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE-TREATED DOUGLAS FIR-LARCH OR SOUTHERN YELLOW PINE.
- PRESERVATIVE TREATED WOOD SHALL BE TREATED IN ACCORDANCE WITH AWPA U1 AND AWPA M4.
- METAL FRAMING ANCHORS SHOWN OR REQUIRED, SHALL BE SIMPSON STRONG-TIE OR EQUAL CODE APPROVED CONNECTORS AND INSTALLED PER THE HANGER SCHEDULE. NOTE THAT HEAVY-DUTY HANGERS AND SKEWED HANGERS MAY NOT BE STOCKED LOCALLY AND REQUIRE SPECIAL ORDER FROM THE FACTORY.
- LEAD HOLES FOR LAG SCREWS SHALL BE 40%-70% OF THE SHANK DIAMETER AT THE THREADED SECTION AND EQUAL TO THE SHANK DIAMETER AT THE UNTHREADED SECTION PER NDS SECTION 12.1.4.18.
- CONNECTOR BOLTS AND LAG SCREWS SHALL CONFORM TO ANSIA/ASME B18.2.1 AND ASTM SAE J429 GRADE 1.
- NAILS AND SPIKES SHALL CONFORM TO ASTM F1667.
- WOOD SCREWS SHALL CONFORM TO ANSIA/ASME B18.6.1.

WOOD FRAMING NOTES:

- INSTALL SOLID BLOCKING BETWEEN JOISTS UNDER JAMB SIDES OF OPENINGS.
- COLUMNS MUST HAVE A CONTINUOUS LOAD PATH TO FOUNDATION.
- UNLESS NOTED OTHERWISE, INSTALL TWO LENGTHS OF SOLID BLOCKING X JOIST DEPTH X 12 INCHES LONG IN FLOOR FRAMING UNDER COLUMN JOISTS.
- BUILT-UP STUD COLUMNS SHALL CONSIST OF 2X4, 2X6, OR 2X8 STUDS WITH NUMBER OF LAMINATIONS NOTED ON PLAN AND EACH LAMINATION SHALL BE NAILED TOGETHER WITH (2) ROWS OF 12D GUN NAILS (0.131"Ø X 3 1/4") @ 6" FULL HEIGHT OF COLUMN. DO NOT SPLICE LAMINATIONS.
- ALL BEAMS AND TRUSSES SHALL BE BRACED AGAINST ROTATION AT POINTS OF BEARING.
- UNLESS NOTED OTHERWISE, LOWER CHORD OF GABLE END TRUSSES SHALL BE ANCHORED TO WALL PLATE WITH FRAMING ANCHORS AT 4'-0" SPACING AND LATERALLY BRACED TO ROOF FRAMING AT 10'-0" SPACING.
- PROVIDE CONTINUOUS WALL STUDS EACH SIDE OF OPENINGS EQUAL TO ONE-HALF OR GREATER THE NUMBER OF STUDS INTERRUPTED BY OPENING UNLESS NOTED OTHERWISE.
- ALL WALL STUDS SHALL BE CONTINUOUS FROM FLOOR TO FLOOR OR FROM FLOOR TO ROOF.
- PROVIDE SOLID BLOCKING OR RIM JOISTS AT ALL JOIST SUPPORTS AND JOIST ENDS.
- SOLE PLATE AT ALL PERIMETER WALLS AND AT DESIGNATED SHEAR WALLS SHALL BE NAILED WITH (4) 0.131"ØX3" NAILS AT 16" MINIMUM.
- ALL ROOF RAFTERS, JOISTS, TRUSSES, BEAMS SHALL BE ANCHORED TO SUPPORTS WITH METAL FRAMING ANCHORS.

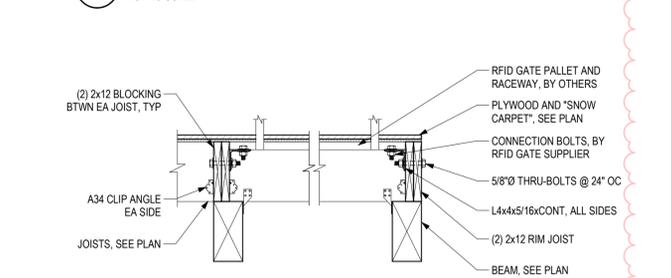
WOOD SHEATHING:

- PLYWOOD AND ORIENTED STRAND BOARD (OSB) FLOOR, ROOF, AND WALL SHEATHING SHALL BE APA RATED WITH STAMP INCLUDING APA TRADEMARK AND PANEL SPAN RATINGS.
 - A. MINIMUM FLOOR SHEATHING: SEE PLAN NOTES
 - B. MINIMUM ROOF SHEATHING: SEE PLAN NOTES
 - C. MINIMUM WALL SHEATHING: SEE PLAN NOTES
- SHEATH ALL EXTERIOR WALLS. SHEATH INTERIOR WALLS AS SHOWN ON THE DRAWINGS.
- SHEATHING SHALL BE CONTINUOUS FROM BOTTOM PLATE TO TOP PLATE. CUT 1" AND 1" SHAPES AROUND OPENINGS. LAP SHEATHING OVER RIM JOISTS A MINIMUM 4" AT ALL FLOORS TO THE UPPER AND LOWER STUD WALLS TOGETHER.
- MINIMUM HEIGHT OF SHEATHING PANELS SHALL BE 16" TO ENSURE THAT PLATES ARE TIED TO STUDS.
- MACHINE APPLIED NAILING (I.E. GUN NAILING): THE USE OF MACHINE APPLIED NAILING IS SUBJECT TO SATISFACTORY JOBSITE DEMONSTRATION AND THE APPROVAL BY THE PROJECT STRUCTURAL ENGINEER. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.

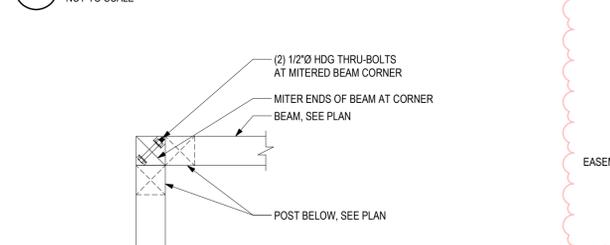
STRUCTURAL GLUED LAMINATED TIMBER:

- MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH ANSIA/ITC A190.1 "STRUCTURAL GLUED LAMINATED TIMBER" AND AITC 117 STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES. DESIGN AND MANUFACTURING REQUIREMENTS.
- SIMPLE SPAN BEAMS SHALL BE ALASKAN YELLOW CEDAR COMBINATION SYMBOL 20F-V12 ACIAC OR 20F-V13 ACIAC WITH NO CAMBER.
- CONTINUOUS AND CANTILEVERED MEMBERS SHALL BE ALASKAN YELLOW CEDAR COMBINATION SYMBOL 20F-V13 ACIAC WITH NO CAMBER.
- ALL GLUED LAMINATED TIMBER SHALL HAVE LESS THAN 16% MOISTURE CONTENT, UNLESS NOTED OTHERWISE.
- ADHESIVES SHALL MEET THE REQUIREMENTS FOR WET CONDITIONS OF SERVICE.
- SEAL CUT EDGES AND ENDS EXPOSED TO WEATHERING.

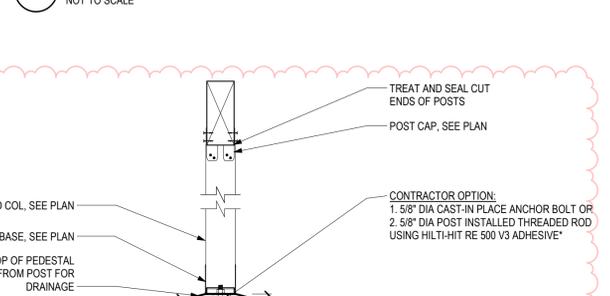
1 SLOPED JOIST DETAIL
NOT TO SCALE



3 RFID GATE ATTACHMENT
NOT TO SCALE



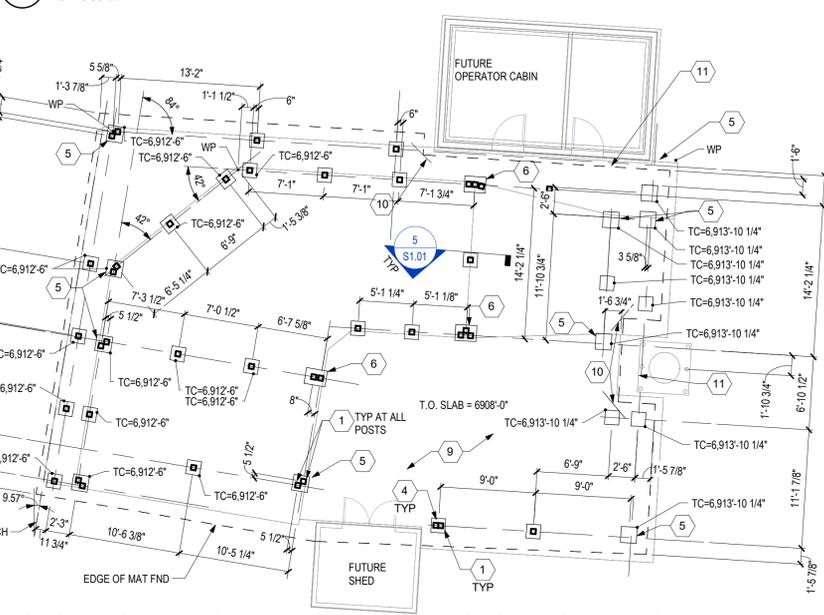
4 TIMBER COLUMN TO TIMBER BEAM CONNECTION
NOT TO SCALE



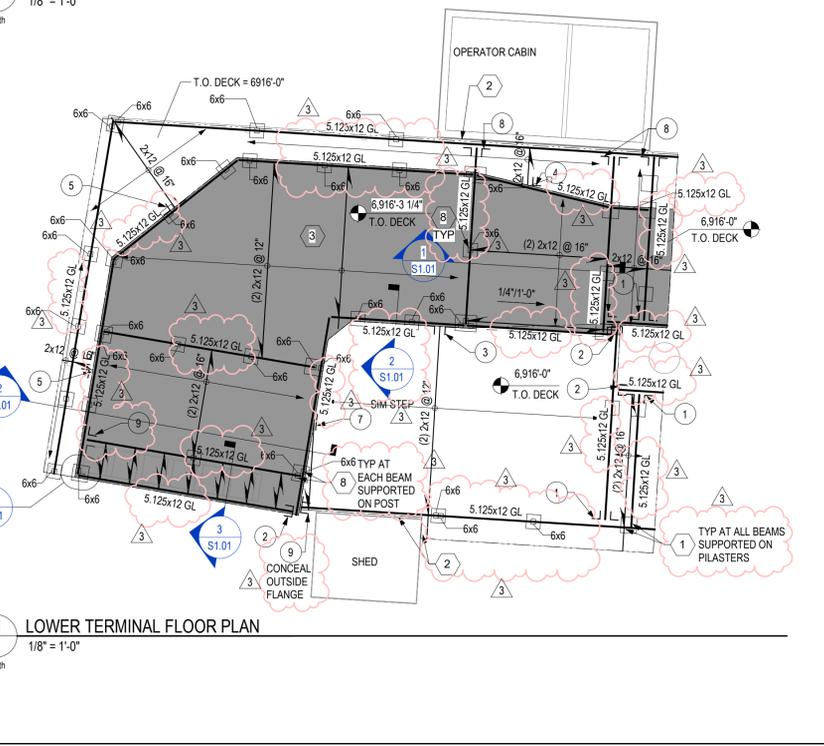
5 TIMBER COLUMN TO PIER CONNECTION
NOT TO SCALE



2 TYPICAL DECK EDGE
NOT TO SCALE



FOUNDATION PLAN
1/8" = 1'-0"



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- FOUNDATION PLAN NOTES:**
- VIF (E) CONDITIONS PRIOR TO NEW CONSTRUCTION AND NOTIFY ANTHEM OF ANY DISCREPANCIES.
 - MAT FOUNDATION TO BEAR ON APPROVED SUBGRADE PER GEOTECH REPORT.
 - SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS.
 - REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
 - TYPICAL TOP OF CONG. PILE/STAKE ELEVATION = 6913'-0", UNO.

- MAIN LEVEL PLAN NOTES:**
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
 - VIF (E) CONDITIONS PRIOR TO NEW CONSTRUCTION AND NOTIFY ANTHEM OF ANY DISCREPANCIES.
 - TOP OF SUB-FLOOR SHEATHING - SEE PLAN.
 - WALL FRAMING AND COLUMNS SHOWN SUPPORT THE FRAMING ON THIS LEVEL.
 - TYPICAL DECK CONSTRUCTION (UNO) 2x EXTERIOR DECKING OVER WOOD JOISTS PER PLAN. LAY DECKING PERPENDICULAR TO FRAMING AND FASTEN DECKING TO JOIST W/ (2) #9x3" EXTERIOR DECK SCREWS PER BOARD. FLASH TOP OF MULTI-PLY JOISTS / BEAMS WITH A WATERPROOF BUTYL RUBBER TAPE OVERLAP WOOD EDGES 12" MINIMUM.

REVISIONS

No.	Description	Date
2	ASI #1	6/21/2022
3	ASI #2	9/9/2022

HANGER SCHEDULE

- ALL HANGERS NOTED TO BE INSTALLED WITH NUMBER AND SIZE FASTENERS SPECIFIED BY MNFR. ANY SUBSTITUTIONS SHALL BE REVIEWED AND APPROVED BY ANTHEM.
- INSTALL HANGERS NOTED OR APPROVED EQUIVALENT.
- ALL HANGERS TO BE HDG OR STAINLESS STEEL.

DESCRIPTION
1 HUS 125/12 W/ MAX NAILING PER SIMPSON
2 HUS 5 125/12 W/ MAX NAILING PER SIMPSON
3 LUS210.2 (SKEWED) WHERE SHOWN ON PLAN
4 HUS212 SKEWED HANGER
5 HUS212
7 L50 NEAR SIDE W/ (10) 0.148x1 1/2" NAILS
8 INVERTED HUS 125/12 W/ MAX NAILING PER SIMPSON
9 LGU5 2S-SDS H=12"

KEYNOTE SCHEDULE

DESCRIPTION
1 ABU62 POST/BEAM BASE
2 ENSURE 2" (MIN) GAP BETWEEN DECK AND SHED/OPERATOR CABIN
3 DECKING IN SHADED AREA TO BE 3/4" EXTERIOR RATED OSB/PLYWOOD W/ SNOW CARPET (SEE ARCH) ON TOP
4 16"x16" PEDESTAL WITH (4) #6 VERT AND #4 TIES @ 12" OC (3 TIES @ 3" TOP)
5 16"x18" PEDESTAL WITH (4) #6 VERT AND #4 TIES @ 12" OC (3 TIES @ 3" TOP)
6 16"x24" PEDESTAL WITH (6) #6 VERT AND #4 TIES @ 12" OC (3 TIES @ 3" TOP)
8 LPU62 POST CAP, EA SIDE, TYP, UNO
9 12" THICK MAT FOUNDATION WITH #4 @ 9" O.C. T&B EA WAY OR #5 @ 12" O.C. T&B EA WAY
10 (1) #5x5-0" ADD BAR TOP AND BOTTOM AT RE-ENTRANT CORNERS
11 CONTRACTOR SHALL NOT UNDERMINE EXISTING STRUCTURE. FOOTING, FLOW FILL, AND OR PREPARED SUB GRADE. FIELD VERIFY



NOTICE: DUTY OF COOPERATION
Release of these plans constitutes further cooperation among the owner, the contractor and the architect. Design and construction are complete. Although the architect and the contractor have performed their services with due care and diligence, they cannot guarantee perfection. Communications in perfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a single party to the architect shall release the architect from responsibility for the consequences. Changes made from the plans without consent of the architect are unauthorized and shall release the architect of responsibility for all consequences arising out of such changes.

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REVISIONS

No.	Description	Date
2	ASI #1	6/21/2022
3	ASI #2	9/9/2022

Reviewed for Code Compliance
09/19/2022

SSRC CHRISTIE PEAK EXPRESS CHAIR LIFT LOWER TERMINAL & MID-STATION STEAMBOAT SPRINGS, CO

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Job Number: 22-023
Date: 6/21/22
Drawn By: LDF/DPM
Checked By: DAJ

Project Phase
Construction Documents

Sheet Title
GENERAL NOTES, PLANS & DETAILS

Sheet Number
S1.01