



CITY OF VALDEZ
Project Title: New Well 5 Pumping Station
Project No.: 21-310-2538
Contract No.: 2406

TO: All Recipients
SUBJECT: Addendum No.5

Date: November 12, 2025

This eighty (80) page Addendum forms a part of the project scope documents and modifies the project scope for the above-referenced project. **Acknowledge receipt of this Addendum in the space provided on the Bid Form.** Failure to do so may subject the Bidder to disqualification.

This Addendum makes the following changes and/or clarifications:

1. The bid opening date remains unchanged. The bid date is Monday, November 17, 2025 at 3:00 pm.
2. Revised set of drawings attached (65 pages). Revisions made to sheets C5, C8 & D1.
3. Revised specification section 087100 Door Hardware (10 pages).

VALDEZ WELL HOUSE #5 QUESTIONS AND ANSWERS

1. **Question:** How long can Well #4 and the supply tank be isolated and kept out of service without affecting the city water supply and demand? If the answer is shorter than the actual time required to install the D-1 assembly, including flushing, chlorination, and Bac T results (24 hours), how much water will need to be supplied to the system from Well #4 and the tank?

Answer: Eight (8) hours. Wells # 1 and # 2 and water storage tank 1 are serviceable and capable of keeping the City in water (depending on City water usage) during time needed if closely coordinated. Figure on special timing and coordination if needed to fit the connections and flushing into the City's water usage. The City has the well and storage capacity to survive with well # 4 and the south tank for a while.

2. **Question:** Is there an isolation valve on the HDPE from the Well # 4 tank which will be required for the D-1 tie-in?

Answer: The 12" fill and service pipes to and from the tank and the 12" pipe from well # 4 are ductile iron. One 12" pipe coming from Egan (currently dead ended) is HDPE. Well # 4 can be shut off, and the service pipe out of the tank has an isolation valve at the tank. We have operated the tank service valve, it moves freely, so it will cut off most of the water from the tank service pipe. The existing valves are old so they may not be watertight. Figure on some water coming through during the connection as well as draining the pipes when they are cut.

3. **Question:** Please provide isolation details necessary to properly flush, chlorinate the D-1 installation.

Answer: Well # 4 will be shut off, so the 12" ductile iron pipe to well #4 can be isolated. The 12" ductile iron fill pipe from the tank has no valve but the pipe goes up the tank and fills to an elevated inlet in the tank. The tank can be below the inlet to reduce the water encountered to what is in the pipe. The 12" ductile iron service pipe has a valve at the tank. The 12" HDPE pipe is not currently connected and has a relatively new valve to connect to. The 12" ductile iron service pipe to Egan has valves in Egan to isolate. We will disinfect the connections as best we can.

4. **Question:** The plans indicate that the existing valves may not shut off properly. If that is the case how will adequate testing be done?

Answer: The existing 12" valve on the south side of Egan is only 4 years old. We do not anticipate trouble with that. We will test to the new valves. In small sections where we connect to existing pipe and do not have isolation valves, we will do a visual before backfilling.

5. **Question:** Will the City water from Well #4 and tank have enough pressure and volume to bore flush at the D-1 tie-in?

Answer: Yes, depending on what the water usage (i.e. if the canneries are running) in the system is at that time. Figure on special timing and coordination if needed to fit the connections and flushing into the City's water usage.

6. **Question:** Is it the intent to bore flush, chlorinate and pressure test the existing 12" main from Well #5 tie-in to the new Well #4?

Answer: No. This pipe was installed in the past 4 years and was flushed, disinfected, and tested previously.

7. **Question:** Will the other existing wells maintain the supply required for the city during the work required?

Answer: Yes. Wells # 1 and # 2 and water storage tank 1 are serviceable and capable of keeping the city in water (depending on City water usage) during time needed if closely coordinated. Figure on special timing and coordination if needed to fit the connections and flushing into the City's water usage. The City has the well and storage capacity to survive with well # 4 and the south tank for a while.

8. **Question:** Coatings and Wrappings: Is it required that all new DIP pipe and appurtenances will be coated and wrapped per spec 33100-3 2.02 section E?

Answer: Federal safety blue Sherwin-Williams Macropoxy epoxy for potable water or equal, 2 coats and 10 mils minimum on all exposed potable water piping and fittings. It is acceptable for buried factory coated ductile iron fittings to be completely wrapped in plastic like the pipe. The fittings, if wrapped in plastic like the pipe, do not have to be

coated and wrapped in Protecto wrap.

9. **Question:** Is there a Geotech Report available for this project? If so, can you please provide a copy?

Answer: We do not have a Geotech Report available for this site. We provided the subsurface data available in Addendum #4.

10. **Question:** The plans are vague regarding I.E., of the new or existing piping. If available, can you please provide the elevations of the existing waterlines or as-builts?

Answer: See attached proposed and existing pipe elevations on the revised plans. The elevations are clouded on sheets C5, C8 and D1.

11. **Question:** Additional clarification is needed for Amendment 4 question 10. It would appear that currently the system Integrator is direct to the owner and is providing the listed equipment in section 409100 Part 2 – 2.01. Please confirm. Spec 409100-1.02 C. The I&C system provided as part of this Contract is an addition and modification to the Owner's existing SCADA system, which was designed and furnished by S&B, Inc. For compatibility with their comprehensive system, I&C design and system integration will be provided by the Owner's I&C System Integrator, S&B, Inc. D. Installation of equipment supplied in this section shall be performed by the electrical and mechanical contractors as assigned by the General Contractor. Spec 409100-2.01-4 4. The System Integrator shall furnish MCC with VFDs, control panels, field instrumentation, and sensors for installation by the Contractor.

Answer: Spec Section 409100-1.02 C, identifies that S&B is the City's System Integrator that the Contactor must use for this project. The System Integrator is NOT direct to the Owner, rather direct to the Contractor. Typically to the Electrical Contractor.

Spec Section 409100-1.02D, provides direction that the Contractor is responsible for installation of all equipment supplied by the System Integrator as listed in 409100-2.01-4

12. **Question:** 1. Section 074217 (1.11 C) The specifications refers to a Weather Tightness Warranty (WTW) for the metal roofing system. Our metal supplier noted that WTW coverage cannot typically be provided for projects located within 1,500 feet of salt water. Given the site's proximity to the coast, please confirm whether a WTW is required for this project, or if a Coastal Fluothane paint warranty will be acceptable in lieu of the WTW due to its location.

Answer: Site is located approximately 3200' from salt water. WTW generally exclude corrosion or deterioration caused by exposure to marine atmosphere regardless of finish. The Owner elects to waive the WTW.

13. **Question:** Section 01505 states that "Mobilization shall include obtaining permits, insurance, taxes, overhead and profit, vehicles, equipment, fuel, moving plant and equipment onto site; furnishing and erecting plants, temporary buildings, and other construction facilities, as required for the proper performance and completion of the

Work.” a. Please confirm whether this means that the costs for overhead, profit, vehicles, equipment, and fuel for the entire duration of the project are to be included under the Mobilization/Demobilization line item on the bid schedule, or if these costs should instead be distributed within their respective work items.

Answer: The contractor is responsible for bidding the project in a manner that adequately covers their costs of doing business.

14. Question: Please confirm whether the Owner will be responsible for the costs and coordination of required special inspections and materials testing, or if these are to be included in the contractor’s scope of work.

Answer: The Owner will pay for testing and pay for and provide special inspections.

15. Question: The specifications for door hardware appear to be incomplete. Could you please include any applicable ANSI references or callouts?

Answer: Replace specification 087100 with attached specification. Ten (10) pages.

16. Question: The specs reference a 7-pin “Large Format” key system. Can you please confirm if this is the correct system to be used, or provide clarification on the key system requirements if otherwise?

Answer: The city uses a Best 9K 7-pin core system.

17. Question: Section 33100 - 2.02.E - All valves and fittings shall receive 2 coats of Protecto wrap. Question: Can we supply epoxy coated ductile fittings and valves?

Answer: All buried ductile iron pipe, fittings and valves shall be protected as specified in the Technical Specifications, Section 33100.

18. Question: Can the main new well pump be used for the pumping test ? And does it need to be removed for disinfection?

Answer : The main or new well pump may be used for test pumping. The pump does not have to be removed for disinfection.

Attached documents:

- Revised set of drawings attached (65 pages).
- Revised specifications section

End of Addendum

REVISED NEW WELL 5 PUMPING STATION

CITY OF VALDEZ, ALASKA

PROJECT NO. 21-310-2538

CONSTRUCTION CONTRACT NO. 2227

NOVEMBER 2025

OWNER



PO BOX 307
VALDEZ, AK 99686

ENGINEER



PO BOX 651 • EUREKA, NEVADA 89316 • (775) 293-1743
5 EAST PARK STREET • FALLON, NEVADA 89406 • (775) 423-9090

CONSULTANTS

SURVEYING

WRANGELL MOUNTAIN TECHNICAL SERVICES
ALLEN MINISH, P.L.S., P.E.
PO BOX 118
CHITINA, ALASKA 99566
(907) 823-2280

ARCHITECT

WOLF ARCHITECTURE, INC.
GARY S. WOLF, AIA
625 SOUTH COBB STREET, STE. 200
PALMER, AK 99645
(907) 746-6670

STRUCTURAL

PND ENGINEERS
DAVID BENTTI, P.E., S.E.
625 SOUTH COBB STREET
PALMER, AK 99645
(907) 707-1081

ELECTRICAL & MECHANICAL

RSA MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
DAVIN BLUBAUGH, P.E.
BRIAN PEKAR, P.E.
670 WEST FIREWEED LANE, SUITE 200
ANCHORAGE, ALASKA 99503
(907) 276-0521

CONTROLS/INTEGRATION

STEAD AND ASSOCIATES
JAMES SWANSON
13200 S.E. 30TH ST.
BELLEVUE, WA 98005
(425) 644-1700



LOCATION MAP

VALDEZ, ALASKA

SHEET LIST

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	GENERAL NOTES, ABBREVIATIONS, AND LEGEND
C3	SITE PIPING PLAN
C4	SITE GRADING PLAN
C5	BUILDING PIPING PLAN AND SECTION
C6	WELL 5 TRANSMISSION MAIN
C7	BUILDING DRAIN PLAN AND PROFILE
C8	WELL CROSS SECTION
D1-D2	GENERAL DETAILS
G1.1	CODE PLAN DESIGN DEVELOPMENT
G0.01	ARCHITECTURAL SYMBOLS AND ABBREVIATIONS
G0.02	TYPICAL ADA DETAILS
A1.1	FIRST FLOOR & REFLECTED CEILING PLANS
A1.2	ROOF PLAN & DETAILS
A2.1	EXTERIOR ELEVATIONS
A2.2	ELEVATIONS - COLOR
A3.1	BUILDING SECTIONS
A3.2	WALL SECTIONS
A4.1	INTERIOR ELEVATIONS
A5.1	WINDOW & DOOR DETAILS
A5.2	WALL DETAILS
A5.3	PLAN DETAILS
A6.1	SCHEDULES
S1.1	DESIGN CRITERIA
S1.2	SPECIAL INSPECTIONS
S1.3	CONCRETE REINFORCING SCHEDULES AND TYPICAL DETAILS
S1.4	WOOD FRAMING SCHEDULES AND TYPICAL DETAILS
S1.5	WOOD SHEAR WALL SCHEDULES AND TYPICAL DETAILS
S2.0	FOUNDATION & SLAB PLAN
S2.1	ROOF FRAMING PLAN
S3.0	DETAILS
S4.0	TRUSS ELEVATION AND NOTES
M1	MECHANICAL LEGEND, ABBREVIATIONS, AND SCHEDULE
M2	MECHANICAL PLAN
M3	MECHANICAL DETAILS
E1	ELECTRICAL LEGEND AND SCHEDULE
E2	ELECTRICAL SITE PLAN - PUMP STATION 5
E3	ELECTRICAL PLANS - PUMP STATION 5
E4-E5	ELECTRICAL DETAILS
I1-I2	STANDARDS SHEET
I3	WIRING INTERFACE GENERAL DETAILS
I4	EQUIPMENT WIRING FOR DISCRETE AND VIRTUAL DATA
I5	QUICK CONNECT CABLING STANDARDS
I6	SUBMERSIBLE PROBE (DISCRETE) DETAIL
I7	SUBMERSIBLE PROBE INSTALLATION
I8	MAG FLOWMETER (NETWORKED)
I9	MAG FLOWMETER (DISCRETE) DETAIL
I10	MAG METER INSTALLATION
I11	VFD (NETWORKED) DETAIL
I12	FLOOD SWITCH DETAIL
I13	INTRUSION LIMIT SWITCH DETAIL
I14	STATION ANTENNA INSTALLATION DETAIL
I15	POWER METER (NETWORKED)
I16	GAUGE PRESSURE TRANSMITTER
I17	PRESSURE TRANSMITTER DETAILS
I18	BLOCK DIAGRAM AUTOMATION POWER & ANCILLARY SYSTEMS
I19	RTU BLOCK DIAGRAM PUMP ROOM WELL OPERATIONS
I20	BLOCK DIAGRAM CONTROL SYSTEM NETWORK DIAGRAM
I21	WELL 5 BACKUP PANEL PRESENTATION
I22	WELL 4/ RESERVOIR 2 BLOCK DIAGRAM RIO PANEL
I23	WELL 4/ RESERVOIR 2 BLOCK DIAGRAM CONTROL SYSTEM NETWORK DIAGRAM
I24	WELL 4/ RESERVOIR 2 I/O BACK PANEL PRESENTATION

BASIS OF BEARINGS:

THE BASIS OF BEARING, COORDINATES, BEARINGS, DISTANCES
ARE ALL BASED ON HIGH PRECISION GPS RTK, NAD83 ALASKA
STATE PLANE ZONE 3 IN FEET.

BASIS OF ELEVATION:

THE BASIS OF ELEVATION IS BASED ON HIGH PRECISION GPS RTK,
NAVD88 GEOID 12b.

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "ORANGE BOOK" – STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, INCLUDING A BUILDING PERMIT, A DUST CONTROL PERMIT AND A STORMWATER POLLUTION PREVENTION PLAN, AS WELL AS BONDING FROM THE APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION.
3. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT THE WORK PERFORMED UNDER THE CONTRACT SHALL RESULT IN A COMPLETE OPERATING SYSTEM IN SATISFACTORY WORKING CONDITION WITH RESPECT TO THE FUNCTIONAL PURPOSES OF THE INSTALLATION. IF THERE ARE ANY DISCREPANCIES REGARDING THE IMPLIED MEANING OF THESE PLANS, THE CONTRACTOR IS DIRECTED TO CONTACT THE CONSULTING ENGINEER IMMEDIATELY.
- ENGINEER
DAY ENGINEERING
PO BOX 651
EUREKA, NEVADA 89316
(775) 293-1743
DEAN DAY

OWNER OF WATER UTILITIES
CITY OF VALDEZ
PO BOX 307
VALDEZ, AK 99686
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH CONSTRUCTION.
5. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
6. PRIOR TO FINAL ACCEPTANCE, BOND RELEASES, AND NOTICE OF COMPLETION, CERTIFIED LEGIBLE AS-BUILT DRAWINGS MUST BE SUBMITTED TO CITY OF VALDEZ. AS-BUILT DRAWINGS MUST SHOW ALL CHANGES AND ACTUAL FIELD LOCATIONS. IN THE ABSENCE OF CHANGES, A COPY OF APPROVED DRAWINGS WILL BE REQUIRED STATING "INSTALLED AS PER DRAWINGS" AND CERTIFIED AS SUCH BY THE ENGINEER.
7. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITION TO BE DETERMINED BY THE ENGINEER.
8. BEFORE ANY WORK IS STARTED IN THE ADOT RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE AND MEET ALL REQUIREMENTS OF THE ADOT ENCROACHMENT PERMIT. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING PUBLIC STREETS IMMEDIATELY AFTER THE FIRST GRADING WORK IS ACCOMPLISHED AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "ALASKA TRAFFIC MANUAL" – CURRENT EDITION, AND TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" – CURRENT EDITION, AND BE APPROVED BY THE ADOT ENGINEER BEFORE CONSTRUCTION BEGINS. A COPY OF THE ADOT PERMIT SHALL BE ON SITE AT ALL TIMES.
9. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AND THE DESIGN ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. THIS INCLUDES ALL SERVICE LATERALS OF ANY KIND. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING OVER OR NEAR EXISTING GAS MAINS AND UNDERGROUND POWER AND TELEPHONE LINES.
10. ALL EXCESS OR UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH CITY OF VALDEZ CODES.
11. PROTECTION AND REPLACEMENT OF SURVEY MONUMENTS OR PROPERTY STAKES NOT DELINEATED ON THE CONTRACT DRAWINGS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. REPLACEMENT OF SURVEY MONUMENTS OR PROPERTY STAKES SHALL BE DONE TO ENGINEER'S SATISFACTION.
12. AT LEAST TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES THAT MAY HAVE FACILITIES IN THE AREA OF CONSTRUCTION.
13. MODIFICATIONS TO EXISTING UTILITIES SHALL CONFORM TO CITY OF VALDEZ PUBLIC WORKS DESIGN STANDARDS. CONTRACTOR SHALL NOTIFY AFFECTED UTILITY 48 HOURS IN ADVANCE OF ANY WORK.
14. THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE AND ALL SUCH IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED OR RECONSTRUCTED TO CITY OF VALDEZ'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
15. CONTRACTOR SHALL POTHOLE EXISTING UTILITIES TO VERIFY DEPTHS, EXISTING MATERIALS AND LOCATION PRIOR TO EXCAVATION.
16. ALL DRAINAGES, ROADWAYS, CULVERTS, SLOPES, DITCHES, CURB & GUTTER & SIDEWALKS, FENCES, UTILITIES, AND STRUCTURES SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION BY THE CONTRACTOR IN ACCORDANCE WITH CITY OF VALDEZ.
17. CONTRACTOR SHALL STABILIZE TRENCHING ACTIVITIES INCLUDING EXISTING WATER AND SEWER LINES, OVERHEAD POWER POLES, EXISTING STRUCTURES AND WHEREVER NECESSARY, SUCH AS AT CROSSINGS AND ADJACENT TO STORM DRAIN HEADWALLS TO MAINTAIN TRENCH STRUCTURAL INTEGRITY.

PUBLIC WORKS UTILITY NOTES

1. ALL WORK AUTHORIZED BY THIS PLAN SHALL CONFORM TO CITY OF VALDEZ DESIGN STANDARDS, LATEST REVISION AND THE SPECIAL PROVISIONS OF THE PROJECT.
2. NO OPEN TRENCH SHALL BE ALLOWED ACROSS ANY STREET OR WITHIN TEN FEET (10') OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. AREAS COVERED BY ACCEPTABLE STEEL PLATES ARE NOT TO BE CONSTRUCTED AS A TRENCH. NO OPEN TRENCH PERMITTED IN EXCESS OF 500 FEET OR LENGTH NECESSARY TO ACCOMMODATE PIPE INSTALLATION IN A SINGLE DAY, WHICHEVER IS GREATER.
3. ALL PERMITS AND APPROVED PLANS FOR THIS WORK MUST BE ON THE JOB SITE AT ALL TIMES.
4. ALL TRENCH CROSSINGS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATIONS UNLESS OTHERWISE STATED.
5. CONTRACTOR SHALL MAINTAIN AN ON-GOING PROCESS FOR REMOVAL OF ALL SPILLAGE OF EXCAVATED MATERIAL ON ALL PAVED STREETS.
6. INSPECTIONS ARE REQUIRED. THE CONTRACTOR SHALL NOTIFY ALL EFFECTED PUBLIC ENTITIES 48 HOURS MINIMUM PRIOR TO COMMENCEMENT OF WORK.
7. ANY SPECIAL INSPECTIONS SHALL BE AS REQUIRED PER SPECIFICATIONS.
8. COMPACTION TESTS ARE REQUIRED. SOIL TESTING SHALL COMPLY WITH THE STANDARD SPECIFICATIONS.

WATER NOTES

1. ALL PIPE FOR THIS PROJECT SHALL BE HDPE WHERE SHOWN.
2. ALL PIPE SHALL BE FLUSHED AND PRESSURE TESTED PER AWWA C600 (LATEST REVISION).
3. ALL PIPE SHALL BE DISINFECTED PER AWWA C651 (LATEST REVISION).
4. THE CONSTRUCTION OPERATION SEQUENCING FOR MAINTAINING WATER SUPPLY SHALL BE DEFINED BY THE CONTRACTOR AND APPROVED BY THE CITY OF VALDEZ PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF VALDEZ 48 HOURS IN ADVANCE OF ANY WATER MAIN SHUTDOWNS OR TIE-INS. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 4 HOURS MAXIMUM. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING VALVES.
6. ALL WATER SERVICES 2 INCHES OR LESS SHALL BE IPS, PE PIPE; SERVICES 3 INCHES OR GREATER SHALL BE PVC C900 DR 18 OR AS SPECIFIED ON THE PLANS.
7. MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE SHALL BE ENCASED 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF THE CROSSING. CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED.
8. WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5'-2" WITH WATER VALVE DECAL (WV-XXX) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN FIVE (5) FEET FROM THE VALVE.
9. SATISFACTORY BACTERIOLOGICAL ANALYSIS MUST BE PROVIDED TO ADEC PRIOR TO PLACING A NEW WELL, WATER STORAGE TANK, OR DISTRIBUTION AND TRANSMISSION MAINS INTO SERVICE.
10. CONTRACTOR SHALL SEAL ALL OPENINGS OF UNFINISHED PIPE OR APPURTENANCES AT THE END OF EACH CONSTRUCTION DAY TO PREVENT THE INTRODUCTION OF CONTAMINATION.
11. CONTACT ADEC FOR COORDINATION PRIOR TO DISPOSAL OF HEAVILY CHLORINATED WATER.
12. ALL MATERIALS COMING INTO CONTACT WITH POTABLE WATER SHALL BE NSF 61 LISTED AND CERTIFIED AS LEAD-FREE.
13. THE HDPE PIPE MANUFACTURER WILL CERTIFY THAT THE RESIN CAN BE USED IN THE CITY OF VALDEZ CLIMATE.
14. THE HDPE PIPE MANUFACTURER'S WELDABILITY TESTING RECOMMENDATIONS WILL BE SUBMITTED FOR APPROVAL BY THE ENGINEER AND FOLLOWED BY THE CONTRACTOR.
15. BUTT FUSION OF HDPE JOINTS WILL PER THE MANUFACTURER'S RECOMMENDATIONS, AND A DATA LOGGER WILL RECORD THE FUSION EQUIPMENT TEMPERATURE, TIMES, AND PRESSURES. ALL WELDS SHALL BE ACCOMPLISHED IN THE PRESENCE OF A QUALIFIED INSPECTOR PROVIDED BY THE ENGINEER.
16. HDPE PIPE BUTT FUSION WELDERS SHALL BE CERTIFIED TO OPERATE FUSION EQUIPMENT.
17. HDPE PIPE FUSION SHALL USE CERTIFIED EQUIPMENT. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, AND FOLLOW, EQUIPMENT MANUFACTURER'S QA/QC, MAINTENANCE, AND CALIBRATION.
18. PARTS AND PIPE FOR THIS PROJECT IN CONTACT WITH POTABLE WATER SHALL NOT HAVE MORE THAN 0.25 PERCENT LEAD.
19. CONTRACTOR SHALL PROVIDE CERTIFICATION THAT ALL PARTS AND PIPE IN CONTACT WITH POTABLE WATER ARE NSF-61 CERTIFIED BY AN ANSI ACCREDITED ORGANIZATION.
20. FLUSHING AREA IS SHOWN ON THE PLANS (FROM FIRE HYDRANT). FLUSH WATER SHALL BE FLUSHED USING AN AIR GAP. CHLORINATED FLUSH WATER SHALL BE DECHLORINATED USING A DIFFUSER ON THE HYDRANT THAT CONTAINS SODIUM SULFITE TABLETS. THEN THE FLUSH WATER CAN BE PUT ON THE GROUND AND GRADED TO AVOID DAMAGE TO ADJACENT PROPERTY. FLUSHED WATER MUST MEET THE REQUIREMENTS OF 18 AAC 70.
21. THE WATER SAMPLE TAP FOR BACTERIOLOGICAL SAMPLES SHALL BE OUT OF THE FIRE HYDRANT. TWO SEPARATE SAMPLES TAKEN 24 HOURS APART MUST PASS AS NEGATIVE FOR COLIFORM BACTERIA BEFORE NEW WATER PIPING CAN BE CONNECTED AND PUT INTO SERVICE IN THE WATER SYSTEM.

ABBREVIATIONS

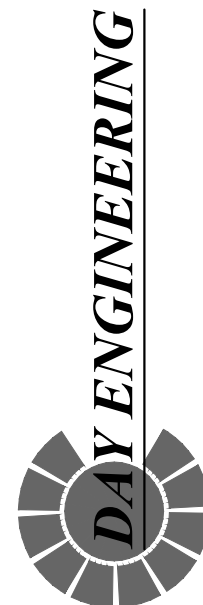
A	AREA	L	LENGTH	T	TANGENT DISTANCE
AC	ASPHALTIC CONCRETE	LS	LANDSCAPE	TBC	TOP BACK OF CURB
ACP	ABESTOS CEMENT PIPE	LAT	LATERAL	TC	TOP OF CURB
ADJ	ADJUST, ADJUSTABLE	LF	LINEAL FEET	TEL	TELEPHONE
AL	ARC LENGTH	LT	LEFT	TFC	TOP FRONT OF CURB
AD	AREA DRAIN	LP	LOW POINT	TOC	TOP OF CONCRETE
BC	BEGINNING OF CURB / BACK OF CURB	MAX	MAXIMUM	TMH	TOP OF MANHOLE
BCR	BEGINNING OF CURB RETURN	MB	MAIL BOX	TOW	TOP OF WALL
BDRY	BOUNDARY	MH	MANHOLE	TRANS	TRANSITION
BEG	BEGIN	MIN	MINIMUM	TSC	TRAFFIC SIGNAL CONDUIT
BM	BENCHMARK	N	NORTH	TSW	TOP OF SIDEWALK
BSW	BACK OF SIDEWALK	NO	NUMBER	TYP	TYPICAL
BVC	BEGINNING OF VERTICAL CURVE	OC	ON CENTER	UGE	UNDERGROUND ELECTRIC LINE
CB	CATCH BASIN / DROP INLET	OD	OUTSIDE DIAMETER	VC	VERTICAL CURVE
C&G	CURB AND GUTTER	OHE	OVERHEAD POWER LINE	VCP	VITRIFIED CLAY PIPE
CF	CURB FACE	PC	POINT OF CURVATURE	VERT	VERTICAL
CIP	CAST IRON PIPE	PCC	POINT OF COMPOUND CURVE	VG	VALLEY GUTTER
CL	CENTERLINE	PI	POINT OF INTERSECTION	W	WEST, WATER
CMP	CORRUGATED METAL PIPE	PL	PROPERTY LINE	WW	WATER VALVE
CONC	CONCRETE	PP	POWER POLE		
CONST	CONSTRUCT, CONSTRUCTION	POC	POINT OF CONNECTION		
DC	DEPRESSED CURB	PRC	POINT OF REVERSE CURVE		
DI	DROP INLET	PROP	PROPOSED		
DIA	DIAMETER	PT	POINT OF TANGENT		
DIP	DUCTILE IRON PIPE	PVC	POLYVINYL CHLORIDE PIPE		
DMH	DROP MANHOLE	PVI	POINT OF VERTICAL INTERSECTION		
E	EAST	Q	RATE OF FLOW		
EC	END OF CURVE	RAD	RADIUS		
ECR	END OF CURB RETURN	RED	REDUCER		
EF	ELECTROFUSION	RCP	REINFORCED CONCRETE PIPE		
EG	EXISTING GROUND	RT	RIGHT		
EL	ELEVATION	R/W, ROW	RIGHT OF WAY		
EP, EOP	EDGE OF PAVING	S	SOUTH		
EVC	EDGE OF VERTICAL CURVE	SS	SANITARY SEWER		
EXIST, EX	EXISTING	SSCO	SANITARY SEWER CLEANOUT		
FF	FINISHED FLOOR	SSMH	SANITARY SEWER MANHOLE		
FG	FINISHED GRADE	SD	STORM DRAIN		
FH	FIRE HYDRANT	SDMH	STORM DRAIN MANHOLE		
FL	FLOWLINE	SF	SQUARE FOOT		
FM	FORCEMAIN	SHP	STEEL HIGH PRESSURE		
G	GAS	SHT	SHEET		
GB	GRADE BREAK	STA	STATION		
GV	GAS VALVE	STD	STANDARD		
HDPE	HIGH DENSITY POLYETHYLENE PIPE	STL	STEEL		
HGT	HEIGHT	SW	SIDEWALK		
HORIZ.	HORIZONTAL				
HP	HIGH POINT				
ID	INSIDE DIAMETER				
IE	INVERT ELEVATION				
IN	INCH				

LEGEND

	PROPOSED WATER MAIN		SECTION / PROPERTY LINE / EASEMENT LINE
	EXISTING WATER MAIN		CENTERLINE
	EXISTING SEWER MAIN		FENCE
	EXISTING TELEPHONE		EDGE OF ROAD
	PROPOSED WATER VALVE		OVERHEAD POWER LINE
	EXISTING WATER VALVE		LIGHT POLE
	PROPOSED AIR VALVE ASSEMBLY		TELEPHONE PEDESTAL
	PROPOSED FIRE HYDRANT		POWER POLE
	EXIST FIRE HYDRANT		
	PROPOSED SINGLE METER		
	PROPOSED DOUBLE METER		
	EXISTING METER		
	PROPOSED SSMH		
	EXISTING SSMH		
	FLOW ARROW		

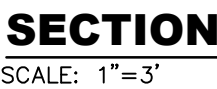
GENERAL NOTES, ABBREVIATIONS,
AND LEGEND

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



BY :
DATE : JUNE 2025
SCALE : AS SHOWN

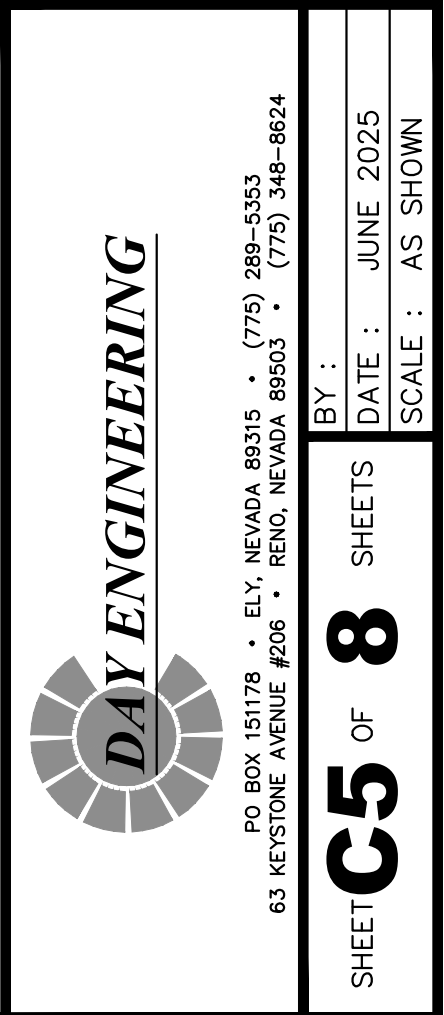
SHEET C2 OF 8 SHEETS

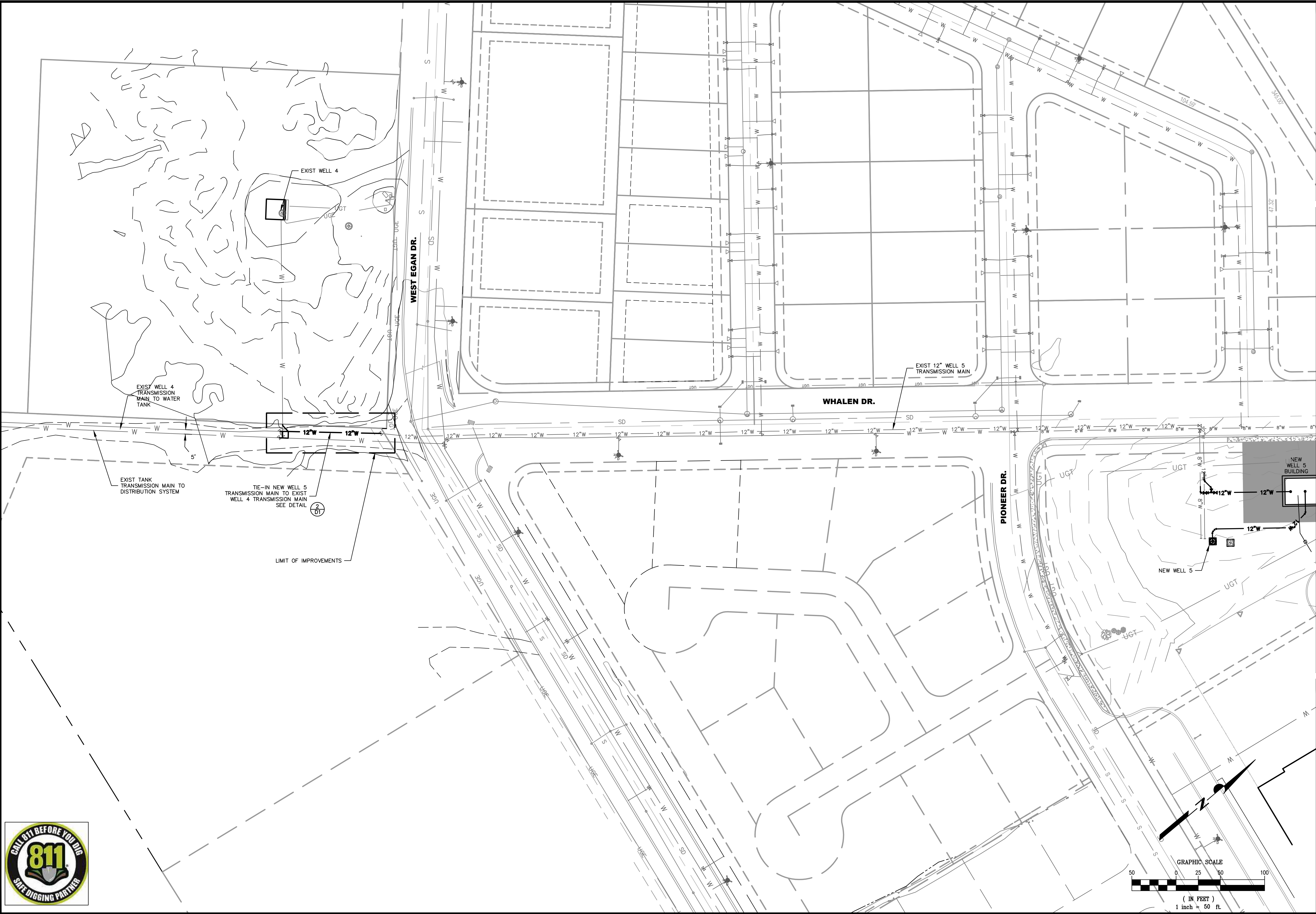


NOTE:

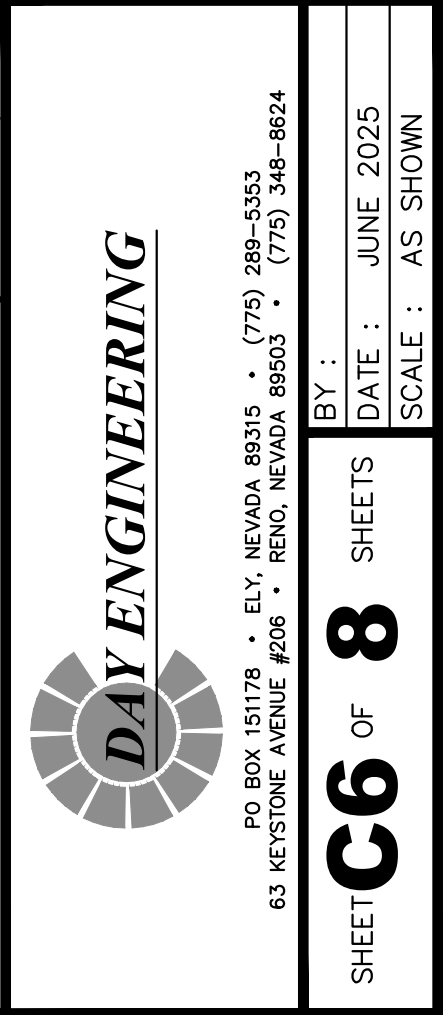
- 1) SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SHEETS FOR BUILDING DETAILS.
- 2) FEDERAL SAFETY BLUE SHERWIN-WILLIAMS MACROPOXY EPOXY FOR POTABLE WATER OR EQUAL, 2 COATS AND 10 MILS MINIMUM ON ALL EXPOSED POTABLE WATER PIPING AND FITTINGS.

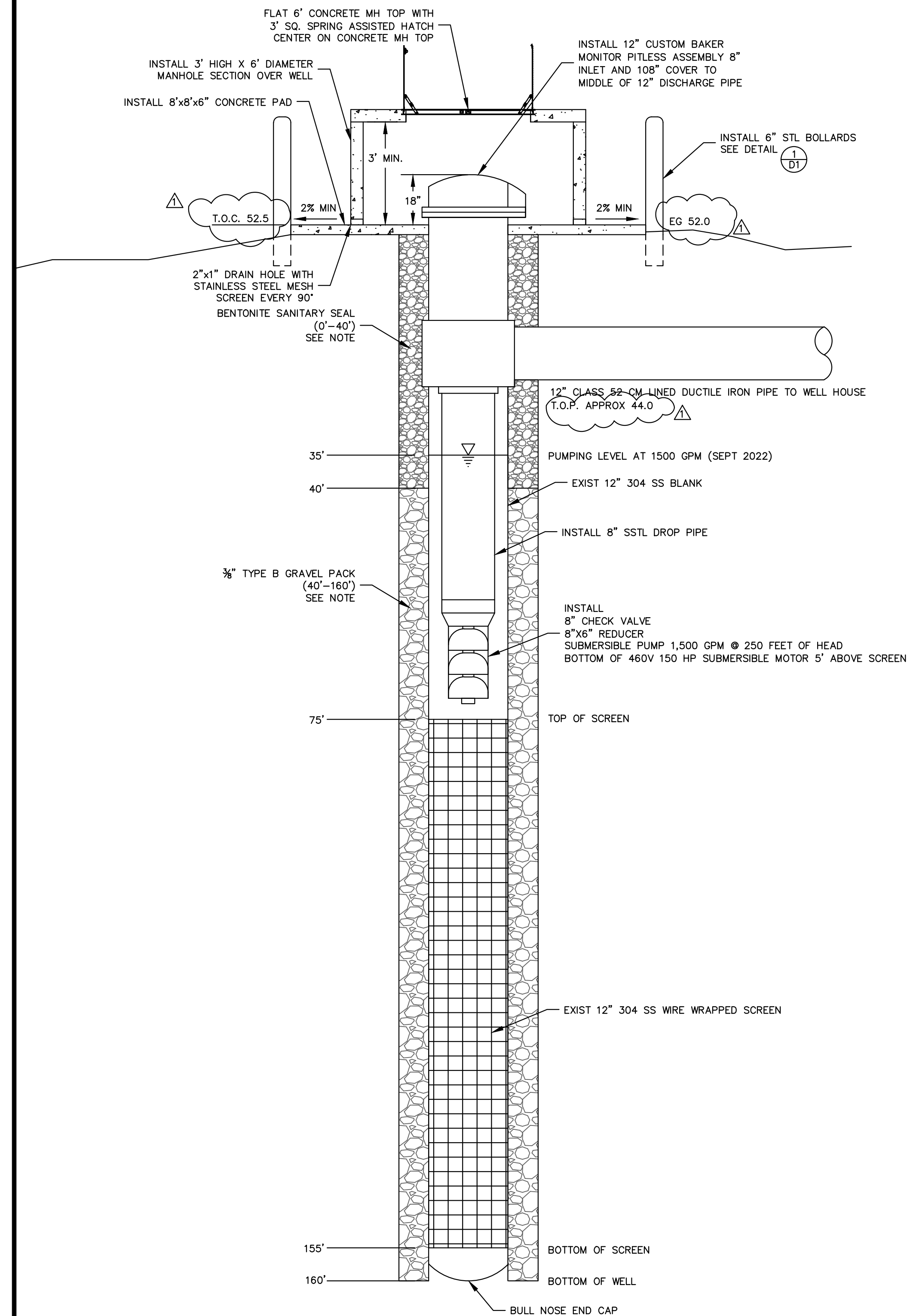
TITLE	BUILDING PIPING PLAN AND SECTION
PROJECT	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA



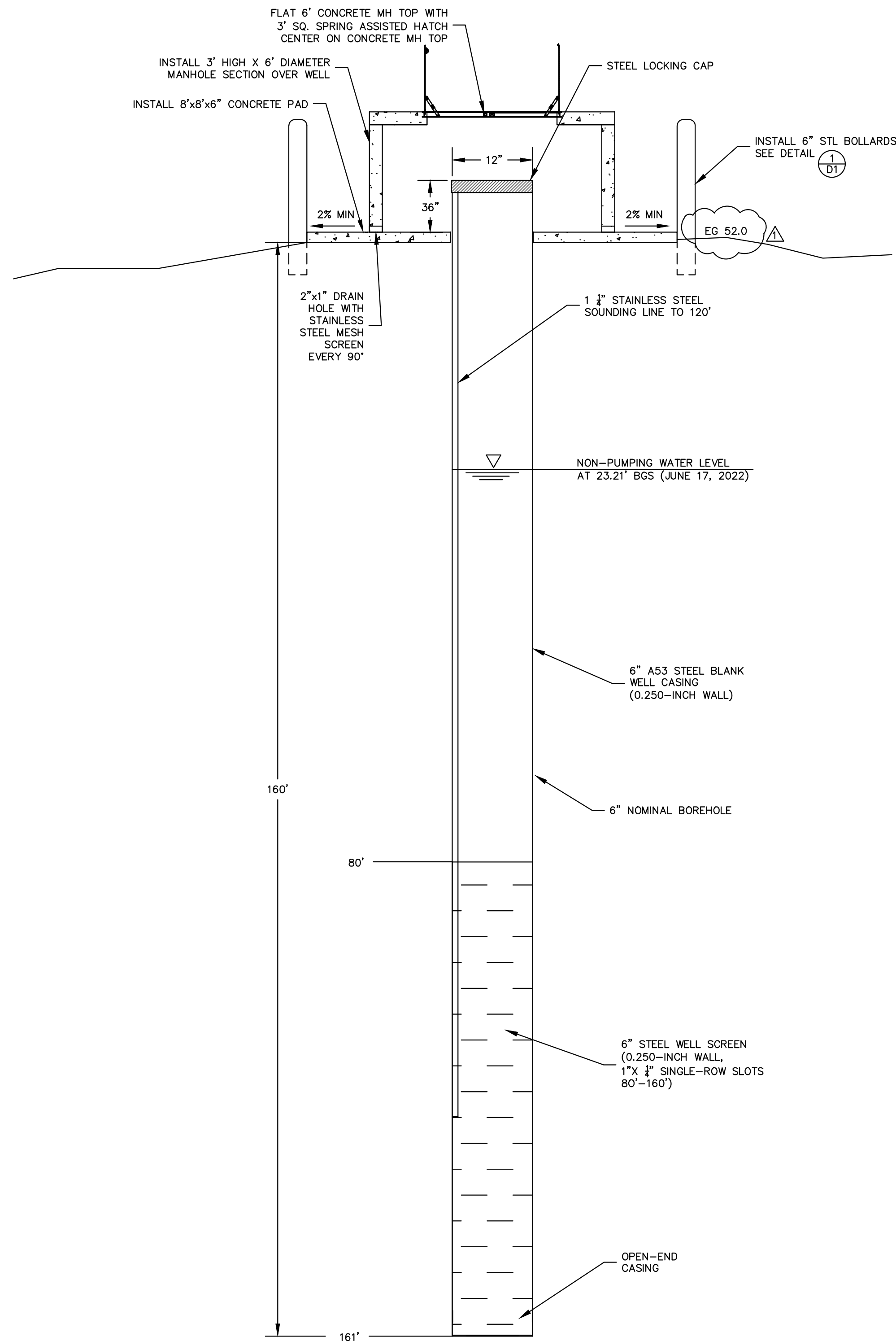


TITLE	WELL 5 TRANSMISSION MAIN
PROJECT	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA

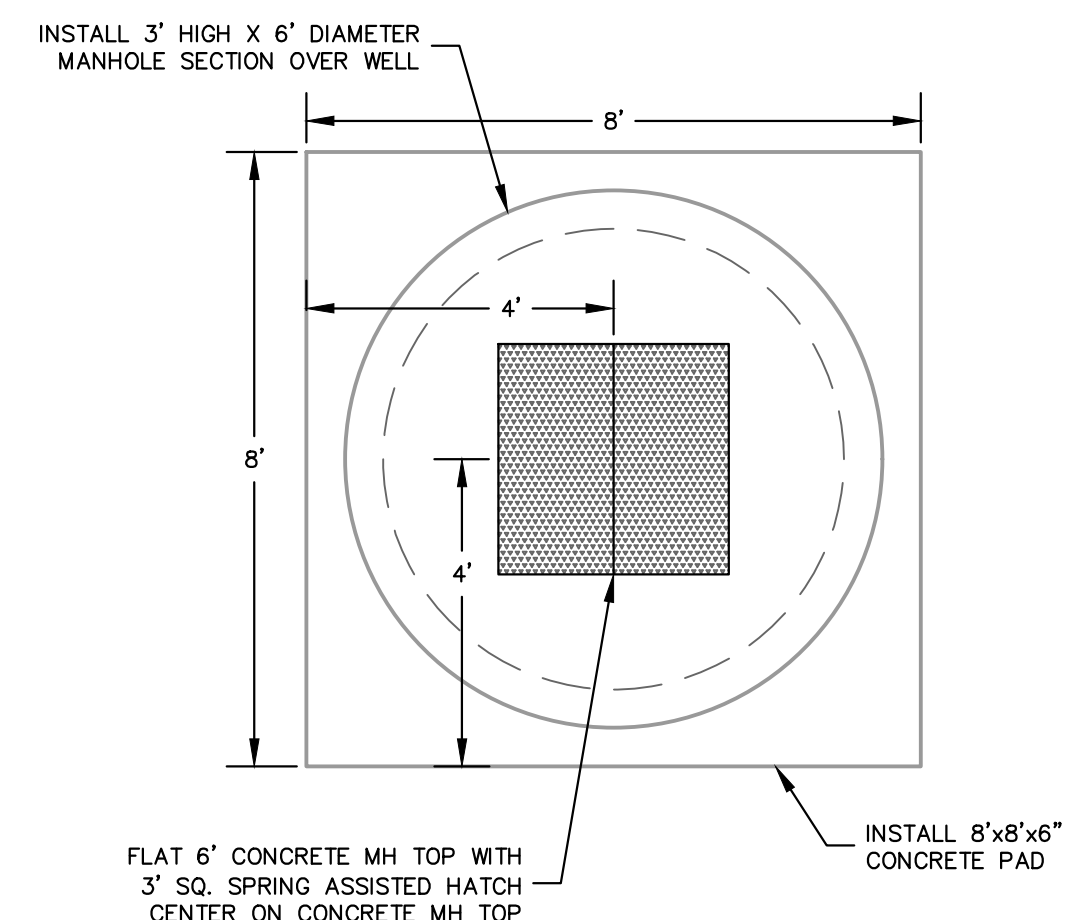




NOTE:
CONTRACTOR TO REPAIR SANITARY SEAL AFTER
INSTALLATION OF PITLESS UNIT AND
DISCHARGE PIPE.



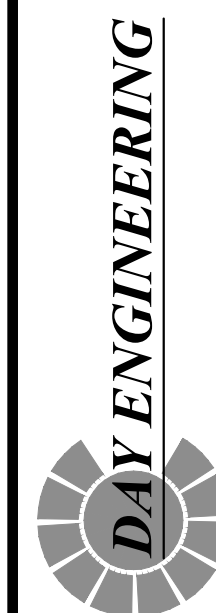
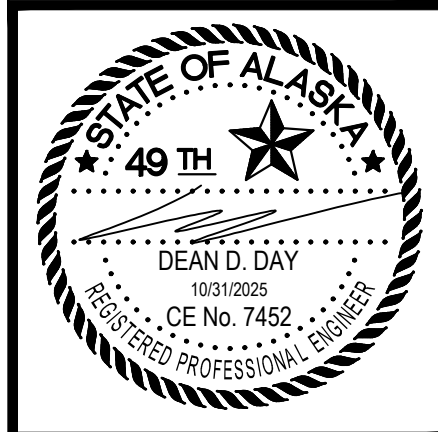
EXIST MONITORING WELL SECTION
SCALE: N.T.S.



LID DETAIL
SCALE: N.T.S.

	10/31/2025	MU	ELEVATIONS ADDED
APPROVAL	REV	DATE	BY REVISION

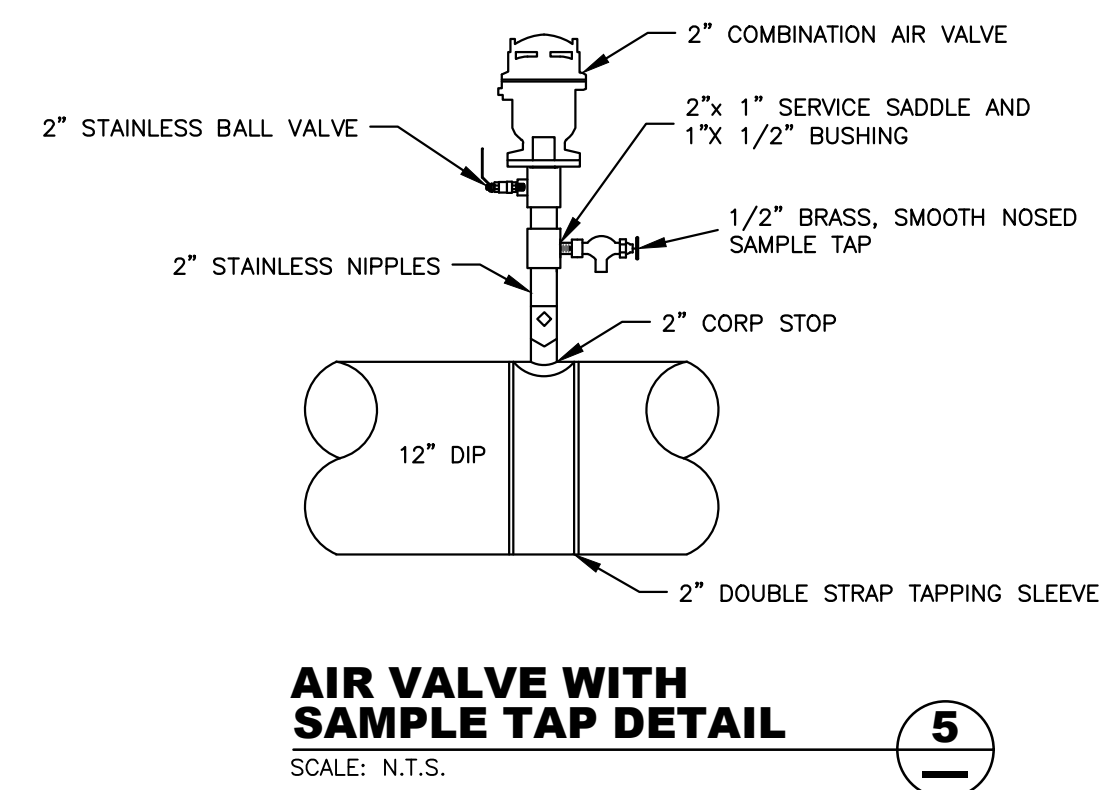
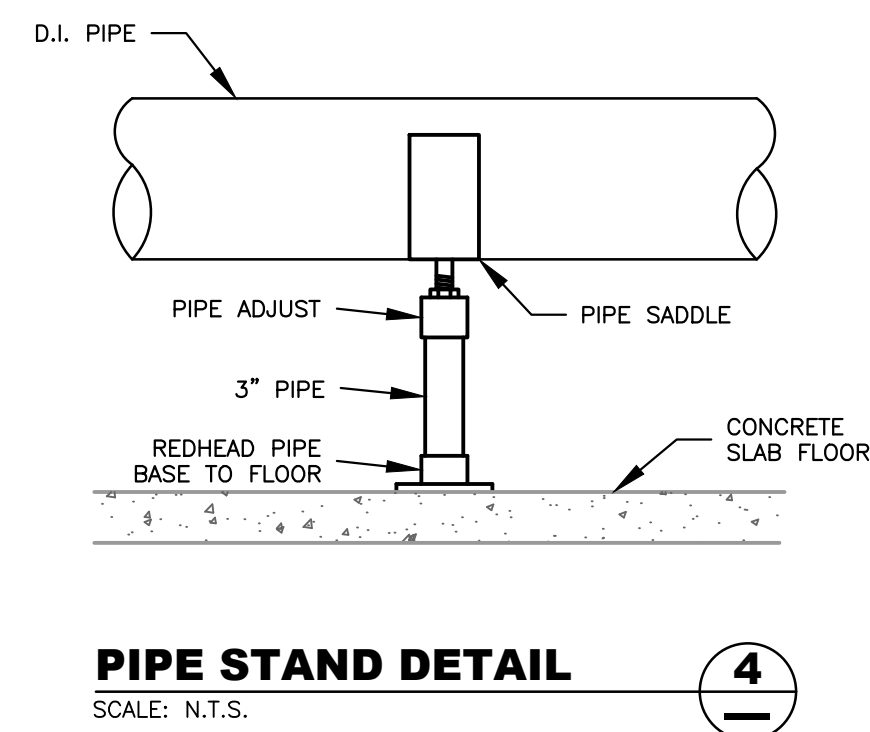
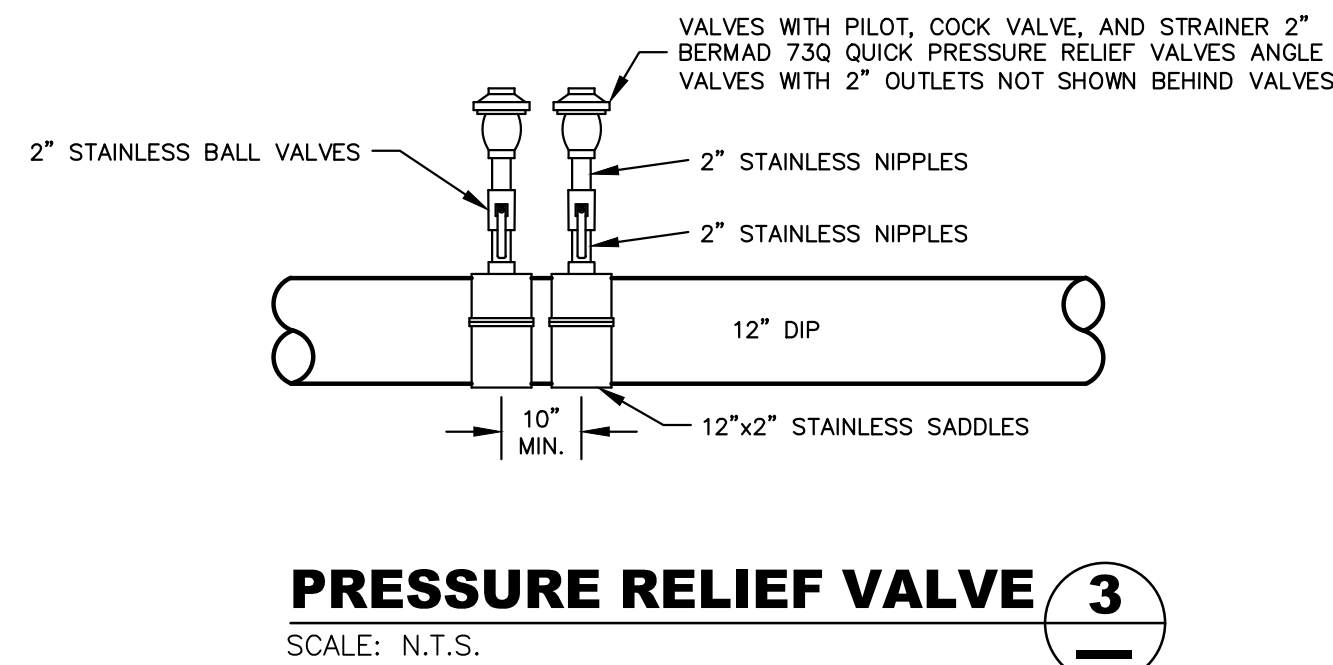
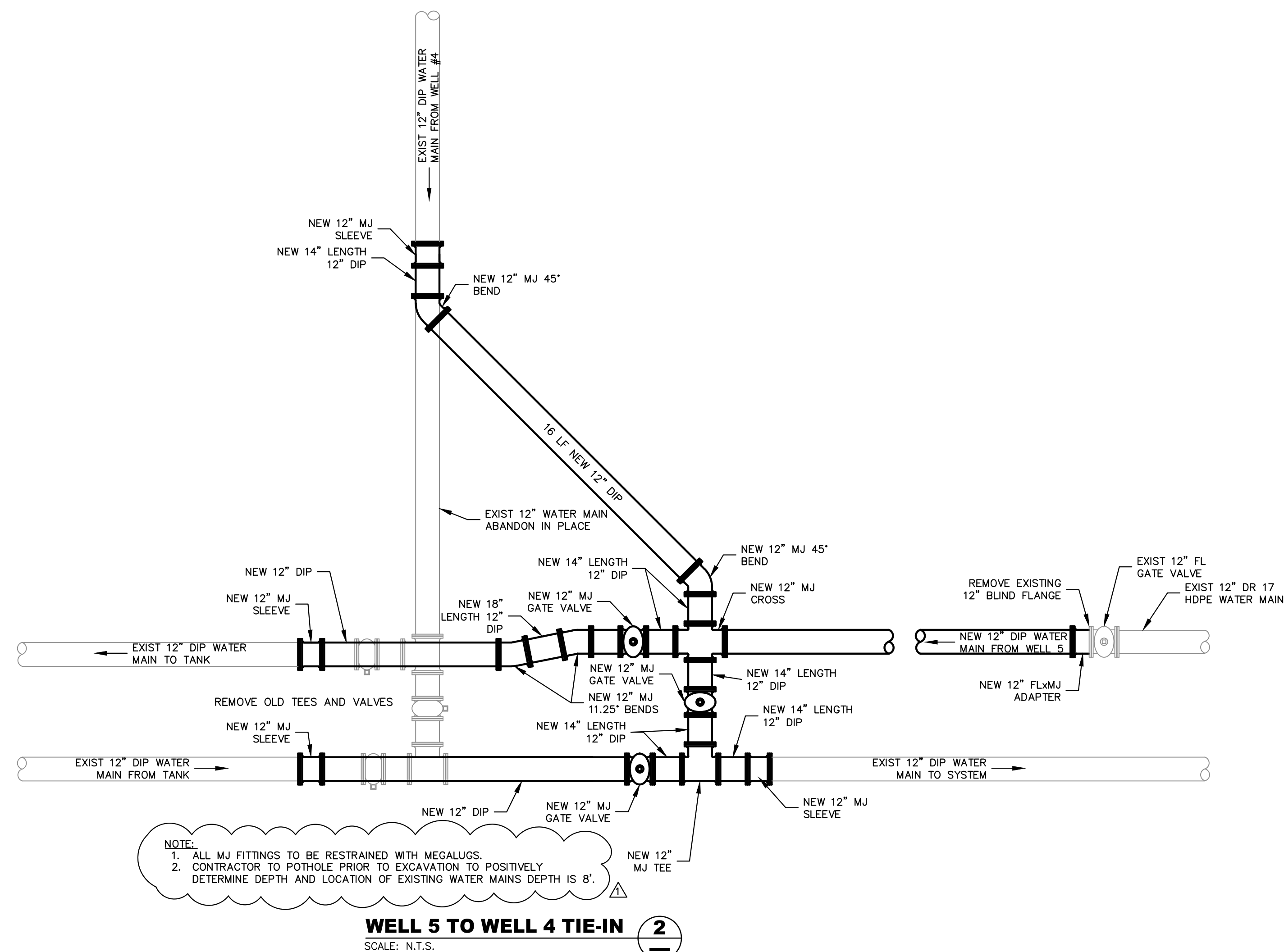
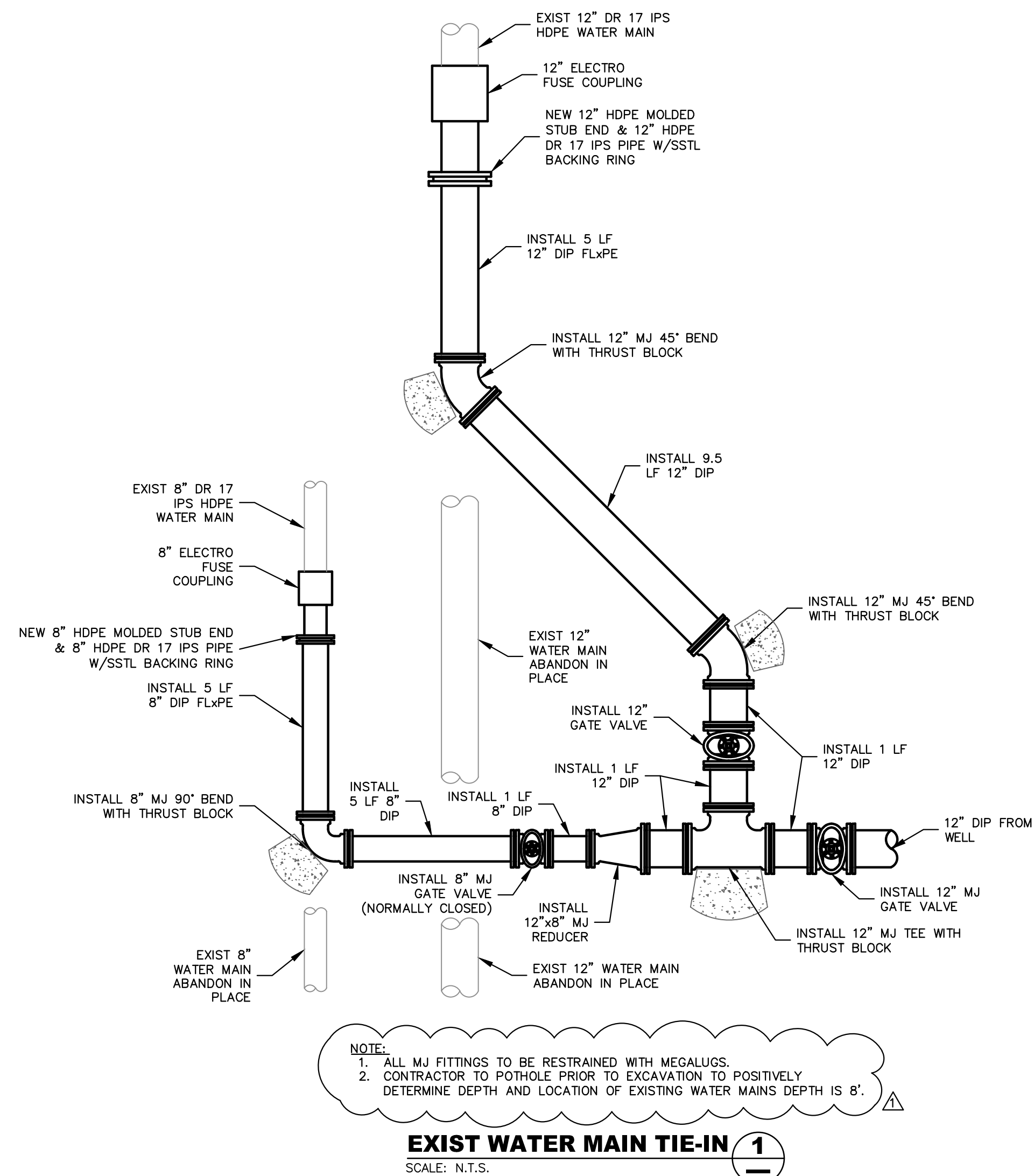
TITLE	WELL CROSS SECTION
PROJECT	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA



PO BOX 151178 • ELY, NEVADA 89315 • (775) 289-5353
33 KEYSTONE AVENUE #206 • RENO, NEVADA 89503 • (775) 348-8624

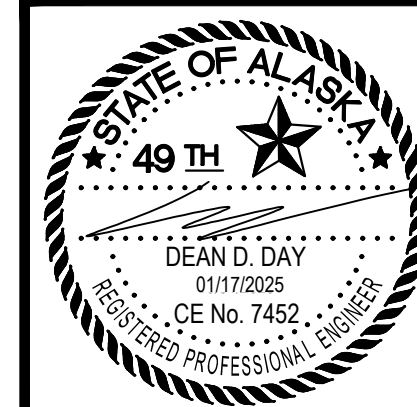
BY : **SHEET C8 OF 8** SHEETS
DATE
SCALE

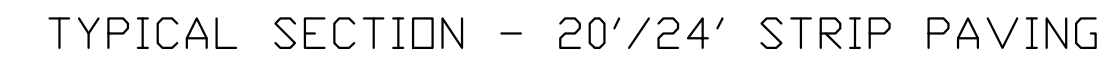
APPRVL	REV	DATE	BY	REVISION
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[illegible]

GENERAL DETAILS

**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**

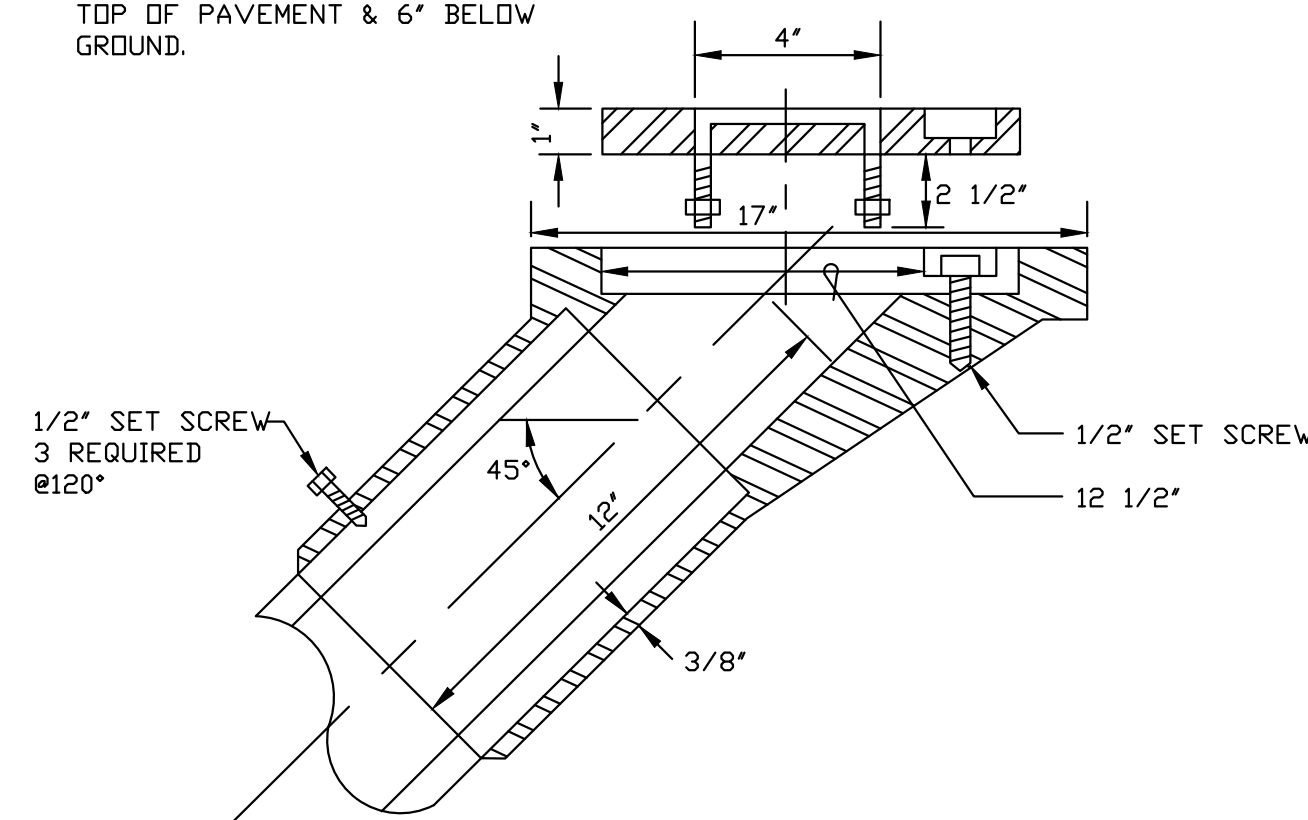
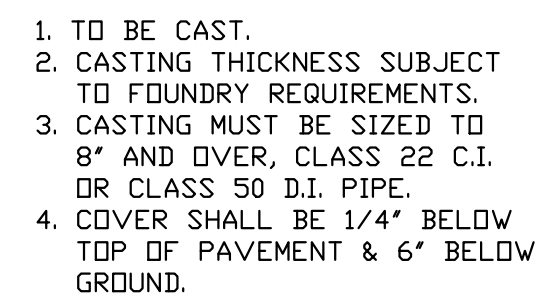




1. MATERIAL TO BE PLACED OR REMOVED AND GRADED IN A NEAT MANNER FROM EXCAVATION LIMITS TO EXISTING ELEVATION AT PROPERTY LINE AS DIRECTED BY THE ENGINEER.
2. DEPTH OF EXCAVATION TO BE DETERMINED BY THE ENGINEER.
3. THE TOP 6" OF CLASSIFIED FILL OR BACKFILL IMMEDIATELY BENEATH THE LEVELING COURSE SHALL BE RESTRICTED TO MINUS 3-INCH MATERIAL.
4. UNLESS OTHERWISE APPROVED, THE C OF STREET WILL BE THE C OF R.O.W.

The diagram illustrates a trench cross-section with the following features and labels:

- Top Section:** A hatched area representing the trench backfill, labeled "TRENCH BACKFILL AS SPECIFIED IN BID PROPOSAL".
- Vertical Dimensions:**
 - Variable Depth:** Indicated by a vertical arrow on the left labeled "VARIABLE".
 - Bottom Section:** Indicated by a vertical arrow on the right labeled "A'".
 - Springline Offset:** Indicated by a vertical arrow on the left labeled "6" MIN.".
 - Bottom Section:** Indicated by a vertical arrow on the right labeled "C'".
- Horizontal Dimensions:**
 - Top Width:** Indicated by a horizontal arrow at the top labeled "B'".
 - Bottom Width:** Indicated by a horizontal arrow at the bottom labeled "B".
 - Radius:** Indicated by a circular arrow at the bottom labeled "D".
- Other Labels:**
 - SPRINGLINE:** A horizontal dashed line indicating the base of the trench.
 - 4:1 SLOPE:** Labels on the sides of the trench indicating the slope ratio.

[illegible]

NEW WELL 5 PUMPING STATION VALDEZ, ALASKA

PROJECT

TYPICAL SECTIONS FOR 20'/24' STRIP PAVING AND GRAVEL STREETS

The diagram illustrates the construction of a trench for a pipe system. It shows a cross-section of the trench with a hatched bottom and side walls. A main pipe runs horizontally, with several vertical connections labeled 'TEE' and 'CROSS'. The 'EDGE OF TRENCH' is indicated at the bottom of the trench. A 'PLUG' is shown at the end of the pipe. An inset on the right shows a detailed view of a 'PIPE' connection with a 'PLUG' at the end.

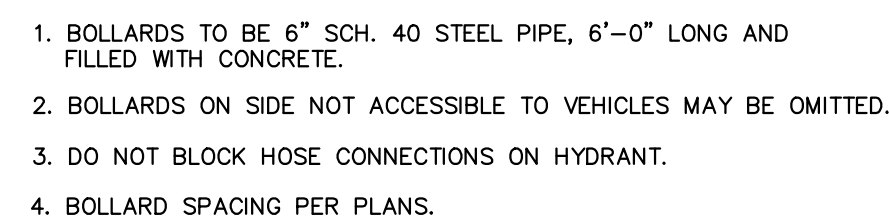
THRUST BLOCK

SCALE:
NONE
APPROVED:
REVISED:
1/88

SCALE:
3"=1'-0"
APPROVED:
REVISED:
11/87

MUNICIPALITY
DE ANCHORAGE

SCALE: N.T.S.



SCALE: N.T.S.

STATE OF ALASKA
49TH
DEAN D. DAY
10/31/2025
CE NO. 7452
REGISTERED PROFESSIONAL ENGINEER



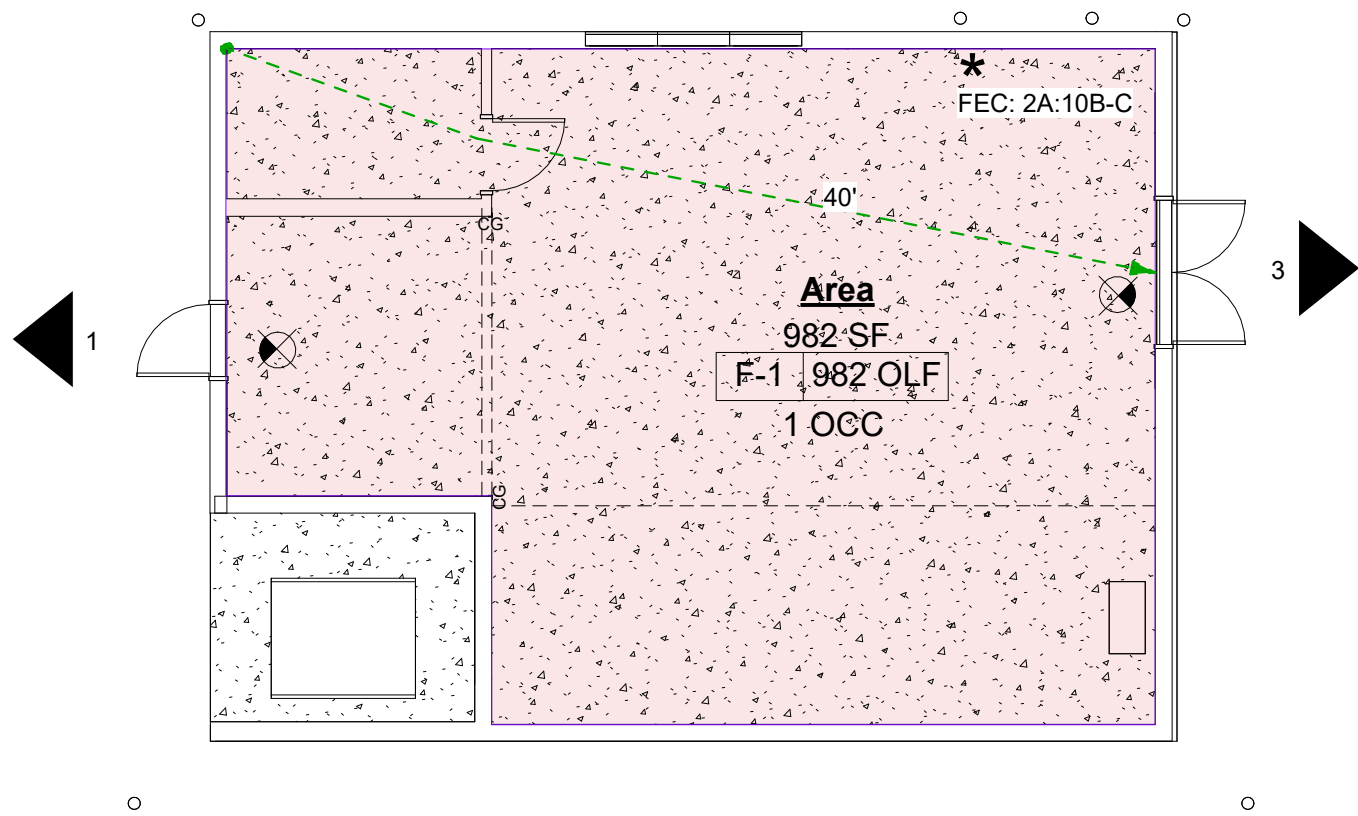
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PO BOX 651 • EUREKA, NEVADA 89316 • (775) 293-1743

SHEET **D2** OF 2 SHEETS
 BY :
 DATE : JUNE 2025
 SCALE : AS SHOWN

DATE : JUNE 2025
SCALE : AS SHOWN

1. SEE MAIN FLOOR PLAN FOR DIMENSIONS, WALL TYPE REFERENCES.
2. SEE DOOR AND RELITE SCHEDULES FOR DOOR HARDWARE AND OTHER FIRE RATING REQUIREMENTS FOR DOORS AND RELITES.
3. SEE ELECTRICAL FOR EXIT SIGNS AND EMERGENCY EGRESS LIGHT FIXTURES.
4. INTERIOR WALL AND CEILING FINISHES SHALL CONFORM TO IBC SECTION 803.5 AND TABLE 803.5 FOR FLAME SPREAD REQUIREMENTS.
5. PORTABLE FIRE EXTINGUISHERS MUST BE PROVIDED WHERE REQUIRED BY NFPA 101.4. WHEN PROVIDED, FIRE EXTINGUISHERS MUST BE LOCATED IN ACCORDANCE WITH NFPA 10. IF PROVIDED IN ELECTRONIC EQUIPMENT AREAS, CLEAN AGENT TYPE PORTABLE FIRE EXTINGUISHERS MUST BE USED. PORTABLE FIRE EXTINGUISHERS UTILIZING CARBON DIOXIDE (CO2) ARE ONLY PERMITTED TO BE USED IN ENCLOSED ROOMS IF THEY EXCEED 1,000SF.



1 FIRST FLOOR CODE PLAN
Scale: 1/8" = 1'-0"

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

	1 HR WALLS; 60 MINUTE OPENINGS OCCUPANCY SEPARATION
	1 HR WALLS; 20 MINUTE OPENINGS OCCUPANCY SEPARATION
	SMOKE-PROOF ENCLOSURES
	EXIT FROM ROOMS. NUMBER INDICATES THE CALCULATED ACCUMULATED LOAD AT THAT ROOM OR BUILDING EXIT. ARROW INDICATES EXIT DIRECTION.
	FIRE EXTINGUISHER CABINET, 2A:10B-C

Diagram illustrating the cross-section of a wall assembly, showing the following layers from exterior to interior:

- PREFINISHED METAL SIDING PANEL
- WEATHER BARRIER
- STRUCTURAL SHEATHING
- 2X6 WOOD STUDS AT 16" O.C.
- R21 FIBERGLASS BATT INSULATION
- 6 MIL VAPOR RETARDER
- 5/8" IMPACT & MOISTURE RESISTANT GWB
- FIBER REINFORCED WALL PANEL
- 2X PT/WD Furring AT 16" O.C.
- 1 1/2" RIGID INSULATION
- CAST-IN-PLACE CONCRETE

Diagram illustrating the cross-section of a wall assembly, showing the following components from exterior to interior:

- EX-2 (Exterior Finish)
- PREFINISHED METAL SIDING PANEL
- WEATHER BARRIER
- STRUCTURAL SHEATHING
- 2X6 WOOD STUDS AT 16" O.C.
- WEATHER BARRIER
- STRUCTURAL SHEATHING
- PREFINISHED METAL SIDING PANEL
- 2X PT WD FURRING AT 16" O.C.
- CAST-IN-PLACE CONCRETE

Diagram illustrating the roof assembly components and their connections:

- STANDING SEAM MTL ROOFING
- ICE & WATER SHIELD UNDERLAYMENT
- STRUCTURAL SHEATHING
- WOOD TRUSS
- R49 MIN FIBERGLASS INSULATION
- VAPOR BARRIER
- 5/8" GWB
- L TOP PLATE

4" CONCRETE SLAB

10 MIL, CLASS A, VAPOR RETARDER

COMPACTED SAND

COMPACTED GRAVEL

6" CONCRETE SLAB

4" RIGID INSULATION

COMPACTED GRAVEL

GOVERNING CODES:	2021 INTERNATIONAL BUILDING CODE (AK AMMENDMENTS)
	2017 ICC/ANSI A117.1 (AK AMMENDMENTS)
	2021 INTERNATIONAL MECHANICAL CODE (AK AMMENDMENTS)
	2021 INTERNATIONAL FUEL AND GAS CODE (AK AMMENDMENTS)
	2021 INTERNATIONAL FIRE CODE (AK AMMENDMENTS)
	2021 NFPA STANDARD 13 & 72 FIRE PROTECTION
	2018 UNIFORM PLUMBING CODE (AK AMMENDMENTS)
	2020 NATIONAL ELECTRICAL CODE

SECTION 306 F-1 MODERATE -HAZARD FACTORY INDUSTRIAL; WATER TREATMENT FACILITY

N/A

CONSTRUCTION TYPE V-B, SEPARATED OCCUPANCIES

IBC TABLE 504.3 / 504.4 ALLOWABLE NUMBER OF STORIES/HEIGHT ABOVE GRADE PLANE:			
OCC.	CONST. TYPE	ALLOW. STORY	ALLOW. HEIGHT/ACTUAL HEIGHT
F-1/NS	V-B	1	40'/20'-8"

<u>OCC.</u>	<u>ALLOWABLE AREA</u>	<u>ACTUAL AREA</u>
F-1	8500 SF	982 SF

508.3 NON-SEPARATED BASED ON PROVISIONS OF 508.3.1 AND 508.3.2
OCCUPANCY SEPARATION NOT REQUIRED

508.4 ACCESSORY OCCUPANCIES--NO ACCESSORY OCCUPANCIES

509 INCIDENTAL OCCUPANCIES--NO INCIDENTAL OCCUPANCIES

TABLE 601: TYPE VB -- NO FIRE RESISTANT RATING REQUIRED FOR BUILDING ELEMENTS

TABLE 602: FIRE RESISTANCE RATING FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
F-1 X ≥ 30' NO RATING REQUIRED

TABLE 716.5 FIRE-RATED ASSEMBLIES: RATING: ASSEMBLY:

•	STRUCTURAL FRAME	0-HR	N/A
•	EXTERIOR BEARING WALLS	0-HR	N/A
•	INTERIOR BEARING WALLS	0-HR	N/A
•	FLOOR/CEILING	0-HR	N/A
•	ROOF/CEILING	0-HR	N/A
•	FIRE BARRIERS	NONE REQUIRED	
•	FIRE PARTITIONS	NONE REQUIRED	
•	DOORS	NONE REQUIRED	
•	SMOKE PARTITIONS	NONE REQUIRED	

903	AUTOMATIC SPRINKLER SYSTEMS		
	F-1 NOT REQUIRED		
906	PORTABLE FIRE EXTINGUISHERS IFC TABLE	ORDINARY HAZARD	TYPE 2-A WITHIN 75' TRAVEL DISTANCE
907	FIRE ALARM AND DETECTION SYSTEMS		
	907.2	MANUAL FIRE ALARM NOT REQUIRED	
	907.2.13.2	F-1	NOT REQUIRED

TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

OCCUPANT LOAD $1:300=3$ OCCUPANTS

1006.2.1 1 EXIT REQUIRED; 2 PROVIDED
OCCUPANT LOAD <30; MAX
MAX TRAVEL DISTANCE 75'; ACTUAL 40'

TABLE
12.03.02 PROVIDE 28.3 SQUARE INCHES
OF VENTILATION PER ROOF TRUSS BAY
FOR TOTAL OF 566 SQUARE FEET.
50% AT LOW EAVE - 14SF
50% AT HIGH EAVE - 14SF

[illegible]

WOLF
ARCHITECTURE

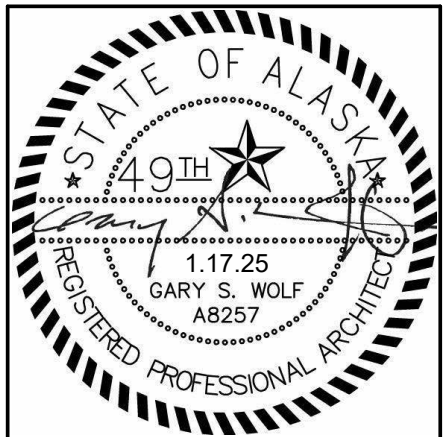
625 S Cobb St Palmer, AK 99645
907.746.6670 | wolfarchitecture.com

CODE PLAN

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

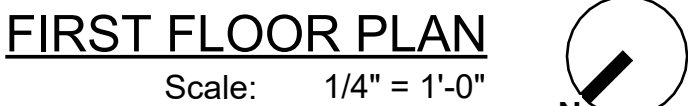
TITLE

PROJECT


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G1.1



- RCP - CODED NOTES

LEGEND

	CEILING HEIGHT (HEIGHTS INDICATED ARE RELATIVE TO 100'-0" FLOOR LEVEL).
	STRIPLIGHT - PENDANT OR SURFACE MTD WALL
	SURFACE MOUNTED LIGHT FIXTURES
	SUPPLY DIFFUSERS
	RETURN AIR REGISTER OR EXHAUST FAN
	EXIT LIGHT

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DRAWINGS, DIMENSIONS, SPECIFICATIONS, AND SCHEDULES PRIOR TO PROCEEDING WITH ANY WORK OF FABRICATION. NOTIFY ARCHITECT IMMEDIATELY OF ANY UNCERTAINTY OR DISCREPANCY.
2. DRAWINGS SHALL NOT BE SCALED.
3. WHERE NOTES ON THE DRAWINGS INDICATE A CONDITION AT ONE LOCATION, WHETHER INDICATED AS TYPICAL OR NOT, THE NOTE SHALL APPLY TO ALL SIMILAR LOCATIONS UNLESS NOTED OTHERWISE.
4. SEE SHEET G0.01 FOR SYMBOLS, ABBREVIATIONS, ETC.
5. SEE SHEET G0.02 FOR TYPICAL ADA DETAILS AND CLEARANCES.
6. SEE SHEET G0.02 FOR TYPICAL ACCESSORY MOUNTING HEIGHTS.
7. DIMENSIONS ARE TYPICALLY TAKEN TO GRID LINE, FACE OF STUD WALL, UNLESS NOTED OTHERWISE OR INDICATED ON DETAILS. A DIMENSION NOTING "5'-0" CLEAR" WOULD DENOTE FACE OF FINISH.
8. WALL TYPES W1 UNLESS NOTED OTHERWISE.

[illegible]

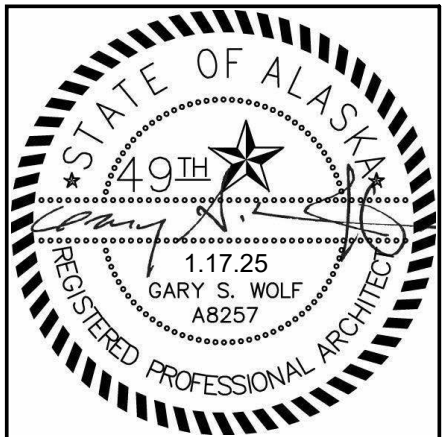
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FIRST FLOOR & REFLECTED CEILING PLANS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

PROJECT



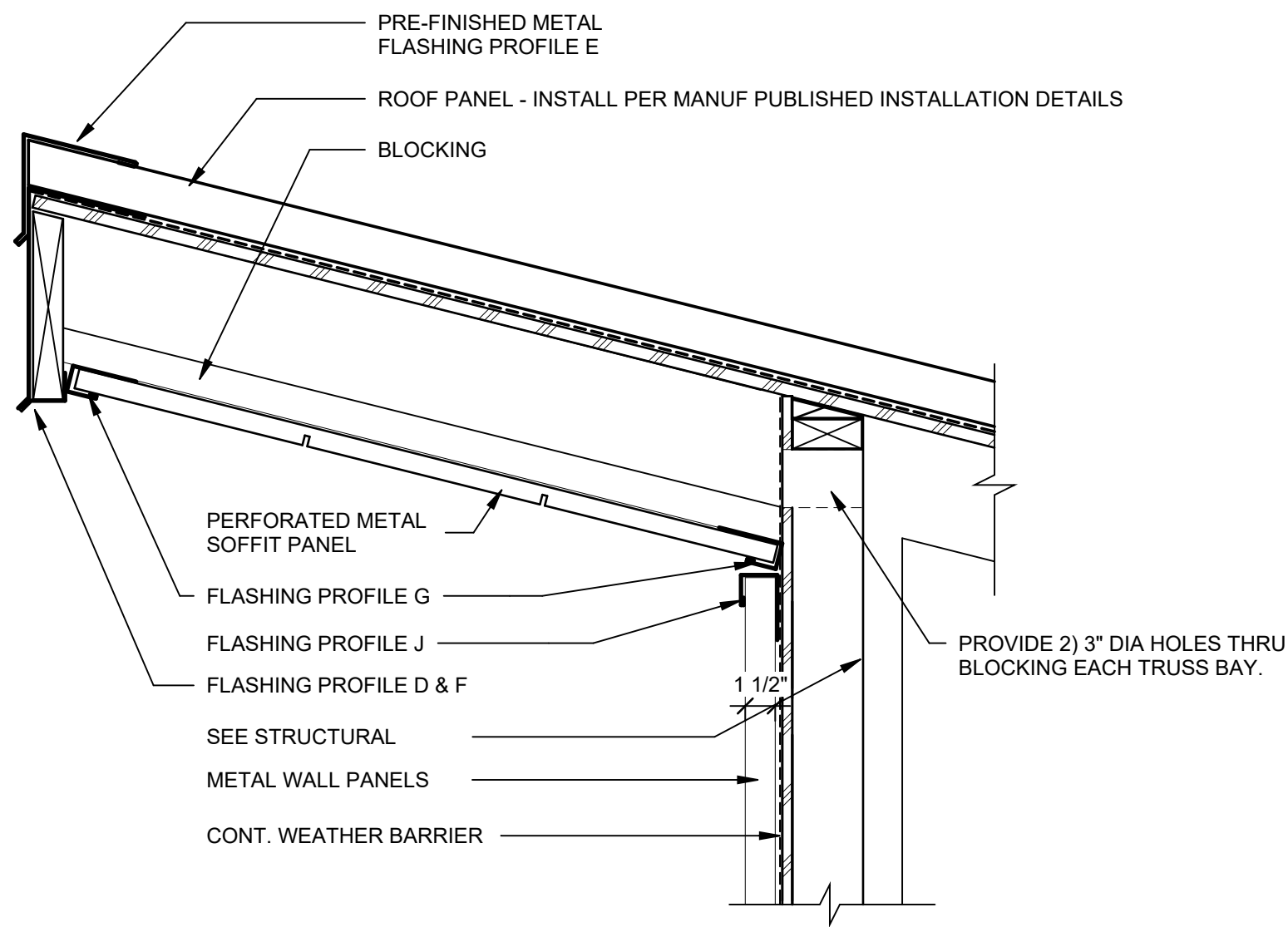
 DAY ENGINEERING

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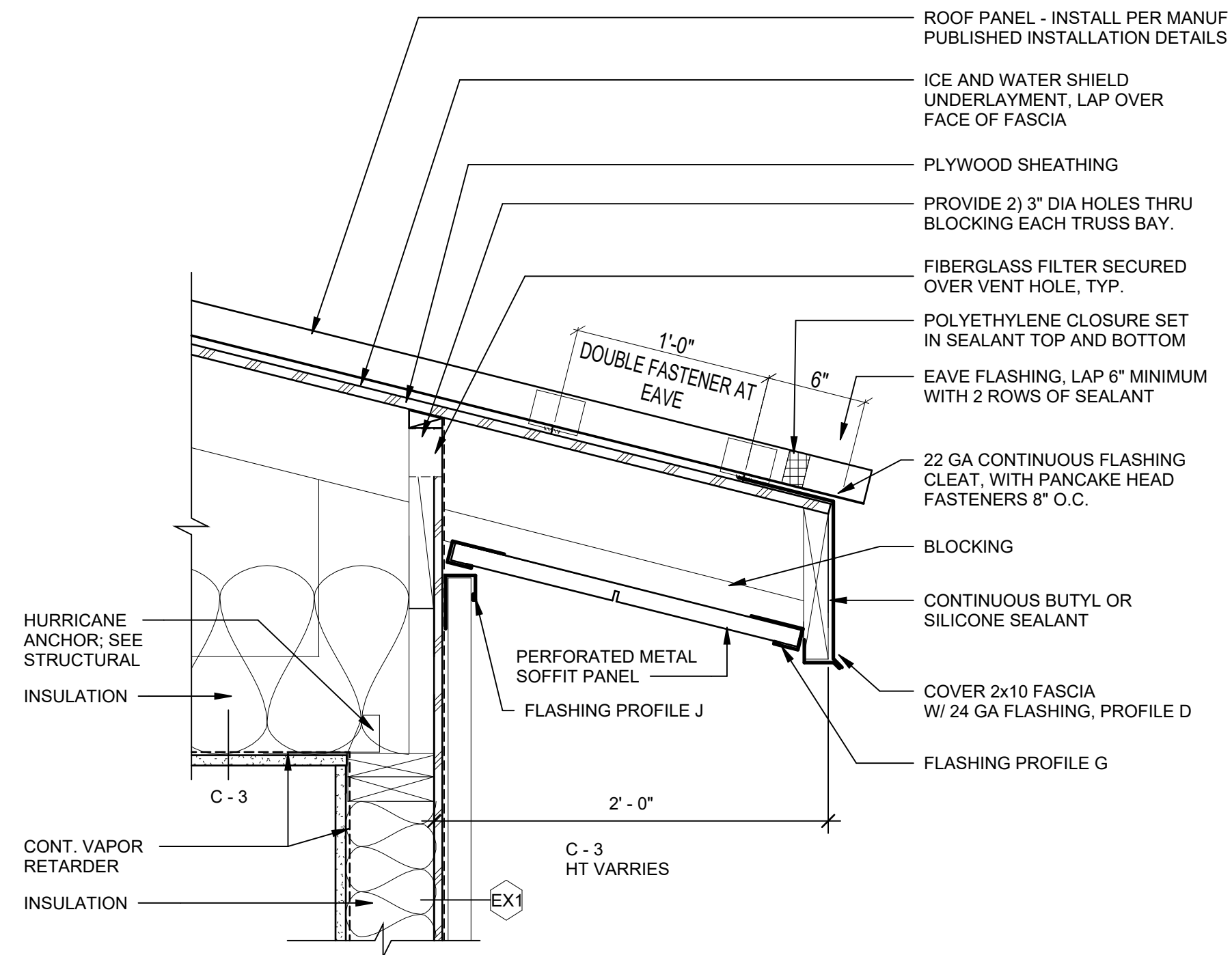
BY:

AI

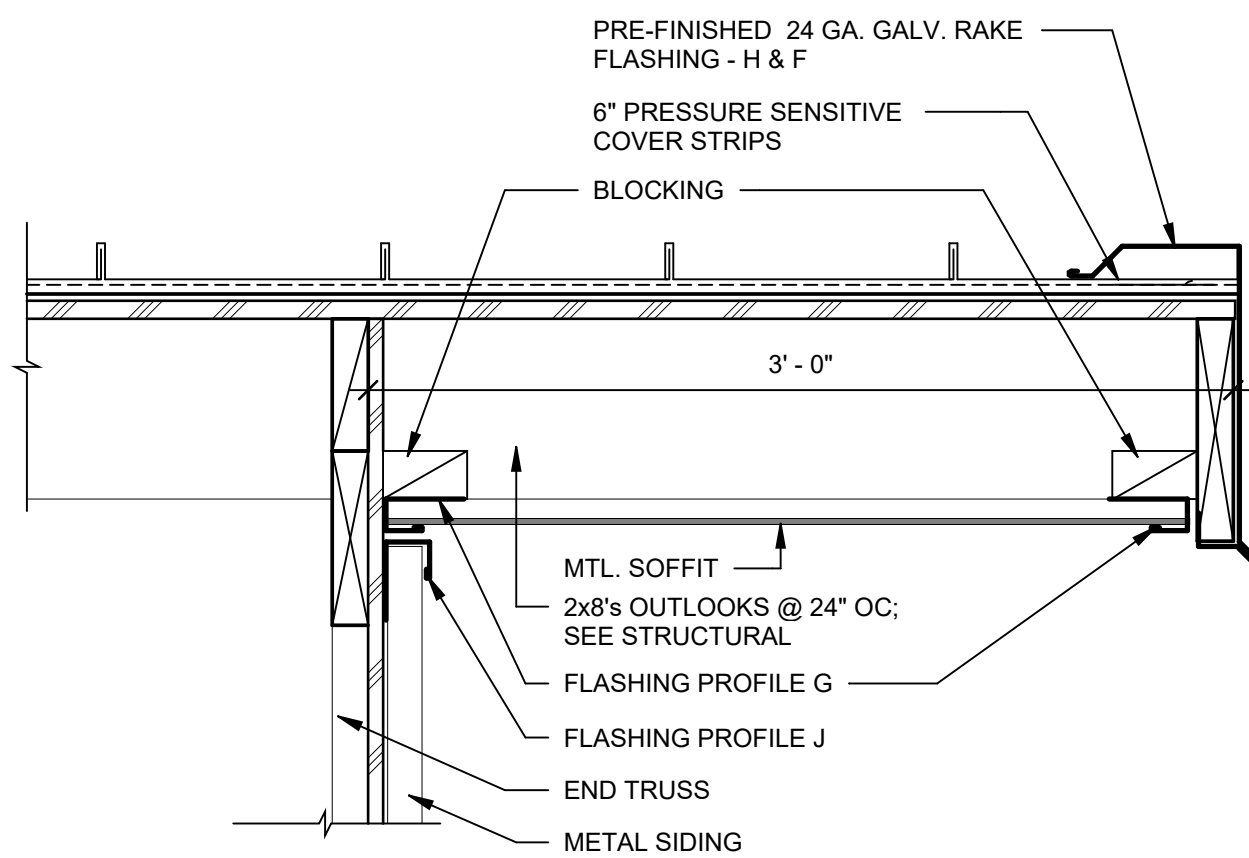
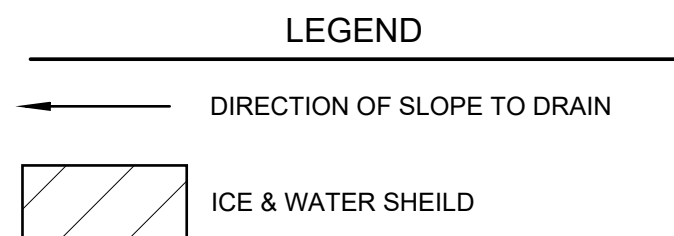
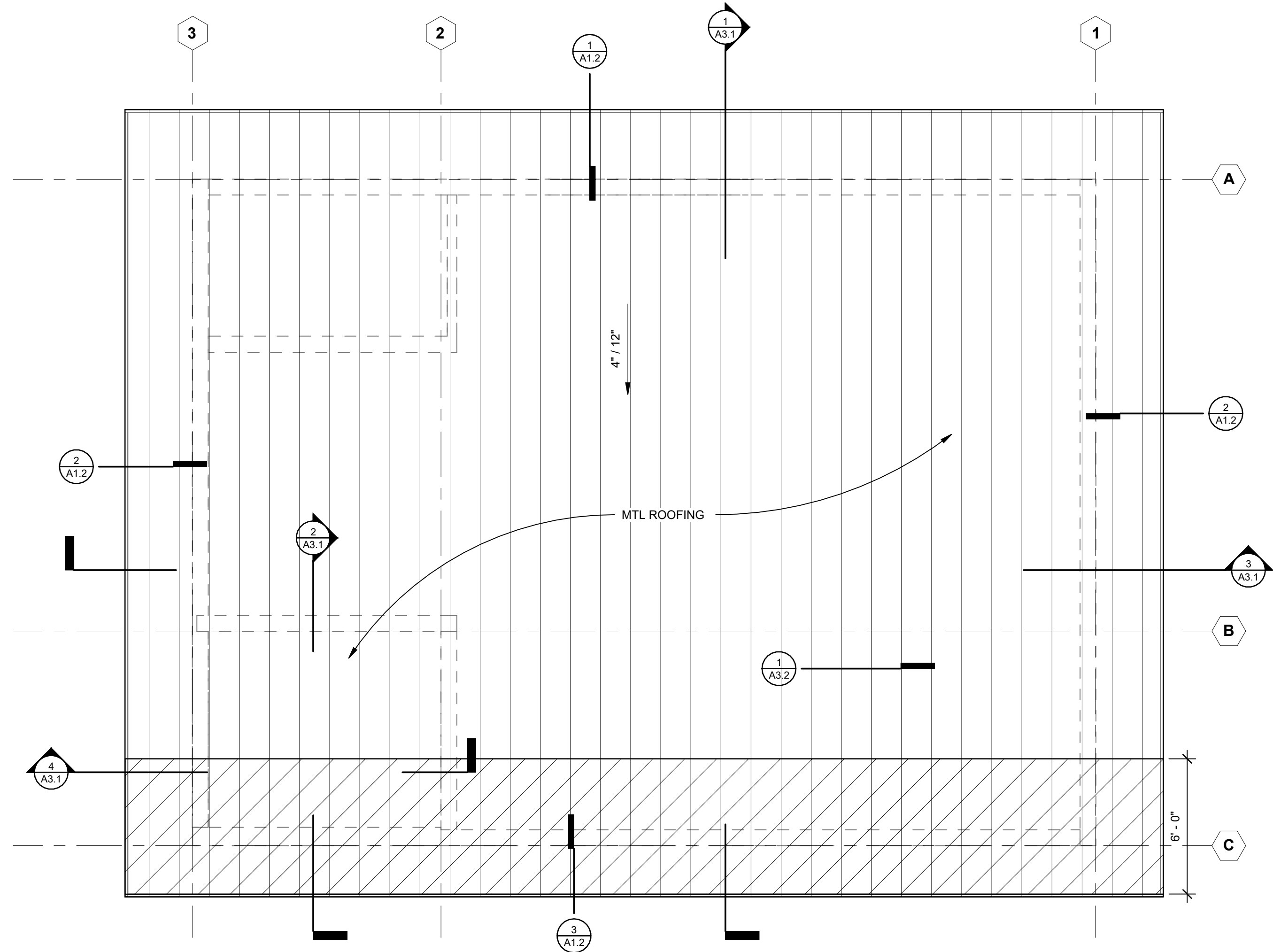
SCALE:



1 TYP - TOP OF EAVE DETAIL
Scale: 1 1/2" = 1'-0"



3 TYP - EAVE DETAIL
Scale: 1 1/2" = 1'-0"



2 TYP - RAKE DETAIL
Scale: 1 1/2" = 1'-0"

GENERAL NOTES

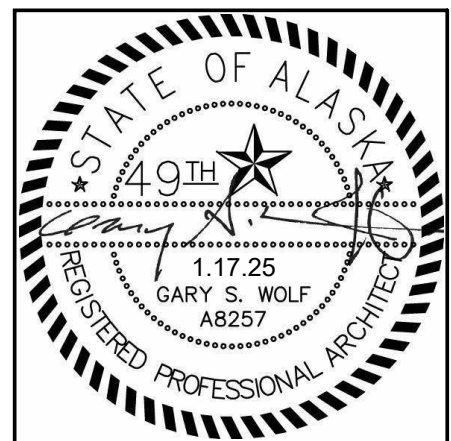
- SEE G SHEETS FOR TYPICAL ROOF CONSTRUCTION
- VENTS, EXHAUST, & COWLS ARE MECHANICAL PENETRATION ITEMS. SEE MECHANICAL FOR LOCATIONS, TYPES, SIZES AND QUANTITY OF ALL PENETRATIONS. PENETRATIONS SHALL BE MIN 18" FROM ANY RIDGE VALLEY HIP, OR EDGE OF ROOF.
- ALL FLASHING & ROOFING TIE-INS TO PLUMBING & HVAC PENETRATIONS ARE BY ROOFING CONTRACTOR.
- PROVIDE MINIMUM R-38 INSUL AT ALL ROOFS OCCURRING ABOVE INTERIOR BUILDING AREA. SEE DETAILS.
- SEE EXTERIOR ELEVATIONS FOR ADDITIONAL ROOFING DETAIL INDICATIONS.
- SEE A5.3 FOR FLASHING DETAILS

REVISION	BY	DATE	APPROVAL

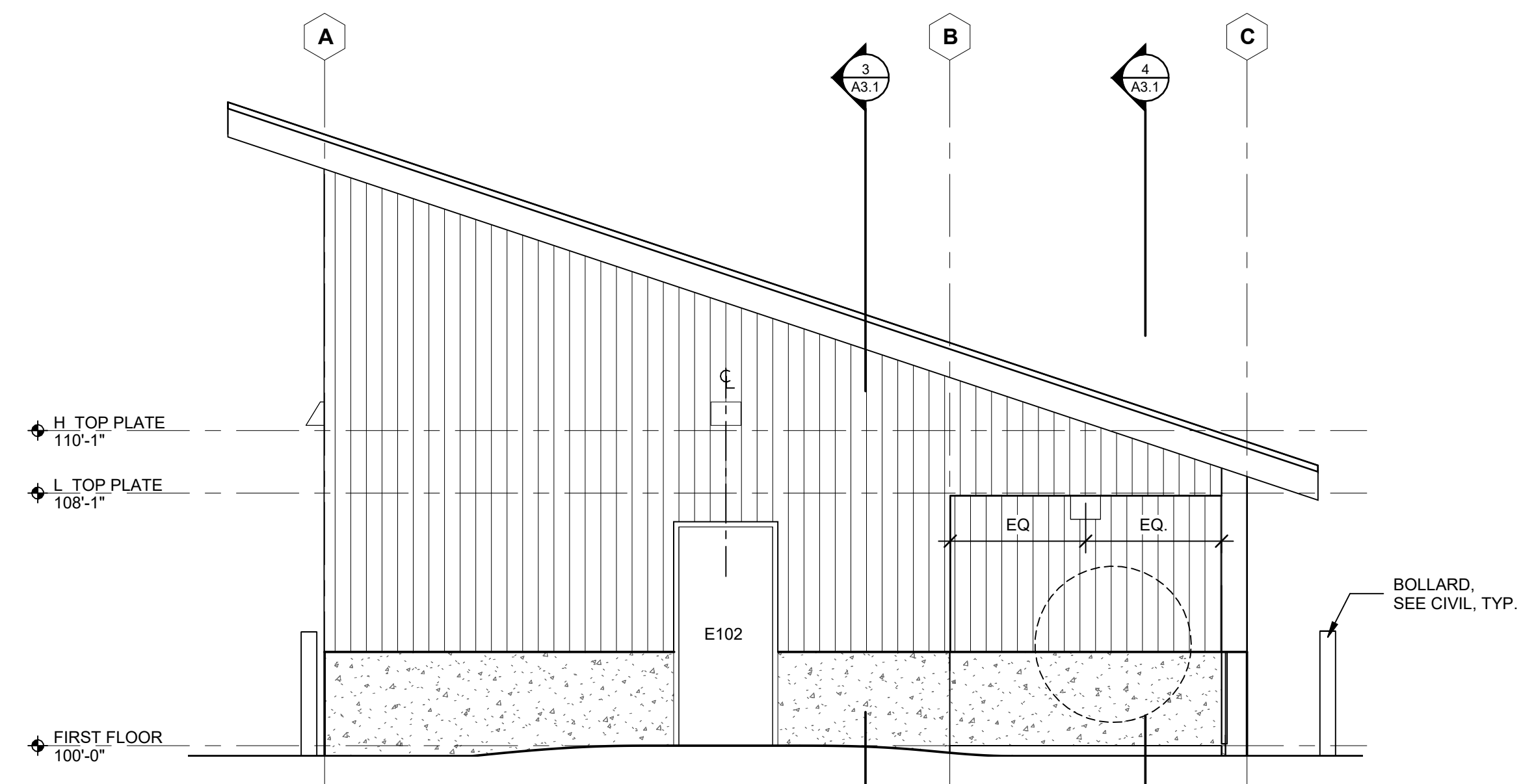
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TITLE	PROJECT
ROOF PLAN & DETAILS	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA

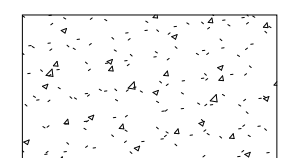


DAY ENGINEERING 5 EAST PARK STREET • FALLON, NEVADA 89605 • (775) 423-9090 PO BOX 631 • EUREKA, NEVADA 89316 • (775) 293-1743	BY: A1.2 DATE: 6/30/25 SCALE: 1/4" = 1'-0"
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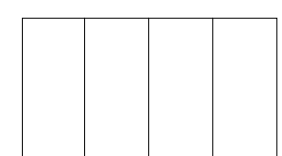


2 NORTHEAST ELEVATION
Scale: 1/4" = 1'-0"

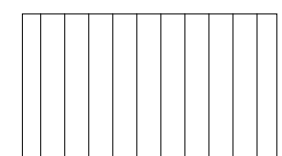
MATERIALS LEGEND



CAST-IN-PLACE CONCRETE



STANDING SEAM METAL ROOFING

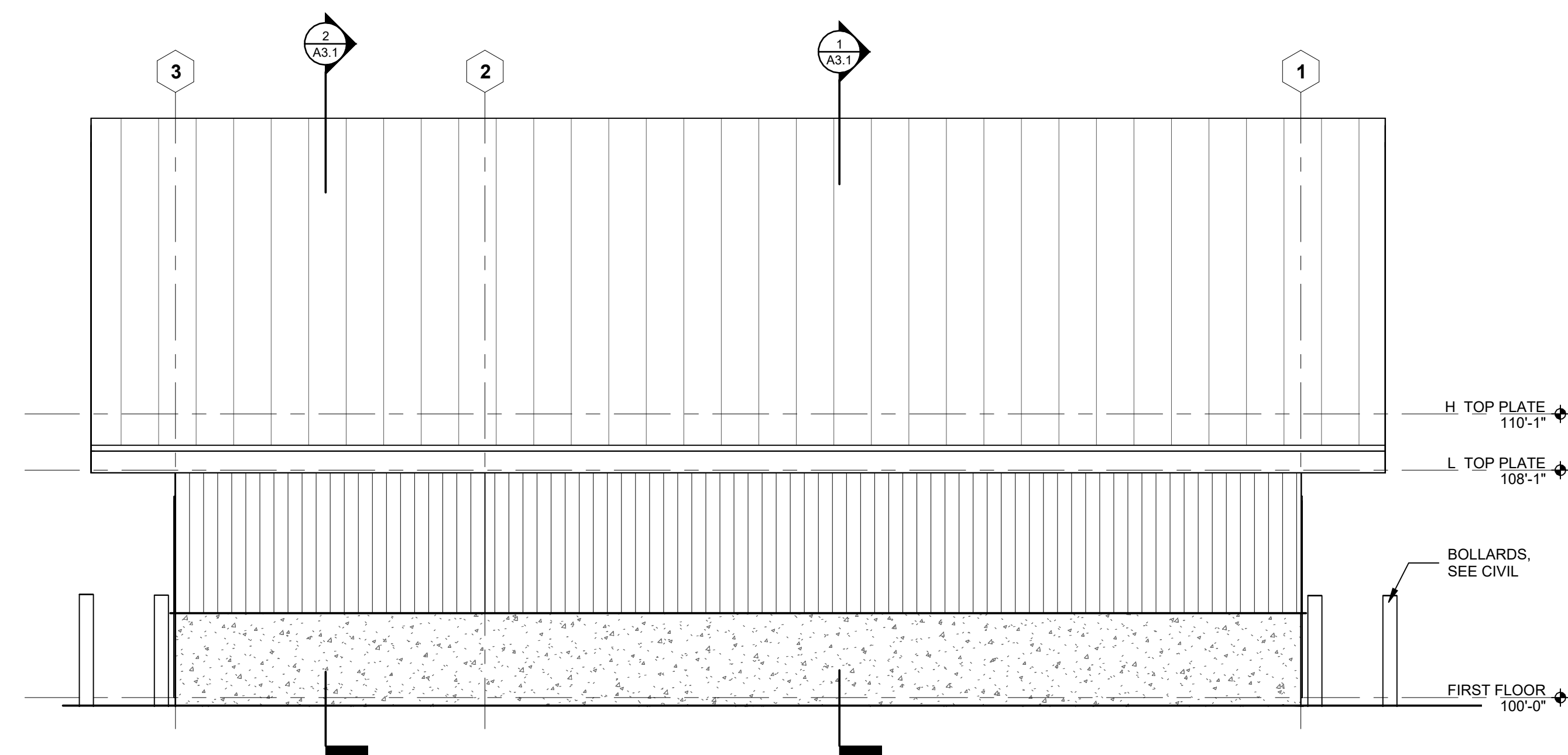


VERTICAL METAL SIDING

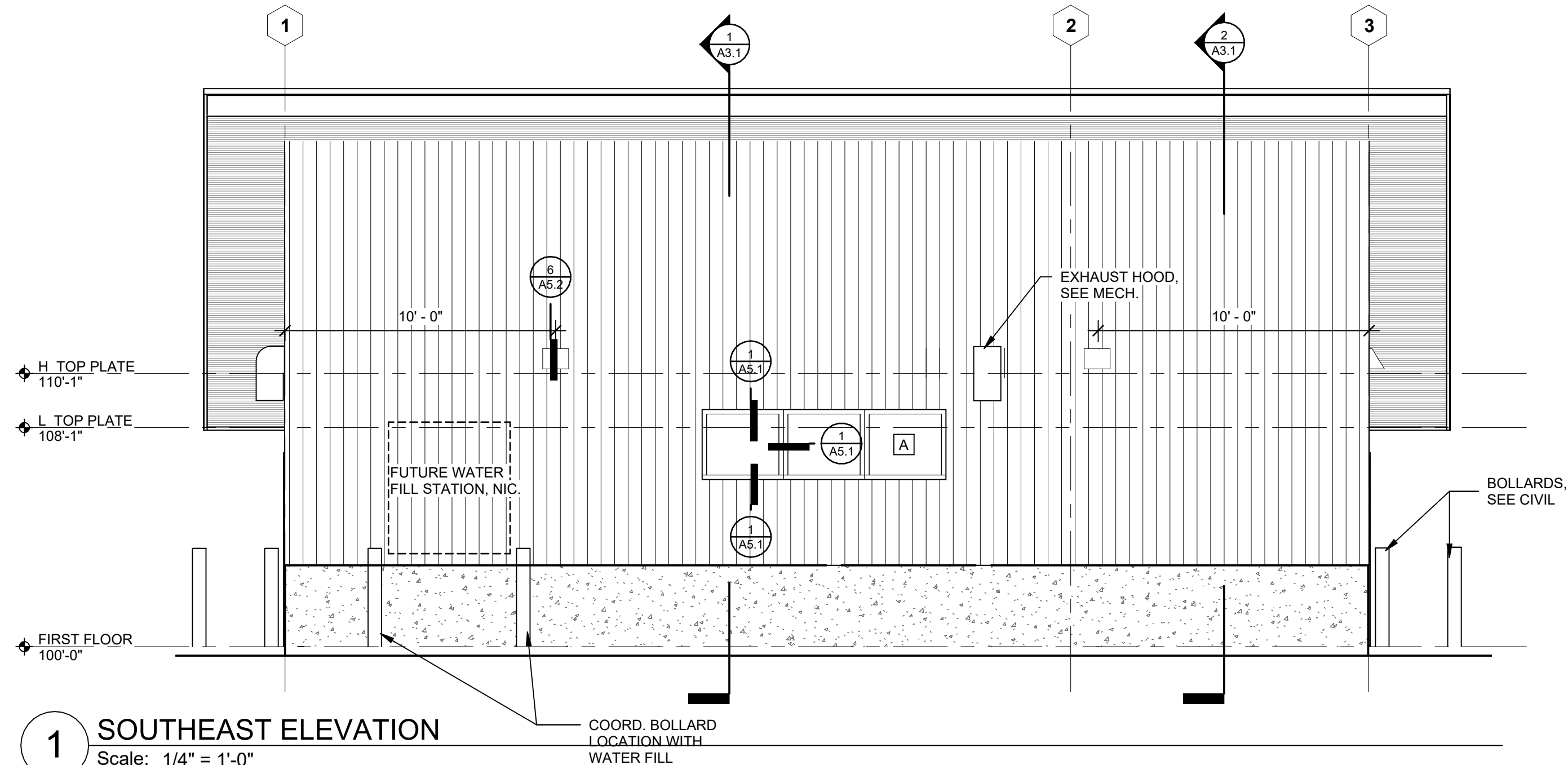
NOTE: THIS LEGEND DOES NOT INCLUDE ALL MATERIALS. SEE NOTES & REFERENCED DETAILS FOR ADDITIONAL INFORMATION.

EXTERIOR ELEVATION GENERAL NOTES

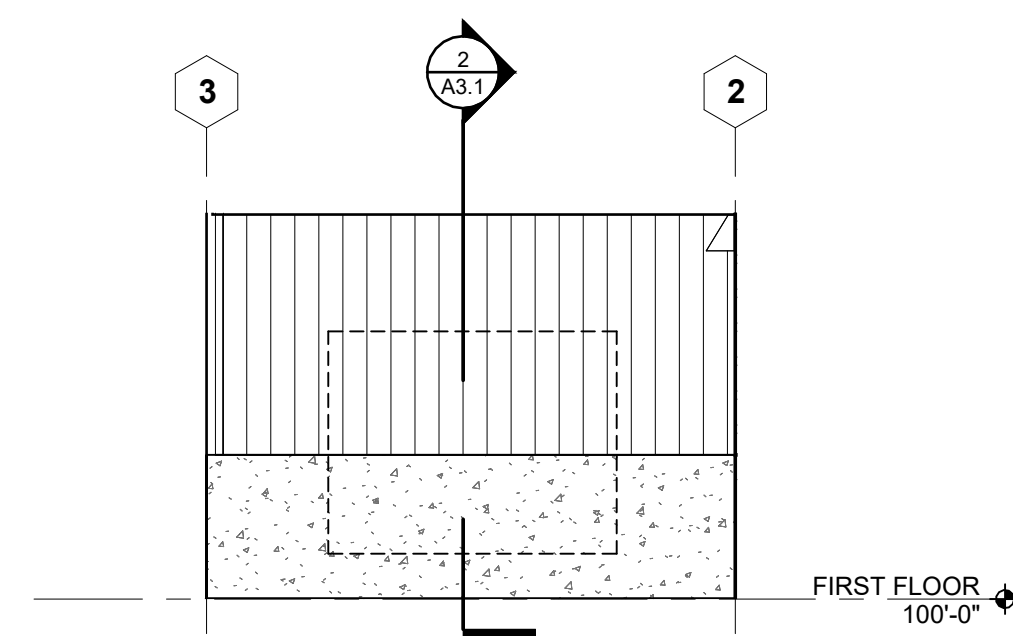
1. LOCATION AND SPACING OF WINDOW MULLIONS, MASONRY CONTROL JOINTS AND COURSE PATTERNS, ETC., ARE TO BE AS SHOWN ON EXTERIOR ELEVATIONS. WHERE NOT DIMENSIONED OR DETAILED, WINDOW MULLIONS AND MATERIAL JOINTS ARE TO BE EQUALLY SPACED AND/OR CENTERED/ALIGNED W/ ADJACENT ELEMENT (MASONRY COLUMN, EDGE OR CENTER LINE OF WINDOW OR DOOR OPENING, ETC.) AS SHOWN.
2. SEE SHEET AX.X FOR ALUMINUM LOUVER TYPES AND SEE MECH FOR COORDINATION WITH DUCTWORK.
3. REFER TO DETAILS FOR DIMENSION REFERENCE POINTS.
4. C.J.'S EXTEND FULL HEIGHT OF MASONRY, TYP. WHERE "C.J." IS INDICATED AT INSIDE CORNERS THE JOINT SHALL PENETRATE THE MASONRY SURFACE ON WHICH THE LABEL OCCURS. SEE DETAILS FOR ADDITIONAL C.J. LOCATIONS.
5. ALL WINDOW AND LOUVER DIMENSIONS ARE FOR ROUGH OR MASONRY OPENING, UNLESS NOTED OTHERWISE. SEE PLANS FOR ADDITIONAL DIMENSION INFORMATION.
6. 100'-0" IS THE DATUM ELEVATION AND CORRESPONDS TO THE REFERENCED FLOOR SLAB ELEVATION 1078.00'. SEE CIVIL FOR FURTHER INFORMATION.
7. EXTERIOR WALL FINISHES EXTEND FULL HEIGHT TO SOFFITS (NOT SHOWN WHERE EAVES OBSCURE VIEW). SEE BUILDING SECTIONS & DETAILS.
8. SEE REFLECTED CEILING PLANS (RCP) FOR SHEET METAL CLAD SOFFIT COLORS. SHEET METAL CLAD FINS & VERT FACE OF SOFFIT TO MATCH COLOR OF ASSOCIATED SOFFIT AS NOTED ON RCP.



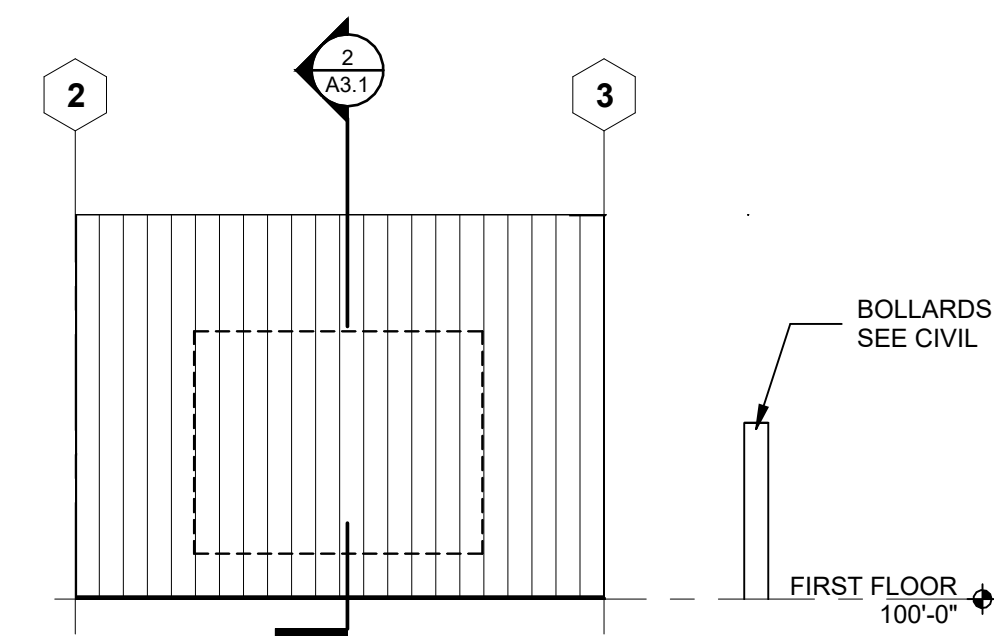
6 NORTHWEST ELEVATION
Scale: 1/4" = 1'-0"



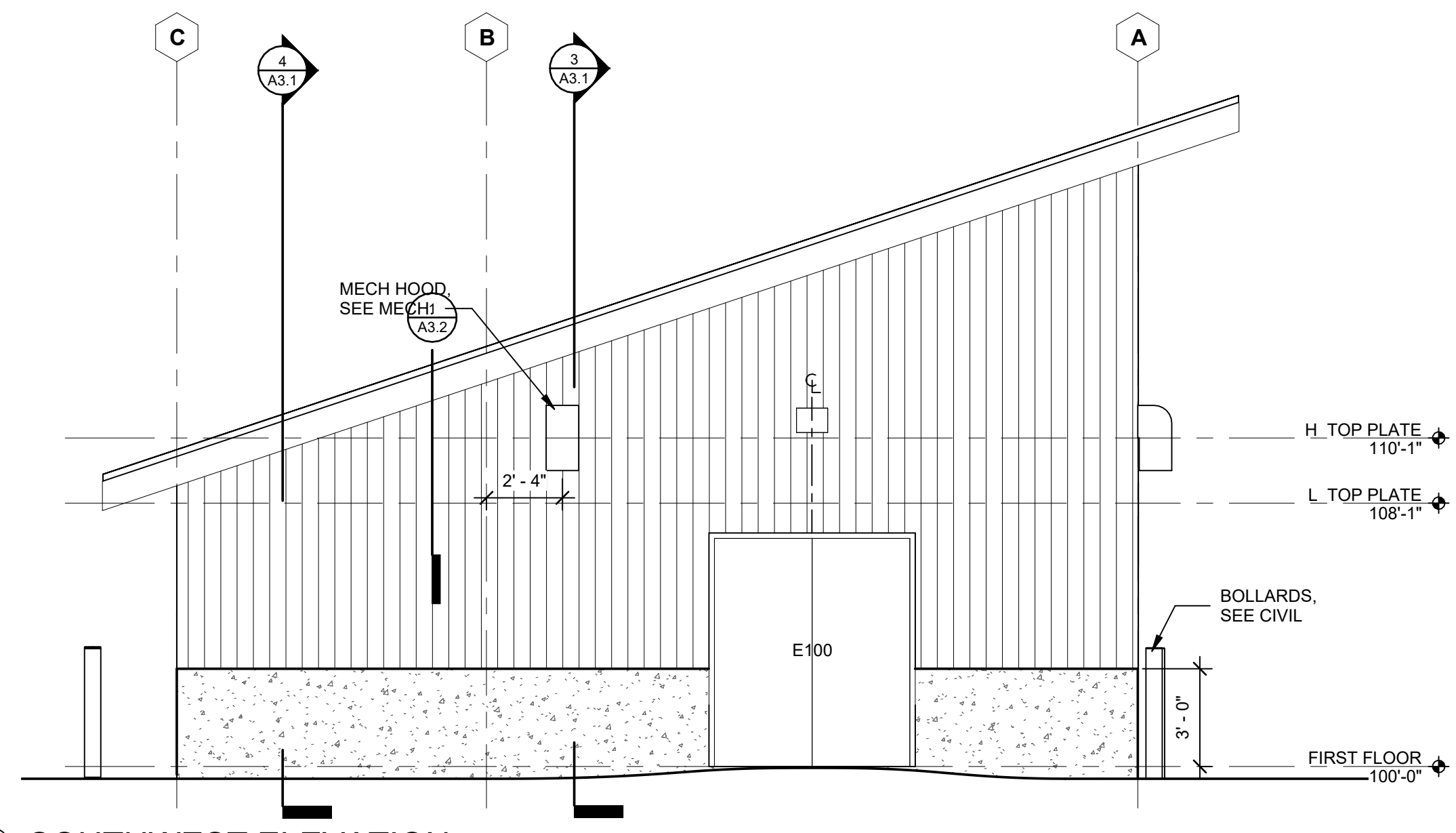
1 SOUTHEAST ELEVATION
Scale: 1/4" = 1'-0"



4 NW ELEVATION 2
Scale: 1/4" = 1'-0"



3 SE ELEVATION 2
Scale: 1/4" = 1'-0"



5 SOUTHWEST ELEVATION
Scale: 1/4" = 1'-0"

REVISION	BY	DATE	APPROVAL

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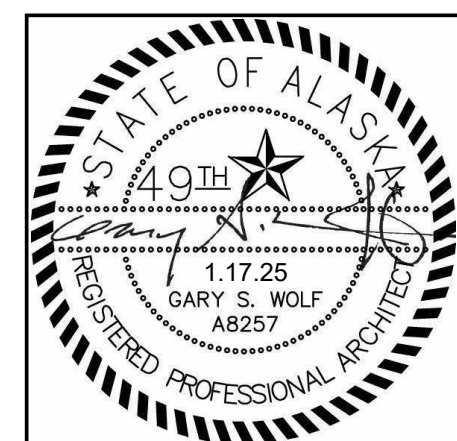
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EXTERIOR ELEVATIONS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

TITLE

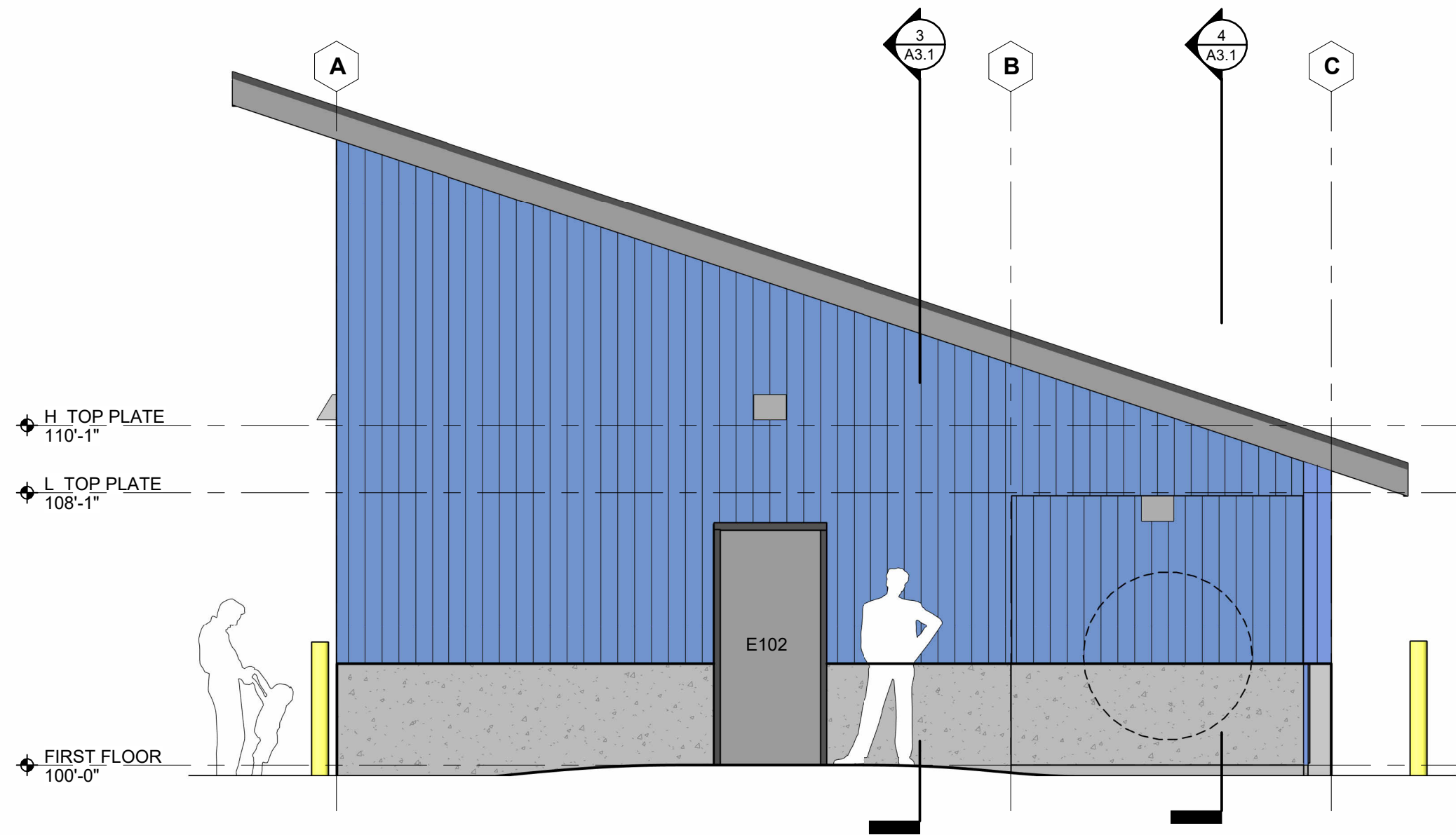
PROJECT



DAY ENGINEERING

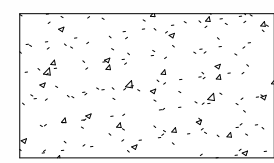
5 EAST PARK STREET • FALLON, NEVADA 89405 • (775) 423-9090
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BY: DATE: 6/30/25
SCALE: **A2.1**
SHEET



2 NORTHEAST ELEVATION COLOR
Scale: 1/4" = 1'-0"

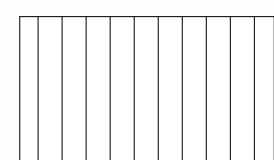
MATERIALS LEGEND



CAST-IN-PLACE CONCRETE



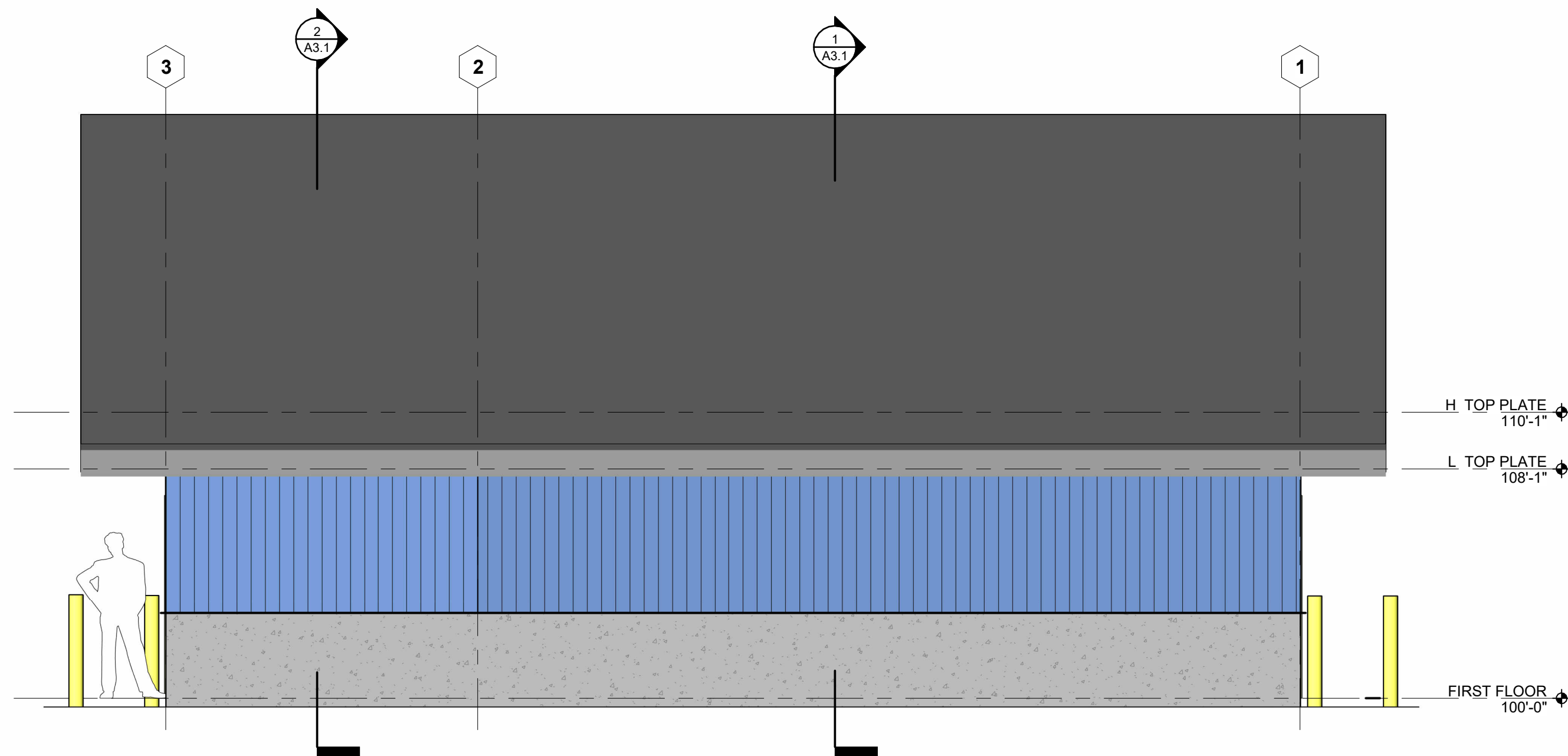
STANDING SEAM METAL ROOFING



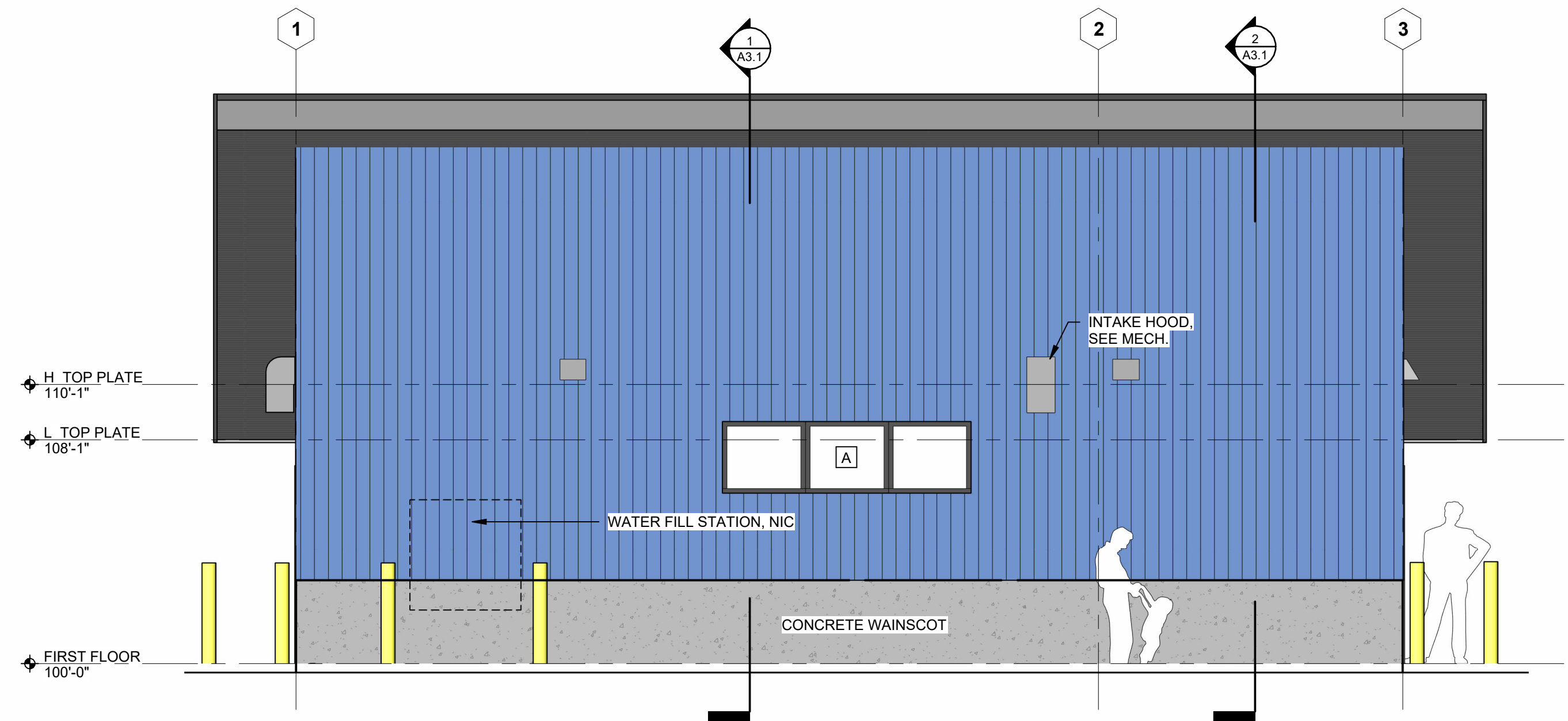
VERTICAL METAL SIDING

NOTE: COLORED ELEVATIONS ARE PROVIDED FOR MATERIAL AND FINISH REFERENCE. CONFIRM COLOR SELECTION WITH ARCHITECT AND OWNER PRIOR TO ORDERING MATERIAL.

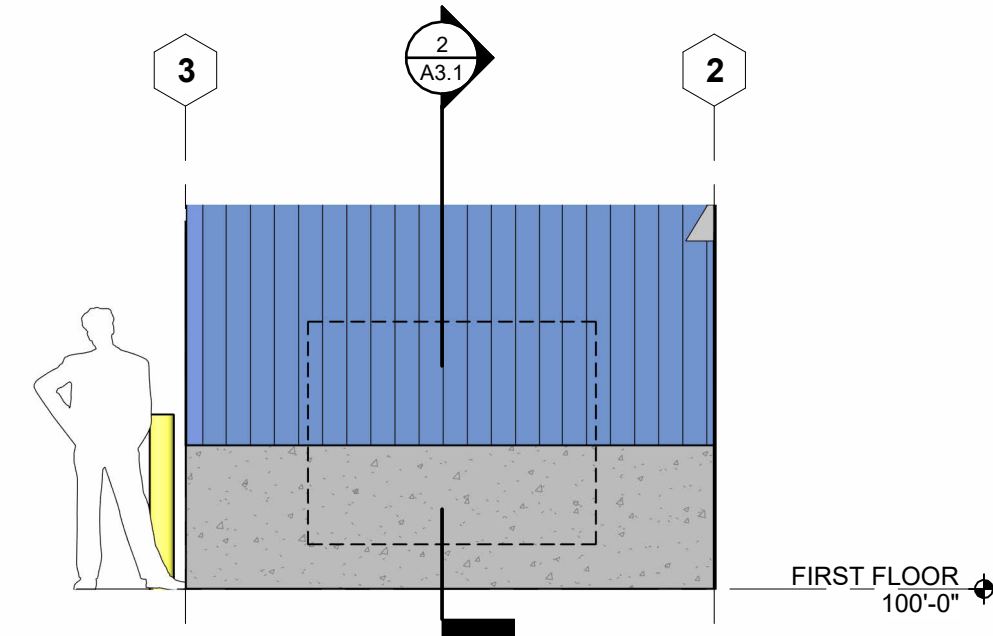
NOTE: THIS LEGEND DOES NOT INCLUDE ALL MATERIALS. SEE NOTES & REFERENCED DETAILS FOR ADDITIONAL INFORMATION.



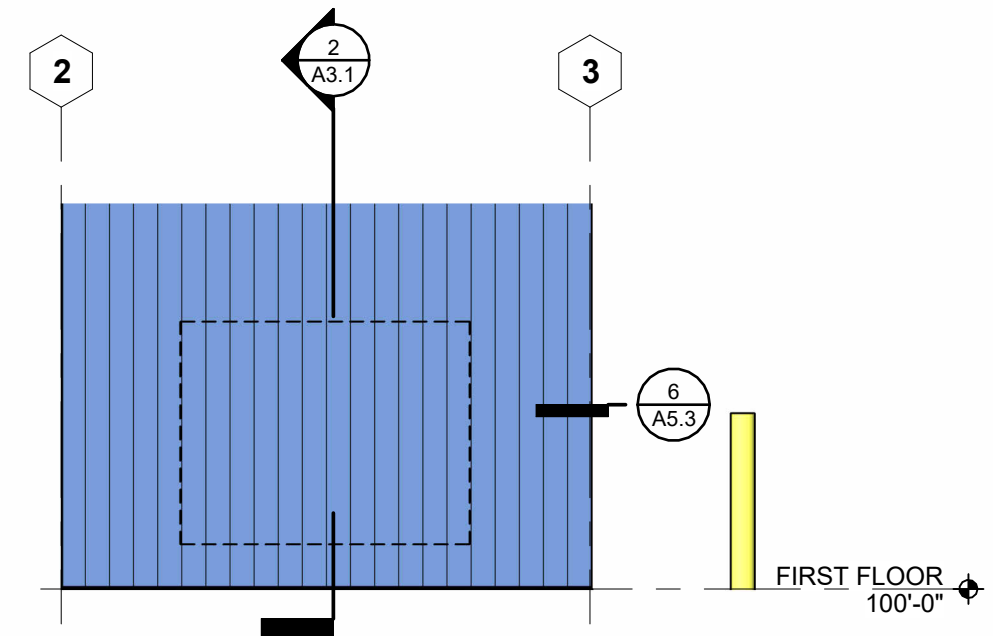
6 NORTHWEST ELEVATION COLOR
Scale: 1/4" = 1'-0"



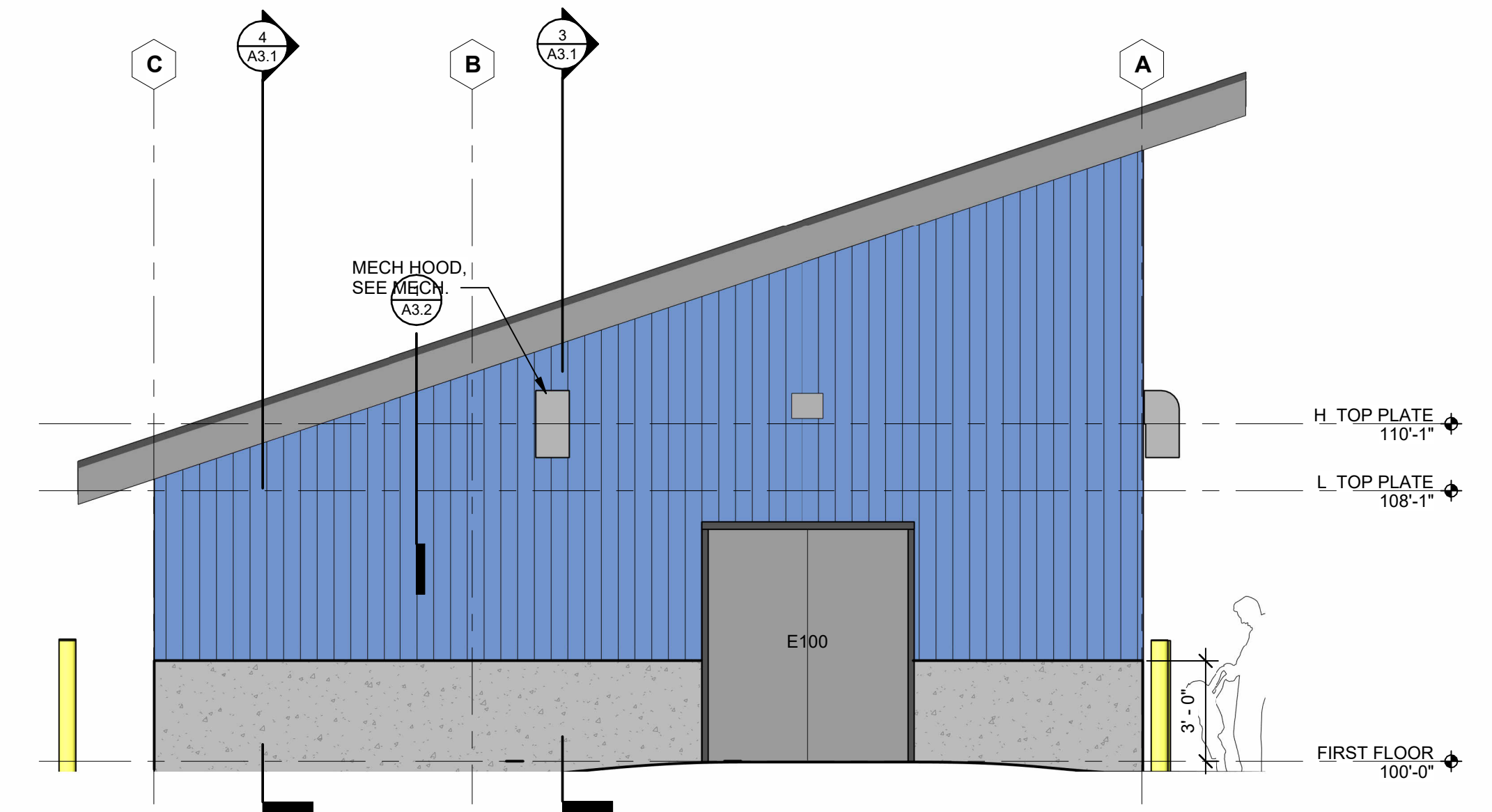
1 SOUTHEAST ELEVATION COLOR
Scale: 1/4" = 1'-0"



4 NW ELEVATION 2 COLOR
Scale: 1/4" = 1'-0"



3 SE ELEVATION 2 COLOR
Scale: 1/4" = 1'-0"



5 SOUTHWEST ELEVATION COLOR
Scale: 1/4" = 1'-0"

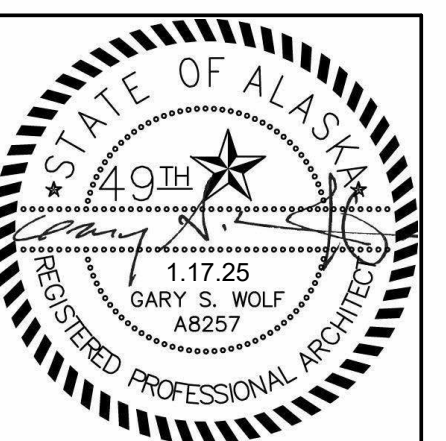
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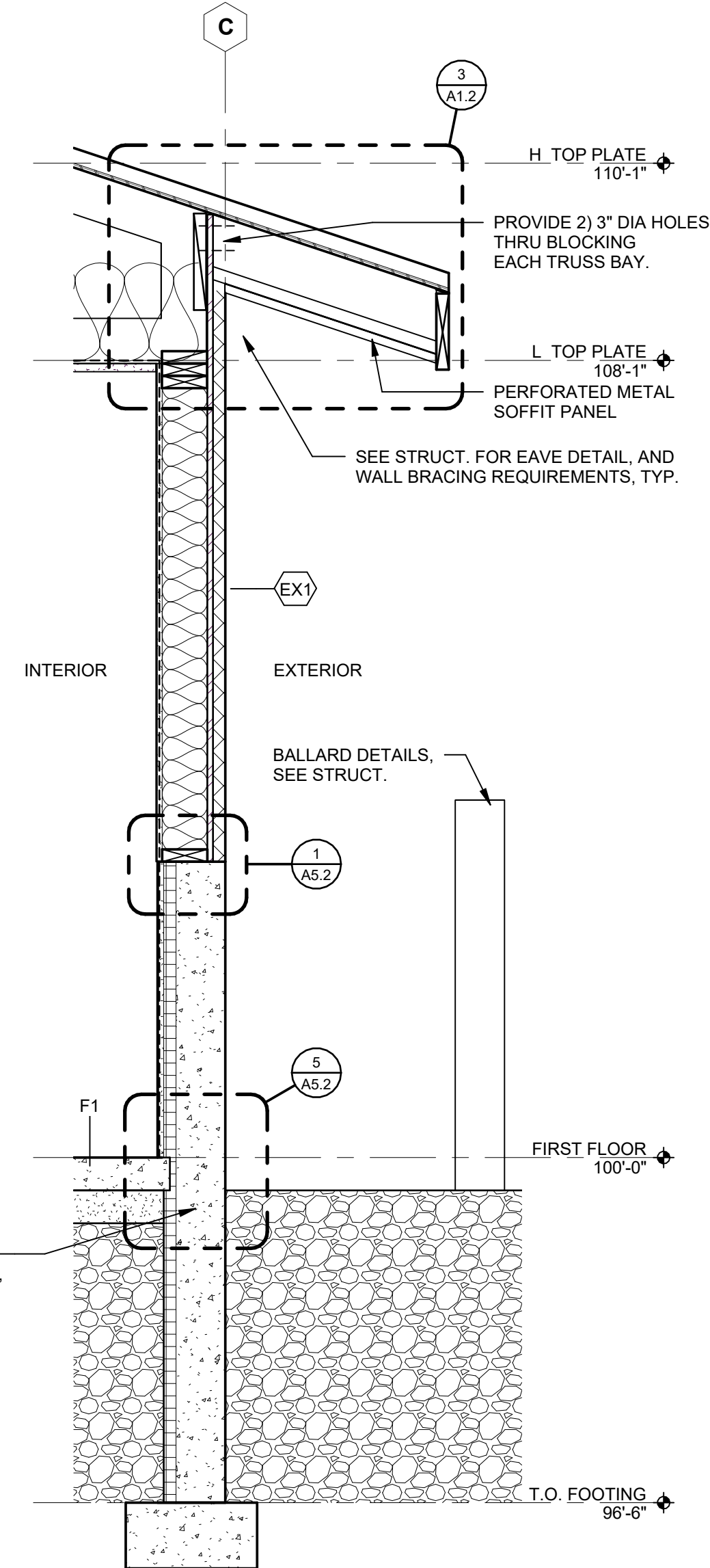
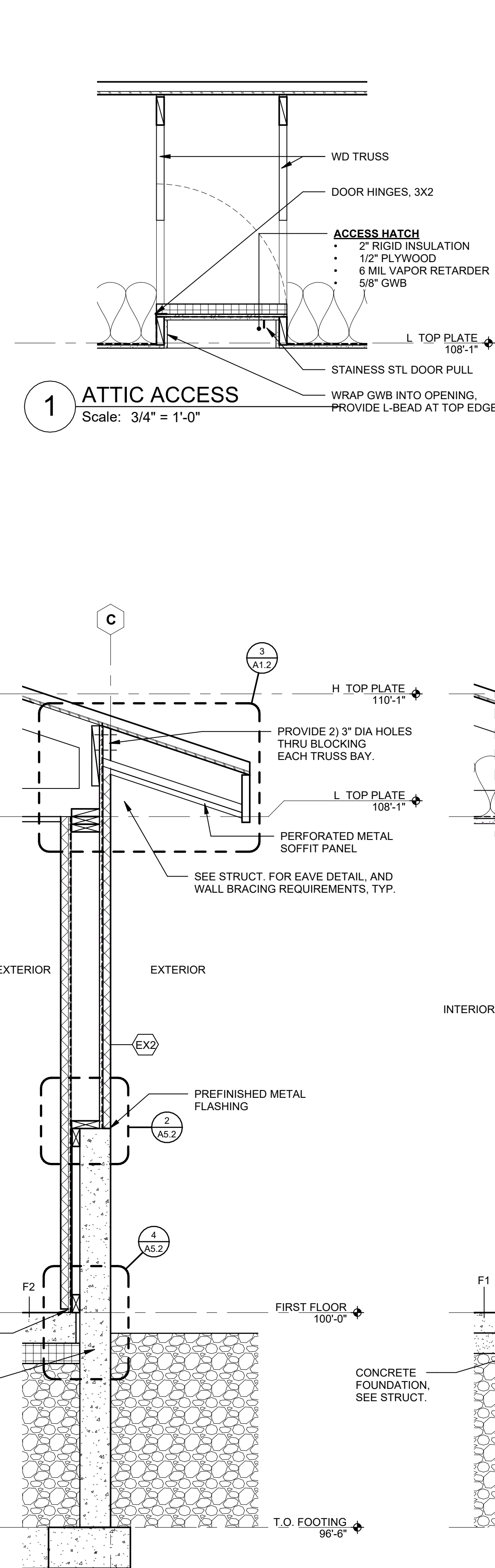
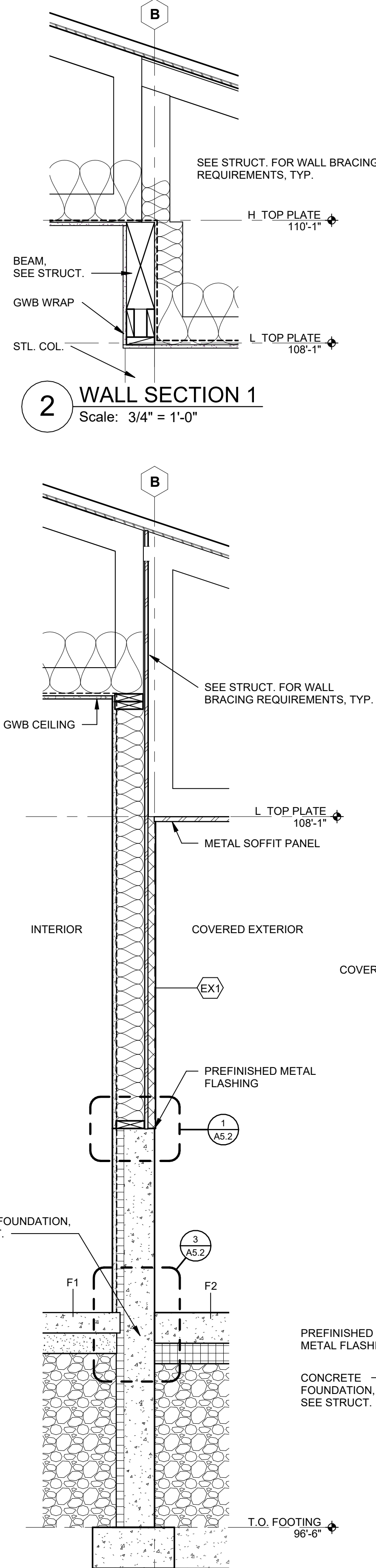
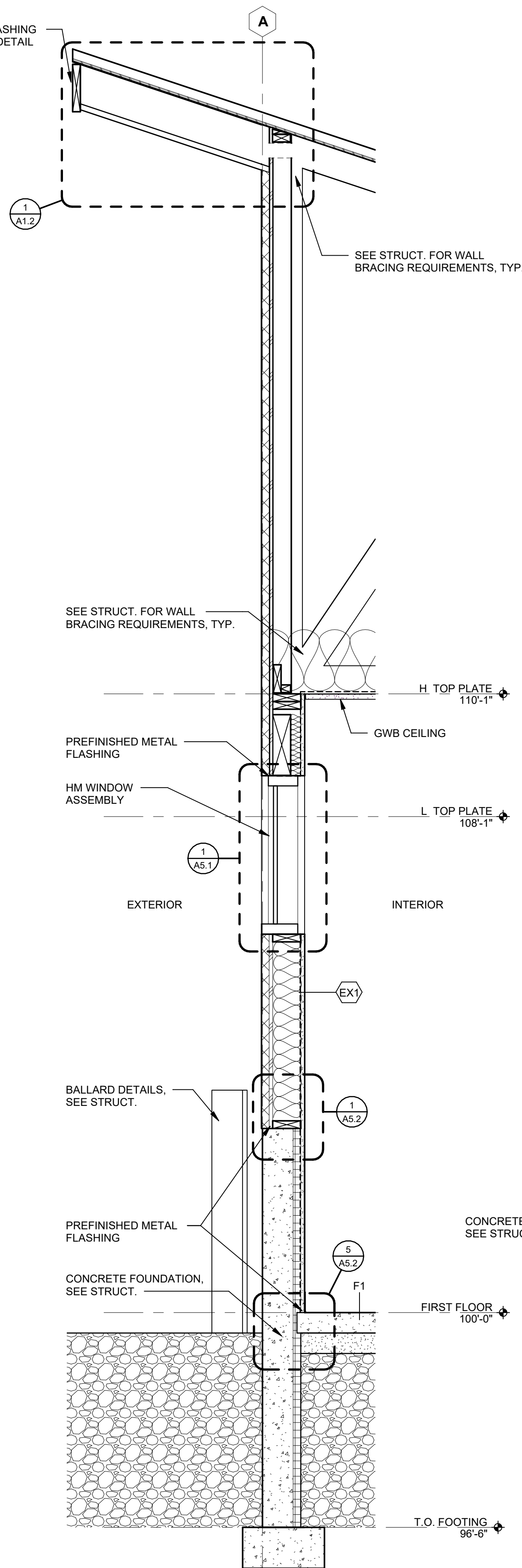
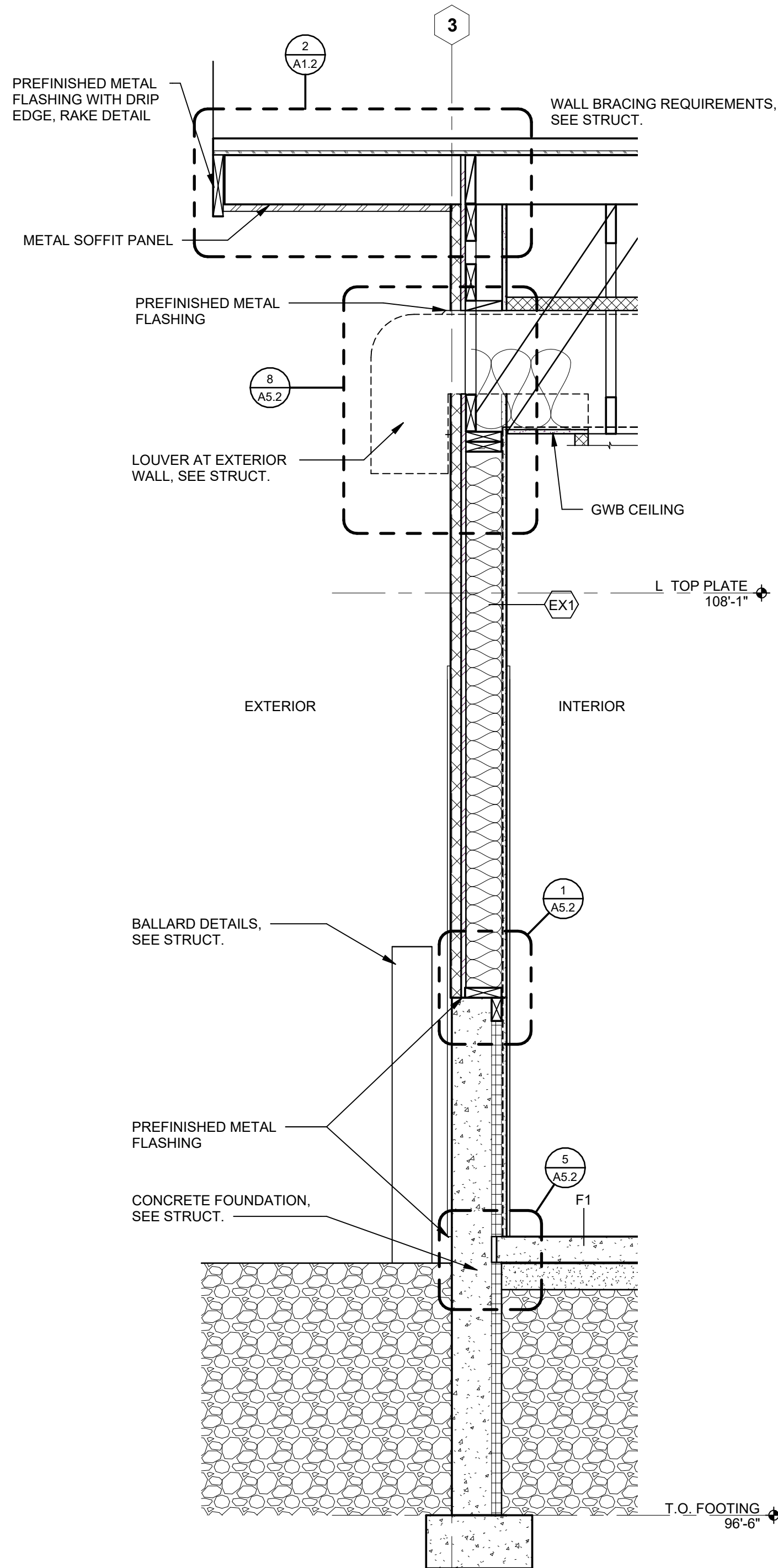
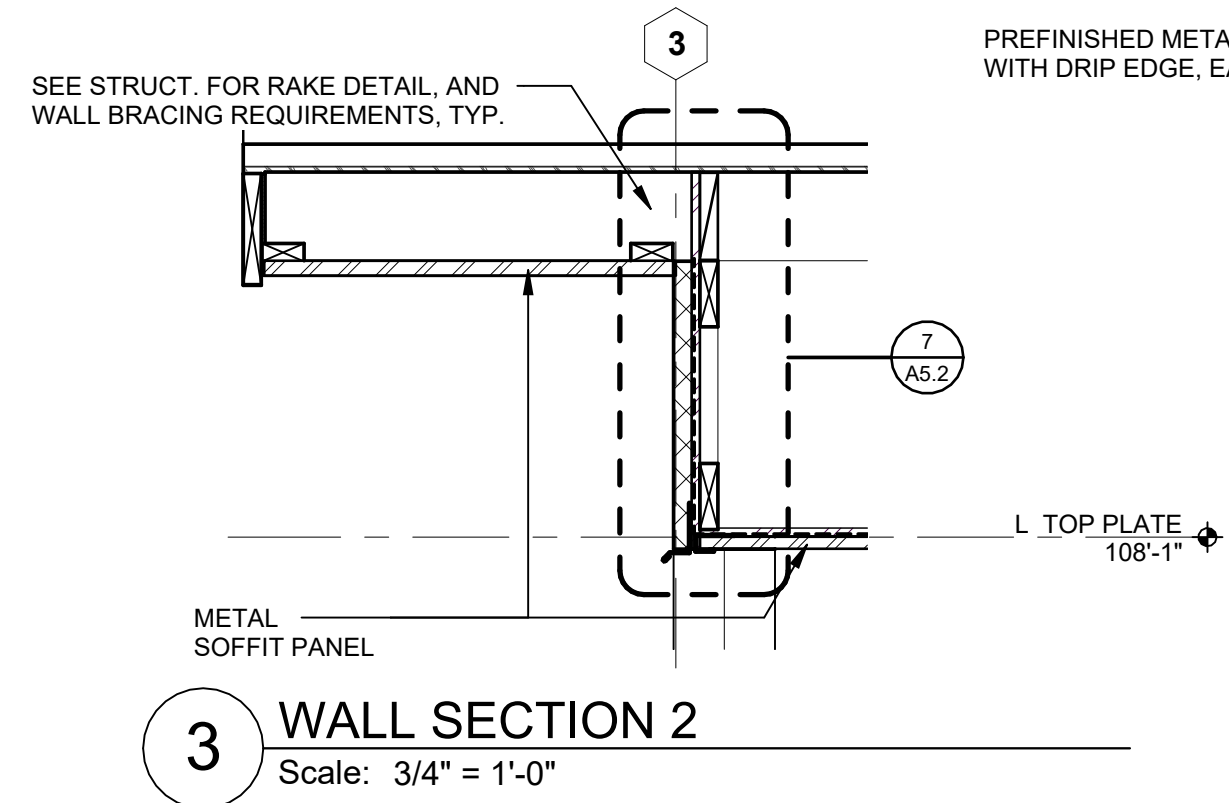
ELEVATIONS - COLOR

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



DAY ENGINEERING
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BY: **A2.2**
DATE: 6/30/25
SCALE:



SHEET NOTES:

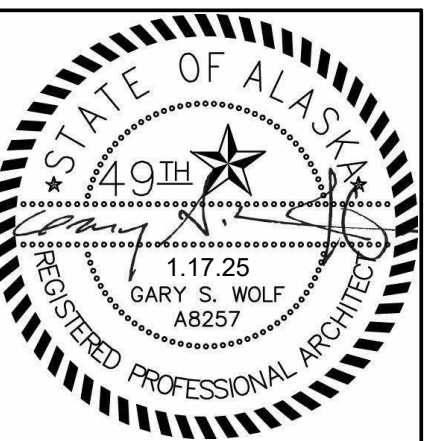
- SEE SHEET G1.1 FOR WALL CONSTRUCTION
- SEE A5.3 FOR FLASHING DETAILS

REVISION	BY	DATE	APPROVAL

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TITLE	PROJECT
WALL SECTIONS	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA



DAY ENGINEERING

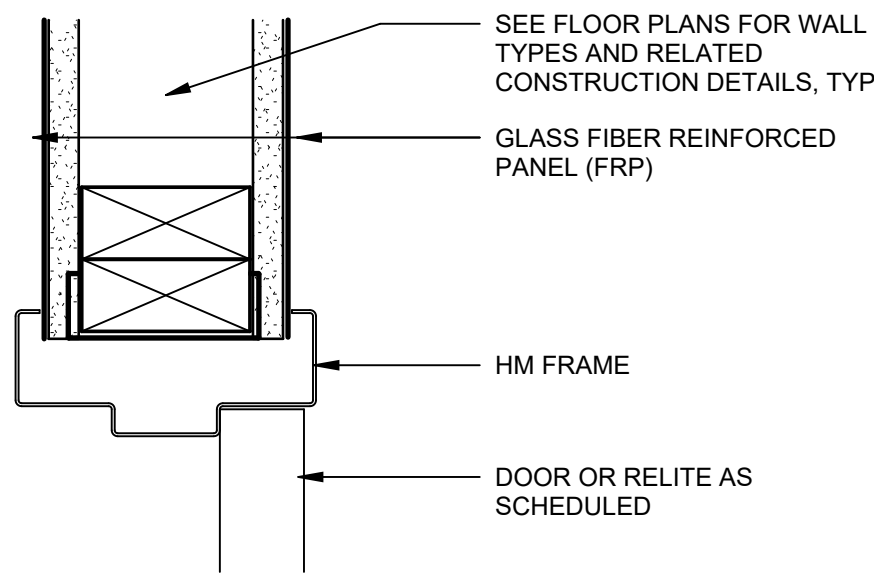
5 EAST PARK STREET • FALLON, NEVADA 89405 • (775) 423-9090
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BY: **A3.2**

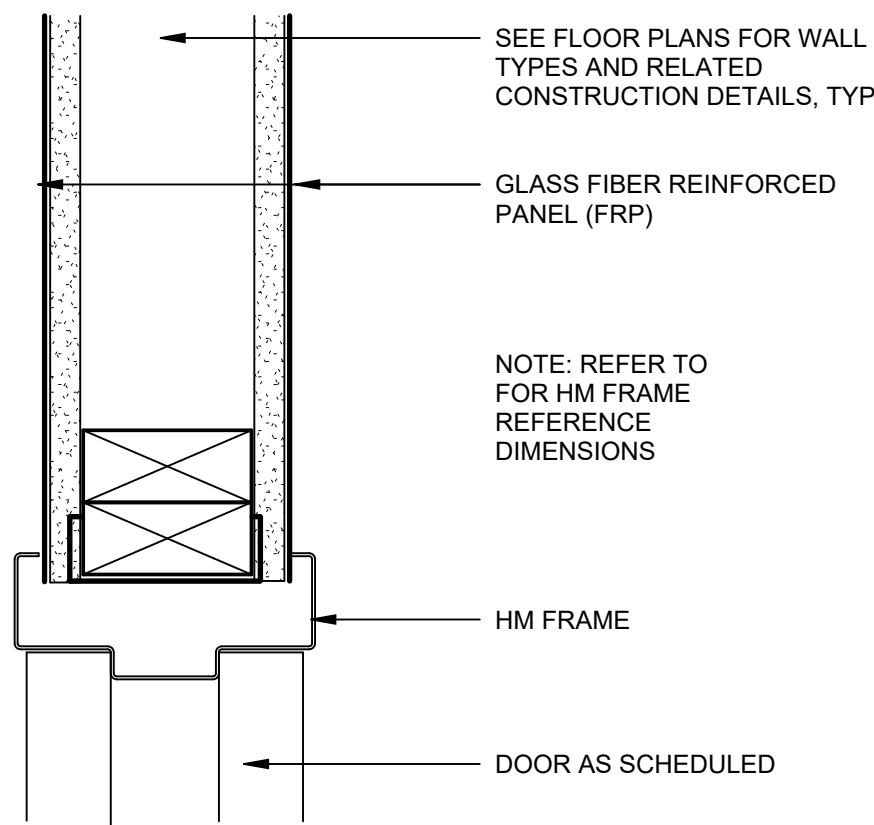
DATE: 6/30/25

SCALE:

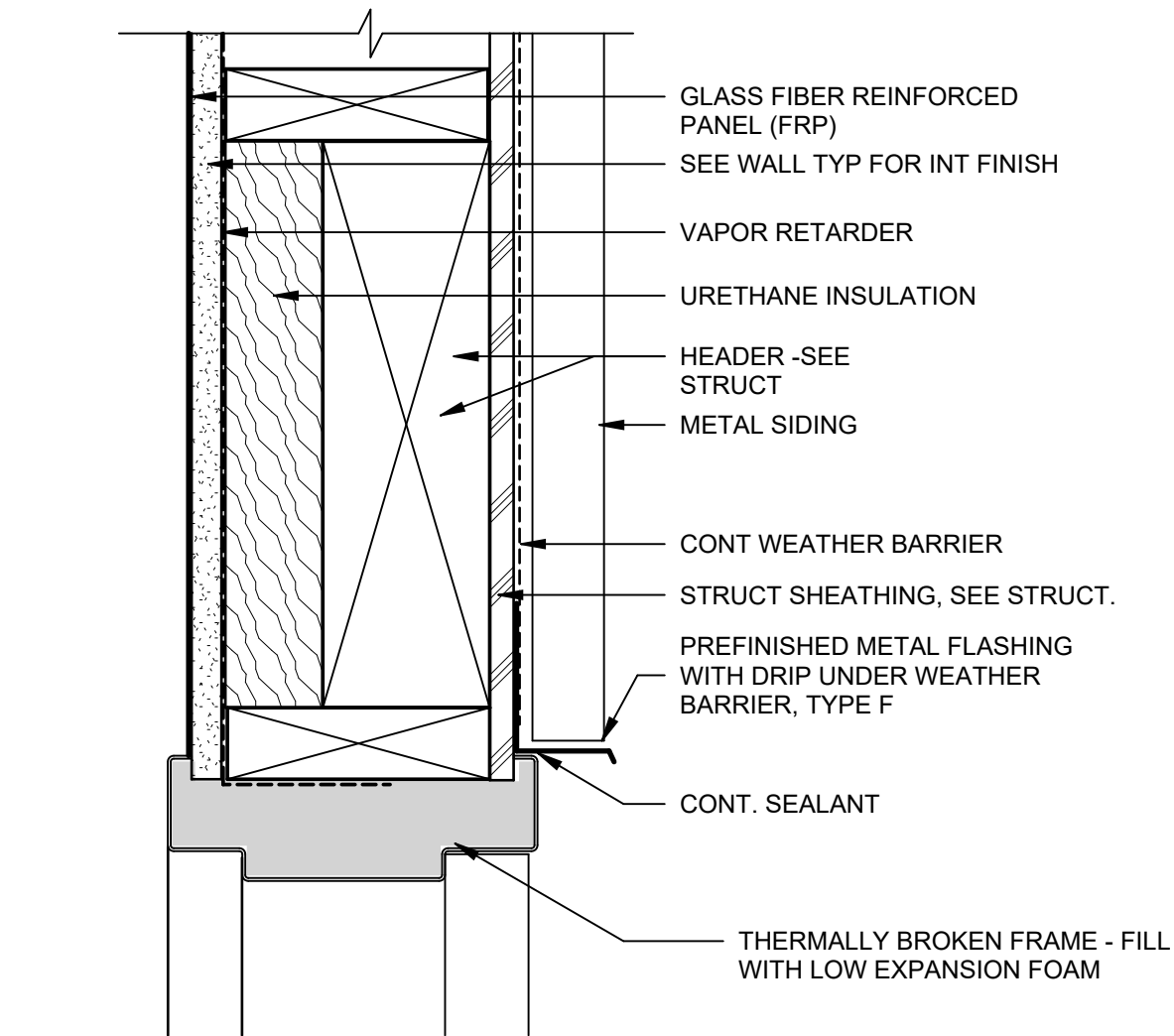
SHEET



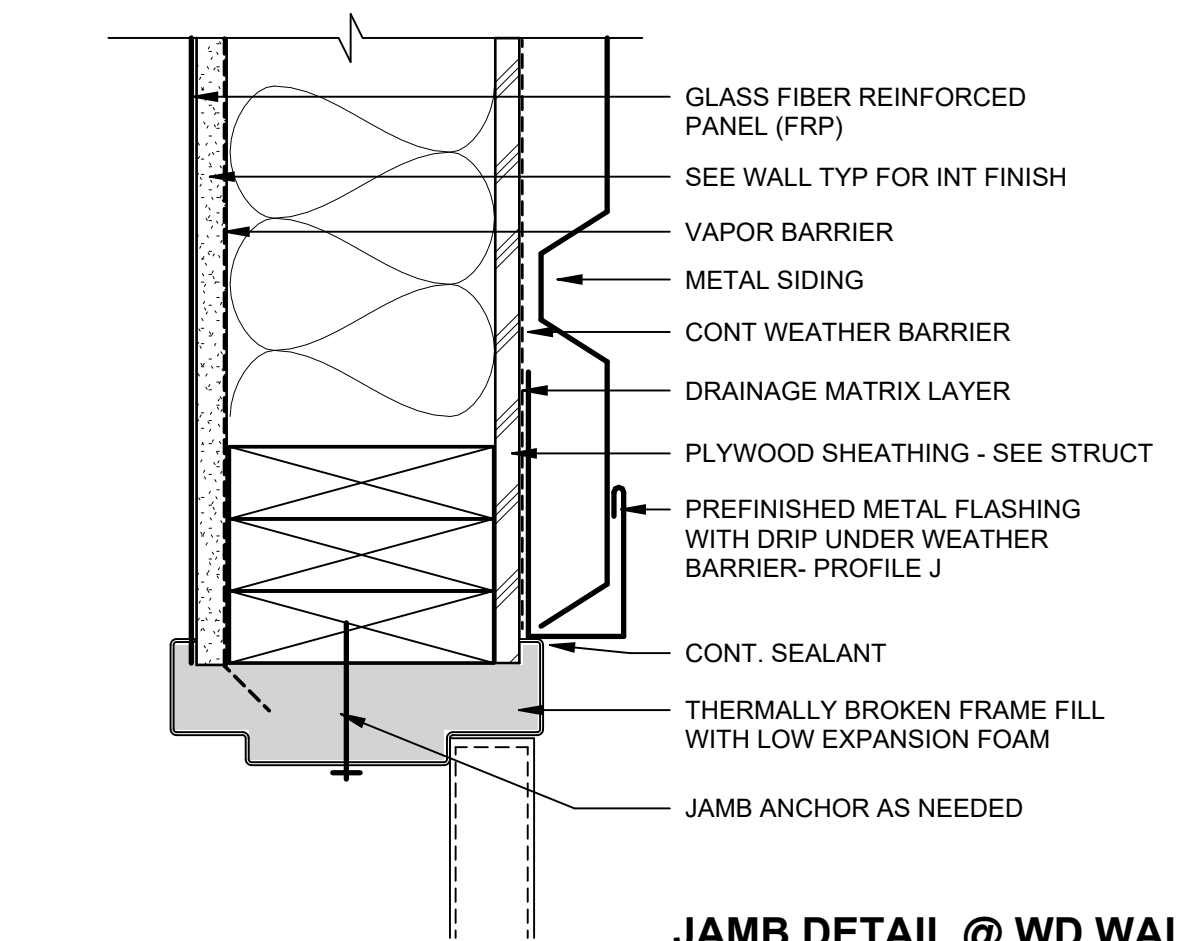
HEAD DETAIL



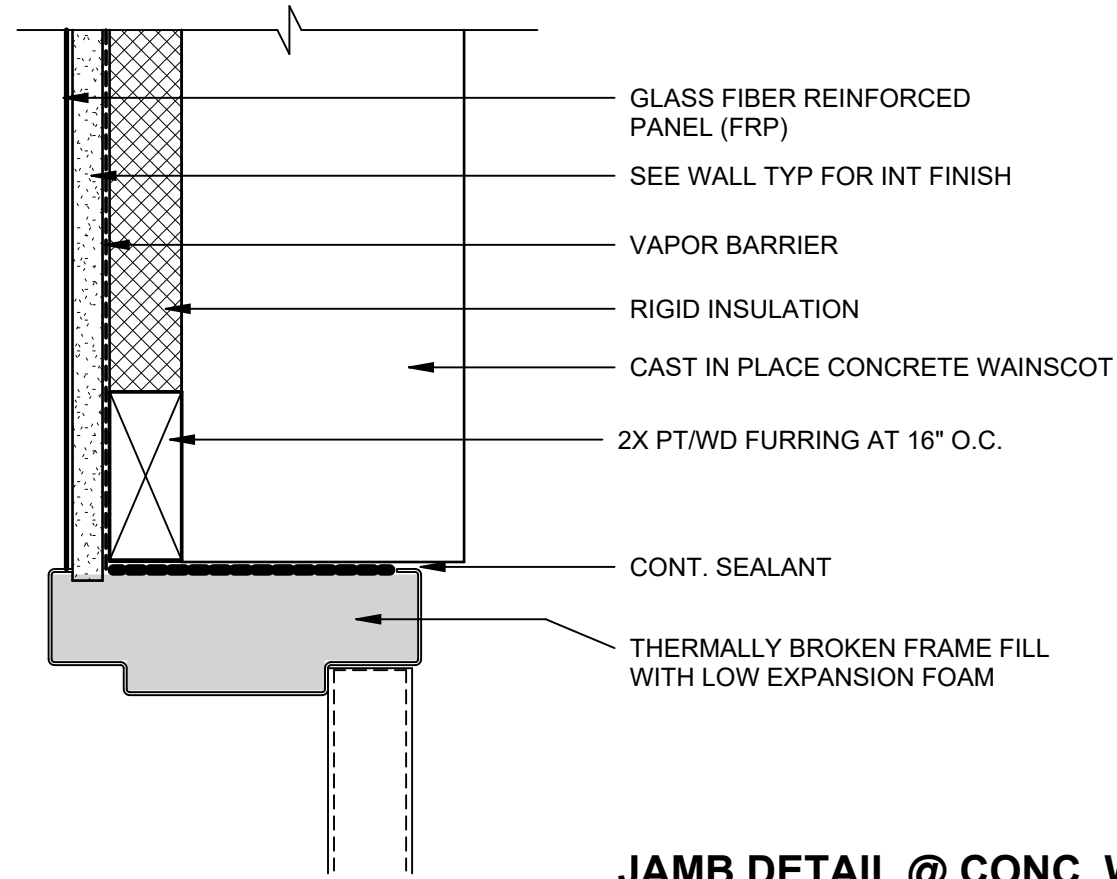
JAMB DETAIL



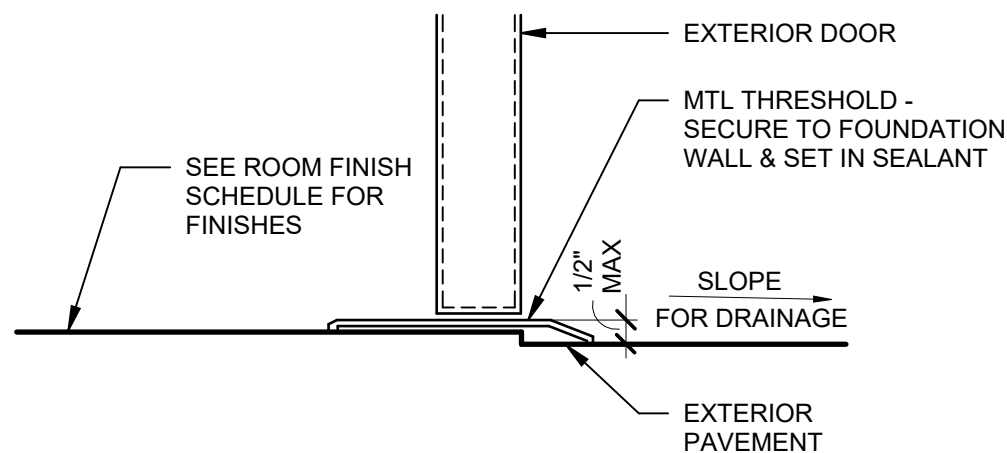
HEAD DETAIL



JAMB DETAIL @ WD WALL



JAMB DETAIL @ CONC. WAINSCOT



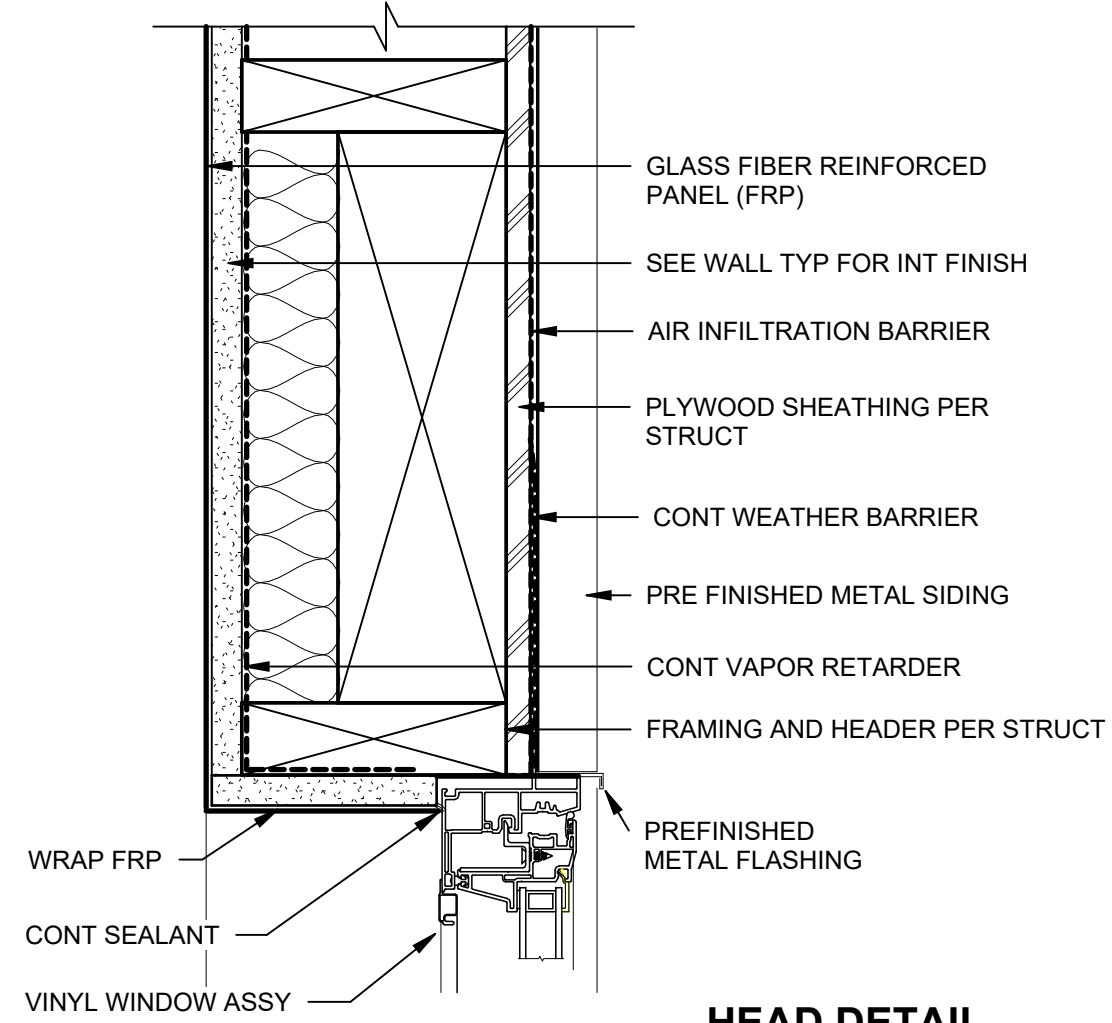
SILL DETAIL

3 INTERIOR DOOR - HM HJS TYP.
Scale: 3" = 1'-0"

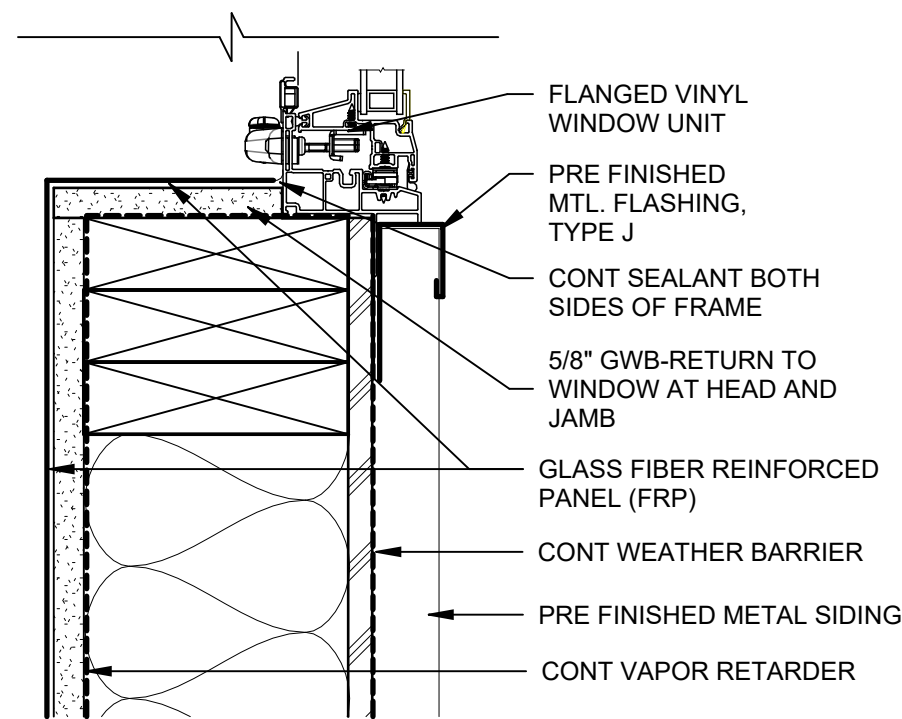
2 EXTERIOR DOOR - HM HJS TYP
Scale: 3" = 1'-0"

SHEET NOTES:

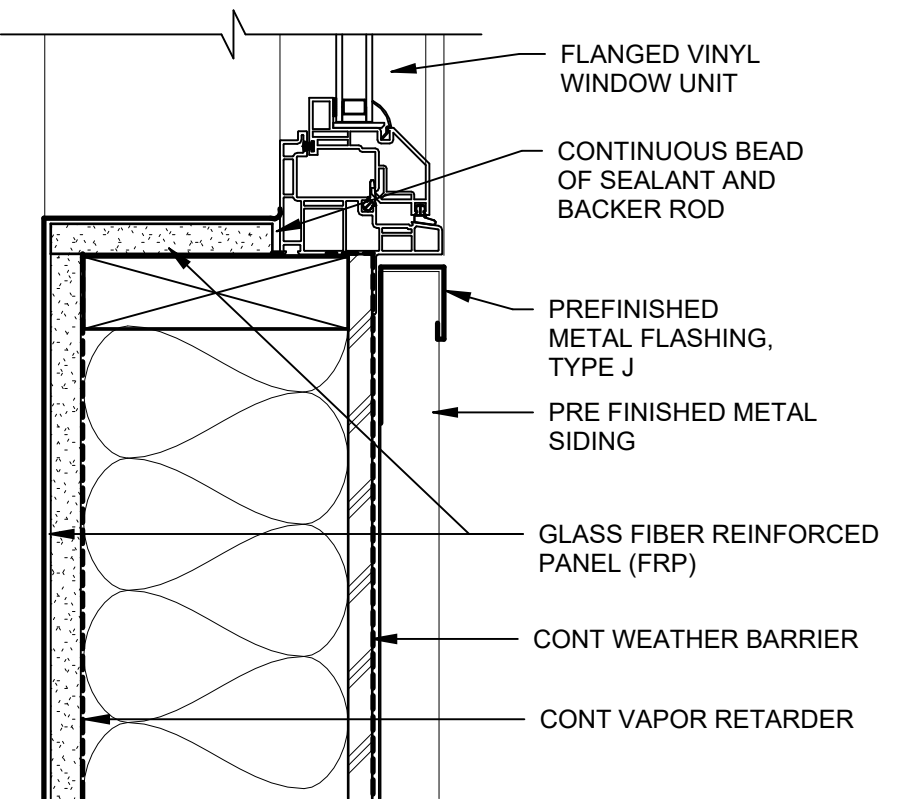
1. SEE SHEET G1.1 FOR WALL CONSTRUCTION
2. SEE A5.3 FOR FLASHING DETAILS



HEAD DETAIL



JAMB DETAIL



SILL DETAIL

1 EXTERIOR WINDOW - VINYL MTL HJS
Scale: 3" = 1'-0"

REVISION	BY	DATE	APPROVAL

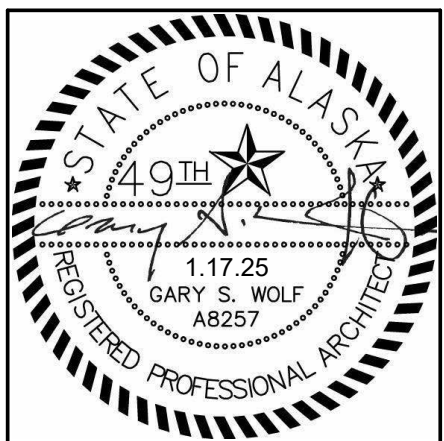
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WINDOW & DOOR DETAILS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

TITLE PROJECT



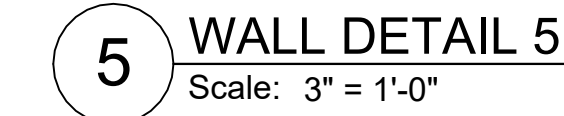
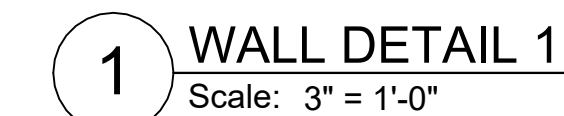
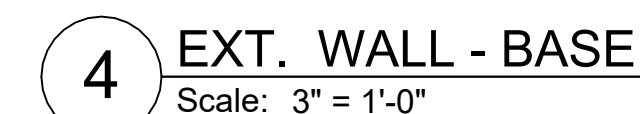
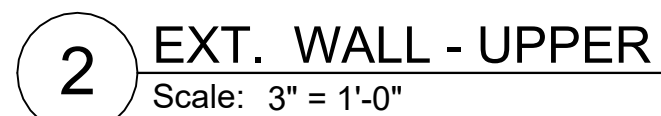
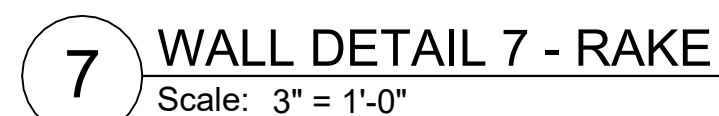
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BY: 6/30/25

DATE: 6/30/25

A5.1
SHEET

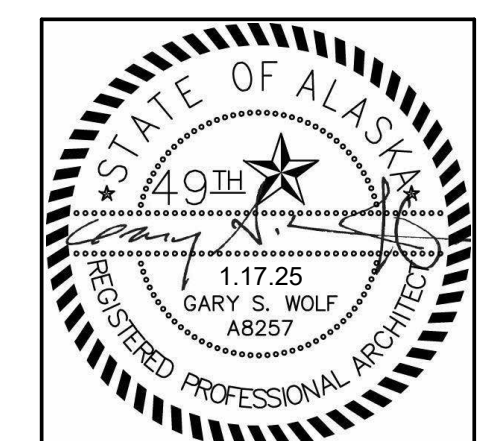
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WALL DETAILS

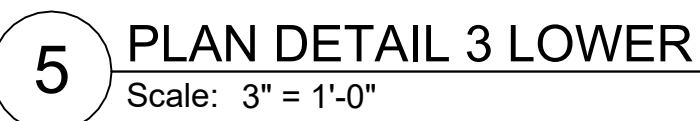
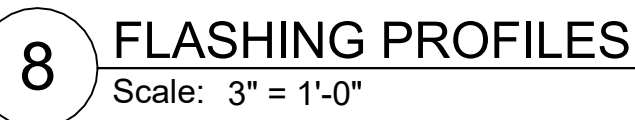
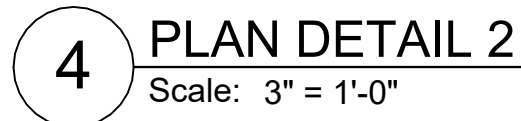
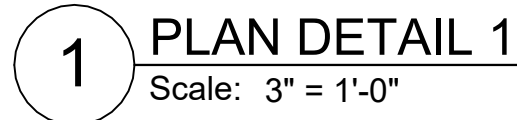
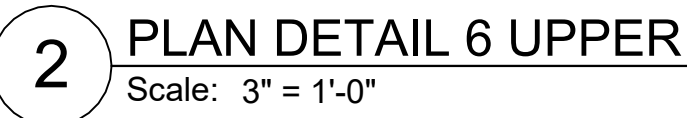
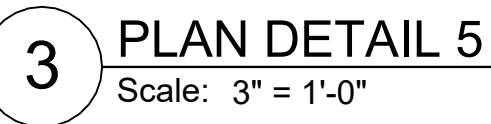
NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

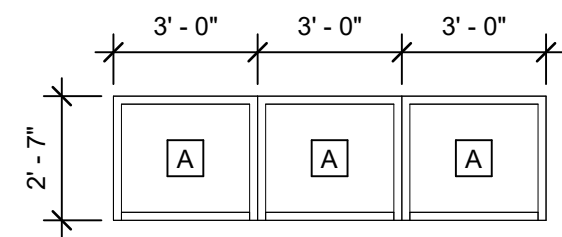

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A5.2

1



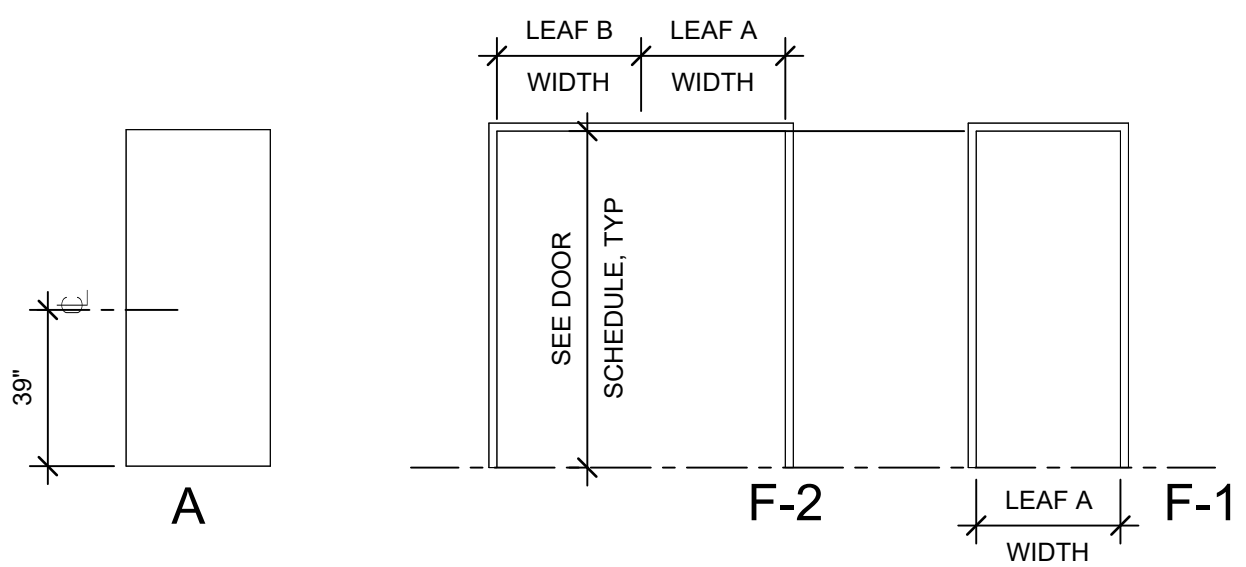


WINDOW TYPE

VINYL WINDOW NOTES:

1. BASIS OF DESIGN - JELDOWEN, PREMIUM, LOW-E 366, ARGON
U-VALUE - 0.27 OR LOWER
SHGC - 0.24 OR LOWER
VT - 0.55 OR HIGHER
FINISH - DK BRONZE
2. GLASS TYPE - CARDINAL 366 OR EQUAL

MAN DOOR SCHEDULE												
DOOR NO	To Room: Name	PR	DOOR LEAF A	DOOR LEAF B	DOO R HT	DOOR			FRAME		FINISH	REMARKS / CODED NOTES
						TYPE	MATERIAL	FINISH	TYPE	MATERIAL		
103	ELEC/COMM		3'-0"	0"	7'-0"	A	STL	PT	F-1	STL	PT	
E100	PUMP ROOM	PR	3'-0"	3'-0"	7'-0"	A	STL	PT	F-2	STL	PT	INSULATED/THERMALLY BROKEN
E102	FUTURE STORAGE		3'-0"	0"	7'-0"	A	STL	PT	F-1	STL	PT	INSULATED/THERMALLY BROKEN



DOOR - TYPES

FRAME TYPES - DOOR

DOOR ABBREVIATIONS

AL ALUMINUM
BOF BOTTOM OF FRAME
FF FACTORY FINISH
GL GLASS
H HINGE (JAMB)
HR HOUR
MFR MANUFACTURER
PL PLASTIC LAMINATE
PR PAIR OF DOORS
PT PAINT
S STRIKE (JAMB)
SST STAINLESS STEEL
STL STEEL
STN STAIN & VARNISH
TOF TOP OF FRAME
WD WOOD

GENERAL DOOR & RELITE NOTES

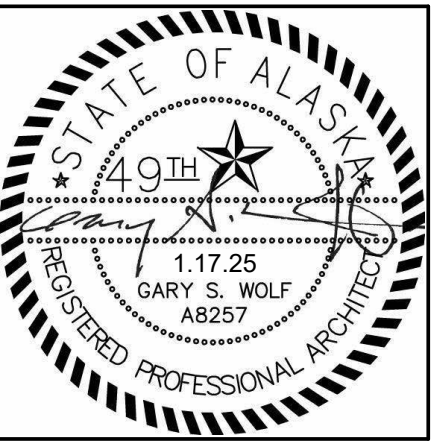
1. ALL DOORS TO BE 1 3/4" THICK, UNLESS NOTED OTHERWISE
2. SEE SHEET A5.1 FOR INTERIOR STEEL FRAME DOOR AND RELITE DETAILS
3. LABEL COLUMN NUMBERS INDICATES THE RATING IN MINUTES, UNLESS NOTED OTHERWISE
4. GLAZING DIMENSIONS FOR DOOR TYPES ARE TO INSIDE OF FRAME (CLEAR GLAZING AREA). ACTUAL CUTOUT AND TOTAL FRAME WILL BE SLIGHTLY LARGER
5. RELITE GLAZING AND STOP TO OCCUR ON CORRIDOR SIDE OF FRAME, UNLESS NOTED OTHERWISE
6. ALL DOOR HANDLES TO BE LEVER TYPE COMPLYING WITH ADA
7. DOORS AND FRAMES ARE TO BE PAINTED

[illegible]

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TITLE	PROJECT
SCHEDULES	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA

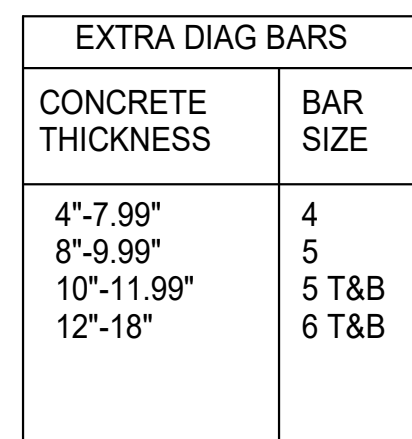




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A6.1 SHEET	BY:	
	DATE:	6/30/25
	SCALE:	


$$\frac{3}{4}'' = 1'-0''$$


2) $1'' = 1'-0''$



NOTES:

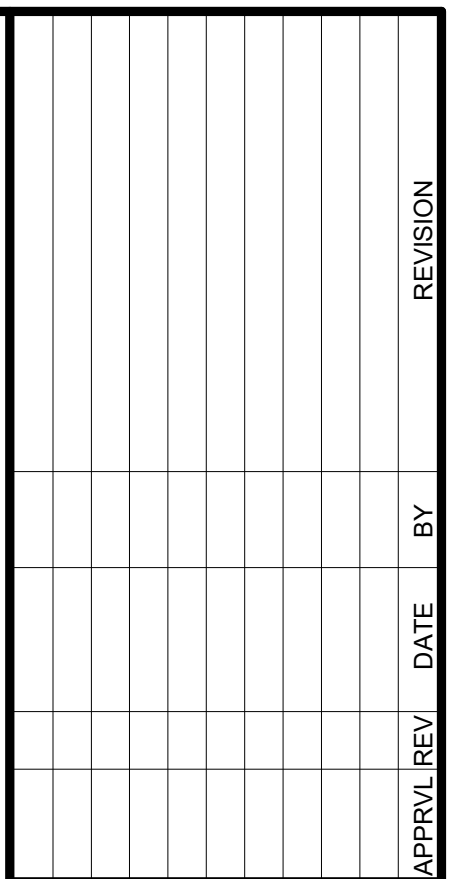
NOTES:

NOTES:

NOTE: REFERENCE ACI 318-14
SEC. 25.3

NOTE: INCREASE TABULATED LAP LENGTH BY 20% FOR BUNDLES OF 3 BARS.

NOTES: "-" INDICATES TOLERANCE DECREASE TOWARDS MEMBER FACE. "+" INDICATES AWAY FROM MEMBER FACE.



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TITLE CONCRETE REINFORCING SCHEDULES AND
TYPICAL DETAILS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

PROJECT



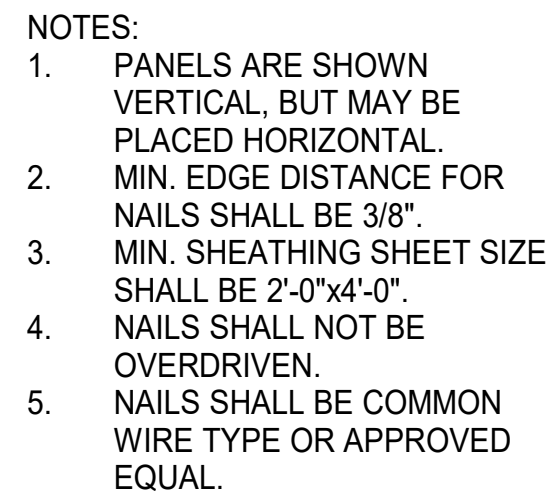
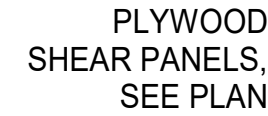
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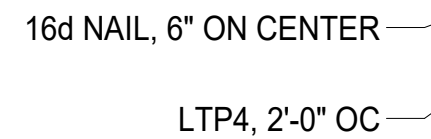
BY: DNB

S1.3

SHS

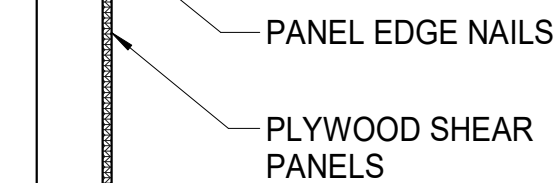

$$3/4" = 1'-0"$$


2) $\frac{3}{4}'' = 1'-0''$



CONTRACTOR OPTION: BLKG PANEL MAY BE SPECIFIED BY TRUSS MFR.

5) $3/4" = 1'-0"$



3) $\frac{3}{4}'' = 1'-0''$

NOTES:

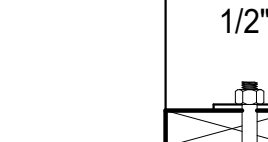
1. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS FOR ITS TYPE IN DOC P51 OR PS2.
2. APPLY SHEATHING TO THE SIDE OF WALL INDICATED BY THE SYMBOL. PANELS MAY BE INSTALLED HORIZONTALLY OR VERTICALLY.
3. DOUBLE SHEATHED WALLS SHALL HAVE PANELS APPLIED TO BOTH FACES.
4. ALL PANEL EDGES SHALL BE LOCATED ON STUDS, BLOCKING LAID FLAT, PLATES OR RIM JOISTS. WHERE SHEATHING IS APPLIED TO BOTH FACES OF WALL, OFFSET PANEL EDGES TO FALL ON DIFFERENT STUDS.
5. STAGGER PANEL EDGE NAILING AT PANEL JOINTS.
6. ANCHOR RODS SHALL BE HOT-DIPPED GALVANIZED ASTM A307 HEADED BOLTS. FIRST AND LAST ANCHORS SHALL BE LOCATED 6" FROM END OF EACH WALL SEGMENT OR END WALL HOLDOWN.
7. SEE TYPICAL PLATE WASHER DETAIL FOR SILL PLATE ANCHOR INSTALL AND LOCATION REQUIREMENTS.
8. SEE HOLDOWN SCHEDULE FOR HOLDOWNS AND BOUNDARY POST SIZES.
9. ANCHOR ROD EMBEDMENT IS THE DISTANCE FROM TOP OF CONCRETE TO TOP OF NUT OR BOLT HEAD.

NOTES

1. APPLY SHEATHING PERPENDICULAR TO FRAMING MEMBERS UNLESS NOTED OTHERWISE.
2. LOCATE PANEL ENDS OVER FRAMING MEMBERS AND STAGGER LOCATION OF ENDS JOINTS BY A MINIMUM OF 2'-0" UNLESS SHOWN OTHERWISE.
3. SEE SCHEDULE FOR PANEL EDGE BLOCKING REQUIREMENTS.
4. STAGGER PANEL EDGE NAILING AT BLOCKED JOINTS.
5. NAILS SHALL BE LOCATED AT LEAST 3/8" FROM THE EDGES OF PANELS. HEADS OF NAILS SHALL BE DRIVEN FLUSH WITH THE SURFACE.
6. PANELS SHALL NOT BE LESS THAN 4' x 8' EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE ALL EDGES ARE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.

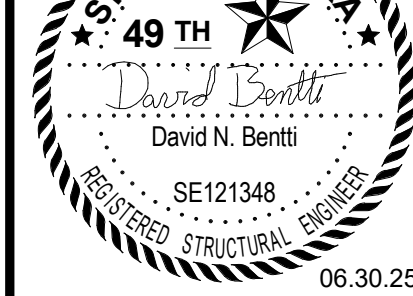
NOTES:

1. HOLD-DOWNS ARE SIMPSON STRONG-TIE OR EQUAL.
2. ANCHOR RODS SHALL BE GALVANIZED ASTM F1554 GRADE 36 HEADED BOLTS OR ASTM A36 THREADED ROD WITH DBL NUT AT BOTTOM.
3. ROD COUPLERS WITH 125% STRENGTH OF THE ROD MAY BE USED TO EXTEND RODS.
4. BOUNDARY POSTS ARE OF No. 1.



NOTE: 0.229"x3"x3" MIN SIZE PLATE WASHER TO BE USED FOR EACH SILL PLATE ATTACHMENT BOLT. PLATE WASHER MUST BE WITHIN 1/2" OF SHEATHING FACE. SLOTTED HOLE IN PLATE WASHER PER AWC MAY BE USED PROVIDED A STD CUT WASHER BE PLACED BETWEEN PLATE WASHER AND NUT.

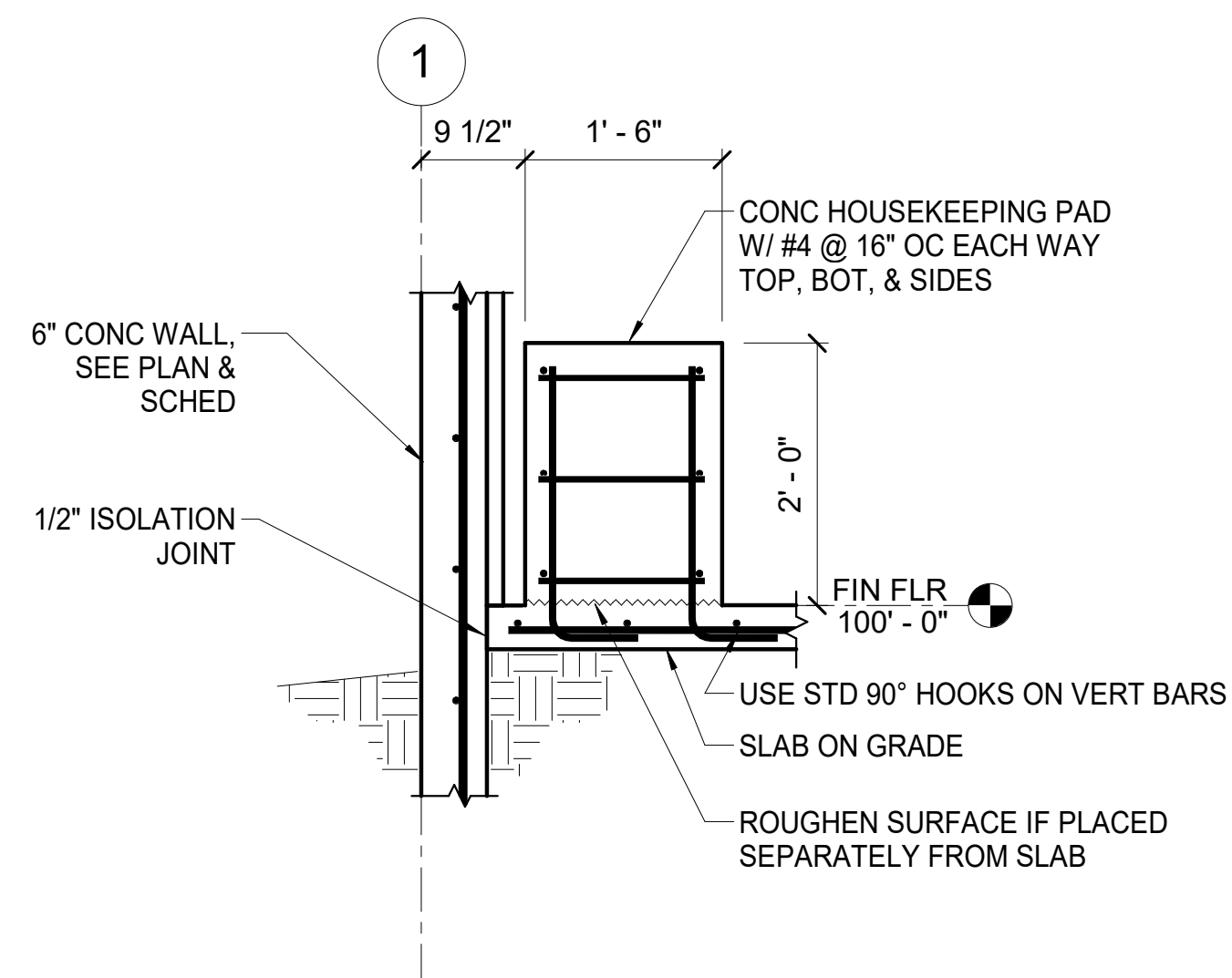
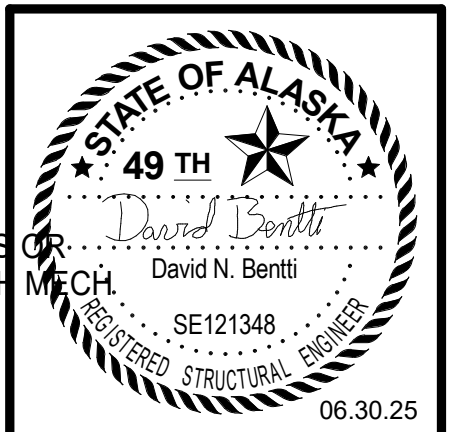
4) $1\frac{1}{2}'' = 1'-0''$



[illegible]

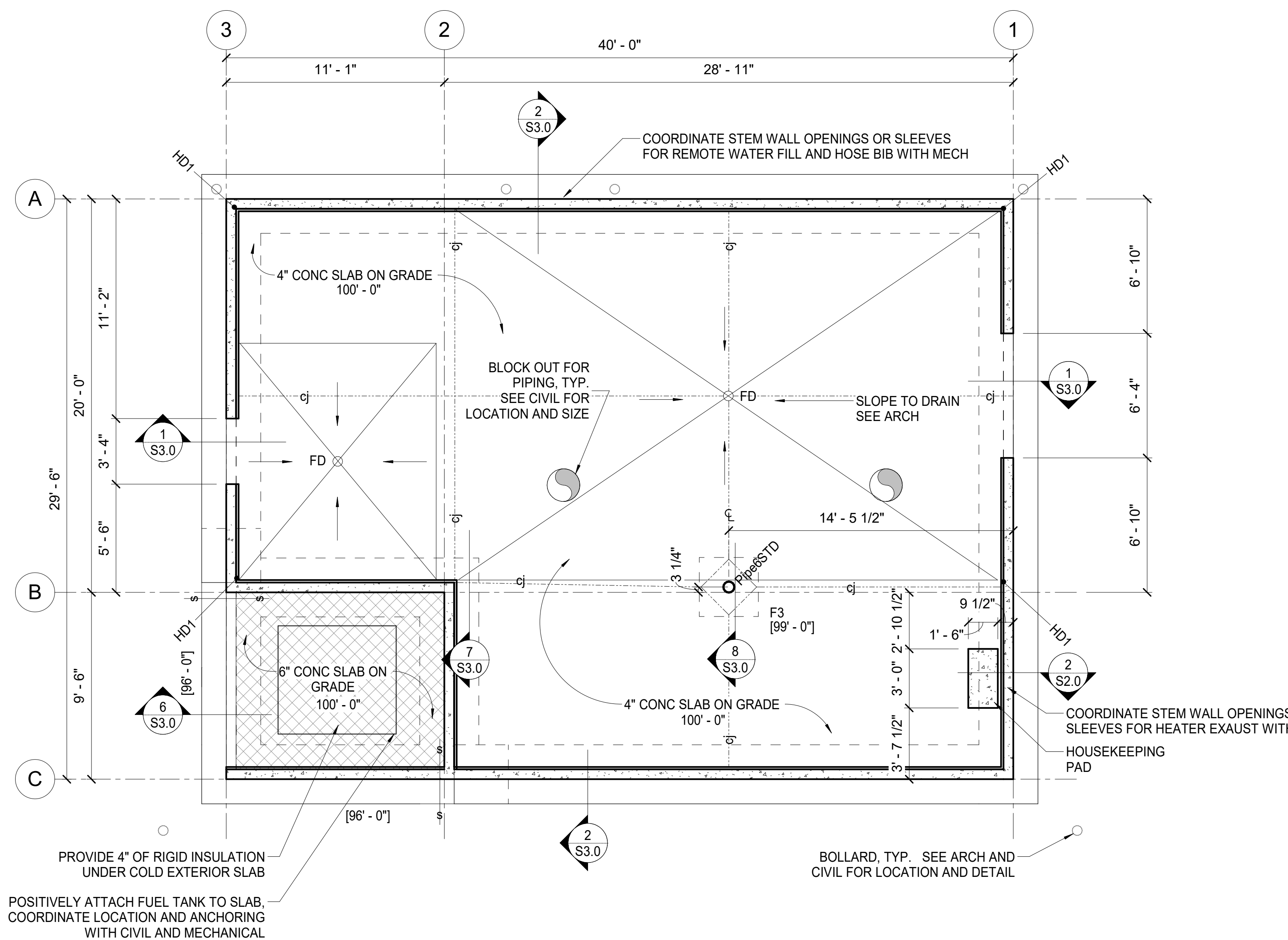
FOUNDATION & SLAB PLAN

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



FOUNDATION SHEET NOTES

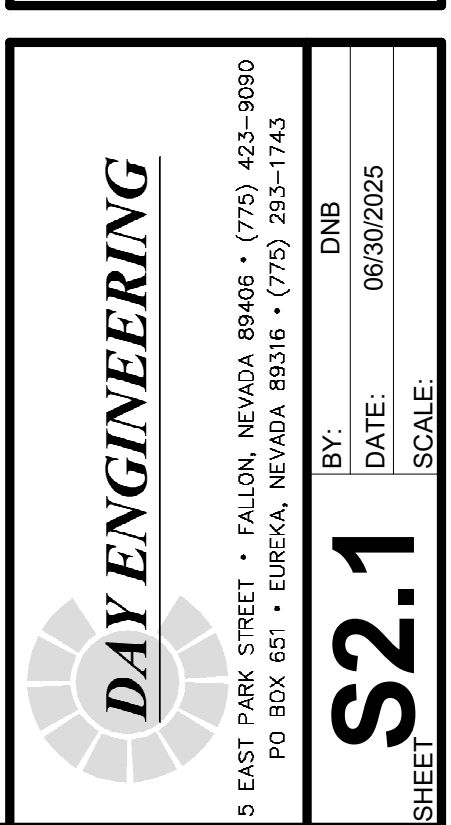
LEGEND



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625 South Cobb Street, Suite 202
Palmer, AK 99645
PH 907.707.1081
WWW.PNDENGINEERS.COM
AK LIC# AECC250

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

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SHEET SCALE:

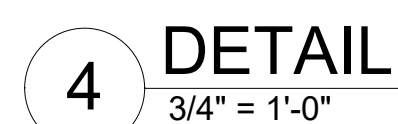
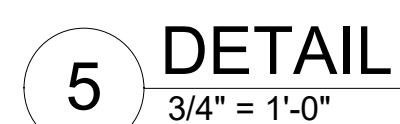
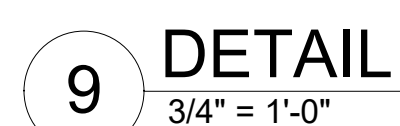
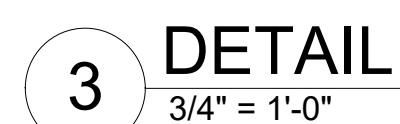
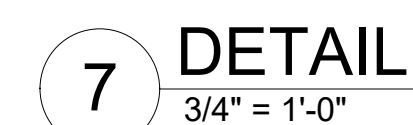
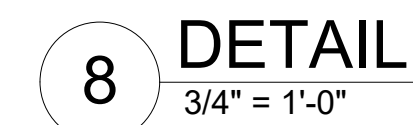
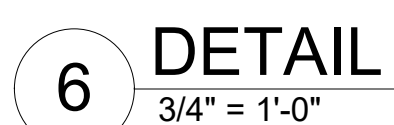
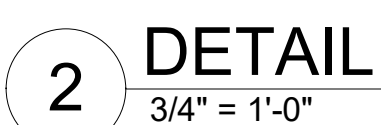
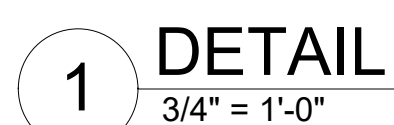


1. ROOF SHEATHING IS 3/4" PLYWOOD. ORIENT PANELS PERPENDICULAR TO FRAMING MEMBERS. SEE DIAPHRAGM SCHEDULE FOR BLOCKING AND NAILING REQUIREMENTS AT PANEL JOINTS.
2. SEE SECTIONS FOR ROOF ELEVATIONS.

H?	INDICATES HEADER TYPE, SEE SCHED
	INDICATES SHEAR WALL BELOW, SEE SHEAR WALL SCHED

ROOF FRAMING PLAN

$$\frac{1}{4}'' = 1'-0''$$

[illegible]

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DETAILS

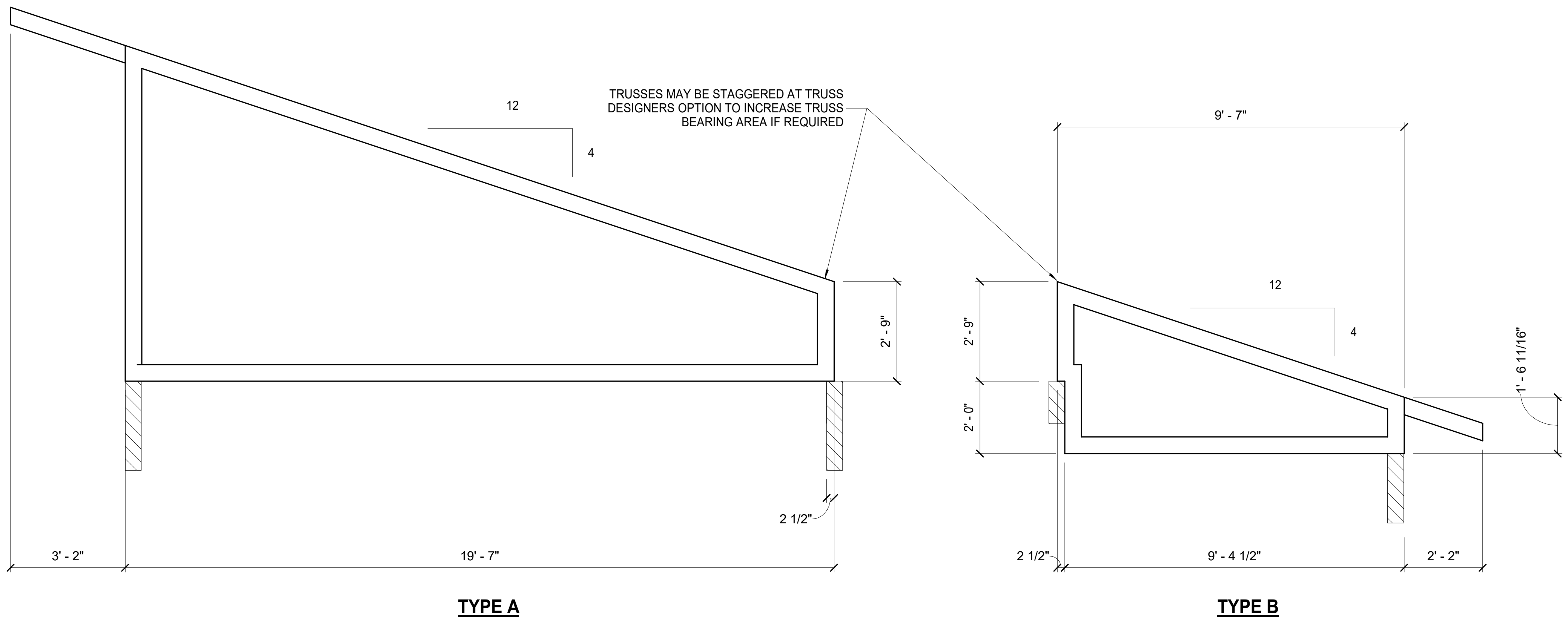
NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

STATE OF ALASKA
49 TH
David N. Benti
David N. Benti
SE121348
REGISTERED STRUCTURAL ENGINEER
06.30.25

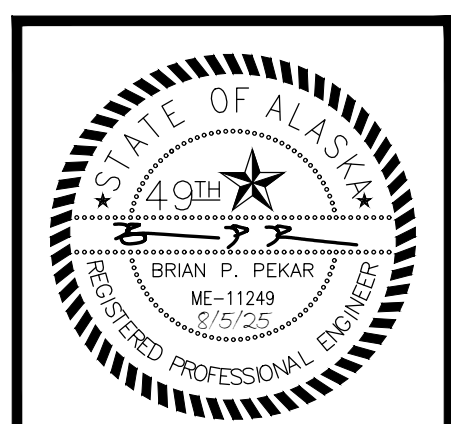
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S3.0



04.0
SHEET



A. ALL INTERIOR AND EXTERIOR HOODS, DUCTWORK, GRILLES, AND PIPING SHALL BE SHOP PRIMED AND PAINTED TO MATCH ADJOINING FINISHES.

- 1 SH-1, INSTALL PER MANUFACTURER INSTRUCTIONS WITH OIL LIFTEX PUMP. MAINTAIN CLEARANCES TO COMBUSTIBLES. MOUNT SH-1 A MINIMUM OF 24" AFF.
- 2 EH-1.2, INSTALL PER MANUFACTURER INSTRUCTIONS. MAINTAIN CLEARANCES TO COMBUSTIBLES. MOUNT EH-1 A MINIMUM OF 6" FROM CEILING.
- 3 EXTEND FOT-1 VENT BEYOND EAVE AND MINIMUM 12' AFG AND 3' ABOVE ROOF.
- 4 EXTEND SIDE WALL VENT 6" FROM EDGE OF SIDING, AHAP. TRIM AND PAINT TO MATCH SIDING.
- 5 TRANSITION FROM 6" V TO 8" V BEFORE VENT TEE.
- 6 PLUMBING VENT IN ATTIC SPACE, ROUTE AROUND ELEC/COMM ROOM.
- 7 SLEEVE CONCRETE FOR EXHAUST TO ENSURE PROPER ANGLE/DRAINAGE FOR INSTALL.
- 8 PROVIDE WATTS LF008PCQT SPILL-RESISTANT PRESSURE VACUUM BREAKER TO HOSE BIBB HB-1, AND INTERIOR HOSE CONNECTION.

ELECTRIC HEATERS – EH-1, EH-2:

- A. UNIT SHALL OPERATE TO MAINTAIN ROOM TEMPERATURE SETPOINT OF 55 DEG F. FAN AND HEATER SHALL CYCLE ON/OFF TO MAINTAIN SETPOINT.

A. UNIT SHALL OPERATE TO MAINTAIN ROOM TEMPERATURE SETPOINT OF 65 DEG F. FAN AND HEATER SHALL CYCLE ON/OFF TO MAINTAIN SETPOINT.

- A. WHEN HUMIDITY IS GREATER THAN 60% RH, FAN SHALL BE IN OPERATION.
- B. THE EXHAUST FAN MAY BE PLACED INTO MANUAL OVERRIDE USING A SPRING-WOUND TIMER LOCATED IN THE PUMP ROOM.



2 PLUMBING PLAN

[illegible]

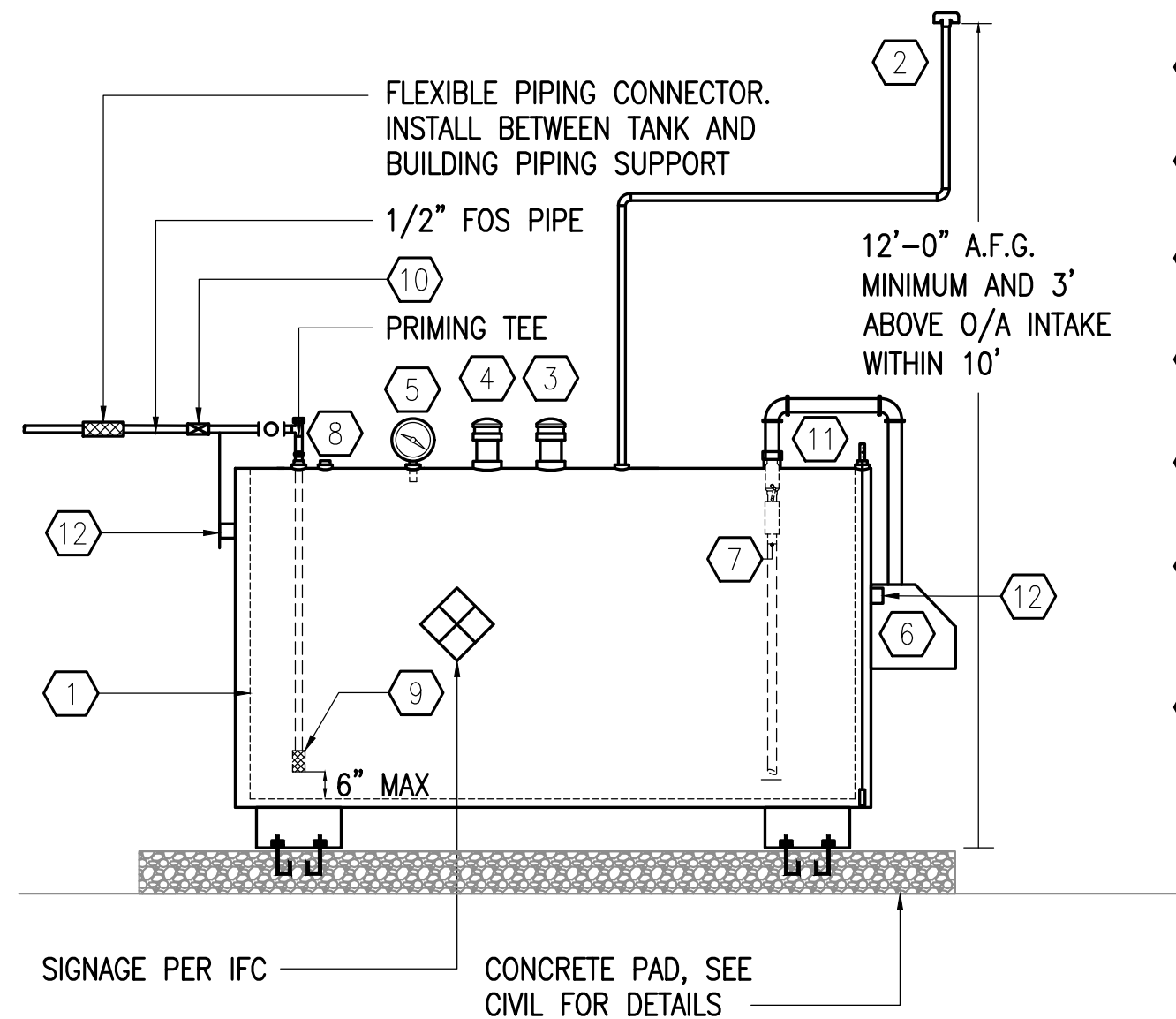
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 Corporate No.: AECG542
RSA JOB # M4082

TITLE

**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**

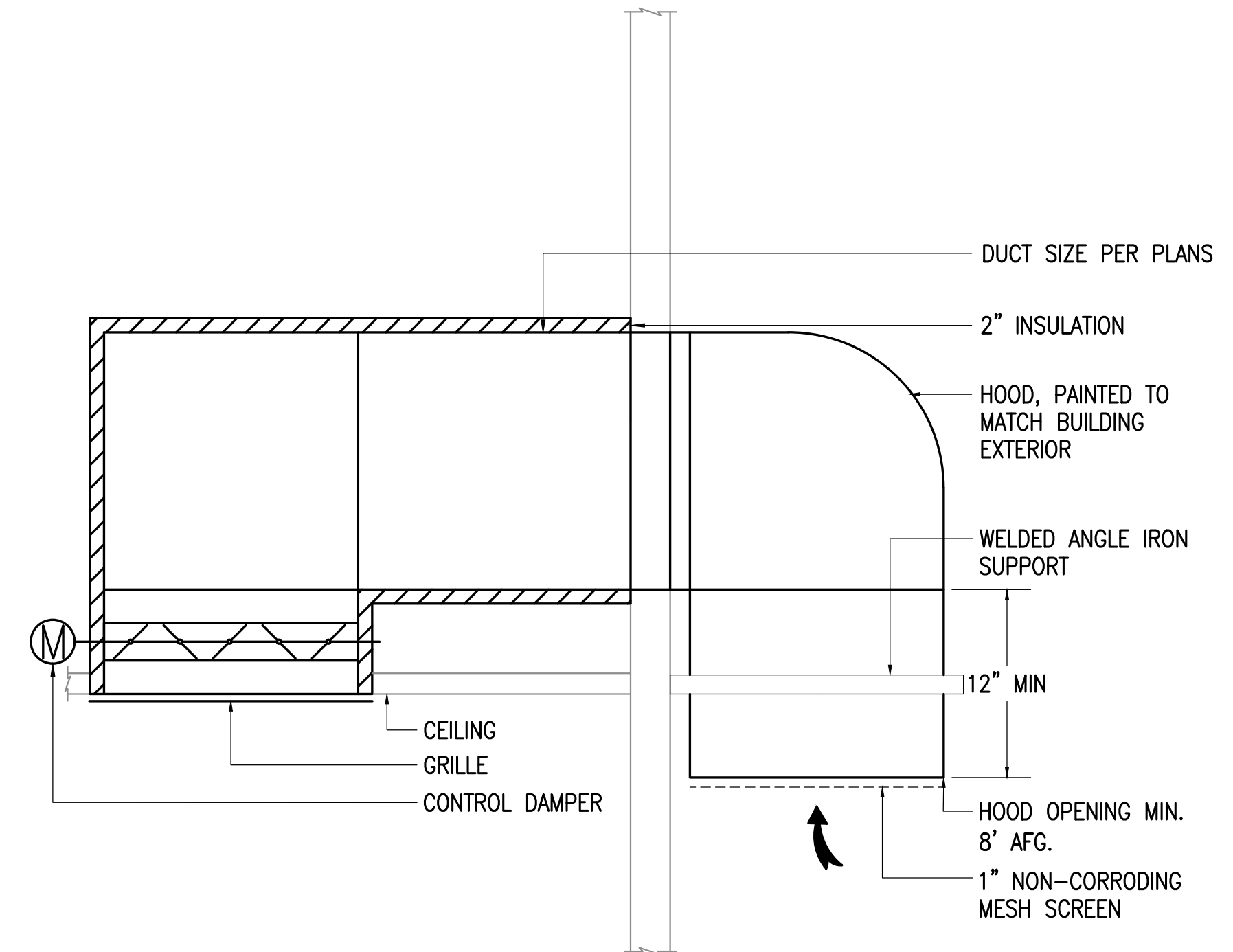


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	BY : JMC	DATE : 06/30/2025
SHEET M2 OF 3	SHEETS	SCALE : AS NOTED

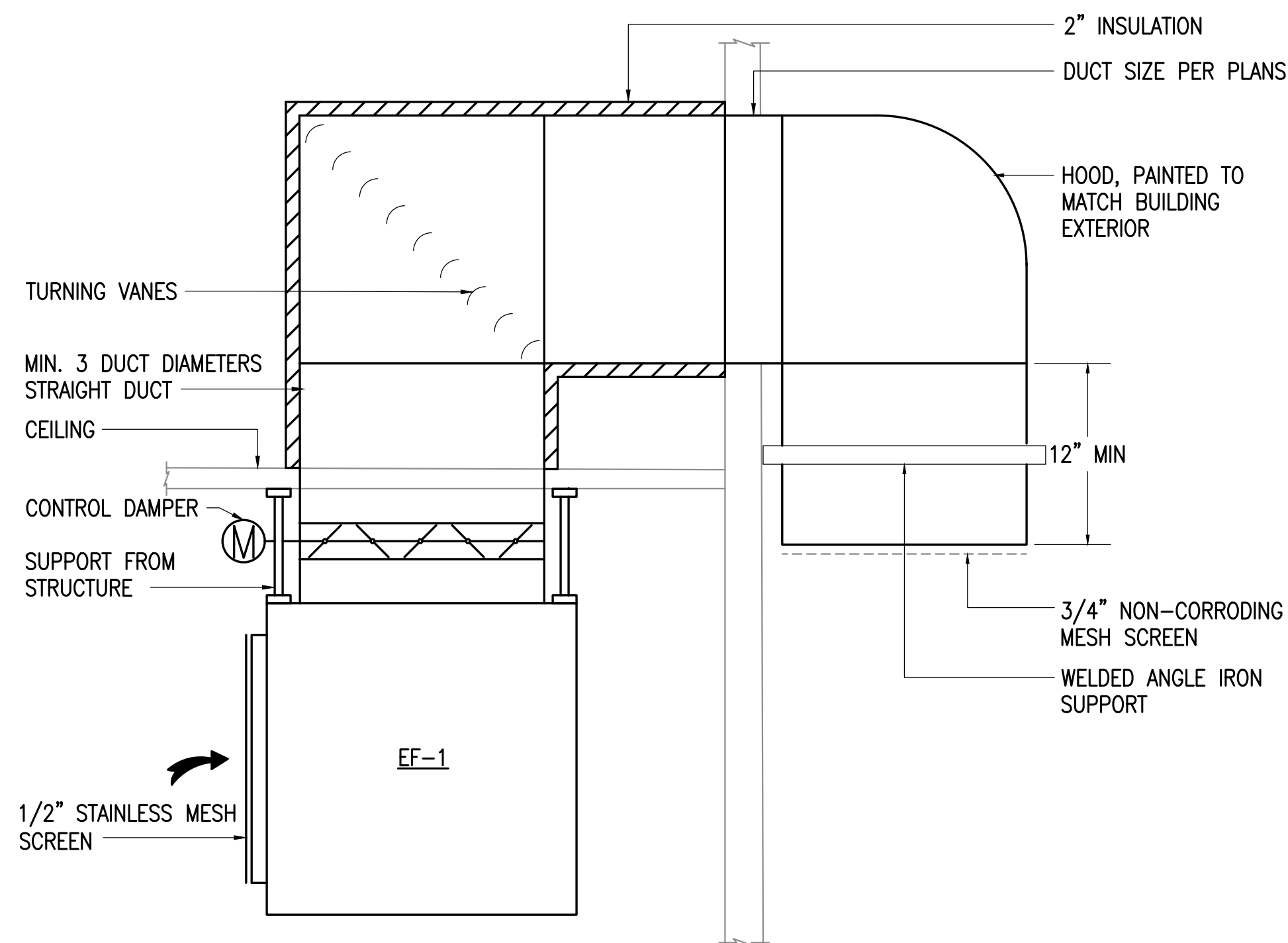


1 FUEL TANK DETAIL
NOT TO SCALE

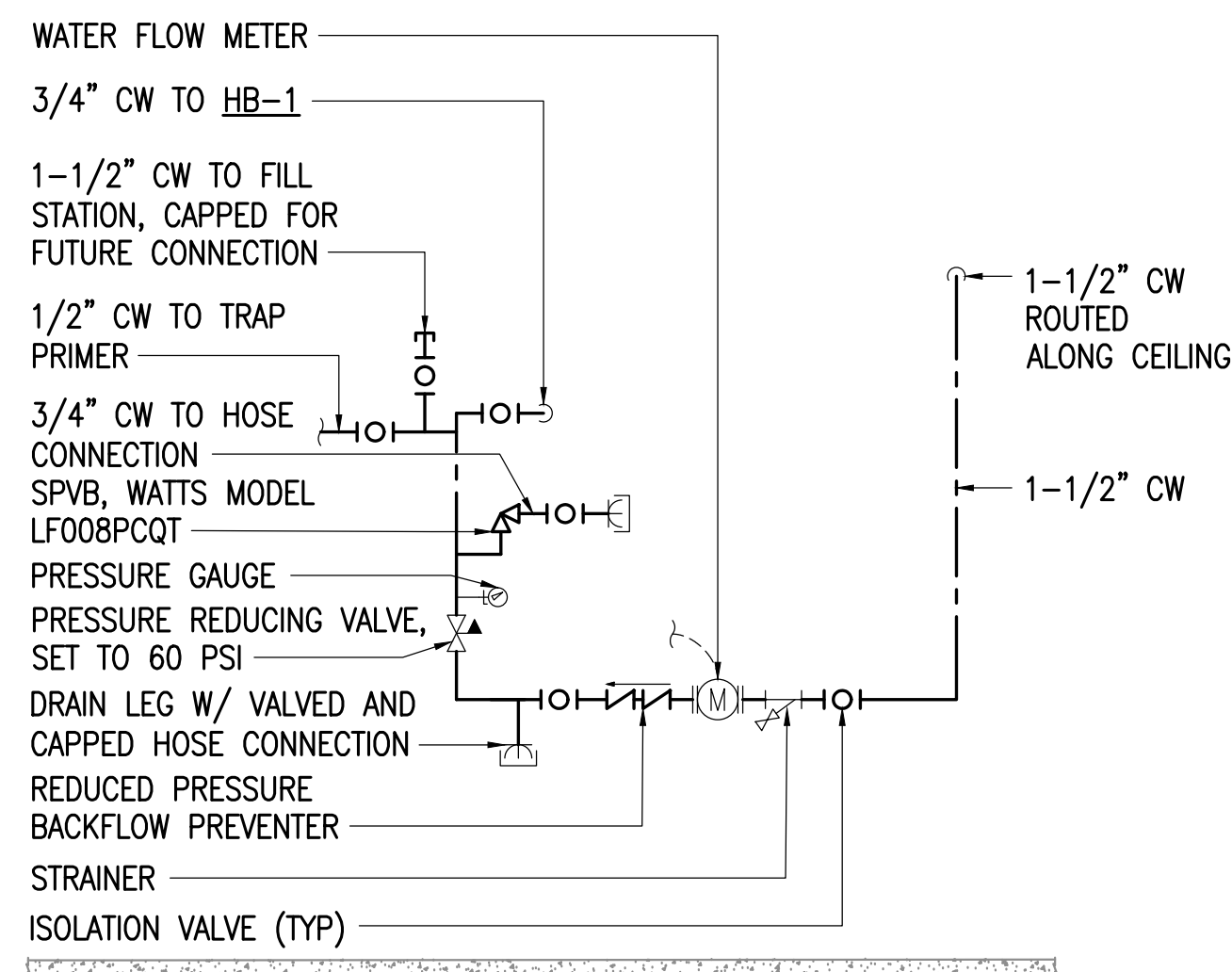
- 1 500 GALLON DOUBLE WALL FUEL OIL STORAGE TANK.
- 2 2" PRIMARY TANK VENT, MORRISON BROTHERS FIG. 922.
- 3 4" PRIMARY TANK EMERGENCY VENT, MORRISON BROTHERS FIG. 244
- 4 4" SECONDARY TANK EMERGENCY VENT, MORRISON BROTHERS FIG. 244.
- 5 MECHANICAL CLOCK TYPE TANK GAUGE, MORRISON BROTHERS FIG. 818.
- 6 REMOTE SPILL CONTAINER, MORRISON BROTHERS FIG. 515. PROVIDE W/ FIG. 246, 800A, 800DC, AND 691B.
- 7 OVERFILL PREVENTION VALVE, MORRISON BROTHERS FIG. 9095. COORDINATE APPROPRIATE FLOW RATE WITH LOCAL PURVEYOR OF FUEL.
- 8 4" FPT TAPPING, W/PLUG.
- 9 PROVIDE 3/4" SINGLE POPPET FOOT VALVE OPW MODEL 99-0033 OR APPROVED EQUAL, PROVIDE TANK BUSHING AS REQUIRED FOR CONNECTION TO 3/4" FOS DROP TUBE.
- 10 ANTI SIPHON VALVE, MORRISON BROTHERS FIG. 912. PROVIDE (1) PER FOS LINE. COORDINATE REQUIRED RELIEF PRESSURE WITH SITE ELEVATION.
- 11 KRUEGER SENTRY LEAK GAUGE
- 12 MOUNTING CLIPS



2 EXTERIOR WALL HOOD DETAIL
NO SCALE



3 EXHAUST FAN HOOD DETAIL
NO SCALE



4 WATER SERVICE PIPING DETAIL
NO SCALE

REVISION	BY	DATE	APPROVED

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MECHANICAL DETAILS

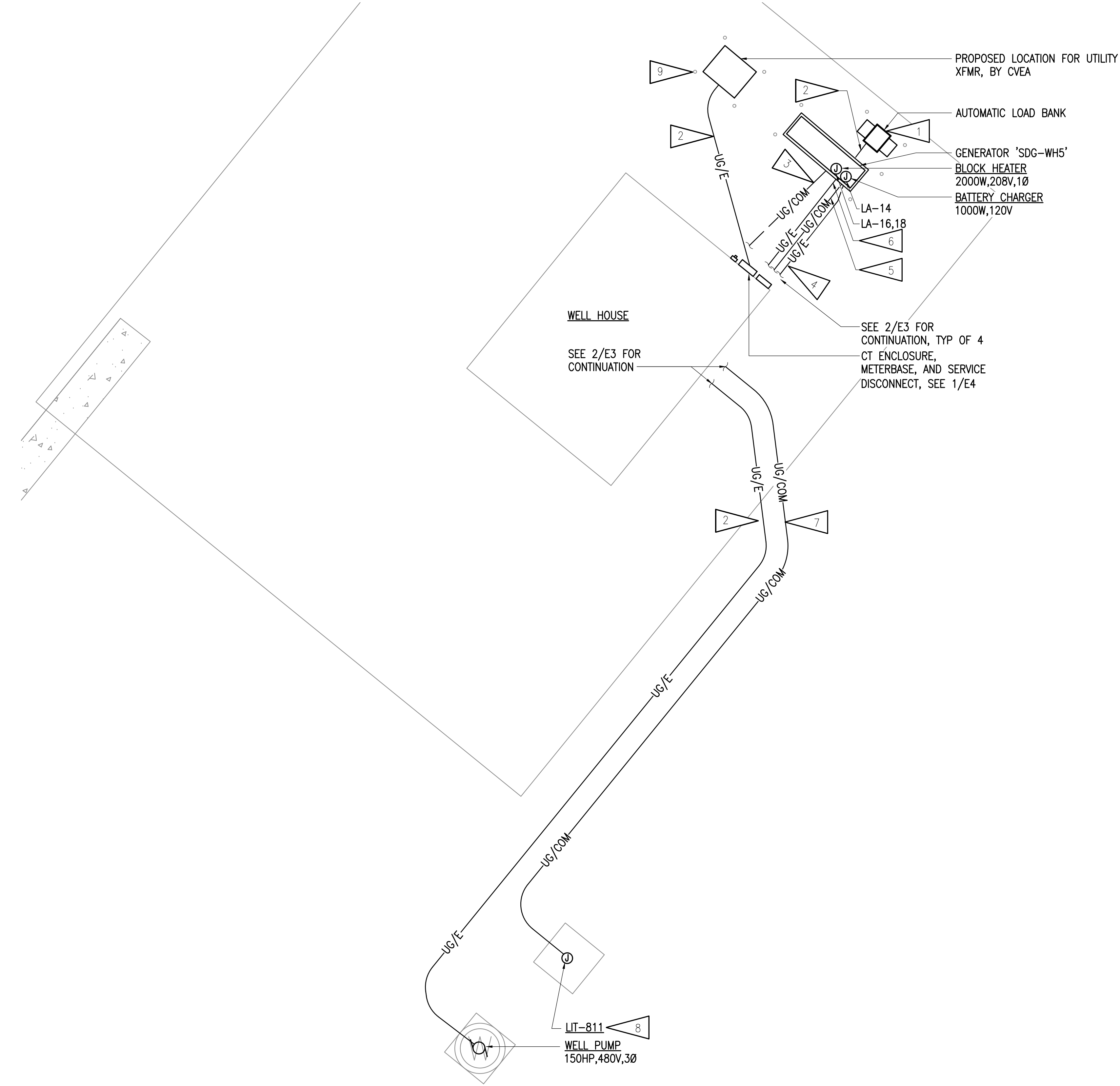
**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**



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DATE : 06/30/2025
SHEETS 3
SCALE : AS NOTED

SHEET **M3** OF 3



1 ELECTRICAL SITE PLAN - PUMP STATION 5

1" = 10'-0"

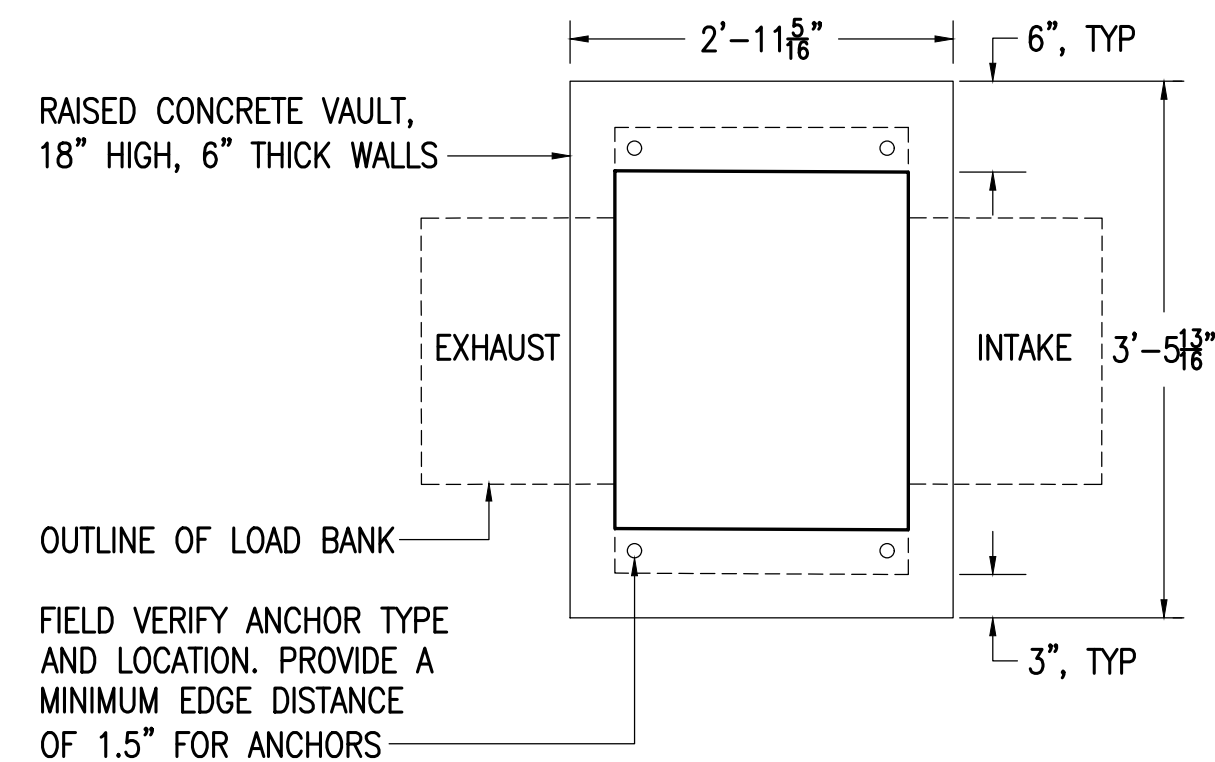


GENERAL NOTES:

- REFERENCE AND COORDINATE WITH THE CITY OF VALDEZ STANDARD SPECIFICATIONS FOR APPLICABLE REQUIREMENTS PRIOR TO BEGINNING WORK.
- REFERENCE 3/E4 FOR TRENCHING REQUIREMENTS.
- CONDUIT AND CONDUCTORS BETWEEN THE BUILDING, GENERATOR, AND LIFT PUMP SHALL BE ROUTED UNDERGROUND AND STUB UP BELOW THE EQUIPMENT.
- CONDUIT AND WIRING ASSOCIATED WITH ALL INSTRUMENTATION, CONTROL, AND SIGNALING ARE NOT SHOWN ON THESE SHEETS. REFERENCE THE INSTRUMENTATION DRAWINGS FOR REQUIREMENTS. PROVIDE CONDUIT AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- FIELD COORDINATE WITH COPPER VALLEY ELECTRIC ASSOCIATION (CVEA) FOR NEW ELECTRICAL SERVICE TO BUILDING. EXACT LOCATION AND ROUTING TO BE DETERMINED BY UTILITY.

SHEET NOTES:

- PROVIDE NEW RAISED CONCRETE PEDESTAL BELOW LOAD BANK AS SHOWN WITHIN DETAIL 2. ORIENT LOAD BANK TO PEDESTAL SUCH THAT THE EXHAUST END IS FACING AWAY FROM THE SIDEWALK.
- UNDERGROUND ELECTRICAL LINE. SEE 1/E4 FOR CONDUIT AND WIRE SIZE.
- PROVIDE (2)1" UNDERGROUND CONDUIT WITH PULL STRING FROM GENERATOR CONTROL PANEL TO RTU IN BUILDING. SEE 2/E3 FOR CONTINUATION. COORDINATE WITH INSTRUMENTATION DRAWINGS FOR CABLING REQUIRED.
- PROVIDE (2) 1" UNDERGROUND CONDUIT WITH 3#10 AWG, CU, XHHW EACH FROM PANEL 'LA' TO GENSET FOR CONNECTION TO GENERATOR BATTERY CHARGER AND ENGINE BLOCK HEATER.
- UNDERGROUND CONDUIT FROM ATS TO GENSET FOR START/STOP WIRING. SEE 1/E4 FOR DETAILS.
- UNDERGROUND CONDUIT FROM ATS TO GENERATOR FOR STANDBY POWER CONNECTION. SEE 1/E4 FOR CONDUIT AND WIRE SIZE.
- PROVIDE 1" UNDERGROUND CONDUIT WITH PULL STRING FROM JUNCTION BOX INSIDE TO JUNCTION BOX FOR LIT-811 CABLING. COORDINATE WITH INSTRUMENTATION DRAWINGS FOR CABLING REQUIRED.
- COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH INSTRUMENTATION DRAWINGS PRIOR TO ROUGH-IN.
- BOLLARDS, TYP. SEE CIVIL PLANS FOR DETAILS.



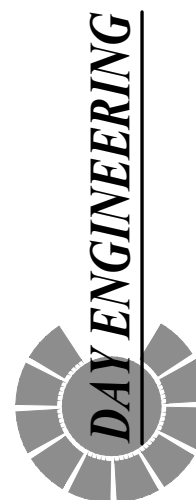
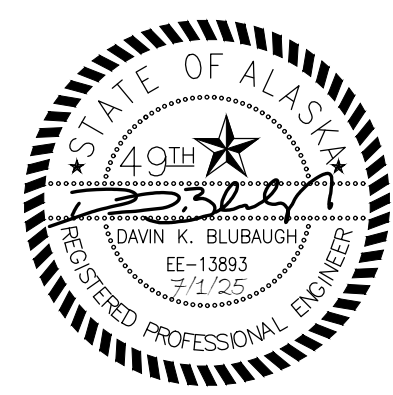
2 LOAD BANK PEDESTAL DETAIL

SCALE AS SHOWN

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ELECTRICAL SITE PLAN - PUMP STATION 5

NEW WELL 5 PUMPING STATION VALDEZ, ALASKA



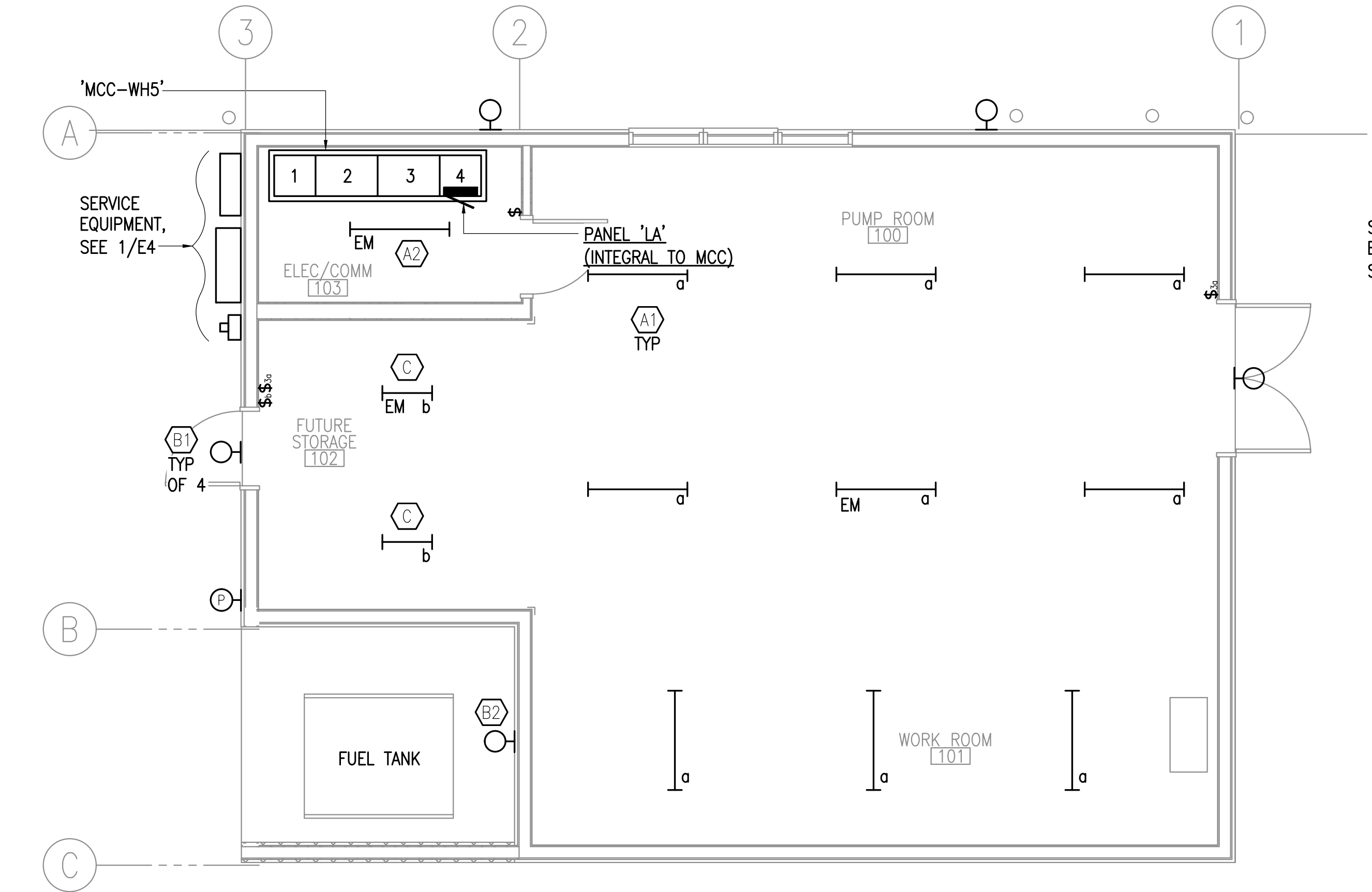
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DATE : 06/30/2025
SHEETS
SHEET **E2** OF **5**
SCALE : AS NOTED

GENERAL NOTES:

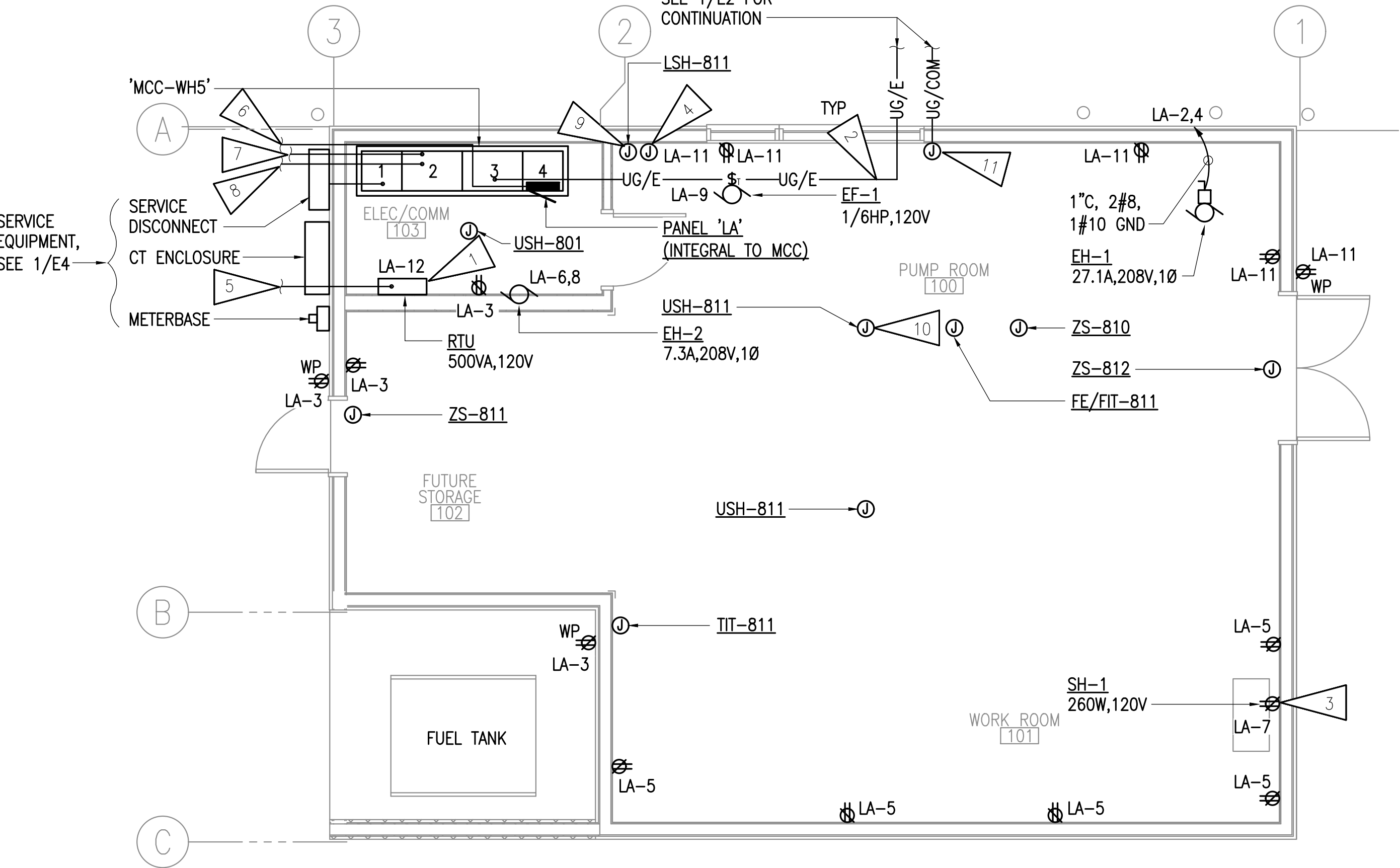
- A. SEE SHEET E2 FOR ADDITIONAL GENERAL NOTES.
- B. ALL INTERIOR AND EXTERIOR LIGHTING SHALL BE CONNECTED TO PANEL 'LA' CIRCUIT 1.
- C. ROUTE EXTERIOR LIGHTING CIRCUIT THROUGH PHOTOCELL LOCATED ON EXTERIOR OF THE BUILDING.
- D. MOUNT ALL RECEPTACLES ON THE INTERIOR OR EXTERIOR OF THE EXTERIOR WALLS OF THE BUILDING AT +48" AFF, TO AVOID CONFLICTS WITH CONCRETE WALL.
- E. CONDUIT AND WIRING ASSOCIATED WITH ALL INSTRUMENTATION, CONTROL, AND SIGNALING ARE NOT SHOWN ON THESE SHEETS. REFERENCE THE INSTRUMENTATION DRAWINGS FOR REQUIREMENTS. PROVIDE CONDUIT AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- F. LIGHTING CONTROL WIRING NOT SHOW BUT SHALL BE PROVIDED BY THE CONTRACTOR TO COMPLY WITH SPECIFICATIONS. CIRCUIT NUMBERS, AND LIGHTING CONTROLS SHOWN IN EACH ROOM.
- G. CONNECT ALL EMERGENCY LIGHTING TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT.
- H. OCCUPANCY AND EXIT REQUIREMENTS PER IBC DO NOT REQUIRE EMERGENCY LIGHTING FOR THIS BUILDING. EMERGENCY LIGHTS ARE FOR CONVENIENCE OF OCCUPANTS IN CASE OF POWER LOSS.
- I. COORDINATE LOCATION AND CONNECTION REQUIREMENTS OF ALL DEVICES ENDING IN "-811" AND "-801" WITH INSTRUMENTATION DRAWINGS PRIOR TO ROUGH-IN.

SHEET NOTES:

1. ROUTE 1.5" CONDUIT WITH PULL STRING FROM CONTROL PANEL TO ROOF FOR CONNECTION TO NEW CELLULAR/WIRELESS ANTENNA. COORDINATE WITH INSTRUMENTATION DRAWINGS FOR ANTENNA CONNECTION PRIOR TO ROUGH-IN.
2. UNDERGROUND ELECTRICAL LINE. SEE 1/E4 FOR CONDUIT AND WIRE SIZE.
3. SH-1 LIFT PUMP SHALL UTILIZE RECEPTACLE FOR POWER REQUIREMENTS.
4. JUNCTION BOX FOR CONNECTION TO ELECTRIC TRAP PRIMER. COORDINATE WITH MECHANICAL FOR EXACT LOCATION PRIOR TO ROUGH-IN.
5. UNDERGROUND CONDUIT FOR CONNECTION TO GENERATOR CONTROL PANEL, SEE 1/E2 FOR CONTINUATION.
6. UNDERGROUND CONDUIT FOR CONNECTION TO GENERATOR BATTERY CHARGER AND ENGINE BLOCK HEATER, SEE 1/E2 FOR CONTINUATION.
7. UNDERGROUND CONDUIT FROM ATS TO GENSET FOR ATS/GENERATOR CONTROL WIRING. SEE 1/E4 FOR DETAILS. SEE 1/E2 FOR CONTINUATION.
8. UNDERGROUND CONDUIT FOR CONNECTION TO GENERATOR SEE 1/E2 FOR CONTINUATION.
9. FIELD COORDINATE JUNCTION BOX MOUNTING LOCATION TO BE 1" AFF.
10. MOUNT ON DISCHARGE SIDE OF PCV.
11. PROVIDE 6"x6"x6" JUNCTION BOX FOR INSTRUMENTATION EQUIPMENT LIT-811 CABLING.



1 ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"



2 ELECTRICAL POWER AND SIGNAL PLAN
1/4" = 1'-0"

REVISION	BY	DATE	APPROVAL

RSA

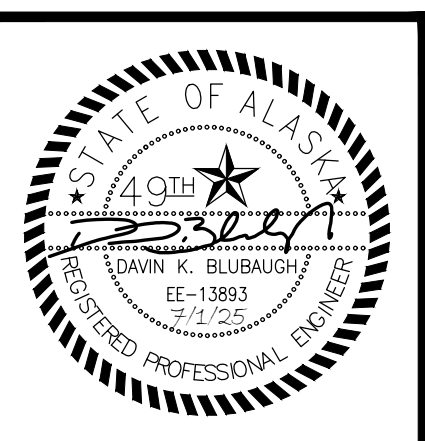
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ELECTRICAL PLANS - PUMP STATION 5

PROJECT
NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



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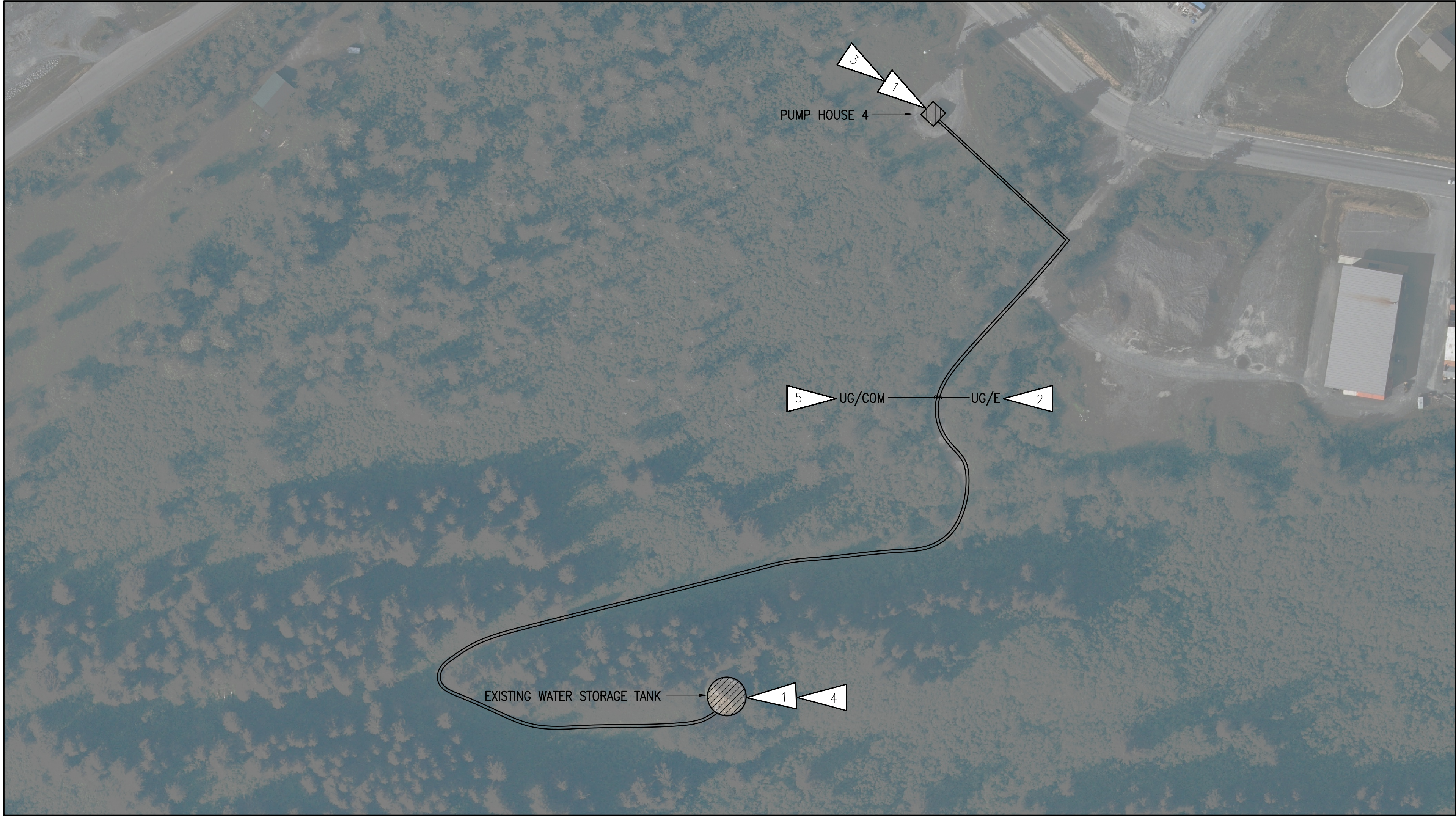
SHEETS 5

SCALE : AS NOTED

SHEET E3 OF 5

DATE : 06/30/2025

SCALE : AS NOTED



1 ELECTRICAL SITE PLAN - PUMP STATION 4
NOT TO SCALE

GENERAL NOTES:

- A. SEE SHEET E2 FOR GENERAL NOTES.
- B. IN-GRADE PULL BOXES ARE NOT SHOWN BUT SHALL BE PROVIDED AT A MAXIMUM OF 200FT INTERVALS. PROVIDE ADDITIONAL PULL BOXES AS REQUIRED.

SHEET NOTES:

- 1. PROVIDE 0.5°C, 3#12 AWG CU XHHW FROM SPLICE BOX TO SPARE 20A, 1-POLE BREAKER IN EXISTING PANELBOARD IN THE BUILDING.
- 2. PROVIDE 2°C, 3#4 AWG CU XHHW FROM SPLICE BOX IN PUMP HOUSE 4 TO THE EXISTING WATER TOWER.
- 3. PROVIDE JUNCTION BOX FOR SPLICING #3 AWG CONDUCTORS TO #12 AWG.
- 4. PROVIDE 0.5°C, 3#12 AWG CU XHHW FROM SPLICE BOX TO EQUIPMENT IN WATER STORAGE TANK. COORDINATE WITH OWNER FOR EXACT EQUIPMENT REQUIRING CONNECTION.
- 5. PROVIDE 2°C WITH PULL STRINGS FROM THE EXISTING PUMP HOUSE 4 TO THE EXISTING WATER STORAGE TANK.

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TITLE

ELECTRICAL DETAILS

PROJECT

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



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BY :

CSZ/DB

SHEETS

5

OF

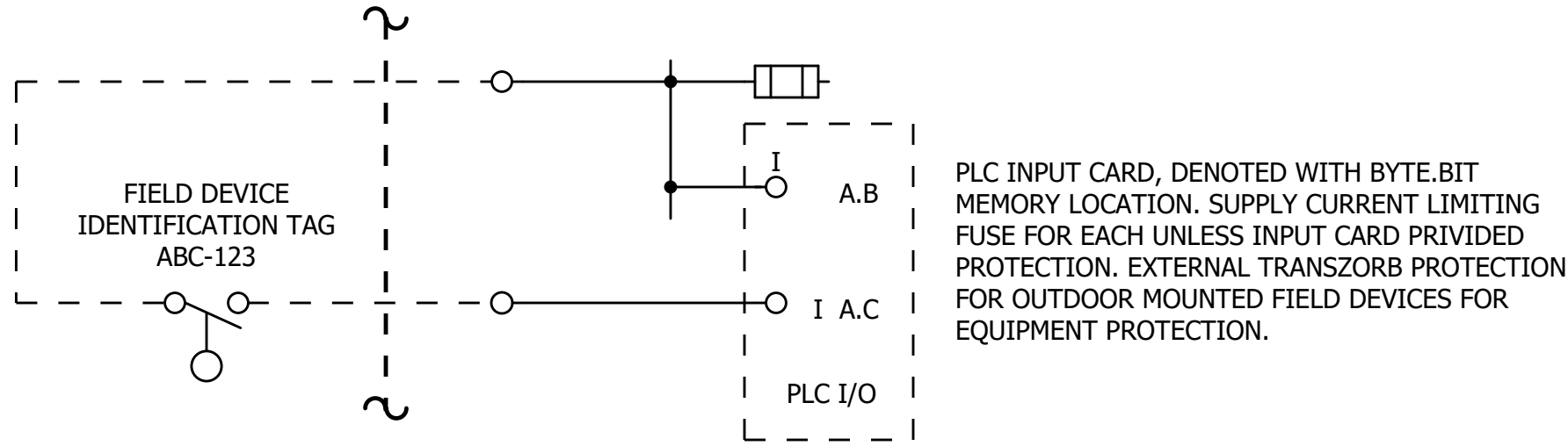
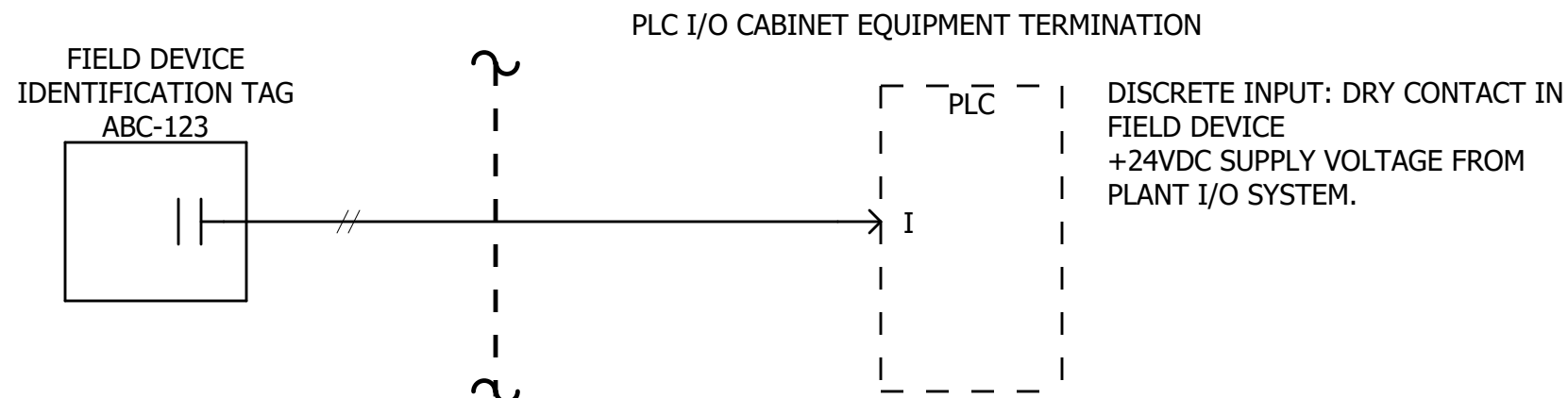
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06/30/2025

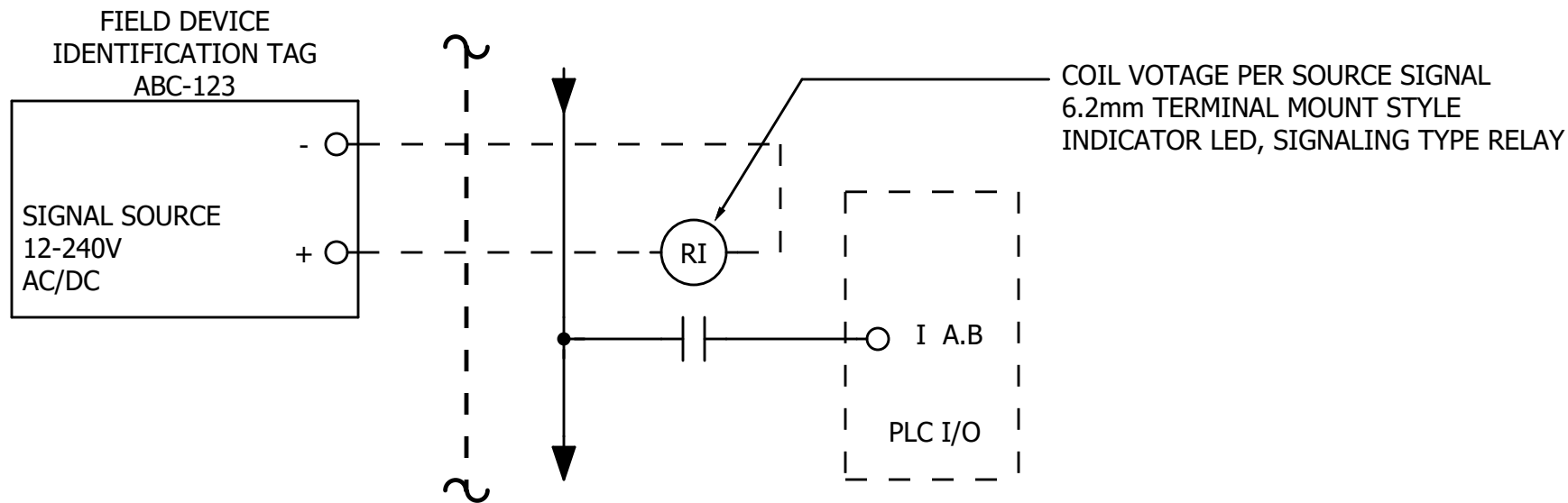
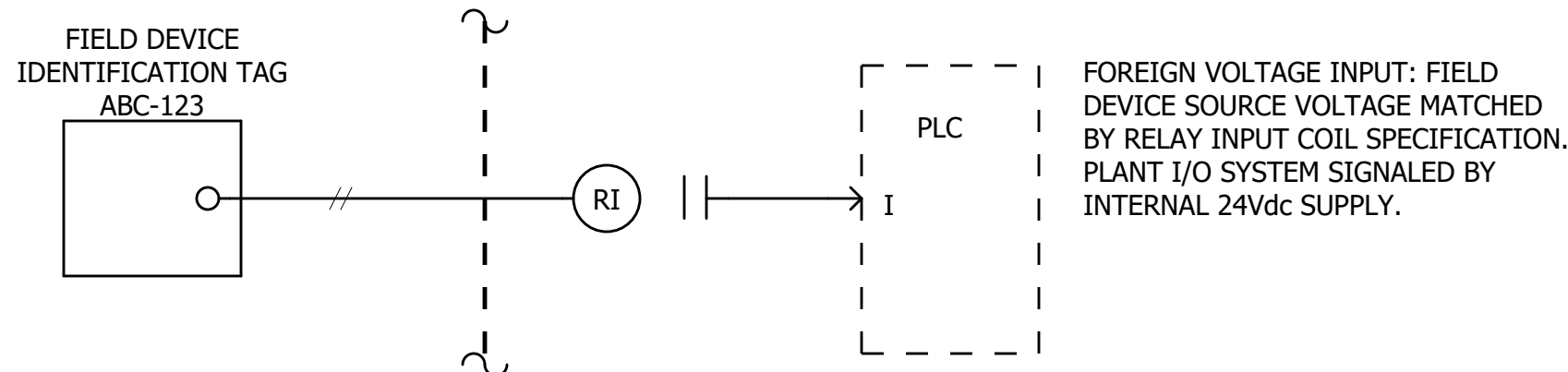
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AS NOTED

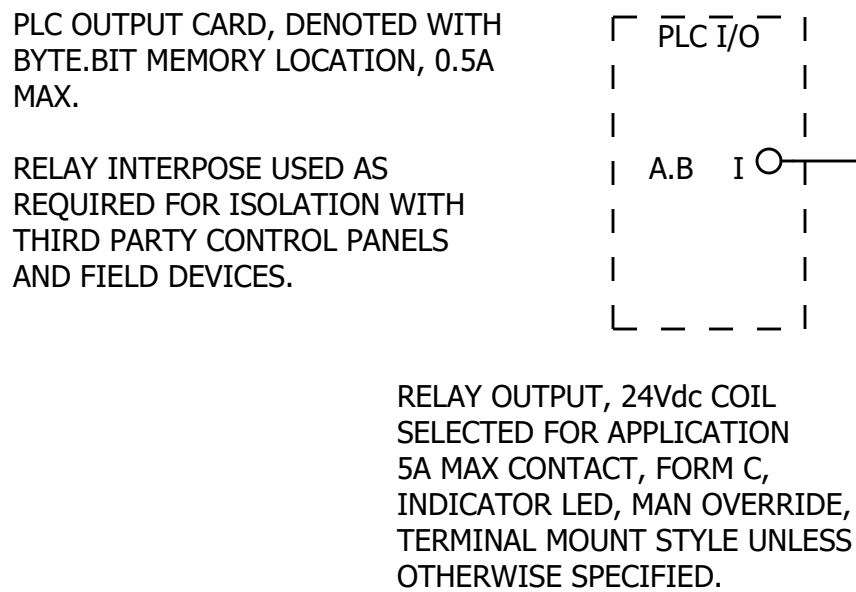
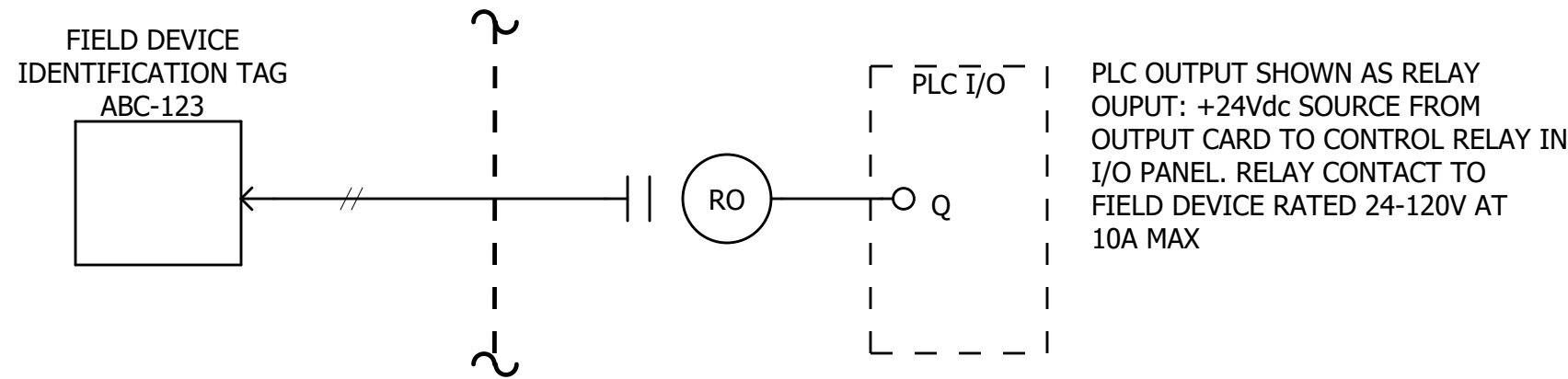
DETAIL A



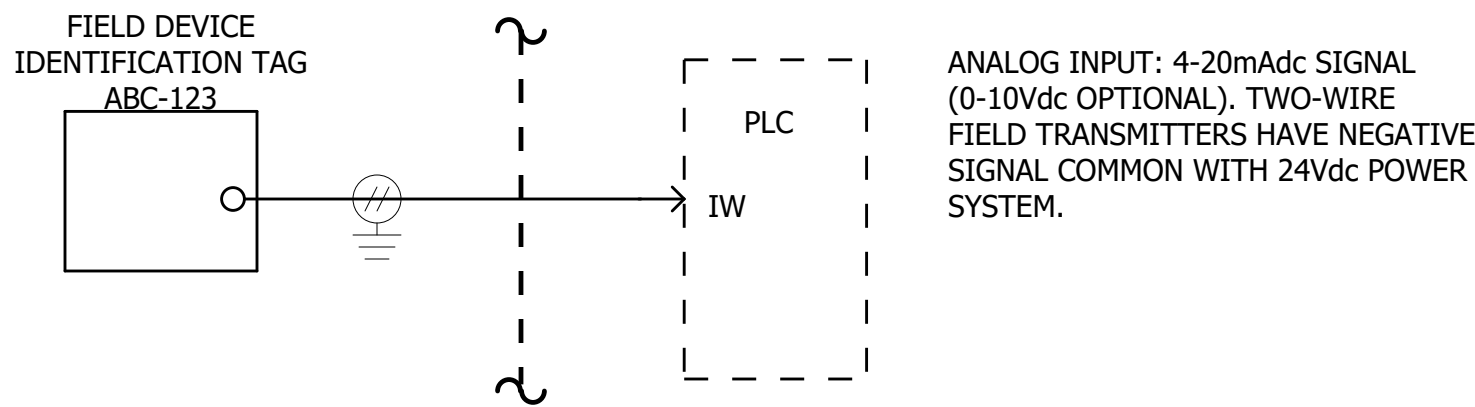
DETAIL B



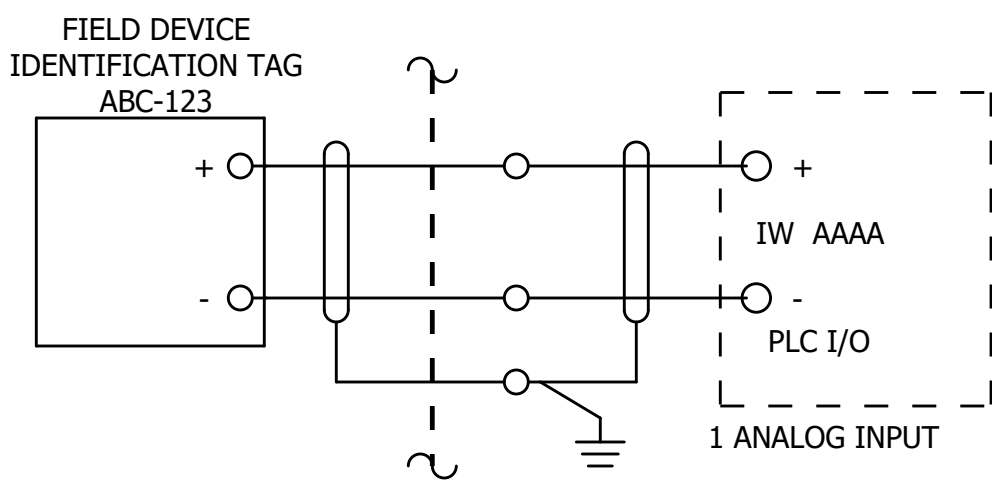
DETAIL C



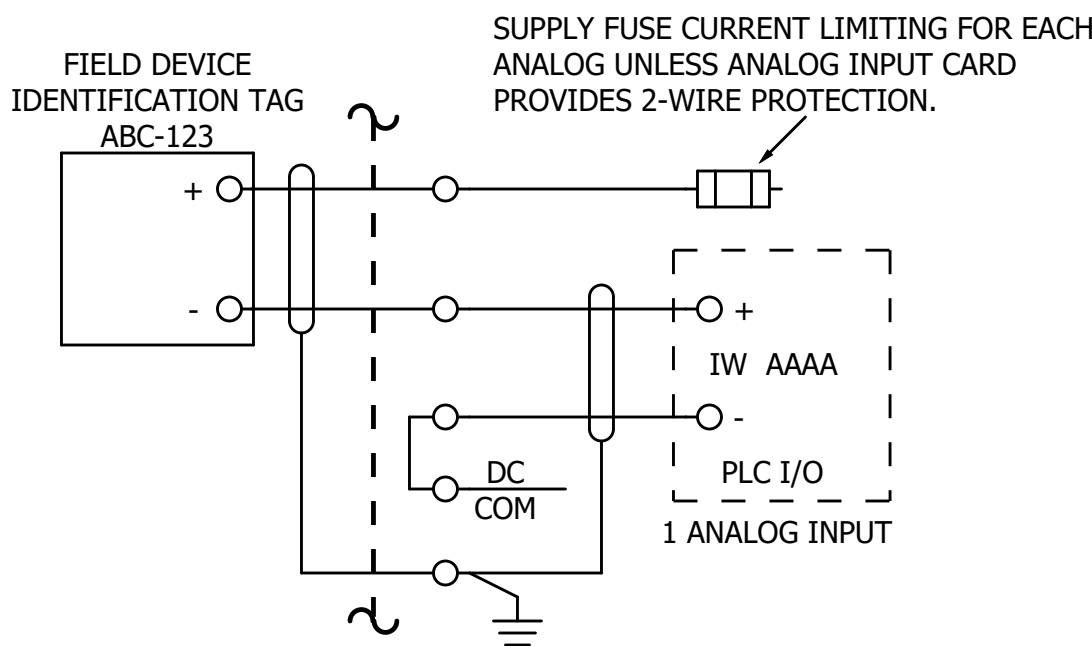
DETAIL D



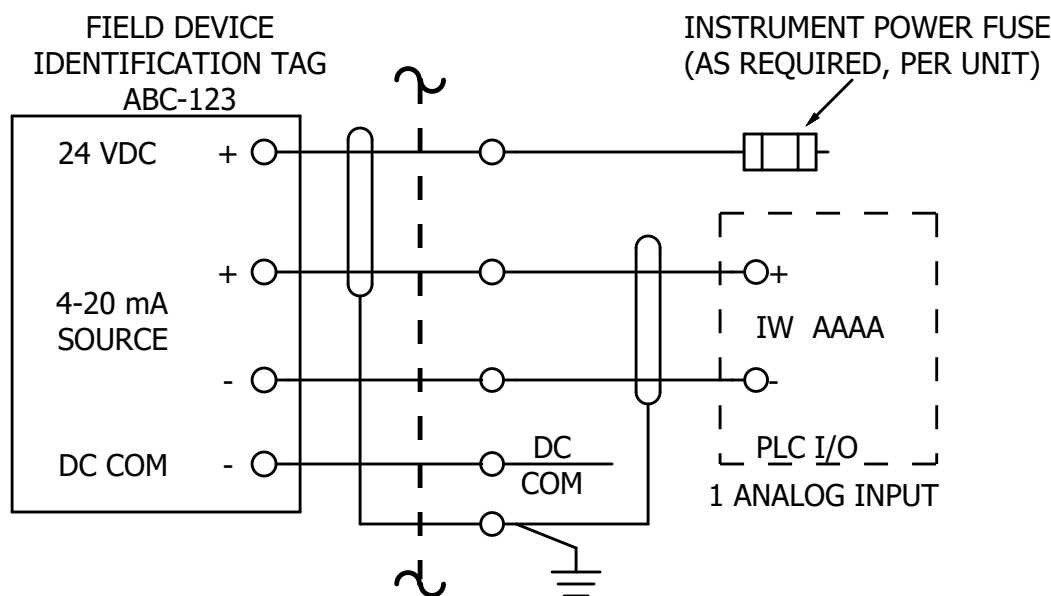
TYPICAL 2-WIRE DEVICE
(USING PLC CARD'S INTERNAL CURRENT LIMITING)



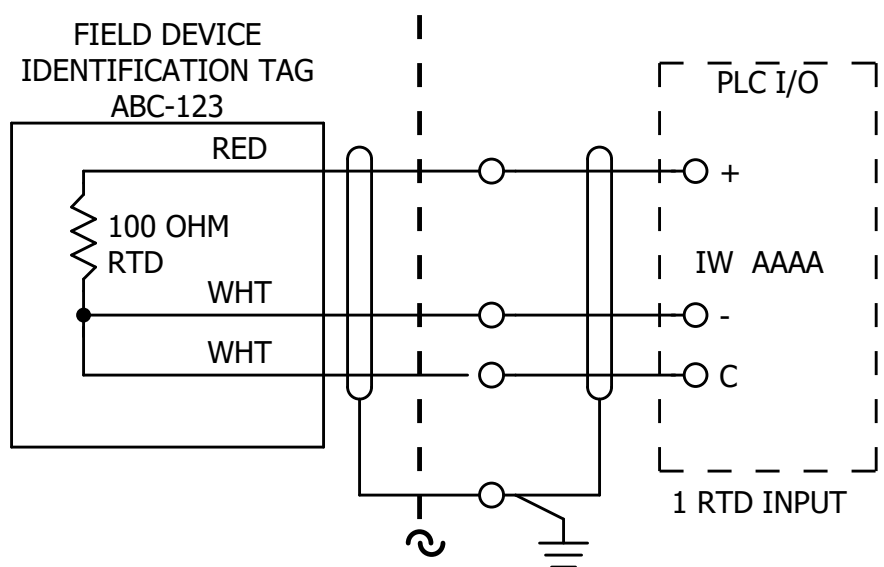
TYPICAL 2-WIRE DEVICE



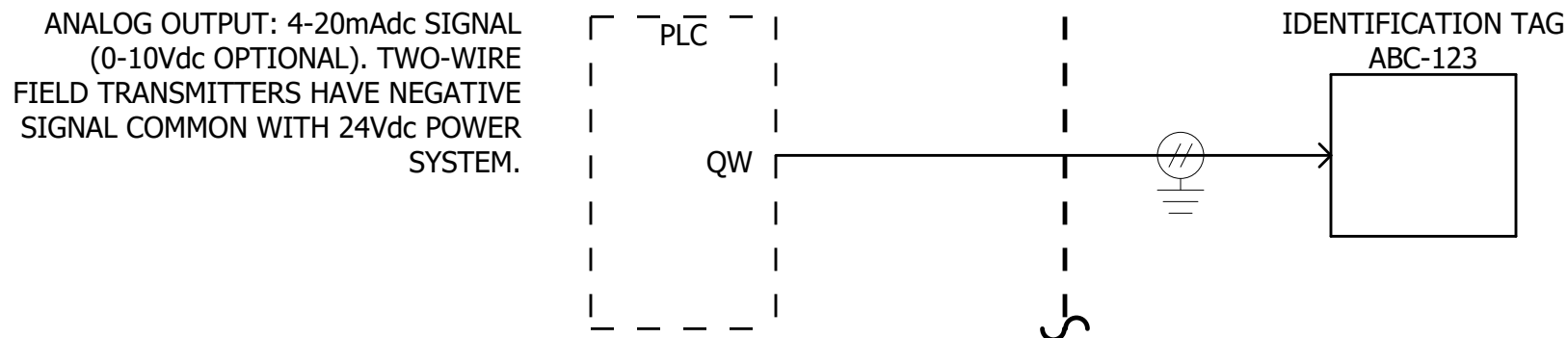
TYPICAL 4-WIRE DEVICE



TYPICAL RTD DEVICE

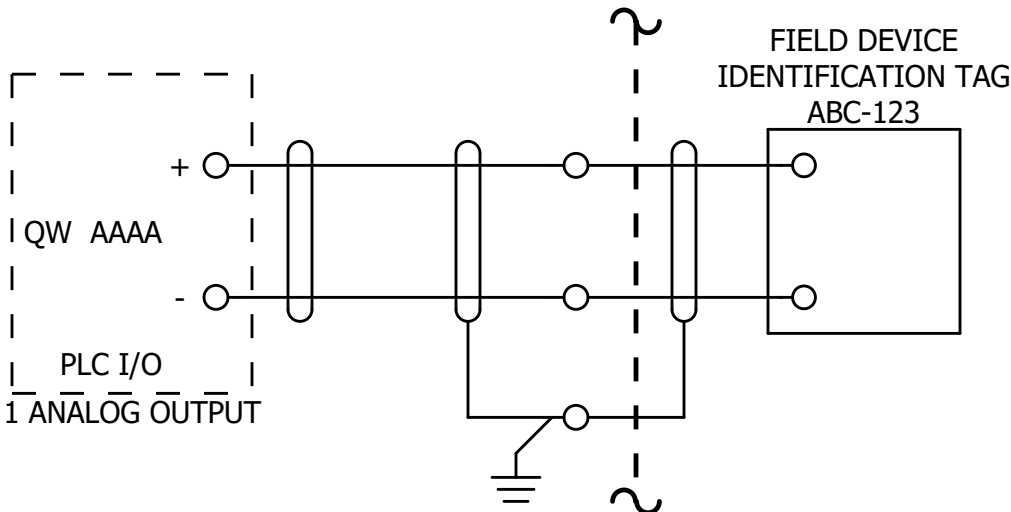


DETAIL E



PLC ANALOG OUTPUT CARD, 4PT OR 8PT, DENOTED WITH WORD MEMORY LOCATION. 4-20mAdc OUTPUT (HARDWARE SELECTABLE TO 0-10Vdc). 15 BIT RESOLUTION.

COMMON NEGATIVE RETURN FOR ALL OUTPUT CHANNELS UNLESS SPECIFICALLY IDENTIFIED.



KEY PLAN

WIRE TYPE SPECIFICATIONS

- // DENOTES 2 SINGLE CONDUCTORS
- SH DENOTES SHIELDED PAIR CABLE
- PN DENOTES PROFINET CABLE, SIEMENS 6XV18402AH10
- DP DENOTES PROFIBUS CABLE, SIEMENS 6XV18300EH10
- SINGLE MODE FIBER
- CAT5e/CAT6 COPPER

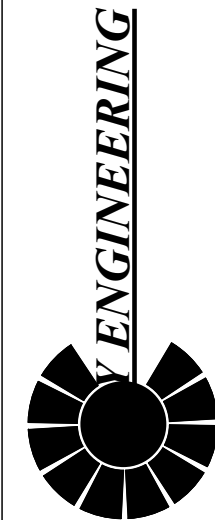
GENERAL SHEET NOTES

- A. WIRING CONNECTIONS ARE SHOWN AS SYMBOLIC INTERCONNECTIONS IN THE INSTRUMENTATION BLOCK DIAGRAM DRAWINGS, WIRE TYPE AND QUANTITY ARE DEFINED IN THE BLOCK DIAGRAM, CONDUCTOR PROPERTIES ARE DEFINED IN THE ELECTRICAL SPECIFICATION SECTION. BLOCK DIAGRAMS PROVIDE INTERCONNECTION REQUIREMENTS BETWEEN FIELD EQUIPMENT AND CONTROL PANELS AND ARE NOT INTENDED TO PROVIDE DIRECTION ON CONDUIT SIZE OR ROUTING.
- B. FIELD AND PANEL TERMINATION OF NETWORK. DISCRETE AND ANALOG SIGNAL WIRING SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR AND VERIFIED BY THE SYSTEM INTERGRATOR PRIOR TO ENERGIZATION.
- C. FIELD WIRING CONDUCTORS ARE IDENTIFIED BY PERMANENT MARKING METHODS DEFINED IN THE ELECTRICAL SPECIFICATIONS.
- D. PLC/SCADA SYSTEM ABBREVIATIONS:
- I: DIGITAL INPUT(24Vdc UNLESS OTHERWISE DENOTED)
- Q: DIGITAL OUTPUT (24Vdc), TYP 0.5A MAX
- IW: ANALOG INPUT (INPUT WORD), 4-20mA
- QW: ANALOG OUTPUT (OUTPUT WORD), 4-20mA
- Pn: PROFINET NETWORK CONNECTION
- ETH: PROFINET INDUSTRIAL ETHERNET CONNECTION
- HMI: HUMAN MACHINE INTERFACE, TOUCH SCREEN FOR PROCESS VISUALIZATION
- PN: PROFINET

TITLE

WIRING INTERFACE GENERAL DETAILS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

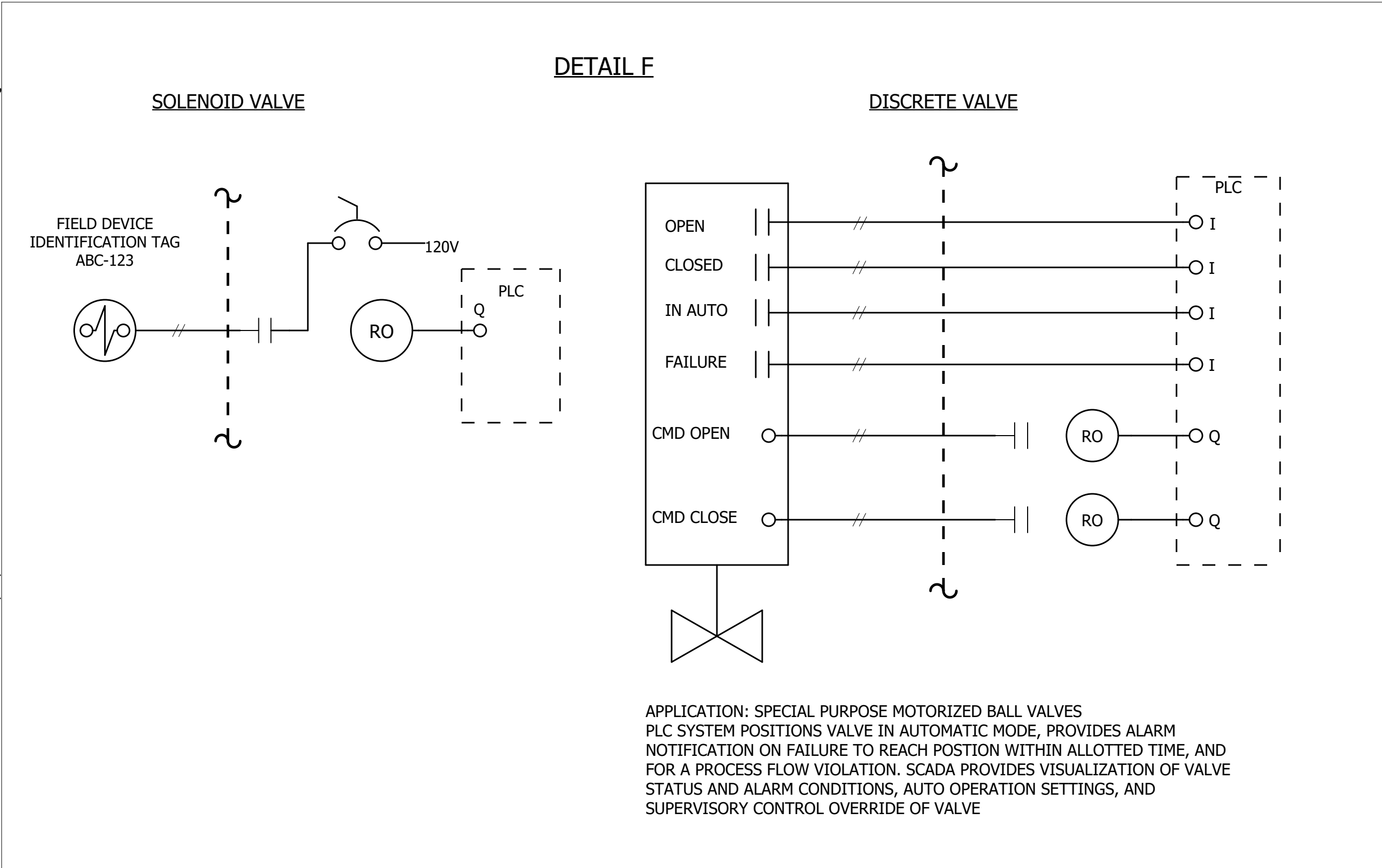


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Bellevue, Washington 98005
(425) 481-1100
www.s-b-inc.com service@s-b-inc.com



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SHEETS 24
OF 13

SCALE : NTS

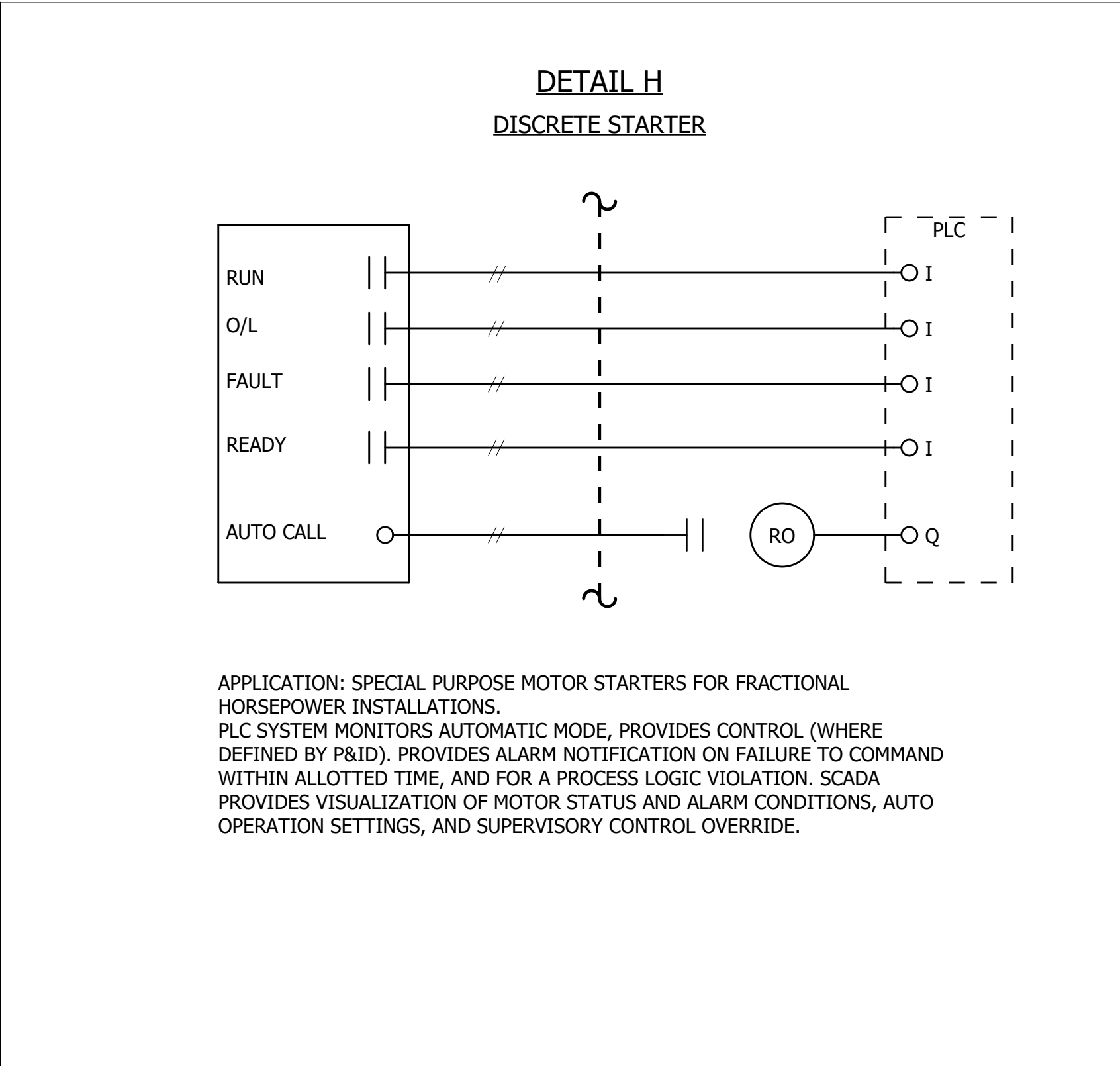
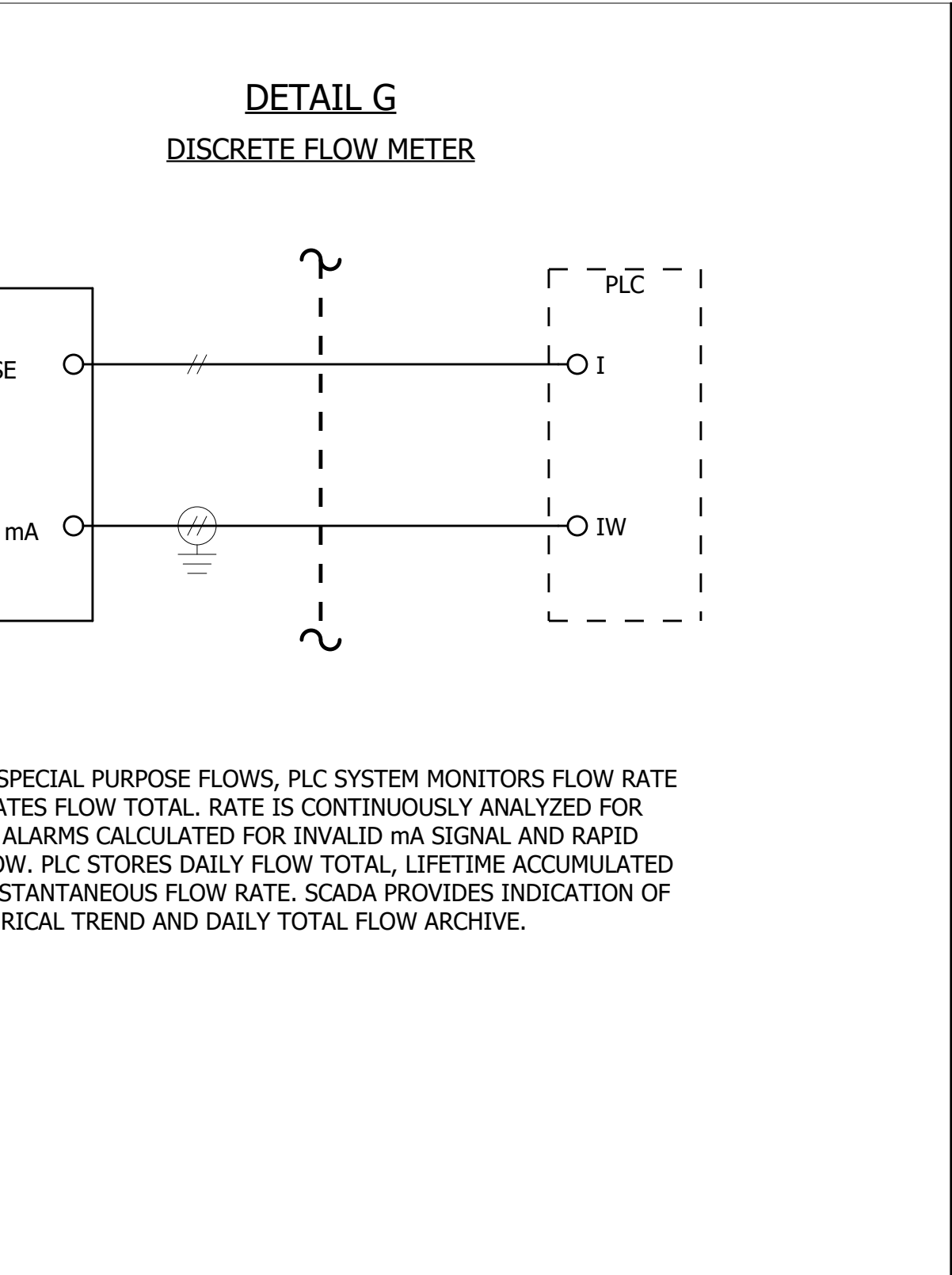
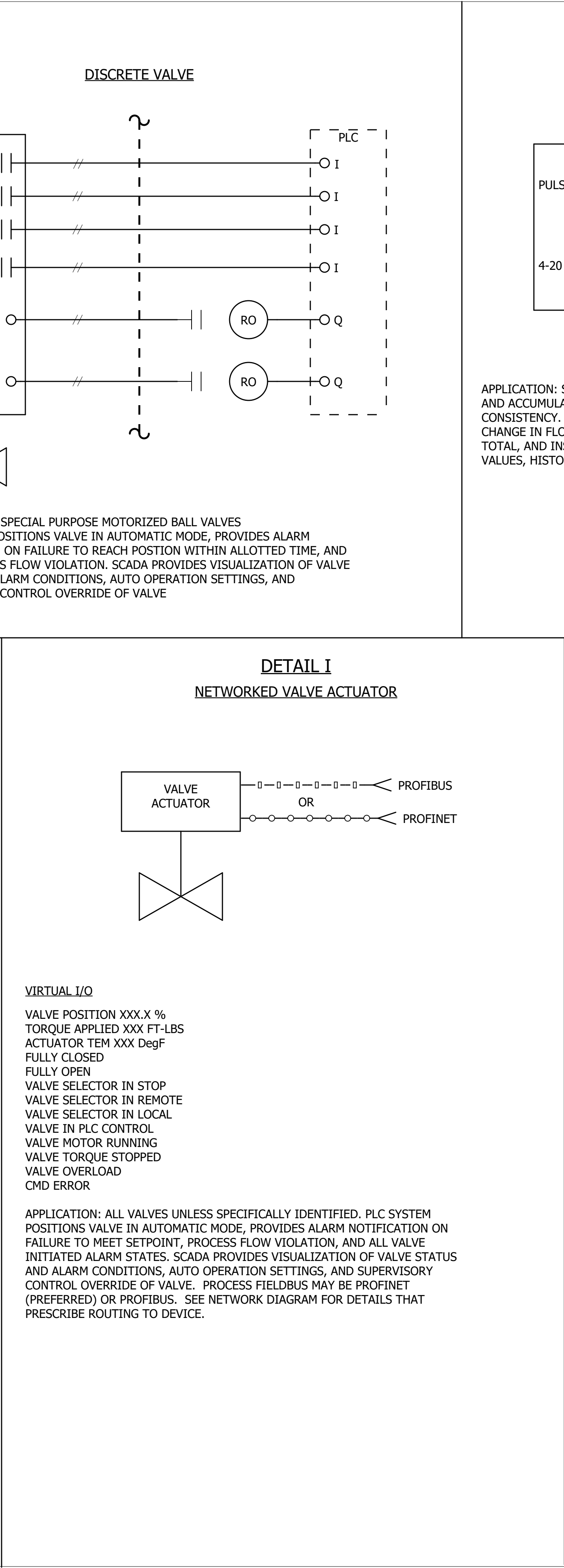


NETWORK CABLING NOTES

GENERAL PLANT CABLING CAN CARRY HIGH VOLTAGES AND CURRENTS. RUNNING PROFIBUS CABLES PARALLEL TO SUCH CABLES CAN LEAD TO INTERFERENCE PICKUP AND DATA TRANSMISSION ERRORS. MINIMIZE RISK OF INTERFERENCE BY FOLLOWING "INSTALLATION GUIDELINE FOR CABLING AND ASSEMBLY" AVAILABLE ONLINE AT WWW.PROFIBUS.ORG.

USE CARE TO AVOID COMMON PROFINET INSTALLATION PROBLEMS INCLUDING: OVERSTRESSED PULL TENSION, FAILURE TO FOLLOW END TAP LENGTHS IN EXCESS OF 1 METER AND FAILURE TO FOLLOW POLARITY, GROUNDING SPECIFICATIONS.

PROFINET / INDUSTRIAL ETHERNET CABLING REQUIRES HOME RUN TO NETWORK SWITCH FOR EACH DEVICE AND USE OF INDUSTRIAL CABLING AND CONNECTOR ASSEMBLIES.



ENGINEERING

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DATE : 06/30/2025

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OF

24

SHEETS

PROJECT

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

TITLE

EQUIPMENT WIRING FOR DISCRETE
AND VIRTUAL DATA

REVISION

BY

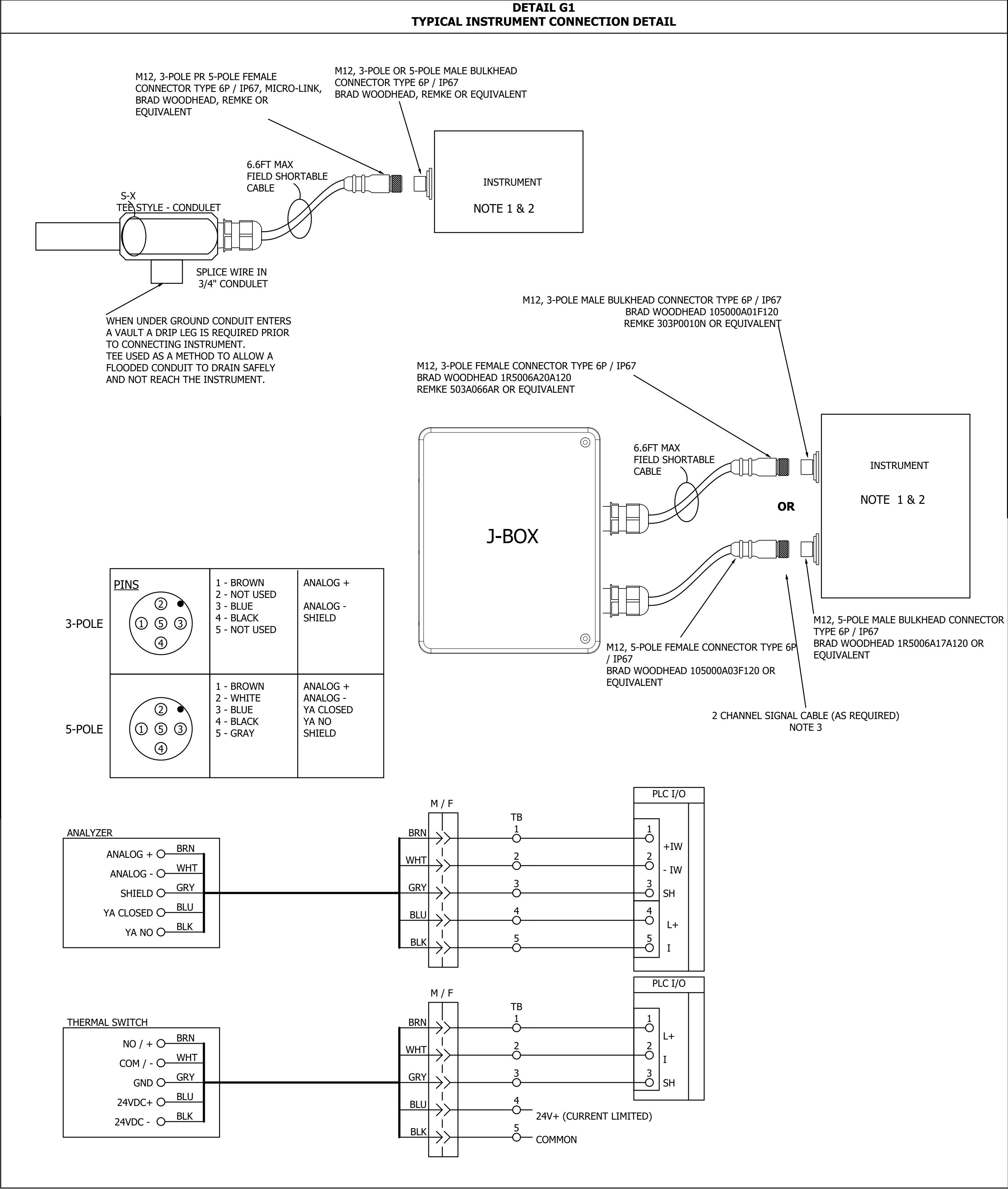
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- GENERAL SHEET NOTES
1. INSTRUMENTS USING 3-POLE M12 CONNECTORS ARE:
-PRESSURE SWITCHES
-LEVEL SWITCHES
-LIMIT SWITCHES
-FLOW SWITCHES
2-WIRE TRANSMITTERS W/O FAILURE CONTACT
-ALL ANALOG PRESSURE INSTRUMENTS
-ULTRASONIC LEVEL PROBE
-RADAR LEVEL PROBES
4-WIRE TRANSMITTERS USING 120V PRIMARY POWER

2. INSTRUMENTS USING 5-POLE M12 CONNECTORS ARE:
-ALL WATER QUALITY ANALYZERS
DUAL ANALOG OUTPUT INSTRUMENTS ANALOG + FAIL
THERMAL DISPERSION FLOW SWITCH
4-WIRE TRANSMITTERS USING 24VDC PRIMARY POWER

3. AN EXAMPLE, DUAL CHANNEL INSTRUMENT IS A pH SENSOR WITH TEMPERATURE MEASUREMENT.

4. 120VAC POWER CABLES USE NEMA L5-15 LOCKING STYLE PLUG CONNECTION.

QUICK CONNECT CABLING STANDARDS

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

PROJECT

TITLE

ENGINEERING

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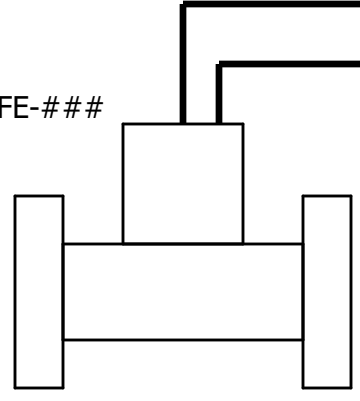
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File Name: 23830-208_Well_5

WIRING DIAGRAM

FIELD

FIELD DEVICE



FE-###

JUNCTION BOX

S

GND

C

FACTORY CABLES
(1) SPEC COAX
(1) 3-W COIL

CONTROL PANEL

FIELD TERMINALS

FIT-###
MAG
FLOWMETER
TRANSMITTER

V+
V-
GND

AUXILIARY DEVICES

PROFINET SWITCH

PN

PN

V+
V-
GND

OVERCURRENT
PROTECTION BY 2A FUSE
OR CIRCUIT BREAKER

CONTROLLER

PLC
PROFINET
CONTROLLER

PN

GENERAL SHEET NOTES:

1. ALL MAGMETERS. PLC SYSTEM MONITORS FLOW RATE, TOTALIZERS, DIRECTION AND DIAGNOSTIC DATA. RATE IS CONTINUOUSLY ANALYZED FOR CONSISTENCY AND SMOOTHED BY PLC. ALARMS CALCULATED FOR INVALID DATA SIGNAL AND RAPID CHANGE IN FLOW. PLC READS AND RESETS DAILY FLOW TOTAL, READS LIFETIME ACCUMULATED TOTAL, AND INSTANTANEOUS FLOW RATE FROM FLOWMETER. SCADA PROVIDES INDICATION OF VALUES, HISTORICAL TREND AND DAILY TOTAL FLOW ARCHIVE.

2. ANY FLOW METER IN A VAULT SHALL BE SUPPLIED WITH A SUBMERGENCE KIT FOR FLOOD DAMAGE MITIGATION

3. USE GROUNDING RINGS PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS

4. PROFINET OPERATION VIA GSMDL SPECIFICATION FILE. UNLESS SPECIFICALLY DIRECTED CONTRARY IN THE SPECIFICATIONS, CONFIGURE FLOW RATE VARIABLE TO DISPLAY IN GPM, SECONDARY VARIABLE AS RESETABLE TOTALIZER 1 AND TERTIARY VARIABLE AS LIFETIME TOTALIZER 2. CONFIGURE EQUIPMENT ERROR AND OPERATING STATUS DATA BITS FOR DIAGNOSTICS. PROVIDE INDICATION OF NETWORK HEALTH.

SCADA INTERFACE REPRESENTATION

SCADA FACEPLATE

Title of Instrument xxxxxxxx
{tag ID}

10000 GPM

Alarms
DP_Fail
EQ_Fail

In Test
Mode

Current Hr: 2.000 MG

Yesterday: 2.200 MG

Lifetime: 568.000 MG

Today: 56.000 MG

Yesterday: 6.000 MG

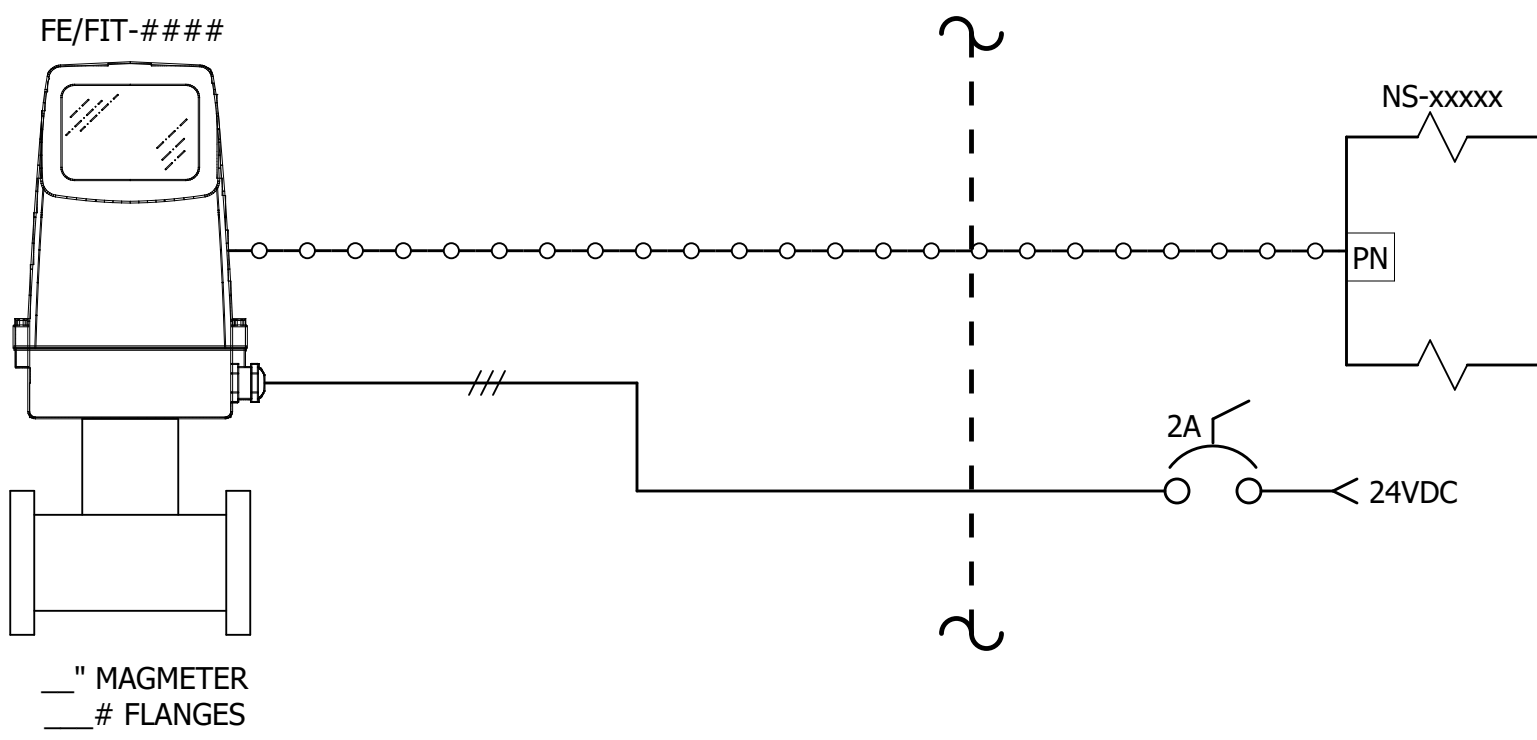
SCADA EXTENSION

Fieldbus_Network_Err
EQ_Err
Flow_Rate
Flow_Total_CurDay
Flow_Total_CurHr
Flow_Total_LastHr
Flow_Total_Yday
Flow_Total_Life
Test_Mode

Flow_Total_CurDay
Flow_Total_CurHr
Flow_Total_LastHr
Flow_Total_Yday
Flow_Total_Life

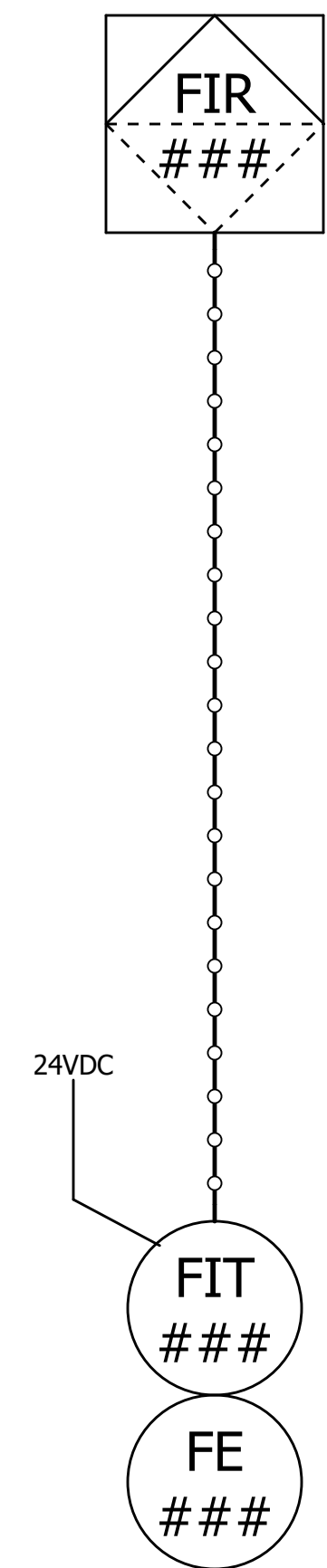
BLOCK DIAGRAM REPRESENTATION

FE/FIT-####



MINIMUM REQUIRED I/O VARIABLES.
FLOW RATE +/- XXXXX.X GPM
FLOW TOTAL 1 X,XXX.XXX MG
FLOW TOTAL 2 X,XXX.XXX MG
FLOWMETER ERROR

P&ID REPRESENTATION



MAG Flowmeter (Networked)

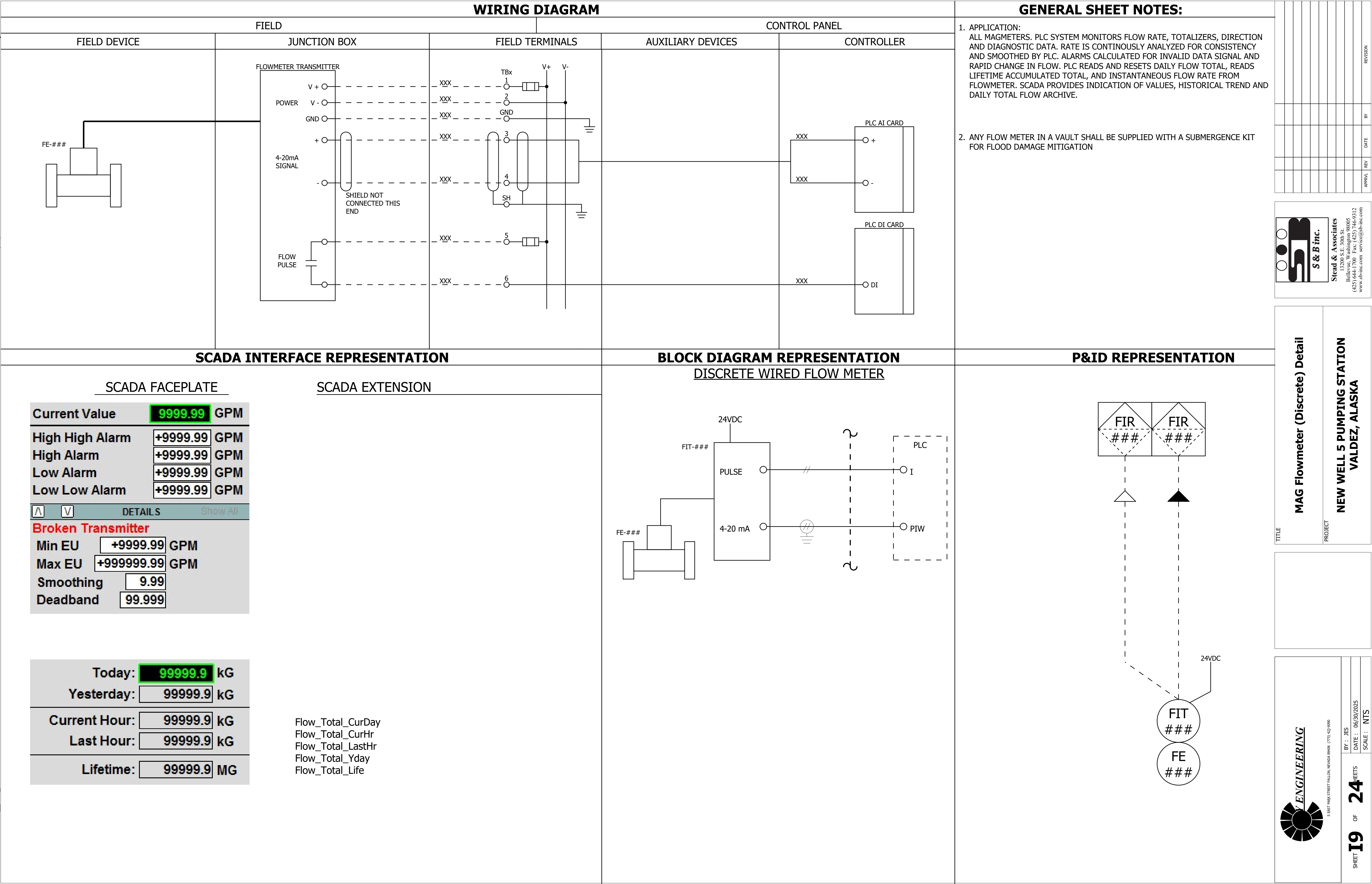
NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

ENGINEERING

BY : JES
DATE : 06/30/2025
SCALE : NTS

18 OF 24 SHEETS

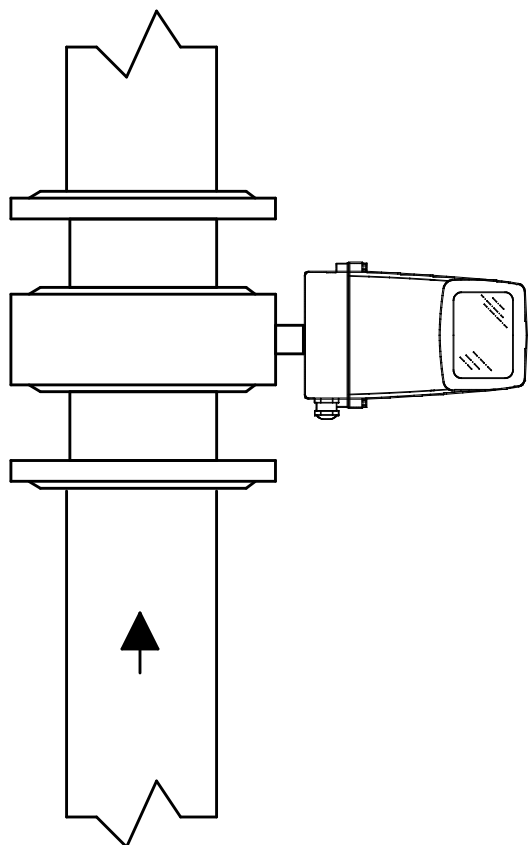
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LAST MODIFIED BY: E. SIDENQUIST
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MAG METER VERTICAL PIPE INSTALLATION

Installation in vertical pipes

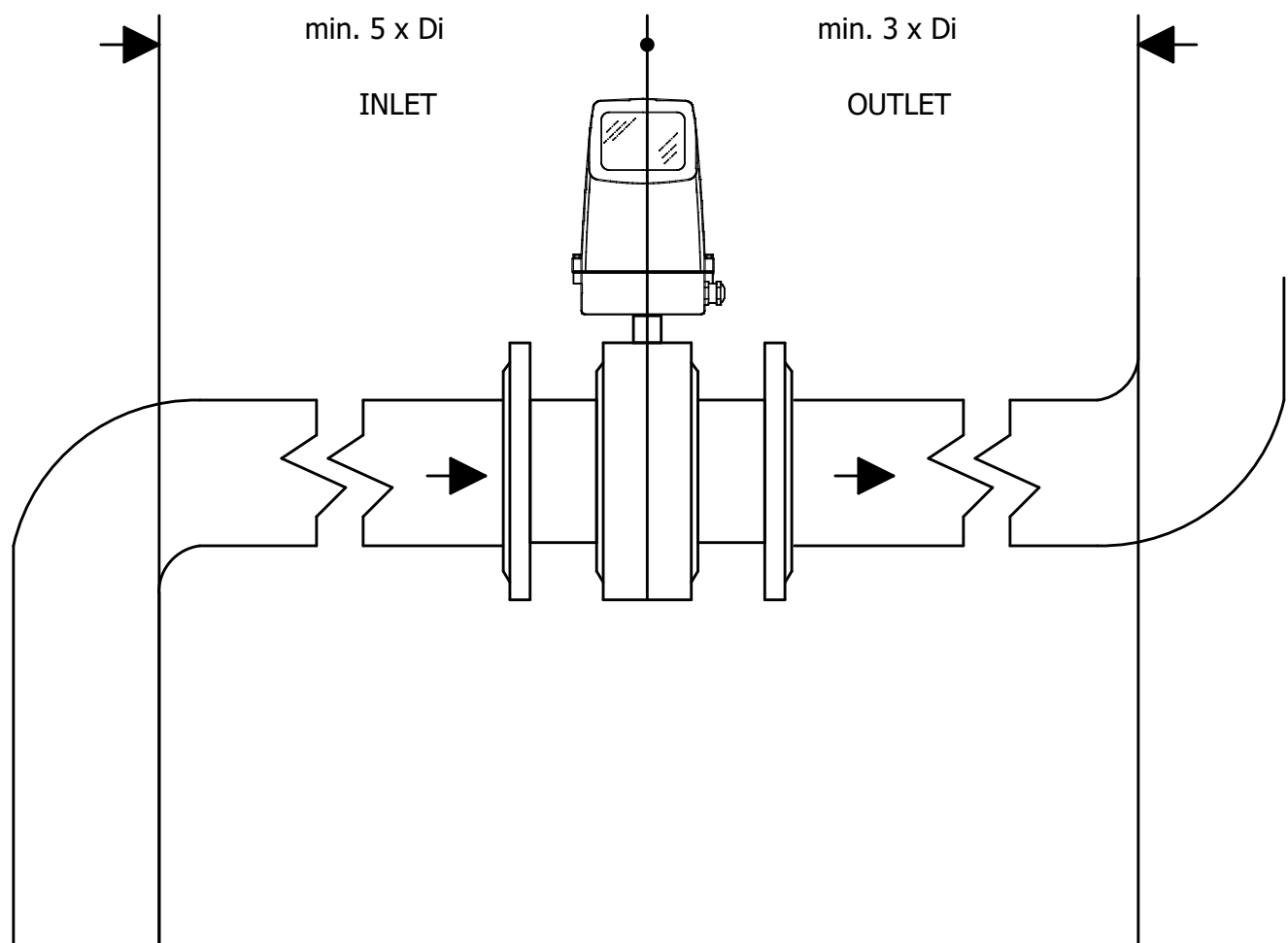
Recommended flow direction: upwards. This minimizes the effect on the measurement of any gas/air bubbles in the liquid.



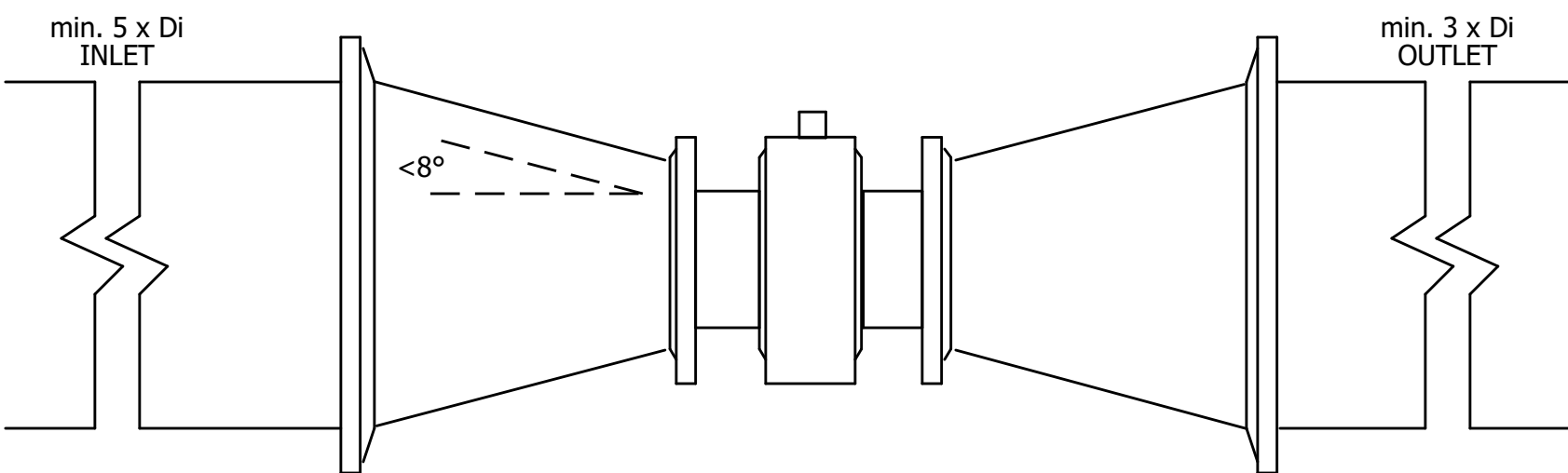
TYPICAL MAG METER INSTALLATION REQUIREMENTS

Inlet and outlet conditions

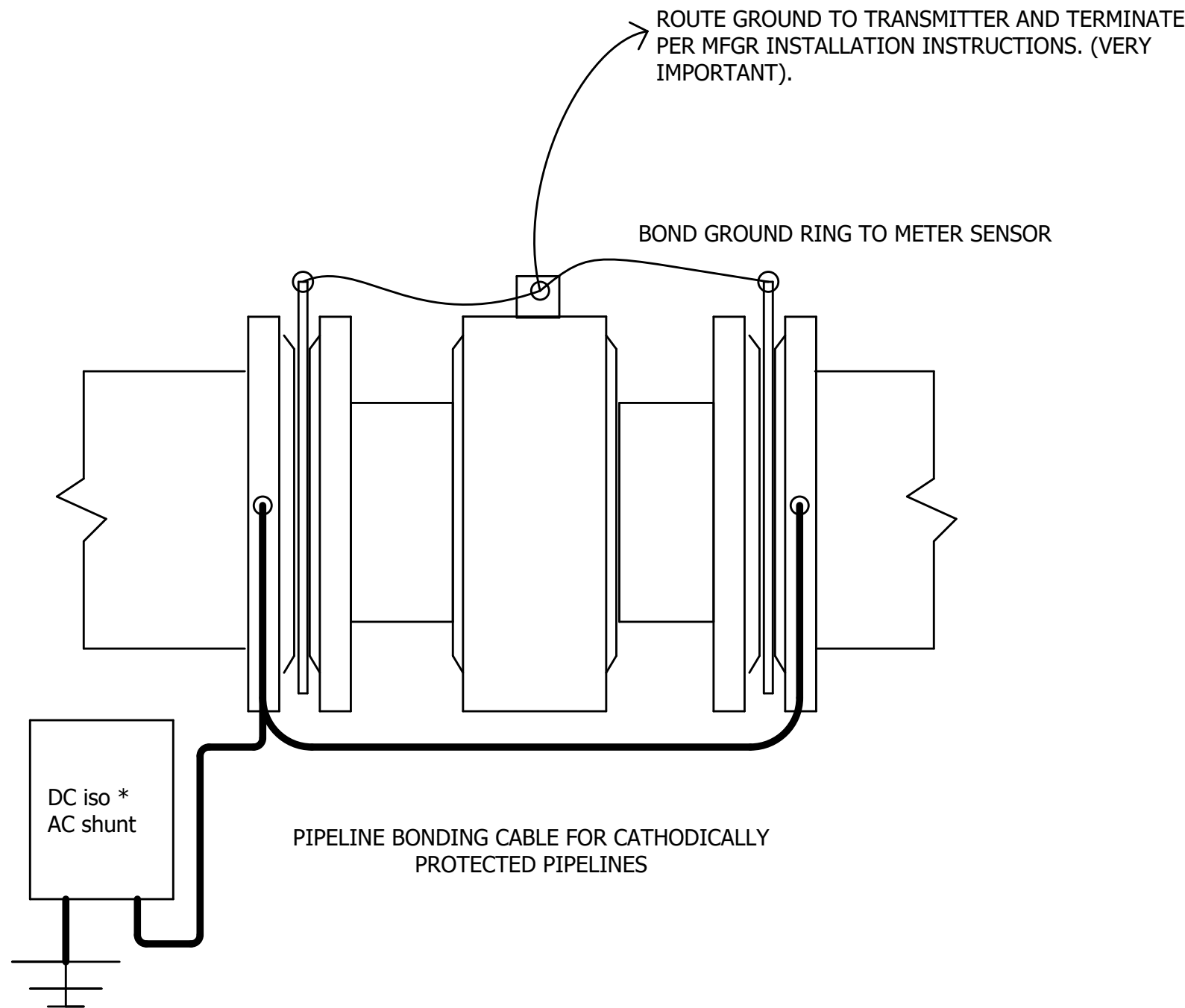
To achieve accurate flow measurement it is essential to have straight lengths of inlet and outlet pipes and a certain distance between pumps and valves. It is also important to centre the flowmeter in relation to pipe flanges and gaskets.



SPECIAL CONDITIONS



GROUNDING AND CATHODIC PROTECTION METHODS



***DAIRYLAND MODEL PCR DECOUPLER RECOMMENDED TO MITIGATE INDUCED AC WHILE MAINTAINING DC ISOLATION. FIELD VERIFY PRESENCE OF AC VOLTAGE ON PIPELINE AND APPLY IF LEVELS EXCEED 1 VAC.**

NOTES:

THIS IS PREFERRED MOUNTING FOR FLOWMETER DIAMETERS 1" AND LESS. HIGHLY RECOMMENDED FOR CHEMICAL FLOW MEASUREMENT AND SIMILAR APPLICATIONS WITH PULSATING FLOWS.

NOTES:

FLOWMETER MUST HAVE FULL PIPE CONDITIONS FOR MEASUREMENT AND BE MOUNTED WITH ELEVATION INCREASING OR FLAT IN DIRECTION OF FLOW.

INLET AND EXIT FLOW CONDITIONS MAY VARY BY MANUFACTURER, CONFIRM ACCURACY OF PROPOSED EQUIPMENT WITH APPLICATION CONDITIONS DEFINED IN MECHANICAL DRAWINGS.

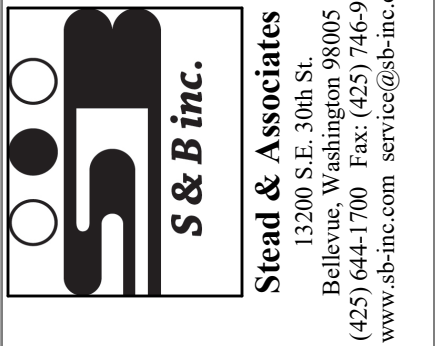
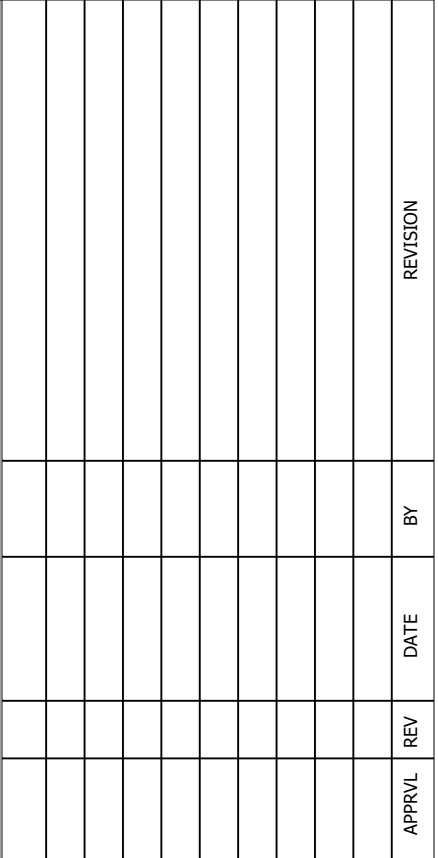
SPECIAL CONDITIONS: CONCENTRIC REDUCERS MAY BE APPLIED DIRECTLY TO FLOWMETER, HOWEVER DIAMETERS ARE CALCULATED AT LARGEST DIAMETER. (I.E. 16"x12" REDUCER WILL REQUIRE 80" INLET AND 48" OUTLET).

NOTES:

Magmeter technology requires a stable ground potential reference. Special attention must be given to systems with cathodic currents passing through the pipeline in which the meter sensor is mounted. Provide DC isolation, AC shunt to mitigate external induced AC voltage.

Grounding rings supplied with flowmeters must be connected to the meter transmitter as specifically diagrammed by the meter manufacturer. Confirm that gaskets do not extend within 1/8" of the inner ring of the grounding ring. Conductor size shall be no less than 10ga. For meter sensors supplied with integral grounding electrodes, ground rings are not required.

Pipelines with cathodic protection require the meter sensor to be electrically isolated from the pipeline. Provide isolation bushings for each flange bolt and gaskets between all flanges. Provide #4cu AWG conductor bridging the segmented pipeline at 3 and 9 o'clock positions along the pipeline.

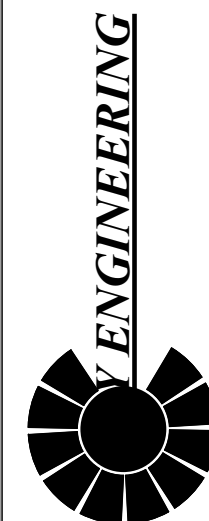


MAG Meter Installation

NEW WELL 5 PUMPING STATION VALDEZ, ALASKA

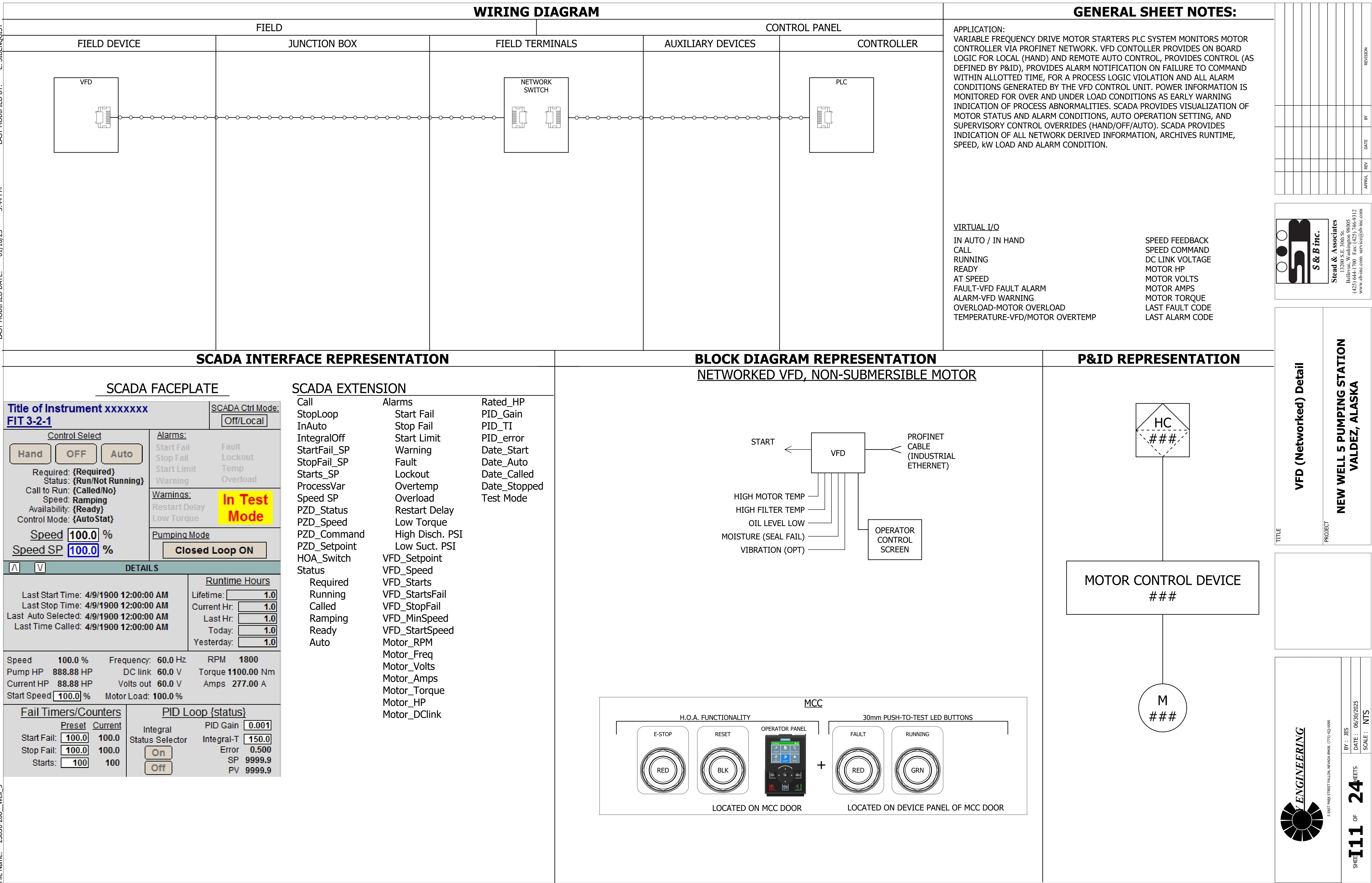
TITLE

PROJECT

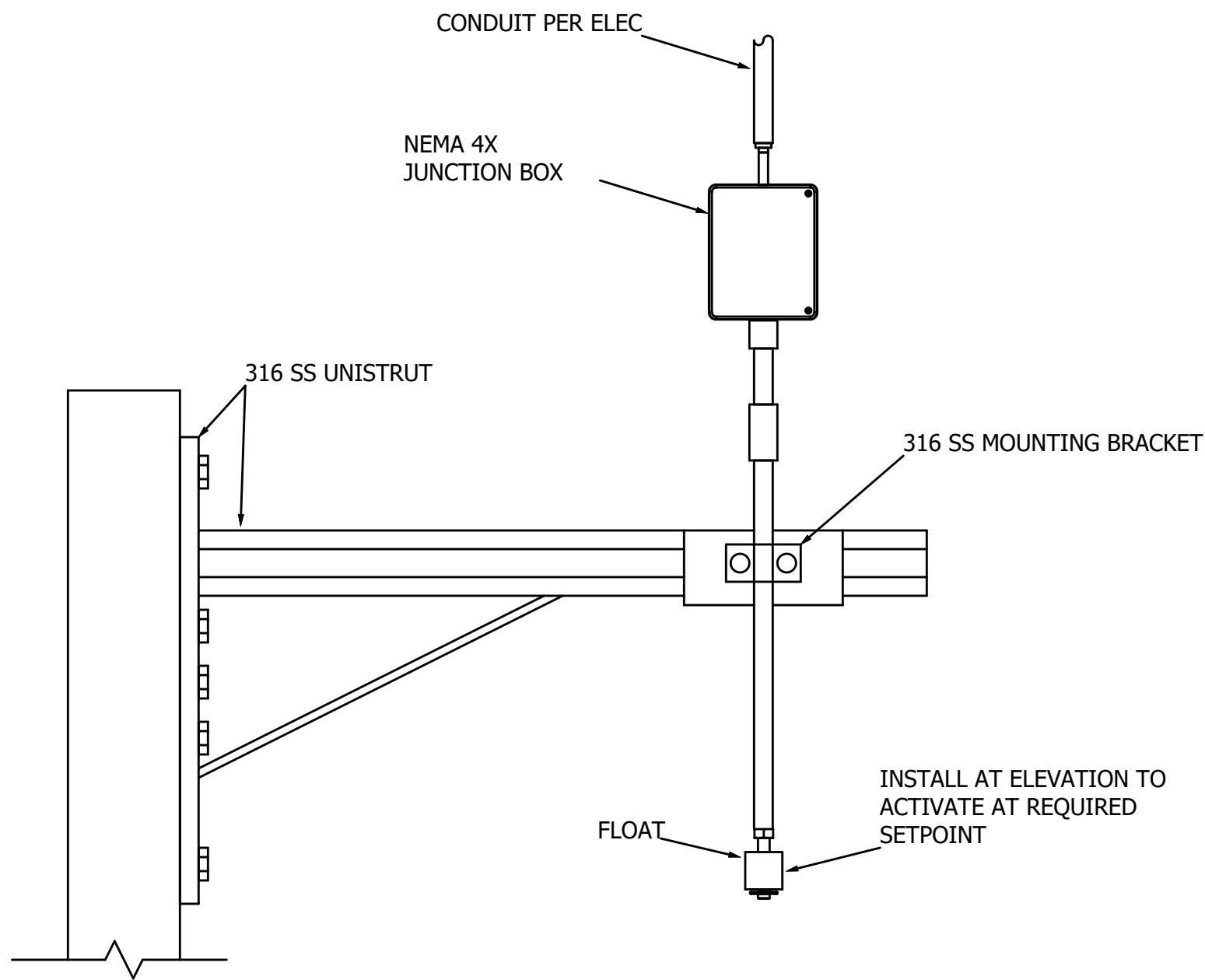


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SCALE : NTS

SHEET 10 OF 24

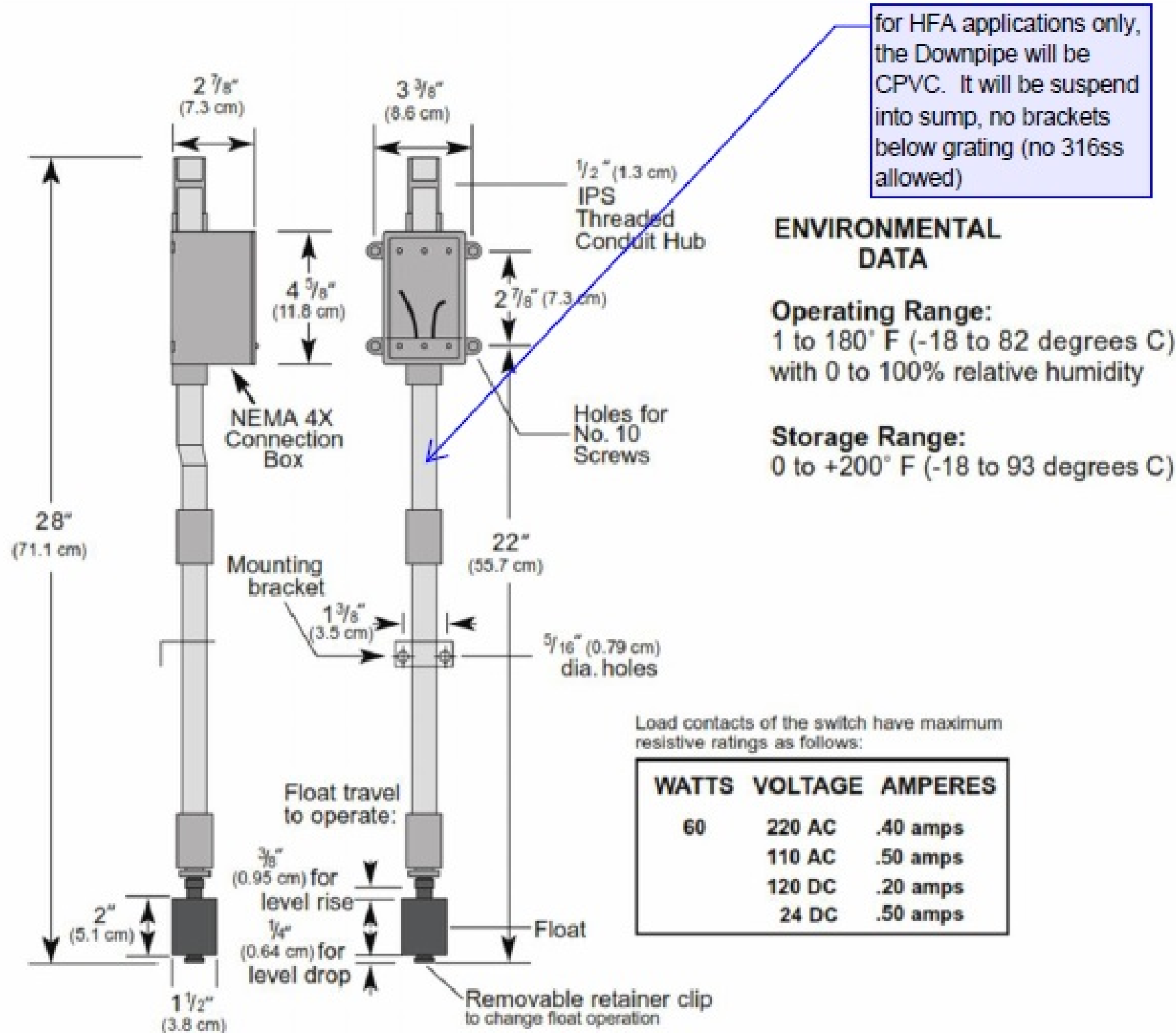


VERTICAL TOP MOUNT LIQUID LEVEL SWITCH
(OPEN VESSEL MOUNT APPLICATION)



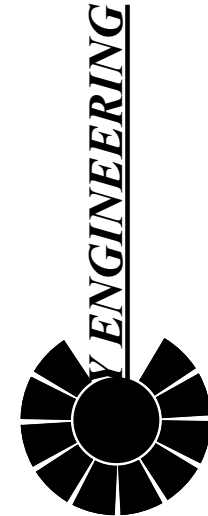
NOTES:

VERTICAL TOP MOUNT LIQUID LEVEL SWITCH
(WALL MOUNT APPLICATION)



NOTES:

NOTES:



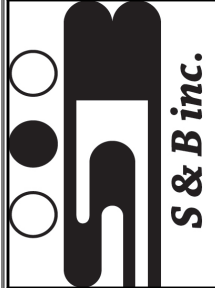
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BY : JES
DATE : 06/30/2025
SCALE : NTS

SHEET 112 OF 24

FLOOD SWITCH DETAIL

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



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REVISION

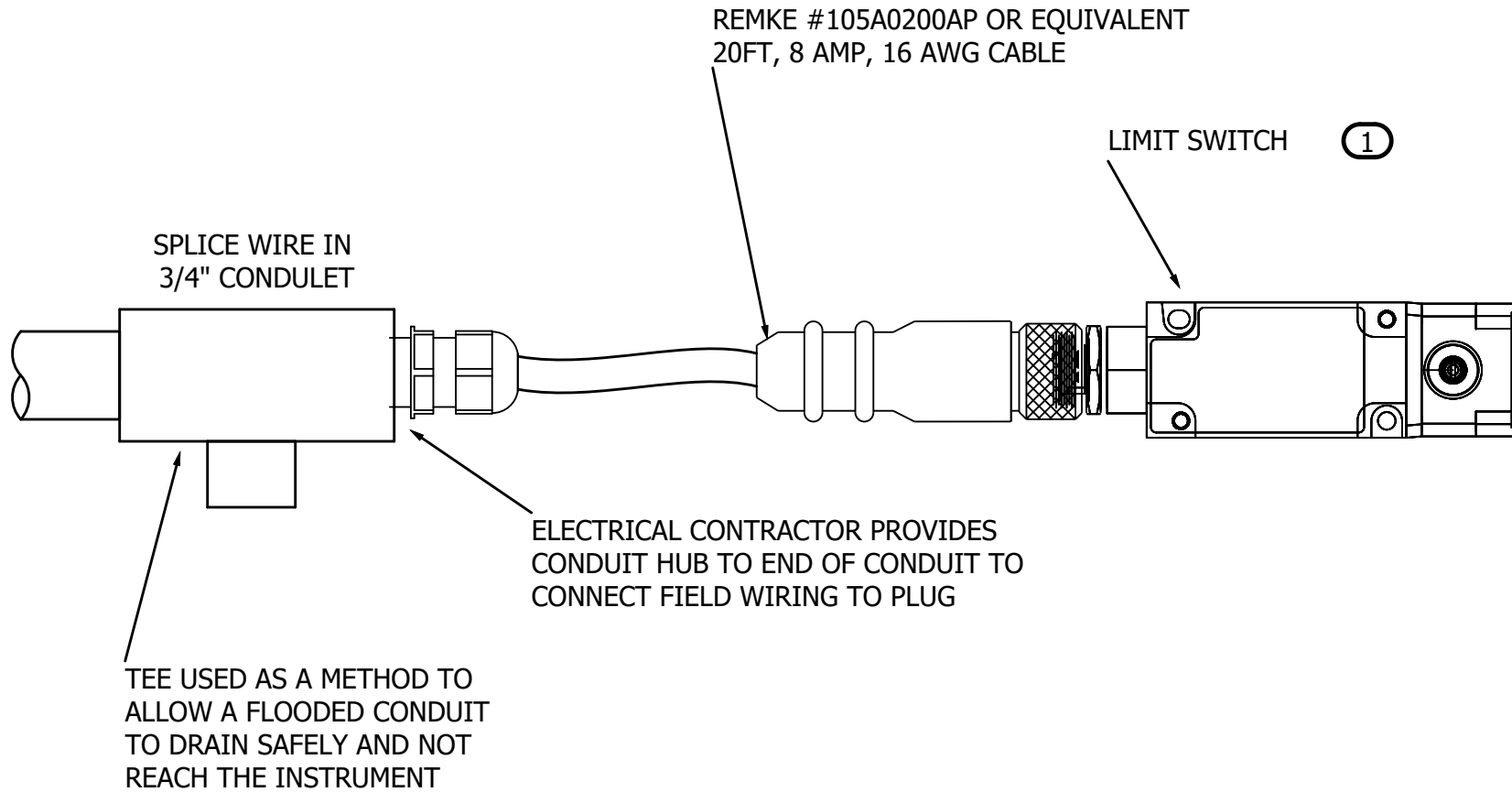
BY

DATE

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APPROV

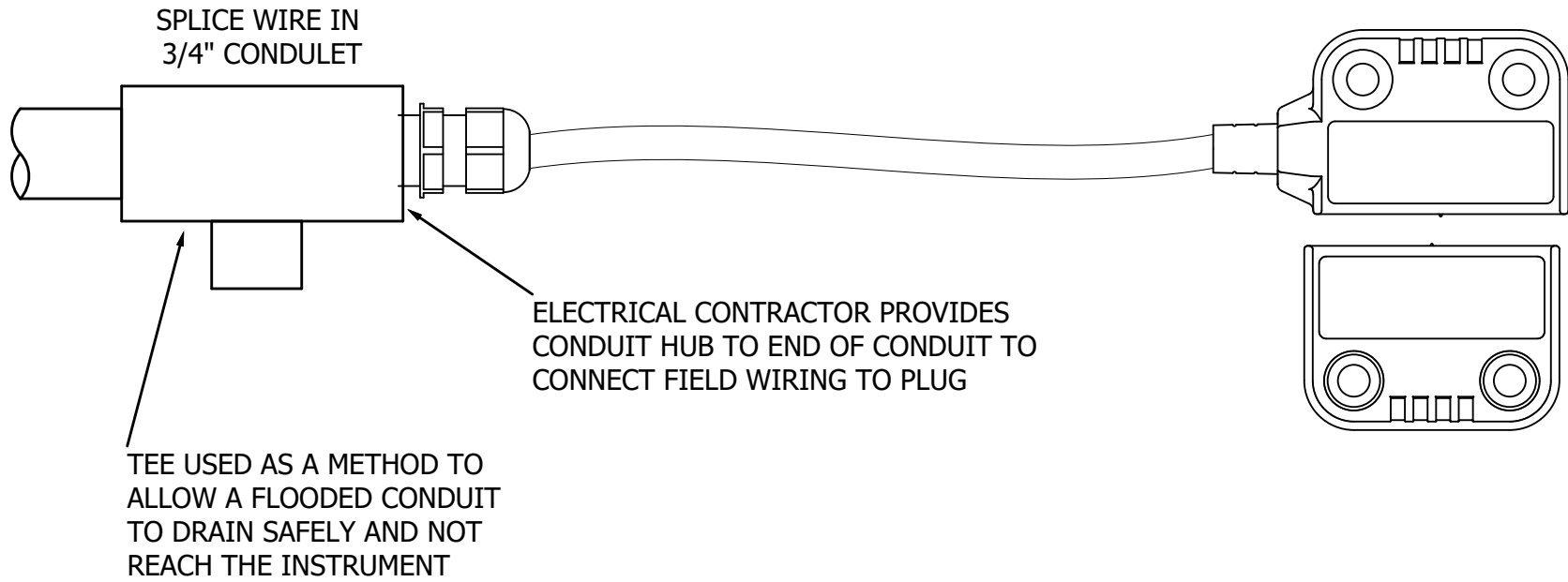
LIMIT SWITCH DEVICES



NOTES:

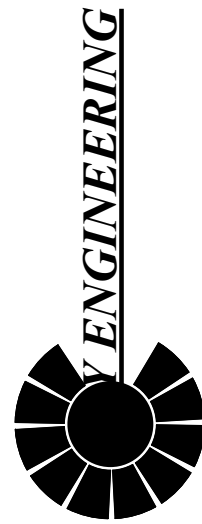
- 1 FOR STATION DOOR AJAR, USE SIEMENS 3SE03-AR1 LIMIT SWITCH
FOR VAULT / HATCH AJAR, USE SIEMENS 3SE03-AR16P LIMIT SWITCH

MAGNETIC LIMIT SWITCH



NOTES:

NOTES:



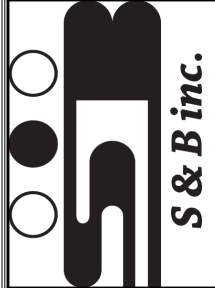
5 EAST PARK STREET FALLON, NEVADA 89406 (775) 432-9900

BY : JES
DATE : 06/30/2025
SCALE : NTS

SHEET 113 OF 24 SHEETS

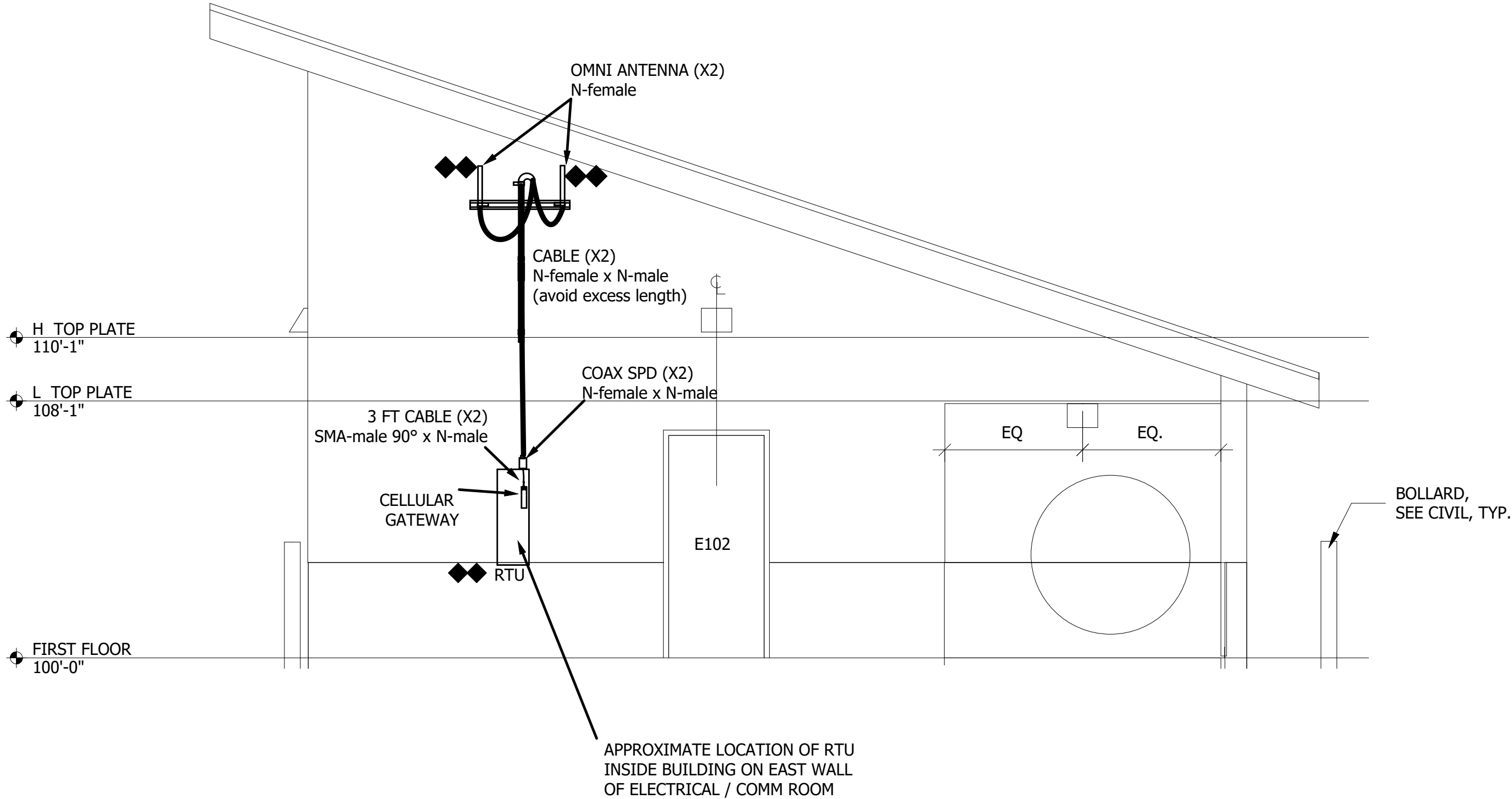
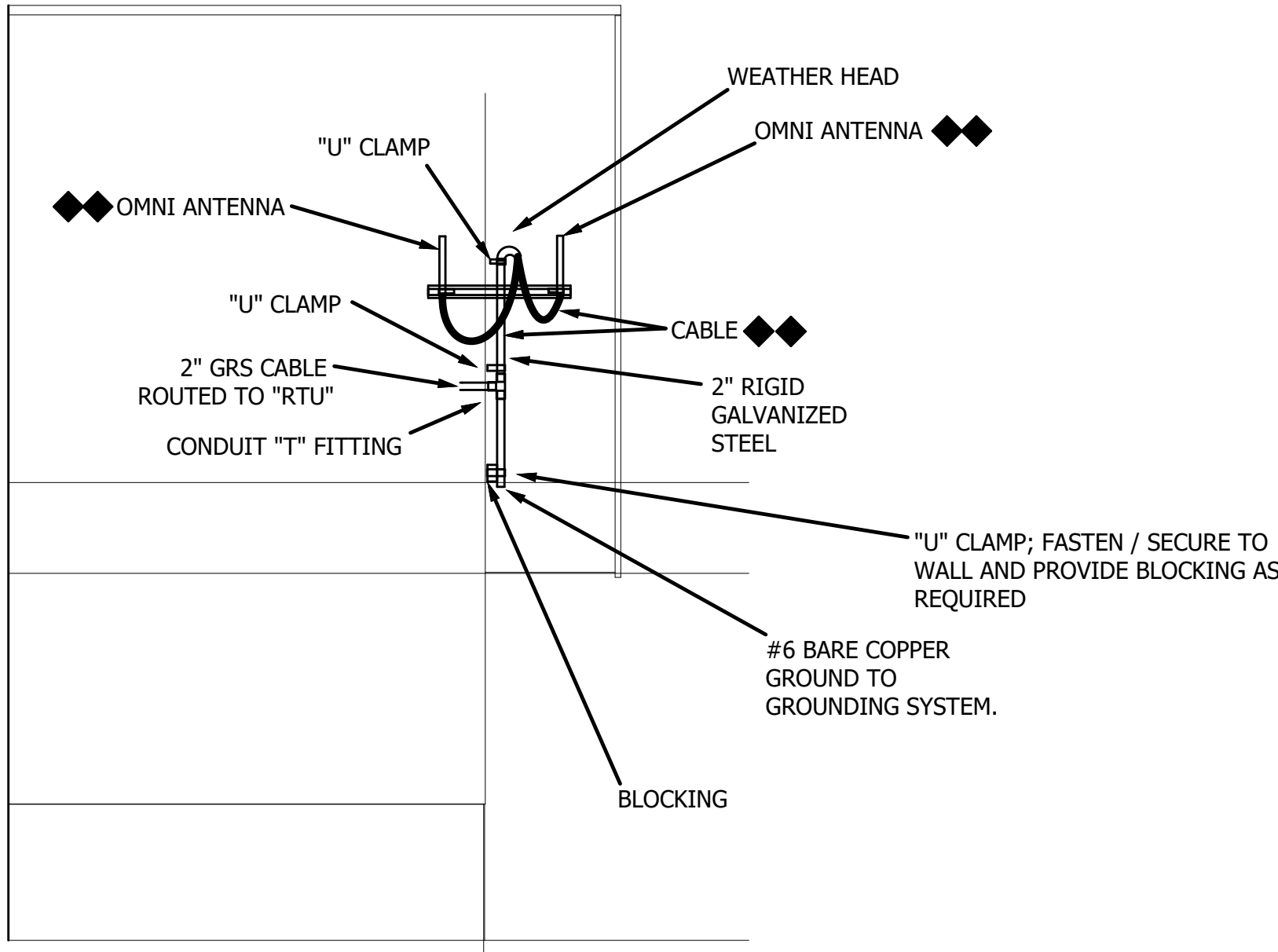
Intrusion Limit Switch Detail

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◆◆ INDICATES EQUIPMENT INCLUDED IN SYSTEM INTEGRATOR SCOPE OF SUPPLY AND FURTHER DEFINED IN SECTION 40 61 00.



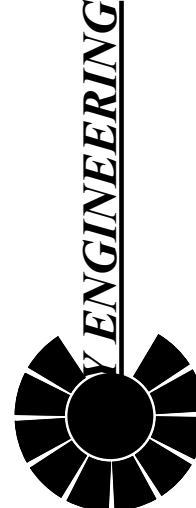
- NOTES:
1. EXAMPLE OF BUILDING WITH EXTERIOR MAST FOR CELLULAR ANTENNA. BUILDING IS GENERIC IN NATURE AND INTENDED ONLY TO REPRESENT RECOMMENDED CLEARANCE AND SPACING FOR ANTENNA SYSTEM, AND NOT TO REPRESENT ACTUAL BUILDING DESIGN.
 2. MAST AND ANTENNA LOCATION DETERMINED BY CELLULAR NETWORK SIGNAL ANALYSIS
 3. MAST IS RECOMMENDED TO AVOID ROOF PENETRATIONS ON RETROFIT APPLICATIONS, ANY ROOF PENETRATION REQUIRES WEATHERTIGHT PROTECTION FOR THE STRUCTURE. RECOMMEND SIDE WALL MOUNTED MAST AND EXTENDING MAST VERTICAL TO CLEARANCES SHOWN ABOVE ROOFLINE.
 4. SURGE PROTECTION FOR THE ANTENNA SYSTEM SHALL BE SUPPLIED FOR ALL SYSTEMS WITH OUTDOOR MOUNTED ANTENNA. SURGE UNIT IS LOCATED ON OR ADJACENT TO THE RTU, IN CLOSE PROXIMITY TO THE CELLULAR MODEM.



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Stead & Associates
13200 S.E. 30th St.
Bellevue, Washington 98005
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Station Antenna Installation Detail

**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**



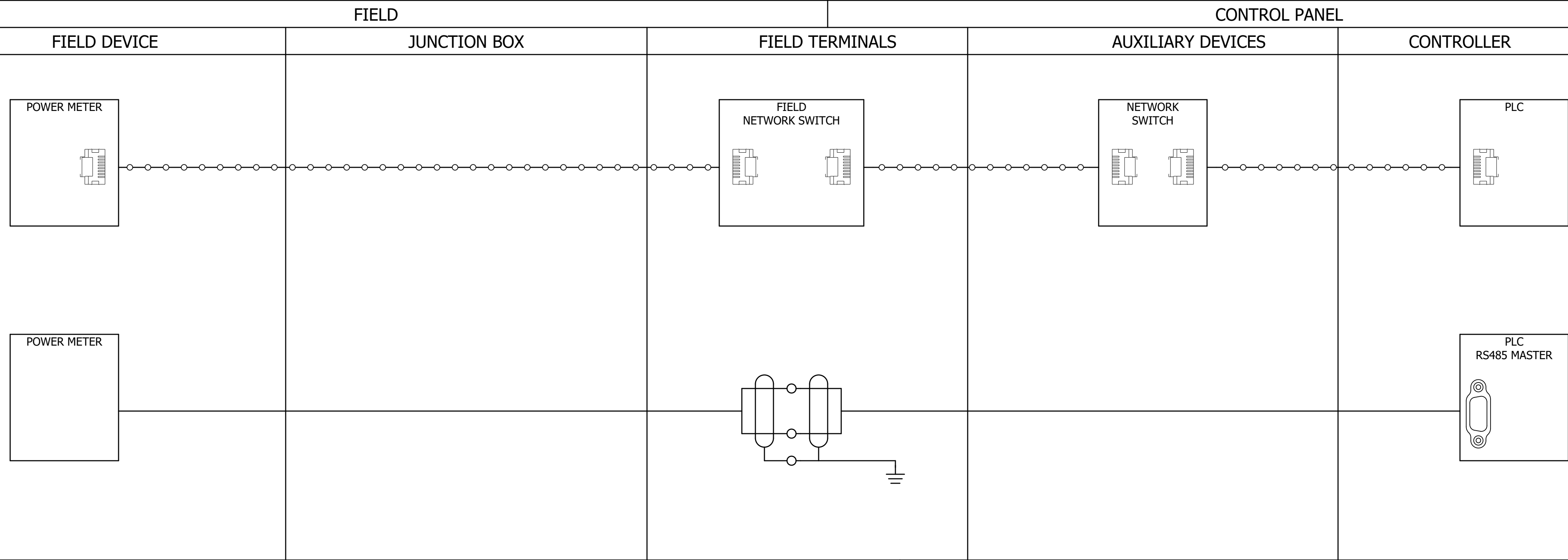
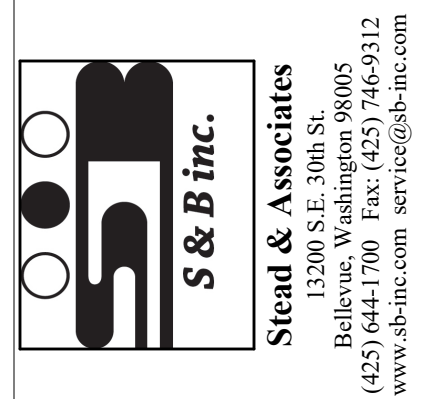
ENGINEERING

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BY : JES
DATE : 06/30/2025
SCALE : NTS

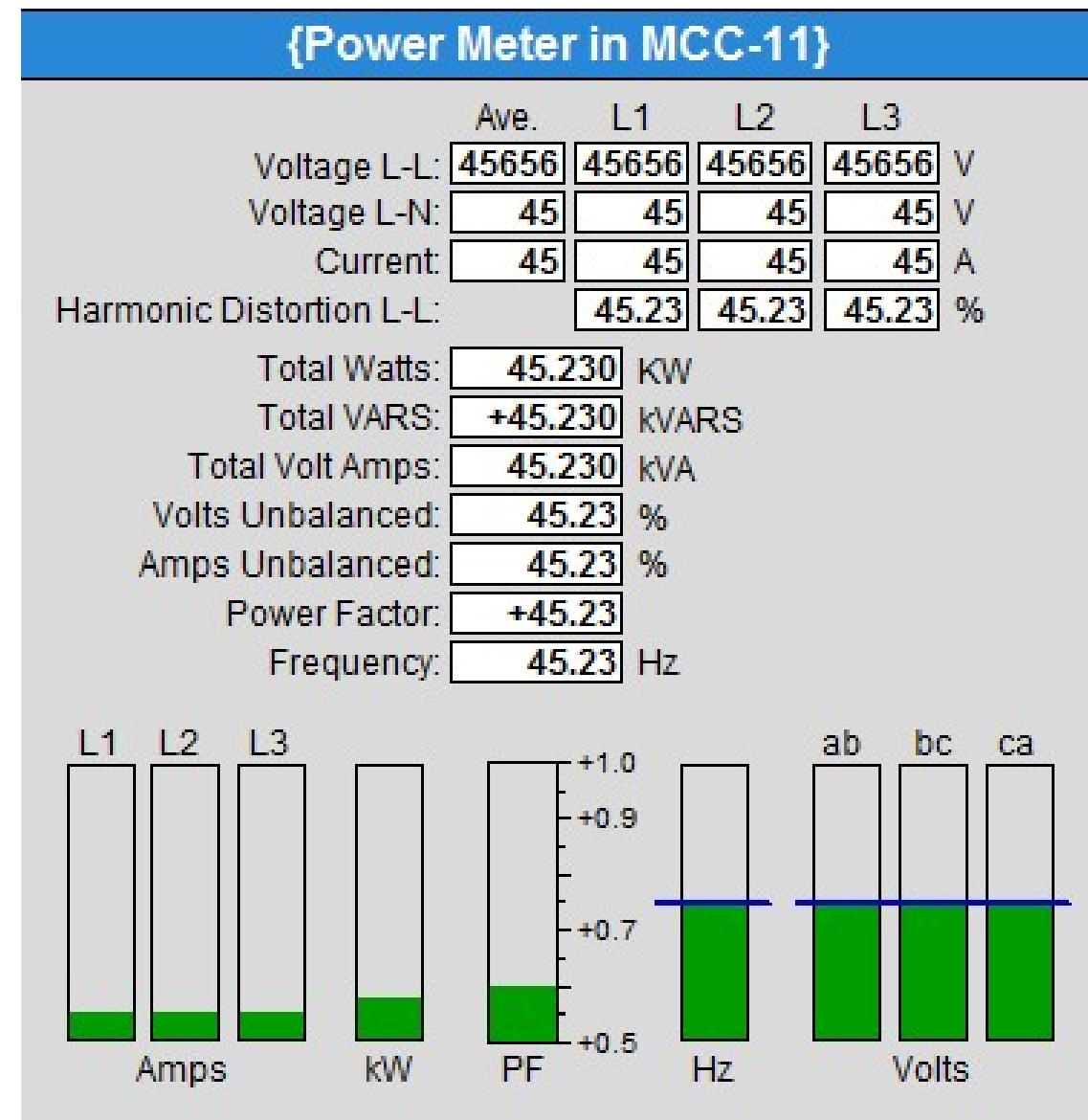
SHEET **114** OF **24**

GENERAL SHEET NOTES:

[illegible]

P&ID REPRESENTATION

SCADA EXTENSION



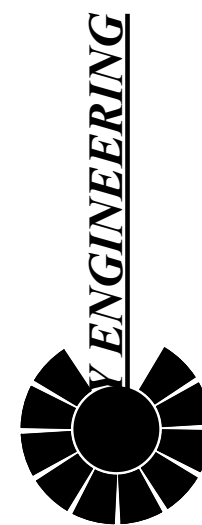
V_In1
V_In2
V_In3
V_InAvg
V_L12
V_L23
V_L31
V_LLavg
I_1
I_2
I_3
I_avg
kW
Vars_Total
VA_Total
V_unbal
I_unbal
PF
Freq
THD_L12
THD_L23
THD_L31

Power Meter (Networked)

**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**

TITLE

PROJECT



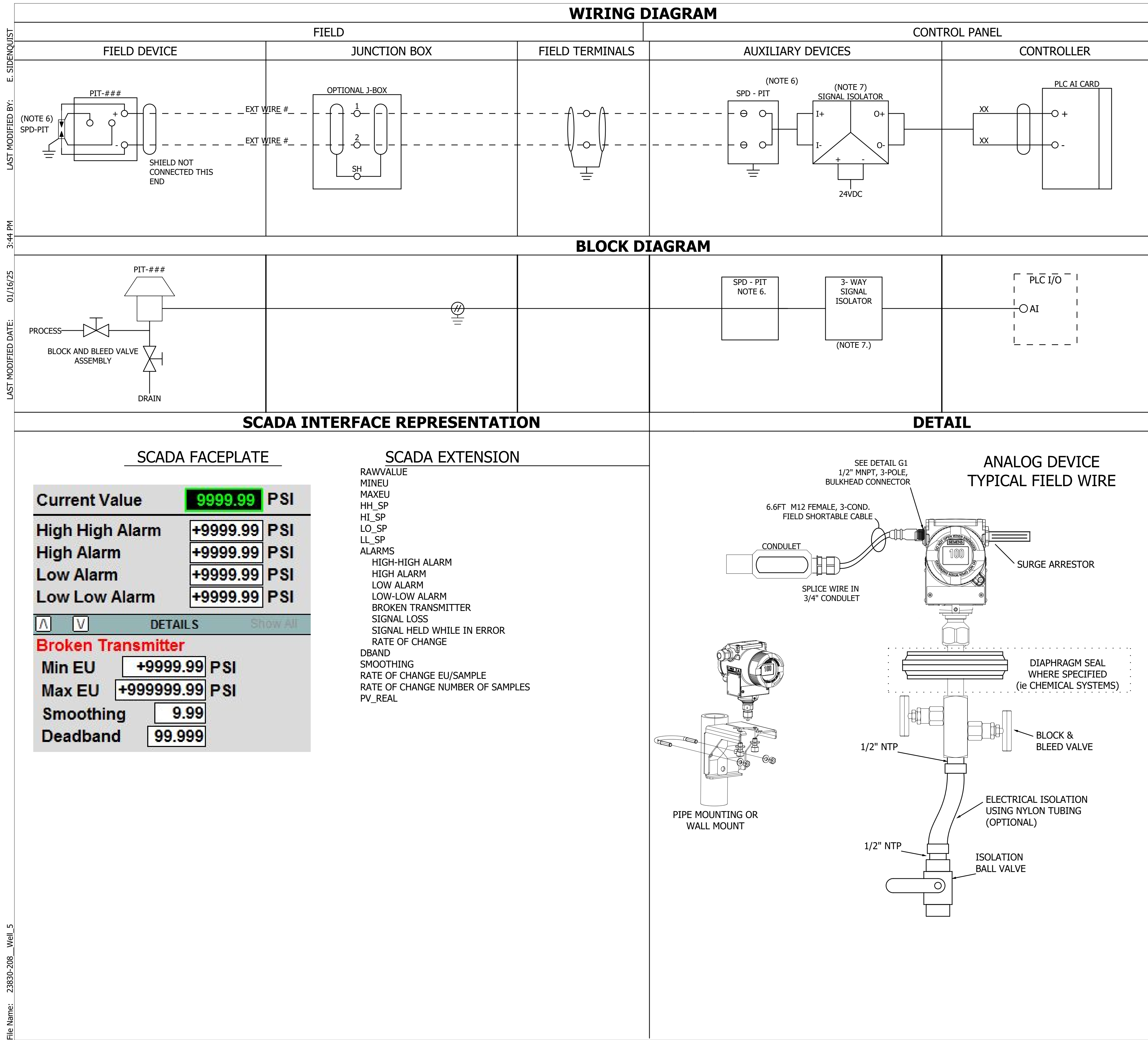
5 EAST PARK STREET FALLON NEVADA 89406 (775) 423-9090

SHEET T15 OF 24^{SHEETS}

BY: JES

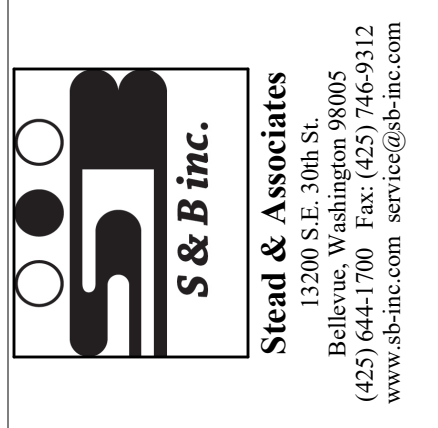
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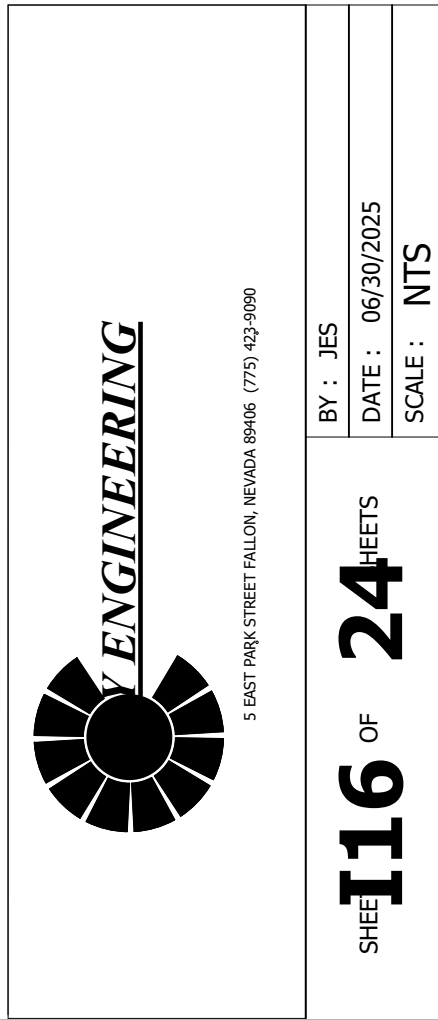


GENERAL SHEET NOTES:

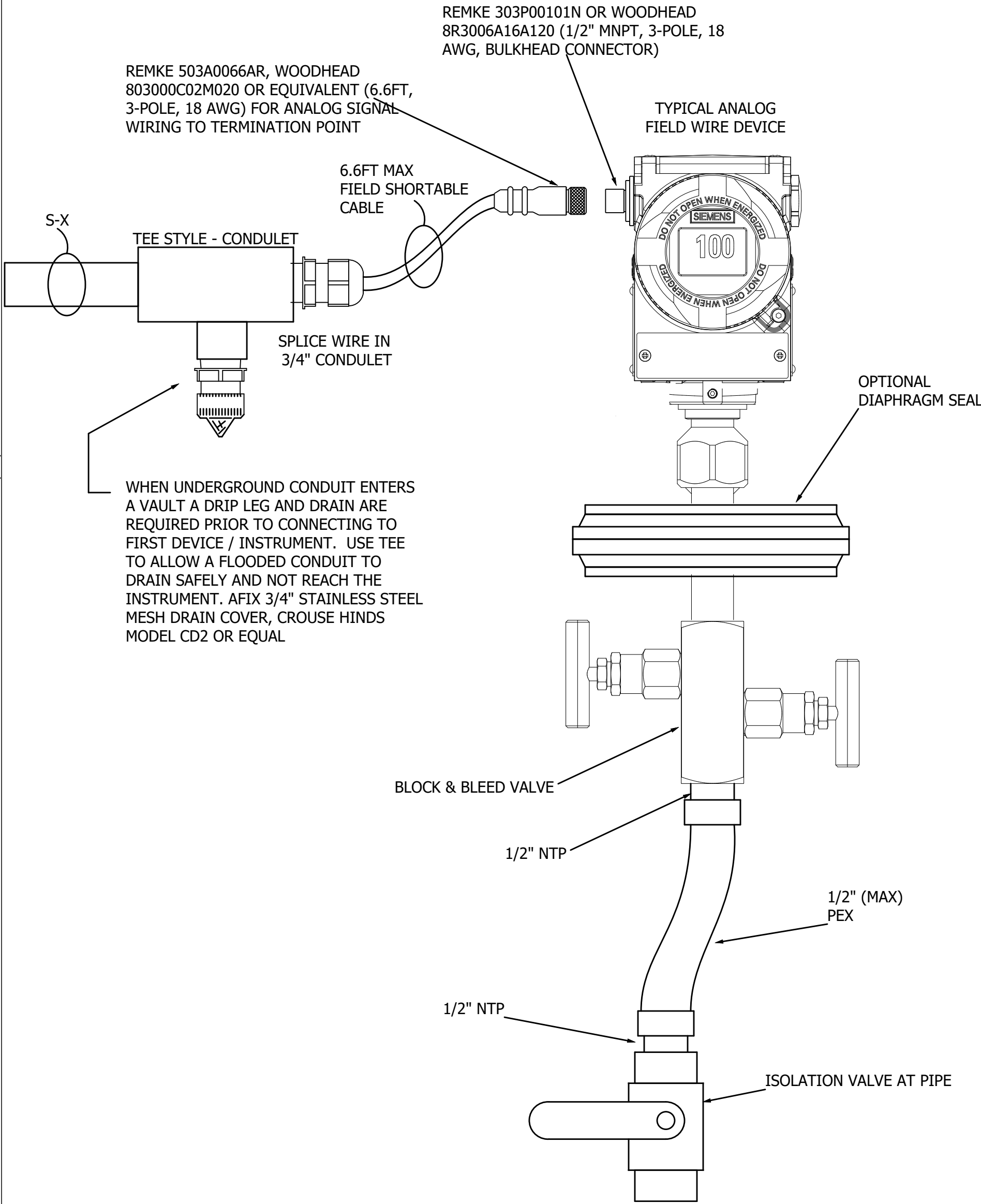
- 1) PRESSURE OR LEVEL CONTINUOUS MEASUREMENT. INSTRUMENT RANGE SELECTED TO SPAN ZERO TO MAXIMUM PRESSURE IN NORMAL OPERATION. INSTRUMENT PRESSURE LIMIT SHALL BE GREATER THAN MAXIMUM POSSIBLE IN THE PROCESS. BLOCK AND BLEED VALVE SUITABLE FOR PROCESS FLUID. MAY BE CONFIGURED FOR HART DATA IN ADDITION TO 4-20MA ANALOG SIGNAL WHEN TEMPERATURE OR REMOTE CALIBRATION IS SPECIFIED.
- 2) SUPPLY FUSE CURRENT LIMITING FOR EACH ANALOG UNLESS ANALOG INPUT CARD PROVIDES 2-WIRE PROTECTION.
- 3) PROCESS CONNECTIONS ROUTED TO PREVENT ENTRAINED AIR AND TO SELF-PURGE WHERE POSSIBLE.
- 4) WHERE HART PROTOCOL SHOWN, ANALOG INPUT SHALL BE HART COMPATIBLE. NO SIGNAL ISOLATOR SHALL BE REQUIRED. REPEATED ANALOG SIGNALS SHALL BE FROM PLC ANALOG OUTPUT.
- 5) TRANSMITTERS MOUNTED REMOTELY FROM THE MAIN PROCESS PIPE OR VESSEL SHALL BE SECURED WITH A PIPE OR WALL MOUNT BRACKET. USE NON-METALLIC FLEXIBLE TUBING BETWEEN THE PROCESS AND THE INSTRUMENT.
- 6) PROVIDE SURGE PROTECTION DEVICE (SPD) AT INSTRUMENT AND CONTROL PANEL TERMINAL BLOCK WHERE INSTRUMENT IS LOCATED IN SEPARATE BUILDING, VAULT OR GROUND PLANE FROM CONTROL PANEL.
- 7) PROVIDE SIGNAL ISOLATOR WHEN 4-20mA SIGNAL IS ROUTED TO MORE THAN ONE CONTROL PANEL. TWO-WIRE TRANSMITTER IS POWERED BY CONTROL PANEL WITH LONGEST DURATION 24V UPS.

[illegible]

TITLE	Gauge Pressure Transmitter
PROJECT	NEW WELL 5 PUMPING STATION VALDEZ, ALASKA



PRESSURE TRANSMITTER

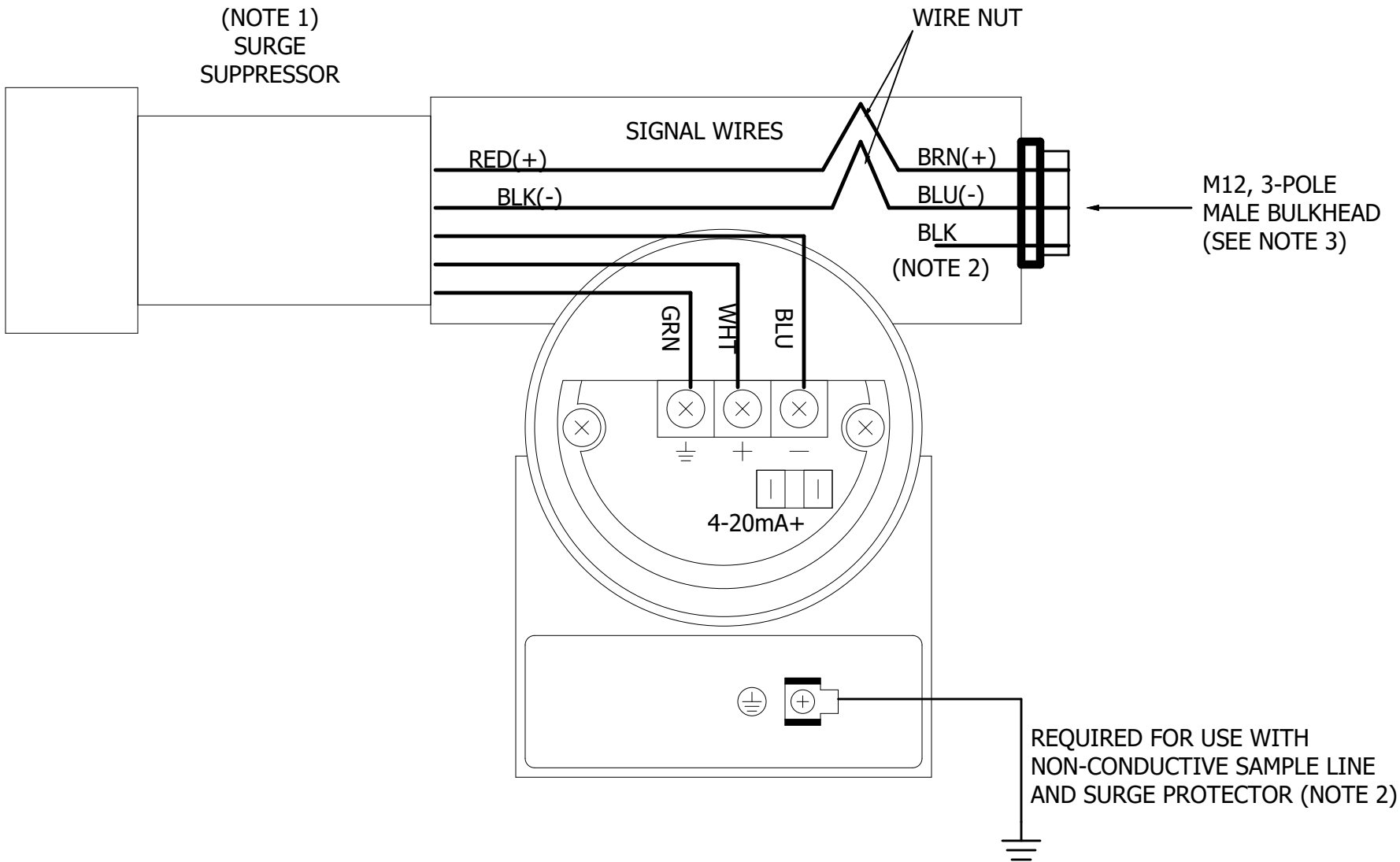


NOTES:

1. FOR AREA SUBJECT TO LIGHTNING, NON-CONDUCTIVE SAMPLE LINE IS RECOMMENDED TO MINIMIZE RISK OF DAMAGE.
2. SUPPLY DRIP LEG IN CONDUIT TO PREVENT WATER BUILDUP. USE CONDULET FOR WIRE TRANSITION FROM TWISTED SHIELDED PAIR TO M12 FEMALE CORD.
3. SIEMENS P320 PRESSURE TRANSMITTER WITH INTEGRAL LCD DISPLAY. 7MF90114FA BLOCK AND BLEED VALVE RECOMMENDED TO PROVIDE ISOLATION FROM PROCESS PRESSURE FOR CALIBRATION AND AIR PURGING.
4. FOR PROCESS FLUIDS WITH SUSPENDED SOLIDS, UTILIZE DIAPHRAGM SEAL AND OMIT BLOCK AND BLEED VALVE.

PRESSURE TRANSMITTER DETAIL (CONTINUED)

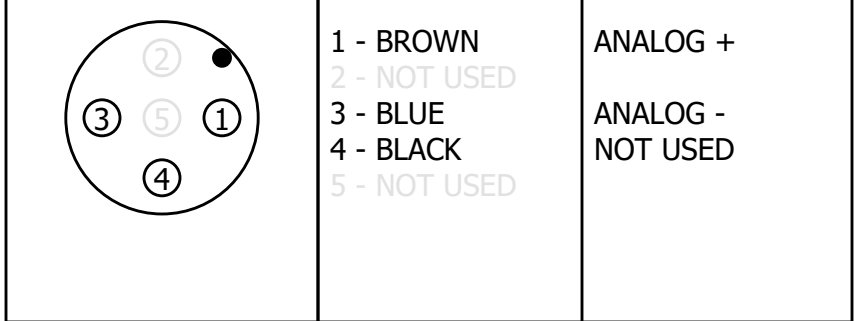
SURGE PROTECTOR WIRING.
FOR: CITEL TSP15M-P-24D3 SURGE DEVICE



PINS

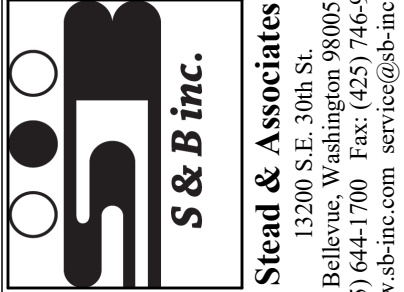
3-POLE

MALE BULKHEAD FACE VIEW



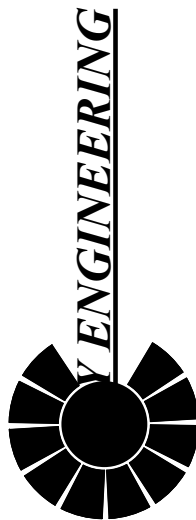
NOTES:

1. SURGE PROTECTION OPERATES IN SERIES WITH SIGNAL CONDUCTORS. RECOMMENDED FOR INSTALLATIONS WHERE CONDUCTORS EXTEND TO VAULT OR ADJACENT BUILDING STRUCTURE.
2. BLACK CONDUCTOR IS NOT CONNECTED. WHEN USING OPTIONAL SURGE PROTECTION, INSTALLATION REQUIRES SEPARATE GROUND CONDUCTOR, CONNECTED TO EXTERNAL PORTION OF PRESSURE TRANSMITTER AND BONDED TO ELECTRICAL SYSTEM GROUND
3. M12, 3-POLE MALE BULKHEAD CONNECTOR TYPE 6P / IP67 BRAD WOODHEAD 105000A01F120, REMKE 303P0010N OR EQUAL.



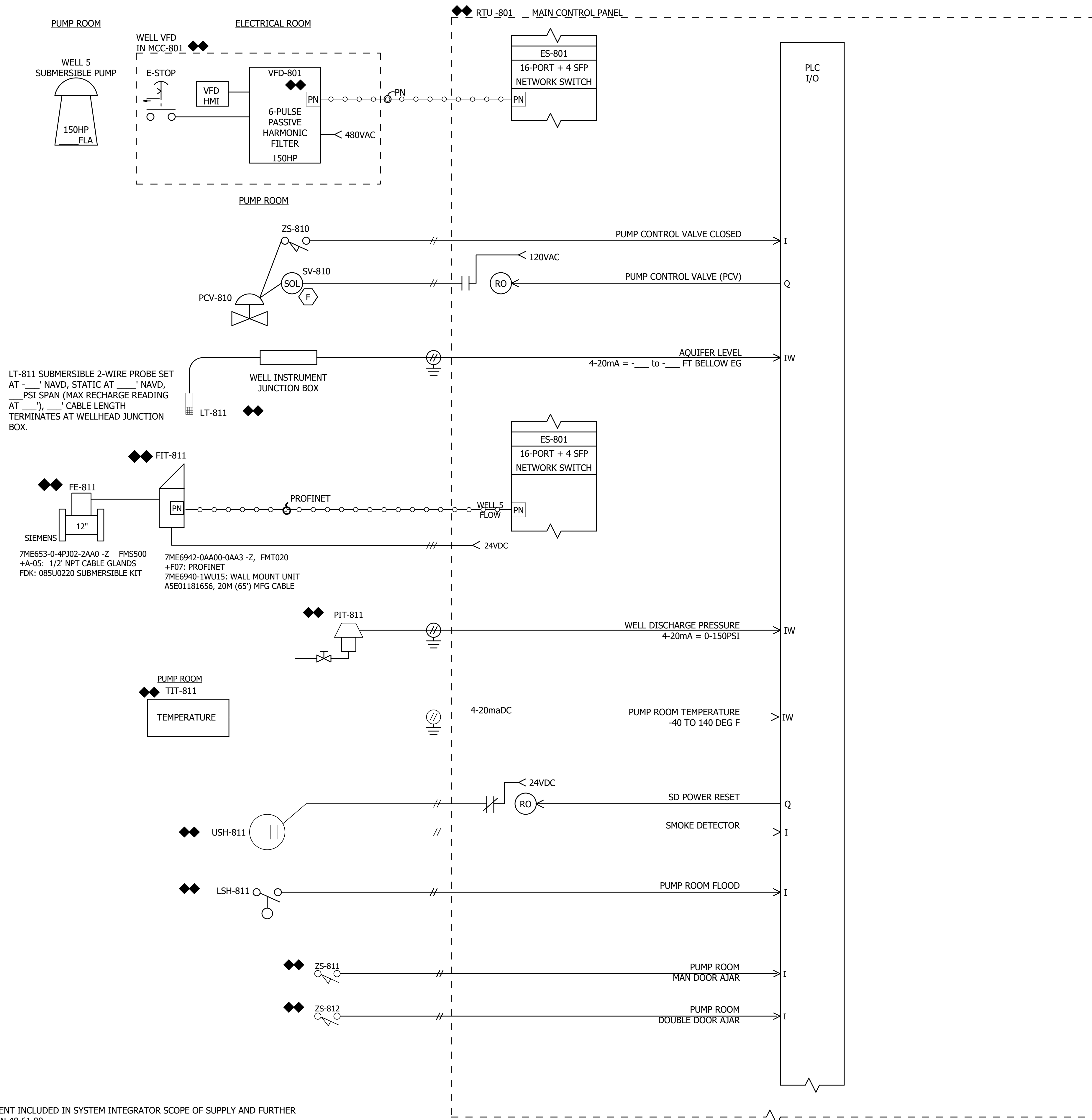
Pressure Transmitter Details

NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA

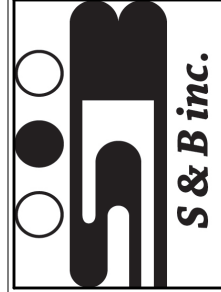


BY : JES
DATE : 06/30/2025
SCALE : NTS

SHEET 17 OF 24



◆◆ INDICATES EQUIPMENT INCLUDED IN SYSTEM INTEGRATOR SCOPE OF SUPPLY AND FURTHER
DEFINED IN SECTION 40 61 00.

[illegible]

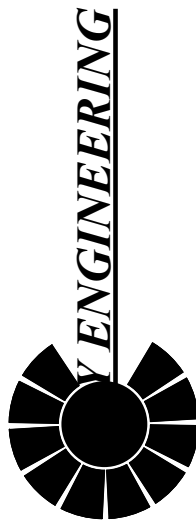
Stead & Associates
13200 S.E. 30th St.
Bellevue, Washington 98005
(425) 644-1700 Fax: (425) 746-9312
www.sb-inc.com service@sb-inc.com

RTU BLOCK DIAGRAM PUMP ROOM WELL OPERATIONS

**NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA**

TITLE

PROJECT



5 EAST PARK STREET FALLON, NEVADA 89406 (775) 423-9090

BY: JES

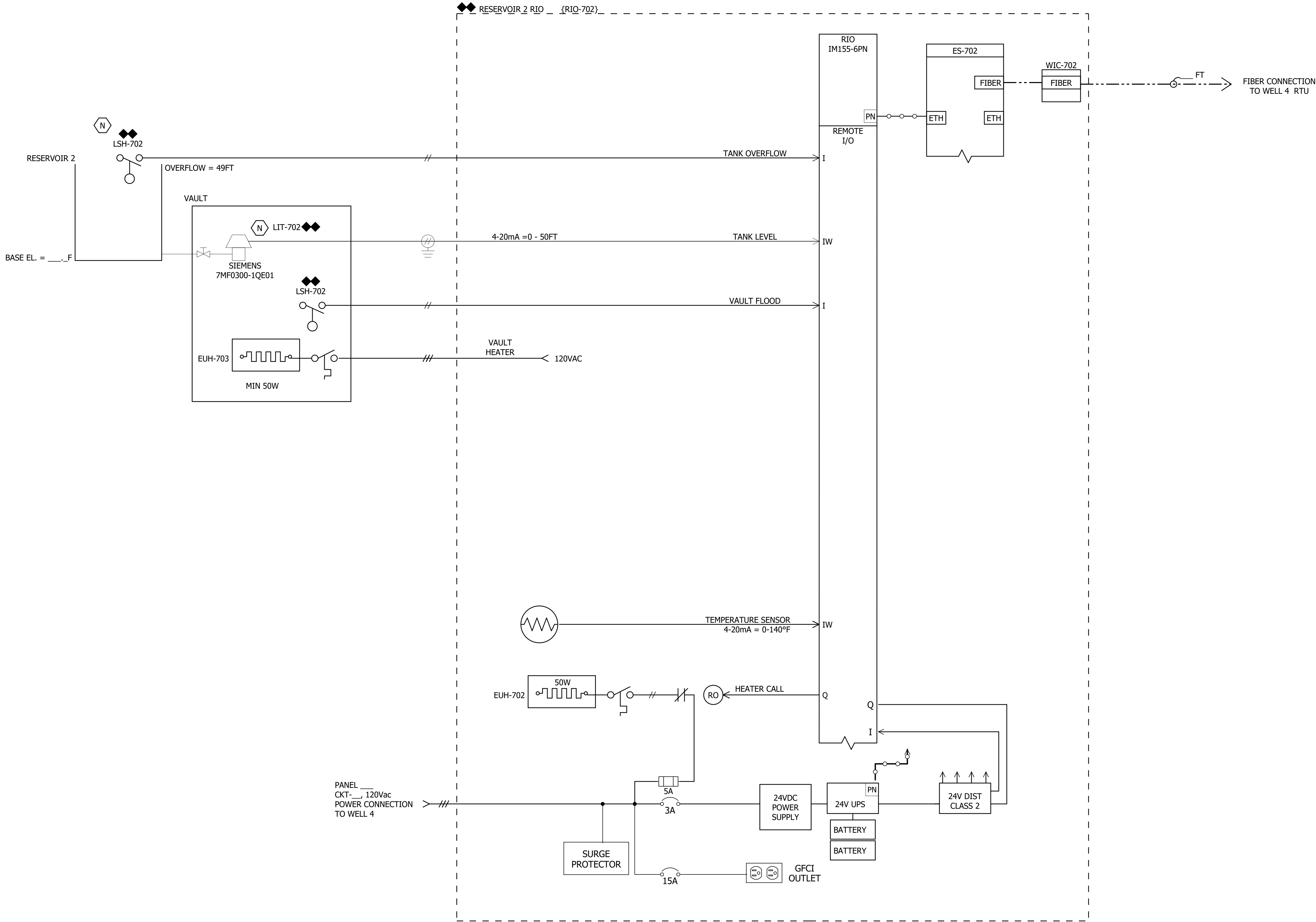
DATE: 06/30/2025

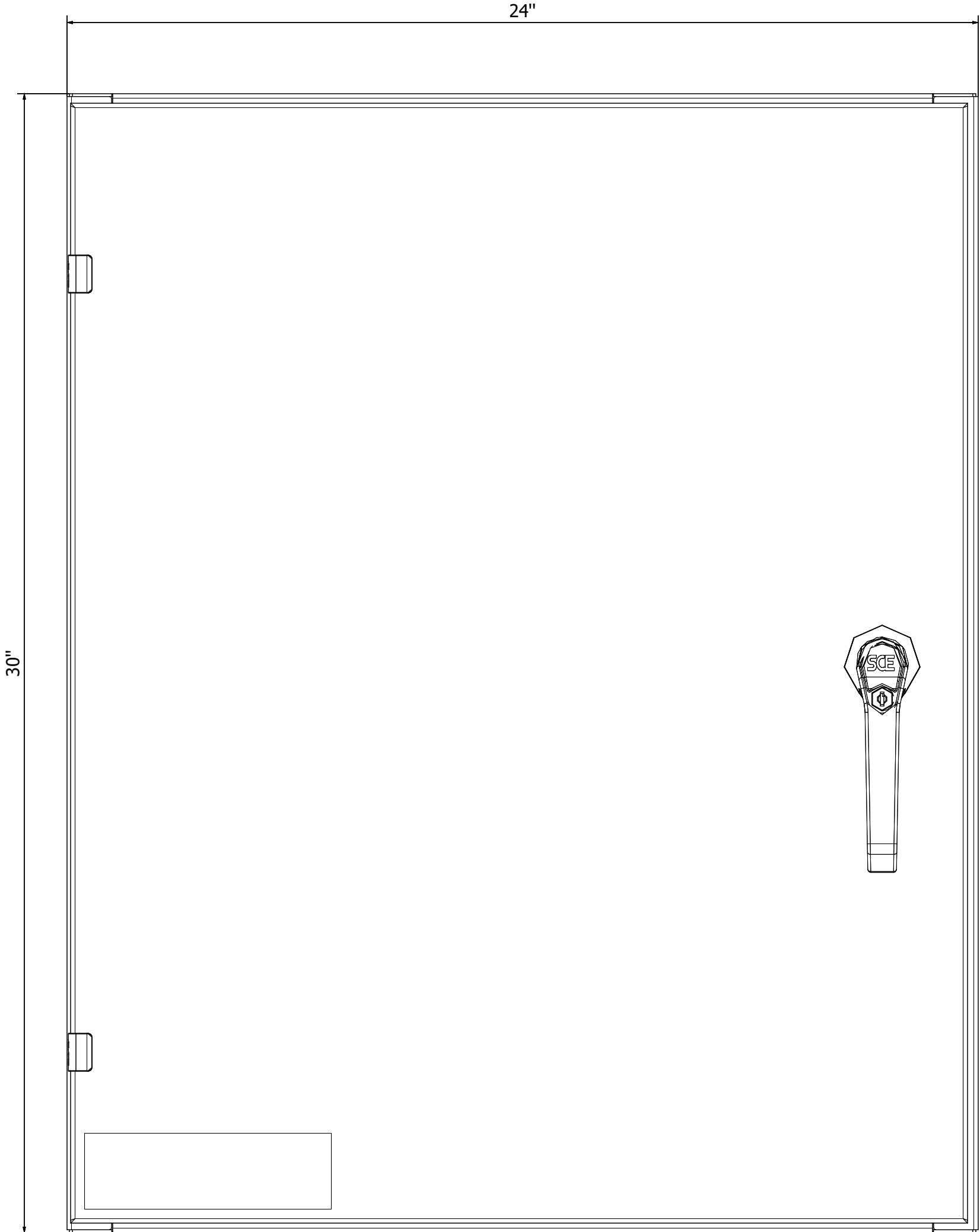
SCALE: NTS

SHEET 19 OF 24 SHEETS

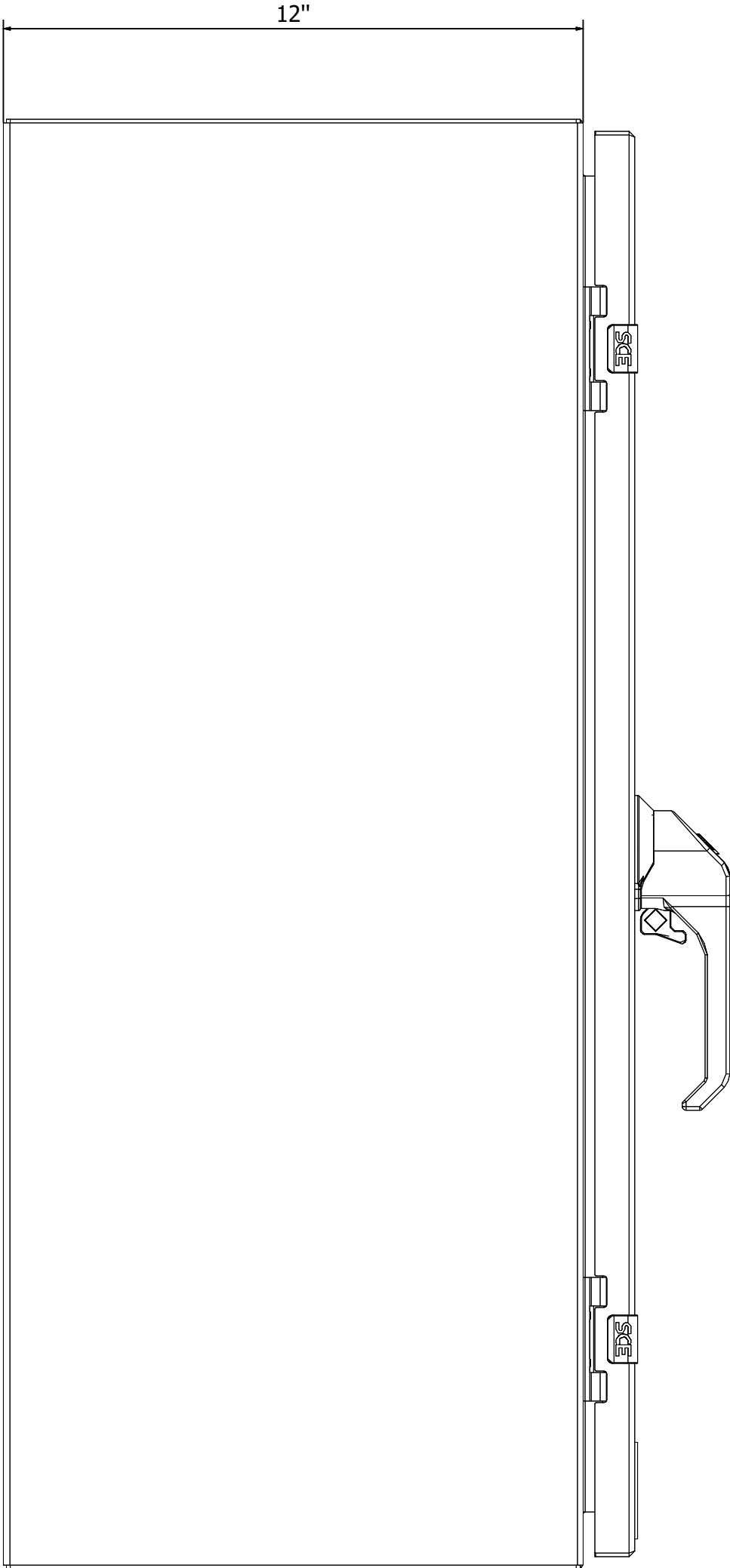
24^{HE}

NTS

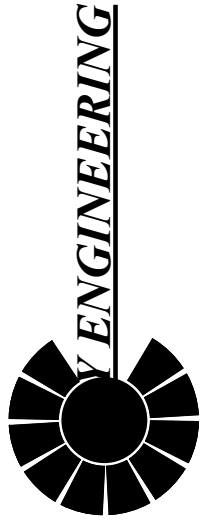
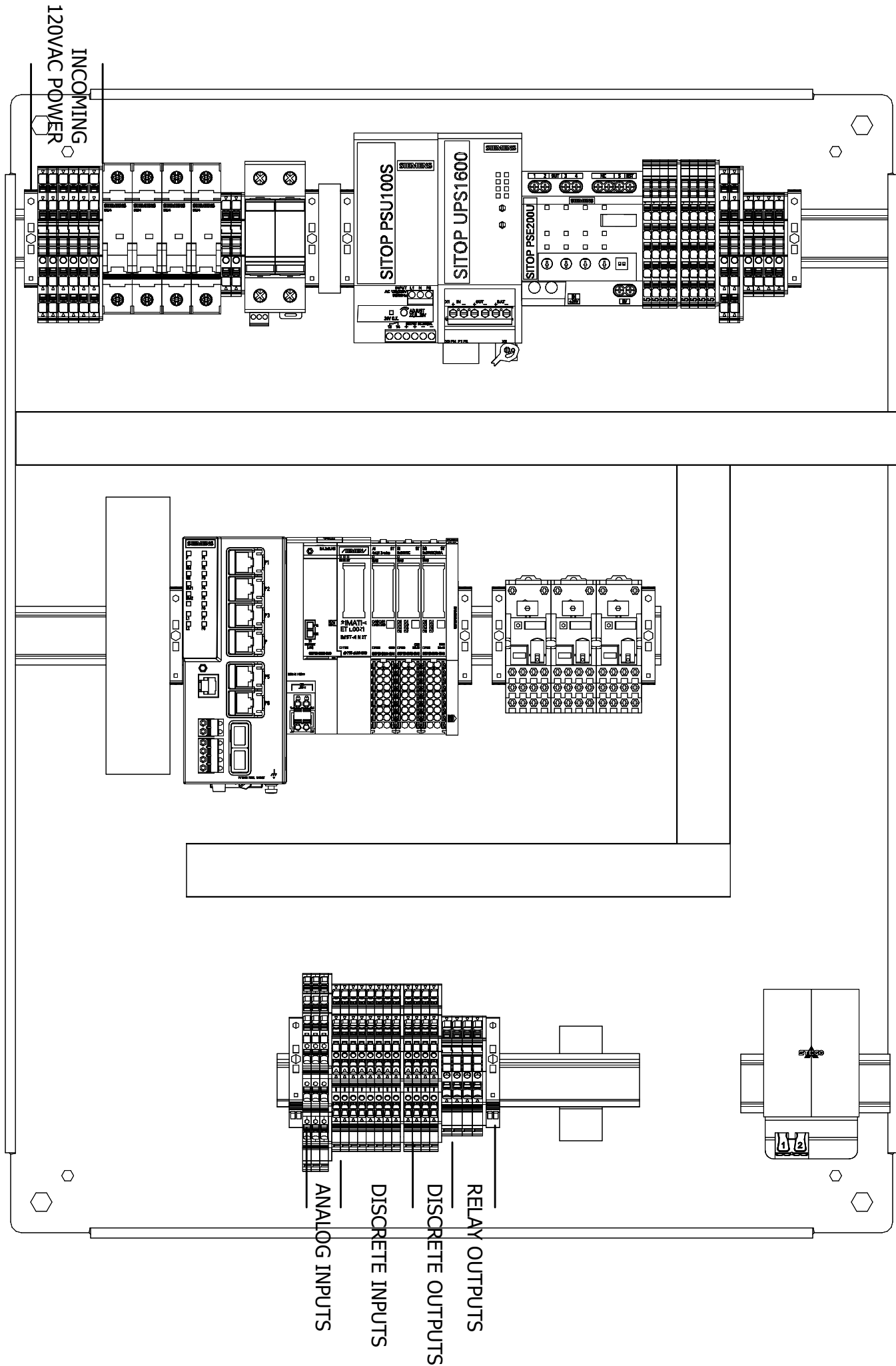




SAGINAW SCE-30EL2412LPPL ENCLOSURE
PAINTED RAL5015 BLUE
FRONT VIEW



SAGINAW SCE-30EL2412LPPL ENCLOSURE
PAINTED RAL5015 BLUE
LEFT SIDE VIEW



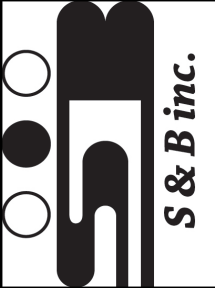
5 EAST PARK STREET FALLON, NEVADA 89406 (775) 432-9900

SHEET 124 OF 24 SHEETS

BY : JES
DATE : 06/30/2025
SCALE : NTS

TITLE
WELL 4 / RESERVOIR 2 I/O
BACK PANEL PRESENTATION

PROJECT
NEW WELL 5 PUMPING STATION
VALDEZ, ALASKA



Stead & Associates
13200 S.E. 30th St.
Bellevue, Washington 98005
(425) 455-1100
www.s&b-inc.com service@s&b-inc.com

APPROV.	REV	DATE	BY	REVISION
JES	A	09/26/24		UPDATED ENCLOSURE SIZE

SECTION 08 71 00

DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A.** Work under this section includes the complete door hardware requirements for the project. Quantities listed are for the Contractor's convenience only and are not guaranteed. Items not specifically mentioned, but necessary to complete the work shall be furnished, matching the items specified in quality and finish.
- B.** Related Sections:
 - 1. Division 8 Section "Standard Steel Doors and Frames"

1.2 REFERENCES

- A.** Standards: Current edition at date of bid.
 - 1. ADAAG - Americans with Disabilities Act, "Accessibility Guidelines for Buildings and Facilities"
 - 2. ANSI/BHMA A156.18 - Materials and Finishes
 - 3. Underwriters Laboratories - Building Materials Directory
 - 4. UL 10C - Underwriters Laboratories, "Positive Pressure Fire Tests of Door Assemblies".
 - 5. ICC/ANSI A117.1 - "Accessible and Usable Building and Facilities"
- B.** Codes:
 - 1. International Building Code

1.3 SUBMITTALS

- A.** General Requirements: Submittals shall be in accordance with Division 1 "Submittal Procedures".
- B.** Product Data: Submit manufacturer's data for each item of finish hardware.
- C.** Hardware Schedule: Submit a detailed Door Hardware Schedule.
 - 1. The submitted Door Hardware Schedule shall indicate the complete designation of every item required for each door or opening.
 - 2. Furnish cover sheet listing title of project as shown on the Contract Documents, name, address, phone and fax numbers of Owner, Architect, Contractor, and Supplier, name of Certified Hardware Consultant, and date of submittal.
 - 3. List each opening individually under separate headings in the same order as the door schedule. Do not group like or similar doors under a single heading. Do not continue headings on separate pages.
 - 4. Each heading shall indicate opening location, handing, degree of opening, door size, type, fire rating, and Door and Frame material.
 - 5. Indicate product Manufacturer and incorporate cross-reference to symbols used in Article 2.11 Hardware Groups.

6. Include an index indicating door, heading, and page numbers and locking function for each opening.
7. Locations shall be included and miscellaneous hardware items.
8. A cross reference for abbreviations or symbols used shall be included.
9. Schedules in coded or horizontal format are unacceptable.
10. Submittals not conforming to these requirements will be returned without review, for re-submittal. Following is an example of the required format:

1 Sgl. Door #104 - Reception 100 to Office 104 LH 90°
 HW-2 3-0 x 7-0 x 1-3/4" x 20 Minute x Type C SC WD x HMF
 3 Each Butts MC TA2714 US26D (652) 4.5 x 4.5 x 1/2MS
 1 Lockset SC L9070R 06L 630 LH
 1 Door Closer LCN 4041 Alum./689 x Hinge Face Mtg. x STB
 1 Kick Plate TI B4EKP - 10 x 34.5 - US32D x B4E x CTSK
 1 Wall Stop TR 1270CX-SV US26D (626)
 1 Set Gasket PE S88D - 17' per Set

- 11.
12. Processing: Hardware schedules will not be reviewed by the Architect until they have been reviewed and approved by Contractor.
13. Revisions: The Door Hardware Submittal shall be kept current throughout the project duration. Revisions incorporated shall be submitted in accordance with the above requirements. Submit only cover sheet and revised pages. Clearly identify changes from previous submittal content.

- D. Samples: If requested by the Architect, submit one (1) sample of each exposed hardware category, finished as required, and tagged with full description for coordination with the hardware schedule. Samples will be reviewed, by the Architect, for design and finish only, compliance with other requirements is the responsibility of the Contractor. Units which are acceptable and remain undamaged through submittal procedures may be used on the project.
- E. Color Samples: Submit set of color charts and physical samples of each product requiring color selection.
- F. Key Schedule: Upon completion of the Key meeting specified under Paragraph 2.13 C., submit Two (2) copies of a key schedule indicating the complete project key system for approval. Obtain approval prior to proceeding with lock portion of the project.
- G. Operations and Maintenance Data.
 1. Submit Maintenance and Operations Manuals under the provisions of Division 1 "Submittal Procedures".
 2. Manuals shall contain final copy of the Finish Hardware Submittal, Product Data, Parts Lists and Diagrams, Key Schedule, Installation Instructions, and Warrantees.

1.4 QUALITY ASSURANCE

- A. Supplier:
 1. Finish hardware shall be supplied by a recognized Door Hardware supplier who has been furnishing hardware in the same area as the project for a period of not less than five (5) years.
 2. Factory direct, authorized, and stocking distributor of the Exit Devices, Locksets and Door Closers.
 3. Employ an Architectural Hardware Consultant, certified by the Door and Hardware Institute.

- B. Source: Obtain each kind of Hardware (Butts, Locksets, Exit Devices, Door Closers, etc.) from only one manufacturer.
- C. Installer: Finish hardware shall be installed only by experienced tradesmen in compliance with trade union jurisdictions, either at the door and frame fabrication plant or at the project site.
- D. Templates: Furnish hardware templates for each fabricator of doors, frames and other work to be factory prepared for the installation of hardware. Upon request, check the shop drawings of such other work to confirm that provisions will be made for the proper installation of hardware.
- E. Regulatory Requirements:
 - 1. Comply with applicable local and state current building codes.
 - 2. Hardware for fire-rated openings shall also be in compliance with fire building codes applicable to the district in which the building is located. Provide only hardware which has been tested and listed by "UL" for the types and sizes of doors required, and which complies with the requirements of the door and door frame labels. Provide Door Closers, Automatic self latching bolts, coordinators, gasketing, and astragals if required to conform to label requirements.
 - 3. Comply with the requirements of ICC/ANSI A117.1, Accessible and Usable Building and Facilities.

1.5 PRODUCT HANDLING AND STORAGE

- A. Packaging: Each item or package is to be separately tagged with identification related to the final hardware schedule. Complete installation instructions shall be included in the packages.
- B. Storage: Provide a dry locked room at the jobsite for the storage of the hardware.

1.6 WARRANTY

- A. Finish hardware shall be guaranteed against defects in workmanship and operation for a period of one year, backed by a factory guarantee of the hardware manufacturer. The following products shall be guaranteed for periods beyond one year:
 - 1. Locks – Two Years
 - 2. Door Closers – Ten Years
 - 3. Panic Devices – Three Years

1.7 MAINTENANCE

- A. Furnish the following extra materials, which shall be delivered directly to the Owner prior to substantial completion.
 - 1. One set of Special Tools required for installation and adjustment.
 - 2. Extra Hardware:
 - 3. Quantity Description Factory Number
 - 4. Six (6) Interchangeable Core Padlocks _____
 - 5. Two (2) Locksets _____

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Manufacturers: Products may be furnished by the manufacturers listed under "As Specified" below, or equivalent products of type, grade, design, and function from manufacturers listed under "Acceptable Substitutions".

Product	As Specified	Acceptable Substitutions
Butt Hinges	McKinney (MC)	Bommer, Hager
Stainless Steel Continuous Hinges	Stanley (ST)	Stanley
Locksets and Latchsets	Best (BE)	None
Cylinders and Keying	Best (BE)	None
Exit Devices	Precision (PR0	None
Door Closers	Stanley (STH)	None
Kick & Mop Plates	Trimco (TR)	Tice, Rockwood
Wall and Floor Stops	Trimco (TR)	Rockwood
Overhead Stop and Holders	ABH Manf. (ABH)	GJ, Rixson
Weatherstrip & Thresholds	Pemko (PE)	National Guard, Reese
Silencers	Trimco (TR)	Rockwood

2.2 FINISH

- A. General: Unless specifically indicated otherwise, provide architectural hardware in the following finishes.
1. Finish in general shall be: US15D, Satin Nickel Plated (BHMA 619), unless otherwise approved.

2.3 BUTT AND CONTINUOUS HINGES

- A. Requirements:
1. Provide hinges conforming to ANSI/BHMA A156.1
 2. Provide five knuckle, ball bearing hinges
- B. Quantity (per Leaf):
1. Door openings up to 60": 2 each.
 2. Door openings 60 to 90": 3 each.
 3. Doors over 90": Furnish one additional for each 30" increment or fraction thereof.
- C. Sizes:
1. 1-3/4" Exterior & Vestibule Doors: 5 x 4-1/2"
 2. 1-3/4" Interior Doors up to and including 36": 4-1/2 x 4-1/2"
 3. 1-3/4" Interior Doors over 36": 5 x 4-1/2"
- D. Width of Hinges shall be as required to clear projecting trim or other conditions to allow maximum degree of opening.
- E. Butt Hinges shall have non-removable pins (NRP - Set Screw in Barrel).
- F. Hinges shall have Flat Button Tips.
- G. For unusual size or weight doors, furnish type, size and quantity recommended by the hinge manufacturer.

2.4 LOCKSETS AND CYLINDERS

- A. Lever Design: Furnish all Lever Handle Locksets and Latches in 06L Design. **Provide solid cast levers without plastic inserts.**
- B. Backset: 2-3/4"
- C. The Locksets and Latchsets shall be listed with Underwriters Laboratories for A label and lesser class doors.
- D. Cylinders:
 - 1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1.
 - 2. Provide 7 Pin "Full Sized" Key Removable Interchangeable Cores: **COV utilizes the Best 9K 7-pin core system.**
 - 3. Provide appropriate cylinder type, length, collars, and cam type to operate specified Locksets and Exit Devices.
 - 4. Provide Curved Lip Strikes with adequate projection to protect door trim. Provide flat, flush lip strikes for pairs of doors with overlapping Astragals.
 - 5. Provide manufacturers standard wrought or plastic strike boxes.

2.5 DOOR CLOSERS

- A. Drop Plates: Furnish drop plates where doors have insufficient height top rails, or where Regular Arm Door Closers are used in conjunction with Concealed Overhead Stops.
- B. Provide special closer mounting as required where interference with weatherstrip or sound seals occurs.
- C. Furnish cold weather fluid, at exterior & vestibule doors. Furnish non-flammable fluid at fire rated openings in conformance with UL Test Standard 10C.
- D. Furnish Spacer Blocks and/or shoe supports where frame stop does not provide for adequate support for the parallel arm soffit shoe.
- E. Furnish Fifth Hole Spacers or Shoe Supports where required by Frame configuration.
- F. Furnish Door Closers with Metal Covers.(MC Option).

2.6 KICK AND MOP PLATES

- A. Kick and Armor Plates shall be applied to the Push Side of the Door, Mop Plate applied to the Pull Side.
- B. Plates shall be beveled four edges (B4E) and countersunk for screws.
- C. Height: Kick Plates: 10", Mop Plates: 6", Armor Plates: 34"
- D. Plates shall be furnished with width as required to provide 1/4" clearance at sides of doors, stops, sound seal, or weatherstrip.

2.7 STOPS AND HOLDERS

- A.** Furnish Overhead Stop and Holders sized as recommended by the manufacturer.
- B.** Furnish Overhead Stop and Holders with special shims, brackets, or special template mounting where required.

2.8 THRESHOLDS

- A.** Requirements:
 - 1.** Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
- 1.** Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
- 2.** Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.9 WEATHERSTRIP AND GASKETING

- A.** Furnish weatherstrip and gaskets for complete perimeter of opening, including mullions, and astragals.

2.10 KEYING

- A.** All Keyed products (Locksets, Cylinders, Deadlocks, etc.) specified in this Section shall be keyed to per City of Valdez standards.
- B.** Provide temporary brass Construction Cores and Keys during the construction period. Plastic Construction Cores are unacceptable.
- C.** The Finish Hardware Supplier shall meet with the Owner to prepare the permanent keying schedule. Submit Key Schedule for approval in accordance with paragraph 1.3 F.
- D.** The Permanent Cylinders, Change Keys, and Control Keys, prepared according to the approved keying schedule, shall be transmitted directly from the manufacturer to the Owner, prior to substantial completion. The General Contractor shall remove the construction cylinders and install the permanent cylinders. All Construction Cylinders shall be returned to the Finish Hardware Supplier.
- E.** All Permanent Cores and Keys shall be sent directly to the Owner via Registered Mail, Return Receipt Requested.
- F.** Stamp all Keys "Do not Duplicate" and with change designation as directed.
- G.** Furnish—subject to review and approval by City of Valdez:
 - 1.** Six (6) Building Grand Master Keys
 - 2.** Six (6) Master Keys per Set
 - 3.** Four change keys per Lockset or Cylinder.
 - 4.** Six Construction Keys

5. Two Construction Control Keys
6. Two Permanent Control Keys

2.11 HARDWARE GROUPS –

PART 3 - Hardware Group No. 01

PART 4 - For use on Door #(s):

103 ELECT/COMM

PART 5 - Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	CB179 4.5 X 4.5 NRP 	626	ST
1	EA	PASSAGE SET	9K3-0N14D S3 	619	BE
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS 	626	TR
1	EA	OH STOP	4423 	626	ABH
1	EA	GASKETING	1229A 	GREY	TRI

PART 6 - Hardware Group No. 02

PART 7 - For use on Door #(s):

E102 FUTURE STORAGE

PART 8 - Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	CB199 4.5 X 4.5 NRP 	626	ST
1	EA	LOCKSET	9K3-7AB14D S3 PATD 	619	BE
1	EA	SURFACE CLOSER	QDC115	689	STH
1	EA	OH STOP	1023 	626	ABH
1	EA	DOOR SWEEP	200NA		PE
1	EA	SADDLE THRESHOLD	425		PE
1	EA	GASKETING	127N 	GREY	PE

PART 9 - Hardware Group No. 03

PART 10 - For use on Door #(s):

E100 PUMP ROOM

PART 11 - Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	CB199 4.5 X 4.5 NRP 	626	ST
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	EU MORTISE LOCK	9K3-XXX 	619	BE
1	EA	OH STOP	1023 	626	ABH
1	EA	RAIN DRIP	142AA	AA	ZER
2	EA	SURFACE CLOSER	QDC115	689	STH
1	EA	ASTRAGAL	383AA	AA	ZER
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	DOOR SWEEP	200NA		PE
1	EA	SADDLE THRESHOLD	425		PE
1	EA	GASKETING	127N 	GREY	PE

PART 12 - EXECUTION

12.1 PREPARATION

- A. Examination: Examine Doors, Frames, and related items for conditions that would prevent the proper application and operation of the Doors and Finish Hardware. Do not proceed until defects are corrected.
- B. Provide solid blocking for wall mounted components.
- C. Fasteners: Check conditions and use fastening devices as needed to securely anchor the hardware as per manufacturer's published templates. Self-tapping sheet metal screws are not acceptable.

12.2 INSTALLATION

- A. Mounting Heights: Mount units at heights as recommended in "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames (2001)" by Doors and Hardware Institute, except as indicated below. Products not specifically covered shall be installed in accordance with the manufacturer templates and instructions.

Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
2. Custom Steel Doors and Frames: HMMA 831.
3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B.

1. Hinges:
 - a. Top Hinge: 7-1/4", Top of frame rabbet to centerline of hinge.
 - b. Bottom Hinge: 12-1/4", Bottom of Frame to centerline of hinge
 - c. Intermediate Hinges: Centered, equal spacing between top and bottom hinges.
2. Mortise Lock Strikes: 40", bottom of frame to centerline of Strike.
3. Push and Pull Plates: 42", bottom of frame to centerline of plate.

- C.** Install each hardware item in compliance with manufacturer's instructions.
1. Cutting and Fitting: Wherever cutting and fitting are required to install hardware surfaces which will be painted or finished at a later time, install each item completely and then remove and store in a secure place. After completion of the finishes, re-install each item.
 2. Finishes: Do not install surface-mounted items until finishes have been completed on the substrate.
 3. Install Fire Rated Openings to comply with NFPA 80.
 4. Door shall swing to the maximum degree that project conditions will allow. The swings indicated on the floor plan are intended to depict direction and do not indicate full degree of opening.
 5. Trim Exit Devices to provide 1-1/2" clearance between End Cap and hinge jamb stop face and/or stop applied weatherstrip.
 6. Door Closers shall be located to allow maximum degree of opening that project conditions will allow. Door Closers shall not be used to stop the door, except for models equipped with an integral stop-on-the-arm feature.
 7. Overhead Stops: Furnish Overhead Stop and Holders with maximum degree of opening that project conditions will allow.
 8. Wall Stops: Locate Wall Stops intended for use with Lever Handle Locksets and Exit Devices at the Centerline of the Spindle or Pull.
 9. Floor Stops: Locate Floor Stops at maximum degree of opening that project conditions will allow. Do not locate Floor Stops where they create a hazardous condition. Stops should be located no more than 1/3 Door width from the latch edge of the Door.
 10. Thresholds: Set Thresholds in a bed of butyl rubber sealant in conformance with Division 7 requirements. Remove excess sealant. Caulk exterior threshold edges and joints to exclude moisture. Do not attach Thresholds that provide transition from concrete to wood floors on wood floor side of opening.
 11. Weatherstrip: Mount and adjust Rigid Jamb Weatherstrip prior to mounting Parallel Arm Door Closers. Weatherstrip shall be installed to provide a continuous seal at head and jambs. Do not notch Weatherstrip for Door Closer shoe. Provide Parallel Arm 5th hole spacer of increased thickness to allow for revised location.
 12. Mount Astragals on the pull side of active leaf for out-swinging applications, inactive leaf for in-swinging.
 13. Smoke Gasket
 - a. Completely clean frame and apply gasket in accordance with manufacturer's instructions.
 - b. Apply Gasket to Door rabbet of hinge jamb and to stop face of Strike Jamb and Headers, as described in Pemko's installation instructions for alternative positioning.
- D.** Adjust and check each operating item of hardware and each door to insure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly.

12.3 ADJUSTMENT

- A.** Wherever hardware installation is made more than one (1) month prior to acceptance or occupancy, make a final check and adjustment of hardware during the week prior to acceptance or occupancy. Clean and lubricate operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- B.** Door Closer Adjustment: After mechanical systems have been balanced, adjust Door Closers to comply with following ICC/ANSI A117.1 requirements, as modified by International Building Code:

1. Closing Speed: Door Closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.
 2. Opening Force: The maximum force for pushing or pulling a door open shall be as follows: (these forces do not apply to the force required to retract latch bolts or disengage other devices securing the door.
 - a. Fire Doors: The minimum opening force allowable by the appropriate administrative authority.
 - b. Exterior Doors: 10 lbf (44.4 N).
 - c. Interior Doors: 5.0 lbf (22.2 N).
 - d. Automatic Doors: Comply with ICC/ANSI A117.1, 404.3.
 3. Adjust backcheck to prevent damage to the closer, hardware, door and frame, and wall.
- C. Instruct Owner's Personnel in proper adjustment and maintenance of hardware and hardware finishes

END OF SECTION 08 71 00