

**ADDENDUM NO. 1**

**CITY OF ABERDEEN**

**NORTHEAST TANK ALTITUDE VALVE VAULT - CONTRACT NO. 21-02**

In accordance with the requirements of the "Instructions to Bidders," this Addendum shall be attached to and become a part of the Contract Documents for the above referenced project.

Concerning the Drawings

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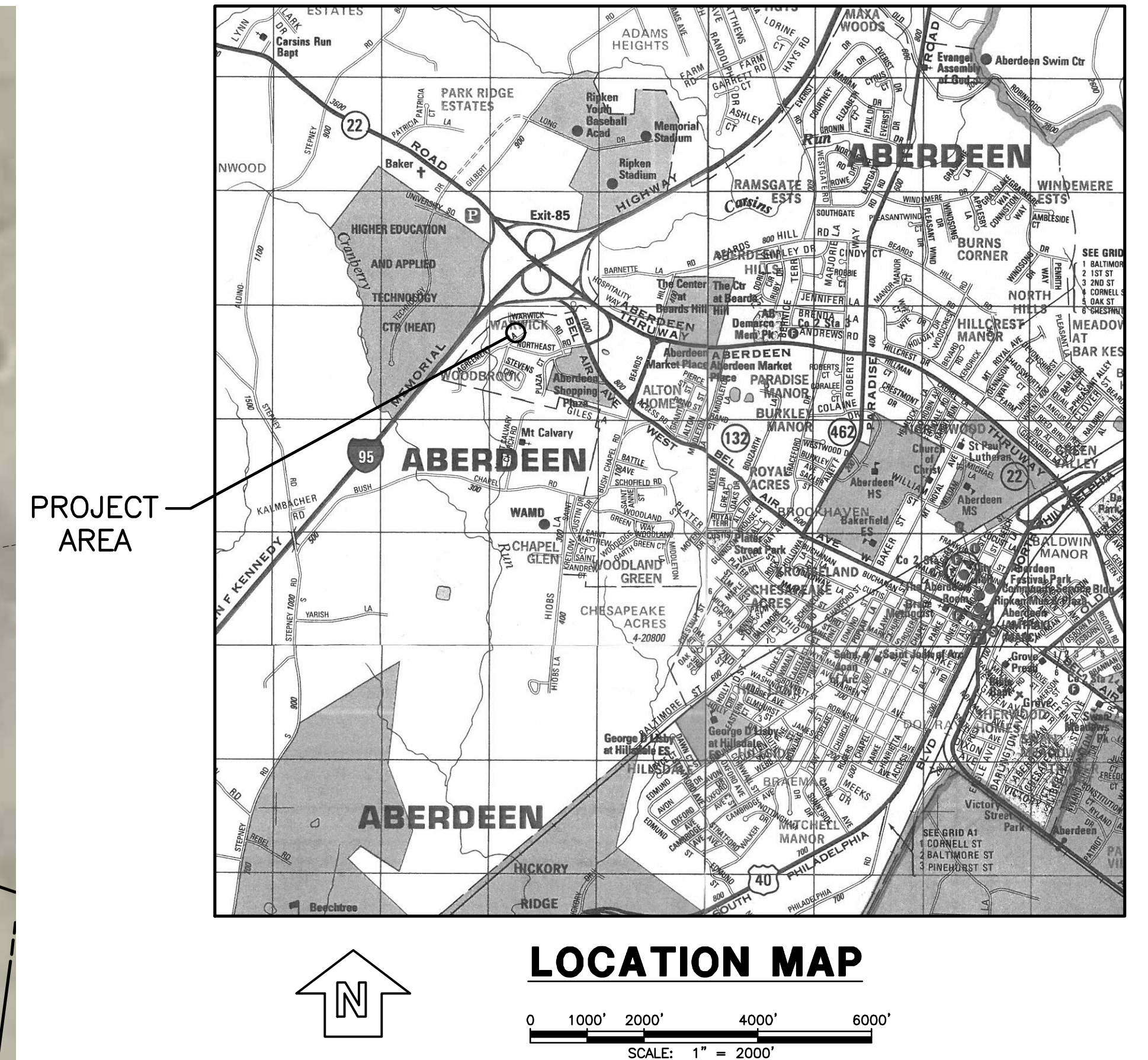
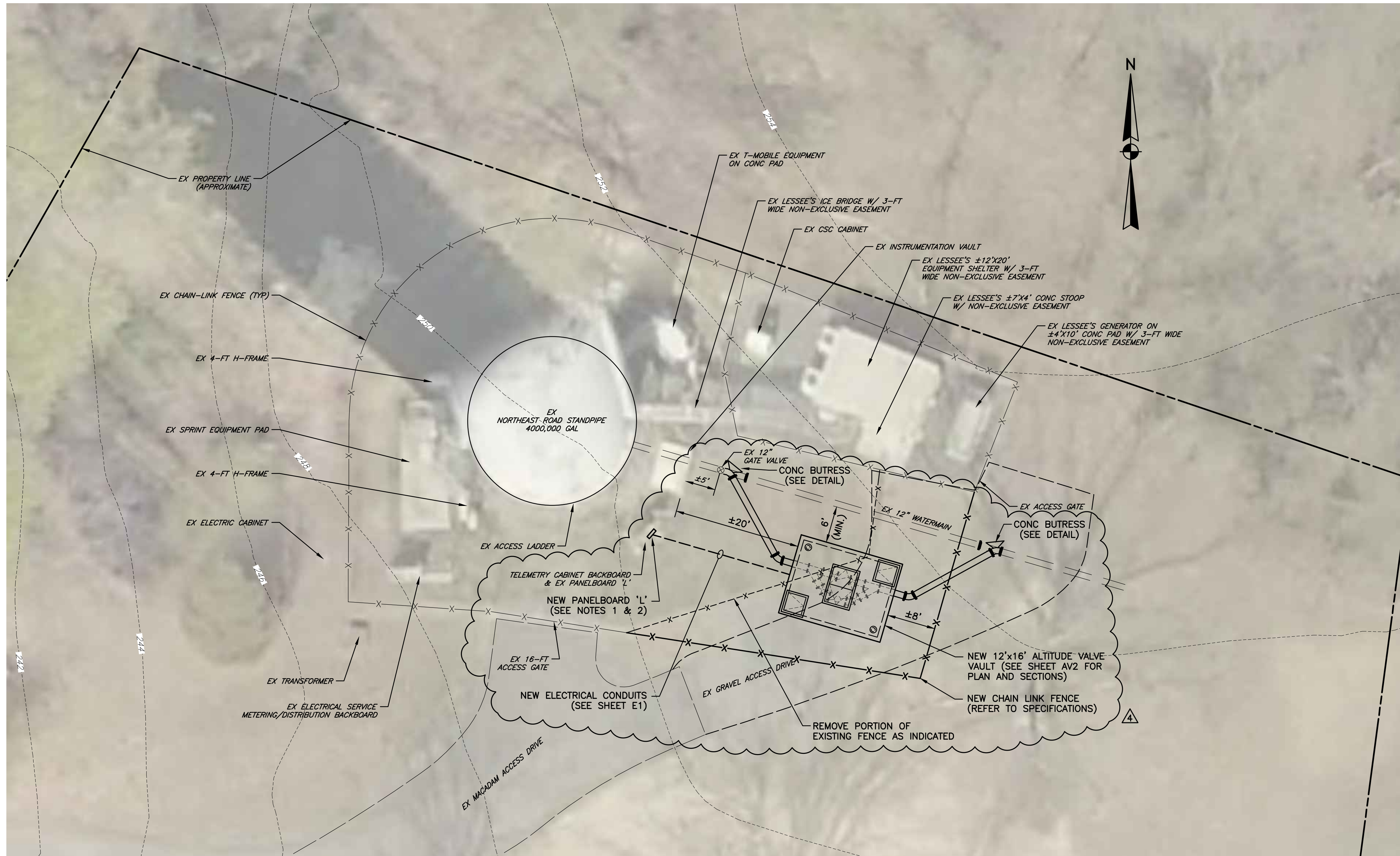
- (A) Drawings AV1, AV2 and E1: **REMOVE** and **REPLACE** with revised drawings attached to this ADDENDUM No. 1.

Miscellaneous

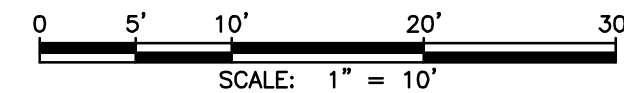
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- (A) The minutes and list of attendees at the pre-bid meeting held on August 25, 2020 are attached to and made part of this ADDENDUM No. 1.

**BIDDERS MUST ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPECIFIED PLACE ON THE BID FORM. THE ABSENCE OF THIS ACKNOWLEDGMENT WILL BE CAUSE FOR REJECTION OF THE BID.**



**NORTHEAST TANK SITE**

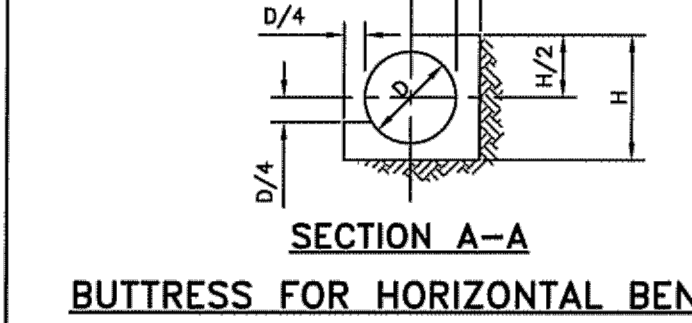


**NOTES:**

- EXISTING PANELBOARD 'L' TO BE REMOVED AND REPLACED WITH NEW 120/240V, 1Ø-3W, 3Ø-SPACE, N3R PANELBOARD. EXISTING BRANCH CIRCUITS TO BE RECONNECTED TO NEW PANELBOARD BRANCH BREAKERS. EXTEND AND/OR RELOCATE EXISTING BRANCH CIRCUITS AS NECESSARY TO CONNECT INTO NEW PANELBOARD. EXISTING WP/GFI RECEPTACLE AND (2) PHOTOCONTROLS, PRESENTLY INSTALLED AT EXISTING PANELBOARD, SHALL BE REINSTALLED AND CONNECTED TO NEW PANELBOARD IN SIMILAR FASHION. SEE PANEL SCHEDULE ON DWG E1.
- PROVIDE SURGE PROTECTION DEVICE (SPD) ADJACENT TO PANELBOARD 'L', MOUNTED TO EXIST BACKBOARD. WIRE PER PANEL SCHEDULE ON DWG E1.

**BUTRESS DIMENSIONS FOR LOWER HORIZONTAL BENDS (INCHES)**

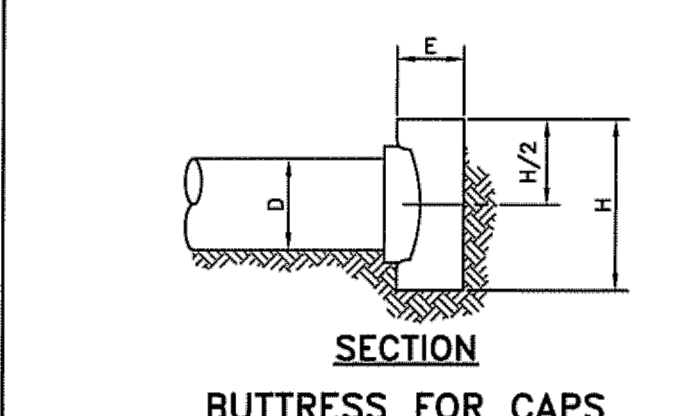
BEND	D	6	8	12	16
1/8 (45°)	W	15	25	36	47
	H	12	20	29	38
1/16 (22 1/2°)	W	13	18	26	33
	H	11	14	21	27
1/32 (11 1/4°)	W	10	13	19	24
	H	8	10	15	19



**NOTE:**  
1. CARRY CONCRETE TO UNDISTURBED EARTH.

**BUTRESS DIMENSIONS FOR CAPS (INCHES)**

	D	6	8	12	16
E	6	8	10	12	
H	19	25	38	50	
W	15	20	30.5	40	



**NOTES:**

- ALL CONCRETE TO BE MIX NO. 2.
- BUTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3000 PSF AND STATIC PRESSURE OF 200 PSI. WHERE PRESSURE EXCEEDS 200 PSI OR WHERE SOIL BEARING PRESSURE IS LESS THAN 3000 PSF SPECIAL BUTRESS DESIGN IS REQUIRED.
- MINOR VARIATION IN BUTRESS SHAPE WILL BE PERMITTED, PROVIDED THE MINIMUM BEARING AGAINST SOLID GROUND IS MAINTAINED.
- A SPECIAL DESIGN WILL BE REQUIRED FOR PIPELINES GREATER THAN 16 INCH IN DIAMETER AND ALL 90° BENDS.

HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS  
STANDARD WATER DETAILS  
BUTRESSES FOR CAPS AND HORIZONTAL BENDS  
ISSUED 07/08  
REVISED 11/09/14  
PLATE W-10

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34458, EXPIRATION DATE: 6/20/2021



NO	DESCRIPTION	DATE	BY	APP.
4	REVISIONS PER ADDENDUM 1 (REV'D CONNECTION TO EX MAIN)	8/27/20	BTP	JLD
3	ISSUED FOR BIDDING PURPOSES	8/18/20	BTP	JLD
2	90% RESUBMISSION TO CLIENT (SPLIT CONTRACTS)	12/19/19	BTP	JLD
1	60% SUBMISSION TO CLIENT	7/26/18	BTP	JLD
NO	REVISIONS			

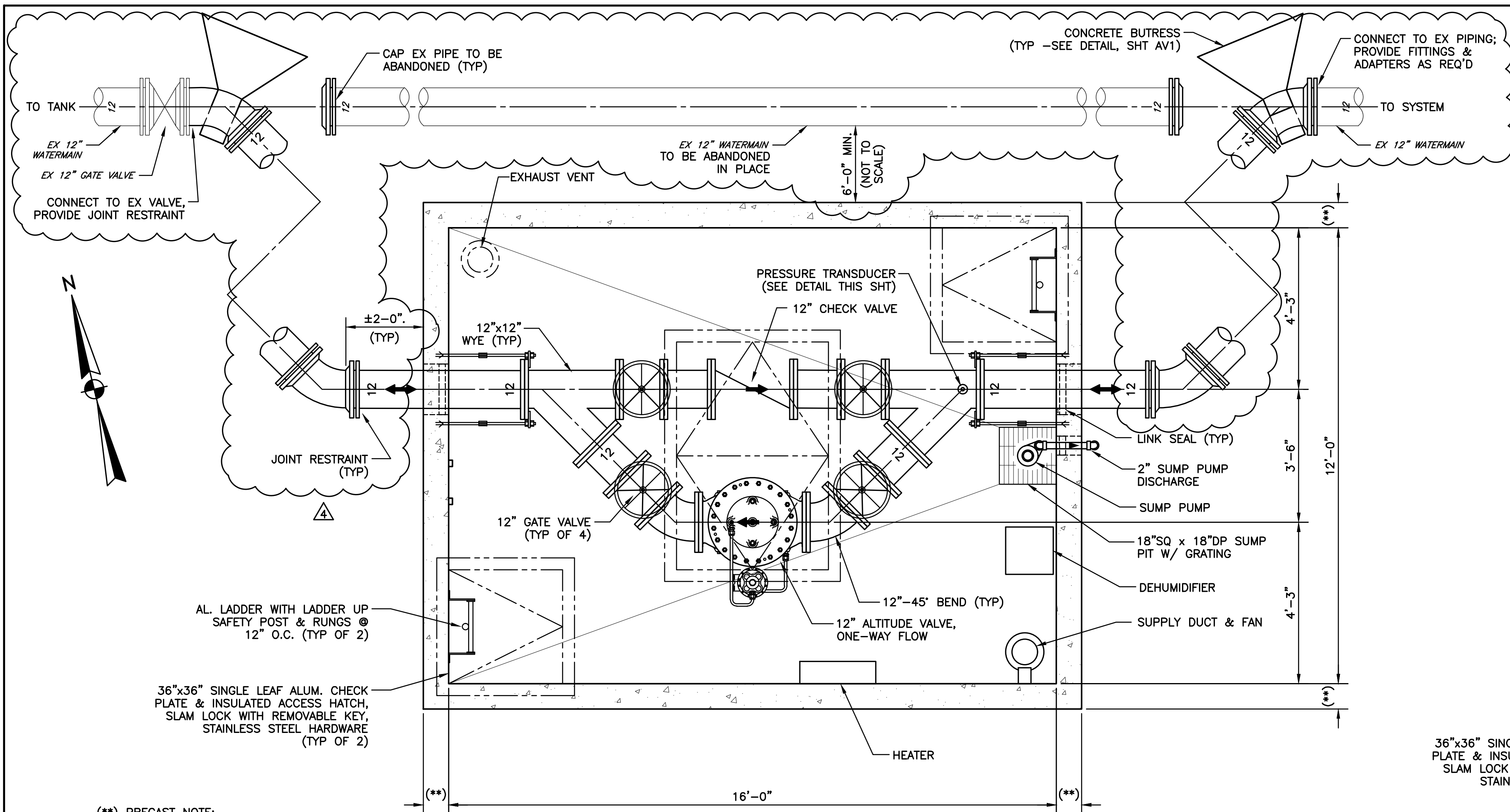
DESIGNED	CADD	SCALE
J. DENNIS	SAM	AS SHOWN
CHECKED	APPROVED	APPROVED

**ARRG**  
108 West Airport Road  
Lititz, Pennsylvania 17543  
Tel 717.569.7021

CITY OF ABERDEEN DEPARTMENT OF PUBLIC WORKS  
ABERDEEN, MARYLAND  
NORTHEAST TANK  
ALTITUDE VALVE VAULT

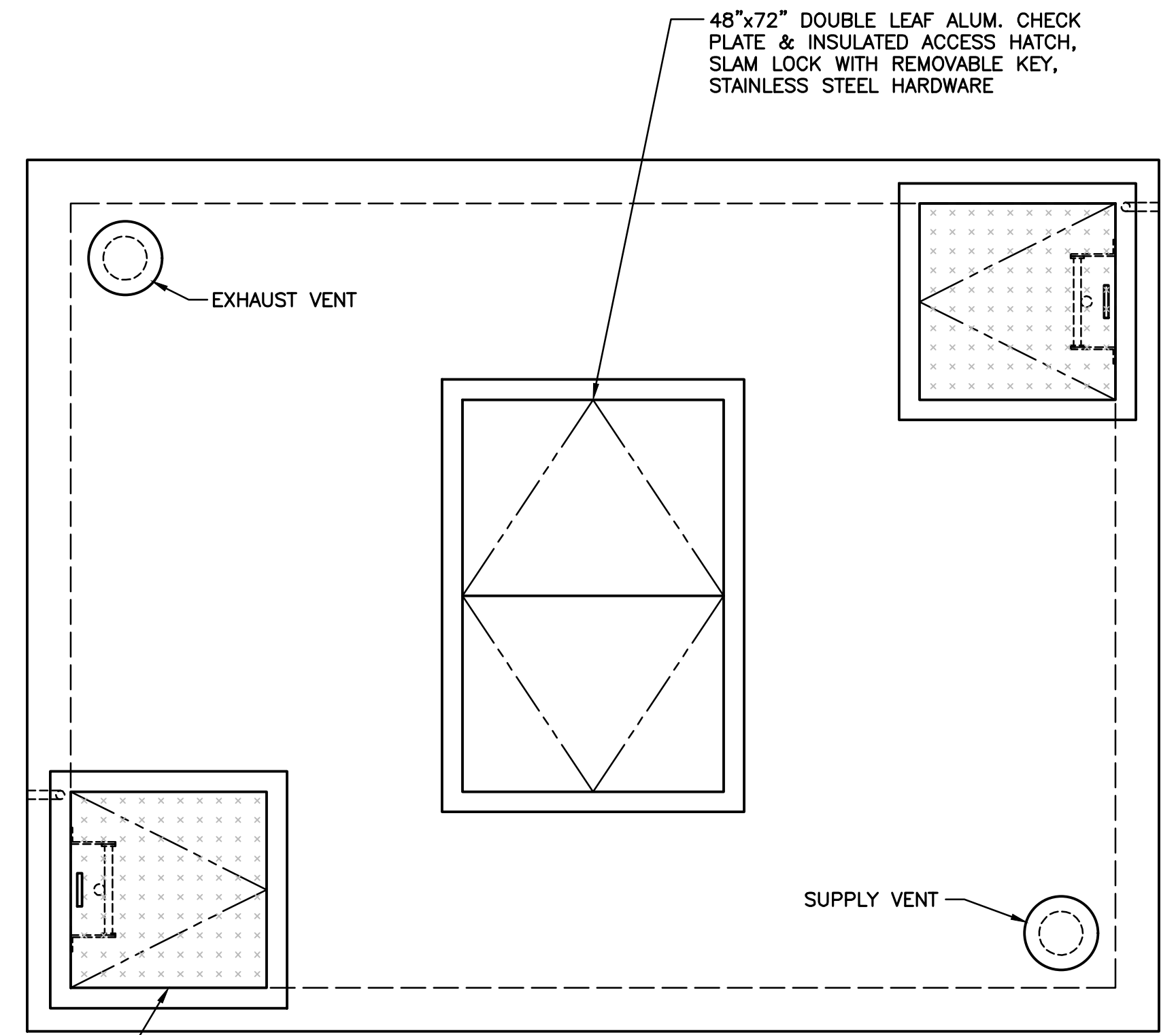
TITLE  
SITE PLAN

CONTRACT NO.	SHEET NO.
21-02	AV1
ARRO PROJECT NO.	
05233.24B	
DATE	
AUGUST 2020	3 OF 5



**VAULT PLAN**

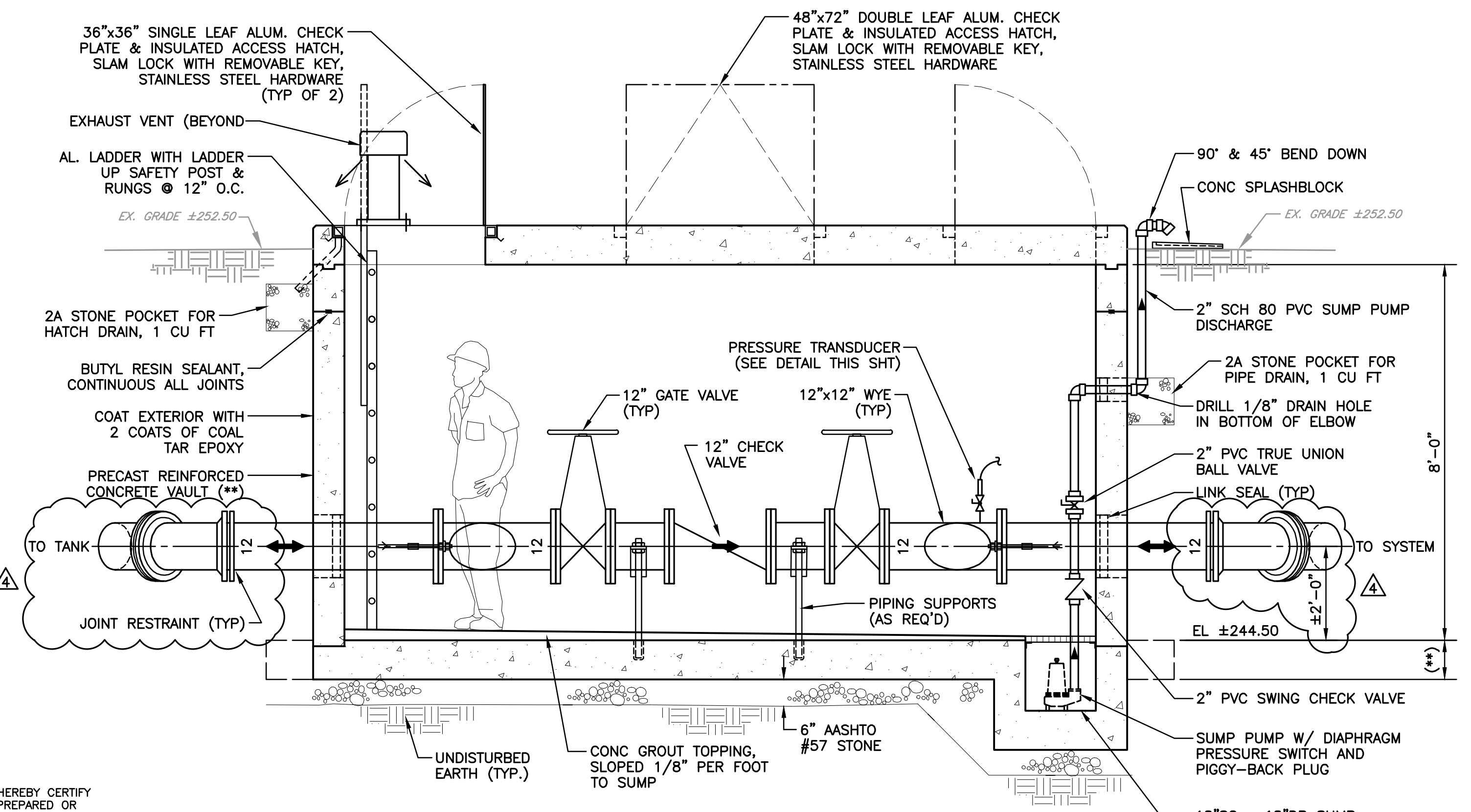
SCALE: 1/2"=1'-0"



**TOP VIEW**

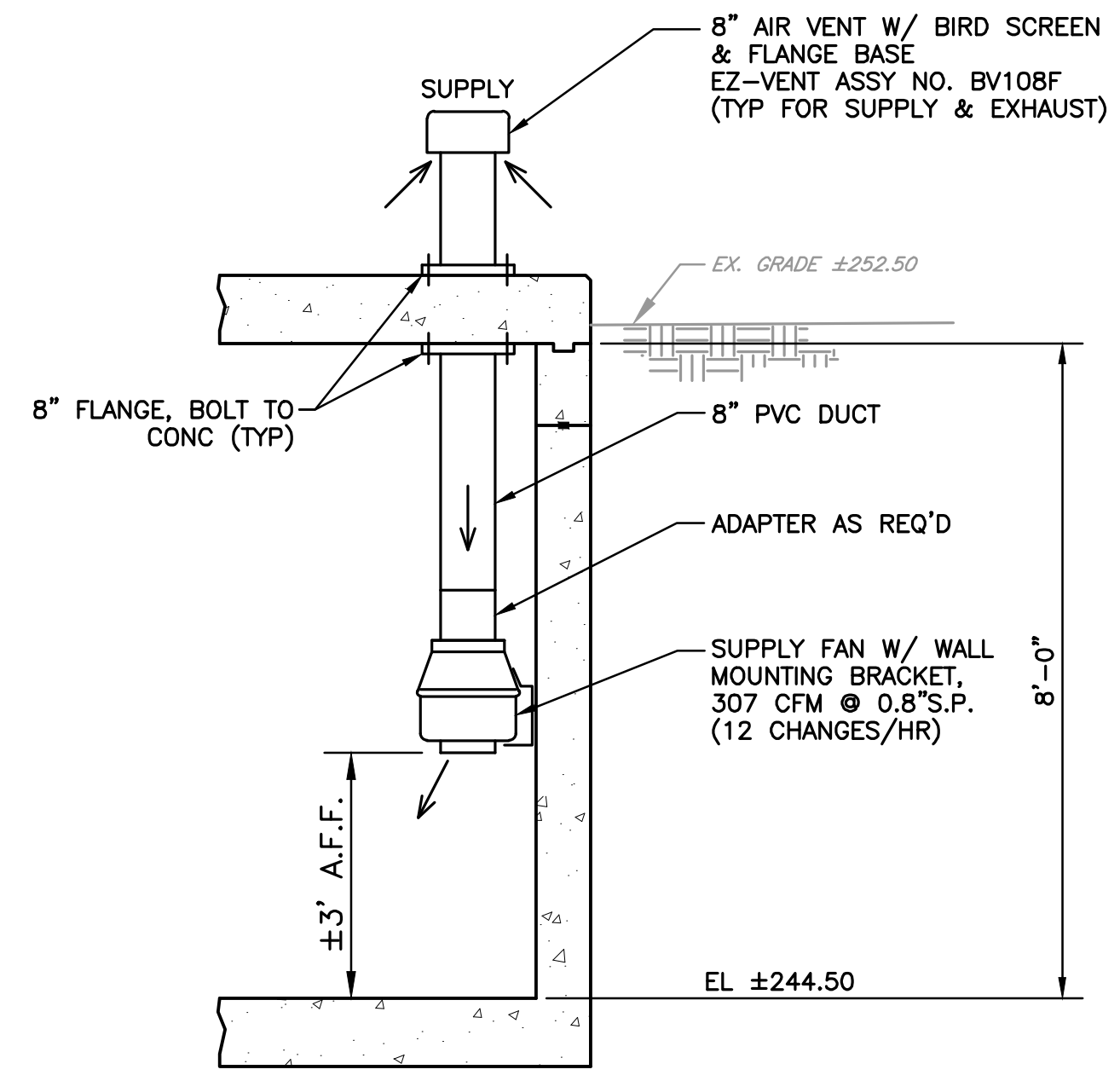
SCALE: 1/2"=1'-0"

(\*\*) PRECAST NOTE:  
ALL STEEL REINFORCING, WALLS, LID, BOTTOM THICKNESS AND ANTI-FLOATATION SLAB OF VAULT ARE TO BE DESIGNED BY VAULT MANUFACTURER.



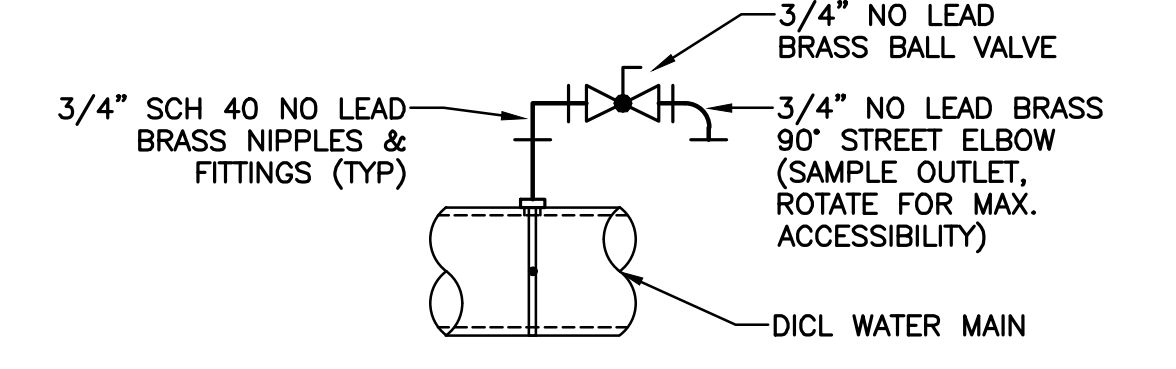
**VAULT SECTION**

SCALE: 1/2"=1'-0"



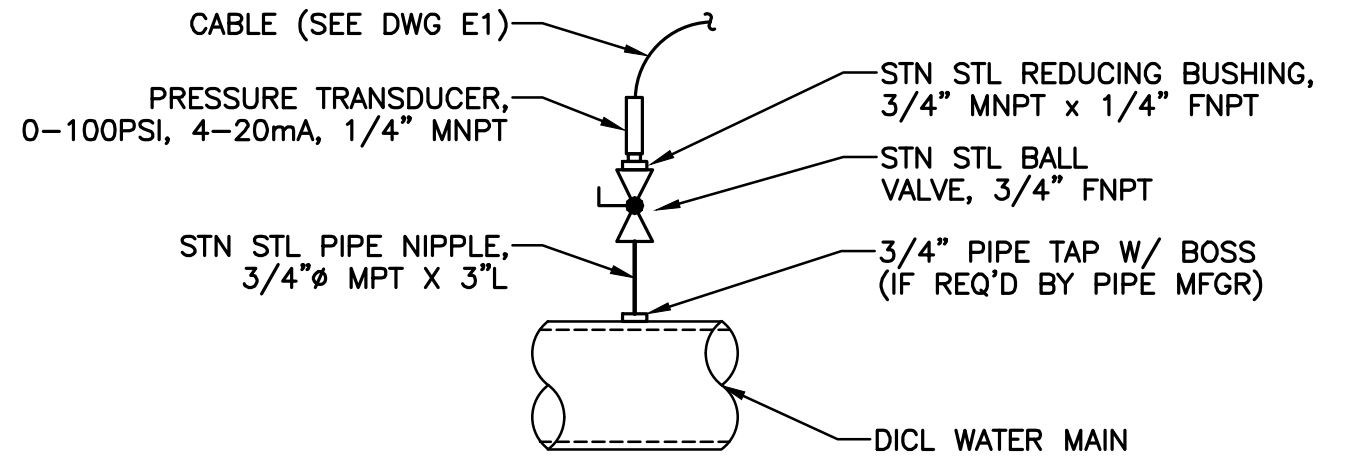
**SUPPLY VENT AND FAN DETAIL**

NO SCALE



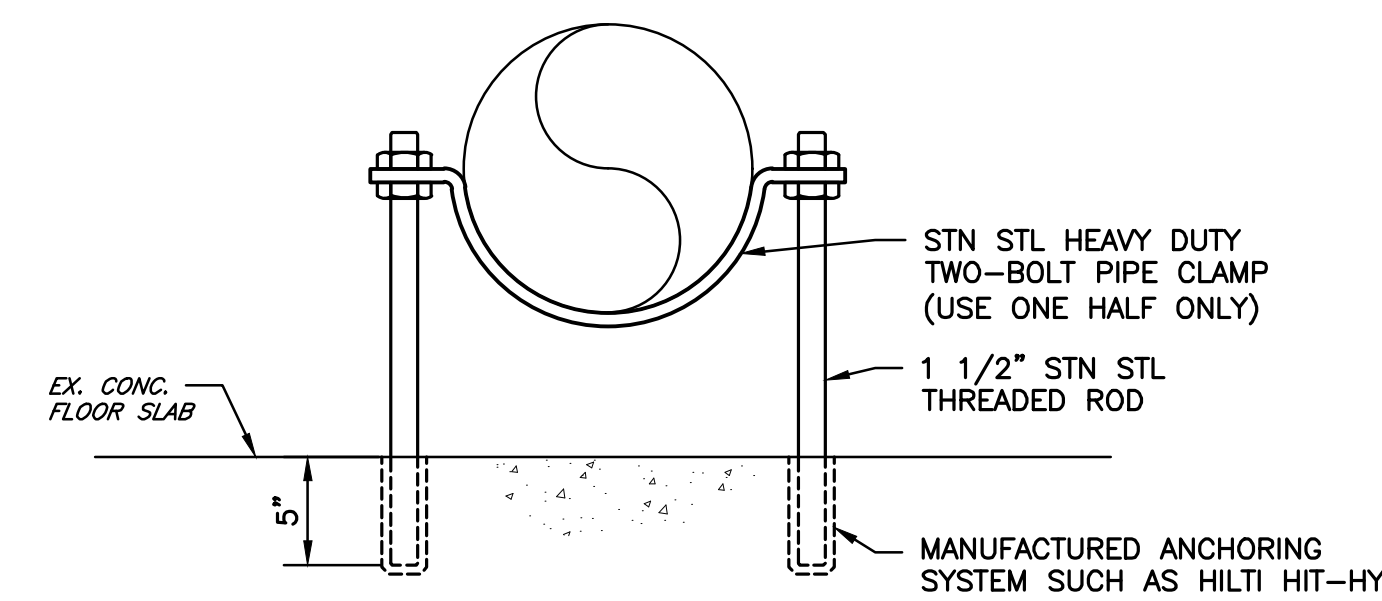
**SAMPLE TAP DETAIL**

NO SCALE



**PRESSURE TRANSDUCER DETAIL**

NO SCALE



**FLOOR PIPE SUPPORT DETAIL**

NO SCALE

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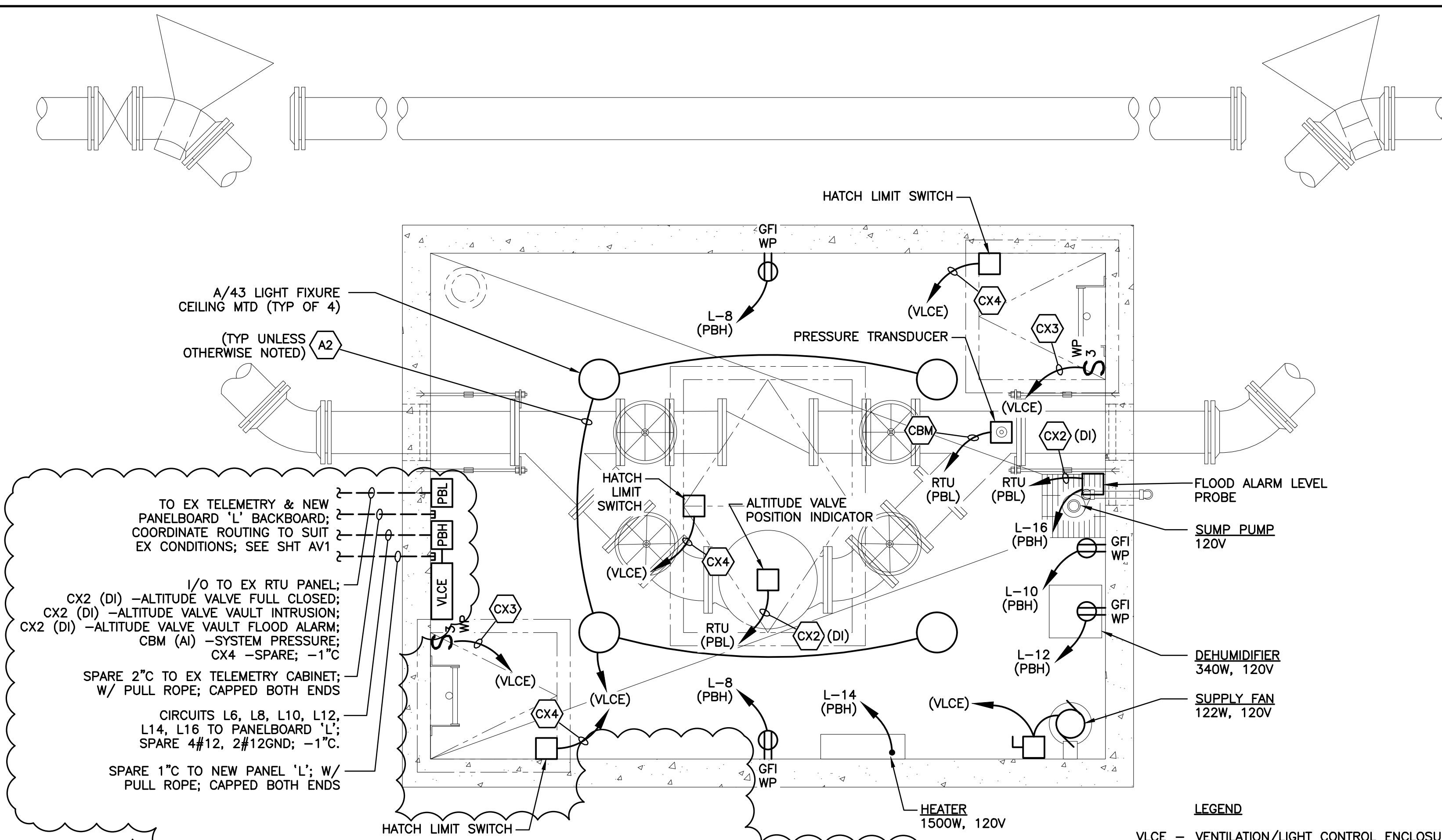
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CITY OF ABERDEEN DEPARTMENT OF PUBLIC WORKS  
ABERDEEN, MARYLAND  
**NORTHEAST TANK  
ALTITUDE VALVE VAULT**

TITLE  
**PLAN, SECTION AND DETAILS**

CONTRACT NO.	SHEET NO.
21-02	AV2
ARRO PROJECT NO. 05233.24B	4 OF 5
DATE AUGUST 2020	



**ELECTRICAL VAULT PLAN**  
SCALE: 1/2"=1'-0"

TO EX TELEMETRY & NEW PANELBOARD 'L' BACKBOARD; COORDINATE ROUTING TO SUIT EX CONDITIONS; SEE SHT AV1

I/O TO EX RTU PANEL:  
CX2 (DI) -ALTITUDE VALVE FULL CLOSED;  
CX2 (DI) -ALTITUDE VALVE VAULT INTRUSION;  
CX2 (DI) -ALTITUDE VALVE VAULT FLOOD ALARM;  
CBM (AI) -SYSTEM PRESSURE;  
CX4 -SPARE; -1°C

SPARE 2°C TO EX TELEMETRY CABINET; W/ PULL ROPE; CAPPED BOTH ENDS

CIRCUITS L6, L8, L10, L12, L14, L16 TO PANELBOARD 'L'; SPARE 4#12, 2#12GND; -1°C

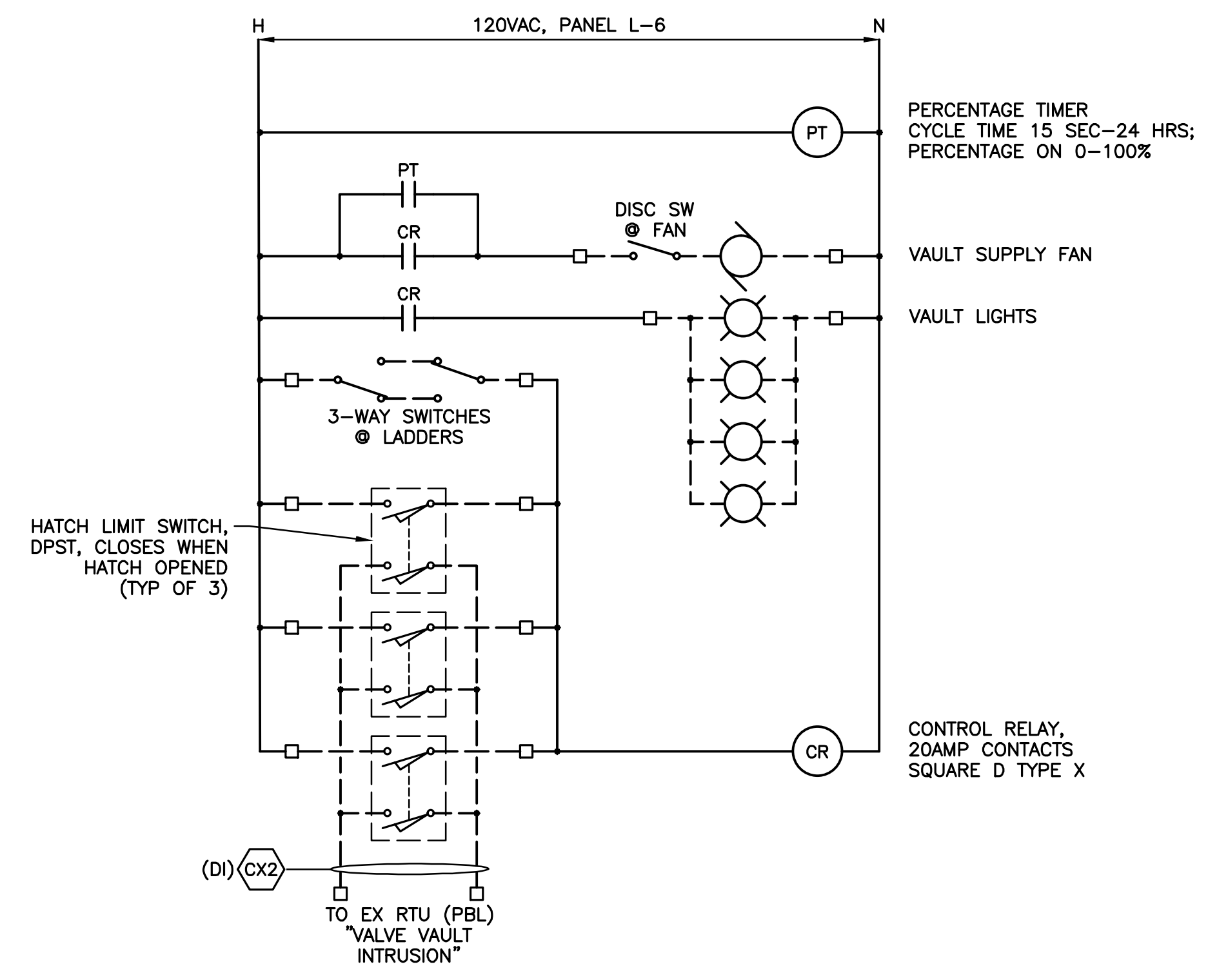
SPARE 1°C TO NEW PANEL 'L'; W/ PULL ROPE; CAPPED BOTH ENDS

**LEGEND**

VLCE - VENTILATION/LIGHT CONTROL ENCLOSURE (SEE WIRING DIAGRAM)

PBH - N4X PULLBOX PBH W/ TERMINAL BLOCK (POWER WIRING-120V)

PBL - N4X PULLBOX PBL W/ TERMINAL BLOCK (ANALOG/DI WIRING-24VDC)



**NOTES:**

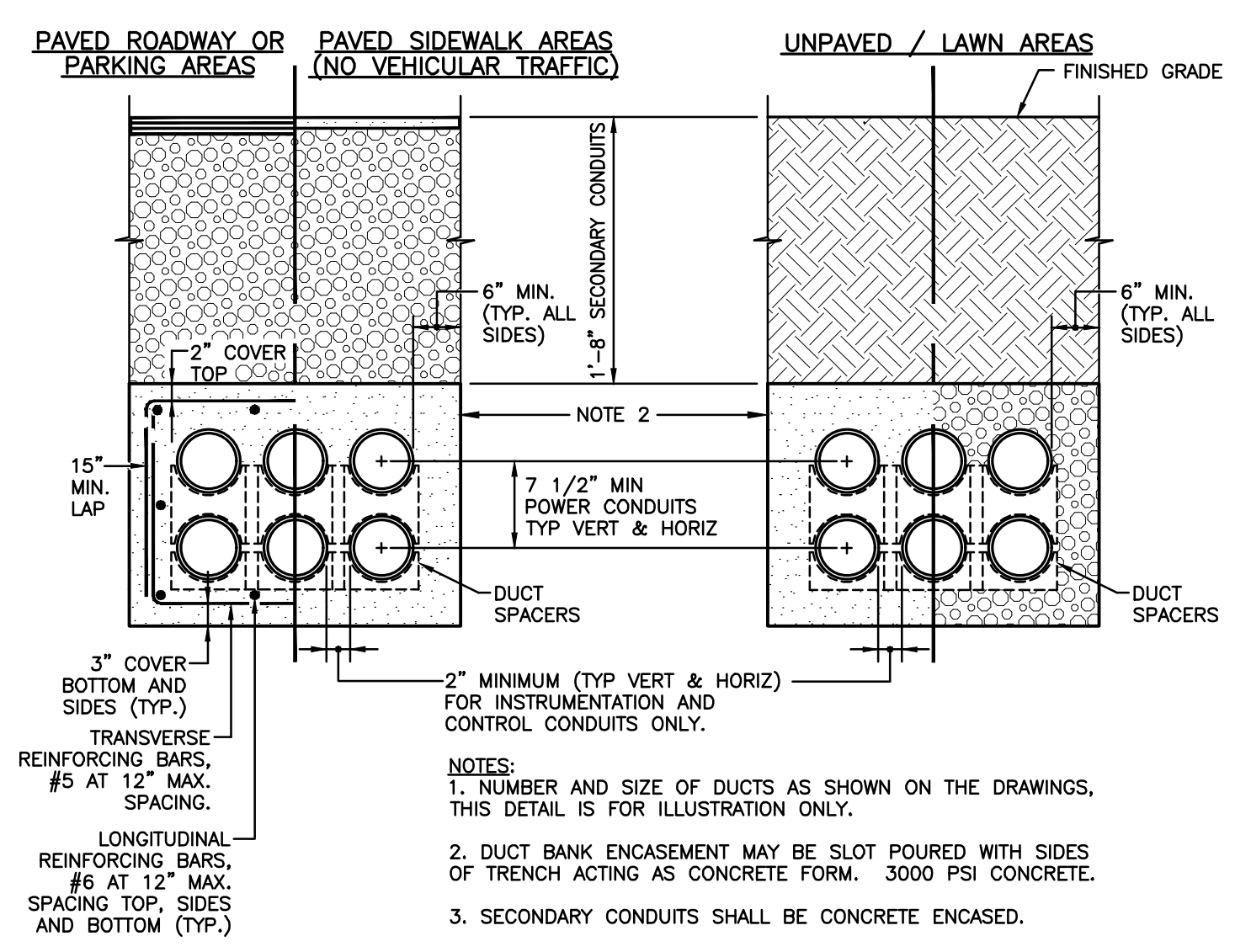
- PERCENTAGE TIMER, CONTROL RELAY AND TERMINAL BLOCKS TO BE INSTALLED IN NEMA 4X HINGED COVER ENCLOSURE, WITH INNER MOUNTING PANEL, SIZE AS REQUIRED, MOUNTED WITHIN VALVE VAULT.
- MOUNT ENCLOSURE ON 1" STN STEEL OR HEAVY-GAUGE NON-METALLIC CHANNEL TO KEEP ENCLOSURES AWAY FROM WALL.

**VENTILATION/LIGHT CONTROL ENCLOSURE (VLCE) WIRING DIAGRAM**

LIGHTING FIXTURE SCHEDULE			
TYPE	VOLTS	DESCRIPTION	LAMPS
A/43	120V	ENCLOSED AND GASKETED LED ALUMINUM HOUSING, SEPARATE HINGED OPTICAL & ELECTRICAL COMPARTMENTS, GRAY POWDER POLYESTER PAINT FINISH, CORROSION RESISTANT, TRANSIENT VOLTAGE PROTECTION, TYPE V SQUARE OPTICS, SILICONE GASKET SEALS, CEILING MOUNT. HUBBELL INDUSTRIAL LIGHTING CAT.# KSL18LU-5K-5M-X-2-GR, OR EQUAL.	4400 LUMENS 5000K

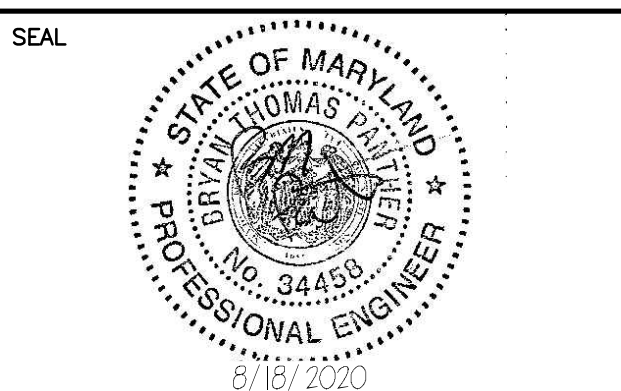
PANEL NO. L		BUSS: 100 AMPS		FEEDER: SEE SINGLE LINE		MAIN CB: 100 AMP			
VOLTS: 120/240		PHASE: 1		WIRE: 3		MOUNTING: SURFACE N3R		LOCATION: EQUIPMENT BACKBOARD	
DESCRIPTION	WIRE NO. KEY	LOAD KVA	CIRCUIT BREAKERS TRIP No.	PHASE	CIRCUIT BREAKERS TRIP	LOAD KVA	WIRE NO. KEY	DESCRIPTION	
SPD	A3	-	15	1	A	2	100	EX	MAIN CIRCUIT BREAKER
EXIST-RECEPT	EX	EX	20	5	A	6	20	0.30	A2
EXIST-VAULT LIGHT	EX	EX	20	7	B	8	20	0.36	A2
EXIST-INST OUTLET	EX	EX	20	9	A	10	20	1.00	A2
EXIST-LIGHT/RECEPT	EX	EX	20	11	B	12	20	0.40	A2
EXIST-FAA PHOTOCELL	EX	EX	20	13	A	14	20	1.50	A2
EXIST-LIGHT/RECEPT	EX	EX	20	15	B	16	15	0.10	A2
EXIST-SCADA	EX	EX	20	17	A	18	20	-	-
EXIST-FAA LIGHT/PHOTOCELL	EX	EX	20	19	B	20	20	-	-
SPARE	-	-	15	21	A	22	20	-	-
SPACE	-	-	-	23	B	24	-	-	-
	-	-	-	25	A	26	-	-	-
	-	-	-	27	B	28	-	-	-
	-	-	-	29	A	30	-	-	-

WIRE KEY		
WIRE TAG	CONDUCTORS	CONDUIT
A2	2 #12, #12 GND	3/4"
A3	3 #12, #12 GND	3/4"
CONTROL & SIGNAL CONDUCTORS		
CX#	14 AWG CONTROL- # = QTY OF CONDUCTORS + #12 GND	3/4"(MIN)
SX#	SHIELDED TWISTED PAIR- # = NUMBER OF PAIRS	3/4"(MIN)
CBM	CABLE BY MANUFACTURER OF PRESSURE TRANSDUCER	3/4"(MIN)



**TYPICAL DUCT BANK DETAIL**  
NO SCALE

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DESIGNED	CADD	SCALE
R. SWEITZER	DHT	AS SHOWN
CHECKED	APPROVED	APPROVED



ABERDEEN, MARYLAND

NORTHEAST TANK  
ALTITUDE VALVE VAULT

ELECTRICAL PLAN AND DETAILS

CONTRACT NO.	ARRO PROJECT NO.	DATE
21-02	05233.24B	AUGUST 2020

E1

5 OF 5

**CITY OF ABERDEEN**  
**CONTRACT 21-02**  
**Northeast Tank Altitude Valve Vault**  
**Held Tuesday, August 25, 2020 @ 10:00 AM**  
**ARRO Project No. 05233.24B**

**Pre Bid Meeting Minutes**

1. The project generally comprises of the installation of an altitude valve, vault, related piping and controls at the City Northeast Tank.
2. The bids will be received at City Hall until 2:00 PM prevailing time on Thursday, September 17, 2020.
3. Questions on the bid document will be accepted until 4:00 PM prevailing time on Thursday, September 3, 2020.
4. Technical questions shall be directed by email to Bryan Panther P.E., ARRO at [bryan.panther@arroconsulting.com](mailto:bryan.panther@arroconsulting.com)
5. Each bid must be accompanied by bid security in the form of a bid bond, certified check or bank check for 5% of the bid total.
6. Contract times; Substantial Completion and Final Completion dates will be set when the contractor is selected and the Agreement is signed. There are Liquidated Damages set at \$500.00 a calendar day.
7. The bid form is a lump sum cost with two-unit price contingency items, miscellaneous excavation and backfill.
8. Working hours are 7:00 AM to 5:00 PM. Any request to deviation from this will need to be made in writing for review by the City.
9. The selected contractor will need to submit shop drawings to the City's Public Works Department for their review and approval.
10. The selected contractor will need to coordinate work with the City's Public Works Department on all shutdowns. The tank may need to be drained therefore shutdowns will need to be scheduled a minimum of 2 weeks prior the schedule shutdown.
11. The selected contractor will need to coordinate the SCADA interface work with the City's SCADA contractor. These costs shall be included in the Bid. The contact info is also available is Specification Section 16961:  
Data Flow Systems, Inc.  
Mr. Lee White

Cell: 240.354.7024

12. There is an E & S Plan that has been submitted, reviewed and approved by Harford County. This plan will need to be followed throughout this project.
13. The selected contractor will need to create “red-line as-constructed” (hand drafted are acceptable) drawings and submit them to them to the City for their review and approval.
14. All testing (compaction, deflection, bacteria, pressure, etc.) is to be performed by the selected contractor and included in the bid.

### Questions

1. *How long can the tank be off line?* As per the City, the system can operate without this tank however a schedule must be provided, reviewed and approved by the City prior to any shutdowns.
2. *Who will be performing the bacteria testing on the tank?* As per the City, the City will chlorinate the tank and perform testing.
3. *What bacteria testing is the contractor required to perform?* The contractor will not be required to perform bacteria testing. The contractor will be required to disinfect the valve vault piping and any associated piping they install.
4. *How wide is the right-of-way to assess the site?* This is unknown at this time however, the City has stated they will clear the access drive to a clear 20’ width for truck and crane access. The City will also remove any trees and limbs necessary for access to set the valve vault.
5. *Must the existing fence be secured overnight?* No, however, the site must be safe at all times.
6. *What is the physical address of the site?* 204A Northeast Road, Aberdeen MD 21001.
7. *There is a reference in the specifications to use American Made Products, is this required for this project?* As per the City, no. All funding for the project is from the City.
8. *Are flow monitoring capabilities required for this project?* No.
9. *Is there any soil boring information available?* No.

10. *What are the loading requirements for the hatches?* HS 20 as described in Specification Section 03400.
11. *Is insulation required on the piping in the vault?* No.
12. *Can excavated material remain on the site?* Yes, if E&S controls are followed and the area will need to be leveled and seeded. If rock is encountered, rock will need to be removed.

**CITY OF ABERDEEN**  
**CONTRACT 21-02**  
**Northeast Tank Altitude Valve Vault**  
**Tuesday, August 25, 2020 @ 10:00 AM**  
**ARRO Project No. 05233.24B**

**Pre-Bid Sign-in Sheet**

NAME	COMPANY	PHONE	EMAIL
Jimmy Dennis Engineering Specialist	ARRO Consulting, Inc.	(717) 560-6014	<a href="mailto:jimmy.dennis@arroconsulting.com">jimmy.dennis@arroconsulting.com</a>
ANDY HEISEY	HEISEY MECHANICAL	717 684 9551	AHEISEY@HEISEYMECHANICAL.COM
Gregory Walsh	Johnston Construction	717-292-3606	gwalsh@jcc-ri.com
PARLEY HESS			
JIMMY DENNIS			
MARK CUTAS BOB JUNKIALS	MID-ATLANTIC UTILITIES, INC.	717-418-5111 CELL 717-258-1644 OFF	MARKC@MAUTILITIES.COM
Dane Daugherty	EMH ENVIRONMENTAL	410 487 9630	emh@emhenviro.com
Brod Grisse	Maverick Construction	443-262-6554	brodgr@maverick-construction.com
Peter Dacey	Civil Utility Const. Co.	443-504-9830	pdacey2@yahoo.com
Bill Lort	Goettner Const	443-643-6240	blort.goettner@comcast.net



