

ISABELLA COUNTY
ZONING BOARD OF APPEALS
Application for Essential Public Services

APPLICANT INFORMATION:

Name Nottawa Township, Kory Mindel, Twp. Supervisor Owner/Agent/Other (Circle One)

Address P.O. Box 189, Weidman, MI 48893

Phone (989) 506-6393

Fax _____

PROPERTY OWNER INFORMATION: (if different from applicant)

Name Same as above

Address _____

Phone _____

Fax _____

PROPERTY INFORMATION:

Address/Location 1974 N. Littlefield Road, Weidman, MI 48893 / SE. corner of Littlefield & Beal City Rd Intersection

Tax I.D. Number 11-029-10-002-00

Zoning District L-R

Township Nottawa

Section 29

Directions to property Project Site is on the East side of Littlefield Road approximately 150' South of Beal City Road

ATTACHMENTS: Please submit the following items with the application.

A Site Plan showing the following: Dimensions of property, location of roads, easements and driveways. The location and dimension of any existing buildings and/or structures; any unique natural features such as lakes, rivers, streams, wetlands, steep slopes. The location and dimensions of proposed building(s) and/or structures including setbacks to the front, side and rear lot lines.

A copy of the deed and/or accurate legal description of property.

In accordance with Section 3.13 Essential Public Services, the applicant shall provide supporting statements as to:

1. How the proposed development conforms harmoniously with the general architecture and plan of the district.
2. How the advantage of the proposed locations is not outweighed by the detriment to the locality.
3. How a different suitable location is not readily available.

Kory Mindel
Signature of Applicant

7-9-24
Date

Optional: I hereby grant permission for members of the Isabella County Zoning Board of Appeals and Zoning Administrator to enter the above described property for the purposes of gathering information related to this application.

Kory Mindel
Signature of Applicant

7-9-24
Date

OFFICE USE ONLY

File # _____

Fee \$175.00

Date Received _____

Received by _____

Check Number _____

Receipt Number _____

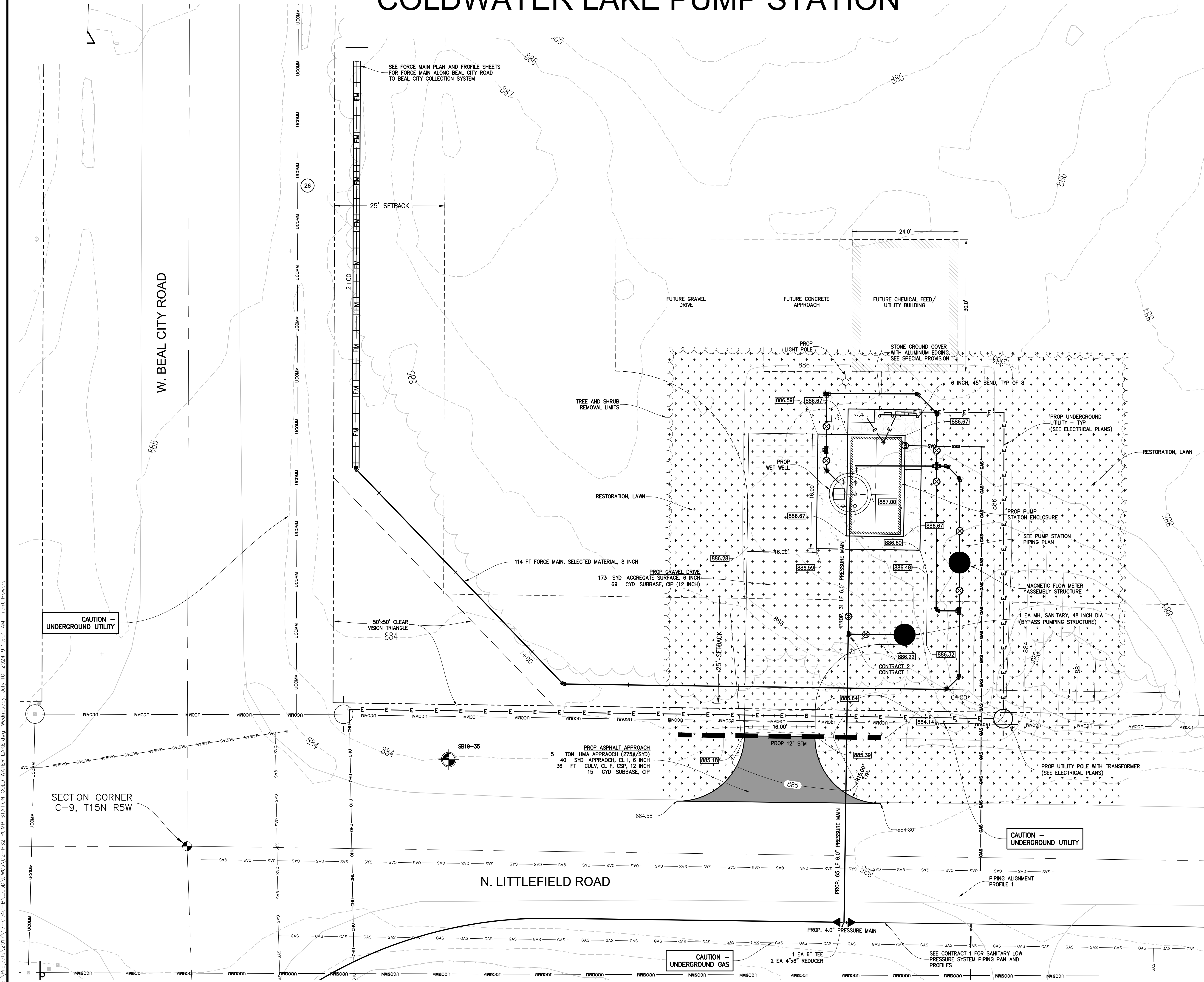
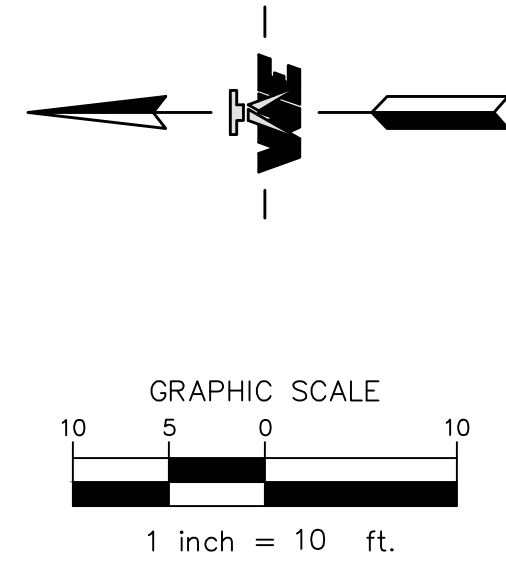
Date: June 26, 2024

Subject: Attachment for Application for Essential Public Services
Coldwater Lake Sewer Project

In accordance with Section 3.13 of the Isabella County Zoning Ordinance, Nottawa Township offers the following statements in regard to the proposed project:

1. How the proposed development conforms harmoniously with the general architecture and plan of the district.
 - The proposed Pump Station project site is just to the South of Beal City Road on Littlefield Road in the Northwest corner of a 40-acre parcel owned by the Township. The parcel is vacant and is wooded for the most part. The opposite side of the road has single family homes fronting on Littlefield Road. The proposed site improvements consist primarily of constructing a gravel driveway and a sanitary sewer pump station with an above ground fiberglass enclosure (22'x12') for the pumps with provisions for a future 24'x30' building.
 - The future building is proposed to be a stick framed building with corrugated steel siding and a shingled roof. A lot of the single family homes in the area have accessory buildings. This building will look similar to an accessory building you would expect to find for a single-family home in this setting and will be harmonious with the architecture in the area.
 - The Township is proposing to store sanitary sewer related parts/equipment in the building (pumps, spare parts, etc.). The building could also house pumps and a tank for an odor control system, if necessary, in the future. Maintenance technicians will be performing periodic inspections, maintenance and repairs on the site. None of the proposed activities will constitute a public health, safety, or welfare concern and can be performed harmoniously with the current and anticipated long term residential use in the area.
2. How the advantage of the proposed locations is not outweighed by the detriment to the locality.
 - This site was selected due to its location with respect to the proposed sewer project around Coldwater Lake. A low-pressure sewer system is proposed around the lake with the eventual outlet being the sewer system recently installed in Beal City. The proposed location for the pump station is on the route from Coldwater Lake to Beal City, making it an ideal location based on economics and ease of construction. It is also an ideal location since it is located on a large vacant parcel already owned by the Township. The proposed use will be harmonious with the surrounding area and is not seen as a potential detriment to the area.
3. How a different suitable location is not readily available.
 - For the reasons stated above, the proposed location is ideal. A different location would likely result in unnecessarily higher costs for the users in the district in addition to potentially being in an area less desirable for residents. There are many areas around the lake where the lots are very small with dense single-family housing. For these reasons, a different location should not be considered.

COLDWATER LAKE PUMP STATION



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REVISION	DATE	DRAWN	DESCRIPTION
1	3/14/2024	TAP	REVISIONS FOR EDR RESUBMITTAL

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 317 676-9200
Fax: 317 676-9396
http://www.wolverine.com

COLDWATER LAKE LOW PRESSURE SYSTEM-PUMP STATION-FORCE MAIN
TOWNSHIP OF NOTTAWA
ISABELLA COUNTY, MICHIGAN

COLDWATER LAKE PUMP STATION SITE PLAN

APPROVED
JCW

CHECKED
JCW

DRAWN
TAP

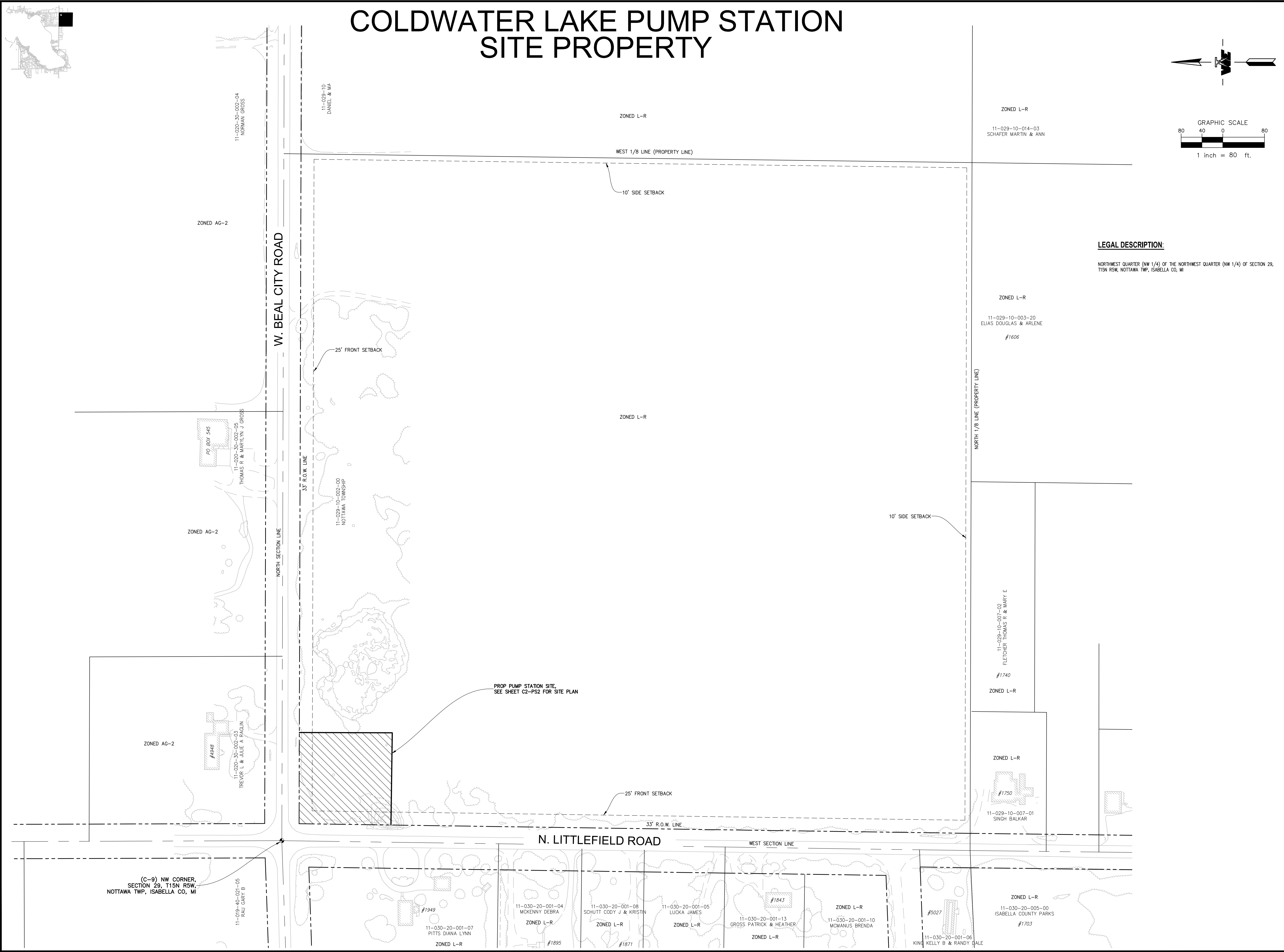
JOB NO.
17-0040-B

DATE
7/10/2024

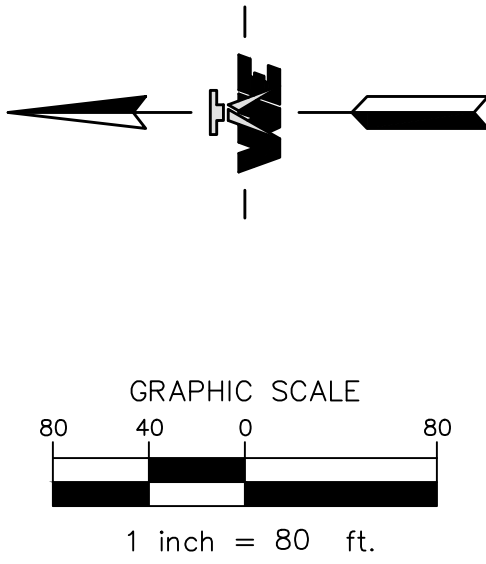
SCALE
1" = 10'

SHEET NO.
C2-PS2

S:\Projects\2017\17-0040-B\CADD\DWGs\C2-PS1 PUMP STATION COLD WATER LAKE SURVEY.dwg, Tuesday, May 14, 2024 10:49:37 AM, Trent Powers



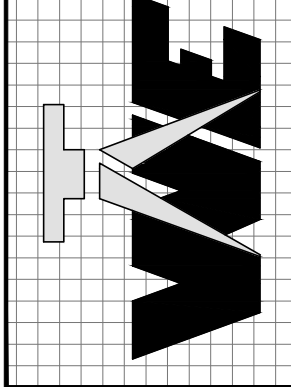
COLDWATER LAKE PUMP STATION SITE PROPERTY



LEGAL DESCRIPTION:
NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 29,
T15N R5W, NOTTAWA TWP, ISABELLA CO, MI

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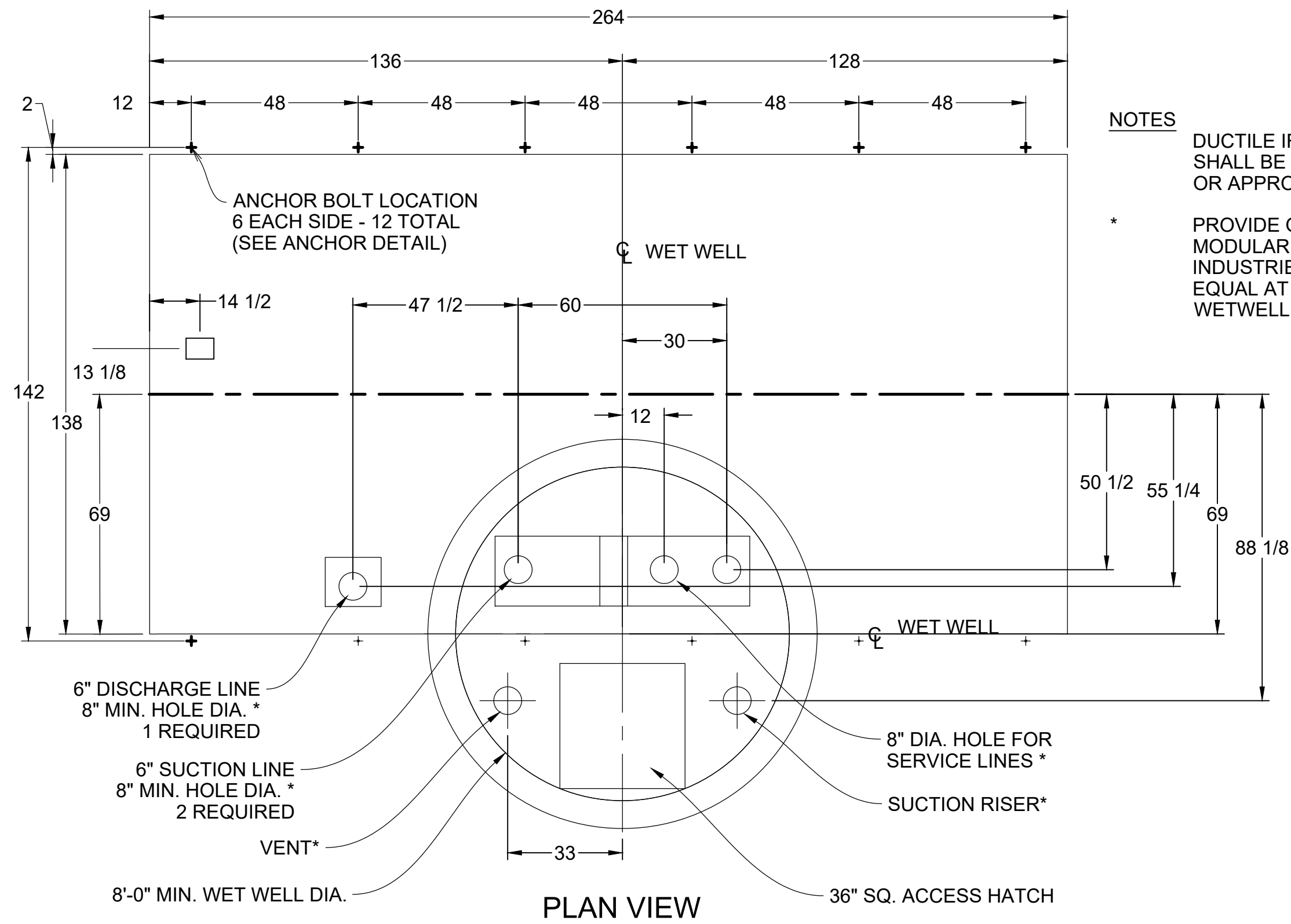
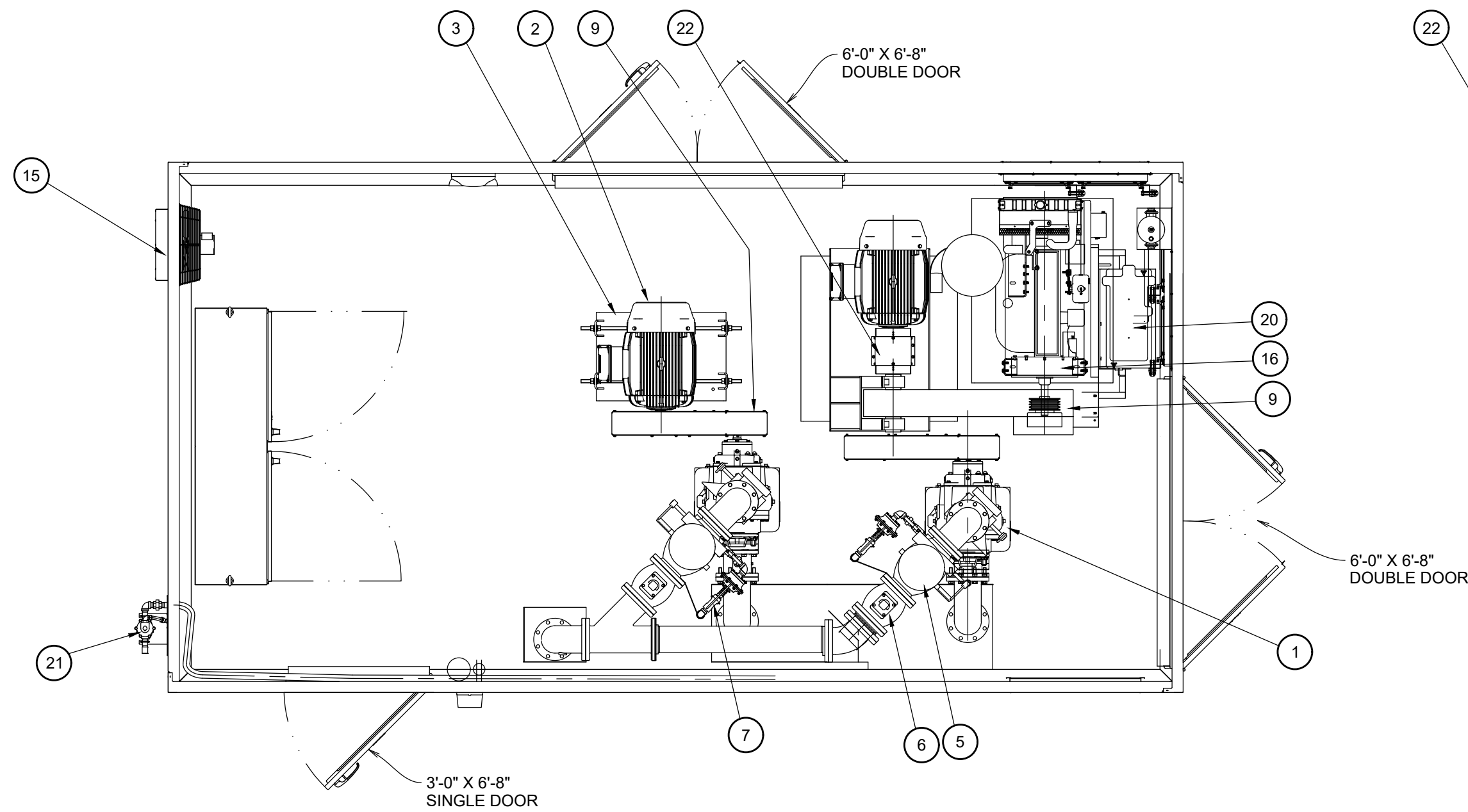
REVISION	DATE	DRAWN	DESCRIPTION
1	3/14/2024	TAP	REVISIONS FOR EGE RESUBMITTAL

WOLVERINE
Engineers & Surveyors, Inc.


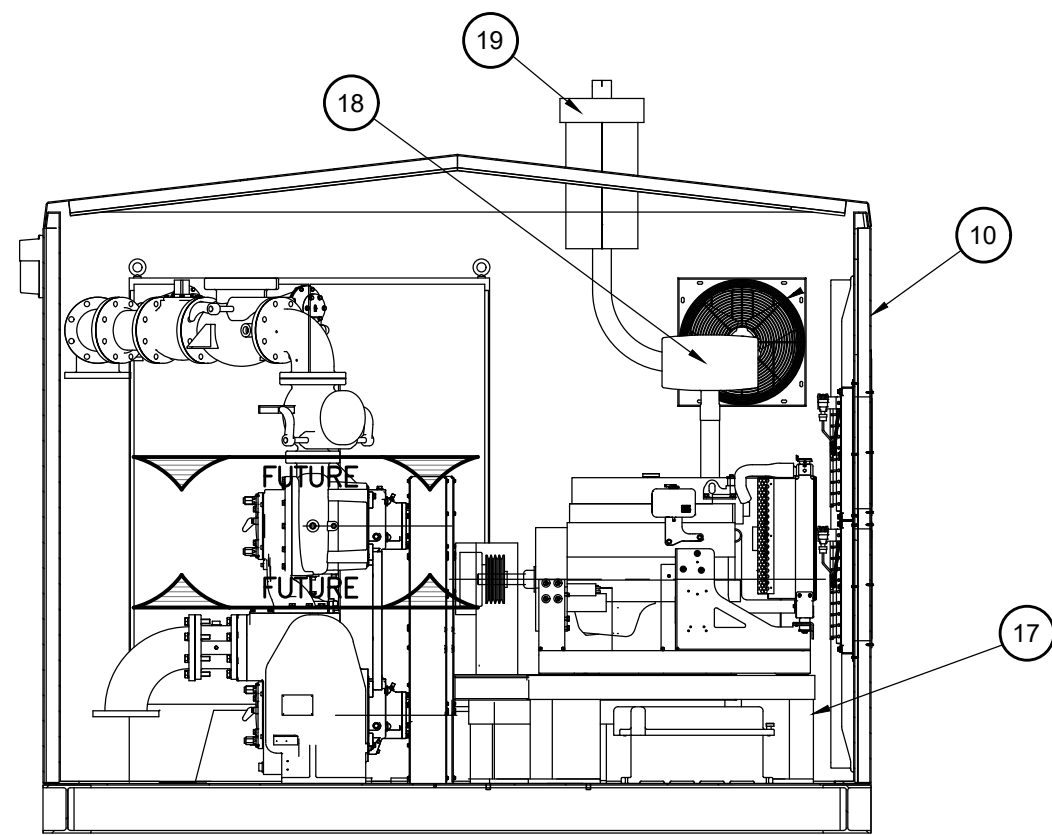
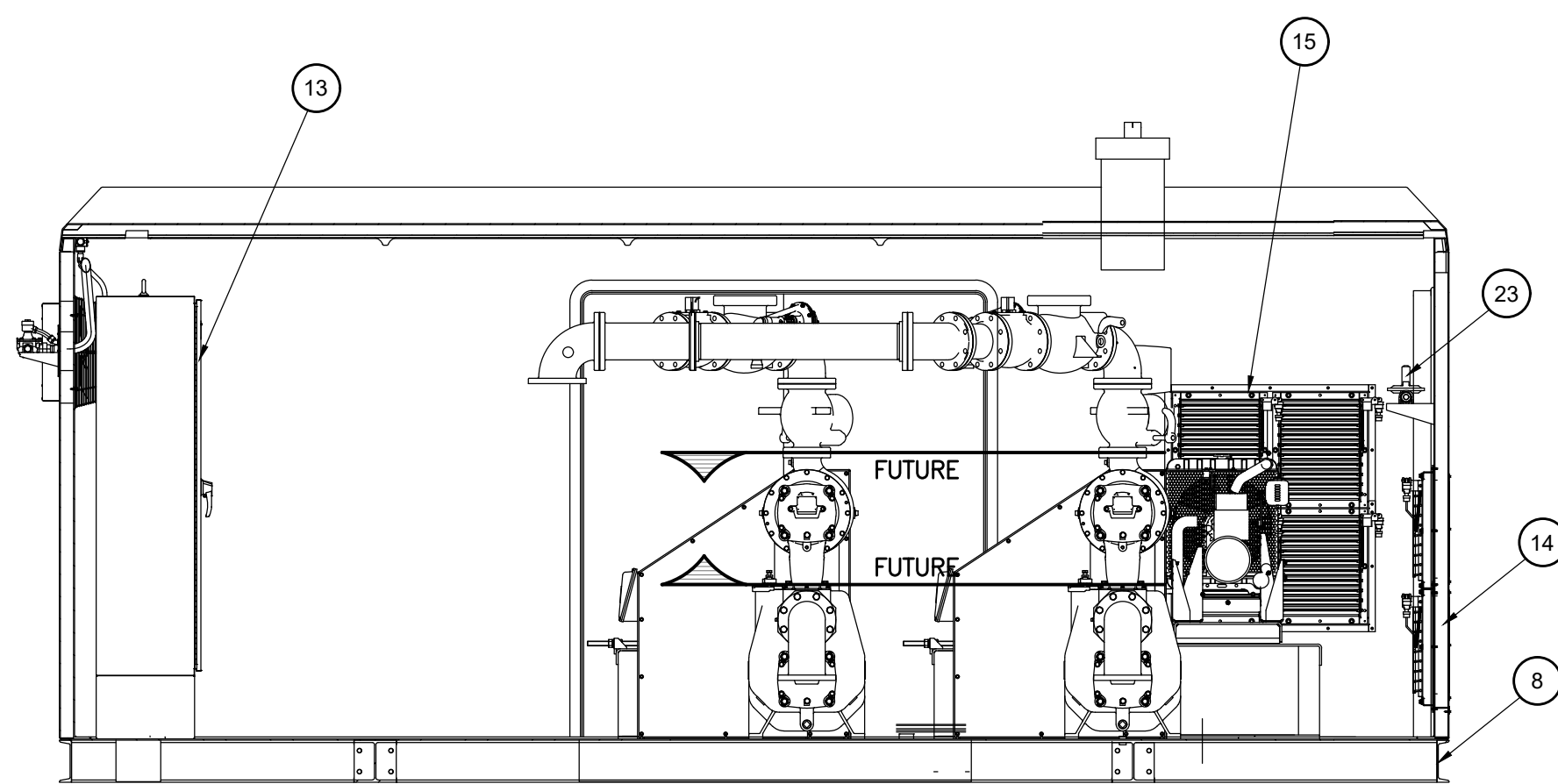
312 North Street
Mason, Michigan 48854
Ph: 317 676 9200
Fx: 317 676 9396
<http://www.wolceng.com>

PROJECT	COLDWATER LAKE LOW PRESSURE SYSTEM-PUMP STATION-FORCE MAIN TOWNSHIP OF NOTTAWA ISABELLA COUNTY, MICHIGAN
SHEET TITLE	COLDWATER LAKE PUMP STATION SITE PROPERTY
APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	17-0040-B
DATE	5/13/2024
SCALE	1" = 80'
SHEET NO.	C2-PS1

S:\Projects\2017\17-0040-B\C3D DWGs\C2-PS2 PUMP STATION DETAILS.dwg, Monday, February 19, 2024, 3:31:32 PM, Trent Powers

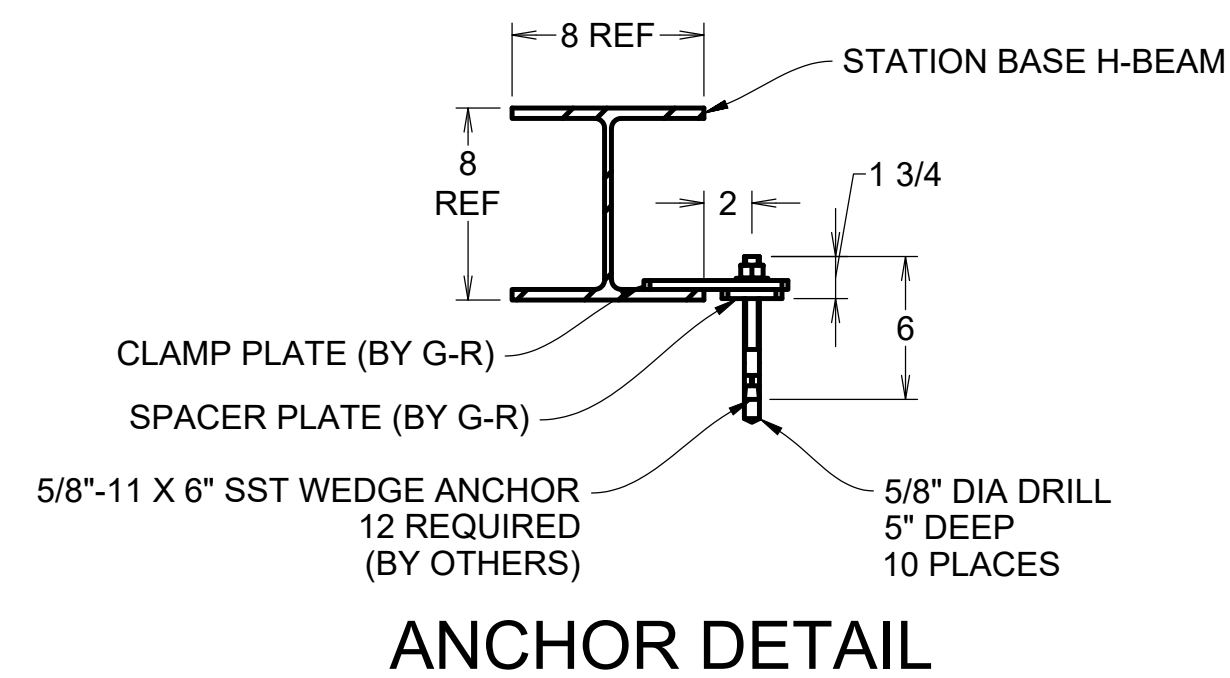


NOTES
DUCTILE IRON FITTINGS WITHIN WETWELL SHALL BE CLASS 54 WITH PROTECTED 401 OR APPROVED EQUAL COATING
* PROVIDE OVERSIZED CORES WITH MODULAR SEALING SYSTEM, GPT INDUSTRIES LINK-SEAL OR APPROVED EQUAL AT ALL PENETRATIONS THROUGH WETWELL



DUPLEX VS4-B
6X6X6 AS SHOWN
RIGHT HAND DISCHARGE

ITEM	DESCRIPTION	MATERIAL & SIZE
1	PUMP	CAST IRON VS4-B
2	MOTOR	CAST IRON
3	MOTOR STAND ASSEMBLY	STEEL
4	PRIMARY DISCH CHECK VALVE	CAST IRON 4" X 6"
5	SECONDARY DISH CHECK VALVE	CAST IRON 6"
6	DISCHARGE PLUG VALVE	CAST IRON 6" 2-WAY
7	AIR RELEASE VALVE	CAST IRON 1"
8	STATION BASE ASSEMBLY	STEEL 11'-6" X 22'-0"
9	BELT GUARD ASSEMBLY	ALUMINUM
10	STATION ENCLOSURE ASS'Y	FRP 11'-6" X 20'-0"
11	EXHAUST FAN	STEEL 1600 CFM
12	LED LIGHT FIXTURE	FRP
13	MOTOR CONTROL PANEL	STAINLESS
14	INTAKE VENT ASSEMBLY	ALUMINUM
15	EXHAUST VENT ASSEMBLY	ALUMINUM
16	ENGINE	LIQUID COOLED
17	ENGINE STAND	STEEL
18	EXHAUST SILENCER	STAINLESS
19	EXHAUST THIMBLE	STEEL (SHIPPED LOOSE)
20	BATTERY	12 VDC
21	SOLENOID VALVE	12 VDC 1"
22	COUPLING GUARD	STEEL
23	FUEL REGULATOR	ALUMINUM 1-1/2"



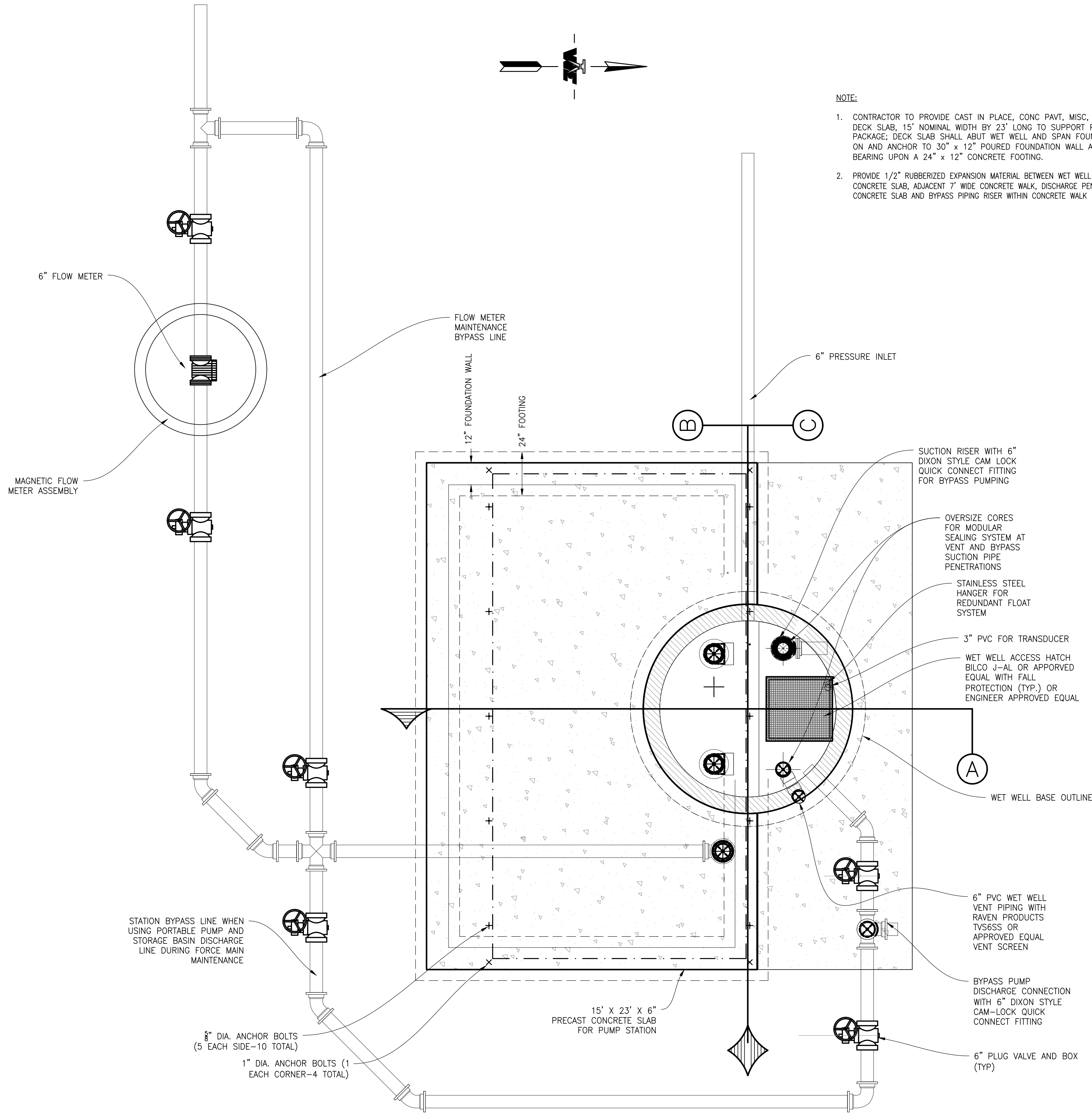
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COLDWATER LAKE LOW PRESSURE SYSTEM-PUMP STATION-FORCE MAIN
TOWNSHIP OF NOTTAWA
ISABELLA COUNTY, MICHIGAN

SELF-PRIMING PUMP STATION DETAIL SHEET

APPROVED	JCW
CHECKED	JCW
DRAWN	TAP
JOB NO.	17-0040-B
DATE	12/20/2023
SCALE	3/8" = 1'
SHEET NO.	C2-PS3



NOTE:

- CONTRACTOR TO PROVIDE CAST IN PLACE, CONC PAVT, MISC, REINF, 6 INCH (W2.9) DECK SLAB, 15' NOMINAL WIDTH BY 23' LONG TO SUPPORT PUMP EQUIPMENT PACKAGE; DECK SLAB SHALL ABUT WET WELL AND SPAN FOUNDATION WALLS. PLACE ON AND ANCHOR TO 30" x 12" POURED FOUNDATION WALL ABOUT ITS PERIMETER BEARING UPON A 24" x 12" CONCRETE FOOTING.
- PROVIDE 1/2" RUBBERIZED EXPANSION MATERIAL BETWEEN WET WELL LID AND ADJACENT CONCRETE SLAB, ADJACENT 7" WIDE CONCRETE WALK, DISCHARGE PENETRATION THROUGH CONCRETE SLAB AND BYPASS PIPING RISER WITHIN CONCRETE WALK

Basic Dimensions

Inside Diameter of Manhole (D)	8.00	(feet)
Lid Thickness (L)	12.00	(inches)
Height of Manhole From Top of Base to Top of Lid - This value includes the height of the lid plus the barrel section, but excludes the height of the base.	13.00	(feet)
Height of Manhole Barrel Section From Top of Base to Bottom of Lid (C) - This value is the height of the barrel section.	12.00	(feet)
Depth of Bury (Y) - This measurement extends from the ground level to the top of the lid.	0.00	(feet)
Wall Thickness (T)	9.00	(inches)
Base Thickness (E)	12.00	(inches)
Lid Diameter - This value is the sum of D and 2*T.	9.50	(feet)
Lid Hole Diameter (H4)	48.00	(inches)
Distance to Groundwater (GW)	0.00	(feet)

Customizations

Create Lip:

Extend the base horizontally to create a lip?

If yes, how much? (P) If no, enter a value of 0.

Thickness of lip (E) - This measurement is determined by the value entered for the base thickness. The lip thickness is equal to that of the base.

Add Penetrations:

Diameter of Penetration #1 (H1) - Enter a value of 0 if there is no Penetraion #1.

Diameter of Penetration #2 (H2) - Enter a value of 0 if there is no Penetraion #2.

Diameter of Penetration #3 (H3) - Enter a value of 0 if there is no Penetraion #3.

Unit Weights

Unit Weight of Water	62.40	(lb/cf)
Unit Weight of Soil	95.00	(lb/cf)
Unit Weight of Submerged Soil	32.60	(lb/cf)
Unit Weight of Concrete	145.00	(lb/cf)
Unit Weight of Saturated Soil	120.00	(lb/cf)

Changes in Total Concrete Weight Due to Customizations

Weight of extra concrete due to lip (Weight of extra concrete due to P)	4783.07	(lb)
Total weight removed due to penetrations in barrel section	56.94	(lb)
Weight of concrete removed due to lid hole	1822.12	(lb)

Soil and Concrete Weights

Weight of Soil on Lid	0.00	(lb)
Weight of Soil on Lip	13979.77	(lb)
Weight of Lid Alone	8455.79	(lb)
Weight of Manhole (Weight of Barrel Section, Lip, and Lid)	59332.90	(lb)

Weight of System Components

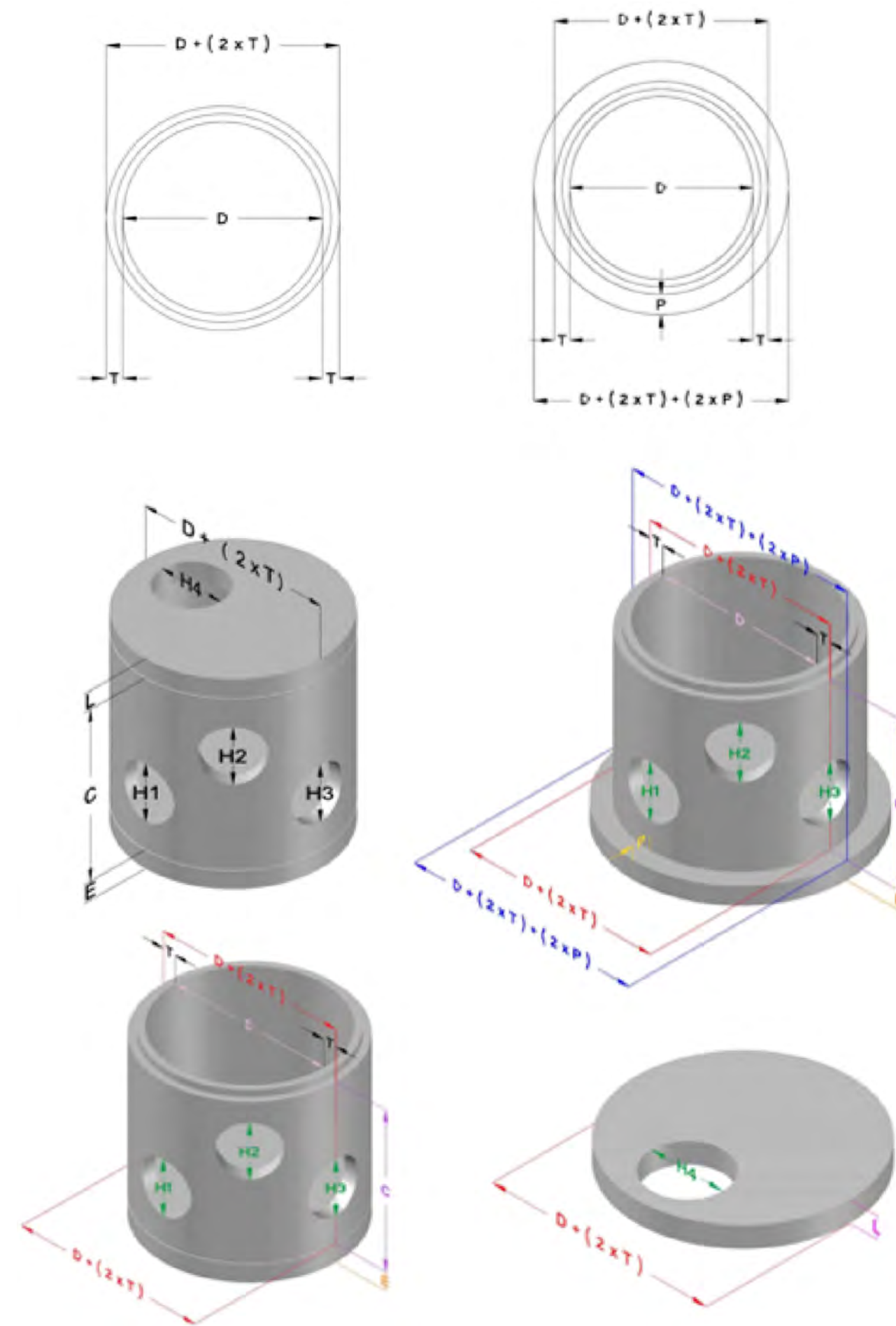
Total Weight of Soil	13979.77	(lb)
Total Weight of Concrete	59332.90	(lb)
Total Weight (Manhole and Soil)	73312.68	(lb)

Uplift Force

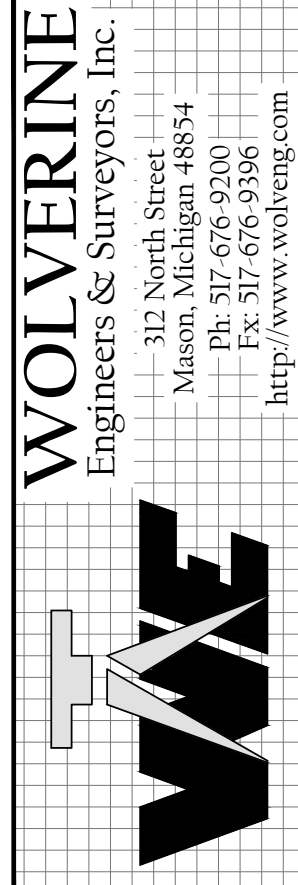
Uplift Force	63981.05	(lb)
Safety Factor	1.50	
Uplift Force with Safety Factor	95971.57	(lb)

Additional Ballast Required

22658.89	(lb)
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PROJECT: COLDWATER LAKE LOW PRESSURE SYSTEM-PUMP STATION-FORCE MAIN TOWNSHIP OF NOTTAWA ISABELLA COUNTY, MICHIGAN	SHEET TITLE: PUMP STATION DETAIL SHEET
APPROVED: JCW	CHECKED: JCW
DRAWN: TAP	JOB NO.: 17-0040-B
DATE: 12/20/2023	SCALE: 3/8" = 1'
SHEET NO.: C2-PS4	

[illegible]

PROJECT: COLDWATER LAKE LOW PRESSURE SYSTEM—PUMP STATION—FORCE MAIN
TOWNSHIP OF NOTTAWA
ISABELLA COUNTY, MICHIGAN

SHEET TITLE: SELF-PRIMING PUMP STATION DETAIL SHEET

APPROVED	
JCW	
CHECKED	
JCW	
DRAWN	
TAP	
JOB NO.	
17-0040-B	
DATE	
12/20/2023	
SCALE	
$3/8" = 1'$	
SHEET NO.	
C2-PS5	

-
- 1/2" TAP AND BALL VALVE, DRAIN TO WETWELL WITH SCH 80 PVC
- FUTURE
- FUTURE VENT, 6" SCH. 80 PVC
- TOP OF SLAB ELEVATION=887.00
- 24"
- FOOTING PAID FOR AS CONC, GRADE S2, SUBFOOTING
- 6" SCH. 80 PVC SUCTION RISER. ANCHOR TO WETWELL WITH 316 S.S. STRAPS
- TOP OF SLOPED FLOOR ELEVATION=876.00
- 1 (TYP)
- 1
- BYPASS SUCTION ELEVATION=875.00
- TOP OF SLOPED FLOOR ELEVATION=875.50
- LINE EXTENDS ON A 1:1 SLOPE TO EXISTING GROUND SURFACE AND EXCAVATION AND BACKFILL WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH SUBSECTION 206.04 OF THE MDOT 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (TYP)
- FOUNDATION PAD FOR AS CONC, GRADE S2
- F-GRADE @ SLAB ELEVATION=886.5
- SEE ELECTRICAL SHEETS FOR CONDUIT REQUIREMENTS
- FORCE MAIN DISCHARGE ELEVATION=880.50
- GRANULAR MATERIAL, CLASS II (TYP)
- DISCHARGE FORCEMAIN
- 8" SCH. 80 PVC SUCTION RISER WITH 8" ELBOW. ANCHOR TO WETWELL WITH 316 S.S. STRAPS
- 3" CHEMICAL FEED CONDUIT WITH LS-300-I-316-8 OR APPROVED EQUAL
- HIGH WATER PUMP ON ELEVATION=881.00
- PUMP OFF ELEVATION=878.00
- REDUNDANT FLOAT SWITCHES (SUPPLIED BY PUMP MANUFACTURER, INSTALLED BY CONTRACTOR)
- CHAIN & WEIGHT (SUPPLIED BY PUMP MANUFACTURER, INSTALLED BY CONTRACTOR)
- 6" PRESSURE INLET
- VAPOR BARRIER, UNDERSLAB
- MOUNT CHAIN TO TOP OF WET WELL (HARDWARE BY OTHERS)
- 8" SCH. 80 PVC SUCTION RISER WITH 10"x8" REDUCING ELBOW. ANCHOR TO WETWELL WITH 316 S.S. STRAPS
- 6" PRESSURE INLET ELEVATION=881.19
- BYPASS PUMP DISCHARGE CONNECTION WITH 6" DIXON STYLE CAM-LOCK QUICK CONNECT FITTING
- TOP OF WETWELL ELEVATION=887.00
- 3" SCH. 80 PVC FOR TRANSDUCER WITH 316 S.S. STRAPS
- PUMP ON ELEVATION=880.50
- BYPASS LINE ELEVATION=881.00
- PUMP OFF ELEVATION=878.00
- TRANSDUCER WELL ELEVATION=877.50'
- 12" (TYP)
- WETWELL FLOOR ELEVATION=874.00
- BACKFILL, STRUCTURE, CIP (TYP)
- 18" (TYP)
- AGGREGATE, 6A (TYP)
- INSTALL REBAR ACCORDING TO MDOT STANDARD PLAN R-44-F TIED JOINT, Trg @ 18 INCH SPACING AROUND PERIMETER OF WETWELL
- GRADE TO THIS LINE PAID FOR AS EXCAVATION, FDN (TYP)
- BALLAST PAID FOR AS CONC, GRADE S2, SUBFOOTING
- PLACE STRAP THROUGH CHAIN LINK & CUT OFF EXCESS STRAP
- FLOAT DETAIL
- WETWELL LEVEL MONITORING EQUIPMENT SHALL BE SUPPLIED BY PUMP MANUFACTURER AND INSTALLED IN SUPPLIED PUMP CONTROLS ENCLOSURE WITH VFD'S. INTEGRATION WITH SCADA EQUIPMENT SHALL BE A COORDINATED EFFORT WITH THE SCADA INTEGRATOR.

NOTE: DUCTILE IRON FITTINGS
WITHIN WETWELL SHALL MEET AWWA
C153/A21.53 REQUIREMENTS AND
INCLUDE PROTECTO 401 INTERIOR
LINING AND TNEC 46H-4413
PRIMER

S:\Projects\2017\17-0040-B_C3D\DWGs\C2-PS4 PUMP STATION DETAILS.dwg, Monday, February 19, 2024 3:32:28 PM, Trent Powers