

TOWN OF MOSHEIM GREENE COUNTY, TENNESSEE

TONY'S PUMP STATION UPGRADES APRIL 2024



LOCATION MAP:
SCALE: 1"=1000'

DRAWING INDEX

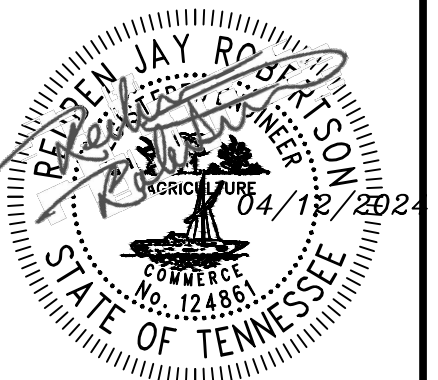
1. COVER SHEET & INDEX
2. GENERAL NOTES & LEGEND
3. EXISTING SITE & DEMOLITION PLAN
4. EXISTING PUMP STATION MECHANICAL PLAN & SECTION DEMOLITION PLAN
5. PROPOSED SITE PLAN
6. PROPOSED MECHANICAL PLAN & SECTION
7. ELECTRICAL SITE PLAN & SINGLE LINE DIAGRAM
8. ELECTRICAL INTERCONNECTION DIAGRAM
9. TYPICAL DETAILS



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

TOWN OF MOSHEIM
GREENE COUNTY, TENNESSEE
TONY'S PUMP STATION UPGRADES



PROJECT NUMBER:	MHM301
DATE:	03/2024
SCALE:	AS SHOWN
DRAWN BY:	BAS
DESIGNED BY:	RJR

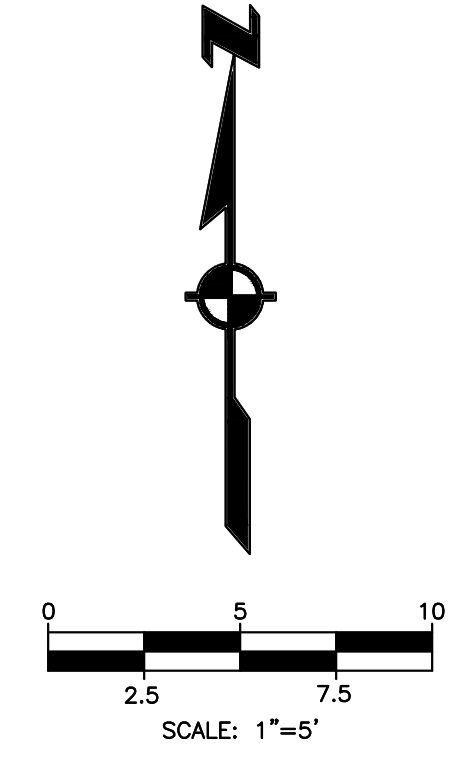
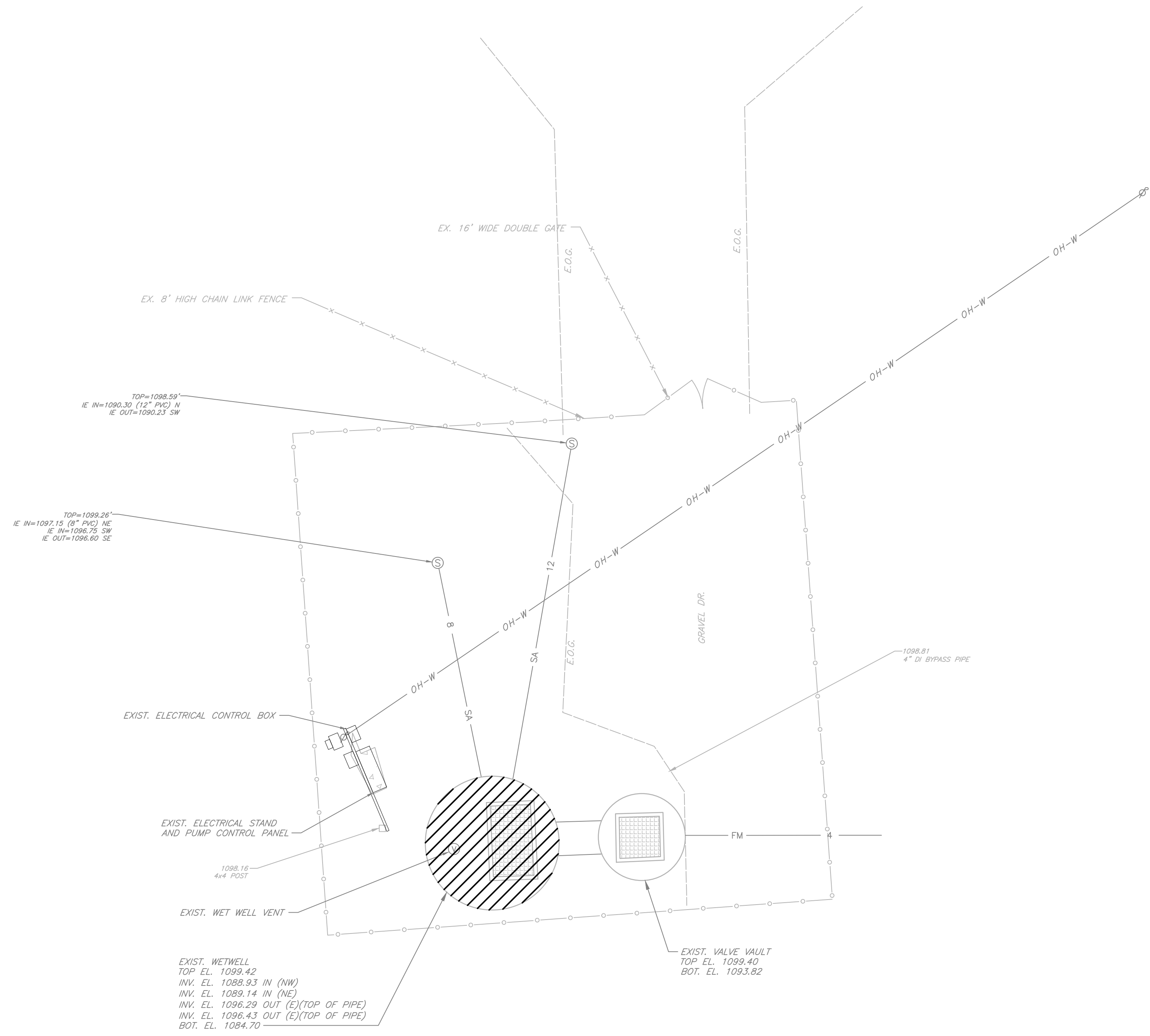
SHEET TITLE:
COVER & INDEX

P:\MOSHEIM\DESIGN\SHEET FILES\TONY'S PUMP STATION UPGRADES\WHD01_001_COVER & INDEX.dwg, 5/17/2024, 10:29 AM, JAMES WATKINS



LDA ENGINEERING
4718 LAKE PARK DRIVE, SUITE 4
JOHNSON CITY, TENNESSEE 37615
TELEPHONE: 423-283-7227

P:\MHS01\DESIGN\SHEET FILES\TOWN'S PUMP STATION UPGRADES\WHD01_LDA_EI-SITE & DEMO PLANNING_5/17/2024_1629.MXD TWEED RUPBER



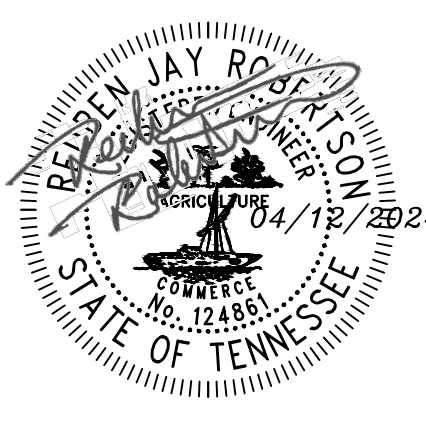
LEGEND
 ITEMS TO BE DEMOLISHED



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

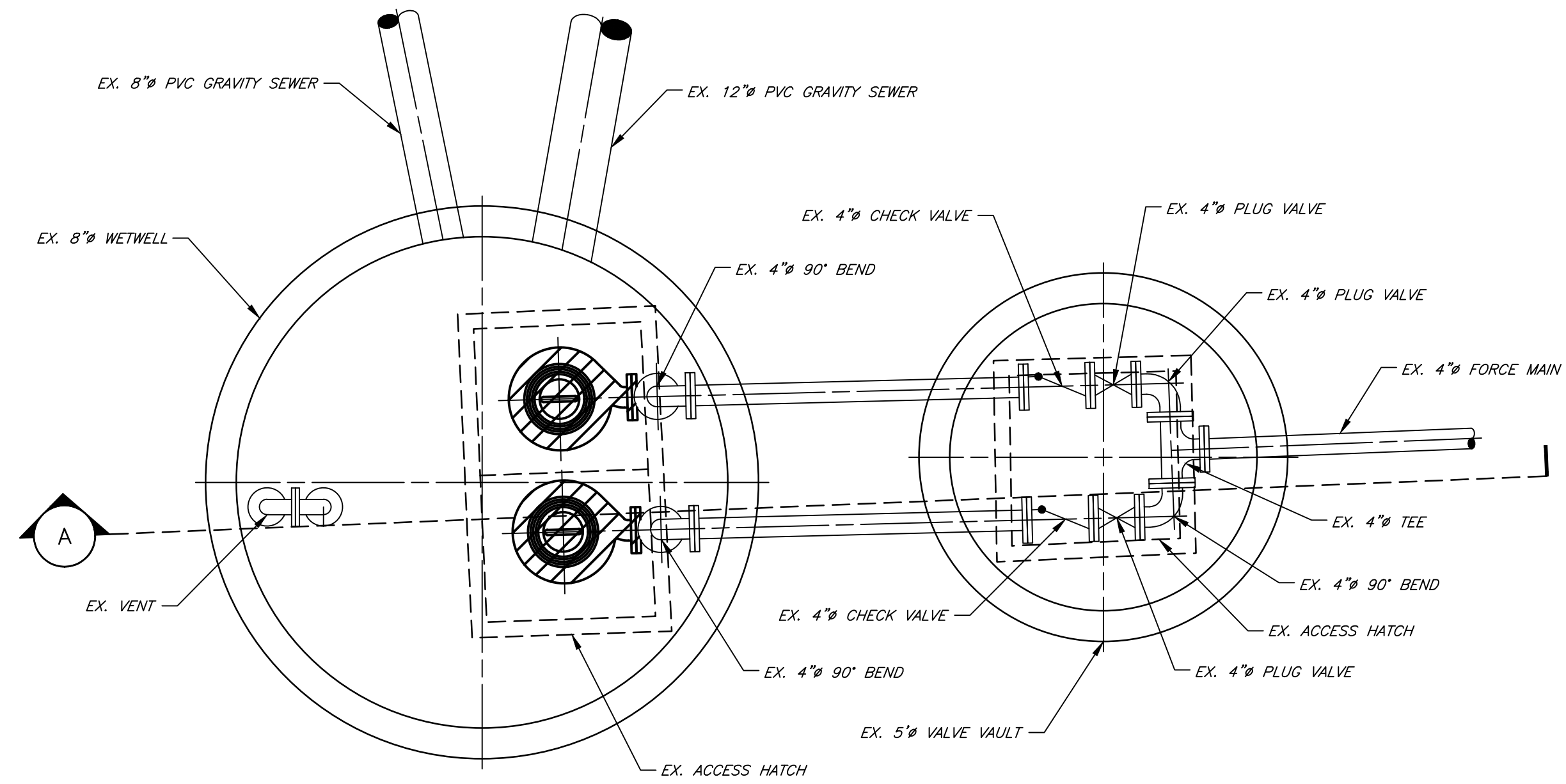
**TOWN OF MOSHEIM
 GREENE COUNTY, TENNESSEE
 TONY'S PUMP STATION UPGRADES**



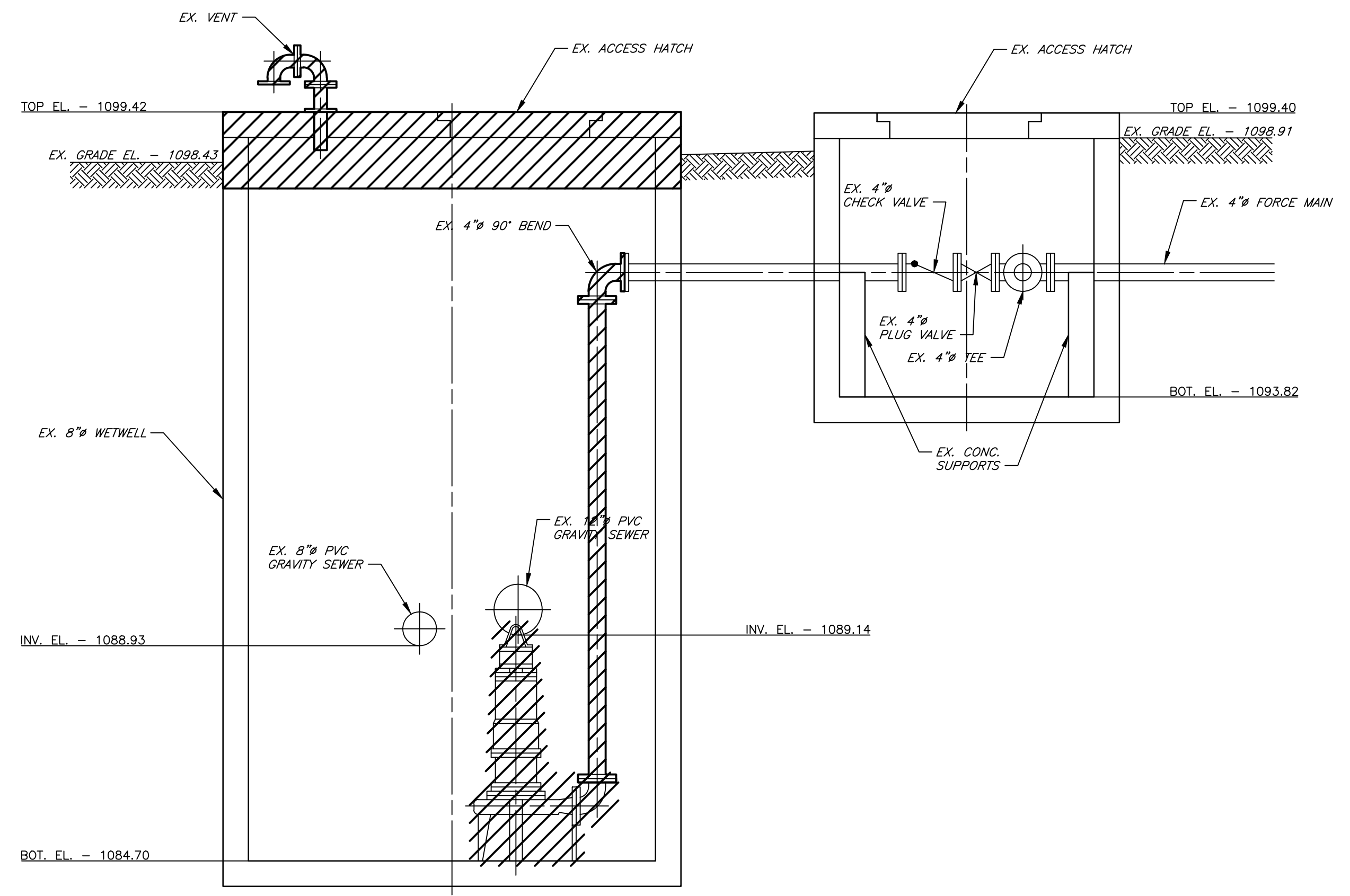
PROJECT NUMBER: MHM301
 DATE: 03/2024 SCALE: 1"=5'
 DRAWN BY: BAS DESIGNED BY: RJR

SHEET TITLE:
 EXISTING SITE &
 DEMOLITION PLAN

P:\WORKS\DESIGN\SHEET FILES\TONY'S PUMP STATION UPGRADES\WHD01_D04_EX-PS MECH PLAN-SECTION & DEMO PLANING_5/17/2024_1020 AM_THOMAS.HUPFER



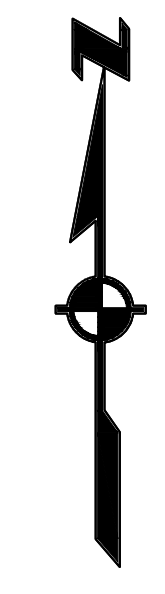
PLAN
SCALE: 1/2"=1'-0"



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

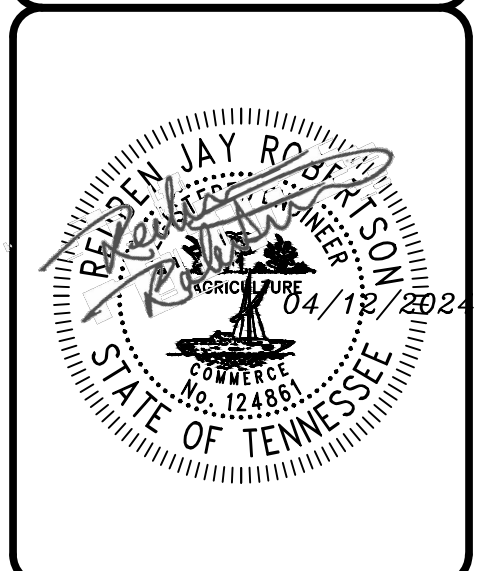
- NOTES:**
1. ALL MATERIALS REMOVED FROM THE STATION SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL REQUIREMENTS.
 2. IN ADDITION TO THE ITEMS SHOWN FOR REMOVAL, EXISTING PUMPS, PIPING, GUIDE RAILS, CHAINS, CABLES, STEPS, FLOATS, BRACKETS, AND ALL OTHER EQUIPMENT IN THE WET WELL SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
 3. EXTERIOR JOINT WRAP TO BE CONSEAL CS-212 OR APPROVED ALTERNATE. PREPARE SURFACE TO RECEIVE JOINT WRAP IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
 4. PORTION OF EXISTING WET WELL TO BE REMOVED SHALL BE CAREFULLY DISCONNECTED FROM STRUCTURE TO THE JOINT CLOSEST TO THE DESIRED FINAL TOP ELEVATION FOR INSPECTION BY THE OWNER AND ENGINEER. SOME ADJUSTMENT TO FINAL TOP OF STRUCTURE ELEVATION MAY BE NECESSARY TO ACHIEVE A GOOD SEAL BETWEEN THE NEW TOP SECTION AND EXISTING STRUCTURE.

LEGEND
 ITEMS TO BE DEMOLISHED



REV	DATE	REVISION DESCRIPTION

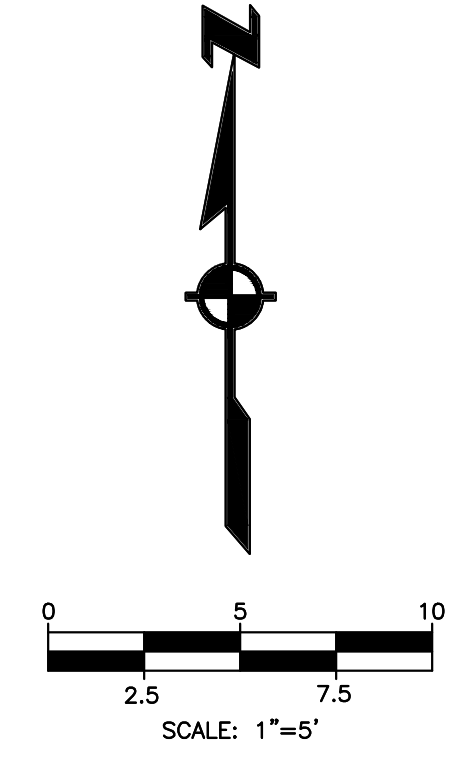
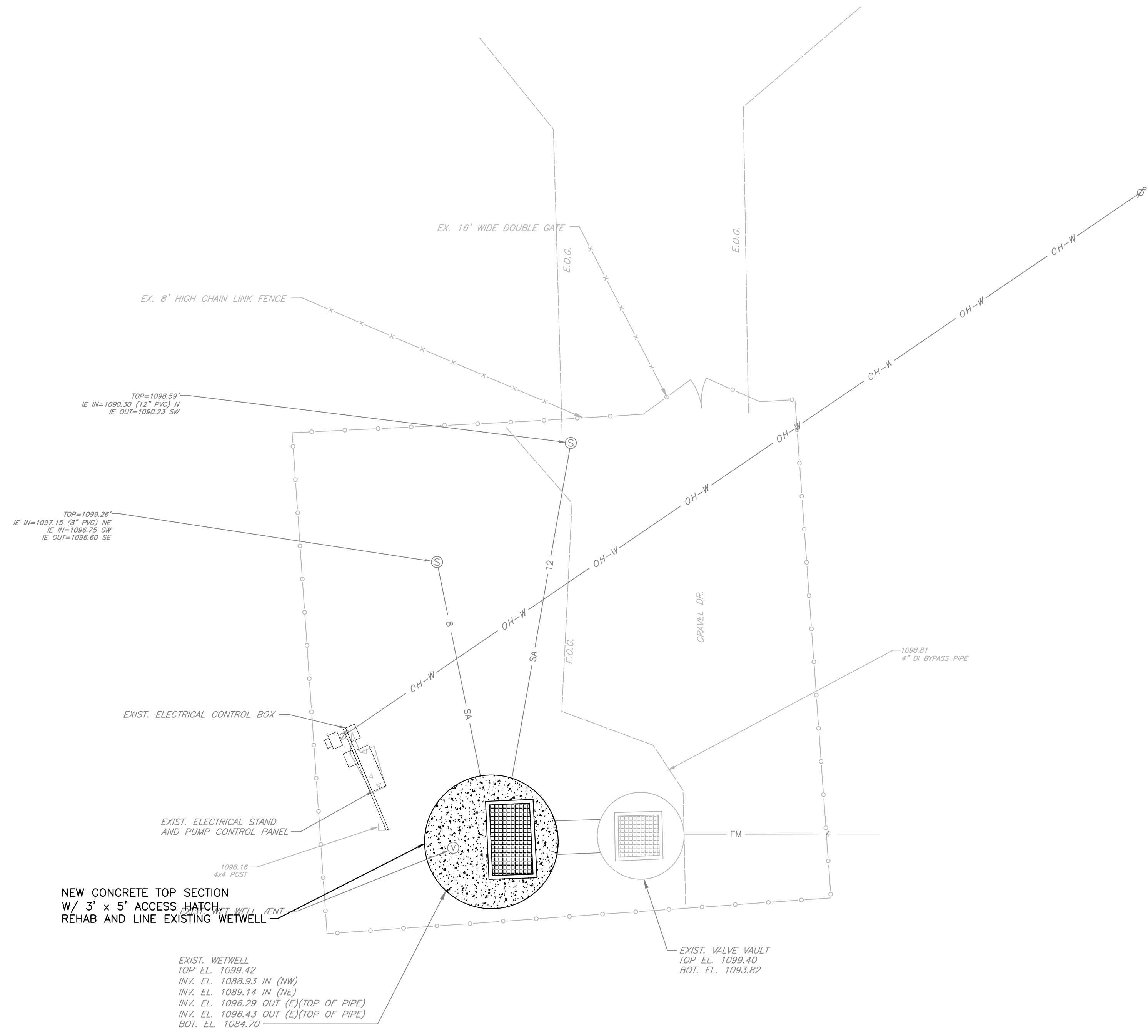
TOWN OF MOSHEIM
GREENE COUNTY, TENNESSEE
 TONY'S PUMP STATION UPGRADES



PROJECT NUMBER: MHM301
 DATE: 03/2024 SCALE: 1/2"=1'-0"
 DRAWN BY: BAS DESIGNED BY: RJR

SHEET TITLE:
 EXISTING PUMP STATION
 MECHANICAL PLAN & SECTION
 DEMOLITION PLAN

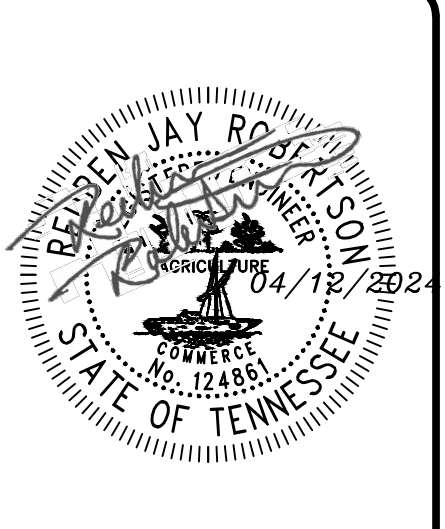
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LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

TOWN OF MOSHEIM
GREENE COUNTY, TENNESSEE
TONY'S PUMP STATION UPGRADES

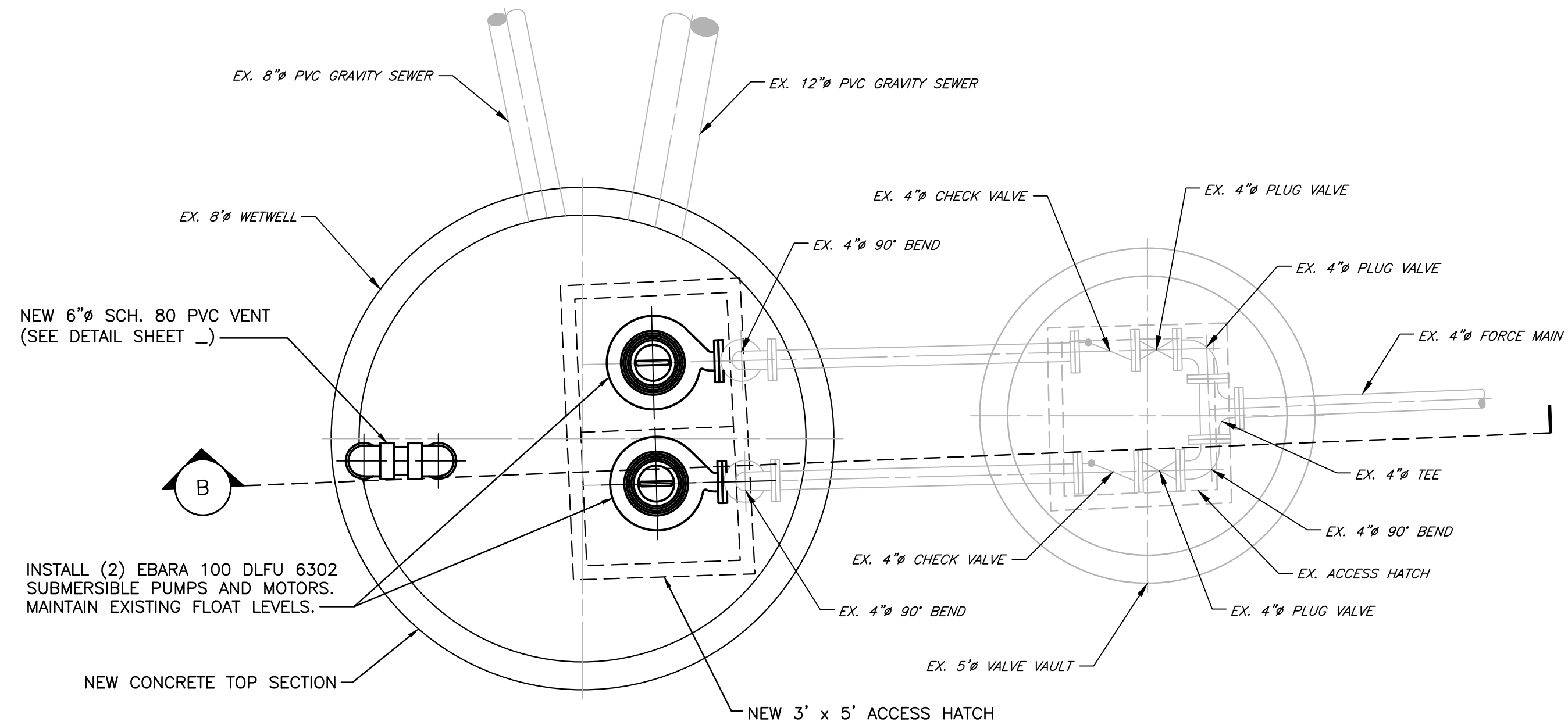


PROJECT NUMBER: MHM301
DATE: 03/2024 SCALE: 1"=5'
DRAWN BY: BAS DESIGNED BY: RJR

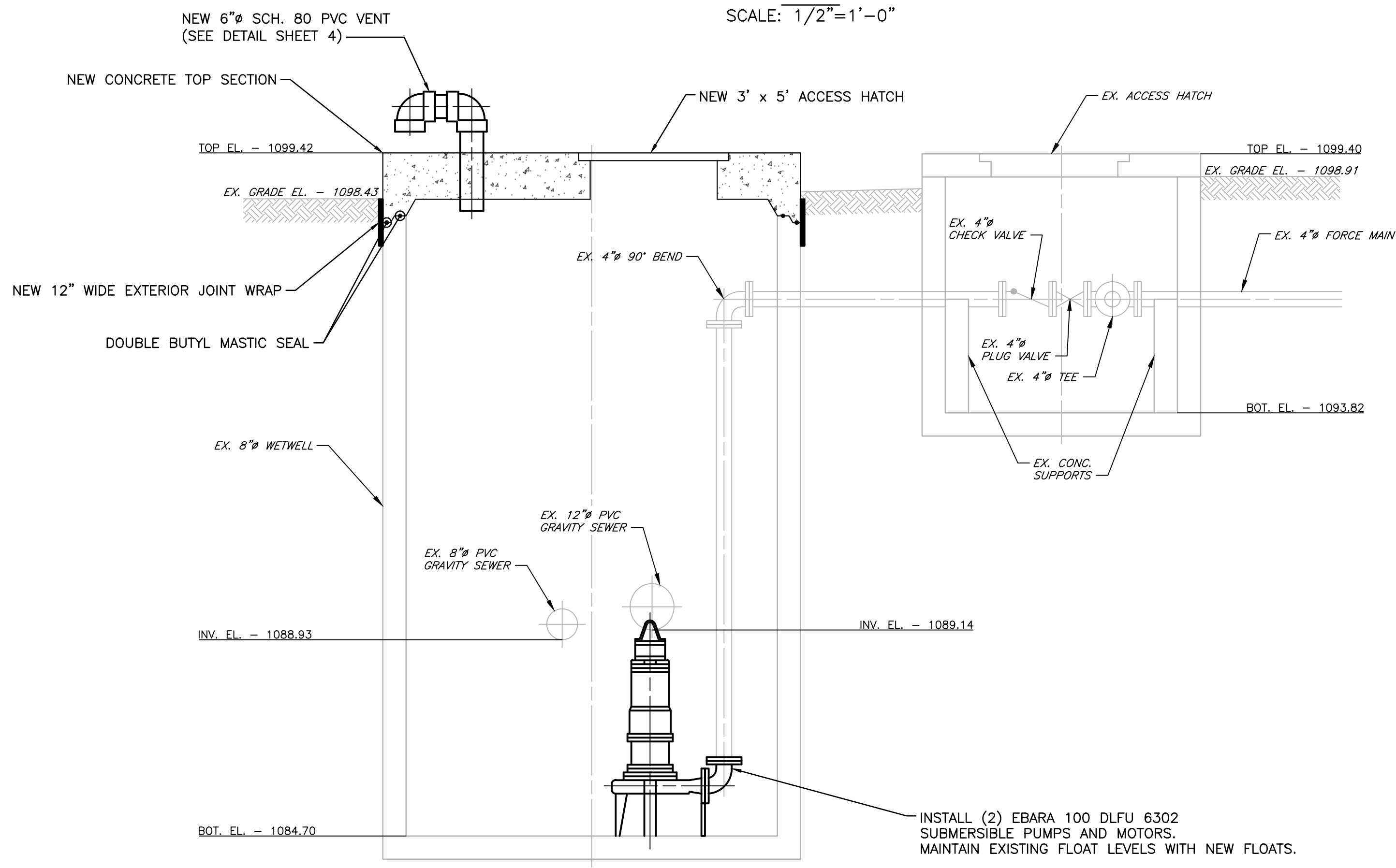
SHEET TITLE:
PROPOSED SITE PLAN

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



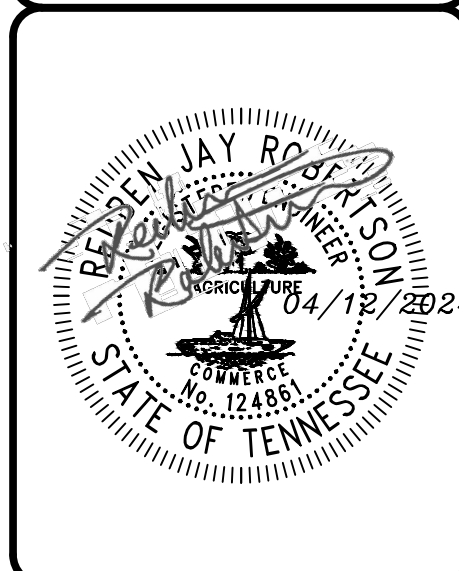
SECTION B
SCALE: 1/2"=1'-0"

- NOTES:**
- CONTROL PANEL LOCATION IS SHOWN ON THE ELECTRICAL SITE PLAN.
 - ANCHOR NEW PUMP BASE TO THE WETWELL WITH 316 SST EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
 - ALL PIPE AND FITTINGS FOR THE NEW FORCE MAIN SHALL BE PROTECTO 401® LINED D.I.P. WITH RESTRAINING MECHANISM.
 - RED VALVE PRESSURE SENSOR, SERIES 742, STAINLESS BODY, WITH ISOLATION BALL VALVE OR APPROVED ALTERNATE. GAUGE TO BE 0-50 PSI WITH 1 PSI GRADUATIONS.
 - WETWELL FILLETS SHALL BE INSTALLED AT A MIN. SLOPE OF 1" HORIZ. TO 2" VERT., AND IN ACCORDANCE WITH THE PUMP MANUFACTURER'S REQUIREMENTS.
 - ALL BOLTS, NUTS, WASHER'S, AND BRACKETS INSIDE WETWELL SHALL BE 316 STAINLESS STEEL.
 - ACCESS DOORS SHALL BE WATERTIGHT AND BE 1/4" THICK DIAMOND PLATE ALUMINUM WITH 300# PER SQ. FT. LOAD RATING, SST HINGES, SST POSITIVE LOCKING HOLD OPEN ARM, OPEN ASSIST, LIFTING HANDLE, SLAM LOCK, NEOPRENE CUSHION/GASKET, EXTRUDED ALUMINUM CHANNEL FRAME, INTERIOR SAFETY GRATE, AND SHALL BE EQUAL TO HALLIDAY PRODUCTS MOUNT FLUSH WITH TOP OF STRUCTURES. PIPE DRAIN IN VALVE VAULT HATCH TO FLOOR.
 - PROVIDE NEW FLOATS FOR THE FOLLOWING CONDITIONS:
 - A. PUMPS OFF
 - B. PUMP ON (2 FLOATS LEAD AND LAG)
 - C. HIGH LEVEL ALARM
 - D. LOW LEVEL ALARM
 - THE OWNER'S REPRESENTATIVE WILL ESTABLISH THE FLOAT LEVELS IN THE WETWELL.



REV	DATE	REVISION DESCRIPTION

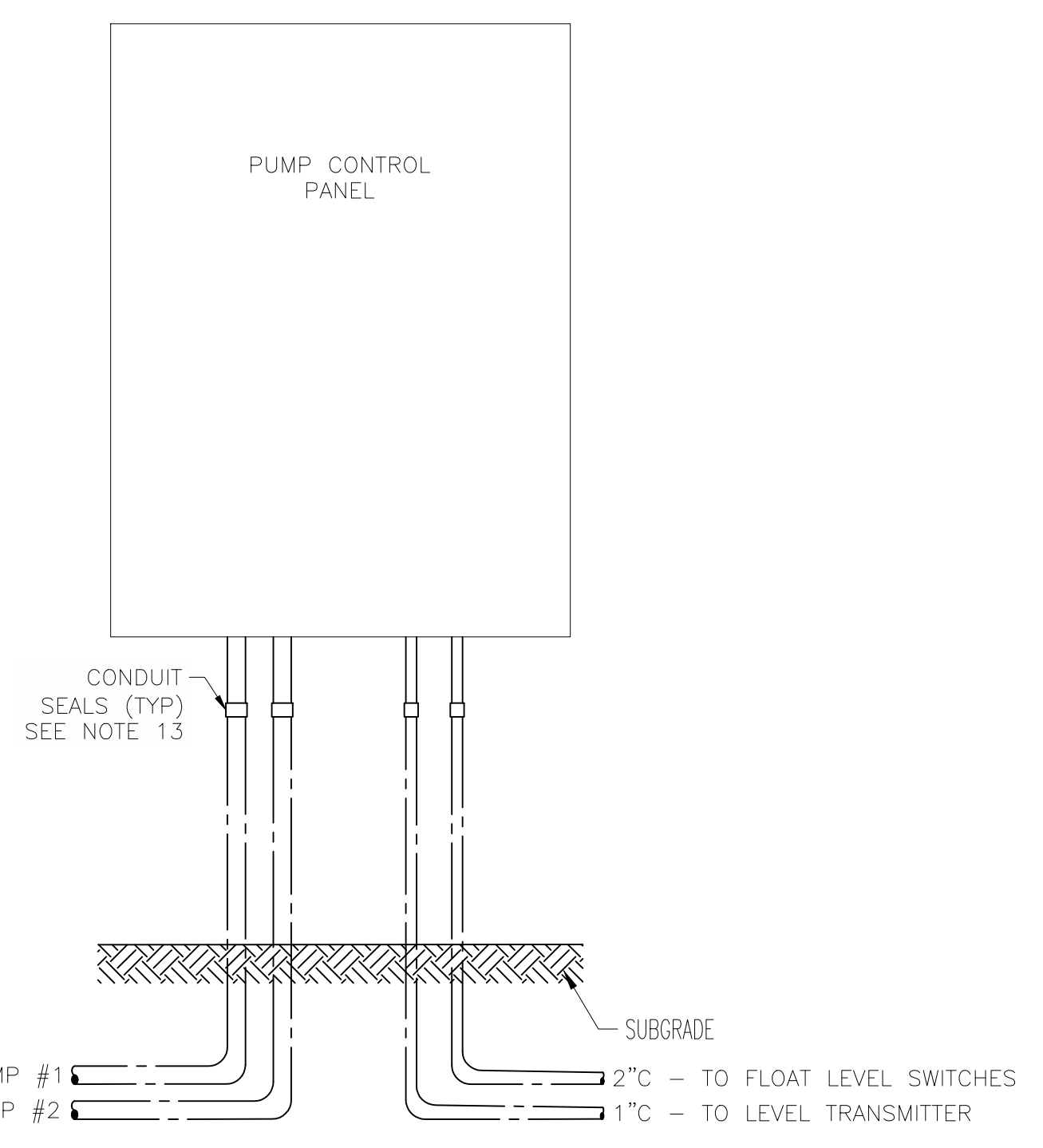
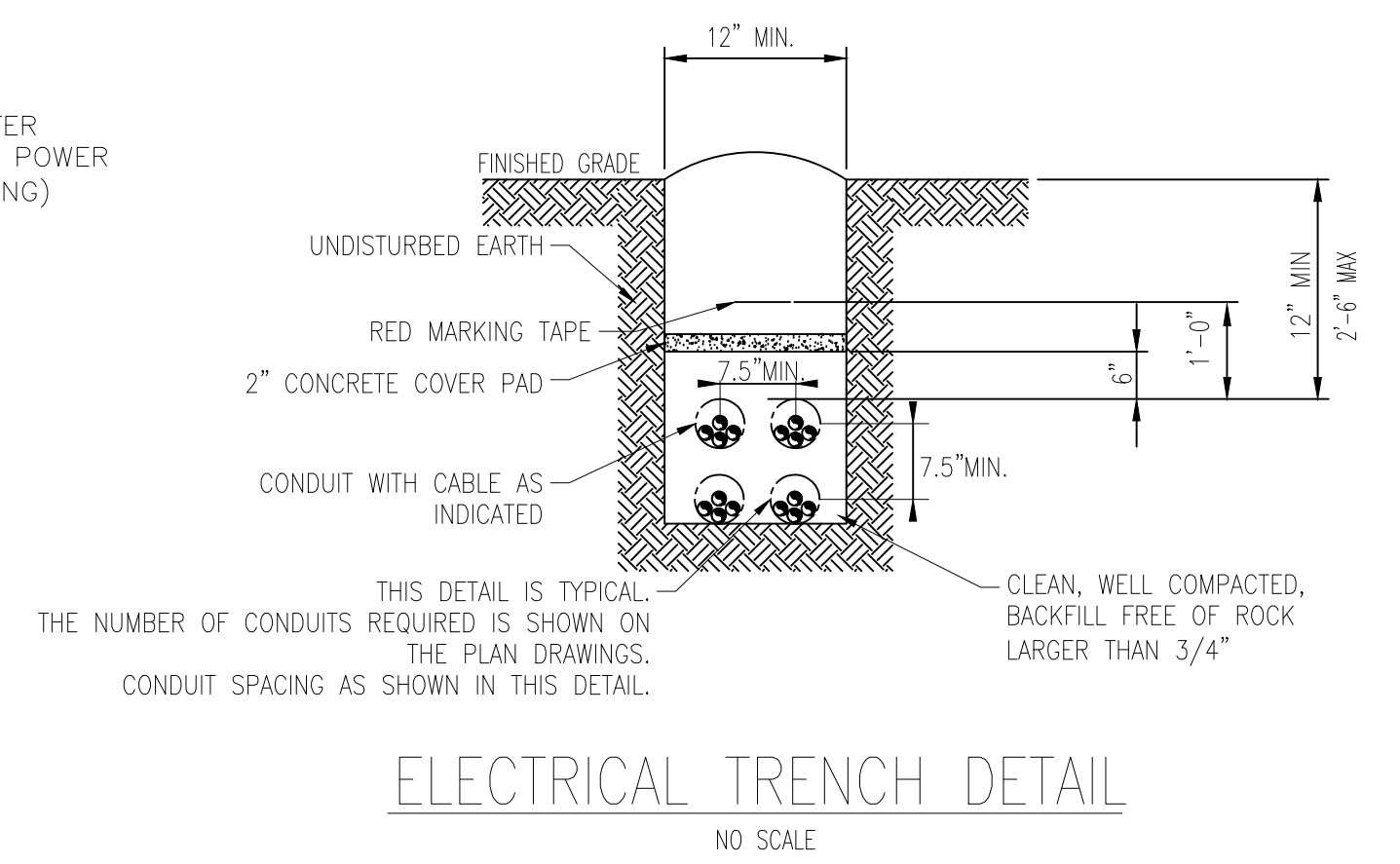
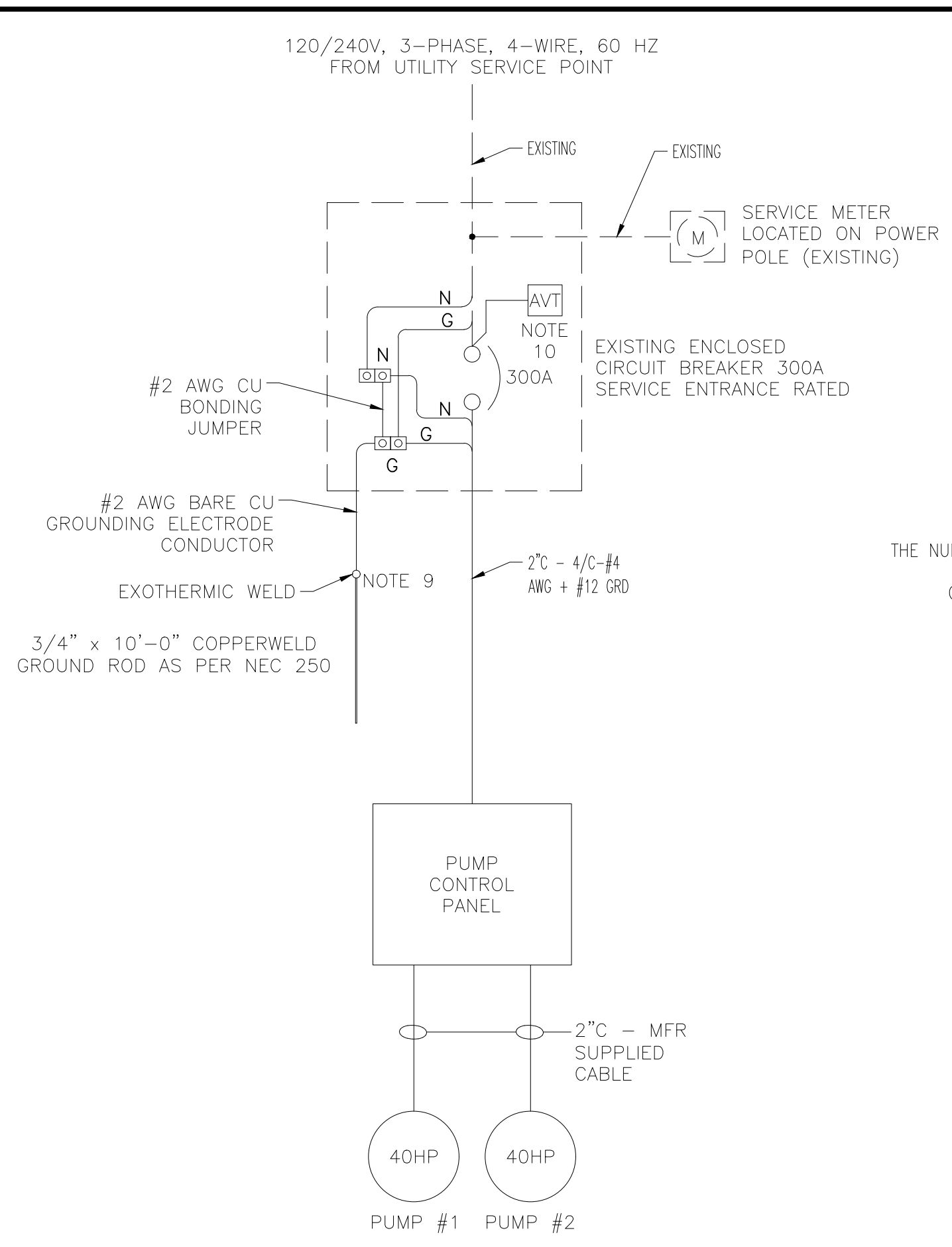
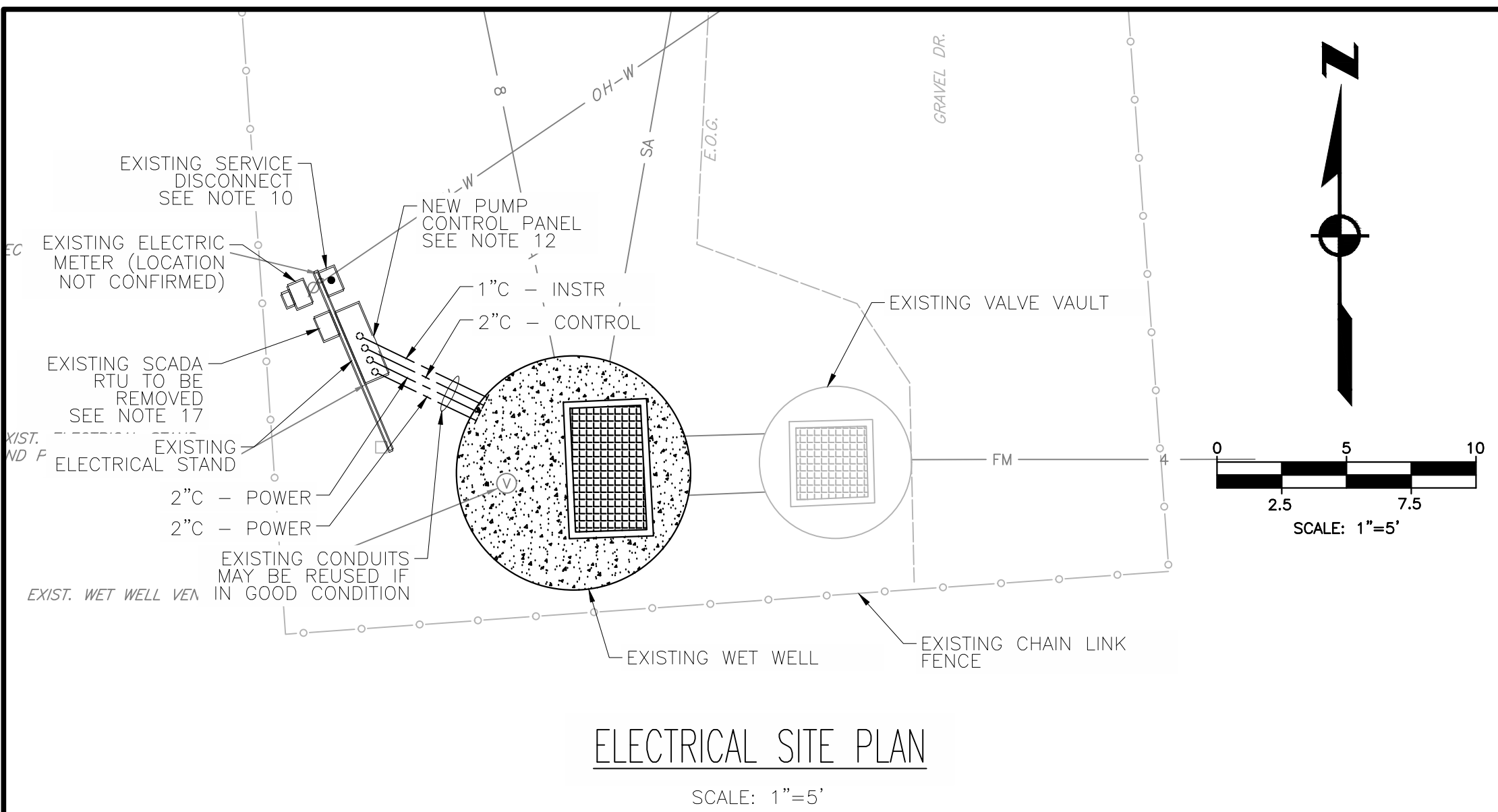
TOWN OF MOSHEIM
GREENE COUNTY, TENNESSEE
TONY'S PUMP STATION UPGRADES



PROJECT NUMBER: MHM301
DATE: 03/2024 SCALE: 1/2"=1'-0"
DRAWN BY: BAS DESIGNED BY: RJR

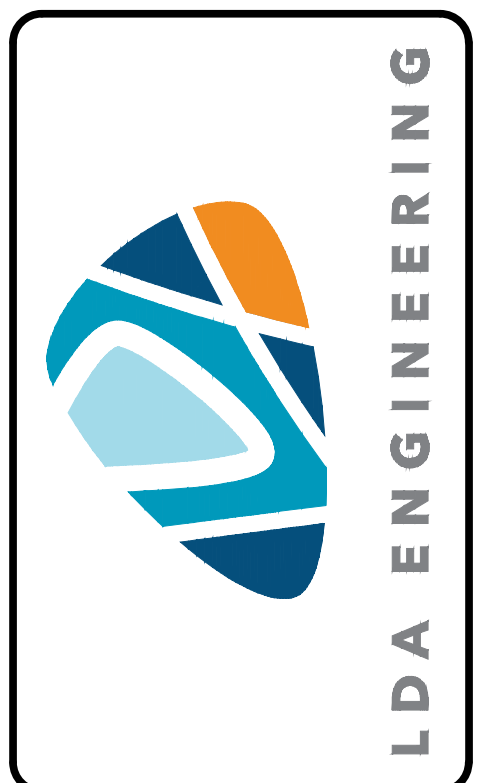
SHEET TITLE:
PROPOSED MECHANICAL
PLAN & SECTION

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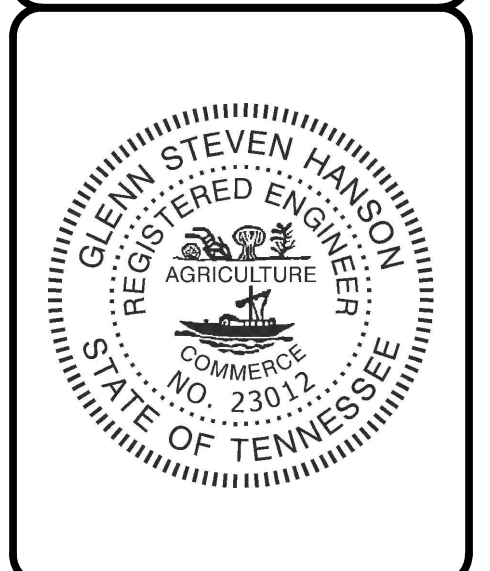
ELECTRICAL NOTES

1. ALL CONDUCTORS SHALL BE #12 AWG XHHW/XHHW-2 COPPER MINIMUM UNLESS OTHERWISE SPECIFIED.
2. ALL CONDUITS SHALL BE 1 INCH MINIMUM.
3. UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC OR RIGID METAL CONDUIT WHERE EXPOSED ABOVE GRADE.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE, NFPA 70. SHOULD THE PLANS AND CODES CONFLICT, THE CODE TAKES PRECEDENCE. MAKE NO CHANGES EVEN IN THE CASE OF CONFLICT WITHOUT FIRST OBTAINING APPROVAL OF THE ENGINEER.
5. MATERIAL SHALL BE LISTED AND LABELED BY UNDERWRITER'S LABORATORIES, INC. OR OTHER RECOGNIZED TEST FACILITY. EQUIPMENT SHALL BE IDENTIFIED FOR USE.
6. INSTALL SPECIFIED EQUIPMENT AS NOTED ON THE DRAWINGS OR APPROVED ALTERNATE.
7. LOCATION OF EXISTING UNDERGROUND ELECTRICAL LINES SHOULD BE VERIFIED BEFORE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. SHOULD THE EXISTING ELECTRICAL LINES BE LOCATED UNDERNEATH THE PROPOSED IMPROVEMENTS, CONSULT ENGINEER FOR GUIDANCE ON RELOCATION.
8. THE ELECTRIC METER BASE, METER, AND SERVICE DISCONNECT ARE EXISTING.
9. CONTRACTOR SHALL VERIFY AND CONFIRM STATION GROUNDING (AT EXISTING SERVICE DISCONNECT), IS AS SHOWN ON SINGLE LINE DIAGRAM. CONTRACTOR SHALL MAKE ANY CORRECTIONS NECESSARY AT CONTRACTOR EXPENSE.
10. CONTRACTOR TO INSTALL A PANDUIT VERISAFE ABSENCE OF VOLTAGE TESTER (AVT) IN THE EXISTING SERVICE DISCONNECT. THE DEVICE SHALL BE CONNECTED TO THE LINE SIDE OF THE SWITCH AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH THE MANUFACTURER (PANDUIT) FOR PROPER MODEL NUMBER.
11. ELECTRICAL CONTRACTOR SHALL REMOVE ALL OLD UNUSED EQUIPMENT.
12. THE NEW PUMP CONTROL PANEL WILL REPLACE THE EXISTING PUMP CONTROL PANEL ON THE EXISTING STAND.
13. CONTRACTOR TO FURNISH AND INSTALL SUITABLE SEALS ON ALL CONDUITS THAT ENTER AN ELECTRICAL PANEL THAT COME FROM THE WET WELL OR OTHER LOCATION THAT MAY CONTAIN CORROSIVE SEWER GAS OR MOISTURE. THIS SEAL SHALL PREVENT CORROSIVE GASES OR MOISTURE FROM ENTERING THE ELECTRICAL PANEL.
14. FOR CONDUIT AND WIRE SIZES SEE SINGLE LINE DIAGRAM AND INTERCONNECTION DIAGRAM.
15. SUBMERSIBLE LEVEL TRANSMITTER FOR THE WET WELL TO BE ORDERED WITH CABLE OF SUFFICIENT LENGTH TO BE ROUTED FROM WELL TO PANEL.
16. WET WELL LEVEL FLOAT SWITCHES TO BE ORDERED WITH CABLE OF SUFFICIENT LENGTH TO BE ROUTED FROM WELL TO PANEL.
17. THE EXISTING MISSION COMMUNICATION RTU SHALL BE REMOVED (AFTER STARTUP OF NEW SYSTEM) AND ALL EQUIPMENT TURNED OVER TO OWNER FOR USE AS SPARE PARTS. A NEW MISSION COMMUNICATIONS RTU WILL BE PROVIDED AS PART OF THE NEW PUMP CONTROL PANEL.
18. AS PART OF THE AS-BUILT INFORMATION PROVIDED AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
 - SIZE, TYPE, AND LENGTH OF CABLE CONDUCTORS FROM POLE MOUNTED TRANSFORMERS TO DROP POLE WEATHERHEAD.
 - CONDUIT TYPE AND LENGTHS FOR ALL POWER CIRCUITS FROM THE WEATHERHEAD TO THE PUMP MOTOR(S).
 - CABLE SIZE, TYPE, AND LENGTHS FOR ALL POWER CIRCUITS FROM THE WEATHERHEAD TO THE PUMP MOTOR(S).
 - CONFIRMATION VIA PHOTOGRAPH OF CIRCUIT BREAKER TYPE, SIZE, AND SETTINGS FOR ALL CIRCUIT BREAKERS.
 - PHOTOGRAPHS OF ALL MOTOR NAMEPLATES.



REV	DATE	REVISION DESCRIPTION

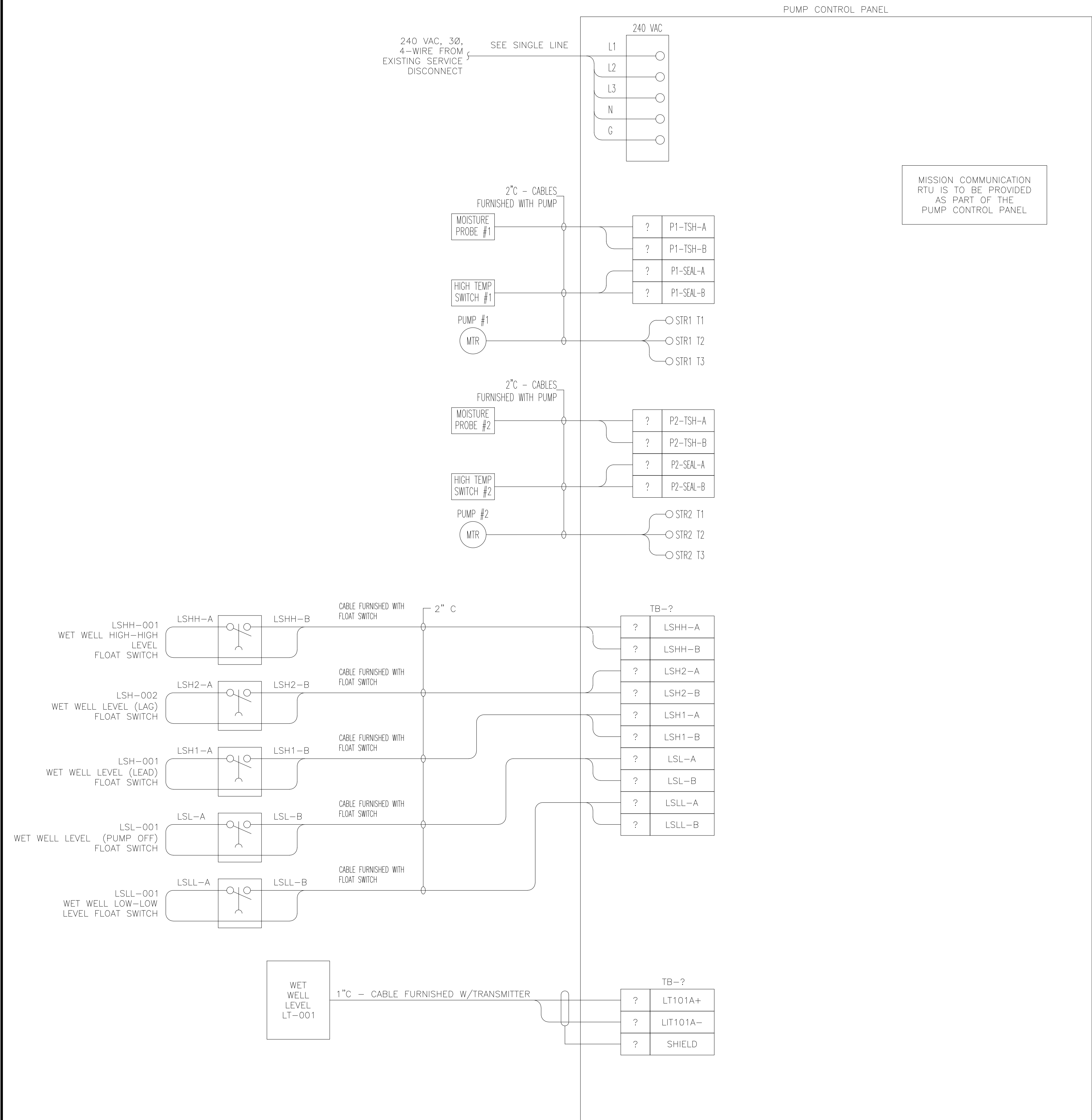
**TOWN OF MOSHEIM
GREENE COUNTY, TENNESSEE
TONY'S PUMP STATION UPGRADES**



PROJECT NUMBER: MHM301
DATE: 03/2024 SCALE: AS SHOWN
DRAWN BY: GSH DESIGNED BY: GSH

SHEET TITLE:
ELECTRICAL SITE PLAN & SINGLE LINE DIAGRAM

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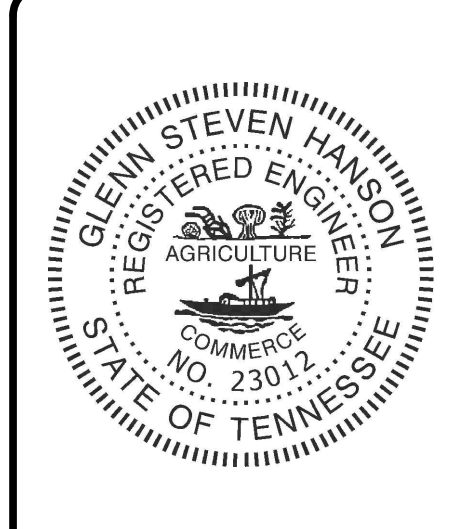


NOTE:
1. TERMINAL STRIP NUMBERS AND TERMINAL POINT NUMBERS TO BE CONFIRMED WITH SUPPLIER PANEL DRAWINGS.



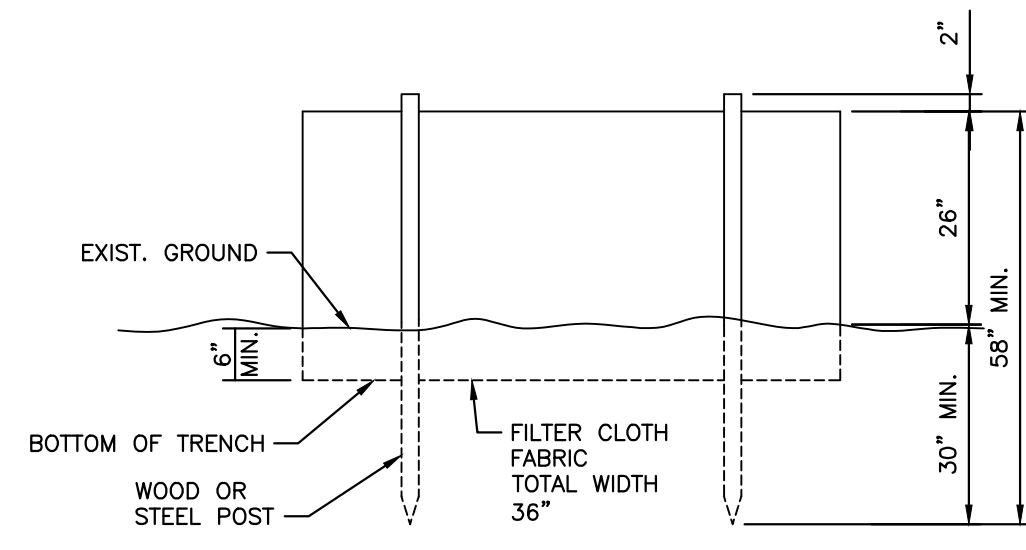
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TOWN OF MOSHEIM
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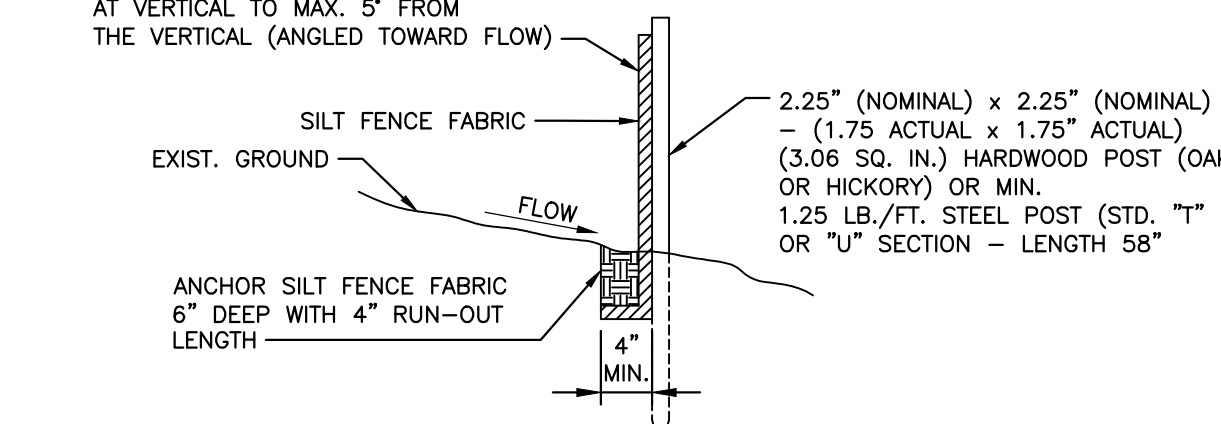


PROJECT NUMBER:	MHM301
DATE:	03/2024
SCALE:	AS SHOWN
DRAWN BY:	GSH
DESIGNED BY:	GSH
SHEET TITLE:	INTERCONNECTION DIAGRAM

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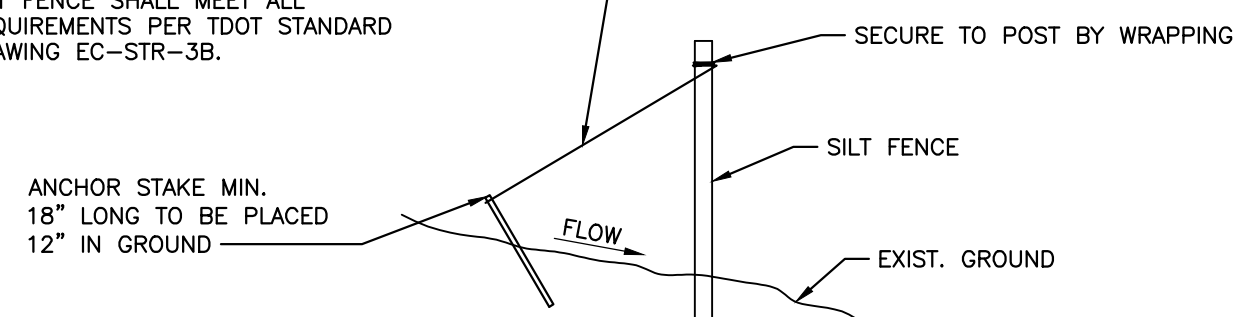


ELEVATION



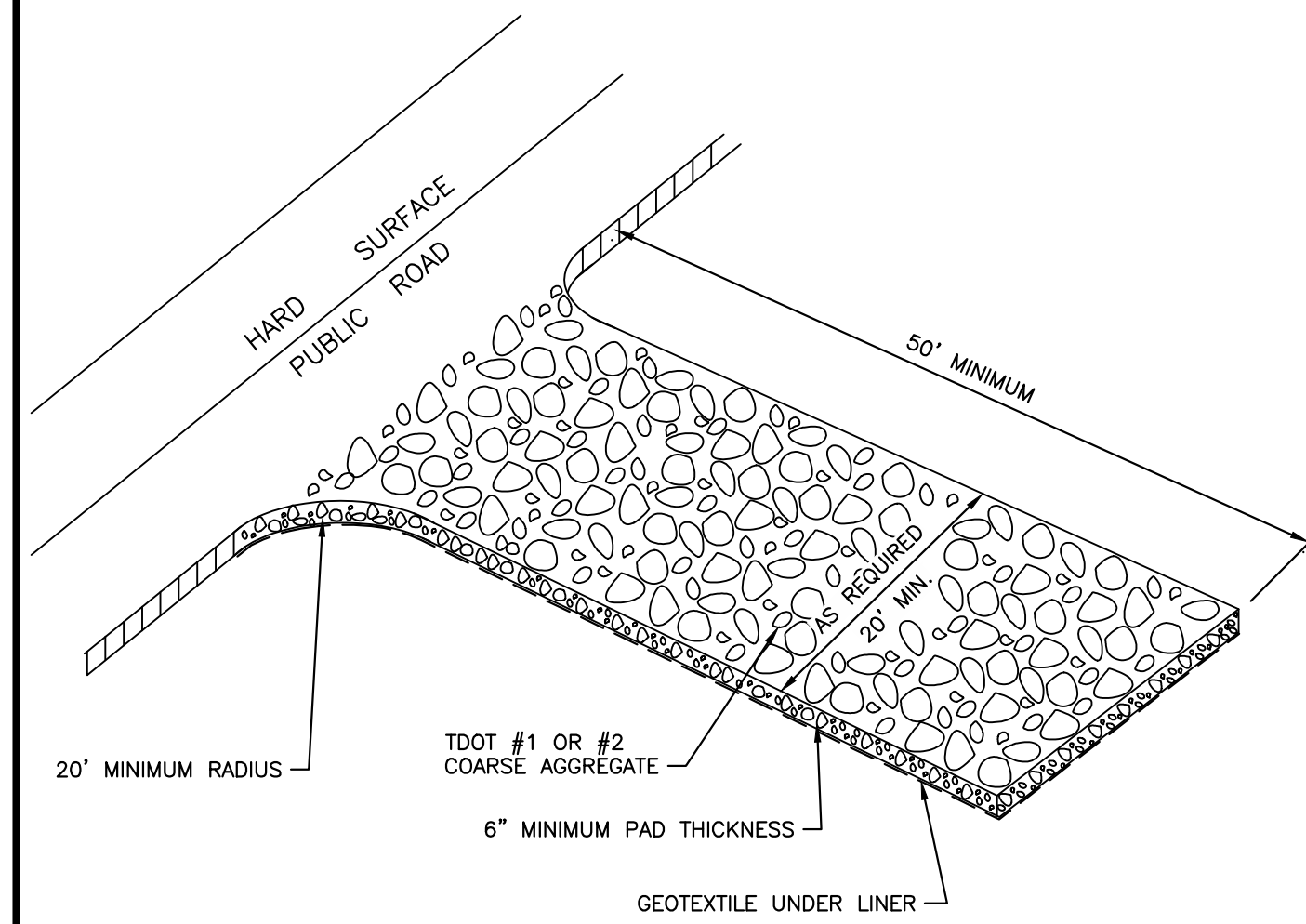
SECTION

- NOTES:
1. SILT FENCE SHALL BE PRE-ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
 2. SILT FENCE SHALL HAVE AN APPROVED BACKING OR A BUILT-IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE GEOTEXTILE FABRIC.
 3. SILT FENCE SHALL MEET ALL REQUIREMENTS PER TDOT STANDARD DRAWING EC-STR-3B.

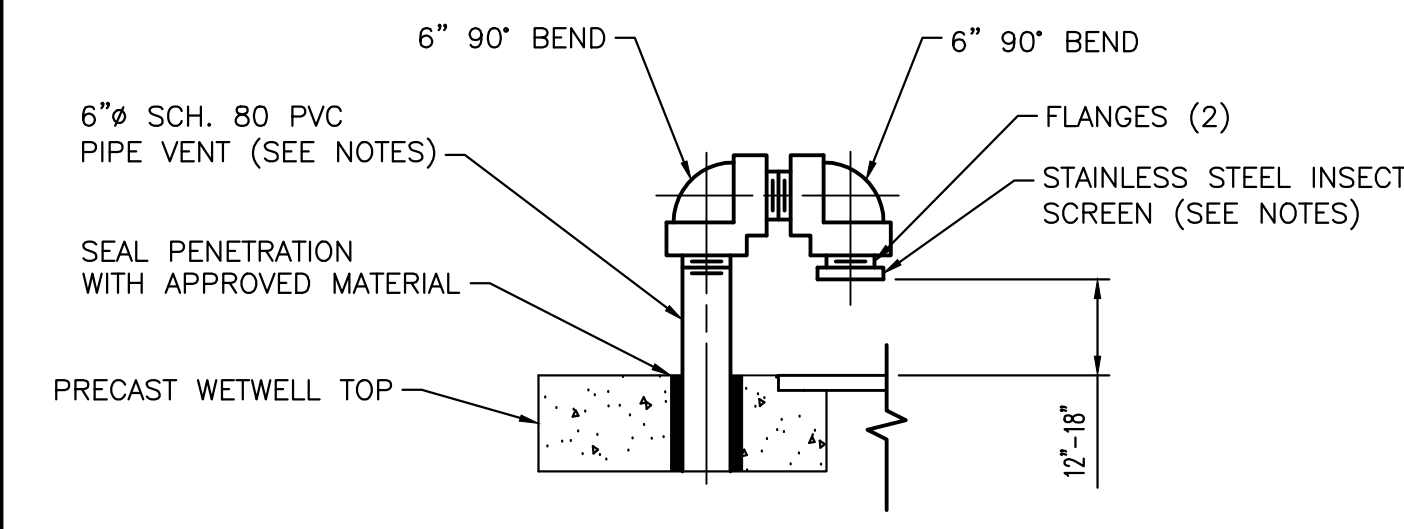


SILT FENCE TIEBACK FOR STEEL OR WOOD POSTS

SILT FENCE DETAIL



GRAVEL CONSTRUCTION ENTRANCE



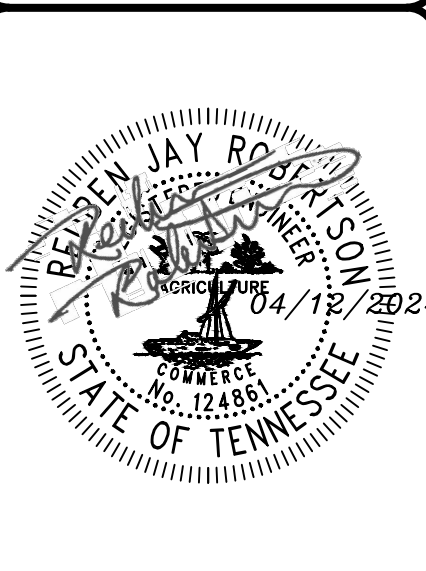
- NOTES:
1. INSTALL 1/8" STAINLESS STEEL INSECT SCREEN OVER A SHORT NIPPLE WITH ONE STAINLESS STEEL BAND CLAMP.
 2. PIPE VENT AND FITTINGS SHALL BE SCH. 80 PVC.

VENT DETAIL



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TOWN OF MOSHEIM
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SHEET TITLE:
TYPICAL DETAILS

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