



Northwestern Water & Sewer District
Ford Road Pump Station Improvements – SS-400D

ADDENDUM 2

August 6, 2021

Planholders of the Northwestern Water & Sewer District, Ford Road Pump Station Improvements, SS-400D are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

These changes are made to permit pump floor door opening to be made larger to accommodate the deep lift apparatus.

DRAWINGS

Sheet S-0.1, General Structural Details

Replace Sheet S-0.1 with the sheet attached to Addendum 2.

Sheet S-1.2, Wet Well Structural Plans and Details

Replace Sheet S-1.2 with the sheet attached to Addendum 2.

Sheet PE-1.1, General Structural Details

Replace Sheet PE-1.1 with the sheet attached to Addendum 2.

SPECIFICATIONS

Specification Section 08320, Section 4.01, Replace the entire section with the following

“4.01 FLOOR DOOR SCHEDULE

- A. All access floor doors shown on the Drawings and scheduled below shall be provided:

| Mark | Clear Opening | Location | Loading | Remarks |
|-------|---------------|-------------------|---------|----------------------------------|
| FD1-1 | 40"x84" | Wet Well Top Slab | H20 | Double Door With Fall Protection |
| FD1-2 | 40"x84" | Wet Well Top Slab | H20 | Double Door With Fall Protection |
| FD1-3 | 40"x84" | Wet Well Top Slab | H20 | Double Door With Fall Protection |



**Northwestern Water & Sewer District
Ford Road Pump Station Improvements
SS-400D
Addendum 2**

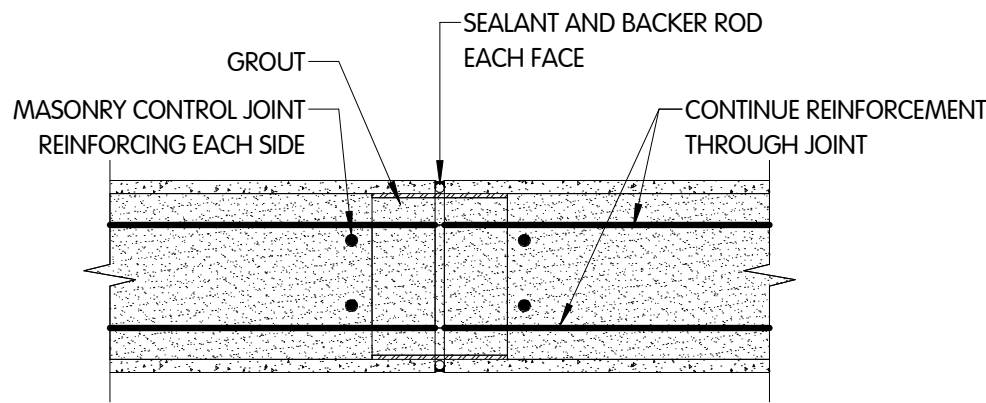
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|-------|---------|--------------------|---------|---|
| FD1-4 | 36"x36" | Wet Well Top Slab | H20 | Single Door With Fall Protection |
| FD1-5 | 72"x48" | Wet Well Top Slab | H20 | Double Door With Fall Protection |
| FD3-1 | 60"x36" | Flow Meter Chamber | 300 psf | Double Door With Safety Post Ladder Extension (See Section 02551) |
| FD3-2 | 36"x36" | Flow Meter Chamber | 300 psf | Single Door |

- B. The clear opening dimensions provided is the minimum distance between all frame, strike plates, accessories, brackets, hinges, or structural components. It is understood the concrete opening will be larger than the clear opening."

Attachments: Drawing Sheets S-0.1, S-1.2 & PE-1.1

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410 - 1 OF THE BID.

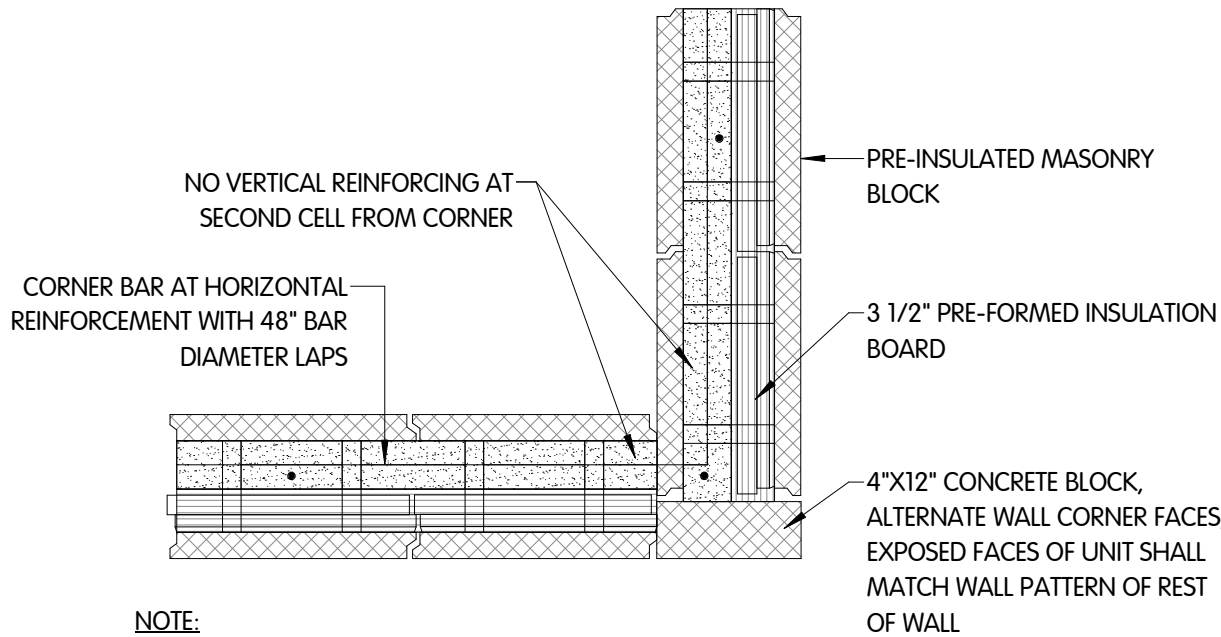
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NOTE:
THIS DETAIL ONLY APPLIES TO BOND BEAMS AT ROOF BEARING ELEVATIONS. REFER TO OTHER TYPICAL WALL CONTROL JOINT DETAILS FOR BOND BEAMS AT OTHER ELEVATIONS.

TYPICAL BOND BEAM CONTROL JOINT DETAIL

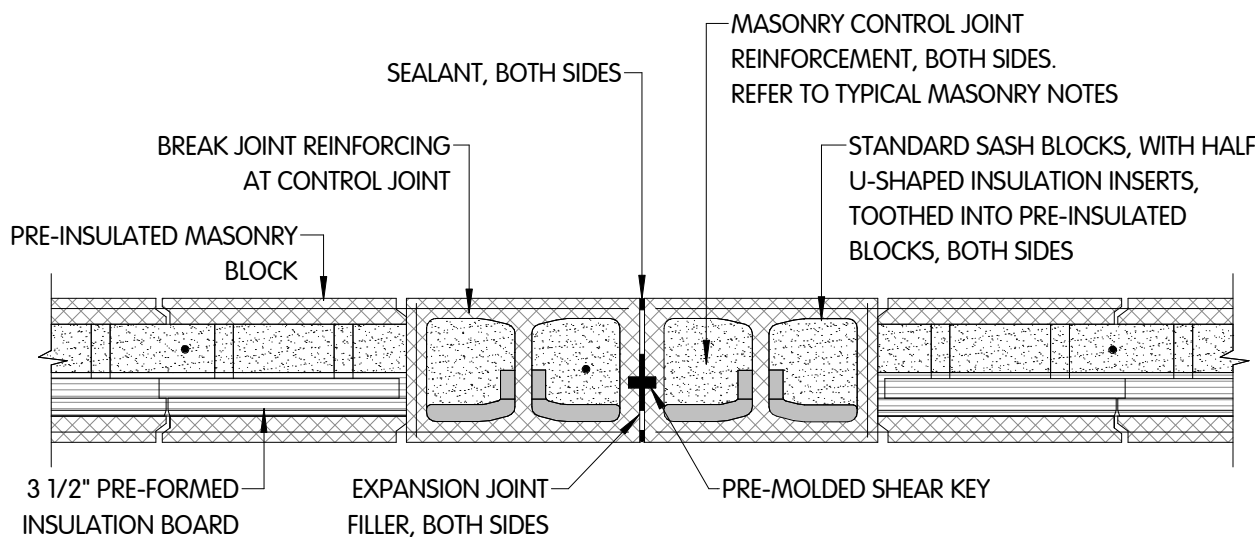
1 1/2" = 1'-0"



NOTE:
CENTER VERTICAL REINFORCEMENT BARS IN GROUTED CAVITY.

TYPICAL WALL CORNER DETAIL

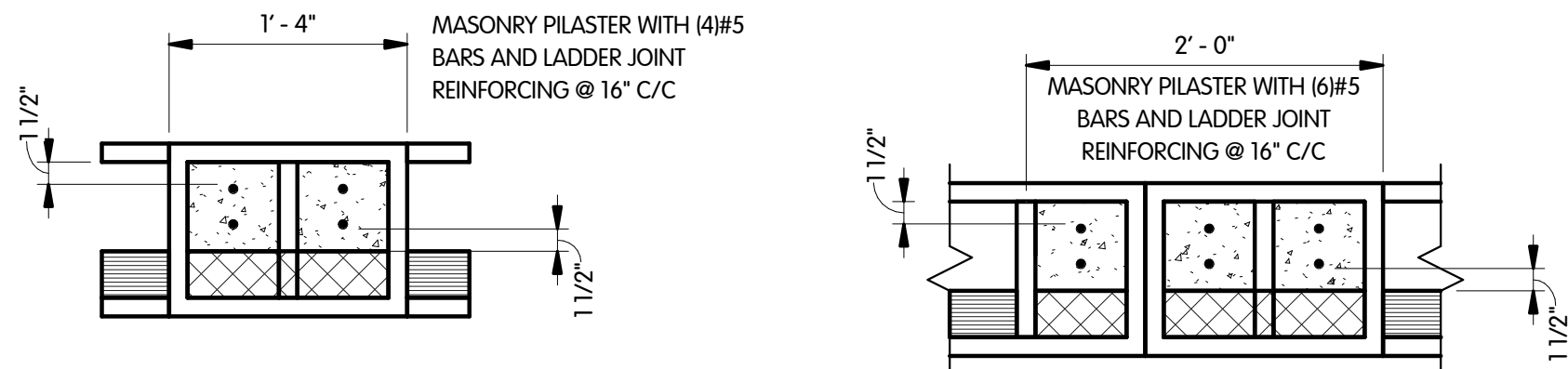
3/4" = 1'-0"



NOTE:
CENTER VERTICAL REINFORCEMENT BARS IN GROUTED CAVITY.

TYPICAL WALL CONTROL JOINT (CJ) DETAIL

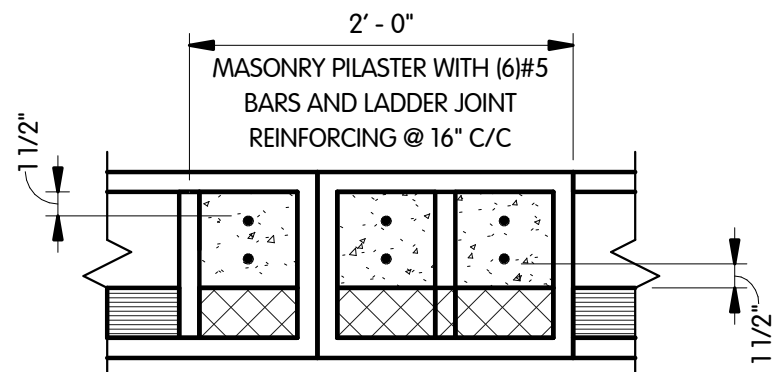
3/4" = 1'-0"



NOTE:
PILASTER SHOWN ABOVE JAMB. SEE JAMB DETAILS FOR JAMB BLOCK CONSTRUCTION.

PILASTER DETAIL P1

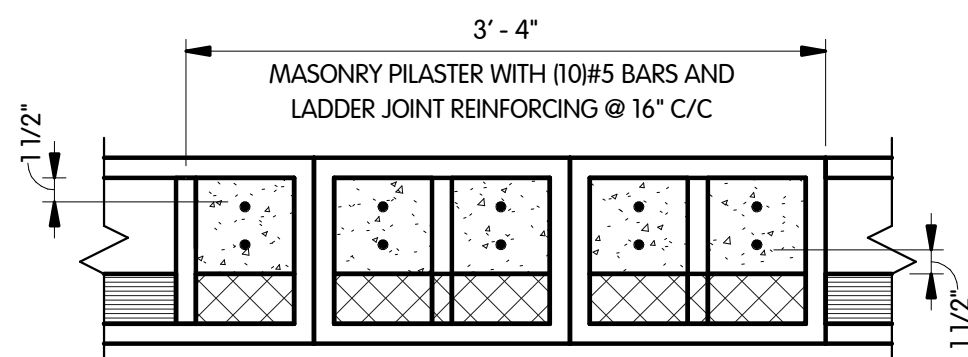
1" = 1'-0"



NOTE:
PILASTER SHOWN ABOVE JAMB. SEE JAMB DETAILS FOR JAMB BLOCK CONSTRUCTION.

PILASTER DETAIL P2

1" = 1'-0"



NOTE:
PILASTER SHOWN ABOVE JAMB. SEE JAMB DETAILS FOR JAMB BLOCK CONSTRUCTION.

PILASTER DETAIL P3

1" = 1'-0"

STRUCTURAL DESIGN DATA

| | | | | | |
|--------------------|--|--|--|--|--|
| BUILDING CODE | | | 2017 OHIO BUILDING CODE | | |
| OCCUPANCY CATEGORY | | | = III | | |
| USE GROUP | | | = F-2 | | |
| CONSTRUCTION TYPE | | | = 2-B | | |
| FLOOR | LIVE LOAD, UNLESS NOTED OTHERWISE | | = 150 PSF | | |
| FLAT ROOF | LIVE LOAD | | = 20 PSF (MIN.) | | |
| | MECHANICAL & ELECTRICAL | | = 10 PSF | | |
| SNOW | GROUND SNOW LOAD | | = P _G = 20 PSF | | |
| | FLAT ROOF | | = P _F = 22 PSF | | |
| | SNOW EXPOSURE FACTOR | | = C _e = 1.0 | | |
| | SNOW LOAD IMPORTANCE FACTOR | | = I _s = 1.1 | | |
| WIND | THERMAL FACTOR | | = C _t = 1.0 | | |
| | BASIC WIND SPEED | | = 120 MPH | | |
| | IMPORTANCE FACTOR | | = I = 1.1 | | |
| | WIND EXPOSURE | | = C | | |
| SEISMIC | SEISMIC IMPORTANCE FACTOR | | = I _E = 1.25 | | |
| | SITE CLASS | | = D | | |
| | SEISMIC DESIGN CATEGORY | | = C | | |
| | DESIGN SPECTRAL RESPONSE ACCELERATIONS | | = S _{DS} = 0.143 = S _{D1} = 0.087 | | |
| SOILS | ANALYSIS PROCEDURE | | = EQUIVALENT LATERAL FORCE | | |
| | DESIGN BEARING CAPACITY | | = 2500 PSF | | |
| | DESIGN STRENGTH AT 28 DAY | | = 4500 PSI | | |
| | 100 YEAR ELEVATION | | = 617.00 | | |

PENETRATION SCHEDULE

| TAG / ID | SIZE | TYPE | CL. PIPE EL. (UNO) | CONNECTION | USE | REMARKS |
|----------|------|------|--------------------|------------|-----|---------------------------------|
| WET WELL | | | | | | |
| PP-1 | 16" | A | 623.0 | MJ X FL | RS | |
| PP-2 | 16" | A | 623.0 | MJ X FL | RS | |
| PP-3 | 16" | A | 623.0 | MJ X FL | RS | |
| PP-4 | 8" | A | 623.00 | MJ X FL | RS | |
| PP-5 | 48" | C | 594.54 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |
| PP-6 | 4" | C | 628.00 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |
| PP-7 | 6" | C | 623.46 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |
| PP-8 | 4" | C | 618.64 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |

CONTROL BUILDING

| | | | | | | |
|------|-----|---|-----|-----|--|--|
| FP-1 | 16" | D | --- | --- | | |
| FP-2 | 16" | D | --- | --- | | |
| FP-3 | 16" | D | --- | --- | | |
| FP-4 | 8" | D | --- | --- | | |
| FP-5 | 16" | D | --- | --- | | |

FLOW METER CHAMBER

| | | | | | | |
|-------|-----|---|--------|-----|--|---------------------------------|
| PP-9 | 16" | C | 624.43 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |
| PP-10 | 16" | C | 624.43 | --- | | PROVIDE LINKSEAL EACH SIDE WALL |

FLOOR DOOR SCHEDULE

| DOOR NO. | SIZE (CLEAR OPENING) | | REMARKS |
|--------------------|----------------------|---------|-----------------------|
| | WIDTH | Length | |
| WET WELL | | | |
| FD-1 | 7' - 0" | 3' - 4" | WITH FALL PROTECTION |
| FD-2 | 7' - 0" | 3' - 4" | WITH FALL PROTECTION |
| FD-3 | 7' - 0" | 3' - 4" | WITH FALL PROTECTION |
| FD-4 | 3' - 0" | 3' - 0" | WITH FALL PROTECTION |
| FD-5 | 6' - 0" | 4' - 0" | WITH FALL PROTECTION |
| FLOW METER CHAMBER | | | |
| FD-6 | 6' - 0" | 3' - 0" | WITH LADDER UP DEVICE |
| FD-7 | 3' - 0" | 3' - 0" | |

GENERAL NOTES:

- ALL CONSTRUCTION JOINTS IN WALLS AND BASE SLABS OF STRUCTURES THAT CONTAIN OR CONVEY LIQUIDS, OR CONTAIN EQUIPMENT OR OCCUPANTS, THAT ARE BELOW GRADE OR 100 YEAR FLOOD, SHALL HAVE CONTINUOUS WATERSTOPS TO MAKE THE STRUCTURE WATERTIGHT. JOIN THE WATERSTOPS AT ALL INTERSECTIONS SO THAT A CONTINUOUS SEAL IS PROVIDED. WATERSTOPS SHALL BE SECURED RIGIDLY IN THEIR DESIGN LOCATIONS DURING CONCRETE PLACEMENT. VIBRATE CONCRETE TO CONSOLIDATE IT AROUND THE WATERSTOPS.
- LAP SPLICES, CONSTRUCTION JOINT DETAILS, WALL CORNER REINFORCEMENT DETAILS, JOINT SEALING DETAILS, SHEAR KEY DETAILS, ETC., UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SHALL ADHERE TO STANDARD STRUCTURAL DETAIL DRAWINGS.
- THE CONTRACTOR SHALL MAINTAIN ADEQUATE SUPERVISION AND CONTROL OF DEWATERING OPERATIONS TO ENSURE THAT STABILITY OF EXCAVATED AND CONSTRUCTED SLOPES ARE NOT ADVERSELY AFFECTED BY INFLOW OF GROUNDWATER AND TO PERMIT PLACEMENT AND CURING OF CONCRETE UNDER CONTROLLED ENVIRONMENTS.
- BACKFILL SHALL NOT BE PLACED AGAINST CONCRETE TANK OR RETAINING WALLS PRIOR TO PLACEMENT OF TOP SLAB AND ADJACENT WALLS, AND SHALL NOT BE BACKFILLED PRIOR TO 28 DAYS AFTER PLACEMENT, UNLESS IT IS DEMONSTRATED THAT FIELD CURED TEST SPECIMENS HAVE REACHED THE CONCRETE DESIGN STRENGTH, OR CONTRACTOR INSTALLS ADEQUATE SHORING. SHORING SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND INSTALLED AT NO COST TO OWNER.
- THE BACKFILL UNDERNEATH BASE SLABS AND FOOTINGS SHALL BE SPECIAL BACKFILL, UNLESS OTHERWISE APPROVED, IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE WELL COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE STANDARD PROCTOR TEST ASTM D-698 AND SPECIFICATION 02200.
- WHEREVER REINFORCEMENT REQUIREMENTS FOR STRUCTURAL COMPONENTS (BEAMS, SLABS, WALLS, ETC.) DON'T AGREE AMONG DIFFERENT SECTIONS, THE MOST CONSERVATIVE REQUIREMENT AMONG THEM WILL GOVERN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- IF NOT OTHERWISE SHOWN OR SPECIFIED ALL WALL VERTICAL REINFORCING SHALL BE DOWELED INTO BASE MATS, ALL WALL HORIZONTAL REINFORCING SHALL BE DOWELED OR HAVE CORNER BARS TO ADJACENT WALLS, AND ALL SLAB HORIZONTAL REINFORCING SHALL BE DOWELED INTO ADJACENT WALLS, WITH REINFORCING THAT MATCHES THE GIVEN REINFORCEMENT. IF NOT OTHERWISE SHOWN OR SPECIFIED, CONCRETE SECTIONS SHALL BE HORIZONTALLY AND VERTICALLY REINFORCED WITH #5 BARS AT 12" C/C, EACH WAY AND EACH FACE.
- WHENEVER THICKNESSES OF STRUCTURAL COMPONENTS (WALLS, SLABS, BEAMS, ETC.) DON'T AGREE AMONG DIFFERENT SECTIONS, THE THICKEST SECTION AMONG THEM THEN SHALL GOVERN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS AT INTERFACE BETWEEN EXISTING & NEW CONSTRUCTION BEFORE STARTING TO FABRICATE STRUCTURAL STEEL OR DETAILING REBARS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
- THE CONTRACTOR SHALL ENSURE THAT FOUNDATIONS REST ON FIRM MATERIAL OVER THEIR ENTIRE AREA. THE TESTING LAB SHALL VERIFY THAT A SOIL BEARING CAPACITY OF THAT LISTED BY THE "STRUCTURAL DESIGN DATA" TABLE IS OBTAINED. THE BEARING CAPACITY VERIFICATION IS REQUIRED AT REGULAR INTERVALS IN EACH DIRECTION. NOTIFY THE ENGINEER OF ANY UNSUITABLE SOIL ENCOUNTERED. SUCH SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SPECIAL BACKFILL AS DIRECTED BY THE ENGINEER.
- ALL TREATED WOOD SHALL BE SECURED WITH STAINLESS STEEL OR HOT DIP GALVANIZED FASTENERS.
- CHAMFER STRIPS SHALL BE PLACED IN CORNERS OF FORMS AND AT ALL EXPOSED EDGES TO PRODUCE A BEVELED EDGE ON PERMANENTLY EXPOSED SURFACES. CHAMFERS SHALL BE 3/4 - INCH OR AS NOTED ON DRAWINGS. CHAMFER STRIPS SHALL BE WOOD, METAL, PVC, OR RUBBER AND SHALL BE FABRICATED AND INSTALLED TO PRODUCE UNIFORMLY SMOOTH AND STRAIGHT LINES. CHAMFER STRIPS SHALL BE MITERED AT CHANGES IN DIRECTION.
- CONTRACTOR SHALL ADD CONCRETE REINFORCEMENT DOWEL BAR REPLACEMENTS (DBR'S) WHERE REQUIRED TO FACILITATE CONSTRUCTION. LOCATION OF DBR'S REQUIRE ENGINEER'S APPROVAL.

TYPICAL MASONRY NOTES:

- MASONRY BLOCK WALLS SHALL BE VERTICALLY REINFORCED AS FOLLOWS, UNLESS NOTED OTHERWISE: 8" WALLS REINFORCED WITH #5@48" C/C, 10" WALLS REINFORCED WITH #5@40" C/C AND 12" WALLS REINFORCED WITH #5@32" C/C.
- ALL WALL CORNERS, ENDS, CONTROL JOINTS AND JAMBS OF OPENINGS GREATER THAN 2'-10" SHALL BE REINFORCED VERTICALLY FOR FULL HEIGHT OF FLOOR AS FOLLOWS: 8" WALLS SHALL BE REINFORCED WITH (1) #5, 10" AND 12" WALLS SHALL BE REINFORCED WITH (2) #5.
- ALL VERTICAL WALL REINFORCEMENT SHALL SPAN FROM FOOTING TO PARAPET IN SOLID GROUTED CELLS, WITH 48 BAR DIAMETER LAPS. DOWEL WALLS TO FOOTING WITH MATCHING REINFORCEMENT, UNLESS NOTED OTHERWISE. STRAIGHT DOWELS SHALL BE EMBEDDED 36 BAR DIAMETERS AND HOOKED DOWELS SHALL BE EMBEDDED 12 BAR DIAMETERS.
- MASONRY BLOCK WALLS SHALL BE HORIZONTALLY REINFORCED IN BOND BEAM UNITS AS SHOWN BY SECTIONS AND WITH 9 GAGE, LADDER TYPE, JOINT REINFORCING AT 16" C/C. PROVIDE CORNER BARS AT REINFORCED BOND BEAMS WITH 48 BAR DIA. LAPS. RUN TOP OF WALL BOND BEAM REINFORCING THROUGH MASONRY CONTROL JOINTS, UNLESS NOTED OTHERWISE.
- ALL MASONRY WALL OPENINGS GREATER THAN 12" REQUIRE A UNTEL. PROVIDE MASONRY UNTEL H-1 THAT IS USED FOR DOOR HEADER, UNLESS NOTED OTHERWISE. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL OPENINGS.
- FILL CORES IN HOLLOW CONCRETE MASONRY UNITS UNDER BEARING PLATES, BEAMS, UNTELS, POSTS AND SIMILAR ITEMS. UNLESS SHOWN OTHERWISE, GROUT SHALL EXTEND A MINIMUM 24-INCH DEEP AND 12-INCH ON EACH SIDE OF BEARING AREA.

NOTE:
SCHEDULES ARE NOT GUARANTEED TO BE COMPLETE. ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WHETHER OR NOT LISTED IN THE FOLLOWING SCHEDULE.



GENERAL STRUCTURAL SCHEDULES AND DETAILS

NORTHWESTERN WATER AND SEWER DISTRICT, OHIO
FORD ROAD PUMP STATION IMPROVEMENTS (SS-4000)

Jones & Henry
Engineers, Ltd.



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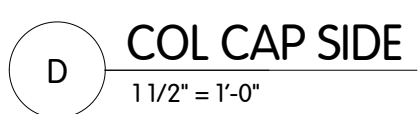
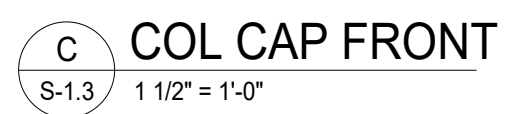
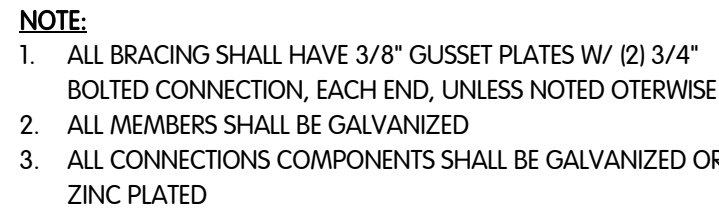
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DATE: JULY 2021

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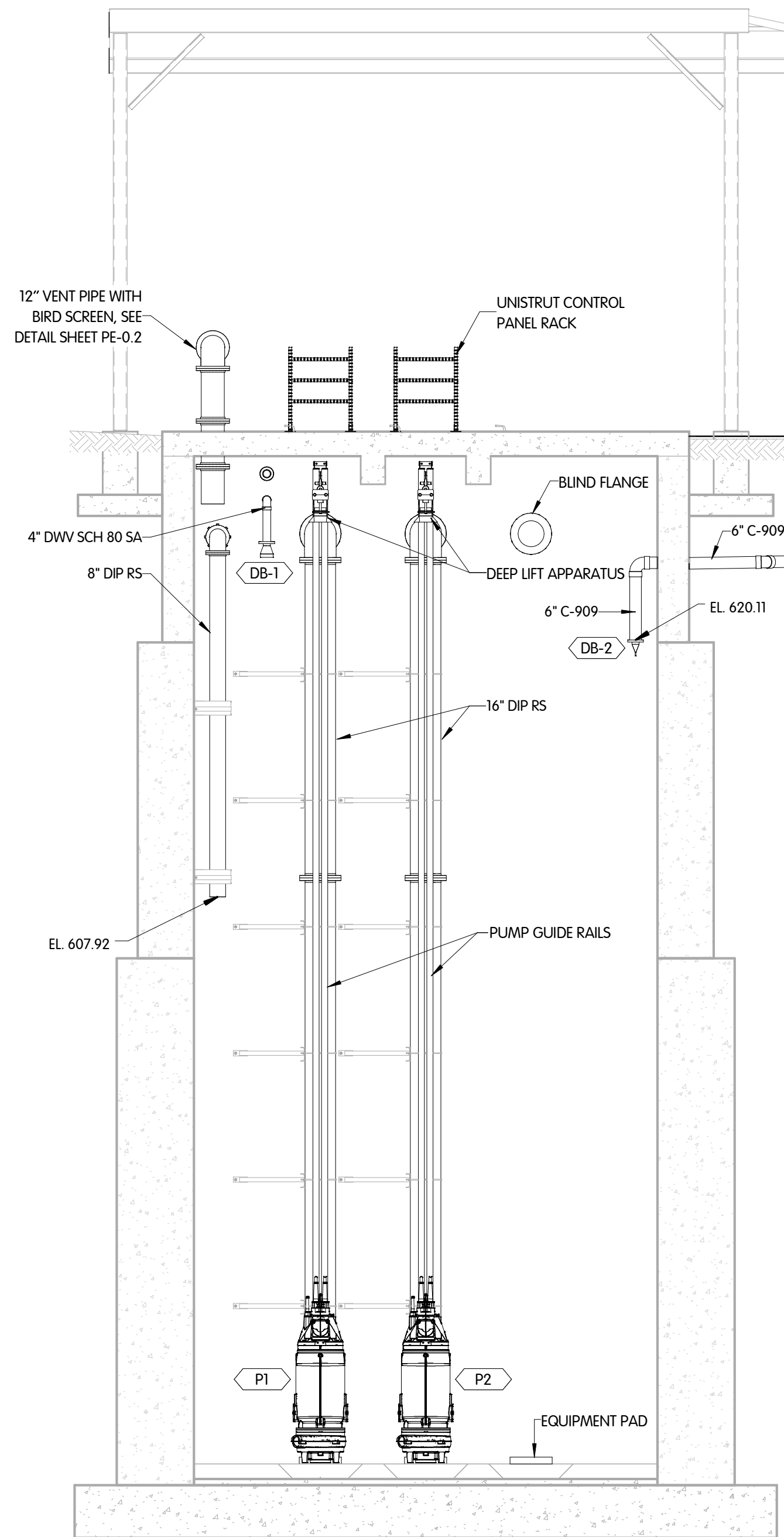
NOTE:
EQUIPMENT AND PIPING NOT SHOWN FOR CLARITY.

WET WEL STRUCTURAL PLANS AND DETAILS

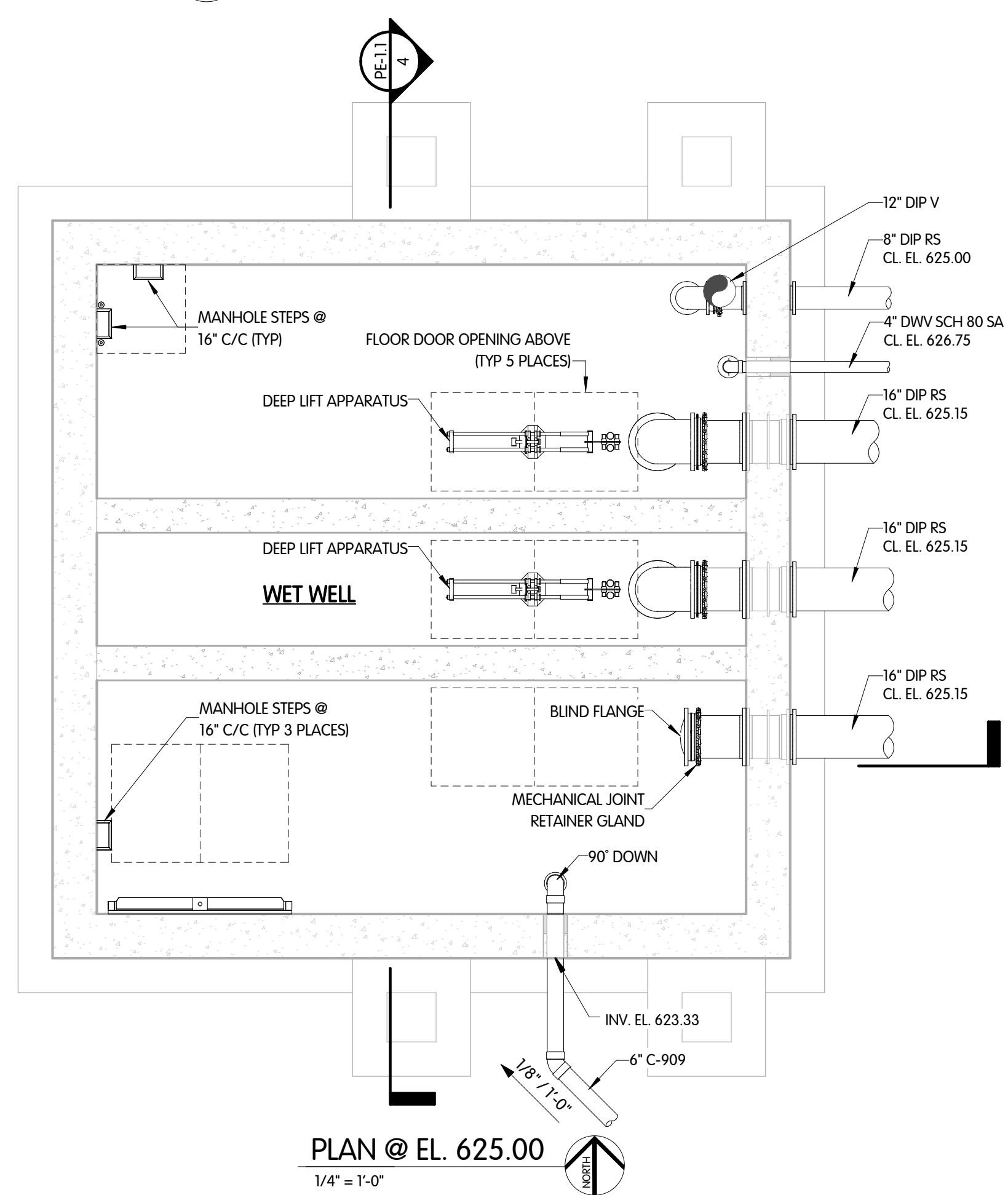
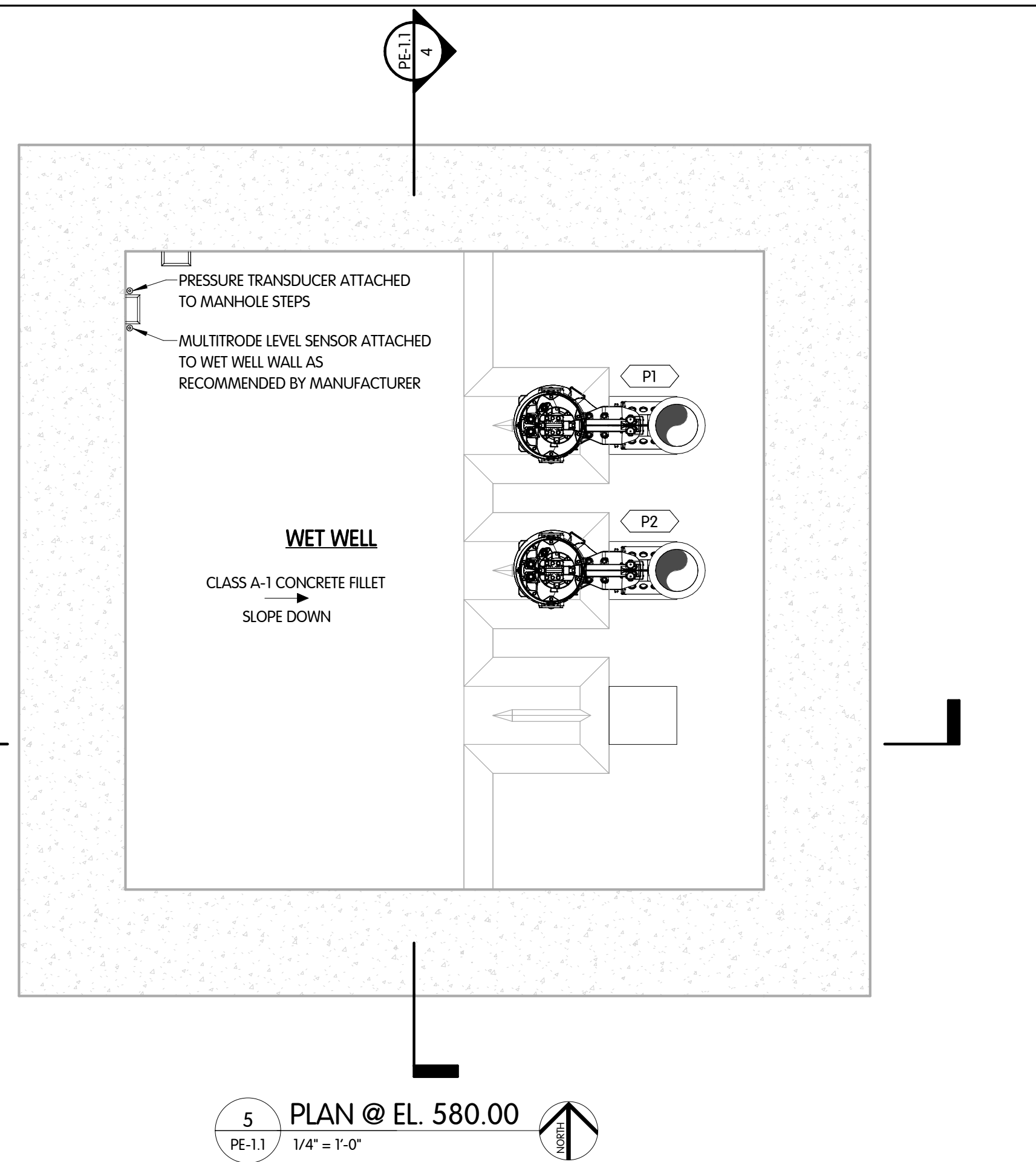
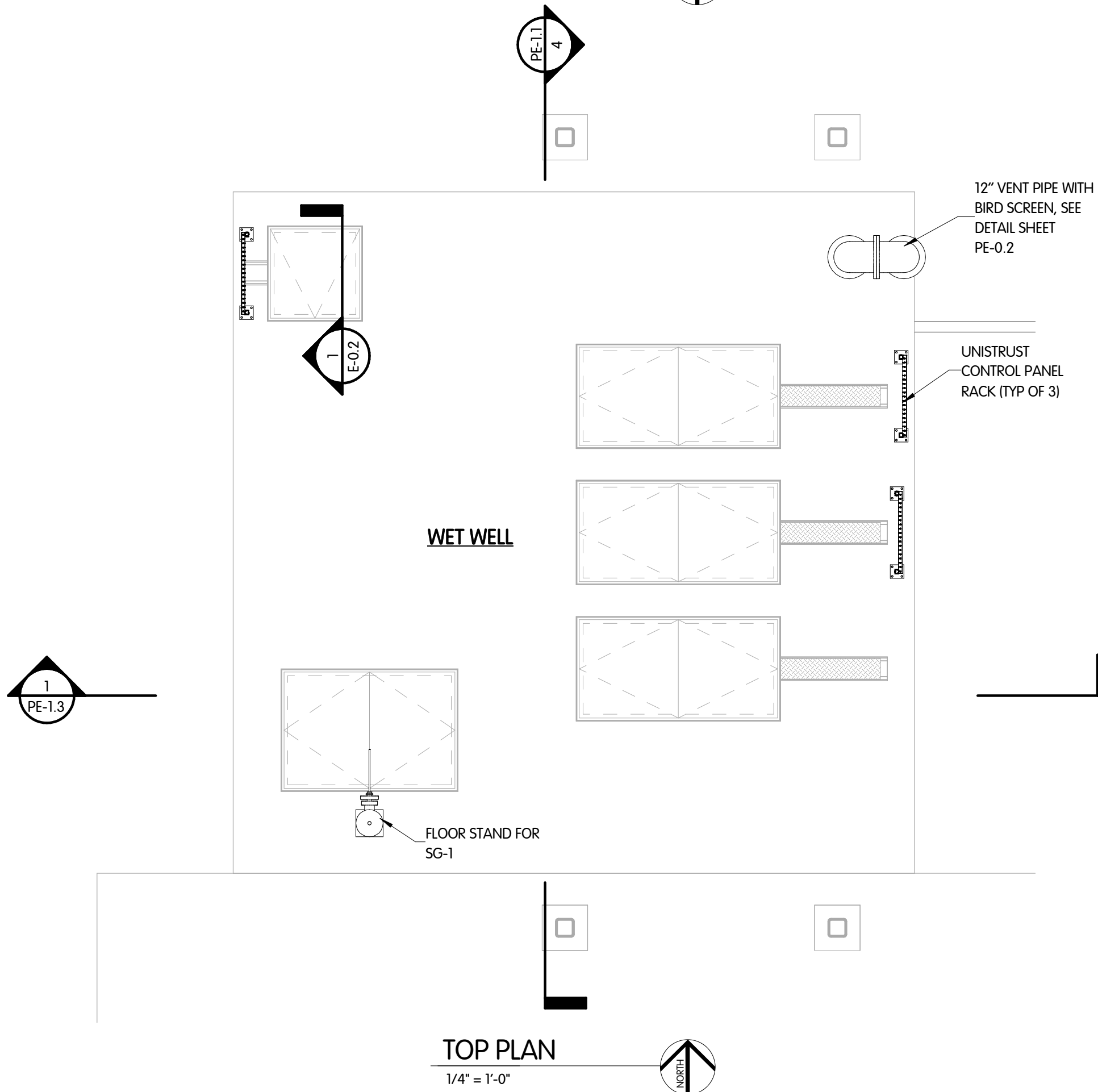
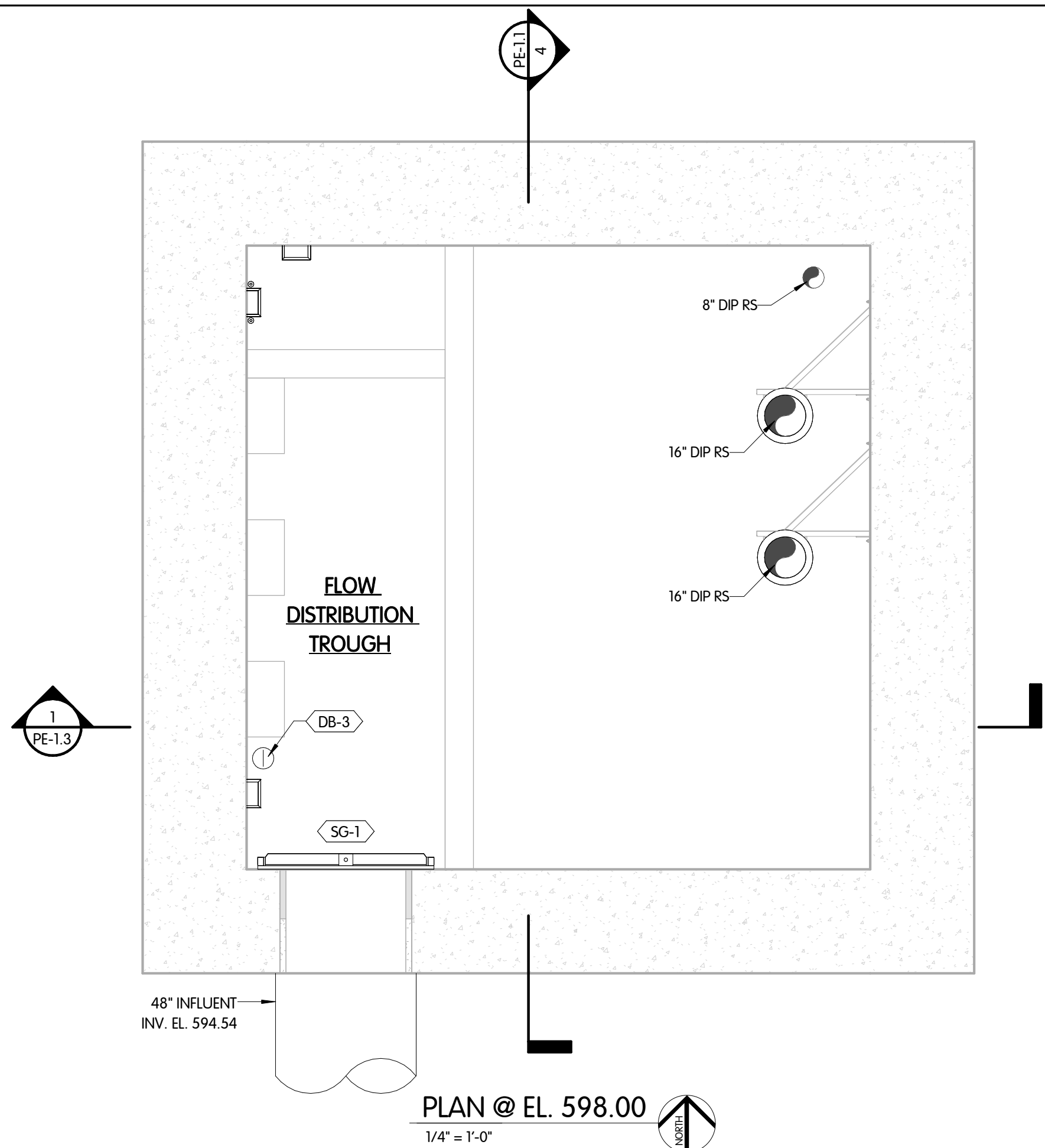
NORTHWESTERN WATER AND SEWER DISTRICT, OHIO
FORD ROAD PUMP STATION IMPROVEMENTS (SS-400D)



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4 SECTION
PE-1.0 3/16" = 1'-0"



NOTES:

1. MOUNT UPPER END OF PUMP GUIDERAIL TO STRUCTURE / FLOOR DOOR IN ACCORDANCE WITH THE PUMP MANUFACTURER'S RECOMMENDATIONS.
2. GUIDE RAIL CONSTRUCTION SHALL BE COMPATIBLE WITH THE PUMP MANUFACTURER'S RECOMMENDATIONS.
3. ACCESS OPENING AND ANCHOR BOLTS TO BE LOCATED BASED UPON PUMP MANUFACTURER'S STANDARD DRAWINGS FOR LAYOUT AND GUIDE RAIL DIAMETER SELECTED.



WET WELL
PIPING & EQUIPMENT
PLANS AND SECTION

NORTHWESTERN WATER AND SEWER DISTRICT, OHIO
FORD ROAD PUMP STATION IMPROVEMENTS (SS-400D)

| | | | | |
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