

END CONTRACT 1-2017
 AT STATION 10+80
 SEE SHEET 29
 6" FM N: 2092765.21
 E: 1603218.19
 10" FM N: 2092769.30
 E: 1603218.51
 12" FM N: 2092780.25
 E: 1603219.38

END CONTRACT 1-2017
 AT MH R-01
 STATION 10+60
 SEE SHEET 85
 CONTRACT 4-2017 WILL
 PROVIDE MH R-01



| DATE: | NO. | REVISIONS |
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INDUSTRIAL PARK PUMP STATION NO.1
PHOTOGRAPHIC SITE PLAN
CONTRACT 1-2017

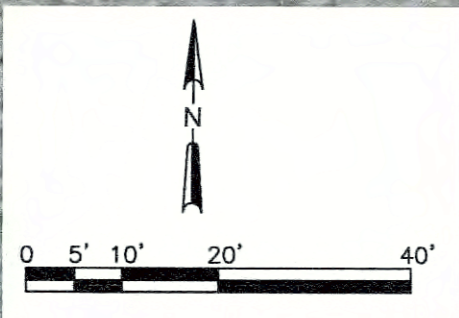
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
5980.020

PROJECT MGR.
MAS



SHEET
05

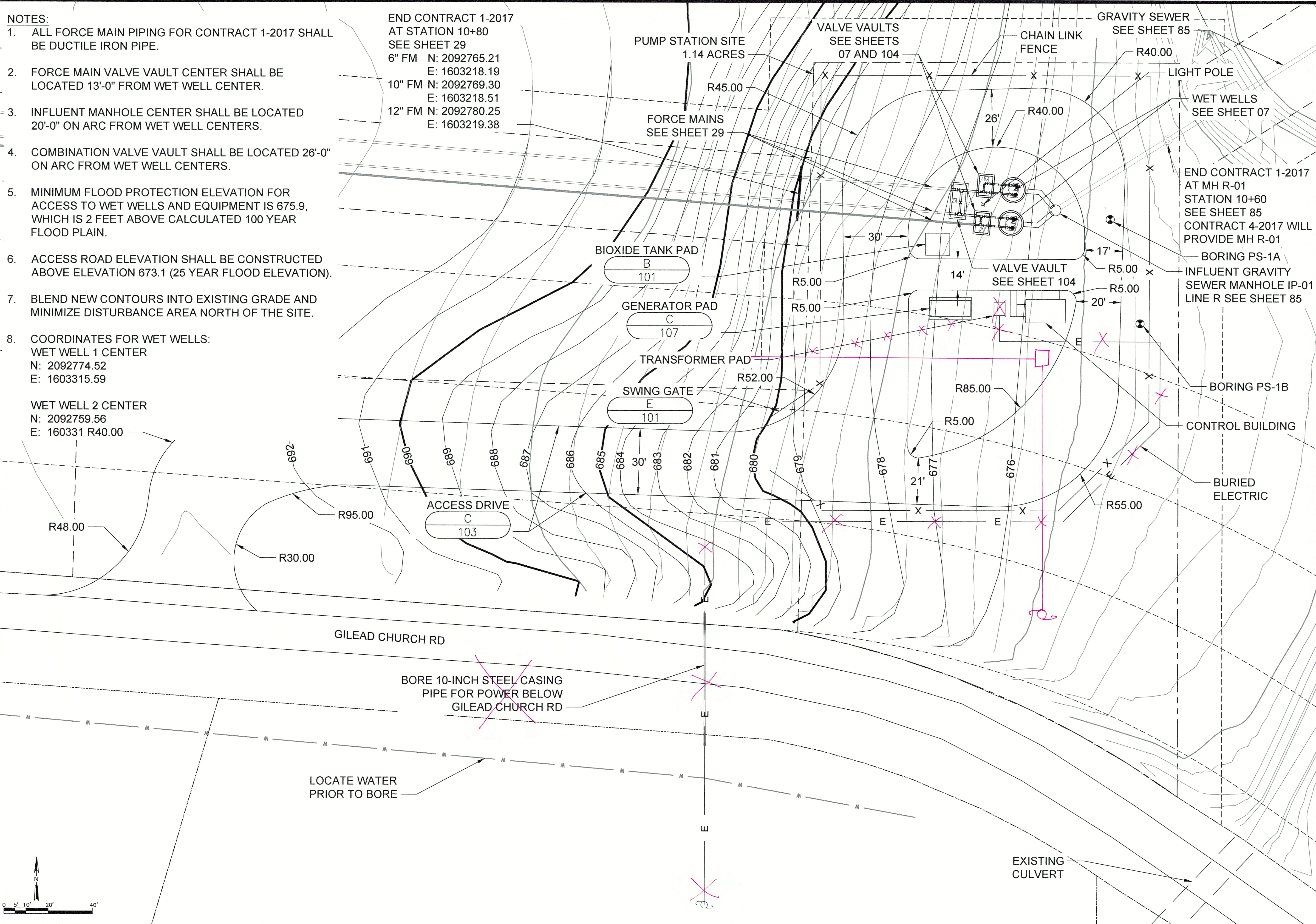


NOTES:

1. ALL FORCE MAIN PIPING FOR CONTRACT 1-2017 SHALL BE DUCTILE IRON PIPE.
2. FORCE MAIN VALVE VAULT CENTER SHALL BE LOCATED 13'-0" FROM WET WELL CENTER.
3. INFLUENT MANHOLE CENTER SHALL BE LOCATED 20'-0" ON ARC FROM WET WELL CENTERS.
4. COMBINATION VALVE VAULT SHALL BE LOCATED 26'-0" ON ARC FROM WET WELL CENTERS.
5. MINIMUM FLOOD PROTECTION ELEVATION FOR ACCESS TO WET WELLS AND EQUIPMENT IS 675.9, WHICH IS 2 FEET ABOVE CALCULATED 100 YEAR FLOOD PLAIN.
6. ACCESS ROAD ELEVATION SHALL BE CONSTRUCTED ABOVE ELEVATION 673.1 (25 YEAR FLOOD ELEVATION).
7. BLEND NEW CONTOURS INTO EXISTING GRADE AND MINIMIZE DISTURBANCE AREA NORTH OF THE SITE.
8. COORDINATES FOR WET WELLS:
WET WELL 1 CENTER
N: 2092774.52
E: 1603315.59

WET WELL 2 CENTER
N: 2092759.56
E: 160331 R40.00

END CONTRACT 1-2017
AT STATION 10+80
SEE SHEET 29
6" FM N: 2092765.21
E: 1603218.19
10" FM N: 2092769.30
E: 1603218.51
12" FM N: 2092780.25
E: 1603219.38



STATE OF KENTUCKY
MARK A SNEVE
18511
Professional Engineer
8/15/17

| NO. | REVISIONS |
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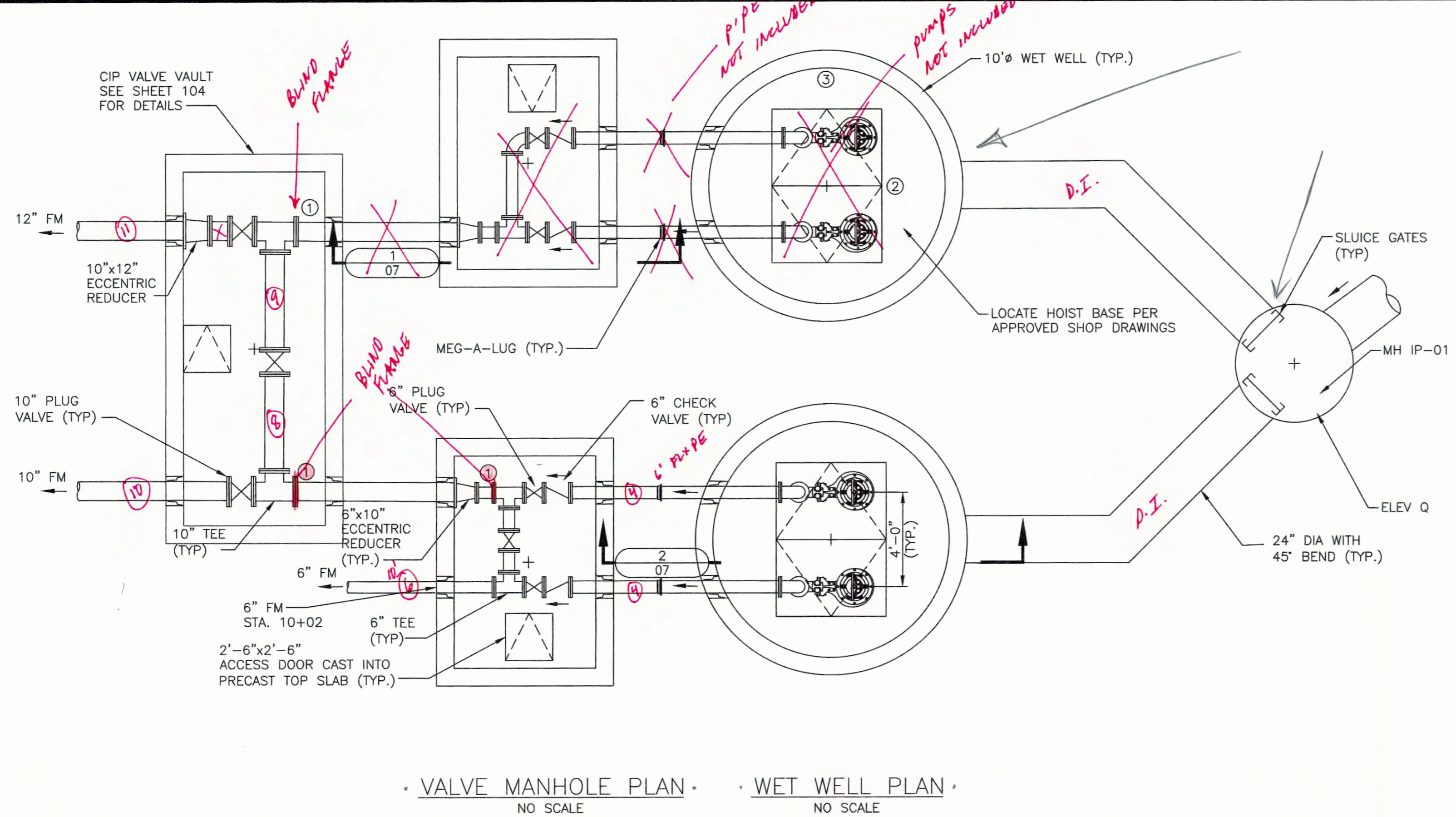
**INDUSTRIAL PARK PUMP STATION NO.1
PLANIMETRIC SITE PLAN
CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
5980.020
PROJECT MGR.
MAS

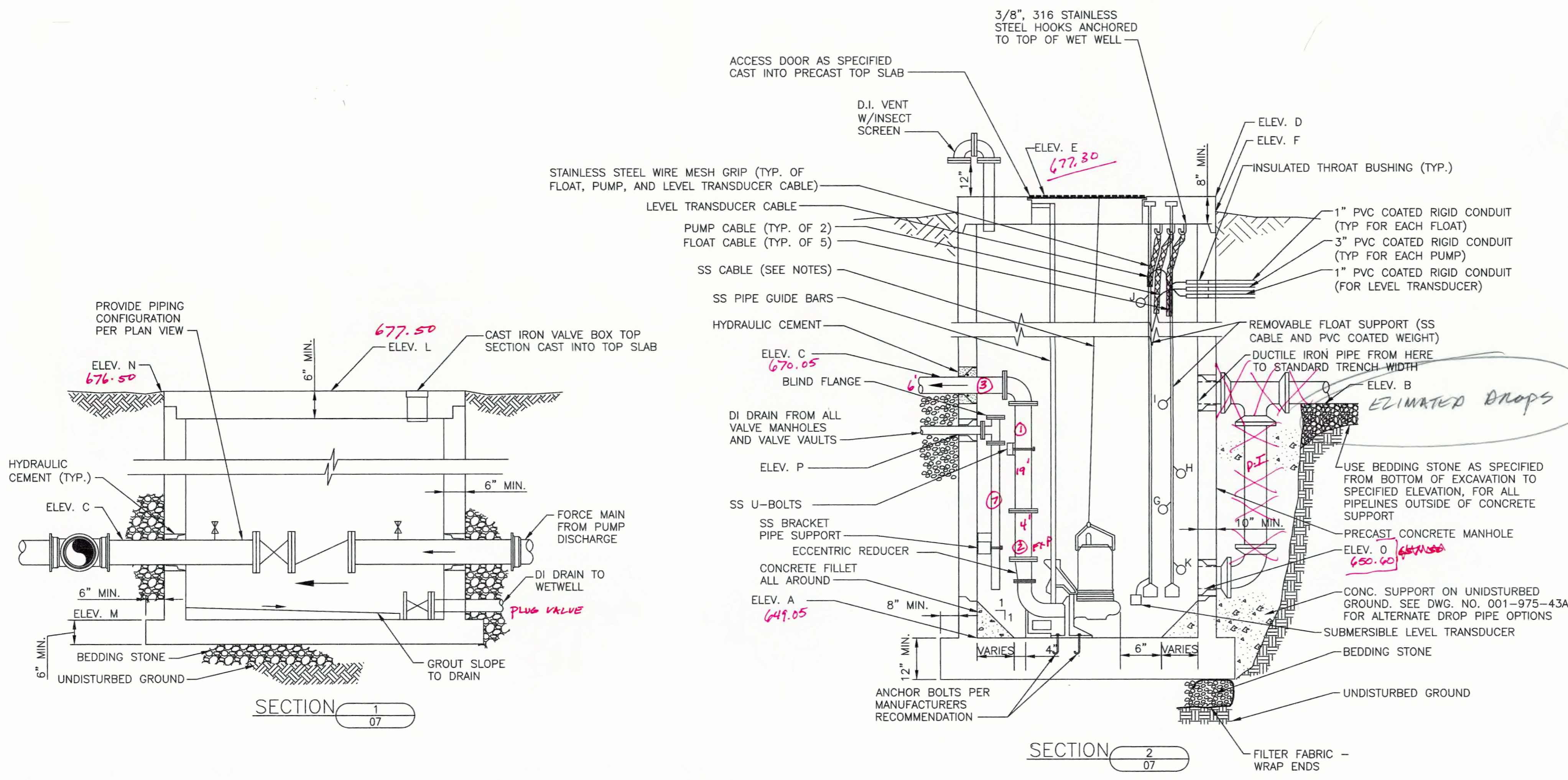


SHEET
06



- PUMP STATION NOTES:**
- DRAWINGS OF PUMPING STATION PIPING, PUMPS AND COVERS ARE DETAILED USING FLYGT EQUIPMENT.
 - ALL JOINTS IN MANHOLE SHALL BE MADE WITH "RAM-NEK", "KENT-SEAL", "MAS-STIK" OR EQUAL JOINT MATERIAL, OR ASTM C-443 CIRCULAR O-RING GASKET.
 - OPENINGS IN NEW MANHOLES SHALL BE PROVIDED BY MANHOLE SUPPLIER AT THE FACTORY.
 - GRAVITY SEWER PIPE OPENINGS INTO PUMPING STATION SHALL BE SEALED USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS "A-LOK", "KOR-N-SEAL" OR EQUAL. ALL FORCE MAIN AND OTHER OPENINGS INTO PUMPING STATION AND VALVE MANHOLE SHALL BE GROUTED WATERTIGHT WITH HYDRAULIC CEMENT. PROVIDE RUBBER WATERSTOPS ON ALL PIPES THROUGH PUMPING STATION AND VALVE MANHOLE WALLS SEALED WITH HYDRAULIC CEMENT.
 - STAINLESS STEEL CABLE FOR HOISTING PUMPS SHALL BE FASTENED TO MANHOLE COVER LID PER SPECIFICATIONS.
 - PROVIDE TAPS, BALL VALVES AND REMOVABLE PIPE END CAP AS SHOWN FOR PRESSURE GAGE CONNECTIONS.
 - STATION PIPING SHALL BE AWWA C151 DUCTILE IRON, SPECIAL THICKNESS CLASS 53, CONFORMING TO SPECIFICATIONS.
 - CONTRACTOR INSTALLING PUMPS SHALL CHECK ALIGNMENT OF PUMPS AND GUIDE BARS WITH CASTINGS BEFORE ASSEMBLY TO ALLOW PROPER REMOVAL OF PUMPS.
 - PRECAST MANHOLE TOP SLAB SHALL CONFORM TO ASTM C-478, REINFORCING SHALL BE FOR H-20 LOADING. EXACT DIMENSIONS AND POSITION OF PUMP ACCESS HOLE IN TOP SLAB SHALL BE AS PROVIDED BY PUMP MANUFACTURER TO ALLOW PROPER POSITIONING OF GUIDE RAILS AND UNRESTRICTED REMOVAL OF PUMPS.
 - ALL ANCHORS, BOLTS AND FABRICATED METAL WITHIN WET WELL SHALL BE STAINLESS STEEL.
 - BASE SLAB SHALL BE DESIGNED FOR BUOYANT FORCE ASSUMING GROUNDWATER LEVEL AT GRADE AND THE STRUCTURE EMPTY. CONTRACTOR MAY PROVIDE CAST-IN-PLACE SLABS INSTEAD OF PRECAST. IF CAST-IN-PLACE ARE USED, CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY. USE OF CAST-IN-PLACE SLAB SHALL NOT RELIEVE CONTRACTOR OF REQUIREMENT TO PROVIDE WATERTIGHT JOINTS.
 - CONTRACTOR SHALL FURNISH ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE INSTALLATION.
 - APPLY TANK LINING SYSTEM TO UNDERSIDE OF TOP SLAB AND TO INTERIOR WALLS OF WET WELL PER SPECIFICATIONS.
 - SEE SPECIFICATIONS FOR CONDUIT, FITTINGS, AND INSTALLATION REQUIREMENTS OF ELECTRICAL WORK BETWEEN WET WELL AND MOTOR CONTROL CENTER. ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3 FOOT RADIUS OF THE WET WELL VENT SHALL BE RATED CLASS I, DIVISION 1, GROUPS C AND D LOCATION. ALL ELECTRICAL WORK AND EQUIPMENT BETWEEN A 3 FOOT RADIUS AND 5 FOOT RADIUS OF THE WET WELL VENT AND WITHIN 18" ABOVE AND 3 FEET HORIZONTALLY FROM WET WELL HATCH SHALL BE RATED FOR A CLASS I, DIVISION 2, GROUPS C AND D LOCATION.

- KEY NOTES:**
- PROVIDE BLIND FLANGE. PIPING BETWEEN BLIND FLANGE AND NORTH WET WELL IS NOT INCLUDED IN THIS CONTRACT. PIPING SHOWN FOR ORIENTATION ONLY.
 - PUMPS IN NORTH WET WELL ARE NOT INCLUDED IN THIS CONTRACT.
 - PROVIDE WET WELL COVER AND DOUBLE LEAF FLOOR DOOR IN CONTRACT.



PUMPING STATION ELEVATIONS

| ELEV. | DESCRIPTION | ELEVATION |
|-------|------------------------------------------|-----------------|
| A | FLOOR ELEV. OF MANHOLE (WETWELL) | 649.00 |
| B | INVERT ELEV. OF SEWER(S) | 653.00 |
| C | CROWN ELEV. OF FORCE MAIN | 673.00 |
| D | ELEV. OF TOP OF SLAB | 677.25 |
| E | ELEV. OF TOP OF CASTING | 677.25 |
| F | ELEV. OF FINISHED GRADE AT P.S. | 676.25 |
| G | COMMON PUMPS OFF | 652.50 |
| H | LEAD PUMP ON | 653.00 |
| I | LAG PUMP ON | 653.50 |
| J | HIGH WATER LEVEL | 654.00 |
| K | LOW WATER LEVEL | 652.00 |
| L | ELEV. OF VALVE MANHOLE CASTING | 677.50 |
| M | FLOOR ELEV. OF VALVE MANHOLE | 670.50 |
| N | ELEV. OF FINISHED GRADE AT VALVE MANHOLE | 676.50 |
| O | BOTTOM DROP INLET TYPICAL ALL PIPES | 651.50 - 650.00 |
| P | 4" DRAIN FROM VALVE MANHOLE | 670.00 |
| | WET WELL INTERIOR DIAMETER (MIN.) | 10'-0" |
| | VALVE MANHOLE INTERIOR DIMENSION (MIN.) | 9'x6' |
| | FORCE MAIN DIAMETER (INCHES) | 6, 10, & 12-IN |
| | PUMP DISCHARGE PIPE THROUGH VALVE VAULT | 6-IN |
| | 100 YEAR FLOOD ELEVATION | 675.00 |
| Q | MH INVERT ELEVATION | 654.00 |



DATE: _____

NO. _____

REVISIONS

**INDUSTRIAL PARK PUMP STATION NO. 1
PLANS AND SECTIONS
CONTRACT 1-2017**

**NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY**

**JOB NO.
5980.020**

**PROJECT MGR.
MAS**



**SHEET
07**



GENERAL NOTES:

- REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
- ONLY MAJOR FEEDER ROUTES ARE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING ALL CONDUIT, WIRE, AND CABLE FOR ALL OTHER FEEDERS. BRANCH CIRCUITS NOT SPECIFICALLY SHOWN.

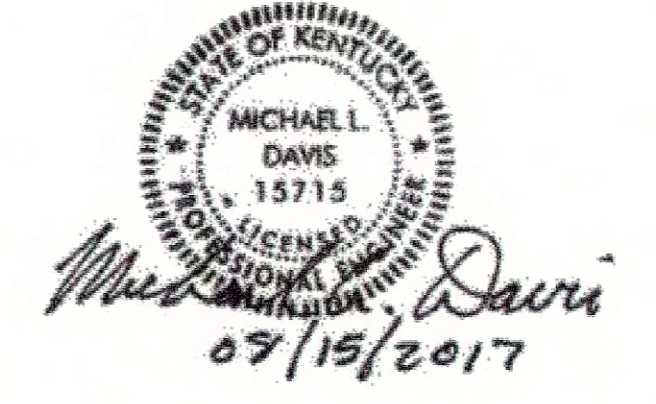
KEY NOTES:

- PROVIDE TRANSFORMER PAD PER UTILITY COMPANY REQUIREMENTS. PAD SHALL EXTEND 2 FEET NORTH OF TRANSFORMER FOR METER SOCKET MOUNTING. PROVIDE CONDUIT FOR UTILITY PRIMARY AND SECONDARY CONDUCTORS PER UTILITY COMPANY REQUIREMENTS. PROVIDE CONDUIT FOR UTILITY PRIMARY CONDUCTORS AS SHOWN.
- PROVIDE 1" AND 4" CONDUITS BELOW FLOOR SLAB FROM FUTURE ATS LOCATION AND 1" CONDUIT FROM LP-1 IN MCC-1 FOR FUTURE GENERATOR. CONDUITS SHALL EXTEND UNDER SIDEWALK, MINIMUM 10'-0" FROM BUILDING. CAP CONDUITS WATERTIGHT AND PROVIDE STAKE MARKING STUB LOCATION.
- ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS 1, DIVISION 1, GROUPS C AND D LOCATIONS. ALL ELECTRICAL WORK AND EQUIPMENT WITHIN 3'-0" HORIZONTALLY AND 18" ABOVE ACCESS DOOR AND WITHIN A 5'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS 1, DIVISION 2, GROUPS C AND D LOCATIONS.
- SUBMERSIBLE LEVEL TRANSDUCER AND FLOATS SHALL BE INSTALLED PER SECTION 2.07.
- POLE-MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY A SWITCH INSIDE CONTROL BUILDING NORTH DOORS.
- PROVIDE TERMINAL BLOCKS IN NEMA 4X STAINLESS STEEL JUNCTION BOX FOR TERMINATION OF TRANSDUCER/FLOAT SWITCH CABLES.
- PROVIDE 1" CONDUIT FOR MANUFACTURER-FURNISHED CABLE FROM JUNCTION BOX TO TRANSDUCER IN WET WELL.
- PROVIDE 5~1" CONDUITS FROM JUNCTION BOX TO WETWELL FOR FLOAT SWITCH CABLES.
- PROVIDE 3" CONDUIT FROM EACH DISCONNECT TO WET WELL FOR PUMP CABLES.
- PROVIDE 2~3" SPARE CONDUIT CAPPED AND ATTACHED TO CONTROL STATION MOUNTING STAND HORIZONTAL UNISTRUT SUPPORT TO WET WELL FOR FUTURE PUMP CABLES. CAP SPARE CONDUITS WATERTIGHT.
- PROVIDE 6~1" SPARE CONDUIT CAPPED AND ATTACHED TO CONTROL STATION MOUNTING STAND HORIZONTAL UNISTRUT SUPPORT TO WET WELL FOR FUTURE TRANSDUCER/FLOAT SWITCH CABLES. CAP SPARE CONDUITS WATERTIGHT.
- PROVIDE 2~1 1/2" CONDUITS CAPPED FROM FUTURE MCC SECTIONS LOCATION TO CONTROL STATION MOUNTING STAND AT PUMP WET WELLS FOR FUTURE PUMP CABLES. CONDUIT SHALL BE ATTACHED TO CONTROL STATION MOUNTING STAND HORIZONTAL UNISTRUT SUPPORT.

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**INDUSTRIAL PARK PUMP STATION NO.1
ELECTRICAL SITE PLAN
CONTRACT 1-2017**

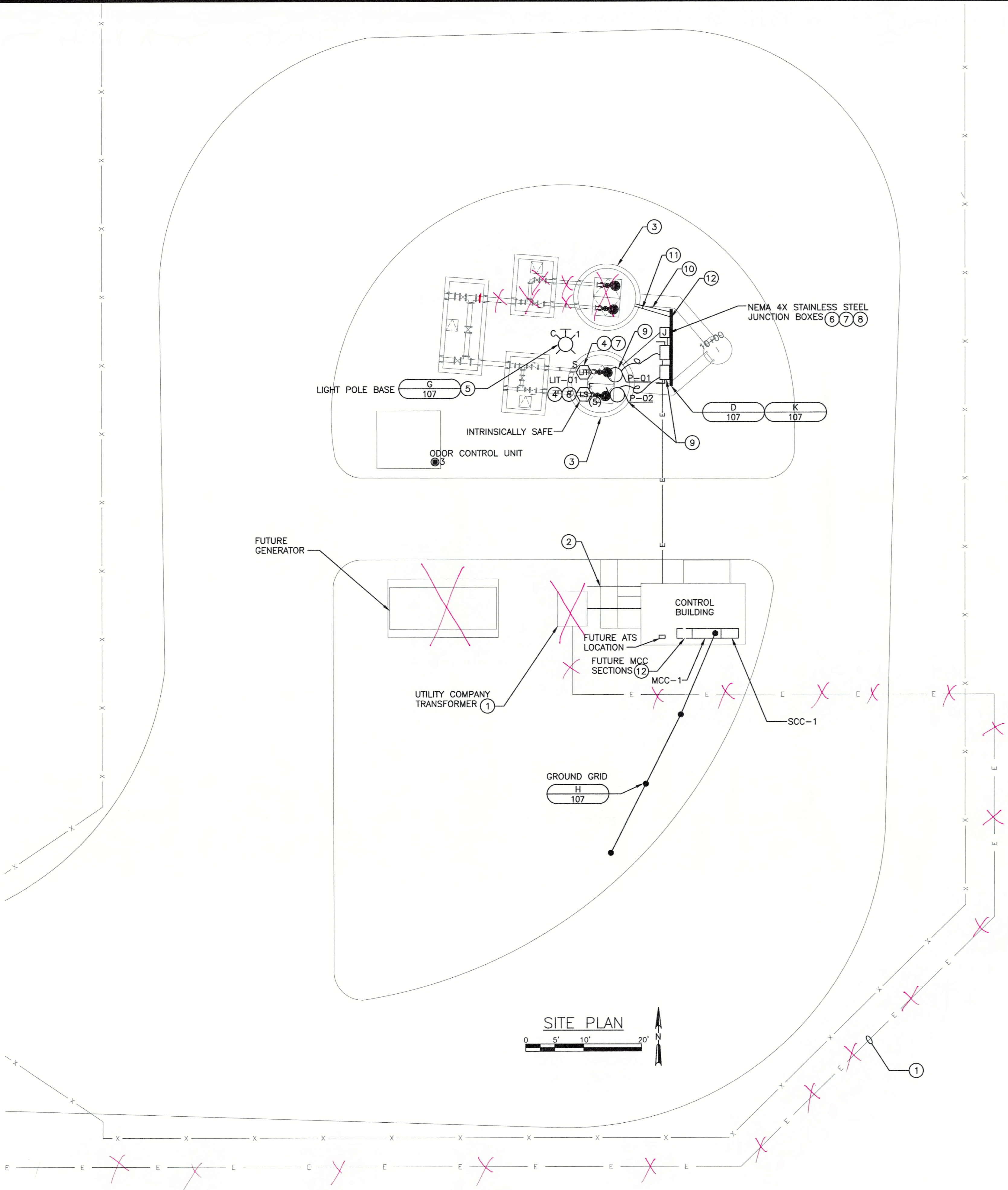
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY



JOB NO.
5980.020

PROJECT MGR.
MAS

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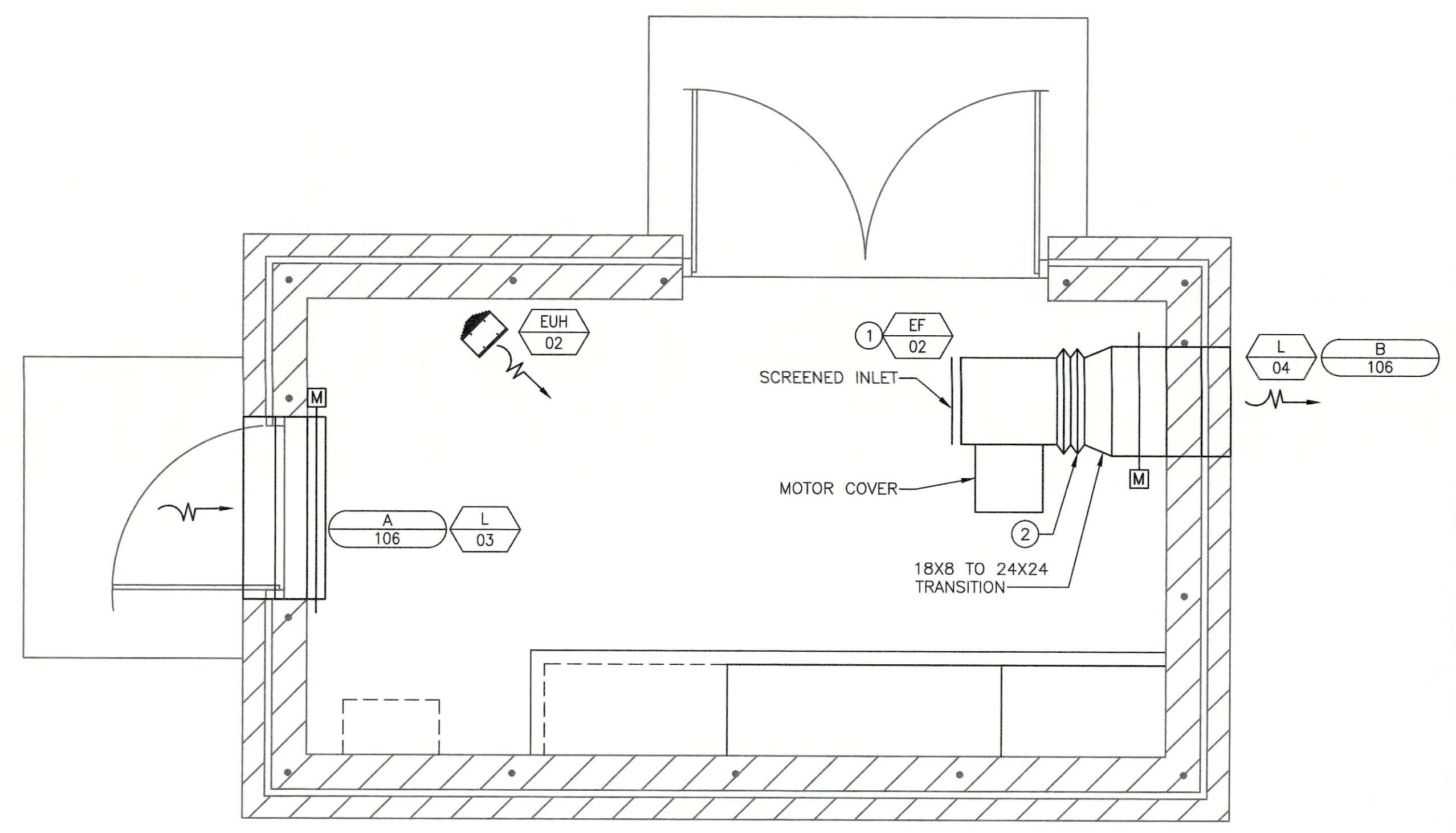
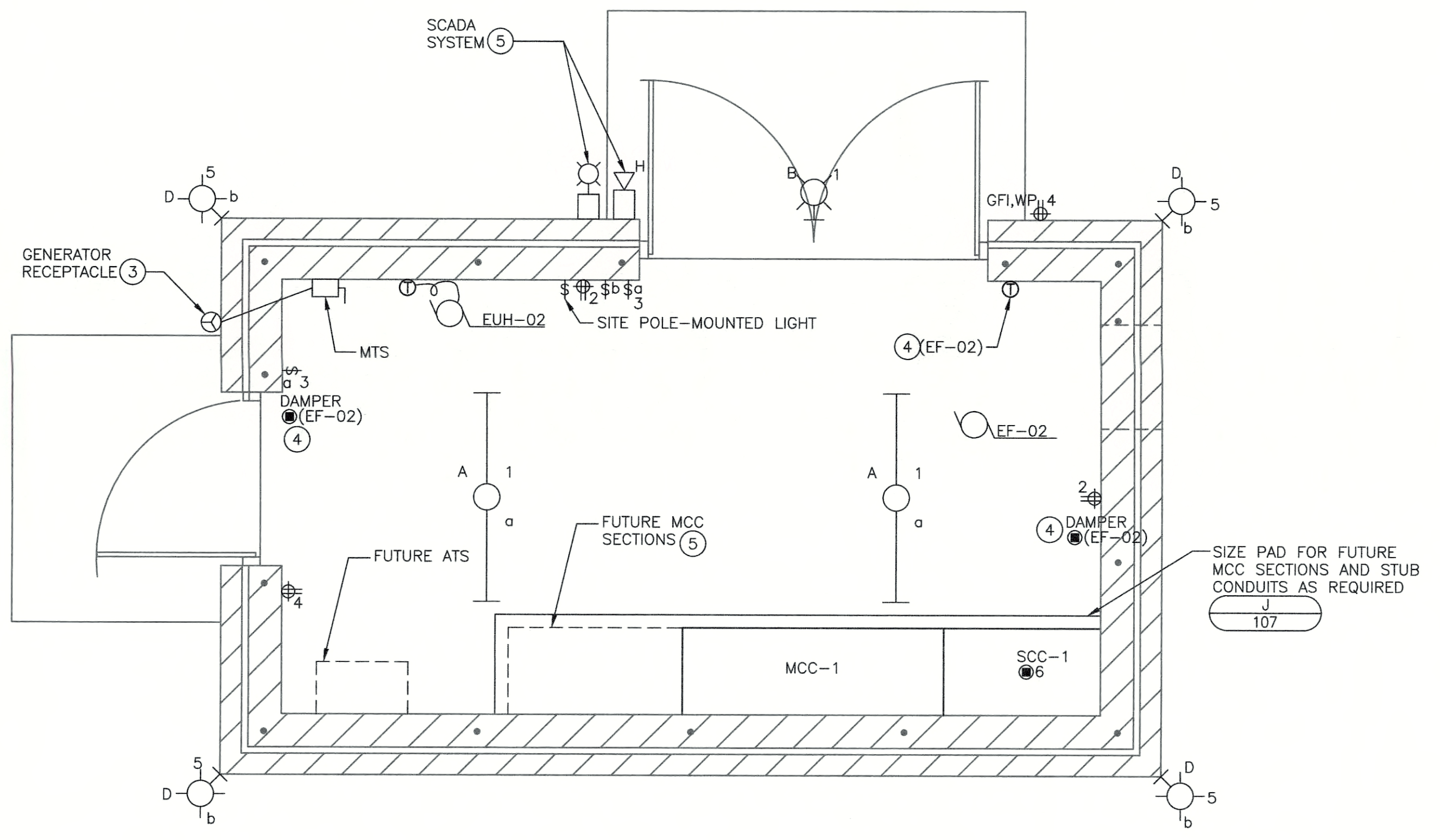


GENERAL NOTES:

1. REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
2. THERMOSTATS ON EXTERIOR WALLS SHALL HAVE INSULATED BASES.

KEY NOTES:

- ① UNIT SHALL BE SUSPENDED FROM CEILING. PROVIDE VIBRATION ISOLATION. BOTTOM OF FAN SHALL BE MIN. 7'-6" AFF. INSTALL FAN WITH MOTOR AND COVER ORIENTED HORIZONTALLY.
- ② PROVIDE FLEXIBLE DUCT CONNECTION.
- ③ PROVIDE GENERATOR RECEPTACLE AS SPECIFIED IN SPECIFICATION SECTION 16231-STANDBY POWER SYSTEM-PORTABLE.
- ④ DIVISION 16 CONTRACTOR SHALL WIRE EXHAUST FAN AND DAMPERS TO THERMOSTAT SUCH THAT EXHAUST FAN RUNS AND DAMPERS OPEN WHEN TEMPERATURE RISES ABOVE THERMOSTAT SETPOINT.
- ⑤ PROVIDE 2~#14 IN 3/4" CONDUIT FROM BOTH HORN AND STROBE TO SCC-1.



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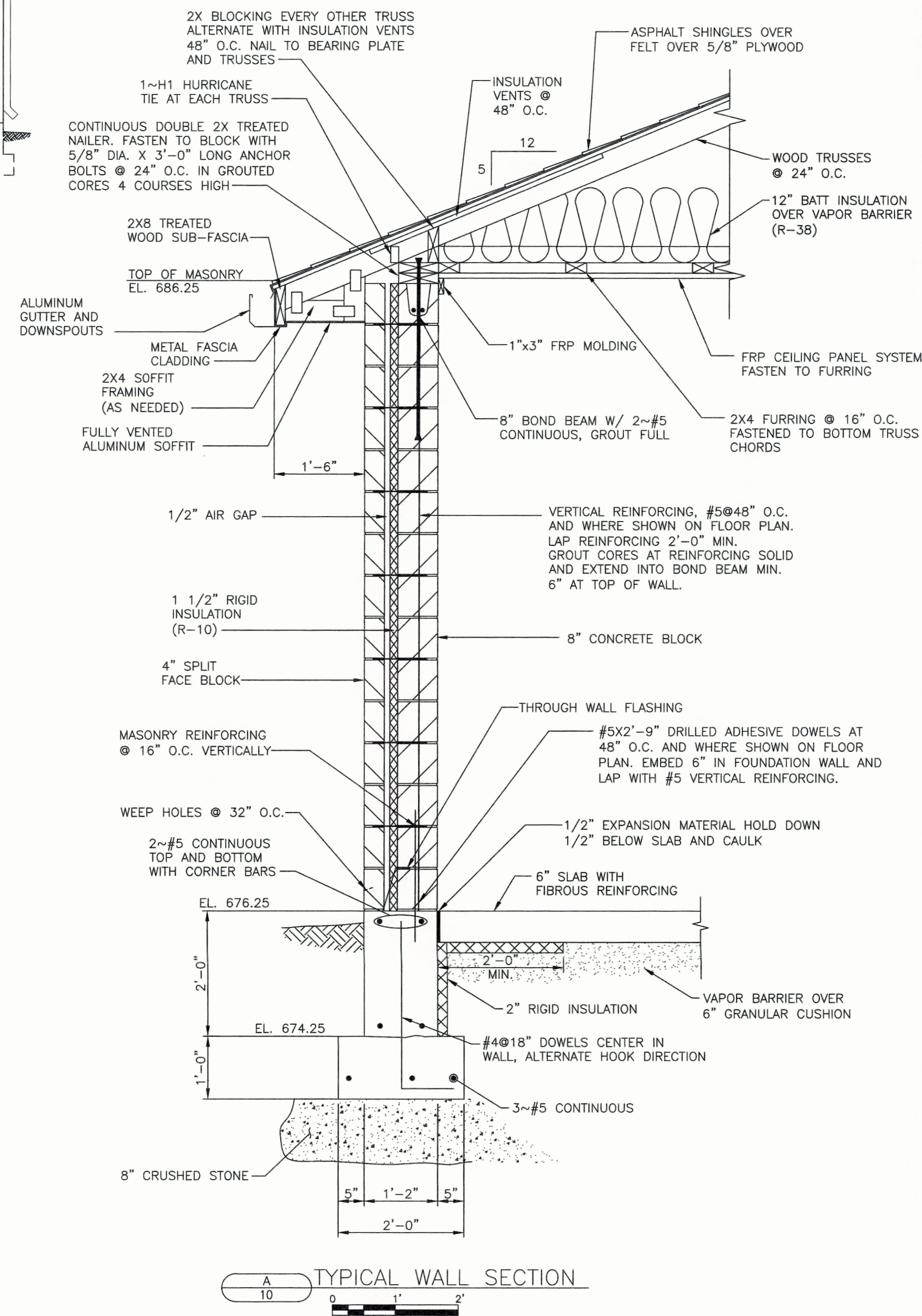
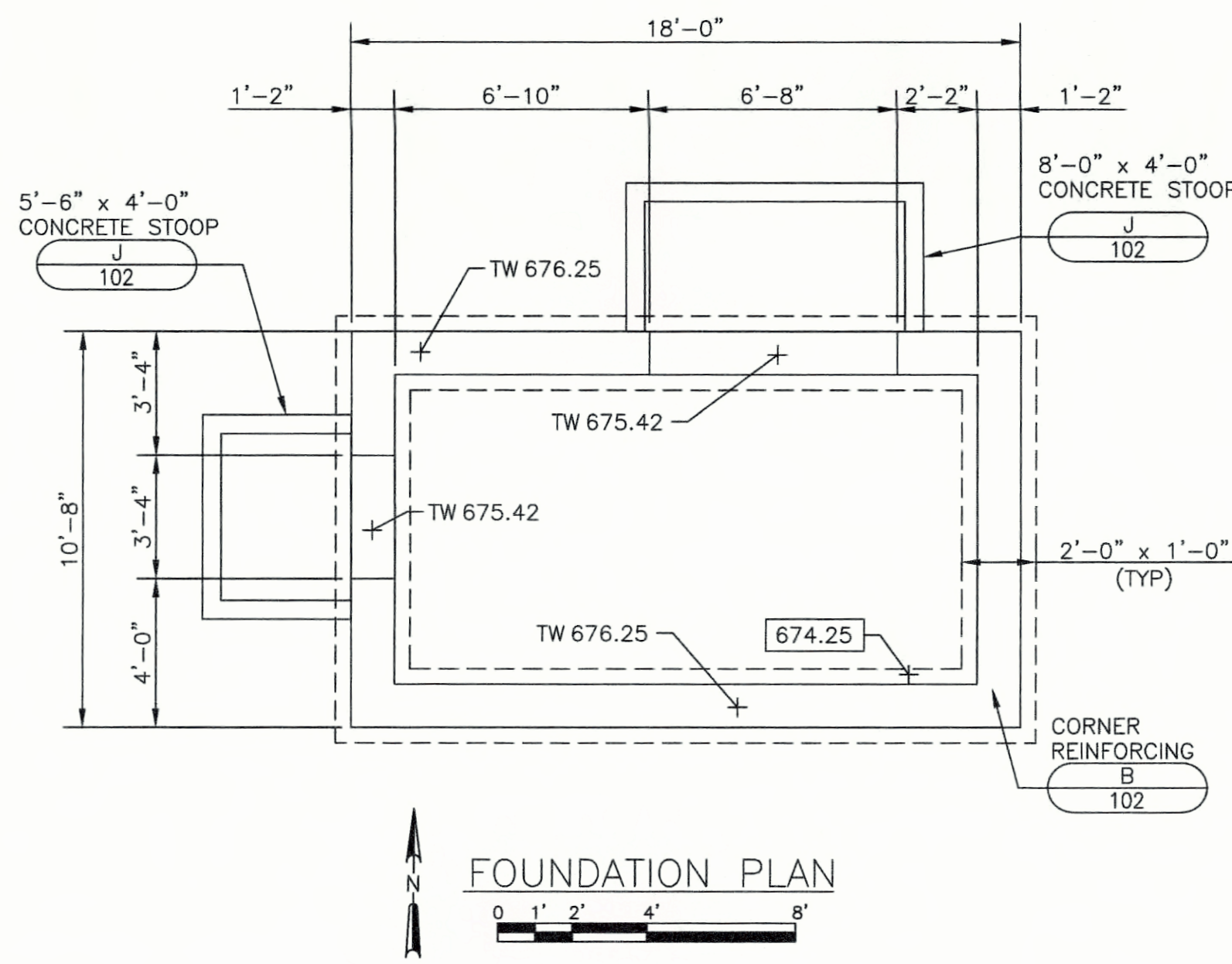
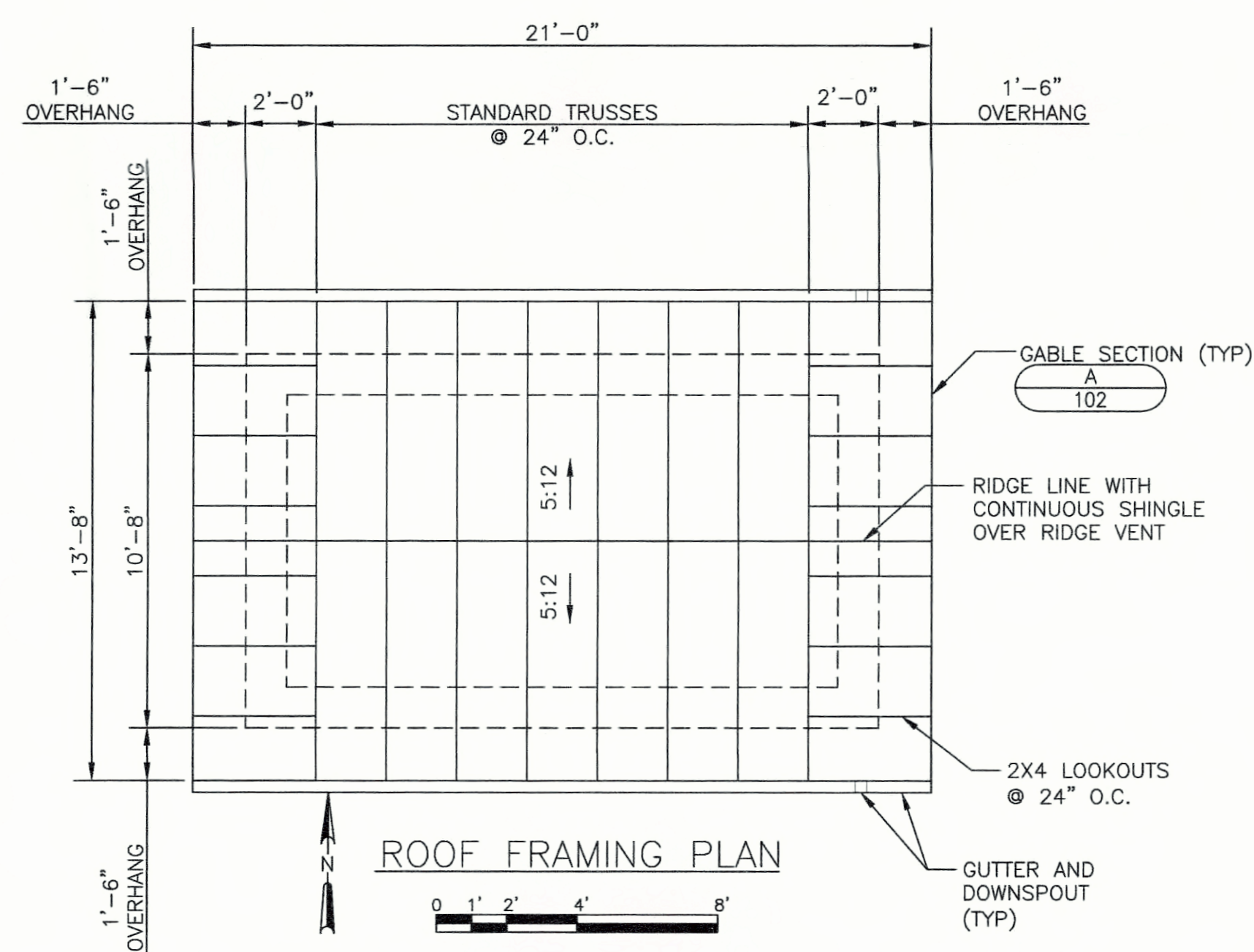
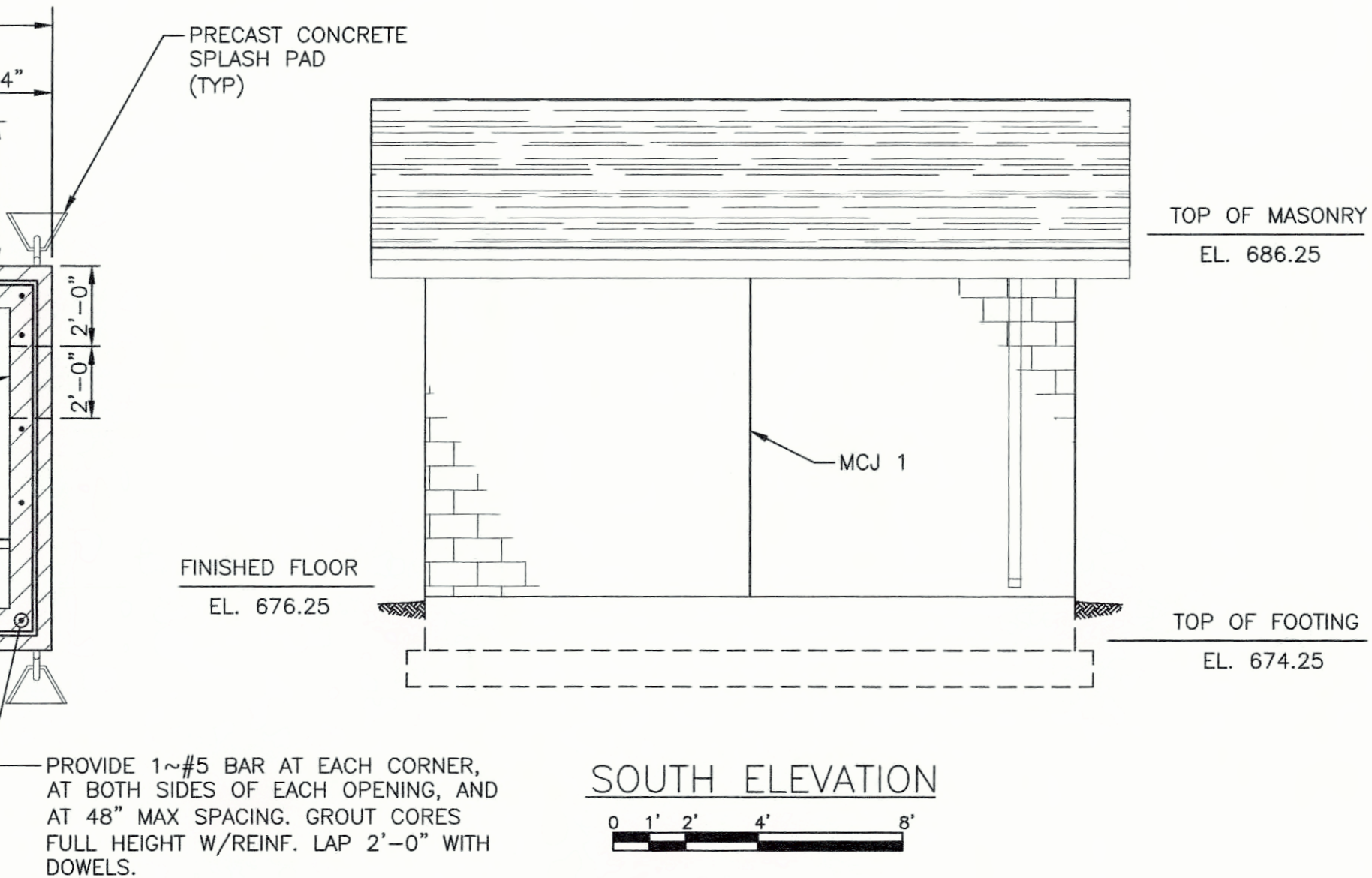
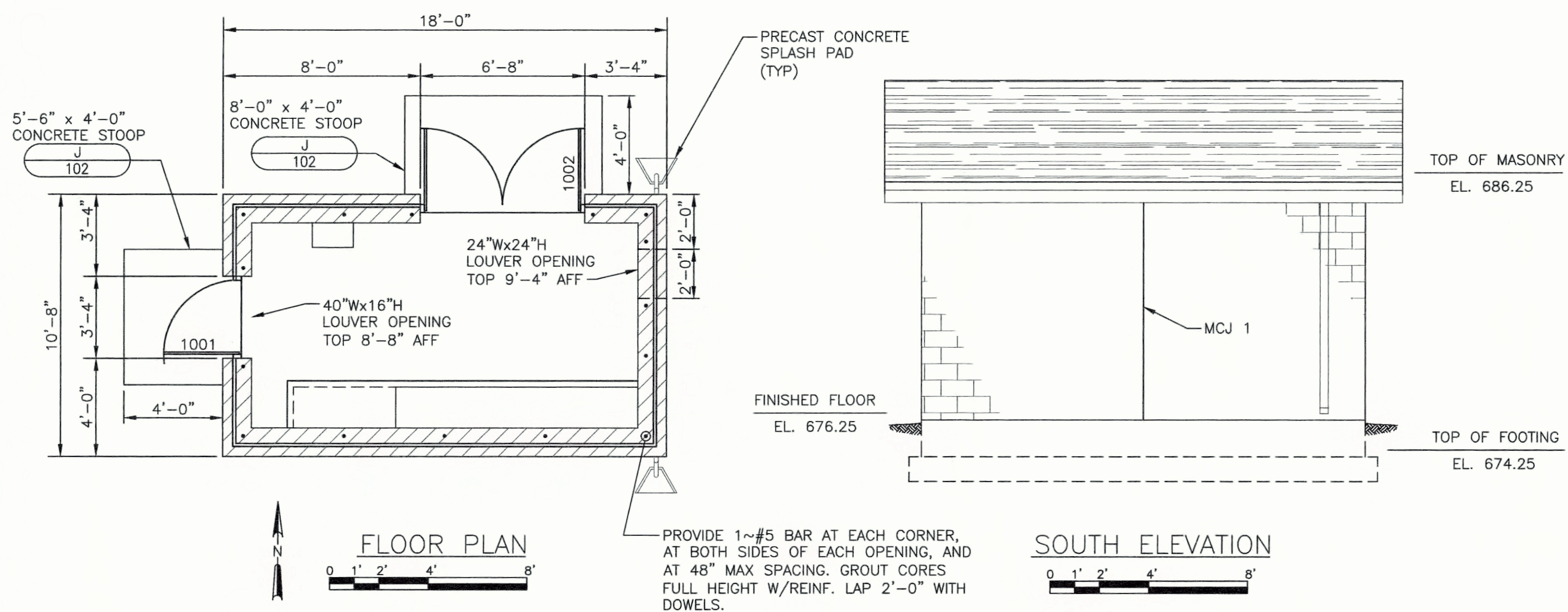
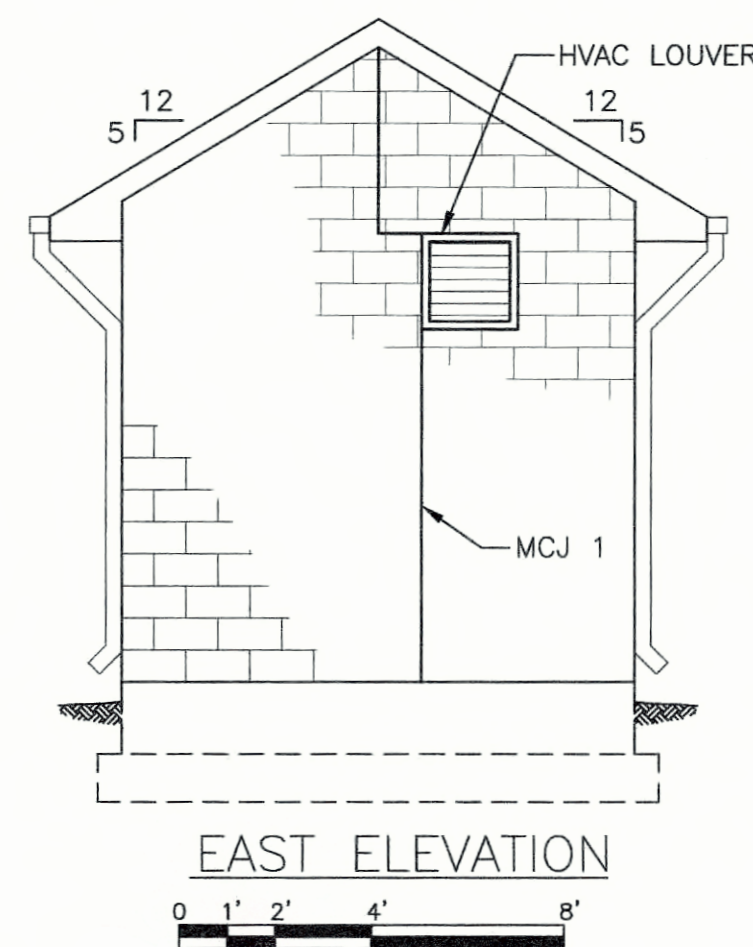
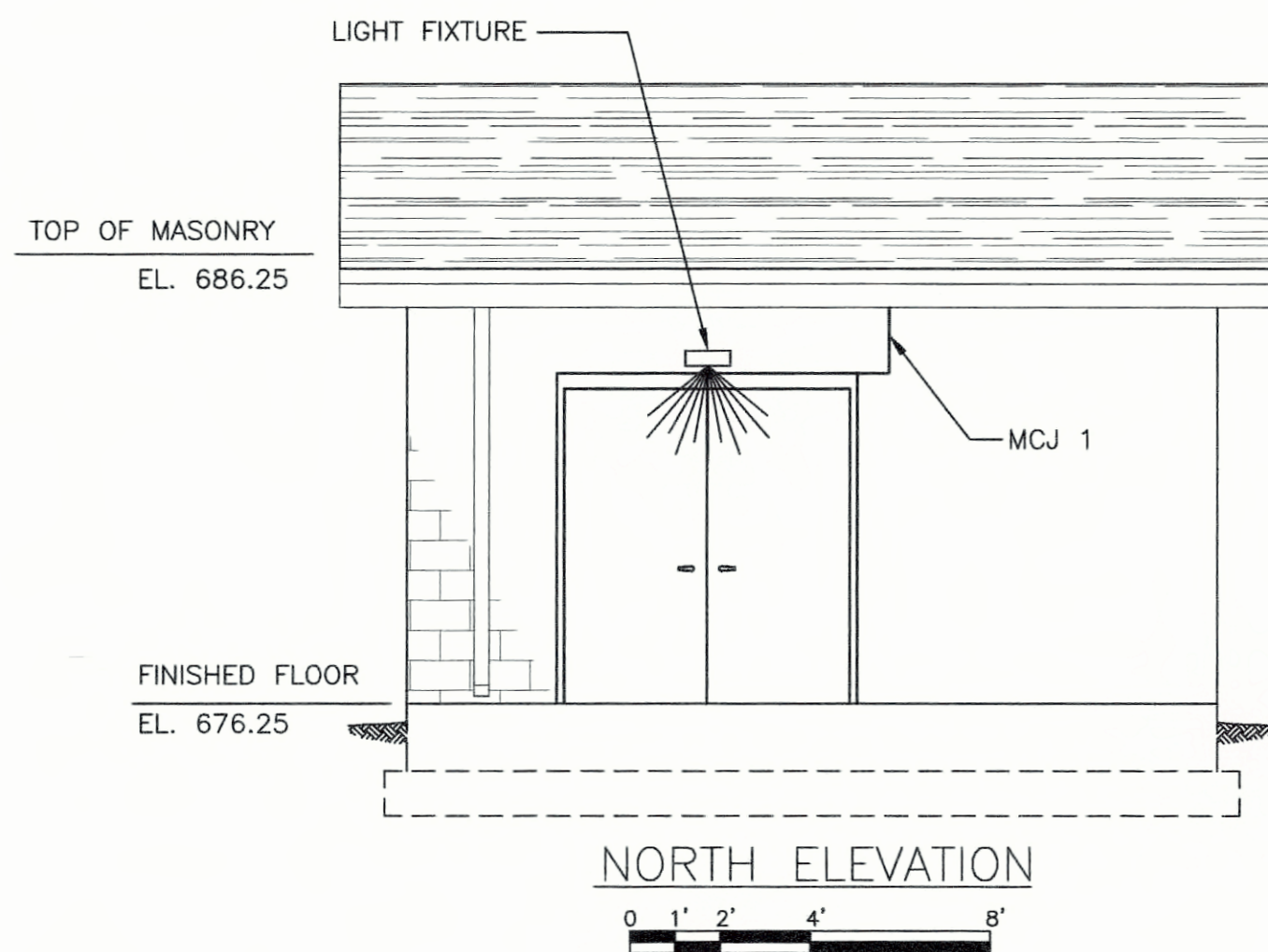
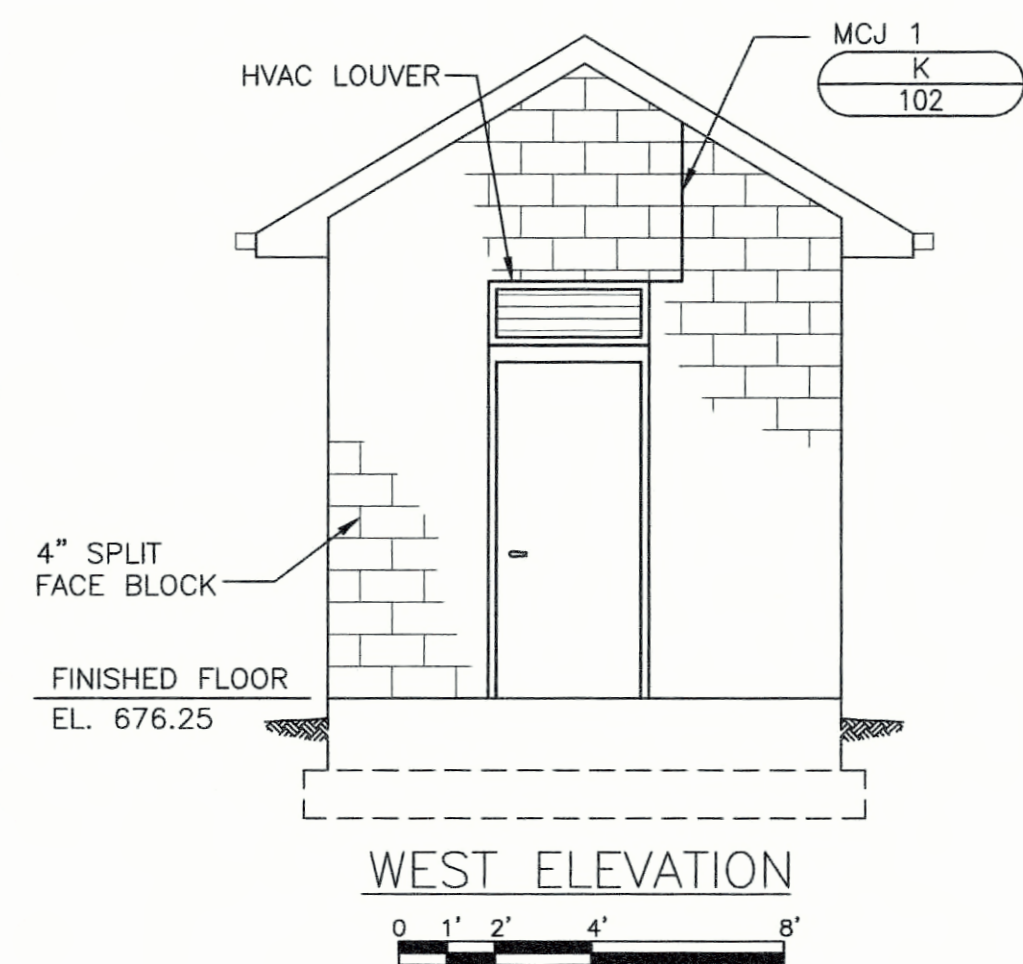
**INDUSTRIAL PARK PUMP STATION NO. 1
 ELECTRICAL AND HVAC CONTROL BUILDING PLANS
 CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
 MAS



SHEET
09



MICHAEL L. DAVIS
15715
09/15/2017

ADAM D. WEBER
25057
8/15/17

STATE OF KENTUCKY
MARK A. SNEVE
18511
8/15/17

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INDUSTRIAL PARK PUMP STATION NO.1
CONTROL BUILDING DETAILS
CONTRACT 1-2017

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
5980.020
PROJECT MGR.
MAS



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INDUSTRIAL PARK PUMP STATION NO. 2
PHOTOGRAPHIC SITE PLAN
CONTRACT 1-2017

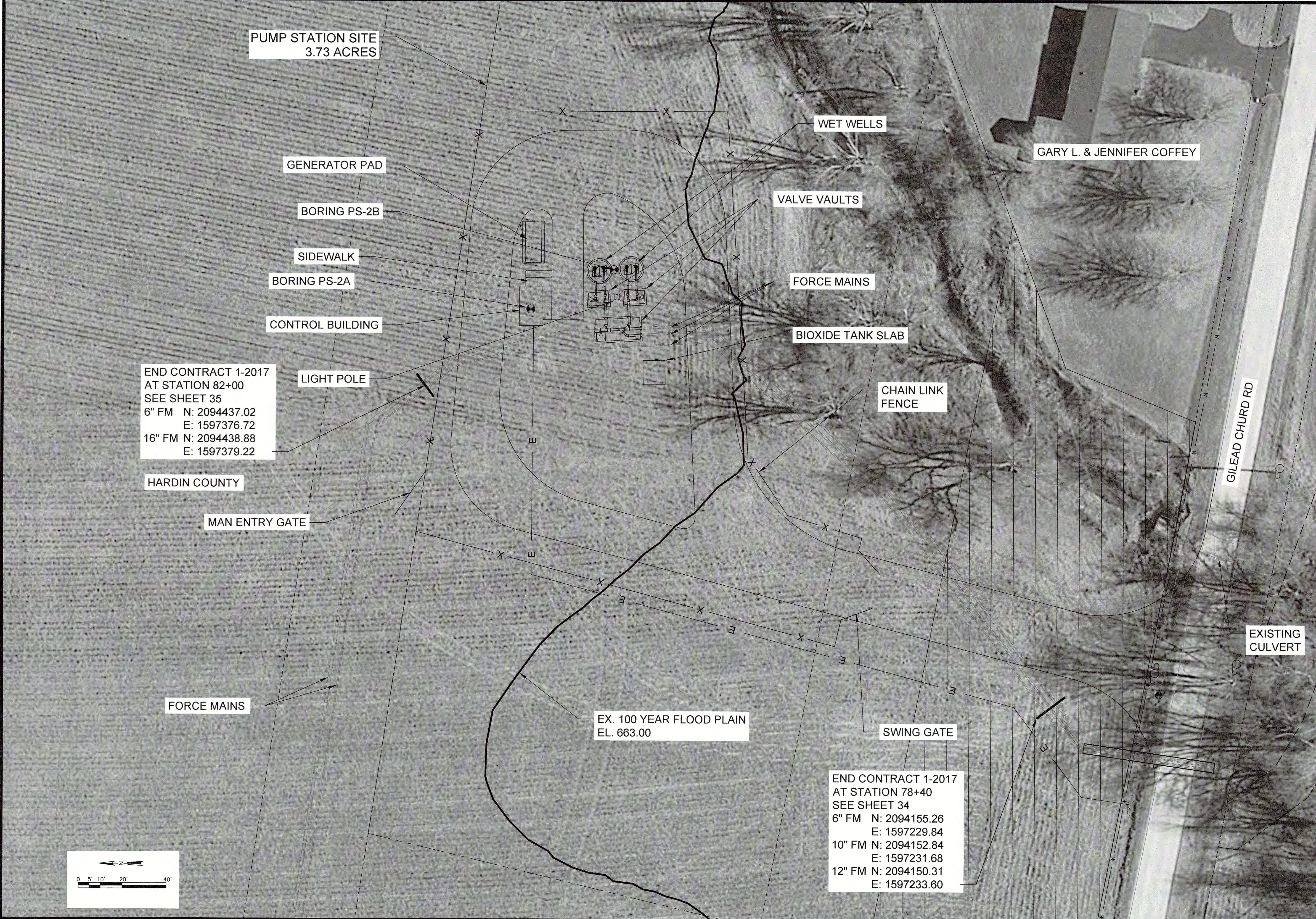
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
5980.020

PROJECT MGR.
MAS



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PUMP STATION SITE
3.73 ACRES

GENERATOR PAD

BORING PS-2B

SIDEWALK

BORING PS-2A

CONTROL BUILDING

LIGHT POLE

END CONTRACT 1-2017
 AT STATION 82+00
 SEE SHEET 35
 6" FM N: 2094437.02
 E: 1597376.72
 16" FM N: 2094438.88
 E: 1597379.22

HARDIN COUNTY

MAN ENTRY GATE

FORCE MAINS

EX. 100 YEAR FLOOD PLAIN
 EL. 663.00

SWING GATE

END CONTRACT 1-2017
 AT STATION 78+40
 SEE SHEET 34
 6" FM N: 2094155.26
 E: 1597229.84
 10" FM N: 2094152.84
 E: 1597231.68
 12" FM N: 2094150.31
 E: 1597233.60

WET WELLS

VALVE VAULTS

FORCE MAINS

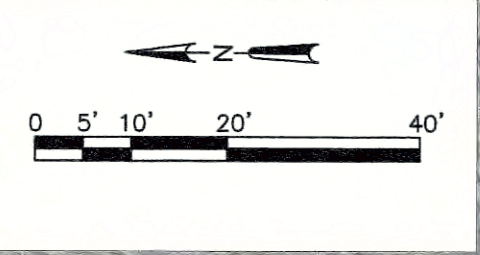
BIOXIDE TANK SLAB

CHAIN LINK FENCE

GARY L. & JENNIFER COFFEY

GILEAD CHURD RD

EXISTING CULVERT



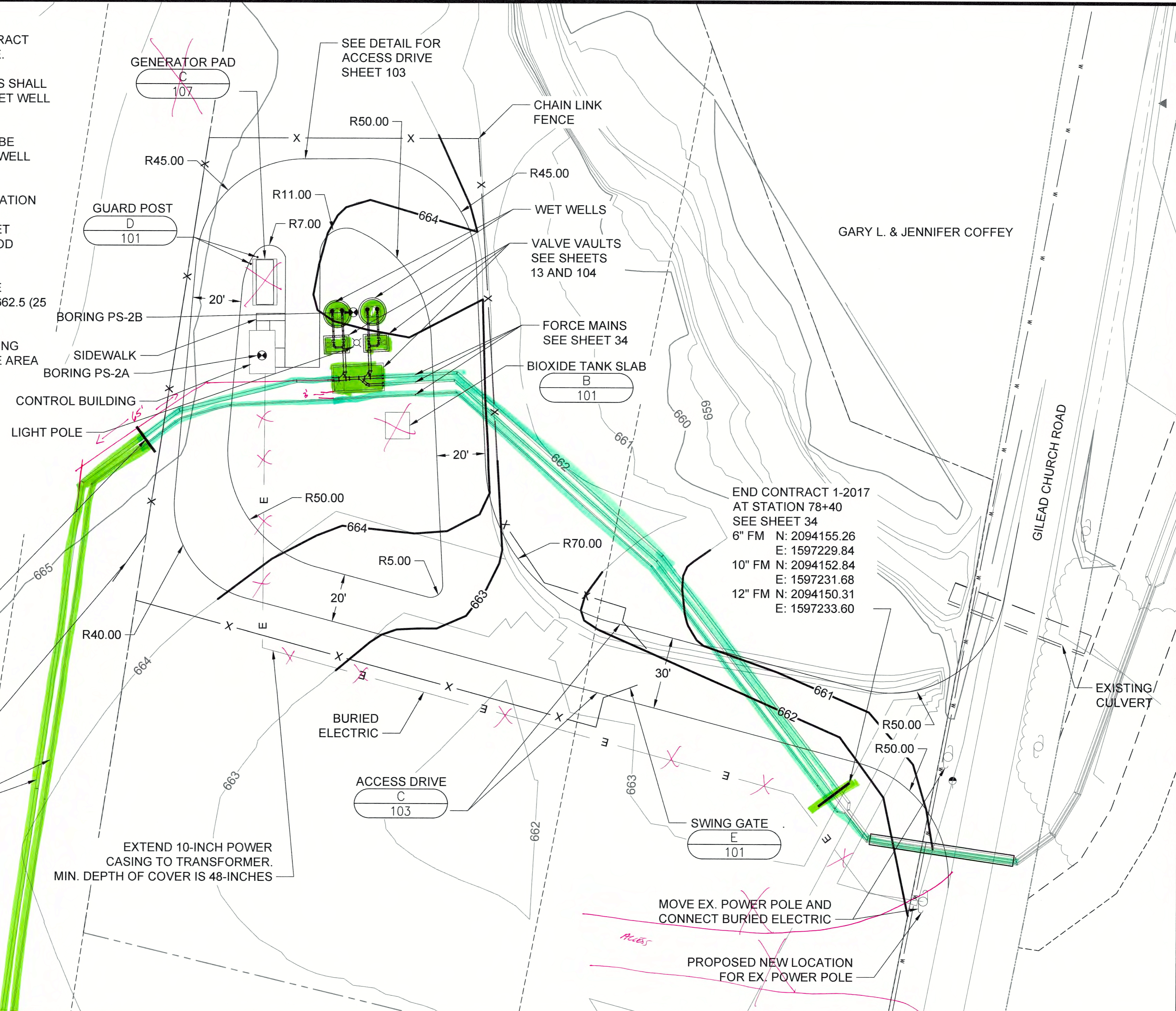
NOTES:

1. ALL FORCE MAIN PIPING FOR CONTRACT 1-2017 SHALL BE DUCTILE IRON PIPE.
2. FORCE MAIN VALVE VAULT CENTERS SHALL BE LOCATED 13'-0" ON ARC FROM WET WELL CENTERS.
3. COMBINATION VALVE VAULT SHALL BE LOCATED 26'-0" ON ARC FROM WET WELL CENTERS.
4. MINIMUM FLOOD PROTECTION ELEVATION FOR ACCESS TO WET WELLS AND EQUIPMENT IS 664.7, WHICH IS 2 FEET ABOVE CALCULATED 100 YEAR FLOOD PLAIN.
5. ACCESS GATE ELEVATION SHALL BE CONSTRUCTED ABOVE ELEVATION 662.5 (25 YEAR FLOOD ELEVATION).
6. BLEND NEW CONTOURS INTO EXISTING GRADE AND MINIMIZE DISTURBANCE AREA NORTH OF THE SITE.
7. COORDINATES FOR WET WELLS:

WET WELL 1 CENTER
 N: 2094358.93
 E: 1597430.26

WET WELL 2 CENTER
 N: 2094344.44
 E: 1597431.24

END CONTRACT 1-2017
 AT STATION 82+00
 SEE SHEET 35
 6" FM N: 2094437.02
 E: 1597376.72
 16" FM N: 2094438.88
 E: 1597379.22

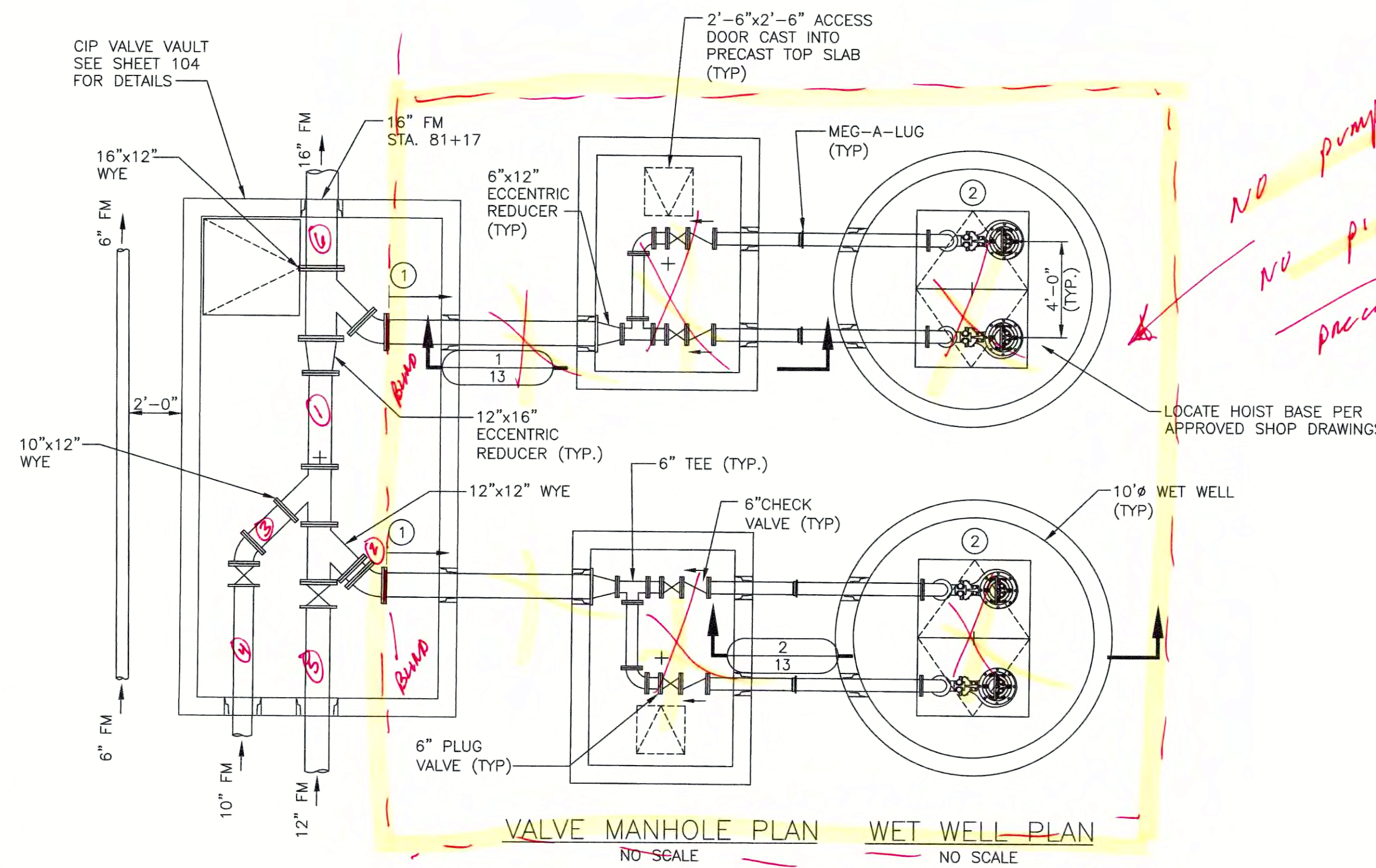


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INDUSTRIAL PARK PUMP STATION NO.2
PLANIMETRIC SITE PLAN
CONTRACT 1-2017
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
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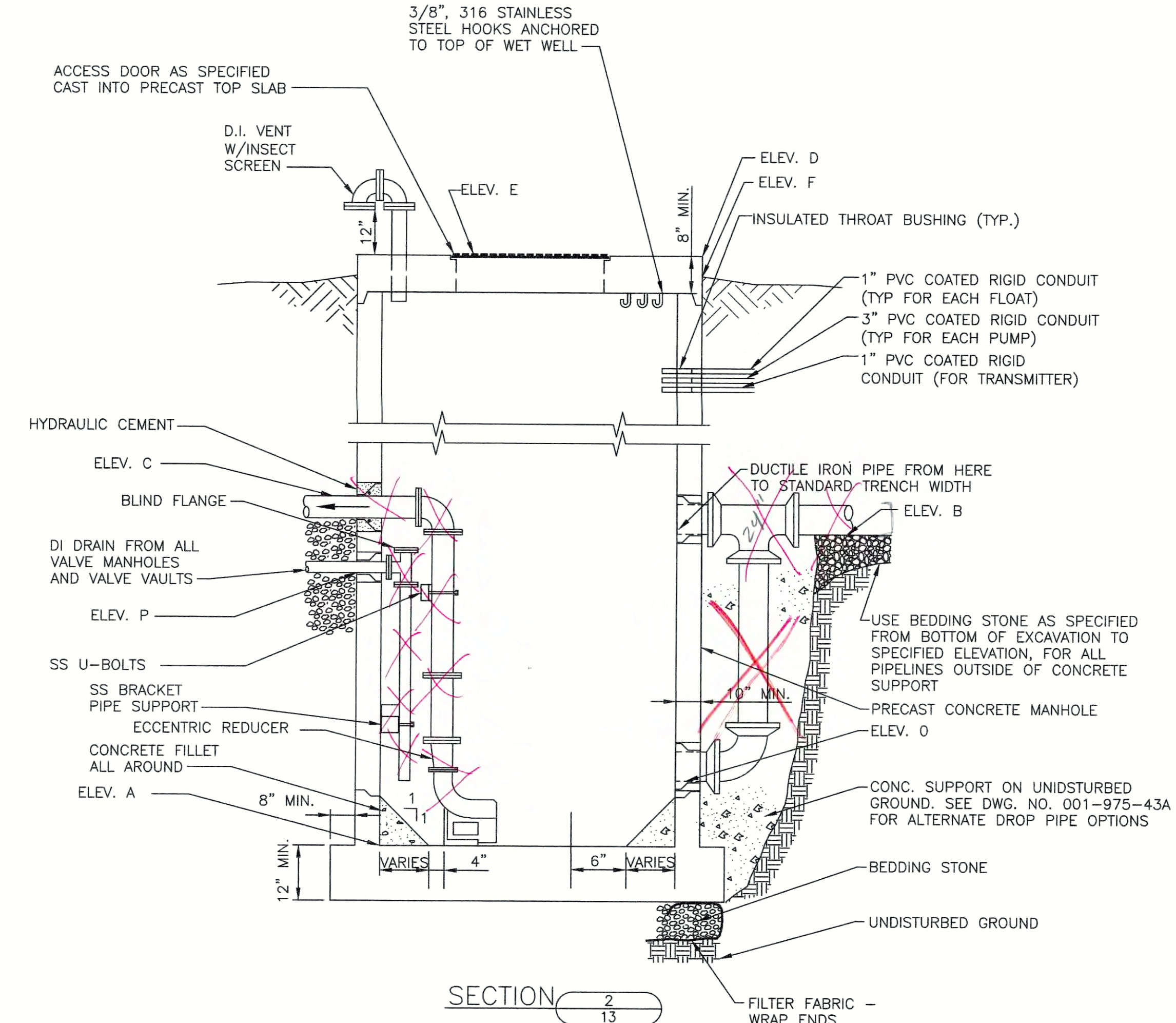
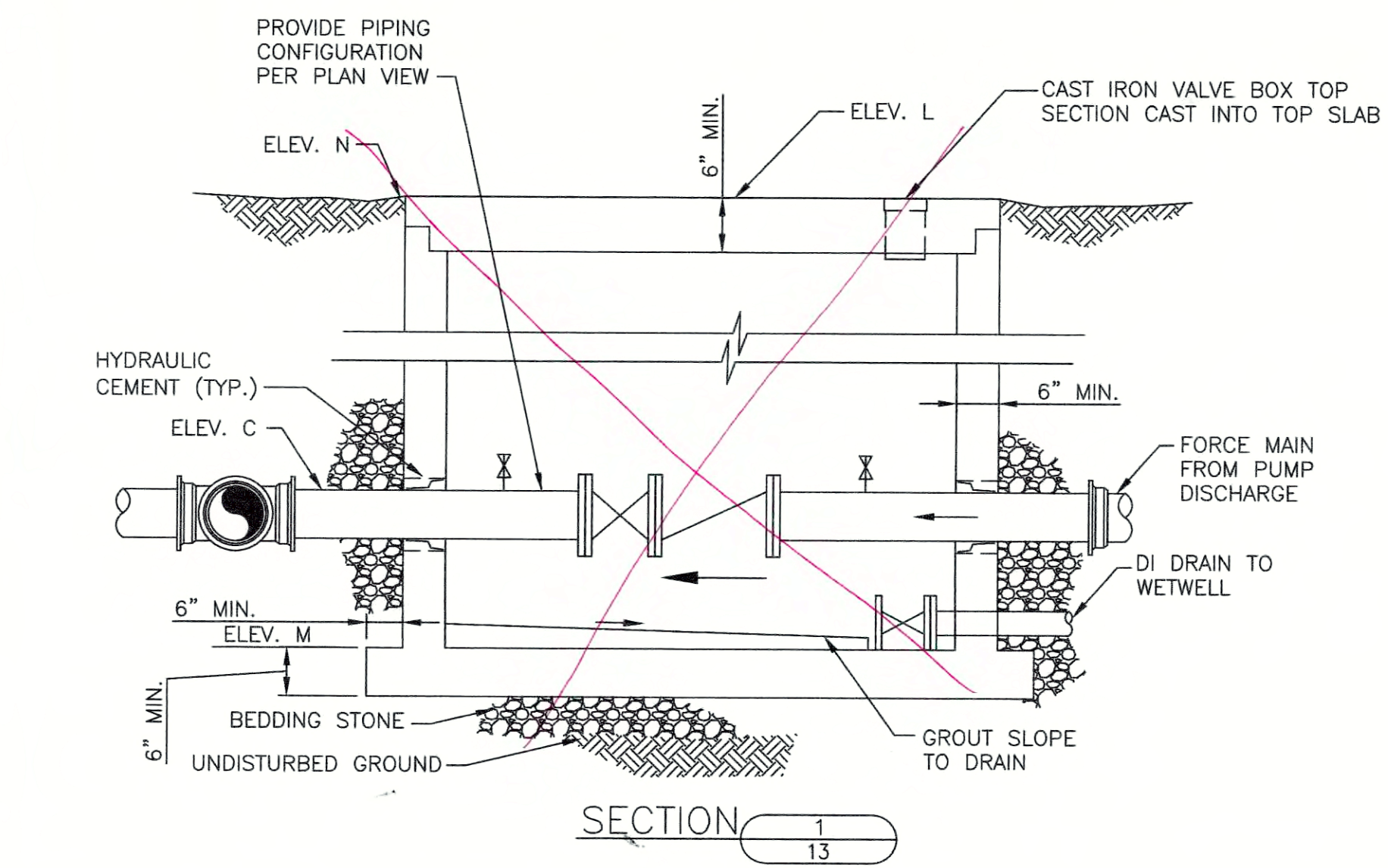
*North Valve MH
Top - 657.04
Floor - 657.67
South Valve MH
Top - 647.93
Floor - 657.48
Valve Vault
Top - 645.26
Floor - 657.57
North W.W. Top - 645.20
South W.W. Top - 645.18*



- PUMP STATION NOTES:**
- ALL JOINTS IN MANHOLE SHALL BE MADE WITH "RAM-NEK", "KENT-SEAL", "MAS-STIK" OR EQUAL JOINT MATERIAL, OR ASTM C-443 CIRCULAR O-RING GASKET.
 - OPENINGS IN NEW MANHOLES SHALL BE PROVIDED BY MANHOLE SUPPLIER AT THE FACTORY.
 - GRAVITY SEWER PIPE OPENINGS INTO PUMPING STATION SHALL BE SEALED USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS "A-LOK", "KOR-N-SEAL" OR EQUAL. ALL FORCE MAIN AND OTHER OPENINGS INTO PUMPING STATION AND VALVE MANHOLE SHALL BE GROUTED WATERTIGHT WITH HYDRAULIC CEMENT. PROVIDE RUBBER WATERSTOPS ON ALL PIPES THROUGH PUMPING STATION AND VALVE MANHOLE WALLS SEALED WITH HYDRAULIC CEMENT.
 - PROVIDE TAPS, BALL VALVES AND REMOVABLE PIPE END CAP AS SHOWN FOR PRESSURE GAGE CONNECTIONS.
 - STATION PIPING SHALL BE AWWA C151 DUCTILE IRON, SPECIAL THICKNESS CLASS 53, CONFORMING TO SPECIFICATIONS.
 - PRECAST MANHOLE TOP SLAB SHALL CONFORM TO ASTM C-478, REINFORCING SHALL BE FOR H-20 LOADING.
 - ALL ANCHORS, BOLTS AND FABRICATED METAL WITHIN WET WELL SHALL BE STAINLESS STEEL.
 - BASE SLAB SHALL BE DESIGNED FOR BUOYANT FORCE ASSUMING GROUNDWATER LEVEL AT GRADE AND THE STRUCTURE EMPTY. CONTRACTOR MAY PROVIDE CAST-IN-PLACE SLABS INSTEAD OF PRECAST. IF CAST-IN-PLACE ARE USED, CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY. USE OF CAST-IN-PLACE SLAB SHALL NOT RELIEVE CONTRACTOR OF REQUIREMENT TO PROVIDE WATERTIGHT JOINTS.
 - CONTRACTOR SHALL FURNISH ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE INSTALLATION.
 13. APPLY TANK LINING SYSTEM TO UNDERSIDE OF TOP SLAB AND TO INTERIOR WALLS OF WET WELL PER SPECIFICATIONS.
 - SEE SPECIFICATIONS FOR CONDUIT, FITTING, AND INSTALLATION REQUIREMENTS OF ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3 FOOT RADIUS OF THE WET WELL VENT SHALL BE RATED FOR A CLASS 1, DIVISION 1, GROUPS C AND D LOCATION. ALL ELECTRICAL WORK AND EQUIPMENT BETWEEN A 3 FOOT RADIUS AND 5 FOOT RADIUS OF THE WET WELL VENT AND WITHIN 18" ABOVE AND 3 FEET HORIZONTALLY FROM WET WELL HATCH SHALL BE RATED FOR A CLASS 1, DIVISION 2, GROUPS C AND D LOCATION.

- KEY NOTES:**
- ALL MECHANICAL EQUIPMENT AND PIPING BETWEEN PUMPS AND FLANGE FACE IS NOT BEING PROVIDED IN THIS CONSTRUCTION CONTRACT. PUMPS AND PIPING ARE SHOWN FOR ORIENTATION. PROVIDE BLIND FLANGE AT 45 DEGREE FITTING IN VALVE VAULT.
 - PROVIDE TOP SLAB WITH DOUBLE LEAF FLOOR DOOR.

*North I.E. 647.50
South I.E. 647.51
North FFE 645.12
South FFE 645.07* - 5-24-18



| ELEV. | DESCRIPTION | ELEVATION |
|-------|------------------------------------------|-----------|
| A | FLOOR ELEV. OF MANHOLE (WETWELL) | 645.00 |
| B | INVERT ELEV. OF SEWER(S) | 652.00 |
| | | - |
| | | - |
| C | CROWN ELEV. OF FORCE MAIN | 660.00 |
| D | ELEV. OF TOP OF SLAB | 665.00 |
| E | ELEV. OF TOP OF CASTING | 665.00 |
| F | ELEV. OF FINISHED GRADE AT P.S. | 664.00 |
| L | ELEV. OF VALVE MANHOLE CASTING | 665.00 |
| M | FLOOR ELEV. OF VALVE MANHOLE | 657.50 |
| N | ELEV. OF FINISHED GRADE AT VALVE MANHOLE | 664.00 |
| O | BOTTOM DROP INLET TYPICAL ALL PIPES | 647.50 |
| P | 4" DRAIN FROM VALVE MANHOLE | 657.00 |
| | WET WELL INTERIOR DIAMETER (MIN.) | 10'-FT |
| | VALVE MANHOLE INTERIOR DIMENSIONS (MIN.) | 9'x6' |
| | FORCE MAIN DIAMETER (INCHES) | 16-IN |
| | PUMP DISCHARGE PIPE THROUGH VALVE VAULT | 8-IN |
| | 100 YEAR FLOOD ELEVATION | 663.00 |



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**INDUSTRIAL PARK PUMP STATION NO. 2
PLANS AND SECTIONS
CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO. 5980.020
PROJECT MGR. MAS

STRAND ASSOCIATES®

SHEET 13

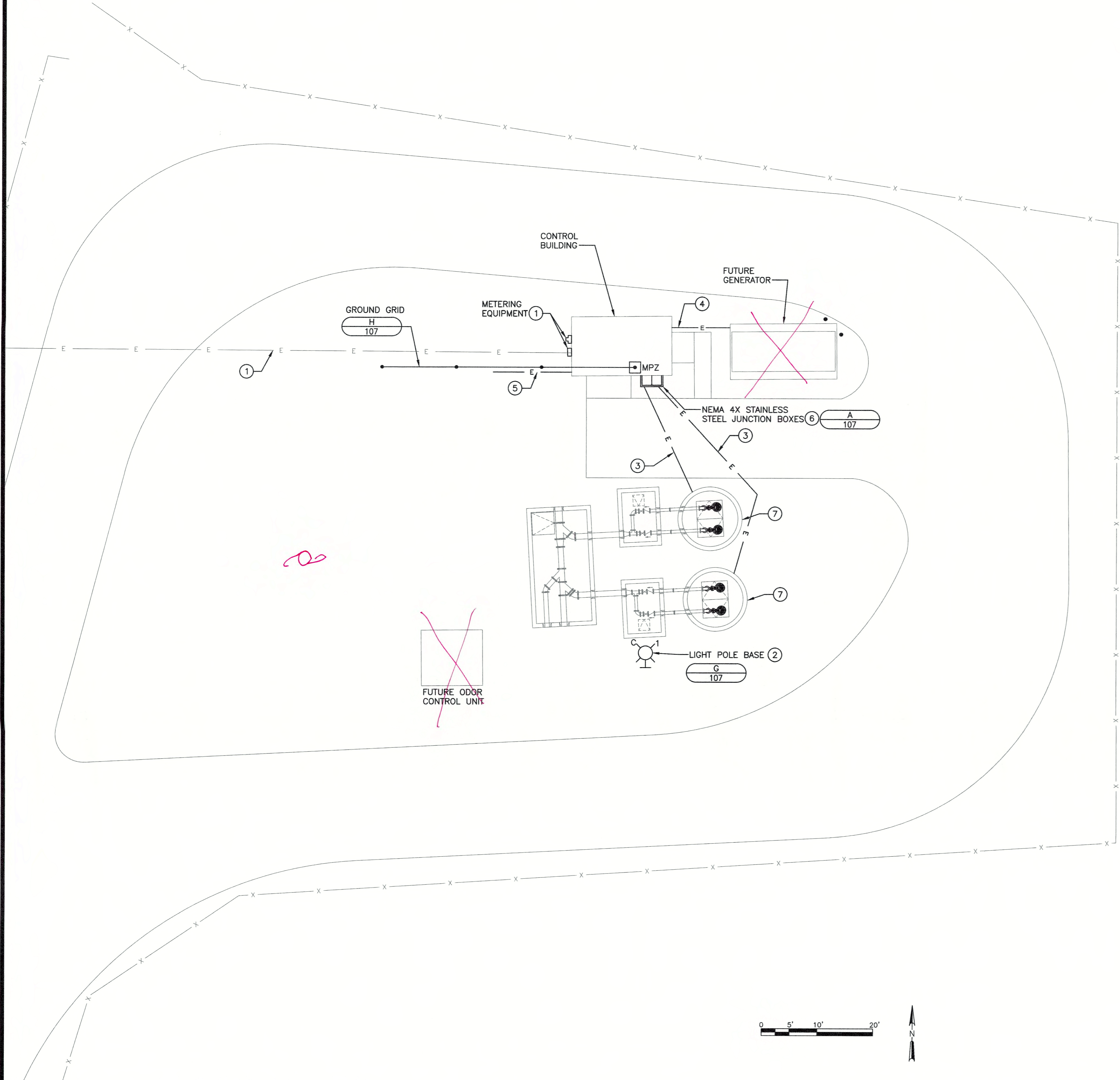
MICHAEL L. DAVIS
 15715
 07/15/2017

GENERAL NOTES:

- REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
- ONLY MAJOR FEEDER ROUTES ARE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING ALL CONDUIT, WIRE, AND CABLE FOR ALL OTHER FEEDERS. BRANCH CIRCUITS NOT SPECIFICALLY SHOWN.

KEY NOTES:

- PROVIDE METER SOCKET AND CT CABINET PER UTILITY COMPANY REQUIREMENTS. PROVIDE CONDUIT FOR UTILITY SECONDARY CONDUCTORS PER UTILITY COMPANY REQUIREMENTS.
- POLE-MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY A SWITCH INSIDE CONTROL BUILDING SOUTH DOORS.
- PROVIDE 2~3" SPARE CONDUITS FROM EACH JUNCTION BOX UNDER DRIVEWAY TO ASSOCIATED WETWELL FOR FUTURE PUMP CABLES. PROVIDE 6~1" CONDUITS FROM EACH JUNCTION BOX UNDER DRIVEWAY TO ASSOCIATED WETWELL FOR FUTURE FLOAT SWITCH AND TRANSDUCER CABLES. CAP CONDUITS WATERTIGHT.
- PROVIDE 1" AND 4" CONDUITS 10'-0" FROM CONTROL BUILDING FOR FUTURE GENERATOR. CAP CONDUITS WATERTIGHT AND PROVIDE STAKE MARKING STUB LOCATION CONDUITS SHALL BE STUBBED 6" AFF AND CAPPED WITHIN CONTROL BUILDING.
- PROVIDE 1" CONDUIT STUBBED FROM MPZ TO 6'-0" MIN. FROM CONTROL BUILDING FOR FUTURE ODOR CONTROL UNIT. CAP CONDUIT WATERTIGHT AND PROVIDE STAKE MARKING STUB LOCATION.
- PROVIDE NEMA 4X STAINLESS STEEL JUNCTION BOXES FOR FUTURE TERMINATION OF PUMP CABLES AND TRANSDUCER/FLOAT SWITCH CABLES.
- ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 1, GROUPS C AND D LOCATIONS. ALL ELECTRICAL WORK AND EQUIPMENT WITHIN 3'-0" HORIZONTALLY AND 18" ABOVE ACCESS DOOR AND WITHIN A 5'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 2, GROUPS C AND D LOCATIONS.



STATE OF KENTUCKY
 MARK A SNEVE
 18511
 RECEIVED
 8/15/17

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INDUSTRIAL PARK PUMP STATION NO.2
ELECTRICAL SITE PLAN
CONTRACT 1-2017
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
 MAS



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STATE OF KENTUCKY
 MICHAEL L. DAVIS
 15715
 LICENSED PROFESSIONAL ENGINEER
Michael L. Davis
 09/15/2017

GENERAL NOTES:

- REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
- THERMOSTATS ON EXTERIOR WALLS SHALL HAVE INSULATED BASES.

KEY NOTES:

- UNIT SHALL BE SUSPENDED FROM CEILING. PROVIDE VIBRATION ISOLATION. BOTTOM OF FAN SHALL BE MIN. 7'-6" AFF. INSTALL FAN WITH MOTOR AND COVER ORIENTED HORIZONTALLY.
- PROVIDE FLEXIBLE DUCT CONNECTION.
- DIVISION 16 CONTRACTOR SHALL WIRE EXHAUST FAN AND DAMPERS TO THERMOSTAT SUCH THAT EXHAUST FAN RUNS AND DAMPERS OPEN WHENEVER TEMPERATURE RISES ABOVE THERMOSTAT SETPOINT.
- PROVIDE 3/4" CONDUIT FROM BOTH THE ENTRANCE STROBE AND HORN TO FUTURE SCC LOCATION, STUBBED MAXIMUM 3" AFF, FOR FUTURE POWER AND CONTROL WIRING.
- PROVIDE MINI POWER-ZONE, SQUARE D, MODEL MPZB15T2F25K, OR EQUAL.
- PROVIDE 3/4" AND 1" CONDUIT FROM EACH WETWELL FLOAT CABLE JUNCTION BOX TO FUTURE SCC LOCATION, STUBBED MAXIMUM 3" AFF, FOR FUTURE TRANSDUCER AND FLOAT CONTROL WIRING.
- PROVIDE 2~1 1/2" AND 3/4" CONDUIT FROM EACH WETWELL PUMP CABLE JUNCTION BOX TO FUTURE MCC LOCATION, STUBBED MAXIMUM 3" AFF, FOR FUTURE PUMP POWER AND CONTROL WIRING.

STATE OF KENTUCKY
 MARK A. SNEVE
 18511
 LICENSED PROFESSIONAL ENGINEER
Mark A. Sneve
 8/15/17

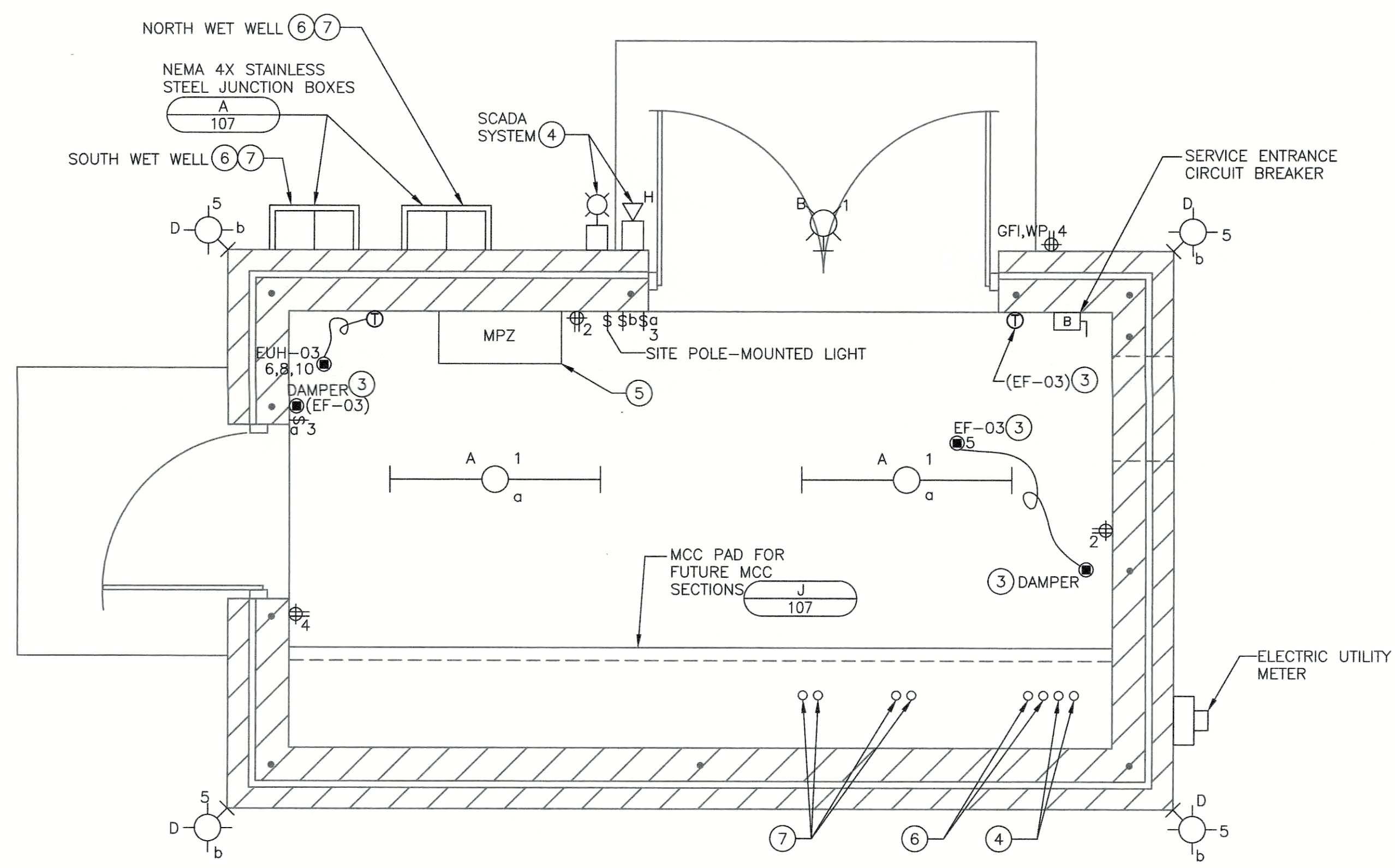
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**INDUSTRIAL PARK PUMP STATION NO.2
 ELECTRICAL AND HVAC CONTROL BUILDING PLANS
 CONTRACT 1-2017**
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

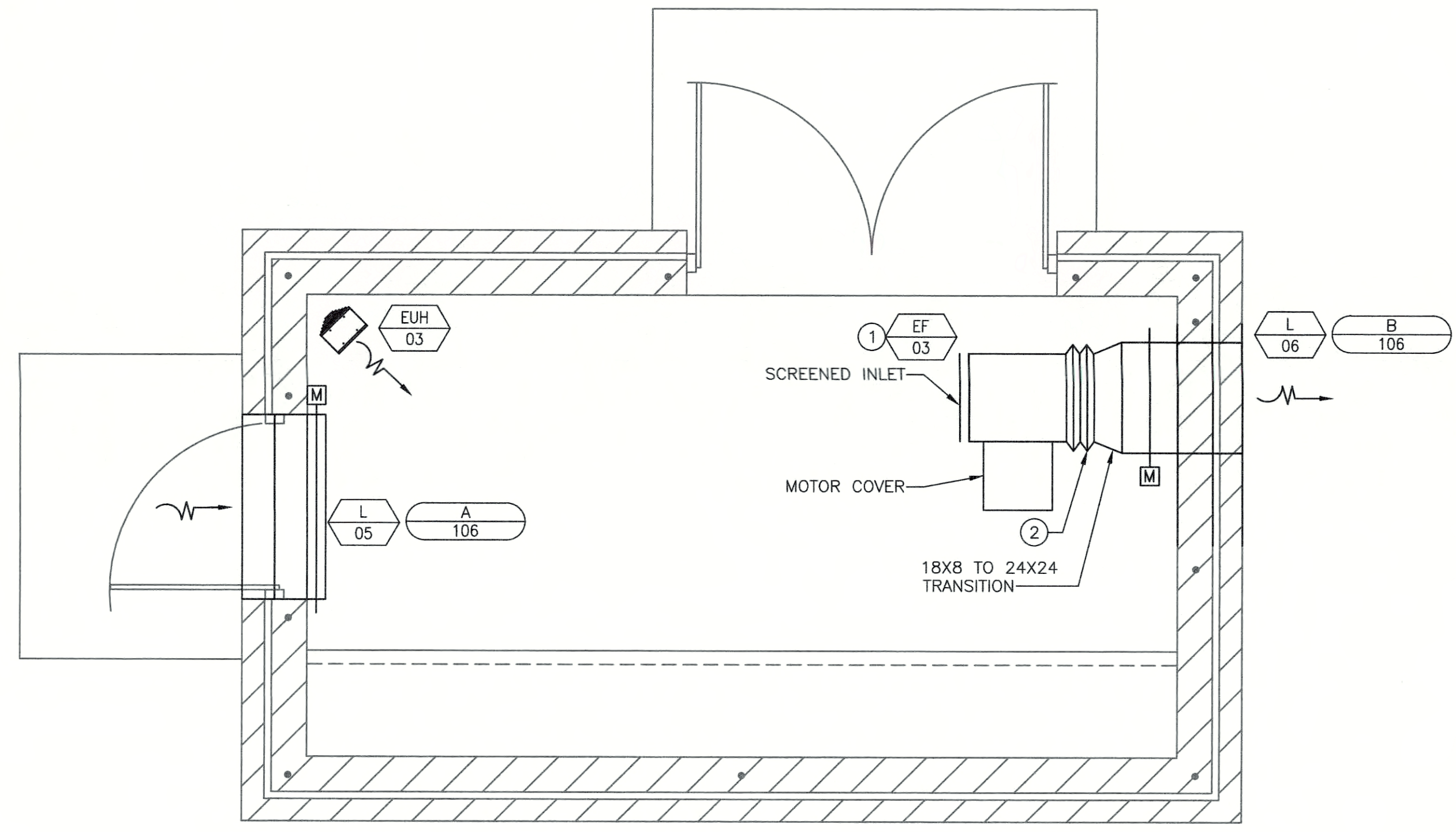
JOB NO.
 5980.020
 PROJECT MGR.
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ELECTRICAL FLOOR PLAN
 0 1' 2' 4'

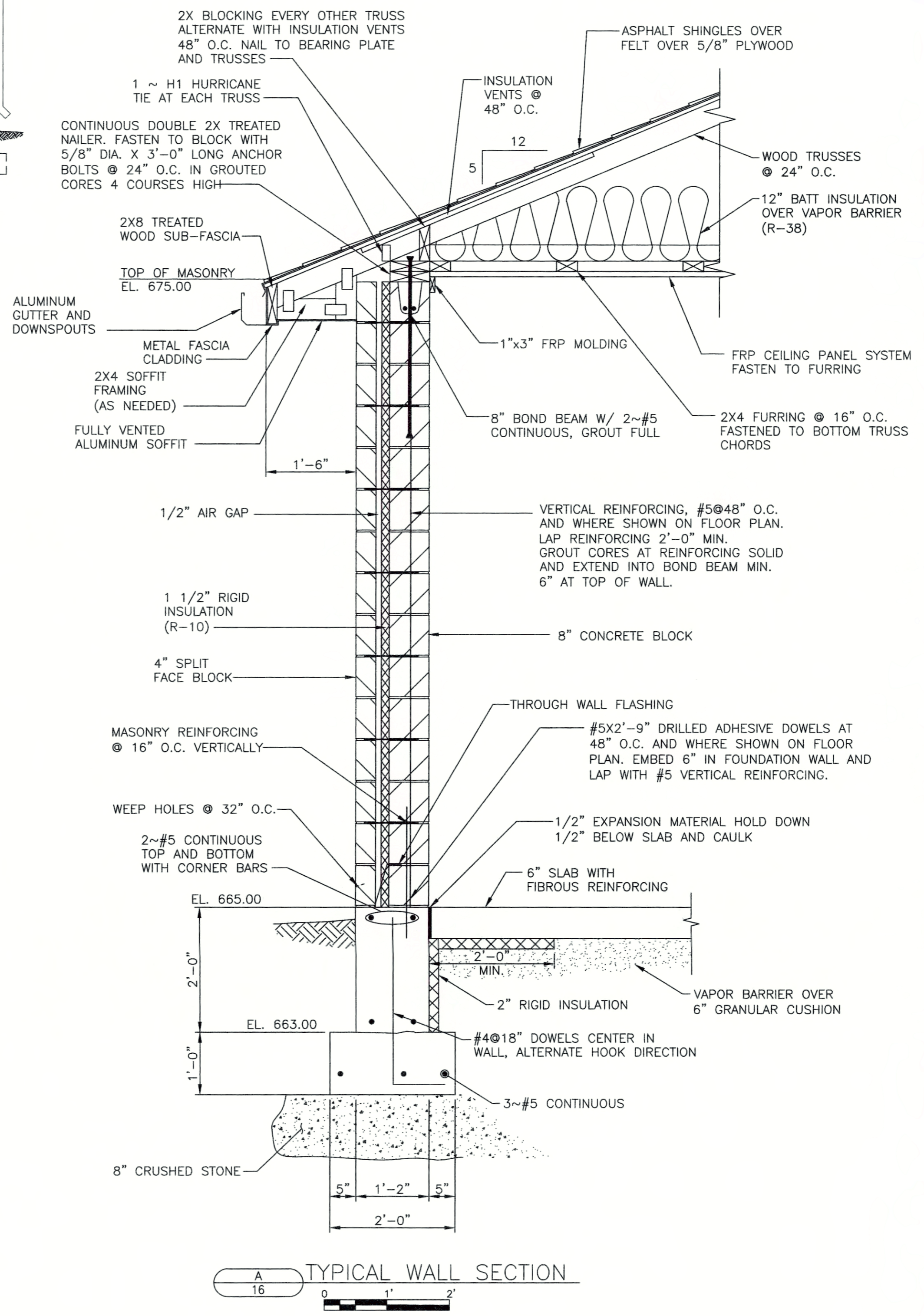
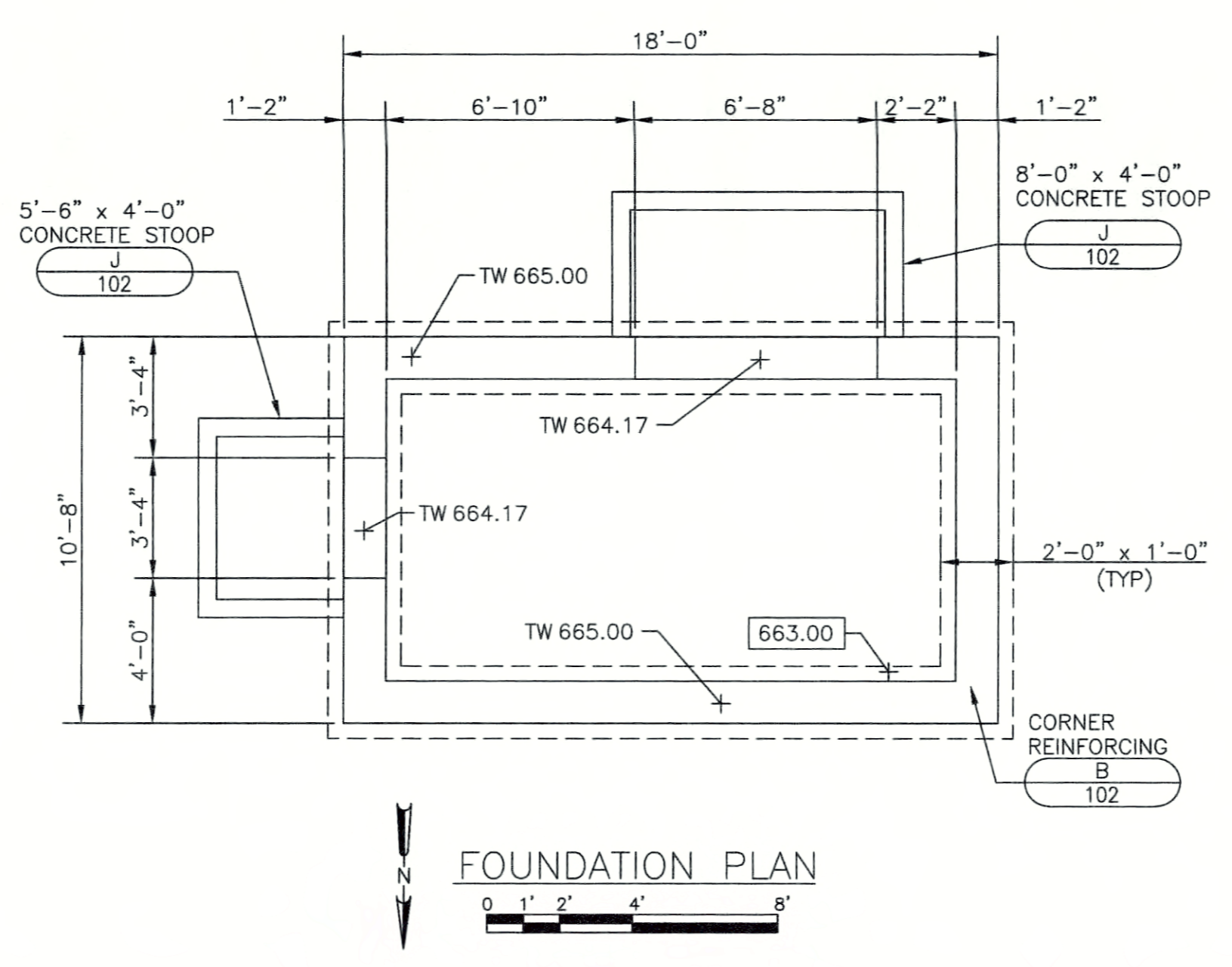
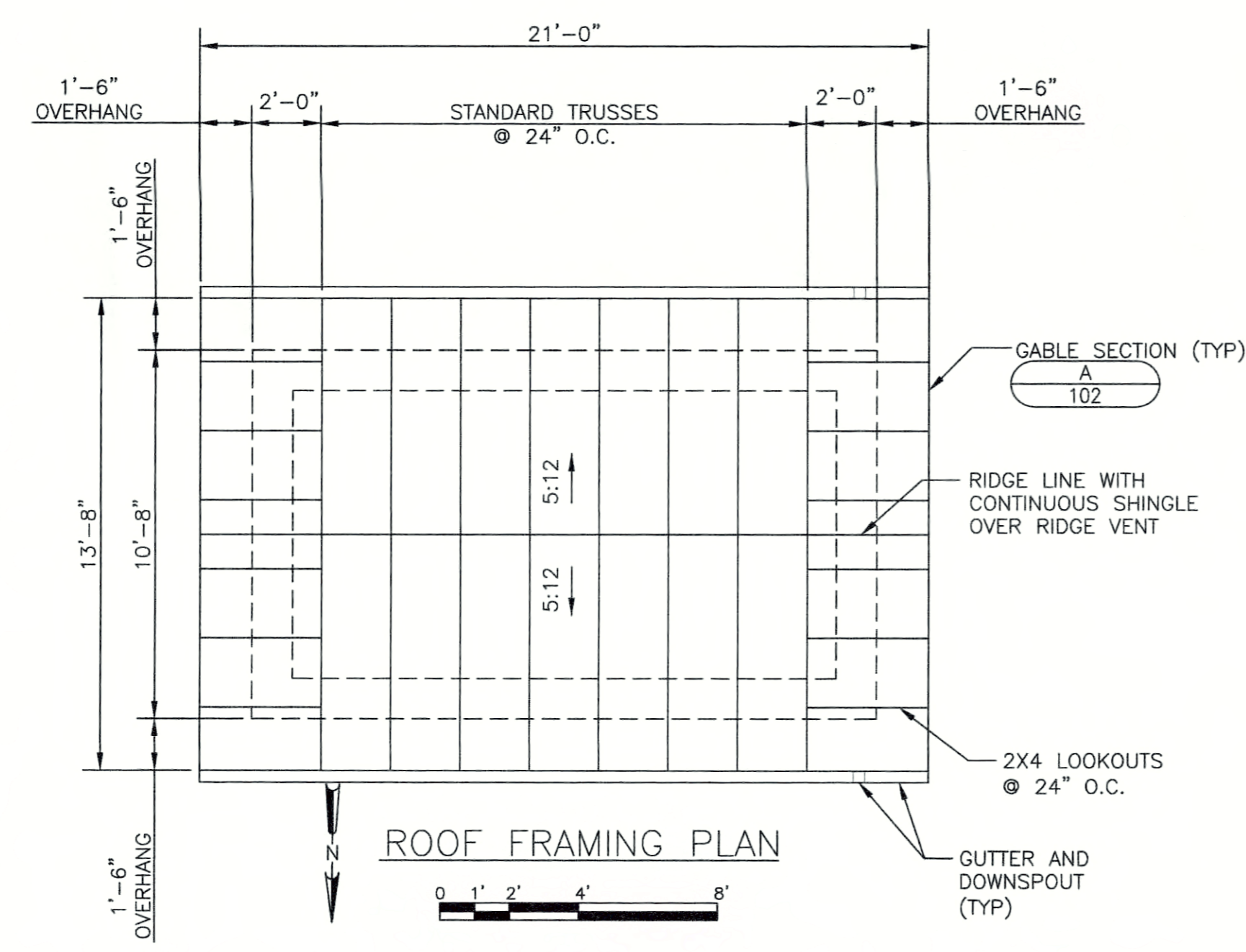
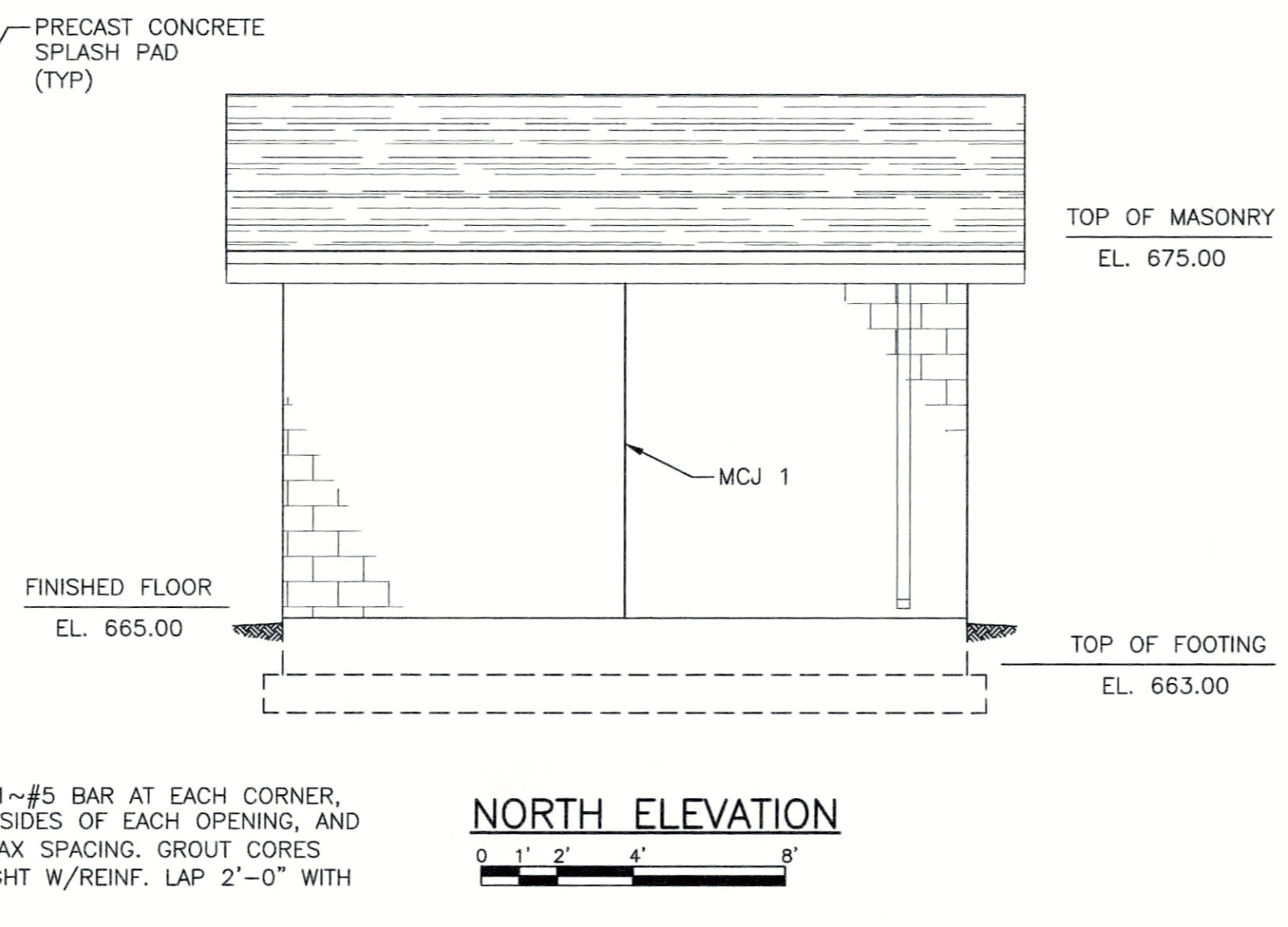
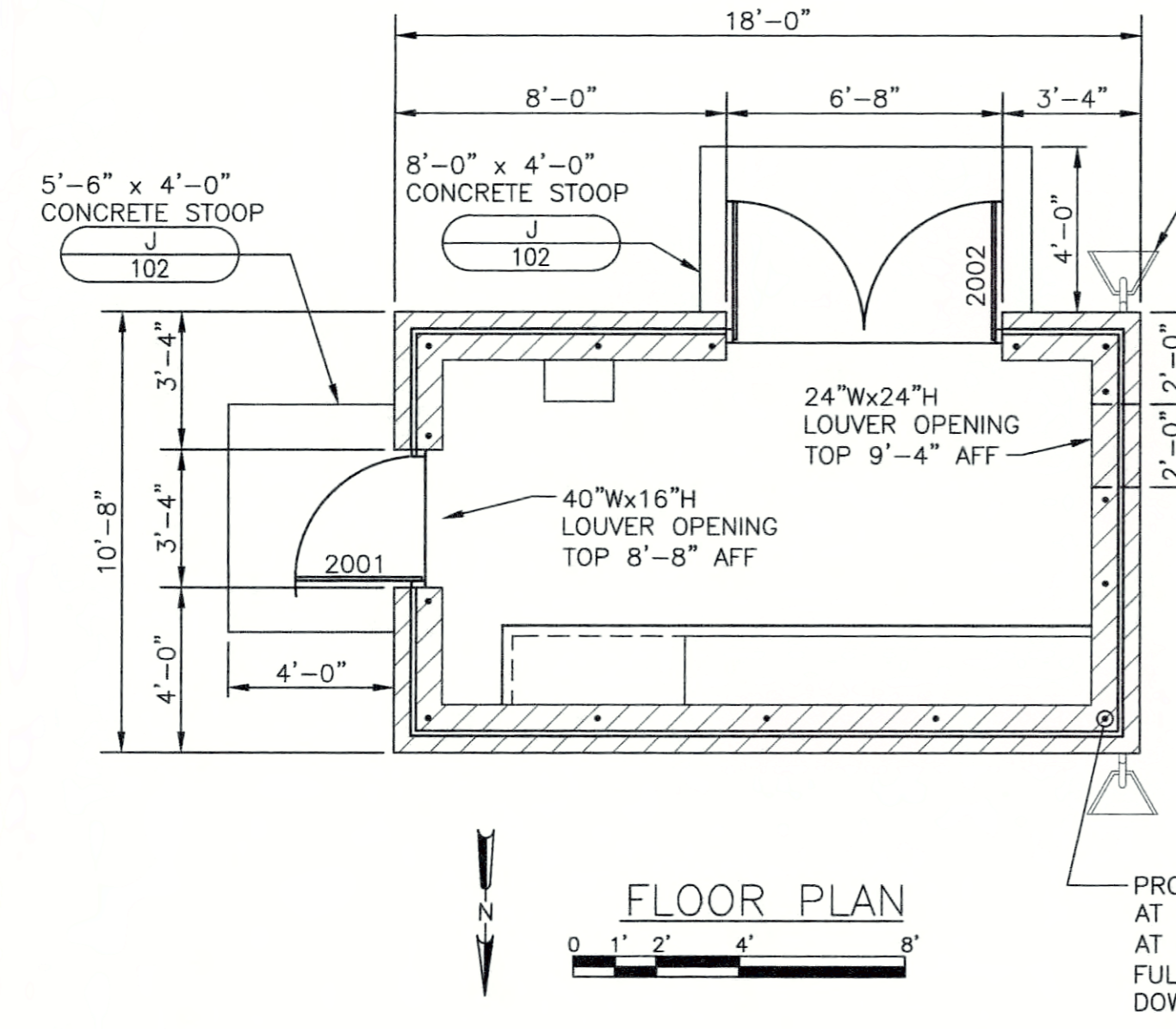
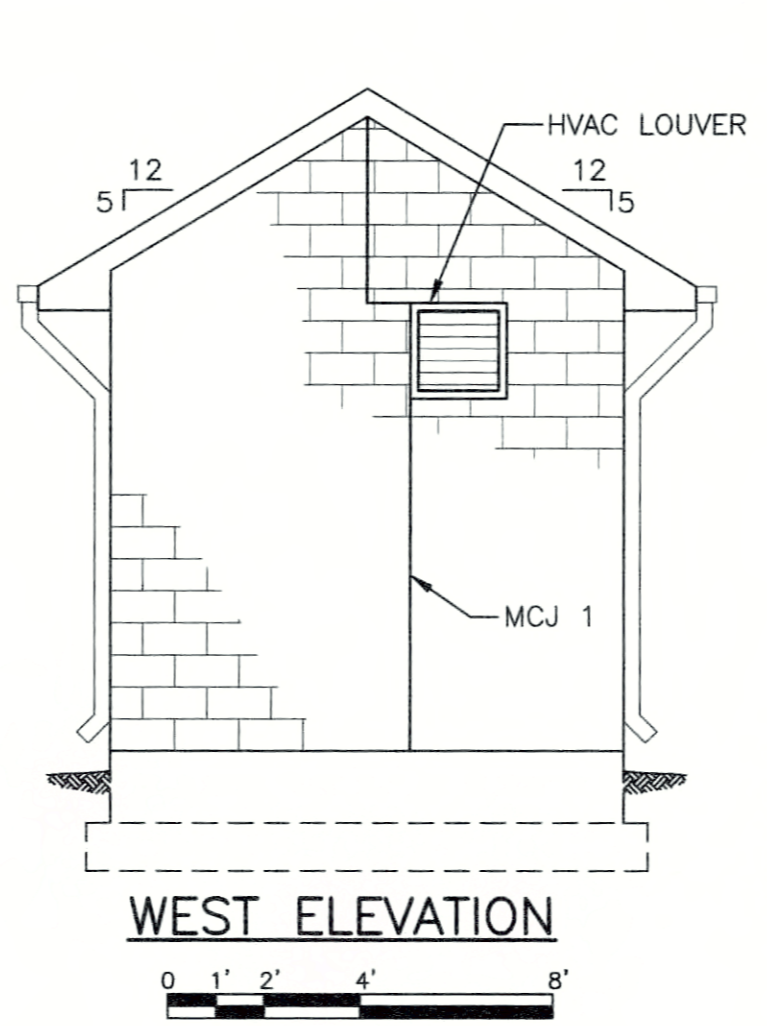
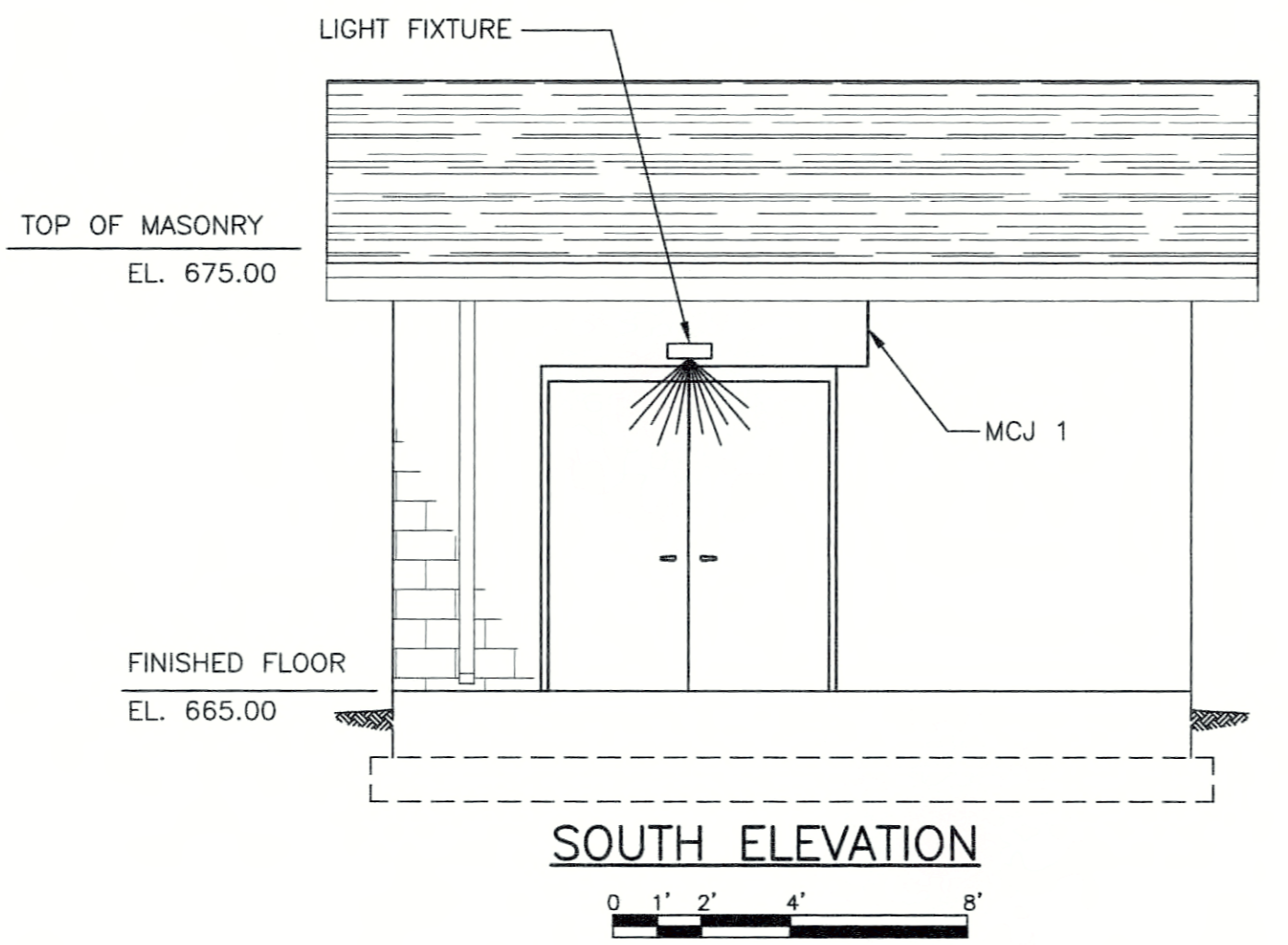
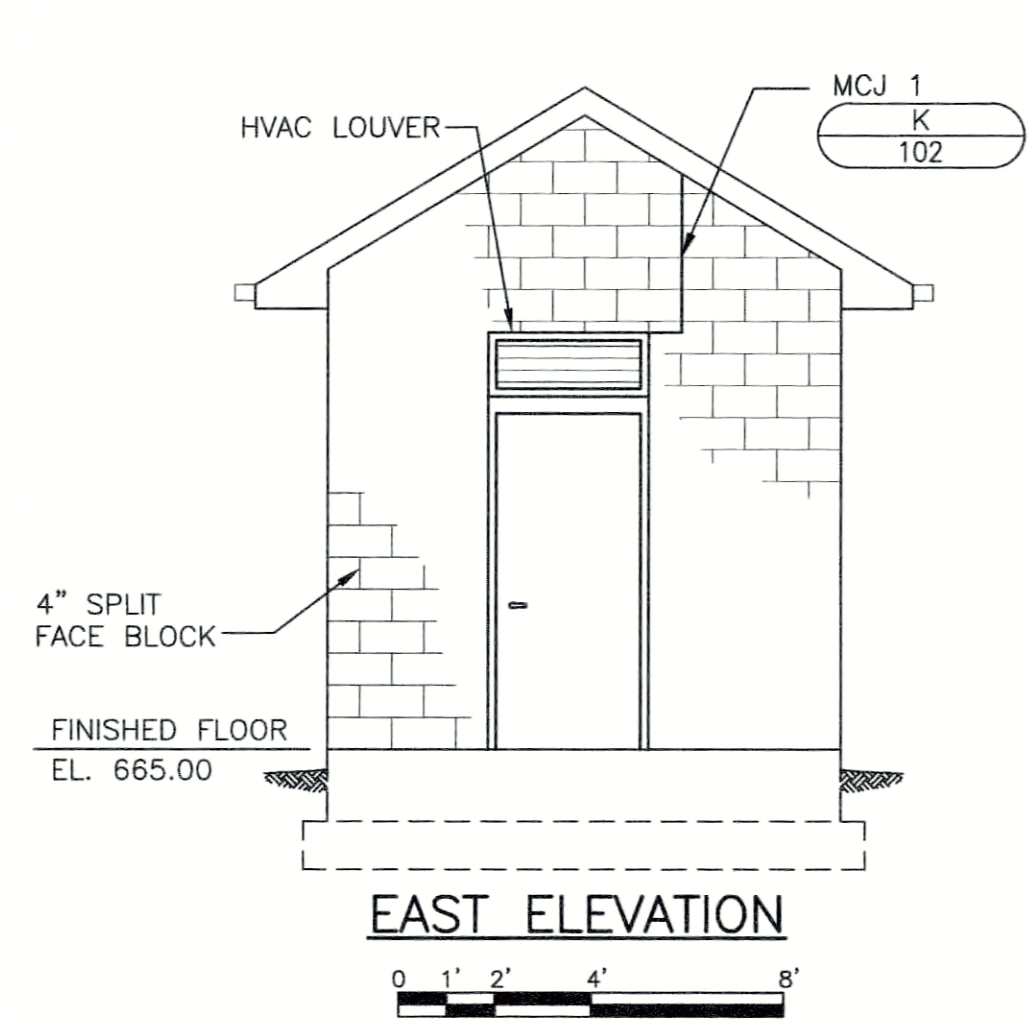


HVAC FLOOR PLAN
 0 1' 2' 4'

STATE OF KENTUCKY
 MICHAEL L. DAVIS
 15715
 LICENSED PROFESSIONAL ENGINEER
 07/15/2017

STATE OF KENTUCKY
 ADAM D. WEBER
 25057
 LICENSED PROFESSIONAL ENGINEER
 07/15/17

STATE OF KENTUCKY
 MARK A. SNEVE
 18511
 LICENSED PROFESSIONAL ENGINEER
 07/15/17



| NO. | REVISIONS | DATE: |
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**INDUSTRIAL PARK PUMP STATION NO. 2
 CONTROL BUILDING DETAILS
 CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020

PROJECT MGR.
 MAS



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**ROSE RUN PUMP STATION
PHOTOGRAPHIC SITE PLAN
CONTRACT 1-2017**

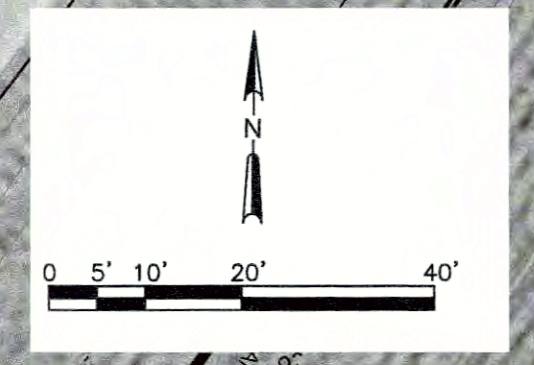
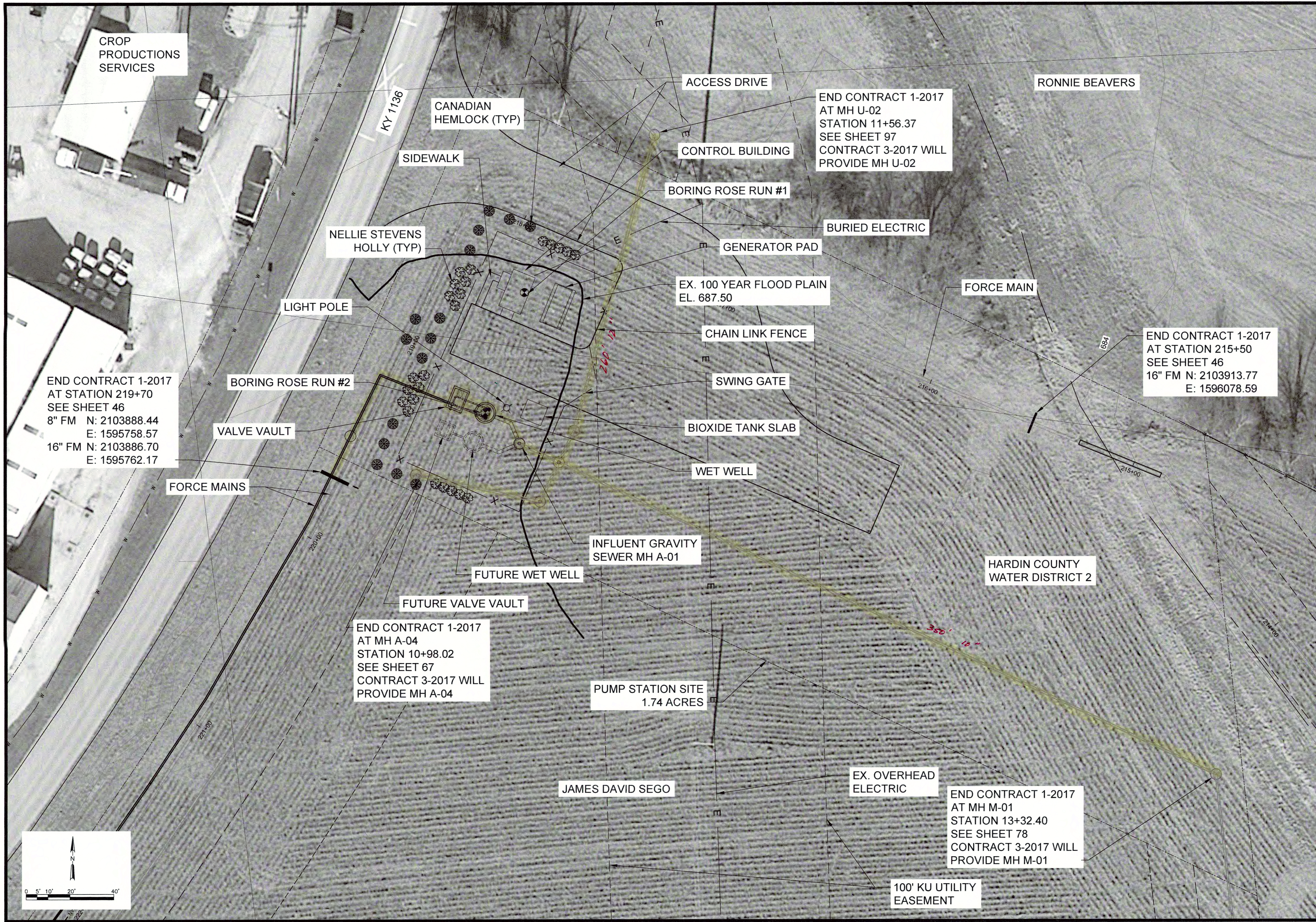
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
5980.020

PROJECT MGR.
MAS



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- NOTES:**
1. ALL FORCE MAIN PIPING FOR CONTRACT 1-2017 SHALL BE DUCTILE IRON PIPE.
 2. FORCE MAIN VALVE VAULT CENTER SHALL BE LOCATED 13'-0" FROM WET WELL CENTER.
 3. INFLUENT MANHOLE CENTER SHALL BE LOCATED 20'-0" ON ARC FROM WET WELL CENTERS.
 4. MINIMUM FLOOD PROTECTION ELEVATION FOR ACCESS TO WET WELLS AND EQUIPMENT IS 689.5, WHICH IS 2 FEET ABOVE CALCULATED 100 YEAR FLOOD PLAIN.
 4. ACCESS ROAD ELEVATION SHALL BE CONSTRUCTED ABOVE ELEVATION 687.02 (25 YEAR FLOOD ELEVATION).
 5. BLEND NEW CONTOURS INTO EXISTING GRADE AND MINIMIZE DISTURBANCE AREA EAST OF THE SITE.
 6. COORDINATES FOR WET WELLS:
WET WELL 1 CENTER
N: 2103917.38
E: 1595828.78

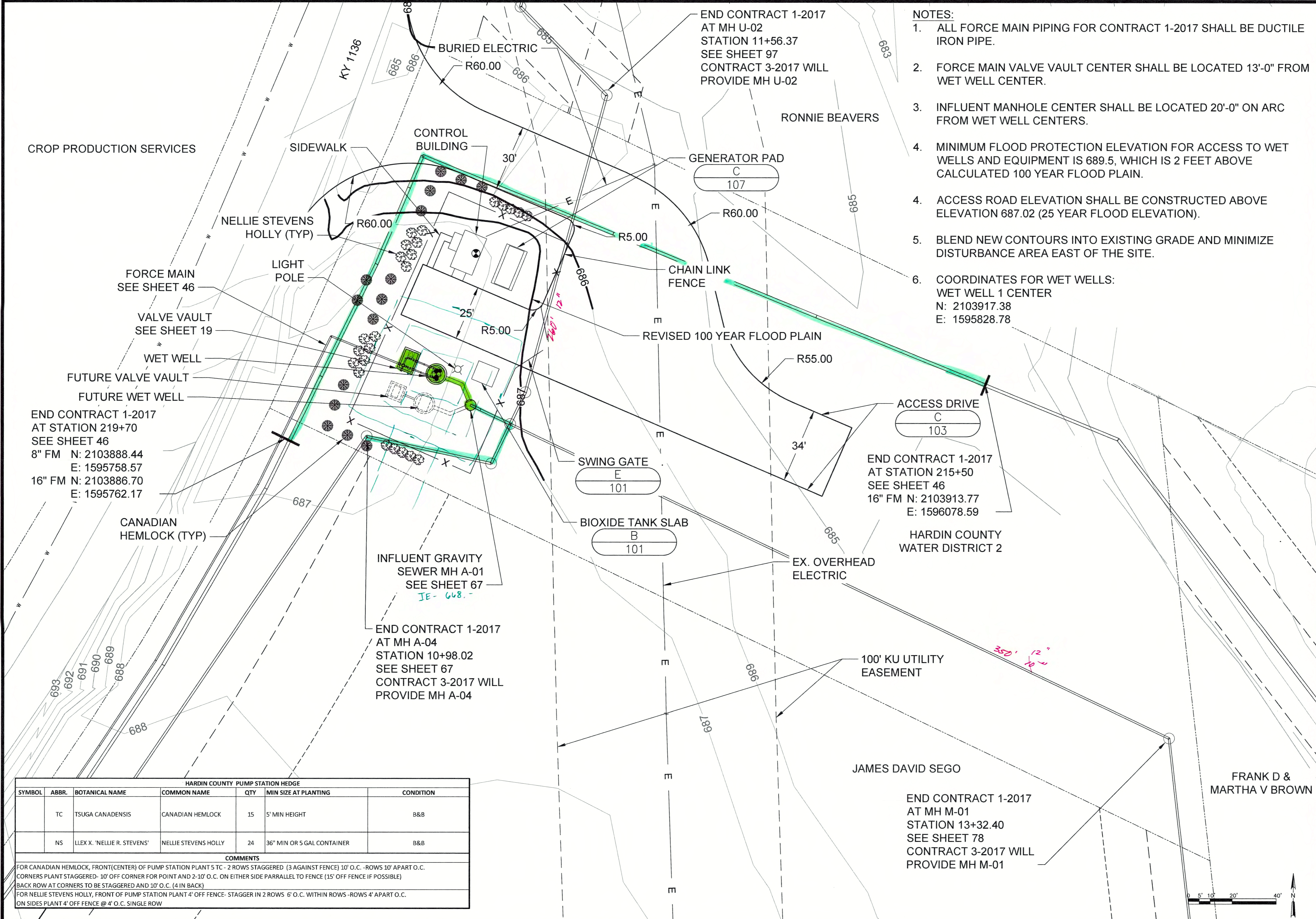
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**ROSE RUN PUMP STATION
 PLANIMETRIC SITE PLAN
 CONTRACT 1-2017**
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
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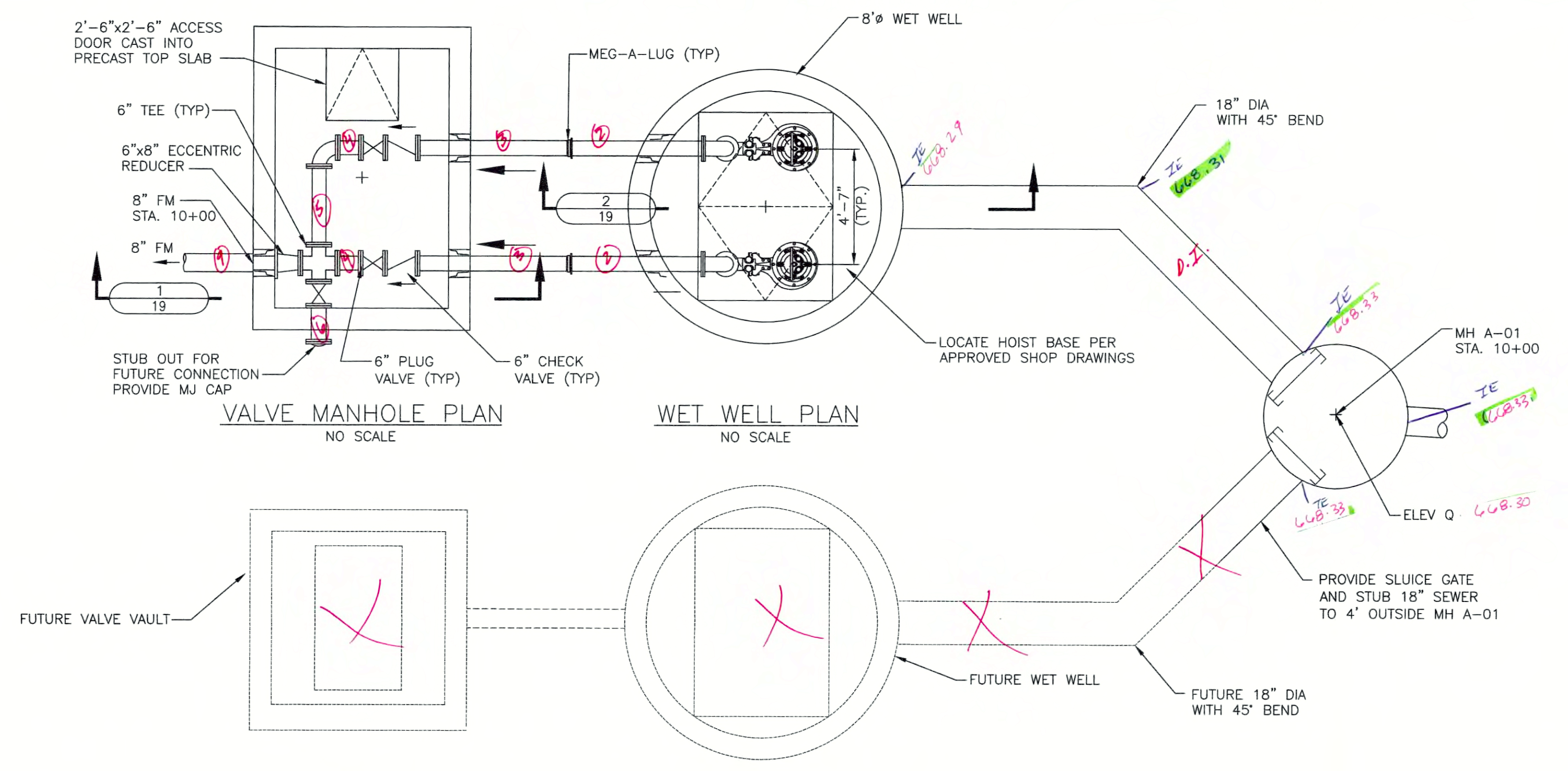
END CONTRACT 1-2017
 AT STATION 219+70
 SEE SHEET 46
 8" FM N: 2103888.44
 E: 1595758.57
 16" FM N: 2103886.70
 E: 1595762.17

END CONTRACT 1-2017
 AT MH A-04
 STATION 10+98.02
 SEE SHEET 67
 CONTRACT 3-2017 WILL
 PROVIDE MH A-04

END CONTRACT 1-2017
 AT STATION 215+50
 SEE SHEET 46
 16" FM N: 2103913.77
 E: 1596078.59

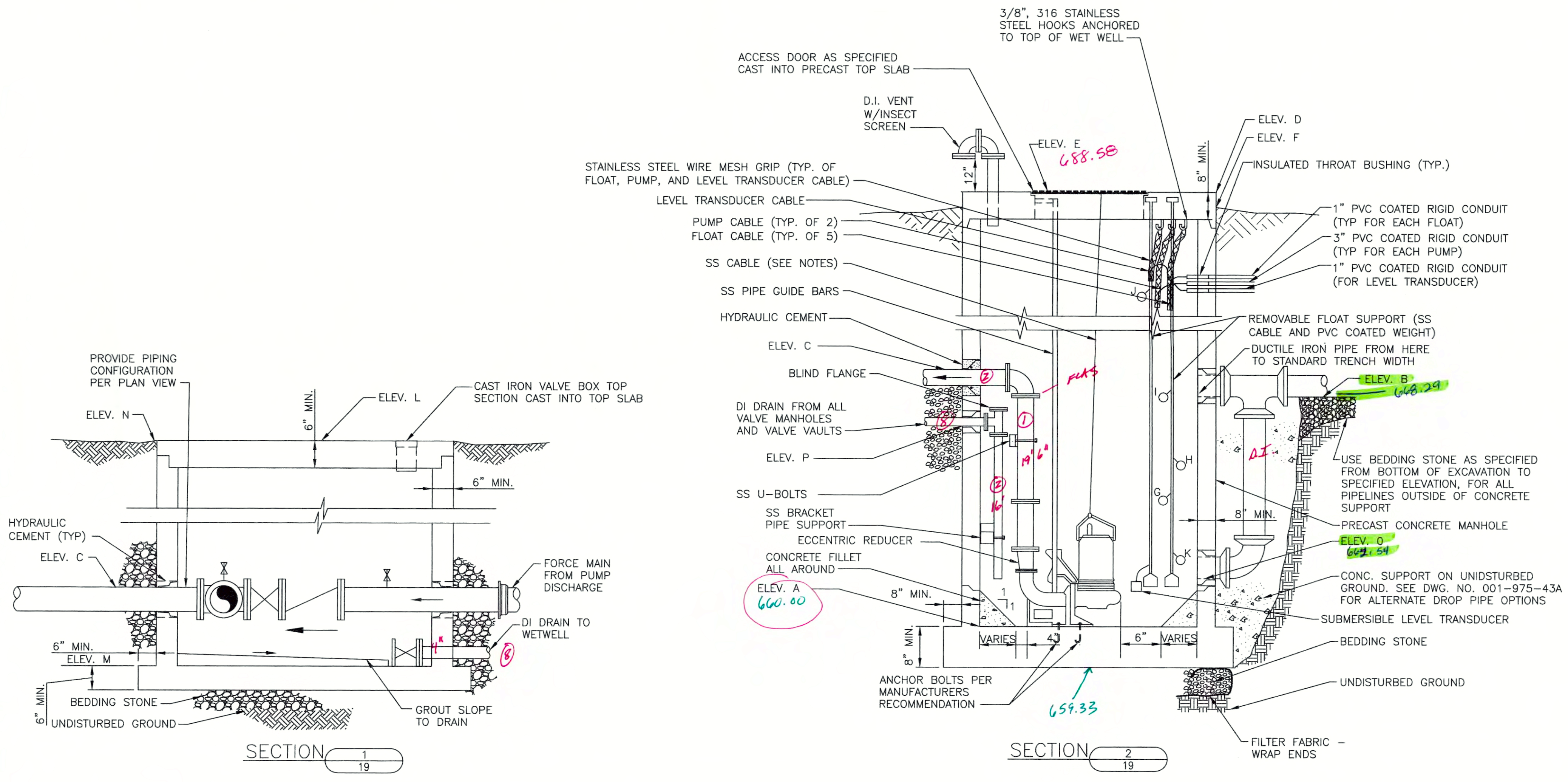
END CONTRACT 1-2017
 AT MH M-01
 STATION 13+32.40
 SEE SHEET 78
 CONTRACT 3-2017 WILL
 PROVIDE MH M-01

| HARDIN COUNTY PUMP STATION HEDGE | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------|----------------------|-----|----------------------------|-----------|
| SYMBOL | ABBR. | BOTANICAL NAME | COMMON NAME | QTY | MIN SIZE AT PLANTING | CONDITION |
| TC | | TSUGA CANADENSIS | CANADIAN HEMLOCK | 15 | 5' MIN HEIGHT | B&B |
| NS | | ILEX X. 'NELLIE R. STEVENS' | NELLIE STEVENS HOLLY | 24 | 36" MIN OR 5 GAL CONTAINER | B&B |
| COMMENTS | | | | | | |
| FOR CANADIAN HEMLOCK, FRONT(CENTER) OF PUMP STATION PLANT 5 TC - 2 ROWS STAGGERED (3 AGAINST FENCE) 10' O.C. - ROWS 10' APART O.C. CORNERS PLANT STAGGERED- 10' OFF CORNER FOR POINT AND 2-10' O.C. ON EITHER SIDE PARRALLEL TO FENCE (15' OFF FENCE IF POSSIBLE) BACK ROW AT CORNERS TO BE STAGGERED AND 10' O.C. (4 IN BACK) | | | | | | |
| FOR NELLIE STEVENS HOLLY, FRONT OF PUMP STATION PLANT 4' OFF FENCE- STAGGER IN 2 ROWS 6' O.C. WITHIN ROWS - ROWS 4' APART O.C. ON SIDES PLANT 4' OFF FENCE @ 4' O.C. SINGLE ROW | | | | | | |



PUMP STATION NOTES:

1. DRAWINGS OF PUMPING STATION PIPING, PUMPS AND COVERS ARE DETAILED USING FLYGT EQUIPMENT.
2. ALL JOINTS IN MANHOLE SHALL BE MADE WITH "RAM-NEK", "KENT-SEAL", "MAS-STIK" OR EQUAL JOINT MATERIAL, OR ASTM C-443 CIRCULAR O-RING GASKET.
3. OPENINGS IN NEW MANHOLES SHALL BE PROVIDED BY MANHOLE SUPPLIER AT THE FACTORY.
4. GRAVITY SEWER PIPE OPENINGS INTO PUMPING STATION SHALL BE SEALED USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS "A-LOK", "KOR-N-SEAL" OR EQUAL. ALL FORCE MAIN AND OTHER OPENINGS INTO PUMPING STATION AND VALVE MANHOLE SHALL BE GROUTED WATERTIGHT WITH HYDRAULIC CEMENT OR MAY BE SEALED WITH "A-LOK" OR "KOR-N-SEAL" CONNECTORS. PROVIDE RUBBER WATERSTOPS ON ALL PIPES THROUGH PUMPING STATION AND VALVE MANHOLE WALLS SEALED WITH HYDRAULIC CEMENT.
5. STAINLESS STEEL CABLE FOR HOISTING PUMPS SHALL BE FASTENED TO MANHOLE COVER LID PER SPECIFICATIONS.
6. PROVIDE TAPS, BALL VALVES AND REMOVABLE PIPE END CAP AS SHOWN FOR PRESSURE GAGE CONNECTIONS.
7. STATION PIPING SHALL BE AWWA C151 DUCTILE IRON, SPECIAL THICKNESS CLASS 53, CONFORMING TO SPECIFICATIONS.
8. CONTRACTOR INSTALLING PUMPS SHALL CHECK ALIGNMENT OF PUMPS AND GUIDE BARS WITH CASTINGS BEFORE ASSEMBLY TO ALLOW PROPER REMOVAL OF PUMPS.
9. PRECAST MANHOLE TOP SLAB SHALL CONFORM TO ASTM C-478, REINFORCING SHALL BE FOR H-20 LOADING. EXACT DIMENSIONS AND POSITION OF PUMP ACCESS HOLE IN TOP SLAB SHALL BE AS PROVIDED BY PUMP MANUFACTURER TO ALLOW PROPER POSITIONING OF GUIDE RAILS AND UNRESTRICTED REMOVAL OF PUMPS.
10. ALL ANCHORS, BOLTS AND FABRICATED METAL WITHIN WET WELL SHALL BE STAINLESS STEEL.
11. BASE SLAB SHALL BE DESIGNED FOR BUOYANT FORCE ASSUMING GROUNDWATER LEVEL AT GRADE AND THE STRUCTURE EMPTY. CONTRACTOR MAY PROVIDE CAST-IN-PLACE SLABS INSTEAD OF PRECAST. IF CAST-IN-PLACE ARE USED, CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY. USE OF CAST-IN-PLACE SLAB SHALL NOT RELIEVE CONTRACTOR OF REQUIREMENT TO PROVIDE WATERTIGHT JOINTS.
12. CONTRACTOR SHALL FURNISH ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE INSTALLATION.
13. APPLY TANK LINING SYSTEM TO UNDERSIDE OF TOP SLAB AND TO INTERIOR WALLS OF WET WELL PER SPECIFICATIONS.
14. SEE SPECIFICATIONS FOR CONDUIT, FITTINGS, AND INSTALLATION REQUIREMENTS OF ELECTRICAL WORK BETWEEN WET WELL AND MOTOR CONTROL CENTER. ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3 FOOT RADIUS OF THE WET WELL VENT SHALL BE RATED FOR A CLASS 1, DIVISION 1, GROUPS C AND D LOCATION. ALL ELECTRICAL WORK AND EQUIPMENT BETWEEN A 3 FOOT RADIUS AND 5 FOOT RADIUS OF THE WET WELL VENT AND WITHIN 18" ABOVE AND 3 FEET HORIZONTALLY FROM WET WELL HATCH SHALL BE RATED FOR A CLASS 1, DIVISION 2, GROUPS C AND D LOCATION.



| PUMPING STATION ELEVATIONS | | |
|----------------------------|------------------------------------------|-----------|
| ELEV. | DESCRIPTION | ELEVATION |
| A | FLOOR ELEV. OF MANHOLE (WETWELL) | 660.00 |
| B | INVERT ELEV. OF SEWER(S) | 668.25 |
| C | CROWN ELEV. OF FORCE MAIN | 682.97 |
| D | ELEV. OF TOP OF SLAB | 688.50 |
| E | ELEV. OF TOP OF CASTING | 688.50 |
| F | ELEV. OF FINISHED GRADE AT P.S. | 687.50 |
| G | COMMON PUMPS OFF | 664.75 |
| H | LEAD PUMP ON | 666.00 |
| I | LAG PUMP ON | 667.25 |
| J | HIGH WATER LEVEL | 668.00 |
| K | LOW WATER LEVEL | 663.50 |
| L | ELEV. OF VALVE MANHOLE CASTING | 688.00 |
| M | FLOOR ELEV. OF VALVE MANHOLE | 680.50 |
| N | ELEV. OF FINISHED GRADE AT VALVE MANHOLE | 687.50 |
| O | BOTTOM DROP INLET TYPICAL ALL PIPES | 664.00 |
| P | 4" DRAIN FROM VALVE MANHOLE | 680.00 |
| Q | MH INVERT ELEVATION | 666.3 |



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**ROSE RUN PUMP STATION
 PLANS AND SECTIONS
 CONTRACT 1-2017**
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
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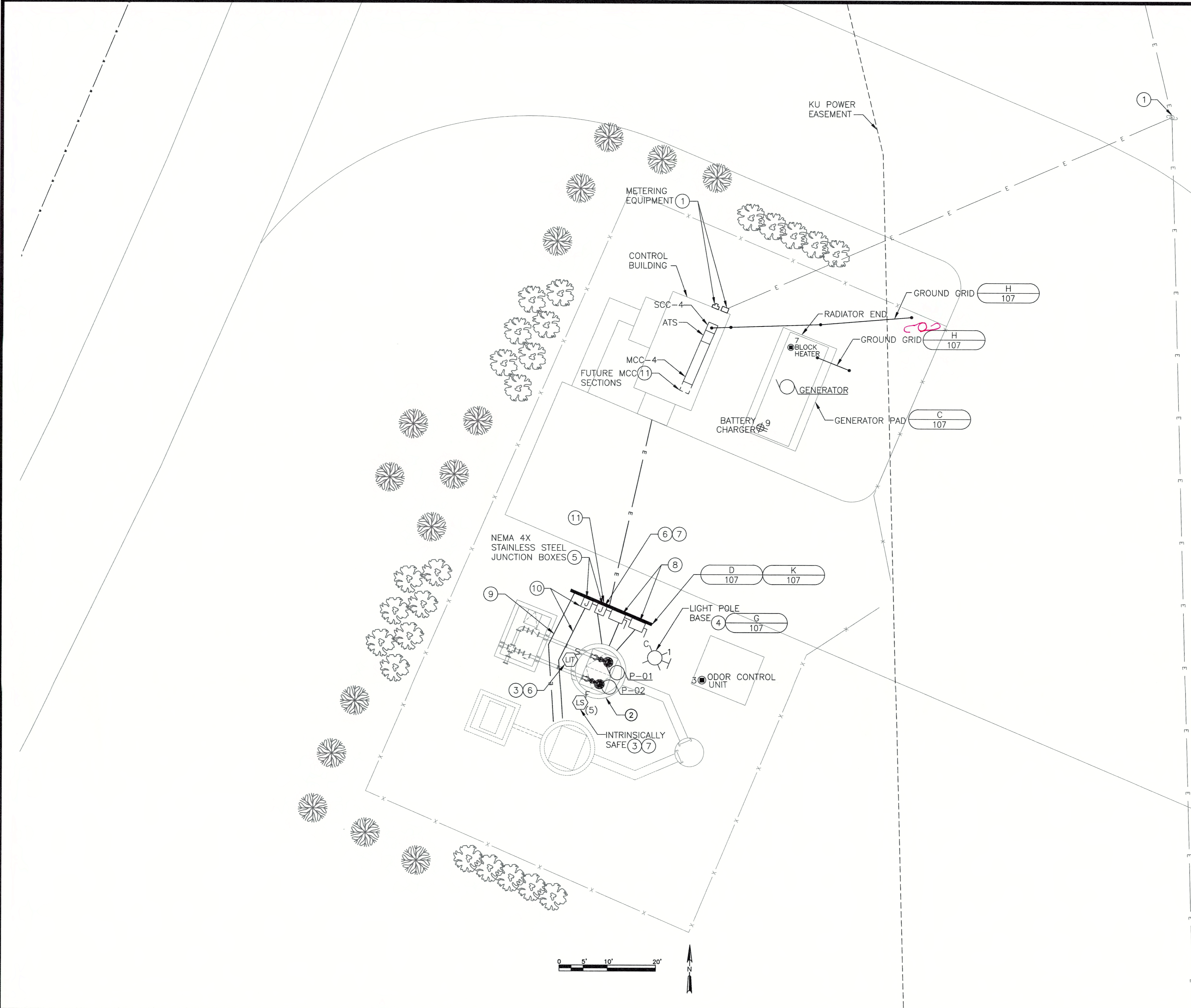
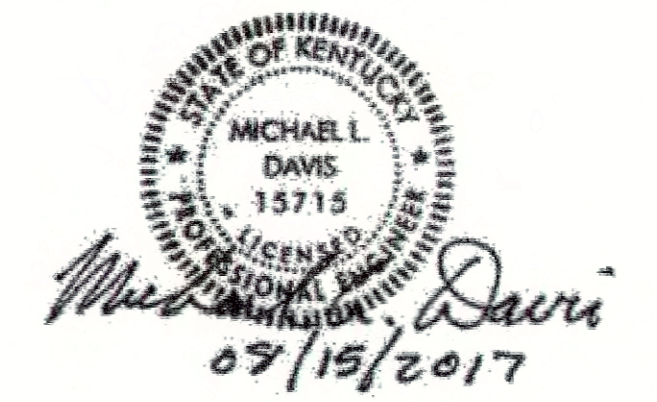
- GENERAL NOTES:**
- REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
 - ONLY MAJOR FEEDER ROUTES ARE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING ALL CONDUIT, WIRE, AND CABLE FOR ALL OTHER FEEDERS. BRANCH CIRCUITS NOT SPECIFICALLY SHOWN.

- KEY NOTES:**
- PROVIDE METER SOCKET AND CT CABINET PER UTILITY COMPANY REQUIREMENTS. PROVIDE CONDUIT FOR UTILITY SECONDARY CONDUCTORS PER UTILITY COMPANY REQUIREMENTS.
 - ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 1, GROUPS C AND D LOCATIONS. ALL ELECTRICAL WORK AND EQUIPMENT WITHIN 3'-0" HORIZONTALLY AND 18" ABOVE ACCESS DOOR AND WITHIN A 5'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 2, GROUPS C AND D LOCATIONS.
 - SUBMERSIBLE LEVEL TRANSDUCER AND FLOATS SHALL BE INSTALLED PER SECTION 219.
 - POLE-MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY A SWITCH INSIDE CONTROL BUILDING SOUTH DOOR.
 - PROVIDE TERMINAL BLOCKS IN NEMA 4X STAINLESS STEEL JUNCTION BOXES FOR TERMINATION OF TRANSDUCER/FLOAT SWITCH CABLES.
 - PROVIDE 1" CONDUIT FOR MANUFACTURER-PROVIDED CABLE FROM JUNCTION BOX TO TRANSDUCER IN WET WELL.
 - PROVIDE 5~1" CONDUITS FROM JUNCTION BOX TO WET WELL FOR FLOAT SWITCH CABLES.
 - PROVIDE 3" CONDUIT FROM EACH DISCONNECT TO WET WELL FOR PUMP CABLES.
 - PROVIDE 3" SPARE CONDUIT CAPPED AND ATTACHED TO CONTROL STATION MOUNTING STAND HORIZONTAL UNISTRUT SUPPORT TO WET WELL FOR FUTURE PUMP CABLES. CAP CONDUITS WATERTIGHT.
 - PROVIDE 6~1" SPARE CONDUITS FROM JUNCTION BOX MOUNTING TO FUTURE WET WELL LOCATION FOR FUTURE FLOAT SWITCH AND TRANSDUCER CABLES. CAP CONDUITS WATERTIGHT.
 - PROVIDE 1 1/2" AND 3/4" CONDUITS CAPPED FROM FUTURE MCC SECTION LOCATION, STUBBED MAXIMUM 3" AFF AT FUTURE MCC SECTION LOCATION TO CONTROL STATION MOUNTING STAND AT PUMP WET WELLS FOR FUTURE PUMP WIRING. CONDUIT SHALL BE ATTACHED TO CONTROL STATION MOUNTING STAND HORIZONTAL UNISTRUT SUPPORT. CAP CONDUITS WATERTIGHT.

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**ROSE RUN PUMP STATION
ELECTRICAL SITE PLAN
CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY



JOB NO.
5980.020

PROJECT MGR.
MAS

SHEET
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STATE OF KENTUCKY
 MICHAEL L. DAVIS
 15715
 LICENSED PROFESSIONAL ENGINEER
Michael L. Davis
 09/15/2017

STATE OF KENTUCKY
 MARK A. SNEVE
 18511
 LICENSED PROFESSIONAL ENGINEER
Mark A. Sneve
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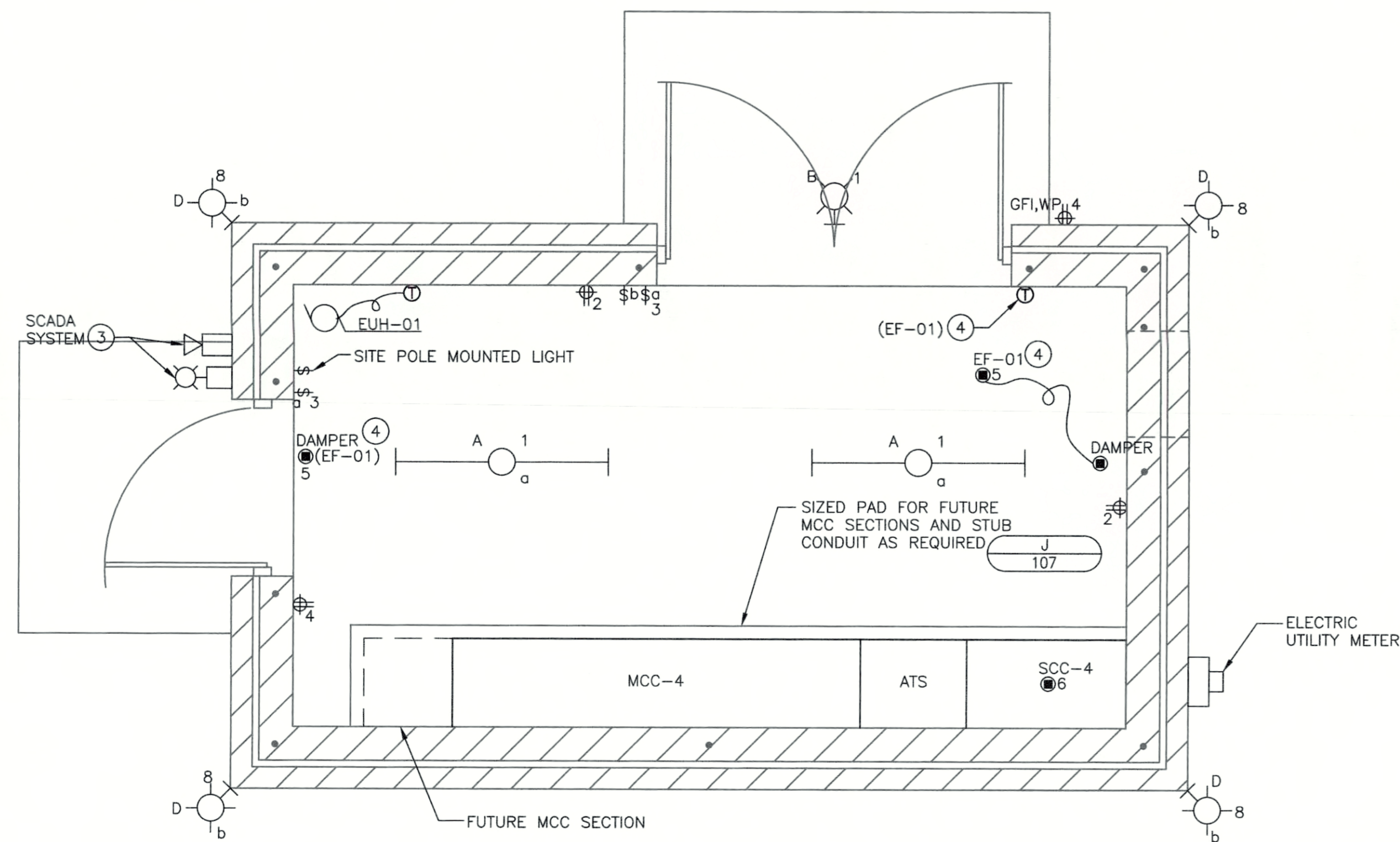
GENERAL NOTES:

1. REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
2. THERMOSTATS ON EXTERIOR WALLS SHALL HAVE INSULATED BASES.

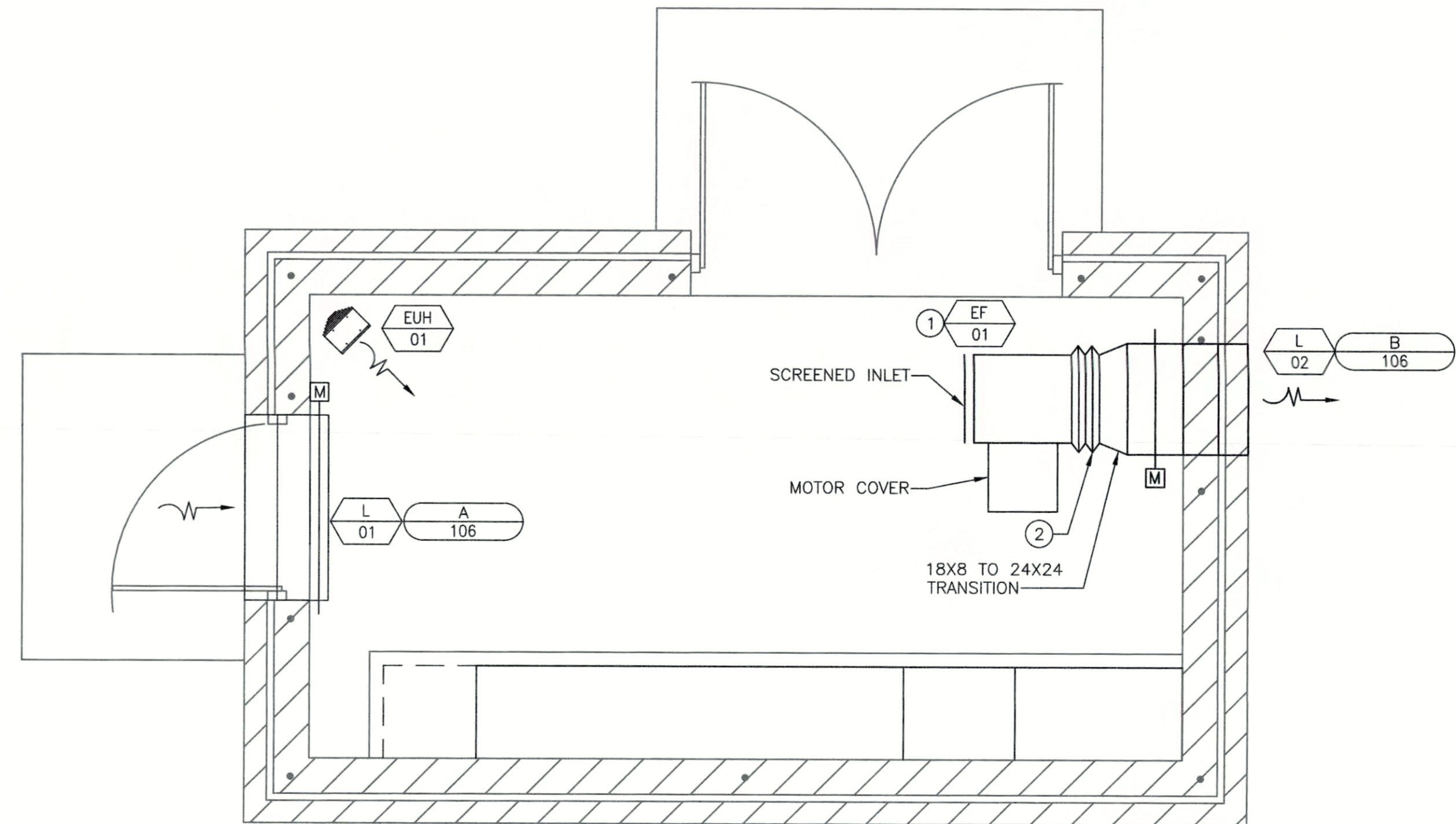
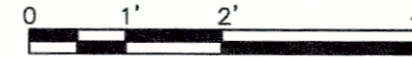
KEY NOTES:

- ① UNIT SHALL BE SUSPENDED FROM CEILING. PROVIDE VIBRATION ISOLATION. BOTTOM OF FAN SHALL BE MIN. 7'-6" AFF. INSTALL FAN WITH MOTOR AND COVER ORIENTED HORIZONTALLY.
- ② PROVIDE FLEXIBLE DUCT CONNECTION.
- ③ PROVIDE 2~#14 IN 3/4" CONDUIT FROM BOTH HORN AND STROBE TO SCC-4.
- ④ DIVISION 16 CONTRACTOR SHALL WIRE EXHAUST FAN AND DAMPERS TO THERMOSTAT SUCH THAT EXHAUST FAN RUNS AND DAMPERS OPEN WHENEVER TEMPERATURE RISES ABOVE THERMOSTAT SETPOINT.

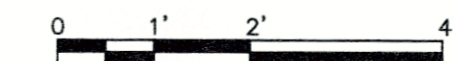
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ELECTRICAL FLOOR PLAN



HVAC FLOOR PLAN



ROSE RUN PUMP STATION
 ELECTRICAL AND HVAC CONTROL BUILDING PLANS
 CONTRACT 1-2017

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
 PROJECT MGR.
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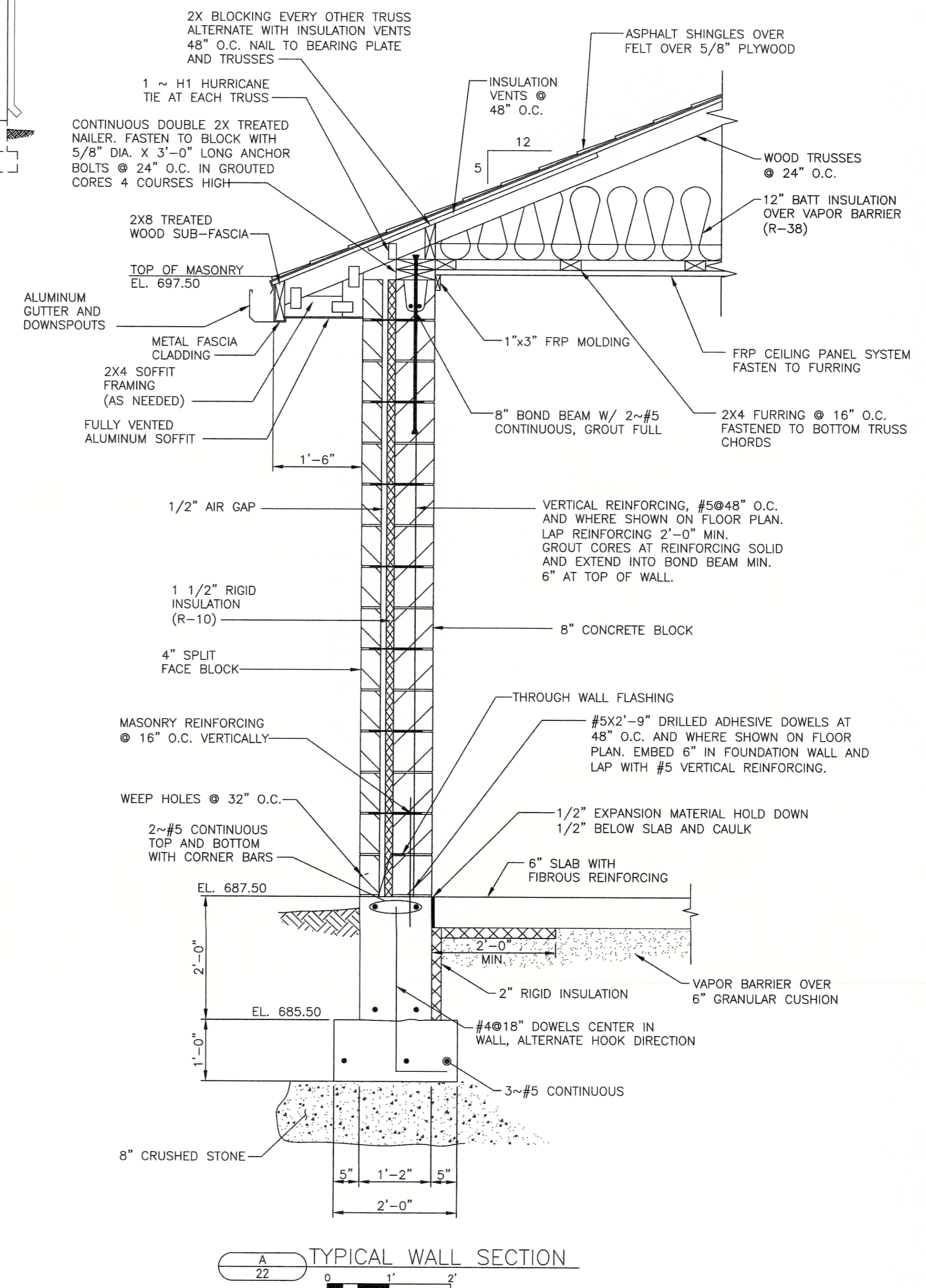
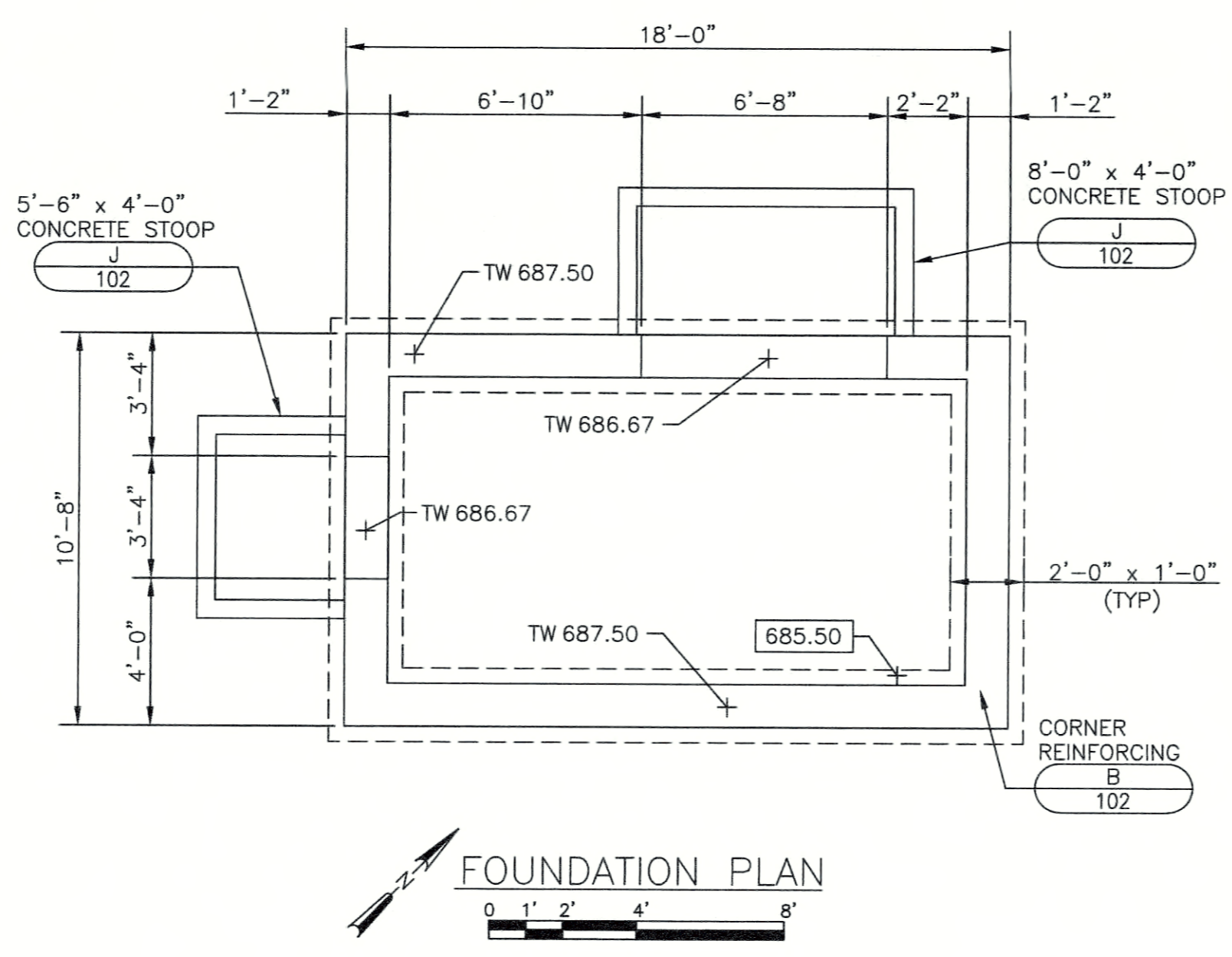
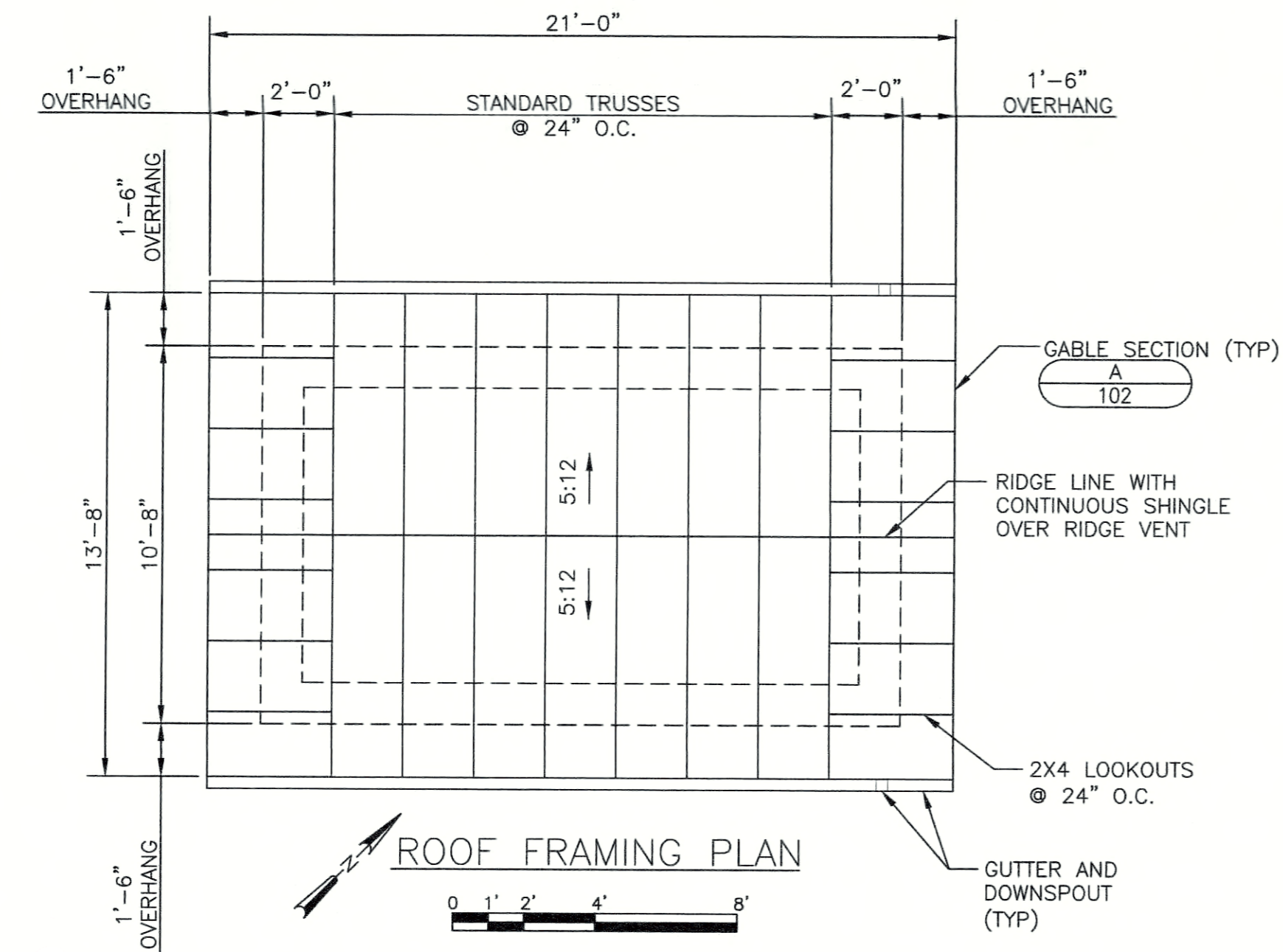
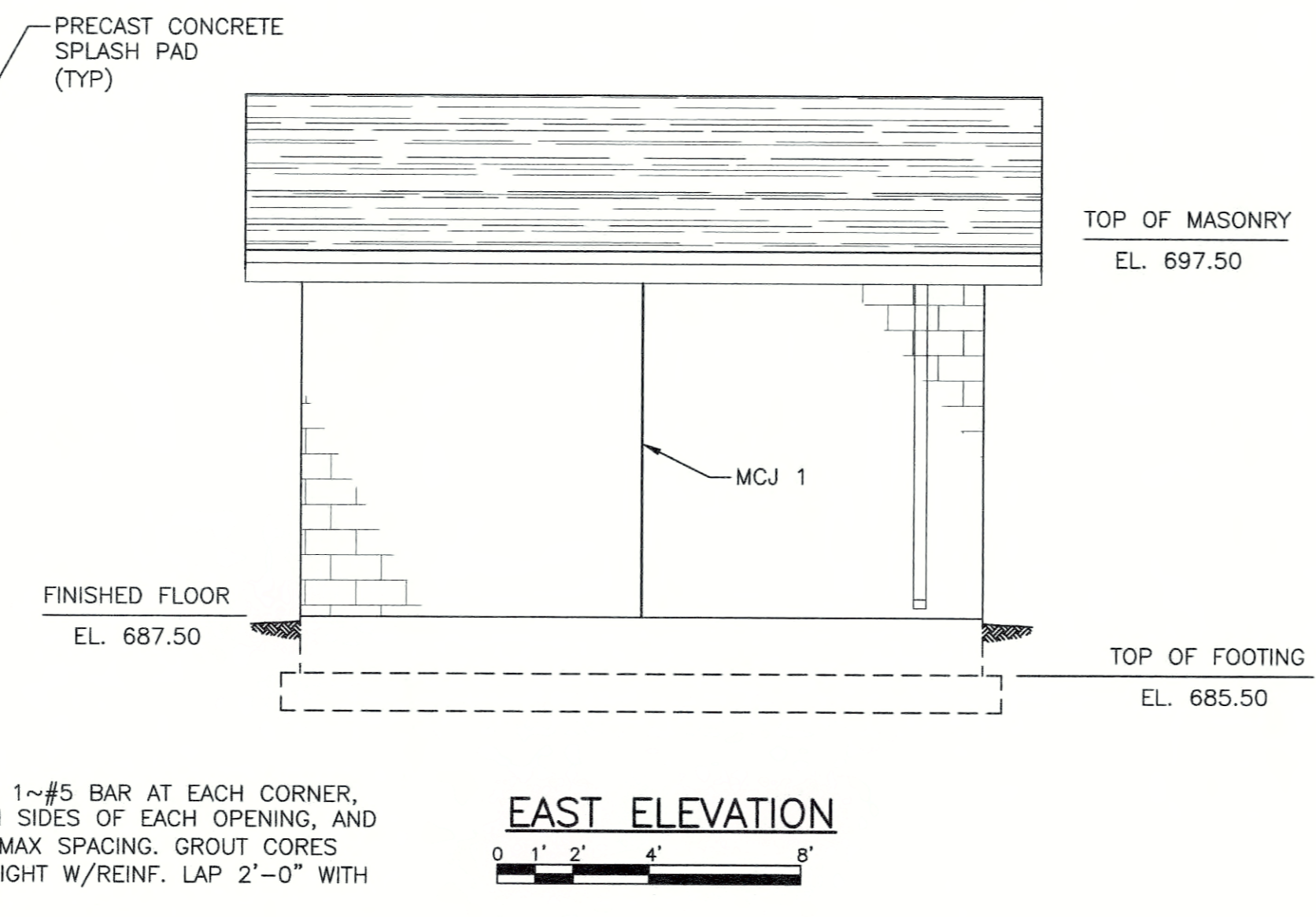
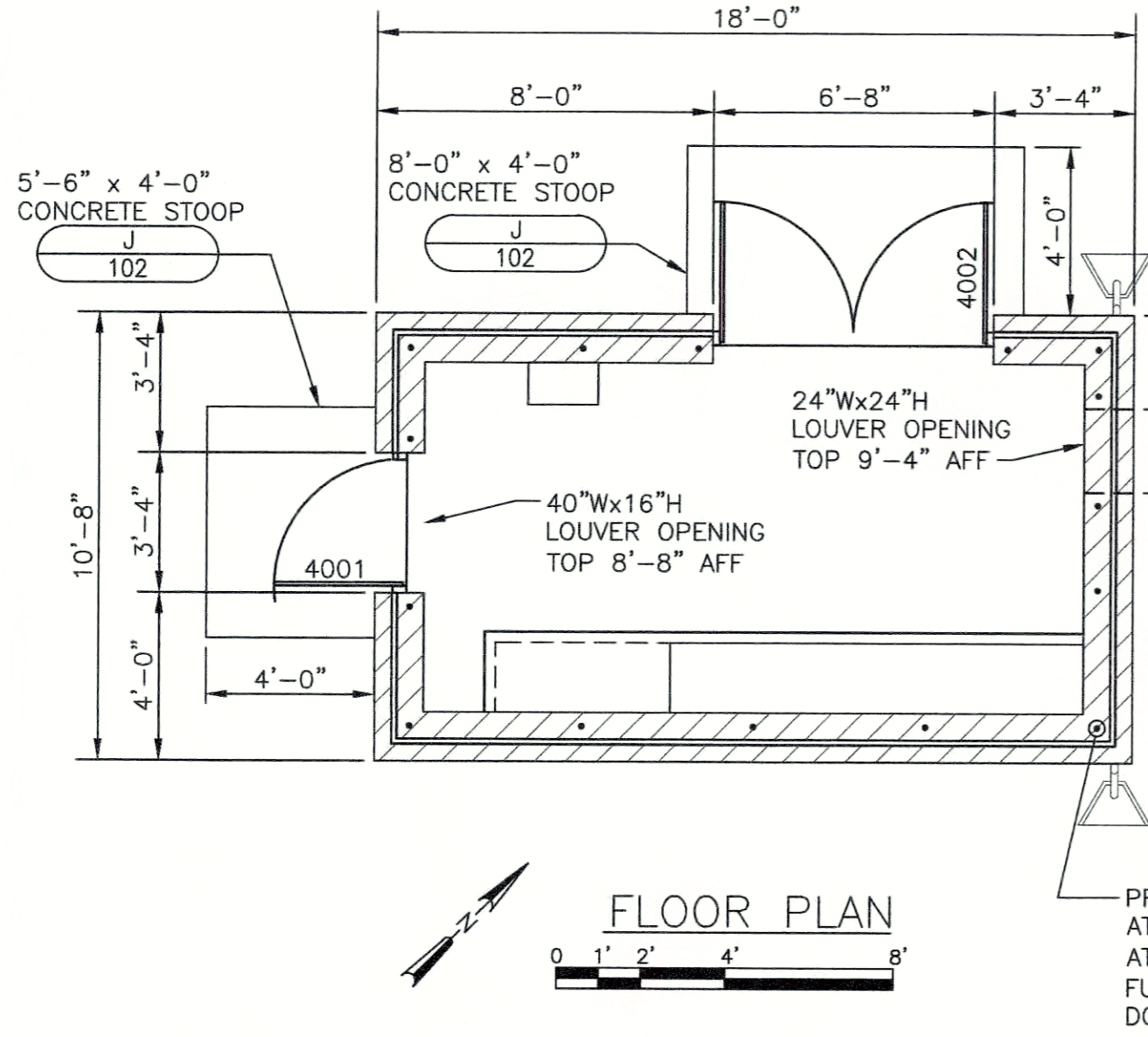
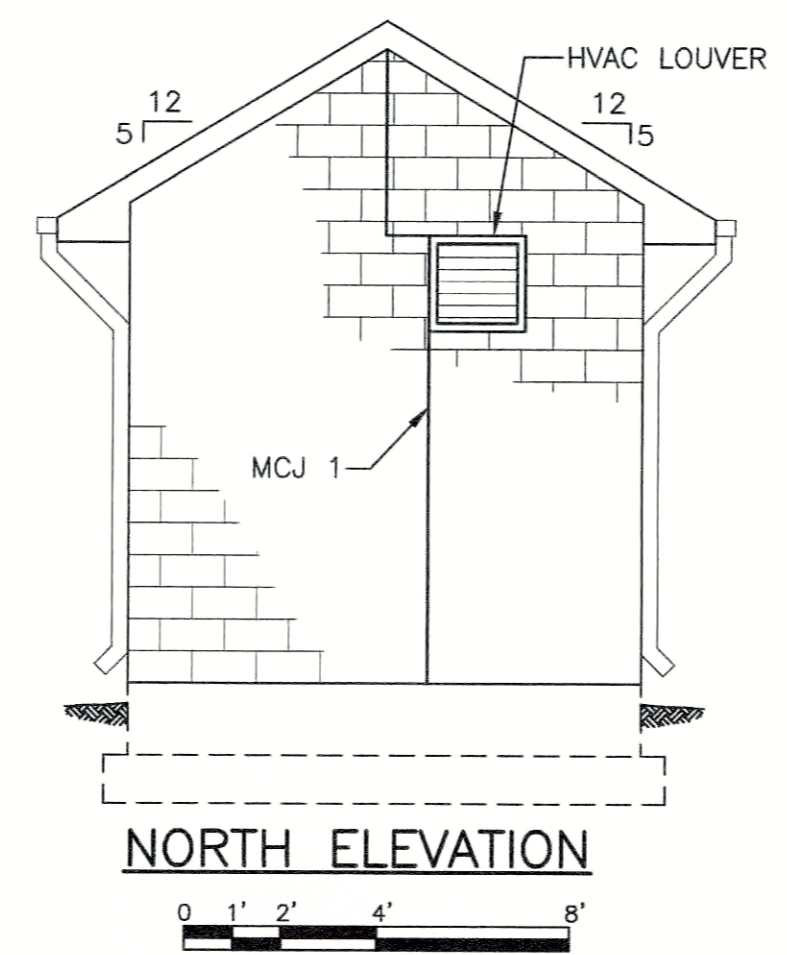
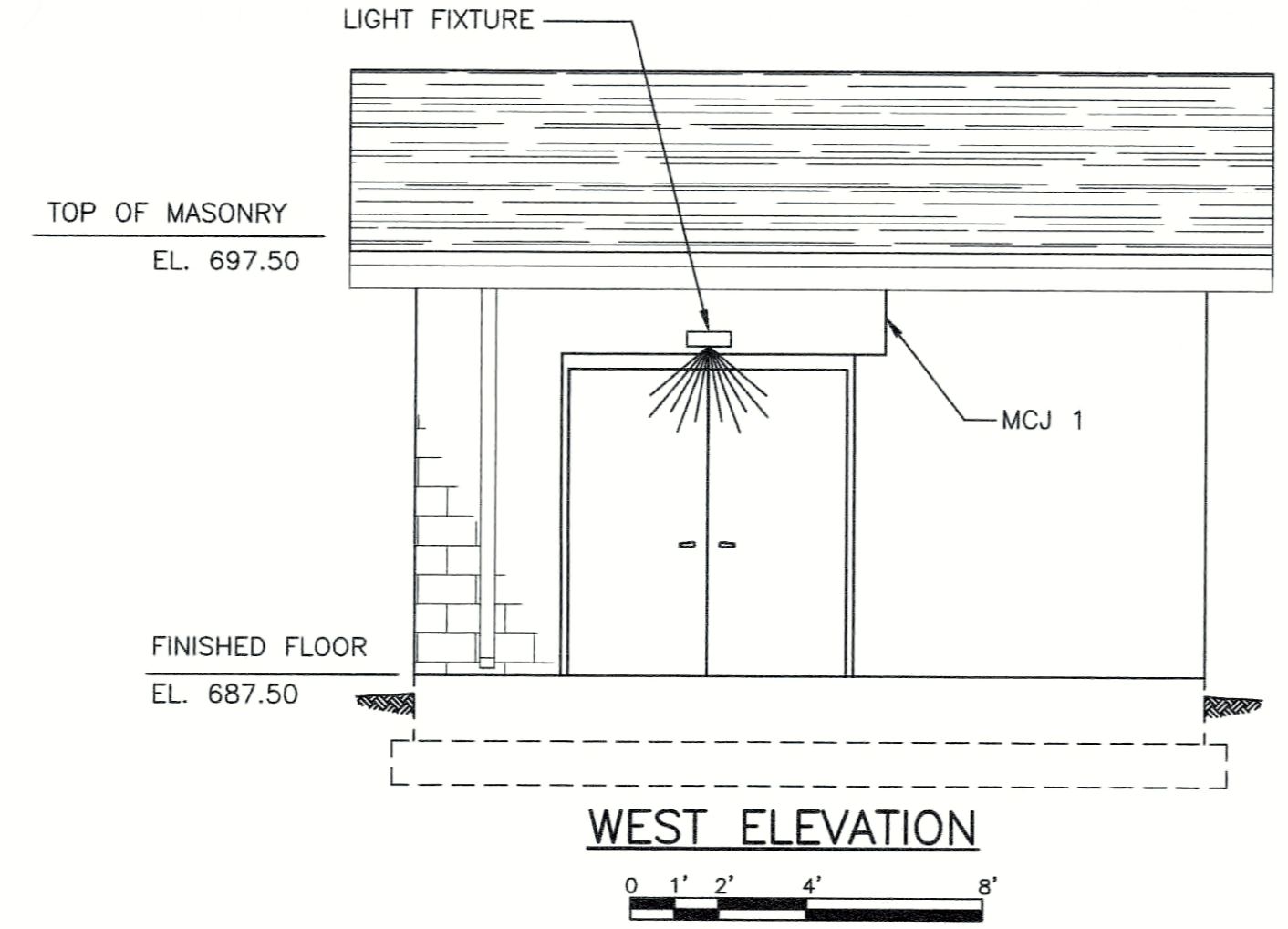
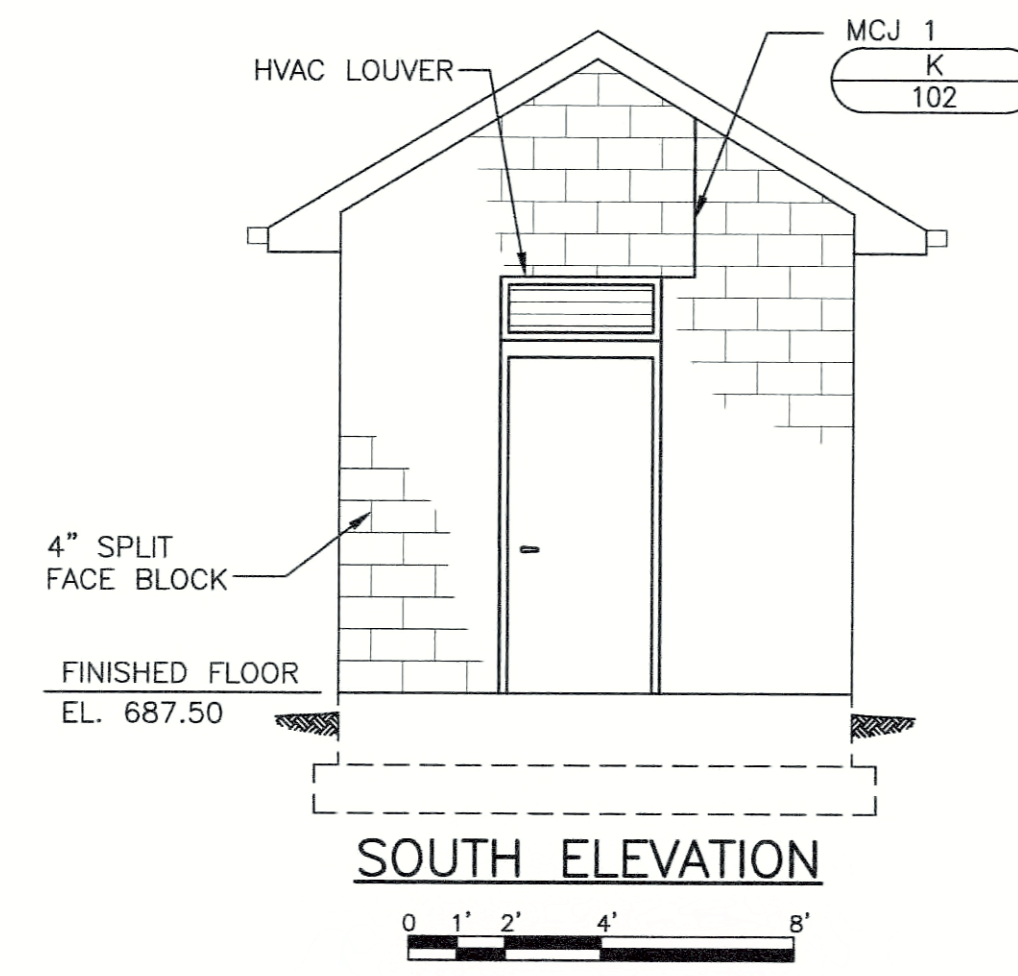


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MICHAEL DAVIS
15715
07/15/2017

ADAM D. WEBER
25057
9/15/11

STATE OF KENTUCKY
MARK A. SNEVE
18511
8/15/17



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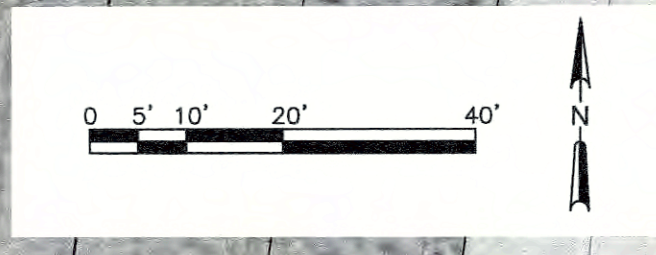
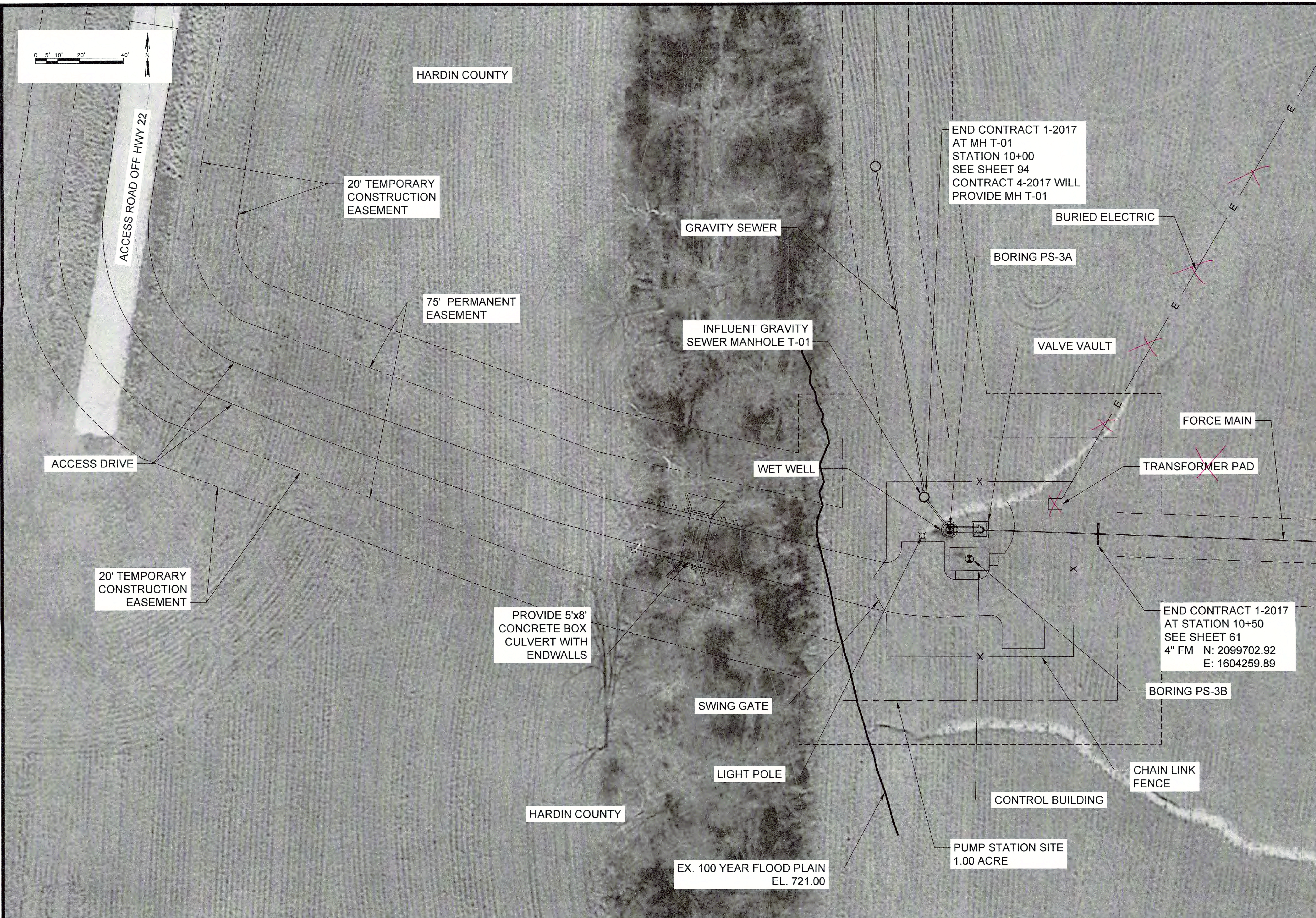
**ROSE RUN PUMP STATION
CONTROL BUILDING DETAILS
CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
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**INDUSTRIAL PARK PUMP STATION NO. 3
PHOTOGRAPHIC SITE PLAN
CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
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**INDUSTRIAL PARK PUMP STATION NO. 3
PLANIMETRIC SITE PLAN
CONTRACT 1-2017**

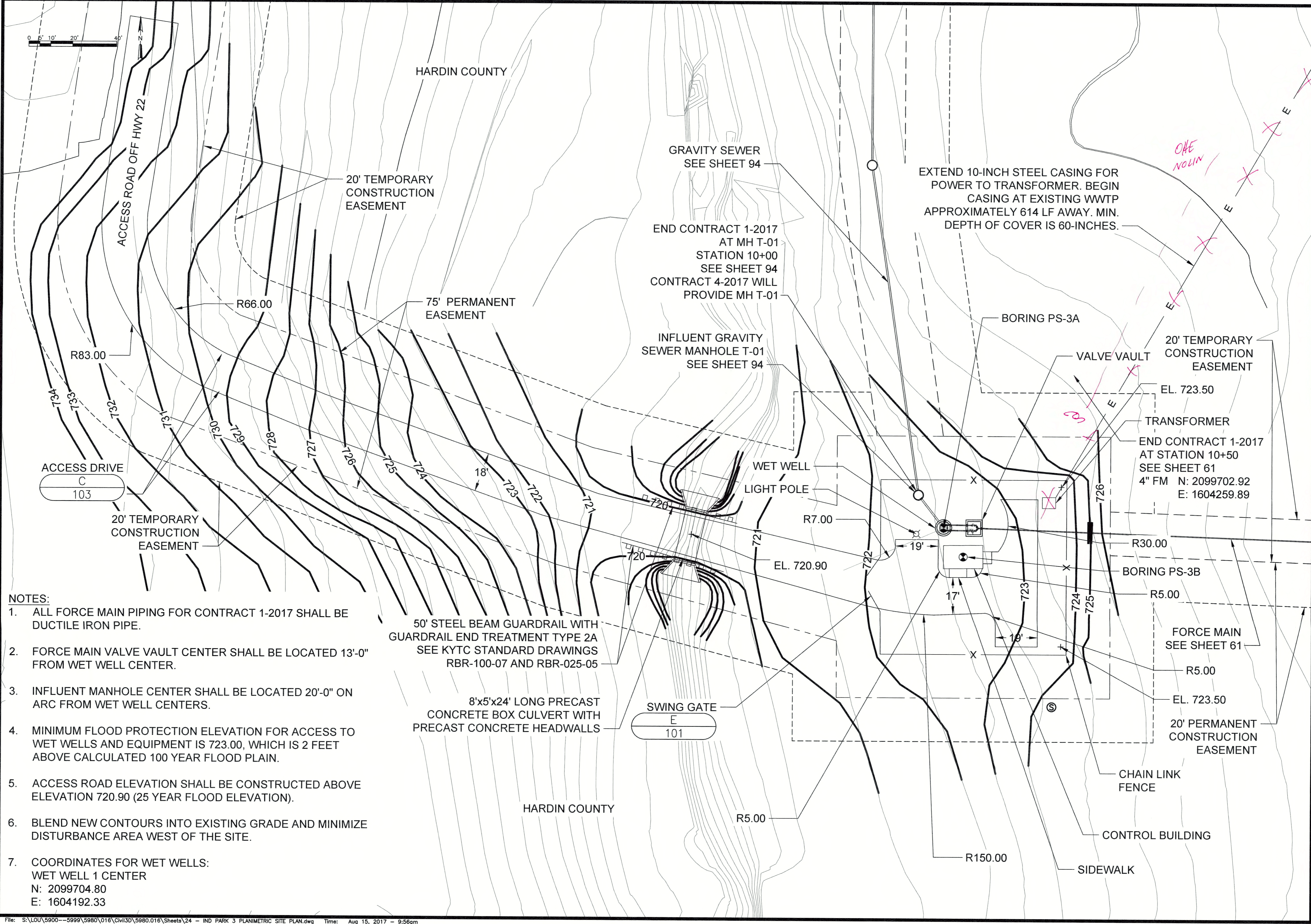
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

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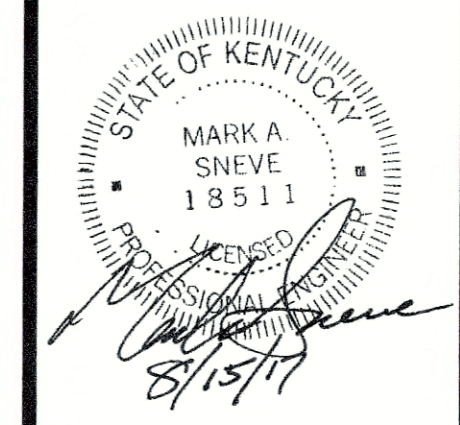
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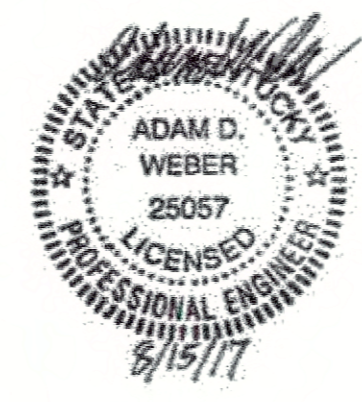
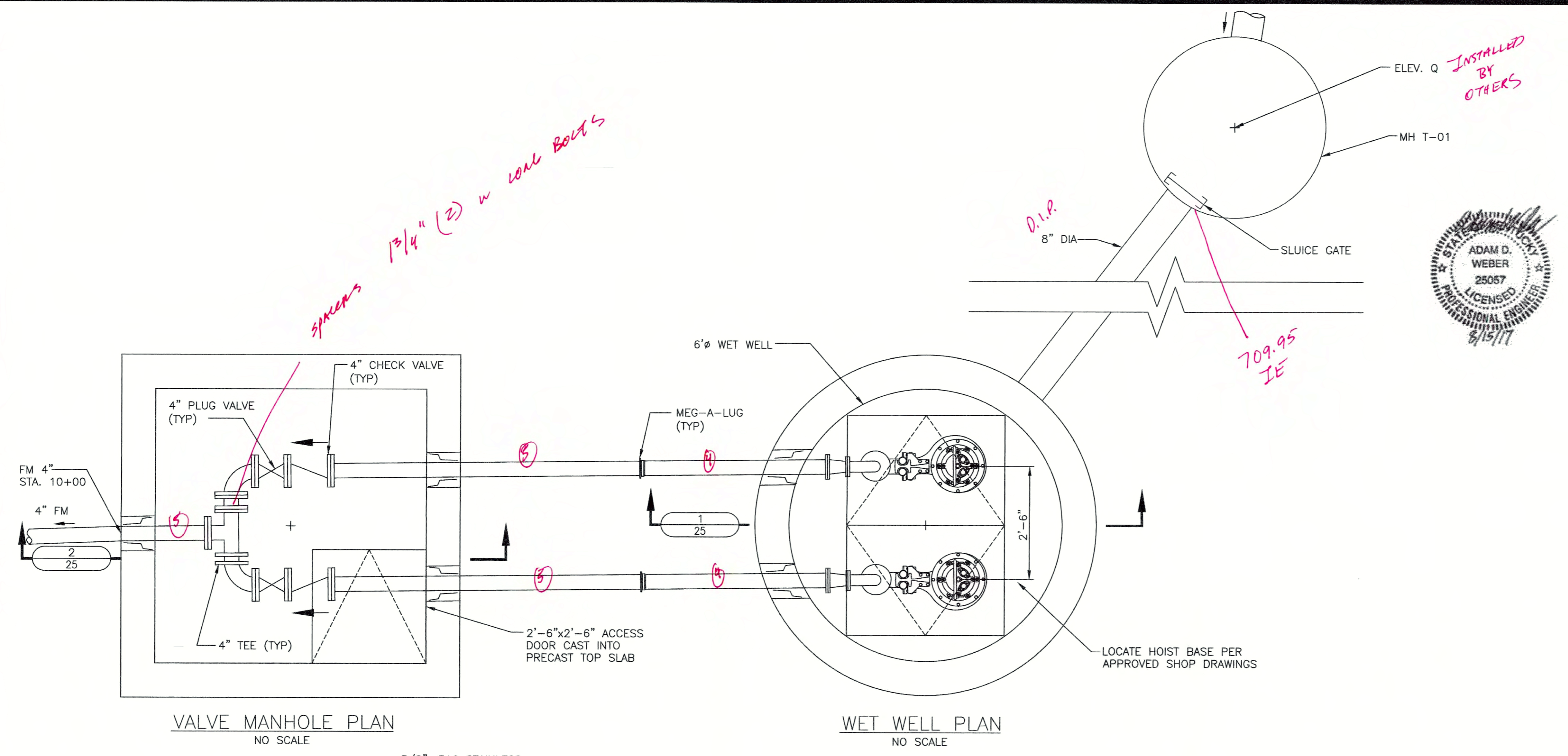
- NOTES:**
1. ALL FORCE MAIN PIPING FOR CONTRACT 1-2017 SHALL BE DUCTILE IRON PIPE.
 2. FORCE MAIN VALVE VAULT CENTER SHALL BE LOCATED 13'-0" FROM WET WELL CENTER.
 3. INFLUENT MANHOLE CENTER SHALL BE LOCATED 20'-0" ON ARC FROM WET WELL CENTERS.
 4. MINIMUM FLOOD PROTECTION ELEVATION FOR ACCESS TO WET WELLS AND EQUIPMENT IS 723.00, WHICH IS 2 FEET ABOVE CALCULATED 100 YEAR FLOOD PLAN.
 5. ACCESS ROAD ELEVATION SHALL BE CONSTRUCTED ABOVE ELEVATION 720.90 (25 YEAR FLOOD ELEVATION).
 6. BLEND NEW CONTOURS INTO EXISTING GRADE AND MINIMIZE DISTURBANCE AREA WEST OF THE SITE.
 7. COORDINATES FOR WET WELLS:
WET WELL 1 CENTER
N: 2099704.80
E: 1604192.33



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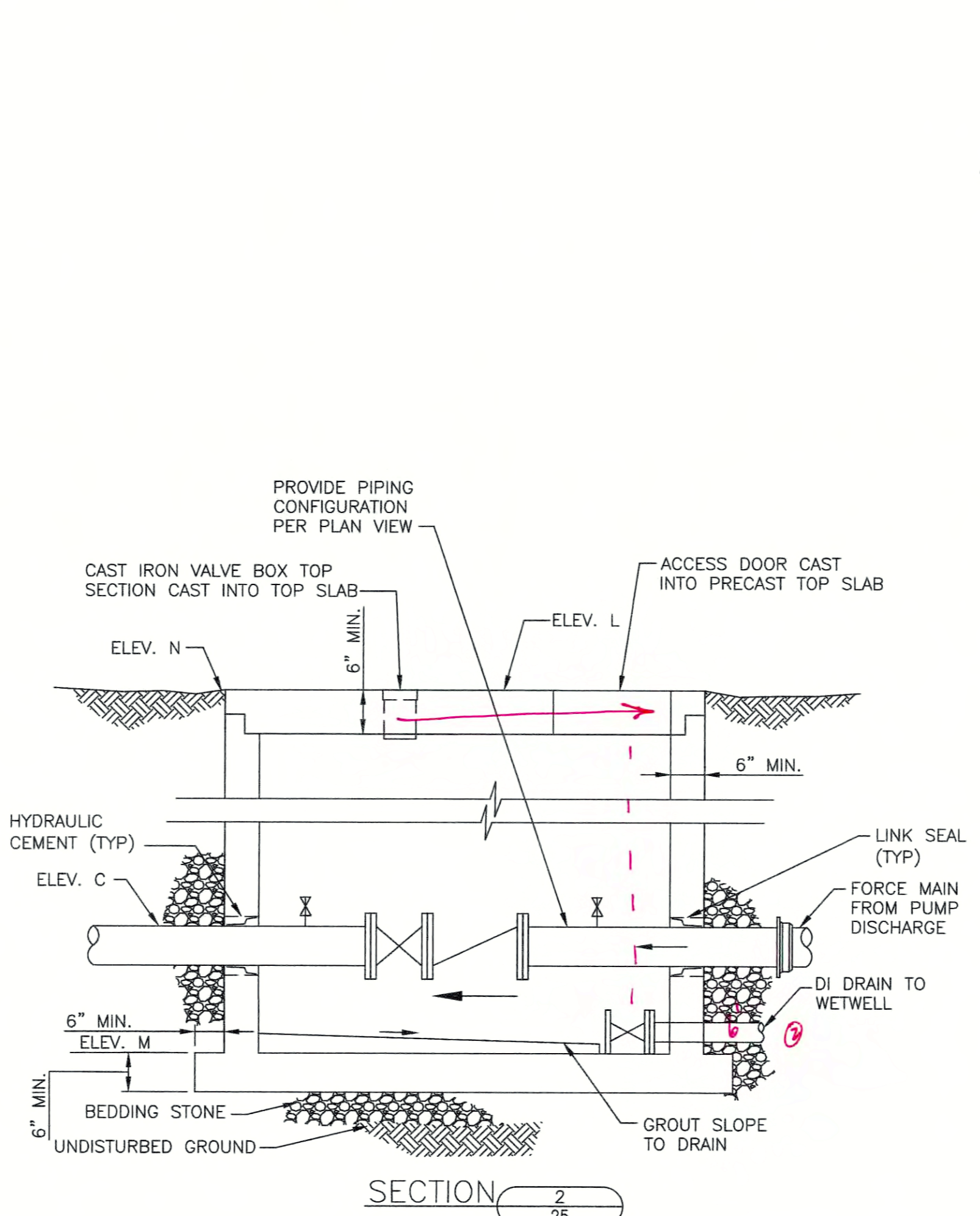
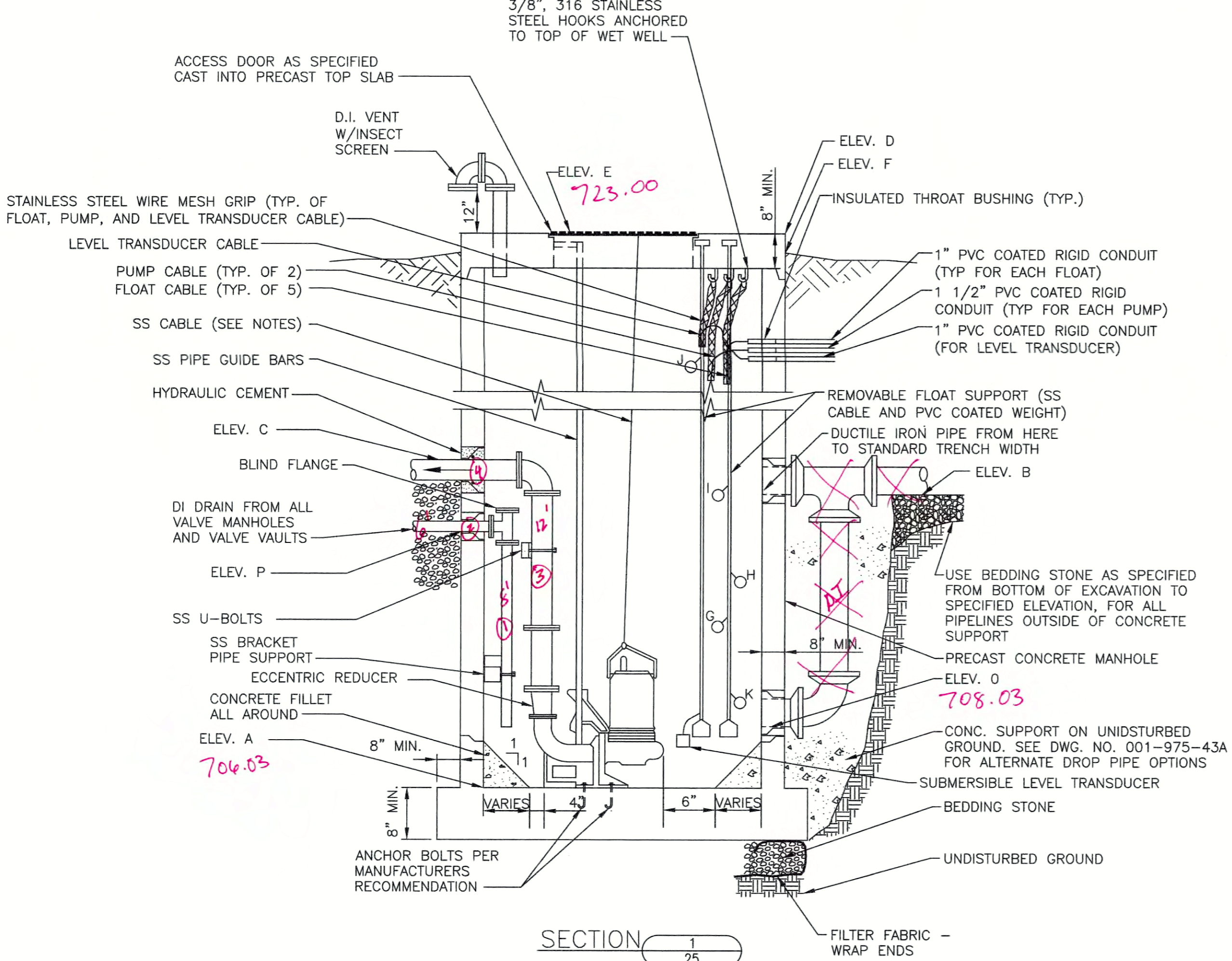
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REVISIONS



PUMP STATION NOTES:

- DRAWINGS OF PUMPING STATION PIPING, PUMPS AND COVERS ARE DETAILED USING FLYGT EQUIPMENT.
- ALL JOINTS IN MANHOLE SHALL BE MADE WITH "RAM-NEK", "KENT-SEAL", "MAS-STIK" OR EQUAL JOINT MATERIAL, OR ASTM C-443 CIRCULAR O-RING GASKET.
- OPENINGS IN NEW MANHOLES SHALL BE PROVIDED BY MANHOLE SUPPLIER AT THE FACTORY.
- GRAVITY SEWER PIPE OPENINGS INTO PUMPING STATION SHALL BE SEALED USING FLEXIBLE, WATERTIGHT CONNECTIONS SUCH AS "A-LOK", "KOR-N-SEAL" OR EQUAL. ALL FORCE MAIN AND OTHER OPENINGS INTO PUMPING STATION AND VALVE MANHOLE SHALL BE GROUTED WATERTIGHT WITH HYDRAULIC CEMENT OR MAY BE SEALED WITH "A-LOK" OR "KOR-N-SEAL" CONNECTORS. PROVIDE RUBBER WATERSTOPS ON ALL PIPES THROUGH PUMPING STATION AND VALVE MANHOLE WALLS SEALED WITH HYDRAULIC CEMENT.
- STAINLESS STEEL CABLE FOR HOISTING PUMPS SHALL BE FASTENED TO MANHOLE COVER LID PER SPECIFICATIONS.
- PROVIDE TAPS, BALL VALVES AND REMOVABLE PIPE END CAP AS SHOWN FOR PRESSURE GAGE CONNECTIONS.
- STATION PIPING SHALL BE AWWA C151 DUCTILE IRON, SPECIAL THICKNESS CLASS 53, CONFORMING TO SPECIFICATIONS.
- CONTRACTOR INSTALLING PUMPS SHALL CHECK ALIGNMENT OF PUMPS AND GUIDE BARS WITH CASTINGS BEFORE ASSEMBLY TO ALLOW PROPER REMOVAL OF PUMPS.
- PRECAST MANHOLE TOP SLAB SHALL CONFORM TO ASTM C-478. REINFORCING SHALL BE FOR H-20 LOADING. EXACT DIMENSIONS AND POSITION OF PUMP ACCESS HOLE IN TOP SLAB SHALL BE AS PROVIDED BY PUMP MANUFACTURER TO ALLOW PROPER POSITIONING OF GUIDE RAILS AND UNRESTRICTED REMOVAL OF PUMPS.
- ALL ANCHORS, BOLTS AND FABRICATED METAL WITHIN WET WELL SHALL BE STAINLESS STEEL.
- BASE SLAB SHALL BE DESIGNED FOR BUOYANT FORCE ASSUMING GROUNDWATER LEVEL AT GRADE AND THE STRUCTURE EMPTY. CONTRACTOR MAY PROVIDE CAST-IN-PLACE SLABS INSTEAD OF PRECAST. IF CAST-IN-PLACE ARE USED, CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY. USE OF CAST-IN-PLACE SLAB SHALL NOT RELIEVE CONTRACTOR OF REQUIREMENT TO PROVIDE WATERTIGHT JOINTS.
- CONTRACTOR SHALL FURNISH ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE INSTALLATION.
- APPLY TANK LINING SYSTEM TO UNDERSIDE OF TOP SLAB AND TO INTERIOR WALLS OF WET WELL PER SPECIFICATIONS.
- SEE SPECIFICATIONS FOR CONDUIT, FITTING, AND INSTALLATION REQUIREMENTS OF ELECTRICAL WORK BETWEEN WET WELL AND MOTOR CONTROL CENTER. ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3 FOOT RADIUS OF THE WET WELL AND WITHIN A 3 FOOT RADIUS OF THE WET WELL VENT SHALL BE RATED FOR A CLASS I, DIVISION 1, GROUPS C AND D LOCATION. ALL ELECTRICAL WORK AND EQUIPMENT BETWEEN A 3 FOOT RADIUS AND A 5 FOOT RADIUS OF THE WET WELL VENT AND WITHIN 18" ABOVE AND 3 FEET HORIZONTALLY FROM WET WELL HATCH SHALL BE RATED FOR A CLASS I, DIVISION 2, GROUPS C AND D LOCATION.



| ELEV. | DESCRIPTION | ELEVATION |
|-------|------------------------------------------|-----------|
| A | FLOOR ELEV. OF MANHOLE (WETWELL) | 706.03 |
| B | INVERT ELEV. OF SEWER(S) | 708.03 |
| C | CROWN ELEV. OF FORCE MAIN | 718.55 |
| D | ELEV. OF TOP OF SLAB | 723.00 |
| E | ELEV. OF TOP OF CASTING | 723.00 |
| F | ELEV. OF FINISHED GRADE AT P.S. | 722.00 |
| G | COMMON PUMPS OFF | 708.50 |
| H | LEAD PUMP ON | 709.00 |
| I | LAG PUMP ON | 709.50 |
| J | HIGH WATER LEVEL | 710.00 |
| K | LOW WATER LEVEL | 708.00 |
| L | ELEV. OF VALVE MANHOLE CASTING | 723.00 |
| M | FLOOR ELEV. OF VALVE MANHOLE | 715.50 |
| N | ELEV. OF FINISHED GRADE AT VALVE MANHOLE | 722.00 |
| O | BOTTOM DROP INLET TYPICAL ALL PIPES | 708.03 |
| P | 4" DRAIN FROM VALVE MANHOLE | 715.00 |
| | WET WELL INTERIOR DIAMETER (MIN.) | 6'-FT |
| | VALVE MANHOLE INTERIOR DIMENSIONS (MIN.) | 6'x6' |
| | FORCE MAIN DIAMETER (INCHES) | 4"-IN |
| | PUMP DISCHARGE PIPE THROUGH VALVE VAULT | 4"-IN |
| | 100 YEAR FLOOD ELEVATION | 721.00 |
| Q | MH INVERT ELEVATION | 710.00 |

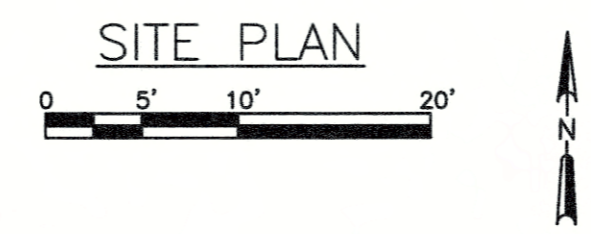
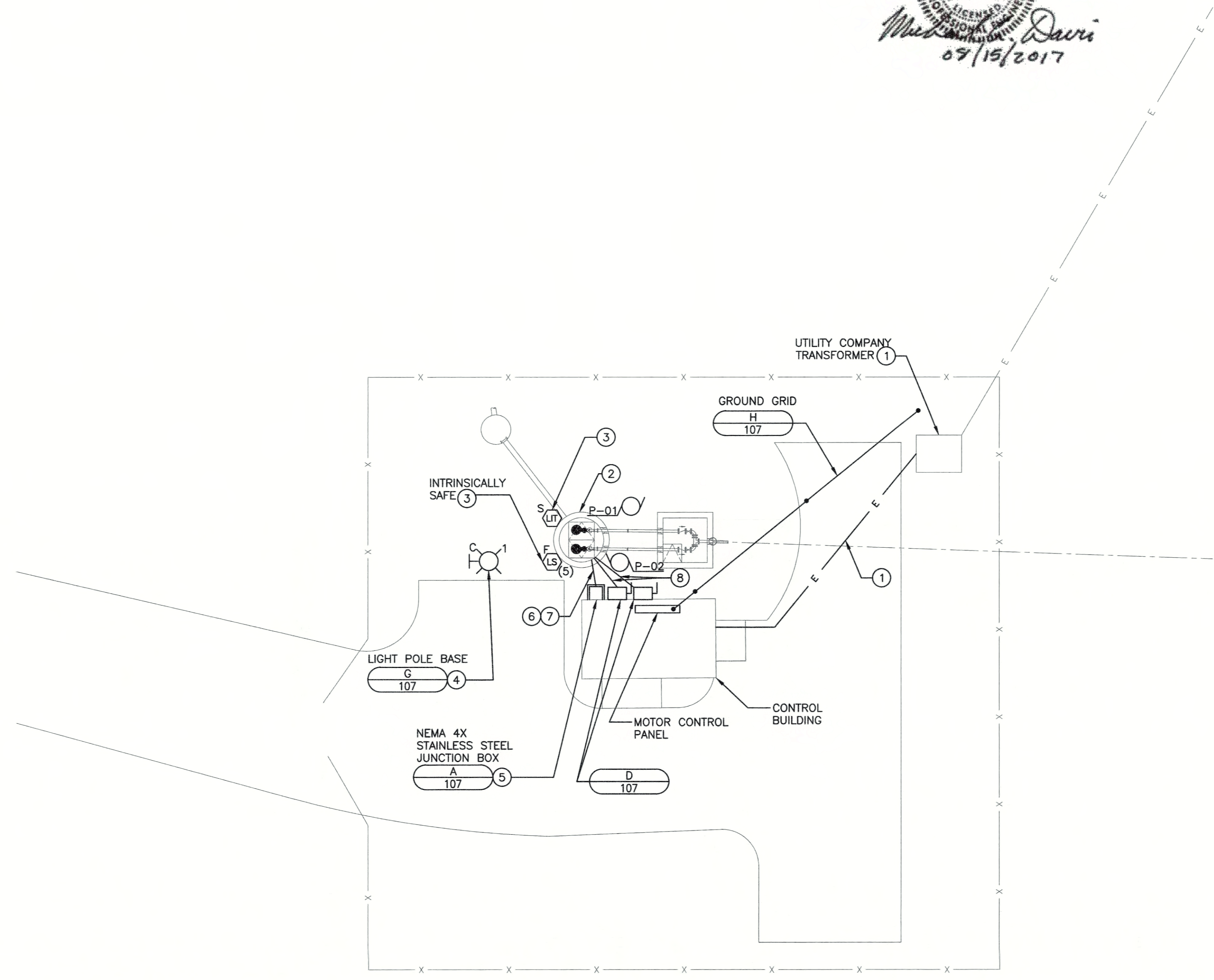
INDUSTRIAL PARK PUMP STATION NO.3
PLANS AND SECTIONS
CONTRACT 1-2017
NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
HARDIN COUNTY WATER DISTRICT NO. 2
HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
PROJECT MGR.
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STATE OF KENTUCKY
 MICHAEL DAVIS
 15715
 LICENSED PROFESSIONAL ENGINEER
Michael Davis
 07/15/2017



- GENERAL NOTES:**
- REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
 - ONLY MAJOR FEEDER ROUTES ARE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING ALL CONDUIT, WIRE, AND CABLE FOR ALL OTHER FEEDERS. BRANCH CIRCUITS NOT SPECIFICALLY SHOWN.
- KEY NOTES:**
- PROVIDE TRANSFORMER PAD PER UTILITY COMPANY REQUIREMENTS. PAD SHALL EXTEND 2 FEET NORTH OF TRANSFORMER FOR METER SOCKET MOUNTING. PROVIDE CONDUIT FOR UTILITY PRIMARY AND SECONDARY CONDUCTORS PER UTILITY COMPANY REQUIREMENTS. PROVIDE CONDUIT FOR UTILITY PRIMARY CONDUCTORS AS SHOWN.
 - ALL ELECTRICAL WORK AND EQUIPMENT IN WET WELL AND WITHIN A 3'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 1, GROUPS C AND D LOCATIONS. ALL ELECTRICAL WORK AND EQUIPMENT WITHIN 3'-0" HORIZONTALLY AND 18" ABOVE ACCESS DOOR AND WITHIN A 5'-0" RADIUS OF THE VENT SHALL BE RATED FOR A CLASS I, DIVISION 2, GROUPS C AND D LOCATIONS.
 - SUBMERSIBLE LEVEL TRANSDUCER AND FLOATS SHALL BE INSTALLED PER SECTION 1-25.
 - POLE-MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY A SWITCH INSIDE EAST DOOR IN CONTROL BUILDING. LIGHT FIXTURE SHALL BE FED FROM CIRCUIT BREAKER IN MOTOR CONTROL PANEL.
 - PROVIDE TERMINAL BLOCKS IN NEMA 4X, STAINLESS STEEL JUNCTION BOXES FOR TERMINATION OF PUMP CABLES AND TRANSDUCER/FLOAT SWITCH CABLES.
 - PROVIDE 1" CONDUIT FOR MANUFACTURER-PROVIDED CABLE FROM JUNCTION BOX TO TRANSDUCER IN WET WELL.
 - PROVIDE 5~1" CONDUITS FROM JUNCTION BOX TO WET WELL FOR FLOAT SWITCH CABLES.
 - PROVIDE 1 1/2" CONDUITS FROM EACH DISCONNECT TO WET WELL FOR PUMP CABLES.

STATE OF KENTUCKY
 MARK A SNEVE
 18511
Mark A. Sneve
 8/15/17

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INDUSTRIAL PARK PUMP STATION NO.3
ELECTRICAL SITE PLAN
CONTRACT 1-2017

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

JOB NO.
 5980.020
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 Michael L. Davis
 07/15/2017

GENERAL NOTES:

1. REFER TO SPECIFICATION SECTION 16990 FOR WIRING REQUIREMENTS ASSOCIATED WITH THE SCADA SYSTEM.
2. ALL CIRCUIT NUMBERS SHOWN ARE FOR REPRESENTATION OF EQUIPMENT ON SAME CIRCUIT. EQUIPMENT SHALL BE FED FROM CIRCUIT BREAKERS IN THE MOTOR CONTROL PANEL.
3. THERMOSTATS ON EXTERIOR WALLS SHALL HAVE INSULATED BASES.

KEY NOTES:

- ① UNIT SHALL BE SUSPENDED FROM CEILING. PROVIDE VIBRATION ISOLATION. BOTTOM OF FAN SHALL BE MIN. 7'-0" AFF. INSTALL FAN WITH MOTOR AND COVER ORIENTED HORIZONTALLY.
- ② PROVIDE FLEXIBLE DUCT CONNECTION.
- ③ PROVIDE GENERATOR RECEPTACLE AS SPECIFIED IN SPECIFICATION SECTION 16231-STANDBY POWER SYSTEM-PORTABLE.
- ④ DIVISION 16 CONTRACTOR SHALL WIRE EXHAUST FAN AND DAMPERS TO THERMOSTAT SUCH THAT EXHAUST FAN RUNS AND DAMPERS OPEN WHENEVER TEMPERATURE RISES ABOVE THERMOSTAT SETPOINT.
- ⑤ INSTALL SERVICE ENTRANCE CONDUITS BELOW FLOOR SLAB TO MOTOR CONTROL PANEL.
- ⑥ PROVIDE 4~#14 IN 3/4" CONDUIT FROM HORN AND STROBE TO MOTOR CONTROL PANEL.


 Mark A. Sneve
 8/15/17

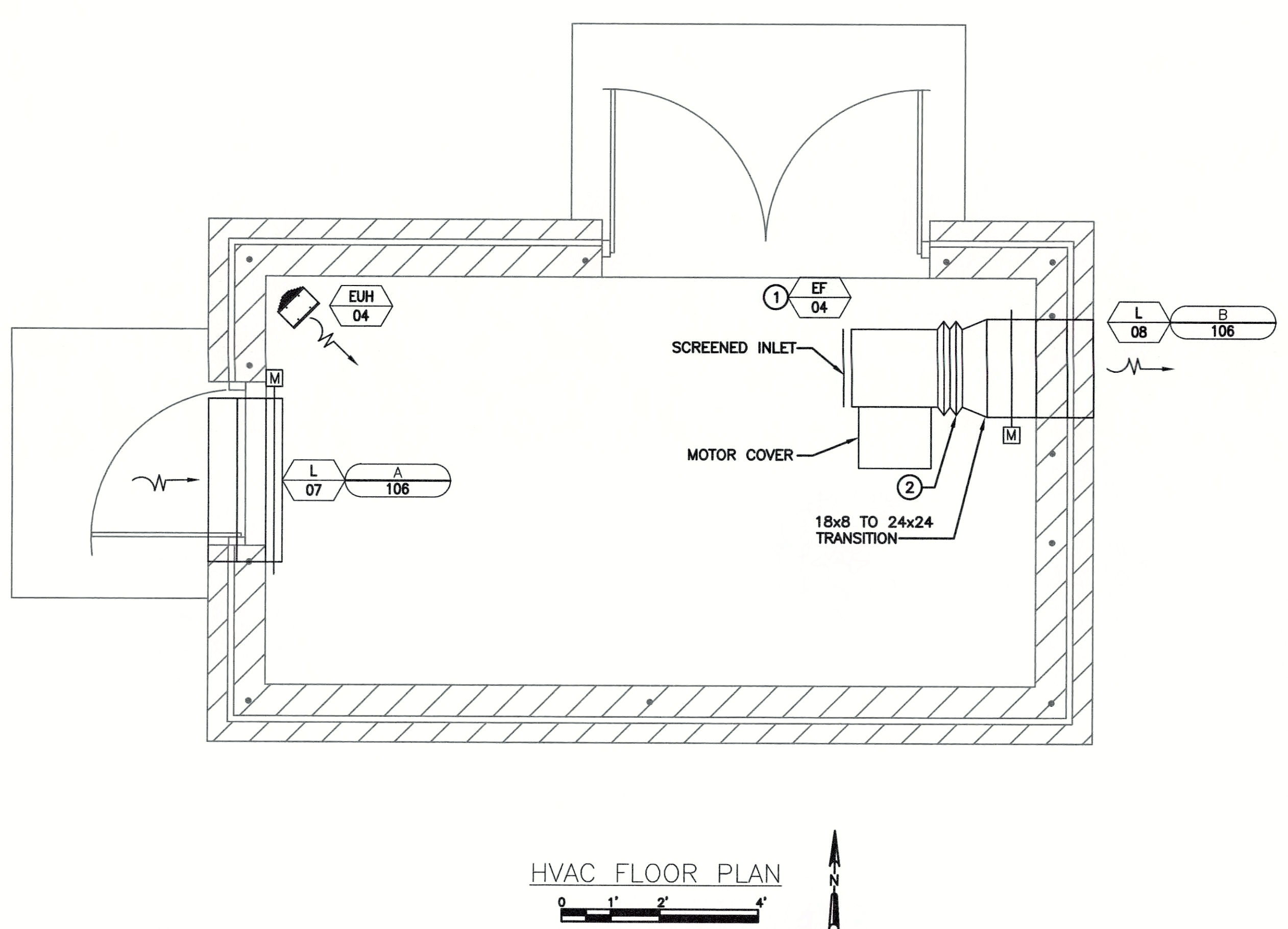
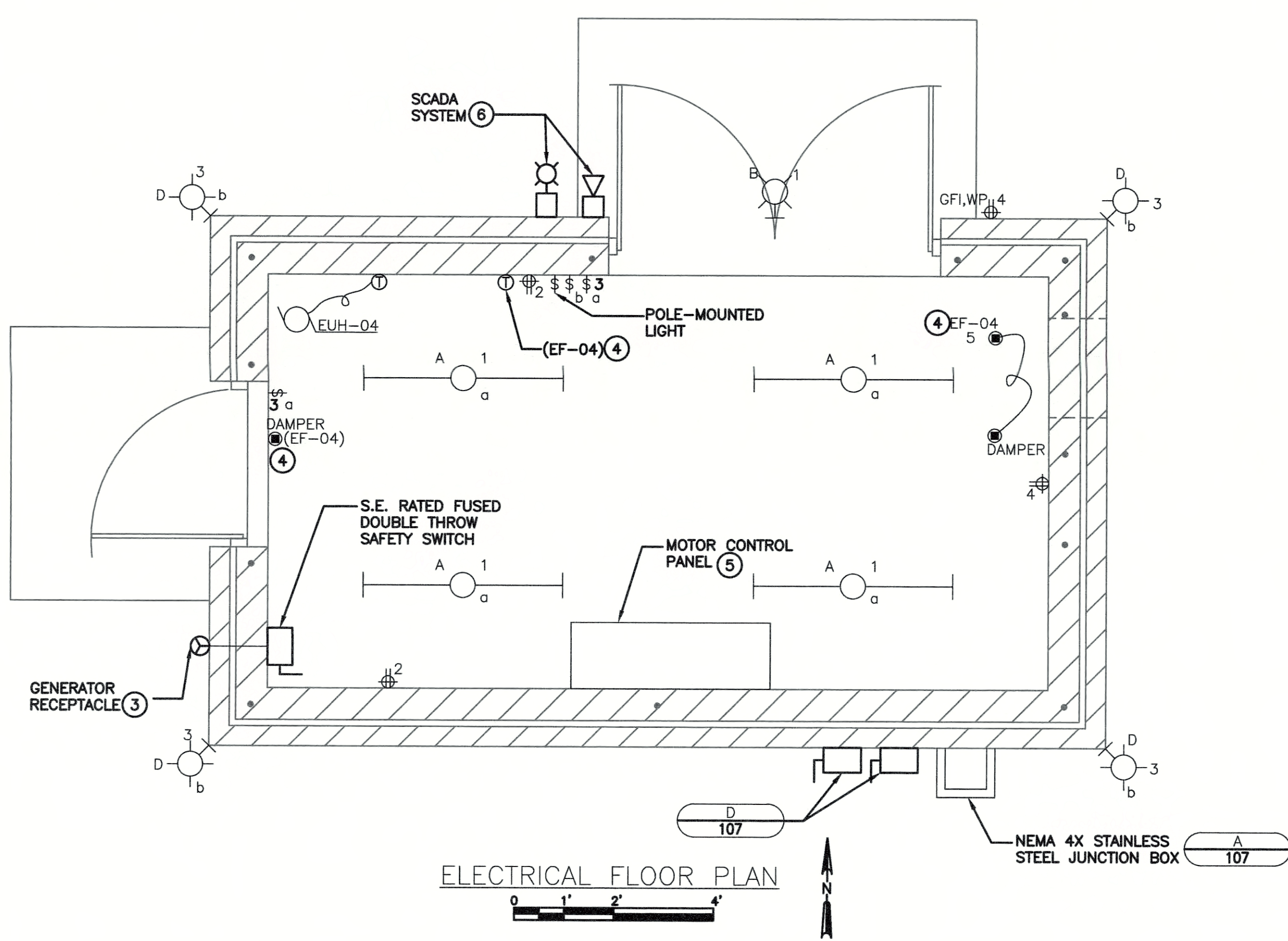
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INDUSTRIAL PARK PUMP STATION NO.3
ELECTRICAL AND HVAC CONTROL BUILDING PLANS
CONTRACT 1-2017
 NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
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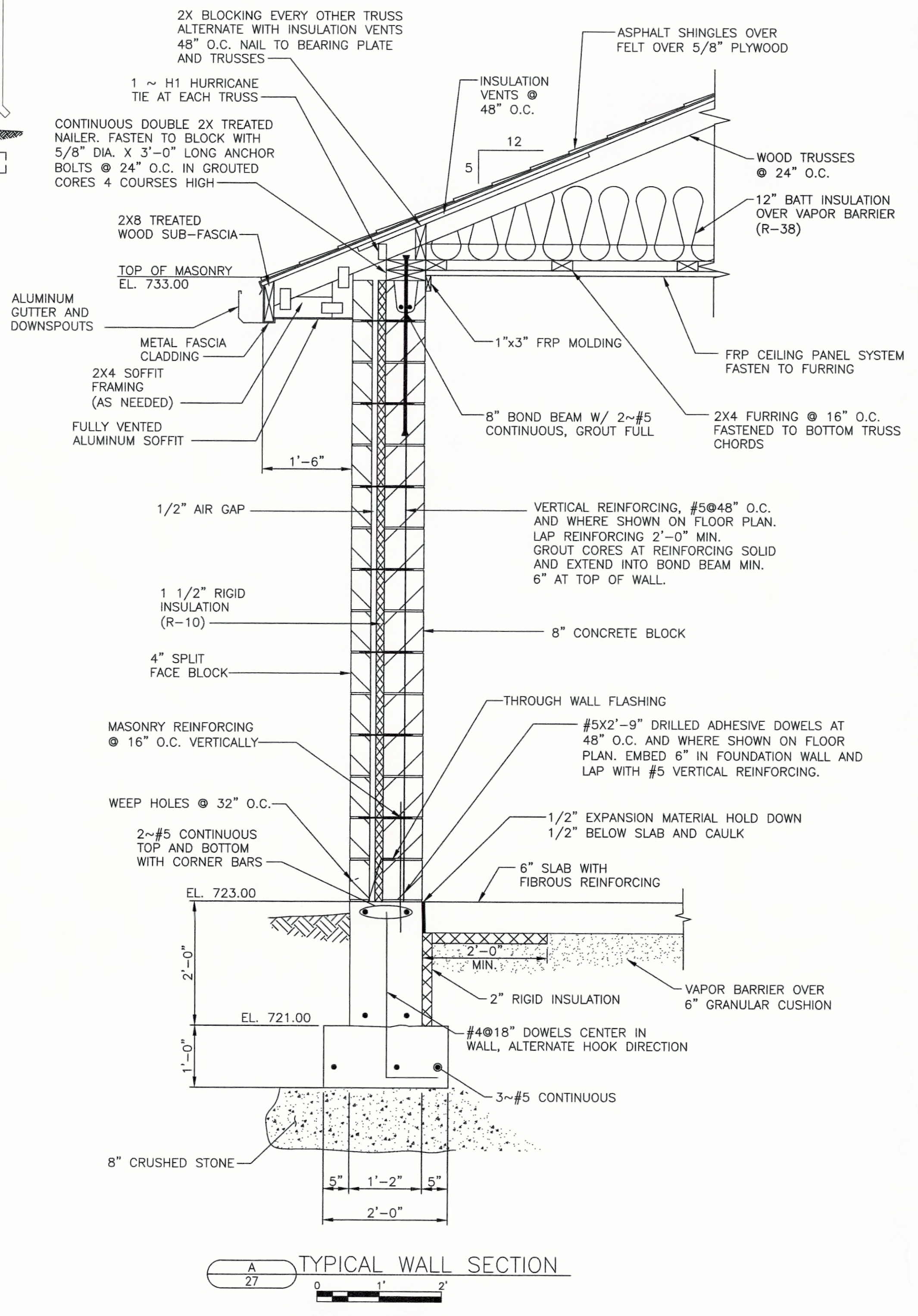
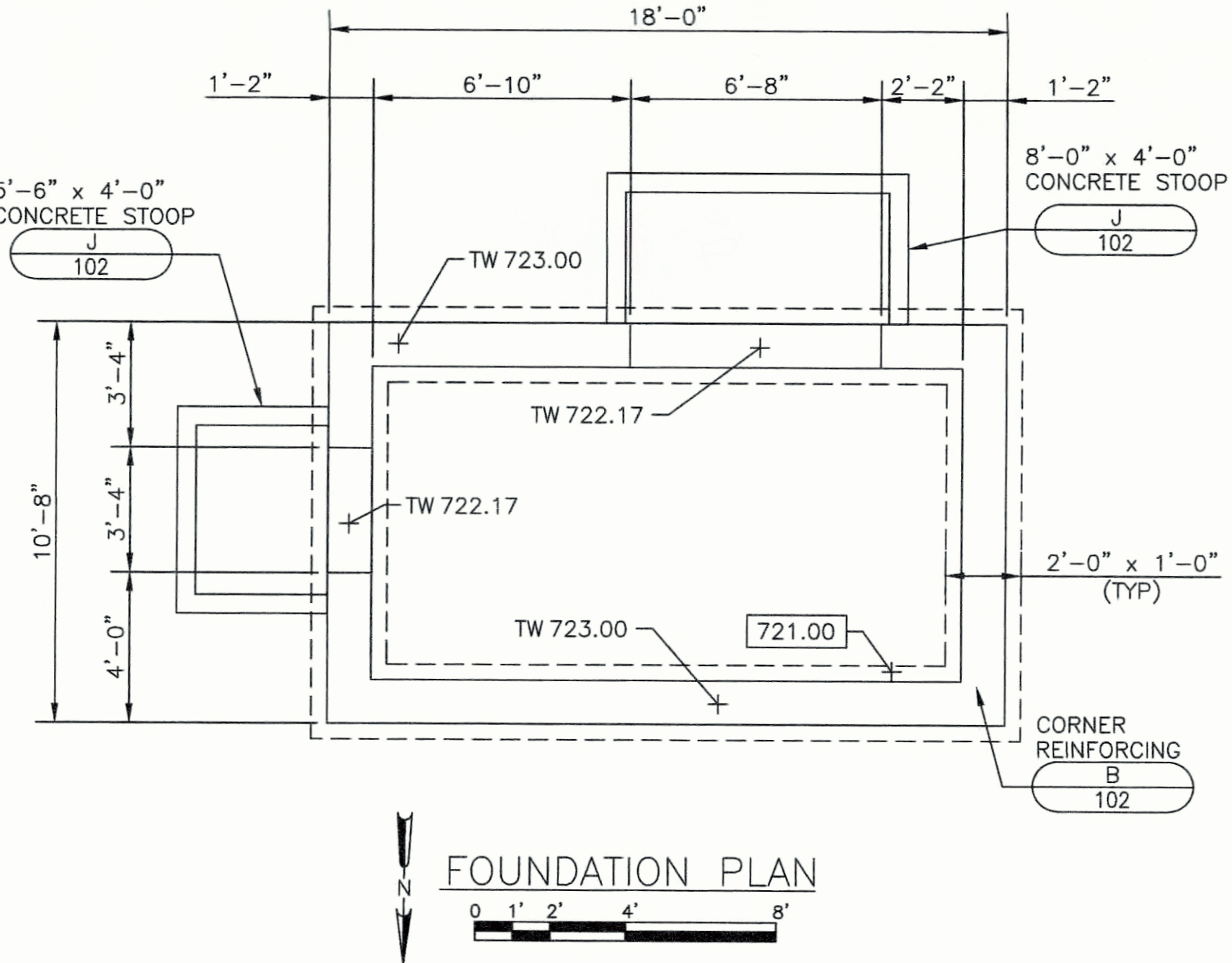
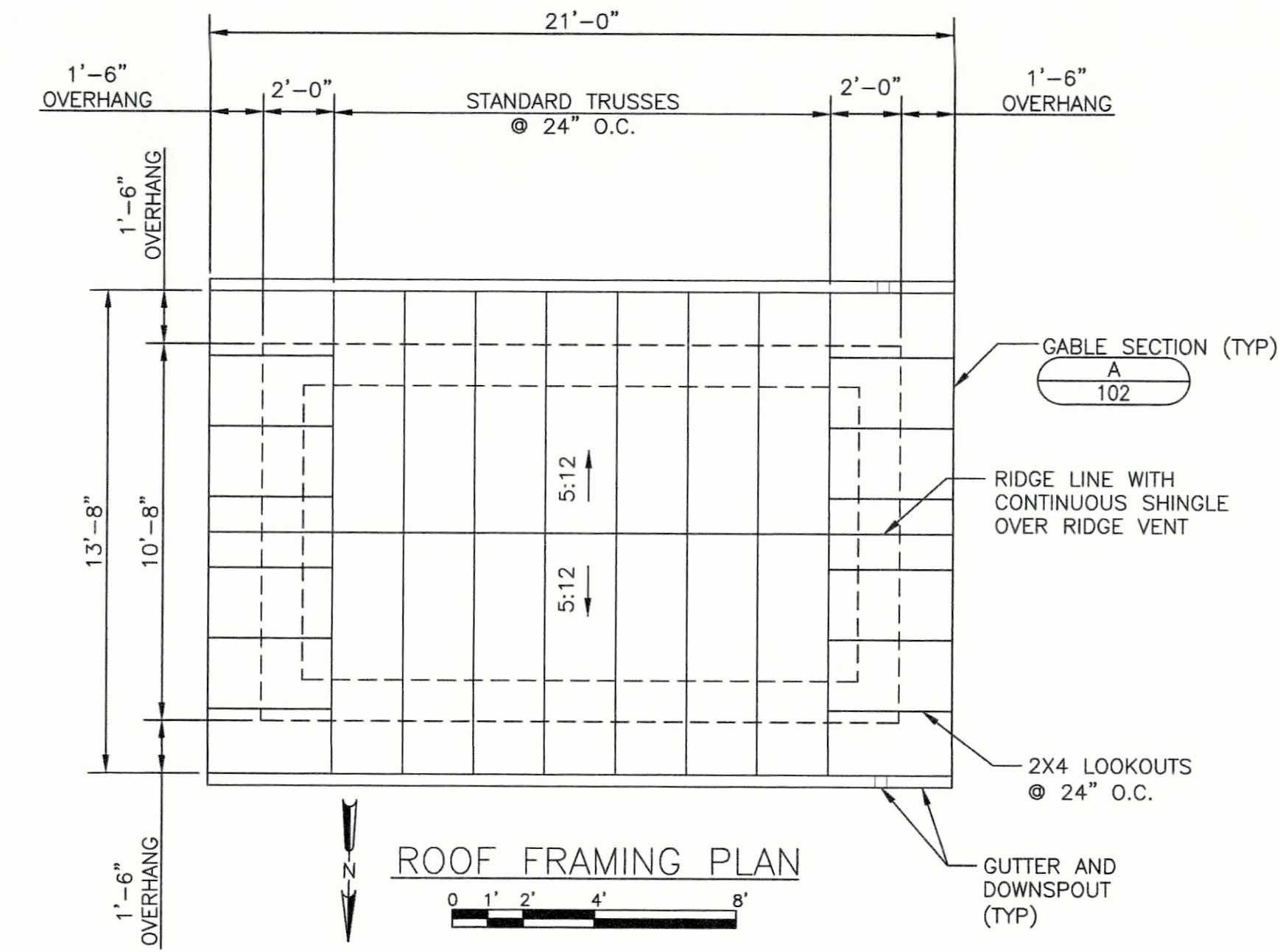
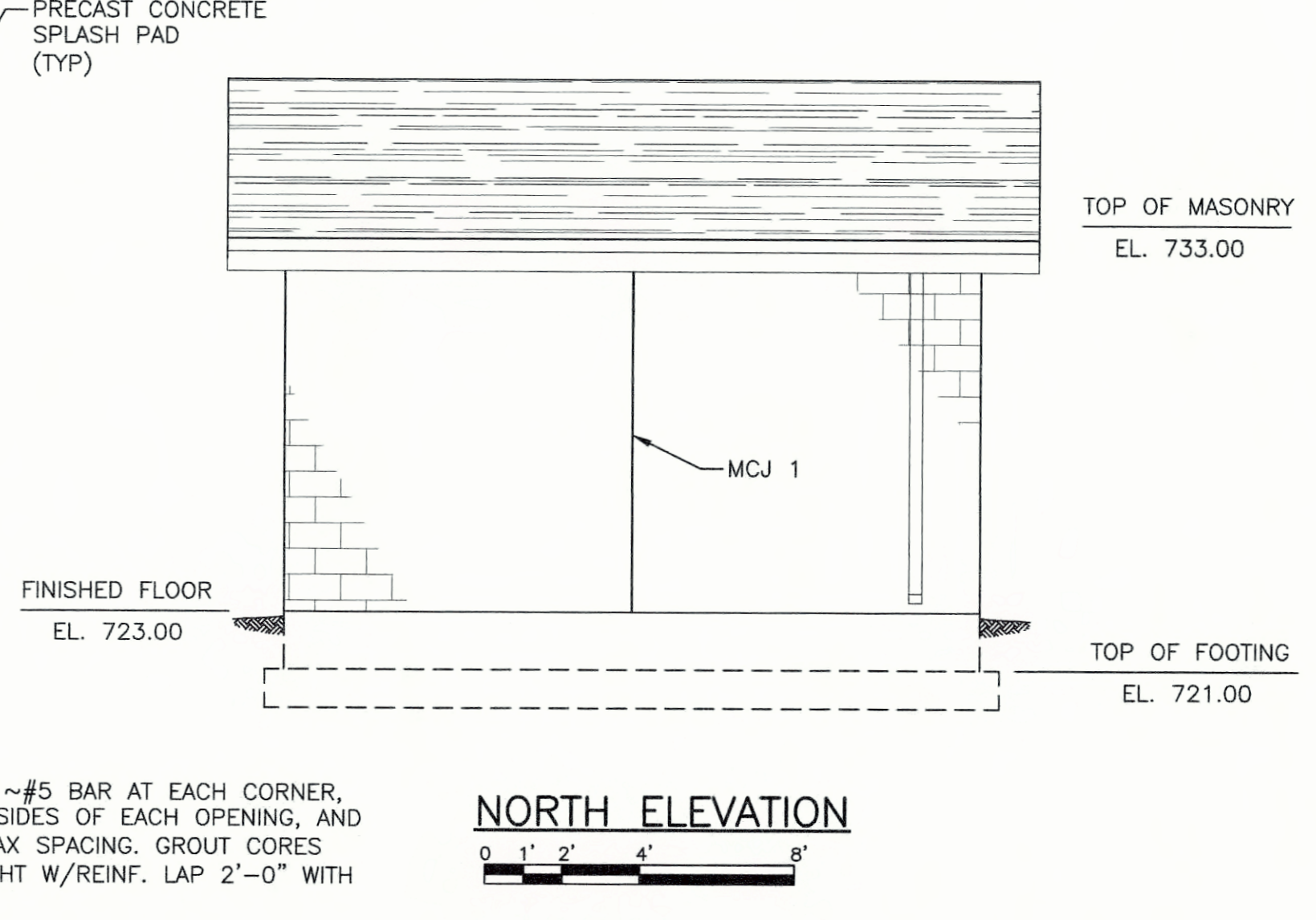
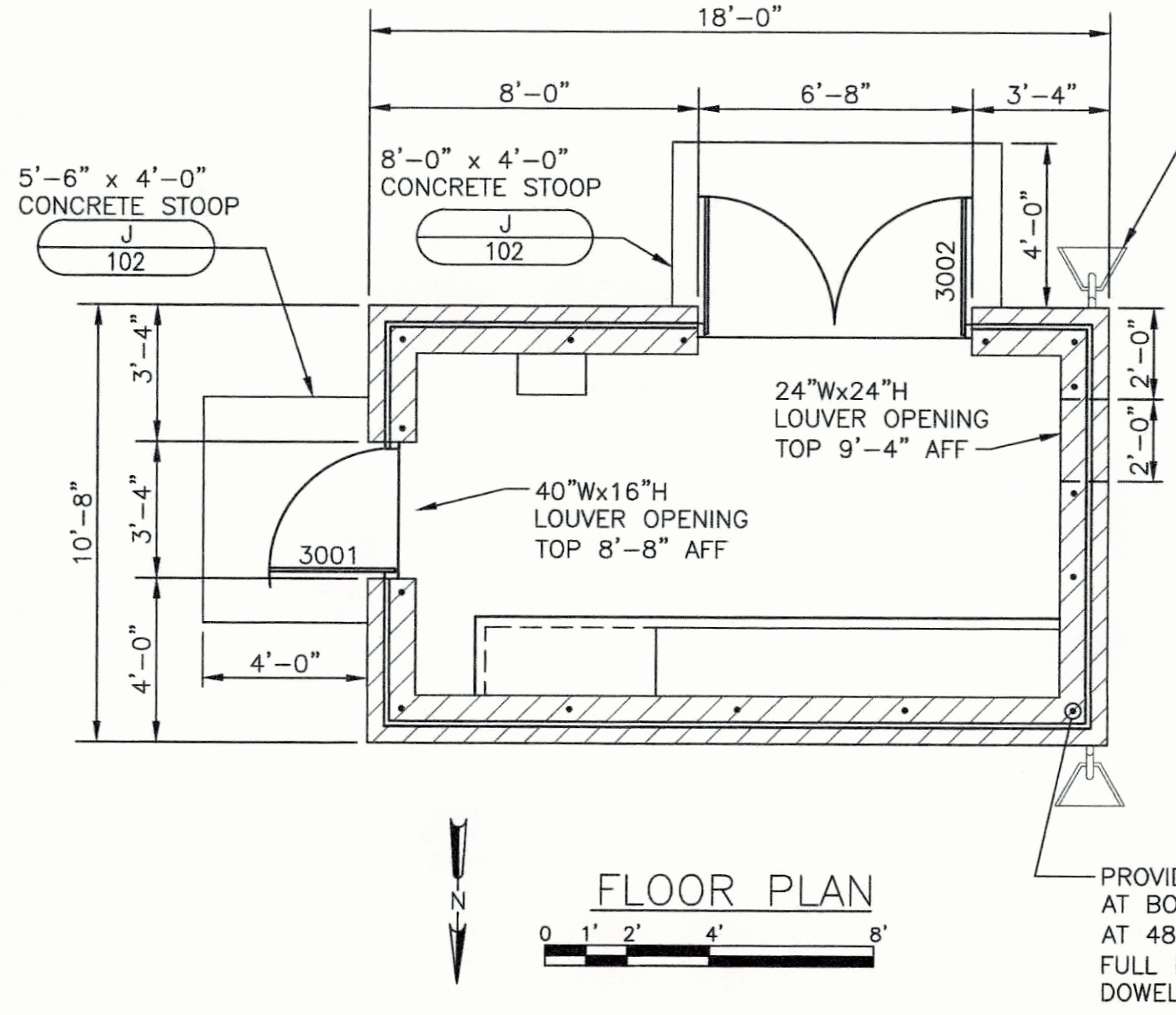
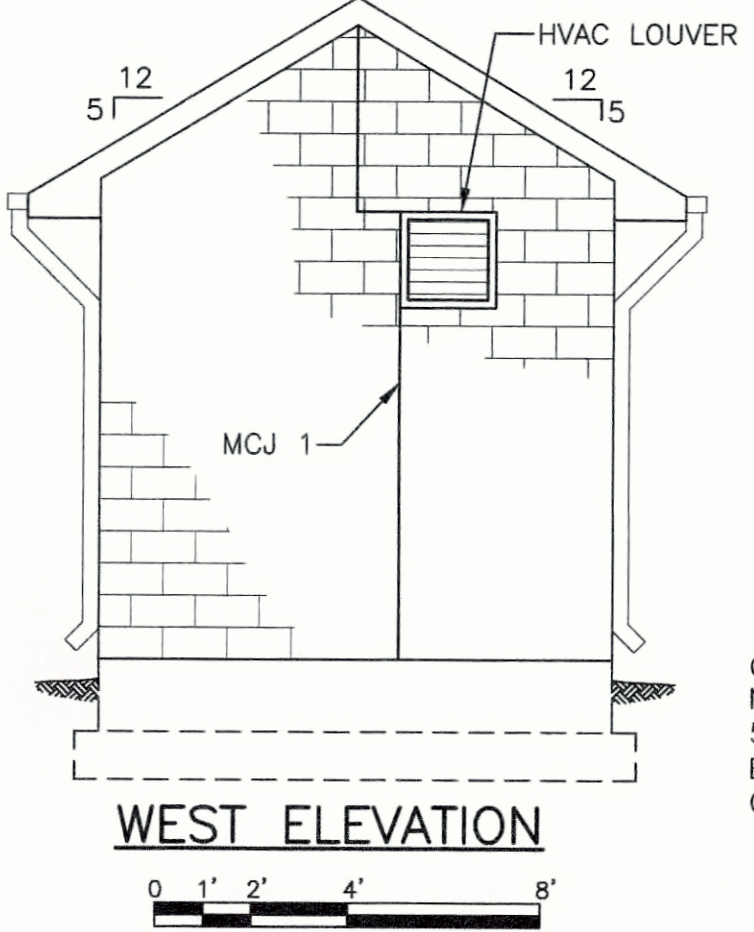
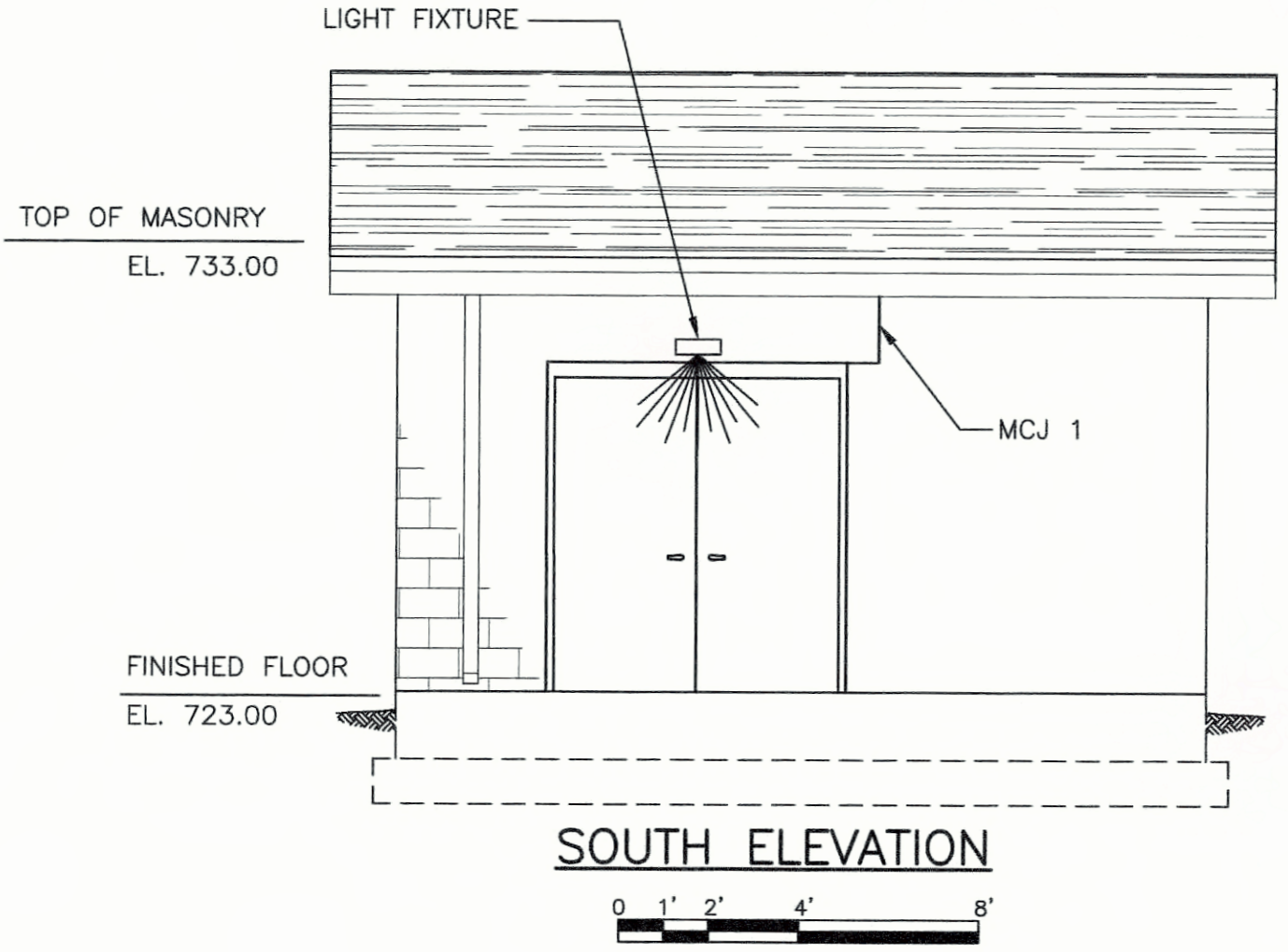
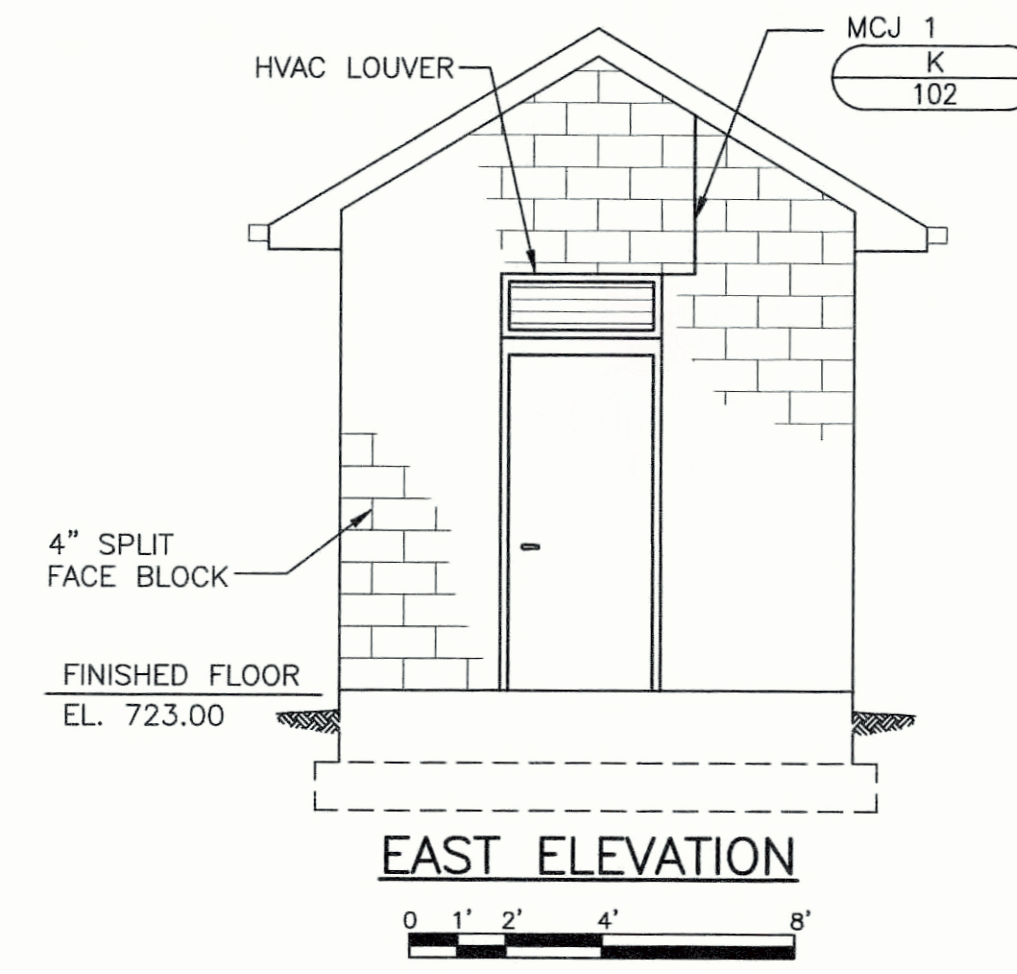
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STATE OF KENTUCKY
 MICHAEL DAVIS
 15715
 LICENSED PROFESSIONAL ENGINEER
 07/15/2017

STATE OF KENTUCKY
 ADAM D. WEBER
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**INDUSTRIAL PARK PUMP STATION NO. 3
 CONTROL BUILDING DETAILS
 CONTRACT 1-2017**

NOLIN RIVER WATERSHED SEWER INFRASTRUCTURE
 HARDIN COUNTY WATER DISTRICT NO. 2
 HARDIN COUNTY, KENTUCKY

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