

CONTRACT No. 2 - 50,000 GALLON
GROUND STORAGE TANK
WATER SYSTEM
IMPROVEMENTS

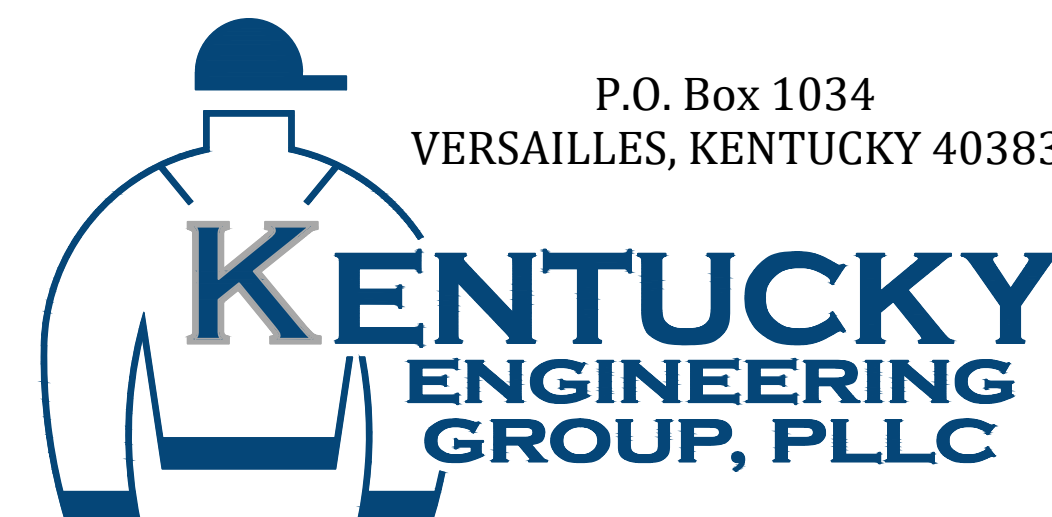
for the

GARRARD COUNTY WATER ASSOCIATION
Lancaster, Kentucky

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JUNE 2022



PROJECT NO. 19014-02

BID DOCUMENTS

GENERAL NOTES

- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND THE ENGINEER TWO WORKING DAYS (MINIMUM) BEFORE BEGINNING CONSTRUCTION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH CITY, COUNTY AND STATE REQUIREMENTS.
 - THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION.
 - EXISTING UTILITIES, ESPECIALLY GAS LINES AND OIL LINES, MAY BE CATHODICALLY PROTECTED. THEREFORE, DUCTILE IRON PIPE, FITTINGS, GATE VALVES, AND/OR BOXES LAID WITHIN 100' OF LINES WITH CATHODIC PROTECTION SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT. MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AWWA'S LATEST REVISION.
 - ALL CONSTRUCTION AND INSTALLATION OF MATERIALS BEING USED SHALL BE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SUBSTITUTIONS AND DEVIATION SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
 - SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
 - EXISTING UTILITIES HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH A REPRESENTATIVE WHEN WORKING NEAR EXISTING UTILITIES.
 - THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND ALL OTHER UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION.
 - UNLESS OTHERWISE NOTED, A SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. THE FITTINGS INCLUDED BUT NOT LIMITED TO ARE: TEES, BENDS, PLUGS, REDUCERS, CROSSES, COUPLINGS, ETC. CONTRACTORS SHALL INCLUDE THE COST OF THESE ITEMS IN THE BID PRICE FOR THE PIPE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY REMOVAL/RELOCATION OF TRAILERS, BUILDINGS, FENCES, TREES, SHRUBS, ETC. AND REPLACEMENT OF SAID ITEMS AFTER CONSTRUCTION ACTIVITIES.
 - CONTRACTOR IS TO COORDINATE WITH THE PROPERTY OWNERS AS TO WHETHER OR NOT TEMPORARY FENCING IS REQUIRED AND CONSTRUCT IF NECESSARY.
 - ALL PIPING SHALL HAVE 30" MINIMUM COVER, UNLESS OTHERWISE NOTED.
 - WHERE UNSTABLE MATERIAL IS ENCOUNTERED OR WHERE THE DEPTH OF EXCAVATION IN EARTH EXCEEDS FIVE (5) FEET, THE SIDES OF THE TRENCH OR EXCAVATION SHALL BE SUPPORTED BY SUBSTANTIAL SHEETING, BRACING, SHORING OR THE TRENCH SIDES SLOPED. SLOPING THE SIDES OF THE DITCH WILL NOT BE PERMITTED IN STREETS, ROADS, NARROW RIGHTS-OF-WAY OR OTHER CONSTRICTED AREAS UNLESS OTHERWISE SPECIFIED. THE STANDARDS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND THE KENTUCKY LABOR CABINET SHALL BE FOLLOWED.
 - ALL EXCAVATION IS UNCLASSIFIED. COMPENSATION FOR ALL EXCAVATION SHALL BE INCLUDED IN LUMP SUM BID.
 - REGRADE OF SITE SHALL BE SUCH THAT DRAINAGE IS AWAY FROM ALL STRUCTURES.
 - BACKFILL AROUND ALL STRUCTURES SHALL BE SUFFICIENTLY COMPACTED TO PRECLUDE SETTLEMENT AND PONDING OF WATER AROUND STRUCTURES AND GRADED TO DIVERT RUNOFF AWAY FROM THE STRUCTURES.
 - DIMENSIONS, DETAILS AND REINFORCEMENT MAY VARY WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL OBTAIN AND MAINTAIN ON SITE, APPROVED SHOP DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
 - ALL VALVES & HYDRANTS SHALL BE LOCATED AT THE BACKSIDE OF THE DITCHLINE, UNLESS OTHERWISE NOTED.
 - FINAL LOCATION OF SERVICES, VALVES, & HYDRANT ORIENTATION ARE TO BE FIELD LOCATED DURING CONSTRUCTION & APPROVED BY THE ENGINEER.
 - AT THE CONTRACTORS OPTION, CLASS 350 DUCTILE IRON PIPE MAY BE SUBSTITUTED FOR ANY PIPE PARTICULARLY SPECIFIED, BUT AT NO ADDITIONAL COST TO THE OWNER.
 - NO PAY ITEM FOR EXTRA TRENCH DEPTH HAS BEEN SET UP. CONTRACTOR SHALL INCLUDE THE COST OF THE ADDITIONAL DEPTH IN HIS BID PRICE.
 - ROCK SOUNDINGS WERE NOT PERFORMED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.
 - CONTRACTOR TO DIG/EXPOSE EXISTING WATER MAIN FAR ENOUGH AHEAD OF NEW WATER MAIN CONSTRUCTION TO AVOID DAMAGE TO EXISTING WATER MAIN AND/OR INTERRUPTION OF EXISTING CUSTOMER SERVICES.
 - ALL NEW SERVICE LINE FROM THE NEW MAIN TO THE SETTERS SHALL BE CLASS 250 3/4" PE CTS TUBING UNLESS SHOWN DIFFERENTLY ON THE PLANS
 - THE MAXIMUM ALLOWABLE LENGTH OF SERVICE LINE FROM THE WATER MAIN TO THE CUSTOMER'S METER SERVICE SHALL BE AS FOLLOWS:
- | SERVICE LINE DIAMETER | MAXIMUM LENGTH |
|-----------------------|----------------|
| 3/4 INCH | 100 FEET |
| 1 INCH | 150 FEET |
| 1-1/2 INCH | 200 FEET |
| 2 INCH | 250 FEET |
- CONNECTIONS TO EXISTING DISTRIBUTION SYSTEM SHALL BE MADE AS FOLLOWS:
 - CONNECT TO EXISTING (SIZE) W.M. (WET TAP) - CONTRACTOR SHALL PROVIDE, FURNISH AND INSTALL ALL FITTINGS, VALVES AND APPURTENANCES TO CONNECT THE PROPOSED WATER MAIN TO THE EXISTING WATER MAIN UNDER PRESSURE.
 - CONNECT TO EXISTING (SIZE) W.M. - CONTRACTOR SHALL PROVIDE, FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES TO CONNECT THE PROPOSED WATER MAIN TO THE EXISTING WATER MAIN. VALVES ARE A SEPARATE PAY ITEM.
 - NO BLASTING WILL BE PERMITTED ON THIS PROJECT
 - GRIP RINGS SHALL BE INSTALLED ON ALL FITTINGS
 - ALL NEW METERS SHALL BE 5/8" X 3/4"
 - WHEN POSSIBLE, CONTRACTOR SHALL FREEBORE ALL BITUMINOUS AND/OR CONCRETE DRIVEWAYS. FREEBORING AND/ OR OPEN CUTTING DRIVEWAYS SHALL BE INCLUDED IN THE BID PRICE FOR THE PIPE.

GENERAL NOTES (CONTINUED)

- NEW LINE AND EXISTING LINES MUST REMAIN IN SERVICE UNTIL ALL METERS ASSEMBLED HAVE BEEN REPLACED AND RECONNECTED TO THE NEW LINE
- NO METERS CAN BE RECONNECTED TO THE NEW WATER MAIN UNTIL TESTING, STERILIZATION AND SAMPLING HAS BEEN SUCCESSFULLY COMPLETED
- COPIES OF ALL BACTIE RESULTS MUST BE PROVIDED TO THE ENGINEER PRIOR TO RECONNECTS OF ANY METER.
- A NO. 12 AWG INSULATED COPPER LOCATOR WIRE SHALL BE PLACED IN THE TRENCH SIX INCHES ABOVE ALL PLASTIC LINES. THE INSULATION SHALL BE BLUE FOR WATER. THE WIRE SHALL BE LOOPED INTO ALL VALVE BOXES W/ ENOUGH SLACK TO ALLOW ACCESS TO THE LOOPS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PLUMBING PERMITS NECESSARY TO RELOCATE OR RECONNECT ANY CUSTOMERS METER SERVICE OR SERVICE LINE. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES AND EMPLOY THE NECESSARY LICENSED PLUMBER.

FINAL CLEANUP AND RESTORATION

UNLESS SPECIFICALLY APPROVED BY THE OWNER AND ENGINEER, CLEANUP OF DISTURBED AREAS SHALL BE KEPT CURRENT WITH CONSTRUCTION AND RESTORATION EFFORTS BY THE CONTRACTOR INITIATED NO LONGER THAN SEVEN (7) DAYS AFTER THE TRENCH EXCAVATION WORK HAS STARTED. ALL EXCAVATED MATERIAL NOT REQUIRED FOR BACKFILLING OF THE TRENCH AND ANY LARGE ROCKS, STONES OR DEBRIS SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE A BURDEN TO THE PROPERTY OWNER(S) AND/OR ADJACENT PROPERTIES. THE CONTRACTOR MAY WINDROW OR TRACK-IN THE EXCAVATED MATERIAL OVER THE TRENCH PRIOR TO FINAL CLEANUP TO ALLOW FOR AND TO ASSIST IN THE INITIAL SETTLEMENT OF THE TRENCH. ALL DISTURBED AREAS MUST BE SEEDED AT LEAST WITH A TEMPORARY SEED MIX IF FOR SOME REASON THE AREA CANNOT BE PERMANENTLY SEEDED WITHIN TWO (2) WEEKS.

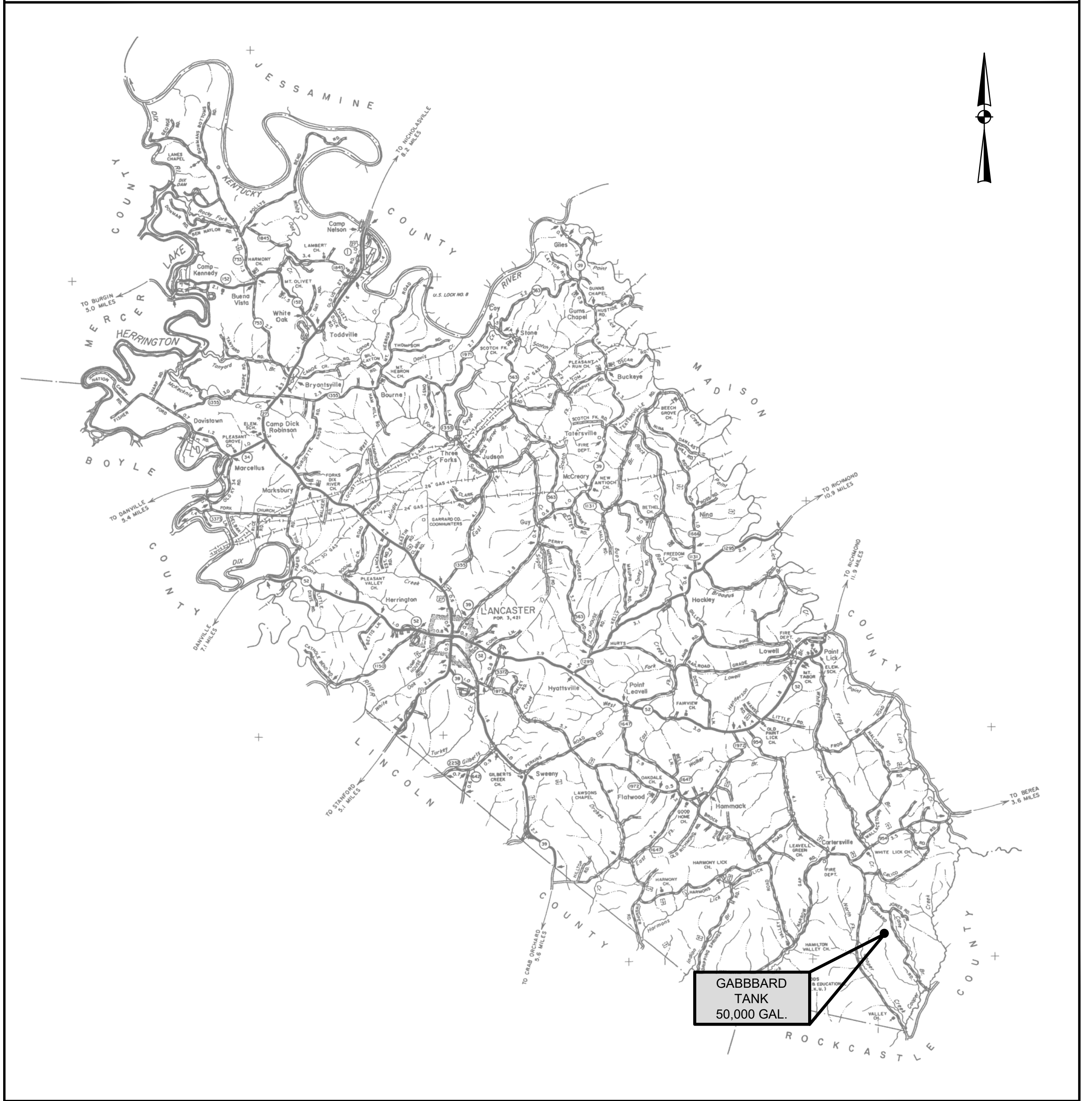
DEPARTMENT OF HIGHWAYS - GENERAL NOTES

- ALL EFFECTED KYTC DITCHLINES SHALL REMAIN FREE OF EXCESS SILT OR EROSION AND CONSTRUCTED TO THE NORMAL TYPICAL SECTION OF THE ROADWAY WITH A MINIMUM DEPTH OF 18 INCHES FROM THE SHOULDER BREAK POINT.
- ALL NECESSARY STEPS SHALL BE TAKEN TO PREVENT EROSION OR SILTATION OF THE PUBLIC RIGHT-OF-WAY, ADJOINING PROPERTY AND WATERWAYS.
- ALL VALVES TO BE FLUSH W/ EXISTING GRADE.
- ALL WATER LINE LOCATED WITHIN STATE HIGHWAY R.O.W. SHALL BE CONSTRUCTED OUT AND AROUND THE END OF ALL EXISTING CULVERTS AND HEADWALLS.
- UNDERGROUND UTILITIES INSTALLED INSIDE STATE RIGHT-OF-WAY SHALL BE LOCATED WITHIN 3-5 FEET FROM THE EDGE OF THE RIGHT-OF-WAY UNLESS OTHERWISE SHOWN ON THE PLANS.
- UNDERGROUND UTILITIES SHOWN MORE THAN 5 FEET FROM THE EDGE OF THE RIGHT-OF-WAY SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 42 INCHES WITH PRIOR APPROVAL ON A CASE BY CASE BASIS.
- UNDERGROUND UTILITIES CROSSING ANY ENTRANCE OR CROSSROAD PAVED WITH CONCRETE OR ASPHALT SURFACE INSIDE STATE RIGHT-OF-WAY SHALL BE INSTALLED BY BORING UNLESS WRITTEN PERMISSION TO OPEN CUT IS OBTAINED FROM THE PROPERTY OWNER AND APPROVED BY THE KYTC DISTRICT PERMITS ENGINEER.
- UNDERGROUND UTILITIES SHALL NOT BE INSTALLED IN EMBANKMENT FILLS OR BETWEEN EDGE OF PAVEMENT AND DITCHLINE UNLESS SPECIFICALLY NOTED ON PERMITTED PLANS.
- FIRE HYDRANTS OR UTILITY SERVICE BOXES SHALL BE LOCATED WITHIN 2 FEET FROM THE EDGE OF RIGHT-OF-WAY LINE, OR OFF RIGHT-OF-WAY.

INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION:
-	COVER
1	LOCATION MAP, LEGEND, UTILITIES, AND INDEX OF DRAWINGS
2	50,000 GALLON GROUND STORAGE TANK SITE PLAN
3	50,000 GALLON GROUND STORAGE TANK ENLARGED SITE PLANS
4-6	STANDARD DETAILS

SHEET LOCATION MAP



LEGEND

EXISTING	PROPOSED	DESCRIPTION
PVC	PVC	POLYVINYL CHLORIDE
DIP	DIP	DUCTILE IRON PIPE
WM	WM	WATER MAIN
⊕	⊕	HYDRANT ASSEMBLY
⊕	⊕	FLUSHING/BLOWOFF ASSEMBLY
△	▲	AIR RELEASE VALVE (ARV)
⊗	⊗	GATE VALVE (GV)
---	---	WATER MAIN (WM)
---	---	SPECIAL CROSSING OR CASING PIPE
---	---	WATER MAIN TO BE ABANDONED
---	---	RIGHT-OF-WAY LINE
---	---	CENTERLINE
---	---	PROPERTY LINE
---	---	EASEMENT ACQUIRED

UTILITIES

BUD - Before You Dig
1-800-752-6007
or DIAL 811

NOTE:
 IN ACCORDANCE WITH KENTUCKY STATE LAW, ANY ACTIVITY THAT RESULTS IN MOVEMENT, PLACEMENT, BORING, PROBING OR DIGGING IN OR ON THE GROUND SHALL CONTACT THE ONE CALL CENTER FOR UNDERGROUND UTILITY LOCATIONS.

WATER ASSOCIATION

GARRARD COUNTY WATER ASSOCIATION

PHONE: 859-792-4501
 FAX: 859-792-1671

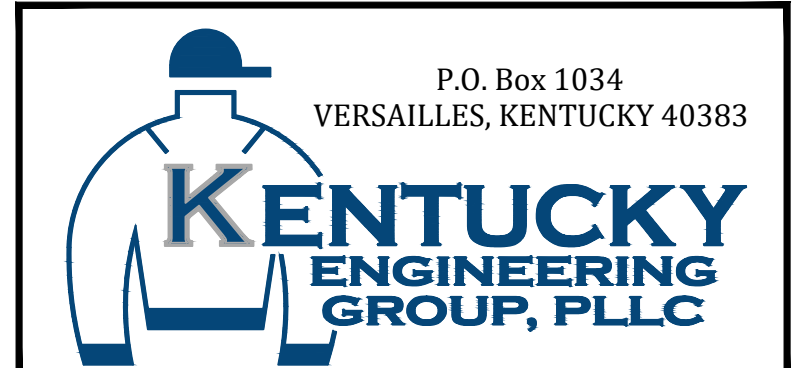
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CONTRACT No. 2 -50,000 GALLON
 GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

GARRARD COUNTY WATER ASSOCIATION
 Garrard County, Kentucky

**SHEET LOCATION MAP,
 LEGEND, UTILITIES and
 INDEX OF DRAWINGS**

PROJECT NO.
19014-02

SHEET NO.
1

BID DOCUMENTS

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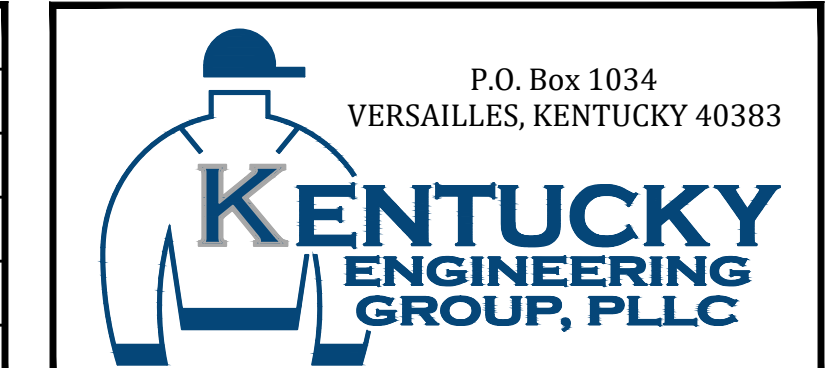
- GENERAL NOTES:**
1. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING, GRUBBING, AND PROPER DISPOSAL OF ANY TREES / BRUSH REQUIRED FOR CONSTRUCTION OF ACCESS ROAD AND TANK SITE.
 2. ANY TREES GREATER THAN 12" DIAMETER SHALL BE CUT TO 8'-6" LOGS AND STOCKPILED FOR THE PROPERTY OWNER.
 3. ACCESS ROAD SHALL BE PER DETAIL ON SHEET 5
 4. A MINIMUM OF FOUR (4) CROSS DRAINS WILL BE REQUIRED. COORDINATE LOCATION WITH OWNER / ENGINEER.
 5. CONTRACTOR SHALL INSTALL PLANK FENCE AT ENTRANCE WITH TWO (2) - 8' - 6-BAR METAL GATES.

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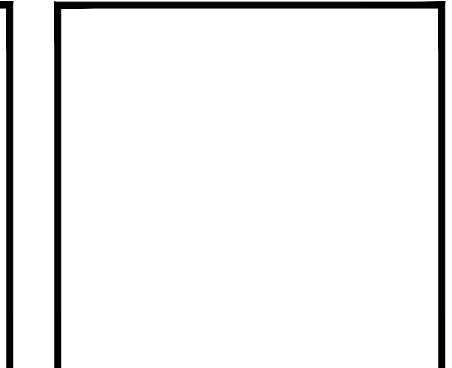
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GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

GARRARD COUNTY WATER ASSOCIATION
Garrard County, Kentucky

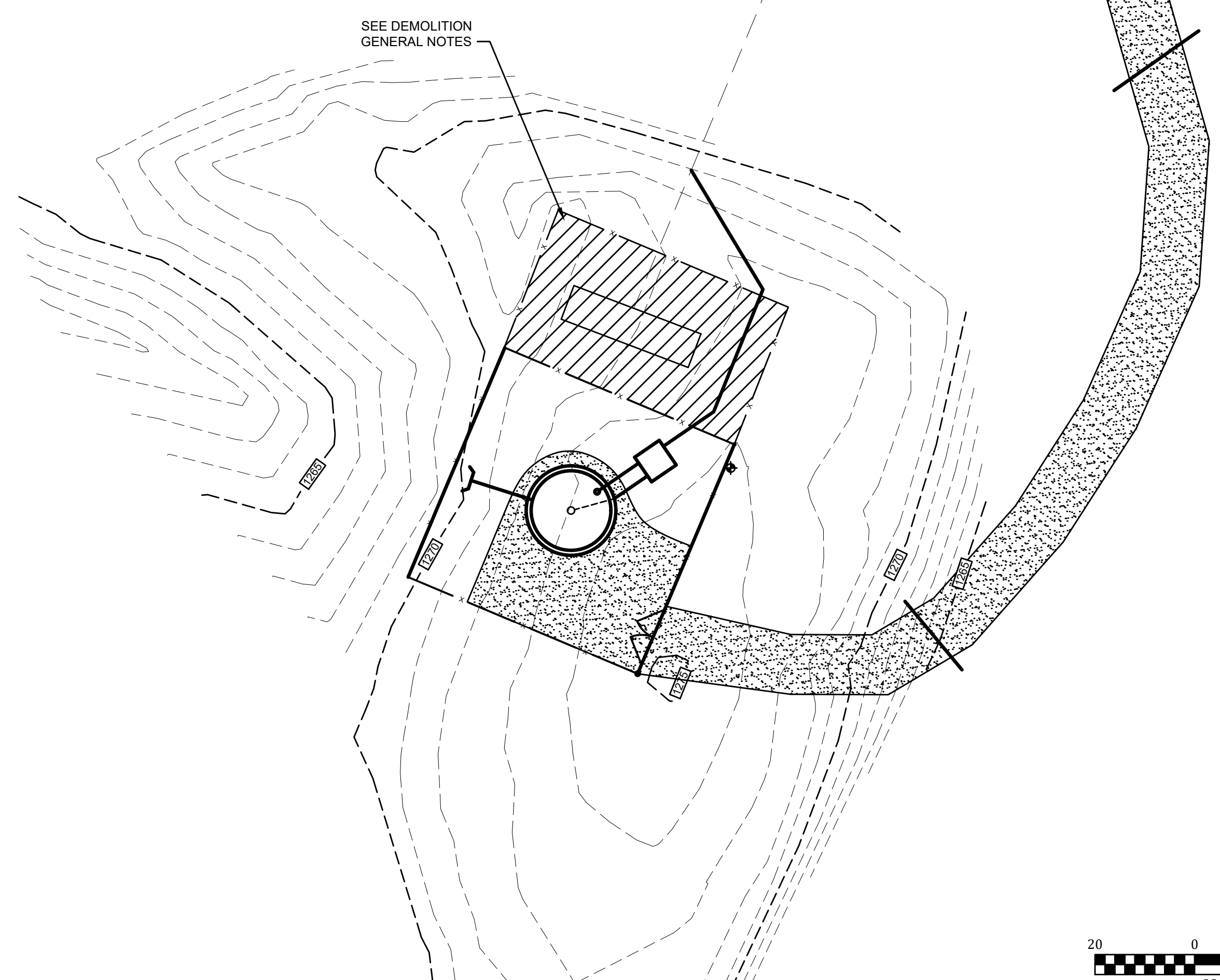
**50,000 GALLON
GROUND STORAGE TANK
SITE PLAN**



PROJECT NO.	19014-02
SHEET NO.	2

BID DOCUMENTS

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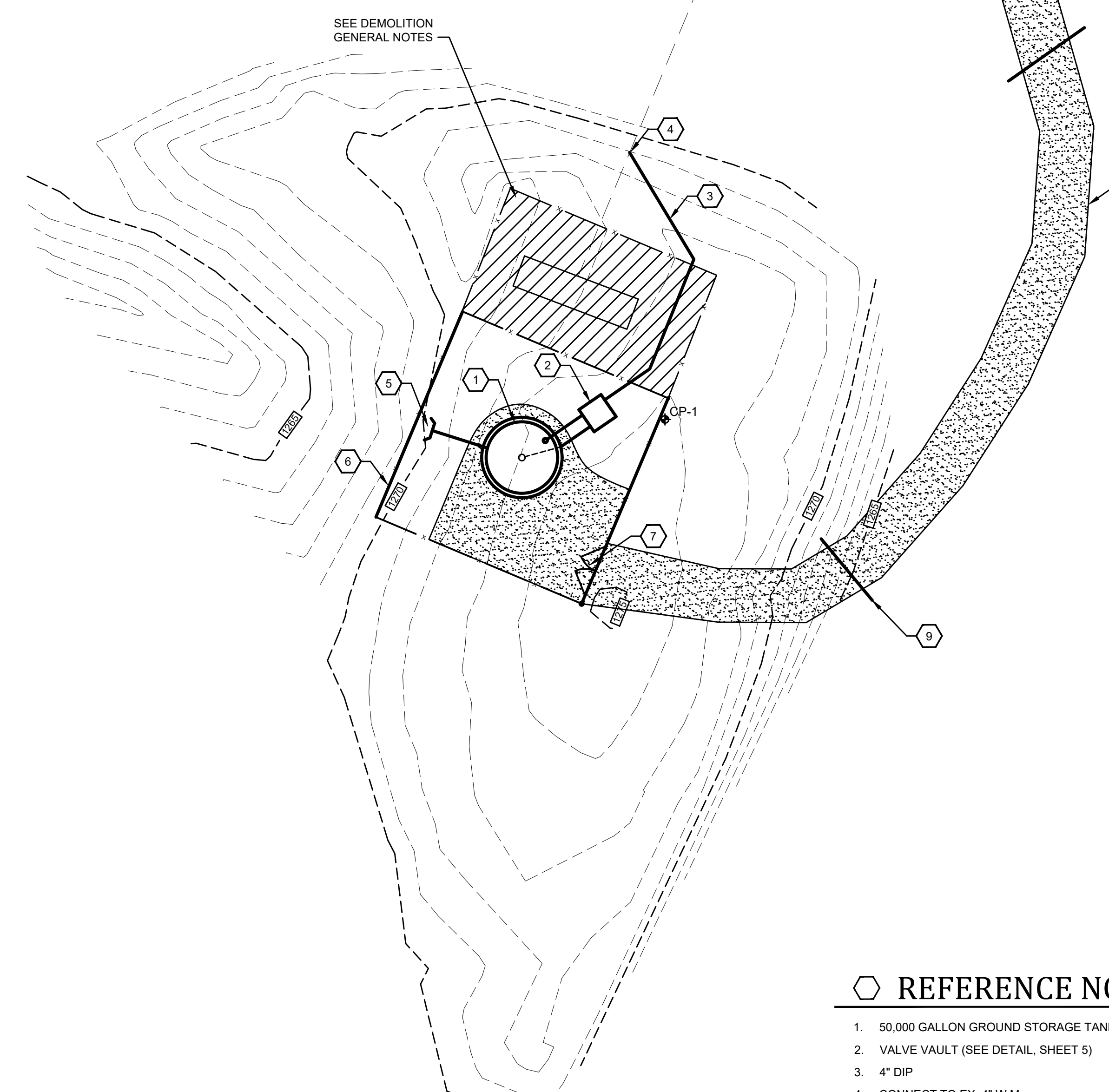
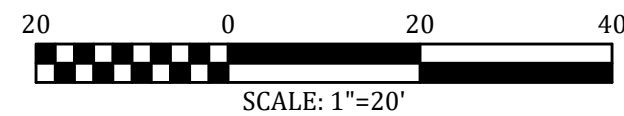


EXISTING TANK DEMOLITION GENERAL NOTES:

1. EXISTING 22,000 GALLON GROUND TANK SHALL BE DEMOLISHED, INCLUDING EXISTING SECURITY FENCE, VALVE VAULT AND TOP 3 FEET OF FOUNDATION (BELOW SURFACE)
2. CONTRACTOR SHALL GIVE OWNER/ENGINEER 48 HOURS PRIOR NOTICE TO COMMENCING DEMOLITION ACTIVITIES. TANK MUST BE DRAINED IN PROPER FASHION AS TO NOT FLOOD PROPERTIES ADJACENT TO TANK SITE
3. NO DEMOLITION ACTIVITIES SHALL BE PERFORMED PRIOR TO THE NEW TANK BEING FULLY OPERATIONAL
4. ALL DEMOLITION METHODS AND DISPOSAL OF MATERIALS SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AT THE EXPENSE OF THE CONTRACTOR
5. ANY APPURTENANCES (INCLUDING VALVES, HYDRANTS, ETC.) SHALL BE RETURNED TO THE OWNER AT NO ADDITIONAL COST
6. REGRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE AND RESEED AND MULCH WITH STRAW THE ENTIRE SITE IN ACCORDANCE WITH THE SPECIFICATIONS

NEW TANK GENERAL NOTES:

1. TANK CONTRACTOR TO SUBMIT FOR APPROVAL THE STRUCTURAL DESIGN PLANS AND CALCULATIONS FOR THE TANK AND FOUNDATION. PLANS TO BE STAMPED AND SIGNED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE OF KY.
2. TANK CONTRACTOR TO INSTALL CONDUIT AND SUPPORT BRACKETS FOR ANTENNA
3. ACCESSORIES SHOWN ON ELEVATION DRAWING ARE ROTATED FOR CLARITY
4. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS
5. STERILIZE TANK IN ACCORDANCE WITH AWWA C652-92
6. FOUNDATION DESIGN AND ANY SUBSEQUENT GEOTECHNICAL REPORT WILL BE THE RESPONSIBILITY OF THE TANK CONTRACTOR, INCLUDING THE SITE CLASS COEFFICIENT FOR SEISMIC DESIGN PER THE KENTUCKY BUILDING CODE
7. FOUNDATION CONSTRUCTION SHALL COMPLY WITH CURRENT (LATEST EDITION) AWWA STANDARDS D100-96, ACI 318-95 AND ACI 301-96
8. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI @ 28 DAYS
9. SEE GEOTECHNICAL REPORT FOR SUBSURFACE INFORMATION AND RECOMMENDATIONS
10. CONTRACTOR SHALL PROVIDE SITE GRADING AS REQUIRED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE NEW WATER STORAGE TANK
11. SEE ADDITIONAL NOTES ON SHEET 2 RELATED TO THE ACCESS ROAD DRAINAGE AND ENTRANCE.

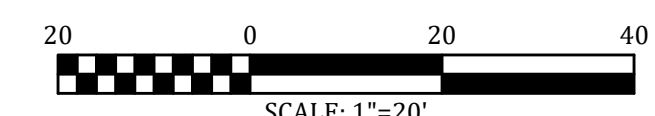


REFERENCE NOTES:

1. 50,000 GALLON GROUND STORAGE TANK
2. VALVE VAULT (SEE DETAIL, SHEET 5)
3. 4" DIP
4. CONNECT TO EX. 4" W.M.
5. OVERFLOW (SEE DETAIL, SHEET 5)
6. CHAIN LINK SECURITY FENCE (SEE DETAIL, SHEET 5)
7. DOUBLE 6" GATES (SEE DETAIL, SHEET 5)
8. ACCESS ROAD (SEE DETAIL, SHEET 5)
9. 12" CROSS DRAIN (TYP.)

SURVEY CONTROL POINT

PNT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
194	3712304.7106	5318468.7931	1274.14	CP-1

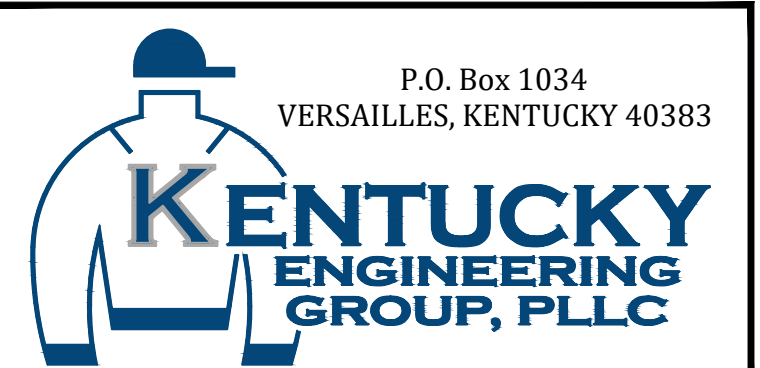


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GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

GARRARD COUNTY WATER ASSOCIATION
Garrard County, Kentucky

**50,000 GALLON
GROUND STORAGE TANK
ENLARGED SITE PLANS**

PROJECT NO.
19014-02

SHEET NO.
3

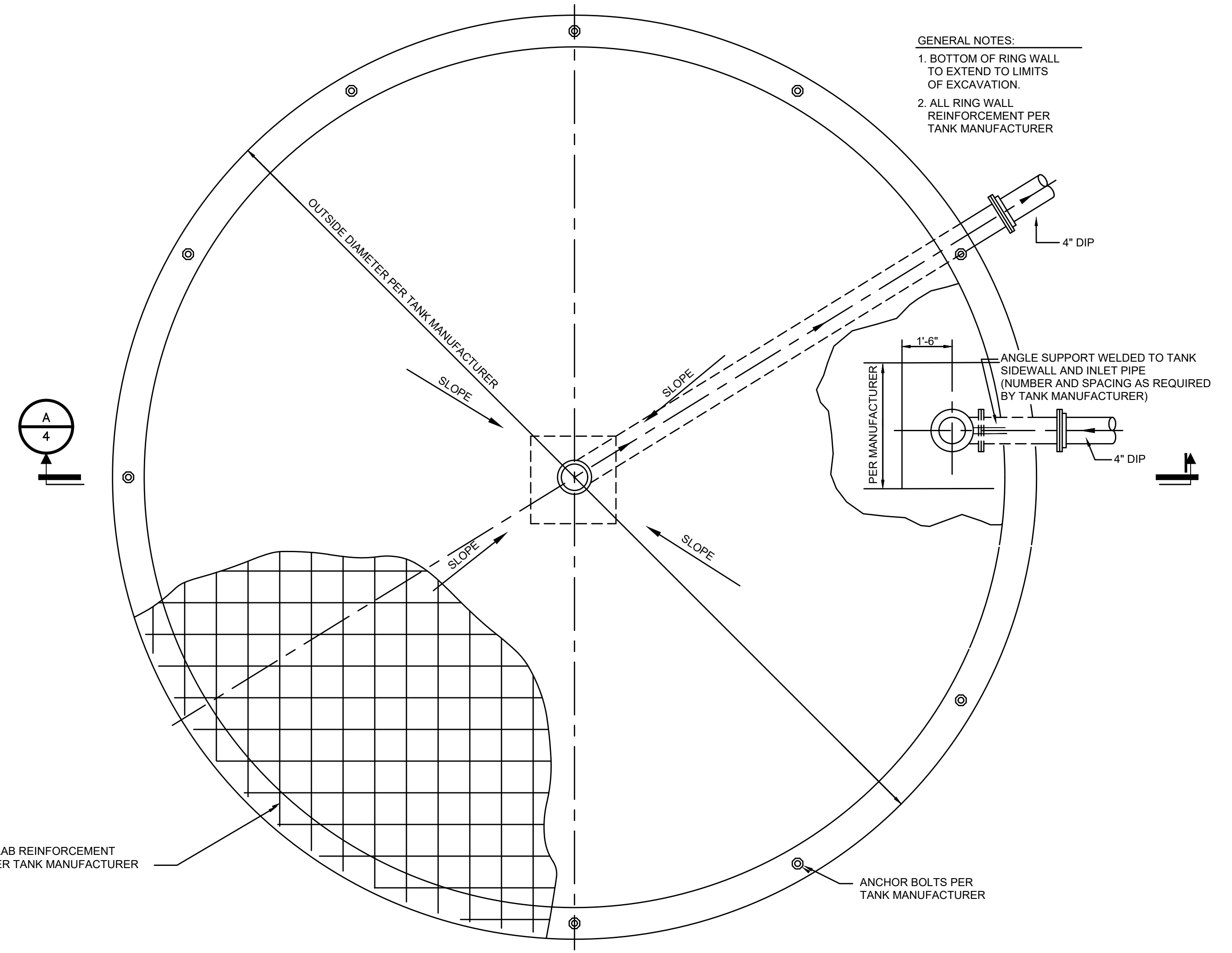
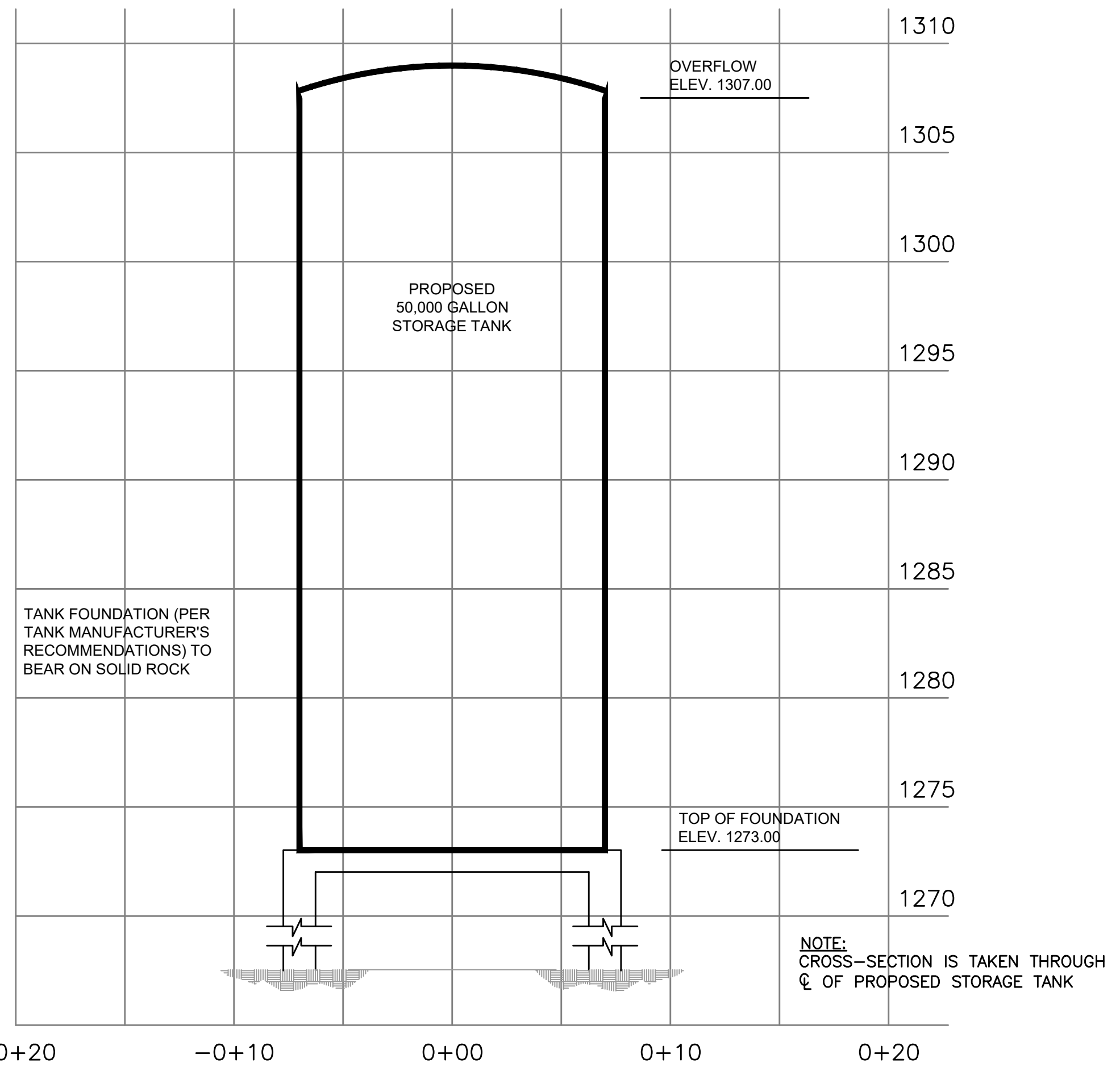
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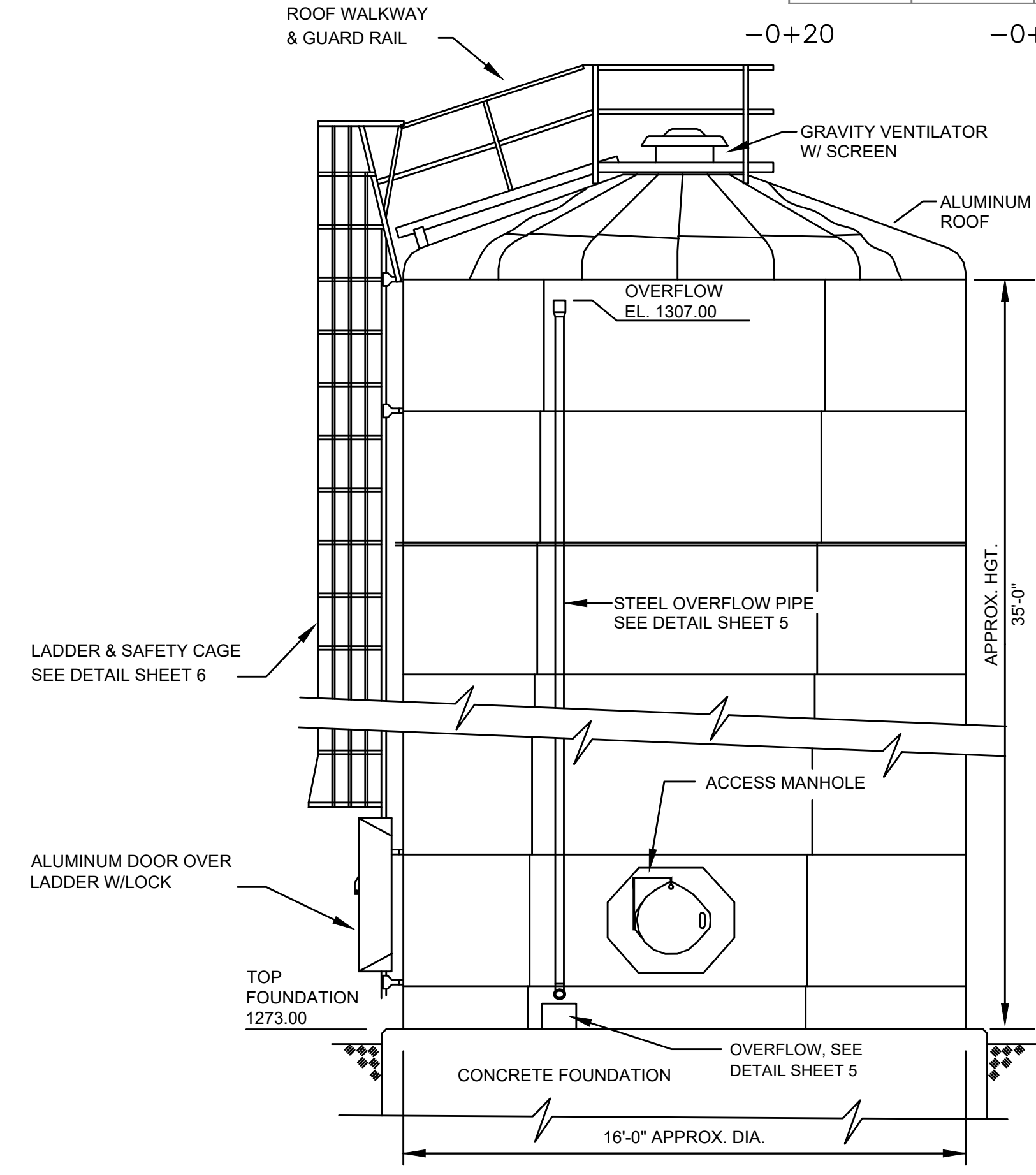
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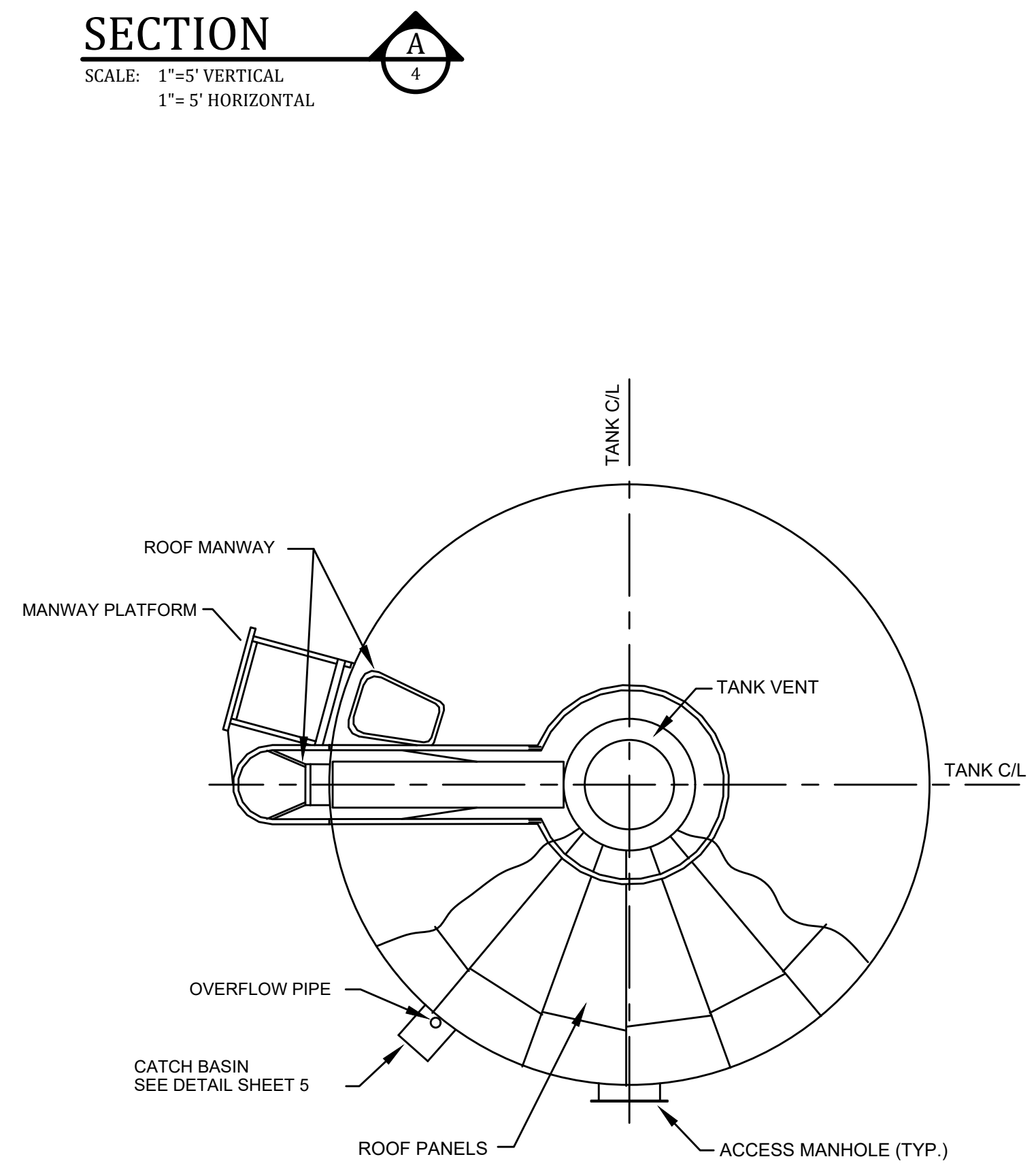
TYPICAL ELEVATIONS AND LINE SIZES	
ELEV. "A"	1273.00'
ELEV. "B"	1272.00'
ELEV. "C"	1269.50'
SIZE "D"	4"
APPROX. DIA.	16'
APPROX. HGT.	35'
APPROX. GALLONS	50,000
FILL PIPE ELEV. E	1295.00'



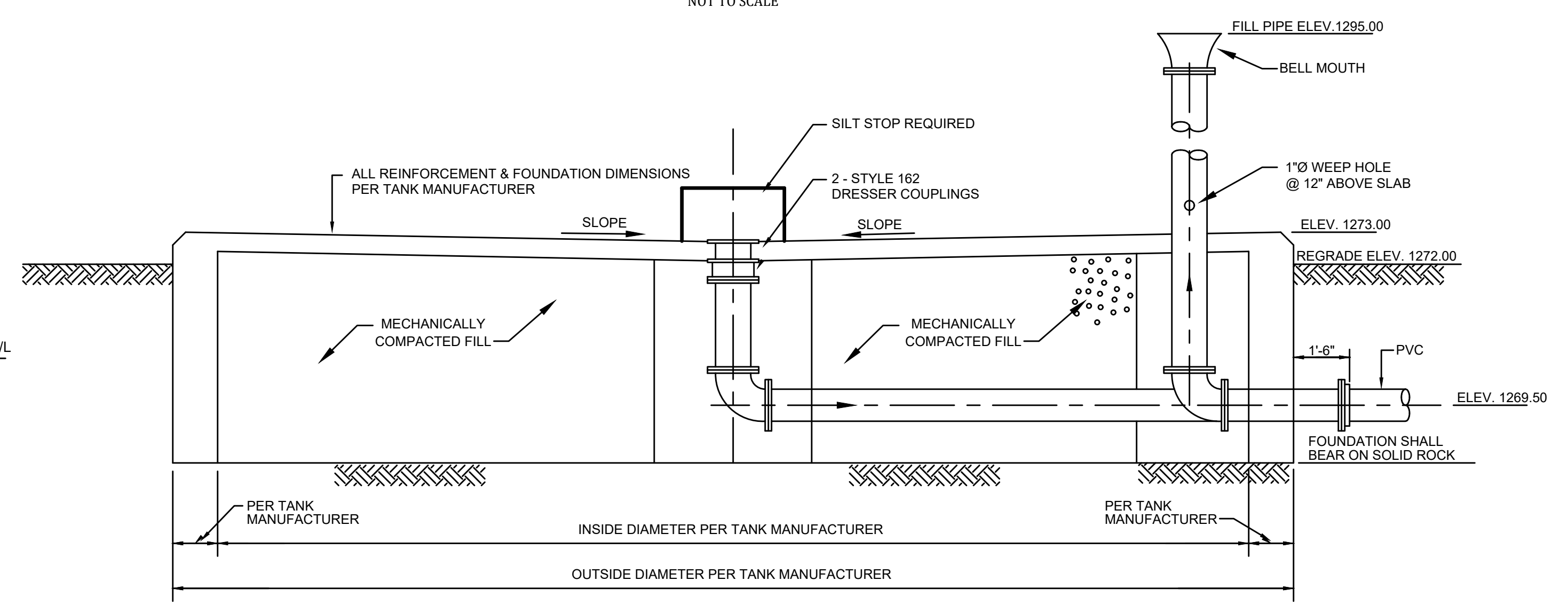
TYPICAL TANK FOUNDATION PLAN
NOT TO SCALE



TANK ELEVATION
NOT TO SCALE



TANK PLAN
NOT TO SCALE



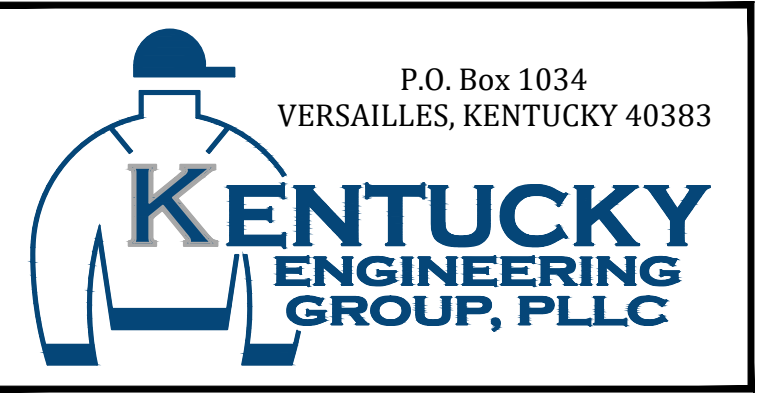
SECTION
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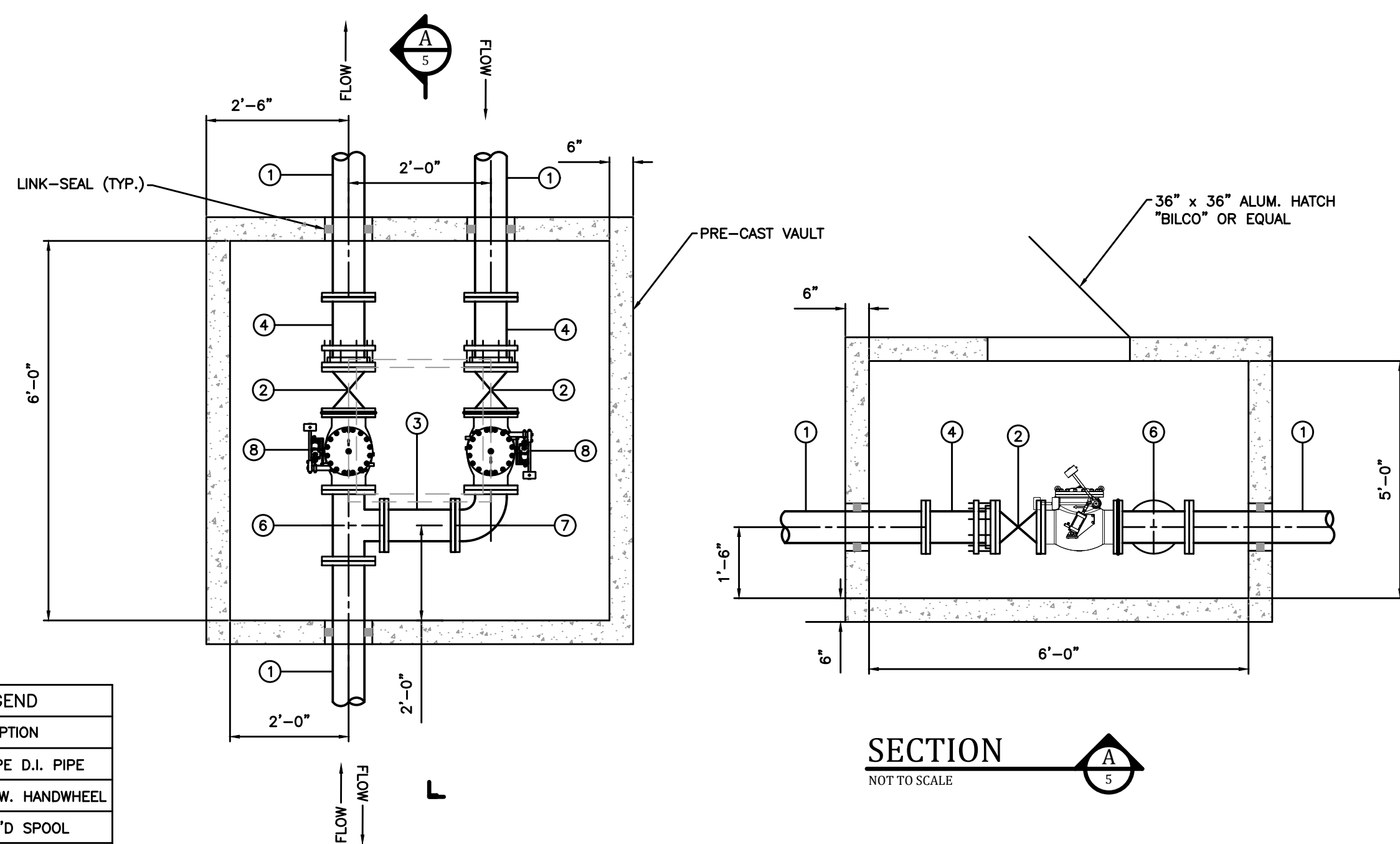
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GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

GARRARD COUNTY WATER ASSOCIATION
Garrard County, Kentucky

STANDARD DETAILS

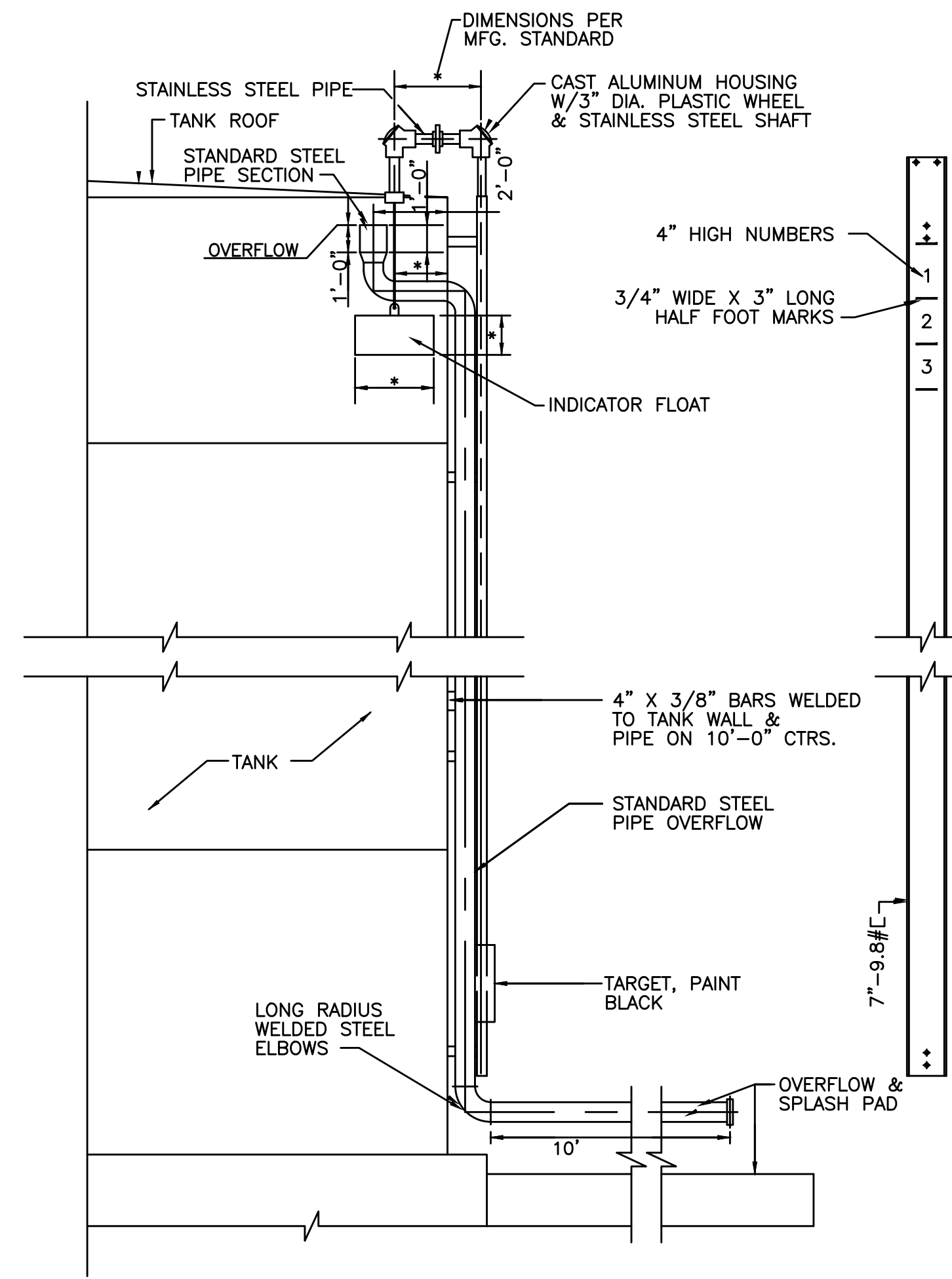
PROJECT NO.	19014-02
SHEET NO.	4

BID DOCUMENTS

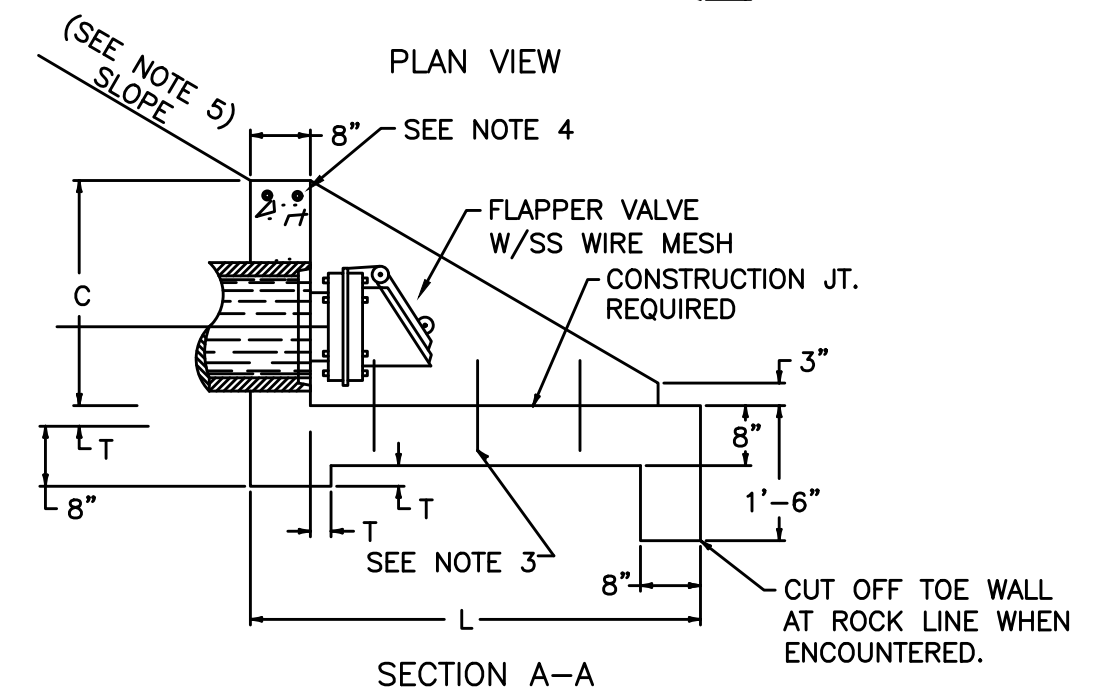
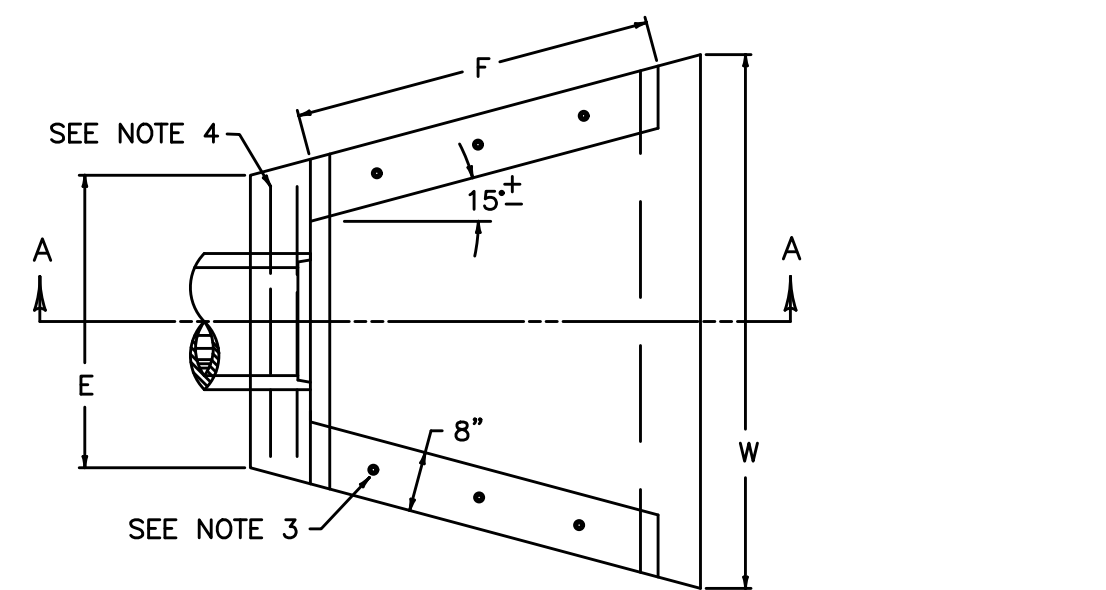


#	DESCRIPTION
1	4" FLG'D x PE D.I. PIPE
2	4" GATE VALVE W. HANDWHEEL
3	4" D.I. FLG'D SPOOL
4	4" FLANGE COUPLING ADAPTOR
6	4" D.I. FLG'D TEE
7	4" D.I. FLG'D 90° BEND
8	4" D.I. SWING CHECK VALVE

TANK VALVE VAULT
NOT TO SCALE

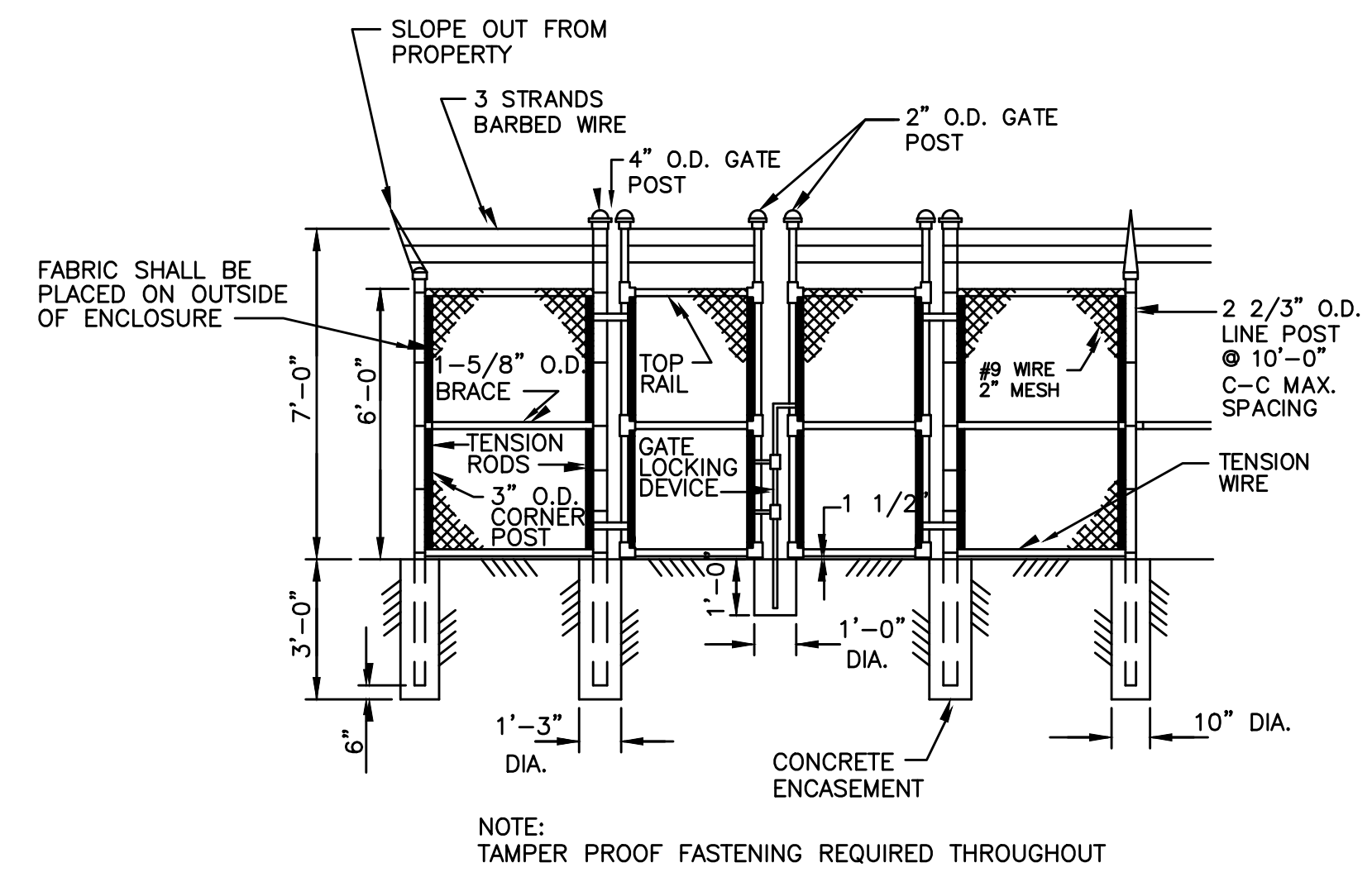


OVERFLOW and WATER LEVEL INDICATOR
NOT TO SCALE

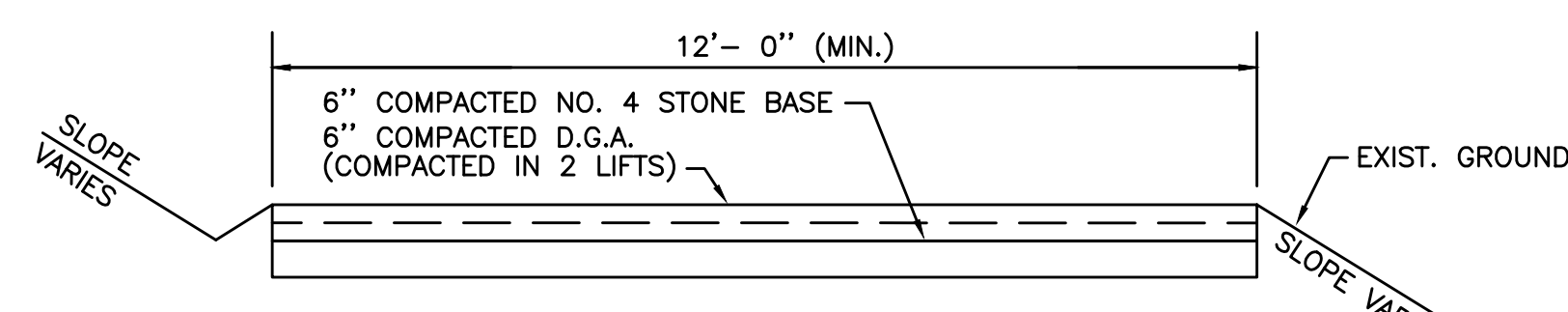


TOE OF SLOPES:
a. STEEPER THAN 1:2
b. 1:2
c. FLATTER THAN 1:2

TANK DRAIN and HEADWALL DETAIL
NOT TO SCALE



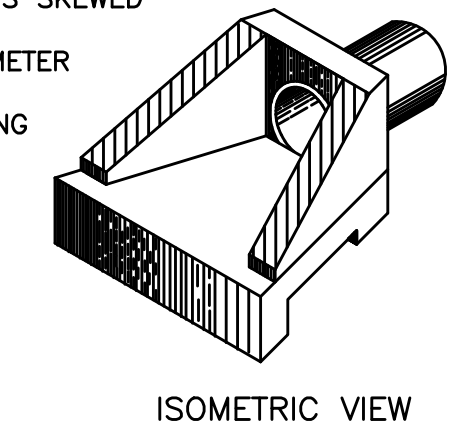
CHAIN LINK FENCE W/SWINGING GATES
NOT TO SCALE



TANK ACCESS ROAD and PARKING AREA
NOT TO SCALE

PIPE DIA. OR EQUIV. DIA.	SHAPE	DIMENSIONS						CLASS A CONC CY	REINF STEEL Lbs.
		C	E	F	L	W	T		
PER SITE PLAN	⊙	1'-9"	2'-6"	2'-3"	3'-6"	4'-0"	2"	0.5B	7

- NOTES
- DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY INSIGNIFICANTLY FOR CORRUGATED METAL PIPE.
 - REINFORCING STEEL : MINIMUM GRADE 40, BARS EVENLY SPACED.
 - 6 - NO. 4 x 12 INCH DOWEL BARS.
 - 2 - NO. 4 x (E DIMENSION MINUS 4 INCHES).
 - SLOPES SHALL BE WARPED TO FIT HEADWALL WHEN PIPE IS SKEWED AND/OR NORMAL SLOPE VARIES FROM 1:2.
 - VOLUME DISPLACED BY PIPE COMPUTED USING INSIDE DIAMETER OF PIPE.
 - WING ANGLES AND/OR DIMENSIONS MAY BE ALTERED DURING CONSTRUCTION TO ACCOMMODATE FLOW OF WATER.
 - APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE. FRONT FACE OF HEADWALL SHALL REMAIN VERTICAL.
 - HEADWALLS ARE FOR CIRCULAR, ARCH, AND HORIZONTAL ELLIPTICAL 12" TO 27" EQUIVALENT PIPE SIZES. SEE CURRENT STD. DWG. RDI-001, FOR NON-CIRCULAR PIPE EQUIVALENT SIZES.
 - ALL DIMENSIONS ARE IN INCHES UNLESS SHOWN OTHERWISE.
 - FINAL LOCATION OF HEADWALL TO BE FIELD LOCATED FOR EACH TANK SITE FOR POSITIVE DRAINING.



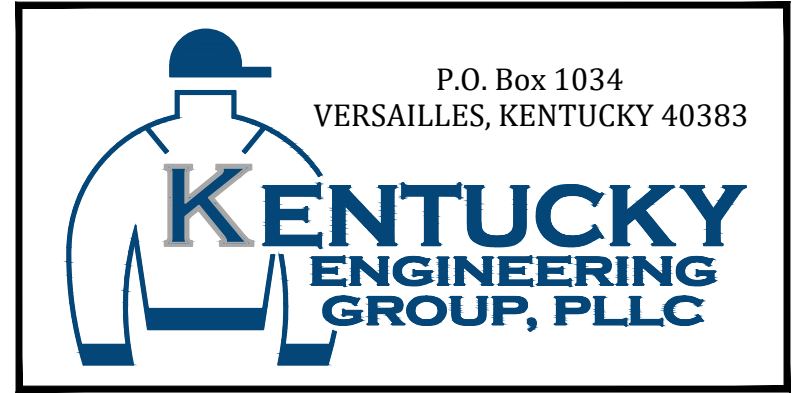
P:\PROJECTS\Garrard County Water Association\19014 - Water System Improvements\DWG\Contract 2 - Tank\19014-2-05.dwg KEG 6/22/22

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NO.	DATE	REVISIONS	BY

DATE:	JUNE, 2022
PROJECT MGR:	RCC
DRAWN BY:	JAB
CHECKED BY:	RCC
SCALE:	AS NOTED
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CONTRACT No. 2 - 50,000 GALLON
GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

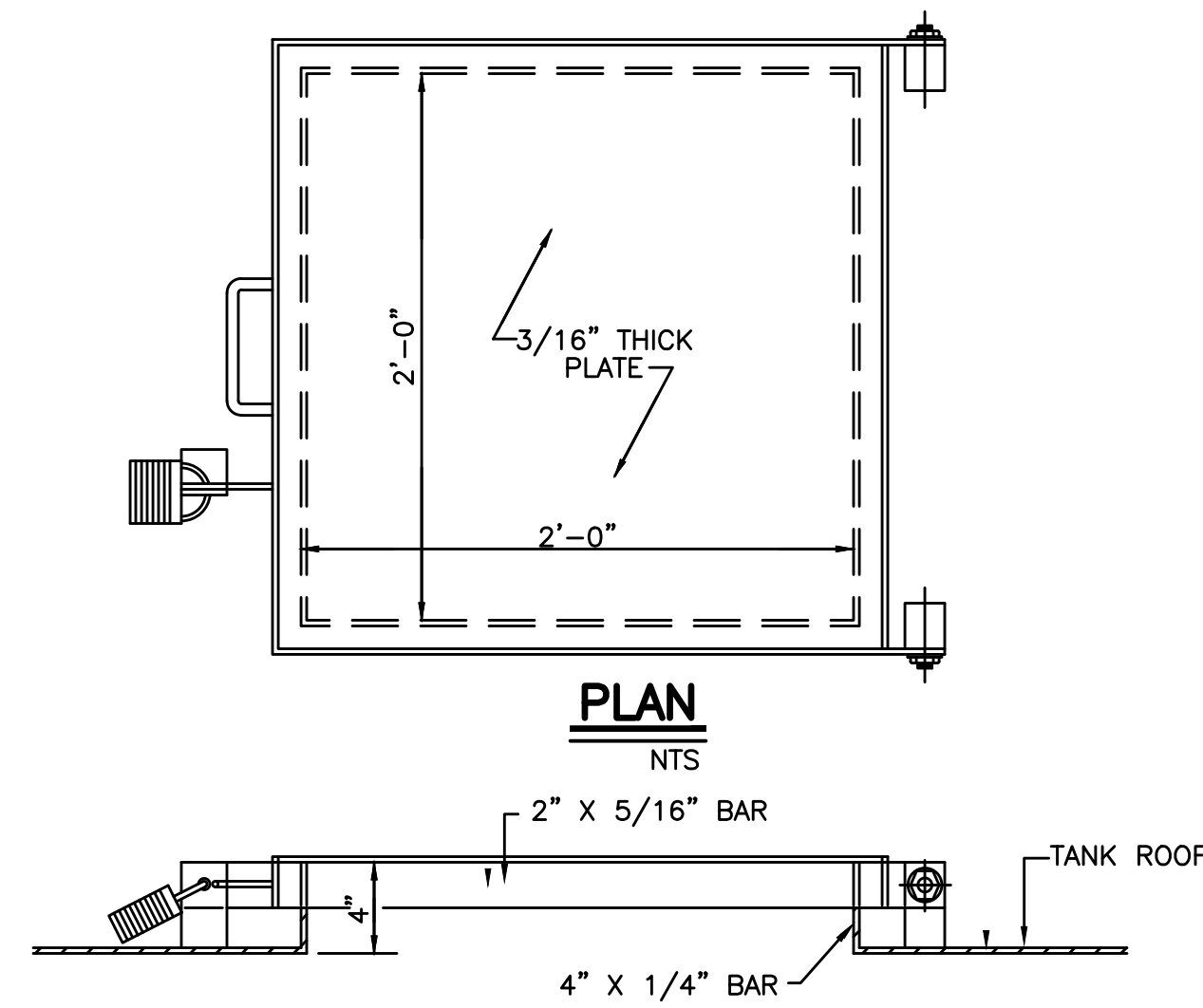
GARRARD COUNTY WATER ASSOCIATION
Garrard County, Kentucky

STANDARD DETAILS

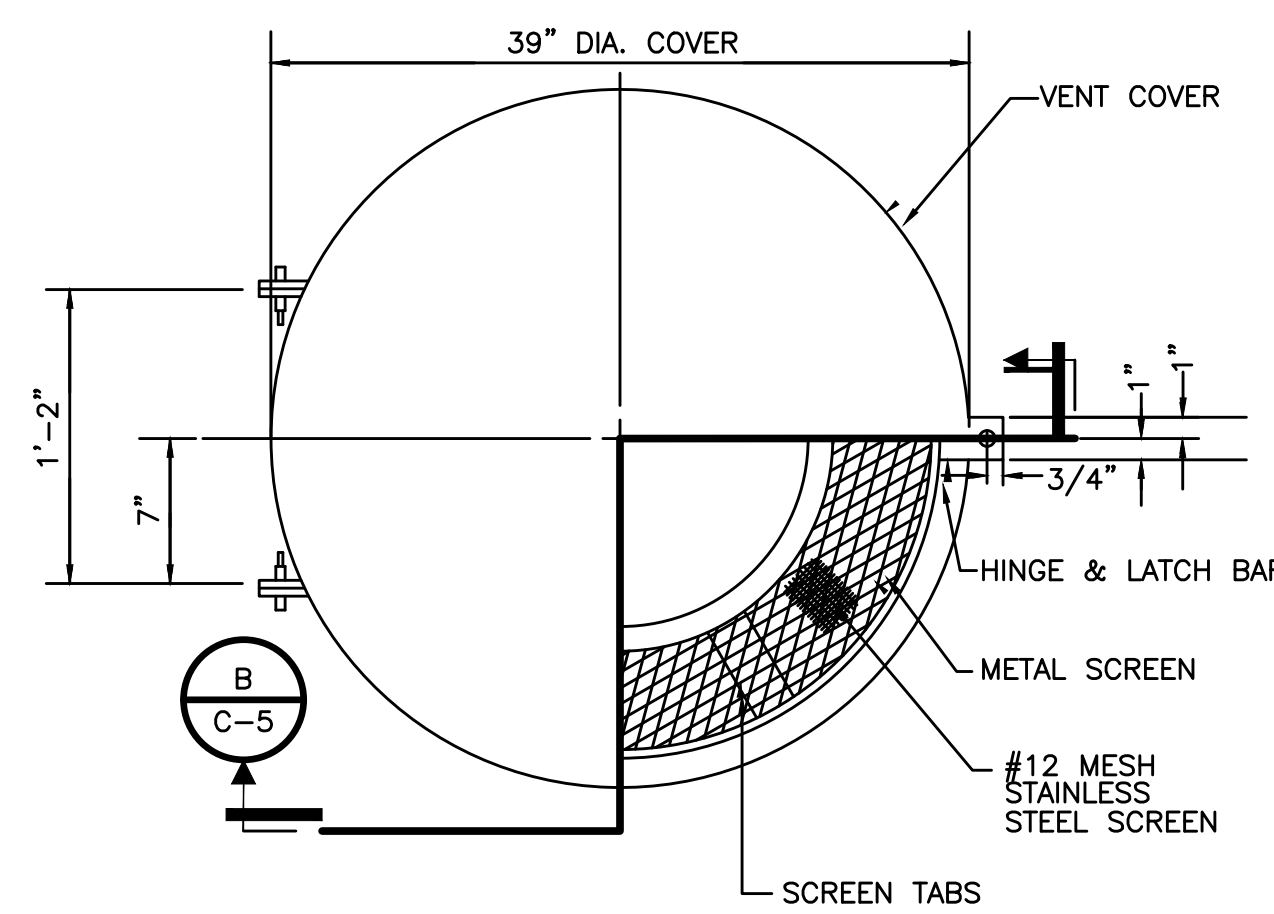
PROJECT NO.
19014-02

SHEET NO.
5

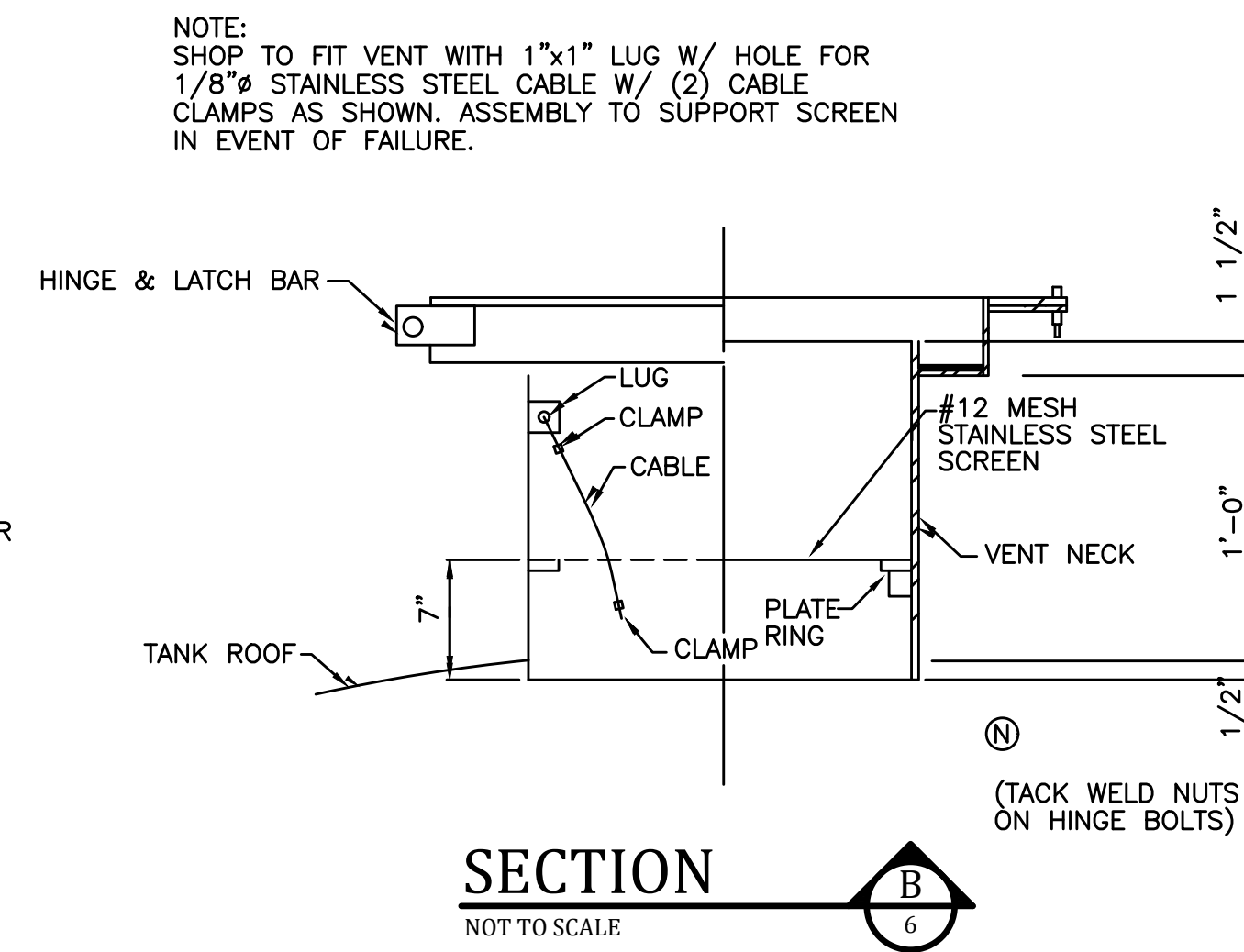
BID DOCUMENTS



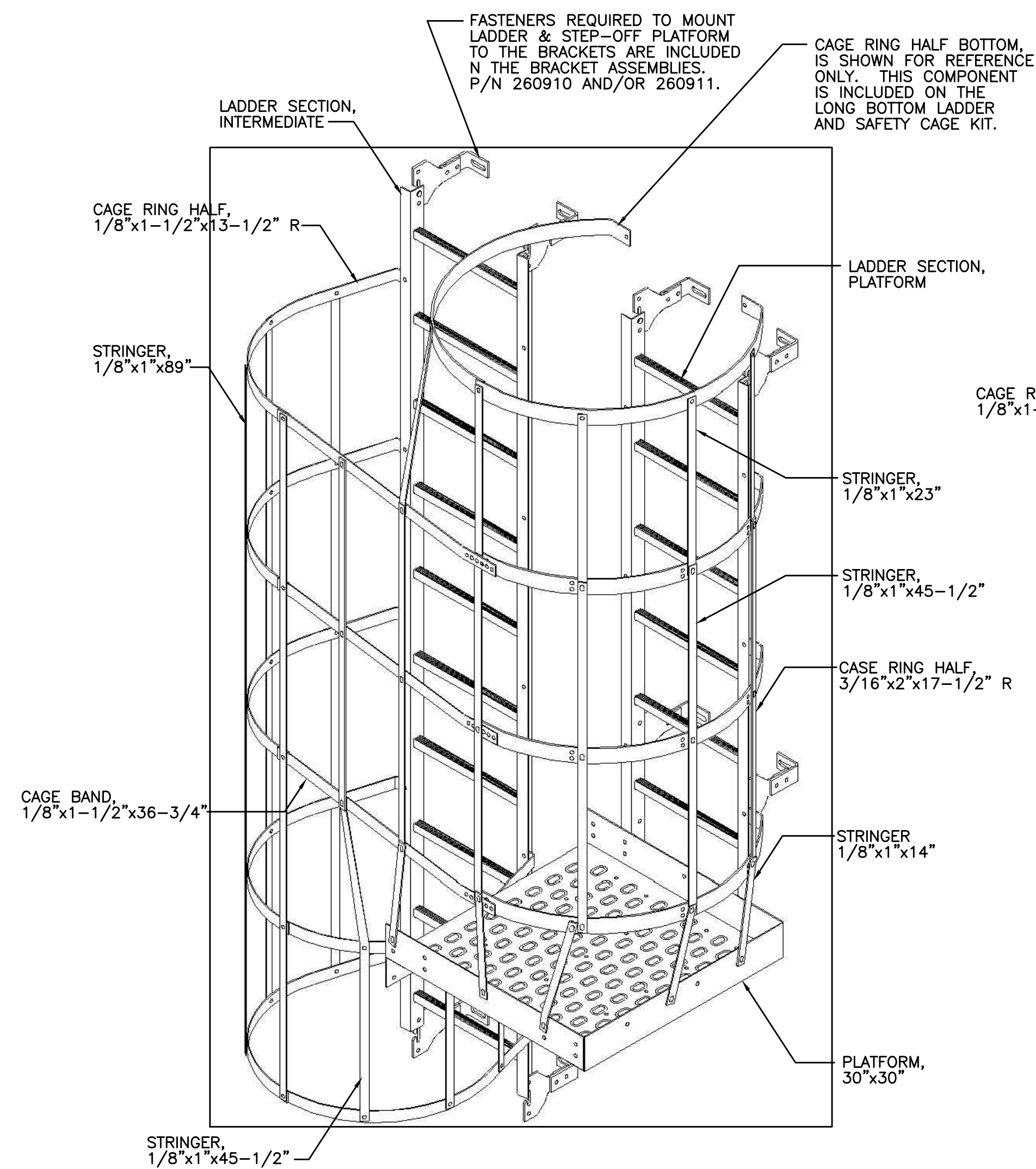
24" ROOF MANHOLE
NOT TO SCALE



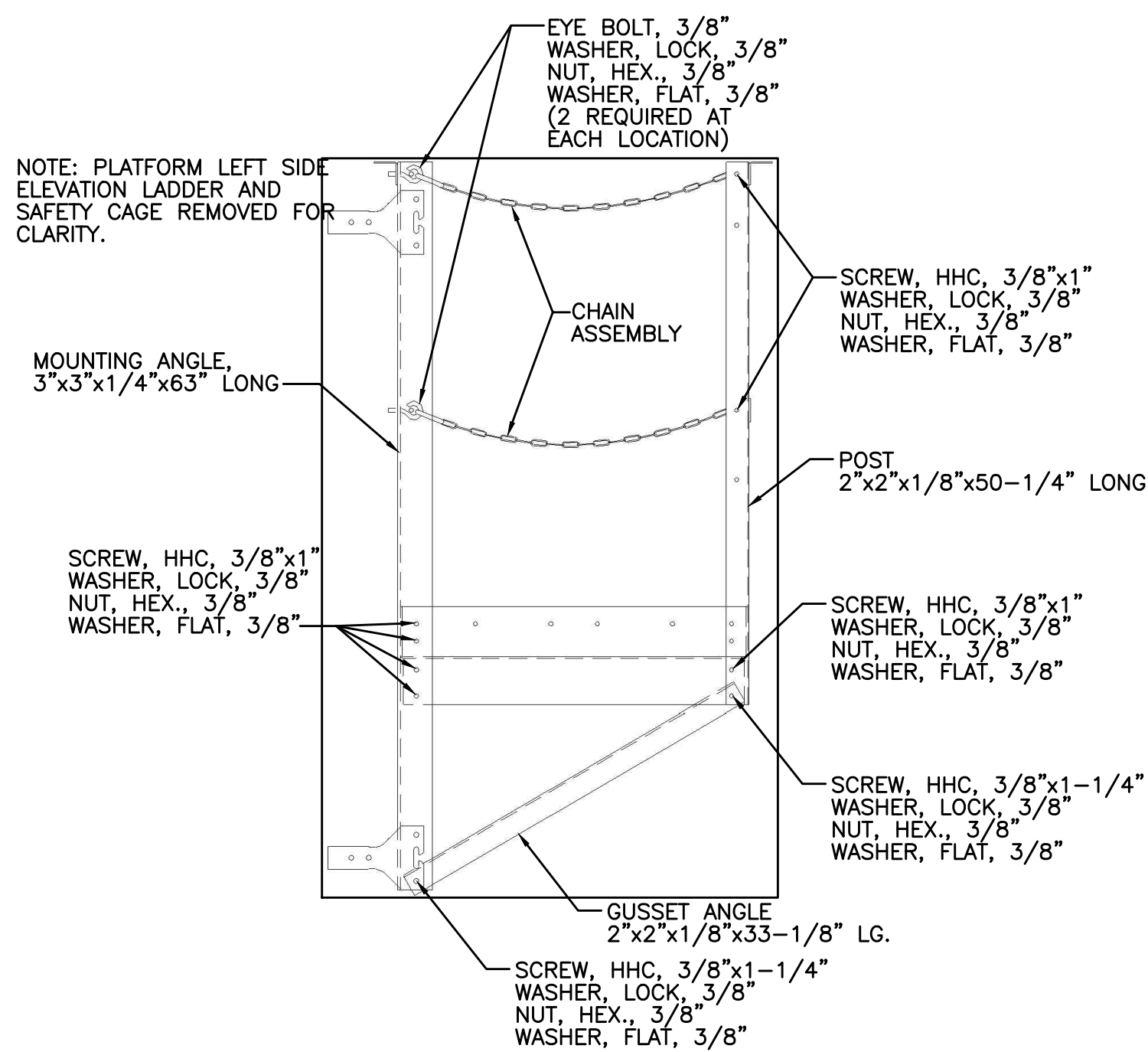
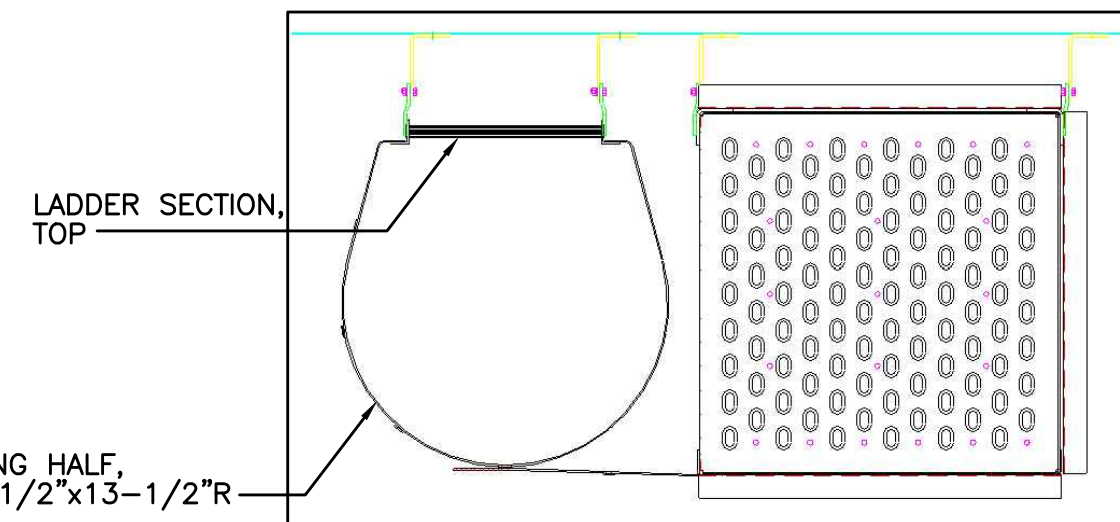
24" Ø ROOF VENT
NOT TO SCALE



SECTION
NOT TO SCALE



LADDER and PLATFORMS
NOT TO SCALE



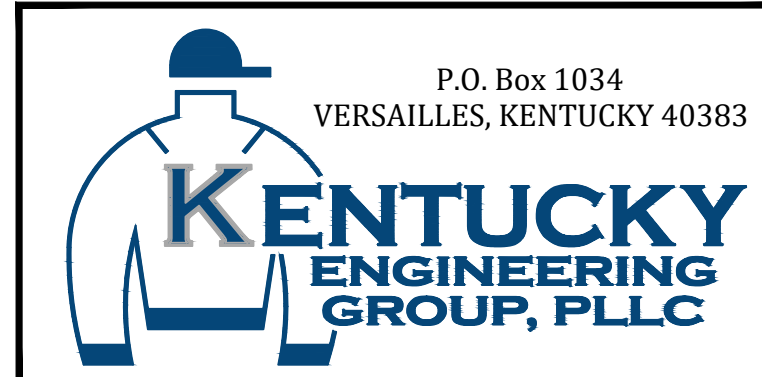
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CONTRACT No. 2 -50,000 GALLON
GROUND STORAGE TANK
WATER SYSTEM IMPROVEMENTS

GARRARD COUNTY WATER ASSOCIATION
Garrard County, Kentucky

STANDARD DETAILS

PROJECT NO.
19014-02

SHEET NO.
6

BID DOCUMENTS