

NEW KELAT STORAGE TANK

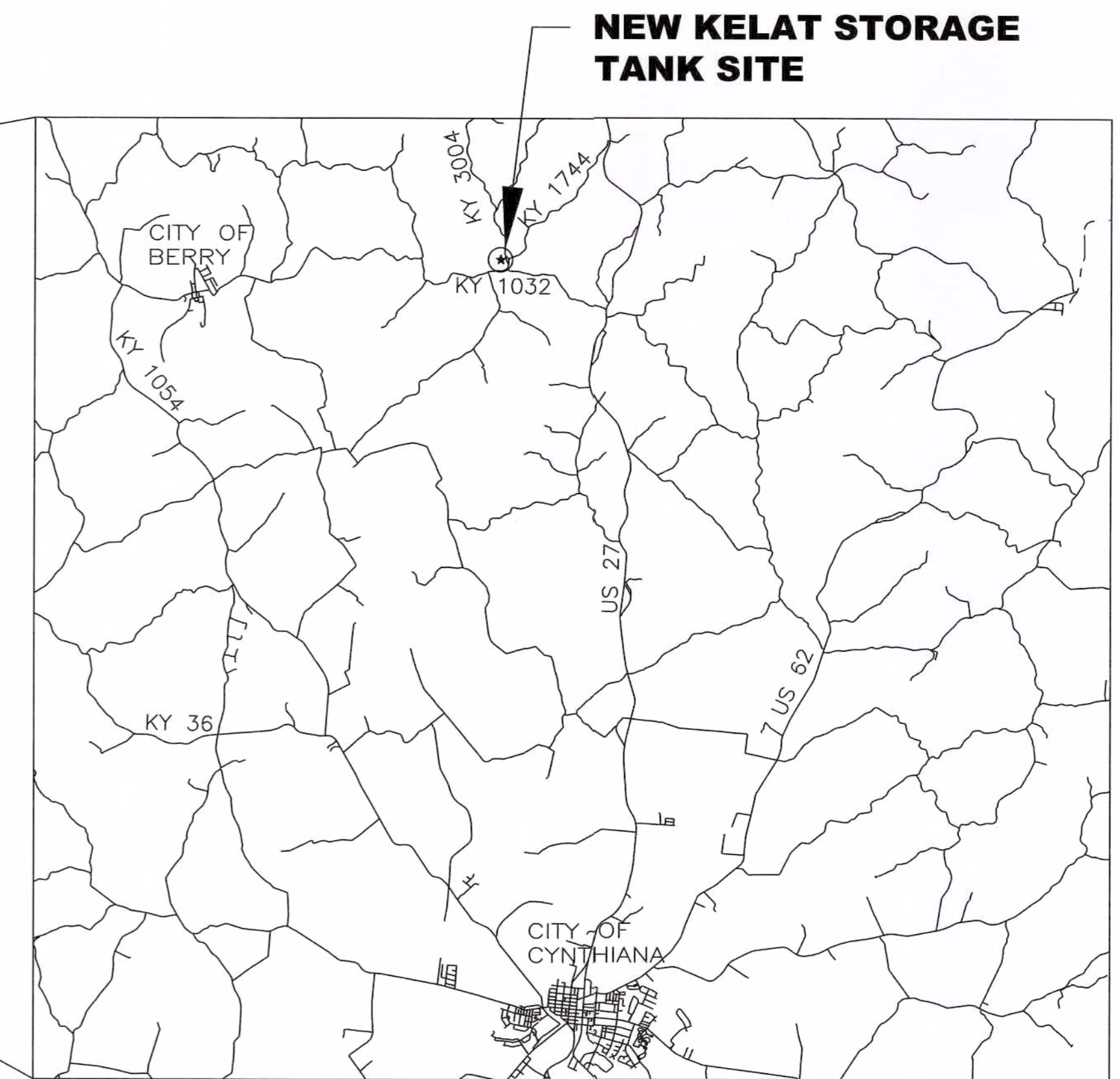
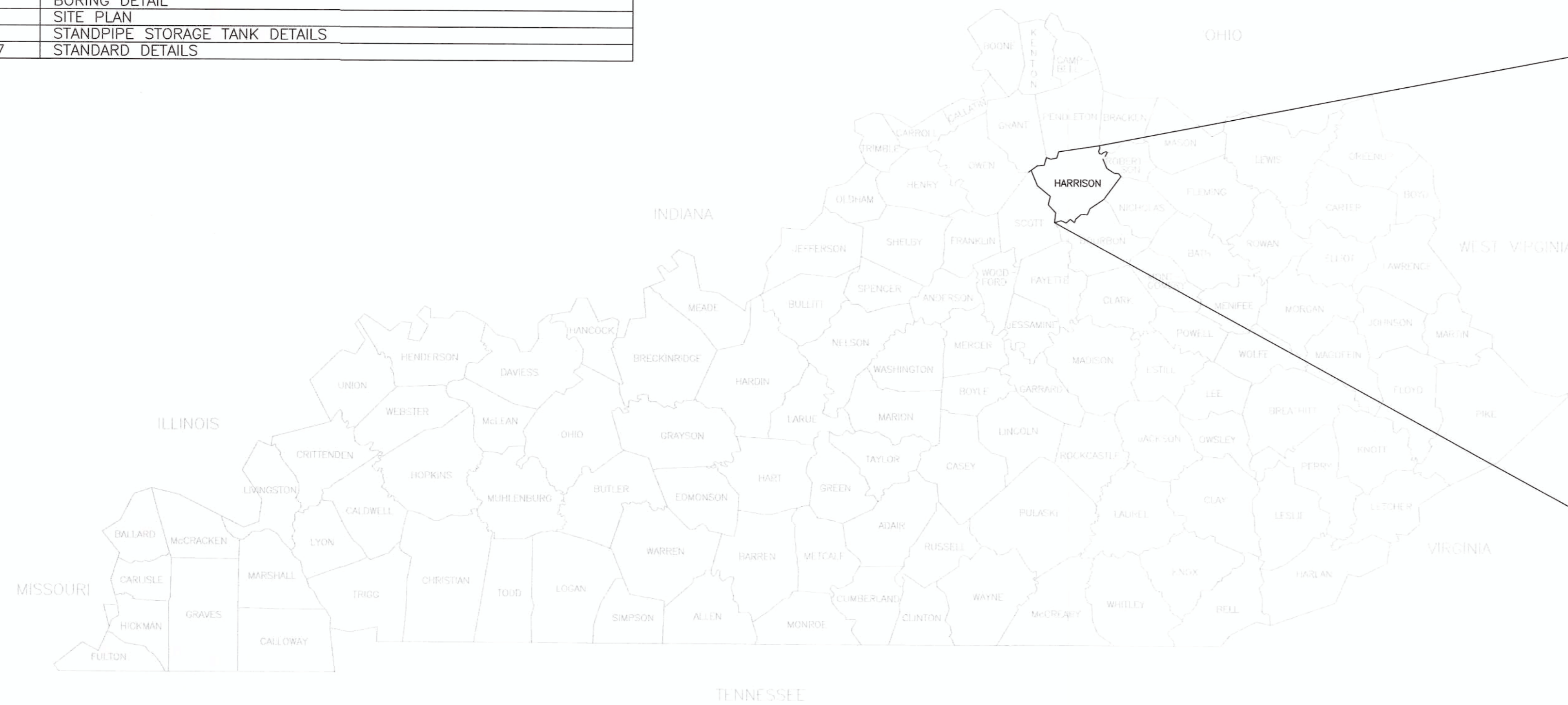
FOR

HARRISON COUNTY WATER ASSOCIATION

HARRISON COUNTY, KENTUCKY

JUNE 2017

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LEGEND:	
	FIRE HYDRANT ASSEMBLY
	GATE VALVE AND BOX
	PROPOSED FENCE
	EXISTING OVERHEAD ELECTRIC LINES
	EXISTING UTILITY POLE
	EXISTING FENCE
	EXISTING WATER MAIN
	EXISTING GATE VALVE
	EDGE OF PAVEMENT

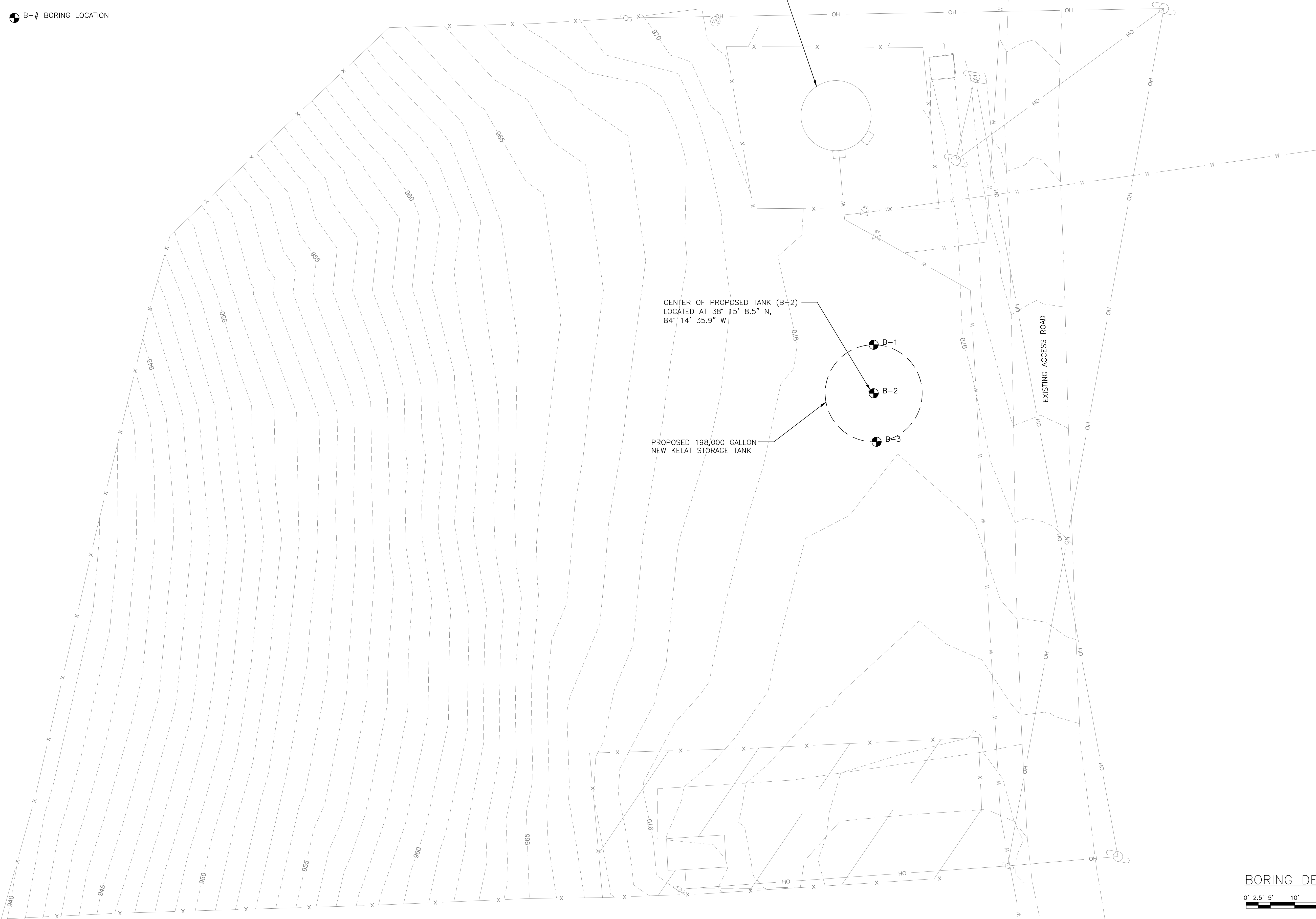
Andrew Esarey
 6/21/2017

STRAND ASSOCIATES

NOTES:

1. SEE SPECIFICATIONS FOR BORING LOGS AND GEOTECHNICAL REPORT. THE INFORMATION CONTAINED IN THE BORING LOGS AND GEOTECHNICAL REPORT IS NOT GUARANTEED AND DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIS OWN INVESTIGATIONS.
2. CONTRACTOR SHALL VERIFY SITE AND SOIL CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.

● B-# BORING LOCATION



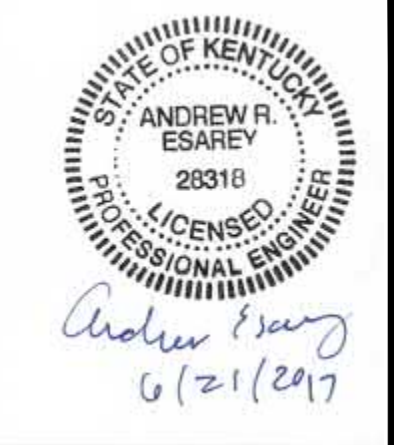
EXISTING 106,000 GALLON
KELAT STORAGE TANK

CENTER OF PROPOSED TANK (B-2)
LOCATED AT 38° 15' 8.5" N,
84° 14' 35.9" W

PROPOSED 198,000 GALLON
NEW KELAT STORAGE TANK

EXISTING ACCESS ROAD

KY 3004



NO.	REVISIONS	DATE:

BORING DETAIL

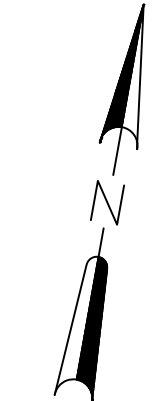
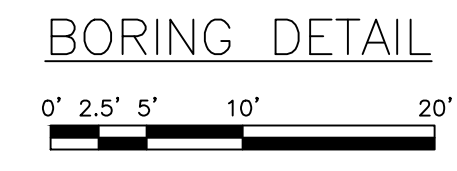
NEW KELAT STORAGE TANK
HARRISON COUNTY WATER ASSOCIATION
HARRISON COUNTY, KENTUCKY

JOB NO.
5224.255

PROJECT MGR.
ANDREW ESAREY, P.E.

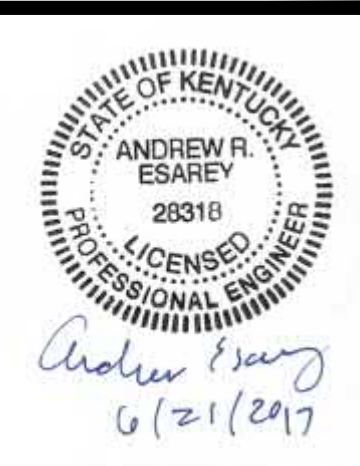
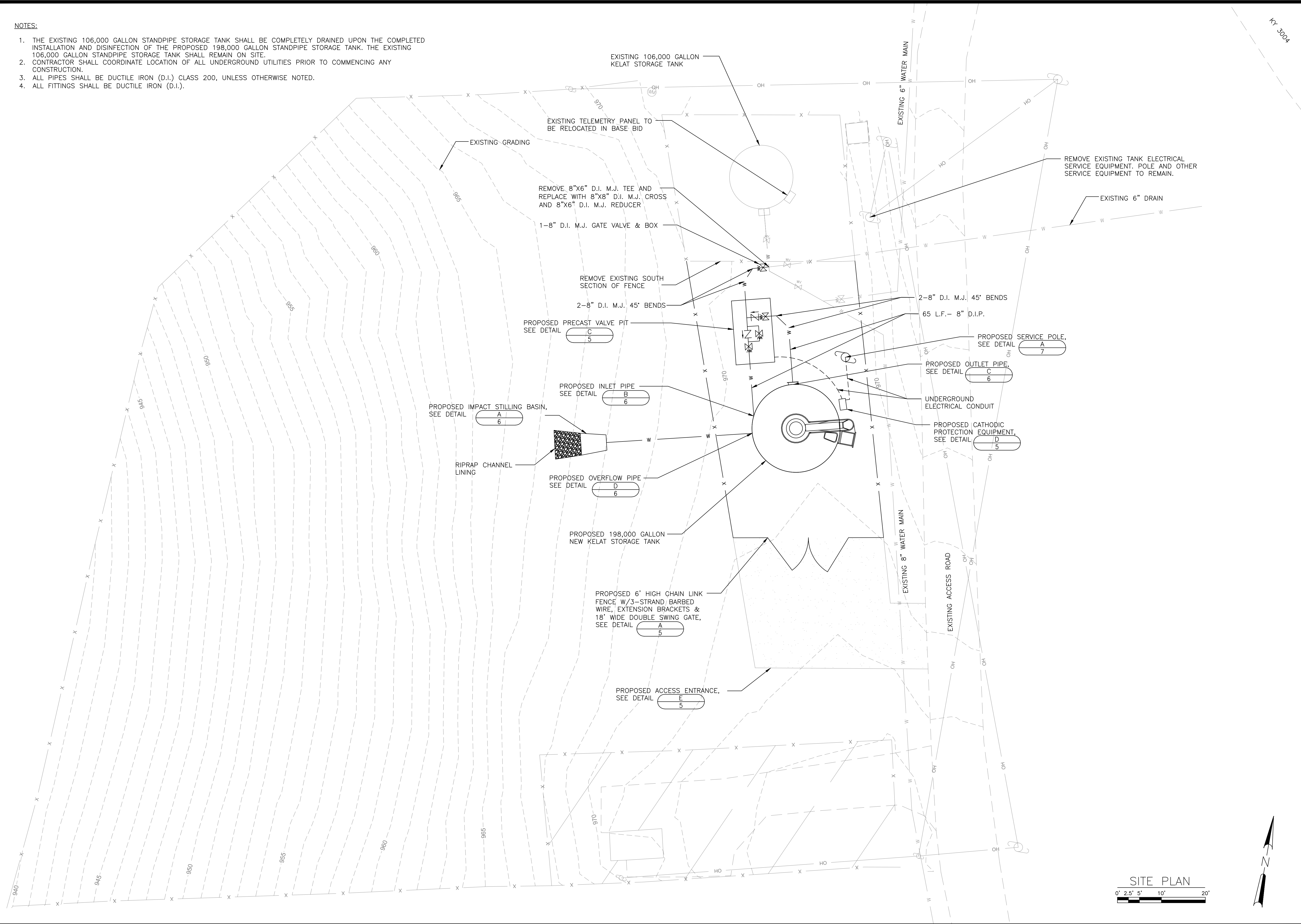


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NOTES:

1. THE EXISTING 106,000 GALLON STANDPIPE STORAGE TANK SHALL BE COMPLETELY DRAINED UPON THE COMPLETED INSTALLATION AND DISINFECTION OF THE PROPOSED 198,000 GALLON STANDPIPE STORAGE TANK. THE EXISTING 106,000 GALLON STANDPIPE STORAGE TANK SHALL REMAIN ON SITE.
2. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.
3. ALL PIPES SHALL BE DUCTILE IRON (D.I.) CLASS 200, UNLESS OTHERWISE NOTED.
4. ALL FITTINGS SHALL BE DUCTILE IRON (D.I.).



NO.	REVISIONS	DATE:

SITE PLAN

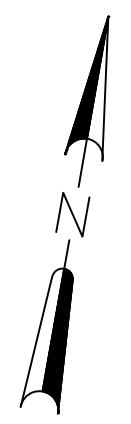
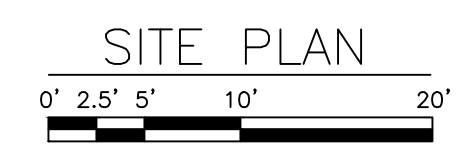
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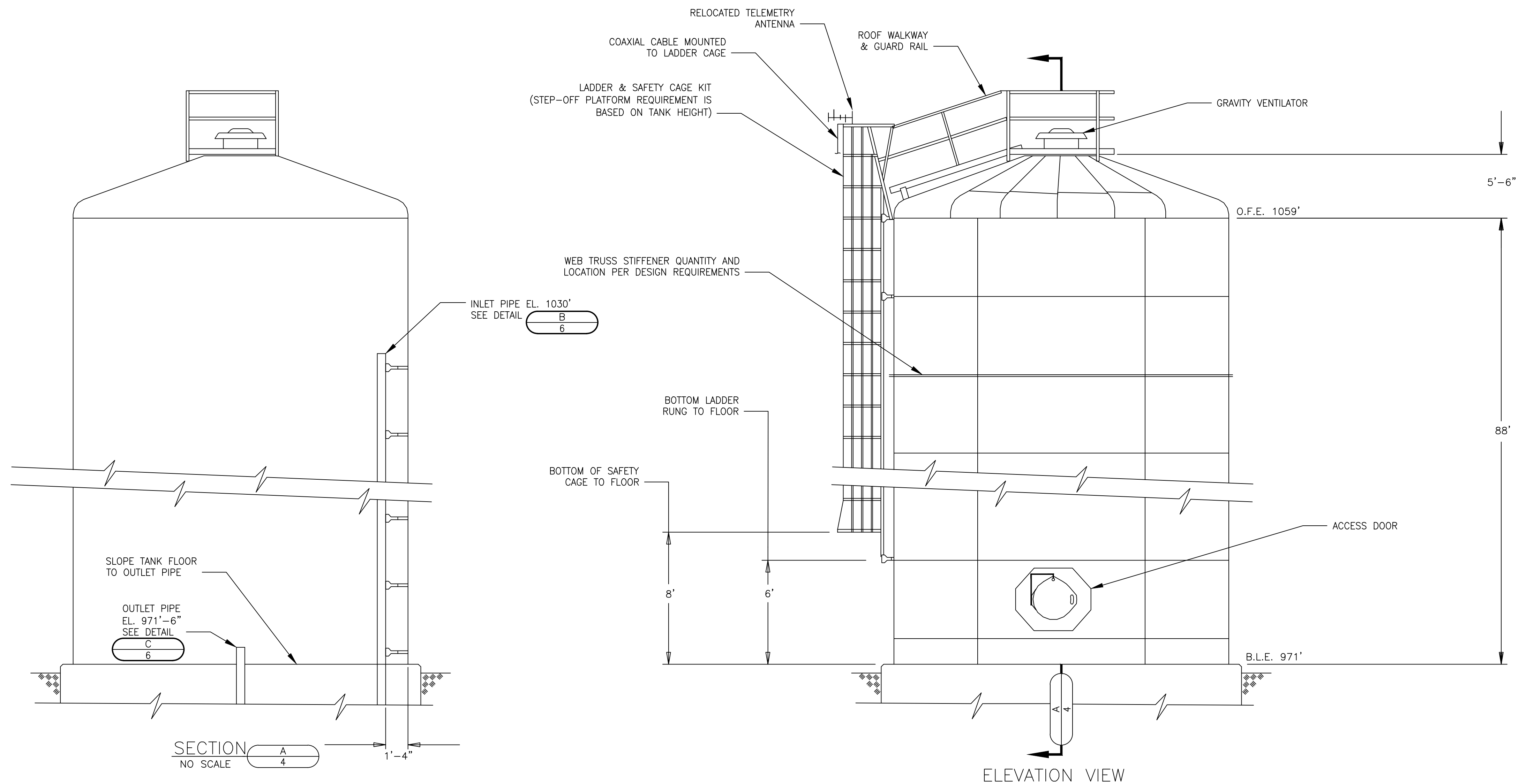
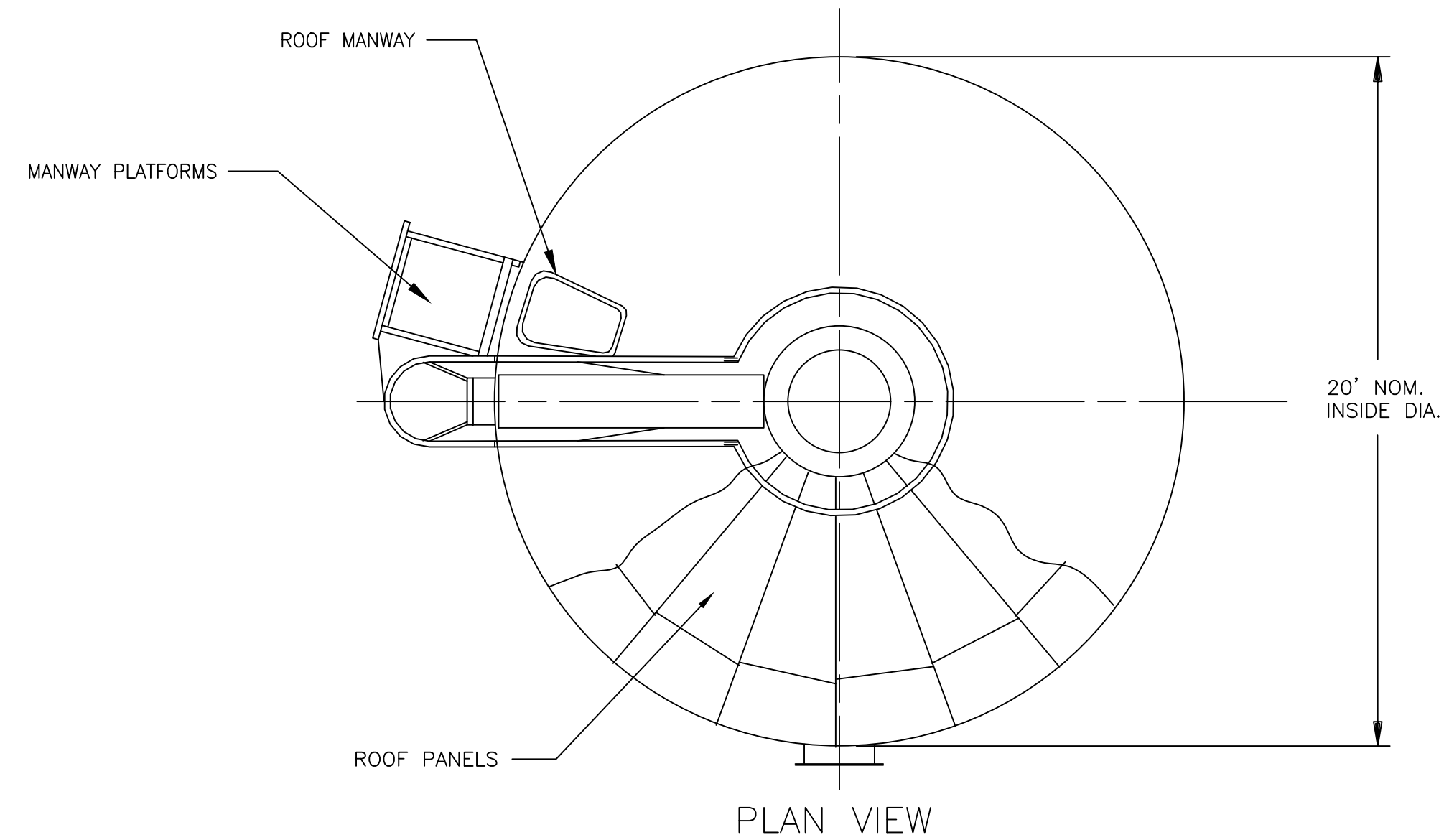


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GENERAL NOTES:

- UNLESS OTHERWISE NOTED, SEPARATE BID ITEM HAS NOT BEEN ESTABLISHED FOR FITTINGS. FITTINGS INCLUDE, BUT ARE NOT LIMITED TO, TEES, PLUGS, BENDS, REDUCERS, SLEEVES, COUPLINGS, ETC. THE CONTRACTOR SHALL INCLUDE THE COST OF FITTINGS IN THE LUMP SUM BID PRICE.
- FINAL LOCATIONS OF VALVES, BLOWOFFS, HYDRANTS, METERS, ETC ARE TO BE FIELD LOCATED DURING CONSTRUCTION AND APPROVED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN HIS CONSTRUCTION LIMITS AND TO PROTECT SAME FROM ANY AND ALL DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY HIS CONSTRUCTION ACTIVITY UNDER THIS CONTRACT. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY AGENCIES AND COORDINATE WITH SAME TO PRECLUDE DAMAGE TO EXISTING UTILITIES.
- THE CONTRACTOR SHALL USE ALL REASONABLE CARE DURING CONSTRUCTION UNDER THIS CONTRACT, TO PREVENT ANY AND ALL DAMAGE TO EXISTING UTILITIES, WHETHER INDICATED ON THE PLANS OR NOT, ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFINE HIS CONSTRUCTION ACTIVITIES TO THE AREA WITHIN APPROPRIATE EASEMENT UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.
- THE CONTRACTOR SHALL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENT FOR THIS PROJECT.
- THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE OWNER PRIOR TO BEGINNING ANY CONSTRUCTION INTERRUPTING OPERATION OF THE WATER SYSTEM.
- ALL EXPOSED FINISHED SURFACES DISTURBED BY CONSTRUCTION OR DEMOLITION ACTIVITIES PERFORMED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR UNDER THIS CONTRACT SHALL BE RESTORED TO MEET OR EXCEED THE CONDITION OF THE EXISTING ADJACENT SURFACE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICTS ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS WHICH APPLY, SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PERFORM ALL PRESSURE TESTING, STERILIZATION, AND FLUSHING OF THE PROPOSED TANK AND RELATED LINES PRIOR TO CONNECTION TO THE EXISTING WATER MAINS.
- THE CONTRACTOR SHALL PROVIDE SLOPE TO 8-INCH OUTLET PIPE.
- SEE TANK FOUNDATION AND TANK GENERAL NOTES SHEET 6.



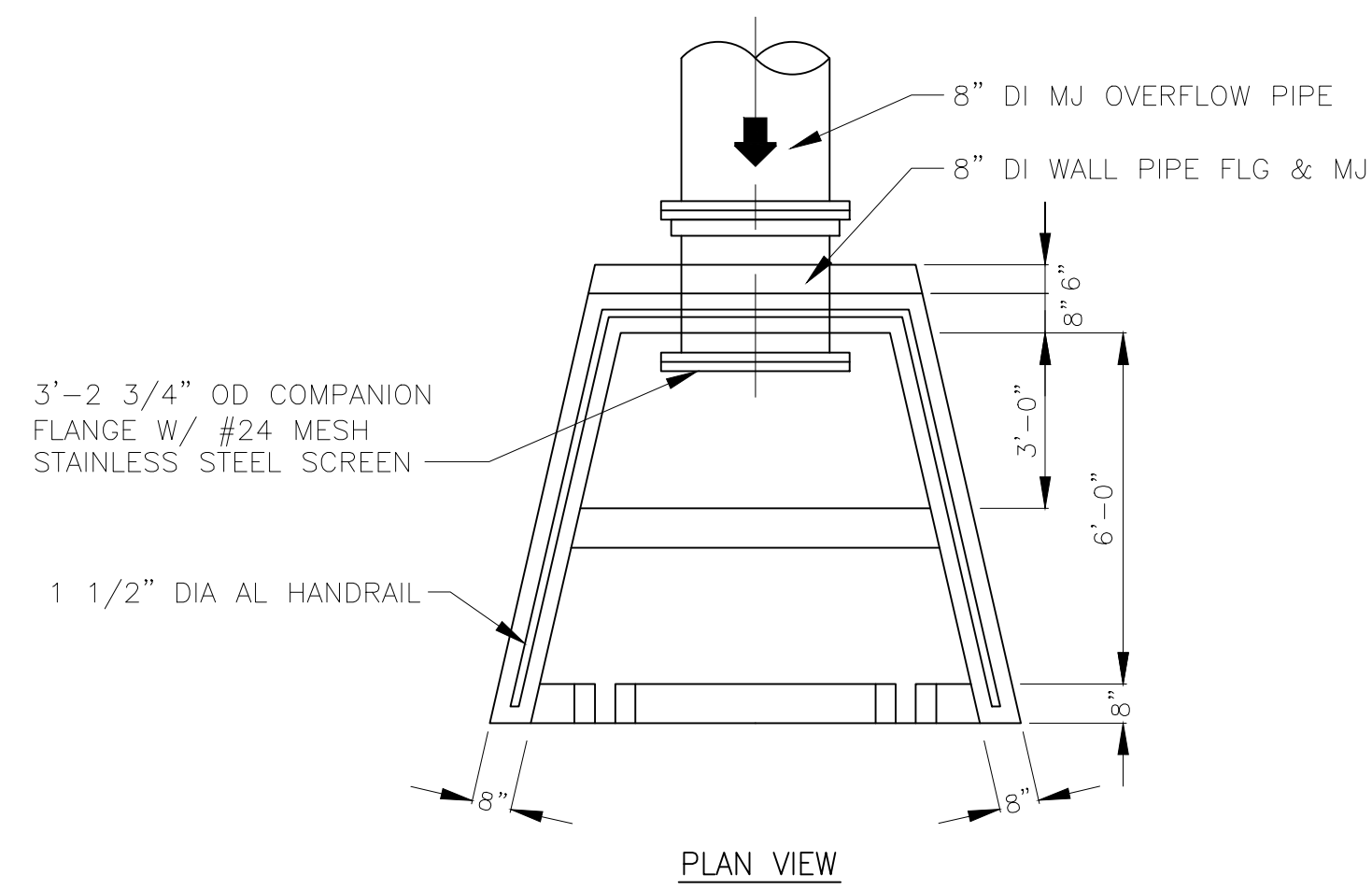
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STANDPIPE STORAGE TANK DETAILS
 NEW KELAT STORAGE TANK
 HARRISON COUNTY WATER ASSOCIATION
 HARRISON COUNTY, KENTUCKY

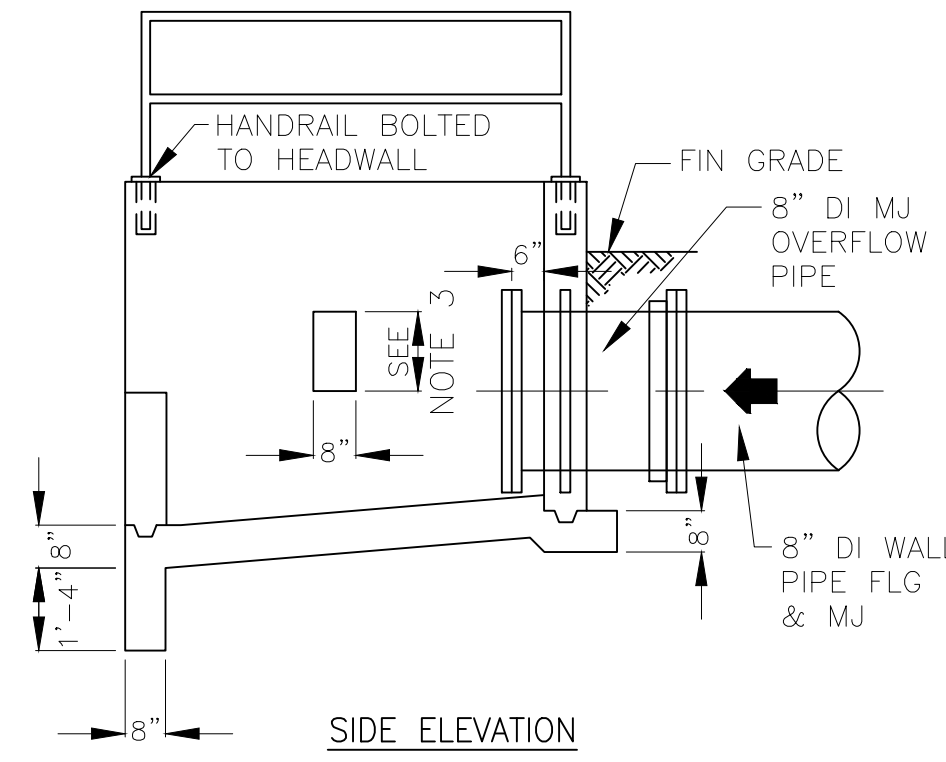
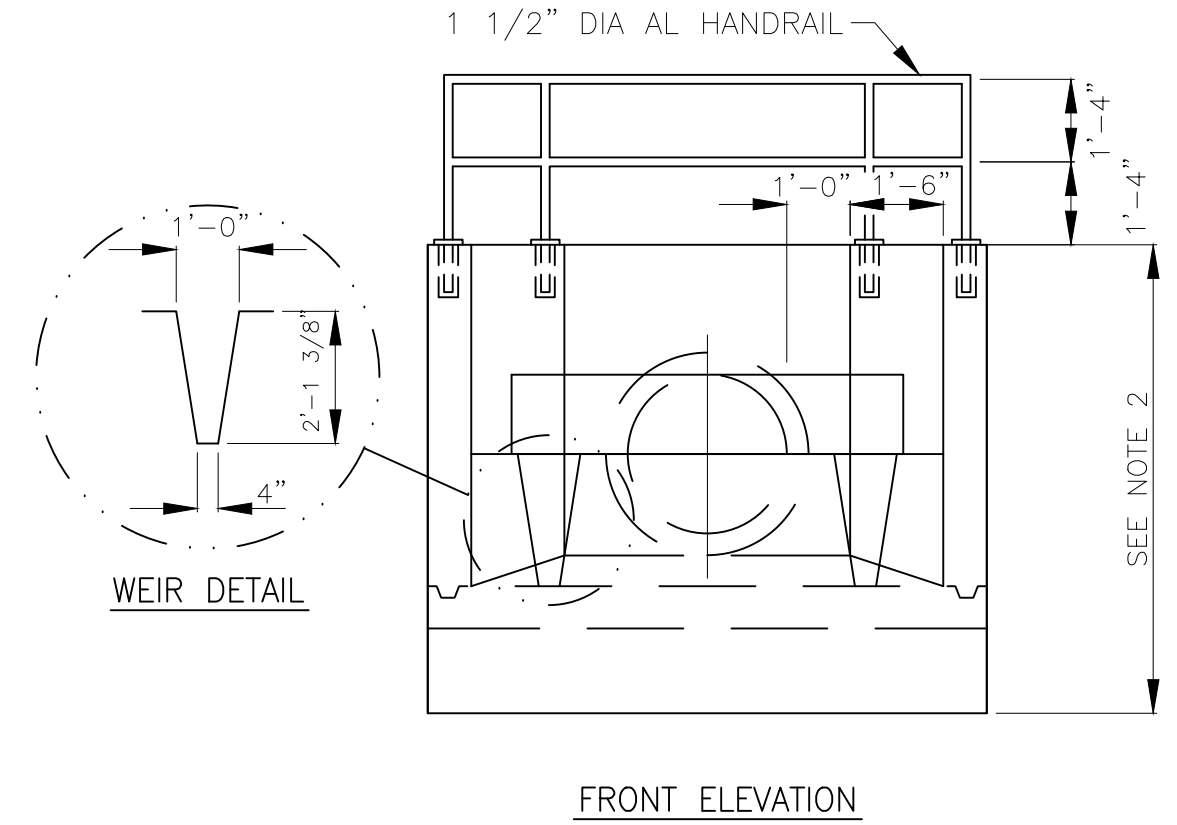
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- NOTES:
- NO. 5 STEEL REINFORCING BARS SHALL BE USED THROUGHOUT ON 12" CENTERS EXCEPT ON BAFFLE WHERE HORIZONTAL REINFORCING WILL BE ON 6" CENTERS.
 - HEIGHT OF WALL SHALL BE DETERMINED BY THE AMOUNT OF FILL BEHIND THE PIPE. TOP OF WALL SHALL BE A MINIMUM OF 18" ABOVE CROWN OF PIPE.
 - TOP OF BAFFLE SHALL BE LEVEL WITH CROWN OF PIPE, AND THE BOTTOM SHALL BE LEVEL WITH CENTERLINE OF PIPE.
 - RIP-RAP BLANKET TO BE THE WIDTH OF THE END SILL AND EXTEND A MINIMUM OF 5' BEYOND THE STILLING BASIN WITH A 24" MINIMUM THICKNESS. RIP-RAP BLANKET TO BE KYTC CLASS II CHANNEL LINING. GEOTEXTILE SHALL BE USED BETWEEN RIP-RAP BLANKET AND GROUND.
 - RIP-RAP BLANKET SHALL EXTEND MINIMUM 24" WIDTH ON SLOPES AT WINGWALL AND TO DOWNSTREAM END OF RIP-RAP BLANKET. RIP-RAP BLANKET TO BE KYTC CLASS II CHANNEL LINING. GEOTEXTILE SHALL BE USED BETWEEN RIP-RAP BLANKET AND GROUND.
 - ALL VERTICAL OR SLOPED EXPOSED SURFACES SHALL HAVE A RUBBED FINISH.
 - ALL EXPOSED FLATWORK SHALL HAVE A HANDFLOATED AND BROOMED FINISH.
 - ALL EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER.
 - ALL WALL REINFORCING STEEL SHALL HAVE A 2" MINIMUM CLEARANCE TO THE CONCRETE FACE ON THE BACKFILL SIDE OF THE STRUCTURE. BASE SLAB REINFORCING STEEL SHALL HAVE A 3" MIN. CLEARANCE BETWEEN BOTTOM OF SLAB AND REINFORCING BARS.



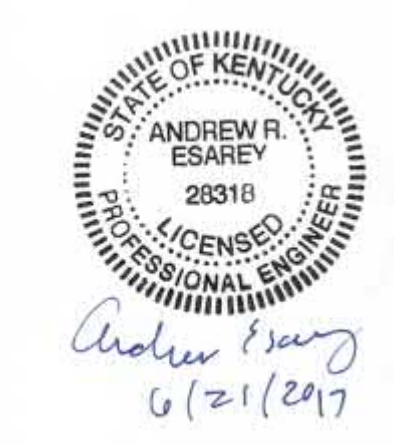
A
6 IMPACT STILLING BASIN DETAIL
NO SCALE

TANK FOUNDATION NOTES:

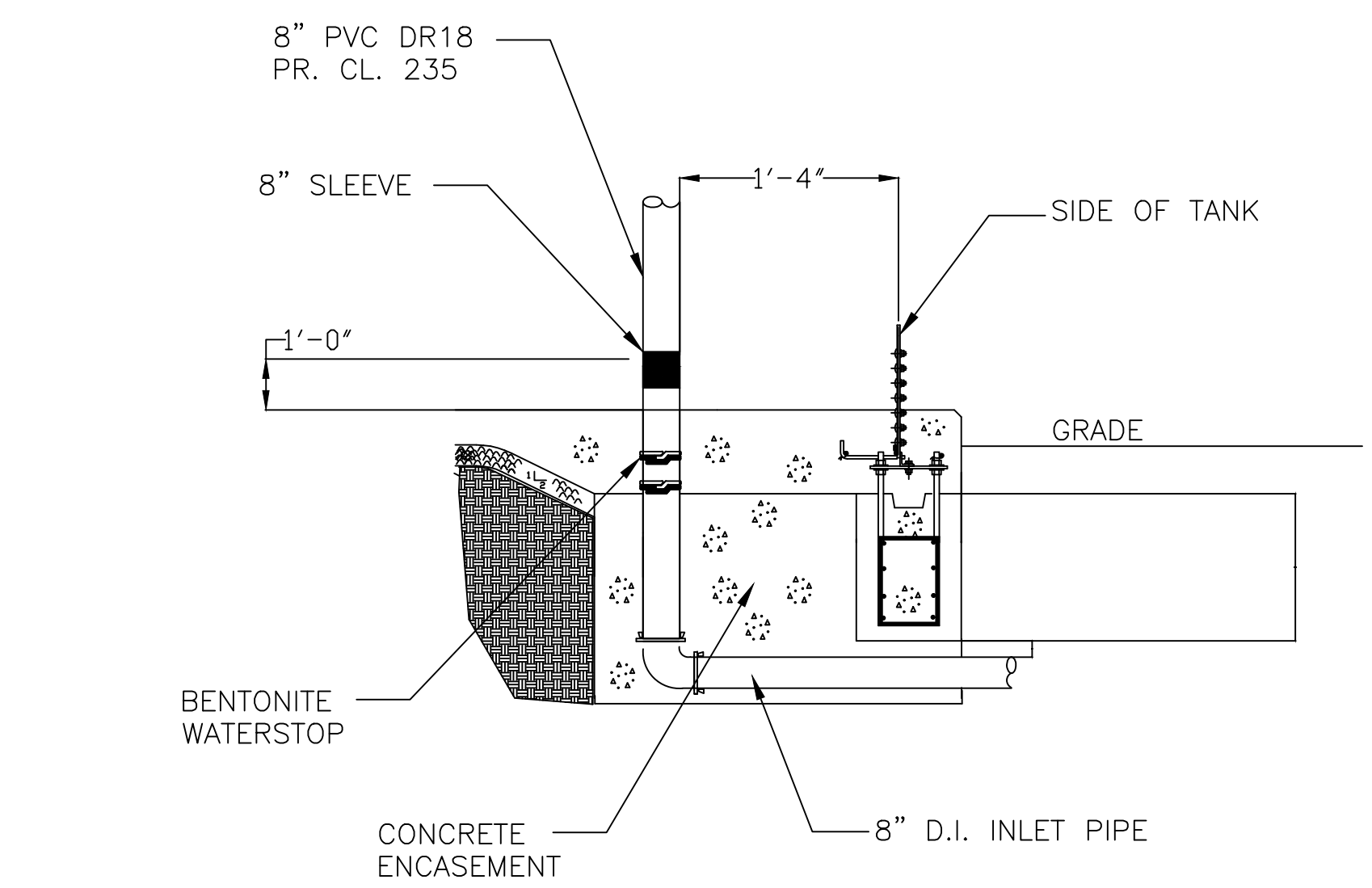
- THE TANK MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE TANK FOUNDATION.
- THE TANK FOUNDATION SHALL BE BASED ON THE GEOTECHNICAL REPORT ASSOCIATED WITH THIS PROJECT. THE REPORT TITLED REPORT OF GEOTECHNICAL EXPLORATION KELAT GROUND STORAGE TANK, HARRISON COUNTY, KY, BY AMERICAN ENGINEERS, INC. AND DATED JULY 2016 SHOULD BE CONSULTED BY THE CONTRACTOR & TANK MANUFACTURER.
- ALL SHOP DRAWINGS SHALL BEAR THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF KENTUCKY. ALL STAMPED DOCUMENTS SHALL INCLUDE THE SIGNATURE OF THE ENGINEER STAMPING THE SUBMITTED DRAWINGS.
- THE CONTRACTOR SHALL INCLUDE DESIGN AND LOAD CALCULATIONS WITH THE TANK FOUNDATION SHOP DRAWING SUBMITTAL.
- THE TANK AND FOUNDATION SHALL BE DESIGNED FOR EARTHQUAKE LOADINGS AS PER THE ASSOCIATED GEOTECHNICAL REPORT RECOMMENDATIONS.
- THE TANK FOUNDATION SHALL BE DESIGNED FOR A NET ALLOWABLE BEARING PRESSURE AS PER THE ASSOCIATED GEOTECHNICAL REPORT RECOMMENDATIONS.
- ALL CONCRETE UTILIZED FOR THE TANK FOUNDATION SHALL HAVE A MINIMUM OF 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- ALL REINFORCING STEEL UTILIZED FOR THE TANK FOUNDATION SHALL CONFORM TO GRADE 60.
- ALL EXCAVATION IS UNCLASSIFIED. COMPENSATION FOR ALL EXCAVATION SHALL BE INCLUDED IN THE LUMP SUM BID.

TANK GENERAL NOTES:

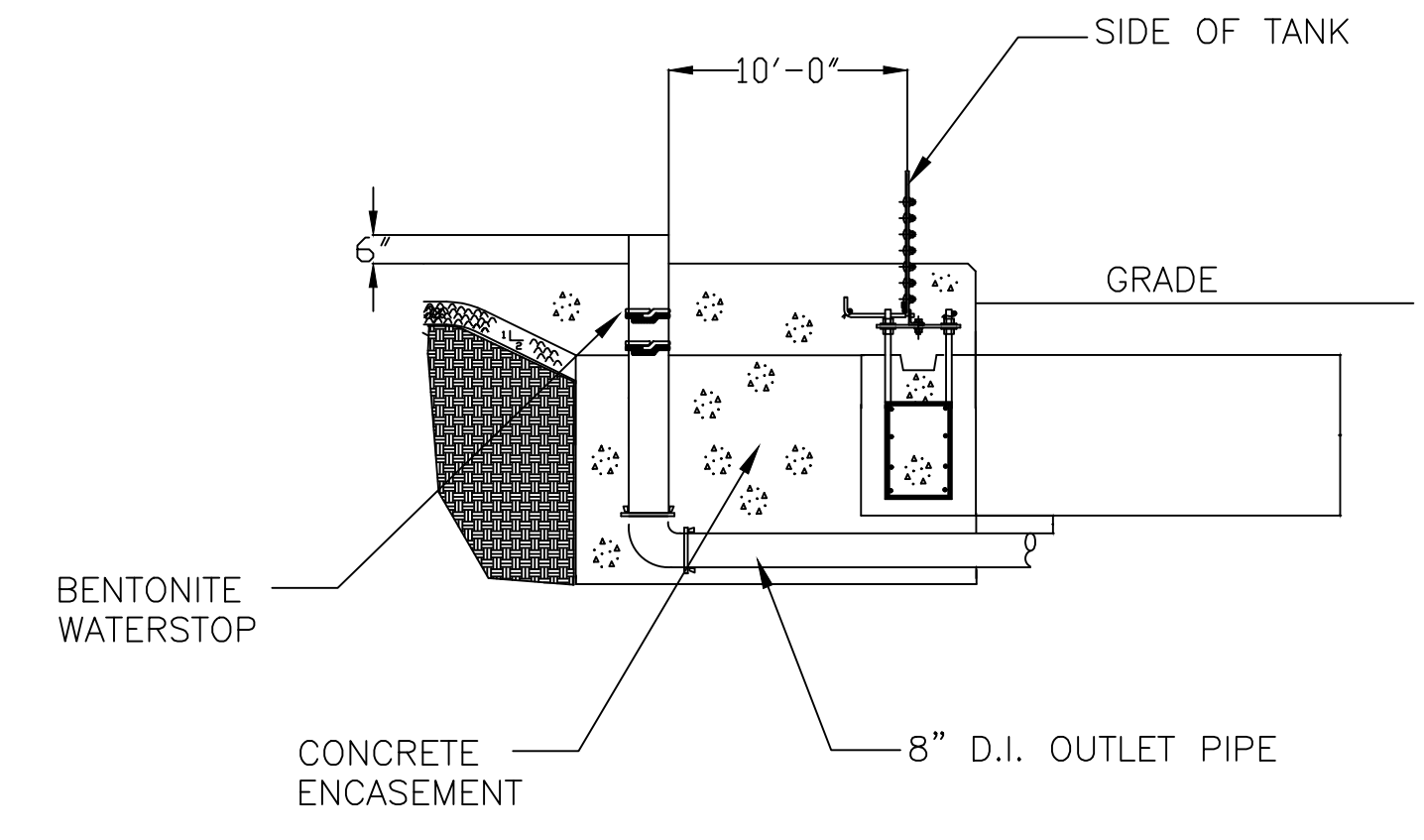
- ANCHOR BOLT SIZE, STRENGTH, MATERIAL, PLACEMENT PROJECTION, EMBEDMENT, ETC. SHALL BE IN STRICT ACCORDANCE WITH THE TANK MANUFACTURER'S REQUIREMENTS.
- ALL PIPING SHALL BE RESTRAINED AS NECESSARY TO PREVENT ANY AND ALL MOVEMENT RESULTING FROM SYSTEM OPERATION. ALL PIPING SHALL BE SUPPORTED AS PER INDUSTRY STANDARD PRACTICE AND/OR THE SPECIFICATIONS WITH CORRECTLY SIZED HANGERS AND/OR SUPPORTS.
- REFER TO THE TANK SITE PLAN FOR ACTUAL ORIENTATION OF THE TANK, PIPING AND APPURTENANCES. THE DETAILS ON SOME SHEETS ARE SCHEMATIC ONLY AND DO NOT NECESSARILY INDICATE ALL ITEMS IN THEIR CORRECT LOCATIONAL RELATIONSHIP.



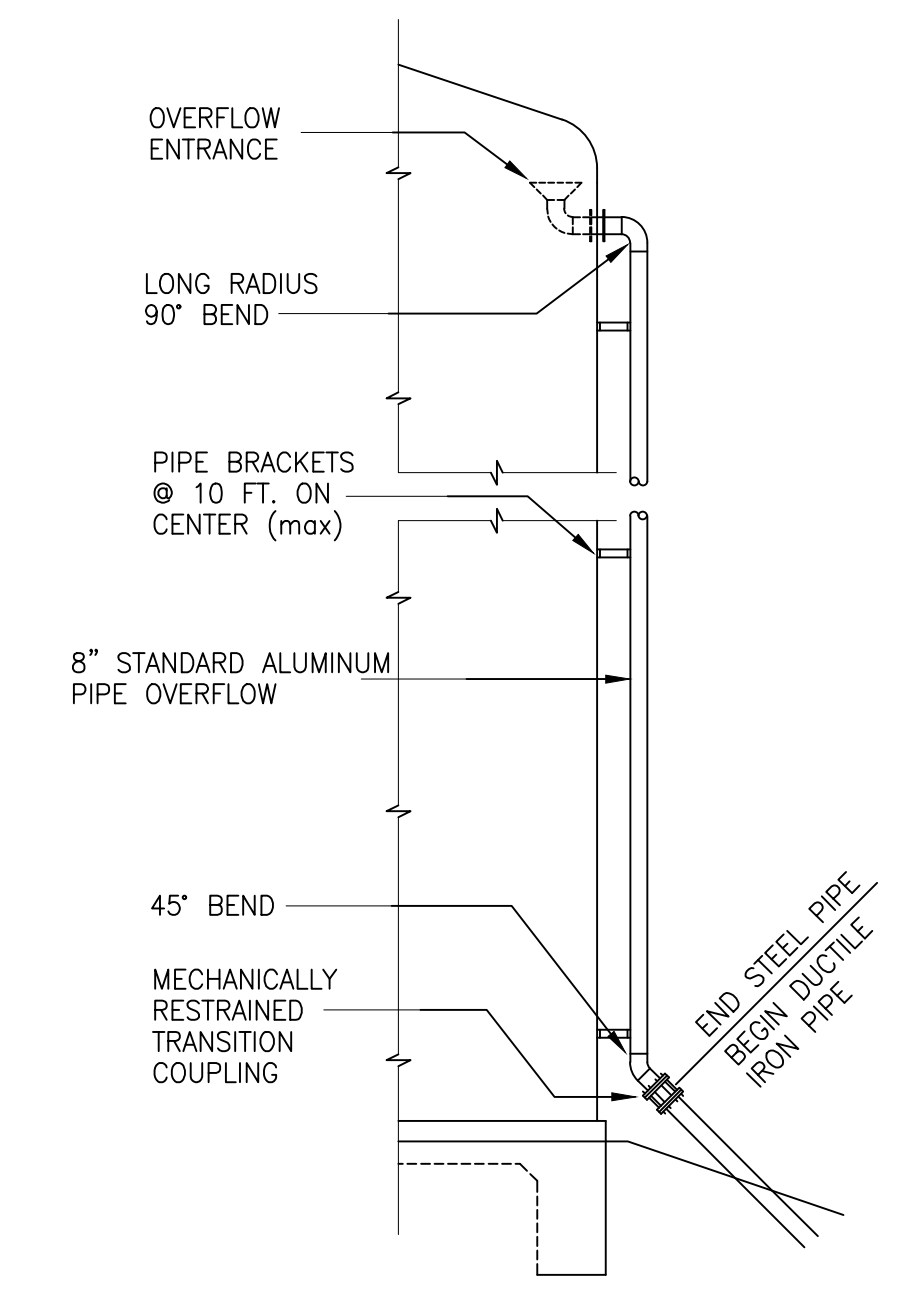
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B
6 STANDPIPE STORAGE TANK INLET PIPING DETAIL
NO SCALE



C
6 STANDPIPE STORAGE TANK OULET PIPING DETAIL
NO SCALE



D
6 EXTERIOR OVERFLOW PIPE DETAIL
NO SCALE

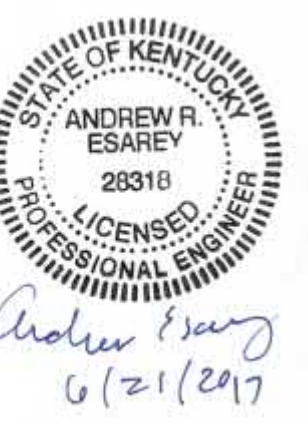
STANDARD DETAILS

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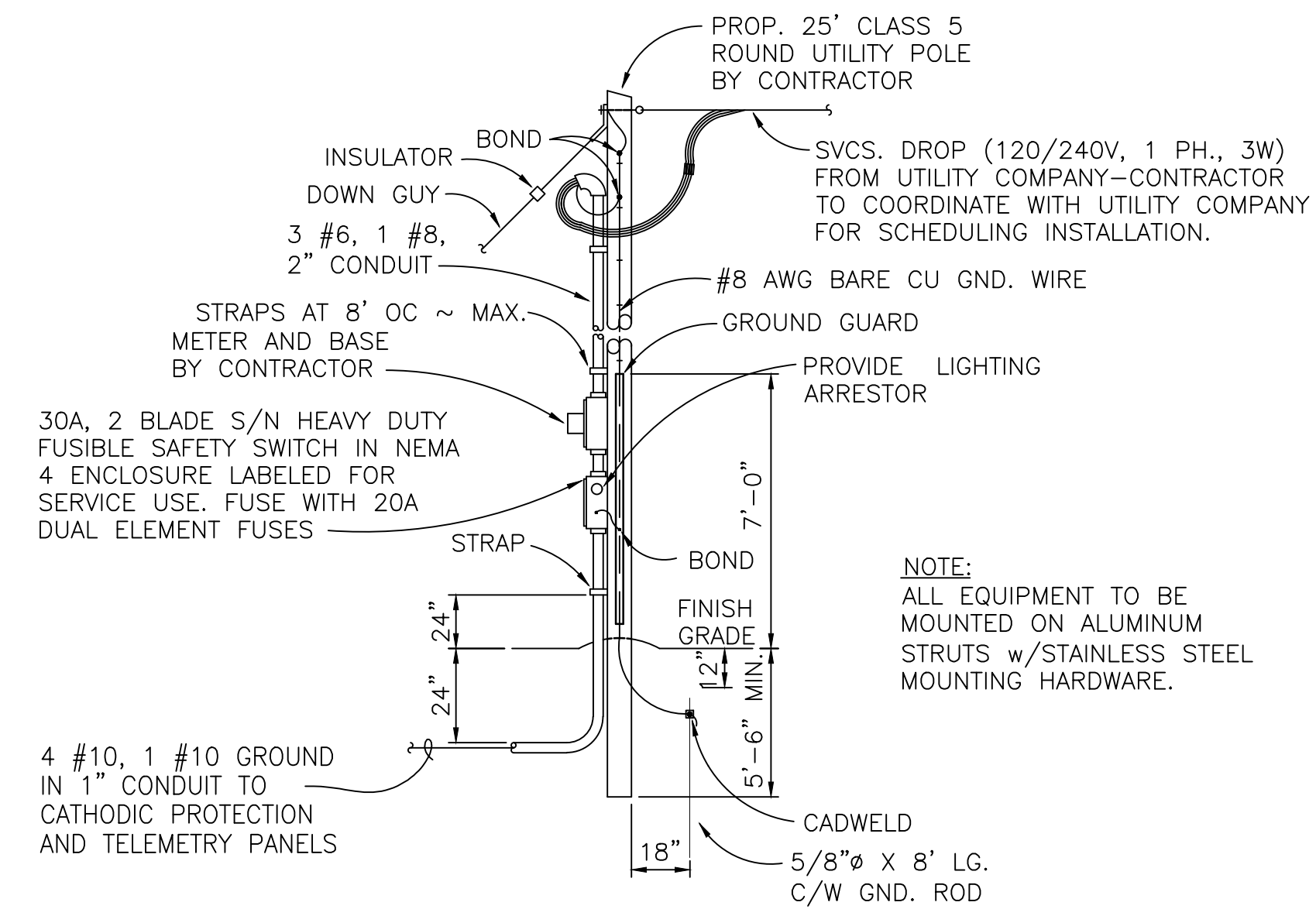
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SHEET
6



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A
7
 SERVICE POLE DETAIL
 NO SCALE

STANDARD DETAILS

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