

US 231 ELEVATED WATER TANK CONTRACT 02 - WATER TANK

FOR THE
ALLEN COUNTY WATER DISTRICT
330 NEW GALLATIN ROAD
SCOTTSVILLE, KY 42164

Chairman - Wayne Jackson

AUGUST 2019

BOARD MEMBERS

Jeff Powell

Darce Tabor

Robin York

Joe Young

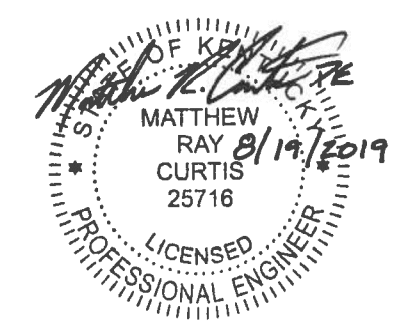
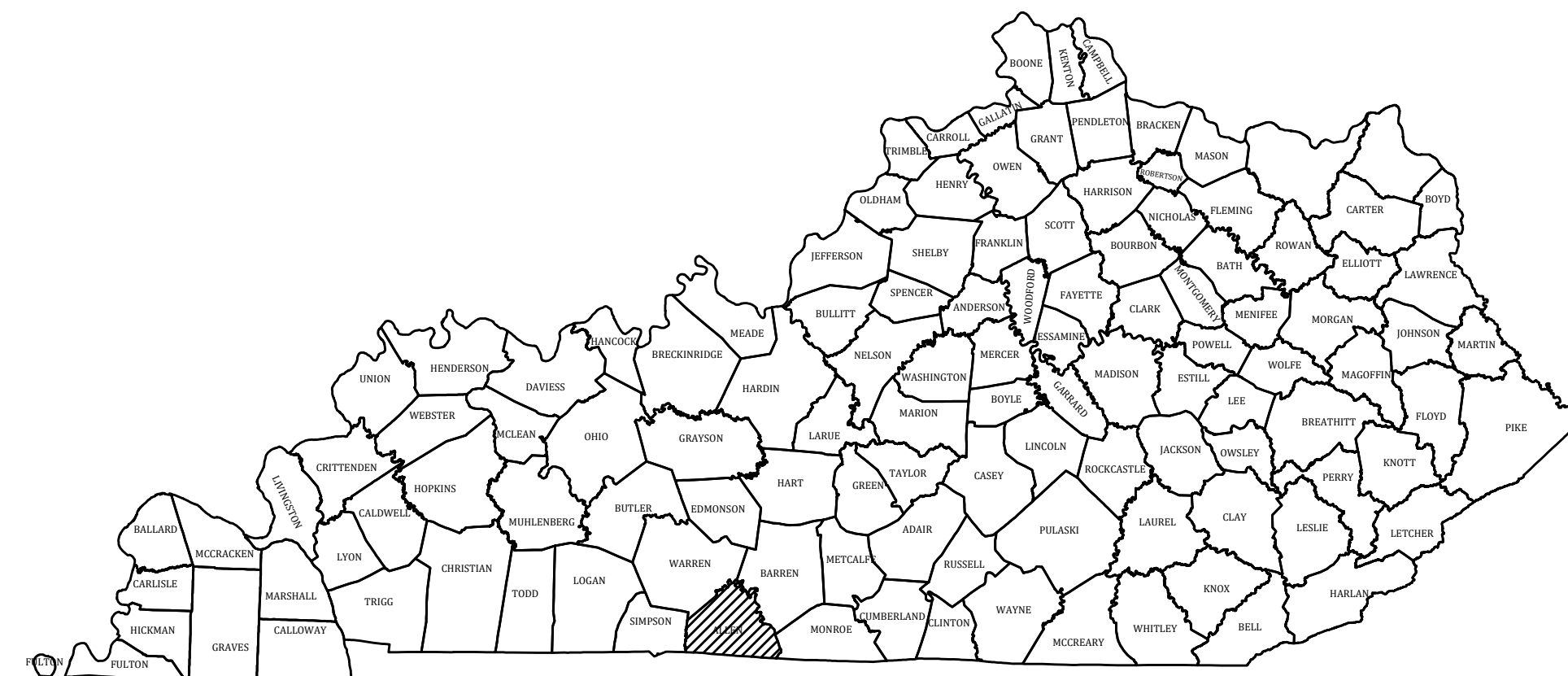
Josh Reynolds, Manager

DeAnn Marquez, Office Manager

PREPARED BY:



222 East Main Street, Ste. 1 • Georgetown, KY 40324



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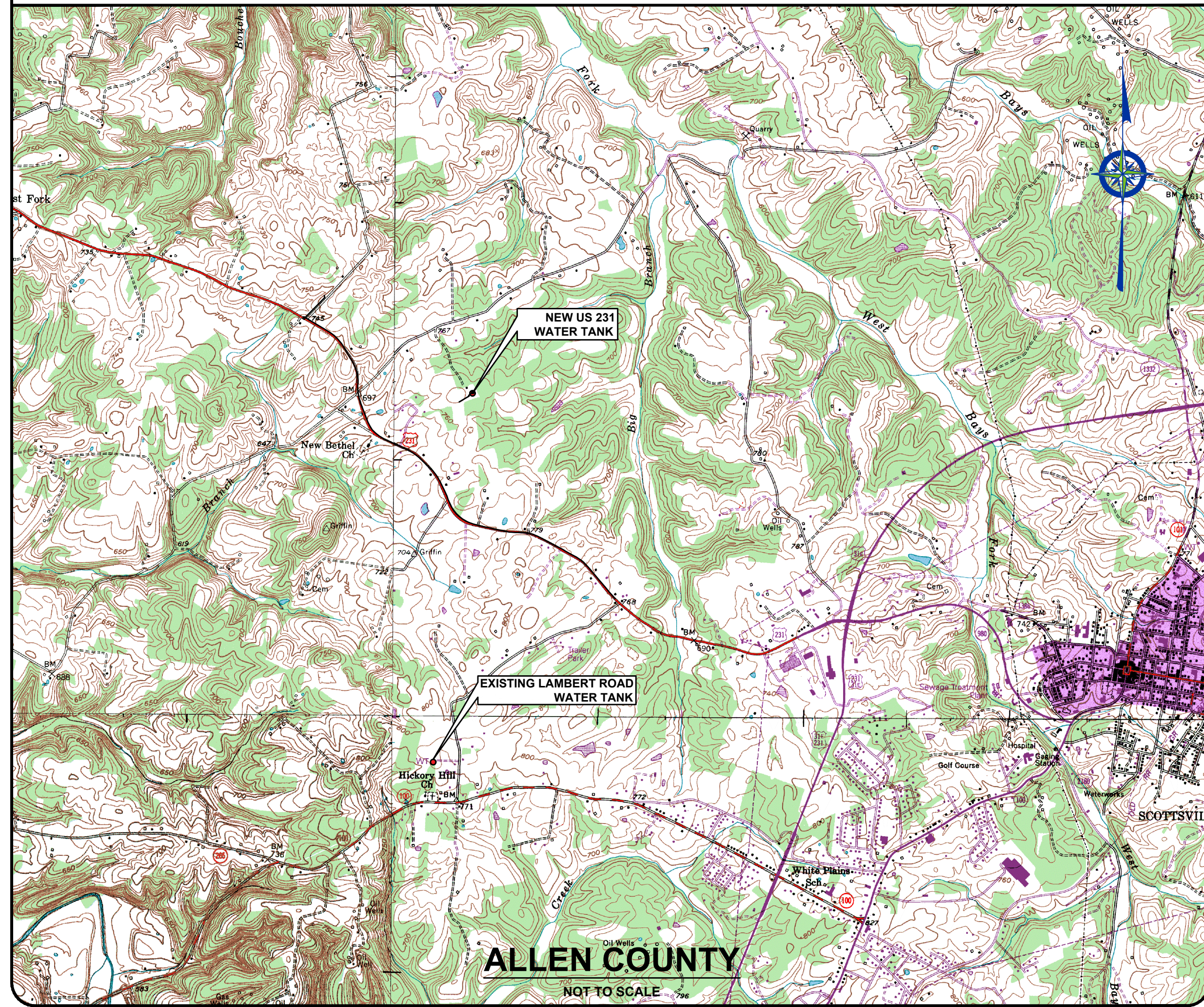
PROJECT NO. 17023

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B:\PROJECTS\Allen County Water District\17023 US 231 Elevation Tank\DWG\Contract 02 - US 231 Tank\17023-02-01.dwg BE 8/20/19 10:50:01 AM

PROJECT MAP



GENERAL NOTES

- DIMENSIONS OF EXISTING STRUCTURES, EQUIPMENT, ETC. SHALL BE FIELD CONFIRMED BY THE CONTRACTOR. WHERE CRITICAL DIMENSIONS FOR INSTALLATION OF PROPOSED EQUIPMENT ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL CONFIRM THESE DIMENSIONS FOR ACTUAL EQUIPMENT FURNISHED. ALL KNOWN DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB ANY EXISTING UTILITY WHETHER SHOWN ON PLANS OR NOT. ANY UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING HIS CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.
- THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.
- THE CONTRACTOR MUST CONTACT ALL UTILITY OWNERS AND HAVE THEM FIELD LOCATE THEIR EXISTING LINES PRIOR TO ANY CONSTRUCTION ACTIVITY.
- EFFORTS HAVE BEEN MADE TO INDICATE ACCURATE LOCATIONS OF SOME EXISTING STRUCTURES, PIPING AND UTILITIES. HOWEVER THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OTHER EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN INFORMATION DEPICTED BY THE CONSTRUCTION DRAWINGS AND ACTUAL FIELD CONDITIONS WHICH WOULD SIGNIFICANTLY ALTER THE DESIGN INTENT OF THE CONSTRUCTION DRAWINGS PRIOR TO COMMENCING HIS CONSTRUCTION OPERATIONS. DIMENSIONS OF EXISTING STRUCTURES AND/OR SITE RESTRICTIONS ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND CONFIRM ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES AND TOPOGRAPHY IN THE FIELD NECESSARY FOR HIS CONSTRUCTION OPERATION.
- THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB OR DAMAGE ANY EXISTING UTILITY OR STRUCTURE NOT SCHEDULED FOR DEMOLITION WHETHER DEPICTED OR NOT IN THE CONSTRUCTION DRAWINGS. ANY DAMAGE TO THE AFORE MENTIONED ITEMS CAUSED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO BEING DAMAGED.
- THE CONTRACTOR SHALL CONTACT AND OBTAIN THE PERMISSION OF EXISTING UTILITY OWNERS 48 HOURS (MIN.) PRIOR TO ANY CONSTRUCTION ACTIVITY INTERRUPTING OPERATION OF SAID UTILITY.
- UNLESS OTHERWISE NOTED, ALL BURIED PIPES SHALL HAVE 36" (MIN.) COVER AS MEASURED FROM FINISHED GRADE TO THE OUTSIDE SURFACE OF THE PIPE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE 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 ADDED COST TO THE OWNER.

CONSTRUCTION IN KTC RIGHT-OF-WAY

- WATER MAIN/SEWER MAINS TO BE CONSTRUCTED WITHIN THE KENTUCKY TRANSPORTATION CABINET RIGHT-OF-WAY:

TRENCHES SHALL BE OF A DEPTH SUFFICIENT TO PROVIDE A MINIMUM COVER OF 42" FROM THE EXISTING GROUND SURFACE TO THE TOP OF THE PIPE AND BE LOCATED APPROXIMATELY AS SHOWN UNLESS OTHERWISE NOTED. SEE INDIVIDUAL SHEETS FOR DETAILS.
- ALL BORES UNDER STATE HIGHWAYS RIGHT-OF-WAY:

SHALL BE A MINIMUM OF 42" DEPTH UNDER BOTTOM OF DITCH LINE TO TOP OF THE PROPOSED BORE AND/OR CASING PIPE ON BOTH SIDES OF THE HIGHWAY.
- ROCK BLASTING:

THERE SHALL BE NO BLASTING WITHIN STATE RIGHT-OF-WAY WITHOUT WRITTEN CONSENT FROM THE KENTUCKY TRANSPORTATION CABINET.
- PROTECTION OF EXISTING PAVING:

WATER MAINS SHALL BE INSTALLED FIVE (5) FEET FROM THE EDGE OF PAVEMENT WHERE APPLICABLE. CARE SHALL BE TAKEN BY THE CONTRACTOR TO AVOID CRACKING OR BREAKING THE BITUMINOUS PAVING. ALL DAMAGE TO THE EXISTING PAVING CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER. PAVING PROTECTION SHALL BE ACCOMPLISHED BY THE USE OF RUBBER AND STREET PADDED MACHINERY OR OTHER APPROVED EQUIPMENT WELL SUITED FOR THIS TYPE OF CONSTRUCTION.
- BANK AND DITCH PROTECTION EXCAVATION:

DURING CONSTRUCTION, ALL EMBANKMENTS, REFILLS AND EXCAVATIONS SHALL BE KEPT SHAPED AND DRAINED BY THE CONTRACTOR. DITCHES AND DRAINS ALONG THE HIGHWAYS SHALL BE MAINTAINED IN SUCH A MANNER AS TO DRAIN EFFECTIVELY AT ALL TIMES. PERMANENT APPURTENANCES (GATE VALVE BOXES, HYDRANTS, ETC.) SHALL NOT BE LOCATED IN DITCH LINES. PERMANENT SURFACE APPURTENANCES SHALL BE LOCATED AT THE BACK OF DITCH (MINIMUM) OR TOE OF SLOPE.
- PRIVATE ENTRANCE ROAD:

ALL ROADWAYS AND DRIVEWAYS WITHIN THE WORK LIMITS OF STATE RIGHT-OF-WAYS SHALL BE REFILLED TO THE NATURAL SURFACE OF THE GROUND WITH APPROVED MATERIAL. THE MATERIAL SHALL BE PLACED AND COMPACTED TO A SMOOTHNESS SUITABLE FOR TRAFFIC. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR MAINTAINING THESE ROADWAYS UNTIL THE RESTORATION IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL NOTE THAT ALL PRIVATE BUSINESSES AND RESIDENCES ALONG THE ROUTE OF THE PROPOSED WATER MAIN/SEWER LINE CONSTRUCTION MUST HAVE ACCESS TO THEIR PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
- PROTECTION OF EXISTING DRAINAGE CULVERTS:

ALL LOCATIONS WHERE THE PROPOSED WATER MAIN/SEWER LINE IS PARALLEL WITH OR CROSSING AN EXISTING STORM SEWER, THE COST OF RELAYING EXISTING CULVERT PIPES OR THE EXTRA DEPTH REQUIRED TO AVOID THE EXISTING CULVERT IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND IS NOT A PAY ITEM.
- SOME EXISTING UTILITIES HAVE NOT BEEN SHOWN:

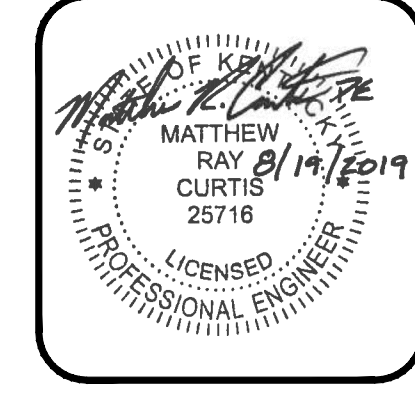
THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE REPRESENTATIVES OF THE VARIOUS UTILITIES WHEN WORKING NEAR ANY EXISTING UTILITY. NO ADDITIONAL PAYMENT TO THE CONTRACTOR WILL BE MADE FOR EXTRA DEPTH REQUIRED TO AVOID ANY EXISTING UTILITY.

NO.	DATE	BY	REVISIONS	
			DESCRIPTION	DATE

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
PROJECT MAP, EXISTING UTILITIES,
LEGEND & DRAWING INDEX



PROJECT #: 17023
 DATE: AUGUST 2019
 PROJECT MGR: MRC
 DRAWN BY: MRC
 CHECKED BY: PBR



BID SET FOR CONSTRUCTION

EXISTING UTILITIES

WATER
ALLEN COUNTY WATER DISTRICT
PO BOX 58
SCOTTSDVILLE, KY 42164
GARRY WADE, MANAGER
(270) 622-3040 OFFICE

GAS
Tri-County Electric
620 Veterans Memorial Hwy
PO BOX 479
SCOTTSDVILLE, KY 42164
(270) 237-4418

ELECTRIC
Tri-County Electric
620 Veterans Memorial Hwy
SCOTTSDVILLE, KY 42164
(270) 237-4418

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.

TELEPHONE & CABLE
NCTC
1630 Bowling Green Rd
PO BOX 98
SCOTTSDVILLE, KY 42164
(270) 622-7500

DRAWING INDEX

SHT. NO.	DESCRIPTION:
--	COVER
01	PROJECT MAP, EXISTING UTILITIES, LEGEND and DRAWING INDEX
02	NEW US 231 ELEVATED TANK & LAMBERT RD STANDPIPE
03	DEMOLITION
04	ELEVATED WATER TANK
05	US 231 ELEVATED TANK CONTROL VALVE & VAULT - SITE PLAN & DETAILS
06	STANDARD DETAILS - ELEVATED WATER STORAGE TANK
07	STANDARD DETAILS - PIPE LINES
08	STANDARD DETAILS - WATER LINES
09	STANDARD DETAILS - EROSION CONTROL

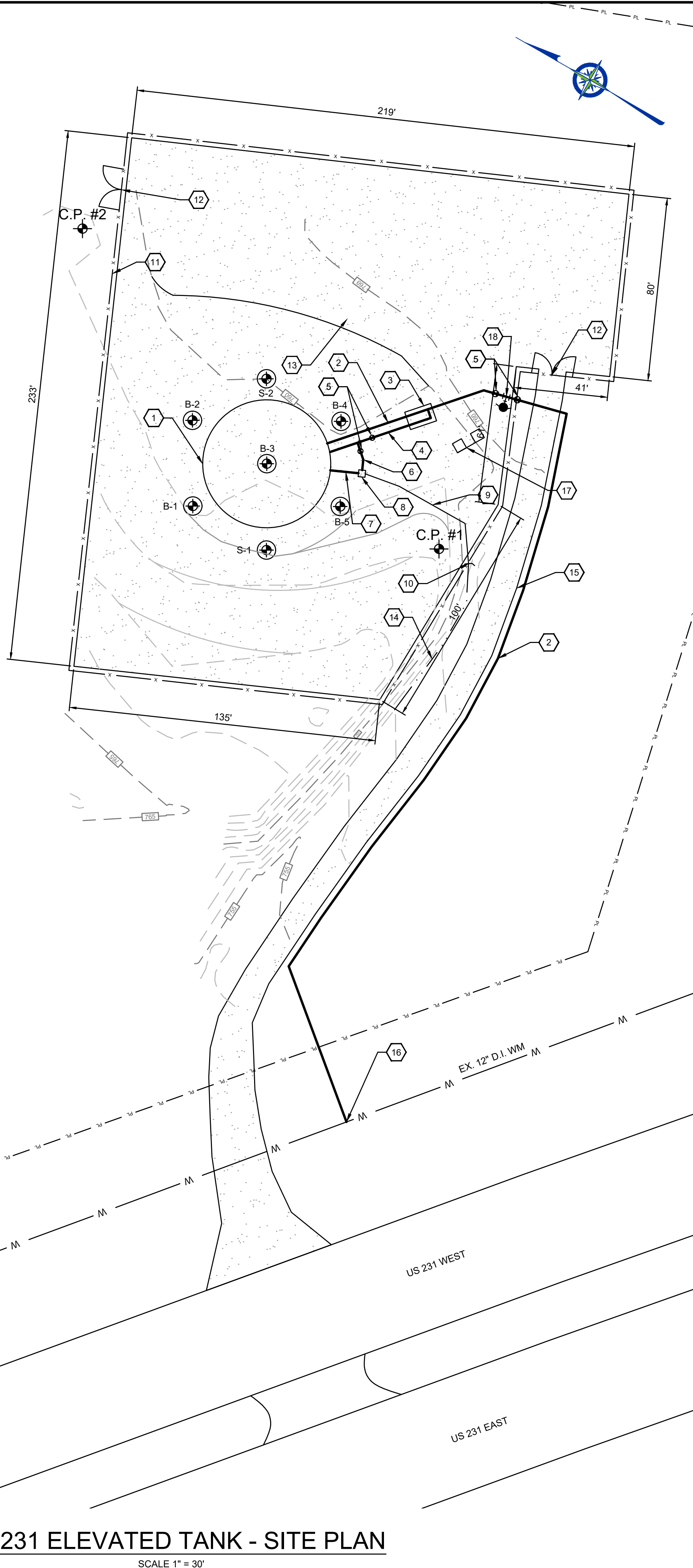
LEGEND

	NEW WATER MAIN		NEW FLUSHING HYDRANT
	EXISTING WATER MAIN		EXISTING FLUSHING HYDRANT
	EXISTING SANITARY SEWER		EXISTING WATER METER
	EXISTING GAS MAIN		NEW GATE VALVE & BOX
	EXISTING FORCE MAIN		EXISTING MANHOLE
	NEW STEEL CASING		
	EXISTING CULVERT		

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 BE 8/20/19 FROM BLUEGRASS ENGINEERING, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER.
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REFERENCE NOTES:

1. 500,000 GALLON ELEVATED TANK
2. 12" D.I. WATER LINE - INFLUENT
3. VALVE VAULT, SEE SHEET 04
4. 12" D.I. WATER LINE - EFFLUENT
5. 12" GATE VALVE & BOX
6. 12" D.I. DRAIN LINE - EFFLUENT
7. 12" D.I. OVERFLOW LINE
8. DROP INLET, SEE SHEET 05
9. 18" HDPE DRAIN LINE
10. CONCRETE HEADWALL, SEE SHEET 05
11. SECURITY FENCE, SEE SHEET 05
12. 18' WIDE VEHICLE GATE
13. PARKING AREA, SEE SHEET 05
14. DITCH
15. 12' ACCESS ROAD, SEE SHEET 05
16. TIE INTO EXISTING 12" D.I. WATER LINE
17. TELEMETRY & ELECTRIC BOX, SEE SHEET 06
18. FLUSH HYDRANT ASSEMBLY, TYPE 1



US 231 ELEVATED TANK - SITE PLAN

SCALE 1" = 30'



US 231 ELEVATED TANK - AERIAL PLAN

SCALE 1" = 30'



ELEVATION VIEW - LAMBERT RD TANK

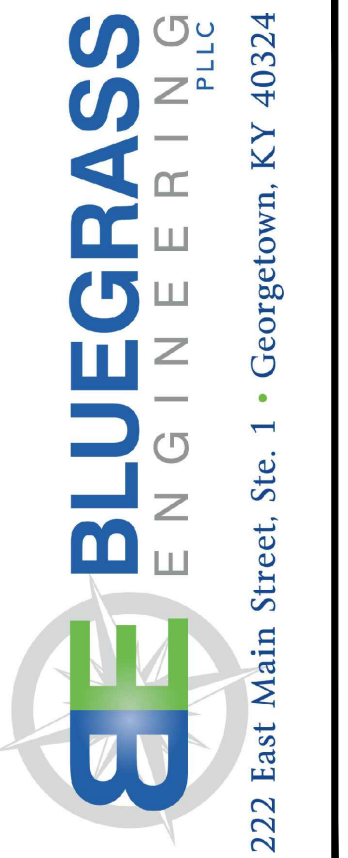
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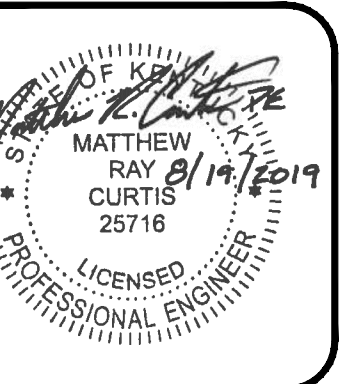
1. EXISTING 170,000 GALLON GLASS LINED STANDPIPE SHALL BE DEMOLISHED, INCLUDING VALVE VAULT. FOUNDATION SHALL BE REMOVED A MINIMUM OF 2' BELOW GRADE.
2. CONTRACTOR SHALL GIVE OWNER 72 HOURS PRIOR NOTICE TO COMMENCE DEMOLITION ACTIVITIES. TANK MUST BE DRAINED IN PROPER FASHION AS TO NOT FLOOD PROPERTIES ADJACENT TO TANK SITE PRIOR TO DEMOLITION.
3. NO DEMOLITION ACTIVITIES SHALL BE ALLOWED PRIOR TO THE NEW US 231 EAST TANK BEING FULLY OPERATIONAL INCLUDING PROPER COMMUNICATION OF SCADA SYSTEM.
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, VALVE BOX, RTU, HYDRANT ASSEMBLY, 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 SPECIFICATIONS.

NO.	DATE	REVISIONS	BY

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
NEW US 231 ELEVATED TANK & LAMBERT
ROAD STANDPIPE DEMOLITION



PROJECT #:	17023
DATE:	AUGUST 2019
PROJECT MGR:	MRC
DRAWN BY:	MRC
CHECKED BY:	PBR

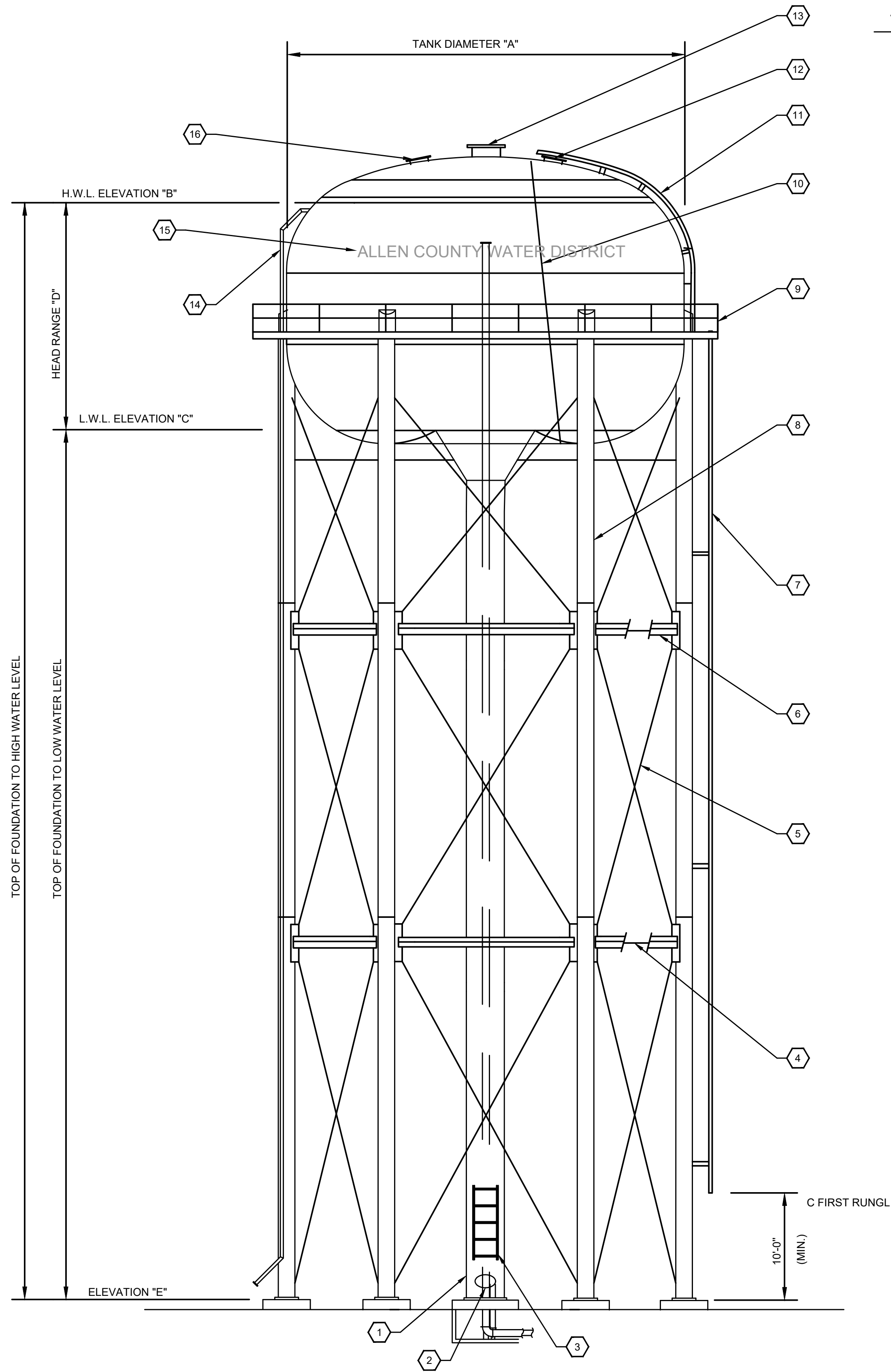


BID SET FOR CONSTRUCTION

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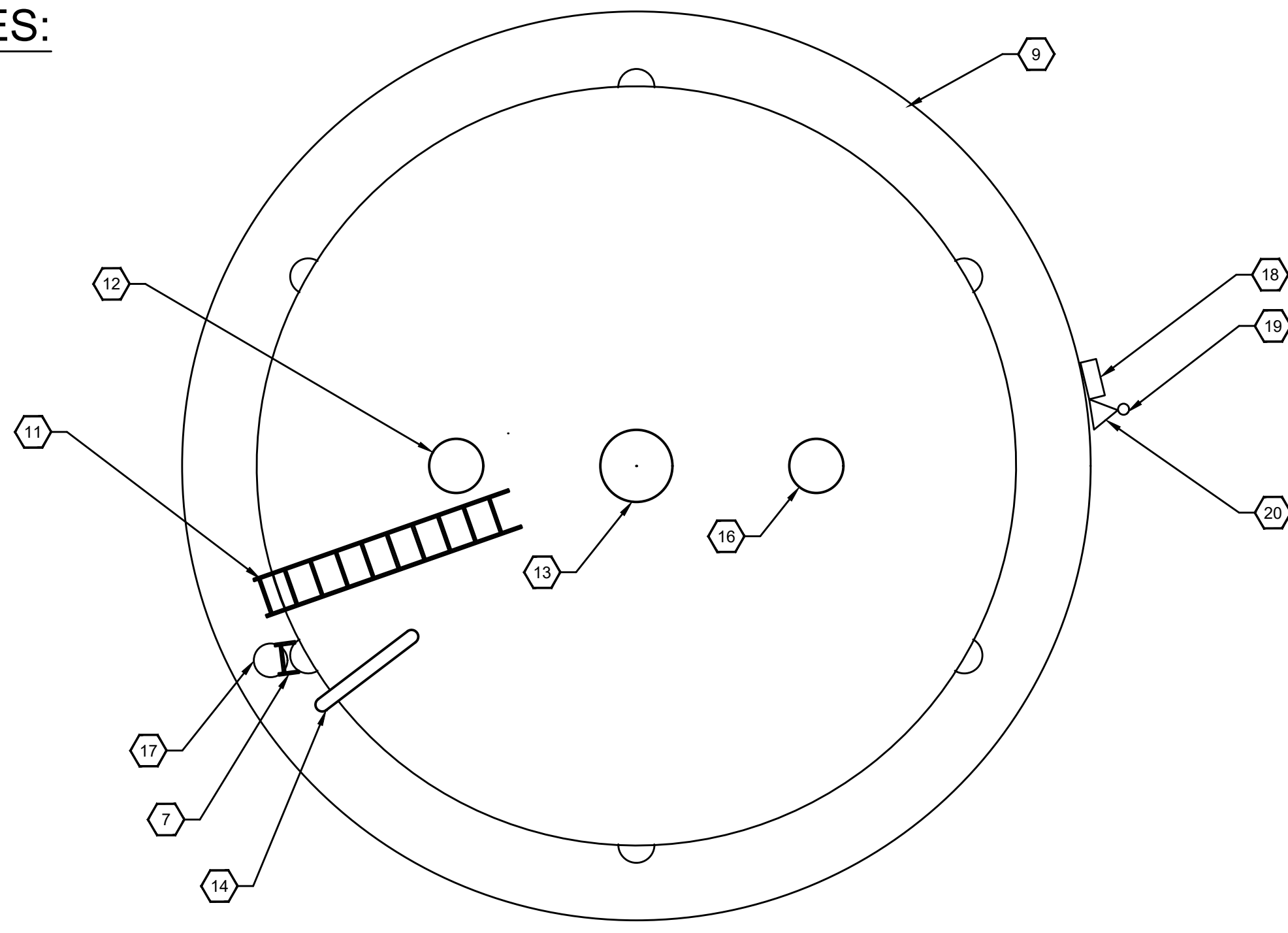


ELEVATED TANK - ELEVATION
NOT TO SCALE

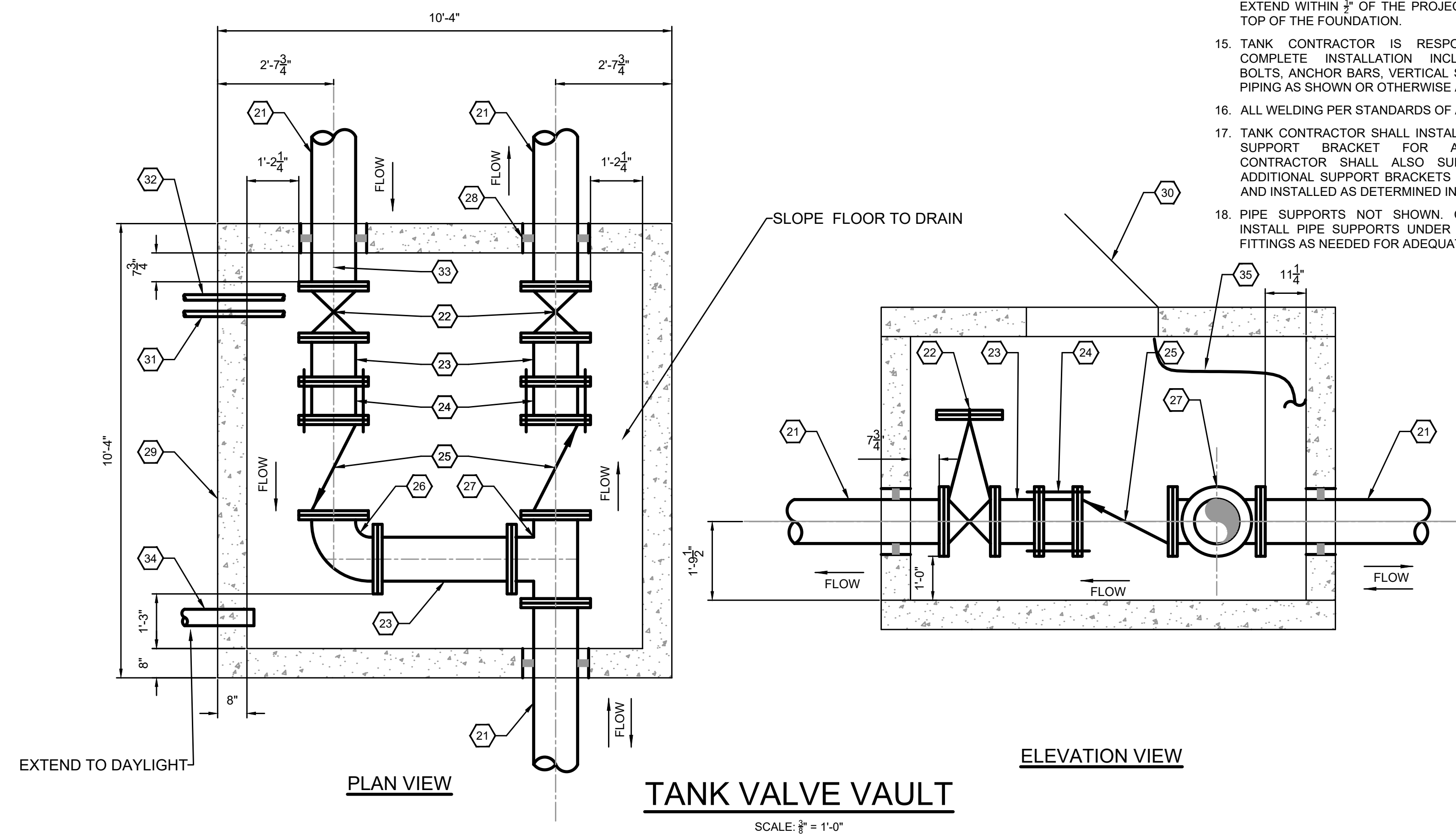
TANK DIMENSIONS		
"X"	DESCRIPTION	MEASUREMENT
A	TANK DIAMETER	56'-0"
B	H.W.L. ELEVATION	930.00'
C	L.W.L. ELEVATION	900.00'
D	HEAD RANGE	30'-0"
E	FOUNDATION ELEVATION	762.00'

REFERENCE NOTES:

1. RISER
2. RISER MANHOLE
3. RISER LADDER, SEE GENERAL NOTES.
4. STAY RODS
5. BRACE RODS
6. STRUTS
7. TOWER LADDER W. OSHA COMPLAINT SAFETY CLIMB DEVICE
8. TOWER LEG, SEE GENERAL NOTES.
9. BALCONY W. HANDRAIL.
10. INSIDE TANK LADDER
11. ROOF LADDER W. OSHA COMPLAINT SAFETY CLIMB DEVICE.
12. ROOF MANHOLE, SEE SHEET 05
13. VENT, SEE SHEET 05
14. OVERFLOW
15. SIGNAGE REQUIRED SEE SPECIFICATION
16. EXHAUST FAN MANHOLE
17. BALCONY MANHOLE
18. NEMA 4X JUNCTION BOX NEXT TO MOUNTING BRACKET FOR TELEMETRY ANTENNA
19. 1 1/2" CONDUIT FOR TELEMETRY PANEL
20. ANTENNA MOUNTING BRACKET 12" D.I.P. P.E. X FLG'D
21. 12" D.I. PIPE FLG'D X P.E.
22. 12" D.I. FLG'D GATE VALVE W. HANDWHEEL
23. 12" D.I. FLG'D SPOOL PIPE
24. 12" D.I. DISMANTLING JOINT DJ400 BY ROMAC
25. 12" D.I. FLG'D CHECK VALVE
26. 12" D.I. FLG'D 90° FITTING
27. 12" D.I. FLG'D TEE
28. PREFORMED OPENING TO BE GROUTED WITH NON-SHRINKING GROUT
29. PRECAST CONCRETE VAULT
30. 36" X 36" ALUM. HATCH W. VAULT LADDER
31. 1 1/2" PVC CONDUIT FOR ELECTRIC
32. 1 1/2" PVC CONDUIT FOR TELEMETRY
33. PRESSURE TRANSDUCER FOR SCADA CONTROLS
34. 6" PVC SDR-35 VAULT DRAIN LINE
35. 1 1/2" PVC PIPING - ROUTE HATCH DRAIN TO VAULT DRAIN



ELEVATED TANK - PLAN
NOT TO SCALE



PLAN VIEW

TANK VALVE VAULT
SCALE: 1/8" = 1'-0"

ELEVATION VIEW

GENERAL NOTES

1. ACCESSORIES SHOWN, MAY BE ROTATED FOR CLARITY. ALL ACCESSORIES SHALL BE FIELD LOCATED PRIOR TO INSTALLATION & APPROVED BY OWNER & ENGINEER.
2. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS AND SAFETY CLIMB DEVICES SHALL CONFORM WITH THE CURRENT OSHA STANDARDS.
3. SEE SPECIFICATIONS FOR SHOP & FIELD PAINT REQUIREMENTS.
4. STERILIZE TANK PER SPECIFICATIONS & AWWA C652, LATEST EDITION.
5. NUMBER OF TOWER LEGS PER MANUFACTURER'S STANDARD DESIGN.
6. TANK AND TOWER SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH AWWA D100-05 OR CURRENT REVISIONS & SPECIFICATIONS.
7. TANK CONTRACTOR TO SUBMIT FOR APPROVAL BY THE PROJECT ENGINEER, STRUCTURAL DESIGN PLANS AND CALCULATIONS FOR THE TANK AND FOUNDATION. ANY PROPOSED REVISIONS IN THE SITE PLAN SHOULD ALSO BE INCLUDED. STRUCTURAL PLANS TO BE STAMPED AND SIGNED BY A REGISTERED STRUCTURAL ENGINEER, LICENSED IN THE STATE OF THE OWNER. FOUR (4) SETS TO BE SUBMITTED TO THE PROJECT ENGINEER. THIS SHALL INCLUDE THE SITE CLASS COEFFICIENT FOR SEISMIC DESIGN PER THE KENTUCKY BUILDING CODE.
8. FOR BIDDING PURPOSES, A GEOTECHNICAL REPORT HAS BEEN PROVIDED TO ALL BIDDERS. THE INFORMATION CONTAINED WITHIN THE REPORT ARE NOT INTENDED AS WARRANTIES BUT ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE RECOMMENDED BEARING CAPACITY PROVIDED IN GEOTECHNICAL REPORT SHALL BE VERIFIED BY THE TANK CONTRACTOR & THEIR GEOTECHNICAL ENGINEER &/OR REPORTS. THE TANK CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE TANK FOUNDATION.
9. TANK CONTRACTOR MAY CONDUCT A SECOND GEOTECHNICAL REPORT FOR THE TANK SITE, IF AN ADDITIONAL REPORT IS CONDUCTED. THEN THE TANK CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF THE REPORT TO THE PROJECT ENGINEER.
10. ANY BORING LOGS & RELATED INFORMATION SHOWN ON THE DRAWINGS OR SPECIFICATIONS DEPICT APPROXIMATE SUBSURFACE CONDITIONS AT THE TIME OF DRILLING. SOIL CONDITIONS AT OTHER LOCATIONS MAY DIFFER FROM CONDITIONS OCCURRING AT THE BORING LOCATIONS. THE PASSAGE OF TIME CAN RESULT A CHANGE IN SOIL CONDITIONS AT BORE HOLES.
11. FOUNDATION CONSTRUCTION SHALL COMPLY WITH AWWA 100-05, LATEST EDITION, ACI 318-95, ACI 301-96 & APPLICABLE SECTION OF SPECIFICATIONS & GEOTECHNICAL REPORT(S).
12. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS. REINFORCEMENT SHALL CONFORM TO ASTM A615 GR 60.
13. THE TOP OF PIERS SHALL BE LEVEL, TRUE & AT SAME ELEVATION, UNLESS OTHERWISE NOTED ON PLANS W/ A MAXIMUM DIFFERENTIAL OF +/- 1/4".
14. ANCHOR BOLTS SHALL BE PLACED WITHIN +/- 1/8" OF THE DIMENSIONS SHOWN ON PLANS AT THE TOP OF THE CONCRETE PIER, PLUMB WITHIN 1/4" IN 12" & EXTEND WITHIN 1/2" OF THE PROJECTION ABOVE THE TOP OF THE FOUNDATION.
15. TANK CONTRACTOR IS RESPONSIBLE FOR A COMPLETE INSTALLATION INCLUDING ANCHOR BOLTS, ANCHOR BARS, VERTICAL STEEL PIPE, YARD PIPING AS SHOWN OR OTHERWISE ASSUMED.
16. ALL WELDING PER STANDARDS OF A.W.S.
17. TANK CONTRACTOR SHALL INSTALL ALL CONDUIT & SUPPORT BRACKET FOR ANTENNA. TANK CONTRACTOR SHALL ALSO SUPPLY THREE (3) ADDITIONAL SUPPORT BRACKETS FOR FUTURE USE AND INSTALLED AS DETERMINED IN THE FIELD.
18. PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO INSTALL PIPE SUPPORTS UNDER ALL VALVES AND FITTINGS AS NEEDED FOR ADEQUATE SUPPORT.

NO.	DATE	BY	REVISIONS

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
ELEVATED WATER TANK

BLUEGRASS ENGINEERING, PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #: 17023
DATE: AUGUST 2019
PROJECT MGR: MRC
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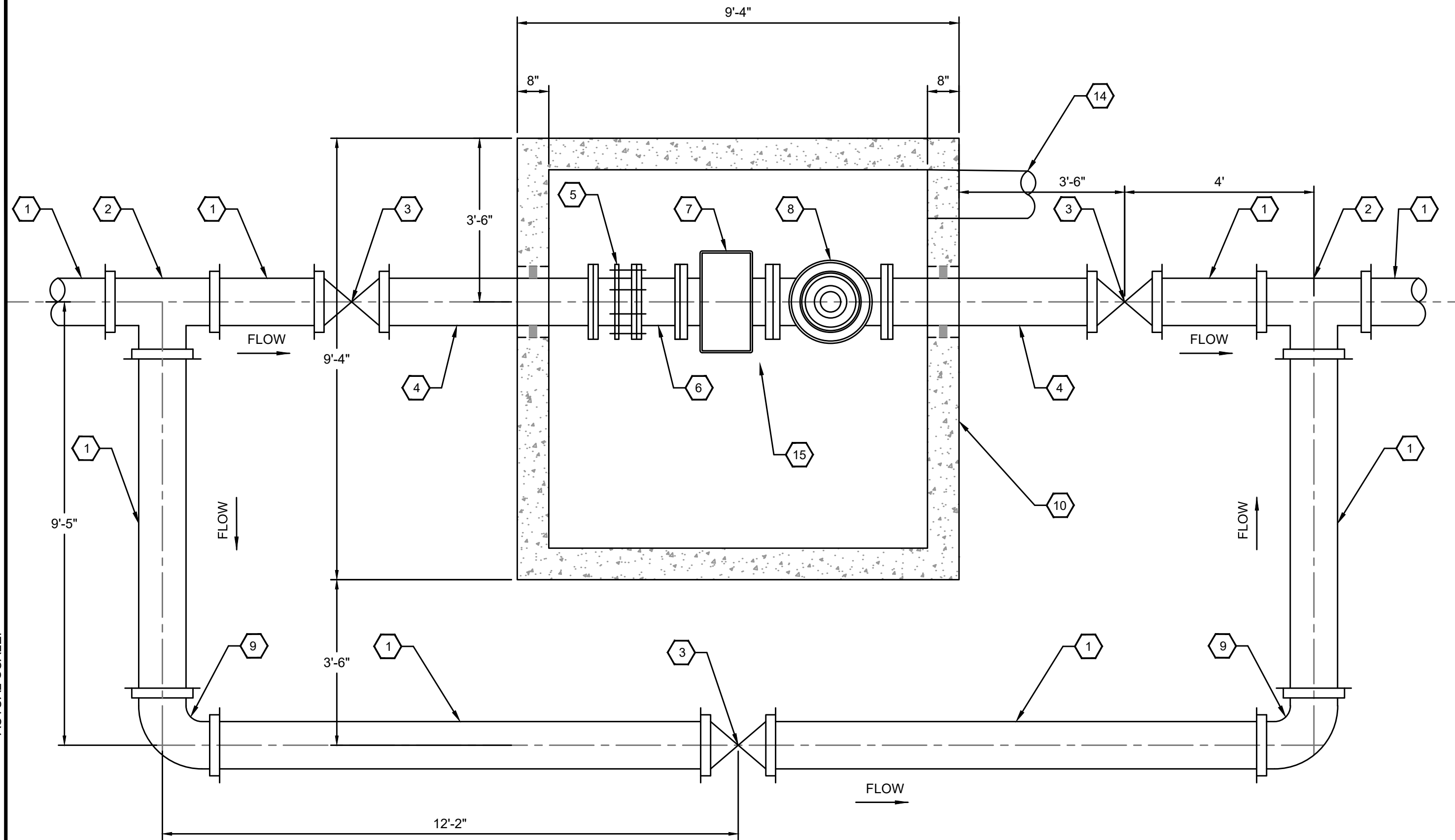
PROFESSIONAL ENGINEER
MATTHEW RAY CURTIS
25718

BID SET FOR CONSTRUCTION

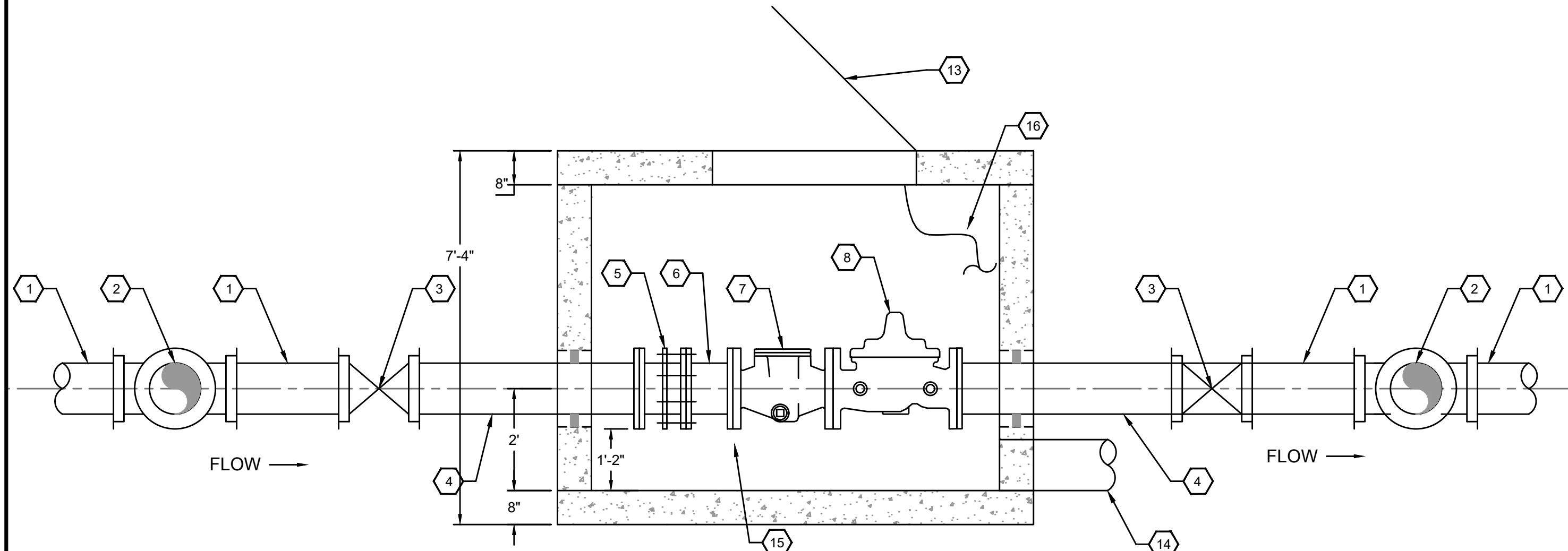
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 BE 8/20/19 FROM BLUEGRASS ENGINEERING, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER.



US 231 TANK CONTROL VALVE - PLAN
 SCALE 1/2" = 1'-0"



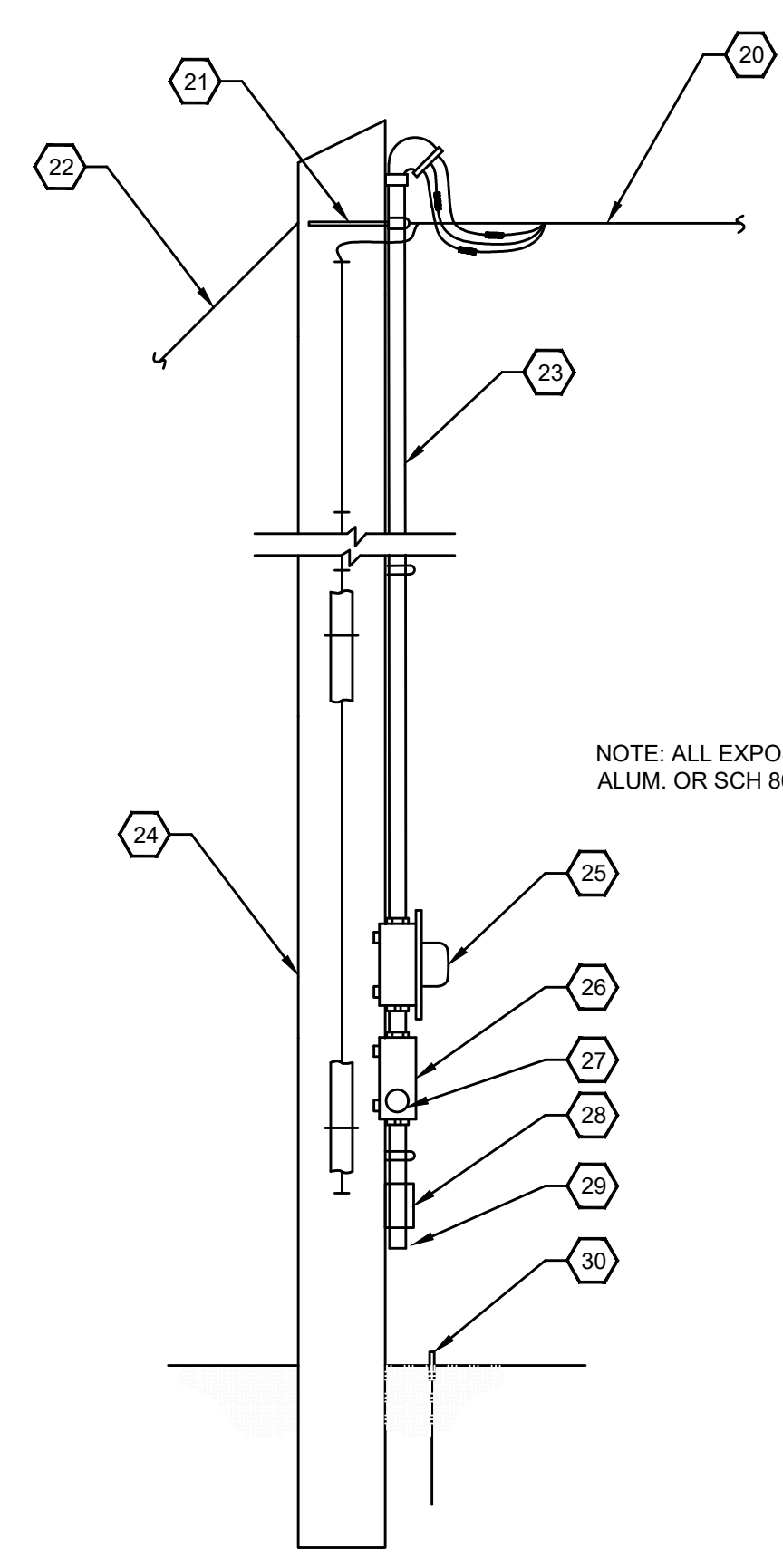
US 231 TANK CONTROL VALVE - SECTION VIEW
 SCALE 1/2" = 1'-0"

REFERENCE NOTES:

1. NEW 12" D.I.P.
2. NEW 12" D.I.M.J. TEE
3. NEW 12" D.I.M.J. GATE VALVE & BOX
4. NEW 12" D.I. PE x FLGD PIPE
5. NEW 12" DISMANTLING JOINT BY ROMAC DJ400
6. NEW 12" D.I. FLGD SPOOL
7. NEW 12" PLATE STRAINER X43H BY CLA-VAL
8. NEW 12" HYTROL VALVE BY CLA-VAL
9. NEW 12" D.I.M.J. 90° FITTING
10. NEW PRECAST CONCRETE VALVE VAULT
11. CONNECT TO EXISTING 12" D.I. WATER LINE
12. TELEMETRY & ELECTRIC BOX, & SEE SHEET
13. 36" x 36" ALUM HATCH W. ALUM. VAULT LADDER
14. 6" PVC SDR-35 VAULT DRAIN LINE DAYLIGHT TO DITCH
15. PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO INSTALL PIPE SUPPORTS UNDER ALL VALVES AND FITTINGS AS NEEDED FOR ADEQUATE SUPPORT.
16. 1 1/2" PVC PIPING - ROUTE HATCH DRAIN TO VAULT DRAIN



US 231 TANK CONTROL VALVE - SITE PLAN
 SCALE 1" = 100'



ELECTRICAL SERVICE POLE - DETAIL
 NOT TO SCALE

REFERENCE NOTES:

20. SERVICE FROM ELECTRICAL UTILITY. CONTRACTOR IS RESPONSIBLE FOR SECURING SERVICE TO SITE OF CONTROL VALVE VAULT & TANK SITE, AS PART OF CONTRACT PRICING.
21. ANCHORS SHALL BE PROVIDED BY CONTRACTOR.
22. GUY WIRE BY CONTRACTOR
23. CONDUIT & WEATHERHEAD BY CONTRACTOR
24. PROVIDE 30' SOUTHERN PINE POLE, PRESSURE TREATED & ROOFED BEFORE TREATMENT
25. UTILITY METER FURNISHED BY ELECTRIC COMPANY
26. PROVIDE LOAD CENTER 60 AMP / 2 POLE MAIN BREAKER, 120/240 v 1Ø - w/ LISTED AS SERVICE ENTRANCE EQUIPMENT W. FOUR 20a/1Ø BRANCH BREAKERS, ONE FOR RTU, ONE FOR CONTROL VALVE, ONE SPARE & ONE FOR RECEPTACLE. PANEL SHALL BE NEMA 3R ENCLOSURE.
27. PROVIDE TVSS SURGE PROTECTOR
28. GFCI RECEPTACLE
29. CONDUIT TO RTU & VALVE VAULT
30. PROVIDE GROUND ROD W. GROUNDING CONDUCTOR TO PANEL.

NO.	DATE	BY

**US 231 ELEVATED WATER TANK
 CONTRACT 02 - WATER TANK**

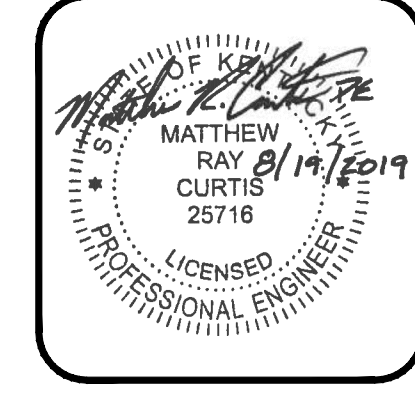
**US 231 ELEVATED TANK CONTROL VALVE
 & VAULT - SITE PLAN & DETAILS**

BLUEGRASS ENGINEERING, PLLC

EB

222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	17023
DATE:	AUGUST 2019
PROJECT MGR:	MRC
DRAWN BY:	MRC
CHECKED BY:	PBR

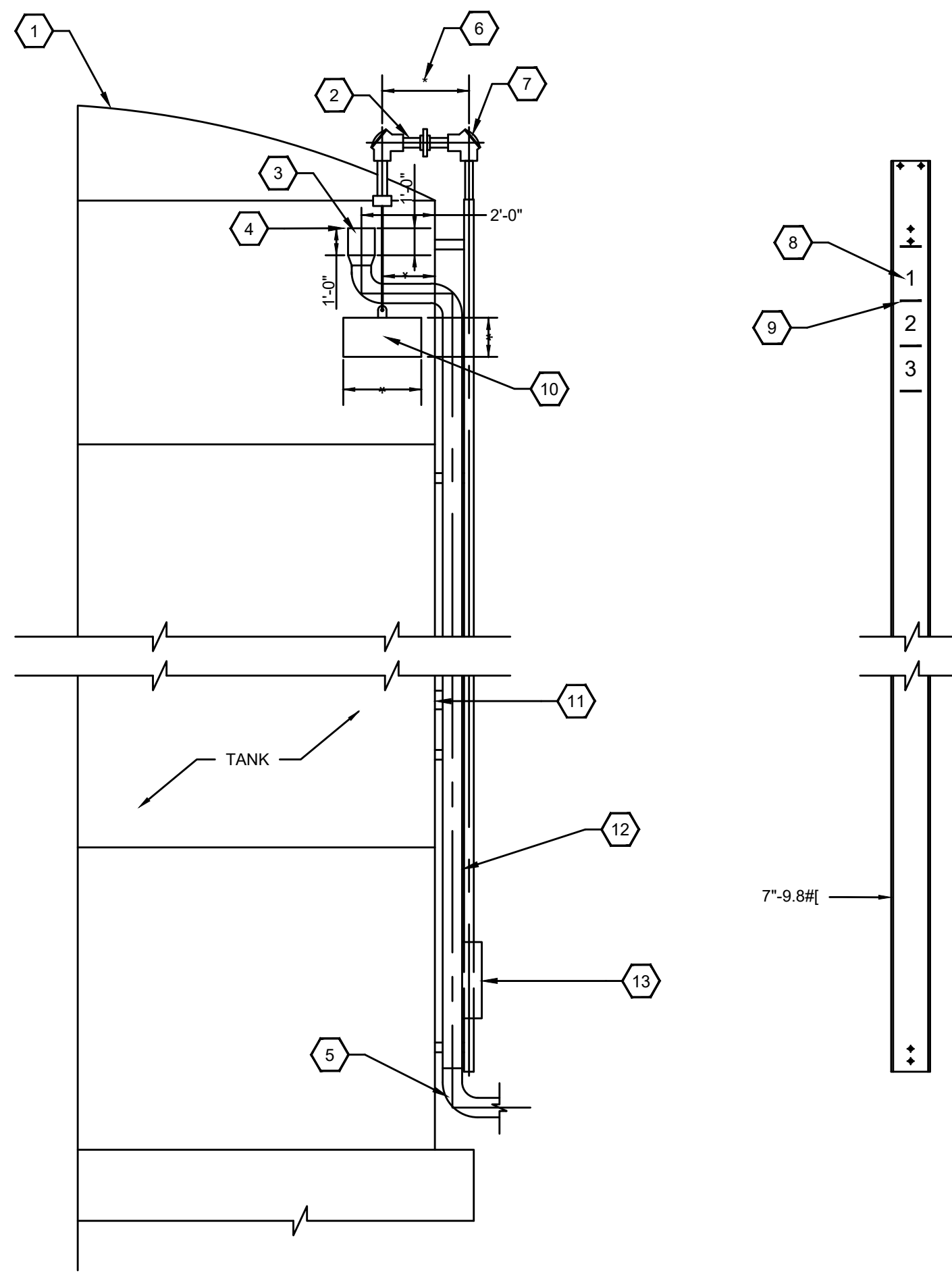


BID SET FOR CONSTRUCTION

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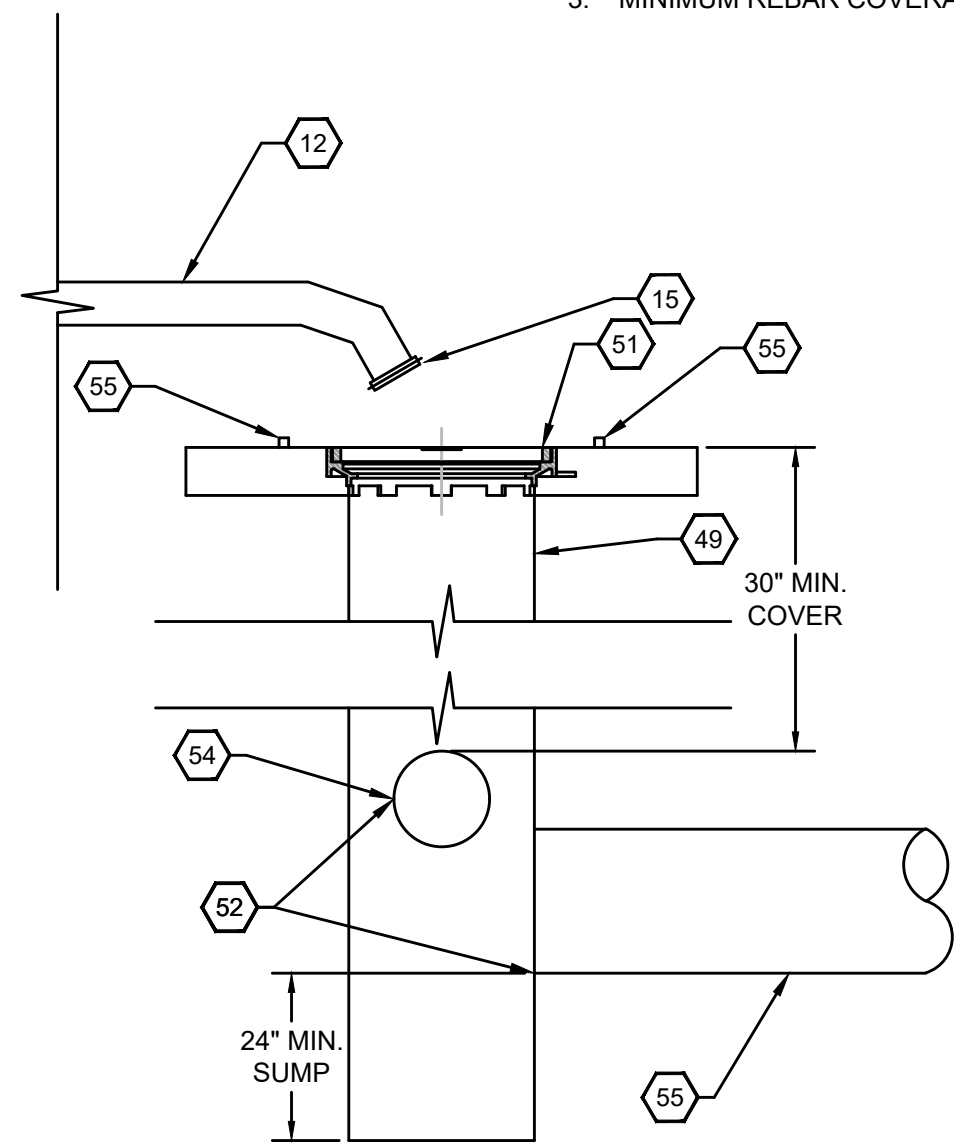
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BE 8/20/19 FROM BLUEGRASS ENGINEERING, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER. BE 8/20/19 FROM BLUEGRASS ENGINEERING, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER.

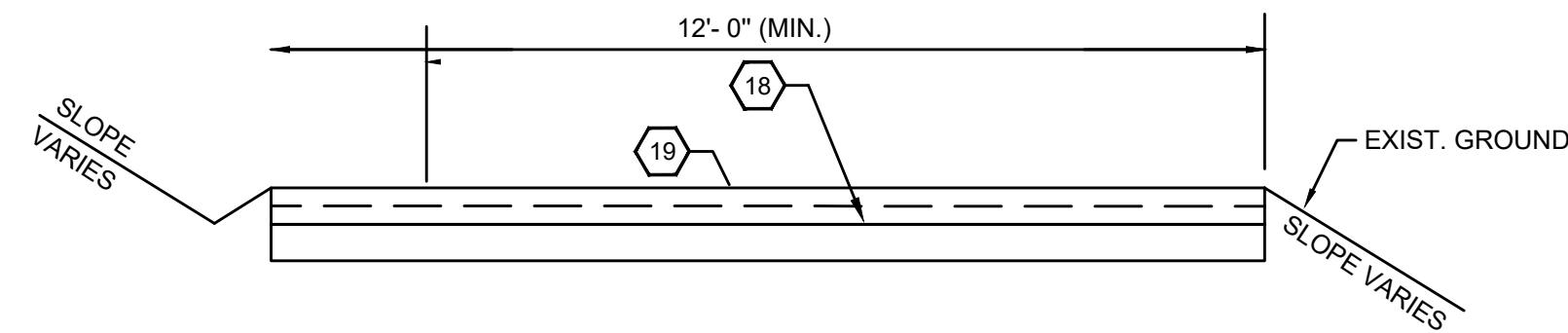


OVERFLOW and WATER LEVEL INDICATOR
NOT TO SCALE

- DETAIL NOTES:**
1. CONCRETE SHALL BE RATED @ 3500 PSI AT 28 DAYS.
 2. BOX SHALL BE REINFORCED W/#4 (GRADE 40) AT 12" CENTER/CENTER BOTH WAYS.
 3. MINIMUM REBAR COVERAGE = 2-INCHES.

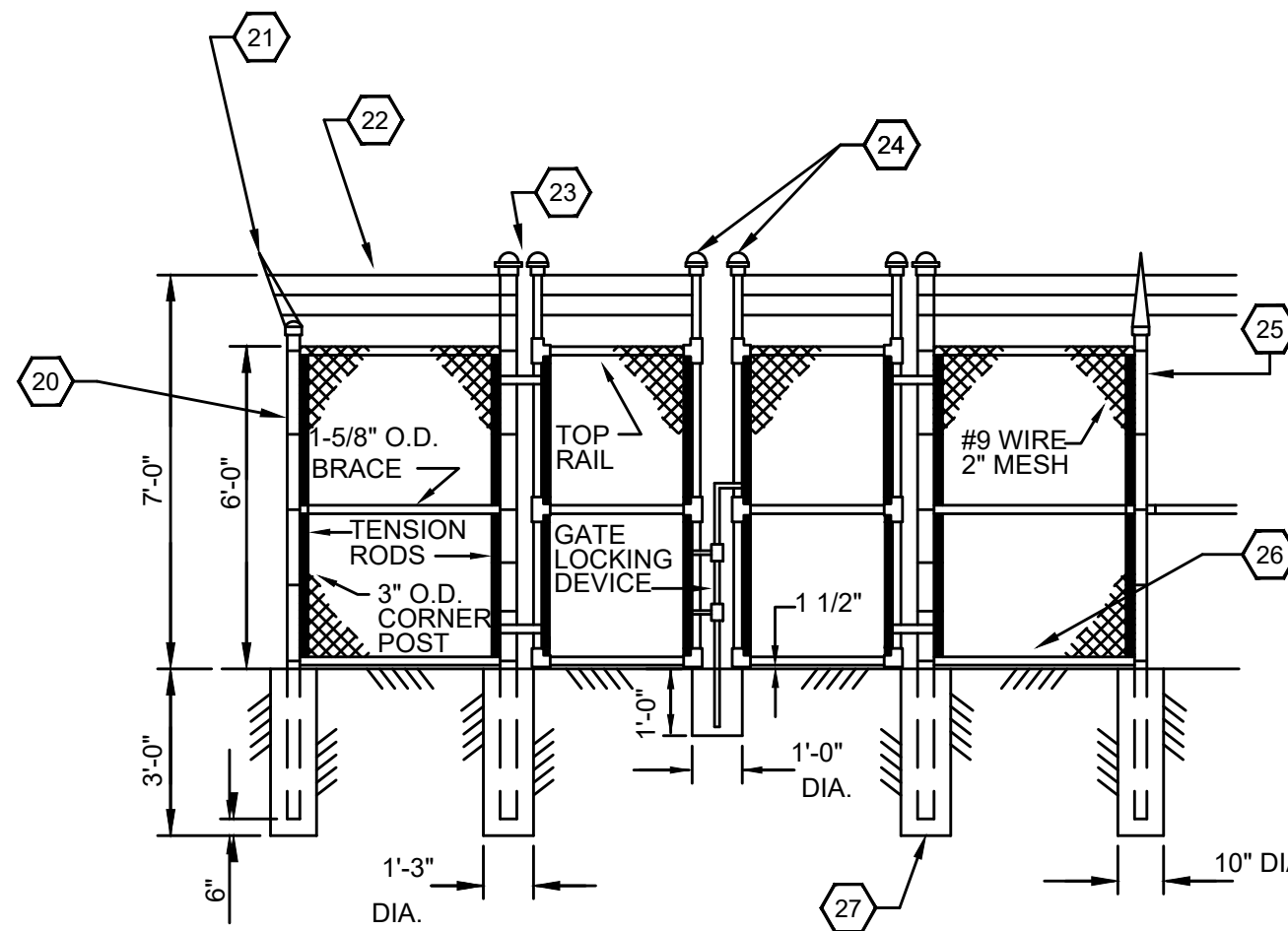


OVERFLOW & CATCH BASIN DETAILS
NOT TO SCALE

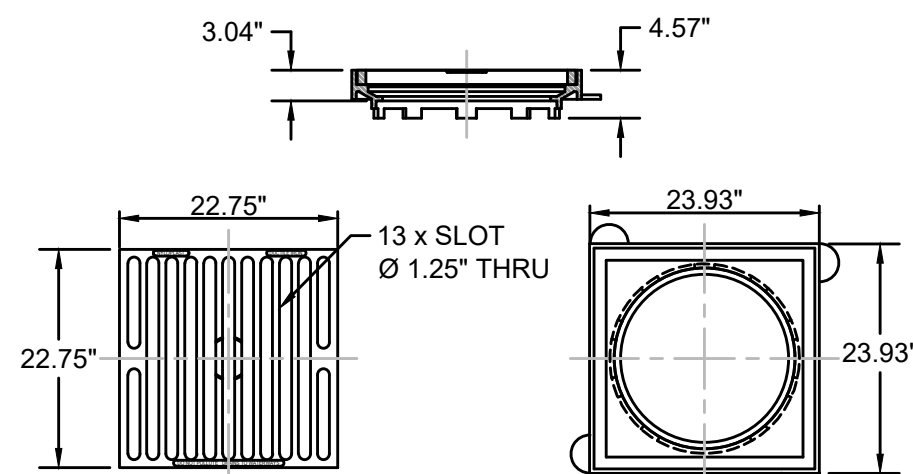


TANK ACCESS ROAD & PARKING AREA
NOT TO SCALE

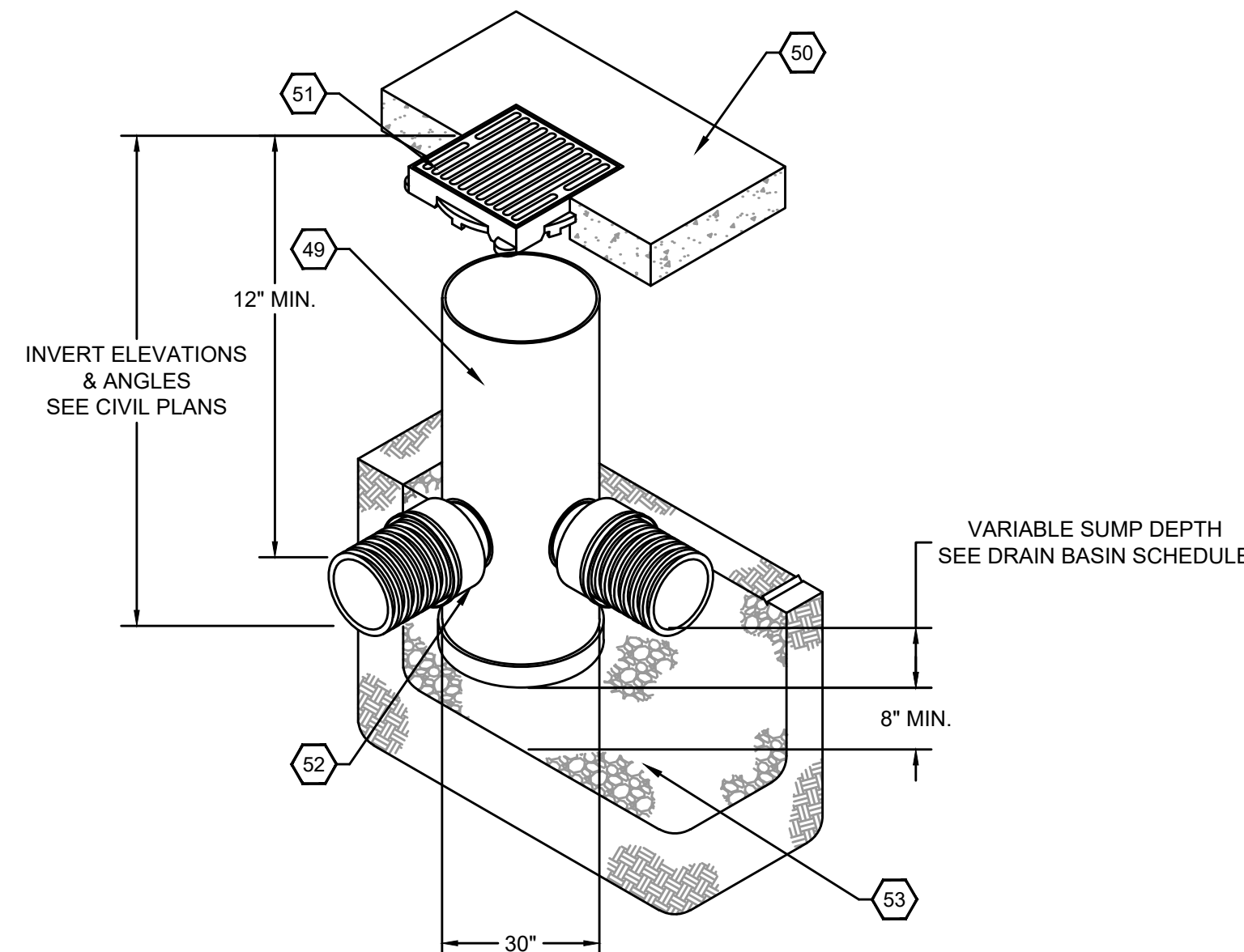
- DETAIL NOTES:**
1. ACCESS ROAD TO BE SLOPED TO DRAIN.
 2. REMOVE TOPSOIL TO A MINIMUM DEPTH OF 10".
 3. COMPACT EXISTING SUBGRADE TO 95% STD. PROCTOR.
 4. CROSS DRAINS SHALL BE INSTALLED AS REQUIRED.



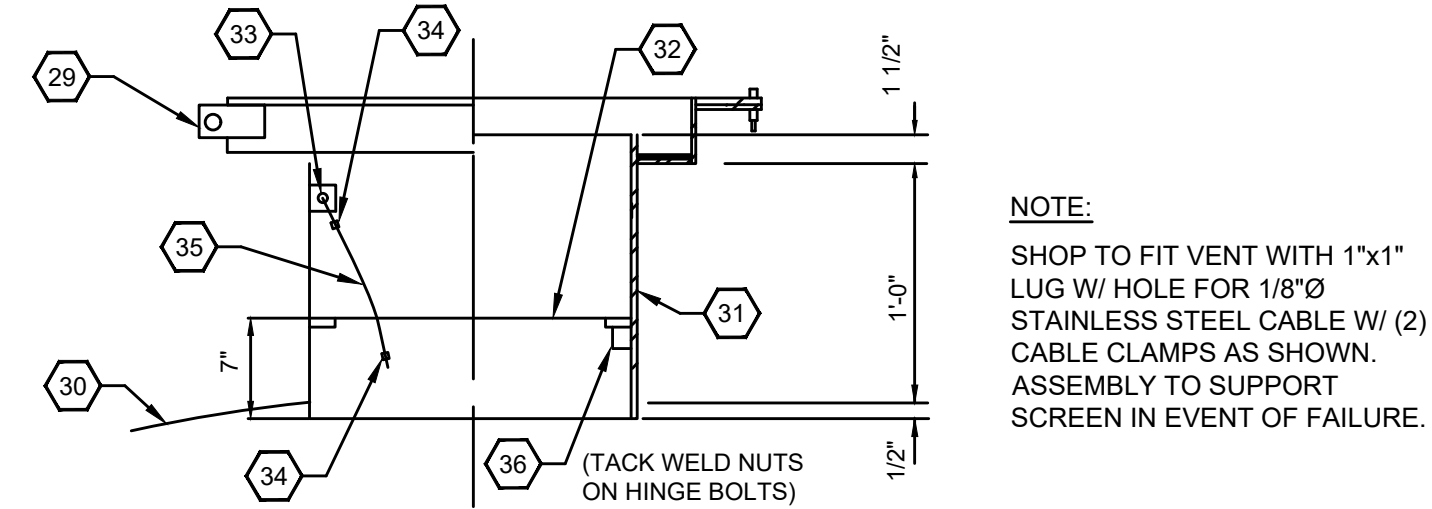
CHAIN LINK FENCE W/SWINGING GATES
NOT TO SCALE



H2O 2'x2' GRATE LID

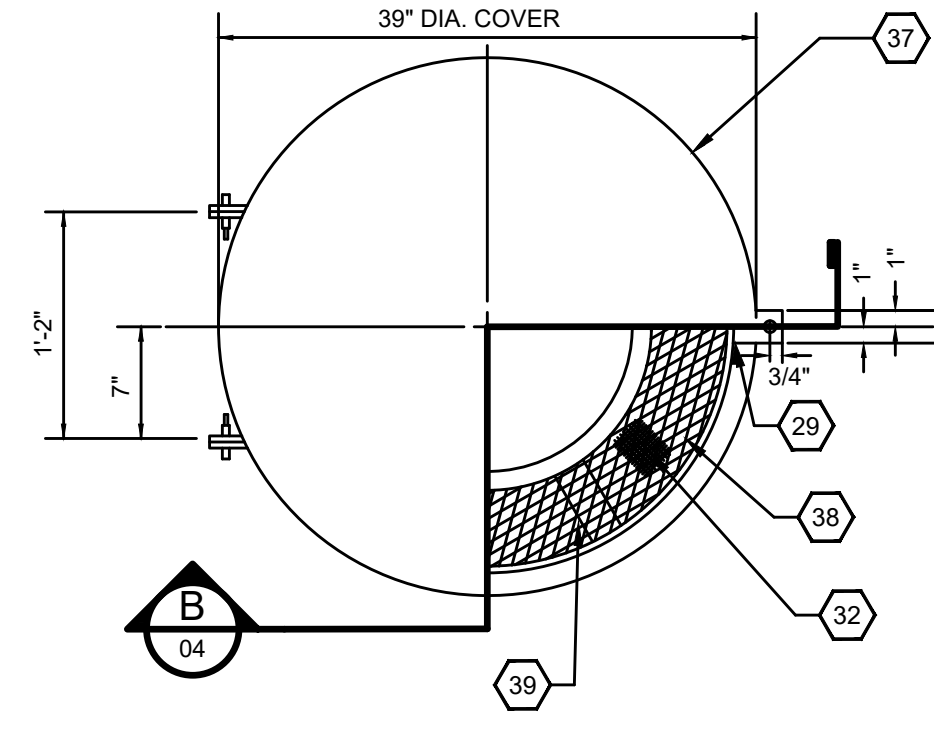


CATCH BASIN DETAIL
NOT TO SCALE

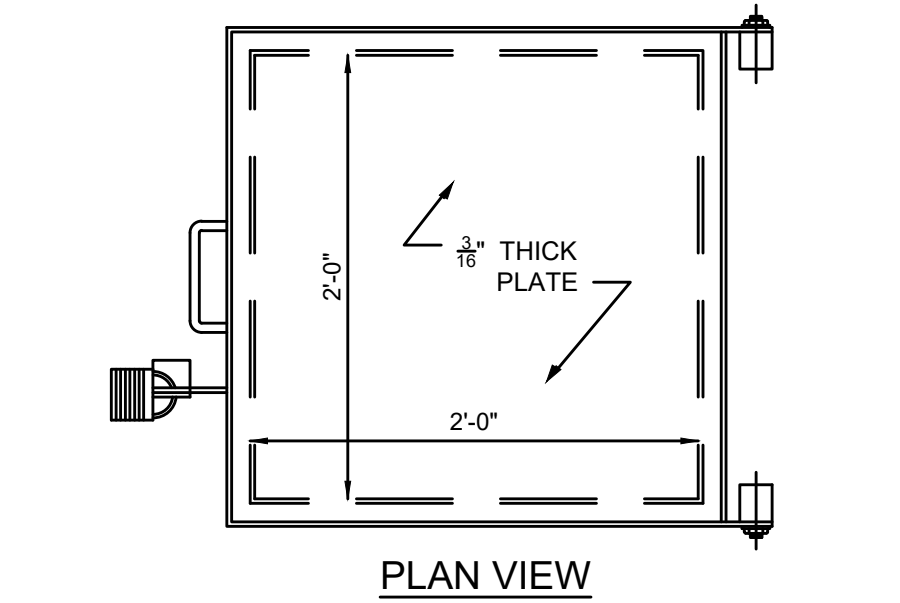


SECTION B-04
NOT TO SCALE

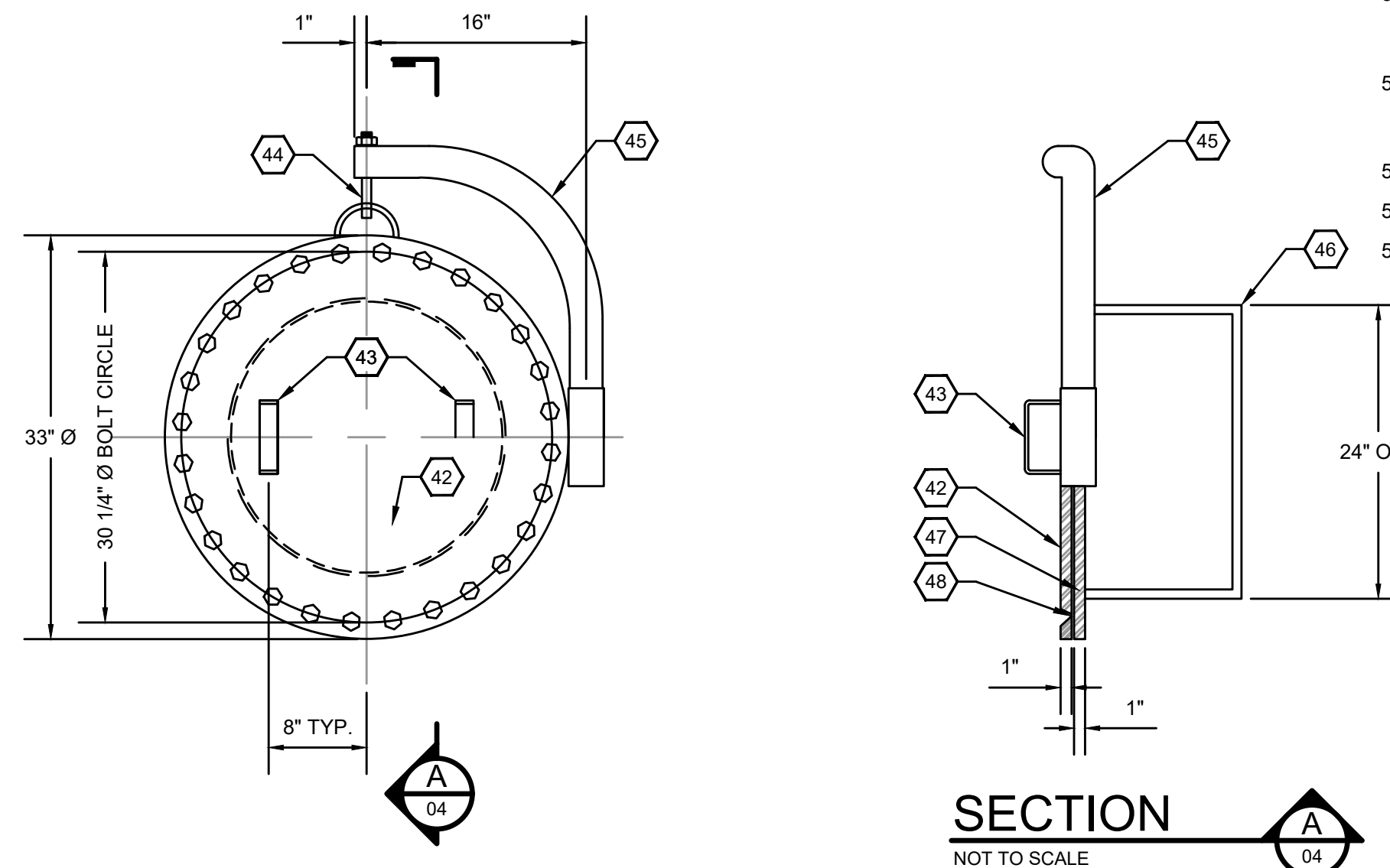
NOTE:
SHOP TO FIT VENT WITH 1"x1" LUG W/ HOLE FOR 1/8"Ø STAINLESS STEEL CABLE W/ (2) CABLE CLAMPS AS SHOWN. ASSEMBLY TO SUPPORT SCREEN IN EVENT OF FAILURE.



24" DIAMETER ROOF VENT
NOT TO SCALE



24" ROOF MANHOLE
NOT TO SCALE



24" ACCESS MANWAY W/DAVIT
NOT TO SCALE

REFERENCE NOTES:

1. TANK ROOF
2. STAINLESS STEEL PIPE
3. STAINLESS STEEL PIPE SECTION
4. OVERFLOW
5. LONG RADIUS WELDED STAINLESS STEEL ELBOW
6. DIMENSIONS PER MFG. STANDARD
7. CAST ALUMINUM HOUSING W/3" DIA. PLASTIC WHEEL & STAINLESS STEEL SHAFT
8. 4" HIGH NUMBERS, PAINT BLACK
9. 3/4" WIDE X 3" LONG HALF FOOT MARKS
10. STAINLESS STEEL INDICATOR FLOAT
11. 4" X 3/8" BARS WELDED TO TANK WALL & PIPE ON 10'-0" CTRS.
12. STEEL PIPE OVERFLOW, PAINT TO MATCH TANK
13. TARGET, PAINT RED
14. RESERVED
15. STAINLESS STEEL SCREEN
16. RESERVED
17. RESERVED
18. 6" COMPACTED NO. 57 STONE
19. 6" COMPACTED D.G.A. (COMPACTED IN 2 LIFTS)
20. FABRIC SHALL BE PLACED ON OUTSIDE OF ENCLOSURE
21. SLOPE OUT FROM PROPERTY
22. 3 STRANDS BARBED WIRE
23. 4" O.D. GATE POST
24. 2" O.D. GATE POST
25. 2 2/3" O.D. LINE POST @ 10'-0" C-C MAX. SPACING
26. TENSION WIRE
27. CONCRETE ENCASEMENT
28. 2 ACCESS MANHOLES REQUIRED
29. HINGE & LATCH BAR
30. TANK ROOF
31. VENT NECK
32. #12 MESH STAINLESS STEEL SCREEN
33. LUG
34. CLAMP
35. CABLE
36. PLATE RING
37. VENT COVER
38. METAL SCREEN
39. SCREEN TABS
40. 2" X 5/8" BAR
41. 4" X 1/4" BAR
42. MANHOLE COVER W. BOLT HOLES
43. HANDLES (TYP OF 2)
44. EYEBOLT W. NUT & WASHER
45. DAVIT ARM
46. PIPE NECK
47. FLANGE W. BOLT HOLES
48. RUBBER GASKET
49. 30" NYLOPLAST DRAIN BASIN W. D.I. GRATING
50. 48" X 48" X 8" CONCRETE COLLAR
51. INTEGRATED D.I. FRAME & GRATE TO MATCH DRAIN BASIN O.D.
52. INLET SHALL BE INSERTA TEE FOR D.I. PIPE OUTLET SHALL BE INSERTA TEE FOR CORRUGATED HDPE. ALL SHALL BE WATERTIGHT.
53. BACKFILL MATERIAL BELOW & TO SIDES OF BASIN SHALL BE CRUSHED STONE No. 9 STONE & PLACED UNIFORMLY IN 12" LIFTS.
54. 12" D.I.P. PIPE DRAIN LINE
55. 18" HPDE STORM LINE
56. 6" CURB

NO.	DATE	REVISIONS	BY

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
STANDARD DETAILS
ELEVATED WATER STORAGE TANK

BLUEGRASS ENGINEERING, PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	17023
DATE:	AUGUST 2019
PROJECT MGR:	MRC
DRAWN BY:	MRC
CHECKED BY:	PBR

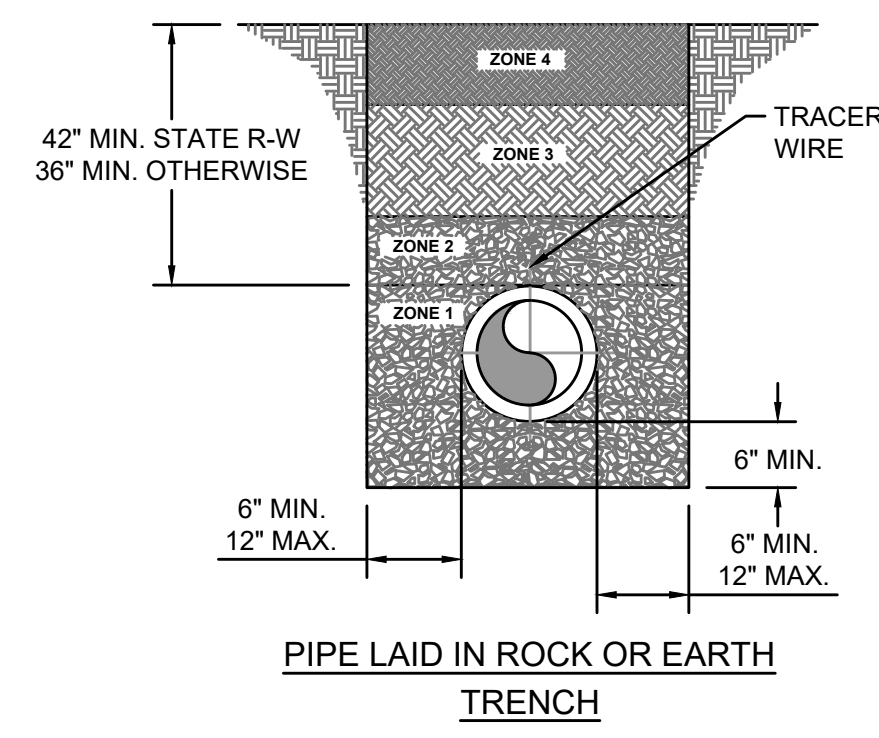
PROFESSIONAL ENGINEER
MATTHEW RAY CURTIS
25718

BID SET FOR CONSTRUCTION

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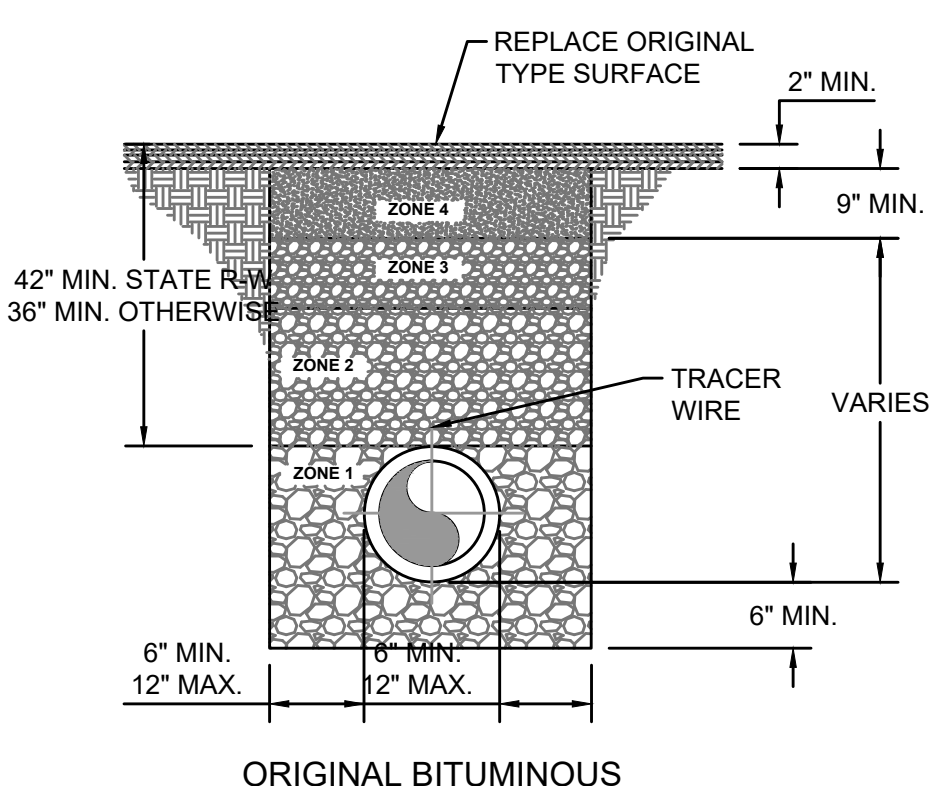
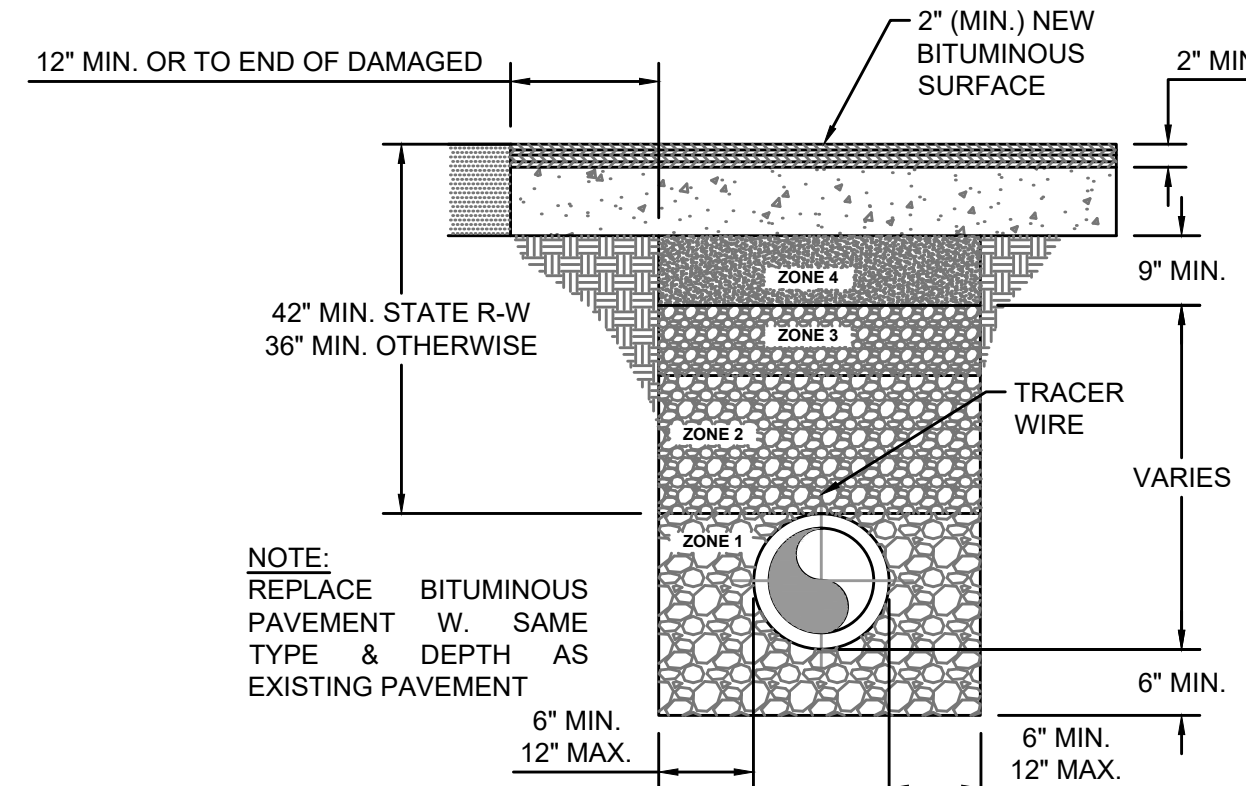
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DETAIL NOTES:

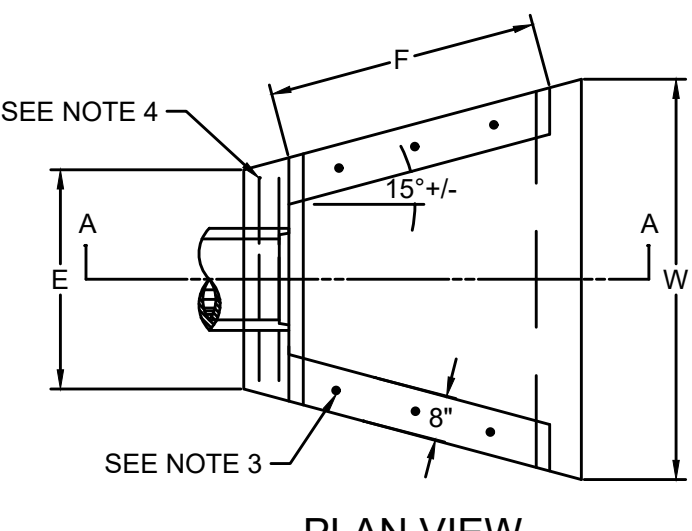
- COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.
- ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL INCLUDING TOPSOIL, NO ROCK ALLOWED.
- ZONE 3 - CONSOLIDATED SOIL, (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, 57 OR 78 STONE
- ZONE 2 - FROM THE SPRINGLINE OF THE PIPE TO A DISTANCE 12 INCHES ABOVE THE PIPE, THE CONTRACTOR SHALL USE THE SAME MATERIAL AS SPECIFIED FOR BEDDING. COMPACTION IS REQUIRED IN AREAS SUBJECT TO TRAFFIC.
- ZONE 1 - BEDDING MATERIAL, IN EARTH EXCAVATION AREAS, SHALL BE CLEAN EARTH, FREE FROM ROCKS, DEBRIS OR OTHER FOREIGN MATERIAL. THE CONTRACTOR SHALL USE CRUSHED STONE, SAND OR GRAVEL AS BEDDING MATERIAL WHERE ROCK EXCAVATION IS ENCOUNTERED.



ZONE 4 - COMPACTED DGA
ZONE 3 - NO. 9, 57, OR 78 STONE
ZONE 2 - 12" MIN. NO. 9 STONE
ZONE 1 - NO. 9 STONE

PIPE BACKFILL - DETAIL

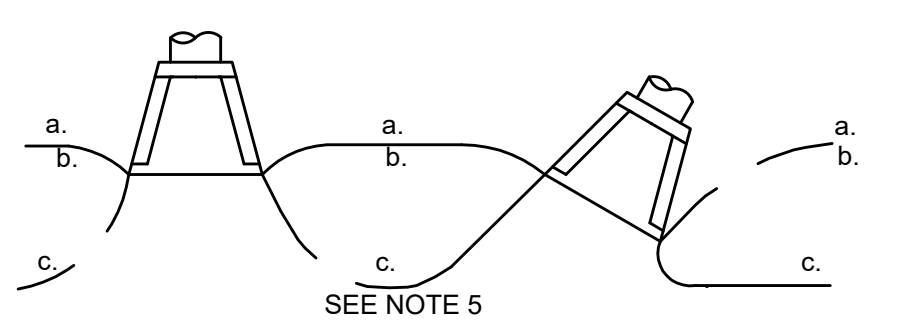
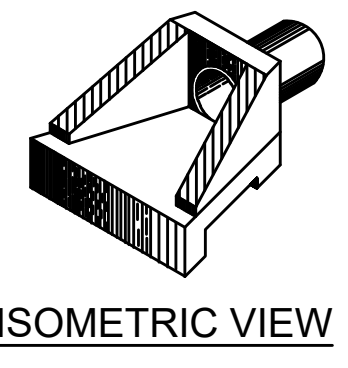
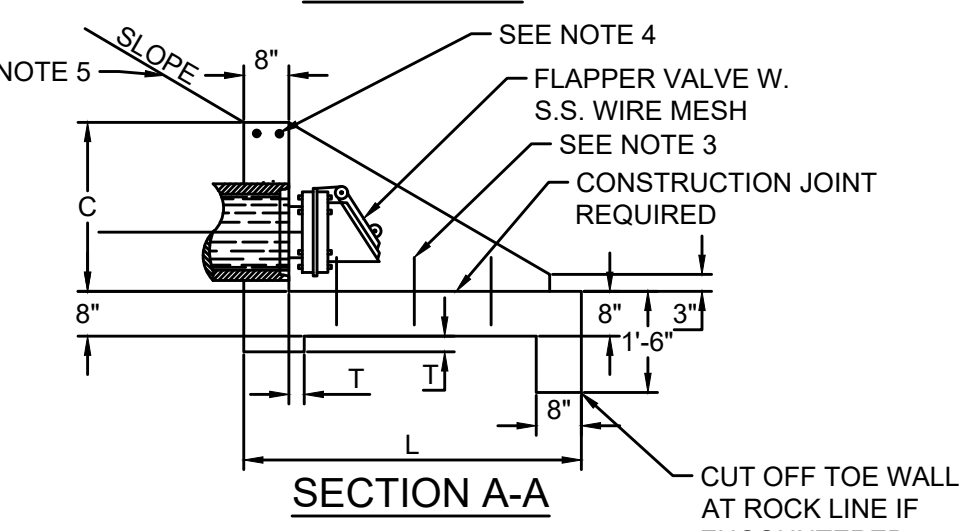
NOT TO SCALE



PIPE DIA. OR EQUIV. DIA.	SHAPE	DIMENSIONS						CLASS A CONC	REINF STEEL
		C	E	F	L	W	T		
PER SITE PLAN	⊙	1'-9"	2'-6"	2'-3"	3'-6"	4'-0"	2"	0.58	7

DETAIL NOTES:

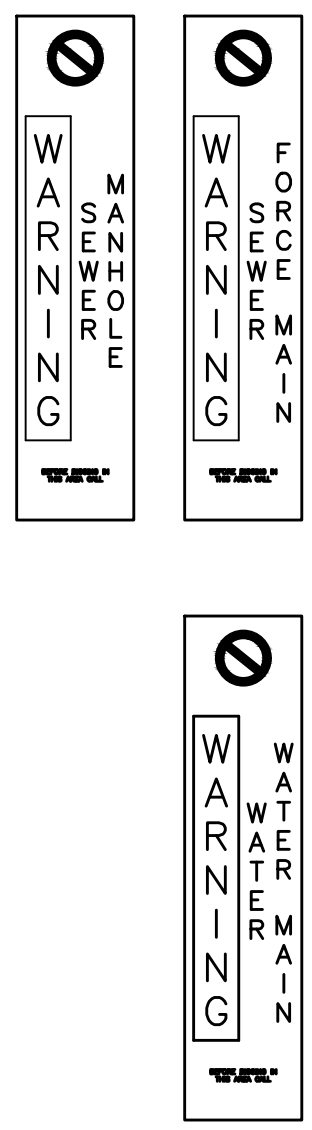
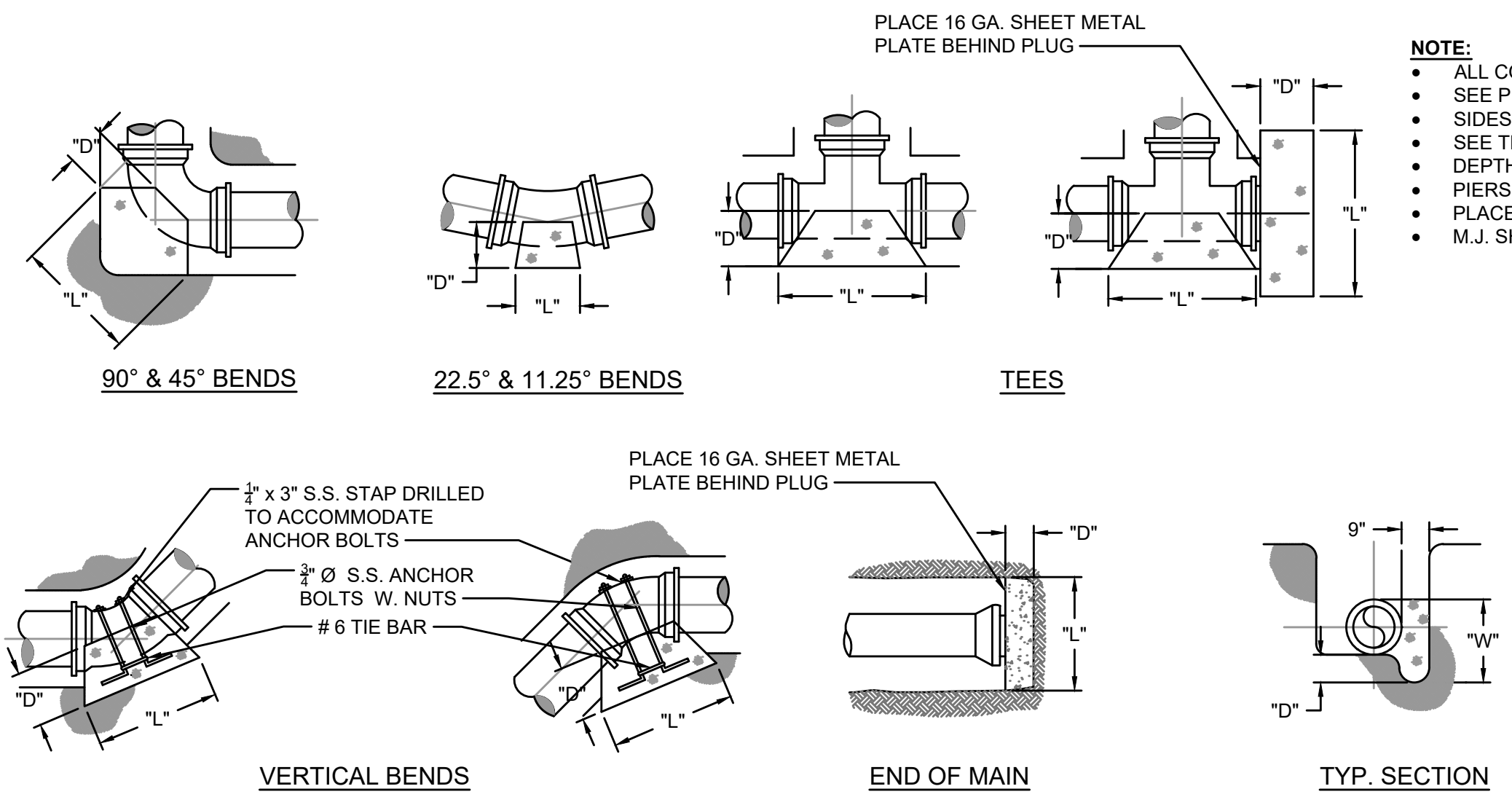
- DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY OTHER PIPE MATERIALS.
- REINFORCING STEEL - MINIMUM GRADE 40, BARS EVENLY SPACED.
- 6 - NO. 4 x 12 INCH DOWEL BARS.
- 2 - NO. 4 x (E DIMENSION MINUS 4 INCHES).
- SLOPES SHALL BE WARPED TO FIT HEADWALL WHEN PIPE IS SKEWED AND/OR NORMAL 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. KTC 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.



THRUST BLOCK SCHEDULE

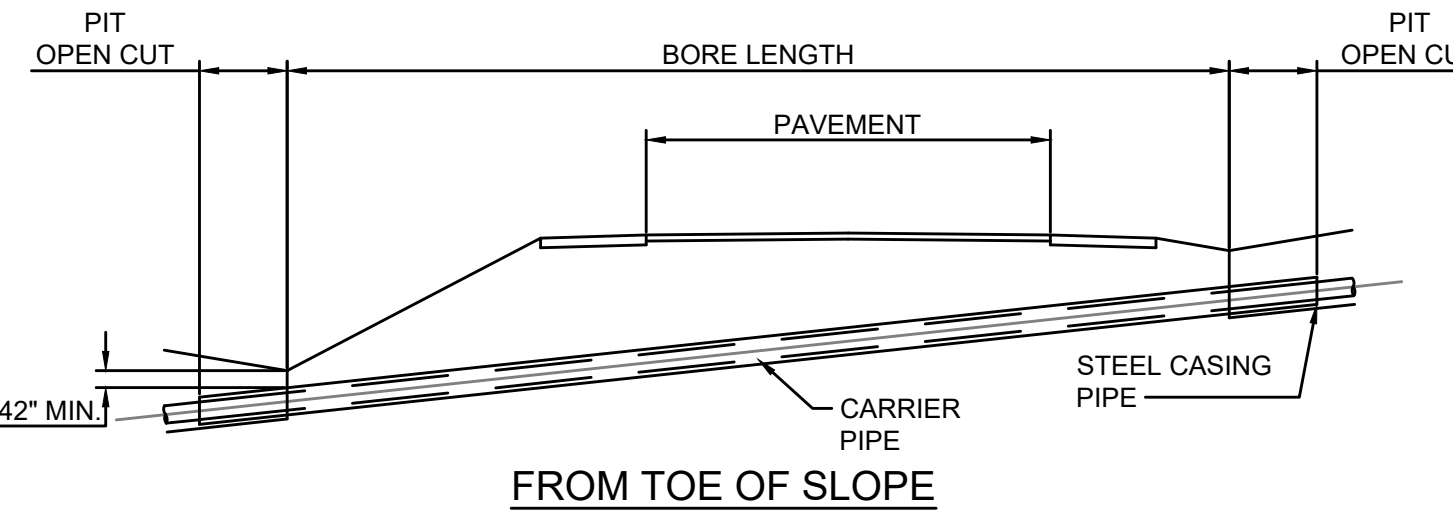
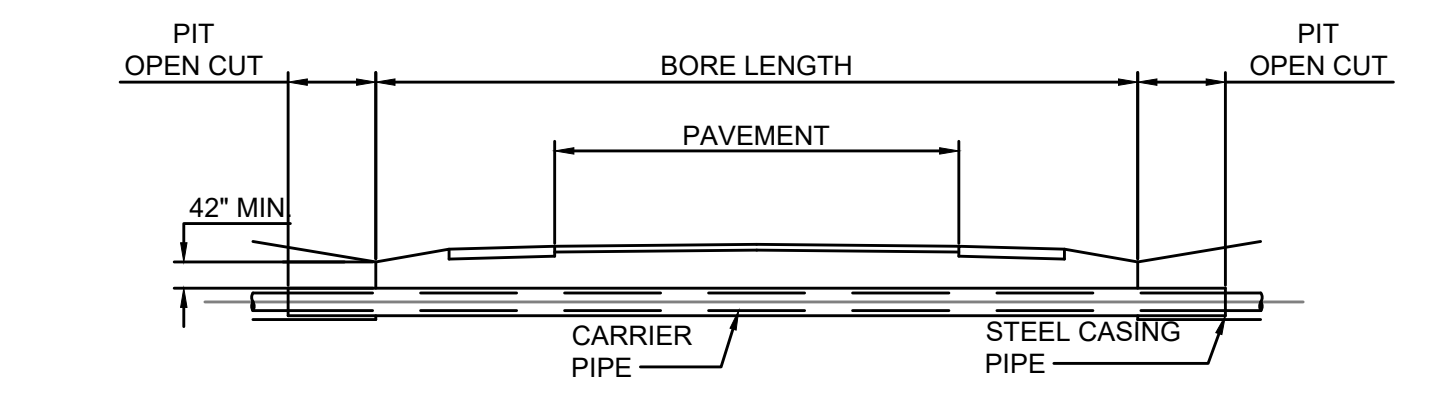
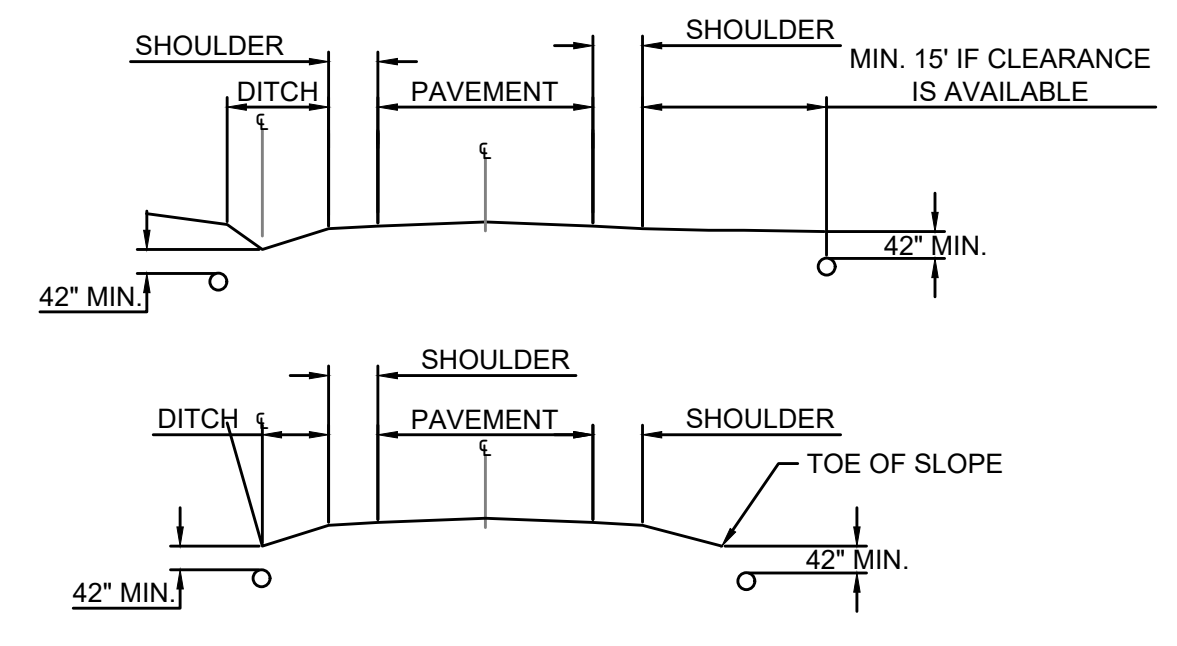
PIPE SIZE	90° BEND				45° BEND				22 1/2° BEND				11 1/2° BEND				TEE & DEAD ENDS								
	BEARING AREA	YDS OF CONCRETE	D	W	L	BEARING AREA	YDS OF CONCRETE	D	W	L	BEARING AREA	YDS OF CONCRETE	D	W	L	BEARING AREA	YDS OF CONCRETE	D	W	L					
4"	3.750	.21	18	30	18	1.750	.10	18	18	14	1.000	.06	18	12	12	.500	.02	12	12	6	2.250	.13	18	18	18
6"	7.000	.39	18	42	24	3.750	.21	18	30	18	2.000	.11	18	24	12	1.000	.04	12	12	12	5.000	.28	18	30	24
8"	12.250	.91	24	42	42	7.500	.56	24	36	30	4.000	.30	24	24	24	2.000	.11	18	24	12	9.000	.67	24	36	36
10"	20.000	1.48	24	60	48	10.500	.78	24	42	36	6.000	.44	24	36	24	3.000	.17	18	24	18	14.000	1.04	24	48	42
12"	30.000	2.78	30	72	60	15.750	1.46	30	54	42	7.500	.69	30	36	30	4.000	.30	24	24	24	20.000	1.85	30	60	48
14"	39.000	4.33	36	78	72	20.000	2.22	36	60	48	10.500	1.17	36	42	36	6.000	.56	30	36	24	27.500	3.06	36	66	60
16"	49.000	6.35	42	84	84	27.500	3.56	42	66	60	14.000	1.81	42	48	42	7.500	.83	36	36	30	37.750	4.63	42	78	66

- NOTE:**
- ALL CONCRETE SHALL BE A MIN. OF 3,500 PSI
 - SEE PLAN SHEETS FOR SIZE, MATERIAL & LOCATION OF PIPE.
 - SIDES OF ALL TRENCHES TO BE UNDISTURBED SOIL.
 - SEE THIS SHEET FOR BACK FILL DETAILS.
 - DEPTH 'D' MAY NOT BE SMALLER THAN SPECIFIED.
 - PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
 - PLACE CONCRETE ANCHORS 25' C/C.
 - M.J. SHALL BE WRAPPED IN PLASTIC WRAP



NOTE:

- ALL JOINTS OF STEEL CASING SHALL BE SOLIDLY WELDED. END OF CASING SHALL BE SEALED AFTER LINE HAS BEEN INSTALLED AND TESTED.
- MINIMUM DEPTHS MAY INCREASE IN AREAS WHICH REQUIRE MINIMUM SEPARATION WITH OTHER FACILITIES.
- OPEN TRENCH NO CLOSER THAN THE DITCHLINE OR TOE OF FILL FROM THE EDGE OF THE PAVEMENT OR AS DIRECTED BY THE SPECIFICATIONS.
- HIGHWAY CROSSINGS SHALL UTILIZE STEEL CASING PIPE. STEEL CASING PIPES WALL THICKNESS & DIAMETER PER SPECIFICATIONS. ALL BORED AND JACKED ENCASMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THEN THE OUTSIDE DIA-METER OF THE ENCASMENT PIPE.
- SEE CASING SPACER DETAIL FOR PLACEMENT OF SPACER.



NO.	DATE	BY	REVISIONS

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK

STANDARD DETAILS - PIPE LINES

BLUEGRASS ENGINEERING, PLLC

222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #: 17023
DATE: AUGUST 2019
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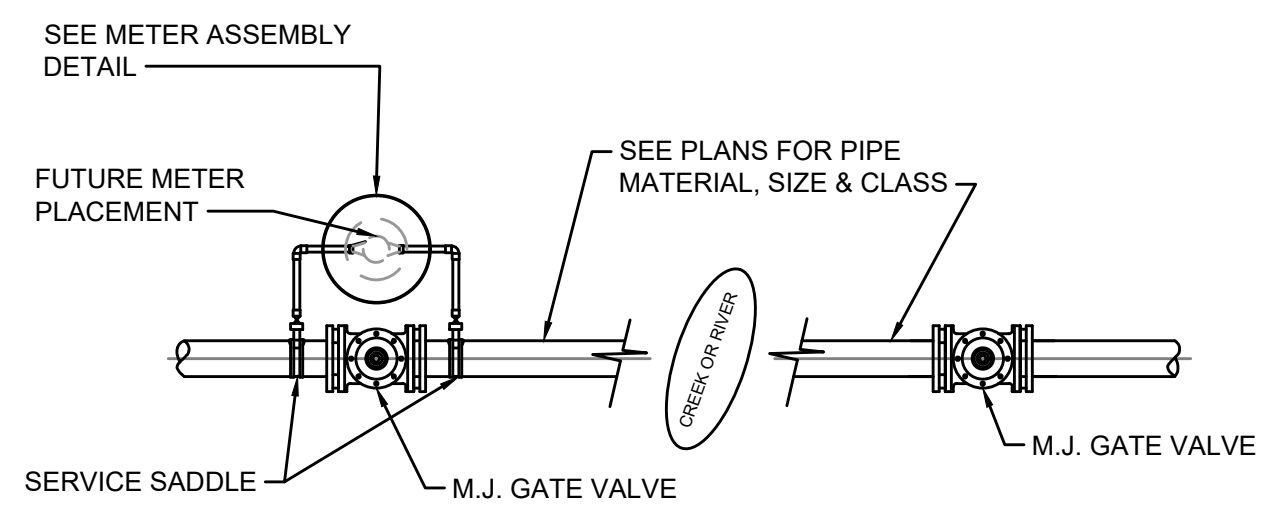
Matthew Ray Curtis
25718
LICENSED PROFESSIONAL ENGINEER

BID SET FOR CONSTRUCTION

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LEAK DETECTION ASSEMBLY - DETAIL

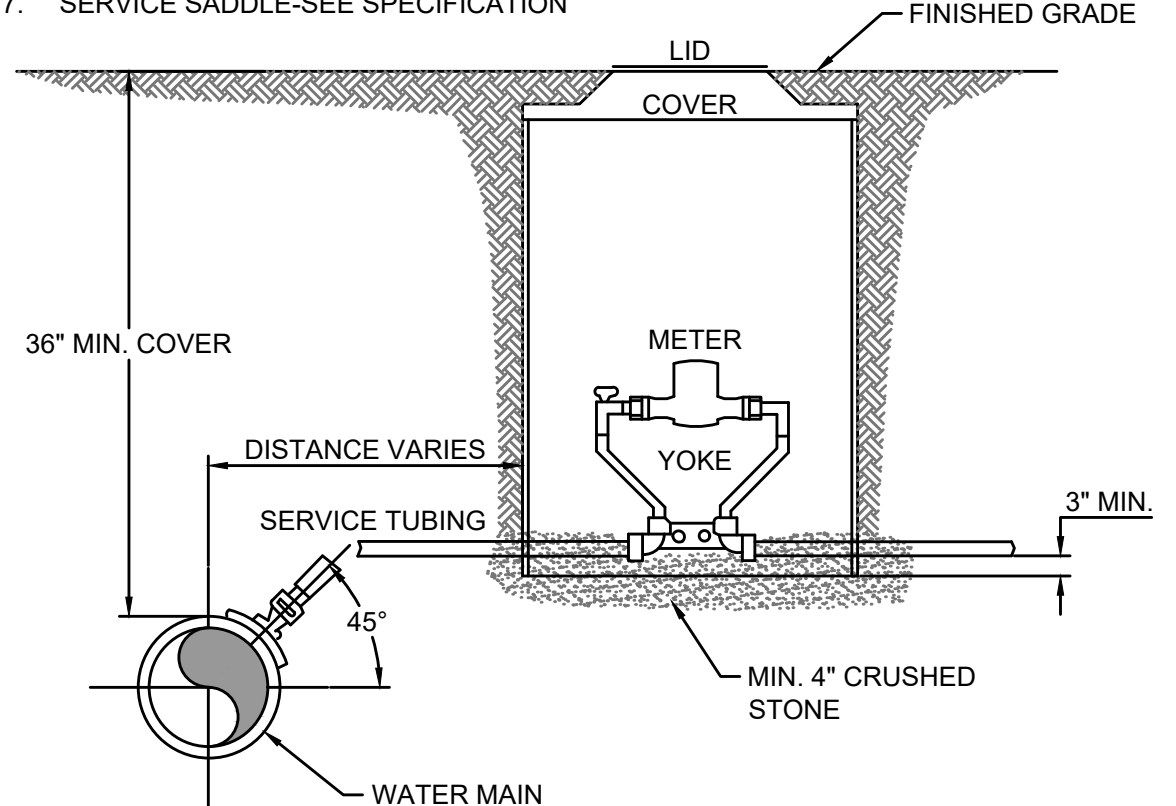
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METER MATERIAL SCHEDULE

1. YOKE-SEE SPECIFICATIONS
2. METER BOX-SEE SPECIFICATIONS
3. COVER-SEE SPECIFICATIONS
4. METER-SEE SPECIFICATIONS
5. INDIVIDUAL PRESSURE REDUCING VALVE (IPRV)-SEE SPECIFICATIONS
6. CORPORATION STOP-SEE SPECIFICATION
7. SERVICE SADDLE-SEE SPECIFICATION

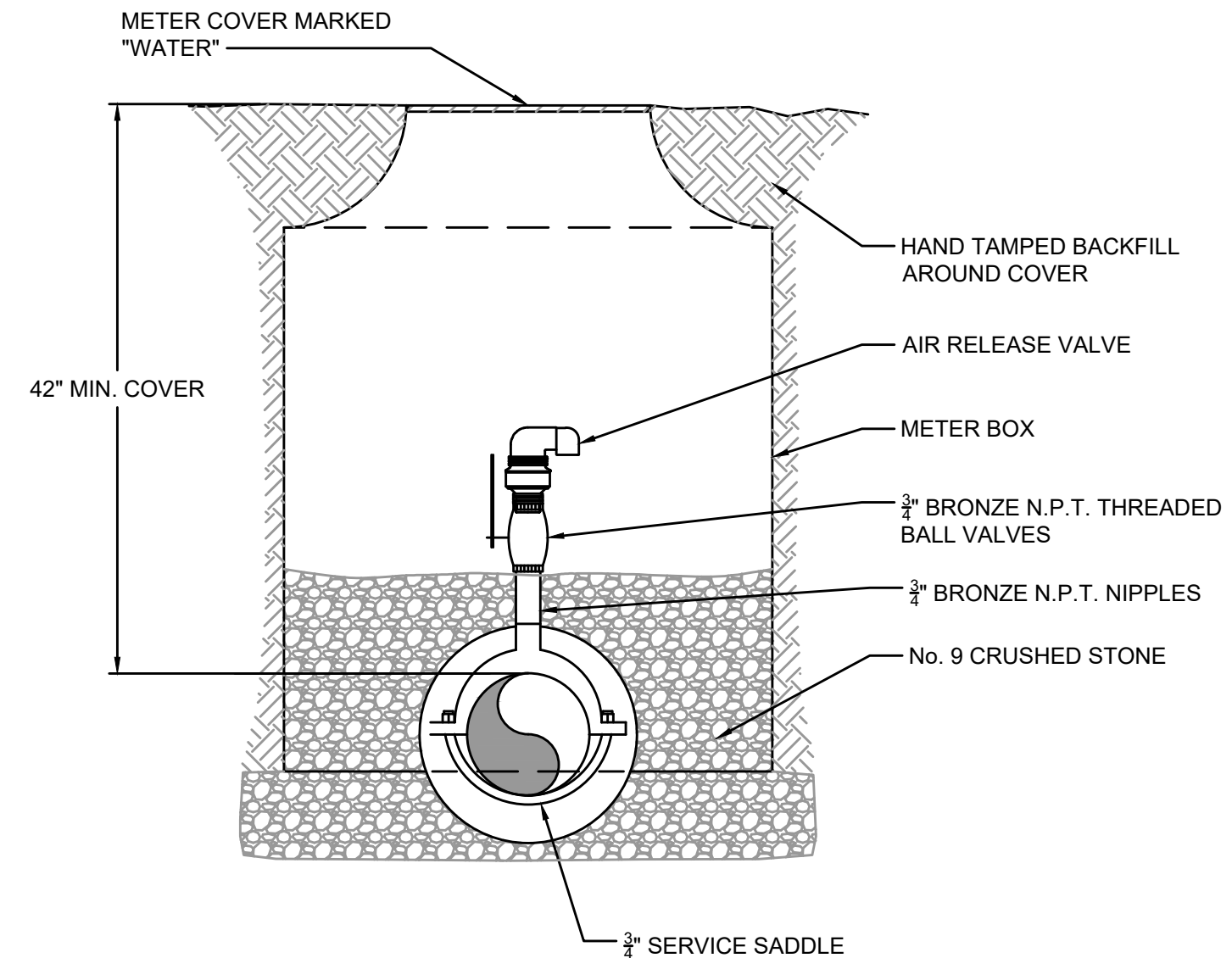
NOTE:

1. CONTRACTOR IS RESPONSIBLE FOR ALL PLUMBING PERMITS & ASSOCIATED COSTS.
2. SEE SPECIFICATIONS REGARDING SPECIFIC MAKE, MODEL, TYPE & STYLE OF FITTINGS, METER, METER BOX, COPPER SETTERS, IPRVs, BOX LID, ETC.
3. INDIVIDUAL PRESSURE REDUCING VALVES REQUIRED ON ALL METERS WHERE PRESSURE EXCEEDS 90 PSI.
4. TRACER WIRE TO BE CONNECTED TO WATER MAIN TRACER WIRE AND RAN ON NEW SERVICE TUBING AND TERMINATING IN THE METER BOX.



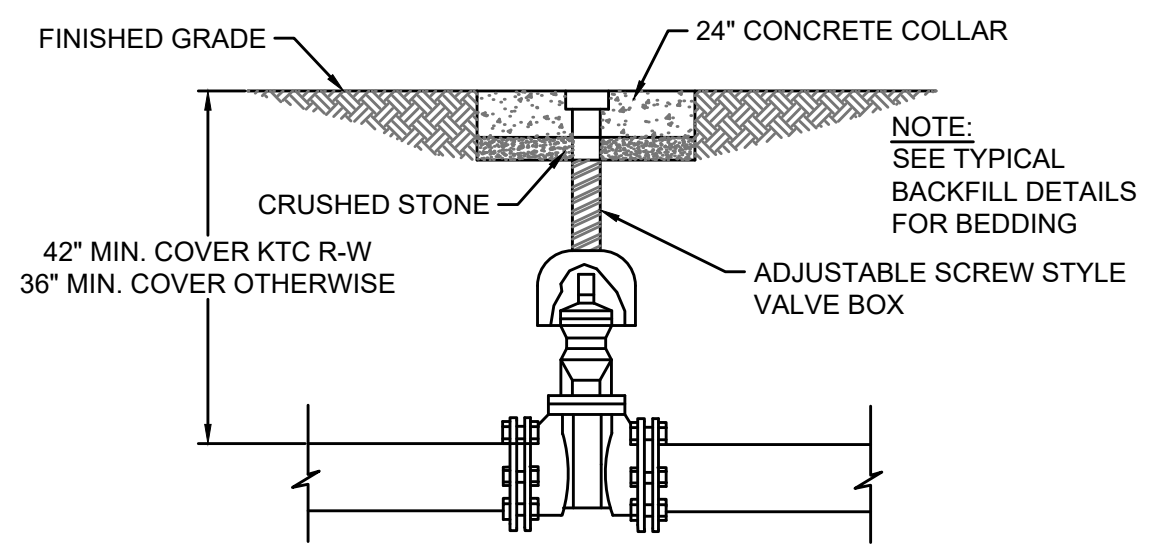
METER ASSEMBLY - DETAIL

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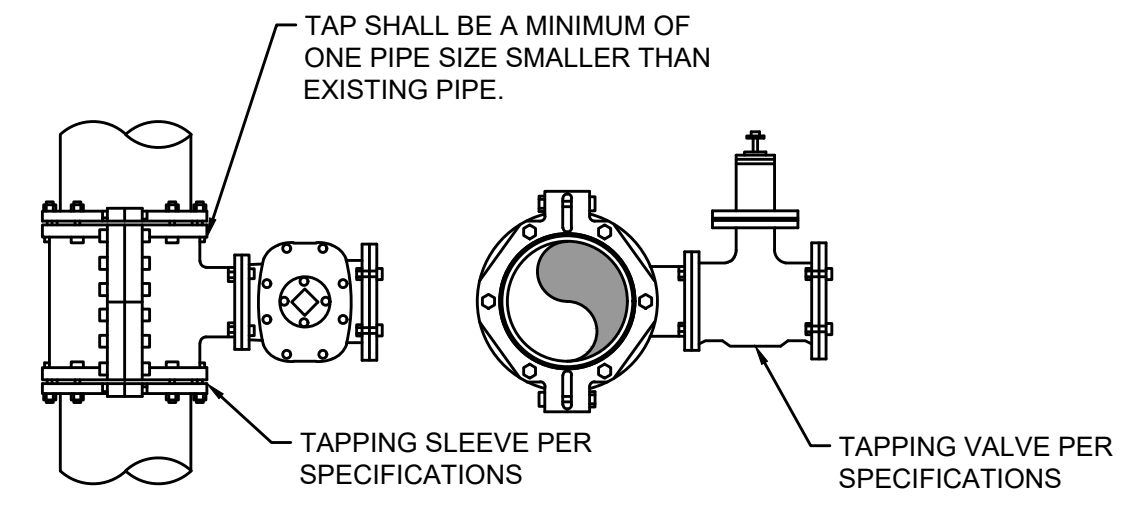
AIR RELEASE VALVE ASSEMBLY - DETAIL

NOT TO SCALE



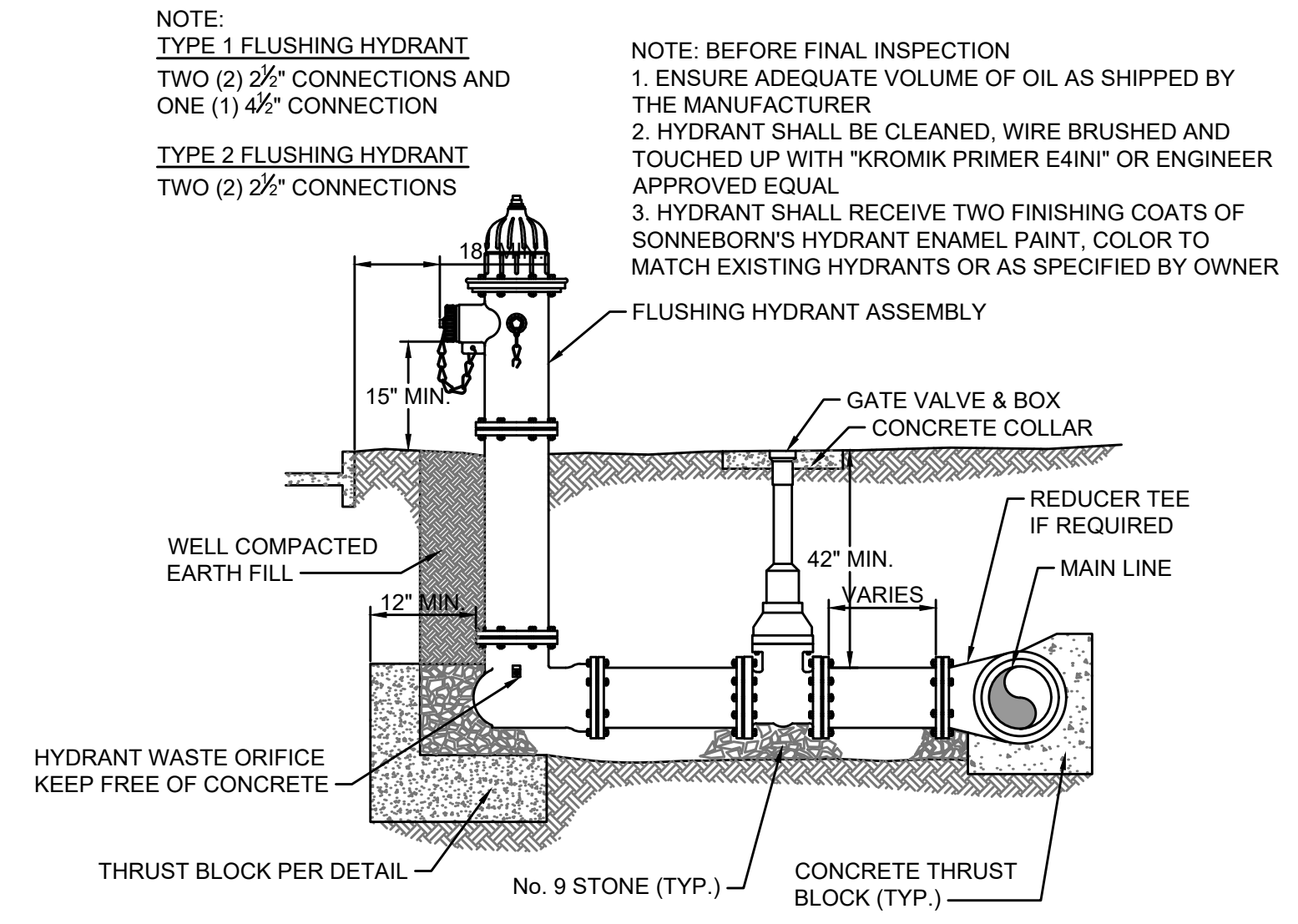
GATE VALVE ASSEMBLY - DETAIL

NOT TO SCALE



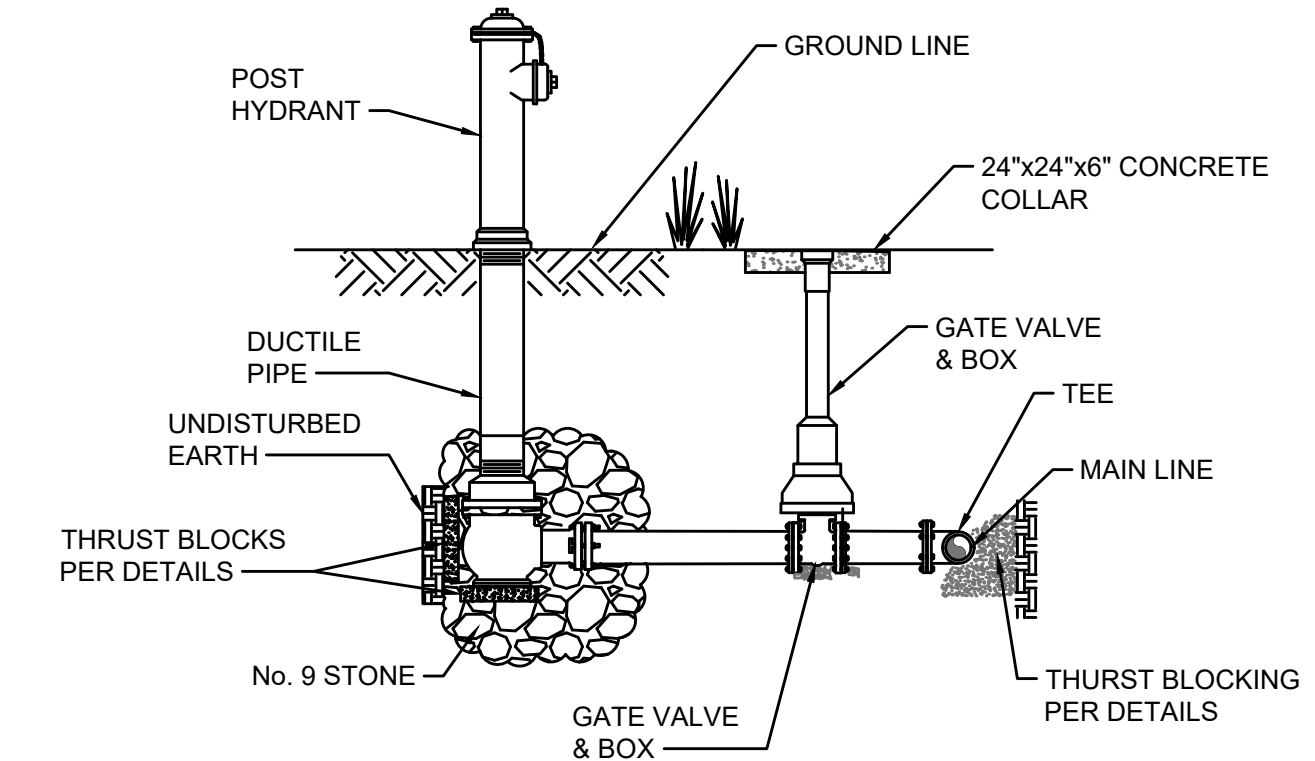
WET TAP ASSEMBLY - DETAIL

NOT TO SCALE



FLUSHING HYDRANT ASSEMBLY TYPE 1 & 2 - DETAIL

NOT TO SCALE



FLUSHING HYDRANT ASSEMBLY, TYPE 3 - DETAIL

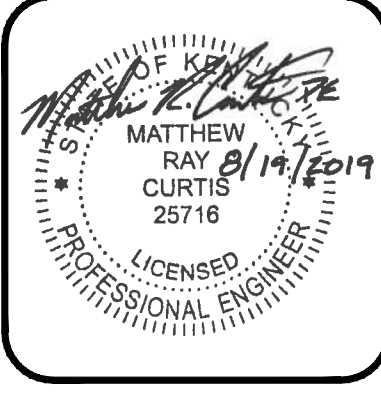
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NO.	DATE	REVISIONS	BY

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
STANDARD DETAILS - WATER LINES

BLUEGRASS ENGINEERING, PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	17023
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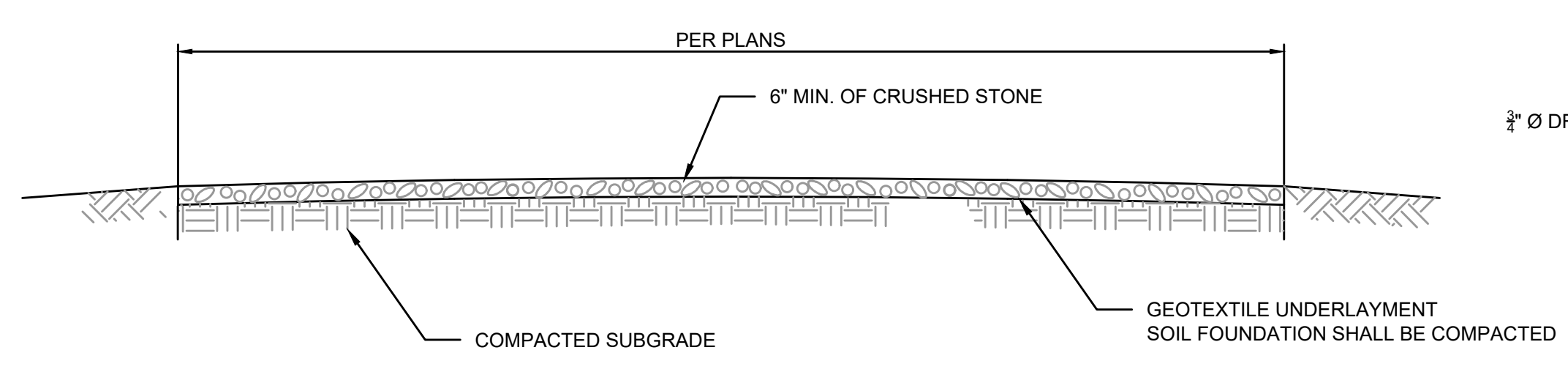


BID SET FOR CONSTRUCTION

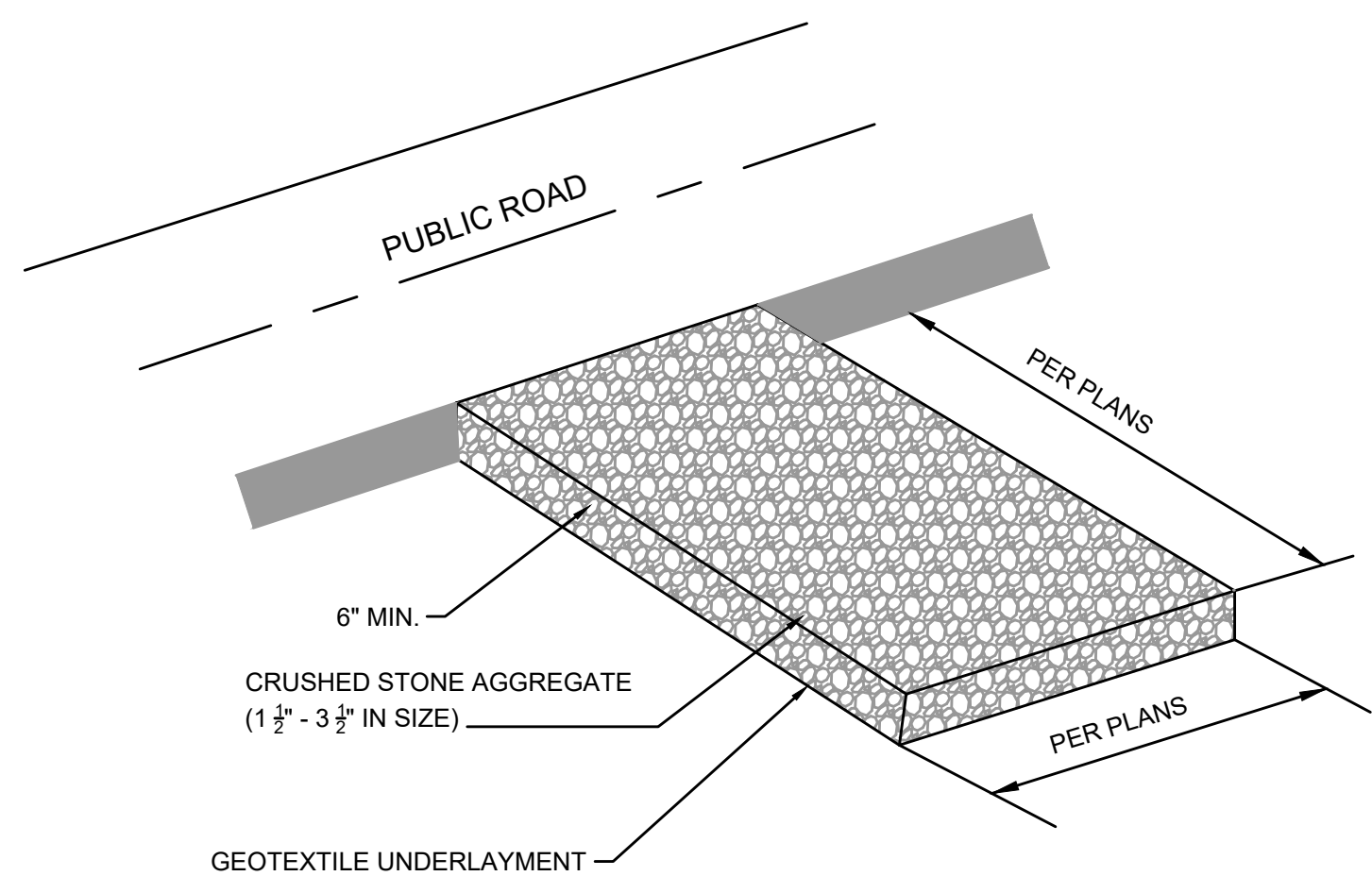
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BE 828018 FROM BLUEGRASS ENGINEERING, PLLC AND ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER. B:\PROJECTS\Water District\17023 US 231 Elevation Tank\DWG\Contract 02 - US 231 Tank\17023-02-08.dwg



STABILIZED CONSTRUCTION ENTRANCE - SECTION
NOT TO SCALE



- NOTES:**
1. A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
 2. GEOTEXTILE (KYTC TYPE III) SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
 3. TREES, STUMPS, ROOTS, BRUSH, WEEDS, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED FROM THE WORK AREA.
 4. UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADBED AND PARKING AREAS.
 5. GRADING, SUBGRADE PREPARATION, AND COMPACTION SHALL BE DONE AS NEEDED. FILL MATERIAL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 9 INCHES AND COMPACTION WITH THE CONTROLLED MOVEMENT OF COMPACTION AND EARTH MOVING EQUIPMENT.
 6. THE ROADBED SHALL BE GRADED TO THE ELEVATION AS SHOWN. SUBGRADE PREPARATION AND PLACEMENT OF THE SURFACE COURSE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
 7. ALL CUT AND FILLS SHALL BE 2:1 OR FLATTER TO THE EXTENT POSSIBLE.
 8. WATER BREAKS OR BARS MAY BE USED TO CONTROL SURFACE RUNOFF.

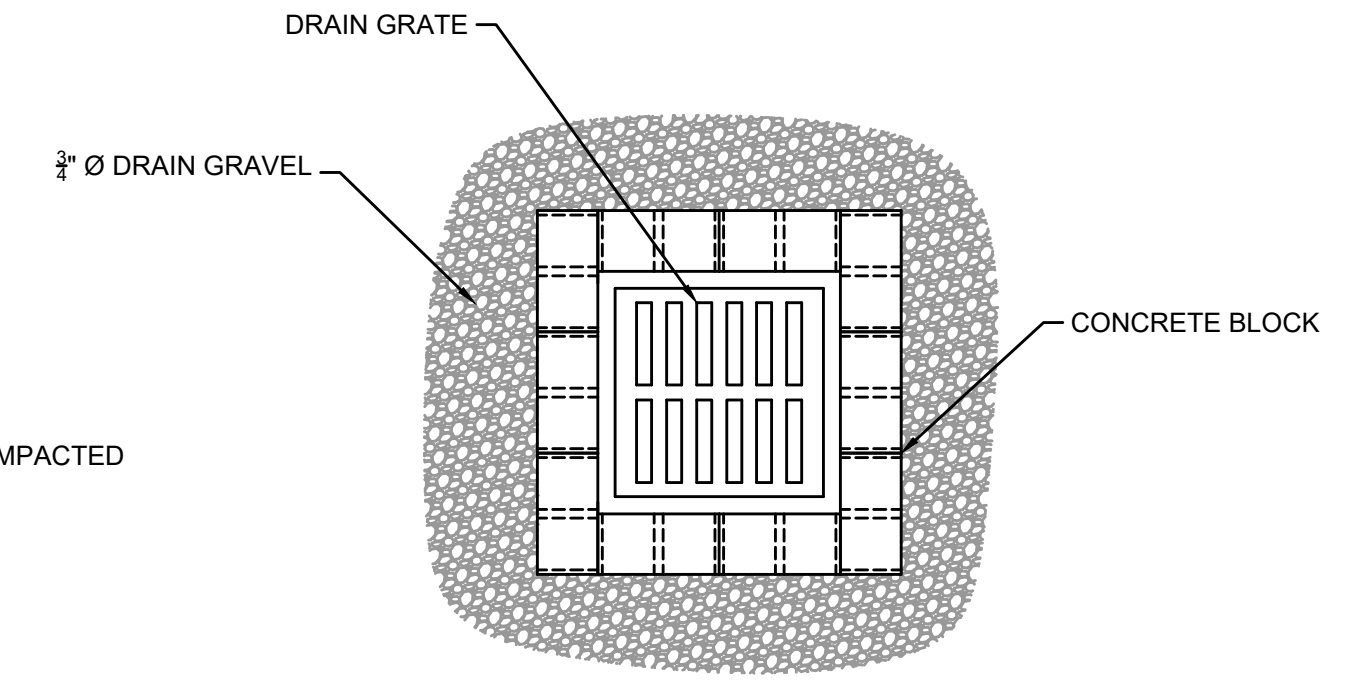
STABILIZED CONSTRUCTION ENTRANCE - DETAIL
NOT TO SCALE

EROSION CONTROL NOTES:

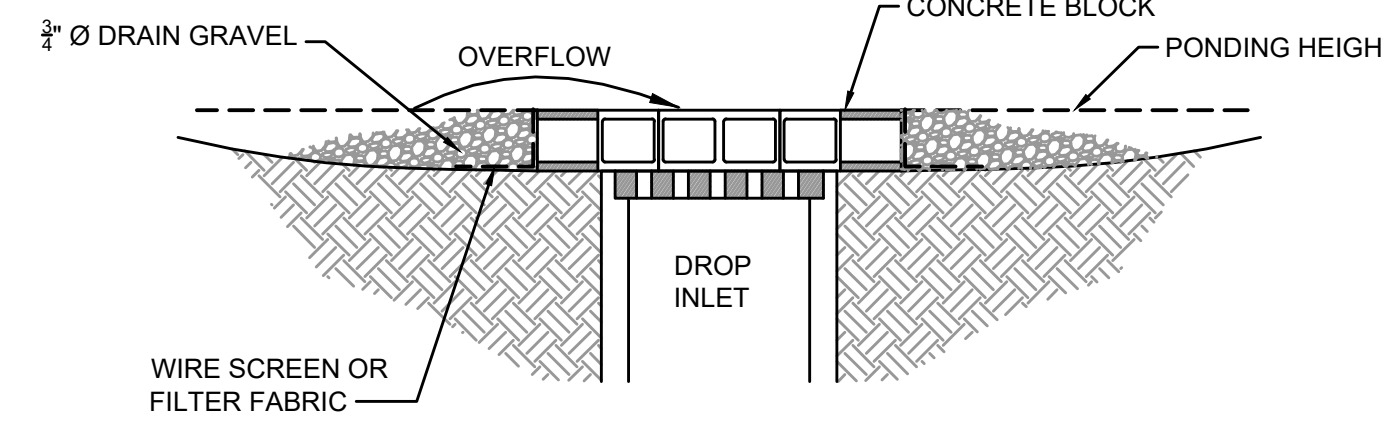
1. A KPDES STORMWATER PERMIT IS REQUIRED. COVERAGE STARTS WHEN THE KY DIVISION OF WATER ACKNOWLEDGES RECEIPT OF A NOTICE OF INTENT FOR COVERAGE.
2. FINAL STABILIZATION SHALL BEGIN WITHIN 14 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE BEEN SUSPENDED FOR MORE THAN 180 DAYS. WHEN SNOW COVER CAUSES DELAYS, STABILIZATION SHALL BEGIN AS SOON AS POSSIBLE. STABILIZATION PRACTICES INCLUDE SEEDING, MULCHING, PLACING SOD, PLANTING TREES OR SHRUBS, AND USING GEOTEXTILE FABRICS AND OTHER APPROPRIATE MEASURES. SEEDING RATES, DATES, AND MATERIALS MAY BE OBTAINED FROM THE LOCAL NATURAL RESOURCES CONSERVATION SERVICE FIELD OFFICE.
3. FOR ALL CRITICAL AREAS (WITHIN 25' OF A STREAM), SOIL STABILIZATION TECHNIQUES SHALL BE IMPLEMENTED WITHIN 24 HOURS OR AS SOON AS PRACTICAL AFTER COMPLETION OF GRADING OR DISTURBANCE. TEMPORARY STABILIZATION PRACTICES SHALL BE INITIATED WITHIN 14 DAYS OF CESSATION OF CONSTRUCTION ACTIVITIES.
4. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE DEVELOPED AND IMPLEMENTED AS OUTLINED IN THE KPDES STORMWATER PERMIT KYR 10.
5. SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE PROPERLY DESIGNED.
6. SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE INSTALLED DURING THE INITIAL GRADING AT LOCATIONS THAT WILL PROVIDE THE BEST PROTECTION FROM OFF-SITE DAMAGES.
7. ALL SLOPES EXCEEDING 3:1 SHALL HAVE EXTRA SLOPE PROTECTION SUCH AS NETTING.
8. INLET PROTECTION IS REQUIRED TO MINIMIZE DISCHARGE OF SEDIMENT LADEN WATER.
9. SITE PERIMETER CONTROLS ARE REQUIRED AND SHALL BE INSTALLED TO PREVENT THE DEPOSIT OF SOIL AND DEBRIS FROM GRADED SURFACES ONTO PUBLIC STREETS, INTO DRAINAGE CHANNELS OR SEWERS, OR ONTO ADJOINING LAND.
10. EROSION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIRED. CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL AND REVISE THE CONTROLS AS NEEDED.

INSPECTIONS AND MAINTENANCE

1. ALL EROSION CONTROL MEASURES, DISCHARGE LOCATIONS, VEHICLE EXITS, DISTURBED AREAS OF THE SITE, AND MATERIALS STORAGE AREAS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. EACH INSPECTION MUST BE DOCUMENTED IN ACCORDANCE WITH THE KPDES GENERAL PERMIT FOR STORMWATER POINT SOURCE DISCHARGES FROM CONSTRUCTION ACTIVITIES (KYR10).
2. SEDIMENT ACCUMULATED AT THE SILT FENCES, INLET PROTECTION AREAS, AND OTHER SILT CHECK DEVICES SHOULD BE REMOVED NO LATER THAN WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES MAXIMUM.
3. SEDIMENT MUST BE REMOVED FROM ANY SEDIMENT BASINS WHEN THE NO MORE THAN 1/3 VOLUME HAS BEEN FILLED WITH COLLECTED SEDIMENT.
4. ALL REQUIRED REPAIRS ARE TO BE MADE IMMEDIATELY.
5. REMOVED SEDIMENT MUST BE SPREAD AND VEGETATED OR OTHERWISE STABILIZED IN A MANNER THAT DOES NOT RESULT IN MUDDY RUNOFF TO NEARBY DITCHES AND WATERBODIES.
6. INSPECT THE CONSTRUCTION ENTRANCE DAILY TO ENSURE NO TRACKING OR DIRT ONTO LOCAL ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS MUST BE REMOVED IMMEDIATELY. SEE NOTE 3 FOR HANDLING OF REMOVED SEDIMENT.
7. MAINTAIN THE ENTRANCE AS NECESSARY TO PREVENT TRACKING OF DIRT.



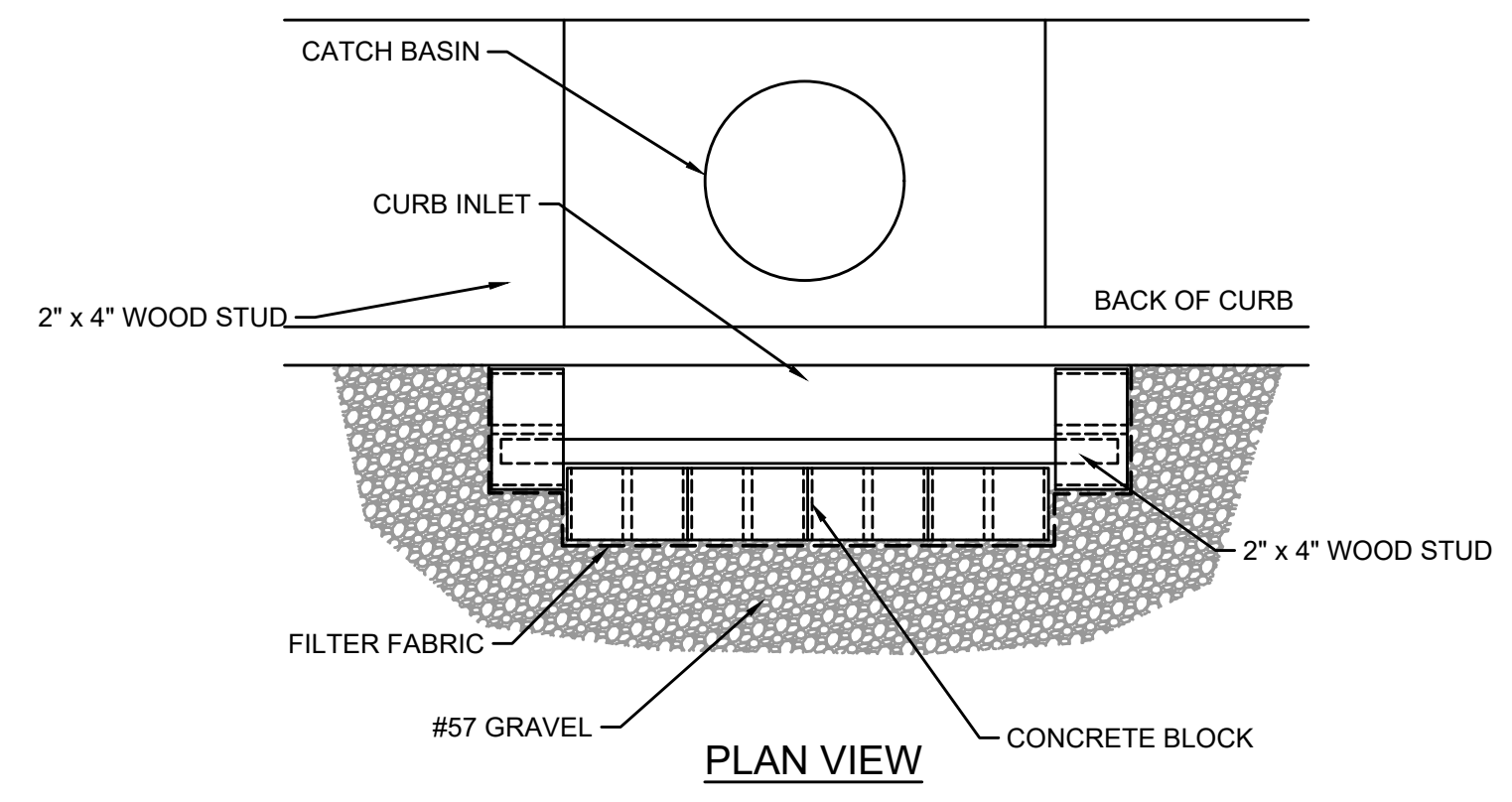
PLAN



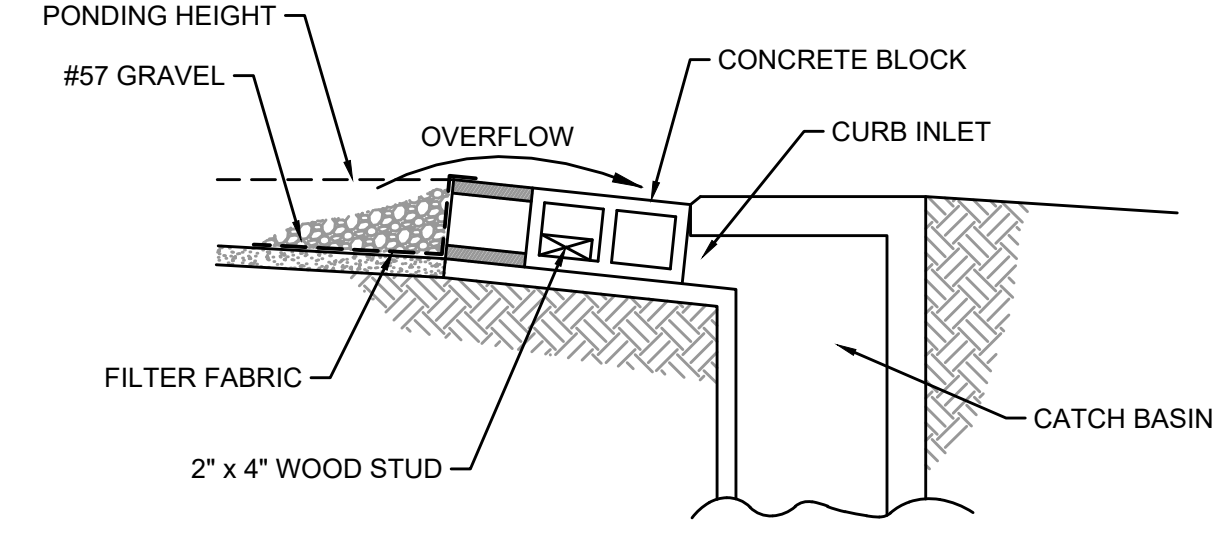
SECTION

- NOTES:**
1. DROP INLET PROTECTION ARE TO BE USED FOR NEARLY LEVEL DRAINAGE AREAS.
 2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

DROP INLET PROTECTION - DETAIL
NOT TO SCALE



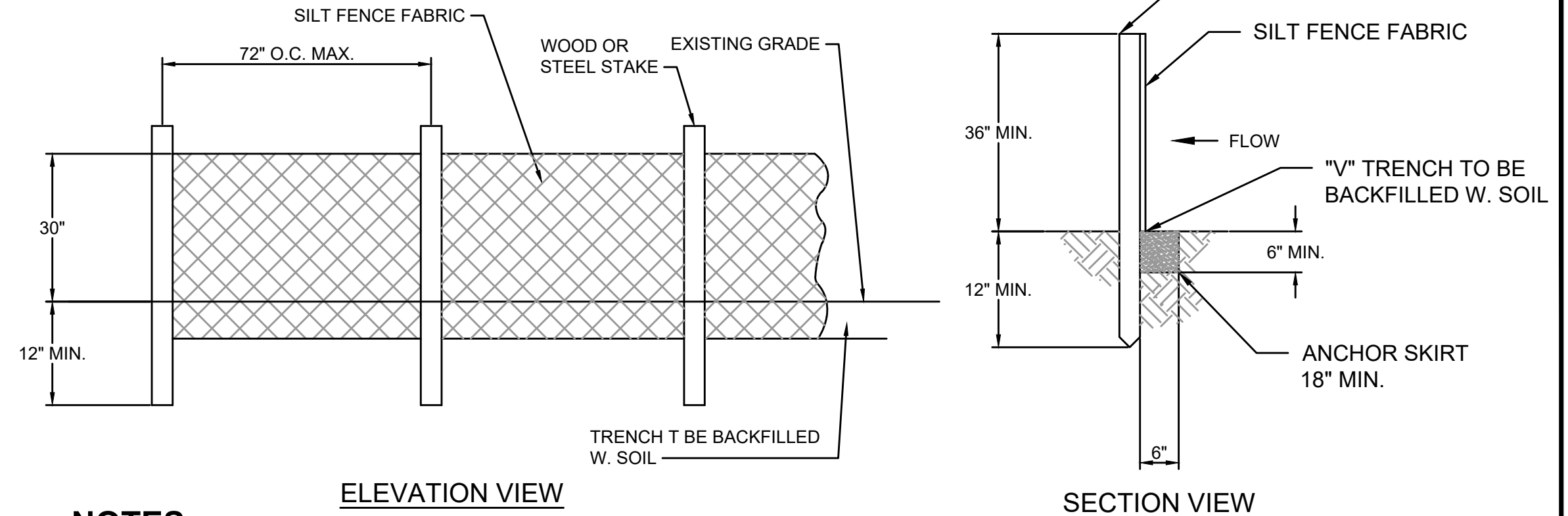
PLAN VIEW



SECTION VIEW

- NOTES:**
1. USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
 3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER - DETAIL
NOT TO SCALE

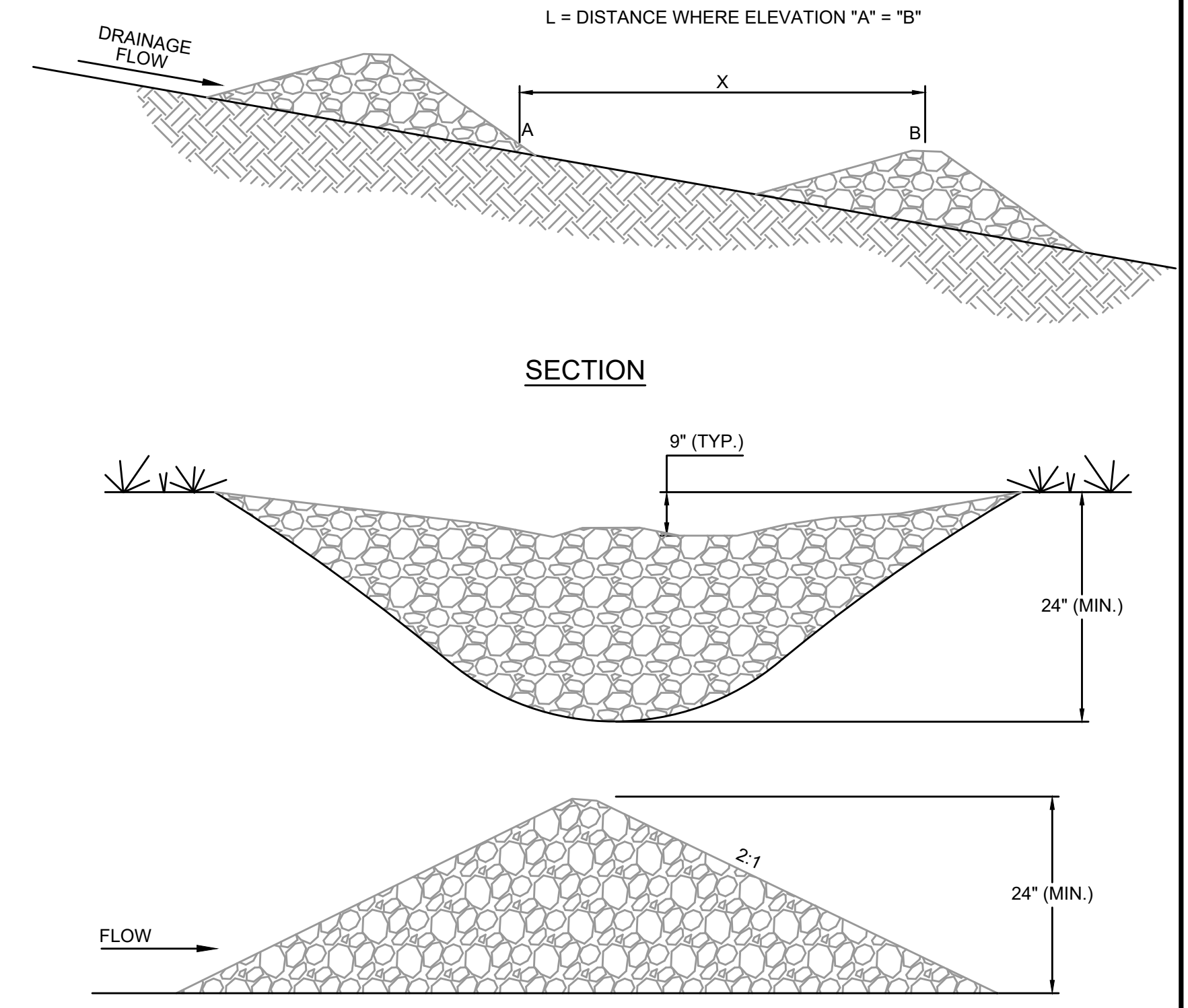


ELEVATION VIEW

SECTION VIEW

- NOTES:**
1. SILT FENCE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE OF THE BARRIER. WHEN JOINTS CANNOT BE AVOID, SILT FENCE FABRIC SHALL BE SPLICED TOGETHER ONLY AT A POST WITH 3 FOOT MIN. OVERLAP, AND SECURELY SEALED.
 2. POSTED SHALL BE AT LEAST 5 FEET IN LENGTH.
 3. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE AND FABRIC.
 4. WOOD POSTS SHALL BE 2 INCHES BY 2 INCHES OR EQUIVALENT. STEEL POSTS SHALL BE 1/33 LBS PER LINEAR FOOT.
 5. IF REQUIRED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH IN LENGTH, WIRE TIES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE
 6. TURN SILT FENCE UP SLOPE AT ENDS.

SILT FENCE - DETAIL
NOT TO SCALE



SECTION

FLOW

NOTES:

1. ROCK CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED 5 TO 10 INCH STONE. MECHANICAL OR HAND PLACEMENTS SHALL BE REQUIRED TO ENSURE COMPLETE COVERAGE OF THE ENTIRE WIDTH OF DITCH OR SWALE AND THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
2. INSPECT BEHIND RIPRAP CHECKDAM DAILY AND CLEAN WHEN COLLECTED DEBRIS EXCEEDS HALF OF ITS DEPTH.

ROCK CHECK DAM - DETAIL
NOT TO SCALE

NO.	DATE	BY	REVISIONS

US 231 ELEVATED WATER TANK
CONTRACT 02 - WATER TANK
STANDARD DETAILS - EROSION CONTROLS

BLUEGRASS ENGINEERING, PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	17023
DATE:	AUGUST 2019
PROJECT MGR:	MRC
DRAWN BY:	MRC
CHECKED BY:	PBR

Professional Engineer Seal for Matthew Ray Curtis, No. 25718, State of Kentucky, dated 8/14/2019.

BID SET FOR CONSTRUCTION