# 2019 - WATER SYSTEM IMPROVEMENTS CONTRACT 13 - WATER MAIN REPLACEMENT SANDY HOOK WATER DISTRICT

**APRIL 2022** 

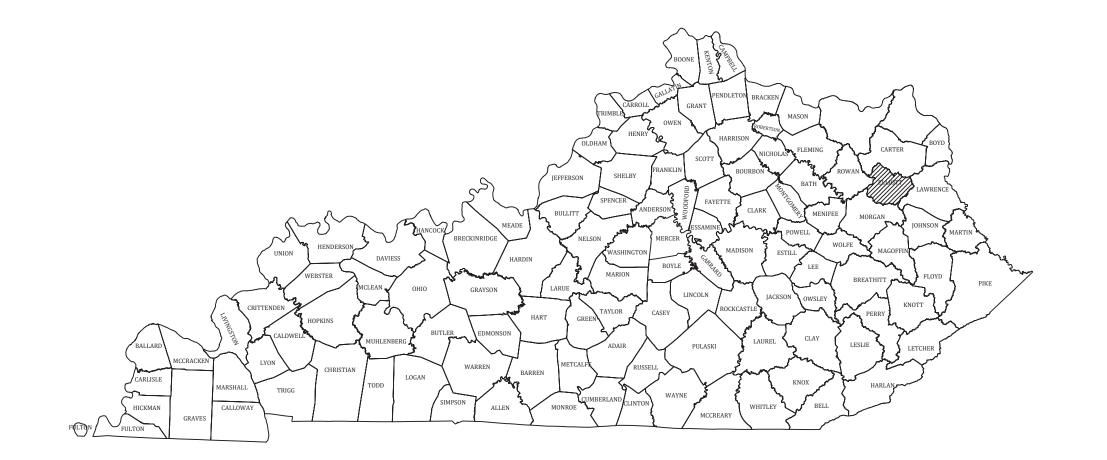
PREPARED BY:

# **BOARD MEMBERS:**

PHILLIP JUSTICE - CHAIRMEN
IRA VEST - SECRETARY
ESTILL HOWARD
BEULIN HILL

BRIDGETT HOWARD - GENERAL MANAGER KEVIN WINKLEMAN - SUPERINTENDENT







### **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.
- 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 NOT BE PERMITTED IN STREETS, ROADS, NARROW RIGHTS-OF-WAY OR OTHER CONSTRICTED AREAS UNLESS OTHER WISE 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
- 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
- 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.
- 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 SUSTITUTED 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

- 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
- ALL NEW SERVICE LINE FROM THE NEW MAIN TO THE SETTERS SHALL BE 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	125 FEET
1 INCH	150 FEET
1-1/2 INCH	200 FEET
	0=0 ====

APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.

CUSTOMER SERVICES.

- CONNECTIONS TO EXISTING DISTRIBUTION SYSTEM SHALL BE MADE AS FOLLOWS:
- A. 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.
- B. 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 PVC CASING SHALL BE MINIMUM OF 4" LARGER THAN CARRIER PIPE. STEEL CASING MINIMUM 6" LARGER.
- ALL EXISTING METERS SHALL BE RECONNECTED TO NEW WATER MAINS W/NEW 3/4" PE SERVICE LINE.
- NMR (NEW METER RECONNECT) MARKED ON PLANS WILL NOTE THOSE MATERIALS THAT WILL BE REPLACED WITH NEW METER ASSEMBLY'S (SETTER, BOX, LID, ETC) AND RECONNECTED TO EXISTING SERVICE AND NEW WATER MAIN.
- ANY MAILBOX THAT IS REMOVED FOR THE INSTALLATION OF THE WATER MAIN MUST BE RE-INSTALLED ONCE THE WATER MAIN HAS BEEN INSTALLED.
- ALL CONNECTIONS BETWEEN THE PVC AND HDPE MUST BE SEALED IN PLASTIC AND CONCRETED.

### **GENERAL NOTES**

- 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 BAC-T RESULTS MUST BE PROVIDED TO THE OWNER PRIOR TO RECONNECTS OF ANY
- A NO. 12 AWG INSULATED COPPER LOCATOR WIRE SHALL BE TAPED TO THE TOP OF THE WATER MAIN PIPE. THE INSULATION SHALL BE BLUE FOR WATER. THE WIRE SHALL BE LOOPED OUTSIDE 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.

### **CONSTRUCTION IN KTC RIGHT-OF-WAY**

- 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.

# PUMP STATION NRIGLEY TANK

### INDEX OF DRAWINGS

SHT NO.	DESCRIPTION:
-	COVER
01	PROJECT MAP, EXISTING UTILITIES, LEGEND, AND DRAWING INDEX
02	AERIAL PLAN - KY 556 - STA. 10+00 TO 40+00
03	AERIAL PLAN - KY 556 - STA. 40+00 TO 47+12
04	AERIAL PLAN - KY 755 - STA. 10+00 TO 33+00
05	AERIAL PLAN - KY 755 - STA. 33+00 TO 61+00
06	AERIAL PLAN - KY 755 - STA. 61+00 TO 86+00
07	AERIAL PLAN - KY 755 - STA. 86+00 TO 114+00
08	AERIAL PLAN - KY 755 - STA. 114+00 TO 143+00
09	AERIAL PLAN - KY 755 - STA. 143+00 TO 155+46
10	WRIGLEY TANK & KY 7 BOOSTER PUMP STATION
11	STANDARD DETAILS
12	STANDARD DETAILS
13	STANDARD DETAILS
14	STANDARD DETAILS

### **LEGEND**

	NEW WATER MAIN
— WAT—— WAT—	EXISTING WATER MAIN
— SAN — SAN —	EXISTING SANITARY SEWER
— GAS — GAS —	EXISTING GAS MAIN
— FM — FM —	EXISTING FORCE MAIN
<del>-===</del>	NEW STEEL CASING
	EXISTING CULVERT
111	NEW FLUSHING HYDRANT
Q <sub>I</sub> T <sub>I</sub>	EXISTING FLUSHING HYDRANT

SHEET LOCATION MAP

# **EXISTING WATER METER**

NEW GATE VALVE & BOX NEW GATE VALVE & BOX EXISTING MANHOLE

AIR RELEASE

**BLOW OFF ASSEMBLY** 

**BLOW OFF ASSEMBLY** 

### UTILITIES

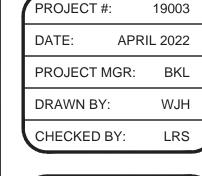
BUD - Before You Dig 1-800-752-6007 or DIAL 811

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 DISTRICT

SANDY HOOK WATER DISTRICT

PHONE: 606-738-6282



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PROJECT #: DATE: APRIL 2022 PROJECT MGR: LRS

DRAWN BY: CHECKED BY: PBR





JOHN DAVID ELLIOTT PO BOX 1024 113-74 JOHN D. ISON-EST-C/O
WANDA WILLIAMS
PO BOX 743
4-80 DARRELL & ELAINE FANNIN 858 KY 556 72-411 STA. 40+00 TO STA. 41+36 LAY WATER MAIN BEHIND UTILITY POLE 80 L.F. OF 6" HDPE DR 9 DIRECTIONAL DRILL PVC CASING | BE ABANDONED) | PIPE BORE | I OPEN CUT COUNTY ROAD NEW 6" WATER MAIN, DR18 (LINE A) — ATTHEW RYAN GILLIAN WANDA WILLIAMS 8 ROBERT ISON PO BOX 743 NOTES: ALL PVC PIPE SHALL BE DR18
NM = NEW METER & RECONNECT EXISTING SERVICE
RECONNECT ALL METERS

STA. 47+12

2019 WATER SYSTEM IMPROVEMENTS PROJECT

S WATER DISTRICT
Serving Our Community

DJECT #: 19003

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APRIL 2022

PROJECT #: 19003

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PROJECT MGR: LRS

DRAWN BY: WJH

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2019 WATER EX. 4" PVC (TO BE ABANDONED) -BRENDA ADKINS PO BOX 471 92-112 SEE SHEET 02 FOR 6" WATER MAIN (LINE A) — NEW 4" WATER MAIN, DR18 (LINE B) JOHN C. & BETTY WILLIAMS 497 KY 755 SEE SHEET 02 FOR 6" WATER MAIN (LINE A) JOHN C. & BETTY WILLIAMS' 497 KY 755 80-596 STA. 100+00 6"x6"x4" D.I.M.J. TEE 1 - 6" GATE VALVE & BOX 1 - 4" GATE VALVE & BOX NOTES: ALL PVC PIPE SHALL BE DR18 NM = NEW METER & RECONNECT EXISTING SERVICE RECONNECT ALL METERS

BLUEGRAS

PROJECT #:

DATE: APRIL 2022 PROJECT MGR: LRS DRAWN BY: CHECKED BY: PBR



EXISTING SERVICE LINE (ABANDONED, BUT MUST BE REPAIRED IF CUT) PHILLIP MAYSE 350 THORNSBERRY RD 79-129 MAYSE RENTALS LLC 130 PRIMROSE DRIVE MILLER RODGER C/O BARB E MILLER 30 L.F. OF 10" STEEL CASING BORE & JACK -ROY MAYSE 822 KY 755 NEW 4" WATER MAIN, DR18 (LINE B) LAY WATER MAIN THROUGH GATE AND BETWEEN THE FENCE AND HOUSE -RODGER & TERESA MAYSE 898 KY 755 10-329 EX. 4" PVC (TO BE ABANDONED) 4"x4"x3" D.I.M.J. TEE 1 - 3" GATE VALVE & BOX EX. 3" PVC WATER MAIN ROY MAYSE 822 KY 755 80-178 20 L.F. OF 10" PVC CASING BORE & JACK ALL PVC PIPE SHALL BE DR18 NM = NEW METER & RECONNECT EXISTING SERVICE RECONNECT ALL METERS

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WATER DISTRICT
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ECT #: 19003

APRIL 2022

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05

STA. 204+26 (LINE C) 2" 90° D.I.M.J. BEND 1-2" GATE VALVE AND BOX SYSTEM IMPROVEMENT PROJECT DAVID & VICKIE FOX 1253 KY 557 DAVID & VICKIE FOX 1253 KY 557 106-19 106-19 STA. 160+81 (LINE B) = STA. 200+00 (LINE C) 4"x4"x4" D.I.M.J. TEE 1-4" GATE VALVE AND BOX 1-4"x2" D.I.M.J. REDUCER 35 L.F. OF 10" STEEL CASING BORE & JACK -2019 410 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL S RUIN RD (KY 755) 30 L.F. OF 10" PVC CASING OPEN CUT REMOVE & CLEAN
UP SMALL GROWTH NEW 4" WATER MAIN, DR18 (LINE B) -LAY WATER MAIN ON EXISTING WATER MAIN EASEMENT EX. 4" PVC (TO BE ABANDONED) NEW 4" WATER MAIN, DR18 (LINE B) PHILLIP & KATIE ISON 1439 KATIE ISON LN 116-767 (EXISTING EASEMENT) REBECCA FULKS PO BOX 765 97-471 RANDY & KELLY DEERFIELD PO BOX 734 105-601 PROJECT #: DATE: NOVEMBER 2021 PROJECT MGR: LRS DRAWN BY: CHECKED BY: PBR NOTES: ALL PVC PIPE SHALL BE DR18
NM = NEW METER & RECONNECT EXISTING SERVICE
RECONNECT ALL METERS

LAY WATER MAIN ON EXISTING WATER MAIN EASEMENT RAYMOND ERWIN & ROBIN CRAFT
1733 KY 755
118-793
(EXISTING EASEMENT) EXISTING 1" SERVICE LINE 70 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL 120 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL EX. 4" PVC (TO BE ABANDONED) 100 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL 4" GATE VALVE W/BOX NEW 4" WATER MAIN, DR18 (LINE B) PHILLIP & KATIE ISON 1439 KATIE ISON LN 116-767 2293 KY 755 118-123 (EXISTING EASEMENT) DEREK SEAN & MABEL D. HOWARD 2380 HWY 556 114-470 (EXISTING EASEMENT) NEW 4" WATER MAIN, DR18 (LINE B) DRAWN BY: ALL PVC PIPE SHALL BE DR18
NM = NEW METER & RECONNECT EXISTING SERVICE
RECONNECT ALL METERS

SYSTEM IMPROVEMENTS PROJECT 2019

PROJECT #: DATE: APRIL 2022 PROJECT MGR: LRS





AY WATER MAIN ON EXISTING WATER MAIN EASEMENT NEW 4" WATER MAIN, DR18 (LINE B) 1-4"x4" TAPPING SLEEVE 4" GATE VALVE AND BOX 1-4" 90° D.I.M.J. BEND RECONNECT EXISTING
1" SERVICE LINE TO NEW 4" WATER MAIN, DR18 (LINE B) NEW 4" WATER MAIN 1-4"x4"x4" D.I.M.J. TEE — TIMOTHY & MICHELLE ADKINS 135 ASH RD 106-692 (EXISTING EASEMENT) SAMUEL & KATHY PREWITT CUT & PLUG 2381 KY 755 103-318 (EXISTING EASEMENT) 120 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL 20 L.F. OF 10" PVC CASING BILLIE JO BROWN
275 BRAMBLEWOOD LANE
77-312
(EXISTING EASEMENT) SANDRA S. HOWARD 582 CLYDE HOWARD RD 115-456 (EXISTING EASEMENT) 1-4"x4"x4" D.I.M.J. TEE — NOTES: ALL PVC PIPE SHALL BE DR18
NM = NEW METER & RECONNECT EXISTING SERVICE
RECONNECT ALL METERS

2019

PROJECT #: DATE: APRIL 2022 PROJECT MGR: LRS DRAWN BY: CHECKED BY: PBR



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LAY WATER MAIN ON EXISTING WATER MAIN EASEMENT EX. 4" PVC (TO BE ABANDONED) EXISTING BLOWOFF ASSEMBLY NEW BLOWOFF ASSEMBLY TIMOTHY & MICHELLE ADKINS
135 ASH RD
106-692
(EXISTING EASEMENT) 180 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL 120 L.F. OF 4" HDPE DR 9 DIRECTIONAL DRILL NOTES: ALL PVC PIPE SHALL BE DR18
NM = NEW METER & RECONNECT EXISTING SERVICE
RECONNECT ALL METERS

2019 WATER SYSTEM IMPROVEMENTS PROJECT

BLUEGRASS

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Serving Our Com

PROJECT #: 19003

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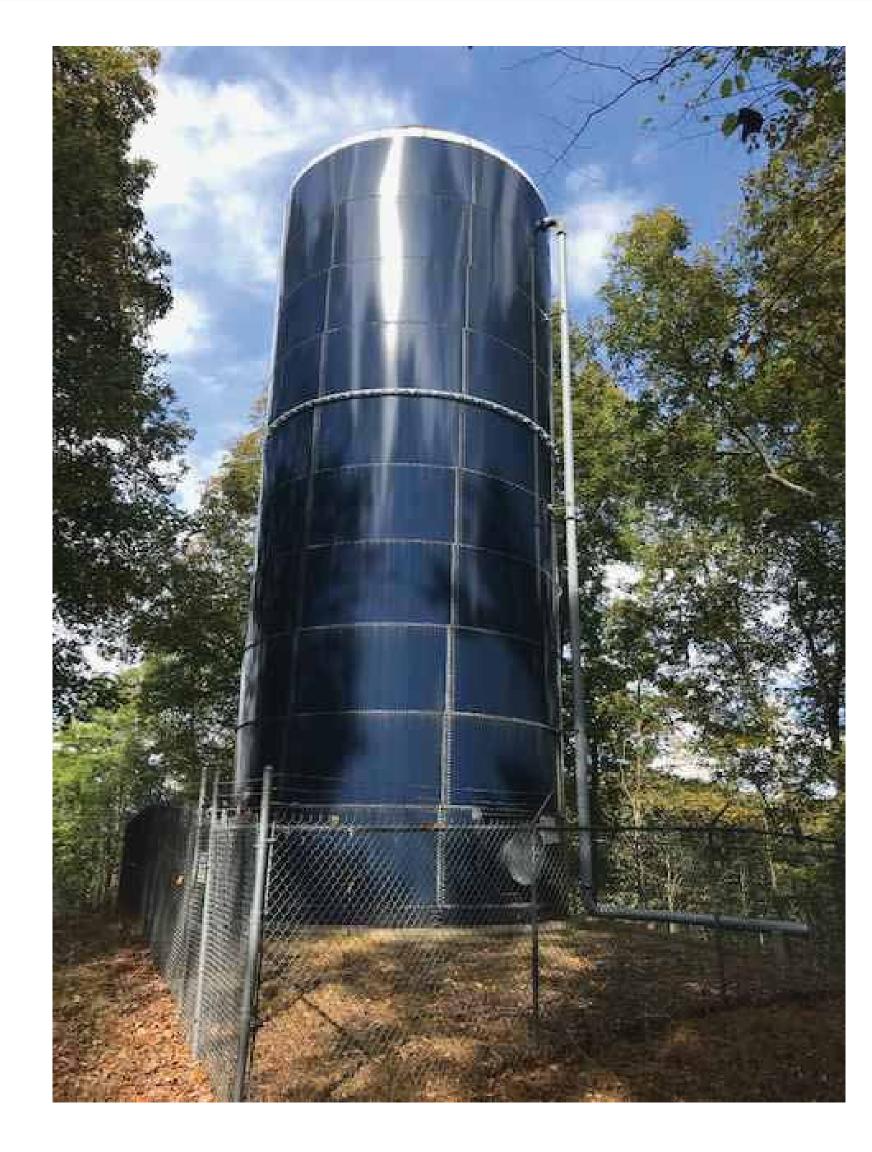
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PROJECT MGR: LRS

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# **ELEVATION VIEW - WRIGLEY TANK**

NOT TO SCALE

### COORDINATES

LATITUDE: 38° 02' 13.70" N LONGITUDE: -83° 13' 35.64" W

### **GENERAL NOTES**

- HIGH-PRESSURE POWER WASH THE INTERIOR TO REMOVE SEDIMENT AND STAINING
- SSPC SP-3 SURFACE PREPARATION FOR ALL CORROSION SPOTS
- APPLY NSF APPROVED MASTIC TO ALL CLEANED SPOTS
- REPAIR FLOAT FOR INDICATOR BOARD
- INSTALL NEW SACRIFICIAL ANODES
- ALL FAILING SPOTS SHOULD BE POWER TOOL CLEANED BARE (SSPC-SP-3) AND COATED WITH MASTIC COATING
- APPLY NSF APPROVED MASTIC TO ALL INTERIOR SEAMS (2 COATS REQUIRED)
- NOTE: DRILLING OF HOLES OR REMOVAL OF BOLTS ON ANY PART OF THE TANK FOR RIGGING PURPOSES WILL NOT BE ALLOWED.



### **ELEVATION VIEW - EX. KY 7 BOOSTER PUMP STATION**

NOT TO SCALE

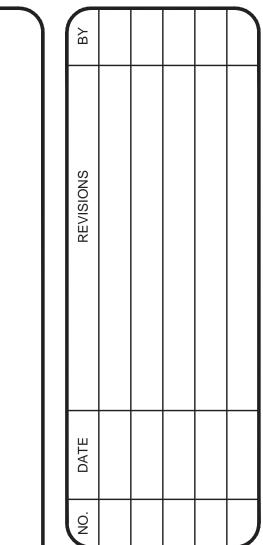
### COORDINATES

LATITUDE: 38° 03' 43.04" N LONGITUDE: -83° 11' 47.79" W

### **GENERAL NOTES**

- CONTRACTOR SHALL SUPPLY TWO NEW 10 HP 90 GPM GRUNDFOS PUMPS AND TWO (2) NEW DANFOSS VARIABLE FREQUENCY DRIVES (VFD'S), MODEL VLT AQUA, NEMA 12 WALL MOUNTED, WITH INTEGRAL DISCONNECT, RATED FOR 25 AMPS AND INTERFACING WITH THE NEW PUMPS.
- VFD'S SHALL BE CAPABLE OF CONSTANT PRESSURE CONTROL UTILIZING TWO (2) DANFOSS MBS30000, 0-200 PSI PRESSURE TRANSMITTERS.
- VFD'S SHALL ALSO INTERFACE WITH A NEW PILOT PANEL THAT WILL INCLUDE NECESSARY COMPONENTS FOR SWITCHING
  FROM TELEMETRY CONTROL TO CONSTANT PRESSURE CONTROL WITH A CONTACT SWITCH.
   THE PILOT PANEL SHALL ALSO INCLUDE A 24 HOUR TIMER FOR ALTERNATION OF THE PUMPS DURING CONSTANT
- PRESSURE CONTROL.

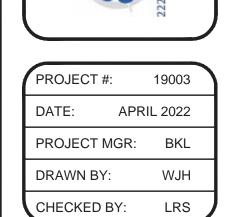
   ALL WIRING AND CONDUIT SHALL MEET NEC REQUIREMENTS, AND WORK SHALL BE PERFORMED BY A LICENSED MASTER
- ELECTRICIAN.
   VFD'S SHALL HAVE CAPABILITY TO HAVE DISCHARGE AND SUCTION PRESSURE EMERGENCY SHUT OFFS BASED ON 150
   PSI FOR THE DISCHARGE AND 30 PSI FOR THE SUCTION PRESSURE.
- THIS PUMP STATION MUST BE ABLE TO OPERATE OFF THE VFD CONSTANT PRESSURE MODE WHILE THE WRIGLEY TANK IS BEING REHABILITATED.



PROJECT

WRIGLEY T







BE DETERMINED DURING SHOP DRAWING REVIEW.

CARRIER PIPES SHALL BE RESTRAINED JOINT (GRIP

GASKETS, MECHANICAL, YELLOWMITE PIPE, ETC.)

SPACERS SHALL BE USED IN CASING PIPES.

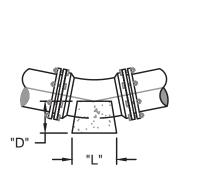
**CASING - DETAIL** 

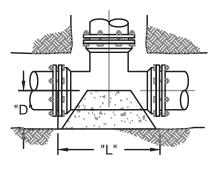
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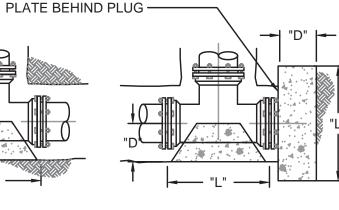
EACH END —

DETAIL - END SEAL

SOIL TYPE - SAND & GRAVEL THRUST BLOCK SCHEDULE BEARING STRENGTH = 3000 PSF 11 1/4°BEND 90° BEND 45° BEND 22 1/2° BEND TEE & DEAD ENDS YDS OF CONCRETE D W L BEARING YDS OF CONCRETE D W L SIZE /DS OF D W L BEARING YDS OF D W L 18 | 12 | 12 | 18 | 14 | 1.000 | .06 .500 .02 6 2.250 7.000 18 2.000 1.000 12.250 36 | 30 | 4.000 | .30 | 24 | 24 | 24 | 2.000 20.000 | 1.48 | 24 | 60 | 48 | 10.500 | 10" 42 | 36 | 6.000 | .44 3.000 18 | 14.000 | 1.04 4.000 30.000 2.78 54 | 42 | 7.500 .69 24 | 24 | 24 | 20.000 | 1.17 | 36 | 42 | 36 | 6.000 39.000 4.33 2.22 60 | 48 | 10.500 | 30 | 36 | 24 | 27.500 | 3.06 49.000 6.35 1.81 66 | 60 | 14.000 | 7.500 PLACE 16 GA. SHEET METAL







<u>TEES</u>

 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.

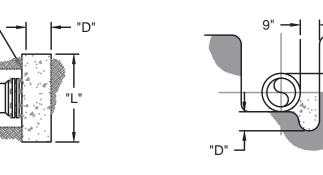
 SEE THIS SHEET FOR BACK FILL DETAILS. DEPTH "D: MAY NOT BE SMALLER THAN SPECIFIED. PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL.

 PLACE CONCRETE ANCHORS 25' C/C. M.J. FITTING(S) SHALL BE WRAPPED IN PLASTIC WRAP

GRIP RINGS SHALL BE USED ON ALL FITTINGS

22.5° & 11.25° BENDS 90° & 45° BENDS

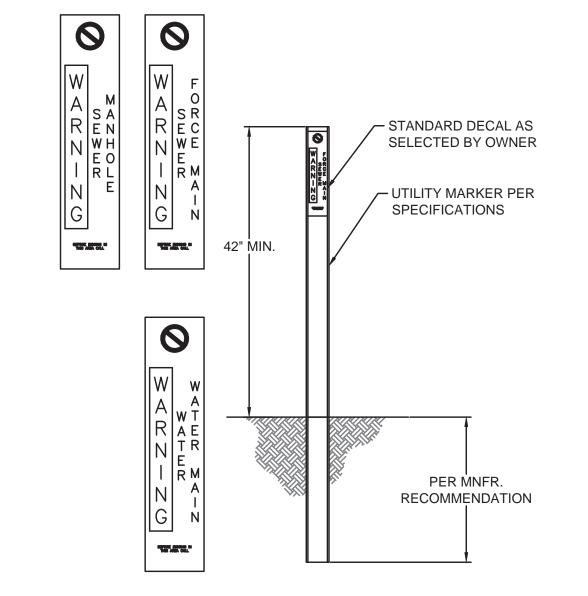
> PLACE 16 GA. SHEET METAL PLATE BEHIND PLUG —  $\frac{1}{4}$ " x 3" S.S. STAP DRILLED TO ACCOMMODATE ANCHOR BOLTS - 3 Ø S.S. ANCHOR BOLTS W. NUTS **VERTICAL BENDS**



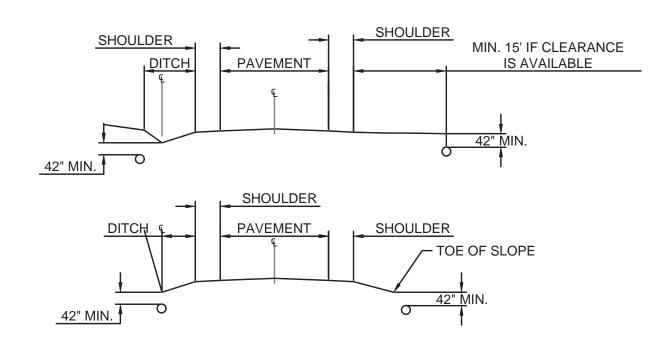
END OF MAIN TYP. SECTION

CONCRETE THRUST BLOCK - DETAIL

NOT TO SCALE







SEE PLANS FOR PIPE SIZE, MATERIAL

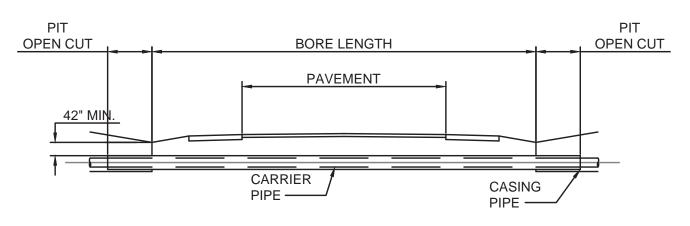
& CLASS.

**CROSS SECTION** 

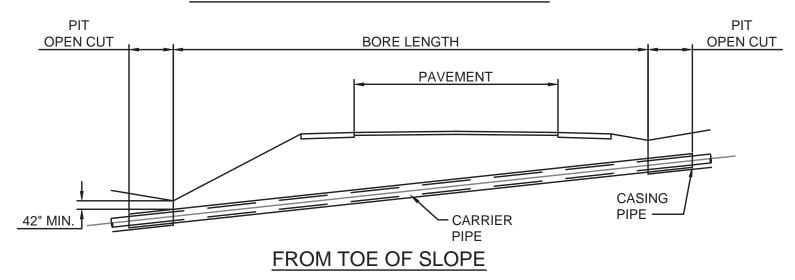
UTILITY PIPELINE WITHIN KTC ROW - DETAIL NOT TO SCALE

### NOTE:

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







KTC CROSSING - DETAIL NOT TO SCALE

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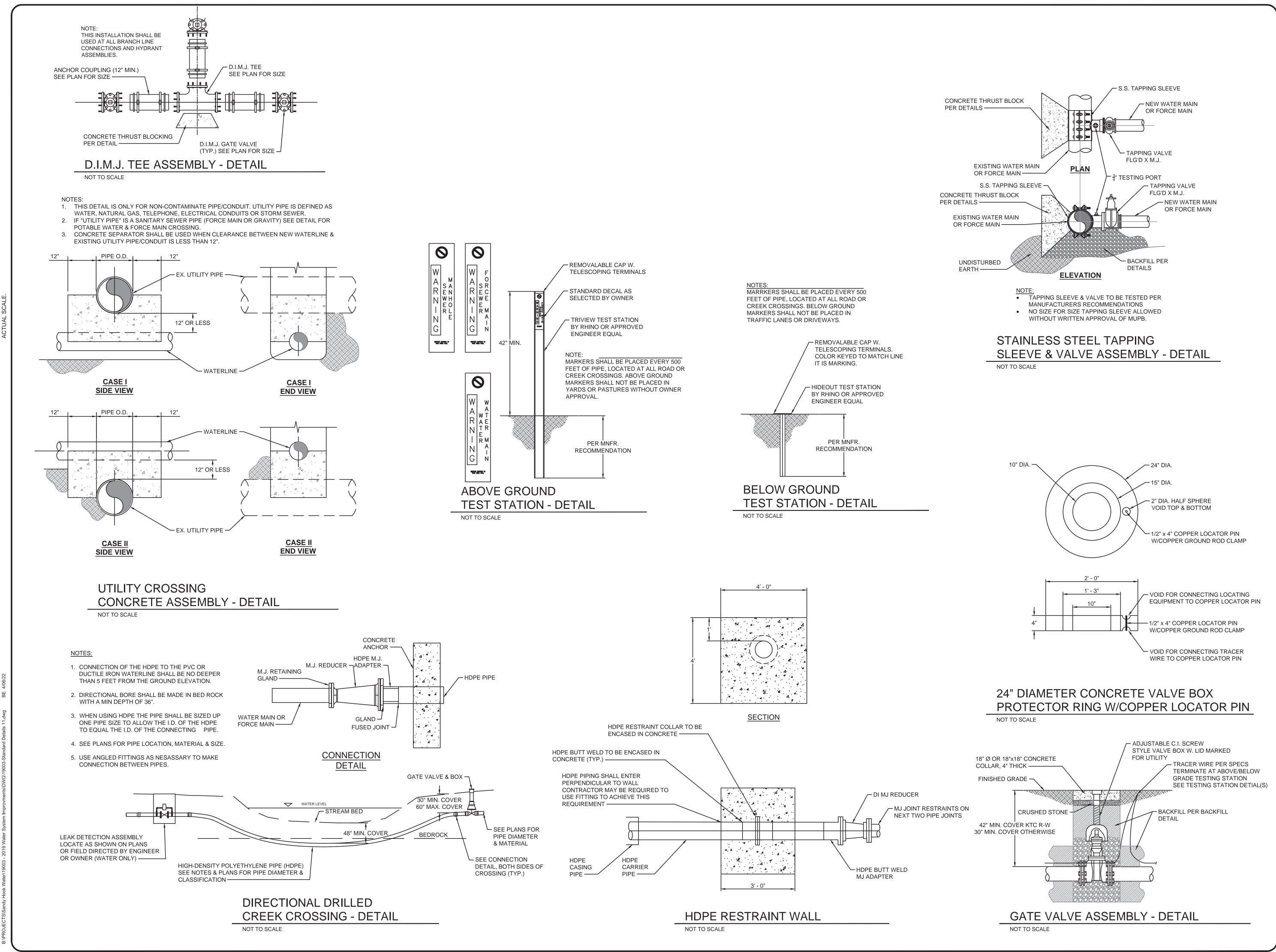
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PROJECT #: APRIL 2022 DATE: PROJECT MGR: BKL DRAWN BY: CHECKED BY: LRS





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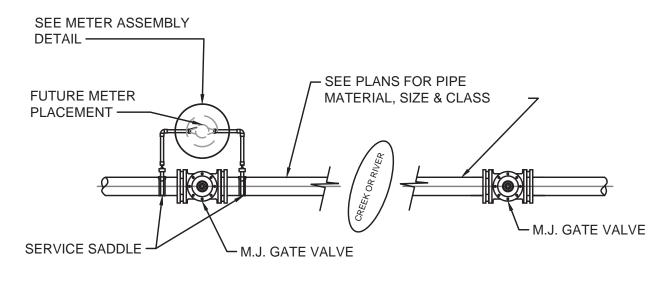
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WATER Serving Ou S BLUEGRAS

PROJECT #: DATE: APRIL 2022 PROJECT MGR: BKL DRAWN BY:

CHECKED BY: LRS





### LEAK DETECTION **ASSEMBLY - DETAIL**

NOT TO SCALE

COVER-SEE SPECIFICATIONS

METER-SEE SPECIFICATIONS

(IPRV)-SEE SPECIFICATIONS

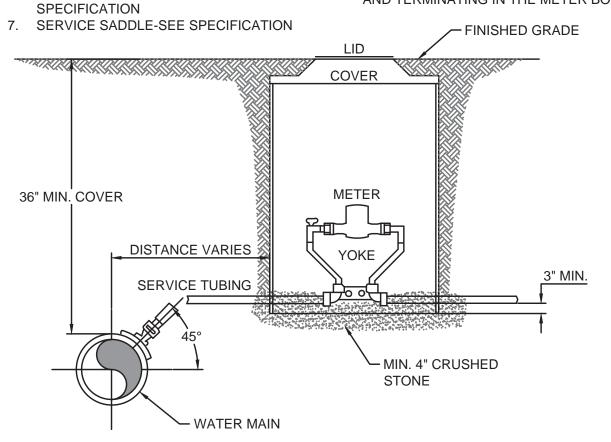
6. CORPORATION STOP-SEE

1. CONTRACTOR IS RESPONSIBLE FOR ALL PLUMBING PERMITS & ASSOCIATED COSTS.

- METER MATERIAL SCHEDULE 2. SEE SPECIFICATIONS REGARDING SPECIFIC MAKE, MODEL, TYPE & STYLE OF FITTINGS, METER, METER YOKE-SEE SPECIFICATIONS BOX, COPPER SETTERS, IPRVs, BOX LID, ETC. METER BOX-SEE SPECIFICATIONS
  - REQUIRED ON ALL METERS WHERE PRESSURE EXCEEDS 90 PSI. 4. TRACER WIRE TO BE CONNECTED TO WATER MAIN

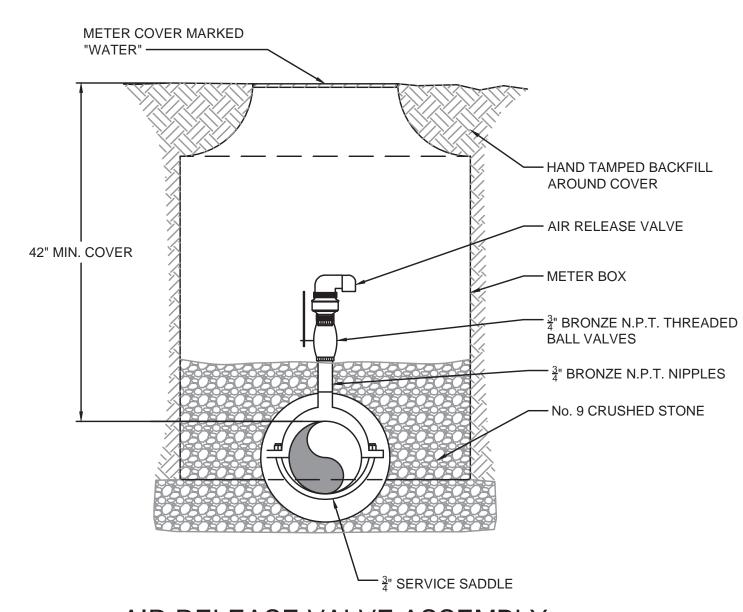
3. INDIVIDUAL PRESSURE REDUCING VALVES

5. INDIVIDUAL PRESSURE REDUCING VALVE TRACER WIRE AND RAN ON NEW SERVICE TUBING AND TERMINATING IN THE METER BOX.



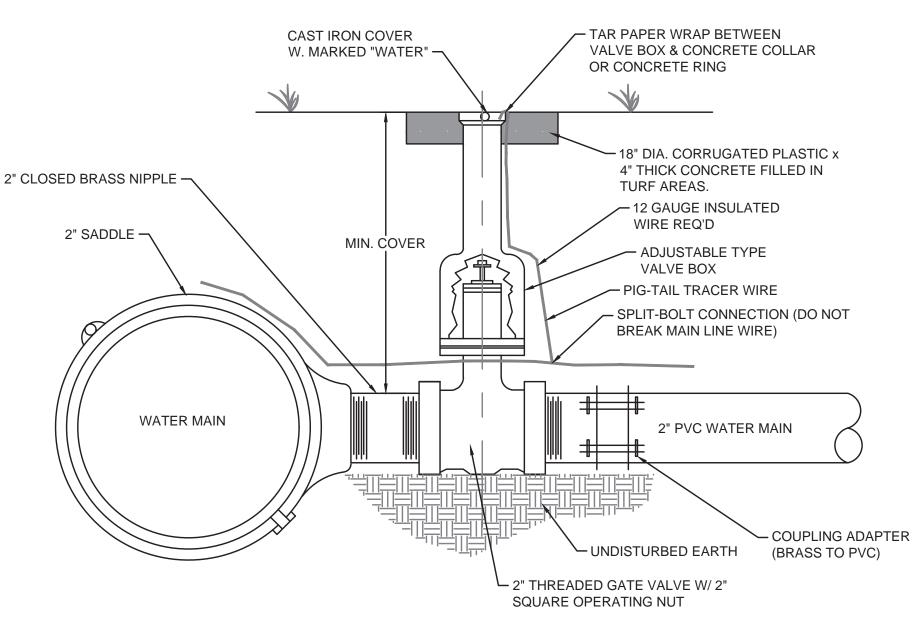
### METER ASSEMBLY - DETAIL

NOT TO SCALE



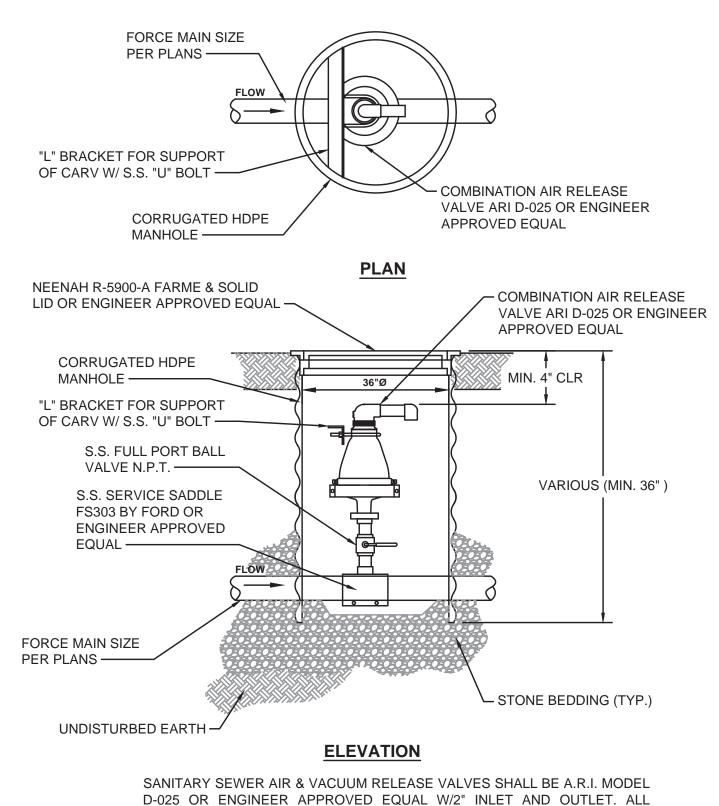
AIR RELEASE VALVE ASSEMBLY WATERLINE ONLY - DETAIL

NOT TO SCALE



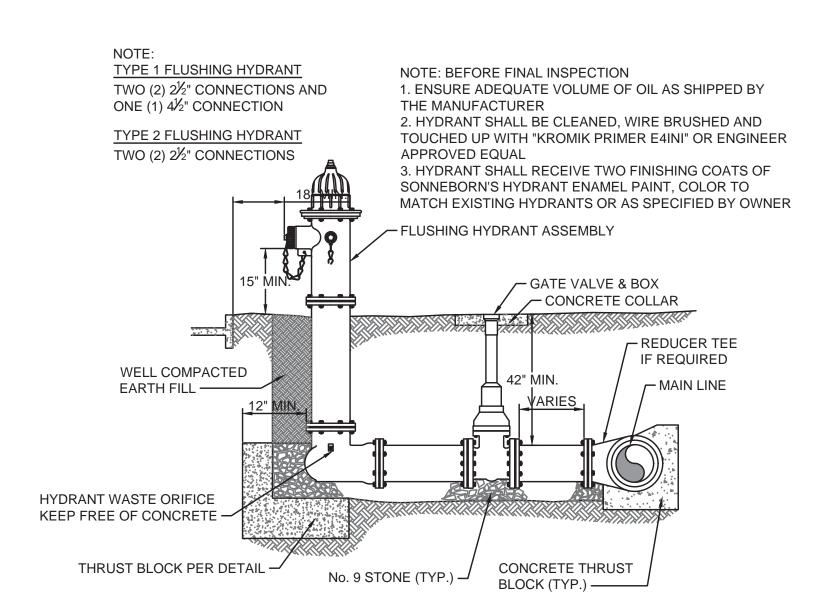
### CONNECTION FOR 2" WATER MAINS

NOT TO SCALE



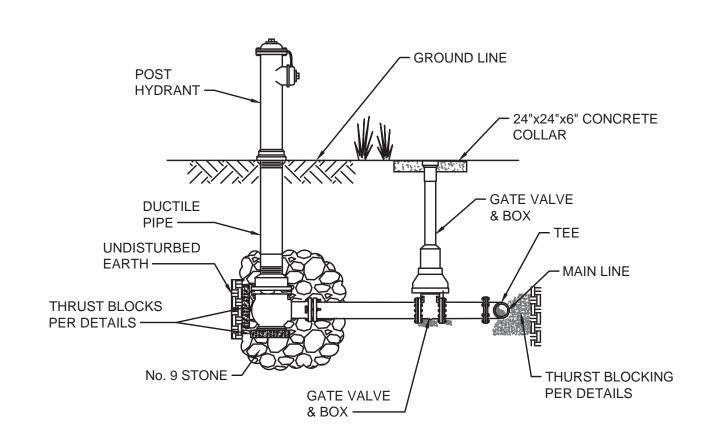
VALVES SHALL BE PROVIDED W/ BACKFLUSHING ATTACHMENTS.

### COMBINATION AIR RELEASE VALVE ASSEMBLY FORCE MAIN ONLY - DETAIL NOT TO SCALE



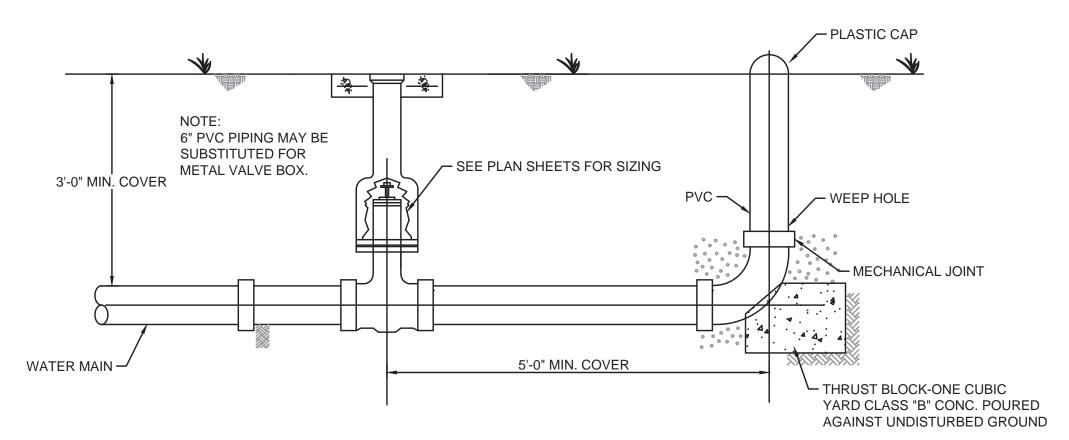
### FLUSHING HYDRANT ASSEMBLY TYPE 1 & 2 - DETAIL

NOT TO SCALE



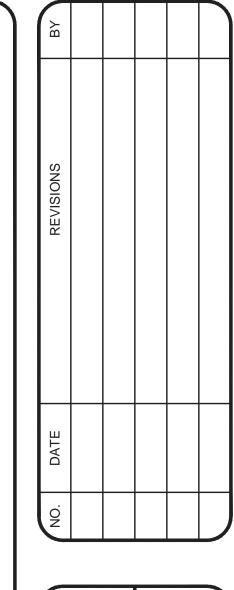
### FLUSHING HYDRANT ASSEMBLY, TYPE 3 - DETAIL

NOT TO SCALE



E.O.L. 2", 3", OR 4" UNDERGROUND **BLOWOFF ASSEMBLY** 

NOT TO SCALE

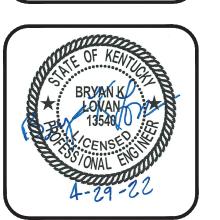


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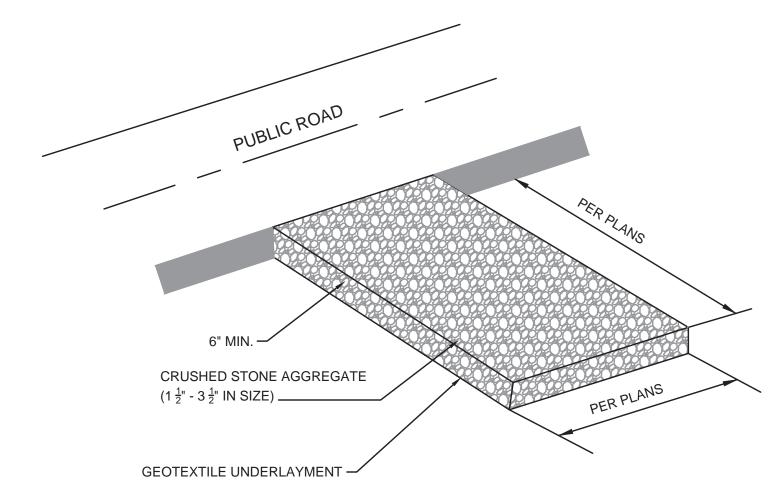
PROJECT #: DATE: APRIL 2022 PROJECT MGR: BKL DRAWN BY: CHECKED BY:



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PER PLANS 6" MIN. OF CRUSHED STONE GEOTEXTILE UNDERLAYMENT SOIL FOUNDATION SHALL BE COMPACTED COMPACTED SUBGRADE

## STABILIZED CONSTRUCTION ENTRANCE - SECTION



- 1. A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
- 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
- UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADBED AND PARKING AREAS.

NOT TO SCALE

- GRADING, SUBGRADE PREPARATION, AND COMPACTION SHALL BE DONE AS NEEDED. FILL MATERIAL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 9 INCHES AND COMPACTED WITH THE CONTROLLED MOVEMENT OF
- COMPACTING 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 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.

NOT TO SCALE

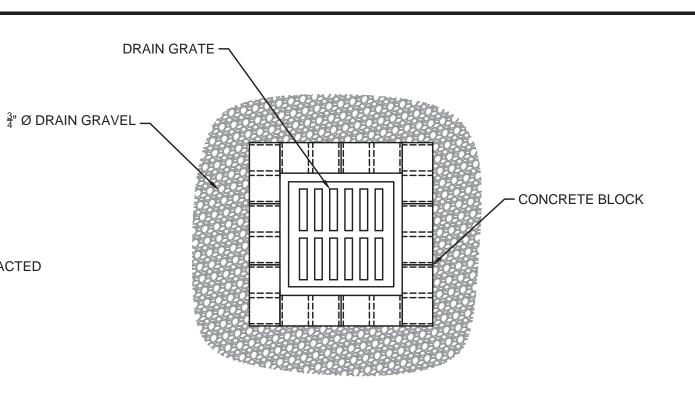
# STABILIZED **CONSTRUCTION ENTRANCE - DETAIL**

**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
- 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.
- 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.
- A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE DEVELOPED AND IMPLEMENTED AS OUTLINED IN THE KPDES STORMWATER PERMIT KYR 10. SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE PROPERLY DESIGNED.
- 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. ALL SLOPES EXCEEDING 3:1 SHALL HAVE EXTRA SLOPE PROTECTION SUCH AS NETTING.
- 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.
- 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.
- REMOVED SEDIMENT MUST BE SPREAD AND VEGETATED OR OTHERWISE STABILIZED IN A MANNER THAT DOES NOT RESULT IN MUDDY RUNOFF TO NEARBY
- 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. MAINTAIN THE ENTRANCE AS NECESSARY TO PREVENT TRACKING OF DIRT.



- CONCRETE BLOCK 3∥ Ø DRAIN GRAVEL — - PONDING HEIGHT **OVERFLOW** WIRE SCREEN OR

PLAN

FILTER FABRIC —

NOTES:

DROP INLET PROECTION ARE TO BE USED FOR NEARLY LEVEL DRAINAGE AREAS.

**SECTION** 

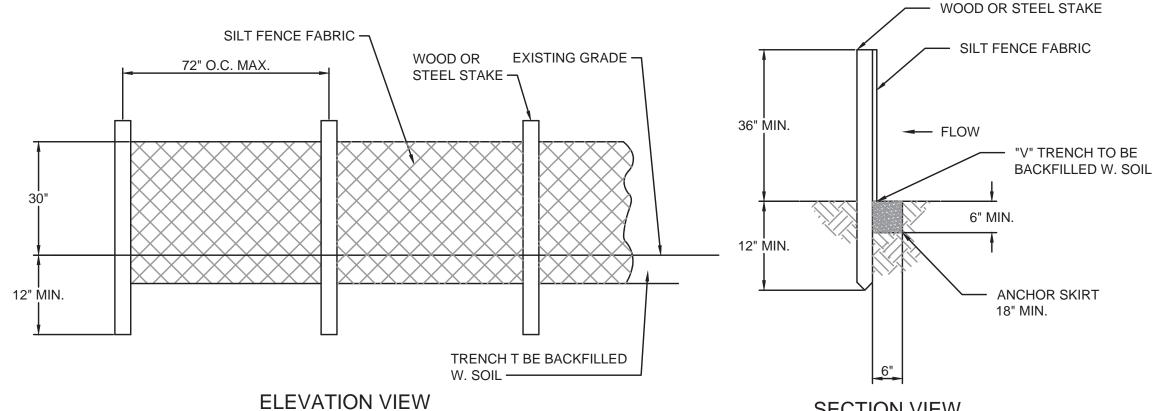
EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET. 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A

TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE

### **DROP INLET PROTECTION - DETAIL**

NOT TO SCALE

STRUCTURE.



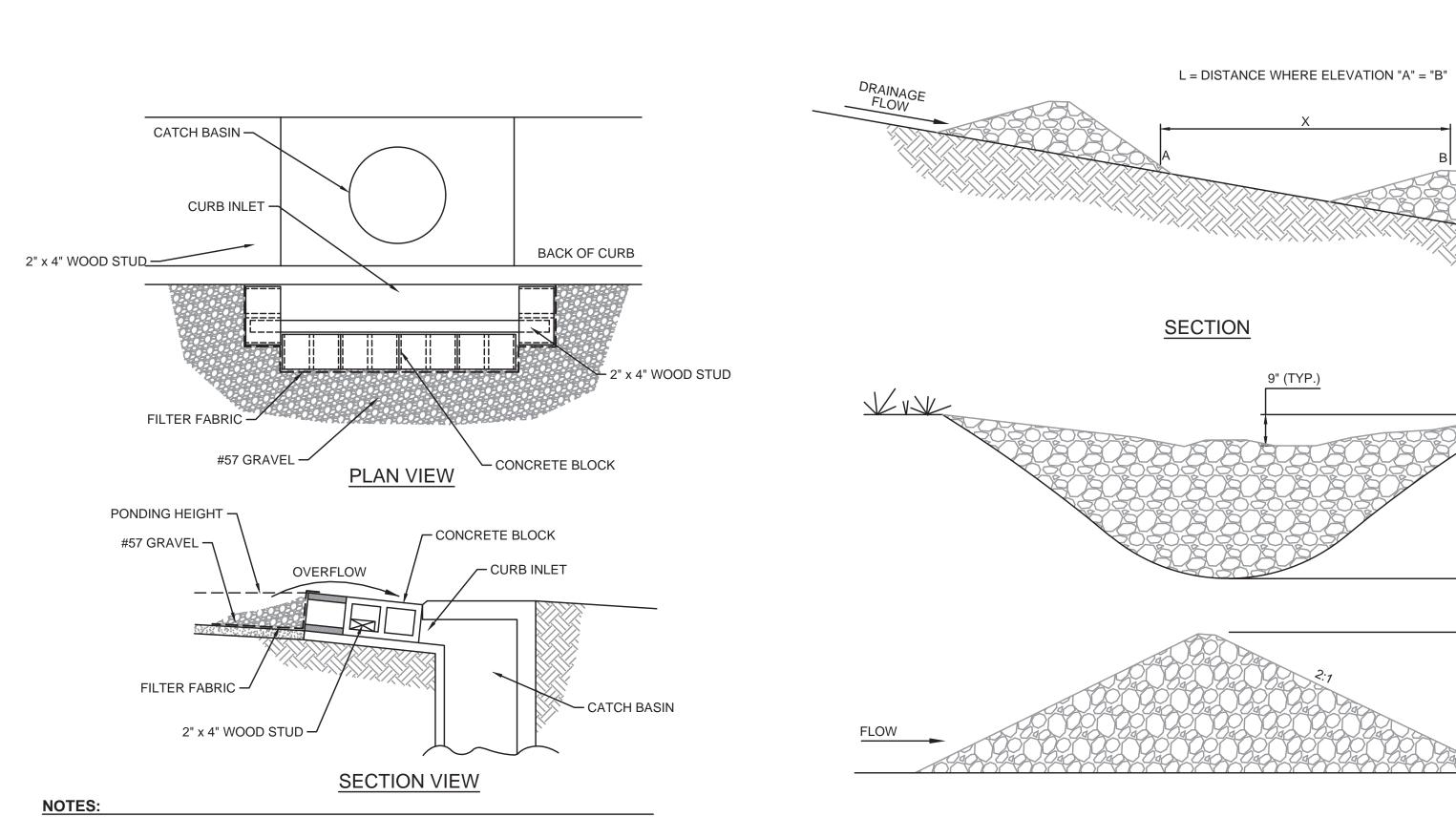
**SECTION VIEW** 

### **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.
- POSTED SHALL BE AT LEAST 5 FEET IN LENGTH.
- STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE AND FABRIC.
- WOOD POSTS SHALL BE 2 INCHES BY 2 INCHES OR EQUIVALENT. STEEL POSTS SHALL BE 1/33 LBS PER LINEAR FOOT. 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



1. USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET

3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE

SEGMENT WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.

SEDIMENT BARRIER - DETAIL

2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.

REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

**CURB INLET** 

NOT TO SCALE

### 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

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SYSTEM PROJEC

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PROJECT #:

DRAWN BY:

APRIL 2022

PROJECT MGR: BKL

CHECKED BY: LRS

24" (MIN.)

24" (MIN.)