PHASE 12 WATER SYSTEM IMPROVEMENTS

FOR THE

RATTLESNAKE RIDGE WATER DISTRICT CONTRACT 2

AUGUST 2022

PREPARED BY:

BOARD MEMBERS

BILL GILBERT - CHAIRMAN

JASON CARROLL

MIKE COPLEY

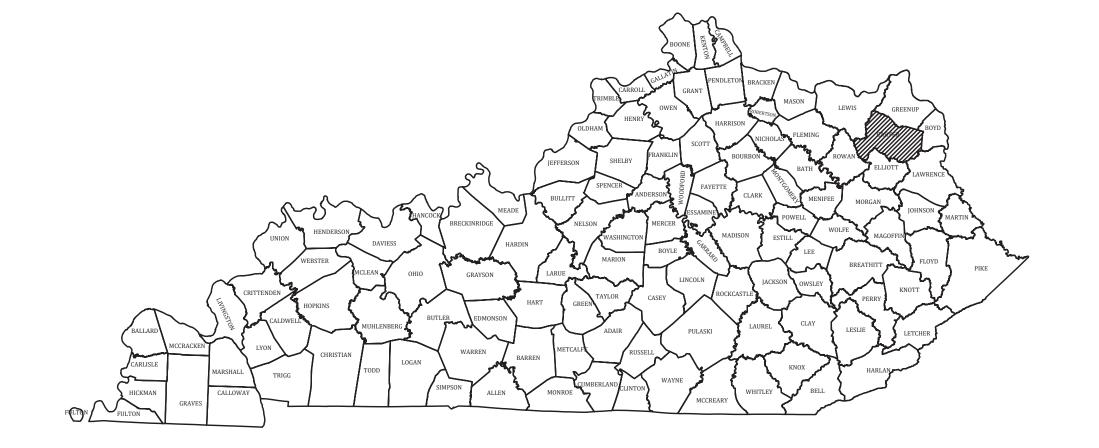
STEVE ISON

RANDY STEAGALL

DAVID GIFFORD - GENERAL MANAGER



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





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 SUM BID.
- REGRADE OF SITE SHALL BE SUCH THAT DRAINAGE IS AWAY FROM ALL STRUCTURES.
- BACKFILL AROUND ALL STRUCTURES SHALL BE SUFFICIENTLY COMPACTED TO PRECLUDE SETTLEMENT AND PONDING OF WATER AROUND STRUCTURES AND GRADED TO DIVERT RUNOFF AWAY FROM THE STRUCTURES.
- DIMENSIONS, DETAILS AND REINFORCEMENT MAY VARY WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL OBTAIN AND MAINTAIN ON SITE, APPROVED SHOP DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- ALL VALVES & HYDRANTS SHALL BE LOCATED AT THE BACKSIDE OF THE DITCHLINE.
- 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 APPROPRIATE ACTION TO DETERMINE SUBSURFACE CONDITIONS.
- CONTRACTOR TO DIG/EXPOSE EXISTING WATER MAIN FAR ENOUGH AHEAD OF NEW WATER MAIN CONSTRUCTION TO AVOID DAMAGE TO EXISTING WATER MAIN AND/OR INTERRUPTION OF EXISTING CUSTOMER SERVICES.
- ALL NEW SERVICE LINE FROM THE NEW MAIN TO THE SETTERS SHALL BE 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 250 FEET 2 INCH

- 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 6" LARGER THAN CARRIER PIPE. STEEL CASING MINIMUM 6" LARGER.
- ALL EXISTING SERVICE LINE SHALL BE REPLACED W/NEW 3/4" PE CL. 250 SERVICE LINE UNLESS EXISTING
- 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.
- ALL OFFSIDE SERVICE LINE REPLACEMENTS SHALL BE INSTALLED WITH THE PIPE BURSTING METHOD.
- ALL NEW METERS SHALL BE MASTER METER RADIO READ

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
- 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.

SERVICE LINE REPLACEMENT WATER MAIN **EXTENSIONS** APPALOOSA LANE LICK FALLS LICK CREEK ROAD -ROAD -**BLAINES TRACE** NOT TO SCALE

INDEX OF DRAWINGS

SHT NO. **DESCRIPTION:** COVER

PROJECT MAP, EXISTING UTILITIES, LEGEND, AND DRAWING INDEX

AERIAL PLAN - KY 1704 03 AERIAL PLAN - APPALOOSA LANE

04 - 06 AERIAL PLAN - BLAINES TRACE ROAD 07 - 08 AERIAL PLAN - LICK CREEK ROAD

09 AERIAL PLAN - LICK FALLS ROAD 10 - 25 SERVICE LINE REPLACEMENT

26 - 29 STANDARD DETAILS

LEGEND

SHEET LOCATION MAP

NEW WATER MAIN **EXISTING WATER MAIN** ____ WAT____ **EXISTING SANITARY SEWER** ----- SAN -----EXISTING GAS MAIN **EXISTING FORCE MAIN** —— FM —— **NEW STEEL CASING EXISTING CULVERT NEW FLUSHING HYDRANT** EXISTING FLUSHING HYDRANT

EXISTING WATER METER NEW WATER METER

EXISTING GATE VALVE & BOX NEW GATE VALVE & BOX

EXISTING MANHOLE EXISTING BLOWOFF ASSEMBLY

NEW BLOWOFF 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

RATTLESNAKE RIDGE WATER DISTRICT

PHONE: 606-474-7570

PROJECT #: DATE: AUGUST 2022 PROJECT MGR: LRS

DRAWN BY: CHECKED BY: MRC

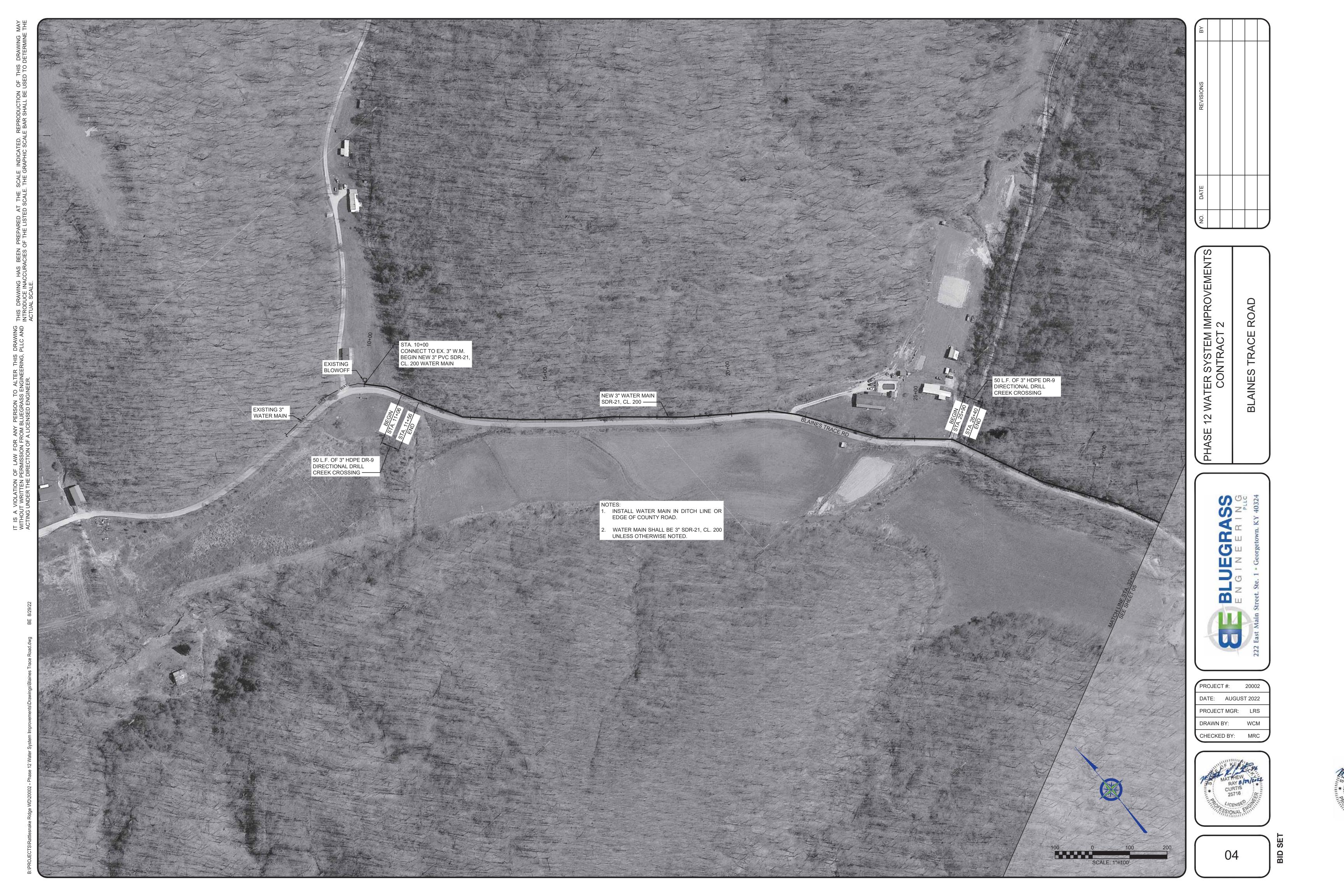






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PROJECT	MGR:	LRS	
DRAWN B	Y:	WCM	
CHECKED	BY:	MRC	







SID SET

TUNNEL UNDER CULVERT W/ 20 L.F. OF 8" PVC CASING BERL & RUSSELL ROBINSON

HASE 12 WATER SYSTEM IMPROVEMENTS
CONTRACT 2
BLAINES TRACE ROAD

PROJECT #: 20002

DATE: AUGUST 2022

PROJECT MGR: LRS

WWN BY: WCM
CKED BY: MRC



SID SET





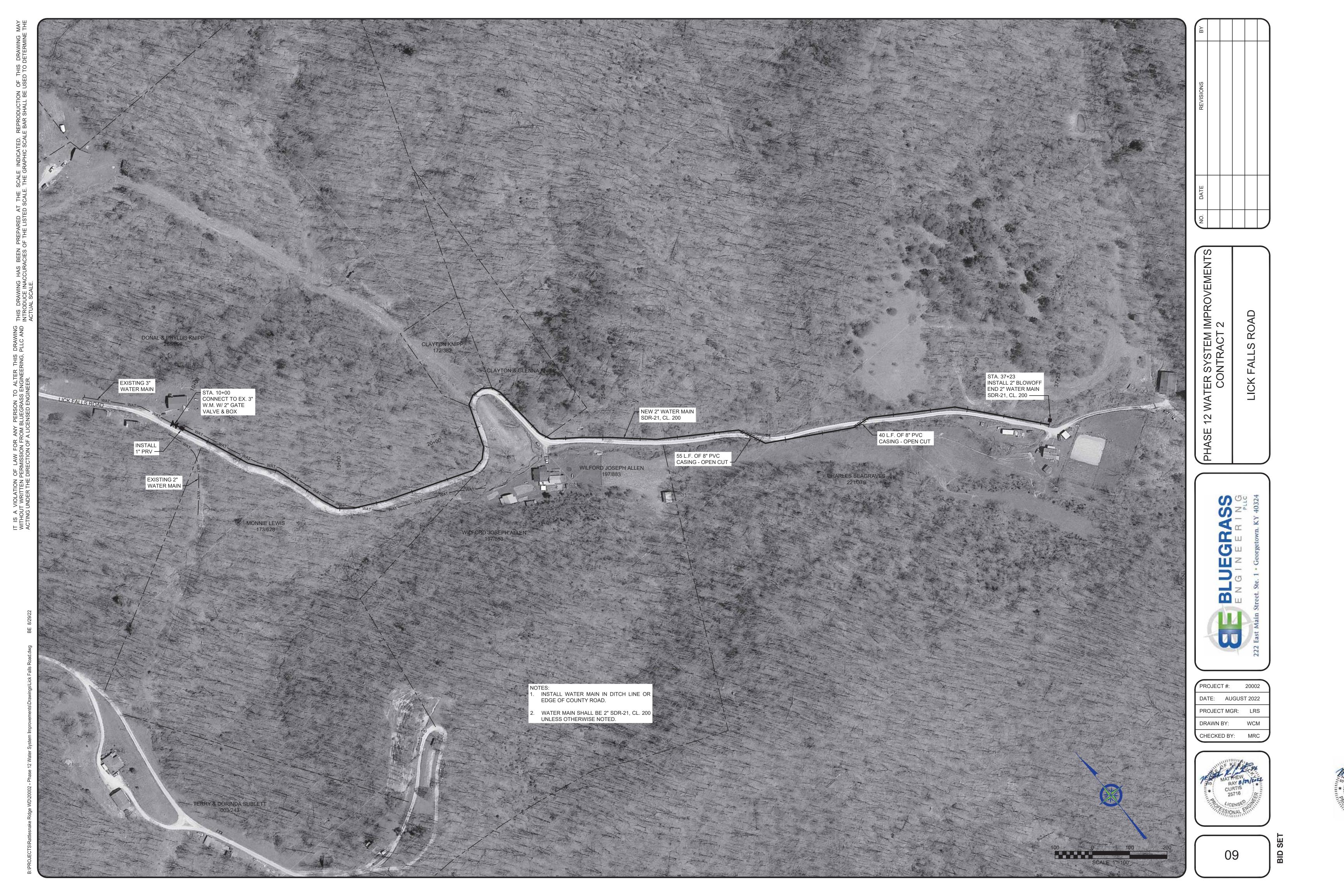
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PROJECT MGR:	LRS
DRAWN BY:	WCM
CHECKED BV:	MRC

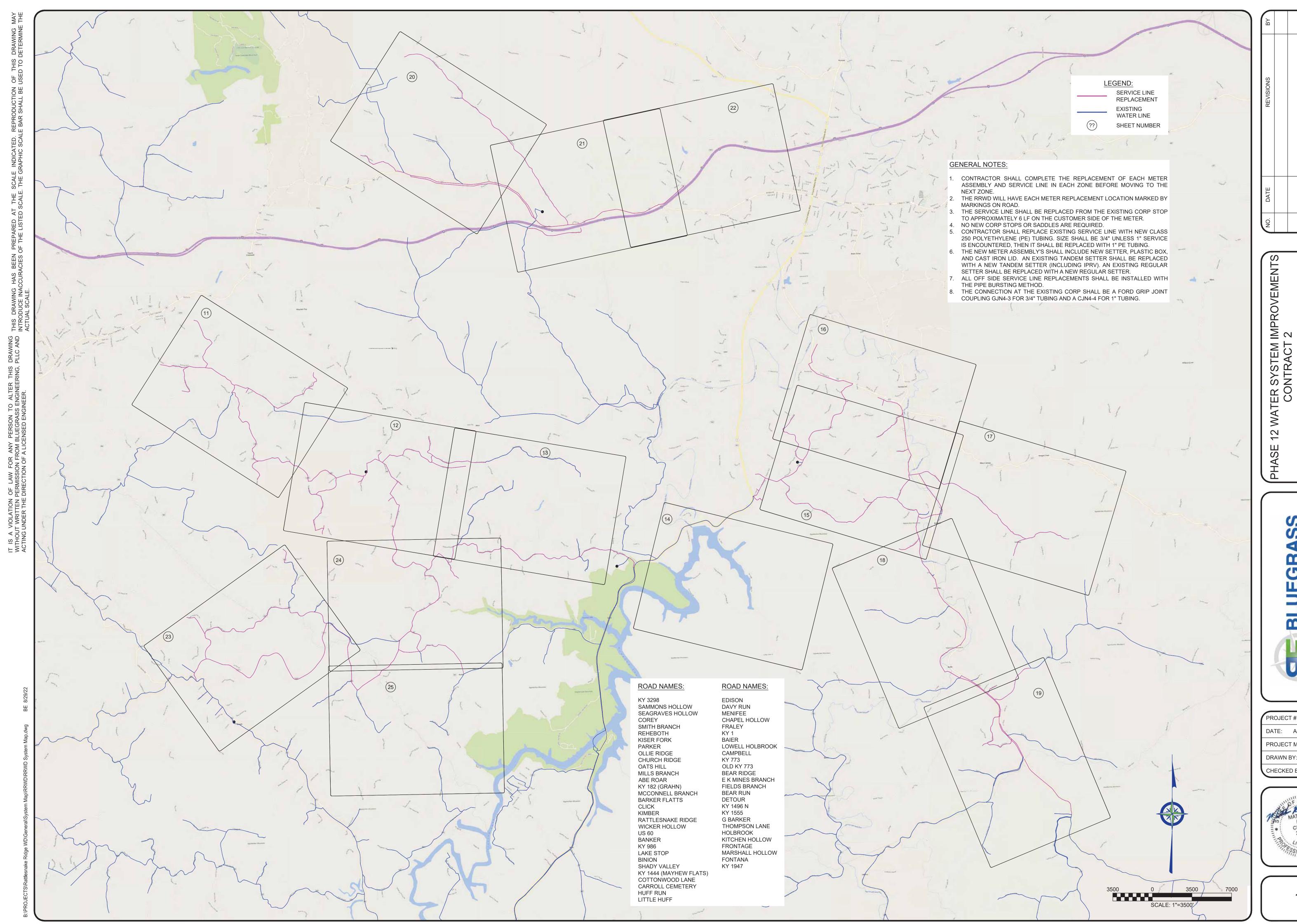


LICK CREEK ROAD

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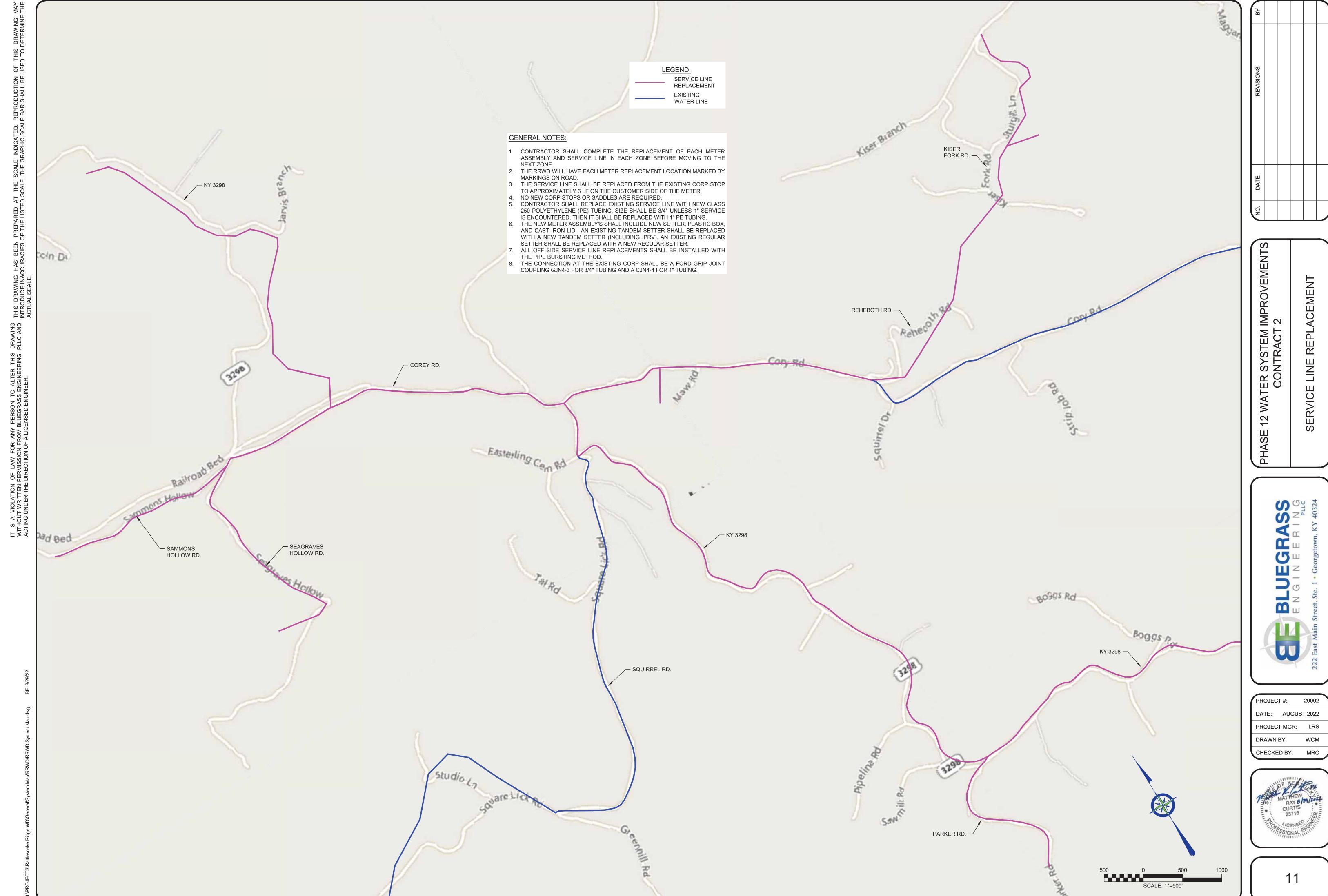


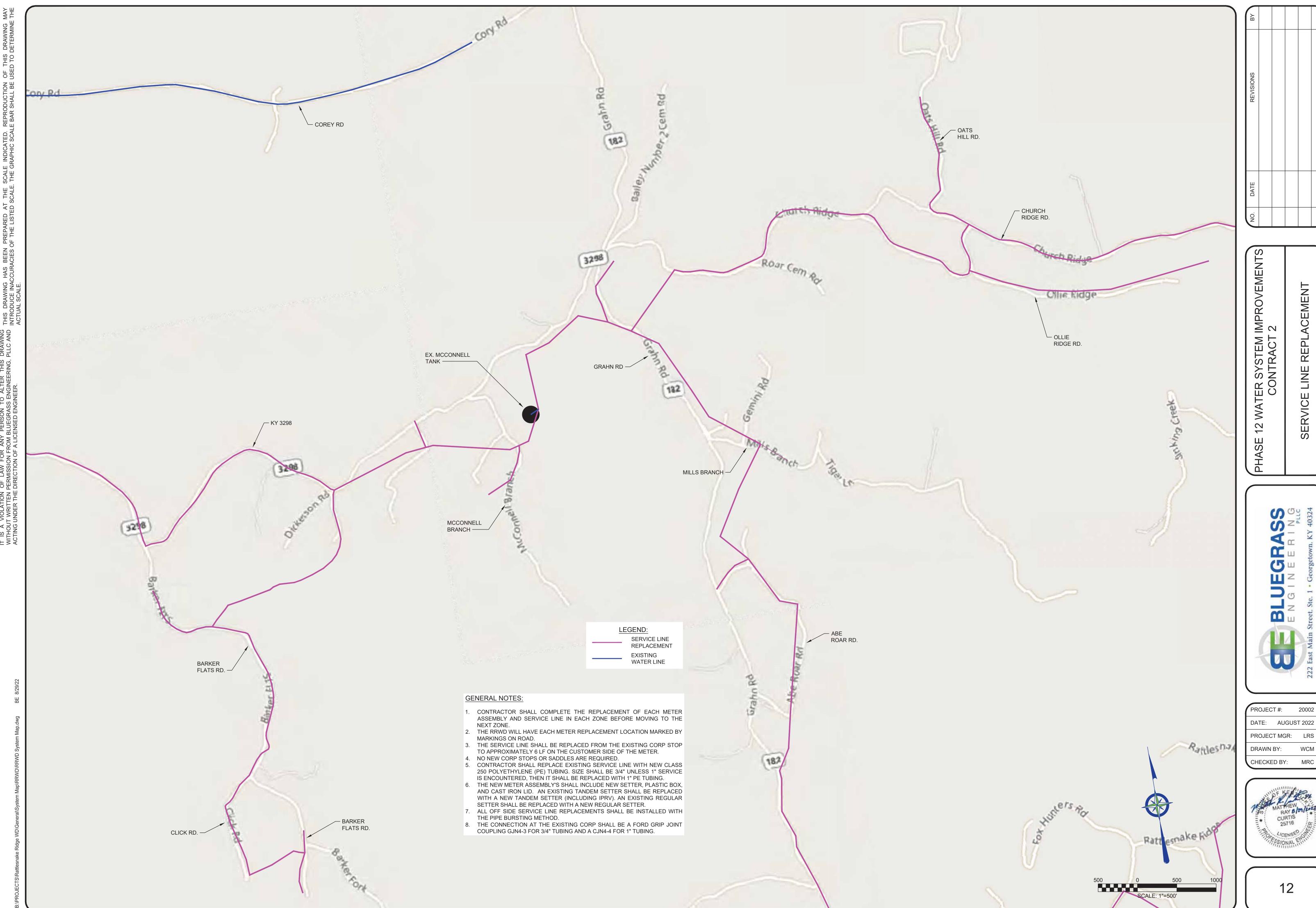




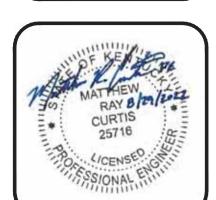
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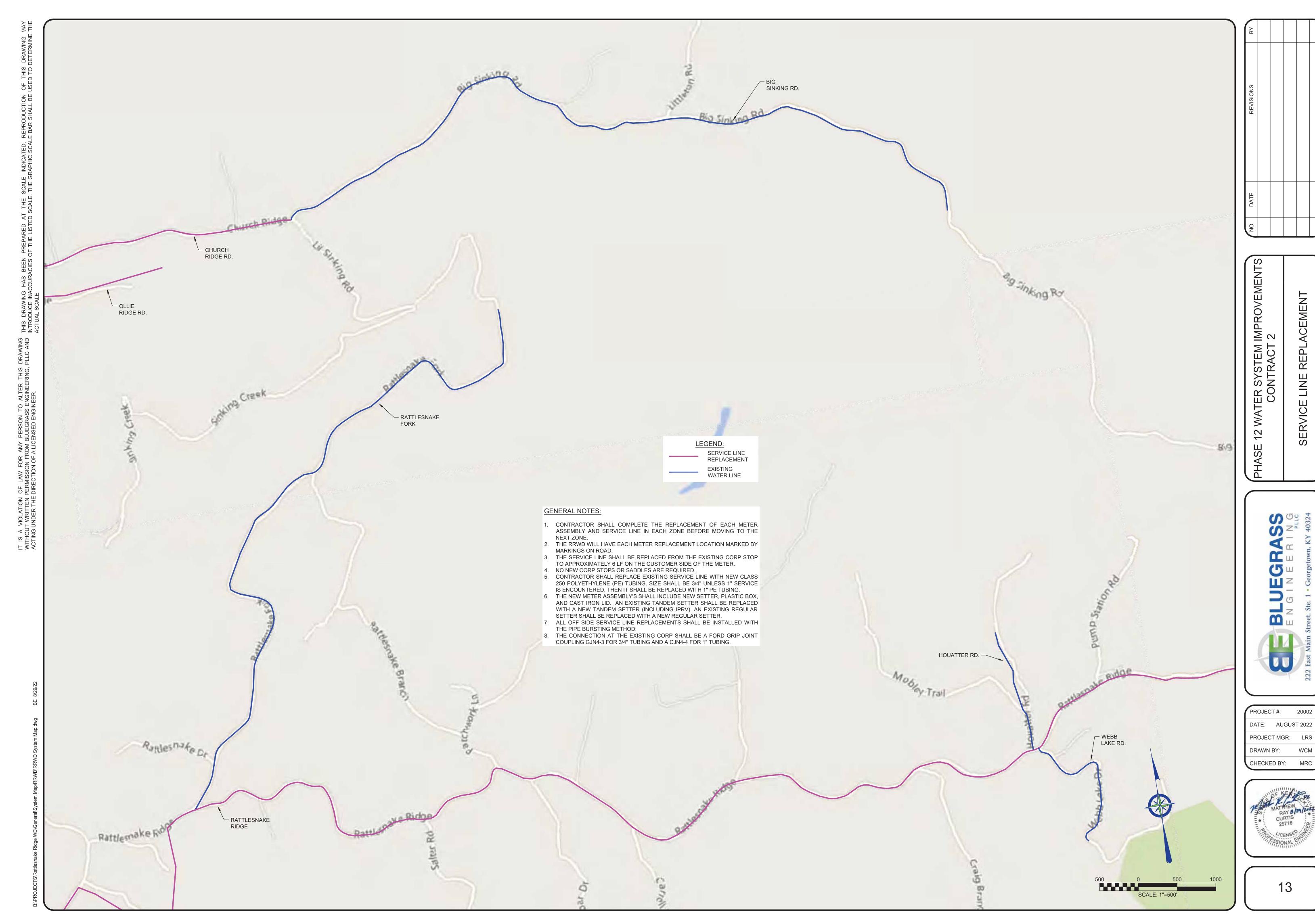


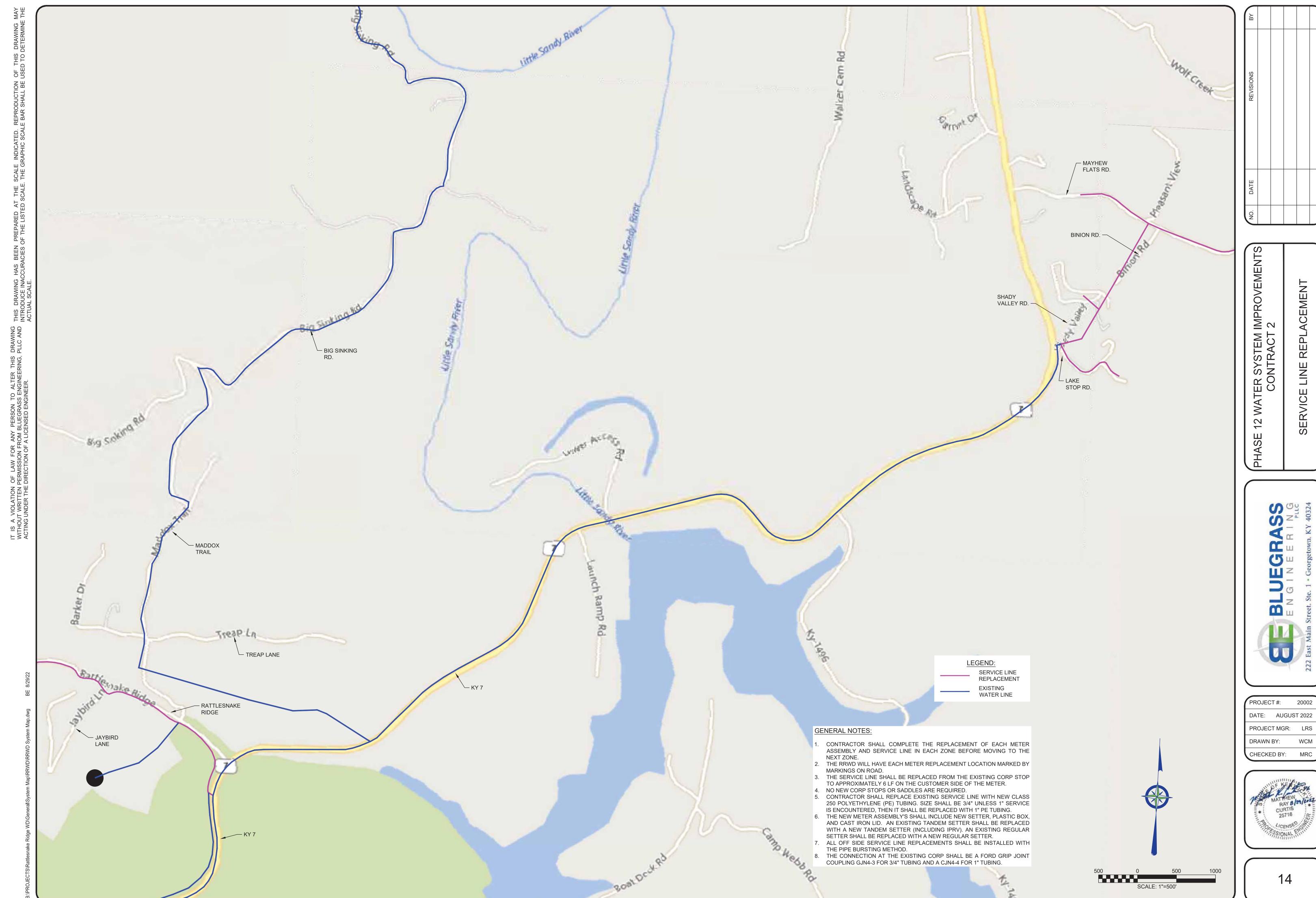




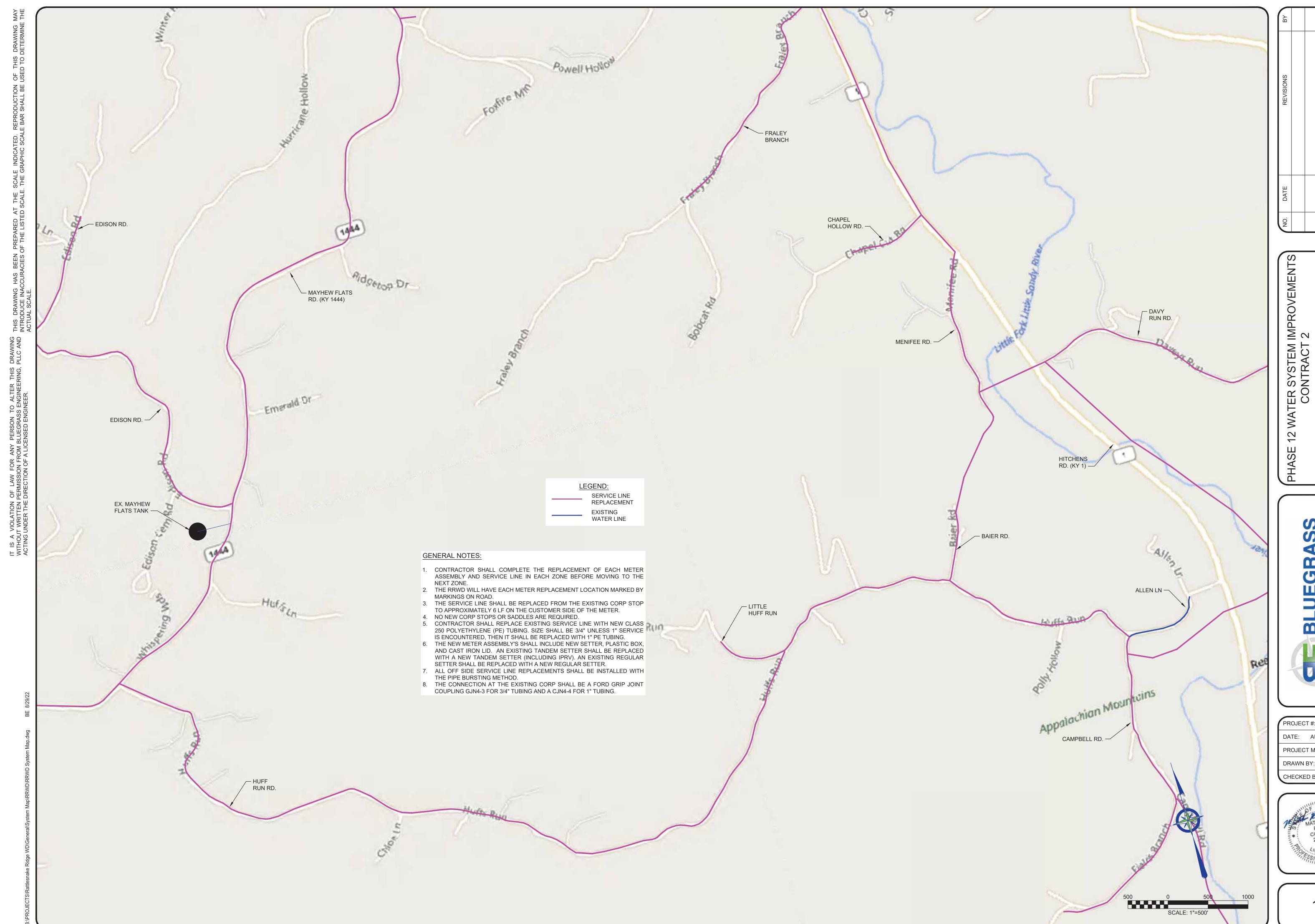
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SERVICE LINE REPLACEMENT



UEGRASS

GINEERING
CONTRA

GOOTGELINE RE

SERVICE LINE RE

PROJECT #: 20002

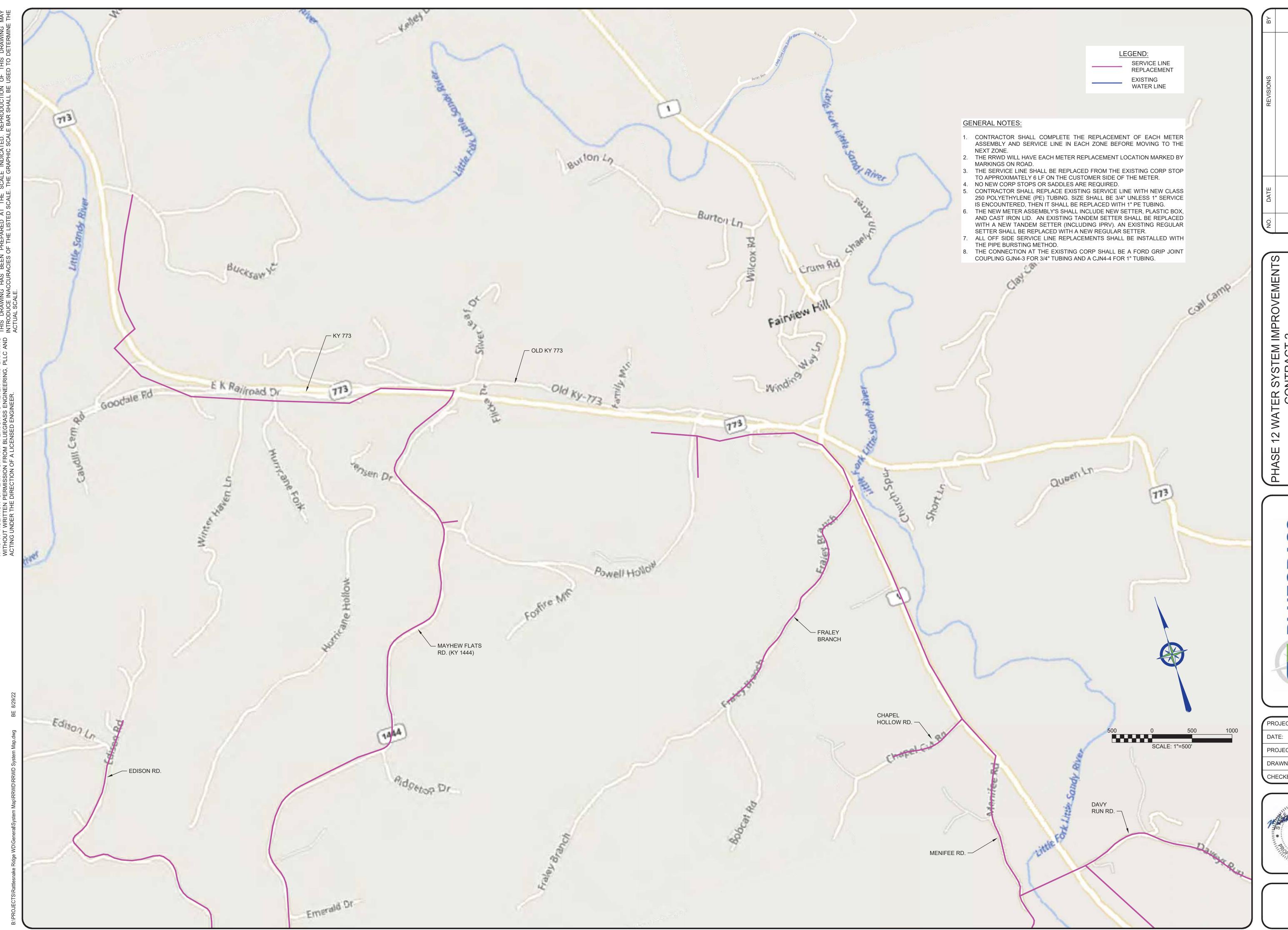
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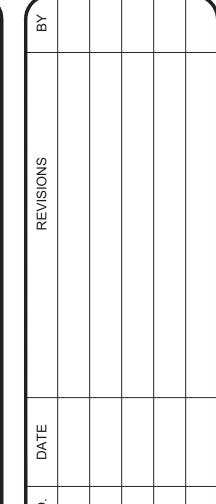
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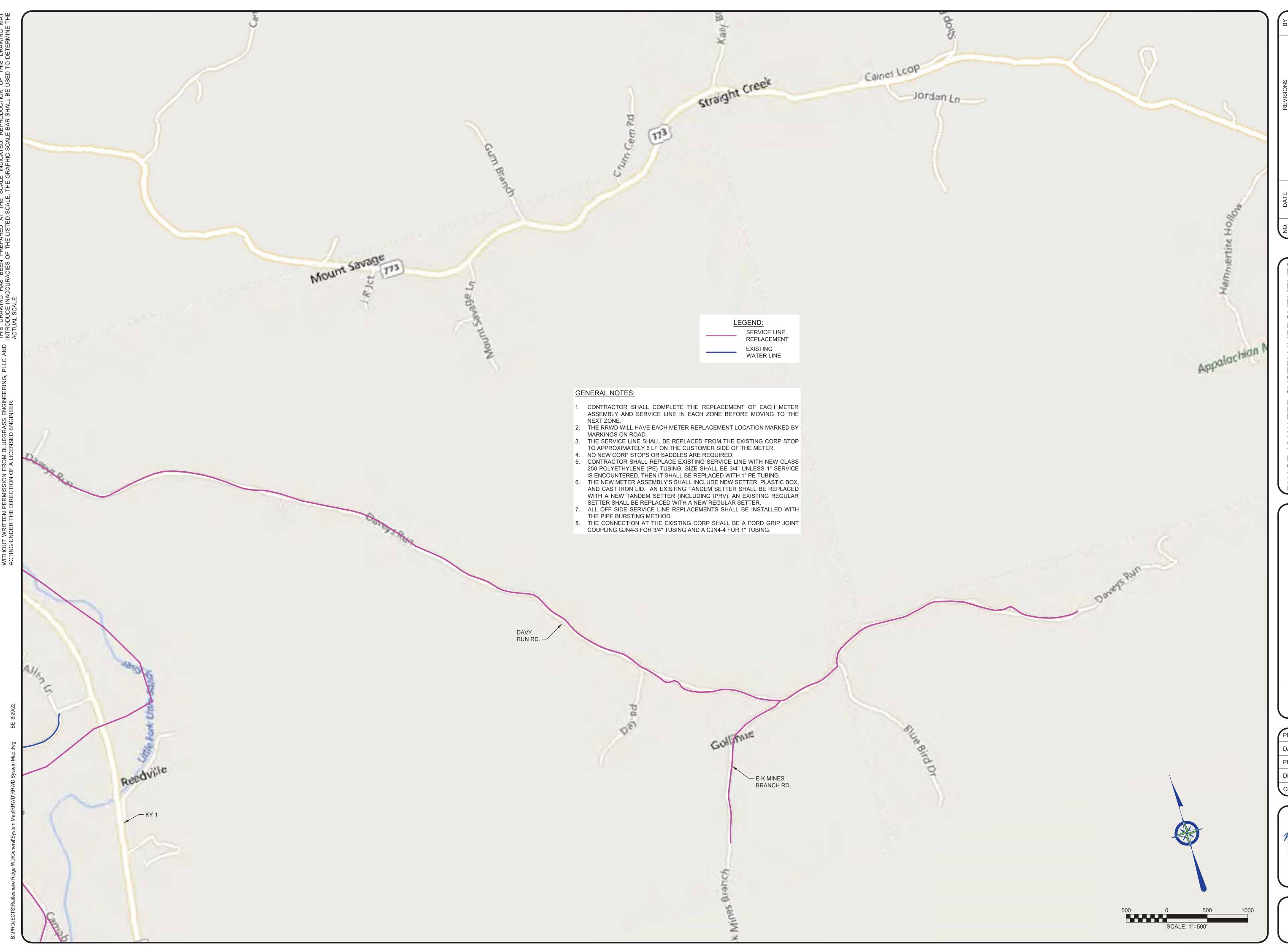




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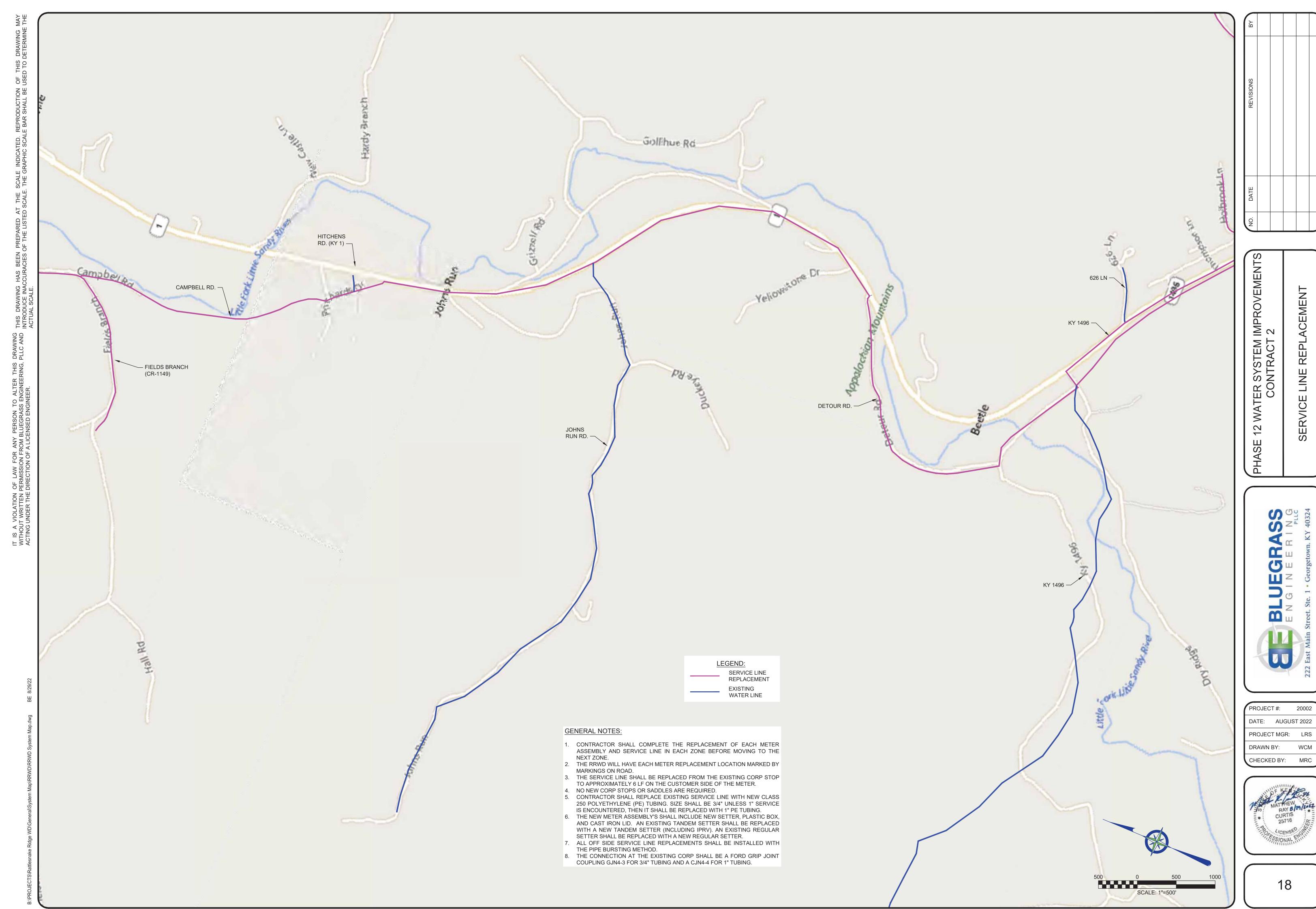
NO. DATE
REVISIONS

PHASE 12 WATER SYSTEM IMPROVEMEN CONTRACT 2

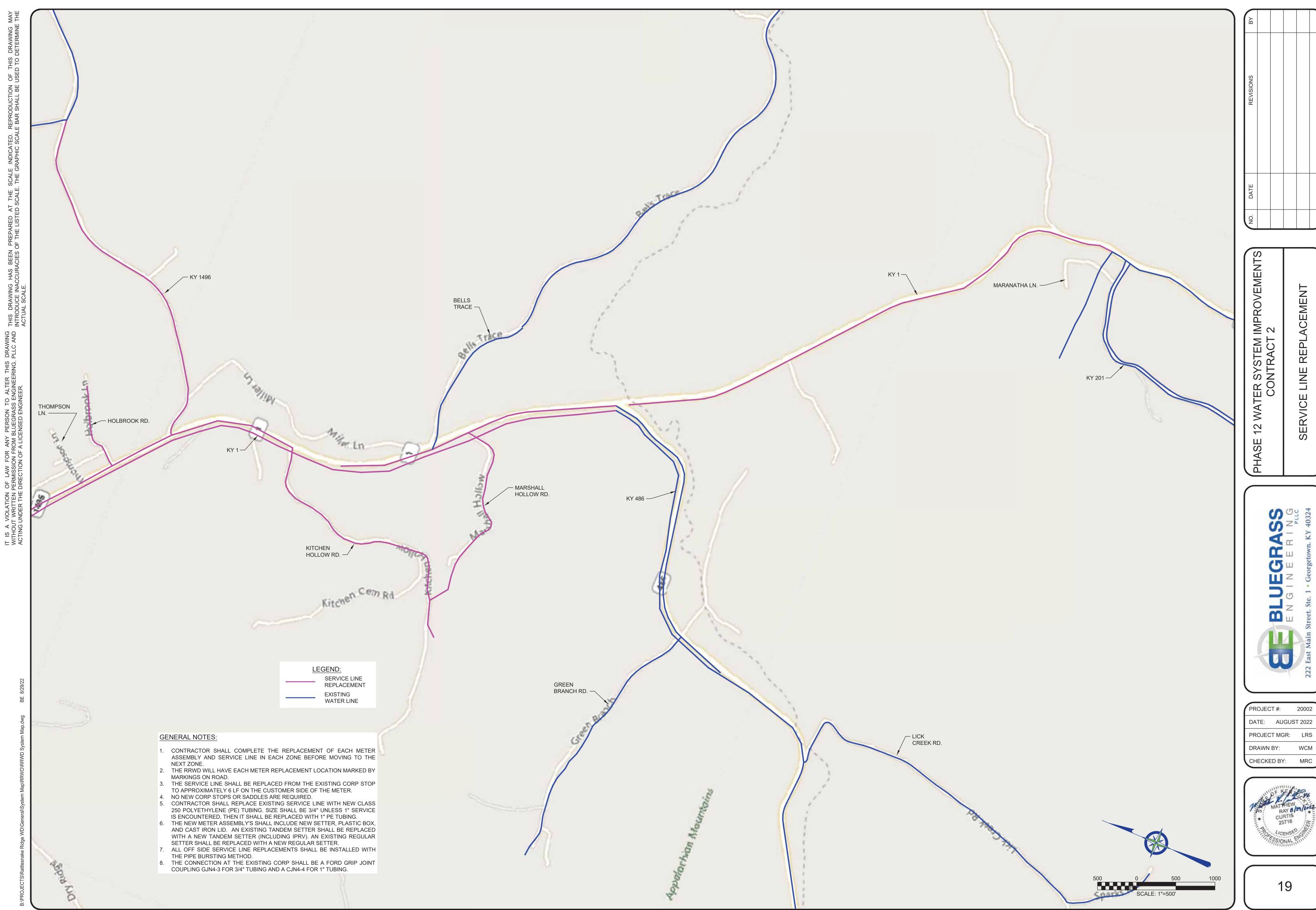
BLUEGRASS
E N G I N E E R I N G
PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

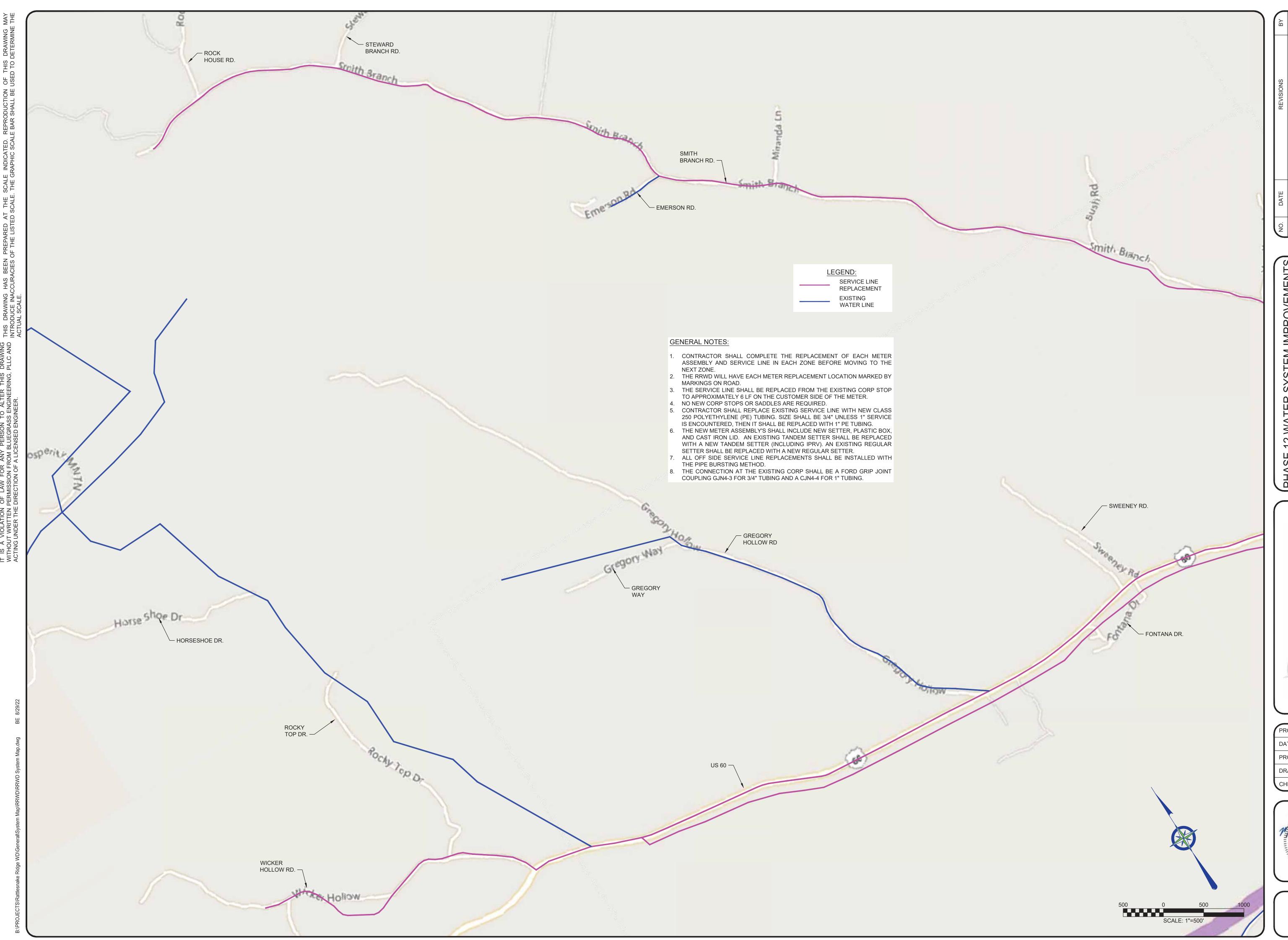
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PROJECT	MGR:	LRS
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CHECKED	BY:	MRC





REPLACEMENT





. DATE REVISIONS

WATER SYSTEM IMPROVEME CONTRACT 2

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

PROJECT #: 20002

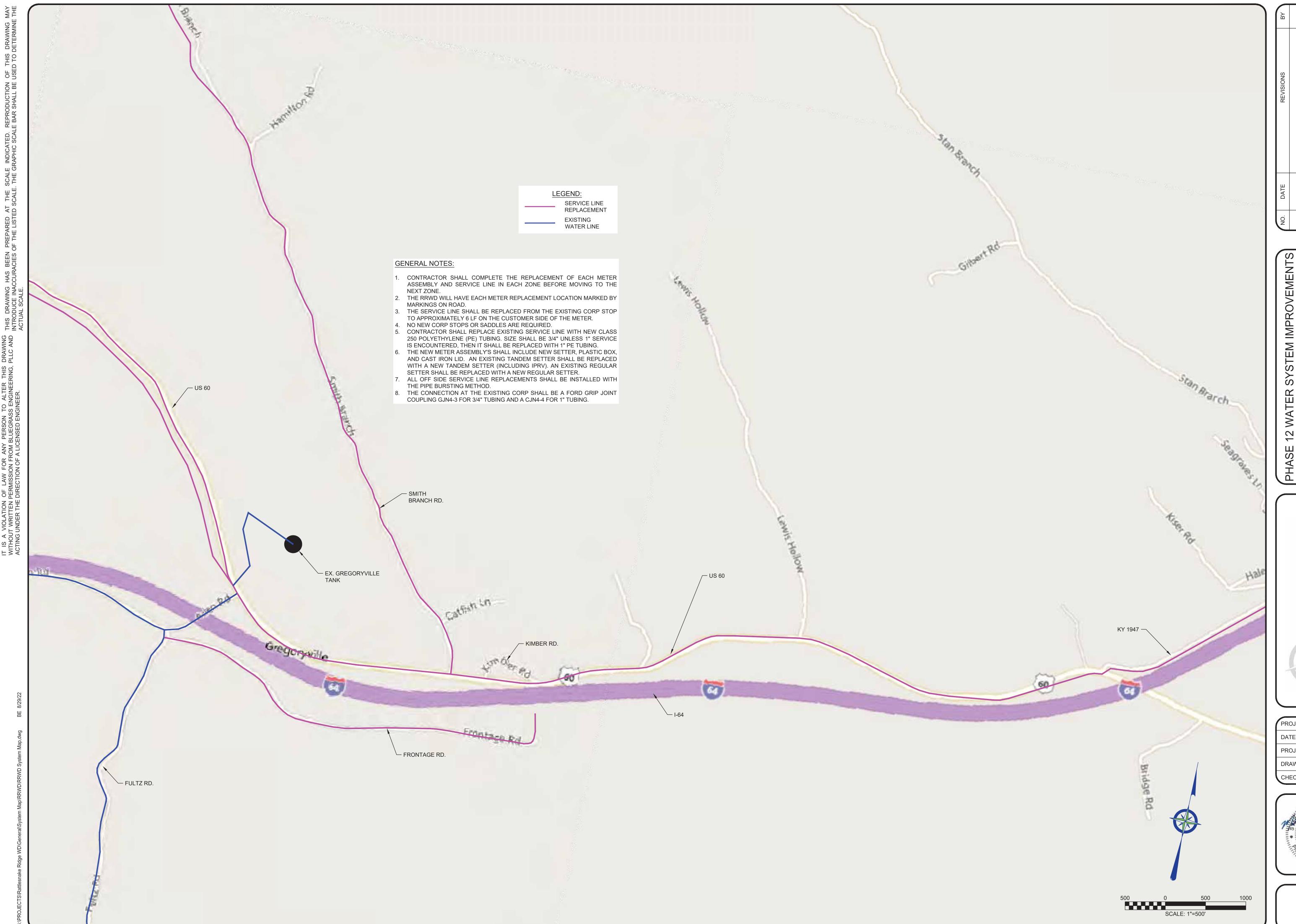
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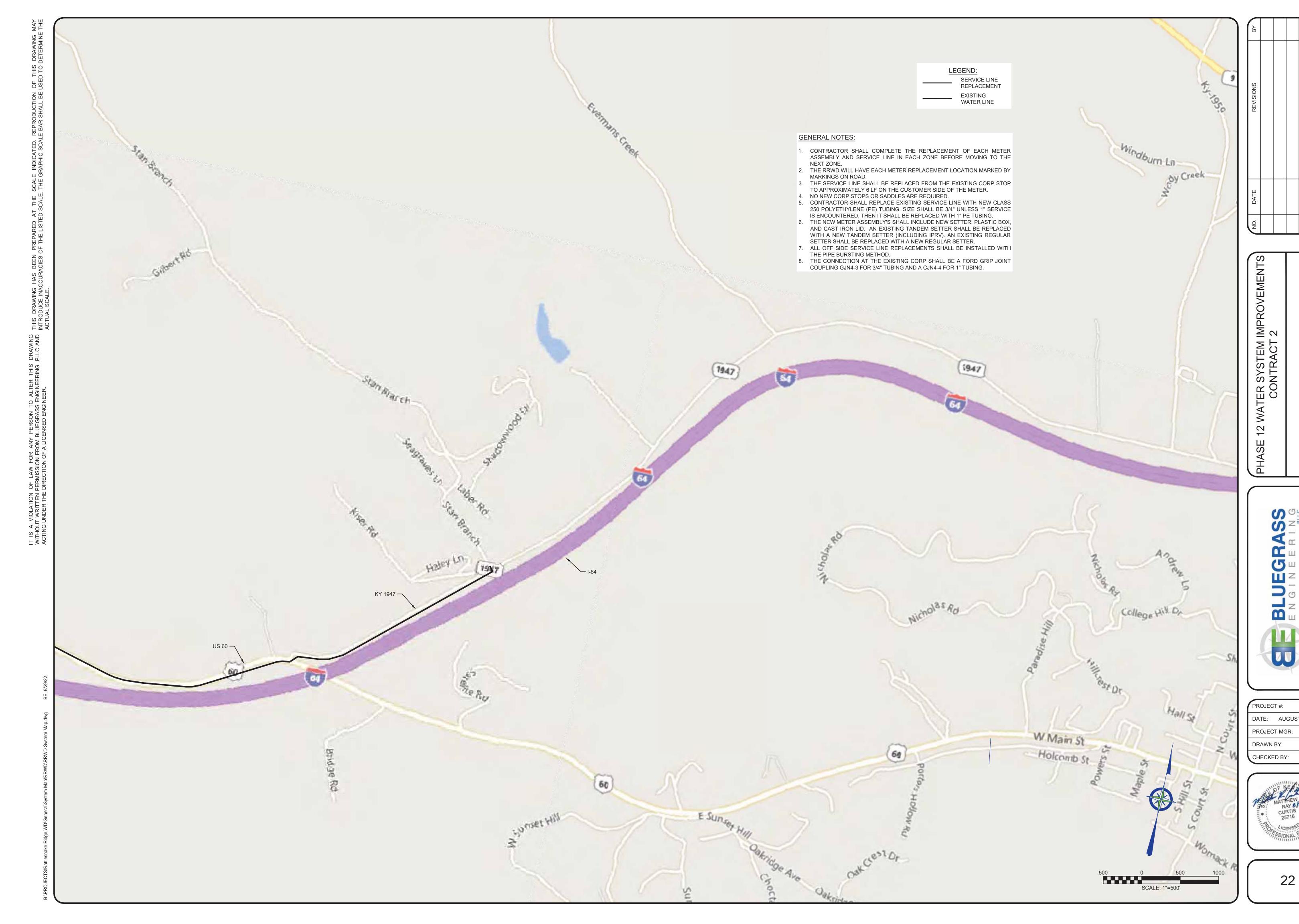
ASE 12 WATER SYSTEM IMPROVEME CONTRACT 2

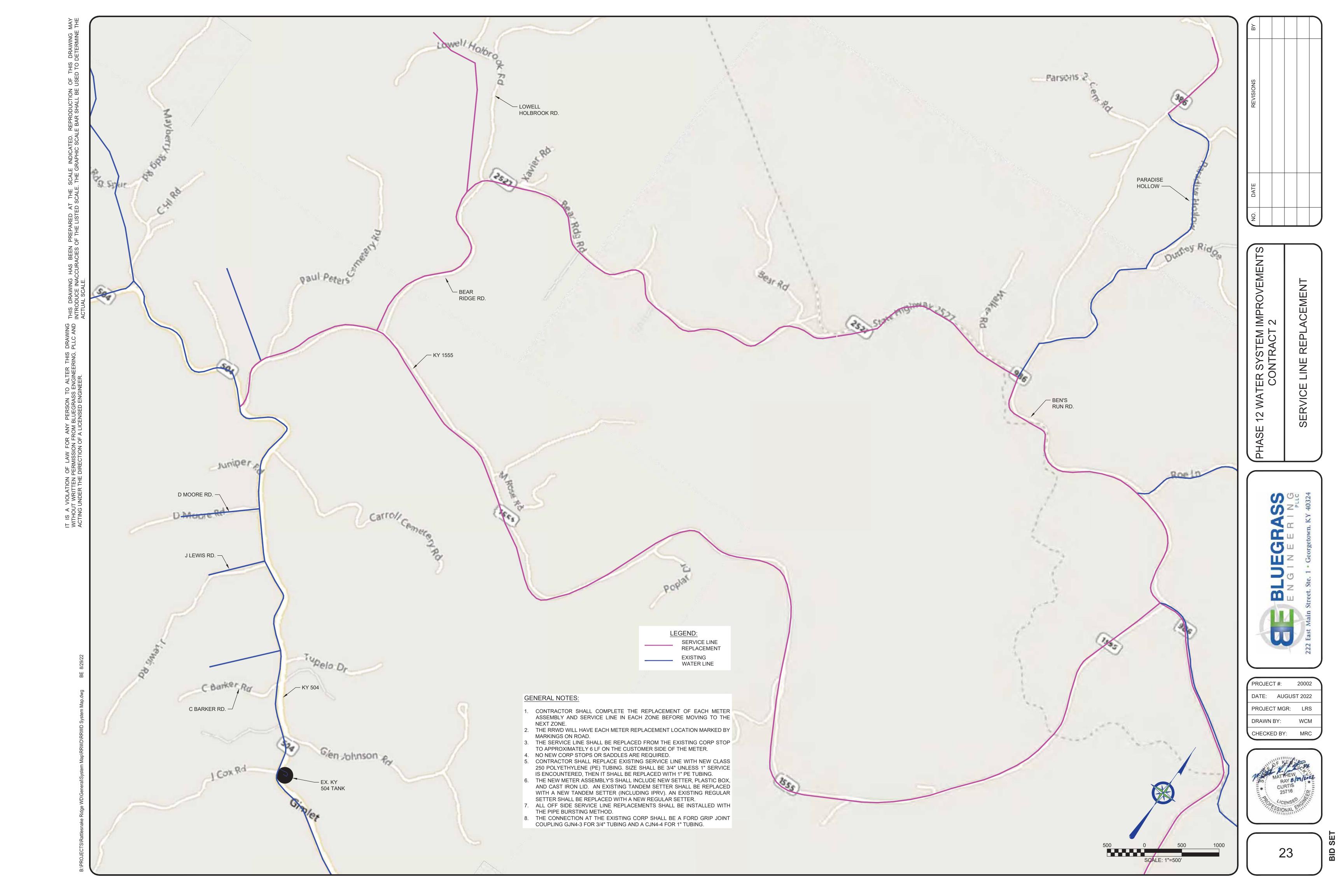
BLUEGRASS
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PLLC
22 East Main Street, Ste. 1 • Georgetown, KY 40324

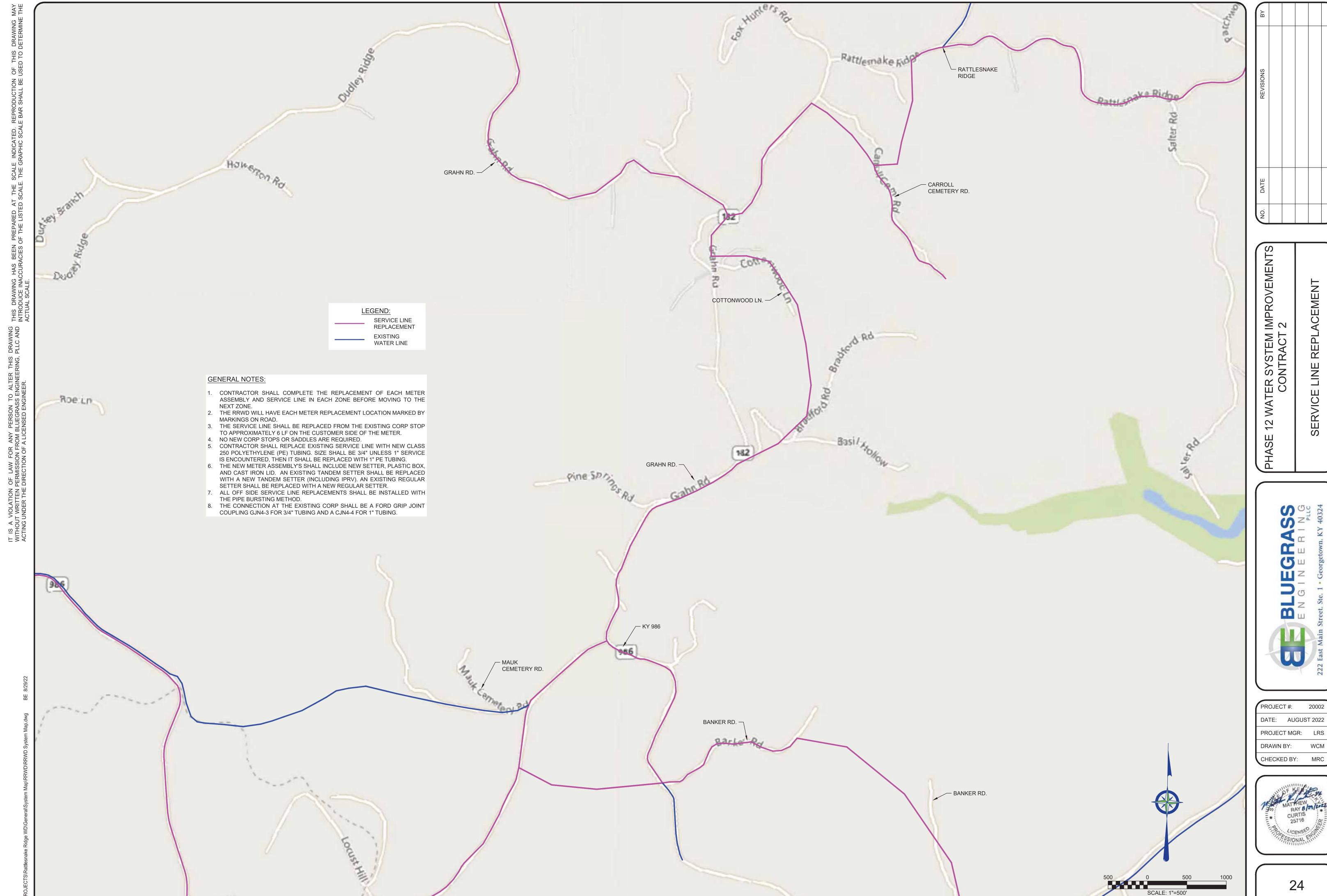
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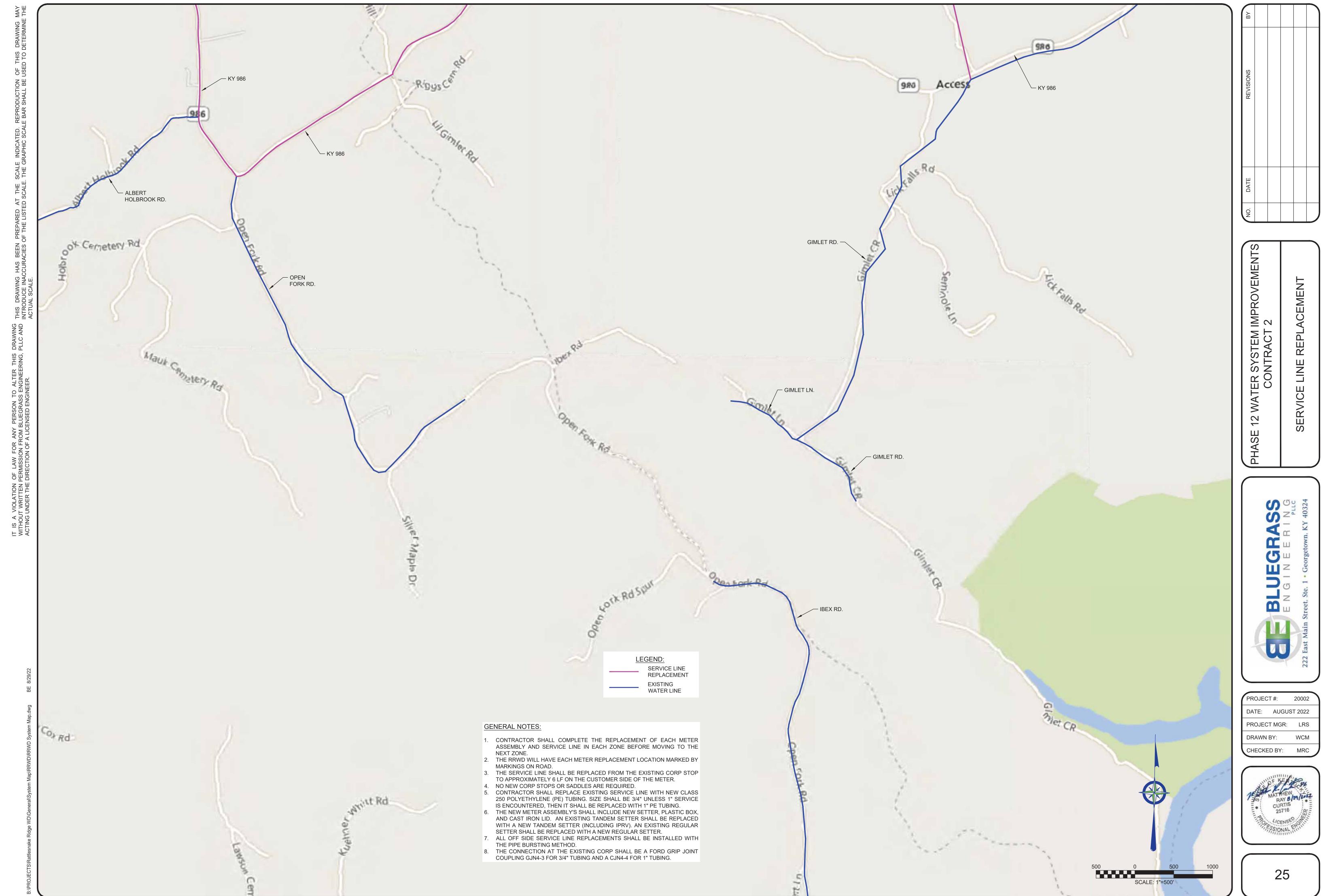
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BID



D SFT

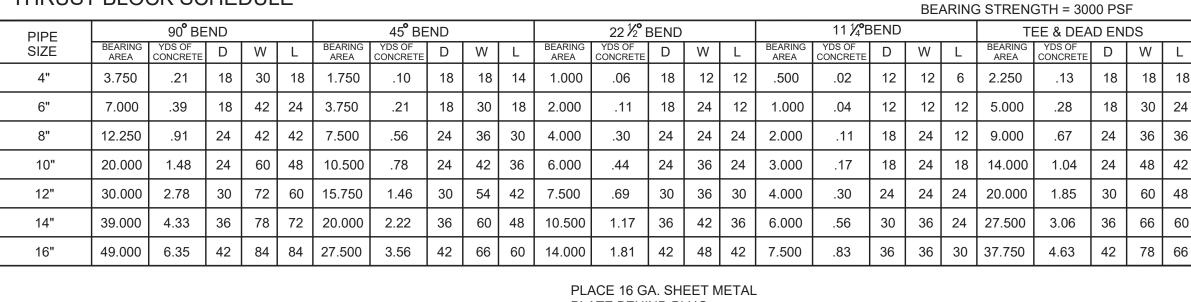
DETAIL NOTES: 1. COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.

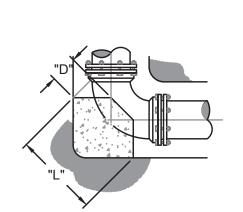
WIRE TAPED 2. ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL

3. ZONE 3 - CONSOLIDATED SOIL, (NO ROCK GREATER THAN 6"

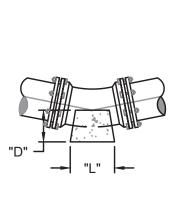
4. ZONE 2 - FROM THE SPRINGLINE OF THE PIPE TO A DISTANCE 12 INCHES ABOVE THE PIPE, THE CONTRACTOR SHALL USE THE SAME MATERIAL AS SPECIFIED FOR BEDDING. COMPACTION IS REQUIRED IN AREAS SUBJECT TO TRAFFIC.

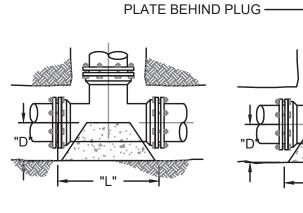
5. ZONE 1 - BEDDING MATERIAL, IN EARTH EXCAVATION AREAS, SHALL BE CLEAN EARTH, FREE FROM ROCKS, DEBRIS OR OTHER FOREIGN MATERIAL. THE CONTRACTOR SHALL USE CRUSHED STONE, SAND OR GRAVEL AS BEDDING MATERIAL WHERE ROCK EXCAVATION IS

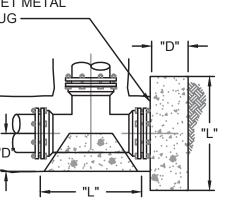




THRUST BLOCK SCHEDULE







 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.

SOIL TYPE - SAND & GRAVEL

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

90° & 45° BENDS

¹/₄" x 3" S.S. STAP DRILLED

 $-\frac{3}{4}$ " Ø S.S. ANCHOR BOLTS W. NUTS

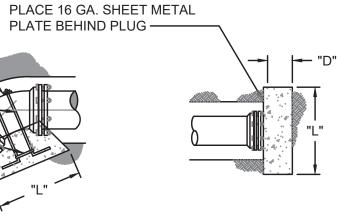
VERTICAL BENDS

TO ACCOMMODATE

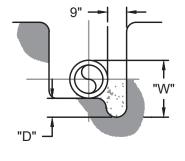
ANCHOR BOLTS

22.5° & 11.25° BENDS

TEES



END OF MAIN



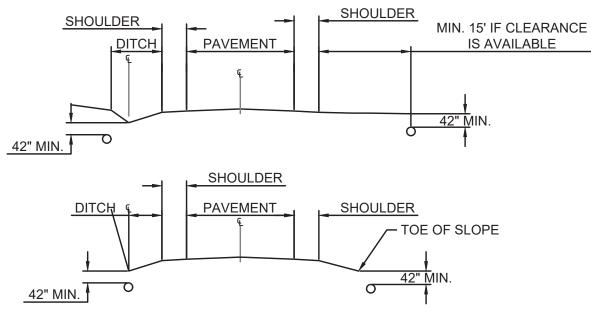
TYP. SECTION

CONCRETE

NOT TO SCALE

THRUST BLOCK - DETAIL

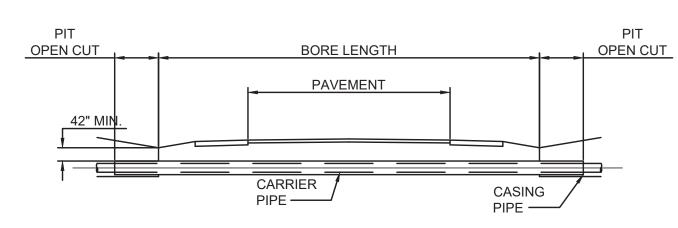
STANDARD DECAL AS - UTILITY MARKER PER SPECIFICATIONS 15 /67 01. 75.6.7L" 42" MIN. 0 PER MNFR. RECOMMENDATION



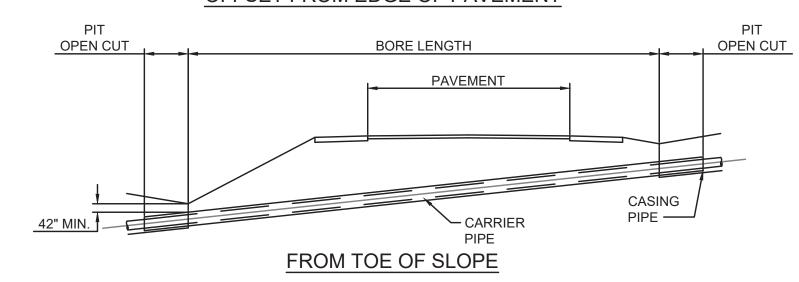
UTILITY PIPELINE WITHIN KTC ROW - DETAIL NOT TO SCALE



- 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.



OFFSET FROM EDGE OF PAVEMENT



KTC CROSSING - DETAIL NOT TO SCALE

2



PROJECT #: 20002 DATE: AUGUST 2022 PROJECT MGR: LRS DRAWN BY: CHECKED BY:



TO TOP OF 6" MIN 12" MAX.

PIPE LAID IN ROCK OR EARTH

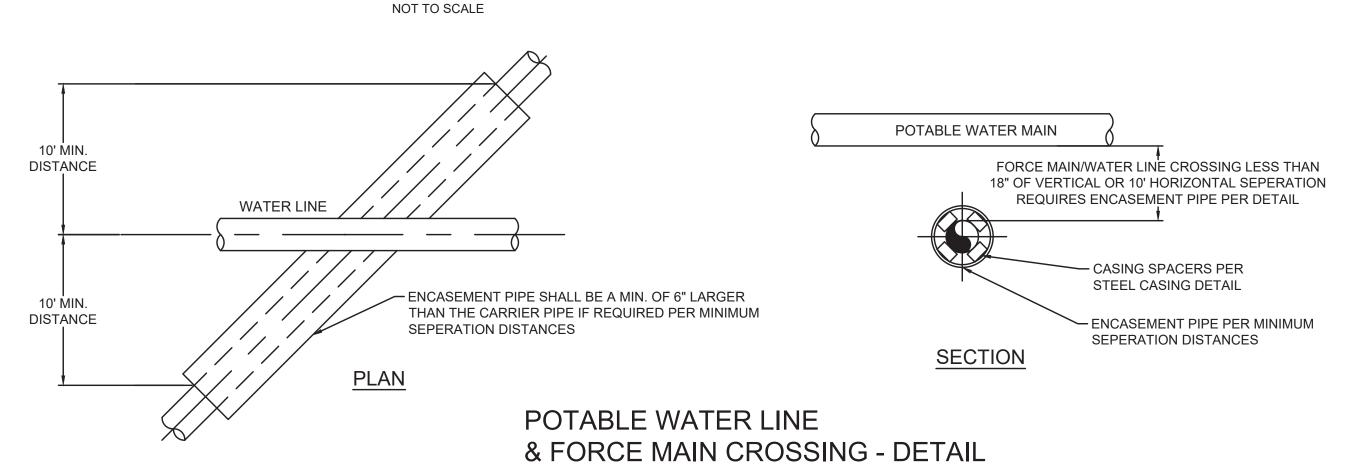
- REPLACE ORIGINAL TYPE SURFACE 42" MIN. STATE R-W 30" MIN. OTHERWISE TRACER

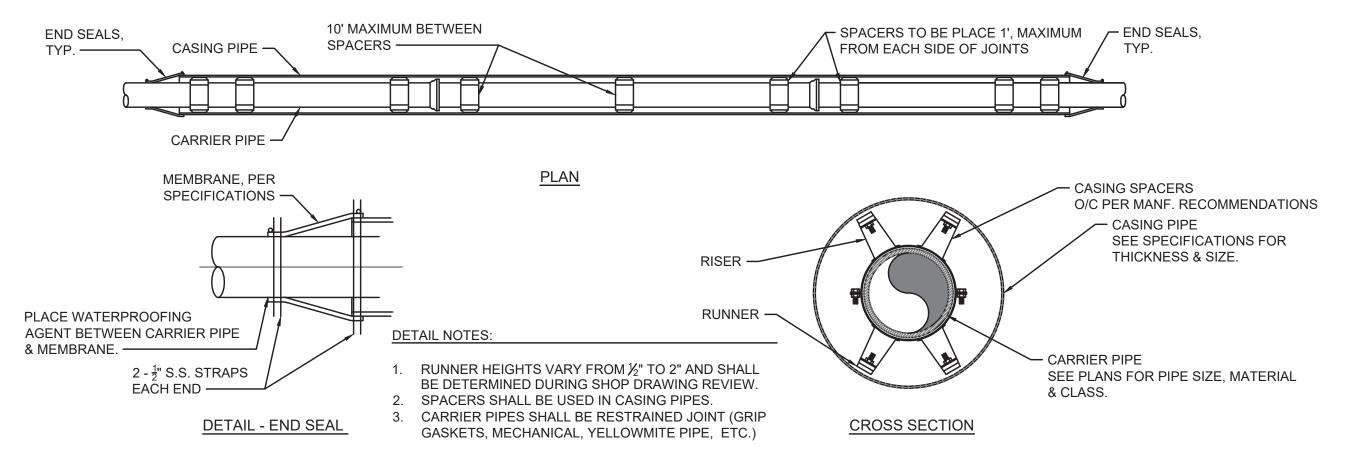
ZONE 4 - COMPACTED DGA ZONE 3 - NO. 9, 57, OR 78 STONE

ZONE 2 - 12" MIN. NO. 9 STONE ZONE 1 - NO. 9 STONE

PIPE BACKFILL - DETAIL

6" MIN.





CASING - DETAIL

NOT TO SCALE

NOT TO SCALE

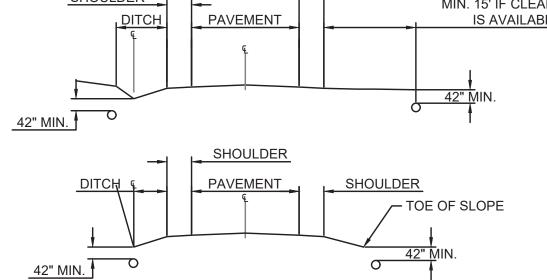
INCLUDING TOPSOIL, NO ROCK ALLOWED.

DIAMETER) NO. 9, 57 OR 78 STONE

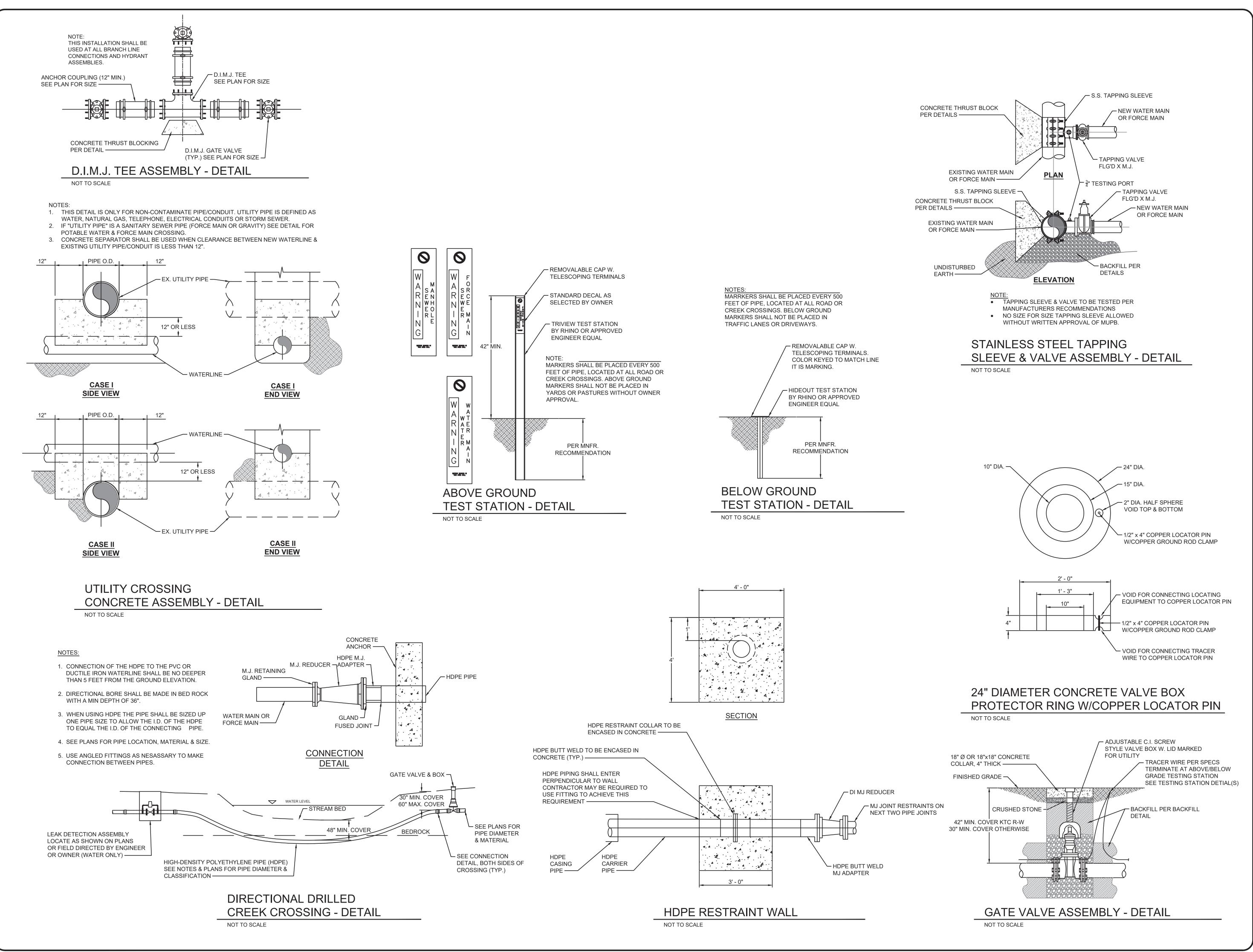
ENCOUNTERED.

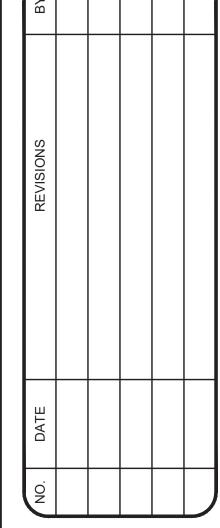
VARIES 12" MAX. 12" MAX. **ORIGINAL BITUMINOUS** SURFACING 2" OR LESS AND TRAFFIC BOUND MACADAM

UTILITY MARKER - DETAIL



NOT TO SCALE





HASE 12 WATER SYSTEM IMPROVEMEN-CONTRACT 2 STANDARD DETAILS - PIPE LINES



PROJECT #: 20002

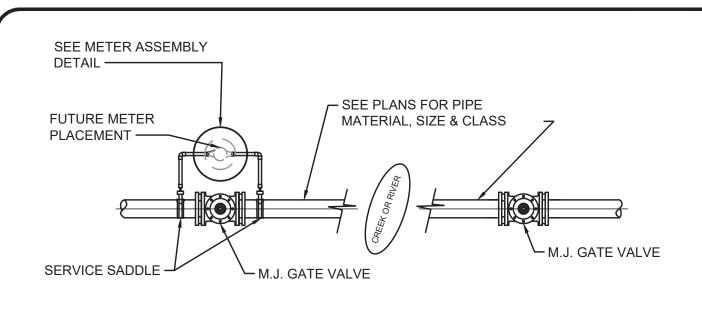
DATE: AUGUST 2022

PROJECT MGR: LRS

DRAWN BY: WCM

CHECKED BY: MRC





NOTE:

1. CONTRACTOR IS RESPONSIBLE FOR ALL PLUMBING

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

TRACER WIRE TO BE CONNECTED TO WATER MAIN

TRACER WIRE AND RAN ON NEW SERVICE TUBING

PERMITS & ASSOCIATED COSTS.

EXCEEDS 90 PSI.

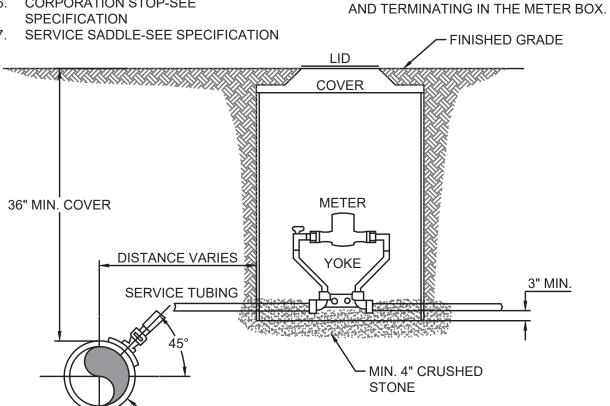
LEAK DETECTION **ASSEMBLY - DETAIL**

NOT TO SCALE

METER MATERIAL SCHEDULE

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

7. SERVICE SADDLE-SEE SPECIFICATION



METER ASSEMBLY - DETAIL

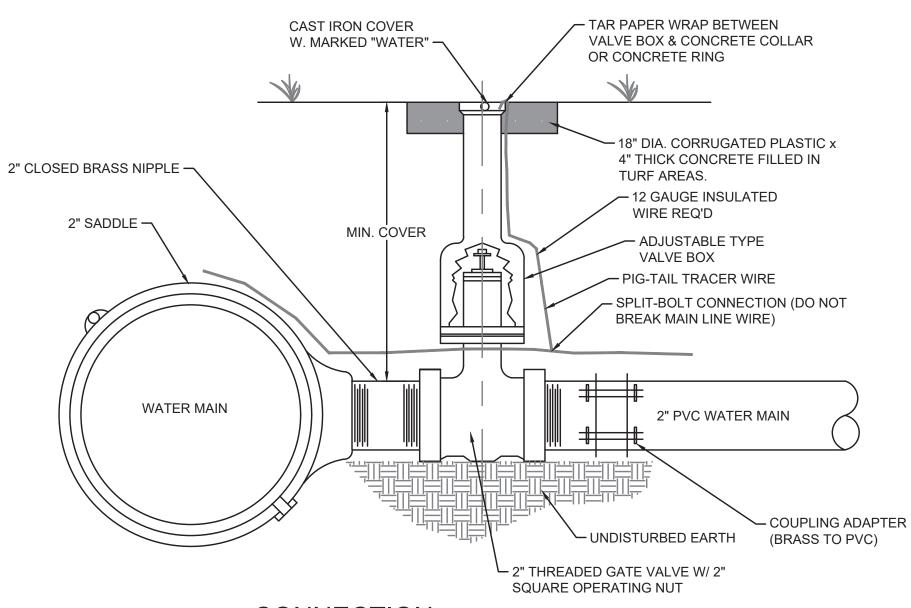
➤ WATER MAIN

NOT TO SCALE

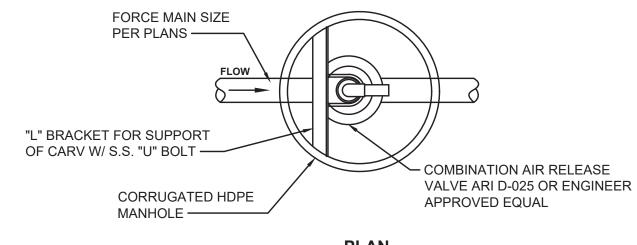
NOT TO SCALE

METER COVER MARKED "WATER" — - HAND TAMPED BACKFILL AROUND COVER - AIR RELEASE VALVE 42" MIN. COVER — METER BOX 3/4" BRONZE N.P.T. THREADED BALL VALVES $-\frac{3}{4}$ " BRONZE N.P.T. NIPPLES --- No. 9 CRUSHED STONE $\frac{3}{4}$ " SERVICE SADDLE

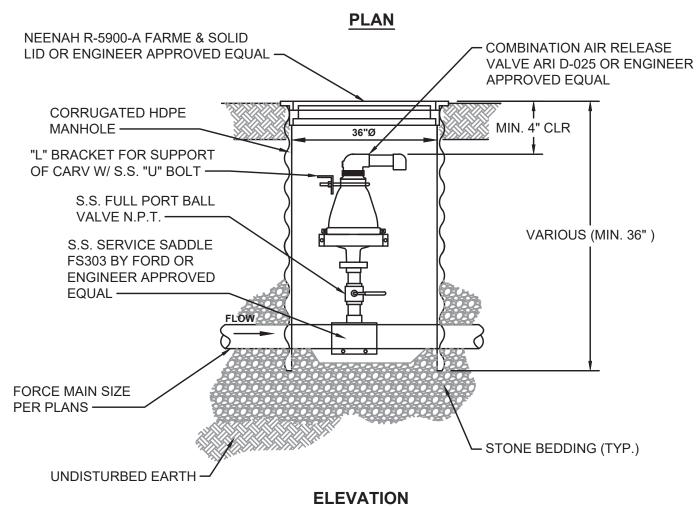
> AIR RELEASE VALVE ASSEMBLY WATERLINE ONLY - DETAIL



CONNECTION FOR 2" WATER MAINS



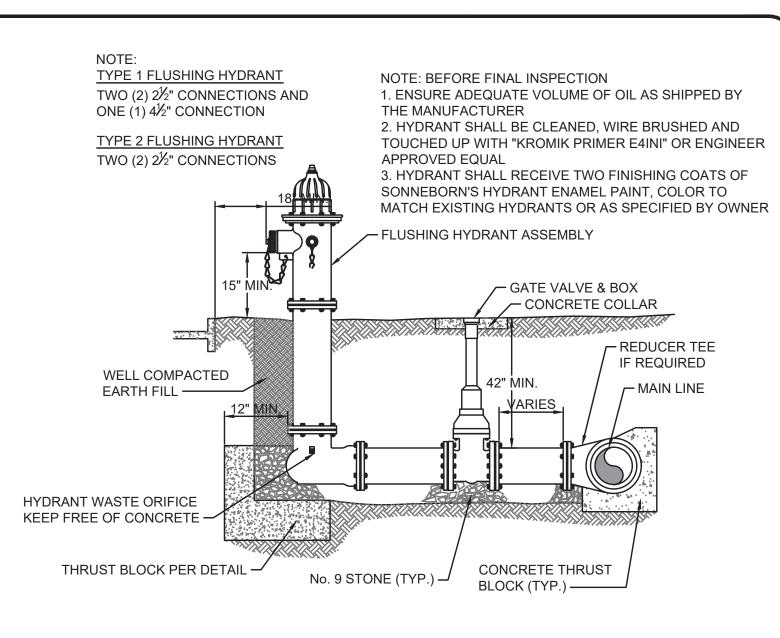
NOT TO SCALE



SANITARY SEWER AIR & VACUUM RELEASE VALVES SHALL BE A.R.I. MODEL D-025 OR ENGINEER APPROVED EQUAL W/2" INLET AND OUTLET. ALL VALVES SHALL BE PROVIDED W/ BACKFLUSHING ATTACHMENTS.

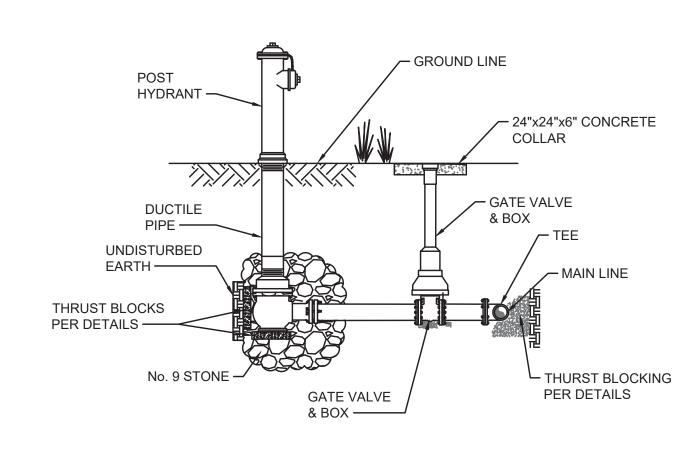
COMBINATION AIR RELEASE VALVE ASSEMBLY FORCE MAIN ONLY - DETAIL

NOT TO SCALE



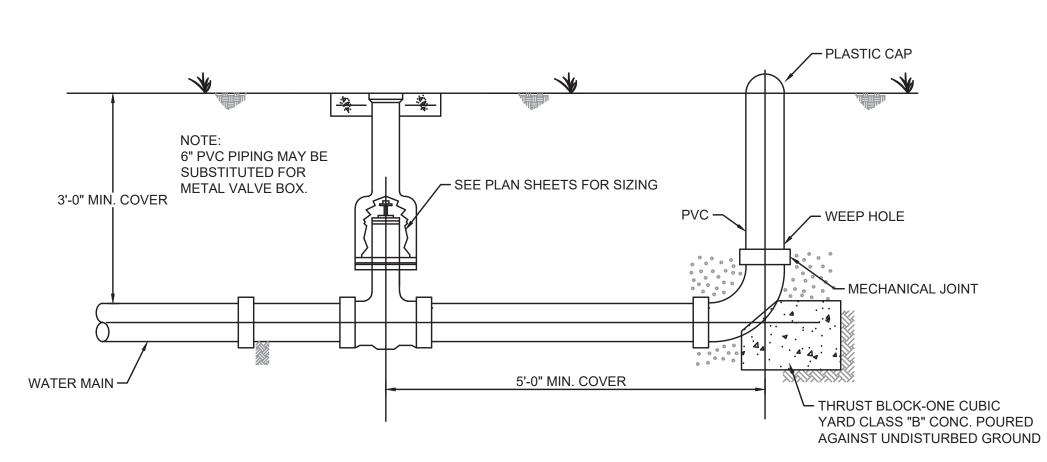
FLUSHING HYDRANT ASSEMBLY TYPE 1 & 2 - DETAIL

NOT TO SCALE



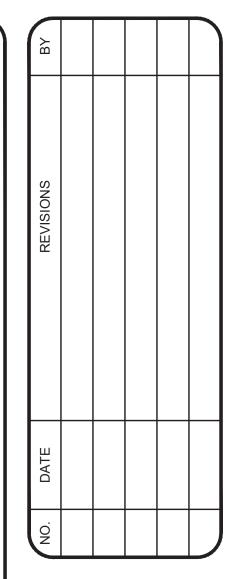
FLUSHING HYDRANT ASSEMBLY, TYPE 3 - DETAIL

NOT TO SCALE



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

NOT TO SCALE



LINE ER



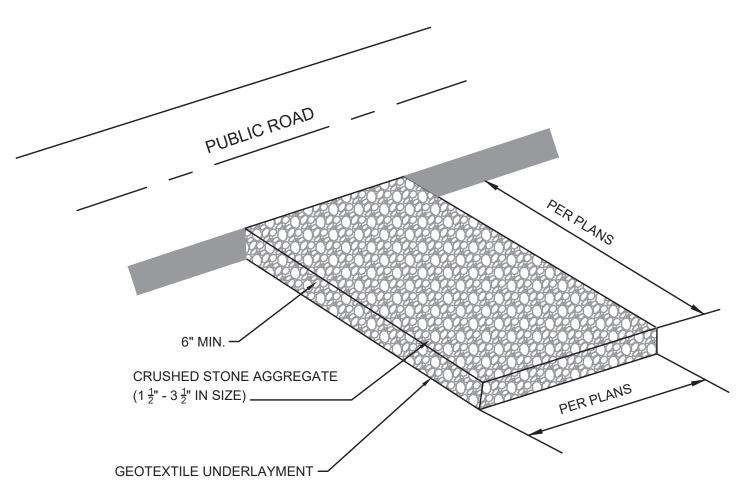
PROJECT #: 20002 DATE: AUGUST 2022 PROJECT MGR: LRS DRAWN BY: CHECKED BY:



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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.
- 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

STABILIZED

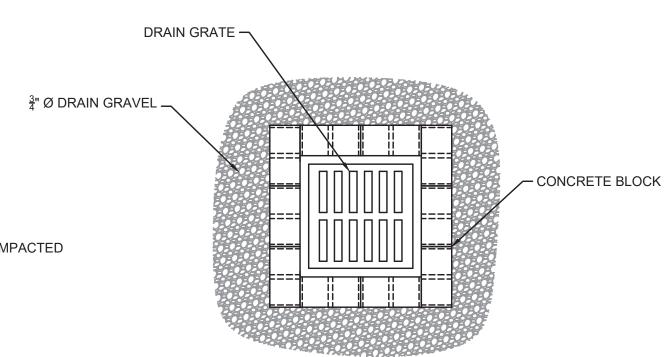
CONSTRUCTION ENTRANCE - DETAIL

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. 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.
- 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
- 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.



- CONCRETE BLOCK $\frac{3}{4}$ " Ø DRAIN GRAVEL -PONDING HEIGHT **OVERFLOW** _____ DROP INLET WIRE SCREEN OR FILTER FABRIC -

<u>PLAN</u>

NOTES:

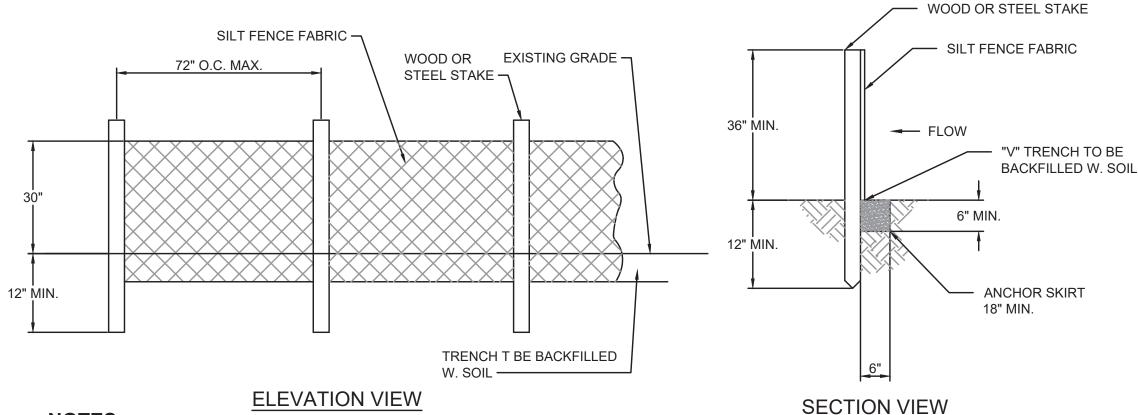
DROP INLET PROECTION ARE TO BE USED FOR NEARLY LEVEL DRAINAGE AREAS.

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 STRUCTURE.

DROP INLET **PROTECTION - DETAIL**

NOT TO SCALE



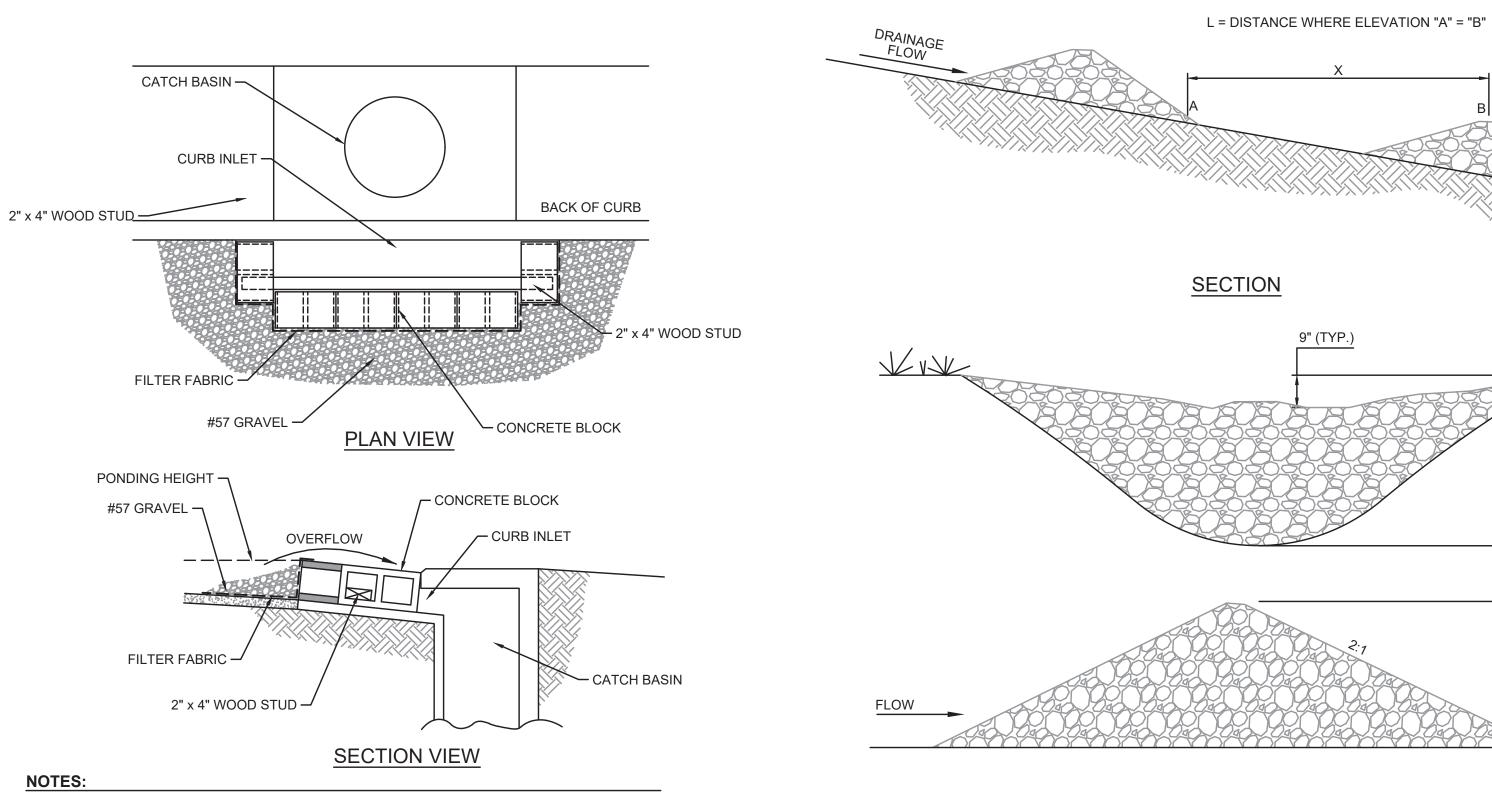
NOTES:

- 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



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

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

BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.

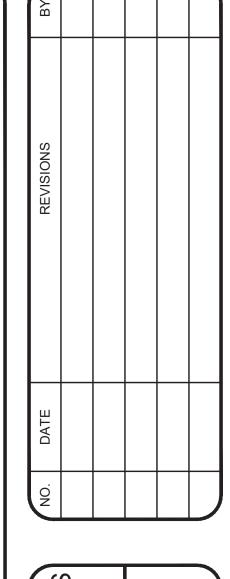
REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET

NOT TO SCALE

- 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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24" (MIN.)

24" (MIN.)

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