RATTLESNAKE RIDGE
WATER DISTRICT

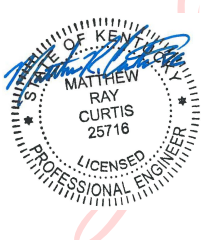
PHASE 12 - WATER SYSTEM IMPROVEMENTS
FINAL ENGINEERING REPORT (REVISED)

RATTLESNAKE RIDGE WATER DISTRICT

5302 South State Highway 7

Grayson, KY 40372

November, 2022



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SECTION 1 PROJECT PLANNING

1.01 LOCATION

The Rattlesnake Ridge Water District (RRWD) was organized in 1961 but did not commence operations until 1983. The existing system consists of approximately 700 miles of water lines with eleven distribution water storage tanks and ten (10) booster pump stations that serve approximately 4,030 customers in Carter, Elliott, Lawrence and Morgan Counties.

The RRWD is located in Northeastern Kentucky in Carter County with the water office a few miles south of the City of Grayson. The RRWD serves all of Carter County that is not served by the City of Grayson, northeastern portion of Elliott County, a small area of western Lawrence County and a small portion of Morgan County. Included in these areas are the communities of Carter City, Hitchens, Willard, Webbville, Ault, and Isonville.

The topography of Carter County and its service area is mountainous with narrow valleys that follow state and county roads. The differences in elevations range from 600 feet in elevation in the valleys to over 1200 feet on the ridges. These divergent elevations are reflective in the ten (10) pressure zones using eleven (11) tanks to provide service to its customers. Elevations of communities within the RRWD service area include Carter City at 680 feet, Willard at 650 feet, Ault at 1150 feet and Isonville at 700 feet. The RRWD service area is rural with scattered residences and limited agriculture.

1.02 ENVIRONMENTAL RESOURCES PRESENT

The major environmental features within the proposed area feature a variety of landforms and topographic changes from extremely steep to relatively flat terrain. The steep terrain changes require numerous booster pump stations, and elevated and ground storage tanks. Water pressures range from 30 psi to over 220 psi in sections of the system. Several of the hollows are in floodplains due to the numerous creeks located in all the valleys. No known historic sites are noted in the planning area.

1.03 POPULATION TRENDS

The calculated population based on the 2010 Census and the number of customers in each county was 10,054. The Kentucky State Data Center currently projects that all five counties will lose population over the next 35 years. The table below shows the total number of customers by county and the estimate of county population served by Rattlesnake Ridge.

County	Total Population	No. Customers	Population Served
Carter	27,720	2,558	6,421
Elliott	7,852	1,049	2,570
Lawrence	15,860	398	1,003
Lewis	13,870	0	0
Morgan	13,923	24	60
TOTALS:	79,225	4,029	10,054

1.04 COMMUNITY ENGAGEMENT

The RRWD held a public meeting inviting all individuals affected by this project on June 16, 2020. This meeting communicated the need for the project and the resulting system improvements that will be accomplished through the project.

SECTION 2 EXISTING FACILITIES

2.01 LOCATION

The RRWD is located in eastern Kentucky near the City of Grayson in Carter County. The RRWD serves all of Carter County outside of the city limits that is served by the City of Grayson and parts of Elliott, Lawrence and Morgan Counties including the communities of Carter City, Webbville, Ault, and Isonville. The City of Olive Hill currently produces their own water. Maps of the project showing the extent of the water system improvements is located at the end of this report (Appendix A).

2.02 HISTORY

The RRWD system was originally organized in 1961 but did not begin service until 1983. The RRWD produces its own water and has the ability to sell water to the Sandy Hook Water District and the City of Olive Hill, if either has emergency situations. Numerous water line extension projects have been developed over the past thirty-seven (37) years to establish the current RRWD customer base which serves approximately 95% of potential customers in the service area of RRWD. Those without service are located in very remote areas or at extremely high elevations of the system that are not financially feasible to serve.

2.03 CONDITION OF EXISTING FACILITIES

RRWD has a 2 mgd water treatment plant that is sourced by the Grayson Lake and was built in 1983. The plant has had some updates in the last twenty years and is generally in good condition.

The 700-mile distribution system consists of 8”, 6”, 4”, 3” and 2” PVC water mains and a limited amount of ductile iron in the extremely high-pressure areas. The existing water mains are generally located in the ditch line of state and county roads due to the difficult topography the District has to navigate. This area is difficult in that it has extremely rocky sub-surface areas. Due to the age of parts of the system, the difficult topography and the rocky ground conditions the RRWD does have a high-water loss of approximately 50 percent, thus the need for this project.

2.04 FINANCIAL STATUS OF ANY EXISTING FACILITIES

The financial condition of the District is reasonable and has been improving in recent years. Annual audits will be submitted to Rural Development as required by the RD bond issue. A customer breakdown will be provided in the Summary Addendum.

As with the majority of utilities across the country, the RRWD has seen its operating expenses rise over the past several years. Electric costs and health insurance are the expenses that have seen the largest increase.

SECTION 3 NEED FOR PROJECT

3.01 HEALTH, SANITATION, AND SECURITY

The proposed project is designed to reduce water loss therefore, RRWD will replace approximately 4000 existing meters with new radio read meters. A large portion of these meters are old and are probably reading in the 90% to 95% accuracy range. Replace approximately 700 existing service lines between the existing main and the existing meter that have been very problematic for the District, that were installed over thirty years ago. A leak on a ¾" service line can result in large water loss numbers and thus remove much needed revenue from the District. The project will also include installing fourteen (14) master meters within the RRWD system. The master meters will located in strategic areas of the distribution system with telemetry, allowing for monitoring of the movement of water throughout the system with the goal of reducing water loss.
These numerous leaks require boil water advisories, flushing, and subsequent water quality testing of the repaired water lines and can become a health issue during the process.

The District will also install a limited number of new water mains in areas that currently do not have potable water service. These areas currently rely on wells that are many times not tested for water quality by the home owner, and can cause serious health issues over time if not corrected.

The proposed project will help to improve the overall service from a water quality and reliability standpoint to the Rattlesnake Ridge Water District customers.

3.02 AGING INFRASTRUCTURE

The existing water service lines to be replaced with this project are over thirty (30) years old and have been problematic for a long time. Due to the age of these water lines the District has experienced continued operational issues that only become worse as time goes on. These issues include breaks and leaks of the water service lines which create financial strains on the District through the allocation of its resources. Additionally, this aging infrastructure adds to the District's burden of maintaining a low water loss rate in its distribution system.

3.03 REASONABLE GROWTH

The Kentucky State Data Center currently projects very little to no growth in the next thirty-five years. However, the existing customers will pay a heavy price financially in the cost of water if this water loss issue is not resolved in the near future.

SECTION 4 ALTERNATIVES CONSIDERED

4.01 Description

Alternatives considered included using a land-based radio read meter system instead of a drive by system, but the cost was prohibitive due to the difficult topography that would require numerous antennas and repeaters that would have to be located throughout the system. An analysis of the land-based radio read meter was completed previously, and it was determined only 60 percent of the meters could be integrated into the programing. An additional alternative considered was to only replace the service lines as they deteriorate to the point of failure. This is cost prohibitive for the RRWD and does not benefit the customers by providing a safe, dependable, high quality product.

4.02 Design Criteria

The design criteria that will be used on the project include hydraulic analysis of the existing system to determine that adequate pressures, and water loss are realized and analyzed throughout the distribution system along with examining flushing velocities. By properly sizing the distribution mains to be installed, the District will provide improved service to its customer base while also maintaining potable water of high quality.

4.03 Map

Maps of the project showing the service line replacement areas, locations of the new master meters, and the new water main extensions are located at the end of this report (Appendix A). The meter replacements are system wide.

4.04 Environmental Impacts

An environmental report detailing the potential impacts of the project may be undertaken with this project. Once the report is finalized any potential impacts will be taken into consideration and any necessary remediation measures will be taken to avoid any negative impact to the environment.

4.05 Land Requirements

Land requirements associated with this project will include the need for easements and encroachment permits, both public and private, for the installation of the new water mains. Those easements and permits will be obtained prior to any construction beginning. The new master meters will be installed on existing water mains within existing easements.

4.06 Potential Construction Problems

The service line and meter replacement will have each customer out of water temporarily while the transition is made from the old service to the new service. The installation of the master meters will also have temporary interruption of service during the installation, but these can be planned in advance with momentary outages of service. This problem is considered during the design of the project and all precautions are taken to limit this potential risk.

4.07 Cost Estimates

A FINAL project cost estimate for both Contracts 1 and 2 are included at the end of this report (Appendix B).

SECTION 5 SELECTION OF AN ALTERNATIVE

5.01 Life Cycle Cost Analysis

In the selection of the preferred alternative for this project the life cycle cost of the materials to be utilized has been considered. The main material to be utilized is the water service line and the water main. The water service will be of HDPE material and the water main will be of PVC material. Recent studies estimate a service life of both the HDPE and the PVC up to one hundred years. This length of service life provides for lower operating and maintenance costs to be realized by the District. Both the service meters and the master meters will be of the latest technology.

5.02 Non-Monetary Factors

The non-monetary factors considered are the ability to provide reliable service to the existing customer base. With new water mains the existing customer base will have improved service and a higher quality product due to the elimination of problematic service lines and the increased reliability of accurate meter readings.

SECTION 6 PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

6.01 Preliminary Project Design

The proposed project and recommended alternative are directly related to reducing water loss for the Rattlesnake Ridge Water District. The project will consist of replacing approximately 4000 meters with new radio read drive-by meters and software. Replacement of approximately 700 customer meter assembly's and old, problematic service line. Also included will be the installation of nine (9) new master meter vaults strategically located about the different pressure zones within the system. The addition of the master meters and RTU's will provide the District with hourly information about the inconsistent water usage in various zones of the system to better monitor potential leaks. The District is also proposing the installation of new water main extensions on the following roads.

Location	Distance	Customers	Cost/Customer	Total Cost
1704/Appaloosa	8000 LF	7	$34,285 **(deleted)**	$240,000
Lick Falls Branch	2800 LF	3	$16,666	$50,000
Lick Creek	5800 LF	4	$25,750	$103,000
Blaines Trace	5900 LF	7	$16,857	$118,000
	14,500	14	$19,357	$271,000

Rattlesnake Ridge Water District will keep all new meter replacements, all 700 service line replacements, and all system wide master meters. Three of the four water line extensions will also be kept in the project. Only the 1704/Appaloosa Drive water main extension will be deleted from the project.

6.02 Project Schedule

The proposed project schedule for both Contracts 1 and 2 are as follows:

1. Secured Letter of Conditions from USDA RD – August 25,2021
2. ARC Announcement – December 8, 2021
3. Secure Land/Easement/Encroachment Permits – December 7, 2021
4. Division of Water Approval – January 28, 2021
5. Advertise for Bids – August 31, 2022
6. Contract Award/Initiate Construction – December, 2022
7. Substantial Completion – July, 2023
8. Final Completion/Initiation of Operation – August, 2023

6.03 Permit Requirements

The project has received Division of Water Approval, completed environmental, resolution from Carter County Fiscal Court for county road encroachments and Kentucky Department of Transportation for state road encroachments.

6.04 Total Project Cost Estimate (Engineer's Opinion of Probable Cost)

A final project cost estimate for both Contracts 1 and 2 are included at the end of this report (Appendix B).

6.05 Annual Operating Budget

Another Summary Addendum has been prepared for the project which will examine the District's current and future financial position. Included within the Summary Addendum will be an analysis of the District's current income, annual O & M costs, current and future debt repayments and current reserves. This Summary Addendum will propose a suggested rate for the District in order to meet its current and future debt obligations.

SECTION 7 PROJECT BUDGET AND FUNDING

7.01 Bidding and Recommendations

The project was advertised on August 31, 2022 in the Ashland Daily Independent and construction bids were opened on Monday, September 12, 2022 at 2 pm at the Rattlesnake Ridge Water District office. Listed below is the pertinent information with regarding the bids for the various contracts:

Contract No.	No. of Bidders	Plan Holders	Low Bidder	Amount
1	1	6	Ferguson	$2,172,212.94
2	3	4	BP Pipeline	$2,016,525.00

The low bid for both contracts came in over the engineer's estimate due to several factors, including the severe increase in pipe prices and other related materials that has affected the water industry over the past several months, price increases due to the lack of chemicals and resin that are part of the manufacturing process, battery chips in meters, and the COVID 19 pandemic. Additionally, the availability of PVC pipe, meters and setters will be another issue that will need to be addressed with the successful contractors going forward.

Initially, the project budget was $3,7222,000 but as inflation began in January of 2021, Bluegrass Engineering knew it was going to be difficult to achieve the construction items as prices continued to rise at unprecedented levels, therefore we decided to secure an ARC Grant in the amount of $500,000 which helped raise the funding to $4,222,000. This alas would not be enough as the bids still came in over budget in the amount of $624,748.

The Rattlesnake Ridge Water District held a special board meeting on September 20, 2022 to discuss the bids and deem how best to move forward with the project. The District made the following decisions:

1. The RRWD board agreed that all items that have to do with reducing water loss had to remain in the project, therefore Contract 1 will only see a reduction to the contract in the amount of $28,770. This is deleting the 1" service line that is not really needed at a very expensive $57.54 per foot. All other items will remain intact.

2. On Contract 2 it was determined to delete the KY 1704/Appaloosa Drive extension due to the high cost of its installation. This cost was much higher because the proposed water main had certain requirements to be laid under the I-64 overpass. This will save the project approximately $240,000. The District will keep all the service line replacement on all 56 Roads (700 service lines) intact.
3. The RRWD board voted to pursue additional funding in the amount of $380,000. This will require another Summary Addendum which is enclosed in this report. It is hoped that Rural Development can provide a 100% grant which would make the request for additional loan money at $0.
4. The project will move forward to construction with Contracts 1 and 2 once the required reviews have been completed by Rural Development and PSC.
5. The board will be asked to approve the Notice of Award for Contracts 1 and 2.

See Appendix B (Bid Tabulations for Contracts 1 and 2, and Letter of Recommendations for both contracts)

The funding for the project consists of the following:

Rural Development Loan	$1,906,000
Rural Development Grant	$816,000
CDBG Grant	$1,000,000
ARC Grant	$500,000

Requested Additional:

Rural Development Grant (100%)	$380,000
Total	**$4,602,000**

The revised budget for this project is as follows:

Legal and Administrative	$30,000
Interest on Interim Financing	$30,000
CDBG Administration	$50,000
Preliminary Engineering Report	$5,000
Rate Study	$5,000
Environmental	$10,000
Other Additional Services	$22,000
Engineering Design and CA	$211,000
Resident Inspection Services	$116,000
Construction	$3,920,000
Contingencies (5%)	$203,000
TOTAL	**$4,602,000**

It is the recommendation of Bluegrass Engineering, PLLC to proceed with the construction phase of the project, upon completion of the remaining Rural Development submittals and construction conferences.

7.02 Annual Operating Costs and Proposed Rates

The proposed rates will allow Rattlesnake Ridge Water District to fully fund the debt service for this project. The project will allow RRWD to realize a reduction in annual operating costs over the cost of the loan. The replacement of the old problematic meters and aged service line will see an increase in revenue and much lower water loss rate.

The combination of the proposed rates along with the operational efficiencies that are gained from this project will allow RRWD to further strengthen their financial position over the course of the loan.

The proposed rates are as follows:

SECTION 8 CONCLUSIONS AND RECOMMENDATIONS

8.01 Phase 12 Water System Improvements

- Once additional funding as been received from Rural Development then proceed with the signing of contracts and issuance of the Notice to Proceed on both contracts.
- Shop drawing review shall be completed quickly so that materials can be ordered to help reduce the slow delivery due to supply chain issues.
- Change Orders for both contracts shall be made part of the contract documents.

RRWD Water System Improvements *rev. 9_29_22*

Summary Addendum

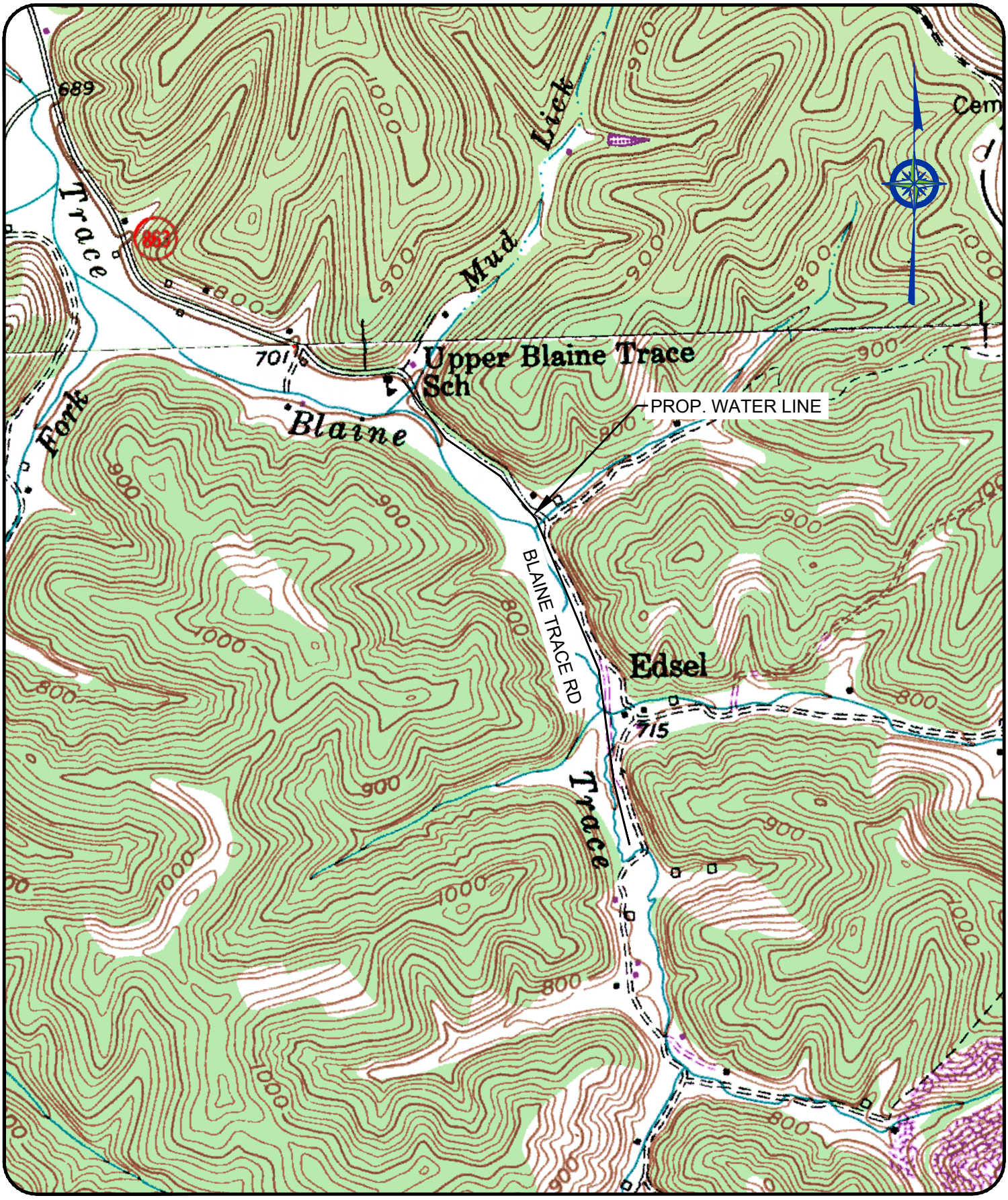
Funding Option 1 - 40 year Payback Schedule with Grant

First Year of Operation - Year Ending in 2022

Total Project Cost rev.		*$4,622,000*
Proposed Funding		
CDBG		$1,000,000
ARC Grant Funds Committed		$500,000
RD Grant Funds Committed		$816,000
Proposed Bond Amount - Committed		$1,906,000
Cleaner Water Grant Funds - Expected		$400,000
Proposed Debt Service		$1,906,000
RD Loan Annual Debt Service (Original Committed)		$66,700
40 years @ 1.750%		
RD Loan Debt Service Coverage (10% of Annual Debt Service)		$6,670
Total New Project Debt Service		*$73,370*
Additional Expenses & Anticipated Debt Service		
Estimated Annual O & M Increase		$65,924
Short-Lived Assets		$0
Debt Reserve		$6,700
	+	
Total Additional Expenses & Anticipated Debt Service		*$72,624*
Total Annual Increase (Total New Project Debt Service + Total Additional Expenses)		$145,994
Balance Available for Coverage (For Planned & Ongoing Immediate Projects)	-	$10,751
Total Additional Annual Revenue Required		**$135,243**
Total Additional Annual Revenue Required		$135,243
Total 2019 Billed Water Revenue	÷	$2,691,600
Percentage Rate Increase		***6.00%***

In Gallons	**2019 Existing Rates**	**Proposed Rates**
5/8" x 3/4" Meter		
First 1,000	$19.32	**$20.48**
Next 4,000	$14.40	**$15.26**
Next 5,000	$12.40	**$13.14**
Next 10,000	$11.10	**$11.77**
Next 20,000	$7.90	**$8.37**
All Over 40,000	$6.30	**$6.68**
3/4" Meter		
First 5,000	$76.92	**$81.54**
Next 5,000	$12.40	**$13.14**
Next 10,000	$11.10	**$11.77**
Next 20,000	$7.90	**$8.37**
All Over 40,000	$6.30	**$6.68**
1" Meter		
First 10,000	$138.92	**$147.26**
Next 10,000	$11.10	**$11.77**
Next 20,000	$7.90	**$8.37**
All Over 40,000	$6.30	**$6.68**
1 1/2" Meter		
First 30,000	$328.92	**$348.66**
Next 10,000	$7.90	**$8.37**
All Over 40,000	$6.30	**$6.68**
2" Meter		
First 50,000	$470.92	**$499.18**
All Over 50,000	$6.30	**$6.68**
3" Meter		
First 100,000	$785.92	**$833.08**
All Over 100,000	$6.30	**$6.68**
4" Meter		
First 200,000	$1,415.92	**$1,500.88**
All Over 200,000	$6.30	**$6.68**
6" Meter		
First 500,000	$3,305.92	**$3,504.28**
All Over 500,000	$6.30	**$6.68**
Wholesale Rate		
Big Sandy WD	$4.30 per 1,000	**$4.56 per 1,000**
City of Grayson	$4.30 per 1,000	**$4.56 per 1,000**
City of	$3.82 per 1,000	**$4.05 per 1,000**
Wholesale Rate in Emergency Situations		
City of Olive Hill	$4.30 per 1,000	**$4.56 per 1,000**
Ky Dept. of Parks (Golf Course Only)	$4.63 per 1,000	**$4.91 per 1,000**
Sandy Hook WD		
First 50,000	$145.15	**$153.86**
All Over 50,000	$2.90	**$3.07**

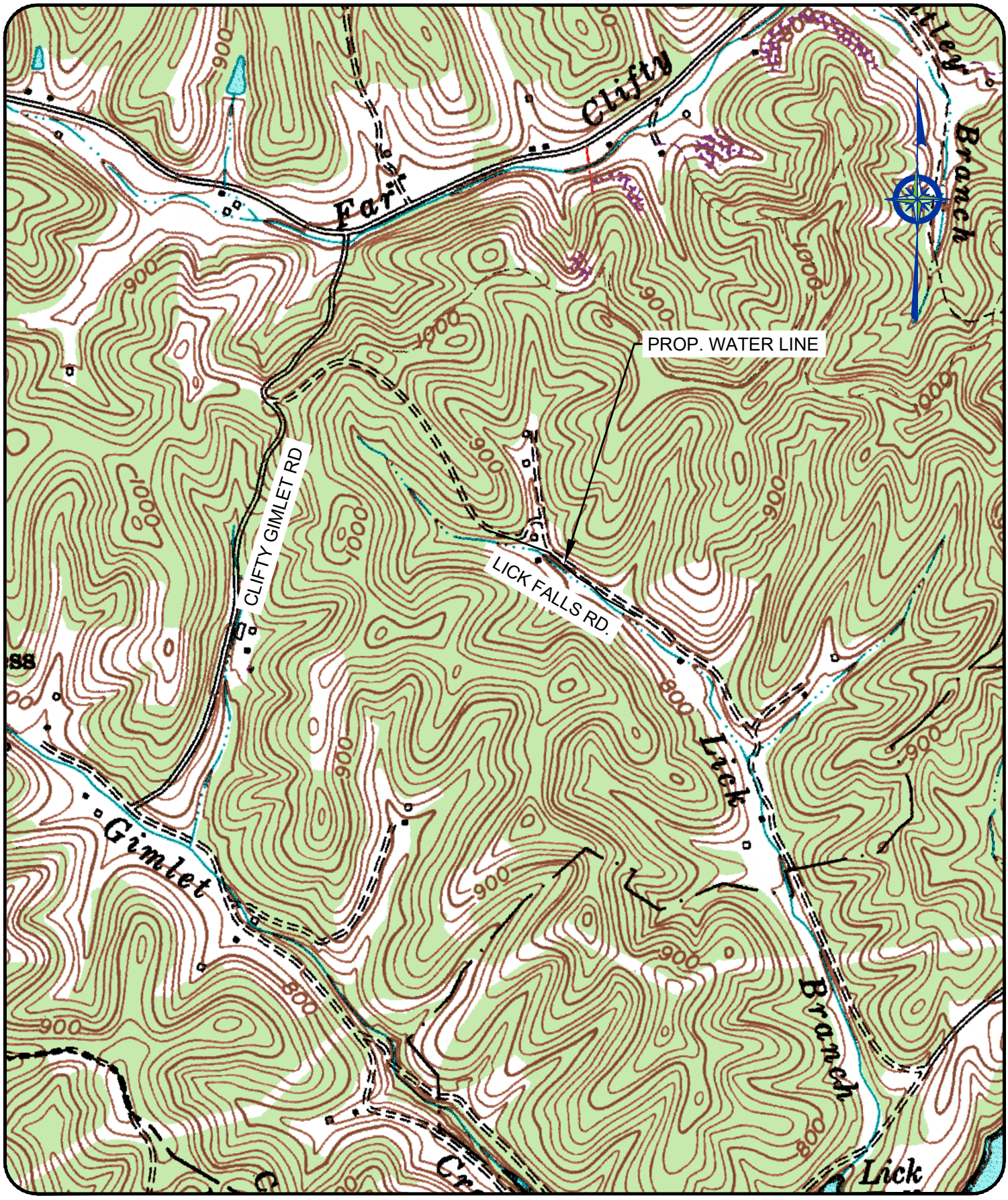
APPENDIX A PROJECT MAPS



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

BLAINE TRACE RD.
PHASE 12
RATTLESNAKE RIDGE WATER DISTRICT

Project No.	20002
Date	JAN. 2020
Dwg. No.	6



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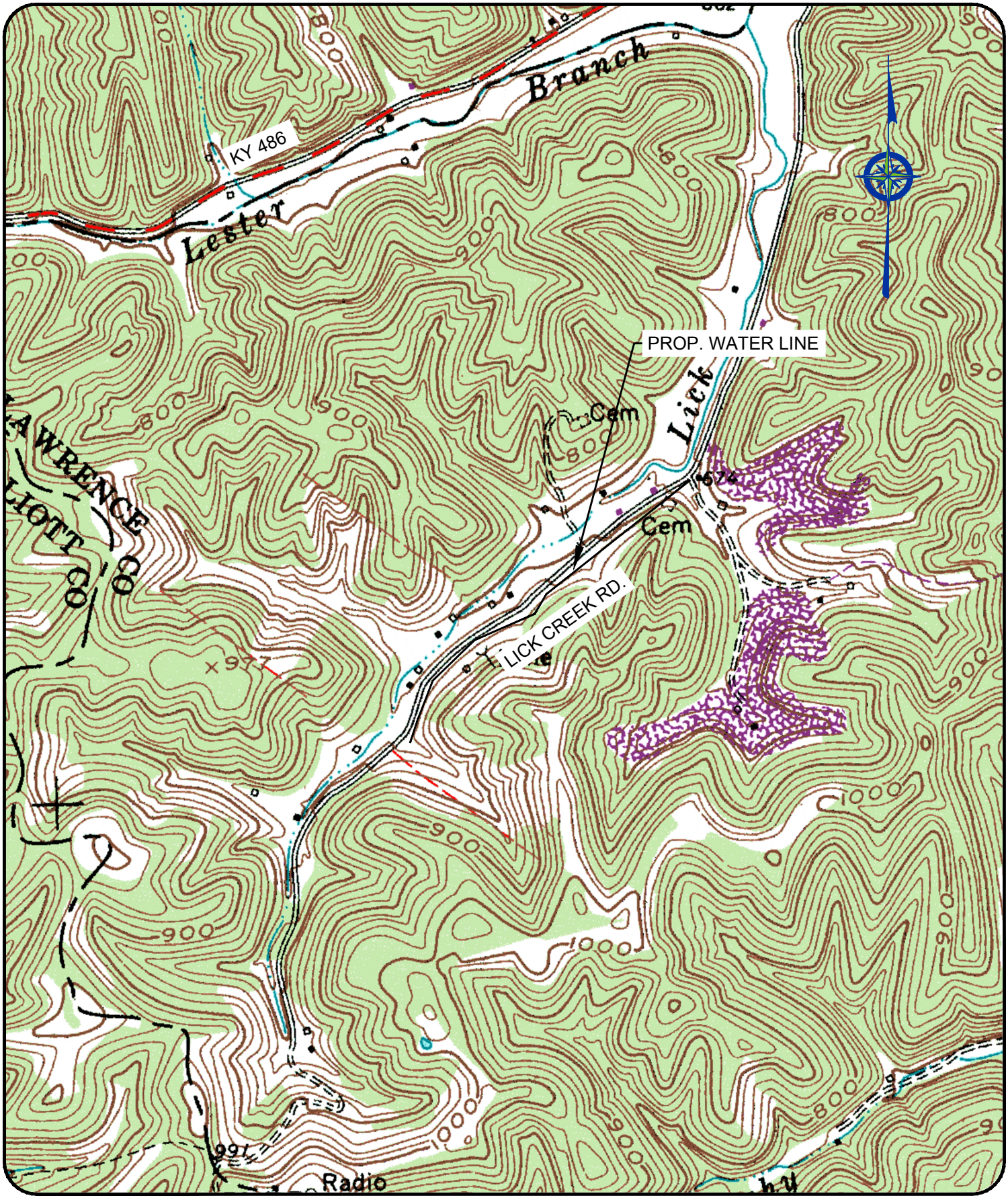
LICK FALLS RD.
PHASE 12
RATTLESNAKE RIDGE WATER DISTRICT

Project No.	20002
Date	JAN. 2020
Dwg. No.	3



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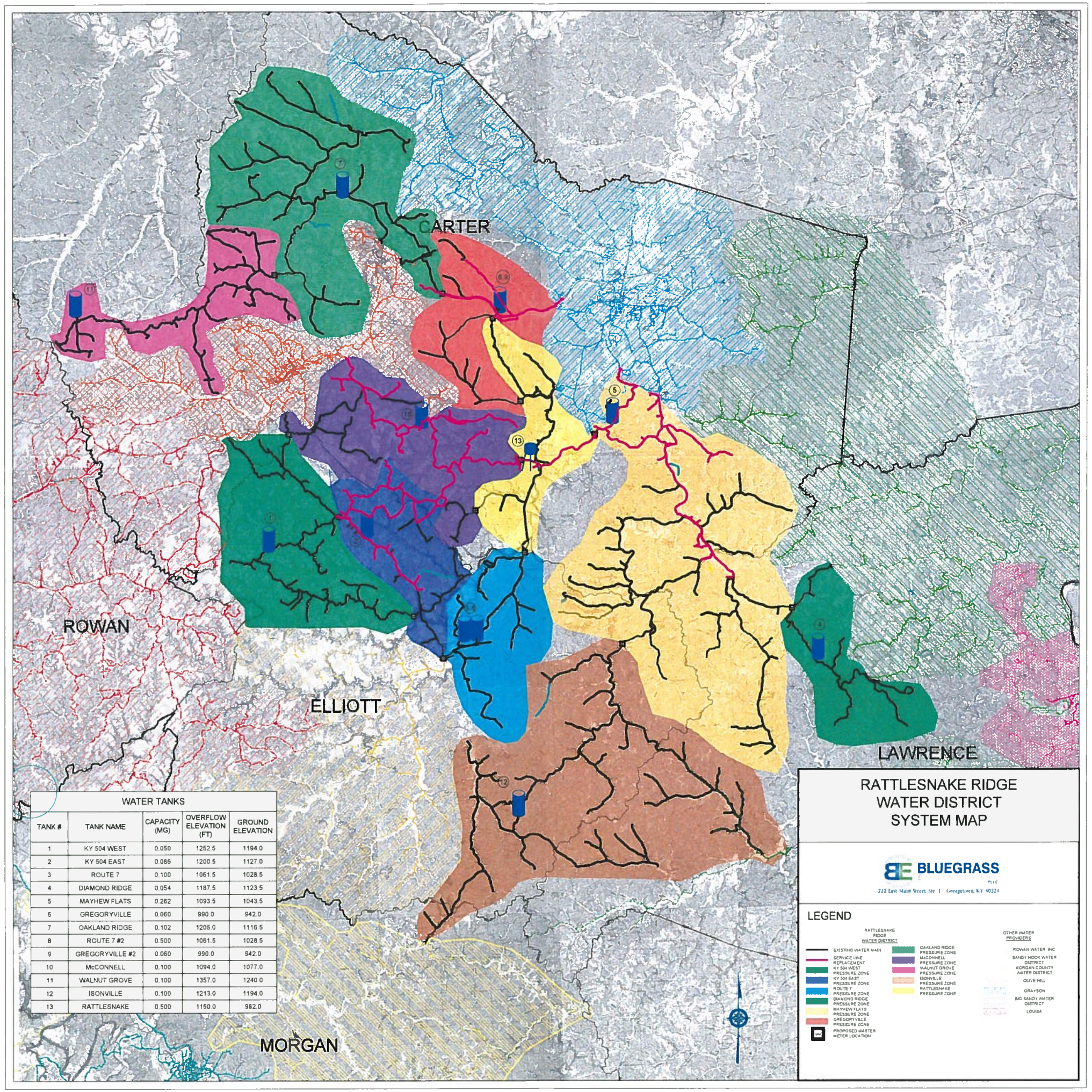
LICK CREEK RD.
PHASE 12
RATTLESNAKE RIDGE WATER DISTRI

Project No.	20002
Date	JAN. 2020
Dwg. No.	4



WATER TANKS				
TANK #	TANK NAME	CAPACITY (MG)	OVERFLOW ELEVATION (FT)	GROUND ELEVATION
1	KY 504 WEST	0.050	1252.5	1194.0
2	KY 504 EAST	0.086	1200.5	1127.0
3	ROUTE 7	0.100	1061.5	1028.5
4	DIAMOND RIDGE	0.054	1187.5	1123.5
5	MAYHEW FLATS	0.262	1093.5	1043.5
6	GREGORYVILLE	0.060	990.0	942.0
7	OAKLAND RIDGE	0.102	1205.0	1116.5
8	ROUTE 7 #2	0.500	1061.5	1028.5
9	GREGORYVILLE #2	0.060	990.0	942.0
10	McCONNELL	0.100	1094.0	1077.0
11	WALNUT GROVE	0.100	1357.0	1240.0
12	ISONVILLE	0.100	1213.0	1194.0
13	RATTLESNAKE	0.500	1150.0	982.0

RATTLESNAKE RIDGE WATER DISTRICT SYSTEM MAP

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

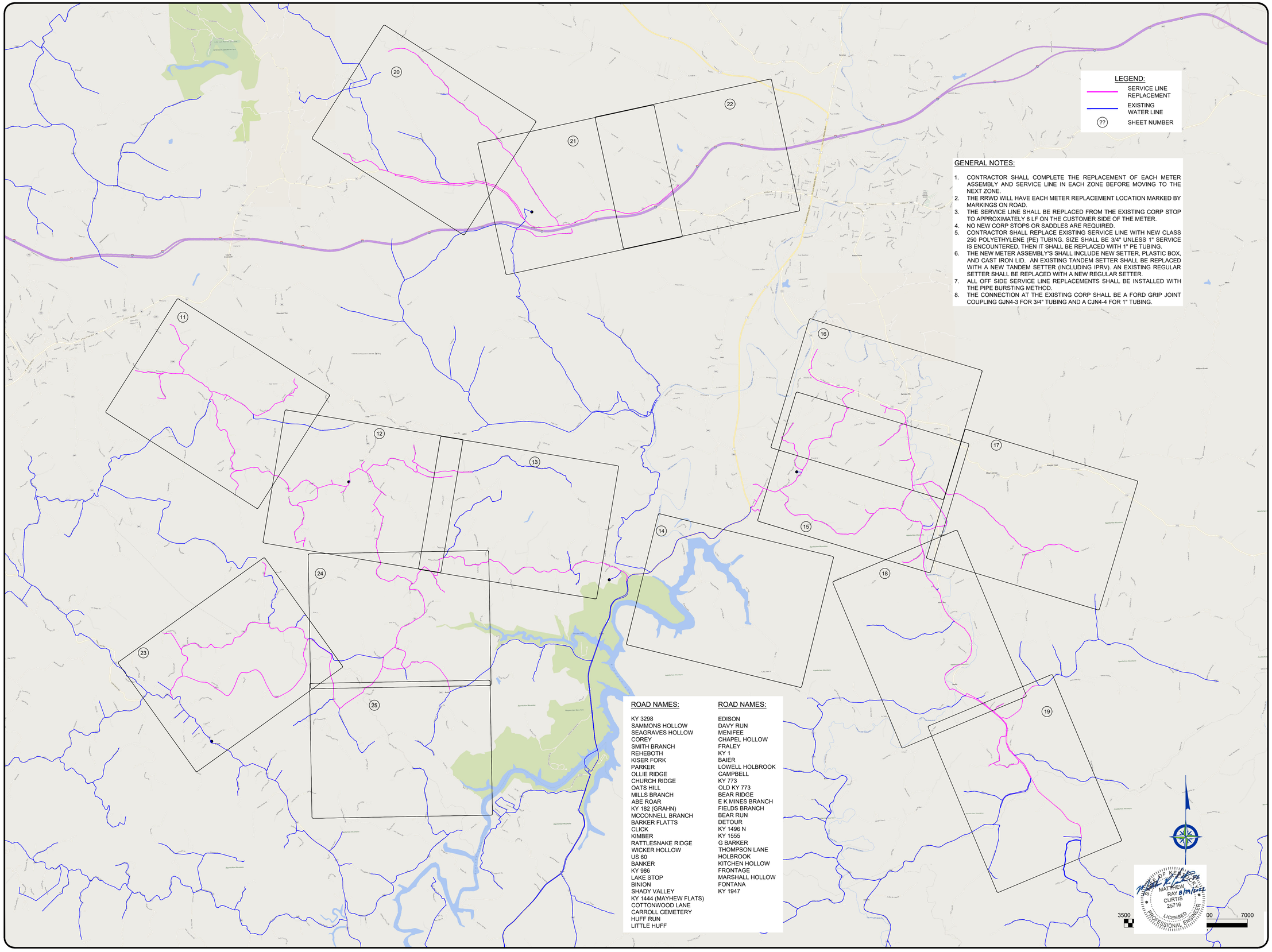
LEGEND

RATTLESNAKE RIDGE WATER DISTRICT

- EXISTING WATER MAIN
- SERVICE LINE REPLACEMENT
- KY 504 WEST PRESSURE ZONE
- KY 504 EAST PRESSURE ZONE
- ROUTE 7 PRESSURE ZONE
- DIAMOND RIDGE PRESSURE ZONE
- MAYHEW FLATS PRESSURE ZONE
- GREGORYVILLE PRESSURE ZONE
- PROPOSED MASTER METER LOCATION
- OAKLAND RIDGE PRESSURE ZONE
- McCONNELL PRESSURE ZONE
- WALNUT GROVE PRESSURE ZONE
- ISONVILLE PRESSURE ZONE
- RATTLESNAKE PRESSURE ZONE

OTHER WATER PROVIDERS

- ROWAN WATER INC
- SANDY HOOK WATER DISTRICT
- MORGAN COUNTY WATER DISTRICT
- OLIVE HILL
- GRAYSON
- BIG SANDY WATER DISTRICT
- LOUISA



NO.	DATE	REVISIONS	BY

PHASE 12 WATER SYSTEM IMPROVEMENTS
CONTRACT 2

SERVICE LINE REPLACEMENT

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

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

COMMONWEALTH OF KENTUCKY
MATTHEW RAY CURTIS 25716
LICENSED PROFESSIONAL ENGINEER
8/31/22

10

BID SET

B:\PROJECTS\Rattlesnake Ridge WD\General\System Map\RRWD\RRWD System Map.dwg BE 9/29/22

APPENDIX B BID TABULATIONS AND LETTERS OF RECOMMENDATION

BLUEGRASS ENGINEERING PLLC

BID TABULATION

RATTLESNAKE RIDGE WATER DISTRICT
PHASE 12 - WATER SYSTEM IMPROVEMENTS - CONTRACT 1
GRAYSON, KENTUCKY
BE PROJECT NO. 20002
BID OPENING: MONDAY September 12, 2022, 2 pm

BASE BID:				FERGUSON WATERWORKS Lexington, Kentucky					
Item No.	Description	Quantitiy	Unit	$/unit	Bid Amount	$/unit	Bid Amount	$/unit	Bid Amount
1	Purchase and Installation of 5/8" x 3/4" Radio Read Meters in Existng Setters. Also included is new auto read software and the transfer of information from the old/new meters to the software digitally from the field	4,000	EA	$ 424.11	$ 1,696,440.00				
2	Additional 3/4" or 1" Service Line	500	EA	$ 57.54	$ 28,770.00				
3	Replace Existing Setter in Existing Meter Box	20	EA	$ 701.56	$ 14,031.20				
4	Replace Existing Meter Box	20	EA	$ 173.96	$ 3,479.20				
5	Replace Existng Meter Box Lid	20	EA	$ 81.14	$ 1,622.80				
6	Master Meter Vault & Appurtenances	7	EA	$ 48,237.66	$ 337,663.62				
7	Master Meter and Control Vault, and Appurtenances	1	EA	$ 85,779.65	$ 85,779.65				
8	Connection of Existing Meter to Existing RTU Controls at Existing Diamond Ridge BPS	1	EA	$ 4,436.51	$ 4,436.51				
TOTAL BASE BID AMOUNT – (ITEMS No. 1 – 8):					$2,172,222.98				

Numbers in Red Incidcate Errors In Contractors Bid Calculations

The above is a true and complete tabulation of the bids received on Monday, September 12, 2022, 2 pm.
I certify that this is true and accurate tabulation of the bids.

Bluegrass Engineering, PLLC

By: _____
Riley Sumner
Project Manager

BLUEGRASS ENGINEERING PLLC

BID TABULATION

RATTLESNAKE RIDGE WATER DISTRICT
PHASE 12 - WATER SYSTEM IMPROVEMENTS - CONTRACT 2
GRAYSON, KENTUCKY
BE PROJECT NO. 20002
BID OPENING: Monday, September 12, 2022, 2 pm (local time)

BASE BID: PHASE 12 - Water System Improvements Project - CONTRACT 2				BP PIPELINE, LLC		BOCA ENTERPRISES, INC.		JONES CONTRACTING, LLC					
Item No.	Description	Quantitiy	Unit	$/unit	Bid Amount	$/unit	Bid Amount	$/unit	Bid Amount				
1	2" PVC Class 250 Water Main	2,800	LF	$ 13.00	$ 36,400.00	$ 18.00	$ 50,400.00	$ 18.75	$ 52,500.00				
2	3" PVC Class 250 Water Main (Labor only)	4,000	LF	$ 12.00	$ 48,000.00	$ 14.00	$ 56,000.00	$ 15.00	$ 60,000.00				
3	3" PVC Class 250 Water Main	4,000	LF	$ 16.00	$ 64,000.00	$ 21.00	$ 84,000.00	$ 21.75	$ 87,000.00				
4	3" PVC Class 200 Water Main	12,000	LF	$ 14.00	$ 168,000.00	$ 19.50	$ 234,000.00	$ 20.75	$ 249,000.00				
4	4" HDPE DR 9 Water Main	475	LF	$ 22.00	$ 10,450.00	$ 30.00	$ 14,250.00	$ 70.00	$ 33,250.00				
5	2" Gate Valve and Box	1	EA	$ 1,200.00	$ 1,200.00	$ 1,200.00	$ 1,200.00	$ 1,400.00	$ 1,400.00				
6	3" Gate Valve and Box	5	EA	$ 2,000.00	$ 10,000.00	$ 1,400.00	$ 7,000.00	$ 1,750.00	$ 8,750.00				
7	Replace Existing Single Setter, Box, Lid and 3/4" or 1" Service Line	50	EA	$ 1,900.00	$ 95,000.00	$ 1,700.00	$ 85,000.00	$ 2,100.00	$ 105,000.00				
8	Additional 3/4" or 1" Service Line	5,000	LF	$ 9.00	$ 45,000.00	$ 9.00	$ 45,000.00	$ 9.00	$ 45,000.00				
9	Blow Off Assembly	5	EA	$ 3,500.00	$ 17,500.00	$ 2,500.00	$ 12,500.00	$ 3,000.00	$ 15,000.00				
10	8" HDPE DR 11 Casing Pipe, Concrete Cap- Open Cut	360	LF	$ 70.00	$ 25,200.00	$ 150.00	$ 54,000.00	$ 145.00	$ 52,200.00				
11	Connect to Existing Water Main	5	EA	$ 2,200.00	$ 11,000.00	$ 2,600.00	$ 13,000.00	$ 2,500.00	$ 12,500.00				
12	Driveway/Roadway Bore w/PVC Casing	230	LF	$ 45.00	$ 10,350.00	$ 150.00	$ 34,500.00	$ 125.00	$ 28,750.00				
13	New Meter Assembly	25	EA	$ 2,100.00	$ 52,500.00	$ 2,000.00	$ 50,000.00	$ 2,800.00	$ 70,000.00				
14	8" Steel Caing Bore and Jack	80	LF	$ 150.00	$ 12,000.00	$ 300.00	$ 24,000.00	$ 250.00	$ 20,000.00				
15	3" HDPE DR 9 Directional Drill	335	LF	$ 90.00	$ 30,150.00	$ 90.00	$ 30,150.00	$ 60.00	$ 20,100.00				
16	3/4" Air Release Valve	1	EA	$ 3,500.00	$ 3,500.00	$ 1,800.00	$ 1,800.00	$ 2,500.00	$ 2,500.00				
17	No.4 Crushed Stone in Ditch Line	75	Ton	$ 65.00	$ 4,875.00	$ 40.00	$ 3,000.00	$ 35.00	$ 2,625.00				
18	Replace Existing Tandem Setter, PRV, Box, Lid, and 3/4" or 1" Service Line	650	EA	$ 2,100.00	$ 1,365,000.00	$ 2,000.00	$ 1,300,000.00	$ 2,075.00	$ 1,348,750.00				
19	1" PRV w/3/4" PRV By-Pass	2	EA	$ 3,200.00	$ 6,400.00	$ 3,700.00	$ 7,400.00	$ 2,500.00	$ 5,000.00				
					$ -								
					$ -		$ -		$ -				
TOTAL BASE BID AMOUNT – (ITEMS No. 1 – 19):					$2,016,525.00		$2,107,200.00		$2,219,325.00				

*Numbers in Red indicate errors in Contractor's Bid Amount Calculation

The above is a true and complete tabulation of the bids received on Monday, September 12, 2022, 2 pm
I certify that this is true and accurate tabulation of the bids.

Bluegrass Engineering, PLLC

By: _____
Riley Sumner
Project Manager