



KENVIRONS

Case No. 2017-00473

FINAL ENGINEERING REPORT

for

WEST LAUREL WATER ASSOCIATION

CONTRACT 1—NEW COUNTY FARM PUMP STATION

CONTRACT 2—WATERLINE IMPROVEMENTS

CONTRACT 3—KY 363 WATER TANK REHABILITATION

RECEIVED

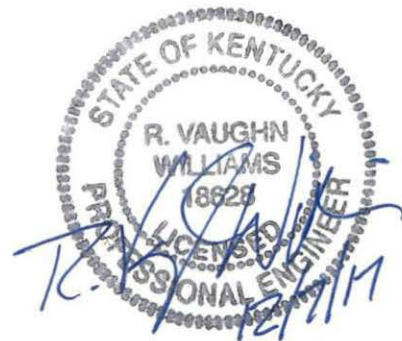
DEC 21 2017

PUBLIC SERVICE
COMMISSION

PREPARED BY:

KENVIRONS, INC.
452 VERSAILLES ROAD
FRANKFORT, KENTUCKY 40601

PROJECT No. 2015045



DECEMBER 2017

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1. INTRODUCTION

The West Laurel Water Association made an application for financial assistance to USDA Rural Development for the construction of the New County Farm Pump Station, replacing the waterlines along City Dam Road and KY 552, and rehabilitating KY 363 Water Storage Tank. A Preliminary Engineering Report dated July 2016 describes in detail the scope and need for this project. A Revised Preliminary Engineering Report dated November 2016 was prepared describing additional items to be included in the project if excess funds were available and is included herewith by reference. This project was bid as three distinct contracts; Contract 1–New County Farm Pump Station, Contract 2–City Dam Road Waterline Improvements, and Contract 3–KY 363 Water Storage Tank Rehabilitation.

2. BIDS RECIEVED

Bids were opened and read aloud at 1:30 P.M. on November 9, 2017 at the West Laurel Water Association Office. Two (2) bids were received for Contract 1–New County Farm Pump Station. The low bidder was Herrick Company, Inc. of Lawrenceburg, Kentucky in the amount of \$497,725.00. The percent difference between the two bids was 1.66%.

Seven (7) bids were received for Contract 2–Waterline Improvements. The low bidder was Bailey Excavating, LLC of London, Kentucky in the amount of \$239,740.00. The percent difference between the two lowest bids was 9.90%.

Four (4) bids were received for Contract 3–KY 363 Water Storage Tank Rehabilitation. Two of the four bids received were rejected due to the bid being submitted on the incorrect bid form and not acknowledging documents. The low bidder for Contract 3 was C & S Quality Services, LLC of Lawrenceburg, Kentucky in the amount of \$118,850.00. The percent difference between the two valid bids was 0.13%.

Certified bid tabulations were prepared and are contained in Appendix A.

3. PROJECT BUDGET

The West Laurel Water Association has actively pursued funding for the proposed project. Table 1 is a summary of the funding that has been secured.

**TABLE 1
PROJECT FUNDING**

Rural Development (RD) Loan	1,260,000.00
Rural Development (RD) Grant	540,000.00
Total per RD Letter of Conditions	<u>\$1,800,000.00</u>

Table 2 outlines the project budget as established in the RD Letter of Conditions and revised based upon the bids received.

**TABLE 2
PROJECT BUDGET**

<u>Budget Item</u>	<u>R.D. Letter of Conditions</u>	<u>Revised Cost</u>
Development	\$1,405,550.00	\$1,400,904.00*
Legal and Administrative	17,000.00	13,250.00
Engineering Fees	127,000.00	91,800.00
Interest	38,000.00	38,000.00
Other Engineering	80,000.00	53,821.00
Environmental	6,000.00	9,500.00
Contingencies	126,450.00	192,725.00
Total Funding Available	\$1,800,000.00	\$1,800,000.00

* See description below and TABLE 3 for explanation of Development cost.

The difference between the sums of the construction bids (\$856,315) and the engineer's opinion of probable construction cost (\$1,405,550) is \$549,235 under the initial estimate which equates to a 58.2% difference.

The Revised Preliminary Engineering Report stated that any funding available after the completion of construction would be utilized to purchase new radio read water meters. With the amount of funding available, the Water Association obtained cost quotations to purchase these meters. The quotation is attached in Appendix B. The Water Association will solicit formal bids for these meters upon substantial completion of Contracts 1 and 2. New radio read water meters will be installed throughout the service area at a rate of approximately 150 meters per month. All meters shall be installed by end of year 2021.

Further, the Water Association solicited a proposal from the low bidder of Contract 2 to connect the existing water meters and spur lines to the proposed waterlines so the existing main could be removed from service. The Water Association had originally planned to do this work using their own employees and equipment. The prices submitted were reviewed and were found to be acceptable for the nature of work requested. This work will be in addition to the work to be performed as part of Contract 2.

The Water Association also obtained cost proposals to upgrade the existing Supervisory Control and Data Acquisition System (SCADA) located at the Wood Creek Water Treatment Plant (WTP). The existing SCADA System is used to monitor the pump stations and tanks in the Wood Creek Water District, East Laurel Water District, and West Laurel Water Association, jointly, including the New County Farm Pump Station being constructed under Contract 1. All three (3) utilities will derive benefit from the purchase

of the new SCADA equipment and the cost shall be divided equally among the three. The portion of cost to be absorbed by the West Laurel Water Association is listed in Table 3. Table 3 provides a summary of these additional costs compared with the original Opinion of Probable Cost.

**TABLE 3
DEVELOPMENT COST**

<u>Budget Item</u>	<u>Opinion of Probable Cost</u>	<u>Revised Cost</u>
Contract 1 – New County Farm P.S.	\$990,000.00	\$497,725.00
Contract 2 – Waterline Improvements	265,550.00	239,740.00
Contract 3 – KY 363 Tank Rehabilitation	150,000.00	118,850.00
4,000 Radio Read Water Meters	-	539,960.00
WTP Telemetry Equipment	-	4,629.00
Total Funding Available	\$1,405,550.00	\$1,400,904.00

4. RECCOMENDATIONS

1. It is recommended that the contract for Contract 1–New County Farm Pump Station be awarded to Herrick Company, Inc. in the amount of \$497,725.00. The contractor has constructed other similar projects and all reference checks have been exceptional.
2. It is recommended that the contract for Contract 2–Waterline Improvements be awarded to Bailey Excavating, LLC in the amount of \$239,740.00. The contractor has constructed other similar projects and all reference checks were acceptable.
3. It is recommended that the contract for Contract 3–KY 363 Water Storage Tank Rehabilitation be awarded to C & S Quality Services, LLC in the amount of \$118,850. The contractor has performed other similar projects and all reference checks were acceptable.
4. It is recommended that all funding remaining after the substantial completion of the original contracts be utilized as set forth and described in this report.
5. It is recommended that the user rates be adjusted to generate the revenue required to pay the debt service, coverage, and depreciation cost associated with these projects. The new rates shall be as outlined in the Summary Addendum to Preliminary Engineering Report and the RD Letter of Conditions.

APPENDIX A
CERTIFIED BID TABULATIONS

BID TABULATIONS

Sheet 1 of 1

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: West Laurel Water Association
Project: Contract No. 1: New County Farm Pump Station
Bid Date: November 9, 2017 at 1:30 P.M. Local Time

Project No. 2015045

Base Bid				Herrick Company, Inc. 1385 Tracy Road Lawrenceburg, KY 40342		Jave, LLC 2137 Island Drive Lexington, KY 40502	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	County Farm Pump Station	LS	1	\$420,325.00	\$420,325.00	\$360,000.00	\$360,000.00
2	Yard Piping	LS	1	41,400.00	41,400.00	120,000.00	120,000.00
3	Bituminous Concrete Paving	LS	1	3,500.00	3,500.00	4,000.00	4,000.00
4	Structural Fill	TON	140	100.00	14,000.00	25.00	3,500.00
5	Telemetry Equipment Allowance	LS	1	18,500.00	18,500.00	18,500.00	18,500.00
TOTAL BASE BID					\$497,725.00		\$506,000.00

The above is a true and complete tabulation of the Bids received by West Laurel Water Association at their office located at 1670 E. Hal Rogers Parkway, London, KY, on Thursday, November 9, 2017 at 1:30 P.M. Local Time.

By: 
R. Vaughn Williams, P.E.

11/10/17
Date



BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: West Laurel Water Association
Project: Contract 2: Waterline Improvements
Bid Date: November 9, 2017 at 1:30 P.M. Local Time

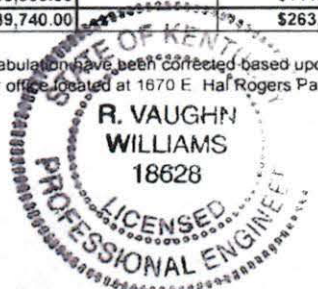
Project No. 2015045

Contract #2				Bailey Excavating, LLC 595 Dan Gabbard Road London, KY 40741		D & H Contracting Co., Inc 2003 Lakeview Drive London, KY 40741		Clay Pipeline 70 Fox Hollow Road Manchester, KY 40962		Akins Excavating Co., Inc 182 Busy Lane Corbin, KY 40701	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	8" PVC, SDR-17 Pipe	LF	4,850	\$14.50	\$70,325.00	\$17.50	\$84,875.00	\$16.60	\$80,510.00	\$19.50	\$94,575.00
2	Bored Steel Encasement for 8" Pipe	LF	160	195.00	31,200.00	190.00	30,400.00	129.00	20,640.00	225.00	36,000.00
3	Free Bore for 8" Pipe	LF	75	75.00	5,625.00	75.00	5,625.00	43.00	3,225.00	25.00	1,875.00
4	8"x8" Tapping Sleeve & Valve	EA	1	2,495.00	2,495.00	3,070.00	3,070.00	3,000.00	3,000.00	3,165.00	3,165.00
5	8" Gate Valve	EA	1	1,150.00	1,150.00	1,580.00	1,580.00	1,480.00	1,480.00	1,380.00	1,380.00
6	3" Gate Valve	EA	2	695.00	1,390.00	1,000.00	2,000.00	892.00	1,784.00	735.00	1,470.00
7	3" Stub-Out	EA	2	575.00	1,150.00	400.00	800.00	435.00	870.00	285.00	570.00
8	Fire Hydrant	EA	3	3,550.00	10,650.00	3,700.00	11,100.00	4,780.00	14,340.00	3,890.00	11,670.00
9	Pavement Replacement: Concrete	LF	50	38.00	1,900.00	15.00	750.00	45.00	2,250.00	40.00	2,000.00
10	Pavement Replacement: Asphalt	LF	25	20.00	500.00	15.00	375.00	20.00	500.00	35.00	875.00
11	Pavement Replacement: Stone	LF	185	15.00	2,775.00	8.00	1,480.00	25.00	4,625.00	15.00	2,775.00
12	Final Grade, Fertilize, & Seed	LF	4,850	2.00	9,700.00	2.00	9,700.00	2.00	9,700.00	2.00	9,700.00
TOTAL CONTRACT #2					\$138,860.00		\$151,755.00		\$142,924.00		\$166,055.00

Alternate 1				Bailey Excavating, LLC		D & H Contracting Co., Inc		Clay Pipeline		Akins Excavating Co., Inc	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	6" PVC, SDR-17 Pipe	LF	6,700	\$8.00	\$53,600.00	\$10.00	\$67,000.00	\$12.35	\$82,745.00	\$13.00	\$87,100.00
2	Bored Steel Encasement for 6" Pipe	LF	40	145.00	5,800.00	140.00	5,600.00	99.00	3,960.00	225.00	9,000.00
	Free Bore for 6" Pipe	LF	30	70.00	2,100.00	75.00	2,250.00	40.00	1,200.00	25.00	750.00
3	10"x6" Tapping Sleeve & Valve	EA	1	1,950.00	1,950.00	2,800.00	2,800.00	2,700.00	2,700.00	2,710.00	2,710.00
4	3"x3" Tapping Sleeve & Valve	EA	1	1,550.00	1,550.00	2,200.00	2,200.00	1,880.00	1,880.00	1,910.00	1,910.00
5	6" Gate Valve	EA	4	925.00	3,700.00	1,185.00	4,740.00	1,180.00	4,720.00	975.00	3,900.00
6	3" Gate Valve	EA	1	695.00	695.00	1,000.00	1,000.00	892.00	892.00	735.00	735.00
7	6" Stub-Out	EA	2	1,050.00	2,100.00	500.00	1,000.00	553.00	1,106.00	395.00	790.00
8	3" Stub-Out	EA	1	575.00	575.00	400.00	400.00	425.00	425.00	285.00	285.00
9	Fire Hydrant	EA	2	3,550.00	7,100.00	3,700.00	7,400.00	4,670.00	9,340.00	3,890.00	7,780.00
10	Pavement Replacement: Concrete	LF	120	38.00	4,560.00	15.00	1,800.00	45.00	5,400.00	40.00	4,800.00
	Pavement Replacement: Asphalt	LF	30	20.00	600.00	15.00	450.00	20.00	600.00	35.00	1,050.00
	Pavement Replacement: Stone	LF	210	15.00	3,150.00	8.00	1,680.00	25.00	5,250.00	15.00	3,150.00
11	Final Grade, Fertilize, & Seed	LF	6,700	2.00	13,400.00	2.00	13,400.00	2.00	13,400.00	2.00	13,400.00
TOTAL ALTERNATE 1					\$100,880.00		\$111,720.00		\$133,618.00		\$137,360.00
TOTAL BASE BID = CONTRACT #2 + ALTERNATE 1					\$239,740.00		\$263,475.00		\$276,542.00		\$303,415.00

* Denotes an arithmetic error was made on the Bids submitted. Values reported in the Bid Tabulation have been corrected based upon the unit price submitted. The above is a true and complete tabulation of the Bids received by West Laurel Water Association at their office located at 1670 E. Hal Rogers Parkway, London, KY on November 9, 2017 at 1:30 P.M. Local Time.

By:  11/10/17
R. Vaughn Williams, P.E. Date



BID TABULATIONS

KENVIRONS, INC
452 Versailles Road
Frankfort, KY 40601

Owner: West Laurel Water Association
Project: Contract 2: Waterline Improvements
Bid Date: November 9, 2017 at 1:30 P.M. Local Time

Project No. 2015045

Contract #2				Weddle Enterprises Inc 25 Shanes Lane Somerset, KY 42501		Cumberland Pipeline, LLC 4129 Highway 379 Russell Springs, KY 42642		Twin States Utilities, Inc P.O. Box 14 Mount Hermon, KY 42157	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	8" PVC, SDR-17 Pipe	LF	4,850	\$27.00	\$130,950.00	\$35.00	\$169,750.00	\$29.00	\$140,650.00
2	Bored Steel Encasement for 8" Pipe	LF	160	212.00	33,920.00	265.00	42,400.00	300.00	48,000.00
3	Free Bore for 8" Pipe	LF	75	40.00	3,000.00	25.00	1,875.00	75.00	5,625.00
4	8"x8" Tapping Sleeve & Valve	EA	1	2,700.00	2,700.00	2,804.00	2,804.00	2,600.00	2,600.00
5	8" Gate Valve	EA	1	1,300.00	1,300.00	1,250.00	1,250.00	1,250.00	1,250.00
6	3" Gate Valve	EA	2	650.00	1,300.00	700.00	1,400.00	650.00	1,300.00
7	3" Stub-Out	EA	2	700.00	1,400.00	1,600.00	3,200.00	1,000.00	2,000.00
8	Fire Hydrant	EA	3	3,950.00	11,850.00	3,455.00	10,365.00	4,000.00	12,000.00
9	Pavement Replacement, Concrete	LF	50	66.00	3,300.00	50.00	2,500.00	100.00	5,000.00
10	Pavement Replacement, Asphalt	LF	25	85.25	2,131.25	50.00	1,250.00	100.00	2,500.00
11	Pavement Replacement, Stone	LF	185	14.70	2,719.50	20.00	3,700.00	22.00	4,070.00
12	Final Grade, Fertilize, & Seed	LF	4,850	2.00	9,700.00	2.00	9,700.00	2.00	9,700.00
TOTAL CONTRACT #2					\$204,270.75		\$250,194.00		\$234,695.00

Alternate 1				Weddle Enterprises Inc.		Cumberland Pipeline, LLC		Twin States Utilities, Inc.	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	6" PVC, SDR-17 Pipe	LF	6,700	\$10.60	\$71,020.00	\$14.00	\$93,800.00	\$18.50	\$123,950.00
2	Bored Steel Encasement for 6" Pipe	LF	40	130.00	5,200.00	245.00	9,800.00	180.00	7,200.00
	Free Bore for 6" Pipe	LF	30	40.00	1,200.00	25.00	750.00	75.00	2,250.00
3	10"x6" Tapping Sleeve & Valve	EA	1	2,300.00	2,300.00	2,050.00	2,050.00	2,200.00	2,200.00
4	3"x3" Tapping Sleeve & Valve	EA	1	1,750.00	1,750.00	1,500.00	1,500.00	1,600.00	1,600.00
5	6" Gate Valve	EA	4	1,000.00	4,000.00	888.00	3,552.00	850.00	3,400.00
6	3" Gate Valve	EA	1	650.00	650.00	700.00	700.00	600.00	600.00
7	6" Stub-Out	EA	2	925.00	1,850.00	600.00	1,200.00	1,500.00	3,000.00
8	3" Stub-Out	EA	1	970.00	970.00	600.00	600.00	1,000.00	1,000.00
9	Fire Hydrant	EA	2	3,900.00	7,800.00	3,150.00	6,300.00	4,000.00	8,000.00
10	Pavement Replacement, Concrete	LF	120	1.00	120.00	50.00	6,000.00	100.00	12,000.00
	Pavement Replacement, Asphalt	LF	30	1.00	30.00	50.00	1,500.00	100.00	3,000.00
	Pavement Replacement, Stone	LF	210	12.00	2,520.00	20.00	4,200.00	22.00	4,620.00
11	Final Grade, Fertilize, & Seed	LF	6,700	2.00	13,400.00	2.00	13,400.00	2.00	13,400.00
TOTAL ALTERNATE 1					\$112,810.00		\$145,352.00		\$186,220.00
TOTAL BASE BID = CONTRACT #2 + ALTERNATE 1					\$317,080.75		\$395,546.00		\$420,915.00

BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: West Laurel Water Association
Project: Contract No. 3: KY 363 Water Storage Tank Rehabilitation
Bid Date: November 9, 2017 at 1:30 P.M. Local Time

Project No. 2015045

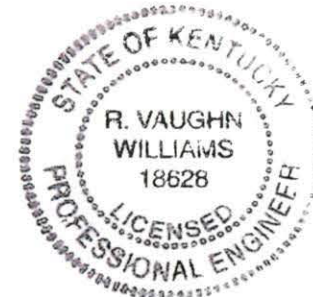
Base Bid				C & S Quality Services, LLC. 1042 Forest Hill Lawrenceburg, KY 40342		Huffman Tank & Tower, Inc. 210 Burkesville Road Albany, KY 42602	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	Repair, Clean, Paint & Seal Interior & Exterior	LS	1	\$79,850.00	\$79,850.00	\$89,000.00	\$89,000.00
2	Complete and operable mixing system including pipe, fittings, valves, supports, coatings and labor for installation	LS	1	30,000.00	30,000.00	25,000.00	25,000.00
3	Allowance for 200' of lineal welding	LS	1	3,000.00	3,000.00	3,000.00	3,000.00
4	Allowance for 200 Pits filled with Devcon Plastic Steel	LS	1	1,500.00	1,500.00	1,000.00	1,000.00
5	Allowance for 200 Pits repaired with plate steel	LS	1	4,500.00	4,500.00	1,000.00	1,000.00
TOTAL BASE BID					\$118,850.00		\$119,000.00

Note: Bids were also received from Horizon Brothers Painting of Howell, MI and Sam Estes Painting & Sandblasting, Inc. of Maceo, KY. Due to the use of incorrect Bid Documents, these bids have been rejected and are therefore not shown in the Bid Tabulation.

The above is a true and complete tabulation of the Bids received by West Laurel Water Association at their office located at 1670 E. Hal Rogers Parkway, London, KY, on Thursday, November 9, 2017 at 1:30 P.M. Local Time.

By: 
R. Vaughn Williams, P.E.

11/10/17
Date



APPENDIX B
COST QUOTATION (METERS)

CONSOLIDATED PIPE AND SUPPLY CO., INC.
CUSTOMER QUOTE

265 THOROUGHbred DRIVE
FERGUSON KY 42533

Quote Nbr: 185450 000
Quote Date: 11/29/2017

Page 1

0029 - CHAD PRYOR
BUS: 606-679-1999
FAX: 606-679-1942
WATTS: 866-430-2307

Job: WEST LAUREL METERS

Engineer: KENVIRONS

220216 - WOOD CREEK WATER DIS
PO BOX 726
LONDON KY 40741

Good Until: 2/28/2018

Qty	Item	Size/Wall/Description	Price	Extended Price
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4000.0		5/8 X 3/4 420 SGTRL6 METER	134.99 EA	539,960.00
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MOBLE DEVICE AND METER READING

EQUIPMENT SUPPLIED PREVIOUSLY

TO DISTRICT AT NO CHARGE

Total: 539,960.00