Monroe County Water District

Phase IX Water System Improvements

Final Engineering Report

Prepared By:

STIGALL ENGINEERING ASSOCIATES, INC. 4117 Hillsboro Pike, Suite 206 Nashville, Tennessee 37215 615.460.7515

> SEA Project No. 0323 December, 2015



Monroe County Water District Phase IX Water System Improvements Final Engineering Report

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- 1. Project Purpose
 - a. Water Quality/Water Quantity Problems

The City of Tompkinsville is the current supplier of potable water for both the City and Monroe County Water District. The City operates a 1.9 MGD facility that utilizes a lake located directly south of Tompkinsville as its source of raw water. The lake is fed primarily by Mill Creek and its tributaries. The intake is located approximately at mile 5.8 of Mill Creek.

The District has concerns about this existing source both from a quality and quantity viewpoint. Concerning the quantity aspect, the Monroe County Water District has had to curtail its customers usage due to the lack of supply. This occurred in the summers of 2006, 2007 and 2012. Furthermore, the Division of Water has requested that the City certify that it can supply the water to any extension the District proposes.

Concerning other issues, the Division of Water has issued a fairly substantial volume of correspondence pertaining to the Tompkinsville Water Treatment Facility. The District firmly believes it is in the best long term interests of its customers and all the residents of Monroe County to develop a potable water supply utilizing the Cumberland River as the source of raw water.

b. Public Health Concerns

The public health concerns associated with "no action" arise from the existing water quality and quantity issues stated in section A.l.a. There are obvious health concerns if there is a shortage of water and there are existing health concerns concerning potentially harmful compounds forming in the distribution system as a result of disinfection by-products exacerbated by the existing lake source.

c. Inadequate System or System Components

The existing peak demands of the connected customers exceeds 95% of the plant capacity. Additional treatment and distribution facilities are needed now to meet existing and future peak demands.

2. Project Description

a. Project Summary

The proposed project consists of the Monroe County Water District locating an intake facility on the Cumberland River at River Mile 393.7. A 2.8 MGD water withdrawal permit has been applied for and received through the Kentucky Division of Water. Also, plans and specifications have been approved for a water treatment facility having an initial capacity of 2.0 MGD. This facility is to be located approximately one mile from the Cumberland River and above the 100 year flood elevation. Also, approximately 54,600 total feet of 8-inch, 10-inch and 16-inch distribution line are proposed along with a 600,000 gallon storage facility and improvements to an existing booster pumping station. Figure E.-1. located in the back of this report shows the major components of the proposed project.

b. Planning Area Description

The primary planning area for the project is Monroe County. In addition, the Fountain Run Water District and the City of Edmonton have indicated a serious interest in purchasing water from the proposed facility to supplement their existing supplies should a problem arise with their sources.

c. Description of Project Construction Contracts

Three concurrent contracts were bid on September 23, 2015. The descriptions and allocated calendar days of these projects is as follows:

Contract I: Water Treatment Facility & Intake	600 Days
Contract IIB: Water Distribution	450 Days
Contract IIIB: Elevated Storage Facility:	450 Days

d. Status of Bids Received

Bids were received on September 23, 2015. The following pages contain the bid tabulations and letters of recommendation regarding the three contracts.

STIGALL ENGINEERING ASSOCIATES, INC.

4117 Hillsboro Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

September 25, 2015

Mr. Mark Williams, Chairman Monroe County Water District 205 Capp Harlan Road Tompkinsville, Kentucky 42167

Re: Monroe County Water District Phase IX Water System Improvements Contract I: Water Treatment Plant Results of Bid Opening SEA Project No. 0323-I

Dear Mr. Williams:

Separate, sealed bids for the referenced project were received by the District until 1:00 p.m. (local time) Wednesday September 23, 2015 at which time they were opened and read aloud. We have reviewed and certified the bids received, a copy of the bid tabulation is enclosed for your review. A summary of the bids received is as follows:

	Contractor	Bid Amount
01.	Judy Construction Company Cynthiana, Kentucky	\$ 10,808,000.00
02.	J. Cumby Construction, Inc. Cookeville, Tennessee	\$ 11,847,000.00
03.	Cleary Construction, Inc. Tompkinsville, Kentucky	\$ 11,890,000.00
04.	Smith Contractors, Inc. Lawrenceburg, Kentucky	\$ 12,462,000.00
05.	Building Crafts, Inc. Wilder, Kentucky	\$ 12,524,000.00
06.	Dugan & Myers Construction Company Cincinnati, Ohio	\$ 14,497,000.00

September 25, 2015 Page 2 of 2

Based upon the results of the bid opening it is our recommendation that the project be awarded to the low bidder, Judy Construction Company, in the base bid amount of \$10,808,000.00, contingent upon concurrence by the Kentucky Infrastructure Authority and upon the Kentucky Public Service Commission issuing a Certificate of Public Convenience and Necessity to Monroe County Water District for the proposed project.

We greatly appreciate the opportunity to work with you and the District and please contact me if I can be of assistance in any matter.

Sincerely, STIGALL ENGINEERING ASSOCIATES, INC.

Robert D. Stigall, P.E. President

Enclosures

RDS/mac

cc: Ms. Amanda Yeary, SRF Coordinator Kentucky Infrastructure Authority

> Mr. Gerald E. Wuetcher, Counsel to the Firm Stoll Keenon Ogden PLLC

Mr. Roger Recktenwald, Director of Research & Planning Kentucky Association of Counties

Mr. Gene Becker, Planning & Development Services Barren River Area Development District STIGALL ENGINEERING ASSOCIATES, INC.

4117 Hillsboro Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

Certified Bid Tabulation

Monroe County Water District Phase IX Water System Improvements Contract I: Water Treatment Plant

Wednesday September 23, 2015

1:00 p.m. (local time)

Bid Amount

Judy Construction 103 South Church Street Cynthiana, Kentucky 41031

No. Description

BASE BID:

01.	LUMP SUM: Raw water intake, raw water line and appurtenance water treatment facility complete, including sitework, electrical, generators, fencing and all work shown on the drawings for com- operational water intake and treatment facility	nplete	10,746,000.00
02.	LUMP SUM: Allowance for special inspection services per Ker Building Code	ntucky \$	20,000.00
03.	LUMP SUM: Allowance for laboratory desktop equipment and	supplies \$	40,000.00
04.	LUMP SUM: Allowance for WTP plaque	<u>\$</u>	2,000.00
	Total Amount Bid, Items 1 – 4 Inclusive	\$ 1	10,808,000.00
DEI	DUCTIVE ALTERNATE NO. 1:		
01.	LUMP SUM: Deductive alternate number one is to delete the fil hopper, sludge pump and sludge line from the project. The build plumbing (except sludge line) are to remain per the drawings.		157,000.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 1 Only	\$	157,000.00
DEI	DUCTIVE ALTERNATE NO. 2:		
01.	LUMP SUM: Deductive alternate number two is to delete the ge and items associated with the generator from the raw water loca		37,500.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 2 Only	\$	37,500.00
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J. Cumby Construction, Inc. 165 West Broad Street Cookeville, Tennessee 38051

No.	Description	Bid Amount

BASE BID:

01.	LUMP SUM: Raw water intake, raw w water treatment facility complete, inclu- generators, fencing and all work shown operational water intake and treatment	uding sitework, electrical, n on the drawings for complete	\$ 1	1,785,000.00
02.	LUMP SUM: Allowance for special in Building Code	spection services per Kentucky	\$	20,000.00
03.	LUMP SUM: Allowance for laborator	y desktop equipment and supplies	\$	40,000.00
04.	LUMP SUM: Allowance for WTP place	que	\$	2.000.00
	Total Amount Bid, Items 1 – 4 Inclu	sive	\$ 1	1,847,000.00
DEI	DUCTIVE ALTERNATE NO. 1:			
01.	LUMP SUM: Deductive alternate num hopper, sludge pump and sludge line fr plumbing (except sludge line) are to re	rom the project. The building and	<u>\$</u>	209,000.00
	Total Amount to Deduct from Base I Deductive Alternate No. 1 Only	Bid for	\$	209,000.00
DEL	DUCTIVE ALTERNATE NO. 2:			
01.	LUMP SUM: Deductive alternate num and items associated with the generator		\$	66.000.00
	Total Amount to Deduct from Base I Deductive Alternate No. 2 Only	Bid for	\$	66,000.00
	Deductive Anternate 110, 2 Only		Ð	00,000.00
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Cleary Construction, Inc. 2006 Edmonton Road Tompkinsville, Kentucky 42167 No. Description Bid Amount

BASE BID:

01.	LUMP SUM: Raw water intake, raw water line and appurtenances, water treatment facility complete, including sitework, electrical, generators, fencing and all work shown on the drawings for complete operational water intake and treatment facility	\$	11,828,000.00
02.	LUMP SUM: Allowance for special inspection services per Kentucky Building Code	\$	20,000.00
03.	LUMP SUM: Allowance for laboratory desktop equipment and supplies	\$	40,000.00
04.	LUMP SUM: Allowance for WTP plaque	\$	2.000.00
	Total Amount Bid, Items 1 – 4 Inclusive	\$	11,890,000.00
DED	DUCTIVE ALTERNATE NO. 1:		
01.	LUMP SUM: Deductive alternate number one is to delete the filter press, hopper, sludge pump and sludge line from the project. The building and plumbing (except sludge line) are to remain per the drawings.	<u>\$</u>	161,000.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 1 Only	\$	161,000.00
DED	DUCTIVE ALTERNATE NO. 2:		
01.	LUMP SUM: Deductive alternate number two is to delete the generator and items associated with the generator from the raw water location	<u>\$</u>	50,000.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 2 Only	\$	50,000.00
	Deductive Anel Date 110. 2 Only	9	50,000.00
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0323-I

Certified Bid Tabulation

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Smith Contractors, Inc. 1241 Bypass North Lawrenceburg, Kentucky 40342

No.	Description	Bid Amount

BASE BID:

01.	LUMP SUM: Raw water intake, raw w water treatment facility complete, inclu- generators, fencing and all work shown operational water intake and treatment	ding sitework, electrical, on the drawings for complete	\$ 1	2,400,000.00
02.	LUMP SUM: Allowance for special ins Building Code	spection services per Kentucky	\$	20,000.00
03.	LUMP SUM: Allowance for laboratory	desktop equipment and supplies	\$	40,000.00
04.	LUMP SUM: Allowance for WTP place	ue	\$	2,000.00
	Total Amount Bid, Items 1 – 4 Inclus	ive	\$ 1	2,462,000.00
DEI	DUCTIVE ALTERNATE NO. 1:			
01.	LUMP SUM: Deductive alternate num hopper, sludge pump and sludge line fr plumbing (except sludge line) are to rem	om the project. The building and	<u>\$</u>	200,000.00
	Total Amount to Deduct from Base E Deductive Alternate No. 1 Only	Bid for	\$	200,000.00
DEL	DUCTIVE ALTERNATE NO. 2:			
01.	LUMP SUM: Deductive alternate num and items associated with the generator		\$	70,000.00
	Total Amount to Deduct from Base H Deductive Alternate No. 2 Only		\$	70,000.00
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Building Crafts, Inc. 2 Rosewood Drive Wilder, Kentucky 41076

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No.	Description	Bid Amount

BASE BID:

01.	LUMP SUM: Raw water intake, raw water treatment facility complete, in generators, fencing and all work sho operational water intake and treatme	cluding sitework, electrical, wn on the drawings for complete	\$ 1	2,462,000.00
02.	LUMP SUM: Allowance for special Building Code	inspection services per Kentucky	\$	20,000.00
03.	LUMP SUM: Allowance for laborate	ory desktop equipment and supplies	\$	40,000.00
04.	LUMP SUM: Allowance for WTP p	laque	<u>\$</u>	2,000.00
	Total Amount Bid, Items 1 – 4 Inc	usive	\$ 1	2,524,000.00
DEI	DUCTIVE ALTERNATE NO. 1:			
01.	LUMP SUM: Deductive alternate nu hopper, sludge pump and sludge line plumbing (except sludge line) are to	from the project. The building and	<u>\$</u>	187,000.00
	Total Amount to Deduct from Base Deductive Alternate No. 1 Only	e Bid for	\$	187,000.00
DEI	DUCTIVE ALTERNATE NO. 2:			
01.	LUMP SUM: Deductive alternate nu and items associated with the genera		\$	80,000.00
	Total Amount to Deduct from Base Deductive Alternate No. 2 Only	e Bid for	\$	80,000.00
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	Dugan & Myers Construction Comp 11110 Kenwood Road Cincinnati, Ohio 45242	any	
No.	Description	Bid A	Mount
BAS	SE BID:		
01.	LUMP SUM: Raw water intake, raw water line and appurter water treatment facility complete, including sitework, electr generators, fencing and all work shown on the drawings for operational water intake and treatment facility	ical, complete	435,000.00
02.	LUMP SUM: Allowance for special inspection services per Building Code	Kentucky \$	20,000.00
03.	LUMP SUM: Allowance for laboratory desktop equipment a	and supplies \$	40,000.00
04.	LUMP SUM: Allowance for WTP plaque	\$	2,000.00
	Total Amount Bid, Items 1 – 4 Inclusive	\$ 14,	497,000.00
DEE	DUCTIVE ALTERNATE NO. 1:		
01.	LUMP SUM: Deductive alternate number one is to delete th hopper, sludge pump and sludge line from the project. The b plumbing (except sludge line) are to remain per the drawing	uilding and	168,000.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 1 Only	\$	168,000.00
DED	DUCTIVE ALTERNATE NO. 2:		
01.	LUMP SUM: Deductive alternate number two is to delete the and items associated with the generator from the raw water l		70,000.00
	Total Amount to Deduct from Base Bid for Deductive Alternate No. 2 Only	\$	70,000.00
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I hereby certify that the preceding is a true and accurate transcription of the bids, as received.

Robert Stigall, P.E., President Stigall Engineering Associates, Inc. Nashville, Tennessee 37215-2728 Kentucky Registration No. 15,006

STIGALL ENGINEERING ASSOCIATES, INC.

4117 Hillsboro Pike, Suite 206 • Nashville. Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

September 25, 2015

Mr. Mark Williams, Chairman Monroe County Water District 205 Capp Harlan Road Tompkinsville, Kentucky 42167

Re: Monroe County Water District Phase IX Water System Improvements Contract IIB: Water Lines Results of Bid Opening SEA Project No. 0323-IIB

Dear Mr. Williams:

Separate, sealed bids for the referenced project were received by the District until 2:00 p.m. (local time) Wednesday September 23, 2015 at which time they were opened and read aloud. We have reviewed and certified the bids received, a copy of the bid tabulation is enclosed for your review. A summary of the bids received is as follows:

	Contractor	В	id Amount
01.	Cleary Construction, Inc. Tompkinsville, Kentucky	\$	2,999,880.00
01.	Frederick & May Construction, Inc. West Liberty, Kentucky 41472	\$	3,178,615.00
03.	Twin States Utilities, Mount Hermon, Kentucky	\$	3,367,200.00
04.	BP Pipeline, Inc. Quincy, Kentucky	\$	3,566,020.00
05.	Dynamic Construction, LLC Gordonsville, Tennessee	\$	3,584,000.00

Based upon the results of the bid opening it is our recommendation that the project be awarded to the lowest, responsive bidder, Cleary Construction, in the amount of \$2,999,880.00, contingent upon concurrence by the Kentucky Infrastructure Authority and upon the Kentucky Public Service Commission issuing a Certificate of Public Convenience and Necessity to Monroe County Water District for the proposed project. September 25, 2015 Page 2 of 2

Please note that one bid received was deemed unresponsive as the following items were omitted from the bid submittal:

- List of Proposed Subcontractors
- List of Proposed Suppliers
- List of Project References
- Affidavit of Non-Collusion

We greatly appreciate the opportunity to work with you and the District and please contact me if I can be of assistance in any matter.

Sincerely, STIGALL ENGINEERING ASSOCIATES, INC.

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Robert D. Stigall, P.E. President

Enclosures

RDS/mac

cc: Ms. Amanda Yeary, SRF Coordinator Kentucky Infrastructure Authority

> Mr. Gerald E. Wuetcher, Counsel to the Firm Stoll Keenon Ogden PLLC

Mr. Roger Recktenwald, Director of Research & Planning Kentucky Association of Counties

Mr. Gene Becker, Planning & Development Services Barren River Area Development District 4117 Hillsboro Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

Certified Bid Tabulation

Monroe County Water District Phase IX Water System Improvement; Contract IIB: Water Lines

Wednesday September 23, 2015

2:00 p.m. (Local Time)

	Cleary Construction, Inc. 2006 Edmonton Road Tompkinsville, Kentucky 42167					
No.	Description		Bid Amount			
01.	Connect to existing 16" water line	1 EA	\$	1,500.00	\$	1,500.00
02.	Connection to existing 10" water line	2 EA	\$	1,035.00	\$	2,070.00
03.	16" ductile iron water line, open cut	25,500 LF	\$	74.00	\$	1,887,000.00
04.	10" Class 200 PVC water line, open cut	24,500 LF	\$	23.00	\$	563,500.00
05.	10" Class 250 PVC water line, open cut	4,400 LF	\$	25.00	\$	110,000.00
06.	8" PVC water line, open cut	200 LF	\$	19.20	\$	3,840.00
07.	24" steel casing pipe (road crossings),			1000		-,
•••	open cut	150 LF	\$	100.00	\$	15,000.00
08.	16" steel casing pipe, bore and jack	230 LF	\$	186.00	\$	42,780.00
09.	16" gate valve	7 EA	\$	8,600.00	\$	60,200.00
10.	10" gate valve and box	10 EA	\$	2,062.00	\$	20,620.00
11.	8" gate valve and box	1 EA	\$	1,341.00	\$	1,341.00
12.	6" gate valve and box	6 EA	\$	1,031.00	\$	6,186.00
13.	8" tapping sleeve and valve	2 EA	\$	4,125.00	\$	8,250.00
14.	Fire hydrant assembly	5 EA	\$	4,025.00	\$	20,125.00
15.	Stream crossing No. 4	1 LS	\$	17,000.00	\$	17,000.00
16.	Stream crossing No. 5	1 LS	\$	17,000.00	\$	17,000.00
17.	Stream crossing No. 6	1 LS	\$	17,000.00	\$	17,000.00
18.	Stream crossing No. 7	1 LS	\$	17,000.00	\$	17,000.00
19.	Stream crossing No. 8	1 LS	\$	12,000.00	\$	12,000.00
20.	Stream crossing No. 9	1 LS	\$	9,000.00	\$	9,000.00
21.	Stream crossing No. 10	1 LS	\$	8,454.00	\$	8,454.00
22.	Stream crossing No. 11	1 LS	\$	8,454.00	\$	8,454.00
23.	Stream crossing No. 12	1 LS	\$	8,454.00	\$	8,454.00
24.	Stream crossing No. 13	1 LS	\$	8,454.00	\$	8,454.00
25.	Stream crossing No. 14	1 LS	\$	8,454.00	\$	8,454.00
26.	Stream crossing No. 15	1 LS	\$	8,454.00	\$	8,454.00
27.	Stream crossing No. 16	1 LS	\$	8,454.00	\$	8,454.00
28.	Upgrade existing pump station (Old Mulk		Ψ	0,101.00	Ψ	0,154.00
20.	and new electrical service and drives	1 LS	\$	22,500.00	\$	22,500.00
29.	Gravel backfill to springline of pipe	15,000 TONS	\$	1.05	\$	15,750.00
30.	Gravel surface restoration	800 LF	\$	10.30	\$	8,240.00
31.	Erosion control Matting	$12,000 \text{ YD}^2$	\$	2.10	\$	25,200.00
32.	Silt fencing	6,000 LF	\$	2.10	\$	12,600.00
33.	Allowance for County Road Repair	1 LS	\$	25,000.00	\$ \$	25,000.00
55.	and for county roug ropus	1 20	Ŷ	_0,000.00	Ψ	20,000.00

TOTAL AMOUNT BID; ITEMS 1 – 33 INCLUSIVE

2,999,880.00

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Provincial International

	Frederick & May Construction, Inc. Post Office Box 337 West Liberty, Kentucky 41472					
No.	Description	Unit		Unit Price		Bid Amount
01.	Connect to existing 16" water line	l EA	\$	9,000.00	\$	9,000.00
02.	Connection to existing 10" water line	2 EA	\$	4,500.00	\$	9,000.00
03.	16" ductile iron water line, open cut	25,500 LF	\$	79.60	\$	2,029,800.00
04.	10" Class 200 PVC water line, open cut	24,500 LF	\$	19.00	\$	465,500.00
05.	10" Class 250 PVC water line, open cut	4,400 LF	\$	23.00	\$	101,200.00
06.	8" PVC water line, open cut	200 LF	\$	16.00	\$	3,200.00
07.	24" steel casing pipe (road crossings),					
	open cut	150 LF	\$	150.00	\$	22,500.00
08.	16" steel casing pipe, bore and jack	230 LF	\$	195.00	\$	44,850.00
09.	16" gate valve	7 EA	\$	9,200.00	\$	64,400.00
10.	10" gate valve and box	10 EA	\$	2,500.00	\$	25,000.00
11.	8" gate valve and box	1 EA	\$	2,000.00	\$	2,000.00
12.	6" gate valve and box	6 EA	\$	1,500.00	\$	9,000.00
13.	8" tapping sleeve and valve	2 EA	\$	4,200.00	\$	8,400.00
14.	Fire hydrant assembly	5 EA	\$	4,200.00	\$	21,000.00
15.	Stream crossing No. 4	1 LS	\$	14,000.00	\$	14,000.00
16.	Stream crossing No. 5	1 LS	\$	9,793.00	\$	9,793.00
17.	Stream crossing No. 6	1LS	\$	9,793.00	\$	9,793.00
18.	Stream crossing No. 7	1 LS	\$	9,793.00	\$	9,793.00
19.	Stream crossing No. 8	1 LS	\$	9,793.00	\$	9,793.00
20.	Stream crossing No. 9	1 LS	\$	9,793.00	\$	9,793.00
21.	Stream crossing No. 10	1 LS	\$	6,200.00	\$	6,200.00
22.	Stream crossing No. 11	1 LS	\$	22,000.00	\$	22,000.00
23.	Stream crossing No. 12	1 LS	\$	22,000.00	\$	22,000.00
24.	Stream crossing No. 13	1LS	\$	6,500.00	\$	6,500.00
25.	Stream crossing No. 14	1LS	\$	6,500.00	\$	6,500.00
26.	Stream crossing No. 15	1 LS	\$	6,500.00	\$	6,500.00
27.	Stream crossing No. 16	1 LS	\$	6,500.00	\$	6,500.00
28.	Upgrade existing pump station (Old Mull		÷	0,000100	Ŷ	0,000100
20.	and new electrical service and drives	1 LS	\$	25,000.00	\$	25,000.00
29.	Gravel backfill to springline of pipe	15,000 TONS	\$	9.00	\$	135,000.00
30.	Gravel surface restoration	800 LF	\$	12.00	\$	9,600.00
31.	Erosion control Matting	$12,000 \text{ YD}^2$	\$	1.25	\$	15,000.00
32.	Silt fencing	6,000 LF	\$	2.50	\$	15,000.00
33.	Allowance for County Road Repair	1 LS	\$	25,000.00	\$	25,000.00
	TOTAL AMOUNT BID; ITEMS 1 – 3	3 INCLUSIVE			\$	3,178,615.00

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Twin States Utilities, Inc. Post Office Box 14 Mount Hermon, Kentucky 42157						
No.	Description	Unit		Unit Price		Bid Amount
01.	Connect to existing 16" water line	1 EA	\$	2,000.00	\$	2,000.00
02.	Connection to existing 10" water line	2 EA	\$	2,000.00	\$	4,000.00
03.	16" ductile iron water line, open cut	25,500 LF	\$	71.00	\$	1,810,500.00
04.	10" Class 200 PVC water line, open cut		\$	31.00	\$	759,500.00
05.	10" Class 250 PVC water line, open cut		\$	32.00	\$	140,800.00
06.	8" PVC water line, open cut	200 LF	\$	30.00	\$	6,000.00
07.	24" steel casing pipe (road crossings),					,
	open cut	150 LF	\$	180.00	\$	27,000.00
08.	16" steel casing pipe, bore and jack	230 LF	\$	230.00	\$	52,900.00
09.	16" gate valve	7 EA	\$	8,700.00	\$	60,900.00
10.	10" gate valve and box	10 EA	\$	2,200.00	\$	22,000.00
11.	8" gate valve and box	1 EA	\$	1,600.00	\$	1,600.00
12.	6" gate valve and box	6 EA	\$	1,100.00	\$	6,600.00
13.	8" tapping sleeve and valve	2 EA	\$	5,200.00	\$	10,400.00
14.	Fire hydrant assembly	5 EA	\$	4,000.00	\$	20,000.00
15.	Stream crossing No. 4	1 LS	\$	15,000.00	\$	15,000.00
16.	Stream crossing No. 5	1 LS	\$	15,000.00	\$	15,000.00
17.	Stream crossing No. 6	1 LS	\$	15,000.00	\$	15,000.00
18.	Stream crossing No. 7	1 LS	\$	15,000.00	\$	15,000.00
19.	Stream crossing No. 8	1 LS	\$	15,000.00	\$	15,000.00
20.	Stream crossing No. 9	1 LS	\$	15,000.00	\$	15,000.00
21.	Stream crossing No. 10	1 LS	\$	12,000.00	\$	12,000.00
22.	Stream crossing No. 11	1 LS	\$	12,000.00	\$	12,000.00
23.	Stream crossing No. 12	1 LS	\$	12,000.00	\$	12,000.00
24.	Stream crossing No. 12	1 LS	\$	12,000.00	\$	12,000.00
25.	Stream crossing No. 14	1 LS	\$	5,000.00	\$	5,000.00
26.	Stream crossing No. 15	1 LS	\$	5,000.00	\$	5,000.00
27.	Stream crossing No. 16	1 LS	\$	5,000.00	\$	5,000.00
28.	Upgrade existing pump station (Old Mu		Ψ	5,000.00	Ψ	5,000.00
20.	and new electrical service and drives	1 LS	\$	30,000.00	\$	30,000.00
29.	Gravel backfill to springline of pipe	15,000 TONS	\$	13.00	\$	195,000.00
30.	Gravel surface restoration	800 LF	\$	5.00	\$	4,000.00
31.	Erosion control Matting	$12,000 \text{ YD}^2$	\$	2.00	\$	24,000.00
32.	Silt fencing	6,000 LF	\$	2.00	\$	12,000.00
32. 33.	Allowance for County Road Repair	0,000 LF 1 LS	\$	25,000.00	\$	25.000.00

TOTAL AMOUNT BID; ITEMS 1-33 INCLUSIVE

\$ 3,367,200.00

	BP Pipeline, LLC 269 Pebble Lane Quincy, Kentucky 41166					
No.	Description	Unit		Unit Price		Bid Amount
01.	Connect to existing 16" water line	1 EA	\$	16,000.00	\$	16,000.00
02.	Connection to existing 10" water line	2 EA	\$	6,000.00	\$	12,000.00
03.	16" ductile iron water line, open cut	25,500 LF	\$	75.00	\$	1,912,500.00
04.	10" Class 200 PVC water line, open cut	24,500 LF	\$	19.00	\$	465,500.00
05.	10" Class 250 PVC water line, open cut	4,400 LF	\$	17.80	\$	78,320.00
06.	8" PVC water line, open cut	200 LF	\$	19.00	\$	3,800.00
07.	24" steel casing pipe (road crossings),					í.
	open cut	150 LF	\$	300.00	\$	45,000.00
08.	16" steel casing pipe, bore and jack	230 LF	\$	250.00	\$	57,500.00
09.	16" gate valve	7 EA	\$	9,500.00	\$	66,500.00
10.	10" gate valve and box	10 EA	\$	1,700.00	\$	17,000.00
11.	8" gate valve and box	1 EA	\$	1,500.00	\$	1,500.00
12.	6" gate valve and box	6 EA	\$	800.00	\$	4,800.00
13.	8" tapping sleeve and valve	2 EA	\$	3,800.00	\$	7,600.00
14.	Fire hydrant assembly	5 EA	\$	4,200.00	\$	21,000.00
15.	Stream crossing No. 4	1LS	\$	12,000.00	\$	12,000.00
16.	Stream crossing No. 5	1 L S	\$	12,000.00	\$	12,000.00
17.	Stream crossing No. 6	1LS	\$	15,000.00	\$	15,000.00
18.	Stream crossing No. 7	1 LS	\$	11,000.00	\$	11,000.00
19.	Stream crossing No. 8	1 LS	\$	15,000.00	\$	15,000.00
20.	Stream crossing No. 9	1 LS	\$	15,000.00	\$	15,000.00
21.	Stream crossing No. 10	1LS	\$	11,000.00	\$	11,000.00
22.	Stream crossing No. 11	1LS	\$	10,000.00	\$	10,000.00
23.	Stream crossing No. 12	1 LS	\$	10,000.00	\$	10,000.00
24.	Stream crossing No. 13	1 LS	\$	10,000.00	\$	10,000.00
25.	Stream crossing No. 14	1LS	\$	15,000.00	\$	15,000.00
26.	Stream crossing No. 15	1 LS	\$	15,000.00	\$	15,000.00
27.	Stream crossing No. 16	1 LS	\$	18,000.00	\$	18,000.00
28.	Upgrade existing pump station (Old Mull			,		,
	and new electrical service and drives	1 LS	\$	28,000.00	\$	28,000.00
29.	Gravel backfill to springline of pipe	15,000 TONS	\$	35.00	\$	525,000.00
30.	Gravel surface restoration	800 LF	\$	25.00	\$	20,000.00
31.	Erosion control Matting	12,000 YD ²	\$	5.00	\$	60,000.00
32.	Silt fencing	6,000 LF	\$	5.00	\$	30,000.00
33.	Allowance for County Road Repair	1 LS	\$	25,000.00	\$	25,000.00
						2 5// 020 0/

TOTAL AMOUNT BID; ITEMS 1 – 33 INCLUSIVE

\$ 3,566,020.00

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Dynamic Construction, LLC 162 Maple Street Gordonsville, Tennessee 38563						
No.	Description	Unit		Unit Price		Bid Amount
01.	Connect to existing 16" water line	1 EA	\$	2,599.00	\$	2,599.00
02.	Connection to existing 10" water line	2 EA	\$	1,882.00	\$	3,764.00
03.	16" ductile iron water line, open cut	25,500 LF	\$	76.23	\$	1,943,865.00
04.	10" Class 200 PVC water line, open cut	24,500 LF	\$	30.96	\$	758,520.00
05.	10" Class 250 PVC water line, open cut	4,400 LF	\$	32.55	\$	143,220.00
06.	8" PVC water line, open cut	200 LF	\$	25.00	\$	5,000.00
07.	24" steel casing pipe (road crossings),					
	open cut	150 LF	\$	170.00	\$	25,500.00
08.	16" steel casing pipe, bore and jack	230 LF	\$	290.00	\$	66,700.00
09.	16" gate valve	7 EA	\$	6,560.00	\$	45,920.00
10.	10" gate valve and box	10 EA	\$	1,895.00	\$	18,950.00
11.	8" gate valve and box	1 EA	\$	1,315.00	\$	1,315.00
12.	6" gate valve and box	6 EA	\$	892.00	\$	5,352.00
13.	8" tapping sleeve and valve	2 E A	\$	3,840.00	\$	7,680.00
14.	Fire hydrant assembly	5 EA	\$	5,728.00	\$	28,640.00
15.	Stream crossing No. 4	1 LS	\$	10,000.00	\$	10,000.00
16.	Stream crossing No. 5	1 LS	\$	10,000.00	\$	10,000.00
17.	Stream crossing No. 6	1 LS	\$	10,000.00	\$	10,000.00
18.	Stream crossing No. 7	1 LS	\$	10,000.00	\$	10,000.00
19.	Stream crossing No. 8	1 LS	\$	10,000.00	\$	10,000.00
20.	Stream crossing No. 9	1 LS	\$	10,000.00	\$	10,000.00
21.	Stream crossing No. 10	1 LS	\$	7,000.00	\$	7,000.00
22.	Stream crossing No. 11	1 LS	\$	7,000.00	\$	7,000.00
23.	Stream crossing No. 12	1 LS	\$	7,000.00	\$	7,000.00
24.	Stream crossing No. 13	1 LS	\$	7,000.00	\$	7,000.00
25.	Stream crossing No. 14	1 LS	\$	7,325.00	\$	7,325.00
26.	Stream crossing No. 15	1 LS	\$	7,250.00	\$	7,250.00
27.	Stream crossing No. 16	1 LS	\$	7,250.00	\$	7,250.00
28.	Upgrade existing pump station (Old Mul			.,		· , · · ·
	and new electrical service and drives	1 LS	\$	24,000.00	\$	24,000.00
29.	Gravel backfill to springline of pipe	15,000 TONS	\$	16.33	\$	244,950.00
30.	Gravel surface restoration	800 LF	\$	25.00	\$	20,000.00
31.	Erosion control Matting	12,000 YD ²	\$	5.70	\$	68,400.00
32.	Silt fencing	6,000 LF	\$	5.80	\$	34,800.00
33.	Allowance for County Road Repair	1 LS	\$	25,000.00	\$	25,000.00

TOTAL AMOUNT BID; ITEMS 1 – 33 INCLUSIVE

\$ 3,584,000.00

I hereby certify that the preceding is a true and accurate transcription of the bids, as received.

Robert Stigall, P.E., President Stigall Engineering Associates, Inc. Nashville, Tennessee 37215-2728 Kentucky Registration No. 15,006

STIGALL ENGINEERING ASSOCIATES, INC.

4117 Hillsboro Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

September 25, 2015

Mr. Mark Williams, Chairman Monroe County Water District 205 Capp Harlan Road Tompkinsville, Kentucky 42167

Re: Monroe County Water District Phase IX Water System Improvements Contract IIIB: Elevated Water Storage Facility Results of Bid Opening SEA Project No. 0323-IIIB

Dear Mr. Williams:

Separate, sealed bids for the referenced project were received by the District until 3:00 p.m. (local time) Wednesday September 23, 2015 at which time they were opened and read aloud. We have reviewed and certified the bids received, a copy of the bid tabulation is enclosed for your review. A summary of the bids received is as follows:

Contractor		Bid Amount		
01.	Caldwell Tanks, Inc. Louisville, Kentucky	\$	957,814.00	
02.	Phoenix Fabricators & Erectors, Inc. Avon, Indiana	\$	989,365.00	

Based upon the results of the bid opening it is our recommendation that the project be awarded to the low bidder, Caldwell Tanks, Inc., in the amount of \$957,814.00, contingent upon concurrence by the Kentucky Infrastructure Authority and upon the Kentucky Public Service Commission issuing a Certificate of Public Convenience and Necessity to Monroe County Water District for the proposed project.

September 25, 2015 Page 2 of 2

We greatly appreciate the opportunity to work with you and the District and please contact me if 1 can be of assistance in any matter.

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Sincerely, STIGALL ENGINEERING ASSOCIATES, INC.

Robert D. Stigall, P.E. President

Enclosures

RDS/mac

cc: Ms. Amanda Yeary, SRF Coordinator Kentucky Infrastructure Authority

> Mr. Gerald E. Wuetcher, Counsel to the Firm Stoll Keenon Ogden PLLC

Mr. Roger Recktenwald, Director of Research & Planning Kentucky Association of Counties

Mr. Gene Becker, Planning & Development Services Barren River Area Development District 4117 Hillsboro Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

Certified Bid Tabulation

Monroe County Water District Phase IX Water System Improvements Contract IIIB: Elevated Water Storage Facility

Wednesday September 23, 2015

3:00 p.m. (local time)

	Caldwell Tanks, Inc.	
	4000 Tower Road	
	Louisville, Kentucky 40219	
No.	Description	Bid Amount
01.	LUMP SUM: Construct a 600,000 gallon elevated water storage facility including all piping, valves and sitework	
	as shown on the drawings and as specified	<u>\$ 957,814.00</u>
	Total Amount Bid, Item 1 Inclusive	\$ 957,814.00
	Phoenix Fabricators & Erectors, Inc.	
	182 South County Road 900 East Avon, Indiana 46123	
No.	Description	Bid Amount
01.	LUMP SUM: Construct a 600,000 gallon elevated water storage facility including all piping, valves and sitework	
	as shown on the drawings and as specified	<u>\$ 989,365.00</u>
	Total Amount Bid, Item 1 Inclusive	\$ 989,365.00

I hereby certify that the preceding is a true and accurate transcription of the bids, as received.

Robert Stigall, P.E., President Stigall Engineering Associates, Inc. Nashville, Tennessee 37215-2728 Kentucky Registration No. 15,006

e. Owner and Operator of the Facilities

The owner and operator of these facilities would be the Monroe County Water District.

f. Location of the Facilities

The intake for the project is proposed to be at river mile 393.7 of the Cumberland River in Monroe County, Kentucky. The facility would be located approximately 6,000 feet from the river at a suitable elevation above the 100 year flood elevation. The distribution facilities shown in Figure E.-1 are proposed to transport the finished water to the Monroe County Water District's storage facilities.

- 3. Relevant Design Parameters
 - A description of the major components the project are as follows:
 - Raw water intake structure with two stainless steel screens located at two different elevations equipped with air cleaning devices and tubing for pretreatment feed.
 - Acti-flo technology for flocculation and sedimentation of the raw water will have a capacity of 2.0 MGD.
 - Clearwell facility appropriately sized for facility to achieve proper disinfectant contact time.
 - Backwash pump and holding facilities including a filter press.
 - High service pumps.
 - Distribution lines and new storage facilities.
 - Radio telemetry to all major treatment and distribution system components.

- 4. Project Costs
 - a. The proposed total contract amount of the project as bid in September 2015 is as follows:

Contract I: Water Treatment Facility & Intake	\$10,808,000.00
Contract IIB: Water Distribution	\$ 2,999,880.00
Contract IIIB: Elevated Storage Facility:	\$ 957,814.00
	\$14,765,694.00

b. List of Amount, Sources and Status of All Funding Sources

Kentucky Infrastructure loan in the amount of \$15,962,694. The interest rate is to be 0.75%.

5. Conclusion

It is our opinion that the construction of the Monroe County Water District Phases IX Water System Improvements is sound and feasible when supported by the proposed Kentucky Infrastructure Authority funding stated in this report.

The City of Tompkinsville's existing treatment and distribution system is not adequate to prevent the loss of service to some areas of the Monroe County Water District during periods of high demand.

The commissioners of the Monroe County Water District, with construction of the project, are performing their due diligence to provide their customers with a reliable supply of potable water for the present and foreseeable future.

