



**RECEIVED**

JUN 24 2008  
PUBLIC SERVICE  
COMMISSION

**Letter of Transmittal**

Date: 06/23/08

Project No. \_\_\_\_\_

To: Mr. James Rice  
Water and Sewer Branch  
211 Sower Blvd.  
P. O. Box 615  
Frankfort, KY 40602

Subject: AIC Tank Replacement and  
Pippa Passes Tank Rehabilitation

Attached  Under Separate Cover Via \_\_\_\_\_ Mail  Certified

Prints  Tracings /Plots  Specifications  Shop Drawings  Copy of Letter  Samples

Item	Date	Copies	Description	FOR YOUR USE AS REQUESTED	FOR REVIEW AND COMMENT	APPROVED	NOT APPROVED REVISE & RESUBMIT	APPROVE AS SUBMITTED
1	06/23	2	Preliminary Engineering Report		X			
2	06/23	2	Final Engineering Report		X			
3								
4								
5								
6								
7								
8								

Approval Requested  Please Sign for Approval

Additional Information:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copy:

Signed: Stephen R. Harris  
Stephen R. Harris, EIT, LSIT  
Project Engineer

If there are any questions regarding the above information, please contact this office.  
P.O. Box 444, Hindman KY 41822, ph. (606) 785-5926, fax (606) 785-0244, e-mail [sharris@rmje.net](mailto:sharris@rmje.net)



United States Department of Agriculture  
Rural Development  
Kentucky State Office

June 23, 2008

SUBJECT: Knott County Water and Sewer  
Tank Rehab and Replacement  
Contract Award Concurrence

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JUN 24 2008

PUBLIC SERVICE  
COMMISSION

TO: Area Director  
London, Kentucky

Based on the price quotes received and the recommendation of the consulting engineer, Rural Development concurs in the award of subject contract for the lowest quote on the welded steel tank, to Laurel Construction, Inc., in the amount of \$144,000.00, and for telemetry, to Microcomm, in the amount of \$44,431.00. A quote for rehab to the glass lined tank has been received and Rural Development is waiting for further information at this time. Once all requested information is received, review will be completed on that portion of the project.

If you have any questions, please contact Julie Anderson, State Engineer, at (859) 224-7348.

  
KENNETH STONE  
State Director  
Rural Development

cc: RM Johnson Engineering, Inc.  
Hindman, Kentucky

Rubin and Hays  
Louisville, Kentucky

771 Corporate Drive - Suite 200 - Lexington, KY 40503  
Phone: (859) 224-7300 - Fax: (859) 224-7425 - TDD: (859) 224-7422 - Web: <http://www.rurdev.usda.gov/ky>

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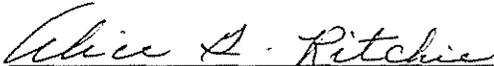
**CERTIFICATE OF CHAIRMAN OF THE KNOTT COUNTY WATER & SEWER DISTRICT, AS TO STATEMENT REQUIRED BY SECTION 1(5) OF 807 KAR 5:069**

I, Alice Ritchie, hereby certify that I am the duly qualified and acting Chairperson of the Knott County Water & Sewer District of Knott County, Kentucky, and that said District is in the process of arranging to finance the construction of extensions, additional, and improvements to the water system of the District (the "Project"), in cooperation with R.M. Johnson Engineering, Inc., Hindman, Kentucky, the Engineers for the District (the "Engineers").

Based on information furnished to me by said Engineers for the District, I hereby certify as follows:

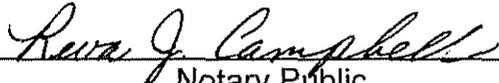
1. That the proposed plans and specifications for the Project have been designed to meet the minimum construction and operating requirements set out in 807 KAR 5:066 Section 4(3) and (4), Section 5(1), Sections 6 and 7, Section 8(1) through (3), Section 9(1), and Section 10.
2. That all other state approvals and/or permits have already been obtained.
3. That the existing rates of the District are contemplated to produce total revenue requirements set out in the Engineering Reports prepared by such Engineers and filed with the Public Service Commission.
4. That it is now contemplated that construction of the Project will begin on or about June 30<sup>th</sup>, 2008, and will end on or about August 25<sup>th</sup>, 2008.

IN TESTIMONY WHEREOF, witness my signature this June 12<sup>th</sup>, 2008.

  
\_\_\_\_\_  
Chairperson  
Knott County Water & Sewer District

STATE OF KENTUCKY    )  
                                  ) SS  
COUNTY OF KNOTT    )

Subscribed and sworn to before me by Alice Ritchie, Chairperson of the Board of Commissioners of the Knott County Water & Sewer District on this June 12<sup>th</sup>, 2008.

  
\_\_\_\_\_  
Notary Public  
In and For Said State and County

# PRELIMINARY ENGINEERING REPORT

FOR

## ALC Tank Replacement & Pippa Passes Tank Rehabilitation Projects

RECEIVED

JUN 24 2008

PUBLIC SERVICE  
COMMISSION

PREPARED FOR:

Knott County Water & Sewer District

P.O. Box 884

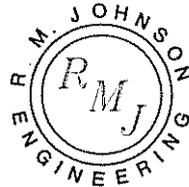
Hindman, KY 41822

Ph: (606) 785-5584

Fax: (606) 785-9231

Email: kcwsd@tgtel.com

SUBMITTED BY:



R.M. JOHNSON ENGINEERING, INC.

P.O. Box 444

Hindman, KY 41822

March 2008



**Table of Contents**

**Introduction** ..... 1

**Project Need** ..... 2

**Alternative Water Sources** ..... 3

**Existing Facilities** ..... 4

**Proposed Facilities** ..... 6

**Water System Operations** ..... 7

**Land, Water, and Other Rights & Permits** ..... 8

**Source of Funds** ..... 9

**Conclusions** ..... 10

**Recommendations** ..... 11

## **INTRODUCTION**

On behalf of the Knott County Water and Sewer District (KCWSD) we, at R.M. Johnson Engineering, Inc., are pleased to present this Preliminary Engineering Report for the Alice Lloyd College (ALC) Tank Replacement and the Pippa Passes Tank Refurbishment projects.

A routine inspection was performed by Mr. Joe Greenwell for the Public Service Commission (PSC) on September 11<sup>th</sup>, 2007. Mr. Greenwell's findings resulted in the recommendation to perform rehabilitation and maintenance for the two subject tanks referenced above.

In response, the KCWSD has applied for \$500,000 of funding to rehabilitate the Pippa Passes Tank and replace the ALC Tank. The 108,000 gallon ALC Tank will be completely replaced due to its poor condition. The 108,000 gallon Pippa Passes Tank will undergo overdue maintenance and refurbishment to restore the tank to proper conditions. The two tanks currently serve 444 customers in the Pippa Passes area, including Alice Lloyd College which generally has around 500 students per semester, and are major contributors to the water system in Knott County.

## **PROJECT NEED**

The immediate need for this project is mostly due to the recommendations made by the PSC's Utility Inspection Report dated September 11, 2007. The findings show that the ALC Tank currently has "a great deal of rust" and the Pippa Passes Tank has "scum at the bottom of the tank and rusted screws." The PSC Utility Inspection Report can be found in Appendix 'A'.

The two tanks feed all customers along Route 899 (including Alice Lloyd College), along with all branch lines, and eventually customers along Route 7. The tank also assists in supplying water to the newly constructed 38,000 gallon tank located at the top of Slone Fork Mountain. The Slone Fork and Watts Fork waterlines were constructed last year, which opened the opportunity for 144 new customers to come online. The project map, located in Appendix 'B', shows the locations of the tanks and their partial services areas.

The two subject tanks are supplied water by the Water Treatment Plant located on Alice Lloyd College's campus. Pumps at the plant supply the tanks with potable water that is then distributed throughout the service areas.

**ALTERNATIVE WATER SOURCES**

The alternative water sources for the customers currently served by these tanks would be private wells, springs, or cisterns. Over time, private wells have proven to be unreliable and often unsuitable for drinking. Due to mining activities in the area the water table can suddenly drop without notice, leaving the well unexpectedly empty and the household without water. Hauling water for cisterns has proven to be very expensive. Hauled water costs can easily exceed \$25.00 per thousand gallons, resulting in an average monthly cost of \$50.00 and higher. A high number of customers may not have the resources necessary to purchase and/or transport the water. Given these circumstances there seems to be no feasible alternate for serving the community with potable water.

## **EXISTING FACILITIES**

There are currently two water supply systems in Knott County. The City of Hindman owns and operates a water treatment plant in downtown Hindman, while the KCWSD owns and maintains the plant located on Alice Lloyd College's campus. A new 2 MGD water treatment plant is currently being constructed near Carr Fork Lake and is set to come online in early 2009.

### ***City of Hindman Water Treatment Facility***

The City of Hindman Water Treatment Facility is supplied by wells located in Hindman. Because the supply comes from wells the system has recently shown vulnerability due to the combination of unreliable well recharge, customer demand, and precipitation drought. The City of Hindman acquires additional water from Southern Water & Sewer District located in McDowell in Floyd County, and from the Knott County Water & Sewer District in Hindman. The services areas include downtown Hindman, portions of Route 899, Route 550, Mousie, etc.

### ***KCWSD Water Treatment Facility***

The water system, located in Pippa Passes, KY, was acquired several years ago by the KCWSD from the Caney Creek Water District. The system consisted of drilled wells, the ALC tank, the Pippa Passes tank, a water treatment facility, and water mains. Since its purchase, the KCWSD has expanded the service area by constructing a new 38,000 gallon tank on Slone Fork Mountain, a centrifugal pump to supply the tank, and water mains to 144 new potential customers.

In 2007, the KCWSD completed more than 30 miles of waterline extensions, installed several pumps, and two tanks, thus expanding its service area to provide potable water to nearly 600 households. This year, 2008, the KCWSD will expand its service area once again, to provide potable water to nearly 400

new customers. The well-anticipated 2 MGD Carr Fork Water Treatment Plant is set to be completed in early 2009.

The completion of this project allows the KCWSD to expand its services widely throughout the county. This also creates the capacity to interconnect with other water systems in adjoining counties such as Perry and Letcher.

**PROPOSED FACILITIES**

The KCWSD is seeking funds to plan, design, rehabilitate, and replace all necessary components of the two tanks located at Pippa Passes, KY. The scum at the bottom of the Pippa Passes Tank will be removed, and the rusted screws sandblasted, then covered and protected. The old ALC Tank will be dismantled and exposed of in an environmentally friendly manner due to the presence of lead paint. The existing foundation will be utilized as the foundation for the replacement tank. The rehabilitation and replacement of these two tanks will restore the water system to its original scope and capacity and provide the service area with adequate storage.

**WATER SYSTEM OPERATIONS**

The replacement of the ALC Tank will affect the water system operations minimally, if any. Since we are matching the exact height and storage capacity of the original tank the high service pumps will not need to be replaced and will continue to be sufficient.

The rehabilitation of the Pippa Passes Tank will include cleaning the scum from the bottom of the tank and sandblasting, covering, and protecting the screws. Once this has been completed the tank will be restored to a condition that satisfies the PSC and continues to serve as storage for the Pippa Passes area.

Once these improvements are made the KCWSD will provide adequate staffing to effectively and correctly operate and maintain the structures.

**LAND, WATER, AND OTHER RIGHTS & PERMITS**

***Land Acquisition & Easement Rights***

The KCWSD already owns the land and/or permanent easements to be utilized during construction. No additional land will be needed. Temporary construction easements for access and storage areas may be required during construction activities. The KCWSD will take full responsibility for obtaining any easements necessary from the appropriate property owner.

***Water Rights***

All water that will supply the tanks comes from the KCWSD's water supply wells. No additional water rights will be obtained to adequately serve the customer demand.

***Other Rights & Permits***

A Kentucky Division of Water (DOW) Permit may be needed to approve the materials of the replacement ALC Tank. Since the Pippa Passes Tank disturbs no ground this is essentially the only permit necessary to complete this project. A Kentucky Pollutant Discharge Elimination System (KPDES) storm water discharge permits will only be necessary if more than one (1) acre of ground is disturbed while constructing the replacement ALC Tank.

**SOURCE OF FUNDS**

***Rural Development & Coal Severance***

A Pre-Application has been submitted to Rural Development for the request of \$375,000. This is 75% of the total estimated project cost of \$500,000. The remaining \$125,000 will be paid by the KCWSD using Coal Severance monies.

**CONCLUSIONS**

- 1.) The PSC Utility Inspection Report dated September 12, 2007 found the two subject tanks to be in need of maintenance and repair.
- 2.) The tanks combine for a total storage of 216,000 gallons and currently serve 444 customers in the Pippa Passes area. The tanks water supply comes from the water treatment plant located on Alice Lloyd College's campus.
- 3.) The Pippa Passes Tank has scum deposited on the bottom of the tank and the screws are badly rusted. This tank will undergo rehabilitation by removing and cleaning the tank, and sandblasting the screws, covering, and protecting them.
- 4.) The ALC Tank is showing a great deal of rust. The old tank will be dismantled and disposed of in a safe manner, and a new tank with the same capacity will be installed. It has been determined that the existing tank foundation is in good condition and will not need to be replaced.
- 5.) All land and permanent easements necessary to complete the projects is already owned by the Knott County Water & Sewer District. Temporary construction easements may need to be acquired.
- 6.) The KCWSD has applied for 75% funding from Rural Development and will fund the remaining cost with Coal Severance.

**RECOMMENDATIONS**

- 1.) All existing easements should be reviewed, copied, and kept in file throughout the construction of the project.
- 2.) Adjacent property owners shall be notified of the construction activities and any temporary construction easements necessary should be negotiated at this time.
- 3.) Develop a water service maintenance plan that allows the construction to be completed without disrupting water service to existing customers.

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**APPENDIX 'A'**

PSC Utility Inspection Report

COMMONWEALTH OF KENTUCKY  
PUBLIC SERVICE COMMISSION

UTILITY INSPECTION REPORT

Report Date: 9/12/2007

Report Number: KnottCWSD-091107

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BRIEF

**Inspector:** Joe Greenwell  
**Inspection Date:** 9/11/2007  
**Type of Inspection:** Follow-Up Inspection

**Type of Facility:** Purchaser and Distribution Facility  
**Name of Utility:** Knott County Water & Sewer District  
**Location of Facility:** Water Division, P.O. Box 884, Hindman, Kentucky 41822  
**Purpose of Inspection:** Inspection of utility facilities to verify actions taken to correct a deficiency

**Applicable Regulations** KRS 278 and 807 KAR Chapter 5

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INSPECTION

**Description of Utility:** Water treatment plant with a capacity of 140,000 gallons  
**Number of Customers:** 444  
**Area of Operation:** Knott County  
**Supply Source:** City of Hindman and 4 wells  
**Distribution Description:** Average daily consumption of 75,000 gallons with a total storage capacity of 216,000 gallons, 30 miles of distribution line (PVC, DI, and AC)  
**Workforce Summary:** 2 employees: 1 office; 1 field  
**Utility Reps in Insp:** Reva Campbell  
**Date of Last Inspection:** 6/20/2007  
**DTR from Last Insp:** 2  
**DTRs not Cleared:** 0

**Summary of items and facilities inspected:**

Records including, but not limited to, meter testing, reading, and history; flushing; service interruptions; complaints; facilities inspections and procedures; operation and maintenance manual; facilities maintenance; safety guidelines; a copy of a water shortage response plan; and the service area map. etc ; Alice Lloyd College Water Storage Facility (108,000 gal ) in Pippa Passes; Pippa Passes Water Storage Facility (108,000 gal ); and the bottom of the tank which has scum buildup and rusted screws

**COMMONWEALTH OF KENTUCKY  
PUBLIC SERVICE COMMISSION**

**UTILITY INSPECTION REPORT**

Report Date: 9/12/2007

Report Number: KnottCWSD-091107

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**FINDINGS**

- 1 The Alice Lloyd College and the Pippa Passes Water Storage Facilities appear to be in need of maintenance and refurbishing. The Pippa Passes Water Storage Facility has scum at the bottom of the tank and rusted screws. The Alice Lloyd College Water Storage Facility is showing a great deal of rust. This may indicate a failure to operate the utility's facilities in an adequate and safe manner. This may also indicate an ineffective inspection and maintenance program.
- 

**RECOMMENDATIONS**

Knott County Water & Sewer District shall provide maintenance attention to the Alice Lloyd College and Pippa Passes Water Storage Facilities. The Pippa Passes Water Storage Facility has scum at the bottom of the tank and rusted screws. The Alice Lloyd College Water Storage Facility is showing a great deal of rust. The facilities shall be inspected, cleaned, and refurbished. In addition the district does not have any records of maintenance being performed on the Pippa Passes Water Storage Facility, and the Alice Lloyd College Water Facility was scheduled for inspection over 2 years ago, but the inspection has not yet been completed. This may indicate a failure to operate the utility's facilities in an adequate and safe manner. This may also indicate an ineffective inspection and maintenance program.

Knott County Water & Sewer District may be understaffed. The district may consider obtaining an opinion from the Kentucky Rural Water Association concerning this issue. The water system seems to be in a physically deteriorating condition that could possibly be due to lack of staffing among other things. The main concern is the reason this facility was allowed to reach its current condition. This may indicate a failure to operate the utility's facilities in an adequate and safe manner. This may also indicate an ineffective inspection and maintenance program. This concern will be cited at this time.

---

**ADDITIONAL INSPECTOR COMMENTS**

The district was given a copy of the water utility inspection quick reference, the water utility inspection checklist, the Public Service Commission's water loss monthly report, the water utility inspection procedures outline, the general outline for inspection plans, and the new edition of the laws affecting public utilities.

Knott County Water & Sewer District has begun construction of the new Carr Creek Water Treatment Plant which should be on line by fall of 2008

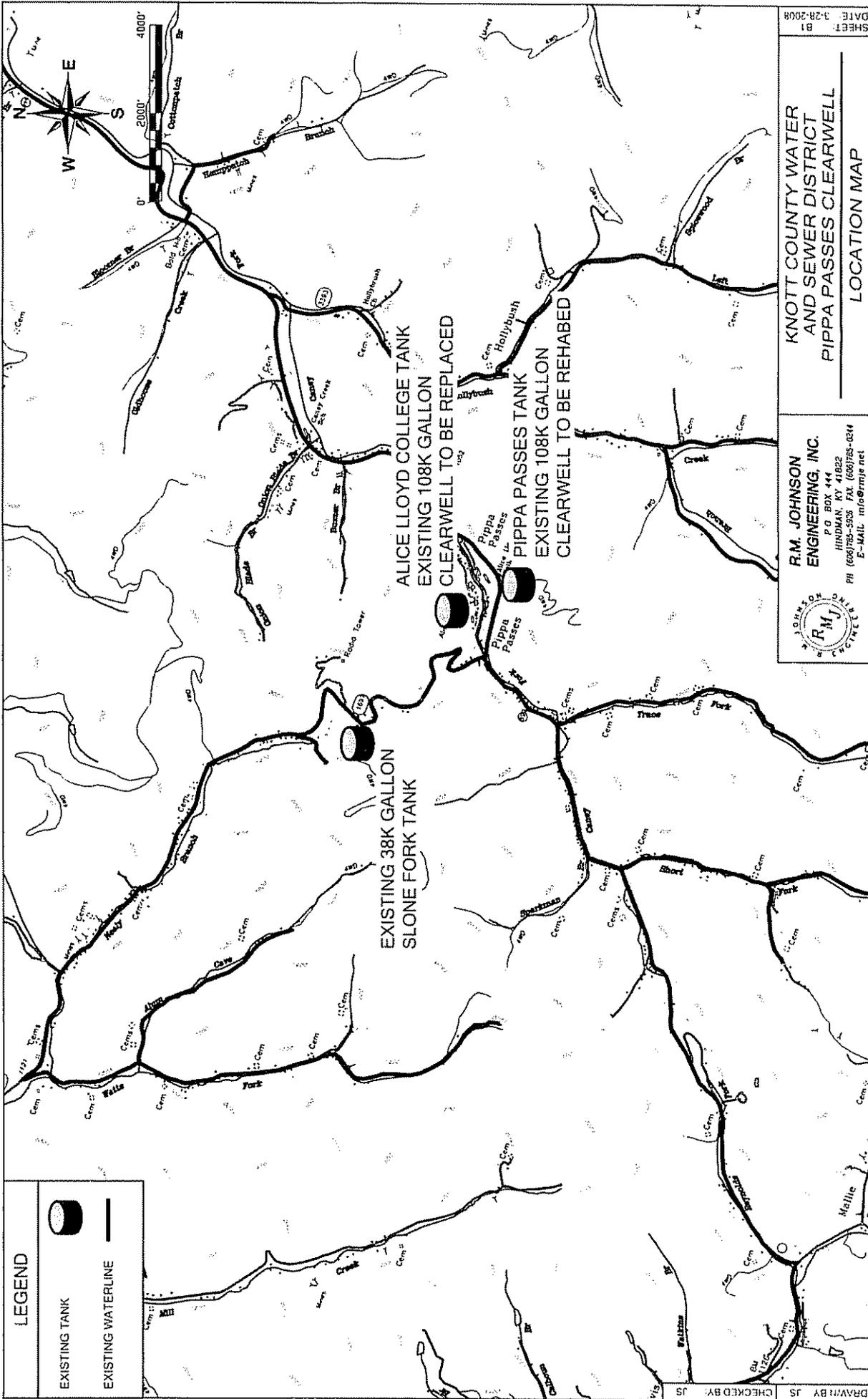
Water loss for 2005 was 22 percent; water loss for 2006 was 18 percent. Knott County Water & Sewer District submitted a water loss prevention/leak detection plan and certain actions taken to curb water loss in their system. Since there is a clear decline in the water loss percentage, this will remain an ongoing deficiency that will not be cited at this time, unless the water loss percentages increase again. The district has a meter replacement program.

A follow-up inspection will be conducted within 6 months

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**APPENDIX 'B'**

**Project Map of Tanks & Service Areas  
Project Cost Estimate**



**LEGEND**

 EXISTING TANK  
 EXISTING WATERLINE

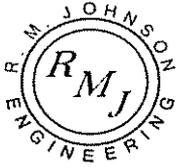


**R.M. JOHNSON**  
**ENGINEERING, INC.**  
 P.O. BOX 444  
 HINDMAN, KY 41822  
 PH (606) 785-5925 FAX (606) 785-0214  
 E-MAIL info@rmjeng.net

**KNOTT COUNTY WATER AND SEWER DISTRICT**  
**PIPPA PASSES CLEARWELL**  
**LOCATION MAP**

SHEET: B1  
 DATE: 3-28-2008

DRAWN BY: JS  
 CHECKED BY: JS



**R.M. JOHNSON  
ENGINEERING, INC.**

P.O. BOX 444  
HINDMAN, KY 41822  
PH. (606)785-5926 FAX. (606)785-0244  
E-MAIL: info@rmje.net

**PROJECT COST ESTIMATE**

DATE: June 17, 2008

ESTIMATED BY: JS

CHECKED BY: SH

PROJECT NO. 050-008-07

Knott County Water and Sewer District ALC Tank Replacement and Pippa Passes Tank Rehabilitation Projects	QUANTITY			TOTAL
	NO. OF UNITS	UNIT MEAS.	UNIT COST	COST
ALC Tank Demolition and Replacement	1	LS	\$ 139,000.00	\$ 139,000.00
Pippa Passes Tank Rehabilitation	1	LS	\$ 61,000.00	\$ 61,000.00
Telemetry	1	LS	\$ 45,000.00	\$ 45,000.00
TOTAL CONSTRUCTION				\$ 245,000.00
CONTINGENCY 10.00%				\$ 24,500.00
PRELIM. ENGINEERING REPORT				\$ 7,500.00
ENGINEERING DESIGN 11.77%				\$ 28,843.00
RESIDENT INSPECTION 9.68%				\$ 23,716.00
ADDITIONAL ENGINEERING				\$ 10,000.00
LEGAL AND ADMINISTRATION				\$ 4,053.00
INTERIM FINANCING				\$ -
<b>TOTAL PROJECT COST</b>				<b>\$ 343,612.00</b>

# FINAL ENGINEERING REPORT

FOR

## ALC Tank Replacement & Pippa Passes Tank Rehabilitation Projects

RECEIVED

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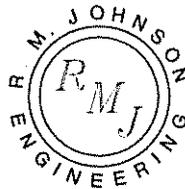
PUBLIC SERVICE  
COMMISSION

PREPARED FOR:

Knott County Water & Sewer District

P.O. Box 884  
Hindman, KY 41822  
Ph: (606) 785-5584  
Fax: (606) 785-9231  
Email: kcwsd@tgtel.com

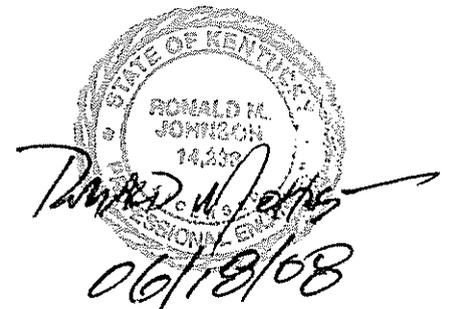
SUBMITTED BY:



R.M. JOHNSON ENGINEERING, INC.

P.O. Box 444  
Hindman, KY 41822

JUNE 2008



**Table of Contents**

**Introduction** ..... **1**

**Construction Quotes** ..... **2**

**Total Project Cost** ..... **3**

**Conclusions & Recommendations** ..... **4**

**Appendix 'A'** ..... **A**  
*“Quotes from Interested Contractors”*

**Appendix 'B'** ..... **B**  
*“Project Map of Tanks & Service Areas”*

## INTRODUCTION

On behalf of the Knott County Water and Sewer District (KCWSD) we, at R.M. Johnson Engineering, Inc., are pleased to present this Final Engineering Report for the Alice Lloyd College (ALC) Tank Replacement and the Pippa Passes Tank Rehabilitation Project.

A routine inspection was performed by Mr. Joe Greenwell for the Public Service Commission (PSC) on September 11<sup>th</sup>, 2007. Mr. Greenwell's findings resulted in the recommendation to perform rehabilitation and maintenance for the two subject tanks referenced above.

In response, the KCWSD applied for \$500,000 of federal funding to rehabilitate the Pippa Passes Tank and replace the ALC Tank. The KCWSD received a letter from the Rural Utilities Service (RUS), dated June 3, 2008, stating that the project is eligible for \$375,000 of federal funding with a \$125,000 applicant match.

The Kentucky Division of Water has approved the construction plans and technical specifications and has approved the permit application. A Certificate of Public Convenience and Necessity must be obtained from the Public Service Commission before construction can begin. We have forwarded all in-hand documentation to the PSC for review and approval. One of the final documents to be submitted to the PSC is a Letter of Concurrence from Rural Development.

**CONSTRUCTION QUOTES**

On April 9<sup>th</sup>, 2008 a local state of emergency was declared by the KCWSD per Resolution 040908-001. Due to the urgency of this project, the bidding procedure has been waived. We have contacted two (2) qualified contractors regarding the steel ALC Tank Replacement and have received quotes from each. The Pippa Passes Tank Rehabilitation portion will be conducted by Kentucky Glass Lined Tanks and the telemetry will be installed by Microcomm by default. Each contractor with respective quote is listed below:

**ALC Tank Replacement**

Laurel Construction Co., Inc.	\$144,000.00
Welding, Inc.	\$145,000.00

**Pippa Passes Tank Rehabilitation**

Kentucky Glass Lined Tanks	\$21,500.00
----------------------------	-------------

**Telemetry**

MicoComm	\$44,431.00
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***Total Proposed Construction Cost: \$209,931.00***

Laurel Construction Co., Inc. has submitted the lowest quote and is therefore the apparent contractor selected to replace the steel ALC Tank. All quotes from each contractor can be found in Appendix 'A'.

**TOTAL PROJECT COST**

The following is an estimate based on the quotes received:

<b><u>Budget Item</u></b>	
Project Construction	\$209,931.00
Engineering Design	\$25,400.00
Resident Inspection	\$21,500.00
Contingencies	\$20,999.00
<u>Legal &amp; Administrative</u>	<u>\$5,000.00</u>
<b><i>Total Project Cost</i></b>	<b><i>\$282,830.00</i></b>

Assuming the total project cost does not change from the above stated estimate, the funding summary is as follows:

<b><u>Funding Source</u></b>	
Rural Utilities Service	\$375,000.00 (Max)
<u>Applicant</u>	<u>\$125,000.000</u>
<b><i>Total Available Funding</i></b>	<b><i>\$500,000.00</i></b>

**CONCLUSIONS & RECOMMENDATIONS**

In conclusions, the project can begin construction once the PSC requirements have been satisfied and the Certificate of Public Convenience and Necessity has been acquired. The certificate should be awarded shortly after the Letter of Concurrence from Rural Development is received. The Kentucky Division of Water permit was approved on May 20<sup>th</sup>, 2008.

Quotes have been received from interested contractors under the understanding that the lowest quote would be awarded the project. The maximum amount RUS will fund is 75% of \$500,000, which is a total of \$375,000. 25% of the project cost will be funded by the applicant by utilizing coal severance funds. The estimated total project cost is currently at \$282,830.00. It is our recommendation that Laurel Construction Co., Inc. be awarded the contract since their quote is the lowest.

---

**APPENDIX 'A'**

Quotes from Interested Contractors

# LAUREL CONSTRUCTION CO., INC.

5209 SOMERSET ROAD  
LONDON, KENTUCKY 40741

DELMAS PHILPOT  
PRESIDENT

(606) 878-8812

June 19, 2008

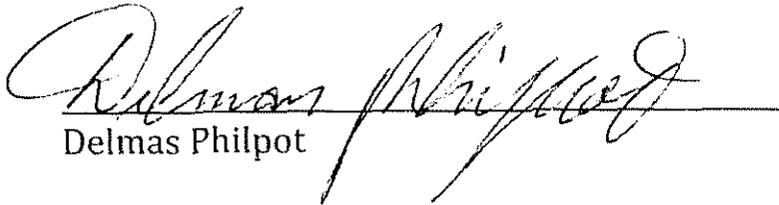
Attn: Ron Johnson  
R.M. Johnson Engineering, Inc.  
3376 Highway 550 East  
P.O. Box 444  
Hindman, Kentucky 41822-0444

Dear Ronnie,

We propose to remove the old tank behind the college and grade the existing ground so that the existing foundation is about 6" above the ground. We will have a geotechnical engineer with a Kentucky stamp certify the concrete foundation and Laurel Construction Co., Inc. will certify that the tank has been built according to the AWWA D-100 code. If the existing foundation is not sound and has to come out, we will charge for the additional cost.

Our revised price is \$144,000.00.

Call me with any questions. Thank you.

  
Delmas Philpot

DP/mc

# WELDING, INC.

AWWA—WATER STORAGE TANKS  
GENERAL & UTILITY CONTRACTORS  
BOILER SALES, SERVICE, REPAIRS &  
INSTALLATIONS

1712 PENNSYLVANIA AVE.  
P.O. BOX 6007  
CHARLESTON, W. VA. 25362  
(304) 346-0763  
FAX (304) 343-5498  
WV CONT. #002219

ASME - API - CODE TANKS  
PRESSURE VESSELS  
CERTIFIED CODE SHOP  
ASME BOILER CODE  
"R", "PP" & "U" STAMPS

May 2, 2008

Stephen R. Harris, EIT, LSIT, Project Engineer  
R. M. Johnson Engineering, Inc.  
P. O. Box 444  
Hindman, KY 41822

Phone (606) 785-5926 ext 34  
FAX (606) 785-0244

Subject: Proposal for Water Tank Replacement  
Alice Lloyd College, Pippa Passes, KY

Dear Mr. Harris:

We are pleased to propose the following for your consideration.

For furnishing all necessary labor, material, equipment and tools to provide necessary engineering, bonding, design, fabrication, erection and painting to complete a turnkey project for replacement of the existing 27' dia. x 24' tall water storage tank.

Work to consist of:

Site work to provide space to set up crane for dismantling and erection of new tank and remove soil against existing tank.

Upgrade existing access road from existing pavement (Approx. 120 LF) to gain access to site. Install approx. 6" of stone on road upon completion of project.

Dismantle existing tank and dispose of scrap steel.

Provide Engineer Report by KY PE that existing foundation is acceptable to reinstall the same size tank on the existing foundation or recommendations for modifications to the existing tank foundation for installation of a new same size tank.

Install approx 3" of new oiled sand on top of existing foundation.

Fabricate, erect and paint new 27' diameter x 24' tall AWWA D-100 water storage tank. 1/4" thick A-36 steel floor and shell, 3/16" thick self supporting roof.

This work will be completed within 90 days during the period of June 1, 2008 through August 30, 2008.

LUMP SUM PRICE: \$145,000

Please note if inlet pipe requires replacement it will be an extra charge. The existing paved roads were not designed for heavy equipment and if any damage is claimed due to equipment it will be repaired at an additional charge.

We do not anticipate replacement or modifications of the existing foundation as a result of the examination and report by an KY licensed Professional Engineer. If required the maximum amount for complete removal and replacement of the existing foundation would not exceed an additional \$40,000.00.

Thank you for the opportunity to quote this project. We look forward to being of service.

Sincerely yours,

Welding, Inc.

A handwritten signature in cursive script, appearing to read "Bruce Cawell".

# KENTUCKY GLASS LINED TANK SYSTEMS, INC

April 16, 2007

Mr. Steven Harris  
Project Engineer  
RM Johnson Engineers  
PO Box 444  
Hindman, KY 41822

Re: Pippa Passes Aquastore Tank  
Scope of work: Upgrade tank with a retrofit passive Cathodic protection system

Dear Mr. Harris,

In 1998 all new Aquastore® tanks were supplied with a proprietary passive Cathodic protection system. This system consists of either magnesium or zinc anode bars designed to sacrifice themselves prior to corrosion on the tank taking place. Please review the attached literature for more detailed information.

We need a sample of the water that is being used by the district so we can custom design a system to provide protection from electrical leakage corrosion. We can then prepare a fixed price for completing the product improvement.

The Cathodic Protection system is installed inside the tank. Thus the tank would have to be taken out of service for 24 hours. We think this is a huge value adder to your tank and will be happy to discuss the merits at any time.

5/14/08 Cathodic Protection design completed, cost installing 5 anodes and hardware: **\$3500.00**

Sincerely,

Bary Lippey

PO Box 13370 Lexington, KY 40583  
Phone 859 253-3544 Fax 859 259-0559

# KENTUCKY GLASS LINED TANK SYSTEMS, INC

April 16, 2007

Mr. Steven Harris  
Project Engineer  
RM Johnson Engineers  
PO Box 444  
Hindman, KY 41822

Re: Pippa Passes Aquastore Tank  
Scope of work: Retarding rust on exterior nuts

Dear Mr. Harris,

The scope of work outlined below is a procedure to prevent further rust streaking and rusting of the nuts on the tank exterior proper. The steps necessary to accomplish this include, but are not limited to:

- Mobilizing to tank site
- Rigging the structure for working on the sidewall of the tank
- Hand wire brushing of the exterior only nuts to remove the loose or scaly rust
- Placing urethane one part sealant inside polypropylene pre-molded caps
- Placing pre-molded caps over the brushed structure nuts.
- Remove rigging from tank exterior sidewall
- Demobilizing

This procedure will be completed on the tank and roof nuts only.

The work will not require the tank to be taken out of service.

5/14/08 - The price for the above outlined procedure is **\$18,000.00**

Sincerely,

Barry Tippet

**Date:** April 16 2008

**To:** Whom It May Concern

**Project:** Knott Co. KY, Pippa Passes Addition, SCADA Upgrades

**TERMS:**

1. Payment terms are net 30 days from date of shipment
2. **Does not include taxes, insurance or bonding.** Proposal will be good for 60 days
3. 10% Retainage is not to exceed 6 months from date of engineer's acceptance of the control system
4. Equipment supplied does not include anchor bolts, fasteners, supports, antenna towers (poles), or masts unless specifically listed in this quotation
5. This control system provides PILOT DUTY signals to control panels and devices by others. Primary devices, i.e. motor starters, VFD's, transformers, circuit breakers, control valves, and power panels are not included unless specifically listed in this quotation
6. **This proposal DOES NOT include installation of equipment by Micro-Comm, Inc. unless option listed in this proposal is accepted.** Micro-Comm can provide one day of installation supervision to guide the contractor on installation of this equipment. Additional installation assistance is available at \$1250/per day, plus expenses
7. Submittal drawings will be provided within 45 - 60 days from receipt of acceptance or purchase order
8. Equipment will ship 90 - 120 days from receipt of drawing approval
9. The frequency coordination and FCC licensing process can take from 120 to 180 days. Micro-Comm will begin the filing process within 15 days of receiving latitude, longitude, ground elevation, and tank overflow information from the consulting engineer. Micro-Comm makes no guarantees for the completion time of the licensing process
10. Two week notice, currency of contractor's account, and FCC authorization are required for startup of equipment
11. This proposal has been prepared without the use of a software generated or an on-site path analysis. Micro-Comm makes no guarantee to the operation or reliability and reserves the right to adjust this estimate accordingly in the event additional equipment is required to provide reliable radio communications

Estimated By

Tim D. Ochs

Sales & Technical Engineer

Micro-Comm, Inc.

Phone: 913-390-4500

Fax: 913-390-4550

## Material and Labor Specification Information

### (2) M1500 Pippa Passes Water Tanks

Micro-Comm M1500 remote unit in a Wall mount Nema 3R enclosure with "Single-Board M1500" RTU module. I/O Sub-panel type construction. Motorola radio transceiver. 12 24VDC Power Supply. coaxial cable lightning arrestor. coaxial cable. cable connectors. and Yagi antenna

#### **RTU panel to include:**

##### Qty Description

- 1 Hoffman 20x16x6 Nema 3R
- 1 1 Radio & RTU Power Supply
- 1 24 hour battery back-up, (20A hr)
- 1 M1500 Single-Board RTU assembly
- 1 Motorola Radius Radio
- 1 Motorola Radius Power & Modem Interface Cable
- 1 Coaxial Lightning Arrestor, Patch Cord & Bracket

##### (4) Control Outputs as follows:

- 1 Valve Call Output

##### (8) Discrete Inputs as follows:

- 1 Valve Open (Limit Switch by others)
- 1 Valve Closed (Limit Switch by others)
- 1 Power Failure

##### (4) Analog Inputs as Follows

- 1 Analog Input #1: Tank Level
- 1 Analog Input #2:

##### (1) Pulse (Flow) Inputs as Follows

- 1 Pulse Input #1:

##### (4) Analog Outputs as Follows

- 1 Analog Output #1:
- 1 Analog Output #2:

- 1 Keypad & Display Module w Cable
- 1 Engineering, Programming, & Testing

#### **The following items will be shipped separately for field mounting:**

- 1 Yagi antenna with mounting U-bolts and mounting mast (MC Yagi)
- 1 lot of coaxial cable & Connectors as needed
- 1 Submersible Pressure Transducer w prewired cable & 1/4" NPT fittings
- 1 Factory start-up and adjustment services of above Micro-Comm equipment
- 1 Freight to jobsite (FOB Factory)

**(1) M1500 Remote Unit - Water Plant**

Micro-Comm M1500 remote unit in a Wall mount Nema 4X (FRP) enclosure with "Single-Board M1500" RTU module. I/O Sub-panel type construction. Motorola radio transceiver. 120/24VAC Line Transformer; integral 12/24VDC Power Supply; coaxial cable lightning arrestor; coaxial cable; cable connectors; and Yagi antenna

**RTU panel to include:**

Qty Description

- 1 Hoffman Nema 4X (FRP) panel
- 1 120VAC/24VAC Transformer
- 1 4 hour battery back-up, (2.6A hr)
- 1 M1500 Single-Board RTU assembly
- 1 Motorola Radius Radio
- 1 Motorola Radius Power & Modem Interface Cable
- 1 Coaxial Lightning Arrestor, Patch Cord & Bracket

(4) Control Outputs as follows

- 1 Pump #1 Call Output
- 1 Pump #2 " "
- 1 Spare
- 1 Spare

(7) Discrete Inputs as follows:

- 1 Pump #1 Running
- 1 Pump #2 Running
- 1 Spare
- 1 Spare
- 1 Spare
- 1 Spare
- 1 Power Failure

(2) Analog Outputs as Follows

(4) Analog Inputs as Follows

- 1 Analog Input #1: Clearwell Level (4-20mA by Micro-Comm)
- 1 Analog Input #2: - #4 Spares - (4-20mA by others)

(1) Pulse (Flow) Inputs as Follows

- 1 Pulse Input #1: Flow Rate #1 (Meter & High Speed Pick-Up Head by Others)
- 1 Keypad & Display Module w/ Cable
- 1 Engineering, Programming, & Testing of RTU(s)

**The following items will be shipped separately for field mounting:**

- 1 Yagi antenna with mounting U-bolts
- 1 lot of coaxial cable & Connectors as needed
- 1 30' ROHN 25G Tower
- 1 Level Transducer w/ prewired cable
- 1 Factory start-up and adjustment services of above Micro-Comm equipment
- 1 Freight to jobsite (FOB Factory)

**MISCELLANEOUS ITEMS TO INCLUDE:**

Qty	Description	
1	Engineering and Design	Included
1	Engineering Submittal per Specifications	\$126.00
1	Operation and Maintenance Manuals per Specifications	\$204.00
1	FCC License Fees and Paperwork	\$540.00
1	Freight to Job Site (FOB Factory, Freight allowed)	Included
1	Factory Startup and Adjustment Service (Includes owner training)	Included
1	<b>Five Year Parts and Labor Warranty on Micro-Comm RTU's</b>	<b>Included</b>

**Basic System Price: \$35,056.00**

Micro-Comm reserves the right to adjust this estimate accordingly in the event the above proposal will not provide the required control conditions, or in the event additional equipment is required to provide the desired monitoring and or control points.

**OPTIONAL ITEMS TO INCLUDE:**

**(1) INSTALLATION: Of Base SCADA System Addition**

Installation by Micro-Comm based on others (owner or others) providing all 120VAC power, power drops, meters, disconnects, pressure taps, pressure pits, road bores, pavement cuts, pavement patches, concrete cuts or bores excavation for antenna tower base, concrete for antenna tower and road access to all sites

Note: this installation estimate has been prepared based on an unseen basis, if conditions exist that are unknown or would effect this estimate Micro-Comm reserves the right to adjust this estimate accordingly.

**Installation Price: \$9,375.00      Install Price: \$9,375.00**

**Total Price: \$44,431.00**

Accepted By:

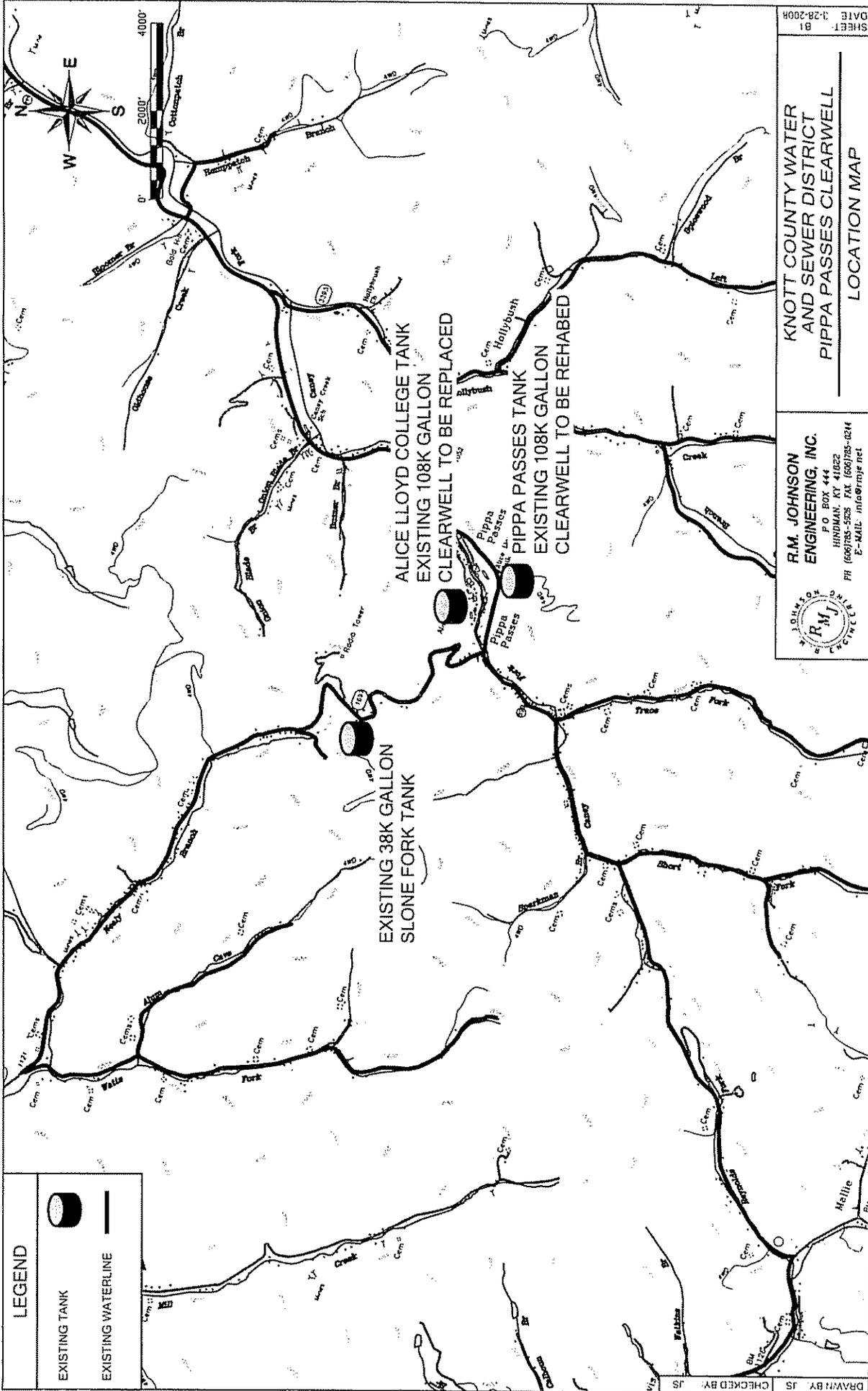
Date:

Amount Accepted:

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**APPENDIX 'B'**

**Project Map of Tanks & Service Areas**



**LEGEND**

EXISTING TANK

EXISTING WATERLINE

ALICE LLOYD COLLEGE TANK  
EXISTING 108K GALLON  
CLEARWELL TO BE REPLACED

PIPPA PASSES TANK  
EXISTING 108K GALLON  
CLEARWELL TO BE REHABED

EXISTING 38K GALLON  
SLONGE FORK TANK

**R.M. JOHNSON ENGINEERING, INC.**  
P.O. BOX 444  
HINDMAN, KY 41822  
PH (606)785-5225 FAX (606)785-0214  
E-MAIL: info@rmje.net

**KNOTT COUNTY WATER AND SEWER DISTRICT  
PIPPA PASSES CLEARWELL  
LOCATION MAP**

SHEET B1  
DATE 3-28-2008