



P.O. Box 1164, Richmond, Kentucky 40476  
500 Recycle Drive

*"Surveys you can count on."*

December 20, 2023

Kentucky Public  
Service Commission  
Atty: Jason Colyer  
P.O. Box 615  
211 Sower Blvd  
Frankfort, KY 40602

RECEIVED

DEC 28 2023

PUBLIC SERVICE  
COMMISSION

RE: CITY OF DRAKESBORO D/B/A DRAKESBORO NATURAL GAS COMPANY  
ELECTRONIC INVESTIGATION OF ALLEGED FAILURE TO COMPLY WITH  
KRS 278.495, 807 KAR 5:027, AND 49 C.F.R. PART 192 : CASE 2019-00065

Mr. Coyler:

Enclosed is a copy of our file on the Drakesboro gasline project. All information gathered was for the purpose of securing a grant for the city of Drakesboro. Abacus Engineering & Land Surveying, Inc. relied on information provided by Mr. Shawn Martin with Russmar. At the time Abacus was working to obtain the grant, Russmar was maintaining the gas system for the City of Drakesboro. After several months of silence from all parties involved, Abacus learned that we had surreptitiously been "fired" from the project. Since that time, we have had no further dealings regarding this project.

As to any mishandling of Natural Gas Distribution systems or anything else of the sort, we cannot speak on those subjects as our attempted assistance was deemed unnecessary by the City of Drakesboro very shortly into the duration of the project. We have no further knowledge of the project and as previously stated, all information was directly through and by Shawn Martin with Russmar. Limited information was received from the City of Drakesboro all pertaining to the grant.

We hope that this communicate resolves any misunderstandings about the relationship between Abacus, Russmar, and the City of Drakesboro and we would encourage any further questions along these lines to be directed to Mr. Martin with Russmar.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Dwayne Wheatley', is written over a blue ink scribble.

Dwayne Wheatley, PE, LS

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CITY OF DRAKESBORO D/B/A DRAKESBORO	)	CASE NO.
NATURAL GAS COMPANY - ELECTRONIC	)	2019-00065
INVESTIGATION OF ALLEGED FAILURE TO	)	
COMPLY WITH KRS 278.495, 807 KAR 5:027,	)	
AND 49 C.F.R. PART 192	)	

SUBPOENA DUCES TECUM

1. The Public Service Commission to: E. Dwayne Wheatley  
400 Foxwood Dr.  
Richmond, KY 40475
  
2. You are commanded to produce the following documents to the Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601 on or before December 22, 2023: All documents pertaining to Abacus Engineering & Land Surveying, Inc. services provided to the City of Drakesboro, Kentucky (Drakesboro) for review of the Drakesboro Gas Distribution System, including but not limited to
  - a. Reports or other documents provided to Drakesboro or the Kentucky Infrastructure Authority (KIA) related to services provided or contemplated to be provided to Drakesboro;
  - b. Notes, photographs, or any other documents created or obtained for services provided to Drakesboro;
  - c. Correspondence with Drakeboro or KIA related to services provided or contemplated to be provided to Drakesboro.


Date: 11-20-2023

  
\_\_\_\_\_  
Jason M. Colyer, Requesting Attorney

This subpoena was served by delivery of a true copy via U.S. certified mail, to:

E. Dwayne Wheatley  
400 Foxwood Dr.  
Richmond, KY 40475

This 20<sup>th</sup> day of NOV., 2023.

By:  Title: Staff Attorney, Public Service Commission

## **Tracy Wheatley**

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**From:** Frogue, Amy (Pennyrile ADD) <Amy.Frogu@ky.gov>  
**Sent:** Monday, September 14, 2020 2:13 PM  
**To:** Tracy Wheatley  
**Subject:** RE: Drakesboro Application (Abacus)

It is our understanding that DLG staff is currently reviewing applications. We do typically receive questions from staff once they have reviewed our applications. We have not had any correspondence to date. I'll let you guys know as soon as I hear something!

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyrile Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
Fax: 270-886-3211  
[www.peadd.org](http://www.peadd.org)

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**From:** Tracy Wheatley <tawheatley@Abacusky.com>  
**Sent:** Monday, September 14, 2020 1:12 PM  
**To:** Frogue, Amy (Pennyrile ADD) <Amy.Frogu@ky.gov>  
**Subject:** RE: Drakesboro Application (Abacus)

Amy,

Good afternoon! I just wanted to check in with you. Any word at all on the grant process?

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475  
Phone: 859-625-1200  
Cell: 859-661-1283  
Fax: 859-625-1207

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**From:** Frogue, Amy (Pennyrile ADD) <Amy.Frogu@ky.gov>  
**Sent:** Tuesday, August 18, 2020 3:44 PM  
**To:** Tracy Wheatley <tawheatley@Abacusky.com>  
**Subject:** RE: Drakesboro Application (Abacus)

The application has been submitted to DLG. It typically takes them a few weeks to review and give us feedback on the application. My guess is that they will come back with several questions for us. I'll let you guys know when we receive those.

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyriple Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
Fax: 270-886-3211

[www.peadd.org](http://www.peadd.org)



---

**From:** Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>  
**Sent:** Tuesday, August 18, 2020 2:28 PM  
**To:** Frogue, Amy (Pennyriple ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>  
**Subject:** RE: Drakesboro Application (Abacus)

Amy,

Just wanted to check in on the Drakesboro project. Please let me know if you have heard anything and if you need anything from me.

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475  
Phone: 859-625-1200  
Cell: 859-661-1283  
Fax: 859-625-1207

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**From:** Frogue, Amy (Pennyriple ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>  
**Sent:** Tuesday, July 28, 2020 9:14 PM  
**To:** Justin Rogers <[jrogers@Abacusky.com](mailto:jrogers@Abacusky.com)>; Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>; Dwayne Wheatley <[Dwheatley@Abacusky.com](mailto:Dwheatley@Abacusky.com)>  
**Subject:** Re: Drakesboro Application (Abacus)

I've got that printed as an attachment. Thank you!

Amy

Get [Outlook for iOS](#)

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**From:** Justin Rogers <[jrogers@Abacusky.com](mailto:jrogers@Abacusky.com)>  
**Sent:** Tuesday, July 28, 2020 3:50:28 PM  
**To:** Frogue, Amy (Pennyriple ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>; Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>; Dwayne

Wheatley <[Dwheatley@Abacusky.com](mailto:Dwheatley@Abacusky.com)>

**Subject:** RE: Drakesboro Application (Abacus)

The only thing I see is that the cost estimate that we inserted is now a blank page. I've attached the original letter to the Mayor with the spreadsheet if you'd like to copy/paste it back in. If that isn't necessary, then ignore this email. Thank you.

**Abacus Engineering & Land Surveying, Inc.**

*Justin M. Rogers*, L.S. 3994

- Professional Land Surveyor
- Project Manager

County Surveyor - Estill County since 2014  
B.S. Physics / Minor Mathematics (EKU 2002)  
M.S. Civil Engineering (UK 2004)  
[jrogers@abacusky.com](mailto:jrogers@abacusky.com)

**Contact:**

236 Boggs Lane, Suite 4  
Richmond, KY 40475  
O: (859) 625-1200  
C: (859) 661-2051  
F: (859) 625-1207

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**From:** Frogue, Amy (Pennyriple ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>

**Sent:** Tuesday, July 28, 2020 3:48 PM

**To:** Justin Rogers <[jrogers@Abacusky.com](mailto:jrogers@Abacusky.com)>; Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>; Dwayne Wheatley <[Dwheatley@Abacusky.com](mailto:Dwheatley@Abacusky.com)>

**Subject:** RE: Drakesboro Application (Abacus)

If you all don't mind, please take a look and make sure we haven't missed anything. I'm going to "fluff" the first project narrative a bit, but for now I want to make sure we have all pertinent information included.

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyriple Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
Fax: 270-886-3211  
[www.peadd.org](http://www.peadd.org)



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**From:** Justin Rogers <[jrogers@Abacusky.com](mailto:jrogers@Abacusky.com)>

**Sent:** Tuesday, July 28, 2020 12:40 PM

**To:** Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>; Dwayne Wheatley <[Dwheatley@Abacusky.com](mailto:Dwheatley@Abacusky.com)>; Frogue, Amy

(Pennyrile ADD) <[Amy.Frogué@ky.gov](mailto:Amy.Frogué@ky.gov)>  
**Subject:** Drakesboro Application (Abacus)

See attached Word document.

**Abacus Engineering & Land Surveying, Inc.**

*Justin M. Rogers, L.S. 3994*

- Professional Land Surveyor
- Project Manager

County Surveyor - Estill County since 2014  
B.S. Physics / Minor Mathematics (EKU 2002)  
M.S. Civil Engineering (UK 2004)  
[jrogers@abacusky.com](mailto:jrogers@abacusky.com)

**Contact:**

236 Boggs Lane, Suite 4  
Richmond, KY 40475  
O: (859) 625-1200  
C: (859) 661-2051  
F: (859) 625-1207

## **Tracy Wheatley**

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**From:** Tracy Wheatley  
**Sent:** Monday, November 23, 2020 10:48 AM  
**To:** Frogue, Amy (Pennyrile ADD)  
**Subject:** RE: Drakesboro CDBG questions

Amy,

I will get together with Russmar, Mayor Jones and our engineer to get all of these questions addressed.

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475  
Phone: 859-625-1200  
Cell: 859-661-1283  
Fax: 859-625-1207

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**From:** Frogue, Amy (Pennyrile ADD) <Amy.Frogue@ky.gov>  
**Sent:** Friday, November 20, 2020 12:43 PM  
**To:** jonesy0120@gmail.com  
**Cc:** Tracy Wheatley <tawheatley@Abacusky.com>  
**Subject:** FW: Drakesboro CDBG questions

Tracy,

I'm going to need to lean on you guys heavily to answer the majority of these questions!

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyrile Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
Fax: 270-886-3211  
[www.peadd.org](http://www.peadd.org)

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**From:** Peters, Jennifer (DLG)  
**Sent:** Friday, November 20, 2020 11:27 AM  
**To:** [jones0120@gmail.com](mailto:jones0120@gmail.com)  
**Cc:** Frogue, Amy (Pennyrile ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>; Hanna, Jeff (DLG) <[ieff.hanna@ky.gov](mailto:ieff.hanna@ky.gov)>; Clark, Olivia G (DLG) <[olivia.clark@ky.gov](mailto:olivia.clark@ky.gov)>  
**Subject:** Drakesboro CDBG questions



Good afternoon Mayor

Our team has reviewed your CDBG application for gas system improvements and we have few questions, see attached. I ask that you review these questions with your project administrator and engineer and provide us with a response within 2 weeks of this email. As always we thank you for your interest in our program.

Jennifer Peters  
Branch Manager  
CDBG Public Facilities  
Office of the Governor  
Department for Local Government  
**100 Airport Road 3<sup>rd</sup> Floor**  
Frankfort, KY 40601  
Receptionist: 502-573-2382  
Direct line: 502-892-3469  
Fax: (502) 227-8229  
[jennifer.peters@ky.gov](mailto:jennifer.peters@ky.gov)

## Tracy Wheatley

---

**From:** Tracy Wheatley  
**Sent:** Thursday, December 10, 2020 9:35 AM  
**To:** drakesboro@comcast.net  
**Subject:** RE: FW: Drakesboro CDBG questions

Mayor,

The current grant we are applying for will not pay for repairing the system, it will only pay to replace the system. If you are wanting to keep the current system and simply repair what is there, this is the wrong type of grant. I am unaware of any that will help with repairs, only replacement. Your answer to the last question is to fix what you have. They will pull the application for this grant if that is the case. If that is what you want to do, that is fine with us, I just need to relay that to them. It is your system and I want to do what the City of Drakesboro wants for their gas system. Please let me know which direction you would like to go.

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475  
Phone: 859-625-1200  
Cell: 859-661-1283  
Fax: 859-625-1207

---

**From:** drakesboro@comcast.net <drakesboro@comcast.net>  
**Sent:** Wednesday, December 9, 2020 4:39 PM  
**To:** Tracy Wheatley <tawheatley@Abacusky.com>  
**Subject:** Re: FW: Drakesboro CDBG questions

On 12/03/2020 10:44 AM Tracy Wheatley <[tawheatley@abacusky.com](mailto:tawheatley@abacusky.com)> wrote:

Mayor,

Please answer as many questions as possible and return this information to me.

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC

236 Boggs Lane, Suite 4

Richmond, KY 40475

Phone: 859-625-1200

Cell: 859-661-1283

Fax: 859-625-1207

---

**From:** Frogue, Amy (Pennyrile ADD) <[Amy.Froguet@ky.gov](mailto:Amy.Froguet@ky.gov)>

**Sent:** Friday, November 20, 2020 12:43 PM

**To:** [jonesy0120@gmail.com](mailto:jonesy0120@gmail.com)

**Cc:** Tracy Wheatley <[tawheatley@Abacusky.com](mailto:tawheatley@Abacusky.com)>

**Subject:** FW: Drakesboro CDBG questions

Tracy,

I'm going to need to lean on you guys heavily to answer the majority of these questions!

*Amy Frogue*

Associate Director of Community & Economic Development

Pennyrile Area Development District

300 Hammond Drive

Hopkinsville, KY 42240

Office: 270-886-9484

Mobile: 270-839-1360

Fax: 270-886-3211

[www.peadd.org](http://www.peadd.org)

---

**From:** Peters, Jennifer (DLG)  
**Sent:** Friday, November 20, 2020 11:27 AM  
**To:** [jones0120@gmail.com](mailto:jones0120@gmail.com)  
**Cc:** Frogue, Amy (Pennyrile ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>; Hanna, Jeff (DLG) <[jeff.hanna@ky.gov](mailto:jeff.hanna@ky.gov)>; Clark, Olivia G (DLG) <[olivia.clark@ky.gov](mailto:olivia.clark@ky.gov)>  
**Subject:** Drakesboro CDBG questions

Good afternoon Mayor

Our team has reviewed your CDBG application for gas system improvements and we have few questions, see attached. I ask that you review these questions with your project administrator and engineer and provide us with a response within 2 weeks of this email. As always we thank you for your interest in our program.

Jennifer Peters

Branch Manager

CDBG Public Facilities

Office of the Governor

Department for Local Government

**100 Airport Road 3<sup>rd</sup> Floor**

Frankfort, KY 40601

Receptionist: 502-573-2382

Direct line: 502-892-3469

Fax: (502) 227-8229

[jennifer.peters@ky.gov](mailto:jennifer.peters@ky.gov)

## Tracy Wheatley

---

**From:** Tracy Wheatley  
**Sent:** Wednesday, December 9, 2020 10:56 AM  
**To:** Frogue, Amy (Pennyrile ADD)  
**Subject:** RE: Drakesboro CDBG questions

Amy,

I am still waiting on the mayor. He was supposed to have me something yesterday. I will reach out to him again today.

Thank You,

*Tracy Wheatley*

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475  
Phone: 859-625-1200  
Cell: 859-661-1283  
Fax: 859-625-1207

---

**From:** Frogue, Amy (Pennyrile ADD) <Amy.Frogue@ky.gov>  
**Sent:** Monday, December 7, 2020 9:47 AM  
**To:** Tracy Wheatley <tawheatley@Abacusky.com>  
**Subject:** FW: Drakesboro CDBG questions

Do you guys have an update on these questions from DLG regarding the project? We really should have had our response submitted by last week so we don't need to stretch it much further or they will pull the review.

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyrile Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
Fax: 270-886-3211  
[www.peadd.org](http://www.peadd.org)

---

**From:** Peters, Jennifer (DLG)  
**Sent:** Friday, November 20, 2020 11:27 AM  
**To:** [jones0120@gmail.com](mailto:jones0120@gmail.com)  
**Cc:** Frogue, Amy (Pennyrile ADD) <[Amy.Frogue@ky.gov](mailto:Amy.Frogue@ky.gov)>; Hanna, Jeff (DLG) <[jeff.hanna@ky.gov](mailto:jeff.hanna@ky.gov)>; Clark, Olivia G (DLG) <[olivia.clark@ky.gov](mailto:olivia.clark@ky.gov)>  
**Subject:** Drakesboro CDBG questions

Good afternoon Mayor

Our team has reviewed your CDBG application for gas system improvements and we have few questions, see attached. I ask that you review these questions with your project administrator and engineer and provide us with a response within 2 weeks of this email. As always we thank you for your interest in our program.

Jennifer Peters  
Branch Manager  
CDBG Public Facilities  
Office of the Governor  
Department for Local Government  
**100 Airport Road 3<sup>rd</sup> Floor**  
Frankfort, KY 40601  
Receptionist: 502-573-2382  
Direct line: 502-892-3469  
Fax: (502) 227-8229  
[jennifer.peters@ky.gov](mailto:jennifer.peters@ky.gov)

## Tracy Wheatley

---

**From:** Frogue, Amy (Pennyrile ADD) <Amy.Frogue@ky.gov>  
**Sent:** Tuesday, November 30, 2021 2:55 PM  
**To:** Mike Jones (jonesy0120@gmail.com); DRAKESBR CITY BUILDING; Tracy Wheatley  
**Subject:** Drakesboro Gas Line Rehab Project - CDBG Grant Agreement

The Department for Local Government has contacted me to help set up a Grant Agreement meeting for the CDBG portion of the funding for the natural gas system rehab project. The meeting will be conducted via zoom. Can you all give me a few dates over the course of the next couple of weeks that will work for you to participate in a meeting?

Thanks.

*Amy Frogue*

Associate Director of Community & Economic Development  
Pennyrile Area Development District  
300 Hammond Drive  
Hopkinsville, KY 42240  
Office: 270-886-9484  
Mobile: 270-839-1360  
[www.peadd.org](http://www.peadd.org)





## CITY OF DRAKESBORO

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P.O. Box 129 • Muse Rager Blvd. • Drakesboro, KY 42337  
270-476-8986

(888)662-2406 (Voice/TTY); (856)577-5762 (Español)

December 29, 2021

Abacus Engineering and Land Surveying, INC  
236 Boggs Lane, Suite 4  
Richmond, KY 40475

The City of Drakesboro is extremely dissatisfied with the lack of communication and assistance provided to it by Abacus Engineering. As we near deadlines for the approval of PSC orders, it is imperative that a good line of communication be accessible and we feel like we do not have that with your firm.

Therefore, the City is terminating our relationship with Abacus Engineering and we will seek to procure engineers that meet our need for communication and availability of records and documentation.

Respectfully,



Mayor, Mike Jones



## **Tracy Wheatley**

---

**From:** Tracy Wheatley  
**Sent:** Monday, January 3, 2022 5:02 PM  
**To:** DRAKESBR CITY BUILDING  
**Subject:** Re: services

Abacus is very happy with your decision, we wish you and whoever you chose to move forward with the best of luck.

Thank you,

Tracy Wheatley

Sent from my iPhone

On Jan 3, 2022, at 4:41 PM, DRAKESBR CITY BUILDING <drakesboro@comcast.net> wrote:

<abacus.pdf>



P.O. Box 1164, Richmond, Kentucky 40476  
236 Boggs Lane, Suite 4

*"Surveys you can count on."*

Abacus Engineering &  
Land Surveying, Inc.  
c/o: Dwayne Wheatley, PE, LS  
236 Boggs Lane, Suite 4  
Richmond, KY 40475

June 11, 2020

Mayor Mike Jones  
P.O. Box 129  
Drakesboro, KY 42337

RE: Drakesboro Gas Line Rehabilitation

Mayor Jones:

Recently Abacus Engineering & Land Surveying, Inc. (hereinafter Abacus) conducted a review of the Drakesboro Gas Distribution System. Abacus has since identified the areas of most concern and can now make a recommendation for Phase I remediation on the portion of said gas main. The gas main along Kentucky Highway 431 (John Prine Avenue) has been found to present the largest threat to the safety of the City of Drakesboro and its citizens. Therefore, we recommend Phase I replacement be considered as beginning immediately south of Gregory's Recycling and proceed northward along Highway 431, crossing Kentucky Highway 176 (Mose Rager Boulevard), and continuing northward to the intersection of Highway 431 and Cornette Street.

Phase I will entail replacement of approximately 5,000 lineal feet of steel gas line with four-inch (4") diameter polyethylene gas line. Of the total distance, 7,800 lineal feet will be replaced between the end points described above. The remaining 2,800 lineal feet of line will be placed westward along Highway 176 (Mose Rager Boulevard) beginning at the intersection of Highway 431 with Highway 176. This will end the gas line replacement and place the tie-in just past the City Limits of Drakesboro.

We have estimated that the work involved for said remediation will involve, but not be limited to, the following materials/actions: a quantity of ten, four-inch tie-ins with valves, 1,000 lineal feet of horizontal directional drilling to cross roadways, a quantity of six two-inch tie-ins with 5,340 lineal feet of line, and finally forty-six service tie-ins split between the long side and short side of the main line. Once the project begins in earnest, we may find that more work is required so all these estimates and the pricing shown below should be considered as preliminary and subject to change at any time during the completion of this project.

**Preliminary Cost Estimate**

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE
1	RECTIFIER	3	EACH	\$44,000.00	\$132,000.00
2	FIELD ASSESSMENT	1	EACH	\$19,800.00	\$19,800.00
3	COMMISSIONING & REPORT	1	EACH	\$13,000.00	\$13,000.00
4	4" DIA. POLYETHYLENE	7,800	LINEAL FEET	\$47.72	\$372,216.00
5	4" DIA. TIE-IN	10	EACH	\$5,388.84	\$53,888.40
6	4" DIA. VALVE	10	EACH	\$643.60	\$6,436.00
7	4" DIA. HORZ. DIR. DRILL	1,000	LINEAL FEET	\$61.07	\$61,070.00
8	2" DIA. MAIN	5,340	LINEAL FEET	\$23.75	\$126,825.00
9	2" TDW TIE-IN	6	EACH	\$3,923.13	\$23,538.75
10	SERVICE LINE (LONG-SIDE)	27	EACH	\$2,408.00	\$65,016.00
11	SERVICE LINE (SHORT-SIDE)	19	EACH	\$1,350.80	\$25,665.20
12	CIVIL ENGINEERING DESIGN	1	EACH	\$45,000	\$45,000.00
13	KY DEPT OF TRANS. PERMITTING	1	EACH	\$10,000	\$10,000.00
14	CONSTRUCTION STAKE-OUT	1	EACH	\$15,500	\$15,500.00
15	CONSTRUCTION INSPECTION	1	EACH	\$30,000	\$30,000.00
				<b>GRAND TOTAL</b>	<b>\$999,955.35</b>

We look forward to working with you and the City of Drakesboro to bring this project to fruition and bring a sense of safety back to your town.

Sincerely, Dwayne Wheatley.



P.O. Box 1164, Richmond, Kentucky 40476  
236 Boggs Lane, Suite 4

*"Surveys you can count on."*

Abacus Engineering &  
Land Surveying, Inc.  
c/o: Dwayne Wheatley, PE, LS  
236 Boggs Lane, Suite 4  
Richmond, KY 40475

June 11, 2020

Mayor Mike Jones  
P.O. Box 129  
Drakesboro, KY 42337

RE: Drakesboro Gas Line Rehabilitation

Mayor Jones:

Recently Abacus Engineering & Land Surveying, Inc. (hereinafter Abacus) conducted a review of the Drakesboro Gas Distribution System. Abacus has since identified the areas of most concern and can now make a recommendation for Phase I remediation on the portion of said gas main. The gas main along Kentucky Highway 431 (John Prine Avenue) has been found to present the largest threat to the safety of the City of Drakesboro and its citizens. Therefore, we recommend Phase I replacement be considered as beginning immediately south of Gregory's Recycling and proceed northward along Highway 431, crossing Kentucky Highway 176 (Mose Rager Boulevard), and continuing northward to the intersection of Highway 431 and Comette Street.

Phase I will entail replacement of approximately 5,000 lineal feet of steel gas line with four-inch (4") diameter polyethylene gas line. Of the total distance, 7,800 lineal feet will be replaced between the end points described above. The remaining 2,800 lineal feet of line will be placed westward along Highway 176 (Mose Rager Boulevard) beginning at the intersection of Highway 431 with Highway 176. This will end the gas line replacement and place the tie-in just past the City Limits of Drakesboro.

We have estimated that the work involved for said remediation will involve, but not be limited to, the following materials/actions: a quantity of ten, four-inch tie-ins with valves, 1,000 lineal feet of horizontal directional drilling to cross roadways, a quantity of six two-inch tie-ins with 5,340 lineal feet of line, and finally forty-six service tie-ins split between the long side and short side of the main line. Once the project begins in earnest, we may find that more work is required so all these estimates and the pricing shown below should be considered as preliminary and subject to change at any time during the completion of this project.

**Preliminary Cost Estimate**

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE
1	RECTIFIER	3	EACH	\$44,000.00	\$132,000.00
2	MATCOR FIELD ASSESSMENT	1	EACH	\$13,800.00	\$13,800.00
3	MATCOR ENGINEERING DESIGN	1	EACH	\$16,500.00	\$16,500.00
4	MATCOR COMMISSIONING & REPORT	1	EACH	\$13,000.00	\$13,000.00
5	4" DIA. POLYETHYLENE	7,800	LINEAL FEET	\$47.72	\$372,216.00
6	4" DIA. TIE-IN	10	EACH	\$5,388.84	\$53,888.40
7	4" DIA. VALVE	10	EACH	\$643.60	\$6,436.00
8	4" DIA. HORZ. DIR. DRILL	1,000	LINEAL FEET	\$61.07	\$61,070.00
9	2" DIA. MAIN	5,340	LINEAL FEET	\$23.75	\$126,825.00
10	2" TDW TIE-IN	6	EACH	\$3,923.13	\$23,538.75
11	SERVICE LINE (LONG-SIDE)	27	EACH	\$2,408.00	\$65,016.00
12	SERVICE LINE (SHORT-SIDE)	19	EACH	\$1,350.80	\$25,665.20
13	CIVIL ENGINEERING DESIGN	1	EACH	\$35,000	\$35,000.00
14	K Y DEPT OF TRANS. PERMITTING	1	EACH	\$10,000	\$10,000.00
15	CONSTRUCTION STAKE-OUT	1	EACH	\$15,000	\$15,000.00
16	CONSTRUCTION INSPECTION	1	EACH	\$30,000	\$30,000.00
				<b>GRAND TOTAL</b>	<b>\$999,955.35</b>

We look forward to working with you and the City of Drakesboro to bring this project to fruition and bring a sense of safety back to your town.

Sincerely, Dwayne Wheatley.

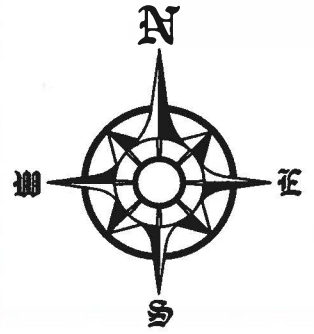
ROAD NAME	LENGTH	SHORT	LONG	TOTAL	\$/FT
FRAZIER STREET	2100	4	4	8	\$23.75
WEST DRAKE STREET	1150	4	3	7	\$23.75
GOOSE HOLLOW STREET	1100	4	4	8	\$23.75
FLANAGAN STREET	550	2	1	3	\$23.75
BUFFALO DRIVE	875	4	4	8	\$23.75
WARFORD STREET	800	2	1	3	\$23.75
SMITH STREET	400	2	0	2	\$23.75
WASHINGTON STREET	750	2	2	4	\$23.75
SIMMONS STREET	1250	6	2	8	\$23.75
MOSE RAGER BOULEVARD (4")	2900	18	15	33	\$47.72
SOUTH MINE STREET	300	3	0	3	\$23.75
MINE STREET	600	1	1	2	\$23.75
TOMMY FLINT AVENUE	650	6	3	9	\$23.75
TOM BRESH AVENUE	700	6	1	7	\$23.75
JONES AVENUE	800	4	3	7	\$23.75
BROAD STREET	3700	21	18	39	\$23.75
KENNEDY JONES AVENUE (LONG SEC.)	1450	4	1	5	\$23.75
KENNEDY JONES AVENUE (SHORT SEC.)	350	1	0	1	\$23.75
CHRISTIAN STREET	1500	13	13	26	\$23.75
GUITAR AVENUE	1050	9	0	9	\$23.75
KEIGAN STREET	650	2	1	3	\$23.75
IKE EVERLY AVENUE	1200	7	0	7	\$23.75
CORNETTE STREET	1650	9	6	15	\$23.75
RICEDALE CIRCLE	1750	7	7	14	\$23.75
STEED AVENUE	350	3	2	5	\$23.75

28575

Existing System

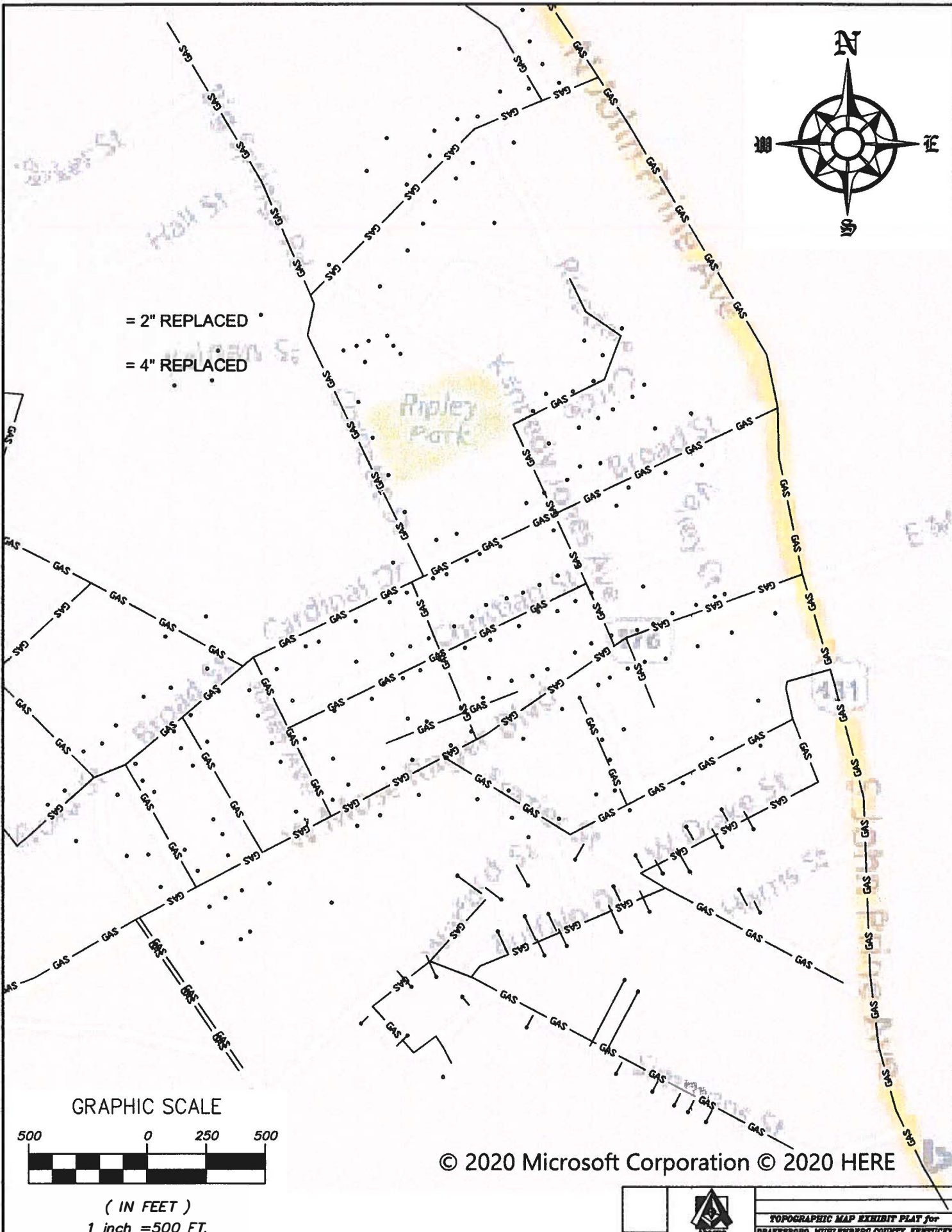
4" Line	6750	47.72	322110
2" Line	30800	23.75	731500
1" Line	5800	23.75	137750
	TOTAL		1191360

\$ / SH	\$ / LONG	SERVICES	LINE	LINE & SERVICE	
\$1,350.80	\$2,408.00	\$15,035.20	\$49,875.00	\$64,910.20	
\$1,350.80	\$2,408.00	\$12,627.20	\$27,312.50	\$39,939.70	
\$1,350.80	\$2,408.00	\$15,035.20	\$26,125.00	\$41,160.20	
\$1,350.80	\$2,408.00	\$5,109.60	\$13,062.50	\$18,172.10	
\$1,350.80	\$2,408.00	\$15,035.20	\$20,781.25	\$35,816.45	
\$1,350.80	\$2,408.00	\$5,109.60	\$19,000.00	\$24,109.60	
\$1,350.80	\$2,408.00	\$2,701.60	\$9,500.00	\$12,201.60	
\$1,350.80	\$2,408.00	\$7,517.60	\$17,812.50	\$25,330.10	
\$1,350.80	\$2,408.00	\$12,920.80	\$29,687.50	\$42,608.30	
\$1,350.80	\$2,408.00	\$60,434.40	\$138,388.00	\$198,822.40	
\$1,350.80	\$2,408.00	\$4,052.40	\$7,125.00	\$11,177.40	
\$1,350.80	\$2,408.00	\$3,758.80	\$14,250.00	\$18,008.80	
\$1,350.80	\$2,408.00	\$15,328.80	\$15,437.50	\$30,766.30	
\$1,350.80	\$2,408.00	\$10,512.80	\$16,625.00	\$27,137.80	
\$1,350.80	\$2,408.00	\$12,627.20	\$19,000.00	\$31,627.20	
\$1,350.80	\$2,408.00	\$71,710.80	\$87,875.00	\$159,585.80	\$369,585.60
\$1,350.80	\$2,408.00	\$7,811.20	\$34,437.50	\$42,248.70	
\$1,350.80	\$2,408.00	\$1,350.80	\$8,312.50	\$9,663.30	
\$1,350.80	\$2,408.00	\$48,864.40	\$35,625.00	\$84,489.40	
\$1,350.80	\$2,408.00	\$12,157.20	\$24,937.50	\$37,094.70	
\$1,350.80	\$2,408.00	\$5,109.60	\$15,437.50	\$20,547.10	
\$1,350.80	\$2,408.00	\$9,455.60	\$28,500.00	\$37,955.60	
\$1,350.80	\$2,408.00	\$26,605.20	\$39,187.50	\$65,792.70	
\$1,350.80	\$2,408.00	\$26,311.60	\$41,562.50	\$67,874.10	
\$1,350.80	\$2,408.00	\$8,868.40	\$8,312.50	\$17,180.90	
TOTALS:		\$416,051.20	\$748,169.25	\$1,164,220.45	

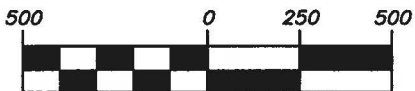


= 2" REPLACED

= 4" REPLACED



GRAPHIC SCALE



( IN FEET )  
1 inch = 500 FT.

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	<b>TOPOGRAPHIC MAP EXHIBIT PLAT for</b>		
	<b>DRAKESBOND, MUELLENBERG COUNTY, KENTUCKY</b>		
Drawn by: JLT	Date of Map: 06/23/2020	Scale: 1" = 500'	Project #: 19-002

# Recommended Minimum Evacuation Distances For Natural Gas Pipeline Leaks and Ruptures

(Not applicable for Butane, Propane, or other Hazardous Liquids)

		Pipeline Size (Inches)											
		4	6	8	10	12	16	20	22	24	30	36	42
Pressure (psig)	100	91	137	182	228	274	365	456	502	547	684	821	958
	200	129	193	258	322	387	516	645	709	774	967	1161	1354
	300	158	237	316	395	474	632	790	869	948	1185	1422	1659
	400	182	274	365	456	547	730	912	1003	1094	1368	1642	1915
	500	204	306	408	510	612	816	1020	1122	1224	1529	1835	2141
	600	223	335	447	558	670	894	1117	1229	1340	1675	2011	2346
	700	241	362	483	603	724	965	1206	1327	1448	1810	2172	2534
	800	258	387	516	645	774	1032	1290	1419	1548	1935	2322	2709
	900	274	410	547	684	821	1094	1368	1505	1642	2052	2462	2873
	1000	288	433	577	721	865	1154	1442	1586	1730	2163	2596	3028
	1100	302	454	605	756	907	1210	1512	1664	1815	2269	2722	3176
	1200	316	474	632	790	948	1264	1580	1738	1896	2369	2843	3317
	1300	329	493	658	822	986	1315	1644	1809	1973	2466	2959	3453
	1400	341	512	682	853	1024	1365	1706	1877	2047	2559	3071	3583
	1500	353	530	706	883	1060	1413	1766	1943	2119	2649	3179	3709
	1600	365	547	730	912	1094	1459	1824	2006	2189	2736	3283	3830
1700	376	564	752	940	1128	1504	1880	2068	2256	2820	3384	3948	
1800	387	580	774	967	1161	1548	1935	2128	2322	2902	3482	4063	
1900	398	596	795	994	1193	1590	1988	2186	2385	2981	3578	4174	
2000	408	612	816	1020	1224	1631	2039	2243	2447	3059	3671	4283	
2100	418	627	836	1045	1254	1672	2090	2299	2508	3134	3761	4388	
2200	428	642	856	1069	1283	1711	2139	2353	2567	3208	3850	4492	

**Table 1 - Evacuation Distance in Feet**

The applicable leak or rupture condition is that of a sustained trench fire fueled by non-toxic natural gas escaping from two full bore pipe ends. Blast overpressure is not addressed. The distances shown in Table 1 are intended to provide protection from burn injury and correspond to a thermal heat flux exposure level of 450 Btu/hr ft<sup>2</sup>. This is the accepted limit of heat exposure for unprotected outdoor areas where people congregate; as established by the US Department of Housing & Development Code 24CFR51, Subpart C, Siting of HUD Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature. The formula used to calculate distance was taken from the Gas Research Institute Report GRI-00/0189, *A Model for Sizing High Consequence Areas Associated with Natural Gas Pipelines*, 2001, prepared by C-FER Technologies. That model does not take into account wind or other factors which may greatly influence specific conditions. Users are advised that the distances shown in Table 1 are considered to be "general information" only and are not intended to replace a site specific risk analysis. The Pipeline Association for Public Awareness makes no warranty with respect to the usefulness of this information and assumes no liability for any and all damages resulting from its use. Anyone using this information does so at their own risk.



# CITY OF DRAKESBORO

P.O. Box 129 • Mose Rager Blvd. • Drakesboro, KY 42337  
270-476-8986  
(888) 662-2406 (Voice/TTY); (866) 557-5762 (Español)

## Responses to 20-020 Questions

**Response to Question #1:** The City of Drakesboro will be renewing their SAMS number next week December 16<sup>th</sup>. We are waiting on help from Melissa Melton who works for RCAP. Melissa helped us set up our SAMS number last year.

**Response to Question #2:** The city officials have considered selling our Gas Distribution System. The issue is that without it, the city would lose its biggest revenue producing system. The city would ultimately go bankrupt without our Gas system.

We have received inquiries from two interested parties to purchase our system. We have relayed to those parties that we will keep them up to date, but currently the city wishes to keep the system for our citizens, our City, and our customers sake.

**Response to Question #3:** The city is not aware of any resources that are available to help customers purchase expensive heating & cooling, cooking, and other appliances at no or very low cost to the customer or to the city.

An estimated 480 customers rely on gas for heat within our distribution system. There are potentially a couple hundred who use gas to power almost all their appliances which include cooking, heating, hot water, dryer, and other appliances.

The Cities position is that it would take months even years to switch all customers to a back-up resource other than natural gas. We feel it may even take longer utilizing the current heating, cooling, and plumbing technicians in this area.

**Response to Question #4:**

**Response to Question #5:**

**Response to Question #6:**

**Response to Question #7:** City Administration and City Council in conjunction with Engineers and Contractors.

**Response to Question #8:** The gas distribution system has problem areas (i.e., corrosion at taps, welded joints, road crossings/conjunctions, unions, etc.) We have inspected uncovered sections in between these areas and have documented steel pipe that is in good condition. With replacement of steel gas lines in certain areas along with fixing our cathodic protection we feel we can utilize our gas system for possibly 50 more years.

**Response to Question #9:**

**Response to Question #10:?**



**Response to Question #11:** As Stated in our earlier responses to these questions. The cities position is that replacing some sections now (i.e., 1% Phase 1) would allow us to relocate our rectifier to a location that would offer more system-wide protection on the entire gas distribution pipeline, while replacing the sections along Hwy 431 and Hwy 176 with new polyethylene pipe; Our major problem areas are weld joints, taps, and steel welded unions. Once the cathodics are working properly the city feels it can continue fixing problem areas and fixing leaks until all phases are realized which will be phasing out most steel, if not all, in the future.

**Response to Question #12:** The city has located and fixed more than 200 leaks on our gas system. For the most part these leaks were found at or on taps, welds, and unions.

Phase 1 of the project relocates our rectifier to a more centralized area within the system and replaces a section of main line in Drakesboro along Hwy 431 and Hwy 176. Once the rectifier is moved and cathodic protection restored to the entire system corrosion leaks will subside and decrease while we strive to replace the steel pipe in our system.

The 60% unaccounted gas loss reported in 2019 was not all gas leaks. We have since determined ½ of that 60% may have been unaccounted for customers and customers who had not been billed. The city has drastically reduced the number of customers receiving “free gas” and has started billing and collecting from all our customers.

**Response to Question #13:** The City repaired over 40 leaks found by outside contractors who conducted leak surveys of our system. We have repaired another 160 or more we have found, whether it was a fizz leak on meters and above ground plumbing (steel) or leaks that were reported and were dug up and fixed, or leaks that were detected by the city’s operators during meter reading or patrolling.

**Response to Question #14:** This part of Phase 1 of the project does not remedy the “approaching obsolescence” of parts of our system. This includes regulators, valves, and other components. The city to -date has found parts for these components but we realize purchasing new regulators, valves, and other components are a part or regular operation and maintenance of the system and we intend to rectify this problem ourselves.

**Response to Question #15:** The city’s position is that we have and are currently working diligently to fix and maintain this system safely and effectively for the city and our customers, we feel this system is safer than it has been in many years. We not only appreciate the dangers of natural gas, but we also know how to fix and grade these leaks for future repairs.

**Response to Question #16:** To- Date the City has not had to pay any fines. The PSC asked for dollar amounts spent to fix and maintain the system and advised that these amounts may be considered instead of fines.

**Attachment A:** The cities position is that no other entity will or can offer our customers the service and commitment we offer our community. These customers are our neighbors, friends and family. Our aim is to not only protect and service them, but to offer our services at the most affordable, reliable, efficient, and safest means we can.

**Response to Question #17:**

**Response to Question #18:** Expenses as of December 9, 2020 \$391,018.35

**Response to Question #19:**

**Response to Question #20:**

**Response to Question #21:** All former employees who were responsible for this horrendous oversight have been fired or have quit and are no longer working with the city or our gas distribution system.

The city has broadcasted all of its council meetings online since the new administration has taken over in January of 2019.

We have utilized a new city website (Drakesboro.org), Facebook, and now offer online bill paying, credit card acceptance and ACH payments to make sure city funds are recorded and processed. We now have a new application process for new customers along with utilization of our software to accurately keep up with payments, customers, accounts, and work orders.

We certainly cannot predict the behavior of any new administration or council, but we have implemented procedures that are accurate, and effective. It is our hope that these procedures are implemented and maintained in the future.

The city has not ruled out the continued use of a 3<sup>rd</sup> party contractor. We feel as long as there is a qualified workforce available, the need for outside contractors will not be necessary.

**Response to Question #22:**

**Response to Question #23:** 34 of the violations have been corrected. The remaining deficiency is our cathodic protection, which we address in Phase 1 of this project.

The city contracted outside entities to do our leak surveys until the PSC is satisfied with our operation and abilities to operate this system on our own.

**Response to Question #24:** The Cities contractors have performed two leak surveys of our entire system since January of 2019. These surveys have identified over 40 leaks that were graded and repaired immediately. We document all repairs extensively and we utilize work order forms which we retain and will retain throughout the life of our system.

At this time, the city feels we are leaps and bounds above the former operators of the system and we believe the continued inspections by the PSC will show this to be true.

## Drakesboro 20-020 questions

1. Page 1 City of Drakesboro must have a Sam number. Please obtain and provide a SAM Number.
2. Page 3 Has the city considered selling the gas system? Are there any potential buyers and have they shown interest? Why does city want / need to maintain ownership? Especially given that per PSC hearing, the system already has a 3<sup>rd</sup> party operator (although currently temporary). Please explain your answer in detail.
3. Are there any federal, state or non-profit resources that could provide financial aid to citizens in switching to propane or electric appliances? How many citizens rely on gas for heating? What is the timeline that residents would have to switch to other sources?
4. Page 4 what is current status of RD funding, rates terms, grant/loan split?
5. Page 5 and 6 cost summary and engineering cost estimate - neither contain a contingencies line item. Please explain.
6. Page 6 Abacus engineering letter. States "...conducted a review of the Drakesboro Gas Distribution System. Abacus has since identified the areas of most concern... now can make recommendation for Phase I ...". Also page 27 question 10 talks about phase I, but no mention of any additional phases or costs. How many Phases does Abacus recommend for correcting the gas system's problem? What is the total estimated cost to correct the whole gas system problems (all phases). Please define CP field assessment, engineering design and commissioning & report (items 1,2 & 3). How does this differ from the civil engineering and others fees listed on the cost summary and estimate?
7. Page 7 project schedule states plan review and approval 30 days. Who reviews and approves plans and specifications? Also, please provide dates and year, or at least month and year for estimated approval.
8. Page 8 maps what is the condition of the other gas lines? Per PSC reply brief page 3 phase 1 would entail replacement of less than 1% of the system's metal piping.
9. Page 14 It appears the copies of the public hearing notices provided are not full copies and do not show all of the required language. Provide a legible cop of the entire ad.
10. Page 14 was a virtual hearing option available to those who did not want to attend in light of the pandemic? If not, why?
11. Page 24 question 1 No gas system improvements since the system was built in 1960. Page 3 states "Since then the City has been able to resolve some of the gas loss issues on their own, but this larger project must be completed in order to avoid additional fines to the city" What has city done to resolve the gas leaks? Please explain in detail. How many feet, if any, has city repaired already?
12. Page 25 question 4 States gas system was at 60% gas loss earlier in 2019, has since been reduced and remains around 10-15 % gas loss by volume. How was this gas loss reduced? Also states this project would reduce the gas loss by approximately 15% to remedy 100% of the gas loss within the Phase I area. The first part talks about system then the second talks about phase I, please explain gas loss for both total system and phase I.
13. Page 25 question 5. States "During the course of the past year, eight (8) separate leaks were repaired and five (5) leaks have been repaired this calendar year." Are these the issues that are talked about on page 3 "...City has been able to resolve some of the gas loss issues on their own...".
14. Page 25 #5 states that the system is "approaching obsolescence" and parts are hard to find. How far does this project remedy those issues, if at all?

15. Page 25 given the danger of natural gas leaks, and this system in particular that has not been maintained, wouldn't the safest solution be for the city to not have natural gas in these lines at all?
16. Page 26 question 7 PSC order of 2/18/19 does not have a final compliance date? Please explain. Did the city have to pay the levied fine?
17. Page 30 what are comparable natural gas rates in this area?
18. Page 32 question 10 States city has expended a great deal of local funds on the system in order to avoid PSC fines. How much money has city spent on the as system to avoid fines?
19. Page 33 #15 states 40% of households in the jurisdiction are served. Does this mean 40% use natural gas from the city? How does this compare to the project benefit household number?
20. Page 3 of the PSC Hearing Reply Brief states Phase I estimated cost of \$509,527.52. While the cost reflected in the CDBG application is \$1,029,955.35. Please explain the cost difference?
21. PSC post hearing reply brief page 2 "Drakesboro acknowledges its violations....were the result of bad acts of "former" employees" Have these employees been dismissed and how will the city ensure this does not happen again? What led to lack of oversight?  
In addition, page 4 states the "Commission concluded that use of a third party operator was the only way the Drakesboro system could be operated with a *minimum* level of safety" please explain what led to this situation and if anything has changed or will change since the writing of the report. Has the city considered retaining a 3<sup>rd</sup> party operator indefinitely? If not, why?
22. PSC post hearing reply brief page 3 states the city's distribution system has over 22 miles of steel mains, and phase 1 would replace less than 1% of this piping. Is there a plan for the 99% of pipe that remains? How is this project effective at reducing the city's problems given these numbers?
23. PSC post hearing reply brief page 5 state Drakesboro should "cease operating the system on or before March 31, 2021" How does this timeline fit into the project schedule? PSC Order – 3 pages of violations – how many of these 35 violations have been remedied? #20 why did the city not conduct patrols of its mains since 2017? Have patrols begun again?
24. PSC order page 4 #35 – since the city failed to keep adequate records, how can effective repairs be done to a system with inadequate records? Does more testing need to be done of the whole system?

## Responses to 20-020 Questions

**Response to Question #1:** The City of Drakesboro is scheduled to renew their SAMS number the week of December 16<sup>th</sup>. RCAP employee Melissa Melton will be assisting the City of Drakesboro with this process as she was the point of contact during the initial set-up last year.

**Response to Question #2:** The City of Drakesboro officials have considered selling the gas distribution system; however, as said system is the city's largest revenue stream the city would ultimately go bankrupt without it. As to third party purchase interest, the city has received inquiries from two separate parties. Lines of communication have been established between the city and these two entities and the city will keep them apprised of our situation. But as it stands, the city wishes to retain the system for the benefit and wellbeing of our citizens and the city itself.

**Response to Question #3:** The City of Drakesboro is currently unaware of any resources available to aid existing gas customers in the purchase of cost prohibitive HVAC, cooking, or other appliances that would result in a zero to net low-cost replacements for the customer or the city. An estimated 480 residents rely on gas for heat within the distribution system. Within that number there are potentially a few hundred who use gas exclusively for all applicable appliances. Were such resources to exist and be readily available it would take several months, if not years, to transition the current customer base from gas to viable alternative resources.

**Response to Question #4:** (Amy, could you help with this one?)

**Response to Question #5:** It is the opinion of the engineer that the only possible contingencies for adverse conditions would be if the trenchwork encountered rock or a conflict with other existing utilities. These scenarios are unlikely; however, the engineer will add a 20% contingency fee to both line items based on the total cost estimate for completion of services.

**Response to Question #6:** Phase I of the project will include all items shown within the "Detailed Engineer's Cost Estimate" and will replace 7,800 lineal feet of 4-inch main and 5,340 lineal feet of 2-inch main. Abacus is unsure as to where the 1% number came from as the previously stated line lengths will replace ALL of the 4-inch main within the city limits and 19.05% of the 2-inch main within the city limits. The additional phases mentioned would include the remaining 80.95% of 2-inch main within the city limits as a priority and subsequently any 4-inch main outside the city limits as funding would allow. At the current rates indicated in the cost estimate, replacement of the remaining 2-inch main lines only would require a commitment of an additional \$600,000 with an unknown quantity of taps (to be determined within the scope of future phases) and service lines. As to the replacement of the remaining 4-inch main lines outside the city limits, an engineering estimate has yet to be conducted as the priority is creating a safe operating environment within the city limits at the current time.

The "CP Field Assessment/Engineering Design/Commissioning & Report" are separate line items that do NOT fall under the standard civil engineering fees given that they are operations performed by a third party unique to the industry. There are a handful of firms that are sufficiently skilled and certified to assess, install, and maintain rectifier systems and as such Abacus recommends utilizing their expertise in

this instance; therefore, their services appear as a separate line item than that of the standard civil engineering fee structure.

**Response to Question #7:** The review will be conducted by the City of Drakesboro Administration and City Council in conjunction with the engineering design firms and contractors involved.

**Response to Question #8:** The entirety of the gas system is in a natural state of decline. While some areas have been found to be still in working condition there are still many more areas where corrosion has destroyed the integrity of the system (i.e. taps, welded joints, road crossings, conjunctions, unions, etc.). Given the numerous instances of compromised gas line a “patchwork” replacement/repair of the gas system is fallible at best, and downright dangerous at worst. The current proposal would recommend replacing 19.05% of the 2-inch mains and 100% of the 4-inch mains within the city limits. We are unsure of the provenance of the 1% number as it is completely invalid. The cathodic protection included within the scope of this project will then serve to protect the remaining 80.95% of 2-inch mains within the system until such time as funding is procured to carry on with future phases.

**Response to Question #9:** (Mayor?)

**Response to Question #10:** (Mayor?)

**Response to Question #11:** As mentioned in the in previous responses, the City of Drakesboro feels that with the replacement of key lines within the Phase I proposal and the relocation of the existing rectifier and possible introduction of additional rectifier(s) would allow for more system wide protection until future phases can be carried out. The repair of the leaks causing system volume loss was simply that, repairs conducted within a narrow scope of area at the point that such a leak was detected and does not imply that large sections of line have been repaired/replaced. The leak repair is a first aid to a system that has an arterial wound inasmuch as it might stop the initial bleeding, but it won't hold for extended periods of time. Cathodic protection will not in and of itself repair the corrosion to the system, it is needed to prevent further degradation until such point as the entire gas system can be replaced with PET line.

**Response to Question #12:** The City of Drakesboro has located and repaired more than 200 individual leaks within the gas distribution system. For the most part these were found to occur near taps, welds, or unions; however, others are occurring within the line itself. Phase I of the project will replace 100% of the 4-inch main lines within the city limits. This is by far the largest threat to infrastructure and human life within the overview of this project. The further replacement of 2-inch main will go toward the areas determined to contain the most corrosion damage and therefore should alleviate all the gas leakage in the areas where the pipe has been replaced. This will not; however, prevent any new leaks nor repair any other leaks within the existing system that have not yet been identified and could still be contributing to the 10-15% losses system wide. Once the rectifiers installation has been completed there should be no FURTHER corrosion within the remaining steel lines; however, any corrosion that has already occurred will still need to be located and repaired in the current manner until such time as funding is procured to replace the remaining steel lines with PET. Furthermore the City of Drakesboro has determined that nearly half of the original 60% of system losses may be customers who were unaccounted for or who had not been billed correctly for gas usage. The city has drastically reduced the number of customers that fall within these categories and will continue to work to completely eliminate this issue from its system.

**Response to Question #13:** The City of Drakesboro repaired over 40 leaks indicated by outside contractors who had conducted a leak survey on our system. The city has repaired another 160 leaks that were located by city personnel that include, but are not limited to: meter leaks, above ground steel plumbing, leaks that were reported by the citizenry, or leaks that were detected during routine meter reading and patrols. These have aided in reducing the amount of gas leaving the system unaccounted for, but Phase I as described would compound this reduction dramatically.

**Response to Question #14:** Phase I only partly remedies the “approaching obsolescence” of the system in that only part of the system is being replaced. The remaining 80.95% of 2-inch main and all the related services lines, meters, regulators, etc. will still be issues to be addressed in future phases or by the city through other means. It is prudent to point out that for the portions of line being replaced within Phase I, there will be no problem with obsolescence as the installation will be completed using contemporary hardware that will be available for the foreseeable future.

**Response to Question #15:** Natural gas lines in and of themselves are not dangerous. The problem lies in the improper maintenance, or lack thereof, that this system has experienced in the decades leading up to this crisis. The city is working diligently to provide a safe and effective system for the city and our residents. Every leak that is repaired and every line that is replaced is one step closer toward the system being completely safe for all involved. The current administration has a better grasp on what is required to maintain such a system and once the repair/replacement is completed will be able to do so without the unsurety of damages from years gone by.

**Response to Question #16:** To-date the City of Drakesboro has not paid any fines. The PSC requested the amount of funding required to repair and maintain the system and has advised that these amounts may be considered in lieu of levied fines. It is the position of the city that no other entity can or will offer the service and commitment to the community that the city does. These customers are the neighbors, friends, and family of the City of Drakesboro Administration and the city’s aim is to not only protect and serve them but to do so in the most affordable, reliable, safest, and efficient means possible.

**Response to Question #17:** (Unknown?)

**Response to Question #18:** As of December 9, 2020, the City of Drakesboro has expended \$391,018.35 in funding on the current gas distribution system.

**Response to Question #19:** (Mayor?)

**Response to Question #20:**

**Response to Question #21:** The City of Drakesboro has either terminated or accepted the resignation of all former employees that were involved, even peripherally, in this horrendous oversight. None of those responsible remain employed with neither the City of Drakesboro nor the gas distribution system branch. All city council meetings have been broadcast online since the advent of the current administration in January of 2019. The new website Drakesboro.org as well as Facebook livestream have been utilized to keep the public apprised of the situation. The city also now offers online bill pay and accepts all major credit cards and ACH payments in efforts to ensure all city funds are recorded and duly processed. There is also an updated application process for new customers along with utilization of utility software to accurately maintain record of payments, customers, accounts, and various work

orders. While the city certainly cannot predict the future behavior of any new administration or council, the procedures implemented will continue to be accurate and effective as long as they are maintained by future administrations. While the city has yet to rule out the continued use of a 3<sup>rd</sup> party contractor it is the consensus that for the duration that a qualified workforce is available within the city system, there will be no need for continued use of said outside contractors.

**Response to Question #22:** As previously stated, we are unsure of the provenance of the 1% number.

**Response to Question #23:** Of the 35 noted violations, 34 have been remedied. The remaining deficiency is the lack of cathodic protection for the remaining portion of the system and the replacement of the lines contained within Phase I. The 3<sup>rd</sup> party contractor mentioned above was secured to provide leak surveys and has done so to the satisfaction of the PSC to the point that it is within the abilities of the city to operate the gas system as sole provider.

**Response to Question #24:** Two leak surveys have been completed upon the entire gas system since January 2019. As previously stated over 40 leaks were identified, graded, and repaired immediately as they were found to be a clear and present danger and detrimental to the overall safety of the community. All repairs conducted under the new administration were documented extensively and work order forms were completed and retained. Henceforth such practices will continue throughout the lifetime of the system. The city feels that condition of the gas system is quite advanced from that of the former system operations and should fall within the rubric laid forth by the PSC to continue to bring the gas system into compliance. Approval of Phase I is crucial in continuing down this track of improvement as the safety and wellbeing of the entire community depends on it.



MOVE OR RELOCATE

RECTIFIER REPLACEMENT - GROUND BEDS

ROAD CROSSINGS

1-2 weeks 50K

REVIEW OF THE EX. GAS SYSTEM

Shots in crossing

$\frac{2}{500} = \frac{218}{4,500}$

Services

TO  
MAYOR

MARVIN ANDERSON

1.5 MOAP

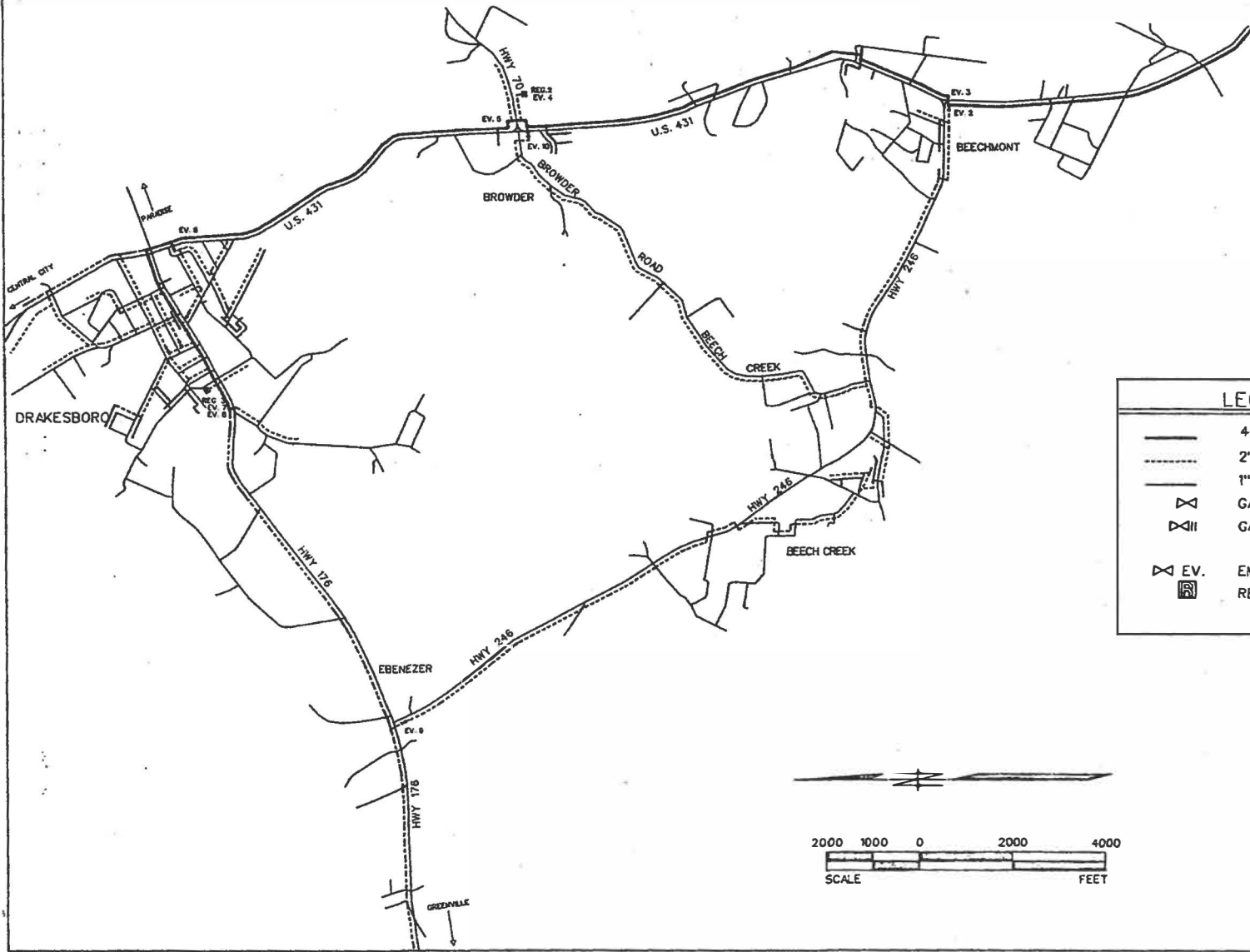
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1	4in poly	5,000.00	lf	\$ 47.72	\$ 238,596.46
2	4in tie in	2.00 x 2	ea	\$ 5,388.84	\$ 10,777.69
3	4in valve	2.00 x 2	ea	\$ 643.60	\$ 1,287.20
4	4in HDD	600.00	lf	\$ 61.07	\$ 36,842.95
5	Service line long side	10.00	ea	\$ 2,408.00	\$ 24,079.99
6	service line short side	10.00	ea	\$ 1,350.80	\$ 13,507.99
7	service line	500.00	lf	\$ 17.03	\$ 8,512.97
8	2in maine	250.00	lf	\$ 23.75	\$ 5,938.40
9	2in tie in TDW	6.00	ea	\$ 3,923.13	\$ 23,538.75
10	UNTITLED	1.00	tn	\$ -	\$ -
11	UNTITLED	1.00	lf	\$ -	\$ -
12	UNTITLED	1.00	ea	\$ -	\$ -
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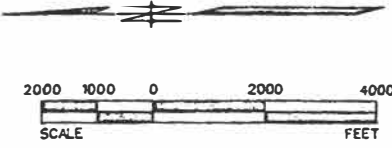
4700 ALONG 431  
 300 ALONG MOSE RIVER  
 19-262

Design 35K  
 Permitting 10K  
 Statement 15K  
 Inspection 3PK  
~~Fielding~~

MAYOR MIKE JONES  
 P.O. BOX 129  
 DRAKESBURG, KY 42337

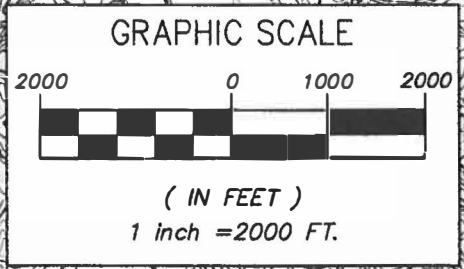
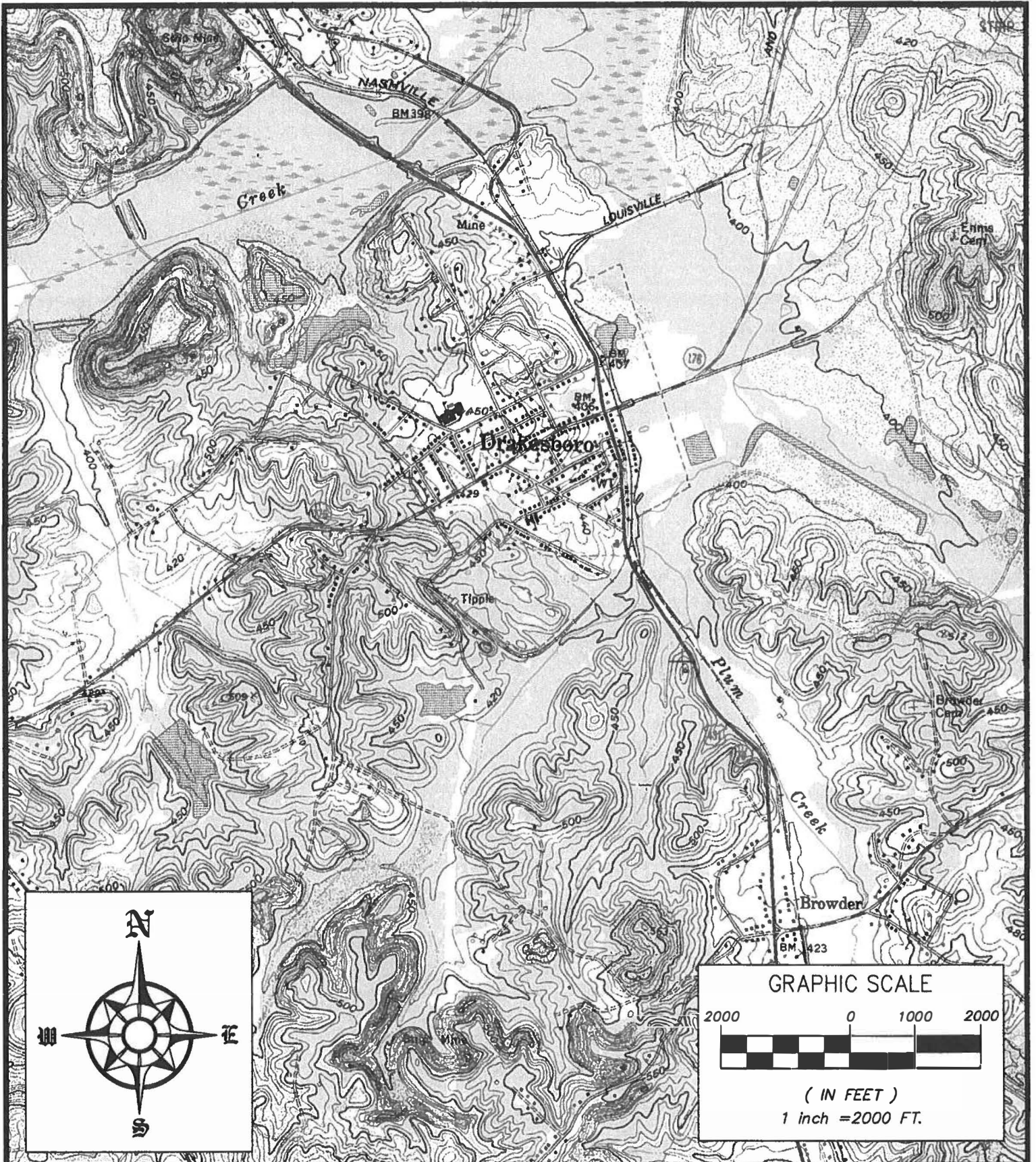


LEGEND	
	4" GAS LINE
	2" GAS LINE
	1" GAS LINE
	GAS VALVE
	GAS VALVE WITH INSULATION
	EV. EMERGENCY VALVE
	REGULATOR



**DRAKESBORO GAS SYS<sup>T</sup>**  
**DISTRIBUTION FACILITIES**

PREPARED BY CARROLL, INC.



**Abacus**

Engineering & Land Surveying  
 236 Boggs Lane Suite 4  
 Richmond, KY 40475 (859) 625-1200

**TOPOGRAPHIC MAP EXHIBIT PLAT for  
 DRAKESBORO, MUHLENBERG COUNTY, KENTUCKY**

Drawn by: RT

Checked by: DW

Date of Plat: 11NOV2019

Scale: 1" = 2000'

Project #: 19-262

**CITY OF DRAKESBORO  
DRAKESBORO NATURAL GAS  
GAS LINE EXTENSION PROJECT**

**DRAKESBORO NATURAL GAS**

Drakesboro, Ky. 42337

270/3476-8986

June 6, 2000

First National Bank  
Central City, Ky. 42330

Attn: Tommy Eades, President

RE: Financing for Gas Line Expansion

Dear Mr. Eades:

The City of Drakesboro has operated a gas utility service since 1967. At present the utility provides gas service to approximately 573 customers and operates over 17 miles of gas line. Expansion is planned for the construction of an additional 8 miles of 4" line proceeding on highway 70 east toward the City of Rochester with an additional 7 miles of 2" line. This initial project will generate approximately 125 new users of the utilities services.

The larger capacity 4" line is being utilized on Highway 70 with the projection of continuing in the near future to make available to the City of Rochester the gas utility. Over 190 potential users have expressed an interest in that lines extension.

The projected costs of the expansion are herein presented. The total costs of installation are projected at \$292,686. The City proposes to contribute \$52,686 of the total costs and is requesting financing in the amount of \$240,000. The City proposes to pledge the revenues from the additional customers, less the cost of the gas purchased for resale, in addition to the City's guarantee of payment to secure the financing. The City is requesting and initial construction costs loan converted to a 10 or 15 year loan term, the City would like to review both periods, with no penalty for prepayment if the City elects to do this.

The projected annual revenues are approximately \$80,000 with a cost of gas purchased for resale being \$40,000 leaving approximately \$40,000 as indicated on the enclosed information allowing cash flows for debt retirement and minimal operations. If the cost of gas being purchased increases, the City will increase their selling price accordingly to maintain approximately a 50% margin until debt from the line is retired.

The operating costs of the new line will be minimal. The line itself is constructed of plastic material which is of course non corrosive. The new line will not require the City to hire any new employees nor incur any additional overhead costs such as insurance.

The City will have absorbed the major costs associated with supplying gas for the City of Rochester in the future. If the City decides to pursue securing those customers then the revenues from having an additional 190 customers will allow for earlier debt retirement.

**CITY OF DRAKESBORO  
DRAKESBORO NATURAL GAS**

Drakesboro, Ky. 42337

270/3476-8986

As you know, the City has enjoyed a close working relationship with your bank for years and has received financing from you in the past. We are looking forward to our continued business transactions and hope you will be in a position to assist us with this project.

Thank you for your consideration.

A handwritten signature in cursive script, appearing to read "Richard Neathamer".

Richard Neathamer, Mayor  
City of Drakesboro

**DRAKESBORO NATURAL GAS**

Drakesboro, Ky. 42337

270/476-8986

Projected Cash Revenues Generated Verses Cash Outlay Annually

Residential customers 125 @ \$640 per year average gas customer usage based on current line per customer average.	\$80,000
Less: Cost of gas purchased for resale	(40,000)
Less: Funds available for debt retirement	(30,000)
Operations & repairs	<u>( 5,000)</u>
Net Cash Generated from Operations	<u>5,000</u>

\*The gas line is constructed of plastic pipe which is virtually maintenance free as it is non-corrosive. The City does not need additional employees to operate the extension of this line.



**CITY OF DRAKESBORO  
DRAKESBORO NATURAL GAS**

Drakesboro, Ky. 42337

270/476-8986

ESTIMATED GAS LINE EXTENSION COSTS

Equipment & Supplies:

			<u>Price Per</u>	<u>Price</u>
4" plastic pipe	8 miles	42,240 Ft.	1.44 Ft.	\$60,826
2" plastic pipe	7 miles	36,960 Ft.	.45 Ft.	16,632
Tracer wire		79,200 Ft.	.34 Ft.	2,693
Gas regulator station				2,500
Fencing & rock around station				1,000
Residential meters	125		20 Ea.	2,500
Valves & connections				<u>2,500</u>
Total Equipment & Supplies				<u>88,651</u>

Contractor & Labor:

Additional incidental manpower				
2 men 6 months				6,720
Ditching, back filling & laying 4" line			2.90 Ft.	122,496
Ditching, back filling & laying 2" line			2.00 Ft.	<u>73,920</u>
Total Contractor and Labor Costs				<u>203,136</u>

Total Construction Costs \$292,686

① ≈ 7 crossings along HWY 431

② 22/2 LF. JONES AVE → ~~MAIN~~ PRINE  
along Mose Roger BLVD HWY 431

Vally Lane valve  
Kennedy Jones " "  
Flanagan & Gutter " "  
Ike Leberly  
Gutter Frazer  
Jones

change  
from 4"  
steel to  
4" poly

③ 4 valves

875 more feet to Moro St. from Jones

2452 JONES BROAD → PRINE

Jones to Broad 780

5,000 FT PIPE

To crossings	8K each	56K	
rectifier	100K		
4" poly valve	600	516	
5000 LF 4"	35	= 175,000	
			<u>336K</u>

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Drakesboro, Ky. 42337

270 3476-8986

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Richard Neathamer, Mayor  
City of Drakesboro

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**CITY OF DRAKESBORO  
DRAKESBORO NATURAL GAS**

Drakesboro, Ky. 42337

270/476-8986

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Total Construction Costs

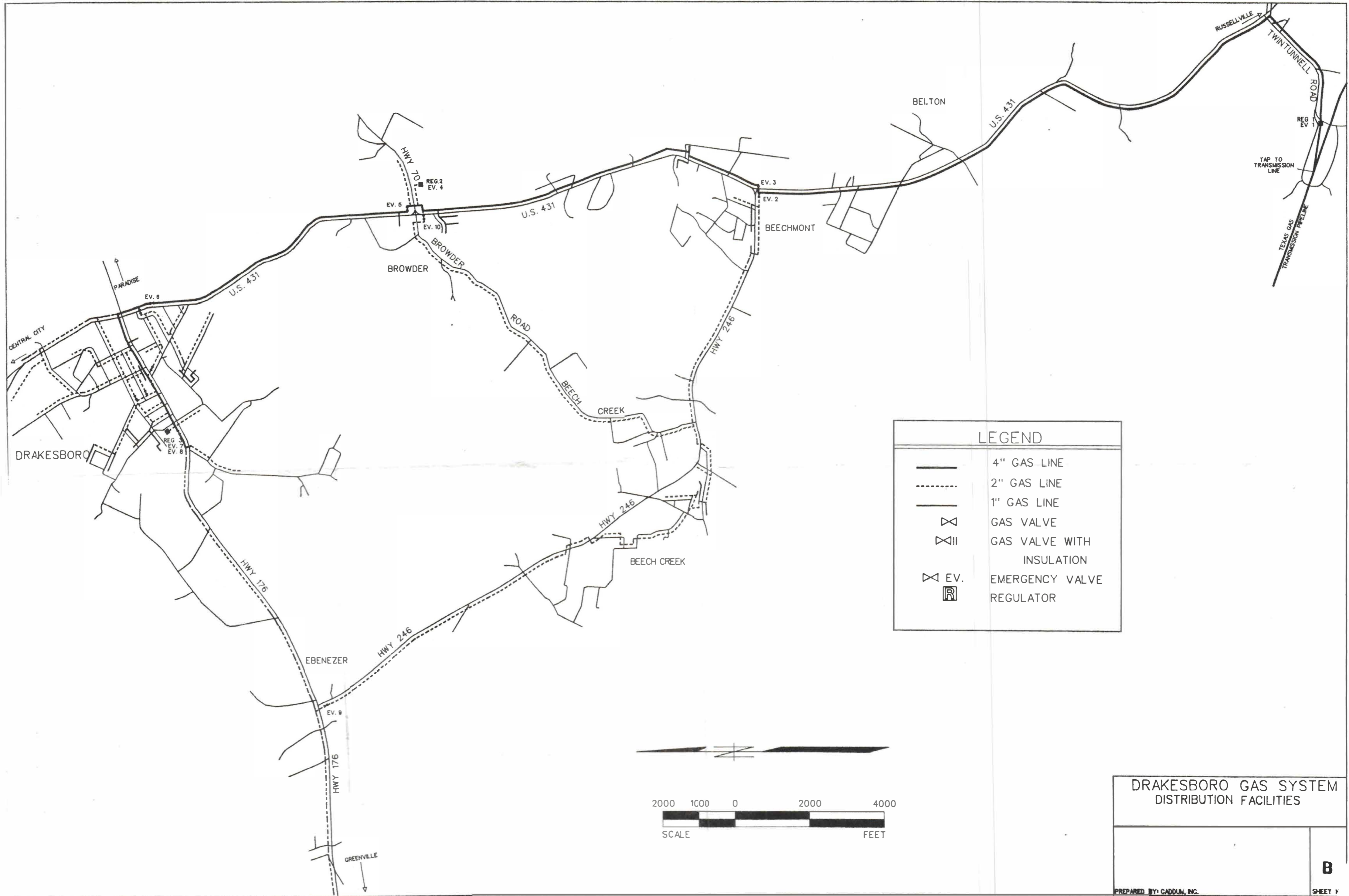
\$292,686



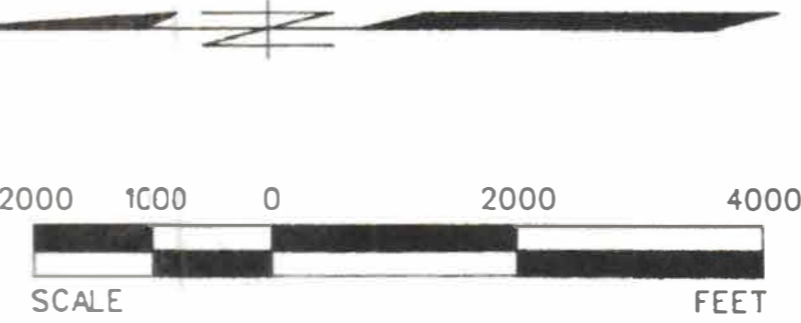
Andrews  
 phone - (270)860-0419  
 Road crossings - Reviewd street DWS  
 OPSINE WVR 15E  
 NEW ROAD  
 Christian St most likely 2' steel  
 poles 4'  
 no valves @ 4'  
 Sanitation needs insurances

cut down power & regulator  
 geto plastic  
 May 70 all plastic  
 need creating dirt paper  
 150' 4' steel per crossing  
 Page 4

Google



LEGEND	
	4" GAS LINE
	2" GAS LINE
	1" GAS LINE
	GAS VALVE
	GAS VALVE WITH INSULATION
	EV. EMERGENCY VALVE
	REGULATOR



**DRAKESBORO GAS SYSTEM  
DISTRIBUTION FACILITIES**

PREPARED BY: CADDUM, INC.

**B**

SHEET 1