



November 7, 2014

RECEIVED

NOV 14 2014

PUBLIC SERVICE
COMMISSION

Mr. Jeff R. Derouen, Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, Kentucky

Case No. 2014-00397

In Re: The Application of Thacker-Grigsby Company for a Certificate of Convenience and Necessity for the Construction of Fiber Optic Cable and Next Generation Soft Switch

Dear Mr. Derouen:

Pursuant to KRS 278-020 and 807 KAR 5:001, sections 14 and 15, Thacker- Grigsby Telephone Company, requests authority to construct and upgrade telecommunications facilities in its certified territory. Enclosed are an original and ten (10) copies of Thacker-Grigsby's Application for construction of new facilities in exchanges in Knott County, Kentucky.

After the Application has been processed, Thacker-Grigsby personnel will be available to meet with members of the Commission's staff. To the extent possible, Thacker-Grigsby would like to request that the Commission expedite this Application. The Rural Utility Service requires that the loan agreement be completed and returned within 120 days following the receipt of its September 25, 2014 letter.

In the event there are other filing requirements or information requests associated with the Application, please advise me at your earliest convenience.

Respectively Submitted,

William K. Grigsby

VP/General Manager

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

NOV 14 2014

PUBLIC SERVICE
COMMISSION

In the Matter of:

THE APPLICATION OF THACKER-GRIGSBY)
COMPANY FOR A CERTIFICATE OF PUBLIC) Case No. 2014-00397
CONVENIENCE AND NECESSITY FOR THE)
CONSTRUCTION OF FIBER OPTIC CABLE AND)
NEXT GENERATION SOFT SWITCH)

**APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND
NECESSITY FOR CONSTRUCTION OF FIBER OPTIC CABLE AND
NEXT GENERATION SOFT SWITCH**

Thacker-Grigsby Telephone Company Inc. (Thacker-Grigsby) pursuant to KRS278.020 and 807 KAR 5:001: Sections 14(1) and Section 15 submits this application for a certificate of convenience and necessity for the purpose of upgrading and improving Thacker-Grigsby's telecommunications network. Fiber-to-the-premises (FTTP) using Gigabit Passive Optical Network (GPON) architecture will be deployed in the Topmost exchange and a portion of the Hindman exchange. In addition, Thacker-Grigsby also plans to deploy a next generation softswitch to replace and upgrade its current switch. The plant upgrade requested in this application will provide Thacker-Grigsby with a state of the art network capable of delivering advance communication now and in the future to its customers.

1. Pursuant to 807 KAR 5:001 Section 14(1) the applicant's full name, address, electronic address, telephone number are as follows:

Thacker-Grigsby Telephone Company, Inc.
P.O. Box 789
Hindman, Kentucky 41822.
Mr. William K.Grigsby, General Manager
Telephone Number: 606-785-9500
e-mail address: b.grigsby@tgtel.com

2. Pursuant to 807 KAR 5:001 Section 14(2) a copy of Thacker-Grigsby's Articles of Incorporation is attached as Exhibit A.

3. Pursuant to 807 KAR 5:001 Section 15(2)(d)1, two copies of the required of maps along with one copy of the maps on a portable electronic storage medium which shows the proposed route for fiber deployment in the affected exchanges is attached as Exhibit B.
4. Pursuant to 807 KAR 5:001 Section 15(2) (a)(b) Thacker-Grigsby states that it does not require a franchise approval from any public authority to construct in the proposed area.
5. In compliance with 807 KAR 5:001 Section 15(2)(c) Thacker-Grigsby has attached the Loan Design prepared by Finley Engineering as Exhibit C. This document provides a full description of the construction including routes, locations, relevant diagrams, and the manner in which the plant will be constructed.
6. In compliance with 807 KAR 5:001 Section 15(2) Thacker-Grigsby's Exhibit C also provides a complete description of the cost of the proposed construction and how it will be financed. The cost of construction of the FTTP and softswitch will be approximately \$9,595,000 for the five year loan period.
7. RUS has reviewed, analyzed, and approved the Loan Design K and outside plant layout, subject to the approval of the Kentucky Public Service Commission. Thacker-Grigsby has attached as Exhibit D the RUS letter approving the loan and stating the amount of loan.
8. Pursuant to 807 KAR 5:001 Section 15(2)(f) was unable to get an estimated cost of operations after the proposed facilities are completed. After construction, Thacker-Grigsby will be able to operate the upgraded system at the current operating cost or less. Thacker-Grigsby will not require a rate adjustment to meet its obligation in servicing this debt.
9. Pursuant to 807 KAR 5:001 Section 15 (2) (a) Thacker-Grigsby relies on the following circumstances to support its decision to upgrade the network throughout the Topmost exchange as well as the Central Office and Dawson Branch serving areas of the Hindman exchange.

During the period from 2003 to 2013 Thacker-Grigsby has suffered a significant decrease in access lines. The residential access-line base shrank from 6,861 in 2003 to 4,625 in 2013. Similarly, the business access line base shrank from 1,364 in 2003 to 1,154 in 2013. A large percentage of this access line loss can be attributed to customers switching to Digital Subscriber Line (DSL) from dial-up internet and the

canceling of their second access line. In addition, a number of customers removed their land-line service and opted to use cellular as a substitute service.

Thacker-Grigsby's service area is located in a very rural part of southeastern Kentucky. Knott County, which contains the majority of Thacker-Grigsby's exchanges, is classified as "distressed" by the Appalachian Regional Commission. The deployment of FTTP will permit Thacker-Grigsby to offer advanced telecommunication services to retain current and attract new subscribers.

The State Telecommunications Modernization Plan recognizes that the deployment of advanced technologies such as fiber optics and related technologies as essential to economic development. It is this type of technology that will bring medical services, educational services, and numerous other economic opportunities to the customers of Thacker-Grigsby. Therefore, the construction of FTTP and soft switch telecommunications upgrade are required for public convenience and necessity.

Based on the foregoing discussion, and in accordance with KRS 278.020 and 807 KAR 5.001, sections 14 and 15. Thacker-Grigsby respectfully requests that Kentucky Public Commission grant a Certificate of Public Convenience and Necessity to deploy a FTTP network and a softswitch in the Topmost and Hindman exchanges in Knott County.

Respectively Submitted,



William K. Grigsby

VP/General Manager

56

ARTICLES OF INCORPORATION
OF

THACKER-GRIGSBY TELEPHONE COMPANY, INCORPORATED.

RECEIVED
OCT 24 1956
TELEPHONE OPERATIONS
& LOANS DIVISION

Know all men by these presents:

That we, Robert Thacker, Leburn, Knott County, Kentucky, Janice Grigsby, Leburn, Kentucky, and Junealla Thacker, Leburn, Kentucky, do associate to form a corporation under the laws of the State of Kentucky,

Article I. The corporation hereby proposed to be organized shall be named and known as Thacker-Grigsby Telephone Company, Incorporated, by which name it may contract and be contracted with, sue and be sued, adopt a corporate seal and do its business.

Article II. The principal office and place of business of said Corporation shall be in the Town of Hindman, Knott County, Kentucky.

Article III. The nature of the business proposed to be transacted, promoted, and carried on by this corporation shall be constructing, maintaining, promoting, and owning telephones, telephone lines, and telephone equipment and appliances, and carrying on and operating a telephone line and lines in Knott County, Kentucky, and other counties in the State of Kentucky; also purchasing and owning of rights of way for telephone lines and other real estate necessary for use in its business for offices, plants, and other purposes in carrying on said business; also purchasing, owning, and selling of telephones, telephone equipment and appliances, plants, machinery, and equipment; also with the right and power to do any and all things necessary in carrying on its said business of furnishing telephone service over its lines in Knott County, Kentucky, and adjoining counties, and to obtain and own franchises and certificates of necessity for constructing, maintaining, and operating telephone lines and furnishing telephone service; also with the full right and power to own, buy, sell, lease, or mortgage any of its said property or equipment, and with the right and power to borrow money and mortgage its said property as security therefor.

The corporation shall further have power to make contracts and to do any and all things usually done by similar corporations engaged in a similar business, and any and all things necessary in carrying on its business of furnishing telephone service.

Article IV. The capital stock of the corporation shall be Thirty Thousand (\$30,000.00) Dollars, which shall be divided into 300 shares of the par value of \$100.00 each.

Article V. The names, places of residence, and number of shares of stock subscribed by each stockholder are as follows:

Janice Grigsby, Leburn, Kentucky 150 shares.

Robert Thacker, Leburn, Kentucky 140 shares.

Junella Thacker, Leburn, Kentucky 10 shares.

Article VI. The corporation shall commence business as soon as practicable after these articles of incorporation are filed in the office of the Secretary of State of Kentucky and in the Knott County Court Clerk's Office, and after fifty per cent of the capital stock of this company has been in good faith subscribed, and such subscription certified to the Secretary of State of Kentucky.

The corporation shall continue for ninety nine years unless sooner dissolved by a vote of at least two-thirds of the capital stock issued.

Article VI. The affairs and business of the corporation shall be conducted by three directors, one of whom shall be elected president of the board, and another vice-president. The president of the Board shall be the chief executive officer of the company.

The first board of directors shall be elected by the stockholders by ballot at such time and place as a majority of the stockholders may determine, and thereafter an election of directors shall be held at the company's Office in Hindman, Kentucky, at the annual meeting of the stockholders which shall be on the first Monday in February of each year.

Changed to " " " " April 11/1965

The board of directors shall at their first meeting elect one of their number president, and another vice-president. They shall also

elect a secretary-treasurer of the company, who shall hold office for one year, unless removed by a majority of the directors. A majority of the directors shall have power to remove the secretary-treasurer at any time.

The board of directors shall have power to make all such by-laws and rules to regulate the business of the company as will not be inconsistent with these articles of incorporation, the laws of the State of Kentucky, and of the United States of America.

Article VIII. The process agent for the company upon whom process for the company may be served shall be Robert Thacker, Leburn, Kentucky.

Article IX. The highest amount of indebtedness which the corporation may incur at any one time shall be Two Hundred and Fifty Thousand (\$250,000.00) Dollars.

Article X. The private property of the stockholders shall not be subject to the payment of the debts of the corporation.

IN TESTIMONY WHEREOF, witness the signatures of the incorporators hereof, this the 5th day of May, 1956.

Robert C. Thacker
Janice Briggsby
Genevra Thacker

STATE OF KENTUCKY
COUNTY OF KNOTT

NOTARY PUBLIC

NOTARY PUBLIC

The undersigned, Leroy Sturdivant, a Notary Public in and for the county and state aforesaid, hereby certifies that the foregoing articles of incorporation of Thacker-Briggsby Telephone Company, Incorporated, was on the 5th day of May, 1956, produced to me in my said county and state by Robert Thacker, Janice Briggsby, and Genevra Thacker, and signed in my presence by each of them and acknowledged by them and each of them to be their free act and deed.

My Commission expires the 5 day of May, 1956.

Given under my hand, this the 5th day of May, 1956.

Leroy Sturdivant
Notary Public, Knott County, Kent

STATE OF KENTUCKY
COUNTY OF KNOTT /SCT.

I, Roy Mullins, Clerk of the County Court for the County and State aforesaid, do certify that the foregoing instrument of writing was on the 14 day of May, 1956, lodged in my office for record whereupon the same with the foregoing and this certificate have been duly recorded in my office.

Given under my hand this 14 day of May, 1956.

Roy Mullins, Clerk

By Betty Mullins D.C.

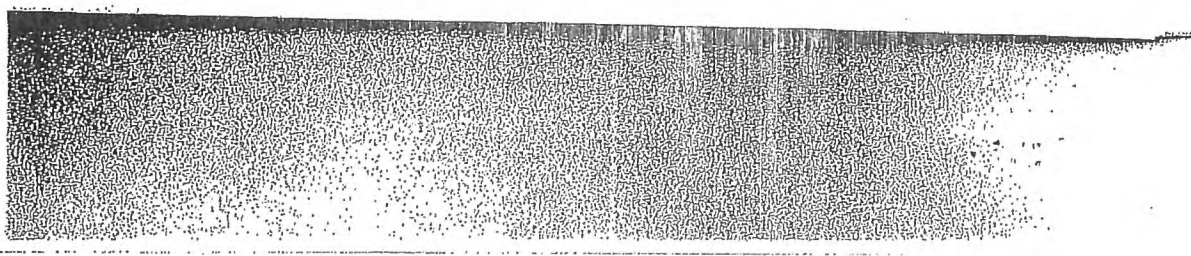
*Recorded in Deed Book 80
at page 291*

~~SECRETARY OF STATE OF KENTUCKY
FRANKFORT, KENTUCKY
CHIEF CLERK~~

James J. Stewart

MAY 7 1956

FILED AND RECORDED
ORIGINAL COPY



Commonwealth of Kentucky

Department of State



Office of Secretary of State

THELMA L. STOVALL, SECRETARY

ARTICLES OF AMENDMENT

I, THELMA L. STOVALL, Secretary of State of the Commonwealth of Kentucky, do hereby certify that Articles of Incorporation of

THACKER-GRIGSBY TELEPHONE COMPANY, INCORPORATED

Hindman, Kentucky

have been amended pursuant to Articles of Amendment, duly signed and acknowledged according to law, this day filed in my office by said corporation, and that all taxes, fees and charges payable upon the filing of said Articles of Amendment have been paid.

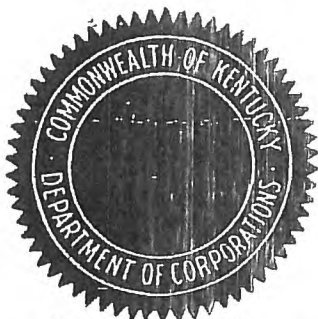
Witness my official signature this 15th day

of March, 1965

Thelma L. Stovall

Secretary of State

Assistant Secretary of State



SECRETARY OF STATE

Secretary

RECORDED

MAR 15 1965

Thelma L. Stovall
SECRETARY OF STATE OF KENTUCKY
Assistant Secretary of State

STOCKHOLDERS MEETING OF
THACKER-GRIGSBY TELEPHONE COMPANY, INCORPORATED.
FEBRUARY 1, 1965.

The stockholders of Thacker-Grigsby Telephone Company, Inc. met at its office in Hindman, Knott County, Kentucky, on February 1, 1965, being the regular annual meeting place and date, pursuant to notice to the stockholders as required by law, and there was present Robert Thacker, Janice Grigsby, Junella Thacker, Dennis Cornett, and Neera Cornett, they being the owners of a majority of the capital stock of the corporation, Robert Thacker, President, presiding, and there being a quorum present the meeting was called to order by the president and the following business was transacted.

A motion was made by Janice Grigsby and seconded by Junella Thacker that Article IV of the articles of incorporation of Thacker-Grigsby Telephone Company, Inc. as amended by amendment dated May 3, 1957, be amended so that as amended said article shall read as follows:

The capital stock of the corporation shall be Five Hundred Thousand (\$500,000.00) Dollars, and of this amount Four Hundred and Ninety Thousand (\$490,000.00) Dollars shall be divided into 4900 shares of Common stock with a par value of \$100.00 each and shall have full voting rights and privileges. The remaining Ten (\$10,000.00) Dollars of the capital stock shall be divided into 50, five per cent cumulative preferred shares with a par value of \$100.00 each and 200 five per cent cumulative preferred shares with a par value of \$25.00 each. The preferred shares shall have no voting rights or privileges, shall be non-participating, and may at the option of the corporation be redeemed by the corporation on any anniversary of the preferred stock certificates.

Also that the second literary paragraph of Article VII of the articles of incorporation of Thacker-Grigsby Telephone Company, Inc. be amended so that as amended it shall read as follows:

The first Board of Directors shall be elected by the stockholders by ballot at such time and place as a majority of the stockholders shall determine, and thereafter an election of directors shall be held at the company's office in Hindman, Kentucky at the annual meeting of the stockholders which shall be on the first Monday in April of each year.

The vote being called upon the motion resulted as follows:

Janice Grigsby for it

Junella Thacker for it

Dennis Cornett for it

Neera Cornett for it

Robert Thacker for it

The holders and owners of a majority of the stock of the corporation having voted for the motion, it was declared carried, and ordered that the articles of incorporation be amended accordingly.

Robert C. Thacker

President, Thacker-Grigsby Telephone Company.

Attest:

Janice Grigsby
Secretary.

ORIGINAL COPY
FILED AND RECORDED

MAR 15 1965

Helena L. Stange
SECRETARY OF STATE OF KENTUCKY
FRANKFORT, KENTUCKY
DEPUTY SECRETARY OF STATE

AMENDMENT TO THE ARTICLES OF INCORPORATION
OF
THACKER-GRIGSBY TELEPHONE COMPANY, INCORPORATED.

At the regular annual meeting of the stockholders of Thacker-Grigsby Telephone Company, Incorporated, held at its office in Hindman, Kentucky, on the first Monday in February, 1965, which was February 1, 1965, pursuant to notice to all the stockholders of said corporation as required by law, a quorum being present, a resolution of the corporation was adopted by vote of a majority of all the voting stock of the corporation, a copy of which is attached hereto and made a part hereof as much as if set out herein in full, and marked "A" for identity, authorizing and directing that Article IV of the Articles of Incorporation of Thacker-Grigsby Telephone Company, Inc. as amended by resolution and amendment, dated May 3, 1957, and pursuant to said resolution the Articles of Incorporation of Thacker-Grigsby Telephone Company, Inc. are hereby amended as follows:

I. Article IV of the Articles of Incorporation of Thacker-Grigsby Telephone Company, Inc. as amended by amendment dated May 3, 1957, is hereby amended so that as amended said article shall read as follows:

The capital stock of the corporation shall be Five Hundred (\$500,000.00) Dollars, and of this amount Four Hundred and Ninety (\$490,000.00) Dollars shall be divided into 4,900 shares of common stock, with a par value of One Hundred (\$100.00) Dollars each and shall have full voting rights and privileges. The remaining Ten Thousand (\$10,000.00) Dollars of the capital stock shall be divided into 150 five per cent cumulative preferred shares with a par value of \$100.00 each, and 200 five per cent cumulative preferred shares with a par value of \$25.00 each. The preferred shares shall have no voting rights or voting privileges, shall be non-participating, and may at the option of the corporation be redeemed by the corporation at any anniversary of the preferred stock certificates.

2. The second literary paragraph of Article VII of the Articles of Incorporation of Thacker-Grigsby Telephone Company, Inc. is hereby amended so that as amended said paragraph shall read as follows:

The first Board of Directors shall be elected by the stockholders by ballot at such time and place as a majority of the stockholders shall determine, and thereafter an election of directors shall be held at the Company's Office in Hindman, Kentucky, at the annual meeting of the stockholders which shall be on the first Monday in April of each year.

IN TESTIMONY WHEREOF, witness the signatures of Thacker-Grigsby Telephone Company by Robert Thacker, President, and Robert Thacker, President of said corporation, and Janice Grigsby, Secretary, this Feb. 22, 1965.

Thacker-Grigsby Telephone Company, Inc.
By Robert C. Thacker President.

ATTEST:

Janice Grigsby
Secretary.

STATE OF KENTUCKY {
COUNTY OF KNOTT { SGT.

The undersigned, Franklin D. Adams, a Notary Public in and for Knott County, Kentucky, hereby declares that the foregoing amendment to the articles of incorporation of Thacker-Grigsby Telephone Company, Inc, was on the 22 day of Feb, 1965, produced to me in my said County and State by Robert Thacker, President of Thacker-Grigsby Telephone Company, and Janice Grigsby, secretary of said corporation, and signed by them and each of them in my presence and acknowledged by them to be their free act and deed as president and secretary of said corporation, and to be the act and deed of said corporation.

My Commission expires the 28 day of Sept, 1968.

Given under my hand, this the 23 day of Feb, 1965.

Franklin D. Adams
Notary Public in Knott County, Kentucky.



LOAN APPLICATION

THACKER-GRIGSBY TELEPHONE COMPANY, INC.

RUS KENTUCKY 536 K

TG-13029

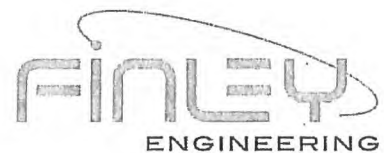
JUNE 2014

FINLEY ENGINEERING COMPANY

Telecommunications Planning, Design & Engineering

1500 Bull Lea Road, Suite 194 • Lexington, Kentucky 40511

Telephone 859.231.9831 • Fax 859.233.0046 • Web www.FECeng.com



FINLEY COPY

EXHIBIT C



June 24, 2014

Shawn Arner, Director
Telecom HQ – Southern Division
USDA
Room 2808 S. Agriculture Bldg., STOP 1597
1400 Independence Ave., SW
Washington, DC 20250-1597

Subject: KY 536 – Thacker-Grigsby Telephone Company, Inc.
“K” Loan Application

We are enclosing one (1) original and (1) copy of our “K” Loan application including the loan design and environmental report for your review and approval. This application is for the purpose of expanding service offerings to include higher bandwidth access in the service area. Higher bandwidths are planned to be achieved through a fiber-to-the-premise design which includes upgrading switching, access, transmission, and outside plant facilities to utilize Internet Protocol (IP) technology.

The estimated uses of loan funds are as follows:

Outside Plant	\$6,295,357
CO and Electronic Equipment	\$2,040,621
Engineering	<u>\$1,259,071</u>
TOTAL LOAN AMOUNT	\$9,595,049

We request an RUS Cost of Money loan with a loan maturity as specified on the Form 490. The DUNS # for Thacker-Grigsby Telephone Company is 009851999

If you have any questions regarding this loan application, please do not hesitate to contact us. For Loan Design specific questions, feel free to contact directly Brian Burch with Finley Engineering Company, Inc. at 859-231-9831.

Sincerely,

Bill Grigsby
VP/General Manager
THACKER-GRIGSBY TELEPHONE COMPANY

Enclosures

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0079. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

U.S. Department of Agriculture
Rural Utilities Service

**APPLICATION FOR TELECOMMUNICATIONS
LOAN OR LOAN GUARANTEE**

INSTRUCTIONS - Prepare two copies of this form. For further information, see 7 CFR 1735 and 7 CFR 1737.

<p>1. NAME AND ADDRESS OF BORROWER (Street, City, State, Zip Code)</p> <p>Thacker-Grigsby Telephone Company, Inc. 60 Communications Lane Hindman, Kentucky 41822</p>	<p>2. TYPE OF ORGANIZATION (Check one)</p> <p>a. <input checked="" type="checkbox"/> COMMERCIAL CORPORATION</p> <p>b. <input type="checkbox"/> COOPERATIVE OR MUTUAL</p> <p>c. <input type="checkbox"/> PUBLIC BODY</p>
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<p>3. INDICATE THE LOAN MATURITY BEING REQUESTED (Check one)</p> <p>a. <input type="checkbox"/> _____ YEARS (Maximum of 35).</p> <p>b. <input checked="" type="checkbox"/> COMPOSITE ECONOMIC LIFE OF FACILITIES FINANCED PLUS 3 YEARS.</p>	<p>4. AMOUNT OF LOAN APPLIED FOR:</p> <p>\$9,595,049.00</p>
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<p>5. NUMBER OF EXCHANGES:</p> <table border="1"> <tr> <td>a. IN EXISTING SYSTEM</td> <td>6</td> </tr> <tr> <td>b. TO BE FINANCED BY THIS LOAN</td> <td>3</td> </tr> </table>	a. IN EXISTING SYSTEM	6	b. TO BE FINANCED BY THIS LOAN	3	<p>6. NUMBER OF SUBSCRIBERS:</p> <table border="1"> <tr> <td>a. IN EXISTING SYSTEM</td> <td>5,779</td> </tr> <tr> <td>b. TO BE ADDED DURING FORECAST PERIOD ...</td> <td>(914)</td> </tr> </table>	a. IN EXISTING SYSTEM	5,779	b. TO BE ADDED DURING FORECAST PERIOD ...	(914)
a. IN EXISTING SYSTEM	6								
b. TO BE FINANCED BY THIS LOAN	3								
a. IN EXISTING SYSTEM	5,779								
b. TO BE ADDED DURING FORECAST PERIOD ...	(914)								

7. PURPOSE OF LOAN (Explain the purposes for which loan funds are intended and state the amount required for each purpose.)

The purpose of this loan will be to continue to upgrade Thacker-Grigsby's switching, access, transmission, and outside plant facilities to utilize Internet Protocol (IP) technology and expand service offerings.

Outside Plant	\$ 6,295,357
Central Office and Electronic Equipment	\$ 2,040,621
Engineering	\$ 1,259,071
Total	\$ 9,595,049

FEDERAL DEBT DELINQUENCY CERTIFICATION

8. IS THE BORROWER DELINQUENT ON ANY FEDERAL DEBT? (Check one) NO YES (If Yes, provide explanatory information below.)

NOTE: Examples of debts include, but are not limited to, delinquent taxes, guaranteed or direct government loans (more than 31 days past due), and other administrative debts.

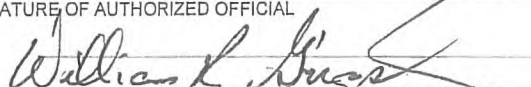
**APPLICANT CERTIFICATION
FEDERAL COLLECTION POLICIES FOR COMMERCIAL DEBT**

The Federal Government is authorized by law to take any or all of the following actions in the event that a borrower's loan payments become delinquent or the borrower defaults on its loan: (1) Report the borrower's delinquent account to a credit bureau; (2) Assess additional interest and penalty charges for the period of time that payment is not made; (3) Assess charges to cover additional administrative costs incurred by the Government to service the borrower's account; (4) Offset amounts owed to the borrower under other Federal programs; (5) Refer the borrower's debt to the Internal Revenue Service for offset against any amount owed to the borrower as an income tax refund; (6) Refer the borrower's account to a private collection agency to collect the amount due; and (7) Refer the borrower's account to the Department of Justice for litigation in the courts.

All of these actions can and will be used to recover any debts owed when it is determined to be in the interest of the Government to do so.

CERTIFICATION

I have read and understand the actions the Federal Government can take in the event that I fail to meet my scheduled payments in accordance with the terms and conditions of my agreements and certify that the information contained herein is accurate and complete to the best of my knowledge and belief.

<p>SIGNATURE OF AUTHORIZED OFFICIAL</p> 	<p>TITLE</p> <p>VP/General Manager</p>	<p>DATE</p> <p>6/25/2017</p>
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CERTIFICATE

I, Mary Jane Hall, do hereby certify that; I am the secretary of Thacker-Grigsby Telephone Company, Inc. (Hereinafter called the "Company"); that the following are true and correct copies of a Resolution duly adopted by the Board of Trustees of the Company at the meeting held June 13, 2014 and entered in the minute book of the Company; the meeting was duly and regularly called and held in accordance with the bylaws of the Company.

RESOLUTION

A motion by William K. Grigsby and seconded by Robert C. Thacker to adopt the following resolution which carried:

WHEREAS, it has been determined Thacker-Grigsby Telephone Company, Inc. should upgrade and expand its services and must do so through the Rural Utilities Service.

WHEREAS, all of the necessary studies and approvals have been obtained.

NOW, THEREFORE, be it resolved that the Company (A) borrow from the United States of America acting through the Rural Utilities Service, amount not to exceed \$10,000,000. This is to finance the construction and operation of additional telephone lines and facilities and the operation of its system.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Corporation this 13th day of June, 2014.


Secretary

(Corporate Seal)

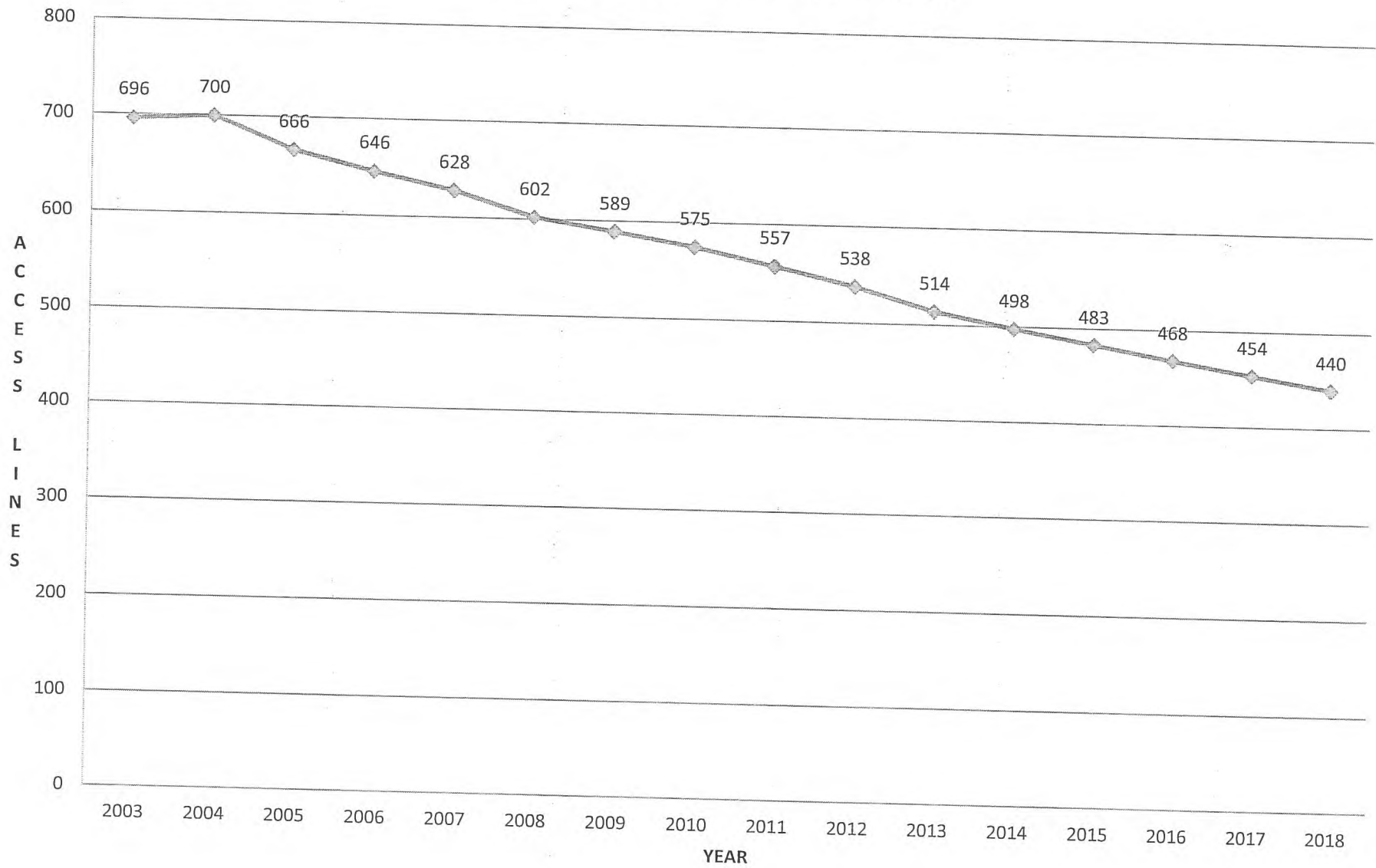
ACCESS LINE HISTORY AND GROWTH

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH

Exchange	Average Growth		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
FISTY	-2.94%	Residential	620	628	611	588	566	537	529	512	495	481	460	446	433	420	408	396
	-3.36%	Business	76	72	55	58	62	65	60	63	62	57	54	52	50	48	46	44
	-2.99%	Total	696	700	666	646	628	602	589	575	557	538	514	498	483	468	454	440
PIPPA PASSES	-4.81%	Residential	411	406	395	375	359	344	317	300	282	274	251	239	227	216	206	196
	-0.68%	Business	91	90	87	74	78	81	86	87	88	85	85	84	83	82	81	80
	-3.94%	Total	502	496	482	449	437	425	403	387	370	359	336	323	310	298	287	276
TOPMOST	-2.97%	Residential	1,015	1,006	977	957	922	896	856	848	820	797	751	729	707	686	666	646
	-2.98%	Business	115	104	109	109	115	108	107	104	112	82	85	82	80	78	76	74
	-2.97%	Total	1,130	1,110	1,086	1,066	1,037	1,004	963	952	932	879	836	811	787	764	742	720
CODY	-4.71%	Residential	909	898	861	852	825	787	755	717	678	620	561	535	510	486	463	441
	1.03%	Business	111	112	113	127	111	116	111	123	131	128	123	124	125	126	127	128
	-3.92%	Total	1,020	1,010	974	979	936	903	866	840	809	748	684	659	635	612	590	569
HINDMAN	-4.06%	Residential	3,321	3,258	3,195	3,199	3,035	2,926	2,804	2,658	2,538	2,391	2,194	2,105	2,020	1,938	1,859	1,784
	-1.71%	Business	898	864	840	867	866	837	831	813	816	800	756	743	730	718	706	694
	-3.51%	Total	4,219	4,122	4,035	4,066	3,901	3,763	3,635	3,471	3,354	3,191	2,950	2,848	2,750	2,656	2,565	2,478
MOUSIE	-3.54%	Residential	585	567	554	534	520	508	493	470	462	447	408	394	380	367	354	341
	-3.52%	Business	73	69	73	77	71	74	72	64	75	67	51	49	47	45	43	41
	-3.54%	Total	658	636	627	611	591	582	565	534	537	514	459	443	427	412	397	382
TOTAL	-3.87%	Residential	6,861	6,763	6,593	6,505	6,227	5,998	5,754	5,505	5,275	5,010	4,625	4,448	4,277	4,113	3,956	3,804
	-1.66%	Business	1,364	1,311	1,277	1,312	1,303	1,281	1,267	1,254	1,284	1,219	1,154	1,134	1,115	1,097	1,079	1,061
	-3.47%	Total	8,225	8,074	7,870	7,817	7,530	7,279	7,021	6,759	6,559	6,229	5,779	5,582	5,392	5,210	5,035	4,865

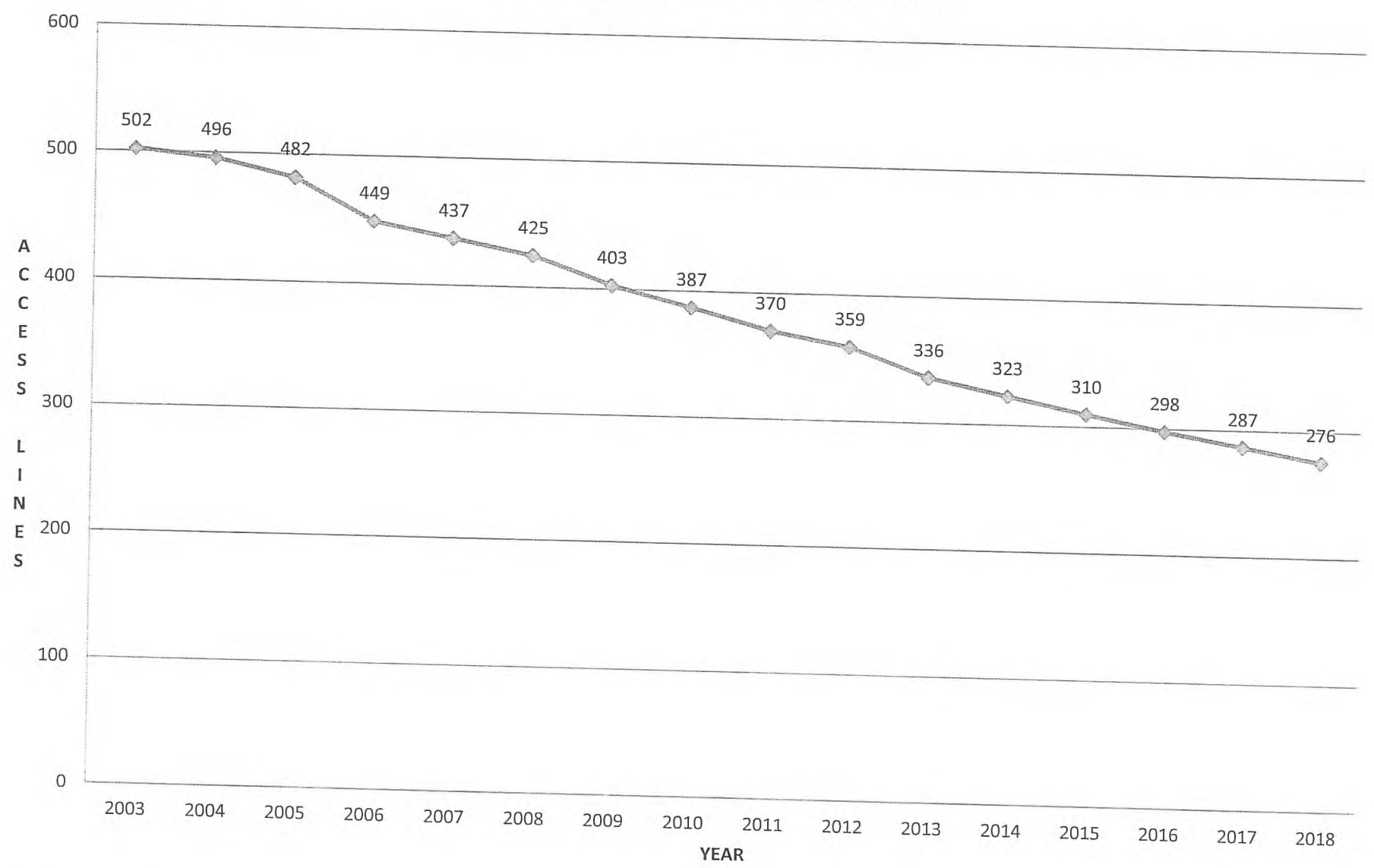
FISTY EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



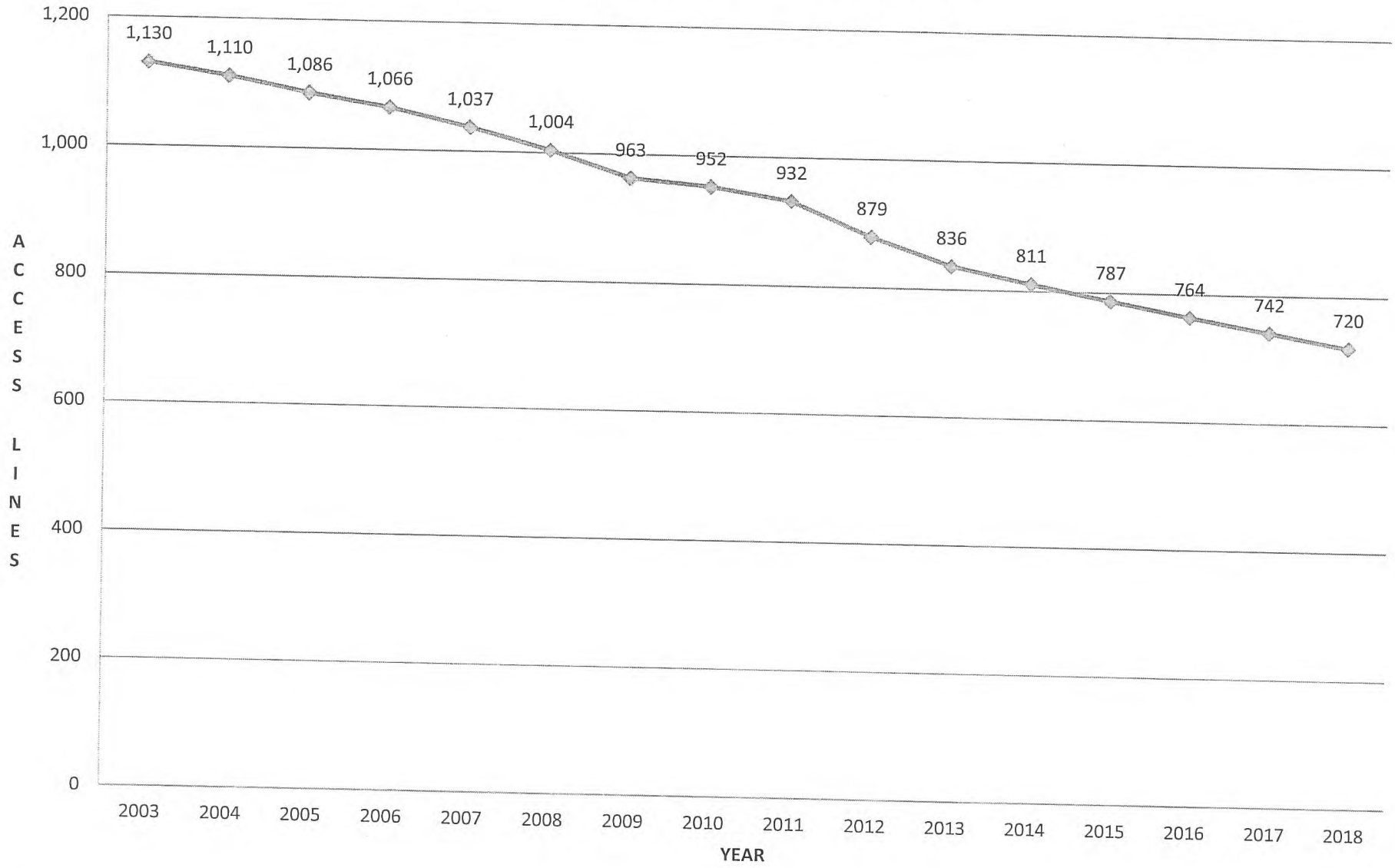
PIPPA PASSES EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



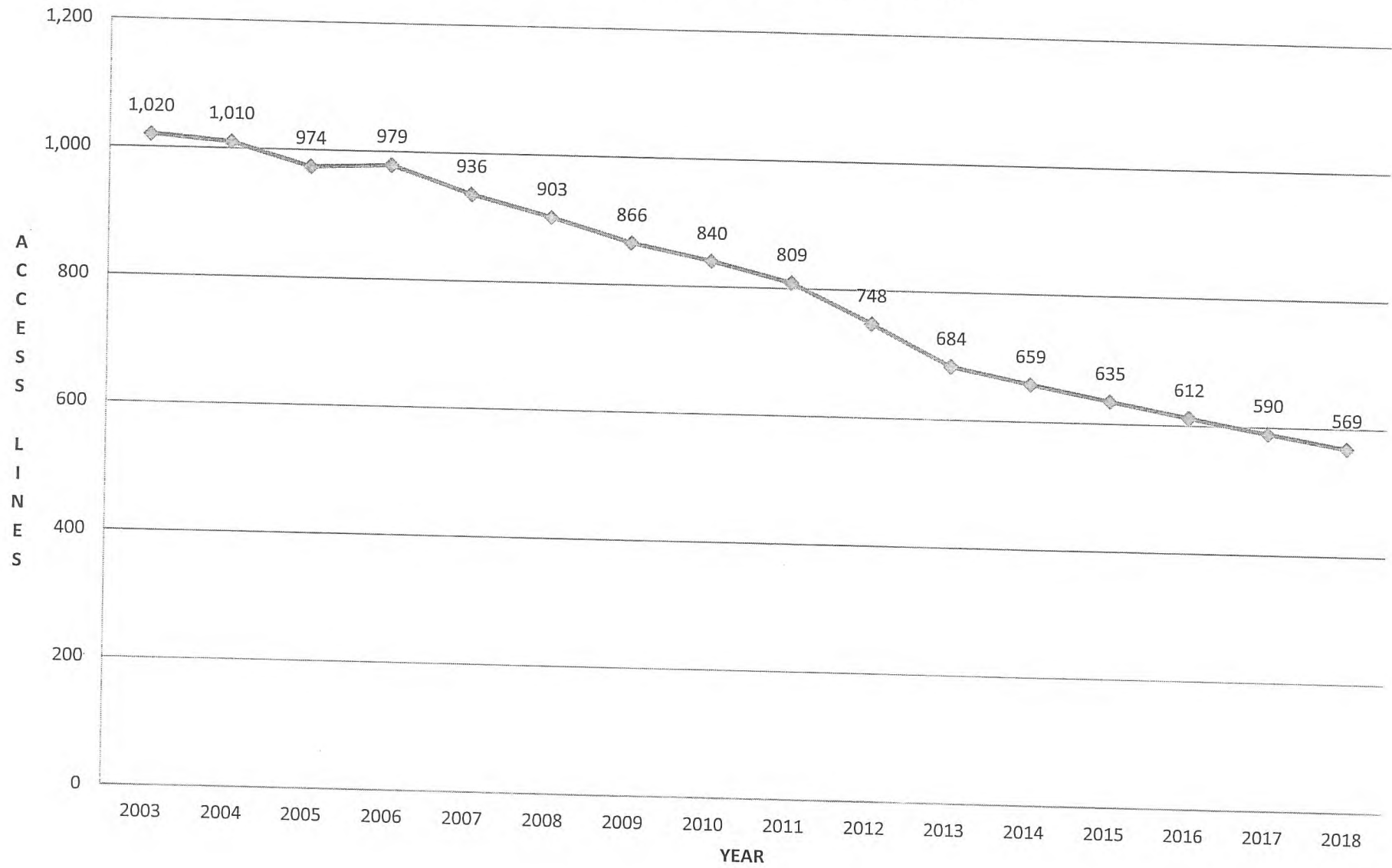
TOPMOST EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



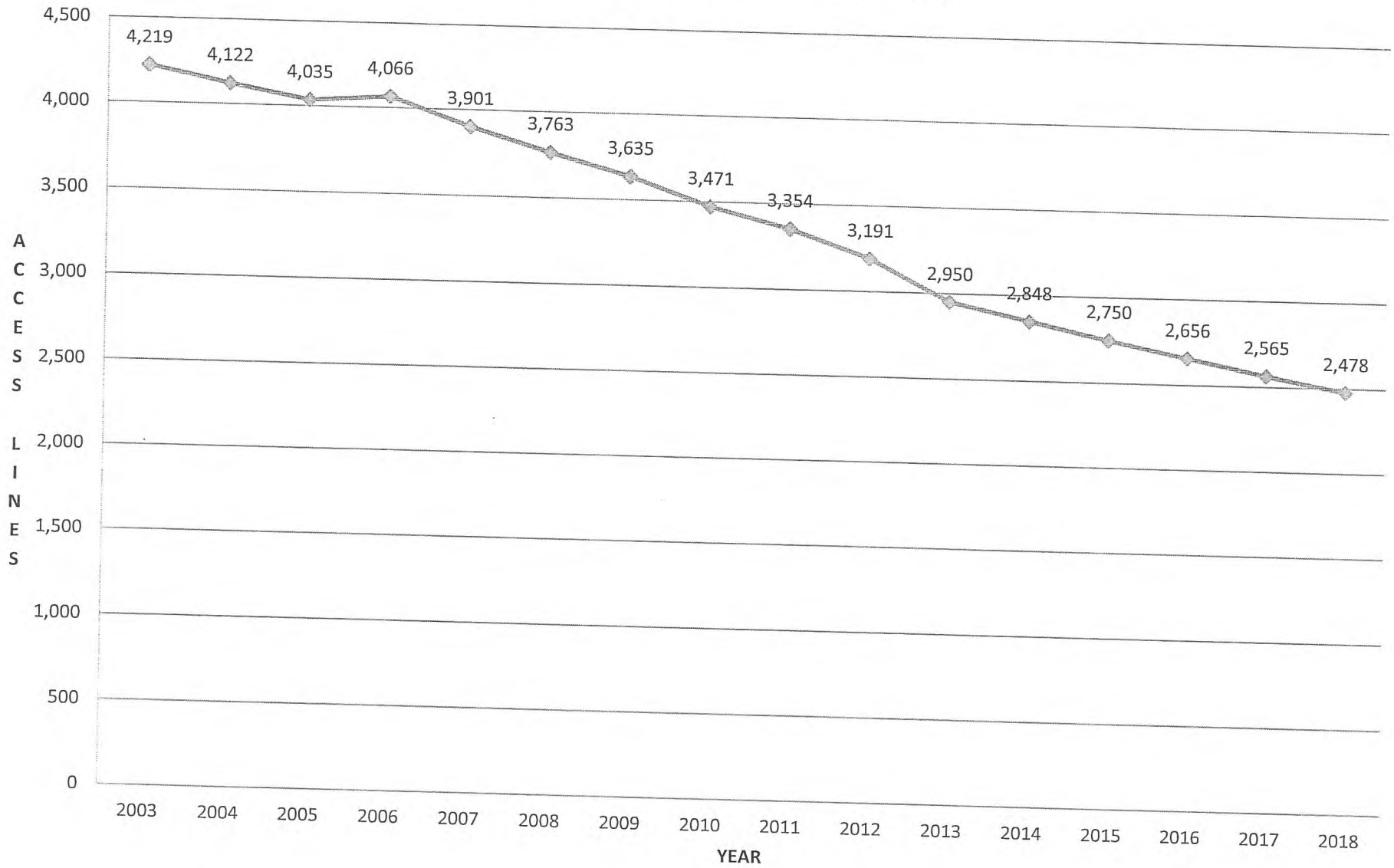
CODY EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



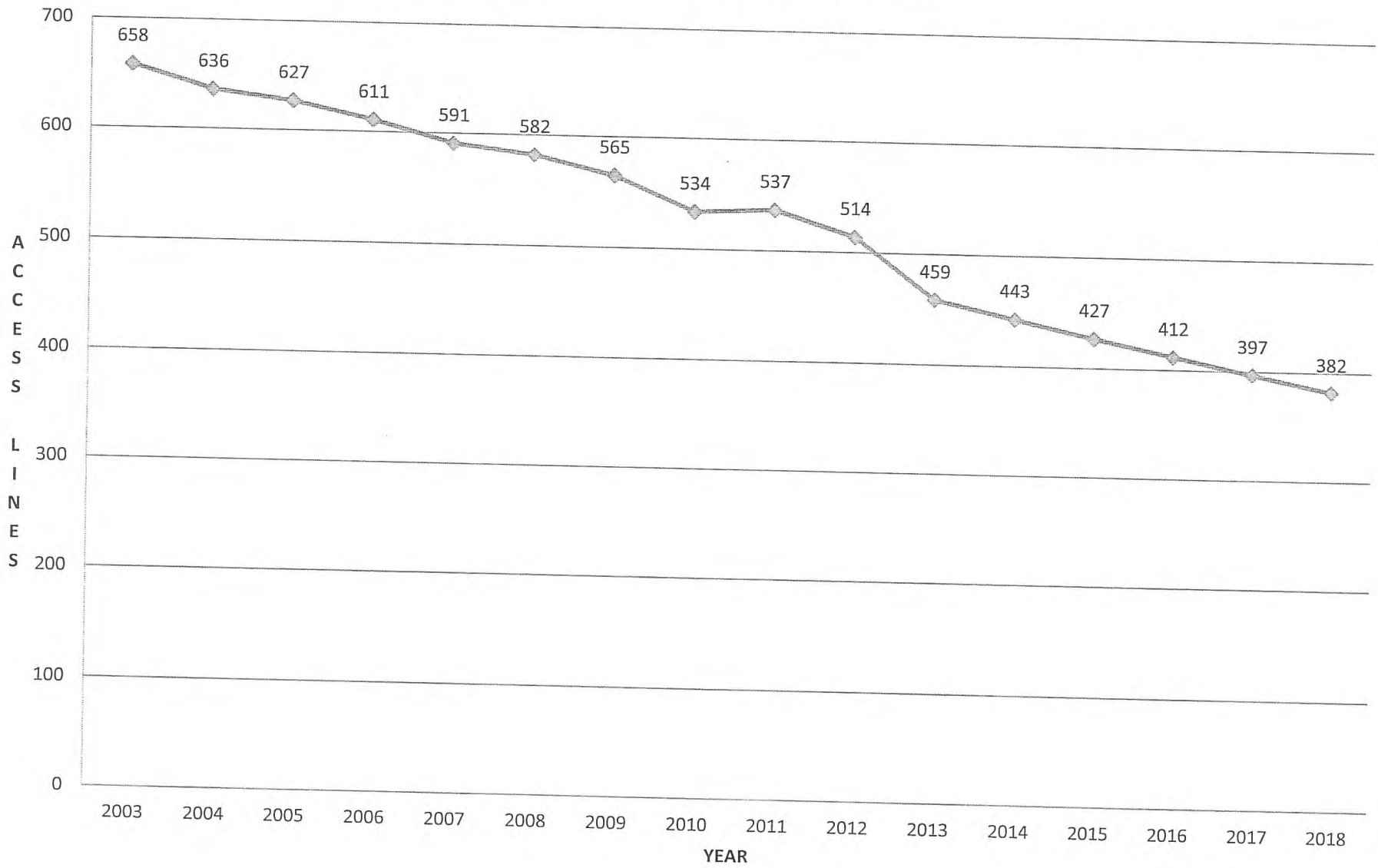
HINDMAN EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



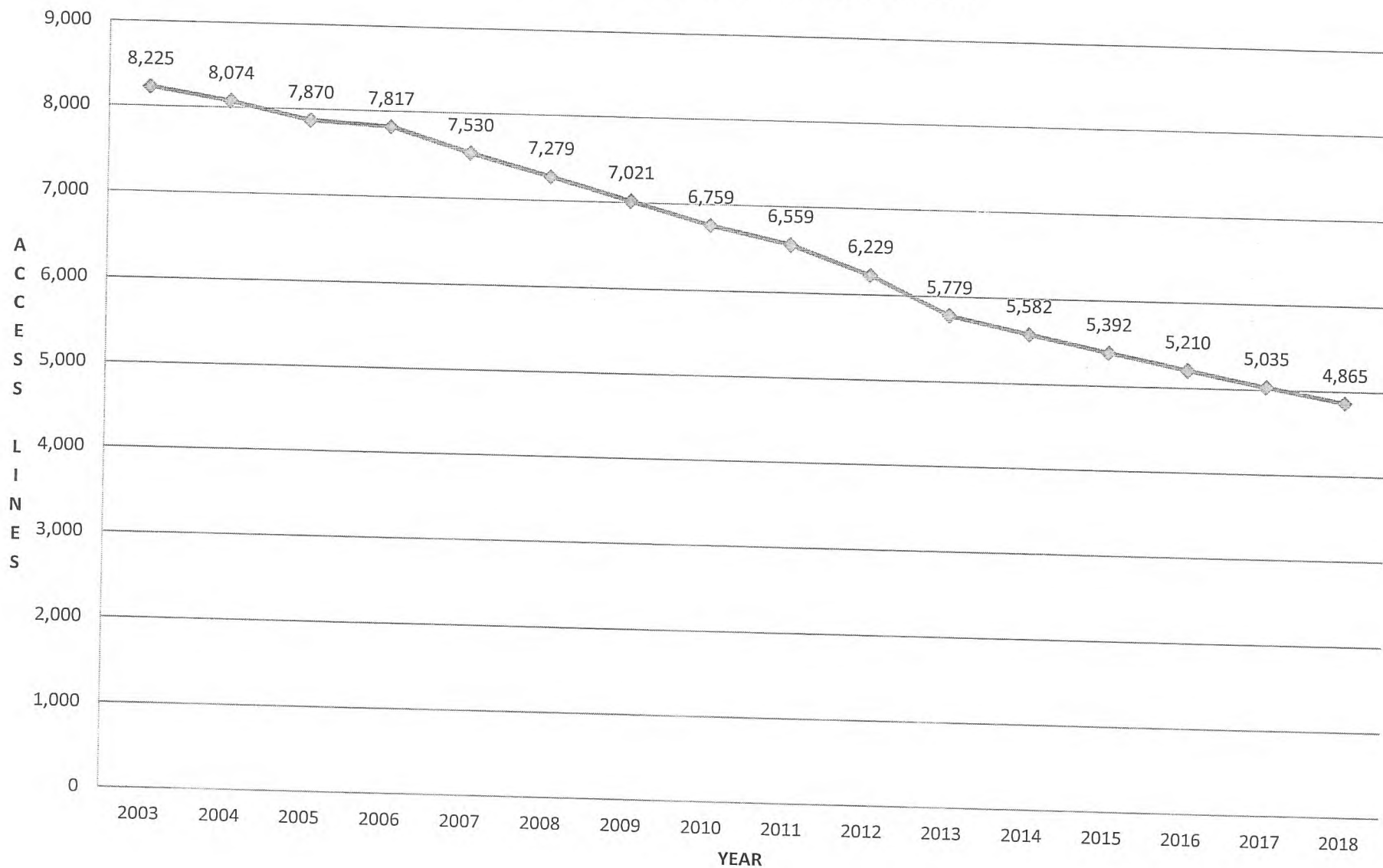
MOUSIE EXCHANGE

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



SYSTEM TOTAL

PROJECTIONS BASED ON 2003-2013 AVERAGE GROWTH



**THACKER-GRIGSBY TELEPHONE COMPANY
KENTUCKY 536**

K LOAN DESIGN

NARRATIVE

GENERAL

The purpose of this Loan Design is to support a loan application for financing from Rural Utilities Service (RUS) for Thacker-Grigsby Telephone Company, Inc. (Thacker-Grigsby). Thacker-Grigsby is headquartered in Hindman, Kentucky and operates six exchanges in Eastern Kentucky: Cody, Fisty, Hindman, Mousie, Pippa Passes, and Topmost. The exchanges cover Knott County as well as very small portions of Floyd County and Perry County.

In 2010, Thacker-Grigsby was awarded funding through the American Recovery and Reinvestment Act (ARRA) for construction of a fiber-to-the-premise network to provide broadband services in unserved areas of Breathitt County, Kentucky. Thacker-Grigsby expects to complete this project in the near future.

TVS Cable, Inc. is a wholly owned subsidiary of Thacker-Grigsby through the holding company Allied Services, LLC. TVS Cable operates a hybrid fiber-coaxial (HFC) network that extends into Knott, Perry, Letcher, Leslie, and Floyd counties. TVS Cable offers cable television, broadband data, and VoIP services to customers throughout their coverage area.

Thacker-Grigsby has also partnered with four other telephone companies in Southeastern Kentucky to provide cellular telephone service to an 18 county area. Thacker-Grigsby is currently a 20% owner of Appalachian Wireless which offers wireless voice and 4G data services.

Thacker-Grigsby currently provides voice and broadband data services to customers in their ILEC territory. The present system utilizes Digital Subscriber Line (DSL) technology to provide these services over Thacker-Grigsby's copper distribution network. However, bandwidth and reach limitations of DSL and the copper infrastructure do not allow Thacker-Grigsby to offer advanced services to all subscribers. In 2008, Thacker-Grigsby began upgrading to Fiber-to-the-Premise (FTTP) as part of a long-term network migration plan to move to a complete fiber optic system.

Previous RUS loan funds were used to upgrade the switching and transport systems, placement of digital line concentrators (DLCs), and FTTP construction in the Fisty and Mousie exchanges as well as select areas of the Hindman exchange. This has allowed Thacker-Grigsby to upgrade service offerings to customers on the FTTP network and remove some remote equipment locations creating a simpler, more robust network.

The financing included in this Loan Design will be used for FTTP construction in the Topmost exchange and a portion of the Hindman exchange. Thacker-Grigsby has utilized Gigabit Passive Optical Network (GPON) architecture in the previous FTTP deployments and will continue to do so in this project. Thacker-Grigsby also plans to deploy a next generation softswitch to replace the existing switching system. The total proposed expenditures for the five year loan period are \$9,595,049.

The upgrades proposed in this Loan Design will provide Thacker-Grigsby with a state-of-the-art network capable of delivering advanced communications services to its customers today and in the future as bandwidth demands increase. Given the steady decline in access lines and traditional voice services seen in recent years, it is critical for Thacker-Grigsby to be able to offer these advanced services in order to remain competitive and meet the demands of their subscribers. Future plans for Thacker-Grigsby include transitioning all customers to the FTTP network and eventual retirement of their copper based facilities.

ACCESS LINES

The access line forecast as given on the RUS Form 569, "Area Coverage Survey Report", was derived from the RUS 479 forms and based on analysis of the subscriber access line growth experienced between 2003 and 2013. Thacker-Grigsby has experienced a significant decrease in access lines during this time period. This can mainly be attributed to customers switching to a mobile carrier for voice service as well as customers transitioning from dial-up to DSL for internet service. This has been a very common trend for traditional telephone service providers in recent years and it is expected to continue.

Thacker-Grigsby began providing DSL broadband service in the 1990s. As DSL started to gain popularity, Thacker-Grigsby saw many customers switch from dial-up internet to DSL. Most of the dial-up subscribers had a second phone line in order to receive phone calls while using the internet. The migration from dial-up to DSL allowed these subscribers to use both voice and internet services over the same access line, eliminating the need for a second phone line. In addition, the rapidly increasing popularity of cellular phone service has caused many customers to remove their land line phone service and opt to use cellular phones only.

Thacker-Grigsby's service area is located in Southeastern Kentucky and is a very rural area. Knott County, which contains the majority of Thacker-Grigsby's exchanges, is considered "distressed" by the Appalachian Regional Commission and has seen negative population growth over the past decade. The lack of population growth and decreasing access lines drives the need for Thacker-Grigsby to offer advanced telecommunications services in order to retain current subscribers and attract new subscribers. Continuing deployment of FTTP will allow Thacker-Grigsby to offer such services now and in the future as customer demands increase.

EXISTING SYSTEM

Central Office Equipment:

Thacker-Grigsby's existing switching network consists of a Nortel DMS-10 deployed at the Hindman exchange and a Tekelec 3000/8000 next generation switch platform at the Cody exchange. Thacker-Grigsby currently has 3 DMS-10 RSLEs located at the Garner, Mallie, and Pinetop remotes in the Hindman exchange. In addition, 35 DLC and FTTP remotes have been placed throughout the system and connect to the switching network via GR-303 interfaces.

The Tekelec 3000/8000 in the Cody exchange is the network access tandem and the toll outlet. The DMS-10 network connects to the Tekelec via DS1 connections. Voice traffic from the DLC and FTTP remotes travels through Thacker-Grigsby's SONET transport network and into the Tekelec via DS1 connections.

Outside Plant Facilities:

Thacker-Grigsby currently has approximately 827 route miles of copper and fiber-optic plant. All of the outside plant facilities are aerial. FTTP construction has been completed throughout the Fisty and Mousie exchanges as well as a few select areas in the Hindman exchange. The Cody, Pippa Passes, Topmost, and remainder of Hindman exchanges utilize the copper facilities via DLC design to provide service to customers. The copper plant varies in age depending on location with some cables being placed in the 1970s. Typical subscriber drop lengths are approximately 250 feet. The copper plant will eventually be retired as Thacker-Grigsby continues to upgrade the rest of the network to FTTP.

Access Equipment:

The existing access equipment consists of DLC and FTTP equipment located throughout the system. There are currently 29 DLC serving areas in the network: 14 in Hindman, 7 in Cody, 3 in Pippa Passes, and 5 in Topmost. Thacker-Grigsby has deployed the Calix C7 platform and the AFC UMC-1000 platform for DLC equipment.

To date, 8 FTTP remotes have been placed in the ILEC territory: 2 in Hindman, 3 in Fisty, and 3 in Mousie. Thacker-Grigsby has deployed the Calix C7 platform for these remotes. All existing DLC and FTTP equipment are connected via fiber-optic facilities.

Thacker-Grigsby placed 6 new FTTP remotes in Breathitt County for the ARRA project. The newer Calix E7 platform was deployed at these remotes to take advantage of the higher bandwidth capacity and latest equipment options.

Transport:

Thacker-Grigsby's existing inter-exchange transmission consists of multiple OC-48 SONET fiber rings. Thacker-Grigsby also maintains an OC-12 SONET ring that connects to AT&T and Coalfields Telephone. Calix C7 equipment is used for the OC-48 rings and Lucent DDM-2000 equipment is used for the OC-12 ring.

In addition, Thacker-Grigsby has deployed a 10GigE fiber ring that connects their ILEC network to the Breathitt County FTTP network. The 10GigE ring connects the Hindman and

Cody central offices through Hazard, KY (Perry County) to Breathitt County. The Calix E7 platform is used for the 10GigE transport. Future FTTP deployments will continue to utilize the Calix E7 platform and expand the 10GigE ring. Eventually, Thacker-Grigsby will retire the SONET equipment and transition to a complete IP transport network.

Thacker-Grigsby maintains redundant connections for data traffic to the Internet. There are two (2) 1GigE connections to AT&T in Whitesburg, KY and two (2) 1 GigE connections to AT&T in Jackson, KY via the Breathitt County FTTP network. A network diagram is shown under Tab D-6 of the loan application binder.

Toll Traffic Routing:

Toll traffic is currently supported via East Kentucky Network's OC-192 fiber ring which connects to AT&T in Winchester, KY. Existing fiber-optic facilities between the Cody CO and Windstream in Hazard, KY support incoming toll traffic only. EAS traffic is supported via fiber-optic facilities to AT&T in Wayland, KY. A trunking diagram is shown under Tab D-6 of the loan application binder.

Existing Services Provided:

Thacker-Grigsby currently offers voice and data services throughout their ILEC territory. Voice services include local and long distance calling as well as a wide variety of custom calling features. Data services include dial-up and broadband with residential packages up to 10Mbps/512kbps and business packages up to 100Mbps/100Mbps.

Video services are provided through Thacker-Grigsby's subsidiary, TVS Cable. TVS Cable offers a variety of video packages which include analog and digital channels, high-definition channels, premium movie channels, pay-per-view, and digital video recorder (DVR) services. In addition, TVS Cable offers high-speed internet and VoIP services over the HFC network.

Thacker-Grigsby, in conjunction with TVS Cable, has begun to offer triple play packages to customers in areas where FTTP has been completed. This provides customers with a convenient option to get voice, video, and data services over a single fiber connection and pay bills to a single service provider.

PROPOSED SYSTEM IMPROVEMENTS

Design Summary and Analysis:

The proposed system upgrades are based on the overall migration to IP technology. The switching network will be consolidated with the deployment of an IP-based next generation softswitch platform. GPON technology will be implemented for subscriber access in the proposed FTTP deployments. The new FTTP remotes will be interconnected via 10GigE equipment.

FTTP construction will be completed in the entire Topmost exchange and a portion of the Hindman exchange. Topmost was selected for FTTP because of the aging copper facilities in the

area. The areas in Hindman were selected because of higher subscriber density in an effort to provide more advanced services to as many customers as possible.

Central Office Equipment:

Thacker-Grigsby plans to deploy a next generation softswitch platform in the Cody CO. The softswitch will become the new access tandem and toll outlet and will replace the existing DMS-10 and Tekelec equipment. This will allow Thacker-Grigsby to cap expenditures in the existing switching equipment and take advantage of packet-switching technology.

A softswitch vendor has not yet been chosen. Costs for the new softswitch are based on pricing from recent Metaswitch and Genband switch deployments and include the base switch (redundant server based call processor, universal DS-3 cards, legacy and VoIP protocol support, software and licenses, installation), customer web portal, session border controller, digital conference bridge, and annual support. A breakdown of the switching platform costs is shown under Tab D-4 of the loan application binder.

Outside Plant Facilities:

FTTP outside plant construction will be completed throughout the entire Topmost exchange as well as the Central Office and Dawsons Branch serving areas of the Hindman exchange. The proposed construction will consist of approximately 115 route miles and 75 drop miles (1597 fiber drops). Thacker-Grigsby plans to place fiber drops to all current subscribers in these areas.

Thacker-Grigsby has consistently constructed aerial plant in the past and will continue to do so in this project. Due to the mountainous terrain in the area, aerial construction is the most economical method and, in some cases, the only option. It is estimated that aerial construction would be at least 25% less expensive than buried construction.

The majority of fiber cable placements will utilize existing utility pole line. Approximately 60% of the existing poles are owned by Thacker-Grigsby and the remaining poles are owned by the local power company. Field conditions in certain areas will likely require placement of new poles to meet NESC requirements and/or reduce future maintenance costs for Thacker-Grigsby. Any new poles will be placed within 5 feet of an existing pole or placed in road right-of-way.

The FTTP design will utilize GPON architecture. Each exchange will be divided into multiple serving areas based on existing DLC locations. Thacker-Grigsby currently has existing buildings at each DLC location which will serve as the fiber distribution point for that serving area. This helps to reduce fiber cable sizes and, in turn, reduce construction costs. FTTP electronics will be co-located with optical splitters in each remote building and distribution fiber will be placed from each remote to subscriber premises. This design takes advantage of the existing building locations to provide a cost effective FTTP solution while also allowing a simple migration path to a complete point-to-point, or Active FTTP, solution in the future should bandwidth requirements increase beyond the capabilities of GPON.

A detailed outside plant FTTP design was completed for the Topmost exchange. The exchange was divided into 5 serving areas as described above. A detailed breakdown of the construction cost estimates by serving area as well as Topmost design maps are included under Tab D-4 of the loan application binder. Fiber cable quantities were estimated by analyzing distances on current system maps. Thacker-Grigsby estimates an 80% penetration rate on average throughout their ILEC territory so the fiber drops are based on 80% of the premises shown on the system maps at 250 feet per drop. The remaining construction unit quantities were estimated based on recent aerial FTTP projects. Moderate to heavy right-of-way clearing is expected in some areas of the project. Make-ready costs for the power pole lines are also included. Unit pricing is based on average bid prices from Thacker-Grigsby's previous FTTP construction projects.

The Topmost design data was the basis for estimating construction costs for the Hindman exchange. Outside plant construction costs were estimated on a per mile basis. As the design data indicates, the average cost per route mile in Topmost was \$42,680. The per route mile cost used for the Hindman exchange was increased by 15% to \$49,082. This is due to higher subscriber density in these areas which will result in increased fiber cable sizes and splicing costs compared to Topmost. The average cost per drop mile from the Topmost design of \$15,310 was used to estimate drop construction costs for the Hindman exchange.

The number of route miles in Hindman was estimated by analyzing distances on current system maps. Fiber drop miles in Hindman were estimated the same as the Topmost design. The number of fiber drops is 80% of the premises shown on the system maps with an average drop length of 250 feet. A summary of total outside plant construction costs is shown under Tab D-4 of the loan application binder.

The proposed construction schedule is a 3-year plan with year 4 and 5 of the loan period being a contingency for potential construction delays and completion of cutover. The current plan is to build the Topmost exchange in 2015-2016 and the Hindman exchange areas in 2017.

Access Equipment:

GPON FTTP equipment will be placed in all 5 remote building sites in the Topmost exchange and well as Hindman CO and Dawsons Branch remote building. Thacker-Grigsby has deployed the Calix E7 platform in their most recent FTTP projects and plans to continue using this equipment for future deployments. Equipment located in each building includes a modular chassis, GPON OLT cards, and optical transceivers. Customer premise equipment includes ONT modules and enclosures as well as battery backup units.

In addition, Thacker-Grigsby plans to deploy Calix E7 VDSL2 equipment at the Garner, Mallie, and Pinetop remote sites in the Hindman exchange to replace the remaining DMS-10 RSLEs which will be removed as part of the softswitch upgrade. VDSL2 line cards are included in the equipment costs for the Hindman exchange.

A breakdown of equipment costs by exchange is shown under Tab D-4 of the loan application binder. Equipment quantities are based on the estimated subscriber counts in each area plus additional spares. Pricing is based on recent equipment purchases. In addition to the

equipment described above, the costs include optical splitters and miscellaneous materials required at each building site. Thacker-Grigsby plans to install all equipment with internal forces.

Transport Equipment:

All new FTTP remotes will connect to the Cody CO via 10GigE links over the existing fiber infrastructure. The Calix E7 platform has 10GigE transport capabilities integrated into the GPON equipment so no separate transport equipment is required. 10GigE transceivers are included in the Calix equipment estimates under Tab D-4 of the loan application binder.

Toll Traffic Routing:

No new toll or EAS facilities are required.

Proposed Services:

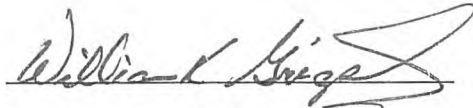
Deployment of FTTP will allow Thacker-Grigsby to offer more advanced telecommunications services such as higher broadband speeds, virtual private networks, and video services over a single fiber connection.

Prior Loan Funds:

All projects initiated under prior loans have been completed. No funds are required under this loan design for prior loan projects.

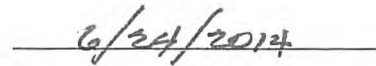
Loan Design Certification

We, the undersigned, certify that the data in this Loan Design are correct to the best of our knowledge and belief and reasonably reflect the cost to serve the subscribers as proposed on the Forms 569, "Area Coverage Data Report," which are integral parts hereof, and that this Loan Design adheres to RUS engineering and construction standards and practices.

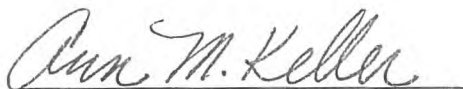


Vice-President/ General Manager

Thacker-Grigsby Telephone Company

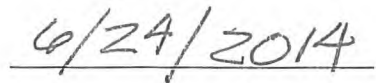


Date



Vice-President

Finley Engineering Company



Date

STMP COMPLIANCE CERTIFICATION

I, the undersigned, certify that the proposed infrastructure for the access network and the equipment proposed for service delivery to subscribers in this Loan Design conforms to the State Telecommunications Modernization Plan (STMP) for the Commonwealth of Kentucky as accepted by the Rural Utilities Service on March 14, 1996.

10/24/2014
Date

Robert C Thacker

Robert Thacker
President
Thacker-Grigsby Telephone Company

PROPOSED CONSTRUCTION BUDGET (LOAN DESIGN)													
Total Project Budget				Year 1 ²⁰¹⁵		Year 2 ²⁰¹⁶		Year 3 ²⁰¹⁷		Year 4		Year 5	
CENTRAL OFFICE & ELECTRONIC EQUIPMENT	GENERAL FUNDS (\$)	RUS FINANCING REQUESTED (\$)	TOTAL	General Funds	RUS Funds	General Funds	RUS Funds	General Funds	RUS Funds	General Funds	RUS Funds	General Funds	RUS Funds
	1. NEW SWITCH	\$ -	\$ 584,100			\$ 584,100							
2. ADDITIONS	\$ -	\$ -											
3. UPGRADE	\$ -	\$ -											
4. OPERATOR SYSTEMS	\$ -	\$ -											
5. RADIO SYSTEMS	\$ -	\$ -											
6. TOLL ELECTRONICS	\$ -	\$ -											
7. EAS ELECTRONICS	\$ -	\$ -											
8. LOCAL SERVICE ELECTRONICS	\$ -	\$ 1,456,521		\$ 621,790		\$ 301,175		\$ 533,556					
9. OTHER	\$ -	\$ -											
10. REMOVALS	\$ -	\$ -											
11. SUBTOTAL COE & ELECTRONIC EQUIP. (1 thru 10)	\$ -	\$ 2,040,621	\$ -										
OUTSIDE PLANT													
12. BURIED PLANT - METAL	\$ -	\$ -											
13. BURIED PLANT - FIBER	\$ -	\$ -											
14. AERIAL PLANT - METAL	\$ -	\$ -											
15. AERIAL PLANT - FIBER	\$ -	\$ 6,295,357		\$ 2,491,367		\$ 1,766,330		\$ 2,037,660					
16. AERIAL PLANT - POLES	\$ -	\$ -											
17. CONDUIT & MANHOLE SYSTEMS	\$ -	\$ -											
18. UNDERGROUND CABLE - METAL	\$ -	\$ -											
19. UNDERGROUND CABLE - FIBER	\$ -	\$ -											
20. OTHER (Describe)	\$ -	\$ -											
21. REMOVALS	\$ -	\$ -											
22. ROW PROCUREMENT	\$ -	\$ -											
23. SUBTOTAL OUTSIDE PLANT (12 thru 22)	\$ -	\$ 6,295,357	\$ -										
LAND AND SUPPORT ASSETS													
24. MOTOR VEHICLES	\$ -	\$ -											
25. AIRCRAFT	\$ -	\$ -											
26. SPECIAL PURPOSE VEHICLES	\$ -	\$ -											
27. WORK EQUIPMENT													
28. BUILDINGS													
29. FURNITURE AND OFFICE EQUIPMENT													
30. GENERAL PURPOSE COMPUTERS	\$ -	\$ -											
31. LAND	\$ -	\$ -											
32. SUBTOTAL LAND & BUILDINGS (24 thru 29)	\$ -	\$ -	\$ -										
33. TOTAL CONSTRUCTION BUDGET (11+23+30)	\$ -	\$ 8,335,978	\$ -										
PROFESSIONAL SERVICES													
34. ENGINEERING FEES	\$ -	\$ 1,259,071		\$ 498,273		\$ 353,266		\$ 407,532					
35. ARCHITECTURAL FEES	\$ -	\$ -											
36. OTHER	\$ -	\$ -											
37. SUBTOTAL PROFESSIONAL SERVICES	\$ -	\$ 1,259,071	\$ -										
38. TOTAL PROJECT COST	\$ -	\$ 9,595,049	\$ -										
RETIREMENTS (Please include in Remarks below, any Salvage Value)													
1. COE & ELECTRONIC EQUIPMENT		\$ 3,089,567.00	\$ -										
2. OUTSIDE PLANT		\$ 2,530,750.00	\$ -										
3. LAND & BUILDINGS			\$ -										

OSP Salvage = \$98,684
COE Salvage = (-\$4,000)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0079. The time required to complete this information is estimated to average 14 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE CONSTRUCTION COST ESTIMATES	NAME OF BORROWER Thacker-Grigsby Telephone Company BORROWER and LOAN DESIGNATION KY 536 K		
INSTRUCTIONS - Prepare one copy of this form for each copy of the Loan Design.	NAME OF EXCHANGE Topmost	STATE KY	
PART A. PROPOSED CONSTRUCTION BUDGET (LOAN DESIGN)			
CENTRAL OFFICE & ELECTRONIC EQUIPMENT Description	TOTAL CONSTRUCTION (\$)	RUS FINANCING REQUESTED (\$)	(FOR RUS USE ONLY) FINANCING APPROVED
1. NEW SWITCH			
2. ADDITIONS			
3. UPGRADE			
4. OPERATOR SYSTEMS			
5. RADIO SYSTEMS			
6. TOLL ELECTRONICS			
7. EAS ELECTRONICS			
8. LOCAL SERVICE ELECTRONICS <u>FTTP GPon Equipment</u>		\$752,938.00	
9. OTHER			
10. REMOVALS			
11. SUBTOTAL COE & ELECTRONIC EQUIP. (1 thru 10)		\$752,938.00	
OUTSIDE PLANT			
	ROUTE MILES		
12. BURIED PLANT - METAL			
13. BURIED PLANT - FIBER			
14. AERIAL PLANT - METAL			
15. AERIAL PLANT - FIBER	128		
16. AERIAL PLANT - POLES		\$4,257,697.00	
17. CONDUIT & MANHOLE SYSTEMS			
18. UNDERGROUND CABLE - METAL			
19. UNDERGROUND CABLE - FIBER			
20. OTHER (Describe)			
21. REMOVALS			
22. ROW PROCUREMENT			
23. SUBTOTAL OUTSIDE PLANT (12 thru 22)		\$4,257,697.00	
LAND & BUILDINGS			
	Location	Size (sq. ft.)	
24. CC BUILDING			
25. HQ BUILDING			
26. WAREHOUSE/GARAGE			
27. LAND			
28. OTHER (Describe)			
29. REMOVALS			
30. SUBTOTAL LAND & BUILDINGS (24 thru 29)			
35. TOTAL EXCHANGE CONSTRUCTION BUDGET (11-23+30)		\$5,010,635.00	
PART B. ROUTE MILES OF PLANT (Including drops) 1. EXISTING TO REMAIN AS IS: 0 2. EXISTING TO BE MODIFIED 128 3. NEW ROUTE 0 4. ROUTE RELINQUISHED 0		PART D. EAS EXCHANGE 1. EXISTING SERVICE 2. NEW SERVICE	
PART C. TELECOMMUNICATIONS PLANT RETIRED TYPE ORIGINAL COST (\$) SALVAGE (\$) 1. COE & ELECTRONIC EQUIPMENT 2. OUTSIDE PLANT \$1,696,000.00 \$59,432.00 3. LAND & BUILDINGS			
REMARKS:			

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0079. The time required to complete this information is estimated to average 14 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		NAME OF BORROWER	
CONSTRUCTION COST ESTIMATES		Thacker-Grigsby Telephone Company	
		BORROWER and LOAN DESIGNATION	
		KY 536 K	
INSTRUCTIONS - Prepare one copy of this form for each copy of the Loan Design.		NAME OF EXCHANGE	STATE
		Hindman	KY
PART A. PROPOSED CONSTRUCTION BUDGET (LOAN DESIGN)			
CENTRAL OFFICE & ELECTRONIC EQUIPMENT		TOTAL	RUS FINANCING
Description		CONSTRUCTION (\$)	REQUESTED (\$)
1. NEW SWITCH			
2. ADDITIONS			
3. UPGRADE			
4. OPERATOR SYSTEMS			
5. RADIO SYSTEMS			
6. TOLL ELECTRONICS			
7. EAS ELECTRONICS			
8. LOCAL SERVICE ELECTRONICS			
VDSL & GPON Equipment			\$703,583.00
9. OTHER			
10. REMOVALS			
11. SUBTOTAL COE & ELECTRONIC EQUIP. (1 thru 10)			\$703,583.00
OUTSIDE PLANT			
		ROUTE MILES	
12. BURIED PLANT - METAL			
13. BURIED PLANT - FIBER			
14. AERIAL PLANT - METAL			
15. AERIAL PLANT - FIBER		63	\$2,037,660.00
16. AERIAL PLANT - POLES			
17. CONDUIT & MANHOLE SYSTEMS			
18. UNDERGROUND CABLE - METAL			
19. UNDERGROUND CABLE - FIBER			
20. OTHER (Describe)			
21. REMOVALS			
22. ROW PROCUREMENT			
23. SUBTOTAL OUTSIDE PLANT (12 thru 22)			\$2,037,660.00
LAND & BUILDINGS			
		Location	Size (sq. ft.)
24. CG BUILDING			
25. HQ BUILDING			
26. WAREHOUSE/GARAGE			
27. LAND			
28. OTHER (Describe)			
29. REMOVALS			
30. SUBTOTAL LAND & BUILDINGS (24 thru 29)			
35. TOTAL EXCHANGE CONSTRUCTION BUDGET (11-23+30)			\$2,741,243.00
PART B. ROUTE MILES OF PLANT (Including drops)		PART D. EAS	
1. EXISTING TO REMAIN AS IS: 285		1. EXISTING SERVICE	
2. EXISTING TO BE MODIFIED 63			
3. NEW ROUTE 0			
4. ROUTE RELINQUISHED 0			
PART C. TELECOMMUNICATIONS PLANT RETIRED		2. NEW SERVICE	
TYPE	ORIGINAL COST (\$)	SALVAGE (\$)	
1. COE & ELECTRONIC EQUIPMENT	\$2,696,827.00	(\$2,500.00)	
2. OUTSIDE PLANT	\$834,750.00	(\$29,252.00)	
3. LAND & BUILDINGS			
REMARKS:			

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UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE CONSTRUCTION COST ESTIMATES	NAME OF BORROWER <u>Thacker-Grigsby Telephone Company</u>		
	BORROWER and LOAN DESIGNATION <u>KY 536 K</u>		
INSTRUCTIONS - Prepare one copy of this form for each copy of the Loan Design.	NAME OF EXCHANGE <u>Cody</u>		STATE <u>KY</u>
PART A. PROPOSED CONSTRUCTION BUDGET (LOAN DESIGN)			
	TOTAL CONSTRUCTION (\$)	RUS FINANCING REQUESTED (\$)	(FOR RUS USE ONLY) FINANCING APPROVED
CENTRAL OFFICE & ELECTRONIC EQUIPMENT Description 1. NEW SWMCH <u>Replacement for DMS-10</u> 2. ADDITIONS _____ 3. UPGRADE _____ 4. OPERATOR SYSTEMS _____ 5. RADIO SYSTEMS _____ 6. TOLL ELECTRONICS _____ 7. EAS ELECTRONICS _____ 8. LOCAL SERVICE ELECTRONICS _____ 9. OTHER _____ 10. REMOVALS _____ 11. SUBTOTAL COE & ELECTRONIC EQUIP. (1 thru 10) _____		\$584,100.00	
OUTSIDE PLANT ROUTE MILES 12. BURIED PLANT - METAL _____ 13. BURIED PLANT - FIBER _____ 14. AERIAL PLANT - METAL _____ 15. AERIAL PLANT - FIBER _____ 16. AERIAL PLANT - POLES _____ 17. CONDUIT & MANHOLE SYSTEMS _____ 18. UNDERGROUND CABLE - METAL _____ 19. UNDERGROUND CABLE - FIBER _____ 20. OTHER (Describe) _____ 21. REMOVALS _____ 22. ROW PROCUREMENT _____ 23. SUBTOTAL OUTSIDE PLANT (12 thru 22) _____			
LAND & BUILDINGS Location Size (sq. ft.) 24. CC BUILDING _____ 25. HQ BUILDING _____ 26. WAREHOUSE/GARAGE _____ 27. LAND _____ 28. OTHER (Describe) _____ 29. REMOVALS _____ 30. SUBTOTAL LAND & BUILDINGS (24 thru 29) 35. TOTAL EXCHANGE CONSTRUCTION BUDGET (11-23+30) _____		\$584,100.00	
PART B. ROUTE MILES OF PLANT (including drops)		PART D. EAS EXCHANGE	
1. EXISTING TO REMAIN AS IS: <u>147.11</u> 2. EXISTING TO BE MODIFIED <u>0</u> 3. NEW ROUTE <u>0</u> 4. ROUTE RELINQUISHED <u>0</u>	1. EXISTING SERVICE _____ _____ _____ _____		
PART C. TELECOMMUNICATIONS PLANT RETIRED		2. NEW SERVICE _____ _____ _____ _____	
TYPE	ORIGINAL COST (\$)	SALVAGE (\$)	
1. COE & ELECTRONIC EQUIPMENT	\$392,740.00	(\$1,500.00)	
2. OUTSIDE PLANT			
3. LAND & BUILDINGS			
REMARKS:			

Kentucky 536 - K Loan Design

Calix Equipment Estimate

Hindman Exchange

Part Name	Quantity	Unit Price	Extended Price
E7-2 GPON-4 card	8	\$ 10,705.54	\$ 85,644.32
E7-2 VDSL2-48C card	22	\$ 5,145.00	\$ 113,190.00
E7-2 Field Install Package	16	\$ 888.04	\$ 14,208.64
10GE SFP+ transceiver	16	\$ 2,358.56	\$ 37,736.96
GPON SFP transceiver, Class B+	24	\$ 1,572.38	\$ 37,737.12
721GE ONT Module (2 POTS, 2 GE, 1 RF)	702	\$ 331.49	\$ 232,705.98
Indoor SFU UPS, 12 V 7.2AH	702	\$ 48.30	\$ 33,906.60
UPS to ONT power cable, 1000 ft spool	15	\$ 689.06	\$ 10,335.90
Optical Splitters	24	\$ 1,500.00	\$ 36,000.00
Miscellaneous	1	\$ 50,000.00	\$ 50,000.00
Sales Tax			\$ 39,087.93
Freight			\$ 13,029.31
TOTAL			\$ 703,582.76

Kentucky 536 - K Loan Design

Calix Equipment Estimate

Topmost Exchange

Part Name	Quantity	Unit Price	Extended Price
E7-2 GPON-4 card	12	\$ 10,705.54	\$ 128,466.48
E7-2 Field Install Package	6	\$ 888.04	\$ 5,328.24
10GE SFP+ transceiver	14	\$ 2,358.56	\$ 33,019.84
GPON SFP transceiver, Class B+	37	\$ 1,572.38	\$ 58,178.06
721GE ONT Module (2 POTS, 2 GE, 1 RF)	995	\$ 331.49	\$ 329,832.55
Indoor SFU UPS, 12 V 7.2AH	995	\$ 48.30	\$ 48,058.50
UPS to ONT power cable, 1000 ft spool	20	\$ 689.06	\$ 13,781.20
Optical Splitters	37	\$ 1,500.00	\$ 55,500.00
Miscellaneous	1	\$ 25,000.00	\$ 25,000.00
Sales Tax			\$ 41,829.89
Freight			\$ 13,943.30
TOTAL			\$ 752,938.06

Kentucky 536 - K Loan Design

Softswitch Estimate

Cody Exchange

Part Name	Price
Base Switch Includes redundant server based call processor, universal DS-3 cards, legacy and VoIP protocol support (MF/ISUP/GR303/PRI/SS7/SIP/MGCP/H.248), software and licenses, and installation	\$ 434,500
Customer Web Portal	\$ 22,000
Session Border Controller	\$ 77,000
Digital Conference Bridge	\$ 6,600
Annual support	\$ 44,000
TOTAL	\$ 584,100

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Summary

TOPMOST EXCHANGE

Serving Area	Fiber Drops	Route Miles	Cost Per Route Mile	Drop Miles	Cost Per Drop Mile	Total Miles	Cost
Arnold Fork	196	16.58	\$ 42,026.74	9.28	\$ 15,304.14	25.86	\$ 838,691.92
Dema	163	14.16	\$ 43,087.30	7.72	\$ 15,311.23	21.88	\$ 728,180.79
Kite	212	17.91	\$ 43,221.11	10.04	\$ 15,311.33	27.94	\$ 927,637.75
Raven	152	19.53	\$ 41,569.36	7.20	\$ 15,310.07	26.73	\$ 922,048.34
Topmost	222	15.54	\$ 43,779.12	10.51	\$ 15,311.48	26.05	\$ 841,137.73
TOTAL	945	83.71	\$ 42,680.15	44.74	\$ 15,309.65	128.45	\$4,257,696.53

HINDMAN EXCHANGE

Serving Area	Fiber Drops	Route Miles	Cost Per Route Mile	Drop Miles	Cost Per Drop Mile	Total Miles	Cost
Hindman	456	23.96	\$ 49,082.00	21.60	\$ 15,310.00	45.56	\$1,506,700.72
Dawsons Branch	196	7.92	\$ 49,082.00	9.29	\$ 15,310.00	17.21	\$ 530,959.34
TOTAL	652	31.88	\$ 49,082.00	30.89	\$ 15,310.00	62.77	\$2,037,660.06

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Topmost Total

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	42	\$ 288.84	\$ 12,131.28	\$ 220.24	\$ 9,250.08	\$ 509.08	\$ 21,381.36
30-5	294	\$ 288.84	\$ 84,918.96	\$ 163.23	\$ 47,989.62	\$ 452.07	\$ 132,908.58
35-3	27	\$ 305.33	\$ 8,243.91	\$ 283.10	\$ 7,643.70	\$ 588.43	\$ 15,887.61
35-5	112	\$ 305.33	\$ 34,196.96	\$ 209.82	\$ 23,499.84	\$ 515.15	\$ 57,696.80
40-3	37	\$ 376.82	\$ 13,942.34	\$ 360.39	\$ 13,334.43	\$ 737.21	\$ 27,276.77
SUBTOTAL SECTION A			\$ 153,433.45		\$ 101,717.67		\$ 255,151.12
BM61(1)	946	\$ 11.70	\$ 11,068.20	\$ 0.90	\$ 851.40	\$ 12.60	\$ 11,919.60
BM80	473	\$ 28.56	\$ 13,508.88	\$ 33.61	\$ 15,897.53	\$ 62.17	\$ 29,406.41
BM83	473	\$ 15.00	\$ 7,095.00	\$ 5.24	\$ 2,478.52	\$ 20.24	\$ 9,573.52
SUBTOTAL SECTION BM			\$ 31,672.08		\$ 19,227.45		\$ 50,899.53
CO12(10M)	103,655	\$ 1.13	\$ 117,130.15	\$ 1.08	\$ 111,947.40	\$ 2.21	\$ 229,077.55
CO12 COIL	18,000	\$ 0.80	\$ 14,400.00	\$ 0.51	\$ 9,180.00	\$ 1.31	\$ 23,580.00
CO24(10M)	44,555	\$ 1.13	\$ 50,347.15	\$ 1.08	\$ 48,119.40	\$ 2.21	\$ 98,466.55
CO24 COIL	7,900	\$ 0.80	\$ 6,320.00	\$ 0.51	\$ 4,029.00	\$ 1.31	\$ 10,349.00
CO48(10M)	56,201	\$ 1.13	\$ 63,507.13	\$ 1.28	\$ 71,937.28	\$ 2.41	\$ 135,444.41
CO48 COIL	9,900	\$ 0.80	\$ 7,920.00	\$ 0.65	\$ 6,435.00	\$ 1.45	\$ 14,355.00
CO72(10M)	50,721	\$ 1.13	\$ 57,314.73	\$ 1.45	\$ 73,545.45	\$ 2.58	\$ 130,860.18
CO72 COIL	8,900	\$ 0.80	\$ 7,120.00	\$ 0.86	\$ 7,654.00	\$ 1.66	\$ 14,774.00
CO96(10M)	23,373	\$ 1.13	\$ 26,411.49	\$ 1.70	\$ 39,734.10	\$ 2.83	\$ 66,145.59
CO96 COIL	4,200	\$ 0.80	\$ 3,360.00	\$ 1.10	\$ 4,620.00	\$ 1.90	\$ 7,980.00
CO144(10M)	38,744	\$ 1.16	\$ 44,943.04	\$ 2.09	\$ 80,974.96	\$ 3.25	\$ 125,918.00
CO144 COIL	6,800	\$ 0.80	\$ 5,440.00	\$ 1.49	\$ 10,132.00	\$ 2.29	\$ 15,572.00
CO216(10M)	26,247	\$ 1.16	\$ 30,446.52	\$ 2.65	\$ 69,554.55	\$ 3.81	\$ 100,001.07
CO216 COIL	4,600	\$ 0.80	\$ 3,680.00	\$ 2.06	\$ 9,476.00	\$ 2.86	\$ 13,156.00
CO288(10M)	32,483	\$ 1.16	\$ 37,680.28	\$ 3.56	\$ 115,639.48	\$ 4.72	\$ 153,319.76
CO288 COIL	5,700	\$ 0.80	\$ 4,560.00	\$ 2.96	\$ 16,872.00	\$ 3.76	\$ 21,432.00
SUBTOTAL SECTION CO			\$ 480,580.49		\$ 679,850.62		\$ 1,160,431.11
HACOM	244	\$ 231.65	\$ 56,522.60	\$ 550.20	\$ 134,248.80	\$ 781.85	\$ 190,771.40
HACOS	514	\$ 207.58	\$ 106,696.12	\$ 407.63	\$ 209,521.82	\$ 615.21	\$ 316,217.94
SUBTOTAL SECTION HA			\$ 163,218.72		\$ 343,770.62		\$ 506,989.34
HO1	2,226	\$ 33.29	\$ 74,103.54	\$ 0.75	\$ 1,669.50	\$ 34.04	\$ 75,773.04
HO1R	4,284	\$ 23.78	\$ 101,873.52	\$ 1.20	\$ 5,140.80	\$ 24.98	\$ 107,014.32
SUBTOTAL SECTION HO			\$ 175,977.06		\$ 6,810.30		\$ 182,787.36
ONT3	852	\$ 89.50	\$ 76,254.00	\$ 85.00	\$ 72,420.00	\$ 174.50	\$ 148,674.00
ONT7	93	\$ 215.20	\$ 20,013.60	\$ 120.00	\$ 11,160.00	\$ 335.20	\$ 31,173.60
SUBTOTAL SECTION NID			\$ 96,267.60		\$ 83,580.00		\$ 179,847.60

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Topmost Total

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
PE1-3G	1,093	\$ 44.77	\$ 48,933.61	\$ 30.74	\$ 33,598.82	\$ 75.51	\$ 82,532.43
PE1-4G	86	\$ 49.76	\$ 4,279.36	\$ 84.51	\$ 7,267.86	\$ 134.27	\$ 11,547.22
PE2-3G	36	\$ 66.07	\$ 2,378.52	\$ 71.77	\$ 2,583.72	\$ 137.84	\$ 4,962.24
SUBTOTAL SECTION PE			\$ 55,591.49		\$ 43,450.40		\$ 99,041.89
PF1-5A	840	\$ 173.12	\$ 145,420.80	\$ 46.35	\$ 38,934.00	\$ 219.47	\$ 184,354.80
PF1-7A	86	\$ 207.10	\$ 17,810.60	\$ 97.53	\$ 8,387.58	\$ 304.63	\$ 26,198.18
PF5-3A	253	\$ 203.67	\$ 51,528.51	\$ 54.00	\$ 13,662.00	\$ 257.67	\$ 65,190.51
SUBTOTAL SECTION PF			\$ 214,759.91		\$ 60,983.58		\$ 275,743.49
PM2	338	\$ 45.68	\$ 15,439.84	\$ 30.67	\$ 10,366.46	\$ 76.35	\$ 25,806.30
PM2A	1,258	\$ 12.38	\$ 15,574.04	\$ 7.27	\$ 9,145.66	\$ 19.65	\$ 24,719.70
PM11	211	\$ 8.90	\$ 1,877.90	\$ 4.17	\$ 879.87	\$ 13.07	\$ 2,757.77
PM21	5	\$ 2,500.00	\$ 12,500.00	\$ 25,000.00	\$ 125,000.00	\$ 27,500.00	\$ 137,500.00
PM52	1,509	\$ 10.22	\$ 15,421.98	\$ 4.40	\$ 6,639.60	\$ 14.62	\$ 22,061.58
SUBTOTAL SECTION PM			\$ 60,813.76		\$ 152,031.59		\$ 212,845.35
R2-5M	177,881	\$ 3.10	\$ 551,431.10	\$ -	\$ -	\$ 3.10	\$ 551,431.10
R3-5M	31,393	\$ 2.63	\$ 82,563.59	\$ -	\$ -	\$ 2.63	\$ 82,563.59
SUBTOTAL SECTION R			\$ 633,994.69		\$ -		\$ 633,994.69
SEAO2	118,125	\$ 0.75	\$ 88,593.75	\$ 0.22	\$ 25,987.50	\$ 0.97	\$ 114,581.25
SEBO2	118,125	\$ 2.36	\$ 278,775.00	\$ 0.22	\$ 25,987.50	\$ 2.58	\$ 304,762.50
SUBTOTAL SECTION SE			\$ 367,368.75		\$ 51,975.00		\$ 419,343.75
WC1	1,258	\$ 64.88	\$ 81,619.04	\$ 2.83	\$ 3,560.14	\$ 67.71	\$ 85,179.18
WC1TV	505	\$ 64.88	\$ 32,764.40	\$ 2.83	\$ 1,429.15	\$ 67.71	\$ 34,193.55
WRESAG	23,022	\$ 0.76	\$ 17,496.72	\$ 0.20	\$ 4,604.40	\$ 0.96	\$ 22,101.12
WPE1	86	\$ 35.90	\$ 3,087.40	\$ 4.06	\$ 349.16	\$ 39.96	\$ 3,436.56
WSEA	505	\$ 15.75	\$ 7,953.75	\$ 1.66	\$ 838.30	\$ 17.41	\$ 8,792.05
Power Make-Ready	85	\$ 1,200.00	\$ 102,000.00	\$ -	\$ -	\$ 1,200.00	\$ 102,000.00
SUBTOTAL SECTION W			\$ 244,921.31		\$ 10,781.15		\$ 255,702.46
XX30	338	\$ 55.68	\$ 18,819.84	\$ -	\$ -	\$ 55.68	\$ 18,819.84
XXPE1	253	\$ 15.00	\$ 3,795.00	\$ -	\$ -	\$ 15.00	\$ 3,795.00
XXPF	128	\$ 18.00	\$ 2,304.00	\$ -	\$ -	\$ 18.00	\$ 2,304.00
SUBTOTAL SECTION XX			\$ 24,918.84		\$ -		\$ 24,918.84
TOTALS			\$ 2,703,518.15		\$ 1,554,178.38		\$ 4,257,696.53
128.45	Total Miles						
83.71	Route Miles					Per Route Mile	\$ 42,680.15
44.74	Drop Miles					Per Drop Mile	\$ 15,309.65
945	Drops						

THACKER-GRIGSBY TELEPHONE COMPANY
Kentucky 536 - K Loan Design
Outside Plant Construction Estimate
Topmost Exchange FTTP Design - Arnold Fork Remote

10-TG-13029

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	8	\$ 288.84	\$ 2,310.72	\$ 220.24	\$ 1,761.92	\$ 509.08	\$ 4,072.64
30-5	58	\$ 288.84	\$ 16,752.72	\$ 163.23	\$ 9,467.34	\$ 452.07	\$ 26,220.06
35-3	5	\$ 305.33	\$ 1,526.65	\$ 283.10	\$ 1,415.50	\$ 588.43	\$ 2,942.15
35-5	22	\$ 305.33	\$ 6,717.26	\$ 209.82	\$ 4,616.04	\$ 515.15	\$ 11,333.30
40-3	7	\$ 376.82	\$ 2,637.74	\$ 360.39	\$ 2,522.73	\$ 737.21	\$ 5,160.47
SUBTOTAL SECTION A			\$ 29,945.09		\$ 19,783.53		\$ 49,728.62
BM61(1)	196	\$ 11.70	\$ 2,293.20	\$ 0.90	\$ 176.40	\$ 12.60	\$ 2,469.60
BM80	98	\$ 28.56	\$ 2,798.88	\$ 33.61	\$ 3,293.78	\$ 62.17	\$ 6,092.66
BM83	98	\$ 15.00	\$ 1,470.00	\$ 5.24	\$ 513.52	\$ 20.24	\$ 1,983.52
SUBTOTAL SECTION BM			\$ 6,562.08		\$ 3,983.70		\$ 10,545.78
CO12(10M)	26,528	\$ 1.13	\$ 29,976.64	\$ 1.08	\$ 28,650.24	\$ 2.21	\$ 58,626.88
CO12 COIL	4,600	\$ 0.80	\$ 3,680.00	\$ 0.51	\$ 2,346.00	\$ 1.31	\$ 6,026.00
CO24(10M)	0	\$ 1.13	\$ -	\$ 1.08	\$ -	\$ 2.21	\$ -
CO24 COIL	0	\$ 0.80	\$ -	\$ 0.51	\$ -	\$ 1.31	\$ -
CO48(10M)	13,016	\$ 1.13	\$ 14,708.08	\$ 1.28	\$ 16,660.48	\$ 2.41	\$ 31,368.56
CO48 COIL	2,300	\$ 0.80	\$ 1,840.00	\$ 0.65	\$ 1,495.00	\$ 1.45	\$ 3,335.00
CO72(10M)	10,017	\$ 1.13	\$ 11,319.21	\$ 1.45	\$ 14,524.65	\$ 2.58	\$ 25,843.86
CO72 COIL	1,800	\$ 0.80	\$ 1,440.00	\$ 0.86	\$ 1,548.00	\$ 1.66	\$ 2,988.00
CO96(10M)	8,856	\$ 1.13	\$ 10,007.28	\$ 1.70	\$ 15,055.20	\$ 2.83	\$ 25,062.48
CO96 COIL	1,600	\$ 0.80	\$ 1,280.00	\$ 1.10	\$ 1,760.00	\$ 1.90	\$ 3,040.00
CO144(10M)	6,136	\$ 1.16	\$ 7,117.76	\$ 2.09	\$ 12,824.24	\$ 3.25	\$ 19,942.00
CO144 COIL	1,100	\$ 0.80	\$ 880.00	\$ 1.49	\$ 1,639.00	\$ 2.29	\$ 2,519.00
CO216(10M)	9,872	\$ 1.16	\$ 11,451.52	\$ 2.65	\$ 26,160.80	\$ 3.81	\$ 37,612.32
CO216 COIL	1,700	\$ 0.80	\$ 1,360.00	\$ 2.06	\$ 3,502.00	\$ 2.86	\$ 4,862.00
CO288(10M)	0	\$ 1.16	\$ -	\$ 3.56	\$ -	\$ 4.72	\$ -
CO288 COIL	0	\$ 0.80	\$ -	\$ 2.96	\$ -	\$ 3.76	\$ -
SUBTOTAL SECTION CO			\$ 95,060.49		\$ 126,165.61		\$ 221,226.10
HACOM	50	\$ 231.65	\$ 11,582.50	\$ 550.20	\$ 27,510.00	\$ 781.85	\$ 39,092.50
HACOS	100	\$ 207.58	\$ 20,758.00	\$ 407.63	\$ 40,763.00	\$ 615.21	\$ 61,521.00
SUBTOTAL SECTION HA			\$ 32,340.50		\$ 68,273.00		\$ 100,613.50
HO1	434	\$ 33.29	\$ 14,447.86	\$ 0.75	\$ 325.50	\$ 34.04	\$ 14,773.36
HO1R	792	\$ 23.78	\$ 18,833.76	\$ 1.20	\$ 950.40	\$ 24.98	\$ 19,784.16
SUBTOTAL SECTION HO			\$ 33,281.62		\$ 1,275.90		\$ 34,557.52
ONT3	177	\$ 89.50	\$ 15,841.50	\$ 85.00	\$ 15,045.00	\$ 174.50	\$ 30,886.50
ONT7	19	\$ 215.20	\$ 4,088.80	\$ 120.00	\$ 2,280.00	\$ 335.20	\$ 6,368.80
SUBTOTAL SECTION NID			\$ 19,930.30		\$ 17,325.00		\$ 37,255.30

THACKER-GRIGSBY TELEPHONE COMPANY
Kentucky 536 - K Loan Design
Outside Plant Construction Estimate
Topmost Exchange FTTP Design - Arnold Fork Remote

10-TG-13029

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
PE1-3G	216	\$ 44.77	\$ 9,670.32	\$ 30.74	\$ 6,639.84	\$ 75.51	\$ 16,310.16
PE1-4G	17	\$ 49.76	\$ 845.92	\$ 84.51	\$ 1,436.67	\$ 134.27	\$ 2,282.59
PE2-3G	7	\$ 66.07	\$ 462.49	\$ 71.77	\$ 502.39	\$ 137.84	\$ 964.88
SUBTOTAL SECTION PE			\$ 10,978.73		\$ 8,578.90		\$ 19,557.63
PF1-5A	166	\$ 173.12	\$ 28,737.92	\$ 46.35	\$ 7,694.10	\$ 219.47	\$ 36,432.02
PF1-7A	17	\$ 207.10	\$ 3,520.70	\$ 97.53	\$ 1,658.01	\$ 304.63	\$ 5,178.71
PF5-3A	50	\$ 203.67	\$ 10,183.50	\$ 54.00	\$ 2,700.00	\$ 257.67	\$ 12,883.50
SUBTOTAL SECTION PF			\$ 42,442.12		\$ 12,052.11		\$ 54,494.23
PM2	67	\$ 45.68	\$ 3,060.56	\$ 30.67	\$ 2,054.89	\$ 76.35	\$ 5,115.45
PM2A	249	\$ 12.38	\$ 3,082.62	\$ 7.27	\$ 1,810.23	\$ 19.65	\$ 4,892.85
PM11	42	\$ 8.90	\$ 373.80	\$ 4.17	\$ 175.14	\$ 13.07	\$ 548.94
PM21	1	\$ 2,500.00	\$ 2,500.00	\$ 25,000.00	\$ 25,000.00	\$ 27,500.00	\$ 27,500.00
PM52	299	\$ 10.22	\$ 3,055.78	\$ 4.40	\$ 1,315.60	\$ 14.62	\$ 4,371.38
SUBTOTAL SECTION PM			\$ 12,072.76		\$ 30,355.86		\$ 42,428.62
R2-5M	35,226	\$ 3.10	\$ 109,200.60	\$ -	\$ -	\$ 3.10	\$ 109,200.60
R3-5M	6,217	\$ 2.63	\$ 16,350.71	\$ -	\$ -	\$ 2.63	\$ 16,350.71
SUBTOTAL SECTION R			\$ 125,551.31		\$ -		\$ 125,551.31
SEAO2	24,500	\$ 0.75	\$ 18,375.00	\$ 0.22	\$ 5,390.00	\$ 0.97	\$ 23,765.00
SEBO2	24,500	\$ 2.36	\$ 57,820.00	\$ 0.22	\$ 5,390.00	\$ 2.58	\$ 63,210.00
SUBTOTAL SECTION SE			\$ 76,195.00		\$ 10,780.00		\$ 86,975.00
WC1	249	\$ 64.88	\$ 16,155.12	\$ 2.83	\$ 704.67	\$ 67.71	\$ 16,859.79
WC1TV	100	\$ 64.88	\$ 6,488.00	\$ 2.83	\$ 283.00	\$ 67.71	\$ 6,771.00
WRESAG	4,559	\$ 0.76	\$ 3,464.84	\$ 0.20	\$ 911.80	\$ 0.96	\$ 4,376.64
WPE1	17	\$ 35.90	\$ 610.30	\$ 4.06	\$ 69.02	\$ 39.96	\$ 679.32
WSEA	100	\$ 15.75	\$ 1,575.00	\$ 1.66	\$ 166.00	\$ 17.41	\$ 1,741.00
Power Make-Ready	17	\$ 1,200.00	\$ 20,400.00	\$ -	\$ -	\$ 1,200.00	\$ 20,400.00
SUBTOTAL SECTION W			\$ 48,693.26		\$ 2,134.49		\$ 50,827.75
XX30	67	\$ 55.68	\$ 3,730.56	\$ -	\$ -	\$ 55.68	\$ 3,730.56
XXPE1	50	\$ 15.00	\$ 750.00	\$ -	\$ -	\$ 15.00	\$ 750.00
XXPF	25	\$ 18.00	\$ 450.00	\$ -	\$ -	\$ 18.00	\$ 450.00
SUBTOTAL SECTION XX			\$ 4,930.56		\$ -		\$ 4,930.56
TOTALS			\$ 537,983.82		\$ 300,708.10		\$ 838,691.92
25.86	Total Miles						
16.58	Route Miles					Per Route Mile	\$ 42,026.74
9.28	Drop Miles					Per Drop Mile	\$ 15,304.14
196	Drops						

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Dema Remote

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	7	\$ 288.84	\$ 2,021.88	\$ 220.24	\$ 1,541.68	\$ 509.08	\$ 3,563.56
30-5	50	\$ 288.84	\$ 14,442.00	\$ 163.23	\$ 8,161.50	\$ 452.07	\$ 22,603.50
35-3	5	\$ 305.33	\$ 1,526.65	\$ 283.10	\$ 1,415.50	\$ 588.43	\$ 2,942.15
35-5	19	\$ 305.33	\$ 5,801.27	\$ 209.82	\$ 3,986.58	\$ 515.15	\$ 9,787.85
40-3	6	\$ 376.82	\$ 2,260.92	\$ 360.39	\$ 2,162.34	\$ 737.21	\$ 4,423.26
SUBTOTAL SECTION A			\$ 26,052.72		\$ 17,267.60		\$ 43,320.32
BM61(1)	164	\$ 11.70	\$ 1,918.80	\$ 0.90	\$ 147.60	\$ 12.60	\$ 2,066.40
BM80	82	\$ 28.56	\$ 2,341.92	\$ 33.61	\$ 2,756.02	\$ 62.17	\$ 5,097.94
BM83	82	\$ 15.00	\$ 1,230.00	\$ 5.24	\$ 429.68	\$ 20.24	\$ 1,659.68
SUBTOTAL SECTION BM			\$ 5,490.72		\$ 3,333.30		\$ 8,824.02
CO12(10M)	14,977	\$ 1.13	\$ 16,924.01	\$ 1.08	\$ 16,175.16	\$ 2.21	\$ 33,099.17
CO12 COIL	2,600	\$ 0.80	\$ 2,080.00	\$ 0.51	\$ 1,326.00	\$ 1.31	\$ 3,406.00
CO24(10M)	12,914	\$ 1.13	\$ 14,592.82	\$ 1.08	\$ 13,947.12	\$ 2.21	\$ 28,539.94
CO24 COIL	2,300	\$ 0.80	\$ 1,840.00	\$ 0.51	\$ 1,173.00	\$ 1.31	\$ 3,013.00
CO48(10M)	17,144	\$ 1.13	\$ 19,372.72	\$ 1.28	\$ 21,944.32	\$ 2.41	\$ 41,317.04
CO48 COIL	3,000	\$ 0.80	\$ 2,400.00	\$ 0.65	\$ 1,950.00	\$ 1.45	\$ 4,350.00
CO72(10M)	0	\$ 1.13	\$ -	\$ 1.45	\$ -	\$ 2.58	\$ -
CO72 COIL	0	\$ 0.80	\$ -	\$ 0.86	\$ -	\$ 1.66	\$ -
CO96(10M)	7,067	\$ 1.13	\$ 7,985.71	\$ 1.70	\$ 12,013.90	\$ 2.83	\$ 19,999.61
CO96 COIL	1,300	\$ 0.80	\$ 1,040.00	\$ 1.10	\$ 1,430.00	\$ 1.90	\$ 2,470.00
CO144(10M)	0	\$ 1.16	\$ -	\$ 2.09	\$ -	\$ 3.25	\$ -
CO144 COIL	0	\$ 0.80	\$ -	\$ 1.49	\$ -	\$ 2.29	\$ -
CO216(10M)		\$ 1.16	\$ -	\$ 2.65	\$ -	\$ 3.81	\$ -
CO216 COIL	0	\$ 0.80	\$ -	\$ 2.06	\$ -	\$ 2.86	\$ -
CO288(10M)	11,450	\$ 1.16	\$ 13,282.00	\$ 3.56	\$ 40,762.00	\$ 4.72	\$ 54,044.00
CO288 COIL	2,000	\$ 0.80	\$ 1,600.00	\$ 2.96	\$ 5,920.00	\$ 3.76	\$ 7,520.00
SUBTOTAL SECTION CO			\$ 81,117.26		\$ 116,641.50		\$ 197,758.76
HACOM	38	\$ 231.65	\$ 8,802.70	\$ 550.20	\$ 20,907.60	\$ 781.85	\$ 29,710.30
HACOS	91	\$ 207.58	\$ 18,889.78	\$ 407.63	\$ 37,094.33	\$ 615.21	\$ 55,984.11
SUBTOTAL SECTION HA			\$ 27,692.48		\$ 58,001.93		\$ 85,694.41
HO1	404	\$ 33.29	\$ 13,449.16	\$ 0.75	\$ 303.00	\$ 34.04	\$ 13,752.16
HO1R	696	\$ 23.78	\$ 16,550.88	\$ 1.20	\$ 835.20	\$ 24.98	\$ 17,386.08
SUBTOTAL SECTION HO			\$ 30,000.04		\$ 1,138.20		\$ 31,138.24
ONT3	147	\$ 89.50	\$ 13,156.50	\$ 85.00	\$ 12,495.00	\$ 174.50	\$ 25,651.50
ONT7	16	\$ 215.20	\$ 3,443.20	\$ 120.00	\$ 1,920.00	\$ 335.20	\$ 5,363.20
SUBTOTAL SECTION NID			\$ 16,599.70		\$ 14,415.00		\$ 31,014.70

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
Outside Plant Construction Estimate

Topmost Exchange FTTP Design - Dema Remote

PE1-3G	185	\$ 44.77	\$ 8,282.45	\$ 30.74	\$ 5,686.90	\$ 75.51	\$ 13,969.35
PE1-4G	15	\$ 49.76	\$ 746.40	\$ 84.51	\$ 1,267.65	\$ 134.27	\$ 2,014.05
PE2-3G	6	\$ 66.07	\$ 396.42	\$ 71.77	\$ 430.62	\$ 137.84	\$ 827.04
SUBTOTAL SECTION PE			\$ 9,425.27		\$ 7,385.17		\$ 16,810.44
PF1-5A	142	\$ 173.12	\$ 24,583.04	\$ 46.35	\$ 6,581.70	\$ 219.47	\$ 31,164.74
PF1-7A	15	\$ 207.10	\$ 3,106.50	\$ 97.53	\$ 1,462.95	\$ 304.63	\$ 4,569.45
PF5-3A	43	\$ 203.67	\$ 8,757.81	\$ 54.00	\$ 2,322.00	\$ 257.67	\$ 11,079.81
SUBTOTAL SECTION PF			\$ 36,447.35		\$ 10,366.65		\$ 46,814.00
PM2	57	\$ 45.68	\$ 2,603.76	\$ 30.67	\$ 1,748.19	\$ 76.35	\$ 4,351.95
PM2A	213	\$ 12.38	\$ 2,636.94	\$ 7.27	\$ 1,548.51	\$ 19.65	\$ 4,185.45
PM11	36	\$ 8.90	\$ 320.40	\$ 4.17	\$ 150.12	\$ 13.07	\$ 470.52
PM21	1	\$ 2,500.00	\$ 2,500.00	\$ 25,000.00	\$ 25,000.00	\$ 27,500.00	\$ 27,500.00
PM52	255	\$ 10.22	\$ 2,606.10	\$ 4.40	\$ 1,122.00	\$ 14.62	\$ 3,728.10
SUBTOTAL SECTION PM			\$ 10,667.20		\$ 29,568.82		\$ 40,236.02
R2-5M	30,085	\$ 3.10	\$ 93,263.50	\$ -	\$ -	\$ 3.10	\$ 93,263.50
R3-5M	5,310	\$ 2.63	\$ 13,965.30	\$ -	\$ -	\$ 2.63	\$ 13,965.30
SUBTOTAL SECTION R			\$ 107,228.80		\$ -		\$ 107,228.80
SEA02	20,375	\$ 0.75	\$ 15,281.25	\$ 0.22	\$ 4,482.50	\$ 0.97	\$ 19,763.75
SEB02	20,375	\$ 2.36	\$ 48,085.00	\$ 0.22	\$ 4,482.50	\$ 2.58	\$ 52,567.50
SUBTOTAL SECTION SE			\$ 63,366.25		\$ 8,965.00		\$ 72,331.25
WC1	213	\$ 64.88	\$ 13,819.44	\$ 2.83	\$ 602.79	\$ 67.71	\$ 14,422.23
WC1TV	85	\$ 64.88	\$ 5,514.80	\$ 2.83	\$ 240.55	\$ 67.71	\$ 5,755.35
WRESAG	3,894	\$ 0.76	\$ 2,959.44	\$ 0.20	\$ 778.80	\$ 0.96	\$ 3,738.24
WPE1	15	\$ 35.90	\$ 538.50	\$ 4.06	\$ 60.90	\$ 39.96	\$ 599.40
WSEA	85	\$ 15.75	\$ 1,338.75	\$ 1.66	\$ 141.10	\$ 17.41	\$ 1,479.85
Power Make-Ready	14	\$ 1,200.00	\$ 16,800.00	\$ -	\$ -	\$ 1,200.00	\$ 16,800.00
SUBTOTAL SECTION W			\$ 40,970.93		\$ 1,824.14		\$ 42,795.07
XX30	57	\$ 55.68	\$ 3,173.76	\$ -	\$ -	\$ 55.68	\$ 3,173.76
XXPE1	43	\$ 15.00	\$ 645.00	\$ -	\$ -	\$ 15.00	\$ 645.00
XXPF	22	\$ 18.00	\$ 396.00	\$ -	\$ -	\$ 18.00	\$ 396.00
SUBTOTAL SECTION XX			\$ 4,214.76		\$ -		\$ 4,214.76
TOTALS			\$ 459,273.48		\$ 268,907.31		\$ 728,180.79
21.88	Total Miles						
14.16	Route Miles					Per Route Mile	\$ 43,087.30
7.72	Drop Miles					Per Drop Mile	\$ 15,311.23
163	Drops						

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Kite Remote

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	9	\$ 288.84	\$ 2,599.56	\$ 220.24	\$ 1,982.16	\$ 509.08	\$ 4,581.72
30-5	63	\$ 288.84	\$ 18,196.92	\$ 163.23	\$ 10,283.49	\$ 452.07	\$ 28,480.41
35-3	6	\$ 305.33	\$ 1,831.98	\$ 283.10	\$ 1,698.60	\$ 588.43	\$ 3,530.58
35-5	24	\$ 305.33	\$ 7,327.92	\$ 209.82	\$ 5,035.68	\$ 515.15	\$ 12,363.60
40-3	8	\$ 376.82	\$ 3,014.56	\$ 360.39	\$ 2,883.12	\$ 737.21	\$ 5,897.68
SUBTOTAL SECTION A			\$ 32,970.94		\$ 21,883.05		\$ 54,853.99
BM61(1)	212	\$ 11.70	\$ 2,480.40	\$ 0.90	\$ 190.80	\$ 12.60	\$ 2,671.20
BM80	106	\$ 28.56	\$ 3,027.36	\$ 33.61	\$ 3,562.66	\$ 62.17	\$ 6,590.02
BM83	106	\$ 15.00	\$ 1,590.00	\$ 5.24	\$ 555.44	\$ 20.24	\$ 2,145.44
SUBTOTAL SECTION BM			\$ 7,097.76		\$ 4,308.90		\$ 11,406.66
CO12(10M)	22,472	\$ 1.13	\$ 25,393.36	\$ 1.08	\$ 24,269.76	\$ 2.21	\$ 49,663.12
CO12 COIL	3,900	\$ 0.80	\$ 3,120.00	\$ 0.51	\$ 1,989.00	\$ 1.31	\$ 5,109.00
CO24(10M)	10,949	\$ 1.13	\$ 12,372.37	\$ 1.08	\$ 11,824.92	\$ 2.21	\$ 24,197.29
CO24 COIL	1,900	\$ 0.80	\$ 1,520.00	\$ 0.51	\$ 969.00	\$ 1.31	\$ 2,489.00
CO48(10M)	8,456	\$ 1.13	\$ 9,555.28	\$ 1.28	\$ 10,823.68	\$ 2.41	\$ 20,378.96
CO48 COIL	1,500	\$ 0.80	\$ 1,200.00	\$ 0.65	\$ 975.00	\$ 1.45	\$ 2,175.00
CO72(10M)	10,719	\$ 1.13	\$ 12,112.47	\$ 1.45	\$ 15,542.55	\$ 2.58	\$ 27,655.02
CO72 COIL	1,900	\$ 0.80	\$ 1,520.00	\$ 0.86	\$ 1,634.00	\$ 1.66	\$ 3,154.00
CO96(10M)	7,450	\$ 1.13	\$ 8,418.50	\$ 1.70	\$ 12,665.00	\$ 2.83	\$ 21,083.50
CO96 COIL	1,300	\$ 0.80	\$ 1,040.00	\$ 1.10	\$ 1,430.00	\$ 1.90	\$ 2,470.00
CO144(10M)	6,093	\$ 1.16	\$ 7,067.88	\$ 2.09	\$ 12,734.37	\$ 3.25	\$ 19,802.25
CO144 COIL	1,100	\$ 0.80	\$ 880.00	\$ 1.49	\$ 1,639.00	\$ 2.29	\$ 2,519.00
CO216(10M)	2,230	\$ 1.16	\$ 2,586.80	\$ 2.65	\$ 5,909.50	\$ 3.81	\$ 8,496.30
CO216 COIL	400	\$ 0.80	\$ 320.00	\$ 2.06	\$ 824.00	\$ 2.86	\$ 1,144.00
CO288(10M)	12,078	\$ 1.16	\$ 14,010.48	\$ 3.56	\$ 42,997.68	\$ 4.72	\$ 57,008.16
CO288 COIL	2,100	\$ 0.80	\$ 1,680.00	\$ 2.96	\$ 6,216.00	\$ 3.76	\$ 7,896.00
SUBTOTAL SECTION CO			\$ 102,797.14		\$ 152,443.46		\$ 255,240.60
HACOM	56	\$ 231.65	\$ 12,972.40	\$ 550.20	\$ 30,811.20	\$ 781.85	\$ 43,783.60
HACOS	106	\$ 207.58	\$ 22,003.48	\$ 407.63	\$ 43,208.78	\$ 615.21	\$ 65,212.26
SUBTOTAL SECTION HA			\$ 34,975.88		\$ 74,019.98		\$ 108,995.86
HO1	454	\$ 33.29	\$ 15,113.66	\$ 0.75	\$ 340.50	\$ 34.04	\$ 15,454.16
HO1R	1,128	\$ 23.78	\$ 26,823.84	\$ 1.20	\$ 1,353.60	\$ 24.98	\$ 28,177.44
SUBTOTAL SECTION HO			\$ 41,937.50		\$ 1,694.10		\$ 43,631.60
ONT3	191	\$ 89.50	\$ 17,094.50	\$ 85.00	\$ 16,235.00	\$ 174.50	\$ 33,329.50
ONT7	21	\$ 215.20	\$ 4,519.20	\$ 120.00	\$ 2,520.00	\$ 335.20	\$ 7,039.20
SUBTOTAL SECTION NID			\$ 21,613.70		\$ 18,755.00		\$ 40,368.70

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate

Topmost Exchange FTTP Design - Kite Remote

PE1-3G	234	\$ 44.77	\$ 10,476.18	\$ 30.74	\$ 7,193.16	\$ 75.51	\$ 17,669.34
PE1-4G	18	\$ 49.76	\$ 895.68	\$ 84.51	\$ 1,521.18	\$ 134.27	\$ 2,416.86
PE2-3G	8	\$ 66.07	\$ 528.56	\$ 71.77	\$ 574.16	\$ 137.84	\$ 1,102.72
SUBTOTAL SECTION PE			\$ 11,900.42		\$ 9,288.50		\$ 21,188.92
PF1-5A	180	\$ 173.12	\$ 31,161.60	\$ 46.35	\$ 8,343.00	\$ 219.47	\$ 39,504.60
PF1-7A	18	\$ 207.10	\$ 3,727.80	\$ 97.53	\$ 1,755.54	\$ 304.63	\$ 5,483.34
PF5-3A	54	\$ 203.67	\$ 10,998.18	\$ 54.00	\$ 2,916.00	\$ 257.67	\$ 13,914.18
SUBTOTAL SECTION PF			\$ 45,887.58		\$ 13,014.54		\$ 58,902.12
PM2	72	\$ 45.68	\$ 3,288.96	\$ 30.67	\$ 2,208.24	\$ 76.35	\$ 5,497.20
PM2A	269	\$ 12.38	\$ 3,330.22	\$ 7.27	\$ 1,955.63	\$ 19.65	\$ 5,285.85
PM11	45	\$ 8.90	\$ 400.50	\$ 4.17	\$ 187.65	\$ 13.07	\$ 588.15
PM21	1	\$ 2,500.00	\$ 2,500.00	\$ 25,000.00	\$ 25,000.00	\$ 27,500.00	\$ 27,500.00
PM52	323	\$ 10.22	\$ 3,301.06	\$ 4.40	\$ 1,421.20	\$ 14.62	\$ 4,722.26
SUBTOTAL SECTION PM			\$ 12,820.74		\$ 30,772.72		\$ 43,593.46
R2-5M	38,052	\$ 3.10	\$ 117,961.20	\$ -	\$ -	\$ 3.10	\$ 117,961.20
R3-5M	6,715	\$ 2.63	\$ 17,660.45	\$ -	\$ -	\$ 2.63	\$ 17,660.45
SUBTOTAL SECTION R			\$ 135,621.65		\$ -		\$ 135,621.65
SEA02	26,500	\$ 0.75	\$ 19,875.00	\$ 0.22	\$ 5,830.00	\$ 0.97	\$ 25,705.00
SEB02	26,500	\$ 2.36	\$ 62,540.00	\$ 0.22	\$ 5,830.00	\$ 2.58	\$ 68,370.00
SUBTOTAL SECTION SE			\$ 82,415.00		\$ 11,660.00		\$ 94,075.00
WC1	269	\$ 64.88	\$ 17,452.72	\$ 2.83	\$ 761.27	\$ 67.71	\$ 18,213.99
WC1TV	108	\$ 64.88	\$ 7,007.04	\$ 2.83	\$ 305.64	\$ 67.71	\$ 7,312.68
WRESAG	4,925	\$ 0.76	\$ 3,743.00	\$ 0.20	\$ 985.00	\$ 0.96	\$ 4,728.00
WPE1	18	\$ 35.90	\$ 646.20	\$ 4.06	\$ 73.08	\$ 39.96	\$ 719.28
WSEA	108	\$ 15.75	\$ 1,701.00	\$ 1.66	\$ 179.28	\$ 17.41	\$ 1,880.28
Power Make-Ready	18	\$ 1,200.00	\$ 21,600.00	\$ -	\$ -	\$ 1,200.00	\$ 21,600.00
SUBTOTAL SECTION W			\$ 52,149.96		\$ 2,304.27		\$ 54,454.23
XX30	72	\$ 55.68	\$ 4,008.96	\$ -	\$ -	\$ 55.68	\$ 4,008.96
XXPE1	54	\$ 15.00	\$ 810.00	\$ -	\$ -	\$ 15.00	\$ 810.00
XXPF	27	\$ 18.00	\$ 486.00	\$ -	\$ -	\$ 18.00	\$ 486.00
SUBTOTAL SECTION XX			\$ 5,304.96		\$ -		\$ 5,304.96
TOTALS			\$ 587,493.23		\$ 340,144.52		\$ 927,637.75
27.94	Total Miles						
17.91	Route Miles					Per Route Mile	\$ 43,221.11
10.04	Drop Miles					Per Drop Mile	\$ 15,311.33
212	Drops						

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Raven Remote

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	10	\$ 288.84	\$ 2,888.40	\$ 220.24	\$ 2,202.40	\$ 509.08	\$ 5,090.80
30-5	68	\$ 288.84	\$ 19,641.12	\$ 163.23	\$ 11,099.64	\$ 452.07	\$ 30,740.76
35-3	6	\$ 305.33	\$ 1,831.98	\$ 283.10	\$ 1,698.60	\$ 588.43	\$ 3,530.58
35-5	26	\$ 305.33	\$ 7,938.58	\$ 209.82	\$ 5,455.32	\$ 515.15	\$ 13,393.90
40-3	9	\$ 376.82	\$ 3,391.38	\$ 360.39	\$ 3,243.51	\$ 737.21	\$ 6,634.89
SUBTOTAL SECTION A			\$ 35,691.46		\$ 23,699.47		\$ 59,390.93
BM61(1)	152	\$ 11.70	\$ 1,778.40	\$ 0.90	\$ 136.80	\$ 12.60	\$ 1,915.20
BM80	76	\$ 28.56	\$ 2,170.56	\$ 33.61	\$ 2,554.36	\$ 62.17	\$ 4,724.92
BM83	76	\$ 15.00	\$ 1,140.00	\$ 5.24	\$ 398.24	\$ 20.24	\$ 1,538.24
SUBTOTAL SECTION BM			\$ 5,088.96		\$ 3,089.40		\$ 8,178.36
CO12(10M)	22,070	\$ 1.13	\$ 24,939.10	\$ 1.08	\$ 23,835.60	\$ 2.21	\$ 48,774.70
CO12 COIL	3,800	\$ 0.80	\$ 3,040.00	\$ 0.51	\$ 1,938.00	\$ 1.31	\$ 4,978.00
CO24(10M)	19,386	\$ 1.13	\$ 21,906.18	\$ 1.08	\$ 20,936.88	\$ 2.21	\$ 42,843.06
CO24 COIL	3,400	\$ 0.80	\$ 2,720.00	\$ 0.51	\$ 1,734.00	\$ 1.31	\$ 4,454.00
CO48(10M)	2,180	\$ 1.13	\$ 2,463.40	\$ 1.28	\$ 2,790.40	\$ 2.41	\$ 5,253.80
CO48 COIL	400	\$ 0.80	\$ 320.00	\$ 0.65	\$ 260.00	\$ 1.45	\$ 580.00
CO72(10M)	20,785	\$ 1.13	\$ 23,487.05	\$ 1.45	\$ 30,138.25	\$ 2.58	\$ 53,625.30
CO72 COIL	3,600	\$ 0.80	\$ 2,880.00	\$ 0.86	\$ 3,096.00	\$ 1.66	\$ 5,976.00
CO96(10M)	0	\$ 1.13	\$ -	\$ 1.70	\$ -	\$ 2.83	\$ -
CO96 COIL	0	\$ 0.80	\$ -	\$ 1.10	\$ -	\$ 1.90	\$ -
CO144(10M)	9,254	\$ 1.16	\$ 10,734.64	\$ 2.09	\$ 19,340.86	\$ 3.25	\$ 30,075.50
CO144 COIL	1,600	\$ 0.80	\$ 1,280.00	\$ 1.49	\$ 2,384.00	\$ 2.29	\$ 3,664.00
CO216(10M)	14,145	\$ 1.16	\$ 16,408.20	\$ 2.65	\$ 37,484.25	\$ 3.81	\$ 53,892.45
CO216 COIL	2,500	\$ 0.80	\$ 2,000.00	\$ 2.06	\$ 5,150.00	\$ 2.86	\$ 7,150.00
CO288(10M)	0	\$ 1.16	\$ -	\$ 3.56	\$ -	\$ 4.72	\$ -
CO288 COIL	0	\$ 0.80	\$ -	\$ 2.96	\$ -	\$ 3.76	\$ -
SUBTOTAL SECTION CO			\$ 112,178.57		\$ 149,088.24		\$ 261,266.81
HACOM	47	\$ 231.65	\$ 10,887.55	\$ 550.20	\$ 25,859.40	\$ 781.85	\$ 36,746.95
HACOS	129	\$ 207.58	\$ 26,777.82	\$ 407.63	\$ 52,584.27	\$ 615.21	\$ 79,362.09
SUBTOTAL SECTION HA			\$ 37,665.37		\$ 78,443.67		\$ 116,109.04
HO1	412	\$ 33.29	\$ 13,715.48	\$ 0.75	\$ 309.00	\$ 34.04	\$ 14,024.48
HO1R	828	\$ 23.78	\$ 19,689.84	\$ 1.20	\$ 993.60	\$ 24.98	\$ 20,683.44
SUBTOTAL SECTION HO			\$ 33,405.32		\$ 1,302.60		\$ 34,707.92
ONT3	137	\$ 89.50	\$ 12,261.50	\$ 85.00	\$ 11,645.00	\$ 174.50	\$ 23,906.50
ONT7	15	\$ 215.20	\$ 3,228.00	\$ 120.00	\$ 1,800.00	\$ 335.20	\$ 5,028.00
SUBTOTAL SECTION NID			\$ 15,489.50		\$ 13,445.00		\$ 28,934.50

THACKER-GRIGSBY TELEPHONE COMPANY

10-TG-13029

Kentucky 536 - K Loan Design
 Outside Plant Construction Estimate
 Topmost Exchange FTTP Design - Raven Remote

PE1-3G	255	\$ 44.77	\$ 11,416.35	\$ 30.74	\$ 7,838.70	\$ 75.51	\$ 19,255.05
PE1-4G	20	\$ 49.76	\$ 995.20	\$ 84.51	\$ 1,690.20	\$ 134.27	\$ 2,685.40
PE2-3G	8	\$ 66.07	\$ 528.56	\$ 71.77	\$ 574.16	\$ 137.84	\$ 1,102.72
SUBTOTAL SECTION PE			\$ 12,940.11		\$ 10,103.06		\$ 23,043.17
PF1-5A	196	\$ 173.12	\$ 33,931.52	\$ 46.35	\$ 9,084.60	\$ 219.47	\$ 43,016.12
PF1-7A	20	\$ 207.10	\$ 4,142.00	\$ 97.53	\$ 1,950.60	\$ 304.63	\$ 6,092.60
PF5-3A	59	\$ 203.67	\$ 12,016.53	\$ 54.00	\$ 3,186.00	\$ 257.67	\$ 15,202.53
SUBTOTAL SECTION PF			\$ 50,090.05		\$ 14,221.20		\$ 64,311.25
PM2	79	\$ 45.68	\$ 3,608.72	\$ 30.67	\$ 2,422.93	\$ 76.35	\$ 6,031.65
PM2A	293	\$ 12.38	\$ 3,627.34	\$ 7.27	\$ 2,130.11	\$ 19.65	\$ 5,757.45
PM11	49	\$ 8.90	\$ 436.10	\$ 4.17	\$ 204.33	\$ 13.07	\$ 640.43
PM21	1	\$ 2,500.00	\$ 2,500.00	\$ 25,000.00	\$ 25,000.00	\$ 27,500.00	\$ 27,500.00
PM52	352	\$ 10.22	\$ 3,597.44	\$ 4.40	\$ 1,548.80	\$ 14.62	\$ 5,146.24
SUBTOTAL SECTION PM			\$ 13,769.60		\$ 31,306.17		\$ 45,075.77
R2-5M	41,502	\$ 3.10	\$ 128,656.20	\$ -	\$ -	\$ 3.10	\$ 128,656.20
R3-5M	7,324	\$ 2.63	\$ 19,262.12	\$ -	\$ -	\$ 2.63	\$ 19,262.12
SUBTOTAL SECTION R			\$ 147,918.32		\$ -		\$ 147,918.32
SEAO2	19,000	\$ 0.75	\$ 14,250.00	\$ 0.22	\$ 4,180.00	\$ 0.97	\$ 18,430.00
SEBO2	19,000	\$ 2.36	\$ 44,840.00	\$ 0.22	\$ 4,180.00	\$ 2.58	\$ 49,020.00
SUBTOTAL SECTION SE			\$ 59,090.00		\$ 8,360.00		\$ 67,450.00
WC1	293	\$ 64.88	\$ 19,009.84	\$ 2.83	\$ 829.19	\$ 67.71	\$ 19,839.03
WC1TV	118	\$ 64.88	\$ 7,655.84	\$ 2.83	\$ 333.94	\$ 67.71	\$ 7,989.78
WRESAG	5,371	\$ 0.76	\$ 4,081.96	\$ 0.20	\$ 1,074.20	\$ 0.96	\$ 5,156.16
WPE1	20	\$ 35.90	\$ 718.00	\$ 4.06	\$ 81.20	\$ 39.96	\$ 799.20
WSEA	118	\$ 15.75	\$ 1,858.50	\$ 1.66	\$ 195.88	\$ 17.41	\$ 2,054.38
Power Make-Ready	20	\$ 1,200.00	\$ 24,000.00	\$ -	\$ -	\$ 1,200.00	\$ 24,000.00
SUBTOTAL SECTION W			\$ 57,324.14		\$ 2,514.41		\$ 59,838.55
XX30	79	\$ 55.68	\$ 4,398.72	\$ -	\$ -	\$ 55.68	\$ 4,398.72
XXPE1	59	\$ 15.00	\$ 885.00	\$ -	\$ -	\$ 15.00	\$ 885.00
XXPF	30	\$ 18.00	\$ 540.00	\$ -	\$ -	\$ 18.00	\$ 540.00
SUBTOTAL SECTION XX			\$ 5,823.72		\$ -		\$ 5,823.72
TOTALS			\$ 586,475.12		\$ 335,573.22		\$ 922,048.34
26.73	Total Miles						
19.53	Route Miles					Per Route Mile	\$ 41,569.36
7.20	Drop Miles					Per Drop Mile	\$ 15,310.07
152	Drops						

THACKER-GRIGSBY TELEPHONE COMPANY
Kentucky 536 - K Loan Design
Outside Plant Construction Estimate
Topmost Exchange FTTP Design - Topmost Remote

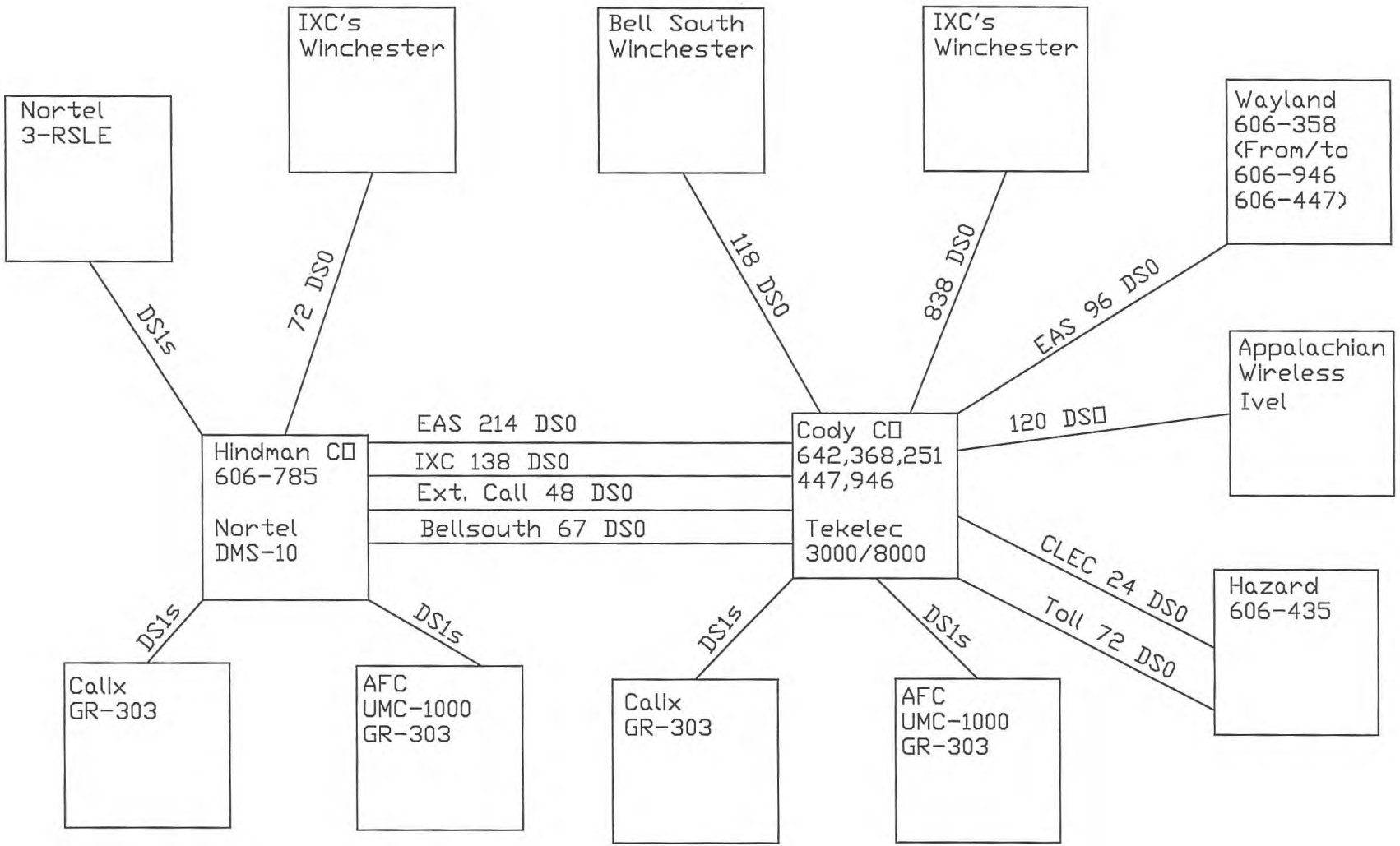
10-TG-13029

UNIT	QUANTITY	LABOR	EXTENDED LABOR	MATERIAL	EXTENDED MATERIAL	UNIT PRICE	TOTAL COST
30-3	8	\$ 288.84	\$ 2,310.72	\$ 220.24	\$ 1,761.92	\$ 509.08	\$ 4,072.64
30-5	55	\$ 288.84	\$ 15,886.20	\$ 163.23	\$ 8,977.65	\$ 452.07	\$ 24,863.85
35-3	5	\$ 305.33	\$ 1,526.65	\$ 283.10	\$ 1,415.50	\$ 588.43	\$ 2,942.15
35-5	21	\$ 305.33	\$ 6,411.93	\$ 209.82	\$ 4,406.22	\$ 515.15	\$ 10,818.15
40-3	7	\$ 376.82	\$ 2,637.74	\$ 360.39	\$ 2,522.73	\$ 737.21	\$ 5,160.47
SUBTOTAL SECTION A			\$ 28,773.24		\$ 19,084.02		\$ 47,857.26
BM61(1)	222	\$ 11.70	\$ 2,597.40	\$ 0.90	\$ 199.80	\$ 12.60	\$ 2,797.20
BM80	111	\$ 28.56	\$ 3,170.16	\$ 33.61	\$ 3,730.71	\$ 62.17	\$ 6,900.87
BM83	111	\$ 15.00	\$ 1,665.00	\$ 5.24	\$ 581.64	\$ 20.24	\$ 2,246.64
SUBTOTAL SECTION BM			\$ 7,432.56		\$ 4,512.15		\$ 11,944.71
CO12(10M)	17,608	\$ 1.13	\$ 19,897.04	\$ 1.08	\$ 19,016.64	\$ 2.21	\$ 38,913.68
CO12 COIL	3,100	\$ 0.80	\$ 2,480.00	\$ 0.51	\$ 1,581.00	\$ 1.31	\$ 4,061.00
CO24(10M)	1,306	\$ 1.13	\$ 1,475.78	\$ 1.08	\$ 1,410.48	\$ 2.21	\$ 2,886.26
CO24 COIL	300	\$ 0.80	\$ 240.00	\$ 0.51	\$ 153.00	\$ 1.31	\$ 393.00
CO48(10M)	15,405	\$ 1.13	\$ 17,407.65	\$ 1.28	\$ 19,718.40	\$ 2.41	\$ 37,126.05
CO48 COIL	2,700	\$ 0.80	\$ 2,160.00	\$ 0.65	\$ 1,755.00	\$ 1.45	\$ 3,915.00
CO72(10M)	9,200	\$ 1.13	\$ 10,396.00	\$ 1.45	\$ 13,340.00	\$ 2.58	\$ 23,736.00
CO72 COIL	1,600	\$ 0.80	\$ 1,280.00	\$ 0.86	\$ 1,376.00	\$ 1.66	\$ 2,656.00
CO96(10M)	0	\$ 1.13	\$ -	\$ 1.70	\$ -	\$ 2.83	\$ -
CO96 COIL	0	\$ 0.80	\$ -	\$ 1.10	\$ -	\$ 1.90	\$ -
CO144(10M)	17,261	\$ 1.16	\$ 20,022.76	\$ 2.09	\$ 36,075.49	\$ 3.25	\$ 56,098.25
CO144 COIL	3,000	\$ 0.80	\$ 2,400.00	\$ 1.49	\$ 4,470.00	\$ 2.29	\$ 6,870.00
CO216(10M)		\$ 1.16	\$ -	\$ 2.65	\$ -	\$ 3.81	\$ -
CO216 COIL	0	\$ 0.80	\$ -	\$ 2.06	\$ -	\$ 2.86	\$ -
CO288(10M)	8,955	\$ 1.16	\$ 10,387.80	\$ 3.56	\$ 31,879.80	\$ 4.72	\$ 42,267.60
CO288 COIL	1,600	\$ 0.80	\$ 1,280.00	\$ 2.96	\$ 4,736.00	\$ 3.76	\$ 6,016.00
SUBTOTAL SECTION CO			\$ 89,427.03		\$ 135,511.81		\$ 224,938.84
HACOM	53	\$ 231.65	\$ 12,277.45	\$ 550.20	\$ 29,160.60	\$ 781.85	\$ 41,438.05
HACOS	88	\$ 207.58	\$ 18,267.04	\$ 407.63	\$ 35,871.44	\$ 615.21	\$ 54,138.48
SUBTOTAL SECTION HA			\$ 30,544.49		\$ 65,032.04		\$ 95,576.53
HO1	522	\$ 33.29	\$ 17,377.38	\$ 0.75	\$ 391.50	\$ 34.04	\$ 17,768.88
HO1R	840	\$ 23.78	\$ 19,975.20	\$ 1.20	\$ 1,008.00	\$ 24.98	\$ 20,983.20
SUBTOTAL SECTION HO			\$ 37,352.58		\$ 1,399.50		\$ 38,752.08
ONT3	200	\$ 89.50	\$ 17,900.00	\$ 85.00	\$ 17,000.00	\$ 174.50	\$ 34,900.00
ONT7	22	\$ 215.20	\$ 4,734.40	\$ 120.00	\$ 2,640.00	\$ 335.20	\$ 7,374.40
SUBTOTAL SECTION NID			\$ 22,634.40		\$ 19,640.00		\$ 42,274.40

THACKER-GRIGSBY TELEPHONE COMPANY
Kentucky 536 - K Loan Design
Outside Plant Construction Estimate
Topmost Exchange FTTP Design - Topmost Remote

10-TG-13029

PE1-3G	203	\$ 44.77	\$ 9,088.31	\$ 30.74	\$ 6,240.22	\$ 75.51	\$ 15,328.53
PE1-4G	16	\$ 49.76	\$ 796.16	\$ 84.51	\$ 1,352.16	\$ 134.27	\$ 2,148.32
PE2-3G	7	\$ 66.07	\$ 462.49	\$ 71.77	\$ 502.39	\$ 137.84	\$ 964.88
SUBTOTAL SECTION PE			\$ 10,346.96		\$ 8,094.77		\$ 18,441.73
PF1-5A	156	\$ 173.12	\$ 27,006.72	\$ 46.35	\$ 7,230.60	\$ 219.47	\$ 34,237.32
PF1-7A	16	\$ 207.10	\$ 3,313.60	\$ 97.53	\$ 1,560.48	\$ 304.63	\$ 4,874.08
PF5-3A	47	\$ 203.67	\$ 9,572.49	\$ 54.00	\$ 2,538.00	\$ 257.67	\$ 12,110.49
SUBTOTAL SECTION PF			\$ 39,892.81		\$ 11,329.08		\$ 51,221.89
PM2	63	\$ 45.68	\$ 2,877.84	\$ 30.67	\$ 1,932.21	\$ 76.35	\$ 4,810.05
PM2A	234	\$ 12.38	\$ 2,896.92	\$ 7.27	\$ 1,701.18	\$ 19.65	\$ 4,598.10
PM11	39	\$ 8.90	\$ 347.10	\$ 4.17	\$ 162.63	\$ 13.07	\$ 509.73
PM21	1	\$ 2,500.00	\$ 2,500.00	\$ 25,000.00	\$ 25,000.00	\$ 27,500.00	\$ 27,500.00
PM52	280	\$ 10.22	\$ 2,861.60	\$ 4.40	\$ 1,232.00	\$ 14.62	\$ 4,093.60
SUBTOTAL SECTION PM			\$ 11,483.46		\$ 30,028.02		\$ 41,511.48
R2-5M	33,016	\$ 3.10	\$ 102,349.60	\$ -	\$ -	\$ 3.10	\$ 102,349.60
R3-5M	5,827	\$ 2.63	\$ 15,325.01	\$ -	\$ -	\$ 2.63	\$ 15,325.01
SUBTOTAL SECTION R			\$ 117,674.61		\$ -		\$ 117,674.61
SEAO2	27,750	\$ 0.75	\$ 20,812.50	\$ 0.22	\$ 6,105.00	\$ 0.97	\$ 26,917.50
SEBO2	27,750	\$ 2.36	\$ 65,490.00	\$ 0.22	\$ 6,105.00	\$ 2.58	\$ 71,595.00
SUBTOTAL SECTION SE			\$ 86,302.50		\$ 12,210.00		\$ 98,512.50
WC1	234	\$ 64.88	\$ 15,181.92	\$ 2.83	\$ 662.22	\$ 67.71	\$ 15,844.14
WC1TV	94	\$ 64.88	\$ 6,098.72	\$ 2.83	\$ 266.02	\$ 67.71	\$ 6,364.74
WRESAG	4,273	\$ 0.76	\$ 3,247.48	\$ 0.20	\$ 854.60	\$ 0.96	\$ 4,102.08
WPE1	16	\$ 35.90	\$ 574.40	\$ 4.06	\$ 64.96	\$ 39.96	\$ 639.36
WSEA	94	\$ 15.75	\$ 1,480.50	\$ 1.66	\$ 156.04	\$ 17.41	\$ 1,636.54
Power Make-Ready	16	\$ 1,200.00	\$ 19,200.00	\$ -	\$ -	\$ 1,200.00	\$ 19,200.00
SUBTOTAL SECTION W			\$ 45,783.02		\$ 2,003.84		\$ 47,786.86
XX30	63	\$ 55.68	\$ 3,507.84	\$ -	\$ -	\$ 55.68	\$ 3,507.84
XXPE1	47	\$ 15.00	\$ 705.00	\$ -	\$ -	\$ 15.00	\$ 705.00
XXPF	24	\$ 18.00	\$ 432.00	\$ -	\$ -	\$ 18.00	\$ 432.00
SUBTOTAL SECTION XX			\$ 4,644.84		\$ -		\$ 4,644.84
TOTALS			\$ 532,292.50		\$ 308,845.23		\$ 841,137.73
26.05	Total Miles						
15.54	Route Miles					Per Route Mile	\$ 43,779.12
10.51	Drop Miles					Per Drop Mile	\$ 15,311.48
222	Drops						





United States Department of Agriculture
Rural Development

SEP 17 2014

Mr. Robert C. Thacker
President
Thacker-Grigsby Telephone Company,
Inc.
60 Communications Lane
Hindman, Kentucky 41822

Dear Mr. Thacker:

We are pleased to inform you that your application for a loan from the Rural Utilities Service (RUS) Telecommunications Program has been approved. We are offering you a loan in the amount of \$9,595,000 at the Cost-of-Money interest rate for a term of 19 years. The loan is subject to the terms of the enclosed Loan Agreement. The loan designation for your project is Kentucky - L42 Hindman. This designation should be referenced in all future correspondence concerning this loan.

Please indicate your acceptance of this offer by signing the second copy of this letter and, within 5 business days from the date hereof, returning it both by fax and in hard copy to:

Mr. Shawn Arner, Deputy Assistant Administrator
Loan Origination and Approval Division
Telecommunications Program
USDA, Rural Utilities Service
1400 Independence Avenue, SW
Stop 1597, Room 2808, South Building
Washington, DC 20250-1597
Fax: (202) 720-1051

Upon receipt of the second copy of this letter, the loan documents will be prepared and forwarded in the near future for execution. This loan is approved with the understanding that the loan documents will be authorized and executed by your organization and returned to us within the time period which will be set forth in the letter of transmittal.

Sincerely,

KEITH B. ADAMS, Assistant Administrator
Telecommunications Program
Rural Utilities Service

ACCEPTANCE:

Thacker-Grigsby Telephone Company, Inc.

By: Robert C. Thacker

Enclosure

Name: Robert C. Thacker

Title: President

cc: Mr. William K. Grigsby, General Manager

Date: 9/17/2014

AA# RT 3670

1400 Independence Ave, S.W. · Washington DC 20250-0700
Web: <http://www.rurdev.usda.gov>

Committed to the future of rural communities.

"USDA is an equal opportunity provider, employer and lender."
To file a complaint of discrimination, write USDA, Director, Office of Civil Rights,
1400 Independence Avenue, S.W., Washington, DC 20250-9410 or call (800) 795-3272 (Voice) or (202) 720-6382 (TDD)

EXHIBIT D



United States Department of Agriculture
Rural Development

Mr. Robert C. Thacker, President
Thacker-Grigsby Telephone Company,
Inc.
60 Communications Lane
Hindman, Kentucky 41822

SEP 25 2014

Dear Mr. Thacker:

We are enclosing the documents, with instructions for their execution, for your organization's "L42" loan in the amount of \$9,595,000. We recommend that you review the enclosed documents and forward them to your attorney so that arrangements for meeting the legal requirements can be made. We indicated in our letter of September 17, 2014, announcing approval of the "L42" loan that we would specify the date by which the loan agreement is to be executed, authorized and returned to us. That date is 120 days from the date of this letter.

Please note Article V, Section 5.4 of the Loan Agreement which specifies that loan funds advanced to your company are to be held in trust for the Government and promptly deposited into a special construction account. It is of the utmost importance that loan funds be used only for the purposes and in the amounts approved by RUS as set forth in the financial requirement statement.

A 19 year note in the amount of \$9,595,000 covering the RUS Cost-of-Money loan is enclosed for execution. Please proceed with the fulfillment of the loan contract requirements so that loan funds can be released for approved loan purposes with a minimum of delay. Again, observe the date for return of the loan agreement.

We will be pleased to answer any questions you may have concerning this loan.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Arner". The signature is fluid and cursive, with a long horizontal stroke at the end.

SHAWN ARNER, Deputy Assistant Administrator
Loan Origination and Approval Division
Telecommunications Program
Rural Utilities Service

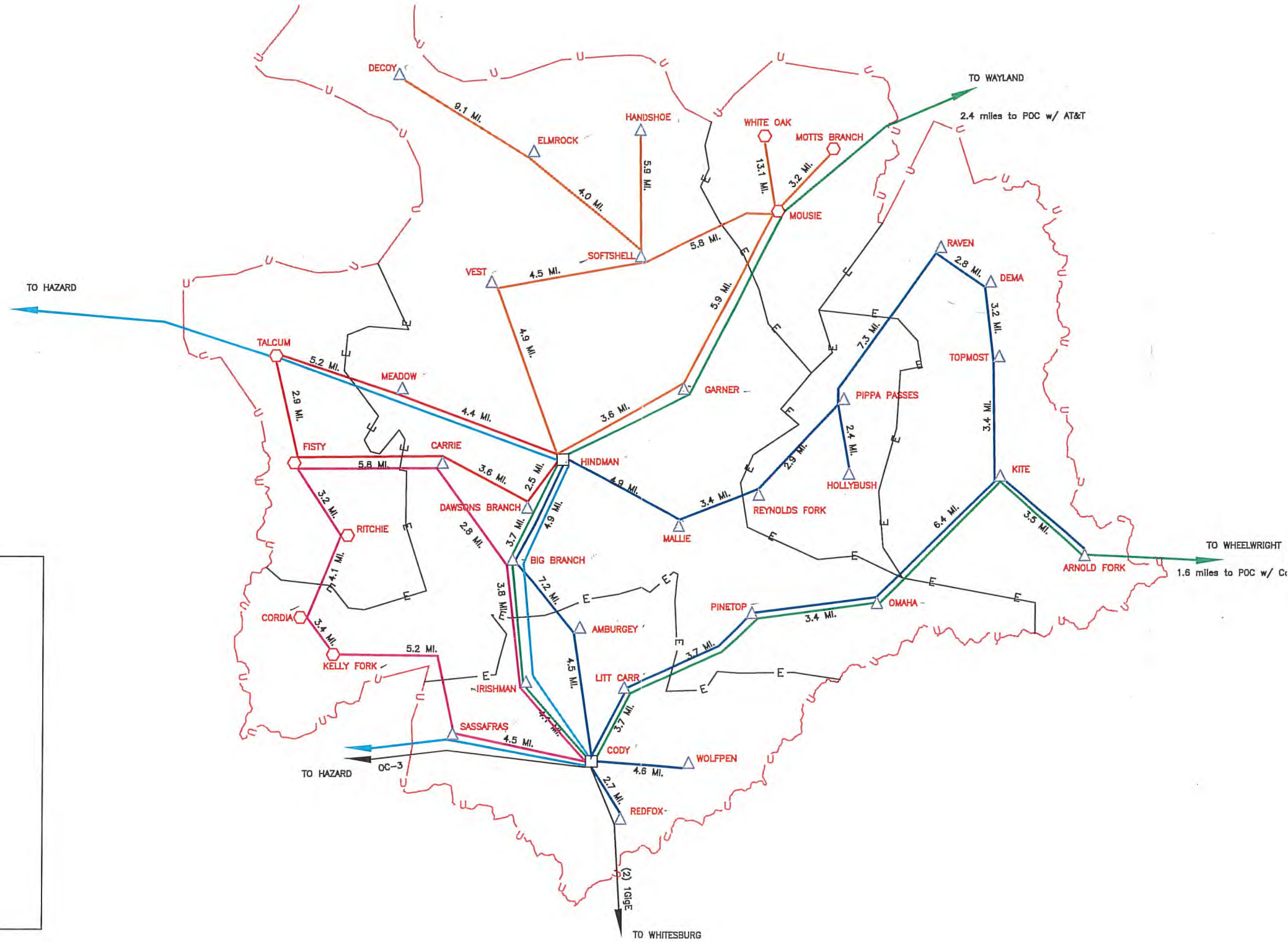
Enclosures

cc: Mr. William K. Grigsby, General Manager

1400 Independence Ave, S.W. · Washington DC 20250-0700
Web: <http://www.rurdev.usda.gov>

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LEGEND

- CENTRAL OFFICE
- △ DLC REMOTE
- FFTP REMOTE

EXISTING FIBER FACILITIES

- OC-48 RING 1
- OC-48 RING 2
- OC-48 RING 3
- OC-48 RING 4
- 10 GIGE RING
- OC-12 RING WITH BELL
- OTHER FIBER



United States Department of Agriculture
Rural Development

SEP 17 2014

Mr. Robert C. Thacker
President
Thacker-Grigsby Telephone Company,
Inc.
60 Communications Lane
Hindman, Kentucky 41822

Dear Mr. Thacker:

We are pleased to inform you that your application for a loan from the Rural Utilities Service (RUS) Telecommunications Program has been approved. We are offering you a loan in the amount of \$9,595,000 at the Cost-of-Money interest rate for a term of 19 years. The loan is subject to the terms of the enclosed Loan Agreement. The loan designation for your project is Kentucky - L42 Hindman. This designation should be referenced in all future correspondence concerning this loan.

Please indicate your acceptance of this offer by signing the second copy of this letter and, within 5 business days from the date hereof, returning it both by fax and in hard copy to:

Mr. Shawn Arner, Deputy Assistant Administrator
Loan Origination and Approval Division
Telecommunications Program
USDA, Rural Utilities Service
1400 Independence Avenue, SW
Stop 1597, Room 2808, South Building
Washington, DC 20250-1597
Fax: (202) 720-1051

Upon receipt of the second copy of this letter, the loan documents will be prepared and forwarded in the near future for execution. This loan is approved with the understanding that the loan documents will be authorized and executed by your organization and returned to us within the time period which will be set forth in the letter of transmittal.

Sincerely,

KEITH B. ADAMS, Assistant Administrator
Telecommunications Program
Rural Utilities Service

ACCEPTANCE:

Thacker-Grigsby Telephone Company, Inc.

By: Robert C. Thacker

Enclosure

Name: Robert C. Thacker

Title: President

cc: Mr. William K. Grigsby, General Manager

Date: 9/17/2014

AA# RT 3670

1400 Independence Ave, S.W. · Washington DC 20250-0700
Web: <http://www.rurdev.usda.gov>

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EXHIBIT D



United States Department of Agriculture
Rural Development

Mr. Robert C. Thacker, President
Thacker-Grigsby Telephone Company,
Inc.
60 Communications Lane
Hindman, Kentucky 41822

SEP 25 2014

Dear Mr. Thacker:

We are enclosing the documents, with instructions for their execution, for your organization's "L42" loan in the amount of \$9,595,000. We recommend that you review the enclosed documents and forward them to your attorney so that arrangements for meeting the legal requirements can be made. We indicated in our letter of September 17, 2014, announcing approval of the "L42" loan that we would specify the date by which the loan agreement is to be executed, authorized and returned to us. That date is 120 days from the date of this letter.

Please note Article V, Section 5.4 of the Loan Agreement which specifies that loan funds advanced to your company are to be held in trust for the Government and promptly deposited into a special construction account. It is of the utmost importance that loan funds be used only for the purposes and in the amounts approved by RUS as set forth in the financial requirement statement.

A 19 year note in the amount of \$9,595,000 covering the RUS Cost-of-Money loan is enclosed for execution. Please proceed with the fulfillment of the loan contract requirements so that loan funds can be released for approved loan purposes with a minimum of delay. Again, observe the date for return of the loan agreement.

We will be pleased to answer any questions you may have concerning this loan.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Arner". The signature is fluid and cursive, with a long horizontal stroke at the end.

SHAWN ARNER, Deputy Assistant Administrator
Loan Origination and Approval Division
Telecommunications Program
Rural Utilities Service

Enclosures

cc: Mr. William K. Grigsby, General Manager

1400 Independence Ave, S.W. · Washington DC 20250-0700
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