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

211 Sower Boulevard
Frankfort, Kentucky 40602-0615

NOV 262013
PUBLIC SERVICE COMAMISSION

In Re: In the Matter of the Application of Ballard Rural Telephone Cooperative Corporation, Inc., for a Certificate of Convenience and Necessity for Construction of a Gigabit Passive Optical Network

Dear Mr. Derouen:

Pursuant to KRS 278-020 and 807 KAR 5:001, Ballard Rural Telephone Cooperative Corporation, Inc. (Ballard), requests authority to construct and upgrade telecommunication facilities in its certified territory. Enclosed are an original and ten (10) copies of Ballard's verified Application for construction of new facilities in the affected exchanges in western Kentucky.

After the Application has been processed, Ballard personnel will be available to meet with members of the Commission's staff and other concerned Commission personnel.

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


Harlon E. Parker
CEO/General Manager
Ballard Rural Telephone Cooperative Corporation, Inc.

## Ballard rural Telephone Cooperative corporation, inc.

# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION 

| In the Matter of: | NOV 262013 |  |
| :--- | :--- | :---: |
| THE APPLICATION OF BALLARD RURAL |  | PUBLIC SERVICE |
| TELEPHONE COOPERATIVE CORPORATION INC. ) |  |  |
| FOR A CERTIFICATE OF PUBLIC CONVENIENCE () | Case No. |  |
| AND NECESSITY FOR THE CONSTRUCTION OF A |  |  |
| GIGABIT PASSIVE OPTICAL NETWORK AND |  |  |
| FIBER TO THE PREMISES NETWORK |  |  |

## APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CONSTRUCTION OF GIGABIT PASSIVE OPTICAL AND FIBER TO THE PREMISES NETWORK

Ballard Rural Telephone Cooperative Corporation, Inc. (Ballard RTCC) pursuant to KRS 278.020 and 807 KAR 5:001: Sections 14(1) and Section 15 submit this application for a certificate of convenience and necessity for the purpose of upgrading and improving Ballard RTCC's telecommunications network. The upgrading of the network will permit Ballard RTCC to offer advanced telecommunication services to all of its customers. Services will include voice, broadband data, and Internet Protocol video. The upgrade will consist of deploying gigabit passive optical network (GPON) equipment and fiber to the premise (FTTP) network in Bandana, Barlow, Gage, and Wickliffe exchanges in Ballard County and McCracken County, Kentucky. In addition, Ballard RTCC will upgrade switching, transmission, and other outside plant facilities.

1. Pursuant to 807 KAR 5:001 Section 14(1) the applicant's full name and address is Ballard Rural Telephone Cooperative Corporation, Inc., 159 West Second Street, P.O. Box 209, LaCenter, Kentucky 42056-0209. Ballard RTCC's internet address is WWW.brtc.net.
2. Pursuant to 807 KAR 14 (2) a copy of Ballard RTCC's Articles of Incorporation, are attached as Exhibit A.
3. Pursuant to 807 KAR $5: 001$, section $15(2)(\mathrm{d}) 1$, two copies of the required maps along with one copy of the maps on a portable electronic storage medium which show the proposed route for the fiber deployment in the affected exchanges are attached as Exhibit B.
4. In compliance with 807 KAR 5:001 section 15 (2) (a) Ballard RTCC 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 5:001section 15 (2) (c) Ballard RTCC has attached the Loan Design, prepared by Finley Engineering, as Exhibit C. This document provides a full description of the construction including routes, locations, and the manner in which the plant will be constructed.
6. Pursuant to Section 807 KAR 15 (2) (a) Ballard RTCC relied on the following circumstances to support its decision to upgrade the network in Bandana, Barlow, Gage, and Wickliffe. For the period extending from 2007 through 2012, Ballard RTCC's access lines declined from 6,515 lines to 4,869 lines. As of December 31, 2012 Ballard RTCC serves 3,843 residential customers 1,026 business customers. According to Ballard RTCC's analysis, the primary reasons for the decline in access lines have been customers upgrading to Digital Subscriber Line (DSL) which have resulted in customers dropping the second phone line used for dial-up service. In addition, there were some customers that have dropped land-line telephone service to move to mobile carriers.

Upgrading of the network and service offerings will allow Ballard RTCC in reversing this downward trend and assist in growing the number of access lines in its service area. Customers are demanding state of the art telecommunications services. The construction of a four lane highway into Kevil and other highway construction in Ballard County have encouraged and will continue to support additional residential and commercial development in the service area. Ballard RTCC believes that the increasing telecommunications sophistication of its customer and will require the provision of greater variety and bundling of telecommunications services.

Advance telecommunications services, including broadband, are critical to the economic and social development of the communities in McCracken and Ballard County, Kentucky. Subscribers in the Bandana, Gage, Barlow, and Wickliffe exchanges have upgraded their telecommunications requirements as they have migrated from second telephone lines to DSL. The State Telecommunications Modernization Plan recognizes that 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 Ballard RTCC.
Therefore the construction of the GPON, FTTP and other proposed
telecommunication plant upgrades are required for public convenience and necessity.
7. Pursuant to Section 15 (2) (e) of 807 KAR 5:001 Ballard RTCC has attached as Exhibit C, the loan design provided to RUS as a part of its loan application. The loan design document provides a complete description of the proposed new construction and how it will be financed. The cost of construction of the proposed facilities in the four (4) exchanges will total approximately $\$ 24,019,693$.
8. RUS has reviewed, analyzed, and approved the Loan Design P42 and the outside plant layout, subject to the approval of the Kentucky Public Service Commission. Ballard has attached as Exhibit D the letter from RUS approving and stating the amount of the loan.
9. Pursuant to Section 15(2) (f) Ballard RTCC was unable to get an estimated cost of operations after the proposed facilities are completed. After construction, Ballard RTCC will be able to operate the system at the current operating cost or at less cost than the current system operates. Ballard RTCC does not anticipate a need for a rate adjustment because of this construction. Ballard RTCC may be required by the Federal Communications Commission to raise rates in the future because of the need to qualify for the Universal Service Fund.

Based on the foregoing discussion, and in accordance with KRS 278.020 and 807 KAR 5:001, sections 14 and 15, Ballard RTCC respectively requests that the Commission grant it a Certificate of Public Convenience and Necessity to deploy a GPON network with related construction in Bandana, Barlow, Gage, and Wickliffe exchanges in Ballard County and McCracken County, Kentucky as described in this application and attached exhibits.

Respectively submitted,


Harlon E. Parker
CEO/ General Manager
Ballard Rural Telephone Cooperative Corporation, Inc.

## ARTICIES OE INCORPORATIOH

OF
BALLARD RURAL TEIEPHONE COOFERATIVE CORPORATION, INC.

We, the undersigned, being natural persons and citizens of the Commonealth of Kentucky do hereby execute these articles of incorporation for the purpose of organizing a nonprofit cooperative corporation (herein called the "Cooperative") under the laws of the Commonvealth of Kentuclsy, pursuant to an Act entitled "AN AGT relatIng to telephone cooperetive, nonprofit corporations, rural telephones and telephone sexvices", approved March 25, 1950.

FIRST, the name of the Cooperative is Ballaxd Rural Telephone Cooperative Corporation, Inc.

SECOND, the address of the principal office of the Cooperam tive is La Center, Ballard County, Kentucky,

THTRD, the names and addresses of the incorporators of the Cooperative are:

## NANES

Harris Grubbs
C. E. Seaton, Process Agent

Clay I. King
Elwood Crice
W. H , Wolfe
W. E. Brocknan, Jr.
V. I. Trimble

George E. Lovelace
C. B. Rollins

W1Lson Rudolph
W. P. ElournoyADDEESSESRoute 2, La Center, KentuckyLa Center, KentuckyRoute 2, Paducah, KentuckyBandana, KentuckyRoute 2, Keril, KentuckyRoute 3, Kevil, KentuckyWickliffe, Kentucky
Baxlow, Kentucky
Kevil, Kentucky
Route 2, Kevil., Kentucky
Route I, Wichlifife, Kentucky

Exhibit A

## STATE OE RENTUCKY ) $s s$ <br> COUNTY OE MCQRACHEN

I, Eloise Morgan, hereby certify that the foregoing axticles of incorporation of the Ballard Rural Telephone Cooperative Corporation, Inc., were this day produced to me in my office by Harris Grubbs, C.E. Seeton, Glay L. King, Elwood Crice, W. H. Wolfe, W. E. Brockman Jro, W. L. Trimble, George F. Jovelace, C. B. Rollins, Wilson Pudolph and W. F. Flournoy, and acknowledged and delivered by said parties to be their act and deed.

WITHESS my hend this 15 th day of June, 1951. My comission expires March 9, 1954.
/S/ Eloise Morgan
Notary Public, Mccracken County, Ky.

Fourth, the names and addresses of the persons who shall constitute the first Board of Trustees of the Cooperative are :

NAMES
C. E. Seeton

Elwood Crice
W. I. Trimble

George H , Lovelace....
Wilson Rudolph

ADDRESSES
La Center, Kentucky
Bendana, Kentucky
Wickliffe, Kentucky
Barlow, Kentucky
Route 2, Kevil, Kentucky

IFITH, the operetions of the Cooperative are to be conducted in the Counties of Ballaxd and Mccracken, Kentucky, and ir such other counties as such operations may from time to time become necessery or desirable in the interest of this Cooperative or of its members.

IT TEGTMONY WHEREOE we have hereunto subscribed our names this $\qquad$ day of June $19 \quad 51$


## LOAN DESIGN

# BALLARD RURAL TELEPHONE COOPERATIVE CORPORATION, INC. 

## RUS KENTUCKY 515 P

# BALLARD RURAL TELEPHONE COOPERATIVE CORPORATION KENTUCKY 515 <br> P LOAN DESIGN 

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NARRATIVE

# BALLARD RURAL TELEPHONE COOPERATIVE CORPORATION KENTUCKY 515 

## P LOAN DESIGN

## NARRATIVE

## GENERAL

The purpose of this Loan Design is to support a loan application for financing from Rural Utilities Service (RUS) for Ballard Rural Telephone Cooperative Corporation, Inc. (Ballard). Ballard is headquartered in La Center, Kentucky and operates seven exchanges in Western Kentucky: Bandana, Barlow, Gage, Heath, Kevil, La Center, and Wickliffe. The exchanges cover Ballard County as well as a portion of McCracken County. Ballard currently serves 4,869 access lines as well as 2,486 broadband subscribers and 1,902 video subscribers.

Ballard is committed to offering advanced telecommunications services to its customers including voice, broadband data, and IP video. The present system utilizes Digital Subscriber Line (DSL) technology to provide these services over Ballard's copper distribution network. However, bandwidth and reach limitations of DSL and the copper infrastructure do not allow Ballard to offer advanced services to all subscribers. In 2008, Ballard 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 (N Loan) were used for FTTP construction in the La Center, Heath, and Kevil exchanges as well as to deploy a 10 Gbps Ethernet transport ring connecting all exchanges in the system. This has allowed Ballard 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 remaining four exchanges. Ballard has utilized Gigabit Passive Optical Network (GPON) architecture in the previous FTTP deployments and will continue to do so in this project. Ballard also plans to make additions to both the next generation switching platform and transport network in an effort to increase capacity and continue the transition to all Internet Protocol (IP) based transport. The total proposed expenditures for the five year loan period are $\$ 24,019,693$.

The upgrades proposed in this Loan Design will provide Ballard 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 Ballard to be able to offer these advanced services in order to remain competitive and meet the demands of their subscribers. Future plans for Ballard 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 in section II, was derived from the RUS 479 forms and based on analysis of the subscriber access line growth experienced between 2007 and 2012. Ballard has experienced a significant decrease in access lines during this time period. This can mainly be attributed to customers transitioning from dial-up to DSL for internet service as well as customers switching to a mobile carrier for voice service. This has been a very common trend for traditional telephone service providers in recent years and it is expected to continue.

Ballard began providing DSL broadband service in 2001. In 2003, DSL started to gain popularity and Ballard 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.

Ballard's service area is located west of Paducah in Western Kentucky and is a very rural area. Ballard County, which contains the majority of Ballard's exchanges, has seen zero population growth over the past decade. The lack of population growth and decreasing access lines drives the need for Ballard to offer advanced telecommunications services in order to retain current subscribers and attract new subscribers. Continuing deployment of FTTP will allow Ballard to offer such services now and in the future as customer demands increase.

## EXISTING SYSTEM

## Switching:

Ballard's existing switching network consists of a Siemens EWSD deployed at the La Center exchange, three Smart Remotes at the Kevil, Heath, and Wickliffe exchanges, and three Siemens Remote Line Switches (RLSs) at the Bandana, Barlow, and Gage exchanges. Ballard has placed over 23 Tellabs UMC-1000 Digital Line Concentrators (DLCs) and 9 Siemens RLS450 s throughout the system to reduce loaded plant and minimize feeder plant additions.

In addition, Ballard has deployed a MetaSwitch VP2510 Softswitch at the La Center central office as part of an overall network migration to Internet Protocol (IP) based technology. The MetaSwitch is now the network access tandem and the toll outlet. VoIP traffic on the new FTTP network travels through Ballard's core network and into the MetaSwitch via 1 GigE connections. Voice traffic from the EWSD network connects to the MetaSwitch via DS1 connections. The MetaSwitch will eventually replace the EWSD completely as the rest of Ballard's system is upgraded to FTTP.

## Transport:

Ballard's toll and EAS routes consist of an SONET OC-12 fiber-optic ring with BellSouth. Inter-exchange transmission utilizes separate SONET OC-48 and OC-192 fiber-optic rings to transport voice, data, and video traffic. All existing DLCs and remote electronics are connected via fiber-optic facilities.

Ballard has also deployed a 10 GigE fiber-optic ring connecting all exchanges. The 10 GigE ring functions concurrently with the SONET rings and transports traffic from the new FTTP network. The FTTP electronics connect to the 10 GigE transport network via 1 GigE connections. Ballard plans to retire the SONET equipment completely and transition to an all IP transport network in the near future.

## Outside Plant:

Ballard currently has approximately 1,345 miles of copper and fiber-optic plant. FTTP construction has been completed throughout the La Center and Heath exchanges. Construction in the Kevil exchange is expected to be complete by the end of 2013. To date, only broadband and/or video subscribers are served via the new FTTP network. POTS only subscribers still operate on the copper network. The copper plant will eventually be retired as Ballard continues upgrade the rest of the network to FTTP.

## PROPOSED SYSTEM IMPROVMENTS

## Central Office Equipment:

Upgrades to the MetaSwitch next generation switching platform include capacity additions, new server hardware, and voicemail. As Ballard continues to deploy FTTP, subscribers will migrate from the EWSD to the MetaSwitch so additional subscriber capacity will be required in the softswitch. In addition, several of the MetaSwitch servers will reach End of Software Maintenance Release date in July 2013 so Ballard plans to replace these with newer hardware variants. Ballard also plans to add voicemail services to the MetaSwitch platform as their current voicemail equipment is no longer supported by the manufacturer. A breakdown of the switching platform costs is shown in Exhibit D. Pricing is based on budgetary quotes from the manufacturer.

COE costs also include upgrading the transport network. Ballard has received notice that their current SONET transport equipment will reach end-of-support in May 2014. Ballard plans to replace the existing SONET equipment with 10 GigE transport equipment to provide increased capacity for future bandwidth requirements and transition to an all IP based transport network. A breakdown of the transport equipment costs is shown in Exhibit D. Ballard has not selected a manufacturer for the transport platform so the estimates are based on anticipated equipment requirements and generic pricing.

## Electronic Equipment:

GPON FTTP equipment will be placed in the Bandana, Barlow, Gage, and Wickliffe Central Offices. Ballard has deployed the Calix B-Series platform in their previous FTTP projects and plans to continue using this equipment for the rest of the system. Equipment located in the Central Office includes a high density chassis, GPON OLT cards, T1 transport cards, and optical transceivers. Customer premise equipment includes ONT modules and enclosures as well as battery backup units.

In addition, Ballard plans to deploy Calix ADSL2+ equipment at certain locations in order to transition POTS only subscribers from the existing DLC equipment to the Calix platform. This will allow them to retire some of the older remote switching equipment and continue the transition to IP based transport. ADSL2+ cards are included for the Bandana, Barlow, Gage, La Center, and Wickliffe exchanges. All ADSL2+ cards will be installed in the Central Office or inside existing remote cabinets, no new remote sites will be required.

A breakdown of equipment costs by exchange is shown in Exhibit E. Equipment quantities are estimates based on previous FTTP deployments and expected number of subscribers. Pricing is based on recent equipment purchases. The costs include fiber distribution panels, cable racks, optical splitters, and miscellaneous materials required in the Central Office. Ballard plans to install all equipment with internal forces.

## Outside Plant:

FTTP outside plant construction will be completed throughout the Bandana, Barlow, Gage, and Wickliffe exchanges under this loan. The proposed construction will consist of approximately 420 route miles, including subscriber drops. As in the previous FTTP projects, Ballard plans to only place fiber drops to broadband and/or video subscribers while POTS only subscribers will remain on the copper network.

Ballard has consistently buried all cables in the past and will continue to do so in this project. The majority of fiber cable placements will follow existing cable routes and be on private right-of-way granted by landowners. In rural areas, the fiber-optic cable will be direct buried via cable plow. In congested areas, the fiber-optic cable will be installed via directional boring methods.

The FTTP design will be based on GPON architecture which uses optical splitters to serve multiple premises from a single feeder fiber. This reduces the size of fiber cables required which, in turn, helps to reduce construction costs. Ballard will primarily use $1: 32$ optical splitters in this project; however, 1:16 splitters may be utilized to extend the reach in some remote areas.

Each exchange will be divided into multiple serving areas based on existing DLC locations. Each serving area will contain a single fiber distribution point, either the Central Office (CO) or a local convergence cabinet (LCC) located near the DLC site, at which the optical splitters will be placed. In the CO serving areas, the splitters will be co-located with the FTTP electronics inside the CO. Feeder fiber cables will be run from the CO to all LCC locations in the exchange. Distribution fiber cables will then run point-to-point from the CO or LCC out to
subscriber premises. This design provides 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 Wickliffe exchange. The exchange was divided into seven (7) serving areas as described above. Wickliffe design maps are included in Exhibit H. A detailed breakdown of construction cost estimates by serving area are included in Exhibit $F$. Fiber cable quantities were measured from the design maps. Construction unit quantities were estimated based on recent FTTP projects and the projected type of construction for each area. The unit prices are based on average bid prices from Ballard's recent FTTP construction projects in 2012.

The Wickliffe design data was the basis for estimating construction costs for the entire project. Outside plant construction costs were estimated on a per mile basis. As the design data indicates, the cost per route mile is significantly more expensive in the Main serving area which contains the town of Wickliffe. This is due to more difficult construction methods and larger fiber cables required in congested town areas. The Main serving area cost per route mile of $\$ 61,539$ was used to estimate town area construction in the other exchanges. The remaining serving areas in Wickliffe are rural areas which consistently show a less expensive per route mile cost. The average cost per route mile of the rural serving areas of $\$ 36,958$ was used to estimate rural area construction in the other exchanges. The average cost per drop mile from the Wickliffe design of $\$ 17,197$ was used to estimate drop construction costs for the entire project.

The number of route miles in each exchange was estimated by measuring current system maps. The estimated number of fiber drops was based on Ballard's current take rates for broadband/video services plus growth. Drop miles were calculated at 310 feet per fiber drop which was based on recent FTTP construction projects. The proposed construction schedule is a 4 -year plan to build one exchange each year. The fifth year of the loan period will be a contingency for potential construction delays and completion of cutover. The current plan is to build Bandana in 2014, Barlow in 2015, Wickliffe in 2016, and Gage in 2017.

Outside plant construction estimates were based on the route mile and drop mile costs from the Wickliffe design data. The town route mile cost was used for the Main serving area in each exchange as well as the Lovelaceville serving area in the Gage exchange due to expected difficulty of construction in these areas. The rural route mile cost was used for the remaining serving areas in each exchange. The same average drop mile cost was used for all serving areas. Based on the proposed construction schedule, per mile construction costs were increased by $2.5 \%$ each year for inflation. A summary of the outside plant costs by exchange and servings area is shown in Exhibit F.

## SERVICE AREA

No new service areas are proposed under this loan.

## TOLL AND EAS

No new toll and EAS facilities are required.

## NON-RURAL AREAS

Ballard does not serve any non-rural areas.

## BORROWER'S ENVIRONMENTAL REPORT

A Borrower's Environmental Report has been completed in support of the loan application. The US Fish and Wildlife Service, Kentucky Department of Fish and Wildlife Resources, and the Kentucky State Historic Preservation Office were contacted to provide comments regarding potential impacts to the project area. Ballard is not aware of any particularly sensitive environmental factors that may be affected by the proposed construction.

## PRIOR LOAN PROJECTS

Previous loan funds were used for FTTP construction in the La Center, Heath, and Kevil exchanges. Construction in the La Center and Heath exchanges is complete. Phase 1 of the Kevil exchange is complete with Phase 2 construction expected to be complete by the end of 2013. Cutover of the Kevil exchange will carry over into 2014. All other projects initiated under prior loans have been completed. No funds are required under this loan design for prior loan projects.

## CERTIFICATION

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


## EXHIBIT A

 AREA COVERAGE SURVEY REPORT

| RURAL UTILITIES SERVICE - USDA <br> LOCAL SERVICE DATA FORM | NAME OF BORROWER Ballard RTCC |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Instructions - | BORROWER DESIGNATION <br> KY 515 P |  |  |  |
| PART B - ADDITIONAL REVENUE PRODUCING SERVICES - TOTAL SYSTEM(Annual) |  |  |  |  |
| CUSTOM CALLING, CLASS FEATURES <br> Description of Services <br> L1 | Existing |  | Proposed |  |
|  | Number | Revenue | Number | Revenue |
| T1 CIRCUITS | 121 | \$ 418,130.00 | 121 | \$ 418,130.00 |
| DIGITALIANALOG CIRCUITS | 11 | \$ 13,999.00 | 11 | \$ 13,999.00 |
| CALL FORWARDING NUMBERS | 41 | \$ 7,880.00 | 41 | \$ 7,880.00 |
| PBX | 72 | \$ 19,872.00 | 72 | \$ 19,872.00 |
| KEY SYSTEMS | 205 | \$ 44,900.00 | 205 | \$ 44,900.00 |
| Description of Services | Existing |  | Proposed |  |
|  | Number | Revenue | Number | Revenue |
|  | - ${ }^{2}$ |  | \$ |  |
| DIAL-UP INTERNET | Existing |  | Proposed |  |
| Description of Services | Number | Revenue | Number | Revenue |
| Dial-Up | 60 | \$ 10,908.00 | 40 | \$ 7,656.00 |
| BROADBAND SERVICES, WIRED, WIRELESS, VIDEO <br> Description of Services | Existing |  | Proposed |  |
|  | Number | Revenue | Number | Revenue |
| DSL - BASIC | 1100 | \$ 460,680.00 | 420 | \$ 175,900.00 |
| DSL - ENHANCED | 651 | \$ 350,760,00 | 750 | \$ 404,100.00 |
| DSL - DELUXE | 333 | \$ 219,380.00 | 780 | \$ 513,870.00 |
| DSL.-XTREME | 230 | \$ 179,124.00 | 650 | \$ 506,220.00 |
| DSL - BUSINESS BASIC | 64 | \$ 42,163.00 | 40 | \$ 26,360.00 |
| DSL - BUSINESS ENHANCED | 55 | \$ 49,434.00 | 50 | \$ 32,940.00 |
| DSL - BUSINESS DELUXE | 24 | \$ 27,332.00 | 60 | \$ 68,330,00 |
| DSL- BUSINESS XTREME | 23 | \$ 31,715.00 | 50 | \$ 68,940,00 |
| DSL-BUSINESS 4 | 4 | \$ 5,520.00 | 10 | \$ 13,800.00 |
| DSL-BUSINESS 5 | 2 | \$ 4,800.00 | 2 | \$ 4,800.00 |
| VIDEO - MB ONLY | 93 | \$ 20,635.00 | 100 | \$ 22,200.00 |
| VIDEO-BASIC | 653 | \$ 399,558.00 | 720 | \$ 440,560.00 |
| VIDEO - STANDARD | 687 | \$ 494,558.00 | 780 | \$ 561,510.00 |
| VIDEO-EXPANDED | 469 | \$ 393,904,00 | 525 | \$ 440,940,00 |
| PREMIUM CHANNELS | 454 | \$ 95,286.00 | 500 | \$ 104,940,00 |
| HIGH DEFINITION | 334 | \$ 40,040.00 | 600 | \$ 71,928.00 |
| PVR | 283 | \$ 54,270,00 | 600 | \$ 115,060.00 |
| PVR WHOLE HOME | 88 | \$ 3,168.00 | 200 | \$ 21,600.00 |
| SETTOP BOX LEASES | 405 | \$ 22,600.00 | 600 | \$ 35,640.00 |
| DSL MODEMLEASE | 1103 | \$ 65,518.00 | 1500 | \$ 89,100.00 |
| OTHER REVENUE PRODUCING SERVICES |  | sting |  | posed |
| Description of Services | Number | Revenue | Number | Revenue |
|  |  | S |  | \$ |
|  |  |  |  |  |
| Comments: |  |  |  |  |


| Exchange | Average Growth | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BANDANA | -3.57\% | 499 | 486 | 477 | 467 | 454 | 433 | 420 | 398 | 393 | 373 | 361 | 348 | 335 | 323 | 311 | 299 |
| BARLOW | -4.00\% | 745 | 734 | 710 | 680 | 642 | 601 | 604 | 581 | 542 | 524 | 490 | 470 | 451 | 432 | 414 | 397 |
| gage | -3.33\% | 510 | 495 | 483 | 476 | 466 | 462 | 441 | 428 | 418 | 409 | 390 | 377 | 364 | 351 | 339 | 327 |
| HEATH | -4.22\% | 1,174 | 1,147 | 1,126 | 1,073 | 1,036 | 1,000 | 947 | 913 | 882 | 851 | 806 | 771 | 738 | 706 | 676 | 647 |
| KEVIL | -7.44\% | 1,872 | 1,831 | 1,755 | 1,693 | 1,612 | 1,682 | 1,470 | 1,382 | 1,263 | 1,207 | 1,143 | 1,058 | 979 | 906 | 838 | 775 |
| LACENTER | -8.39\% | 1,476 | 1,464 | 1,437 | 1,399 | 1,379 | 1,330 | 1,274 | 1,041 | 1,021 | 908 | 858 | 785 | 719 | 658 | 602 | 551 |
| WICKLIFFE | -4.00\% | 1,261 | 1,261 | 1,233 | 1,173 | 1,090 | 1,007 | 942 | 922 | 880 | 850 | 821 | 788 | 756 | 725 | 695 | 667 |
| TOTAL | -5.66\% | 7,537 | 7,418 | 7,221 | 6,961 | 6,679 | 6,515 | 6,098 | 5,665 | 5,399 | 5,122 | 4,869 | 4,597 | 4,342 | 4,101 | 3,875 | 3,663 |

BANDANA EXCHANGE
PROJECTIONS BASED ON 2007-2012 AVERAGE GROWTH


BARLOW EXCHANGE
PROJECTIONS BASED ON 2007-2012 AVERAGE GROWTH


GAGE EXCHANGE
PROJECTIONS BASED ON 2007-2012 AVERAGE GROWTH


HEATH EXCHANGE
PROJECTIONS BASED ON 2007-2012 AVERAGE GROWTH


KEVIL EXCHANGE
PROIECTIONS BASED ON 2007-2012 AVERAGE GROWTH


LACENTER EXCHANGE
PROIECTIONS BASED ON 2007-2012 AVERAGE GROWTH


WICKLIFFE EXCHANGE
PROIECTIONS BASED ON 2007-2012 AVERAGE GROWTH


SYSTEM TOTAL
PROIECTIONS BASED ON 2007-2012 AVERAGE GROWTH


EXHIBIT B RUS FORMS 494 AND 495

According to the Paperwork Reductlon Act of 1995, an agancy may not conduct or sponsor, and a person is not required to respond to a collection of information unless il displeya a valid OME control number. The valid OME control number for ihts Intormation collection is 0572-0079, The time requited to complaie this information is estimefad to avarage 2 hours per response, fncluding the lime for reviawing instructions, searching existing data sources, gethering and matnielnting the data needed, end complating and ravlewing the collection of infomation.


## REMARKS;

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is nol requlred to respond lo a collection of Intormallon unless il displays a valid ops conitrol number. The valid OMB control number for this infomation coliection is 0572 -0079. Tha lime requissd to complate fils informsilon ts estimated to average 14 houts par responsa, fnciuding the time for reviawing instruclions, eearching exising data souireas, gathering and malnalining tha data naadad, and compaling and revieutng tha collaction of Intormation.


REMARKS:

According to the Paparwork Reduction Acl of 1085, an agency may not conduct or sponsor, and a person is not required to respond to a collection of informalion untess it displays a valld OMB control number. The valid omb control number for this intormatlon collection 150572.0079 , The time raquirsd to completa fhls information is estimaled to avarage 14 houta par response, Inctuding the lima lor raviawing instructions, searching existing data sources, galhering and mainiaining the dala niedsd, and completing and revtawng the collsclion of intormation.

| UNITED STATES DEPARTMENT OF AGRICULTURE <br> RURAL UTLLTIES SERVICE |
| :---: | :---: |
| CONSTRUCTION COST ESTIMATES |


| NAME OF BORROWER |
| :--- |
| Ballard Rural Telephone Copperative Corporation |
| BORROWER and LOANDESIGNATION |
| KY 515 P |
| NAME OF EXGHANGE |
| Bandana |



## REMARKS:

According to tha Papanyonk Raducllon Acl of 1995, an agency may not conduct or sponsof, and a person is not required to respand to a collaction of Informallon unlass it digplaye a valld OMB controf number. Tha valld OMB control
 gatharing and malnlaining the data naaded, and complating end reviewing tha collaction of inlormatlon.


Aetording to the Papenwork Raduction Act of 1895 , an agancy may nol conduct or spansor, and a person is nol required to respond to a collecilon of information unless it displays e valld ome control number. The valid OMB control number for thls information collection is 0572 -0079. The tima required to conpleie this information is estimated to averaga 14 hours per rasponse, Including the time for revieving thstruellons, searching exising data sourcas gaitheting and mainlaining the dala needad, and complating bad reviewing tha collec
UNIED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILTIES SERVICE

CONSTRUCTION COST ESTIMATES

| CONSTRUCTION COST ESTIMATES | EORROWER and LOAN DESIGNATION |
| :--- | :--- | :--- | :--- |



REMARKS:
 number for itha informallon colfection is $0572-0079$. Tha time requirad to complete this informaition is asilmalad to everage 14 hours per response, inctuding lhe time for revlewing instructions, searching existing dala sourcas,
gathering and mainalingng the dela neaded, and complaing and reviguing Ifie colleclion
UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE
CONSTRUCTION COST ESTIMATES

| NAME OF BORROWER |  |
| :--- | :--- |
| Ballard Rural Telephone Copperative Corporation |  |
| BORROWER and LOAN DESIGNATION |  |
| KY 515 P |  |
| NAME OF EXCHANGE |  |
| Heath |  |

iuther information, see RUS Bullation 1737.2. Submission is requilad.
Heath
KY


According to the Papenfork Reduction Act of 1995, an agency may not conduct or sponsor, and a person ts not required to respond to a eothection of information untess it displays a valid OMB control number, The vald OMe control number for this informalion collection is 8572.0079 . The time required to complete this information is estimated to average 14 hours par fesponse, Including the tme for raviewing instructions, searching existing data sources. gathering and maintaning the data needed, and compleling and reviewing the collaction of information

| UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <br> CONSTRUCTION COST ESTIMATES | NAME OF BORROWER <br> Ballard Rural Telephone Cooperative Corporation |  |
| :---: | :---: | :---: |
|  | BORROWER and LOAN DESIGNATION KY 515 P |  |
| INSTRUCTIONS • Prepate One Copy of thls form for each copy of tha Loan Design. For further Information, sae RUS Bullatin 1737-2. Submission is requited. | NAME DF EXCHANGE Kevil | State <br> KY |



REMARKS:

Accorting to the Paperwork Ratuclion Act of 1995 , an agency mey not conduct or sponsor, and a person is not requifed to reapond to a coliacilon of information unless it displaye a valld OMB control number. The valid OMB control number for this informallon collaction is 0572.0079 . The lime required to complete this informailon is astimated to averaga 14 hours per responas, Including tha time for reviewfing hntructions, seerching axisting data sources.


According to the Paperwark Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not requited to respond to a collection of information unless il displays a vald ome control number. The valid OME control

gatherimg end mafntaining the data needed, and compieting and reviewing the collection
UNITEO STATES OEPARTMENT OF AGRICULTURE
RURAL UTLITIES SERVICE
CONSTRUCTION COST ESTIMATES
further information, see RUS Bulatin 1737-2. Submission is requited.

| NAME OF BORROWER |  |
| :--- | :--- |
| Ballard Rural Telephone COOperatlve Corporation |  |
| BORROWER and LOAN DESIGNATION |  |
| KY 515 P |  |
| NAME OF EXCHANGE | STATE |
| WICKIIffe | KY |



## REMARKS:

## EXHIBIT C SUMMARY OF CONSTRUCTION COSTS AND SCHEDULE

Kentucky 515
P Loan Design
Overall Loan Cost Summary

| CATEGORY | P LOAN AMOUNT |  |
| :--- | :--- | ---: |
| Metaswitch Additions (2014) | $\$$ | 293,450 |
| Ethernet Transport Equipment (2014) | $\$$ | 588,000 |
| LaCenter Calix Equipment (2014) | $\$$ | 99,790 |
| Bandana Calix Equipment (2014) | $\$$ | 406,475 |
| Barlow Calix Equipment (2015) | $\$$ | 500,958 |
| Wickliffe Calix Equipment (2016) | $\$$ | 646,390 |
| Gage Calix Equipment (2017) | $\$$ | 452,969 |
| Bandana 2014 Outside Plant Construction | $\$$ | $4,310,788$ |
| Barlow 2015 Outside Plant Construction | $\$$ | $3,837,779$ |
| Wickliffe 2016 Outside Plant Construction | $\$$ | $4,720,566$ |
| Gage 2017 Outside Plant Construction | $\$$ | $4,615,388$ |
| Engineering | $\$$ | $3,547,140$ |
|  | $\$ 4,019,693$ |  |

Ballard Rural Telephone Cooperative Corporation
Kentucky 515
P Loan Design
Proposed Schedule

|  | 2014 |  | 2015 |  | 2016 |  | 2017 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Electronics | $\$$ | $1,387,715$ | $\$$ | 500,958 | $\$$ | 646,390 | $\$$ |
| OSP Construction | $\$$ | $4,310,788$ | $\$$ | $3,837,779$ | $\$$ | $4,720,566$ | $\$$ |
| Engineering | $\$$ | 874,543 | $\$$ | 778,582 | $\$$ | 957,676 | $\$$ |
| TOTAL | $\$$ | $6,573,046$ | $\$$ | $5,117,319$ | $\$$ | $6,324,632$ | $\$$ |

2014: Softswitch additions
Transport equipment upgrades
Bandana FTTP construction and electronics

2015: Barlow FTTP construction and electronics

2016: Wickliffe FTTP construction and electronics

2017: Gage FTTP construction and electronics

## EXHIBIT D <br> CENTRAL OFFICE EQUIPMENT COSTS

Kentucky 515
P Loan Design
Central Office Equipment Estimate

METASWITCH UPGRADES

| Description | Cost |  |
| :---: | :---: | :---: |
|  |  |  |
| MetaSphere Enhanced Dual Server System DC | \$ | 29,492.00 |
| MetaView Server | \$ | 11,966.00 |
| Hermer. |  |  |
| CommPortal Assistant base license | \$ | 12,500.00 |
| VM only base license | \$ | 20,000.00 |
| Live Message Screening Base | \$ | 12,500.00 |
|  |  | TMET* |
| Local CFS Feature Set (capacity addition) | \$ | 115,020,00 |
| CommPortal Assistant desktop integration | \$ | 16,000.00 |
| Voicemail | \$ | 25,000.00 |
| Live Message Screening | \$ | 25,000.00 |
| M |  |  |
| Support Plan - year 1 | \$ | 16,952.00 |
| Professional Services | \$ | 7,250.00 |
| Training | \$ | 1,500.00 |
| Shipping | \$ | 270.00 |
|  |  | ¢ |
| TOTAL | \$ | 293,450.00 |

TRANSPORT EQUIPMENT UPGRADES

| Description | Cost |  |
| :--- | :--- | ---: |
|  | $\$$ | $36,000.00$ |
| 10 GigE Transport Card | $\$$ | $10,000.00$ |
| 10 GigE optical transceivers | $\$$ | $25,000.00$ |
| T1 transport cards | $\$$ | $6,000.00$ |
| Miscellaneous | $\$$ | $5,000.00$ |
| Installation | $\$$ | $2,000.00$ |
| Shipping |  |  |
|  | $\$$ | $84,000.00$ |

Note: Transport costs are repeated for each exchange

## EXHIBIT E ELECTRONIC EQUIPMENT COSTS

| Part Name | Quantity | Unit Price |  | Ext. Price |
| :---: | :---: | :---: | :---: | :---: |
| Mr. | \%... | +1/ |  | 5 W. |
| 6322-01 GPON OLT Blade | 4 | \$ 13,702.50 | \$ | \$ 54,810.00 |
| 6440-01 Optical Packet Transport | 4 | \$ 4,811.10 | \$ | \$ 19,244.40 |
| 6252 ADSL2+ and POTS Blade | 6 | \$ 6,516.30 | \$ | \$ 39,097.80 |
| 4 Cr + | , |  |  |  |
| 6012i High Capacity Chassis | 1 | \$ 2,679.60 | \$ | S 2,679.60 |
| 6001 1RU Chassis | 4 | \$ 700.35 | \$ | \$ 2,801.40 |
|  |  | \% |  |  |
| 1G SFP 300M MultiMode | 4 | \$ 91.35 | \$ | \$ 365.40 |
| 1G BiDi SFP 20km 1490X 1310R | 7 | \$ 319.73 | \$ | \$ 2,238.08 |
| 1G BiDi SFP 20km 1310X 1490R | 7 | \$ 258.83 | \$ | \$ 1,811.78 |
| GPON B+ OLT Transceiver | 16 | \$ 700.35 | \$ | 11,205.60 |
| tew |  |  |  |  |
| 2101 ONT Enclosure | 359 | \$ 30.45 | \$ | 5 10,931.55 |
| ON 2107 Enclosure | 3 | \$ 367.50 | \$ | 1,102.50 |
| ON 2105 Enclosure | 4 | \$ 36.75 | \$ | 147.00 |
| 12 VDC UPS, 7.2 Ahr Battery | 359 | \$ 60.90 | \$ | 21,863.10 |
| 12 VDC UPS, 12 Ahr Battery | 7 | \$ 73.50 | \$ | 514.50 |
| 716GE ONT (2 POTS) | 357 | \$ 340.73 | \$ | 121,638.83 |
| 717GE ONT (4 POTS) | 2 | \$ 356.90 | \$ | 713.79 |
| ON 2568 GPON Business ONT (8POTS, 2 T1) | 4 | \$ 903.00 | \$ | 3,612.00 |
| ON 2364 Active Business ONT (4 POTS, 8 T1) | 3 | \$ 1,508.22 | \$ | 4,524.66 |
| ON234x Power Cable | 3 | \$ 52.50 | \$ | 157.50 |
| 1000 ft spool power cable | 9 | \$ 656.25 | \$ | 5,906.25 |
| $\square$ |  | H:3... |  |  |
| CO fiber panels, cable racks, etc. | 1 | \$ 40,000.00 | \$ | 40,000.00 |
| Optical Splitters | 14 | \$ 1,500.00 | \$ | 21,000.00 |
| Miscellaneous | 1 | \$ 10,000.00 | \$ | 10,000.00 |
| - |  | - |  |  |
| Sales Tax |  |  | \$ | 22,581.94 |
| Freight |  |  | \$ | 7,527.31 |
| C. |  | $\square$ |  |  |
| TOTAL |  |  | \$ | 406,474.98 |

Note: Unit quantities are estimated based on recent FTTP project. Actual quantities may vary.

Kentucky 515
P Loan Design
Electronic Equipment Estimate - Barlow Exchange

| Part Name | Quantity | Unit Price |  | Ext. Price |
| :---: | :---: | :---: | :---: | :---: |
| \#. |  | $\stackrel{1}{ }$ |  | W. |
| 6322-01 GPON OLT Blade | 5 | \$ 13,702.50 |  | \$ 68,512.50 |
| 6440-01 Optical Packet Transport | 6 | \$ 4,811.10 |  | \$ 28,866.60 |
| 6252 ADSL2+ and POTS Blade | 8 | \$ 6,516.30 |  | \$ $52,130.40$ |
| \% | Himure | - |  |  |
| 6012i High Capacity Chassis | 1 | \$ 2,679.60 | \$ | \$ 2,679.60 |
| 6001 1RU Chassis | 4 | \$ 700.35 | \$ | \$ 2,801.40 |
|  |  | \% |  | , |
| 1G SFP 300M MultiMode | 4 | \$ 91.35 | \$ | \$ 365.40 |
| 1G BiDi SFP 20km 1490X 1310R | 8 | \$ 319.73 | \$ | \$ 2,557.80 |
| 1G BiDi SFP 20km 1310X 1490R | 8 | \$ 258.83 | \$ | \$ 2,070.60 |
| GPON B+ OLT Transceiver | 20 | \$ 700.35 | \$ | \$ 14,007.00 |
|  |  |  |  |  |
| 2101 ONT Enclosure | 449 | \$ 30.45 | \$ | \$ 13,672.05 |
| ON 2107 Enciosure | 4 | \$ 367.50 | \$ | \$ 1,470.00 |
| ON 2105 Enciosure | 5 | \$ 36.75 | \$ | \$ 183.75 |
| 12 VDC UPS, 7.2 Ahr Battery | 449 | \$ 60.90 | \$ | \$ 27,344.10 |
| 12 VDC UPS, 12 Ahr Battery | 9 | \$ 73.50 | \$ | \$ 661.50 |
| 716GE ONT (2 POTS) | 445 | \$ 340.73 | \$ | \$ 151,622.63 |
| 717GE ONT (4 POTS) | 4 | \$ 356.90 | \$ | \$ 1,427.58 |
| ON 2568 GPON Business ONT (8POTS, 2 T1) | 5 | \$ 903.00 | \$ | \$ 4,515.00 |
| ON 2364 Active Business ONT (4 POTS, 8 T1) | 4 | \$ 1,508.22 | \$ | \$ 6,032.88 |
| ON234x Power Cable | 4 | \$ 52.50 | \$ | \$ 210.00 |
| 1000 ft spool power cabie | 11 | \$ 656.25 | \$ | \$ 7,218.75 |
|  |  | $\because$ |  |  |
| CO fiber panels, cable racks, etc. | 1 | \$ 40,000.00 | \$ | \$ 40,000.00 |
| Optical Splitters | 17 | \$ 1,500.00 | \$ | S 25,500.00 |
| Miscellaneous | 1 | \$ 10,000.00 | \$ | \$ 10,000.00 |
|  | $\cdots$ |  |  |  |
| Sales Tax |  |  | \$ | - 27,830.97 |
| Freight |  |  | \$ | 9,276.99 |
| UR M - | 4 |  |  |  |
| TOTAL |  |  | \$ | 500,957.50 |

Note: Unit quantities are estimated based on recent FTTP project. Actual quantities may vary.


Note: Unit quantities are estimated based on recent FTTP project. Actual quantities may vary.

Electronic Equipment Estimate - LaCenter Exchange

| Part Name | Quantity | Unit Price | Ext. Price |
| :---: | :---: | :---: | :---: |
|  | crimemes |  | \% |
| 6322-01 GPON OLT Blade |  | \$ 13,702.50 | \$ |
| 6440-01 Optical Packet Transport |  | \$ 4,811.10 | \$ |
| 6252 ADSL2+ and POTS Blade | 12 | \$ 6,516.30 | \$ 78,195.60 |
|  | Cume | + | 78, |
| 6012i High Capacity Chassis |  | \$ 2,679.60 | \$ |
| 6001 1RU Chassis | 6 | \$ 700.35 | \$ 4,202.10 |
|  | \% |  |  |
| 1G SFP 300M MultiMode |  | \$ 91.35 | \$ |
| 1G BiDi SFP 20km 1490X 1310R |  | \$ 319.73 | \$ |
| 1G BiDi SFP 20km 1310X 1490R |  | \$ 258.83 | \$ |
| GPON B+ OLT Transceiver |  | \$ 700.35 | \$ |
|  |  | , |  |
| 2101 ONT Enclosure |  | \$ 30.45 | \$ |
| ON 2107 Enclosure |  | \$ 367.50 | \$ |
| ON 2105 Enclosure |  | \$ 36.75 | \$ |
| 12 VDC UPS, 7.2 Ahr Battery |  | \$ 60.90 | \$ |
| 12 VDC UPS, 12 Ahr Battery |  | \$ 73.50 | \$ |
| 716GE ONT (2 POTS) |  | \$ 340.73 | \$ |
| 717GE ONT (4 POTS) |  | \$ 356.90 | \$ |
| ON 2568 GPON Business ONT (8POTS, 2 T1) |  | \$ 903.00 | \$ |
| ON 2364 Active Business ONT (4 POTS, 8 T1) |  | \$ 1,508.22 | \$ |
| ON234x Power Cable |  | \$ 52.50 | \$ |
| 1000 ft spool power cable |  | \$ 656.25 | \$ |
|  |  | \% |  |
| CO fiber panels, cable racks, etc. |  | \$ 40,000.00 | \$ |
| Optical Splitters |  | \$ 1,500.00 | \$ |
| Miscellaneous | 1 | \$ 10,000.00 | \$ 10,000.00 |
|  |  | $\cdots$ |  |
| Sales Tax |  |  | \$ 5,543.86 |
| Freight |  |  | \$ 1,847.95 |
| - |  |  |  |
| TOTAL |  |  | \$ 99,789.52 |

Note: Unit quantities are estimated based on recent FTTP project. Actual quantities may vary.

| Part Name | Quantlty | Unit Price |  | Ext. Price |
| :---: | :---: | :---: | :---: | :---: |
| 34 | Quamer | - |  |  |
| 6322-01 GPON OLT Blade | 5 | \$ 13,702.50 | \$ | 68,512.50 |
| 6440-01 Optical Packet Transport | 15 | \$ 4,811.10 | \$ | 72,166.50 |
| 6252 ADSL2+ and POTS Blade | 11 | \$ 6,516.30 | \$ | 71,679.30 |
|  | 4 |  |  |  |
| 6012i High Capacity Chassis | 1 | \$ 2,679.60 | \$ | 2,679.60 |
| 6001 1RU Chassis | 6 | \$ 700.35 | \$ | 4,202.10 |
|  |  |  |  |  |
| 1G SFP 300M MultiMode | 4 | \$ 91.35 | \$ | 365.40 |
| 1G BiDi SFP 20km 1490X 1310R | 14 | \$ 319.73 | \$ | 4,476.15 |
| 1G BiDi SFP 20km 1310X 1490R | 14 | \$ 258.83 | \$ | 3,623.55 |
| GPON B+ OLT Transceiver | 20 | \$ 700.35 | \$ | 14,007.00 |
|  |  |  |  |  |
| 2101 ONT Enclosure | 529 | \$ 30.45 | \$ | 16,108.05 |
| ON 2107 Enclosure | 8 | \$ 367.50 | \$ | 2,940.00 |
| ON 2105 Enclosure | 26 | \$ 36.75 | \$ | 955.50 |
| 12 VDC UPS, 7.2 Ahr Battery | 529 | \$ 60.90 | \$ | 32,216.10 |
| 12 VDC UPS, 12 Ahr Battery | 34 | \$ 73.50 | \$ | 2,499.00 |
| 716GE ONT (2 POTS) | 508 | \$ 340.73 | \$ | 173,088.30 |
| 717GE ONT (4 POTS) | 21 | \$ 356.90 | \$ | 7,494.80 |
| ON 2568 GPON Business ONT (8POTS, 2 T1) | 26 | \$ 903.00 | \$ | 23,478.00 |
| ON 2364 Active Business ONT (4 POTS, 8 T1) | 8 | \$ 1,508.22 | \$ | 12,065.76 |
| ON234x Power Cable | 8 | \$ 52.50 | \$ | 420.00 |
| 1000 ft spool power cable | 13 | \$ 656.25 | \$ | 8,531.25 |
|  |  |  |  |  |
| CO fiber panels, cable racks, etc. | 1 | \$ 40,000.00 | \$ | 40,000.00 |
| Optical Splitters | 18 | \$ 1,500.00 | \$ | 27,000.00 |
| Miscellaneous | 1 | \$ 10,000.00 | \$ | 10,000.00 |
|  |  |  |  |  |
| Sales Tax |  |  | \$ | 35,910.53 |
| Freight |  |  | \$ | 11,970.18 |
| O. |  |  |  |  |
| TOTAL |  |  | \$ | 646,389.56 |

Note: Unit quantities are estimated based on recent FTTP project. Actual quantities may vary.

## EXHIBIT F <br> OUTSIDE PLANT COSTS

## BALLAD RURAL TELEPHONE COOPERATIVE CORPORATION KENTUCKY 515 <br> P LOAN DESIGN <br> WICKLIFFE EXCHANGE PILOT DESIGN - OSP COST SUMMARY

| Serving Area | Premises Passed | Fiber Drops | Route Miles | Cost Per Route Mile |  | Drop Miles |  | Drop Mile | Total Miles | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main | 737 | 280 | 31.96 | \$ | 61,539.09 | 16.44 | \$ | 17,197.00 | 48.40 | \$ 2,249,508.10 |
| Bethlehem | 49 | 29 | 6.13 | \$ | 37,474.54 | 1.70 | \$ | 17,204.34 | 7.83 | \$ 258,966.31 |
| Crews | 87 | 54 | 9.52 | \$ | 38,541.69 | 3.17 | \$ | 17,221.68 | 12.69 | \$ 421,509.62 |
| Deerfield | 65 | 39 | 12.08 | \$ | 35,266.33 | 2.29 | \$ | 17,198.92 | 14.37 | \$ 465,402.83 |
| Jones | 83 | 50 | 12.60 | \$ | 36,204.61 | 2.94 | \$ | 17,176.59 | 15.54 | \$ 506,677.32 |
| Slater | 33 | 25 | 5.12 | \$ | 36,078.63 | 1.47 | \$ | 17,111.44 | 6.59 | \$ 209,876.41 |
| Timberland | 58 | 31 | 6.29 | \$ | 38,180.37 | 1.82 | \$ | 17,247.21 | 8.11 | \$ 271,544.46 |
| TOTAL | 1112 | 508 | 83.70 | \$ | 46,242.51 | 29.83 | \$ | 17,197.03 | 113.53 | \$ 4,383,485.06 |

Town Route Mile $=\$ 61,539 \quad$ (Main serving area)
Rural Route Mile $=\$ 36,958$ (average of Bethlehem, Crews, Deerfield, Jones, Slater, Timberland serving areas)
Drop Mile $=\$ 17,197$ (average of all serving areas)

| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 353 | \$236.03 | \$83,243.06 | \$293.33 | \$103,451.62 | \$186,694:68 |
| BDO5(1) | 118 | \$237.63 | \$27,935.78 | \$347.47 | $\$ 40,848.57$ | \$68,784.36 |
| SUBTOTAL SECTION BDO |  |  | \$111,178.84 |  | \$144,300.20 | \$255,479.04 |
|  |  |  |  |  |  |  |
| BDOS(LCC) | 6 | \$1,110.13 | \$6,660.78 | \$6,870.62 | \$41,223.72 | \$47,884.50 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$41,223.72 | \$47,884.50 |
|  |  |  |  |  |  |  |
| 4)BFO24D\& | 1210 | \$1.89 | \$2,287.37 | \$0.57 | \$689.84 | \$2,977,22 |
| 4A) BFO 288 D | 1133 | \$1.10 | \$1,246.30 | \$2.42 | \$2,741.86 | \$3,988.16 |
| 15)BFO96D\& | 2382 | \$2.40 | \$5,716.78 | \$1.08 | \$2,572.55 | \$8,289.33 |
| 15A)BFO288D | 2230 | \$1.10 | \$2,452.95 | \$2.42 | \$5,396.48 | \$7,849.42 |
| 11) BFO96D\& | 1800 | \$2.79 | \$5,021.92 | \$1.08 | \$1,943.97 | \$6,965.89 |
| 11A)BFO144D\& | 1685 | \$1.02 | \$1,718.78 | \$1.46 | \$2,460.22 | \$4,179.00 |
| 11B)BFO24D | 1685 | \$1.02 | \$1,718.78 | \$0.57 | $\$ 960.50$ | \$2,679.28 |
| 12) $\mathrm{BFO} 72 \mathrm{D} \&$ | 1256 | \$2.79 | \$3,505.52 | \$0.86 | \$1,080,56 | \$4,586.08 |
| 12A)BFO144D\& | 1176 | \$1.02 | \$1.199.79 | \$1.46 | \$1,717.34 | \$2,917.12 |
| 12B)BFO72D | 1176 | \$1.02 | \$1,199.79 | \$0.86 | \$1,011.58 | \$2,211.37 |
| 14)BFO144D\& | 3764 | \$2.79 | \$10,501.22 | \$1.46 | \$5,495.26 | \$15,996.48 |
| 14A)BFO144D\& | 3524 | \$1.02 | \$3,594.10 | \$1.46 | \$5,144.50 | \$8,738.60 |
| 14B) BFO 72 D | 3524 | \$1.02 | \$3,594,10 | \$0.86 | \$3,030.32 | \$6,624.42 |
| 16)BFO48D\& | 854 | \$2.79 | \$2,382.04 | \$0.71 | \$606.18 | \$2,988,22 |
| 16A)BFO144D \& | 799 | $\$ 1.02$ | \$815.27 | \$1.46 | \$1,166.95 | \$1.982.21 |
| 16B) BFO 028 D | 799 | $\$ 1.12$ | \$895.19 | \$2.42 | \$1,934.26 | \$2,829.45 |
| 20)BFO48D \& | 3140 | $\$ 2.25$ | \$7,065.11 | \$0.71 | \$2,229.43 | \$9,294.54 |
| 20A)BFO144D | 2940 | \$1.06 | \$3,116.00 | \$1.46 | \$4,291.85 | \$7,407.84 |
| BFO24D\& | 33884 | \$1.89 | \$64,040.19 | \$0.57 | \$19,313.71 | \$83,353,90 |
| BF012D | 31721 | \$1.21 | \$38,382.30 | \$0.49 | \$15,543.25 | \$53,925.55 |
| BFO48D \& | 15867 | \$1.89 | \$29,989,53 | \$0.71 | \$11,265.91 | \$41,255.44 |
| BFO12D | 14855 | \$1.21 | \$17,974.14 | \$0.49 | \$7,278.78 | \$25,252.92 |
| BFO96D \& | 14503 | \$1.89 | \$27,411.04 | \$1.08 | \$15,663.45 | \$43,074.49 |
| BFO12D | 13577 | \$1.21 | \$16,428.73 | \$0.49 | \$6,652.96 | \$23,081.68 |
| BFO144D\& | 4075 | \$1.89 | \$7,702.21 | \$1.46 | \$5,949.85 | \$13,652.06 |
| BFO12D | 3815 | \$1.21 | \$4,616.30 | \$0.49 | \$1,869.41 | \$6,485.70 |
| BFO24D\& | 23461 | \$1.89 | \$44,341.76 | \$0.57 | \$13,372.91 | \$57,714.67 |
| BFO24D | 21964 | \$1.21 | \$26,576.10 | \$0.57 | \$12,519.32 | \$39,095.42 |
| BFO72D\& | 11167 | \$1.89 | \$21, 106.21 | \$0.86 | \$9,603.88 | \$30,710,09 |
| BFO24D | 10455 | \$1.21 | \$12,649.95 | \$0.57 | \$5,959.07 | \$18,609.01 |
| BFO96D\& | 6718 | \$1.89 | \$12,697.00 | \$1.08 | \$7,255.43 | \$19,952,42 |
| BFO24D | 6289 | \$1.21 | \$7,609.91 | \$0.57 | \$3,584.83 | \$11,194.74 |
| BFO144D \& | 9924 | \$2.84 | \$28,184.30 | \$1.46 | \$14,489.11 | \$42,673.42 |
| BFO24D | 9291 | \$1.06 | \$9,848.04 | \$0.86 | \$7,989.92 | \$17,837,95 |
| BFO144D \& | 3367 | \$2.84 | \$9,561.42 | \$1.46 | \$4,915.38 | \$14,476.79 |
| BFO72D | 3152 | \$1.06 | \$3,340.91 | \$0.86 | \$2,710.55 | \$6,051.46 |
| BFO12 | 109092 | \$2.18 | \$237,820,42 | \$0.49 | \$53,455.05 | \$291,275.47 |
| BFO24 | 54682 | \$2.21 | \$120,848.09 | \$0.57 | \$31,168.97 | \$152,017.06 |
| BFO48 | 87195 | \$2.25 | \$196,189,23 | \$0.71 | \$61,908.60 | \$258,097.83 |
| BFO481 | 328 | \$0.55 | \$180.33 | \$0.69 | \$226.23 | \$406.56 |
| BFO72 | 11204 | \$2.44 | \$27,336.82 | \$0.86 | \$9,635.11 | \$36,971.93 |
| BFO721 | 2908 | \$0.60 | \$1,744.74 | \$0.83 | \$2,413.56 | \$4,158.30 |
| BFO96 | 25886 | \$2.47 | \$63,938.78 | \$1.08 | \$27,957.04 | \$91,895.82 |
| BFO961 | 2395 | \$0.62 | \$1,485.02 | \$1.05 | \$2,514.95 | \$3,999.98 |
| BFO144 | 13766 | \$2.52 | \$34,690.43 | \$1.46 | \$20,098.42 | \$54,788.85 |
| BFO1441 | 4520 | \$0.62 | \$2,802.23 | $\$ 1.43$ | \$6,463.22 | \$9,265.45 |
| BFO288\| | 4903 | \$0.70 | \$3,431.83 | \$2.42 | \$11,864.32 | \$15,296.15 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BFOV( $4 \times 1.25$ ) H | 1520 | \$10.57 | \$16,069.36 | \$1.79 | \$2,721.30 | \$18,790.66 |
| BFOV $(5 \times 1.25) \mathrm{H}$ | 369 | \$12.50 | \$4,609.25 | \$2.20 | \$811.23 | \$5,420.48 |
| $\mathrm{BFOV}(6 \times 1.25) \mathrm{H}$ | 526 | \$14.50 | \$7,631.79 | \$2.59 | \$1,363.19 | \$8,994.98 |
| $\overline{\mathrm{BFOV}}(9 \times 1.25) \mathrm{H}$ | 183 | \$24.90 | \$4,565.17 | \$3.81 | \$698.53 | \$5,263.69 |
| BFOV (11x1.25) H | 124 | \$30.00 | \$3,708.00 | \$4.50 | \$556.20 | \$4,264.20 |
| SUBTOTAL SECTION BFO |  |  | \$1,167,542.50 |  | \$444,267.27 | \$1,611,809.76 |
| BHF(LCC) | 6 | \$1,075.00 | \$6,450.00 | \$2,144.98 | \$12,869.88 | \$19,319.88 |
| BHF (17x30×24)T | 126 | \$408.75 | \$51,382.33 | \$571.27 | \$71,812.07 | \$123,194,39 |
| BHF $(24 \times 36 \times 24) \mathrm{T}$ | 36 | \$519.58 | \$18,661.24 | \$879.41 | \$31,584.89 | \$50,246.12 |
| BHF $(30 \times 48 \times 30) \mathrm{T}$ | 18 | \$568.13 | \$10,202.48 | \$1,526.12 | \$27,406.06 | \$37,608.54 |
| SUBTOTAL SECTION BH |  |  | \$86,696.04 |  | \$143,672.90 | \$230,368.94 |
| BM17 | 1524 | \$14.44 | \$22,006.56 | \$16,25 | \$24,765.00 | \$46,771,56 |
| BM2 | 435 | \$18.75 | \$8,160.75 | \$30.28 | \$13,179.07 | \$21,339.82 |
| BM21 | 1 | \$2,483.33 | \$2,483.33 | \$2,501.74 | \$2,501.74 | \$4,985.07 |
| BM2A | 301 | \$15.00 | \$4,519.80 | \$11.25 | \$3,389,85 | \$7,909.65 |
| BM53 | 511 | \$25.13 | \$12,830.62 | \$35.79 | \$18,273.30 | \$31,103.92 |
| BM60(1.25) | 100138 | \$7.18 | \$718,990.84 | \$0.45 | \$45,062.10 | \$764,052.94 |
| BM60(2) | 7335 | \$7.18 | \$52,666.74 | \$1.31 | \$9,609.11 | \$62,275.85 |
| BM60(2x1.25) | 18901 | \$7.55 | \$142,704.06 | \$0.92 | \$17,389.10 | \$160,093.16 |
| BM60(3) | 2633 | \$11.00 | \$28,960.80 | \$1.68 | \$4,423.10 | \$33,383.90 |
| BM60(3x1.25) | 10227 | \$11.03 | \$112,800.50 | \$1.35 | \$13,806.05 | \$126,606.55 |
| BM60(6) | 5266 | \$20.26 | \$106,681.06 | \$10.14 | \$53,393, 18 | \$160,074.24 |
| BM61(1) | 3150 | \$7.18 | \$22,614.13 | \$0.36 | \$1,133.86 | \$23,747.98 |
| BM73 | 102 | \$90.13 | \$9,157.21 | \$39.45 | \$4,008.12 | \$13,165.33 |
| BM83 | 508 | \$18.00 | \$9,144.00 | \$5.15 | \$2,616.20 | \$11,760.20 |
| SUBTOTAL SECTION BM |  |  | \$1,253,720.39 |  | \$213,549.78 | \$1,467,270.18 |


| HBFOM | 186 | \$235.00 | \$43,611,30 | \$403.99 | \$74,972,46 | \$118,583.76 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBTOTAL SECTION HBF |  |  | \$43,611.30 |  | \$74,972.46 | \$118,583.76 |


| HO1 | 7620 | \$26.00 | \$198,120.00 | \$0.44 | \$3,352.80 | \$201,472.80 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBTOTAL SECTION HO |  |  | \$198,120.00 |  | \$3,352.80 | \$201,472,80 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| SUBTOTAL SECTION NID |  |  | \$73,711.98 |  | \$43,046.49 | \$116,758.47 |


| SEBO6 | 157480 | $\$ 1.81$ | $\$ 285,038,80$ | $\$ 0.31$ | $\$ 48,818.80$ | $\$ 333,857.60$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SUBTOTAL SECTION SE |  |  | $\$ 285,038.80$ |  | $\$ 48,818.80$ | $\$ 333,857.60$ |



| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BDO4}(1)$ | 28 | \$236.03 | \$6,510.89 | \$293.33 | \$8,091.51 | \$14,602.40 |
| BDO5(1) | 9 | \$237.63 | \$2,185.01 | \$347.47 | \$3,194.99 | \$5,379.99 |
| SUBTOTAL SECTION BDO |  |  | \$8,695.90 |  | \$11,286.49 | \$19,982.39 |
| BDOS (LCC) | 1 | \$1,110.13 | \$1,110,13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870,62 | \$7,980.75 |
| 4) BFO 24 D \& |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 4A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 15)BFO96D\& |  | \$2.40 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 15A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 11)BFO96D\& |  | \$2.79 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 11A)BFO144D\& |  | \$1.02 | \$0.00 | $\$ 1.46$ | \$0.00 | $\$ 0.00$ |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 12)BFO72D\& |  | \$2.79 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 12A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 12B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 14)BFO144D\& |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| 14B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 16)BFO48D\& |  | \$2.79 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 16A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 16B)BFO288D |  | \$1.12 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 20)BFO48D \& |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 20A)BFO144D |  | \$1.06 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D\& | 3618 | $\$ 1.89$ | \$6,837.16 | \$0.57 | \$2,062.00 | \$8,899.17 |
| BFO12D | 3387 | $\$ 1.21$ | \$4,097.83 | $\$ 0.49$ | \$1,659.45 | \$5,757.29 |
| BFO48D\& |  | \$1.89 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO96D\& | 6388 | $\$ 1.89$ | \$12,073.17 | \$1.08 | \$6,898.95 | \$18,972,12 |
| BFO12D | 5980 | \$1.21 | \$7,236.02 | \$0.49 | \$2,930.29 | \$10,166.31 |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO24D\& |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO72D\& |  | \$1.89 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | $\$ 0.00$ |
| BFO96D \& |  | \$1.89 | \$0.00 | \$1.08 | $\$ 0.00$ | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO144D \& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO72D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO12 | 11405 | $\$ 2.18$ | \$24,862.80 | \$0.49 | \$5,588.43 | \$30,451.23 |
| BFO24 | 4878 | \$2.21 | \$10,781.28 | \$0.57 | \$2,780.69 | \$13,561.97 |
| BFO48 | 6058 | \$2.25 | \$13,630.17 | \$0.71 | \$4,301.07 | \$17,931.24 |
| BFO481 |  | \$0.55 | \$0.00 | \$0.69 | \$0.00 | \$0.00 |
| BFO72 |  | \$2.44 | $\$ 0.00$ | \$0.86 | \$0.00 | $\$ 0.00$ |
| BFO721 |  | \$0.60 | \$0.00 | $\$ 0.83$ | \$0.00 | \$0.00 |
| BF096 |  | \$2.47 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BF0961 |  | \$0.62 | \$0.00 | $\$ 1.05$ | \$0.00 | \$0.00 |
| BF0144 |  | \$2.52 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO1441 |  | \$0.62 | \$0.00 | \$1.43 | \$0.00 | \$0.00 |
| BFO2881 |  | \$0.70 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BFOV}(4 \times 1.25) \mathrm{H}$ |  | \$10.57 | \$0.00 | $\$ 1.79$ | \$0.00 | \$0.00 |
| BFOV( $5 \times 1.25$ ) H |  | \$12.50 | $\$ 0.00$ | $\$ 2.20$ | \$0.00 | \$0.00 |
| BFOV( $6 \times 1.25$ ) H |  | \$14.50 | \$0.00 | \$2.59 | \$0.00 | \$0.00 |
| BFOV( $9 \times 1.25) \mathrm{H}$ |  | \$24.90 | $\$ 0.00$ | $\$ 3.81$ | \$0.00 | $\$ 0.00$ |
| BFOV(11x1.25) H |  | $\$ 30.00$ | \$0.00 | \$4.50 | \$0.00 | \$0.00 |
| SUBTOTAL SECTION BFO |  |  | \$79,518.44 |  | \$26,220.89 | \$105,739.33 |
|  |  |  |  |  |  |  |
| BHF(LCC) | 1 | \$1,075.00 | \$1,075.00 | \$2,144.98 | \$2,144,98 | \$3,219.98 |
| BHF (17x30×24)T | 4 | \$408.75 | \$1,753.95 | \$571.27 | \$2,451.32 | \$4,205.27 |
| BHF $(24 \times 36 \times 24) \mathrm{T}$ | 1 | \$519.58 | \$637.01 | \$879.41 | \$1,078.16 | \$1,715.16 |
| $\mathrm{BHF}(30 \times 48 \times 30) \mathrm{T}$ | 1 | \$568.13 | \$348.26 | \$1.526.12 | \$935.51 | \$1,283.78 |
| SUBTOTAL SECTION BH |  |  | \$3,814,22 |  | \$6,609.97 | \$10,424.18 |
|  |  |  |  |  |  |  |
| $\frac{\text { BM17 }}{\text { BM2 }}$ | $\frac{87}{32}$ | \$14.44 | \$1,256.28 | \$16.25 | \$1,413.75 | \$2,670.03 |
| $\frac{B M 2}{\text { BM21 }}$ | 32 | \$2-\$18.75 | \$597.68 | - \$30.28 | \$965.21 | \$1,562.88 |
| BM21 | 0 | \$2,483.33 | $\$ 0.00$ | \$2,501.74 | \$0.00 | \$0.00 |
| BM2A | 22 | \$15.00 | \$331.02 | \$11.25 | \$248.27 | \$579.29 |
| BM53 | 37 | \$25.13 | $\$ 939.69$ | \$35.79 | \$1,338.30 | \$2,277.98 |
| BM60(1.25) | 4291 | \$7.18 | \$30,809.38 | \$0.45 | \$1,930.95 | \$32,740.33 |
| BM60(2) | 490 | $\$ 7.18$ | \$3,521.07 | \$1.31 | \$642.42 | \$4,163.50 |
| BM60( $2 \times 1.25$ ) | 1103 | \$7.55 | \$8,330.67 | \$0.92 | \$1,015.13 | \$9,345.80 |
| BM60(3) | 123 | \$11.00 | \$1,348.60 | $\$ 1.68$ | \$205.97 | \$1,554.57 |
| BM60(3x1.25) | 644 | $\$ 11.03$ | \$7,099.46 | $\$ 1.35$ | \$868.93 | \$7,968.39 |
| BM60(6) | 245 | \$20.26 | \$4,967.75 | \$10.14 | \$2,486.33 | \$7,454.08 |
| BM61(1) | 180 | \$7.18 | \$1,290.96 | $\$ 0.36$ | \$64.73 | \$1,355.69 |
| BM73 | 6 | $\$ 90.13$ | \$522.75 | \$39.45 | \$228.81 | \$751.56 |
| BM83 | 29 | $\$ 18.00$ | \$522.00 | \$5.15 | \$149.35 | \$671.35 |
| SUBTOTAL SECTION BM |  |  | \$61,537.31 |  | \$11,558.13 | \$73,095.44 |
|  |  |  |  |  |  |  |
| HBFOM | 7 | \$235.00 | \$1,675.55 | \$403.99 | \$2,880.45 | \$4,556.00 |
| SUBTOTAL SECTION HBF |  |  | \$1,675.55 |  | \$2,880,45 | \$4,556.00 |
|  |  |  |  |  |  |  |
| H01 | 435 | \$26.00 | \$11,310.00 | \$0.44 | \$191.40 | \$11,501.40 |
| SUBTOTAL SECTION HO |  |  | \$11,310,00 |  | \$191.40 | \$11,501,40 |
|  |  |  |  |  |  |  |
| ONT3 | 24 | \$130.94 | \$3,142.56 | \$64.59 | \$1,550.16 | \$4,692.72 |
| ONT7 | 5 | \$210.00 | \$1,050.00 | \$177.06 | \$885.30 | \$1,935.30 |
| SUBTOTAL SECTION NID |  |  | \$4,192.56 |  | \$2,435,46 | \$6,628.02 |
|  |  |  |  |  |  |  |
| SEBO6 | 8990 | \$1.81 | \$16,271.90 | \$0.31 | \$2,786.90 | \$19,058.80 |
| SUBTOTAL SECTION SE |  |  | \$16,271.90 |  | \$2,786.90 | \$19,058,80 |
|  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | \$187,015.87 |  | \$70,840.31 | \$258,966.31 |
|  |  |  |  |  |  |  |
| Drops | 29 |  |  |  |  |  |
| Route Miles | 6.13 |  |  |  | r Route Mile: | \$37,474.54 |
| Drop Miles | 1.70 |  |  |  | - Drop Mile: | \$17,204.34 |
| Total Miles | 7.83 |  |  |  | r Total Miles: | \$33,073.60 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 43 | \$236.03 | \$10,111.53 | \$293.33 | \$12,566.26 | \$22,677.78 |
| BDO5(1) | 14 | \$237.63 | \$3,393,36 | \$347.47 | \$4,961.87 | \$8,355.23 |
| SUBTOTAL SECTION BDO |  |  | \$13,504.88 |  | \$17,528.13 | \$31,033.01 |
| BDOS(LCC) | 1 | \$1,110.13 | \$1,110.13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870,62 | \$7,980.75 |
| 4)BFO24D \& |  | \$1.89 | \$0.00 | $\$ 0.57$ | \$0.00 | $\$ 0.00$ |
| 4A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | $\$ 0.00$ |
| 15)BFO96D \& |  | \$2.40 | \$0.00 | \$1.08 | \$0.00 | $\$ 0.00$ |
| 15A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | $\$ 0.00$ |
| 11)BFO96D\& |  | \$2.79 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 11A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | $\$ 0.00$ |
| 12)BFO72D\& |  | \$2.79 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 12A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| 12B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0,00 | \$0.00 |
| 14)BFO144D \& |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 16) BFO 48 D \& |  | \$2.79 | \$0.00 | \$0.71 | $\$ 0.00$ | \$0.00 |
| 16A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 16B)BFO288D |  | \$1.12 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 20)BFO48D\& |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 20A)BFO144D |  | \$1.06 | \$0.00 | \$1.46 | $\$ 0.00$ | \$0.00 |
| BFO24D \& | 9873 | \$1.89 | \$18,660.80 | \$0.57 | \$5,627.86 | \$24,288.66 |
| BFO12D | 9243 | \$1.21 | \$11,184.30 | \$0.49 | \$4,529.18 | \$15,713.47 |
| BFO48D\& |  | \$1.89 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | \$0.00 |
| BFO96D\& |  | \$1.89 | \$0.00 | \$1.08 | $\$ 0.00$ | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | $\$ 0.49$ | \$0.00 | \$0.00 |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | \$0,00 |
| BFO12D |  | \$1.21 | \$0.00 | $\$ 0.49$ | \$0.00 | \$0.00 |
| BFO24D\& |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO72D\& | 11167 | \$1.89 | \$21,106.21 | \$0.86 | \$9,603.88 | \$30,710.09 |
| BFO24D | 10455 | $\$ 1.21$ | \$12,649,95 | \$0.57 | \$5,959.07 | \$18,609.01 |
| BFO96D \& |  | \$1.89 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO72D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO12 | 12032 | \$2.18 | \$26,229.95 | \$0.49 | \$5,895.72 | \$32,125.67 |
| BFO24 | 4491 | \$2.21 | \$9,925.39 | \$0.57 | \$2,559.94 | \$12,485.34 |
| BFO48 |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| BFO481 |  | \$0.55 | \$0.00 | \$0.69 | \$0.00 | \$0.00 |
| BFO72 | 9042 | \$2.44 | \$22,061.67 | \$0.86 | \$7,775,83 | \$29,837.50 |
| BFO721 |  | \$0.60 | \$0.00 | \$0.83 | \$0.00 | \$0.00 |
| BF096 | 3666 | \$2.47 | \$9,054.91 | \$1.08 | \$3,959.23 | \$13,014.15 |
| BFO961 |  | \$0.62 | \$0.00 | \$1.05 | \$0.00 | \$0.00 |
| BFO144 |  | \$2.52 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO1441 |  | \$0.62 | \$0.00 | \$1.43 | \$0.00 | $\$ 0.00$ |
| BFO2881 |  | \$0.70 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BFOV}(4 \times 1.25) \mathrm{H}$ |  | \$10.57 | \$0.00 | $\$ 1.79$ | $\$ 0.00$ | \$0.00 |
| $\mathrm{BFOV}(5 \times 1.25) \mathrm{H}$ |  | \$12.50 | \$0.00 | \$2.20 | $\$ 0.00$ | \$0.00 |
| BFOV( $6 \times 1.25$ ) H |  | \$14.50 | \$0.00 | \$2.59 | $\$ 0.00$ | \$0,00 |
| BFOV $(9 \times 1.25) \mathrm{H}$ |  | \$24.90 | \$0.00 | \$3.81 | $\$ 0.00$ | $\$ 0.00$ |
| BFOV $(11 \times 1.25) \mathrm{H}$ |  | \$30.00 | \$0.00 | \$4.50 | $\$ 0.00$ | $\$ 0.00$ |
| SUBTOTAL SECTION BFO |  |  | \$130,873.17 |  | \$4S,910.72 | \$176,783,89 |
|  |  |  |  |  |  |  |
| BHF(LCC) | 1 | \$1,075.00 | \$1,075.00 | \$2,144.98 | \$2,144.98 | \$3,219.98 |
| BHF $(17 \times 30 \times 24) \mathrm{T}$ | 7 | \$408.75 | \$2,723.91 | \$571.27 | \$3,806.94 | \$6,530.85 |
| BHF $(24 \times 36 \times 24) \mathrm{T}$ | 2 | \$519.58 | \$989.28 | \$879.41 | \$1,674.40 | \$2,663.68 |
| $\mathrm{BHF}(30 \times 48 \times 30) \mathrm{T}$ | 1 | \$568.13 | \$540.86 | \$1,526.12 | \$1,452.87 | \$1,993.73 |
| SUBTOTAL SECTION BH |  |  | \$5,329.05 |  | \$9,079,19 | \$14,408.24 |
|  |  |  |  |  |  |  |
| BM17 | 162 | \$14.44 | \$2,339.28 | \$16.25 | \$2,632.50 | \$4,971.78 |
| BM2 | 50 | \$18.75 | \$928.20 | \$30.28 | \$1,498,98 | \$2,427.18 |
| BM21 | 0 | \$2,483.33 | \$0.00 | \$2,501.74 | $\$ 0.00$ | \$0.00 |
| BM2A | 34 | $\$ 15.00$ | \$514.08 | \$11.25 | \$385.56 | \$899.64 |
| BM53 | 58 | \$25.13 | \$1,459.35 | \$35.79 | \$2,078.40 | \$3,537.75 |
| BM60(1.25) | 6664 | \$7.18 | \$47,847.52 | \$0.45 | \$2,998.80 | \$50,846.32 |
| BM60(2) | 762 | \$7.18 | \$5,468.29 | \$1.31 | \$997.70 | \$6,465.98 |
| BM60(2x1.25) | 1714 | $\$ 7.55$ | \$12,937.68 | \$0.92 | \$1,576.51 | \$14,514.19 |
| BM60(3) | 190 | \$11.00 | \$2,094.40 | \$1.68 | \$319.87 | \$2.414.27 |
| BM60(3x1.25) | 1000 | \$11.03 | \$11,025.59 | \$1.35 | \$1,349.46 | \$12,375.05 |
| BM60(6) | 381 | \$20.26 | \$7,715.01 | \$10.14 | \$3,861.31 | \$11,576.32 |
| BM61(1) | 335 | \$7.18 | \$2,403.86 | \$0.36 | \$120.53 | \$2,524.39 |
| BM73 | 11 | \$90.13 | \$973.40 | \$39.45 | \$426.06 | \$1,399.46 |
| BM83 | 54 | \$18.00 | \$972.00 | \$5.15 | \$278.10 | \$1,250,10 |
| SUBTOTAL SECTION BM |  |  | \$96,678.66 |  | \$18,523.78 | \$115,202.44 |
|  |  |  |  |  |  |  |
| HBFOM | 11 | \$235.00 | \$2,472.20 | \$403.99 | \$4,249.97 | \$6,722.17 |
| SUBTOTAL SECTION HBF |  |  | \$2,472.20 |  | \$4,249,97 | \$6,722.17 |
| HO1 | 810 | \$26.00 | \$21,060.00 | \$0.44 | \$356.40 | \$21,416.40 |
| SUBTOTAL SECTION HO |  |  | \$21,060.00 |  | \$356.40 | \$21,416.40 |
|  |  |  |  |  |  |  |
| ONT3 | 44 | \$130.94 | \$5,761.36 | \$64.59 | \$2,841.96 | \$8,603.32 |
| ONT7 | 10 | \$210.00 | \$2,100.00 | \$177,06 | \$1,770.60 | \$3,870.60 |
| SUBTOTAL SECTION NID |  |  | \$7,861.36 |  | \$4,612.56 | \$12,473.92 |
| SEBO6 | 16740 | \$1.81 | \$30,299.40 | \$0.31 | \$5,189.40 | \$35,488.80 |
| SUBTOTAL SECTION SE |  |  | \$30,299.40 |  | \$5,189.40 | \$35,488.80 |
|  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | \$308,078.73 |  | \$112,320.77 | \$421,509.62 |
|  |  |  |  |  |  |  |
| Drops | 54 |  |  |  |  |  |
| Route Miles | 9.52 |  |  |  | Per Route Mile: | \$38,541.69 |
| Drop Miles | 3.17 |  |  |  | Per Drop Mile: | \$17,221.68 |
| Total Miles | 12.69 |  |  |  | Per Total Miles: | \$33,215.89 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4 (1) | 54 | \$236.03 | \$12,830.59 | \$293.33 | \$15,945,42 | \$28,776.01 |
| BDO5(1) | 18 | \$237.63 | \$4,305.86 | \$347.47 | \$6,296.16 | \$10,602.01 |
| SUBTOTAL SECTION BDO |  |  | \$17,136.45 |  | \$22,241.58 | \$39,378.02 |
| BDOS (LCC) | 1 | \$1,110.13 | \$1,110.13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870.62 | \$7,980.75 |
| 4) $\mathrm{BFO} 24 \mathrm{D} \&$ |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 4A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 15) $\mathrm{BFO96D} \mathrm{\&}$ |  | \$2.40 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 15A)BFO288D |  | \$1.10 | \$0.00 | $\$ 2.42$ | $\$ 0.00$ | \$0.00 |
| 11) $\mathrm{BFO96D} \mathrm{\&}$ |  | \$2.79 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 11A)BFO144D\& |  | \$1.02 | \$0.00 | $\$ 1.46$ | \$0.00 | \$0.00 |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 12) BFO 72 D \& |  | \$2.79 | \$0.00 | \$0.86 | $\$ 0.00$ | $\$ 0.00$ |
| 12A)BFO144D\& |  | \$1.02 | \$0,00 | $\$ 1.46$ | $\$ 0.00$ | \$0.00 |
| 12B) BFO 72 D |  | \$1.02 | \$0.00 | $\$ 0.86$ | \$0.00 | \$0.00 |
| 14) BFO 144 D 2 |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14A)BFO144D\& |  | \$1.02 | \$0.00 | $\$ 1.46$ | \$0.00 | \$0.00 |
| 14B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 16)BFO48D \& |  | \$2.79 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 16A)BFO144D\& |  | $\$ 1.02$ | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 16B)BFO288D |  | \$1.12 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 20)BFO48D\& |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 20A)BFO144D |  | \$1.06 | \$0.00 | \$1.46 | $\$ 0.00$ | \$0.00 |
| BFO24D\& | 5809 | \$1.89 | \$10,979.39 | \$0.57 | \$3,311.24 | \$14,290.63 |
| BFO12D | 5438 | \$1.21 | \$6,580.46 | \$0.49 | \$2,664.82 | \$9,245.28 |
| BFO48D8 | 5316 | \$1.89 | \$10,047.80 | \$0.71 | \$3,774.57 | \$13,822.38 |
| BF012D | 4977 | \$1.21 | \$6,022.12 | \$0.49 | \$2,438.71 | \$8,460,83 |
| BF096D\& |  | \$1.89 | $\$ 0.00$ | \$1.08 | \$ $\$ 0.00$ | \$0.00 |
| BF012D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO144D\& | 4075 | \$1.89 | \$7,702.21 | \$1.46 | \$5,949.85 | \$13,652.06 |
| BFO12D | 3815 | \$1.21 | \$4,616.30 | \$0.49 | \$1,869.41 | \$6,485.70 |
| BFO24D 2 |  | $\$ 1.89$ | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO72D\& |  | \$1.89 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BF096D\& |  | \$1.89 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BF0144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BF072D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BF012 | 25534 | \$2.18 | \$55,664.28 | \$0.49 | \$12,511.70 | \$68,175.98 |
| BFO24 | 4788 | \$2.21 | \$10,581.90 | \$0.57 | \$2,729.27 | \$13,311.17 |
| BFO48 | 18286 | \$2.25 | \$41,143.00 | \$0.71 | \$12,982.90 | \$54,125.90 |
| BFO481 |  | \$0.55 | \$0.00 | \$0.69 | \$0.00 | \$0.00 |
| BFO72 |  | \$2.44 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BF0721 |  | \$0.60 | \$0.00 | \$0.83 | \$0.00 | \$0.00 |
| BFO96 |  | \$2.47 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO961 |  | \$0.62 | \$0.00 | \$1.05 | \$0.00 | \$0.00 |
| BFO144 |  | \$2.52 | \$0.00 | $\$ 1.46$ | \$0.00 | \$0.00 |
| BFO1441 |  | \$0.62 | \$0.00 | $\$ 1.43$ | \$0.00 | \$0.00 |
| BFO2881 |  | \$0.70 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BFOV}(4 \times 1.25) \mathrm{H}$ |  | \$10.57 | \$0.00 | \$1.79 | \$0.00 | \$0.00 |
| $\mathrm{BFOV}(5 \times 1.25) \mathrm{H}$ |  | \$12.50 | \$0.00 | $\$ 2.20$ | \$0.00 | \$0.00 |
| BFOV $(6 \times 1.25) \mathrm{H}$ |  | \$14.50 | \$0.00 | \$2.59 | \$0.00 | $\$ 0.00$ |
| $\mathrm{BFOV}(9 \times 1.25) \mathrm{H}$ |  | \$24.90 | \$0.00 | \$3.81 | \$0.00 | \$0.00 |
| BFOV(11×1.25) H |  | \$30.00 | \$0.00 | \$4.50 | \$0.00 | \$0.00 |
| SUBTOTAL SECTION BFO |  |  | \$153,337.46 |  | \$48,232.47 | \$201,569.93 |
|  |  |  |  |  |  |  |
| $\mathrm{BHF}(\mathrm{LCC})$ | 1 | \$1,075.00 | \$1,075.00 | \$2,144.98 | \$2,144.98 | \$3,219.98 |
| $\mathrm{BHF}(17 \times 30 \times 24) \mathrm{T}$ | 8 | \$408.75 | \$3,456.39 | \$571.27 | \$4,830.66 | \$8,287.05 |
| $\mathrm{BHF}(24 \times 36 \times 24) \mathrm{T}$ | 2 | $\$ 519.58$ | \$1,255.31 | \$879.41 | \$2,124.65 | \$3,379.96 |
| BHF $(30 \times 48 \times 30) \mathrm{T}$ | 1 | \$568.13 | \$686.30 | \$1,526.12 | \$1,843.55 | \$2,529.85 |
| SUBTOTAL SECTION BH |  |  | \$6,473.00 |  | \$10,943.85 | \$17,416.84 |
|  |  |  |  |  |  |  |
| BM17 | 117 | \$14.44 | \$1,689.48 | \$16.25 | \$1,901.25 | \$3,590.73 |
| BM2 | 63 | \$18.75 | \$1,177.80 | \$30.28 | \$1,902.07 | \$3,079.87 |
| BM21 | 0 | \$2,483.33 | \$0.00 | \$2,501.74 | \$0.00 | \$0.00 |
| BM2A | 43 | \$15.00 | \$652.32 | \$11.25 | \$489.24 | \$1,141.56 |
| BM53 | 74 | \$25.13 | \$1,851.78 | \$35.79 | \$2,637.29 | \$4,489.07 |
| $\mathrm{BM60}(1.25)$ | 8456 | $\$ 7.18$ | \$60,714.08 | \$0.45 | \$3,805.20 | \$64,519.28 |
| BM60(2) | 966 | \$7.18 | \$6,938.75 | \$1.31 | \$1,265.98 | \$8,204.74 |
| BM60(2x1.25) | 2174 | $\$ 7.55$ | \$16,416,72 | \$0.92 | \$2,000.45 | \$18,417.17 |
| BM60(3) | 242 | \$11.00 | \$2,657,60 | \$1.68 | \$405.89 | \$3,063,49 |
| BM60(3x1.25) | 1268 | \$11.03 | \$13,990.45 | \$1.35 | \$1,712.34 | \$15,702.79 |
| BM60(6) | 483 | \$20.26 | \$9,789.63 | \$10.14 | \$4,899.65 | \$14,689.28 |
| BM61(1) | 242 | \$7.18 | \$1,736.12 | \$0.36 | - \$87.05 | \$1,823.17 |
| BM73 | 8 | \$90.13 | \$703.01 | \$39.45 | \$307.71 | \$1,010.72 |
| BM83 | 39 | \$18.00 | \$702.00 | \$5.15 | \$200.85 | \$902.85 |
| SUBTOTAL SECTION BM |  |  | \$119,019.75 |  | \$21,614.97 | \$140,634.72 |
| HBFOM | 13 | \$235.00 | \$3,073.80 | \$403.99 | \$5,284.19 | \$8,357.99 |
| SUBTOTAL SECTION HBF |  |  | \$3,073.80 |  | \$5,284.19 | \$8,357.99 |
| H01 | 585 | \$26.00 | \$15,210.00 | \$0.44 | \$257.40 | \$15,467.40 |
| SUBTOTAL SECTION HO |  |  | \$15,210,00 |  | \$257.40 | \$15,467.40 |
|  |  |  |  |  |  |  |
| ONT3 | 32 | \$130.94 | \$4,190.08 | \$64.59 | \$2,066.88 | \$6,256.96 |
| ONT7 | 7 | \$210.00 | \$1,470,00 | \$177.06 | \$1,239.42 | \$2,709.42 |
| SUBTOTAL SECTION NID |  |  | \$5,660.08 |  | \$3,306.30 | \$8,966.38 |
|  |  |  |  |  |  |  |
| SEBO6 | 12090 | \$1.81 | \$21,882.90 | \$0.31 | \$3,747.90 | \$25,630.80 |
| SUBTOTAL SECTION SE |  |  | \$21,882.90 |  | \$3,747.90 | \$25,630.80 |
|  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | \$341,793.43 |  | \$122,499.27 | \$465,402.83 |
|  |  |  |  |  |  |  |
| Drops | 39 |  |  |  |  |  |
| Route Miles | 12.08 |  |  |  | r Route Mile: | \$35,266.33 |
| Drop Miles | 2.29 |  |  |  | - Drop Mile: | \$17,198.92 |
| Total Miles | 14.37 |  |  |  | r Total Miles: | \$32,387.11 |
|  |  |  |  |  |  |  |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 57 | \$236.03 | \$13,382.90 | \$293.33 | \$16,631.81 | \$30,014.71 |
| BDO5(1) | 19 | \$237.63 | \$4,491.21 | \$347.47 | \$6,567.18 | \$11,058.39 |
| SUBTOTAL SECTION BDO |  |  | \$17,874,11 |  | \$23,198.99 | \$41,073.10 |
| BDOS(LCC) | 1 | \$1,110.13 | \$1,110.13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870.62 | \$7,980.75 |
| 4) BFO 24 D \& |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | $\$ 0$. |
| 4A)BFO288D |  | $\$ 1.10$ | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 15)BFO96D\& |  | \$2.40 | \$0.00 | \$1.08 | $\$ 0.00$ | \$0.00 |
| 15A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 11)BFO96D\& |  | \$2.79 | \$0.00 | \$1.08 | $\$ 0.00$ | \$0.00 |
| 11A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 12)BFO72D\& |  | \$2.79 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 12A)BFO144D\& |  | \$1.02 | \$0.00 | 51.46 | \$0.00 | \$0.00 |
| 12B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 14)BFO144D\& |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 16) $\mathrm{BFO} 48 \mathrm{D} \&$ |  | \$2.79 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 16A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 16B)BFO288D |  | \$1.12 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 20)BFO48D\& |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 20A)BFO144D |  | \$1.06 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO24D\& | 3552 | \$1.89 | \$6,712.40 | \$0.57 | \$2,024.37 | \$8,736.77 |
| BFO12D | 3325 | \$1.21 | \$4,023.06 | \$0.49 | \$1,629.17 | \$5,652.23 |
| BFO48D\& |  | \$1.89 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | \$0.00 |
| BFO96D\& | 3424 | \$1.89 | \$6,471.18 | \$1.08 | \$3,697.82 | \$10,169.00 |
| BFO12D | 3205 | \$1.21 | \$3,878.49 | \$0.49 | \$1,570.63 | \$5,449.11 |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | \$0.00 |
| BFO24D\& | 6958 | \$1.89 | \$13,150.31 | \$0.57 | \$3,985.97 | \$17,116.28 |
| BFO24D | 6514 | \$1.21 | \$7,881.60 | \$0.57 | \$3,712.82 | \$11,594.42 |
| BFO72D\& |  | \$1.89 | \$0.00 | \$0.86 | \$ $\$ 0.00$ | \$1, $\$ 0.00$ |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO96D\& | 6718 | \$1.89 | \$12,697.00 | \$1.08 | \$7,255.43 | \$19,952.42 |
| BFO24D | 6289 | \$1.21 | \$7,609.91 | \$0.57 | \$3,584.83 | \$11,194.74 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO72D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO12 | 15762 | \$2.18 | \$34,360.85 | \$0.49 | \$7,723.31 | \$42,084.16 |
| BFO 24 | 15498 | \$2.21 | \$34,250.14 | \$0.57 | \$8,833.75 | \$43,083.89 |
| BFO48 | 14609 | \$2.25 | \$32,869.84 | \$0.71 | \$10,372.26 | \$43,242.10 |
| BFO481 |  | \$0.55 | \$0.00 | \$0.69 | $\$ 0.00$ | \$0.00 |
| BFO72 |  | \$2.44 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO721 |  | \$0.60 | \$0.00 | \$0.83 | \$0.00 | \$0.00 |
| BFO96 |  | \$2.47 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO961 |  | \$0.62 | \$0.00 | \$1.05 | \$0.00 | \$0.00 |
| BFO144 |  | \$2.52 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO1441 |  | \$0.62 | \$0.00 | \$1.43 | \$0.00 | \$0.00 |
| BFO2881 |  | \$0.70 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |



| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 120 | \$236.03 | \$28,288.20 | \$293.33 | \$35,155,60 | \$63,443,80 |
| BDO5(1) | 40 | \$237.63 | \$9,493.32 | \$347.47 | \$13,881.43 | \$23,374.75 |
| SUBTOTAL SECTION BDO |  |  | \$37,781.51 |  | \$49,037.03 | \$86,818.54 |
| BDOS(LCC) | 0 | \$1,110.13 | \$0.00 | \$6,870.62 | \$0.00 | \$0.00 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$0.00 | \$0.00 |
| 4) BFO 24 D \& | 1210 | \$1.89 | \$2,287.37 | $\$ 0.57$ | \$689.84 | \$297722 |
| 4A)BFO288D | 1133 | \$1.10 | \$1,246.30 | \$2.42 | \$2,741.86 | \$3,988,16 |
| 15) BFO96D\& | 2382 | \$2.40 | \$5,716.78 | \$1.08 | \$2,572.55 | \$8,289.33 |
| 15A)BFO288D | 2230 | \$1.10 | \$2,452.95 | \$2.42 | \$5,396.48 | \$7,849.42 |
| 11)BFO96D\& | 1800 | \$2.79 | \$5,021.92 | \$1.08 | \$1,943.97 | \$6,965.89 |
| 11A)BFO144D\& | 1685 | \$1.02 | \$1,718.78 | \$1.46 | \$2,460.22 | \$4,179.00 |
| 11B)BFO24D | 1685 | \$1.02 | \$1,718.78 | \$0.57 | \$960.50 | \$2,679.28 |
| 12)BFO72D\& | 1256 | $\$ 2.79$ | \$3,505.52 | \$0.86 | \$1,080.56 | \$4,586.08 |
| 12A)BFO144D\& | 1176 | \$1.02 | \$1,199.79 | \$1.46 | \$1,717.34 | \$2,917.12 |
| 12B)BFO72D | 1176 | \$1.02 | \$1,199.79 | \$0.86 | \$1,011.58 | \$2,211.37 |
| 14)BFO144D\& | 3764 | \$2.79 | \$10,501.22 | \$1.46 | \$5,495.26 | \$15,996.48 |
| 14A)BFO144D\& | 3524 | \$1.02 | \$3,594.10 | \$1.46 | \$5,144.50 | \$8,738.60 |
| 14B) BFO 72 D | 3524 | \$1.02 | \$3,594.10 | \$0.86 | \$3,030.32 | \$6,624.42 |
| 16) BFO 48 D \& | 854 | \$2.79 | \$2,382.04 | \$0.71 | \$606.18 | \$2,988.22 |
| 16A)BFO144D\& | 799 | \$1.02 | $\$ 815.27$ | \$1.46 | \$1,166.95 | \$1,982.21 |
| 16B)BFO288D | 799 | \$1.12 | $\$ 895.19$ | \$2.42 | \$1,934.26 | \$2,829.45 |
| 20)BFO48D\& | 3140 | \$2.25 | \$7,065.11 | \$0.71 | \$2,229.43 | \$9,294.54 |
| 20A)BFO144D | 2940 | \$1.06 | \$3,116.00 | \$1.46 | \$4,291.85 | \$7,407.84 |
| BFO24D\& |  | \$1.89 | $\$ 0.00$ | \$0.57 | \$0.00 | \$0.00 |
| BF012D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO48D\& | 10551 | \$1.89 | \$19,941.73 | \$0.71 | \$7,491.34 | \$27,433.07 |
| BF012D | 9878 | \$1.21 | \$11,952.02 | \$0.49 | \$4,840.07 | \$16,792.09 |
| BFO96D\& |  | \$1.89 | $\$ 0.00$ | \$1.08 | $\$ 0.00$ | \$ $\$ 0.00$ |
| BFO12D |  | \$1.21 | $\$ 0.00$ | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO12D |  | \$1.21 | \$0.00 | \$0,49 | $\$ 0.00$ | \$0.00 |
| BFO24D\& | 16503 | \$1.89 | \$31, 191.44 | \$0.57 | \$9,406.94 | \$40,598.39 |
| BFO24D | 15450 | \$1.21 | \$18,694.50 | \$0.57 | \$8,806.50 | \$27,501.00 |
| BFO72D\& |  | \$1.89 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO96D\& |  | \$1.89 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO144D\& | 9924 | \$2.84 | \$28,184.30 | \$1.46 | \$14,489.11 | \$42,673.42 |
| BFO24D | 9291 | \$1.06 | \$9,848.04 | \$0.86 | \$7,989.92 | \$17,837.95 |
| BFO144D\& | 3367 | \$2.84 | \$9,561.42 | \$1.46 | \$4,915.38 | \$14,476.79 |
| BFO72D | 3152 | \$1.06 | \$3,340.91 | \$0.86 | \$2,710.55 | \$6,051.46 |
| BF012 | 29884 | \$2.18 | \$65,147.93 | $\$ 0.49$ | \$14,643.34 | \$79,791.28 |
| BFO24 | 13382 | \$2.21 | \$29,574.36 | \$0.57 | \$7,627,78 | \$37,202.14 |
| BFO48 | 29858 | $\$ 2.25$ | \$67,180.43 | \$0.71 | \$21,199.16 | \$88,379.58 |
| BFO481 | 328 | \$0.55 | \$180.33 | \$0.69 | \$226.23 | \$406.56 |
| BF072 | 2162 | \$2.44 | \$5,275.15 | \$0.86 | \$1,859.27 | \$7,134.42 |
| BFO721 | 2908 | \$0.60 | \$1,744.74 | \$0.83 | \$2,413.56 | \$4,158.30 |
| BF096 | 22220 | \$2.47 | \$54,883.87 | \$1.08 | \$23,997.81 | \$78,881.67 |
| BFO961 | 2395 | \$0.62 | \$1,485,02 | \$1.05 | \$2,514.95 | \$3,999.98 |
| BFO144 | 13766 | \$2.52 | \$34,690.43 | \$1.46 | \$20,098.42 | \$54,788.85 |
| BFO1441 | 4520 | \$0.62 | \$2,802.23 | \$1.43 | \$6,463.22 | \$9,265.45 |
| BFO2881 | 4903 | \$0.70 | \$3,431.83 | \$2.42 | \$11,864.32 | \$15,296.15 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BFOV}(4 \times 1.25) \mathrm{H}$ | 1520 | \$10.57 | \$16,069.36 | \$1,79 | \$2,721.30 | \$18,790.66 |
| $\mathrm{BFOV}(5 \times 1.25) \mathrm{H}$ | 369 | \$12.50 | \$4,609.25 | \$2.20 | \$811.23 | \$5,420.48 |
| BFOV(6x1.25) H | 526 | \$14.50 | \$7,631.79 | \$2.59 | \$1,363.19 | \$8,994.98 |
| $\mathrm{BFOV}(9 \times 1.25) \mathrm{H}$ | 183 | \$24.90 | \$4,565.17 | \$3.81 | \$698,53 | \$5,263.69 |
| BFOV( $11 \times 1.25) \mathrm{H}$ | 124 | \$30,00 | \$3,708.00 | \$4.50 | \$556.20 | \$4,264.20 |
| SUBTOTAL SECTION BFO |  |  | \$493,725.24 |  | \$224,181.96 | \$717,907.20 |
| BHF(LCC) | 0 | \$1,075.00 | \$0.00 | \$2,144.98 | \$0.00 | \$0,00 |
| $\mathrm{BHF}(17 \times 30 \times 24) \mathrm{T}$ | 89 | \$408.75 | \$36,578.22 | \$571.27 | \$51,121.81 | \$87,700.03 |
| $\mathrm{BHF}(24 \times 36 \times 24) \mathrm{T}$ | 26 | \$519.58 | \$13,284.62 | \$879.41 | \$22,484.75 | \$35,769,38 |
| $\mathrm{BHF}(30 \times 48 \times 30) \mathrm{T}$ | 13 | \$568.13 | \$7,262.97 | \$1,526.12 | \$19,509.92 | \$26,772.89 |
| SUBTOTAL SECTION BH |  |  | \$57,125.82 |  | \$93,116,48 | \$150,242.30 |
|  |  |  |  |  |  |  |
| BM17 | 840 | \$14.44 | \$12,129.60 | \$16.25 | \$13,650.00 | \$25,779.60 |
| BM2 | 166 | \$18.75 | \$3,116.10 | \$30.28 | \$5,032.29 | \$8,148.39 |
| BM21 | 1 | \$2,483.33 | \$2,483.33 | \$2,501.74 | \$2,501.74 | \$4,985.07 |
| BM2A | 115 | \$15.00 | \$1,725.84 | \$11.25 | \$1,294.38 | \$3,020.22 |
| BM53 | 195 | \$25.13 | \$4,899.24 | \$35.79 | \$6,977.48 | \$11,876.72 |
| BM60(1.25) | 63920 | \$7.18 | \$458,945.60 | \$0.45 | \$28,764,00 | \$487,709.60 |
| BM60(2) | 3196 | \$7.18 | \$22,947,28 | \$1.31 | \$4,186,76 | \$27,134,04 |
| BM60(2x1.25) | 9588 | \$7.55 | \$72,389,40 | \$0.92 | \$8,820.96 | \$81,210.36 |
| BM60(3) | 1598 | \$11.00 | \$17,578.00 | \$1.68 | \$2,684.64 | \$20,262.64 |
| BM60(3x1.25) | 4794 | \$11.03 | \$52,877,82 | \$1.35 | \$6,471.90 | \$59,349,72 |
| BM60(6) | 3196 | \$20.26 | \$64,750.96 | \$10.14 | \$32,407.44 | \$97,158,40 |
| BM61(1) | 1736 | \$7.18 | \$12,464.48 | \$0.36 | \$624.96 | \$13,089.44 |
| BM73 | 56 | \$90.13 | \$5,047.28 | \$39.45 | \$2,209.20 | \$7,256.48 |
| BM83 | 280 | \$18.00 | \$5,040.00 | \$5.15 | \$1,442.00 | \$6,482.00 |
| SUBTOTAL SECTION BM |  |  | \$736,394.93 |  | \$117,067.75 | \$853,462,68 |
| HBFOM | 128 | \$235.00 | \$30,042.40 | \$403.99 | \$51,646.08 | 81,688.48 |
| SUBTOTAL SECTION HBF |  |  | \$30,042.40 |  | \$51,646.08 | \$81,688,48 |
| HO1 | 4200 | \$26.00 | \$109,200.00 | \$0.44 | \$1,848.00 | \$111,048.00 |
| SUBTOTAL SECTION HO |  |  | \$109,200.00 |  | \$1,848.00 | \$111,048.00 |
| ONT3 | 230 | \$130.94 | \$30,116.20 | \$64.59 | \$14,855,70 | \$44,971.90 |
| ONT7 | 50 | \$210.00 | \$10,500,00 | \$177.06 | \$8,853.00 | \$19,353,00 |
| SUBTOTAL SECTION NID |  |  | \$40,616.20 |  | \$23,708.70 | \$64,324.90 |
| SEBO6 | 86800 | $\$ 1.81$ | \$157,108.00 | \$0.31 | \$26,908.00 | \$184,016,00 |
| SUBTOTAL SECTION SE |  |  | \$157,108.00 |  | \$26,908.00 | \$184,016.00 |
| GRAND TOTAL |  |  | 1,661,994.10 |  | \$587,514.00 | \$2,249,508.10 |
| Drops | 280 |  |  |  |  |  |
| Route Miles | 31.96 |  |  |  | $r$ Route Mile: | \$61,539.09 |
| Drop Miles | 16.44 |  |  |  | Drop Mile: | \$17,197,00 |
| Total Miles | 48.40 |  |  |  | r Total Miles: | \$46,477.44 |
|  |  |  |  |  |  |  |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 23 | \$236.03 | \$5,438.13 | \$293.33 | \$6,758.32 | \$12,196,45 |
| BDOS(1) | 8 | \$237.63 | \$1,825.00 | \$347.47 | \$2,668.57 | \$4,493.57 |
| SUBTOTAL SECTION BDO |  |  | \$7,263.13 |  | \$9,426.89 | \$16,690.02 |
| BDOS (LCC) | 1 | \$1,110.13 | \$1,110.13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870.62 | \$7,980.75 |
| 4)BFO24D\& |  | \$1.89 | \$0,00 | $\$ 0.57$ | \$0.00 | \$0.00 |
| 4A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | $\$ 0.00$ | $\$ 0.00$ |
| 15)BFO96D\& |  | \$2.40 | \$0.00 | \$1.08 | $\$ 0.00$ | $\$ 0.00$ |
| 15A)BFO288D |  | $\$ 1.10$ | \$0.00 | \$2.42 | \$0.00 | $\$ 0.00$ |
| 11)BFO96D\& |  | \$2.79 | $\$ 0.00$ | $\$ 1.08$ | \$0.00 | $\$ 0.00$ |
| 11A)BFO144D\& |  | \$1.02 | $\$ 0.00$ | \$1.46 | \$0.00 | $\$ 0.00$ |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | 90.00 |
| 12)BFO72D\& |  | $\$ 2.79$ | $\$ 0.00$ | \$0.86 | $\$ 0.00$ | $\$ 0.00$ |
| 12A)BFO144D\& |  | $\$ 1.02$ | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| 12B) BFO72D |  | $\$ 1.02$ | \$0.00 | \$0.86 | \$0.00 | $\$ 0.00$ |
| 14)BFO144D\& |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| 14A)BFO144D\& |  | \$1.02 | $\$ 0.00$ | $\$ 1.46$ | \$0.00 | \$0.00 |
| 14B) BFO 72 D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | $\$ 0.00$ |
| 16) $\mathrm{BFO} 48 \mathrm{D} \&$ |  | \$2.79 | \$0.00 | $\$ 0.71$ | \$0.00 | $\$ 0.00$ |
| 16A)BFO144D\& |  | $\$ 1.02$ | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| 16B) BFO 288 D |  | $\$ 1.12$ | \$0.00 | \$2.42 | \$0.00 | $\$ 0.00$ |
| 20)BFO48D\& |  | \$2.25 | \$0,00 | $\$ 0.71$ | \$0.00 | $\$ 0.00$ |
| 20A)BFO144D |  | \$1.06 | \$0.00 | $\$ 1.46$ | \$0.00 | $\$ 0.00$ |
| BFO24D\& | 2854 | $\$ 1.89$ | \$5,394.04 | \$0.57 | \$1,626.77 | \$7,020.81 |
| BFO12D | 2672 | $\$ 1.21$ | \$3,232.90 | \$0.49 | \$1,309.19 | \$4,542.09 |
| BFO48D\& |  | \$1.89 | \$0.00 | $\$ 0.71$ | $\$ 0.00$ | \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | $\$ 0.49$ | $\$ 0.00$ | $\$ 0.00$ |
| BFO96D\& |  | \$1.89 | \$0.00 | $\$ 1.08$ | \$0.00 | \$0.00 |
| BF012D |  | \$1.21 | \$0.00 | \$0.49 | \$0.00 | $\$ 0.00$ |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO12D |  | \$1.21 | \$0.00 | \$0.49 | $\$ 0.00$ | \$0.00 |
| BFO24D\& |  | $\$ 1.89$ | $\$ 0.00$ | \$0.57 | \$0.00 | $\$ 0.00$ |
| BFO24D |  | $\$ 1.21$ | \$0.00 | \$0.57 | $\$ 0.00$ | $\$ 0.00$ |
| BFO72D\& |  | $\$ 1.89$ | $\$ 0.00$ | $\$ 0.86$ | \$0.00 | $\$ 0.00$ |
| BFO24D |  | \$1.21 | \$0.00 | $\$ 0.57$ | \$0.00 | \$0.00 |
| BFO96D\& |  | \$1.89 | $\$ 0.00$ | $\$ 1.08$ | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | $\$ 0.00$ | $\$ 1.46$ | \$0.00 | \$0.00 |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO144D \& |  | \$2.84 | $\$ 0.00$ | $\$ 1.46$ | $\$ 0.00$ | \$0.00 |
| BFO72D |  | \$1.06 | $\$ 0.00$ | \$0.86 | $\$ 0.00$ | \$0.00 |
| BFO12 | 11951 | $\$ 2.18$ | \$26,052.46 | $\$ 0.49$ | \$5,855.83 | \$31,908.29 |
| BFO24 | 4403 | \$2.21 | \$9,730.87 | \$0.57 | \$2,509.77 | \$12,240.64 |
| BFO48 | 7820 | \$2.25 | \$17,595.93 | \$0.71 | \$5,552.49 | \$23,148.43 |
| BFO481 |  | \$0.55 | \$ $\$ 0.00$ | $\$ 0.69$ | \$0.00 | \$0.00 |
| BFO72 |  | $\$ 2.44$ | \$0.00 | \$0.86 | \$0.00 | $\$ 0.00$ |
| BFO721 |  | $\$ 0.60$ | $\$ 0.00$ | \$0.83 | \$0.00 | \$0.00 |
| BFO96 |  | \$2.47 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO96! |  | \$0.62 | \$0.00 | $\$ 1.05$ | \$0.00 | \$0.00 |
| BFO144 |  | \$2.52 | \$0.00 | \$1.46 | \$0.00 | $\$ 0.00$ |
| BFO1441 |  | $\$ 0.62$ | \$0.00 | \$1.43 | \$0.00 | \$0.00 |
| BFO2881 |  | $\$ 0.70$ | $\$ 0.00$ | \$2.42 | \$0.00 | \$0.00 |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{BFOV}(4 \times 1.25) \mathrm{H}$ |  | \$10.57 | \$0.00 | \$1.79 | \$0.00 | \$0.00 |
| $\mathrm{BFOV}(5 \times 1.25) \mathrm{H}$ |  | \$12.50 | \$0.00 | \$2.20 | $\$ 0.00$ | \$0.00 |
| BFOV( $6 \times 1.25) \mathrm{H}$ |  | \$14.50 | \$0.00 | \$2.59 | \$0.00 | \$0.00 |
| BFOV $(9 \times 1.25) \mathrm{H}$ |  | \$24.90 | \$0.00 | \$3.81 | \$0.00 | \$0.00 |
| BFOV (11×1.25)H |  | \$30.00 | \$0.00 | \$4.50 | \$0.00 | \$0.00 |
| SUBTOTAL SECTION BFO |  |  | \$62,006.21 |  | \$16,854.06 | \$78,860.27 |
|  |  |  |  |  |  |  |
| BHF(LCC) | 1 | \$1,075.00 | \$1,075.00 | \$2,144.98 | \$2,144.98 | \$3,219.98 |
| BHF $(17 \times 30 \times 24) \mathrm{T}$ | 4 | \$408.75 | \$1,464.96 | \$571.27 | \$2,047.43 | \$3,512,39 |
| BHF $(24 \times 36 \times 24) \mathrm{T}$ | 1 | \$519.58 | \$532.05 | \$879.41 | \$900.52 | \$1,432.57 |
| $\mathrm{BHF}(30 \times 48 \times 30) \mathrm{T}$ | 1 | \$568.13 | \$290.88 | \$1,526.12 | \$781.37 | \$1,072.26 |
| SUBTOTAL SECTION BH |  |  | \$3,362.89 |  | \$5,874.30 | \$9,237.19 |
|  |  |  |  |  |  |  |
| BM17 | 75 | \$14.44 | \$1,083.00 | \$16.25 | \$1,218.75 | \$2,301.75 |
| BM2 | 27 | \$18.75 | \$499.20 | \$30.28 | \$806.17 | \$1,305.37 |
| BM21 | 0 | \$2,483.33 | \$0.00 | \$2,501.74 | \$0.00 | \$0.00 |
| BM2A | 18 | \$15.00 | \$276.48 | \$11.25 | \$207.36 | \$483.84 |
| BM53 | 31 | \$25.13 | \$784.86 | \$35.79 | \$1,117.79 | \$1,902.65 |
| BM60(1.25) | 3584 | \$7.18 | \$25,733,12 | \$0.45 | \$1,612.80 | \$27,345.92 |
| BM60(2) | 410 | \$7.18 | \$2,940.93 | \$1.31 | \$536.58 | \$3,477,50 |
| BM60(2x1.25) | 922 | $\$ 7.55$ | \$6,958.08 | \$0.92 | \$847.87 | \$7,805.95 |
| BM60(3) | 102 | \$11.00 | \$1,126.40 | \$1.68 | \$172.03 | \$1,298.43 |
| BM60(3x1.25) | 538 | \$11.03 | \$5,929.73 | \$1.35 | \$725.76 | \$6,655.49 |
| BM60(6) | 205 | \$20.26 | \$4,149.25 | \$10.14 | \$2,076.67 | \$6,225.92 |
| BM61(1) | 155 | \$7.18 | \$1,112.90 | \$0.36 | \$55.80 | \$1,168.70 |
| BM73 | 5 | \$90.13 | \$450.65 | $\$ 39.45$ | \$197.25 | \$647.90 |
| BM83 | 25 | \$18.00 | \$450.00 | \$5.15 | \$128.75 | \$578.75 |
| SUBTOTAL SECTION BM |  |  | \$51,494.59 |  | \$9,703.59 | \$61,198.18 |
|  |  |  |  |  |  |  |
| HBFOM | 6 | \$235.00 | \$1,438.20 | \$403.99 | \$2,472.42 | \$3,910.62 |
| SUBTOTAL SECTION HBF |  |  | \$1,438, 20 |  | \$2,472,42 | \$3,910,62 |
|  |  |  |  |  |  |  |
| HO1 | 375 | \$26.00 | \$9,750,00 | \$0.44 | \$165.00 | \$9,915.00 |
| SUBTOTAL SECTION HO |  |  | \$9,750.00 |  | \$165.00 | \$9,915.00 |
|  |  |  |  |  |  |  |
| ONT3 | 21 | \$130.94 | \$2,749.74 | 964.59 | \$1,356.39 | \$4,106.13 |
| ONT7 | 4 | \$210.00 | \$840.00 | \$177.06 | \$708.24 | \$1,548.24 |
| SUBTOTAL SECTION NID |  |  | \$3,589.74 |  | \$2,064.63 | \$5,654.37 |
|  |  |  |  |  |  |  |
| SEBO6 | 7750 | \$1.81 | \$14,027.50 | \$0.31 | \$2,402.50 | \$16,430,00 |
| SUBTOTAL SECTION SE |  |  | \$14,027.50 |  | \$2,402,50 | \$16,430.00 |
|  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | \$152,932.26 |  | \$55,834.01 | \$209,876.41 |
|  |  |  |  |  |  |  |
| Drops | 25 |  |  |  |  |  |
| Route Miles | 5.12 |  |  |  | $r$ Route Mile: | \$36,078.63 |
| Drop Miles | 1.47 |  |  |  | - Drop Mile: | \$17,111.44 |
| Total Miles | 6.59 |  |  |  | r Total Miles: | \$31,847,71 |
|  |  |  |  |  |  |  |


| Unit | Quantity | Labor | Labor Cost | Material | Material Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDO4(1) | 28 | \$236.03 | \$6,680.83 | \$293.33 | \$8,302.71 | \$14,983.53 |
| BDO5(1) | 9 | \$237.63 | \$2,242.04 | \$347.47 | \$3,278,38 | \$5,520.42 |
| SUBTOTAL SECTION BDO |  |  | \$8,922.87 |  | \$11,581.09 | \$20,503.95 |
| BDOS(LCC) | 1 | \$1,110.13 | \$1,110,13 | \$6,870.62 | \$6,870.62 | \$7,980.75 |
| SUBTOTAL SECTION BDS |  |  |  |  | \$6,870.62 | \$7,980.75 |
| 4)BFO24D\& |  | \$1.89 | \$0.00 | \$0.57 | \$0.00 | 0 |
| 4A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 15)BFO96D\& |  | \$2.40 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| 15A)BFO288D |  | \$1.10 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 11)BFO96D\& |  | \$2.79 | $\$ 0.00$ | \$1.08 | \$0.00 | $\$ 0.00$ |
| 11A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 11B)BFO24D |  | \$1.02 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| 12)BFO72D\& |  | \$2.79 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 12A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 12B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | $\$ 0.00$ | \$0.00 |
| 14)BFO144D \& |  | \$2.79 | \$0.00 | \$1.46 | \$0.00 | \$0,00 |
| 14A)BFO144D\& |  | $\$ 1.02$ | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 14B)BFO72D |  | \$1.02 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| 16)BFO48D\& |  | \$2.79 | \$0.00 | \$0.71 | \$0.00, | \$0.00 |
| 16A)BFO144D\& |  | \$1.02 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| 16B)BFO288D |  | \$1.12 | \$0.00 | \$2.42 | \$0.00 | \$0.00 |
| 20)BFO48D \& |  | \$2.25 | \$0.00 | \$0.71 | \$0.00 | \$0.00 |
| 20A)BFO144D |  | \$1.06 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D\& | 8178 | $\$ 1.89$ | \$15,456.40 | \$0.57 | \$4,661.45 | \$20,117.85 |
| BFO12D | 7656 | \$1.21 | \$9,263.75 | \$0.49 | \$3,751,44 | \$13,015.18 |
| BFO48D\& |  | \$1.89 | \$0.00 | \$0.71 | \$0.00 | \$13, \$0.00 |
| BFO12D |  | \$1.21 | \$0.00 | $\$ 0.49$ | \$0.00 | \$0.00 |
| BF096D\& | 4691 | \$1.89 | \$8,866.69 | \$1.08 | \$5,066.68 | \$13,933.37 |
| BFO12D | 4392 | \$1.21 | \$5,314.22 | $\$ 0.49$ | \$2,152.04 | \$7,466.26 |
| BFO144D\& |  | \$1.89 | \$0.00 | \$1.46 | \$0.00 | \$ $\$ 0.00$ |
| BFO12D |  | \$1.21 | \$0.00 | $\$ 0.49$ | \$0.00 | \$0.00 |
| BFO24D\& |  | 81.89 | \$0.00 | $\$ 0.57$ | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO72D\& |  | \$1.89 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | \$0.00 | \$0.57 | \$0.00 | \$0.00 |
| BFO96D\& |  | \$1.89 | \$0.00 | $\$ 1.08$ | \$0.00 | \$0.00 |
| BFO24D |  | \$1.21 | $\$ 0.00$ | \$0.57 | \$0.00 | \$0.00 |
| BFO144D \& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO24D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO144D\& |  | \$2.84 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO72D |  | \$1.06 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO12 | 2524 | \$2.18 | \$5,502.15 | $\$ 0.49$ | \$1,236.72 | \$6,738.87 |
| BFO24 | 7242 | \$2.21 | \$16,004.15 | \$0.57 | \$4,127.77 | \$20,131.91 |
| BFO48 | 10564 | \$2.25 | \$23,769.86 | \$0.71 | \$7,500.71 | \$31,270.57 |
| BFO481 |  | \$0.55 | \$0.00 | \$0.69 | \$0.00 | \$ $\$ 0.00$ |
| BF072 |  | \$2.44 | \$0.00 | \$0.86 | \$0.00 | \$0.00 |
| BFO721 |  | \$0.60 | \$0.00 | \$0.83 | \$0.00 | \$0.00 |
| BFO96 |  | \$2.47 | \$0.00 | \$1.08 | \$0.00 | \$0.00 |
| BFO961 |  | \$0.62 | \$0.00 | $\$ 1.05$ | $\$ 0.00$ | \$0,00 |
| BFO144 |  | \$2.52 | \$0.00 | \$1.46 | \$0.00 | \$0.00 |
| BFO1441 |  | \$0.62 | \$0.00 | $\$ 1.43$ | \$0.00 | \$0.00 |
| BFO2881 |  | \$0.70, | \$0.00 | \$2.42 | \$0.00 | \$0.00 |



Outside Piant Construction Cost Summary

BANDANA EXCHANGE

| Serving Area | Type | Premises Passed | Fiber Drops | Route Miles | Drop Miles | Total Miles | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main | Town | 266 | 155 | 30.60 | 9.10 | 39.70 | $\$$ |
| Ingleside | Rural | 72 | 40 | 9.14 | 2.35 | 11.49 | $\$$ |
| Monkey | Rural | 83 | 40 | 14.94 | $2,090,582.43$ |  |  |
| Needmore | Rural | 84 | 52 | 12.39 | 3.05 | 17.29 | $\$$ |
| Oscar | Rural | 132 | 70 | 16.62 | 4.11 | 20.73 | $\$$ |
| TOTAL |  | 637 | 357 | 83.69 | 20.96 | 104.65 | $\$$ |

Town Cost per Route Mile $=\$ 63,077.48$
Rural Cost per Route Mile $=\$ 37,881.95$
Cost per Drop Mile $=\$ 17,626.93$

BARLOW EXCHANGE

| Serving Area | Type | Premises Passed | Fiber Drops | Route Miles | Drop Miles | Total Miles |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maln | Town | 612 | 281 | 22.99 | 16.50 | 39.49 | $\$$ | $1,784,486.08$ |
| Gum Corner | Rural | 101 | 61 | 12.70 | 3.58 | 16.28 | $\$$ | $557,836.29$ |
| King | Rural | 52 | 37 | 13.20 | 2.17 | 15.37 | $\$$ | $551,791.90$ |
| Sallie Crice | Rural | 38 | 20 | 10.80 | 1.17 | 11.97 | $\$$ | $440,568.93$ |
| VFW | Rural | 69 | 46 | 11.70 | 2.70 | 14.40 | $\$$ | $503,095,49$ |
| TOTAL |  | 872 | 445 | 71.39 | 26.13 | 97.52 | $\$$ | $3,837,778.69$ |

Town Cost per Route Mile $=\$ 64,654.41$
Rural Cost per Route Mile $=\$ 38,829.00$
Cost per Drop Mlle $=\$ 18,067.60$

WICKLIFFE EXCHANGE

| Serving Area | Type | Premises Passed | Fiber Drops | Route Miles | Drop Mlles | Total Miles | Cost |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main | Town | 737 | 280 | 31.96 | 16.44 | 48.40 | $\$$ | $2,422,474.18$ |
| Bethlehem | Rural | 49 | 29 | 6.13 | 1.70 | 7.83 | $\$$ | $278,910.70$ |
| Crews | Rural | 87 | 54 | 9.52 | 3.17 | 12.69 | $\$$ | $453,919.76$ |
| Deerfield | Rural | 65 | 39 | 12.08 | 2.29 | 14.37 | $\$$ | $501,187.94$ |
| Jones | Rural | 83 | 50 | 12.60 | 2.94 | 15.54 | $\$$ | $545,636.06$ |
| Slater | Rural | 33 | 25 | 5.12 | 1.47 | 6.59 | $\$$ | $226,013.94$ |
| Timberland | Rural | 58 | 31 | 6.29 | 1.82 | 8.11 | $\$$ | $292,423.68$ |
| TOTAL |  | 1112 | 508 | 83.70 | 29.83 | 113.53 | $\$$ | $4,720,566.26$ |

Town Cost per Route Mile $=\$ 66,270.77$
Rural Cost per Route Mile $=\$ 39,799.72$
Cost per Drop Mile $=\$ 18,519,29$

GAGE EXCHANGE

| Serving Area | Type | Premises Passed | Fiber Drops | Route Miles | Drop Miles | Total Miles | Cost |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main | Town | 132 | 82 | 22.24 | 4.81 | 27.05 | \$ | 1,602,096.65 |
| Blandville | Rural | 132 | 80 | 12.70 | 4.70 | 17.40 | \$ | 607,252.05 |
| Hamburg | Rural | 58 | 43 | 9.15 | 2.52 | 11.67 | \$ | 421,194.70 |
| Lovelaceville | Town | 140 | 68 | 8.95 | 3.99 | 12.94 | \$ | 683,736.77 |
| Mosstown | Rural | 50 | 36 | 7.72 | 2.11 | 9.83 | \$ | 355,056.83 |
| New York | Rural | 65 | 56 | 13.01 | 3.29 | 16.30 | \$ | 593,164.54 |
| Ross Crossing | Rural | 52 | 26 | 7.94 | 1.53 | 9.47 | \$ | 352,886.77 |
| TOTAL |  | 629 | 391 | 81.71 | 22.96 | 104.67 | \$ | 4,615,388.32 |

Town Cost per Route Mile $=\$ 67,927,54$
Rural Cost per Route Mile $=\$ 40,794.72$
Cost per Drop Mile $=\$ 18,982.27$

## EXHIBIT G TRUNKING DIAGRAM



BALLARD TELEPHONE COOPERATIVE JUNE 2013


| ALLTEL ECLIPSE | 5253 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 71 |  |  |  |  |
|  | 6112 |  |  |  |  |
| IXC | 948 |  |  |  |  |
| WEST COAST TELECOM | 569 | 128 | 24 | YES | 0-22-4 |
| FRONTIER | 211 |  |  |  |  |
| ALLNET | 444 |  |  |  |  |
| LEVEL 3 | 6330 |  |  |  |  |
|  |  |  |  | YES | 0-16-0 |
| SCB | 5124 | 36 | 81 -0-17-0 | 0-15-0 | 0-14-0 |
| SCB-EAS |  | 76 | 78 | YES | 5/6/2000 |
| CINERGY-EAS |  | 96 | 24 0-26-1 |  |  |
| 450 |  |  |  |  |  |
| OPERATOR (at\&t) |  | 37 | 9 |  |  |
| DA 411 (at\&t) |  | 43 | 4 |  |  |
|  |  |  |  |  | 0-20-2 |
|  |  |  |  |  | 0-32-2 |
| BALLARD - BLD | 5186 | 118 | 72 |  | 0-32-3 |
|  |  |  |  |  | 0-30-4 |
| VERIZON WIRELESS (270-983-XXXX) |  | 140 | 48 |  | 0-27-4 |
| TOTAL \# OF TRUNKS |  |  | 628 |  |  |

## EXHIBIT H WICKLIFFE PILOT DESIGN MAPS

## EXHIBIT I SYSTEM EXCHANGE MAP

United States Depariment of Agriculture
Rural Development
NOV 062013
Mr. Michael Jones
President
Ballard Rural Telephone
Cooperative Corporation, Inc.
159 West Second Street
La Center, Kentucky 42056
Dear Mr. Jones:
We are enclosing the documents with instructions for their execution relative to your organization's "P42" loan in the amount of $\$ 24,020,000$ made by the Rural Utilities Service (RUS). 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 19, 2013, announcing approval of the "P42" 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(d) of the Loan Agreement which specifies that loan funds advanced to your organization 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 20-year note in the amount of $\$ 24,020,000$ covering the RUS Cost-of-Money loan is enclosed for execution. Please proceed with the fulfillment of the loan agreement requirements so that loan funds can be released for approved loan purposes with a minimum of delay. Again, observe the above date for return of the loan agreement.

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


SHAWN B. ARNER, Director
Southern Division
Telecommunications Program
Rural Utilities Service

## Enclosures

cc: Mr. Harlon E. Parker
CEO/General Manager

Exhibit D web http:/wwwrurdevusda.gov

Committed to the future of rural communitios.

# CASE NO: 2013-00418 

## CONTAINS

## LARGE OR OVERSIZED

## MAP(S)

RECEIVED ON: November 26, 2013

