

# Application to DHCD Submitted through CAMS

County of Goochland

Goochland County & Firefly Fiber Broadband - VATI 2021

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**Application ID:** 75708122020144608  
**Application Status:** Pending  
**Program Name:** Virginia Telecommunications Initiative 2021  
**Organization Name:** County of Goochland  
**Organization Address:**  
**Profile Manager Name:** Paul Drumwright  
**Profile Manager Phone:** (804) 556-5833  
**Profile Manager Email:** pdrumwright@goochlandva.us

**Project Name:** Goochland County & Firefly Fiber Broadband - VATI 2021  
**Project Contact Name:** Paul Drumwright  
**Project Contact Phone:** (804) 556-5833  
**Project Contact Email:** pdrumwright@goochlandva.us  
**Project Location:** 1800 Sandy Hook Rd  
Goochland, VA 23063-3105  
**Project Service Area:** Goochland County

**Total Requested Amount:** \$7,840,000.00  
**Required Annual Audit Status:** No Current Audits Found

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$7,840,000.00</b>	<b>\$3,285,400.00</b>	<b>\$11,125,400.00</b>
Construction	\$7,840,000.00	\$2,421,400.00	\$10,261,400.00
Other: Additional Project Costs	\$0.00	\$864,000.00	\$864,000.00
<b>Total:</b>	<b>\$7,840,000.00</b>	<b>\$3,285,400.00</b>	<b>\$11,125,400.00</b>

## Budget Narrative:

Goochland County has pledged \$200,000 in matching funds to show its commitment. In addition, Goochland County will offer non-cash support through assistance with grant management and administration, facilitation of the necessary permitting and county approvals for the construction process, support at community meetings to publicize the project, consideration of taking service at county facilities, and providing access to any county easements. Firefly will provide a \$2,221,400 cash match for the construction of the project, making up 20% of the project cost. In addition, Firefly will provide \$864,000 in additional contributions through labor and equipment for home installs, marketing and promotion efforts, and project management and oversight labor.

## Questions and Responses:

### 1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

### Answer:

The VATI project for Goochland in partnership with Firefly for the 2020-2021 funding round has been designed to include all known homes and businesses in the county that do not presently have internet access with a speed of at least 25/3. The project is significant in size and scope and will require a three year build out period from design to final connections. Goochland and Firefly request that the project be funded through two to three rounds of VATI awards. The first year will have less capital cost, while the second year will have the highest level of cost. The funding source section provides more detail on the specific funding request.

The area for this project mostly in western Goochland and lies between two portions of the Central Virginia Electric Cooperative (“CVEC”) fiber build and the retail internet access service area of Firefly Fiber Broadband (“Firefly”), a wholly owned subsidiary of CVEC. The project will connect to that network in a loop feed that will connect the new Goochland communication hut to both the Shannon Hill and Cumberland substations.

The project area is large and is best described in several distinct areas. From the town of Goochland to the western border of the county with Fluvanna, the entire area south of River Road (Rt 6) is in the project except for the CAF census blocks in this area. Between River Road and Whitehall Road all areas west of Dogtown Road are included

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except for the areas in CAF census blocks. Between Whitehall Road and Broadstreet Road, all areas west of Forest Grove Road are included except those in CAF census blocks or in the CVEC electric service territory. Between Broadstreet Road and Interstate 64 all areas west of Cross Country Road (Rt522) to Woodville Road are included. Also included is one small area east of Sandy Hook Road (Rt 522), which is the area along Poorhouse Road, Turner Road and the portion of Maidens Road from Broadstreet Road to Hawktown Road. The full project area is shown on Attachment 1 – Goochland Project Area Map.

This same area has been included in a grant application for the USDA ReConnect program. If the ReConnect grant is awarded to Firefly, this grant application will be withdrawn.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

**Answer:**

The incumbent telephone company in the area is Verizon but they have not upgraded their lines or internet offerings in years. There are no other fixed wireless or cable providers in the entire area. The information on providers was identified using the FCC Broadband map (<https://broadbandmap.fcc.gov/#/>) which provides information based on FCC Form 477 reported coverage areas for all broadband providers. The county staff has heard from residents throughout this area for years and confirms the lack of options.

Residents of the area presently use cell phone connectivity or satellite to access the internet.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, and Community Connect. If there have been federal funds awarded near the project, provide a map verifying the proposed project area does not conflict with these areas. Describe if there are Rural Digital Opportunity Fund (RDOF) eligible census blocks located in the proposed project area. Label Map: Attachment 2 – Documentation on Federal Funding Area.

**Answer:**

No federal funds have been received from ACAM, ReConnect or Community Connect programs for the project area. There are several CAF II areas that are interspersed within the project area. Firefly received the CAF award for these census blocks. The homes in this area are not included in the home count and will not be connected with project funds.

There are RDOF eligible census blocks within the project area. The total number of passings within those census blocks is 1275 which is 82.4% of the total passings in the project area. The total RDOF award for the area would provide about 40% of the requested VATI funding level. Should the RDOF blocks be awarded, Firefly will withdraw application for the project.

4. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds of 25/3 mbps or less and with less than 10% service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 –

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Documentation Unserved Area VATI Criteria.

**Answer:**

The proposed service area does not have service available at greater than 10/1. There are no options other than cell phone connectivity or satellite.

Attachment 3 shows the FCC broadband map with a census block highlighted that shows there are no providers in the area.

5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 – Passings Form
  - a. Of the total number of passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. Describe the methodology used for these projections.
  - b. Provide the number of serviceable units in the project area that have 10/1 mbps or less. Describe the methodology used for these projections.

**Answer:**

1. There are 1547 passings in the project service area. 23 of those are business locations, plus there are another 157 home based businesses and 17 non-residential accounts that have been identified. This is a very rural, residential area.
  2. The qualifications to apply for the ReConnect program is not having more than 10% of locations have access at the 10/1 level and this entire area was reviewed to determine it qualified for the ReConnect standards. There are no known locations that exceed 10/1 in the project area.
6. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

**Answer:**

Not a wireless project so not applicable.

7. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps.

**Answer:**

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For residential service, Firefly offers two levels of service. The basic package is their Light service which provides 100 mbps symmetrical upload and download for \$49.99 per month. The second option is the Flash service which provides 1 gigabit per second symmetrical transfer for \$79.99 monthly. Voice over IP telephone service is offered for \$34.99 with a \$5.00 per month bundling discount if paired with internet service.

The speed is not an “up to” measurement like the one typically used by wireless technologies and DSL, but a base level that users will actually and consistently receive. Firefly residential service uses GPON technology and topography that does share a single fiber among several accounts, as all fiber based residential services does. Firefly monitors the performance level at the user and individual fiber level as well as at the network level to assure top level network performance. The new Firefly network has built a reputation on consistent speed delivery at even the highest demand times. Recently the Firefly network upgraded to a 100 gbps backhaul capacity; the present peak load is 12 gbps but with a fast growth plan Firefly is meeting its subscribers expectations by staying well ahead of the demand.

8. Network Design: Provide a description of the network system design used to deliver broadband service from the network’s primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 5 – Propagation Map Wireless Project.

**Answer:**

The Firefly Fiber Broadband network is a 100% fiber optic connected network. It is a looped system with immediate failover capability to assure full data flow continues through any backbone loop equipment failure or fiber break. The network is based on rings within rings that provide additional local redundancy. Communications huts serve as hubs on the network, with fiber optic lateral lines extending out from the huts to the end users.

Firefly has committed to always keeping its backbone bandwidth adequate to assure the network never suffers from peak use congestion. This year the company began to transition to a full 100 gbps network ring capacity, with the plan to complete the full backbone ring next year to the next capacity that is a tenfold increase over the original 10 gbps capacity.

The proposed VATI project will extend fiber connectivity from the existing network Firefly operates into the new project area. There will be a new communications hut and associated equipment installed as part of this project work. The hut will be connected through a fiber backbone to the existing Firefly Fiber Broadband network, and placed on a loop feed to increase reliability.

The existing Firefly network has a present peak usage of 12 gbps with rapid growth plans that will increase the number of services connected and bandwidth used by 500% over the next three years. Firefly is prepared for this level of growth and more should opportunities arise.

9. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering,

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identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – MOU/MOA between Applicant/Co-Applicant.

**Answer:**

The Firefly network is in a rapid growth state. In 2020, the network will be built out in the Cumberland substation area, which is the take-off point for the VATI grant project area for the Goochland project. It will then tie to the Shannon Hill project that will be built in the 2021-22 time frame. The project team is in place, including design, project management, permitting, materials and inventory management, fiber construction and consumer premise installation. Presently CVEC and Firefly are constructing at a rate of 20 miles of fiber per week and connecting more than 100 weekly while ramping up to 150 and with planning in place to reach 200 new connections per week by 2022. The team is capable and has capacity to include this project within their other work without slowing the CVEC fiber build given the expected calendar.

The field data collection and design will take up a large portion of the first year. Finding the location for the communication hut and having it placed will also be an early item on the critical path to success for the project. The hut location has to be known to allow final design.

Our approach will be to deploy a field data gathering team, then perform an autodesign process followed by field confirmation of the design outcome. At that point we will be ready to create construction documents and deploy contractors to begin construction. We already have relationships with the design and construction teams and have contracts in place which will facilitate a smooth transition into construction after the final design is complete.

The Timeline/Project management Plan and Draft Agreement between CVSI and the County are included in Attachment 6 and Attachment 7. The timeline indicates the full build out time for this large project, and the VATI request is to spread the funding for it over two to three years to match the workflow in the schedule.

10. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note the a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant's cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 8 - Funding Sources Table; Attachment 9 – Documentation of Match Funding.

**Answer:**

Goochland County is extremely interested in this project and wants to contribute to its success. The county has pledged \$200,000 in matching funds to show its commitment. The county pledge is shown in Attachment 9.

The county will also offer non-cash support through assistance with grant management and administration, facilitation of the necessary permitting and county approvals for the construction process, support at community meetings to publicize the project, consideration of taking service at county facilities, and providing access to any county easements. The county is excited about the project and plans to be a partner, helping to assure its success

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for the citizens of Goochland.

Firefly will provide a \$2,221,400 cash match for the construction of the project, making up 20% of the project cost. In addition, Firefly will provide \$864,000 in additional contributions through labor and equipment for home installs, marketing and promotion efforts, and project management and oversight labor. The marketing and promotion is particularly critical to achieving the desired take rates when a new service is offered to an area that has never had a true broadband option before. Firefly will also provide the expanded backhaul capacity to carry the additional traffic and address all other network impacts with internal investment, adding tens of thousands of dollars in electronics and other hardware.

11. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project.

**Answer:**

The Goochland project will have significant leverage added to contribute to the success of the project and to expand the impact of the project.

The county is providing both cash and in kind contributions of staff time to administer the grant, to facilitate all permitting and reporting, to assist with promotions and to offer other assistance needed. The staff has already worked diligently on multiple grant applications to make this buildout a reality and will continue to provide facilitation and support at all steps in the project.

Firefly will combine its CAF funding buildout adjacent to and in pockets inside the area to create a significant footprint in Goochland County with affordable, reliable gigabit speed internet. Firefly is also bringing the benefit of the buildout of two substations that are funded in portion by the first round ReConnect grant to CVEC.

With the substantial private funding, the federal support, the county's contributions and the VATI award, this project is a prototype for how numerous sources can be pooled to allow a county to reach 100% connectivity, even when a large portion of its area does not even have 10/1 access today.

12. Marketing: Describe the broadband adoption plan.

a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate.

b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

**Answer:**

a. Firefly has been offering internet to rural, underserved communities for 18 months and has achieved take rates in those areas ranging from 50-70%. The largest emphasis of the marketing plan for this project will revolve around direct mail to the residents who live in these areas. The County can provide mailing addresses for each residence in the project area and Firefly will craft a mailing specific to this area. We know that rural America still checks their mailboxes and direct mail is a proven way to communicate with our audience. We can also rely on word of mouth

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and our vibrant Firefly installation trucks, a.k.a. rolling billboards, to reach residents who may have tossed our mailing aside or missed the messaging. In addition, Firefly will be listed as an internet provider on any County provider listing for that area.

If the grant is awarded, Firefly will issue a press release to the local media to highlight the areas of the build to keep residents informed of the award and the progress. Press releases are posted on the Firefly website and maps of the build can be posted on the website as well. Additionally, press releases are posted on social media. Firefly has found an active audience on social media and updates its followers there often on new announcements.

b. Firefly hosts Town Hall meetings for each community when a build is launched in order to answer questions about their services and about the internet in general. As space and connectivity have allowed, Firefly employees took a television and showed guests how to stream programs using the internet instead of subscribing to cable. Firefly has hosted the Town Hall events at local churches and community centers to attract guests.

13. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co-applicant's history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 10 – Letters of Support.

**Answer:**

Firefly Fiber Broadband is led by a team with Gary Wood, Bruce Maurhoff and Tina Mallia. This same team is responsible for the pursuit, award and administration of two grants from the Virginia Tobacco Region Revitalization Commission, two Virginia Telecommunications Initiative Grants, several county level grants, a \$28.6 million FCC Connect America Fund II auction award and a \$28 million USDA ReConnect program grant/loan award within the past two years. The Firefly team this year added Dennis Reece as its General Manager, bringing in additional experience with successful grant management from his career at Citizens Telephone Cooperative in Floyd, VA. Dennis has experience with grants from the federal, state and local levels.

The Firefly team has built approximately 1200 miles of fiber within the past two years. Starting 2019 with 6 subscribers, it will have 7000 at the end of 2020. The team includes the design and project management from Conexon which is working with multiple electric cooperatives across many states in similar buildout efforts. The fiber contractor is S&N Communications, a Virginia company headquartered in Louisa, Va which has a long and successful record of working on large projects with Google, Verizon, Comcast and other major communications companies. Internally, Dennis Reece leads the effort for Firefly with his 23 years of experience in the construction and operation of internet communication facilities.

Goochland County is led by Interim County Administrator Derek Stamey and a capable management team including Finance Director Barbara Horlacher and Administrative Services Manager Paul Drumwright. Goochland County has pursued, been awarded and successfully administered numerous grants at the federal and state level. County staff are familiar with the requirements of the VATI program and stand ready to oversee an award for this project. Paul Drumwright serves as the county's point person on broadband and will serve as the county's Project Manager for the project. Barbara Horlacher serves as the Finance Director for the county and will serve as the project's Financial Manager, overseeing overall financial implementation of the project to include signing and

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approving any financial reports and documents related to the project.

Goochland County

Name	Title	Project Duties
Derek Stamey	Acting County Administrator	Grant and program oversight
Paul Drumwright	Administrative Services Manager	Point of Contact Administration of grant Reporting
Gary Wood	President and CEO	Oversight of project
Bruce Maurhoff	Sr. VP & COO	Oversight of construction activities

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Tina Mallia	VP & CFO	Oversight of finances, accounting and grant fund compliance
Dennis Reece	General Manager	Project Manager

## 14. Project Budget and Cost Appropriateness

**Budget:** Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Cost Estimates.

**Answer:**

The budget was developed using actual pricing from the ongoing 4000+ mile buildout across the CVEC footprint. The estimates were developed using market prices established in competitively bid labor and materials contracts. Consumer premise equipment and communications hut electronics are based on contract pricing with our equipment partners for the large buildout.

The budget covers the entire project, but about 25% of the budget will be spent in year 1. About 45% of the budget will be expended in year 2 as the materials are purchased and the majority of the backbone work is completed. The final year will require the other 30% of the funds.

## 15. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

- a. Total VATI funding request
- b. Number of serviceable units
- c. Highest residential speed available in proposed project area

**Answer:**

- a. Total VATI funding request is \$7,840,000.

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- b. 1547 serviceable units are within the project area.
- c. The highest residential speed will be 1 gigabit per second.

## 16. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. How the proposed project fits into a larger plan to achieve universal broadband coverage for the locality. Explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage.
- b. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- c. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- d. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

### Answer:

- a. This project is unique in that it will achieve 100% broadband access for the county which will be a feather in the cap not only to Goochland County but also to the state of Virginia. To overcome the digital gap that exists in a county adjacent to the state capital metropolitan area is important both in serving the citizens and in demonstrating to the state that the Commonwealth is committed to universal coverage.
- b. The project will make fiber optic connected, reliable, affordable, high speed broadband service available throughout the project area. The area is mostly residential but there are breweries, small retail operations and other trade businesses. While there are few businesses today in part due to a lack of connectivity, the project allows for the expansion of present businesses and the creation of new home businesses. It also allows remote work for the area residents, distance learning for the community students and provides the opportunity for telemedicine for those who need healthcare but prefer not to travel.
- c. This project is a partnership of the local government with Firefly Fiber Broadband, a local community based internet service provider owned by the not for profit electric cooperative, Central Virginia Electric Cooperative. Firefly offers world class speed internet with superior local customer service at rates that are usually only found in the highest density most competitive markets. The profits from the project will stay local, with a portion reinvested in further expansion of rural broadband access in Goochland County and central Virginia.
- d. The proposed project provides a basic service of 100 mbps at \$49.99 per month. Firefly offers service through the Lifeline program of the FCC with a discount of \$10.00 per month for any account which qualifies for that program. In addition, the basic service provides broadband of speed and reliability to allow television channels to be received using online services such as Hulu, Sling, DirecTVNow, YoutubeTV and others. These online

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providers have much lower rates than satellite or cable packages, allowing families who presently have other television viewing packages to choose basic internet service plus an online television provider for less than family is presently spending for television alone.

One new Firefly subscriber calculated a \$2400 annual savings for his household when using the Firefly internet and voice over IP services with an online video service to replace their present internet, satellite television and landline phone services.

## 17. Additional Information

17. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 13 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 14 – XXXXXXXX
- c. Attachment 15 – XXXXXXXX
- d. Attachment 16 – XXXXXXXX
- e. Attachment 17 – XXXXXXXX

**Answer:**

N/A

## **Attachments:**

Map(s) of project area, including proposed infrastructure

1GoochlandVATlareas817202020153.jpg

Documentation of Federal Funding (CAF/ACAM/USDA, etc...) in and/or near proposed project area.

2GoochlandVATlandRDOFareas817202020207.jpg

Documentation that proposed project area is unserved based on VATI criteria

3GoochlandUnserved8172020114045.pdf

Passings Form (Please use template provided)

4PassingsFormGoochland817202020216.pdf

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Timeline/Project Management Plan

6VATIProjectScheduleGoochland8172020227.xlsx

MOU/MOA between applicant/co-applicant (can be in draft form)

7GoochlandCVECDraftAgreementVATI8172020110944.pdf

Funding Sources Table

8VATIFundingSourcesTableGoochland817202013730.pdf

Documentation for match funding

9VATI2021GoochlandFireflyFiberBroadband202008148172020253.pdf

Letters of Support

10VATI2021GoochlandFireflyFiberBroadband8172020114056.pdf

Derivation of Cost (Project Budget)

11DerivationofCostsGoochland817202020302.xlsx

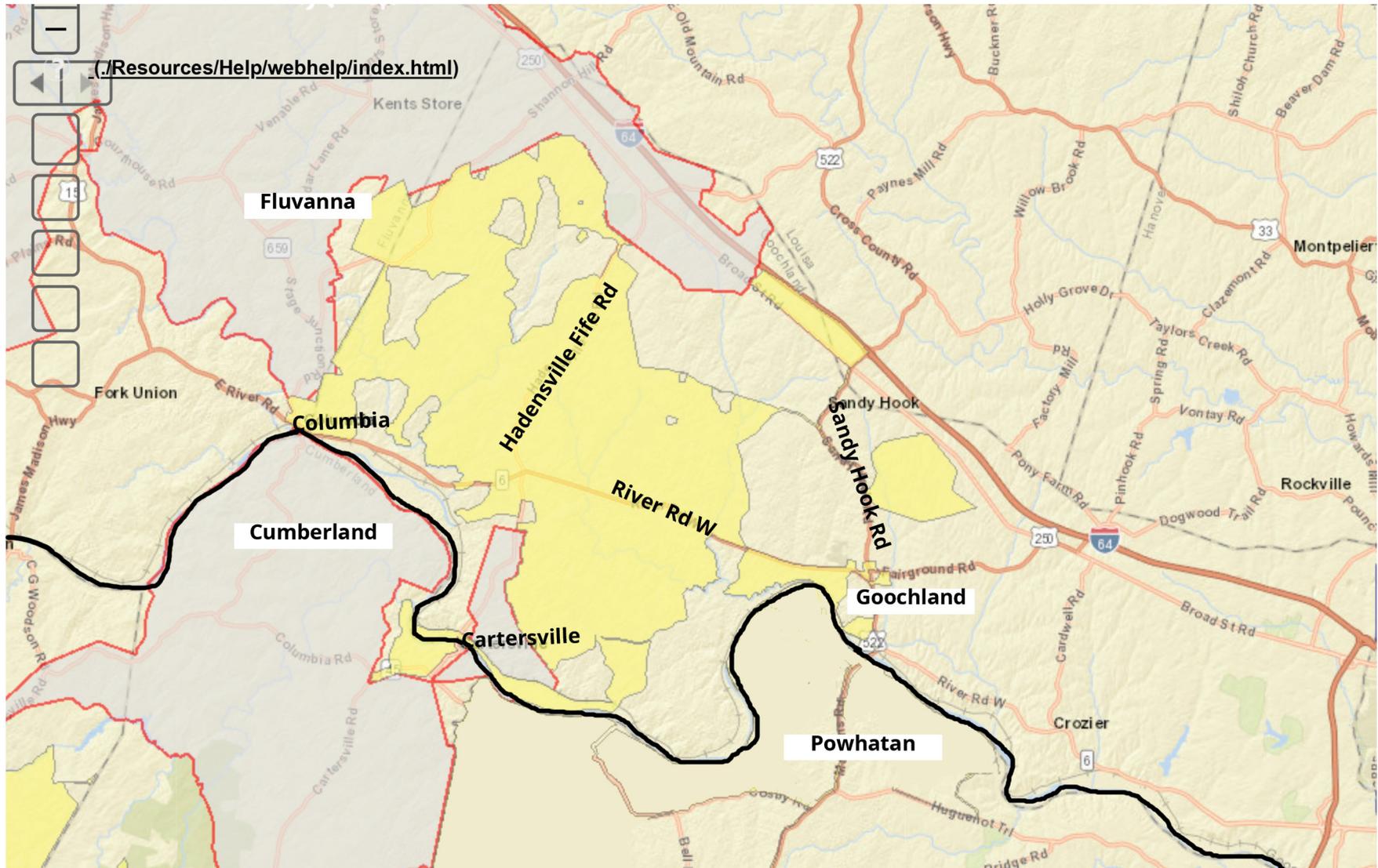
Documentation supporting project costs (e.g. vendor quotes)

12ProjectCostJustification817202092635.pdf

Two most recent Form 477 submitted to FCC

13LastTwoFCCForm477FilingsCombined8172020114111.pdf

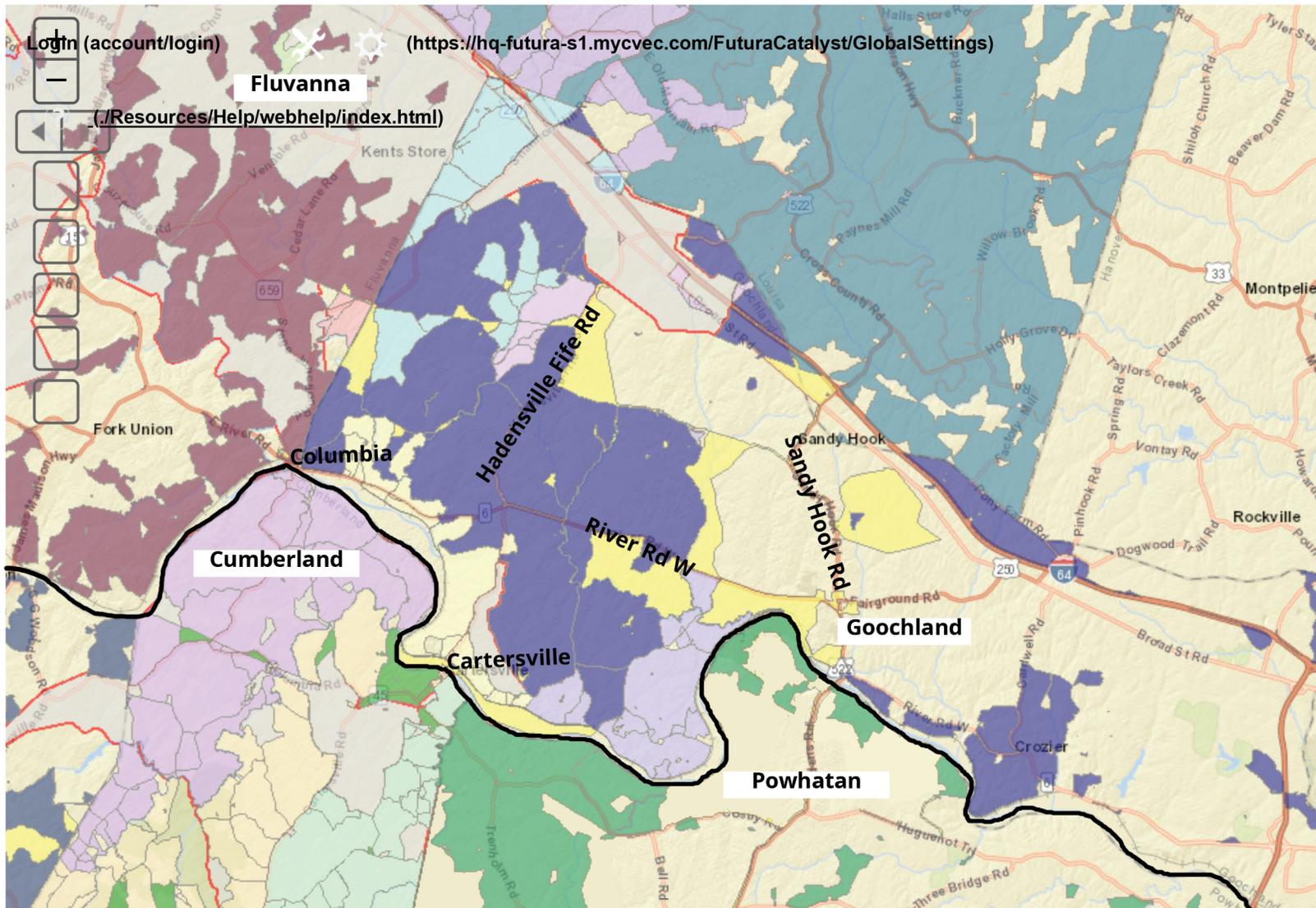
## Goochland VATI Areas



 CVEC Territory

 VATI

## Goochland VATI and RDOF Areas



Login (account/login)

(<https://hq-futura-s1.mycvec.com/FuturaCatalyst/GlobalSettings>)

Fluvanna

(</Resources/Help/webhelp/index.html>)

Cumberland

Cartersville

Goochland

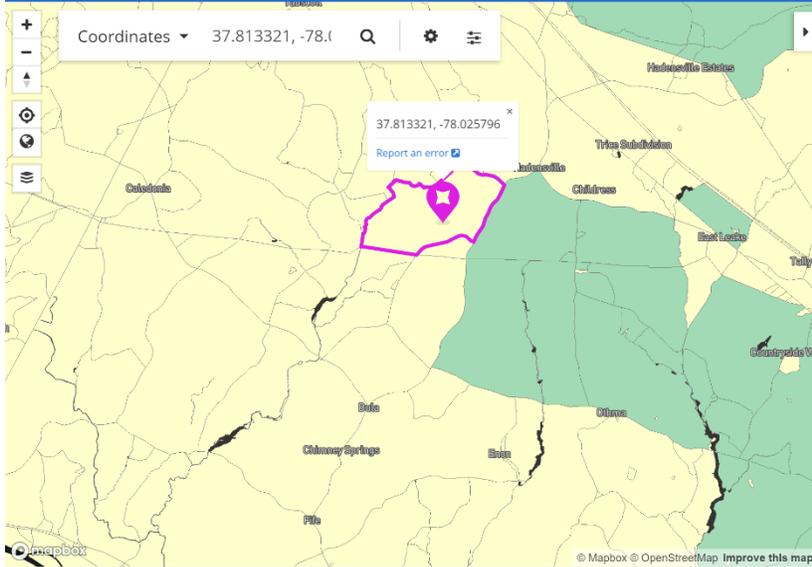
Powhatan

CVEC Territory

VATI

RDOF

CAF - Multicolored



**All Providers Reporting Service**

Census block ID: 510754005002035

**Number of Fixed Residential Broadband Providers**

0 1 2 3 4 6 12 or more

**Broadband**

**Technology** ADSL, Cable, Fiber, Fixed Wireless  
**Speed** ≥ 25/3 Mbps  
**Date** June 2019 (latest public release)

Provider	Tech	Down (Mbps)	Up (Mbps)
ViaSat, Inc.	Satellite	100	3
Hughes Network Systems, LLC	Satellite	25	3
VSAT Systems, LLC	Satellite	2	1.3

## 2021 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number in Project Area	Number with Speeds at 10/1 or below in Project Area
<b>Residential</b>	1339	1339
<b>Businesses (non-home based)</b>	23	23
<b>Businesses (home-based)</b>	157	157
<b>Community Anchors</b>	11	11
<b>Non-residential</b>	17	17
<b>Total Number of Passings</b>	1547	1547

*Note: The Total Number of Passings **MUST** be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.*

### Definitions

**Passing** – any structure that can receive service.

**Business** – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

**Community Anchor** - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

**Non-Residential Passing** – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.











## **Agreement between Central Virginia Services Inc (CVSI) and Goochland County Regarding VATI Funding**

An Agreement dated \_\_\_\_\_, between the Virginia Department of Housing and Community Development (DHCD) and Goochland County (the "DHCD Agreement") imposes certain responsibilities on the "Grantee" in accepting the VATI grant. As anticipated in the joint application for funding submitted by Goochland County and CVSI, the parties wish to outline the roles of each party now that the grant has been awarded. Accordingly, the parties now hereby agree as follows:

CVSI shall perform all work described in the DHCD Agreement (which is attached hereto and incorporated herein by reference), the submitted application, project management schedule, and budget. Specifically, CVSI shall complete all Grant Activities described in the DHCD Contract Documents (including but not limited to installing 156.6 miles of fiber along with one communication hut and electronics, building out the network to make fiber to the home broadband service available to 1547 service units in Goochland County including to those who choose to take service, and supplying and installing all related equipment) on or before 1 July 2024. CVSI shall indemnify, defend, and hold Goochland County harmless for any failure(s) to complete any Grant Activities described in the DHCD Contract Documents on or before 1 July 2024. Upon completion of the project, CVSI will provide Goochland County speed validation data to ensure that the project Outcomes have been met and plant constructed is capable of providing broadband speeds that meet VATI criteria. CVSI may choose to submit either monthly invoices or a single invoice for payment upon completion of the work. No VATI funds shall be distributed unless and until (a) CVSI has submitted all requested documents applicable to the construction project and (b) Goochland County has verified that pre-construction and/or construction work has been completed or equipment has been ordered and received. Upon any change to availability of funding, Goochland County must notify CVSI immediately, in which case, at its sole discretion, CVSI may amend or terminate the project. Goochland County will use best efforts to request the full amount of grant funds for the first phase prior to 31 December 2022.

CVSI and Goochland County will exercise due diligence and best efforts on community outreach and marketing the availability of service, which is the intent of the program. The parties understand, however, that the actual number of customers who choose to subscribe is beyond the parties' control. The parties also understand that the intent of DHCD is that the parties exercise due diligence and best efforts and that no funds will be returned to the Commonwealth nor retained by Goochland County so long as the parties exercise due diligence and best efforts to reach the program goals.

Goochland County requires a progress update from CVSI every 30 days until project completion. CVSI agrees to assume responsibility for keeping Goochland County updated per the project timeline included in the grant. Project timeline of the grant states all activities to be completed by 18 months from contract date of Goochland County and DHCD for phase one. CVSI agrees to provide Goochland County post-closeout subscriber reports as of 1 April 2023, so that Goochland County can report to DHCD in accordance with its agreement with the DHCD Agreement.

CENTRAL VIRGINIA SERVICES, INC

GOOCHLAND COUNTY

By:

By:

\_\_\_\_\_ [SEAL]

\_\_\_\_\_ [SEAL]

Gary Wood, President

Date: \_\_\_\_\_

Date: \_\_\_\_\_

VATI FUNDING SOURCES TABLE

Please fill in the chart below with a description of the project funding source (local, federal, state, private, other), the amount from that source, the percentage of total project funding that source represents, and a description of the current status of the funds (pending, secured, etc.).

Source	Amount	%	Status
REQUESTED VATI	\$ 7,840,000	70.5%	Pending
FIREFLY CASH	\$ 2,221,400	20.0%	APPROVED
FIREFLY IN KIND	\$ 864,000	7.7%	APPROVED
GOOCHLAND CASH	\$ 200,000	1.8%	
	\$		
	\$		
	\$		
<b>TOTAL</b>	<b>\$11,125,400</b>	<b>100 %</b>	



OFFICE OF THE COUNTY ADMINISTRATOR

Derek L. Stamey, MPA  
Interim County Administrator

Todd Kilduff, P.E.  
Deputy County Administrator

[www.goochlandva.us](http://www.goochlandva.us)

August 14, 2020

Gary E. Wood  
President and CEO  
Firefly Fiber Broadband  
PO Box 359  
Lovingson, VA 22949

Re: Goochland County and Firefly Fiber Broadband Partnership for VATI 2021

Dear Mr. Wood:

I write on behalf of Goochland County, Virginia to confirm our partnership with Firefly Fiber Broadband to pursue grant funding through the Commonwealth of Virginia's Virginia Telecommunication Initiative (VATI). In addition to confirming our partnership, this letter also serves to outline both financial and in-kind contributions we commit to provide upon a successful award.

Goochland County believes broadband internet access is essential for our community to support rural agriculture, business, education endeavors, public safety, and everyday life. On September 9<sup>th</sup>, 2019, the county kicked off our 10 Steps to Broadband Internet Initiative which includes a commitment to provide all interested Goochland citizens access and options for universal broadband service provision. The current COVID-19 Coronavirus pandemic makes one thing clear, citizens lacking affordable, reliable broadband are at a distinct disadvantage when it comes to both working and completing an education from home, thus making Firefly Fiber Broadband's proposed expansion even more critically important.

Fostering partnerships with providers in order to incentivize expansion of service to unserved & underserved areas of the county is a priority of our 10 Steps to Broadband Internet Initiative. Goochland County has established funding to assist in the expansion of rural broadband access in areas throughout the county. In support of this application, Goochland County will commit to funding up to two hundred thousand dollars (\$200,000) towards the project with Firefly Fiber Broadband upon a successful VATI award and pursuant to a negotiated final agreement for the project's scheduling and performance terms.

Goochland County commits to connecting all county facilities passed by Firefly Fiber Broadband including at least two fire stations, a community center, and multiple other facilities. In addition, we agree to find a mutually agreeable site for Firefly Fiber Broadband's communications hut either on existing county property or we will facilitate options for it to be located on school or Goochland County Volunteer Fire-Rescue Association, Inc. property.



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Finally, we are willing to discuss any other partnerships or opportunities to collaborate in order to maximize financial resources and decrease the time to extend affordable, reliable, broadband to our residents. This includes utilization of county assets such as multiple miles of dark fiber that was installed for county internal purposes.

Thank you for the opportunity to partner and support Firefly Fiber Broadband's expansion of fiber broadband via a VATI application. Please do not hesitate to reach out to Paul Drumwright, Administrative Services Manager ([pdrumwright@goochlandva.us](mailto:pdrumwright@goochlandva.us)) or myself ([dstamey@goochlandva.us](mailto:dstamey@goochlandva.us)) if we can be of further assistance in this partnership.

Respectfully,

Derek L. Stamey  
Interim County Administrator



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Respectfully,

Derek L. Stamey  
Interim County Administrator

## Derivation of Costs

Product	Total	VATI	Non-VATI	Source of Estimate	Date
<b>Communications Hut</b>	\$ 110,000	\$ 85,000	\$ 25,000	Present cost in fiber project	8/14/2020
(includes land, concrete pad, electric service, backup generator, racks and dual a/c.)					
<b>Hut Electronics</b>	\$ 105,000	\$ 80,000	\$ 25,000	Present cost in fiber project	8/14/2020
(includes routers, switches, Calix E7 or equivalent, power supply, cross connect and patch panels, etc)					
<b>UG Construction</b>					
Contract Labor (156 miles at 47,800)	\$ 7,456,800	\$ 5,965,000	\$ 1,491,800	Present cost in fiber project	8/14/2020
Conduit and fiber (156@5200)	\$ 811,200	\$ 648,900	\$ 162,300	Present cost in fiber project	8/14/2020
Pedestals/Vaults (156@2900)	\$ 452,400	\$ 361,900	\$ 90,500	Present cost in fiber project	8/14/2020
Splicing	\$ 156,000	\$ 124,800	\$ 31,200	Present cost in fiber project	8/14/2020
Design and Mgmt (Contract)	\$ 702,000	\$ 200,000	\$ 502,000	Present cost in fiber project	8/14/2020
61400					
<b>Service Installations</b>					
Service Drops (780@\$600 ea)	\$ 468,000	\$ 374,400	\$ 93,600	Present cost in fiber project	8/14/2020
<b>Construction Totals</b>	\$ 10,261,400	\$ 7,840,000	\$ 2,421,400		
<b>Additional Project Costs</b>					
Firefly install & equip (780@\$400 ea)	\$ 312,000	\$ -	\$ 312,000	In kind labor & equip contribution	8/14/2020
Marketing and Promotion	\$ 40,000		\$ 40,000	In kind labor & cost contribution	8/14/2020
In House Project Mgmt and Oversight	\$ 512,000		\$ 512,000	In kind labor contribution	
<b>In Kind Contribution Totals</b>	\$ 864,000	\$ -	\$ 864,000		
<b>PROJECT TOTALS</b>	\$ 11,125,400	\$ 7,840,000	\$ 3,285,400		



14 August 2020

## ***Documentation of Budget Costs***

Central Virginia Services, Inc, d/b/a Firefly Fiber Broadband, is a wholly owned subsidiary of Central Virginia Electric Cooperative (CVEC). Since August 2018, CVEC has been building a system wide fiber network across its system. Each of the past two years have seen capital investments in the project of more than \$30 million. These active, ongoing projects have provided real time pricing that is the basis for our estimates.

The prices come from proprietary contracts with our design firm, fiber contractor, and our inventory & materials management contractor. They are customized by location, soil conditions, and unique aspects of construction in each area. There are multiple professional engineers on staff who oversee the project, value engineer it and assure there is efficient construction. We stand behind the project budgets. If there are any cost overruns, Firefly will be responsible for the additional funding to complete the project.

(RETAIN FOR YOUR RECORDS)  
Form 477 Filing Summary

FRN: 0027729573 | Data as of: Dec 31, 2019 | Operations: Non-ILEC | Submission Status: Original - Submitted | Last Updated: Feb 26, 2020 22:03:52

**Filer Identification**

Section	Question	Response
<b>Filer Information</b>	Company Name	Central Virginia Services, Inc.
	Holding Company Name	Central Virginia Electric Cooperative
	SAC ID	199021
	499 ID	832816
<b>Data Contact Information</b>	Data Contact Name	Cheryl Sandas
	Data Contact Phone Number	(434) 263-8336 ext: 1502
	Data Contact E-mail	csandas@mycvec.com
<b>Emergency Operations Contact Information</b>	Emergency Operations Name	Ryan Coffey
	Emergency Operations Phone Number	(434) 282-7682
	Emergency Operations E-mail	rcoffey@fireflyva.com
<b>Certifying Official Contact Information</b>	Certifying Official Name	Gary Wood
	Certifying Official Phone Number	(434) 263-8336 ext: 1100
	Certifying Official E-mail	gwood@mycvec.com

**Data Submitted**

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	Dec_2019_fbd_rev.csv	Feb 26, 2020 21:59:21	611
Fixed Broadband Subscription	Dec_2019_fbs_rev1.csv	Feb 26, 2020 21:29:25	17
Fixed Voice Subscription	Dec_2019_fvs_rev1.csv	Feb 26, 2020 21:23:14	7

**Fixed Broadband Deployment**

**Census Block Counts by State, DBA Name and Technology**

State	DBA Name	Technology	Blocks
Virginia	Firefly Fiber Broadband	Optical Carrier/Fiber to the End User	611
<b>Total</b>			<b>611</b>

**Fixed Broadband Subscriptions by State, Technology and End-user Type**

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## Fixed Broadband Subscription

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Virginia	Optical Carrier/Fiber to the End User	17	1583	25	1608
<b>Total</b>		<b>17</b>	<b>1583</b>	<b>25</b>	<b>1608</b>

### Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
3.000	1.000	1	0	1
100.000	100.000	1163	21	1184
250.000	250.000	0	2	2
1000.000	1000.000	419	2	421
<b>Total</b>		<b>1583</b>	<b>25</b>	<b>1608</b>

### Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Optical Carrier/Fiber to the End User	3.000	1.000	1	0	1
	100.000	100.000	1163	21	1184
	250.000	250.000	0	2	2
	1000.000	1000.000	419	2	421
<b>Total</b>			<b>1583</b>	<b>25</b>	<b>1608</b>

## Fixed Voice Subscription

### VGE Lines and VoIP Subscriptions by State and End-user Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Virginia	0	0	337	324
<b>Total</b>	<b>0</b>	<b>0</b>	<b>337</b>	<b>324</b>

## Fixed Voice Subscription (iVoIP)

### Over-the-top VoIP Subscriptions by State and End-user Type

State	Total	Consumer	Business / Govt
Virginia	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>

### All other VoIP Subscriptions by State, End-user Type, Bundle and Last-mile Medium

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	337	324	13	336	1	337	0	0	0
<b>Total</b>	<b>337</b>	<b>324</b>	<b>13</b>	<b>336</b>	<b>1</b>	<b>337</b>	<b>0</b>	<b>0</b>	<b>0</b>

