

Application to DHCD Submitted through CAMS

Albemarle Broadband Authority

ABBA CenturyLink VATI 2020

Application ID: 64506242019155126

Application Status: Pending

Program Name: Virginia Telecommunications Initiative 2020

Organization Name: Albemarle Broadband Authority

Organization Address: 401 Mcintire Road
Charlottesville, VA 22902

Profile Manager Name: Michael Culp

Profile Manager Phone: (434) 296-5891

Profile Manager Email: mculp@albemarle.org

Project Name: ABBA CenturyLink VATI 2020

Project Contact Name: Michael Culp

Project Contact Phone: (434) 296-5891

Project Contact Email: mculp@albemarle.org

Project Location: 155 Buffalo Hills Rd (and various other locations in Albemarle County)
Earlysville, VA 22936-1748

Project Service Area: Albemarle County

Total Requested Amount: \$291,300.00

Required Annual Audit Status: Accepted

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$291,300.00	\$1,650,700.00	\$1,942,000.00
Other: Electronics	\$21,750.00	\$123,250.00	\$145,000.00
Other: Fiber	\$269,550.00	\$1,527,450.00	\$1,797,000.00
Total:	\$291,300.00	\$1,650,700.00	\$1,942,000.00

Budget Narrative:

The total project cost is \$1,942,000. CenturyLink is contributing 70%, or \$1,359,400. ABBA is contributing 15% or \$291,300 for a combined "Other Funding" total of \$1,650,700. The remaining 15% or \$291,300 is being requested from DHCD. The ABBA Contribution of \$291,300 is included in the Other Funding column; ABBA will be invoiced by CenturyLink on a prescribed basis. The Albemarle County Board of Supervisors lists the expansion of Broadband to the rural areas as one of its Strategic Priorities. As such, the County has dedicated staff time to these efforts; the broadband work is considered part of the expected staff accomplishments. CenturyLink Costs include their 70% of the total cost including labor (network design, etc.); equipment, and approximately 45 miles of fiber cable. Enabling 940mbps up and 940mbps down for 8 sections of unserved areas of the County. The 8 sections are (1) Buffalo Hills, (2) Watts Passage, (3) Coles Rolling Road, (4) Scottsville Road, (5) Hatton, (6) Keene, (7) Howardsville, and (8) Green Creek Road. This project provides for the placement of six (6) FTTP/GPON switches, eleven (11) Fiber Distribution Huts, 435 Fiber Distribution Pedestals and approximately 45 miles of fiber cable in Albemarle County to bring fiber based broadband services to 837 serviceable units. With the ABBA contribution; our calculations indicate a cost to VATI of \$348 per serviceable unit. Customers will be able to get speeds up to 940Mb/s while uploading or downloading data in the unserved sections noted where approximately 62% of them have no broadband service at all today and 94% have no access to speeds greater than 10M. There is a detailed summary of infrastructure as part of optional Attachment 16 - ABBA CenturyLink Project Summary.

Questions and Responses:

1. Project Area

Explain 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 project area and all sections were selected through intensive engagement activities with residents and existing ISPs. Each section is considered unserved and a high priority for ABBA's planning.

There are 8 sections of the project area. They are all rural areas of the County, all but one (Watts Passage) are primarily agriculture with many parcels in easement or designated as AGForest. The citizens in the area are working with ABBA, providing data in meetings or through the ABBA data reporting tool. All have had

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significant difficulty receiving responses for request for service from Comcast, SCS (where applicable), Shentel, Lumos, and others.

CenturyLink has provided quotes to advance services to sections of the project area. Until now, these have been quotes for expanded DSL. This new project is a fiber to the home project supporting ABBA's goals.

The project area sections are:

1. Buffalo Hills: Bordered on the North by Greene County. Includes Buffalo River Road from the Intersection of Fray's Mountain Road, North to Include Durrett Ridge Road and all arteries.
2. Watts Passage: Going South on Watts Passage from Rt. 29 to Watts; Including Sections of Preddy Creek Road, and Northwood and Gilbert Heights subdivision.
3. Coles Rolling Road: Starting at the intersection of Jefferson Mill Road North to Glendower Road
4. Scottsville Road: Northwest from the Town of Scottsville, Through to Include Totier Hills
5. Hatton: Includes all properties in the bend of the James River below Totier Creek Reservoir; includes James River Road, Jim Lane Road, Hatton Grange, Hatton Grange Estates, Hatton Ferry Road, and Hatton Ferry Lane
6. Keene: North on Scottsville Road from Totier Hills to Include Browntown up to Keene
7. Howardsville: James River Road Southwest from Boiling Springs to Howardsville, and Mt. Alto Road.
8. Green Creek Road: Bordered on the West by Nelson County. Includes the Quarries Subdivision and all of Green Creek Road and Arteries North to Bungletown Road.

Specific details about each section of the project is provided in Attachment 1 - Project Area Map; it includes placement of infrastructure, residential serviceable units, agricultural locations, and the number of school aged children per section.

2.

Describe your outreach efforts to identify existing providers in the selected project area. Provide a detailed explanation of how this information was compiled and the source(s). Provide a map and list of all existing providers (fixed and wireless) and speeds offered within the project area. Label Map: Attachment 2 – Existing Provider Map; label documentation: Attachment 3 – Documentation on CAF Funding Area.

Answer:

The Albemarle Broadband Authority (ABBA) and CenturyLink conducted extensive outreach, including issuance of an RFI and public notice, to determine the selected project area. ABBA provides a data collection tool with feedback loops where citizens report lack of broadband service. ABBA refers to broadbandnow.com maps, USDA ReConnect maps, and FCC CAF 2 maps to determine coverage; then follows up with requests to service providers asking for service availability. ABBA also mapped each selected area and sent the map sets to SCS, Comcast, HighspeedLink, Lumos, CenturyLink, CVEC/Firefly and Shentel to determine serviceability. The only service provider with consistent speeds near but below the VATI threshold is CenturyLink. CenturyLink created the project maps and infrastructure maps as a result. A Comcast estimated coverage map is included in Attachment 2 – Existing Provider Map. Comcast doesn't serve the any of the sections in the project area. ABBA requested SCS provide an estimated coverage map for the County; ABBA met with SCS to go over the project areas; and as of 9-2

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-2019 SCS hasn't responded that coverage is provided for 10% or more of the project area.

Attachment 2 – Existing Provider Map and Attachment 3 – Documentation on CAF Funding Area are included in the Attachment section.

3. Project Need/Description

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 10 Mbps / 1 Mbps or less and with less than 10 percent service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide specific information as to how you determined the percentage overlap. Label Attachment: Attachment 4 – Documentation Unserved Area VATI Criteria.

Answer:

Our project area is unserved as each of the 8 sections are in rural parts of the County where current speeds are less than 10 Mbps Down / 1 Mbps Up. We used a combination of the FCC Maps, USDA Reconnect Maps, BroadbandNow.com, and the citizen broadband reports we collected to determine this. For each citizen broadband report we received we followed up with the citizen(s) inquiring if they had checked with other providers.

There is no service overlap with Comcast and the other wireline providers. There may a slight overlap, but less than 10%, with SCS fixed wireless coverage in the Southern sections (Scottsville, Keene, Hatton, Howardsville, Green Creek Road). SCS was asked to provide an estimated coverage map. Short of receiving it; ABBA double checked with the citizens in the areas defined and none of them report having SCS despite some having requested the fixed wireless service.

In all 8 of our project area sections we presented the detailed maps to the closest providers Comcast, SCS, and Nelson Cable and asked that they quote service or if they already provide service; provide ABBA their estimated coverage maps. ABBA conducted phone calls, traded e-mails, held meetings and none of the providers indicated service coverage at 10% for the CenturyLink Project Areas. Our Attachment 4 – Documentation Unserved Area VATI Criteria covers the mapping we developed.

4. Provide the number of residential serviceable units in the project area(s). Describe the eligible premises that will be served by the proposed project and the basis for these projections.

Answer:

The total number of residential serviceable units is 837. Optional Attachment 16 ABBA Centurylink Project Summary contains a detailed chart showing each of the sections of the project area and the number of residential serviceable units contained in each section.

We know exactly how many residential serviceable units are in the project area we have plotted the actual locations of the residences using the County and CenturyLink's GIS systems and we have planned and designed the proposed network to pass the actual residences we have identified. Each home passed will have access to the CenturyLink Fiber Gigabit service. The actual homes and fiber facilities are all within the project area boundaries shown in Attachment 1 – Project Area Map.

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Section of Project Area	Residential serviceable units
Buffalo River Rd	170
Watts Passage	137
Coles Rolling Rd	46
Scottsville Rd	80
Hatton Ferry	48
Keene	61
Howardsville	140
Green Creek Rd	155
TOTAL:	837

5. Indicate the numbers of businesses and community anchor institutions the proposed project will pass in the project area. Also indicate the number of home-based businesses. Provide specific information.

Answer:

There are at least 14 businesses and 1 or 2 community anchor institutions in the project area. The Howardsville Boat Launch (public facility), Totier Creek Reservoir (public facility), and Howardsville Post Office are included in the project area.

The ABBA data collection collects information from residents about home-based businesses and at home work. In addition to the businesses and community anchor institutions listed; we believe ~65% of the respondents run a home-based business or work from home.

In addition the project area includes many occurrences of agricultural use. These Agricultural use areas are included in the Attachment 1 – Project Area Map on Page 10 and 11. There is a clear need for broadband to support home-based business, agricultural business, artisan business, and other rural business needs in Albemarle County.

Here is a list of businesses in the project area:

Business Name	Needs Internet	Address
TWIN CREEKS WELL DRILLING	Yes	2270 JAMES RIVER RD
THE BREAD BASKET	Yes	2522 JAMES RIVER RD

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MARTIN SCHMIDT	Yes	2556 JAMES RIVER RD
PAW PAW GROVE POODLES LLC	Yes	2907 JAMES RIVER RD
HOWARDSVILLE GENERAL STORE	Yes	3340 JAMES RIVER RD
M K ENGLAND	Yes	562 JAMES RIVER RD
THE EDITH AND THEODORE ROOSEVELT PINE KNOT FOUNDATION	Yes	711 COLES ROLLING ROAD
INDIAN FIELDS FARRIER SERVICE, INC.	Yes	9969 HATTON FERRY ROAD
Armonia Nova, Inc.	Yes	106 JIM LANE ROAD
Advanced Mechanical Group Incorporated	Yes	9483 HATTON FERRY RD
Scottsville Recreation, Incorporated	Yes	P O BOX 204 Scottsville, VA
NORTH EAST GAS AND OIL COMPANY	Yes	7548 TOTIER CREEK RARM RD
Crazy Beard Entertainment	Yes	2905 Mclane Rd
The Brome Company	Yes	6145 Firefly Court

Through survey data we note that many of the professionals living in the area work from home or are required to participate in work related teleconferences etc. The bigger concern for this area continues to be the lack of equity for the students who live here since many of their peers have access to broadband for homework, these students

- Understanding that projected take rates are an estimate, provide the anticipated take rate for the proposed service within one year of project completion and describe the basis for the estimate. Also detail all actions (e.g. marketing activities, outreach plan) to be implemented to reach the identified potential serviceable units within the project area.

Answer:

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The projected take rate for this project area is 50% within one year of project completion. The projection is based on CenturyLink's experience in providing broadband in localities across the Commonwealth, as well as our experience in other states. That projection is also supported by CenturyLink's experience in its prior VATI project with Albemarle County, where the overall take rate is 73%.

The actions the co-applicants will take to reach the identified potential customers include frequent notices from both ABBA and CenturyLink indicating this upcoming project supported by the Virginia Telecommunication Initiative and DHCD. We will schedule at least one public meeting in or near each of the 8 sections of the project area to inform the residents about the upcoming work and answer questions. And nearer the completion of the project hold another meeting to encourage sign-ups and answer questions.

The County Communication and Public Engagement Department has a detailed communication plan for VATI projects. This plan will be customized and utilized for the project. It includes scheduled press releases, radio and TV interview spots, County wide e-mail, and specific social media posts.

7. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Will the wireless co-applicant own or lease the radio mast, tower, or other raised structure onto which the wireless infrastructure will be installed?

Answer:

This is a 100% fiber to the home project. No wireless.

8. Provide the proposed download and upload speeds for the project area. 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. Describe the Internet service offerings to be provided after completion of this project and your price structure for these services. The service offerings should include all relevant tiers.

Answer:

Download and Upload Speeds: All locations will have access to CenturyLink's Fiber Gigabit service, which provides a maximum of 940 Mbps download and 940 Mbps upload. Bandwidth is dedicated.

Technology: The technology that will be used is "Fiber to the Home," or "GPON." GPON is "Gigabit Passive Optical Network." In a Fiber to the Home/GPON environment, voice and high-speed data (up to 1Gbps) is transported on a single fiber (one wavelength for transmit, another wavelength for receive) from the office/remote electronics to the home or premises. The single fiber operates at a rate of 2.4Gbps downstream (to the home) and 1.2Gbps upstream (from the home). The CenturyLink deployment can share this bandwidth between 32 customers. The GPON infrastructure eliminates the need for active electronics (and the associated powering, real estate and maintenance costs) in the distribution plant, depending on the distance from the Central Office/ Remote and available feeder fibers.

Service offering: Pricing for CenturyLink services is generally a nationwide price, so that customers in rural Virginia pay the same rate as customers in urban areas in other states. CenturyLink also offers discounts for bundles services, which would include broadband and voice services. For purposes of this application,

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however, the highest rate that a customer would currently pay for CenturyLink's Fiber Gigabit service is currently \$65 per month on a promotion that does not have a set termination date, and \$85 normally. For the last couple of years CenturyLink has offered a "price for life" service, where customers can lock in a monthly rate that does not change for as long as the customer keeps the service and there is no "early termination fee." Also, there is no required term contract for this program. Broadband service requires an installation by a technician, but there is no installation charge. This rate does require a customer to subscribe to paperless billing and excludes taxes. Various slower services are available, including download/upload Mbps services at 500/500, 500/100, 200/40, 100/100, 100/10, 80/10 and 40/2. Prices vary depending on the download and upload speeds. For example, the price for the 40 Mbps download speed is \$45 per month.

9. 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. Also describe specific advantages of using this technology. Provide a detailed explanation on how this information was compiled and source(s). For wireless projects, provide a propagation map including the proposed project. Label Map: Attachment 5 – Propagation Map Wireless Project

Answer:

As described in response to question 8, the network design is "fiber to the home" or "GPON." The components that would be added are optical fiber connections to residences. The twisted pair copper lines would no longer be used. Additional components would be necessary to connect the fiber to existing CenturyLink facilities. The advantage of using a fiber-based solution is that it provides the fastest speeds available to consumers. Although copper-based solutions such as VDSL can provide speeds of 100 Mbps, fiber can provide speeds measured in Gigabits. Also, the fiber network does not have the same distance limitation of copper-based DSL technology. The source of these statements is CenturyLink's actual experience in providing fiber solutions to residences across the county, to many state and federal government customers and to thousands of businesses across the United States and around the world.

This is 100 % fiber to the home project (no wireless) so there is no Attachment 5.

10. Project Readiness

What is the current state of project development (e.g. planning, preliminary engineering, identifying easements/permits, final design, etc.)? Prepare a detailed project timeline or construction schedule which identifies specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Provide any Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) (drafts are allowable), letters of support, etc. The timeline should include all activities being completed within 12 months of contract execution with DHCD. Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – Relationship between Applicant/Co-Applicant; Attachment 8 – Letters of Support;

- i. If the partnership is formalized in a written agreement, provide a copy of that agreement.
- ii. If the partnership has not been formalized, provide a short description of the project management role, financial commitment, or other contribution to the project for the applicant, co-applicant, and any additional partners.
- iii. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality.

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Answer:

This project has passed engineering and financial commit stages and is approaching final design. Attachment 6 – Timeline/Project Management Plan is included and identifies all tasks, staffing, contracting work, with estimated start and completion dates.

A formal partnership between ABBA and CenturyLink is in process. A preliminary MOU is included in Attachment 7 – Relationship between Applicant/Co-Applicant. A similar agreement was used in the prior VATI applications with CenturyLink and Albemarle County and a formal agreement was signed after the grant was approved. This agreement is included for reference in Attachment 7 – Relationship between Applicant/Co-Applicant.

CenturyLink's obligations are to implement the Project Management Plan within the designated period, to provide updates to the County on the status of the project, to notify the County if assistance is needed with issues where the County can provide assistance, to submit requests for payment as work is completed, to complete all work within the required timeframe, to provide the County with information showing the locations where broadband has been enabled and to propose any non-disclosure agreements that CenturyLink believes might be required if CenturyLink is requested to share confidential information.

The agreement includes obligations of ABBA to process requests for payment in a timely manner, review information provided by CenturyLink and submit requests for additional information in a timely manner, complete any necessary non-disclosure agreements, provide necessary rights of way and assist in contacting citizens and others when appropriate to assist in completing the project within the required timeframe.

Attachment 8 – Letters of Support contains the approved ABBA \$291,300 contribution as well as a small subset of letters of support collected by e-mail from the citizens in the project area.

11. Matching funds: Provide a description of the matching funds the applicant and co-applicant will invest in the proposed project (VATI funding cannot exceed 80 percent of total project cost). The Funding Sources Table must be completed. Label Attachments: Attachment 9 - Documentation of Match Funding; Attachment 10 – Funding Sources Table;
 - i. For each element of matching funds in the description, indicate the type of match (e.g. cash, salary expense, or in-kind contribution).
 - ii. Identify whether the applicant or co-applicant is responsible for providing each element of the proposed matching funds.
 - iii. Include copies of vendor quotes or documented cost estimates supporting the proposed budget.

Answer:

Attachment 9 Documentation of Match Funding and Attachment 10 - Funding Sources Table are completed and included in the attachments section. Cost estimates are documented supporting the proposed budget.

CenturyLink is investing \$1,359,400 in cash to the project as co-applicant. ABBA is providing \$291,300 in cash to match the request from VATI for \$291,300. Bringing the total estimated project cost to \$1,942,000.

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The matching funds invested by CenturyLink are listed in Attachment 10 - Funding Sources Table. Those funds include all of the costs for the project, including all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project. The matching funds also include the costs of identifying and acquiring any necessary easements.

Attachment 16 - ABBA CenturyLink Project Summary documents the cost estimates per section of the project area. Details of the fiber placement and electronic placement are identified with estimated costs.

12. Applicant and Co-Applicant: A description of the public-private partnership involved in the project. Detail the local government assistance: Local government co-applicants should demonstrate assistance to project that will lower overall cost and further assist in the timely completion of construction, including assistance with permits, rights of way, easements, and other issues that may hinder or delay timely construction and increase cost. Provide detail if this project includes additional partners such as municipal providers, middle-mile providers, or investor-owned utilities

Answer:

As stated in Attachment 7 - Relationship between Applicant Co-Applicant, at this time there is no formal agreement in place between the applicant and the co-applicant, although a formal agreement will be established if a grant is awarded. CenturyLink does not expect to seek assistance from the County regarding permits, rights of way or easements, as CenturyLink has processes in place to obtain the necessary rights and routinely obtains those rights in projects across the Commonwealth.

As a public utility, CenturyLink also has statutory rights to acquire private property when necessary. As shown in Attachment 1 - Project Maps , CenturyLink has already identified the location for fiber routes and equipment placement.

ABBA is lowering the overall cost and further assisting in the timely completion of construction through both a \$291,300 cash contribution to the project as well as County provided staff support for planning, notification, citizen engagement, etc.

The County is able to provide the following assistance; we are working with citizens in the area to facilitate a seamless installation providing ample opportunity for public engagement while the project is progressing. The County will assist with conversations with VDOT and private land owners to make certain all installations are conducted safely and ahead of schedule.

13. Identify key individuals, including name and title, who will be responsible for the management of the project. Provide a concise description of their role and responsibilities for the project. Present this information in table format.

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Name	Title	Role and Responsibilities
Mike Culp	Information Technology Director Albemarle County, VA ABBA Chief Administrative Officer	Mr. Culp will be responsible for overall project management for the partnership. He will coordinate all activity with CenturyLink and manage administrative tasks to include invoice processing and remittances with DHCD.
Michele Carter	Management Analyst Albemarle County, VA	Ms. Carter will update materials for CAMS entry and verify CenturyLink invoices for accuracy.
Richard Schollman	Director of Government Affairs	Mr. Schollmann will be responsible for overall coordination of the project with Albemarle County. He will provide all coordination with the planning, engineering, construction, and billing teams within CenturyLink.
Craig Hager	Director of Local Network NC/VA CenturyLink	Mr. Hager oversees all construction tasks and testing in NC and VA.
Bill Owens	Manager of Local Network VA CenturyLink	Mr. Owens has direct responsibility for managing construction and testing for this project.
Willie Thompson	Construction Supervisor VA CenturyLink	Mr. Thompson will direct all crews for the construction and installation of fiber and equipment for this project.

14. Project Budget and Cost Appropriateness

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Applicants shall provide a detailed budget as to how the grant funds will be utilized, including an itemization of equipment and construction costs and a justification of proposed expenses. Expenses should be substantiated by clear cost estimates. Label Attachment: Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Costs; Attachment 13 – Supporting Documentation of Cost Estimates.

Answer:

The detailed budget includes an itemization of equipment and construction costs. CenturyLink justified all proposed expenses and provides clear cost estimates. These details are substantiated in the attachments Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Costs; Attachment 13 – Supporting Documentation of Cost Estimates; and Attachment 16 - ABBA CenturyLink Project Summary.

This project provides for the placement of six (6) FTTP/GPON switches, eleven (11) Fiber Distribution Huts, 435 Fiber Distribution Pedestals and approximately 45 miles of fiber cable in Albemarle County to bring fiber based broadband services to 837 serviceable units. The detailed cost of which can be seen in the estimated cost and placement of infrastructure slides provided in optional Attachment 16 ABBA Centurylink Project Summary.

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. Finally, the three component scores are averaged together and converted to a 30-point scale to form a composite score. Please provide the following three pieces of information:
- a. Total State funding requested / Total Project cost
 - b. Number of serviceable units
 - c. Highest residential speed available

Answer:

- a. The Total State Funding requested is 15% (\$291,300) of the total project cost (\$1,942,000).
 - b. There are 837 serviceable units.
 - c. CenturyLink Fiber Gigabit (940 Mbps) will be the highest residential speed available.
16. A brief description of applicant and co-applicant's history or experience with managing grants and constructing broadband communication facilities in the Commonwealth of Virginia and elsewhere.

Answer:

Albemarle County has worked with numerous state and federal agencies on many different types of Grants. Albemarle IT completed the Virginia Telecommunication Planning Initiative Grant with DCHD. Albemarle County and CenturyLink were awarded \$118,000 during the 2017 VATI and completed the project ahead of schedule and within budget.

CenturyLink has extensive experience with managing grants and constructing broadband facilities in the Commonwealth and across the country. In Virginia, CenturyLink and its predecessor companies have provided voice and data services to hundreds of thousands of Virginians for decades. All of those networks were constructed and managed by CenturyLink companies. CenturyLink currently serves approximately 13 million access lines in

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37 states and about 6 million high-speed Internet customers using both DSL and “Fiber to the Home” solutions. CenturyLink’s customer base ranges from rural residential customers to international Fortune 500 companies. CenturyLink is a global leader in managed hosting and cloud services and offers network and data systems management, big data analytics and IT consulting in the US and internationally.

CenturyLink also has extensive experience in managing grants. At the national level, for example, CenturyLink accepted about \$500 million in annual support from the federal Connect America Fund (CAF) to provide broadband to over 2.3 million customers in 33 states. In Virginia alone, CenturyLink accepted over \$15.7 million per year for 6 years to reach about 50,000 homes and businesses with broadband by 2020. The CAF program included annual targets, which CenturyLink has met each year in Virginia. CenturyLink also has extensive experience in state-level broadband grant programs. Beginning in 2008, CenturyLink participated in grant programs with Mid-Atlantic Broadband and the Tobacco Commission to build, operate and maintain broadband projects in some of the most rural locations in Virginia. CenturyLink participated in the grant program in 2009, 2010 and 2012, accepting about \$2M in grant funds and serving over 8,000 rural locations with broadband. All of those projects were completed on time and within budget. CenturyLink has also received a prior VATI award with Albemarle County as the applicant. That project was also completed on time and within budget.

17. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. Please describe if the project fits into a larger locality or regional universal broadband plan.

Answer:

ABBA continually works toward updating the County wide telecommunication plan. ABBA has produced citizen tools for collecting citizen input; negotiated a major fiber project with CVEC; is working with both Appalachian power and Dominion power to identify partnership needs. ABBA completed two VATI projects in prior years and is working on a VATI project with CVEC/Firefly.

ABBA is also actively working with public safety as part of the telecommunication plan. Our efforts are regional as we continually work to identify regional wireless options; having held meetings with FirstNet to determine placement of new and upgraded tower sites. In addition, ABBA is developing a public safety plan to assist the volunteer fire rescue stations in the County in obtaining diverse network paths and broadband speed access at all stations through the County.

The Public School Division and ABBA are working together to identify areas of priority based on school aged residents needing broadband speeds for homework. We included School Bus Route Seats in the Project Area in Attachment 1 - Project Area Map on page 12. We focus on public education benefit when selecting our priority areas.

Our data collection tool continues to grow and helps us define our coverage maps and focuses on the unserved areas to address. We ask residents to report on needs for broadband, including telehealth needs, learning needs, business needs, and more. Our reports are showing an increased need for agricultural use and telehealth use. Past data collections have not highlighted these areas; ABBA intends to increase focus on them.

ABBA Plans match well with the following Commonwealth priorities:

- Education- "education and workforce training system ready to leverage all of our citizens’ talents "

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- Small Business- "increase Virginia small businesses' efficiency and effectiveness, and enable new healthcare technologies and service models"
- Law Enforcement/First Responders- "more reliable connectivity allows first responders and law enforcement to access data that could save lives and increase safety"
- Healthcare- " While options to engage telehealth services exist, they are reliant on access to broadband at the patient's residence or a nearby clinic"
- "Quick and affordable" addition of broadband
- Improved data collection to map scope of broadband gaps

Our project is submitted because of a demonstrated need and benefit for the community in all of these. CenturyLink is ready to deploy the fiber to the home project as a plan to take the County far into the future rather than relying on older technologies. and because of CenturyLink's commitment of funds, and ABBA's local funds contribution together with the State we are demonstrating efficiency of the planned use of taxpayer dollars.

18. Additional Information

Any other equitable factor that the applicant desires to include. Applicants are limited to four additional attachments. Label Additional Attachments as:

- a. Attachment 14 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 15 – Copy of Public Notice
- c. Attachment 16 – XXXXXXXX
- d. Attachment 17 – XXXXXXXX
- e. Attachment 18 – XXXXXXXX
- f. Attachment 19 – XXXXXXXX

Answer:

Attachment 16 - ABBA CenturyLink Project Summary provides pertinent data and mapping to show project readiness, project cost, and serviceable units.

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap92201991721.pdf

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Map(s) or schematic of existing broadband providers (inventory of existing assets)

Attachment2ExistingProviderMap93201945112.pdf

Documentation that proposed project area is not designated for Connect America Funding (CAF)

Attachment3DocumentationonCAFFundingArea92201914923.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment4DocumentationUnservedAreaVATICriteria92201950505.pdf

Project Management Plan

Attachment6TimelineProjectManagementPlan922019113431.pdf

Documentation of relationship between applicant and co-applicant (formal or informal)

Attachment7RelationshipbetweenApplicantCoApplicant92201992346.pdf

Letters of Support

Attachment8LettersofSupport93201951258.pdf

Documentation for in-kind contributions, including value(s)

Attachment9DocumentationofMatchFunding922019121933.pdf

Funding Sources Table

Attachment10FundingSourcesTable93201950332.pdf

Derivation of Cost (Project Budget)

Attachment11DerivationofCosts922019114148.pdf

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

Attachment12DocumentationofSupportingCosts92201993055.pdf

Supporting documentation for costs estimates

Attachment13SupportingDocumentationofCostEstimates92201993106.pdf

Application to DHCD Submitted through CAMS

Albemarle Broadband Authority

ABBA CenturyLink VATI 2020

Two most recent Form 477 submitted to FCC

Attachment14TwomostrecentForm477submittedtoFCC92201944211.pdf

Copy of Public Notice

Attachment15CopyofPublicNotice922019121430.pdf

Optional

Attachment16ABBACenturyLinkProjectSummary922019113358.pdf

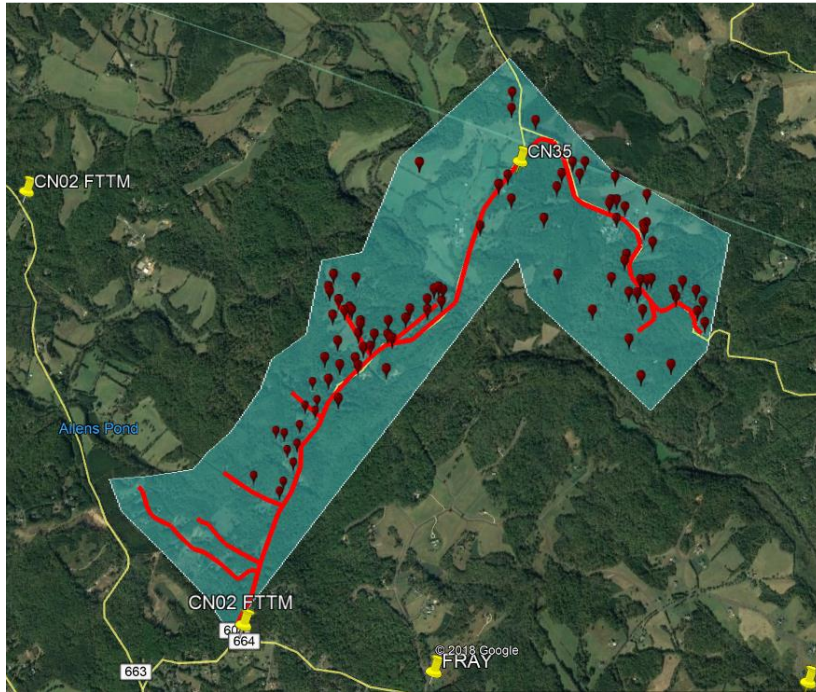
Attachment 1 – Project Area Map

Overall All – County Wide View



The numbered project area sections area (1) Buffalo Hills, (2) Watts Passage, (3) Coles Rolling Road, (4) Scottsville Road, (5) Hatton, (6) Keene, (7) Howardsville, and (8) Green Creek Road. More detail is provided in Optional Attachment ABBA Clink VATI 2020 Project Summary.

(1) Buffalo Hills Overview



Infrastructure

Place 8 KFT, 48F, \$48K

170 – 1G

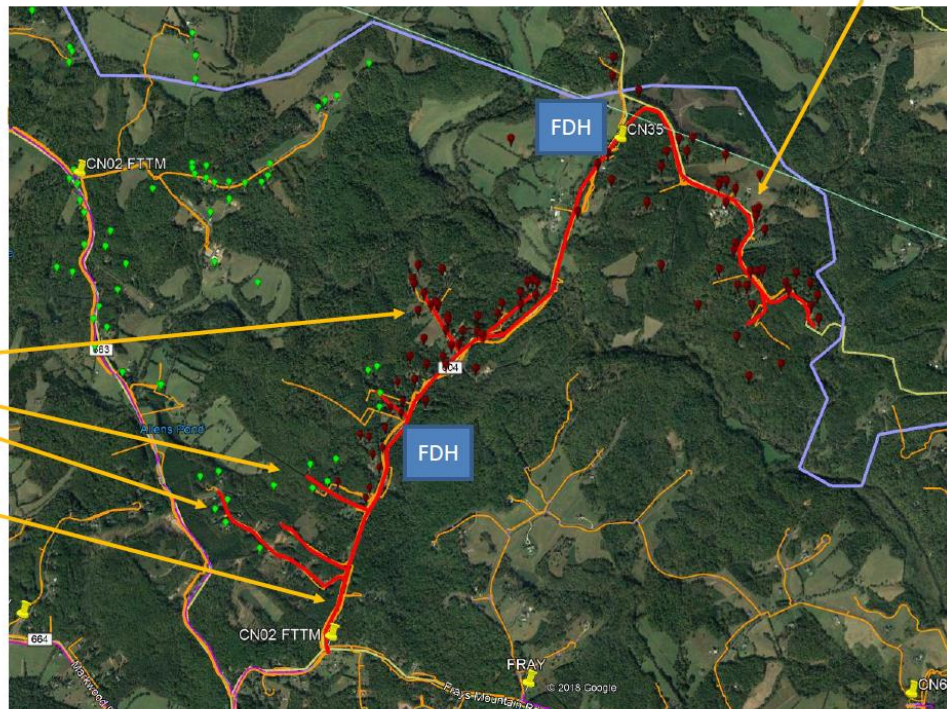
Estimate 100 drops < 650
51 between 650 & 1,500;
19 > 1,500 Feet

Place 6 Spurs, total of
12 Kft, \$72K

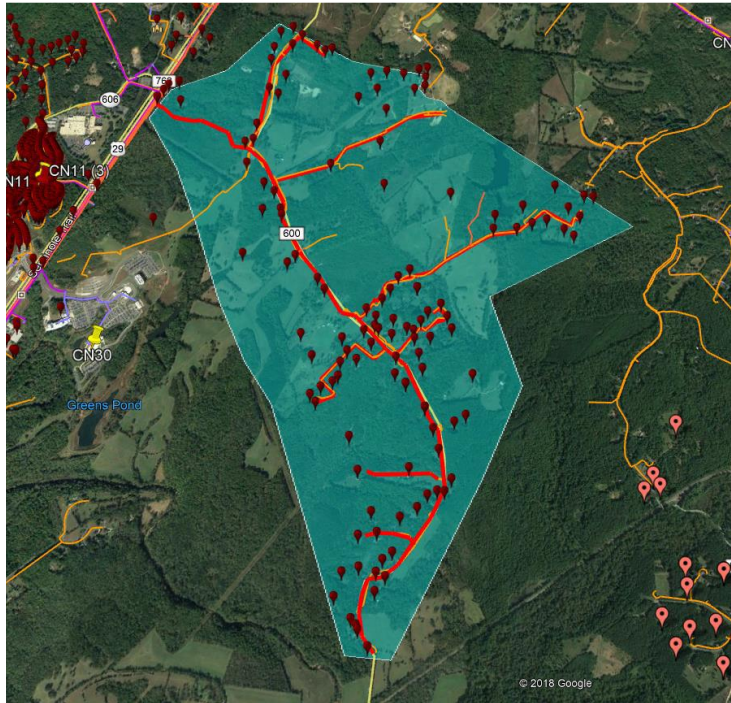
Place 13 KFT, 48F, \$78K

Place GPON
Card in CN02
E7, \$15K

Place 2 FDHs &
66 MDTs, \$75K



(2) Watts Passage Overview



Infrastructure:

Place 16KFT, 96F, \$100K

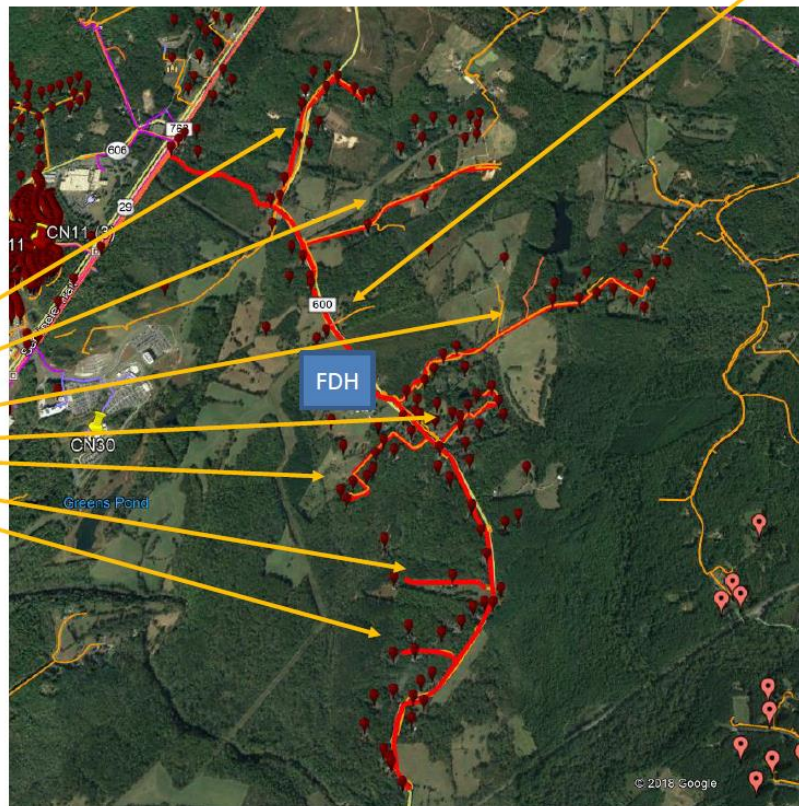
137 – 1G

Estimate 85 drops < 650 Ft.;
 35 between 650 & 1,500;
 17 > 1,500 Feet

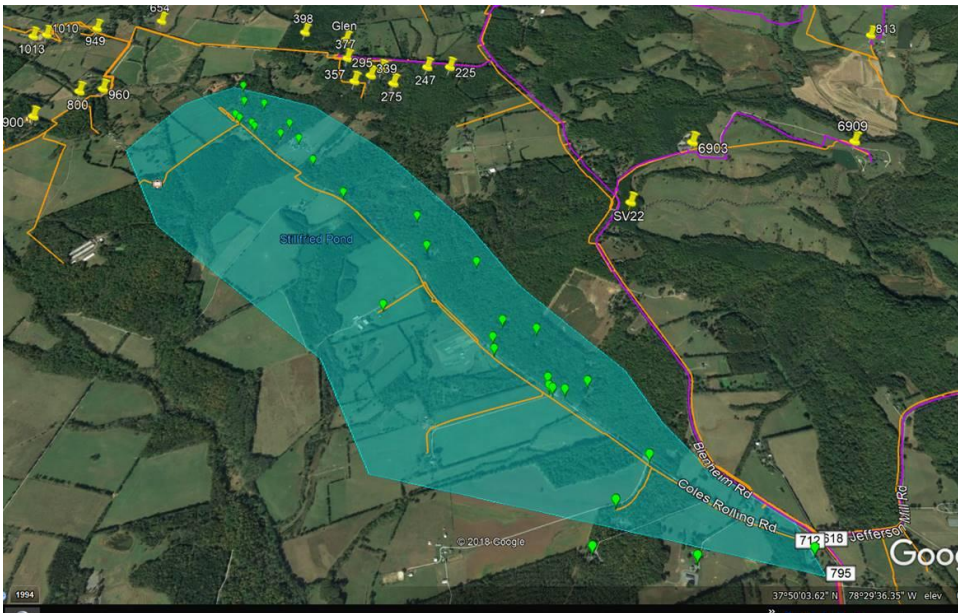
Place 7 Spurs, total of
 21 Kft, \$126K

Place E7_GPON
 in CN11 E7,
 \$30K

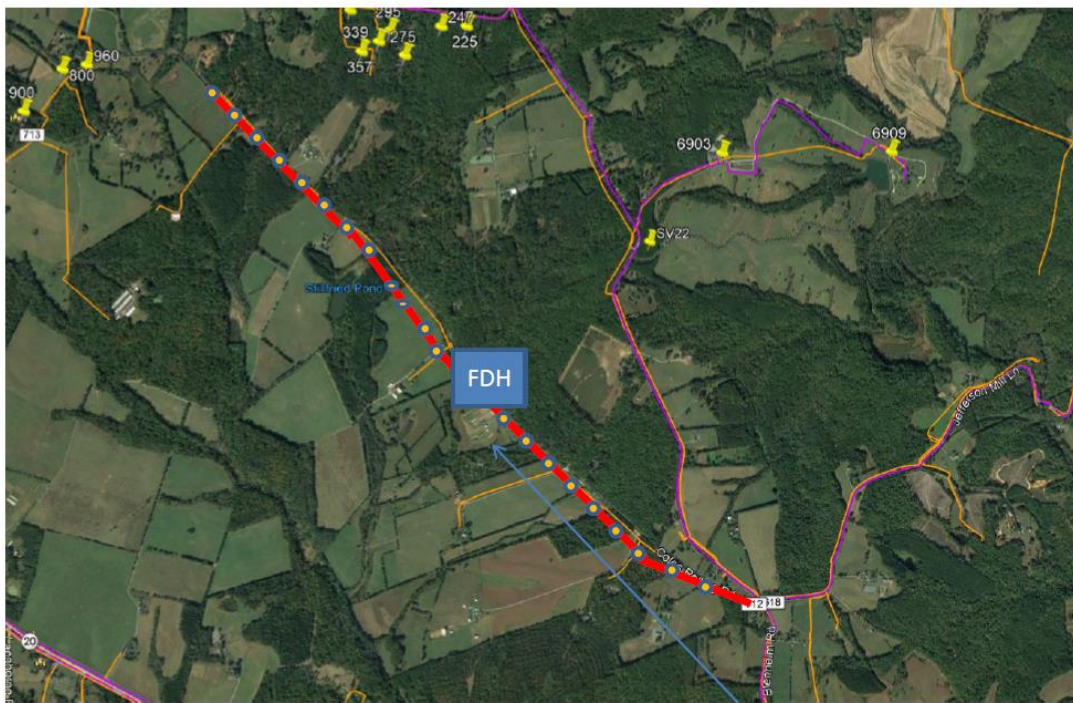
Place 1 FDH &
 75 MDTs, \$80K



(3) Coles Rolling Road Overview



Infrastructure:



46 – 1G

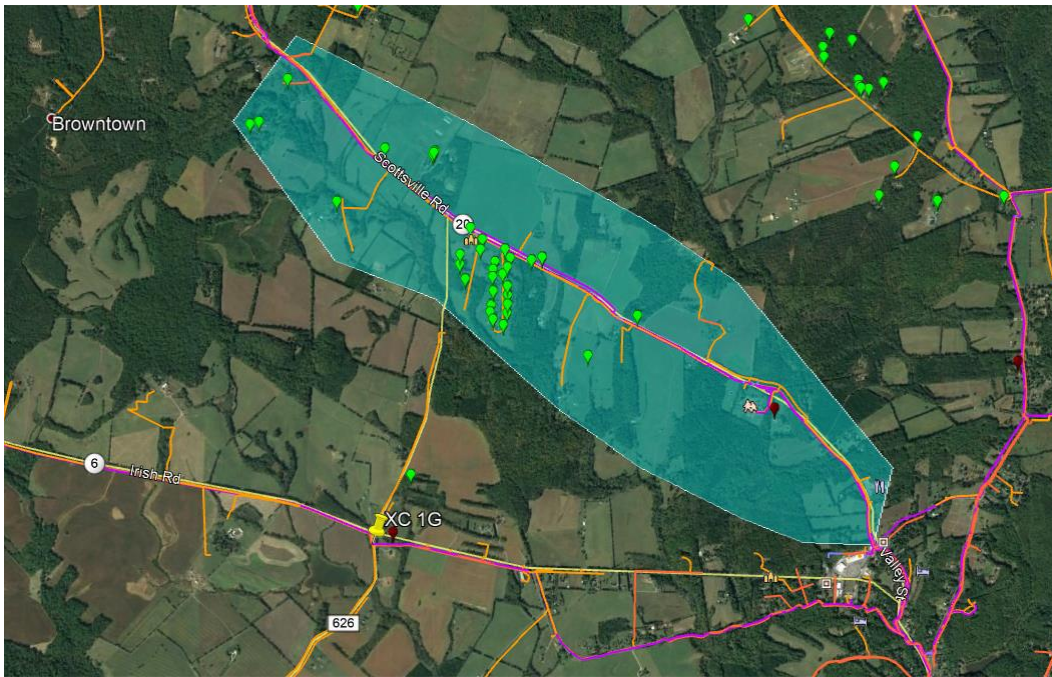
Estimate 23 drops < 650 Feet; 18 between 650 & 1,500, & 5 > 1,500 Feet

Use CO E7_GPON, \$10K

Place 14 KFT, 48F, \$84K
Place FDH & 21 MDTs, \$20K

● MDT

(4) Scottsville Road Overview



Infrastructure:



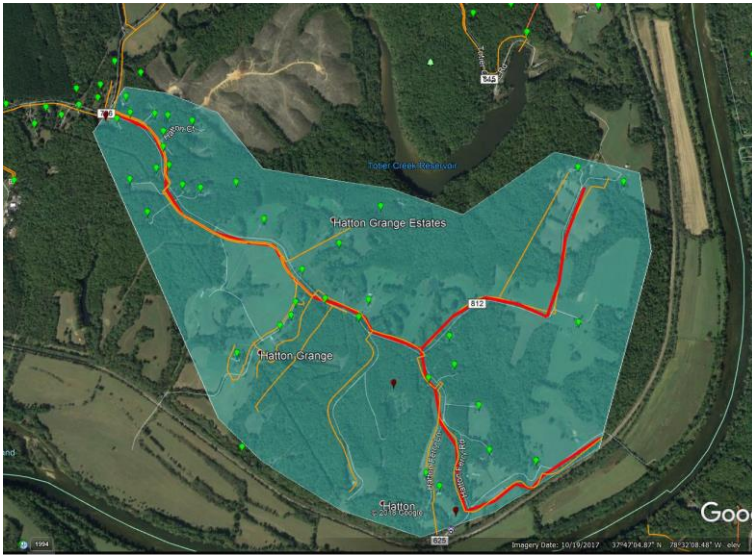
80 – 1G

Estimate 30 drops < 650 Feet; 30 between 650 & 1,500, & 20 > 1,500 Feet

Use CO E7_GPON, \$10K

Place FDH & 35 MDTs, \$30K

(5) Hatton Overview



Infrastructure:



Place 5 KF
48F, \$30K

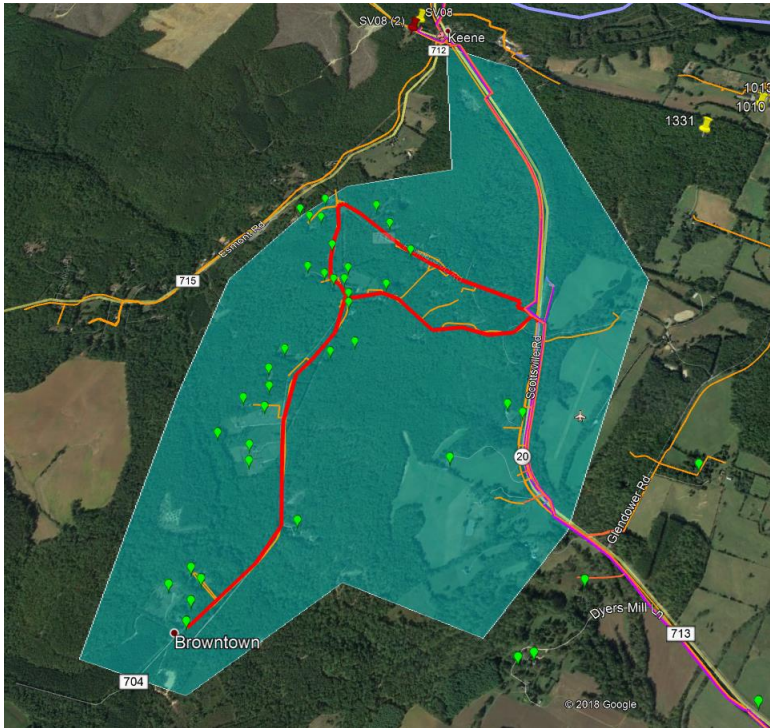
Place
GPON Card
in E7, \$15K

48 – 1G

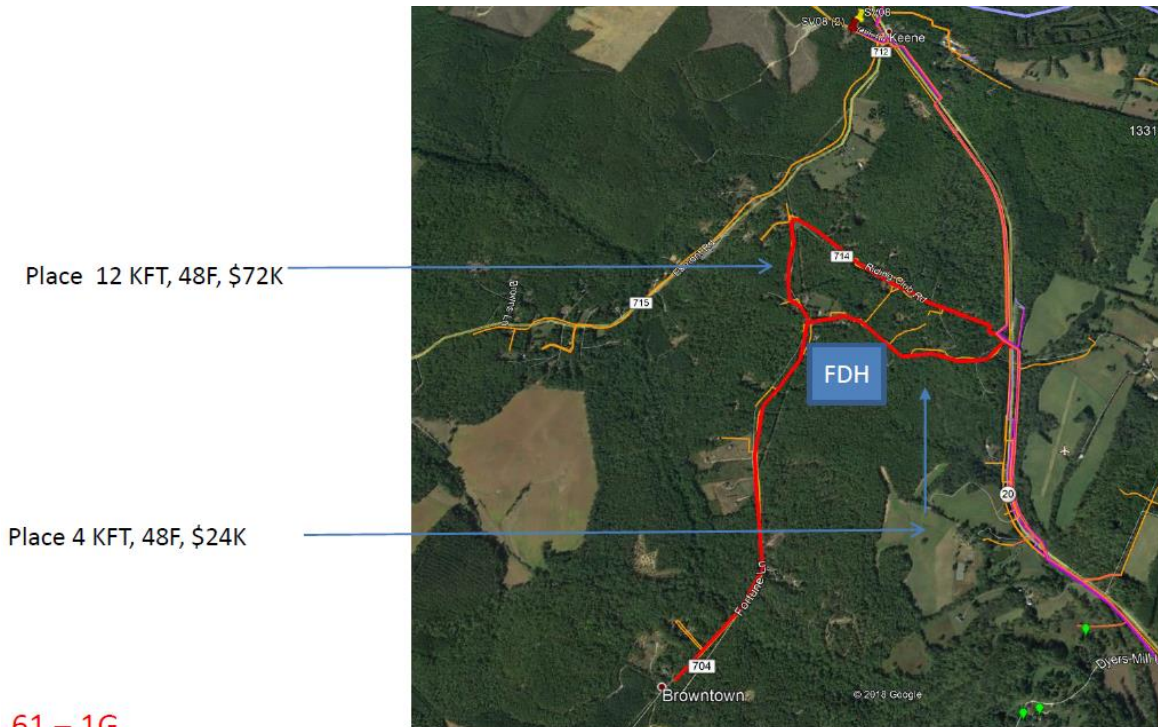
Estimate 25 drops < 650
Feet; 16 between 650 &
1,500, & 7 > 1,500 Feet

Place 13 KFT, 96F, \$78K
Place FDH & 36 MDTs, \$25K

(6) Keene Overview



Infrastructure:



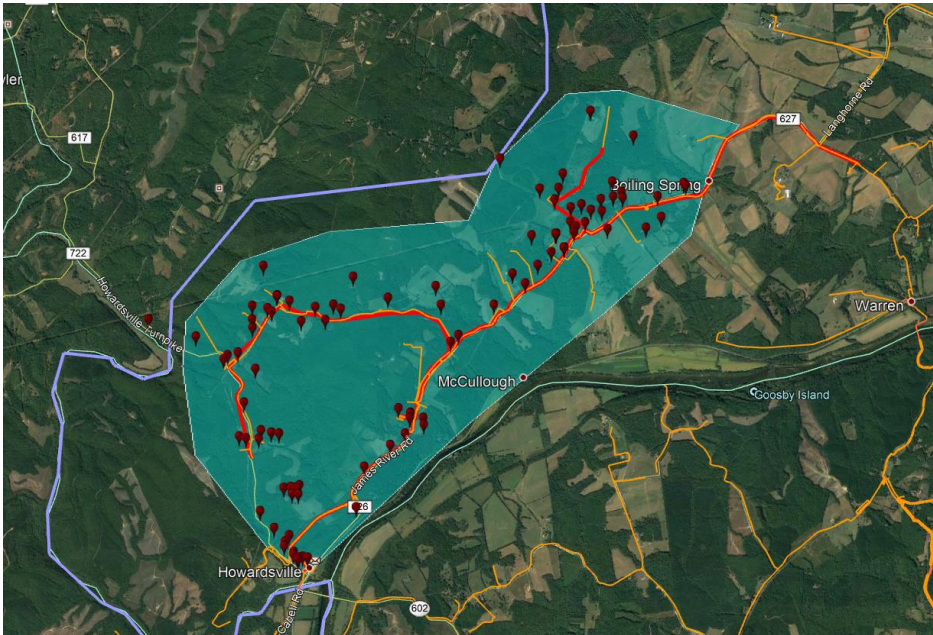
61 – 1G

Estimate 34 drops < 650 Feet; 19 between 650 & 1,500, & 8 > 1,500 Feet

Place E7_GPON SV08, \$20K

Place FDH & 32 MDTS, \$15K

(7) Howardsville Overview

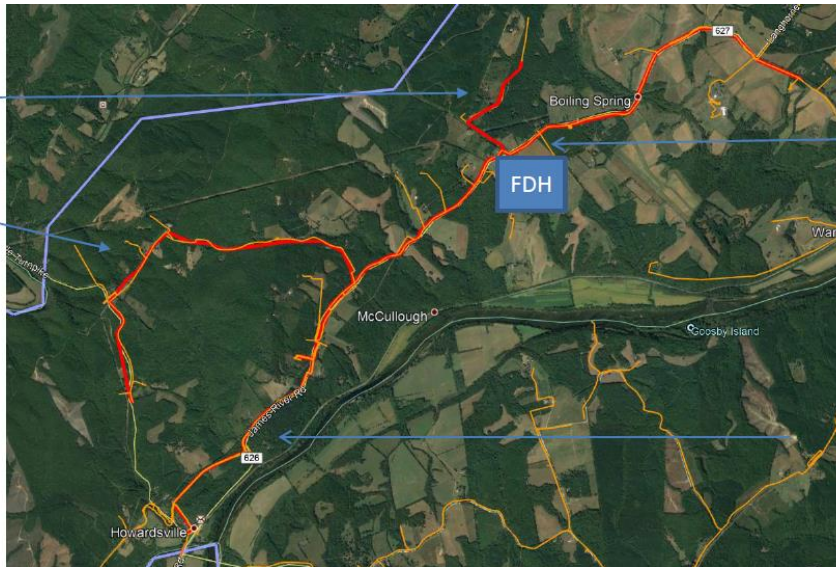


Infrastructure:

Place 5 KFT,
48F, \$30K

Place 17 KFT,
48F, \$102K

Place
GPON Card
in E7, \$15K



Place 27 KFT,
96F, \$162K

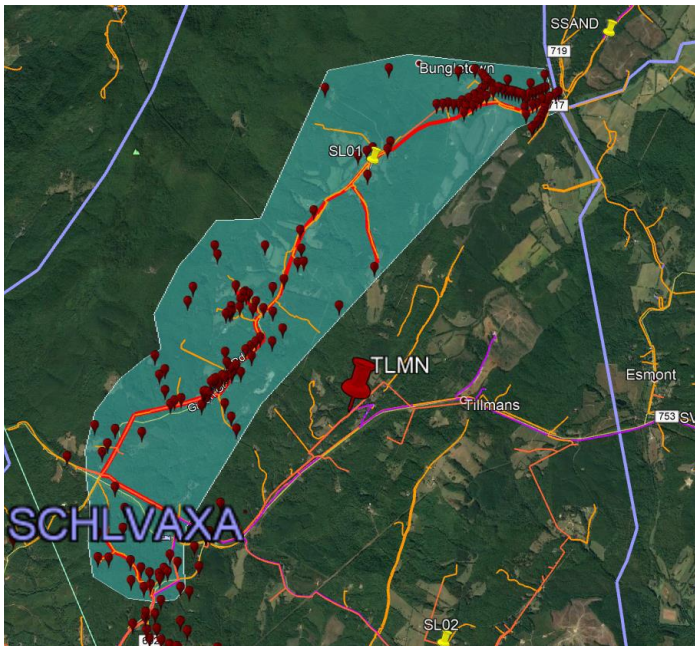
Place 10 KFT,
48F, \$60K

140 – 1G

Estimate 75 drops < 650
Feet; 40 between 650 &
1,500, & 25 > 1,500 Feet

Place FDH & 120 MDTs,
\$50K

(8) Green Creek Road



Infrastructure:

155 – 1G

Estimate 90 drops < 650 Ft.;
 40 between 650 & 1,500;
 25 > 1,500 Feet

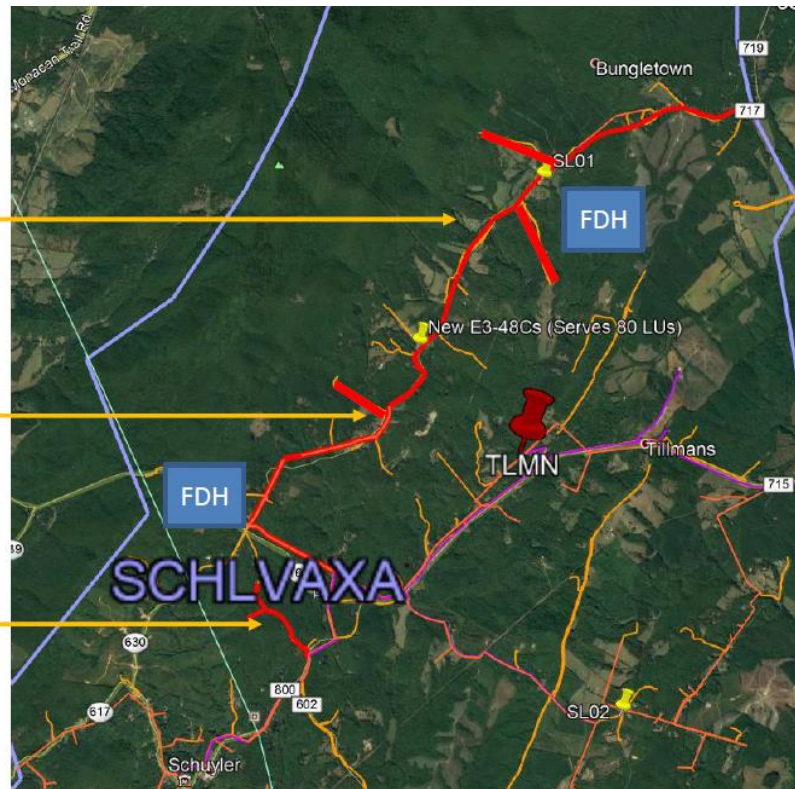
Place 23 KFT, 96F, \$138K

Place 21 KFT, 96F, \$126K

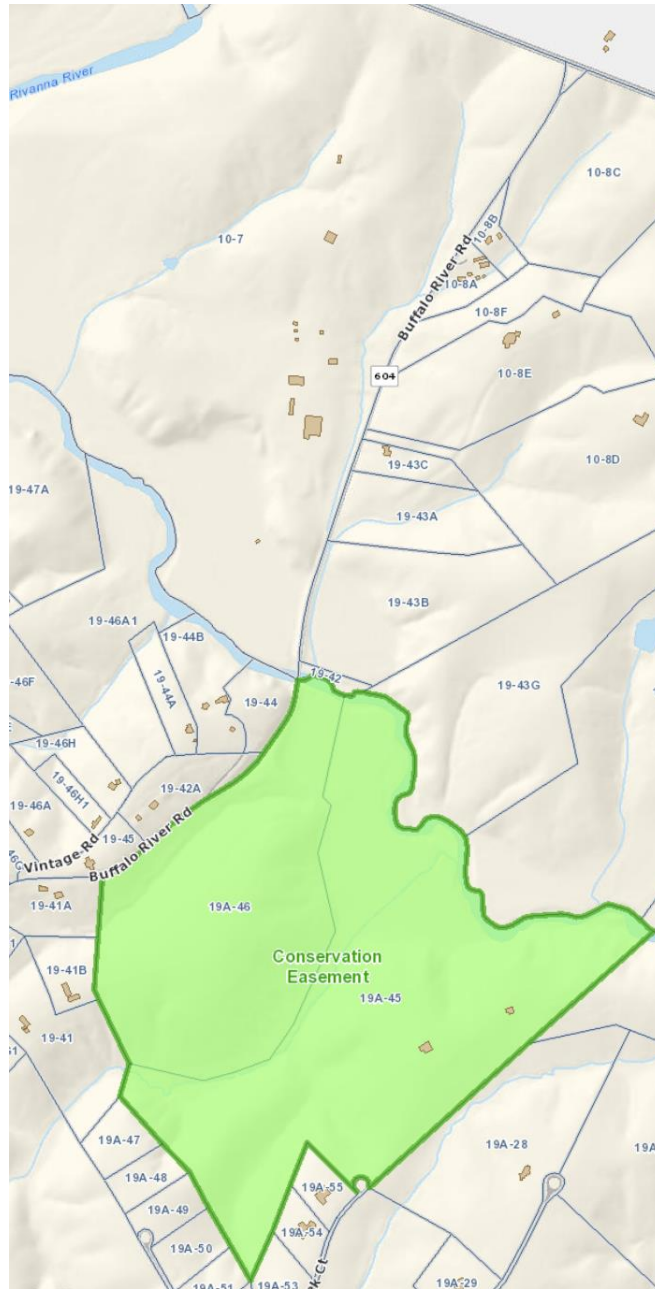
Place 5 KFT, 48F, \$30K

Place CO E7_GPON,
 \$30K

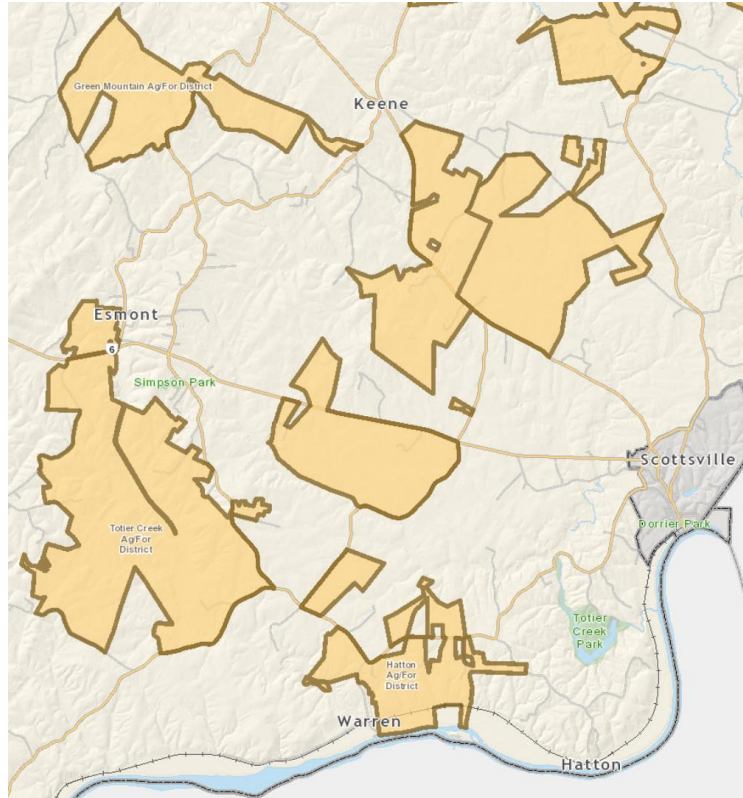
Place 2 FDHs &
 50 MDTs, \$40K



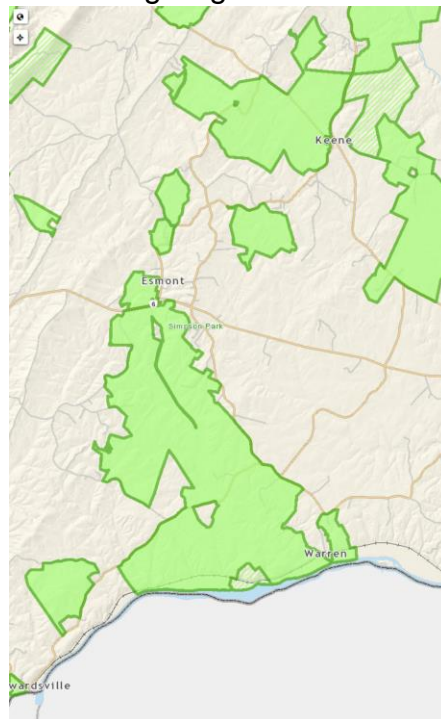
Examples of Agricultural Use in Project Areas: Conservation Easement – Buffalo Hills



Examples of Agricultural Use in Project Areas:
Keene; Hatton; Scottsville Road are primarily Agriculture use – Ag District Overlay:



and further indication through Agricultural Use Easement Overlay:



School Aged Children Per Area Based on Albemarle County Public Schools Transportation Data:

Buffalo Hills: 21 Elementary, 11 Middle, and 15 High School Students
Watts Passage: 31 Elementary, 11 Middle, and 18 High School Students
Coles Rolling Road: 2 Elementary, 0 Middle, and 2 High School Students
Scottsville Road: 7 Elementary, 3 Middle, and 13 High School Students
Hatton: 3 Elementary, 2 Middle, and 5 High School Students
Keene: 7 Elementary, 1 Middle, and 5 High School Students
Howardsville: 11 Elementary, 3 Middle, and 2 High School Students
Green Creek Road: 18 Elementary, 11 Middle, and 20 High School Students

Renee DeVall
Routing and Planning Manager
Albemarle County Pupil Transportation
434-973-5716 ext 12210 Cell 434-882-0013



Our project when implemented will positively impact over **220** K12 aged students

Our data collection tool indicates that these students are being driven to areas where wifi is available in order to complete their homework. One of the major goals of the ABBA telecom plan is to remove this barrier to learning.

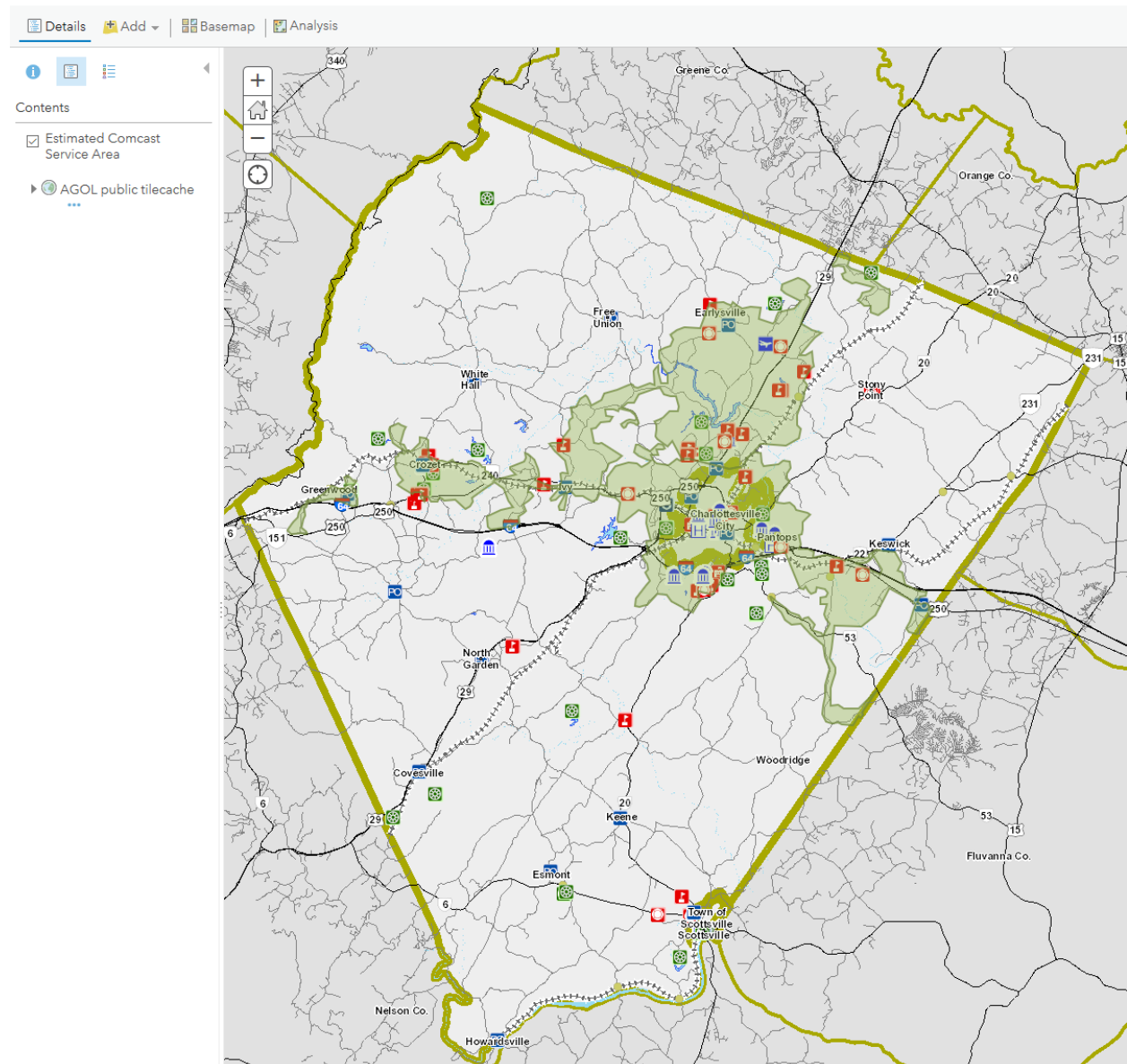
Attachment 2 – Existing Provider Map

Page 1 of 2

There are no existing providers which provide broadband service greater or equal to 10 mbps up/1mbps down in our project area. ABBA developed the following map with input from Comcast. SCS was also asked to provide a similar map; SCS met with ABBA to review each of the 8 sections of the project area; and exchanged e-mails about CenturyLink and ABBA's efforts. SCS has not provided the requested coverage map.

This overall map with Comcast Areas shaded; shows only one area, Watts Passage, where the CenturyLink Fiber to the Home service is adjacent. The next page provides a detailed look.

Home ▾ Comcast Estimated Service Area-20190830 v2

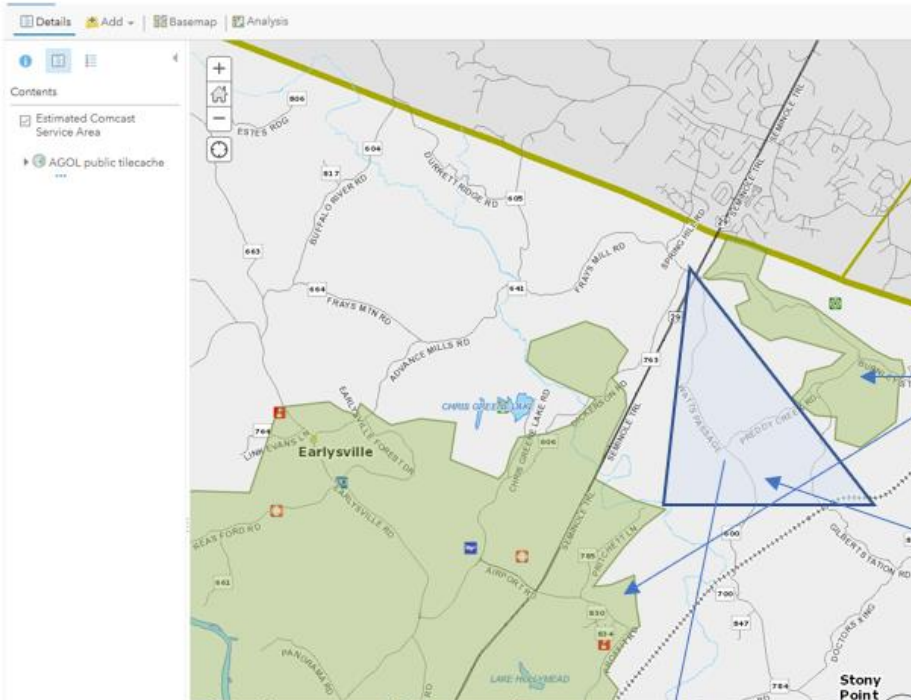


Attachment 2 – Existing Provider Map

Page 2 of 2

This detailed map of the Watts Passage Project shows no overlap with Comcast Service.

Home > Comcast Estimated Service Area-20190830 v2

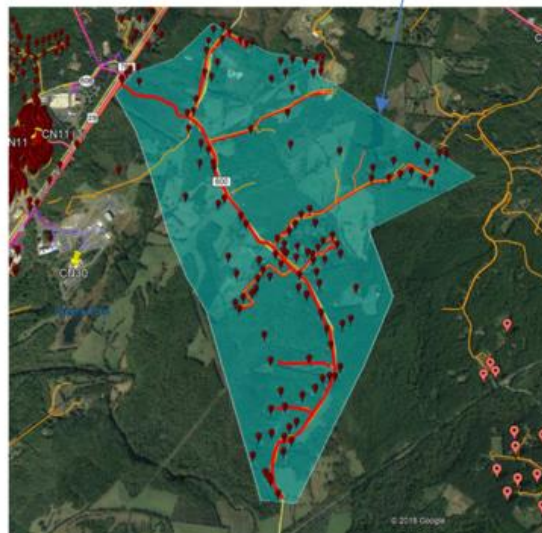


Comcast Service Area 100mbps – 1gbps speeds

CenturyLink Project area for 1gbps speeds; no overlap with Comcast.

Charlottesville North – Watts Passage (FTTH)

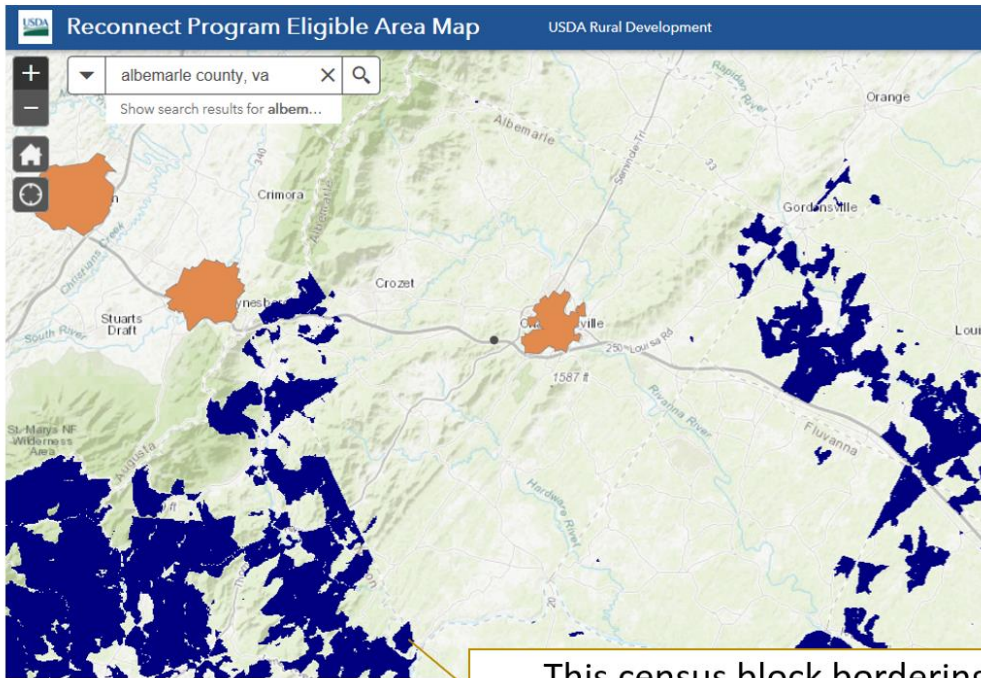
Confirmed with Comcast.



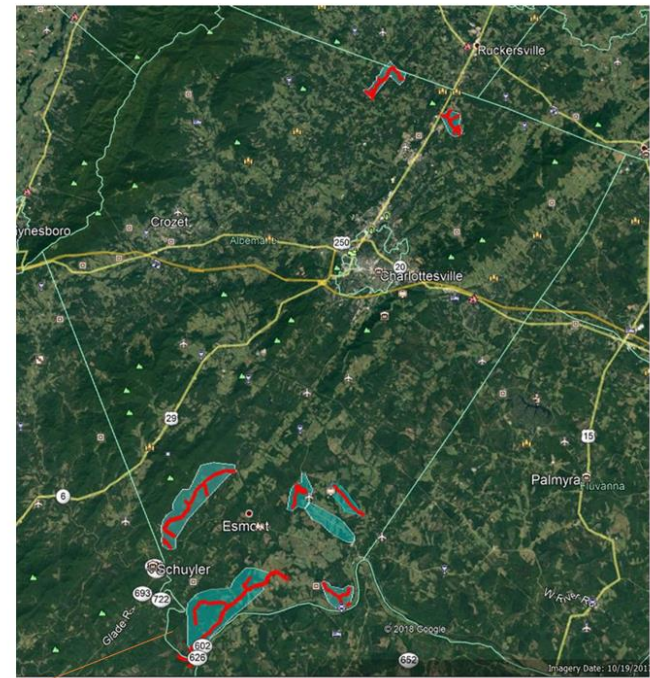
None of the other sections are adjacent to broadband service areas other than CenturyLink

Attachment 3 – Documentation on CAF Funding Area
Page 1 of 2

None of the project areas have been awarded CAFII auction funding. ABBA and CenturyLink researched the areas through the FCC maps and datasets as well as the USDA ReConnect Mapping Tool. The following images detail our findings:



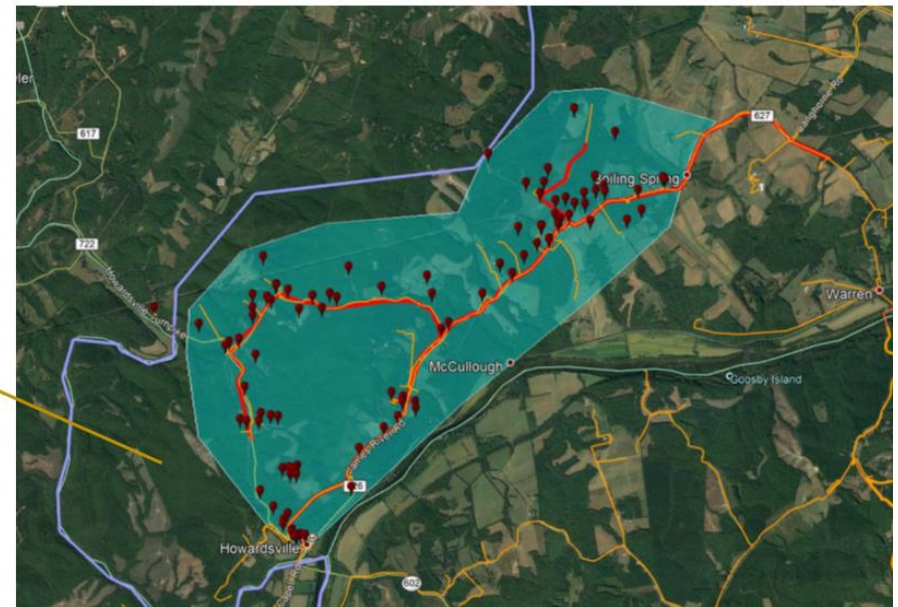
This census block bordering Nelson County is the only CAF 2 funded area in the CenturyLink Project Site adjacent to our selected eligible areas. Currently 6 CVEC Member Households are in this Census Block.



Attachment 3 – Documentation on CAF Funding Area
Page 2 of 2

Zooming In to Show CenturyLink’s Project Areas do not reach CAF 2 Auction Funded Areas.

This census block bordering Nelson County is the only CAF 2 funded area in the CenturyLink Project Site adjacent to our selected eligible areas. Currently 6 CVEC Member Households are in this Census Block. No VATI Funds are requested for this area.

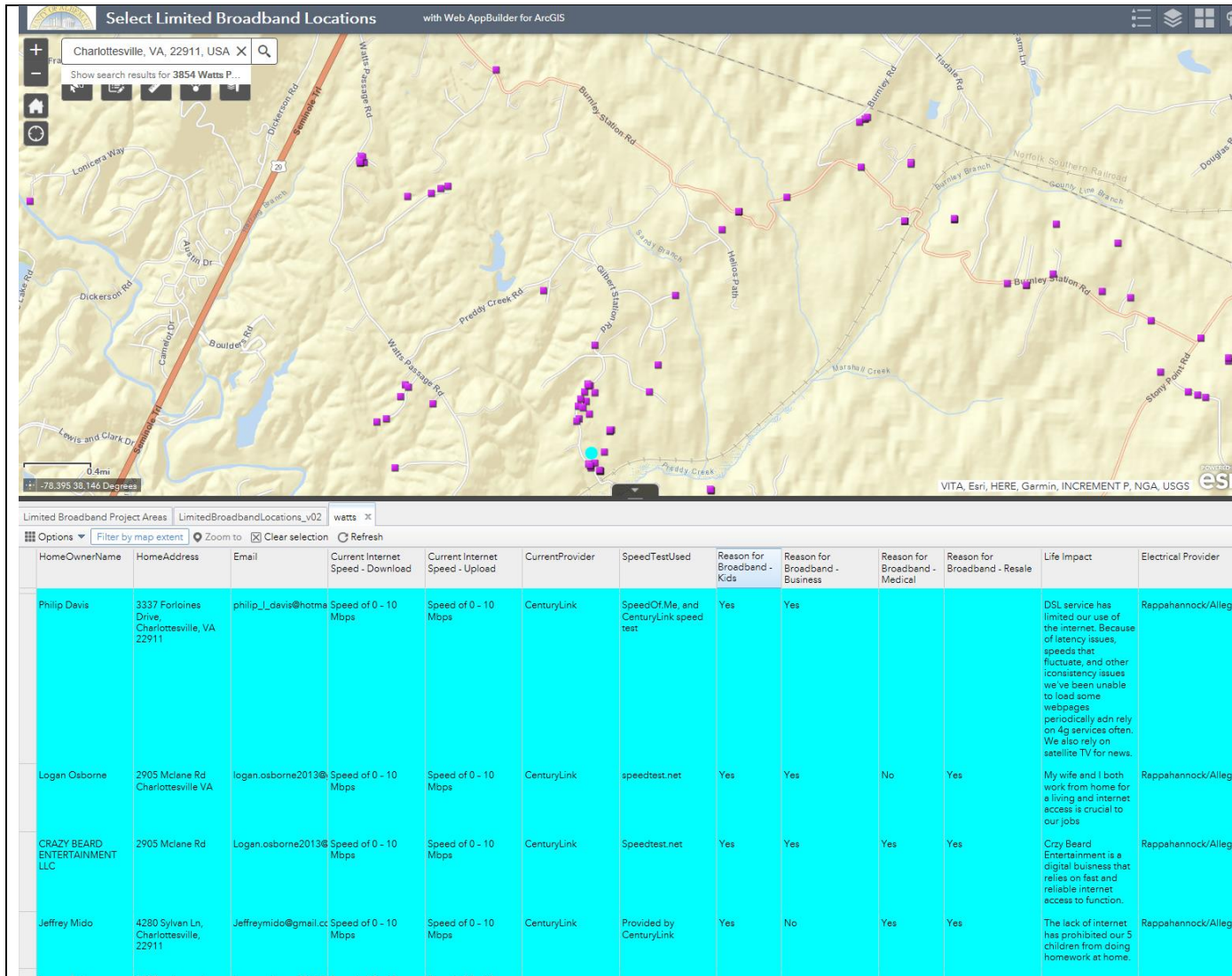


Attachment 4 – Documentation Unserved Area VATI Criteria

There are no providers currently offering 10 Mbps/1Mbps or more broadband service within the project area. ABBA and CenturyLink polled users and service providers throughout the County. Comcast, Shentel, Lumos, SCS, Nelson Cable, and HighSpeedLink were contacted about the area and reported service was not available at the 10% threshold. We especially heard from citizens who had tried many times to achieve service and weren't successful. We include 4 samples of the reports from our citizen reporting tool to highlight some of the challenges. The purple squares indicate citizen self reporting of broadband challenges. The table summarizes results.

HomeOwnerName	HomeAddress	Email	Current Internet Speed - Download	Current Internet Speed - Upload	CurrentProvider	SpeedTestUsed	Reason for Broadband - Kids	Reason for Broadband - Business	Reason for Broadband - Medical	Reason for Broadband - Resale	Life Impact	Electrical Provider
Shep stacy	220 Buffalo Hills Rd	shepstacy@gmail.com	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Centurylink	Ookla	Yes	Yes	Yes	No	Frustrating at best	Dominion
Steven J Trotta	200 Buffalo Hills Road Earlysville, VA 22936	broadband@albemar	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Century Link	unkwn	No	Yes	Yes		Very slow most days and long history of outages. My work requires internet multiple times a day. Sometimes, I have to go to the local Starbucks to keep working.	Dominion
Robert A. Coradi, Jr.	109 Buffalo Hills Road	bobcoradi@embarq	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Centurylink	speedof.me	Yes	Yes	No	No	Best 2 words: INCONSISTENT and SLOW, with virtually no upload ability (0.4 in your test). We often must drive to a business with wifi 10-12 minutes away. Son is in high school cannot always complete projects or homework (usually done in the evening).	Dominion
scott huang	299 Buffalo Hills Rd, Earlysville, VA 22936	scot@ixsourcing.com	None	None	Century Link		Yes	No	Yes	No	who in this world don't have internet access? All school info, and everything goes through internet?	Dominion

Buffalo Hills Sample
1 of 4



Watt's Passage
Sample
2 of 4

Select Limited Broadband Locations with Web AppBuilder for ArcGIS

Rd, Scottsville, VA, 24590, USA

Show search results for Coles Rolling...

Limited Broadband Project Areas | LimitedBroadbandLocations_v02 | watts x

Options | Filter by map extent | Zoom to | Clear selection | Refresh

HomeOwnerName	HomeAddress	Email	Current Internet Speed - Download	Current Internet Speed - Upload	CurrentProvider	SpeedTestUsed	Reason for Broadband - Kids	Reason for Broadband - Business	Reason for Broadband - Medical	Reason for Broadband - Resale	Life Impact	Electrical Provider
Lynn Boatwright	3993 Irish Rd	broadband@albems	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Centurylink	Ookla	No	Yes	Yes	No	centurylink charges \$100/mo for DSL+mandatory land line. Expensive not broadband	Appalachian Power/AEP
Stephanie Snow	8908 Langhorne Rd, Esmont, Va	Stephaniepalizzi@gr	Unknown	Unknown	Hughes		Yes	No	No	Yes	Have limited access/data plan. TV limited, unable to consistently search/research using internet	Appalachian Power/AEP
Michael Swider	4085 Green Creek Rd	mswider1@verizon.n	Speed of 11 - 25 Mbps	Speed of 0 - 10 Mbps	Hughesnet Satellite	Google Internet speed test	No	Yes	No		Slow satellite internet is a constant problem. I use the internet for researching (maps, aerial photos, topos, surveys etc) for my commercial real estate license. My wife uses it for her Marketing Consulting Business. Always waiting for sites to load.	Appalachian Power/AEP
The BROME Company, LLC/Glenn & Andrea Brome	6145 Firefly Court Schuyler, VA 22969	TheBromeCo@gmail	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Centurylink	Speedof.me	No	Yes	Yes	No	Attempting to just upload business files and videos to Drop Box just does not work! So, what I have to do is drive	Appalachian Power/AEP

213 features 1 selected

Southern Albemarle
 Sample
 Coles Rolling Road,
 Scottsville Road,
 Hatton,
 Keene,
 & Howardsville
 3 of 4

Select Limited Broadband Locations with Web AppBuilder for ArcGIS

49 features 0 selected

HomeOwnerName	HomeAddress	Email	Current Internet Speed - Download	Current Internet Speed - Upload	CurrentProvider	SpeedTestUsed	Reason for Broadband - Kids	Reason for Broadband - Business	Reason for Broadband - Medical	Reason for Broadband - Resale	Life Impact	Electrical Provider
Brian S Morris	4867 Green Creek Rd Schuyler Va 22969	caulkartist@earthlink.net	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Wild Blue Nelson County Cable	The one on this site	No	Yes	Yes	Yes	We should be entitled to the same services that the majority of Albemarle County citizens have.	Appalachian Power/AEP
Sandra K Williams	5180 Green Creek Rd Schuyler Va 22969	appleberrymtn@gmail.com	None	None	None		Yes	Yes	Yes	Yes	I need a landline for my safety and internet for my work as a hospice caregiver. I have to drive to Faber Firehouse to make a call.	Appalachian Power/AEP
Donald Finlen	5161 Green Creek Rd, Schuyler Va 22969	blueskied1@gmail.com	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Hughes Net	Speedof.me	No	Yes	Yes	Yes	I have placed house on market to sell...MAJOR objection from prospects is slow internet...literally stopped a few sales !!	Appalachian Power/AEP
Tom and Wren Olivier	4632 Green Creek Road, Schuyler, VA 22969	wren.olivier@gmail.com	Speed of 0 - 10 Mbps	Speed of 0 - 10 Mbps	Exede (Nelson Cable)	SpeedOf.Me	No	No	No	No	We are active in local politics and the environmental movement and Internet access is vital.	Appalachian Power/AEP
Lauren Huck	4990 Appleberry Farm Road, Schuyler, VA	nurse.laurn@gmail.com	Speed of 11 - 25 Mbps	Speed of 0 - 10 Mbps	HughesNet	SpeedTest App on iphone	Yes	No	Yes	No	Cannot work from home on some things. Unable to	Appalachian Power/AEP

Green Creek Road
4 of 4

Attachment 7 – Relationship between Applicant/Co-Applicant

A partnership between the Albemarle Broadband Authority (ABBA) and CenturyLink has not been formalized for this project at this time but the parties will be completing an agreement if the VATI grant is awarded. The agreement will cover CenturyLink's obligations to implement the Project Management Plan within the designated periods, to provide updates to ABBA on the status of the project, to notify ABBA if assistance is needed with issues where ABBA can provide assistance, to submit requests for payment as work is completed, to complete all work within the required timeframe, and to provide ABBA with information showing the locations where broadband has been enabled. We expect the agreement to also include obligations of ABBA to process requests for payment in a timely manner, review information provided by CenturyLink and submit requests for additional information in a timely manner, provide any necessary public rights of way and assist in contacting citizens and others when appropriate to assist in completing the project within the required timeframe.

On the next 4 pages we include the in process formal agreement and the VATI 2017 Agreement for reference.

MEMORANDUM OF UNDERSTANDING

INFORMATION IN SUPPORT OF CENTURYLINK RESPONSE TO VATI 2020

Documentation of relationship between applicant and co-applicant formal or informal

1. The parties to this Memorandum of Understanding (MOU) are the Albemarle Broadband Authority (ABBA), a Wireless service authority and public and corporate body created by the Albemarle County Board of Supervisors, and CenturyLink.
 2. The purpose of this MOU is to establish a commitment by the parties to participate in the development of a grant proposal in 2019 for the Virginia Telecommunications Initiative (VATI) program established by the Virginia Department of Housing and Community Development (DHCD). Although a partnership between ABBA and CenturyLink has not yet been formalized for this proposed project, both parties are collaborating on an agreement to be executed if DHCD awards them a VATI grant. An agreement would cover the following areas:
 - a. CenturyLink would commit to implement the Project Management Plan within the designated period, to provide updates to ABBA and Albemarle County staff on the status of the project, to notify ABBA or Albemarle County staff if its assistance were needed, to submit requests for payment as work was completed, to complete all work within the required timeframe, to provide ABBA with information the locations where broadband had been enabled, and to propose any required nondisclosure agreements if CenturyLink were requested to share confidential information.
 - b. ABBA would commit to processing requests for payment in a timely manner, to review information provided by CenturyLink and submit requests for additional information in a timely manner, to complete any necessary non-disclosure agreements, to assist CenturyLink in obtaining necessary rights of way within the scope of ABBA's authority, and to assist in contacting residents
-

and others as appropriate to foster completion of the project within the required timeframe.

- c. The parties agree in advance that CenturyLink will be permitted to consolidate bills on at least a monthly basis and submit as a single invoice for processing. The preferred method of billing is at mid-point of the projects and then at the completion of work; thereby providing only two sets of remittance processing.
- d. The parties agree to work jointly to coordinate a complete VATI application, making decisions on roles and responsibilities where necessary to facilitate a timely and effective submission of necessary information.
- e. On September 13, 2017, CenturyLink signed an official VATI Agreement with Albemarle County. That agreement is provided in the Attachment Section.

Section. The parties anticipate signing a similar agreement if they receive an award.

CENTURYLINK, INC.

ALBEMARLE BROADBAND AUTHORITY

By:
 Richard Schollmann
 Title:
 Director of Government Affairs
 Signature:

By:
 Michael Culp
 Title:
 Chief Administrative Office
 Signature:

Date: August 21, 2019

Date: August 21, 2019

Attachment

Agreement between CenturyLink and Albemarle County Regarding VATI Funding

On April 5, 2017, the Virginia Department of Housing and Community Development ("DHCD") announced that it had offered Albemarle County (the "County") a total of \$18,400 in funding under the Virginia Telecommunications Initiative (VATI) program in response to the joint application of the County and CenturyLink. Pursuant to the program guidelines and statutory authority, the primary objective of the VATI is to provide financial assistance to supplement construction costs by private sector broadband providers, in partnership with local units of government to extend service to areas that presently are unserved by any broadband provider.

An Agreement, dated May 13, 2017, between DHCD and the 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 Albemarle County and CenturyLink, 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:

CenturyLink shall perform all work described in the DHCD Agreement and VATI#AC-002 Special Conditions (both of which are attached hereto and incorporated herein by reference), the submitted application, project management schedule and budget. Specifically, CenturyLink shall complete all Grant Activities described in the DHCD Contract Documents (including but not limited to installation of 5,800 feet of fiber and purchase of electronic equipment) on or before December 31, 2017. CenturyLink shall indemnify, defend and hold the County harmless for any failure(s) (a) to complete any Grant Activities described in the DHCD Contract Documents on or before December 31, 2017 and/or (b) to achieve any project Outcomes by June 30, 2018. CenturyLink will provide information of subscribers and speed package selected, as well as speed validation data to ensure that the proposed Outcomes have been met and broadband speeds meet VATI criteria. CenturyLink will submit a single invoice for payment upon completion of the work. No VATI funds shall be distributed unless and until (a) CenturyLink has submitted all

requested documents and (b) the County has verified that pre-construction and/or construction work has been completed or equipment has been ordered and received.

In their application, the parties estimated that 219 living units will have access to the required broadband speeds and, based on prior experience, about 110 customers should subscribe to the broadband service. CenturyLink and Albemarle 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 the Department of Housing and Community Development is that the parties exercise due diligence and best efforts and that no funds will be returned to the Commonwealth nor retained by Albemarle County so long as the parties exercise due diligence and best efforts to reach the program goals.

CENTRAL TELEPHONE COMPANY OF VIRGINIA COUNTY OF ALBEMARLE d/b/a Century Link

By: 

By: Richard Schollmann, Director


Douglas C. Walker, Interim County Executive

Date: 9/13/17

Date: 9/17/17

Date

Page 1 of 7

Attachment 8 – Letters of Support

The Albemarle Broadband Authority (ABBA) was formed by the Albemarle County Board of Supervisors (BOS) as part of meeting the objectives of the overall County Telecommunications Plan.

The BOS appropriates funds for ABBA to leverage as contributions or match for grant activity such as VATI. 2 BOS members serve on the ABBA Board and showed BOS/County Support for the ABBA CenturyLink VATI 2020 project by approving the \$291,300 County provided contribution. This official action is documented on page 2 of this attachment.

ABBA continually runs a broadband data collection tool with a feedback loop. ABBA collected support e-mails from residents with students at home, residents in need of telehealth services, farm owners, small business owners, life long learners, and home-based business owners stressing their support and need for broadband. We include 2 such letters starting on page 3 of this attachment.

The BOS lists the expansion of Broadband to the rural areas as one of its Strategic Priorities. As such, the County has dedicated staff time to these efforts. The work is considered part of the expected staff accomplishments to meet BOS objectives.

Official ABBA Action to Set Aside \$291,300 for the
ABBA CenturyLink VATI 2020 Project



**ALBEMARLE COUNTY
BROADBAND AUTHORITY**

**MOTION TO AUTHORIZE 15% MATCH TO THE CENTURYLINK
FY2019-2020 VATI APPLICATION**

I move the Board of Directors to authorize a 15% match (\$291,300.00) to CenturyLink's FY2019-2020 VATI Application.

Voice Vote:	Unanimous	
	Aye	Nay
Mr. Walsh	x _____	_____
Mr. Culp	x _____	_____
Mr. Fritz	x _____	_____
Mr. Randolph	x _____	_____
Ms. Palmer	x _____	_____
Mr. Jaquith	x _____	_____

I, Bill Fritz, Secretary of the Albemarle Broadband Authority, hereby certify that the Authority's Board of Directors acted upon this motion in a lawfully convened public meeting on 20 August 2019 as recorded above.



Bill Fritz, Secretary

Page 3 of 7
Resident Letters of Support



THE BRŌME COMPANY
WWW.FACILITATIVELEADERSHIP.COM

RE: The Quarries Area Internet Speed Concerns

It is difficult to communicate the perpetual frustration of having an internet speed of approximately 3 MPS; Difficult because as with many oppressive systems one tends to reduce their expectations for being treated equably.

Furthermore, when one tries to run a business or even enjoy the common pleasures of streaming a movie, etc. We typically get a message that we **do not have enough band width or just simply cannot connect to the service** – especially during evening and weekends!

We say this because the internet has become ubiquitous and many of the things people take for granted are just not readily available to us in this area, even though we are in Albemarle county Virginia and pay the commensurate taxes, etc. The people in Schuyler and similar places are often forgotten.

Try to list the modern items that do Not require internet access – just to see how pervasive this challenge is for us!

Please do what you can to help bring us into the current century as it relates to our internet service.

Meanwhile, we will be Waiting and Watching:



PERSONALITY ■ CONFLICT ■ INCLUSIVENVIRONMENT ■ LEADERSHIP ACCOUNTABILITY

OFFICES IN VIRGINIA & FLORIDA

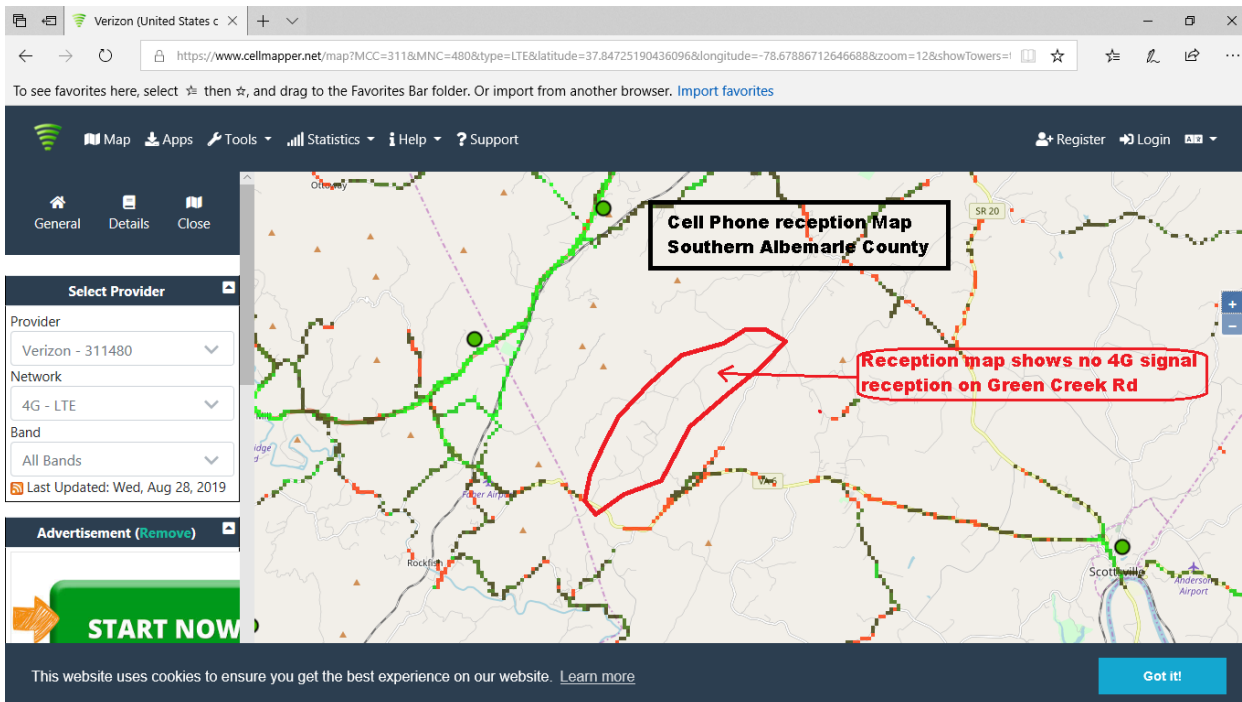
P.O. Box 90 • Schuyler, VA 22969-0090 USA • Phone: 407.294.9608 • Calls Accepted 24/7 • Email: Learning@TheBromeCompany.com

Page 4 of 7 Resident Letters of Support

August 28, 2019 Update:

Virtually every part of the United States can receive Satellite Internet. Using speed tests to justify whether any given rural area is worthy of fiber infrastructure is the wrong approach. Today's satellite internet is insufficient, period. I would ask those decision makers who are responsible for this approach to ditch their fiber connection or Xfinity cable and connect to satellite internet and then they will know. Not only does the satellite lose connection in snow storms and other weather related events, lately for us at least, we have been losing connection for no apparent reason. Our provider Hughesnet has had us reboot our router many times, but the problem persists. And we have wasted hours on end now waiting for the satellite signal to restore itself – which it eventually does, sometimes a few minutes, sometimes a half hour, sometimes more.

I refuse to spend the next 4 hours of my life venting my frustrations on how bad satellite internet is and how it limits our access to present and future technology advances. Instead, the argument that Green Creek Rd, Alberene Rd, Secretary Sands Rd should have a fiber installation (aside from the facts listed below that the trunk fiber line runs directly past Green Creek and Sands Rd on Rt 6) is that we have no 4G cell service here as a backup whereas most other parts of the county have at least some level of 4G service according to the cell service map below. And this map is pretty consistent with the signal strength meter on my dashboard as I drive around the area.



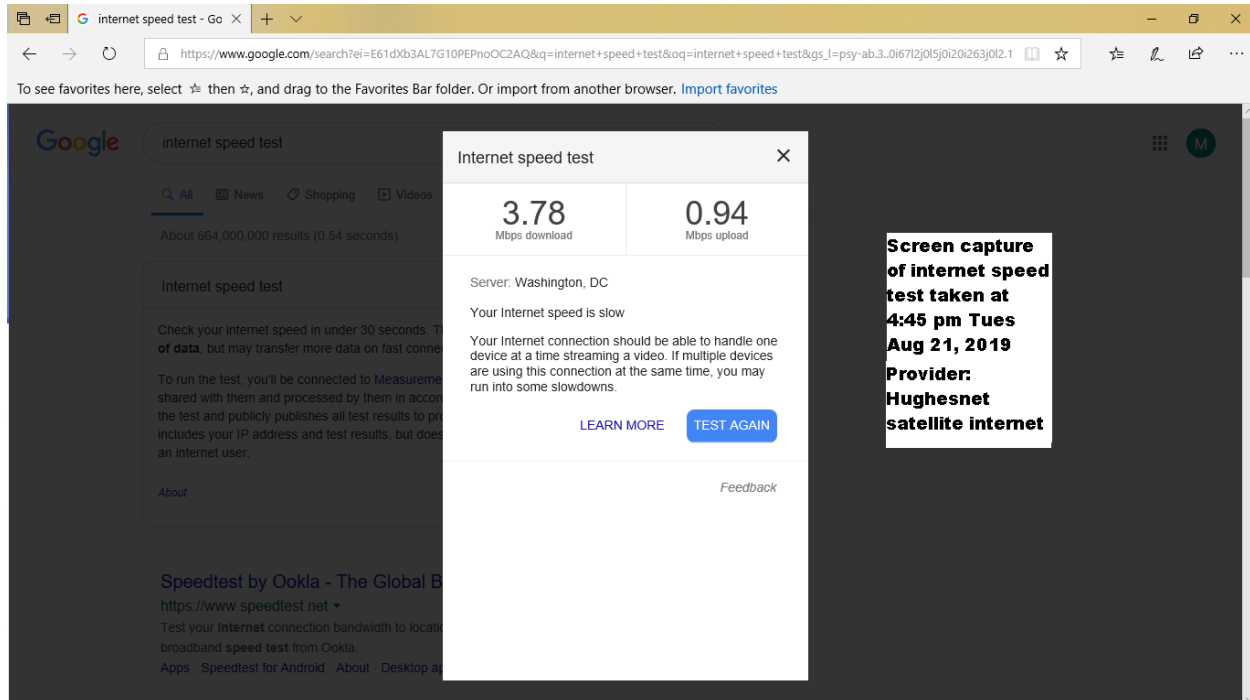
PS, it took me 15 minutes using satellite internet to navigate to this section of the map above.

ABBA:

August 21, 2019

Page 5 of 7 Resident Letters of Support

My wife and I have been residents of Green Creek Rd for the past 2 years. We are stuck with Hughesnet Satellite internet, and in a word, it is horrible. Below is a speed test run just before this writing (see screen capture below). We pay close to \$100/per month for a soft data cap of 30Gigs per month which we carefully ration and still always runs out. Then we need to buy more “tokens” if we want more data that is not throttled. And as you can see by the speed test, our speeds are rarely ever the advertised 25 mps download – especially when we need it most.

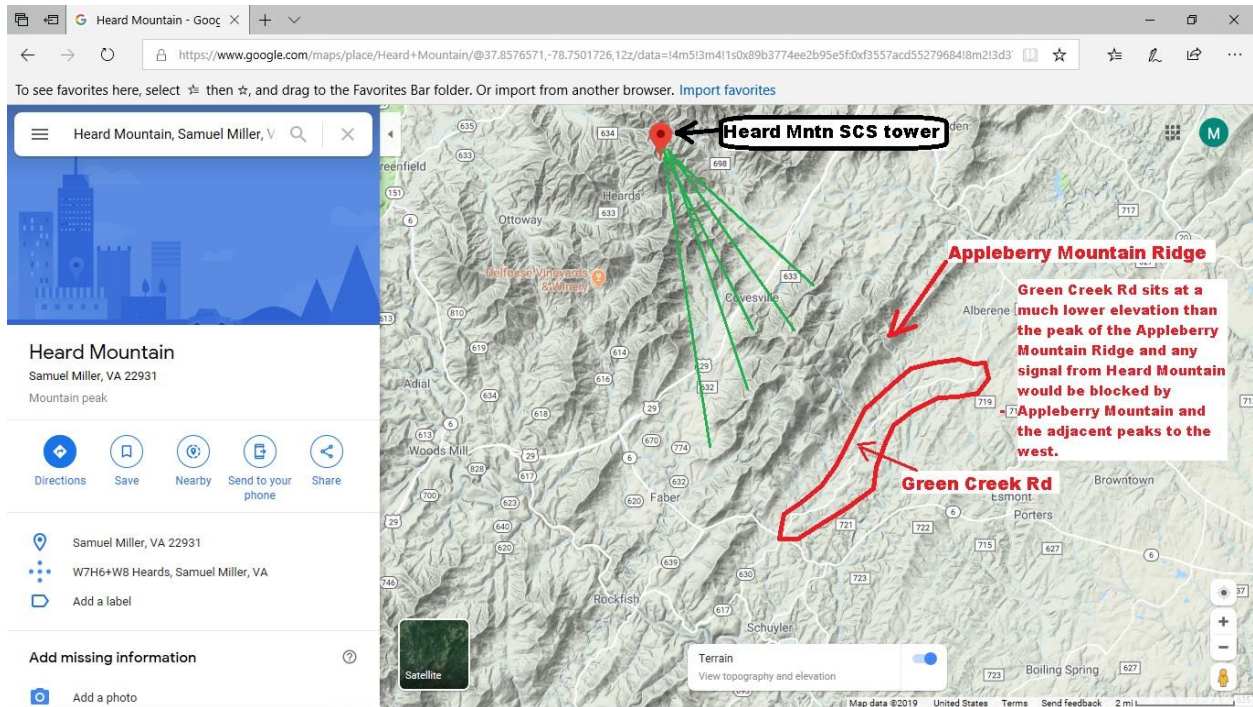


The screenshot shows a Google search for "internet speed test". The search results include a link to "Speedtest by Ookla - The Global B" with the URL "https://www.speedtest.net". The main content is a speed test window titled "Internet speed test" showing a download speed of 3.78 Mbps and an upload speed of 0.94 Mbps. The server is identified as "Washington, DC". A message states "Your internet speed is slow" and "Your Internet connection should be able to handle one device at a time streaming a video. If multiple devices are using this connection at the same time, you may run into some slowdowns." There are buttons for "LEARN MORE" and "TEST AGAIN". A "Feedback" link is also present. A white text box on the right side of the screenshot reads: "Screen capture of internet speed test taken at 4:45 pm Tues Aug 21, 2019 Provider: Hughesnet satellite internet".

We both work out of the house. My wife has a marketing consulting business and I do commercial real estate work via licenses in VA, PA and NJ. We previously had Verizon FIOS in Pennsylvania prior to moving here and compared to FIOS, we lose a great deal of time waiting for sites to load, and for uploads and downloads. Plus videos often buffer on the rare occasions when we watch them since they eat up too much of our Data cap. We can no longer do Skype video calls (like when we had FIOS). Add to the fact that cell service on Green Creek Rd is also terrible. There are many completely dead zones and where there is service it is “one bar” or less.

SCS is not an option on Green Creek Rd. I am not aware of any of that neighbors that have it, and if it were the solution, then that word would get around. The reason SCS will not work here is that Green Creek Rd sits just to the east of Appleberry Mountain Ridge, with elevations as high as 1,600 feet, while the elevation of our property is at 580'. The SCS tower sits atop Heard Mountain about 15 miles to the west. In short, Appleberry Mountain blocks the signal. The photo below of a “Terrain map” should illustrate the point.

Page 6 of 7 Resident Letters of Support

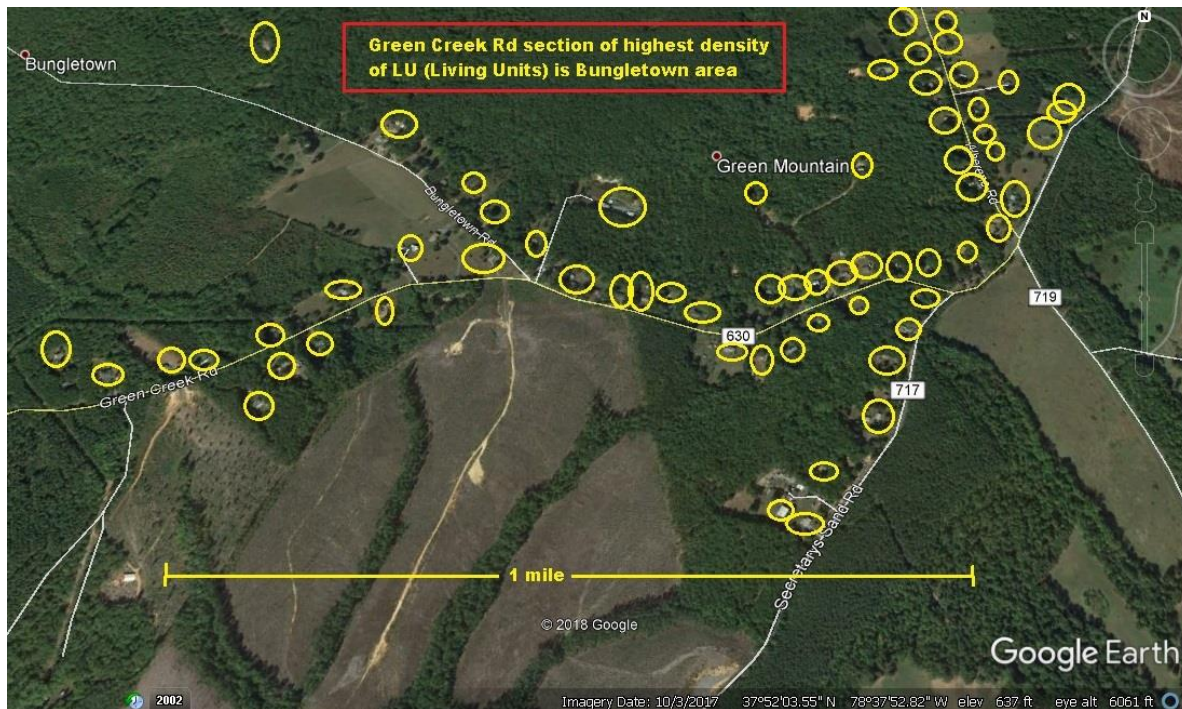


A very strong case can be made for partnering with a commercial internet provider such as Century Link for running the cable along Green Creek Rd and up into the Secretary Sands and Alberene Rds corridors. First, there is an existing Fiber Optic line running along Route 6 that intersects Green Creek Rd. A short distance to the east along Rt 6 there is a substation facility called the “Scottsville Fiber Optic Hut” in Tillmans where a branch line could be connected if not directly at Rt 6 and Green Creek Rd. In short, getting the fiber optic line to Green Creek Rd is an easy lift.

The payoff for a commercial provider is running the line up to the Bungletown section of Green Creek Rd at its northern end where the density of “Living Units” is the highest along Green Creek Rd. And if the line were extended a little further along Secretary Sand and Alberene Rds, (see aerial photo below) then the provider would be able to connect roughly 150 living units, and potentially more depending on how far they extended the lines. In the aerial photo below, there are 65 living units alone in a geographic area that is roughly 1.5 miles wide. Century Link no doubt already has the ROW easements in place by virtue of their phone service in this area. They also have a small substation for their phone service on Green Creek Rd.

Every one of these houses has a satellite dish, and many, if not most have two dishes. One for internet and the other for satellite TV. If the internet provider could also offer a cable TV package along with the internet as Verizon and Comcast do, then the provider could recoup their investment in the cable line installation even faster by way of a larger revenue stream.

Page 7 of 7 Resident Letters of Support



You have history on the percentage of living units in the Tillmans Fiber Optic installation that would provide a good indicator of what percentage of households would drop their satellite service for Fiber. It has to be a percentage well north of 60% or more. Given that the satellite providers lock their customers into two year service agreements with a penalty for early termination, some households may not switch their service immediately, but wait until their contracts end. We would bite the bullet and pay a penalty to get out – it's that bad.

I get it that satellites are expensive to launch and these internet providers need to make a profit on the basis of a limited amount of capacity. Yet somehow their policies of soft data caps and throttling what amounts to bad service in the first place for an overpriced product is a source of resentment that runs deep.

In summary, there is a sound business opportunity for a provider such as Century link to run fiber along Green Creek Rd, Sands and Alberene Roads. I am hopeful that Albemarle County will be able to encourage and incentivize them to seize this profitable opportunity while at the same time providing a valuable service to us, the underserved residents of the County.

I could go on about how the current status of poor internet handicaps children with their schoolwork and how it becomes more difficult or impossible for others to start or operated business from home without a reliable internet connection. For all of the reasons above, please help!

Mike Swider
4085 Green Creek Rd
Albemarle County, VA



Attachment 9 – Documentation of Match Funding

CenturyLink will be providing all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project. The value of the CenturyLink contribution that is not reimbursed by VATI is \$1,359,400. CenturyLink has committed to provide that amount of match funding.

Richard Schollmann
Director

The Albemarle Broadband Authority (ABBA) approved a 15% match of the overall cost of the project and will encumber \$291,300 in support of the project. This request for matching funds was approved unanimously by the ABBA Board at its Aug. 20, 2019 meeting. The ABBA current budget is included as a 9-2-2019 report from the County Financial system.

Fund 4300 Department 91097

Run Date: 9/2/2019 10:00:03 AM

COUNTY OF ALBEMARLE

Selection Criteria:

FY2020 Period 2019-07-01 to 2020-06-30 Fund 4300 Department 91097

Check # Vendor # Date

Expenditures								
4.4300-91097-491097-130000-1008								
PART-TIME WAGES>ALBEMARLE BROADBAND AUTH>ALBEMARLE BROAD BAND AUTHORITY>ALBEMARLE BROADBAND AUTH>Community Development								
	SA2020012 Temp/PT Help	Budget Amendment		08/07/2019	3,715.00	0.00	0.00	3,715.00
4-4300-91097-491097-130000-1008 Account Total:					\$3,715.00	\$0.00	\$0.00	\$3,715.00
4.4300-91097-491097-210000-1008								
FICA>ALBEMARLE BROADBAND AUTH>ALBEMARLE BROAD BAND AUTHORITY>ALBEMARLE BROADBAND AUTH>Community Development								
	SA2020012 Temp/PT Help	Budget Amendment		08/07/2019	285.00	0.00	0.00	285.00
4-4300-91097-491097-210000-1008 Account Total:					\$285.00	\$0.00	\$0.00	\$285.00
4.4300-91097-491097-950030-9999								
BROADBAND INCENTIVES>ALBEMARLE BROADBAND AUTH>ALBEMARLE BROAD BAND AUTHORITY>ALBEMARLE BROADBAND AUTH>NON LOCATION								
	SA2020012 Re-appropriate Fund Balance	Budget Amendment		08/07/2019	1,000,667.16	0.00	0.00	1,000,667.16
937762	BROADBAND INCENTIVES>ALBEMARLE	RCS Receipt		08/28/2019	0.00	0.00	-301,748.00	1,302,415.16
4-4300-91097-491097-950030-9999 Account Total:					\$1,000,667.16	\$0.00	-\$301,748.00	\$1,302,415.16
91097 Department Total:					\$1,004,667.16	\$0.00	-\$301,748.00	\$1,306,415.16
4300 Fund Total:					\$1,004,667.16	\$0.00	-\$301,748.00	\$1,306,415.16
Expenditures Category Total:					\$1,004,667.16	\$0.00	(\$301,748.00)	\$1,306,415.16

Attachment 10 – Funding Sources Table

SOURCE	AMOUNT	%	STATUS
Requested VATI	\$291,300	15	Pending
CenturyLink	\$1,359,400	70	Secured
ABBA	\$291,300	15	Secured
TOTAL	\$1,942,000	100%	



Attachment 11 – Derivation of Costs

Product	Total	VATI	Non-VATI	Source of Estimate	Date
Electronics (See Attachment 1 map for specific locations and amounts)	\$ 145,000	\$ 21,750	\$ 123,250	CenturyLink	8/29/2019
Fiber build (See Attachment 1 map for specific locations and amounts)	\$ 1,797,000	\$ 269,550	\$ 1,527,450	CenturyLink	8/29/2019
Note that these costs include all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project, along with the equipment necessary to provide the broadband service and all easements required. Non-VATI includes CenturyLink and ABBA funding.	\$ -	\$ -	\$ -		

The costs for this Albemarle County wide project are \$145,000 in electronics and \$1,797,000 in fiber. The cost for this project includes all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project, along with the equipment necessary to provide the broadband service and all easements required. The cost estimates are based on CenturyLink's extensive experience in building these same systems throughout the country.

Richard Schollmann
Director



Attachment 12 – Documentation of Supporting Costs

The costs for this project are \$145,000 in electronics and \$1,797,000 in fiber. The cost for this project includes all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project, along with the equipment necessary to provide the broadband service and all easements required. The cost estimates are based on CenturyLink's extensive experience in building these same systems throughout the country. The optional Attachment 16 CenturyLink ABBA Project Summary provides documentation of infrastructure and costs for each area.



Richard Schollmann
Director



Attachment 13 – Supporting Documentation of Cost Estimates

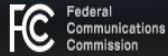
The costs for this project are \$145,000 in electronics and \$1,797,000 in fiber. The cost for this project includes all of the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project, along with the equipment necessary to provide the broadband service and all easements required. The cost estimates are based on CenturyLink's extensive experience in building these same systems throughout the country.

A handwritten signature in black ink that reads "Richard Schollmann".

Richard Schollmann
Director

Attachment 14 – Two most recent Form 477 submitted to the FCC or equivalent

CenturyLink's two most recent Form 477 data submissions are attached.



[Main Menu](#) [Form 477 Instructions](#)

OMB No. 3060-0816

FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Jun 30, 2018

Submission Status

Original - Submitted

Last Updated: Aug 31, 2018 09:37:48

Submission Menu

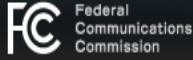
[Submit as Complete](#)

[Delete Submission](#)

[Filing Overview](#)

This filing has been submitted and is now read-only. To edit, go to the [Main Menu](#) and click [Revise](#).

Data Section	Status
Filer Identification	Data entered
Fixed Services	
Fixed Broadband Deployment	View file(s) Data entered
Fixed Broadband Subscription	View file(s) Data entered
Fixed Voice Subscription	View file(s) Data entered
Mobile Services	
Mobile Broadband Deployment	No data for this section
Mobile Broadband Service Availability	No data for this section
Mobile Broadband Subscription	No data for this section
Mobile Voice Deployment	No data for this section
Mobile Voice Subscription	No data for this section
Explanations and Comments	Data entered

[Main Menu](#) [Form 477 Instructions](#)[Help](#) | OMB No. 3060-0816

FRN: 0018626853

CenturyLink, Inc.

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Submission Status

Original - Submitted

Last Updated: Aug 31, 2018 09:37:48

Filer Identification

* Indicates a required field. Please be sure you have all the required Filer Identification information before you begin. You will not be able to save your responses if required fields are incomplete.

FRN: 0018626853

* Provider Name:

* Holding Company/Common Control Name: ⓘ

[Change](#)

Operations:

 ILEC Non-ILEC

Provider's Website Address:

* Study Area Codes (SAC): ⓘ

* Form 499 Filer IDs: ⓘ

Emergency Operations Contact Information ⓘ

* Name:

* Phone Number:

Emergency Operations Contact Information ⓘ

* Name:

* Phone Number:

Extension:

* E-Mail:

Form 477 Contact Information ⓘ

* Name:

* Phone Number:

Extension:

* E-Mail:

Certifying Official Contact Information ⓘ

* Name:

* Title:

* Phone Number:

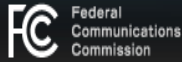
Extension:

* E-Mail:

Non-disclosures

Indicate whether you request non-disclosure of some or all of the subscription information in this submission because you believe that this information is privileged and confidential and public disclosure of such information would likely cause substantial harm to the competitive position of the filer.

Indicate whether you request non-disclosure of some or all of the mobile deployment spectrum and speed parameters information in this submission because you believe that this information is privileged and confidential and public disclosure of such information would likely cause substantial harm to the competitive position of the filer.



FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Jun 30, 2018

Submission Status

Original - Submitted

Last Updated: Aug 31, 2018 09:37:48

Local Exchange Telephone Subscription

For each state in which you have one or more customers,

1. allocate lines provided to other providers between Wholesale and UNE-L;
2. allocate lines provided to end users by (a) Services Sold, (b) Product Type, (c) Ownership and (d) Last-mile Medium; and
3. click Save Current State, then go to the next state using the menu at the left or click Finished ».

For more information about how to allocate your lines, click [here](#) . Every cell must contain a number. Blanks will cause an error. Save your work as you go and when you've entered data for each state, click Finished »

Each cell must contain a number, even if it's zero!

Subscriptions Listed By State
New Jersey
New Mexico
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
South Dakota
Tennessee
Texas
Utah

Virginia

* All fields are required

Lines provided to Unaffiliated Providers

Wholesale: <input type="text" value="3648"/>	UNE-L: <input type="text" value="1393"/>
--	--

Lines provided to End Users...

by Services Sold		
Total: <input type="text" value="166861"/>	Voice with Internet: <input type="text" value="90232"/>	Voice without Internet: <input type="text" value="76629"/>

by Product Type

Total: <input type="text" value="166861"/>	Consumer Total: <input type="text" value="121577"/>	Business /Gov. Total: <input type="text" value="45284"/>
	Consumer & No PIC: <input type="text"/>	Business/Gov. & No PIC: <input type="text"/>

South Carolina
South Dakota
Tennessee
Texas
Utah
Virginia
Washington
Wisconsin
Wyoming

by Product Type

Total: ⓘ	Consumer Total ⓘ	Business /Gov. Total ⓘ
166861	121577	45284
	Consumer & No PIC: ⓘ	Business/Gov. & No PIC: ⓘ
	30909	20071
	Consumer & PIC: ⓘ	Business/Gov. & PIC: ⓘ
	90668	25213

by Ownership

Total: ⓘ	Owned: ⓘ	UNE-L: ⓘ	Resale: ⓘ
166861	166861	0	0


by Last-mile Medium

Total: ⓘ	FTTP: ⓘ	Coaxial Cable: ⓘ	Fixed Wireless: ⓘ	Copper: ⓘ
166861	230	0	0	166631

Cancel

Next State

Continue »

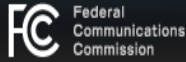
 For help or assistance please contact us at 1-877-480-3201 or 1-717-338-2824 (TTY) or you may submit requests online via [e-support](#).

Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Phone: 1-888-225-5322
TTY: 1-888-835-5322
Fax: 1-866-418-0232
E-mail: fccinfo@fcc.gov

RSS
Privacy Policy
Moderation Policy
Website Policies & Notices
Required Browser & Plug-ins

FOIA
No Fear Act Data
Open Government Directive
Plain Writing Act
2009 Recovery and Reinvestment Act



Main Menu Submission Menu Form 477 Instructions

Help | OMB No. 3060-0816

FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Jun 30, 2018

Submission Status

Original - Submitted

Last Updated: Aug 31, 2018 09:37:48

Interconnected VoIP Subscriptions

For each state in which you have one or more iVoIP subscribers,

1. allocate over-the-top iVoIP subscriptions, where you provide service to end users without also supplying last-mile facilities, between Consumer and Business / Government subscribers;
2. allocate all other iVoIP subscriptions, where you provide service to end users and also supply last-mile facilities, by (a) End User Type, (b) Services Sold, and (c) Last-mile Medium; and
3. click Save Current State, then go to the next state using the menu at the left or click Finished ».

For more information about how to allocate your lines, click [here](#) .

Each cell must contain a number, even if it's zero! Blanks will cause an error.

Save your work as you go, and when you've entered data for each state, click Finished »

Subscriptions by State
Michigan
Minnesota
Missouri
Nebraska
Nevada
New Mexico
North Carolina
North Dakota
Ohio
Oregon
Pennsylvania
Texas

Virginia

* All fields are required

Grand Totals, by End-user Type

Total	Consumer	Business / Gov.:
650	0	650

Over-the-top Subscriptions

Service to End Users Provided Without also Supplying Last-mile Facilities

Total	Consumer	Business / Gov.:
0	0	0

All Other Subscriptions

Service to End Users Provided over Last-mile Facilities Supplied by the Provider... by End-user Type

Total	Consumer	Business / Gov.:
650	0	650

Nevada
New Mexico
North Carolina
North Dakota
Ohio
Oregon
Pennsylvania
Texas
Utah
Virginia
Washington
Wisconsin
Wyoming

Over-the-top Subscriptions

Service to End Users Provided Without also Supplying Last-mile Facilities

Total: ⓘ	Consumer: ⓘ	Business / Gov.: ⓘ
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

All Other SubscriptionsService to End Users Provided over Last-mile Facilities Supplied by the Provider...
by End-user Type

Total: ⓘ	Consumer: ⓘ	Business / Gov.: ⓘ
<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="650"/>

by Services Sold

Total: ⓘ	Voice with Internet: ⓘ	Voice without Internet: ⓘ
<input type="text" value="650"/>	<input type="text" value="650"/>	<input type="text" value="0"/>


by Last-mile Medium

Total: ⓘ	FTTP: ⓘ	Coaxial Cable: ⓘ	Fixed Wireless & Satellite: ⓘ	Copper: ⓘ
<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="650"/>

Cancel

Next State

Finished >

 For help or assistance please contact us at 1-877-480-3201 or 1-717-338-2824 (TTY) or you may submit requests online via [e-support](#).

Federal Communications Commission
445 12th Street SW
Washington, DC 20554

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RSS
Privacy Policy
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2009 Recovery and Reinvestment Act

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FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Dec 31, 2018

Submission Status

Original - Submitted

Last Updated: Mar 8, 2019 10:14:43

Filer Identification

* Indicates a required field. Please be sure you have all the required Filer Identification information before you begin.

You will not be able to save your responses if required fields are incomplete.

FRN: 0018626853

* Company Name:

CenturyLink, Inc.

* Holding Company/Common Control Name: ⓘ

CenturyLink, Inc.

[Change](#)

Operations:

 ILEC Non-ILEC

Company's Website Address:

www.centurylink.com

* Study Area Codes (SAC): ⓘ

160138

170209

190254

* Form 499 Filer IDs: ⓘ

801408

802182

802263

Emergency Operations Contact Information ⓘ

* Name:

Richard Rousselot

* Phone Number:

(913) 353-7066

Emergency Operations Contact Information ⓘ

* Name:

* Phone Number:

Extension:

* E-Mail:

Form 477 Contact Information ⓘ

* Name:

* Phone Number:

Extension:

* E-Mail:

Certifying Official Contact Information ⓘ

* Name:

* Title:

* Phone Number:

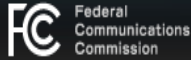
Extension:

* E-Mail:

Non-disclosures

Indicate whether you request non-disclosure of some or all of the subscription information in this submission because you believe that this information is privileged and confidential and public disclosure of such information would likely cause substantial harm to the competitive position of the filer.

Indicate whether you request non-disclosure of some or all of the mobile deployment spectrum and speed parameters information in this submission because you believe that this information is privileged and confidential and public disclosure of such information would likely cause substantial harm to the competitive position of the filer.



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[Help](#) | OMB No. 3060-0816

FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Dec 31, 2018

Submission Status

Original - Submitted

Last Updated: Mar 8, 2019 10:14:43

Local Exchange Telephone Subscription

For each state in which you have one or more customers,

1. allocate lines provided to other providers between Wholesale and UNE-L;
2. allocate lines provided to end users by (a) Services Sold, (b) Product Type, (c) Ownership and (d) Last-mile Medium; and
3. click Save Current State, then go to the next state using the menu at the left or click Finished ».

For more information about how to allocate your lines, click [here](#) . Every cell must contain a number. Blanks will cause an error. Save your work as you go and when you've entered data for each state, click Finished »

Each cell must contain a number, even if it's zero!

Subscriptions Listed By State	Virginia	* All fields are required	
Nevada	Lines provided to Unaffiliated Providers		
New Jersey	Wholesale: <input type="text" value="4233"/>	UNE-L: <input type="text" value="1269"/>	
New Mexico	Lines provided to End Users...		
North Carolina	by Services Sold		
North Dakota	Total: <input type="text" value="155313"/>	Voice with Internet: <input type="text" value="82150"/>	Voice without Internet: <input type="text" value="73163"/>
Ohio	by Product Type		
Oklahoma	Total: <input type="text" value="155313"/>	Consumer Total: <input type="text" value="112222"/>	Business /Gov. Total: <input type="text" value="43091"/>
Oregon		Consumer & No PIC: <input type="text"/>	Business/Gov. & No PIC: <input type="text"/>
Pennsylvania			
South Carolina			
South Dakota			
Tennessee			
Texas			

- Pennsylvania
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

by Product Type

Total: ⓘ	Consumer Total ⓘ	Business /Gov. Total ⓘ
<input type="text" value="155313"/>	<input type="text" value="112222"/>	<input type="text" value="43091"/>
	Consumer & No PIC: ⓘ	Business/Gov. & No PIC: ⓘ
	<input type="text" value="25635"/>	<input type="text" value="19326"/>
	Consumer & PIC: ⓘ	Business/Gov. & PIC: ⓘ
	<input type="text" value="86587"/>	<input type="text" value="23765"/>

by Ownership

Total: ⓘ	Owned: ⓘ	UNE-L: ⓘ	Resale: ⓘ
<input type="text" value="155313"/>	<input type="text" value="155313"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

by Last-mile Medium

Total: ⓘ	FTTP: ⓘ	Coaxial Cable: ⓘ	Fixed Wireless: ⓘ	Copper: ⓘ
<input type="text" value="155313"/>	<input type="text" value="210"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="155103"/>

Cancel

Next State

Continue »

For help or assistance please contact us at 1-877-480-3201 ⓘ or 1-717-338-2824 ⓘ (TTY) or you may submit requests online via [e-support](#).

Federal Communications Commission
 445 12th Street SW
 Washington, DC 20554

Phone: 1-888-225-5322 ⓘ
 TTY: 1-888-835-5322 ⓘ
 Fax: 1-866-418-0232 ⓘ
 E-mail: fccinfo@fcc.gov

RSS
 Privacy Policy
 Moderation Policy
 Website Policies & Notices
 Required Browser & Plug-ins

FOIA
 No Fear Act Data
 Open Government Directive
 Plain Writing Act
 2009 Recovery and Reinvestment Act

FRN: 0018626853

CenturyLink, Inc.

Operations: ILEC | Data as of: Dec 31, 2018

Submission Status

Original - Submitted


Last Updated: Mar 8, 2019 10:14:43

Interconnected VoIP Subscriptions

For each state in which you have one or more iVoIP subscribers,

1. allocate over-the-top iVoIP subscriptions, where you provide service to end users without also supplying last-mile facilities, between Consumer and Business / Government subscribers;
2. allocate all other iVoIP subscriptions, where you provide service to end users and also supply last-mile facilities, by (a) End User Type, (b) Services Sold, and (c) Last-mile Medium; and
3. click Save Current State, then go to the next state using the menu at the left or click Finished ».

For more information about how to allocate your lines, click [here](#).

 Each cell must contain a number, even if it's zero! Blanks will cause an error.

Save your work as you go, and when you've entered data for each state, click Finished »

Subscriptions by State	Virginia	* All fields are required		
Iowa				
Kansas				
Michigan				
Minnesota				
Missouri				
Nebraska				
Nevada				
New Mexico				
North Carolina				
Ohio				
Oregon				
Pennsylvania				
	Grand Totals, by End-user Type			
	Total: ⓘ	Consumer: ⓘ	Business / Gov.:	
	<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="650"/>	
	Over-the-top Subscriptions			
	Service to End Users Provided Without also Supplying Last-mile Facilities			
	Total: ⓘ	Consumer: ⓘ	Business / Gov.:	
	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	
	All Other Subscriptions			
	Service to End Users Provided over Last-mile Facilities Supplied by the Provider... by End-user Type			
	Total: ⓘ	Consumer: ⓘ	Business / Gov.:	
	<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="650"/>	

- Missouri
- Nebraska
- Nevada
- New Mexico
- North Carolina
- Ohio
- Oregon
- Pennsylvania
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

Over-the-top Subscriptions

Service to End Users Provided Without also Supplying Last-mile Facilities

Total: ⓘ	Consumer: ⓘ	Business / Gov.:
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

All Other Subscriptions

Service to End Users Provided over Last-mile Facilities Supplied by the Provider...
by End-user Type

Total: ⓘ	Consumer: ⓘ	Business / Gov.:
<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="650"/>

by Services Sold

Total: ⓘ	Voice with Internet: ⓘ	Voice without Internet:
<input type="text" value="650"/>	<input type="text" value="650"/>	<input type="text" value="0"/>

by Last-mile Medium

Total: ⓘ	FTTP: ⓘ	Coaxial Cable: ⓘ	Fixed Wireless & Satellite: ⓘ	Copper: ⓘ
<input type="text" value="650"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="650"/>

For help or assistance please contact us at 1-877-480-3201 ⓘ or 1-717-338-2824 ⓘ (TTY) or you may submit requests online via [e-support](#).

Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Phone: 1-888-225-5322 ⓘ
TTY: 1-888-235-5322 ⓘ

RSS
Privacy Policy
Moderation Policy
Website Policies & Notices
Required Browser & Plug-ins

FOIA
No Fear Act Data
Open Government Directive
Plain Writing Act
2009 Recovery and Reinvestment Act

Attachment 15 – Copy of Public Notice

A copy of the Public Notice placed prior to the VATI deadline is included.

**The Daily Progress The News Virginian
Orange County Review Greene County Record
The Madison Eagle Culpeper Star Exponent**

Order Confirmation**Order# 0000979927****Ad Content Proof**

Note: Ad size does not reflect actual ad



The Albemarle Broadband Authority (ABBA) is soliciting public comment for potential Broadband Projects as part of one or more application(s) for Virginia Telecommunication Initiative Grant Funds.

The potential Broadband Projects are as follows:

1. Greenwood area west of the CSX Railroad and north from Shamrock Farm to Jarman's Gap
2. Dick Woods Road west of Ortman Road
3. Burchs Creek Road
4. Tilman Road around Twin Creeks Road, Meriwether Hill Lane, east to Bailey's Retreat
5. Old Garth Heights
6. Green Creek Road to Bungletown Road; including all local roads and The Quarries
7. Howardsville, north to Mt. Alto Road
8. Coles Rolling Road
9. Warren and Hatton along Hatton Ferry Road
10. Free Union Road North including Shiffletts Mill Road to Boonesville
11. Browns Gap Turnpike and Blackwells Hollow Road
12. Box Holly Lane
13. Mallard Lake Drive and Mallard Lane
14. Areas in Cobham and Lindsay; North on Gordonsville Road
15. Sylvan Lane and McClary Court and other areas along Watts Passage Road
16. Gilbert Station Road West of the RR tracks before Foxwood
17. Buck Mountain Road and Allen Road West of Markwood Road
18. Simmons Gap Road to Buffalo River Road

For additional information, contact Michael Culp at (434) 296-5891. Written comments may be addressed to the County's Office of Information Technology, 401 McIntire Road, Room 134, Charlottesville, VA 22902, via email to broadband@albemarle.org, or in person during normal business hours, no later than Aug. 30, 2019.

Albemarle County 2020 VATI – CHVL North/ Scottsville / Schuyler

Glenn Butler
Network Planning
08/27/2019

Summary of Projects

Albemarle County VATI 2020														
Project		Capital Costs			70%	15%	15%	Living Units		VATI	No	Existing Customers		
Title	Exchange	ISP	OSP	Total	CLINK	ABBA	VATI	1G	Cost / LU	Cost / LU	BBAND	< 10M	10M - 20M	> 20M
Buffalo Hills	CHVL North	\$15,000	\$273,000	\$288,000	\$201,600	\$43,200	\$43,200	170	\$1,694	\$254	103	47	12	8
Watts Passage	CHVL North	\$30,000	\$306,000	\$336,000	\$235,200	\$50,400	\$50,400	137	\$2,453	\$368	41	82	14	0
Coles Rolling Road	Scottsville	\$10,000	\$104,000	\$114,000	\$79,800	\$17,100	\$17,100	46	\$2,478	\$372	30	16		
Scottsville Road	Scottsville	\$10,000	\$96,000	\$106,000	\$74,200	\$15,900	\$15,900	80	\$1,325	\$199	33	27	13	7
Hatton	Scottsville	\$15,000	\$133,000	\$148,000	\$103,600	\$22,200	\$22,200	48	\$3,083	\$463	28	20		
Keene	Scottsville	\$20,000	\$111,000	\$131,000	\$91,700	\$19,650	\$19,650	61	\$2,148	\$322	29	31	1	
Howardsville	Scottsville	\$15,000	\$440,000	\$455,000	\$318,500	\$68,250	\$68,250	140	\$3,250	\$488	135	3	2	
Green Creek Road	Schuyler	\$30,000	\$334,000	\$364,000	\$254,800	\$54,600	\$54,600	155	\$2,348	\$352	116	38	1	
Totals		\$145,000	\$1,797,000	\$1,942,000	\$1,359,400	\$291,300	\$291,300	837	\$2,320	\$348	515	264	43	15
					70%	15%	15%				62%	32%	5%	2%

The VATI cost per serviceable unit is **\$348** for CenturyLink Gigabit Fiber. Each of the 8 project areas is shown on 2 slides per project. The first slide is the estimated cost and placement of infrastructure for the project area. The second slide is a mapping of the serviceable units.

Charlottesville North – Buffalo Hills (FTTH)

Place 8 KFT, 48F, \$48K

170 – 1G

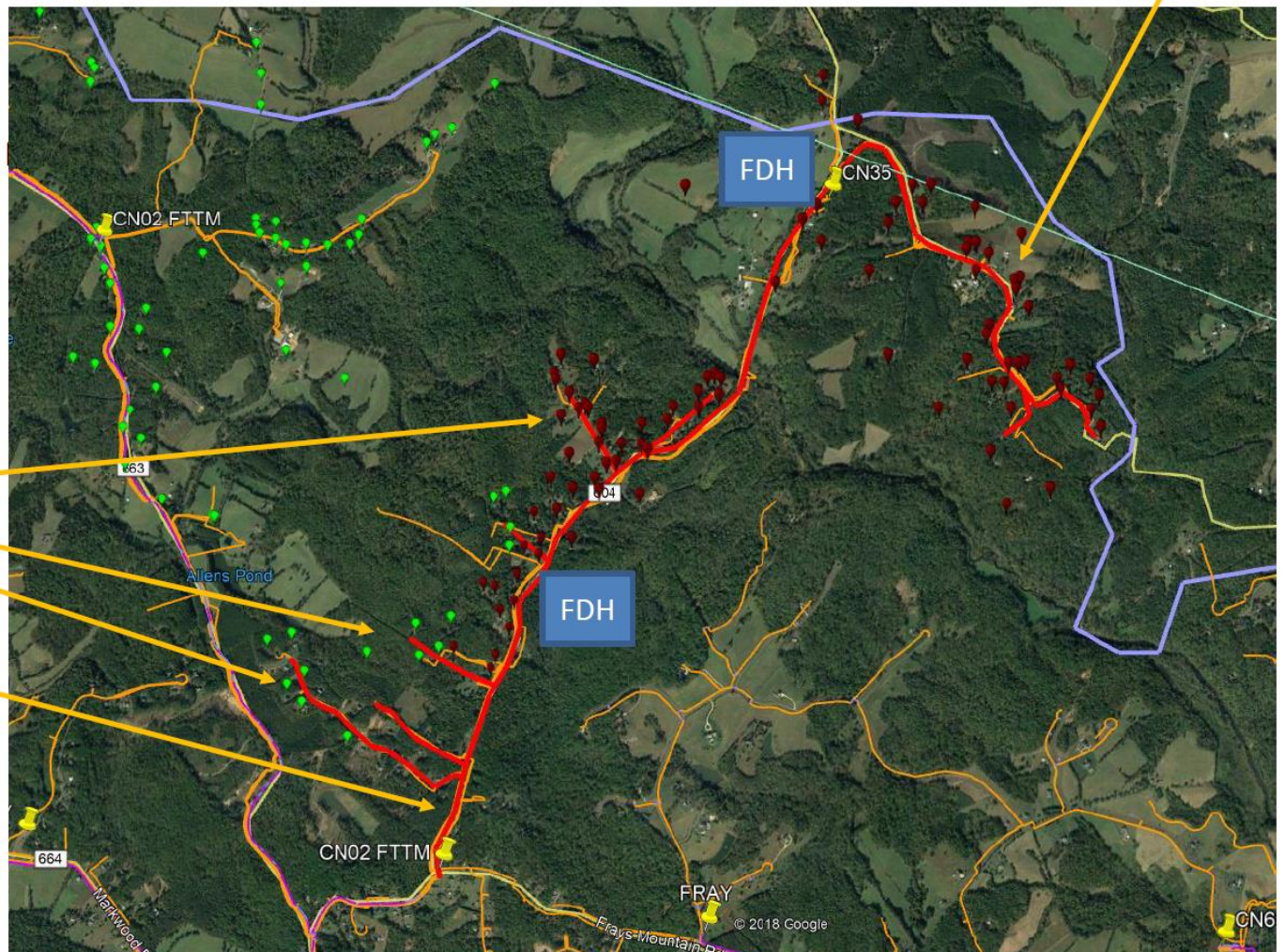
Estimate 100 drops < 650
51 between 650 & 1,500;
19 > 1,500 Feet

Place 6 Spurs, total of
12 Kft, \$72K

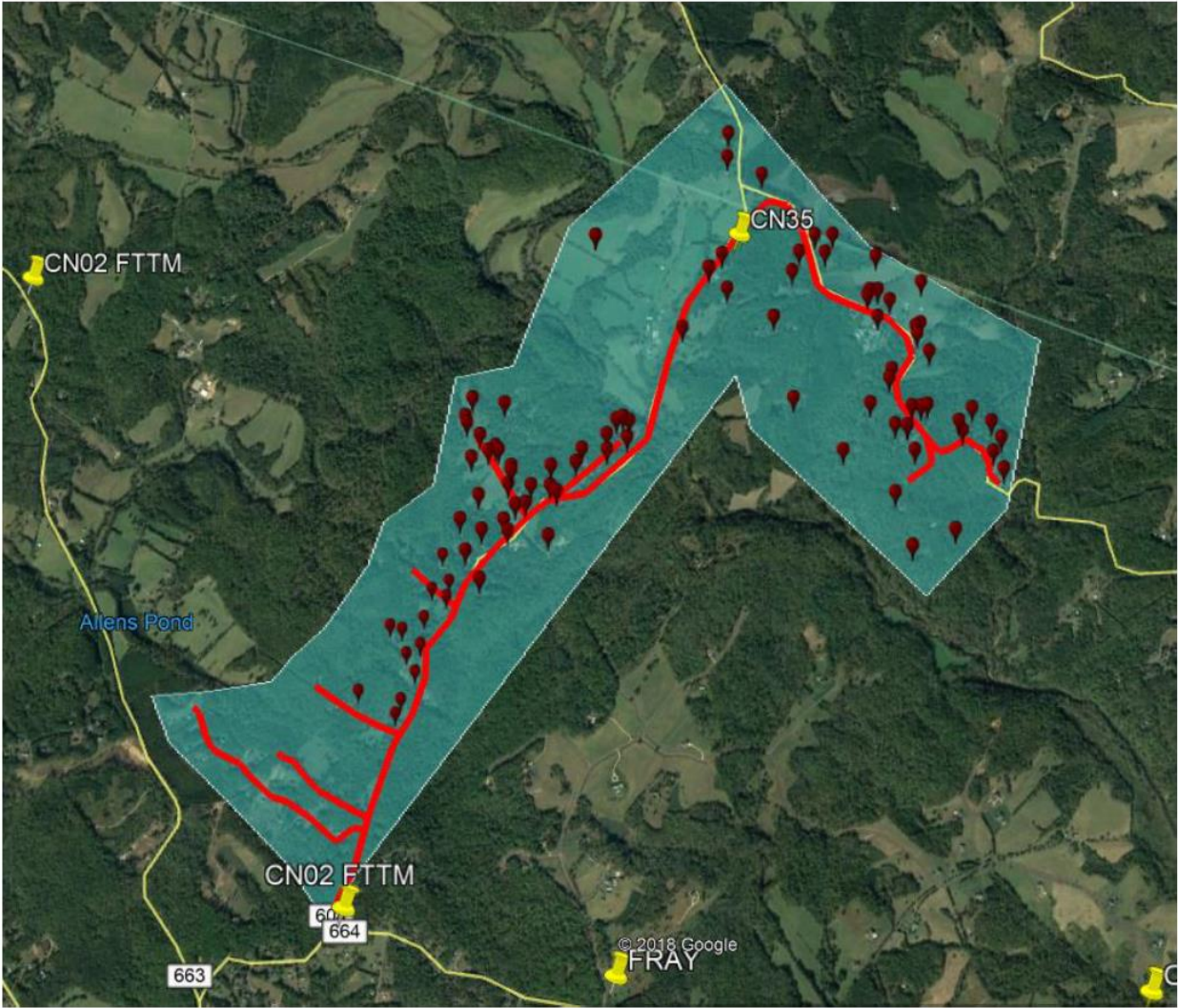
Place 13 KFT, 48F, \$78K

Place GPON
Card in CN02
E7, \$15K

Place 2 FDHs &
66 MDTs, \$75K



Charlottesville North – Buffalo Hills (FTTH)



Charlottesville North – Watts Passage (FTTH)

Place 16KFT, 96F, \$100K

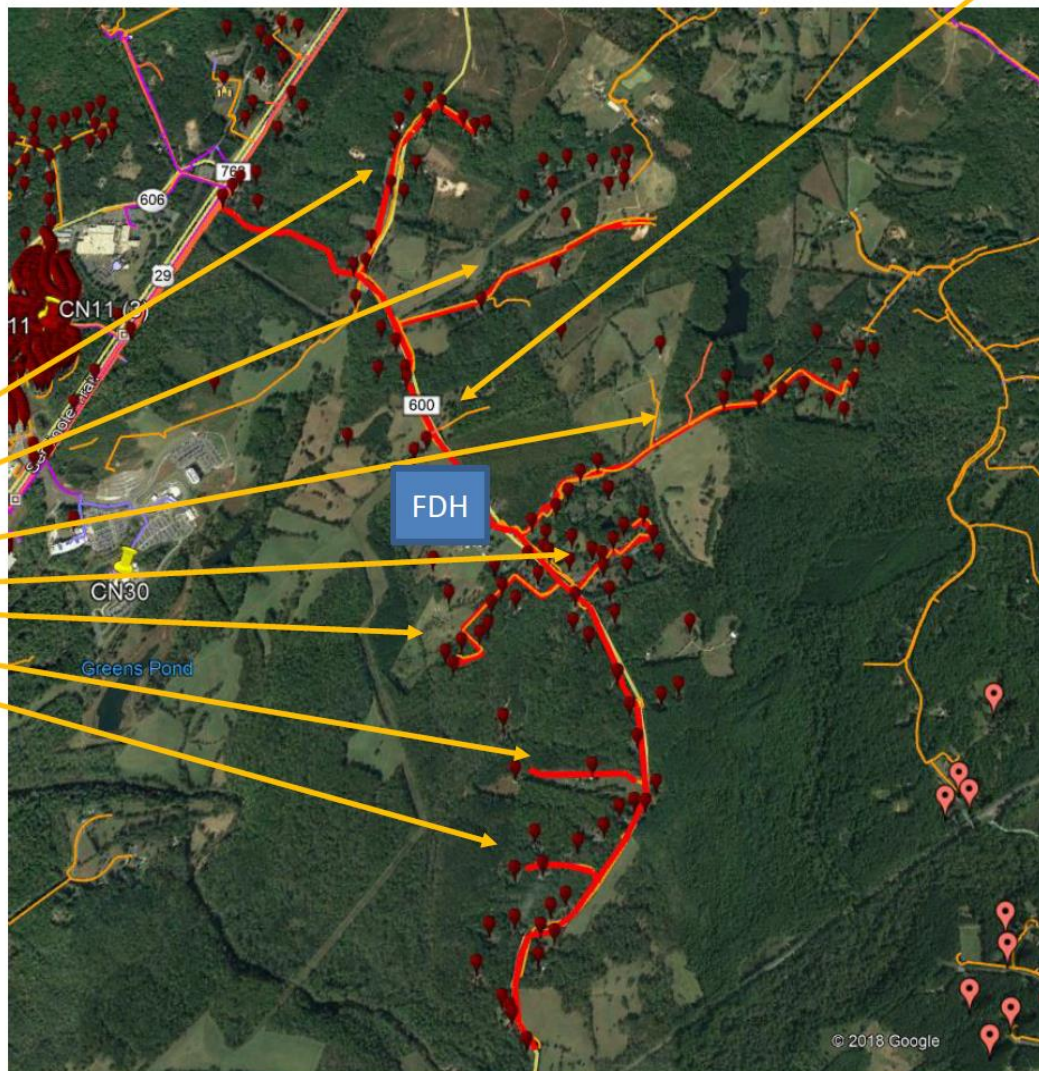
137 – 1G

Estimate 85 drops < 650 Ft.;
35 between 650 & 1,500;
17 > 1,500 Feet

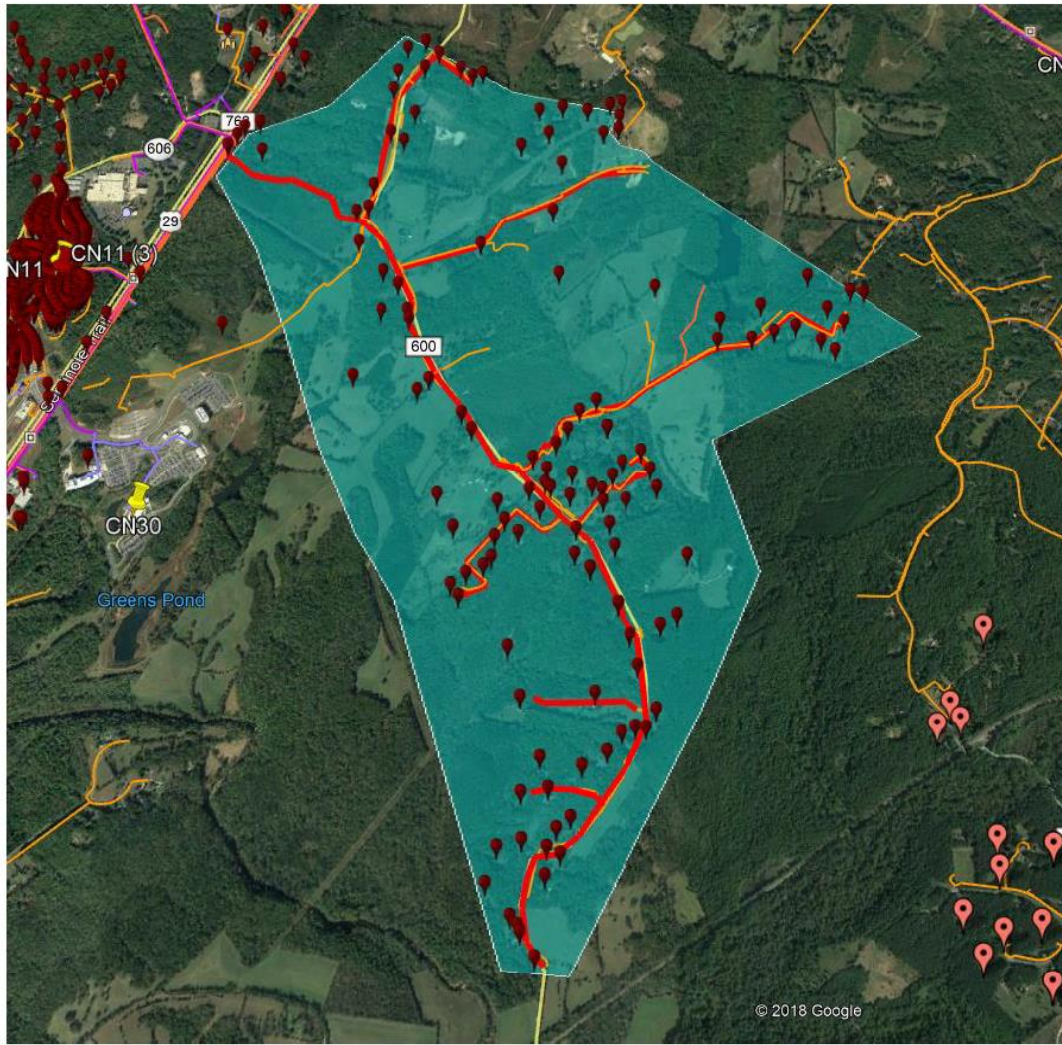
Place 7 Spurs, total of
21 Kft, \$126K

Place E7_GPON
in CN11 E7,
\$30K

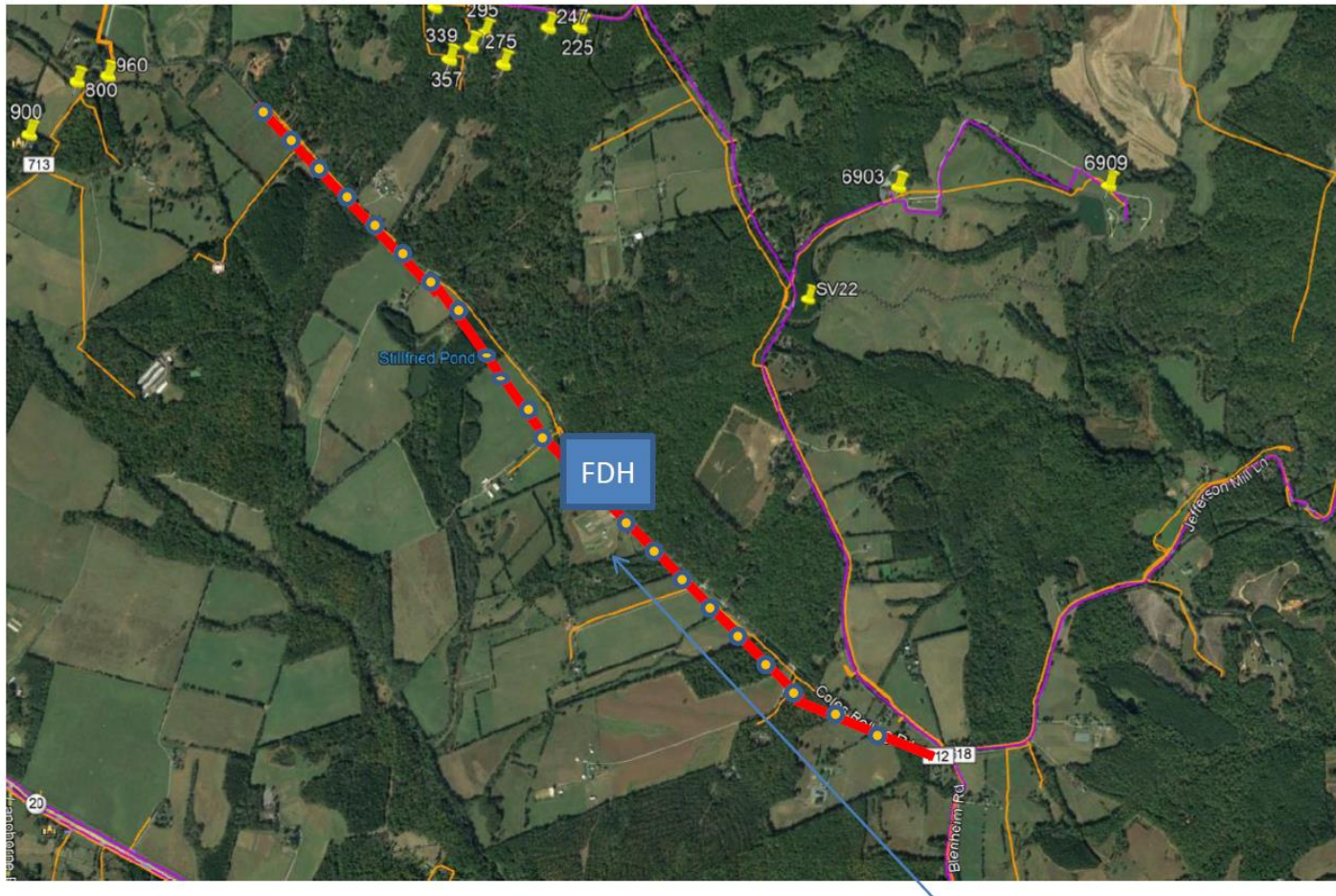
Place 1 FDH &
75 MDTS, \$80K



Charlottesville North – Watts Passage (FTTH)



Scottsville – Coles Rolling Rd (FTTH)



46 – 1G

Estimate 23 drops < 650 Feet; 18 between 650 & 1,500, & 5 > 1,500 Feet

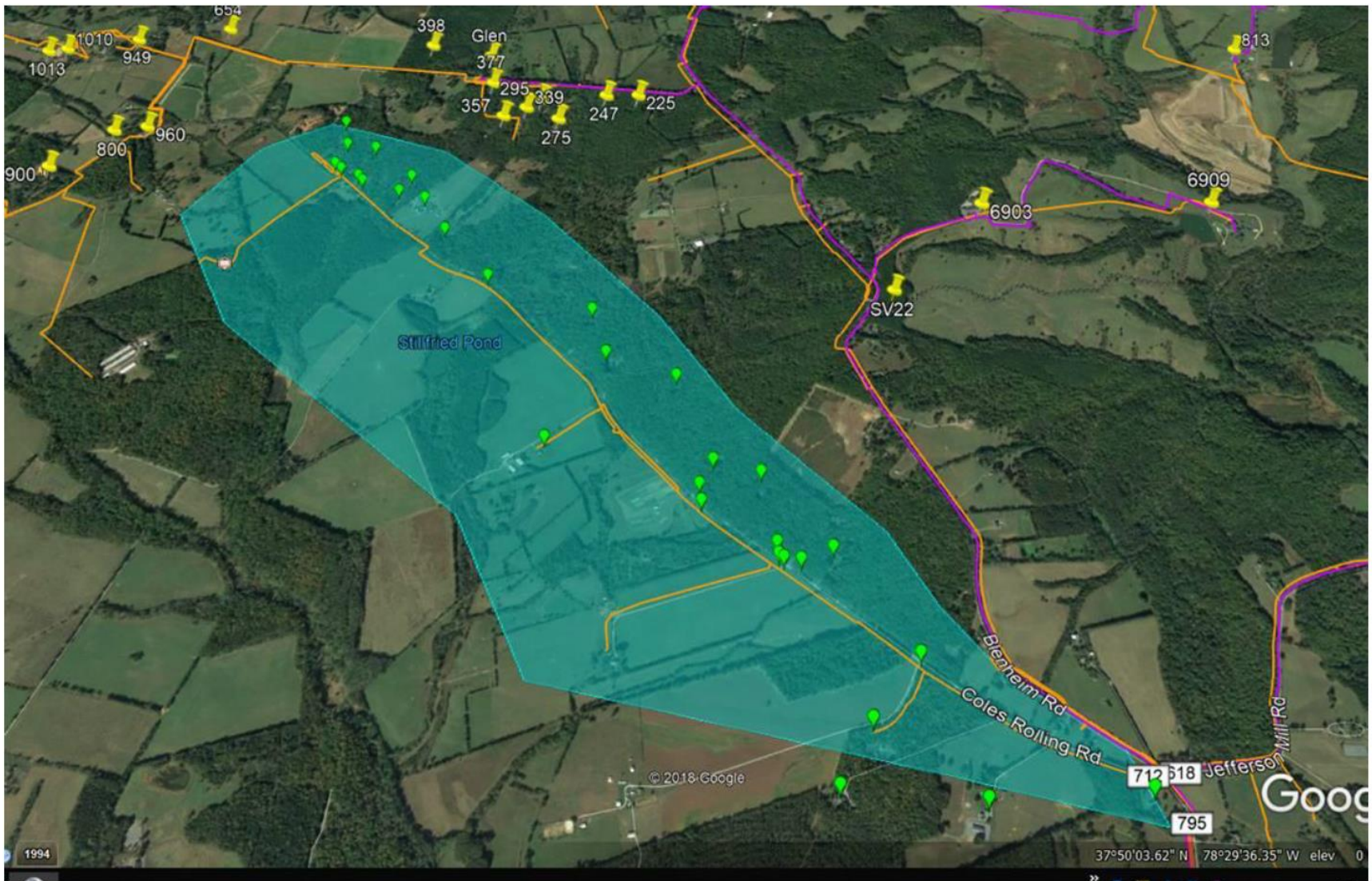
Use CO E7_GPON, \$10K

Place 14 KFT, 48F, \$84K

Place FDH & 21 MDTs, \$20K

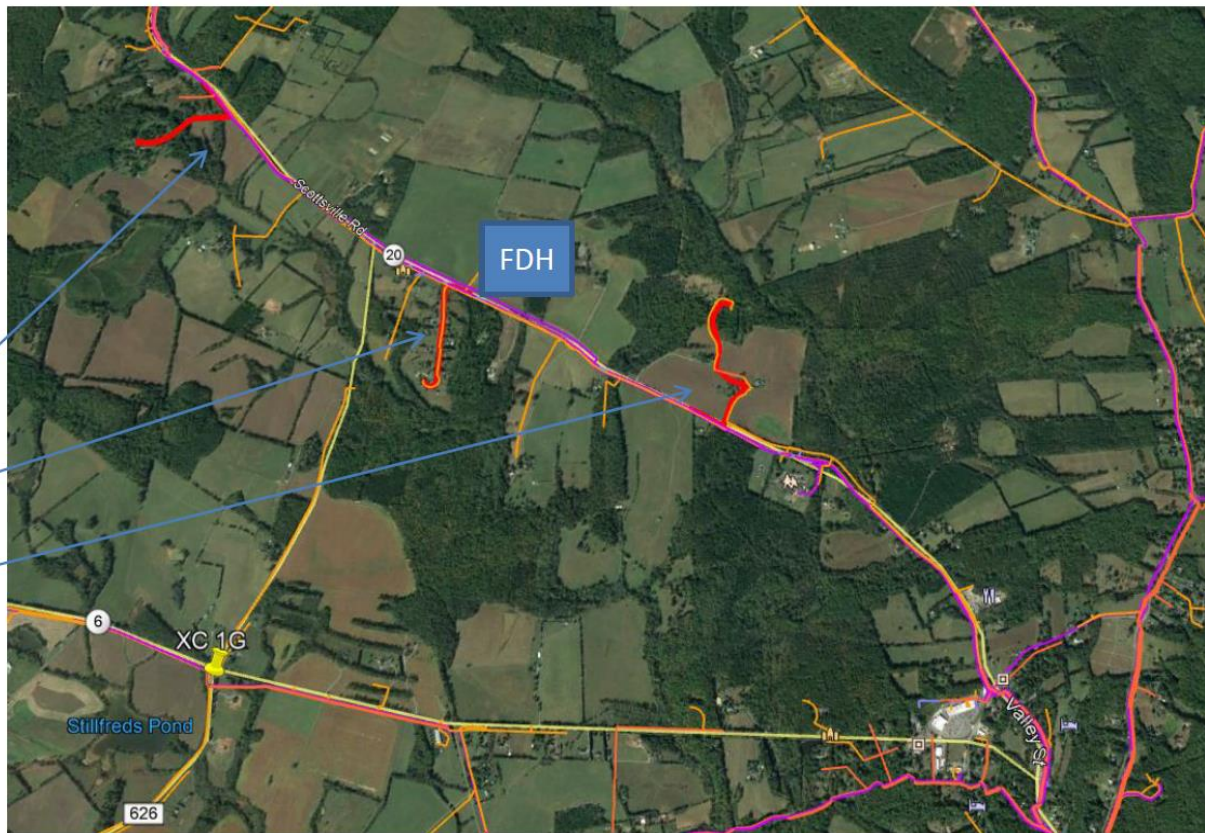
● MDT

Scottsville – Coles Rolling Rd (FTTH)



mculp@albemarle.org
434-296-5891

Scottsville – Scottsville Rd (FTTH) (Totier Hills)



Place 3 KFT, 48F, \$18K

Place 3 KFT, 48F, \$18K

Place 5 KFT, 48F, \$30K

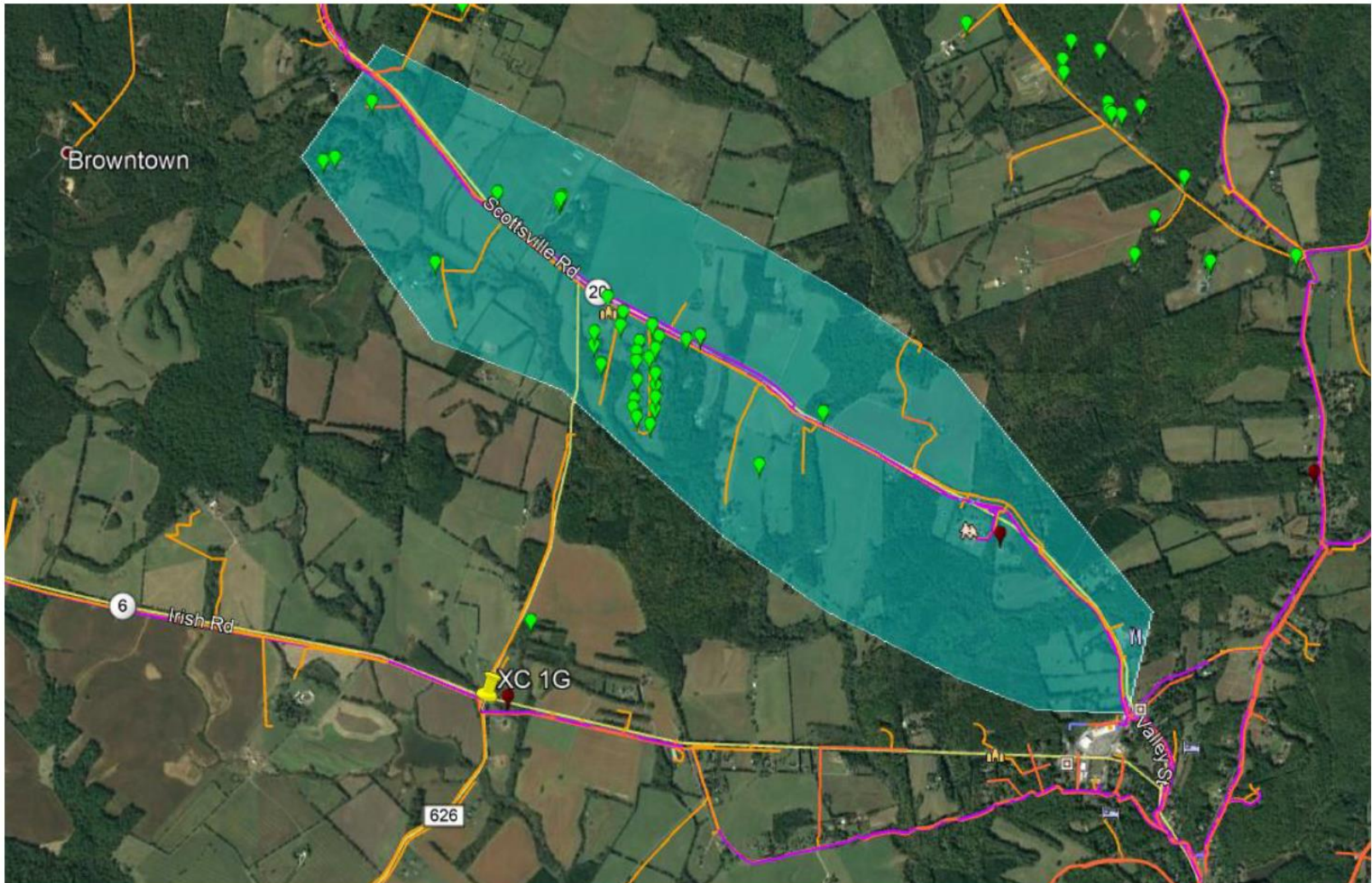
80 – 1G

Estimate 30 drops < 650 Feet; 30 between 650 & 1,500, & 20 > 1,500 Feet

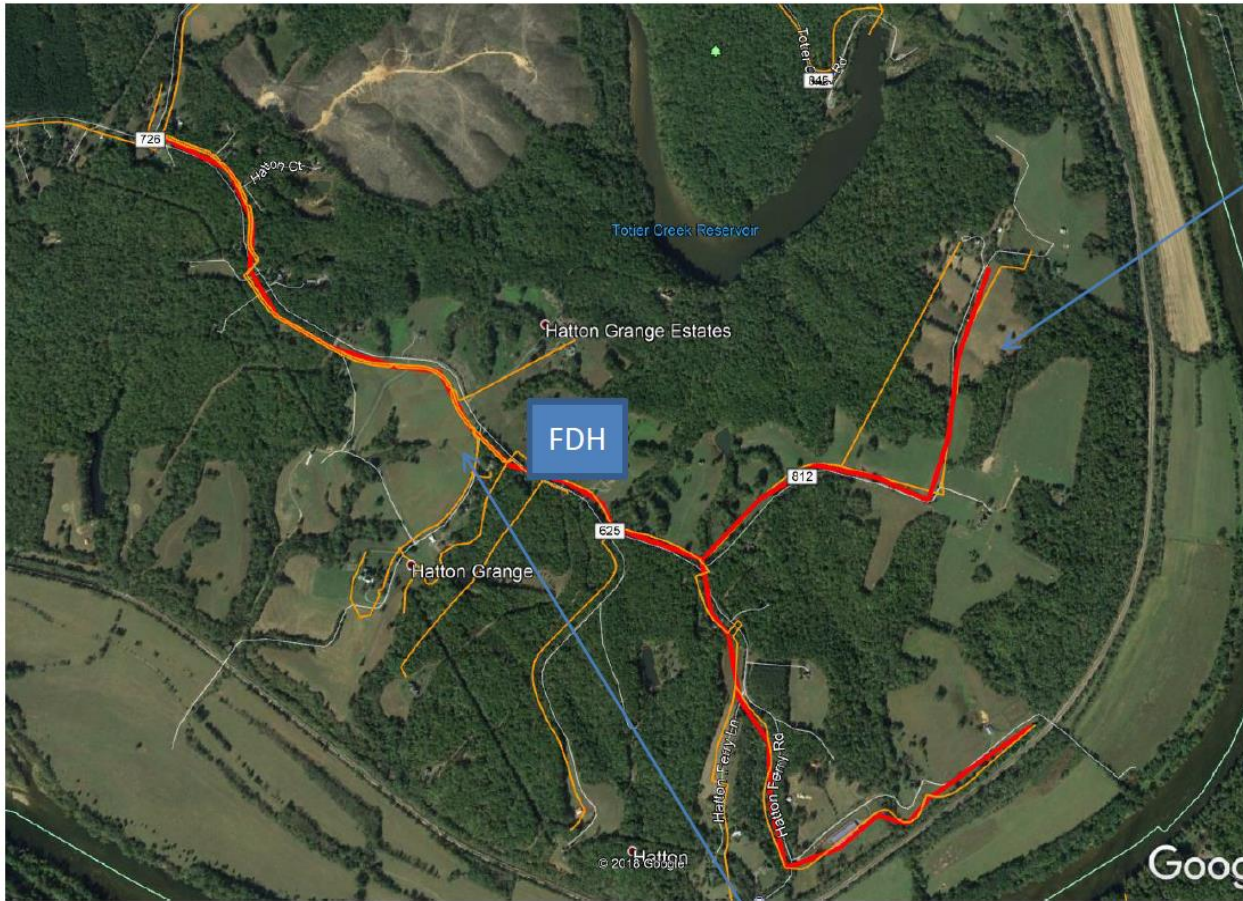
Use CO E7_GPON, \$10K

Place FDH & 35 MDTs, \$30K

Scottsville – Scottsville Rd (FTTH) (Totier Hills)



Scottsville – Hatton Ferry (FTTH)



Place 5KFT,
40F, \$30K

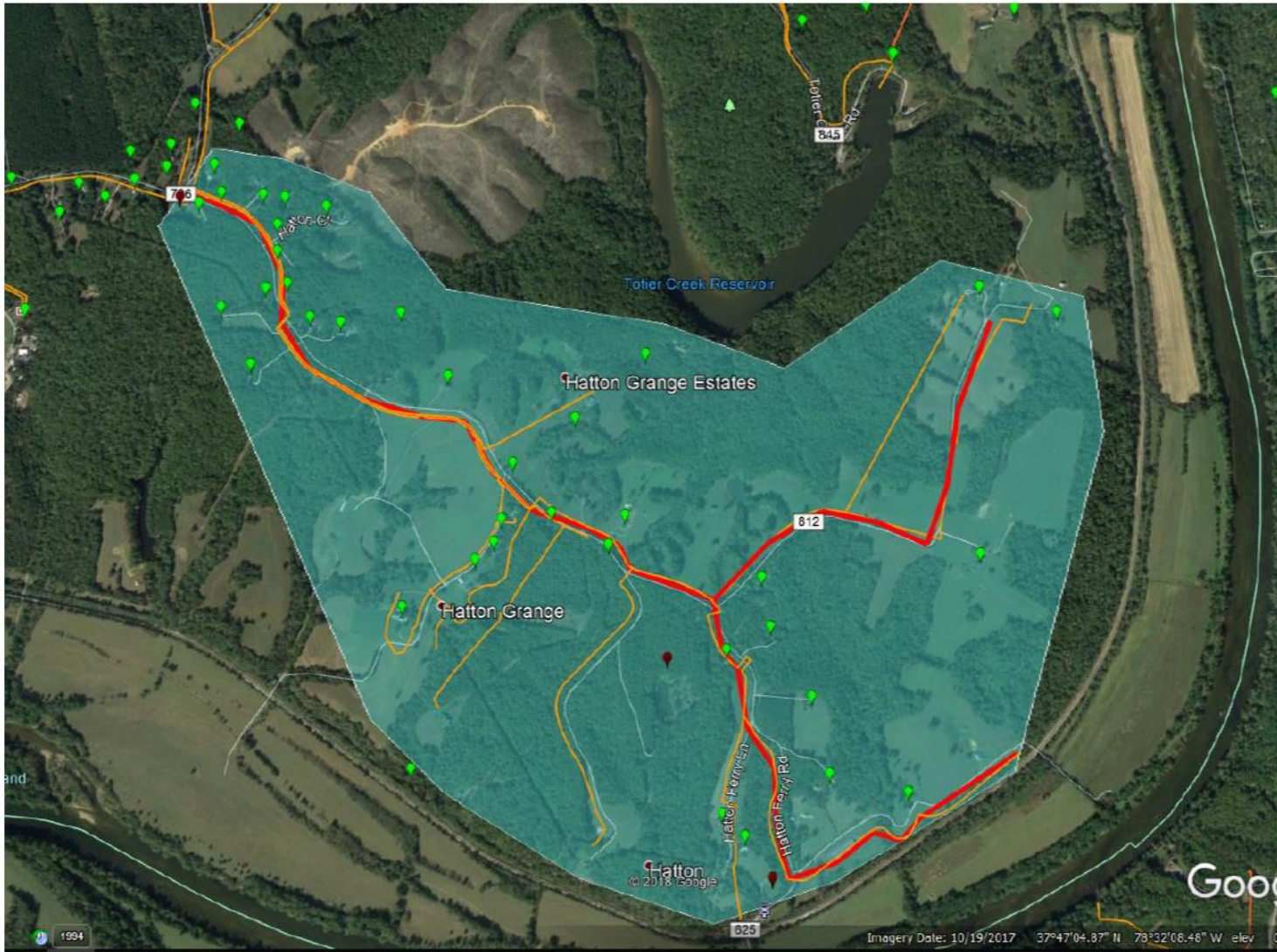
Place
GPON Card
in E7, \$15K

48 – 1G

Estimate 25 drops < 650
Feet; 16 between 650 &
1,500, & 7 > 1,500 Feet

Place 13 KFT, 96F, \$78K
Place FDH & 36 MDTs, \$25K

Scottsville – Hatton Ferry (FTTH)



Scottsville – Keene (FTTH)



Place 12 KFT, 48F, \$72K

Place 4 KFT, 48F, \$24K

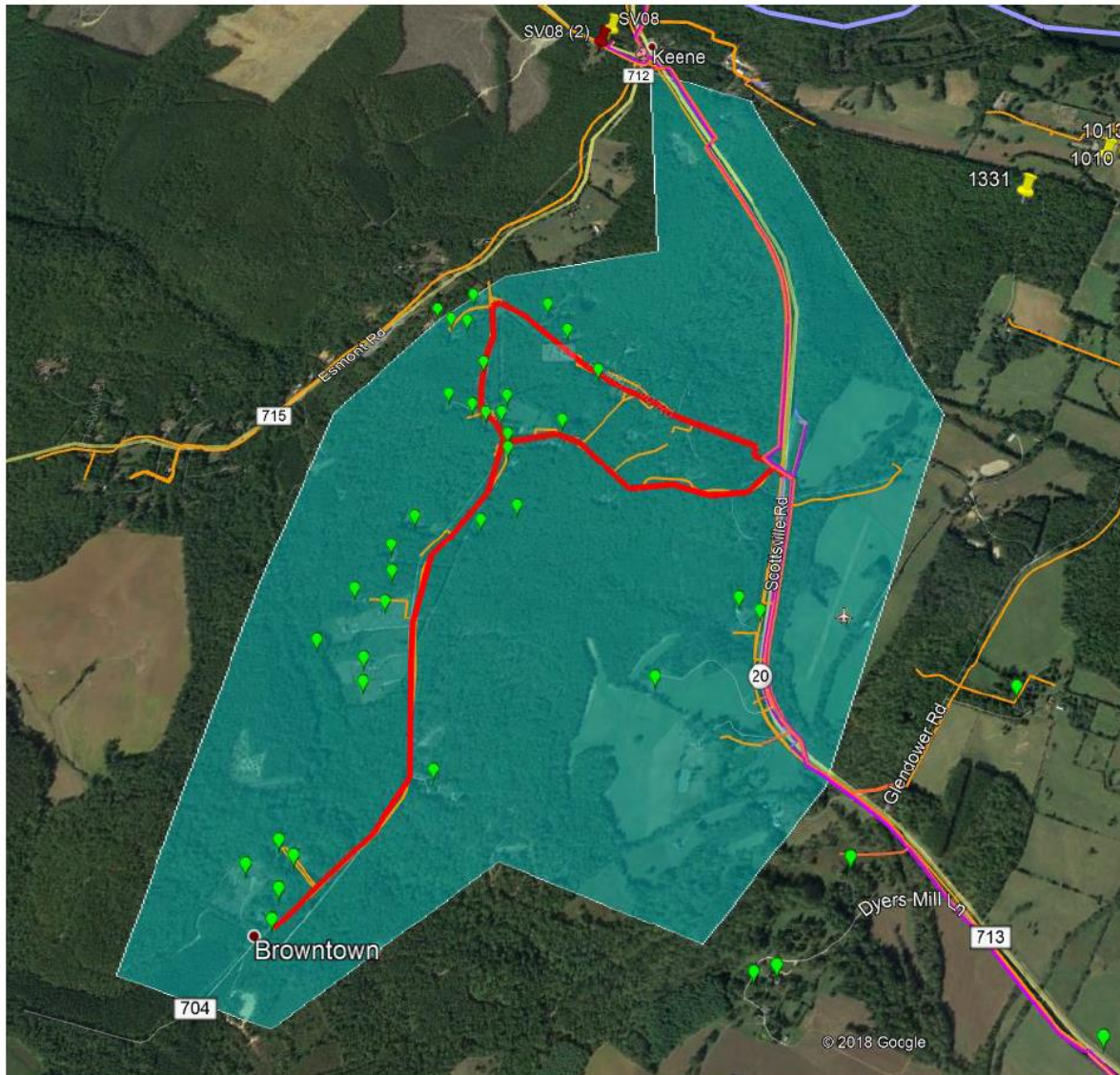
61 – 1G

Estimate 34 drops < 650 Feet; 19 between 650 & 1,500, & 8 > 1,500 Feet

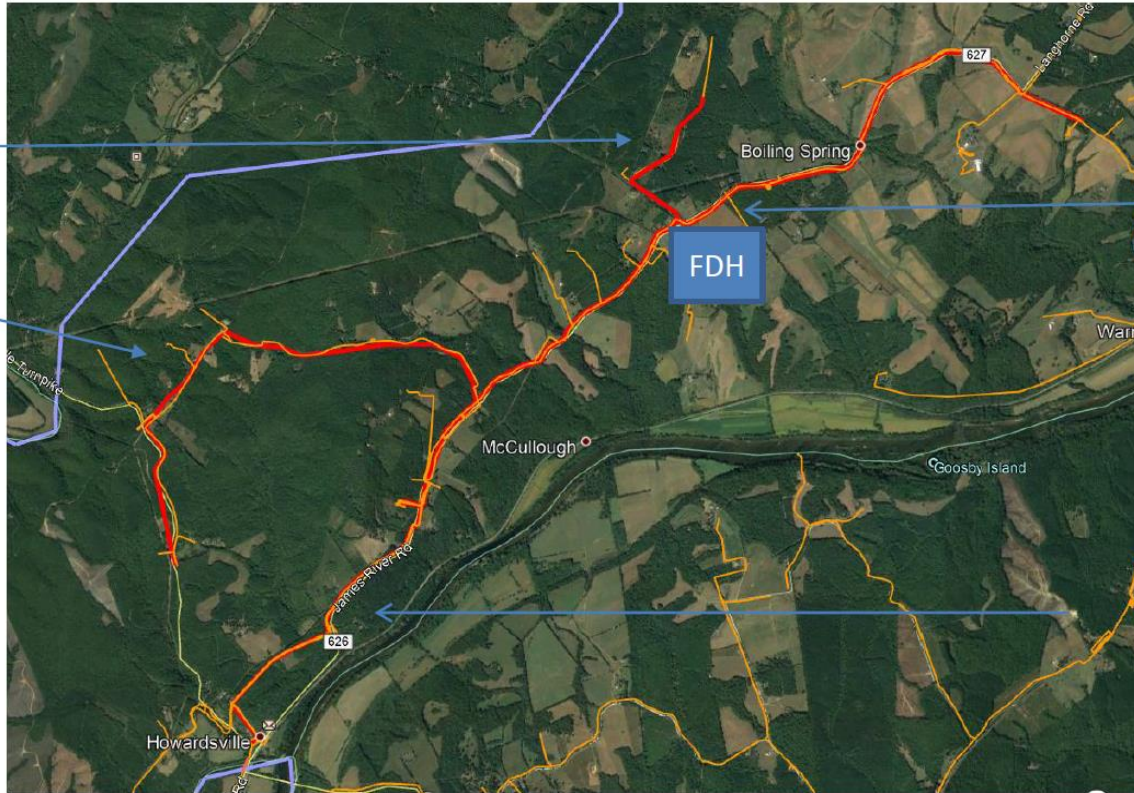
Place E7_GPON SV08, \$20K

Place FDH & 32 MDTs, \$15K

Scottsville – Keene (FTTH)



Scottsville – Howardsville (FTTH)



Place 5 KFT,
48F, \$30K

Place 17 KFT,
48F, \$102K

Place
GPON Card
in E7, \$15K

Place 27 KFT,
96F, \$162K

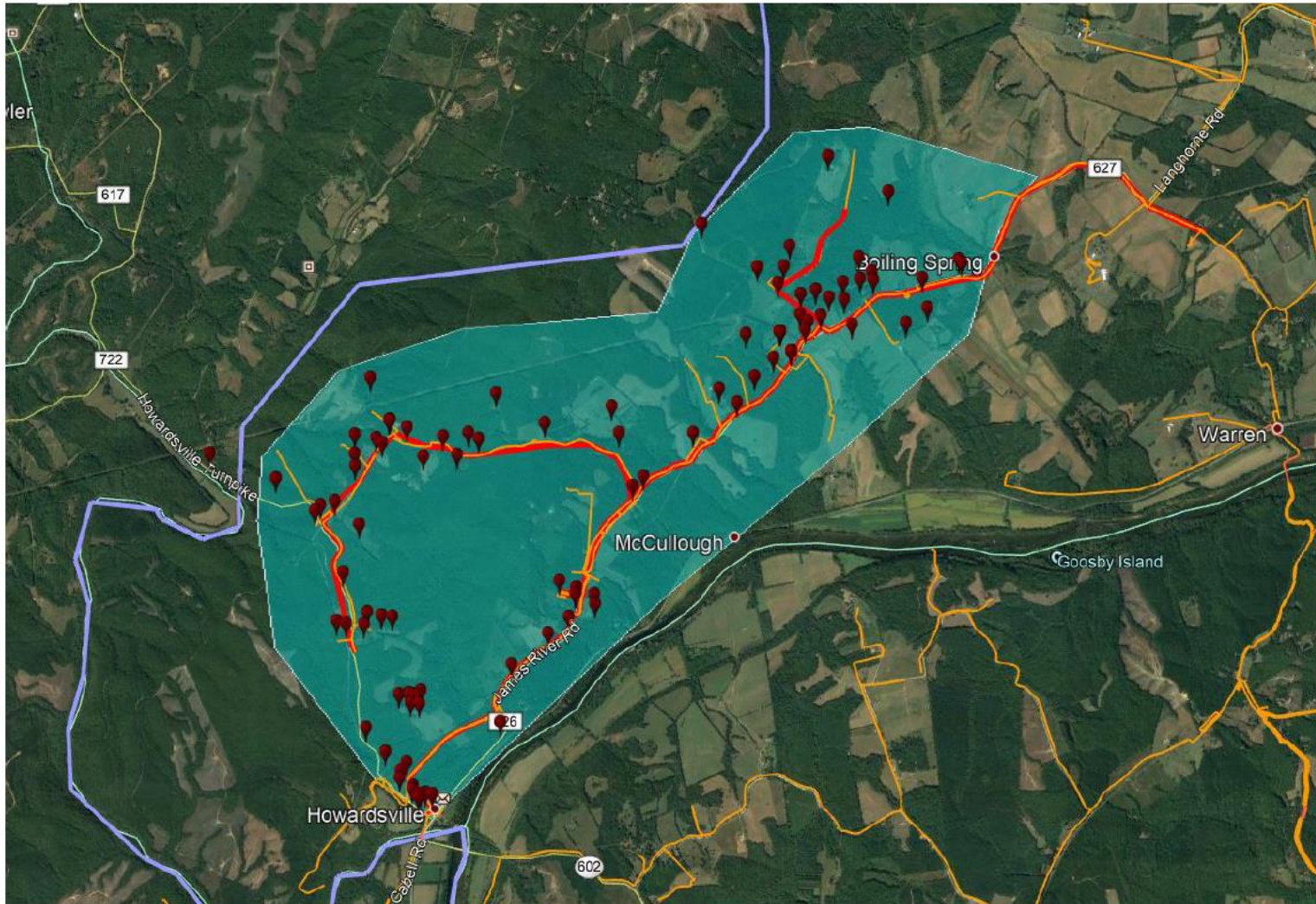
Place 10 KFT,
48F, \$60K

140 – 1G

Estimate 75 drops < 650
Feet; 40 between 650 &
1,500, & 25 > 1,500 Feet

Place FDH & 120 MDTs,
\$50K

Scottsville – Howardsville (FTTH)



mculp@albemarle.org
434-296-5891

Schuyler – Green Creek (FTTH)

155 – 1G

Estimate 90 drops < 650 Ft.;
40 between 650 & 1,500;
25 > 1,500 Feet

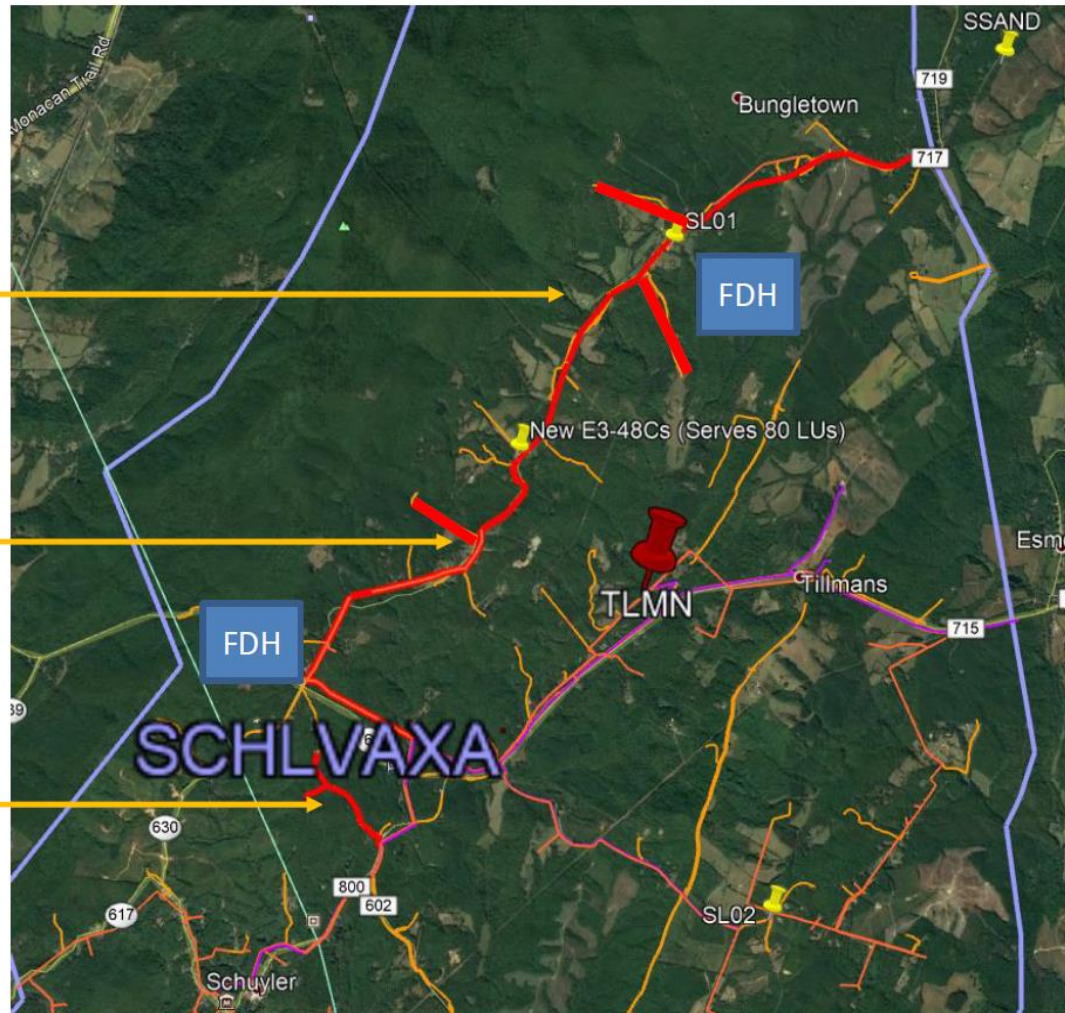
Place 23 KFT, 96F, \$138K

Place 21 KFT, 96F, \$126K

Place 5 KFT, 48F, \$30K

Place CO E7_GPON,
\$30K

Place 2 FDHs &
50 MDTs, \$40K



Schuyler – Green Creek (FTTH)

