

Application to DHCD Submitted through CAMS

Orange County, VA

BLM Service Area Six

Application ID: 64508172019064401
Application Status: Pending
Program Name: Virginia Telecommunications Initiative 2020
Organization Name: Orange County, VA
Organization Address: 112 W. Main St
Orange, VA 22960
Profile Manager Name: Lewis Foster
Profile Manager Phone: (540) 661-5332
Profile Manager Email: lfoster@orangecountyva.gov

Project Name: BLM Service Area Six
Project Contact Name: Lewis Foster
Project Contact Phone: (540) 661-5332
Project Contact Email: lfoster@orangecountyva.gov
Project Location: 112 W. Main Street, PO Box 111
Orange, VA 22960-0000
Project Service Area: Orange County

Total Requested Amount: \$1,896,140.00

Required Annual Audit Status: Accepted

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$1,896,140.00	\$770,001.00	\$2,666,141.00
Construction	\$1,687,140.00	\$421,785.00	\$2,108,925.00
Construction Related Soft Costs	\$209,000.00	\$0.00	\$209,000.00
Other: Electronics	\$0.00	\$100,000.00	\$100,000.00
Other: Node Cabinet including Elect	\$0.00	\$25,720.00	\$25,720.00
Other: Upgraded Fiber Handholes	\$0.00	\$97,046.00	\$97,046.00
Other: OCBA staff in kind	\$0.00	\$30,000.00	\$30,000.00
Other: Bandwidth Cost	\$0.00	\$95,450.00	\$95,450.00
Total:	\$1,896,140.00	\$770,001.00	\$2,666,141.00

Budget Narrative:

The Burr Hill, Locust Grove and Mine Run Service Area Six (BLM Service Area Six) project will consist of constructing 31.5 miles of fiber in the public ROW including supporting handholes and/or pedestals, fiber drops to customers, node cabinet including generator and electronics to support this proposed project. Detail cost estimates from contractors, engineering and suppliers can be found in attachments that support these costs. The OCBA has invested an additional \$97,046.00 in this project by adding additional handholes upgrading the fiber count to connect the Wilderness Shores Tower Site for the P25 Public Safety Radio System. This additional infrastructure along Flat Run Road between SR 20 and SR3 and Germanna Highway SR3 between Flat Run Road and Somerset Ridge Road will be used to provide service access to customers in the unserved area of Governor Spotswood Estates. In anticipation of the project scope and time line, County staff will assist with project management, fiscal management, permitting, and legal advice. The cost associated with these staff will be absorbed by the County. The County has calculated the average fully-loaded compensation rate for staff members expected to participate in this project to be \$60 per hour. During this project, it is anticipated that County staff in aggregate, will provide 500 hours of support for a value of \$30,000.00. OCBA will also provide connectivity to Equinix facility in Culpeper to connect to the Internet. The cost for this connectivity is \$95,450.00 and includes collocation space and transport cost to connect to the facility. OCBA plans to purchase a Node Cabinet includes DC Power plant and generator to support this proposed project for a cost of \$25,720.00.

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:

On May 22, 2019, Orange County Broadband Authority (OCBA) launched an on-line broadband availability

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survey to help determine where service is and isn't to improve internet service to our residents and businesses in Orange County.

As of August 22, 2019, 93 people have weighed in on this service area and 98% say they are dissatisfied with their current connection. Only about 2% of people have internet speeds of greater than 25 megabits per second, and 32% say they do not have any internet at all. Based on these survey results, this service area was selected.

In the proposed project area, OCBA has also reached out to numerous home owners, home businesses, business owners and realtors to obtain additional information on this area of the county to make sure we understand the limited to non-existent broadband access in the service area.

The proposed broadband project will consist of the construction of a fiber to the premise (FTTP) network within the following areas of Orange County, Virginia:

Beech Drive	Laural Canyon Blvd
Burr Hill Road – SR692	Mine Run Road – SR621
Catharpin Road – SR606	Morel Way
Cecela Lane	Old Plank Road – SR621
College Drive	Old Office - SR 602 (From Burr Hill RD to Zoar RD)
Dulin Drive – SR608	Orchard Street
Enchanted Way	Paynes Farm Road
Fieldstone Lane	Spotswood Drive – SR760
Gold Dale Road – SR611	Walker Hollow Way
Gordon Farm Road	Walnut Ridge Way
Grasty Gold-Mine Road – SR692	Wilderness Farms Road
Indiantown Road – SR603	Williams Flank Road
Jackson Court	Zoar Road – SR611
Keifers Ridge Road	

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:

During our initial review to determine existing service providers and speeds offered in our proposed service area,

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we used the following websites as a source of information.

<https://broadbandmap.fcc.gov/#/>

<https://broadband.cgit.vt.edu/IntegratedToolbox/#about>

Based on the initial review, OCBA identified the following service providers and technology used in proposed service area.

Company	Technology	Service Speeds Down/up
Comcast Corporation	Cable	987/35
ViaSat	Satellite	30/3
Virginia Broadband, LLC	Fixed Wireless	25/10
DishNet Holdings, LLC	Satellite	25/3
Verizon Communications, Inc.	ADSL	5/.768
VSAT Systems LLC	Satellite	2/1.3

OCBA e-mailed Comcast, and Virginia Broadband requesting service information to reduce overlapping service coverage. On August 20, 2019, we received some information from Virginia Broadband. The information was the same information we obtained from above mention websites along with a map that contained dots severed on a map that you couldn't tell the road names and/or addresses.

Then OCBA staff rode the entire route multiple times to determine existing last mile service providers for the proposed service area.

Below is list of service provider infrastructure found in the Rights-of-way (underground and on poles).

- Verizon Communications Inc. has copper "twisted pair" Digital Subscriber Lines (DSL) service.
- Comcast is located in two locations that cross the proposed service area. On the north side poles running parallel to SR20 that crosses the proposed service area. It appears Comcast doesn't serve any customers along Zoar Road that is in the proposed service area. On the South side of SR20, Comcast appears to run along Gold Dale Road approximately 4,000 feet to serve only Meadowland subdivision.
- OCBA staff also identified one fixed wireless access point located at 31350 Zoar Road in Locus Grove.

The attached man shows that the proposed service area is not receiving Connect American Funding (CAFII)

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

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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:

This project is very important to our community because the proposed service area is unserved and has a very high demand for broadband service based on our recent OCBA survey responses in the proposed service area. Without adequate broadband connectivity our students, farmers, businesses including home businesses, and healthcare providers are suffering from the lack of broadband service.

OCBA used an on-line survey and speed test to collect information to assist with determining broadband access and speeds in the proposed service area. While reviewing the speed test results, we noticed inconsistency in our speed test along the same road. OCBA reached out to these residents/businesses to obtain additional information. We found out they were using a wireless cellular service hotspot or it was a very sunny day and using satellite service.

OCBA has also received numerous e-mails and phone calls from the business and residents in the service area.

In reference to overlapping service, Comcast crosses two roads and runs along Gold Dale Drive approximately 4,000 feet to serve a subdivision near the service area. Comcast is only serving Meadowland subdivision off Gold Dale Road and Locus Grove Town Center off SR20 which is not part of the proposed service area. Only one fixed wireless access point has been verified in the proposed service area. Based on this assessment, less than three (3) percent will be an overlap in service.

dishNet and ViaSat are satellite providers that have data caps and do not offer low latency required for real-time applications and Virtual Private Network connections. Our proposed fiber-based network will provide ultra-low latency with no data caps.

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:

OCBA had our GIS department analyze the proposed fiber routes in the proposed service area using the following criteria, total number of homes, business, etc. within 250 of road center line. Based on these criteria, the number of serviceable units in the project area is 918.

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.

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Business Name	Business Address
A Better Move	30521 Mine Run Rd, Locust Grove, VA 22508
A&M Repair Shop & Towing	8475 Gold Dale Rd, Locust Grove, VA 22508
AEROJET ROCKETDYNE	7499 Pine Stake Road, Culpeper, VA 22701-8963
All Roy Hopkins Excavating	8077 Gold Dale Rd, Locust Grove, VA 22508
Barber Shop Locust Grove	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Brooke Farms LLC	33285 Mason Rd, Locust Grove, Virginia 22508
Burr Hill Gifts and Ceramics	32311 Constitution Hwy, Locust Grove, Virginia, 22508
Camna Software, LLC	30521 Mine Run Road, Locus Grove VA 22508
Clinic - Living Water Comm Clinic	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Country Club Kennels	9394 Pine Glade Ln, Locust Grove, VA 22508
Digital Skinz	5097 Burr Hill Rd, Rhoadesville, Virginia, 22542
Dulin's Furniture & Hardware	11144 Dulin Ln, Locust Grove, Virginia, 22508
El Monarca II	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Exxon Locust Grove Market	32301 Constitution Hwy, Locust Grove, Virginia, 22508
Generals' Quarters Restaurant	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Germanna Community College	2130 Germanna Hwy, Locust Grove, Virginia, 22508
Germanna Visitor Center	2062 Germanna Hwy, Locust Grove, Virginia, 22508
Governor Spotswood Estates	1207 Spotswood Dr, Locust Grove, Virginia, 22508
Gun Smith – Mine Run	29409 Mine Run Rd, Unionville, Virginia, 22567

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Gun Smith – Mine Run	29409 Mine Run Rd, Unionville, Virginia, 22567
Hong Kong Restaurant	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Inspired Electrical Solutions Inc.	31330A Constitution Hwy, Locust Grove, VA 22508
Joe’s Repair Service	32914 Jackson LN Locust Grove, VA 22508
Johnson Funeral Home	31440 Constitution Hwy, Locust Grove, VA 22508
Land Pro Lawn and Landscape	Mine Run Rd, Locus Grove, VA 22508
Living Water Community Clinic	32345 Constitution Hwy, Locust Grove, Virginia, 22508
Locust Grove Trains	32305 Constitution Hwy, Locust Grove, Virginia, 22508
Mama's Pizza Locus Grove	32311 Constitution Hwy, Locust Grove, Virginia, 22508
Market at Locust Grove, The	32301 Constitution Hwy, Locust Grove, Virginia, 22508
Mine Run Market	31017 Old Plank Rd, Locust Grove, Virginia, 22508
Mine Run Volunteer Fire Department	31077 Old Plank Rd, Locust Grove, VA 22508
New Hope Baptist Church	32250 Old Plank Rd, Locust Grove, VA 22508
Nicks Construction & Home Improvement	7662 Gold Dale Rd, Locust Grove, VA 22508
Nixon's Heating & Air Conditioning	27531 Mine Run Rd, Rhoadesville, VA 22542
Nova Insurance Services Inc	8011 Burr Hill Rd, Rhoadesville, VA 22542
Nuckols Lumber	11237 Dulin Ln, Locust Grove, Virginia, 22508
Paradocs Farm Ltd	31164 Zoar Rd, Locust Grove, VA 22508
Plaid Rabbit	34150 Parker Rd., Locust Grove, VA 22508
Professional Tree Surgeon	Locust Grove, VA 22508
Ross Construction Co of Virginia	31824 Zoar Rd, Locust Grove, VA 22508

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Route 20 Towing	32281 Constitution Hwy, Locust Grove, Virginia, 22508
Route 20/20 Vision Center	32511 Constitution Hwy, Locust Grove, VA 22508
Samson Properties/Ruth Azzara	29025 Old Office Rd, Rhoadesville, Virginia, 22542
Shade Tree Auto	11217 Dulin Ln, Locust Grove, Virginia, 22508
South Winds Bindery LLC	30521 Mine Run Road, Locust Grove, VA 22508
Telecommute	30521 Mine Run Road, Locus Grove VA 22508
The Virginia Country Lawyer, PLC	9456 Reynolds Rd, Locust Grove, VA 22508
Tony's Used Parts	27388 Mine Run Rd, Rhoadesville, Virginia, 22542
Turner Heating & Air Conditioning	9717 Meadows Rd, Locust Grove, VA 22508
Variety Vacuums	32303 Constitution Hwy, Locust Grove, Virginia, 22508
Water's Tree And Yard Maintenance	4340 Burr Hill Rd, Burr Hill, VA 22433
Watson's Mulch & Topsoil	11237 Dulin Ln, Locust Grove, Virginia 22508
Weslo's Auto Repair	31300 Constitution Hwy, Locust Grove, VA 22508

6. ~~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:

Based on the survey responses, phone calls and e-mails received from the residents and businesses, OCBA believes we will have a least a fifty (50) percent take rate.

Hosted Backbone, LLC (HB), staff plans the following outreach plan in the service area to increase the take rate of the proposed project.

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- Knock on doors
- Signs by the street
- Newspaper ads
- Mail postcards to homes
- Front-door flyers

OCBA plans to post information on the County website, provide presentations to local organizations and provide updated information to the local news media.

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:

N/A

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:

Proposed Residential and Business Rates (PON)

The technology we plan to use to deliver broadband service is a Passive Optical Network (PON) network that will provide the next generation broadband access to our unserved areas of our community. Below are proposed Residential and Business (PON) Rates. If a customer desires a dedicated 10G broadband connection, we will be able to provide the service on a case by case basis.

Customer Type	Speed Tiers	Customer Retail Rate	Notes
Residential 1	25/10	\$35.00*	Shared network asymmetrical plus installation cost
Residential 1	100/100	\$75.00	Shared network symmetrical plus installation cost
Residential 1	500/500	\$150.00	Shared network symmetrical plus installation cost
Residential 1	1000/1000	\$175.00	Shared network symmetrical plus installation cost
Business	50/50	\$75.00	Shared network symmetrical plus installation cost

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Business	100/100	\$150.00	Shared network symmetrical plus installation cost
Business	500/500	\$250.00	Shared network symmetrical plus installation cost
Business	1000/1000	\$300.00	Shared network symmetrical plus installation cost

*Note Customer must show proof of financial hardship.

Installation Cost

The installation cost of \$400.00 covers the cost of electronics including labor inside the business and residence.

Installation cost based on Agreement type

- No Agreement – Payment of \$400.00
- 3-month Agreement - Additional \$140.00 for three (3) months then monthly agreement
- 6-month Agreement – Additional \$70.00 for six (6) months then monthly agreement
- Annual Agreement – Additional \$35.00 for twelve (12) months then monthly agreement

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:

Due to tree cover and terrain in the proposed service area, the plan is to implement a Fiber-to-the-premises (FTTP) PON network that will provide the next generation broadband access to our communities unserved areas in Orange County.

This network will provide the greatest capacity, reliability, and flexibility of all wireline solutions and is therefore the state-of-the-art wireline transport technology. Fiber itself provides a broad communications spectrum and has a capacity of hundreds of Gbps per fiber with off-the-shelf equipment; even low-priced equipment can provide 1 Gbps. Because it contains no metal components, fiber is not susceptible to interference from outside signals or to corrosion. Fiber installed over 25 years ago is still not physically or technologically obsolete, thus using making it the best long-term investment for our community. The technology can be upgraded by simply replacing and upgrading the network electronics at each end of the fiber connection.

The proposed service area will tie into our under-construction fiber backbone that will serve the Wilderness Shores Tower Site. This tower site will be used for our Public Safety P25 Radio System for first responders. This construction will be completed by December 2019. We plan to tap into this fiber cable along Flat Run Road between SR 20 and SR3 and Germanna Highway SR3 between Flat Run Road and Somerset Ridge Road to

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provide service access to customers in the unserved area of Governor Spotswood Estates.

The proposed service area will be connected to the internet from two directions to provide redundant Internet connections and to reduce network outages. From the West, we plan to connect to a Segra fiber cable located along state route 33 outside of Barboursville. From the East, we plan to transverse the OCBA network to connect to the Network Access Point (NAP) in Culpeper via Rappahannock Electric Cooperative (REC) dark fiber. REC is currently installing the fiber and will have this dark fiber available by end of December 2019. If REC doesn't meet this deadline, OCBA will lease fiber from Crown Castle along SR3 to connect to the NAP in Culpeper.

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.

Answer:

Preliminary service area fiber route design has been completed. Once we have been notified of the grant award, our engineers will start reviewing the draft design. After the review process, the engineers will then walk and ride the route reviewing the critical areas (ROW, existing utilities, creek/river crossings, and culverts, etc.) of construction then make necessary modifications to the preliminary plans. Within three months of the grant award notification, we will have all necessary drawings and permits to start construction. Easements should not be necessary because our plan is to install the fiber infrastructure inside the public Rights of Way. If an easement is necessary, our County Attorney will expedite the process to move this forward and completed within 12 months of signed agreement.

During the construction phase of the project, OCBA will provide contracted professional engineering staff, construction contractors, project management and inspection services to oversee the construction phase of the project. OCBA will be responsible for procuring these professional services before the grant award in December 2019.

Orange County Broadband Authority (OCBA) and Hosted Backbone, LLC (HB), is in the process of formalizing an agreement to provide Internet Service in the Burr Hill, Locust Grove and Mine Run Service Area Six. OCBA will be responsible for payment of invoices and filing necessary reports for the grant. After the project has been completed, OCBA will own and manage the fiber infrastructure assets (locates, fiber splicing, etc.) to provide

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internet service to the customer. HB will own and provide FTTP head end equipment, manage the customer and provide the premise equipment to provide internet services. HB will pay OCBA a reasonable monthly fee per connection charge to provide service to the customer.

HB will start connecting customers to the internet in May 2020 and will be completed by end of December 2020.

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:

Orange County Broadband Authority (OCBA) has committed \$421,785.00 in cash and Hosted Backbone, LLC (HB) has committed \$100,000 in cash towards this project. The OCBA has also invested additional \$97,046.00 to upgrade the fiber count to connect the Wilderness Shores Tower Site for the P25 Public Safety Radio System. This additional fiber will be used to provide access to customers in the unserved area of Governor Spotswood Estates.

In anticipation of the project scope and time line, County staff will assist with project management, fiscal management, permitting, and legal advice. The cost associated with these staff will be absorbed by the County. The County has calculated the average fully-loaded compensation rate for staff members expected to participate in this project to be \$60 per hour. During this project, it is anticipated that County staff in aggregate, will provide 500 hours of support. The additional in-kind contribution to this project is worth \$30,000.00.

OCBA will also provide connectivity to Equinix facility in Culpeper to connect to the Internet. The cost for this connectivity is \$95,450.00 and includes collocation space and transport cost to connect to the facility. OCBA plans to purchase a Node Cabinet includes DC Power plant and generator to support this proposed project for a cost of \$25,720.00.

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

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A formal agreement between Orange County Broadband Authority and Hosted Backbone, LLC (HB) is currently under development.

As part of the agreement, OCBA has committed \$421,785.00 and Hosted Backbone, LLC has committed \$100,000.00 in cash. OCBA will utilize our contracted service firms to design, inspect and construct the broadband infrastructure to expedite the construction process.

Orange County staff will also provide support to expedite permits, right of way access, easements and other support to reduce delays of project.

After the project has been completed, OCBA will own and manage the fiber infrastructure assets (locates, fiber splicing, etc.) to provide internet service to the customer. HB will manage the customer and provide headend and premise equipment to connect to the internet. HB will pay OCBA a reasonable monthly fee per connection charge to utilize the fiber to provide service to the customer.

The plan is to use Segra and Rappahannock Electric Cooperative (REC) dark fiber to connect to the internet to provide services. OCBA is in the process of working with these companies to obtain access before January 2020. OCBA plans to cover cost associated with these expenses.

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.

Answer:

Name	Title	Role and Responsibilities
Lewis Foster	Broadband Program Manager Orange County Broadband Authority	Overall Project Management Coordinate planning and scheduling with Contracted Engineering and Inspection firm to oversee construction. Assist with preparing quarterly and close out reports. Updating Broadband Authority on project progress including schedules.
Evan S. Weiner	President/Owner Hosted Backbone, LLC.	Scheduling and coordinating customer installations with Hosted Backbone, LLC staff and contractors. Responsible for Installing and configuring premise equipment in a timely manner. Managing the customer including billing for services

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Stephanie Straub	Director of Management Services Orange County Virginia	Procuring professional services, materials and supplies quotes before grant is awarded for project.
Michelle Williams	Administrative Assistant Orange County Virginia	Process Invoices and remittances to DHCD. Preparing and submitting Quarterly Reports and close out report to DHCD Invoice MGI for services provided by OCBA.
Jim Whipp	GIS Analyst Orange County Virginia	Map and Inventory fiber infrastructure
Thomas E. Lacheney	County Attorney Orange County Virginia	Will provide legal assistance to the project.

14. Project Budget and Cost Appropriateness

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 project will consist of constructing 31.5 miles of fiber in the public ROW, supporting handholes and/or pedestals, fiber drops to customers, node cabinet including generator and electronics to support this proposed project. Detail cost estimates from contractors, engineering and suppliers can be found in attachments that support these costs.

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:

The total project cost is \$2,666,864.00 with a request of \$1,896,140.00 of state funding.

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The number of serviceable units is 918.

The highest residential speed available is 10G upon request. We plan to initially advertise speeds up to 1GB in our service area.

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:

Orange County has worked with numerous state and federal agencies on many types of grants.

Orange County Broadband Authority Program Manager has prior experience with managing broadband grant projects including startup experience in Georgia.

Below is a summary of experience.

- Developed BTOP application and received \$13.5 million BTOP grant from Department of Commerce on March 2, 2010.
- Acted as BTOP stimulus grant project manager, duties included planning, executing and finalizing project according to a strict deadline and within budget. This includes acquiring resources and coordinating the efforts of team members and third-party contractors and consultants to deliver project according to plan.
- Fiber Construction started on December 13, 2010 and network operations began on September 6, 2012.
- Over two hundred miles of fiber and seven towers (5) BTOP funded, (2) County Funded, Point of Presence Facility (County Funded)
- Planned, directed, and coordinated the startup operation of the Broadband Utility department. Duties and responsibilities included formulating policies and procedures, hiring and developing staff, acquiring equipment and services, forecasting revenues and expenses, making operational changes as needed, and expanding the network.

Since March 5, 2014, Hosted Backbone, LLC (HB) has been in business providing datacenter collocation services in regional datacenters along with providing internet services to business and homes that overlay their fiber footprint. HB is in the process of expanding their network to the unserved areas in Virginia to provide internet services.

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.

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The Orange County Broadband Authority (OCBA) recognizes there is an increasing residential and commercial demand for affordable and reliable high-speed broadband as well as an inescapable need to use broadband to deliver efficient and effective local government services and promote economic development.

Orange County is predominately a rural community that has limited high-speed broadband availability. Currently private sector broadband companies are unable to provide affordable, high-speed broadband service due to large upfront capital expenses with a relatively small potential customer base to produce profitable revenue.

OCBA solution to our broadband problem is a multi-faceted. Leverage dark fiber connectivity assets to schools and public safety facilities by upsizing the fiber counts along with building multi-tenant towers to support first responders radio system. By significantly reducing capital expense barriers for private service providers, we will be able to recruit new Internet Service Providers (ISP) to our community to provide affordable, reliable high-speed broadband options for unserved and underserved Orange County's citizens and businesses.

OCBA has recently completed connecting all the Orange County Public Schools (OCPS) facilities with fiber for a Wide-Area Network (WAN). The WAN provides reliable and secure transmission of data, voice and video between each facility while reducing operating costs. The project connected nine facilities with 33 miles of fiber and was funded by E-Rate, OCPS and OCBA funds. Currently OCBA is constructing 22 miles of fiber to connect seven critical Public Safety facilities with fiber to transport radio traffic for the new Public Safety P25 Radio System. The fiber along with microwave communications will provide redundant connections for each site to reduce outages while being used to protect our first responders and citizens.

Based on our recent broadband survey results, OCBA has developed and approved 13 areas (see Master Service Area Map) that are unserved and/or underserved areas of Orange County. OCBA is in the process of prioritizing each service area, determining costs, funding sources and developing a master schedule.

This proposed project is critical to our future expansion into other areas of Orange County that are unserved and/or underserved by broadband access. This proposed Service Area One along with Service Area Six is critical to our master plan. The proximity to existing fiber assets Crown Castle SR3 and Rappahannock Electric Cooperative fiber to obtain access to the outside world is near to this proposed service area. This connectivity will allow ISP's to connect to the OCBA network to provide services in the future. The proposed service area also stops at the Orange/Spotsylvania line in. Based on survey results and conversations with realtors there is a need for broadband in these areas outside of Orange County. OCBA will be glad to partner with ISP's to provide service to these areas in the future.

This proposed project will also include installation of wireless access points at Mine Run Volunteer Fire Department. This will allow our citizens and students access to the internet until we rollout services into their areas of Orange County.

18. Additional Information

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

Application to DHCD Submitted through CAMS

Orange County, VA

BLM Service Area Six

- 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:

Please find attached OCBA our recent survey information, OCBA Broadband Master Service Area map and our public comments.

Attachments:

Map(s) of project area, including proposed infrastructure

BLMServiceArea823201952323.pdf

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

BLMServiceArea6ExistingProviderMap823201952354.pdf

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

BLMServiceArea6CAFIFundingAreas823201952411.pdf

Documentation that proposed project area is unserved based on VATI criteria

BLMServiceArea6UnservedAreas823201952444.pdf

Project Management Plan

ServiceAreaSixBLMProjectManagementPlan823201953543.xlsx

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

RelationshipApplicantandCoapplicantHB8282019125640.pdf

Application to DHCD Submitted through CAMS

Orange County, VA

BLM Service Area Six

Letters of Support

BLMLettersofSupport8302019112104.pdf

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

InKindDocumentationServiceAreaSix828201925642.pdf

Funding Sources Table

VATIFundingSourcesServiceAreaSixBLM8302019103741.docx

Derivation of Cost (Project Budget)

ServiceAreaSixCostWorksheet8242019115556.xlsx

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

SupportingCostsBLMServiceAreaSix8272019121535.pdf

Two most recent Form 477 submitted to FCC

Form477Letter20190826828201992722.pdf

Copy of Public Notice

NoticeonIntentiontoApplyforVATIGrantHB823201952701.pdf

Optional

ServiceAreasOverviewv3827201971930.pdf

Optional

SurveyResponsesMap20190822823201952809.pdf

Optional

OCBASurveyResultsBLMServiceAreaSixSummary8222019824201950845.pdf

Optional

BLMPublicComment8302019112119.pdf

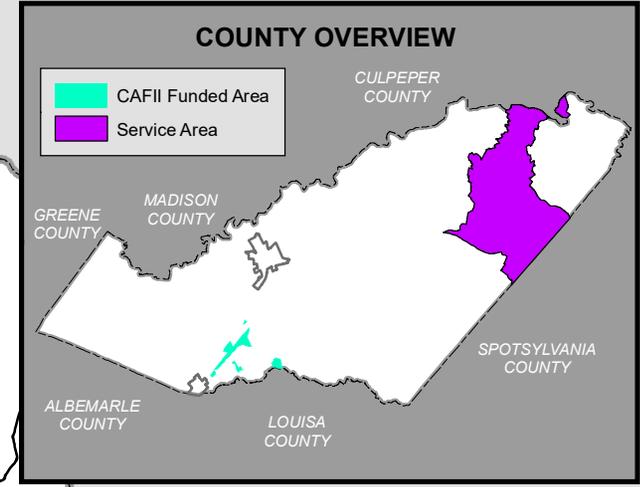
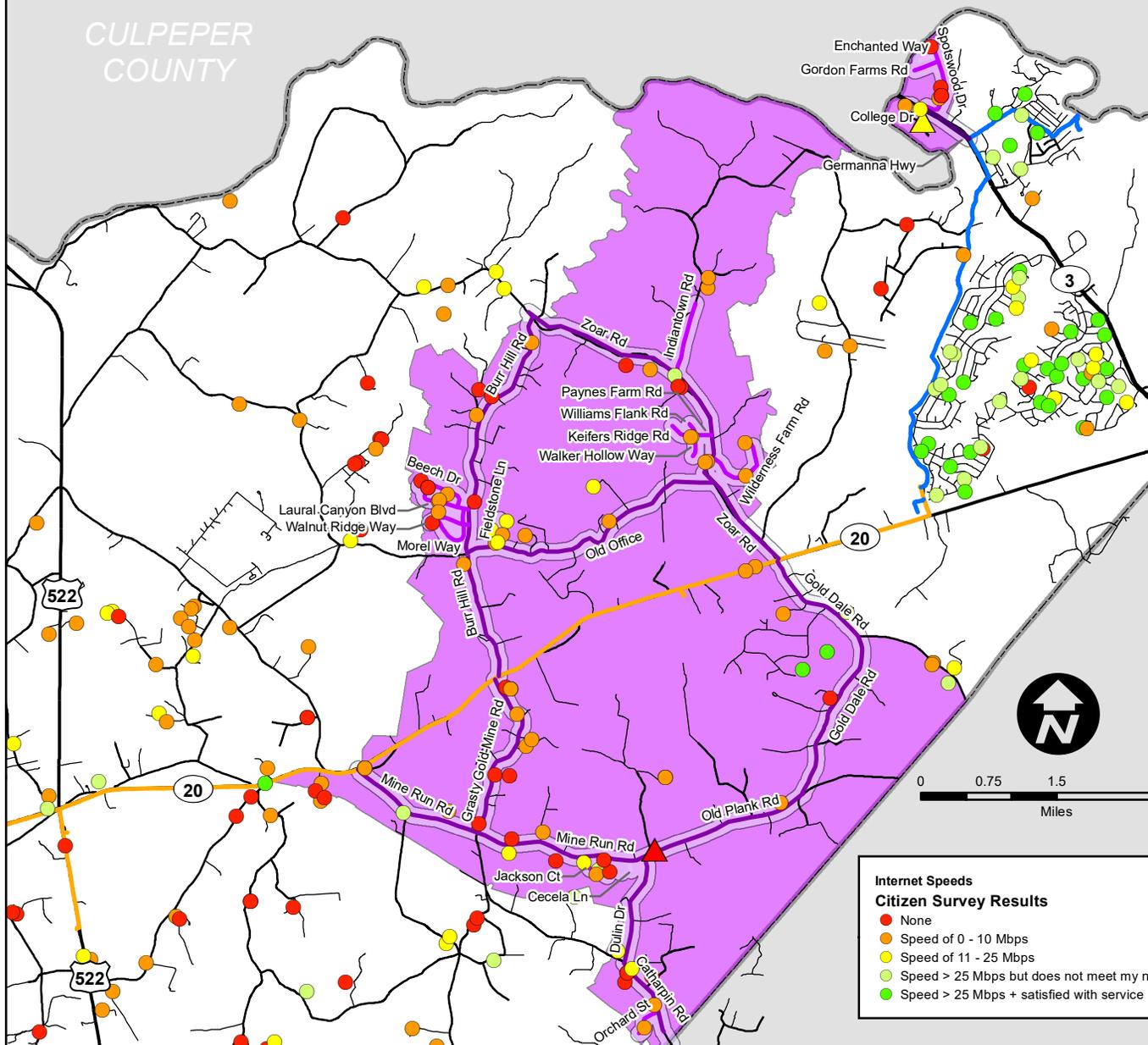
Application to DHCD Submitted through CAMS

Orange County, VA

BLM Service Area Six

Notes:
This project is very important to our community because the proposed service area is unserved and has a very high demand for broadband service based on our recent OCBA survey responses in the proposed service area. Without adequate broadband connectivity our students, farmers, businesses including home businesses, and healthcare providers are suffering from the lack of broadband service. On May 22, 2019, Orange County Broadband Authority (OCBA) launched an on-line broadband availability survey to help determine where service is and isn't to improve internet service to our residents and businesses in Orange County. As of August 22, 2019, over 600 people have weighed in and 88% say they are dissatisfied with their current connection. Only 12% of people have internet speeds of greater than 25 megabits per second and satisfied with service, and 25% say they do not have any internet at all. Below is a three-month summary of our survey results. Responded 645 Measurable Responses 608 Service Speed Percentage No Internet Access 25% 0-10 Mbps 38% 11-25 Mbps 16% >25Mbps and not satisfied with service 9% >25Mbps and satisfied with service 12% Based on our recent broadband survey results, OCBA has developed and approved 13 areas (see Master Service Area Map) that are unserved and/or underserved areas of Orange County. OCBA is in the process of prioritizing each service area, determining cost, funding sources and developing a master schedule.

CULPEPER COUNTY



PROPOSED AREAS BEING SERVED

Road/Route Name	Fiber Count
Beech Drive	48
Burr Hill Road – SR692	144
Catharpin Road - SR606	144
Cecela Lane	24
College Drive	24
Dulin Drive - SR608	144
Enchanted Way	24
Fieldstone Lane	24
Germanna Highway - SR3	288
Gold Dale Road - SR611	144
Gordon Farm Rd	48
Grasty Gold-Mine Road – SR692	144
Indiantown Road – SR603	48
Jackson Court	48
Keifers Ridge Road	48
Laural Canyon Blvd	48
Mine Run Road - SR621	144
Morel Way	48
Old Plank Road - SR621	144
Old Office - SR602	144
Orchard Street	48
Paynes Farm Road	48
Spotswood Drive – SR760	48
Walker Hollow Way	48
Walnut Ridge Way	48
Wilderness Farms Road	48
Williams Flank Road	48
Zoar Road – SR611	144

Internet Speeds
Citizen Survey Results

- None
- Speed of 0 - 10 Mbps
- Speed of 11 - 25 Mbps
- Speed > 25 Mbps but does not meet my needs
- Speed > 25 Mbps + satisfied with service



Orange County GIS

Gordon Building
 112 West Main Street
 P.O. Box 111
 Orange, VA 22960

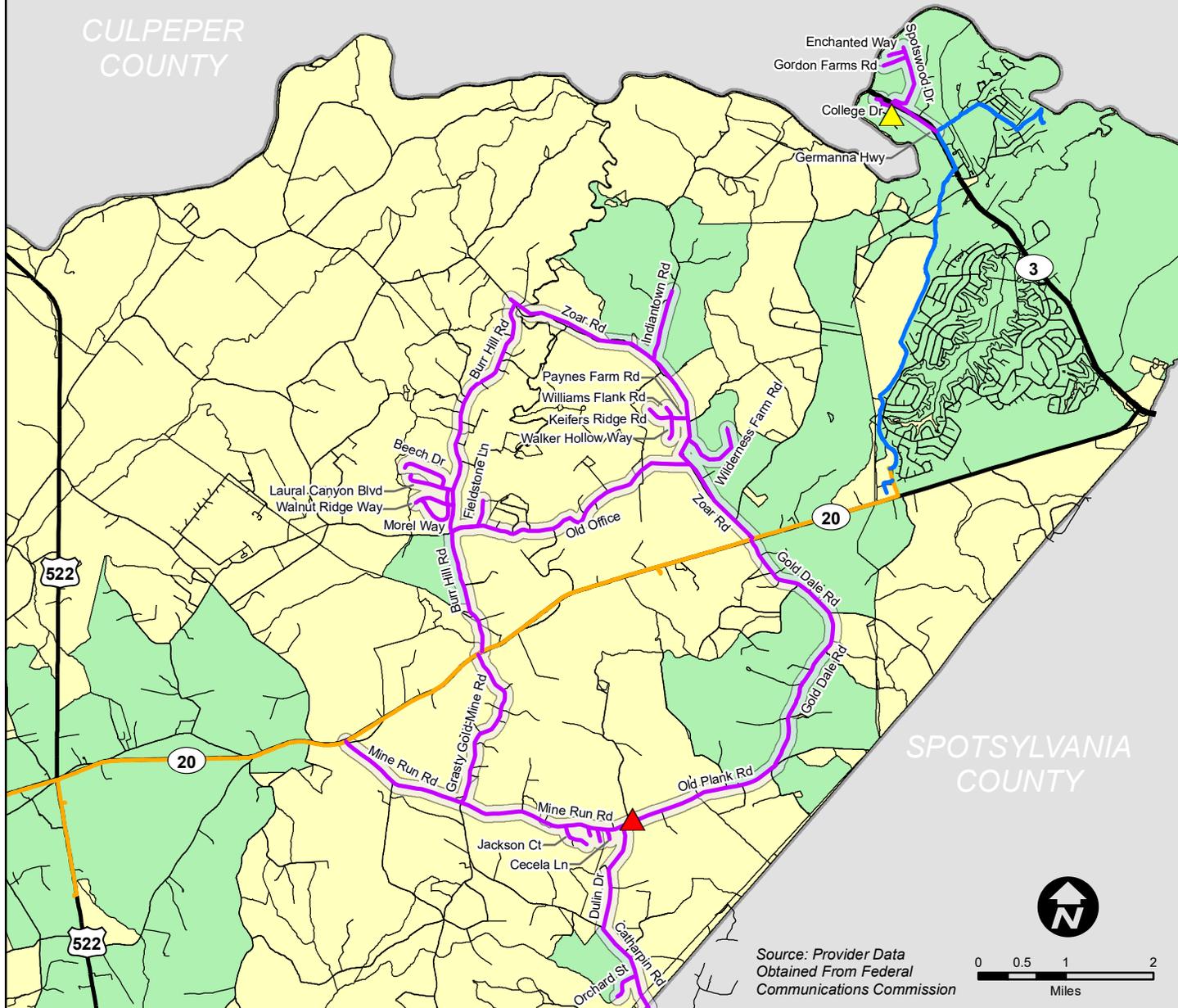
BLM SERVICE AREA - BURR HILL, LOCUST GROVE & MINE RUN

COMMISSIONED LF
 DRAWN JHW
 DATE 08/22/19

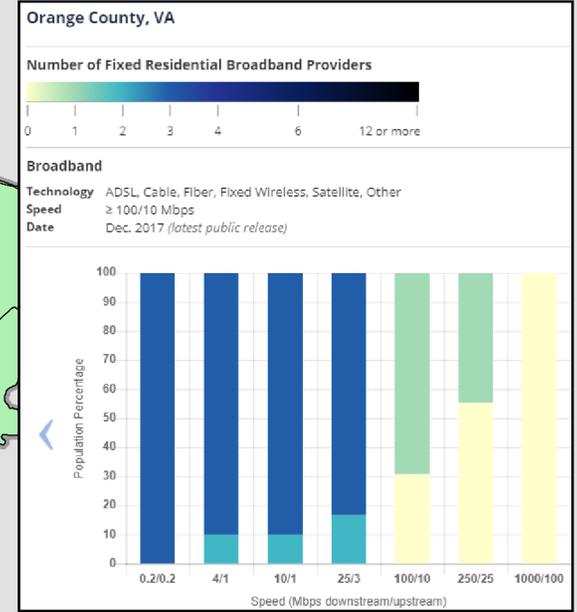
▲ Germanna Community College & Germanna Foundation	Service Area Fiber Count	Fiber Phase	CAFII Funded Area
▲ Mine Run Fire Station	24 Strand	Phase 1	250ft Service Area
	48 Strand	Phase 2	Proposed Service Area
	144 Strand		Town Boundaries
	288 Strand		

Serviceable Units:
918

CULPEPER COUNTY



Source: Provider Data
Obtained From Federal
Communications Commission



Provider	Tech	Down (Mbps)	Up (Mbps)
ViaSat, Inc.	Satellite	30	3
Virginia Broadband, LLC	Fixed Wireless	25	10
dishNET Holding, LLC HNS License Sub. LLC HughesNet	Satellite	25	3
Verizon Communications Inc. Verizon Virginia LLC	ADSL	3	0.768
VSAT Systems, LLC Skycasters	Satellite	2	1.3

PROPOSED AREAS BEING SERVED

Road/Route Name	Road/Route Name
Beech Drive	Keifers Ridge Road
Burr Hill Road - SR692	Laural Canyon Blvd
Catharpin Road - SR606	Mine Run Road - SR621
Cecela Lane	Morel Way
College Drive	Old Plank Road - SR621
Dulin Drive - SR608	Old Office - SR602
Enchanted Way	Orchard Street
Fieldstone Lane	Paynes Farm Road
Germanna Highway - SR3	Spotswood Drive - SR760
Gold Dale Road - SR611	Walker Hollow Way
Gordon Farm Rd	Walnut Ridge Way
Grasty Gold-Mine Road - SR692	Wilderness Farms Road
Indianatown Road - SR603	Williams Flank Road
Jackson Court	Zoar Road - SR611



Orange County GIS

Gordon Building
112 West Main Street
P.O. Box 111
Orange, VA 22960

BLM SERVICE AREA - EXISTING PROVIDERS

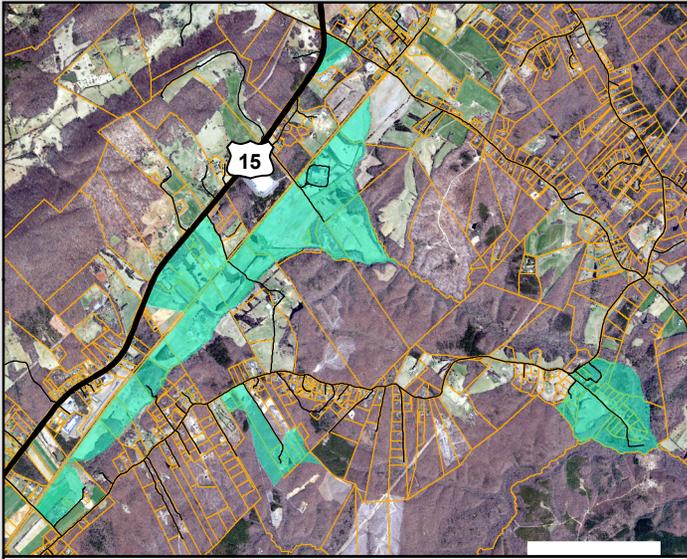
COMMISSIONED DATE: LF JHW 08/15/19

<ul style="list-style-type: none"> Germanna Community College & Germanna Foundation Mine Run Fire Station 	<ul style="list-style-type: none"> Fiber Phase 1 Fiber Phase 2 Proposed Service Area Fiber 	<ul style="list-style-type: none"> Proposed Service Area CAFII Funded Area Town Boundaries 	<p>Existing Providers Residential</p> <ul style="list-style-type: none"> 0 1 	<p>Serviceable Units:</p> <p>918</p>
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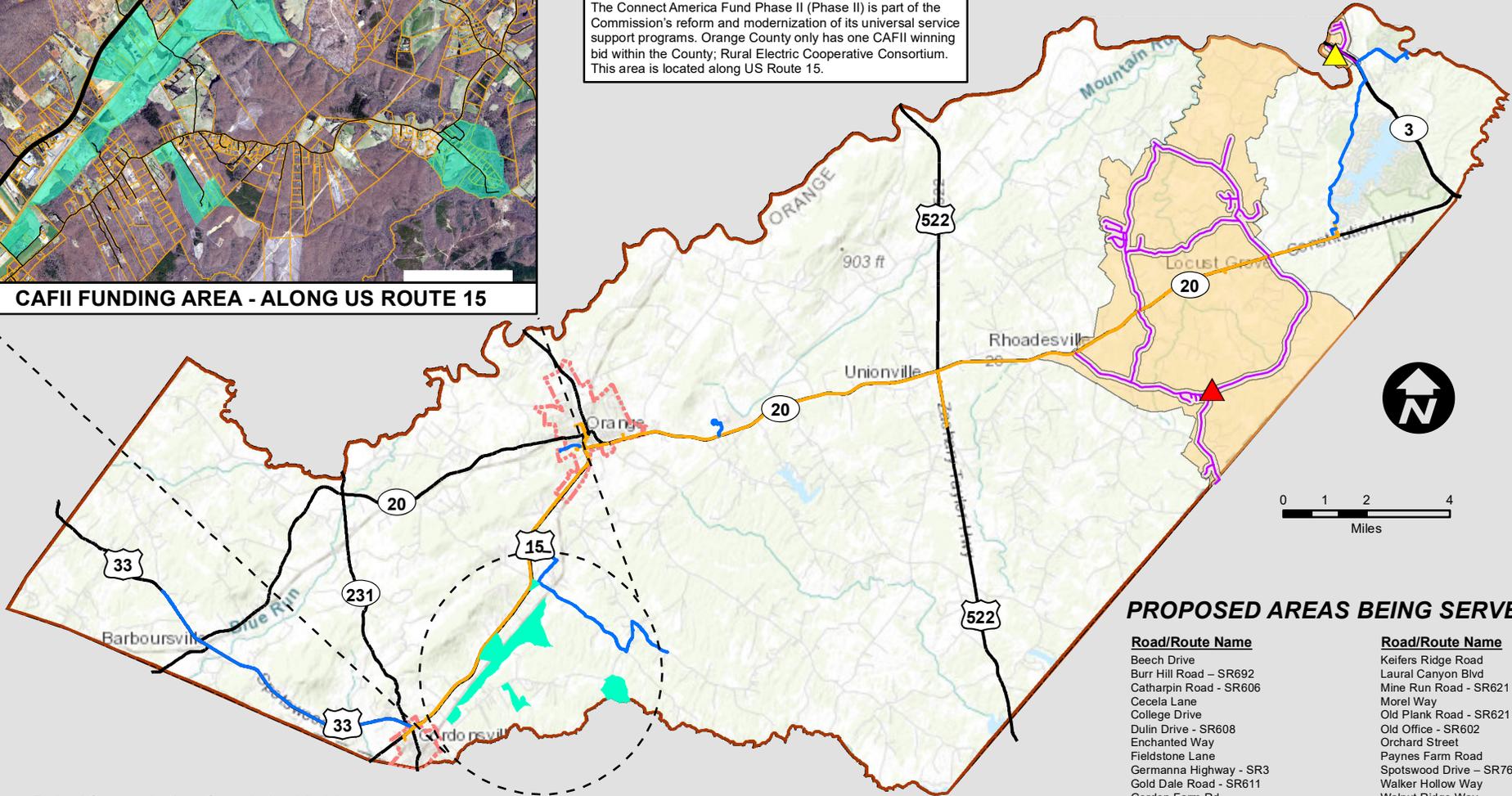
Connect America Fund Phase II: Auction 903 Results

Bidder	Rural Electric Cooperative Consortium
Tier	Gigabit
Latency	Low

The Connect America Fund Phase II (Phase II) is part of the Commission's reform and modernization of its universal service support programs. Orange County only has one CAFII winning bid within the County, Rural Electric Cooperative Consortium. This area is located along US Route 15.



CAFII FUNDING AREA - ALONG US ROUTE 15



PROPOSED AREAS BEING SERVED

Road/Route Name

- Beech Drive
- Burr Hill Road - SR692
- Catharpin Road - SR606
- Cecela Lane
- College Drive
- Dulin Drive - SR608
- Enchanted Way
- Fieldstone Lane
- Germanna Highway - SR3
- Gold Dale Road - SR611
- Gordon Farm Rd
- Grasty Gold-Mine Road - SR692
- Indiantown Road - SR603
- Jackson Court

Road/Route Name

- Keifers Ridge Road
- Laural Canyon Blvd
- Mine Run Road - SR621
- Morel Way
- Old Plank Road - SR621
- Old Office - SR602
- Orchard Street
- Paynes Farm Road
- Spotswood Drive - SR760
- Walker Hollow Way
- Walnut Ridge Way
- Wilderness Farms Road
- Williams Flank Road
- Zoar Road - SR611

Source: Federal Communications Commission, Virginia Information Technologies Agency, Orange County VA Broadband Survey



Orange County GIS

Gordon Building
112 West Main Street
P.O. Box 111
Orange, VA 22960

BLM SERVICE AREA - NO CAF FUNDING AREAS PRESENT

COMMISSIONED LF
DRAWN JHW
DATE 08/22/19

- Fiber
- Phase 1
- Phase 2
- Proposed Service Area Fiber

- CAFII Funded Area
- 250ft Service Area
- Proposed Service Area
- Town Boundaries

- Germanna Community College & Germanna Foundation
- Mine Run Fire Station

Serviceable Units:
918

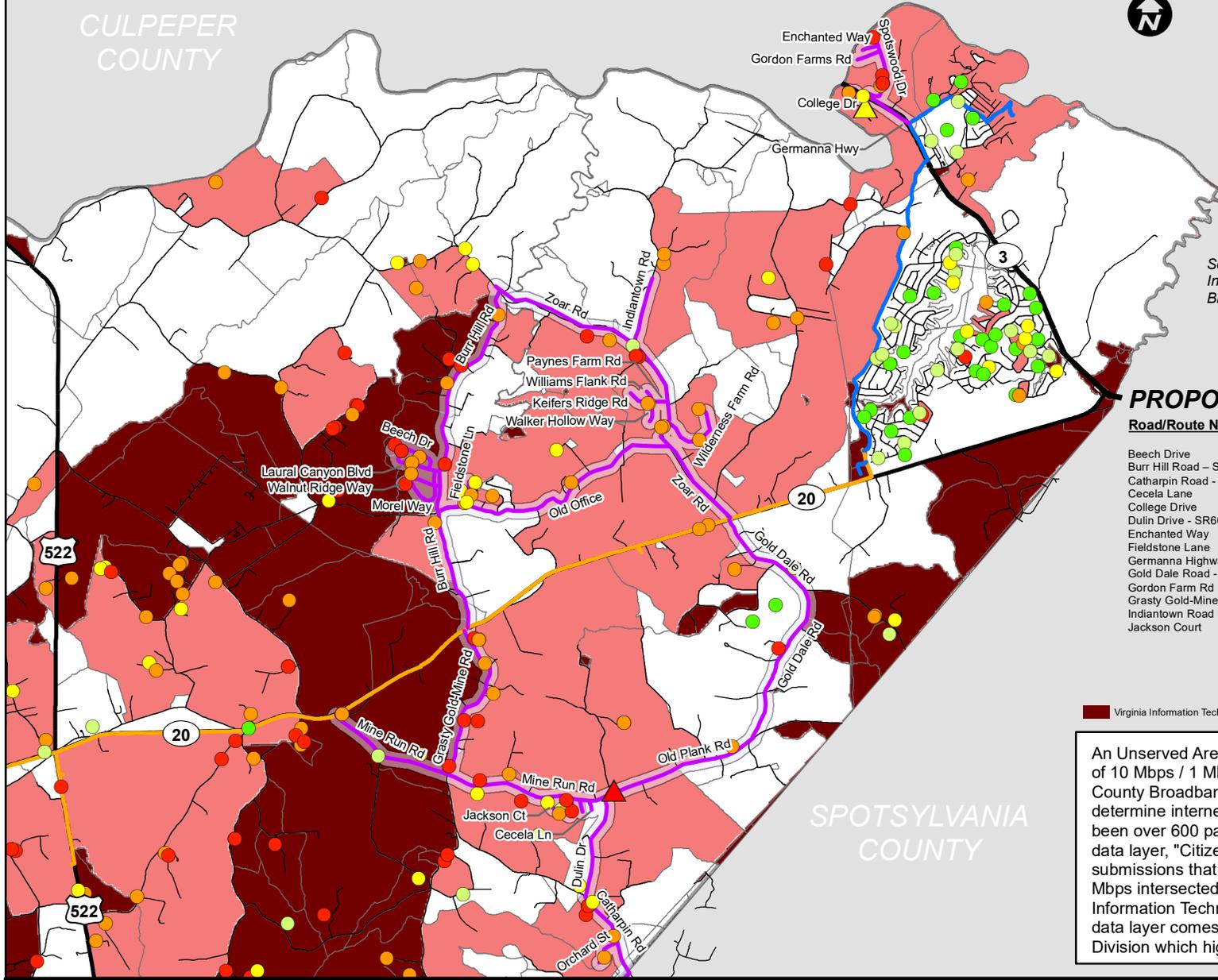
CULPEPER COUNTY



Internet Speeds
Citizen Survey Results

- None
- Speed of 0 - 10 Mbps
- Speed of 11 - 25 Mbps
- Speed > 25 Mbps but does not meet my needs
- Speed > 25 Mbps + satisfied with service

Source: Federal Communications Commission, Virginia Information Technologies Agency, Orange County VA Broadband Survey



PROPOSED AREAS BEING SERVED

Road/Route Name	Road/Route Name
Beech Drive	Keifers Ridge Road
Burr Hill Road - SR692	Laural Canyon Blvd
Catharpin Road - SR606	Mine Run Road - SR621
Cecela Lane	Morel Way
College Drive	Old Plank Road - SR621
Dulin Drive - SR608	Old Office - SR602
Enchanted Way	Orchard Street
Fieldstone Lane	Paynes Farm Road
Germanna Highway - SR3	Spotswood Drive - SR760
Gold Dale Road - SR611	Walker Hollow Way
Gordon Farm Rd	Walnut Ridge Way
Grasty Gold-Mine Road - SR692	Wildemess Farms Road
Indiantown Road - SR603	Williams Flank Road
Jackson Court	Zoar Road - SR611



■ Virginia Information Technologies Agency Unserved Blocks ■ Citizen Survey Unserved Blocks

An Unserved Area is defined as an area with speeds of 10 Mbps / 1 Mbps or less. Earlier this spring the Orange County Broadband Authority launched an online survey to help determine internet speeds throughout the County. There have been over 600 participants since the survey's inception. The data layer, "Citizen Survey Unserved Blocks" is the result of submissions that indicated the user had less than 10 Mbps / 1 Mbps intersected with the Census Blocks. The, "Virginia Information Technologies Agency" (VITA) Unserved Blocks" data layer comes directly from the State's Integrated Services Division which highlights the latest FCC form 477 report.

SPOTSYLVANIA COUNTY



Orange County GIS

Gordon Building
 112 West Main Street
 P.O. Box 111
 Orange, VA 22960

BLM SERVICE AREA - UNSERVED AREAS VISUALIZATION

COMMISSIONED LF
 DRAWN JHW
 DATE 08/15/19

Phase 1	Germanna Community College & Germanna Foundation	Mine Run Fire Station
Phase 2	Proposed Service Area	Census Blocks
Proposed Service Area Fiber	CAFII Funded Area	Citizen Survey Unserved Blocks
	Town Boundaries	VITA Unserved Blocks

Serviceable Units:
918

ORANGE COUNTY, VIRGINIA

BROADBAND AUTHORITY

S. LEWIS FOSTER
BROADBAND PROGRAM MANAGER

PHONE: (540) 661-5332



127 BELLEVIEW AVENUE
LOWER LEVEL
P. O. BOX 111
ORANGE, VIRGINIA 22960

orangecountyva.gov

August 27, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - BLM Service Area Six

Dear Dr. Holmes,

We are delighted to submit this VATI application for assistance to help provide service to over 900 homes and businesses with broadband connectivity in the Burr Hill, Locust Grove and Mine Run area of Orange County, Virginia. The purpose of this letter is to commit Orange County Broadband Authority (OCBA), in form of cash and in-kind assistance, to the proposed project and outline the shape and roles with our co-applicant, Hosted Backbone, LLC (HB), located in Maidens, Virginia.

The roles will be as follows:

- OCBA and HB will perform all work outlined in the VATI application, including the follow-up agreement.
- OCBA will provide contracted professional engineering staff, construction contractors, project management and inspection services to oversee the construction phase of the project.
- OCBA staff will manage the overall project.
- HB will procure and own the electronic headend equipment to provide internet service.
- OCBA will own and manage the fiber infrastructure assets (locates, splicing, etc.) after construction is completed.
- HB will manage the customer and provide customer premise equipment.
- HB will pay OCBA a reasonable monthly fee per connection charge to utilize the fiber and provide service to the customer.
- OCBA staff will administer the grant including review of Co-applicants requests for reimbursement, setting up EFT with the funder, seeking fund and disbursements with HB and preparing related information for auditors.
- All decisions on reimbursement will be made by the Grantor (DHCD). OCBA will not be responsible for any non-reimbursement expenses by HB.
- Promotional outreach will be done by HB and OCBA.

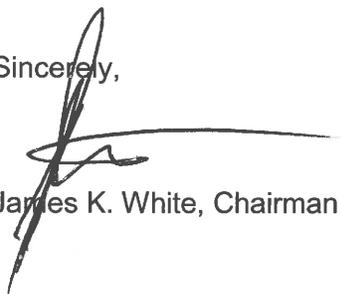
OCBA will commit \$670,001 to this project that includes the following items.

- Cash match of \$421,785.00
- At least 500 hours of in-kind assistance worth \$30,000.00
- Upgraded fiber infrastructure to support additional customers in BLM Service Area Six including The Germanna Community College and Germanna Foundation a value of \$97,046.00.
- Purchase node cabinet, generator, and DC Power Plant \$25,720.00.
- Purchase bandwidth and colocation at Equinix in Culpeper \$95,450.00

OCBA will sign a formal agreement with HB for services and make sure we are prepared to act promptly to complete this project within 12 months of award.

Thank you for your consideration and support.

Sincerely,



James K. White, Chairman



1702 Bridgewater Court
Maidens, Virginia 23102
(804) 506-3200

August 26, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

Extensive efforts have been undertaken between our staff and the OCBA to ensure an appropriate allocation of responsibilities and roles. The result is a division where generally the OCBA focuses on building out a fiber infrastructure and we focus on lighting strands and delivering service to customers. This work up-front will help to ensure success of the project. We are also committing a minimum of \$100,000 in equipment and installation services to support the effort of delivering reliable service.

We are excited about the opportunity to help bring this much needed service to areas which currently do not have access to broadband. We have been delivering reliable enterprise fiber Internet services for a number of years now but believe access to reliable broadband at home is just as critical to success of a community as a whole.

Sincerely,

Evan S. Weiner

Evan S. Weiner
Member-Manager

Relationship between Applicant and Co-Applicant.

A formal agreement between Orange County Broadband Authority and Hosted Backbone, LLC (HB) is currently under development. OCBA approved submitting the VATI grant application with HB on August 6, 2019.

As part of the agreement, OCBA has committed \$421,785.00 in cash and Hosted Backbone, LLC has committed \$100,000.00 in cash. OCBA will utilize our contracted service firms to design, inspect and construct the broadband infrastructure to expedite the construction process.

Orange County staff will also provide support to expedite permits, right of way access, easements and other support to reduce delays of project.

After the project has been completed, OCBA will own and manage the fiber infrastructure assets (locates, fiber splicing, etc.) to provide internet service to the customer. HB will manage the customer and provide headend and premise equipment to connect to the internet. HB will pay OCBA a reasonable monthly fee per connection charge to utilize the fiber to provide service to the customer.

OFFICERS

August 28, 2019

CHAIRMAN

ROBERT COINER

Tamarah Holmes, Ph.D.

VICE-CHAIRMAN

MEAGHAN TAYLOR

Associate Director of Policy and Strategic Development

Virginia Department of Housing and Community Development

600 East Main Street, Suite 300

Richmond, VA 23219

TREASURER

JERRY WOOD

**SECRETARY &
EXECUTIVE DIRECTOR**

PATRICK L. MAUNEY

Re: Virginia Telecommunication Initiative (VATI) 2020- Orange County Fiber to the Premise Project with Hosted Backbone LLC

COMMISSIONERS

CULPEPER COUNTY

JOHN EGERTSON

STEVE WALKER

Dr. Holmes,

On behalf of the Rappahannock-Rapidan Regional Commission, I am writing to convey support for the application submitted by Orange County in partnership with Hosted Backbone LLC. The project will allow construction of a fiber to the premise network in selected unserved areas of eastern Orange County. The project will serve public safety facilities, post-secondary education organizations, residents and businesses at service levels exceeding the VATI requirements.

TOWN OF CULPEPER

CHRIS HIVELY

MEAGHAN TAYLOR

FAUQUIER COUNTY

CHRISTOPHER T. BUTLER

PAUL S. McCULLA

TOWN OF THE PLAINS

CHRISTOPHER R. MALONE

The goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project will help the Commonwealth achieve those goals and will enable citizens and businesses in Orange County to improve access to telemedicine, increase educational access, and enhance entrepreneurial opportunities.

TOWN OF REMINGTON

EVAN H. "SKEET" ASHBY

TOWN OF WARRENTON

BRANDIE SCHAEFFER

JERRY WOOD

The Rappahannock-Rapidan Regional Commission will continue to support our local member jurisdictions as they seek innovative methods of enhancing and expanding broadband access and availability within the region and supports the above-referenced application from Orange County.

MADISON COUNTY

JACK HOBBS

CHARLOTTE HOFFMAN

TOWN OF MADISON

WILLIAM L. LAMAR

Sincerely,



Patrick L. Mauney

Executive Director

ORANGE COUNTY

JAMES CROZIER

R. BRYAN DAVID

TOWN OF GORDONSVILLE

ROBERT COINER

TOWN OF ORANGE

MARTHA B. ROBY

GREG WOODS

RAPPAHANNOCK COUNTY

GARREY W. CURRY, JR.

ROGER WELCH

TOWN OF WASHINGTON

FREDERIC CATLIN

As of April 2019

SENATE OF VIRGINIA

BRYCE E. REEVES
17TH SENATORIAL DISTRICT
ALL OF ORANGE COUNTY; ALL OF THE
CITY OF FREDERICKSBURG; AND PART OF
ALBEMARLE, CULPEPER, LOUISA,
AND SPOTSYLVANIA COUNTIES
POST OFFICE BOX 7021
FREDERICKSBURG, VIRGINIA 22404



August 28, 2019

COMMITTEE ASSIGNMENTS:
REHABILITATION AND SOCIAL SERVICES, CHAIR
COURTS OF JUSTICE
GENERAL LAWS AND TECHNOLOGY
PRIVILEGES AND ELECTIONS
RULES

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

Just in the past few weeks, in meetings with local elected officials and school representatives in my district, I have again heard the call for greater broadband service to their rural constituents who need access for employment, e-commerce, telemedicine, and educational opportunities for their children. I look forward to working together to expand this critical infrastructure in to those unserved and underserved areas.

In service to the Commonwealth,

A handwritten signature in black ink, appearing to read 'Bryce E. Reeves', written in a cursive style.

The Honorable Bryce E. Reeves
Senate of Virginia, 17th District



PO Box 146 – 111 Spicers Mill Rd., Ste. B - Orange VA 22960
540.672.5216, Fax 540.672.2304
www.orangevachamber.com

August 20, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 – “BLM Service Area Six”

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as “BLM Service Area Six,” will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College’s Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

It is my understanding that the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

As the Orange County Chamber of Commerce, it is our mission to promote business, enhance the economic environment, support community development, and act as a catalyst for improving the overall quality of life for our community and region.

This project aligns directly with our mission, ensuring that the businesses and organizations in the aforementioned areas will be better equipped to support our community with all the tools afforded by adequate broadband services. In addition, adequate broadband services will support future businesses and organizations and further enhance our County's economic vitality.

On behalf of the Orange County Chamber of Commerce, we fully support and endorse the efforts of the Orange County Broadband Authority for the Barboursville Service Area One. We appreciate your consideration of approval.

Sincerely,

A handwritten signature in black ink, appearing to be the initials 'JC' with a stylized flourish.

Tammy L. Collins
Executive Director

Mine Run Volunteer Fire Company, Inc.

31077 OLD PLANK ROAD
MINE RUN, VIRGINIA 22508



ORGANIZED 1946

August 23, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

In support of our community and The County of Orange, the firefighters of the MRVFC would gladly allow the Broadband Authority to place a wireless hot spot at our station to enable our citizens and students to access the internet to support the continued efforts of the Broadband project throughout Orange County.

Sincerely,

Jeffrey Mendonca
Chief, Mine Run Volunteer Fire Company

THE MRVFC IS A 501(C) 4 NONPROFIT, AND DONATIONS ARE TAX DEDUCTIBLE TO THE EXTENT ALLOWED BY LAW. OUR TAX ID NUMBER IS 54-1112293



COMMONWEALTH OF VIRGINIA

HOUSE OF DELEGATES
RICHMOND

NICHOLAS J. FREITAS
210 NORTH MAIN STREET
CULPEPER, VIRGINIA 22701

THIRTIETH DISTRICT

COMMITTEE ASSIGNMENTS:
FINANCE
SCIENCE AND TECHNOLOGY
MILITIA, POLICE AND PUBLIC SAFETY FINANCE

August 22, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally and ensuring that first responders are able to connect with the communities, they serve in order to better protect them.

Sincerely,

A handwritten signature in black ink, appearing to read "N. Freitas".

Nick J. Freitas
Delegate 30th District
540-222-7706
nfreitas@nickjfreitas.com

Date August 23, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

The Germanna Foundation is a not-for-profit site that is gaining audience as an historical site of national importance. While the institution has a long history, we are expanding our story to engage a local/regional/national audience. Currently we access internet through satellite, which at this moment is not working due to the heavy rain. To attract and maintain an audience in today's museum world, it is imperative to have reliable connection for use of technologies that engage and entertain guests at historical sites. Without reliable access, the Germanna Foundation will be challenged to grow and be an attraction to audience which in turn will have a positive economic impact on Orange County Virginia. To attract and retain audiences in the highly competitive museum world it is imperative to have technologies to engage the public. We are currently looking at using handheld devices such as tablets and smartphones to immerse our guests in the world of the eighteenth-century frontier, but until we have strong and reliable connectivity, it is only a plan and cannot become reality.

I urge VATI to support funding for the BLM Service Area Six in Orange County Virginia. Without your assistance, it will be more difficult to bring economic growth to this area of Orange County.

Sincerely,

Timothy Sutphin
Executive Director
Germanna Foundation

THINK ORANGE VA
ORANGE COUNTY VA ECONOMIC DEVELOPMENT

PHIL GEER
DIRECTOR
Phone: (540) 672-1238
Fax: (540) 672-4762
Email: pgeer@orangecountyva.gov

P. O. Box 111
122 East Main Street
Orange, Virginia 22960
thinkorangeva.com

August 16, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

High speed internet is incredibly important to supporting our local economy. Almost all business functions are tied to the internet in some way, so having a reliable source of high-speed internet is a necessity for our existing and prospective businesses, including home-based entrepreneurs. This is also a need for our workforce development efforts. People will have access to online training programs that will prepare them for jobs of the future. Additionally, it would make Orange County a more desirable place to live, so we'll likely have a higher success rate of attracting talent to the area.

Sincerely,



Phil Geer
Director of Economic Development

 Orange County Public Schools
Empowering Students
Achieving Dreams

August 28, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

As the School Board Chairman for Orange County Public Schools, I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

We are enthused to currently offer our students digitally connected opportunities. Increasing our broadband presence throughout the community will allow our students to consider staying or returning to Orange County to earn a decent living and raise their children in a community they love.

Sincerely,



Sherrie Page
School Board Chairman for Orange County Public Schools

 Orange County Public Schools
Empowering Students
Achieving Dreams

August 28, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

As the Superintendent for Orange County Public Schools that serves approximately 4,847 K-12 public school students, I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

The vision for Orange County Public Schools embraces equity for student learning. Our ultimate goal is to be a part of the ubiquitous computing solution for our Orange County students. We have a 1:1 student to device ratio for students within our schools. The next logical step is to create a methodology for students to take them out into the "real world." This project would be one step towards that realization in Orange County, especially since it will serve 918 homes, home-based businesses, and traditional businesses.

Sincerely,



Cecil C. Snead, II, Ed.D.
Superintendent for Orange County Public Schools

In Kind Information

The OCBA has invested an additional \$97,046.00 to this project by adding additional handholes and upgrading the fiber count to support additional customers in BLM Service Area Six including The Germanna Community College and Germanna Foundation.

Upgraded three miles of fiber from 24 strands to 288 strands to support proposed FTTP service area.

Construction cost of one (1) mile of 288 fiber \$66,264.00 (see attached quote)

Construction cost of one (1) mile of 24 count fiber \$45,167.00 (see attached quote)

Cost per mile difference \$21,097 x 4.6 miles = \$97,046.00

In anticipation of the project scope and time line, County staff will assist with project management, fiscal management, permitting, and legal advice. The cost associated with these staff will be absorbed by the County. The County has calculated the average fully-loaded compensation rate for staff members expected to participate in this project to be \$60 per hour. During this project, it is anticipated that County staff in aggregate, will provide 500 hours of support. The additional in-kind contribution to this project is about \$30,000.00

Please see letter from Orange County Broadband Authority Chairman.

Computer Cabling & Technology Service

3445 Lake Pointe Drive
Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
3 28 2019	18405

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No	Project

Item	Description	Ordered	Rate	Amount
	install one mile- (typical)			
	24 Strand			
Job Design Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design Drawings	Job VDOT Permits	1	600.00	600.00
Job Design Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 115	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innerduct	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 6ft fiber optic marker white orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telcove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telcove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
gen 24SM L1 Armored	24 Strand Fiber			
MLI 4000- D	General 24 Strand SML1 Armored Fiber	5,600	0.65	3,640.00
MLI 3000-SSFA	Closures	1	375.00	375.00
ifs F1102C-50	24 splice tray for startfighter 3000 ribbon fiber	1	35.00	35.00
LABOR Fiber	50 pack 60mm Fusion Shrink tubing	24	3.00	72.00
Labor Field	LABOR Fiber Terminations Splicing	24	15.00	360.00
	Field Technician- pull fiber - per foot	5,300	1.00	5,300.00
	excludes rock - billed additional			
	excludes traffic control, if required			
Total				\$45,167.00

Computer Cabling & Technology Service

3445 Lake Pointe Drive
 Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
4/4/2019	18419

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
	Install one mile (typical) 288 Strand			
Job Design/Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design/Drawings	Job VDOT Permits	1	600.00	600.00
Job Design/Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 T15	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innerduct	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 6ft fiber optic marker white / orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telcove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telcove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
Gen 288 SM LT Armored	288 Strand Fiber Gen 288 SM LT Armored	5,600	3.50	19,600.00
MLI 4000- D	Closures	1	375.00	375.00
MLI 3000-SSTA	24 splice tray for starfighter 3000 ribbon fiber	12	35.00	420.00
fis F1102C-50	50 pack 60mm Fusion Shrink tubing	288	3.00	864.00
LABOR / Fiber	LABOR Fiber Terminations/Splicing	288	15.00	4,320.00
Labor / Field	Field Technician- pull fiber - per foot excludes rock - billed additional excludes traffic control, if required	5,300	1.00	5,300.00
Total				\$66,264.00

ORANGE COUNTY, VIRGINIA

BROADBAND AUTHORITY

S. LEWIS FOSTER
BROADBAND PROGRAM MANAGER

PHONE: (540) 661-5332



127 BELLEVIEW AVENUE
LOWER LEVEL
P. O. Box 111
ORANGE, VIRGINIA 22960

orangecountyva.gov

August 27, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - BLM Service Area Six

Dear Dr. Holmes,

We are delighted to submit this VATI application for assistance to help provide service to over 900 homes and businesses with broadband connectivity in the Burr Hill, Locust Grove and Mine Run area of Orange County, Virginia. The purpose of this letter is to commit Orange County Broadband Authority (OCBA), in form of cash and in-kind assistance, to the proposed project and outline the shape and roles with our co-applicant, Hosted Backbone, LLC (HB), located in Maidens, Virginia.

The roles will be as follows:

- OCBA and HB will perform all work outlined in the VATI application, including the follow-up agreement.
- OCBA will provide contracted professional engineering staff, construction contractors, project management and inspection services to oversee the construction phase of the project.
- OCBA staff will manage the overall project.
- HB will procure and own the electronic headend equipment to provide internet service.
- OCBA will own and manage the fiber infrastructure assets (locates, splicing, etc.) after construction is completed.
- HB will manage the customer and provide customer premise equipment.
- HB will pay OCBA a reasonable monthly fee per connection charge to utilize the fiber and provide service to the customer.
- OCBA staff will administer the grant including review of Co-applicants requests for reimbursement, setting up EFT with the funder, seeking fund and disbursements with HB and preparing related information for auditors.
- All decisions on reimbursement will be made by the Grantor (DHCD). OCBA will not be responsible for any non-reimbursement expenses by HB.
- Promotional outreach will be done by HB and OCBA.

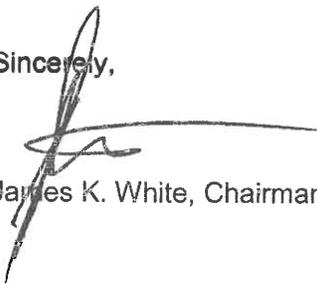
OCBA will commit \$670,001 to this project that includes the following items.

- Cash match of \$421,785.00
- At least 500 hours of in-kind assistance worth \$30,000.00
- Upgraded fiber infrastructure to support additional customers in BLM Service Area Six including The Germanna Community College and Germanna Foundation: a value of \$97,046.00.
- Purchase node cabinet, generator, and DC Power Plant \$25,720.00.
- Purchase bandwidth and colocation at Equinix in Culpeper \$95,450.00

OCBA will sign a formal agreement with HB for services and make sure we are prepared to act promptly to complete this project within 12 months of award.

Thank you for your consideration and support.

Sincerely,



James K. White, Chairman

VATI FUNDING SOURCES TABLE

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

Source	Amount	%	Status
REQUESTED VATI	\$ 1,896,140	71.1%	PENDING
Orange County Broadband Authority	\$ 670,001	25.1%	SECURED
Hosted Backbone, LLC.	\$100,000	3.75%	SECURED
	\$		
	\$		
	\$		
	\$		
TOTAL	\$ 2,666,141	100 %	

CDBG Derivation of Cost

Product	Total	VATI	Non-VATI	Source of Estimate	Date
EXAMPLE					
<u>Construction</u>					
200 LF of fiber @\$150/LF	\$30,000	\$15,000	\$15,000	Company A	9/5/2016
Tower	\$100,000	\$80,000	\$20,000	Company B	9/5/2016
Engineering	\$20,000	\$0	\$20,000	ABC Engineering Firm	9/5/2016

30000

Product	Total	VATI	Non-VATI	Source of Estimate	Date
Cost of Construction 1 mile of 24 fiber laterals including permits	\$ 45,167	\$ 36,134	\$ 9,033	quote per mile from Computer Cabling & Technology Service	3/28/2019
Cost of Construction 4.75 miles of 48 fiber laterals including permits	\$ 223,411	\$ 178,729	\$ 44,682	quote per mile from Computer Cabling & Technology Service	3/28/2019
Cost of Construction 25.75 miles of 144 fiber laterals including permits	\$ 1,417,847	\$ 1,134,278	\$ 283,569	quote per mile from Computer Cabling & Technology Service	3/28/2019
Average cost of Fiber drop to customer for 459 customers with average length of 250 from road	\$ 422,500	\$ 338,000	\$ 84,500	quotes per customer FTTP connection from Computer Cabling &	7/29/2019
Engineering	\$ 79,000	\$ 79,000	\$ -	Vantage Point	7/31/2019
Inspection	\$ 130,000	\$ 130,000	\$ -	Vantage Point	7/31/2019
Electronics	\$ 100,000	\$ -	\$ 100,000	Hosted Backbone	7/31/2019
Node Cabinet	\$ 7,293	\$ -	\$ 7,293	Walker and Associates	7/17/2019
DC Power Plant	\$ 4,084	\$ -	\$ 4,084	Diversitec	8/5/2019
Node Cabinet Site Prep/Electrical including genrator	\$ 8,367	\$ -	\$ 8,367	Jenkins Electric, LLC	8/19/2019
Propane Tank including installation for Generator	\$ 5,976	\$ -	\$ 5,976	Tiger Fuel	8/15/2019

\$ 1,687,140 \$ 421,785

CDBG Derivation of Cost

Fiber Upgraded Flat Run Road to Somerset Rideg Road from 24 Count to 288 Count for 4.6 miles - \$21,007 per mile - \$62,201.00	\$ 97,046	\$ -	\$ 97,046	Cost to upgrade fiber from 24 to 288	7/31/2019
County Staff In-kind - Project Management, legal, permitting, administartive, etc.	\$ 30,000	\$ -	\$ 30,000	500 hours at \$60.00 per hour includes benefits.	8/13/2019
Bandwidth Cost - Collocation, Transport and Cross Connects January - December	\$ 95,450	\$ -	\$ 95,450	Quotes Equinix, Cogent and Crown Castle	6/17/2019, 7/23/2019, 8/21/2019
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
Total	\$ 2,666,142	\$ 1,896,140	\$ 770,001		
Percentage Forcasted		0.711192526	0.288807238		
	\$1,869,864.00				

Computer Cabling & Technology Service

3445 Lake Pointe Drive
Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
3/28/2019	18405

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
	install one mile- (typical)			
	24 Strand			
Job Design/Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design/Drawings	Job VDOT Permits	1	600.00	600.00
Job Design/Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 T15	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innaerduer	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 6ft fiber optic marker white / orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telcove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telcove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
	24 Strand Fiber			
gen 24SM LT Armored	General 24 Strand SM LT Armored Fiber	5,600	0.65	3,640.00
MLI 4000- D	Closures	1	375.00	375.00
MLI 3000-SSTA	24 splice tray for starfighter 3000 ribbon fiber	1	35.00	35.00
fis F1102C-50	50 pack 60mm Fusion Shrink tubing	24	3.00	72.00
LABOR / Fiber	LABOR Fiber Terminations/Splicing	24	15.00	360.00
Labor / Field	Field Technician- pull fiber - per foot	5,300	1.00	5,300.00
	excludes rock - billed additional			
	excludes traffic control, if required			
Total				\$45,167.00

Computer Cabling & Technology Service

3445 Lake Pointe Drive
Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
3/28/2019	18406

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To
PSAP Airport

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
	Install one mile (typical) 48 Strand			
Job Design/Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design/Drawings	Job VDOT Permits	1	600.00	600.00
Job Design/Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 T15	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innerduct	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 60 fiber optic marker white / orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telecove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telecove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
GEN 48 SMLT Armored Fiber	48 Strand Fiber			
MLI 4000- D	48 Strand SMLT Armored Fiber	5,600	0.90	5,040.00
MLI 3000-SSTA	Closures	1	375.00	375.00
fis F1102C-50	24 splice tray for starfighter 3000 ribbon fiber	2	35.00	70.00
LABOR / Fiber	50 pack 600mm Fusion Shrink tubing	48	3.00	144.00
Labor / Field	LABOR Fiber Terminations/Splicing	48	15.00	720.00
	Field Technician- pull fiber - per foot excludes rock - billed additional excludes traffic control, if required	5,300	1.00	5,300.00
Total				\$47,034.00

Computer Cabling & Technology Service

3445 Lake Pointe Drive
Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
3/28/2019	18404

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
	Install one mile (typical) 144 Strand			
Job Design/Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design/Drawings	Job VDOT Permits	1	600.00	600.00
Job Design/Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 T15	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innerduct	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 6ft fiber optic marker white / orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telecove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telecove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
GEN 144F LT SM armor	144 Strand Fiber General 144F SM LT armored fiber	5,600	2.00	11,200.00
MLI 4000- D	Closures	1	375.00	375.00
MLI 3000-SSTA	24 splice tray for starfighter 3000 ribbon fiber	6	35.00	210.00
fis F1102C-50	50 pack 60mm Fusion Shrink tubing	144	3.00	432.00
LABOR / Fiber	LABOR Fiber Terminations/Splicing	144	15.00	2,160.00
Labor / Field	Field Technician- pull fiber - per foot excludes rock - billed additional excludes traffic control, if required	5,300	1.00	5,300.00
Total				\$55,062.00

Computer Cabling & Technology Service

3445 Lake Pointe Drive
 Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
4/4/2019	18419

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
	Install one mile (typical) 288 Strand			
Job Design/Drawings	Job Drawings	1	1,000.00	1,000.00
Job Design/Drawings	Job VDOT Permits	1	600.00	600.00
Job Design/Drawings	Job VDOT Bonds	0	0.00	0.00
PG243624 T15	Vault 24 x 36 x 36 Tier 15 (22,500)	5	800.00	4,000.00
200 Innerduct	2" 13.5 HDPE conduit- Orange	5,300	1.25	6,625.00
2" Alum Reverse Thread Coupli...	2" Alum reverse threaded Coupling for 13.5 HDPE Pipe	10	6.00	60.00
CLMU30-3072-0104	Carsonite 6ft fiber optic marker white / orange decal- VA miss utility numbers	5	35.00	175.00
decal 507FOC	Decal #507 FOC Fiber Optic	5	5.00	25.00
Telcove- Direct bore 2"	Directional Bore 2"	1,200	7.00	8,400.00
Telcove- Trench 36"	Plow 36" deep, cover and restoration	4,000	3.50	14,000.00
Wire Material- Misc.	seed, straw, restoration material	1	500.00	500.00
Gen 288 SM LT Armored	288 Strand Fiber Gen 288 SM LT Armored	5,600	3.50	19,600.00
MLI 4000- D	Closures	1	375.00	375.00
MLI 3000-SSTA	24 splice tray for starfighter 3000 ribbon fiber	12	35.00	420.00
fis F1102C-50	50 pack 60mm Fusion Shrink tubing	288	3.00	864.00
LABOR / Fiber	LABOR Fiber Terminations/Splicing	288	15.00	4,320.00
Labor / Field	Field Technician- pull fiber - per foot excludes rock - billed additional excludes traffic control, if required	5,300	1.00	5,300.00
		Total		\$66,264.00

Computer Cabling & Technology Service

3445 Lake Pointe Drive
 Harrisonburg, VA 22801

Sales Order

Date	S.O. No.
7/29/2019	18489

Name / Address
Oranger County Broadband Authority Orange, VA

Ship To

P.O. No.	Project

Item	Description	Ordered	Rate	Amount
Nelson- Burial of drop per foot	fiber drop to a residence w/ splice enclosure	300	1.00	300.00
gen 4 fiber drop	Install burial drop fiber and restoration - per foot	350	0.30	105.00
Nelson-Underground Drop	Gen 4 strand SM fiber w/ tracer wire	1	400.00	400.00
1 x 2 Splitter Pigtail w/ SC-AP	Underground drop to building Fusion Splicing, mount ONT, install power, test and turn-up	1	29.00	29.00
CAR 15 x 20 x 18	1 x 2 Splitter Pigtail w/ SC-AP	1	66.00	66.00
coyote runt	Carlson 15 x 20 x 18 hand box /w lid	1	200.00	200.00
Coyote 12 splice tray	Coyote Runt 24 splice enclosure kit model 8006671 w/o trays	1	33.00	33.00
LABOR / Fiber	Coyote 12 splice tray -fusion model 80806033	1	67.00	67.00
		Total		\$1,200.00



07/31/2019

Cost Estimate for VPS OSP Engineering Services – VATI Application 2

Prepared for:

S. Lewis Foster
 Broadband Program Manager
 Orange County Broadband Authority
 127 Belleview Avenue
 P.O. Box 111
 Orange, VA 22960

Description	Estimate
Engineering Cost (See Notes 1 & 3) Field Data Collection Kick-off Meeting Field Data Collection & Mapping – Town (0 miles @ \$1.35/ft) Field Data Collection & Mapping – Rural (32.6 miles @ \$0.43/ft)	\$ 5,000 \$ - \$ 74,000
Drawings for VDOT and Town of Orange Permits	Drawings included in Engineering Cost. Permit applications and coordination is time and expense.
Inspection Cost of Construction (See Note 2) 1 Resident Estimated at 26 weeks; 5 work days per week; 11 hour work days	\$ 130,000

Notes:

- (1) Field Data Collection Services Living expenses are included in the cost estimates.
- (2) Estimated inspection service living expenses are included in the cost estimates. Actual expenses will be passed through as incurred with no markup.
- (3) Pricing is based generic fielding sheets formats and software. Alternative formats and software may result in increased costs.
- (4) Make Ready Engineering and Pole Loading (Poles), if required
 - a. Make Ready Engineering (when Required) - \$30/pole
 - b. Pole Loading Analysis (when required) - \$55/pole
 - c. MRE and PLA (when required) - \$75/pole
- (5) The following additional items would be performed on a time and expense basis:
 - a. MRE Coordination
 - b. Project management

Manufacturer	Part	Description	Qty	Each	Line	Condition
Cisco	ASR1006		2	\$1,200.00	\$2,400.00	Refurb
Cisco	ASR1000-ESP20		4	\$380.00	\$1,520.00	Refurb
Cisco	ASR1000-SIP10		2	\$140.00	\$280.00	Refurb
Cisco	ASR1000-SIP40		4	\$1,200.00	\$4,800.00	Refurb
Cisco	ASR1000-RP2		4	\$1,425.00	\$5,700.00	Refurb
Cisco	N9K-C9396PX		3	\$1,250.00	\$3,750.00	Refurb
Cisco	SFP-10G-LR		12	\$75.00	\$900.00	Refurb
Cisco	SFP-10G-ZR		12	\$450.00	\$5,400.00	Refurb
Cisco	SFP-10G-SR		30	\$10.00	\$300.00	Refurb
Cisco	XFP-10G-MM-SR		16	\$15.00	\$240.00	Refurb
Cisco	XFP-10GLR-OC192SR		12	\$15.00	\$180.00	Refurb
Cisco	XFP-10GZR-OC192LR		12	\$150.00	\$1,800.00	Refurb
Cisco	SPA-8X1GE-V2		2	\$125.00	\$250.00	Refurb
Ubiquiti	UF-OLT	8-port Optical Line Terminal	6	\$1,799.00	\$10,794.00	New
Ubiquiti	UF-WIFI	GPON CPE with Wi-Fi	550	\$69.00	\$37,950.00	New
Ubiquiti	UF-GP-C+	SFP Module (GPON)	51	\$85.00	\$4,335.00	New
Ubiquiti	UF-MM-10G-20	SFP+ Module (20-pack)	2	\$400.00	\$800.00	New
DDB Unlimited	WLTEE2-A	Node Cabinet	2	\$4,872.00	\$9,744.00	New
APC	NBRK0250	NetBotz 200 Rack Monitor	2	\$559.00	\$1,118.00	New
APC	NBES0304	NetBotz dry contact cable - 15'	6	\$39.99	\$239.94	New
APC	AP9335TH	NetBotz temperature & humidity	2	\$149.99	\$299.98	New
APC	NBES0301	NetBotz spot fluid sensor	2	\$119.99	\$239.98	New
APC	SUM3000RMXL2U	Smart-UPS XL Modular 3000VA 1	2	\$3,480.00	\$6,960.00	New
\$100,000.90						



Customer: ORANGE COUNTY BROADBAND AUTHORITY
 Att: Lewis Foster
 Ph: 540-661-5332
 Email: LFOSTER@ORANGECOUNTYVA.GOV

Quote Number: WB-0000885059
 Date: 2019-07-17

Prepared By: Walker and Associates, Inc.
 ISE: Dwayne Miller
 Ph: 800-297-2293
 Email: Dwayne.Miller@WalkerFirst.com

Line	Part Number	Manufacturer	Description	UOM	Qty	Unit Price	Extended Total
* 1	M47P-4036-24/48RU	American Products LLC	PATRIOT ENCLOSURE 63" T X 40" W X 36" D Patriot Enclosure 63"x 40"x 36" overall dimensions, equipment chamber 47" tall. Enclosure finish is compliant to GR-487 paint specifications. Standard powder coating is light texture beige. Enclosure includes factory installed items below: - .125"(high strength to weight ratio) aluminum construction - Dual access doors with 3pt S/S door latch systems - S/S lift off door hinges - Door wind guard stops and door ground cables - 20 amp quad convenience receptacle - Dual sets of (2sets) of 19"/23" 24RU equipment rails - Horizontal cable management trays (when configured with 19" rack) - 16" tall isolated vented battery compartment - 32" T x 36" L x 10" D side access multifunction enclosure with plywood backboard - 12 slot aluminum ground strip - S/S hardware - S/S lifting brackets - Includes door latch tool	EA	1	\$ 4,386.33	\$ 4,386.33
* 2	AM-DLRM	American Products LLC	DOOR ALARM (1 SET)	EA	1	\$ 68.09	\$ 68.09
* 3	AMMFHEXIQ7400115HE	American Products LLC	HEAT EXCHANGER MOUNTED ON REAR DOOR	EA	1	\$ 1,780.97	\$ 1,780.97
* 4	AM-LTT-1615	American Products LLC	LAPTOP TRAY ASSY - TELCO MOUNTED ON FRONT DOOR	EA	1	\$ 97.14	\$ 97.14
* 5	AM-TBGB	American Products LLC	GROUND BAR KIT - SHIPS LOOSE	EA	1	\$ 123.20	\$ 123.20
* 6	AMP-LC	American Products LLC	100 AMP LOAD CENTER W/MAIN & 2 20AM MOUNTED ON RIGHT SIDE	EA	1	\$ 430.23	\$ 430.23
* 7	AM-GP	American Products LLC	30 AMP GENERATOR PLUG ASSEMBLY	EA	1	\$ 216.26	\$ 216.26
* 8	AMP-LIGHT-LED	American Products LLC	LED CABINET LIGHT BAR W/POWER SUPPLY	EA	1	\$ 191.16	\$ 191.16
Quote Total:							\$ 7,293.38



Diversitec

We move information.

Quotation

Date Aug 5, 2019	Page 1
Order Number QT020735	

14321 Sommerville Ct.
Suite #102
Midlothian, VA 23113
Phone: 804-379-6772

Sold To:

Orange County

Ship To:

Orange County

Reference 3 Node Locations (12AVR200	PO Number	Customer No. BLANK	Salesperson ADOB	Ship Via	Terms DUEREC
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Qty. Ord.	Item Number	Description	Unit Price	UOM	Extended Price
1	FPSJ60I-ANL-VC	FPS -48V, 19" REAR WIRE, 80AMP MAX, LVBD & SHUNT (549.00	EACH	549.00
1	SPS-FPS100-A01-VV	SMARTPACK S CONTROLLER WITH A01 PROFILE	410.00	EACH	410.00
2	241122.125	FPS 48V/1800W HE RECTIFIER	355.00	EACH	710.00
1	331E00116500	FPS BLANK	15.25	EACH	15.25
1	CBB050E...	CBB050E 50 AMP BULLET BREAKER	21.00	EACH	21.00
2	CBB080E...	CBB080E 80AMP BREAKER	21.00	EACH	42.00
1	BLANK.....	326829 12AVR200ET (1 set of 4)	2,337.00	EACH	2,337.00

Comments:	Tax Summary:		
	VA	0.00	
	Less		
	Included Tax		0.00
	Order Discount		0.00
	Subtotal		4,084.25
	Total sales tax		0.00
	Total order		4,084.25

Jenkins Electric, LLC

8 /19 /2019

14351 Kenwood Lane

Orange, VA 22960

(540) 672-3975

jenkinselec@aol.com

Bid prepared by:

Larry Jenkins

Owner, Jenkins Electric, LLC

Location: three total sites on County of Orange VA maintained land

Scope: Provide labor and material to install a 16 KW generator and 100 amp service and line voltage connections to owner furnished equipment

- 1. Electrical service will consist of 1 100 amp transfer switch service rated model N#RXSW100 A3 1- 20 space weather proof 100 amp single phase electrical panel mounted on a H channel frame with transfer switch.*
- 2. Generator Model N#7035 16 KW Generac LP gas unit air cooled will be mounted within 10' of meter and transfer location on concrete pad poured by contractor.*
- 3. Building permit if applicable shall be added to total cost (Orange Building department has all-inclusive permit and one should not be needed for separate trades).*
- 4. Gas work has not been included.*
- 5. All work shall be installed per NEC and any local codes.*
- 6. No excavating grading concrete etc. has been included.*

Jenkins Electric LLC. Class A Electrical Contractor license N# 2710021686 submits a price valid for 30 days for a sum of \$8,367.00 for stated work.

Cost of Bandwidth

Sources:

Equinix Colocation Culpeper:

1 rack, half powered = \$1000 / month

Incl power for 30amp circuits (P+R)

You can get a 10G connection on Equinix private fiber from Culpeper to Ashburn for \$750/month.

Cross connects are billed at \$350 / month.

Cogent Dedicated Internet Cost:

Below are the Gig and 10 Gig quotes at 18155 Technology Drive, Culpeper, VA

1000Mbps – 1 Year

MRC: \$750

NRC: \$1250

10000Mbps – 1 Year

MRC: \$2250

NRC: \$1250

Crown Castle Dark Fiber Connectivity to Culpeper:

Dark Fiber Pricing from Route 3 and Route 708 to Culpeper Equinix.

2 Fiber Option • 24, 36, and 60 Month Terms

2 Fiber 24 Months \$4,400 MRC

2 Fiber 36 Months \$3,900 MRC

2 Fiber 60 Months \$3,600 MRC

Description	NRC Cost	MRC Cost
Colocation Equinix including two cross connects	\$.00	\$1,700.00
Dedicated Internet 10GB	\$1,250.00	\$2,250.00
Dark Fiber Lease 36 Months	\$.00	\$3,900.00
Sub Total:	\$1,250.00	\$7,850.00
Total Bandwidth Cost January – December		\$95,450.00

Lewis Foster

From: Todd Jeffery <tjeffery@equinix.com>
Sent: Tuesday, July 23, 2019 3:39 PM
To: Lewis Foster
Subject: Equinix - follow up from our call today
Attachments: Marketplace - Equinix Ashburn ISP.xlsx

Lewis – nice speaking to you. When should we next touch base?

There are 400 total NSP's in our Ashburn campus. Attached is an excel sheet of all the carriers who advertise a presence in Ashburn.

You can filter the list by column B.

There are 11 NSP's that advertise a presence in our Culpeper campus those names are listed below. I even got a quote for you for 10G internet.

COST EQUINIX CULPEPER:

1 rack, half powered = \$1000 / month

Incl power for 30amp circuits (P+R)

You can get a 10G connection on Equinix private fiber from Culpeper to Ashburn for \$750/month.

Cross connects are billed at \$350 / month.

ISP's in Culpeper campus:

- Cogent – my contact said \$2k / month for 10G DIA
- AT&T
- Verizon
- Zayo
- Century Link
- West Corporation
- Crown Castle
- Cox Enterprises
- Telxius
- SummitIG LLC
- Brightstar Corp

Todd Jeffery

Global Account Director

EQUINIX | 21731 Filigree Court, Ashburn, VA 20147

E tjeffery@equinix.com | M 203 981 4660 | T 703 840 5354

Lewis Foster

From: Zaheer, Syed <szaheer@Cogentco.com>
Sent: Monday, June 17, 2019 9:22 AM
To: Lewis Foster
Subject: Cogent - Gig and 10 gig Quote

Louis,

Per our conversation from last week, below are the Gig and 10 Gig quotes you had requested. Please let me know what the next steps should be and if there are any other questions.

18155 Technology Drive, Culpeper, VA, 22701

1000Mbps -- 1 Year

MRC: \$750

NRC: \$1250

10000Mbps -- 1 Year

MRC: \$2250

NRC: \$1250

Best,

Syed Zaheer | National Account Manager

Cogent Communications | Sterling, VA | www.cogentco.com

office: 703-456-7919 | mobile: 703-989-0197 | szaheer@Cogentco.com

cogent

Like, Follow and Connect with Cogent



Cogent Communications Group, Inc. (NASDAQ: CCOI) is a multinational, Tier 1 facilities-based ISP, consistently ranked as one of the top five networks in the world. Cogent specializes in providing businesses with high speed Internet access, scalable Ethernet point-to-point transport, VPLS and colocation services. Cogent built one of the largest and highest capacity IP networks in existence. This network enables Cogent to offer large bandwidth connections at highly competitive prices.

 Please consider the environment before printing this e-mail.

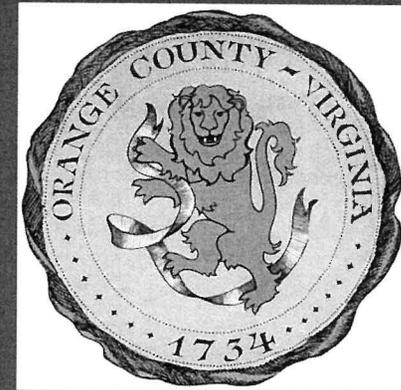


Crown Castle Fiber

A Stable Partner you can trust

The right solution for your organization—today and tomorrow.

Bob Bempohl
Sr. Account Executive
Phone: 703-434-8439
Email: Robert.Bempohl@CrownCastle.com

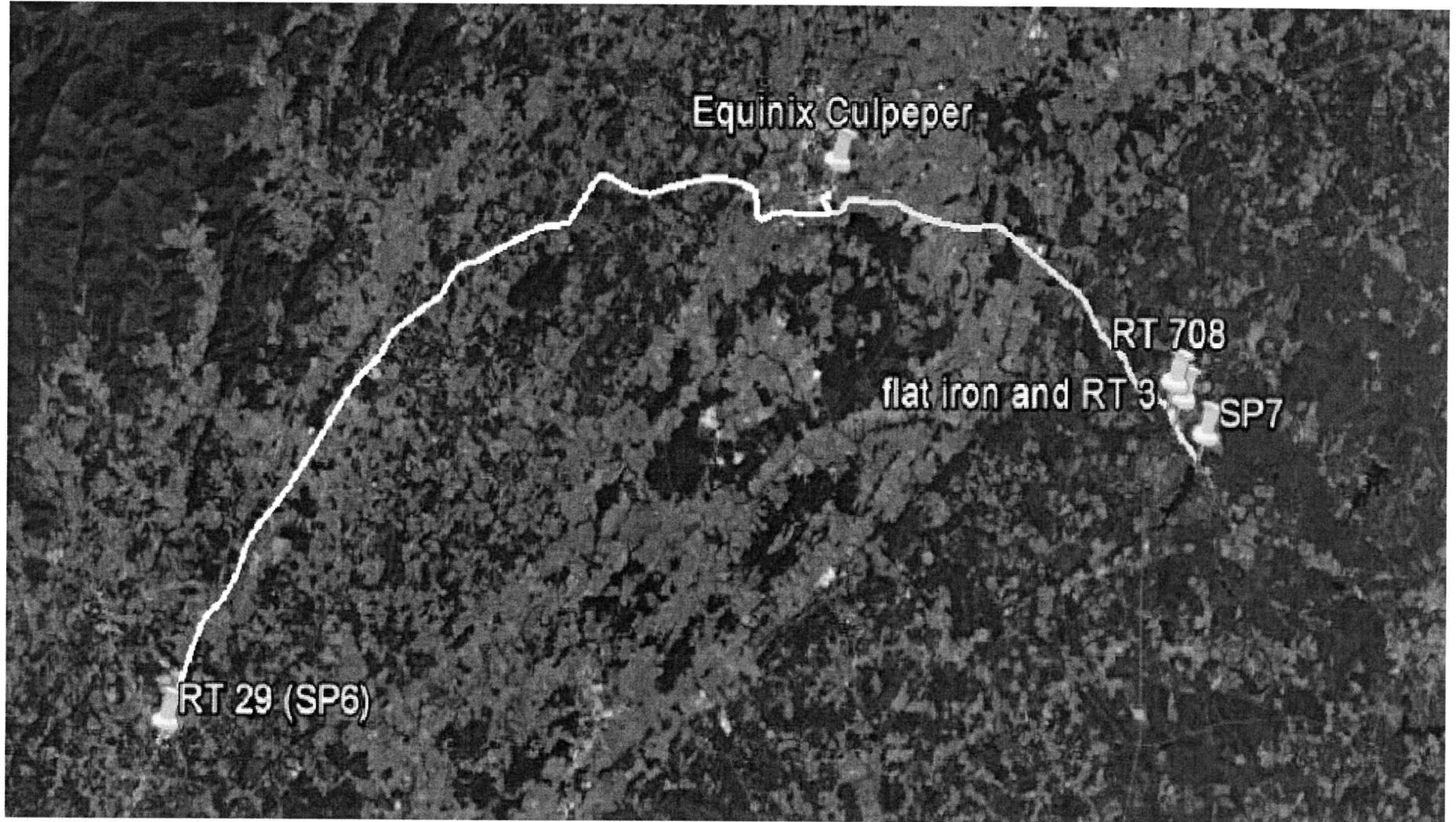


The pathway to possible.

Orange County VA – Dark Fiber Requirements

- Dark Fiber Service
- 2 fiber configuration
- Location 1: Equinix, 18155 Technology Drive, Culpeper, VA
- Location 2:
 - Rte. 3 and Rte. 708
- 24, 36 and 60 Month Pricing

Dark Fiber Routes – Rte. 3 and Rte. 29



Budgetary Circuit Pricing

- Dark Fiber Pricing
 - Budgetary pending site visit and finalization.
- 2 Fiber Option
- 24, 36 and 60 Month Terms

	2 Fiber 24 Mo	2 Fiber 36 Mo	2 Fiber 60 MO
Rte 3 and Rte 708	\$4,400	\$3,900	\$3,600

Note: Quote does not include the cost of cross connects at Equinix, Culpeper



1702 Bridgewater Court
Maidens, Virginia 23102
(804) 506-3200

August 28, 2019

Lewis Foster, Broadband Program Manager
Orange County Broadband Authority
127 Belleview Avenue
P.O. Box 111
Orange, VA 22960

RE: Hosted Backbone, LLC FCC Form 477 Status

Dear Mr. Foster,

Hosted Backbone, LLC (HB) has been in the telecommunications industry for over five years. HB has been primarily providing datacenter collocation services to their clients in regional datacenters. HB is a registered telecommunications provider and has been filing the appropriate FCC forms for several years. HB has recently started providing fiber to the premise (FTTP) to businesses and residents and preparing to file our first FCC Form 477.

Sincerely,

Evan S. Weiner

Evan S. Weiner
Member-Manager

PUBLIC NOTICE

August 6, 2019

Orange County Broadband Authority 2020 Virginia Telecommunications Initiative Grant Application

The Orange County Broadband Authority herewith gives notice of its intent to partner with **Hosted Backbone, LLC**, located in Maidens, Virginia, to apply for a grant to the Virginia Department of Housing and Community Development (DHCD) for grant funding from the 2020 Virginia Telecommunications Initiative (VATI).

The purpose of the grant funding is to provide broadband service in the unserved areas of Orange County. The proposed broadband project will consist of the construction of a fiber to the premise (FTTP) network within the following areas of Orange County, Virginia:

Beech Drive	Laural Canyon Blvd
Burr Hill Road – SR692	Mine Run Road – SR621
Catharpin Road – SR606	Morel Way
Cecela Lane	Old Plank Road – SR621
College Drive	Old Office - SR 602 (From Burr Hill RD to Zoar RD)
Dulin Drive – SR608	Orchard Street
Enchanted Way	Paynes Farm Road
Fieldstone Lane	Spotswood Drive – SR760
Gold Dale Road – SR611	Walker Hollow Way
Gordon Farm Road	Walnut Ridge Way
Grasty Gold-Mine Road – SR692	Wilderness Farms Road
Indiantown Road – SR603	Williams Flank Road
Jackson Court	Zoar Road – SR611
Keifers Ridge Road	

Broadband service will be provided through **Hosted Backbone, LLC**. The project will meet and exceed the service level requirements established for the VATI program. The 2020 VATI grant application will be submitted to DHCD by the program's September 3, 2019 deadline.

The public is invited to submit written or oral comments and/or grievances on the proposed 2020 VATI Grant Application no later than August 30, 2019 to the Orange County Broadband Authority. The preferred methods of comment would be by email to [Lewis Foster](#) or by letter sent to Orange County Broadband Authority, Post Office Box 111, Orange, Virginia 22960. Comments will also be received by telephone at (540) 661-5332.



ORANGE COUNTY BROADBAND AUTHORITY - FIBER SERVICE AREAS

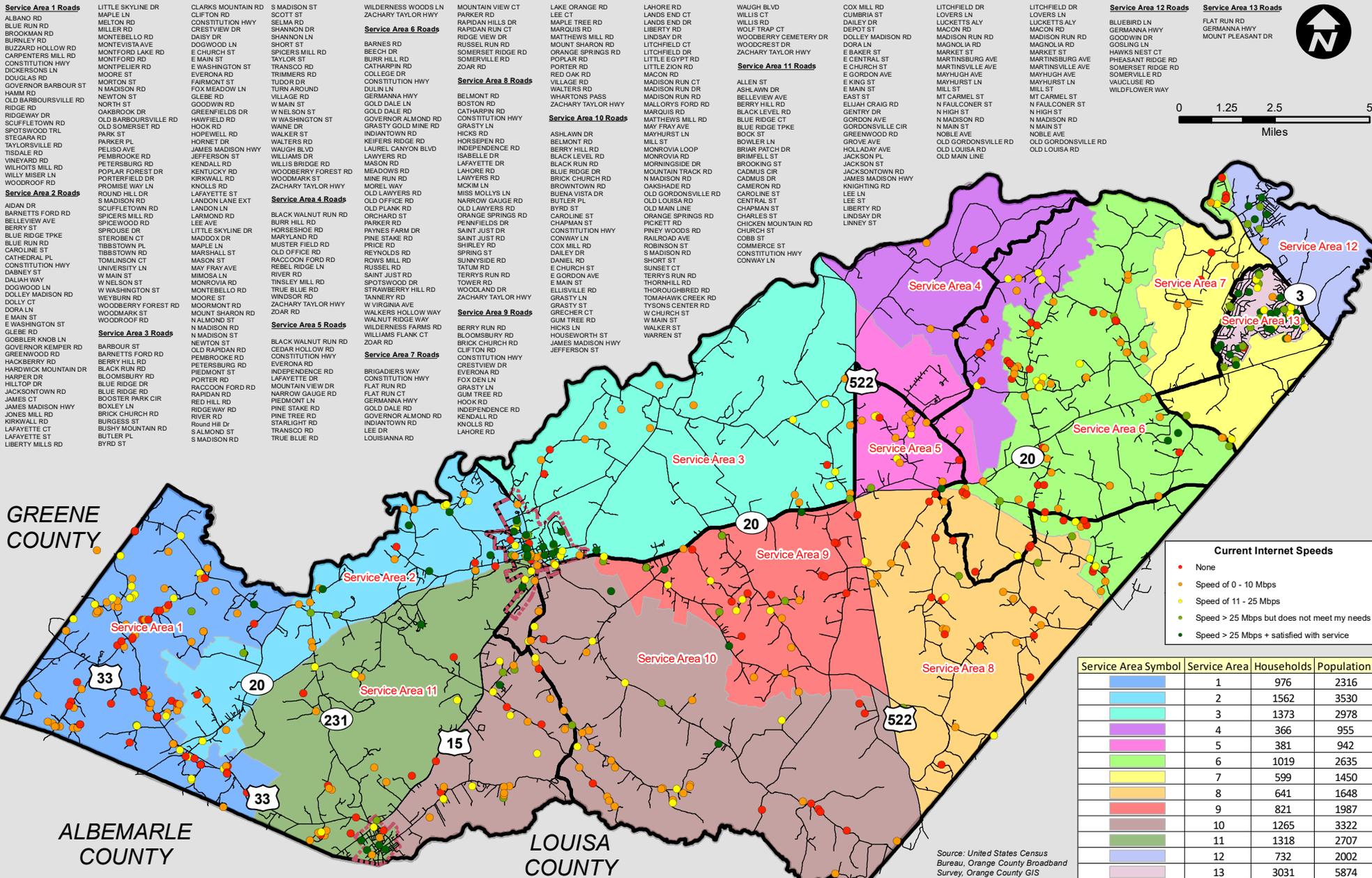
August 27, 2019

Orange County GIS

Gordon Building
112 West Main Street
P.O. Box 111
Orange, VA 22960

COMMISSIONED LF, JW, MJ, SS
DRAWN JHW
DATE 08/22/19

**CONFIDENTIAL
WORKING DRAFT**

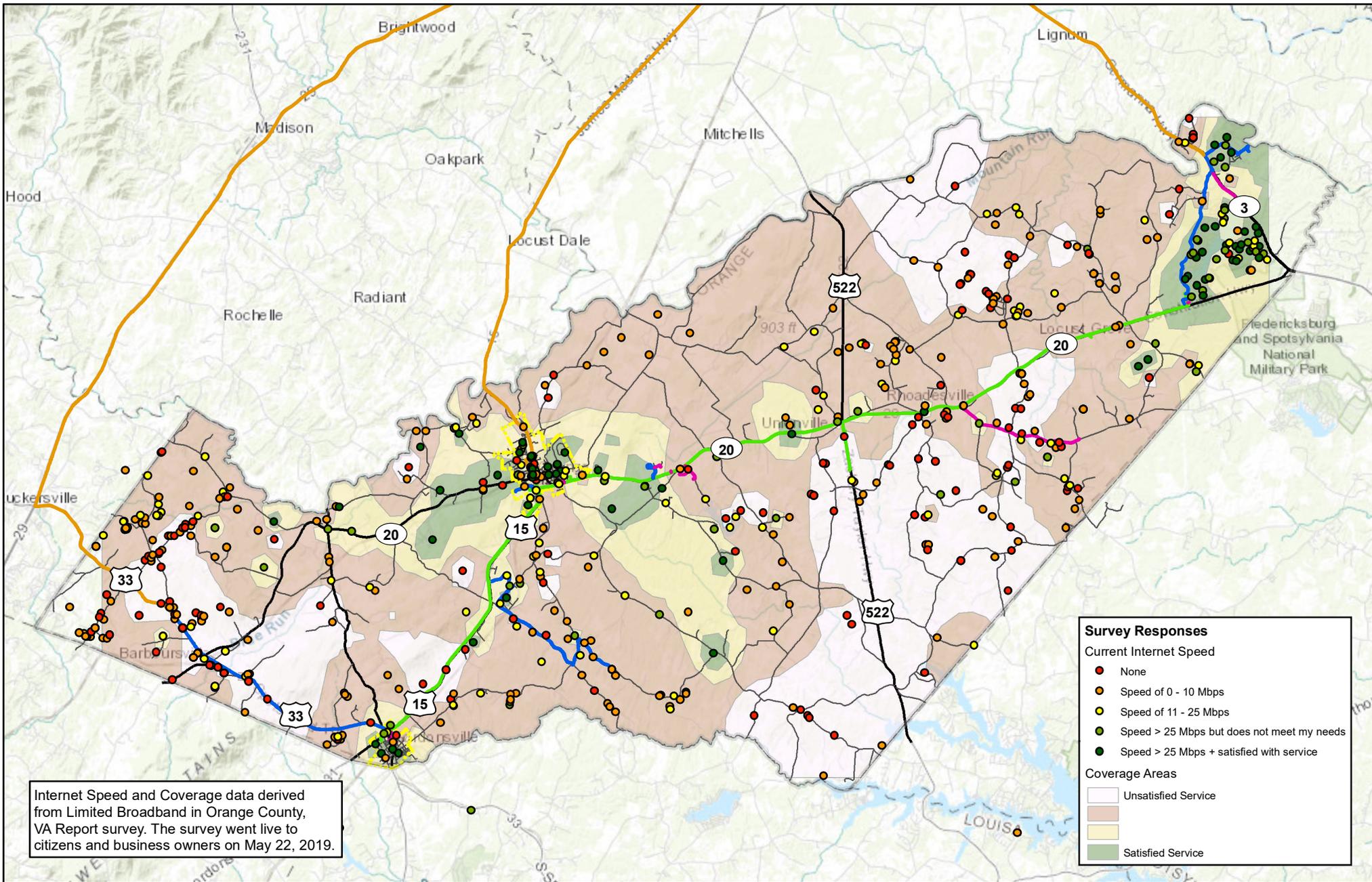


- Service Area 1 Roads**
LITTLE SKYLINE DR
ALBANO RD
BLUE RUN RD
BROOKMAN RD
BURNLEY RD
BUZZARD HOLLOW RD
CARPENTERS MILL RD
CONSTITUTION HWY
DICKERSONS LN
DOUGLAS RD
GOVERNOR BARBOUR ST
HAMM RD
OLD BARBOURSVILLE RD
RIDGE RD
RIDGEWAY DR
SCUFFLETOWN RD
SPOTSWOOD TRL
STEGARA RD
TAYLORSVILLE RD
TISDALE RD
VINEYARD RD
WILNOTTS MILL RD
WILLY MISER LN
WOODROOF RD
- Service Area 2 Roads**
ADAN DR
BARNETTS FORD RD
BELLEVUE AVE
BERRY ST
BLUE RIDGE TPKE
BLUE RUN RD
CAROLINE ST
CATHEDRAL PL
TIBBSTOWN RD
CONSTITUTION HWY
DABNEY ST
DALLAH WAY
DOGWOOD LN
DOLLEY MADISON RD
DOLLY CT
DORA LN
E MAIN ST
E WASHINGTON ST
GLEBE RD
GOBBLER KNOB LN
GOVERNOR KEMPER RD
GREENWOOD RD
HACKBERRY RD
HARDWICK MOUNTAIN DR
HARPER DR
HILLTOP DR
JACKSONTOWN RD
JAMES CT
JAMES MADISON HWY
JONES MILL RD
KIRKWALL RD
LAFAYETTE CT
LAFAYETTE ST
LIBERTY MILLS RD
- Service Area 3 Roads**
BARBOUR ST
BARNETTS FORD RD
BERRY HILL RD
BLACK RUN RD
BLOOMSBURY RD
BOOSTER PARK CIR
BLUE RIDGE DR
JAMES CT
JAMES MADISON HWY
JONES MILL RD
KIRKWALL RD
LAFAYETTE CT
LAFAYETTE ST
LIBERTY MILLS RD
- Service Area 4 Roads**
BLACK WALNUT RUN RD
BURR HILL RD
LIE AVE
HORSESHOE RD
MARYLAND RD
MUSTER FIELD RD
OLD OFFICE RD
RACCOON FORD RD
REBEL RIDGE LN
RIVER RD
TINSLEY MILL RD
TRUE BLUE RD
WINDSOR RD
ZACHARY TAYLOR HWY
ZOAR RD
- Service Area 5 Roads**
BLACK WALNUT RUN RD
CEDAR HOLLOW RD
CONSTITUTION HWY
EVERONA RD
INDEPENDENCE RD
LAFAYETTE DR
MOUNTAIN VIEW DR
NARROW GAUGE RD
PIEDMONT LN
PINE STAKE RD
PINE TREE RD
STARLIGHT RD
TRANSCO RD
TRUE BLUE RD
- Service Area 6 Roads**
BARNES RD
BEECH DR
BURR HILL RD
CATHARPIN RD
COLLEGE DR
CONSTITUTION HWY
DULL LN
GERMANNA HWY
GOLD DALE LN
GOLD DALE RD
GOVERNOR ALMOND RD
GRASTY GOLD MINE RD
INDIANTOWN RD
KEIFERS RIDGE RD
LAUREL CANYON BLVD
LAWYERS RD
MEADOWS RD
MINE RUN RD
MCKIM LN
MISS MOLLYS LN
NARROW GAUGE RD
OLD PLANK RD
ORCHARD ST
PARKER DR
PAYNES FARM DR
PINE STAKE RD
PRICE RD
REYNOLDS RD
ROWS MILL RD
RUSSEL RD
SAINT JUST RD
SPRING ST
SUNNYSIDE RD
TATUM RD
TERRYS RUN RD
TOWER RD
TATUM RD
ZACHARY TAYLOR HWY
ZOAR RD
- Service Area 7 Roads**
BRIGADIERS WAY
CONSTITUTION HWY
FLAT RUN RD
GERMANNA HWY
EVERONA RD
FOX DEN LN
GRASTY LN
GUM TREE RD
HOOK RD
INDEPENDENCE RD
KENDALL RD
KNOLLS RD
LAHORE RD
- Service Area 8 Roads**
ASHLAWN DR
BELMONT RD
BERRY HILL RD
BLACK LEVEL RD
BLACK RUN RD
BLUE RIDGE DR
BRICK CHURCH RD
BROWNTOWN RD
BUENA VISTA DR
BUTLER PL
BYRD ST
CAROLINE ST
CHAPMAN ST
CONSTITUTION HWY
CONWAY LN
COX MILL RD
DALEY DR
DALLEY DR
DANIEL RD
E CHURCH ST
E GORDON AVE
E MAIN ST
ELLSVILLE RD
GRASTY LN
GRECHER CT
GUM TREE RD
HICKS LN
HOUSEWORTH ST
JAMES MADISON HWY
JEFFERSON ST
- Service Area 9 Roads**
BERRY RUN RD
BLOOMSBURY RD
BRICK CHURCH RD
CLIFTON RD
CONSTITUTION HWY
CRESTVIEW DR
EVERONA RD
FOX DEN LN
GRASTY LN
GUM TREE RD
HOOK RD
INDEPENDENCE RD
KENDALL RD
KNOLLS RD
LAHORE RD
- Service Area 10 Roads**
ASHLAWN DR
BELMONT RD
BERRY HILL RD
BLACK LEVEL RD
BLACK RUN RD
BLUE RIDGE DR
BRICK CHURCH RD
BROWNTOWN RD
BUENA VISTA DR
BUTLER PL
BYRD ST
CAROLINE ST
CHAPMAN ST
CONSTITUTION HWY
CONWAY LN
COX MILL RD
DALEY DR
DALLEY DR
DANIEL RD
E CHURCH ST
E GORDON AVE
E MAIN ST
ELLSVILLE RD
GRASTY LN
GRECHER CT
GUM TREE RD
HICKS LN
HOUSEWORTH ST
JAMES MADISON HWY
JEFFERSON ST
- Service Area 11 Roads**
ALLEN ST
ASHLAWN DR
BELLEVUE AVE
BERRY HILL RD
BLACK LEVEL RD
BLUE RIDGE CT
BLUE RIDGE TPKE
BOOK ST
BOWLER LN
BRIAR PATCH DR
BRINFELL ST
MASON RD
CADMUS CIR
CADMUS DR
CAMERON RD
CAROLINE ST
CENTRAL ST
CHARLES ST
CHICKEN MOUNTAIN RD
CHURCH ST
COBB ST
COMMERCE ST
CONSTITUTION HWY
CONWAY LN
- Service Area 12 Roads**
BLUEBIRD LN
GERMANNA HWY
GODDWIN DR
GOSLING LN
HAWKS NEST CT
PHEASANT RIDGE RD
SOMERSET RIDGE RD
SOMERVILLE RD
VALCULUSE RD
WILDFLOWER WAY
- Service Area 13 Roads**
FLAT RUN RD
GERMANNA HWY
MOUNT PLEASANT DR

- Current Internet Speeds**
- None
 - Speed of 0 - 10 Mbps
 - Speed of 11 - 25 Mbps
 - Speed > 25 Mbps but does not meet my needs
 - Speed > 25 Mbps + satisfied with service

Service Area Symbol	Service Area	Households	Population
1	1	976	2316
2	2	1562	3530
3	3	1373	2978
4	4	366	955
5	5	381	942
6	6	1019	2635
7	7	599	1450
8	8	641	1648
9	9	821	1987
10	10	1265	3322
11	11	1318	2707
12	12	732	2002
13	13	3031	5874

Source: United States Census Bureau, Orange County Broadband Survey, Orange County GIS



Internet Speed and Coverage data derived from Limited Broadband in Orange County, VA Report survey. The survey went live to citizens and business owners on May 22, 2019.



Orange County GIS

Gordon Building
112 West Main Street
P.O. Box 111
Orange, VA 22960

ORANGE COUNTY INTERNET SPEED COVERAGE MAP

DESIGNED
DRAWN JHW
DATE 08/22/19



1
Mile

- Phase 1 - Schools Main Route
- Phase 2 - Tower Laterals
- Phase 3 - Equinix Routes Proposed
- Phase 4 - County Facility Proposed
- Primary Road
- Secondary Road
- County Boundary
- Town Boundaries

FIGURE
1

Orange County Broadband Authority

Survey Results

May 22, 2019 – August 22, 2019

On May 22, 2019, Orange County Broadband Authority (OCBA) launched an on-line broadband availability survey to help determine where service is and isn't to improve internet service to our residents and businesses in Orange County.

As of August 22, 2019, over 600 people have weighed in and 88% say they are dissatisfied with their current connection. Only 12% of people have internet speeds of greater than 25 megabits per second and satisfied with service, and 25% say they do not have any internet at all.

Below is a three-month summary of our survey results.

Responded **645**
Measurable Responses **608**

Service Speed	Percentage
No Internet Access	25%
0-10 Mbps	38%
11-25 Mbps	16%
>25Mbps and not satisfied with service	9%
>25Mbps and satisfied with service	12%

Burr Hill, Locus Grove and Mine Run Service Area Six survey summary.

Measurable Responses **93**

Service Speed	Percentage
No Internet Access	32%
0-10 Mbps	49%
11-25 Mbps	13%
>25Mbps and not satisfied with service	4%
>25Mbps and satisfied with service	2%

Lewis Foster

From: billfitt@netzero.net
Sent: Tuesday, August 27, 2019 6:44 PM
To: Lewis Foster
Subject: 2020 Virginia Telecommunications Initiative Grant Application

Thank you for your hard work on providing broadband to the remote corners of Orange Co.

We live in one of the target areas in Rhoadesville on Grasty Goldmine Rd. Moving to Orange from Spotsylvania Co three years ago came with the unexpected loss of broadband. Its amazing how much modern families depend on the internet. With our present internet provider we are basically limited to email and online banking. Anything more would be just frustrating with lag time and drop connections.

I look forward to be able to FaceTime with my son while he is in the Army serving in Germany. My daughter lives in San Diego with her family and we have missed many opening gifts on Christmas and birthdays.

Im sure the financial benefits are what the grants are focusing on but i cant wait to connect with family and friends.

Thanks again

Bill Fitterer
9333 Grasty Goldmine Rd
Rhoadesville, Va 22542

Lewis Foster

From: Tim Clemons <tclemons@Rapidan.org>
Sent: Friday, August 23, 2019 8:00 AM
To: Lewis Foster
Subject: Orange County Broadband Initiative - VATI Grant Application with Hosted Backbone

Mr. Foster, as General Manager of the Rapidan Service Authority, I would like to provide comments regarding the above subject matter. RSA is a water and sewer provider in Orange County. As such, we always have a need for increased/improved communication ability.

We provide service in portions of the area outlined in this project and recognize that this can improve our ability to communicate between our plants, tanks, etc. We would certainly recommend that this project be approved as it will provide a benefit to all that can use it.

Timothy L. Clemons
General Manager
Rapidan Service Authority
(434) 985-7811
tclemons@rapidan.org

Lewis Foster

From: Ken Umstead <usn.pgr@gmail.com>
Sent: Thursday, August 22, 2019 3:10 PM
To: Lewis Foster
Subject: 2020 Virginia Telecommunications Initiative Grant Application

Dear Sir,

I live in the area that broadband service would be provided through **Hosted Backbone. We are T Mobile cell phone customers and just barely have a workable signal at our location. T Mobile is also our source to the internet via the phone's hot spot. It's a disgrace not to have a reliable internet connection without paying an absorbent price.**

I am behind this initiative 100% and will certainly subscribe to a broadband service when it's available

. Thank you and Orange County for this initiative to provide broadband service to the "no service" areas of our county.

Kenneth Umstead
283219 Laurel Canyon Blvd.
Rhoadesville, Va

Lewis Foster

From: Mihela Vlahovic-McIlvene <mihelamitch@hotmail.com>
Sent: Monday, August 12, 2019 3:16 PM
To: Lewis Foster
Subject: VATI Grant Application with Hosted Backbone

Mr. Foster, My name is Mihela Vlahovic-McIlvene. I live at 31163 Keifers Ridge Rd., Locust Grove, VA 22508. I just read about the proposed grant initiative for broadband service to our area. Please know that I am 100% in support of of this grant and so look forward to our area having better internet service. Currently I have satellite internet service that is very expensive and I do not have many other options. It would be wonderful to have FIOS or another type of cabled internet service in this area. We are in a wooded area and so often times the satellite service is not the best. You can contact me for further information if needed. Thank you very much!!!!!!!!!! Mihela Vlahovic-McIlvene

Lewis Foster

From: Dianne Reed <dilogan@me.com>
Sent: Monday, August 12, 2019 11:13 AM
To: Lewis Foster
Subject: Broadband Initiative

Good Morning,

Our family supports the broadband initiative. We are both college students and have all of our coursework and materials online and need to have reliable internet. We also have a special needs son and communicate with his doctors and school via the internet. The cell service is not always reliable and Verizon comes and goes so much that we are not getting what we are paying for. Please support the broadband initiative so that we can have reliable internet.

The Reed Family
Keifers Ridge Rd

Lewis Foster

From: Gayle Joyner <hairdoos1@gmail.com>
Sent: Sunday, August 11, 2019 9:05 AM
To: Lewis Foster
Subject: Broadband initiative

Dear Sir:

Please support this initiative! My husband and I rely on the internet for almost everything as most people do.

I have a small business that is internet based to reach my customers. When the internet is out, I can't reach customers, therefore, I've lost income. I shouldn't have to run up to the Exxon's parking lot just to get a signal to conduct my business while sitting in my car!

My husband works, comes home and is required to submit payroll, reports, etc. on a daily basis in the evenings when he gets home. With no internet, this becomes impossible!

We live in Payne's Farm subdivision off Zoar Road and I understand support for this will be at least 80% from our neighborhood. Our current service is down more than it is working. I have a ring doorbell system that does not operate when the internet is down. My husband is often out of town and this creates a safety measure for me.

When the internet DOES decide to work, it's very slow at best. We can't enjoy TV apps, etc. that most of America can. It's very frustrating that in 2019, we are dealing with these issues on a monthly basis.

Most recently, our internet was out for 3 WEEKS!! After filing a complaint with the FCC, numerous calls to Verizon, speaking with Executive Relations, technicians, etc., it was restored FINALLY this past week. It seems ludicrous that we, as homeowners, need to go to these measures to get the service we're paying for!

Our internet goes out on average once a month for days at a time! I don't have time to continually contact Verizon to be patronized by a call center to get something done! It's been exhausting and I have to make several calls throughout the outage only to get the same verbiage EVERY TIME I CALL!

We are also concerned that our property value could be affected because a potential buyer certainly would expect decent service in 2019 and beyond! We have no plans on selling at this time, however, we've lived here since 2006 and it's been a constant struggle to get reliable internet!

Our membership has been contacted to express their support, so hopefully more of these frustrating stories will help make this happen!

I just don't understand why this requires homeowners to go through these measures to get a service that seems obvious to most!

Thank you for your consideration,

Gayle Joyner

Lewis Foster

From: Robert Behm <robertbehm05@gmail.com>
Sent: Friday, August 9, 2019 7:48 PM
To: Lewis Foster
Cc: Robert Behm
Subject: BROADBAND SERVICE IN PAYNES FARM

Good Afternoon

I am writing to you as an Orange County Citizen and member of the Payne's Farm Community off of Zoar Rd. I know that by now you have more then likely heard from several of my neighbors and i wanted to chime in to let you know that i support the initiative coming to the area/neighborhood.

I am hoping that the service provider however does not take advantage of us and maintains reasonable rates for services over the backbone fiber infrastructure that will be put in place. And maybe even hopefully there will be a couple of carriers on the fiber where we have a choice to select the provider, giving some competition for better rates.

Anyway, i work in the District and have the opportunity to Telework at times, but my current Verizon service has latency and does not allow me to be as productive at home. Having the opportunity to not drive to DC a day a week, or more would be GREAT! Additionally, the other capabilities that this service would allow would also be nice to have in the home; online classes of higher education and various streaming services along with being able to monitor my home security from a distance without latency would be an added benefit.

This technology is a wave of the future and the rural areas should have the same opportunities as Virginian's that live in the larger cities and neighborhoods. This has my full support and I look forward to this ability.

If there is anything that I can do to help the county and neighborhood(s) to help promote and get this moving along, I will help where my "bandwidth" (time) allows. Let me know and thank you for the push to the future.

--

/r

Robert Behm
31275 Keifers Ridge Rd
Locust Grove, VA 22508
robertbehm05@gmail.com

Lewis Foster

From: Sandra Sheard <drsandra.sheard@gmail.com>
Sent: Thursday, August 8, 2019 2:50 PM
To: Lewis Foster
Subject: Proposed 2020 VATI Grant Application - please support

Hello,

My name is Dr Sandra Sheard and I live in Payne's Farm on walkers hollow way. We moved here from the over crowded area of stafford Va in hope of finding a better quality of life here in Locust Grove, Orange County. Unfortunately when we purchased our home the previous home owners and agent did not disclose the fact of no internet service in this area.

For 5 years we have been without reliable Internet. When we first moved here I called all the big "players" AT&T, Verizon FIOS, Comcast and Cox all to be told we don't service that area. Verizon did say they had DHL however there were no slots available unless someone moved?? After using Hughes Net (which was a total joke and paying 180.00 per month ONLY for Internet) and after calling Verizon for 6 months I finally was able to get DHL; however Every so few months our services goes down and we have to rely on someone from overseas to try and troubleshoot when we call about non service.

As an HOA, we are willing to pay the added cost if any to ensure we have access to fast, high speed Internet. Since we've lived here we had 6 families move in and move out within a year or so due to no internet. My family don't do gaming - we just want to be able to down load a picture from the grandkids or go to work online.

I can't tell you how many times I've had to get in my truck, drive to Starbucks or Macdonalds on Route 3 just to get online. When I was going to school I spent every evening after work and on the weekends for 3.5 years to get my degree online. And, I've never been late paying my Verizon bill!! My daughter had to spend countless nights also at Starbucks. It's not right or fair to pay for internet and can't have it when u need it.

PLEASE support this initiative - we will pay, we don't mind paying for reliable-high speed Internet service. Thank you very much for listening and for this initiative.

Dr. Sandra Sheard

Lewis Foster

From: alan barkshire <alanbarkshire@verizon.net>
Sent: Thursday, August 8, 2019 11:49 AM
To: Lewis Foster
Subject: broadband access

live in Paynes farm subdivision. I am 80 years old and am heavily dependent on the internet and my phone.

Last year I was down for 16 days during which time I got nothing but a runaround from Verizon. I fully support the effort to get better internet and cell phone service in this area. There are possibilities that lives could be at stake at some time.

Please give this the attention it deserves

Lewis Foster

From: Carolyn McCarty <mccartyodinzeus@gmail.com>
Sent: Thursday, August 8, 2019 10:45 AM
To: Lewis Foster
Subject: BROADBAND

Please, please, please support this initiative! I am an 80 year old handicapped woman who relies on internet for almost everything. I order my meds, food, doctor appointments etc. as well as keeping in touch with my family. I am also on the board of the Paynes Farm HOA and can tell you that of the 31 owners affected by this, the support for this will be at least 80%. Our current service is down more than it is working, so slow that can't use things like ring doorbells (a health and safety issue for me) TV aps, contact utilities (AT&T and Verizon are not phone friendly anymore). Most HOA business is conducted on-line etc.,etc. Property values are affected as no one wants to move into expensive homes with no internet connections (especially folks with school kids) when they can buy elsewhere that is connected to the outside world). I was recently without service completely for 12 days . It was true last year too. Verizon (when I was able to reach their outsourced service) told me that we had 40 year old copper wiring that can only be patched till it breaks in another place! With very heavily treed lots satellite internet is almost as bad and very expensive. I (we) need reliable service!!! If it will help our cause, I will circulate a petition in our community. I have asked our membership to contact you to express our support.

Thank you.

Carolyn McCarty, mccartyodinzeus@gmail.com

Sent from Mail for Windows 10

Lewis Foster

From: Mike Herrig <mherrig1975@gmail.com>
Sent: Wednesday, August 7, 2019 5:28 PM
To: Lewis Foster
Subject: Broadband survey
Attachments: Screenshot_speedtest viasat.jpg

Hello Lewis,

I participated in your broadband survey a couple of months ago. One thing I noticed lacking in the survey was the cost of broadband. I live in Locust Grove in the Payne's Farm development. We have no cable, it stops just South of us. Verizon has stopped selling and supporting its DSL product here several years ago. I contacted Virginia Broadband (the wireless internet provider) but they do not reach our area. The only option was satellite, Hughes Net or ViaSat. I chose the lesser of the two evils with ViaSat. The service I get is terrible (see attached Speedtest). The cost of this option is \$160 per month, which is unacceptable. Really hoping to have a real option here soon.

Thank you for your work in this important matter.

Mike Herrig

Lewis Foster

From: Critchfield, Mark <markc@Crutchfield.com>
Sent: Tuesday, August 6, 2019 2:17 PM
To: Lewis Foster
Subject: internet in rural part of Locust Grove

Lewis,

What can you tell me about when I'll have access to high speed internet in Locust Grove, VA? I'm 2.5 miles down route 611 (stop light and strip mall), off route 20, and looking for another option. I currently use <https://www.limitless-data.com/> that is indeed limitless and I get 10-20mb download speed, coming in through cellphone lines and their modem/router. I'm hoping an alternative appears soon. Any idea what the speeds/costs would be? Thanks for any insight you may be able to provide!

Mark Critchfield | Account Manager

1 Crutchfield Park Charlottesville, VA 22911

P: 434-218-6052 | F: 434-817-1010

E: markc@crutchfield.com | W: <https://business.crutchfield.com>

CRUTCHFIELD | BUSINESS

Lewis Foster

From: byrnside@aol.com
Sent: Friday, August 30, 2019 10:44 AM
To: Lewis Foster
Subject: Support for Broadband Project

Mr. Foster,

We fully support the broadband initiative for the Locust Grove area.

When we moved here a few years ago we were astounded to learn that while we could see Germanna Community college from our living room window, we could not send a message to the school without invoking hundreds of thousands of miles of intermittent, unreliable, and low capacity satellite technology. Is this the best we can do? Assuming the college has decent internet, why is it not available to residents living directly across the street?

Along Spotswood Dr. we have no cable available, the various wireless companies have no/poor/intermittent coverage along our street, and even the 'local' wireless companies (i.e. VBB) have difficulty providing a signal. We're mired in a digital desert.

Orange County makes much of its Wilderness-Germanna economic development plans along State Route 3, but no benefits will accrue until fundamental utilities are in place.

I have been trying for 30 minutes to send this note, but despite the sunny weather, have been hampered with web page delays and disconnects. Nor have I been able to download the pdf template. Typical.

We whole-heartedly support the broadband initiative and would even be willing to consider a cost-share arrangement if necessary.

Regards,
Henry & Nina Byrnside
1516 Spotswood Dr.
Locust Grove, VA 22508
540-399-1896

Lewis Foster

From: billfitt@netzero.net
Sent: Tuesday, August 27, 2019 6:14 PM
To: Lewis Foster
Subject: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

William Fitterer
9333 Grasty Goldmine Rd
Rhoadesville, va 22542

Date 8/27/2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Telecommunications Initiative (VATI) 2020 - "BLM Service Area Six"

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally.

Please add a personal note regarding internet access and the importance to your operation/organization.

Sincerely,

William Fitterer



COMMONWEALTH OF VIRGINIA

HOUSE OF DELEGATES
RICHMOND

NICHOLAS J. FREITAS
210 NORTH MAIN STREET
CULPEPER, VIRGINIA 22701

THIRTIETH DISTRICT

COMMITTEE ASSIGNMENTS:
FINANCE
SCIENCE AND TECHNOLOGY
MILITIA, POLICE AND PUBLIC SAFETY FINANCE

August 22, 2019

Tamarah Holmes, Ph.D.
Associate Director of Policy and Strategic Development
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes,

I am writing to convey my support of the application submitted by the Orange County Broadband Authority, in partnership with Hosted Backbone, LLC. The project, known as "BLM Service Area Six," will allow installation of a fiber-to-the-premise (FTTP) network to provide broadband service in the unserved Burr Hill, Locust Grove, and Mine Run areas of Orange County. The project will serve 918 homes, home-based businesses, and traditional businesses in the service area. Additionally, the project will connect Germanna Community College's Locust Grove Campus, Mine Run Volunteer Fire Department, and the non-profit Germanna Foundation and Visitor Center.

As I understand it, the goal of VATI is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure. This project is essential to our community by providing access to healthcare via telemedicine, increased educational opportunities through distance learning, and encouraging entrepreneurial economy where existing and start-up home-based and small business can compete globally and ensuring that first responders are able to connect with the communities, they serve in order to better protect them.

Sincerely,

A handwritten signature in black ink, appearing to read "Nick J. Freitas".

Nick J. Freitas
Delegate 30th District
540-222-7706
nfreitas@nickjfreitas.com