

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2024 Universal Fiber Deployment Initiative

Application ID: 107411082023111609
Application Status: Pending
Program Name: Virginia Telecommunication Initiative 2024
Organization Name: Hanover County
Organization Address:

Profile Manager Name: Kevin Nelson
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Project Name: Hanover County 2024 Universal Fiber Deployment Initiative
Project Contact Name: Kevin Nelson
Project Contact Phone: (804) 365-6168
Project Contact Email: knelson@hanovercounty.gov
Project Location: 7516 COUNTY COMPLEX RD
HANOVER, VA 23069-1530
Project Service Area: Hanover County

Total Requested Amount: \$6,020,043.34

Required Annual Audit Status: Accepted

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$6,020,043.34	\$4,248,060.00	\$10,268,103.34
Construction	\$4,704,467.43	\$3,319,720.27	\$8,024,187.70
Construction Related Soft Costs	\$1,315,575.91	\$928,339.73	\$2,243,915.64
Total:	\$6,020,043.34	\$4,248,060.00	\$10,268,103.34

Budget Narrative:

Questions and Responses:

1. Project Description and Need

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

Answer:

This application for Hanover County is for the Hanover County 2024 Accelerated Universal Fiber Deployment Initiative (“Initiative”) and is submitted by Hanover County (“County”) and All Points Broadband (“APB” or “All Points”), as applicant and co-applicant, respectively.

In October 2019, the Hanover County Board of Supervisors appointed a citizens committee to develop a broadband plan that would address the County’s unserved areas. The resulting “Blueprint to Broadband Internet Plan” (see attachment 18) was adopted in December, 2020. This Plan identified 11 strategies to achieve universal broadband coverage in the County. The County has been pursuing the Plan’s recommendations, including dedicating staff resources, working with regional groups, issuing a number of communication related resources, partnering with a company to design and implement a broadband solution, leveraging the County’s tower infrastructure, and pursuing State, federal, and private funding to enhance broadband across the County.

This effort culminated in the County’s receipt of a 2022 VATI broadband grant that the County believed constituted universal broadband internet coverage. However, over the past two years, based on citizen input, improved mapping resources to identify unserved locations, and a modification of the broadband bandwidth definition, the County has identified several unserved areas that were missed in the original survey or not eligible for the VATI program at the time of application. These areas are the focus of this VATI broadband grant application.

To validate the proposed project area, APB consulted with the FCC National Broadband Map, which confirmed the reported, unserved status of these locations. Much of the project area was previously field surveyed by APB teams in

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preparation for the FY22 Hanover VATI project. Specifically, APB personnel visited all of the areas proposed to be served by the FY22 project to verify that each such area is not currently served by wireline technology (cable or fiber) that is capable of providing 100 Mbps/20 Mbps service.

The attached map and shape files demonstrate the specific boundaries of the proposed project area. Communities within the project area include:

- North and west of Hanover Courthouse;
- From north of the Town of Ashland to the Caroline County line, including Doswell (excludes Kings Dominion);
- Ashland Road from around the US-33 intersection west;
- West of the Town of Ashland, including portions of Yowell Rd, Blanton Rd, Greenwood Church Rd, and Yankeetown Rd;
- Several small unserved areas in western Hanover contiguous to areas planned to be served by APB that have access to DSL technology at or below 25mbps/3mbps;
- A few small unserved areas in eastern Hanover contiguous to areas planned to be served by APB;
- Sporadically placed unserved homes across the County's suburban area where the existing internet service provider will not extend service.

The project will extend Fiber-to-the-Home (FTTH) infrastructure so that broadband service will be made available to 1581 discrete locations in the County. Based on APB's extensive field inspections, comparisons to County data, and the online survey results, the County and All Points agree that the proposed project area will provide broadband access to the overwhelming majority of unserved locations in the County that are not included in a FTTH broadband or cable project as of the date of this application.

The proposed project area was also selected because it is an ideal area in which partnerships with electric utilities can make FTTH broadband available. APB, Dominion Energy Virginia, and Rappahannock Cooperative have formed collaborative partnerships through the execution of the Hanover County FY22 VATI project, both in the leverage of middle mile fiber and by increasing throughput of the utility pole make-ready process. Dominion participated in the FY22 project pursuant to Virginia Code §56-585.1:9, as amended, (the "Utility Leverage Statute").

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REC is building its Fiber Utility Network to replace 30-year-old microwave communications between each of its offices and key devices on its electric grid. REC's Fiber Utility Network is being installed on REC's existing infrastructure such as poles and related equipment. The design for REC's Fiber Utility Network includes additional strands of fiber within its core routes to support APB's extension of last mile FTTH to currently unserved areas within the proposed project area. APB may rely on REC for middle mile in certain sections of this project.

2. List existing providers in the proposed project area and the speeds offered. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

There are four wireline broadband providers in the County: Comcast, GloFiber (both of which have a cable franchise agreement with the County), Verizon, and Brightspeed.

All Points has visited each area proposed to be served by the project to visually verify that wireline broadband (100 Mbps/20 Mbps) does not exist at the locations in these areas.

The County has approved a cable franchise agreement with Comcast, which includes a variety of high-speed internet offerings. Some citizens in the Comcast service area have reported to the County that they have tried to get Comcast to provide a connection to their home, but Comcast has notified the homeowner that they could either not extend the service or that there would be a more than usual fee to make the connection (\$5,000-\$50,000/home). Comcast does not release subscriber data, but the County used the Xfinity.com website to verify that homes in the grant application do not have service.

The County has approved a cable franchise agreement with GloFiber, which includes a variety of high-speed internet offerings. GloFiber has begun deploying cable and internet service to a large portion of the County suburban area. The County is working closely with GloFiber and participates in its bi-weekly construction meetings. GloFiber has also provided an address list of all locations they plan to serve in the next 5 years. None of these addresses are included in this grant application. In addition, to the extent GloFiber has agreed to provide service to a home that Comcast will not be able to provide service, the address has been excluded from this grant application.

The proposed project area includes areas within the Brightspeed footprint. The County is aware that the internet service provided by Brightspeed is based on DSL technology. Brightspeed provided the County with the specific locations (addresses) within its footprint where their DSL infrastructure can provide 25 Mbps/3 Mbps internet access speeds. These locations were excluded from the County's previous VATI broadband grant, but with the revised broadband criteria 100/20 Mbps they have been included in this grant application. The County has received numerous reports from citizens that these top end advertised speeds are never achieved. The County is coordinating with Brightspeed on its RDOF project and has met with Brightspeed to discuss this VATI grant application, including the inclusion of addresses in their service area. In December 2023, Brightspeed presented updates to the Board of Supervisors on its RDOF project.

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Verizon provides limited wireline internet services to select communities that pay a fee for them to extend internet service. This is not widespread and is not advertised. Any deployment is specific to a project that has paid for the extension services. The proposed project area does not contain any areas where Verizon offers fiber-optic broadband service and the County has confirmed with Verizon that Verizon does not intend to challenge this application.

There is no fixed wireless provider offering service in the proposed project area.

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

Answer:

The Maps attached in Attachment 2 demonstrate that Lumen (formerly Centurylink, Inc.) received CAF II funding to provide 10/1 Mbps broadband in areas near and within the proposed project area.

The Maps attached in Attachment 2 also demonstrate that Brightspeed has received RDOF funding for certain census blocks near the proposed project area.

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4. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds below 100/20 Mbps and with less than 25% service overlap within the project area for wireless projects and 20% for wireline projects. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 – Documentation Unserved Area VATI Criteria.

Answer:

As noted above, APB conducted extensive desktop analysis, in consultation with both the Virginia broadband map and the National Broadband Map, to ensure all project locations are eligible. Many of these locations were also field surveyed in preparation for the FY22 VATI application and determined to be unserved by cable or fiber broadband. The areas where APB completed its desktop and field surveys were mapped to determine the project area and compared to data available and supplied by the County.

The proposed project area includes areas within the Brightspeed footprint. The County is aware that the internet service provided by Brightspeed is based on DSL technology. Brightspeed provided the County with the specific locations (addresses) within its footprint where its DSL infrastructure can provide 25 Mbps/3 Mbps internet access speeds. These locations were excluded from the County's previous VATI broadband grant, but with the revised broadband criteria of the FY24 VATI program, they have been included in this grant application. The County has received numerous reports from citizens that these top end advertised speeds are never achieved.

The map of currently served areas in the County is included as Attachment 3.

Despite APB and the County's extensive efforts to verify the unserved status of these areas, it is possible that a small number of locations were incorrectly identified as unserved. In the unlikely event that the challenge process demonstrates that more than 10% of locations within the proposed service area are already served by broadband, the project scope will be modified by the County and All Points as required by VATI.

5.

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Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 25 Megabits per second download and 3 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 – Passings Form.

- a. Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
- b. If applicable, of the total number of RDOF passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
- c. If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise . Describe the methodology used for these projections.
- d. If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.
- e. Provide the number of passings in the project area that have 25/3 Mbps or less. Describe the methodology used for these projections. (up to 15 points)

Answer:

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a. To determine the number of residential, business, non-residential and community anchor institutions in the proposed project area, each of the 1581 locations in the proposed project area were cross-referenced with the database available through the Virginia Geographic Information Network's Virginia Address Points map service and the County's business databases. The resulting data set was then validated against US Postal Service databases using a third-party validation service, to determine the number of passings by type. All project passings were then cross-referenced with the Broadband Data Collection (BDC) program to ensure accuracy. This process resulted in 1409 passings categorized as residential, 156 passings categorized as commercial, and 16 passings categorized as community anchor.

Community Anchors Include:

Beaverdam Fire-EMS Station

Beaverdam Elementary School

Hanover County Raft House (Government Psychiatric Rehabilitation Center)

Hanover County Doswell Waste-Water Treatment Plant

Hanover County Doswell Water Treatment Plant

Doswell Transfer Station (Solid Waste)

Moments of Hope Outreach (community assistance)

Doswell Community Center

b. Not Applicable

c. None of the passings included in the proposed project area will require special construction costs. For the first twelve months after service is available at any location within the proposed project, All Points' standard installation fee of \$199.00 will include any length of service drop required to make service available to that location. Therefore, as All Points has confirmed with DHCD during the technical assistance process prior to submission of this application, all of the passings within the proposed service area will be considered serviceable units.

d. As noted above, for the first twelve months after service is available at any location within the proposed project, All Points' standard installation fee of \$199.00 will include any length of service drop required to make service available to that location. All Points' detailed design for the project calculated the projected service drop length for all locations in the proposed project area and the average drop length used to determine the project budget is based on the weighted average drop length indicated by the project design.

e. There are 960 locations that have access to 25/3 Mbps or less. As previously described, the County received data from Brightspeed and Brightspeed customers on the level of service available via DSL technology. APB further verified the available service levels through publicly available information on the National Broadband Map. The County received and analyzed significant information collected from residents unable to receive 100/20 MBPS service from Comcast or Brightspeed.

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6. Describe if any blocks awarded in Rural Digital Opportunity Fund (RDOF) are included in the VATI application area. If RDOF areas are included in the VATI application, provide a map of these areas and include information on number of passings in RDOF awarded areas within the VATI application area, and Census Block Group ID number for each block group in the project area. Label Attachment: Attachment 5 – RDOF Awarded Areas Form in VATI Area

Answer:

No areas awarded as part of RDOF have been included in this VATI grant application.

7. **For wireless projects only:** Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

Not applicable as this is a FTTH project.

8. Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 6 – Propagation Map Wireless Project.

Answer:

The project is a new FTTH deployment based on XGS-PON standards. The network includes 111 miles of fiber that will be built by All Points Broadband. At completion, the network will include two upstream connection points to All Points' network core in the data center cluster in Ashburn, Virginia and path-diverse connections to All Points' redundant network core in the Cermak data center in Chicago, Illinois.

The network will utilize a 32:1 ratio XGS-PON network, capable of delivering 10 gigabit, symmetric service to each location and capacity to accommodate future demands of network subscribers over the life of the infrastructure. All new fiber distribution infrastructure will be sourced from AFL Telecommunications ("AFL") as the principal cable manufacturer. The project will future-proof the network with cables of various strand counts, generally ranging from 24 to 288 strands, depending on the specific network segment. As indicated in the letter included in Attachment 13, AFL, APB's primary supplier of fiber optic cables, connectors, terminals, and related hardware, has allocated committed manufacturing capacity to support APB's materials requirements and specific schedule for this project. During times of supply chain uncertainty, having US-based manufacturing capacity sets this project apart from others in the region.

Approximately 60% of the fiber distribution routes will be aerial and 40% of fiber distribution routes will be underground. In addition to elements of the FY22 VATI network under construction, the FY24 network will include one primary fiber feeder hub and 80 fiber distribution hubs. Service drops will be made to one of approximately 390 fiber distribution terminals. Fiber distribution terminals will be AFL Titan Ready-to-Deploy Multiport Terminals in multiple sizes depending on location and network requirements. Service drops will be made using AFL Trident hardened drop cables. Terminals, hubs, and related components will be sourced by Anixter Wesco as described in Attachment 13.

All customer premises equipment, including optical network terminals and Wi-Fi internet access gateways will be from

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the industry-leading Calix ecosystem. All network optronics will use the XGS-PON (ITU G.9807.1) architecture, which is capable of delivering 10 gigabit, symmetric service, to all end users. As indicated in the letter included in Attachment 13, Calix has allocated manufacturing capacity to support the project bill of materials.

The network has been designed to be scalable and expandable to meet future needs as new locations are built within the project area and as end user demands require higher bandwidth connections. For example, throughout all distribution routes, a minimum of 24 fiber strands will be reserved to accommodate future needs and in some routes this count will reach 288 strands. This will ensure sufficient distribution capacity so that no additional fiber routes would need to be constructed to offer service to any new locations built in the proposed project area after project completion and throughout the life of the infrastructure.

At all feeder and distribution hubs, sufficient capacity has been reserved to enable the network to be upgraded to offer 10 gigabit, symmetric service, to all end users on the network in the future as consumer demands require higher bandwidth connections. All distribution terminals have been sized to accommodate additional connections in the future to accommodate new and in-fill development without requiring additional splicing.

Bills of materials derived from the high-level process have been reviewed and verified by various third-party partners as described in Attachment 13.

9. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 100/20 Mbps. (up to 10 points)

Answer:

The last-mile FTTH network will offer four speed tiers that are fully symmetrical: 50/50 Mbps, 100/100 Mbps, 500/500 Mbps, and 1/1 Gbps, with no data caps. The intended monthly pricing for these plans is \$59.99, \$79.99, \$99.99, and \$119.99, respectively, with a flat \$5 service fee to cover applicable taxes and FCC fees.

Customers will also have the ability to subscribe to VOIP phone service with multiple calling features and local and continental US long distance calls included for an additional \$14.99 per month.

Because the project is a FTTH network, the only locations sharing of bandwidth may occur are at a fiber concentration cabinet or at the network core. All Points has planned more than adequate capacity to consistently deliver advertised speeds to all customers. All service levels are eligible for ACP savings, and APB will harmonize its service level offering with those required for BEAD eligibility across Virginia upon final approval of Virginia's BEAD proposal and APB's participation in that program.

10.

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Explain how the proposed project achieves universal broadband coverage for the locality or fits into a larger plan to achieve universal broadband coverage for the locality. If applicable, explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage. (up to 50 points)

Answer:

In October 2019, the County's Board of Supervisors appointed a citizens committee to develop a broadband plan that would address the County's unserved areas. That Blueprint to Broadband Internet Plan (see attachment 18) was adopted in December, 2020. This Plan identified 11 strategies to achieve universal broadband coverage in the County.

In March of 2021, the County issued an RFP to select an Internet service provider to develop an engineering plan and implementation timeline to achieve universal broadband access in the County, and to provide assistance in obtaining required VATI and other grant funding to deploy the related network. After a competitive selection process, APB was selected as Hanover County's partner to achieve universal broadband in the County. The County and APB performed extensive field inspections, franchisee network review, and provider and community outreach to ensure that all remaining unserved locations in the County were included in the proposed 2022 VATI project area.

Hanover and APB were awarded a 2022 VATI grant to provide universal broadband internet coverage. The grant process included a recognition that Brightspeed has received Rural Digital Opportunity Funds that are separate and apart from the VATI grant to provide broadband service to 1,037 homes in the County. However, absent adequate broadband availability mapping resources and lacking cooperation from existing internet service providers some unserved areas were missed in the initial survey. Improvements in broadband mapping and an increase of the broadband definition also allowed for additional, previously VATI ineligible locations to be included.

Over the past two years the County has worked with the community through several outreach efforts to identify these smaller unserved areas, including publishing GIS-based mapping services, developing a dedicated website (www.ConnectHanover.com), using an on-line survey tool, and publishing on-line and print articles. To validate the proposed project area, APB consulted with the FCC National Broadband Map, which confirmed the reported, unserved status of the included project locations. Dating back to the FY22 project, APB field teams have visited and visually inspected all areas within the County where broadband internet service is not currently available by wireline technology (cable or fiber) that can provide 100 Mbps/20 Mbps service.

Most recently, the County and APB have reviewed the latest broadband availability mapping resources published by the State as part of the Broadband Equity Access and Deployment initiative and this broadband grant application is consistent with the data published under that program. These efforts have led to the true and thorough identification of unserved addresses in the County. The remaining 1,581 passings included in the proposed project have been available for public review and remain unchallenged by incumbent providers through previous VATI applications.

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This project serves as a supplement to FY22 VATI awards and fills the gaps of unserved or underserved residences, businesses and CAI's. Upon completion and apart from areas already served or awarded to other providers, the county will have functional universal coverage. The only remaining unserved locations in Hanover will be "long-drops" or locations within served areas that have long driveways. It is expected these locations will be addressed in the BEAD program and through the LECAP program and the County has continued to engage incumbent providers for solutions to these one-off locations.

11. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants are encouraged to extensively discuss, where applicable, easements relating to railroad crossings, federally-owned lands and parks, partnerships with the Virginia Department of Transportation, and mobile home parks. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 7 – Timeline/Project Management Plan; Attachment 8 – MOU/MOA between Applicant/Co-Applicant; (up to 10 points)

Answer:

This project represents an extension of the existing FY22 VATI broadband project. As can be seen in the project area map, a portion of the unserved homes and businesses that are included in this effort are in close proximity to unserved homes and businesses in the FY22 VATI grant project and only represent a 25% increase in serviceable passings. More than 100 miles of last-mile fiber that would otherwise be required for this project will already be constructed as part of the FY22 project. As such, a portion of earlier VATI broadband project's planning and engineering design can be incorporated into this project. Additional areas outside the FY22 scope can be incorporated easily due to APB's ongoing work in the County. In addition, the backbone fiber being implemented as part of the 2022 VATI grant project will be used as the backbone for these additional passings.

In March of 2021, the County issued an RFP to select an Internet Service Provider to develop an engineering plan and implementation timeline to achieve universal broadband access in the County, and to provide assistance into obtaining required VATI and other grant funding to deploy the related network. APB responded to the RFP with a proposal to deploy universal fiber-to-the-home in partnership with its electric utility middle mile partners, Dominion and REC (see attachment 8). In June of 2021, after a competitive selection process, the County selected All Points as its ISP partner and the County and All Points entered into a related Broadband Partnership Agreement (see attachment 8), through which the County engaged All Points as a broadband deployment partner to pursue broadband deployment for all areas of the County that are unserved by broadband.

In June of 2021, the County, All Points and Dominion entered into a Memorandum of Understanding (MOU) (see attachment 8) pursuant to which All Points assumed primary responsibility for developing a VATI-eligible network that would offer FTTH service to all locations within the County that are unserved by broadband. The County subsequently was awarded a 2022 VATI broadband grant. From June of 2021 until the date of this application, APB and a team of senior County personnel have held routine coordination meetings on the proposed project. APB has conducted fielding on over 10,000 utility poles in Hanover County and has begun submitting thousands of pole attachment requests to the County's electric utilities. To accelerate the make-ready process and prepare for future workflow, APB has engaged the Timmons Group as its primary skilled labor vendor.

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The County, as part of its coordination with GloFiber on a cable/internet expansion in the suburban area of the County, has been involved in and is well aware of the VDOT permit process. The County also manages some road improvement projects, which requires extensive coordination with VDOT on permits.

As indicated in the letter included in Attachment 13, AFL Telecommunications, APB's cable manufacturer, has allocated committed manufacturing capacity to support APB's requirements and specific schedule for this project. AFL is a leading global manufacturer of fiber optic cables, connectors, terminals, and related hardware. By involving AFL in the design and fiber technology evaluation from the beginning, APB has ensured that the project will benefit from APB's strategic partnership with AFL, including firm pricing and dedicated manufacturing capacity. Further details from bills of materials and cost estimates are provided in Attachment 13.

Once construction has commenced, All Points will be able to rapidly deliver service to customers who have pre-registered their locations for service. The same survey that All Points and the County made available for property owners to confirm whether their location was unserved by broadband also provided the option for owners of locations within the proposed project area to subscribe for updates regarding the project and to request to be contacted in advance of service availability at their location. To date, more than 3,000 online surveys have been completed by residents and property owners who have provided their contact information, pre-registered for service and requested to be contacted when service becomes available at their location.

The County will serve as fiscal agent and administer VATI funds for the project. In accordance with the terms of the MOU that is already in place, upon receipt of a VATI award the County and All Points will enter into a revised agreements reflecting the terms of this application.

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12. Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.

Answer:

Hanover County and APB received a 2022 VATI grant. That project is well underway and nearing the completion of make ready pre-construction and construction activities. Pending make ready cadence, fiber construction will begin in Q2 2024 with customer connections in Q3 2024.

In addition to the Hanover County grant, All Points was awarded in 15 additional counties, Middlesex, King William, Culpeper, Loudoun, the eight county region of the Northern Shenandoah Valley Regional Commission and King George, Lancaster and Northumberland Counties as part of APB's Northern Neck Initiative. All FY22 awards are nearing the completion of the pre-construction and at different stages of the make-ready process.

All Points also received a VATI grant in the 2021 application cycle for another project that has largely achieved universal FTTH access within a project area in five counties on Virginia's Northern Neck. Construction of fiber distribution routes is underway in all counties and thousands of locations have access to service. The overall project is on schedule for completion in the first quarter of 2024.

APB was awarded two additional counties (Henrico and Chesterfield) for the 2023 VATI grant award. These projects are currently in the engineering and early make-ready process. Construction is on schedule to commence in Q4 2024.

Per VATI guidelines, monthly project reports are uploaded to DHCD.

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13. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note that a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. If applicants and co-applicants are seeking to include prior expended funds as matching funds, Attachment 11 must be completed. Label Attachments: Attachment 9 - Funding Sources Table; Attachment 10 – Documentation of Match Funding; Attachment 11 - Prior Expended Match Form

Answer:

As shown in Attachment 9, the total cost of the proposed project is \$10.3 million and this application is requesting VATI funds in the amount of \$6.02 million representing 58.6% of the total project cost. All Points has committed \$3.25 million, representing 31.6% of the total project cost. The County has committed \$1 million, representing 9.7% of the total project cost.

The County's commitment of \$1 million is reflected in the County's letter included in Attachment 10.

All Points, supported by its lead equity sponsor, Searchlight Capital Partners, has committed all required financing to complete the project, as demonstrated in the letter included in Attachment 10.

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14. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project. (up to 10 points)

Answer:

The County has previously invested nearly \$15 million for the 2022 VATI grant. APB committed over \$26 million toward that same project. Both the County and APB have dedicated numerous staff hours to both the original project and this 2024 VATI grant application. This includes project management, coordination meetings, high- and low-level design and engineering, equipment infrastructure management, creation and management of a dedicated website, public outreach, quarterly public updates to the County Board of Supervisors, and following financial audit controls. More than 100 miles of last-mile fiber that would otherwise be necessary for this current project will be constructed to complete the FY22 VATI project.

All Points has dedicated a full-time sales manager who will oversee all marketing and adoption activities within the County and APB has allocated a large marketing budget for the project, which is not included in the project budget set forth in this application. The County has sent numerous outreach messages to citizens and businesses in the County promoting the new service, which has resulted in higher than normal pre-registrations.

APB has acquired dedicated office and warehouse space in Hanover County, which serves as the supply inventory and lay-down yard for the project construction.

Dominion and REC have also participated in the planning process, particularly around make-ready, at no cost to the project.

Support from the County and electric utility partners will continue through final design and construction. The relevant County supervisors will participate in joint marketing events and public meetings to market the project and encourage adoption by their residents. Dominion and APB will each incur significant costs related to the SCC Petition Process, including legal fees and other related costs that are not included in the project construction costs.

The project will leverage APB's existing network core and related data-center infrastructure, as well as All Points' customer service, support, and billing functions.

15.

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Communications Plan: Describe efforts to keep the public informed of project progress and the broadband adoption plan.

- a. Explain how you plan on communicating the project status to stakeholders, including but not limited to County leadership, project areas residents, etc. (Up to 10 points)
- b. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate. (up to 10 points)
- c. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

Answer:

a.

[The County has drafted a marketing plan \(see attachment 18\), which outlines several communication and coordination efforts.](#) [A1] This includes County staff providing quarterly updates to the Board of Supervisors at their live streamed meetings (videos also available on-line post meeting). The County has also developed a website for the effort at www.ConnectHanover.com. This website is kept current with the latest project information.

The County also distributes an e-newsletter (subscribers) and hard-copy publication (sent to all homes in County) along with using social media platforms that consistently provide updates on the project. Several community events have been hosted to update citizens on the project. The County is also working with local organizations, including Hanover Schools, to partner in expanding project awareness. The County, APB, Dominion, and REC have regular meetings on the project's status.

The County has developed a GIS-based custom mapping application (click on mapping at www.ConnectHanover.com) that provides internet service provider information to citizens. Due to the lack of cooperation from some providers, certain provider information has been estimated. This tool allows citizens to verify their internet service provider, and it has resulted in hundreds of reports from citizens that information on the website is inaccurate. This includes data provided by internet service providers on the services they offer. This data reported by citizens has been the base resources used to develop this 2024 VATI grant application. As construction begins and connections are being made, this mapping tool will be used to keep citizens updated on the progress of the project.

All Points will provide the County with a written report each month of the project timeline, detailing All Points' progress against established project milestones. This report will include a breakdown of progress against project milestones consistent with the DHCD-required report format. The County and All Points will also hold a quarterly coordination meeting during which All Points will present a report on progress against established project milestones in the previous quarter, and an update on project activities anticipated in the next quarter. Quarterly coordination will include the county's project lead as well as representatives from All Points, and Dominion (as appropriate).

The County, All Points and Dominion (as appropriate) will hold at least two public events in Hanover, which will be coordinated with the county. The first event will be a public webinar, in which All Points and the County will provide an overview of the awarded network, the project map, the service levels, and the project timeline. Hanover residents will

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be able to participate in the webinar and ask questions regarding the project.

The subsequent public events will be chosen from several options, selected by the County as most appropriate for their community and stakeholders, to be an in-person event marking the project's progress. These events could include:

- 1) Commencement of Construction / Groundbreaking
- 2) Lighting of First Fiber Distribution Area / Initial Customer Access
- 3) Construction Progress or Completion of Utility Middle-Mile Fiber
- 4) Construction Progress or Completion of Distribution Network
- 5) Other County Selected Events

In addition to events open to the general public, All Points and DEV (as appropriate) will invite local media for project tours / construction ride-outs during construction. All Points will also provide a project update before the Hanover Board of Supervisors on a semi-annual basis, on a timeframe coordinated with the County's project lead.

A sample of the communications plan is attached for reference. In addition to large-scale events and webinars, All Points will fund several channels of communications to project area residents, including social media ads, yards, signs, door hangers, mail flyers, and small-scale community events as described below. Throughout these communications, it will be critical to encourage eligible households to pre-register for the Affordable Connectivity Program.

The County has established public wireless internet access at public buildings in 7 locations throughout the County. County partner organizations for digital literacy include the Pamunkey Regional Library and Hanover Schools. Hanover County is a member of the Pamunkey Regional Library, which has a full digital literacy program that includes providing public wireless access, mobile hotspots, and other digital equity and inclusion services. Hanover County Schools are a partner in the Connect Hanover initiative that will be supporting this project, and the Hanover County Schools provides an on-line educational program that includes issuance of tablets to all students in grades 3-12 and to all teachers in the County school system. Hanover County Schools also offer a complete web-based educational services program.

Finally, All Points plans to participate in County-led digital literacy, adoption, and equity events held by community organizations.

See Attachment 18 for remainder of Section 15.

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16. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co applicant's history and experience with managing grants and constructing broadband communication facilities.

Answer:

The following table depicts key members of the project team from the County, All Points, Dominion, and REC:

Key Individuals

Key Individual

Roles and Responsibilities

Previous Experience

Jimmy Carr

CEO, APB

See Attachment 20

Tom Whitaker

COO, APB

See attachment 20

Sean Flora

Director of Fiber Construction, APB

See Attachment 20

Brandon Ogilvie

CFO, APB

See Attachment 20

Tom Innes

SVP of Public-Private Partnerships, APB

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See Attachment 20

Chuck Hogg

SVP of FTTH Deployments, APB

See Attachment 20

Darren Glatt

Partner and Co-Head of Infrastructure Investing, Searchlight Capital Partners

See Attachment 20

Ajit Pai

Partner, Searchlight Capital Partners

See Attachment 20

Ed Diggs

Manager, Rural Broadband, Dominion

See Attachment 20

Mark Ponton

Director of Broadband and Fiber Services

See Attachment 20

Todd Kilduff

Deputy County Administrator, Hanover County

See Attachment 20

Kevin Nelson

IT Director, Hanover County

See Attachment 20

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The County has significant experience in the successful management of grant projects. In FY23 alone, the County processed nearly \$60 million in grant funds for projects in many categories including the American Rescue Plan Act, VATI, road construction, drug addiction treatment programs and many more. The County is an annual recipient of most of these grants, which is indicative of the scope of grant management that Hanover routinely handles. Grant tracking and reporting processes are continually reviewed for improvements and efficiencies. Grant reporting to both state and federal agencies is a standard business activity for Hanover and Hanover has consistently received positive results on annual audits. Grants management and acceptance is included the financial policies adopted by the County's Board of Supervisors.

All Points Broadband is a highly successful rural broadband provider that operates last-mile fiber, fixed-wireless, and hybrid-fiber-wireless networks serving locations in Virginia, West Virginia, Maryland, and Kentucky. All Points has grown through acquisitions and organic network expansions and been named to Inc. magazine's list of America's 5000 fastest-growing companies in each of the last four years. All Points has successfully managed numerous rural broadband deployments in partnership with dozens of rural Counties across Virginia and Kentucky.

The company's senior managers hold leadership positions in the national industry association. All Points CEO is a member of Virginia's Broadband Advisory Council and has testified before the US Senate and Virginia General Assembly on rural broadband deployment strategies.

Searchlight Capital Partners is APB's lead equity sponsor. Searchlight is a private investment firm with over \$16 billion of assets under management with extensive expertise investing in the global telecommunications and media sectors. Over the previous several years, Searchlight has invested approximately \$4 billion in FTTH in the United States, making Searchlight the number one investor in domestic FTTH infrastructure in that period. And as of today, through its investments in All Points, Consolidated Communications and Zply Fiber, Searchlight is the fourth largest builder of FTTH passings in America. All Points benefits from the tremendous volume purchasing arrangements for Searchlight's portfolio companies, which ensure availability of required supply and the best available pricing.

Searchlight has deep familiarity with broadband markets and the associated competitive dynamics in the broader United States. Searchlight's leadership, both through their time at Searchlight and at previous investment firms, have also acquired multiple decades of experience investing specifically in fiber-based broadband businesses in the U.S. and globally, which has made it a core competency and strategic focus for the firm.

Additional letters of support are included as Attachment 14.

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17. Project Budget and Cost Appropriateness

Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 12 – Derivation of Costs; Attachment 13 - Documentation of Supporting Cost Estimates. (up to 10 points)

Answer:

As shown in Attachment 12, the total cost of the proposed project is \$10.3 million and this application is requesting VATI funds in the amount of \$6.02 million representing 58.6% of the total project cost. All Points has committed \$3.25 million, representing 31.6% of the total project cost. The County has committed \$1 million, representing 9.7% of the total project cost.

The Derivation of Costs divides the project into the following categories: Final Design and Engineering, Project & Construction Management, Headed/Central Office, Field Network Equipment, Aerial Make Ready & Construction, Underground Construction, Fiber Drop Construction, Subscriber Equipment & Installation Labor, Other Capex and Construction Bond.

To develop the project budget, All Points prepared a high-level design for the project and developed an indicative bill of materials based on that design. Bills of materials and labor requirements were verified by appropriate vendors as described elsewhere in this application.

All Points then obtained current pricing for each item on the bill of materials from its primary vendors, AFL, All Points' primary suppliers of fiber optic cables, connectors, terminals, and related hardware, and Calix, All Points' primary supplier of customer premise equipment. Both AFL and Calix have also allocated committed manufacturing capacity to support APB's materials requirements and specific schedule for this project. AFL, Calix, and All Points' primary distributor Anixter Wesco have reviewed the bill of materials for the project and provided the pricing used for all relevant cost categories included in the project budget. Due to the extremely competitive nature of materials procurement, the unit cost of most items has been redacted from the bill of materials. Several of All Points' primary labor contractors have also reviewed the project parameters and have provided pricing that have informed the project budget. As is the case for materials, the rate card of third-party labor services cannot be provided publicly due to the competitive nature of those agreements. Attachment 13 contains letters specifying these points from primary All Points vendors.

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18. The cost benefit index is comprised of state cost per unit passed. Individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

- a. Total VATI funding request

- b. Number of serviceable units
(up to 125 points)

Answer:

a. Total VATI funding request: \$6,020,043

b. Number of serviceable units: 1,581

19. **Commonwealth Priorities (Up to 50 points)**

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

a. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.

b. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.

c. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 100/20 mbps, include information regarding the internet service provider's participation in the Affordable Connectivity Program

d. The co-applicant's efforts to mitigate supply chain constraints, including labor shortages and order-to-delivery delays on telecommunications materials required to construct broadband networks.

e. The applicant's and co-applicant's efforts to promote broadband adoption, including, but not limited to: telehealth, smart farming, e-entrepreneurship, and distance learning.

Answer:

a. As noted above, within the project area, there are 156 business passings and 16 community anchor passings (CAI). Although there is a small number of CAI's in the project area, they play a significant role in this rural area and represent a substantial positive impact on the community. This includes serving an elementary school, Fire-EMS station, a government operated and owned psychiatric rehabilitation center, two private community assistance businesses, a water treatment plant, and a waste-water treatment plant.

Community Anchors:

- Beaverdam Fire-EMS Station

- Beaverdam Elementary School

- Hanover County Raft House (Government Psychiatric Rehabilitation Center)

- Hanover County Doswell Waste-Water Treatment Plant

- Hanover County Doswell Water Treatment Plant

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- Doswell Transfer Station (Solid Waste)
- Moments of Hope Outreach (community assistance)
- Doswell Community Center

b. This project is a partnership between the County and APB, leveraging Dominion Energy middle mile from the FY22 Hanover VATI project. The FY22 project leverages the Utility Leverage Statute with an investor-owned utility to simultaneously upgrade and harden Virginia's electric grid while making last-mile FTTH available to all remaining unserved locations in the County. Pursuing these two objectives simultaneously reduces aggregate costs for all the partners and benefits the entire community and significantly reduces the cost of the FY24 project. Achieving universal broadband access throughout the County will only be possible if this project is leveraged in coordination with Dominion's ongoing fiber-deployment activities in the manner contemplated by the Utility Leverage Statute. The middle mile deployed in conjunction with the FY22 VATI Hanover Project will have a critical cost-savings effect on the FY24 VATI Hanover Project, particularly for backbone and long-haul fiber routes.

The project involves the partnership between the County and the Pamunkey Regional Library,

which has a full digital literacy program that includes providing public wireless access, mobile hotspots,

and other digital equity and inclusion services. The project also involves the partnership with the County school system, that provides an on-line educational program that includes issuance of tablets to all students in grades 3-12 and to all teachers in the County school system.

c. See Attachment 18

d. All Points mitigates supply chain constraints through a variety of strategies and has so far avoided most of the supply chain issues plaguing other broadband providers in the current environment. First, All Points benefits from the tremendous volume purchasing arrangements for Searchlight's portfolio companies, which ensure availability of required supply and the best available pricing. Through All Points and other investments, Searchlight is the fourth largest builder of FTTH passings in the nation. Similarly, All Points' strategic partnerships with electric utilities such as Dominion have benefited its ability to purchase sufficient volume and secure manufacturing capacity for future projects. Once a project is awarded, All Points will procure the necessary construction materials sufficiently in advance of construction commencement to ensure materials are available and avoid rising prices.

As detailed in Attachment 13 and described previously, All Points' primary suppliers and labor contractors have reviewed the specifics of the proposed project and have committed to executing the project within the provided timeline and budget. Both AFL and Calix have also allocated committed manufacturing capacity to support APB's materials requirements and specific schedule for this project. AFL, Calix, and All Points' primary distributor Anixter Wesco have reviewed the bill of materials for the project and provided the pricing used for all relevant cost categories included in the project budget. Due to the extremely competitive nature of materials procurement, the unit cost of most items has been redacted from the bill of materials. Several of All Points' primary labor contractors have also reviewed the project parameters and have provided pricing that have informed the project budget. As is the case for materials, the rate card of third-party labor services cannot be provided publicly due to the competitive nature of those agreements. Attachment 14

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contains letters specifying these points from primary All Points vendors.

All Points has implemented a Labor Continuity Plan for the FY22 project which will continue for the FY24 project to mitigate against labor availability risks and to ensure compliance with future federal funding requirements. Routine and frequent reporting by labor contractors provide All Points confidence that the project will be completed on time and on budget. Leading indicators of labor insufficiencies will be flagged in advance on any issue that would impact construction. Since All Points relies on multiple contractors, including one of the largest privately owned companies in the United States, we have the ability to increase or decrease the amount of construction labor as needed per project. To avoid any gap in labor utilization, we will generate a backlog of at least 30 days' worth of permitted and constructable fiber route miles before mobilizing a construction crew.

e. See Additional Information

20. **Additional Information**

Please attach any letters of support from stakeholders. If the applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality.

Attachment 14 – Letters of Support.

Provide the two most recent Form 477 submitted to the FCC, or equivalent, as well as point, polygon, and, for wireless providers, RSSI shapefiles for the project area **in .zip file form**. With attachments 17 through 20, attach any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 15 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 16 - Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area
- c. Attachment 17 - For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area
- d. Attachment 18 – XXXXXXXX
- e. Attachment 19 – XXXXXXXX
- f. Attachment 20 – XXXXXXXX

Answer:

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Response to 19.e: Telehealth – Although the County’s Department of Social Services does not have telework options, many of its clients receiving Medicaid would greatly benefit from access to broadband internet when participating in telehealth services like care coordination, case management, peer services, needs assessments, and psychiatric services, including medication management, and individual, group, family therapy. [The Community Services Board provides on-line telehealth for Outpatient and Medical services. For Outpatient, 9864 therapy sessions were conducted in 2023 with 652 of those \(6%\) done virtually. For Medical services, 1815 activities were conducted in 2023 with 1046 of those \(58%\) done virtually. Due to psychiatric provider shortages in the Richmond area, the County was able to use out of State resources due to utilizing remote services until a full-time local resource was hired.](#)

Smart Farming – Hanover County has the largest farmer in the state of Virginia, Engel Family Farms, headquartered in Hanover. They, along with Creamfield Farm (Grayson Kirby), are two of the biggest precision agriculture leaders in Virginia. They use satellite and GPS technologies, climate data, yield monitors, drones and other smart technologies to scout, precision apply fertilizers and pesticides and monitor crops and fields throughout the planting seasons. All of this requires high speed internet. Most of the smart technologies are built right into the equipment that they use including their tractors, planters, combines and drones. They also have to download real-time climate data, particularly when it comes to preventing pesticide drift, etc. A lot of their work is done in the field and on the road, they need service and access to technology wherever they might be farming. Here is a 2020 article about what our local farmers are doing, including Creamfield:

https://issuu.com/virginiafarmbureau/docs/fbn_nov-2020/s/11303315

Distance Learning – Hanover County Schools offer a complete web-based educational services program, including a virtual online school for students. In 2023 that includes students in grades 6-12. Schools also offer 2 remote sites for students wishing to graduate with an Associates degree from a Virginia Community College and a high school diploma. Students may enroll in Virtual Virginia Learning courses for high school credit. As the curriculum is completely virtual, it presents a hardship for students in unserved areas who must find alternative locations to complete their course work. Hanover County Schools issue tablets to all students in grades 3-12 and to all teachers in the County school system.

All Points fully supports the County’s efforts to improve broadband adoption and is and has been willing to attend community events, provide digital literacy educational materials in addition to our marketing efforts outlined in Sections 15 and 16.b. All Points efforts in marketing along with the \$199.00 installation fee will help increase adoption of those residents that have felt historically left behind due to expensive installation fees provided by incumbent providers.

Attachments:

Documentation of Supporting Cost Estimates

Attachment13DocumentationforSupportingCostEstimatesHanover1219202355702.pdf

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Letters of Support

HanoverAttachment14LettersofSupport1219202355721.pdf

Two most recent Form 477 submitted to the FCC or equivalent

Attachment15TwoMostRecentForm477sRedacted1219202355738.pdf

Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area

Attachment16PointPolygonHanover1219202355756.zip

Optional

CombinedAttachment18Hanover1219202355903.pdf

Optional

Attachment19APBDigitalInclusion1219202360029.pdf

Optional

Attachment20HanoverPMTeam1219202360228.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFundingHanover1219202360348.pdf

Derivation of Cost/Project Budget (Use template provided)

Attachment12DerivationofCostsHanover1219202360457.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSourcesTableHanover1219202360559.pdf

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaHanover1219202355501.pdf

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

Attachment2FederalFundingAreaHanover1219202355513.pdf

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Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnservedHanover1219202355534.pdf

Timeline/Project Management Plan

Attachment7TimelineHanover1219202355617.pdf

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

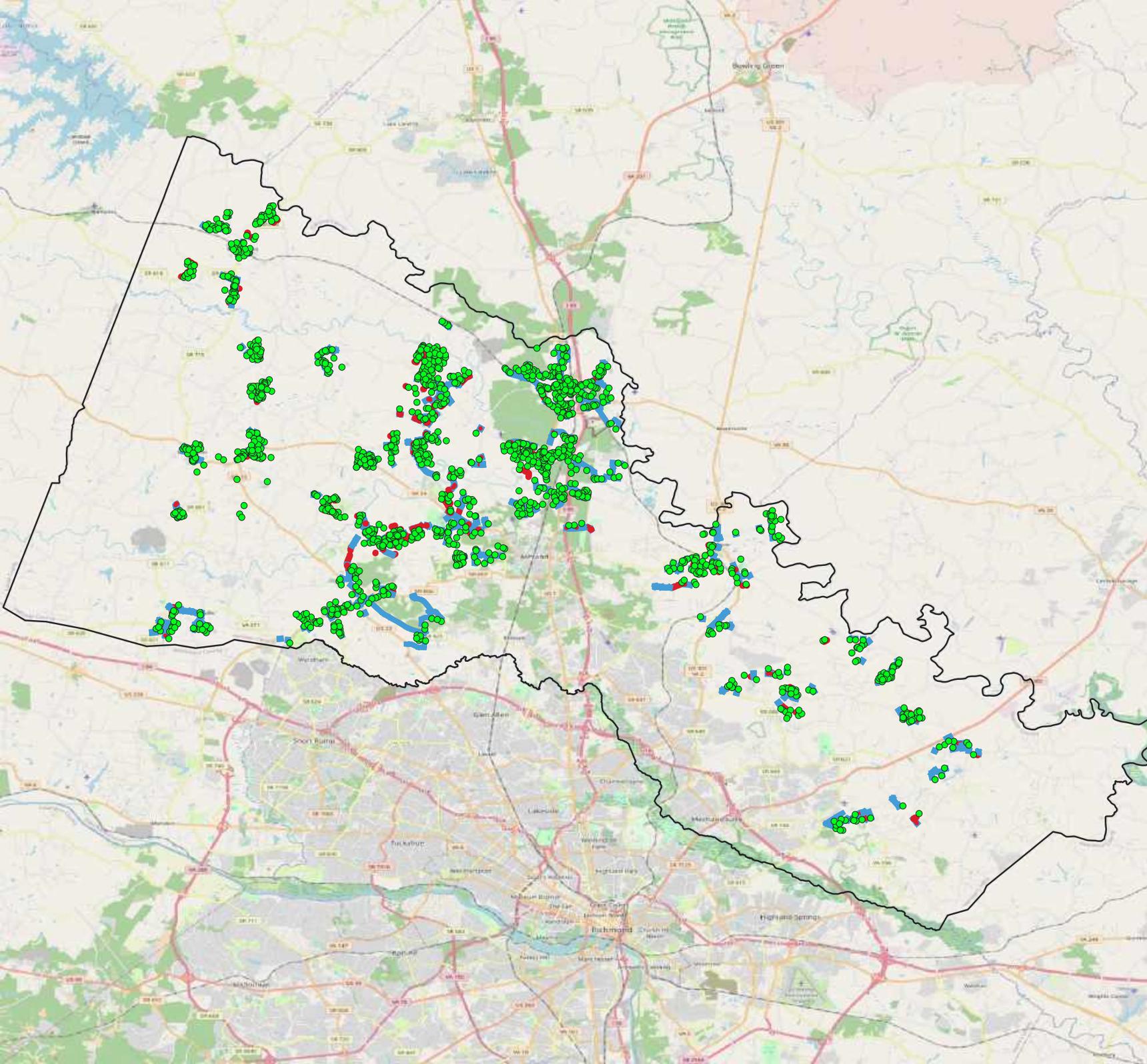
Attachment8MOUHanover1219202355646.pdf

Passings Form (Use template provided)

Attachment4PassingsFormHanover1219202360658.pdf

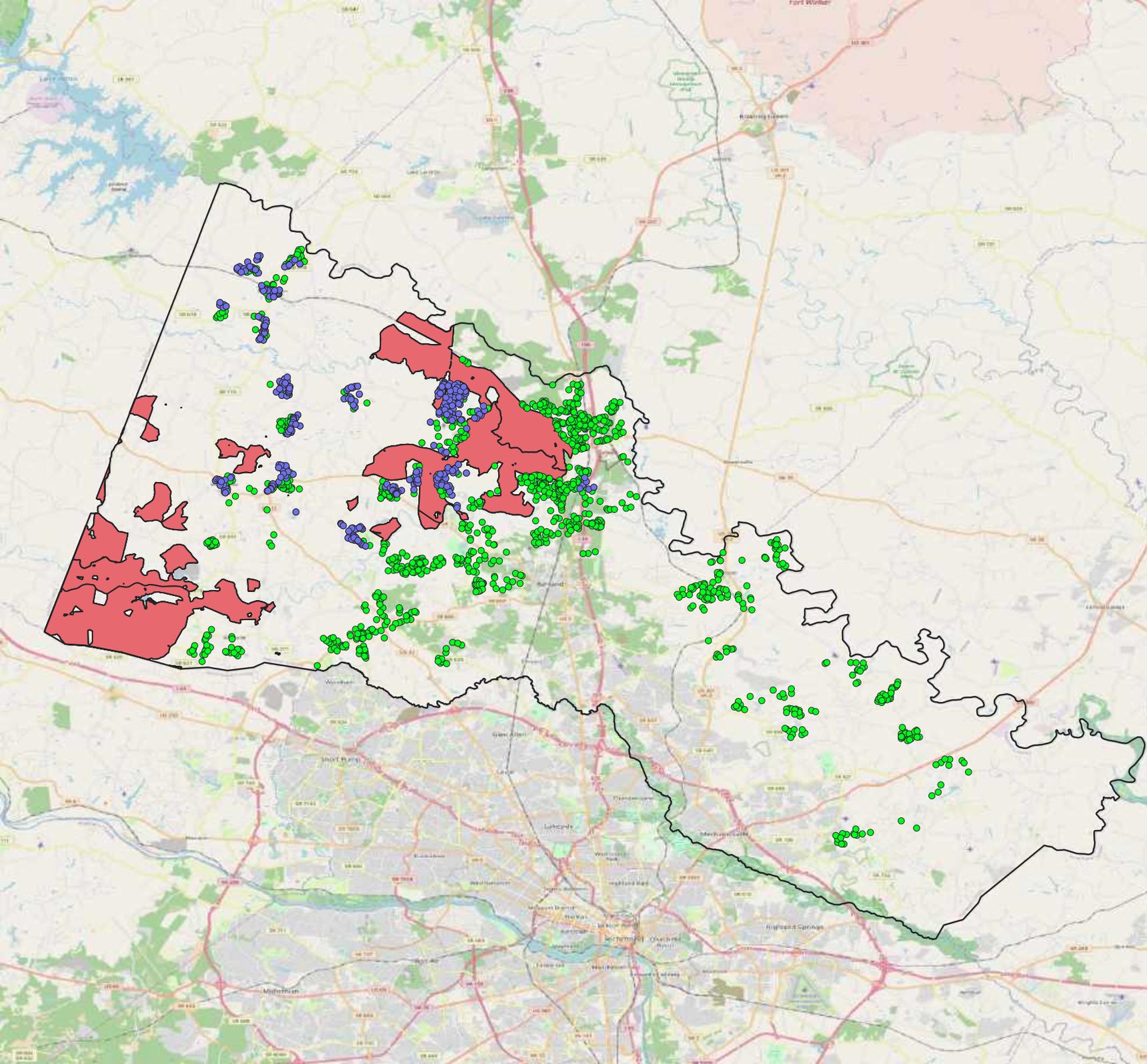
Hanover County 2024 Accelerated Universal Fiber Deployment

- Service Locations
- Project Area
 - Aerial cable
 - Undergrround cable



Hanover County 2024 Accelerated Universal Fiber Deployment Federal Funding

-  CenturyLink, Inc. RDOF
-  Federal Funding ACAM
-  Service Locations [1581]



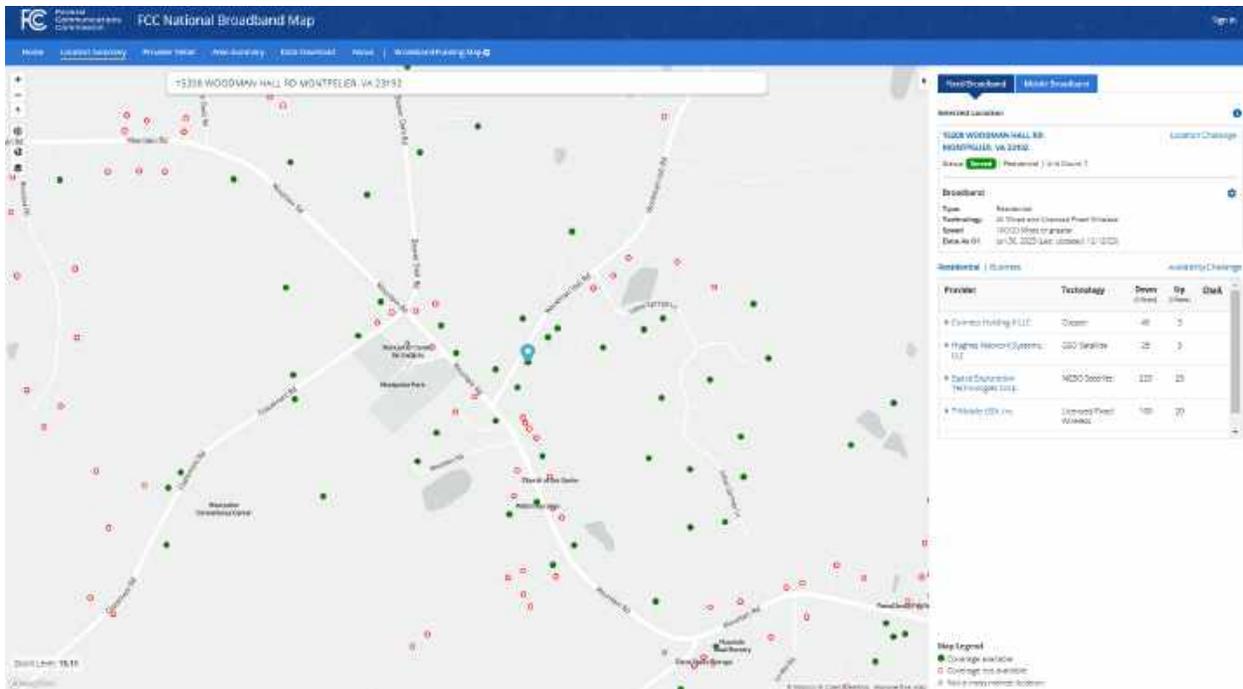


Figure 2 - Zoomed in on region within project area showing limited service available at 100 Mbps Download / 20 Mbps Upload via Qualifying Technology in the Project Area from the FCC National Broadband Map as of 12/1/2023

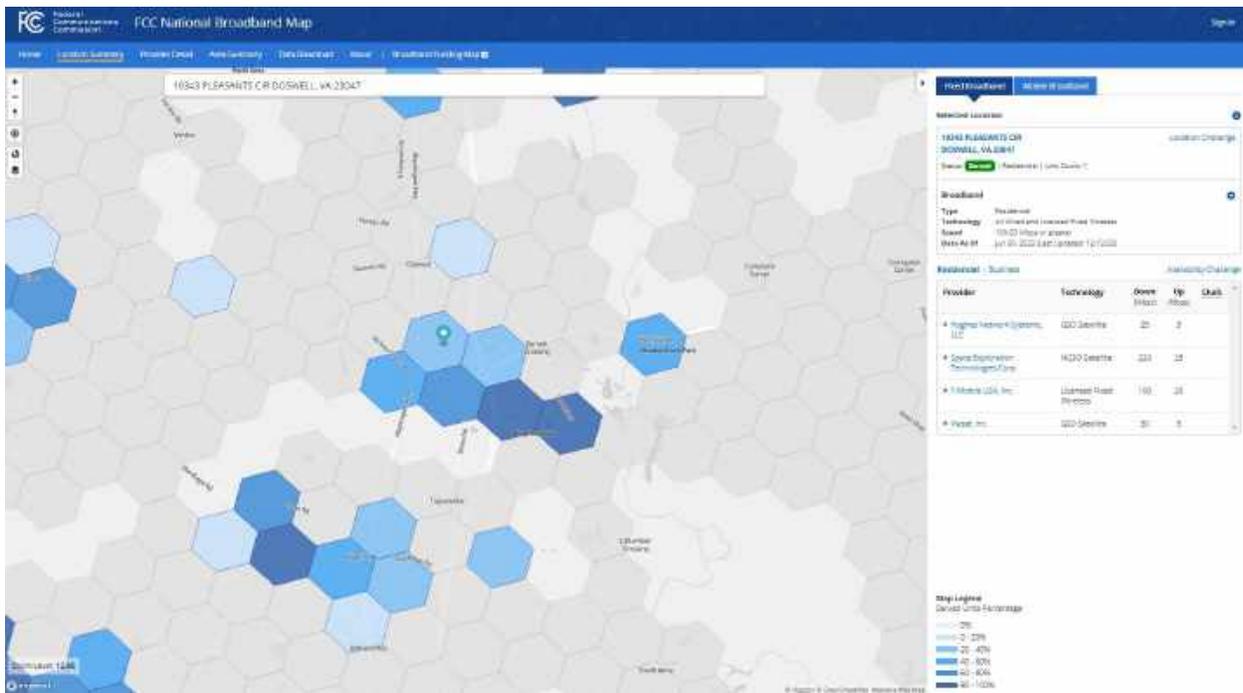


Figure 3 - Shows no service available at 100 Mbps Download / 20 Mbps Upload via Qualifying Technology in the majority of the Project Area from the FCC National Broadband Map as of 12/1/2023

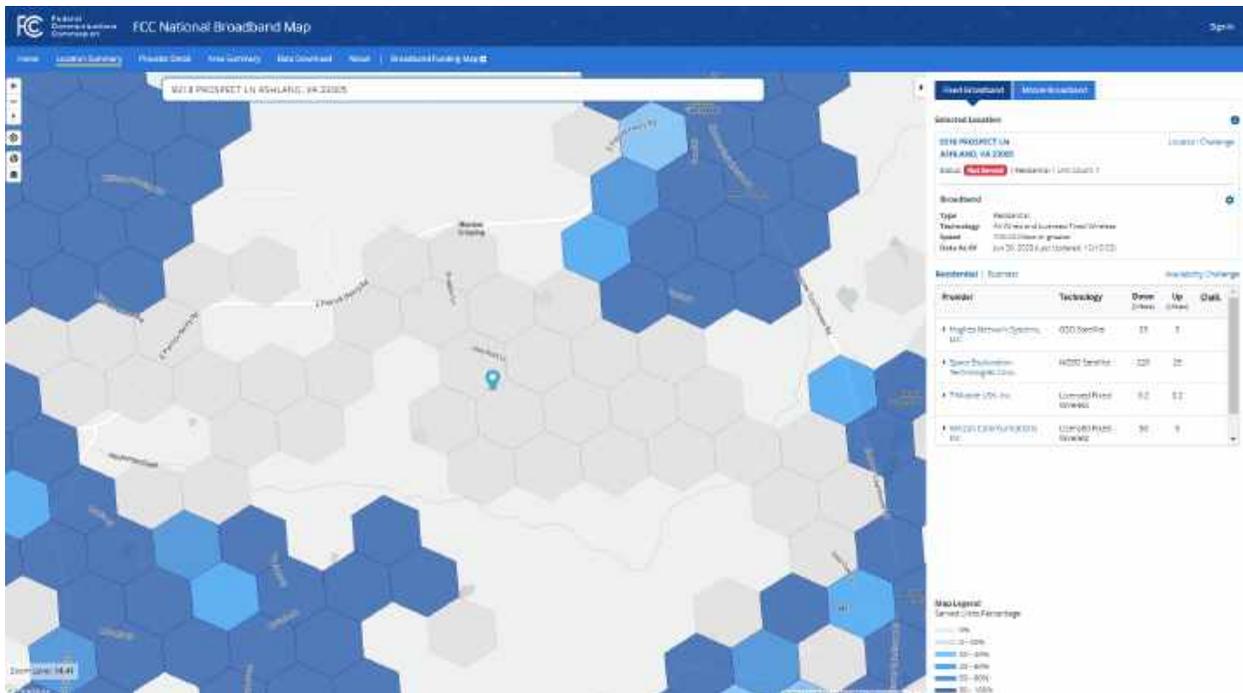


Figure 4 - Shows no service available at 100 Mbps Download / 20 Mbps Upload via Qualifying Technology in this part of the Project Area from the FCC National Broadband Map as of 12/1/2023

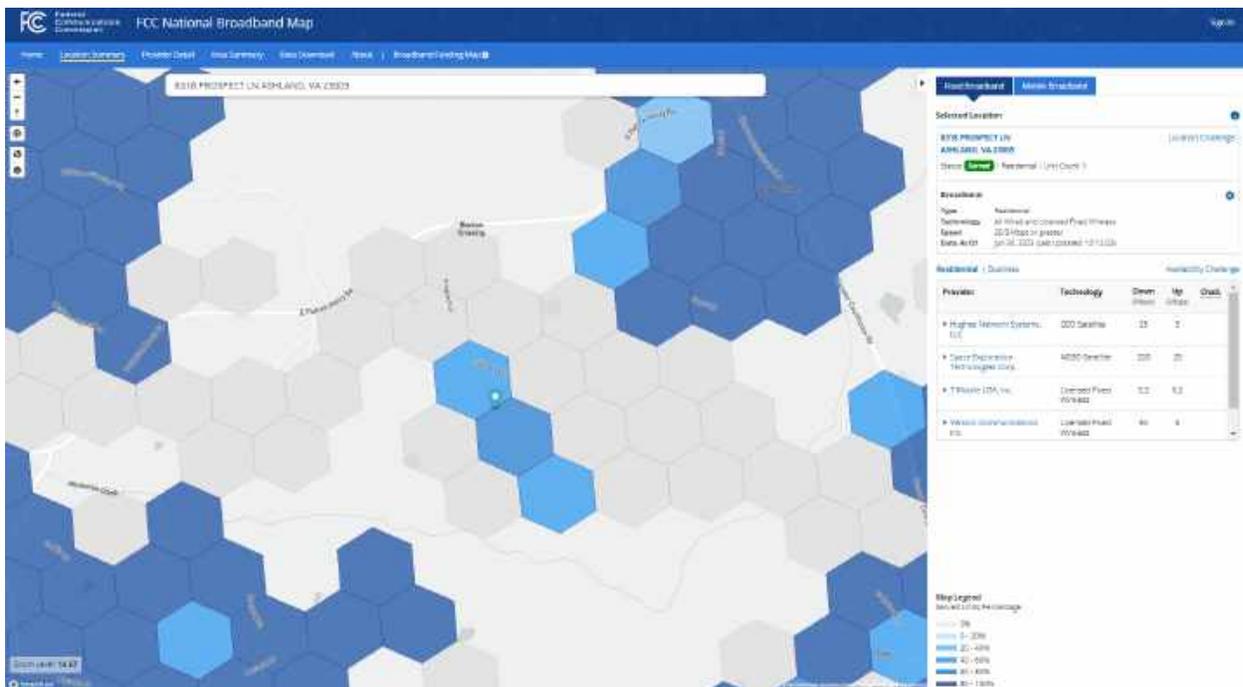


Figure 5 - Shows limited service available at 25 Mbps Download / 3 Mbps Upload via Licensed Fixed Wireless in the Project Area from the FCC National Broadband Map as of 12/1/2023

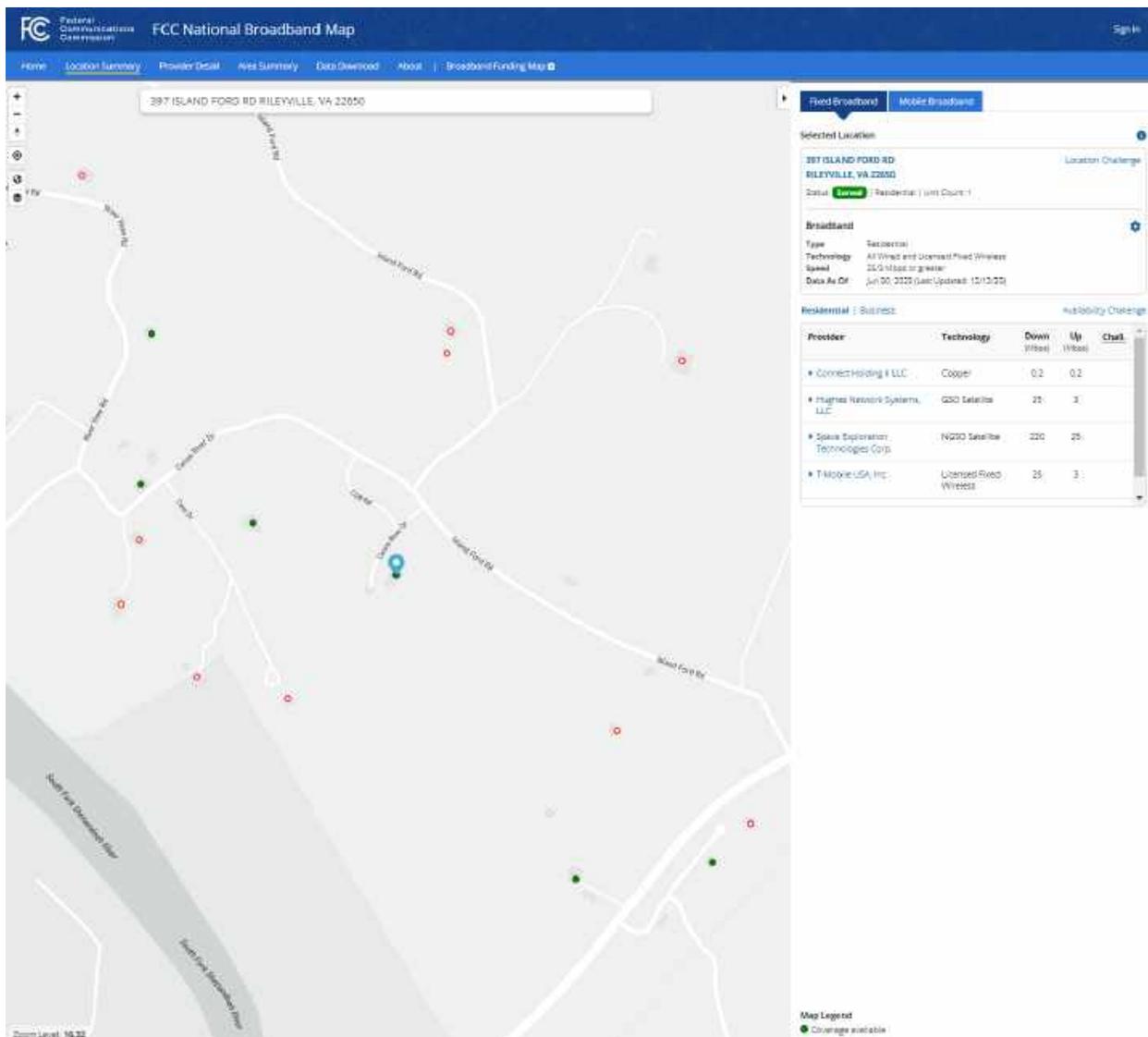


Figure 6 - Shows limited service available at 25 Mbps Download / 3 Mbps Upload via Licensed Fixed Wireless in the Project Area from the FCC National Broadband Map as of 12/1/2023

The figure shows no service available at 100 Mbps Download / 20 Mbps Upload via Qualifying Technology in the Project Area from the Connecting Virginia Map as of FCC Broadband Data Collection December 2022 and Virginia Collected March 2023. The Proposed Project Area is shaded in lined purple in Figure 7.

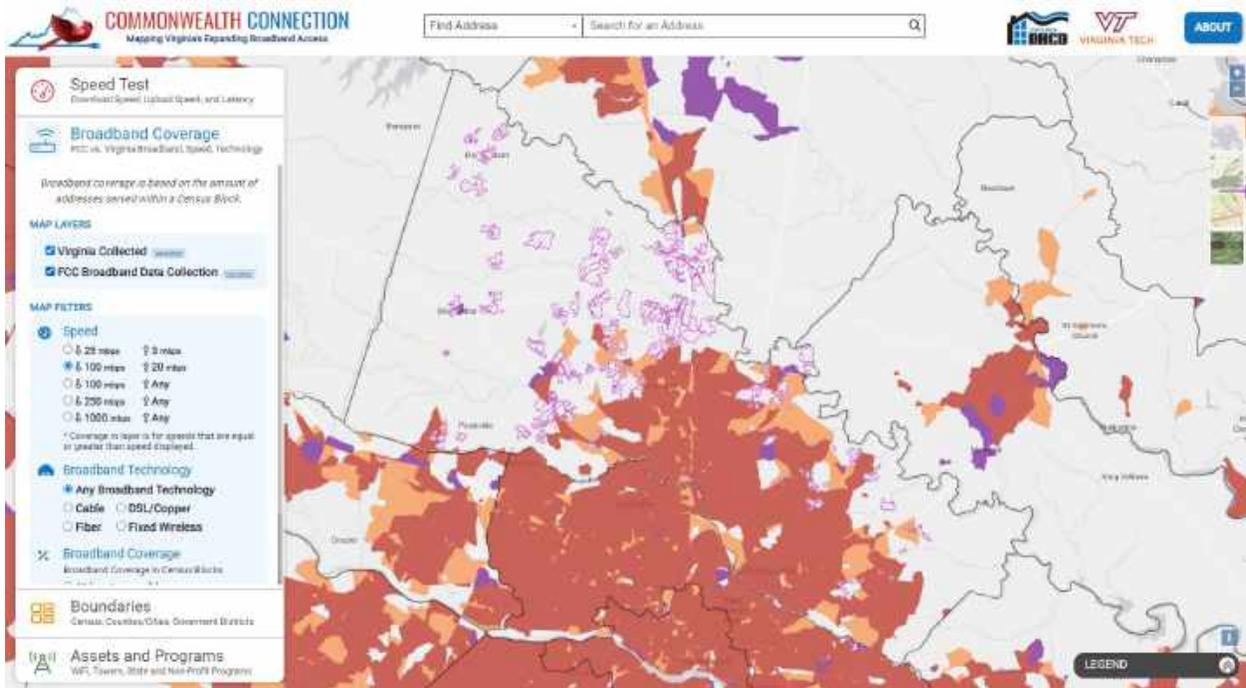


Figure 7 - Shows no service available at 100Mbps Download x 20Mbps Upload via Qualifying Technology in the Project Area from the Connecting Virginia Map as of FCC Broadband Data Collection December 2022 and Virginia Collected March 2023. The Proposed Project Area is shaded in lined Purple above.

2024 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number of Passings in the Project Area ¹	Passings in the Project Area, without Special Construction Costs Required ²	Passings with Special Construction Costs budgeted in the Application ³	Number of Passings with Speeds at 25/3 or below in Project Area ⁴
Residential	1409	1409		788
Businesses (non-home based)	132	132		132
Businesses (home-based)				
Community Anchors	16	16		16
Non-residential	24	24		24
Total	1581	1581		960

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

Note: Do not include passings in RDOF awarded areas that were awarded to the co-applicant; these passings should be included in the RDOF Passings Form. Passings included in this application in RDOF awarded areas that were not awarded to the co-applicant, unless successfully challenged, are considered unserved and should be counted as passings in this form.

¹ The total number of structures in the project area that can receive service. See definition of passing below for more detail.

² The number of structures in the project area that will not require special construction costs to provide service to. These passings fall within the broadband provider's standard service connection drop length and do not require nonstandard equipment or any additional fees above normal service connection fees required to provide broadband access to a premise.

³ The number of structures in the project area with all construction costs budgeted in the application. These passings will not require any additional special construction costs beyond those budgeted for in the VATI application.

⁴ The number of structures in the project area that do not have access to internet at speeds of at least 25 mbps download and 3 mbps upload.

Definitions

Passing – any structure that can receive service. Multi-unit structures may be counted as more than 1 passing, provided individual connections and account are planned at that structure.

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

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

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

VATI Grant Timeline

Grid Board Timeline Charts People Goals ...

Sep 1, 2023 - Apr 30, 2026

Jul 2022 Sep 2022 Dec 2022 Mar 2023 Jun 2023

1 **Project Activities Prior to Grant Application** ⓘ ⋮

- 2 Desktop and Field Verification of No Service & Unserved Location Status
- 3 Develop Feasibility Level Design (FLD) & BOM for Fiber Routes & CAPEX Estimate
- 4 Secure Fiber Optic Cable Manufacturing Capacity
- 5 Commitment of BOM Items to be Delivered on Schedule and on Budget
- 6 Financial Commitment from ISP
- 7 Financial Commitment from Locality
- 8 Develop and Submit Grant Application

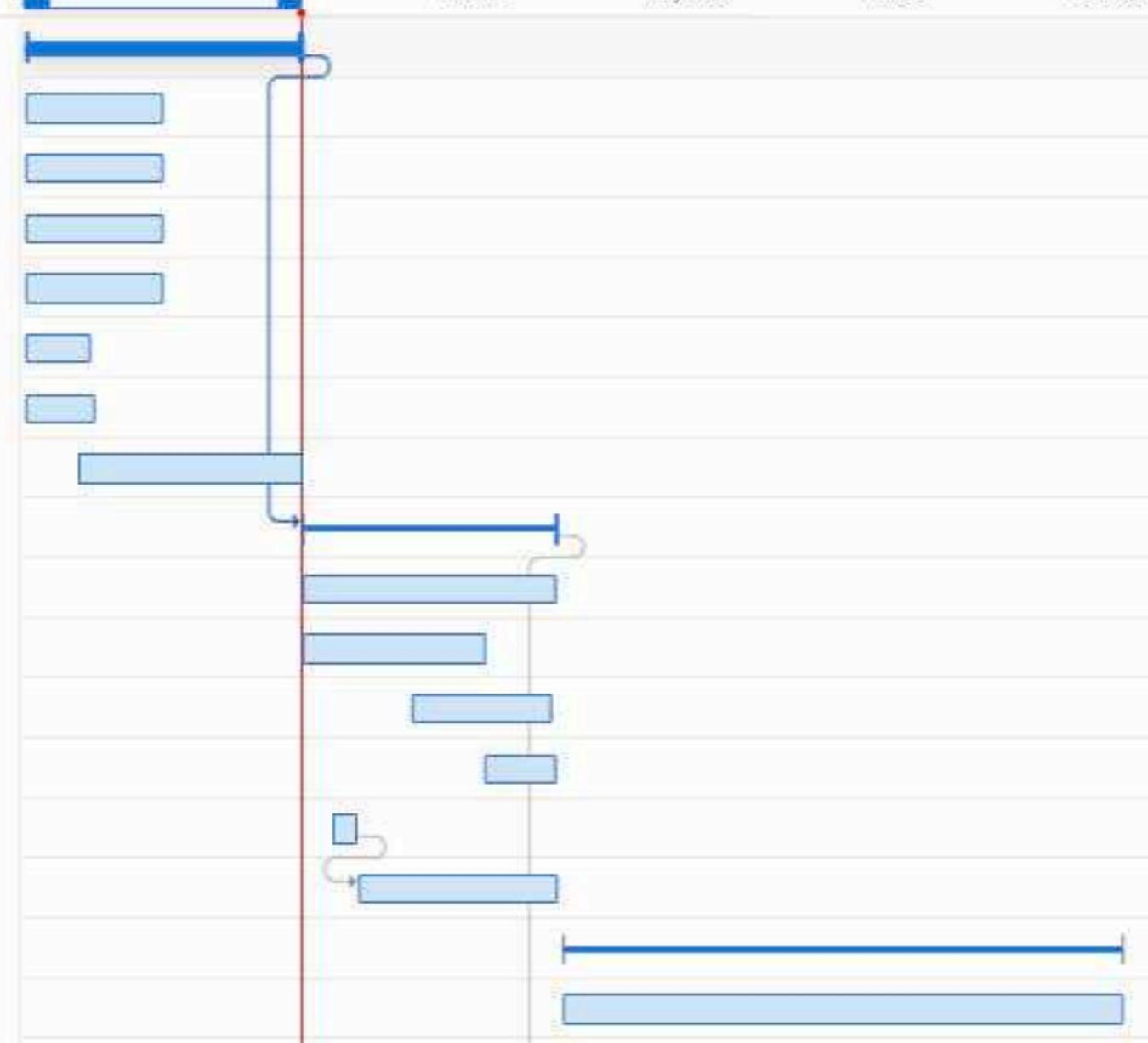
9 **Project Activities Prior to Grant Contract / Project Start**

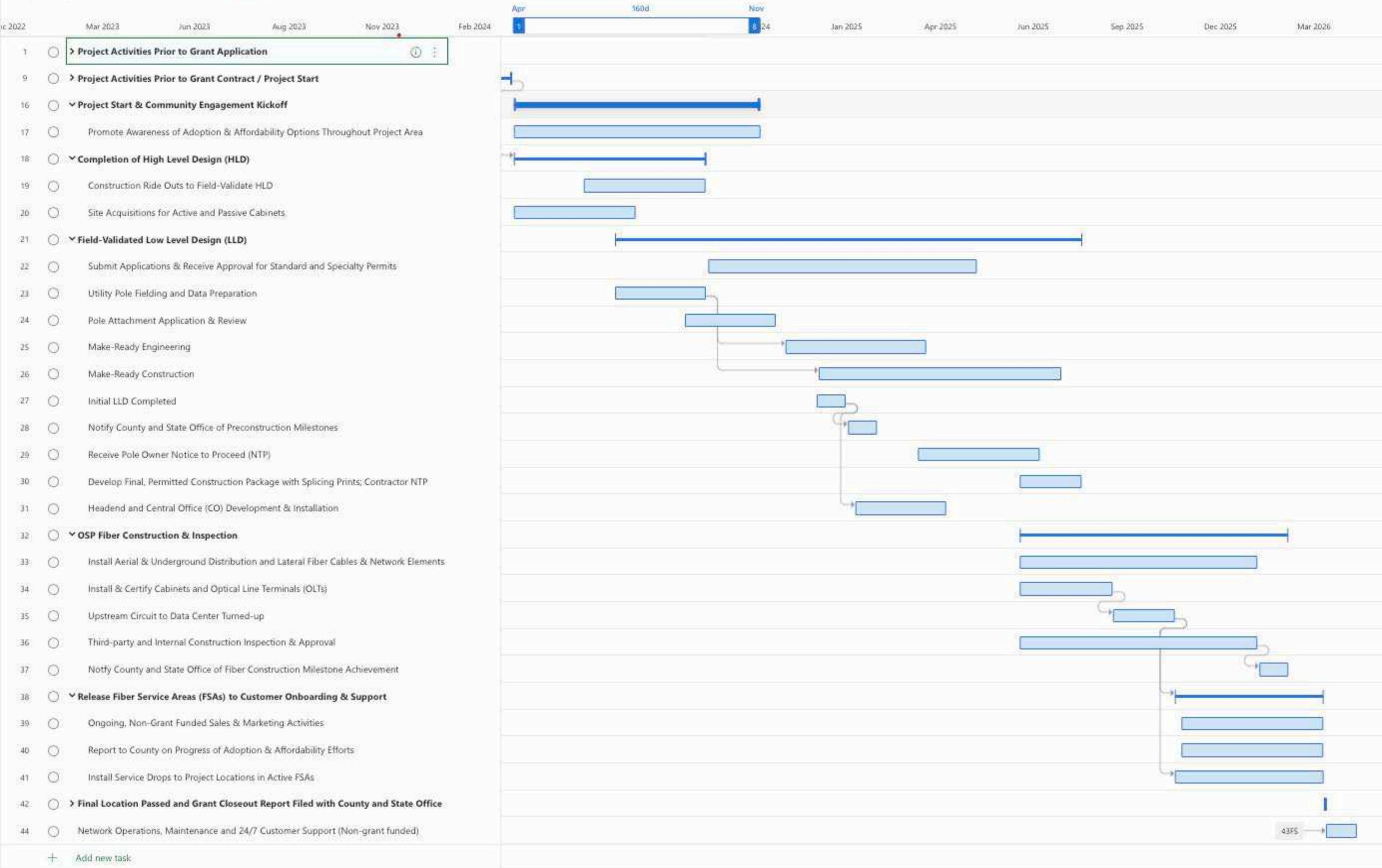
- 10 Increase Community Engagement and Public Sector Support
- 11 ISP Participates in Grant Challenge Process
- 12 Notify Relevant Permitting Department(s) of Upcoming Applications
- 13 Contact and Advise Property Owners Along Fiber Route
- 14 Receive Preliminary Award Confirmation
- 15 Receive and Finalize State Grant Award Contract

16 **Project Start & Community Engagement Kickoff**

- 17 Promote Awareness of Adoption & Affordability Options Throughout Project Area

Sep 7th Dec Feb 2024 May 2024 Jul 2024 Oct 2024





Apr 160d Nov 24

- 1 > Project Activities Prior to Grant Application
- 9 > Project Activities Prior to Grant Contract / Project Start
- 16 v Project Start & Community Engagement Kickoff
- 17 Promote Awareness of Adoption & Affordability Options Throughout Project Area
- 18 v Completion of High Level Design (HLD)
- 19 Construction Ride Outs to Field-Validate HLD
- 20 Site Acquisitions for Active and Passive Cabinets
- 21 v Field-Validated Low Level Design (LLD)
- 22 Submit Applications & Receive Approval for Standard and Specialty Permits
- 23 Utility Pole Fielding and Data Preparation
- 24 Pole Attachment Application & Review
- 25 Make-Ready Engineering
- 26 Make-Ready Construction
- 27 Initial LLD Completed
- 28 Notify County and State Office of Preconstruction Milestones
- 29 Receive Pole Owner Notice to Proceed (NTP)
- 30 Develop Final, Permitted Construction Package with Splicing Prints; Contractor NTP
- 31 Headend and Central Office (CO) Development & Installation
- 32 v OSP Fiber Construction & Inspection
- 33 Install Aerial & Underground Distribution and Lateral Fiber Cables & Network Elements
- 34 Install & Certify Cabinets and Optical Line Terminals (OLTs)
- 35 Upstream Circuit to Data Center Turned-up
- 36 Third-party and Internal Construction Inspection & Approval
- 37 Notify County and State Office of Fiber Construction Milestone Achievement
- 38 v Release Fiber Service Areas (FSAs) to Customer Onboarding & Support
- 39 Ongoing, Non-Grant Funded Sales & Marketing Activities
- 40 Report to County on Progress of Adoption & Affordability Efforts
- 41 Install Service Drops to Project Locations in Active FSAs
- 42 > Final Location Passed and Grant Closeout Report Filed with County and State Office
- 44 Network Operations, Maintenance and 24/7 Customer Support (Non-grant funded)

43FS

+ Add new task



**ALL POINTS
BROADBAND**
Live Connected.



**Rappahannock
Electric Cooperative**
A Touchstone Energy® Cooperative 

June 4, 2021

Hanover County, Virginia
Finance and Management Services Department / Purchasing Division
7507 Library Drive
PO Box 470
Hanover, Virginia 23069-0470

RE: Response of All Points Broadband to RFP # 21-02-2970SR

Dear Sirs:

Dominion Energy Virginia (“Dominion”) and All Points Broadband (“All Points”) are actively pursuing opportunities to expand broadband service pursuant to Virginia Code § 56-585.1:9 (the “Broadband Statute”) and are excited that our proposal to partner with Hanover County has been short listed. Our intention is to develop a fiber-optic network that will offer service to all of the County’s remaining unserved locations and otherwise satisfy the County’s objectives.

Dominion and All Points have active fiber-to-the-home broadband deployment projects leveraging the Broadband Statute underway in nine Virginia Counties. Most of these partnerships also include the participation of an electric cooperative, which is critical for developing a comprehensive solution. We are pleased that the Rappahannock Electric Cooperative (“REC”) has agreed to collaborate with All Points and Dominion to further our shared vision of universal fiber-to-the-home access for all of Hanover’s unserved areas. Under our model, All Points will serve as the County’s turn-key project manager and be the last-mile Internet service provider. Dominion and REC would support All Points’ deployment through the provision of middle-mile access.

We are excited about the prospect of working with Hanover County and other partners to achieve universal fiber-to-the-home access. Thank you for your consideration.

Sincerely,

Edward H. Diggs
Rural Broadband Program Manager
Dominion Energy Virginia

James G. Carr
Chief Executive Officer
All Points Broadband

Mark Ponton
Director Broadband Fiber Services
Rappahannock Electric Cooperative

**HANOVER COUNTY, VIRGINIA
STANDARD CONTRACT**
Contract Number 21-02-2970

This contract entered into this 28th day of June, 2021 by All Points Broadband Partners, LLC, hereinafter called the "Contractor" and Hanover County, Virginia, a political subdivision of the Commonwealth of Virginia, hereinafter called the "County".

WITNESSETH that the Contractor and the County, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

SCOPE OF SERVICES: The Contractor shall provide the services to the County as set forth in the Contract Documents.

PERIOD OF PERFORMANCE: The date shown above through December 31, 2030.

The Contract Documents shall consist of:

- 1) This signed form;
- 2) The Contractor's negotiation letter dated June 8, 2021;
- 3) The Contractor's proposal dated April 27, 2021;
- 4) Request for Proposals 21-02-2970SR dated March 24, 2021.

All of which documents are incorporated herein.

IN WITNESS WHEREOF, the parties have caused this contract to be duly executed intending to be bound thereby.

CONTRACTOR:
DocuSigned by
 By: James Cary
 Title: CEO

COUNTY:
DocuSigned by
 By: Steven Rusch
 Title: Purchasing Division Director

This public body does not discriminate against faith-based organizations

BROADBAND PARTNERSHIP AGREEMENT

This Broadband Partnership Agreement ("Agreement") dated as of the date last set forth below, is entered into by and between Hanover County, Virginia ("County") and All Points Broadband Partners, LLC ("APB"). County and APB are each a "Party" and collectively the "Parties".

WHEREAS, the COVID-19 pandemic has caused significant disruption to the County's customary modes of operation, including by significantly increasing the need to ensure that County employees can conduct business via teleworking and other remote means;

WHEREAS, the County recognizes the critical importance of ensuring universal broadband access for all of the residents and businesses of the County in order to support economic development, educational advancement, and quality of life in the County;

WHEREAS, the County desires to engage a broadband deployment partner to develop and execute a comprehensive strategy for achieving universal broadband access for all residents and businesses in the County;

WHEREAS, APB responded to RFP #21-02-2970SR (the "RFP") issued by the County;

WHEREAS, APB provided the County with its response to the RFP and such supplemental information as requested by the County (collectively, the "RFP Response"); and

WHEREAS, the County has elected to engage APB pursuant to the RFP.

NOW THEREFORE, the County and APB agree as follows.

1. Contract Documents. The Contract Documents consist of:
 - a. The Standard Contract Form executed by APB as of the date hereof;
 - b. APB's negotiation letter dated June 8, 2021;
 - c. This Agreement;
 - d. The RFP Response; and
 - e. The RFP

Where the terms and provisions of this Agreement vary from the terms and provisions of the other Contract Documents, the terms and provisions of the other Contract Documents shall prevail over this Agreement.

The Contract Documents set forth the entire Agreement between the County and APB. The County and APB agree that no representative or agent of either of them has made any representation or promise with respect to this Agreement which is not contained in the Contract Documents, and that all terms and conditions with respect to this Agreement are expressly contained herein.

2. Engagement of APB as Broadband Partner. The County engages APB as its primary broadband deployment partner to pursue one or more broadband deployment projects for

all of the areas of the County that are currently underserved or unserved by broadband with the objective of developing and implementing a strategy for achieving universal broadband availability in the County, securing the participation of Dominion Energy Virginia (“Dominion”) pursuant to Virginia Code § 56-585.1:9 (the “Broadband Statute”) in the implementation of such strategy, obtaining state and federal grant funding to offset the costs of executing such strategy, and building, operating and maintaining new broadband infrastructure in the County.

3. Broadband Planning Scope of Work. APB shall deliver those planning and feasibility services described in the RFP Response (the “APB Services”). Without limiting the foregoing, the key milestones and indicative timeframes for such activities are set forth in Exhibit A. For the avoidance of doubt, APB will not be providing design or construction services to the County; rather, APB will undertake any design and construction activities independently and on its own account.
4. Broadband Service Objectives. In performing the APB Services, APB shall pursue deployments of gigabit-capable, fiber-to-the-home networks.
5. Engagement of Partners. APB has recruited Dominion as one of its deployment partners in the County. APB will also engage with other potential deployment partners, including Rappahannock Electric Cooperative, with the objective of leveraging such partnerships to achieve universal fiber-to-the-home access in all currently unserved areas of the County.
6. Regular Planning Meetings. The Parties will designate a “Management Committee” comprised of relevant County personnel and senior management from APB, which management committee shall hold meetings no less than quarterly (“Status Meetings”) to review the status of APB’s milestones, and to discuss future steps and milestones related to the APB Services. At each Status Meeting, APB will present a written report of its activities and progress against milestones.
7. Information Sharing and In-Kind Support for Grant Applications and Regulatory Proceedings. Upon request from APB, the County agrees to provide APB with all relevant information in its possession that will facilitate APB’s provision of the APB Services. The County agrees to designate one point of contact on the County’s GIS team to serve as the primary interface for APB’s project team. The County further agrees to provide reasonable and customary in-kind support to APB in the development of grant applications and the advancement of regulatory proceedings related to the APB Services.
8. Deployment and Operation of Broadband Networks. APB will be solely responsible for building, operating and maintaining any new broadband infrastructure that is developed through the APB Services. Aside from the specific fees and in-kind assistance described in this Agreement, the County shall not have any further obligation to provide local matching funds or other financial support for deployment activities (collectively, “Local Match”), unless such Local Match is specifically agreed to by the County in writing.

9. Fees for the APB Services. In exchange for the APB Services, the County agrees to pay APB the "Planning Services Fees" in the amount of seventy-five thousand dollars (\$75,000). The Planning Services Fees shall be paid quarterly in arrears in four equal installments of eighteen thousand, seven hundred and fifty dollars (\$18,750).

10. Term. The initial phase of this Agreement will be twelve months, commencing on the last date set forth below. At the conclusion of the initial phase, this Agreement automatically renew on a quarterly basis on the same terms, until such time as (a) the Parties agree to modify this Agreement, or (b) the County elects to terminate tthis Agreement on no less than 60 days notice. If not previously amended or terminated, this Agreement shall automatically expire on December 31, 2030.

[SIGNATURE PAGE FOLLOWS]

WITNESSETH the following signatures:

HANOVER COUNTY, VIRGINIA

DocuSigned by:

By: Steven Rusch
08885AFF3857482

Its: Purchasing Division Director

Date: 6/28/2021

ALL POINTS BROADBAND PARTNERS, LLC

DocuSigned by:

By: James Carr
01202199A1C82A
James G. Carr, Chief Executive Officer

Date: 6/28/2021

EXHIBIT A

Key Milestones

Milestone	Start Month	Complete Month
Execution of MOU with Dominion	1	1
Unserved / Underserved Locations Field Inventory and Verification	1	3
Identification and Prioritization of Public Support Mechanisms	1	3
Route Identification and Project Scoping with Dominion	1	3
Route Identification and Project Scoping with REC	1	3
Complete High-Level Network Design	3	4
Preparation of SCC Petition Materials	4	6
Prepare and Submit Public Support Mechanism Applications on an Ongoing Basis	4	12
Submission of SCC Petition	6	6
Coordination and Prosecution of SCC Petition	6	12
Low-Level Network Design	6	9
Easement Acquisition	6	12
Utility Make-Ready Pole Attachment and Approval Process	9	12
Final SCC Approval	12	12
Network Construction Commences	12	TBD

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (this "Memorandum") is made effective as of June 28, 2021 (the "Effective Date"), by and between Virginia Electric and Power Company dba Dominion Energy Virginia, a Virginia public service corporation ("Dominion"), All Points Broadband Partners, LLC, a Virginia limited liability company ("All Points"), and Hanover County, Virginia (the "County"). Dominion and All Points are the "Organizing Parties". Dominion, All Points and the County are each a "Party" and collectively the "Parties".

RECITALS

- A. Pursuant to the Virginia Code § 56-585.1 :9, as amended (the "Broadband Statute"), the Commonwealth of Virginia is seeking to expand broadband service into unserved areas of the Commonwealth. The Broadband Statute further permits electric utilities to pursue programs with broadband providers and local counties to facilitate such expansion.
- B. The County and All Points have entered into that certain Broadband Partnership Agreement dated as of June 28, 2021 (the "BPA"), pursuant to which All Points has been engaged to support the County's efforts to increase broadband access.
- C. Dominion and All Points have explored the feasibility of Dominion deploying middle mile infrastructure in the County, in the manner set forth in the Broadband Statute, to facilitate All Points' extension of last-mile service to unserved areas and agreed to proceed with the development of a proposal to present to the State Corporation Commission ("Commission") for approval.
- D. The Parties are pursuing a relationship whereby: (i) pursuant to the Broadband Statute, Dominion would construct a fiber route that maximizes the number of unserved areas to be served by All Points within the County, (ii) Dominion will leverage the additional fiber installed along the route to connect devices that may not have had fiber connectivity under the original plan pursuant to the Grid Transformation and Security Act, (iii) All Points will collaborate with and invest in the County and use the additional Dominion fiber capacity to serve broadband end users in unserved locations in the County, (iv) All Points and the County will collaborate to recruit and engage other partners, as appropriate, to advance the Project, and (v) the County will share relevant information with the Organizing Parties and collaborate with the Organizing Parties to advance the Project. The efforts of the Parties herein in the County are referred to as the "Project".
- E. It is the intention of the Parties that the Project will result in the deployment of a fiber-to-the-premises last-mile broadband network to offer service to all locations within the County that are unserved by broadband as of the date hereof. The Parties acknowledge and agree that the specific details and characteristics of the Project will be analyzed and refined as it proceeds.

NOW, THEREFORE, the Parties hereby agree as follows:

1. INFORMATION SHARING AND COORDINATION

- a) The County and each Organizing Party agrees to share with the Organizing Parties such information as it has in its possession related to broadband deployment and availability that may be useful to the Organizing Parties in conducting their analysis or otherwise facilitate the Project.
- b) All Points will serve as the central conduit for all information sharing activities and will be responsible for overall coordination of the Project.
- c) The Parties will coordinate any communication releases to the public, and all announcements are subject to the prior written consent of Dominion.

2. PHASE ONE TIMEFRAME AND ACTIVITIES

- a) The Parties anticipate that Phase I of the Project will continue until approximately September 1, 2021.
- b) During Phase I:
 - a. The Organizing Parties will conduct community and stakeholder engagement activities in the County.
 - b. The Organizing Parties will collaborate to develop preliminary plans and network design criteria that: (i) are consistent with the Broadband Statute and required for development of the Petition, and (ii) facilitate the extension of broadband availability to as many presently unserved locations as possible.
- c) At the Conclusion of Phase I:
 - a. All Points, in coordination with the other Organizing Parties, will present the proposed Project to the County.
 - b. All Points will identify the costs, if any, of Proceeding to Phase II for the County and identify grants and other sources of potential funding to reduce or eliminate the County's out-of-pocket costs to proceed.

3. PHASE TWO TIMEFRAME AND ACTIVITIES

- a) The Parties anticipate that Phase II of the Project will commence upon the conclusion of Phase I and continue until approximately June 15, 2022.
- b) During Phase II:
 - i. Dominion and All Points will prepare a petition (the "Petition") under the Broadband Statute to the Commission seeking approval of Dominion's participation in the Project. Dominion and All Points anticipate that the Petition will be submitted in the fourth quarter of 2021. All Points will serve as the nongovernmental internet service provider pursuant to the Broadband Statute. All Points and each of the other Parties will provide such information and assistance to Dominion as it may reasonably request to advance the Project and will commit to continuing to be involved in the Petition until and after approval of the Petition is received. The Parties agree that implementation of the Project shall be contingent upon Commission approval of such Project on terms and conditions approved by Dominion that are not materially adverse to Dominion.
 - ii. All Points will identify all available state and federal grant, loan, loan guarantee, and other support mechanisms (collectively, "Public Support Mechanisms") that may be available to support the Project, and All Points will coordinate and oversee the development and submission of applications for relevant Public Support Mechanisms.
 - iii. The County, and each Organizing Party, as applicable, will agree to support

application(s) for any Public Support Mechanisms identified by All Points.

- iv. If the Petition related to the Project is approved by the Commission on terms and conditions approved by Dominion that are not materially adverse to Dominion, the Parties intend to negotiate and execute one or more binding mutual definitive agreements (“Definitive Agreements”) setting forth their respective commitments and obligations and such other particulars as the parties thereto may deem appropriate.

4. EXPENSES

The Parties understand that various costs will be incurred in relation to activities contemplated herein. Except to the extent set forth in any other agreements between any of the Parties, including any Definitive Agreements, the Parties understand that none of the Parties herein shall be responsible for reimbursement of expenses to any of the others.

5. GOOD FAITH COMMITMENT TO EACH PROJECT

- a) The County agrees that, for so long as it is a Party to this Memorandum, it shall not participate in any activity or course of conduct that is inconsistent with or competitive to the Project, and that it will devote its broadband-related attention and resources to its Project.
- b) The Parties understand and agree that, except as provided in the next sentence, this Memorandum (i) constitutes only a statement of intentions, (ii) does not reflect all matters upon which Definitive Agreements must be reached in order for the transactions contemplated hereby to be consummated, (iii) binding obligations with respect to a Project will only result from the execution of one or more Definitive Agreements and subject to the terms and conditions stated therein, and (iv) does not obligate the Parties to enter into any Definitive Agreement relating to any Project. This Memorandum is not intended to be binding, other than Paragraphs 3(b)(i), 4, and 5.

6. TERMINATION

Any Party may terminate its participation in this Memorandum at any time, with or without cause, upon written notice to the other Parties. In addition, this Memorandum shall terminate and be of no further force and effect if the Commission rejects the petition.

7. LIMITATION OF LIABILITY

To the extent permitted by law, no Party shall be liable to the others in contract, tort, or otherwise, for any claims, liabilities or losses arising out of this Memorandum or alleged to result from the failure of the other Party to enter into any Definitive Agreements. To the extent permitted by law, the Parties hereby waive, in advance, any claims (whether such claims are based on breach of contract, tort, equity or any other theory) for the failure for any reason to enter into the Definitive Agreements. In no event shall any Party be liable to the other for any incidental, indirect, special, punitive or consequential damages (including without limitation damages for lost profits).

8. GENERAL

8.1. Governing Law.

This Memorandum shall be governed in all respects by the laws of the Commonwealth of Virginia.

8.2. Amendments.

No modification, amendment or waiver of any of the provisions of this Memorandum will be binding without the written consent of the Parties hereto.

8.3. Binding Effect; Assignment.

This Memorandum will inure to the benefit of and be binding upon each of the Parties hereto and their respective successors and permitted assigns to the extent provided in Section 8, but in no respect shall give rise to any third party beneficiary rights or claims. No Party may assign any of its rights, interests, or obligations hereunder without the prior written consent of the other Parties, except that any of the Organizing Parties may assign this Memorandum to an affiliated entity upon written notice to the other Parties.

8.4. Counterparts.

This Memorandum may be executed in counterparts, all of which for all purposes shall be deemed to be an original and all of which shall, taken together, constitute one and the same instrument.

8.5. Relationship of Parties.

Nothing in this Memorandum shall be deemed to constitute, create, give effect to, or otherwise recognize a joint venture, partnership, or formal business entity of any kind.

8.6. Notices.

All notices, requests and other communications hereunder shall be in writing and delivered by hand, by nationally-recognized delivery service that guarantees overnight delivery, or by first-class registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to Dominion:

Dominion Energy Virginia
600 Canal Street
Richmond, Virginia 23219
Attention: Director, New Technologies and Energy Conservation

with a copy to:

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219
Attention: Deputy General Counsel – State Regulatory
Fax: (804) 819-2677

If to All Points:

All Points Broadband Partners, LLC
Attn: Legal Notices
908 Trailview Boulevard, SE
Suite 170
Leesburg, Virginia 20175

If to the County, to the address set forth on the County's counterpart signature page to this Memorandum.

Any Party may change its address at any time upon notice to the other Parties.

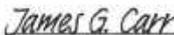
IN WITNESS WHEREOF, the Parties have executed this Memorandum as of the Effective Date.

**VIRGINIA ELECTRIC AND POWER COMPANY
DBA DOMINION ENERGY VIRGINIA**


Augustus Johnson IV (Jun 29, 2021 09:40 EDT)

Name: Augustus Johnson, IV
Title: Director, Electric Distribution Grid Solutions

ALL POINTS BROADBAND PARTNERS, LLC


James G. Carr (Jun 29, 2021 09:41 EDT)

Name: James G. Carr
Title: Chief Executive Officer

HANOVER COUNTY, VIRGINIA


Steven Rusch (Jun 29, 2021 10:11 EDT)

Name: Steven Rusch
Title: Purchasing Division Director

County Address for Notice:

Hanover County, Virginia

Finance and Management Services Department/Purchasing Division

7507 Library Drive

Hanover, Virginia 23069-0470

ATTACHMENT 9 - FUNDING SOURCES TABLE

Source	Amount	%	Status
Requested VATI	\$ 6,020,043	58.6%	Pending
County Match	\$ 1,000,000	9.7%	Secured
All Points Broadband	\$ 3,248,060	31.6%	Secured
Total Funding Sources	\$ 10,268,103	100.0%	



December 19, 2023

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

RE: FY 2024 VATI Application

Dear Dr. Holmes:

This letter will confirm All Points Broadband's ("APB") support for this application to the 2024 Virginia Telecommunication Initiative program ("VATI"). APB confirms that it is committing all required financing to satisfy All Points' match commitment set forth in the application.

We are excited to be part of this important project and appreciate your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Carr", is positioned above the printed name and title.

James G. Carr
Chief Executive Officer

BOARD OF SUPERVISORS

W. CANOVA PETERSON, CHAIR
MECHANICSVILLE DISTRICT

SUSAN P. DIBBLE, VICE-CHAIR
SOUTH ANNA DISTRICT

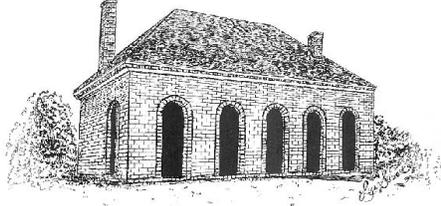
SEAN DAVIS
HENRY DISTRICT

F. MICHAEL HERZBERG IV
COLD HARBOR DISTRICT

S. BRENT HELMICK
CHICKAHOMINY DISTRICT

J. ROBERT MONOLO
BEAVERDAM DISTRICT

FAYE O. PRICHARD
ASHLAND DISTRICT



HANOVER COURTHOUSE

HANOVER COUNTY

ESTABLISHED IN 1720

JOHN A. BUDESKY
COUNTY ADMINISTRATOR

JAY A. BROWN
DEPUTY COUNTY ADMINISTRATOR

TODD E. KILDUFF
DEPUTY COUNTY ADMINISTRATOR

JAMES P. TAYLOR
DEPUTY COUNTY ADMINISTRATOR

WWW.HANOVERCOUNTY.GOV

P.O. BOX 470, HANOVER, VA 23069
7516 COUNTY COMPLEX ROAD, HANOVER, VA 23069

PHONE: 804-365-6005
FAX: 804-365-6234

December 18, 2023

Tamarah Holmes, Ph.D
Director
Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Ste 300
Richmond, VA 23219

RE: Support for 2024 VATI Application and Confirmation of Local Match

Dear Dr. Holmes,

This letter will confirm the strong support of Hanover County for the broadband grant application to be submitted by the County and All Points Broadband, as applicant and co-applicant, respectively, to the 2024 Virginia Telecommunication Initiative (VATI).

At its meeting on December 13, 2023, the County's Board of Supervisors voted to approve submission of the VATI application and authorized a local match commitment of \$1,000,000 to be included with the VATI Application (see attached resolution).

We appreciate your consideration of this important project for the future of the County. If you have questions on this matter, please contact Kevin Nelson, Director of Information Technology at knelson@hanovercounty.gov.

Sincerely,

Todd E. Kilduff
Hanover Deputy County Administrator

cc: Kevin R. Nelson, Director of Information Technology

**A RESOLUTION APPROVING THE FILING OF A GRANT APPLICATION WITH
THE VIRGINIA DEPARTMENT OF HOUSING AND
COMMUNITY DEVELOPMENT**

WHEREAS, Virginia's Department of Housing and Community Development ("DHCD") administers the Virginia Telecommunications Initiative ("VATI") grant program to assist in constructing middle-mile and last-mile broadband internet telecommunications infrastructure in the unserved areas of the Commonwealth; and

WHEREAS, the deadline for applications has been set for 19 December 2023; and

WHEREAS, the program guidelines for grant application requires a government entity as the applicant with a qualified and experienced private sector broadband internet service provider as the co-applicant; and

WHEREAS, the County received a 2022 VATI grant, but All Points Broadband has identified areas that do not have access to broadband internet service (unserved) that were not included in the 2022 grant; and

WHEREAS, All Points Broadband has agreed to file a broadband grant application in conjunction with the County; and

WHEREAS, this project, in conjunction with the 2022 grant, will bring broadband internet service to the unserved areas of Hanover, which will include the construction of hundreds of miles of middle-mile and last-mile fiber to provide service to thousands of homes and businesses in the County.

NOW, THEREFORE, BE IT RESOLVED, the Hanover County Board of Supervisors does hereby approve the submittal of a broadband grant application to DHCD, committing \$1 million to serve as County VATI grant match and authorize the County Administrator to take such action necessary to finalize the grant application.

On motion of Ms. Susan Dibble, seconded by Mr. Sean M. Davis, the members of the Board of Supervisors voted to approve this Proclamation as follows:

	Vote:
Mr. Peterson - Chair	Aye
Ms. Dibble - Vice-Chair	Aye
Mr. Davis	Aye
Mr. Helmick	Aye
Mr. Herzberg	Aye
Mr. Monolo	Aye
Ms. Prichard	Aye
Motion carried.	

Dated: December 13, 2023



John A. Budesky, County Administrator
Clerk, Hanover County Board of Supervisors

Attachment 12 - Derivation of Costs

Hanover County

Project / Product Cost Category	Total	VATI	Non-VATI	Source of Estimate	Date, Most Recent Revision
Final Design and Engineering	\$ 590,111	\$ 345,974	\$ 244,137	APB	12/19/23
Project & Construction Mgmt.	\$ 731,718	\$ 428,996	\$ 302,722	APB	12/19/23
Headend/Central Office	\$ 173,701	\$ 101,838	\$ 71,862	APB	12/19/23
Field Network Equipment	\$ 220,875	\$ 129,496	\$ 91,379	APB	12/19/23
Aerial Make Ready & Construction	\$ 4,151,552	\$ 2,433,996	\$ 1,717,556	APB	12/19/23
Underground Construction	\$ 1,595,563	\$ 935,456	\$ 660,107	APB	12/19/23
Serviceable Units Preconstruction & Construction	\$ 2,297,621	\$ 1,347,062	\$ 950,558	APB	12/19/23
Serviceable Units Equipment & Labor	\$ 374,862	\$ 219,776	\$ 155,086	APB	12/19/23
Other Capex	\$ 132,100	\$ 77,449	\$ 54,652	APB	12/19/23
Total	\$ 10,268,103	\$ 6,020,043	\$ 4,248,060		

*** please see Attachment 13 for unit basis assumptions used to tabulate total cost*

Attachment 13 - Documentation of Supporting Cost Estimates, Verified Bill of Materials

Group	Id	Description	Unit	Quantity	In Stock, Avail.	Unit Cost	Total Cost
Cable installation - Aerial	AER-PATH	Total distance between poles that have at least 1 cable between them of any size or type (including drops), or total length of strand if using strand	feet	365,006.4	Yes		
Cable installation - Aerial	AER-PATH-DROP	Total distance between poles that have only 1ct drop cables between them	feet	337,143.1	Yes		
Cable installation - Underground	UG-PATH	Total length of path with at least 1 underground cable of any size or type (including drops)	feet	221,654.4	Yes		
Cable installation - Underground	UG-PATH-DROP	Total length of path with only 1ct drop cables	feet	497,624.9	Yes		
Poles	AER-POLE	Total number of poles that are supporting at least 1 cable (including drops) or device	count	8,547	Yes		
Cables	AER-1ct-DROP	Total length of Aerial drop cable, 1ct	feet	337,143.1	Yes		
Cables	AER-12ct	Total length of Aerial cable, 12ct	feet	102,863.1	Yes		
Cables	AER-24ct	Total length of Aerial cable, 24ct	feet	21,655.4	Yes		
Cables	AER-48ct	Total length of Aerial cable, 48ct	feet	30,678.48	Yes		
Cables	AER-96ct	Total length of Aerial cable, 96ct	feet	14,436.9	Yes		
Cables	AER-144ct	Total length of Aerial cable, 144ct	feet	9,023.1	Yes		
Cables	AER-288ct	Total length of Aerial cable, 288ct	feet	3,609.2	Yes		
Cables	AER-576ct	Total length of Aerial cable, 576ct	feet	-	Yes		
Cables	UG-1ct-DROP	Total length of Underground drop cable, 1ct	feet	497,624.9	Yes		
Cables	UG-12ct	Total length of Underground cable, 12ct	feet	51,027.0	Yes		
Cables	UG-24ct	Total length of Underground cable, 24ct	feet	10,742.52	Yes		
Cables	UG-48ct	Total length of Underground cable, 48ct	feet	15,218.57	Yes		
Cables	UG-96ct	Total length of Underground cable, 96ct	feet	7,161.7	Yes		
Cables	UG-144ct	Total length of Underground cable, 144ct	feet	4,476.0	Yes		
Cables	UG-288ct	Total length of Underground cable, 288ct	feet	-	Yes		
Cables	AER-D-100	Total count of Aerial and Transitional 1ct drop between 0ft (inclusive) and 100ft (exclusive)	count	74	Yes		
Cables	AER-D-200	Total count of Aerial and Transitional 1ct drop between 100ft (inclusive) and 200ft (exclusive)	count	120	Yes		
Cables	AER-D-300	Total count of Aerial and Transitional 1ct drop between 200ft (inclusive) and 300ft (exclusive)	count	81	Yes		
Cables	AER-D-300+	Total count of Aerial and Transitional 1ct drop 300ft (inclusive) and higher	count	363	Yes		
Cables	UG-D-100	Total count of Underground 1ct drop between 0ft (inclusive) and 100ft (exclusive)	count	108	Yes		
Cables	UG-D-200	Total count of Underground 1ct drop between 100ft (inclusive) and 200ft (exclusive)	count	178	Yes		
Cables	UG-D-300	Total count of Underground 1ct drop between 200ft (inclusive) and 300ft (exclusive)	count	120	Yes		
Cables	UG-D-300+	Total count of Underground 1ct drop 300ft (inclusive) and higher	count	537	Yes		
Terminals, cabinets, splitters	FAC-3200	Primary powered cabinet	count	1	Yes		
Terminals, cabinets, splitters	AER-SPL-M	Aerial splice case to branch cables of size up to 144ct	count	158	Yes		
Terminals, cabinets, splitters	AER-SPL-L	Aerial splice case to branch cables of size greater than 144ct	count	3	Yes		
Terminals, cabinets, splitters	UG-SPL-M	Underground splice case to branch cables of size up to 144ct	count	232	Yes		
Terminals, cabinets, splitters	UG-SPL-L	Underground splice case to branch cables of size greater than 144ct	count	3	Yes		
Terminals, cabinets, splitters	PRI-HUB	Primary Distribution Hub for Splitter Module	count	80	Yes		
Terminals, cabinets, splitters	PRI-1x32	Primary Splitter Module - 1x32 (in Distribution hubs)	count	80	Yes		
Subscriber count	NIU	Total count of service locations	count	1581	Yes		



Corporate Headquarters

170 Ridgeview Center Drive, Duncan, SC 29334 USA

TEL: (800) 235-3423 TEL: (864) 433-0333

FAX: (864) 433-5560 WEB: www.AFLglobal.com

December 13, 2023

RE: Letter of Support for APB's Response to Hanover County/APB VATI FY24 Application

To Whom It May Concern:

AFL Global ("AFL") is a leading global manufacturer of fiber optic cables, connectors, terminals, and related hardware. Headquartered in Duncan, South Carolina, AFL manufactures its products at several locations in the United States and abroad, including manufacturing locations in North Carolina, South Carolina, and Bristol, Virginia.

AFL is excited to be partnering with All Points Broadband ("APB") on the Broadband Expansion Project that will deliver best-in-class fiber-to-the-home broadband access to currently unserved locations across Hanover County.

AFL has a strong working relationship with All Points Broadband and will serve as APB's strategic supplier for all of public private partnerships. AFL's fiber-optic cable technology and dedicated manufacturing capacity enables faster, less complicated deployment that reduces overall time to market at a competitive total cost of ownership.

This letter will confirm that AFL is committed to supporting APB's project. AFL and APB have reviewed the specific projects and related bills of materials associated with the projects APB is submitting and AFL has provided APB with pricing that is incorporated in APB's response. AFL is also allocating committed manufacturing capacity to support APB's requirements and project schedules.

We appreciate the opportunity to support this important initiative to bridge the digital divide in the Hanover County.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan O'Sullivan', written in a cursive style.

Ryan O'Sullivan
Director, Rural Fiber to the Home (RFTTH) Program Management



December 13, 2023

RE: Letter of Support for Hanover Co./APB FY24 VATI Application

To Whom It May Concern:

Calix is a leading global manufacturer of fiber optic network electronics, customer premises equipment, software, and related hardware necessary for broadband deployments including the FCC required Performance Testing. Headquartered in San Jose, California, Calix has offices throughout the United States where our solutions are engineered, supported, and developed.

Calix is excited to be partnering with All Points Broadband (“APB”) on the Hanover County Broadband Project that will deliver best-in-class fiber-to-the-home broadband access to currently unserved locations throughout the County.

Calix has a strong working relationship with All Points Broadband and serves as APB’s strategic supplier for public private partnerships. APB evaluated multiple technology solutions, ultimately selecting Calix as the best fit for its rural fiber-optic projects. APB will deploy a Calix XGS-PON network in Hanover County, capable of delivering 10 Gbps speeds to the home with enough capacity to scale for future growth.

This letter will confirm that Calix is committed to supporting All Points Broadband’s Hanover County Project. Calix and APB have reviewed the specific project and related bills of materials associated and Calix has provided APB with pricing that is incorporated in APB’s response. Calix is also allocating committed manufacturing capacity to support APB’s requirements and project schedules.

We appreciate the opportunity to support this important initiative to bridge the digital divide in Hanover County.

Sincerely,

Mark Johnson

Vice President – Sales East

2777 Orchard Parkway
San Jose, CA 95134



December 13, 2023

RE: Letter of Support for APB's Hanover County FY24 VATI Project

To Whom It May Concern:

WESCO | Anixter is a leading provider of business-to-business (B2B) distribution, logistics services and supply chain solutions. WESCO | Anixter streamlines complex supply chain challenges with best-in-class customizable distribution and logistical services including consultation, asset management, eProcurement, VMI, warehousing, project management and kitting. Headquartered in Pittsburgh, PA with warehouse facilities in Ashland, VA, WESCO | Anixter has deployed over 100,000 miles of fiber optic broadband and is set to complete 25,000 miles in 2022 alone.

WESCO | Anixter is excited to be partnering with All Points Broadband ("APB") on the Hanover County VATI Project that will deliver best-in-class fiber-to-the-home broadband access to hundreds of currently unserved locations throughout the County. WESCO | Anixter has a strong working relationship with All Points Broadband and serves as APB's primary logistics and supply chain management vendor for APB's current Virginia deployments.

This letter will confirm that WESCO | Anixter is committed to supporting APB's Hanover VATI Project. WESCO | Anixter has reviewed the specific project scope and related supply chain needs, provided APB with pricing that is incorporated in APB's response, and is committed to supporting APB's requirements and project schedules if the Hanover VATI Project is awarded. WESCO | Anixter helps APB successfully mitigate supply chain constraints by coordinating with APB engineering and design team to forecast their material needs to meet the construction schedule timelines. WESCO | Anixter and APB communicate via weekly calls to monitor progress on lead-times, supply chain fluctuations and manage inventory.

We appreciate the opportunity to support this important initiative to bridge the digital divide in Hanover County.

Sincerely,

Jay Monahan

Jay Monahan – Sales Manager

jay.monahan@anixter.wescodist.com

804.731.1372



COMMONWEALTH OF VIRGINIA
HOUSE OF DELEGATES
RICHMOND

SCOTT A. WYATT
POST OFFICE BOX 365
MECHANICSVILLE, VIRGINIA 23111

NINETY-SEVENTH DISTRICT

COMMITTEE ASSIGNMENTS:
TRANSPORTATION
APPROPRIATIONS
COUNTIES, CITIES AND TOWNS

November 14, 2024

Tamarah Holmes, Ph.D.
Director, Office of Broadband
Virginia Department of Housing and Community Development
600 E. Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes:

I am writing to express my strong support for Hanover County's 2024 Virginia Telecommunications Initiative grant application to address a gap of underserved homes and businesses.

Building broadband networks to unserved areas is challenging due to the larger distances to cover and fewer possible customers to purchase service. Internet service providers have indicated that in these areas of Hanover County, the population density is insufficient to make it economically feasible to build. A Virginia Telecommunication Initiative grant will enable Hanover to address gaps in providing much needed broadband.

Hanover County has consistently demonstrated its commitment to providing broadband to unserved areas of the County. The Board of Supervisors has appropriated significant funding towards bringing broadband internet to unserved areas of the County. It has developed a comprehensive program to get residents covered and has a plan to serve 95% of unserved residents, while working on a plan for the final 5% of unserved residents. This funding will greatly assist in this endeavor.

I strongly support the proposed infrastructure upgrade in Hanover County and request that the Department of Housing and Community Development approve the application. It will provide a great benefit to my neighbors and constituents in Hanover and fill the gaps for those areas and residents the previous grant missed.

Thank you in advance for your consideration. Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Scott A. Wyatt".

Scott A. Wyatt
Member, Virginia House of Delegates

SENATE OF VIRGINIA

RYAN T. McDOUGLE
4TH SENATORIAL DISTRICT
ALL OF CAROLINE, ESSEX, LANCASTER,
MIDDLESEX, NORTHUMBERLAND, AND
RICHMOND COUNTIES; AND PART OF HANOVER,
KING GEORGE, SPOTSYLVANIA, AND
WESTMORELAND COUNTIES

POST OFFICE BOX 187
MECHANICSVILLE, VIRGINIA 23111



COMMITTEE ASSIGNMENTS:
JUDICIARY
PRIVILEGES AND ELECTIONS
REHABILITATION AND SOCIAL SERVICES
RULES

December 14, 2023

Tamarah Holmes, Ph.D.
Director, Office of Broadband
Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219

RE: Hanover County 2023 VATI Grant Application

Dear Dr. Holmes:

I would like to express my strong support for Hanover County's Virginia Department of Housing and Community Development 2023 VATI (Virginia Telecommunication Initiative) grant application. I commend Hanover County for coordinating this application along with their partner, All Points Broadband.

Approval of this application would help meet a critical and growing need to expand broadband service in Hanover County. Bringing broadband to unserved areas fosters a myriad of benefits, including commercial growth for businesses, educational opportunities for students, and healthcare improvements via access to telemedicine. The importance of these benefits was amplified by the pandemic.

Virginia has made progress in the General Assembly over the past few years to bring broadband to unserved areas. Approval of the County's VATI grant application would be a significant step forward in the process to reach our goal of universal broadband coverage.

Thank you in advance for your consideration. If you have any questions or concerns, please do not hesitate to call my office.

Sincerely,

A handwritten signature in black ink that reads "Ryan T. McDougle".

Ryan T. McDougle



Chamber Support for Hanover County Broadband Grant Request

The Hanover Chamber of Commerce, VA, enthusiastically supports the full expansion of broadband service in Hanover County, in alignment with our mission to champion strong business within our community. Access to broadband service is important in our daily lives and essential to economic stability.

The recent expansion of broadband to known unserved areas of Hanover has begun to alleviate issues for thousands of residents and businesses. However, the work of the past few years is not complete – more definitive mapping has proven a new gap of underserved areas across our county. These homes, businesses and people also deserve and need the same level of connectivity.

Broadband expansion will enable home-based businesses to thrive, keep our existing businesses competitive and enhance the possibilities for telecommuting and education. Broadband access will also increase opportunities for more remote agricultural operations, historic tourism, nonprofit missions, workforce development, provide all County residents and students a better quality of life, and allow continued access to our members' many goods and services.

Further, Hanover County's partnerships already in place to complete the work show the strong commitment of our local community. The Hanover Chamber of Commerce, VA, represents over 385 organizations and 900 individuals across our County; our membership includes every size business and industry.

December 14, 2023

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

RE: All Points Broadband – 2024 Accelerated Fiber Deployment Initiative

Dr. Holmes:

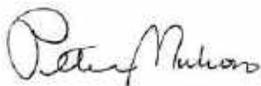
On behalf of Rappahannock Electric Cooperative (REC), I am pleased to submit this letter in support of the applications that All Points Broadband (APB) is submitting for grant funding from the 2024 Virginia Telecommunication Initiative.

REC is a member-owned, member-focused electric cooperative serving portions of 22 counties. We appreciate the focus from the Commonwealth on this critical need to make high-quality broadband internet service available in our unserved and underserved communities. REC's primary role in this effort has been to serve as the facilitator of solutions like those being presented by APB. We have worked closely to facilitate a partnership with APB and the counties we serve, as well as with our other electric utility partners. Our efforts have facilitated commitments that will deliver universal, fiber-to-the-home broadband access in each of the partnered counties. Additionally, REC is constructing a utility fiber backbone network designed to facilitate the successful completion of these broadband partnership solutions.

Partnerships between internet service providers and electric utilities create opportunities to simultaneously address critical needs such as modernizing the energy grid and strengthening the reliability and security of our electric infrastructure, while making broadband access universally available. REC is proud to be a facilitator of this internet solution and to contribute to these important projects. We also look forward to continuing our work with APB.

Thank you for your consideration of awarding the funding necessary to complete these important projects.

Sincerely,



Peter Muhoro, Ph.D.
Chief Strategy, Technology and Innovation Officer
Rappahannock Electric Cooperative

BOARD OF SUPERVISORS

W. CANOVA PETERSON, CHAIR
MECHANICSVILLE DISTRICT

SUSAN P. DIBBLE, VICE-CHAIR
SOUTH ANNA DISTRICT

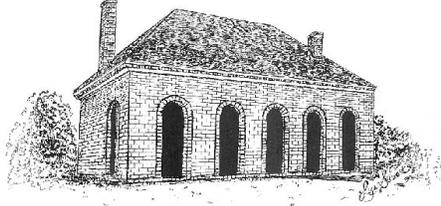
SEAN DAVIS
HENRY DISTRICT

F. MICHAEL HERZBERG IV
COLD HARBOR DISTRICT

S. BRENT HELMICK
CHICKAHOMINY DISTRICT

J. ROBERT MONOLO
BEAVERDAM DISTRICT

FAYE O. PRICHARD
ASHLAND DISTRICT



HANOVER COURTHOUSE

HANOVER COUNTY

ESTABLISHED IN 1720

JOHN A. BUDESKY
COUNTY ADMINISTRATOR

JAY A. BROWN
DEPUTY COUNTY ADMINISTRATOR

TODD E. KILDUFF
DEPUTY COUNTY ADMINISTRATOR

JAMES P. TAYLOR
DEPUTY COUNTY ADMINISTRATOR

WWW.HANOVERCOUNTY.GOV

P.O. BOX 470, HANOVER, VA 23069
7516 COUNTY COMPLEX ROAD, HANOVER, VA 23069

PHONE: 804-365-6005
FAX: 804-365-6234

December 18, 2023

Tamarah Holmes, Ph.D
Director
Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Ste 300
Richmond, VA 23219

RE: Support for 2024 VATI Application and Confirmation of Local Match

Dear Dr. Holmes,

This letter will confirm the strong support of Hanover County for the broadband grant application to be submitted by the County and All Points Broadband, as applicant and co-applicant, respectively, to the 2024 Virginia Telecommunication Initiative (VATI).

At its meeting on December 13, 2023, the County's Board of Supervisors voted to approve submission of the VATI application and authorized a local match commitment of \$1,000,000 to be included with the VATI Application (see attached resolution).

We appreciate your consideration of this important project for the future of the County. If you have questions on this matter, please contact Kevin Nelson, Director of Information Technology at knelson@hanovercounty.gov.

Sincerely,

Todd E. Kilduff
Hanover Deputy County Administrator

cc: Kevin R. Nelson, Director of Information Technology

**A RESOLUTION APPROVING THE FILING OF A GRANT APPLICATION WITH
THE VIRGINIA DEPARTMENT OF HOUSING AND
COMMUNITY DEVELOPMENT**

WHEREAS, Virginia's Department of Housing and Community Development ("DHCD") administers the Virginia Telecommunications Initiative ("VATI") grant program to assist in constructing middle-mile and last-mile broadband internet telecommunications infrastructure in the unserved areas of the Commonwealth; and

WHEREAS, the deadline for applications has been set for 19 December 2023; and

WHEREAS, the program guidelines for grant application requires a government entity as the applicant with a qualified and experienced private sector broadband internet service provider as the co-applicant; and

WHEREAS, the County received a 2022 VATI grant, but All Points Broadband has identified areas that do not have access to broadband internet service (unserved) that were not included in the 2022 grant; and

WHEREAS, All Points Broadband has agreed to file a broadband grant application in conjunction with the County; and

WHEREAS, this project, in conjunction with the 2022 grant, will bring broadband internet service to the unserved areas of Hanover, which will include the construction of hundreds of miles of middle-mile and last-mile fiber to provide service to thousands of homes and businesses in the County.

NOW, THEREFORE, BE IT RESOLVED, the Hanover County Board of Supervisors does hereby approve the submittal of a broadband grant application to DHCD, committing \$1 million to serve as County VATI grant match and authorize the County Administrator to take such action necessary to finalize the grant application.

On motion of Ms. Susan Dibble, seconded by Mr. Sean M. Davis, the members of the Board of Supervisors voted to approve this Proclamation as follows:

	Vote:
Mr. Peterson - Chair	Aye
Ms. Dibble - Vice-Chair	Aye
Mr. Davis	Aye
Mr. Helmick	Aye
Mr. Herzberg	Aye
Mr. Monolo	Aye
Ms. Prichard	Aye
Motion carried.	

Dated: December 13, 2023



John A. Budesky, County Administrator
Clerk, Hanover County Board of Supervisors

Form 477 Filing Summary

FRN:
0023524705

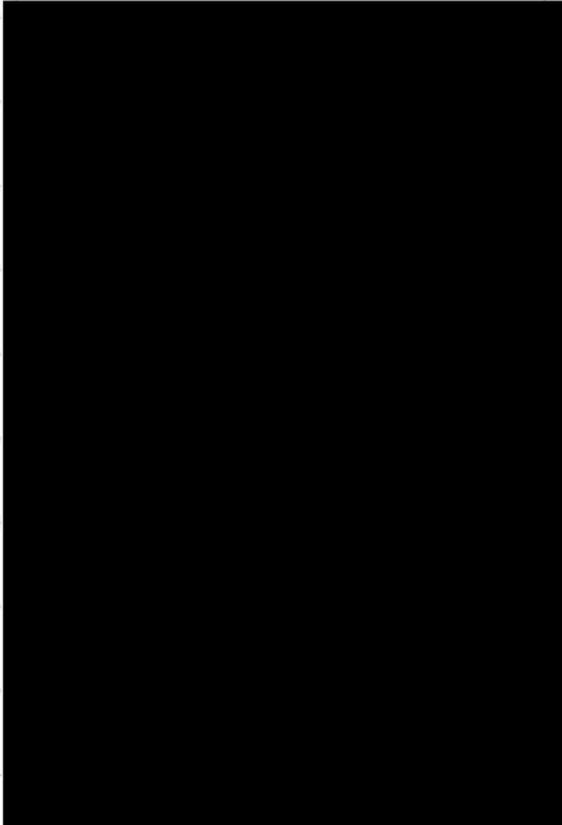
Data as of:
Dec 31, 2021

Operations:
Non-ILEC

Submission Status:
Original - Submitted

Last Updated:
Mar 1, 2022 09:33
PM

Filer Identification

Section	Field	Response
Filer Information	Company Name	All Points Broadband
	Holding Company Name	Virginia Everywhere
	Filing Type	Non-ILEC
	SAC ID	N/A
	499 ID	831251
Data Contact Information	Data Contact Name	
	Data Contact Phone Number	
	Data Contact E-mail	
Emergency Operations Contact Information	Emergency Operations Name	
	Emergency Operations Phone Number	
	Emergency Operations E-mail	
Certifying Official Contact Information	Certifying Official Name	
	Certifying Official Phone Number	
	Certifying Official E-mail	

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	FCC477-Deployment-DEC2021.csv	Mar 1, 2022 09:28 PM	26,371
Fixed Broadband Subscription	fcc477_20211231.csv	Mar 1, 2022 08:35 PM	823
Fixed Voice Subscription	fcc477_voip_20211231.csv	Mar 1, 2022 11:52 AM	32

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Kentucky	All Points Broadband	Optical Carrier/Fiber to the End User	[REDACTED]
		Terrestrial Fixed Wireless	
Maryland	All Points Broadband	Terrestrial Fixed Wireless	[REDACTED]
Virginia	All Points Broadband	Terrestrial Fixed Wireless	[REDACTED]
West Virginia	All Points Broadband	Terrestrial Fixed Wireless	[REDACTED]
Total			[REDACTED]

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Kentucky	Optical Carrier/Fiber to the End User				
	Terrestrial Fixed Wireless				
Maryland	Terrestrial Fixed Wireless				
Virginia	Optical Carrier/Fiber to the End User				
	Terrestrial Fixed Wireless				
West Virginia	Terrestrial Fixed Wireless				
Total					

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
1.000	1.000			
2.000	1.000			
2.000	2.000			
3.000	0.500			
3.000	0.512			
3.000	1.000			
3.000	1.500			
4.000	1.000			
5.000	1.000			
5.000	2.000			
5.000	5.000			

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
6.000	1.000			
6.000	2.000			
9.000	2.000			
10.000	2.000			
10.000	3.000			
10.000	4.000			
10.000	5.000			
10.000	10.000			
12.000	2.000			
12.000	3.000			
15.000	2.000			
15.000	3.000			
15.000	4.000			
15.000	5.000			
15.000	15.000			
20.000	4.000			
20.000	5.000			
20.000	20.000			
24.000	3.000			
25.000	2.000			
25.000	3.000			
25.000	5.000			
25.000	25.000			
30.000	10.000			
30.000	30.000			
35.000	5.000			
50.000	3.000			
50.000	10.000			
50.000	20.000			
50.000	50.000			
100.000	100.000			
200.000	200.000			

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
250.000	250.000			
300.000	300.000			
Total				

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Optical Carrier/Fiber to the End User	10.000	10.000			
	25.000	25.000			
	30.000	30.000			
	50.000	50.000			
	100.000	100.000			
	200.000	200.000			
Terrestrial Fixed Wireless	1.000	1.000			
	2.000	1.000			
	2.000	2.000			
	3.000	0.500			
	3.000	0.512			
	3.000	1.000			
	3.000	1.500			
	4.000	1.000			
	5.000	1.000			
	5.000	2.000			
	5.000	5.000			
	6.000	1.000			
	6.000	2.000			
	9.000	2.000			
	10.000	2.000			
	10.000	3.000			
	10.000	4.000			
	10.000	5.000			
	10.000	10.000			
	12.000	2.000			

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
	12.000	3.000			
	15.000	2.000			
	15.000	3.000			
	15.000	4.000			
	15.000	5.000			
	15.000	15.000			
	20.000	4.000			
	20.000	5.000			
	20.000	20.000			
	24.000	3.000			
	25.000	2.000			
	25.000	3.000			
	25.000	5.000			
	25.000	25.000			
	30.000	10.000			
	35.000	5.000			
	50.000	3.000			
	50.000	10.000			
	50.000	20.000			
	50.000	50.000			
	100.000	100.000			
	200.000	200.000			
	250.000	250.000			
	300.000	300.000			
Total					

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Kentucky	0	0		

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Virginia				
Total				

Fixed Voice Subscription (iVoIP)

Over-the-Top VoIP Subscriptions by State and End User Type

State	Total	Consumer	Business/Govt.
Kentucky			
Virginia			
Total			

All Other VoIP Subscriptions by State, End User Type, Bundle and Last-Mile Medium

State	Total	by End User Type		by Bundle		by Last-Mile Medium			
		Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Kentucky									
Virginia									
Total									

Reminder: Use 2010 Census geographies for data as of June 30, 2021 and before. Use 2020 Census geographies for data as of December 31, 2021 and after.

For help or assistance, please contact (877) 480-3201 or (717) 338-2834 (TTY) or you may submit an [online e-support ticket](#).

Federal Communications Commission
45 L St NE, Washington, DC 20002

[Phone: 1-888-225-5322](tel:1-888-225-5322)

[TTY: 1-888-835-5322](tel:1-888-835-5322)

[Videophone: 1-844-432-2275](tel:1-844-432-2275)

[Fax: 1-866-418-0232](tel:1-866-418-0232)

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[Offices](#)

Form 477 Filing Summary

FRN:
0023524705

Data as of:
Jun 30, 2022

Operations:
Non-ILEC

Submission Status:
Original - Submitted

Last Updated:
Aug 31, 2022 03:45
PM

Filer Identification

Section	Field	Response
Filer Information	Company Name	All Points Broadband
	Holding Company Name	Virginia Everywhere
	Filing Type	Non-ILEC
	SAC ID	818078,819081,820067,826113
	499 ID	831251
Data Contact Information	Data Contact Name	[REDACTED]
	Data Contact Phone Number	(703) 554-6623
	Data Contact E-mail	[REDACTED]
Emergency Operations Contact Information	Emergency Operations Name	Kevin Elmore
	Emergency Operations Phone Number	(703) 554-6623
	Emergency Operations E-mail	[REDACTED]
Certifying Official Contact Information	Certifying Official Name	James Carr
	Certifying Official Phone Number	(703) 554-6600
	Certifying Official E-mail	[REDACTED]

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	blocks_covered_06302022.csv	Aug 31, 2022 03:40 PM	[REDACTED]
Fixed Broadband Subscription	fcc477_20220630.csv	Aug 26, 2022 02:27 AM	[REDACTED]
Fixed Voice Subscription	voip_census_tracts.csv	Aug 26, 2022 02:28 AM	[REDACTED]

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
-------	----------	------------	--------

State	DBA Name	Technology	Blocks
Kentucky	All Points Broadband	Optical Carrier/Fiber to the End User	[REDACTED]
		Terrestrial Fixed Wireless	
Maryland	All Points Broadband	Terrestrial Fixed Wireless	
Virginia	All Points Broadband	Terrestrial Fixed Wireless	
West Virginia	All Points Broadband	Terrestrial Fixed Wireless	
Total			

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Kentucky	Optical Carrier/Fiber to the End User		[REDACTED]		
	Terrestrial Fixed Wireless				
Maryland	Terrestrial Fixed Wireless				
Virginia	Optical Carrier/Fiber to the End User				
	Terrestrial Fixed Wireless				
West Virginia	Terrestrial Fixed Wireless				
Total					

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
[REDACTED]				

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Optical Carrier/Fiber to the End User					
Terrestrial Fixed Wireless					

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Kentucky				
Virginia				
Total				

Fixed Voice Subscription (iVoIP)

Over-the-Top VoIP Subscriptions by State and End User Type

State	Total	Consumer	Business/Govt.
Kentucky			
Virginia			
Total			

All Other VoIP Subscriptions by State, End User Type, Bundle and Last-Mile Medium

State	Total	by End User Type		by Bundle		by Last-Mile Medium			
		Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Kentucky									
Virginia									
Total									

Reminder: Use 2010 Census geographies for data as of June 30, 2021 and before. Use 2020 Census geographies for data as of December 31, 2021 and after.

For help or assistance, please contact (877) 480-3201 or (717) 338-2834 (TTY) or you may submit an [online e-support ticket](#).

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[TTY: 1-888-835-5322](tel:1-888-835-5322)

[Videophone: 1-844-432-2275](tel:1-844-432-2275)

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Answer to Question 15b:

APB has already performed substantial marketing activities. The County and APB have encouraged potential customers to register on the All Points website at www.apbfiber.com. To date, more than 3,000 online surveys have been completed by residents and property owners who have provided their contact information, pre-registered for service and requested to be contacted when service becomes available at their location. APB has mailed flyers to all locations in the FY22 VATI project to inform them of the status of the project. If funded, APB would conduct similar public communications efforts with the FY24 VATI locations.

All Points prepared an extensive marketing campaign to ensure that customers are connected to the network as soon as it is available as described in Attachment 18.

All Points has dedicated a sales manager to oversee marketing and adoption activities and allocated a \$150,000 marketing budget for the project. This marketing budget is not included in the VATI project budget.

The pre-construction marketing phase will begin with a series of mailings to all serviceable units, and a series of joint-marketing events and public meetings conducted in conjunction with community organizations and representatives of the County. All Points will also use its website, social media, door hangers, and yard signs to market the service and spread awareness.

During the pre-construction marketing phase, all marketing communications will direct potential customers to All Points' mobile-friendly tool to register for notifications or subscribe to service as soon as it is available. All Points will use this tool to accept pre-registrations from customers and to keep those customers informed regarding the deployment schedule, so that they will be ready to subscribe and receive service as soon as it is available at their locations.

The County will support All Points as it conducts media events and project tours to keep local media outlets informed about the project and its status, and to generate media coverage that will reinforce All Points' direct marketing activities. As each area of the network is nearing completion, All Points will use the preferred contact method selected by each customer that has pre-registered to inform them of their service availability date and to schedule installations for these pre-registered customers.

Approximately 90 days before service is available at a specific location, All Points will send an additional series of direct mail to potential customers that have not pre-registered for service. These mailers will highlight the project, the services soon to be available, and any promotions to encourage registering, such as half-off installations or a free streaming device with installation. Customers will receive a printed user guide to their Internet connection which includes descriptions of services not previously available to an unserved resident and basic troubleshooting steps.

All Points' marketing materials will also highlight the commitment, for the first 12 months after it is available, to providing a Standard Installation, regardless of drop length, to all funded serviceable units for an installation fee of \$199.00. This unique offering differs greatly from the

special construction fee policy of current incumbent providers and is projected to increase take rates within the VATI funded area.

Throughout the construction phase, All Points will continue to use its website and social media channels, billboards, and public meetings in conjunction with the County to market the project. As last-mile construction is completed in each area of the project, All Points will place door hangers at each serviceable location, yard signs in each serviceable neighborhood, and door-to-door sales.

To estimate take rates, All Points commissioned a third party to perform a residential survey and conjoint analysis for Virginia markets. Redacted excerpts from this third-party analysis are attached as part of Attachment 18. As demonstrated in the attached excerpts, the analysis concluded that All Points could achieve market share of broadband subscribers of 75%, 71%, and 95%, respectively, in various portions of the proposed project area, depending on whether the options currently available to consumers are (a) satellite and DSL, (b) DSL and fixed wireless, or (c) only satellite. All Points have applied these projections across the proposed project to estimate a take rate of 75% for the project.

Answer to Question 15c:

The County will leverage community events with partner organizations to ensure that residents are aware of their access to broadband and the positive impact it can have on their lives. Jointly, the County and All Points will conduct outreach to farmers' markets, public libraries, and local chambers of commerce as well as other organizations to partner in ways to inform the population how to use broadband access to improve their quality of life and access to economic opportunity.

All Points will offer a free a Digital Inclusion Academy through Google for Education (see Attachment 19), based on best practices and recommendation from the National Digital Equity Center, the National Digital Inclusion Alliance, and NTIA's BroadbandUSA toolkits. The online courses include valuable digital literacy topics like "Use Digital Tools for Everyday Tasks", "Avoid Online Scams", "Build Healthy Digital Habits", "Edit Your Resume", and others of a similar nature. All Points will offer free access to this Academy and all related courses to all locations within the proposed project area and all County residents.

The County has established public wireless internet access at public buildings in 7 locations throughout the County. County partner organizations for digital literacy include the Pamunkey Regional Library and Hanover Schools. Hanover County is a member of the Pamunkey Regional Library, which has a full digital literacy program that includes providing public wireless access, mobile hotspots, and other digital equity and inclusion services. Hanover County Schools are a partner in the Connect Hanover initiative that will be supporting this project, and the Hanover County Schools provides an on-line educational program that includes issuance of tablets to all students in grades 3-12 and to all teachers in the County school system. Hanover County Schools also offer a complete web-based educational services program.

Answer to Question 19c:

Digital equity and inclusion are critically important to all broadband deployment projects, especially when connecting currently unserved locations. All Points is participating in the FCC's Affordable Connectivity Program (ACP) and all service offerings made available through the proposed project will be eligible for ACP discount. All service levels are eligible for ACP savings, and APB will harmonize its service level offering with those required for BEAD eligibility across Virginia upon final approval of Virginia's BEAD proposal and APB's participation in that program.

As detailed in Attachment 18, the ACP program is aggressively promoted across All Points' outreach and marketing portfolio, including a dedicated webpage to the program, an ACP specific page in a customer's welcome package, a banner on the landing webpage to register for service, and inclusion of ACP program promotions on advertising materials (mailers, door hangers, etc.) All Points' customer service representatives are trained in the ACP program parameters and the process for registering. All Points has launched an eligibility verification and ACP registration webpage for our customers so they will not have to leave the All Points website to register. All service levels are eligible for ACP savings, and APB will harmonize its service level offering with those required for BEAD eligibility across Virginia upon final approval of Virginia's BEAD proposal and APB's participation in that program.

All Points marketing collateral and customer paperwork will include instructions & tips to further reduce telecommunications expenses of subscribers. This includes "cutting the cord" of traditionally bundled offerings or cancelling high-cost mobile hotspot services.

As part of our digital equity strategy, All Points recognizes the importance of lowering the cost of long drops. Therefore, for the first twelve months after service is available, All Points commits to providing a Standard Installation, regardless of drop length, to all locations for the same fixed fee of \$199.00. This promotion will be included in All Points' marketing materials, including door hangers, yard signs, mailers, digital advertising, and other methods. While not all installation costs can be avoided or waived, such as locations requiring an underground drop, those fees will be presented to the County and future customers in a transparent & consistent fashion.

APB has developed a Digital Inclusion Academy through Google for Education (see Attachment 19), based on best practices and recommendations from the National Digital Equity Center, the National Digital Inclusion Alliance, and NTIA's BroadbandUSA toolkits, which includes courses such as "Use Digital Tools for Everyday Tasks", "Avoid Online Scams", "Build Healthy Digital Habits", "Edit Your Resume", and others of a similar nature. All Points will offer free access to this Academy and all related courses to all locations within the proposed project area and all County residents.

Hanover County

Blueprint to Broadband Internet

Strategies for Implementation



Broadband Advisory Committee
Approved 10-22-2020



Goal

Hanover County understands the need for universal broadband internet access is essential for our community. It is necessary to support business, education endeavors, public safety, and everyday life. Therefore, we support the development and implementation of a Broadband plan to extend the broadband network to the unserved and underserved areas of the County consistent with goals set by the Governor's Chief Broadband Advisor.



Speed

The preferred speeds, at a minimum, are 25Mbps / 3Mbps speeds for broadband service. This is the industry standard for fixed broadband speed published by the Federal Communications Commission (FCC) in the 2019 Broadband Deployment Report. It is also the minimum broadband speed recognized by most federal and state broadband funding opportunities.

Where satellite and mobile wireless (cellular) broadband are the only option for the purposes of this initiative they are not solely considered as sustainable broadband/internet options.



Delivery Methods

We envision a diverse network delivery consisting of fiber and fixed wireless options dependent on existing infrastructure, geography and cost.



Cost

The most attractive proposals for broadband service will be ones that provide services at market rate or other reasonable price points that will take into account the underserved and lower income needs of some Hanover citizens. Consideration will also be given for customer choice and options for various service levels.

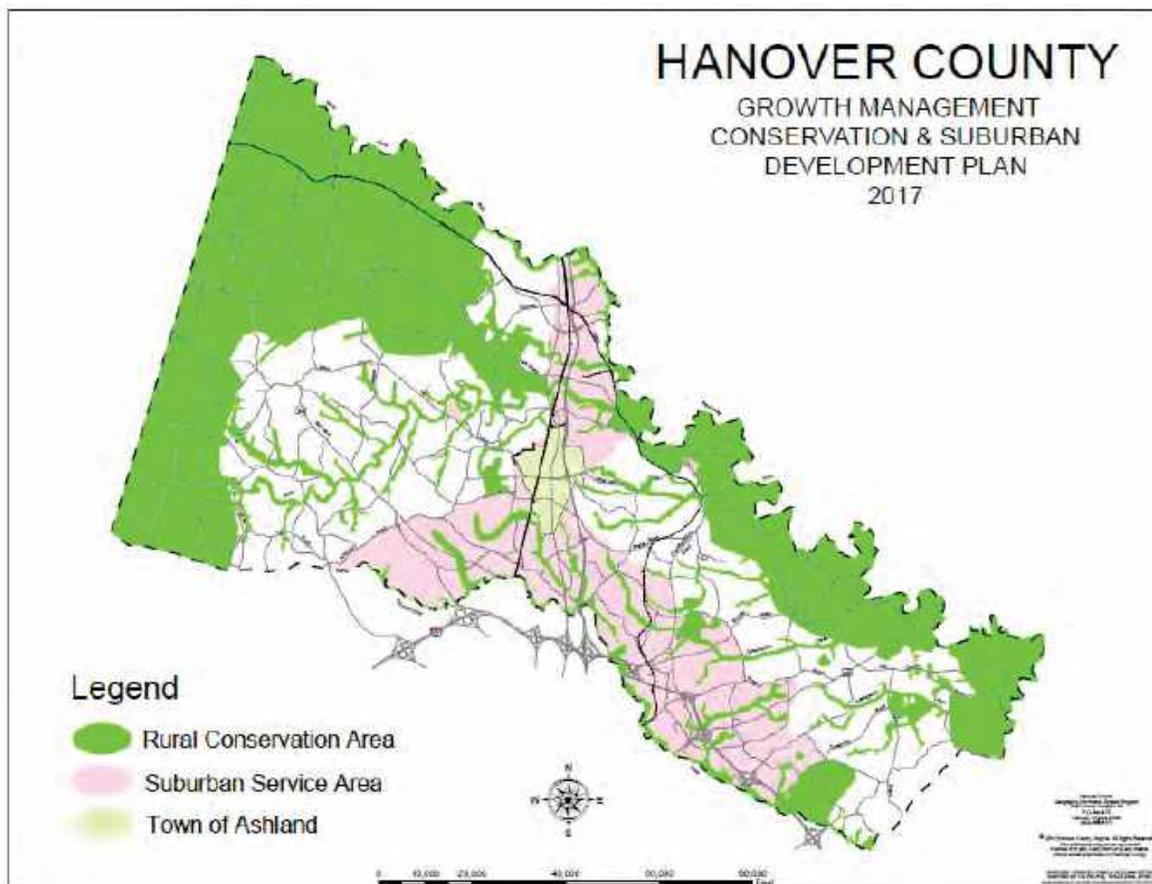


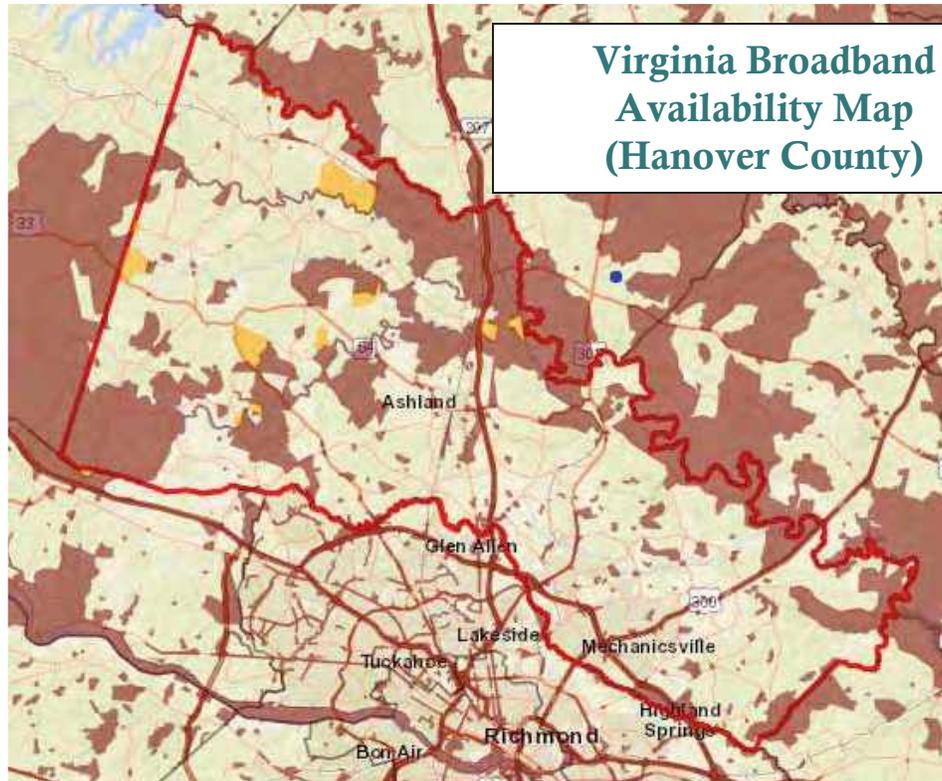
Introduction

Hanover has a number of unserved pockets with no reasonable broadband internet options available. In addition, many areas are considered underserved with substandard service for our residents. However, the majority of the residents have access to broadband internet service. This is due to the fact that the vast majority of residents live in the suburban area with higher densities and more commercial businesses where broadband internet is available. There are also areas within the designated rural/agricultural portions of the County that have access. The unserved population is in the mostly rural/agricultural areas that are generally along the borders with surrounding counties although there are exceptions

The Growth Management Conservation and Suburban Development Plan map is below. The pink area represents the suburban portion of the County, green is rural conservation and the white is planned to remain agricultural.

The Virginia Broadband Availability Map of Hanover County shows the unserved areas (brown) and underserved areas (yellow). As noted above they are generally within the rural conservation and agricultural areas. It has generally been acknowledged that this map understates the size of the unserved and underserved areas but that should not affect the general location.





Virginia Broadband Availability Map (Hanover County)

-  Unserved - below or equal to 10 Mbps download and 1 Mbps upload
-  Underserved - greater than 10 Mbps download and 1 Mbps upload and less than 25 Mbps download and 3 Mbps upload

Hanover is primarily served by two wired internet service providers, Comcast and CenturyLink. These providers do not overlap even though there is no regulatory requirement that they not overlap. The providers report it is not cost effective to make the sizable infrastructure capital investment and incur the ongoing operating expenses in an area that already has a service provider. Furthermore, broadband expansion grants are not available for areas that already have internet service.

Hanover partnered with Comcast in 2019 to apply for a Virginia Telecommunications Initiative (VATI) grant, which was unfortunately unsuccessful. In 2020 Hanover partnered with CenturyLink and Comcast to submit two VATI grant applications. As of the preparation of this report the awards had not been announced.

Hanover also worked with two fixed wireless internet service providers (WISP) that were willing to install the necessary equipment at no cost to the County. It was the Board of Supervisors' policy that tax payer funds were not to be expended on providing internet service. Unfortunately, these no-cost providers were both unsuccessful due to being undercapitalized and lack of the business and technical expertise necessary. The lesson learned was that the selected internet service provider partner must be well capitalized, have a proven business model, successfully executed projects and demonstrated ability to secure and administer broadband internet service grants.



Delivery Models

Board Policy Item: Options are as follow:

1. The State and/or Federal Government could define the need, develop the solution and then implement it.

Pros, the governments are providing considerable funding and by contracting directly with the service providers they are cutting out additional bureaucratic levels and reducing administrative costs.

Cons, not likely to happen. Both State and Federal governments have established funding opportunities for private broadband internet service providers such that the governments do not need to be directly involved.

2. Private service providers independently implementing broadband solutions.

Pros, purely a private service provider effort and the provider responsible for securing grants.

Cons, private service provider not likely to independently enter into a locality without some involvement by the local government. And, as we have experienced, private providers will expect a financial contribution by the government.

3. Establish a Broadband Service Authority/Service District with taxing authority with authority to partner with a service provider to implement solutions.

Pros, the service authority/Service District does not necessarily have to be countywide, it could be limited to a specific geographic area where the broadband service will be provided with the taxes assessed to those areas. This also reduces the involvement of the local government officials.

Cons, residents are all in or all out of the service authority/service district. If a district is created all residents are taxed whether they have service or not.

4. Develop a local government utility like structure for delivery of broadband internet services.

Pros, the local government would be in complete control of the service.

Cons, developing a utility from the ground up is an expensive and time intensive endeavor with a large capital investment up front. Would likely not be cost effective given the limited size.

5. Establish a public/private partnership with third party private broadband internet service providers to encourage expansion of broadband service area. The private broadband internet service provider must demonstrate it is well capitalized; possess sufficient resources to provide design, implementation, operation and maintenance services; have a demonstrated record of success and have been successful obtaining and managing State and Federal grants.

Pros, ability to leverage the expertise of the private providers while still having local government involvement yet with less staff time. The most widely used model in Virginia.

Cons, will need a local government funding source in addition to grant funds to make applications competitive.



Recommendation: Select Delivery Model 5, public/private partnership, and proceed with process to secure and enter into the necessary agreement(s).

Strategies to Facilitate Achievement

A. Administrative Resources – Investment of Dedicated Staff Resources

- A Deputy County Administrator and the Director of Information Technology have been assigned the responsibility to facilitate grant applications, build coalitions, foster relationships with providers, and conduct data collection, etc. In addition, the County Administrator, the Deputy County Administrator for Internal Services, and other County technical staff will support county efforts to educate, encourage, and facilitate the expansion of broadband solutions to our residents.
- The county will continue to pursue legislative advocacy efforts with our state and federal representatives to increase resource availability for providers to expand broadband infrastructure.
- Work with regional partners to identify mutual needs and benefits of collaboration.
- Work to date by County staff is summarized in **Appendix 1**.



Board Policy Item: Consider establishment of a new position (Director- Broadband and Technology Development) would have expertise and knowledge of broadband internet technology, understand FCC, be very knowledgeable on and experienced with grants, experience working with a broadband internet service provider(s) and perform advocacy on behalf of the County.

B. Focus Efforts of Regional Workgroup

In 2017 a Regional Broadband Workgroup was formed including Ashland, Charles City, Chesterfield, Cumberland, Fluvanna, Goochland, Hanover, Louisa, New Kent, Powhatan, and PlanRVA. Hanover has actively participated in the regional meetings since the group was formed. Previous meetings have included discussions with providers, representatives from the Governor’s Office, Commonwealth of Virginia’s Broadband Team, Center for Innovative Technology, and the United States Department of Agriculture (USDA) Rural Development office.

Hanover will continue to participate on the Regional Workgroup and in addition will work directly with adjacent localities when considering broadband deployment strategies.





C. Citizen & Business Resources

- Website containing plans
- Updates on county progress
- Improved Maps
- List of providers offering service
- Community Survey – broadband availability/need
- Speed test opportunities for residents to share speeds of existing service
- Brochure with Frequently Asked Questions (FAQ's)
- Economic Development staff will discuss broadband availability/needs during business visitations



D. Increased Local Access (\$100,000 Investment)

Establish enhanced opportunities for citizens to access broadband internet at local access points through expanded Hot Spots on and within public facilities and include parking lot coverage.

- Pamunkey Regional Libraries – Hanover Branches
- Parks & Recreation Community Centers
- Hanover County Public Schools
- Hanover County Fire Stations
- Hanover County Courthouse Complex
- Support Hanover County Public Schools and the Pamunkey Regional Libraries initiatives to provide students and residents in rural unserved areas with local access via mifi hot spots.

Develop partnerships with the business community to promote additional hot spot sites and expand internet accessibility.

- Business community partnerships to promote initiative
- Highlight business hot spot locations
- Local partnerships for expanded service



E. Commission Engineering and Implementation Plans

Board Policy Item: The County should consider partnering with one or more internet service providers and commit funding for necessary engineering, implementation plans and support for preparing and submitting grant and other necessary applications. The plans will define focus areas, appropriate technology, cost estimates and time frames to accomplish expansion efforts. The benefit of the engineering and implementation plans is they will allow the County to target the focus of implementation consistent with goals set by the Governor’s Chief Broadband Advisor. The effort will also provide the County with improved data and more accurate broadband availability maps to



facilitate provider expansion and support future funding requests. In addition, it will identify where additional middle mile fiber installations would expand opportunities for greater citizen access to broadband.

The agreement with the selected internet service provider partner should allow the partner to pursue State and Federal broadband expansion grants as the grants require the involvement of an ISP, the County cannot be the sole applicant. (See item VIII for details).

Prior to completion of a study, the County will continue to refine its mapping of the unserved and underserved areas. The underlying data will include miles of both public and private roads, and the number of potential connections. Maps in **Appendix 2** show the unserved areas more precisely defined by the County.

F. Open Door – Private Providers

All providers are welcome and encouraged to expand broadband internet service to Hanover citizens. We support and encourage private enterprise success and given that the county is not positioned to serve as an internet service provider nor are there County, State or Federal regulation that limit the ability of internet service providers to expand or enter into Hanover.

G. Foster Partnerships – Focus on Providers

Hanover will focus on fostering partnerships with providers in order to facilitate expansion of service to unserved & underserved areas of the county. Pursuit of state grant and funding opportunities require partnerships between local governments and private providers. Other federal or private funding opportunities may be more successful with similar partnerships.



H. Leverage Federal & State Funding Opportunities

The County is generally not eligible to apply on its own for broadband grants. The grants reviewed to date require the applicant to be an internet service provider or an internet service provider in partnership with the local government. As such the County will work with internet service providers to evaluate federal and state grant or loan opportunities to determine if it is in the best interest of the county to pursue as a funding opportunity. It is important to leverage federal and state funding opportunities, but requirements including partnerships, maps, plans, restricted service areas may make it impossible to pursue.



- Community Development Block Grant (CDBG) – Broadband Planning Grant – Virginia Department of Housing and Community Development
- Virginia Telecommunication Initiative (VATI) – Virginia Department of Housing and Community Development
- Rural eConnectivity Pilot Program (ReConnect Program) – United States Department of Agriculture
- Federal Rural Digital Opportunity Fund – United States Federal Communications Commission

Information for the grant programs is included in **Appendix 3**

I. Infrastructure Support – Leveraging Tower Network

- County allows access/lease of space on County assets such as emergency communications towers, water tanks and other suitable facilities, and to work with providers in a manner that is encouraging, flexible, cost effective, and values the investment of broadband providers.
- County has a staff liaison for all necessary permits and approvals for broadband infrastructure.
- County understands that more than one third-party provider may be interested and involved in the provision and expansion of broadband services but is mindful to avoid a detrimental effect on the service through frequency conflicts.
- To the extent feasible, the County is open to assisting broadband providers with pursuing federal or state broadband funding opportunities to help offset the capital costs of broadband access and capacity.



The maps provided in **Appendix 4** depict the County’s communication towers along with propagation maps for a typical fixed wireless broadband installation.

Board Policy Item: Investigate the ability/authority of the County to establish requirements that new developments extend existing broadband internet infrastructure and/or install new infrastructure for new developments. Could include the inclusion of spare conduits for use by others.



J. Existing Infrastructure

- In addition to the County's tower resources there are a large number of other vertical assets. The map provided in **Appendix 5** depicts all of the vertical assets in Hanover.
- There are a variety of existing private fiber operators in Hanover. **Appendix 6** includes mapping of the existing fiber assets. Please note the maps do not show the existing Comcast and CenturyLink facilities.

K. Financial Incentives

Board Policy Item: Consider the investment of local resources to leverage private, State &/of Federal funding to support the expansion of broadband internet service as follows:

- The County should evaluate the potential of providing tax increment incentives to providers in-partnership with the Hanover County Economic Development Authority (EDA).
- County should consider a partnership with the EDA to establish a fund to provide grants, matches, low interest loans or other incentives to providers.

L. Legislative Advocacy

- The county will continue to pursue legislative advocacy efforts with our state and federal representatives to increase resource availability for providers to expand broadband infrastructure.

Board Policy Items

1. Consider and select the most feasible preferred method of providing broadband internet service.
2. Consider establishment of a new position (Director- Broadband and Technology Development) would have expertise and knowledge of broadband internet technology, understand FCC, be very knowledgeable on and experienced with grants, experience working with a broadband internet service provider(s) and perform advocacy on behalf of the County.
3. The County should consider partnering with one or more internet service providers and commit funding for necessary engineering, implementation plans and support for preparing and submitting grant and other necessary applications.
4. Investigate the ability/authority of the County to establish requirements that new developments extend existing broadband internet infrastructure and/or install new infrastructure for new developments. Could include the inclusion of spare conduits for use by others.
5. Consider the investment of local resources to leverage private, State &/of Federal funding to support the expansion of broadband internet service



Next Steps Toward Universal Coverage

The County should continue to partner with incumbent internet service providers to apply for grants to cover the costs to provide for the logical expansion of their existing networks into unserved and underserved areas. As it is anticipated the incumbent providers will be unable to provide countywide coverage the County should also proceed with the recommended delivery model. As discussed in the Delivery Models section, this model is to establish a public/private partnership with third party private broadband internet service providers to encourage expansion of broadband service area. The private broadband internet service provider must demonstrate it is well capitalized; possess sufficient resources to provide design, implementation, operation and maintenance services; have a demonstrated record of success and have been successful obtaining and managing State and Federal grants.



County of Hanover
Connect Hanover
Access to Broadband Internet
Marketing Plan

Initiative Overview

In July 2021, Hanover County announced the “Connect Hanover” initiative to make broadband services available to residents living in unserved areas of the County. Hanover is working with All Points Broadband and CenturyLink to identify those areas of the County that lack access to a broadband internet. All Points Broadband is partnering with Dominion Energy Virginia and Rappahannock Electric Cooperative (REC), who will provide “middle-mile” fiber.

Each of these internet service providers have their own marketing plans and campaigns for their service. However, Hanover plans to supplement these efforts with marketing promotions that target Hanover County residents and businesses. This initiative will utilize print and in-person solutions, community partnerships, social media and websites, and email. These marketing efforts, which will leverage a number of community partners, will focus on educating citizens on:

- What is Connect Hanover (explain the initiative and benefits);
- Internet Service Provider options;
- List of services/plans offered;
- How to get service;
- Status of the project.

In addition, the Connect Hanover initiative goes beyond just a broadband grant program. The County will be working with Comcast to identify in-fill homes and businesses within their service area that do not have broadband internet. In the Comcast service area, Economic Development will be reaching out to businesses that have internet service, but do not have adequate or reliable internet service. Initial discussions with Comcast show they have an interest in assisting with various internet service deficiencies.

Physical and In-person Solutions

The County intends to utilize a variety of print solutions to promote the Connect Hanover initiative including:

- The County distributes a print newsletter, Hanover Review, that is mailed to all County residents and businesses semi-annually (45,000 homes and businesses). The County will have articles on the Connect Hanover initiative in this mailer.
- The County has a close relationship with the local newspapers. We have already had articles on Connect Hanover published and will continue to work on additional articles.



County of Hanover
Connect Hanover
Access to Broadband Internet
Marketing Plan

- The County uses local newspapers to meet advertising requirements for various legal obligations, so additional ads will be placed in the newspaper promoting Connect Hanover.
- An informational flyer will be developed and distributed to various community centers and local libraries.

The County intends to host community meetings at local sites throughout the project. On September 2, the County sponsored a community meeting on the Connect Hanover initiative at the Old Church Community Center, which is located in the heart of an unserved area. The meeting was attended by 60 citizens. Additional community meetings will be scheduled at the:

- Montpelier Community Center
- Old Church Community Center
- Rockville Community Center
- County Administration Building

The County will also provide project updates at periodic Board of Supervisor meetings and will present updates at various community events such as the Chamber of Commerce Coffee Club breakfast.

Community Partnerships and Resources

The County intends to utilize these partners to share the Connect Hanover message. These organizations will be asked to include information about the initiative on their websites and social media with links to County resources.

- Town of Ashland
- Hanover Chamber of Commerce
- Dominion Energy Innovation Center
- Market Ashland Partnership
- Downtown Ashland Association
- Hanover County Public Schools
- Pamunkey Regional Library
- All Points Broadband
- Dominion Energy Virginia
- Rappahannock Electric Cooperative
- CenturyLink/Lumen

The County will dedicate staff resources to support the Connect Hanover program. Since this initiative has a definitive timeline for completion, these may be contract resources.



County of Hanover
Connect Hanover
Access to Broadband Internet
Marketing Plan

Social Media and Websites

The County has established an informational web page on the Connect Hanover initiative and is promoting the initiative on our facebook page. Although the County will continue to include information about Connect Hanover on the main County facebook and website, the intent is to **create a separate facebook page and web page specifically to promote Connect Hanover**. These sites will use info-graphics and pictures will be posted as progress is made. Links to these specialized sites will be available from the main County sites.

The County intends to take advantage of key participant interviews and quotes of support and encouragement and will **develop targeted videos that will be posted on our YouTube site** with links from the Connect Hanover web page and facebook page. The videos will focus on the benefits of the initiative and how it will help the business area of the group being interviewed/quoted. These will be professionally developed videos. This will include leaders from Board of Supervisors, State and federal politicians, County government, Schools, Internet Service Providers, and local community organizations.

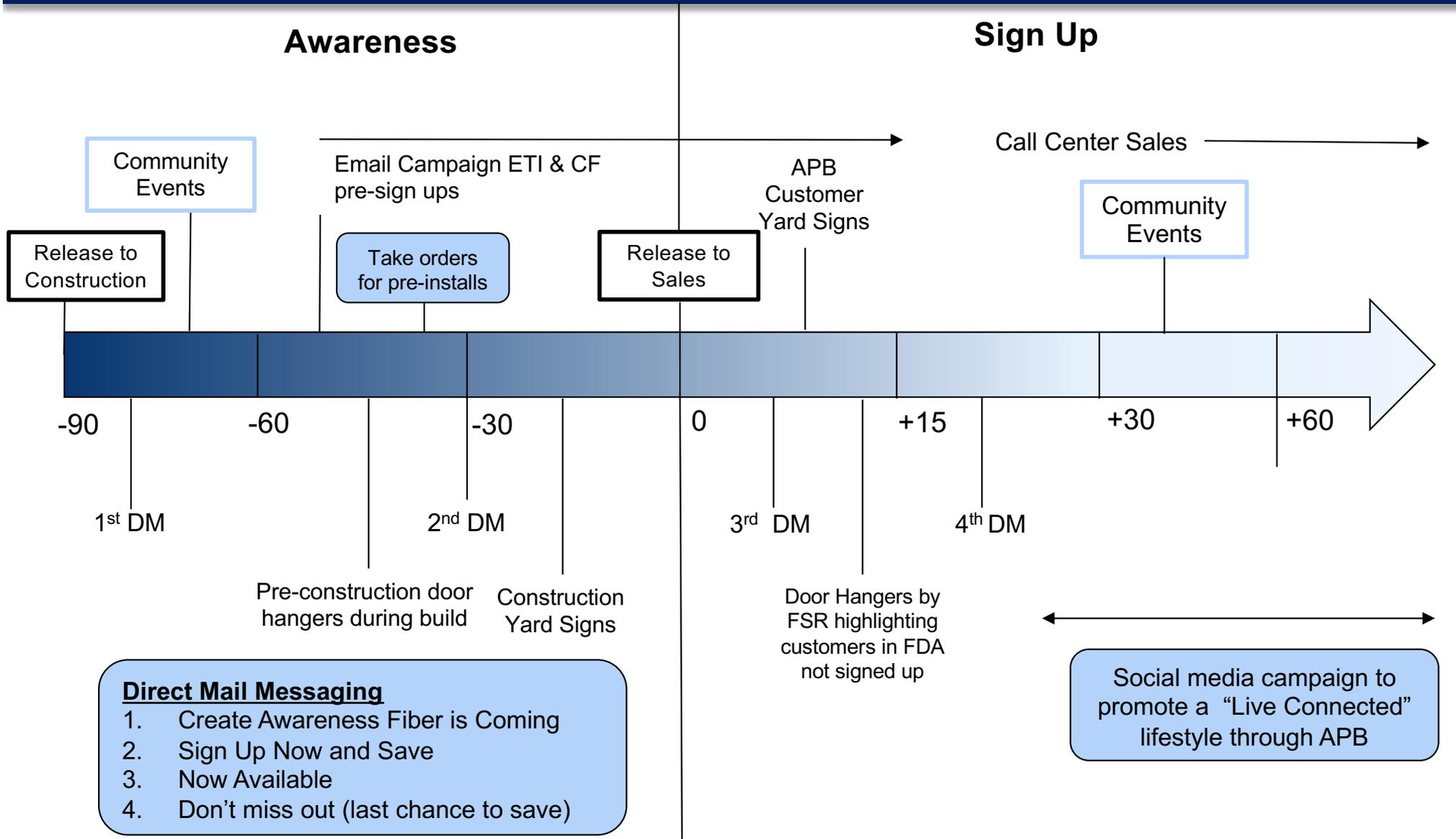
The County intends to **develop a GIS-based custom mapping application that will provide project progress updates** to the public. The County will coordinate with All Points and CenturyLink to obtain address data for homes/businesses that have been connected or are in the next phase of the construction project. This data will be used in the custom mapping application.

Email

The County will also utilize email to get the message out. The County has email lists for interested parties specific to broadband, but also to various other areas of interest (Planning, Parks & Recreation, Economic Development, etc.). The County also distributes the Hanover Access News to digital subscribers. Hanover County Public Schools have already sent out an email supporting the Connect Hanover initiative to parents of 17,000 school age students presently enrolled in Hanover Schools.

Go To Market: Steady-state marketing timeline

ANTICIPATED TIMELINE (USING DAYS FROM RTS):



Marketing Mix

OUR MESSAGE

NOW INSTALLING: BLAZING-FAST INTERNET IN CAMBRIA COUNTY

IT'S NEVER BEEN EASIER TO LIVE CONNECTED WITH ALL POINTS BROADBAND FIBER

ALL POINTS BROADBAND

FIRST MONTH FREE

WHEN YOU SIGN UP BY DATE XXX, 2023.

Resident
1234 Any Street
Any Town, US 12345-6789
800-000-0000

Call today 800-000-0000 or visit fiber.allpointsbroadband.com

LEARN FASTER

PLAY FASTER

WORK FASTER

STREAM FASTER

Initial marketing mix will consist of:

- **Direct Mail:** Target serviceable locations. 4 distinct mailers
- **Email:** Campaign to highlight pre-registered customers ≈ 45 days prior to RTS.
- **Door Hangers:** Use may be limited to higher-density neighborhoods.
- **Yard Signs:** Alert customers that fiber is coming and to sign up as well as demonstrate a happy APB customer after a fiber installation.
- **Community Events:** Increase community engagement and sign up at local events.
- **Field Sales Representative:** Boots on the ground asset charged with signing up new customers and spreading All Points message.
- **Revised Fiber Landing Page:** Designed to entice sign up and capture new leads within the fiber territories of the county.

FIBER BROADBAND IS COMING

WORK FASTER + **PLAY FASTER**

APBfiber.com **ALL POINTS BROADBAND**

Social Media Outreach

OUR MESSAGE

"It has been life changing. I can now work from home without dropped calls or missed emails!"

★★★★★



-Sarah C. Warsaw, VA

All Points Broadband
Published by Kyle Frankenfild · October 7

All Points Broadband connects its first Northumberland County customer! We want to thank Northern Neck Electric Cooperative, Dominion Energy, Northumberland County, Virginia, Virginia Department of Housing and Community Development, and the Northern Neck Planning District Commission for their partnership in making this happen. Get ready to live connected Northumberland. Go to [APBfiber.com](https://www.apbfiber.com) to sign up for service!



All Points Broadband
Published by Kyle Frankenfild · October 12

King William County, Virginia, All Points Broadband and Dominion Energy held a groundbreaking ceremony for a fiber-to-the-home broadband project that will deliver service to more than 2,200 unserved homes and businesses in King William County! Read the full article here: https://www.dailypress.com/_/groundbreaking-marks.../

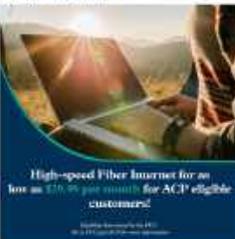


Social media outreach will consist of:

- Community Events: First customer lightings, groundbreaking Ceremonies, etc.
- Human Interest Stories: Customers uniquely impacted by fiber being installed
- Advertisements: Brand awareness and outreach campaigns

All Points Broadband
Sponsored Ad

Get break-out speed without breaking the bank. Fiber broadband internet is not out of reach. Click the button below to find out if your address is in our service area.



High-speed Fiber Internet for as low as \$19.99 per month for ACP eligible customers.

[apbfiber.com](https://www.apbfiber.com)
Affordable Internet for a Digital World [Learn more](#)

1 Like

All Points Broadband
Sponsored Ad

Stay connected, no matter the distance! Crystal clear video and voice. Click to stay in touch with loved ones today!



ALL POINTS BROADBAND
Live Here.

onboarding.allpointsbroadband.co...
Fast Fiber Internet [Sign up](#)

1 Like

All Points Broadband
Sponsored Ad

Enjoy high-speed Internet without sacrifice. Live where you want and stay connected with All-Points Broadband's cutting-edge fiber internet.



Live Here.

[apbfiber.com](https://www.apbfiber.com)
Fast Fiber Internet
click to learn more [Learn more](#)

1 Like

Eligible Customers Can Save \$30 Per Month



Everyone deserves access to high speed fiber broadband. All Points Broadband is helping our communities Live Connected by participating in the Affordable Connectivity Program (ACP).

The ACP was created by Congress and is administered by the Federal Communications Commission (FCC), with a goal of helping to ensure that households can afford the broadband they need for work, school, healthcare and more.

You may be eligible for an ACP discount if:

1. You or a member of your household meets at least one of the following requirements.

- Is eligible to receive Supplemental Nutrition Assistance Program (SNAP or food stamps), Medicaid, or Supplemental Security Income (SSI) benefits, or participates in another [Lifeline qualifying program](#);
- Receives Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) benefits;
- Participates in the National School Lunch Program or the School Breakfast Program;
- Is enrolled in a school that offers free breakfast or lunch through the USDA Community Eligibility Provision (CEP);
- Received a Federal Pell Grant during the current award year;
- If your gross annual household income is at or below the [200% of the federal poverty guidelines](#); or, for residents of [qualifying Tribal Lands](#), meets



Programa de Descuentos para Internet (ACP)

¿QUÉ ES?

El Programa de Descuentos para Internet (ACP) es un programa de la FCC que ayuda a mantener la conexión de las familias y hogares con dificultades para pagar por servicios de internet, en tierras Tribales.

Este subsidio proporciona:

- Máximo \$75 de descuento al mes para hogares elegibles en tierras Tribales.
- Máximo \$30 de descuento al mes para hogares elegibles que no están en tierras Tribales elegibles.
- Un descuento único de hasta \$100 por una computadora portátil, una computadora de escritorio o una tableta electrónica, comprada a través de un proveedor participante, si el hogar elegible contribuye con mínimo \$10 y hasta \$50 de la compra

¿QUIÉN ES ELEGIBLE?

Un hogar es elegible si uno de sus miembros participa en alguno de los siguientes programas dirigidos específicamente a tierras Tribales: Asistencia de la oficina de asuntos indígenas (Bureau of Indian Affairs General Assistance); Tribal TANF o Programa de distribución de alimentos en reservas indígenas (Food Distribution Program on Indian Reservations).

TAMBIÉN SON ELEGIBLES

Los hogares en tierras Tribales también son elegibles para este subsidio si uno de los miembros del hogar tiene un ingreso igual o inferior al 200% de las pautas federales de pobreza (Federal Poverty Guidelines) o cumple con alguno de los siguientes criterios de elegibilidad:

- Participa en ciertos programas de asistencia, como SNAP; Medicaid; Federal Public Housing Assistance (asistencia para la vivienda); SSI; WIC o Lifeline.
- Está aprobado para recibir asistencia de los programas de almuerzos o desayunos gratuitos o a precio reducido (Free and Reduced-Price School Lunch Program o School Breakfast Program), incluso mediante la disposición USDA Community Eligibility Provision.
- Recibió una beca Federal Pell Grant durante el año actual de premiación.
- Cumple con los criterios de elegibilidad de un programa ya existente, para usuarios de bajos ingresos, ofrecido por algún proveedor de banda ancha participante.

INSCRIPCIÓN EN DOS PASOS

1

Visite **AffordableConnectivity.gov** para enviar una solicitud o para imprimir una solicitud y enviarla por correo.

2

Contáctese con su proveedor participante preferido para seleccionar un plan elegible y pedirle que el descuento se aplique a su cuenta.

Algunos proveedores podrían usar formularios de solicitud alternativos que le pedirán llenar.

Los hogares elegibles deben hacer dos cosas: presentar su solicitud al programa y contactarse con un proveedor participante para elegir un plan de servicios.

AVERIGÜE MÁS

Llame al **877-384-2575**, o

Visite **fcc.gov/acp**



FRONT



SORRY FOR THE NOISE.
WE'RE BRINGING
**BLAZING
FAST**
FIBER BROADBAND
TO YOUR NEIGHBORHOOD

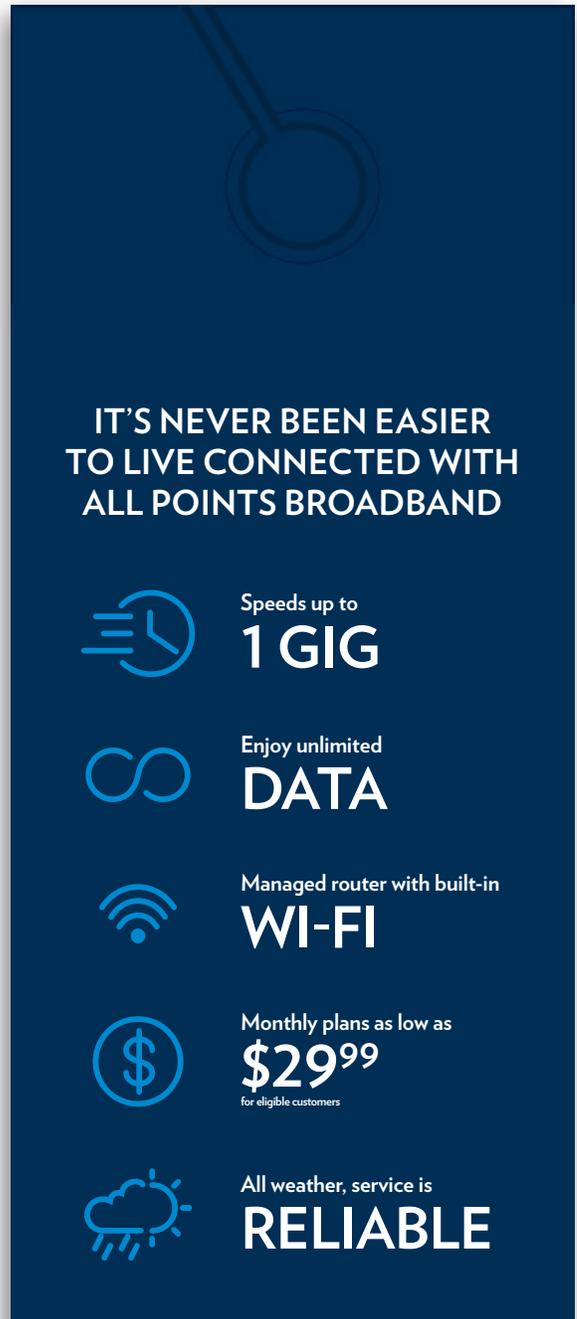


SIGN UP NOW FOR
50% OFF
INSTALLATION
& PRIORITY SCHEDULING

APBFiber.com Need help? Call 888-217-7927



BACK



IT'S NEVER BEEN EASIER
TO LIVE CONNECTED WITH
ALL POINTS BROADBAND



Speeds up to
1 GIG



Enjoy unlimited
DATA



Managed router with built-in
WI-FI



Monthly plans as low as
\$29⁹⁹
for eligible customers



All weather, service is
RELIABLE

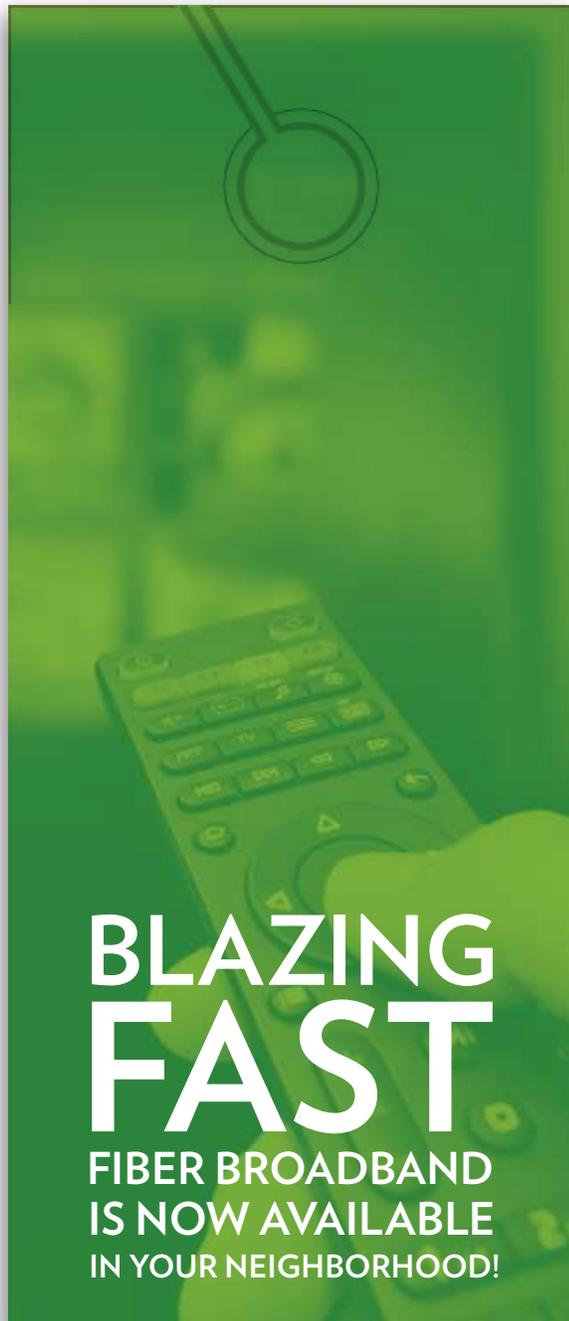


SIGN UP NOW FOR
50% OFF
INSTALLATION
& PRIORITY SCHEDULING

APBFiber.com Need help? Call 888-217-7927



FRONT



BLAZING FAST

FIBER BROADBAND IS NOW AVAILABLE IN YOUR NEIGHBORHOOD!



GET 50% OFF INSTALLATION **& LOCK IN SPECIAL DISCOUNTED PRICING**

APBFiber.com

Need help? Call 888-217-7827



BACK



LEARN FASTER

PLAY FASTER

WORK FASTER

STREAM FASTER



GET 50% OFF INSTALLATION **& LOCK IN SPECIAL DISCOUNTED PRICING**

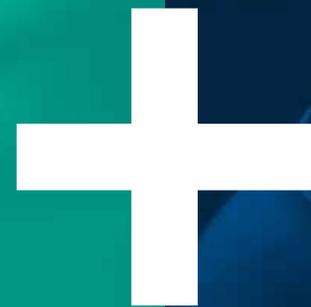
APBFiber.com

Need help? Call 888-217-7827



FIBER BROADBAND IS COMING

WORK FASTER



PLAY FASTER

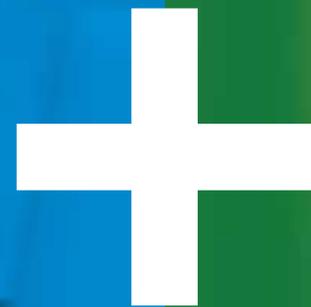
[APBfiber.com](https://www.apbfiber.com)



ALL POINTS
BROADBAND

FIBER BROADBAND IS COMING

LEARN FASTER



STREAM FASTER

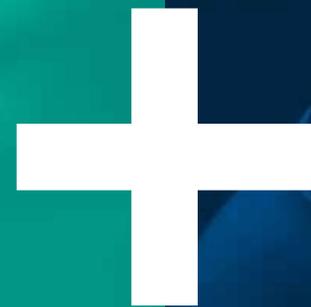
APBfiber.com



ALL POINTS
BROADBAND

FIBER BROADBAND IS HERE

WORK FASTER



PLAY FASTER

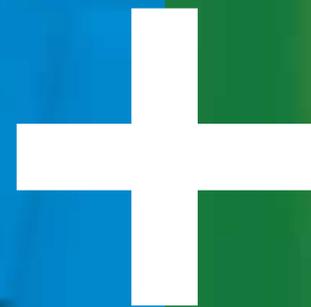
[APBfiber.com](https://www.apbfiber.com)



ALL POINTS
BROADBAND

FIBER BROADBAND IS HERE

LEARN FASTER



STREAM FASTER

APBfiber.com



ALL POINTS
BROADBAND



LEARN FASTER



PLAY FASTER



WORK FASTER



STREAM FASTER

COMING SOON: BLAZING-FAST FIBER BROADBAND IS HEADED TO YOUR HOME

Postal
Indicia
Here

IT'S NEVER BEEN EASIER TO LIVE CONNECTED WITH ALL POINTS BROADBAND FIBER IN PARTNERSHIP WITH RICHMOND COUNTY

Whether you're working from home, a movie buff or a gamer, you'll appreciate our super-fast broadband service coming to your area. It's everything you need to live connected. Use the QR code to sign up now.



Speeds up to
1 GIG



Enjoy unlimited
DATA



Managed router with built-in
WI-FI



Monthly plans as low as
\$29⁹⁹
for eligible customers



All weather, service is
RELIABLE

Don't wait! Get started today at [APBfiber.com](https://www.APBfiber.com) Need help? Call 888-217-7827.



ALL POINTS BROADBAND

Live Connected.



SIGN UP NOW FOR
50% OFF
INSTALLATION
& PRIORITY SCHEDULING

Resident
1234 Any Street
Any Town, US 12345-6789
|||||



**ZOOM
SMOOTHER**



**SCORE
HIGHER**

NOW INSTALLING: BLAZING-FAST FIBER BROADBAND TO YOUR HOME

Postal
Indicia
Here

IT'S NEVER BEEN EASIER TO LIVE CONNECTED WITH ALL POINTS BROADBAND FIBER

Put the web to work for you with high-speed broadband. Just what you need to start watching, zooming and gaming. Sign up now to save 50% on your installation and receive priority scheduling.



WORKING



LEARNING



GAMING



CALLING



STREAMING

Don't wait! Get started today at [APBfiber.com](https://www.APBfiber.com) Need help? Call 888-217-7827.



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BROADBAND**

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& PRIORITY SCHEDULING

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|||||



**LEARN
QUICKER**



**LAUGH
LONGER**

IT'S HERE! BLAZING-FAST FIBER BROADBAND IS NOW AVAILABLE IN YOUR HOME

Postal
Indicia
Here

IT'S NEVER BEEN EASIER TO LIVE CONNECTED WITH ALL POINTS BROADBAND FIBER

Don't miss your chance to get faster, more reliable internet. Experience speeds up to 1 Gigabit (1000 Mbps), 24/7 service and unlimited data with monthly plans that work with your budget.

BASIC

~~\$59⁹⁹~~ / ~~\$29⁹⁹~~
MO / MO
WITH ACP*

50 Mbps DOWN/UP
Unlimited data usage
Managed Wi-Fi router

BLAZE

~~\$99⁹⁹~~
MO

~~\$89⁹⁹~~ / ~~\$59⁹⁹~~
MO / MO
WITH ACP*

100 Mbps DOWN/UP
Unlimited data usage
Managed Wi-Fi router

BOLT

~~\$149⁹⁹~~
MO

~~\$119⁹⁹~~ / ~~\$89⁹⁹~~
MO / MO
WITH ACP*

1 GIG DOWN/UP
Unlimited data usage
Managed Wi-Fi router

*ELIGIBLE HOUSEHOLDS SAVE AN EXTRA \$30 THROUGH THE AFFORDABLE CONNECTIVITY PROGRAM.

Don't wait! Get started today at [APBfiber.com](https://www.APBfiber.com) Need help? Call 888-217-7827.



GET 50% OFF INSTALLATION & **LOCK IN SPECIAL DISCOUNTED PRICING**

Resident
1234 Any Street
Any Town, US 12345-6789
|||||



**HALF OFF
INSTALLATION**



**FULL ON
SAVINGS**

DON'T MISS OUT ON BLAZING-FAST FIBER BROADBAND IN YOUR HOME

Postal Indicia Here

IT'S NEVER BEEN EASIER TO LIVE CONNECTED WITH ALL POINTS BROADBAND FIBER

Stream, game, learn or work faster with fiber broadband. You'll get unlimited data for every connected device and 24/7 customer service if you ever need it. Compare for yourself!

	FIBER	FIXED WIRELESS	SATELLITE				
Cost	\$\$	\$\$\$	\$\$\$\$\$	<table border="1"> <tr> <td>BASIC</td> <td>\$59⁹⁹_{MO} 50 MBPS</td> <td>\$29⁹⁹_{MO} THROUGH THE ACP*</td> </tr> </table>	BASIC	\$59 ⁹⁹ _{MO} 50 MBPS	\$29 ⁹⁹ _{MO} THROUGH THE ACP*
BASIC	\$59 ⁹⁹ _{MO} 50 MBPS	\$29 ⁹⁹ _{MO} THROUGH THE ACP*					
Speed	1,000 Mbps+	~25 Mbps	~50 Mbps	<table border="1"> <tr> <td>BLAZE</td> <td>\$89⁹⁹_{MO} 100 MBPS</td> <td>\$59⁹⁹_{MO} THROUGH THE ACP*</td> </tr> </table>	BLAZE	\$89 ⁹⁹ _{MO} 100 MBPS	\$59 ⁹⁹ _{MO} THROUGH THE ACP*
BLAZE	\$89 ⁹⁹ _{MO} 100 MBPS	\$59 ⁹⁹ _{MO} THROUGH THE ACP*					
Unlimited Data No Throttling	✓	X	X	<table border="1"> <tr> <td>BOLT</td> <td>\$119⁹⁹_{MO} 1 GIG</td> <td>\$89⁹⁹_{MO} THROUGH THE ACP*</td> </tr> </table>	BOLT	\$119 ⁹⁹ _{MO} 1 GIG	\$89 ⁹⁹ _{MO} THROUGH THE ACP*
BOLT	\$119 ⁹⁹ _{MO} 1 GIG	\$89 ⁹⁹ _{MO} THROUGH THE ACP*					
Reliability	★★★★★	★	★★				

*ELIGIBLE HOUSEHOLDS SAVE AN EXTRA \$30 THROUGH THE AFFORDABLE CONNECTIVITY PROGRAM.

See website for details.



ALL POINTS BROADBAND

Live Connected.



GET 50% OFF INSTALLATION & **LOCK IN SPECIAL DISCOUNTED PRICING**

APBFiber.com Need help? Call 888-217-7827

Resident
1234 Any Street
Any Town, US 12345-6789
|||||

Pronto llegará el internet de fibra

Proporcionado por All Points Broadband



Exclusivamente para Northern Neck. Le encantará la diferencia:

Totalmente administrado

Cada sistema GigaSpire BLAST está administrado por All Points Broadband. Podemos solucionar los problemas antes de que ocurran para garantizar una experiencia sensacional y sin complicaciones.

Wi-Fi de tecnología avanzada

El Wi-Fi 6 ofrece un rendimiento inigualable para todo el hogar. Usted obtiene una experiencia excepcional de entretenimiento y videojuegos en múltiples dispositivos al mismo tiempo.

Más significa mejor

El ultrarrápido internet de fibra conecta todo en su hogar para que pueda navegar y transmitir audio y video sin interrupciones, y también equilibrar el trabajo y la escuela. Lo mejor de todo es que ¡no hay contratos ni límite de datos!

Reciba GRATIS la instalación de Ultimate Wi-Fi con el potente Wi-Fi 6 de segunda generación.

Totalmente administrado por APB Connect y controlado por usted.



A partir de tan solo
\$59.99/mes

www.apbfiber.com



**ALL POINTS
BROADBAND**

Live Connected.



ALL POINTS BROADBAND

Live Connected.

WELCOME TO ALL POINTS BROADBAND



We are excited to have you as a customer.

These resources will help to ensure that you enjoy reliable, fast broadband Internet and phone service and help you *Live Connected*

In this Welcome Packet we will go over the following:

- 1 Setting Up The APB Connect Mobile App
- 2 Installing and troubleshooting your router
- 3 Setting up your VOIP service
- 4 Streaming TV services and available options
- 5 Managing your account
- 6 Affordable Connectivity Plan
- 7 Contacting All Points Broadband
- 8 Upgrade Service

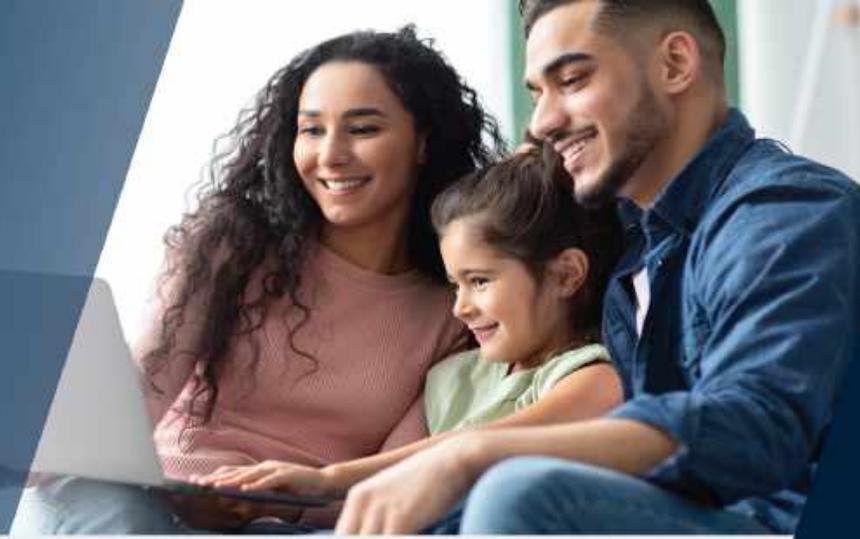


888.217.7827



www.allpointsbroadband.com

Welcome



Here is your network login information. Please store in a secure place.

Network Name: _____

Password: _____

Make the most of your new network with the APB Connect App

Thanks for choosing All Points Broadband for your internet service. You are getting the best internet and Wi-Fi experience possible. Now that your professional installation and whole home Wi-Fi optimization is complete, you're ready to start tailoring your Wi-Fi.

Before you begin your All Points Broadband internet service, download the APB Connect Wi-Fi app now.

STEP 1

Go to the app store.



STEP 2

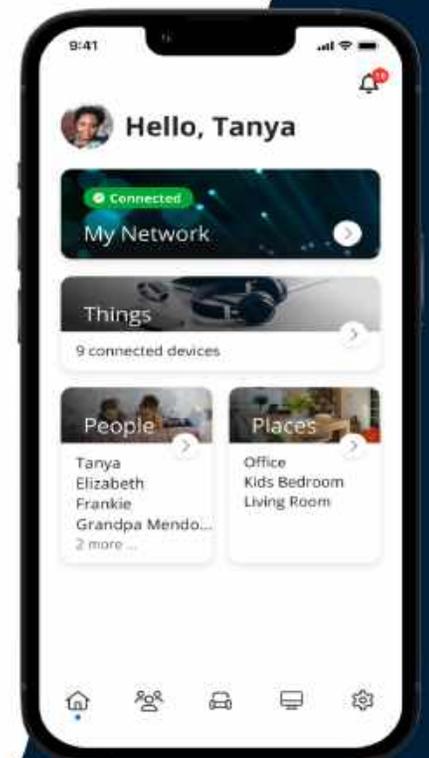
Search for APB Connect Wi-Fi app.



STEP 3

Download the app!

For detailed app setup instructions, review the APB Connect app quick start guide.



**ALL POINTS
BROADBAND**

Live Connected.

APB CONNECT QUICK START GUIDE

The app allows you to easily manage your home or small business Wi-Fi network within minutes. Download the app and take control of your Wi-Fi network today!

- 1 Download the app. You can search either the Apple App Store or Google Play Store for 'APB Connect', then install it on your mobile device.



- 2 Select "SIGN UP" towards the bottom of the screen.



- 3 Enter your personal information. The password you enter here will be used to access the app.



- 4 Select "Yes" to continue.



- 5 Tap the QR code that appears within the app. (You will be asked to allow access your camera.) Point your camera at the QR Code found on the bottom of your BLAST System, or on the side of your GigaCenter, (example shown below). Select OK.



- 6 Tap the "Click here to skip" text since your Wi-Fi is already working.



Click Submit and you're done!

Need help Additional Help?

Contact support:
www.allpointsbroadband.com
1-888-217-7827



Experience the True Power of the APB Connect App

Check your internet speed.

Run bandwidth tests to monitor your network performance and give bandwidth priority to specific devices.



Easily set-up a guest network.

Keep your network passwords secure by setting up separate guest networks for your visitors.

View and manage all devices connected to your network.

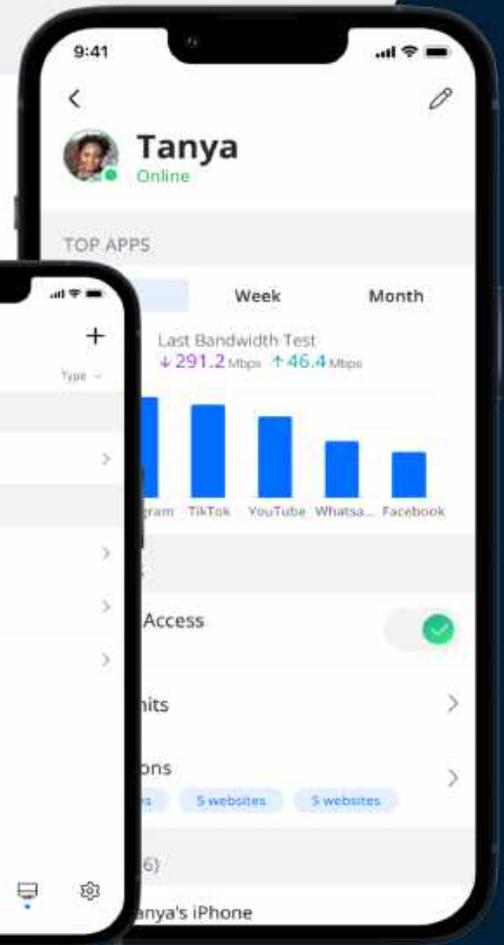
Track a device's bandwidth usage, pause its network access, or disconnect it.

Set parental controls.

See what apps your kids are using, how long they're used for, and tailor their experience by blocking inappropriate sites and content, or setting usage limits.

Active threat protection.

View total threats, intrusions, and viruses blocked over time. You can even see protected devices and total protection uptime.



Setting up the APB Connect App

QUICK START GUIDE

SETTING UP YOUR GIGASPIRE BLAST U6

Quick Start Guide:

Setting up your GigaSpire BLAST

1

Connect GigaSpire BLAST to power outlet.



2

Connect one end of the supplied Ethernet cable to one of the LAN ports found on the back of the Internet access device provided by your service provider (e.g., modem or ONT) and the other end of the cable to the WAN port on the back of the GigaSpire BLAST.



4m

Boot-up-time -
about 4 minutes



3

The solid green light indicates SUCCESS!
You are connected to the Internet.

4

Refer to the Quick Start Guide for the App to set up
your Wi-Fi.

QUICK START GUIDE

SETTING UP YOUR GIGASPIRE BLAST U4

Quick Start Guide:

Setting up your GigaSpire BLAST u4

1

Connect GigaSpire BLAST to power outlet.



2

Connect one end of the supplied ethernet cable to one of the LAN ports found on the back of the Internet access device provided by your service provider (e.g., modem or ONT) and the other end of the cable to the WAN port on the back of the GigaSpire BLAST.



4m

Boot-up-time-
about 4 minutes.



3

The solid green light indicates SUCCESS!
You are connected to the Internet.

4

Refer to the Quick Start Guide for the App to set
up your Wi-Fi.

TROUBLESHOOTING YOUR INTERNET SERVICE



Check the Internet on other devices

Sometimes when you have trouble accessing the internet, the root cause can be related to the computer or device you are using. Try another device to see if the internet works, if so then the issue is related to that specific device. A simple reboot can typically fix most problems.

Reboot Your Equipment

Issues that occur with your internet connection can be caused by your equipment. Typically, the simple process of rebooting your equipment can fix most issues. This means powering the equipment off, wait about 20 seconds, and then powering it back on.



- › **Starting** with your equipment to access our network. Locate the Power Supply (POE) and unplug it from traditional power, making sure all the indicator lights (if applicable) have turned off. Wait approximately 5 seconds and then plug the power back in. You'll need to wait approximately 60 seconds for the equipment to re-associate with the network.
- › **Now** let's also do the same for the wireless router. Locate the wireless router, and unplug it from traditional power, making sure all the indicator lights have turned off. Wait approximately 5 seconds and then plug the power back in. Again, you'll need to wait approximately 60 seconds for the equipment to startup and begin working.
- › **Next** check your device to make sure it is attached to your Wi-Fi or network and see if you can get online. If that does not resolve your issue, please call our office at 888.217.7827.



Wireless Interference

In some cases, the wireless equipment in your home can be a factor in creating issues for your wireless service. Devices such as wireless cameras, baby monitoring devices, etc. can interfere with your internet service. If you have one of our managed wireless routers, we can typically identify sources of interference. Neighboring networks and even old devices can negatively interfere with your Wi-Fi signal.

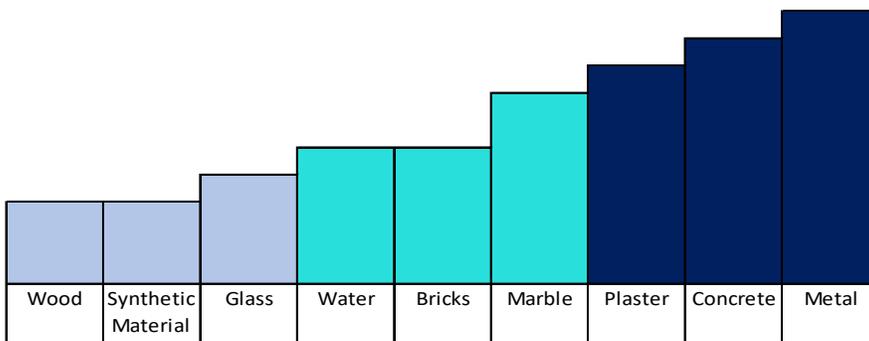


Material Interference

Our Wi-Fi routers are capable of amazing speeds. However, certain man made barriers and your device distance from the wireless router can impede a signal from getting to the far reaches of your home. If you are experiencing low connectivity issues you may want to consider upgrading your router from a U4 to a U6 or installing a mesh unit in your home.

Materials which can interfere with the Wi-Fi in your home

Low Medium High



Distance from your wireless router

Higher Signal Strength

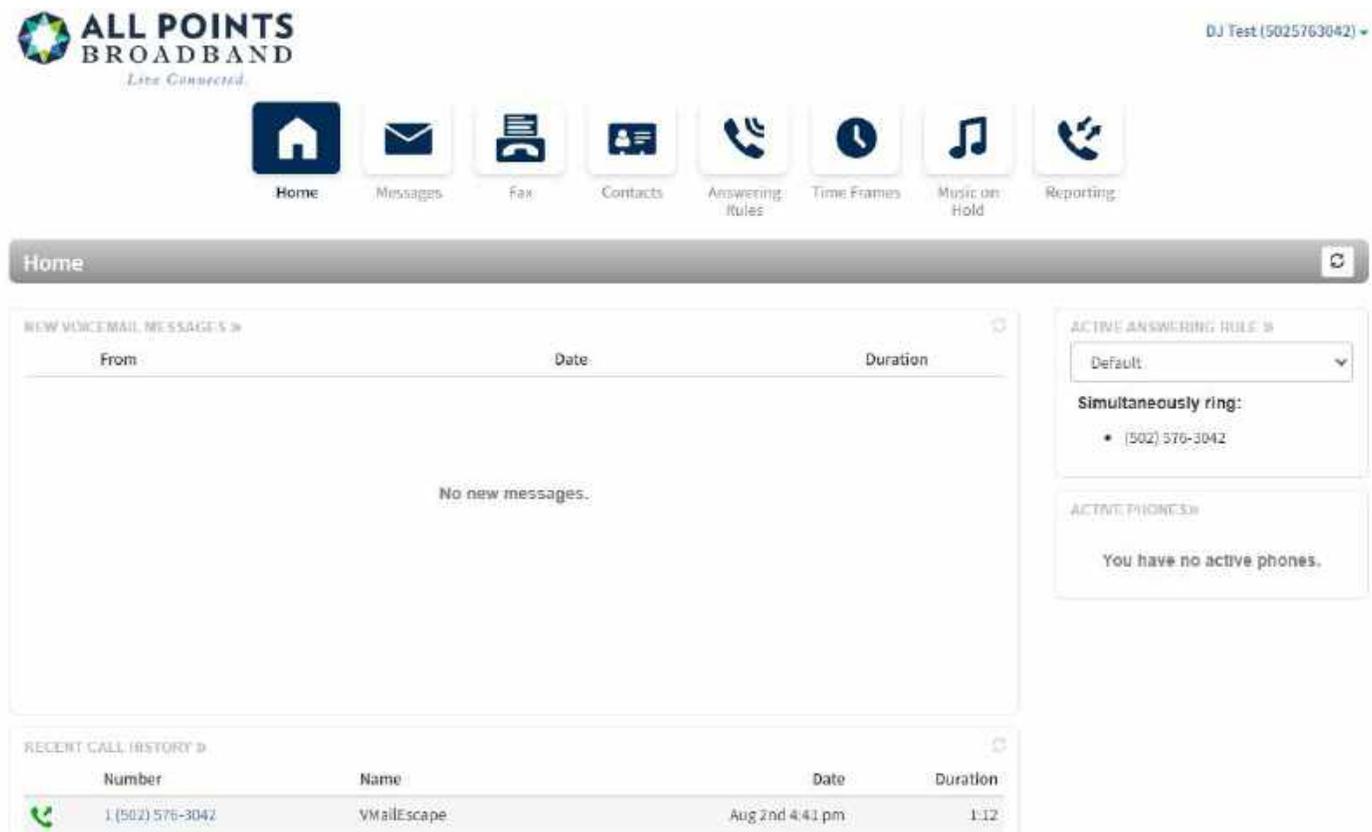


Lower Signal Strength

SETTING UP YOUR VOIP SERVICE

VOIP Instructions

The portal is located at voip.allpointsbroadband.net/portal/ and can be accessed using the login name and password that will be provided to you. Your login name will be your phone number followed by @apbresidential.com. For example a login name would be 8041112222@apbresidential.com. Make sure to use the area code with your login in name



The screenshot shows the All Points Broadband VoIP portal interface. At the top left is the logo for All Points Broadband with the tagline "Live Connected". On the top right, the user's name "DJ Test (502) 576-3042" is displayed. Below the logo and name is a navigation bar with icons for Home, Messages, Fax, Contacts, Answering Rules, Time Frames, Music on Hold, and Reporting. The main content area is divided into several sections: "NEW VOICEMAIL MESSAGES" (showing "No new messages."), "ACTIVE ANSWERING RULES" (showing "Default" and "Simultaneously ring" with a list of numbers including "(502) 576-3042"), "ACTIVE PHONES" (showing "You have no active phones."), and "RECENT CALL HISTORY" (showing a single entry for "VMailEscape" on "Aug 2nd 4:41 pm" with a duration of "1:12").

Setup your Voicemail: By clicking on the Messages icon towards the top you can enable/disable voicemail as well as set and record your voicemail greeting.



Change your password Select the drop down field at the top right corner with the customer name to access your Profile. Here you can change your



Active Call Log and Contacts: our online portal will display an active log of recent calls and corresponding call status. You can add contacts to your account by clicking the Contact icon at the top and entering their information.

STREAMING TV USING YOUR INTERNET SERVICE

STREAMING VIDEO 101

What is streaming video?

Streaming video refers to entertainment delivered via the internet rather than a traditional cable TV connection.

What equipment do I need?

To enjoy streaming video, you need:

- Fast and reliable internet.
- A streaming device such as:
 - an Amazon Fire TV Stick, Apple TV, or Roku Streaming Stick that is connected to your TV and Wi-Fi. Streaming devices include a universal remote control to sync with your TV.
 - a Smart TV that is connected to the internet.
 - a tablet, laptop, or smartphone that is connected to Wi-Fi or data.
- A subscription to a streaming service or channel such as Netflix, Disney Plus, YouTube Live, HBO Max, Prime Video, or ESPN Plus.



How do I subscribe?

Subscribing to new streaming channels and services is simple. Once you have your streaming capable device connected to the internet and have set up an account, you can then simply navigate to the app menu in your device and select the desired service or channel to preview. Information will be included such as a description of the service and monthly cost. To subscribe, you select the desired service and agree to subscribe.

STREAMING TV USING YOUR INTERNET SERVICE

What channels or TV shows are included with a streaming service?

Services like <https://mybundle.tv> make it simple to view channels included. Simply navigate to "Find My Bundle", enter basic information such as who is watching, your zip code, preferences and favorite channels, and it will make a recommendation for you. You can even search for your favorite TV show to find new ways to watch it via streaming. Select "TV Shows & Movies" from the top menu to search for a specific show like *Gunsmoke*. You can also visit the website of specific streaming providers such as YouTube Live or Hulu Live and browse the individual channel lineups.

What are the benefits of streaming video?

- **Cost savings.** One of the main reasons people switch to TV streaming is to cut costs. Many free streaming channels are available such as Peacock Free, Pluto TV, and Crackle. Netflix is less than \$20 per month and is the most popular choice for movies and binge-watching TV. Disney+ is a highly rated service for family-friendly content and is less than \$10 per month. Services with a channel lineup similar to traditional TV are also available including YouTube Live, Hulu Live, and Sling. These services are generally \$20–\$30 less per month than similar offerings from cable TV providers.
- **Convenience.** Streaming TV lets you enjoy the services or channels you subscribe to in multiple places and on multiple devices. Unlike traditional TV, with most subscription streaming services you can start a movie on your Smart TV at home, continue watching it on your smartphone while working out at the gym, and then finish it on your tablet out on your patio.
- **Skip the commercials.** Many of the most popular subscription streaming services let you watch your favorite shows whenever you want and completely commercial free!

What types of streaming services are available?

- **On-Demand streaming.** On-Demand streaming allows the subscriber to watch a selected movie or TV show whenever he or she likes. Many On-Demand providers allow viewers to pause, play, fast-forward, rewind or rewatch shows as often as they like. Popular On-Demand providers include Netflix, Disney+, HBO Max, and Amazon Prime Video.
- **Live streaming.** Live video streaming lets subscribers watch entertainment like local news, sports, and TV shows live. Features such as video recording, pause, and rewind vary by provider. Popular live streaming platforms include YouTube Live, Sling, DirecTV Stream and Hulu Live.
- **On-Demand and live streaming.** Many providers with live streaming also offer On-Demand content. This means you can watch live shows as they are broadcast, go back and watch them later, or browse On-Demand content to watch whenever you like.



MANAGING YOUR ACCOUNT



Customer Portal Instructions

The portal is located at <https://support.allpointsbroadband.com> and can be accessed using the email address and password you entered when creating your account.

Update your information by clicking on the Billing Info link on the left side and submitting your credit card information (VISA, MasterCard, Discover) or your Bank acct/routing details for ACH payment.

Change your password by clicking "Edit" next to the Password field under Account Info.

Update your account contact information by clicking on the Address and Phone links on the left side



Additional Resources

How To Videos and guides: Are you still stuck with connectivity issues? The customer portal can help to serve as a valuable guide with print resources and videos to ensure you remain connected.

Upgrade Services: You can upgrade services with the click of a button. Interested in transitioning your existing landline to All Points Broadband, we have a solution for you. Increase to Gig speeds and experience streaming like never before or purchase a battery backup to keep the phone up and running in case of a storm.

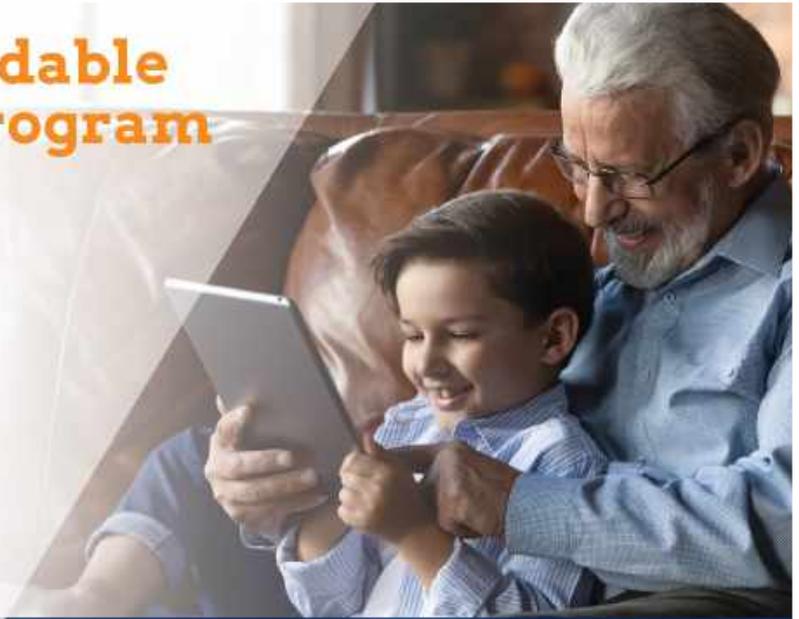
Notify Us: Plan your next move with limited service disruption. You can notify us that you are moving through the customer portal and we will work with you to ensure limited interruption of service. You may even be able to transfer service if you are remaining in an area that All Points broadband serves.



AFFORDABLE CONNECTIVITY PROGRAM

The FCC's Affordable Connectivity Program

- ✓ **UP TO \$30/MONTH**
discount for internet service.
- ✓ **UP TO \$75/MONTH**
discount for households on qualifying Tribal lands, and a one-time
- ✓



TWO STEPS TO ENROLL

Step 1: Visit your customer portal to find a direct link to apply or email support for the link.

Step 2: Contact All Points Broadband after your approval and have the discount applied to your bill.

Eligible households must both apply for the program and contact All Points Broadband after approval.

WHO IS ELIGIBLE?

A household is eligible if one member of the household meets at least one of the criteria below:

- ✓ Has an income that is at or below 200% of the Federal Poverty Guidelines.
- ✓ Participates in certain assistance programs, such as SNAP, Medicaid, Federal Public Housing Assistance, SSI, WIC, or Lifeline.
- ✓ Participates in Tribal specific programs, such as Bureau of Indian Affairs General Assistance, Tribal TANF, or Food Distribution Program on Indian Reservations.
- ✓ Is approved to receive benefits under the free and reduced-price school lunch program or the school breakfast program, including through the USDA Community Eligibility Provision.
- ✓ Received a Federal Pell Grant during the current award year
Meets the eligibility criteria for a participating broadband provider's existing low-income program.

Find out more about ACP qualifications.

Visit Our Website: <https://allpointsbroadband.com/acp/>
Contact Us: acp@allpointsbroadband.com

Affordable Connectivity Program

CONTACT

ALL POINTS BROADBAND

We look forward to hearing from you

Upgrade your plan

Do you want to harness the power of the U6 router with Gig speeds to stream, game, or talk like never before. Upgrading is as easy as signing onto your customer portal, but we are happy to speak with you over the phone. For examples of upgrade items please refer to the last page of the welcome packet.

Connectivity issues:

Are you still experiencing connectivity issues after attempting the troubleshooting steps in the welcome packet and reviewing the self help tutorials available through the customer portal? We have a live support staff available to help. Email or call the customer support line below and we will get you back online as soon as we can.



TECHNICAL SUPPORT

24 Hours a Day
7 Days a Week



703.554.6600 - Northern Virginia
540.953.0283 - New River Valley
502.722.9292 - Kentucky
888.217.7827 - Toll Free

SALES AND BILLING

M-F / 8 AM - 6 PM



support@allpointsbroadband.com



Happy with your All Points Broadband Service.?

We want to hear about it. Please leave us a review on Google and let us know how you are Living Connected with your new broadband internet service.

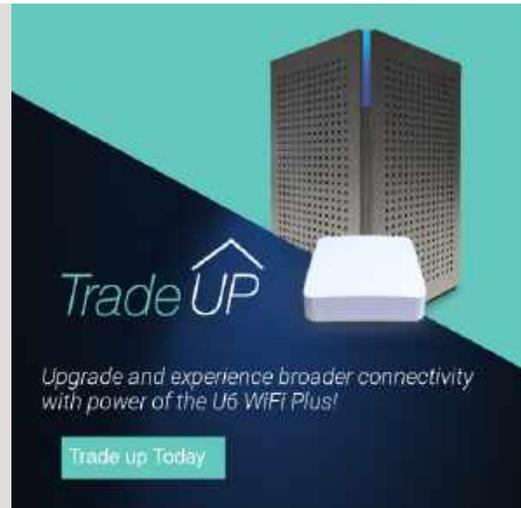
Contact Us

UPGRADE YOUR SERVICE

GET MORE OUT OF YOUR ALL POINTS BROADBAND EXPERIENCE

Router Upgrades:

While the standard base Wi-Fi unit does a great job of connecting your home, you can upgrade to the Wi-Fi Plus unit and experience more coverage in the home. Help to ensure that you are gaming, streaming, working, and learning with the power the connectivity.



Speed Upgrades:

If you are not taking advantage of the lightning fast speeds of Gig broadband service easily upgrade today experience the difference. Game with confidence knowing that you have a leg up on the competition using the APB Bolt speed tier.

ADD VOIP and Battery Backup:

It's time to switch to All Points Broadband VOIP phone service and bundle your services. Most customers save over higher priced landline phone services offered by competitors. Help to ensure your phone and internet stay connected during a power outage by adding a battery backup unit.



Upgrade Your Service



FTTH Rapid Assessment

Follow Up Results

TAKE RATE SURVEY

Altman Solon has conducted a Rapid primary research study to assess ARPU and take rate viability in underserved areas

Target Audience Process

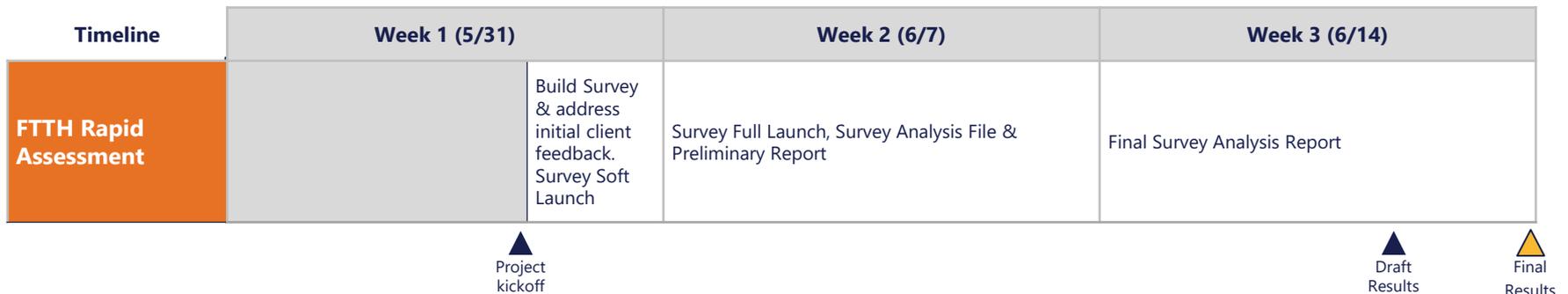
We targeted Zip Codes to address the following priorities:

- **Priority #1 (Underserved BB HHs):** Required 50% of HH within a zip code to have no cable or fiber availability

Qualification Criteria

Must

- Be above 18 years of age
- Purchase Wireless Phone or Home Internet
- Be either solely or partially involved in these purchasing decisions
- Not have access to Cable



Sources: Underserved BB Survey (N=1042), Altman Solon Research & Analysis

In our conjoint, respondents are asked to select product packages they are most likely to purchase

Sample Choice Based Conjoint (CBC) Question

If these were your only options, which would you choose?
(1 of 12)

	Satellite Internet (e.g. HughesNet, ViaSat)	Fiber (e.g. Verizon FiOs, MetroNet)	Fixed Wireless / Wireless Broadband (e.g. Belwave, Wisper, Nextlink)	DSL (e.g. Centurylink, Frontier, AT&T, Windstream)
Internet Technology				
Internet Speed	10 Mbps	1 Gbps	100 Mbps	5 Mbps
Landline Phone Offer	Not included	Unlimited	Not included	Unlimited
Monthly Offer Price	\$60	\$225	\$80	\$30
	Select	Select	Select	Select

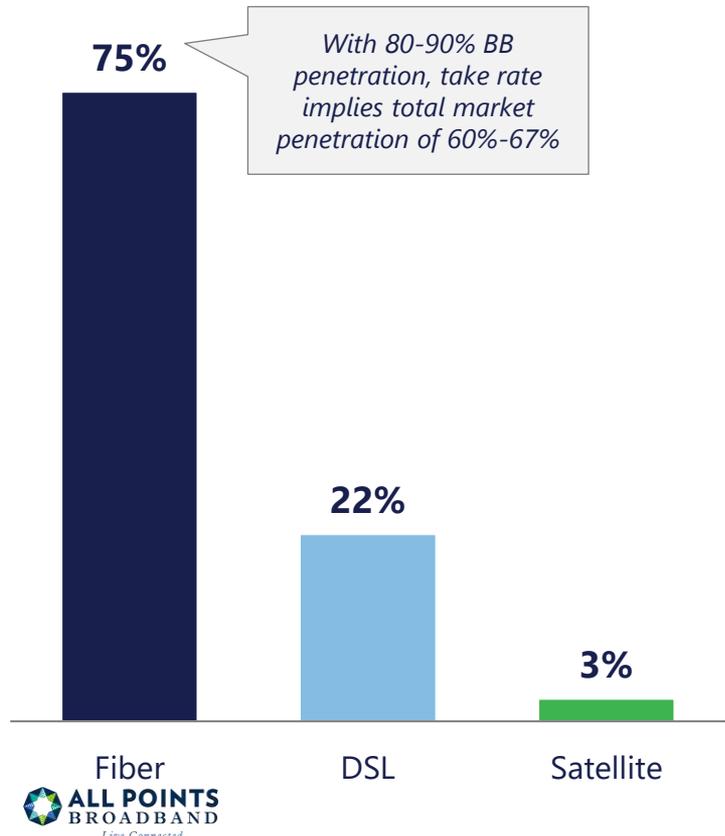
Given what you know about the market, would you really buy the Internet Package you chose above?

- Respondents see 10-12 screens, and on each must select their **favored option out of the given options**, and indicate whether they would purchase this option in the marketplace
- A conjoint has two pieces:
 - **Attributes** (e.g., Internet Technology and Monthly Price)
 - **Levels** (e.g., DSL, Fiber, or \$60, \$120) which define the different options an attribute can take on
- By showing multiple randomized packages, conjoint surveys can determine the **relative value of product features based on survey-taker tradeoffs**
- Altman Solon uses Hierarchical Bayes estimations to determine **relative importance of each attribute and level**

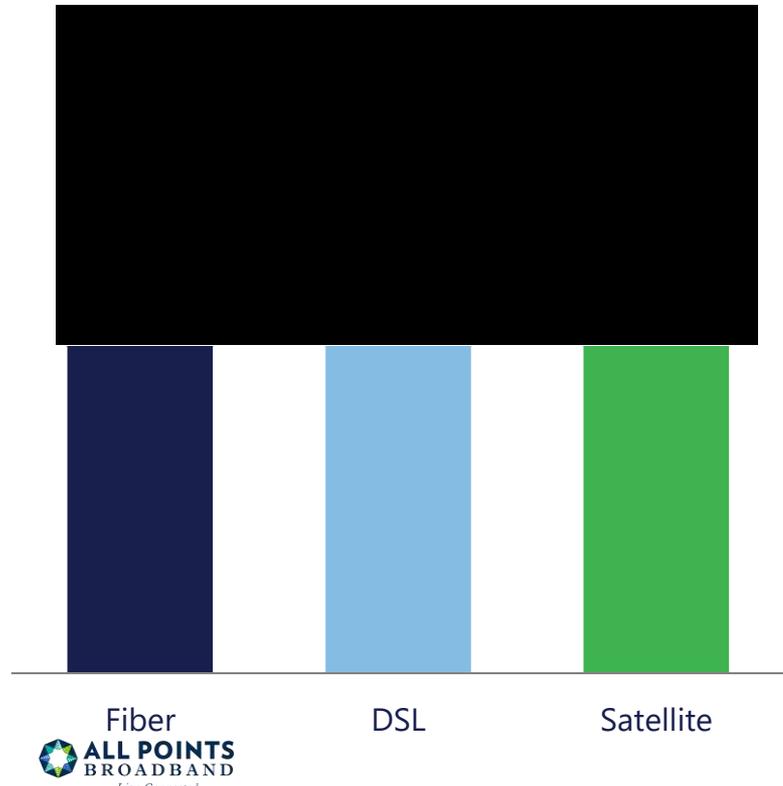
Note: This page would be preceded by a description page which defines each attribute and level, including the channels included in each channel package
Sources: Underserved BB Survey (N=1042), Altman Solon Research & Analysis

In Satellite + DSL markets with baseline prices, we observe 75% take rate and an ARPU well in line with APB targets

Take Rate by Technology
N=1042, % of simulated respondents



ARPU by Technology
N=1042, Simulated ARPU¹

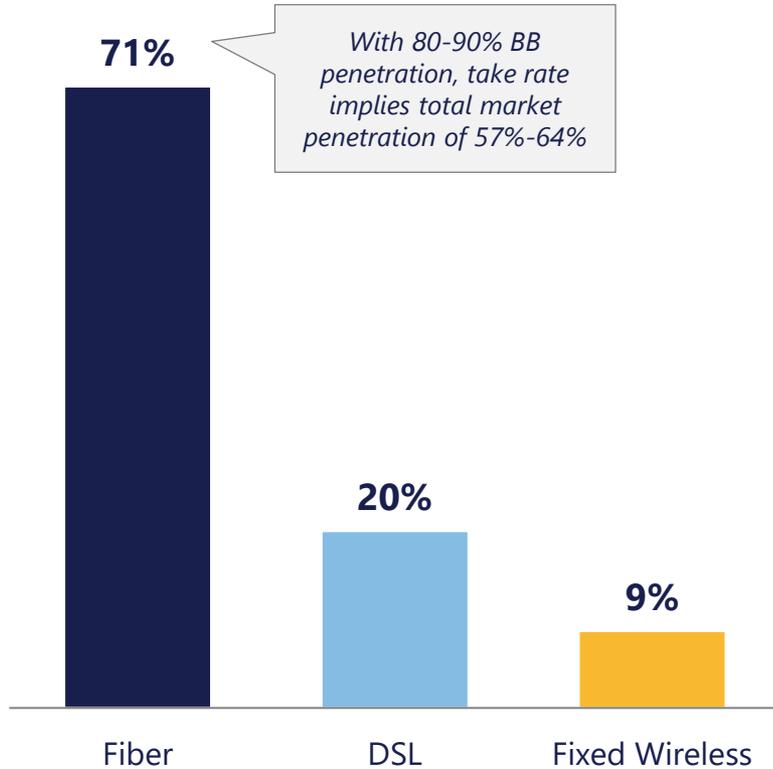


Notes: Calculated by multiplying take rate of each existing promo offer by cost of the promo offer
Sources: Underserved BB Survey (N=1042), Altman Solon Research & Analysis

In DSL + Fixed Wireless markets, we observe 71% take rate and an ARPU well in line with APB targets

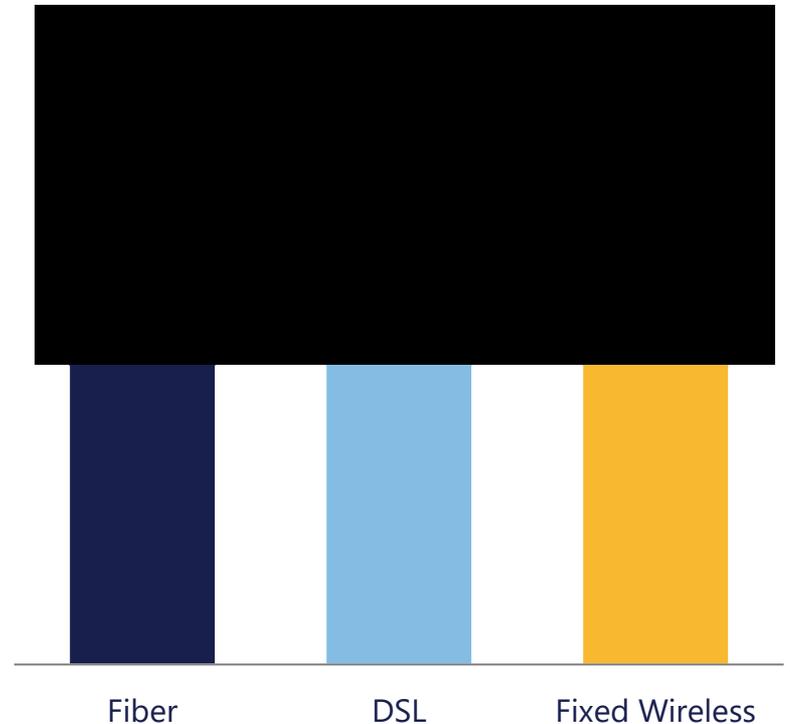
Take Rate by Technology

N=1042, % of simulated respondents



ARPU by Technology

N=1042, Simulated ARPU

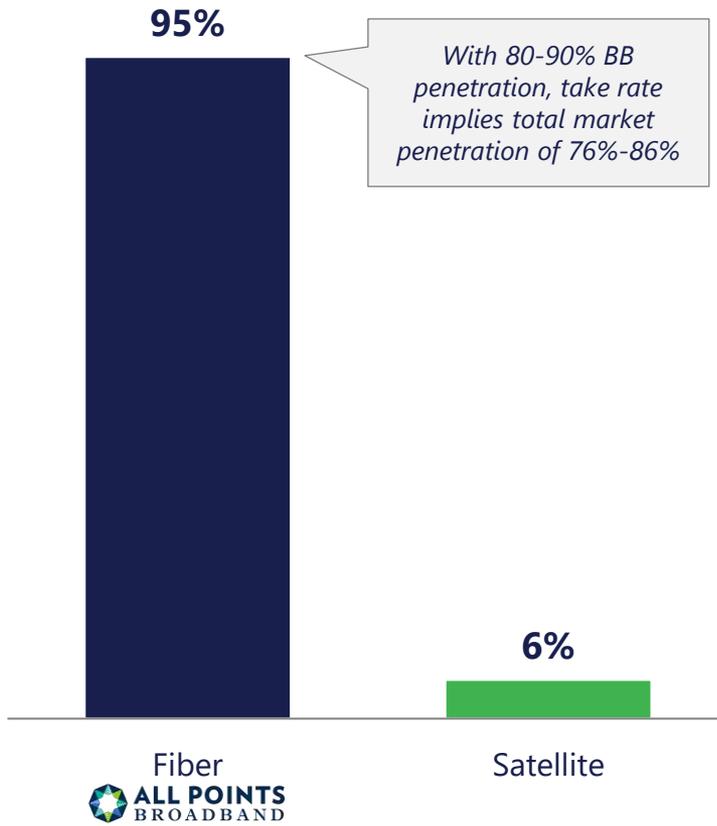


Notes: Calculated by multiplying take rate of each existing promo offer by cost of the promo offer
Sources: Underserved BB Survey (N=1042), Altman Solon Research & Analysis

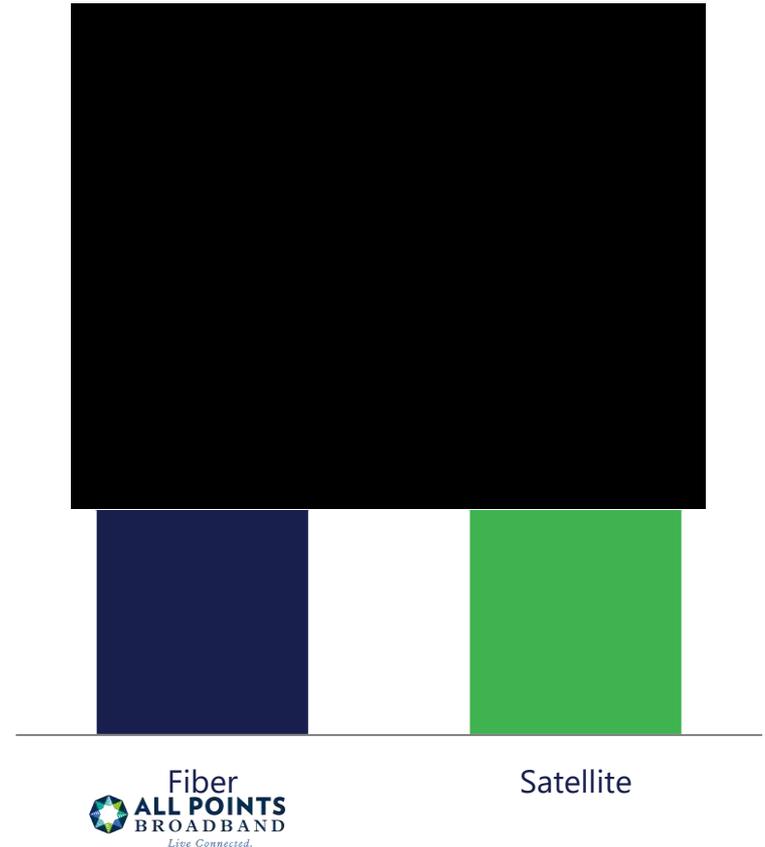


In satellite only markets, we observe 95% take rate

Take Rate by Technology
N=1042, % of simulated respondents



ARPU by Technology
N=1042, Simulated ARPU¹



Notes: Calculated by multiplying take rate of each existing promo offer by cost of the promo offer
Sources: Underserved BB Survey (N=1042), Altman Solon Research & Analysis

Live Connected.

At All Points Broadband, we empower communities by bringing utility grade broadband to underserved markets, deploying fiber and state-of-the-art fixed-wireless technology to homes and businesses in communities throughout Virginia, West Virginia, Maryland and Kentucky.

Register Here for Fiber to Your Home

CROWD FIBER LANDING PAGE

Gig Fiber Broadband in Your Home

All Points Broadband is engaged with its electric utility partners in several large scale fiber-to-the-home projects in Virginia. We are collecting information from customers in the zones below to ensure universal coverage and to finalize our construction sequence within each zone. All Point's standard FTTH architecture is capable of offering 10Gbps service to the home.

To get started please follow these directions:

Step 1: Enter an address and press Go.

Step 2: Confirm your Pin/location is correct. If not, just grab it and move it to the correct location on the map. Press next.

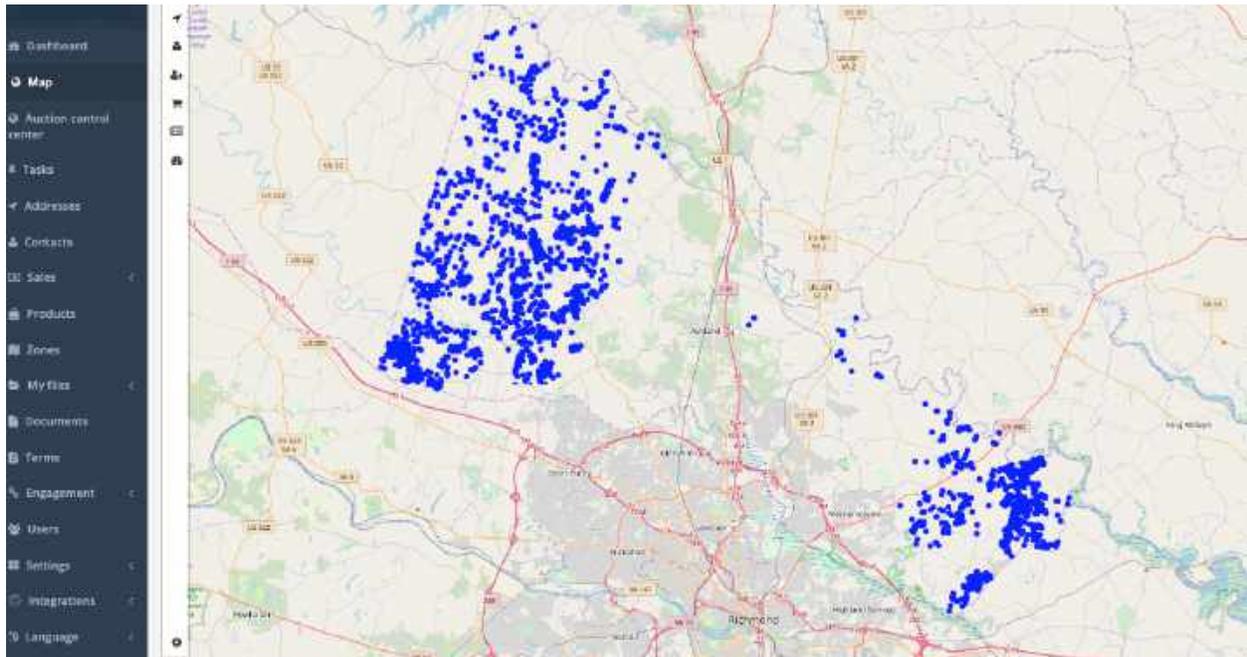
Step 3: Enter your contact information. Press next.

Step 4: Answer the quick questionnaire so we can provide the same great service for your friends and neighbors. Press next.

Step 5: Review your information and then tell everyone the great news and how to get registered. Submit

NO COMMITMENTS. PAY NOTHING UPFRONT. JUST SHOW YOUR INTEREST!

Pre-Registered Locations In Hanover County





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INTERNET WHERE YOU LIVE



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SAMPLE FLYERS



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<p>USE PROMO CODE</p> <p>NEED4SPEED</p> <p>\$50 INSTALLATION, \$50 DISCOUNT FOR THE FIRST 3 MONTHS @ \$39.99 MONTHLY WITH A \$2 MONTHLY TIER</p>	<p>USE PROMO CODE</p> <p>ICANSTREAM</p> <p>FREE INSTALLATION WITH A \$2 MONTH TIER @ \$29.99 (AVAILABLE)</p>	<p>USE PROMO CODE</p> <p>GOFASTER</p> <p>\$50 INSTALLATION, \$50 DISCOUNT GET-WAY PLAN PLUS 10% REDUCTION @ \$29.99 MONTHLY WITH A \$2 MONTHLY TIER</p>
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---	---	--

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- Online Account Management

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FEATURES:

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- RELIABLE HIGH SPEED INTERNET
- LOW LATENCY FOR GAMERS
- 24X7 CUSTOMER SUPPORT
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Get Better Broadband Now!

Enjoy fast downloads, smooth streaming,
and low latency



Features:

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\$30 INSTALLATION, \$5 DISCOUNT OFF ANY PLAN FOR 12 MONTHS (A \$199+ SAVINGS) WITH A 12 MONTH TERM

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Features:

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- ✔ Low Latency for Gamers
- ✔ 24x7 Customer Support
- ✔ Stream your favorite programs
- ✔ Online Account Management



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your Internet?*

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SEE PROMOTIONS

GOFASTER

24x7 Installation. \$5.00 service of any price
for 12 months or 2.99/mo average rates & 12
month term.



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streaming, and low latency*

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Call Today to Schedule your Installation

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FOR THE FIRST 6 MONTHS WITH A 12 MONTH TERM**

\$199 SAVINGS

CALL TODAY TO SCHEDULE YOUR INSTALLATION

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FAST DOWNLOADS



SMOOTHSTREAMING



LOW LATENCY



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FEATURES:

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- Reliable High Speed Internet
- Low Latency for Gamers
- 24x7 Customer Support
- Stream your favorite programs
- Online Account Management

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ALL POINTS BROADBAND
Leesburg, Virginia 20175





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ENJOY

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FAST DOWNLOADS



SMOOTH STREAMING



LOW LATENCY

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FEATURES:

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- Reliable High Speed Internet
- Low Latency for Gamers
- 24x7 Customer Support
- Stream your favorite programs
- Online Account Management

Enjoy fast downloads, smooth streaming, and low latency

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Use Promo Code:

ICANSTREAM

FREE Installation
with a 12 Month Term
(a \$199 Savings)



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Get Better

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Now!



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FEATURES

- UNLIMITED DATA USAGE
- LOW LATENCY FOR GAMERS
- STREAM YOUR FAVORITE PROGRAMS
- RELIABLE HIGH-SPEED INTERNET
- 24x7 CUSTOMER SUPPORT
- ONLINE ACCOUNT MANAGEMENT

LIVE

FAST DOWNLOAD BUFFER-FREE GAMING LOW LATENCY

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HIGH SPEED BROADBAND IN YOUR NECK OF THE WOODS!



USE PROMO CODE
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\$50 Installation, \$10 discount
for the first 6 months
(a \$199+ savings) with a
12 Month Term



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FEATURES



- Unlimited Data Usage
- Reliable High Speed Internet
- Low Latency for Gamers
- 24x7 Customer Support
- Stream your favorite programs
- Online Account Management

*Enjoy fast downloads,
Smooth streaming, Low latency*

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FEATURES:

- ▶ UNLIMITED DATA USAGE
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- ▶ LOW LATENCY FOR GAMERS
- ▶ 24X7 CUSTOMER SUPPORT
- ▶ STREAM YOUR FAVORITE PROGRAMS
- ▶ ONLINE ACCOUNT MANAGEMENT



*Enjoy fast downloads,
smooth streaming, and low latency*

Call Today to Schedule your Installation!

888-888-8888

UNHAPPY WITH YOUR INTERNET?

**CALL US NOW!
888.888.8888**

Use Promo Code: **ICANSTREAM**
FREE INSTALLATION with a 12-month term (A \$199 SAVINGS)

ALL POINTS BROADBAND
Low Latency

FEATURES INCLUDE:

- Unlimited Data Usage
- Flexible High Speed internet
- Low Latency for Gaming
- 24/7 Customer Support
- Stream your favorite programs
- Change Account Anytime

Enjoy fast downloads, smooth streaming, and low latency.

Call Today to Schedule your installation!
888.888.8888

ALL POINTS BROADBAND
Low Latency

UNHAPPY WITH YOUR INTERNET?

Get Better Broadband Now!



Enter the promo code:

NEED4SPEED

\$199+ savings

500 Installation
\$10 discount for the first 6 months
with a 12 Month Term

Get Better Broadband Now!



FAST DOWNLOADS



SMOOTH STREAMING



LOW LATENCY

HIGH SPEED BROADBAND
In your Neck of the Woods!

Call us: **888-888-8888**

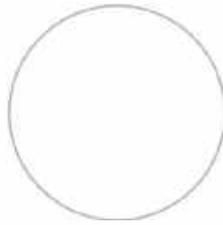


FEATURES:

- Unlimited Data Usage
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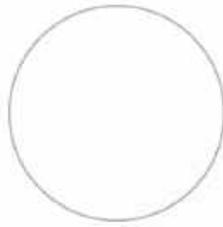
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*We Just Installed Fiber Broadband for
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**Unlimited
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**Reliable High
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**Low Latency for
Gamers**



**24x7 Customer
Support**



**Stream Your
Favorite Programs**



**Online Account
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✔ Enjoy fast downloads ✔ Smooth streaming ✔ Low latency



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Fiber Internet Plans

At All Points Broadband, we empower communities by bringing utility grade broadband to underserved markets, deploying fiber and state-of-the-art fixed-wireless technology to homes and businesses in communities throughout Virginia, West Virginia, Maryland and Kentucky.

50/50

\$59.99

per month

- ✓ Equipment Install & Provisioning fee of \$199 with 1 year commitment
- ✓ Download up to 50 Mbps
- ✓ Upload up to 50 Mbps

GET STARTED

100/100

\$79.99

per month

- ✓ Equipment Install & Provisioning fee of \$199 with 1 year commitment
- ✓ Download up to 100 Mbps
- ✓ Upload up to 100 Mbps

GET STARTED

500/500

\$99.99

per month

- ✓ Equipment Install & Provisioning fee of \$199 with 1 year commitment
- ✓ Download up to 500 Mbps
- ✓ Upload up to 500 Mbps

GET STARTED

GIGABIT

\$119.99

per month

- ✓ Equipment Install & Provisioning fee of \$199 with 1 year commitment
- ✓ Download up to 1,000 Mbps
- ✓ Upload up to 1,000 Mbps

GET STARTED

Attachment 19 - All Points Broadband Digital Inclusion Academy Sample

My classes >

All Points Broadband Digital Inclusion Academy 

Class code: 7byvf6 

7/10/2020 10:11 AM

Lessons

People

CURRENT LESSONS

+ Add lessons

Google Workspace: Gmail

Learn the basic components of Gmail to help you send and receive emails.

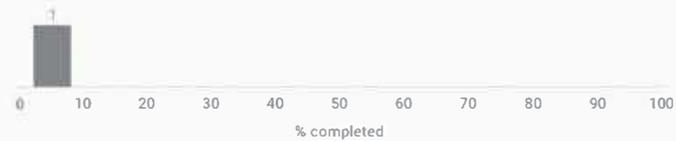
 1 activity

[View lesson](#)

[View materials](#)

Progress summary

Number of students and percent completed



[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Use Digital Tools for Everyday Tasks

Learn to communicate more efficiently through emails, internet search, and digital documents.

 7 activities

Progress summary

Number of students and percent completed

1

Avoid Online Scams

Learn to identify and avoid online scams by analyzing a real-life situation in a group.

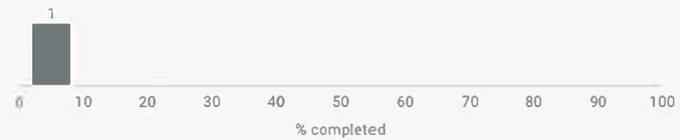
1 activity

[View lesson](#)

[View materials](#)

Progress summary

Number of students and percent completed



[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Build Healthy Digital Habits

Create a healthy technology balance by reflecting on digital habits with one of three creative projects.

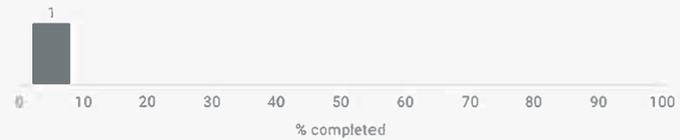
4 activities

[View lesson](#)

[View materials](#)

Progress summary

Number of students and percent completed



[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Edit Your Resume

your resume to make it stronger and more appealing to an employer.

Progress summary

Number of students and percent completed

Use Google to Get a New Job

Conduct a successful job search using digital tools.

7 activities

View lesson

View materials

Progress summary

Number of students and percent completed



Videos watched

Projects submitted

Quiz results

Create a Budget in Google Sheets

Learn to make good financial decisions by researching and comparing costs and spending in a spreadsheet.

5 activities

View lesson

View materials

Progress summary

Number of students and percent completed



Videos watched

Projects submitted

Quiz results

Plan and Budget

Progress summary

Number of students and percent completed

[View lesson](#)

[View materials](#)

[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Google

Track Your Monthly Expenses

Use a spreadsheet to track your monthly expenses.

1 activity

[View lesson](#)

[View materials](#)

Progress summary

Number of students and percent completed



[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Connect and Collaborate From Anywhere with Digital Tools

Improve your digital collaboration and communication skills using online tools.

1 activity

[View lesson](#)

[View materials](#)

Progress summary

Number of students and percent completed



[Videos watched](#)

[Projects submitted](#)

[Quiz results](#)

Welcome All Points Broadband Customer!



START LEARNING

[Browse our lessons](#) to start learning new skills.

My classes

All Points Broadband Digital Inclusion Academy ⋮

Class code: 7byvf6

Current lessons

- [Google Workspace: Gmail](#)
0/1 activities completed
- [Use Digital Tools for Everyday Tasks](#)
0/7 activities completed
- [Avoid Online Scams](#)
0/1 activities completed

Jimmy Carr, Chief Executive Officer

Jimmy is the Chief Executive Officer of All Points Broadband. In this role he is responsible for the Company's strategic direction and is focused on expanding All Points' portfolio of public-private partnerships to provide fiber-to-the-home access to currently unserved areas in partnership with investor-owned and cooperative electric utilities.

After growing a successful rural-focused internet service provider in another market, he founded All Points to bring state-of-the-art connectivity to underserved communities in Virginia, Kentucky and throughout the mid-Atlantic. Jimmy is a former member of the Board of Directors of the Wireless Internet Service Providers Association and former Chairman of its Government Affairs Committee. He represents the rural broadband industry on the Virginia Broadband Advisory Council and has testified before the U.S. Senate and Virginia General Assembly as an expert on rural broadband deployment.

Jimmy was the principal architect of All Points' innovative strategy to partner with investor-owned and cooperative electric utilities to achieve universal FTTH access in APB's partner jurisdictions. He led the APB team that developed and implemented this new approach with two electric utilities and five counties on Virginia's Northern Neck and has developed the specific electric utility partnerships that will apply this approach for this project.

Before joining the telecommunications industry, Jimmy was an associate with the law firm of Sullivan & Cromwell LLP. He previously served as Virginia's Assistant Secretary of Transportation in two administrations, directing legislative and regulatory affairs for six agencies with an annual budget in excess of four billion dollars. He is also the founder and principal architect of the public-private partnership to build the 55-mile Virginia Capital Trail.

Jimmy earned a law degree and an MBA at the University of Virginia, where he was the Managing Editor of the *Virginia Law Review*, President of the JD/MBA society and inducted into the Raven Society. He is an Order of the Coif graduate of the law school and received the business school's Shermet Award and Faculty Award for Academic Excellence. Jimmy graduated from Davidson College *cum laude* and with departmental honors.

Sean Flora, Director of Fiber Construction

Sean Flora is All Points' Director of Fiber Construction, overseeing the Company's OSP engineering and construction activities. Sean and his team are responsible for delivering best-in-class, fiber-to-the-home networks to All Points' partners and customers.

Prior to joining All Points, Sean spent 19 years at Cincinnati Bell in roles of increasing responsibility, including Senior Manager of OSP Construction and Contracts and Senior Manager of OSP Engineering. Sean was instrumental in Cincinnati Bell's FTTH deployments in multiple states.

Sean has been recognized as an ICT Visionary by ISE Magazine. He has served on the Fiber Broadband Association's Technology Committee, as well as the Education Subcommittee for the past 5 years. Sean holds a B.A. in Communications from Northern Kentucky University.

Brandon Ogilvie, Chief Financial Officer

Brandon leads All Points Broadband's finance and capital investment initiatives and oversees its accounting and administrative functions. He launched his career in Silicon Valley managing high-frequency product lines for telecommunications and networking applications. After relocating to Virginia, he formed a renewable energy company with a team of talented individuals where, as CFO, he led the development and financing of bioenergy facilities with rated outputs up to 50 MW. More recently he served as President and CFO of a national fuel distributor for five years.

Brandon earned an MBA from the University of Virginia's Darden School of Business where he was inducted into the Raven Society, received the Shermet Award, and was awarded the Thomas G. Labrecque Scholarship for Ethics. He graduated from Purdue University with highest distinction earning a B.S. and M.S. in Civil Engineering.

Tom Innes, Senior Vice President, Public-Private Partnerships

Tom works with All Points' partners to structure public-private partnerships that bring high-quality, FTTH broadband to unserved areas. He also manages APB's human capital functions.

Tom holds an MBA and a Master of Arts in Public Policy from the College of William & Mary. Prior to William & Mary, Tom was a civil engineer at The Louis Berger Group. He graduated from the Virginia Military Institute, where he earned a B.S. in Civil Engineering. He is a native of Richmond, Virginia and is an Eagle Scout.

Chuck Hogg, Senior Vice President for Fiber to the Home

Chuck is All Points' SVP for Fiber to the Home deployments and technical lead for All Points' groundbreaking partnerships with electric utilities. Prior to joining All Points, Chuck co-founded and spent 13 years growing Shelby Broadband, a highly successful, rural-focused ISP acquired by All Points in 2018.

Chuck is a recognized industry leader and pioneer in the conversion of fixed wireless networks to FTTH. He has served on the Board of the Wireless Internet Service Providers Association for 10 years and currently serves as its Vice Chairman. Chuck's career has included owning and partnering in various internet and technology companies, including Shelby Broadband, QuickLink Wireless, VIA Studio, FatHosting, AC Ventures, and Avolutia Ads. Chuck earned his BSBA in Information Systems from Xavier University.

Darren Glatt, Director and Operating Partner

Mr. Glatt is a Partner and Co-Head of Infrastructure Investing at Searchlight Capital Partners, overseeing the firm's efforts in the Technology, Media and Telecommunications ("TMT") sectors. Mr. Glatt is actively engaged in All Points' public-private partnerships. Prior to joining Searchlight in 2013, Mr. Glatt worked as a Partner in the Private Equity Group at Apollo Management, L.P., where he focused on both equity and credit investing in a range of industries that included TMT, Consumer, Leisure and Shipping, among others. Mr. Glatt also held positions at Apax Partners and The Cypress Group. He started his career at Bear Stearns in 1998 in New York. Mr. Glatt is currently a member of the Boards of Bezeq and B Communications Ltd., and formerly a member of the Boards of Charter Communications, Rackspace, Ocean Outdoor, PatientPoint, MediaMath, 160over90, PlayPower, Veritable Maritime and Core Media.

Mr. Glatt received a BS from The George Washington University and an MBA from Harvard Business School.

Ajit Pai, Director and Operating Partner

Ajit Pai is a Partner at Searchlight Capital Partners who focuses on the firm's broadband and digital infrastructure efforts and is one of Searchlight's representatives on All Points' Board of Directors. Ajit served as Chairman of the FCC from January 2017 until January 2021. During Pai's tenure at the FCC as both Commissioner and Chairman from 2012-2021, he implemented major initiatives to help close the digital divide including the Connect America Fund and the Rural Digital Opportunity Fund; advance U.S. leadership in 5G, Open Radio Access Networks, Wi-Fi 6, and other wireless technologies; promote innovation; protect consumers, public safety, and national security; and make the agency itself more open, transparent, and data-driven. Earlier in his career, he served in various positions of increasing responsibility at the FCC, the U.S. Department of Justice, and the U.S. Senate. Before becoming a Commissioner at the FCC, he worked as a Partner at the law firm of Jenner & Block and served as in-house counsel at Verizon. Mr. Pai graduated with honors from Harvard University in 1994 and from the University of Chicago Law School in 1997.

Ed Diggs, Manager, Rural Broadband Program

Mr. Diggs is a Manager in Dominion Energy Virginia's Rural Broadband Program and will be responsible for coordinating the company's participation in this project. Mr. Diggs led Dominion's Rural Broadband Program during its pilot phase and was instrumental in creating the framework that Dominion and All Points now apply to all of their coordinated projects to deliver universal FTTH broadband in currently unserved areas.

Prior to launching Dominion's Rural Broadband Program, Mr. Diggs held a series of roles of increasing responsibility within the Company, including Project Manager, Right of Way Design Supervisor and Electric Distribution Design Supervisor.

Mark Ponton, Director of Broadband and Fiber Services

Mr. Ponton is Rappahannock Electric Cooperative's Director of Broadband and Fiber Services. In this role, he is responsible for directing REC's fiber utility network project, negotiating contracts with broadband service providers and working with counties in REC's service territory on broadband initiatives. Mr. Ponton has coordinated high-level design activities with All Points and will coordinate REC's ongoing involvement in this project.

Prior to his current role, Mr. Ponton was REC's supervisor of SCADA load management and telecommunications. He earned an associate's degree of Applied Science in computer technology from ECPI and a bachelor's degree in leadership and management from the University of Mary Washington.

Todd Kilduff, Deputy County Administrator, Hanover County

Mr. Kilduff is the Deputy County Administrator of Hanover County and will have overall responsibility for coordinating the County's involvement in this project and reporting to the County Administrator and the Board of Supervisors. Mr. Kilduff has served in this role for nearly 2 years having previously held a similar role at Goochland County for 10 years.

Kevin Nelson, IT Director, Hanover County

Mr. Nelson is the Director of the County's IT department and will serve as the County's technical lead for this project. Mr. Nelson has been in the information technology industry for over 30 years, the last 11 as the County's IT Director. He has been working on the County's broadband initiative for the past 7 years.

VATI 2024

Supplemental Application Question

Applicant: Hanover County

Project Name: Hanover County 2024 Universal Fiber Deployment Initiative

The question below is question e. from the Commonwealth Priorities section of the 2024 Virginia Telecommunication Initiative (VATI) Guidelines. Please answer the question using this form and email to VATI@dhcd.virginia.gov.

Commonwealth Priorities

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

e. The co-applicant's effort to mitigate costs and delays that may be associated with make-ready and other permitting requirements anticipated for network deployment.

All Points has pioneered innovative workflow processes and systems with Dominion and REC to avoid common project workflow bottlenecks, especially in the make-ready construction and pole attachment phase of construction activities. These include utilization of common engineering and construction vendors, frequent and regular communication between project managers and senior leadership, and aggressive advanced procurement of make-ready construction materials to avoid electric or telecommunications supply chain constraints. APB and REC have chosen Davey Resource Group ("DRG") as the joint, lead external vendor for pole attachment processing and review. APB has engaged Timmons Group ("Timmons") as the primary contracted skilled labor resource, including engineering, fielding, and make-ready construction, for the project. Timmons additional resources will help supplement engineering needs and reduce delays during the make-ready engineering process.

APB's Northern Neck projects are the industry-leading example of successful and innovative strategies employed to mitigate make ready delays. In 2021, the process and collaboration between APB and the Northern Neck Electric Cooperative (NNEC) was not yielding productive results at approximately 7 poles per month on average. In 2022, APB and NNEC worked together on the plan provided to increase communication and gain a better understanding of the NNEC's process. Both companies coordinated engineering and construction resources, electric make-ready materials procurement and warehousing, and paperwork reduction efforts. Throughout 2023 APB benefitted from significant improvements with NNEC processing over 1,000 per month - a 16,000% increase in the make-ready process - and completed approvals of approximately 12,000 poles in just over a year.

In addition to NNEC pole make-ready, APB has received notices-to-proceed (NTPs) on an additional 12,000 poles with approximately 28,000 pending review of the respective pole owner. APB, with support from its engineering vendors, has prepared additional requests for 47,000 pole attachments. Tens of thousands of poles remain to be fielded, engineered, and made-ready. There are only a limited number of broadband service providers in Virginia who will have engineered, submitted, or received NTPs on approximately 100,000 poles over a period of 18 months. APB management presented to the Broadband

Advisory Council on the status of make-ready across Virginia and descriptions of best practices to employ to keep projects on schedule.

The FY24 VATI Hanover Project represents an extension of the existing VATI broadband project presently underway, therefore the make ready processes critical to the delivery of the project have already been established. Due to the continuity of the County, APB, Dominion and REC project teams, many aspects of the previous planning and engineering design will be incorporated into this project. The FY22 project was a greenfield build where every pole required make-ready engineering and a review by the pole owner. The FY24 project will utilize many of the FY22 poles to deliver broadband to the locations for the FY24 application and will reduce review time and construction costs. As indicated in its letter of support, REC is committed to delivering broadband to its members, and the project's make-ready effort will certainly benefit from strong and well-developed relationships between the parties. APB already has Master Service Agreements in place with pole fielding and engineering vendors in the market which can be expanded to include additional poles for the FY24 project.