



**ALBEMARLE BROADBAND AUTHORITY  
OF ALBEMARLE COUNTY, VIRGINIA  
COUNTY OFFICE BUILDING  
401 McINTIRE ROAD  
CHARLOTTESVILLE, VIRGINIA 22902-4596**

09 December 2020

**Albemarle Broadband Authority FY 2021 & FY 2022  
Budget Requests**

To:

Jeff Richardson, Albemarle County, County Executive  
Nelsie Birch, Albemarle County, Chief Financial Officer

The Albemarle County Board of Supervisors (BOS) met to discuss County Strategic Priorities on 18 November 2020. During the discussion of the County strategic priorities there was strong consensus toward Broadband being a top priority for the County. At the end of the BOS conversation County Executive Jeff Richardson provided comments to the BOS. In Mr. Richardson's comments he directs staff to provide a budget to address broadband equity for the urban and rural areas and a budget to further address connectivity in the rural areas.

During the 25 November 2020 meeting of the Albemarle Broadband Authority (ABBA), ABBA authorized staff to submit a detailed budget request for projects for Jan. 2021 through June 30, 2021 (FY 2021 Budget Request) and a sustaining budget request to support the creation and ongoing operations of the Broadband Affordability and Accessibility Office (FY 2022 Budget Request). The purpose of this memo is to provide an executive summary of Attachment A and request next steps toward approvals.

ABBA is requesting ~\$250,000 in FY 21 funds to support urban ring and rural based families under financial stress due to the pandemic (Affordability). These funds to be distributed through an existing financial support program such as United Way or the Community Investment Collaborative (CIC).

ABBA is requesting up to \$2,000,000 in FY 21 one-time funds to initiate further broadband expansion projects with one or more Internet Service Providers working in the rural areas (Accessibility). The details are included in **Attachment A**, below. This funding will assist in the continuation of project began in the fall utilizing CARES act funding to rapidly work with ISP that can provide near term access while continuing to work with the State and our ISP partners on longer term, fiber installations in the underserved areas of the county.

Moving forward for FY22 and beyond, ABBA is requesting:

- ~\$250,000 of recurring funding to establish and sustain the Broadband Affordability and Accessibility Office of Albemarle County Local Government.
- ~\$100,000 - \$250,000 recurring funding to continue the affordability support program.
- Carry forward any remaining, unspent one-time funding from Fy21 and an additional allocation of ~\$1Mil to further the infrastructure build out of broadband to meet the BOS's Accessibility goals.

Please accept this memo as an official request for ABBA funding. The ABBA Treasurer (Trevor Henry) and ABBA Chief Administrative Officer (Mike Culp) are the support staff involved and can provide more information.

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Attachment A - Albemarle Broadband Authority Broadband Access – Future Opportunities

Note: This attachment has been updated to reflect Dec. 2020 and Jan. 2021 Activity.

1. **Document Purpose:** Our fundamental way of life has changed over the past seven months. The requirements of adequate access to the internet for work, school, job hunting, connecting with friends and family has elevated in importance of need to the level of basic utilities such as water and electric. As the Board of Supervisors (BOS) considers its Strategic Plan and funding priorities moving forward into FY22 and beyond, staff have provided below an update of broadband access current state and future opportunities. This document includes funding levels for consideration moving forward in the context of the Albemarle County Mission, the BOS overall strategic plan and the Albemarle Broadband Authority (ABBA) recently adopted Strategic plan. Supporting information includes an assessment of impacts from the pandemic with a strategy, options and resource structure of furthering the mission to expand broadband access to all underserved residents in the near term and longer-term strategies as the FY22 Budget process and the Board Strategic Plan work proceeds.
  
2. **Background** - ABBA was created through a resolution by the BOS in the summer of 2017. The stated goal of the Authority is to extend affordable broadband internet service access to every customer in Albemarle county. ABBA has developed a set of goals and principles along with an ABBA strategic plan approved by the Authority in July 2020 ([ABBA website](#)). The following provides a summary of key activities to date:
  - a. Albemarle County Broadband Authority (ABBA) – approved/chartered Aug 2017
  - b. Expand Broadband - FY20-22 BOS Strategic Plan item, and funding ABBA with one-time money (~\$1 Mil)
  - c. Internet Service Provider (ISP) partnering on infrastructure projects/use of onetime funding for Virginia Telecommunication Initiative VATI grants. Note “Serviceable Units” are the potential new customers reached by the projects:

VATI Project	Partner	Technology	VATI Funds	Partner Funds	ABBA/County Funds	Total Project Cost	Serviceable Units (SU)	Average cost per SU	VATI % of Project	Partner % of Project	ABBA/County % of Project
Albemarle 2017	CenturyLink	DSL	\$118,400	\$24,600	\$10,000	\$153,000	284	\$539	77.4%	16.1%	6.5%
Albemarle 2018	Comcast	DOCSIS Hybrid Fiber-Coax	\$473,366	\$202,817	\$0	\$676,183	178	\$3,799	70.0%	30.0%	0.0%
Albemarle 2019	CVEC	Fiber to the Home	\$301,748	\$1,081,475	\$71,500	\$1,454,723	341	\$4,266	20.7%	74.3%	4.9%
Albemarle 2020	CenturyLink	Fiber to the Home	\$291,300	\$1,359,400	\$291,300	\$1,942,000	852	\$2,279	15.0%	70.0%	15.0%
Albemarle 2021*	CenturyLink	Fiber to the Home	\$3,358,476	\$1,024,314	\$640,000	\$5,022,790	2076	\$2,419	66.9%	20.4%	12.7%
Totals			\$4,543,290	\$3,692,606	\$1,012,800	\$9,248,696	3731	\$2,479	49.1%	39.9%	11.0%

**No remaining ABBA funding available assuming VATI 2021 is approved**

\* The 2021 VATI project with CenturyLink is in the under review/RDOF rescoping phase; awards will not be known until February 2021 at the earliest. The FCC Rural Digital Opportunity Funds (RDOF) awards announced in December 2020 caused VATI to delay VATI 2021 announcements. RDOF funds potentially applied to VATI 2021 Application Areas are causing many VATI applications to be rescoped. If RDOF awardees accept funds for VATI 2021 application areas; those areas are to be removed from the VATI 2021 application and rescored. If the rescoring justifies an award, the table included above will be adjusted to reflect the decision.

3. **Current State 2020** – Global Pandemic (Sea change for Albemarle County and how we work, live)
  - a. Work from home for staff and community
  - b. Virtual School, broadband and access demands significantly increased
  - c. New telework requirements have created a strain on outdated and aging infrastructure for phone coverage and existing customer Broadband speeds (emerging issue)
  - d. Affordability issues to broadband access where it is available (Equity and Access)
  - e. The County, through the Coronavirus Aid, Relief, and Economic Security Act (CARES) Act and Coronavirus Relief Fund (CRF) continues with urgent, time sensitive programs to triage current lack of broadband access and critical area needs:
    - i. Shentel BEAM through CRF - Shentel will receive \$697,194 in CRF funds to deliver fixed wireless to triage and address as many unserved locations as possible with a minimum expectation of 557 unserved locations. Funding will be based on performance end execution of up to 6 sites
    - ii. Nelson Cable through CRF - Nelson Cable Irish Road received \$32,500 in CRF funds for a fiber build to offer service to 27 locations
    - iii. CARES: Firefly Burchs Creek - Firefly Burchs Creek received \$230,245 from the Governor’s office and Firefly is adding \$35,000. This is an underground (with VDOT and private easements) fiber project to the home. Minimum of 62 locations are offered service.

Appendix A provides a table summarizing these activities to date

**4. Strategies to advance Broadband priorities:**

VATI grant requirements continue to move the speed threshold up and reflect real world challenges for both download and upload speeds in our new way of working and living. In particular the speed thresholds used during VATI 2017 were <10 Megabits per second (Mbps) down so applications which moved the needle to >10Mbps up were favorable from the state. This allowed a “low cost” set of projects upgrading standard digital subscriber line (DSL), a technology for the high-speed transmission of digital information over standard telephone lines to xDSL technology through fiber fed switches (rather than old copper fed). The strategy was highlighted as a “jumping off point” as the investment in fiber to the switch benefitted future projects. That solution from three years ago is currently a significant limiting factor during two-way video chats, Teleworking, Tele-school, etc. 3Mbps upload is required now; this rate is likely to continue to rise. xDSL is not positioned to support work from home, telehealth, and especially the new distance learning needs where those with xDSL are often asked to “bring your child into school, your connection is not fast enough!”

Today we have a mix of Fiber provided through our partnership work with a not for profit electrical cooperative (CVEC); old DSL and xDSL and soon to be fiber with CenturyLink; Hybrid Fiber/Coax with

Comcast; legacy fixed wireless with local Wireless Internet Service Providers (WISPs); mobility data services from the major cellular ISPs, and most recently licensed spectrum fixed wireless through Shentel Beam. Our broadband technology strategy could/should be to replace all copper with fiber and continue efforts to expand fixed wireless as an economical solution for difficult to reach areas and as a competitive alternative. CVEC, Comcast, CenturyLink, and Shentel as primary providers. Mobile data through the major cellular companies will continue as an alternative, but the high cost and data caps imposed on customers is not a sustainable model. Suggested Strategic programmatic approach is as follows:

- a. ABBA/BOS work to adopt BOS approved Strategic Plan for Broadband access in the County
- b. Funding stream, one time and recurring to cover near term, long term objectives and adequately staff the effort.
- c. Infrastructure
  - i. Continue “Triage” to meet current/urgent needs of access (i.e. Cell Tower/Fixed Wireless, etc.)
  - ii. Execution plan for getting Fiber to the home
- d. Consolidation of and plans to integrate, optimize, and produce make broadband more affordable for all by using County owned infrastructure
- e. Develop and implement an affordability plan for Access using an economic Equity lens– provide funding to overcome digital divide through grant/voucher programs (Third party administered) as an example.
- f. Staffing structure and resource plan to adequately manage work and provide responsive customer service.

**5. Future State/Opportunities:**

- a. Suggest an additional ~\$250k for **FY21** for Equity/access programs and up to an additional ~\$2Mil for ready to move projects with ISP’s.
- b. **FY22+** - recurring operational funding of ~\$250K/year to cover staffing support structure to optimize execution of current projects, working with ISP’s, meeting customer service needs and aggressively pursuing State and Federal Funding. Consider ~\$1-2 Mil of one-time funding for continued matching opportunities along with potentially fully County funded projects with ISPs based on criticality. Consider another ~\$250k for projects that could be a dedicated to equity access.
- c. **Possible 18 month workplan**
  - i. Execute the FY2021 VATI application scope or re-plan if it is not awarded
  - ii. Prioritize the most significant unserved areas (Potential projects)
  - iii. Based on the early success of BEAM, plan further development for near term coverage goals.
  - iv. Continue to survey residents in Albemarle to further build the dataset and maps as thoroughly and as quickly as possible
  - v. Provide funds for a Broadband Affordability Program; use United Way current program as template
  - vi. Coordinate with ACPS commitment to broaden their efforts to bridge the Digital Equity gap.
  - vii. Establish a loan/grant program for Private Contributions to Broadband Expansion
  - viii. Provide funds for another RFP to address specific areas

Attachment A - Albemarle Broadband Authority Broadband Access – Future Opportunities

- ix. Prepare for VATI 2022 or other State Programs
- x. Immediately establish Staff Supporting model/entity to reflect both strategic and tactical importance of extending broadband for the County

Respectfully Submitted,

Mike Culp, Director IT, Chief Administration Officer, ABBA

Trevor Henry, Assistant County Executive

Attachment A - Albemarle Broadband Authority Broadband Access – Future Opportunities

Appendix A - CARES Resident Broadband Specific:

CARES or CRF Initiated Broadband Related Projects in Albemarle County Summary			
Project / Benefit	Funding Source	CARES/ CRF Amount	Scope
Shentel BEAM /  This project while initially targeting 500+ ABBA identified unserved locations; the total count of serviceable locations will exceed 2,000.	51% vendor, 49% local CRF	\$697,194	BEAM is a fixed wireless service and Shentel is prioritizing the 500+ ABBA identified unserved locations with a series of direct mailings; 6 of the 6 sites are now online. <a href="https://iwantbeam.com">https://iwantbeam.com</a> includes a descriptive video explaining the benefits of using fully licensed spectrum for fixed wireless deployments. Pricing: <ul style="list-style-type: none"> <li>a. Download speeds up to 25 Mbps for \$60 per month</li> <li>b. Up to 50 Mbps for \$80 per month.</li> <li>c. Up to 100 Mbps for \$160 per month.</li> </ul> These offerings are dependent on how close the location is to a serving tower site.
Firefly Burchs Creek	13% vendor, 87% State CARES	\$230,245	In summary, up to 62 locations served through a fiber broadband extended project adding to our VATI funded Midway project. Corner of Midway Road up Burchs Creek Road and the neighborhoods off Burchs Creek Road are offered fiber service ( <a href="https://www.fireflyva.com">https://www.fireflyva.com</a> ) (up to 1Gbps down/1Gbps up ~\$80 per month) with the basic service of 100Mbps down/100Mbps up at ~\$50 per month. This project is providing service.
Nelson Cable /  This project was also subject to CARES deadlines or otherwise may have included more locations.	18% vendor, 72% local funding	\$32,500; this project is now funded through the CARES Supplemental Funding and not subject to CARES or CRF Deadline.	This project is a fiber to the premise project. It is utilizing easements Nelson Cable has with Appalachian Power Company in and around Scottsville. This is Phase 1 of a fiber build and will offer fiber service to up to 27 locations including 2 public safety facilities. Nelson Cable already has all equipment procured for the project and is beginning construction.  From their website Nelson Cable will offer the following speeds Mbps down/Mbps up: <ul style="list-style-type: none"> <li>a. 25/25: \$9.95 per month – available to qualifying households with school age children</li> <li>b. 50/50: \$39.99 per month</li> <li>c. 100/100: \$48.99 per month</li> <li>d. 500/500: \$63.99 per month</li> <li>e. 1,000/1,000: \$78.99 per month</li> </ul>